



**TOWN OF SHADY SHORES
PLANNING AND ZONING COMMISSION
REGULAR SESSION
FEBRUARY 27, 2020; 7:00 PM
SHADY SHORES COMMUNITY CENTER
101 S. SHADY SHORES ROAD
SHADY SHORES, TX 76208**

AGENDA

1. CALL TO ORDER
2. ROLL CALL
Establish a quorum
3. REGULAR BUSINESS
 1. Minutes- Consider and act on approval of the minutes from the January 9, 2020 Planning and Zoning Commission Meeting.
 2. Public Hearing- Conduct a public hearing relative to a request for a replat for the property known as 605 Franck's Circle.
 - A) Open Public Hearing
 - B) Applicant
 - C) Those in Favor
 - D) Those Opposed
 - E) Rebuttal
 - F) Close Public Hearing
 3. Action Regarding Public Hearing (605 Franck's Circle) - Consider and act on approval of a replat of the property known as 605 Franck's Circle.
4. WORKSESSION
 1. Consider and act on an Ordinance adopting the 2018 Fire Code and amendments and the adoption of updated building and energy codes.
5. FUTURE AGENDA ITEMS
6. ADJOURN

I, _____, _____ of the Town of Shady Shores do hereby certify that the above notice of the Planning and Zoning Commission was posted on the bulletin board at the Community Center, 101 S. Shady Shores Road, Shady Shores, Texas on _____ Day of _____, _____, at _____ .M.

IN ADDITION, A QUORUM OF CITY COUNCIL MEMBERS MAY CHOOSE TO ATTEND THE PLANNING AND ZONING

MEETING POSTED ABOVE. THEREFORE, THIS IS NOTICE OF A CITY COUNCIL MEETING AT THE SAME TIME AND PLACE, WITH THE SAME AGENDA AS THE P&Z MEETING. IN THE EVENT A QUORUM OF COUNCIL IS PRESENT AT THE MEETING, NO ACTION OF THE COUNCIL WILL BE TAKEN. THIS NOTICE IS POSTED AT THE TIME STATED ABOVE.

Wendy Withers, Town Secretary



**SHADY SHORES PLANNING AND ZONING COMMISSION
JANUARY 9, 2020; 7:00 PM
SHADY SHORES COMMUNITY CENTER
101 S. SHADY SHORES ROAD
SHADY SHORES, TX 76208**

MEMBERS PRESENT

Allen Lea	Chairman	Present
Rebecca Morgan	Vice-Chairman	Present
Linda Winter	Commissioner	Present
Kenneth Wells	Commissioner	Present
Paul Brown	Commissioner	Present
Lynn Grimes	Commissioner-Alternate	Present

Staff Present: Wendy Withers, Town Secretary; Jim Shepherd, Town Attorney; Jack Nelson, Councilmember

MINUTES

1. CALL TO ORDER

Chairman Lea called the meeting to order at 7:00 pm

2. ROLL CALL

Establish a quorum

Chairman Lea called the meeting to order and a quorum was established for the record.

3. REGULAR BUSINESS

1. Minutes- Consider and act on minutes of the December 5, 2019 Planning and Zoning Commission Meeting.
Rebecca Morgan made a motion to approve the minutes of the December 5, 2019 Planning and Zoning Commission meeting. Linda Winter seconded the motion.
Discussion: None
Ayes: Wells, Winter, Lea, Morgan, Brown, Grimes
Nays: None
The motion passed unanimously.
2. Public Hearing
a) Open Public Hearing- Chairman Lea opened the public hearing at 7:01

- b) Applicant – Debbie Brown was present and stated the replat was going to be used to build a home for their daughter.
- c) Those in favor- No one spoke in favor of the request.
- d) Those opposed- No one spoke in opposition to the request.
- e) Rebuttal, if desired
- f) Close Public Hearing- Chairman Lea closed the public hearing at 7:03 pm.

3. Horseshoe B Ranch Final Plat- Consider and act on a request for a final plat made by Paul and Debbie Brown for the property legally known as 420 Fritz Lane

Paul Brown filed an affidavit of abstention regarding this agenda item and refrained from any discussion and vote.

Rebecca Morgan made a motion to approve the replat as requested. Kenneth Wells seconded the motion.

Discussion: None

Ayes: Grimes, Winter, Wells, Lea, Morgan

Nays: None

Abstain: Paul Brown

4. WORKSESSION

1. Conduct a worksession relative to updates to the Subdivision Ordinance.
Discussion of Richard's comments regarding cross lot drainage. Town Engineer doesn't recommend doing away with the cross-lot drainage, but perhaps addressing it at construction time rather than at the replatting process.

A worksession was conducted to discuss changes to the Subdivision Ordinance.

5. FUTURE AGENDA ITEMS

1. Time to work on the zoning ordinance, short ordinance can find it in one place, sets out what the Legislature has set forth. For the March meeting.

Passed and approved this the _____ day of _____, 2020.

APPROVED:

Allen Lea, Chairman

ATTEST:

Wendy Withers, Town Administrator/Secretary



AGENDA MEMORANDUM

DATE: February 27, 2020

TO: Planning and Zoning Commission

FROM: Wendy Withers, Town Administrator

SUBJECT: **Public Hearing- Conduct a public hearing relative to a request for a replat for the property known as 605 Franck's Circle.**
A) Open Public Hearing
B) Applicant
C) Those in Favor
D) Those Opposed
E) Rebuttal
F) Close Public Hearing

BACKGROUND/INFORMATION:

Conduct a public hearing relative to a request made by Tracy Norwood for a replat of the property known as 605 Franck's Circle. The proposed replat will create 4 lots- Lot 1R-1 = .563 acres, Lot 1R-2 .539 acres; Lot 1R-3, .50 acres and Lot 1R-4, 3.382 acres for a total of 5.179 acres.

FINANCIAL IMPLICATIONS:

RECOMMENDATION/ACTION DESIRED:

ATTACHMENTS/SUPPORTING DOCUMENTATION:

None

REVIEWED BY:



AGENDA MEMORANDUM

DATE: February 27, 2020
TO: Planning and Zoning Commission
FROM: Wendy Withers, Town Administrator
SUBJECT: Action Regarding Public Hearing (605 Franck's Circle) - Consider and act on approval of a replat of the property known as 605 Franck's Circle.

BACKGROUND/INFORMATION:

Tracy Norwood has submitted a replat of the property known as 605 Franck's Circle. The proposed replat will create 4 lots- Lot 1R-1 = .563 acres, Lot 1R-2 .539 acres; Lot 1R-3, .50 acres and Lot 1R-4, 3.382 acres for a total of 5.179 acres. The plat and drainage plans have been reviewed by the Town Engineer Richard Arvizu and a copy of his approval is attached.

FINANCIAL IMPLICATIONS:

RECOMMENDATION/ACTION DESIRED:

ATTACHMENTS/SUPPORTING DOCUMENTATION:

1. Town Engineer Letter- Davidson Replat 2-20-20 w attach
2. v2_DamCulvert
3. v2_DrnSysComps
4. 194744-PLAT 2-11-20

REVIEWED BY:



February 20, 2020

Mayor Cindy Aughinbaugh
Town of Shady Shores
101 S. Shady Shores Rd.
Shady Shores, Texas 76208

Re: Plat Approval Request for Lots 1R-1, 1R-2, 1R-3 and 1R-4, Block A of B.D. Davidson Replat

Honorable Mayor Aughinbaugh:

The Final Plat with the revised date of 18 February 2020 has been received from Landmark Surveyors, LLC on behalf of property owner/developer Tracy Norwood at 605 Franck's Circle. The applicant is requesting approval of platting a single tract into four residential lots; Lots 1R-1, 1R-2, 1R-3 and 1R-4.

In addition, I received on January 29, 2020 and February 1, 2020 the final version of the drainage analysis and associated documents signed and sealed by Brian Burke, P.E. and collectively named *Proposed Storm Water Controls for B.D. Davidson Addition Replat* (attached). This information was provided at my request to ensure no internal cross-lot drainage will result due to the platting and to demonstrate no adverse impacts to downstream and/or off-site properties. The applicant has elected to use on-site detention to maintain pre-development peak discharges from the site and has incorporated private drainage easements and proposed diversion swales within those easements to address internal cross-lot drainage concerns.

Details of the proposed diversion swales for Lots 1R-2, 1R-3 and 1R-4 are shown on the *Drainage System Components* plan and the *Private Lot Line Swale Cross-Section* in the attached document. As stated in the notes section of the plat, I recommend that prior to issuance of any building permits for Lot 1R-1, Lot 1R-2 and Lot 1R-3 that the drainage swales be constructed on Lot 1R-2, Lot 1R-3 and Lot 1R-4 inside the 10' private drainage easements and that the proposed detention pond be constructed within the limits of the private drainage easement on Lot 1R-4 in accordance with the enclosed drainage documents by Brian Burke, P.E.

In combination with the permeable soils on-site, the proposed pond and associated proposed rock check dam are designed to mitigate against the increase in flows associated with the proposed future development of residential structures on Lots 1R-1, 1R-2 and 1R-3. The rock check dam is a design element included to diffuse and spread the discharges at the pipe outfalls immediately downstream of the dam to release flow offsite (to the north) in basically the same location(s) and at basically the same discharge rate as existing conditions, due to the mitigating effects of the detention pond.

It should be noted that right-of-way dedications have been granted along Franck's Circle to the south and along Lakeshore Road to the west to provide 30 feet to the centerline of the roads in

accordance with the 60-foot wide right-of-way prescribed in the Town's thoroughfare plan. It is understood that the proposed right-of-way as shown contains the enough area to provide for clear lines of sight at the street intersections. No right-of-way dedication is being provided as part of this plat along the east boundary (along the north/south segment of the gravel road known as Franck's Circle). Based on the found Corps of Engineers monumentation shown on the plat, the approximate limits of the Flood Zone AE shown on the plat, and analysis of the Denton Central Appraisal District on-line maps, this area to the east of the eastern boundary line appears to be Corps of Engineers property.

Based on the submitted information by Landmark Surveyors, LLC and Brian Burke, P.E., including the proposed private drainage easement dedications and swale and pond improvements, I recommend the Planning and Zoning Commission and Town Council consider approving this replat.

Sincerely,

Binkley & Barfield, Inc.
Consulting Engineers



Richard A. Arvizu, P.E., CFM
Managing Director - Infrastructure

Attachment:

- *Proposed Storm Water Controls for B.D. Davidson Addition Replat*

Proposed Storm Water Controls for

B.D. Davidson Addition Replat

Town of Shady Shores, Texas

Watershed General Description:

See Drainage Area Map and NRCS soil description.

Site soil is Silstid loamy fine sand (SCS/NRCS hydrologic soil group A). Saturated hydraulic conductivity rate is 0.57 to 1.98 inches per hour (highly permeable compared to clay-dominant soils widespread in north Texas). Grass, trees and berry patches cover most of the basin.

Two cross-berms lie perpendicularly across the basin flow path. It appears they were graded to slow storm runoff.

Along north side (neighbors' side) of the north property line fence are trees, buildings, building materials, and soil/leaf mounds. Along south side of the fence is thick vegetation. The 3.38 acres total of Drainage Areas 1 & 2 are shaped like a shallow bowl with primary outlet at the north boundary, approximately 350 feet east of Lake Shore Drive centerline. Other very small areas drain north under the fence at a few locations. I saw mostly vegetation, and soil/leaf deposition along south side of the fence, and no signs of significant erosion anyplace along either side of the fence.

During site inspection with property owners, we discussed storm runoff control alternatives. A private on-site storm water detention pond is proposed to offset increased basin storm runoff from three new ½+ acre lots planned within the basin.

Peak Storm Runoff Rates at Design Point 1 (DP1):

See Drainage Area Map and HYDROLOGY Calculations spreadsheet.

Rational Method is applied to calculate peak storm runoff rates with criteria from City of Denton 'Stormwater Design Criteria Manual' and corresponding portions of NCTCOG iSWM manuals (CoD/iSWM). Design storm return intervals considered are 1, 2, 5, 10, 25, 50 and 100-years for existing and developed basin conditions.

Drainage Area 1 (DA1)	=	0.26 acres
Drainage Area 2 (DA2)	=	3.12 "
		3.38 acres total draining north from replat land.

Pond Storage Volume:

See HYDROLOGY Calculations spreadsheet and DP-2 Pond Stage-Storage and Outlet Culverts Data.

Modified Rational Method as presented in CoD/iSWM is used to estimate necessary pond storage volume for each design storm.

Some land within the 3.38 acres will drain around the pond, rather than into it. A reduced allowable pond release rate is calculated to compensate for flow-around area.

Proposed Runoff Control Components:

See Drainage System Components exhibit, Pond Components exhibit, Trapezoidal Broad-Crested Weir Calculations spreadsheet, SECTION: Dam and Culverts exhibit, Private Swale Cross-Section sketch, and Silt Fence exhibit.

In addition to the detention pond, side-lot swales will be graded to intercept and control cross-lot drainage.

The emergency spillway broad-crested weir is sized to pass Q_{25} with 0.5 feet of freeboard.

Soon as possible after site grading, the Owners intend to establish full grass cover over disturbed soil.

Calls, texts or emails are invited at anytime.

Respectfully,



Brian Burke, P.E.
Texas License 52287
Texas Engineering Firm F-374
5001 Convict Hill Road
Apt. 702
Austin, TX 78749
979-451-1596

9-29-2020

B.D. Davidson Addition; Town of Shady Shores, Texas

Site soils data from USDA-NRCS Web Soil Survey.

Report — Map Unit Description (Denton County, Texas)
72—Silstid loamy fine sand, 1 to 5 percent slopes

Map Unit Setting

- *National map unit symbol:* d7v2
- *Elevation:* 300 to 800 feet
- *Mean annual precipitation:* 28 to 38 inches
- *Mean annual air temperature:* 64 to 70 degrees F
- *Frost-free period:* 225 to 270 days
- *Farmland classification:* Not prime farmland

Map Unit Composition

- *Silstid and similar soils:* 100 percent
- *Estimates are based on observations, descriptions, and transects of the mapunit.*

Setting

- *Landform:* Ridges
- *Landform position (two-dimensional):* Shoulder, summit
- *Down-slope shape:* Convex
- *Across-slope shape:* Linear
- *Parent material:* Sandy residuum weathered from sandstone woodbine formation

Typical profile

- *H1 - 0 to 30 inches:* loamy fine sand
- *H2 - 30 to 72 inches:* loamy fine sand
- *H3 - 72 to 80 inches:* sandy clay loam

Properties and qualities

- *Slope:* 1 to 5 percent
- *Depth to restrictive feature:* More than 80 inches
- *Natural drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
- *Available water storage in profile:* Low (about 4.8 inches)

Interpretive groups

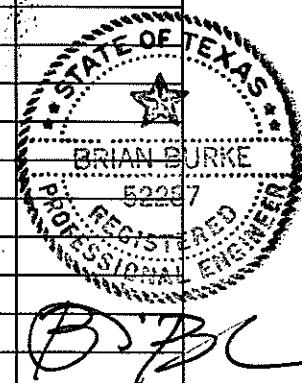
- *Land capability classification (irrigated):* None specified
- *Land capability classification (nonirrigated):* 3e
- *Hydrologic Soil Group:* A
- *Ecological site:* Sandy 37-43 PZ (R084CY193TX)
- *Hydric soil rating:* No

Captured online (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)
and printed by Brian Burke, P.E.

Texas Engineering Firm F-374
5001 Convict Hill Road, Apt. 702
Austin, TX 78749
979-451-1596
TreGaelme@gmail.com

HYDROLOGY Calculations (small area), based on iSWM 'Section 1.0, Hydrological Analysis'

A. Eq. 1.26	$Q_a = (C_a)IA$	cfs	*	Project:	B.D. Davidson Replat		
existing conds.,	C_a	0.30			Franck's Circle/Lake Shore Drive		
sets limit for	intensity	inches/hour	*		Shady Shores, Texas		
site release	area (acres)	3.38			Owner: Tracy Norwood		
flow rate	T_c (mins.)	15		Date:	1/28/20		
			* see Section F. for each storm recurrence interval.				
B. Eq. 1.27	$T_d = (2C_{dev}Aab/Q_a)^{0.5-b}$	33.50	mins.	<--	100-yr.		
critical duration	C developed	0.50					
storm, for max.	Area (acres)	3.38					
storage volume	'a' rain factor	**					
requirement	'b' rain factor	**					
		** see E. Table 1.18 for each storm recurrence interval.					
C. Eq. 1.28a	$V_p = 60(C_{dev}Aa - (2C_{dev}abAQ_a)^{0.5} + (Q_a/2)(b - T_c/dev.))$	269	c.y. (prel.)				
prel. pond	C developed	0.50					
storage volume	Area (acres)	3.38					
estimate	'a' factor	See E. Table 1.18					
	'b' factor	See E. Table 1.18					
	$T_c/dev.$ (mins.)	15					
D. Eq. 1.28b	$V_{max} = V_p(P_{180}/P_{T_d})$	90.42	cubic yards	<--	100-yr.		
final pond	P_{180} (inches)	1.79					
storage volume	P_{T_d} (inches)	5.33					
E. Table 1.18: Rainfall Factors 'a' and 'b' for City of Denton/NCTCOG MRM (Return Intervals in years)							
	1	2	5	10	25	50	100
'a'	97.258	124.47	173.1	205.74	248.54	283.99	325.18
'b'	13.788	16.121	19.754	21.358	22.615	23.508	24.822
F. Rainfall & Existing Runoff Rates (Q_a values): Intensities (ins./hour), from iSWM "Hydrology" manual, Table 5.3 for Denton County, at return intervals corresponding to Sections E (above) and G (below).							
Rain Intensities	3.31	3.9	4.85	5.5	6.41	7.14	7.91
Peak Q_a (cfs)	3.36	3.95	4.92	5.58	6.50	7.24	8.02
T_d (minutes)	23.0	25.3	28.7	30.3	31.5	32.3	33.5
G. Final Storage Volumes (cubic yards) for return intervals (years) shown:							
	1	2	5	10	25	50	100
	24.8	36.6	41.9	51.7	64.1	76.7	90.4
H. Maximum allowable Major Storm release rate from enhanced cross-berm at DP2:							
DA1 + DA2 =	3.38	acres	DA1 =	0.26	acres		
C_{ex} DA1&2 =	0.30		C_{dev} DA1 =	0.50			
I_{100} DA1&2 =	7.91	inches/hour	I_{100} DA1 =	7.91	inches/hour		
$Q_{100/ex}$ DP1 =	8.02	cfs	$Q_{100/dev}$ DP2 =	1.0	cfs		
Allowable Q_{100} pond release rate at DP2 =				7.0	cfs		



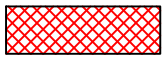
DP2 Pond Stage-Storage & Outlet Culverts Data			
Pond Stage-Storage Table:			
Water			
Surface	Surface	Cumulative	
Elevation	Area	Volume	
(ft., NGVD)	(sq. feet)	(cubic yds.)	
542	77	0	
543	1,807	34.9	
543.6	4,012	99.5	>90.4 req'd.
543.78	4,664	128.5	<-- Overflow Weir Base
544	5,461	169.7	
Outlet Culverts Rating Table (analysed with FHWA "HY-8"):			
3 @ 12" dia. Aluminized Steel Type 2 pipes			
L = 24', Manning's n = 0.025, & S=0.833%			
W.S.El.	Q		
(ft., NGVD)	(cfs)		
542.74	3.0		
542.81	3.5		
542.88	4.0		
542.95	4.5		
543.03	5.0		
543.11	5.5		
543.22	6.0		
543.35	6.5		
543.48	7.0		
543.61	7.5		
543.75	8.0		
Project:	B.D. Davidson Replat		
	Town of Shady Shore, Texas		



B. Burke
01-29-2020

Drainage System Components

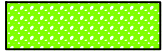
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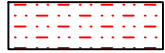
4' wide Berm Top
at 544.6' elevation



