Agenda -Notice of Meeting

Public Meeting participation in person or via phone Call in # 515-726-3598 Participant Code 535355

Public members can also provide comments* directly to support@polkcityia.gov

*any comments received before the time of the meeting will be made a part of the public hearing

Broadcast live and playback will be available at https://www.youtube.com/c/polkcityiagovchannel

Steve Karsjen | Mayor Rob Sarchet | Pro Tem

City Council Members: Jeff Walters | Dave Dvorak | Mandy Vogel | Ron Anderson

- 1. Call to Order
- 2. Roll Call
- 3. Approval of Agenda
- 4. Public Hearings:
 - a. Public Hearing on vacating a Storm Sewer and Overland Flowage Easement in Wolf Creek Townhomes Plat 13
 - First Reading of Ordinance 2023-1000 vacating a Storm Sewer and Overland Flowage Easement
 - ii. (optional) Waive second and third readings
- 5. Presentations:
 - a. Jon Berg, Program Manager for the Iowa Department of Cultural Affairs
- **6. Public Comments:** This is the time and place for comments for any item other than those that are a Public Hearing. If you wish to speak, please contact the City Clerk by 6pm on the date of the meeting by email at jcoffin@polkcityia.gov include your name and address for the record. The Mayor will recognize you for five minutes of comment.
- 7. Consent Items
 - a. City Council Meeting Minutes for December 14, 2022
 - b. City Council Work Session Meeting Minutes for December 14, 2022
 - c. Receive and file P&Z Commission Meeting Minutes for December 19, 2022
 - d. Claims listing January 9, 2023
 - e. Twelve-month Class E Liquor License, Class C Beer Permit, Class B Wine Permit for Sara B&R LLC doing business as Polk City Liquor located at 201 N. 3rd Street with Sunday Sales effective February 1, 2023 through January 31, 2024
 - f. Resolution 2023-01 setting Public Hearing on Amending the 2016 Polk City Comprehensive Plan by Updating the Future Land Use Map
 - g. Resolution 2023-02 setting the Public Hearing on the Rezoning request for Gateway Crossings for 78 acres from A-1 to R-3 (27.86 acres) and C-2 (28.95 acres) and M-1 (24.15 acres)
 - h. Receive and file the November 2022 Police Department Report
 - i. Set pay for FD new hire paid-on-call Firefighter, Matthew Stern at a rate of \$16.75 per call
 - j. Acknowledge revision of the Fire Department Policies and Procedures
 - k. Pay increase for Fire Chief Karla Hogrefe to \$95,790 annual salary for six-month review

- 1. Pay increase for Full-time Firefighter/Paramedic Riley Noggle at \$20.16 per hour for six-month review
- m. Receive and file the December 2022 Parks and Recreation Report
- n. Appoint Darren Ten Napel to the Parks Commission term ending 12/31/2028
- o. Set pay for FD new hire paid-on-call member, Matthew Reetz at a rate of \$16.00 per call

8. Business Items

- a. Resolution 2023-03 approving the Site Plan and Easements for Lake Front Office Park Lot 1
- b. Second Reading of Ordinance 2022-2600 amending Chapter 165.18 Zoning Regulations. Off-Street Parking
- c. Third Reading of Ordinance 2022-2500 rezoning Leonard Senior Living from R-1, Single Family Residential to PUD, Planned Unit Development
- d. Snyder & Associates Engineering Invoice in the amount of \$29,962.75 for November Services

9. Reports & Particulars

Mayor, Council, City Manager, Staff, Boards, and/or Commissions

10. Adjournment

--next meeting date January 23, 2023



City of Polk City, Iowa

City Council Agenda Communication

Date: January 9, 2023 City Council Meeting
 To: Mayor Steve Karsjen & City Council
 From: Chelsea Huisman, City Manager

Subject: Public Hearing on the Vacation of a storm sewer and overland flowage easement in Wolf

Creek Townhomes Plat 13 & First Reading of Ordinance

BACKGROUND: On Monday evening, the City Council will hold a Public Hearing on a proposed vacation of a storm sewer and overland flowage easement. The developer in Wolf Creek Townhomes has requested the vacation of this easement. The city has reviewed this request, and has no need for the easement, and we recommend the vacation of said easement.

ALTERNATIVES: Do not approve

FINANCIAL CONSIDERATIONS: There are no financial considerations to vacate the storm sewer and overland flowage easement.

RECOMMENDATION: It is my recommendation that the Council approve the vacation of the easement. The City Council will have the option to waive the 2^{nd} and 3^{rd} readings of the Ordinance. If there are no objections from the public, I would recommend the City Council waive the future readings.

ORDINANCE NO. 2023-1000

ORDINANCE VACATING A CERTAIN EASEMENT IN WOLF CREEK TOWNHOMES PLAT 3 IN POLK CITY

WHEREAS, on the 9th day of January 2023, pursuant to published notice as required by law, the City Council has held a public hearing on a proposal to vacate a Storm Sewer and Overland Flowage Easement attached hereto as Exhibit 'A'; and

WHEREAS, the City Council of the City of Polk City, Iowa, has determined that it is in the best interest of the City to vacate said easement.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Polk City, Iowa, as follows:

- **Section 1.** The City of Polk City, Iowa, hereby vacates the Storm Sewer and Overland Flowage Easement described in said Exhibit 'A'.
- **Section 2.** All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed.
- **Section 3.** This Ordinance shall be in effect upon its passage, approval and publication as provided by law.

PASSED AND APPROVED this _	day of	2023.	
ATTEST:	Steve Karsjen, Mayo	r	
Jenny Coffin, City Clerk	_		
		First Reading: Second Reading: Third Reading: Date Adonted:	

Date of Publication by posting:

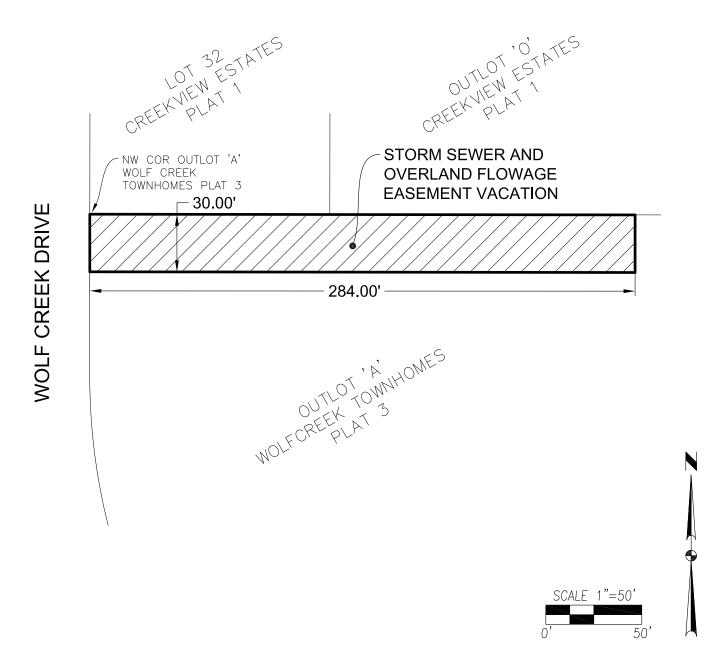
EXHIBIT 'A' - VACATION PLAT

OWNER

IOWA ASSET ACQUISITION LLC 2540 73RD ST URBANDALE, IA 50322

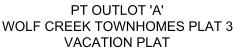
STORM SEWER AND OVERLAND FLOWAGE EASEMENT VACATION DESCRIPTION

THE WESTERLY 284.00 FEET OF THE NORTHERLY 30.00 FEET OF OUTLOT 'A', WOLF CREEK TOWNHOMES PLAT 3, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA.

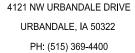


FILE: H:\2020\2006287\DWG\2006287-STM & OFE VAC.DWG FILE DATE: 11/3/22 DATE PLOTTED: 11/3/2022 2:15 PM PLOTTED BY: BOB GIBSON:











MEETING MINUTES The City of Polk City City Council Meeting 6:00 p.m. December 14, 2022 City Hall – Council Chambers

Polk City, City Council held a meeting in the City Hall Council Chambers with public participation in person and via phone at 6:00 p.m., December 14, 2022. The agenda was posted at the City Hall office as required by law.

These tentative minutes reflect all action taken at the meeting.

- **1.** Call to Order | Mayor Karsjen called the meeting to order at 6:00 p.m.
- 2. Roll Call | Walters, Dvorak, Anderson, Vogel, Sarchet | In attendance
- 3. *MOTION:* A motion was made by Vogel and seconded by Sarchet to approve the agenda *MOTION CARRIED UNANIMOUSLY*
- 4. Presentations:
 - a. *FEH presentation on Fire Station Remodel Project* | FEH Design, AIA/Principal, Cory Sharp reviewed the progress of the Fire Station Remodel Project and discussed estimated costs and options for bid day along with the timeline.
 - MOTION: A motion was made by Dvorak and seconded by Sarchet to approve Resolution 2022-152
 Ordering Construction of Certain Public Improvements, Fixing Dates for Public Hearing and Taking of
 Bids for Polk City Fire Station Remodel Project
 MOTION CARRIED UNANIMOUSLY
 - b. *Go Polk City Annual Chamber Report and request for FY23 funding* | Go Polk City, Executive Director, Monica Converse provided an overview of Go Polk City and the efforts she has made since she joined as Executive Director June 20, 2022.
 - MOTION: A motion was made by Walters and seconded by Vogel to approve Resolution 2022-153
 obligating funds from the Urban Renewal Tax Revenue Fund for appropriation to the payment of annual
 appropriation tax increment financed obligations to Go Polk City for FY23 and FY24
 MOTION CARRIED UNANIMOUSLY
 - c. Saylorville Dam Snowmobile Club | Craig Krapfl, trail coordinator and member of SDSC provided an overview of the club and the previous approved route in Polk City. On behalf of the club, Krapfl requested the route be moved due to the installation of the roundabout at N 3rd Street and Vista Lake Avenue as shown on provided Exhibit making the trail along the southernly right of way along E Northside Drive and the easterly right of way along N 3rd Street and stopping near the intersection of Bluff and N 2nd Street.
 - MOTION: A motion was made by Dvorak and seconded by Vogel to approve Resolution 2022-154 designating the route for the operation of snowmobiles within Polk City MOTION CARRIED UNANIMOUSLY
- 5. **Public Comments** | None
- 6. Consent Items
 - a. City Council Meeting Minutes for November 28, 2022
 - b. City Council Work Session Meeting Minutes for November 28, 2022
 - c. Receive and file Parks Commission Meeting Minutes for December 5, 2022
 - d. Claims listing December 14, 2022
 - e. Receive and file the November Parks & Recreation Department Report
 - f. Resolution 2022-155 approving the 2023 Polk County Joint E911 Service Board Appointment of the City of Polk City Representative and Alternate
 - g. Resolution 2022-156 appointment of a Member and Alternate Members to the Polk County Emergency Management Commission for 2023
 - h. Resolution 2022-157 appointing 2023 Polk City's Representatives to the Des Moines Area Metropolitan Planning Organization (MPO)

- i. Resolution 2022-158 appointing 2023 Polk City's Representatives on the Metro Waste Authority (MWA) Board of Directors
- j. Resolution 2022-159 appointing 2023 Polk City's Representatives on the Des Moines Metropolitan Wastewater Reclamation Authority Board Technical Committee (WRA)
- k. Appointment of Council Member, Mandy Vogel as Polk City Representative to Bravo Greater Des Moines
- 1. Acknowledge Boards and Commission members term ending 12/31/2022 not seeking reappointment:
 - i. Josh Reed, Parks Commission
- m. Boards and Commission Reappointments, terms ending 12/31/2027:
 - i. Nick Otis, Parks Commission
 - ii. Kelley Haaland, Parks Commission
- n. N 3rd Street and Vista Lake Avenue Intersection Improvements Project
 - i. Resolution 2022-160 approving Change Order No. 2 in the reduction amount of -\$63,771.67
 - ii. Resolution 2022-161 approving Pay Application No. 9 in the amount of \$50,311.20
- o. Resolution 2022-162 approving street name changes
- p. Resolution 2022-163 authorizing application for FY2027 STBG Funding
- q. Set pay for Public Works new hire Kurt Huber, Operations Specialist I at a rate of \$22 per hour effective 12/19/22 pending successful completion of background check and pre-employment drug screen
- r. Set pay for Public Works Seasonal Part-Time new hire Kurt Hohnstrater at a rate of \$14 per hour effective 12/19/22 pending successful completion of background check and pre-employment drug screen
- s. Receive and file November 2022 Water Department Report
- t. Resolution 2022-164 approving Final Plat including engineering exhibit, agreement to complete, easements, warranty deed and legal documents for Wolf Creek Townhomes Plat 13
- u. Resolution 2022-165 waiving enforcement of certain requirements of the PUD as they apply to building setbacks for certain lots in Wolf Creek Townhomes Plat 13
- v. Receive and file November 2022 Fire Department Report
- w. Set pay increase for Deputy City Clerk, Meri Merritt at \$24.17 per hour effective 12/12/2022
- x. Schedule the City Wide Clean Up Curbside Event for Monday-Wednesday, April 24-26, 2023

MOTION: A motion was made by Walters and seconded by Vogel to approve the consent agenda items

MOTION CARRIED UNANIMOUSLY

7. Business Items

a. *MOTION*: No motion was made to approve Resolution 2022-166 approving termination of 28E agreement with Bravo Greater Des Moines

FAILED

b. *MOTION:* A motion was made by Dvorak and seconded by Vogel to approve the first reading of Ordinance 2022-2600 amending Chapter 165.18 Zoning Regulations, Off-Street Parking

MOTION CARRIED UNANIMOUSLY

- c. MOTION: A motion was made by Vogel and seconded by Dvorak to approve the second reading of Ordinance 2022-2500 rezoning Leonard Senior Living from R-1, Single Family Residential to PUD, Planned Unit Development MOTION CARRIED UNANIMOUSLY
- d. *MOTION:* A motion was made by Sarchet and seconded by Anderson to approve Snyder and Associates October 2022 Engineering Services Invoice in the amount of \$23,518.25

YES: Anderson, Vogel, Sarchet, Dvorak

ABSTAIN: Walters
MOTION CARRIED

- 8. Reports & Particulars | Mayor, Council, City Manager, Staff, Boards, and/or Commissions
 - Mayor reviewed the Rotation and Flow chart regarding designations for 2023. He appointed a committee for Iowa Great Places to include Council Member Dvorak and Council Member Walters, City Manager Huisman and GO Polk City Executive Director Monica Converse.
 - City Engineering Representative, Travis Thornburgh provided an update on the Roundabout project.
 - Fire Chief Hogrefe reported the PCFD received DNR Forestry grant for \$4500 to purchase structural firefighting gloves and hoods
 - Council Member Vogel shared a compliment she received from a non-resident regarding the Library and staff

• Council Member Anderson wished everyone a Happy New Year and Merry Christmas and good health.				
9. Adjournment MOTION: A motion was made by Anderson and seconded by Notion CARRIED UNANIMOUSLY Next Meeting Date —January 9, 2023	Vogel to adjourn at 7:13 p.m.			
	Steve Karsjen, Mayor			
Attest				
Jenny Coffin, City Clerk				

MEETING MINUTES The City of Polk City Work Session 5:00 p.m., Monday, December 14, 2022 City Hall Council Chambers

A Council Work Session was held on December 14, 2022 at 5:00 p.m. at the City Hall Council Chambers in Polk City, Iowa.

Mayor and City Council Members Present:	Staff Members Present:
Steve Karsjen Mayor Ron Anderson (arrived 5:21p) Pro Tem Jeff Walters (arrived 5:15p) City Council Member David Dvorak City Council Member Mandy Vogel City Council Member	Chelsea Huisman City Manager Jenny Coffin City Clerk/Treasurer Jeremy Siepker Police Chief
Robert Sarchet City Council Member	

Minutes

Jenny Coffin, City Clerk

City Manager Huisman said the goal for strategic planning meeting with the City Council and Go Polk City Board is to create a working document of aligned priorities. Huisman reviewed the City's contribution to the Chamber as a 501c6 and explained that financially that is the "norm" in Iowa. She said that with the City Council's focus on adding commercial that this meeting will ensure alignment with Go Polk City Board top priorities.

Go Polk City Executive Director, Monica Converse introduced the Board Members in attendance.

Council Members and Mayor discussed their desire to continue public events and support of existing local businesses, while also focusing on recruiting business to come to town. Council and Mayor and the Go Polk City Board Members discussed some obstacles that the City needs to overcome and reviewed some opportunities to help partner with Go Polk City's and increase commercial growth.

Motion carried Unanimously.		
	Steve Karsjen, Mayor	
Attest	• • •	

Motion was made by Dvorak and seconded by Vogel to Adjourn at 5:53p.m.

MEETING MINUTES

The City of Polk City

Planning and Zoning Commission

6:00 p.m., Monday, December 19, 2022

Polk City, Planning and Zoning Commission (P&Z) held a meeting at 6:00 p.m., on December 19, 2022, in City Hall Council Chambers.

The agenda was posted at the City Hall office as required by law.

These tentative minutes reflect all action taken at the meeting.

- 1. Call to Order | Sires called the meeting to order at 6:00 p.m.
- 2. Roll Call | Hankins, Bowersox, Triplett (via Zoom), Sires, Pringnitz (via Zoom), Vogel | In attendance Ohlfest | Absent
- 3. Approval of Agenda

MOTION: A motion was made by Hankins and seconded by Vogel to approve the agenda.

MOTION CARRIED UNANIMOUSLY

4. Public Comments | None

5. Approval of Meeting Minutes

MOTION: A motion was made by Bowersox and seconded by Hankins to approve P&Z Commission Meeting Minutes for November 21, 2022

MOTION CARRIED UNANIMOUSLY

6. Gateway Crossings

a. **MOTION:** A motion was made by Hankins and seconded by Bowersox to recommend Council amend the Comprehensive Plan as shown on the drawing from mixed use/medium to low density residential to commercial, light industrial, and high density residential

MOTION CARRIED UNANIMOUSLY

b. **MOTION:** A motion was made by Hankins and seconded by Bowersox to recommend Council approve the Rezoning Petition for 78 acre parcel; 27.86 acres to R-3, 28.95 acres to C-2, 24.15 acres to M1 with 14.35 acres restricted to exclude the following uses: mini-storage facilities and storage of RVs, boats and other recreational vehicles and equipment

MOTION CARRIED UNANIMOUSLY

7. Kahler Golf Plat 1

MOTION: A motion was made by Hankins and seconded by Sires to recommend Council approve the Preliminary Plat, Final Plat and Site Plan subject to Staff and Engineering comments dated December 15, 2022 and clarifying no exception of architectural standards

MOTION CARRIED UNANIMOUSLY

8. MOTION: A motion was made by Sires and seconded by Hankins to confirm Deanna Triplett as P&Z Commission Chairperson for 2023 and 2024

MOTION CARRIED UNANIMOUSLY

- 9. MOTION: A motion was made by Sires and seconded by Hankins to confirm Justin Vogel as P&Z Commission Vice-Chair for 2023 and 2024
- 10. MOTION CARRIED UNANIMOUSLY

11. Reports & Particulars

Commission Member Sires said he plans to attend January, February and March P&Z Meeting via Zoom while he is out of state.

City Manager Huisman reported that Council had the first reading amending parking requirements that align with the recent discussion regarding senior living developments, and also clarified that all improvements require paved surfaces regardless of use. Huisman also confirmed for Commission Member Hankins that the Sign Ordinance was amended for business of certain smaller sizes.

Sires thanked staff, the city and the members of the commission for all of their support they showed him as Chairperson for the past year, and wished everyone a Merry Christmas and Happy New Year.

12. Adjournment

MOTION: A motion was made by Bowersox and seconded by Hankins to adjourn at 6:59 p.m. **MOTION CARRIED UNANIMOUSLY**

Next Meeting Date - Monday January 16, 2022

Attest:		
Jenny Coffin - City Clerk	 -	

CLAIMS REPORT		
CITY OF POLK CITY	DATED	1/9/2023
VENDOR	REFERENCE	AMOUNT
911 CUSTOM	BEAN BAG ROUNDS	\$ 344.50
ACCUJET LLC	2022 JET CLEANING	\$ 27,568.72
AMAZON BUSINESS	PART FOR FIRE DEPARTMENT TREADMILL	\$ 167.94
ARNOLD MOTOR SUPPLY	VEHICLE PARTS & SUPPLIES	\$ 1,478.19
AVESIS	CITY VISION INSURANCE	\$ 318.01
BAKER & TAYLOR	LIBRARY BOOKS	\$ 735.86
BOMGAARS	PUBLIC WORKS SUPPLIES	\$ 247.86
Bound Tree Medical	MEDICAL SUPPLIES	\$ 626.19
BRICK LAW FIRM	CITY ATTORNEY FEES	\$ 2,990.00
BURT DIRTWORKS	214 3RD SEWER ABANDONMENT	\$ 2,972.14
BUSINESS PUBLICATIONS CORP	PUBLICATIONS	\$ 21.28
CAROL THORNBURG	GYM REIMBURSEMENT 2022	\$ 200.00
CATCH DES MOINES	CATCH DES MOINES CONTRIBUTION	\$ 3,138.11
CHELSEA HUISMAN	GYM REIMBURSEMENT 2022	\$ 200.00
CHR TIRE AND AUTO	UNIT #212 REPAIRS	\$ 2,668.10
CHRISTIAN BROTHERS AUTOMOTIVE	PD VEHICLE REPAIRS/MAINTENANCE	\$ 1,393.05
CITY LAUNDERING	FLOOR MAT SERVICE	\$ 334.64
City of Ankeny	PARAMEDIC TIER WITH ANKENY	\$ 200.00
CITY OF DES MOINES	WRA HOOK-UP	\$ 30,922.05
CITY OF POLK CITY	UB ASSISTANCE-JANUARY 2023	\$ 331.80
City of West Des Moines	METRO HOME IMPROVEMENT PROGRAM	\$ 28,454.00
CODE 4	NEW PATCHES	\$ 950.00
CORE AND MAIN	BACKFLOW PREVENTER	\$ 5,150.00
Crystal Clear Water Co	PURCHASED WATER	\$ 90.16
Delta Dental	CITY DENTAL INSURANCE	\$ 1,375.56
Des Moines Water Works	PURCHASED WATER	\$ 29,538.72
EasyClocking	EASY CLOCKING SOFTWARE	\$ 960.00
ELECTRONIC ENGINEERING CO.	SHARED ALARM MONITORING	\$ 70.00
EMSLRC	BLS PROVIDER CARD	\$ 17.00
ETECH SOLUTIONS LLC	TECHNOLOGY SERVICE / PRO-IT COVERAGE	\$ 7,133.86
FIRST BANKCARD	CITY CREDIT CARD	\$ 4,579.07
GREATAMERICA FINANCIAL	SHARED COPIER LEASE	\$ 990.80
Gurnsey Electric Co	CITY PARKS/SIREN MAINTENANCE	\$ 1,140.00
HACH COMPANY	LAB SUPPLIES	\$ 474.69
HANDTEVY	PRE-HOSPITAL PEDIATRIC SOFTWARE	\$ 324.45
HAWKINS INC	CHLORINE	\$ 2,012.20
Henriksen Contracting	214 3RD WATER ABANDONMENT	\$ 225.00
HOME DEPOT	PUBLIC WORKS SUPPLIES	\$ 137.89
I.A.C.P.	CHIEF/LT IACP MEMBERSHIP	\$ 380.00
I.M.W.C.A.	WORKERS COMP INSURANCE	\$ 6,702.00
IOWA ONE CALL	UNDERGROUND LOCATIONS	\$ 266.70
IOWA PLAINS SIGNING INC	ROAD CLOSURE ON 3RD STREET	\$ 825.00
IOWA STATE UNIVERSITY	ULBRICH PROGRAM FEE	\$ 80.00

IOWA STATE UNIVERSITY TREASURE	LLOYD VETERINARY MEDICAL CENTER	\$ 2,386.10
IPCA	ASWEGAN MEMBERSHIP	\$ 75.00
IRON MOUNTAIN	SHREDDING SERVICE	\$ 190.61
JASON THRAEN	GYM REIMBURSEMENT 2022	\$ 200.00
Jeff Feller	GYM REIMBURSEMENT 2022	\$ 200.00
JENNY COFFIN	MILEAGE REIMBURSEMENT	\$ 41.26
KANSAS CITY LIFE INS. CO	CITY LIFE INSURANCE	\$ 1,200.08
KARL CHEVROLET	2 ANTENNAS FOR 461/450	\$ 152.12
KARLA HOGREFE	GYM REIMBURSEMENT 2022	\$ 168.06
KEYSTONE LABORATORIES INC.	WATER TESTING	\$ 99.75
KINZLER CONSTRUCTION SERVICES	OVERHEAD DOOR REPAIRS	\$ 2,747.00
LINDE GAS & EQUIPMENT INC	OXYGEN	\$ 157.95
MATT AICHER	MILEAGE REIMBURSMENT	\$ 55.00
MENARD'S	PUBLIC WORKS SUPPLIES	\$ 1,853.55
MERI MERRITT	CANVA REIMBURSEMENT 2022	\$ 90.93
MI-FIBER	WATER PLANT TO TOWER FIBER	\$ 17,147.63
MIDAMERICAN ENERGY	ELECTRIC CHARGES	\$ 4,142.08
MIDLAND POWER CO-OP	STREET LIGHTING	\$ 1,027.44
NCCA	FBI NCCA MEMBERSHIP 2023	\$ 50.00
NELSON AUTOMOTIVE	REPAIR PARTS	\$ 1,679.58
NOLTE SERVICE & REPAIR	STONE SAND	\$ 1,266.00
OMNISITE	WIRELESS ALARM SERVICE FEE	\$ 580.00
ONESOURCE	BACKGROUND CHECKS	\$ 146.00
PITNEY BOWES	POSTAGE METER RENTAL	\$ 164.97
POLICE LEGAL SCIENCES	POLICE LEGAL SCIENCES ACCOUNTS	\$ 960.00
Polk County Recorder	ANNEXATION RECORDING	\$ 562.00
PORTABLE PRO, INC.	PORTABLE SERVICE	\$ 450.00
POSTMASTER	UTILITY BILLING POSTAGE	\$ 2,000.00
RACOM	EDACS	\$ 862.92
RANGEMASTERS TRAINING CENTER	CLASS A RADIO HOLDERS	\$ 410.32
RELIANT FIRE APPARATUS	FD R458 REPAIRS	\$ 1,546.12
RENEWABLE ENERGY GROUP	PUBLIC WORKS FUEL	\$ 1,697.71
RUAN, INCORPORATED	PD VEHICLE LEASES-T10901/T11189	\$ 3,053.76
Safe Building Comp. & Tech	BUILDING INSPECTIONS	\$ 9,676.98
SBS SERVICES GROUP LLC	JANITORIAL - DECEMBER 2022	\$ 1,195.00
Schneider Graphics	PUBLIC WORKS/VINYL WRAP - TAHOE	\$ 2,626.04
SECRETARY OF STATE	SIEPKER NOTARY RENEWAL	\$ 30.00
STAPLES	CITY OFFICE SUPPLIES	\$ 86.54
STEVE KARSJEN	MILEAGE REIMBURSEMENT	\$ 51.38
STEW HANSEN	#25 LOF	\$ 64.90
TANNER OWEN	CONTINUING ED REIMBURSEMENT	\$ 125.00
TG TECHNICAL SERVICES	2-4 GAS DETECTORS	\$ 970.80
TRUCK EQUIPMENT INC.	PLOW CABLE	\$ 114.98
UPHDM OCCUPATIONAL MEDICINE	HEARING TESTS	\$ 371.35
USPCA	USPCA MEMBERSHIP	\$ 50.00
VAN-WALL EQUIPMENT	VEHICLE REPAIR PARTS	\$ 913.80
VERIZON WIRELESS	PHONE AND DATA PLAN	\$ 369.05

		_	
WAGEWORKS INC	FSA INSURANCE PAYMENTS	\$	218.24
WELLMARK BLUE CROSS BLUE SHEIL	CITY HEALTH INSURANCE	\$	32,047.01
WRIGHT EXPRESS FLEET SERVICES	FIRE DEPARTMENT FUEL	\$	939.21
Accounts Payable Total		\$	273,546.02
GENERAL		\$	97,569.00
ROAD USE		\$	7,882.22
L.M.I		\$	28,785.80
CAPITAL IMPROVEMENTS		\$	3,197.14
CAPITAL EQUIPMENT/VEHICLE		\$	3,053.76
WATER		\$	61,469.42
SEWER		\$	71,588.68
TOTAL FUNDS		\$	273,546.02



Applicant

NAME OF LEGAL ENTITY NAME OF BUSINESS (DBA) BUSINESS

SARA B&R LLC Polk City Liquor (515) 984-9627

ADDRESS OF PREMISES PREMISES SUITE/APT NUMBER CITY COUNTY ZIP

201 North 3rd Street #A & #B Polk City Polk 50226

MAILING ADDRESS CITY STATE ZIP

PO Box 138 Polk City Iowa 50226

Contact Person

NAME PHONE EMAIL

Madhav Niraula (214) 382-1082 matt6747@yahoo.com

License Information

LICENSE NUMBER LICENSE/PERMIT TYPE TERM STATUS

LE0003831 Class E Retail Alcohol License 12 Month Submitted

to Local Authority

EFFECTIVE DATE EXPIRATION DATE LAST DAY OF BUSINESS

Feb 1, 2023 Jan 31, 2024

SUB-PERMITS

Class E Retail Alcohol License



Status of Business

BUSINESS TYPE

Limited Liability Company

Ownership

Individual Owners

NAME	CITY	STATE	ZIP	POSITION	% OF OWNERSHIP	U.S. CITIZEN
Madhav Niraula	Des Moines	Iowa	50316	Owner	100.00	No

Insurance Company Information

INSURANCE COMPANY	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE
DRAM CANCEL DATE	OUTDOOR SERVICE EFFECTIVE DATE	OUTDOOR SERVICE EXPIRATION DATE
BOND EFFECTIVE DATE	TEMP TRANSFER EFFECTIVE DATE	TEMP TRANSFER EXPIRATION DATE

RESOLUTION NO. 2023-01

A RESOLUTION SETTING A PUBLIC HEARING ON AMENDING THE 2016 POLK CITY COMPREHENSIVE PLAN BY UPDATING THE FUTURE LAND USE MAP

WHEREAS, City Council has deemed it necessary to update the Future Land Use Plan in the 2016 Polk City's Comprehensive Plan by revising the future land use designated in the vicinity of N 3rd Street and NW 126th Avenue for the Parable Ventures, LLC property (to be known as Gateway Crossings) from mixed use, medium density residential, and low density residential land use to commercial, light industrial, and high density residential land use; and

WHEREAS, on December 19, 2022, the Planning & Zoning Commission met and recommended City Council approval of an amendment to the Future Land Use Plan in Polk City's Comprehensive Plan's Future Land Use Plan, as previously amended by Resolution of City Council, to the future land uses as shown on the attached Exhibit "A"; and

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Polk City, Iowa, hereby orders a public hearing and notice thereof to be held on January 23, 2023, at 6:00 p.m. in the City Hall Council Chambers, Polk City, Iowa, on amending the Polk City Comprehensive Plan by revising the Future Land Use Plan.

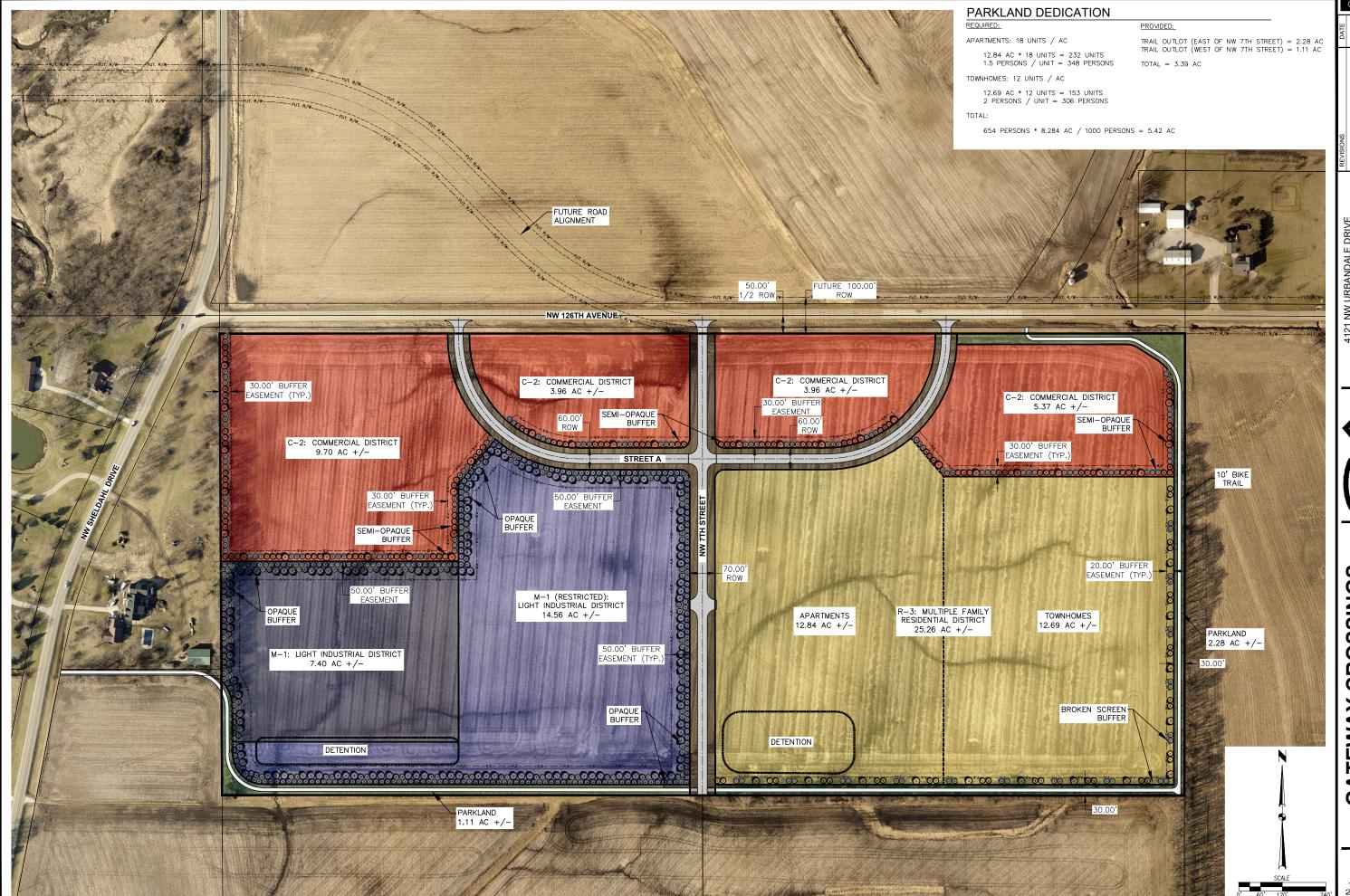
BE IT FURTHER RESOLVED, the City Council authorizes the City Clerk to publish notice of such hearing at the time and in the manner required by the law.

PASSED AND APPROVED this 9 day of January 2023.

	Steve Karsjen, Mayor
ATTEST:	
Jenny Coffin, City Clerk	

EXHIBIT 'A'
Proposed Amendment to the Polk City Comprehensive Plan's approved Future Land Use Plan





CROSSIN **EXHIBIT** LAND USE ATEWAY

2206.429

RESOLUTION NO. 2023-02

A RESOLUTION SETTING A PUBLIC HEARING ON THE PROPOSED REZONING OF THE PARABLE VENTURES, LLC PROPERTY LOCATED IN THE VICINITY OF N 3RD STREET AND NW 126TH AVENUE FROM A-1 AGRICULTURAL TO C-2 COMMERCIAL, M-1 LIGHT INDUSTRIAL, M-1 (RESTRICTED) LIGHT INDUSTRIAL, AND R-3 MULTIPLE-FAMILY RESIDENTIAL

BE IT RESOLVED, that the City Council of the City of Polk City, Iowa, hereby orders a public hearing and notice thereof to be held January 23, 2023 at 6:00 p.m. at the City Hall Council Chambers in Polk City, Iowa, on the proposal to rezone property located in the vicinity of N. 3rd Street and NW 126th Avenue and legally described as follows:

PROPOSED C-2 COMMERCIAL:

A PART OF THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 81 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF SAID SECTION 36; THENCE SOUTH 89°59'41" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 2665.43 FEET TO THE NORTHEAST CORNER OF SAID SECTION 36; THENCE SOUTH 00°04'23" WEST ALONG THE EAST LINE OF SAID NORTHEAST QUARTER, 445.75 FEET; THENCE NORTH 89°55'16" WEST, 665.99 FEET; THENCE NORTH 40°29'34" WEST, 169.04 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 333.00 FEET, WHOSE ARC LENGTH IS 235.34 FEET AND WHOSE CHORD BEARS SOUTH 69°45'13" WEST, 230.47 FEET; THENCE NORTH 90°00'00" WEST, 680.12 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 333.00 FEET, WHOSE ARC LENGTH IS 230.90 FEET AND WHOSE CHORD BEARS NORTH 70°08'09" WEST, 226.30 FEET; THENCE SOUTH 39°43'42" WEST, 187.95 FEET; THENCE SOUTH 00°00'17" EAST, 215.51 FEET; THENCE NORTH 90°00'00" WEST, 656.25 FEET TO THE WEST LINE OF SAID NORTHEAST QUARTER; THENCE NORTH 00°17'54" WEST ALONG SAID WEST LINE, 679.45 FEET TO THE POINT OF BEGINNING AND CONTAINING 28.96 ACRES (1,261,393 SQUARE FEET).

