

ORDINANCE 2022-02

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS, TO APPROVE A CHANGE IN THE ZONING FOR 78.128 ACRES OUT OF LAND OUT OF BASTROP BUSINESS AND INDUSTRIAL PARK, PHASE 1, BLOCK A, LOT 1 FROM P2 RURAL TO P-EC EMPLOYMENT CENTER, AND ESTABLISH THE BASTROP BUSINESS AND INDUSTRIAL PARK ZONING CONCEPT SCHEME ON 146.213 ACRES IN THE BASTROP BUSINESS AND INDUSTRIAL PARK SUBDIVISION, WITH THE CONDITION OF ADDING A 75-FOOT GREENBELT BUFFER ALONG THE SOUTH AND EAST SIDES OF THE PARK IN WHICH TREES CANNOT BE REMOVED, LOCATED SOUTH OF SH 71, WITHIN THE CITY LIMITS OF BASTROP, TEXAS, AS SHOWN IN EXHIBIT A, PROVIDING FOR FINDINGS OF FACT, ADOPTION, REPEALER, SEVERABILITY AND ENFORCEMENT, PROPER NOTICE AND MEETING; AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Bastrop, Texas (City) is a Home-Rule City acting under its Charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Texas Local Government Code; and

**WHEREAS**, on or about November 16, 2021, the Bastrop Economic Development Corporation has submitted a request for zoning modifications; and,

**WHEREAS**, City Council has reviewed the request for zoning modifications, and finds the request to be reasonable and proper under the circumstances; and,

**WHEREAS**, the City Staff has reviewed the request for zoning modifications, and finds it to be justifiable based upon the Future Land Use Designation for this Property is Industry, which allows for a wide range of commercial and retail uses; and

**WHEREAS**, in accordance with Texas Local Government Code Chapter 211, public notice was given, and a public hearing was held before the City of Bastrop Planning and Zoning Commission (P&Z) on December 16, 2021, which made a recommendation to approve the requested zoning modifications with the condition that a 75-foot greenbelt buffer be added along the south and east sides of the property in which trees cannot be removed to provide buffering for the existing platted subdivision; and

**WHEREAS**, in accordance with Texas Local Government Code Chapter 211, public notice was given, and a public hearing was held before the City Council regarding the requested zoning modification; and

**WHEREAS**, Texas Local Government Code Section 51.001 provides the City general authority to adopt an Ordinance or police regulations that are for good government, peace or order of the City and is necessary or proper for carrying out a power granted by law to the City; and

**WHEREAS**, after consideration of public input received at the hearing, the information provided by the Applicants, and all other information presented, City Council finds that it necessary and proper to enact this Ordinance.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS THAT:**

**Section 1:** The Property, 78.128 acres out of land out of Bastrop Business and Industrial Park, Phase 1, Block A, Lot 1 is rezoned from P2 Rural to P-EC Employment Center, and a Zoning Concept Scheme is established for 146.213 acres in the Bastrop Business and Industrial Park Subdivision, located south of SH 71, within the City Limits of Bastrop, Texas as more particularly shown on Exhibit A with the condition of a 75-foot greenbelt buffer along the south and east sides of the park in which trees cannot be removed.

**Section 2:** The foregoing recitals are incorporated into this Ordinance by reference as findings of fact as if expressly set forth herein.

**Section 3:** All ordinances, resolutions, or parts thereof, that are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters regulated, herein.

**Section 4:** If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, that invalidity or the unenforceability will not affect any other provisions or applications of this Ordinance that can be given effect without the invalid provision.

**Section 5:** The City shall have the power to administer and enforce the provisions of this ordinance as may be required by governing law. Any person violating any provision of this ordinance is subject to suit for injunctive relief as well as prosecution for criminal violations, and such violation is hereby declared to be a nuisance. Nothing in this ordinance shall be construed as a waiver of the City's right to bring a civil action to enforce the provisions of this ordinance and to seek remedies as allowed by law and/or equity.


**Section 6:** It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public, and that public notice of the time, place, and purpose of said meeting was given as required by the Open Meetings Act, Texas Government Code, Chapter 551.

