

# **AMENDED AGENDA**

Regular Meeting of the Bedford City Council  
Tuesday, February 23, 2016  
Bedford City Hall Building A  
2000 Forest Ridge Drive  
Bedford, Texas 76021

Council Chamber Work Session 5:30 p.m.  
Council Chamber Regular Session 6:30 p.m.

COMPLETE COUNCIL AGENDAS AND BACKGROUND INFORMATION ARE AVAILABLE FOR REVIEW  
ONLINE AT <http://www.bedfordtx.gov>

## **COUNCIL CHAMBER WORK SESSION**

- Review and discuss items on the regular agenda and consider placing items for approval by consent.
- Update on the 6Stones Community Powered Revitalization (CPR) Program.
- Report on recent Fire Department activities.

## **EXECUTIVE SESSION**

To convene in the conference room, if time permits, in compliance with Section 551.001 et. Seq. Texas Government Code, to discuss the following:

- a) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to Block 1, Lot 1D, Shops at Central Park.
- b) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to Bedford Commons.
- c) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to "Project Mockingbird."
- d) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to "Project Orchard."
- e) Pursuant to Section 551.074, personnel matters – performance review of the City Manager.

## **REGULAR SESSION**

### **CALL TO ORDER/GENERAL COMMENTS**

**INVOCATION** (Pastor Jeff Baldwin, The Refuge Family Church)

### **PLEDGE OF ALLEGIANCE**

### **ANNOUNCEMENTS/UPCOMING EVENTS**

### **OPEN FORUM**

*(The public is invited to address the Council on any topic that is posted on this agenda. Citizens desiring to speak on Public Hearing(s) must do so at the time the Public Hearing(s) are opened. In order to speak during Open Forum a person must first sign in with the City Secretary prior to the Regular Session being called to order. Speakers will be called upon in the order in which they sign in. Any person not signing in prior to the commencement of the Regular Session shall not be allowed to speak under Open Forum. Further, Open Forum is limited to a maximum of 30 minutes. Should speakers not use the entire 30 minutes Council will proceed with the agenda. At the majority vote of the Council the Mayor may extend the time allotted for Open Forum.)*

### **CONSIDER APPROVAL OF ITEMS BY CONSENT**

## **COUNCIL RECOGNITION**

1. Employee Service Recognition

## **APPROVAL OF THE MINUTES**

2. Consider approval of the following City Council minutes:
  - a) February 9, 2016 regular session

## **PERSONS TO BE HEARD**

3. The following individual has requested to speak to the Council tonight under Persons to be Heard:
  - a) Barbara Blalock, 1116 Timber View, Bedford, Texas 76021 – Requested to speak to the Council regarding the proposed ordinance eliminating parking cars and boats on driveways.
  - b) Bill McFadden, 1108 Hialeah Path, Bedford, Texas 76022 – Requested to speak to the Council regarding clarification on fines and “court” for code violations; City Council’s attitude towards speakers; update request and explain that he has never demanded a response; to respond to some of the points that the Council brought up, such as senior citizens; lawn maintenance companies violating code; and to request that when the City looks at other cities as a reference that they do not use cities that employ the same city attorney or firm as Bedford.

## **NEW BUSINESS**

4. Consider an ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article IV. “National Electrical Code”, and replacing it with Article IV. “National Electrical Code/Amendments”; providing for the adoption of the National Electrical Code 2014 Edition; providing for the adoption of annex chapters; providing for the adoption of regional amendments to the National Electrical Code; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.
5. Consider an ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article III. “International Codes/Amendments” and replacing it with Article III. “International Codes/Amendments” inclusive of the International Building Code 2015 Edition, International Residential Code 2015 Edition, International Mechanical Code 2015 Edition, International Plumbing Code 2015 Edition, International Fuel Gas Code 2015 Edition, International Energy Conservation Code 2015 Edition; making regional amendments to each of the International Codes adopted hereby; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.
6. Consider an ordinance amending Chapter 58 - “International Fire Code” of the City of Bedford Code of Ordinances by deleting Sections 58-97 and 58-99 and adding the revised Sections 58-97 and 58-99 through 58-104 thereby adopting the International Fire Code 2015 Edition; providing certain amendments and deletions thereto; providing for a severability clause; providing for a savings clause; and declaring an effective date.
7. Consider an ordinance approving a resolution authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) revenue bonds, and approving and authorizing instruments and procedures relating thereto.
8. Consider a resolution authorizing the City Manager to execute an emergency purchase and installation of 47 linear feet of bridge railing in the 2900 block of Harwood Road from 2L Construction, LLC in the amount of \$23,750.

9. Consider a resolution authorizing the City Manager to enter into a Professional Services Agreement with Pacheco Koch, LLC in the amount of \$89,075 for design services for Bedford Road Paving Improvements from Somerset Terrace to Brown Trail.
10. Consider a resolution authorizing the City Manager to enter into a contract utilizing the Tarrant County Interlocal Agreement in the amount of \$54,225.67 with TexOp Construction, L.P. for asphalt milling on Bedford Road from SH 121 to FM 157 (Industrial Boulevard) and SH 121 to 460 feet west of Martin Drive.
11. Consider a resolution authorizing the City Manager to purchase two Power-LOAD Cot Fastener Systems from Stryker Medical in the amount of \$48,175.64.
12. Consider a resolution authorizing the City Manager to enter into a contract with TaylorMade Company for the replacement of rubber pads at Bedford Splash Family Aquatic Center in the amount of \$29,700.
13. Consider a resolution authorizing the sale of beer and wine at 4thFEST held at the Boys Ranch Park.
14. Consider a resolution authorizing the sale of alcoholic beverages at ArtsFest held at the Boys Ranch Park. (Amended Item)
15. Consider a resolution authorizing the City Manager to enter into a contract with ByWater Solutions to migrate, install, customize, host, train staff and support the Koha Open Source Integrated Library System (ILS) in the amount of \$17,100.
16. Consider a resolution accepting the report from the independent auditor and the audited financial statements for the fiscal year ending September 30, 2015 and providing an effective date.
17. Consider a resolution authorizing the City Manager to negotiate and enter into an agreement with Wells Fargo Bank to provide Depository Bank and related banking services to the City of Bedford from April 1, 2016 through March 31, 2018, with an option for three one-year term extensions.
18. Consider a resolution authorizing the City Manager to purchase a new Mobile Message Switch and related components from Tyler Technologies, Inc., in the amount of \$15,750.
19. Consider a resolution appointing members to Bedford's Citizen Boards and Commissions.
20. Consider a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company utilizing the City of Grand Prairie Interlocal Agreement for the milling and two inch asphalt overlay on Shady Lake Drive in the amount of \$67,792.
21. Consider a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company, utilizing the City of Grand Prairie Interlocal Agreement, for paving improvements to the Trinity Arts Building parking lot in the amount of \$44,546.
22. Report on most recent meeting of the following Boards and Commissions:
  - ✓ Animal Shelter Advisory Board - Councilmember Fisher
  - ✓ Beautification Commission - Councilmember Turner
  - ✓ Community Affairs Commission - Councilmember Farco
  - ✓ Cultural Commission - Councilmember Champney
  - ✓ Library Advisory Board - Councilmember Farco
  - ✓ Parks and Recreation Board - Councilmember Sartor
  - ✓ Teen Court Advisory Board - Councilmember Gebhart
  - ✓ Senior Citizen Liaison - Councilmember Turner
23. Council member Reports

## 24. City Manager/Staff Reports

### **EXECUTIVE SESSION**

To convene in the conference room in compliance with Section 551.001 et. Seq. Texas Government Code, to discuss the following:

- a) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to Block 1, Lot 1D, Shops at Central Park.
- b) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to Bedford Commons.
- c) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to “Project Mockingbird.”
- d) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to “Project Orchard.”
- e) Pursuant to Section 551.074, personnel matters – performance review of the City Manager.

### **25. Take any action necessary as a result of the Executive Session.**

*(Any item on this posted agenda may be discussed in executive session provided it is within one of the permitted categories under Chapter 551 of the Texas Government Code.)*

### **ADJOURNMENT**

#### **CERTIFICATION**

I, the undersigned authority, do hereby certify that this Notice of Meeting was posted on the outside window in a display cabinet at the City Hall of the City of Bedford, Texas, a place convenient and readily accessible to the general public at all times, and said Notice was posted by the following date and time: Friday, February 19, 2016 at 5:00 p.m., and remained so posted at least 72 hours before said meeting convened.

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**Michael Wells, City Secretary**

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**Date Notice Removed**

(Auxiliary aids and services are available to a person when necessary to afford an equal opportunity to participate in City functions and activities. Auxiliary aids and services or accommodations must be requested in writing to the City Secretary's Office a minimum of seventy-two hours (72) hours prior to the scheduled starting time of the posted meeting. Requests can be delivered in person or mailed to the City Secretary's Office at 2000 Forest Ridge Drive, Bedford, TX 76021, or emailed to [mwells@bedfordtx.gov](mailto:mwells@bedfordtx.gov). Some requests may take longer due to the nature, extent and/or availability of such auxiliary aids, services or accommodations.)



# Council Agenda Background

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**PRESENTER:** Representatives from 6Stones Mission Network

**DATE:** 02/23/16

**Work Session**

**ITEM:**

Update on the 6Stones Community Powered Revitalization (CPR) Program.

City Manager Review: \_\_\_\_\_

**DISCUSSION:**

Representatives from 6Stones Mission Network will give a report to Council regarding the 6Stones CPR Program.

**ATTACHMENTS:**

N/A



# Council Agenda Background

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**PRESENTER:** Chief James Tindell, Fire Department

**DATE:** 02/23/16

**Work Session**

**ITEM:**

Report on recent Fire Department activities.

City Manager Review: \_\_\_\_\_

**DISCUSSION:**

This presentation will encompass an up-to-date overview of recent Fire Department activities.

**ATTACHMENTS:**

N/A



# Council Agenda Background

**PRESENTER:** Maria Redburn, Library Director  
Don Henderson, Parks Superintendent

**DATE:** 02/23/16

Council Recognition

**ITEM:**

Employee Service Recognition

City Manager Review: \_\_\_\_\_

**DISCUSSION:**

The following employees have completed a service period and are eligible for recognition:

Mary Woodward	5 years
Tina Coppola	10 years

**ATTACHMENTS:**

N/A



# Council Agenda Background

**PRESENTER:** Michael Wells, City Secretary

**DATE:** 02/23/16

**Minutes**

**ITEM:**

Consider approval of the following City Council minutes:

- a) February 9, 2016 regular meeting

City Manager Review: \_\_\_\_\_

**DISCUSSION:**

N/A

**ATTACHMENTS:**

February 9, 2016 regular meeting

STATE OF TEXAS §

COUNTY OF TARRANT §

CITY OF BEDFORD §

**The City Council of the City of Bedford, Texas, met in Work Session at 5:45 p.m. in the Conference Room, and Work Session at 6:00 p.m. and Regular Session at 6:30 p.m. in the Council Chambers of City Hall, 2000 Forest Ridge Drive, on the 9th day of February, 2016 with the following members present:**

Jim Griffin  
Ray Champney  
Steve Farco  
Roger Fisher  
Dave Gebhart  
Rusty Sartor  
Roy W. Turner

Mayor  
Council Members

constituting a quorum.

Staff present included:

Roger Gibson  
Kelli Agan  
Stan Lowry  
Michael Wells  
Chuck Carlisle  
Natalie Foster  
Wendy Hartnett  
Kenny Overstreet  
Maria Redburn  
Bill Syblon

City Manager  
Assistant City Manager  
City Attorney  
City Secretary  
Fleet and Facility Services Manager  
Public Information Officer  
Special Events Manager  
Interim Public Works Director  
Library Director  
Development Director

### **CONFERENCE ROOM WORK SESSION**

Mayor Griffin called the Work Session to order at 5:45 p.m.

- **Interviews for appointments to Bedford's Citizen Boards and Commissions.**

Council conducted interviews with applicants for appointment to Bedford's Citizen Boards and Commissions.

- **Discussion regarding appointments to Bedford's Citizen Boards and Commissions.**

Council generally discussed the appointment of members to Bedford's Citizen Boards and Commissions. Appointments will be made at a future Council meeting.

Mayor Griffin recessed the Work Session at 6:01 p.m.

### **COUNCIL CHAMBER WORK SESSION**

Mayor Griffin called the Work Session to order at 6:03 p.m.

- **Review and discuss items on the regular agenda and consider placing items for approval by consent.**

Council discussed placing the following items on consent: 2, 5, 6, 8, 9, 10 and 11. Items #4 and 7 were

removed from the agenda.

Interim Public Works Director Kenny Overstreet presented information regarding Item #5, which is to amend the Code of Ordinances for stop signs intersections in new subdivisions at Sanders Court, Hastings Court, Hastings Place and Avalon Court; a no parking sign on Cummings Drive at Rolling Meadows Drive going westbound; a no left turn sign at Spring Brook Drive and Shady Brook Drive during school hours; and speed limit signs that were posted by the State on the service roads and exit ramps after the completion of the highway construction.

Mr. Overstreet presented information regarding Item #6, which is for a professional services agreement with Elder Engineering. Through the 4B process, Bedford Court East was selected for a rebuild as it is in poor shape. Elder Engineering was contacted for a proposal and the cost for the design work is \$43,580. The item would be paid out of 4B funding.

Mr. Overstreet presented information regarding Item #8. Every year, the City enters into an interlocal agreement with Tarrant County Precinct 3 for resurfacing of roads, whereby the asphalt is milled off and two new inches of asphalt is put down. Bedford Road from Highway 121 going towards Euless was microsurfaced several years ago, and the material is coming off and filling the curb lines with debris. The 460 feet of Bedford Road going west from Highway 121 towards Martin Drive to where it turns into concrete will also be done. Participating with Tarrant County will cost \$273,313; if this project were contracted out, the cost would be over \$470,000. There are savings of \$196,000 in just labor by using the County. In answer to questions from Council, Mr. Overstreet stated that the project would be funded out of 4B; that there are savings over what was originally estimated for the project; that he will be coming back to Council for the milling work but it is not anticipated to be more than \$53,000; and that improvements to two ADA ramps, curb work and repairing of some road base failures will be performed in-house.

Fleet and Facilities Manager Chuck Carlisle presented information regarding Item #9, which is to completely strip down the floor of the Boys Ranch gym to the bare wood, repaint the graphics and add a pickle ball court. The normal process, which is done every two years, is to scuff the basketball court area and have it overlaid. In answer to a question from Council, Mr. Carlisle stated that the project will take approximately six days to complete.

Mr. Carlisle presented information regarding Item #10, which is to replace the outdated carpeting in City Hall, including in the Council Chambers, hallways and the City Manager's Office, with 2X2 carpet squares. The carpet in those areas is approximately 25 years old. In answer to questions from Council regarding replacing the carpet in the rest of the building, Mr. Carlisle stated that the flooring in those areas was install approximately 14 years ago; that the project was originally intended for the public areas in the building; and that he will look into the cost of installing new carpeting in the rest of the building. Councilmember Fisher stated that, for the record, he has been opposed to spending any money on the building in hopes of one day getting a facility the City deserves; however, as that is some time in the future, upgrades need to be done to the current facility. He further asked that audio/visual capabilities and the voting system be looked at as well.

Mr. Carlisle presented information regarding Item #11, which is to replace the door access system at the Police Department. The system is 17 years old, runs on a Windows XP machine, and is not compatible with the system throughout the City. Further, when the cache fills up, due to errors in the software, the system starts un-securing areas that should be secured. There are hardware issues as well; however, those are handled in-house as they come up. The project would be paid out of public safety improvement money. In answer to questions from Council, Mr. Carlisle stated and the project includes the controllers for the system; and that the server has to be shut down when the cache is cleared and there is a chance it may not come back up.

- **Old Bedford School 100 Year Committee wrap-up.**

George Campbell, representing the Old Bedford School 100 Year Committee, stated that they put on 18 events over 15 months. He showed a video detailing those events. He recognized Committee Members Ulana Ratley and Amy Vozar, who were also in attendance.

Mayor Griffin stated that the City received a letter and proclamation from State Representative Jonathan Stickland recognizing the 100 year anniversary of the Old Bedford School.

Mayor Griffin adjourned the Work Session at 6:43 p.m.

### **EXECUTIVE SESSION**

**To convene in the conference room, if time permits, in compliance with Section 551.001 et. Seq. Texas Government Code, to discuss the following:**

- a) Pursuant to Section 551.087, deliberation regarding economic development negotiations relative to Block 1, Lot 1D, Shops at Central Park.
- b) Pursuant to Section 551.074, personnel matters – performance review of the City Manager.

Council convened into Executive Session pursuant to Texas Government Code Section 551.087, deliberation regarding economic development negotiations relative to Block 1, Lot 1D, Shops at Central Park and Section 551.074, personnel matters – performance review of the City Manager, at 6:24 p.m.

Council reconvened from Executive Session at 6:38 p.m.

Any necessary action to be taken as a result of the Executive Session will occur during the Regular Session of the Bedford City Council Meeting

### **REGULAR SESSION**

The Regular Session began at 6:44 p.m.

### **CALL TO ORDER/GENERAL COMMENTS**

Mayor Griffin called the meeting to order.

### **INVOCATION (Pastor Jeff Baldwin, The Refuge Family Church)**

Pastor Jeff Baldwin of The Refuge Family Church gave the invocation.

### **PLEDGE OF ALLEGIANCE**

The Pledge of Allegiance to the flags of the United States and Texas were given.

### **ANNOUNCEMENTS/UPCOMING EVENTS**

Mayor Griffin recognized Assistant City Secretary Amanda Jacobs for graduating from the Texas Municipal Clerks Certification Program.

Public Information Officer Natalie Foster reported that the Library is having an Anti-Valentine's Day party on Saturday, February 13 from 6:00 p.m. to 8:00 p.m. The event is for teens looking for an unromantic evening of games, snacks and bashing a black heart piñata. The Senior Center is having a dinner and dance on Monday, February 15 beginning at 6:00 p.m. There will be live music, dinner and dancing. There are still seats available for the Residential Outreach Meeting on February 25 starting at 7:00 p.m.

Ms. Foster presented an update on the Boys Ranch Park construction. Ninety percent of the sidewalks have been completed and the west and north sidewalks by the tennis courts have been connected. All of the picnic tables have been installed and crews continue to work on the decorative rock formation and landscaping near the bridges. Crews have begun reshaping the green space in front of Bedford Splash and hydro-mulch will eventually be put down, both in the green space area and around the playground. The concrete footer around the lake has been finished and the valve has been shut. The estimated completion date is still the end of February.

## **OPEN FORUM**

Tom Culbert. Mr. Culbert signed up to speak on Item #12. He stated he was curious on how the Senior Center was doing with the dances and the dance financing. Since there is no longer a senior advisory council or a dance committee, he asked if there are any reports about on how much money there is and how much is needed. Councilmember Turner reported that there was a staff meeting held the previous week that showed increases from 2014 to 2015 in both attendance and satisfaction with the dances. In answer to Mr. Culbert's question regarding the snack fund, it was stated that the fund is still there and is in the donation account for the Senior Center so it can be tracked. Mr. Culbert stated that the previous two dances collected of \$50.00 and \$35.00 respectively for the snack fund, and that it is looking close to being bare. It was stated that any future expenditures would be done with a purchase card and there is not a shortage. Councilmember Turner stated that he will present more specific information at the next Council meeting.

## **CONSIDER APPROVAL OF ITEMS BY CONSENT**

Motioned by Councilmember Champney, seconded by Councilmember Turner, to approve the following items by consent: 2, 5, 6, 8, 9, 10 and 11, and removal from the agenda Item #4 and Item #7.

Motion approved 7-0-0. Mayor Griffin declared the motion carried.

## **COUNCIL RECOGNITION**

### **1. Proclamation declaring February 2016 as Love Your Library Month in the City of Bedford.**

Mayor Griffin read a proclamation declaring February 2016 as Love Your Library Month in the City of Bedford. Library Director Maria Redburn accepted the proclamation. Programming Assistant Mary Woodward accepted a plaque on behalf of the Library for the 2015 Achievement in Excellence in Libraries Award from the Texas Municipal Library Directors Association.

Ms. Redburn discussed the "It's Time Texas" challenge, which is a fitness challenge in which the entire City is participating. She stated that Texas is the 11th most obese state in the nation, and that obesity not only impacts one's personal life but also economically. Different City departments and citizens are invited to register on the challenge's website. The City gets 200 points from someone registering and will also get points for posting pictures of people doing healthy activities. The Boys Ranch Activity Center (BRAC) has an app for doing different challenges every month. She stated that by 2030, if people do not change the way they live, children today may not have health insurance. She discussed classes that are available at Library, the BRAC and the Senior Center.

## **APPROVAL OF THE MINUTES**

### **2. Consider approval of the following City Council minutes:**

#### **a) January 26, 2016 regular session**

This item was approved by consent.

## **PERSONS TO BE HEARD**

### **3. The following individual has requested to speak to the Council tonight under Persons to be Heard:**

#### **a) Joyce Johnson, 1701 Brookhaven Circle, Bedford, Texas 76022 – Requested to speak to the Council about the United States being the third largest gas exporter, drilling, fracking hazards, and effects.**

Joyce Johnson, 1701 Brookhaven Circle, Bedford, Texas – Ms. Johnson stated that there is disagreement on whether Council denied urban drilling and asked if it was true. In response, it was stated by Council that an ordinance was passed regarding drilling and the only piece of property where there is an option

to drill is Meadow Park, which is School District property; and that since passage of that ordinance, that the State has passed their own law in regards to drilling that supersedes what the City has done; and that if Ms. Johnson has a solution related to the State's position, then she is speaking to the wrong governmental body to affect that change. Ms. Johnson stated that there have been numerous events in the last year that show the City may have been betrayed during the time drilling was being promoted including two drilling rigs set up in the median of Airport Freeway near Brown Trail and Forest Ridge Drive. Birds that are normally in her back yard have evacuated the area likely due to fracking vapors from the drilling sites. Further, pipes are being laid down under Bedford at West Pipeline Road running from five gas storage tanks on Highway 157, and are obviously intended to go under several Bedford neighborhoods towards the rigs on Airport Freeway. One hundred to 200 million tons per year reveals the amount of missing structural support in the United States, plus the mass of rock pulverized to obtain the gas. She stated the number and size of the gas storage tanks on Highway 157 reveal the quantity of gas being taken locally from under Bedford and Arlington. The gas industry is preparing for the United States to be the largest exporter of gas in the world. In response to Ms. Johnson, it was stated by Council and staff that there is no illicit drilling rigs operating in the City at this time or during this time period she described. Further the five storage tanks on Highway 157 are in Fort Worth and have been there for 30 to 40 years; are for gasoline petroleum, not liquid natural gas (LNG); and cannot be controlled by Bedford. Ms. Johnson stated that when a well is drilled, it does not just take gas from under it but from a five mile radius around it. She saw an announcement from the BBC that the United States is the third largest exporter of gas in the world, which was facilitated as fracking was initiated in North America. The website [rt.com/business](http://rt.com/business) reported that the United States was going to launch exports of LNG by the end of 2015; and that 20 LNG plants with a total capacity of up to 2M tons per year has been constructed in North America, with six in the United States receiving export licenses for 100M tons per year. She stated the boost of gas exporters will increase domestic oversupply and lead to an increase in gas prices. The domestic market will grow by 35 to 45 percent within five years of launching deliveries overseas. In response to Ms. Johnson, it was stated by Council that regarding the drilling rigs reported her, they were actually shallow water wells drilled by the School District at L.D. Bell High School to provide well water for their playfields. It was further asked by Council that Ms. Johnson keep her presentation to the City of Bedford.

Ms. Johnson displayed a map showing potential LNG export sites relative to shale basins and stated that Bedford is in the Barnett Shale gas basin, which is one of the largest parts from where gas is being taken for export purposes. When gas is taken under the surface by fracking, it causes the rocky area to collapse into sand. Gas is then extracted and shipped through pipelines to storage places. This takes out the support that holds up buildings and infrastructure, which causes huge crevices and affects Bedford and everywhere there is drilling and fracking. She stated that it is thought fracking is to blame for earthquakes in Texas and discussed an article describing the fracking process. She showed a picture of storage tanks, which are expected to collect 45M tons per year of LNG coming out from under Bedford and other cities. In Oklahoma, an entire city fell into a sinkhole, which could happen to Bedford. Gas frackers in Houston have stated that exports could be greater than 100M to 200M tons per year, and the United States could potentially overtake Russia as the largest supplier of LNG. She discussed earthquakes being caused by water fracking, which also pulls out toxic methane into the air; and an earthquake hazard program from the United State Geological Survey. She discussed a secret internet kill switch, which has been concealed and is related to earthquakes caused by fracking. She discussed neighborhood fires including a house that burned down in Haltom City for unknown reasons and fires in California on top of drilling and fracking areas. In response to Ms. Johnson, it was stated by Council that these were issues everybody should be concerned about; and that there was no drilling next to a school in Bedford. She discussed an interactive map of the latest earthquakes in Texas. She stated that Dallas reported over 72,000 potholes, for which they will spend \$14M to repair, and that the mayor of Dallas may change his mind on property tax rates. She stated that Bedford has potholes as a result of what is going on under the ground, where fracking fluid crumbles the road. She discussed sinkholes in Hurst and on IH-35. She stated the analysis of hydraulic fluids are under investigation by the Environmental Protection Agency. She discussed a list of the location of wells on a website, which received a failing grade from Harvard University for their reporting. She stated that water fracking is not safer than chemical fracking, as it puts out methane and causes earthquakes. She proposed a conglomerate of all of the cities in the area that are suffering because of urban drilling and fracking to say they will not have anything taken out from under the cities, and Bedford could pass a resolution to deny any extraction and transportation of gas through pipelines, which leak as bad as gas wells. She stated that there is a school near her house,

that fracking fluids are known to cause learning impairment in children, and that the drilling site near her was leaking fracking fluid.

In response to Ms. Johnson, Council and staff stated that there have been no gas drilling rigs in Bedford; that the rigs described by Ms. Johnson were for well water; that the pipes being installed under Pipeline Road are sewer pipes from the Trinity River Authority redoing sewer basins along the corridor; that a lot of pipe will be laid in the City over the next ten years; that the State has passed a number of laws prohibiting cities dictating about piping and transportation of gas; that the materials submitted by Ms. Johnson will be forwarded to the City's state representatives; and that Council and staff would be made aware of this type of activity going on in the City.

**b) Carlo Gill, 3221 Timber Grove, Bedford, Texas 76021 – Requested to speak to Council on the same subject he spoke to Council on January 26, 2016: “trash pick-up and parking trailers, boats, and recreational vehicles in residential areas.”**

Carlo Gill, 3221 Timber Grove, Bedford, Texas – Mr. Gill stated that he wanted to give a status report on what has happened since the previous meeting, which is really nothing. He was told by everybody with the City that there was nothing that could be done and it was up to Council to make a decision to put an ordinance in place for these problems. He advised Council to go out and look how bad his neighborhood is. He displayed pictures of trailers parked in front driveways in a residential community and stated that it is ridiculous how it is allowed by Council and if nothing happens, property values will be driven down. He discussed a house of a friend in North Richland Hills that ten people wanted to buy but did not because the neighbors had trailers and junk in their yard. His neighborhood is not low end housing, there is a \$250,000 house at the end of his street that is being leased, and that there are houses being leased all over the City. He stated that the Census shows there are 9,233 houses in the City that are rented. With at least two people in every household and with a population of 46,000, that means 50 percent of the people in the City are renters and they do not care about the property because it is not theirs. He talked to a resident in his neighborhood that is not able to see the end of their street because it is blocked by a storage trailer in the front driveway that moves only on the weekends. He stated that a lot of the people renting these houses know the Council is not making any decisions on ordinances regarding this so they put in whatever they want, and it is because Council does not care. He displayed more pictures including a location with two trailers parked in the driveway and a car that sticks out. All of the pictures were taken within four to five streets of his house at around 2:00 p.m. He displayed pictures of houses with recreational vehicles and trailers parked in the backyards, and of a trailer sticking out over the sidewalk. He stated the municipal judge will not do anything about the trailer over the sidewalk because people can walk around it. He displayed pictures from Hurst of a 20-foot recreational vehicle covered with canvass in a residential community and stated that this will happen in Bedford if the Council does not do anything about it. He discussed homeowner's associations that prevent this type of thing from occurring. He displayed a picture of an old car in a driveway down the end of his street that has been there for 12 months and was told by the Police Chief that something will be done about it. He asked Council how they would like the old car or trailers parked next to their houses. He stated nobody is going to buy a house in the City if they travel around the streets and see how bad it is. He stated that he will come to Council meetings until something is done about it and that he will take more pictures and get addresses. There are storage places all over the City to store these types of vehicles but people will not do so because they are renters and they do not care. In answer to questions from Council, he stated that it stands to reason that a large majority of the pictures he displayed are of rented homes with the demographics showing that 50 percent of the people in the City are renters; and that he will get the addresses of the houses shown in the pictures and put them on a map. He discussed coming to Council 35 years previously to get an ordinance to prevent tractor trailers from being parked in residential neighborhoods.

There was discussion that staff, including the Police Chief, drove the neighborhood in the afternoon and evenings and saw two trailers parked in driveways, which is allowed under the current ordinance; the number of rented homes in the City including that the figure cited previously was actually the population of renter occupied homes; balancing the City's aesthetic with personal property rights; and the current ordinance allowing people to park trailers and recreational vehicles in their driveway or in the backyard behind a fence. There was further discussion that since this issue was brought to Council's attention 14 days previously, staff has looked at ordinances from three other cities; that staff, including the Police Chief, the City Manager and Assistant City Manager, have performed regular checks and counted vehicles in the neighborhood to see how bad the issue is and which vehicles are not in compliance with the current

ordinance; and that staff and Council have been looking into this issue. Mr. Gill stated that he has received phone calls and letters from people that have made complaints to the Council in the last two years and nothing has been done. There was discussion on bringing this item to a work session or a strategic planning session to determine if it is a top priority of Council. Mr. Gill stated that much of the City's revenue comes from property taxes and that the City wants to bring in new people into the area; that there is a trash issue and he counted 12 houses out of 14 on one street that had trash out earlier than 6:00 p.m.; that there are too many warnings going out to the same people; and that the Police Chief did do something about the old car mentioned previously. There was further discussion that there was nothing in the current ordinance that covers Mr. Gill's request to allow only personal vehicles in driveways; the neatness and cleanliness of the yards in the pictures; the issue being a matter of personal taste; that it is legal to have chickens in the back yard as long as there is no rooster and that properties over one acre can have a horse; homeowner associations; and making an accommodation in the ordinance that would be reasonable to the other citizens who own such vehicles.