PROPOSED M-1(RESTRICTED) LIGHT INDUSTRIAL WITH RESTRICTIONS EXCLUDING MINI-STORAGE FACILITIES AND STORAGE FACILITIES FOR BOATS, RVS, AND SIMILAR VEHICLES AS A PERMITTED USE (16.70 ACRES):

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 81 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 00°17'53" WEST ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER, 146.95 FEET; THENCE SOUTH 89°58'51" EAST, 653.69 FEET; THENCE NORTH 00°00'14" WEST, 498.77 FEET; THENCE NORTH 00°00'17" WEST, 215.51 FEET; THENCE NORTH 39°43'42" EAST, 187.95 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 333.00 FEET, WHOSE ARC LENGTH IS 230.90 FEET AND WHOSE CHORD BEARS SOUTH 70°08'09" EAST, 226.30 FEET; THENCE NORTH 90°00'00" EAST, 340.09 FEET TO THE EAST LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE SOUTH 00°00'16" EAST ALONG SAID EAST LINE, 929.49 FEET TO THE SOUTHEAST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 89°57'52" WEST ALONG SAID SOUTH LINE, 1326.01 FEET TO THE POINT OF BEGINNING AND CONTAINING 16.70 ACRES (727,261 SQUARE FEET).

PROPOSED M-1 LIGHT INDUSTRIAL (7.50 ACRES):

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 81 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 00°17'53" WEST ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER, 146.95 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 00°17'53" WEST ALONG SAID WEST LINE, 498.56 FEET; THENCE NORTH 90°00'00" EAST, 656.25 FEET; THENCE SOUTH 00°00'14" EAST, 498.77 FEET; THENCE NORTH 89°58'51" WEST, 653.69 FEET TO THE POINT OF BEGINNING AND CONTAINING 7.50 ACRES (326,610 SQUARE FEET).

PROPOSED R-3 MULTIPLE-FAMILY RESIDENTIAL:

Passed and approved this 9th day of January 2023.

A PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 81 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 89°57'50" WEST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 1330.74 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 00°00'23" WEST ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 929.49 FEET; THENCE NORTH 90°00'00" EAST, 340.06 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 333.00 FEET, WHOSE ARC LENGTH IS 235.34 FEET AND WHOSE CHORD BEARS NORTH 69°45'13" EAST, 230.47 FEET; THENCE SOUTH 40°29'34" EAST, 169.04 FEET; THENCE SOUTH 89°55'16" EAST, 665.99 FEET TO THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE SOUTH 00°04'44" WEST ALONG SAID EAST LINE, 880.62 FEET TO THE POINT OF BEGINNING AND CONTAINING 27.83 ACRES (1,212,446 SQUARE FEET).

The Clerk shall publish notice of such hearing at the time and in the manner required by law.

Steve Karsjen, Mayor	
ny Coffin, City Clerk	



Polk City Police Department

309 W Van Dorn St. P.O.Box 381 Polk City, Iowa 50226

Phone: 515-984-6565 Fax 515-984-6819 email: police@polkcityia.gov

Service Integrity Respect Quality

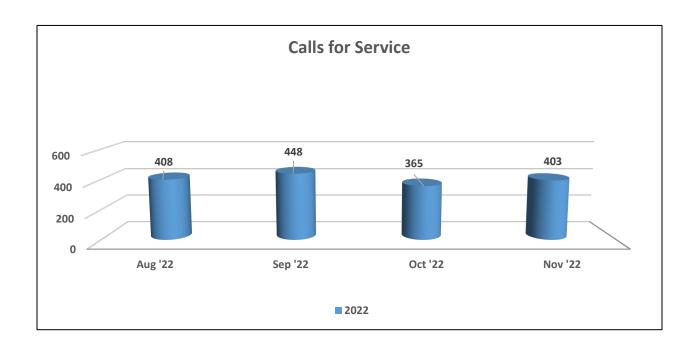
To: Honorable Mayor and Council Members

From: Lieutenant Aswegan Date: December 7th, 2022

Re: November 2022 Monthly Report

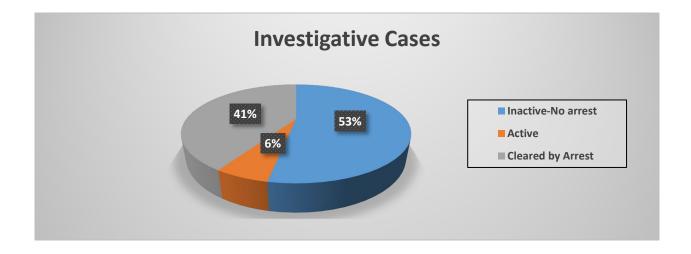
Calls for Service

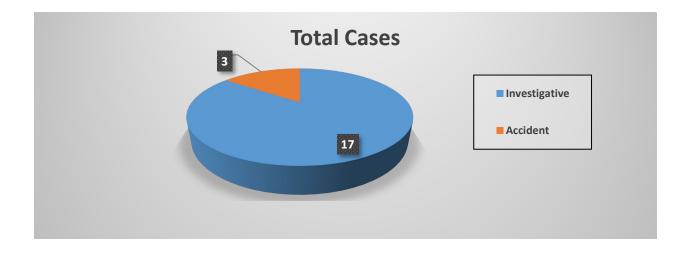
The total calls for service for the month of November were **403**. This includes response to citizen complaints/reports, assists, self-initiated activities such as traffic stops, building checks, suspicious persons, and case follow up. Among these calls for service Polk City Officers conducted **103** traffic stops.



Cases Made

The Police Department had **20** total cases during the month of November. **17** of the cases were investigative incident reports and **3** were traffic collision investigations. There is **1** active investigation from this month. There was a **41%** rate of cases cleared by arrest, for investigative cases in November.





Arrests Made

The Police Department made **13** arrests and issued **16** citations and **92** warnings. The arrests consisted of **4** arrests for drug offenses and **9** arrests for driving offenses.



Notable Incidents

22-0289

On November 3rd at about 11:15 pm a Polk City Police Officer stopped a vehicle for a traffic violation. An investigation revealed that the driver, a 38-year-old Polk City man, was intoxicated. His blood alcohol concentration was found to be .288. He was arrested and charged with OWI-2nd Offense. During the arrest he was found in possession of marijuana and drug paraphernalia. He was additionally charged with Possession of Marijuana and Drug Paraphernalia. He was booked into the Polk County jail.

22-0296

On November 14th at about 1:15 pm a Polk City Police Officer found a disabled vehicle in the 200 block of Tyler Street. The vehicle had significant damage, which appeared fresh. The driver, later identified as a 28-year-old Ankeny man, was passed out behind the wheel. An investigation revealed the man was impaired by alcohol. He was arrested and charged with OWI-2nd Offense and Reckless Driving.

Officer Training

In-service training in November focused on low light firearms skills. Officers received training on target identification and acquisition in low light environments. Officers then qualified with their handguns on the ILEA Low Light Firearms Qualifications course.





Training Hours: 42

Aicher	21
Wilson	4
Delaney	4
Sherman	4
Siepker	4
Aswegan	5

K9 Program

The Polk City K9 Team Officer Aicher and Eudoris conducted 17 hours of training together during November. During this training, the team worked on building searches, tracking and article search during their training session at Canine Tactical in Chariton. The team also conducted on-going basic obedience training throughout the month.







Code Enforcement

The Police Department addressed 14 Municipal Code violations during the months of October and November.



City of Polk City, Iowa

City Council Agenda Communication

Date: January 9, 2023

To: Mayor, City Council, and City Manager

From: Karla Hogrefe – Fire Chief

Subject: New POC Hire Pay Rate Approval

BACKGROUND: We have the opportunity to hire a paid on call Firefighter, Matthew Stern. Matthew lives in Polk City and has his Fire Certifications. He is working on getting enrolled in the DMACC EMT program. Matthew currently works for the City of Ames as a Community Codes Liaison and is an active member of the Iowa Air National Guard. Matthew will be a great addition to the Polk City Fire Department.

We also have an opportunity to hire another Polk City resident as a paid on call member, Matthew Reetz. Matthew does not have any certifications as of yet, but is looking forward to being able to help his community. Matthew is also looking at getting enrolled in EMT class and we will be doing an in-house Firefighter I class for him. Matthew works for C.J. Foods as an Account Manager.

ALTERNATIVES: None

FINANCIAL CONSIDERATIONS: The only impact this will have is wages during orientation. Once a new employee is oriented, they will only work available shifts.

RECOMMENDATION: To hire both individuals as Paid On Call Members with the listed stipulation(s) and request approval of pay rate:

Matthew Stern, paid on call Firefighter position at a rate of \$16.75 per call.

Matthew Reetz, paid on call member position at a rate of \$16.00 per call.



City of Polk City, Iowa

City Council Agenda Communication

Date: January 9, 2023

To: Mayor, City Council, and City Manager

From: Karla Hogrefe – Fire Chief

Subject: Standard Operating Guidelines & Protocol Updates

BACKGROUND: The fire department has policies and procedures which provides an outline and direction to and for our members. These policies and procedure were established in 2005. Some have been revised throughout the years and others remain the same.

The fire department has had several changes in how we provide service to the community. This requires revising and removing SOGs. The 500 SOGs are the final revisions. We have attached the following revised SOGs for your review and acknowledgement:

- 501 Continuous Quality Improvement
- 502 Continuing Education Hours
- 503 Confidentiality Agreement & HIPAA
- 504 New Recruit Training Requirements
- 505 Engineering Guidelines
- 509 EMT Training Agreement
- 510 Paramedic Training Agreement
- 513 Continuous Quality Improvement Fire

We have also updated/simplified some Medical Protocols. The protocols listed the same medication, but different dosages. We simplified to having only one dosage to help eliminate confusion and to avoid so much medication waste.

- 3.16 Psychiatric and Behavioral Emergencies
- 3.17 Seizures
- 5.01 Cardiac Arrest Dysrhythmias
- 6.25 Synchronized Cardioversion

ALTERNATIVES: Continue with the same policy and procedures.

FINANCIAL CONSIDERATIONS: No cost associated with these changes.

RECOMMENDATION: Acknowledge and accept these revisions so the operations of the fire department is up to date and appropriate for the times.



Polk City Fire Department Standard Operating Guidelines

#501 - Continuous Quality Improvement

Date Issued: 05/02/2005 Date Last Revised: 12/2/2022

Purpose:

The purpose of this SOG is to clearly define the Polk City Fire Department's guidelines for Continuous Quality Improvement (CQI). CQI is defined as the process by which a minimum set of patient care standards are being met in a competent manner by all members of the department.

CQI Aspects:

- 1. Medical report documentation
- 2. EMS protocol adherence
- 3. EMS orientation for new members
- 4. EMS procedures and equipment
- 5. EMS protocol updates
- 6. EMS SOG updates

CQI Goals:

- A. Review of medical documentation for accuracy and completion
- B. Review of medical documentation for protocol adherence
- C. Implementation of EMS orientation policies
- D. Performance and documentation of EMS critical procedures
- E. Review and revision of EMS protocols
- F. Review and revision of EMS SOG's

CQI Process:

- I. All patient care related medical documentation will be reviewed by qualified personnel for accuracy and completion of documentation and to ensure that all personnel at each specific incident followed approved EMS protocols. Protocol driven incident review forms will be used and updated as needed. The following incidents will be reviewed by the medical director:
 - 1. Recommended for review by peer or officer reviewer.
 - 2. Responses where patient care is marked as inappropriate.
 - 3. Responses where care does not comply with protocols.
 - 4. Cardiac arrest.
 - 5. Trauma alerts.
 - 6. STEMI requests.
 - 7. Medication error or omission
 - 8. Stroke Alerts
- II. Any member of the CQI group may request an incident to be reviewed by the medical director.



Polk City Fire Department Standard Operating Guidelines

#501 - Continuous Quality Improvement

Date Issued: 05/02/2005 Date Last Revised: 12/2/2022

- III. The Company Officers will develop and implement an EMS orientation manual and procedure for all new members of the department. All existing staff of the department will complete the EMS probationary packet. All staff with an EMS certification must be signed off on the entire EMS Packet before responding as the only attendant. The orientation will be mandatory for all new staff on the Polk City Fire Department. All newly certified staff run reports will be reviewed by the officer in charge as necessary.
- IV. All medically certified staff will be required to perform certain skills within their scope of practice annually and this will be documented to prove proficiency. The preferred method of skill performance is on actual patients; however this is not always possible. Members who perform patient care in other employment may use that experience if proper documentation is provided. It is the responsibility of the CQI group and the departmental Company Officers to ensure this aspect of quality assurance is being completed.
- V. The department officers and all current EMS certified staff will be part of the CQI committee or as determined by the EMS Division Officers.
- VI. It is the responsibility of the CQI group, the Company Officers, and the medical director to review and revise medical protocols and SOG's as frequently as needed and possible.

Medical Director:	Date:	



Polk City Fire Department Standard Operating Guidelines

#502 – Continuing Education Hours (CEH's)

Date Issued: 05/02/2005 Date Last Revised: 08/23/2022

Purpose:

The purpose of this SOG is to clearly outline the process of obtaining and documenting CEH hours for members of the Polk City Fire Department. This process will ensure that all EMS personnel have their CEH numbers at all times.

Guidelines:

- 1. CEH credits shall be applied for a minimum of 7 days before the class is conducted.
- 2. The designated Officer will be responsible for applying for the credits, bringing the roster sheets to class, and returning the rosters back for credit, unless an outside instructor applies for the CEH.
- 3. Credits may be applied for from Des Moines Area Community College. Outside instructors have the option to obtain CEHs from a training center of their choice.
- 4. The roster sheets must be returned within 7 days after the class is taught. The Training Officer will be responsible for emailing in the roster sheets and evaluation sheet and shall keep a master copy of each roster sheet in the training file. The file will be available to all members at any time.
- 5. The designated Officer is responsible for documenting the training rosters.
- 6. The Fire Chief will review training attendance quarterly.
- 7. On their designated recertification year members that are renewing their EMS certification will be provided two year total of their CEH record for renewal with Iowa Bureau of EMS.
- 8. It is the ultimate responsibility of each person to ensure they have met the state requirements for education and to keep proper documentation of such classes.
- 9. All members will have a training folder that will be kept at the station at all times. It is highly recommended that individual members place copies of certificates and proof of outside training into this folder.



#503 - Confidentiality Agreement

Date Issued: 03/24/2005 Date Last Revised: 12/30/2022

Confidentiality Agreement & HIPAA Training

It is the expectation of the Polk City Fire Department for each member to follow the confidentiality guidelines set forth in the Department Policies of the Polk City Fire Department. I understand that failure to follow the confidentiality guideline may result in immediate termination from the Polk City Fire Department. I have read the Confidentiality Policy and I understand all procedures. I have also been trained on the requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA). I understand the implications of disclosing protected health information to non-covered entities and agree to follow all guidelines set forth and make every reasonable effort not to disclose protected health information.

	I have need and an denotor of the Confidentiality Dalier
	I have read and understand the Confidentiality Policy. I have been trained and understand the requirements if HIPAA.
	I understand that failure to follow the Confidentiality Policy of the Polk City
	Fire Department may result in immediate termination of my membership to
	the Polk City Fire Department.
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Sış	gned:
Da	nte:



#504 – New Recruit Training Requirements

Date Issued: 05/17/2005 Date Last Revised: 11/02/2022

Purpose:

The purpose of this SOG is to clearly define the training requirements for the Polk City Fire Department.

Guidelines:

- 1. New recruits will begin their probationary period according once hired.
- 2. The recruit packets for the Polk City Fire Department will be issued by the Training Officer upon becoming a probationary member of the Fire Department.
- 3. The recruit packets are to be completed in **SIX** months from the date of being accepted onto the department as a Probationary Member. Once the packets are completed, they will go to the Chief Officers for review. The Chief Officers will make a recommendation to the department for the Probationary Members acceptance onto the department as an active member. The recruit may remain on probation for 1 year, unless released by the Chief.
- 4. Failure to complete packet in the allotted time frame gives the Fire Chief the right to dismiss the member at that time. Every effort will be made to ensure that failure to complete the packets is reviewed monthly with Corrective Action documentation.
- 5. Recruits may be allowed to take any fire or EMS classes before they have completed their probationary period at their own expense. At the end of the probationary period, recruits are required to obtain EMT and Firefighter I certification.
- 6. The department may pay for EMS and fire training classes for personnel. (Refer to SOG #509 and #510) The department will only pay for classes up to the level of our service.
 - 1. To have internal Instructors, PCFD may assist with the costs for Instructor classes, with approval by the Fire Chief.
 - 2. Special classes and seminars are also encouraged. Financial assistance may be permitted and approved by the Fire Chief.
 - 3. CPR certification is REQUIRED for all members.
 - 4. Fire Training Members are encouraged to take any of the following, which are recognized by the Iowa Fire Service Training Bureau: Firefighter II, Inspector, Investigator, Instructor,



#504 - New Recruit Training Requirements

Date Issued: 05/17/2005 Date Last Revised: 11/02/2022

Officer, and Driver/Pump Operator. Fire schools, special classes and seminars are encouraged.

- 5. If an individual takes a class and/or fails to complete the class, the member may be responsible to pay the department for the cost of the class. If the individual wishes to retake the class, he/she must pay all costs associated with the class.
- 6. The amount of assistance is subject to budget and the level of training with a signed written SOG 509 EMT-B Training Agreement and/or SOG 510 Paramedic Training Agreement.
- 7. Classes hosted by the Polk City Fire Department will be entitled to training pay. All additional classes are not entitled to training pay.

<u>All</u> training outside the department that requires expenditure of training funds must be coordinated and approved by the Fire Chief.



#505 – Engineering Guidelines

Date Issued: 09/06/2022 Date Last Revised: N/A

Friction Loss (FL) -

- 1. Armtex Jafrib Red Rubber Attack Hose
 - a. 1 ³/₄ Handline 26 PSI per 100 ft. @ 150 GPM
 - b. 2 ½ Handline 21 PSI per 100 ft. @ 300 GPM
- 2. Armtex Jafrib LDH Supply Hose
 - a. 5" LDH Supply Line Negligible under 1000 GPM

Polk City Handline Nozzle Pressures (NP) and Flows -

- 1. Chief 4000-17 Mid-Range Combination Nozzle 150 GPM at 50 PSI at the tip
- 2. Akron 2.5" Nozzle with Chief 187-XD 1-3/16" Smooth Bore Tip 300 GPM at 50 PSI at the tip

Appliances and Master Streams

- 1. Elkhart Brass Stacked Tip Master Streams will be run at 80 PSI at the tip
 - a. 1-3/8" Tip (Smallest) 502 GPM at 80 PSI at the tip
 - b. 1-1/2" Tip 598 GPM at 80 PSI at the tip
 - c. 1-3/4" Tip -814 PSI at 80 PSI at the tip
 - d. 2" Tip (Largest) 1063 GPM at 80 PSI at the tip
- 2. R.A.M. Monitor 500 GPM at 75 PSI at the tip; at this flow rate, friction loss in a 2-1/2" hose is 55 PSI per 100 ft.
- 3. AFL = Appliance Friction Loss (Only account for over 350 GPM)
 - a. 5 psi Wye/Siamese
 - b. 15 psi Deck Gun
 - c. 10 psi Portable Monitor
 - d. 25 psi Stand Pipe/Sprinkler

Other Considerations

- 1. PDP = FL + NP + EL (if applicable) + AFL (if applicable)
- 2. **IF multiple lines**, calculate for the highest demanding line and then use individual valves to gate down all other lines as necessary
- 3. EL = Elevation Loss
 - a. +5 psi every floor (excluding 1st)
 - b. 5 psi Below 1st floor (basements, etc.)
 - c. +5 psi every 10' of elevation
 - d. -5 psi every 10' drop of elevation
- 4. Rules of Thumb
 - a. Supplying other engines:....Start at 50 psi
 - b. Sprinkler systems:.....pump at 150 psi
 - c. 100' of 13/4" hose (bumper line), pump at 75 psi
 - d. 200' of 134" hose (crosslay), pump at 100 psi
- 5. Wye Add GPMs from both nozzles



#505 – Engineering Guidelines

Date Issued: 09/06/2022 Date Last Revised: N/A

- * For two equal lines, calculate PDP for only one.
- 6. Never exceed PDP of 250 psi
- 7. Intake (residual pressure) should never drop below 20 psi.

Flow In U.S.	Pressure Loss in PSI per 100' Hose									Equal Length Siamesed Lines				
GPM	.75"	1.0"	1.5"	1.75"	2.0"	2.5"	3.0"	3.5"	4.0"	5.0"	6.0"	2 x 2.5"	3 x 2.5"	2 x 3.0'
10	13.5	3.5												
20	50	12.5												
30	105	26												
40		44	4.5	3	1									
60		92	10	5	2.5									
95			22	11	5									
100			25	12	6	3	1							
125			37	21	10	4	1							
150			54	26	13.5	6	2							
175				34	18	8	3							
200				45	24	10	4	2						
225				57	30	12	4.5	2						
250				70	37.5	15	6	2.5						
275				82	45	17.5	7	3						
300				95	54	21	8	3.5	2			6	3	2
325					65	24.5	9.5	4	2.5			6.5	3	2.5
350					78	28	11	5	2.5			8	3.5	3
400					96	36	14	6	3	1		10	4.5	4
450						45	17.5	8	4	1.5		12.5	6	5
500						55	21	9.5	5	2		15.5	7	6
550							25.5	11.5	6	2		18.5	8.5	7
600							30	13.5	7	2.5		23	10	8.5
650							35	15.5	8.5	3		25.5	12	10
700							40.5	18	9.5	(3.5)	1	29.5	13.5	11.5
750							46	20	11.5	4	1	33.5	15.5	13
800							53	23	12.5	(4.5)	1.5	38	17.5	14.5
850								25.5	14.5	5	1.5	43	20	16.5
900								28	16	5.5	2	48	22.5	18.5
950								31	17.5	6	2		25	20.5
1000								34	19	6.5	2.5		28	22.5
1100								41	23	8	3		33	27
1200								49	27.5	9.5	4		39	32
1300								57	32.5	11	4.5		45	38
1400								66.5	38	13	5		52	44
1500								76.5	43	15	6		60	50
1750									59	20	8			
2000									77	26.5	10.5			
2500										41.5	16.5			

Solid Bore Nozzles																	
				Gallon	Per Min	ute (GPN	I)					Pou	nds Reac	tion Force	† (RF)		
Nozzle Pressure*								Solid	Bore Dian	neter (Incl	nes)						
(PSI)	3/6	1/2"	*/*"	3/4"	7/ . "	5/ ₂ "	1"	11/1"	17/7	13/4"	11/2"	13/4"	2"	21/4"	21/2"	23/4"	
	26	47	73	106	144	165	188	238	294	355	423	575	752	951	1174	1421	ann.
40	9	16	25	35	48	55	63	79	98	119	141	192	251	318	393	475	gpm rf
	28	50	78	112	153	175	199	252	311	377	448	610	797	1009	1246	1507	gpm
45	10	18	28	40	54	62	71	89	110	134	159	216	283	358	442	534	rf
50	30	53	82	118	161	185	210	266	328	397	473	643	840	1064	1313	1589	gpm
50	11	20	31	44	60	69	79	99	123	148	177	240	314	397	491	594	rf
55	31	55	86	124	169	194	220	279	344	417	496	675	881	1115	1377	1666	gpm
33	12	22	34	49	66	76	86	109	135	163	194	264	345	437	540	653	rf
60	32	58	90	129	176	202	230	291	360	435	518	705	921	1165	1438	1740	gpm
	13	24	37	53	72	83	94	119	147	178	212	288	377	477	589	712	rf
65	34	60	94	135	183	211	240	303	374	453	539	734	958	1213	1497	1811	gpm
	14 3E	26 62	40 97	57	78	90 218	102	129 315	159 388	193 470	230 559	313 761	408	517 1258	638 1554	772 1880	rf
70	35 15	27	43	140 62	190 84	97	249 110	139	172	208	247	337	994 440	556	687	831	gpm rf
	36	64	101	145	197	226	257	326	402	486	579	788	1029	1303	1608	1946	gpm
75	17	29	46	66	90	103	118	149	184	223	265	361	471	596	736	890	rf
_	37	66	104	149	203	234	266	336	415	502	598	814	1063	1345	1661	2010	gpm
80	18	31	49	71	96	110	126	159	196	237	283	385	502	636	785	950	rf
or	39	68	107	154	210	241	274	347	428	518	616	839	1096	1387	1712	2071	gpm
85	19	33	52	75	102	117	133	169	209	252	300	409	534	676	834	1009	rf
90	40	70	110	159	216	248	282	357	440	533	634	863	1127	1427	1762	2132	gpm
,,,	20	35	55	79	108	124	141	179	221	267	318	433	565	715	883	1069	rf
95	41	72	113	163	222	255	290	366	452	547	652	887	1158	1466	1810	2190	gpm
	21	37	58	84	114	131	149	189	233	282	336	457	597	755	932	1128	rf
100	42	74	116	167	227	261	297	376	464	562	668	910	1188	1504	1857	2247	gpm rf
	22 43	39 76	61 119	88 171	120 233	138 268	157 304	199 385	245 476	297 576	353 685	481 932	628 1218	795 1541	981 1903	1187 2302	
105	23	41	64	93	126	145	165	209	258	312	371	505	659	835	1030	1247	gpm
	44	78	122	175	239	274	312	394	487	589	701	954	1246	1577	1948	2356	gpm
110	24	43	67	97	132	152	173	219	270	327	389	529	691	874	1079	1306	rf
	45	80	124	179	244	280	319	403	498	602	717	976	1274	1613	1991	2409	gpm
115	25	45	71	102	138	159	181	229	282	341	406	553	722	914	1128	1365	rf
120	46	81	127	183	249	286	325	412	509	615	732	997	1302	1648	2034	2461	gpm
120	26	47	74	106	144	166	188	238	294	356	424	577	754	954	1178	1425	rf
125	47	83	130	187	254	292	332	420	519	628	747	1017	1329	1682	2076	2512	gpm
	28	49	77	110	150	172	196	248	307	371	442	601	785	994	1227	1484	rf
130	48	85	132	191	259	298	339	429	529	640	762	1037	1355	1715	2117	2562	gpm
	29	51	80	115	156	179	204	258	319	386	459	625	816	1033	1276	1544	rf
135	49	86	135	194	264	303	345	437	539	653	777	1057	1381	1748	2157	2611	gpm rf
	30 49	53 88	83 137	119	162 269	186 309	212 352	268 445	331 549	401 665	477 791	649 1077	848 1406	1073 1780	1325 2197	1603 2658	
140	31	55	86	124	168	193	220	278	343	416	495	673	879	1113	1374	1662	gpm
	50	89	140	201	274	314	358	453	559	676	805	1096	1431	1811	2236	2706	gpm
145	32	57	89	128	174	200	228	288	356	430	512	697	911	1152	1423	1722	rf
150	51	91	142	205	279	320	364	461	569	688	819	1114	1455	1842	2274	2752	gpm
150	33	59	92	132	180	207	236	298	368	445	530	721	942	1192	1472	1781	rf
175	55	98	154	221	301	345	393	497	614	743	884	1204	1572	1990	2456	2972	gpm
1/3	39	69	107	155	210	241	275	348	429	519	618	841	1099	1391	717	2078	rf
200	59	105	164	236	322	369	420	532	657	794	945	1287	1681	2127	2626	3177	gpm
	44	79	123	177	240	276	314	397	491	594	707	962	1256	1590	1963	2375	rf

PCFD Fireground Hydraulics

Smooth Bore Nozzle - 50 PSI Nozzle Pressure
Chief Combination Nozzle - 50 PSI Nozzle Pressure
Smooth Bore Master Stream - 80 PSI Nozzle Pressure
R.A.M. Ground Monitor - 75 PSI Nozzle Pressure

Hose Size	Flowing	Friction Loss per 100 Feet of Hose
1 3/4"	150 GPM	26 PSI
2 1/2"	300 GPM	21 PSI

Chief 40	00-17 Combo Nozzle		1 3/16" Smooth Bore Nozzle
	1 3/4"		2 1/2"
100 Feet	75 PSI	100 Feet	70 PSI
200 Feet	100 PSI	200 Feet	90 PSI

EL = Elevation Loss	Add 5 PSI per floor (or 10') going up	Subtract 5 PSI per floor (or 10') going down

Master Stream Smooth Bore Tips					
1-3/8" Tip (Smallest)	502 GPM				
1-1/2" Tip	598 GPM				
1-3/4" Tip	814 GPM				
2" Tip (Largest)	1063 GPM				

	R.A.M. Ground Monitor
100 Feet 2 1/2"	130 PSI
200 Feet 2 1/2"	185 PSI
300 Feet 2 1/2"	240 PSI

AFL = Appliance Friction Loss
Only account for over 350 GPM
15 psi - Deck Gun
10 psi - R.A.M. Portable Monitor
25 psi - Standpipe/Sprinkler
5 psi - Wye/Siamese

5" Hose - Do Not Exceed 180 PSI Pump Discharge Pressure
Never exceed Pump Discharge Pressure of 250 psi
Intake (residual pressure) should never drop below 20 psi
Supplying other engines (relay pumping) :Start at 50 psi
Sprinkler Systems/FDC :Pump at 150 psi

Wye - Add GPMs from both nozzles
* For two equal lines, calculate PDP for one

PDP = FL + NP + EL (if applicable) + AFL (if applicable)



#509 - Emergency Medical Technician (EMT) Training Agreement

Date Issued: 7/31/2007 Date Last Revised: 11/2/2022

This training agreement is en	tered into between the City of Polk City and	. The agreement is for the
member of the Polk City Fire	Department to complete	that
starts in	and for the City of Polk City to pay for the certific	ation program.

Member agrees to:

- 1. Meet the requirements for successful course completion and certification by the Iowa Department of Public Health, Bureau of Emergency and Trauma Services.
- 2. While enrolled as a student in this program the member shall:
 - a. Complete all mandatory department training programs.
 - b. Maintain department participation standards.
- 3. Sign a "Grade Release Form" in order that the Department may track the student's progress and status.
- 4. After obtaining EMT certification, the member shall participate as a EMT for the Polk City Fire Department for a minimum of one year from their certification date.
- 5. If he/she fails to successfully complete the training program including the certification process, the member shall reimburse the City of Polk City 100% of the program cost paid for by the city.
 - a. The Fire Chief may waive or modify this requirement to reimburse the City of Polk City should the member's inability to complete the program or certification process be due to personal injury, illness, or family emergency.
 - b. The member's signature to this agreement shall allow the City of Polk City to withhold this amount from their paycheck.
- 6. If he/she fails to participate as a EMT for a minimum of one year from the certification date, the member shall reimburse the City of Polk City 50% of the program cost paid for by the city.
 - a. The Fire Chief may waive or modify this requirement to reimburse the city should the member's inability to complete the program or certification process be due to personal injury, illness or family emergency.
 - b. The member's signature to this agreement shall allow the City of Polk City to withhold this amount from their paycheck.
- 7. If legal action must take place in order to enforce this agreement, the member who has signed this agreement shall be responsible for all fees and costs incurred, including but not limited to attorney fees for both parties and court costs.



#509 - Emergency Medical Technician (EMT) Training Agreement

Date Issued: 7/31/2007 Date Last Revised: 11/2/2022

The Polk City Fire Department agrees to:

- 1. Pay the registration fee for the member upon acceptance into the program.
- 2. Pay program tuition, textbooks, and applicable course fees.
- 3. Pay examination fees for the first examination. Subsequent attempts to pass the exams will only be paid for by city upon successful completion and certification. A maximum of three exam attempts will be paid for by the city.
- 4. Allow an exemption from the 50% training/meeting attendance requirement while the member is completing the didactic portion of the program.

Signatures below indicate acceptance by the member and the Polk City Fire Department to the terms of this training agreement.

Member Name	Date Signed
Karla Hogrefe. Fire Chief	Date Signed



#510 – Paramedic Training Agreement

Date Issued: 7/31/2007 Date Last Revised: 08/04/2022

This training agreement is ente	red into between the City of Polk City and	The
agreement is for the member of	f the Polk City Fire Department to complete the	Paramedic
program that starts in	and for the City of Polk City to assist with costs of	the Paramedic Program.

Member agrees to:

- 1. Submit their request in writing to the Fire Chief expressing their interest in obtaining pre-approval for Paramedic Program assistance. This request will be reviewed by the Officer Group and approved at the Officer Group's discretion.
- 2. Meet the college requirements for successful course completion and certification by the Iowa Department of Public Health, Bureau of EMS.
- 3. While enrolled as a student in this program the member shall:
 - a. Complete all mandatory department training programs.
 - b. Maintain department participation standards.
- 4. After obtaining Advanced EMT or Paramedic certification, the member shall participate at the minimum requirements as an Advanced EMT or Paramedic for the Polk City Fire Department for a minimum of three years from their certification date.
- 5. If he/she fails to successfully complete the training program including the certification process, the member shall reimburse the City of Polk City 100% of the program cost paid for by the city.
 - a. The Fire Chief may waive or modify this requirement to reimburse the City should the member's inability to complete the program or certification process be due to personal injury, illness or family emergency.
 - b. The member's signature to this agreement shall allow the City of Polk City to withhold this amount from their paycheck.
- 6. If he/she fails to participate as an Advanced EMT or Paramedic for a minimum of three years from the certification date, the member shall reimburse the City of Polk City 50% of the program cost paid for by the city.
 - a. The Fire Chief may waive or modify this requirement to reimburse the City should the member's inability to complete the program or certification process be due to personal injury, illness or family emergency.



#510 – Paramedic Training Agreement

Date Issued: 7/31/2007 Date Last Revised: 08/04/2022

- b. The member's signature to this agreement shall allow the City of Polk City to withhold this amount from their paycheck.
- 7. In the event that legal action must take place in order to enforce this agreement, the member who has signed this agreement shall be responsible for all fees and costs incurred, including but not limited to attorney fees for both parties and court costs.

Eligibility

- 1. Must be off of Polk City orientation process to be eligible, unless hired as a POC member.
- 2. Must be in good standing (meeting and preferably exceeding the minimum shift and training requirements, without performance issues, and otherwise showing a strong commitment to the mission of the Polk City Fire Department).

Employed by Other Transport EMS Agencies

If a member is also employed by another transport EMS agency, consideration for payment will be based on an equal percentage shared by the other agency. (Example: Member A is also employed by Neighboring Community X Transport EMS Agency, Polk City would limit consideration of eligible expense to 50%).

Written Agreement

Any assistance program shall be made in writing and signed by the requesting member and the Fire Chief.

If approved, the Polk City Fire Department agrees to:

- 1. Pay the registration fee for the member upon acceptance into the program.
- 2. Pay 67% of the program tuition, textbooks and applicable course fees following the below schedule.
 - a. Term 1 payment of ½ of the 67% paid directly to the school.
 - b. Term 2 payment of ¼ of the 67% paid directly to the school.
 - c. Term 3 payment of the remaining ½ of the 67% reimbursed to the student upon successful completion and certification.
- 3. Pay examination fees for the first examination. Any additional testing costs will be up to the student.
- 4. Allow an exemption from the training/meeting attendance requirement while the member is completing the didactic portion of the program.



#510 – Paramedic Training Agreement

Date Issued: 7/31/2007 Date Last Revised: 08/04/2022

Signatures below indicate acceptance by the member and the Polk City Fire Department to the term training agreement.		
Member Signature	Date Signed	
Karla Hogrefe - Fire Chief	Date Signed	



#513 – Continuous Quality Improvement - Fire

Date Issued: 12/18/2008 Date Last Revised: 12/30/22

Purpose:

The purpose of this SOG is to clearly define the Polk City Fire Department's guidelines for Continuous Quality Improvement (CQI) - Fire. CQI is defined as the process by which a minimum set of training standards are being met in a competent manner by all members of the department.

CQI Goals:

- A. Meet Polk City Fire Department SOP #112 Membership Requirements
- B. Meet NFPA 1001, Standard for Fire Fighter Professional Qualifications
- C. Meet Iowa Administrative Code 661-251.101(100B) Minimum Training Standard
- D. Meet Polk City Fire Department SOG# 134 Firefighter EMT Job Description

Definitions:

<u>Emergency Incident</u> – any incident to which personnel of the Polk City Fire Department respond involving a fire or other hazardous situation.

<u>Structural Fire Fighting</u> – fire fighting in a hazardous environment, requiring the use of self-contained breathing apparatus.

CQI Process:

Each member of the Polk City Fire Department shall have completed the training requirements identified in the job performance requirements for the Fire Fighter I classification in NFPA 1001 prior to member's engaging in structural fire fighting. The Training Division must ensure each member engaged in structural fire fighting has met the annual minimum training standards specified in this requirement prior to the member's engaging in structural fire fighting.

Each member shall participate in at least 24 hours of continuing training annually, which shall be selected from the following subject areas:

- Personal protective equipment and respiratory protection
- Structural fire fighting techniques including SOP or SOGs
- Ground ladders
- Hose and hose appliances
- Ventilation
- Forcible entry
- Search and rescue techniques
- Firefighter safety
- Incident management system or incident command system
- Emergency vehicle driver-operator



#513 - Continuous Quality Improvement - Fire

Date Issued: 12/18/2008 Date Last Revised: 12/30/22

- Hazardous materials first responder operations level
- Emergency medical service (EMS) training
- Additional training based on SOP or SOGs
- Other OSHA related training, such as blood-borne pathogen protection
- Specialty training
- Emergency response to terrorism
- Any other training designed to meet local training needs

Any member of the Polk City Fire Department who serves in a capacity other than structural fire fighting at an emergency incident shall have received training based on the duties the member might perform at an emergency incident and meet their specific job description.

The Fire Chief has final CQI approval.

Recordkeeping:

Trainings are recorded by the Training Division in Image Trend. If there are any outside trainings, please let the training division know with proof of certification.



City Council Agenda Communication

Date: January 9, 2023 City Council Meeting
 To: Mayor Steve Karsjen & City Council
 From: Chelsea Huisman, City Manager

Subject: Set pay for Fire Chief Karla Hogrefe

BACKGROUND: Karla Hogrefe was appointed Fire Chief July 11, 2022. She has successfully completed her first 6 months of employment and is eligible for an increase in pay at 6 months. I am recommending a 3% increase effective January 9, 2023, which is the beginning of the pay period for the increase to take effect. Her new salary will be \$95,790.

ALTERNATIVES: Do not approve

FINANCIAL CONSIDERATIONS: The increase in pay is a budgeted expense.

RECOMMENDATION: It is my recommendation that the City Council approve setting Karla's annual salary at the increased rate.



City Council Agenda Communication

Date: January 9, 2023

To: Mayor, City Council, & City Manager

From: Karla Hogrefe - Fire Chief

Subject: Full-Time Pay Increase Approval

BACKGROUND: Full-time Firefighter/Paramedic Riley Noggle is eligible for her 6-month review pay increase. Riley continues to go above and beyond for the department, and we are fortunate to have her. Riley currently makes \$19.57 per hour.