**Section 7:** This Ordinance shall be effective immediately upon passage and publication.


**READ & ACKNOWLEDGE** on First Reading on this the 11<sup>th</sup> day of January 2022.

**READ & ADOPTED** on Second Reading on this the 25<sup>th</sup> day of January 2022.

**APPROVED:**

  
\_\_\_\_\_  
Connie B. Schroeder, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Ann Franklin, City Secretary

**APPROVED AS TO FORM:**

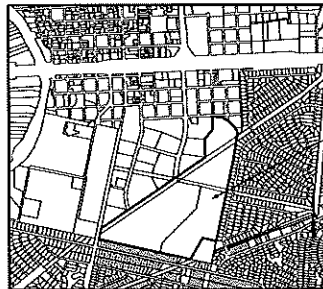
  
\_\_\_\_\_  
Alan Bojorquez, City Attorney

# BASTROP ECONOMIC DEVELOPMENT COUNCIL PLANS FOR PROPOSED ZONING CHANGE

DECEMBER 2021

## INDEX

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LOCATION MAP

PREPARED BY:

**DA DOUCET  
& ASSOCIATES**

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PRELIMINARY  
DOCUMENT UNDER  
THE AUTHORITY  
OF P.E. #1  
DAVID L. SPEICHER  
12/2/2021  
NOT TO BE USED  
FOR  
CONSTRUCTION  
PURPOSES.

**EXPLANATION OF THE CODE**

The B<sup>3</sup> Code is organized in a hierarchal structure from the highest scale, Citywide planning, to the smallest scale, the Lot and Building. This Code builds neighborhoods inclusive of all Place Types necessary to live in close proximity to services, a variety of housing types, and close access to nature. The location of a Place Type is handled by geographically determined Standards. The Place Types, align with the Street Types, the Frontage types, and Building Types to ensure all the components of the neighborhood work together in harmony. Each section of the Code provides Standards that guide development to be holistic to each Building, Street, Block, and neighborhood.

**B<sup>3</sup> DEVELOPMENT TABLES**

The following B<sup>3</sup> Development Tables contain the details necessary to develop using the Code. The text of the Code explains the Standards and how they are applied. They work together to create complete neighborhoods in a variety of forms and patterns.

	P1	P2	P3	P4	P5	EC
<b>BLOCKS - SEC. 7.4.002</b>						
BLOCK LENGTH MAX.	UNLIMITED	720 FT	330 FT	330 FT	330 FT	720 FT
BLOCK PERIMETER MAX.	UNLIMITED	2,880 FT	1,320 FT	1,320 FT	1,320 FT	2,880 FT
<b>STREETS - ARTICLE 7.2</b>						
BOULEVARD	NP	NP	NP	P	P	P
AVENUE	NP	NP	P	P	P	P
CONNECTOR	NP	P	P	P	P	P
NEIGHBORHOOD STREET I	NP	P	P	P	NP	NP

BLANK= BY WARRANT    P = PERMITTED    NP = NOT PERMITTED

	P1	P2	P3	P4	P5	EC
NEIGHBORHOOD STREET II	NP	P	P	P	NP	NP
COMMERCIAL STREET I	NP	NP	NP	NP	P	P
COMMERCIAL STREET II	NP	NP	NP	NP	P	P
COURT STREET	NP	NP	P	P	P	P
SLIP STREET	NP	NP	P	P	P	P
PARK DRIVE	P	P	P	P	P	NP
BOARDWALK	NP	NP	NP	NP	P	P
PEDESTRIAN STREET	NP	NP	P	P	P	NP
<b>PEDESTRIAN SHEDS</b>						
PLACE TYPE ALLOCATION PER PED SHED*	Varies	Varies	10-35%	25-75%	5-20%	Varies
* Place Type allocation for Traditional Neighborhood Development.						
<b>CIVIC SPACE - ARTICLE 7.5</b>						
PARK	P	P	P	NP	NP	NP
GREEN	NP	NP	P	P	P	P
SQUARE	NP	NP	NP	P	P	P
PLAZA	NP	NP	NP	NP	P	P
PLAYGROUND	P	P	P	P	P	P
COMMERCIAL PLACE	NP	NP	NP	P	P	P
POCKET PARK	NP	NP	P	P	P	P