**c) William McFadden, 1108 Hialeah Path, Bedford, Texas 76022 – Requested to speak to the Council regarding code enforcement, parking, trashcans, lack of fines and citations; and further developments at the Bedford Bark Park including lights, water features, and general maintenance to the Bark Park.**

William McFadden, 1108 Hialeah Path, Bedford, Texas – Mr. McFadden stated he moved to Bedford approximately two years and at that time, there were not many issues; however, issues with trash began with the new green recycling bins. He displayed pictures of houses where carts and trash were put out days early, carts were left out days after pickup, and carts are being stored in front of the street. He stated that it looks trashy and takes away from the area. He has contacted Code Compliance and used the Better It Bedford app; however, Code Compliance officers would come out on trash day so the residents would then be in compliance. He stated that if people are just given warnings with no fine attached, they have no incentive to follow the rules. If people received citations and a fine, they would be less likely to break the rules. He discussed what the fines were with the Police Chief and it was his understanding that one would have to go to court and the judge would assign a fine, with the maximum being \$500. He wondered if for trash issues, a fine of \$25 that could be given by Code Compliance and paid online.

Mr. McFadden stated that he does a lot of running and during the day, there are no cars over sidewalks and very few in the street. At night, people are coming home and parking their trailers and "toys" in driveways and some protrude into the sidewalk. He talked with members of the Police Department, who in turned talked to the prosecutor and judge, and he understands that Code cannot fine or cite those residents if people can get around the vehicle by staying on the driveway. He displayed a picture of a vehicle protruding over the sidewalk that also had a trailer in the driveway, and stated that they should at least park their "toys" on the street so one can get by on the sidewalk. He had reported this vehicle but when Code Compliance came by, the person was at work so there was no violation. He showed a picture of a vehicle that was completely blocking the sidewalk. He asked that Council work with Code Compliance about enforcing these issues during the evening hours when people are actually violating the Code. He discussed a sidewalk issue on Montgomery Way where a trailer is parked with the jack physically touching the sidewalk and the hitch protruding out, and asked that Council look into not allowing this in the Code.

Mr. McFadden discussed cars parking on the wrong side of the road and stated that in speaking with the Police Chief, there have never been any accidents due to cars being parked on the wrong side. He asked that the Code be changed so it is allowed between certain hours or that it be enforced more. He feels like he is being punished for parking on the correct side of the street. In regards to trash, he asked if Code officers only respond to complaints or if they also patrol areas. He further asked if Code Compliance officers can patrol and enforce the trash regulations on non-trash days.

In regards to the Bark Park, Mr. McFadden stated that there are a lot of ruts, holes, missing grass and mud, as well as dog feces, in the big dog park and asked if there could be more upkeep. He asked if there was a chance lights could installed especially in the winter time when it gets dark early. He stated the little dog park has lights from the baseball fields and asked if more lights could be installed at the little dog park with a provision that any sized dog can be in the area such as from dusk to a certain time. He stated that he understands the dog parks in Euless and Arlington have lights.

City Manager Roger Gibson stated that Code Compliance officers do perform patrols and address violations as they observe them. He stated that Mr. McFadden did make a good point on trailer hitches that stick out and discussed a decision rendered by the Municipal Court regarding vehicles that protrude partially into the sidewalk. The ruling is that an object partially obstructing a sidewalk may not constitute a violation if a person can safely navigate around it. The rule of thumb in the Police Department is if a child on a bike with training wheels or a person in a wheel chair can get around the object without going into the street and can safely navigate the grade of the driveway. He stated that the potential safety issue of trailer hitches sticking out into the sidewalk can be raised to the Court. In regards to warning notices, he stated that the City tries to get compliance through cooperation when dealing with non-safety related violations but agreed that at some point, if Code Compliance keeps giving repeated warnings, they lose some effectiveness. He stated that parking with the traffic flow is a State statute and the Police Department will address those issues when it is brought to their attention but it is not their primary focus. He suggested that Mr. McFadden attend the Citizen's Police Academy.

There was discussion on senior citizens not being able to put out trash at night when it gets dark earlier in the winter; dealing with repeat offenders; trash being put out days ahead of time; items on which Code Compliance is working; Mr. Gill and Mr. McFadden being concerned citizens; processes in place and systems that the City has to go through; considering both sides of an issue; Council sharing the same concerns as Mr. McFadden as they are also homeowners; staff being proactive and reactive when they need to be; and how updates are given to residents on these issues. In regards to the Bark Park, there was discussion on the Parks and Recreation Board helping to raise funds to create the Park; the Board striving to get donations and sponsors to pay for additions to the Park; and the Board broaching the subject of lighting and it being in their long term plan. There was further discussion on enforcement of City ordinances being a difficult job and a team effort with the citizens; depending on citizen input; having a city that presents well to residents and people coming into the City; maintaining property values and general aesthetics; plans to make the Bedford Trails and the Bark Park more usable and accessible; ways to donate to the Bark Park; meetings of the Parks and Recreation Board; the Code Compliance division being made up of five officers including a supervisor that work split shifts; the City being ten square miles with 50,000 people; Code Compliance being a difficult job with the black and white of the law but also a lot of interpretation; having more Code Compliance officers necessitating increased tax revenue; Code Compliance priorities; Code violations being a Class C misdemeanor; violators having their day in court; and the fee schedule for citations. There was discussion on having something in the books about when somebody would be cited; and neighbors helping neighbors, including liability issues.

## **NEW BUSINESS**

- 4. Consider an ordinance approving a resolution authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) revenue bonds, and approving and authorizing instruments and procedures relating thereto.**

No discussion or action was taken on this item.

- 5. Consider an ordinance amending the City of Bedford Code of Ordinances, Chapter 114, Article II, Section 114-39 "Stop intersections" to include the specific locations listed for intersections designated as streets upon which vehicles stop before entering intersections; amending Chapter 114, Article V, Section 114-136 "Presumption that owner of vehicle illegally parked same" to include the specific locations where drivers of vehicles shall not park in areas marked with "No Parking" signs; amending Chapter 114, Article II, Section 114-42 "Prohibited turns at intersections" to include the specific locations where drivers of vehicles shall not make a left turn where an authorized sign clearly indicates that no left turn is permitted; and amending Chapter 114, Article IV, Section 114-106 "Maximum limits on specific streets" whereas established maximum speed limit signs are posted giving maximum speed limit notice for a particular street or portion thereof; providing for a severability clause; providing for a penalty clause; and declaring an effective date.**

This item was approved by consent.

6. **Consider a resolution authorizing the City Manager to enter into a Professional Services Agreement with Elder Engineering, Inc. in the amount of \$43,580 for design services related to the rebuild of Bedford Court East from Brown Trail to Dora Street.**

This item was approved by consent.

7. **Consider a resolution authorizing the City Manager to enter into a Professional Services Agreement with Pacheco Koch, LLC in the amount of \$89,075 for design services relating to Bedford Road Paving Improvements from Somerset Terrace to Brown Trail.**

No discussion or action was taken on this item.

8. **Consider a resolution authorizing the City Manager to enter into an Interlocal Agreement with Tarrant County for street improvements on Bedford Road from SH 121 to FM 157 (Industrial Boulevard) and SH 121 to 460 feet west of Martin Drive.**

This item was approved by consent.

9. **Consider a resolution authorizing the City Manager to enter into a contract with Clay Enterprises Floors & Service to refinish the gym floor at the Boys Ranch Activity Center in the amount of \$14,995.**

This item was approved by consent.

10. **Consider a resolution authorizing the City Manager to enter into a contract with Merit Floors to replace existing flooring and vinyl cove base at City Hall, Building A in the amount of \$23,630.88.**

This item was approved by consent.

11. **Consider a resolution authorizing the City Manager to enter into a contract with WW Electronics Solutions LLC to replace the current door access system at the Law Enforcement Center in the amount of \$15,325.35.**

This item was approved by consent.

12. **Report on most recent meeting of the following Boards and Commissions:**

- ✓ **Animal Shelter Advisory Board - Councilmember Fisher**

No report was given.

- ✓ **Beautification Commission - Councilmember Turner**

Councilmember Turner reported that the Commission will meet the following Monday to discuss projects for the spring.

- ✓ **Community Affairs Commission - Councilmember Farco**

Councilmember Farco reminded everybody to RSVP for the Residential Roundtable on February 25 at 7:00 p.m. at the Old Bedford School. Mayor Griffin, Ms. Redburn and Development Director Bill Syblon will be in attendance. Updates will be given on the parks and Bedford Alert, and information will be given on the new Experience HEB It's Time Challenge and the Simple Recycling program.

- ✓ **Cultural Commission - Councilmember Champney**

Councilmember Champney reported that the Commission met the previous evening and staff showed a video put out by the Texas Commission on the Arts titled, "Are You Ready for a Cultural District?", which was very informative. He stated that on every point stated in the video, his answer was yes but that there

are still things that need to be done. Their intention was to apply for the cultural district designation this year but it has been decided to wait until January of the following year. By that time, the survey with Kimley-Horn will have been completed and there will be a number of other projects being worked on. In the Star-Telegram on February 3, there was an article, which showed there were 8.5M visitors, 400,000 international visitors, \$1.9M in direct spending, and \$111M in local tax revenue. The City has an opportunity to position itself as a prime destination for people that are coming to the area. The City has a strong medical community and is working on other developments, including the Cultural District and Bedford Commons. The City can promote itself to wealthy residents in Mexico to come up to the Dallas-Fort Worth area for their medical needs, while at the same time taking advantage of other things around the area.

✓ **Investment Committee – Councilmember Turner**

No report was given.

✓ **Library Advisory Board - Councilmember Farco**

Councilmember Farco encouraged everybody to fill out the Library Satisfaction Survey online.

✓ **Parks and Recreation Board - Councilmember Sartor**

Councilmember Sartor reported that the Board met on Thursday and a majority of the conversation was about improvements at the Boys Ranch Park, including the light poles. The valve has been closed and they are waiting for the lake to be filled up.

✓ **Teen Court Advisory Board - Councilmember Gebhart**

No report was given.

✓ **Senior Citizen Liaison - Councilmember Turner**

Councilmember Turner stated that he will have pertinent statistics at the next meeting.

**13. Council member Reports**

No other reports were given.

**14. City Manager/Staff Reports**

No report was given.

**15. Take any action necessary as a result of the Executive Session.**

No action was necessary as a result of the Executive Session.

**ADJOURNMENT**

Mayor Griffin adjourned the meeting at 8:58 p.m.

ATTEST:

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Michael Wells, City Secretary



# Council Agenda Background

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**PRESENTER:** See below

**DATE:** 02/23/16

Persons to be Heard

**ITEM:**

- a) Barbara Blalock, 1116 Timber View, Bedford, Texas 76021 – Requested to speak to the Council regarding the proposed ordinance eliminating parking cars and boats on driveways.
- b) Bill McFadden, 1108 Hialeah Path, Bedford, Texas 76022 – Requested to speak to the Council regarding clarification on fines and “court” for code violations; City Council’s attitude towards speakers; update request and explain that he has never demanded a response; to respond to some of the points that the Council brought up, such as senior citizens; lawn maintenance companies violating code; and to request that when the City looks at other cities as a reference that they do not use cities that employ the same city attorney or firm as Bedford

City Manager Review: \_\_\_\_\_

**DISCUSSION:**

N/A

**ATTACHMENTS:**

Letters of Request

Barbara Block

I would like to speak to the Council concerning the proposed ordinance Eliminating parking cars & boats on driveways in our neighborhood I don't think it is necessary!

Barbara Block

116 Timber View  
Bedford.

817-281-3243

----- Original message -----

From: Bill McFadden <[REDACTED]>  
Date: 2/11/2016 11:56 AM (GMT-06:00)  
To: "Wells, Michael" <[Michael.Wells@bedfordtx.gov](mailto:Michael.Wells@bedfordtx.gov)>  
Subject: Re: Speak at next meeting City Council Meeting

Good Morning Mr. Wells!

Please place me on the next agenda for:

Clarification on fines and “court” for code violations, City Councils attitude towards speakers, update request and explain that I have never demanded a response. I would also like to respond to some of the points that the council brought up, such as senior citizens, and lawn maintenance companies violating code. I am also going to request that when the city looks at other cities as a reference that they do not use cities that employ the same city attorney or firm as Bedford.

Thank You.

-Bill McFadden



# Council Agenda Background

**PRESENTER:** Russell Hines, Building Official

**DATE:** 02/23/16

**Council Mission Area:** Provide a safe and friendly community environment.

**ITEM:**

An ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article IV. “National Electrical Code”, and replacing it with Article IV. “National Electrical Code/Amendments”; providing for the adoption of the National Electrical Code 2014 Edition; providing for the adoption of annex chapters; providing for the adoption of regional amendments to the National Electrical Code; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The National Electrical Codes are revised and published on a three-year code cycle. They provide and establish minimum standards and regulations for electrical construction and electrical systems to safeguard the public health and safety in the built environment. The City of Bedford has maintained efforts to participate with other Municipalities in the North Texas Region to adopt current code editions, such as the 2014 National Electrical Code.

The North Central Texas Council of Governments (NCTCOG) has actively promoted the standardization of model construction codes since 1967, when the Regional Codes Strategy Committee first documented the wide disparity in codes used by cities in the region. The goal of the Regional Codes Coordinating Committee is to standardize the model codes used throughout North Central Texas. The City of Bedford has operated on the same electrical code and code amendments since the adoption of the 2011 Edition of the National Electrical Code.

Currently, NCTCOG encourages jurisdictions in North Central Texas to adopt the 2014 National Electrical Code, along with their respective regional amendments.

Staff deems it beneficial for the community to adopt the 2014 Edition of the National Electrical Code and amendments recommended by the NCTCOG.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of an ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article IV. “National Electrical Code”, and replacing it with Article IV. “National Electrical Code/Amendments”; providing for the adoption of the National Electrical Code 2014 Edition; providing for the adoption of annex chapters; providing for the adoption of regional amendments to the National Electrical Code; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.

**FISCAL IMPACT:**

**N/A**

**ATTACHMENTS:**

**Ordinance**

ORDINANCE NO. 16-

NATIONAL ELECTRICAL CODE

AN ORDINANCE AMENDING CHAPTER 22 "BUILDING AND BUILDING REGULATIONS" OF THE CITY OF BEDFORD CODE OF ORDINANCES BY REPEALING ARTICLE IV. "NATIONAL ELECTRICAL CODE", AND REPLACING IT WITH ARTICLE IV. "NATIONAL ELECTRICAL CODE/AMENDMENTS"; PROVIDING FOR THE ADOPTION OF THE NATIONAL ELECTRICAL CODE 2014 EDITION; PROVIDING FOR THE ADOPTION OF ANNEX CHAPTERS; PROVIDING FOR THE ADOPTION OF REGIONAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE; PROVIDING A PENALTY OF UP TO \$2,000 PER DAY FOR VIOLATIONS; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Bedford has operated on the same electrical code and code amendments since the adoption of the 2011 Edition of the National Electrical Code; and,

WHEREAS, the City Council of the City of Bedford, Texas, desires to adopt the most current edition of the National Electrical Code as allowed by the Texas Legislature, and further desires to adopt regional amendments to said National Electrical Code; and,

WHEREAS, the Bedford City Council finds and determines that the National Electrical Code and regional amendments adopted hereby will promote the health, safety and general welfare of the citizens of the City of Bedford, Texas.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That Chapter 22, "Buildings and Building Regulations," Article IV, "National Electrical Code," of the Code of Ordinances of the City of Bedford, Texas, as amended, be hereby amended in its entirety to hereafter be and read as follows:

ARTICLE IV. NATIONAL ELECTRICAL CODE / AMENDMENTS

Sec 22- 200 National Electrical Code Adoption

The National Electrical Code, 2014 edition as published by the National Fire Protection Association, a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec 22- 201 Amendments to the National Electrical Code

The following sections of the National Electrical Code are hereby amended to read as follows:

1. \*\*\*Article 100, Part I; amend the following definition:

Intersystem Bonding Termination. A device that provides a means for connecting bonding conductors for communication systems and other systems such as metallic gas piping systems to the grounding electrode system.

2. **\*\*\*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.**

**Manufacturer's self-certification of any equipment shall not be used as a basis for approval by the AHJ.**

**Informational Note:** See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of *Approved, Identified, Labeled, and Listed*.

3. **\*\* Article 230.71(A); add the following exception:**

**Exception: Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.**

4. **\*\*\* Article 240.91; delete the Article.**

5. **\*\* Article 300.11; add the following exception:**

**Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size 1/2").**

6. **\*\* Article 310.10; add subsection (J) to read as follows:**

**310.10 (J) Aluminum Wire.** Conductors for services and general wiring in this article shall be of copper.

**Exception: (1) Special conditions approved by the authority having jurisdiction.**

7. **\*\* Article 310.15(B)(7); change to read as follows:**

**(7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.** For dwelling units, conductors, as listed in Table 310.15(B)(7), shall be...*{text unchanged}*...provided the requirements of 215.2, 220.61, and 230.42 are met. **This Article shall not be used in conjunction with 220.82.**

8. **\*\* Article 500.8(A)(3); change to read as follows:**

**500.8 Equipment.** Articles 500 through 504 require equipment construction and installation standards 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**
- (3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or an owner's engineering judgment signed and sealed by a qualified Licensed Professional Engineer.**

**Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and other pertinent information. Guidelines for certificates may be found in ANSI/ISA 12.00.02, *Certificate Standard for AEx Equipment for Hazardous (Classified) Locations.***

**9. \*\* 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 persons Licensed Professional Engineer.**

**10. \*\*\* Article 680.25(A) changed to read as follows:**

**680.25 Feeders. These provisions shall apply to any feeder on the supply side of panelboards supplying branch circuits for pool equipment covered in Part II of this article and on the load side of the service equipment or the source of a separately derived system.**

**(A) Wiring Methods.**

**(1) Feeders. Feeders shall be installed in rigid metal conduit or intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:**

- (1) Liquidtight flexible nonmetallic conduit**
- (2) Rigid polyvinyl chloride conduit**

- (3) Reinforced thermosetting resin conduit
- (4) Electrical metallic tubing where installed on or within a building
- (5) Electrical nonmetallic tubing where installed within a building
- (6) Type MC cable where installed within a building and if not subject to corrosive environment
- (7) Nonmetallic-sheathed cable
- (8) Type SE cable

*Exception: An existing feeder between an existing remote panelboard and service equipment shall be permitted to run in flexible metal conduit or an approved cable assembly that includes an equipment grounding conductor within its outer sheath. The equipment grounding conductor shall comply with 250.24(A)(5).*

#### **Section 22 - 202 Temporary Utilities**

When for good and sufficient cause it is necessary to have utilities turned on any installation before final certificate can be issued, the building official may authorize a temporary permit to be issued for a period of 30 days.

#### **Section 22 - 203 Penalty upon failure to comply.**

1. Any person violating or failing to comply with any provision or requirement of this article, who continues to violate or fail to comply with same within the time prescribed by the building official, or the time prescribed by State law shall also be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in an amount not to exceed \$2000.00, such offense being a violation of the City ordinances. A separate offense shall be deemed committed upon each day during or on which a violation or failure to comply occurs or continues to occur.
2. Notwithstanding the foregoing, any violation of any provision of this article that constitutes an immediate danger or threat to the health, safety and welfare of the public may be enjoined in a suit brought by the City for such purpose.
3. In addition to any other remedies or penalties contained herein, the City may enforce the provisions of this article pursuant to the applicable provisions of chapter 54 of the Texas Local Government Code, which provides for the enforcement of municipal ordinances.

**SECTION 3. SEVERABILITY CLAUSE.** That it is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared invalid or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such invalid or unconstitutional phrase, clause, sentence, paragraph or section.

**SECTION 4.** That all ordinances or any parts thereof in conflict with the terms of this ordinance shall be and hereby are deemed repealed and of no force or effect; provided, however, that the ordinance or ordinances under which the cases currently filed and pending in the Municipal Court of the City of Bedford, Texas, shall be deemed repealed only when all such cases filed and pending under such ordinance or ordinances have been disposed of by a final conviction or a finding not guilty or nolo contendere, or dismissal.

**SECTION 5. SAVING CLAUSE.** That the Code of Ordinances, City of Bedford, Texas, as amended, shall remain in full force and effect, save and except as amended by this ordinance.

**SECTION 6. EFFECTIVE DATE.** This ordinance shall be in full force and effect from and after its passage and publication as provided by the Bedford City Charter and the laws of the State of Texas.

**PRESENTED AND PASSED** this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

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**Jim Griffin, Mayor**

**ATTEST:**

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**Michael Wells, City Secretary**

**APPROVED AS TO FORM:**

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**Stan Lowry, City Attorney**



# Council Agenda Background

**PRESENTER:** Russell Hines, Building Official

**DATE:** 02/23/16

**Council Mission Area:** Provide a safe and friendly community environment.

**ITEM:**

An ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article III. “International Codes/Amendments” and replacing it with Article III. “International Codes/Amendments” inclusive of the International Building Code 2015 Edition, International Residential Code 2015 Edition, International Mechanical Code 2015 Edition, International Plumbing Code 2015 Edition, International Fuel Gas Code 2015 Edition, International Energy Conservation Code 2015 Edition; making regional amendments to each of the International Codes adopted hereby; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The International codes are revised and published on a three-year code cycle. They provide and establish minimum standards and regulations for buildings and systems to safeguard the public health and safety in the built environment. The City of Bedford has coordinated with our two adjacent Municipalities for the past several years to adopt the same edition of codes as well and ensure that our amendments coincide. The City of Bedford has maintained efforts to participate with other Municipalities in the North Texas Region to adopt current code editions such as the 2015 International Codes.

The North Central Texas Council of Governments (NCTCOG) has actively promoted the standardization of model construction codes since 1967, when the Regional Codes Strategy Committee first documented the wide disparity in codes used by cities in the region. The goal of the Regional Codes Coordinating Committee is to standardize the model codes used throughout North Central Texas. The City of Bedford has operated on the same building codes and code amendments from the adoption of the 2009 edition International Codes.

Currently, NCTCOG encourages jurisdictions in North Central Texas to adopt the 2015 International model construction codes, along with their respective regional amendments.

Staff deems it beneficial to the community to adopt the 2015 Edition of the International Codes and amendments recommended by the NCTCOG.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of an ordinance amending Chapter 22 “Building and Building Regulations” of the City of Bedford Code of Ordinances by repealing Article III. “International Codes/Amendments” and replacing it with Article III. “International Codes/Amendments” inclusive of the International Building Code 2015 Edition, International Residential Code 2015 Edition, International Mechanical Code 2015 Edition, International Plumbing Code 2015 Edition, International Fuel Gas Code 2015 Edition, International Energy Conservation Code 2015 Edition; making regional amendments to each of the International Codes adopted hereby; providing a penalty of up to \$2,000 per day for violations; providing a severability clause; providing a savings clause; and providing an effective date.

**FISCAL IMPACT:**

**N/A**

**ATTACHMENTS:**

**Ordinance**

**ORDINANCE NO. 16-**

**AN ORDINANCE AMENDING CHAPTER 22 “BUILDING AND BUILDING REGULATIONS” OF THE CITY OF BEDFORD CODE OF ORDINANCES BY REPEALING ARTICLE III. “INTERNATIONAL CODES/AMENDMENTS” AND REPLACING IT WITH ARTICLE III. “INTERNATIONAL CODES/AMENDMENTS” INCLUSIVE OF THE INTERNATIONAL BUILDING CODE 2015 EDITION, INTERNATIONAL RESIDENTIAL CODE 2015 EDITION, INTERNATIONAL MECHANICAL CODE 2015 EDITION, INTERNATIONAL PLUMBING CODE 2015 EDITION, INTERNATIONAL FUEL GAS CODE 2015 EDITION, INTERNATIONAL ENERGY CONSERVATION CODE 2015 EDITION; MAKING REGIONAL AMENDMENTS TO EACH OF THE INTERNATIONAL CODES ADOPTED HEREBY; PROVIDING A PENALTY OF UP TO \$2,000 PER DAY FOR VIOLATIONS; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS, the Texas Legislature allows all Texas municipalities adopt the most current editions of the International Building Code, International Residential Code, International Mechanical Code, International Plumbing Code, International Fuel Gas Code and International Energy Conservation Code; and,**

**WHEREAS, that legislation also allows municipalities to make regional amendments to said International Codes; and,**

**WHEREAS, the City Council of the City of Bedford, Texas, desires to adopt the most current editions of the International Codes as allowed by the Texas Legislature, and further desires to adopt and enact certain local amendments to said International Codes; and,**

**WHEREAS, the Bedford City Council finds and determines that the codes and amendments adopted hereby will promote the health, safety and general welfare of the citizens of the City of Bedford, Texas.**

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

**SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.**

**SECTION 2. That Chapter 22, “Buildings And Building Regulations,” Article III, “International Codes/Amendments,” of the Code of Ordinances of the City of Bedford, Texas, as amended, be hereby amended in its entirety to hereafter be and read as follows:**

**ARTICLE III INTERNATIONAL CODES / AMENDMENTS**

**Sec. 22-51 International Building Code Adopted.**

**The International Building Code, 2015 Edition and appendix chapters G and J as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.**

**Sec. 22-52 Amendments to the International Building Code.**

- 1. Section 101.1; Insert: City of Bedford**
- 2. \*\*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.

3. **\*\*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.

4. **\*\* Section 103 and 103.1 change to read as follows:**

**SECTION 103  
FIRE DEPARTMENT  
INSPECTIONS DIVISION  
CITY OF BEDFORD**

103.1 Creation of enforcement agency. The FIRE DEPARTMENT, INSPECTIONS DIVISION OF THE CITY OF BEDFORD is hereby created and the official in charge thereof shall be known as the *building official*.

5. **\*\*Section 105.2 Work exempt from permit; change to read as follows:**

Section 105.2 (1): Playhouses, tool storage and similar uses, provided the floor area does not exceed 50 square feet.

Section 105.2 (2.); Delete

6. **\*\*Section 109; add Section 109.7 to read as follows:**

109.7 Re-inspection Fee. A fee as established by city 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. City 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.

7. **\*\*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 city 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 city fee schedule.

8. **\*\*Section 110.3.5; Lath, gypsum board and gypsum panel product inspection. Delete exception**

9. **\*\*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
- Procedures involving sedation
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

10. **\*\*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.*

11. **\*\*Section 202; change definition of "Atrium" as follows:**

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

12. **\*\*Section 202; add 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.

13. **\*\*\*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 approved by the Building Official as having the competence necessary to inspect a particular type of construction requiring special inspection.

**HIGH-RISE BUILDING.** A building with an occupied floor located more than ~~75~~ 55 feet (~~22 860 mm~~) (16 764 mm) above the lowest level of fire department vehicle access.

14. **\*\*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 Chapter 10 and 11.

15. **\*\*Section 304.1;** add the following to the list of occupancies:

Fire stations

Police stations with detention facilities for 5 or less

16. **\*\*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.

17. **\*\*Section 403.1, Exception 3;** change to read as follows:

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

18. **\*\*Section 403.3, Exception;** delete item 2.

19. **\*\*\*Section 403.3.2;** change to read as follows:

[F] 403.3.2 Water supply to required fire pumps. In buildings that are more than ~~420~~ 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.}

20. **\*\*Section 404.5;** delete Exception.

21. **\*\*Section 406.3.5.1 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).

22. **Section 501.2 Address Identification;** Change 501.2 to read as follows:

(1) 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 building number and letter shall be not less than eight (8) inches<sub>high</sub> with a minimum one (1) inch stroke width. Each suite and apt number and letter shall be not less than four (4) inches<sub>high</sub> with a minimum one-half (1/2) inch stroke width. Where required by the fire code official, address

numbers shall be provided in additional approved locations to facilitate emergency response.

- (2) Where access is by means of a private road and the building address identification required in section 501.2 (1) cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure.
- (3) R-3 Single Family occupancies shall have approved numerals of a minimum (4) inches high with a minimum one-half (1/2) inch stroke width and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

23. Section 501.2.1: add Section 501.2.1 Multi-family Complex Supplemental Addresses to read as follows:

**Section 501.2.1 Multi-family Complex Supplemental Addresses.** Reflective supplemental building addresses shall be installed in conjunction with fire lane marking at all multi-family occupancies in excess of 4 dwelling units including club rooms and offices where a single street address number is used to designate the buildings official address. Supplemental building addresses shall be installed as follows:

- (1) The marking shall be a minimum of 24 inches by 12 inches red rectangle painted on the pavement, in conjunction to the red fire lane markings.
- (2) The red rectangle shall have white reflective numbers that indicate the street address of the building.
- (3) Numbers shall be in bold font, measuring a minimum of 10 inches in height, easily readable from a moving vehicle.
- (4) Supplemental building addresses shall only be installed on private property, near the center of the building. Where the front and end of the building, or any part of the front or end of the building border a fire lane, the numbers shall be required on each side. Maintenance of the supplemental numbers shall be the same as required for fire lanes.

24. **\*\*Section 506.2.2;** add sentence to read as follows:

**506.2.2 Open Space Limits.** Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane. 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.

25. **\*\*Section 712.1.9,** change item 4 to read as follows:

4. Is not open to a corridor in Group I and R H occupancies.

26. **\*\*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 when foreign material is present, 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.
27. **\*\*Section 903.1.1; change to read as follows:**
- [F] 903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted ~~instead of~~ in addition to automatic sprinkler protection where recognized by the applicable standard ~~and, or as~~ approved by the fire code official.
28. **Add Section 903.1.2 to read as follows:**
- 903.1.2 Residential sprinklers. Unless specifically allowed by this Code, residential sprinkler systems installed in accordance with NFPA 13D or NFPA 13R shall not be granted exemptions or reductions, commonly known as "trade-offs" permitted by other requirements of this Code. Additionally, residential sprinkler systems installed in accordance with NFPA 13R must include attic protection.
29. **\*\*Section 903.2; add the following:**
- [F] 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. 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.”

30. [F] \*\*Section 903.2; delete the exception.