ALTERNATIVES: N/A

FINANCIAL CONSIDERATIONS: Increase Riley's pay from \$19.57 per hour to \$20.16 per hour, which is a 3% pay increase.

RECOMMENDATION: I recommend a pay increase for Riley Noggle to be approved for a 3% increase effective at the start of the next pay period, January 9, 2023.



City Council Agenda Communication

Date: January 9, 2023 City Council Meeting
 To: Mayor Steve Karsjen & City Council
 From: Jason Thraen, Parks & Recreation Director

Subject: Parks & Recreation Department Updates for December 2022

- 1. Staff, along with Go Polk City, hosted "Light Up Polk City" on Friday, December 2nd. This family-friendly holiday event included the traditional lighting of the square, visits with Santa, character appearances, horse drawn "sleigh" rides, vendors and demonstrations, and local organization/business involvement. According to data provided by *Placer*, estimated attendance was 1800.
- 2. Staff applied for Tree City USA and the Growth Award for 2022. Both recognitions are offered by the Arbor Day Foundation.
- 3. December programming included Start Smart Basketball, Senior Social Hour, and a Winter Break Youth Day Trip.
- 4. Sports Complex baseball/softball fields had 0 reservations in December. 276 total field reservations in 2022.
- 5. Community Center had 0 private rentals in December. 9 total rentals in 2022.
- 6. Miller Park Shelter House had 7 private rentals in December. 47 total rentals in 2022.



CITY OF POLK CITY VOLUNTEER BOARDS & COMMISSIONS APPLICATION

The City of Polk City has a variety of volunteer opportunities on boards and commissions for the following purposes:

advise the City Council

hear and make decisions on appeals and variances

assist in the planning of parks, recreational programs, land use and zoning, and operations assist in the promotion of educational, cultural, economic and general welfare of the public assist in the promotion of performing and fine arts programming

assist with management of library services

All board and commission members must be Polk City Residents. Applicants are appointed by the Mayor and confirmed by the City Council. Terms for the boards and commissions vary and are established by the Municipal Code. All meetings of the boards and commissions are open to the public and agendas are prepared and available for public viewing.

For more information, contact the City Clerk's Office by phone at 515-984-6233 or e-mail support@polkcityia.gov.

APPLICANT INFORMATION

Last Name	First	MI
Ten Napel	Darren	L
Street Address	City/State	Zip
206 Burton Dr	Polk City, IA	50226
Phone Number	Email	
515-370-2554	d10napel@gmail.com	
Employer Name	Job Title	Length of residency
Daimler Truck North America	Strategic Operations Supervisor	in Polk City 10 months

Please check the following Board or Commission you are interested in serving:

Library Board of Trustees	Planning and Zoning Commission
Park Commission	Board of Adjustment
○ Tree Board	Other (please specify)

What knowledge and/or understanding of the Board/Commission do you have?

Very little, I am a Project Management Professional and have the interests of our city's youth at the top of my personal list of priorities. My goal is to provide the city a parent of young children viewpoints and opinions.

Please check the following areas of knowledge and/or expertise you possess:

Financial Management	Х	Land Use Planning
Community Groups	Х	Engineering
Conflict Resolution	Х	Other: Project Management, Youth Sports Management

What education, experiences or activities qualify you for this volunteer position?

I am a certified Project Management Professional, I've managed several projects and have experience in Continuous Improvement, Lean, Management and Conflict Resolution. I am the Board President of Polk City Little League and have children that are currently 7 and 5, who I hope can use and enjoy the parks and recreation opportunities that are currently and will be available in Polk City for years to come.

Why do you wish to serve on the Board or Commission?

Positively impact the decisions that impact our cities youth. Grow the opportunities available in our city for parks and recreation. I think I can add a perspective that has observed and grown in similar sized communities that have differing options and opportunities for the area youth than what are currently available. I am objective and am willing to have my mind changed by data and facts, while also choosing to speak for the betterment of the community rather than having any personal agendas.

Please indicate	yes	no
Would you be able to attend regularly scheduled meetings?	х	
Do you sell, contract or furnish supplies, material or labor to the City?		х
Have you ever been employed by the City?		х
Do you have any relatives working for the City?		х

References

Name	
Josh Reed	
Name	
Jordan Mondt	
Name	
Phillip Carpenter	

Thank you for your interest in volunteering with the City of Polk City.

If not selected, your application will be retained for one year. This application is a public document and as such can be viewed, reproduced or distributed to the public.

In applying for appointment, you understand the City Council may make inquiries in the community pertinent to your appointment.



City Council Agenda Communication

Date: January 9, 2023

To: Mayor, City Council, and City Manager

From: Karla Hogrefe – Fire Chief

Subject: New POC Hire Pay Rate Approval

BACKGROUND: We have the opportunity to hire a paid on call Firefighter, Matthew Stern. Matthew lives in Polk City and has his Fire Certifications. He is working on getting enrolled in the DMACC EMT program. Matthew currently works for the City of Ames as a Community Codes Liaison and is an active member of the Iowa Air National Guard. Matthew will be a great addition to the Polk City Fire Department.

We also have an opportunity to hire another Polk City resident as a paid on call member, Matthew Reetz. Matthew does not have any certifications as of yet, but is looking forward to being able to help his community. Matthew is also looking at getting enrolled in EMT class and we will be doing an in-house Firefighter I class for him. Matthew works for C.J. Foods as an Account Manager.

ALTERNATIVES: None

FINANCIAL CONSIDERATIONS: The only impact this will have is wages during orientation. Once a new employee is oriented, they will only work available shifts.

RECOMMENDATION: To hire both individuals as Paid On Call Members with the listed stipulation(s) and request approval of pay rate:

Matthew Stern, paid on call Firefighter position at a rate of \$16.75 per call.

Matthew Reetz, paid on call member position at a rate of \$16.00 per call.



SITE PLAN REVIEW

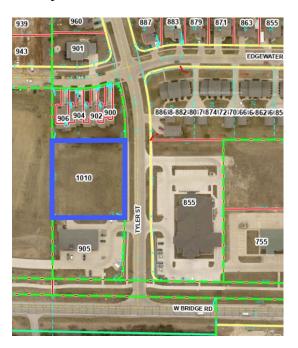
Date: January 6, 2023 Prepared by: Kathleen Connor

Travis Thornburgh, P.E.

Project: Lake Front Office Park – Lot 1 Project No.: 122.1532.01

GENERAL INFORMATION:

Owner/ Applicant:	Iron House Properties, LLC
Requested Action:	Approval of Site Plan
Location	1010 Tyler Street North of Bridge Road & West of Tyler Street
Size:	0.99 acres
Zoning:	C-2 Commercial
Proposed Use:	Office/Retail (Low Volume) Restaurant (Drive-thru) Restaurant (Sit Down)



BACKGROUND:

Shane Torres on behalf of Iron House Properties, LLC, proposes construction of a single story, 7,700 square feet mixed use building with an approximately 1,000 square feet covered patio on the north end of the building. The proposed location was originally platted as Lot 1 of the Lake Front Office Park Plat 1 subdivision, recorded on May 23, 2016 and is zoned C-2 Commercial district.

The proposed building will offer 4 tenant spaces, with the northernmost space (3,448 SF indoor with 990 SF patio) being designated as a restaurant space with covered patio, the southernmost space (1,303 SF) being designated as a café restaurant space, and the middle two spaces being designated as future office or retail space (1,202 SF & 1,201 SF). The building includes sprinkler and mechanical rooms (50 SF) to serve all tenants. The proposed uses are in general compliance with the C-2 commercial district. The restaurant on the north side of the building will have a door on the west side of the building that will allow customers direct access from the west parking area.

The building will be constructed primarily of "Vintage Black" brick and wainscot masonry, along with accent stone around the retail entrances. Parapet walls will be extended to conceal the bulk of the roof-mounted mechanical units at the front and sides of the building and fiber cement screening wall will conceal the units at the rear (west side) of the building.

The Traffic Memo prepared by McClure Engineering estimated the trip generation to be 42 new trips during the AM peak, based on one high-turnover (sit down) restaurant and one coffee/donut shop with drive-thru with no more than 10 seats, and with the remainder as office or retail space.

The developer is proposing a parking lot that wraps around the building and provides space for five cars to queue at the drive-thru window without obstructing parking stalls. Since the proposed parking lot does not provide enough parking stalls to meet code, the developer signed an Agreement for shared parking and ingress/egress between Lots 1 and 2 Lake Front Office Park Plat 1. P&Z and staff believe this arrangement is acceptable, given the varying peak times based on use of these buildings. The Blanket Agreement is set up so the stalls in front of both buildings are primarily available for customer parking, with restrictions on the location for employee parking and company trailers and vehicles which can be enforced by the City. The Agreement also covers the shared trash enclosure, bike rack and access thereto, and monument sign.

As part of the construction, the developer will be modifying the existing detention basin located on Lot 1 of Lake Front Office Park Plat 1. Utilities will be extended to the building to serve the tenants, including a shared grease trap that will be maintained by the property owner.

Plant materials will be installed as part of the site plan to meet Polk City's open space and headlight screening requirements. The developer has proposed construction of a 6' wooden fence along the north property line in addition to the existing Type 'B' buffer trees to provide additional screening from the existing residential lots north of the proposed site.

The developer proposes protection of the existing 5' sidewalk along the Tyler Street and will replace any damaged sidewalk following construction operations.

The Polk City Zoning Regulations require site plans to provide adequate off-street parking based on the proposed uses that are developed. According to Section 165.17 of the Zoning Regulations, the uses of this site plan would require 58 total parking stalls. The developer has proposed installation of 49 new parking stalls and wishes to meet the required number of parking stalls through a shared parking agreement and easement to share parking stalls with the existing ReMax building on Lot 2 of the Lake Front Office Park. The current uses of Lot 2, an eye care clinic and real estate office, experience the heaviest traffic loading during the daytime hours, while the proposed uses of Lot 1 are most likely to experience heavy traffic in the early morning or evening hours.

REVIEW COMMENTS: Pursuant to P&Z's recommendation at their December meeting, all review comments have been addressed.

RECOMMENDATION:

Based on the foregoing, P&Z and staff recommend approval of the Site Plan for Lake Front Office Park Lot 1 Site Plan, subject to the following:

- 1. Council approval of the blanket agreement covering the parking stalls, ingress/egress, trash enclosure, bike rack, and monument sign that shall be shared between Lots 1 and 2.
- 2. Council approval of the Stormwater Management Facility Maintenance Covenant and Permanent Easement Agreement.
- 3. The developer shall record all Agreements and Easements and provide a copy of the recorded documents to the City Clerk prior to issuance of a Building Permit for this Lake Front Office Park Lot 1.
- 4. Payment in full of all fees and professional billings.

RESOLUTION NO. 2023-03

A RESOLUTION APPROVING THE SITE PLAN AND EASEMENTS FOR LAKE FRONT OFFICE PARK – LOT 1

WHEREAS, Shane Torres on behalf of Iron House Properties LLC., submitted a Site Plan for Lake Front Office Park – Lot 1 in Lakefront Office Park Plat 1, located at 1010 Tyler Street; and

WHEREAS, on November 21, 2022 the Polk City Planning & Zoning Commission met and recommended approval of the Site Plan, subject to completion of the City Engineer's review comments and recommendations being satisfactorily addressed; and

WHEREAS, the City Engineer has reviewed the Site Plan and accompanying documents including easements and agreements and recommends Council approval of the same subject to the following:

- there shall be no more than 10 seats permitted indoors in the Café tenant space;
- no restaurant uses of any type shall be permitted in the Future Tenant 1 and Tenant 2 low-volume office/retail spaces; and
- Developer shall provide recorded copies of all Agreements and Easements prior to issuance of a Building Permit.

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Polk City, Iowa hereby accepts the recommendations of the Planning and Zoning Commission, City Engineer and deems it appropriate to approve the Site Plan for Lake Front Office Park – Lot 1; including the Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement and the Blanket Easement re: Shared Facilities; subject to (1) a maximum of 10 indoor seats permitted within the Café tenant space, (2) no restaurant uses of any type are permitted in the tenant 1 and 2 office/retail spaces, and (3) Developer's provision of recorded copies of all Agreements and Easements prior to issuance of a Building Permit on said Lot 1.

PASSED AND APPROVED the 9 day January 2023.

	Steve Karsjen, Mayor	
ATTEST:		
Jenny Coffin, City Clerk		

LAKE FRONT OFFICE PARK - LOT 1

1010 TYLER STREET, POLK CITY, IOWA

EROSION AND SEDIMENT CONTROL PLAN

INDEX OF SHEETS

DESCRIPTION

COVER SHEET

DIMENSION PLAN

LANDSCAPE PLAN

GRADING PLAN

UTILITY PLAN

VICINITY MAP

NOT TO SCALE



POLK CITY, IOWA

OWNER / DEVELOPER

IRON HOUSE PROPERTIES LLC CONTACT: SHANE TORRES 905 W BRIDGE RD STE 2 POLK CITY, IA 50226 PH: (515) 984-0222

ENGINEER

CIVIL DESIGN ADVANTAGE, LLC CONTACT: ERIN OLLENDIKE 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 PH. (515) 369-4400 FX. (515) 369-4410

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC CONTACT: CHARLIE MCGLOTHLEN 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 PH. (515) 369-4400 FX. (515) 369-4410

DATE OF SURVEY

DECEMBER, 2015

BENCHMARKS

BM#1 BURY BOLT ON HYDRANT NE CORNER OF TYLER STREET AND WEST BRIDGE ROAD. ELEVATION=944.07

BM#2 BURY BOLT ON HYDRANT NE CORNER OF PARKER BLVD AND WEST BRIDGE ROAD. ELEVATION=904.04

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = SPRING 2023 ANTICIPATED FINISH DATE = FALL 2023

SUBMITTAL DATES

-SITE PLAN SUBMITTAL TO CITY #1: 10/26/2022 -SITE PLAN SUBMITTAL TO CITY #2: 11/09/2022 -SITE PLAN SUBMITTAL TO CITY #3: 11/15/2022 -SITE PLAN FINAL SUBMITTAL TO THE CITY: 01/05/2023

LEGAL DESCRIPTION

LOT 1 OF LAKE FRONT OFFICE PARK PLAT 1, CONTAINING 43,126 SF

ZONING

C2 - COMMERCIAL DISTRICT

PROJECT SITE ADDRESS

1010 TYLER STREET

DEVELOPMENT SUMMARY

0.99 ACRES (43,126 SF)

SETBACKS: FRONT = 25'

SIDE = 0' REAR = 35'

*FOR EACH FOOT THE FRONT YARD IS INCREASED OVER 25', THE REAR YARD MAY BE REDUCED PROPORTIONALLY.

PRINCIPAL USE:

OFFICE/RETAIL (LESS THAN 6,000 SF) CAFE (DRIVE-THROUGH) RESTAURANT (FULL SERVICE SITE-DOWN)

BUILDING FOOTPRINT:
TOTAL NET BUILDING = 7,220 SF TOTAL GROSS BUILDING = 7,700 SF

ESTIMATED NUMBER OF EMPLOYEES PER SHIFT FOR BUILDING: EARLY MORNING: 4 EMPLOYEES LUNCH HOUR: 8 EMPLOYEES EVENING HOURS: 15 EMPLOYEES

PARKING REQUIREMENTS:

OFFICE / RETAIL (LOW VOLUME) 1 / 400 SF RESTAURANT

1 SPACE PER 100 SQUARE FEET OF GROSS FLOOR AREA PLUS 1 SPACE FOR EVERY FOUR OUTSIDE SEATS PLUS RESERVOIR LANE CAPACITY EQUAL TO 5 SPACES PER DRIVE-IN WINDOW

REQUIRED: 4,817 SF OF RESTAURANT = 42 SPACES = 6 SPACES

2,403 OFFICE/ RETAIL (LOW VOLUME)

= 10 SPACES

= 58 SPACES

PATIO (40 SEATS)

TOTAL REQUIRED:

TOTAL PROVIDED: *SHARED PARKING

AGREEMENT WITH LOT 2

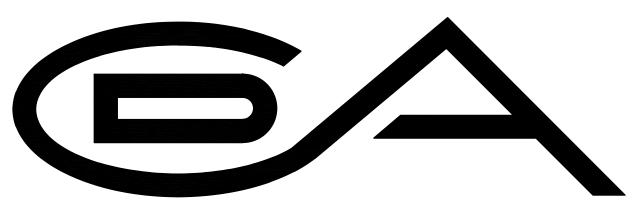
= *49 SPACES (2 ADA SPACES)



1-800-292-8989 www.iowaonecall.com

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.



CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322 PH: (515) 369-4400 Fax: (515) 369-4410 2207.507

GENERAL LEGEND PROPOSED PROJECT BOUNDARY LOT LINE SECTION LINE CENTER LINE RIGHT OF WAY -------PERMANENT EASEMENT — —P/E— — — — — TEMPORARY EASEMENT ——— т/E — ——— TYPE SW-501 STORM INTAKE TYPE SW-503 STORM INTAKE TYPE SW-505 STORM INTAKE TYPE SW-506 STORM INTAKE TYPE SW-513 STORM INTAKE TYPE SW-401 STORM MANHOLE TYPE SW-402 STORM MANHOLE TYPE SW-301 SANITARY MANHOLE

STORM/SANITARY CLEANOUT WATER VALVE FIRE HYDRANT ASSEMBLY 0000000000 DETECTABLE WARNING PANEL

(L-10)

(P-10)

------ 8"w ------

____w ___w ____

(U.A.C.)

(F.G.H.)

FFE

STORM SEWER STRUCTURE NO.

STORM SEWER PIPE NO.

SANITARY SEWER PIPE NO. SANITARY SEWER WITH SIZE

SANITARY SEWER STRUCTURE NO.

SANITARY SERVICE STORM SEWER STORM SERVICE WATERMAIN WITH SIZE WATER SERVICE SAWCUT (FULL DEPTH) SILT FENCE

USE AS CONSTRUCTED FINISH GRADE AT HYDRANT FINISH FLOOR ELEVATION TOP OF WALL

FINISHED GRADE AT WALL DOWNSPOUT LOCATION TOP OF CURB FORM GRADE

EXISTING

SANITARY MANHOLE WATER VALVE BOX FIRE HYDRANT WATER CURB STOP WELL STORM SEWER MANHOLE STORM SEWER SINGLE INTAKE STORM SEWER DOUBLE INTAKE FLARED END SECTION ROOF DRAIN/ DOWNSPOUT DECIDUOUS TREE CONIFEROUS TREE DECIDUOUS SHRUB CONIFEROUS SHRUB ELECTRIC POWER POLE GUY ANCHOR STREET LIGHT \bigcirc \prec POWER POLE W/ TRANSFORMER UTILITY POLE W/ LIGHT ELECTRIC BOX ELECTRIC TRANSFORMER ELECTRIC MANHOLE OR VAULT TRAFFIC SIGN TELEPHONE JUNCTION BOX TELEPHONE MANHOLE/VAULT TELEPHONE POLE GAS VALVE BOX CABLE TV JUNCTION BOX CABLE TV MANHOLE/VAULT MAIL BOX **BENCHMARK** SOIL BORING UNDERGROUND TV CABLE GAS MAIN FIBER OPTIC —— — FO— — — UNDERGROUND TELEPHONE OVERHEAD ELECTRIC UNDERGROUND ELECTRIC ————E———— FIELD TILE — — — TILE — — — SANITARY SEWER W/ SIZE -----8''S -----____15" RCP____ STORM SEWER W/ SIZE WATER MAIN W/ SIZE _____8''W _____

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF POLK CITY GRADING PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR TEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2022 EDITION OF SUDAS STANDARD SPECIFICATIONS, AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

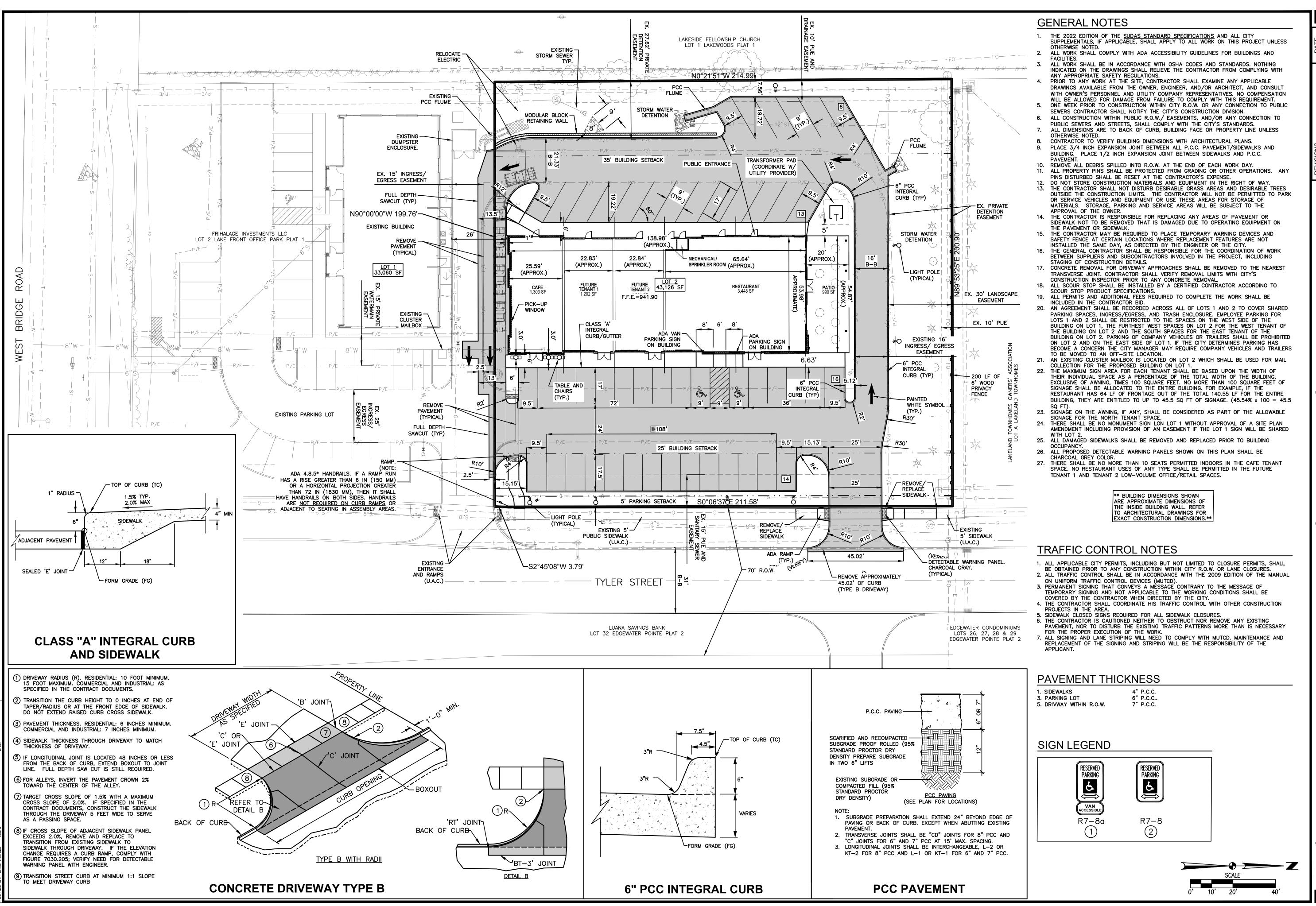


I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

ERIN K. OLLENDIKE, P.E.

01/05/2023

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023 PAGES OR SHEETS COVERED BY THIS SEAL: SHEETS 1-5

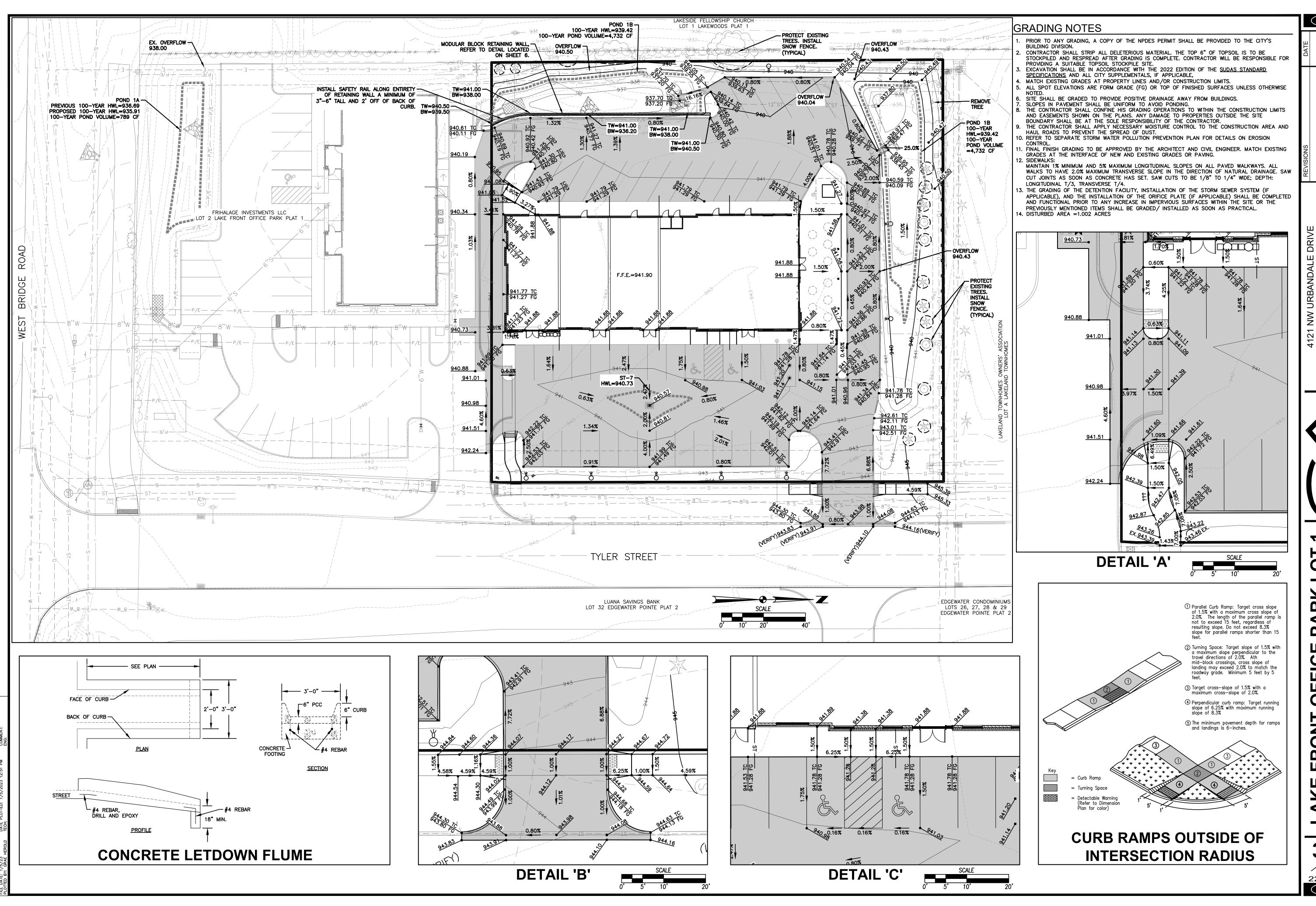


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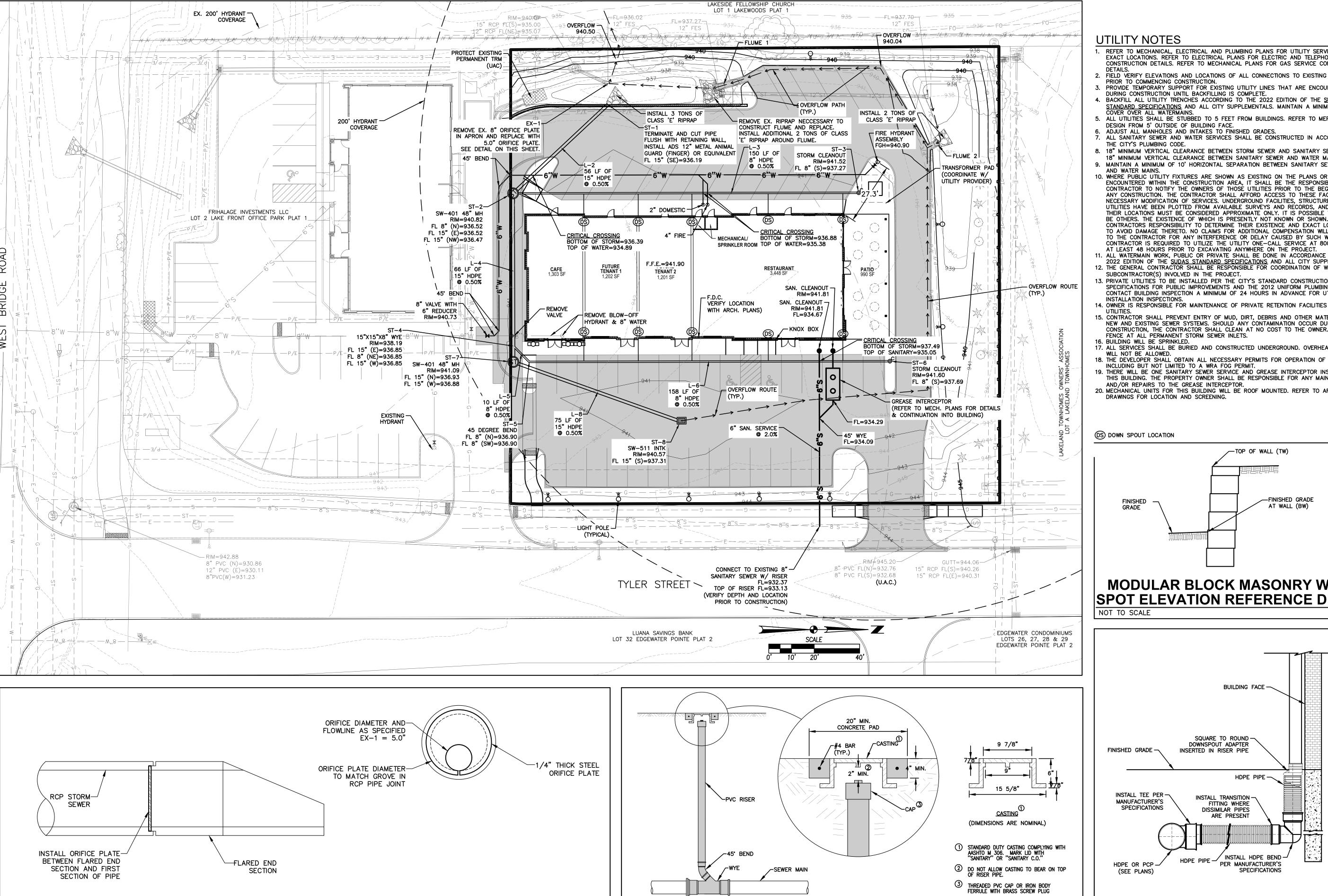
Ω 0 Z DIME

2207.507



GRADING

2207.507



***NOTE: REMOVE EX. 8" ORIFICE PLATE AND

REPLACE WITH 5.0" ORIFICE PLATE

ORIFICE PLATE DETAIL

NOT TO SCALE

CLEANOUT

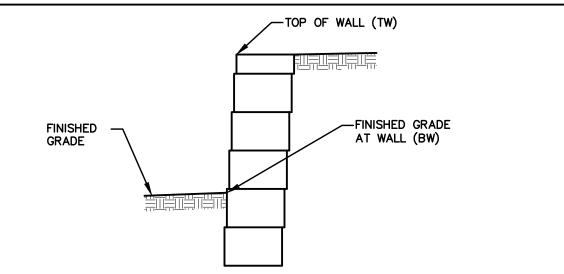
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SW-203 SANITARY CLEANOUT

UTILITY NOTES

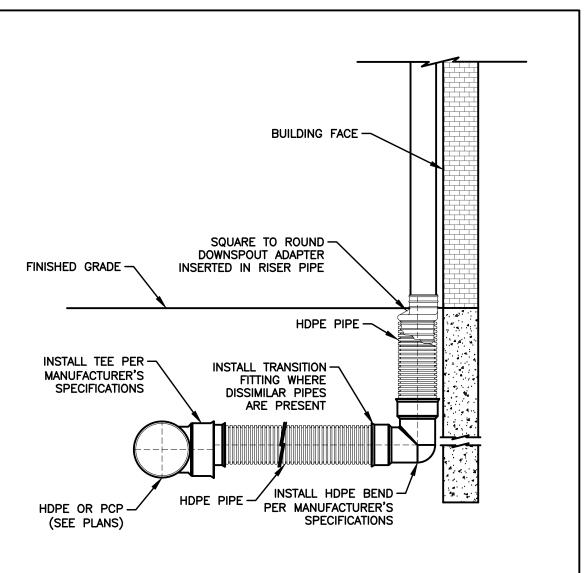
- 1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION
- 2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- 3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- 4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS. MAINTAIN A MINIMUM OF 5.5'
- 5. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
- 6. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. 7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH
- THE CITY'S PLUMBING CODE.
- 8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES.
- 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN. 9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
- ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- 11. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE
- 2022 EDITION OF THE <u>SUDAS STANDARD SPECIFICATIONS</u> AND ALL CITY SUPPLEMENTAL<u>S</u>
 12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- 13. PRIVATE UTILITIES TO BE INSTALLED PER THE CITY'S STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2012 UNIFORM PLUMBING CODE.
- CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. 14. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE RETENTION FACILITIES AND PRIVATE
- 15. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SILT
- 16. BUILDING WILL BE SPRINKLED. 17. ALL SERVICES SHALL BE BURIED AND CONSTRUCTED UNDERGROUND. OVERHEAD SERVICES WILL NOT BE ALLOWED.
- 18. THE DEVELOPER SHALL OBTAIN ALL NECESSARY PERMITS FOR OPERATION OF THE BUILDING, INCLUDING BUT NOT LIMITED TO A WRA FOG PERMIT.
- 19. THERE WILL BE ONE SANITARY SEWER SERVICE AND GREASE INTERCEPTOR INSTALLED FOR THIS BUILDING. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY MAINTENANCE
- 20. MECHANICAL UNITS FOR THIS BUILDING WILL BE ROOF MOUNTED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND SCREENING.

(DS) DOWN SPOUT LOCATION



MODULAR BLOCK MASONRY WALL SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE



ROOF DRAIN CONNECTION WITH TEE

NOT TO SCALE

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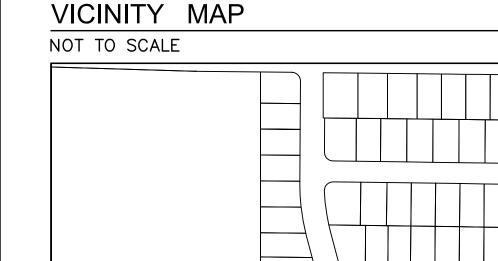
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RIV 322 15)

LAKE FRONT OFFICE PARK LOT 1

EROSION AND SEDIMENT CONTROL PLAN



PROJECT

WEST BRIDGE ROAD

EDGEWATER DRIVE

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	548
2	DITCH CHECKS	LF	96
3	SEEDING, FERTILIZING, AND MULCHING	AC	0.75
4	INLET PROTECTION DEVICES	EA	1
5	CONCRETE WASHOUT PIT	EA	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNKNOWN TRIBUTARY OF SAYLORVILLE LAKE ±2,500 FT TOTAL AREA DISTURBED TO DISCHARGE POINT STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)

VOLUME PROVIDED IN SILT FENCE (548 LF @ 4.5 CU FT/LF OF FENCE) VOLUME PROVIDED IN DITCH CHECK (96 LF @ 4.5 CU FT/LF) TOTAL VOLUME PROVIDED

1.00 ACRES 3,600 CU FT 5,480 CU FT

1,440 CU FT 6,920 CU FT

——8"W———8"W———8"W————8"W————8"W————8"W————8"W————8"W————8"W————8"W————8"W———8"W————8"W———8"W————8"W———8"W————8"W————8"W————8"W————8"W———8"W————8"W————8"W————8"W————8"W———8"W————8"W————8"W———8"W————8"W———8"W———8

NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT
- 2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALFNDAR DAYS
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- 4. TREE PROTECTION FENCE SHALL BE INSTALLED AND INSPECTED BY A POLK CITY CONSTRUCTION OBSERVER PRIOR TO CONSTRUCTION STARTING.