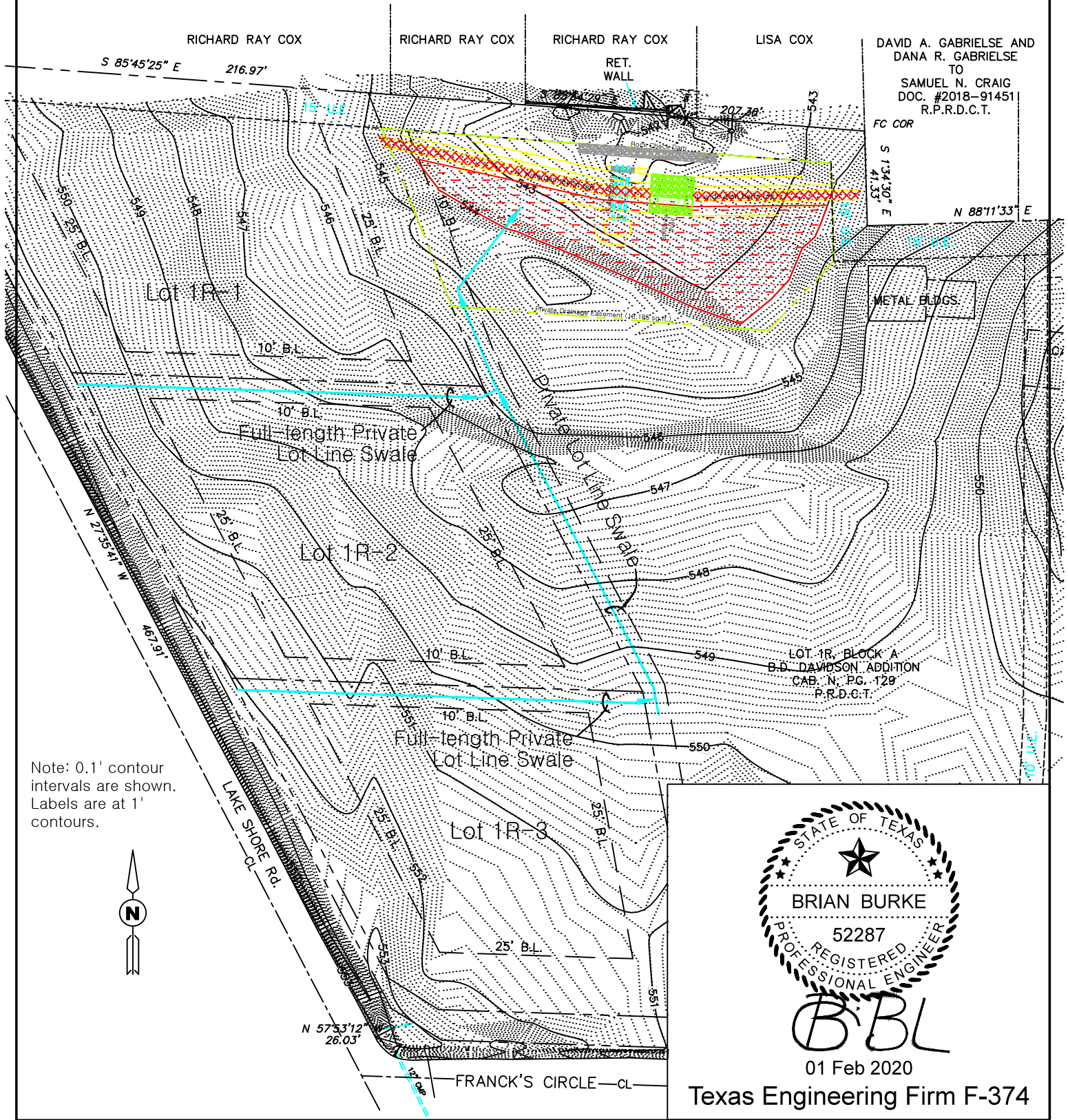
Private Lot Line Swale



Overflow Weir

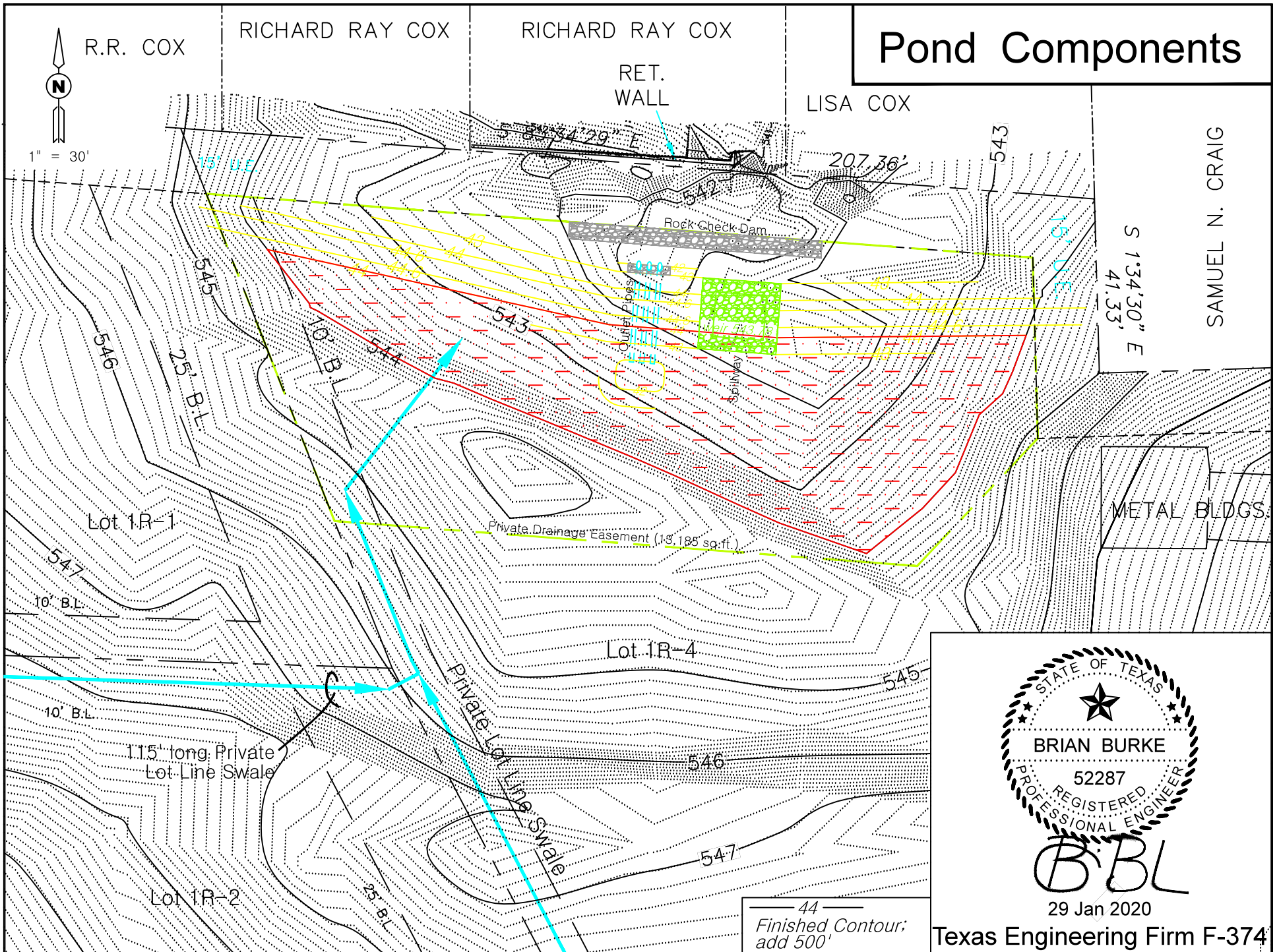


Water Surface at Elevation 544 ft.

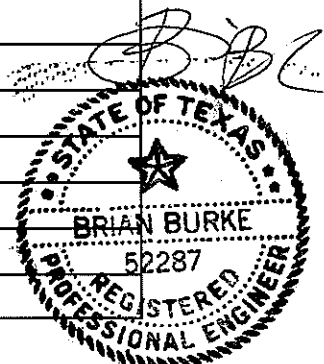


01 Feb 2020

Texas Engineering Firm F-374



Trapezoidal Broad-Crested Weir Calculations		
Design Point 2:		
Flow Width along weir flat base (ft.)		12
	Z (left) : 1	6
	Z (right) : 1	6
Weir bed elevation (ft.)		543.78
Weir top width in flow direction (ft.)		4
	Weir Coefficient	2.65
Dam berm top elevation (ft.)		544.6
	Q ₂₅ (cfs)	6.5
Q ₂₅ Flow Depth over weir (ft.)		0.324
Overflow Velocity (fps)		1.4
	Velocity head (ft.)	0.03
Emergency Spillway Stage-Discharge Rating:		
Q	Flow Depth	V
(cfs)	(feet)	(fps)
0.9	0.10	0.7
2.8	0.20	1.1
4.2	0.25	1.2
4.27	0.254	1.2
5.7	0.30	1.4
6.5	0.324	1.4
7.5	0.35	1.5
9.4	0.40	1.6
11.6	0.45	1.7
13.9	0.50	1.9
B.D. Davidson Replat		
Town of Shady Shore, Texas		



01-29-2020

SECTION: Dam & Culverts

grass cover soon as possible.

FL in = 542.0'

10.8'±

4'

9.2'±

544.6'

1.5' min.

FL out = 541.8'

8'±

Top 542.3'

south line of gas easement

1' 4' 1' 2' 1'

0.75' min.

3 @ 24' of 12" dia. Aluminized Steel Type 2 at 0.83% slope

* See Note 2.

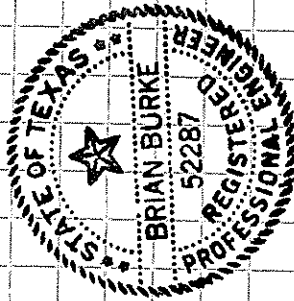
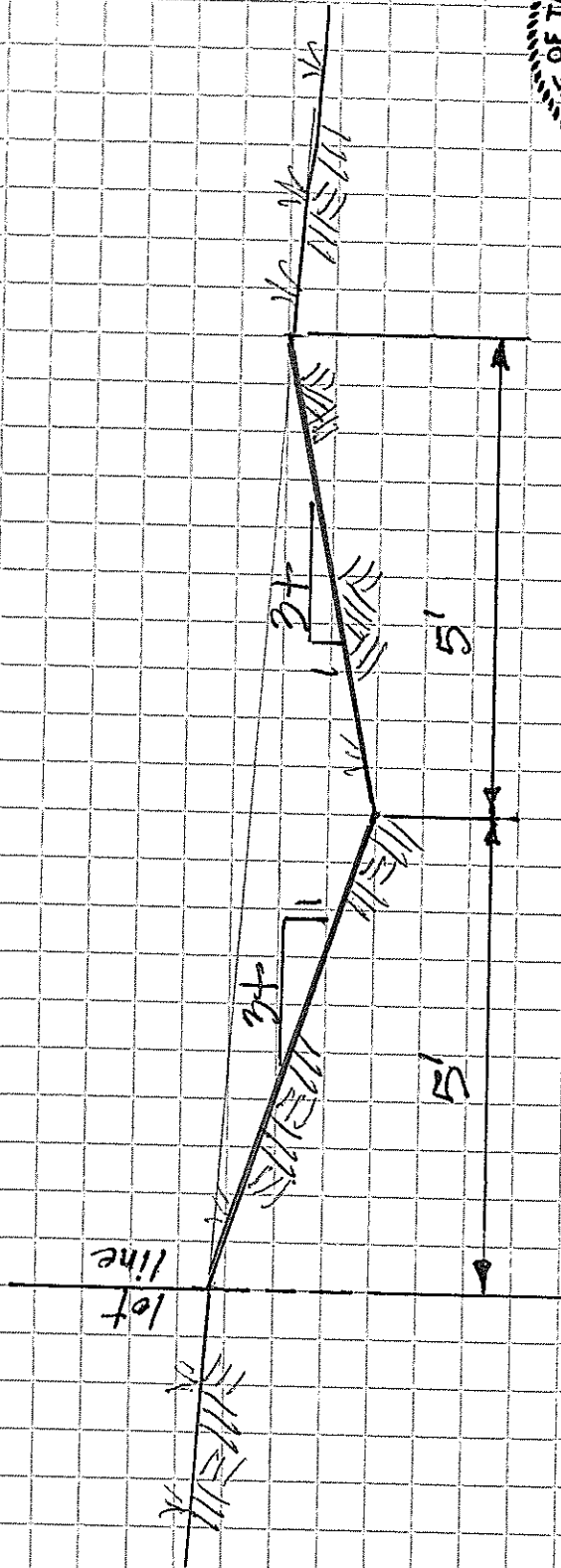
1. Dam fill soil shall contain minimum of 60% clay and be compacted in 9" maximum lift heights.
2. Stone for rock check dam and bank shield around pipe outlets shall be well-graded angular crushed rock, ranging in major dimension between 1.5" and 3.5" (same as iSWM Technical Manual, Fig. 2.1, Std. Const. Dtl.).
3. The 3 culvert pipes shall be corrugated aluminized steel, Type 2. Such culverts at this installation will perform adequately with any corrugation pattern currently available.



01 Feb 2020

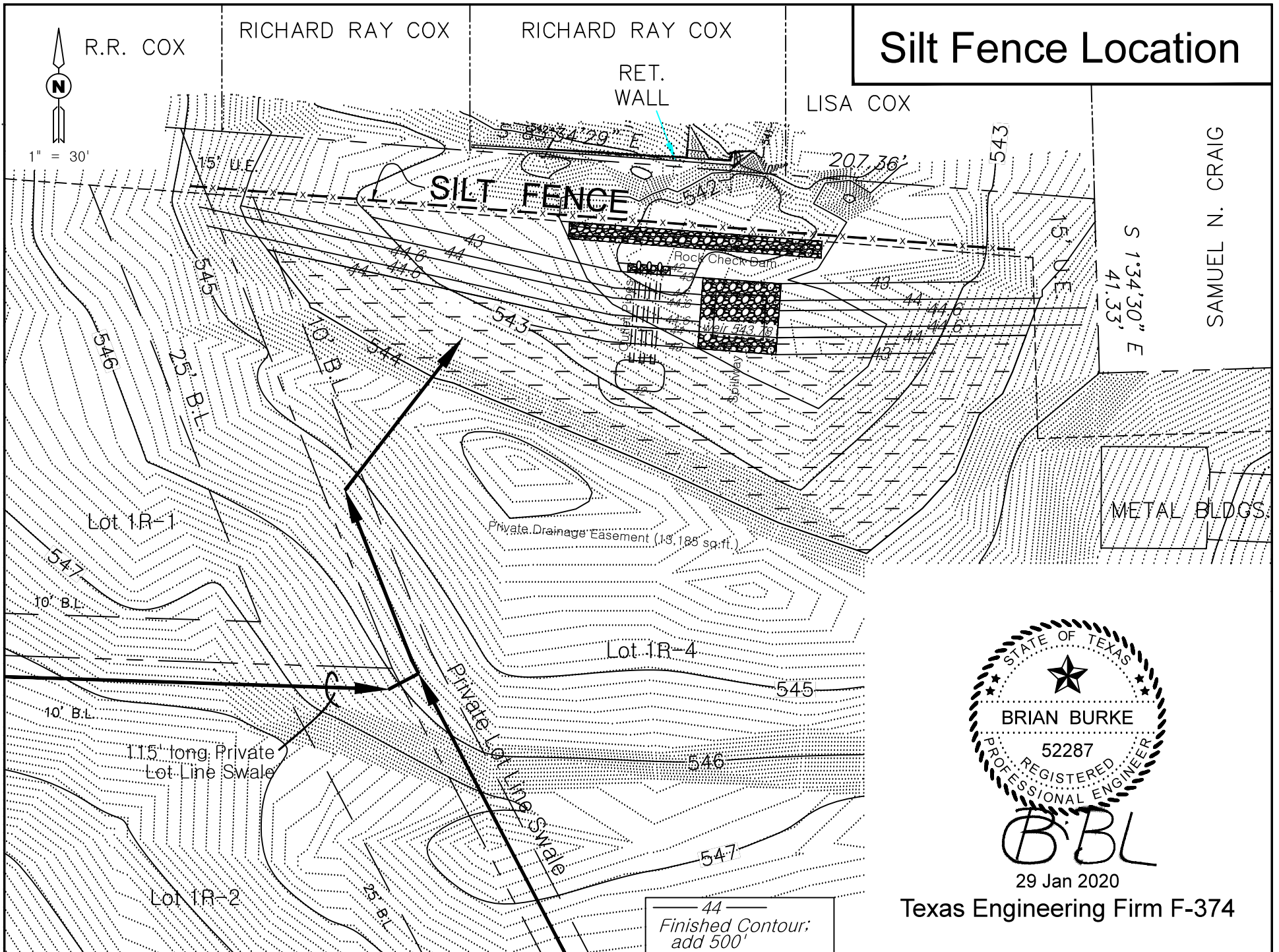
Texas Engineering Firm F-374

Private Lot-Line Swale Cross-Section



B. Burke
01-29-2020

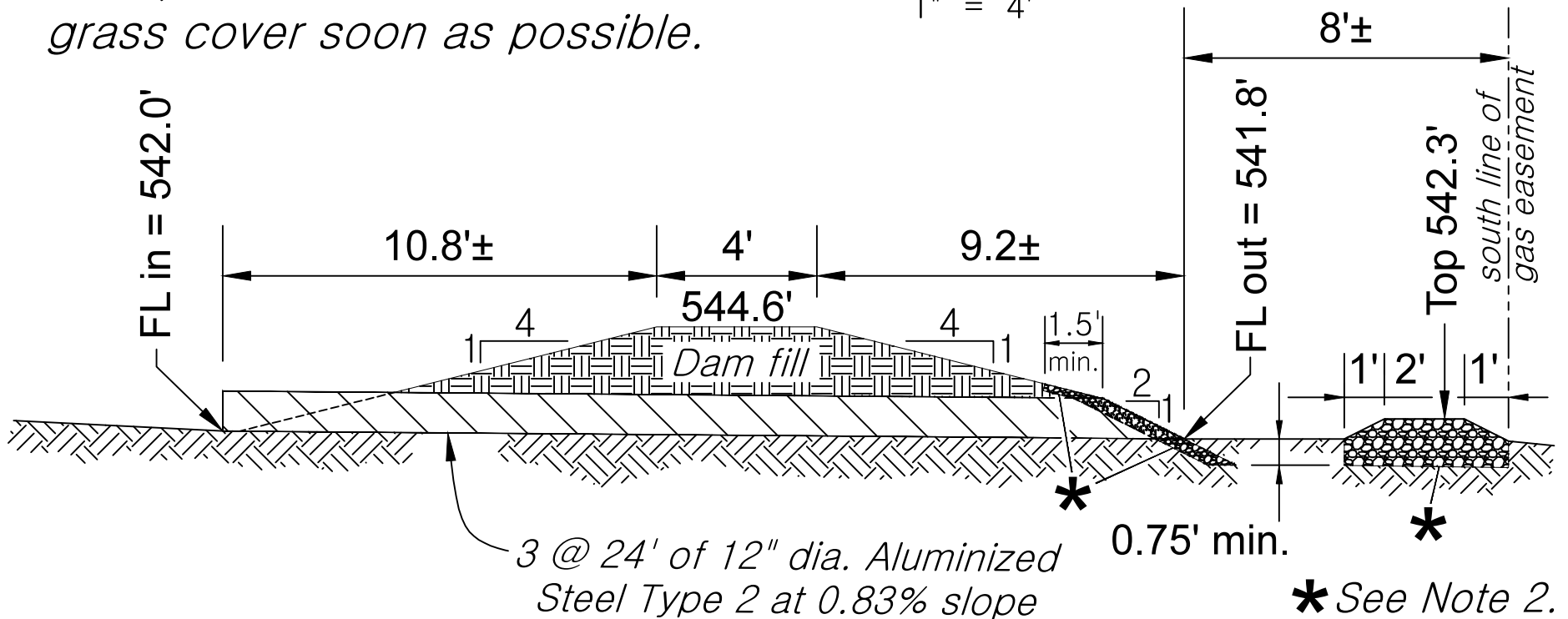
Lot Swale	Slope Range	Design Point	Q_{100} (cfs)	Y_{100} (ft)	V_{100} (fps)	W_{100} (ft)
1R-3	0.0% - 2.33%	13; 3 = 0.0%	1.8	0.6	1.4	4' ±
1R-2	1.85% - 2.70%	12; 3 = 2.7%	2.4	0.48	2.4	3' ±
1R-4	1.32% - 3.23%	12; 3 = 1.3%	4.2	0.68	2.3	4' ±
	0.3% (min slope allowed);		4.2	0.9	1.7	5.4'



NOTE: Seed and/or sod grass over all exposed soil to establish solid grass cover soon as possible.

SECTION: Dam & Culverts

1" = 4'



Notes for Dam Embankment Fill, Culvert Pipes and Rock at Pipe Outlets:

1. Dam fill soil shall contain minimum of 60% clay and be compacted in 9" maximum lift heights.
2. Stone for rock check dam and bank shield around pipe outlets shall be well-graded angular crushed rock, ranging in major dimension between 1.5" and 3.5" (same as iSWM Technical Manual, Fig. 2.1, Std. Const. Dtl.).
3. The 3 culvert pipes shall be corrugated aluminized steel, Type 2. Such culverts at this installation will perform adequately with any corrugation pattern currently available.

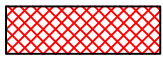


01 Feb 2020

Texas Engineering Firm F-374

Drainage System Components

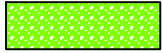
Legend



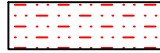
4' wide Berm Top
at 544.6' elevation



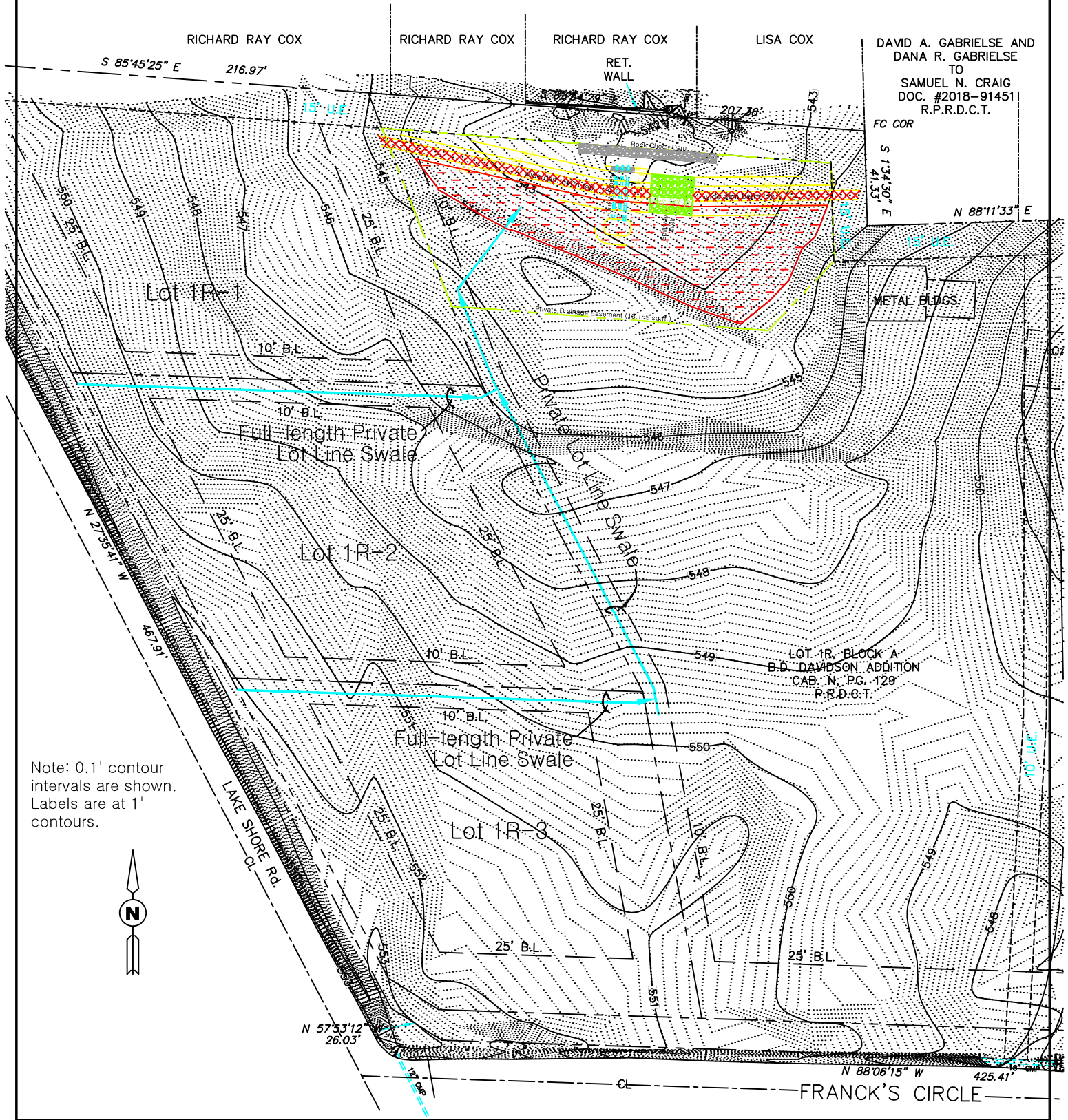
Private Lot Line Swale



Overflow Weir



Water Surface at Elevation 544 ft.



Note: 0.1' contour
intervals are shown.
Labels are at 1'
contours.