31. \*\*Section 903.2.9; add Section 903.2.9.3 to read as follows:

[F] 903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

32. 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 55 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories with an occupant load of 30 or more, other than penthouses in compliance with Section 1510 of the *International Building Code*, located 55 35 feet (16 764 10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.~~

Exceptions:

1. Open parking structures in compliance with Section 406.5 of the *International Building Code, having no other occupancies above the subject garage.*
2. ~~Occupancies in Group F-2.~~

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 of the IFC 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 and any portion of a building that meet any one of the following criteria listed below:

- (1) A building area 6,000 sq. ft. or greater
- (2) A tenant space 6,000 sq. ft. or greater
- (3) An existing building that is enlarged to be 6,000 sq. ft. or greater
- (4) An tenant space within an existing building that is 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 406.3 of the International Building Code, provided fire department standpipes and connections are installed in such a way that no portion of the garage is more than 100 feet, unobstructed hose lay from the connection.

33. \*\*Section 903.3.1.1.1; change to read as follows:

[F] 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. ~~Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
  5. ~~Fire service access~~ Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
  6. {Delete.}

34. **\*\*Section 903.3.1.2; add the following:**

[F] 903.3.1.2 NFPA 13R sprinkler systems. Where allowed in buildings of Group R, up to and including four stories in height, *automatic sprinkler systems* shall be installed throughout in accordance with NFPA 13R or in accordance with state law.

35. **\*\*Section 903.3.1.2.3; add section to read as follows:**

[F] Section 903.3.1.2.3 Attics and Attached Garages. Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, and attached garages.

36. **\*\*Section 903.3.1.3; change to read as follows:**

[F] 903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one- and two-family *dwelling*s; 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.

37. **\*\*\*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.

38. **\*\*Section 903.3.5; add a second paragraph to read as follows:**

[F] 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.

39. **\*\*Section 903.4; add a second paragraph after the exceptions to read as follows:**

[F] 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.

40. **\*\*Section 903.4.2; add second paragraph to read as follows:**

[F] 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.

41. **\*\*Section 905.2; change to read as follows:**

[F] 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.

42. **\*\*Section 905.3; add Section 905.3.9 and exception to read as follows:**

[F] 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 and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

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

[F] 1. In every required interior-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 interior exit stairway hose connection by a .....{No change to rest.}

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 a-hose connection shall be located to serve the roof or at the highest landing of an interior 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.

44. \*\*Section 905.9; add a second paragraph after the exceptions to read as follows:

[F] 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.

45. \*\*Section 907.1; add Section 907.1.4 and 907.1.4.1 to read as follows:

[F] 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.

46. \*\*Section 907.2.1; change to read as follows:

[F] 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 where the ~~having an~~ occupant load ~~due to the assembly occupancy is of~~ 300 or more persons or 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.

47. \*\*Section 907.2.3; change to read as follows:

[F] 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.}

2.1. 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.}

48. \*\*Section 907.2.13, Exception 3; change to read as follows:

[F] 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.

49. \*\*Section 907.4.2; add Section 907.4.2.7 to read as follows:

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

50. \*\*Section 907.6.1; add Section 907.6.1.1 to read as follows:

[F] 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.

51. \*\*\*Section 907.6.3; delete all four Exceptions.

52. \*\*\*Section 907.6.6; – add sentence at end of paragraph to read as follows:

[F] See 907.6.3 for the required information transmitted to the supervising station.

53. \*\*\*Section 909.22; add to read as follows:

[F] 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.

[F] 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, mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

[F] 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 systems with a fire-resistance rating of not less than 2 hours.

[F] 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.

[F] 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.

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

- [F] 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  $50(m \cdot S)^{1/2}$  or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

55. \*\*\*Section 910.2; add subsections 910.2.3 with exceptions to read as follows:

[F] 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 m<sup>2</sup>) 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.

56. \*\*Section 910.3; add section 910.3.4 to read as follows:

[F] 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.

[F] 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 system per 910.2

[F] 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.

57. \*\*Section 910.4.3.1; change to read as follows:

[F] 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 manual or automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m<sup>2</sup> per 0.4719 m<sup>3</sup>/s) of smoke exhaust.

58. \*\*Section 910.4.4; change to read as follows:

[F] 910.4.4 Activation. The mechanical smoke removal system shall be activated by manual controls only automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception: Manual only systems per Section 910.2.

59. \*\*Section 912.2; add Section 912.2.3 to read as follows:

[F] 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.

60. \*\*Section 913.2.1; add second paragraph and exception to read as follows:

[F] 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.

61. \*\*Section 1006.2.2.6 Add a new Section 1006.2.2.6 as follows:

1006.2.2.6 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

62. \*\*Section 1009.1; add the following Exception 4:

Exceptions: *{previous exceptions unchanged}*

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

63. \*\*Section 1010.1.9.4 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}*

64. \*\*\*Section 1015.8 Window Openings. REVISE text as follows:

1. Operable windows where the top of the sill of the opening is located more than ~~75 feet (22 860 mm)~~ 55 feet (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

65. \*\*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 shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.

66. \*\*Section 1029.1.1.1 Delete this section. Spaces under grandstands and bleachers;

67. \*\*\*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.

68. \*\*\*Section 1203.1; amend to read as follows:

\*\*\*1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code*.

Where air infiltration rate in a *dwelling unit* is ~~less than~~ 5 air changes or less per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the *International Energy Conservation Code*, the *dwelling unit* shall be ventilated by mechanical means in accordance with Section 403 of the *International Mechanical Code*.

69. Section 1405.14 amend to end of paragraph to read as follows:

*(Existing language unchanged)*. Vinyl siding shall not be an approved material for wall covering installation on new and/or existing Groups R-2, I-1, I-2, I-3 and I-4 occupancies.

70. \*\*Table 1505.1; delete footnote c and replace footnote b with the following:

b. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq. ft. of protected roof area. When exceeding 120 sq. ft. of protected roof area, buildings of U occupancies may use non-rated non-combustible roof coverings.

e. [delete]

71. \*\*Section 1505.7; delete the section

72. \*\*Section 1510.1; add a sentence to read as follows:

1510.1 General. Materials and methods of applications used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15. All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

*{text of exception unchanged}*

73. Section 1612.3; Insert: City of Bedford

74. Section 1612.3; Insert: 09/25/2009

75. \*\*\*Section 1704.2, Special inspections and tests is amended to read as follows:

1704.2 Special inspections and tests. Where application is made to the Building Official for construction as specified in Section 105, the owner or the owner's authorized agent, or the registered design professional in responsible charge, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work listed under Section 1705 and identify the approved agencies to the Building Official. The special inspector shall not be employed by the contractor. These special inspections and tests are in addition to the inspections identified by the Building Official that are identified in Section 110.

76. \*\*\*Section 1704.2.1, Special inspector qualifications, is amended to read as follows:

1704.2.1 Special inspector qualifications. Prior to the start of construction and or upon request, the approved agencies shall provide written documentation to the registered design professional in responsible charge and the building official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. [Remainder unchanged]

77. \*\*\*Section 1704.2.4, Report requirement, is amended to read as follows:

1704.2.4 Report requirement. Approved agencies shall keep records of special inspections and tests. The approved agency shall submit reports of special inspections and tests to the Building Official upon request, and to the registered design professional in

responsible charge. Individual inspection reports [Reports] shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. [Remainder unchanged]

78. \*\*\*Section 1704.2.5.2, Fabricator approval, is amended to read as follows:

**1704.2.5.1 Fabricator approval. Special inspections during fabrications required by Section 1704 are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency, or a fabricator that is enrolled in a nationally accepted inspections program. At completion of fabrication, the acceptable or approved fabricator shall submit a certificate of compliance to the owner or the owner's authorized agent or the registered design professional in responsible charge, for submittal to the building official as specified in Section 1704.5 stating that the work was performed in accordance with the approved construction documents. The certificate of compliance shall also be made available to the Building Official upon request.**

79. Section 1804.4.1; add Section 1804.4.1 to read as follows:

**1804.4.1; Excavation and Grading Guidelines: Where it is practical, 80 percent of a lot or tract shall be graded to the fronting street gutter. Drainage on the portion of a lot or tract below curb level shall not drain across more that one lot or tract before entering an approved drainage way.**

80. \*\*Section 2901.1; add a sentence to read as follows:

**[P] 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.**

81. \*\*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.**

82. \*\*Table 2902.1; add footnote f to read as follows:

**f. 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.**

83. \*\*Section 2902.1.3; add new Section 2902.1.3 to read as follows:

**2902.1.3 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.**

**2902.1.3.1 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.**

2902.1.3.2 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 <Jurisdiction's> health department.

84. \*\*\*Section 3002.1 Hoistway Enclosure Protection. add exceptions to read as follows:

Exceptions:

1. Elevators wholly located within atriums complying with Section 404 shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall not require hoistway enclosure protection.

85. \*\*\*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.

[Remainder unchanged]

86. \*\*\*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 hoist-ways.

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.

87. \*\*\*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."**

88. **\*\*\*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 75 feet (22 860 mm) 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.**

89. **\*\*Section 3109.1; change to read as follows:**

**3109.1 General. Swimming pools shall comply with the requirements of sections 3109.2 through 3109.5 and other applicable sections of this code and complying with applicable state laws.**

**Sec. 22-53 International Residential Code Adopted.**

The International Residential Code, 2015 Edition and appendix chapters G and J as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

**Sec. 22-54 Amendments to the International Residential Code.**

1. **\*\*\*Section R101.1; Insert jurisdiction name as follows:**

**R101.1 Title. These regulations shall be known as the *Residential Code for One- and Two-family Dwellings* of the City of Bedford hereinafter referred to as "this code."**

2. **\*\*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.**

3. **\*\*Section R104.10.1 Flood Hazard areas; delete this section.**

4. **\*\*Section R105.2 Work exempt from permit; change to read as follows:**

**Section R105.2 (1): Playhouses, tool storage and similar uses, provided the floor area does not exceed 50 square feet.**

**Section R105.2 (2.); Delete**

5. **\*\*Section R105.3.1.1& R106.1.4; delete these sections.**

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

7. **\*\*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.

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

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>f</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMPE <sup>e</sup>	ICE BARRIER LINDE <sup>r</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMPE <sup>i</sup>
	SPEED <sup>d</sup> (MPH)	Topographic Effects <sup>k</sup>	Special Wind Region <sup>l</sup>	Windborne Debris Zone <sup>m</sup>		Weathering <sup>a</sup>	Frost Line Depth <sup>h</sup>	Termite <sup>c</sup>					
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

9. \*\*Section R302.1; add exception #6 to read as follows:

Exceptions:

6. Open non-combustible carport structures may be constructed when also approved within adopted ordinances.

10. \*\*Section R302.3; add Exception #3 to read as follows:

Exceptions:

3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

11. \*\*\*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 ~~equipped with a self-closing device.~~

12. \*\*Section R303.3, Exception; amend to read as follows:

Exception: {existing text unchanged} Exhaust air from the space shall be exhaust out to the outdoors unless the space contains only a water closet, a lavatory, 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.

13. Section R313 Automatic Fire Sprinkler Systems. Delete subsections in their entirety.

14. \*\*\*Section R315.2.2 Alterations, repairs and additions. Amend to read as follows:

Exception:

2. Installation, alteration or repairs of electrical powered *{remaining text unchanged}*

15. \*\*Section R322 Flood Resistant Construction. Deleted Section.

16. \*\*\*Section R326 Swimming Pools, Spas and Hot Tubs. Amended to read as follows:

R326.1 General. The design and construction of pools and spas shall comply with the International Swimming Pool and Spa Code 2015 IRC Appendix Q. and AQ Swimming Pools, Spas and Hot Tubs.

17. \*\*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.

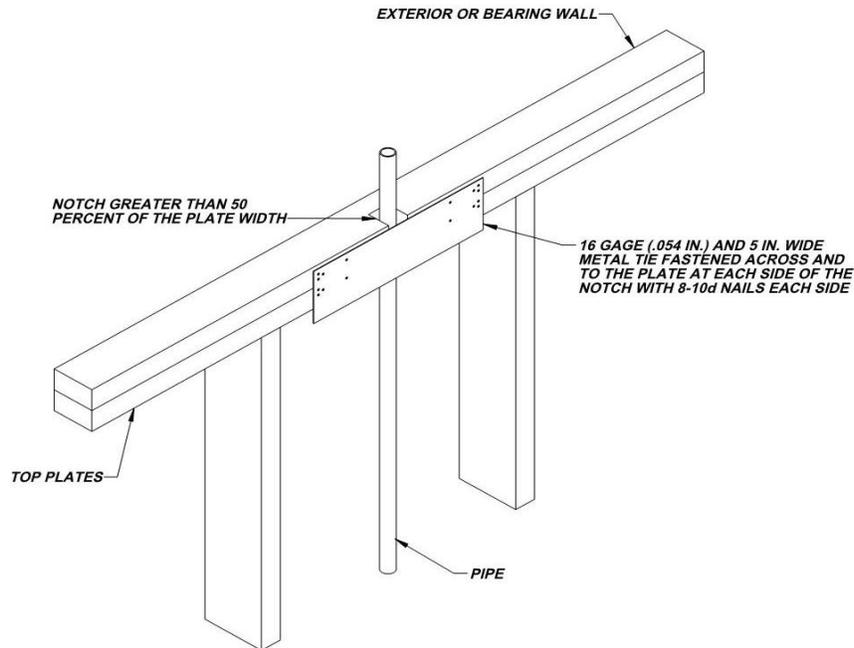
18. Section R401.3.1; add Section R401.3.1 to read as follows:

R401.3.1; Excavation and Grading Guidelines: Where it is practical, 80 percent of a lot or tract shall be graded to the fronting street gutter. Drainage on the portion of a lot or tract below curb level shall not drain across more that one lot or tract before entering an approved drainage way.

19. \*\*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 ~~1½ inches (38 mm)~~ 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}*

20. \*\*Figure R602.6.1; delete the figure and insert the following figure:



21. **\*\*Section R703.8.4.1; add a second paragraph to read as follows:**

**In stud framed exterior walls, all ties shall 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.**

22. **\*\*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 in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet from a lot line. {remainder unchanged}**

**Exceptions:**

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).**

23. **R905.3.1; Amended to read as follows: Concrete and clay tile shall be installed only over solid sheathing boards.**

24. **\*\*\* Chapter 11 [RE] – Energy Efficiency is deleted in its entirety and replaced with the following:**

**N1101.1 Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.**

**N1101.2 Compliance. Compliance shall be demonstrated by meeting the requirements of the residential provisions of 2015 International Energy Conservation Code.**

25. **\*\*Section M1305.1.3; change to read as follows:**

**M1305.1.3 Appliances in attics.** *Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} . . . sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger and 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.

**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}*

26. **\*\*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 ~~an approved place of disposal~~ a sanitary sewer through a trap, by means of a direct or indirect drain. *{remaining text unchanged}*

27. **\*\*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}*

2. 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.
3. 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.

28. **\*\*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.

29. **\*\*M1503.4 Makeup Air Required** Amend and add exception as follows:

**M1503.4 Makeup air required.** Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (0.19 m<sup>3</sup>/s) shall be provided with makeup air at a rate approximately equal to the difference between the exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

**Exception:** 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 m<sup>3</sup>/s) without providing makeup air. Exhaust hood systems capable of exhausting in

excess of 600 cubic feet per minute (0.28 m<sup>3</sup>/s) shall be provided with a makeup air at a rate approximately equal to the difference between the exhaust air rate and 600 cubic feet per minute.

30. \*\*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

31. \*\*Section G2408.3 (305.5); delete.

32. \*\*Section G2415.2.1 (404.2.1); 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"

33. \*\*Section G2415.2.2 (404.2.2); add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EDH).

34. \*\*Section G2415.12 (404.12); change to read as follows:

G2415.12 (404.12) Minimum burial depth. Underground *piping systems* shall be installed a minimum depth of ~~12 inches (305 mm)~~ 18 inches (457 mm) below grade, ~~except as provided for in Section G2415.12.1.~~

35. \*\*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.

36. \*\*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. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

37. \*\*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, irrespective of design pressure. ~~Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.~~ 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 1/2"), 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 1/2"), 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

38. \*\*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 be not less than 10-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.

39. \*\*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.

40. \*\*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.

41. \*\*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.

42. \*\*Section G2422.1.2.3 (411.1.3.3); delete Exception 1 and Exception 4.

43. \*\*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.

44. \*\*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.

45. Section 2801.4.1; Add Section 2801.4.1 to read as follows:

2801.4.1 Installation in new construction. For new construction, water heaters shall not be installed in attics.

46. \*\*\* Section P2801.6.1; change to read as follows:

Section P2801.6.1 Pan size and drain. The pan shall be not less than 1 1/2 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.

47. Section P2801.6.1.1; add Section 28.1.6.1.1 Pan Alarm to read as follows:

28.1.6.1.1 Pan Alarm. Where a pan is required by this code, an audible alarm for moisture detection shall be installed within the pan.

Exception: Water Heaters installed in a garage with required discharge piping and disposal.

48. Section P2801.9; Add Section P2801.9 to read as follows:

Section P2801.9 Auto shut-off valve. When unable to provide proper disposal for the pan or temperature pressure relief as required by section P2804.6.1, the cold water supply line to each hot water storage tank or water heater shall be provided with an approved automatic shutoff device.

Exception: Alternative means of disposal may be approved by the building official.

49. \*\*\* 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 ~~located in the same room as the water heater.~~
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 manufactures installation instructions and installed with those instructions.

5. Discharge ~~to the floor,~~ to an indirect waste receptor or to the outdoors.

[remainder unchanged]

50. \*\*Section P2801.7; add Exception to read as follows:

Exceptions:

1. Electric Water Heater.

51. \*\*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.

52. Section P2902.5.3.1; Add section to read as follows:

P2902.5.3.1: Irrigation System Rain and Freeze Sensors.

1. Any irrigation system installed within the City must be equipped with rain and freeze sensors.

53. \*\*\*Section P3003.9.2; delete exception, change to read as follows:

P3003.9. 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.

Exception: A primer is not required where both of the following conditions apply:

1. ~~The solvent cement used is third-party certified as conforming to ASTM D 2564~~
2. ~~The solvent cement is used only for joining PVC drain, waste, and vent pipe and fittings in not pressure applications in sizes up to and including 4 inches (102mm) in diameter.~~

54. \*\*Section P3111; delete.

55. \*\*Section P3112.2; 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.

56. \*\*\*Appendix Q Reserved. Amended to read as follows:

Appendix Q. Swimming Pools, Spas and Hot Tubs.

57. SECTION AQ101 GENERAL

AQ101.1 General.

The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- or two-family dwelling.

AQ101.2 Pools in flood hazard areas.

Pools that are located in flood hazard areas established by Table R301.2(1), including above-ground pools, on-ground pools and in-ground pools that involve placement of fill, shall comply with Section AQ101.2.1 or AQ101.2.2.

Exception: Pools located in riverine flood hazard areas which are outside of designated floodways.

AQ101.2.1 Pools located in designated floodways.

Where pools are located in designated floodways, documentation shall be submitted to the building official which demonstrates that the construction of the pool will not increase the design flood elevation at any point within the jurisdiction.

AQ101.2.2 Pools located where floodways have not been designated.

Where pools are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed pool will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

## 58. SECTION AQ102 DEFINITIONS

AQ102.1 General.

For the purposes of these requirements, the terms used shall be defined as follows and as set forth in [Chapter 2](#).

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling, or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water more than 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by the walls of the enclosing structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

## 59. SECTION AG103 SWIMMING POOLS

AQ103.1 In-ground pools.

In-ground pools shall be designed and constructed in compliance with ANSI/NSPI-5.

AQ103.2 Above-ground and on-ground pools.

Above-ground and on-ground pools shall be designed and constructed in compliance with ANSI/NSPI-4.

AQ103.3 Pools in flood hazard areas.

In flood hazard areas established by Table R301.2(1), pools in coastal high-hazard areas shall be designed and constructed in compliance with ASCE 24.

**60. SECTION AQ104 SPAS AND HOT TUBS**

AQ104.1 Permanently installed spas and hot tubs.

Permanently installed spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-3.

AQ104.2 Portable spas and hot tubs.

Portable spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-6.

**61. SECTION AQ105 BARRIER REQUIREMENTS**

AQ105.1 Application.

The provisions of this appendix shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AQ105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219mm) above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm) measured on the side of the barrier, which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

5.1 Where the horizontal members cannot be located on the swimming pool side of the fence and the distance between the tops of the horizontal members are

less than 45 inches, the fence must have approved anti-climb devices mounted on top of the horizontal members, or vertical members on both sides constructed to meet the intended safety standards in a manner equal to but not less than the minimum code requirements.

6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AQ105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
  - 8.1 The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
  - 8.2. The gate and barrier shall have not opening greater than 0.5 inch (13 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a dwelling serves a part of the barrier one of the following conditions shall be met:
  - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
  - 9.2. Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. The deactivation switch (es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
  - 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then:
  - 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
  - 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AQ105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.

AQ105.3 Indoor swimming pool. Walls surrounding an indoor swimming pool shall comply with Section AQ105.2, Item 9.

AQ105.4 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb them.

AQ105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AQ107, shall be exempt from the provisions of this appendix

62. SECTION AQ106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AQ106.1 General.

Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

63. SECTION AQ107 ABBREVIATIONS

AQ107.1 General.

ANSI—American National Standards Institute  
11 West 42nd Street  
New York, NY 10036

APSP—Association of Pool and Spa Professionals  
NSPI—National Spa and Pool Institute  
2111 Eisenhower Avenue  
Alexandria, VA 22314

ASCE—American Society of Civil Engineers  
1801 Alexander Bell Drive  
Reston, VA 98411-0700

ASTM—ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428

UL—Underwriters Laboratories, Inc.  
333 ingsten Road  
Northbrook, IL 60062-2096

64. SECTION AQ108 REFERENCED STANDARDS

AQ108.1 General.

ANSI/NSPI-3—99 Standard for Permanently Installed Residential Spas AQ104.1

ANSI/NSPI-4—99 Standard for Above-ground/On-ground Residential Swimming Pools AQ103.2

ANSI/NSPI-5—03 Standard for Residential In-ground Swimming Pools AQ103.1

ANSI/NSPI-6—99 Standard for Residential Portable Spas AQ104.2

ANSI/APSP-7—06 Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins AQ106.1

**Sec. 22-55 International Mechanical Code Adopted.**

The International Mechanical Code, 2015 Edition as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

**Sec. 22-56 Amendments to the International Mechanical Code.**

1. Section 101.1; Insert: City of Bedford
2. \*\*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.

3. Section 106.5.2; insert “Appendix A Schedule of fees”
4. Section 106.5.3; Change to read as follows:

**106.5.3: Fee refunds.** The code official shall authorize the refunding of fees as provided for in the “Appendix A Schedule of fees”

5. Section 108.4; Change to read as follows:

**108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.

6. \*\*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), 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}*

7. **\*\*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~~ a permanent interior or exterior means of access shall be provided. Permanent exterior ladders providing roof access need not extend closer than 8-12 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}*.

8. **\*\*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*.

9. **\*\*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.

10. **\*\*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.

11. **\*\*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.**

12. **\*\*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, crawl space, 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.**

13. **\*\*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.**

**Sec. 22-57 International Plumbing Code Adopted.**

The International Plumbing Code, 2015 Edition and appendix chapters B, C, D and E as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

**Sec. 22-58 Amendments to the International Plumbing Code.**

1. Section 101.1; Insert: City of Bedford
2. **\*\*Table of Contents, Chapter 7, Section 714; change to read as follows:**

714 **Engineered Computerized Drainage Design** . . . . . 69

3. **\*\*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 or the *National Electrical Code (NEC)* shall mean the Electrical Code as adopted.

4. **\*\*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 Appendix A Schedule of Fees adopted by resolution of the City of Bedford.

106.6.3 Fee Refunds. The code official shall establish a policy for authorizing the refunding of fees.

5. **Section 108.4; Change to read as follows:**

108.4: Violation Penalties. Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.

6. **\*\*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.

7. **\*\*Section 305.4.1; change to read as follows:**

305.4.1 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.

8. **\*\*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.

9. **\*\*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.

10. **\*\*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)

11. **\*\*Section 412.4; change to read as follows:**

**412.4 Required location for floor drains Public laundries and central washing facilities. Floor drains shall be installed in the following areas.**

1. In public coin-operated 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.**

12. **\*\*Section 419.3; change to read as follows:**

**419.3 Surrounding material. Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.**

13. **\*\*\*Section 502.3; change to read as follows:**

**502.3 Appliances 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 a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions be not less than 20 inches by 30 inches(508mm by 762mm) where such dimensions are large enough to allow removal of the water heater. 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}

14. **Section 502.3.1; Add Section 502.3.1 to read as follows:**

**502.3.1 Installation in new construction. For new construction, water heaters shall not be installed in attics.**

15. **\*\*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.

16. Section 503.1.1; Add Section 503.1.1 to read as follows:

Section 503.1.1 Auto shut-off valve. When unable to provide proper disposal for the pan or temperature pressure relief as required by section 504, the cold water supply line to each hot water storage tank or water heater shall be provided with an approved automatic shutoff device.

*Exception: Alternative means of disposal may be approved by the building official.*

17. \*\*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. ~~located in the same room as the water heater.~~
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 manufactures installation instructions and installed with those instructions.

5. Discharge ~~to the floor,~~ to an indirect waste receptor 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.

18. \*\*\*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.

19. Section 504.7.3; add Section 504.7.3 Pan Alarm to read as follows:

504.7.3 Pan Alarm. Where a pan is required by this code, an audible alarm for moisture detection shall be installed within the pan.

Exception: Water Heaters installed in a garage with required discharge piping and disposal.

20. \*\*Section 604.4; add Section 604.4.1 to read as follows:

604.4.1 State maximum flow rate. Where the State mandated maximum flow rate is more restrictive than those of this section, the State flow rate shall take precedence.

21. \*\*Section 606.1; delete items #4 and #5.

22. \*\*Section 606.2; change to read as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

1. On the fixture supply to each plumbing fixture other than bathtubs and showers in one and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
2. ~~On the water supply pipe to each sillcock.~~
3. On the water supply pipe to each appliance or mechanical equipment.

23. \*\*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, ~~except~~ and as specifically stated in Sections 608.2 through 608.16.10.

24. \*\*Section 608.16.5; change to read as follows:

608.16.5 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.

25. Section 608.16.5.1; Add section to read as follows:

608.16.5.1: Irrigation System Rain and Freeze Sensors.

1. Any irrigation system installed within the City must be equipped with rain and freeze sensors.

26. \*\*Section 608.17; change to read as follows:

608.17 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.

27. \*\*Section 610.1; add exception to read as follows:

610.1 General. New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to “on-site” or “in-plant” fabrication of a system or to a modular portion of a system.

1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Exception: With prior approval the Code Official may wave this requirement when deemed un-necessary. ~~by the Code Official.~~

28. Section 702.3.1; Add section 702.3.1 to read as follows:

702.3.1 Building Sewer Minimum Size. Building sewer that extends from the building drain and conveys the discharge to a public sewer or private sewer shall not be less than four (4) inch.

29. Section 703.6; Delete

30. \*\*\*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.

31. \*\*\*Section 705.11.2; change to read as follows:

705.11.2 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.

~~Exception: A primer is not required where both of the following conditions apply:~~

- ~~1. The solvent cement used is third party certified as conforming to ASTM D 2564~~
- ~~2. The solvent cement is used only for joining PVC drain, waste, and vent pipe and fittings in not pressure applications in sizes up to and including 4 inches (102mm) in diameter.~~

32. \*\*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.

33. \*\*Section 714, 714.1; change to read as follows:

**SECTION 714  
ENGINEERED DRAINAGE DESIGN**

714.1 Design of drainage system. The sizing, design and layout of the drainage system shall be ~~permitted to be~~ designed by a registered engineer using approved computer design methods.

34. \*\*\*Section 804.2; added to read as follows:

804.2 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.

35. \*\*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.

36. \*\*Section 917 Single stack vent system. Delete entire section.

37. \*\*Section 1002.10; delete.

38. Table 1003.3.4.1, Capacity of Grease Interceptors: replace table to read as follows:

All food establishments having a food disposal or discharge of more than 50 gallons per minute shall discharge into an oil & grease interceptor.

Establishments with a discharge of 50 gallons per minute or less shall discharge into at least a 100-pound size grease trap. An approved-type grease interceptor or grease trap complying with the provisions of this subsection shall be installed in the waste line leading from sinks, drains, and other fixtures or equipment in establishments such as restaurants, cafes, lunch counters, cafeterias, bars and clubs, hotels, hospitals, sanitarium, factory or school kitchens, or other establishments where grease may be introduced into the drainage or sewage system in quantities that can affect line stoppage or hinder sewage treatment or private sewage disposal when grease interceptors are required. A grease trap is not required for individual dwelling units or for any private living quarters.

**Grease Interceptors**

Concrete	- Shall be composed of one part Portland cement and five parts aggregate. - Reinforcement bars deformed number four bars on 18-inch centers.
Manholes	- Cast iron frame with 20-inch cover.
Vents	- Four-inch sanitary vent may be reduced to two inches if interceptor is connected to a properly vented sewer or waste line within 25 feet. - Relief vents shall be two inches between compartments and to atmosphere above roof, and inside building.
Capacity	- The figures below are approximates: 100 cubic feet holding 750 gallons retention capacity.
Cleanout	- Should be two-way located as near as possible to the interceptor on outflow line above seal.

**39. Section 1003.10.; change to read as follows:**

1003.10 Access and maintenance of interceptors and separators. Interceptors and separators shall be installed outside and below ground of the facility it serves. Test wells shall be required. Access shall be provided to each interceptor and separator for service and *(remainder of text unchanged)*.

**40. \*\*Section 1101.8; change to read as follows:**

1101.8 Cleanouts required. Cleanouts or manholes shall be installed in the ~~building~~ storm drainage system and shall comply with the provisions of this code for sanitary drainage pipe cleanouts.

~~Exception: Subsurface drainage system~~

**41. \*\*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 ~~the 100-year hourly rainfall rate indicated in Figure 1106.1 or on other rainfall rates determined from approved local weather data.~~

**42. \*\*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 ~~based on the rainfall rate for which the primary system is sized in Figure 1106.1 or on other rainfall rates determined from approved local weather data.~~ 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.

43. \*\*Section 1109; delete this section...

44. \*\*Section 1202.1; delete Exception 2.

#### Sec. 22-59 International Fuel Gas Code Adopted.

The International Fuel Gas Code, 2015 Edition and appendix chapters A, B and C as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

#### Sec. 22-60 Amendments to the International Fuel Gas Code.

1. Section 101.1; Insert: City of Bedford
2. \*\*Section 102.2; add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

3. \*\*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 shall mean the Electrical Code as adopted.