SWPPP LEGEND

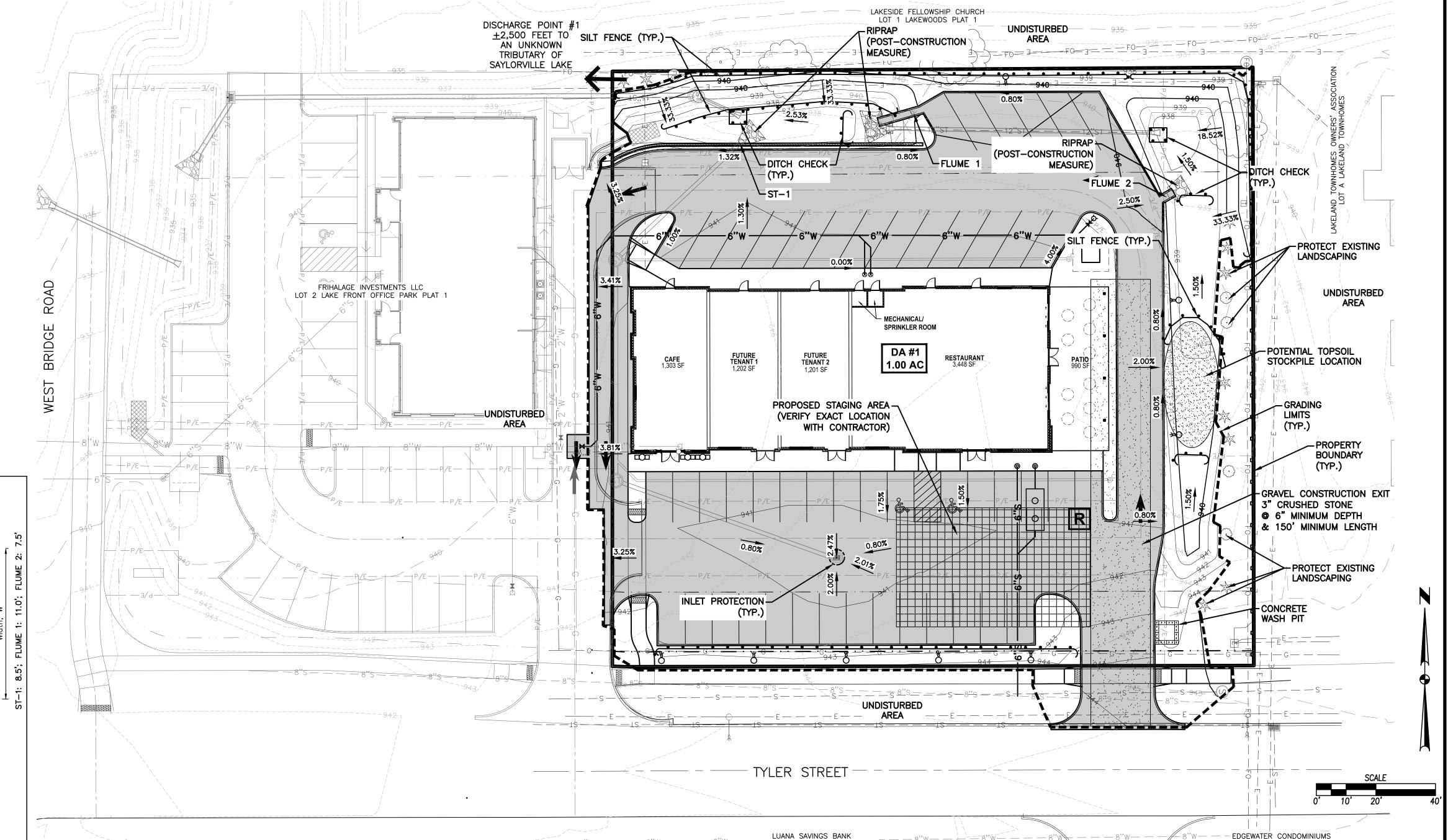
OVVIII LEGEIVE	<u> </u>		
DRAINAGE ARROW	X.XX %	UNDISTURBED AREA	
GRADING LIMITS			
FILTER SOCK		RIP-RAP	
SILT FENCE	• • • •		
INLET PROTECTION	0	GRAVEL ENTRANCE	
PORTABLE RESTROOM	R	STAGING AREA	
			• • • •

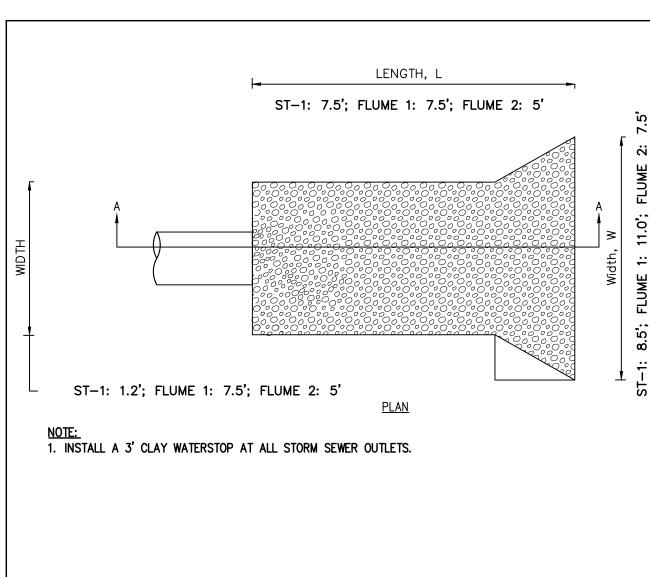
TEMPORARY STANDPIPE



CONCRETE WASHOUT PIT

LOTS 26, 27, 28 & 29 EDGEWATER POINTE PLAT 2

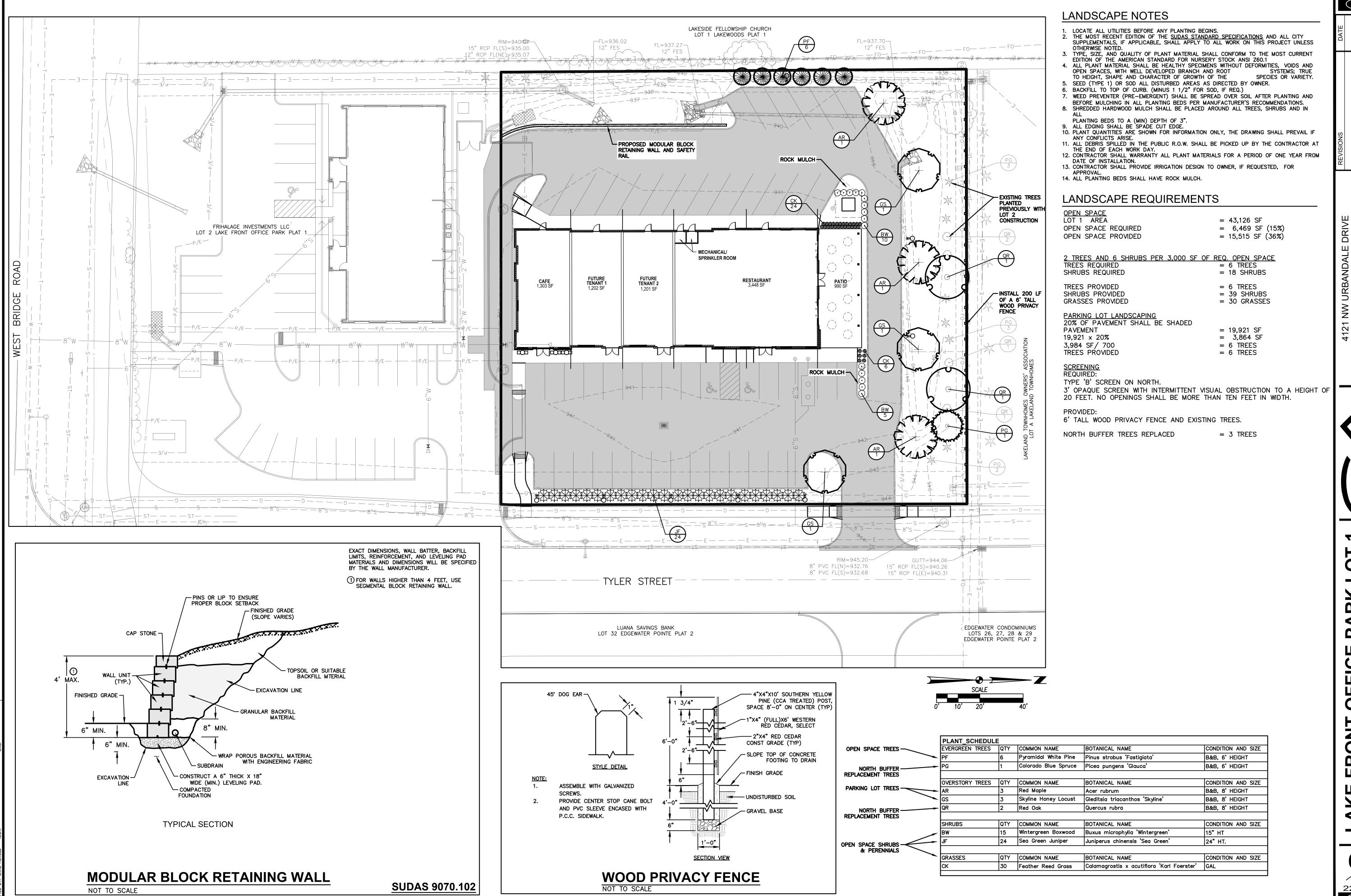




ROCK APRON FOR OUTLET

5 6 2207.507

OFFIC



DATE
01/05/2023
11/15/2022
11/09/2022

NAL SUBMITTAL 0
IIRD SUBMITTAL 1

121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 (515) 369-4400 FAX: (515) 369-4410

CIVIL DESIGN ADVANTAGE

-) |-

E FRONT OFFICE PARK

6 6 2207.507

This instrument prepared by:

SARAH BAUMGARTNER, TRESC, 7101 VISTA DRIVE, WEST DES MOINES IA 50266 Phone # (515)278-2226

Return document to and mail tax statements to:

SARAH BAUMGARTNER, TRESC, 7101 VISTA DRIVE, WEST DES MOINES IA 50266 Phone # (515) 278-2226

BLANKET EASEMENT RE SHARED FACILITIES

KNOW ALL MEN BY THESE PRESENTS: That Frihalage Investments, LLC, a limited liability company (hereinafter "Grantor"), in consideration of the sum of One Dollar (\$1.00) to be paid by the City of Polk City, lowa, and other good and valuable consideration, the receipt of which is hereby acknowledged by the Grantor, does hereby sell, grant and convey the Easements described in this Blanket Easement Re Shared Facilities (hereinafter the "Easement").

WHEREAS, Grantor owns legal title to the real property legally described as follows:

Lot 1 and Lot 2 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa

Locally known as: 905 West Bridge Road, Polk City, Iowa 50226 and 1010 Tyler ST, Polk City, Iowa 50226

WHEREAS, Grantor desires to encumber the Lots with perpetual Easement and right-of-way under, over, on, through, across and within the Lots describes as follows:

See Easement Plat in Exhibit "A"

(hereinafter the "Easement Area"), for the purpose of the shared parking, ingress/egress, trash enclosure, monument sign, and bike rack, together with necessary appurtenances thereto, over, under, through and across said Easement Area.

This Easement shall be subject to the following terms and conditions:

- Parking stalls in front of both buildings shall be available for customer parking at all times, with the exception of limited employee as follows:
 - a. Employee parking on Lake Front Office Park Plat 1, Lot 1 shall be restricted to only the parking stalls located on the west side of the building on Lot 1 only.
 - b. Employee parking on Lake Front Office Park Plat 1, Lot 2 shall be restricted to only the furthest west parking stalls on Lot 2 for the west tenant of the building on said Lot 2, and the south stalls for the east tenant of the building on said Lot 2.
- Parking of company vehicles or trailers shall be prohibited on Lake Front Office Park Plat 1, Lots 1 and 2, with the exception of the parking stalls on the west side of the building on Lot 1.
 - a. In the scenario the City Manager determines parking has become a concern for either lot in Lakefront Office Park Plat 1, the City Manager may require unhitched company trailers be moved to an off-site location
- 3. Both properties are entitled to the use of the trash enclosure, bike rack, and monument sign.
- 4. Both properties are entitled to the use of the ingress/egress. The ingress/egress also gives access rights to emergency vehicles.
- Erection of Structures Prohibited. Grantor shall not erect any structure, building, or fence over or within the Easement Area without obtaining the prior written approval of the City Engineer, except Grantor may construct driveway over the surface of such Easement area.
- Change of Grade Prohibited. Grantor shall not change the grade, elevation or contour of any part of the Easement area without obtaining the prior written consent of the City Engineer.
- 7. Maintenance of Easement. Each owner or occupant of a Lot upon which this Easement Area lies shall keep and preserve that portion of the Easement Area within such owner or occupant's property in good repair and condition at all times, and shall not plant or permit to grow any trees or vegetative growth which might reasonably be expected to obstruct or impair the sanitary sewers.
- 8. <u>Right of Access.</u> The City shall have the right of access to the Easement Area and have all rights of ingress and egress reasonably necessary for the use and enjoyment of the Easement Area as herein described, including, but not limited to, the right to remove any unauthorized obstructions or structures placed or erected on the Easement Area.
- Easement Runs With Land. The Easement shall be deemed to run with the land and shall be binding upon Grantor and Grantor's successors and assigns.

Grantor does hereby covenant with the City that Grantor holds said real estate described in this Easement by title in fee simple; that Grantor has good and lawful authority to convey the same; and said Grantor covenants to Warrant and Defend the said premises against the lawful claims of all persons whomsoever, except for the rights of the electric company or companies, the gas company or companies, the telephone company or companies, and the cable television company or companies providing electrical, gas, telephone or cable television services and the public utility easements over the same easement area as granted in this document.

Each of the undersigned hereby relinquishes all rights of dower, homestead and distributive share, if any, in and to the interest conveyed by this Easement.

Words and phrases herein, including the acknowledgement hereof, shall be construed as in the singular or plural number, as masculine or feminine gender, according to the context.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

Signed this 3rd day of January 2023.

Grantor: Frihalage Investments, LLC

Shane Torres, Member

STATE OF IOWA, COUNTY OF POLK, ss:

On this 3rd day of 2023 before me, the undersigned, a Notary Public in and for said County and State personally appeared Shane Torres, to me personally known, who being by me duly sworn, did say that he Member, executing the within and foregoing instrument and acknowledged that he executed the same as his voluntary act and deed of Frihalage Investments, LLC, by it and by him) voluntarily executed.

Notary Public in and for the State of Iowa

THERESA M SINCLAIR
Commission Number 784798
My Commission Expires
June 26, 2023

January 2023

Mounty 2023

Lake Front Office Park
By: Shane Torres, President
STATE OF IOWA, COUNTY OF POLK, ss:
On this 3rd day of 2023 before me, the undersigned, a Notar Public in and for said County and State personally appeared Shane Torres, to me personally known, who being by me duly sworn, did say that he President executing the within and foregoing instrument and acknowledged that he executed the same as his voluntary act and deed of Lake Front Office Park, by and by him) voluntarily executed.
Notary Public in and for the State of Iowa Notary Public in and for the State of Iowa Notary Public in and for the State of Iowa Notary Public in and for the State of Iowa
CITY OF POLK CITY, IOWA
I,, City Clerk of the City of Polk City, Iowa, do herebotertify that the within and foregoing easement was duly approved and accepted by the City Council of said City of Polk City by Resolution and Roll Call Note passed on (date), and this certificate is made pursuant to authority contained in said resolution
Printed Name:
Clerk of City of Polk City

THERESA M SINCLAIR

Commission Number 784798

My Commission Expires

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June 26, 2023

Thought Color

Bet January 2023

EXHIBIT A

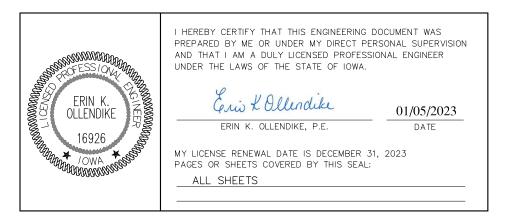
All of Lot 1 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa

All of Lot 2 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa

LAKE FRONT OFFICE PARK - LOT 1

STORM WATER MANAGEMENT PLAN POLK CITY, IOWA

CDA PROJECT NO. 2207.507





CIVIL DESIGN ADVANTAGE 4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 (515) 369-4400

PREPARED BY: CIVIL DESIGN ADVANTAGE, LLC

PREPARED ON: OCTOBER 26, 2022 REVISED ON: NOVEMBER 9, 2022 REVISED ON: NOVEMBER 15, 2022 REVISED ON: JANUARY 05, 2023



4121 NW Urbandale Dr Urbandale, Iowa 50322

PROJECT:	Lake Front Office Park - Lot 1	JOB NO	2207	7.507	Page	of	_Pages
SUBJECT:	Stormwater Calculations	DATE:	11/15/22	COMP. BY:	JWM	OK'D BY:_	

Project Description:

Existing Site Conditions

The proposed site is located at 1010 Tyler Street and contains 0.99 acres. The site was mass graded with Lake Front Office Park construction and is slated for commercial uses. Refer to the attached time of concentration, existing drainage map, and Hydraflow Hydrographs for detailed analysis of the existing site conditions.

Proposed Site Conditions

Proposed site improvements include one commercial building, private streets, parking, and associated utilities. Stormwater for the entire property will be conveyed via overland flowage and storm sewer to one of two existing detention basins installed with Lake Front Office Park ultimately outletting south to the road ditch along West Bridge Road. The off-site area will be allowed to pass through the detention basins without being detained. Due to the re-design of Pond 1B, DB 1A and DB 1B have been re-analyzed to confirm the post-developed release rates still meet allowable release rates.

Storm Water Analysis:

Detention Analysis

The first discharge point (DB 1A) is located on the west property boundary of Lake Front Office Park Lot 2. Originally designed to detain 0.74 acres, this discharge point has been modified to detain 0.55 acres per the updated topographic survey and proposed improvements. Detention is provided by a dry-bottom detention basin (Pond 1A) graded with Lake Front Office Park construction.

The second discharge point (DB 1B) is located near the northwest property boundary of Lake Front Office Park Lot 1. Originally designed to detain 0.91 acres, this discharge point has been modified to detain 1.10 acres per the updated topographic survey and proposed improvements. Detention is provided by a dry-bottom detention basin (Pond 1B), originally graded with Lake Front Office Park construction, that is proposed to be regraded with Lake Front Office Park Lot 1 improvements.

Detention Summary DB 1 (EXISTING AREA = 1.75 AC, PROPOSED AREA=1.75 AC)

	,		
Rainfall Return Frequency	(Allowable Release),	Post-Developed Runoff Release,	
(Yrs)	cfs*	cfs*	
<u> </u>	3.55	2.82	
ວ	3.55	2.02	
100	3.63	3.54	

^{*} INCLUDES ROUTING OF DB-1 OFFSITE (5-, 100-YEAR)

Detention Basin Summary

Dotomicion L	aoiii Ouiiiiii	<u> </u>					
	Bottom of Basin Elevation	100-yr Elevation	Detention Overflow Elevation	Detention Freeboard, Feet	100-year Release Rate, cfs	100-year detention volume, cf	Ponding Depth, Feet
POND 1A	933.68	935.91	938.00	2.09	4.16	789	2.23
POND 1B	936.02	939.42	940.50	1.08	1.17	4,732	3.40



4121 NW Urbandale Dr Urbandale, Iowa 50322

PROJECT:	Lake Front Office Park - Lot 1	JOB NO.	220	7.507	Page	of	Pages
SUBJECT:	Stormwater Calculations	DATE:	11/15/22	COMP. BY:	JWM	OK'D BY:	

Storm Water Analysis:

Storm Sewer Analysis

Since the original analysis called for a 5-year design storm and the storm sewer pipes have already been installed, the proposed storm sewer pipes are designed to convey the 5-year post-developed storm event with overflow paths defined to provided routing for larger storm events. The Rational Method will be used to determine the flow rate for each drainage area. Manning's equation will be used to size pipes.

Assumptions:

- * See attached Hydrologic Soil Map in the Appendix. For this analysis, Hydrologic Soil Group C will be used.
- * Assumed a 15 minute time of concentration for storm sewer design and post-developed conditions.
- * The runoff coefficients used to determine flow rates for the site are listed in the following table.

Land Use or Surface Characteristics	C Soils	
	<u>5-yr</u>	<u>100-yr</u>
Open Space - Fair Condition	0.45	0.55
Open Space - Good Condition	0.35	0.55
Commercial and Business	0.85	0.90
Impervious	0.95	0.98



DESIGN ADVANTAGE 4121 NW Urbandale Dr Urbandale, Iowa 50322

PROJECT: Lake Front Office Park - Lot 1 JOB NO. 2207.507 Page of Pages

SUBJECT: Stormwater Calculations DATE: 11/15/22 COMP. BY: JWM OK'D BY:

Storm Ser Post-Deve 5-Year/100-	eloped (Composite	e C-facto	or Calcula	tions		
Drainage	Lawn	Lawn	Imperv.	Imperv.	Total Area	Total Area	Composite
Area ID	C-factor	Area, SF	C-factor	Area, SF	SF	Acres	C-factor
DB 8	0.35	1227	0.95	8774	10001	0.23	0.88
DB 8	0.55	1227	0.98	8774	10001	0.23	0.93

Detention Basin Post-Developed Composite C-factor Calculations 100-Year							
Drainage	Lawn	Lawn	Imperv.	Imperv.	Total Area	Total Area	Composite
Area ID	C-factor	Area, SF	C-factor	Area, SF	SF	Acres	C-factor
DB 1A	0.55	7948	0.98	16179	24127	0.55	0.84
DB 1A UND	0.55	894	0.98	0	894	0.02	0.55
DB 1B	0.55	10307	0.98	37609	47916	1.10	0.89
DB 1B UND	0.55	3590	0.98	0	3590	0.08	0.55



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:12,000. Area of Interest (AOI) С Area of Interest (AOI) C/D Warning: Soil Map may not be valid at this scale. Soils D Enlargement of maps beyond the scale of mapping can cause Soil Rating Polygons misunderstanding of the detail of mapping and accuracy of soil line Not rated or not available Α placement. The maps do not show the small areas of contrasting **Water Features** soils that could have been shown at a more detailed scale. A/D Streams and Canals В Please rely on the bar scale on each map sheet for map Transportation measurements. B/D +++ Rails Source of Map: Natural Resources Conservation Service Interstate Highways Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov C/D **US Routes** Coordinate System: Web Mercator (EPSG:3857) D Major Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Not rated or not available Local Roads distance and area. A projection that preserves area, such as the Soil Rating Lines Albers equal-area conic projection, should be used if more accurate Background calculations of distance or area are required. Aerial Photography A/D This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Polk County, Iowa Survey Area Data: Version 17, Sep 15, 2015 Soil map units are labeled (as space allows) for map scales 1:50,000 C/D or larger. Date(s) aerial images were photographed: Data not available. Not rated or not available The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background Soil Rating Points imagery displayed on these maps. As a result, some minor shifting Α of map unit boundaries may be evident. A/D В B/D

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Polk County, Iowa (IA153)						
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
L236B	Lester loam, Bemis moraine, 2 to 6 percent slopes	С	1.0	52.6%		
L236C2	Lester loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded	С	0.9	47.4%		
Totals for Area of Inte	rest		1.9	100.0%		

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

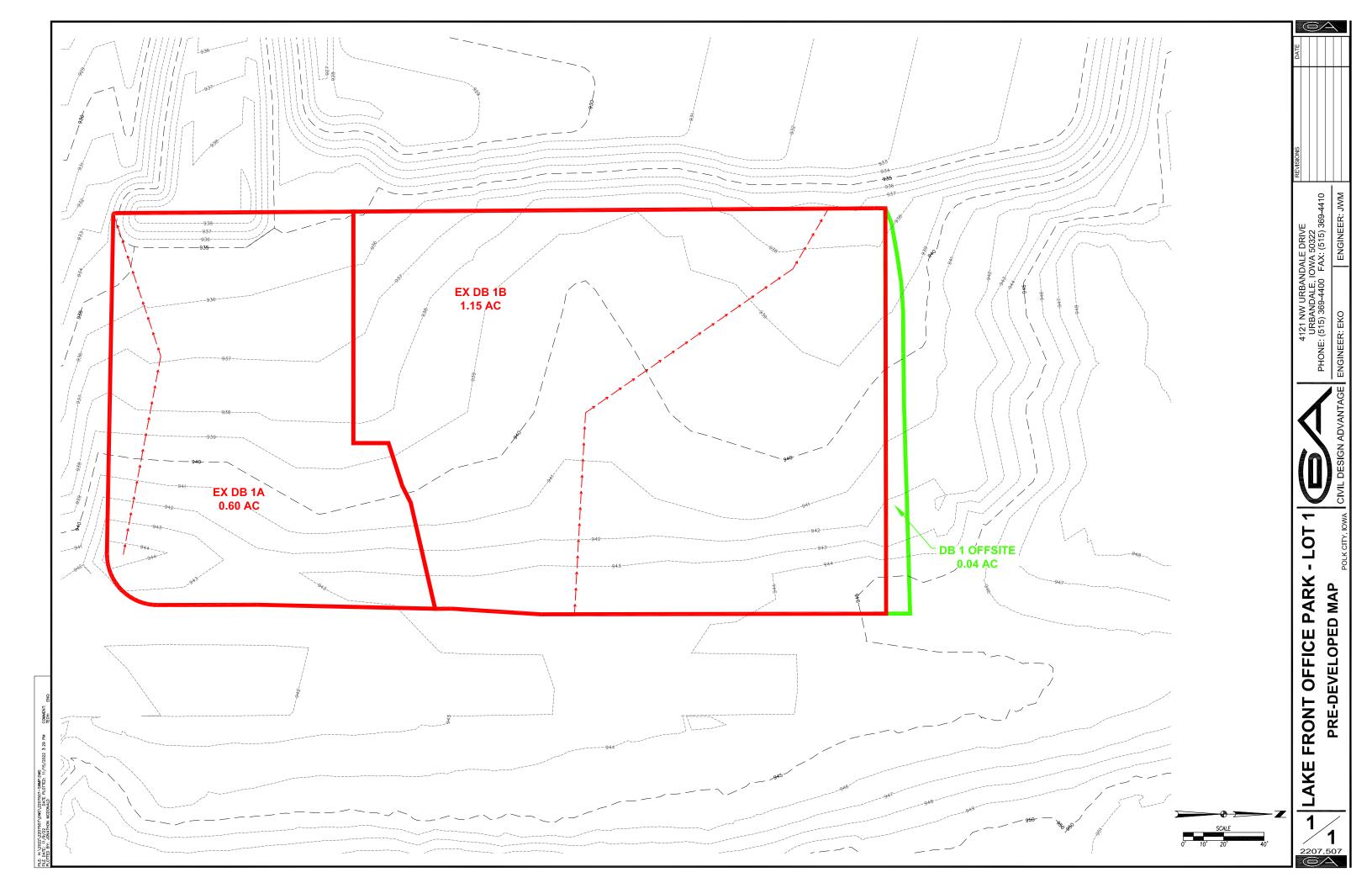
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher





CIVIL DESIGN ADVANTAGE

4121 NW Urbandale Drive Urbandale, IA 50322

PROJECT: Lake Front Office Park Lot 1 JOB NO. 2207.507 Page of Pages

SUBJECT: Storm Water Calculations DATE: 11/15/22 COMP. BY: OK'D BY:

Pre-Developed Time of Concentration:

Drainage Area: EX DB 1A

Sheet Flow:

Flow length, L_1 =	100 feet	
Land slope, s ₁ =	7.25 %	
Manning's n=	0.17	
2-Year 24-hr p ₂ =	3.08	

Travel time, $t_1 = 6.6$ minutes

Design Equation:

$$t_1 = \frac{0.007[(n)(L_1)]^{0.8}}{\sqrt{p_2(s)^{0.4}}}$$

Shallow Concentrated Flow:

Flow length, L ₂ =	74	feet
Land slope, s ₂ =	3.88	%
Ground Cover No. =	3	Table 1

Flow velocity, $v_2 = 1.37$ ft/sec Travel time, $t_2 = 0.9$ minutes

Table 1:

Ground Cover:	No.	Equati	on
Forest w/ heavy ground litter & meadow	1	$v_2 = s_2^{1/2} x$	2.516
Minimum tillage cultivation and woodlands	2	$v_2 = s_2^{1/2} x$	5.032
Short grass pasture & lawns	3	$v_2 = s_2^{1/2} x$	6.962
Cultivated straight row crops	4	$v_2 = s_2^{1/2} x$	8.726
Nearly bare ground	5	$v_2 = s_2^{1/2} x$	9.965
Grassed waterway	6	$v_2 = s_2^{1/2} x$	16.135
Paved area & shallow gutter flow	7	$v_2 = s_2^{1/2} x$	20.238

Channel Flow:

Flow length, L_3 =	0	feet
Land slope, s ₃ =	6.5	%
Manning's n =	0.035	
Left Slope =	6	:1
Bottom Width =	5	feet
Right Slope =	3	:1
Flow depth =	2	feet
Flow area, a =	28	ft ²
Wetted perim., $P_w =$	23.49	ft
Flow velocity, $v_3 =$	12.17	ft/sec
Travel time, t ₃ =	0.0	minutes

Design Equation:

$$v_3 = \frac{1.486(a/P_w)^{2/3}s_3^{1/2}}{n}$$

Time of Concentration, $t_c =$ minutes $t_c = t_1 + t_2 + t_3$



CIVIL DESIGN ADVANTAGE

4121 NW Urbandale Drive Urbandale, IA 50322

PROJECT: Lake Front Office Park Lot 1 JOB NO. 2207.507 Page of Pages

SUBJECT: Storm Water Calculations DATE: 11/15/22 COMP. BY: OK'D BY:

Pre-Developed Time of Concentration:

Drainage Area: EX DB 1B

Sheet Flow:

Flow length, L_1 = 100 feet Design Equation: Land slope, s_1 = 3.5 % $t_1 = \frac{0.007[(n)(L_1)]^{0.8}}{\sqrt{p_2(s)^{0.4}}}$ 2-Year 24-hr p_2 = 3.08

Travel time, $t_1 = 8.8$ minutes

Shallow Concentrated Flow:

		Ground Cover:	No.	Equati	ion
Flow length, L ₂ =	150 feet	Forest w/ heavy ground litter & meadow	1	$v_2 = s_2^{1/2} x$	2.516
Land slope, s ₂ =	2.41 %	Minimum tillage cultivation and woodlands	2	$v_2 = s_2^{1/2} x$	5.032
Ground Cover No. =	3 Table 1	Short grass pasture & lawns	3	$v_2 = s_2^{1/2} x$	6.962
,		Cultivated straight row crops	4	$v_2 = s_2^{1/2} x$	8.726
		Nearly bare ground	5	$v_2 = s_2^{1/2} x$	9.965
Flow velocity, $v_2 =$	1.08 ft/sec	Grassed waterway	6	$v_2 = s_2^{1/2} x$	16.135
Travel time, t_2 =	2.3 minutes	Paved area & shallow gutter flow	7	$y_2 = s_2^{1/2} x$	20.238

Table 1:

Channel Flow:

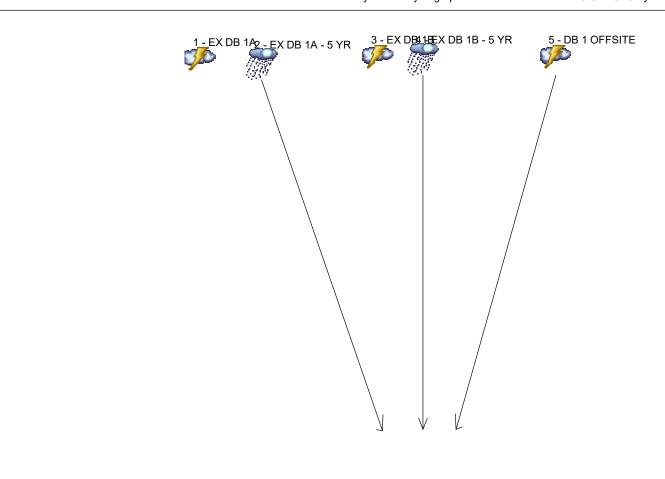
Flow length, $L_3 =$ 0 feet Design Equation: $v_3 = \frac{1.486(a/P_w)^{2/3}s_3^{1/2}}{n}$ Land slope, $s_3 =$ 6.5 % 0.035 Manning's n = 6 :1 Left Slope = Bottom Width = 5 feet 3 :1 Right Slope = 2 feet Flow depth = Flow area, a = 28 ft² Wetted perim., $P_w = 23.49 \text{ ft}$ Flow velocity, $v_3 = 12.17$ ft/sec q= 340.733 0.0 minutes Travel time, t₃ =

Time of Concentration, $t_c = 11.1$ minutes $t_c = t_1 + t_2 + t_3$

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Watershed Model Schematic	1
Hydrograph Return Period Recap	2
5 - Year Summary Report	
100 - Year Summary Report	
IDF Report	17

Watershed Model Schematic





<u>Legend</u>

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	EX DB 1A
2	Manual	EX DB 1A - 5 YR
3	Rational	EX DB 1B
4	Manual	EX DB 1B - 5 YR
5	Rational	DB 1 OFFSITE
6	Combine	DB 1 ALLOWABLE

Project: Pre-Developed.gpw

Hydrograph Return Period Recap

	Hydrograph	Inflow				Hydrograph					
lo.	type (origin)	hyd(s)	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	Description
1	Rational					1.635				2.478	EX DB 1A
2	Manual					1.640				1.640	EX DB 1A - 5 YR
3	Rational					2.719				4.203	EX DB 1B
4	Manual					2.720				2.720	EX DB 1B - 5 YR
5	Rational					0.152				0.234	DB 1 OFFSITE
6	Combine	2, 4, 5				3.557				3.634	DB 1 ALLOWABLE

Proj. file: Pre-Developed.gpw

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.635	1	7	687				EX DB 1A
2	Manual	1.640	1	7	871				EX DB 1A - 5 YR
3	Rational	2.719	1	11	1,795				EX DB 1B
4	Manual	2.720	1	11	1,912				EX DB 1B - 5 YR
5	Rational	0.152	1	10	91				DB 1 OFFSITE
6	Combine	3.557	1	11	2,875	2, 4, 5			DB 1 ALLOWABLE
Pre	-Developed.o	gpw			Return	Period: 5 Y	ear	Tuesday, 1	11 / 15 / 2022

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 1

EX DB 1A

Hydrograph type Peak discharge = 1.635 cfs= Rational Storm frequency Time to peak = 5 yrs= 7 min Time interval = 1 min Hyd. volume = 687 cuft Drainage area Runoff coeff. = 0.600 ac= 0.45Tc by User $= 7.00 \, \text{min}$ Intensity = 6.057 in/hrAsc/Rec limb fact IDF Curve = 1/1 = SampleFHA.idf



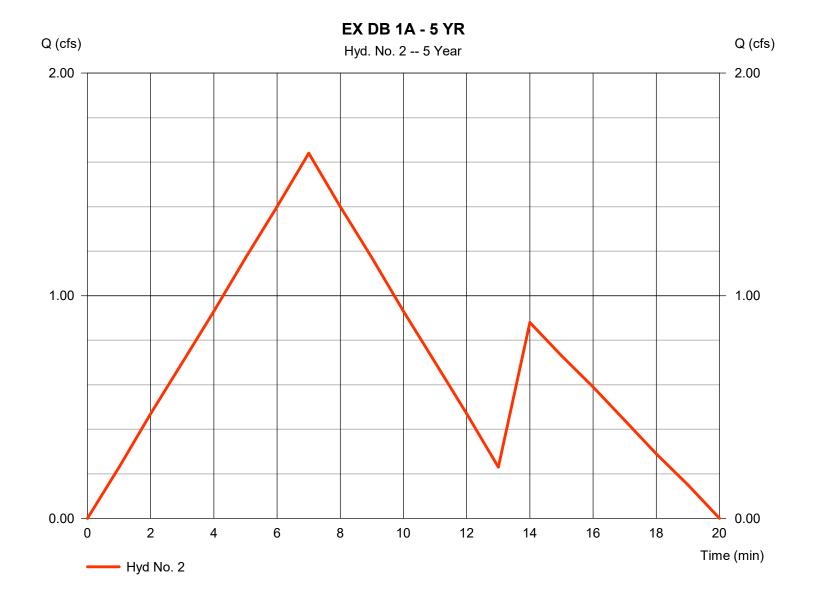
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 2

EX DB 1A - 5 YR

Hydrograph type = Manual Storm frequency = 5 yrs Time interval = 1 min Peak discharge = 1.640 cfs
Time to peak = 7 min
Hyd. volume = 871 cuft



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

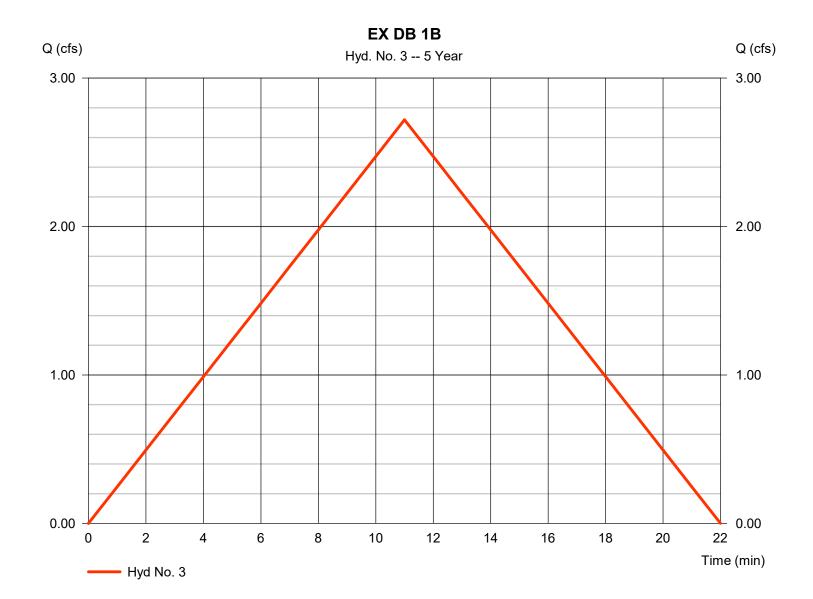
Tuesday, 11 / 15 / 2022

Hyd. No. 3

EX DB 1B

= 2.719 cfsHydrograph type = Rational Peak discharge Storm frequency = 5 yrsTime to peak = 11 min Time interval = 1 min Hyd. volume = 1,795 cuftDrainage area Runoff coeff. = 1.150 ac= 0.45Tc by User = 11.00 min Intensity = 5.254 in/hr