OWNER'S CERTIFICATE AND DEDICATION

STATE OF TEXAS
COUNTY OF DENTON; WHEREAS WE, I, Tracy Norwood am the owner of that certain lot, tract, or parcel of land situated in the Bartlett Eaves Survey Abstract Number 388 in the Town of Shady Shores, Denton County, Texas, being all of Lot 1R, Block A of the B. D. Davidson Addition, an addition to the Town of Shady Shores, Denton County, Texas according to the plat thereof recorded in Cabinet N, Page 129, Plat Records, Denton County, Texas, and being more particularly described as follows:

BEGINNING at an iron rod found for corner in the west line of a tract of land conveyed by deed to the united States of America and in Franck's Circle, a public roadway having a right-of-way of 50.0 feet, said point being the southeast corner of that certain tract of land conveyed by deed from Larry Allen Camp to John W. Doelling and Karen L. Doelling recorded under Document Number 2013-42063, Real Property Records, Denton County, Texas;

THENCE S 09° 30' 03" E, 32.90 with said west line of said U.S.A. tract and with said Franck's Circle to a broken United States Army Corps of Engineers monument for corner;

THENCE S 16° 46' 28" W, 268.26 feet with said west line of said U.S.A. tract and with said Franck's Circle to a capped iron rod marked RPLS 4561 set for corner;

THENCE N 88° 06' 15" W, 425.41 feet with the north line of said Franck's Circle to an iron rod found for corner;

THENCE N 57° 53' 12" W, 26.03 feet with said north line of said Franck's Circle to an iron rod found for corner in the east line of Lakeshore Road, a public roadway having a right-of-way of 50.0 feet;

THENCE N 27° 35' 41" W, 467.91 feet to an iron rod found for corner in the south line of that certain tract of land conveyed by deed to Richard Ray Cox recorded in Volume 4724, Page 1251, Real Property Records, Denton County, Texas;

THENCE S 85° 25' 45" E, 216.97 feet with the south line of said Cox tract to an iron rod found for corner said point being the southwest corner of that certain tract of land conveyed by deed to Richard Ray Cox recorded in Volume 4724, Page 1248, Real Property Records, Denton County, Texas;

THENCE S 85° 34' 29" E, 207.36 feet with the south line of said Cox tract and with the south line of that certain tract of land conveyed by deed to Richard Ray Cox recorded in Volume 2787, Page 190, Real Property Records, Denton County, Texas and with the south line of that certain tract of land conveyed by deed from G. Gregory Peterson and Catherine J. Peterson to Lisa Cox recorded under Document Number 2004-13161, Real Property Records, Denton County, Texas to a fence corner for corner in the west line of that certain tract of land conveyed by deed from David A. Gabrielse and Dana R. Gabrielse to Samuel N. Craig recorded under Document Number 2018-91451, Real Property Records, Denton County, Texas;

THENCE S 01° 34' 30" E, 41.33 feet with said west line of said Craig tract to a fence corner for corner, said point being the southwest corner of said Craig tract;

THENCE N 88° 11' 33" E, 184.61 feet with the south line of said Craig tract and with the south line of said Doelling tract to a capped iron rod marked Precise found for corner;

THENCE S 11° 20' 06" E, 51.33 feet with said south line of said Doelling tract to an iron pipe found for corner;

THENCE N 83° 37' 30" E, 44.96 feet with said south line of said Doelling tract to an iron rod found for corner;

THENCE S 10° 16' 05" E, 53.81 feet with said south line of said Doelling tract to an iron pipe found for corner;

THENCE N 78° 43' 29" E, 64.06 feet with said south line of said Doelling tract to the PLACE OF BEGINNING and containing 5.179 acres of land, of which 0.195 acre is hereby dedicated for public roadway.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT WE, the aforesaid do hereby adopt this plat designating the herein above tract as LOTS 1R-1, 1R-2, 1R-3 and 1R-4, Block A of B. D. DAVIDSON ADDITION, being a replat of Lot 1R, Block A of B. D. Davidson Addition, an addition to the Town of Shady Shores, Denton County, Texas, and do hereby dedicate to the public use forever all road and utility easements, drainage easements, and streets as shown hereon. Any public utility, including the Town of Shady Shores shall have the right to move and keep moved all or part of any building, fences, trees, shrubs other growths or improvements which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system on any of the easements shown on the plat. Any public utility including the Town of Shady Shores shall have the right at all times of ingress and egress to and from and upon said easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or part of its respective systems without the necessity at any time of procuring the permission of anyone.

WITNESS MY HAND this ____ day of _____, 2020

Tracy Norwood

STATE OF TEXAS
COUNTY OF DENTON:
This instrument was acknowledged before me on _____, 2020 by Tracy Norwood.

NOTARY PUBLIC
STATE OF TEXAS

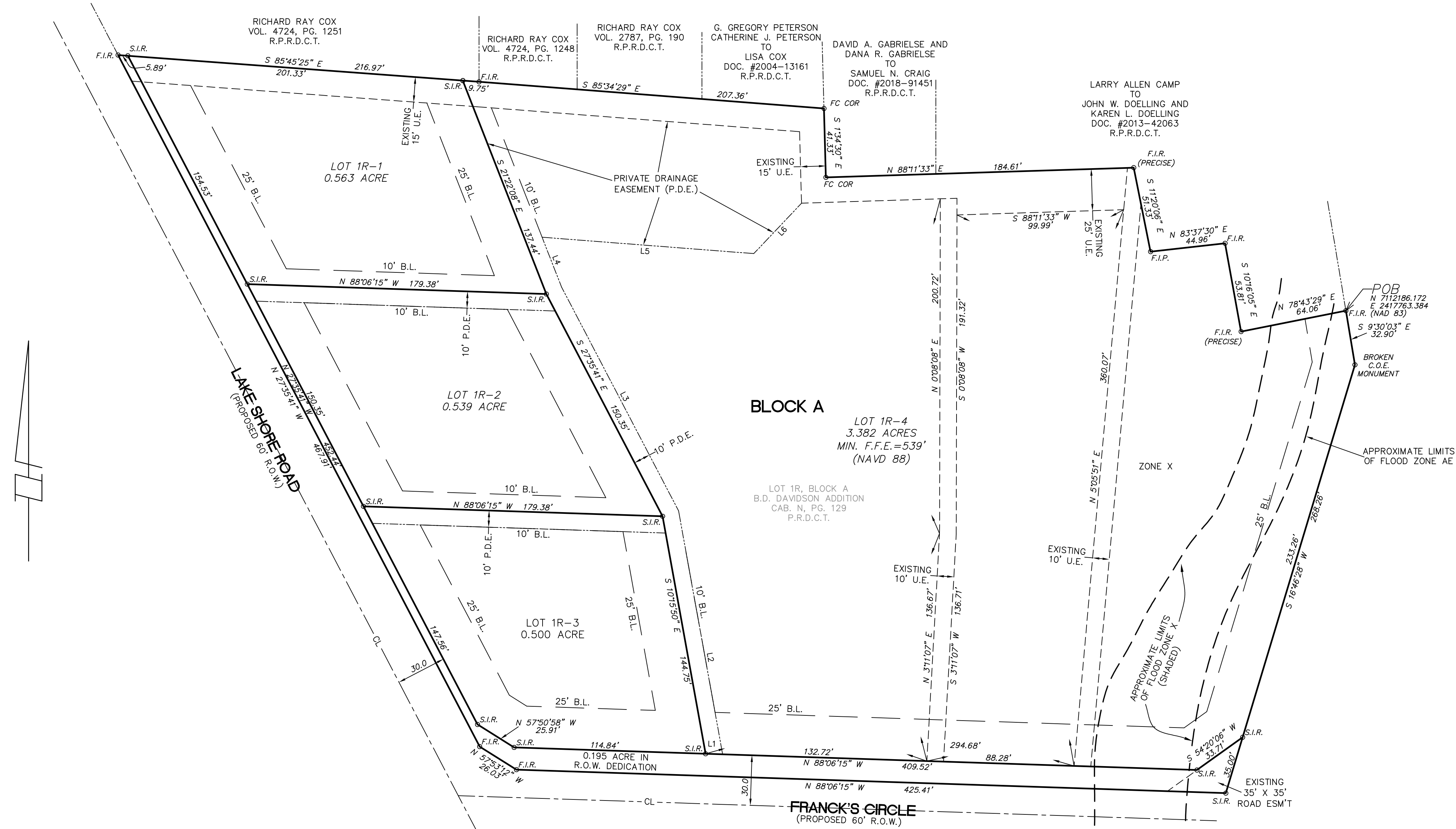
OWNER/DEVELOPER
TRACY NORWOOD
605 FRANCK'S CIRCLE
DENTON, TX 76208

SURVEYOR
LANDMARK SURVEYORS
4238 I-35 N
DENTON, TEXAS 76207
(940) 382-4016

FINAL PLAT
LOTS 1R-1, 1R-2, 1R-3 AND 1R-4, BLOCK A
OF B.D. DAVIDSON ADDITION
BEING A REPLAT OF LOT 1R, BLOCK A
OF B.D. DAVIDSON ADDITION
BEING 5.179 ACRES IN THE
BARTLETT EAVES SURVEY A-388
TOWN OF SHADY SHORES
DENTON COUNTY, TEXAS

4238 I-35 NORTH
DENTON, TEXAS 76207
(940) 382-4016
FAX (940) 387-9784
TX FIRM REGISTRATION NO. 10098600
REVISED: 11 FEBRUARY, 2020
DRAWN BY: BTH SCALE: 1"=40' DATE: 06 FEBRUARY, 2020 JOB NO: 194744

LEGEND
B.L. = BUILDING LINE
P.D.E. = PRIVATE DRAINAGE EASEMENT
F.I.R. = FOUND IRON ROD
S.I.R. = SET CAPPED 1/2" RPLS 4561 IRON ROD
P.U.E. = PUBLIC UTILITY EASEMENT
P.A.E. = PUBLIC ACCESS EASEMENT
U.E. = UTILITY EASEMENT
W.E. = WATER EASEMENT



P.D.E. LINE CHART		
NUM	BEARING	DISTANCE
L1	S 88°06'15" E	10.23'
L2	N 10°15'50" W	148.43'
L3	N 27°35'41" W	151.32'
L4	N 21°22'08" W	32.14'
L5	S 85°34'29" E	127.31'
L6	N 43°25'30" E	41.63'

RECOMMENDED FOR APPROVAL
Recommended for approval this ____ day of _____ A. D. 2020 by the Planning and Zoning Commission, Town of Shady Shores.

Chairperson, Planning and Zoning, Town of Shady Shores

APPROVED
Approved this ____ day of _____ A. D. 2020 by the Town Council, Town of Shady Shores.

Mayor, Town of Shady Shores

ATTESTED

Town Secretary

CERTIFICATE OF SURVEYOR

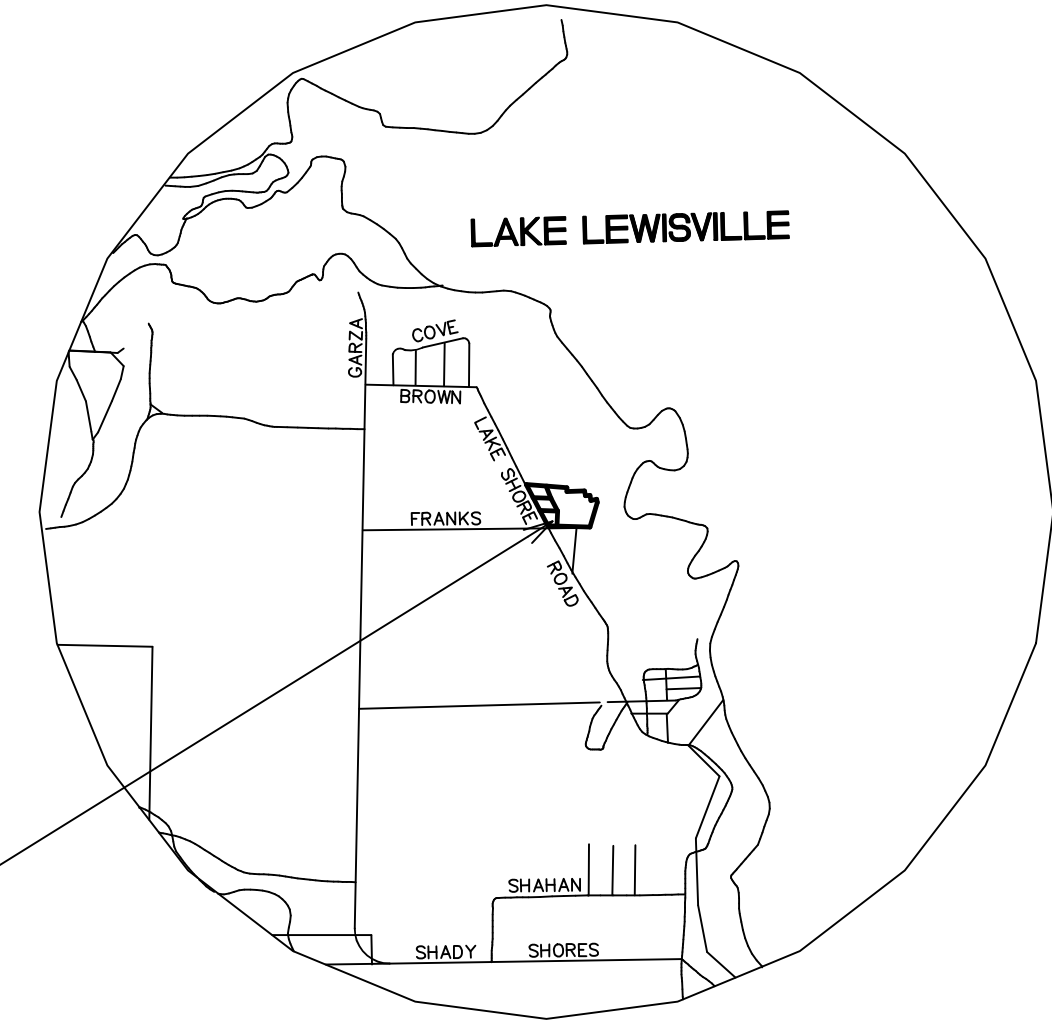
I, the undersigned, a registered professional land surveyor in the State of Texas, do hereby certify that this plat is true and correct and was prepared from an actual survey of the property made under my supervision on the ground.

Jerald D. Yensan
Registered Professional Land Surveyor No. 4561

- NOTES:
- The purpose of this Plat is to replat a single lot into four residential lots.
 - Cross-lot drainage is not permitted.
 - Private plumbing will not be allowed to cross property lines.
 - All private drainage easements are to be maintained by the property owner.
 - Only portion shown of subject property lies within a special flood hazard area according to the FLOOD INSURANCE RATE MAP for Denton County and Incorporated Area, Map Number 48121CO395G, dated April 18, 2011. (Subject property lies in Zone AE, Zone X (shaded) and Zone X.)
 - PLAT WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT, THEREFORE, THERE MAY EXIST ENCUMBRANCES WHICH AFFECT THE PROPERTY NOT SHOWN HEREON.
 - Basis of Bearing is the State Plane Coordinate System, Texas North Central Zone (4202), North American Datum of 1983, as determined from GPS observations.
 - Minimum finished floor (FF) elevation for Lot 1R-4 = 539' (NAVD 88)
 - Prior to issuance of building permits for Lot 1R-1, Lot 1R-2 and Lot 1R-3, drainage swales shall be constructed on Lot 1R-2, Lot 1R-3 and Lot 1R-4 inside the 10' private drainage easements, and a detention pond shall be constructed within the limits of the P.D.E. on Lot 1R-4. These shall be constructed in accordance with the drainage plans by Brian Burke, P.E. (TxEng F-374), which are on file at the Town of Shady Shores and were signed and sealed on January 29, 2020 and February 1, 2020.



PROJECT LOCATION



VICINITY MAP
SCALE 1" = 2000'



AGENDA MEMORANDUM

DATE: February 27, 2020
TO: Town Council
FROM: Wendy Withers, Town Administrator
SUBJECT: **Consider and act on an Ordinance adopting the 2018 Fire Code and amendments and the adoption of updated building and energy codes.**

BACKGROUND/INFORMATION:

Attached is a draft ordinance that would put shady shores building codes and amendments as the same as Corinth. This should satisfy the Corinth FD concern that the SS codes of 2009 and 2011 editions are out of date, and that SS does not have all the International Codes adopted that Corinth does.

The secondary fear is in the event of an ISO audit of Corinth FD, the few and older versions of the various codes could result in a negative finding for the FD ISO rating.

Which codes and how old is too old is not clear.

SS currently has 6 codes adopted.

Fire 2015 Edition
Building 2009
Plumbing 2009
Mechanical 2009
Residential 2009
Electrical 2011

The request from Corinth is to update our code editions above to the Editions now in effect in Corinth. 2018, except for Electrical, which is 2017.

In addition, if the council wants to, we can also adopt the additional codes many other cities have adopted. For Corinth, those would include the 2018 versions of :

International Energy Conservation Code, International Fuel Gas Code, International Existing Building Code, International Property Maintenance Code, International Existing Building Code, in their entirety and the adoption of local amendments

The amendments are many, and are included in the exhibits to the ordinance.

The usual concerns of adopting all the codes are:

Increased costs of construction, permits and inspections Having inspectors who are familiar with the codes

The hoped for benefits are:

Preserving the improved ISO fire rating

Better, safer, construction

If the council decides against adding the additional codes, we would delete Section 4, the amendments that apply to that section, and change the caption to match.

The ordinance is drafted to make that change easily done.

Our building inspector, Steve, and the FD, Chad Thiessen, would have important opinions on what to do regarding what year editions to adopt, and what codes to keep or add.

This is a draft. Final edits are to be done after the council decides what action to take. Council discussed this issue at the February 10, 2020 Town Council meeting and has asked the Planning and Zoning Commission to review this further and make a recommendation.

FINANCIAL IMPLICATIONS:

RECOMMENDATION/ACTION DESIRED:

ATTACHMENTS/SUPPORTING DOCUMENTATION:

1. Ordinance Amending the Code of Ordinances 020620

REVIEWED BY:

ORDINANCE NO.

AN ORDINANCE OF THE TOWN OF SHADY SHORES, TEXAS, AMENDING THE SHADY SHORES CODE OF ORDINANCES BY AMENDING ARTICLE 5.02 TO ADOPT 2018 ADDITION OF THE INTERNATIONAL FIRE CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.031 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.161 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL PLUMBING CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.121 TO ADOPT THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE, WITH AMENDMENTS; AMENDING SECTION 3.02.201 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL MECHANICAL CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.301 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL FUEL GAS CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.071 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AMENDING SECTION 3.02.401 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE; ADOPTING SECTION 3.02.501 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL PROPERTY MAINTENANCE CODE, WITH AMENDMENTS, ADOPTING SECTION 3.02.601 TO ADOPT THE 2018 EDITION OF THE INTERNATIONAL EXISTING BUILDING CODE, INCLUDING CERTAIN APPENDICES AND AMENDMENTS; AND AMENDING SECTION 3.02.402 REGARDING DEFINING SUBSTANDARD STRUCTURES DEFINED AS NUISANCES UNDER THE TERMS OF THIS ORDINANCE; ADOPTING SEC. 3.02.701 - ADOPTION OF SWIMMING POOL AND SPA CODE AND AMENDMENTS, ADDITIONS AND DELETIONS; PROVIDING A PENALTY NOT TO EXCEED \$2,000 A DAY FOR VIOLATIONS HEREOF; PROVIDING THAT THIS ORDINANCE IS CUMULATIVE OF ALL ORDINANCES; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEALER; PROVIDING FOR CONTINUATION OF PRIOR LAW; PROVIDING FOR PUBLICATION AND AN EFFECTIVE DATE.

WHEREAS, the Town of Shady Shores, Texas is a home rule municipality located in Denton County, Texas created in accordance with the provisions of Chapter 6 of the Local Government Code and operating pursuant to the enabling legislation of the State of Texas; and

WHEREAS, the Town Council of the Town of Shady Shores, Texas ("Town Council") previously adopted the 2015 Edition of the International Fire Code, 2009 Edition of the International Building Code, 2009 Edition of the International Plumbing Code, 2009 Edition of the International Mechanical Code, 2009 Edition of the International Residential Code, , and the 2011 edition of the National Electrical Code by Ordinance 160-3-2004, sec. 1-6, adopted 3/1/04, and

WHEREAS, from time to time, the update of such standards is warranted because of improvements in materials, technology and techniques and/or as required by law; and

WHEREAS, the North Central Texas Council of Governments has reviewed the 2018 Edition of the International Codes promulgated by the International Code Council and has recommended adoption of certain amendments to the Codes for the purposes of clarification, conformance with State laws and other Codes and to incorporate regional standards; and

WHEREAS, the Town Council finds that the enactment and enforcement of such standards are in the best interest of the Town of Shady Shores, Texas, and its citizens and that such enactment and enforcement furthers the health, safety and welfare of the citizens and their environs; and

WHEREAS, the Town Council has investigated and determined that it is in the best interest of the Town of Shady Shores, Texas to amend Section 5.02.001 of Article 5.02 of the Shady Shores Code of Ordinances by adopting the 2018 Edition of the International Fire Code, with amendments; to amend Sections 3.02 of the Shady Shores Code of Ordinances and by adopting the 2018 Editions of the International Building Code (Sec. 3.02.031), International Plumbing Code (Sec. 3.02.161), International Mechanical Code (Sec. 3.02.201), International Residential Code (Sec. 3.02.071), and

WHEREAS, the Town Council has investigated and determined that it is in the best interest of the Town of Shady Shores, Texas to adopt additional International Codes for the health, safety and welfare of the citizens of Shady Shores, as follows:

International Energy Conservation Code,
International Fuel Gas Code,
International Existing Building Code,
International Property Maintenance Code,
International Existing Building Code,
in their entirety and the adoption of local amendments thereto; and

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF SHADY SHORES, AS FOLLOWS:

SECTION 1: The findings set forth above are incorporated herein as if set forth verbatim.

SECTION 2: That Article 5.02 Fire Code be, and the same is hereby amended by amending Section 5.02.002 to read as follows:

The *International Fire Code*, 2018 edition, including Appendices B, E, D, F and G, as published by the International Code Council, a copy of which is on file in the office of the Director of Planning and Development is hereby adopted, and designated as the fire code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Fire Code*, 2018 edition, are hereby adopted and attached as Exhibit "A" to this ordinance. Exhibit "A" shall be maintained as a public record in the office of the Director of Planning and Development and the Fire Marshal. In the event a conflict is determined to exist between the *International Fire Code* as adopted and the other provisions of this chapter,

the latter provisions shall be construed as controlling and taking precedence over the former.

SECTION 3: That Article 3.02 TECHNICAL AND CONSTRUCTION CODES AND STANDARDS of the Code of Ordinances of the Town of Shady Shores, Texas, be, and the same is hereby amended as follows:

“Sec. 3.02.031 - ADOPTION OF BUILDING CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The 2018 edition of the International Building Code is hereby adopted for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location, and maintenance of buildings and structures, including permits, in the town, except as otherwise specifically provided in this article. The 2018 edition of the International Building Code is hereby made a part of this section as if fully and to the same extent as if copied herein in full.

The *International Building Code*, 2015 edition, including Appendices C, E, F, G, I, J and K, as published by the International Code Council is hereby adopted, and designated as the building code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Building Code*, 2018 edition, are hereby adopted and attached as Exhibit "B" to this Ordinance. Exhibit "B"^{II} shall be maintained as a public record in the office of the Town Secretary. In the event a conflict is determined to exist between the *International Building Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

“Sec. 3.02.071 - ADOPTION OF RESIDENTIAL CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The 2018 edition of the International Residential Code is hereby adopted for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location, and maintenance of buildings and structures, including permits, in the town, except as otherwise specifically provided in this article. The 2018 edition of the International Residential Code is hereby made a part of this section as if fully and to the same extent as if copied herein in full.

The *International Residential Code*, 2018 edition, including Appendices H, I, J, K, M, N, O, P, Q and T as published by the International Code Council, is hereby adopted, and designated as the residential code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Residential Code*, 2018 edition, are hereby adopted and attached as Exhibit "G" to this Ordinance. Exhibit "G" shall be maintained as a public record in the office of the Town Secretary. In the event a conflict is determined to exist between the *International Residential Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

“Sec. 3.02.121 - ADOPTION OF ELECTRICAL CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The 2017 edition of the National Electrical Code is hereby adopted for the purpose of establishing minimum standards for the installation of all electrical wiring, devices and equipment within the town,

except as otherwise specifically provided in this code. The 2017 edition of the National Electrical Code is hereby made a part of this section as if fully and to the same extent as if copied herein in full.