4. Section 106.6.2; insert "Appendix A Schedule of fees"
5. Section 106.6.3; Change to read as follows:

**106.6.3: Fee refunds.** The code official shall authorize the refunding of fees as provided for in the "Appendix A Schedule of fees"

6. Section 108.4; Change to read as follows:

**108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.

7. \*\*Section 306.3; change to read as follows:

**[M] 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~~ 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 through the required opening.
  2. Where the passageway is not less than ... *{bulk of section to read the same}*.
8. **\*\*Section 306.5; change to read as follows:**

[M] 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 a permanent~~ interior or exterior means of access shall be provided. Permanent exterior ladders providing roof access need not extend closer than 8-12 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}*.

9. **\*\*Section 306.5.1; change to read as follows:**

[M] 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*.

10. **\*\*Section 306; add Section 306.7 with exception and subsection 306.7.1 to read as follows:**

306.7 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.

11. **\*\*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"

12. **\*\*Section 402.3; add an exception to read as follows:**

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EHD).

13. **\*\*Section 404.12; change to read as follows:**

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of ~~12~~ 18 inches (305 ~~458~~ mm) top of pipe below grade, ~~except as provided for in Section 404.12.1.~~

14. **\*\*Section 406.1; change to read as follows:**

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 406.1.1 through 406.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code 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.

15. **\*\*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. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

16. **\*\*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 ~~1 1/2 times the proposed maximum working pressure, but no less than 3~~ 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, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. 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 1/2"), 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 1/2"), 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.

17. \*\*Section 406.4.2; change to read as follows:

406.4.2 Test duration. Test duration shall be held for a length of time satisfactory to the Code 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 Code Official, but in no case for less than thirty (30) minutes. (Delete remainder of section.)

18. \*\*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.

19. \*\*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.

20. \*\*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.

#### Sec. 22-61 International Energy Conservation Code Adopted.

The International Energy Conservation Code, 2015 Edition as published by the International Code Council, Inc., is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

#### Sec. 22-62 Amendments to the International Energy Conservation Code.

1. Section 101.1; Insert: City of Bedford
2. \*\*Section C102/R102; add Section C102.1.2 and R102.1.2 to read as follows:

C102.1.2 Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

**R102.1.2 Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4 and R403.3.3 respectively.**

3. **Section C104.4.1; add Section C104.4.1 to read as follows:**  
Energy compliance inspections shall be performed by an approved third-party inspection agency and reports shall be submitted to the building official or the building official's designated agent.

4. **Section 108.4; Change to read as follows:**

**108.4: Violation Penalties. Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.**

5. **Section C202 and R202; add the following definition:**

**\*\*\*PROJECTION FACTOR. The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.**

6. **Section R202; add the following definition:**

**\*\*\*DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).**

7. **\*\*\*R402.4.1.2 Testing; Add a last paragraph to read as follows:**

**Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.**

8. **\*\*\* R403.3.3 Duct Testing (Mandatory) Add a last paragraph to read as follows:**

**Mandatory testing shall only be performed by individuals that are certified to perform duct testing leakage testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.**

9. **\*\*Section C402.2.7/R402.2; Add Section C402.2.9 and R402.2.14 to read as follows:**

**Section C402.2.7/R402.2.14 Insulation installed in walls. To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.**

10. **\*\*\*Section R405.6.2; add the following sentence to the end of paragraph:**

Acceptable performance software simulation tools may include, but are not limited to, REM Rate™, Energy Gauge and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in R405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the building official.

11. \*\*\*TABLE R406.4 MAXIMUM ENERGY RATING INDEX; amend to read as follows:

TABLE R406.4<sup>1</sup>  
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	65

<sup>1</sup> This table is effective until August 31, 2019.

TABLE R406.4<sup>2</sup>  
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	63

<sup>2</sup> The table is effective from September 1, 2019 to August 31, 2022.

TABLE R406.4<sup>3</sup>  
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
3	59

<sup>2</sup> This table is effective on or after September 1, 2022.

Sec 22-63 Penalty upon failure to comply.

1. Any person violating or failing to comply with any provision or requirement of this article, who continues to violate or fail to comply with same within the time prescribed by the building official, or the time prescribed by State law shall also be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in an amount not to exceed \$2000.00, such offense being a violation of the City ordinances. A separate offense shall be deemed committed upon each day during or on which a violation or failure to comply occurs or continues to occur.
2. Notwithstanding the foregoing, any violation of any provision of this article that constitutes an immediate danger or threat to the health, safety and welfare of the public may be enjoined in a suit brought by the City for such purpose.
3. In addition to any other remedies or penalties contained herein, the City may enforce the provisions of this article pursuant to the applicable provisions of chapter 54 of the Texas Local Government Code, which provides for the enforcement of municipal ordinances.

**SECTION 3. SEVERABILITY CLAUSE.** That it is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared invalid or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have

been enacted by the City Council without the incorporation in this ordinance of any such invalid or unconstitutional phrase, clause, sentence, paragraph or section.

**SECTION 4.** That all ordinances or any parts thereof in conflict with the terms of this ordinance shall be and hereby are deemed repealed and of no force or effect; provided, however, that the ordinance or ordinances under which the cases currently filed and pending in the Municipal Court of the City of Bedford, Texas, shall be deemed repealed only when all such cases filed and pending under such ordinance or ordinances have been disposed of by a final conviction or a finding not guilty or nolo contendere, or dismissal.

**SECTION 5. SAVING CLAUSE.** That the Code of Ordinances, City of Bedford, Texas, as amended, shall remain in full force and effect, save and except as amended by this ordinance.

**SECTION 6. EFFECTIVE DATE.** This ordinance shall be in full force and effect from and after its passage and publication as provided by the Bedford City Charter and the laws of the State of Texas.

**PRESENTED AND PASSED** this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

**ATTEST:**

\_\_\_\_\_  
Michael Wells, City Secretary

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Stan Lowry, City Attorney



# Council Agenda Background

**PRESENTER:** Joey Lankford, Fire Marshal

**DATE:** 02/23/16

**Council Mission Area:** Provide a safe and friendly community environment.

**ITEM:**

Consider an ordinance amending Chapter 58 - "International Fire Code" of the City of Bedford Code of Ordinances by deleting Sections 58-97 and 58-99 and adding the revised Sections 58-97 and 58-99 through 58-104 thereby adopting the International Fire Code 2015 Edition; providing certain amendments and deletions thereto; providing for a severability clause; providing for a savings clause; and declaring an effective date.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The International Fire Code is revised and published in a three-year code cycle. They provide and establish minimum standards and regulations for modern up-to-date fire codes addressing conditions hazardous to life and property from fire, explosions, hazardous materials storage, handling or use, and the use and occupancy of buildings and premises. The City of Bedford has operated under the 2009 Fire Code and code amendments since their adoption in 2011. The City of Bedford has coordinated with Hurst and Euless for the past several years to adopt the same edition of these codes, as well as ensure that the amendments coincide. So that codes and amendments could be uniform across the three cities, the cities of Bedford, Hurst and Euless decided to continue discussions and pursue the 2015 International Fire Code.

The North Central Texas Council of Governments (NCTCOG) has actively promoted the standardization of model fire codes. Code advisory boards encourage the adoption of NCTCOG's recommended model fire codes and regional amendments to reduce the variation of local fire codes in the region. NCTCOG recommended on January 31, 2015, that jurisdictions in North Central Texas adopt the 2015 International Fire Code, along with their respective regional amendments.

Fire codes provide many benefits, among which is the model code development process that offers international forums for fire safety professionals to discuss performance-based and prescriptive code requirements. This forum provides an excellent arena to debate proposed revisions. This model code also encourages international consistency in the application of the provisions.

Fire codes establish minimum standards that are applied to a practical balance between reasonable safety, and cost to protect life and property. The term "minimum requirements" means that it meets the criteria of being both practical and adequate for protecting the life, safety and welfare of the public.

Permit fees will not be changed or impacted with the adoption of the 2015 International Fire Code.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of an ordinance amending Chapter 58 - "International Fire Code" of the City of Bedford Code of Ordinances by deleting Sections 58-97 and 58-99 and adding the revised Sections 58-97 and 58-99 through 58-104 thereby adopting the International Fire Code 2015 Edition; providing certain amendments and deletions thereto; providing for a severability clause; providing for a savings clause; and declaring an effective date.

**FISCAL IMPACT:**

N/A

**ATTACHMENTS:**

Ordinance

ORDINANCE NO. 16-

AN ORDINANCE AMENDING CHAPTER 58 - "INTERNATIONAL FIRE CODE" OF THE CITY OF BEDFORD CODE OF ORDINANCES BY DELETING SECTIONS 58-97 AND 58-99 AND ADDING THE REVISED SECTIONS 58-97 AND 58-99 THROUGH 58-104 THEREBY ADOPTING THE INTERNATIONAL FIRE CODE 2015 EDITION; PROVIDING CERTAIN AMENDMENTS AND DELETIONS THERETO; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A SAVINGS CLAUSE; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, the City of Bedford desires to protect the life, health and property of the citizens and businesses of the City of Bedford; and,

WHEREAS, fire prevention is important to the health, safety and welfare of the citizens, businesses and visitors of the City of Bedford.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That all matters stated in the preamble are hereby found to be true and correct and are incorporated herein by reference as if copied in their entirety.

SECTION 2. That the International Fire Code, a copy of which will be kept on file with the City Secretary's Office, is hereby adopted as the City of Bedford Fire Code and that Chapter 58, Section 58-97 is hereby deleted in its entirety and a new section 58-97 is adopted to read as follows:

Section 58-97 Code Adopted. The Code shall be known as the City of Bedford Fire Prevention Code. The articles of the International Fire Code (IFC), 2015 edition, save and accept such portions as are hereinafter deleted, modified, or added, shall be the Fire Prevention Code of the City of Bedford.

SECTION 3. That Chapter 58, Section 58-99 is hereby deleted in its entirety and a new section 58-99 is adopted to read as follows

**Sec. 58-99 Amendments**

The International Fire Code (IFC), 2015 edition, and the Bedford Fire Prevention Code are amended and changed as published in the following respects:

(1) **General Terms**

(a) **Jurisdiction.** All references to "jurisdiction" shall mean the City of Bedford, Tarrant County, Texas

(b) **Chief.** All references to "Chief of the Bureau of Fire Prevention" shall be replaced with "Fire Marshal."

(c) **Fire Marshal.** All references to Fire Marshal shall include the Fire Marshal's designee.

(2) **Code official or fire code official.** The fire chief or designee, Fire Marshal or designee, or member of the fire department, charged with the duties of administration and enforcement of this code, or a duly authorized representative.

(3) **Chapter 1. Scope and Administration**

- (a) **Section 101.1 Title** is amended by deleting that section and replacing it with a new Section 101.1 to read as follows:

**Title.** These regulations shall be known as the *Fire Code of the City of Bedford, Texas*, hereinafter referred to as “this Code.”

- (b) **Section 102.1 Construction and design provisions** is amended by adding 102.1 #3 and 102.1.1 to read as follows:

**Section 102.1 #3** Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

**Section 102.1.1 Reconstruction and Remodel.** A building that is being altered, remodeled or reconstructed where the cost of construction is equal to or greater than 50% of the appraised value of the structure, shall comply with current fire codes in regard to:

- (1) Panic hardware;
- (2) Fire alarms;
- (3) Exit lights;
- (4) Emergency lighting
- (5) Exits and exit ways;
- (6) Fire protection systems.

- (c) **Section 102.7** is amended by deleting and replacing with a new **Section 102.7** , to read as follows:

**Section 102.7 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 80 of the International Fire Code (IFC) 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 the 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 standards 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 105.1.1 Permits required** is amended by deleting that section and replacing it with a new Section 105.1.1 with subsections, to read as follows:

**Section 105.1.1 Permits required.** Permits required by this code shall be obtained from the fire code official.

**Section 105.1.1.1 Permit fees.** The Fire Marshal’s office shall collect the approved fees for all inspections and permits as provided by the International Fire Code or Section 58-99 of the City of Bedford Code of Ordinances or other fire related permit or inspection fees. Permit fees shall be paid prior to the issuance of the permit. If work or construction occurs without obtaining the appropriate permit or permits first, the permit fee

shall be doubled. In cases of emergency, the Fire Marshal may waive the requirement that the permit fee double.

a. The Fire Marshal's office shall collect the approved fees for inspections, plan reviews, certificates of occupancies, annual permits, the sale and storage of hazardous materials and other permits as required by the ordinances of the City of Bedford.

b. The minimum cost of a permit shall be thirty dollars (\$30.00) unless otherwise indicated in the approved fee schedules adopted by the city. When a permit is required, the permit fee shall be doubled when work or construction has occurred without obtaining the appropriate permits. In those cases where the work occurs on City of Bedford property and no permit fee is required, an amount equal to the initial permit cost shall be charged for failure to obtain a permit.

c. Fire Marshal permit will be billed on an annual basis.

d. Payment of annual permit fees shall be the responsibility of the property owner and business owner. Fees for the storage and sale of hazardous materials shall be the responsibility of the occupant who offers the material for sale.

e. Any occupancy hereafter opening for the purpose of doing business in Bedford, as evidenced by application to the Building Official for a Certificate of Occupancy, shall pay a fee for an initial Fire Code compliance inspection and for the establishment on an inspection file. This fee shall be collected by the Building Official at the same time that the Certificate of Occupancy fee is collected. This fee is based on square footage as indicated in the fee schedule.

f. The Fire Marshal may request copies of bid documents or other items to verify the estimated cost of construction when calculating permit fees.

*Section 105.1.1.2 Party responsible for payment.* Payment of permit fees shall be the responsibility of the property owner and business owner.

*Section 105.1.1.3 Permits required before commencement of work.* Permits must be obtained prior to taking any action requiring a permit.

*Section 105.1.1.4 Permit to be on premises.* Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire code official.

*Section 105.3.3; change to read as follows:*

*Section 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 105.7.19 to read as follows:*

*Section 105.7.19 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.

- (e) **Section 108 Board of Appeals** is amended by adding Section 108.4 to read as follows:

**108.4 Building and Standards Commission to function as Bedford Board of Appeals for International Fire Code.** The Building and Standards Commission for the City of Bedford, as defined by the Code of Ordinances of the City of Bedford, Texas shall function as the Board of Appeals under section 108 of the International Fire Code. Appeals shall be in accordance with section 58.03 of the Code of Ordinances of the City of Bedford, Texas.

**Section 109.4 Violation penalties.** Persons who shall violate a provision of this code, or shall fail to comply with any of the requirements, thereof, or who shall erect, install, alter, repair, or do work in violation of the *approved construction documents*, or directive, of the *fire code official*, or of a permit, or a certificate, used under provisions of this code, shall be guilty of a Class C Misdemeanor, punishable by a fine of not more than \$2,000.00 dollars, or by imprisonment, not exceeding 180 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served, shall be deemed a separate offense.

**Section 110.3 Summary abatement.** Where conditions exist that are deemed hazardous to life and property, the fire code official, or fire department official in charge of the incident is authorized to abate summarily such hazardous conditions that are in violation of this code.

**Section 110.4 Abatement.** The *owner*, the owner's authorized agent, operator, or occupant of a building, or premises, deemed unsafe by the *fire code official*, shall abate, or cause to be abated, or corrected, such unsafe conditions, either by repair, rehabilitation, demolition, or other *approved* corrective action.

- Chapter 1 Scope and Administration** is amended by adding **Section 114 Compliance Certification** to read as follows:

**Section 114 Compliance Certification.** A certification may be required by the Fire Marshal to show compliance with the fire code, regarding technical installations of fire related equipment and systems. Such certification shall be notarized and on company letterhead. When required, certifications shall be filed with the office of the Fire Marshal before final approval of the activity or installation.

**Section 114.1 When certification required.** Certification shall be required for the following:

1. Automatic fire alarm systems;
2. Automatic fire extinguishing systems;
3. Storage and use of explosives;
4. Storage of hazardous materials;
5. Fire appliance servicing;
6. Flame retardant application;
7. Liquefied gas installations and operations;
8. Radioactive material storage and handling;
9. Emergency lighting systems;

10. Emergency power system;
11. Security gates.
12. As otherwise indicated by a specific code section or amendment.

**Section 114.2 Compliance testing.** All compliance testing shall be witnessed by the Fire Marshal.

(4) **Chapter 2. Definitions**

**Section 202.** Amend by adding new definitions to the existing list of definitions in Section 202 of the IFC, to read 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 persons who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

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

**ATRIUM.** An opening connecting three or more stories

**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.

**EMERGENCY ACCESS EASEMENT.** An access road or fire lane located on private property dedicated by the owner(s) of the property to provide fire apparatus access.

**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 1.4G fireworks or 1.3G fireworks as set forth herein

**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.

**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

**(4) Chapter 3 General Requirements**

**(a) Section 307 Open Burning, Recreational Fires and Portable Outdoor Fireplaces, Section 307.1 General** is amended by adding 307.1.2 and 307.1.3 to read as follows:

**307.1.2 Open burning prohibited.** Open burning as defined in Section 302 (IFC) shall be prohibited unless permitted by the Fire Marshal.

**Section 307.1.3 Recreational fires prohibited.** "Recreational fires" as defined in Section 302 (IFC) shall be prohibited unless permitted by the Fire Marshal.

**Exception:** Chimeneas or fire pits with a mesh screen are allowed at single family residences provided that they are at least ten (10) feet away from any structure and that they only burn wood, not yard debris, trash or any other material and only if attended at all times. Chimeneas or fire pits must be extinguished before leaving unattended. If the wind exceeds twenty (20) miles per hour, no recreational fires shall be allowed, and this prohibition includes chimeneas and fire pits.

**Section 307.2; change to read as follows:**

**Section 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:**

**Section 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:**

**Section 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.

(b) **Section 307.4.2 Recreational fires** is amended by to read as follows

**Section 307.4.2 Recreational fires prohibited.** “Recreational fires” as defined in Section 302 (IFC) shall be prohibited unless permitted by the Fire Marshal.

**Section 307.4.4 and 5; add section 307.4.4 and 307.4.5 to read as follows:**

**Section 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.

**Section 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:**

**Section 307.5 Attendance.** Open burning, trench burns, bonfires, recreational fires, and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher, complying with Section 906, with a minimum 4-A rating, or other approved on-site fire extinguishing equipment, such as dirt, sand, water barrel, garden hose, or water truck, shall be available for immediate utilization.

**Section 308.1.4; change to read as follows:**

**Section 308.1.4 Open-flame Cooking Devices.** Charcoal burners, open-flame or electrical element cooking devices, charcoal grills and other similar devices used for cooking shall not be operated, 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 lbs (5 containers).

**Section 308.1.6.2, Portable fueled open-flame devices. 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:**

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

- (c) **Section 308 Open Flames** is amended by adding Section 308.1.9 to read as follows:

**308.1.9 Keep warm fires**

Keep warm fires will be allowed at constructions sites when the temperature is below 45 degrees Fahrenheit, provided the fire is kept in a solid fireproof metal barrel or can, covered with a wire screen and attended at all times. The keep warm fires must be at least ten (10) feet from all structures. The Fire Marshal may prohibit keep warm fires when wind or weather conditions are such that a fire hazard will be created. Keep warm fires shall always be prohibited when wind speeds exceed twenty (20) miles per hour.

- (d) **Section 308 Open Flames** is amended by adding Section 308.5 and subsections to read as follows:

**Section 308.5 Open burning**

The use of open flame cooking devices shall be as follows:

**Section 308.5.1. Multifamily structure.**

It shall be a violation of this code for any person to use, allow or permit the use of a fixed or portable grill or cooking device that uses an open flame or electrical heating element within ten (10) feet of any multi-family structure, under any covered portion of a multi-family structure, under any covered parking structure or portion thereof.

**Section 308.5.2 Sign.**

It shall be a violation of this code for any person to own or manage any multi-family structure without installing and maintaining on each balcony, patio, landing or similar structure of each dwelling unit an approved sign readily visible to the occupants that prohibits the use of any grill, hibachi, smoker, electrical heating element, or similar apparatus within ten (10) feet of all apartment structures. Signs shall be at least thirty (30) square inches with the word "PROHIBITED" in one (1) inch letter, and the remaining message in at least one-fourth (1/4) inch letter, red on white, and provide the following warning:

<p><b>-PROHIBITED- THE USE OF ANY GRILL, HIBACHI, OR SMOKER IN OR WITHIN TEN FEET OF ALL APARTMENT STRUCTURES, PATIOS AND CARPORTS. BEDFORD FIRE CODE - FINE UP TO \$2000.00</b></p>
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**Section 308.5.3 Written proof.**

It shall be a violation for any person to own or manage any multi-family structure without providing the Fire Marshal, upon request, written proof that each tenant has been advised of the prohibition on cooking with grills and cooking devices. Such proof shall consist of a warning document signed by the tenant and kept in the

lease files that indicates the tenant is aware of the prohibition and that the sign is in place.

**Section 311.5; change to read as follows:**

**Section 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.

(e) **Section 313 Fueled Equipment is amended by adding Section 313.3 Vehicle parking and storage to read as follows:**

**Section 313.3 Vehicle parking and storage.** No motor vehicle shall be parked or stored, assembled or disassembled, at any time within any apartment, multi-family building, hotel, motel, or commercial building unless authorized by the Fire Marshal and properly zoned for such use.

**Exception:** Vehicles within structures properly zoned for motor vehicle sales or service that comply with all other provisions of this code.

**Section 403.5; change Section 403.5 to read as follows:**

**Section 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:**

**Section 4.10 Fire extinguishing system controls.**

**Section 405.4; change Section 405.4 to read as follows:**

**Section 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:**

**Section 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.

**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 a ten feet (10') wide unobstructed pathway around the external walls of the structure.

**Section 503.2.1; change to read as follows:**

**Section 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). The inside turning radius shall be a minimum of twenty-five (25) feet. Centerline turning radius shall be no less than thirty (30) feet.

**Section 503.2.2; change to read as follows:**

**Section 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:**

**Section 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:**

**Section 503.3 Marking.** Fire Lane 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 be maintained in a clean and legible condition at all times 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:**

**Section 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 be maintained at all times.

**Section 503.6 change to read as follows:**

**Section 503.6.1.1 Distance from street, sidewalk, roadway or right-of-way.** Gates shall be located at least 30 feet back from the inside edge of the sidewalk, or 40 feet from the intersection of the private

drive and the street, roadway, thoroughfare, or paved portion of the right-of-way.

**Section 503.6.1.2 Electronic operation.** All main gates shall be electrically operated, with a manual disconnect in case of a power failure. The manual disconnect is to be placed in a weathertight box, with a piano-type hinge on one side and a Knox Box PL-1 padlock and hasp on the other side.

**Section 503.6.1.3 Open with key operated switch.** All main gates shall open with the fire department Knox K.S. #2 key operated switch. The Knox key-operated switch shall be provided and installed by the owner. The key-operated switch is to be located 10 feet from the gate, on the left side of the approach, placed on a pedestal with the key switch facing the fire lane. The key switch shall be no closer than 4 feet 6 inches, or no farther than 5 feet 5 inches, from the ground.

**Section 503.6.1.4 Access codes.** It shall be the owner's responsibility to program the security gate with the City of Bedford's assigned access code and to maintain the Bedford Fire Department's accessibility through the assigned access code.

**Section 503.6.1.5 Medians.** Where a security gate is installed with a median, the entry side of the gate shall have a minimum opening and driving surface of 20 feet.

**Section 503.6.1.6 Optically controlled emergency entry devices.** All electronic security gates, commercial properties and residential subdivisions, shall be equipped with an optically controlled emergency override device that is compatible with the optical activation device installed on fire apparatus. The devices shall provide for the opening of gates as the fire apparatus approaches and exits the property. The Fire Marshal shall approve the installation upon completion, to determine compliance.

**Section 503.6.1.7 Public access or fire lane easement.** It shall be unlawful for a security gate to be placed within a public access or fire lane easement, unless such gate complies with the following:

**Section 503.6.1.7.1 Minimum requirements.** The minimum fire lane width requirement of 24 feet and the minimum height requirement of 14 feet shall be maintained on the entrance side of all security gates.

**Section 503.6.1.7.2 Wooden gates-break away.** Wooden security gates shall be constructed to break away at the base on minor impact or the application of manual pressure at the end most remote point from the mounting base. The side of the wooden rails shall be a maximum of 5 inches by  $\frac{3}{4}$  inches, where attached to the mounting base. The wooden railing shall be of soft wood and mounted on the base by a knife-edge bracket or scored to create a weak point to break away.

**Section 503.6.1.7.3 Horizontal swing gates.** Horizontal swing security gates shall be so constructed, mounted, and maintained, whereby, such gates will open fully when manual pressure is applied by an average size individual. When opened, the gates must remain open.

**Section 503.6.1.7.4 Other.** Security gates, other than electronic gates, can be locked with a light duty chain and lock only with approval of the fire department.

**Section 503.6.2 Application.** An application to install security gates shall be submitted to the Fire Marshal and must include adequate plan detail to indicate and ensure that code compliance shall be

provided. Security gates may be installed only after receipt of a permit from the Fire Marshal.

**Section 503.6.3 Disclaimer of liability.** Receipt of a permit from the city for the owner to restrict public access to motor vehicles does not in any way create liability for the City of Bedford and the city hereby disclaims any and all liabilities resulting from damages sustained by any person or owner, either directly, or indirectly, as a result of any emergency function of the city, where such damage is occasioned by the non-compliance of any owner with the provisions of this section.

**Section 505.1; change to read as follows:**

**Section 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.

- (1) Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each building number and letter shall be not less than eight (8) inches high with a minimum one (1) inch stroke width. Each suite number and letter shall be not less than four (4) inches high with a minimum one-half (1/2) inch stroke width. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response.
- (2) Where access is by means of a private road and the building address identification required in section 501.2 (1) cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure.
- (3) R-3 Single Family occupancies shall have approved numerals of a minimum (4) inches high with a minimum one-half (1/2) inch stroke width 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 505.1.1: add Section 505.1.1 to read as follows:**

**Section 501.2.1 Multi-family Complex Supplemental Addresses.** Reflective supplemental building addresses shall be installed in conjunction with fire lane marking at all multi-family occupancies in excess of 4 dwelling units including club rooms and offices where a single street address number is used to designate the buildings official address. Supplemental building addresses shall be installed as follows:

- (1) The marking shall be a minimum of 24 inches by 12 inches red rectangle painted on the pavement, in conjunction to the red fire lane markings.
- (2) The red rectangle shall have white reflective numbers that indicate the street address of the building.
- (3) Numbers shall be in bold font, measuring a minimum of 10 inches in height, easily readable from a moving vehicle.

- (4) Supplemental building addresses shall only be installed on private property, near the center of the building. Where the front and end of the building, or any part of the front or end of the building border a fire lane, the numbers shall be required on each side. Maintenance of the supplemental numbers shall be the same as required for fire lanes.

**Section 505.1.2 Emergency access easements-street names.**

Emergency access easements and access roads, when assigned a street name for the purpose of addressing, shall have street name signs in a format approved by the City of Bedford Public Services Department. Installation and maintenance of the signs shall be the responsibility of the owner/operator of the property.

**Section 507.4; change to read as follows:**

**Section 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.

- (f) **Section 507.5 Fire hydrant systems** is amended to read as follows:  
**Section 507.5 Fire hydrant systems.** Fire hydrant systems shall comply with Section 507.5.1 through 507.5.7.
- (g) **Section 507.5.1 Where required** is amended by deleting the Section 507.5.1 Where required and replacing it with Section 507.5.1 Where required and subsections, to read as follows:

**Section 507.5.1 Where required.** When a portion of the facility or building hereafter constructed or moved into, or within the jurisdiction, is more than 300 feet from a hydrant on the fire apparatus access road, as measured by 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.

**Exception:** For Group R-3 and Group U occupancies, the distance requirement shall be 500 feet.

Exception 2 is deleted.

**Section 507.5.1.1 Location.** The location of fire hydrants on private property or along fire access roads shall be approved by the Fire Marshal.

**Section 507.5.1.2 Fire system connections to read as follows:**

**Section 507.5.1.2 Fire system connections.** Fire hydrants shall be located within a 100 foot hose lay of the Fire Department Connection (FDC) of the fire protection system(s). Fire Department Connections shall have a 42" by 42" concrete pad below each connection.

**Section 507.5.1.3 Requirements when not on public street.** Fire hydrants not installed on a public street shall be looped to provide a water supply from 2 directions.

**Section 507.5.4; change to read as follows:**

**Section 507.5.4 Obstruction.** Unobstructed access to fire hydrants shall be maintained at all times. 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.

(h) **Section 507.5.7 Color** is added to read as follows:

**Section 507.5.7 Color.** All fire hydrants shall be painted an approved shade of red. This requirement applies to all fire hydrants, regardless of whether location of the fire hydrant is on public or private property. Hydrants may be color coded to indicate the water flow, or water main size, as required by NFPA Standard 291 – "Fire Flow Testing and Marking of Hydrants", if approved by the fire code official.

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

**Section 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 603.3.2.1, Exception; change exception to read as follows:**

**Exception:** The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11,356 L) in accordance with all requirements of Chapter 57.

**Section 603.3.2.2; change to read as follows:**

**Section 603.3.2.2 Restricted Use and Connection.** Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

**Section 604; change and add to read as follows:**

**Section 604.1.1 Stationary Generators.** Stationary emergency and standby power generators required by this code shall be *listed* in accordance with UL 2200.

**Section 604.1.2 Installation.** 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.

**Section 604.1.9 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.

**Section 604.2 Where Required.** Emergency and standby power systems shall be provided where required by Sections 604.2.1 through Section 604.2.24 or elsewhere identified in this code or any other referenced code.

**Section 604.2.4 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 907.2.20 and 914.2.3
- Group A Occupancies, Sections 907.2.1 and 907.5.2.2.4.
- Special Amusement Buildings, Section 907.2.12.3
- High-rise Buildings, Section 907.2.13
- Atriums, Section 907.2.14
- Deep Underground Buildings, Section 907.2.19

**Section 604.2.12 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)

**Section 604.2.13 Membrane Structures.**

Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. (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.

**Section 604.2.15 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 410.3.7.2

- Special Amusement Buildings (as applicable to Group A's), *International Building Code*, Section 411.1
- Smoke Protected Seating, Section 1029.6.2.

***Section 604.2.17 Covered and Open Mall Buildings.***

Emergency power shall be provided in accordance with Section 907.2.20 and 914.2.3.