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

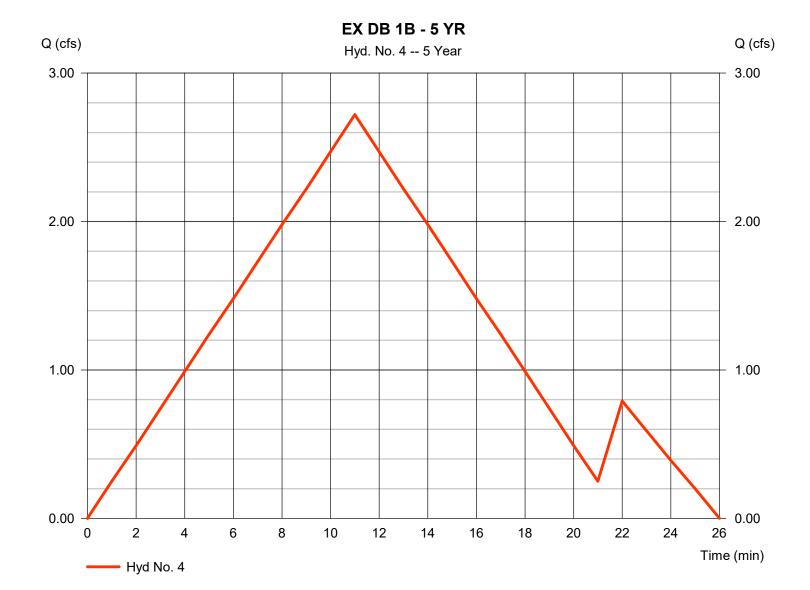
Tuesday, 11 / 15 / 2022

Hyd. No. 4

EX DB 1B - 5 YR

Hydrograph type = Manual
Storm frequency = 5 yrs
Time interval = 1 min

Peak discharge = 2.720 cfs Time to peak = 11 min Hyd. volume = 1,912 cuft



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

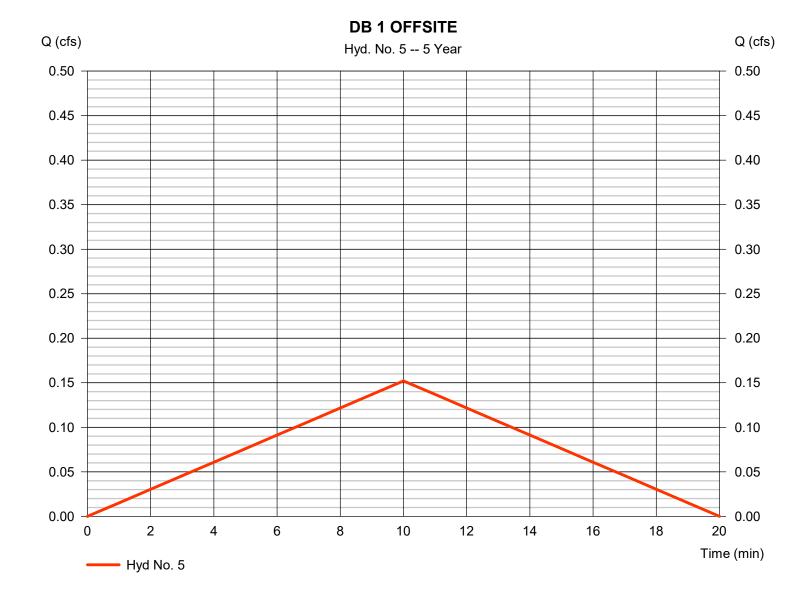
Tuesday, 11 / 15 / 2022

Hyd. No. 5

DB 1 OFFSITE

Hydrograph type = Rational Peak discharge = 0.152 cfsStorm frequency Time to peak = 5 yrs= 10 min Time interval = 1 min Hyd. volume = 91 cuft Drainage area Runoff coeff. = 0.7= 0.040 acTc by User $= 10.00 \, \text{min}$ Intensity = 5.432 in/hr

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



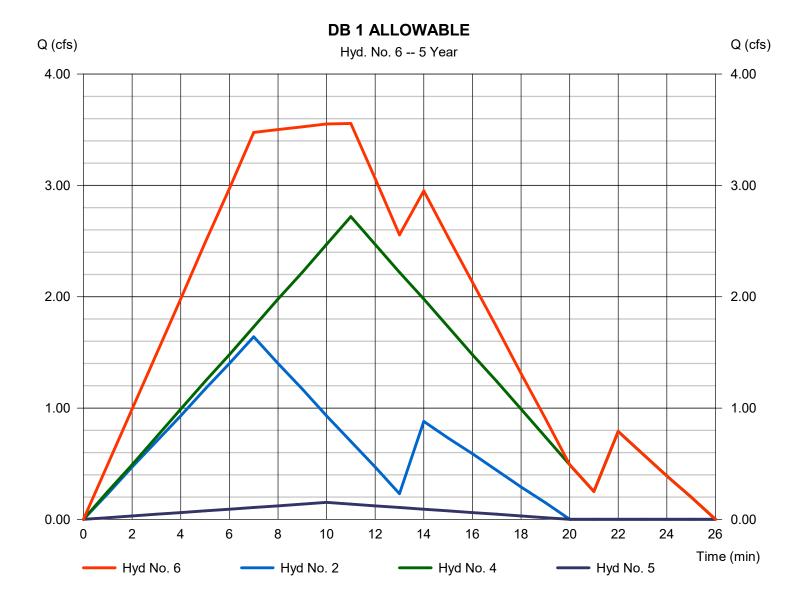
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 6

DB 1 ALLOWABLE

Hydrograph type = Combine Peak discharge = 3.557 cfsStorm frequency Time to peak = 5 yrs= 11 min Time interval = 1 min Hyd. volume = 2,875 cuft Inflow hyds. = 2, 4, 5Contrib. drain. area = 0.040 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	2.478	1	7	1,041				EX DB 1A
2	Manual	1.640	1	7	871				EX DB 1A - 5 YR
3	Rational	4.203	1	11	2,774				EX DB 1B
4	Manual	2.720	1	11	1,912				EX DB 1B - 5 YR
5	Rational	0.234	1	10	140				DB 1 OFFSITE
6	Combine	3.634	1	10	2,924	2, 4, 5			DB 1 ALLOWABLE
Pre	e-Developed.ç	gpw			Return	Period: 100	Year	Tuesday, 1	11 / 15 / 2022

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 1

EX DB 1A

Hydrograph type = 2.478 cfs= Rational Peak discharge Storm frequency = 100 yrsTime to peak = 7 min Time interval = 1 min Hyd. volume = 1,041 cuft Drainage area Runoff coeff. = 0.45= 0.600 acTc by User $= 7.00 \, \text{min}$ Intensity = 9.179 in/hr Asc/Rec limb fact IDF Curve = 1/1= SampleFHA.idf



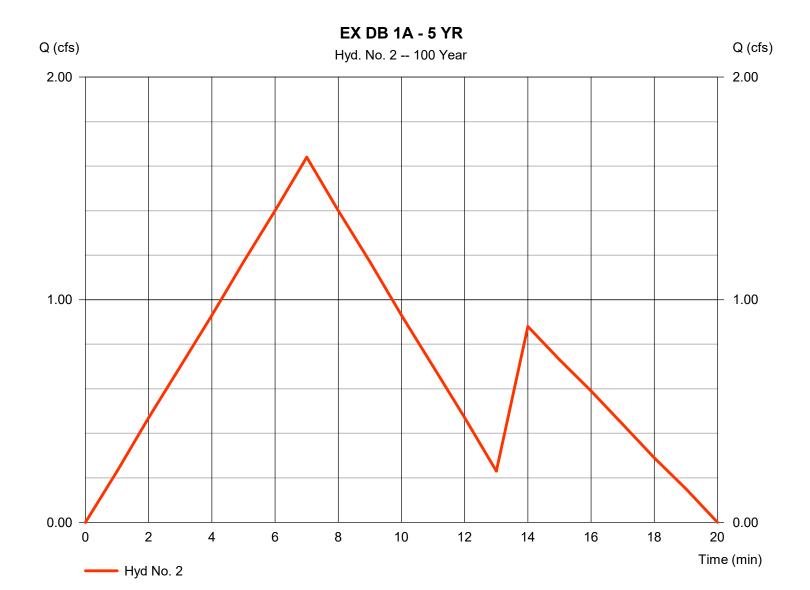
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 2

EX DB 1A - 5 YR

Hydrograph type= ManualPeak discharge= 1.640 cfsStorm frequency= 100 yrsTime to peak= 7 minTime interval= 1 minHyd. volume= 871 cuft



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

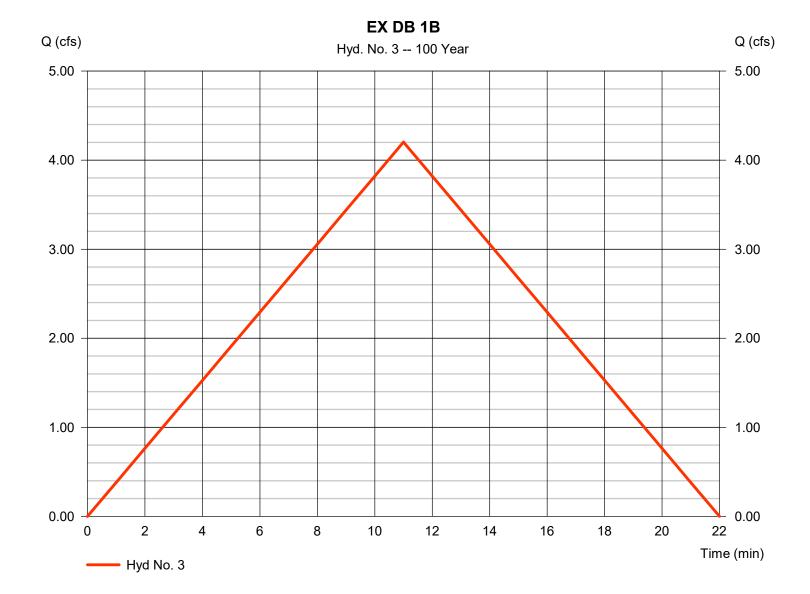
Tuesday, 11 / 15 / 2022

Hyd. No. 3

EX DB 1B

= Rational = 4.203 cfsHydrograph type Peak discharge Storm frequency = 100 yrsTime to peak = 11 min Time interval = 1 min Hyd. volume = 2,774 cuftDrainage area Runoff coeff. = 1.150 ac= 0.45Tc by User Intensity = 8.121 in/hr = 11.00 min

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

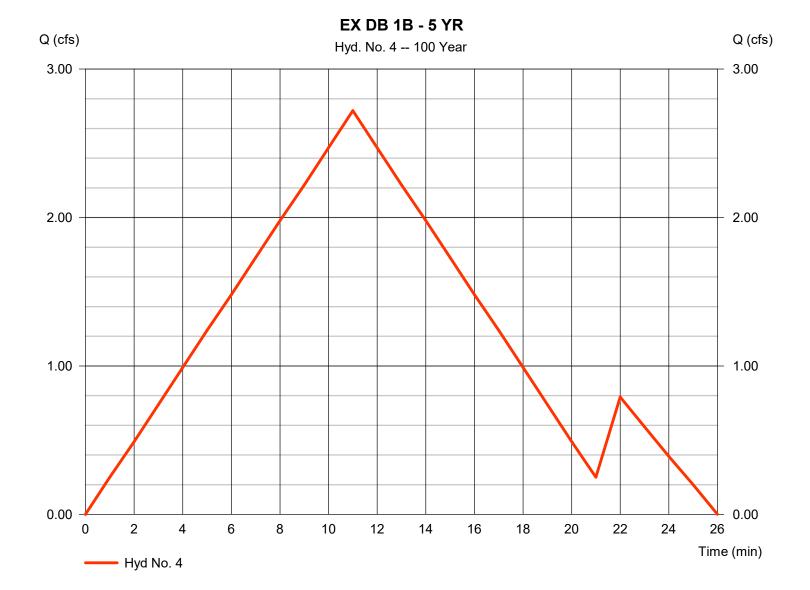
Tuesday, 11 / 15 / 2022

Hyd. No. 4

EX DB 1B - 5 YR

Hydrograph type = Manual F
Storm frequency = 100 yrs T
Time interval = 1 min F

Peak discharge = 2.720 cfs
Time to peak = 11 min
Hyd. volume = 1,912 cuft



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 5

DB 1 OFFSITE

= 0.234 cfsHydrograph type = Rational Peak discharge Storm frequency = 100 yrsTime to peak = 10 min Time interval = 1 min Hyd. volume = 140 cuft Drainage area Runoff coeff. = 0.040 ac= 0.7

Intensity = 8.360 in/hr Tc by User = 10.00 min

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



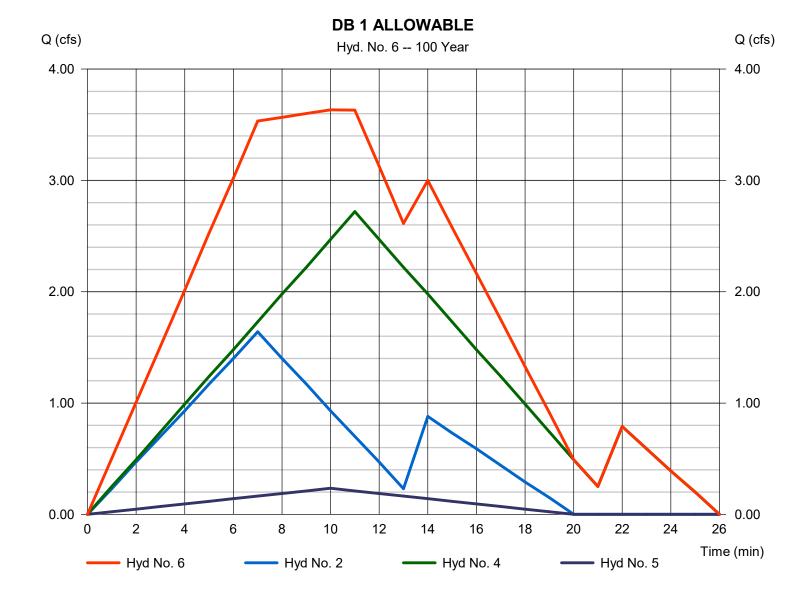
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 6

DB 1 ALLOWABLE

Hydrograph type = Combine Peak discharge = 3.634 cfsStorm frequency Time to peak = 100 yrs= 10 min Time interval = 1 min Hyd. volume = 2,924 cuft Inflow hyds. = 2, 4, 5Contrib. drain. area = 0.040 ac



Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Return Period	Intensity-Du	Intensity-Duration-Frequency Equation Coefficients (FHA)									
(Yrs)	В	D	E	(N/A)							
1	0.0000	0.0000	0.0000								
2	69.8703	13.1000	0.8658								
3	0.0000	0.0000	0.0000								
5	79.2597	14.6000	0.8369								
10	88.2351	15.5000	0.8279								
25	102.6072	16.5000	0.8217								
50	114.8193	17.2000	0.8199								
100	127.1596	17.8000	0.8186								

File name: SampleFHA.idf

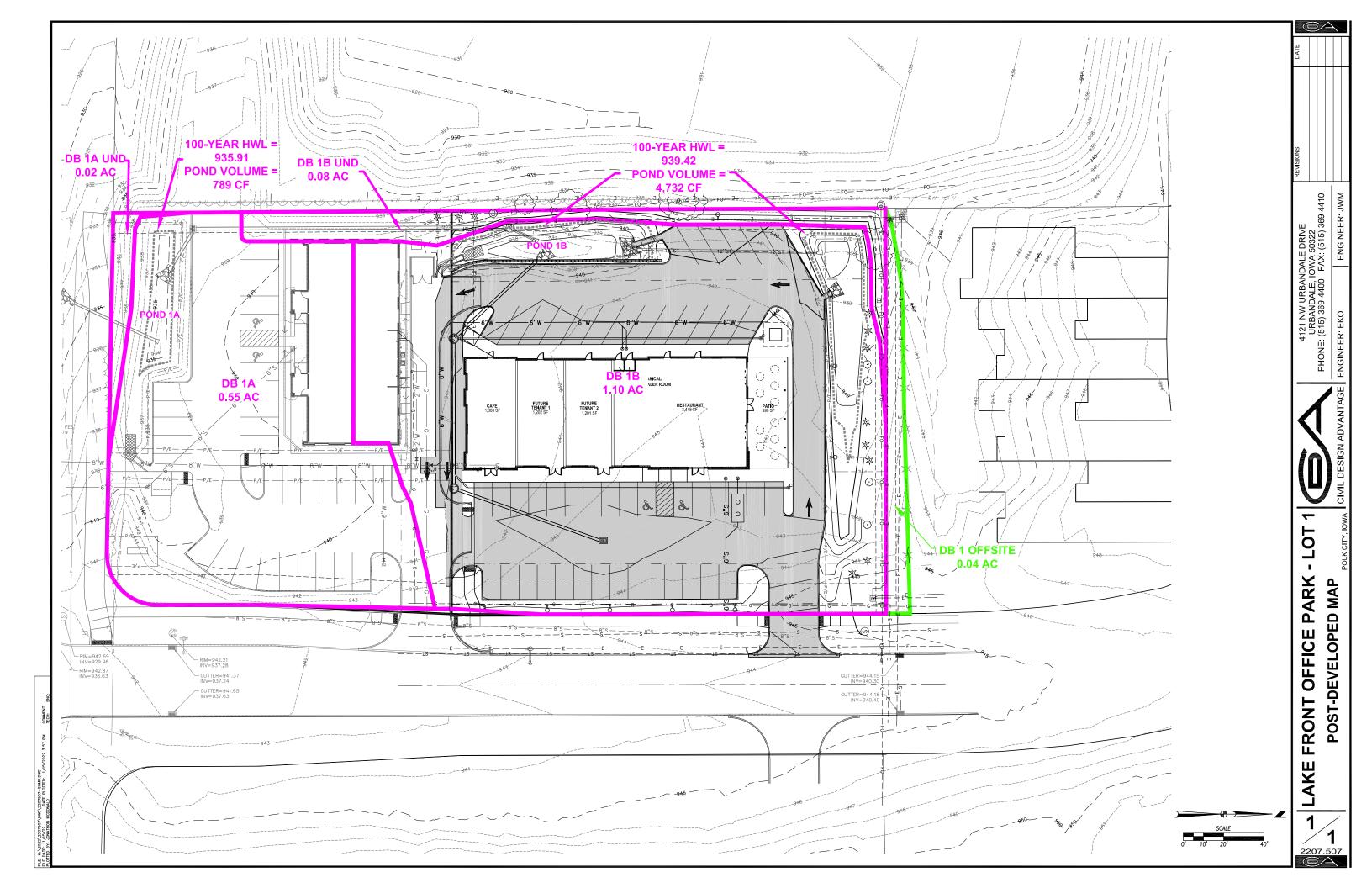
Intensity = $B / (Tc + D)^E$

Return		Intensity Values (in/hr)													
Period (Yrs)	5 min	10	15	20	25	30	35	40	45	50	55	60			
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2	5.69	4.61	3.89	3.38	2.99	2.69	2.44	2.24	2.07	1.93	1.81	1.70			
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
5	6.57	5.43	4.65	4.08	3.65	3.30	3.02	2.79	2.59	2.42	2.27	2.15			
10	7.24	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46			
25	8.25	6.95	6.03	5.34	4.80	4.38	4.02	3.73	3.48	3.26	3.07	2.91			
50	9.04	7.65	6.66	5.92	5.34	4.87	4.49	4.16	3.88	3.65	3.44	3.25			
100	9.83	8.36	7.30	6.50	5.87	5.36	4.94	4.59	4.29	4.03	3.80	3.60			

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

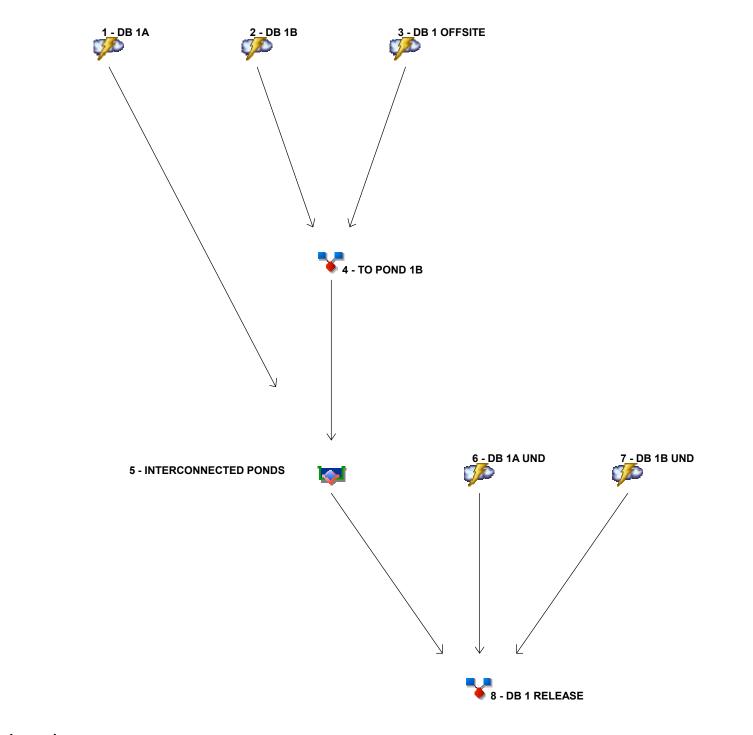
	Rainfall Precipitation Table (in)											
Storm Distribution	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr				
SCS 24-hour	0.00	0.00	0.00	3.81	0.00	0.00	0.00	7.12				
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

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Watershed Model Schematic



Legend

	10114	
<u>Hyd</u>	. <u>Origin</u>	<u>Description</u>
1	Rational	DB 1A
2	Rational	DB 1B
3	Rational	DB 1 OFFSITE
4	Combine	TO POND 1B
5	Reservoir(i)	INTERCONNECTED PONDS
6	Rational	DB 1A UND
7	Rational	DB 1B UND
8	Combine	DB 1 RELEASE

Project: Post-Developed.gpw

Hydrograph Return Period Recap

	Hydrograph	Inflow				Peak Out	tflow (cfs)	1			Hydrograph
lo.	type (origin)	hyd(s)	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	Description
1	Rational					2.510				3.862	DB 1A
2	Rational					5.208				8.083	DB 1B
3	Rational					0.152				0.234	DB 1 OFFSITE
4	Combine	2, 3				5.329				8.270	TO POND 1B
5	Reservoir(i)	4, 1				2.606				3.254	INTERCONNECTED PONDS
6	Rational					0.060				0.092	DB 1A UND
7	Rational					0.239				0.368	DB 1B UND
8	Combine	5, 6, 7				2.821				3.544	DB 1 RELEASE

Proj. file: Post-Developed.gpw

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	2.510	1	10	1,506				DB 1A	
2	Rational	5.208	1	12	3,750				DB 1B	
3	Rational	0.152	1	10	91				DB 1 OFFSITE	
4	Combine	5.329	1	12	3,841	2, 3			TO POND 1B	
5	Reservoir(i)	2.606	1	13	5,346	4, 1	938.83	3,143	INTERCONNECTED PONDS	
6	Rational	0.060	1	10	36				DB 1A UND	
7	Rational	0.239	1	10	143				DB 1B UND	
8	Combine	2.821	1	12	5,525	5, 6, 7			DB 1 RELEASE	
Pos	st-Developed	.gpw			Return I	Return Period: 5 Year			Tuesday, 11 / 15 / 2022	

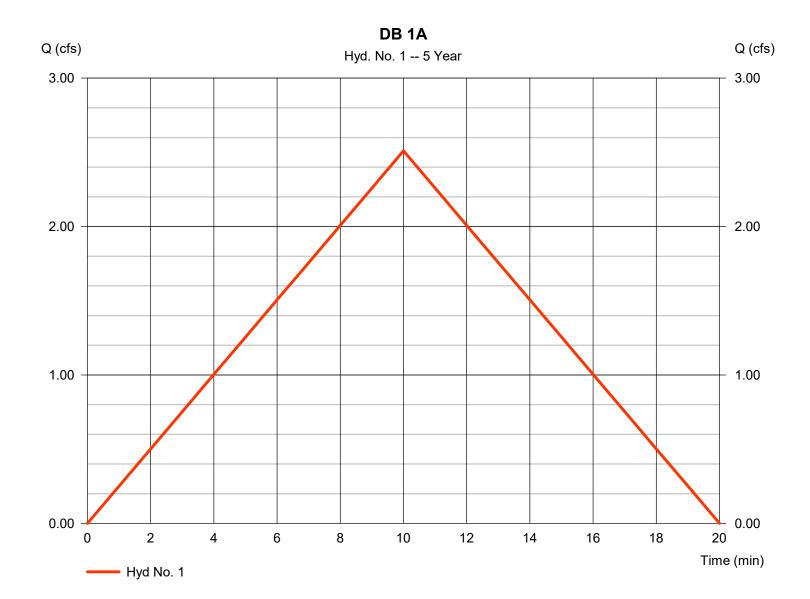
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 1

DB 1A

Hydrograph type = Rational Peak discharge = 2.510 cfsStorm frequency = 5 yrsTime to peak = 10 min = 1,506 cuft Time interval = 1 min Hyd. volume Drainage area Runoff coeff. = 0.550 ac= 0.84Tc by User $= 10.00 \, \text{min}$ Intensity = 5.432 in/hrAsc/Rec limb fact IDF Curve = 1/1= SampleFHA.idf



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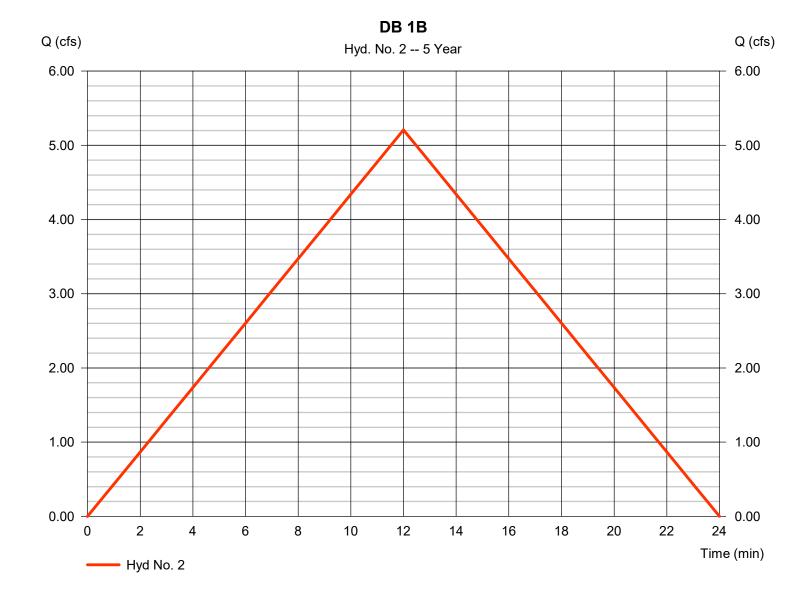
= SampleFHA.idf

Tuesday, 11 / 15 / 2022

Hyd. No. 2

DB 1B

Hydrograph type = Rational Peak discharge = 5.208 cfsStorm frequency = 5 yrsTime to peak = 12 min Time interval = 1 min Hyd. volume = 3,750 cuftDrainage area Runoff coeff. = 1.150 ac= 0.89Tc by User Intensity = 5.088 in/hr= 12.00 min Asc/Rec limb fact **IDF** Curve = 1/1



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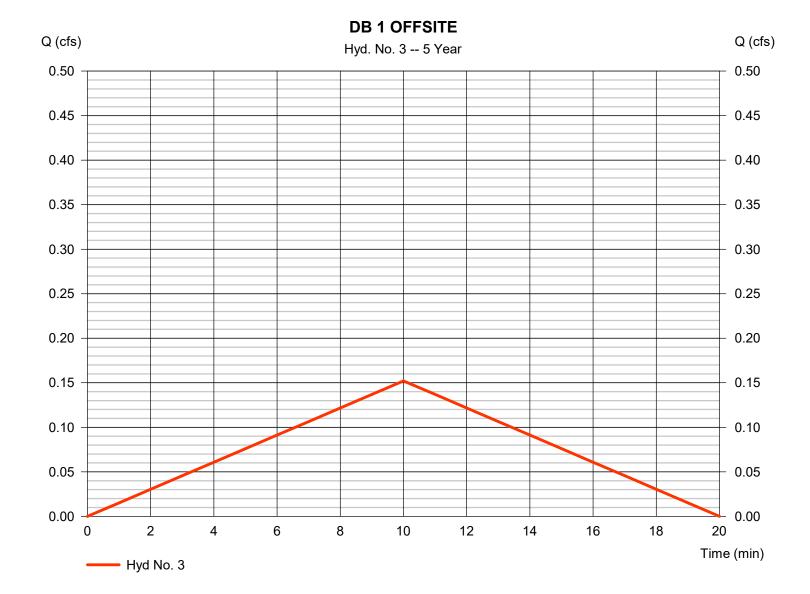
Tuesday, 11 / 15 / 2022

Hyd. No. 3

DB 1 OFFSITE

Hydrograph type = Rational Peak discharge = 0.152 cfsStorm frequency Time to peak = 5 yrs= 10 min Time interval = 1 min Hyd. volume = 91 cuft Drainage area Runoff coeff. = 0.7= 0.040 acTc by User $= 10.00 \, \text{min}$ Intensity = 5.432 in/hr

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



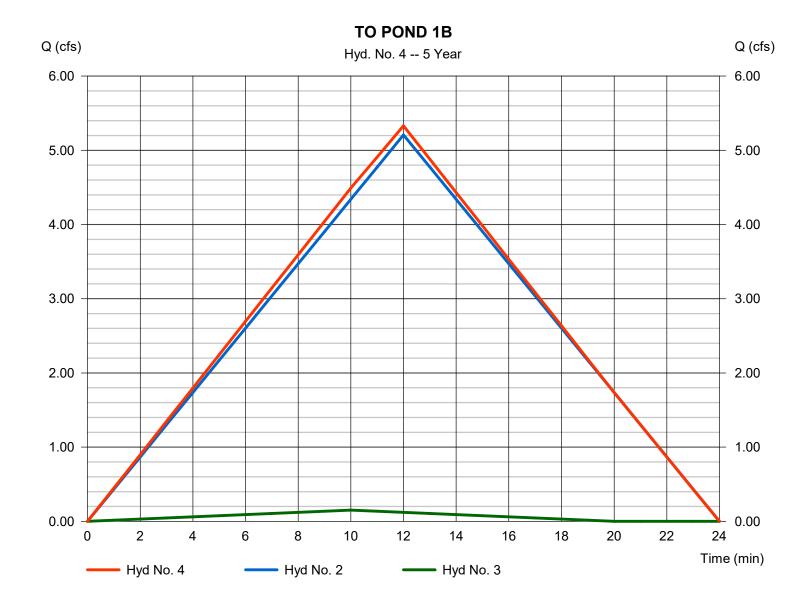
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Tuesday, 11 / 15 / 2022

Hyd. No. 4

TO POND 1B

Hydrograph type = Combine Peak discharge = 5.329 cfsTime to peak Storm frequency = 5 yrs= 12 min Time interval = 1 min Hyd. volume = 3,841 cuft Inflow hyds. = 2, 3 Contrib. drain. area = 1.190 ac



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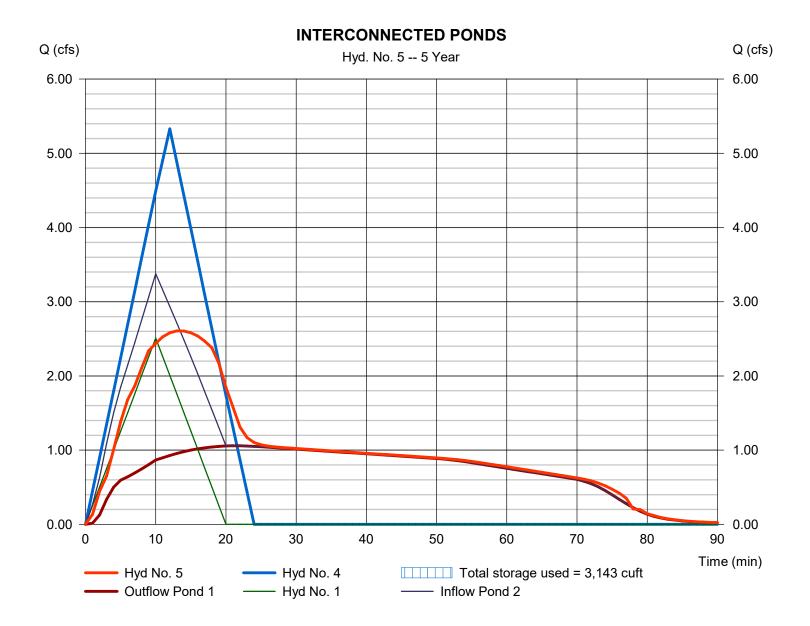
Tuesday, 11 / 15 / 2022

Hyd. No. 5

INTERCONNECTED PONDS

= Reservoir (Interconnected) Peak discharge = 2.606 cfsHydrograph type Storm frequency = 5 yrsTime to peak = 13 min Time interval = 1 min Hyd. volume = 5,346 cuftPowen and Bonne n Roomed = POND 1B = POND 1A Other Inflow hyd. Inflow hyd. = 4 - TO POND 1B = 1 - DB 1A Max. Elevation Max. Elevation = 935.24 ft= 938.83 ftMax. Storage Max. Storage = 367 cuft = 2,776 cuft

Interconnected Pond Routing. Storage Indication method used.



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Pond No. 1 - POND 1B

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 936.02 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	936.02	00	0	0
0.98	937.00	436	214	214
1.98	938.00	1,290	863	1,077
2.98	939.00	2,791	2,040	3,117
3.98	940.00	4,876	3,834	6,951

Culvert / Orifice Structures

Weir Structures

	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]
Rise (in)	= 15.00	0.00	5.00	0.00	Crest Len (ft)	= 0.00	0.00	0.00	0.00
Span (in)	= 15.00	0.00	5.00	0.00	Crest El. (ft)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	0	1	0	Weir Coeff.	= 3.33	3.33	3.33	3.33
Invert El. (ft)	= 935.00	0.00	936.02	0.00	Weir Type	=			
Length (ft)	= 155.00	0.00	14.00	0.00	Multi-Stage	= No	No	No	No
Slope (%)	= 0.20	0.00	6.79	n/a					
N-Value	= .013	.013	.013	n/a					
Orifice Coeff.	= 0.60	0.60	0.60	0.60	Exfil.(in/hr)	= 0.000 (by	/ Wet area)		
Multi-Stage	= n/a	No	Yes	No	TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	CIv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
IL	Cuit	IL	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS
0.00	0	936.02	0.00		0.00								0.000
0.10	21	936.12	2.33 oc		0.03 ic								0.027
0.20	43	936.22	2.33 oc		0.10 ic								0.097
0.29	64	936.31	2.33 oc		0.19 ic								0.192
0.39	85	936.41	2.33 oc		0.28 ic								0.284
0.49	107	936.51	2.33 oc		0.35 ic								0.348
0.59	128	936.61	2.33 oc		0.40 ic								0.405
0.69	150	936.71	2.33 oc		0.45 ic								0.454
0.78	171	936.80	2.33 oc		0.50 ic								0.498
0.88	192	936.90	2.33 oc		0.54 ic								0.539
0.98	214	937.00	2.33 oc		0.58 ic								0.577
1.08	300	937.10	2.33 oc		0.61 ic								0.613
1.18	386	937.20	2.33 oc		0.65 ic								0.647
1.28	473	937.30	2.33 oc		0.68 ic								0.680
1.38	559	937.40	2.33 oc		0.71 ic								0.711
1.48	645	937.50	2.33 oc		0.74 ic								0.740
1.58	731	937.60	2.33 oc		0.77 ic								0.769
1.68	818	937.70	2.33 oc		0.80 ic								0.796
1.78	904	937.80	2.33 oc		0.82 ic								0.823
1.88	990	937.90	2.33 oc		0.85 ic								0.849
1.98	1,077	938.00	2.33 oc		0.87 ic								0.874
2.08	1,281	938.10	2.33 oc		0.90 ic								0.898
2.18	1,485	938.20	2.33 oc		0.92 ic								0.922
2.28	1,689	938.30	2.33 oc		0.94 ic								0.945
2.38	1,893	938.40	2.33 oc		0.97 ic								0.967
2.48	2,097	938.50	2.33 oc		0.99 ic								0.989
2.58	2,301	938.60	2.33 oc		1.01 ic								1.011
2.68	2,505	938.70	2.33 oc		1.03 ic								1.032
2.78	2,709	938.80	2.33 oc		1.05 ic								1.053
2.88	2,913	938.90	2.33 oc		1.07 ic								1.073
2.98	3,117	939.00	2.33 oc		1.09 ic								1.093
3.08	3,500	939.10	2.33 oc		1.11 ic								1.112
3.18	3,884	939.20	2.33 oc		1.13 ic								1.132
3.28	4,267	939.30	2.33 oc		1.15 ic								1.151
3.38	4,651	939.40	2.33 oc		1.17 ic								1.169
3.48	5,034	939.50	2.33 oc		1.19 ic								1.187
3.58	5,417	939.60	2.33 oc		1.21 ic								1.205
3.68	5,801	939.70	2.33 oc		1.22 ic								1.223
											Continue	es on nev	t nage

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POND 1B **Stage / Storage / Discharge Table**

Stage ft	Storage cuft	Elevation ft	Clv A cfs	CIv B cfs	CIv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.78	6,184	939.80	2.33 oc		1.24 ic								1.241
3.88	6,567	939.90	2.33 oc		1.26 ic								1.258
3.98	6,951	940.00	2.33 oc		1.27 ic								1.275

...End

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Pond No. 2 - POND 1A

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 933.68 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	933.68	00	0	0
0.32	934.00	43	7	7
1.32	935.00	391	217	224
2.32	936.00	807	599	823
3.32	937.00	1,512	1,159	1,982
4.32	938.00	2,245	1,878	3,861

Culvert / Orifice Structures Weir Structures [A] [B] [C] [PrfRsr] [A] [B] [C] [D] = 10.00 0.00 0.00 0.00 = 0.000.00 0.00 0.00 Rise (in) Crest Len (ft) 0.00 0.00 Span (in) = 10.00 0.00 Crest El. (ft) = 0.000.00 0.00 0.00 No. Barrels = 1 0 Weir Coeff. = 3.333.33 3.33 3.33 Invert El. (ft) = 933.68 0.00 0.00 0.00 Weir Type = ---Length (ft) = 48.000.00 0.00 0.00 Multi-Stage No No = No No Slope (%) = 1.000.00 0.00 n/a N-Value = .013 .013 .013 n/a Orifice Coeff. = 0.600.60 0.60 0.60 Exfil.(in/hr) = 0.000 (by Wet area) Multi-Stage = n/a No TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	CIv A cfs	Clv B cfs	CIv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	933.68	0.00										0.000
0.03	1	933.71	0.00 ic										0.004
0.06	1	933.74	0.02 ic										0.017
0.10	2	933.78	0.04 ic										0.037
0.13	3	933.81	0.06 ic										0.065
0.16	3	933.84	0.10 ic										0.100
0.19	4	933.87	0.14 ic										0.142
0.22	5	933.90	0.19 ic										0.190
0.26	6	933.94	0.24 ic										0.245
0.29	6	933.97	0.31 ic										0.305
0.32	7	934.00	0.37 ic										0.372
0.42	29	934.10	0.61 ic										0.609
0.52	50	934.20	0.88 ic										0.879
0.62	72	934.30	1.17 ic										1.167
0.72	94	934.40	1.45 ic										1.447
0.82	115	934.50	1.68 ic										1.676
0.92	137	934.60	1.79 oc										1.788
1.02	159	934.70	1.94 oc										1.939
1.12	180	934.80	2.08 oc										2.079
1.22	202	934.90	2.21 oc										2.211
1.32	224	935.00	2.34 oc										2.335
1.42	284	935.10	2.45 oc										2.453
1.52	344	935.20	2.57 oc										2.565
1.62	404	935.30	2.67 oc										2.673
1.72	463	935.40	2.78 oc										2.777
1.82	523	935.50	2.88 oc										2.876
1.92	583	935.60	2.97 oc										2.973
2.02	643	935.70	3.07 oc										3.066
2.12	703	935.80	3.16 oc										3.157
2.22	763	935.90	3.24 oc										3.245
2.32	823	936.00	3.33 oc										3.331
2.42	939	936.10	3.41 oc										3.414
2.52	1,055	936.20	3.50 oc										3.496
2.62	1,171	936.30	3.58 oc										3.576
2.72	1,287	936.40	3.65 oc										3.654
2.82	1,403	936.50	3.73 oc										3.730
2.92	1,519	936.60	3.81 oc										3.805
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POND 1A **Stage / Storage / Discharge Table**