The *National Electrical Code*, 2017 edition, as published by the National Fire Protection Association is hereby adopted, and designated as the electrical code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *National Electrical Code*, 2017 edition, are hereby adopted and attached as Exhibit "D" to this Ordinance. Exhibit "D" shall be maintained as a public record in the office of the Town Secretary. In the event a conflict is determined to exist between the *National Electrical Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

"Sec. 3.02.161 ADOPTION OF PLUMBING CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The 2018 edition of the International Plumbing Code is hereby adopted for the purpose of establishing rules and regulations for the installation, alteration, repair and replacement of all plumbing piping, fittings, fixtures, and equipment which may be connected to the water and sewer system within the town, except as otherwise specifically provided in this code. The 2009 edition of the International Plumbing Code is hereby made a part of this section as if fully and to the same extent as if copied herein in full.

The *International Plumbing Code*, 2018 edition, including Appendices Chapters C, and E, as published by the International Code Council, is hereby adopted, and designated as the plumbing code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Plumbing Code*, 2018 edition, are hereby adopted and attached as Exhibit "C" to this Ordinance. Exhibit "C" shall be maintained as a public record in the office the Town Secretary. In the event a conflict is determined to exist between the *International Plumbing Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

”

"Sec. 3.02.201 - ADOPTION OF MECHANICAL CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The 2018 edition of the International Mechanical Code is hereby adopted for the purpose of establishing, regulating and controlling the design, construction, installation, quality of material, location, operation and maintenance or use of heating, ventilating, cooling, and refrigeration systems, incinerators, and other miscellaneous heat-producing and cooling appliances within the town, except as otherwise specifically provided in this code. The 2018 edition of the International Mechanical Code is hereby made a part of this section as if fully and to the same extent as if copied herein in full.

The *International Mechanical Code*, 2018 edition, as published by the International Code Council, is hereby adopted, and designated as the mechanical code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International*

Mechanical Code, 2018 edition, are hereby adopted and attached as Exhibit "E" to this Ordinance. Exhibit "E" shall be maintained as a public record in the office of the Town Secretary. In the event a conflict is determined to exist between the *International Mechanical Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

SECTION 4: That Article 3.02 TECHNICAL AND CONSTRUCTION CODES AND STANDARDS of the Code of Ordinances of the Town of Shady Shores, Texas, be, and the same is hereby amended by adding the following Sections as follows:

" Sec. 3.02.300 The following International Codes are approved and adopted for the purposes set forth in each Code set forth below:

Sec. 3.02.301 - ADOPTION OF FUEL AND GAS CODE AMENDMENTS, ADDITIONS AND DELETIONS.

The *International Fuel Gas Code*, 2018 edition, including Appendix Chapters A, B, C, and D, as published by the International Code Council, a copy of which is on file in the office of the Director of Planning and Development, is hereby adopted, and designated as the fuel gas code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Fuel Gas Code*, 2018 edition, are hereby adopted and attached as Exhibit "F" to this Ordinance. Exhibit "F" shall be maintained as a public record in the office of the Director of Planning and Development and the Town Secretary. In the event a conflict is determined to exist between the *International Fuel Gas Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

" Sec. 3.02.401 - ADOPTION OF ENERGY CONSERVATION CODE.

The *International Energy Conservation Code*, 2018 edition, including Appendices RA and CA, as published by the International Code Council, a copy of which is on file in the office of the Department of Planning and Development, is hereby adopted, and designated as the energy conservation code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Energy Conservation Code*, 2018 edition, are hereby adopted and attached as Exhibit "H" to this Ordinance. Exhibit "H" shall be maintained as a public record in the office of the Director of Planning and Development and the Town Secretary. In the event a conflict is determined to exist between *the International Energy Conservation Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

"Sec. 3.02.501 - ADOPTION OF PROPERTY MAINTENANCE CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The *International Property Maintenance Code*, 2018 edition, as published by the International Code Council, a copy of which is on file in the office of the Department of Planning and Development, is hereby adopted, and designated as the property maintenance code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to

the *International Property Maintenance Code*, 2018 edition, are hereby adopted and attached as Exhibit "I" to this Ordinance. Exhibit "I" shall be maintained as a public record in the office of the Department of Planning and Development. In the event a conflict is determined to exist between the *International Energy Conservation Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

"Sec. 3.02.601 - ADOPTION OF EXISTING BUILDING CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The *International Existing Building Code*, 2018 edition, including Appendices B and C, as published by the International Code Council, a copy of which is on file in the office of the Department of Planning and Development, is hereby adopted, and designated as the existing building code of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *International Existing Building Code*, 2018 edition, are hereby adopted and attached as Exhibit "J" to this Ordinance. Exhibit "J" shall be maintained as a public record in the office of the Department of Planning and Development. In the event a conflict is determined to exist between the *International Existing Building Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

"Sec. 3.02.701 - ADOPTION OF SWIMMING POOL AND SPA CODE AND AMENDMENTS, ADDITIONS AND DELETIONS.

The *International Swimming Pool and Spa Code*, 2018 edition, as published by the International Code Council, a copy of which is on file in the office of the Department of Planning and Development, is hereby adopted, and designated as the *Swimming Pool and Spa Code* of the Town, and is made a part hereof, as amended. Amendments, additions, and deletions to the *Swimming Pool and Spa Code*, 2018 edition, are hereby adopted and attached as Exhibit "K" to this Ordinance. Exhibit "K" shall be maintained as a public record in the office of the Town Secretary. In the event a conflict is determined to exist between the *Swimming Pool and Spa Code* as adopted and the other provisions of this chapter, the latter provisions shall be construed as controlling and taking precedence over the former."

SECTION 5: Substandard Buildings/nuisance That ARTICLE 3.02 of the Code of Ordinances of the Town of Shady Shores, Texas, be, and the same is hereby amended by the addition of 1 Sec. 3.02.402 to read as follows:

"Sec. 3.02.402 For purposes of this subchapter, any building, regardless of its date of construction, which exists in violation of Chapters 3 through 7 of the International Property Maintenance Code to an extent that endangers the life, limb, health, property, safety or welfare of the public or the occupants thereof shall be deemed and hereby is declared to be a substandard building and a nuisance."

SECTION 6: PENALTY. Any person, firm or corporation who violates any provision of this Ordinance or the Code of Ordinances, as amended hereby, shall be subject to a fine not to exceed the sum of five hundred dollars (\$500.00) for each offense, and each and every

day any such offense shall continue shall be deemed to constitute a separate offense, provided, however, that in all cases involving violation of any provision of this ordinance or Code of Ordinances, as amended hereby, governing the fire safety or public health shall be subject to a fine not to exceed the sum of \$2000.00 for each offense. Each day the condition violating this ordinance exists constitutes a separate offense.

SECTION 7. SEVERABILITY CLAUSE

Should any sentence, paragraph, subdivision, clause, phrase or section of this Ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this Ordinance as a whole, or any part or provision thereof other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Ordinance as a whole.

SECTION 8. SAVINGS CLAUSE

All rights and remedies of the Town of Shady Shores, Texas are expressly saved as to any and all violations of the provisions of any other ordinance affecting pets and/or animals which have been secured at the time of the effective date of this Ordinance; and as to such accrued violations and all pending litigation, both civil and criminal, whether pending in court or not, under such ordinances the same shall not be affected by this Ordinance but may be prosecuted until final disposition by the courts.

SECTION 9. REPEALING CLAUSE

All provisions of the ordinances of the Town of Shady Shores in conflict with the provisions of this Ordinance, and the same as this ordinance are hereby repealed. All other provisions of the ordinances of the Town of Shady Shores, not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

SECTION 10. PUBLICATION OF THE CAPTION HEREOF AND EFFECTIVE DATE

This ordinance shall be in full force and effective from and after its passage and upon the posting and/or publication, as required by law, of its caption and the City Secretary is hereby directed to implement such posting and/or publication.

PASSED by the City Council of the Town of Shady Shores, Texas, this _____ day of _____, 2020.

APPROVED:

Cindy Aughinbaugh, Mayor

ATTEST:

Wendy Withers, City Secretary

APPROVED AS TO FORM:

James E. Shepherd, Town Attorney

EXHIBIT "A"
Town of Shady Shores
Amendments 2018
International Fire Code

The following sections, paragraphs, and sentences of the *2018 International Fire Code* (IFC) are hereby amended as follows:

Section 101.1 is amended to read as follows:

Title. These regulations shall be known as the Fire Code of the Town of Shady Shores, herein referred to as "this code"

Section 101.1.1; add new Section 101.1.1 to read as follows:

101.1.1 Adoption of Appendices. The following Appendices contained in the International Fire Code, 2018 Edition, are adopted and made a part of this Fire Code:

Appendix B – Fire-flow Requirements for Buildings

Appendix E – Hazard Categories

Appendix D—Fire Apparatus Access Roads

Appendix F – Hazard Ranking

Appendix G – Cryogenic Fluids – Weight and Volume Equivalents

Section 102.1; change #3 to read as follows:

3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

Section 103 Fire Prevention Division

Section 103.1 is amended to read as follows:

General. The Fire Code shall be enforced by the Division of Fire Prevention. The Division of Fire Prevention is hereby established as a division of the Fire Department of the Town of Shady Shores and shall be operated under the supervision of the Fire Chief.

Section 103.2 is amended to read as follows:

Appointment. The Fire Marshal (Fire Code Official) shall be appointed by the Fire Chief of the Town of Shady Shores on the basis of proper qualifications.

Section 103.3 is amended to read as follows:

Deputies. The Fire Chief may assign such members of the Fire Department as inspectors, technical officers and other employees

Section 104.1 is amended by adding the following:

Under the Fire Chief's direction, the fire department is authorized to enforce all ordinances of the Town pertaining to:

1. The prevention of fires;
2. The suppression or extinguishment of dangerous or hazardous fires;
3. The storage, use, and handling of hazardous materials;
4. The installation and maintenance of automatic, manual and other private fire alarm systems and fire-extinguishing equipment;

5. The elimination of fire hazards on land and in buildings, structures and other property, including those under construction;
6. The maintenance of means of ingress and egress;
7. The investigation of the cause, origin and circumstances of fires, unauthorized releases of hazardous materials and explosions.

Section 105.3.3; change to read as follows:

105.3.3 Occupancy Prohibited before Approval. The building or structure shall not be occupied prior to the fire code official issuing a permit when required and conducting associated inspections indicating the applicable provisions of this code have been met.

Section 105.7; add Section 105.7.26 to read as follows:

105.7.26 Electronic access control systems. Construction permits are required for the installation or modification of an electronic access control system, as specified in Chapter 10. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Section 106.2.1 is amended to add the following:

Inspection requests. If the inspection fails and a return inspection is necessary, the return inspection shall constitute a re-inspection. An additional fee may be assessed on a second re-inspection and each subsequent re-inspection in accordance with the Master fee Ordinance.

Section 109.4 is amended to read as follows:

109.4 Violation Penalties. Any person who:

1. violates or fails to comply with any of the provisions of this code or the standards adopted hereunder; or
2. fails to comply within the time fixed herein with any order made by the Fire Chief or authorized representative under any of the provisions of this code or the standards adopted hereunder; or
3. builds, installs, alters, repairs or does work in violation of any detailed statement, specifications or plans submitted and approved under the provisions of this code or the standards adopted hereunder; or
4. builds in violation of any certificate or permit issued under the provisions of this code or the standards adopted hereunder; or
5. permits any fire hazard to exist in or upon any occupancy, premises or vehicle under their control, operation, maintenance or possession; or
6. fails to comply with orders, notices, signs and/or tags; or
7. tampers with signs and/or tags;

shall be guilty of a misdemeanor punishable by a fine not to exceed \$2,000.00 for each violation and act of noncompliance. The imposition of one (1) penalty for any violation shall not excuse the violation or permit it to continue, and all such persons shall be required to correct or remedy such violations of defects within a reasonable time specified by the Fire Chief or authorized representative. When not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

Section 202; amend and add definitions to read as follows:

ADDRESSABLE FIRE DETECTION SYSTEM. Any system capable of providing identification of each individual alarm-initiating device. The identification shall be in plain English and as descriptive as possible to specifically identify the location of the device in alarm. The system shall have the capability of alarm verification.

[B] AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing, or similar care on a less than 24-hour basis to persons who are rendered incapable of self-

preservation by the services provided or staff has accepted responsibility for care recipients already incapable. This group may include but not be limited to the following:

- Dialysis centers
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

[B] ATRIUM. An opening connecting ~~two~~ three or more stories... *{remaining text unchanged}*

[B] DEFEND IN PLACE. A method of emergency response that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves remaining in place, relocating within the building, or both, without evacuating the building.

FIRE WATCH. A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or *standby personnel* when required by the *fire code official*, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

FIREWORKS. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, *deflagration*, *detonation*, and/or activated by ignition with a match or other heat producing device that meets the definition of 1.3G fireworks or 1.4G fireworks. ...
{Remainder of text unchanged}...

Option B

HIGH-PILED COMBUSTIBLE STORAGE: *add a second paragraph to read as follows:*

Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 sq. ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

****Option B**

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

SELF-SERVICE STORAGE FACILITY. Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

STANDBY PERSONNEL. Qualified fire service personnel approved by the Fire Chief. When utilized, the number required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

UPGRADED OR REPLACED FIRE ALARM SYSTEM. A fire alarm system that is upgraded or replaced includes, but is not limited to the following:

- Replacing one single board or fire alarm control unit component with a newer model
 - Installing a new fire alarm control unit in addition to or in place of an existing one
 - Conversion from a horn system to an emergency voice/alarm communication system
 - Conversion from a conventional system to one that utilizes addressable or analog devices
- The following are not considered an upgrade or replacement:
- Firmware updates
 - Software updates
 - Replacing boards of the same model with chips utilizing the same or newer firmware

lows:

307.1.1 Prohibited Open Burning. Open burning that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

Exception: {No change.}

Section 307.2; change to read as follows:

307.2 Permit Required. A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality (TCEQ) guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. Local written policies as established by the *fire code official*.

Section 307.3; change to read as follows:

307.3 Extinguishment Authority The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

Section 307.4; change to read as follows: _

307.4 Location. The location for open burning shall not be less than 300 feet (91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 300 feet (91 440 mm) of any structure.

Exceptions: {No change.}

Section 307.4.3, Exceptions; add exception #2 to read as follows:

Exceptions:

2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system.

Section 307.4.4 and 307.4.5; change to read as follows:

307.4.4 Permanent Outdoor Firepit. Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

Exception: Permanently installed outdoor fireplaces constructed in accordance with the

International Building Code.

307.4.5 Trench Burns. Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

Section 307.5; change to read as follows:

307.5 Attendance. *Open burning*, trench burns, bonfires, *recreational fires*, and use of portable outdoor fireplaces shall be constantly attended until the... *{Remainder of section unchanged}*

Add Section 307.6 to read as follows:

Burn Bans. The Town of Shady Shores shall follow the ruling of the Denton County Commissioner's Court regarding burn bans. The ban shall prohibit all outdoor activities and /or processes that may start a fire. These activities or processes shall include but are not limited to: open burning, recreational burning, outdoor welding, use of torches or other cutting devices that emit sparks, and fireworks.

Add section 307.7 to read as follows:

Posting a declaration of a burn ban: The burn ban issued by the Denton County Commissioner's court as specified in section 307.6 may be posted or published in the following locations:

1. Town website
2. Fire Department social media accounts
3. Official Town newspaper

Section 308.1.4; change to read as follows:

308.1.4 Open-flame Cooking Devices. Open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be located or used on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20-pound (9.08 kg) LP-gas capacity with an aggregate LP-gas capacity not to exceed 100 pounds (5 containers)].
2. Where buildings, balconies and decks are protected by an approved *automatic sprinkler system*, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20-pound (9.08 kg) LP-gas capacity, with an aggregate LP-gas capacity not to exceed 40 lbs. (2 containers)].
3. {No change.}

Section 308.1.6.2, Exception #3; change to read as follows:

Exceptions:

3. Torches or flame-producing devices in accordance with Section 308.1.3.

Section 308.1.6.3; change to read as follows:

308.1.6.3 Sky Lanterns. A person shall not release or cause to be released an unmanned free-floating device containing an open flame or other heat source, such as but not limited to a *sky lantern*.

Section 311.5; change to read as follows:

311.5 Placards. The *fire code official* is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards, as required by Section 311.5.1 through 311.5.5.

Section 403.5; change Section 403.5 to read as follows:

403.5 Group E Occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. A diagram depicting two evacuation routes shall be posted in a conspicuous location in each classroom. Group E occupancies shall also comply with Sections 403.5.1 through 403.5.3.

Section 404.2.2; add Number 4.10 to read as follows:

4.10 Fire extinguishing system controls.

Section 405.4; change Section 405.4 to read as follows:

405.4 Time. The fire code official may require an evacuation drill at any time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

Section 501.4; change to read as follows:

501.4 Timing of Installation. When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested, and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure or in a manner that is determined accessible by the Fire Marshal.

Section 503.1.1; add sentence to read as follows:

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of ten feet (10') wide unobstructed pathway around the external walls of the structure.

Section 503.2.1; change to read as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7315 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).

Exception: Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and *approved* signs are installed and maintained indicating the established vertical clearance when approved.

Section 503.2.2; change to read as follows:

503.2.2 Authority. The *fire code official* shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

Section 503.2.3; change Section 503.2.3 to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support imposed loads of 80,000 Lbs. for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

Section 503.3; change to read as follows:

503.3 Marking. Striping, signs, or other markings, when approved by the *fire code official*, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall always be maintained in a clean and legible condition and be replaced or repaired when necessary to provide adequate visibility.

(1) Striping – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

(2) Signs – Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

Section 503.4; change to read as follows:

503.4 Obstruction of Fire Apparatus Access Roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall always be maintained.

Section 503.6 is amended to read as follows:

Security gates. Where security fencing is necessary, the owner shall provide gates or openings which may be secured. Gates when provided must open fully in either direction or be of a sliding or raised arm type and be equipped with an approved automated entry system with a Knox lock or equivalent for manual service. The key box shall be of an approved type listed in accordance with UL 1037 and be approved by the Fire Chief.

Section 505.1; change to read as follows:

505.1 Address Identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Numerals or addresses shall be posted on a minimum 20-inch (508 mm) by 30-inch (762 mm) background on border. Address identification shall be maintained.

Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 3 ½ inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

Section 507.4; change to read as follows:

507.4 Water Supply Test Date and Information. The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The *fire code official* shall be notified prior to the water supply test. Water supply tests shall be witnessed by the *fire code official*, as required. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the *fire code official*. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

Section 507.5.1 is amended to read as follows:

Where required. Where a portion of the facility or building hereafter constructed or moved in or within the jurisdiction is more than 300 feet from a fire hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the Fire Marshal. A minimum of one fire hydrant shall be located within 100ft of the fire department connection and on the same side of the roadway as the facility or building. As properties develop, fire hydrants shall be located at all intersecting streets and at the minimum spacing indicated in table 507.5.1. There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distances listed in Table 507.5.1

Maximum Distance Between Hydrants TABLE 507.5.1

OCCUPANCY	SPRINKLERED	NOT SPRINKLERED
Residential (1 & 2 Family)	500 feet	500 feet
Residential (Multi Family)	400 feet	300 feet
All Other	500 feet	300 feet

Table 507.5.1

Section 507.5.4; change to read as follows:

507.5.4 Obstruction. Unobstructed access to fire hydrants shall always be maintained. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

Section 509.1.2; add new Section 509.1.2 to read as follows:

509.1.2 Sign Requirements. Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the *fire code official*. The letters shall be of a color that contrasts with the background.

Section 603.3.2 and 603.3.2.1; change to read as follows:

603.3.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31 and Chapter 57.

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.5 and Chapter 57.

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142 or UL 2085 for Class III liquids, and also listed as a double-wall/secondary containment tank for Class II liquids.
2. 1,320 gallons (4996 L) in buildings equipped with an *automatic sprinkler* system in accordance with Section 903.3.1.1, where stored in a tank complying with UL 142 or UL 2085 as a double-wall/secondary containment tank.
3. 3,000 gallons (11 356 L) where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7 and the room is protected by an *automatic sprinkler system* in accordance with Section 903.3.1.1.

Section 901.5 amended to add the following:

Installation acceptance testing. All required tests shall be conducted by and at the expense of the owner or his representative. The Fire Department shall not be held responsible for any damages incurred in such test. Where it is required that the Fire Department witness any such test, such test shall be scheduled with a minimum of 48-hour notice to the Fire Marshal or his representative.

Section 901.6.1; add Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be back flushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the

required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.

7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official*.

Section 901.6.4; add Section 901.6.4 to read as follows:

901.6.4 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

Section 901.7; change to read as follows:

901.7 Systems Out of Service. Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service. ... {Remaining text unchanged}

Section 903.1.1; change to read as follows:

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard, or as *approved* by the *fire code official*.

Section 903.2; add paragraph to read as follows and delete the exception:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoist ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

Section 903.2.9; add Section 903.2.9.3 to read as follows:

903.2.9.3 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Option B

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*, located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exceptions:

Open parking structures in compliance with Section 406.5 of the *International Building Code*, having no other occupancies above the subject garage.

903.2.11.7 **High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 **Spray Booths and Rooms.** New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 **Buildings Over 6,000 sq. ft.** An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with Section 406.5 of the *International Building Code*.

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt Locations. When approved by the *fire code official*, automatic sprinklers shall not be required in the following rooms or areas where such ... *{text unchanged}*... because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. Elevator machine rooms, machinery spaces, and hoist ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. {Delete.}

Section 903.3.1.2.3; delete section and replace as follows:

[F] Section 903.3.1.2.3 Attached Garages and Attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:
 - 4.1. Provide automatic sprinkler system protection.
 - 4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
 - 4.3. Construct the attic using noncombustible materials.
 - 4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the *International Building Code*.
 - 4.5. Fill the attic with noncombustible insulation.

Section 903.3.1.3; change to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. *Automatic sprinkler systems* installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

Section 903.3.1.4; add to read as follows:

[F] 903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

Section 903.3.5; add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

Section 903.4; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.2; add second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

Section 905.2; change to read as follows:

905.2 Installation Standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

Section 905.3; add Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or

manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry, semi-automatic dry, and manual dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.
2. R-2 occupancies of four stories or less in height having no interior corridors.

Section 905.4, change Item 1, 3, and 5, and add Item 7 to read as follows:

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.
2. {No change.}
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a {remainder of text unchanged}

4. {No change.}
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. {No change.}
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Section 905.9; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 907.1; add Section 907.1.4 and 907.1.4.1 to read as follows:

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

Section 907.1.5; add to read as follows:

907.1.5 Required Installations. Any commercial building over 5,999 sq. ft. shall be installed with a fire alarm notification system (In Compliance with 907.5.2.3.1) to complement the sprinkler system. The system shall be monitored by an approved supervising station. Approved systems shall include full audio/visual notification services.

Buildings 5,999 sq. ft. and lower shall be installed with an approved manual and automatic fire alarm system (In Compliance with 907.5.2.3.1) if the building has multiple tenant spaces or suites. The system shall be monitored by an approved supervising station. Approved systems shall include full audio/visual notification services and manual pull stations at rear emergency exits.