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	P1	P2	P3	P4	P5	EC
COURT	NP	NP	P	P	P	P
CLOSE	NP	NP	P	P	P	P
<b>BUILDING TYPES - ARTICLE 6.5</b>						
REARYARD						
COMMERCIAL	NP	NP	NP	NP	P	P
APARTMENT	NP	NP	NP	P**	P	P
ROWHOUSE	NP	NP	NP	P	P	P
SIDEYARD						
SIDEYARD	NP	NP	NP	P	P	P
COURTYARD						
COURTYARD HOUSE	NP	NP	NP	P	P	P
COURTYARD APARTMENT BUILDING	NP	NP	NP	P**	P	P
EDGEYARD						
RANCH HOUSE, VILLA	NP	P	P	NP	NP	NP
HOUSE	NP	P	P	P	NP	NP
DUPLEX	NP	P	P	P	NP	NP
TRIPLEX, FOURPLEX	NP	NP	NP	P	NP	NP
<b>ENCROACHMENT TYPES - SEC. 6.5.002</b>						

\*\* SEE PLACE TYPE OVERLAYS    BLANK= BY WARRANT    P = PERMITTED    NP = NOT PERMITTED

	P1	P2	P3	P4	P5	EC
PORCH	NP	P	P	P	NP	NP
DOORYARD	NP	NP	NP	P	P	P
TERRACE	NP	NP	NP	P	P	P
STOOP	NP	P	NP	P	P	P
LIGHTWELL	NP	NP	NP	P	P	P
GALLERY	NP	NP	NP	P	P	P
ARCADE	NP	NP	NP	NP	P	P

**LOT OCCUPATION - SEC. 6.3.008**

LOT COVERAGE		40% max	60% max	70% max	80% max	80% max
BUILDING FRONTAGE AT BUILD-TO-LINE		40% min	40% min	60% min	80% min	80% min
BUILD-TO-LINE		10 ft - no max	10 ft - 25 ft*	5 ft - 15 ft	2 ft - 15 ft	25 ft no max

\* Lots exceeding 1/2 acre may extend Build-to-Line up to 60 ft from the Frontage Line.

**BUILDING HEIGHT IN STORIES - SEC. 6.5.003**

PRINCIPAL BUILDING	NP	2 max	2 max	3 max**	5 max / 3 max Downtown	5 max
ACCESSORY DWELLING UNIT	NP	2 max	2 max	2 max	2 max	NP

**FIRST LAYER ENCROACHMENTS - SEC. 6.5.002**

\*\*SEE PLACE TYPE OVERLAYS    BLANK= BY WARRANT    P = PERMITTED    NP = NOT PERMITTED



	P1	P2	P3	P4	P5	EC
OPEN PORCH	NP	50% max	50% max	80% max	NP	NP
BALCONY AND/OR BAY WINDOW	NP	25% max	25% max	50% max	100% max	50% max
STOOP, LIGHTWELL, TERRACE OR DOORYARD	NP	NP	NP	100% max	100% max	50% max
<b>R.O.W. ENCROACHMENTS - SEC. 6.5.002</b>						
AWNING, GALLERY, OR ARCADE				to within 2 ft. of the Curb		
<b>ENCROACHMENT DEPTHS - SEC. 6.5.002</b>						
PORCH		5 ft min	8 ft min	8 ft min	NP	NP
GALLERY		NP	NP	10 ft min	10 ft. min.	10 ft min
ARCADE		NP	NP	NP	12 ft. min.	NP
<b>PARKING LOCATION - SEC. 6.3.006</b>						
SECOND LAYER		P	P	NP	NP	NP
THIRD LAYER		P	P	P	P	P
<b>SIGNAGE - CH. 8</b>						
ADDRESS SIGN	P	P	P	P	P	P
AWNINGS & SIGNS	NP	NP	NP	P	P	P
BAND SIGNS	NP	NP	NP	P	P	P