Stage ft	Storage cuft	Elevation ft	CIv A cfs	CIv B cfs	CIv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.02	1,635	936.70	3.88 oc										3.878
3.12	1,750	936.80	3.95 oc										3.950
3.22	1,866	936.90	4.02 oc										4.021
3.32	1,982	937.00	4.09 oc										4.091
3.42	2,170	937.10	4.16 oc										4.159
3.52	2,358	937.20	4.23 oc										4.227
3.62	2,546	937.30	4.29 oc										4.293
3.72	2,734	937.40	4.36 oc										4.358
3.82	2,922	937.50	4.42 oc										4.422
3.92	3,109	937.60	4.49 oc										4.485
4.02	3,297	937.70	4.55 oc										4.548
4.12	3,485	937.80	4.61 oc										4.609
4.22	3,673	937.90	4.67 oc										4.670
4.32	3,861	938.00	4.73 oc										4.730

...End

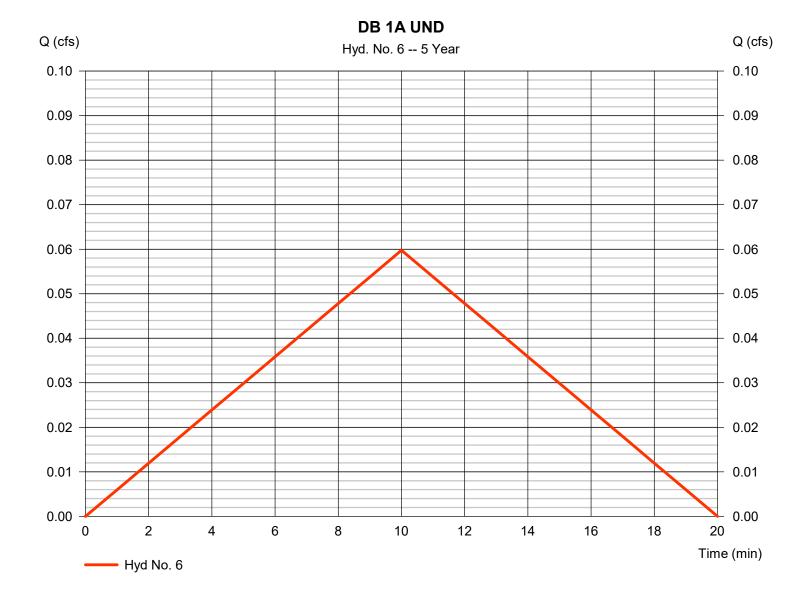
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Tuesday, 11 / 15 / 2022

Hyd. No. 6

DB 1A UND

= Rational Hydrograph type Peak discharge = 0.060 cfsStorm frequency Time to peak = 5 yrs= 10 min Time interval = 1 min Hyd. volume = 36 cuft Drainage area Runoff coeff. = 0.020 ac= 0.55Tc by User $= 10.00 \, \text{min}$ Intensity = 5.432 in/hr**IDF** Curve Asc/Rec limb fact = 1/1= SampleFHA.idf



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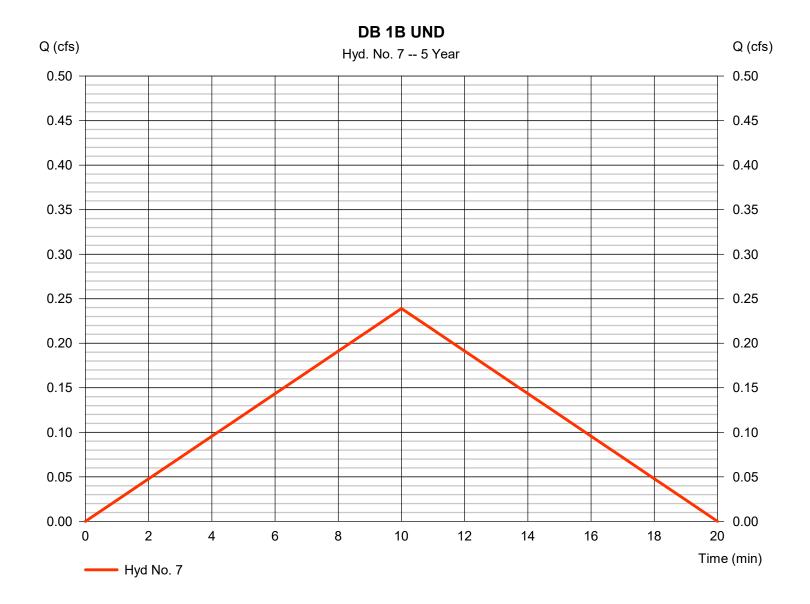
Tuesday, 11 / 15 / 2022

Hyd. No. 7

DB 1B UND

= Rational Hydrograph type Peak discharge = 0.239 cfsStorm frequency = 5 yrsTime to peak = 10 min Time interval = 1 min Hyd. volume = 143 cuft Drainage area Runoff coeff. = 0.080 ac= 0.55Tc by User $= 10.00 \, \text{min}$ Intensity = 5.432 in/hr

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



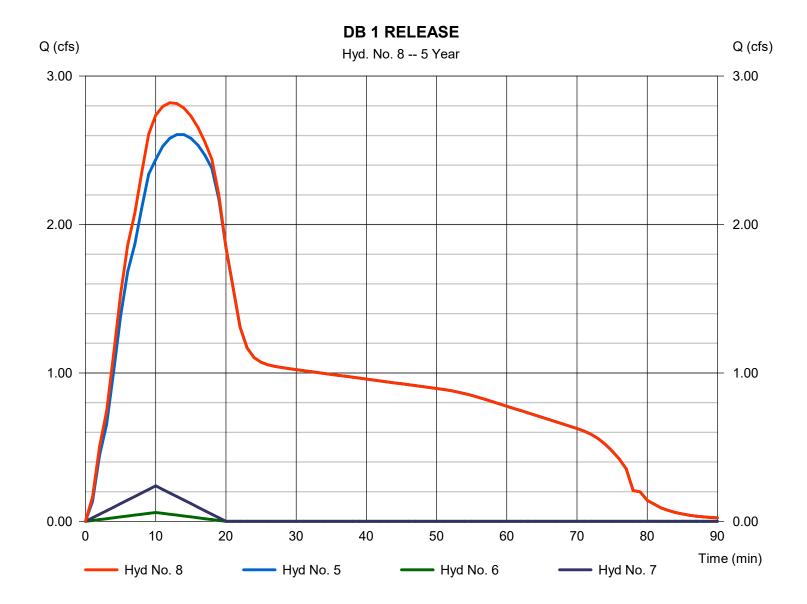
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Tuesday, 11 / 15 / 2022

Hyd. No. 8

DB 1 RELEASE

Hydrograph type = Combine Peak discharge = 2.821 cfsTime to peak Storm frequency = 5 yrs= 12 min Time interval = 1 min Hyd. volume = 5,525 cuftInflow hyds. = 5, 6, 7Contrib. drain. area = 0.100 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	3.862	1	10	2,317				DB 1A
2	Rational	8.083	1	12	5,820				DB 1B
3	Rational	0.234	1	10	140				DB 1 OFFSITE
4	Combine	8.270	1	12	5,960	2, 3			TO POND 1B
5	Reservoir(i)	3.254	1	14	8,277	4, 1	939.42	5,502	INTERCONNECTED PONDS
6	Rational	0.092	1	10	55				DB 1A UND
7	Rational	0.368	1	10	221				DB 1B UND
8	Combine	3.544	1	13	8,552	5, 6, 7			DB 1 RELEASE
Pos	st-Developed	.gpw			Return I	Period: 100	Year	Tuesday, 1	11 / 15 / 2022

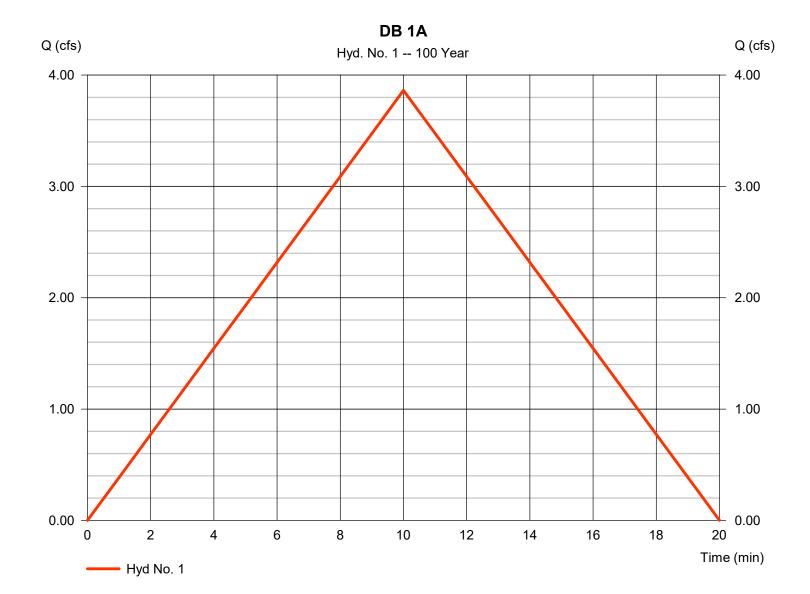
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 1

DB 1A

Hydrograph type = Rational Peak discharge = 3.862 cfsStorm frequency Time to peak = 100 yrs= 10 min Time interval = 1 min Hyd. volume = 2,317 cuftRunoff coeff. Drainage area = 0.84= 0.550 acTc by User Intensity = 8.360 in/hr $= 10.00 \, \text{min}$ Asc/Rec limb fact IDF Curve = SampleFHA.idf = 1/1



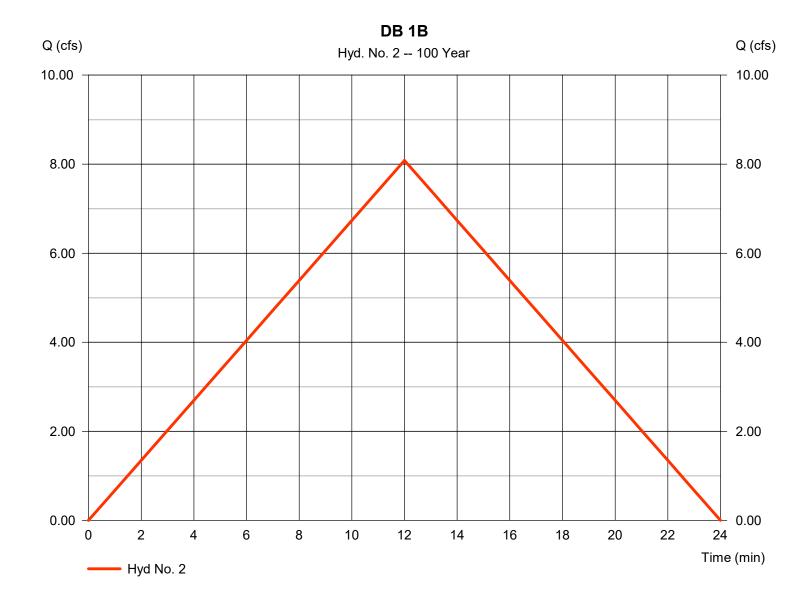
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Tuesday, 11 / 15 / 2022

Hyd. No. 2

DB 1B

Hydrograph type = Rational Peak discharge = 8.083 cfsStorm frequency = 100 yrsTime to peak = 12 min Time interval = 1 min Hyd. volume = 5,820 cuftDrainage area Runoff coeff. = 1.150 ac= 0.89Tc by User = 12.00 min Intensity = 7.897 in/hrAsc/Rec limb fact **IDF** Curve = SampleFHA.idf = 1/1



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

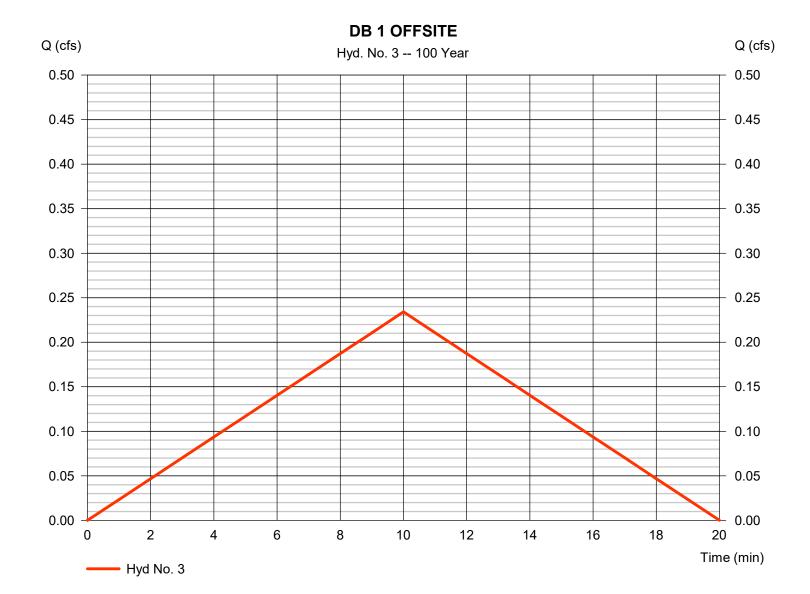
Hyd. No. 3

DB 1 OFFSITE

= 0.234 cfsHydrograph type = Rational Peak discharge Storm frequency = 100 yrsTime to peak = 10 min Time interval = 1 min Hyd. volume = 140 cuft Drainage area Runoff coeff. = 0.040 ac= 0.7

Intensity = 8.360 in/hr Tc by User = 10.00 min

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



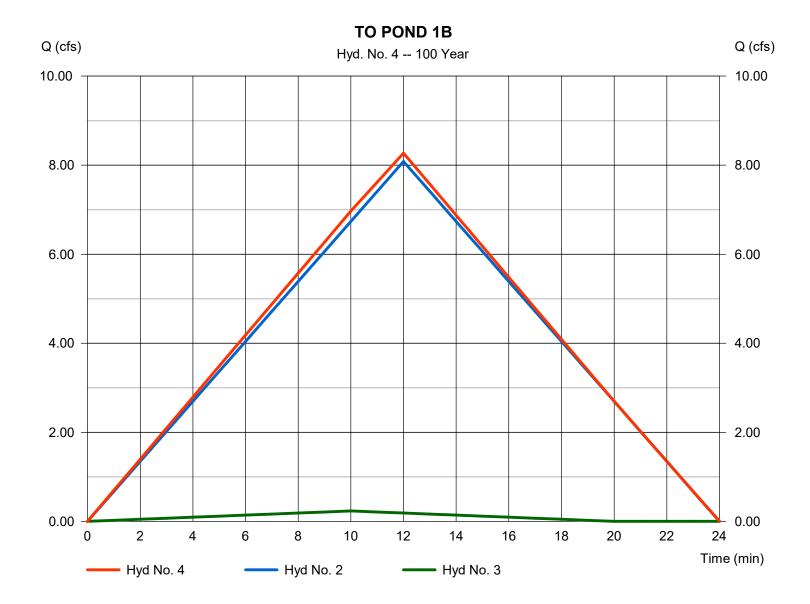
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 4

TO POND 1B

Hydrograph type = Combine Storm frequency = 100 yrs Time interval = 1 min Inflow hyds. = 2, 3 Peak discharge = 8.270 cfs
Time to peak = 12 min
Hyd. volume = 5,960 cuft
Contrib. drain. area = 1.190 ac



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

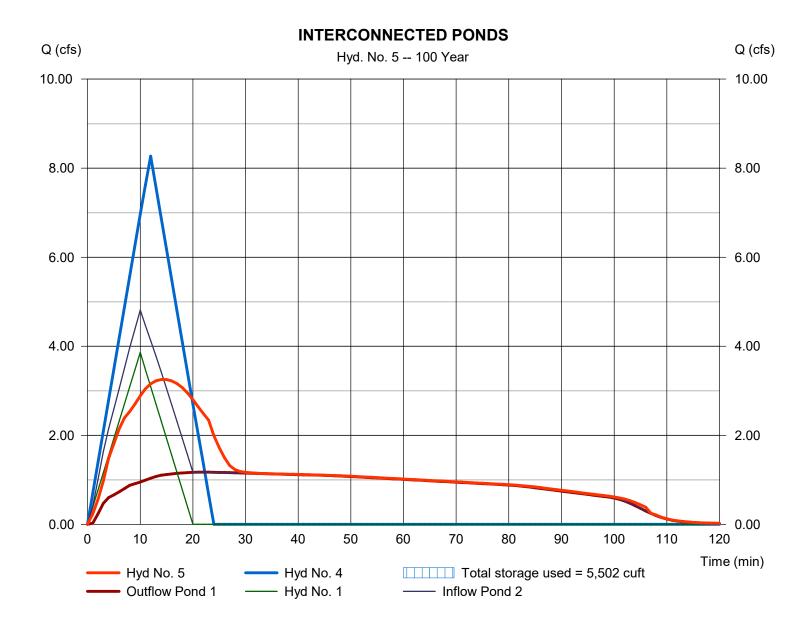
Tuesday, 11 / 15 / 2022

Hyd. No. 5

INTERCONNECTED PONDS

Hydrograph type = Reservoir (Interconnected) Peak discharge = 3.254 cfsStorm frequency = 100 yrsTime to peak = 14 min Time interval = 1 min Hyd. volume = 8,277 cuft **Bopen Prona**d Powen Prond = POND 1B = POND 1A Other Inflow hyd. Inflow hyd. = 4 - TO POND 1B = 1 - DB 1A Max. Elevation Max. Elevation $= 935.91 \, \text{ft}$ = 939.42 ftMax. Storage Max. Storage = 769 cuft = 4,732 cuft

Interconnected Pond Routing. Storage Indication method used.



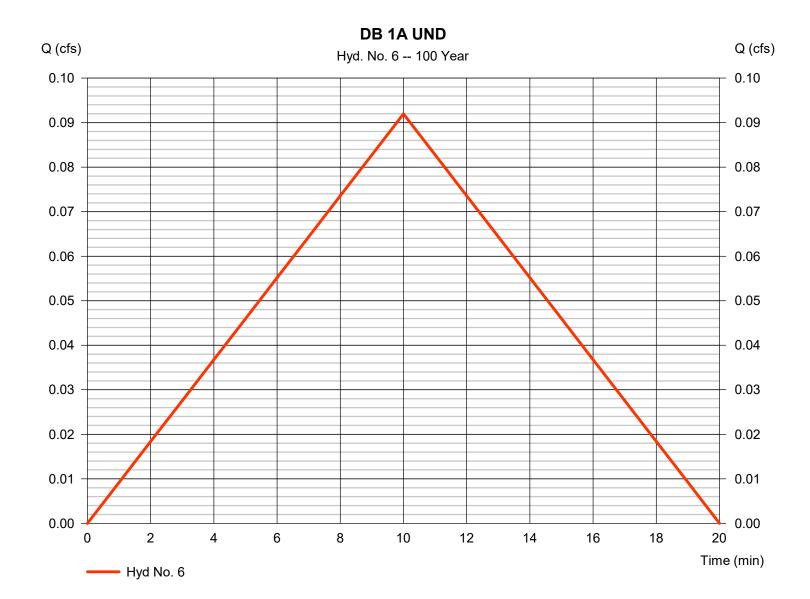
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 6

DB 1A UND

Hydrograph type = Rational Peak discharge = 0.092 cfsStorm frequency = 100 yrsTime to peak = 10 min Time interval = 1 min Hyd. volume = 55 cuft Drainage area Runoff coeff. = 0.020 ac= 0.55Tc by User $= 10.00 \, \text{min}$ Intensity = 8.360 in/hr **IDF** Curve Asc/Rec limb fact = 1/1= SampleFHA.idf



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

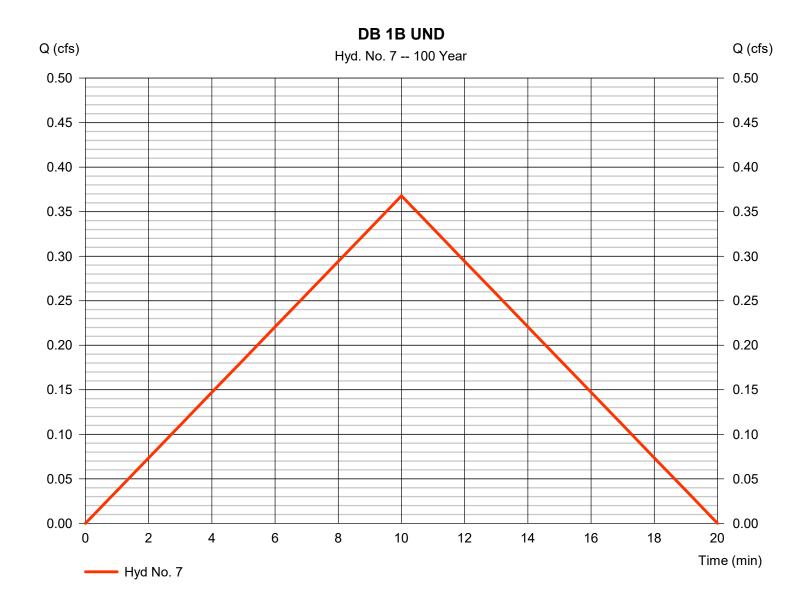
Tuesday, 11 / 15 / 2022

Hyd. No. 7

DB 1B UND

Hydrograph type = Rational Peak discharge = 0.368 cfsStorm frequency = 100 yrsTime to peak = 10 min Time interval = 1 min Hyd. volume = 221 cuft Drainage area Runoff coeff. = 0.080 ac= 0.55Tc by User $= 10.00 \, \text{min}$ Intensity = 8.360 in/hr

IDF Curve = SampleFHA.idf Asc/Rec limb fact = 1/1



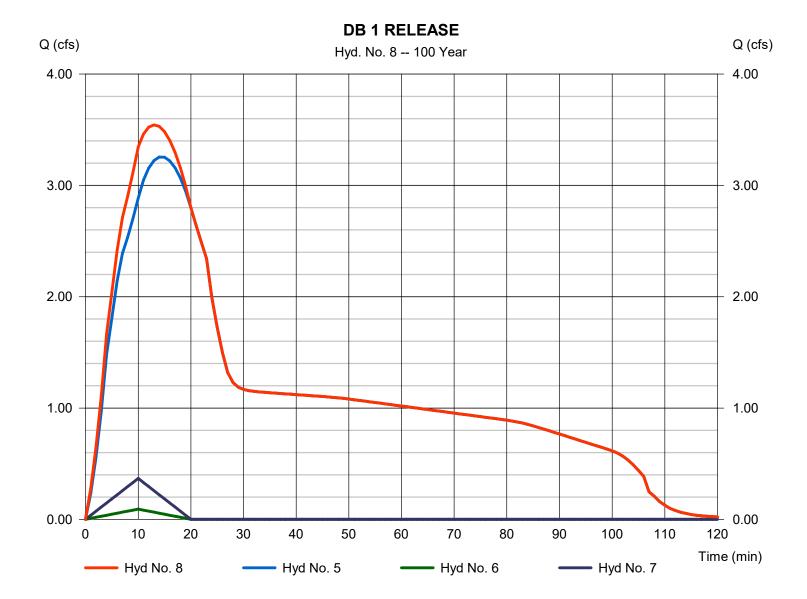
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Hyd. No. 8

DB 1 RELEASE

Hydrograph type = Combine Peak discharge = 3.544 cfsTime to peak Storm frequency = 100 yrs= 13 min Time interval = 1 min Hyd. volume = 8,552 cuft Inflow hyds. Contrib. drain. area = 0.100 ac= 5, 6, 7



Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Tuesday, 11 / 15 / 2022

Return Period	Intensity-Duration-Frequency Equation Coefficients (FHA)											
(Yrs)	В	D	E	(N/A)								
1	0.0000	0.0000	0.0000									
2	69.8703	13.1000	0.8658									
3	0.0000	0.0000	0.0000									
5	79.2597	14.6000	0.8369									
10	88.2351	15.5000	0.8279									
25	102.6072	16.5000	0.8217									
50	114.8193	17.2000	0.8199									
100	127.1596	17.8000	0.8186									

File name: SampleFHA.idf

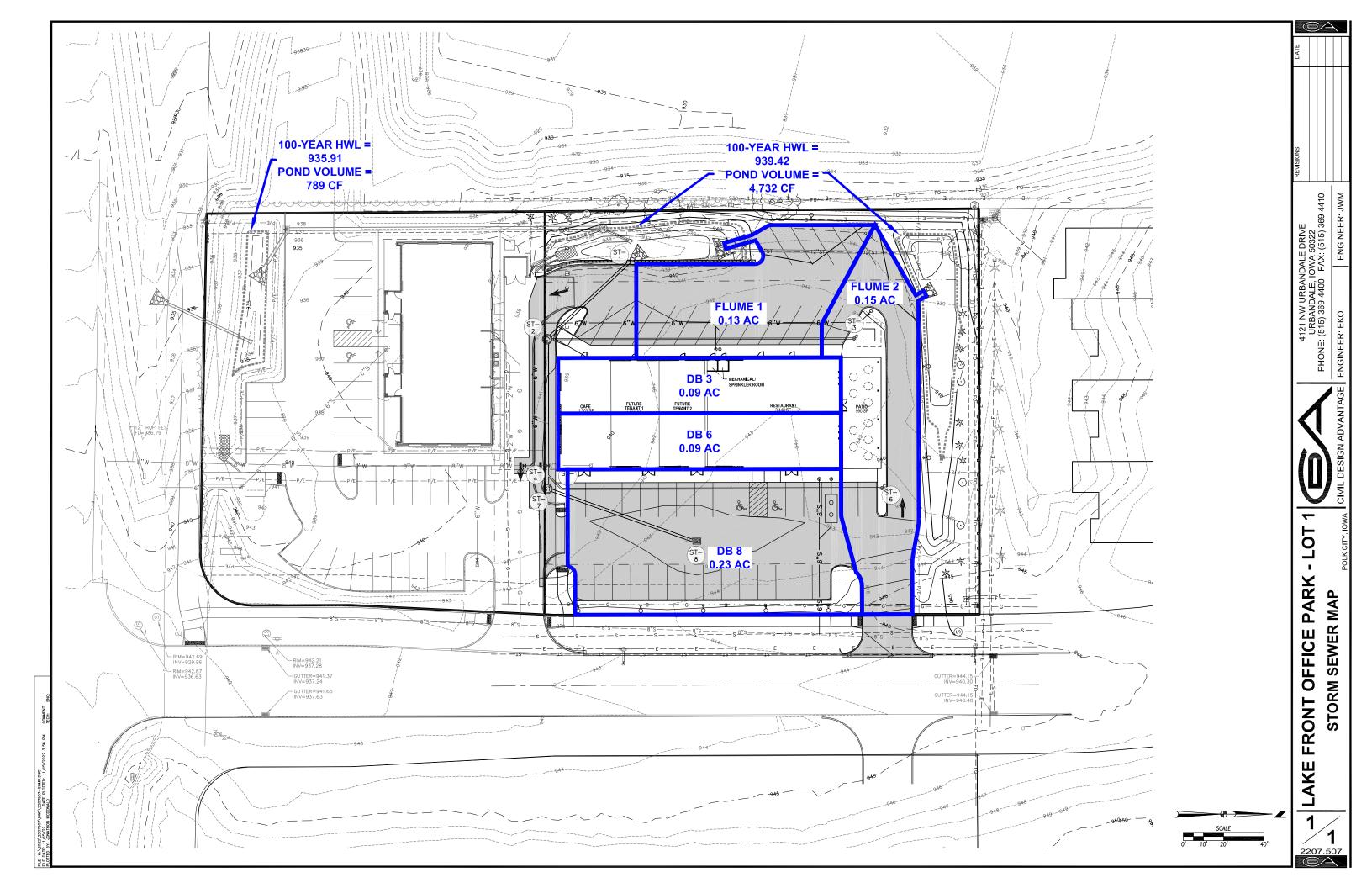
Intensity = $B / (Tc + D)^E$

Return												
Period (Yrs)	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.69	4.61	3.89	3.38	2.99	2.69	2.44	2.24	2.07	1.93	1.81	1.70
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.57	5.43	4.65	4.08	3.65	3.30	3.02	2.79	2.59	2.42	2.27	2.15
10	7.24	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46
25	8.25	6.95	6.03	5.34	4.80	4.38	4.02	3.73	3.48	3.26	3.07	2.91
50	9.04	7.65	6.66	5.92	5.34	4.87	4.49	4.16	3.88	3.65	3.44	3.25
100	9.83	8.36	7.30	6.50	5.87	5.36	4.94	4.59	4.29	4.03	3.80	3.60

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

	Rainfall Precipitation Table (in)										
Storm Distribution	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr			
SCS 24-hour	0.00	0.00	0.00	3.81	0.00	0.00	0.00	7.12			
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			



Project: Lake Front Office Park Lot 1

Proj. No.: 2207.507
Designed: JWM
Date: 11/15/2022

Notes:

List of Intakes and Utility Accesses											
Structure Number ST-#	Location	Type or Standard Road Plan		C / RIM	Note						
31-#		Ruau Fiaii	Ele	/allOII							
ST- 1		15" RODENT GUARD	FL	936.19							
ST- 2		48" SW-401 MH	RIM	940.82							
ST- 3		STORM CLEANOUT	RIM	941.52							
		0.0									
ST- 4		15"X15"X8" WYE	FL	936.85							
ST- 5		45 DEG. BEND	FL	936.85							
ST- 6		STORM CLEANOUT	RIM	941.60							
		:311.0111.40.4.1111	500	244.00							
ST- 7 ST- 8		48" SW-401 MH SW-511 INTAKE	RIM	941.09 940.57	<u> </u>						
S1- 8		SVV-511 INTAKE	KIIVi	940.57							
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Pipe	Structure Storm Sewer						FL(out)	FI(in)	Note
Number	То	From	Material	Diameter	Length	Slope	,	` '	
L-#	ST-#	ST-#		inches	feet	%			
L- 2	ST- 1	ST- 2	HDPE	15	56	0.50	936.19	936.47	
L- 3	ST- 3	ST- 3	HDPE	8	150	0.50	936.52	937.27	
L- 4	ST- 3	ST- 4	HDPE	15	66	0.50	936.52	936.85	
L- 4 L- 5	ST- 5	ST- 5	HDPE	15	66 10	0.50	936.85	936.90	
L- 6	ST- 6	ST- 6	HDPE	15	158	0.50	936.90	937.69	
L- 0	01-0	01-0	TIDIL	10	100	0.50	330.30	337.03	
L- 7	ST- 6	ST- 7	HDPE	8	5	0.50	936.85	936.88	
L- 8	ST- 7	ST- 8	HDPE	15	75	0.50	936.93	937.31	

	Storm Sewer Pipe Design Information													
Manning's n	1 -	RCP =	0.013	PVC =	0.011					Design Sto	orm =	5	year	
Drainage	С	Equiv.	Accumulated	Time of	Rainfall	Storm	Sump	Sump	Pipe C	apacity	Flow \	/elocity	Travel	Note
Area		Area	Equiv. Area ΣCA	Conc.	Intensity	Runoff	Lines	Flow cfs	Design cfs	Full Flow cfs	Design ft/sec	Full Flow ft/sec	Time	
A, acres		CA	ZCA	min.	in/hr	cfs	units	CIS	CIS	CIS	π/sec	Tt/sec	min.	
0.00	0.95	0.000	0.373	10	5.08	1.90			1.90	5.40	4.00	4.40	0.23	
0.09	0.95	0.086	0.086	10	5.08	0.43			0.43	1.01	2.78	2.89	0.90	
0.00	0.95	0.000	0.288	10	5.08	1.46			1.46	5.40	3.74	4.40	0.29	
0.00	0.95	0.000	0.086	10	5.08	0.43			0.43	5.37	2.60	4.38	0.06	
0.09	0.95	0.086	0.086	10	5.08	0.43			0.43	5.40	2.61	4.40	1.01	
0.00	0.95	0.000	0.202	10	5.08	1.03			1.03	1.01	3.30	2.89	0.03	
0.23	0.88	0.202	0.202	10	5.08	1.03			1.03	5.42	3.42	4.42	0.37	
-														



CIVIL DESIGN ADVANTAGE

4121 NW Urbandale Drive Urbandale, IA 50322

Q = C * I * A

0.93 9.15

0.23

1.96

PROJECT: Lake Front Office Park Lot 1 JOB NO. 2207.507 Page of Pages

SUBJECT: Storm Water Calculations DATE: 11/15/22 DESIGNED: JWM CHECKED:

INTAKE CAPACITY CALCULATIONS

EQUATIONS

1. ORIFICE: $Q = 0.67 A_a (2gd)^{0.5}$ (SUDAS Equation 2C-3.12)

WHERE - Q = flow, cfs

 A_a = Clear opening of the grate, ft^2

g = gravitational constant (32.16 ft/s²) d = average depth across the grate, ft

 $Q = 3.0 P d^{1.5}$ (SUDAS Equation 2C-3.11) 2. WEIR:

WHERE -Q = flow, cfs

P= Perimeter of the grate disregarding the side against the curb, ft

d = average depth across the grate, ft

CALCULATIONS

1. Solve for required head given flow and open area for casting using Orifice Equation:

ST-8 LOCATION:

INPUT: $Q_{100} = 1.96$ cfs (From Rational Equation)

 $A_{q} = \frac{6}{}$ sq. ft. (Open Area of Casting)

Required Depth at Grate: d = 0.004 ft.

2. Solve for required head given flow and open perimeter of casting using Weir Equation:

LOCATION: ST - 8

INPUT: $Q_{100} = 1.96$ cfs (From Rational Equation)

P = 10 ft. (Open Perimeter of Casting)

Required Depth at Grate: d = 0.162 ft.

GOVERNING EQUATION: Weir Equation

Required Depth = 0.162 ft = 2inches

The 100-year elevation is 940.57 940.73 + 0.16 =



CIVIL DESIGN ADVANTAGE

4121 NW Urbandale Drive Urbandale, IA 50322

PROJECT: Lake Front Office Park - Lot 1 JOB NO. 2207.507 Page of Pages

SUBJECT: Storm Water Calculations DATE: 11/15/22 COMP. BY: JWM OK'D BY:

Flume Capacity: Flume 1

Channel Slope, s = 16.16 % Runoff Coefficient, C = 0.98

Manning's n = 0.013 Rainfall Intensity, I = 9.15

Left Slope, R = 1 :1 Area, A = 0.13 AC

Bottom Width, w = 2 feet

Right Slope, L = 1 :1 Q = CIA

Minimum Depth = 0.001 feet Q100= 1.17 cfs

Depth Increment = 0.001 feet

Depth	Wetted Perimeter	Flow Area	Hydraulic Radius	Channel Capacity	Flow Velocity
d, feet	P _w , feet	a, feet ²	R, feet	Q, cfs	v, ft/sec
0.001	2.00	0.00	0.00	0.00	0.46
0.002	2.01	0.00	0.00	0.00	0.73
0.003	2.01	0.01	0.00	0.01	0.95
0.004	2.01	0.01	0.00	0.01	1.16
0.005	2.01	0.01	0.00	0.01	1.34
0.006	2.02	0.01	0.01	0.02	1.51
0.007	2.02	0.01	0.01	0.02	1.67
0.008	2.02	0.02	0.01	0.03	1.83
0.009	2.03	0.02	0.01	0.04	1.98
0.01	2.03	0.02	0.01	0.04	2.12
0.011	2.03	0.02	0.01	0.05	2.26
0.012	2.03	0.02	0.01	0.06	2.39
0.013	2.04	0.03	0.01	0.07	2.52
0.014	2.04	0.03	0.01	0.07	2.65
0.015	2.04	0.03	0.01	0.08	2.77
0.016	2.05	0.03	0.02	0.09	2.89
0.5	3.41	1.25	0.37	29.40	23.52

Q100=1.17 cfs

*The 100-year flow depth of 0.005' is less than the curb height of 0.50'. Therefore the flow is contained within in flume.

<--- Ultimate flow capacity and velocity.

Design Equations:

$$P_w = w + [d^2 + (dR)^2]^{1/2} + [d^2 + (dL)^2]^{1/2}$$

$$a = wd+d^2(R+L)/2$$

$$R = a/P_w$$

$$Q = \frac{1.486aR^{2/3}s^{1/2}}{n}$$

$$v = Q/a$$



CIVIL DESIGN ADVANTAGE

4121 NW Urbandale Drive Urbandale, IA 50322

PROJECT: Lake Front Office Park - Lot 1 JOB NO. 2207.507 Page of Pages

Q = CIA

SUBJECT: Storm Water Calculations DATE: 11/15/22 COMP. BY: JWM OK'D BY:

Flume Capacity: Flume 2

Channel Slope, s = 25.00 % Runoff Coefficient, C = 0.98

Manning's n = 0.013 Rainfall Intensity, I = 9.15

Left Slope, R = 1 :1 Area, A = 0.15 AC

Bottom Width, w = 2 feet Right Slope, L = 1 :1

Minimum Depth = 0.001 feet Q100= 1.35 cfs

Minimum Depth = 0.001 feet Depth Increment = 0.001 feet

Depth	Wetted Perimeter	Flow Area	Hydraulic Radius	Channel Capacity	Flow Velocity
d, feet	P _w , feet	a, feet ²	R, feet	Q, cfs	v, ft/sec
0.001	2.00	0.00	0.00	0.00	0.57
0.002	2.01	0.00	0.00	0.00	0.91
0.003	2.01	0.01	0.00	0.01	1.19
0.004	2.01	0.01	0.00	0.01	1.44
0.005	2.01	0.01	0.00	0.02	1.67
0.006	2.02	0.01	0.01	0.02	1.88
0.007	2.02	0.01	0.01	0.03	2.08
0.008	2.02	0.02	0.01	0.04	2.28
0.009	2.03	0.02	0.01	0.04	2.46
0.01	2.03	0.02	0.01	0.05	2.64
0.011	2.03	0.02	0.01	0.06	2.81
0.012	2.03	0.02	0.01	0.07	2.97
0.013	2.04	0.03	0.01	0.08	3.14
0.014	2.04	0.03	0.01	0.09	3.29
0.015	2.04	0.03	0.01	0.10	3.45
0.016	2.05	0.03	0.02	0.12	3.59
0.5	3.41	1.25	0.37	36.56	29.25

Q100=1.35 cfs

*The 100-year flow depth of 0.004' is less than the curb height of 0.50'. Therefore the flow is contained within in flume.