***Section 604.2.18 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.

***Section 604.2.19 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.

***Section 604.2.20 Elevator Pressurization.***

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

***Section 604.2.21 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.

***Section 604.2.22 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.

***Section 604.2.23 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 421.8.

***Section 604.2.24 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.)

***Section 604.8 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.

- (6) **Chapter 6 – Building services and systems** is amended by adding the following subsections to **Section 607.1 Emergency operation**.  
**Section 607.1.1 Elevator recall – firefighter recalled.** Where elevator travel is in excess of 2 floors, the elevator shall be “firefighter recalled” to the designated level by the initiation of any automatic fire alarm in the building.  
**Section 607.1.2 Elevator Recall – shunt trip mechanism.** Where a shunt trip mechanism is present, a smoke and heat activated device shall be provided to return the elevator car to an egress point approved by the Fire Marshal.

**Section 609.2; change to read as follows:**

**609.2 Where Required.** A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, including but not limited to cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, or any form of roofed enclosure, as required by the fire code official.

**Exceptions:**

1. Tents, as provided for in Chapter 31.
2. {No change to existing Exception.}

Additionally, fuel gas and power provided for such cooking appliances shall be interlocked with the extinguishing system, as required by Section 904.12.2. Fuel gas containers and piping/hose shall be properly maintained in good working order and in accordance with all applicable regulations.

**Section 704.1; change to read as follows:**

**704.1 Enclosure.** Interior vertical shafts including, but not limited to, stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code*.

**Section 807.3; change to read as follows:**

**807.3 Combustible Decorative Materials.** In occupancies in Groups A, E, I, and R-1, and dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

**Section 807.5.5.2 and 807.5.5.3; change to read as follows:**

**807.5.5.2 Artwork in Corridors.**

Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings, and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

**Exception:** Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

**807.5.5.3 Artwork in Classrooms.**

Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are

attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

(7) **Chapter 9 – Fire protection systems**

(a) **Section 901 General** is amended by changing **Section 901.3** and **901.5** as shown in the International Fire Code. to read as follows:

**Section 901.3.1 Permit required.** Permits shall be required as set forth in Section 105.6 and 105.7 and as required by this section. A permit shall be required for the installation, reconsideration, modification, moving or alteration of any fixed system. Work shall not begin on any system without first obtaining a permit.

**Exemption:** Emergency repairs, due to system malfunctions or discharging, may begin, providing a permit is obtained as soon as possible, but no later than the next working day.

**Section 901.3.2 Permit application.** The permit application shall be submitted to the office of the Fire Marshal and must have attached to the application detailed construction plans and a copy of the applicant's state license. The following will be required with the plan submission: A CD, or other media, as approved by the Fire Marshal, containing state license, plan drawings, calculations, and spec sheets, in PDF format.

**Section 901.3.3 Permit fee.** The permit fee for the construction, repair, alteration, or relocation of a fixed system shall be in accordance with the fee schedule adopted by the City of Bedford.

**Section 901.5 Installation acceptance testing.** Fire detection and alarm systems, fire extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains, and all other fire protection systems, and appurtenances thereto, shall be subject to acceptance tests, as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing. No system shall be approved until a complete inspection of materials and a functional test has been completed and witnessed by the Fire Marshal. The installer/technician must be present for all inspections and testing.

**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 when foreign material is present, 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 901.6.3; add Section 901.6.3 to read as follows:**

**901.6.3 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.

**Section 901.8.2; change to read as follows:**

**901.8.2 Removal of Occupant-use Hose Lines.** The *fire code official* is authorized to permit the removal of occupant-use hose lines and hose valves where all of the following conditions exist:

1. The hose line(s) would not be utilized by trained personnel or the fire department.
2. If the occupant-use hose lines are removed, but the hose valves are required to remain as per the *fire code official*, such shall be compatible with local fire department fittings.

**Add Sections 901.11 Certification, Section 901.12 Failure of system, and Section 901.13 Message alarms. To read as follows:**

**Section 901.11 Certification.** A notarized certification indicating all work has been performed as permitted and that the work meets code requirements must be submitted at final inspection.

**Section 901.12 Failure of system.** All fire alarm systems shall be designed and constructed so the failure, malfunction, or removal of any single device, or failure of the wiring to a device does not interfere with the operation of other devices in the system.

**Section 901.13 Message alarms.** Pre-recorded or voice message fire alarms shall not be approved unless accompanied by a fire alarm signal of audio-visual devices that meet the minimum standards of the Americans with Disabilities Act (ADA).

**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 Automatic Sprinkler Systems** is amended as follows:

**Section 903.1.2** is amended by adding subsection 903.1.2 to read as follows:

**903.1.2 Residential sprinklers.** Unless specifically allowed by this Code, residential sprinkler systems installed in accordance with NFPA 13D or NFPA 13R shall not be granted exemptions or reductions, commonly known as “trade-offs” permitted by other requirements of this Code. Additionally, residential sprinkler systems installed in accordance with NFPA 13R must include attic protection.

**Section 903.2; add paragraph to read as follows:**

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; delete the exception.**

**Section 903.2.1.1 Group A-1, Section 903.2.1.3 Group A-3, and Section 903.2.1.4 Group A-4** are amended by deleting the number “12,000” in number one of each section and replacing it with the number “6,000”. The sections are also amended by adding the following exception: “*Exception:* Open parking garages in compliance with Section 406.3 of the International Building Code, provided fire department standpipes and connections are installed in such a way that no portion of the garage is more than 100 feet, unobstructed hose lay from the connection”.

**Section 903.2.8 Group R** is amended to read as follows:

**Section 903.2.8 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area. An automatic sprinkler system shall be provided throughout all buildings with a Group R-2 occupancy where the fire area is 2 stories in height, including basements, or where the building has more than 3 units. Any Group R-2 occupancy two (2) or more stories in height shall be required to have a sprinkler system meeting the requirements of NFPA Standard 13.

**Section 903.2.9.2 Bulk storage of tires**, Section is amended by deleting that section and replacing it with a new **Section 903.2.9.2**, to read as follows:

**Section 903.2.9.2 Bulk storage of tires.** Buildings and structures where the area for the storage of tires exceeds 10,000 cubic feet shall be equipped throughout with an automatic fire sprinkler system meeting the requirements of NFPA Standard 13.

**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 6,000 sq .ft. or greater,** An automatic sprinkler system shall be installed throughout all buildings and any portion of a building that meet any one of the following criteria listed below:

- (1) A building area 6,000 sq. ft. or greater
- (2) A tenant space 6,000 sq. ft or greater
- (3) An existing building that is enlarged to be 6,000 sq. ft. or greater
- (4) An tenant space within an existing building that is 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 406.3 of the *International Building Code*, provided fire department standpipes and connections are installed in such a way that no portion of the garage is more than 100 feet, unobstructed hose lay from the connection.

**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. Fire service access Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. {Delete.}

**Section 903.3.1.2.3; add section to read as follows:**

**Section 903.3.1.2.3 Attics and Attached Garages.** Sprinkler protection is required in attic spaces of such buildings two or more stories in height, in accordance with NFPA 13 and or NFPA 13R requirements, and attached garages.

**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.

**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.

**Section 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 903.3.7 Fire Department Connections.** Is amended by deleting that section and adding the following section, to read as follows:

**Section 903.3.7 Fire Department Connections.** The location of fire Department Connections shall be approved by the fire code official. Locking Knox caps shall be required by the fire code official. Locking Knox caps shall be installed on all new installations, as replacements for lost or damaged caps on existing locations, and when and where deemed necessary by the fire code official to address tampering problems at existing facilities.

**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 903.7 Installation schedule** is amended by adding **903.7 Installation schedule**, to read as follows:

**Section 903.7 Installation schedule.** Approved fire sprinkler systems shall be operational in a building under construction when:

- (1) The building is sufficiently constructed to the point that the exterior sheathing and roof have been installed; or
- (2) At the start of combustible interior construction; or
- (3) When there is an accumulation of combustible material within the building including, but not limited to, building supplies, rubbish, and furniture, or
- (4) When the building goes under conditioned atmosphere.

**Section 903.8 Wet sprinkler system** is amended by adding **903.8 Wet sprinkler system**, to read as follows:

**Section 903.8 Wet sprinkler system.** Whenever the outside atmospheric temperature is predicted to be below 25 Degrees Fahrenheit, for 6, or more hours, a wet sprinkler system may be drained to prevent freeze damage, provided:

- (1) It has been determined by a fire sprinkler service technician and the Fire Marshal, that there is not adequate freeze protection for the system.
- (2) The owner/occupant notifies the fire department that the system will be drained.
- (3) The owner/occupant provides an alternative means of early fire discovery and control by the employment of approved 24 hour security personnel, and/or an approved fire alarm and detection system to supplement the fire sprinkler systems. Alarms must be monitored 24 hours a day, by an approved central monitoring service.
- (4) When the temperature rises above 30 Degrees Fahrenheit, the drained systems shall be restored. It is the intent of this section that a fire sprinkler system will be in service and operational at all times, except the cases of very cold weather.

**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 and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
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 interior 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 interior exit stairway hose connection by a {No change to rest.}

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 shall be 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 907.2.1; 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 150 or more persons, or 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.

**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.)

**Section 907.2.13, 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 (4) 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 shall be wired Class A, 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.

***Section 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.

***Section 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 systems with a fire-resistance rating of not less than 2 hours.

***Section 909.21.1.2 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.

***Section 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:***

2. Only manual smoke and heat removal shall 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 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 m<sup>2</sup>) 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 m<sup>2</sup> per 0.4719 m<sup>3</sup>/s) of smoke exhaust.

**Section 910.4.4;** change to read as follows:

**910.4.4 Activation.** The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

**Exception:** Manual only systems per Section 910.2.

**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 (128 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.

**Section 1003.6 Means of egress continuity** is amended by adding **Section 1003.6.1 vehicle parking**, to read as follows:

**Section 1003.6.1 Vehicle parking.** No motor vehicle shall be parked within 10 feet of any patio, stairs, or egress path at any apartment, multi-family building, hotel, motel, or commercial structure, unless on approved parking space.

**Section 1006.2.2.6; add a new Section 1006.2.2.6 as follows:**

**1006.2.2.6 Electrical Rooms.** For electrical rooms, special exiting requirements may apply. Reference the Electrical Code as adopted.

**Section 1009.1; add the following Exception 4:**

**Exceptions:**

*{previous exceptions unchanged}*

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

**Section 1010.1.9.4 Bolt Locks; change Exceptions 3 and 4 to read 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 1015.8 Window Openings; change number 1 to read as follows:**

1. Operable windows where the top of the sill of the opening is located more than 55 feet (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

**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 shall activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors shall be connected to an approved automatic fire alarm system where such system is provided.

**Section 1024 Exit Passageways** is amended by adding **Section 1024.1.1 Exit ways – hotels, motels, and multi-family**, to read as follows:

**Section 1024.1.1 Exit ways – hotels, motels, and multi-family.** All public exit ways and balconies shall be constructed of material having a minimum of a class “C” flame spread rating (75 to 200 flame spread). All balconies and landings utilized as exit ways shall have a minimum length of 8 feet and a minimum width of 4 feet.

**Section 1029.1.1.1; delete this section. Spaces under Grandstands and Bleachers:**

**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 607.3.

**Section 1103.5; add Section 1103.5.1 to read as follows:**

**1103.5.1 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 1103.7.8 and 1103.7.8.1 to read as follows:**

**1103.7.8 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.

**Section 1103.7.8.1 Communication requirements.** Refer to Section 907.6.6 for applicable requirements.

**Section 2304.1; change to read as follows:**

**2304.1 Supervision of Dispensing.** The dispensing of fuel at motor fuel-dispensing facilities shall be 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.**

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

j. Not required 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.

**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 5003.3.1.4 Responsibility for cleanup shall be amended by deleting Section 5003.3.1.4 Responsibility for cleanup in the IFC and replacing it with the following:**

The person, firm or corporation, responsible for an unauthorized discharge or hazardous condition shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary, by the fire code official, cleanup may be initiated by the fire department, or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator, or other person responsible for the unauthorized discharge. Any costs associated with a fire department response to accomplish control and mitigation of an unauthorized discharge may be charged back to the person, firm, or corporation responsible for the release.

**Section 5601.1.3; change to read as follows:**

**5601.1.3 Fireworks.** The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.

**Exceptions:**

1. Only when approved for fireworks displays, storage, and handling of fireworks as allowed in Section 5604 and 5608.
2. 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 5704.2.9.5; change Section 5704.2.9.5 and add Section 5704.2.9.5.3 to read as follows:**

**5704.2.9.5 Above-ground Tanks Inside of Buildings.** Above-ground tanks inside of buildings shall comply with Section 5704.2.9.5.1 and 5704.2.9.5.2 through 5704.2.9.5.3.

**5704.2.9.5.1 {No change.}**

**5704.2.9.5.2 {No change.}**

**Section 5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings.**

The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;

2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an *automatic sprinkler system* complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an *approved* closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

**Section 5704.2.11.4; add a sentence to read as follows:**

**5704.2.11.4 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:**

**5704.2.11.4.2 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; add Section 5704.2.11.4.3 to read as follows:**

**5704.2.11.4.3 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 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 6104.3.2 to read as follows:**

**6104.3.2 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.

**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.

**SECTION 4. SEVERABILITY CLAUSE.** That it is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared invalid or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such invalid or unconstitutional phrase, clause, sentence, paragraph or section.

**SECTION 5. SAVING CLAUSE.** That the Code of Ordinances, City of Bedford, Texas, as amended, shall remain in full force and effect, save and except as amended by this ordinance.

**SECTION 6. EFFECTIVE DATE.** This ordinance shall be in full force and effect from and after its passage and publication as provided by the Bedford City Charter and the laws of the State of Texas.

**PRESENTED AND PASSED** this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

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Jim Griffin, Mayor

**ATTEST:**

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Michael Wells, City Secretary

**APPROVED AS TO FORM:**

\_\_\_\_\_  
**Stan Lowry, City Attorney**



# Council Agenda Background

<b><u>PRESENTER:</u></b> Kenny Overstreet, Interim Public Works Director Cheryl Abbott, Trinity River Authority of Texas		<b><u>DATE:</u></b> 02/23/16
<b>Council Mission Area:</b> Protect the vitality of neighborhoods.		
<b><u>ITEM:</u></b>  Consider an ordinance approving a resolution authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) revenue bonds, and approving and authorizing instruments and procedures relating thereto.  <b>City Attorney Review:</b> Yes  <b>City Manager Review:</b> _____		
<b><u>DISCUSSION:</u></b>  Management of the Trinity River Authority (TRA) is recommending to their Board of Directors to advance refund Series 2008 Revenue Bonds. The Board will act on this recommendation on February 24, 2016. The estimated overall savings is approximately \$6.3 million. Customers of TRA will realize the cost avoidance in reduction of annual debt service payments through 2028.  Staff recommends approval of this resolution to allow TRA to proceed with the refunding of bonds. Once the resolution is approved, TRA will have the City sign a separate Certificate for Ordinance approving a resolution authorizing the issuance of this sale.		
<b><u>RECOMMENDATION:</u></b>  Staff recommends the following motion:  Approval of an ordinance approving a resolution authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) revenue bonds, and approving and authorizing instruments and procedures relating thereto.		
<b><u>FISCAL IMPACT:</u></b>  N/A	<b><u>ATTACHMENTS:</u></b>  Ordinance Certificate for Ordinance TRA Bond Resolution	

ORDINANCE NO. 16-

**AN ORDINANCE APPROVING A RESOLUTION AUTHORIZING THE ISSUANCE, SALE, AND DELIVERY OF TRINITY RIVER AUTHORITY OF TEXAS (TARRANT COUNTY WATER PROJECT) REVENUE BONDS, AND APPROVING AND AUTHORIZING INSTRUMENTS AND PROCEDURES RELATING THERETO.**

**WHEREAS, it is necessary and advisable that the City of Bedford (the "City") approve a resolution adopted by the Board of Directors of Trinity River Authority of Texas authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) Revenue Bonds, and approving and authorizing instruments and procedures relating thereto hereinafter described.**

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

**SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.**

**SECTION 2. That a "resolution authorizing the issuance, sale, and delivery of Trinity River Authority of Texas (Tarrant County Water Project) revenue bonds, and approving and authorizing instruments and procedures relating thereto" (the "Bond Resolution") which will be adopted by the Board of Directors of Trinity River Authority of Texas (the "Authority") on February 24, 2016, has been submitted to the City in the form attached hereto, and made a part hereof for all purposes. Said resolution is hereby approved by the City as to form and substance, and the bonds (the "Bonds") described therein may be issued by the Authority in accordance with the terms and provisions set forth therein and herein.**

**SECTION 3. That the principal amount and maturities of the Bonds, the interest rates for the Bonds, the purchaser of the Bonds, and other details and provisions for the Bonds, and the price to be paid for the Bonds, shall be determined by the General Manager of the Authority in accordance with the procedures and parameters set forth in the Bond Resolution in the manner determined by the Board of Directors of Authority; and all such matters and procedures are hereby approved by the City.**

**SECTION 4. That it is acknowledged and agreed by the City that the Bonds authorized pursuant to said Bond Resolution will be issued in strict conformance and compliance with the water supply contract dated as of January 21, 1972, executed between the Authority and the City, and amended as of January 22, 1975, and further amended as of December 11, 1979 (the "Contract"), relating to the project as defined in said Contract and described in said Bond Resolution, and that the City will be fully bound by the provisions of said Bond Resolution insofar as they pertain to the City, and the City will be unconditionally obligated to make the payments with respect to said Bonds as required by the Contract and said Bond Resolution.**

**SECTION 5. That, in accordance with the Contract, and as a prerequisite to the issuance of the Bonds, the City finds that a case of emergency exists which requires the City to request the Authority to issue the Bonds in order to refund outstanding bonds issued by the Authority with respect to the Tarrant County Water Project resulting in a debt service savings which will inure to the benefit of the City, and the City hereby formally requests the Authority to proceed with such refunding.**

**SECTION 6. That all ordinances and resolutions of the City in conflict or inconsistent with this Resolution are hereby repealed to the extent of such conflict or inconsistency.**

**PRESENTED AND PASSED this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.**

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**Jim Griffin, Mayor**

**ATTEST:**

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**Michael Wells, City Secretary**

**APPROVED AS TO FORM:**

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**Stan Lowry, City Attorney**

CERTIFICATE FOR AN ORDINANCE APPROVING A RESOLUTION AUTHORIZING THE ISSUANCE, SALE, AND DELIVERY OF TRINITY RIVER AUTHORITY OF TEXAS (TARRANT COUNTY WATER PROJECT) REVENUE BONDS, AND APPROVING AND AUTHORIZING INSTRUMENTS AND PROCEDURES RELATING THERETO

THE STATE OF TEXAS  
COUNTY OF TARRANT  
CITY OF BEDFORD

We, the undersigned officers of the City of Bedford, Texas, hereby certify as follows:

1. The City Council of said City convened in REGULAR MEETING ON THE 23rd DAY OF FEBRUARY, 2016, at the City Hall, and the roll was called of the duly constituted officers and members of said City Council, to-wit:

Mayor: Jim Griffin  
Mayor Pro Tem: Roger Fisher  
Place 1: Rusty Sartor  
Place 2: Dave Gebhart  
Place 3: Ray Champney  
Place 4: Steve Farco  
Place 5: Roy Turner

and all of said persons were present, except the following absentees: \_\_\_\_\_, thus constituting a quorum. Whereupon, among other business, the following was transacted at said Meeting: a written

ORDINANCE APPROVING A RESOLUTION AUTHORIZING THE ISSUANCE, SALE, AND DELIVERY OF TRINITY RIVER AUTHORITY OF TEXAS (TARRANT COUNTY WATER PROJECT) REVENUE BONDS, AND APPROVING AND AUTHORIZING INSTRUMENTS AND PROCEDURES RELATING THERETO

was duly introduced for the consideration of said City Council and duly read. It was then duly moved and seconded that said Ordinance be adopted; and, after due discussion, said motion, carrying with it the adoption of said Ordinance, prevailed and carried with all members present voting "AYE" except the following:

NAY: \_\_\_\_\_ ABSTAIN: \_\_\_\_\_

2. That a true, full, and correct copy of the aforesaid Ordinance passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that the above and foregoing paragraph is a true, full, and correct excerpt from said City Council's minutes of said Meeting pertaining to the passage of said Ordinance; that the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of said City Council as indicated therein; and that each of the officers and members of said City Council was duly and sufficiently notified officially, in advance, of the time, place, and purpose of the aforesaid Meeting; and that said Meeting was open to the public, and public notice of the time, place, and purpose of said Meeting was given, all as required by Chapter 551, Texas Government Code.

3. That the Mayor of said City has approved, and hereby approves, the aforesaid Ordinance; that the Mayor and the City Secretary of said City have duly signed said Ordinance; and that the Mayor and the City Secretary of said City hereby declare that their signing of this Certificate shall constitute the signing of the attached and following copy of said Ordinance for all purposes.

SIGNED AND SEALED the \_\_\_\_\_ day of February, 2016.

\_\_\_\_\_  
Michael Wells, City Secretary

\_\_\_\_\_  
Jim Griffin, Mayor

(SEAL)

RESOLUTION NO. R-1446

RESOLUTION AUTHORIZING THE ISSUANCE, SALE, AND DELIVERY OF TRINITY RIVER AUTHORITY OF TEXAS (TARRANT COUNTY WATER PROJECT) REVENUE BONDS, AND APPROVING AND AUTHORIZING INSTRUMENTS AND PROCEDURES RELATING THERETO

THE STATE OF TEXAS  
TRINITY RIVER AUTHORITY OF TEXAS

WHEREAS, water supply contracts, each dated as of January 21, 1972, and amended as of January 22, 1975, and as of December 5, 1979 (with respect to the City of Euless) and December 11, 1979 (with respect to the City of Bedford), have been duly executed between the Trinity River Authority of Texas (the "Issuer" or the "Authority") and the Cities of Bedford and Euless, Texas, respectively, and water supply contracts, each dated as of April 25, 1979, and amended as of December 5, 1979, and as of April 23, 1980, have been duly executed between the Authority and the Cities of Colleyville, Grapevine, and North Richland Hills, Texas, with all of the above named cities being hereinafter collectively called and defined as the "Cities", and with all of the above contracts, as amended, being hereinafter collectively called and defined as the "Contracts"; and

WHEREAS, the Contracts are hereby referred to and adopted by reference for all purposes, with the same effect as if they had been set forth in their entirety in this Resolution; and

WHEREAS, the Contracts relate to the financing of the acquisition and construction of the Project, as defined therein, being water supply facilities to serve the Cities and others, as described in the engineering report entitled "Report on Proposed Bedford-Euless Water System to Trinity River Authority of Texas", dated July 1, 1971, and as such report has been amended and supplemented to provide expanded service (the "Engineering Report"), including the supplement thereto entitled "Trinity River Authority of Texas Tarrant County Water Project Master Plan Modification to serve Bedford, Euless, Colleyville, Grapevine, and North Richland Hills", dated October, 1976, prepared by Knowlton-English-Flowers, Inc. (the "Consulting Engineers"), and including all additional amendments and supplements thereto made thereafter; and

WHEREAS, pursuant to the Contracts and appropriate bond resolutions, the Issuer issued and has outstanding the following series of bonds:

Trinity River Authority of Texas (Tarrant County Water Project) Improvement Revenue Bonds, Series 2008, dated November 1, 2008, in the original principal amount of \$50,355,000 (the "Series 2008 Bonds"); and

Trinity River Authority of Texas (Tarrant County Water Project) Improvement Revenue Bonds, Series 2013, dated October 1, 2013, in the original principal amount of \$5,000,000 (the "Series 2013 Bonds"); and

Trinity River Authority of Texas (Tarrant County Water Project) Revenue Refunding Bonds, Series 2015, dated March 15, 2015, in the original principal amount of \$67,785,000 (the "Series 2015 Bonds" and, collectively with the Series 2008 Bonds and Series 2015 Bonds, the "Outstanding Bonds"); and

WHEREAS, the Outstanding Bonds and any bonds issued on a parity therewith are secured by a first lien on and pledge of the Net Revenues under the Contracts and certain other revenues; and

WHEREAS, the Issuer has determined to issue the bonds (the "Bonds") hereinafter authorized to obtain funds to refund certain of the Series 2008 Bonds (the "Refunded Bonds"); and

WHEREAS, the Bonds shall be issued and delivered pursuant to Chapter 518, Acts of the 54th Legislature of the State of Texas, Regular Session, 1955, as amended (the "Act" creating the Authority), Chapters 1207 and 1371, Texas Government Code, as amended, and other applicable laws.

THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF TRINITY RIVER AUTHORITY OF TEXAS THAT:

Section 1. RECITALS, AMOUNT AND PURPOSE OF THE BONDS; DEFINITIONS.

(a) The Board of Directors hereby incorporates the recitals set forth in the preamble hereto as if set forth in full at this place and further finds and determines that said recitals are true and correct. In order to obtain funds to pay the costs of refunding certain maturities of the outstanding Refunded Bonds, the Board of Directors hereby authorizes and directs the issuance of revenue bonds of the Issuer, in one or more series, in the aggregate principal amount of not to exceed \$47,000,000 to refund all or a portion of the Series 2008 Bonds.

(b) Definitions. In each place throughout this Resolution wherein the following terms, or any of them, are used, the same, unless the text shall indicate another or different meaning or intent, shall be construed and are intended to have meanings as follows:

(1) "Act" and "Authority Act" mean Chapter 518, Acts of the Fifty-Fourth Legislature of the State of Texas, Regular Session, 1955, as amended.

(2) "Additional Bonds" means the additional parity revenue bonds as defined and permitted in Sections 36 and 37 of this Resolution.

(3) "Authority" and "Issuer" mean Trinity River Authority of Texas and any other public body or agency at any time succeeding to the property and principal rights, power and obligations of said Authority.

(4) "Board of Authority" and "Board" mean the Board of Directors of the Authority.

(5) "Bonds" means collectively the Bonds as described and defined herein, and all substitute bonds exchanged therefor, as well as all other substitute and replacement bonds, issued as provided in this Resolution.

(6) "Certified Public Accountant" means any certified public accountant, licensed public accountant or firm of such public accountants of suitable experience and qualifications not regularly in the employ of the Authority, selected by the Authority.

(7) "Cities" means the Cities of Bedford, Euless, Colleyville, Grapevine, and North Richland Hills, Texas.

(8) "Code" means the United States Internal Revenue Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto.

(9) "Contracts" means the contracts between the Authority and the Cities as described and defined in the preamble to this Resolution.

(10) "Credit Facility" shall mean a policy of municipal bond insurance, a surety bond or a letter or line of credit, or any other agreement, commitment or contract authorized by the Authority as a Credit Facility issued by a Credit Facility Provider in support of any Parity Bonds.

(11) "Credit Facility Provider" shall mean (i) with respect to any Credit Facility consisting of a policy of municipal bond insurance or a surety bond, an issuer of policies of insurance insuring the timely payment of debt service on governmental obligations such as the Parity Bonds, provided that a Rating Agency having an outstanding rating on the Parity Bonds would rate the Parity Bonds fully insured by a standard policy issued by the issuer in its highest generic rating category for such obligations; and (ii) with respect to any other Credit Facility, any financial institution, provided that a Rating Agency having an outstanding rating on the Parity Bonds would rate the Parity Bonds in its two highest generic rating categories for such obligations if the Credit Facility proposed to be issued by such financial institution secured the timely payment of the entire principal amount of the series of Parity Bonds and the interest thereon.

(12) "Depository" means the bank or banks which the Authority selects (whether one or more), in accordance with law, as its depository.

(13) "Eligible Investments" shall mean those investments in which the Authority is authorized by law, including, but not limited to, the Public Funds Investment Act of 1987 (Chapter 2256, Texas Government Code), as amended, to purchase, sell and invest its funds and funds under its control; and provided further that Eligible Investments shall specifically include, with respect to the investment of proceeds of any Parity Bonds, guaranteed investment contracts fully collateralized by Government Obligations.

(14) "Engineering Report" means the Report dated July 1, 1971, and the supplements thereto with respect to the Authority's Tarrant County Water Project, all as described and defined in the preamble to this Resolution, as such Engineering Report may be further amended or supplemented prior to the execution of construction contracts and changed by change orders entered after construction contracts have been executed, or as such report may be amended or supplemented to provide expanded service in the future.

(15) "Fiscal Year" means the twelve month period beginning December 1 of each year, or such other twelve month period as may in the future be designated as the Fiscal Year of Authority.

(16) "Government Obligations" shall mean direct obligations of the United States of America, including obligations the principal of and interest on which are unconditionally guaranteed by the United States of America.

(17) "Independent Consulting Engineer" means the Engineer or engineering firm or corporation at the time employed by the Authority under the provisions of Section 31 of this Resolution.

(18) "Outstanding Bonds" shall have the meaning set forth in the preamble.

(19) "Parity Bonds" means collectively the Outstanding Bonds, the Bonds and bonds hereafter issued on a parity therewith.

(20) "Paying Agents" means collectively the banks where the principal of and interest on the Parity Bonds are payable.

(21) "Pricing Certificate" means a certificate of the General Manager setting forth the terms of sale of the Bonds including the method of sale, principal amount, maturity dates, interest payment dates, dated date, interest rates, yields, redemption provisions and other matters related to the sale of the Bonds.

(22) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned a rating to the Parity Bonds.

(23) "Required Amount" shall mean the amount so designated in Section 10 of this Resolution.

(24) "Reserve Fund" shall mean the Fund so designated in Section 10 of this Resolution.

(25) "Reserve Fund Obligations" shall mean cash, Eligible Investments, any Credit Facility, or any combination of the foregoing.

(26) "Resolution" means this Resolution authorizing the Bonds.

(27) "Series 2008 Bonds" shall have the meaning set forth in the preamble.

(28) "Series 2008 Bond Resolution" shall mean the resolution of the Board authorizing the issuance of the Series 2008 Bonds.

(29) "System" and "Authority's System" mean all of Authority's facilities constructed pursuant to the Engineering Report, as supplemented or amended.

## Section 2. DESIGNATION, DATE, DENOMINATIONS, NUMBERS, MATURITIES AND SALE OF BONDS.

(a) Each Bond issued pursuant to this Resolution shall, subject to paragraph (b) of this section, be designated: "TRINITY RIVER AUTHORITY OF TEXAS (TARRANT COUNTY WATER PROJECT) REFUNDING REVENUE BOND, SERIES \_\_\_\_."