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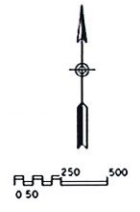
	P1	P2	P3	P4	P5	EC
BLADE SIGNS	NP	NP	NP	P	P	P
MARQUEE SIGNS	NP	NP	NP	NP	P	P
NAME PLATE SIGNS	NP	NP	NP	P	P	P
OUTDOOR DISPLAY CASE	NP	NP	NP	P	P	P
SIDEWALK SIGNS	NP	NP	NP	P	P	P
WINDOW SIGNS	NP	NP	NP	P	P	P
YARD SIGNS	NP	NP	NP	P	NP	P
MONUMENT SIGN	NP	NP	NP	NP	P	P
<b>PUBLIC LIGHTING TYPES - SEC. 7.5.005</b>						
COBRA HEAD	P	P	NP	NP	NP	P
PIPE	P	P	P	P	P	P
POST		P	P	P	P	P
COLUMN			P	P	P	P
DOUBLE COLUMN						

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 SHEET: 10 OF 10



LANDSCAPING AREA   
 PHASE BOUNDARIES - - - - -

NOTES  
 1. ALL EXISTING TREES 24 INCHES AND GREATER DBH WILL BE AVOIDED AND PROTECTED.  
 2. STREET TREES SHALL BE PROVIDED ALONG PUBLIC ROADS.

<p><b>DA</b>          DOUKET &amp; ASSOCIATES  <small>Professional Engineers, Surveyors          License No. 11114-0000          State of Texas</small></p>	<p>SCALE:          AS SHOWN</p>
<p>SCALE BY OWNER          DESIGN BY DESIGNER          TITLE:  <b>LANDSCAPE MAP</b></p>	
<p>DATE: 12/6/2021 2:31:42 PM          FILE: D:\1080621\1080621.dwg          USER: jason@da.com          PROJECT: 1080621          SHEET: 10 OF 10</p>	
<p>DATE: 12/6/2021 2:31:42 PM          FILE: D:\1080621\1080621.dwg          USER: jason@da.com          PROJECT: 1080621          SHEET: 10 OF 10</p>	<p>DATE: 12/6/2021 2:31:42 PM          FILE: D:\1080621\1080621.dwg          USER: jason@da.com          PROJECT: 1080621          SHEET: 10 OF 10</p>





Bastrop Existing Condition - "C" Value Calculations									
D.A. Number	Drainage Area (BF)	Drainage Area (Ac)	Impervious Cover (BF)	I.C. (%)	Comp. C <sub>1</sub>	Comp. C <sub>2</sub>	Comp. C <sub>3</sub>	Comp. C <sub>4</sub>	Comp. C <sub>50</sub>
DP-A	5,106,406	117.23	0	0%	0.35	0.41	0.45	0.45	0.52
DP-B	1,885,344	43.28	0	0%	0.31	0.36	0.40	0.47	0.47
DP-C	331,110	7.60	0	0%	0.35	0.41	0.45	0.45	0.52
DP-D	368,879	8.42	0	0%	0.31	0.36	0.40	0.47	0.47
<b>TOTAL</b>	<b>7,689,920</b>	<b>176.53</b>	<b>0</b>	<b>0%</b>					

Bastrop Developed Condition (ULTIMATE) - "C" Value Calculations									
D.A. Number	Drainage Area (BF)	Drainage Area (Ac)	Impervious Cover (BF)	I.C. (%)	Comp. C <sub>1</sub>	Comp. C <sub>2</sub>	Comp. C <sub>3</sub>	Comp. C <sub>4</sub>	Comp. C <sub>50</sub>
DP-A	5,106,406	117.23	4,055,173	80%	0.54	0.72	0.77	0.77	0.85
DP-B	1,885,344	43.28	1,508,276	80%	0.54	0.72	0.77	0.77	0.85
DP-C	331,110	7.60	264,888	80%	0.54	0.72	0.77	0.77	0.85
DP-D	368,879	8.42	293,503	80%	0.54	0.72	0.77	0.77	0.85
<b>TOTAL</b>	<b>7,689,920</b>	<b>176.53</b>	<b>6,151,840</b>	<b>80%</b>					