<--- Ultimate flow capacity and velocity.

Design Equations:

$$P_w = w + [d^2 + (dR)^2]^{1/2} + [d^2 + (dL)^2]^{1/2}$$

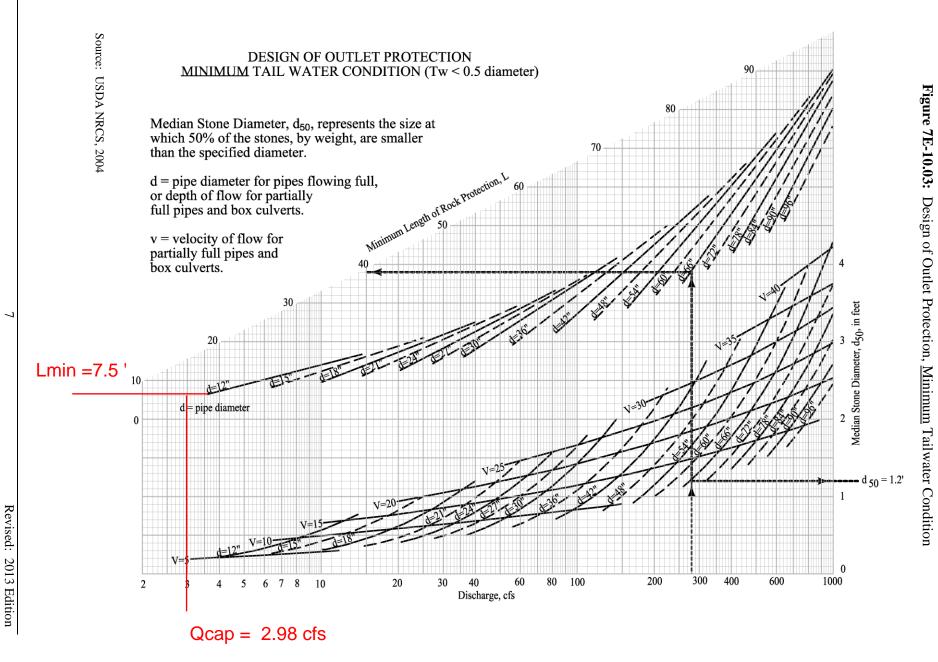
$$a = wd+d^2(R+L)/2$$

$$R = a/P_w$$

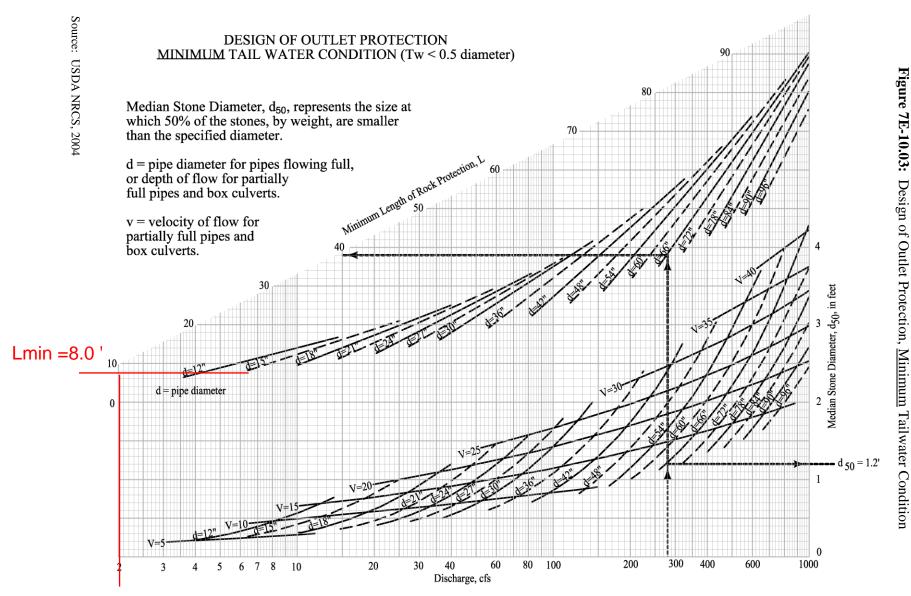
$$Q = \frac{1.486aR^{2/3}s^{1/2}}{n}$$

$$v = Q/a$$

ST-1



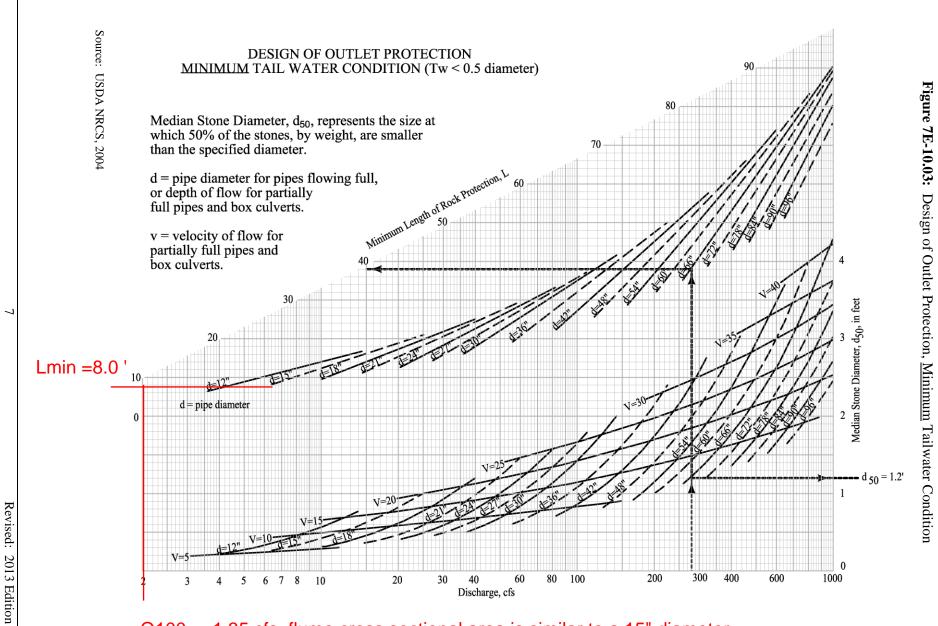
FLUME 1



Q100 = 1.17 cfs, flume cross sectional area is similar to a 15" diameter pipe, therefore this size will be used in design

Revised: 2013 Edition

FLUME 2



Q100 = 1.35 cfs, flume cross sectional area is similar to a 15" diameter pipe, therefore this size will be used in design

This instrument prepared by:

SARAH BAUMGARTNER, THE REAL ESTATE SERVICE CENTER, 7101 VISTA DRIVE, WEST DES MOINES IA 50266

Phone # (515) 278-2226

Return document to and mail tax statements to:

SARAH BAUMGARTNER, THE REAL ESTATE SERVICE CENTER, 7101 VISTA DRIVE, WEST DES MOINES IA 50266

Phone # (515) 278-2226

STORM WATER MANAGEMENT FACILITY MAINTENANCE COVENANT AND PERMANENT EASEMENT AGREEMENT

THIS STORM WATER MANAGEMENT FACILITY MAINTENANCE COVENANT AND PERMANENT EASEMENT AGREEMENT is entered into between Frihalage Investments, LLC, an lowa limited liability company (hereinafter referred to as "Grantor") and the City of Polk City, lowa (hereinafter referred to as "City"), in consideration for the approval by the City of Polk City lowa of the Lake Front Office Park Plat 1 ("Plat").

Grantor is obligated by the Municipal Code of the City of Polk City, Iowa, to control storm water runoff for the proposed development as a part of the final plat permit approval process. In consideration for the City's approval of the Grantor's Final Plat, the parties enter into this Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement to control and address storm water runoff for the following described property:

Lot 1 and Lot 2 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa

Locally known as: 905 West Bridge Road, Polk City, Iowa 50226 and 1010 Tyler ST, Polk City, Iowa 50226

(hereinafter the "Benefitted Property")

PART I—COVENANTS ON THE BENEFITED PROPERTY

The following provisions are covenants running with the land to the City of Polk City, binding on all successors and assigns of the Benefited Property and shall only be amended or released with the written permission of the City.

 Grantor hereby agrees that the storm water runoff for the subdivision/site shall be controlled through installation, construction and maintenance of a <u>Storm Water Management Facility</u> upon, over, under, through and across the following described property:

SEE EXHIBIT "A" ATTACHED HERETO

(hereinafter referred to as the "Easement Area").

- 2. Grantor covenants and agrees that the design, construction and maintenance of the Storm Water Management Facility shall meet the storm water runoff control requirements of the Municipal Code of the City of Polk City, Iowa. Grantor covenants and agrees that the design, construction and maintenance of the Storm Water Management Facility shall meet the storm water runoff control requirements of the Municipal Code of the City of Polk City, Iowa.
- 3. It is hereby agreed that Grantor is responsible for constructing, installing and ensuring that the Storm Water Management Facility meets the standard set forth in the Municipal Code of the City of Polk City, Iowa. Grantor's obligations under this Agreement may not and shall not be transferred to the Association (as described in paragraph 4 below) until the City provides written consent to Grantor acknowledging that construction of the Storm Water Management Facility has been completed.
- 4. It is hereby agreed and covenanted that the above-described Benefited Property receives benefit from the Storm Water Management Facility by controlling runoff from the Easement Area to meet the requirements of the Municipal Code of the City of Polk City, Iowa. In recognition of such benefit and to meet the maintenance, repair and replacement obligations of the Municipal Code of the City of Polk City, Iowa, Grantor has created "Lake Front Office Park". (hereinafter referred to as "Association") organized pursuant to Chapter 504 of the Code of Iowa. The owner of Lots 1 and 2 become a members of the Association. In recognition of such benefit and to meet the maintenance, repair and replacement obligations of the Municipal Code of the City of Polk City, Iowa. Every owner of a Benefited Property hereby consents and agrees to the covenants and obligations of this Agreement and by virtue of their ownership of a portion of the Benefited Property.
- 5. Grantor hereby designates, appoints and agrees on behalf of Grantor and all successors and assigns that the Association is designated as the responsible party for replacement, reconstruction, repair, grading and maintenance of the Storm Water Management Facility. It is furthered covenanted and agreed that the Association shall not be dissolved, discontinued or any obligations transferred or assigned without the consent of the City of Polk City.
- Grantor hereby covenants and agrees that the Association is hereby designated and authorized by Grantor and all successors and assigns to accept notices and service of process for all Benefited Property Owners as it relates to the inspection, replacement, reconstruction, repair, grading and

- maintenance of the Storm Water Management Facility or permanent easement or notice of assessment for replacement, reconstruction, repair, grading and maintenance of the Storm Water Management Facility. If at any time the Association fails to comply with this Agreement or is for any reason not in existence in violation of this Agreement, the owners of the Benefited Property are responsible for complying with this Agreement.
- 7. The Association shall be responsible for all maintenance, repair and replacement of the Storm Water Management Facility, including obligations set forth in Part II, paragraph 12, subsections (a) and (b) herein that are the obligation of the property owner of the Easement Area, should any property owner of the Easement Area not perform or fail to perform such obligations. The Owners are responsible for performing all other items listed in Part II, paragraph 12, subsections (c) through (i). Should any property owner do anything in conflict with paragraphs 12 through 17 herein, the Owners shall have the responsibility to remove such conflict to assure effectiveness of the Storm Water Management Facility. Grantor and all successors and assignees of the Benefited Property shall comply with all terms of the Easement set forth in Part II herein.
- 8. The Association shall inspect the Storm Water Management Facility on an annual basis, including but not limited to all pipes, inlets and outlets for defects, obstructions or changes in the Storm Water Management Facility from the original design of the Facility. The inspection shall be conducted by a licensed professional engineer in the state of Iowa and documented with date stamped photographs of the Storm Water Management Facility. The Association shall document such inspection by completing the Inspection Report Form available from the City of Polk City Public Works Department. Any deficiencies or defects noted by the inspection shall be corrected by the Owners.
- 9. Grantor hereby agrees and consents on behalf of itself and all successors and assigns of the Benefited Property to assessment of the costs of maintaining, reconstructing, repairing, grading or dredging the Easement Area and Storm Water Management Facility on all Benefited Property established by the Grantor pursuant to the formula set forth in paragraph 10, below. Grantor, on behalf of itself and all successors and assigns of the Benefited Property, shall execute an Agreement in favor of the City to allow the City to recover any costs expended for action taken as set forth in paragraph 10, below, to address the maintenance, reconstruction, repair, grading or dredging of the Storm Water Management Facility or Easement Area.
- 10. Should the Association fail to maintain, reconstruct, repair, grade or dredge the Storm Water Management Facility or the Easement Area upon notice from the City, the City may cause such action to be done and assessed to each Benefited Property pursuant to the formula set forth below:

1/2 cost share assessed to each Benefited Property

The assessments on each Benefited Property shall be immediately due and payable to the City pursuant to the terms of the Agreement and Waiver (see Exhibit B, attached hereto and made a part hereof).

PART II – EASEMENT FOR STORM WATER MANAGEMENT FACILITY AND DRAINAGE

The following provisions in Part II herein are for a permanent easement over the Easement Area running with the land to the City of Polk City and the Owners.

- 11. Grantor hereby grants the Owners and the City a Permanent Drainage Easement under, over, through and across the Easement Area described above for the purpose of constructing, reconstructing, repairing, grading and maintaining the Storm Water Management Facility and the surface of the Easement Area in a manner that will permit the free and unobstructed flow of surface water over the Easement Area described above.
- 12. It is the obligation of the Grantor and all subsequent owners of the above-described easement area to maintain the Easement Area and the Storm Water Management Facility as set forth below. The Grantor and all subsequent owners of the Easement Area shall perform the maintenance obligations set forth below in items (a) and (b). The Owners shall perform all maintenance obligations set forth below in items c through i. The Grantor and all subsequent property owners of the Easement Area shall maintain the Easement Area so not to conflict with the maintenance requirements of the Owners or the Owners' right to perform those maintenance obligations. The maintenance obligations for the Storm Water Management Facility are as follows: Storm water detention and retention ponds or basins:

Storm water detention and retention ponds or basins:

- a. Mow on a regular basis to maintain the vegetation at the height designated on the original design to prevent erosion.
- b. Remove all trash, litter, debris or obstructions in the basin in the Easement Area and any inlets or outlets located within the Easement Area.
- c. Plant, maintain and replant as necessary permitted vegetation.
- d. Inspect for any defects, obstructions, or any changes in the original design.
- e. Inspect and determine the depth of the pond or basin on an annual basis.
- f. Remove any accumulated sediment from the outlet structures and remove any sediment which may accumulate greater than 12 inches in ponds or basins and greater than 6 inches in an underground detention basin.
- g. Till the soil at the bottom of the riparian buffer if it does not drain out within the time established in the design plan and replant vegetation as designated on the original design.
- h. All repairs shall conform to the original design.

- Till the soil at the bottom of the riparian buffer if it does not drain out within the time established in the design plan and replant vegetation as designated on the original design.
- j. All repairs shall conform to the original design.
- k. Maintaining the storm water and retention pond or basin to assure the effectiveness for storm.

Grass and Bioretention Swales:

- a. Mow on a regular basis to maintain the vegetation at the height designated on the original design to prevent erosion.
- Remove all trash, litter, debris or obstructions in the grass or bioretention swale and Easement Area.
- c. No chemicals or substances shall be applied to the Easement Area that shall harm or impair the effectiveness of the swale as a storm water runoff control measure.
- d. Replant vegetation as soon as practical when any vegetation dies.
- e. Inspect and determine the depth of the swale on an annual basis.
- f. Remove any sediment accumulated greater than 6 inches which may accumulate in the swale.
- g. Till the soil at the bottom of the swale if the grass swale does not drain out within the time established in the design plan and replant vegetation as designated on the original design.
- h. All repairs shall conform to the original design.
- Maintain the grass and/or bioretention swale to assure the effectiveness for storm water runoff for the subdivision/site.

Riparian Buffer:

- a. Mow on a regular basis to maintain the vegetation at the height designated on the original design to prevent erosion.
- Replant the vegetation in the Easement Area as soon as practical when any vegetation dies.
- c. Remove all trash, litter, debris or obstructions in the Easement Area.
- d. Inspect for erosion in the riparian buffer on an annual basis.
- e. Inspect and determine the depth of the riparian buffer on an annual basis.
- f. Remove any sediment accumulated greater than 25% of the original design depth.
- g. Till the soil at the bottom of the riparian buffer if it does not drain out within the time established in the design plan and replant vegetation as designated on the original design.
- h. All repairs shall conform to the original design.
- Maintain the riparian buffer to assure the effectiveness for storm water runoff for the subdivision/site.

- 13. No chemicals or any substance shall be applied to the storm water maintenance facility that shall harm or impair the effectiveness of the storm water maintenance facility as a storm water runoff control measure.
- 14. No structure shall be erected over or within the Easement Area without obtaining the prior written approval of the City Engineer.
- 15. No structure, material, device, thing or matter which could possibly obstruct or impede the normal flow of surface water over the Easement Area shall be erected or caused to be placed on the Easement Area without obtaining the prior written approval of the City Engineer.
- 16. No planting of trees and shrubs is allowed within the easement area (other than planting allowed and required by the City of Polk City).
- 17. No change shall be made to the grade, elevation or contour of any part of the Easement Area without obtaining the prior written consent of the City Engineer.
- 18. The Owners, the City and their agents, contractors, employees and assigns shall have the right of access to the Easement Area and have all rights of ingress and egress reasonably necessary for the use and enjoyment of the Easement Area as herein described, including, but not limited to, the right to remove any unauthorized plantings or structures placed or erected on the Easement Area and the right to do maintenance, repair, reconstruction, grading and dredging.
- 19. Grantor covenants on behalf of the Benefited Properties and the Owners that the Easement Area or any other area appurtenant to or necessary for the operation of the Storm Water Management Facility shall not be sold, transferred, donated or in any other manner conveyed in order to relieve the Grantor, the Benefited Properties or the Owners from complying with the requirements of this Agreement.
- 20. This Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement and Agreement shall be deemed to run with the land and shall be binding on Grantor and on Grantor's successors and assigns.

Grantor does hereby covenant with the City that Grantor holds said real estate described in this Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement by Title In Fee Simple; that Grantor has good and lawful authority to convey the same; and said Grantor covenants to warrant and defend the said premises against the lawful claims of all persons whomsoever.

Each of the undersigned hereby relinquishes all rights of dower, homestead and distributive share, if any, in and to the interests conveyed by this Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement.

Words and phrases herein including acknowledgment hereof shall be construed as in the singular or plural number, and as masculine or feminine gender, according to the context.

21.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement. Signed this 3rd day of January, 2023.

Grantor: Frihalage Investments, LLC

Shane Torres, Member

STATE OF IOWA, COUNTY OF POLK, ss:

On this 3rd day of 2023 before me, the undersigned, a Notary Public in and for said County and State personally appeared Shane Torres, to me personally known, who being by me duly sworn, did say that he Member, executing the within and foregoing instrument and acknowledged that he executed the same as his voluntary act and deed of Frihalage Investments, LLC, by it and by him) voluntarily executed.

Commission Number 784798
My Commission Expires
June 26, 2023

Notary Public in and for the State of Iowa

Star Free 3rd . . . Survey, 2023

the size Self-roy of January 2023 Certain met as a consent to the
The M. Speloi

THERESA M SINCLAIR
Commission Number 784798
My Commission Expires
June 26, 2023

CITY OF POLK CITY, IOWA

that the within and foregoing ea	Clerk of the City of Polk City, Iowa, do hereby certify sement was duly approved and accepted by the City
Council of said City of Polk City	y by Resolution and Roll Call No
passed on (date)	, and this certificate is made pursuant
to authority contained in said reso	plution
	Printed Name:
	Clerk of City of Polk City

By: Shane Torres, President

STATE OF IOWA, COUNTY OF POLK, ss:

On this 3rd day of 2023 before me, the undersigned, a Notary Public in and for said County and State personally appeared Shane Torres, to me personally known, who being by me duly sworn, did say that he President, executing the within and foregoing instrument and acknowledged that he executed the same as his voluntary act and deed of Lake Front Office Park, by it and by him) voluntarily executed.

THERESA M SINCLAIR
Commission Number 784798
My Commission Expires
June 26, 2023

Notary Public in and for the State of Iowa

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EXHIBIT B

AGREEMENT AND WAIVER POST CONSTRUCTION STORM WATER MANAGEMENT

THIS AGREEMENT made and entered into by and between the City of Polk City, Iowa, hereinafter referenced the CITY, and Shape-Torres, hereinafter referenced the PROPERTY OWNERS.

WITNESSETH:

WHEREAS, the City desires to encourage orderly community development and provide for the regulation and control of the extension of public improvements, public services, and utilities; and

WHEREAS, the Property Owner, as the developer and/or owner of a construction or reconstruction project in the City of Polk City, is subject to the program implemented by the City to address storm water runoff from the project; and

WHEREAS, in order to comply with the program implemented by the City, the Property Owner has executed a Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement (hereinafter "Agreement") with the City to address the rights and obligations of the parties regarding control of post-construction storm water runoff from the project; and

WHEREAS, a provision of the Agreement requires the Property Owner to execute this Agreement and Waiver in favor of the City to allow the City to recover any costs expended for action taken by the City, its consultants, contractors and assigns to address the maintenance, reconstruction, repair, grading or dredging of the Storm Water Management Facility or Easement Area if the Property Owner or the Property Owner's successors and assigns fail to do so; and

WHEREAS, this Agreement and Waiver is made in conjunction with the Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement located:

SEE EXHIBIT "A" ATTACHED HERETO

And applies to the property described as:

Lot 1 and Lot 2 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa

NOW, THEREFORE, BE IT AGREED AMONG THE PARTIES AS FOLLOWS:

- In the event the Property Owner or its successors and assigns fail to comply with the requirements of the Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement regarding any action necessary for the maintenance, reconstruction, repair, grading or dredging of the Storm Water Management Facility or Easement Area, the City shall have the right to cause the above-described actions completed in accordance with such plans and specifications as it shall deem appropriate.
- 2. For the purpose of this Agreement, the City may elect to enter into a contract for the completion of such actions as a part of any contract(s) and assess the cost of such actions to the Property Owner or its successors and assigns pursuant to the formula established in the Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement.
- In consideration for the completion of such actions by the City, the undersigned Property Owners hereby WAIVE the following:
 - All legal formalities of whatsoever kind or character required by the laws of lowa to be observed by cities in the completion of said actions where the expense of such Improvements is to be assessed against private property; and
 - Each and every question of jurisdiction, the intention of the Property Owners being to authorize and direct said City to complete such actions without requiring any of the formalities or legal proceedings required of cities by the statutes of lowa; and
 - c. Any limitation of the amount of said assessment as a percentage of valuation as provided in the Code of Iowa; and
 - d. Any right to defer or postpone the payment for any such action.
- 4. It is further agreed that:
 - a. When said actions have been constructed or completed in accordance with the plans and specifications, the City may make assessments against the properties of the undersigned Property Owners, or their successors or assigns, for their pro-rata share of the entire cost of the construction and/or completion of said actions.
 - b. Said assessments shall be due immediately and will be paid to the City of Polk City and shall constitute a lien upon the properties hereinafter described. Further, each of the undersigned Property Owners hereby agree to accept responsibility for the assessment which is thus assessed against the Owner's property.
 - c. Said assessments shall have the same legal force and effect as if all the legal formalities provided by law in such cases had been fully and faithfully performed and observed.
- 5. The amount and proportion of the cost of the actions completed by the City to be paid shall be ascertained and determined by the Engineers and reported to the City Council, which shall make such changes or alterations as they may require. When said costs are determined and approved by the City Council, they shall constitute the assessments against the properties.
- 6. The Property Owners retain the right to request of the City a review of the mathematical calculations made to ensure their accuracy.

7. Property Owners hereby authorize the City Council to pass any Resolution requisite or necessary to order and secure said actions, to provide for the construction of the same and to make the assessments herein provided for, without further notice to said Property Owners or any of them. Any such Resolution may contain recitals that said actions are ordered or made by the Council without petition of Property Owners, without in any way qualifying this Agreement or releasing the Property Owners from their obligation to pay the assessments levied against their property for the cost of said action.

8. Each Property Owner warrants that the real estate described below is free and clear of all liens and encumbrances other than for ordinary taxes, except for such liens as are held by lienholders hereinafter listed and designated as signers of this Agreement and Waiver. Each lienholder designated below, by execution of this Agreement and Waiver, consent to the subordination of its

lien to the lien of the assessment levied pursuant hereto.

9. Each Property Owner further agrees that the terms of this Agreement and Waiver shall become a covenant which runs with the land of the belowreferenced property, and shall be binding upon all successors and assigns. Furthermore, each Property Owner shall give a copy of this Agreement and Waiver to all successors and assigns.

10. The signatories and the City agree this document will be recorded in the office of the Polk County recorder to ensure that any and all future

purchasers of property are put on notice of the above conditions.

Description of Property: Lot 1 and Lot 2 in Lake Front Office Park Plat 1, an Official Plat, in the City of Polk City, Polk County, Iowa.

PROPERTY OWNERS NAME: Frihalage Investments, LLC

By: Shane Torres Member

LENDER NAME:(Print Name):

By: Name:

Title:

EXHIBIT A

A PART OF LOT 2, LAKE FRONT OFFICE PARK PLAT 1, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 88°56'47" EAST ALONG THE SOUTH LINE OF SAID LOT 2, A DISTANCE OF 4.75 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°21'51" WEST, 34.76 FEET; THENCE SOUTH 88°10'25" EAST, 72.07 FEET; THENCE SOUTH 11°50'51" EAST, 15.34 FEET; THENCE SOUTH 89°44'40" EAST, 39.46 FEET; THENCE SOUTH 01°03'13" WEST, 19.37 FEET TO THE SOUTH LINE OF SAID LOT 2; THENCE NORTH 88°56'47" WEST ALONG SAID SOUTH LINE, 114.09 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.08 ACRES (3,298 SQUARE FEET).

AND

A PART OF LOTS 1 AND 2, LAKE FRONT OFFICE PARK PLAT 1, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 1; THENCE NORTH 00°21'51" WEST ALONG THE WEST LINE OF SAID LOT 1, A DISTANCE OF 109.81 FEET; THENCE SOUTH 58°33'48" EAST, 32.69 FEET; THENCE SOUTH 00°00'00" EAST, 99.78 FEET; THENCE SOUTH 89°38'09" WEST, 27.15 FEET TO THE WEST LINE OF SAID LOT 2; THENCE NORTH 00°21'51" WEST ALONG SAID WEST LINE, 7.19 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.07 ACRES (2,980 SQUARE FEET).

AND

A PART OF LOT 1, LAKE FRONT OFFICE PARK PLAT 1, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID LOT 1; THENCE NORTH 89°53'25" EAST ALONG THE NORTH LINE OF SAID LOT 1, A DISTANCE OF 15.13 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°53'25" EAST ALONG SAID NORTH LINE, 115.38 FEET; THENCE SOUTH 00°06'35" EAST, 26.42 FEET; THENCE SOUTH 87°20'46" WEST, 76.18 FEET; THENCE SOUTH 67°43'55" WEST, 21.78 FEET; THENCE NORTH 78°29'49" WEST, 19.50 FEET; THENCE NORTH 00°06'35" WEST, 34.10 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.08 ACRES (3,518 SQUARE FEET).



MEMO

Date: December 12, 2022

To: Mayor Steve Karsjen & City Council

Chelsea Huisman, City Manager

From: Kathleen Connor, City Engineering Representative

Subject: Amended Parking Regulations

BACKGROUND:

In conjunction with the staff review of the P.U.D. Master Plan for Leonard Senior Living, the developer requested consideration of a reduction to Polk City's zoning code requirement for off-street parking stalls for independent living, assisted living, and memory care facilities. As a result, we researched the parking regulations for these uses in other cities in the metro area and our findings were outlined in the November 8, 2022 Memo provided in the packets for the November 28, 2022 Council meeting. Staff has prepared a draft Ordinance for Council consideration based on those findings, with the proposed parking requirements summarized below, along with other minor cleanup items to clarify the code requirements related to off-street parking areas. The proposed Ordinance also increases the setback for parking lots along public streets from a five feet setback to a ten feet setback to allow more space for trees as discussed by the Planning and Zoning Commission at their November meeting.

Use	Off-Street Parking Requirement
Independent Living Facilities	1 stall per dwelling unit, a minimum of 50% of which shall
	be garage spaces, plus 1 stall per staff member on
	maximum shift, plus 1 visitor parking stall per 10 dwelling
	units
Assisted Living Facilities	1 stall per every two dwelling units, a minimum of 50% of
	which shall be garage spaces, plus 1 stall per staff member
	on maximum shift, plus1 visitor parking stall per 10
	dwelling units
Memory Care Units in Senior Living Facility	1 stall per staff member on maximum shift, plus 1 visitor
	parking stall per 10 dwelling units"
Nursing care institutions, intermediate care institutions,	1 stall per employee on maximum shift, plus 1 visitor
transitional facilities for infirm persons, and facilities for	sparking stall per 10 beds"
persons with disabilities	

ALTERNATIVES:

Approve the proposed Ordinance amending parking regulations as presented.

Amend the proposed Ordinance prior to adoption.

Do not approve the proposed Ordinance amending parking regulations.

RECOMMENDATION:

Staff recommends City Council approval of the Ordinance amending parking regulations.

ORDINANCE NO. 2022-2600

AN ORDINANCE AMENDING CHAPTER 165 ZONING REGULATIONS, SECTION 165.18 OFF-STREET PARKING AREA

BE IT ORDAINED by the City Council of the City of Polk City, Iowa, as follows:

Section 1. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by replacing the existing requirements in subsection 1.D, Table of Parking Requirements of Section 165.18, Off-Street Parking Area, under the classification of Residential use, with the following requirements:

"Independent Living Facilities: 1 space per dwelling unit, a minimum of 50% of which shall be garage spaces, plus 1 space for every employee on maximum shift, plus 1 visitor parking space per 10 dwelling units

Assisted Living Facilities: 1 space for every two dwelling units, a minimum of 50% of which shall be garage spaces, plus 1 space for every employee on maximum shift, plus 1 visitor parking space per 10 dwelling units"

Section 2. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by adding the following requirements to subsection 1.D, Table of Parking Requirements of Section 165.18, Off-Street Parking Area, under the classification of Institutional Residence or Care or Confinement Facilities use:

"Memory Care Units in Senior Living Facility: 1 space for every employee on maximum shift, plus 1 visitor parking space per 10 dwelling units"

Section 3. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by deleting the following requirements in subsection 1.D, Table of Parking Requirements of Section 165.18, Off-Street Parking Area, under the classification of Institutional Residence or Care or Confinement Facilities:

"Nursing care institutions, intermediate care institutions, institutions for infirm persons or persons with disabilities, childcare institutions: 3 spaces for every five beds. Multi-family units developed or sponsored by a public or nonprofit agency for limited income families, or the elderly require only 1 space per unit"

and replacing it instead with the following requirements:

"Nursing care institutions, intermediate care institutions, transitional facilities for infirm persons, or facilities for persons with disabilities: 1 space per employee on maximum shift, plus 1 visitor parking space per 10 beds"

Section 4. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by adding the following clause to the end of subsection 7.A of Section 165.09:

"and except for independent and assisting living units in a senior living facility."

Section 5. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by replacing the first sentence of sub section 4.A of Section 165.18, Off-Street Parking Area with the following sentence:

"No part of any parking space shall be closer than ten feet to any established public street right-of-way or five feet to any established alley line."

Section 6. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by deleting the following clause in subsection 3.C.:

"Mini-storage units, including access drives and parking areas, shall be on paved surfaces."

and replacing it with the following clause:

"Mini-storage facilities, mini-warehouses, and outdoor storage spaces for recreational vehicles of any kind, including all access drives and parking areas, shall be on paved surfaces".

Section 7. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by amending subsection 1.D, Table of Parking Requirements of Section 165.18, Off-Street Parking Area, under the classification of Office, Clerical, Research and Services not Primarily Related to Goods or Merchandise, by deleting the following use:

"Operations designed to attract and serve customers or clients on the premises, such as the offices of attorneys, physicians, other professions, insurance and stockbrokers, travel agents, government office buildings, etc."

and replacing it with the following:

"Operations designed to attract and serve customers or clients on the premises, such as the offices of attorneys, insurance agents, financial professionals and stockbrokers, travel agents, government offices, and similar professional offices"

Section 8. Chapter 165, of the Polk City Code of Ordinances; Zoning Regulations, is hereby amended by amending subsection 1.D, Table of Parking Requirements of Section 165.18, Off-Street Parking Area, under the classification of Office, Clerical, Research and Services not Primarily Related to Goods or Merchandise, by deleting the following use:

"Office or clinics of physicians or dentists with no more than 10,000 square feet of gross floor area."

and replacing it with the following:

"Clinics of physicians, dentists or similar medical professionals with no more than 10,000 square feet of gross floor area."

Section 9. All Ordinances or parts of any Ordinance in conflict with the provisions of this Ordinance are hereby repealed to the extent of the conflict.

Section 10. This Ordinance shall be in full force and effect after its passage, approval and publication as provided by law.

PASSED AND APPROVED this	, 2023.
	Steve Karsjen, Mayor
ATTEST:	
	First Reading:
Jenny Coffin, City Clerk	Second Reading:
•	Third Reading:
	Date Adopted:
	Date of Publication:

	Polk City	Ankeny	Grimes	Johnston	Pleasant Hill	Bondurant	Altoona	Urbandale	Clive	Waukee	Norwalk
Vehicle Sales & Service	1/200 sqft	1/ 200 sqft	4/service bay	1/300 Sqft	2/bay plus 1/empl	1/200sqft	1/200sqft	-	1/1000sqft	3/bay 1per serv vehicle 2.5/1000 sqft	1/300 Sqft 1/empl working
Banks, Business and Pro Services	1/200 sqft		3/1000sqft	1/200 sqft	1/250 sqft + 3 per drive up and ATM	1/200sqft	1/200sqft + 5per window	=	3/ 1000sqft	3/1000sqft 3/ drive through lane	1/250 sqft 1/empl working
Bowling Allys	1 per 3 people plus 1 per 200 sqft	1 per 3 people plus 1 per 200 sqft	3/lane	5/alley	4/lane	5/lane	5/lane	5/lane	5/lane	5/lane	5/alley 1/ 4 spectators
Churches	1/80sqft plus 1 per 2 empl	1/80sqft plus 1 per 2 empl	1/3 seats	1 each 3 seats	1/4 seats	1/80sqft	1/80sqft + 1/2empl	1/3seats	1/4 seats	1/4seats	1/ 3seats 1/classroom
Event Centers	1/ 4 seats	1/ 300 sqft	1/4 seats 20/1000sqft	1/ 100 sqft	1/4 seats	1/100sqft	1/100sqft	1/50sqft	1/3 seats if under 399 seats plus 1 per 4 over 400	1/3 seats or 20/1000	1/100 sqft 4/seat
Child Care Centers	1 per employee plus 1/300 sqft	1 per employee plus 1/300 sqft	1/staff plus loading for 1/6children	5 or 1 per 5 client	1/employee plus 1/10kids	1/2empl + 1/5kids	1/empl + 1.5/10 clients	1/empl + 1/6 kids	1/6 students +1/van 5 min	1/6 students +1/van 5 min	5 or 1/each 5
Funeral Homes	1/ 100 sqft	1/ 100 sqft	1/4 seats 10/1000sq	15 or 1/each 4 seats	1/250sqft 1/4seats	1/5seats	1/5 seats	1/5 seats	1/4 fixed seats or 10/1000 sqft	1/4 fixed seats or 10/1000 sqft	15 or 1/each 4 seats
Furniture, Appliance, Large Item Stores	1/400 sqft			5 or 1 for each 400 sqft	1/ 250 sqft	1/400sqft	1/200sqft	-	2.5/1000 sqft	2.5/1000 sqft	1/250 sqft to 2000 sqft and 1/200 thereafter
Gas Stations	1/ 150 sqft	1/ 200 sqft	3/ 1000sqft	3 or 1/175 sqft whichever is greater	2/bay plus 1/empl	1/150sqft	1/150sqft	-	5/1000 sqft	5/1000 sqft	3 or 1/175 sqft whichever is greater
Golf Course	1/200 sqft of buildings plus 1/3 persons outdoor capacity	1/ 200 sqft of buildings plus 1/ 3 person		6 for each whole and 1/empl	4/hole or tee	-	-	-	6/hole	6/hole	6 for each whole and 1/empl
Driving Range	1/tee plus 1/200sq	1 per 200 sqft		1.5/ each tee	4/hole or tee	-	-	-	2/tee		1.5/ each tee
Health clubs			2.25/1000sqft	10 plus 1/each 200 sqft	1/250 sqft	-	-	-	2.25/1000sqft	1/2 units + 1/staff	10 plus 1/each 200 sqft
Hostpitals and Nursing homes	2/ bed or 1per 150 sqft	2/ bed or 1per 150 sqft		1/ each 4 patient beds and 1/ each empl	3/bed	2/bed or 1/150sqft	2/bed 1/150sqft	1/2beds +1/empl	1/2 units +1/staff		1/ each 4 patient beds and 1/ each empl
Hotels, Motels and Boarding houses			1.25/ room	1/ each guest room and 1/ each 2 empl	1/bedroom	1/room	1/room	1/room	1/room	1/room	1/ each guest room and 1/ each 2 empl
Industrial Plants			1/3employees working no less 1/1000	1.5/ each 2 empl max working or 1/ 500 sqft	1/1000 sqft	1/1.5 empl + 1	1/empl	1/1000sqfr	1.5/1000 sqft	1/1000 sqft 2/2 employees	1.5/ each 2 empl max working or 1/ 500 sqft
Schools	1.75 per classroom	1.75 per classroom	elem: 1/staff plus 1/4seats in auditorium/gym	elem/middle: 1/ each staff 1/ 10 student desks HS: 1/each staff 1/ 9 desks	1/4 student desks + 1/employee at peak	1/2empl or 1/8seats in auditorium	1/2empl or 1/8seats in auditorium	2/emp + 1/5 students	1/2empl or 1/8seats in auditorium	1/empl 1/classroom 1/4 seats in auditorium	elem/middle: 1/ each staff 1/ 10 student desk HS: 1/each staff 1/ 9 desks



PETITION FOR REZONING TO P.U.D.