(b) As authorized by Chapters 1207 and 1371, Texas Government Code, as amended, the General Manager of the Issuer is hereby designated as the "Authorized Officer" of the Issuer, and is hereby authorized, appointed, and designated as the officer or employee of the Issuer authorized to act on behalf of the Issuer in the selling and delivering of the Bonds and carrying out the other procedures specified in this Resolution, including the use of a book-entry-only system with respect to the Bonds and the execution of an appropriate letter of representations if deemed appropriate, the determining and fixing of the date of the Bonds, any additional or different designation or title by which the Bonds shall be known, the price at which the Bonds will be sold, the aggregate principal amount of the Bonds and the amount of each maturity of principal thereof, the due date of each such maturity (not exceeding forty years from the date of the Bonds), the rate of interest to be borne by each such maturity, the interest payment dates and periods, the dates, price and terms upon and at which the Bonds shall be subject to redemption prior to due date or maturity at the option of the Issuer, any mandatory sinking fund redemption provisions, procuring municipal bond insurance, including the execution of any commitment agreements, membership agreements in mutual insurance companies, and other similar agreements, and approving modifications to this Resolution and executing such instruments, documents and agreements as may be necessary with respect thereto, if it is determined that such insurance would be financially desirable and advantageous, and all other matters relating to the issuance, sale and delivery of the Bonds. The Authorized Officer, acting for and on behalf of the Issuer, is authorized to arrange for the Bonds to be sold at a private placement, negotiated or competitive sale, at such price, in the aggregate principal amount not exceeding the maximum amount set forth in Section 1 hereof, with such maturities of principal, with such interest rates,

and with such optional and mandatory sinking fund redemption provisions, if any, and other matters, as shall be set forth in a certification by the Authorized Officer. The Bonds shall not be sold at a price less than 95% of the initial aggregate principal amount thereof plus accrued interest thereon from their date to their delivery, and no Bond shall bear interest at a rate greater than 10% per annum. It is further provided, however, that, notwithstanding the foregoing provisions, the Bonds shall not be delivered unless, prior to their delivery, the Bonds have been rated by a nationally recognized rating agency for municipal long term obligations, as required by said Chapter 1371, Texas Government Code, as amended.

(c) If the Authorized Officer determines that the Bonds should be sold by private placement, the Authorized Officer shall select the purchaser which, after due consideration and investigation, is willing to buy the Bonds on the most advantageous terms to the Issuer as determined by the Authorized Officer.

(d) If the Authorized Officer determines that the Bonds should be sold by a negotiated sale, the Authorized Officer shall designate the senior managing underwriter for the Bonds and such additional investment banking firms as deemed appropriate to assure that the Bonds are sold on the most advantageous terms to the Issuer. The Authorized Officer, acting for and on behalf of the Issuer, is authorized to enter into and carry out the terms of a bond purchase contract for the Bonds to be sold by negotiated sale, with the underwriter(s) thereof at such price, with and subject to such terms as determined by the Authorized Officer subject to the parameters set forth in this Resolution. Any such bond purchase contract shall be substantially in a form and substance previously approved by the Board in connection with the authorization of bonds by the Issuer with such changes as are acceptable to the Authorized Officer. The Authorized Officer shall cause to be prepared an official statement in such manner as the Authorized Officer deems appropriate.

(e) If the Authorized Officer determines that the Bonds should be sold at a competitive sale, the Authorized Officer shall cause to be prepared a notice of sale and official statement in such manner as the Authorized Officer deems appropriate, to make the notice of sale and official statement available to those institutions and firms wishing to submit a bid for the Bonds, to receive such bids, and to award the sale of the Bonds to the bidder submitting the best bid in accordance with the provisions of the notice of sale.

(f) In establishing the aggregate principal amount of the Bonds, the Authorized Officer shall establish an amount within the amount authorized in Section 1 hereof, which amount shall be sufficient to provide for (i) the funding of the Reserve Fund, if any, as hereinafter required or permitted, as deemed appropriate, (ii) the payment of the costs of issuance of the Bonds and (iii) the refunding of the maturities of the Refunded Bonds in a manner that will result in a target net present value savings for the transaction of at least 3.00% of the Refunded Bonds being achieved (with a maximum principal amount of Bonds of \$47,000,000 to refund the Refunded Bonds).

(g) It is hereby found and determined that the refunding of the Refunded Bonds meeting the criteria set forth in paragraph (f) of this section is advisable and necessary in order to restructure the debt service requirements and procedures of the Issuer, and that the debt service requirements on the Bonds issued for refunding purposes will be less than those on the Refunded

Bonds, resulting in a reduction in the amount of principal and interest which otherwise would be payable. The Refunded Bonds are subject to redemption, at the option of the Issuer, and the Authorized Officer is hereby authorized to cause all of the Refunded Bonds being refunded to be called for redemption on the respective date or dates consistent with the savings analysis set forth in paragraph (c) of this section, and the proper notices of such redemption to be given, and in each case at a redemption price of par, plus accrued interest to the date fixed for redemption. In furtherance of authority granted by Section 1207.007(b), Texas Government Code, the Authorized Officer is further authorized, if deemed appropriate or necessary, to enter into and execute on behalf of the Issuer with the escrow agent or deposit agent named therein, an escrow agreement or deposit agreement, in the form and substance as shall be approved by the Authorized Officer, which escrow agreement or deposit agreement will provide for the payment in full of the Refunded Bonds. In addition, the Authorized Officer is authorized to purchase such securities with proceeds of the Bonds, to execute such subscriptions for the purchase of the United States Treasury Securities, State and Local Government Series and to transfer and deposit such cash from available funds, as may be necessary for the escrow fund described in such escrow or deposit agreement.

### Section 3. CHARACTERISTICS OF THE BONDS.

(a) Registration, Transfer, Conversion and Exchange; Authentication. The Issuer shall keep or cause to be kept at the principal corporate trust office of The Bank of New York Mellon Trust Company, National Association, Dallas, Texas, or other entity designated in the Pricing Certificate (the "Paying Agent/Registrar") books or records for the registration of the transfer, conversion and exchange of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such registrations of transfers, conversions and exchanges under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such registrations, transfers, conversions and exchanges as herein provided. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the registered owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each registered owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such registration, transfer, conversion, exchange and delivery of a substitute Bond or Bonds. Registration of assignments, transfers, conversions and exchanges of Bonds shall be made in the manner provided and with the effect stated in the FORM OF BOND set forth in this Resolution. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond.

Except as provided in Section 3(c) hereof, an authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign said Bond, and no such Bond shall be deemed to be issued or outstanding unless such Bond is so executed.

The Paying Agent/Registrar promptly shall cancel all paid Bonds and Bonds surrendered for conversion and exchange. No additional ordinances, orders, or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution, and delivery of the substitute Bonds in the manner prescribed herein, and said Bonds shall be of type composition printed on paper with lithographed or steel engraved borders of customary weight and strength. Pursuant to Subchapter D, Chapter 1201, Texas Government Code, the duty of conversion and exchange of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of said Certificate, the converted and exchanged Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Bonds which initially were issued and delivered pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts.

(b) Payment of Bonds and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each registered owner appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

(c) In General. The Bonds (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the registered owners thereof, (ii) may or shall be redeemed prior to their scheduled maturities (notice of which shall be given to the Paying Agent/Registrar by the Issuer at least 50 days prior to any such redemption date), (iii) transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed, sealed, executed and authenticated, (vii) the principal of and interest on the Bonds shall be payable, and (viii) shall be administered and the Paying Agent/Registrar and the Issuer shall have certain duties and responsibilities with respect to the Bonds, all as provided, and in the manner and to the effect as required or indicated, in the FORM OF BOND set forth in this Resolution. The Bonds initially issued and delivered pursuant to this Resolution are not required to be, and shall not be, authenticated by the Paying Agent/Registrar, but on each substitute Bond issued in conversion of and exchange for any Bond or Bonds issued under this Resolution the Paying Agent/Registrar shall execute the PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE, in the form set forth in the FORM OF BOND.

(d) Substitute Paying Agent/Registrar. The Issuer covenants with the registered owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution, or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(e) Notice of Redemption.

(i) In addition to the notice of redemption set forth in the FORM OF BOND, the Paying Agent/Registrar shall give notice of redemption of the Bonds by first class mail, postage prepaid at least thirty (30) days prior to a redemption date to each registered securities depository and to any national information service that disseminates redemption notices. In addition, in the event of a redemption caused by an advance refunding of the Bonds, the Paying Agent/Registrar shall send a second notice of redemption to the persons specified in the immediately preceding sentence at least thirty (30) days but not more than ninety (90) days prior to the actual redemption date. Any notice sent to the registered securities depositories or such national information services shall be sent so that they are received at least two (2) days prior to the general mailing or publication date of such notice. The Paying Agent/Registrar shall also send a notice of prepayment or redemption to the Registered Owner of any Bond who has not sent the Bonds in for redemption sixty (60) days after the redemption date.

(ii) Each notice of redemption given by the Paying Agent/Registrar, whether required in the FORM OF BOND or in this Section, shall contain a description of the Bonds to be redeemed including the complete name of the Bonds, the Series, the date of issue, the interest rate, the maturity date, the CUSIP number, the certificate numbers, the amounts called of each certificate, the publications and mailing date for the notice, the date of redemption, the redemption price, the name of the Paying Agent/Registrar and the address at which the Bonds may be redeemed, including a contact person and telephone number.

(iii) All redemption payments made by the Paying Agent/Registrar to the Registered Owners shall include a CUSIP number relating to each amount paid to such Registered Owner.

#### Section 4. BOOK-ENTRY ONLY SYSTEM.

(a) The Bonds issued in exchange for the Bonds initially issued to the purchaser specified herein shall be initially issued in the form of a separate single fully registered Bond for each of the maturities thereof. Upon initial issuance, the ownership of each such Bond shall be registered in the name of Cede & Co., as nominee of The Depository Trust Company of New York ("DTC"), and except as provided in subsection (f) hereof, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC.

(b) With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations on whose behalf DTC was created ("DTC Participant") to hold securities to facilitate the clearance and settlement of securities transactions among DTC Participants or to any person on behalf of whom such a DTC Participant holds an interest in the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a registered owner of Bonds, as shown on the Registration Books, of any notice with respect to the Bonds, or (iii) the payment to any DTC Participant or any other person, other than a registered owner of Bonds, as shown in the Registration Books of any amount with respect to principal of or interest on the Bonds. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal and interest with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of and interest on the Bonds only to or upon the order of the registered owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of and interest on the Bonds to the extent of the sum or sums so paid. No person other than a registered owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal and interest pursuant to this Resolution. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the registered owner at the close of business on the Record date, the words "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

(c) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC or that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer shall (i) appoint a successor securities depository, qualified to act as such under Section 17A of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names registered owners transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(d) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

Section 5. FORM OF BONDS. The form of the Bonds, including the form of Paying Agent/Registrar's Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached to the Bonds initially issued and delivered pursuant to this Resolution, shall be, substantially in the form provided in Exhibit A, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution. The Form of Bond as it appears in Exhibit A shall be completed, amended and modified by Bond Counsel to incorporate the information set forth in the Pricing Certificate but it is not required for the Form of Bond to reproduced as an exhibit to the Pricing Certificate.

Section 6. BONDS AND SECURITY THEREFOR. The Parity Bonds are and shall be secured by and payable from a first lien on and pledge of the Net Revenues, as hereinafter defined, and the funds and accounts hereinafter confirmed or created in this Resolution; and the Net Revenues are further pledged to the establishment and maintenance of said funds and accounts as hereinafter provided. The Parity Bonds are and will be secured by and payable only from the Net Revenues, and are not secured by or payable from a mortgage or deed of trust on any properties, whether real, personal, or mixed, constituting the System.

Section 7. REVENUE FUND. All revenues of the System received by the Authority, including the net proceeds to the Authority of the Contracts with the Cities shall be collected and paid over promptly upon collection to the Depository and the Authority hereby covenants and agrees so to do. Such revenues shall be held by the Depository in a special fund known as the "Trinity River Authority of Texas (Tarrant County Water Project) Revenue Bonds Revenue Fund" (hereinafter called the "Revenue Fund"), and shall be disbursed or applied for the purpose

of paying Operation and Maintenance Expenses of the System, and for the making of transfers hereinafter required and in the order listed.

#### Section 8. OPERATION AND MAINTENANCE EXPENSES.

(a) The term "Operation and Maintenance Expenses" shall mean all costs of operation and maintenance of the Authority's System including, but not limited to, repairs and replacements for which no special fund is created in any bond resolution, the cost of utilities, supervision, engineering, accounting, auditing, legal services, and any other supplies, services, administrative costs and equipment necessary for proper operation and maintenance of the Authority's System, and payments made by Authority in satisfaction of judgments resulting from claims not covered by Authority's insurance or not paid by one of the Cities arising in connection with the operation and maintenance of the System. The term also includes the fees of the bank or banks where the Parity Bonds are payable. Depreciation shall not be considered an item of Operation and Maintenance Expense.

(b) Except for other transfers herein required, the moneys in the Revenue Fund shall be subject to withdrawal by the Authority for the payment of Operation and Maintenance Expenses only upon checks and vouchers or other method of transfer, stating the purpose of the payment (which shall be in accordance with the current Annual Budget of the Authority) signed by the President of the Authority or by its Treasurer, or signed by such officers or employees of the Authority as may from time to time be designated by resolution of the Board of Authority. At the end of each Authority Fiscal Year any surplus funds remaining in the Revenue Fund shall be transferred to the Interest and Sinking Fund.

#### Section 9. INTEREST AND SINKING FUND.

(a) For the sole purpose of paying the principal of and interest on the Parity Bonds, and any Additional Bonds, as the same come due, there has been created and established, and there shall be maintained at a Depository, a separate fund entitled the "Trinity River Authority of Texas (Tarrant County Water Project) Revenue Bonds Interest and Sinking Fund" (hereinafter called the "Interest and Sinking Fund").

(b) The Issuer shall, immediately after the delivery of the Bonds, deposit into the Interest and Sinking Fund, from the proceeds of sale of the Bonds, all accrued interest received upon sale of the Bonds, plus an amount sufficient to pay the interest coming due on the Bonds during construction, as required and determined by the Authorized Officer, if any. Said deposit shall be held and applied solely to pay interest on the Bonds as it becomes due and payable.

(c) It shall be the duty of the Authority to transfer from Net Revenues in the Revenue Fund to the credit of the Interest and Sinking Fund the amounts and at times as follows:

(1) such amounts, in equal monthly installments, made on or before the 15th day of each month hereafter, as will be sufficient, together with any other amounts on deposit therein and available for such purpose, to pay the interest scheduled to come due on all Parity Bonds and any Additional Bonds on the next interest payment date; and

(2) such amounts, in equal monthly installments, made on or before the 15th day of each month hereafter, as will be sufficient, together with any other amounts on deposit therein and available for such purpose, to pay the principal of all Parity Bonds and any Additional Bonds coming due and maturing or required to be redeemed on the next interest payment date.

(d) The Authority shall make such arrangements as are necessary to insure that sufficient funds from the Interest and Sinking Fund are available at each Paying Agent to pay the principal of and interest on all Parity Bonds and Additional Bonds when due.

#### Section 10. RESERVE FUND.

(a) There is hereby confirmed and there shall be maintained on the books of the Authority a special Fund entitled the "Trinity River Authority of Texas Tarrant County Water Project New Reserve Fund" (the "Reserve Fund"), within which there may be established separate accounts to be held for the benefit of specific issues of Parity Bonds and not for the benefit of all Parity Bonds. There shall be deposited into the Reserve Fund any Reserve Fund Obligations so designated by the Authority. Reserve Fund Obligations in the Reserve Fund shall be deposited and maintained in a Depository. Reserve Fund Obligations in the Reserve Fund shall be used solely for the purpose of retiring the last of any Parity Bonds for which the Reserve Fund, or an account within the Reserve Fund, is held as they become due or paying principal of and interest on any such Parity Bonds when and to the extent the amounts in the Interest and Sinking Fund are insufficient for such purpose. Any specific Reserve Fund account shall be maintained in an amount equal to the average annual principal and interest requirements of the specific Parity Bonds to which it relates (the "Required Amount"). The Authority may, at its option, withdraw and transfer to the Revenue Fund, all surplus in the Reserve Fund over the Required Amount. The foregoing notwithstanding, with respect to the issuance of the Bonds, the Authorized Officer may direct the transfer of any surplus in the Reserve Fund to be deposited into the Construction and Acquisition Fund.

(b) The Authority may replace or substitute a Credit Facility for cash or Eligible Investments on deposit in the Reserve Fund or in substitution for or replacement of any existing Credit Facility. Upon such replacement or substitution, cash or Eligible Investments on deposit in the Reserve Fund which, taken together with the face amount of any existing Credit Facilities, are in excess of the Required Amount may be withdrawn by the Authority, at its option, and transferred to the Revenue Fund; provided that the face amount of any Credit Facility may be reduced at the option of the Authority in lieu of such transfer.

(c) If the Authority is required to make a withdrawal from the Reserve Fund for any of the purposes described in subsection (a), the Authority shall promptly notify any applicable Credit Facility Provider of the necessity for a withdrawal from the Reserve Fund for any such purposes, and shall make such withdrawal first from available moneys or Eligible Investments then on deposit in the Reserve Fund, and next from a drawing under any Credit Facility to the extent of such deficiency.

(d) In the event of a deficiency in the Reserve Fund, or in the event that on the date of termination or expiration of any Credit Facility there is not on deposit in the Reserve Fund sufficient Reserve Fund Obligations, all in an aggregate amount at least equal to the Required Amount, then the Authority shall satisfy the Required Amount by depositing Reserve Fund Obligations into the Reserve Fund in monthly installments of not less than 1/60 of the Required Amount made on or before the 15th day of each month following such termination or expiration.

(e) In the event of the redemption or defeasance of any Parity Bonds, any Reserve Fund Obligations on deposit in the Reserve Fund in excess of the Required Amount may be withdrawn and transferred, at the option of the Authority, to the Revenue Fund, as a result of (i) the redemption of any Parity Bonds or (ii) funds for the payment of any Parity Bonds having been deposited irrevocably with the paying agent or place of payment therefor in the manner described in any resolution authorizing the issuance of Parity Bonds, the result of such deposit being that such Parity Bonds no longer are deemed to be Outstanding under the terms of any such resolution.

(f) In the event there is a draw upon the Credit Facility, the Authority shall reimburse the Credit Facility Provider for such draw, in accordance with the terms of any agreement pursuant to which the Credit Facility is issued, from Net Revenues, however, such reimbursement from Net Revenues shall be subordinate and junior in right of payment to the payment of principal of and premium, if any, and interest on the Parity Bonds.

(g) Upon the issuance of Additional Bonds the monies in the Reserve Fund shall, to the extent necessary, be increased to the newly-established Required Amount.

Section 11. CONSTRUCTION AND ACQUISITION FUND. There has been created and there shall be established and maintained at the Depository a separate fund to be entitled the "Trinity River Authority of Texas (Tarrant County Water Project) Revenue Bonds Construction and Acquisition Fund" (hereinafter called the "Construction and Acquisition Fund"). The net proceeds (after paying costs of issuance and making other required deposits) from the sale of all "Improvement Bonds" in the future shall be deposited in the Construction and Acquisition Fund and such Fund shall be subject to and charged with a lien in favor of the holders of all such "Improvement Bonds" until the money in said Fund has been paid out as herein provided. Interest earnings derived from investment of the Construction and Acquisition Fund shall become part thereof for all purposes; provided, however, that any such earnings required to be rebated to the United States shall not be considered as interest earnings for the purposes of this Resolution. The Depository shall be required to secure the Construction and Acquisition Fund in its possession by pledging obligations of or obligations unconditionally guaranteed by the United States; such obligations at all times shall be at least equal in market value to the amount in the Construction and Acquisition Fund in its possession.

Section 12. DISBURSEMENTS FROM CONSTRUCTION AND ACQUISITION FUND.

(a) Money in the Construction and Acquisition Fund shall be subject to disbursement by the Authority for payment of Project Costs to be incurred in the acquisition and construction of

any project for which "Improvement Bonds" are issued. Such disbursements shall be made only upon checks stating the purpose of the payment signed and countersigned by such officers of the Authority as may from time to time be designated by the Authority by resolution, and duly certified to the Depository. Disbursements for payments to construction contractors and disbursements for construction material, supplies, and equipment shall be approved by a registered professional engineer.

(b) "Project Costs" as used herein includes all acquisition costs and construction costs as those terms are generally understood in standard accounting practice as applied to projects of this nature, and without limiting the generality of the foregoing, it shall include purchase of equipment, property, rights in property, capitalized interest, costs of land, easements, and rights of way, including damages to land and property, engineering, financing, financial consultants, administrative, auditing, and legal expenses incurred in connection with the performance of the Contracts. The costs for engineering, financial consultants, administrative, and legal expense paid from bond proceeds incurred by the Authority shall be reasonable and at usual and customary rates. Damages to land and property, whenever accruing, adjusted under Article I, Section 17 of the Constitution of Texas shall constitute a part of Project Costs. After completion of any Project improvements, any residue remaining in the Construction and Acquisition Fund shall be deposited in the Interest and Sinking Fund.

Section 13. TRUST FUNDS. The Interest and Sinking Fund and the Reserve Fund shall constitute trust funds and shall be held in trust by a Depository for the benefit of the holders of the Parity Bonds and Additional Bonds permitted hereunder.

Section 14. SECURITY OF FUNDS. The Authority shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, and will cause each paying agent to secure all funds deposited with it or them as other trust funds are secured. The Authority covenants and agrees that no money will be allowed to be or remain deposited with the Depository unless secured as above provided.

Section 15. PLEDGE. The Contracts provide for the payment by the Cities to the Authority (a) an amount equal to all Operation and Maintenance Expenses, (b) the amount necessary to pay all the principal of and the interest coming due on "Bonds" (as defined in the Contracts) on each principal and/or interest payment date, (c) during each Fiscal Year, the proportionate part of any special or reserve funds required to be established and/or maintained by the provisions of any "Bond Resolutions", and (d) an amount in addition thereto sufficient to restore any deficiency in any of such funds or accounts required to be accumulated and maintained by the provisions of any "Bond Resolutions". The term "Net Revenues" as used in this Resolution shall mean and be defined as all of the gross revenues or payments received by the Authority (i) from the Cities under the Contracts and (ii) from the parties, if any, with whom the Authority may contract in the future for supplying treated water from the System, after deducting therefrom the amounts paid to the Authority for the purpose of paying Operation and Maintenance Expenses, with the result that the Net Revenues shall consist of the amounts necessary to pay all principal and/or interest coming due on the Parity Bonds on each principal and/or interest payment date, and any amounts payable under (c) and (d) above. The Parity Bonds and the interest thereon are and shall be payable from and secured by a first lien on and

pledge of said Net Revenues, and said Net Revenues are hereby pledged for such purpose and to the establishment and maintenance of the Interest and Sinking Fund and the Reserve Fund.

Section 16. INVESTMENT OF FUNDS. The money in all Funds maintained hereunder shall be invested and reinvested in Eligible Securities which mature in not more than fifteen (15) years from the date of their purchase. The foregoing notwithstanding, the Reserve Fund and Construction and Acquisition Fund may be invested as described in Sections 10 and 11, respectively. All income and profits from the investment of all funds hereunder shall be deposited in the Interest and Sinking Fund not later than the January 15 or July 15 next following the receipt thereof.

Section 17. PREPARATION OF BUDGET. Not less than forty (40) days before the commencement of each Fiscal Year while any of the Parity Bonds are outstanding and unpaid, the Authority will prepare and file with the Cities the annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and, except as otherwise provided, the total expenditures in any division thereof will not exceed the total expenditures in the corresponding division in the Annual Budget. The Authority covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expenses, and that it will not expend any amount or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Operation and Maintenance Expenses in the Annual Budget; provided, however, that if at any time the Board of Authority shall determine that the amount of the appropriation for any item in the Annual Budget is in excess of the amount which will be required for such term, the Board of Authority may reduce such appropriation and make appropriation for any item or items not covered by the Annual Budget or increase the appropriation for any other item or items by an amount not exceeding the amount of such reduction; and provided further, that the Board of Authority may at any time adopt an amended or supplemental budget for the remainder of the then current Fiscal Year in case of an emergency caused by some extraordinary occurrence which shall be clearly defined in such resolution. Any such supplemental budget shall be filed immediately with the Cities.

Section 18. ACCOUNTING AND REPORTING. The Authority covenants that proper books of record and account will be kept in which true, full, and correct entries will be made of all income, expense, and transactions of and in relation to the System, and each and every part thereof. Within six months after each full Fiscal Year, a statement certified as correct by a Certified Public Accountant showing the Gross Revenues and the Operation and Maintenance Expenses for such Fiscal Year, shall be furnished to the Cities, and to the original purchasers of the Bonds. Each such audit will be available during regular office hours at the administration offices of the Authority for inspection by any holder of any of the Bonds.

Section 19. PUBLIC INSPECTION. The Authority further covenants and agrees that the System, and each and every part thereof, and all books, records, accounts, documents, and vouchers relating to the construction, operation, maintenance, repair, improvement, and extension thereof, will at all times be open to inspection by the Cities.

Section 20. PAYMENT OF PARITY BONDS AND INTEREST THEREON. The Authority covenants and agrees that, out of the pledged Net Revenues, it will duly and punctually pay, or cause to be paid, the principal of every Parity Bond and the interest thereon, on the date and at the place and in the manner specified in the Parity Bonds, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Parity Bond.

Section 21. LEGAL ABILITY. The Authority represents that it is a conservation and reclamation district, a political subdivision of the State of Texas, and a governmental agency and body politic and corporate, duly created, organized, and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof to construct, acquire, operate, maintain, improve, extend, better, repair, renew, and replace the System as herein described, and to levy and collect rates, tolls, rents, fees, and other charges, and to pledge its revenues in the manner and form as herein done or intended, and that all corporate action on its part to that end has been duly and validly taken. The Authority covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the System and the owners and holders of the Parity Bonds.

Section 22. CONSTRUCTION AND OPERATION. The Authority further covenants that it will forthwith proceed to acquire and construct the improvements, betterments, extensions, and replacements to the System for which the Bonds are being issued as soon as practicable in accordance with plans and specifications which have been prepared by the Independent Consulting Engineer, and thereafter each and every part of the System will be continuously operated by the Authority in an efficient and economical manner and will be kept in thorough repair and maintained in a high state of operating efficiency and in such manner that the interest of the Cities, the people of the State of Texas, the bondholders or owners, and the Authority will be promoted.

Section 23. OPERATION OF THE SYSTEM. The Authority shall use its best efforts to see that the System is properly and efficiently operated.

Section 24. CONTRACTORS. Authority shall require each person, firm, or corporation with whom (or which) it may contract for construction in connection with the System to furnish a performance bond in the full amount of any contract and a payment bond as required by law, and to carry such workmen's compensation or employers' liability insurance as may be required by law and such public liability, property damage, and builders' risk insurance, if any, as may be appropriate and necessary. The Authority further covenants and agrees that the proceeds of any such performance bond will forthwith, upon receipt of such proceeds, be applied toward the completion of the contract in connection with which such performance bond shall have been furnished.

Section 25. COVENANT TO MAINTAIN SUFFICIENT INCOME. To the end that Authority income will be sufficient to pay the Parity Bonds and the interest thereon when due, the Authority will keep in effect and enforce the Contracts, and will cause the System to be operated and maintained at an annual cost that will be within its income other than the income

required to pay the Parity Bonds and the interest thereon and the fees of each paying agent and Paying Agent/Registrar. The Authority will not voluntarily consent to any amendment to the Contracts which would reduce the amounts payable thereunder or extend the time of the payment of such amounts or which would in any manner impair or adversely affect the rights of the holders or owners of the Parity Bonds from time to time. If any of the Cities fails to make payments as required by the Contracts and if it shall appear that enforcement of the Contracts has become ineffective or will be ineffective to the extent that a default in payment of principal or interest on the Parity Bonds occurs or is threatened, the Authority will take all necessary action to preserve and protect the rights of the holders or owners of the Parity Bonds and to assure payment of the principal thereof and the interest thereon.

Section 26. NO OTHER LIENS. The Authority further covenants that there is not now outstanding, except as regards any Parity Bonds, and that the Authority will not at any time while the Parity Bonds are outstanding, create or allow to accrue or to exist any lien upon the System, or any rights owned, or the revenues pledged herein to the payment of the principal of and interest on the Parity Bonds, at any time derived from the operation thereof, or any of its Funds, except as authorized by Sections 36 and 37 of this Resolution in connection with Additional Bonds and other bonds; that the security of the Parity Bonds will not be impaired in any way as a result of any action or any non-action on the part of the Authority, its Board of Directors, or officers, or any thereof, and that the Authority has, and will, subject to the provisions hereof, continuously preserve good and indefeasible title to the System and each and every part thereof.

Section 27. KEEP FRANCHISES AND PERMITS IN EFFECT. The Authority further covenants that no franchises, permits, privileges, or easements will be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the System.

Section 28. GOVERNMENTAL REQUIREMENTS; LIENS; CLAIMS. The Authority covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the System or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such System or any part thereof or the revenue therefrom; provided, however, that nothing in this Section contained shall require the Authority to pay or cause to be discharged, or make provision for, any such lien or charge, so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Section 29. FURTHER ASSURANCE. The Authority covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

Section 30. SALE AND LEASE OF PROPERTY.

(a) The Authority covenants that so long as any of the Parity Bonds or interest payable thereon shall be outstanding, and except as in this Section otherwise permitted, it will not sell, lease, or otherwise dispose of or encumber any part of the System except as provided herein.

(b) The Authority may from time to time dispose of any rights, machinery, fixtures, apparatus, tolls, instruments, or other movable property and any materials used in connection therewith, if the Authority shall determine that such are no longer needed or are no longer useful in connection with the operation and maintenance of the System. The Authority may from time to time sell such real estate that is not needed or serves no useful purposes in connection with the maintenance and operation of the System. The proceeds of any sale of real or personal property acquired from the proceeds of the Parity Bonds shall be deposited in the Revenue Fund.