Storm Event	Slopes < 2%		Slopes 2-7%		Slopes > 7%	
	PerVIOUS	Impervious	PerVIOUS	Impervious	PerVIOUS	Impervious
C <sub>1</sub>	0.22	0.73	0.31	0.73	0.35	0.73
C <sub>2</sub>	0.28	0.81	0.36	0.81	0.41	0.81
C <sub>3</sub>	0.31	0.86	0.40	0.86	0.45	0.86
C <sub>50</sub>	0.33	0.95	0.47	0.95	0.52	0.95

Bastrop Existing Condition - "Tc" Value Calculations															
PL of Cont.	Drainage Area	Area (Ac)	Sheet Flow				Shallow Flow			Channel Flow			Total Tc (min)		
			Length ft	Slope ft/ft	n	Tt (min)	Length ft	Slope ft/ft	Tt (min)	Length ft	V ft/s	Slope ft/ft		n	Tt (min)
1	DP-A	117.23 Ac.	100	0.12	0.4	9.21 min	542	0.31	1.69 min	454	4.00	0.44	0.05	18.77	29.7 min
2	DP-B	43.28 Ac.	100	0.65	0.4	13.07 min	1857	0.64	9.59 min	170	6.00	0.42	0.01	0.47	23.1 min
3	DP-C	7.60 Ac.	100	0.61	0.4	17.25 min	923	0.19	3.62 min	0	0.00	0	0	0.40	20.3 min
4	DP-D	8.42 Ac.	100	0.19	0.4	9.91 min	516	0.12	3.77 min	0	0.00	0	0	0.40	13.7 min

Bastrop Developed Condition (ULTIMATE) - "Tc" Value Calculations															
PL of Cont.	Drainage Area	Area (Ac)	Sheet Flow				Shallow Flow			Channel Flow			Total Tc (min)		
			Length ft	Slope ft/ft	n	Tt (min)	Length ft	Slope ft/ft	Tt (min)	Length ft	V ft/s	Slope ft/ft		n	Tt (min)
1	DP-A	117.23 Ac.	100	0.12	0.4	9.21 min	542	0.31	1.69 min	454	4.00	0.44	0.05	18.77	29.7 min
2	DP-B	43.28 Ac.	100	0.65	0.4	13.07 min	1857	0.64	9.59 min	170	6.00	0.42	0.01	0.47	23.1 min
3	DP-C	7.60 Ac.	100	0.61	0.4	17.25 min	923	0.19	3.62 min	0	0.00	0	0	0.40	20.3 min
4	DP-D	8.42 Ac.	100	0.19	0.4	9.91 min	516	0.12	3.77 min	0	0.00	0	0	0.40	13.7 min

BASTROP Existing Condition - Runoff (Q) Calculations																
PL of Cont.	D.A. Number	Drainage Area (Ac)	TOTAL I.C. (%)	Comp. C <sub>1</sub>	Comp. C <sub>2</sub>	Comp. C <sub>3</sub>	Comp. C <sub>50</sub>	TOTAL T <sub>c</sub> (Min)	I <sub>1</sub> (in/hr)	I <sub>2</sub> (in/hr)	I <sub>3</sub> (in/hr)	I <sub>4</sub> (in/hr)	Q <sub>1</sub> (cfs)	Q <sub>2</sub> (cfs)	Q <sub>3</sub> (cfs)	Q <sub>50</sub> (cfs)
2	DP-B	43.28	0%	0.31	0.36	0.40	0.47	23.1	3.42	5.09	6.29	8.30	45.82	78.37	108.84	168.87
3	DP-C	7.60	0%	0.35	0.41	0.45	0.52	20.3	3.66	5.46	6.72	8.87	9.74	17.00	23.03	35.06
4	DP-D	8.42	0%	0.31	0.36	0.40	0.47	13.7	4.41	6.58	8.09	10.66	11.53	19.86	27.27	42.18