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons, or where the occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance

with Section 707.3. 10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the *means of egress* with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.3; change to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change.}
 - 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.) {No change to remainder of exceptions.}

Section 907.2.12, Exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

Section 907.4.2; add Section 907.4.2.7 to read as follows:

907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows:

- **907.6.1.1 Wiring Installation.** All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

Section 907.6.3; delete all four Exceptions.

Section 907.6.6; – add sentence at end of paragraph to read as follows:

See 907.6.3 for the required information transmitted to the supervising station.

Section 909.22; add to read as follows:

909.22 Stairway or Ramp Pressurization Alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect.

Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the fire department as per Section 105.7.

909.22.1 Ventilating equipment. The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.22.1.1 Ventilation Systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective system with a fire-resistance rating of not less than 2 hours.

909.22.1.2 Standby Power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

909.22.1.3 Acceptance and Testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

Section 910.2; change Exception 2. and 3. to read as follows:

1. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.
2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m^2S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.2; add subsections 910.2.3 with exceptions to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

Section 910.3; add section 910.3.4 to read as follows:

910.3.4 Vent Operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically.

The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only systems per Section 910.2.

910.3.4.2 Nonsprinklered Buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

Section 910.4.3.1; change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

Section 912.2; add Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

Section 913.2.1; add second paragraph and exception to read as follows:

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the *fire code official*. Access keys shall be provided in the key box as required by Section 506.1.

Section 914.3.1.2; change to read as follows:

914.3.1.2 Water Supply to required Fire Pumps. In buildings that are more than 120 feet (37 m) in *building height*, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

Section 1006.2.2.7; Add Section 1006.2.2.7 as follows:

1006.2.2.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

Section 1009.8; add the following Exception 7:

Exceptions:

7. Buildings regulated under State Law and built in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009 and chapter 11.

Section 1010.1.9.5 Bolt Locks; amend exceptions 3 and 4 as follows:

Exceptions:

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. (Remainder unchanged)

4. Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)

Section 1020.1 Construction; add exception 6 to read as follows:

6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

Section 1029.1.1.1 Spaces under grandstands and bleachers; delete this section.

Section 1031.2; change to read as follows:

1031.2 Reliability. Required *exit accesses*, *exits* and *exit discharges* shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. An *exit* or *exit passageway* shall not be used for any purpose that interferes with a means of egress.

Section 1103.3; add sentence to end of paragraph as follows:

Provide emergency signage as required by Section 606.3.

Section 1103.5.1: add sentence to read as follows:

Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

Section 1103.5; add Section 1103.5.5 to read as follows:

1103.5.5 Spray Booths and Rooms. Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.

Section 1103.7; add Section 1103.7.7 and 1103.7.7.1 to read as follows:

1103.7.7 Fire Alarm System Design Standards. Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

Exception: Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit application.

1103.7.7.1 Communication requirements. Refer to Section 907.6.6 for applicable requirements.

Section 1203; change and add to read as follows:

1203.1.1 No Change

1203.1.2 No Change

1203.1.3 Emergency power systems and standby power systems shall be installed in accordance with the *International Building Code*, NFPA 70, NFPA 110 and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

1203.1.4 through 1203.1.9 {No changes to these sections.}

1203.1.10 Critical Operations Power Systems (COPS). For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

1203.2 Where Required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.4 ~~826~~ or elsewhere identified in this code or any other referenced code.

1203.2.1 through 1203.2.3 {No change.}

1203.2.4 Emergency Voice/alarm Communications Systems. Emergency power shall be provided for emergency voice/alarm communications systems in the following occupancies, or as specified elsewhere in this code, as required in Section 907.5.2.2.5. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

Covered and Open Malls, Section 907.2.19 and 914.2.3 Group A

Occupancies, Sections 907.2.1 and 907.5.2.2.4. Special Amusement Buildings, Section 907.2.11

High-rise Buildings, Section 907.2.12

Atriums, Section 907.2.13

Deep Underground Buildings, Section 907.2.18

1203.2.5 through 1203.2.13 {No change.}

1203.2.14 Means of Egress Illumination. Emergency power shall be provided for *means of egress* illumination in accordance with Sections 1008.3 and 1104.5.1. (90 minutes)

1203.2.15 Membrane Structures. Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6. (90 minutes) Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the *International Building Code*. (4 hours) Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with section 3103.10.4.

1203.2.16 {No change.}

1203.2.17 Smoke Control Systems. Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, as required in Section 909.11:
Covered Mall Building, *International Building Code*, Section 402.7 Atriums,
International Building Code, Section 404.7
Underground Buildings, *International Building Code*, Section 405.8 Group I-3,
International Building Code, Section 408.4.2
Stages, *International Building Code*, Section 410.2.5
Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1
Smoke Protected Seating, Section 1029.6.2.

1203.2.18 {No change.}

1203.2.19 Covered and Open Mall Buildings. Emergency power shall be provided in accordance with Section 907.2.19 and 914.2.3.

1203.2.20 Airport Traffic Control Towers. A standby power system shall be provided in airport traffic control towers more than 65 ft. in height. Power shall be provided to the following equipment:

1. Pressurization equipment, mechanical equipment and Lighting.
2. Elevator operating equipment.
3. Fire alarm and smoke detection systems.

1203.2.21 Smokeproof Enclosures and Stair Pressurization Alternative. Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the *International Building Code*, Section 909.20.6.2.

1203.2.22 Elevator Pressurization. Standby power shall be provided for elevator pressurization system as required by the *International Building Code*, Section 909.21.5.

1203.2.23 Elimination of Smoke Dampers in Shaft Penetrations. Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the *International Building Code*, Section 717.5.3, exception 2.3.

1203.2.24 Common Exhaust Systems for Clothes Dryers. Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the *International Mechanical Code*, Section 504.10, Item 7.

1203.2.25 Hydrogen Cutoff Rooms. Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the *International Building Code*, Section 421.

1203.2.26 Means of Egress Illumination in Existing Buildings. Emergency power shall be provided for *means of egress* illumination in accordance with Section 1104.5 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

1203.3 1203.3 through 1203.6 {No change.}

1203.7 Energy Time Duration. Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception: Where the system is supplied with natural gas from a utility provider and is approved.

Section 2304.1; change to read as follows:

Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall in accordance with the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time, the qualified attendant of item Number 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

Section 2401.2; delete this section.

Section 3103.3.1; delete this section.

Table 3206.2, footnote h; change text to read as follows:

h. Where storage areas are protected by either early suppression fast response (ESFR) sprinkler systems or control mode special application sprinklers with a response time index of 50 (m • s) 1/2 or less that are listed to control a fire in the stored commodities with 12 or fewer sprinklers, installed in accordance with NFPA 13, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas.

Table 3206.2, footnote j; add footnote j to row titled 'High Hazard' and 'Greater than 300,000' to read as follows:

j. High hazard high-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with Section 706 of the *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.

Section 3310.1; add sentence to end of paragraph to read as follows:

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time at which construction has progressed beyond completion of the foundation of any structure.

Section 5601.1.3; change to read as follows:

1. **Fireworks.** The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.

Exceptions:

2. Only when approved for fireworks displays, storage, and handling of fireworks as allowed in Section 5604 and 5608.
3. The use of fireworks for approved fireworks displays as allowed in Section 5608.

Section 5703.6; add a sentence to read as follows:

5703.6 Piping Systems. Piping systems, and their component parts, for flammable and combustible liquids shall be in accordance with Sections 5703.6.1 through 5703.6.11. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

Section 5704.2.11.4; add a sentence to read as follows:

Leak Prevention. Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 through 5704.2.11.4.3. An *approved* method of secondary containment shall be provided for underground tank and piping systems.

Section 5704.2.11.4.2; change to read as follows:

Leak Detection. Underground storage tank systems shall be provided with an *approved* method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

Section 5704.2.11.4.3; add Section 5704.2.11.4.3 to read as follows:

Observation Wells. Approved sampling tubes of a minimum 4 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

Section 5707.4; add paragraph to read as follows:

Mobile fueling sites shall be restricted to commercial, industrial, governmental, or manufacturing, where the parking area having such operations is primarily intended for employee vehicles. Mobile fueling shall be conducted for fleet fueling or employee vehicles only, not the general public. Commercial sites shall be restricted to office-type or similar occupancies that are not primarily intended for use by the public.

Section 6103.2.1; add Section 6103.2.1.8 to read as follows:

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies. Where natural gas service is not available, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

Section 6104.2, Exception; add an exception 2 to read as follows:

Exceptions:

1. {existing text unchanged}

2. Except as permitted in Sections 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

Section 6104.3; add Section 6104.3.3 to read as follows:

6104.3.3 Spas, Pool Heaters, and Other Listed Devices. Where natural gas service is not available, an LP-gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for location of containers.

Exception: Lots where LP-gas can be off-loaded wholly on the property where the tank is located may install up to 500 gallon above ground or 1,000 gallon underground approved containers.

Section 6107.4 and 6109.13; change to read as follows:

6107.4 Protecting Containers from Vehicles. Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

6109.13 Protection of Containers. LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by Section 6107.4.

***{Applicable to those jurisdictions adopting Appendix B}
Table B105.2; change footnote a. to read as follows:***

- a. The reduced fire-flow shall be not less than 1,500 gallons per minute.

END

EXHIBIT “B”
Town of Shady Shores
Amendments to the 2018
International Building Code

The following sections, paragraphs, and sentences of the *2018 International Building Code* are hereby amended as follows:

Section 101.1 & 101.1.1; amend to read as follows:

101.1 Title. These Regulations shall be known as the Building Code of the Town of Shady Shores, hereinafter referred to as “this code”.

Section 101.4; change to read as follows:

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

Section 101.4.8; add the following:

101.4.8 Electrical. The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

Section 103; amend title to read as follows:

SECTION 103 Office of the Director of Planning and Development

Section 103.1; amend to read as follows:

103.1 Creation of enforcement agency. The Office of the Director of Planning and Development is hereby created and the official in charge thereof shall be known as the building official.

Section 105.2 Work exempt from permit; under sub-title entitled “Building” delete items 1, 2, 10 and 11 and re-number as follows:

Building:

1. ~~One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m²).~~
2. ~~Fences not over 7 feet (1829 mm) high.~~
3. 1. (Remainder Unchanged)
4. 2. (Remainder Unchanged)
5. 3. (Remainder Unchanged)
6. 4. (Remainder Unchanged)
7. 5. (Remainder Unchanged)
8. 6. (Remainder Unchanged)
9. 7. (Remainder Unchanged)
10. ~~Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.~~
11. ~~8.~~ (Remainder Unchanged)

- 12- 9. (Remainder Unchanged)
13- 10. (Remainder Unchanged)

Section 109; add Section 109.7 to read as follows:

109.7 Re-inspection Fee. A fee as established by Town council resolution may be charged when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address or permit card is clearly posted;
3. Town approved plans are not on the job site available to the inspector;
4. The building is locked or work otherwise not available for inspection when called;
5. The job site is red-tagged twice for the same item;
6. The original red tag has been removed from the job site.
7. Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

Section 109; add Section 109.8, 109.8.1, 109.8.2 and 109.9 to read as follows:

109.8 Work without a permit.

109.8.1 Investigation. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code or the Town fee schedule as applicable. The payment of such investigation fee shall not exempt the applicant from compliance with all other provisions of either this code or the technical codes nor from penalty prescribed by law.

109.9 Unauthorized cover up fee. Any work concealed without first obtaining the required inspection in violation of Section 110 shall be assessed a fee as established by the Town fee schedule.

Section 202; amend definition of Ambulatory Care Facility as follows:

AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

Section 202; add definition of Assisting Living Facilities to read as follows.

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

Section 202; change definition of "Atrium" as follows:

ATRIUM. An opening connecting ~~two~~ three or more stories... *{Balance remains unchanged}*

Section 202; add-amend definition of “Repair Garage” as follows:

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

Section 202; amend definition of SPECIAL INSPECTOR to read as follows:

SPECIAL INSPECTOR. A qualified person employed or retained by an approved agency who shall prove to the satisfaction of the registered design professional in responsible charge and the Building Official as having the competence necessary to inspect a particular type of construction requiring special inspection.

Option B

Section 202; amend definition to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

Section 303.1.3; add a sentence to read as follows:

303.1.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy. Except when applying the assembly requirements of Chapters 10 and 11.

Section 304.1; add the following to the list of occupancies:

- Fire stations
- Police stations with detention facilities for 5 or less

Section 307.1.1; add the following sentence to Exception 4:

4. Cleaning establishments... *{Text unchanged}* ...with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711 or both. See also IFC Chapter 21, Dry Cleaning Plant provisions.

Section 403.1, Exception 3; change to read as follows:

- 3. The open-air portion of a building *[remainder unchanged]*

Section 403.3, Exception; delete item 2.

Section 403.3.2; change to read as follows:

403.3.2 Water supply to required fire pumps. In buildings that are more than 120 feet (36.5 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

Section 404.5; delete Exception.

Section 406.3.3.1 Carport separation; add sentence to read as follows:

A fire separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm).

Table 506.2; delete following sentence from table: The maximum allowable area for a single-story non sprinklered Group U greenhouse is permitted to be 9000 square feet or the allowable area shall be permitted to comply with Table C102.1 of Appendix C.

Section 506.3.1; add sentence to read as follows:

506.3.1 Minimum percentage of perimeter. [Existing Text remains]

In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot wide pathway meeting fire department access from the street or approved fire lane shall be provided.

Section 602.1.1; add sentence to read as follows:

602.1.1 Minimum Requirements. [Existing Text to remain]

Where a building contains more than one distinct type of construction, the building shall comply with the most restrictive area, height, and stories, for the lesser type of construction or be separated by fire walls.

Section 708.4.2; change sentence to read as follows:

708.4.2 Fireblocks and draftstops in combustible construction. [Body of text unchanged]

Exceptions:

1. Buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, or in accordance with Section 903.3.1.2 provided that sprinkler protection is provided in the space between the top of the fire partition and the underside of the floor or roof sheathing, deck or slab above as required for systems complying with Section 903.3.1.1. Portions of buildings containing concealed spaces filled with noncombustible insulation as permitted for sprinkler omission shall not apply to this exception for draft stopping. [Remainder unchanged]

Section 718.3; change sentence to read as follows:

718.3 Draftstopping in floors. [Body of text unchanged]

Exceptions: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. and provided that in combustible construction, sprinkler protection is provided in the floor space.

Section 718.4; change sentence to read as follows:

718.4 Draft stopping in attics. [Body of text unchanged]

Exceptions: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and provided that in combustible construction, sprinkler protection is provided in the attic space.

Section 901.6.1; add Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official*.

Section 903.1.1; change to read as follows:

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard, or as *approved by the fire code official*.

Section 903.2; add paragraph to read as follows and delete the exception:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be

provided at the entry doors to the elevator machine room indicating “ELEVATOR MACHINERY – NO STORAGE ALLOWED.”

Section 903.2.9; add Section 903.2.9.3 to read as follows:

903.2.9.3 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the *International Building Code*, located 35 feet (10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exceptions:

Open parking structures in compliance with Section 406.5 of the *International Building Code*, having no other occupancies above the subject garage.

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Buildings Over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with Section 406.5 of the *International Building Code*.

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt Locations. When approved by the *fire code official*, automatic sprinklers shall not be required in the following rooms or areas where such ...{text unchanged}... because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. Elevator machine rooms, machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.-

Section 903.3.1.2.3; delete sections and replace as follows:

Section 903.3.1.2.3 Attached Garages and Attics. Sprinkler protection is required in attached garages, and in the following attic spaces of buildings that are two or more stories in height above grade plane or

above the lowest level of fire department vehicle access; Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following: [Remainder Unchanged]

Section 903.3.1.3; change to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. *Automatic sprinkler systems* installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

****Section 903.3.1.4; add to read as follows:**

903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

Section 903.3.5; add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10 psi safety factor. Reference Section 507.4 for additional design requirements.

Section 903.4; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.2; add second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

Section 905.2; change to read as follows:

905.2 Installation Standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

Section 905.3; add Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry, semi-automatic dry, and manual dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.
2. R-2 occupancies of four stories or less in height having no interior corridors.

Section 905.4, change Item 1, 3, and 5, and add Item 7 to read as follows:

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at the main floor landing between stories, unless otherwise approved by the fire code official.
2. {No change.}
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway hose connection by a {No change to rest.}

4. {No change.}
5. Where the roof has slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. {No change.}
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Section 905.9; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 907.1; add Section 907.1.4 to read as follows:

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons, or where the occupant load is more than 100 persons above or below the *lowest level of exit discharge*. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the *means of egress* with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.3; change to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change.}
 - 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.) {No change to remainder of exceptions.}

Section 907.2.12, Exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

Section 907.4.2; add Section 907.4.2.7 to read as follows:

907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

Section 907.6.3; delete all four Exceptions.

Section 907.6.6; add sentence at end of paragraph to read as follows:

See 907.6.3 for the required information transmitted to the supervising station.

Section 910.2; change Exception 2 and 3 to read as follows:

2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m^*S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.2; add subsections 910.2.3 with exceptions to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

Section 910.3; add section 910.3.4 to read as follows:

910.3.4 Vent Operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only systems per Section 910.2.

910.3.4.2 Nonsprinklered Buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

Section 910.4.3.1; change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

Section 912.2; add Section 912.2.3 to read as follows:

912.2.3 Hydrant Distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

Section 913.2.1; add Section 913.2.1.1 and exception to read as follows:

913.2.1.1 Fire Pump Room Access. When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and

6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by IFC Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the *fire code official*. Access keys shall be provided in the key box as required by IFC Section 506.1.

Section 1006.2.2.7; add Section 1006.2.2.7 as follows:

1006.2.2.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

Section 1009.8; add the following Exception 7:

1009.8 Two Way Communication. A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator required to be accessible on each accessible floor that is one or more stories above or below the level of exit discharge.

Exceptions:

7. Buildings regulated under State Law and built in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009 and chapter 11.

Section 1010.1.9.5 Bolt Locks; amend exceptions 3 and 4 as follows:

Exceptions:

- 3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. (remainder unchanged)
- 4. Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)

Section 1020.1 Construction; add exception 6 to read as follows:

6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

Section 1029.1.1.1 Spaces under grandstands and bleachers; delete this section.

Section 1101.1 Scope; add exception to Section 1101.1 as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 2901.1; add a sentence to read as follows:

2901.1 Scope. *{existing text to remain}* The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the International Plumbing Code. Should any conflicts arise between the two chapters, the Building Official shall determine which provision applies.

Section 2902.1; add a second paragraph to read as follows:

In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

Table 2902.1; add footnote g to read as follows:

g. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

Add new Section 2902.1.4 to read as follows:

2902.1.4 Additional fixtures for food preparation facilities. In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.

2902.1.4.1 Hand washing lavatory. At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.4.2 Service sink. In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tool and for the disposal of mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the Planning and Development Department.

Section 3001.2 Emergency Elevator Communication Systems for the deaf, hard of hearing and speech impaired; delete this section.

Section 3002.1 Hoistway Enclosure Protection required. Add exceptions to Section 3002.1 as follows:

Exceptions:

4. Elevators completely located within atriums shall not require hoistway enclosure protection.
5. Elevators in open or enclosed parking garages that serve only the parking garage, shall not require hoistway enclosure protection.

Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; delete text as follows:

~~Elevator machine rooms, control rooms, control spaces and machinery spaces outside of but attached to a hoistway that have openings into the hoistway shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.~~

Revise text to read:

Elevator machine rooms, control rooms, control spaces and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; Delete exceptions and add two new exceptions to Section 3005.4 as follows:

Exceptions:

1. Elevator machine rooms, control rooms, machinery spaces and control spaces completely located within atriums shall not require enclosure protection.

2. Elevator machine rooms, control rooms, machinery spaces and control spaces in open or enclosed parking garages that serve only the parking garage, shall not require enclosure protection.

Section 3005.7 add a Section 3005.7 as follows:

3005.7 Fire Protection in Machine rooms, control rooms, machinery spaces and control spaces.

3005.7.1 Automatic sprinkler system. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3005.7.2.1.

3005.7.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways.

3005.7.2.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

3005.7.3 Water protection. An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.7.4 Shunt trip. Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

Section 3005.8; add Section 3005.8 as follows:

3005.8 Storage. Storage shall not be allowed within the elevator machine room, control room, machinery spaces and or control spaces. Provide approved signage at each entry to the above listed locations stating: "No Storage Allowed."

Option B

Section 3006.2, Hoistway opening protection required; Revise text as follows:

5. The building is a high rise and the elevator hoistway is more than 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway."

Chapter 35 – Referenced Standards – Add

ASTM – F 537 -01 – Standard Specification for Design, Fabrication, and Installation of Fences Constructed of Wood or Related Materials

ASTM – F 537 -14 – Standard Specification for Design, Fabrication, and Installation of Fences Constructed of Chain Link or Related Materials

End

**EXHIBIT “C”
Town of Shady Shores
Amendments to the 2018
International Plumbing Code**

Table of Contents, Chapter 7, Section 714; change to read as follows:

714 Engineered Drainage Design69

Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 shall mean the Electrical Code as adopted.

Sections 106.6.2 and 106.6.3; change to read as follows:

106.6.2 Fee schedule. The fees for all plumbing work shall be as adopted by resolution of the governing body of the jurisdiction.

106.6.3 Fee Refunds. The code official shall establish a policy for authorizing the refunding of fees *{Delete balance of section}*

Section 109; delete entire section and insert the following:

**SECTION 109
MEANS OF APPEAL**

109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

Section 305; change to read as follows:

305.1 Protection against contact. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry. Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

305.4.1 Sewer depth. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

Section 305.7; change to read as follows:

305.7 Protection of components of plumbing system. Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they could be exposed to damage shall be recessed into the wall or otherwise protected in an *approved* manner.

Section 306; change to read as follows:

306.2.4 Plastic sewer and DWV piping installation. Plastic sewer and DWV piping installed underground shall be installed in accordance with the manufacturer's installation instructions. Trench width shall be controlled to not exceed the outside the pipe diameter plus 16 inches or in a trench which has a controlled width equal to the nominal diameter of the diameter of the piping multiplied by 1.25 plus 12 inches. The piping shall be bedded in 4 inches of granular fill and then backfilled compacting the side fill in 6-inch layers on each side of the piping. The compaction shall be to minimum of 85 percent standard proctor density and extend to a minimum of 6 inches above the top of the pipe.

Section 314.2.1; change to read as follows:

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an *approved* place of disposal. ... {text unchanged} ... Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

Section 409.2; change to read as follows:

409.2 Water connection. The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608. (Remainder of section unchanged).

Section 413.4; change to read as follows:

413.4 Required location for floor drains. Floor drains shall be installed in the following areas:

1. In public laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76 mm) in diameter.
2. Commercial kitchens. In lieu of floor drains in commercial kitchens, the Code Official may accept floor sinks.
3. Public restrooms.

Section 502.3; change to read as follows:

502.3 Water heaters installed in attics. Attics containing a water heater shall be provided . . . {bulk of paragraph unchanged} . . . side of the water heater. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm) where such dimensions are large enough to allow removal of the water heater. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull-down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the Code Official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... {remainder of text unchanged}

Section 502.6; add Section 502.6 to read as follows:

502.6 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10-gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

Section 504.6; change to read as follows:

504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when *approved* by the administrative authority and permitted by the manufacture's installation instructions and installed with those instructions.

5. Discharge to an approved location or to the outdoors.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Terminate not more than 6 inches above and not less than two times the discharge pipe diameter above the floor or flood level rim of the waste receptor.
11. Not have a threaded connection at the end of such piping.