(c) The Authority may lease any of its lands for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the System. It may also lease any of its real property for oil, gas, and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property of the Authority. The rental to be charged under all such leases shall be not less than the fair and reasonable rental in relation to the character and value of the property leased. All rentals, revenues, receipts, and royalties derived by the Authority from any and all leases so made, shall be deposited in the Revenue Fund.

(d) It is covenanted and agreed by Authority that no such property of any nature shall be sold or leased by Authority unless, prior to any action taken by Authority concerning such sale or leasing, Authority shall procure the advice and recommendation in writing of a registered professional engineer concerning such proposed sale or leasing.

#### Section 31. INDEPENDENT ENGINEER.

(a) The Authority covenants that, until the Parity Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution, employ an independent engineer or engineering firm or corporation having a favorable repute for skill and experience in such work.

(b) The Authority covenants that it will at all appropriate times cause the Independent Consulting Engineer to submit and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterments, and improvements for the System, to the end that the System shall be operated and maintained in the most efficient and satisfactory manner. Further, Authority shall cause the Independent Consulting Engineer to make in writing a full survey, review, and report on the physical condition of the System once every three years.

(c) Authority further covenants that it will cause the Independent Consulting Engineer to make an annual report to it which shall set forth such Engineer's recommendations and advice as to (1) the proper maintenance, repair, and operation of the System, including their findings as to whether or not the properties of the System have been maintained in good repair and sound operating condition; (2) the extensions, improvements, renewals, and replacements which should be made during the ensuing Fiscal Year; (3) the amounts and types of insurance which should be carried by the Authority on the properties; and (4) any revisions or changes of rates, fees, and charges.

(d) The expense incurred under this Section 31 shall constitute Operation and Maintenance Expenses.

Section 32. **PARITY BONDS AND INTEREST NOT PAYABLE FROM TAXES.** The holders and owners of the Parity Bonds and the interest payable thereon shall never have the right to demand payment thereof out of funds raised or to be raised by taxation, or from any source other than the Net Revenues as defined and described herein.

Section 33. **INSURANCE COVERAGE.** The Authority covenants that it will at all times keep insured such of the System's plants, structures, buildings, stations, machinery, equipment, apparatus, pipelines, and equipment as are usually insured by corporations operating like properties, with a responsible insurance company or companies, against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, and will also at all times maintain workmen's compensation insurance and insurance against public liability and property damages, in a reasonable amount with responsible insurance companies; provided, however, that at any time while any contractor engaged in construction work shall be fully responsible therefor, the Authority shall not be required to carry such insurance. All such policies shall be open to the inspection of the bondholders and their representatives at all reasonable times.

Section 34. **INSURANCE PROCEEDS.** In the event of any loss of or damage to the System the Authority covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance policies covering such loss or damage solely for that purpose. The Authority covenants that it will begin such work of reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear of all mechanics' and other liens and claims. The Authority agrees that it will procure the advice and recommendation in writing of a registered professional engineer concerning such reconstruction before it is undertaken.

Section 35. **UNUSED INSURANCE PROCEEDS.** Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited in the Revenue Fund.

Section 36. **ADDITIONAL BONDS.** As used in this resolution, the following additional definitions shall apply:

(a) "Completion Bonds" means any bonds issued to complete construction of the System to enable the Authority to provide water supply services to the Cities and to others, as the System is described in the Engineering Report defined in the Contracts.

(b) "Improvement Bonds" means bonds issued for improvements, betterments, extensions, and replacements of the System.

(c) "Special Project Bonds" means any bonds issued to finance construction and/or acquisition of facilities which will not constitute a part of the System and which will not be paid out of revenues from the Contracts.

(d) "Refunding Bonds" means any bonds issued for the purpose of refunding all or a part of the Prior Lien Bonds, Parity Bonds or Additional Bonds.

(e) "Additional Bonds" means and includes Completion Bonds, Improvement Bonds, and Refunding Bonds.

Section 37. COMPLETION BONDS AND IMPROVEMENT BONDS. The Authority reserves the right to issue Completion Bonds and Improvement Bonds payable from and secured by a pledge of the Net Revenues, on a parity of lien with the Parity Bonds, or junior to the Parity Bonds, or a portion of them may be such first lien bonds and a portion may such junior lien bonds. The Completion Bonds and Improvement Bonds may be issued in one or more series or installments, and from time to time as authorized by the Board of Authority, provided, however, that no installment or series of Completion Bonds or Improvement Bonds, if it is on a parity with the lien of the Parity Bonds, shall be issued unless:

(a) A certificate is executed by the President and Secretary of the Board of Authority to the effect that no default exists in connection with any of the covenants or requirements of the resolutions authorizing the issuance of all then outstanding bonds which are secured by and payable from the Net Revenues;

(b) A certificate is executed by the President and the Secretary of the Board of Authority to the effect that the Interest and Sinking Fund and the Reserve Fund contain the amounts then required to be on deposit therein;

(c) The then proposed Completion Bonds or Improvement Bonds are made to mature on August 1 and/or February 1 of each of the years in which they are scheduled to mature.

Section 38. SPECIAL PROJECT BONDS. Special Project Bonds payable from and secured by revenues may be issued by the Authority for the purpose of providing additional facilities to enable the Authority to render service to other users, provided that such Special Project Bonds are not payable from or secured by a pledge of Net Revenues. Special Project Bonds may be additionally secured by a mortgage or deed of trust lien upon only the physical properties of the project purchased or constructed with the proceeds of such bonds.

Section 39. INCREASE IN RESERVE FUND. If Completion Bonds or Improvement Bonds are issued as Parity Bonds, the amount required to be deposited and maintained in the Reserve Fund shall, if necessary to maintain the Required Amount in the Reserve Fund, be increased so that the aggregate amount to be accumulated in the Reserve Fund shall be no less than the Required Amount for all then outstanding Parity Bonds and for the installment or series of parity Completion Bonds or Improvement Bonds then proposed to be issued. Such average annual requirements shall be calculated as of the date of any such Additional Bonds. Provided, as of the date of any such Additional Bonds, it shall be sufficient if the aggregate amount in the

Reserve Fund is equal to the average annual requirement on the Parity Bonds and Additional Bonds outstanding and to be outstanding, and if the amount exceeds such average annual requirement, any surplus in the Reserve Fund may be transferred to the Revenue Fund, unless otherwise required by any bond resolution.

Section 40. TAX BONDS. No provisions in this Resolution shall in any way affect the statutory right of the Authority to issue bonds supported wholly by ad valorem taxes.

Section 41. REFUNDING BONDS. The Authority reserves the right to issue Refunding Bonds to refund any outstanding bonds secured by a pledge of the Net Revenues from the Contracts and any amendments thereof.

Section 42. DEFAULT PROVISIONS AND REMEDIES. In the event of a default or a threatened default in the payment of principal of or interest on the Parity Bonds, any court of competent jurisdiction may, upon petition of holders or owners of twenty-five per cent of the outstanding Parity Bonds, appoint a receiver with authority to collect and receive all income from the System, employ, and discharge agents, employees, and consultants of the Authority, take charge of pledged funds on hand and manage the proprietary affairs of the Authority without consent or hindrance by the Board of Authority. Such receiver may also be authorized to make contracts for providing water treatment services or renew such contracts with the approval of the court appointing him. The Court may vest the receiver with such other powers and duties as the court may find necessary for the protection of the holders or owners of the Parity Bonds.

Section 43. OTHER REMEDIES; REMEDIES NOT WAIVED. No remedy herein specified is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy available to the holders or owners of the said Parity Bonds, or now or hereafter existing at law or in equity, or by statute. No delay or omission to exercise any right or power shall impair any such right or power or shall be construed to be a waiver of any such default or acquiescence therein, and every such right and power may be exercised from time to time and so often as may be deemed expedient.

Section 44. AMENDMENTS OF RESOLUTION BY AUTHORITY. Without any prior action by or notice to the holders or owners of the Parity Bonds, Authority may, from time to time, and at any time, amend this Resolution:

(a) to add to the covenants and undertakings of the Authority contained in this Resolution such additional covenants and undertakings as may be authorized or permitted by law; and

(b) to cure any ambiguous, defective, or inconsistent provisions of this Resolution and to accomplish any other purposes not inconsistent with the provisions of this Resolution and which shall not impair the security afforded hereby.

Section 45. AMENDMENTS BY CONSENT. The holders and owners of Parity Bonds and Additional Bonds aggregating in principal amount two-thirds of the aggregate principal amount of the Parity Bonds and Additional Bonds at the time outstanding (but not including in any case any Parity Bonds or Additional Bonds which may then be held or owned by or for the account of the Authority) shall have the right from time to time to approve an amendment of this Resolution which may be deemed necessary or desirable by the Authority; provided, however, that no amendment, without the consent of the holders and owners of all of the outstanding Parity Bonds and Additional Bonds, shall:

- (a) Make any change in the maturity of the Parity Bonds or Additional Bonds;
- (b) Reduce the rate of interest borne by any of the Parity Bonds or Additional Bonds;
- (c) Reduce the amount of the principal payable on the Parity Bonds or Additional Bonds;
- (d) Modify the terms of payment of principal of or interest on the Parity Bonds or Additional Bonds, or any of them, or impose any conditions with respect to such payment;
- (e) Affect the rights of the holders or owners of less than all of the Parity Bonds and Additional Bonds then outstanding; or
- (f) Change the minimum percentage of the principal amount of Parity Bonds and Additional Bonds necessary for consent to such amendment.

Section 46. NOTICE REQUIRED. If at any time the Authority shall desire to amend this Resolution under Section 45, the Authority shall cause notice of the proposed amendment to be published in a financial newspaper or journal published in the City of New York, New York, once during each calendar week for at least four successive calendar weeks. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file with each paying agent for the Parity Bonds and Additional Bonds and with the Secretary of the Board of Authority for inspection by all holders or owners of Parity Bonds and Additional Bonds. Such publication is not required, however, if notice in writing is given to each holder and owner of Parity Bonds and Additional Bonds.

Section 47. ADOPTION OF AMENDMENT. Whenever at any time not less than thirty (30) days and within one year from the date of the first publication of said notice or other service of written notice the Authority shall receive an instrument or instruments executed by the holders and owners of at least two-thirds in aggregate principal amount of Parity Bonds and Additional Bonds then outstanding, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically consent to and approve such amendment in substantially the form of the copy thereof on file with the paying agents and Authority, the Authority may adopt the amendatory resolution in substantially the same form.

Section 48. EFFECTIVE UPON ADOPTION. Upon the adoption of any amendatory resolution pursuant to the provisions hereof, this Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties, and obligations

under this Resolution of the Authority and all the holders or owners of outstanding Parity Bonds and Additional Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

Section 49. REVOCATION OF CONSENT. Any consent given by the holder or owner of a Parity Bond or Additional Bond pursuant to the provisions hereof shall be irrevocable for a period of six months from the date of the first publication of the notice provided for herein, and shall be conclusive and binding upon all future holders and owners of the same Parity Bond or Additional Bond during such period. Such consent may be revoked at any time after six months from the date of the first publication of such notice by the holder or owner who gave such consent, or by a successor in title, by filing notice thereof with the paying agent and the Authority, but such revocation shall not be effective if the holders or owners of two-thirds aggregate principal amount of the Parity Bonds and Additional Bonds outstanding as herein defined have, prior to the attempted revocation, consented to and approved the amendment.

Section 50. PROOF OF OWNERSHIP. The fact of the holding of Parity Bonds and Additional Bonds by any Bondholder and the amount and numbers of such Parity Bonds and Additional Bonds, and the date of his holding same may be proved by the affidavit of the person claiming to be such holder or owner, or by a certificate executed by any trust company, bank, banker, or any other depository, wherever situated showing that on the date therein mentioned such person had on deposit with such trust company, bank, banker, or other depository, the Parity Bonds or Additional Bonds described in such certificate. The Authority may conclusively assume that such ownership continues until written notice to the contrary is served upon the Authority. All matters relating to the ownership of fully registered Parity Bonds and Additional Bonds shall be ascertained from the registration books therefor kept by the registrar.

Section 51. DEFEASANCE OF BONDS. (a) Any Bond and the interest thereon shall be deemed to be paid, retired, and no longer outstanding (a "Defeased Bond") within the meaning of this Resolution, except to the extent provided in subsection (d) of this Section, when payment of the principal of such Bond, plus interest thereon to the due date (whether such due date be by reason of maturity or otherwise) either (i) shall have been made or caused to be made in accordance with the terms thereof, or (ii) shall have been provided for on or before such due date by irrevocably depositing with or making available to the Paying Agent/Registrar in accordance with an escrow agreement or other instrument (the "Future Escrow Agreement") for such payment (1) lawful money of the United States of America sufficient to make such payment or (2) Defeasance Securities that mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment, of sufficient money to provide for such payment, and when proper arrangements have been made by the Issuer with the Paying Agent/Registrar for the payment of its services until all Defeased Bonds shall have become due and payable. At such time as a Bond shall be deemed to be a Defeased Bond hereunder, as aforesaid, such Bond and the interest thereon shall no longer be secured by, payable from, or entitled to the benefits of, the Net Revenues as provided in this Resolution, and such principal and interest shall be payable solely from such money or Defeasance Securities. Notwithstanding any other provision of this Resolution to the contrary, it is hereby provided that any determination not to redeem Defeased Bonds that is made in conjunction with the payment arrangements specified in subsection 51(a)(i) or (ii) shall not be irrevocable, provided that: (1) in

the proceedings providing for such payment arrangements, the Issuer expressly reserves the right to call the Defeased Bonds for redemption; (2) gives notice of the reservation of that right to the owners of the Defeased Bonds immediately following the making of the payment arrangements; and (3) directs that notice of the reservation be included in any redemption notices that it authorizes.

(b) Any moneys so deposited with the Paying Agent/Registrar may at the written direction of the Issuer also be invested in Defeasance Securities, maturing in the amounts and times as hereinbefore set forth, and all income from such Defeasance Securities received by the Paying Agent/Registrar that is not required for the payment of the Bonds and interest thereon, with respect to which such money has been so deposited, shall be turned over to the Issuer, or deposited as directed in writing by the Issuer. Any Future Escrow Agreement pursuant to which the money and/or Defeasance Securities are held for the payment of Defeased Bonds may contain provisions permitting the investment or reinvestment of such moneys in Defeasance Securities or the substitution of other Defeasance Securities upon the satisfaction of the requirements specified in subsection 51(a)(i) or (ii). All income from such Defeasance Securities received by the Paying Agent/Registrar which is not required for the payment of the Defeased Bonds, with respect to which such money has been so deposited, shall be remitted to the Issuer or deposited as directed in writing by the Issuer.

(c) The term "Defeasance Securities" means any securities and obligations now or hereafter authorized by State law that are eligible to discharge obligations such as the Bonds.

(d) Until all Defeased Bonds shall have become due and payable, the Paying Agent/Registrar shall perform the services of Paying Agent/Registrar for such Defeased Bonds the same as if they had not been defeased, and the Issuer shall make proper arrangements to provide and pay for such services as required by this Resolution.

(e) In the event that the Issuer elects to defease less than all of the principal amount of Bonds of a maturity, the Paying Agent/Registrar shall select, or cause to be selected, such amount of Bonds by such random method as it deems fair and appropriate.

**Section 52. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS.**

(a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as

the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Subchapter B, Chapter 1206, Texas Government Code, this Section shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such Bonds in the form and manner and with the effect, as provided in Section 4 for Bonds issued in conversion and exchange for other Bonds.

Section 53. FEDERAL TAX COVENANTS. (a) General Tax Covenants Regarding Tax Exemption of Interest on the Bonds. The Issuer covenants to take any action necessary to assure, or refrain from any action which would adversely affect, the treatment of the Bonds as obligations described in section 103 of the Code, the interest on which is not includable in the "gross income" of the holder for purposes of federal income taxation. In furtherance thereof, the Issuer covenants as follows:

(a) to take any action to assure that no more than 10 percent of the proceeds of the Bonds or the projects financed therewith (less amounts deposited to a reserve fund, if any) are used for any "private business use," as defined in section 141(b)(6) of the Code or, if more than 10 percent of the proceeds or the projects financed therewith are so used, such amounts, whether or not received by the Issuer, with respect to such private business use, do not, under the terms of this Resolution or any underlying arrangement, directly or indirectly, secure or provide for the payment of more than 10 percent of the debt service on the Bonds, in contravention of section 141(b)(2) of the Code;

(b) to take any action to assure that in the event that the "private business use" described in subsection (a) hereof exceeds 5 percent of the proceeds of the Bonds or the projects financed therewith (less amounts deposited into a reserve fund, if any) then the amount in excess

of 5 percent is used for a "private business use" which is "related" and not "disproportionate," within the meaning of section 141(b)(3) of the Code, to the governmental use;

(c) to take any action to assure that no amount which is greater than the lesser of \$5,000,000, or 5 percent of the proceeds of the Bonds (less amounts deposited into a reserve fund, if any) is directly or indirectly used to finance loans to persons, other than state or local governmental units, in contravention of section 141(c) of the Code;

(d) to refrain from taking any action which would otherwise result in the Bonds being treated as "private activity bonds" within the meaning of section 141(b) of the Code;

(e) to refrain from taking any action that would result in the Bonds being "federally guaranteed" within the meaning of section 149(b) of the Code;

(f) to refrain from using any portion of the proceeds of the Bonds, directly or indirectly, to acquire or to replace funds which were used, directly or indirectly, to acquire investment property (as defined in section 148(b)(2) of the Code) which produces a materially higher yield over the term of the Bonds, other than investment property acquired with --

(1) proceeds of the Bonds invested for a reasonable temporary period until such proceeds are needed for the purpose for which the bonds are issued,

(2) amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Treasury Regulations, and

(3) amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed 10 percent of the proceeds of the Bonds;

(g) to otherwise restrict the use of the proceeds of the Bonds or amounts treated as proceeds of the Bonds, as may be necessary, so that the Bonds do not otherwise contravene the requirements of section 148 of the Code (relating to arbitrage) and, to the extent applicable, section 149(d) of the Code (relating to advance refundings);

(h) to pay to the United States of America at least once during each five-year period (beginning on the date of delivery of the Bonds) an amount that is at least equal to 90 percent of the "Excess Earnings," within the meaning of section 148(f) of the Code and to pay to the United States of America, not later than 60 days after the Bonds have been paid in full, 100 percent of the amount then required to be paid as a result of Excess Earnings under section 148(f) of the Code; and

In order to facilitate compliance with the above covenant (h), a "Rebate Fund" is hereby established by the Issuer for the sole benefit of the United States of America, and such fund shall not be subject to the claim of any other person, including without limitation the bondholders. The Rebate Fund is established for the additional purpose of compliance with section 148 of the Code.

For purposes of the foregoing (a) and (b), the Issuer understands that the term "proceeds" includes "disposition proceeds" as defined in the Treasury Regulations and, in the case of refunding bonds, transferred proceeds (if any) and the proceeds of the refunded bonds expended prior to the date of issuance of the Bonds. It is the understanding of the Issuer that the covenants contained herein are intended to assure compliance with the Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto. In the event that regulations or rulings are hereafter promulgated which modify or expand provisions of the Code, as applicable to the Bonds, the Issuer will not be required to comply with any covenant contained herein to the extent that such failure to comply, in the opinion of nationally recognized bond counsel, will not adversely affect the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In the event that regulations or rulings are hereafter promulgated which impose additional requirements which are applicable to the Bonds, the Issuer agrees to comply with the additional requirements to the extent necessary, in the opinion of nationally recognized bond counsel, to preserve the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In furtherance of such intention, the Issuer hereby authorizes and directs the President of the Board of Authority, or the Authorized Officer, to execute any documents, certificates or reports required by the Code and to make such elections, on behalf of the Issuer, which may be permitted by the Code as are consistent with the purpose for the issuance of the Bonds. This Resolution is intended to satisfy the official intent requirements set forth in section 1.150-2 of the Treasury Regulations.

(b) Interest Earnings on Bond Proceeds. Interest earnings derived from the investment of proceeds from the sale of the Bonds shall be used along with other bond proceeds for the purpose for which the Bonds are issued set forth in Section 1 hereof; provided that after completion of such purpose, if any of such interest earnings remain on hand, such interest earnings shall be deposited in the Interest and Sinking Fund. It is further provided, however, that any interest earnings on bond proceeds which are required to be rebated to the United States of America pursuant to Section 53(a) hereof in order to prevent the Bonds from being arbitrage bonds shall be so rebated and not considered as interest earnings for the purposes of this Section 53(b).

(c) Disposition of Project. The Issuer covenants that the property constituting the Project financed with the proceeds of the Refunded Bonds will not be sold or otherwise disposed in a transaction resulting in the receipt by the Issuer of cash or other compensation, unless the Issuer obtains an opinion of nationally-recognized bond counsel that such sale or other disposition will not adversely affect the tax-exempt status of the Bonds. For purposes of the foregoing, the portion of the property comprising personal property and disposed in the ordinary course shall not be treated as a transaction resulting in the receipt of cash or other compensation. For purposes hereof, the Issuer shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

Section 54. CUSTODY, APPROVAL, BOND COUNSEL'S OPINION, CUSIP NUMBERS AND INSURANCE. The President of the Board of Directors and the General Manager of the Issuer are hereby authorized to have control of the Bonds issued hereunder and all necessary records and proceedings pertaining to the Bonds pending their delivery and the approval of the Bonds by the Attorney General of the State of Texas. The Comptroller of Public

Accounts is requested to cause the Bonds to be registered in accordance with law. The approving legal opinion of the Issuer's Bond Counsel and the assigned CUSIP numbers may, at the option of the Issuer, be printed on the Bonds or on any Bonds issued and delivered in conversion of and exchange or replacement of any Bond, but neither shall have any legal effect, and shall be solely for the convenience and information of the registered owners of the Bonds. If insurance is obtained on any of the Bonds, the Bonds shall bear, as appropriate and applicable, a legend concerning insurance as provided by the Insurer.

Section 55. FURTHER PROCEDURES. The President, Vice President and Secretary of the Board of Directors of the Issuer, the General Manager (as the "Authorized Officer" of the Issuer) and all other officers, employees and agents of the Issuer, and each of them, shall be and they are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and under the corporate seal and on behalf of the Issuer a Letter of Representation with DTC regarding the Book-Entry Only System, the Paying Agent/Registrar Agreement with the Paying Agent/Registrar and all other instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Resolution, the Letter of Representation, the Bonds, the sale of the Bonds and the Official Statement. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter of Representation is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict. In case any officer whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

Section 56. CONTINUING DISCLOSURE OF INFORMATION. (a) As used in this Section, the following terms have the meanings ascribed to such terms below:

"MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means SEC Rule 15c2-12, as amended from time to time.

"SEC" means the United States Securities and Exchange Commission.

(b) Pursuant to a Continuing Disclosure Agreement by and between the Issuer and the Cities, the Issuer and the Cities have undertaken for the benefit of the beneficial owners of the Bonds, to the extent set forth therein, to provide continuing disclosure of financial information and operating data with respect to the Cities in accordance with the Rule as promulgated by the SEC.

(c) The Issuer shall notify the MSRB, in a timely manner not in excess of ten business days after the occurrence of the event, of any of the following events with respect to the Bonds:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults, if material;

3.     Unscheduled draws on debt service reserves reflecting financial difficulties;
4.     Unscheduled draws on credit enhancements reflecting financial difficulties;
5.     Substitution of credit or liquidity providers, or their failure to perform;
6.     Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
7.     Modifications to rights of holders of the Bonds, if material;
8.     Bond calls, if material, and tender offers;
9.     Defeasances;
10.    Release, substitution, or sale of property securing repayment of the Bonds, if material;
11.    Rating changes;
12.    Bankruptcy, insolvency, receivership or similar event of the Issuer;
13.    The consummation of a merger, consolidation, or acquisition involving the Issuer or the sale of all or substantially all of the assets of the Issuer, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
14.    Appointment of a successor Paying Agent/Registrar or change in the name of the Paying Agent/Registrar, if material.

Section 57. SECURITY INTEREST. Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the Net Revenues granted by the Issuer under Sections 6 and 15 of this Resolution, and is therefore valid, effective, and perfected. If Texas law is amended at any time while the Bonds are outstanding and unpaid such that the pledge of the Net Revenues granted by the Issuer under Sections 6 and 15 of this Resolution is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, then in order to preserve to the registered owners of the Bonds the perfection of the security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing to perfect the security interest in said pledge to occur.

Section 58. EXPIRATION OF AUTHORIZATION. The authority of the General Manager, as Authorized Officer, to sell the Bonds as described in Section 2 of this Resolution shall expire on the one-year anniversary date of the adoption of this Resolution by the Board.

Section 59. REPEAL OF CONFLICTING RESOLUTIONS. All resolutions and all parts of any resolutions which are in conflict or inconsistent with this Resolution are hereby repealed and shall be of no further force or effect to the extent of such conflict or inconsistency.



which this Bond is being exchanged or converted from is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the registered owner hereof upon presentation and surrender of this Bond at maturity or upon the date fixed for its redemption prior to maturity, at the principal corporate trust office of The Bank of New York Mellon Trust Company, National Association, Dallas, Texas, which is the "Paying Agent/Registrar" for this Bond. The payment of interest on this Bond shall be made by the Paying Agent/Registrar to the registered owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the Resolution authorizing the issuance of this Bond (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the registered owner hereof, at its address as it appeared on the fifteenth calendar day of the month next preceding each such date (the "Record Date") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described. In addition, interest may be paid by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the registered owner. In the event of a non-payment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least five business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each owner of a Bond appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

ANY ACCRUED INTEREST due at maturity or upon the redemption of this Bond prior to maturity as provided herein shall be paid to the registered owner upon presentation and surrender of this Bond for redemption and payment at the principal corporate trust office of the Paying Agent/Registrar. The Issuer covenants with the registered owner of this Bond that on or before each principal payment date, interest payment date, and accrued interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for the payment of the principal of or interest on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the principal corporate trust office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND is one of a Series of Bonds dated \_\_\_\_\_, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$\_\_\_\_\_, IN ORDER TO OBTAIN FUNDS AND TO PAY THE COSTS OF REFUNDING CERTAIN MATURITIES OF THE SERIES 2008 BONDS OF THE ISSUER].

ON \_\_\_\_\_, \_\_\_\_\_, or on any date thereafter, the Bonds of this Series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, the particular Bonds to be redeemed shall be selected and designated by the Issuer, at the redemption price of the principal amount, plus accrued interest to the date fixed for redemption.

The Bonds maturing in the year \_\_\_\_ are subject to mandatory redemption prior to maturity in part, at random, by lot or other customary method selected by the Paying Agent/Registrar, at par plus accrued interest to the redemption date, in amounts sufficient to redeem said Bonds on \_\_\_\_\_ 1 in the years and principal amounts shown on the following schedule:

Term Bonds due [\_\_\_\_] 1, [\_\_\_\_\_]

Mandatory Redemption Date: \_\_/1/20\_\_      Principal Amount: \$[\_\_\_\_],000.00

Mandatory Redemption Date: \_\_/1/20\_\_\*      Principal Amount: \$[\_\_\_\_],000.00

\* Stated Maturity

The principal amount of said Bonds required to be redeemed pursuant to the operation of such mandatory redemption provision shall be reduced, at the option of the Issuer, by the principal amount of said Bonds of the respective maturity which, at least 50 days prior to the mandatory redemption date (1) shall have been acquired by the Issuer at a price not exceeding the principal amount of such Bonds plus accrued interest to the date of purchase thereof, and delivered to the Paying Agent/Registrar for cancellation, (2) shall have been purchased and canceled by the Paying Agent/Registrar at the request of the Issuer at a price not exceeding the principal amount of such Bonds plus accrued interest to the date of purchase, or (3) shall have been redeemed pursuant to the optional redemption provisions and not theretofore credited against a mandatory redemption requirement.

AT LEAST 30 days prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, to the registered owner of each Bond to be redeemed at its address as it appeared on the registration books of the Paying Agent/Registrar at the close of business on the business day next preceding the date of mailing such notice and to major securities depositories, national bond rating agencies and bond information services; provided, however, that the failure of the registered owner to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond. By the date fixed for any such redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed. If such

written notice of redemption is sent and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the registered owner to receive the redemption price from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the registered owner, and in aggregate amount equal to the unredeemed portion thereof, will be issued to the registered owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

ALL BONDS OF THIS SERIES are issuable solely as fully registered Bonds, without interest coupons, in the denomination of any integral multiple of \$5,000. As provided in the Bond Resolution, this Bond, or any unredeemed portion hereof, may, at the request of the registered owner or the assignee or assignees hereof, be assigned, transferred, converted into and exchanged for a like aggregate principal amount of fully registered Bonds, without interest coupons, payable to the appropriate registered owner, assignee or assignees, as the case may be, having the same denomination or denominations in any integral multiple of \$5,000 as requested in writing by the appropriate registered owner, assignee or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any integral multiple of \$5,000 to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be registered. The form of Assignment printed or endorsed on this Bond may be executed by the registered owner to evidence the assignment hereof, but such method is not exclusive, and other instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any portion or portions hereof from time to time by the registered owner. The Paying Agent/Registrar's reasonable standard or customary fees and charges for assigning, transferring, converting and exchanging any Bond or portion thereof will be paid by the Issuer. In any circumstance, any taxes or governmental charges required to be paid with respect thereto shall be paid by the one requesting such assignment, transfer, conversion or exchange, as a condition precedent to the exercise of such privilege. The Paying Agent/Registrar shall not be required to make any such transfer, conversion or exchange (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and cause written notice thereof to be mailed to the registered owners of the Bonds.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, sold, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond and other parity bonds, are special obligations of the Issuer payable from and secured by a first lien on and pledge of (1) the Issuer's Net Revenues from its water supply contracts, each dated as of January 21, 1972, and amended as of January 22, 1975, and as of December 5, 1979 (with respect to the City of Euless) and December 11, 1979 (with respect to the City of Bedford), with the Cities of Bedford and Euless, Texas, and its water supply contracts each dated as of April 25, 1979, and amended as of December 5, 1979, and as of April 23, 1980, with the Cities of Colleyville, Grapevine, and North Richland Hills, Texas, all relating to the Issuer's Tarrant County Water Project described in said contracts, all as more fully described in said contracts and in the Bond Resolution, to each of which reference is hereby made for all purposes, and (2) the Net Revenues the Issuer may receive from other parties, if any, with whom the Issuer may contract in the future for supplying treated water from the Issuer's Tarrant County Water Project.