BASTROP Developed Condition (ULTIMATE) - Runoff (Q) Calculations																
PL of Cont.	D.A. Number	Drainage Area (Ac)	TOTAL I.C. (%)	Comp. C <sub>1</sub>	Comp. C <sub>2</sub>	Comp. C <sub>3</sub>	Comp. C <sub>50</sub>	TOTAL T <sub>c</sub> (Min)	I <sub>1</sub> (in/hr)	I <sub>2</sub> (in/hr)	I <sub>3</sub> (in/hr)	I <sub>4</sub> (in/hr)	Q <sub>1</sub> (cfs)	Q <sub>2</sub> (cfs)	Q <sub>3</sub> (cfs)	Q <sub>50</sub> (cfs)
2	DP-B	43.28	80%	0.64	0.72	0.77	0.85	23.1	3.42	5.09	6.29	8.30	94.90	158.30	208.42	306.12
3	DP-C	7.60	80%	0.64	0.72	0.77	0.85	20.3	3.66	5.46	6.72	8.87	17.86	23.78	39.15	57.45
4	DP-D	8.42	80%	0.64	0.72	0.77	0.85	13.7	4.41	6.58	8.09	10.66	23.87	33.82	52.22	78.47

Increase in Flow From Existing to Developed Condition @ Point of Confluence DP-A' = 101.96 160.64 204.05 283.81  
 Increase in Flow From Existing to Developed Condition @ Point of Confluence DP-B' = 49.08 78.93 99.58 137.25  
 Increase in Flow From Existing to Developed Condition @ Point of Confluence DP-C' = 8.12 12.77 16.15 22.39  
 Increase in Flow From Existing to Developed Condition @ Point of Confluence DP-D' = 12.34 18.85 24.95 34.29  
 Increase in Overall Storm Flow from 6 in = 171.50 272.20 344.74 477.74

**DA DOUCET & ASSOCIATES**  
 Civil Engineers, Planners, Surveyors  
 1000 West 10th Street, Suite 1000  
 Fort Collins, Colorado 80521  
 Phone: 970.226.1000  
 Fax: 970.226.1002  
 www.doucet.com

DESIGN BY: [Blank]  
 CHECKED BY: [Blank]  
 DRAWN BY: [Blank]  
 DATE: [Blank]

**DRAINAGE CALCULATIONS**

SCALE: [Blank]  
 SHEET NO. [Blank] OF 16



**POND A**  
 Drainage / Detention Calculations  
 Modified Rational Method

**CFA**  
 Drainage Existing Conditions  
 Area: 117.25 ac-ft  
 Time (T): 23.7 min/ft  
 C value: 0.55  
 S factor: 7.25 ft/hr  
 Q10yr: 4.64 cfs Allowable Release

**Proposed Conditions**  
 Area: 117.25 ac-ft  
 Time (T): 23.7 min/ft  
 C value: 0.55  
 S factor: 7.25 ft/hr  
 Q10yr: 7.28 cfs Developed Runoff

**Runoff per Storm Event - Developed**

Time (min)	Flow (cfs)	Area (ac)	Depth (ft)
15	11.02	0.85	117.25
15	10.22	0.85	117.25
15	9.42	0.85	117.25
15	8.62	0.85	117.25
15	7.82	0.85	117.25
15	7.02	0.85	117.25
15	6.22	0.85	117.25
15	5.42	0.85	117.25
15	4.62	0.85	117.25
15	3.82	0.85	117.25
15	3.02	0.85	117.25
15	2.22	0.85	117.25
15	1.42	0.85	117.25
15	0.62	0.85	117.25
15	0.00	0.85	117.25

**Inflow per Storm Event**

Duration	Flow	Volume (ft <sup>3</sup> )
15	117.47	758.488
15	808.36	858.252
15	879.75	1044.902
15	756.61	1261.136
15	625.11	1478.666
15	514.08	1542.345
15	426.05	1443.523
15	341.89	1370.371
15	276.78	1252.618
15	220.74	1092.368
15	172.07	902.814
15	130.06	682.004
15	92.23	452.108
15	58.11	252.425
15	25.12	105.024

**Outflow per Storm Event**

Duration	Flow	Volume (ft <sup>3</sup> )
15	59.7	444.53
15	44.7	444.53
15	39.7	444.53
15	34.7	444.53
15	29.7	444.53
15	24.7	444.53
15	19.7	444.53
15	14.7	444.53
15	9.7	444.53
15	4.7	444.53
15	0.0	444.53