12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and *approved* for such use in accordance with ASME A112.4.1.
14. Be one nominal size larger than the size of the relief valve outlet, where the relief valve discharge piping is installed with insert fittings. The outlet end of such tubing shall be fastened in place

Section 504.7.1; change to read as follows:

Section 504.7.1 Pan size and drain to read as follows: The pan shall be not less than 11/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when *approved* by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

Section 608.1; change to read as follows:

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to applicable local regulations. Table 608.1, and as specifically stated in Sections 608.2 through 608.16.10.

Section 608.17.5; change to read as follows:

608.17.5 Connections to lawn irrigation systems.

The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

Insert New Section 608.16.5.1- Installation of Landscape Irrigation Systems

608.17.5.1 – Installation of Landscape Irrigation Systems

Definitions

(1) Air gap--A complete physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel.

(2) Atmospheric Vacuum Breaker--An assembly containing an air inlet valve, a check seat, and an airinlet port. The flow of water into the body causes the air inlet valve to close the air inlet port. When the flow of water stops the air inlet valve falls and forms a check against back siphonage.

At the same time it opens the air inlet port allowing air to enter and satisfy the vacuum. Also known as an Atmospheric Vacuum Breaker Back-Siphonage Prevention Assembly.

(3) Automatic controller--A solid state timer capable of operating valve stations to set the days, time of day, and length of time water is applied.

(4) Backflow prevention--The mechanical prevention of reverse flow, or back siphonage, of non-potable water from an irrigation system into the potable water source.

(5) Backflow prevention assembly--Any assembly used to prevent backflow into a potable water system. The type of assembly used is based on the existing or potential degree of health hazard and backflow condition.

(6) Completion of irrigation system installation--When the landscape irrigation system has been installed, all minimum standards met, all tests performed, and the irrigator is satisfied that the system is operating correctly.

(7) Consulting--The act of providing advice, guidance, review or recommendations related to landscape irrigation systems.

(8) Cross-connection--An actual or potential connection between a potable water source and an irrigation system that may contain contaminants or pollutants or any source of water that has been treated to a lesser degree in the treatment process.

(9) Design--The act of determining the various elements of a landscape irrigation system that will include, but not be limited to, elements such as collecting site specific information, defining the scope of the project, defining plant watering needs, selecting and laying out emission devices, locating system components, conducting hydraulics calculations, identifying any local regulatory requirements, or scheduling irrigation work at a site. Completion of the various components will result in an irrigation plan.

(10) Design pressure--The pressure that is required for an emission device to operate properly. Design pressure is calculated by adding the operating pressure necessary at an emission device to the total of all pressure losses accumulated from an emission device to the water source.

(11) Double Check Valve--An assembly that is composed of two independently acting, approved check valves, including tightly closed resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. Also known as a Double Check Valve Backflow Prevention Assembly.

(12) Emission device--Any device that is contained within an irrigation system and that is used to apply water. Common emission devices in an irrigation system include, but are not limited to, spray and rotary sprinkler heads, and drip irrigation emitters.

(13) Employed--Engaged or hired to provide consulting services or perform any activity relating to the sale, design, installation, maintenance, alteration, repair, or service to irrigation systems. A person is employed if that person is in an employer-employee relationship as defined by Internal Revenue Code, 26 United States Code Service, §3212(d) based on the behavioral control, financial control, and the type of relationship involved in performing employment related tasks.

(14) Head-to-head spacing--The spacing of spray or rotary heads equal to the manufacturers published radius of the head.

(15) Health hazard--A cross-connection or potential cross-connection with an irrigation system that involves any substance that may, if introduced into the potable water supply, cause death or illness, spread disease, or have a high probability of causing such effects.

(16) Hydraulics--The science of dynamic and static water; the mathematical computation of determining pressure losses and pressure requirements of an irrigation system.

(17) Inspector--A licensed plumbing inspector, water district operator, other governmental entity, or irrigation inspector who inspects irrigation systems and performs other enforcement duties for a municipality or water district as an employee or as a contractor.

(18) Installer--A person who actually connects an irrigation system to a private or public raw or potable water supply system or any water supply, who is licensed according to Title 30, Texas Administrative Code, Chapter 30 (relating to Occupational Licenses and Registrations).

(19) Irrigation inspector--A person who inspects irrigation systems and performs other enforcement duties for a municipality or water district as an employee or as a contractor and is required to be licensed under Title 30, Texas Administrative Code, Chapter 30 (relating to Occupational Licenses and Registrations).

(20) Irrigation plan--A scaled drawing of a landscape irrigation system which lists required information, the scope of the project, and represents the changes made in the installation of the irrigation system.

(21) Irrigation services--Selling, designing, installing, maintaining, altering, repairing, servicing, permitting, providing consulting services regarding, or connecting an irrigation system to a water supply.

(22) Irrigation system--An assembly of component parts that is permanently installed for the controlled distribution and conservation of water to irrigate any type of landscape vegetation in any location, and/or to reduce dust or control erosion. This term does not include a system that is used on or by an agricultural operation as defined by Texas Agricultural Code, §251.002.

(23) Irrigation technician--A person who works under the supervision of a licensed irrigator to install, maintain, alter, repair, service or supervise installation of an irrigation system, including the connection of such system in or to a private or public, raw or potable water supply system or any water supply, and who is required to be licensed under Title 30, Texas Administrative Code, Chapter 30 (relating to Occupational Licenses and Registrations).

(24) Irrigation zone--A subdivision of an irrigation system with a matched precipitation rate based on plant material type (such as turf, shrubs, or trees), microclimate factors (such as sun/shade ratio), topographic features (such as slope) and soil conditions (such as sand, loam, clay, or combination) or for hydrological control.

(25) Irrigator--A person who sells, designs, offers consultations regarding, installs, maintains, alters, repairs, services or supervises the installation of an irrigation system, including the connection of such system to a private or public, raw or potable water supply system or any water supply, and who is required to be licensed under Title 30, Texas Administrative Code, Chapter 30.

(26) Irrigator-in-Charge--The irrigator responsible for all irrigation work performed by an exempt business owner, including, but not limited to obtaining permits, developing design plans, supervising the work of other irrigators or irrigation technicians, and installing, selling, maintaining, altering, repairing, or servicing a landscape irrigation system.

(27) Landscape irrigation--The science of applying the necessary amount of water to promote or sustain healthy growth of plant material or turf.

(28) License--An occupational license that is issued by the Texas Commission on Environmental Quality under Title 30, Texas Administrative Code, Chapter 30 to an individual that authorizes the individual to engage in an activity that is covered by Title 30, Texas Administrative Code, Chapter 30.

(29) Mainline--A pipe within an irrigation system that delivers water from the water source to the individual zone valves.

(30) Maintenance checklist--A document made available to the irrigation system's owner or owner's representative that contains information regarding the operation and maintenance of the irrigation system, including, but not limited to: checking and repairing the irrigation system, setting the automatic controller, checking the rain or moisture sensor, cleaning filters, pruning grass and plants away from irrigation emitters, using and operating the irrigation system, the precipitation rates of each irrigation zone within the system, any water conservation measures currently in effect from the water purveyor, the name of the water

purveyor, a suggested seasonal or monthly watering schedule based on current evapotranspiration data for the geographic region, and the minimum water requirements for the plant material in each zone based on the soil type and plant material where the system is installed.

(31) Major maintenance, alteration, repair, or service--Any activity that involves opening to the atmosphere the irrigation main line at any point prior to the discharge side of any irrigation zone control valve. This includes, but is not limited to, repairing or connecting into a main supply pipe, replacing a zone control valve, or repairing a zone control valve in a manner that opens the system to the atmosphere.

(32) Master valve--A remote control valve located after the backflow prevention device that controls the flow of water to the irrigation system mainline.

(33) Matched precipitation rate--The condition in which all sprinkler heads within an irrigation zone apply water at the same rate.

(34) New installation--An irrigation system installed at a location where one did not previously exist.

(35) Pass-through contract--A written contract between a contractor or builder and a licensed irrigator or exempt business owner to perform part or all of the irrigation services relating to an irrigation system.

(36) Potable water-- Water that is suitable for human consumption.

(37) Pressure Vacuum Breaker--An assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. Also known as a Pressure Vacuum Breaker Back-siphonage Prevention Assembly.

(38) Reclaimed water--Domestic or municipal wastewater which has been treated to a quality suitable for beneficial use, such as landscape irrigation.

(39) Records of landscape irrigation activities--The irrigation plans, contracts, warranty information, invoices, copies of permits, and other documents that relate to the installation, maintenance, alteration, repair, or service of a landscape irrigation system.

(40) Reduced Pressure Principle Backflow Prevention Assembly--An assembly containing two independently acting approved check valves together with a hydraulically operating mechanically independent pressure differential relief valve located between the two check valves and below the first check valve.

(41) Static water pressure--The pressure of water when it is not moving.

(42) Supervision--The on-the-job oversight and direction by a licensed irrigator who is fulfilling his or her professional responsibility to the client and/or employer in compliance with local or state requirements. Also a licensed installer working under the direction of a licensed irrigator or beginning January 1, 2009, an irrigation technician who is working under the direction of a licensed irrigator to install, maintain, alter, repair or service an irrigation system.

(43) Water conservation--The design, installation, service, and operation of an irrigation system in a manner that prevents the waste of water, promotes the most efficient use of water, and applies the least amount of water that is required to maintain healthy individual plant material or turf, reduce dust, and control erosion.

(44) Zone flow--A measurement, in gallons per minute or gallons per hour, of the actual flow of water through a zone valve, calculated by individually opening each zone valve and obtaining a valid reading after the pressure has stabilized. For design purposes, the zone flow is the total flow of all nozzles in the zone at a specific pressure.

(45) Zone valve--An automatic valve that controls a single zone of a landscape irrigation system.

Valid License Required

Any person who connects an irrigation system to the water supply within the Town or the Town's extraterritorial jurisdiction, commonly referred to as the ETJ, must hold a valid license, as defined by Title 30, Texas Administrative Code, Chapter 30 and required by Chapter 1903 of the Texas Occupations Code, or as defined by Chapter 365, Title 22 of the Texas Administrative Code and required by Chapter 1301 of the Texas Occupations Code.

Exemptions

A property owner is not required to be licensed in accordance with Texas Occupations Code, Title 12, §1903.002(c)(1) if he or she is performing irrigation work in a building or on a premises owned or occupied by the person as the person's home. A home or property owner who installs an irrigation system must meet the standards contained in (Reference that property owners must also meet the standards of this ordinance.) Title 30, Texas Administrative Code, Chapter 344 regarding spacing, water pressure, spraying water over impervious materials, rain or moisture shut-off devices or other technology, backflow prevention and isolation valves. The Town may, at any point, adopt more stringent requirements for a home or property owner who installs an irrigation system. See Texas Occupations Code §1903.002 for other exemptions to the licensing requirement.

Permit Required

Any person installing an irrigation system within the territorial limits or extraterritorial jurisdiction of the Town is required to obtain a permit from the Town. An irrigation plan must be submitted to the "Building Official" in conjunction with the permit application. Any plan approved for a permit must be in compliance with the requirements of this chapter.

Exemptions

- (1) An irrigation system that is an on-site sewage disposal system, as defined by Section 366.002, Health and Safety Code; or
- (2) An irrigation system used on or by an agricultural operation as defined by Section 251.002, Agriculture Code; or
- (3) An irrigation system connected to a groundwater well used by the property owner for domestic use.

Backflow Prevention Methods and Devices

(a) Any irrigation system that is connected to the potable water supply must be connected through a backflow prevention method approved by the Texas Commission on Environmental Quality (TCEQ). The backflow prevention device must be approved by the American Society of Sanitary Engineers; or the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California; or the International Plumbing Code; or any other laboratory that has equivalent capabilities for both the laboratory and field evaluation of backflow prevention assemblies. The backflow prevention device must be installed in accordance with the laboratory approval standards or if the approval does not include specific installation information, the manufacturer's current published recommendations.

(b) If conditions that present a health hazard exist, one of the following methods must be used to prevent backflow;

(1) An air gap may be used if:

(A) There is an unobstructed physical separation; and

(B) The distance from the lowest point of the water supply outlet to the flood rim of the fixture or assembly into which the outlet discharges is at least one inch or twice the diameter of the water supply outlet, whichever is greater.

(2) Reduced pressure principle backflow prevention assemblies may be used if:

(A) The device is installed at a minimum of 12 inches above ground in a location that will ensure that the assembly will not be submerged; and

(B) Drainage is provided for any water that may be discharged through the assembly relief valve.

(3) Pressure vacuum breakers may be used if:

(A) No back-pressure condition will occur; and

(B) The device is installed at a minimum of 12 inches above any downstream piping and the highest downstream opening. Pop-up sprinklers are measured from the retracted position from the top of the sprinkler.

(4) Atmospheric vacuum breakers may be used if:

(A) No back-pressure will be present;

(B) There are no shutoff valves downstream from the atmospheric vacuum breaker;

(C) The device is installed at a minimum of six inches above any downstream piping and the highest downstream opening. Pop-up sprinklers are measured from the retracted position from the top of the sprinkler;

(D) There is no continuous pressure on the supply side of the atmospheric vacuum breaker for more than 12 hours in any 24-hour period; and

(E) A separate atmospheric vacuum breaker is installed on the discharge side of each irrigation control valve, between the valve and all the emission devices that the valve controls.

(F) Backflow prevention devices used in applications designated as health hazards must be tested upon installation and annually thereafter. (If the Town chooses to permit the use of double check valves);

(G) If there are no conditions that present a health hazard, double check valve backflow prevention assemblies may be used to prevent backflow if the device is tested upon installation and test cocks are used for testing only.

(H) If a double check valve is installed below ground:

(1) Test cocks must be plugged, except when the double check valve is being tested;

(2) Test cock plugs must be threaded, water-tight, and made of non-ferrous material;

(3) A y-type strainer is installed on the inlet side of the double check valve;

(4) There must be a clearance between any fill material and the bottom of the double check valve to allow space for testing and repair; and

(5) There must be space on the side of the double check valve to test and repair the double check valve.

(d/f) If an existing irrigation system without a backflow-prevention assembly requires major maintenance, alteration, repair, or service, the system must be connected to the potable water supply through an approved, properly installed backflow prevention method before any major maintenance, alteration, repair, or service is performed.

(e/g) If an irrigation system is connected to a potable water supply through a double check valve, pressure vacuum breaker, or reduced pressure principle backflow assembly and includes an automatic master valve

on the system, the automatic master valve must be installed on the discharge side of the backflow prevention assembly.

(f/h) The irrigator shall ensure the backflow prevention device is tested by a licensed Backflow Prevention Assembly Tester prior to being placed in service and the test results provided to the local water purveyor and the irrigation system's owner or owner's representative within ten business days of testing of the backflow prevention device

Specific Conditions and Cross-Connection Control

(a) Before any chemical is added to an irrigation system connected to the potable water supply, the irrigation system must be connected through a reduced pressure principle backflow prevention assembly or air gap.

(b) Connection of any additional water source to an irrigation system that is connected to the potable water supply can only be done if the irrigation system is connected to the potable water supply through a reduced-pressure principle backflow prevention assembly or an air gap.

(c) Irrigation system components with chemical additives induced by aspiration, injection, or emission system connected to any potable water supply must be connected through a reduced pressure principle backflow device.

(d) If an irrigation system is designed or installed on a property that is served by an on-site sewage facility, as defined in Title 30, Texas Administrative Code, Chapter 285, then:

(1) All irrigation piping and valves must meet the separation distances from the On-Site Sewage Facilities system as required for a private water line in Title 30, Texas Administrative Code, Section 285.91(10);

(2) Any connections using a private or public potable water source that is not the Town's potable water system must be connected to the water source through a reduced pressure principle backflow prevention assembly as defined in Title 30, Texas Administrative Code, Section 344.50; and

(3) Any water from the irrigation system that is applied to the surface of the area utilized by the On-Site Sewage Facility system must be controlled on a separate irrigation zone or zones so as to allow complete control of any irrigation to that area so that there will not be excess water that would prevent the On-Site Sewage Facilities system from operating effectively.

Water Conservation

All irrigation systems shall be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that will promote water conservation as defined in the Definitions section of this ordinance.

Irrigation Plan Design: Minimum Standards

(a) An irrigator shall prepare an irrigation plan for each site where a new irrigation system will be installed. A paper or electronic copy of the irrigation plan must be on the job site at all times during the installation of the irrigation system. A drawing showing the actual installation of the system is due to each irrigation system owner after all new irrigation system installations. During the installation of the irrigation system, variances from the original plan may be authorized by the licensed irrigator if the variance from the plan does not:

(1) Diminish the operational integrity of the irrigation system;

(2) Violate any requirements of this ordinance; and

(3) Go unnoted in red on the irrigation plan.

(b) The irrigation plan must include complete coverage of the area to be irrigated. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.

(c) All irrigation plans used for construction must be drawn to scale. The plan must include, at a minimum, the following information:

(1) The irrigator's seal, signature, and date of signing;

(2) All major physical features and the boundaries of the areas to be watered;

(3) A North arrow;

(4) A legend;

(5) The zone flow measurement for each zone;

(6) Location and type of each:

(a) Automatic controller; and

(b) Sensor (for example, but not limited to, rain, moisture, wind, flow, or freeze);

(7) Location, type, and size of each:

(a) Water source, such as, but not limited to a water meter and point(s) of connection;

(b) Backflow prevention device;

(c) Water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays;

(d) Valve, including but not limited to, zone valves, master valves, and isolation valves;

(e) Pressure regulation component; and

(f) Main line and lateral piping.

(8) The scale used; and

(9) The design pressures.

Design and Installation: Minimum Requirements

(a) No irrigation design or installation shall require the use of any component, including the water meter, in a way which exceeds the manufacturer's published performance limitations for the component.

(b) Spacing.

(1) The maximum spacing between emission devices must not exceed the manufacturers published radius or spacing of the device(s). The radius or spacing is determined by referring to the manufacturer's published specifications for a specific emission device at a specific operating pressure.

(2) New irrigation systems shall not utilize above-ground spray emission devices in landscapes that are less than 60 inches not including the impervious surfaces in either length or width and which contain impervious pedestrian or vehicular traffic surfaces along two or more perimeters. Qualifying areas less than 60 inches may be irrigated utilizing subsurface or drip irrigation, pressure compensating tubing, or be

designed without irrigation. If pop-up sprays or rotary sprinkler heads are used in a new irrigation system, the sprinkler heads must direct flow away from any adjacent surface and shall not be installed closer than four inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar.

(3) Narrow paved walkways, jogging paths, golf cart paths or other small areas located in cemeteries, parks, golf courses or other public areas may be exempted from this requirement if the runoff drains into a landscaped area.

(c) Water pressure. Emission devices must be installed to operate at the minimum and not above the maximum sprinkler head pressure as published by the manufacturer for the nozzle and head spacing that is used. Methods to achieve the water pressure requirements include, but are not limited to, flow control valves, a pressure regulator, or pressure compensating spray heads.

(d) Piping. Piping in irrigation systems must be designed and installed so that the flow of water in the pipe will not exceed a velocity of five feet per second for polyvinyl chloride (PVC) pipe.

(e) Irrigation Zones. Irrigation systems shall have separate zones based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological requirements. All non-turf landscape areas included in the irrigation plan shall be designed with subsurface irrigation, drip irrigation, and/or pressure compensating tubing.

(f) Matched precipitation rate. Zones must be designed and installed so that all of the emission devices in that zone irrigates at the same precipitation rate.

(g) Irrigation systems shall not spray water over surfaces made of concrete, asphalt, brick, wood, stones set with mortar, or any other impervious material, such as, but not limited to, walls, fences, sidewalks, streets, etc.

(h) Foundations. If the irrigation plan includes a foundation watering system, a separate station shall be dedicated for drip irrigation for the purpose of watering a structure's foundation.

(i) Master valve. A flow control master valve shall be installed on the discharge side of the backflow prevention device on all new installations.

(j) Check valves. Check valves are required where elevation differences may result in low head drainage. Check valves may be located at the sprinkler head(s) or on the lateral line.

(k) Pop-up heads. Pop-up heads shall be installed at grade level and operated to extend above all landscape turf grass.

(l) PVC pipe primer solvent. All new irrigation systems that are installed using PVC pipe and fittings shall be primed with a colored primer prior to applying the PVC cement in accordance with the International Plumbing Code (Section 605).

(m) Automatic controllers. All new irrigation systems must include an automatic controller capable of providing the following features:

(1) Multiple irrigation programs with at least three start times per program

(2) Limiting the irrigation frequency to once every 7 days and once every 14 days

(3) Water budgeting feature

(n) Operational rain or moisture and freeze shut-off devices or other technology. All new automatically controlled irrigation systems must include operational sensors or other technology designed to inhibit or interrupt operation of the irrigation system during periods of freezing weather and moisture or rainfall.

Freeze and rain or moisture shut-off technology must be installed according to the manufacturer's published recommendations. Repairs to existing automatic irrigation systems that require replacement of an existing controller must include an operational sensor or other technology designed to inhibit or interrupt operation of the irrigation system during periods of freezing weather and moisture or rainfall.

(o) Isolation valve. All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device.

(p) Depth coverage of piping. Piping in all irrigation systems must be installed according to the manufacturer's published specifications for depth coverage of piping.

(1) If the manufacturer has not published specifications for depth coverage of piping, the piping must be installed to provide minimum depth coverage of six inches of select backfill, between the top of the pipe and the natural grade of the topsoil. All portions of the irrigation system that fail to meet this standard must be noted on the irrigation plan. If the area being irrigated has rock at a depth of six inches or less, select backfill may be mounded over the pipe. Mounding must be noted on the irrigation plan and discussed with the irrigation system owner or owner's representative to address any safety issues.

(2) If a utility, man-made structure, or roots create an unavoidable obstacle, which makes the six-inch depth coverage requirement impractical, the piping shall be installed to provide a minimum of two inches of select backfill between the top of the pipe and the natural grade of the topsoil.

(3) All trenches and holes created during installation of an irrigation system must be backfilled and compacted to the original grade.

(q) Wiring irrigation systems.

(1) Underground electrical wiring used to connect an automatic controller to any electrical component of the irrigation system must be listed by Underwriters Laboratories as acceptable for burial underground.

(2) Electrical wiring that connects any electrical components of an irrigation system must be sized according to the manufacturer's recommendation.

(3) Electrical wire splices which may be exposed to moisture must be waterproof as certified by the wire splice manufacturer.

(4) Underground electrical wiring that connects an automatic controller to any electrical component of the irrigation system must be buried with a minimum of six inches of select backfill.

(r) Water contained within the piping of an irrigation system is deemed to be non-potable. No drinking or domestic water usage, such as, but not limited to, filling swimming pools or decorative fountains, shall be connected to an irrigation system. If a hose bib (an outdoor water faucet that has hose threads on the spout) is connected to an irrigation system for the purpose of providing supplemental water to an area, the hose bib must be installed using a quick coupler key on a quick coupler installed in a covered purple valve box and the hose bib and any hoses connected to the bib must be labeled "non-potable, not safe for drinking." An isolation valve must be installed upstream of a quick coupler connecting a hose bib to an irrigation system.