Date: November 7, 2022 Prepared by: Kathleen Connor

Travis D. Thornburgh, P.E.

Project: Leonard Senior Living Project No.: 122.1349.01

Rezoning & PUD Master Plan

GENERAL INFORMATION:

Property Owner: Clifford Leonard

Applicant: Maven Crux Development

Area: 6.044 Acres

Current Zoning: R-1 Single Family Detached

Residential District

Requested Zoning: P.U.D

Existing Land Use: Single Family Residential

Future Land Use: Low Density Residential

(1-4 Dwelling Units/Acre)

Requested Future Land Use: High Density Residential

(8-24 Dwelling Units/Acre)



BACKGROUND:

The subject parcel is shown in purple above. This property contains one existing home, built in 1905, on a large lot which leaves the bulk of the lot vacant. When Polk City later adopted zoning regulations, the parcel was zoned to R-1 residential. The owner is now interested in selling his property for development purposes.

PETITION TO REZONE TO P.U.D.

On behalf of Clifford Leonard, Maven Crux Development has submitted a Petition for Rezoning of the subject property from R-1 to P.U.D. The purpose of this request is for development of a senior living facility. While such facilities are permitted in the R-3 zoning district, the developer believes PUD zoning will better accommodate the variety of dwelling types and uses being proposed as part of this development in this location adjacent to an established residential neighborhood. In addition, a PUD will allow more efficient use of the available land by reducing parking requirements to better reflect the actual anticipated traffic loading of the intended residents.

The applicant has obtained consent to the proposed rezoning from the owners of 53.4% of the area contained within the 250' buffer surrounding the proposed rezoning. The City Clerk will provide notice of the public hearing, the date of which has not yet been set by Council.

PROJECT DESCRIPTION:

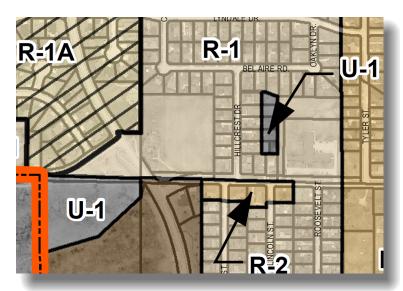
Maven-Crux Development intends to construct a Senior Living Center, with various levels of care. The developer plans for the center to include three connected buildings that together will include approximately 33 independent living units, 51 assisted living units, and 42 memory care units along with common facilities that will be used by residents and their guests. Each of these care levels will offer multiple floor plans, with a variety of unit sizes. The common facilities will be located in the Town Center building and will offer amenities such as the primary kitchen and dining facilities, multi-purpose gathering spaces, offices, mail delivery, maintenance, and other related uses. The Master Plan indicates the planned location for parking, including underground parking, and a fire apparatus road that will also serve as a recreational trail that will connect to Leonard Park and the Neal Smith Trail. Landscape buffers will be planted along the north and east boundaries of the development and parkway trees will be planted along Parker Boulevard.

COMPREHENSIVE PLAN:

The provision of additional housing options was identified in the Comprehensive Plan and City Staff as a needed area of growth in the City of Polk City. There appears to be a need for senior living options within the city.

The current zoning and existing and future land use of the properties surrounding the area proposed to be rezoned are as follows:

Adjacency	Zoning	Existing Land Use	Future Land Use
Southwest (SW)	R-1 & U-1	Open Space	Open Space
Northwest (NW)	R-1A	Leonard Park	Parks and Recreation
North (N)	R-1	SF Residential	Low Density Residential
East (E)	R-1	SF Residential	Low Density Residential
South (S)	PUD & R-2	SF Residential	Low Density Residential



Zoning Map Excerpt



Future Land Use Plan Excerpt

A Comprehensive Plan Amendment will be required prior to approval of the rezoning to PUD since the proposed use of this lot exceeds the maximum density for low density residential use of four (4) dwelling units per acre. The conceptual layout for the PUD Master Plan shows 20.8 dwelling units per acre. As a result, the Future Land Use Plan would need to be amended to designate this parcel as a High Density Residential used, intended for use in districts with 8-24 dwelling units per acre, prior to rezoning this parcel to PUD for the senior living center.

P.U.D. MASTER PLAN & RESTRICTIONS:

As required for all P.U.D. rezonings, the developer has provided a P.U.D. Master Plan for this development. The master plan shows construction a large, senior living center intended to contain 126 dwelling units of various care levels. The facility would provide a continuum of care, including Independent Living, Assisted Living, and Memory Care. The assisted and independent living units will be in a 3-story, 94,386 sq. ft. building on the west side of the site. The 1-story, 30,271 sq. ft. memory care building will be on the east side of the site. Between these buildings will be a 18,700 sq. ft.1-2 story building for common uses, referred to as the Town Center. The three buildings are interconnected with enclosed breezeways. The developer has provided conceptual architectural elevations to demonstrate the character of the building, including pitched rooflines with gables to soften the mass of the building and a combination of brick and stone veneers to enhance the horizontal lap siding.

The master plan calls for a fire apparatus road that also serves as a recreational trail. The plan calls for removable bollards at each end of this trail to restrict non-emergency vehicular traffic on this pavement. The existing type, size, and quantity of these bollards will be determined by the City at the time of site plan approval. City Staff will also provide additional fire truck information at the time of site plan review to ensure that the fire lane is appropriately designed to accommodate emergency services.

There is an existing paved recreational trail along the entire street frontage of this lot. Prior to site plan or plat approval staff will review the need for a Petition & Waiver for reconstruction of this as a PCC trail, along with the need for easements where the trail encroaches on private property.

The P.U.D. Master Plan, and future Ordinance, include the following stipulations:

- a. The proposed setbacks shall be a 30' front yard along W. Washington Street and Parker Blvd., 40' yard on the north and east sides of the lot, and 12.5' side yard on the west side adjacent to the park. For comparison, the R-3 district requires a of 30' front yard, 40' rear yard (east), and 12.5' side yard (north).
- b. A Type 'B' semi-opaque landscape buffer shall be provided within a 20' wide easement on the north and east property lines to provide screening for existing R-1 zoning districts. For comparison, the R-3 district requires a Type "A" open screen within a 20' easement abutting R-1 properties.
- c. The south and west sides of the 3-story independent/assisted living building will be 30% brick (or acceptable alternative) and the north and east will be 15% brick. The south elevation of the 1-2 story Town Center will be 30% brick and the north elevation of this building will be 15% brick, while the less visible east and west sides would not be required to have any brick. All elevations of the 1-story Memory Care building will be 15% brick. For

comparison purposes, Code requires all R-3 residential buildings with more than 4 dwelling units to be 30% brick on the facades facing public streets, but there is no requirement for brick on other facades.

d. Pursuant to discussion at the last P&Z meeting, the developer agreed to increase the proposed visitor parking stalls to one per ten units. The parking requirements for this use shall be based on:

Parking Proposed			Per Zoning Code (2 bedrooms/unit, max)		
Regs	Requirement	Stalls	Requirement	Stalls	
Independent Living (33 units)	1 stall/unit	33	1.25 stalls / unit + 1 garage stall / unit + 1 visitor stall / 5 units	81	
Assisted Living (51 units)	0.5 stalls/unit	25	1stall / 2 units + 1/on-duty staff member	35	
Memory Care (42 units)	1 stall/staff @ max shift	30	3 stalls/5 beds	26	
Visitor Parking (126 total units)	1 stall/10 units	13			
Total Stalls	Per Master Plan	101	Per Code	142	
Stalls Provided	Per Master Plan	105			
Garage	Included in above total	55	Included in above total	33	

Following the Polk City Planning & Zoning meeting on October 17, staff reviewed parking requirements for this facility as if it were to be proposed in several other Des Moines Metropolitan Area cities. Included in the packet are the findings of that review for P&Z's consideration.

Based on the findings summarized in the attached memo, city staff is in agreement that parking requirements for Assisted Living facilities in Polk City are comparably high to other Des Moines Metropolitan Area communities. City staff will review this code requirement and a proposed change to this section of Polk City's code will placed on a future City Council agenda.

- e. In addition to the above-described parking, the developer proposes use of off-site parking and a shuttle service to provide additional parking accommodations for particularly busy days, planned events, and holidays at the facility. The owner would contact a local church or business to rent their parking lot and provide a shuttle service from that remote parking to the proposed facility. The developer has used a similar at other facilities they own and manage with great success.
- f. The parkland dedication shall be fulfilled by a fee that is equivalent to the fair market value of the land, based on 360.851 square feet of land per dwelling unit. The fair market value will be determined by the City Manager when the property is platted. City staff has discussed the

- possibility of the developer installing a previously planned parking lot at Leonard Park, with the actual cost of the parking lot being credited against the required parkland dedication fee.
- g. This property shall be platted in accordance with the Subdivision Regulations prior to Site Plan approval.
- h. The PUD area is 6.04 acres. Per Code, Council may waive the requirement for PUD's to be a minimum of 10 acres due to site constraints. From staff's perspective, waiving the 10-acre minimum seems reasonable given the developed nature of the area surrounding this largely undeveloped lot.

REVIEW COMMENTS:

All of staff's review comments on the rezoning and PUD Master Plan have been addressed, with the exception of revising the proposed visitor parking stalls requirement to one stall per 10 units which results in 13 visitor parking stalls and a total of 101 stalls required for the facility. This item will be updated prior to presentation of this project to City Council, along with updates following P&Z's recommendation.

The proposed regulations and restrictions for the Leonard Senior Living PUD are included in the "P.U.D. Master Plan & Restrictions" section above.

RECOMMENDATION ON COMPREHENSIVE PLAN AMENDMENT:

At their meeting, the Planning & Zoning Commission should make a recommendation to City Council on the proposed amendment to the Comprehensive Plan's Future Land Use Plan which would change the future land use for the subject property from low density residential to high density residential, based on one of the following options:

- A. Approve the applicant's request to amend the future land use of the subject area to high density residential use.
- B. Deny the applicant's request to amend the future land use of the subject area to high density residential use.
- C. Approve the applicant's request to amend the future land use of the subject area to high density residential use, subject to certain modifications or restrictions as specified in P&Z's recommendation(s).

RECOMMENDATION ON REZONING:

Based on prior approval of the above Comprehensive Plan amendment, the Planning & Zoning Commission should also make a recommendation to City Council regarding the proposed rezoning for the subject property from R-1 to PUD, based on one of the following options:

- A. Approve the applicant's request to rezone their property to Planned Unit Development (PUD) as presented, subject to the following:
 - 1. Approval of the associated PUD Master Plan, including the above-described stipulations, in conjunction with the rezoning.
 - 2. Council waiver of 10-acre minimum requirement for PUD District.

Leonard Senior Living and PUD Rezoning & Master Plan November 7, 2022 Page 6 of 6

- 3. Payment of all professional billings to the City of Polk City.
- B. Deny the applicant's request to rezone their property to Planned Unit Development (PUD) as presented.
- C. Approve the applicant's request to rezone their property to Planned Unit Development (PUD) subject to certain revisions to the Master Plan and/or the above-described stipulations or additional restrictions as specified in the P&Z's recommendation, provided the applicant agrees to said amended recommendation(s).

ORDINANCE NO. 2022-2500

AN ORDINANCE AMENDING THE MUNICIPAL CODE OF THE CITY OF POLK CITY, IOWA, BY REZONING PROPERTY LOCATED AT 1421 W WASHINGTON AVE FROM R-1 SINGLE FAMILY DETACHED RESIDENTIAL TO PUD PLANNED UNIT DEVELOPMENT

WHEREAS, on the 10th day of November 2022, the Planning and Zoning Commission of the City of Polk City, Iowa, recommended to the City Council that the property legally described as:

THAT PART OF LOTS 13 AND 17, THE OFFICIAL PLAT OF THE NORTH HALF OF SECTION 2, TOWNSHIP 80 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA, LYING NORTH OF THE CENTERLINE OF W WASHINGTON AVENUE AND EAST OF THE CENTERLINE OF PARKER BOULEVARD.

ALL CONTAINING 6.044 ACRES MORE OR LESS.

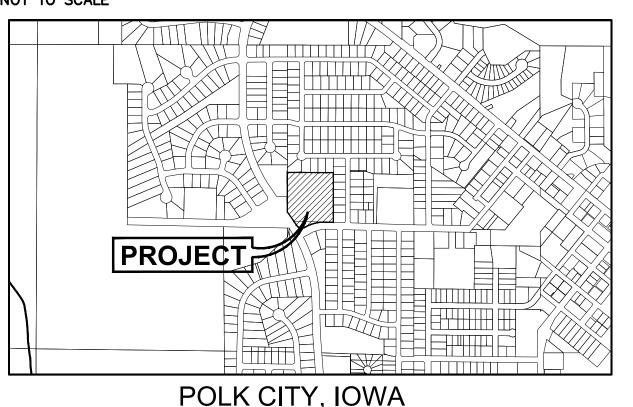
be considered for rezoning from zoning classification R-1 Single Family detached Residential to PUD Planned Unit Development; and

WHEREAS, after due notice and hearing as provided by law, the City Council now deems it reasonable and appropriate to rezone said property.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF POLK CITY, IOWA:

- **Section 1:** That the Municipal Code of the City of Polk City, Iowa, be and is hereby amended by rezoning the 6.044 acres from R-1 Single Family detached Residential to PUD Planned Unite Development.
- **Section 2:** All Zoning Regulations, other than those specifically amended, waived, or replaced on an approved P.U.D. Planned Unit Development Master Plan, shall apply.
- **Section 3:** All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.
- **Section 4:** This ordinance shall be in full force and effect after its passage, approval and publication as provided by law.

provided by law.			
PASSED AND APPROVED this	of	2022.	
ATTEST:	S	teve Karsjen, Mayor	
Jenny Coffin, City Clerk		First Reading: Second Reading: Third Reading: Date of Publication by posting	



OWNER

CLIFFORD A LEONARD 1421 W WASHINGTON AVENUE POLK CITY, IA 50226

DEVELOPER

MAVEN CRUX DEVELOPMENT CONTACT: BRYAN SCHNURR 16852 AURORA COURT CLIVE, IA 50325

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE CONTACT: EMILY HARDING 4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PH. (515) 369-4400 FX. (515) 369-4410

ARCHITECT

POPE ARCHITECTS 1295 BANDANA BLVD N. SUITE 200 ST. PAUL, MN 55108-2735 CONTACT: JEFFREY A. AVILES EMAIL: JAVILES@POPEDESIGN.COM PH: (651) 789-1595

PROJECT SITE ADDRESS

1421 W WASHINGTON AVE POLK CITY, IA 50226

ZONING

EXISTING:

R-1 SINGLE FAMILY DETACHED RESIDENTIAL DISTRICT

PUD PLANNED UNIT DEVELOPMENT WITH UNDERLYING R-3 ZONING

SUBMITTAL DATES

FIRST SUBMITTAL: 09/21/2022 SECOND SUBMITTAL: 10/10/2022 THIRD SUBMITTAL: 11/03/2022 FOURTH SUBMITTAL: 11/18/2022 FIFTH SUBMITTAL: 12/07/2022

REZONING DESCRIPTION

ALL CONTAINING 6.044 ACRES MORE OR LESS.

THAT PART OF LOTS 13 AND 17, THE OFFICIAL PLAT OF THE NORTH HALF OF SECTION 2, TOWNSHIP 80 NORTH, RANGE 25 WEST OF THE FIFTH PRINCIPAL MERIDIAN, AN OFFICIAL PLAT IN THE CITY OF POLK CITY, POLK COUNTY, IOWA, LYING NORTH OF THE CENTERLINE OF W WASHINGTON AVENUE AND EAST OF THE CENTERLINE OF PARKER BOULEVARD.

PROJECT TIMETABLE

ANTICIPATED START DATE = SPRING 2023 ANTICIPATED FINISH DATE = SPRING 2024

GENERAL NOTES

- 1. THE BUILDER AND OWNER IS RESPONSIBLE FOR THE MAINTENANCE, EROSION CONTROL, AND ADHERENCE TO ALL EPA AND DNR STANDARDS.
- 2. THE IMPACT TO EXISTING VEGETATION ON SITE SHALL BE MINIMIZED WHEN LOCATING AND DESIGNING THE STORM WATER DETENTION BASIN.
- 3. TYPE B SCREENING PLANTINGS SHALL BE PROVIDED WITHIN THE 20' BUFFER ON THE EAST AND NORTH SIDES OF THE PROPERTY.
- 4. THIS DEVELOPMENT IS PLANNED TO BE CONSTRUCTED IN ONE PHASE.
- 5. THIS PARCEL SHALL BE PLATTED IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS PRIOR TO APPROVAL OF THE SITE
- 6. THE SUBDIVISION REGULATIONS REQUIRE 8.284 ACRES PER 1,000 PEOPLE OR 360.851 SQUARE FEET PER RESIDENT OF PARKLAND DEDICATION. DUE TO THE LIMITED MOBILITY OF RESIDENTS IN THIS FACILITY, PARKLAND DEDICATION REQUIREMENTS FOR THIS P.U.D. SHALL BE CALCULATED BASED ON THE FOLLOWING EQUIVALENT DWELLING UNITS (EDU'S):

MEMORY CARE (42 UNITS) AT 1.00 EDU/UNIT ASSISTED LIVING (51 UNITS) AT 1.10 EDU/UNIT INDEPENDENT LIVING (33 UNITS) AT 1.25 EDU/UNIT TOTAL PARKLAND REQUIRED:

=(42*1.00 + 51*1.10 + 33*1.25)*360.851 SF/RESIDENT =50.285 SF

- 7. BUILDING ELEVATIONS SHALL INCLUDE BRICK OR AN ACCEPTABLE ALTERNATIVE IN THESE LOCATIONS: - AL/IL: 30% MIN. ON SOUTH & WEST SIDES
- AL/IL: 15% MIN. ON NORTH & EAST SIDES - TC: 30% MIN. ON SOUTH SIDE - TC: 15% MIN. ON NORTH SIDE

- MC: 15% MIN. ON ALL SIDES

8. THE BUILDING WILL BE SPRINKLED USING NFPA 13R. NFPA 13R FACILITIES ARE 'PARTIALLY SPRINKLERED' TO PROVIDE LIFE SAFETY AND A MODERATE LEVEL OF BUILDING PROTECTION. NFPA 13R COMMONLY ALLOWS FOR THE ELIMINATION OF FIRE PROTECTION IN ATTICS, CLOSETS, AND BATHROOMS.

INDEX OF SHEETS

DESCRIPTION

- **COVER SHEET**
- MASTER PLAN
- **ELEVATIONS**
- SPACE PROGRAM
- PRECEDENT IMAGES

GENERAL DEVELOPMENT CONCEPT

WE ARE PROPOSING TO DEVELOP AND CONSTRUCT A MULTI-LEVEL CARE SENIOR LIVING COMMUNITY CONSISTING OF APPROXIMATELY 33 UNITS OF INDEPENDENT LIVING (I.L.) (THREE STORY), 51 ASSISTED LIVING (A.L.) (THREE STORY), AND 42 MEMORY CARE UNITS (M.C.) (ONE STORY) ON APPROXIMATELY 5.81 ACRES (APPROXIMATELY 22 UNITS PER ACRE). PROVIDING EACH OF THESE LEVELS OF CARE ON THE SAME CAMPUS ALLOWS FOR A RESIDENT TO MOVE FROM ONE LEVEL OF NEED TO THE HIGHER LEVEL OF CARE AS NEEDED. DUE TO THE TYPICAL AGE, PHYSICAL CONDITION, AND MENTAL ACUITY OF SOME RESIDENTS IT IS IMPORTANT TO HAVE THIS SENIOR LIVING COMMUNITY CLOSE TO THE ACTIVITIES AND SERVICES THE GREATER POLK CITY AREA HAS TO OFFER. (OFFSITE DINING OPTION, HAIR AND NAIL SALONS, CHURCHES, PARKS, ETC.) THE PROPOSED COMMUNITY WILL HAVE A COMMON AMENITIES BUILDING (TOWN CENTER) FOR USE BY SENIOR LIVING COMMUNITY RESIDENTS AND THEIR GUESTS THAT CONTAINS THE PRIMARY KITCHEN, DINING AREAS, SOCIAL ACTIVITIES SPACES SUCH AS INFORMAL DINING OPTIONS, MULTI-PURPOSE GATHERING SPACES, OFFICES, MAIL DELIVERY, MAINTENANCE, AND OTHER RELATED SPACES. THERE IS NO ANCILLARY USE OF THIS SPACE PLANNED FOR AND NO TRANSITIONAL USE OF THE SPACE IS NEEDED. THE SECOND STORY OF THE BUILDING WILL ALSO CONTAIN SPACES TO BE USED BY THE SENIOR LIVING RESIDENTS AND THEIR GUESTS. THE TOWN CENTER IS NOT OPEN TO THE GENERAL PUBLIC. THE CURRENT PROGRAM PROVIDED INDICATES THE APPROXIMATE SQUARE FOOTAGES FOR EACH AMENITY TO BE INCLUDED BUT FURTHER DESIGN WILL BE REQUIRED TO DETERMINE WHICH OF THESE IS LOCATED ON LEVELS 1 OR 2.

THE MARKET STUDY COMMISSIONED FOR THIS PROJECT STATES THERE IS A NEED IN POLK CITY FOR A PROJECT MUCH LARGER IN SIZE THAN WHAT WE CAN PROVIDE ON THIS SITE. THE SITE IS SLIGHTLY SMALLER THAN WE WOULD IDEALLY LIKE, BUT PROVIDING THE FULL CONTINUUM OF CARE IS CRITICAL AND IN ORDER TO ACCOMPLISH THIS THE PROJECT HAS TO BE OF ENOUGH SIZE TO MAKE IT FINANCIALLY FEASIBLE. THAT IS DRIVING THE NEED TO BUILD THREE STORIES ON A PORTION OF THE BUILDING, IN AN EFFORT TO BUFFER THIS AS MUCH AS POSSIBLE, WE HAVE WORKED TO POSITION THE TALLER BUILDINGS ON THE FAR EDGE OF THE SITE, AWAY FROM MOST OF THE EXISTING HOMES. THE M.C. NEEDS TO REMAIN A SINGLE STORY DUE TO THE MOBILITY ISSUES OF THE RESIDENTS AND TO PREVENT AN ADDITIONAL LEVEL OF CODE-REQUIRED COST ISSUES IF MORE THAN ONE STORY. WE ARE REQUESTING A ZONING CHANGE FROM R1 TO PUD FOR THIS COMMUNITY, AND UNDER THE PUD THE BUILDING HEIGHTS APPEAR TO BE WITHIN THE LIMITS OF THE CODE.

THE PROJECT IS ESTIMATED TO GENERATE 70-80 PAID POSITIONS WHICH WILL OPERATE IN THREE SHIFTS. DUE TO THE TIMING OF THE SHIFTS. ONLY ONE GENERALLY WOULD HIT PEAK TRAFFIC TIMES. TRAFFIC GENERATED BY THIS COMMUNITY TYPE IS MUCH LIGHTER THAN TYPICAL DEVELOPMENTS. WE ARE THEREFORE REQUESTING A DEVIATION FROM THE TYPICAL PARKING COUNTS REQUIRED FOR THIS COMMUNITY. FOR INDEPENDENT LIVING WE REQUEST 1 STALL PER UNIT (33 STALLS), FOR A.L., DRIVING IS EXTREMELY LIMITED FOR RESIDENTS AND WE REQUEST 0.5 STALLS PER UNIT (25 STALLS). FOR M.C., THERE ARE NOT DRIVING RESIDENTS, SO NO STALLS ARE NEEDED. IN REGARDS TO STAFF, WE REQUEST A DEVIATION TO ALLOW FOR 30 STALLS BASED ON THE THREE SHIFTS MENTIONED FOR THE 70-80 STAFF MEMBERS. ONE VISITOR PARKING STALL WILL BE PROVIDED PER 10 UNITS. THAT WOULD BRING THE TOTAL REQUIRED PARKING COUNT TO 101 STALLS. WE ARE CURRENTLY SHOWING A DRAFT SITE PARKING PLAN THAT ALLOWS FOR 50 SURFACE PARKING SPACES AND THE BALANCE WOULD BE PROVIDED UNDER THE INDEPENDENT LIVING BUILDING.

IN ADDITION TO THE PARKING DEVIATION. WE ARE REQUESTING THE WALKING PATH SHOWN AROUND THE PERIMETER OF THE BUILDING BE APPROVED FOR AN EMERGENCY ONLY FIRE TRUCK ACCESS. REMOVABLE BOLLARDS WOULD BE PLACED ON THE PATH ENTRANCE TO RESTRICT ITS USE AS PEDESTRIAN ONLY UNDER NORMAL CIRCUMSTANCES. IN THE EVENT OF NEED. THE FIRE DEPARTMENT WOULD HAVE THE ABILITY TO REMOVE THE BOLLARDS AND ACCESS THE PATH WITH THE FIRE TRUCKS. A HAMMERHEAD AREA AT THE NORTHWEST CORNER OF THE SITE WOULD BE INSTALLED TO ALLOW THE FIRETRUCK TO TURN AROUND AND EXIT THE SITE.

WE APPRECIATE YOUR CONSIDERATION FOR THIS REZONING AND LOOK FORWARD TO PROVIDING THE MUCH NEEDED SERVICES OF CARE FOR POLK CITY RESIDENTS.

DEVELOPMENT SUMMARY

PARKING

REQUIRED:

1 STALL PER IL UNIT * 33 UNITS = 33 STALLS 0.5 STALLS PER AL UNIT * 51 UNITS = 25 STALLS 1 STALL PER EMPLOYEE ON MAXIMUM SHIFT = 30 STALLS STALL PER 10 UNITS FOR VISITORS = 13 STALLS TOTAL REQUIRED = 101 STALLS

PROVIDED: UNDERGROUND STALLS = 55 STALLS SURFACE STALLS = 50 STALLS TOTAL PROVIDED =

BULK REGULATIONS

SETBACKS: FRONT YARD = 30' MIN. REAR YARD = 40° MIN. SIDE YARD = 12.5' MIN.



4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322 PH: (515) 369-4400 Fax: (515) 369-4410 PROJECT NO. 2205.396





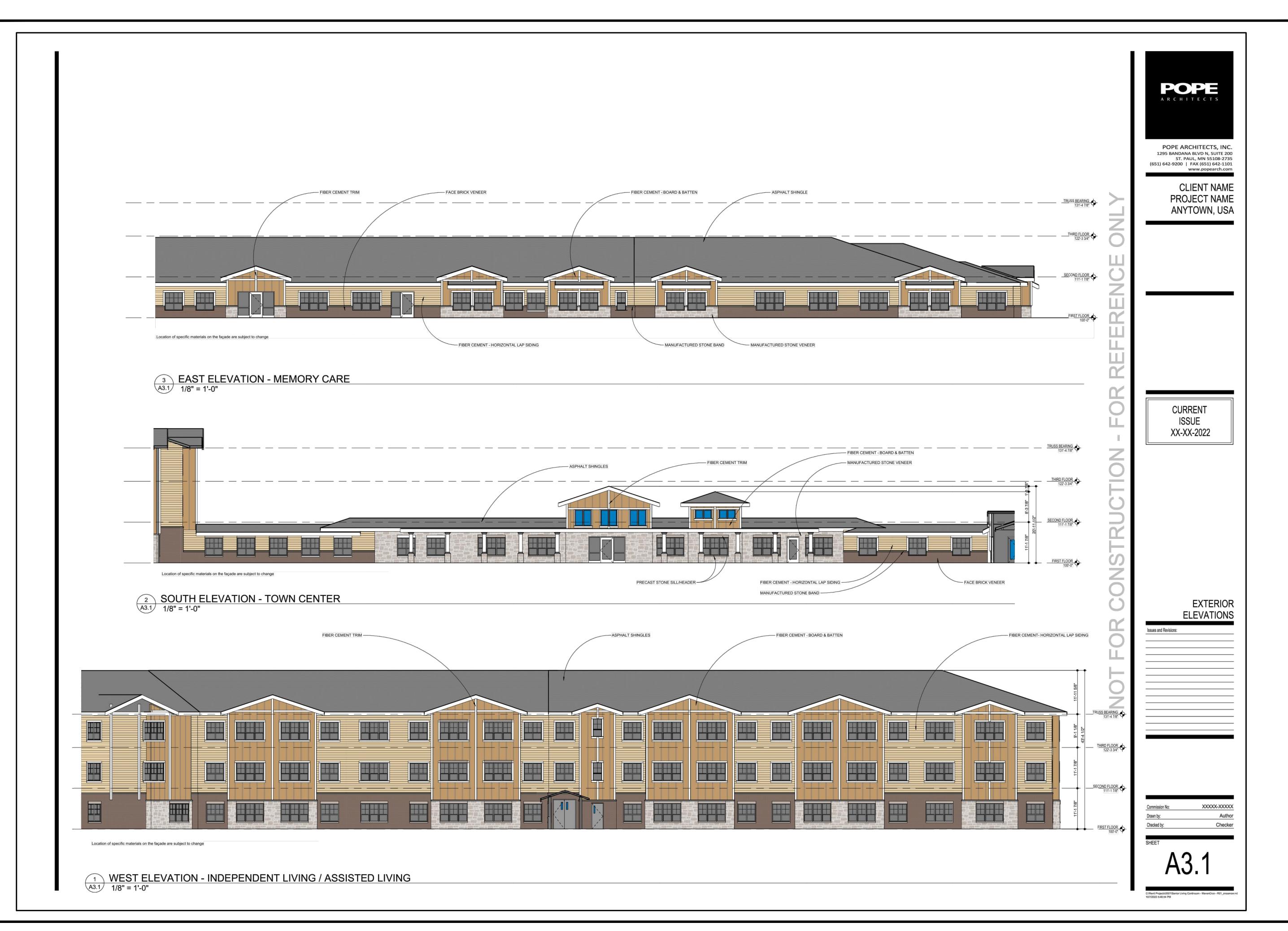


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SENIOR

LEONARD

2205.396

10/7/2022	MavenCrux Senior Living Polk City, IA				Pope Design Grou PAI# M22-02
SR. HOUSING OVERALL UNIT MIX	& SQUARI	E FOOTAGE			
Description	Number	Net Sq. Ft.	Total Sq. Ft.		
Skilled Nursing N/A					
Total Units	0	Subtotal	0		
Total Beds	0				
Memory Care & Care Suites Resident Unit	'S				
Single Occupancy Memory Care Dual Occupancy	36 6	350 450	12,600 2,700		
0 Total Units	0 42	0 Subtotal	0 15,300		
Assisted Living					
A-Studio	9	525	4,725		
B-One Bedroom	18	650	11,700		
C-One Bedroom D-Two Bedroom	15 9	750 1050	11,250 9,450		
0	0	0	0		
0	0	0	0		
Total Units	51	Subtotal	37,125		
Independent Living Resident Units					
A-One Bedroom	0	650	0		
B-One Bedroom	12	750	9,000		
C-One Bedroom w/Den	6	950 1050	5,700		
D-One Bedroom w/Den Large E-Two Bedroom	3 6	1050 1150	3,150 6,900		
F-Two Bedroom w/ Sun Room	6	1300	7,800		
0	-		, ,		
Total Units	33	Subtotal	32,550		
TOTAL SQUARE FOOTAGE	Parking	1st	2nd	3rd	Total
Town Center		9,357	9,357		18,714
Memory Care		30,271	15.640	45.640	30,271
Assisted Living		15,640	15,640	15,640	46,920
Congregate Living		15,822	15,822	15,822	47,466

MavenCrux Senior Living 10/6/2022 Pope Design Group PAI# M22-021 Polk City, IA

SPACE ALLOCATION ANALYSIS FOR TOWN CENTER

Description	Number	Net Sq. Ft.	Total Sq. Ft.	Comments
Public Activities				
Barber / Beauty (2 stations)	1	275	275	not open to public
Vestibule	1	75	75	
Lobby / Atrium	1	1,200	1,200	
Library	1	400	400	
Convenience /Gift	1	75	75	
Mail / Cubby Holes (front Load)	1	100	100	Possibly in elevator lobby
Package Room	1	50	50	near receptionist
Public Toilets (Men & Women)	2	75	150	2 fixtures men & women
Community Room / Chapel	1	1,000	1,000	gathering for 50, inclu serv. kit.
Community Room Storage	1	100	100	5
Coat Room	1	50	50	
Public Toilets	2	75	150	
Theater	1	800	800	
Art Studio	1	200	200	
, ii e o caa i o	_	200	0	
Club Lounge	1	500	500	
ciab Eddinge	-	300	0	
			0	
Wellness	1	800	800	
Reflection Room	1	120	120	Quiet Space
Reflection Room	-	120	0	Quiet Space
		Subtotal	6,045	
Administration			·	
Reception	1	100	100	
Toilet (unisex)	1	60	60	
Administrator	1	120	120	
Admissions / Marketing	1	120	120	include closet
Business / HR /Management / IT	2	100	200	
Activity Director	1	100	100	can be near wellness area
			0	
Conference Room	1	250	250	w/ cabinetry
File Storage	1	60	60	
Work Room / Storage	1	100	100	
			0	Possibly in elevator lobby
		Subtotal	1,110	
Senior Living Dining			-	
Dining Room / Restaurant (35 s.f / resident)	84	35	2,940	for 60 - multiple serving shifts
Private Dining / Porch	1	250	250	
Bistro	1	300	350	open to family/friends 8:00 - 5:00
Bistro Seating	1	500	500	
		Subtotal	4,040	
Assisted Living Dining			-	included in senior living dining
Dining Room (32 s.f. person)			0	

Clinic/ Care Network				
			0	
			0	
Home Health Team Room	1	350	350	
Med room	1	80	80	separated from team room
			0	·
		Subtotal	430	
Employee Areas				within existing spaces
Break room	1	250	250	on main level (windows)
Employee Lockers	1	30	30	,
Inservice Training / Education	1	400	400	Up to 30 people. 2/3 computer statio
Employee Toilet	1	70	70	, , , , , , , , , , , , , , , , , , , ,
Environmental Services		Subtotal	750	
Housekeeping/Supplies Storage		60	120	
IT	2	60	120	
Trash Rooms	1	200	200	
Laundry	1	250	250	2 w, 2 d, residential
	_			2 11) 2 4) 103140111141
- W		Subtotal	690	
Facility Support				in Facilities tab
		Subtotal	0	
Food Service				
Main Kitchen	1	1,750	1,750	
(includes cooler/freezer/dry storage)		,	,	
Dietary Offices	1	80	80	
Lockers	1	77	77	
		Subtotal	1,907	
		Subtotui	1,507	
		Net Total Area	14.073	
		net Total Area x1.25	14,972 10 715	
COMMONS		Gross Total Area	18,715 18,715	

MavenCrux Senior Living

Polk City, IA

10/6/2022

Pope Design Group PAI# M22-021

Page 1

31,462

159,193

TOTAL: 15,822

Page 1

Page 2

4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PHONE: (515) 369-4400

MASTER PLAN

LEONARD SENIOR LIVING



































Date December 22, 2022

To: Chelsea Huisman
City of Polk City
P.O. Box 426
Polk City, IA 50226-0426

INVOICE SUMMARY - NOVEMBER SERVICES

Services from November 1, 2022 through November 30, 2022

Services from November 1, 2022 through Novemb	er 30, 2022		
GENERAL ENGINEERING			
Meetings	122.0001.01	\$	1,200.00
Council and P&Z Meetings, City staff meetings, and meetings with		,	,
developers and developer's engineers.			
Development and Building:	122.0001.01	\$	450.00
Coordination with developers, engineers, building inspector, and staff			
regarding various potential and ongoing projects, and building permits.	100 0001 01	\$	E0 00
Water Dept: Coordination with Fire Chief re: fire apparatus roads and research water	122.0001.01	Ф	50.00
service locates.			
Sanitary Sewers:	122.0001.01	\$	1,300.00
Research sanitary sewer availability and provide water service locates.		•	ŕ
Storm Sewers:	122.0001.01	\$	-
Street Dept.	122.0001.01	\$	400.00
Coordinate with lowa DOT regarding their request for additional ROW in	122.0001.01	Ψ	400.00
annexation territory and research PUE and trail easements.			
General:	122.0001.01	\$	1,600.00
Coordination with City staff and City Attorney re: agendas, minutes,		•	1,00000
resolutions, and miscellaneous issues.			
<u>GIS</u>	122.0001.01	\$	-
SUBTOTAL		\$	5,000.00
CAPITAL IMPROVEMENT PROJECTS / WORK ORDERS			
N. 3rd Street & Vista Lake Avenue Intersection Improvements	121.0455.01	\$	2,200.50
Northeast Trunk Sewer Study	122.0001.01B	\$	1,544.00
North Trunk Sewer Study	122.0001.01C	\$	4,404.50
Woodhaven Trail - Potholing and Design Locates Survey	122.0001.011	\$	1,412.25
W. Broadway & 3rd Street Intersection Study	122.0001.01J	\$	3,600.00
SUBTOTAL		\$	13,161.25
REIMBURSABLE DEVELOPMENT REVIEW PROJECTS			
Antler Ridge: Development Agr, Prelim Plat, and Const Dwgs	100 0170 01	¢	3,954.50
Gateway Crossings: Rezoning	122.0178.01 122.1398.01	\$ \$	1,085.00
Kahler Golf Maintenance Building Site Plan	122.1398.01	\$	410.50
Lakefront Office Park Lot 1 Site Plan	122.1532.01	\$	3,844.50
Leonard Rezoning & PUD Master Plan	122.1349.01	\$	1,903.00
Mack: ETJ Plat of Survey	122.1533.01	\$	604.00
SUBTOTAL	122.1000.01	\$	11,801.50
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TOTAL		\$	29,962.75