**Detention Volume**

Duration	Inflow	Outflow	Storage (ft <sup>3</sup> )
15	728.420	629.830	177.643
15	896.222	626.119	302.137
15	1034.972	622.764	502.195
15	1164.606	619.867	667.807
15	1276.265	617.474	799.791
15	1370.983	615.630	899.062
15	1450.696	614.288	975.650
15	1517.350	613.400	1030.596
15	1573.894	612.925	1067.947
15	1622.276	612.810	1090.750
15	1664.446	612.999	1092.050
15	1701.352	613.444	1075.900
15	1733.944	614.100	1047.350
15	1762.162	614.925	1001.450
15	1785.856	615.875	943.250
15	1804.976	616.996	869.800
15	1819.472	618.236	777.050
15	1829.296	619.550	670.050
15	1834.400	620.896	553.750
15	1834.750	622.224	433.200
15	1830.300	623.500	313.450
15	1821.000	624.700	199.550
15	1806.750	625.796	107.650
15	1787.500	626.750	53.750
15	1763.250	627.525	23.250
15	1734.000	628.000	0.000

**POND B**  
 Drainage / Detention Calculations  
 Modified Rational Method

**CFA**  
 Drainage Existing Conditions  
 Area: 102.45 ac-ft  
 Time (T): 23.1 min/ft  
 C value: 0.61  
 S factor: 7.25 ft/hr  
 Q10yr: 1.88 cfs Allowable Release

**Proposed Conditions**  
 Area: 102.45 ac-ft  
 Time (T): 23.1 min/ft  
 C value: 0.61  
 S factor: 7.25 ft/hr  
 Q10yr: 2.98 cfs Developed Runoff

**Runoff per Storm Event - Developed**

Time (min)	Flow (cfs)	Area (ac)	Depth (ft)
15	11.02	0.85	102.45
15	10.22	0.85	102.45
15	9.42	0.85	102.45
15	8.62	0.85	102.45
15	7.82	0.85	102.45
15	7.02	0.85	102.45
15	6.22	0.85	102.45
15	5.42	0.85	102.45
15	4.62	0.85	102.45
15	3.82	0.85	102.45
15	3.02	0.85	102.45
15	2.22	0.85	102.45
15	1.42	0.85	102.45
15	0.62	0.85	102.45
15	0.00	0.85	102.45

**Inflow per Storm Event**

Duration	Flow	Volume (ft <sup>3</sup> )
15	431.71	282.826
15	297.47	334.625
15	221.47	342.736
15	150.79	442.626
15	92.23	623.796
15	50.00	869.379
15	26.50	1124.900
15	12.50	1388.824
15	6.25	1650.246
15	2.50	1909.250
15	0.00	2165.750
15	0.00	2420.250
15	0.00	2672.750
15	0.00	2923.250
15	0.00	3171.750