(s) Beginning January 1, 2010, either a licensed irrigator or a licensed irrigation technician shall be on-site at all times while the landscape irrigation system is being installed. When an irrigator is not onsite, the irrigator shall be responsible for ensuring that a licensed irrigation technician is on-site to supervise the installation of the irrigation system.

Completion of Irrigation System Installation

Upon completion of the irrigation system, the irrigator or irrigation technician who provided supervision for the on-site installation shall be required to complete four items:

(1) A final "walk through" with the irrigation system's owner or the owner's representative to explain the operation of the system. The "walk through" shall include a review of the currently programmed, as well as seasonal, watering schedule, maintenance checklist, location of the automatic controller and associated manufacturer's manual, water meter, isolation valve, backflow preventer, sprinkler heads, drip or pressure compensating tubing irrigation, rain or moisture and freeze shut-off device, and the irrigation plan showing the actual installed system.

(2) The maintenance checklist on which the irrigator or irrigation technician shall obtain the signature of the irrigation system's owner or owner's representative and shall sign, date, and seal the checklist. If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator shall note the time and date of the refusal on the irrigation system's owner or owner's representative's signature line. The irrigation system owner or owner's representative will be given the original maintenance checklist and a duplicate copy of the maintenance checklist shall be maintained by the irrigator and provided to the "Building Official". The items on the maintenance checklist shall include but are not limited to:

(A) Irrigator's name, license number, company name, telephone number, and the dates of the warranty period.

(B) The manufacturer's manual for the automatic controller;

(C) A seasonal (spring, summer, fall, winter) watering schedule based on either current/real time evapotranspiration or monthly historical reference evapotranspiration (historical ET) data, monthly effective rainfall estimates, plant landscape coefficient factors, and site factors;

(D) A list of components, such as the nozzle, or pump filters, and other such components; that require maintenance and the recommended frequency for the service; and (E) The statement, "This irrigation system has been installed in accordance with all applicable state and local laws, ordinances, rules, regulations or orders. I have tested the system and determined that it has been installed according to the Irrigation Plan and is properly adjusted for the most efficient application of water at this time."

(3) A permanent sticker which contains the irrigator's name, license number, company name, telephone number and the dates of the warranty period shall be affixed to each automatic controller installed by the irrigator or irrigation technician. The information contained on the sticker must be printed with waterproof ink.

(4) The irrigation plan indicating the actual installation of the system and the associated seasonal watering schedule must be provided to the irrigation system's owner or owner representative and to the "Building Official".

(5) In the event that the irrigation system owner or owner representative is a residential home builder and the new residential home with the associated irrigation system will be sold for the first time to a new homeowner, a copy of the irrigation plan indicating the actual installation of the system and corresponding maintenance checklist must be placed within or attached to the automatic controller. A copy of the irrigation plan and corresponding maintenance checklist must be transferred to the new owner or the new owner's representative in the event that the irrigation system or the responsibility of management of the irrigation system is sold or transferred. A signed statement from the new owner, or the new owner's representative, of the irrigation system and the residential home builder, or builder's representative, stating they have received and transferred, respectively, a copy of the irrigation plan and maintenance checklist must be provided to the "Building Official" within 30 days of the receipt of the irrigation system by the newowner.

Maintenance, Alteration, Repair, or Service of Irrigation Systems

(a) The licensed irrigator is responsible for all work that the irrigator performed during the maintenance, alteration, repair, or service of an irrigation system during the warranty period. The irrigator or business owner is not responsible for the professional negligence of any other irrigator who subsequently conducts any irrigation service on the same irrigation system.

(b) All trenches and holes created during the maintenance, alteration, repair, or service of an irrigation system must be returned to the original grade with compacted select backfill.

(c) Colored PVC pipe primer solvent must be used on all pipes and fittings used in the maintenance, alteration, repair, or service of an irrigation system in accordance with the or the International Plumbing Code (Section 605).

(d) When maintenance, alteration, repair or service of an irrigation system involves excavation work at the water meter or backflow prevention device, an isolation valve shall be installed, if an isolation valve is not present. Reclaimed Water (not utilized by all cities; optional) Reclaimed water may be utilized in landscape irrigation systems if:

(1) There is no direct contact with edible crops, unless the crop is pasteurized before consumption;

(2) The irrigation system does not spray water across property lines that do not belong to the irrigation system's owner;

(3) The irrigation system is installed using purple components;

(4) The domestic potable water line is connected using an air gap or a reduced pressure principle backflow prevention device, in accordance with Title 30, Texas Administrative Code, Section 290.47(i) (relating to Appendices);

(5) A minimum of an eight inch by eight-inch sign, in English and Spanish, is prominently posted on/in the area that is being irrigated, that reads, "RECLAIMED WATER – DO NOT DRINK" and "AGUA DE RECUPERACIÓN – NO BEBER"; and

(6) Backflow prevention on the reclaimed water supply line shall be in accordance with the regulations of the Town's water provider.

Advertisement Requirements

(a) All vehicles used in the performance of irrigation installation, maintenance, alteration, repair, or service must display the irrigator's license number in the form of "LI _____" in a contrasting color of block letters at least two inches high, on both sides of the vehicle.

(b) All forms of written and electronic advertisements for irrigation services must display the irrigator's license number in the form of "LI _____." Any form of advertisement, including business cards, and estimates which displays an entity's or individual's name other than that of the licensed irrigator must also display the name of the licensed irrigator and the licensed irrigator's license number. Trailers that advertise irrigation services must display the irrigator's license number.

(c) The name, mailing address, and telephone number of the commission must be prominently displayed on a legible sign and displayed in plain view for the purpose of addressing complaints at the permanent structure where irrigation business is primarily conducted, and irrigation records are kept.

Contracts

(a) All contracts to install an irrigation system must be in writing and signed by each party and must specify the irrigator's name, license number, business address, current business telephone numbers, the date that each party signed the agreement, the total agreed price, and must contain the statement, "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's website is: www.tceq.state.tx.us." All contracts must include the irrigator's seal, signature, and date.

(b) All written estimates, proposals, bids, and invoices relating to the installation or repair of an irrigation system(s) must include the irrigator's name, license number, business address, current business telephone number(s), and the statement: "Irrigation in Texas is regulated by the Texas Commission On Environmental Quality (TCEQ) (MC-178), P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: www.tceq.state.tx.us."

(c) An individual who agrees by contract to provide irrigation services as defined in Title 30, Texas Administrative Code, Section 344.30 (relating to License Required) shall hold an irrigator license issued under Title 30, Texas Administrative Code, Chapter 30 (relating to Occupational Licenses and Registrations) unless the contract is a pass-through contract as defined in Title 30, Texas Administrative Code, Section 344.1(36) (relating to Definitions). If a pass-through contract includes irrigation services, then the irrigation portion of the contract can only be performed by a licensed irrigator. If an irrigator installs a system pursuant to a pass-through contract, the irrigator shall still be responsible for providing the irrigation system's owner or through contract, the irrigator shall still be responsible for providing the irrigation system's owner or owner's representative a copy of the warranty and all other documents required under this chapter. A pass-through contract must identify by name and license number the irrigator that will perform the work and must provide a mechanism for contacting the irrigator for irrigation system warranty work.

(d) The contract must include the dates that the warranty is valid.

Warranties for Systems

(a) On all installations of new irrigation systems, an irrigator shall present the irrigation systems owner or owner's representative with a written warranty covering materials and labor furnished in the new installation of the irrigation system. The irrigator shall be responsible for adhering to terms of the warranty. If the irrigator's warranty is less than the manufacturer's warranty for the system components, then the irrigator shall provide the irrigation system's owner or the owner's representative with applicable information regarding the manufacturer's warranty period. The warranty must include the irrigator's seal, signature, and date. If the warranty is part of an irrigator's contract, a separate warranty document is not required.

(b) An irrigator's written warranty on new irrigation systems must specify the irrigator's name, business address, and business telephone number(s), must contain the signature of the irrigation system's owner or owner's representative confirming receipt of the warranty and must include the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 130897, Austin, Texas 78711-3087. TCEQ's website is: www.tceq.state.tx.us."

(c) On all maintenance, alterations, repairs, or service to existing irrigation systems, an irrigator shall present the irrigation system's owner or owner's representative a written document that identifies the materials furnished in the maintenance, alteration, repair, or service. If a warranty is provided, the irrigator shall abide by the terms. The warranty document must include the irrigator's name and business contact information.

Duties and Responsibilities of Town Irrigation Inspectors

A licensed irrigation inspector shall enforce the ordinance of the Town, and shall be responsible for:

- (1) Verifying that the appropriate permits have been obtained for an irrigation system and that the irrigator and installer or irrigation technician, if applicable, are licensed;
- (2) Inspecting the irrigation system;
- (3) Determining that the irrigation system complies with the requirements of this chapter;
- (4) Determining that the appropriate backflow prevention device was installed, tested, and test results provided to the Town;
- (5) Investigating complaints related to irrigation system installation, maintenance, alteration, repairs, or service of an irrigation system and advertisement of irrigation services; and
- (6) Maintaining records according to this chapter.

Items not covered by this ordinance

Any item not covered by this section and required by law shall be governed by the Texas Occupations Code, the Texas Water Code, Title 30 of the Texas Administrative Code, and any other applicable state statute or Texas Commission on Environmental Quality rule.

Section 608.18; change to read as follows:

608.18 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. Installation shall be in accordance with Sections 608.17.1 through 608.17.8.

Section 703.6; Delete

Section 704.5; added to read as follows:

704.5 Single stack fittings. Single stack fittings with internal baffle, PVC schedule 40 or cast iron single stack shall be designed by a registered engineer and comply to a national recognized standard.

Section 712.5; add Section 712.5 to read as follows:

712.5 Dual Pump System. All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

Section 713, 713.1; change to read as follows:

SECTION 713

ENGINEERED DRAINAGE DESIGN

713.1 Design of drainage system. The sizing, design and layout of the drainage system shall be designed by a registered engineer using *approved* design methods.

Section 803.3; added to read as follows:

803.3 Special waste pipe, fittings, and components. Pipes, fittings, and components receiving or intended to receive the discharge of any fixture into which acid or corrosive chemicals are placed shall be constructed of CPVC, high silicone iron, PP, PVDF, chemical resistant glass, or glazed ceramic materials.

Section 903.1; change to read as follows:

903.1 Roof extension. Open vent pipes that extend through a roof shall terminate not less than six (6) inches (152 mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.

Section 918.8; change to read as follows.

918.8 Where permitted. Individual, branch and circuit vents shall be permitted to terminate with a connection to an individual or branch-type air admittance valve in accordance with Section 918.3.1. Stack vents and vent stacks shall be permitted to terminate to stack-type air admittance valves in accordance with Section 918.3.2. Air admittance valves shall only be installed with the prior approval of the building official.

Section 1003; see note below:

{Until the Health and Water Departments of the area can coordinate a uniform grease interceptor section, each city will have to modify this section individually.}

Section 1106.1; change to read as follows:

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six (6) inches per hour rainfall rate.

Section 1108.3; change to read as follows:

1108.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

Section 1109; delete this section.

Section 1202.1; delete Exceptions 1 and 2.

END

EXHIBIT “D”
Town of Shady Shores Amendments to
the 2017 National Electrical Code
(NFPA 70)

Article 100; add the following to definitions:

Engineering Supervision. Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

Article 110.2; change the following to read as follows:

110.2 Approval. The conductors and equipment required or permitted by this Code shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third-party inspection agency approved by the AHJ.

Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third-party inspection agency approved by the AHJ.

Article 230.70 (A) amend exception to read as follows:

- (1) **Readily Accessible Location.** The service disconnecting means shall be installed at a readily accessible location outside of a building or structure nearest the point of entrance of the service conductors.

Article 500.8 (A) (3); change to read as follows:

500.8 Equipment.

Articles 500 through 504 require equipment construction and installation that ensure safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note No. 2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note No. 3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C

(-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class I, Division 1 at normal ambient temperature.

(A) Suitability. Suitability of identified equipment shall be determined by one of the following:

- (1) Equipment listing or labeling;
- (2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation; or,
- (3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or an engineering judgment signed and sealed by a qualified licensed Professional Engineer in the State of Texas.

Article 505.7 (A) changed to read as follows:

505.7 Special Precaution.

Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note No. 2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class I, Zones 0, 1, or 2 at normal ambient temperature.

(A) Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified licensed Professional Engineer in the State of Texas.

Article 600.6(A) (1) At Point of Entry to a Sign; Exception 1 changed to read as follows:

Exception No.1: A disconnect shall not be required for branch circuit(s) or feeder conductor(s) passing through the sign where enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. The conductor(s) shall not serve the sign body or sign enclosure where passing through.

Article 600.6(A) (1) At Point of Entry to a Sign; create a new Exception No. 2 to add the following language:

Exception No. 2. A disconnect shall not be required at the point of entry to a sign body, sign enclosure, or pole for branch circuit conductor(s). The conductors shall be enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. The conductor(s) shall be routed to a device box which contains the disconnect. A field-applied permanent warning label that is visible during servicing shall be applied to the raceway at or near the point of entry into the sign enclosure or sign body. The warning label shall comply with 110.21(B) and state the following: "Danger. This raceway contains energized conductors." The marking shall include the location of the disconnecting means for the energized conductor(s). The disconnecting means shall be capable of being locked in the open position in accordance with 110.25.

Article 600.6(A) (1) At Point of Entry to a Sign; move the original Exception 2 to create a new Exception No. 3 and add the following language:

Exception No. 3: A disconnect shall not be required at the point of entry to a sign enclosure or sign body for branch circuit(s) or feeder conductor(s) that supply an internal panelboard(s) in a sign enclosure or sign body. The conductors shall be enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. A field-applied permanent warning label that is visible during servicing shall be applied to the raceway at or near the point of entry into the sign enclosure or sign body. The warning label shall comply with 110.21(B) and state the following: "Danger. This raceway contains energized conductors." The marking shall include the location of the disconnecting means for the energized conductor(s). The disconnecting means shall be capable of being locked in the open position in accordance with 110.25.

END

EXHIBIT “E”
Town of Shady Shores
Amendments to the 2018
International Mechanical Code

Section 102.8; change to read as follows:

102.8 Referenced Codes and Standards. The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 or the *National Electrical Code* (NEC) shall mean the Electrical Code as adopted.

306.3; change to read as follows:

306.3 Appliances in Attics. Attics containing appliances shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the largest appliance. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.
3. An access door from an upper floor level.
4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... *{remainder of section unchanged}*

Section 306.5; change to read as follows:

306.5 Equipment and Appliances on Roofs or Elevated Structures. Where *equipment* requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, a permanent interior or exterior means of access shall be provided. Permanent exterior ladders providing roof access need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the *equipment* and appliances' level service space. Such access shall . . . *{bulk of section to read the same}* . . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope) *{bulk of section to read the same}*.

Section 306.5.1; change to read as follows:

306.5.1 Sloped Roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches

(762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

Section 306; add Section 306.6 to read as follows:

306.6 Water Heaters Above Ground or Floor. When the mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A maximum 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and the water heater installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

Section 307.2.3; amend item 2 to read as follows:

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

Section 403.2.1; add an item 5 to read as follows:

5. Toilet rooms within private dwellings that contain only a water closet, lavatory, or combination thereof may be ventilated with an *approved* mechanical recirculating fan or similar device designed to remove odors from the air.

Section 501.3; add an exception to read as follows:

501.3 Exhaust Discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawlspace, or be directed onto walkways.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.
3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.
4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

Section 607.5.1; change to read as follows:

607.5.1 Fire Walls. Ducts and air transfer openings permitted in fire walls in accordance with Section 705.11 of the *International Building Code* shall be protected with listed fire dampers installed in accordance with their listing. For hazardous exhaust systems see Section 510.1-510.9 IMC.

END

EXHIBIT “F”
Town of Shady Shores
Amendments to the 2018
International Fuel Gas Code

Section 102.2; add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the *Electrical Code* as adopted.

Section 306.3; change to read as follows:

306.3 Appliances in attics. Attics containing appliances shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the *appliance*. The clear *access* opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest *appliance*. As a minimum, for *access* to the attic space, provide one of the following:

5. A permanent stair.
6. A pull down stair with a minimum 300 lb (136 kg) capacity.
7. An *access* door from an upper floor level.
8. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the *appliance* is capable of being serviced and removed through the required opening.
2. Where the passageway is not less than . . . *{bulk of section to read the same}*.

Section 306.5; change to read as follows:

306.5 Equipment and Appliances on Roofs or Elevated Structures. Where *equipment* requiring *access* or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, an interior or exterior means of access shall be provided. Exterior ladders providing roof *access* need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the *equipment* and appliances' level service space. Such *access* shall . . . *{bulk of section to read the same}* . . . on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope) *{remainder of text unchanged}*.

Section 306.5.1; change to read as follows:

306.5.1 Sloped roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

Section 401.5; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an *approved* tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING
1/2 to 5 psi gas pressure
Do Not Remove"

Section 404.12; change to read as follows:

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) top of pipe below grade.

404.12.1 Delete in its entirety

Section 406.4; change to read as follows:

406.4 Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

Section 406.4.1; change to read as follows:

406.4.1 Test pressure. The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, 1/10-pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

Section 409.1; add Section 409.1.4 to read as follows:

409.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an *approved* termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

Section 410.1; add a second paragraph and exception to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

Section 621.2; add exception as follows:

621.2 Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing *approved* unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when *approved* by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.

END

EXHIBIT “G”
Town of Shady Shores
Amendments to the 2018
International Residential Code

Section 101.1 amend to insert:

Town of Shady Shores, Texas

Section R102.4; change to read as follows:

R102.4 Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the *Electrical Code* shall mean the *Electrical Code* as adopted.

Section R103 and R103.1 amend to insert the Department Name

R103.1 Creation of enforcement agency. The Department of Building Safety *Department of Planning and Development* and the official in charge of Code administration shall be known as the *building official*.

Section R104.10.1 Flood Hazard areas; delete this section.

Section R105.3.1.1& R106.1.4; delete these sections.

Section R110 (R110.1 through R110.5); delete the section.

Section R202; change definition of "Townhouse" to read as follows:

TOWNHOUSE. A single-family dwelling unit constructed in a group of three or more attached units separated by property lines in which each unit extends from foundation to roof and with a yard or public way on at least two sides.

Table R301.2 (1); fill in as follows:

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDER- LAYMENT ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	SPEED ^u (MPH)	Topographic Effects ^k	Special Region ^L	Windborne Debris Zone ^m		Weathering ^a	Frost Line Depth ^b	Termite ^c					
5 lb/ft	115 (3 sec- gust)/ 76 fastest mile	No	No	No	A	Moderate	6"	Very Heavy	22° F	No	Local Code	150	64.9° F

Delete remainder of table Manual J Design Criteria and footnote N

Section R302.1; add exception #6 to read as follows:

Exceptions: {previous exceptions unchanged}

6. Open non-combustible carport structures may be constructed when also approved within adopted ordinances.

Section R302.3; add Exception #3 to read as follows:

Exceptions:

1. {existing text unchanged}
2. {existing text unchanged}
3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

Section R302.5.1; change to read as follows:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors

Section R303.3, Exception; amend to read as follows:

Exception: {existing text unchanged} Spaces containing only a water closet or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

Section R313.2 One and Two Family Dwellings; Delete this section and subsection in their entirety.

(Reason: In 2009, the State Legislature enacted SB 1410 prohibiting cities from enacting fire sprinkler mandates in residential dwellings. However, jurisdictions with ordinances that required sprinklers for residential dwellings prior to and enforced before January 1, 2009, may remain in place.)

Section R315.2.2 Alterations, repairs and additions; amend to read as follows:

Exception:

1. [existing text remains]
2. Installation, alteration or repairs of all electrically powered mechanical systems or plumbing appliances.

Section R322 Flood Resistant Construction; deleted section.

Section R401.2; amended by adding a new paragraph following the existing paragraph to read as follows.

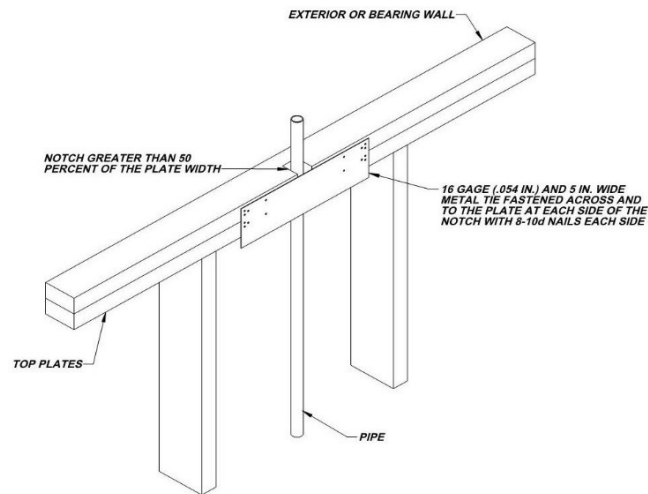
Section R401.2. Requirements. {existing text unchanged} ...

Every foundation and/or footing, or any size addition to an existing post-tension foundation, regulated by this code shall be designed and sealed by a Texas-registered engineer.

Section R602.6.1; amend the following:

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1. {remainder unchanged}

Figure R602.6.1; delete the figure and insert the following figure:



Add section R703.8.4.1.2 for Wall Studs; to read as follows:

Veneer Ties

R703.8.4.1.2 Veneer Ties for Wall Studs. In stud framed exterior walls, all ties may be anchored to studs as follows:

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or
2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

Section R902.1; amend and add exception #5 to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed *{remainder unchanged}*

Exceptions:

1. *{text unchanged}*
2. *{text unchanged}*
3. *{text unchanged}*
4. *{text unchanged}*
5. Non-classified roof coverings shall be permitted on one-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed (area defined by jurisdiction).

Chapter 11 [RE] – Energy Efficiency is deleted in its entirety; Reference the 2018 IECC for energy code provisions and recommended amendments.

Section M1305.1.2; change to read as follows:

M1305.1.2 Appliances in attics. Attics containing appliances shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following:

9. A permanent stair.

10. A pull down stair with a minimum 300 lb (136 kg) capacity.

11. An access door from an upper floor level.

Exceptions:

1. The passageway and level service space are not required where the *appliance* can be serviced and removed through the required opening.
2. Where the passageway is unobstructed...*{remaining text unchanged}*

Section M1411.3; change to read as follows:

M1411.3 Condensate disposal. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to a sanitary sewer through a trap, by means of a direct or indirect drain. *{remaining text unchanged}*

Section M1411.3.1, Items 3 and 4; add text to read as follows:

M1411.3.1 Auxiliary and secondary drain systems. *{bulk of paragraph unchanged}*

1. *{text unchanged}*
2. *{text unchanged}*
3. An auxiliary drain pan... *{bulk of text unchanged}*... with Item 1 of this section. A water level detection device may be installed only with prior approval of the *building official*.
4. A water level detection device... *{bulk of text unchanged}*... overflow rim of such pan. A water level detection device may be installed only with prior approval of the *building official*.

Section M1411.3.1.1; add text to read as follows:

M1411.3.1.1 Water-level monitoring devices. On down-flow units ...*{bulk of text unchanged}*... installed in the drain line. A water level detection device may be installed only with prior approval of the *building official*.

M1503.6 Makeup Air Required; amend and add exception as follows:

M1503.6 Makeup air required. Where one or more gas, liquid or solid fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be mechanically or passively provided with makeup air at a rate approximate to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with not fewer than one damper complying with Section M1503.6.2.

Exception: Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open. Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute (0.28 m³/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m³/s) shall be provided with a makeup air at a rate approximately to the difference between the exhaust air rate and 600 cubic feet per minute.

Section M2005.2; change to read as follows:

M2005.2 Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that *combustion air* will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an *approved* self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

Section G2408.3 (305.5) Private Garages; delete this section in its entirety.

Section G2415.2.1 (404.2.1) CSST; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an *approved* tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING: 1/2 to 5 psi gas pressure - Do Not Remove"

Section G2415.12 (404.12) and G2415.12.1 (404.12.1); change to read as follows:

G2415.12 (404.12) Minimum burial depth. Underground *piping systems* shall be installed a minimum depth of 18 inches (457 mm) below grade.

G2415.12.1 (404.12.1) Individual Outdoor Appliances; Delete in its entirety

Section G2417.1 (406.1); change to read as follows:

G2417.1 (406.1) General. Prior to acceptance and initial operation, all *piping* installations shall be inspected and *pressure tested* to determine that the materials, design, fabrication, and installation practices comply with the requirements of this *code*. The *permit* holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this *code*. The *permit* holder shall give reasonable advance notice to the *building official* when the *piping system* is ready for testing. The *equipment*, material, power and labor necessary for the inspections and test shall be furnished by the *permit* holder and the *permit* holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

Section G2417.4; change to read as follows:

G2417.4 (406.4) Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

Section G2417.4.1; change to read as follows:

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 ½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water

column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing

Section G2417.4.2; change to read as follows:

G2417.4.2 (406.4.2) Test duration. The test duration shall be held for a length of time satisfactory to the *Building Official*, but in no case for less than fifteen (15) minutes. For welded *piping*, and for *piping* carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the *Building Official*, but in no case for less than thirty (30) minutes.

Section G2420.1 (406.1); add Section G2420.1.4 to read as follows:

G2420.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) *piping systems* shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's *piping*, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting *piping*.

Section G2420.5.1 (409.5.1); add text to read as follows:

G2420.5.1 (409.5.1) Located within the same room. The shutoff valve...*{bulk of paragraph unchanged}*... in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

Section G2421.1 (410.1); add text and Exception to read as follows:

G2421.1 (410.1) Pressure regulators. A line *pressure regulator* shall be ... *{bulk of paragraph unchanged}*... approved for outdoor installation. Access to *regulators* shall comply with the requirements for access to *appliances* as specified in Section M1305.

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

Section G2422.1.2.3 (411.1.3.3) Prohibited locations and penetrations; delete Exception 1 and Exception 4.

Section G2445.2 (621.2); add Exception to read as follows:

G2445.2 (621.2) Prohibited use. One or more *unvented room heaters* shall not be used as the sole source of comfort heating in a *dwelling unit*.

Exception: Existing *approved unvented room heaters* may continue to be used in *dwelling units*, in accordance with the *code* provisions in effect when installed, when *approved* by the *Building Official* unless an unsafe condition is determined to exist as described in *International Fuel Gas Code* Section 108.7 of the *Fuel Gas Code*.

Section G2448.1.1 (624.1.1); change to read as follows:

G2448.1.1 (624.1.1) Installation requirements. The requirements for *water heaters* relative to access, sizing, *relief valves*, drain pans and scald protection shall be in accordance with this *code*.

Section P2603; add to read as follows:

P2603.3 Protection against corrosion. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry. Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

Section P2603.5.1 Sewer Depth; change to read as follows:

P2603.5.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

Section P2604; add to read as follows:

P2604.2.1 Plastic sewer and DWV piping installation. Plastic sewer and DWV piping installed underground shall be installed in accordance with the manufacturer's installation instructions. Trench width shall be controlled to not exceed the outside the pipe diameter plus 16 inches or in a trench which has a controlled width equal to the nominal diameter of the piping multiplied by 1.25 plus 12 inches. The piping shall be bedded in 4 inches of granular fill and then backfilled compacting the side fill in 6-inch layers on each side of the piping. The compaction shall be to minimum of 85 percent standard proctor density and extend to a minimum of 6 inches above the top of the pipe.

Section P2801; change to read as follows:

P2801.6 Required pan.

Where a storage tank-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a pan constructed of one of the following:

1. Galvanized steel or aluminum of not less than 0.0236 inch (0.6010 mm) in thickness.
2. Plastic not less than 0.036 inch (0.9 mm) in thickness.
3. Other *approved* materials.

Section P2801.6.1; change to read as follows:

Section P2801.6.1 Pan size and drain. The pan shall be not less than 11/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table P2906.5. Multiple pan drains may terminate to a single discharge piping system when *approved* by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions. {existing text unchanged}

Section P2804.6.1; change to read as follows:

Section P2804.6.1 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.

2. Discharge through an air gap
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions.

5. Discharge to an approved location or to the outdoors.

[remainder unchanged]

Section P2902.5.3; change to read as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

Section P3003.9; change to read as follows:

P3003.9.2 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Solvent cement not purple in color and conforming to ASTM D 2564, CSA B137.3, CSA B181.2 or CSA B182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent cement joints shall be permitted above or below ground.

Section P3111 Combination waste and vent systems; delete this section in its entirety.

Section P3112.2 Vent Collection; delete and replace with the following:

P3112.2 Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drain-board shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

Section E3601.6.2; change to read as follows:

Section E3601.6.2 Service Disconnect Location. The service disconnecting means shall be installed at a readily accessible location outside the building nearest the point of entrance of the service conductors.
{Remainder of section unchanged}

Chapter 44 – Referenced Standards; add:

ASTM – F 537 -01 – Standard Specification for Design, Fabrication, and Installation of Fences Constructed of Wood or Related Materials

ASTM – F 537 -14 – Standard Specification for Design, Fabrication, and Installation of Fences Constructed of Chain Link or Related Materials

EXHIBIT “H”
Town of Shady Shores
Amendments to the
2018 International Property Maintenance Code

Section 101.1; amend to read as follows:

101.1 Title. These Regulations shall be known as the International Property Maintenance Code of the Town of Shady Shores, hereinafter referred to as “this code”.

Section 103; amend title to read as follows:

SECTION 103
CODE ENFORCEMENT DIVISION

Section 103.1; amend to read as follows:

103.1 Creation of enforcement agency. The Code Enforcement Division is hereby created and the official in charge thereof shall be known as the code official.

Section 103.5; amend to read as follows:

103.5 Fees. The fees for activities and services performed by the department in carrying out its responsibilities under this code shall be as indicated in the schedule set forth in Shady Shores Code of Fee Ordinance.

Section 106.2; amend to read as follows:

106.2 Notice of Violation. Whenever the code official determines that there has been a violation of this code or has grounds to believe that a violation has occurred, the code official is authorized to serve a notice of violation or order on the person. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

Exception: Citations for violations of this code may be issued without requiring the issuance of a notice.

Section 106.3; amend to read as follows:

106.3 Prosecution of violation. If a notice of violation is issued and is not complied with in the time prescribed by such notice, the code official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceedings at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant hereto.

Section 107; Delete entire section

Section 108; Delete entire section

Section 111.1; amend to read as follows:

111.1 Application of appeal. Any person directly affected by a decision of the code official or a notice or order issued under this code shall have the right to appeal to the Municipal Court of the Town of Shady Shores, provided that a written application for appeal is filed within 20 days after the day the decision, notice, or order was served. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or the requirements of this code are adequately satisfied by other means.

Section 111.2 – 111.3; Delete.

Section 111.4; amend to read as follows:

111.4 Open hearing. All hearings before the Municipal Court are open to the public. The appellant, the appellant's representative, the code official and any person whose interests are affected shall be given an opportunity to be heard.

Section 111.4.1; Delete entire section

Section 111.5; Delete entire section

Section 111.6; amend to read as follows:

111.6 Town Council decision. The Town Council may modify or reverse the decision of the code official by majority vote. The code official shall take immediate action in accordance with the decision of the Town Council.

Section 111.6.1; Delete entire section

Section 111.6.2; Delete entire section

Section 111.7; amend to read as follows:

111.7 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the Town secretary of the Town of Shady Shores.

Section 112.4; amend to read as follows:

112.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine of up to \$2,000 dollars per offense, per day.

Section 302.4; delete.

Section 303; delete entire section.

Section 304.14; amend to read as follows:

304.14 Insect screens. Every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas or any area where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other approved means, such as air curtains or insect repellent fans, are employed.

Section 308; delete entire section.

Section 602.2; amend to read as follows:

602.2 Residential Occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, bathrooms and toiletroom.

Section 602.3; amend to read as follows:

602.3 Heat supply. Every owner and operator of any building who rents, leases, or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms.

Exceptions: Deleted

Section 602.4; amend to read as follows:

602.4 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat to maintain a minimum temperature of 65°F (18°C) during the period the spaces are occupied.

Exceptions:

1. Processing, storage and operation areas that require cooling or special temperature conditions.
2. Areas in which persons are primarily engaged in vigorous physical activities.

Section 602.5; amend to read as follows:

602.5 Room temperature measurement. The required room temperatures shall be measured 3 feet (914 mm) above the floor near the center of the room and 2 feet (610 mm) inward from the center of each exterior wall.

END

EXHIBIT “I”
Town of Shady Shores Amendments
to the 2018 International Existing
Building Code

Section 102.4; change to read as follows:

102.4 Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

Section 202; amend definition of Existing Building as follows:

Existing Building - A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; or a change of occupancy.

Section 305.1; adds an exception to read as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 305.4.2; add Number 7 to the list of requirements as follows:

7. At least one accessible family or assisted use toilet room shall be provided in accordance with Chapter 11 of the International Building Code.

Section 401.3 Flood Hazard Areas; delete this section:

Section 405.2.5 Flood Hazard Areas; delete this section:

Section 406.1; add a code reference to read as follows:

406.1 Material. Existing electrical wiring and equipment undergoing *repair* shall be allowed to be repaired or replaced with like material, in accordance with the requirements of NFPA 70.

Section 502.3 Flood Hazard Areas; delete this section:

Section 504.1.2; change to read as follows:

504.1.2 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in existing buildings only. Existing fire escapes shall be permitted to be repaired or replaced.

Section 504.1.3; delete entire section:

Section 507.3 Flood Hazard Areas; delete this section:

Section 701.3 Flood Hazard Areas; delete this section:

Section 702.6; add a code reference to read as follows:

702.6 Materials and methods. All new work shall comply with the materials and methods requirements in the *International Building Code*, *International Energy Conservation Code*, *International Mechanical Code*, *National Electrical Code*, and *International Plumbing Code*, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

Section 802.5.1; change to read as follows:

802.5.1 Minimum requirement. Every portion of open-sided walking surfaces, including *mezzanines*, *equipment platforms*, *aisles*, *stairs*, *ramps* and landings that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

Section 803.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the *work area* shall be extended to include at least the entire tenant space or spaces bounded by walls capable of resisting the passage of smoke containing the subject *work area*, and if the *work area* includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

Section 803.2.4; change exception to read as follows:

Exception: Supervision is not required where the Fire Code does not require such for new construction

Section 803.3; change section to read as follows:

803.3 Standpipes. Refer to Section 1103.6 of the Fire Code for retroactive standpipe requirements.
{Delete rest of Section 804.3.}

Section 805.2; remove Exception #1

Section 805.3.1.2; change to read as follows:

805.3.1.2 Fire Escapes required. For other than Group I-2, where more than one exit is required an existing fire escape complying with section 805.3.1.2.1 shall be accepted as providing one of the required means of egress.

Section 805.3.1.2.1; change to read as follows:

805.3.1.2.1 Fire Escape access and details - ...

1. [Remain unchanged]
2. Access to a fire escape shall be through a door...
- 3. Item Deleted**
4. [Remain unchanged]
5. In all buildings of Group E occupancy up to and including the 12th grade, buildings of Group I occupancy, boarding houses, and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

Section 805.5.2 Transoms; add language to read as follows:

805.5.2 Transoms. In all buildings of Group B, E, [Remainder unchanged]

Section 904.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the *work area* shall be extended to include at least the entire tenant space or spaces bounded by walls containing the subject *work area*, and if the *work area* includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

Section 904.1.1; change sentence to read as follows:

904.1.1 High-rise buildings. An automatic sprinkler system shall be provided in work areas of

Section 1103.3 Flood Hazard Areas; delete this section:

Section 1201.4 Flood Hazard Areas; delete this section:

Section 1301.3.2; change to read as follows:

1301.3.2 Compliance with other codes. Buildings that are evaluated in accordance with this section shall comply with the International Fire Code.

Section 1301.3.3 Compliance with Flood Hazard Provisions; delete this section:

Section 1402.6 Flood Hazard Areas; delete this section:

END

EXHIBIT “J”
Town of Shady Shores
Amendments to the
2018 International Swimming Pool & Spa Code

Section 102.9; Change to read as follows:

Section 102.9 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law, to include but not limited to;

1. Texas Department of State Health Services (TDSHS); *Standards for Public Pools and Spas*; §285.181 through §285.208, (TDSHS rules do not apply to pools serving one- and two-family dwellings or townhouses).
2. *Texas Department of Licensing and Regulation (TDLR); 2012 Texas Accessibility Standards (TAS)*, TAS provide the scoping and technical requirements for accessibility for Swimming Pool, wading pools and spas and shall comply with *2012 TAS, Section 242*. (TAS rules do not apply to pools serving one- and two-family dwellings or townhouses).

Exception: Elements regulated under Texas Department of Licensing and Regulation (TDLR) and built in accordance with TDLR approved plans, including any variances or waivers granted by the TDLR, shall be deemed to be in compliance with the requirements of this Chapter.

Section 103.1; Change to read as follows:

Section 103.1 Creation of enforcement agency. The Department of Planning and Development is charged with enforcement and the official in charge thereof shall be known as the *code official* for operation and maintenance of any *public swimming pool* in accordance this code, local and state law.

Section 107.4; Delete entirely (covered by general provisions in Code of Ordinances):

107.5; Change to read as follows:

107.5 Stop work orders. Upon notice from the code official, work on any system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to

stopping the work. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be in violation of this code.

Section 202; DEFINITIONS; insert definition; change to read as follows:

The Department of Planning and Development regulates the operation of public pools. Routine inspections on pools and spas open to the public are conducted to document compliance with the standards set forth in State law.

Section 305; Change to read as follows:

305.1 General.

The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. In one-and two-family dwellings and townhouses, where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections 305.2 through 305.7.

Section 305.2; Change to read as follows:

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7 and in accordance with the Texas Administrative Code, Texas Health and Safety Code 757 for public pools.

Add subsection 305.2.7.1; to read as follows:

305.2.7.1 Chain link fencing prohibited. Chain link fencing is not permitted as a barrier in public pools built after January 1, 1994.

Section 305.4 structure wall as a barrier; Changes as follows:

305.4 Structure wall as a barrier. Where a wall of a one and two-family dwelling or townhouse or its accessory structure serves as part of a barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Remainder Unchanged
2. Remainder Unchanged
3. Remainder Unchanged

The wall of a building with windows in accordance with *2018 International Building Code, Section 1030* in Group R2 occupancies shall not be used as part of pool enclosure. Other windows that are part of a pool yard enclosure shall be permanently closed and unable to be opened for public pools.

Section 305.6; Change to read as follows:

305.6 Natural barriers used in a one and two-family dwelling or townhouse. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge a minimum of eighteen (18) inches, a barrier is not required between the natural body of water shoreline and the pool or spa.

Section 307.1.4 Accessibility; Add exception to Section to 307.1.4 as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 310; Change to read as follows:

310.1 General. Suction entrapment avoidance for pools and spas shall be provided in accordance with APSP 7 or for public swimming pools in accordance with State of Texas Rules for Public Swimming Pools and Spas, Title 25 TAC Chapter 265 Subchapter L, Rule §265.190.

Section 313.7; Change to read as follows:

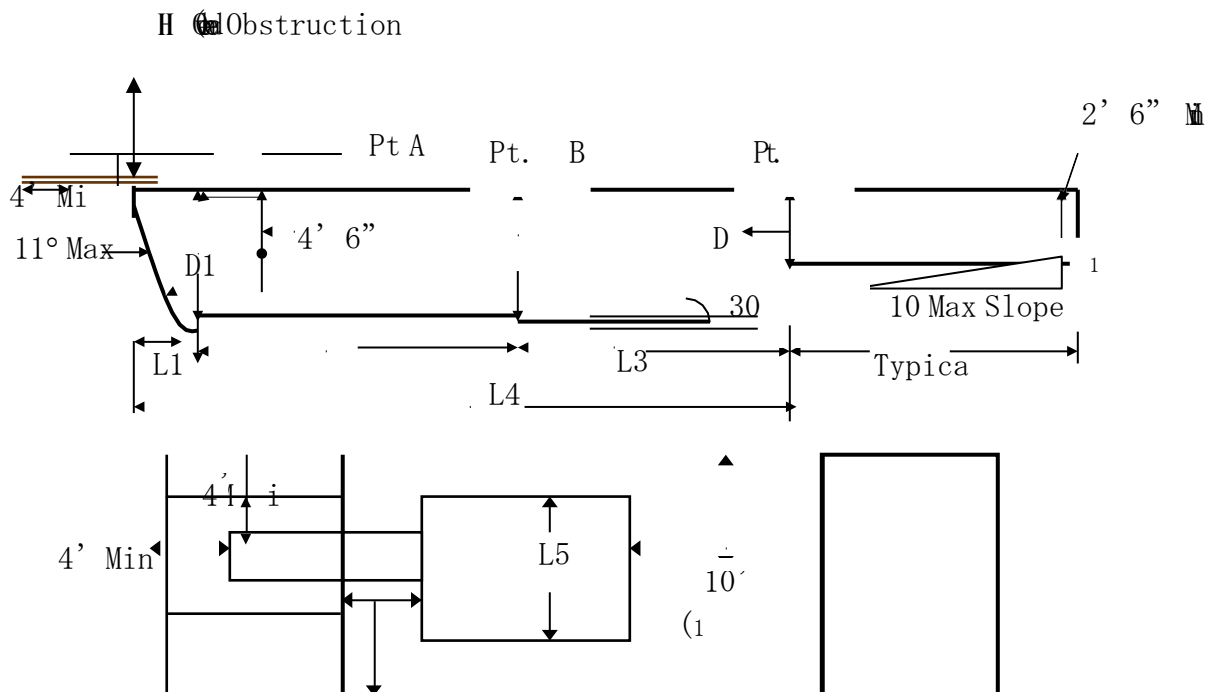
313.7 Emergency shutoff switch for spas and hot tubs. A clearly labeled emergency shutoff or control switch for the purpose of stopping the motor(s) that provide power to the recirculation system and jet system shall be installed at a point readily accessible to the users and not less than 1.5 m (5 ft.) away, adjacent to, and within sight of the spa or hot tub. This requirement shall not apply to one and two-family dwellings and townhouses.

Section 402.12; Change to read as follows:

402.12 Water envelopes. The minimum diving water envelopes shall be in accordance with **Texas department of State Health services, Administrative Code Title 25, Chapter 265, Section 186 (e) and Figure: 25 TAC 256.186 (e) (6).** (Delete Table 402.12 and Figure 402.12)

ADD: Figure: 25 TAC §265.186 (e) (6)

Maximum Diving Board Height Over Water	$\frac{3}{4}$ Meter	1 Meter	3 Meters
Max. Diving Board Length	12 ft.	16 ft.	16 ft.
Minimum Diving Board Overhang	2 ft. 6 in.	5 ft.	5 ft.
D1 Minimum	8 ft. 6 in.	11 ft. 2 in.	12 ft. 2 in.
D2 Minimum	9 ft.	10 ft. 10 in.	11 ft. 10 in.
D3 Minimum	4 ft.	6 ft.	6 ft.
L1 Minimum	4 ft.	5 ft.	5 ft.
L2 Minimum	12 ft.	16 ft. 5 in.	19 ft. 9 in.
L3 Minimum	14 ft. 10 in.	13 ft. 2 in.	13 ft. 11 in.
L4 Minimum	30 ft. 10 in.	34 ft. 7 in.	38 ft. 8 in.
L5 Minimum	8 ft.	10 ft.	13 ft.
H Minimum	16 ft.	16 ft.	16 ft.
From Plumbet to Pool Wall at Side	9 ft.	10 ft.	11 ft. 6 in.
From Plumbet to Adjacent Plumbet	10 ft.	10 ft.	10 ft.



Section 402.13; Change to read as follows:

402.13 Ladders for diving equipment. Ladders shall be provided with two grab rails or two handrails. There shall be a uniform distance between ladder treads, with a 7-inch (178 mm minimum) distance and 12 inch (305 mm) maximum distance. Supports, platforms, steps, and ladders for diving equipment shall be designed to carry the anticipated loads. Steps and ladders shall be of corrosion-resistant material, easily cleanable and with slip-resistant tread;

Section 411.2.1 & 411.2.2; Change to read as follows:

411.2.1 Tread dimensions and area. Treads shall have a minimum unobstructed horizontal depth (i.e.,

horizontal run) of 12 inches and a minimum width of 20 inches.

411.2.2 Risers. Risers for steps shall have a maximum uniform height of 10 inches, with the bottom riser height allowed to taper to zero

****Section 411.5.1 & 411.5.2; Change to read as follows:**

411.5.1 Swimouts. Swimouts, located in either the deep or shallow area of a pool, shall comply with all of the following:

1. Unchanged
2. Unchanged
3. Unchanged
4. The leading edge shall be visibly set apart and provided with a horizontal solid or broken stripe at least 1 inch wide on the top surface along the front leading edge of each step. This stripe shall be plainly visible to persons on the pool deck. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip-resistant surface

411.5.2 Underwater seats and benches. Underwater seats and benches, whether used alone or in conjunction with pool stairs, shall comply with all of the following:

1. Unchanged
2. Unchanged
3. Unchanged
4. Unchanged
5. The leading edge shall be visually set apart and provided with a horizontal solid or broken stripe at least 1 inch wide on the top surface along the front leading edge of each step.

This stripe shall be plainly visible to persons on the pool deck. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip-resistant surface.

6. Unchanged
7. Unchanged

Section 603.2; Change to read as follows:

603.2

Class A and B pools: Class A and B pools over 5 feet deep: the transition point of the pool from the shallow area to the deep area of the pool shall be visually set apart with a 4-inch minimum width row of floor tile, a painted line, or similar means using a color contrasting with the bottom; and a rope and float line shall be provided between 1 foot and 2 feet on the shallow side of the 5-foot depth along and parallel to this depth from one side of the pool to the other side. The floats shall be spaced at not greater than 7-foot intervals; and the floats shall be secured so they will not slide or bunch up. The stretched float line shall be of sufficient size and strength to offer a good handhold and support loads normally imposed by users. If the owner or operator of the pool knows or should have known in the exercise of ordinary care that a rope or float is missing, broken, or defective, the problem shall be promptly remedied

Section 610.5.1; Change to read:

610.5.1 Uniform height of 10 inches. Except for the bottom riser, risers at the centerline shall have a maximum uniform height of 10 inches (254 mm). The bottom riser height shall be permitted to vary from the other risers.

Section 804 Diving Water Envelopes; Change to read as follows:

Section 804.1 General. The minimum diving water envelopes shall be in accordance with Table 804.1 and Figure 804.1, or the manufacturer's specifications, whichever is greater. Negative construction tolerances shall not be applied to the dimensions of the minimum diving water envelopes given in Table 804.1.

END