**Outflow per Storm Event**

Duration	Flow	Volume (ft <sup>3</sup> )
15	36.7	183.87
15	41.7	183.87
15	46.7	183.87
15	51.7	183.87
15	56.7	183.87
15	61.7	183.87
15	66.7	183.87
15	71.7	183.87
15	76.7	183.87
15	81.7	183.87
15	86.7	183.87
15	91.7	183.87
15	96.7	183.87
15	101.7	183.87
15	106.7	183.87
15	111.7	183.87
15	116.7	183.87
15	121.7	183.87
15	126.7	183.87
15	131.7	183.87
15	136.7	183.87
15	141.7	183.87
15	146.7	183.87
15	151.7	183.87
15	156.7	183.87
15	161.7	183.87
15	166.7	183.87
15	171.7	183.87
15	176.7	183.87
15	181.7	183.87
15	186.7	183.87
15	191.7	183.87
15	196.7	183.87
15	201.7	183.87
15	206.7	183.87
15	211.7	183.87
15	216.7	183.87
15	221.7	183.87
15	226.7	183.87
15	231.7	183.87
15	236.7	183.87
15	241.7	183.87
15	246.7	183.87
15	251.7	183.87
15	256.7	183.87
15	261.7	183.87
15	266.7	183.87
15	271.7	183.87
15	276.7	183.87
15	281.7	183.87
15	286.7	183.87
15	291.7	183.87
15	296.7	183.87
15	301.7	183.87
15	306.7	183.87
15	311.7	183.87
15	316.7	183.87
15	321.7	183.87
15	326.7	183.87
15	331.7	183.87
15	336.7	183.87
15	341.7	183.87
15	346.7	183.87
15	351.7	183.87
15	356.7	183.87
15	361.7	183.87
15	366.7	183.87
15	371.7	183.87
15	376.7	183.87
15	381.7	183.87
15	386.7	183.87
15	391.7	183.87
15	396.7	183.87
15	401.7	183.87
15	406.7	183.87
15	411.7	183.87
15	416.7	183.87
15	421.7	183.87
15	426.7	183.87
15	431.7	183.87
15	436.7	183.87
15	441.7	183.87
15	446.7	183.87
15	451.7	183.87
15	456.7	183.87
15	461.7	183.87
15	466.7	183.87
15	471.7	183.87
15	476.7	183.87
15	481.7	183.87
15	486.7	183.87
15	491.7	183.87
15	496.7	183.87
15	501.7	183.87
15	506.7	183.87
15	511.7	183.87
15	516.7	183.87
15	521.7	183.87
15	526.7	183.87
15	531.7	183.87
15	536.7	183.87
15	541.7	183.87
15	546.7	183.87
15	551.7	183.87
15	556.7	183.87
15	561.7	183.87
15	566.7	183.87
15	571.7	183.87
15	576.7	183.87
15	581.7	183.87
15	586.7	183.87
15	591.7	183.87
15	596.7	183.87
15	601.7	183.87
15	606.7	183.87
15	611.7	183.87
15	616.7	183.87
15	621.7	183.87
15	626.7	183.87
15	631.7	183.87
15	636.7	183.87
15	641.7	183.87
15	646.7	183.87
15	651.7	183.87
15	656.7	183.87
15	661.7	183.87
15	666.7	183.87
15	671.7	183.87
15	676.7	183.87
15	681.7	183.87
15	686.7	183.87
15	691.7	183.87
15	696.7	183.87
15	701.7	183.87
15	706.7	183.87
15	711.7	183.87
15	716.7	183.87
15	721.7	183.87
15	726.7	183.87
15	731.7	183.87
15	736.7	183.87
15	741.7	183.87
15	746.7	183.87
15	751.7	183.87
15	756.7	183.87
15	761.7	183.87
15	766.7	183.87
15	771.7	183.87
15	776.7	183.87
15	781.7	183.87
15	786.7	183.87
15	791.7	183.87
15	796.7	183.87
15	801.7	183.87
15	806.7	183.87
15	811.7	183.87
15	816.7	183.87
15	821.7	183.87
15	826.7	183.87
15	831.7	183.87
15	836.7	183.87
15	841.7	183.87
15	846.7	183.87
15	851.7	183.87
15	856.7	183.87
15	861.7	183.87
15	866.7	183.87
15	871.7	183.87
15	876.7	183.87
15	881.7	183.87
15	886.7	183.87
15	891.7	183.87
15	896.7	183.87
15	901.7	183.87
15	906.7	183.87
15	911.7	183.87
15	916.7	183.87
15	921.7	183.87
15	926.7	183.87
15	931.7	183.87
15	936.7	183.87
15	941.7	183.87
15	946.7	183.87
15	951.7	183.87
15	956.7	183.87
15	961.7	183.87
15	966.7	183.87
15	971.7	183.87
15	976.7	183.87
15	981.7	183.87
15	986.7	183.87
15	991.7	183.87
15	996.7	183.87
15	1001.7	183.87
15	1006.7	183.87
15	1011.7	183.87
15	1016.7	183.87
15	1021.7	183.87
15	1026.7	183.87
15	1031.7	183.87
15	1036.7	183.87
15	1041.7	183.87
15	1046.7	183.87
15	1051.7	183.87
15	1056.7	183.87
15	1061.7	183.87
15	1066.7	183.87
15	1071.7	183.87
15	1076.7	183.87
15	1081.7	183.87
15	1086.7	183.87