THE ISSUER has reserved the right, subject to the restrictions stated or referred to in the Bond Resolution, to issue additional parity revenue bonds which also may be made payable from and secured by a first lien on and pledge of the aforesaid Net Revenues.

THE ISSUER also has reserved the right to amend the Bond Resolution with the approval of the owners of two-thirds in principal amount of all outstanding bonds secured by and payable from a first lien on and pledge of the aforesaid Net Revenues, subject to the restrictions stated in the Bond Resolution.

THE REGISTERED OWNER hereof shall never have the right to demand payment of this Bond or the interest hereon from taxes or from any source whatsoever other than specified in the Bond Resolution.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond.

\_\_\_\_\_  
Secretary, Board of Directors  
Trinity River Authority of Texas

\_\_\_\_\_  
President, Board of Directors  
Trinity River Authority of Texas

(SEAL)

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE  
(To be executed if this Bond is not accompanied by an  
executed Registration Certificate of the Comptroller  
of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in exchange for a bond or bonds, or a portion of a bond or bonds of a series that originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Dated: \_\_\_\_\_

The Bank of New York Mellon Trust Company, N.A.  
Dallas, Texas  
Paying Agent/Registrar

By \_\_\_\_\_  
Authorized Representative

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto:

\_\_\_\_\_  
*Please insert Social Security or Taxpayer Identification Number of Transferee*

\_\_\_\_\_  
*Please print or type name and address, including zip code of Transferee*

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints:  
\_\_\_\_\_, attorney, to register the transfer of the within Bond  
on the books kept for registration thereof, with full power of substitution in the premises.

Dated: \_\_\_\_\_.

Signature Guaranteed:

NOTICE: Signature(s) must be guaranteed by an eligible guarantor institution participating in a securities transfer association recognized signature guarantee program.

NOTICE: The signature above must correspond with the name of the Registered Owner as it appears upon the front of this Bond in every particular, without alteration or enlargement or any change whatsoever.

COMPTROLLER'S REGISTRATION CERTIFICATE:

REGISTER NO. \_\_\_\_\_

I hereby certify that this Bond has been examined, certified as to validity, and approved by the Attorney General of the State of Texas, and that this Bond has been registered by the Comptroller of Public Accounts of the State of Texas.

Witness my signature and seal this

\_\_\_\_\_  
Comptroller of Public Accounts of the State of Texas

(COMPTROLLER'S SEAL)



# Council Agenda Background

**PRESENTER:** Kenny Overstreet,  
Interim Public Works Director

**DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to execute an emergency purchase and installation of 47 linear feet of bridge railing in the 2900 block of Harwood Road from 2L Construction, LLC in the amount of \$23,750.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The concrete railing located along the eastbound lane in the 2900 block of Harwood Road was damaged as a result of a vehicle accident on January 8, 2016. The bridge railing is needed to form a barrier so motorists do not accidentally swerve off of the road and into the creek channel. Temporary water barriers are in place to block off the damaged rail for motorist and pedestrian safety. In addition, the bridge railing specifications will be in compliance with state and local codes.

Staff recommends 2L Construction, LLC for the project of repairing and installing 47 feet of TXDOT Rail Type C221 Combination Rail at the above mentioned location. Services will include removing the existing damaged railing, replacing 47 feet of concrete railing on top of the existing concrete, installing 47 feet of top rail, repairing concrete flatwork that was damaged by the broken railing, and providing traffic control during the construction process.

Funding in the amount of \$23,750 will be paid out of the Stormwater Fund.

Staff contacted the driver’s insurance company to file a claim for the damage, and were informed that at this time the policy had lapsed. Texas Municipal League was also contacted to see if this repair was covered under the City’s umbrella policy, but that was also denied.

**RECOMMENDATION:**

Staff recommends the following motion:

Approve a resolution authorizing the City Manager to execute an emergency purchase and installation of 47 linear feet of bridge railing in the 2900 block of Harwood Road from 2L Construction, LLC in the amount of \$23,750.

**FISCAL IMPACT:**

Project Budget FY 15/16:	\$ 0
Actual Amount:	\$ 23,750
Variance:	\$(23,750)

**ATTACHMENTS:**

Resolution
Quote
Map

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE AN EMERGENCY PURCHASE AND INSTALLATION OF 47 LINEAR FEET OF BRIDGE RAILING IN THE 2900 BLOCK OF HARWOOD ROAD FROM 2L CONSTRUCTION IN THE AMOUNT OF \$23,750.

WHEREAS, the City Council of Bedford, Texas has determined the need for the replacement of the bridge railing in the 2900 block of Harwood Road; and,

WHEREAS, the City Council of Bedford, Texas recognizes the importance of providing these repairs to be responsive to the needs of the community.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council hereby authorizes the City Manager to execute an emergency purchase and installation of 47 linear feet of bridge railing in the 2900 block of Harwood Road from 2L Construction, LLC in the amount of \$23,750.

SECTION 3. That funding will come from the Stormwater Fund.

PRESENTED AND PASSED this 23rd day of February, 2016 by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney



P.O. Box 397  
 Rhome, TX 76078

Phone 940-433-2670  
 Fax 940-433-2120

Attn: Bill Lankford

2L CONSTRUCTION L.L.C. will furnish all labor, materials and equipment required for the performance of the following described work in connection or improvements to: C221 Concrete Railing

**Inclusions:**

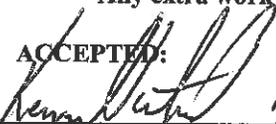
Quantity	Unit	Description	Price
1	LS	Remove existing railing and salvage to city	
47	LF	C221 Concrete railing on top of existing concrete	
47	LF	Install top rail on concrete railing	
1	LS	Repair concrete flatwork where broken by railing	
1	LS	Traffic control for construction of railing	
		<b>TOTAL</b>	<b>\$ 23,750.00</b>

**Exclusions:**

- More than (1) mobilization or Phasing of project
- Overtime, weekends, or night work
- All utility locations
- Utility disconnections, relocations, terminations, or other site utility work
- Responsibility for damage to private underground utilities
- Testing, permits, bonds or taxes
- SWPPP, Silt fence, or other erosion control devices, including maintenance on existing erosion control devices\*unless listed in inclusions
- Landscaping backfill, including top soil, hydro-mulching, seeding, or sod

If the foregoing meets with your acceptance, kindly sign and return the attached copy of our proposal. Upon its acceptance it is understood that the foregoing, including terms and conditions set forth and attached here to and incorporated herein for all purposes will constitute the full and complete agreement between us.

Any extra work by 2L construction will be billed in the form of a change order to the owner or General Contractor.

ACCEPTED:  
  
 1/28/16  
 Interior Public Works Director  
 Price good for 30 days

2L CONSTRUCTION L.L.C.

\_\_\_\_\_  
 Chip Fisher 1-26-16



AERIAL SOURCE: NCTCOG, 2015

# HARWOOD ROAD

## BOX CULVERT GUARD RAIL REPLACEMENT



 PROJECT LOCATION





# Council Agenda Background

**PRESENTER:** Kenny Overstreet,  
Interim Public Works Director

**DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into a Professional Services Agreement with Pacheco Koch, LLC in the amount of \$89,075 for design services for Bedford Road Paving Improvements from Somerset Terrace to Brown Trail.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

Paving improvements on Bedford Road, from Somerset Terrace to Brown Trail are necessary because of sub-grade failures and storm water runoff that crosses the roadway, creating a hazardous condition for motorists. In 2015, a new 16-inch water line was installed on the north side of the roadway to connect two dead end lines in the water system. Due to these issues, the reconstruction of Bedford Road between Somerset Terrace and Brown Trail is recommended. Pacheco Koch, LLC has proposed design services to address the sub-grade failures and removal of storm water runoff on the roadway by installing a storm drain system. Storm drains, ADA ramp improvements, curb and gutter reconstruction, concrete driveway and sidewalk repairs are also included in the proposed design services.

Staff recommends Pacheco Koch, LLC for this project. Utilizing Pacheco Koch, LLC will be beneficial in reducing the overall costs associated with design services as survey work was previously completed by the company during the Bedford Road Water Main Improvements project. The scope of services include the preparation of contract documents, construction management, field study and the complete paving design of Bedford Road from Somerset Terrace to Brown Trail.

The Bedford Road Paving Improvements project was approved by the Street Improvement Economic Development Corporation at the July 21, 2015 meeting. If approved, funding in the amount of \$89,075 would come from the Street Improvement Economic Development Corporation (4B) fund. The remaining project budget amount is for the construction phase.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to enter into a Professional Services Agreement with Pacheco Koch, LLC in the amount of \$89,075 for design services for Bedford Road Paving Improvements from Somerset Terrace to Brown Trail.

**FISCAL IMPACT:**

Project Budget FY 15/16:	\$893,646
Actual Amount:	\$ 89,075
Variance:	\$804,571

**ATTACHMENTS:**

Resolution  
Professional Services Agreement  
Map

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A PROFESSIONAL SERVICES AGREEMENT WITH PACHECO KOCH, LLC IN THE AMOUNT OF \$89,075 FOR DESIGN SERVICES FOR BEDFORD ROAD PAVING IMPROVEMENTS FROM SOMERSET TERRACE TO BROWN TRAIL.

WHEREAS, the City Council of Bedford, Texas has determined the need for design services related to the paving improvements on Bedford Road from Somerset Terrace to Brown Trail; and,

WHEREAS, the City Council of Bedford, Texas recognizes the importance of providing Bedford Road paving improvements to be responsive to the needs of the community.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council hereby authorizes the City Manager to enter into Professional Services Agreement in the amount of \$89,075 for Fiscal Year 2015-16.

SECTION 3. That funding will come from the Street Improvement Economic Development Corporation (4B) Fund.

PRESENTED AND PASSED this 23rd day of February, 2016 by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

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Jim Griffin, Mayor

ATTEST:

---

Michael Wells, City Secretary

APPROVED AS TO FORM:

---

Stan Lowry, City Attorney

**EXHIBIT 'A' – SCOPE OF SERVICES**

**BEDFORD ROAD PAVING IMPROVEMENTS**

**PROJECT DESCRIPTION:**

The project consists of alignment determination and preparation of construction plans and bid documents for the pavement reconstruction of Bedford Road between Brown Trail and Somerset Terrace. The proposed construction will include the eastern curb return of Brown Trail and Bedford Road and will end on the western curb return of Bedford Road and Somerset Trail. The design includes pavement and drainage improvements along with ADA improvements along Bedford Road between the aforementioned intersections. The project generally consists of paving and drainage design along the project limits.

**BASIC SERVICES:**

- A. Project Management, Coordination & Permitting
1. Manage the Team:
    - Lead, manage and direct design team activities
    - Ensure quality control is practiced in performance of the work
    - Communicate internally among team members
    - Task and allocate team resources
  2. Communications and Reporting:
    - Attend a pre-design project kickoff meeting with CITY staff to confirm and clarify scope, understand CITY objectives, and ensure economical and functional designs that meet CITY requirements
    - Conduct review meetings with the CITY at the end of each design phase
    - Prepare invoices and submit monthly in the format requested by the CITY.
    - Prepare and submit monthly progress reports
    - Prepare and submit baseline Project Schedule initially and Project Schedule updates
    - Coordinate with other agencies and entities as necessary for the design of the proposed infrastructure and provide and obtain information needed to prepare the design
    - With respect to coordination with permitting authorities, CONSULTANT shall communicate with permitting authorities such that their regulatory requirements are appropriately reflected in the designs. CONSULTANT shall work with regulatory authorities to

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

obtain approval of the designs, and make changes necessary to meet their requirements as part of the design scope.

3. Constructability Review:

- Prior to the 90 percent review meeting with the CITY, the CONSULTANT shall schedule and attend a project site visit with the CITY Project Manager and Construction personnel to walk the project. The CONSULTANT shall summarize the CITY's comments from the field visit and submit this information to the CITY in writing.

4. Utility Clearance:

- The CONSULTANT will consult with the CITY public utilities, private utilities and government agencies to determine the approximate location of above and underground utilities, and other facilities (current and future) that have an impact or influence on the project. CONSULTANT will design CITY facilities to avoid or minimize conflicts with existing utilities, and where known and possible consider potential future utilities in designs.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

- B. Preliminary Design (0-60% Submittal) –  
The Conceptual Design shall be submitted to CITY per the approved Project Schedule. The purpose of the conceptual design is for the CONSULTANT to
- Study the project,
  - Identify and develop alternatives that enhance the system,
  - Present (through the defined deliverables) these alternatives to the CITY,
  - Recommend the alternatives that successfully addresses the design problem, and
  - Obtain the CITY's endorsement of this concept.

CONSULTANT will develop the conceptual design of the infrastructure as follows.

1. Data Collection

- In addition to data obtained from the CITY, CONSULTANT will research proposed improvements in conjunction with any other planned future improvements known by the CITY that may influence the project.
- The CONSULTANT will also identify and seek to obtain data for existing conditions that may impact the project including but not limited to; utilities, agencies (TxDOT), City Master Plans, and property ownership as available from the Tax Assessor's office.
- The data collection efforts will also include conducting special coordination meetings with affected property owners and businesses as necessary to develop roadway alignment plans.

2. Prepare 60% construction plans. Prepare the following sheets at the engineering scale indicated:

- Cover Sheet
- Quantity sheet and General Notes
- Project Layout & Control Sheet
- Detail sheets
- Pavement plan and profile sheets for improvements.
  - Scale 1" = 20' Horizontal; 1" = 2' Vertical
- Cross Section sheets
  - Scale 1" = 20' Horizontal; 1" = 4' Vertical
- Drainage Area Map
  - Scale 1" = 100'
- Drainage Plan and Profile
  - Scale 1" = 20' Horizontal; 1" = 2' Vertical
- Traffic control plan

Information required can be combined on sheets if the information can be clearly shown and is approved by the City of Bedford project manager.

3. Prepare an estimate of construction quantities and develop the preliminary opinion of probable construction costs.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
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for Consulting Services

4. Submit two (2) 22"x34" and two (2) 11"x17" sets of preliminary 60% plans, one (1) set of construction contract documents, special conditions and preliminary opinion of probable construction costs to the CITY for review.
5. Meet with City of Bedford staff to discuss CITY comments on 60% plans, contract documents, and opinion of construction cost.
6. Revise 60% plans incorporating comments from the City of Bedford.
7. Begin final design construction plans for proposed improvements.

C. Final Design (90% & 100% Submittal) –

1. Prepare 90% construction plans. Prepare the following sheets at the engineering scale indicated:
  - Cover Sheet
  - Quantity sheet and General Notes
  - Project Layout & Control Sheet
  - Detail sheets
  - Pavement plan and profile sheets for improvements.
    - Scale 1" = 20' Horizontal; 1" = 2' Vertical
  - Cross Section sheets
    - Scale 1" = 20' Horizontal; 1" = 4' Vertical
  - Drainage Area Map
    - Scale 1" = 100'
  - Drainage Plan and Profile
    - Scale 1" = 20' Horizontal; 1" = 2' Vertical
  - Traffic control plan
  - Erosion control plans

Information required can be combined on sheets if the information can be clearly shown and is approved by the City of Bedford project manager.

2. Prepare an estimate of construction quantities and develop the final opinion of probable construction costs.
3. Submit two (2) 22"x34" and two (2) 11"x17" sets of preliminary 90% plans, one (1) set of construction contract documents, special conditions and preliminary opinion of probable construction costs to the CITY for review.
4. Meet with City of Bedford staff to discuss CITY comments on 90% plans, contract documents, and opinion of construction cost.
5. Revise 90% plans incorporating comments from the City of Bedford.
6. Finalize construction plans for proposed improvements.
7. Assemble and finalize construction contract documents including City of Bedford standard specifications, special technical specifications and special conditions (if any).

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

8. Estimate of final construction quantities and final opinions of construction cost.
9. Submit two (2) sets of final plans (100% plans), City of Bedford contract documents. One (1) set of half size (11"x17") plans will be submitted with the 100% plan submittal.
10. Once approved by the City of Bedford prepare:
  - Twenty (20) bound copies of the bid documents (Plans & Specifications) for bidding
  - Three (3) half-sized sets of the final plans.
  - An additional ten (10) sets of Plans and Specifications will be prepared as needed.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

- D. Bid Phase Services –  
CONSULTANT will support the bid phase of the project as follows.
1. Plan Distribution:
    - The CONSULTANT shall sell contract documents and maintain a plan holders list of documents sold.
  2. Bidder Assistance:
    - The CONSULTANT will develop and implement procedures for receiving and answering bidders' questions and requests for additional information. The procedures shall include a log of all significant bidders questions and requests and the response thereto. The CONSULTANT will provide technical interpretation of the contract bid documents and will prepare proposed responses to all bidders' questions and requests, in the form of addenda.
    - Conduct the bid opening in support of the CITY.
  3. Bid Analysis:
    - Tabulate and review all bids received for the construction project, assist the CITY in evaluating bids, and recommend award of the contract.
    - Assist the CITY in determining the qualifications and acceptability of prospective contractors, subcontractors, and suppliers.
    - Incorporate all addenda into the contract documents and issue conformed sets.
  4. Recommendation & Notice of Award:
    - The CONSULTANT shall review the qualifications of the successful bidder and prepare a Recommendation of Award for the CITY.
    - Once approved by the CITY, the CONSULTANT shall prepare a Notice of Award for the successful Contractor.
  5. Document Assembly:
    - The CONSULTANT shall prepare six (6) duplicate sets of conformed contract documents for execution by the CITY and Contractor.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

- E. Construction Administration –
1. The CONSULTANT shall prepare a Notice to Proceed for the Contractor.
  2. The CONSULTANT shall conduct the preconstruction conference.
  3. The CONSULTANT shall review all shop drawings and test reports for compliance with the Contract Documents.
  4. After the pre-construction conference, the CONSULTANT shall provide project exhibits and attend public meeting, if any, to help explain the proposed project to residents. The CITY shall select a suitable location and mail the invitation letters to the affected customers.
  5. The CONSULTANT shall visit the project site at requested intervals as construction proceeds to observe and report on progress.
  6. The CONSULTANT shall review and provide payment recommendations on Contractor's monthly pay applications.
- G. Project Completion –
1. The CONSULTANT shall attend a final inspection and prepare a final "punch list" for the contractor.
  2. Prepare construction "Record Drawings" based upon mark-ups and information provided by the construction contractor(s). Submit one (1) set of the record drawings (with "record drawing stamp" bearing the signature of the Engineer and the date) to the City on a CD-ROM disk or flash drive containing scanned 22"x34" black and white PDF images.

**SPECIAL SERVICES:**

- A. Field Survey
1. Establish Survey Control
- Establish survey control along each street or intersecting streets as necessary. These control points will be established based on and tied to established City horizontal and vertical control points. The horizontal control for each street in the PROJECT will be established on the State Plane Coordinate System (NAD'83 Surface Coordinates) from CITY monumentation. Control points will be established using 5/8" iron rods, 18" long. These control points will be established using GPS and conventional surveying methods.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

2. Benchmark Loop

A benchmark circuit will be established, based on the vertical control points provided. These benchmarks will be located outside of the construction limits and put in such a place so that they may be easily found for future use. Benchmarks will be located at about 1,000' intervals and will be referenced. Benchmarks shall be looped in accordance with good surveying practice prior to field surveys. All control leveling work will be performed using appropriate modified second order procedures with closed loops into the PROJECT vertical control.

3. Existing Streets, Driveways and Right-of-Way

Existing streets, driveways and right-of-way will be profiled and cross-sectioned at 50' intervals and to a point at least 20' outside of the Right-of-Way line. Low points, high points and other unique features will be noted. Pavement surfacing will be determined by visual inspection only. Intersecting streets will be profiled and cross-sectioned to a point at least 50' beyond the roadway being replaced.

4. Existing Underground and/or Overhead Utilities

Utility owner's will be contacted, on an as-needed basis, and requested to assist in locating existing utilities identified for the PROJECT. Above ground features of existing utilities within the proposed Right-of-Way for the limits of the PROJECT will be field located, including elevations of sanitary and storm sewer manhole flowlines and water/gas valve stems. The location of utilities between above ground features will be determined from visual inspection, utility records, and/or from locations determined by the respective utility companies. The utilities will be tied to the PROJECT control points and depths determined in sufficient detail to identify potential conflicts with proposed construction. The excavation and other costs required to expose or probe the underground utilities will be the responsibility of others.

**EXHIBIT A** to Agreement between the  
City of Bedford Texas (CITY) and  
Pacheco Koch LLC, (CONSULTANT)  
for Consulting Services

6. Right-of-Way

Right-of-Way lines along the PROJECT will be located. This information will be included on the PROJECT's plan sheets.

7. Existing Storm Sewers and Culverts

The size of existing culverts will be measured and tied along with existing headwalls, channels and aprons. The size, length, and flowline elevation of existing storm sewers will be surveyed. Drainage areas contributing to the PROJECT or conveying water from the PROJECT will be determined through field investigations and available topographic mapping.

8. Temporary Signs, Traffic Control, Flags, Safety Equipment, Etc.

The Surveyor will exercise care in completing this surveying assignment by using traffic control devices, flags and safety equipment when necessary.

Services not included in Basic Services for this contract:

- *Construction inspection services*
- *Easement Preparation*
- *Subsurface Utility Engineering (SUE)*
- *As-built surveys of constructed improvements*
- *Public hearings or City Council/Commission meetings*
- *Attend a utility coordination meeting to start relocation process with affected franchise utilities. Distribute copies of preliminary and final plans and proposed schedule for bid letting and construction to affected franchise utilities*
- *Reset property corner monumentation disturbed or removed during or after construction.*

END OF EXHIBIT 'A'

**EXHIBIT B** to Agreement between the  
City of Bedford, Texas (CITY) and  
Pacheco Koch, LLC (CONSULTANT)  
for Consulting Services

**EXHIBIT 'B' – SCHEDULE**

**BEDFORD ROAD PAVING IMPROVEMENTS**

<b>Activity</b>	<b>Estimated Duration (weeks)</b>	<b>Estimated Completion N.T.P.</b>
Notice-To-Proceed		-
Field Survey	3	3 Weeks
Preliminary Design Submittal (60%)	3	6 Weeks
Preliminary City Review Complete	2	8 Weeks
Final Design Submittal (90%)	2	10 Weeks
Final City Review Complete	1	11 Weeks
Final Plans Complete (100%)	1	12 Weeks
Receive Bids	4	16 Weeks
Contract Award	2	18 Weeks
Begin Construction	1	19 Weeks
Compete Construction	18	37 Weeks
Record Drawings	2	39 Weeks

The CONSULTANT is not responsible for delays beyond its control.

END OF EXHIBIT 'B'

**EXHIBIT C** to Agreement between the  
City of Bedford, Texas (CITY) and  
Pacheco Koch, LLC (CONSULTANT)  
for Consulting Services

**EXHIBIT 'C' – COMPENSATION AND METHOD OF PAYMENT**

**BEDFORD ROAD PAVING IMPROVEMENTS**

**COMPENSATION:**

For all professional engineering services included in EXHIBIT 'A', Scope of Services, the CONSULTANT shall be compensated a lump sum fee of \$89,075.00 as summarized below. The total lump sum fee shall be considered full compensation for the services described in EXHIBIT A, including all labor materials, supplies, and equipment necessary to deliver the services.

**Basic & Special Services**

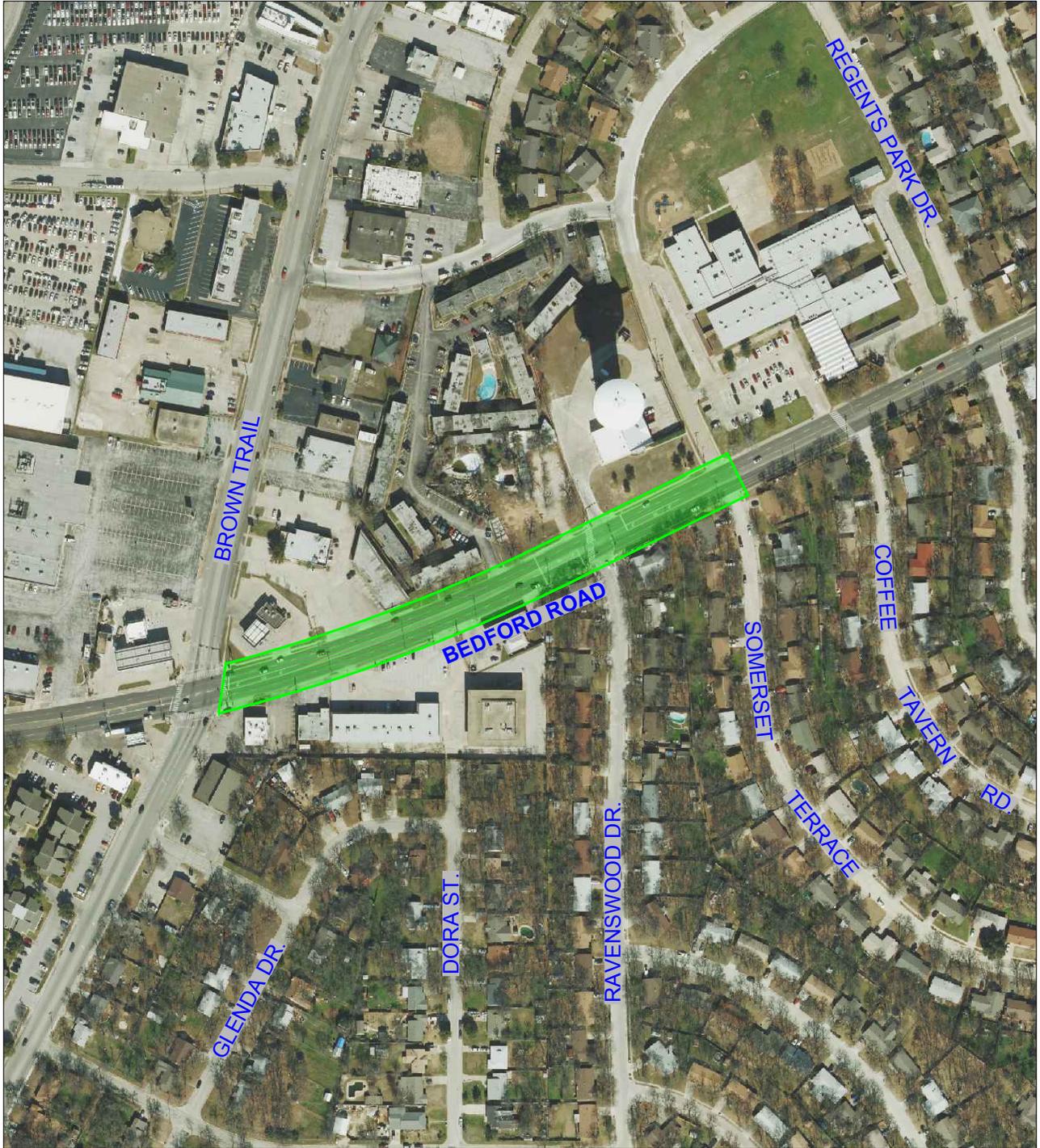
A.	Project Management, Coordination & Permitting	\$ 6,100
B.	Preliminary Design (60% Submittal)	38,300
C.	Final Design (90% & 100% Submittals)	18,600
D.	Bid Phase Services	5,050
E.	Construction Administration	4,355
F.	Project Completion	2,665
G.	Reimbursable Expense (Not to Exceed)	1,905
I.	Geotechnical Investigation	5,400
J.	Field Survey	<u>6,700</u>
<b>GRAND TOTAL NOT TO EXCEED</b>		<b>\$ 89,075.00</b>

**METHOD OF PAYMENT:**

The CONSULTANT shall be paid monthly payments as described in Article IV of the AGREEMENT. The cumulative sum of such monthly partial fee payments shall not exceed the total current project budget including all approved Amendments. Each invoice shall be verified as to its accuracy and compliance with the terms of this Agreement by an officer of the CONSULTANT.

Monthly statements for reimbursable services performed by sub consultants will be based upon the actual cost to the CONSULTANT plus ten percent (10%). Direct reimbursable expenses for services such as printing, express mail, fees, mileage and other direct expenses that are incurred during the progress of the project will be billed at 1.1 times the CONSULTANT'S cost.

END OF EXHIBIT 'C'



AERIAL SOURCE: NCTCOG, 2015



# BEDFORD ROAD

SOMERSET TERRACE TO BROWN TRAIL  
PROFESSIONAL DESIGN SERVICES



 PROJECT LOCATION





AERIAL SOURCE: NCTCOG, 2015



# BEDFORD ROAD

S.H. 121 TO F.M. 157 (INDUSTRIAL BOULEVARD)  
AND

S.H. 121 TO 460' WEST OF MARTIN DRIVE  
INTERLOCAL AGREEMENT FOR RESURFACING



 PROJECT LOCATION





# Council Agenda Background

**PRESENTER:** Kenny Overstreet,  
Interim Public Works Director

**DATE:** 02/23/16

**Council Mission Area:** Protect the vitality of neighborhoods.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into a contract utilizing the Tarrant County Interlocal Agreement in the amount of \$54,225.67 with TexOp Construction, L.P. for asphalt milling on Bedford Road from SH 121 to FM 157 (Industrial Boulevard) and SH 121 to 460 feet west of Martin Drive.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

Each year, the City works with Tarrant County for street rehabilitation. This year, the City will be working on street improvements on Bedford Road from SH 121 to FM 157 (Industrial Boulevard), for a total of 29,241 square yards, and SH 121 to 460 feet west of Martin Drive, for a total of 8,835 square yards.

In the Interlocal Agreement, the County agrees to provide the labor and equipment necessary to complete the paving. One item not provided by the County, but needed for the completion of the project, is the milling of the existing asphalt. Neither the County, nor the City, has a milling machine suitable for this operation. The milling machine is used to grind up the existing asphalt.

The County has a contract for milling with TexOp Construction, L.P. Utilizing the existing Interlocal Agreement with Tarrant County, TexOp Construction, L.P. has provided an estimate of \$54,225.67 for their milling services. The estimate includes the milling of the top two inches of the entire roadway, loading, transporting water, detailing, trucking and sweeping 38,076 square yards of asphalt. The City has used TexOp Construction, LLC on many occasions for this type of work.

Funding in the amount of \$54,225.67 will come from the Street Improvement Economic Development Corporation (SIEDC) Budget.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to enter into a contract utilizing the Tarrant County Interlocal Agreement in the amount of \$54,225.67 with TexOp Construction, L.P. for asphalt milling on Bedford Road from SH 121 to FM 157 (Industrial Boulevard) and SH 121 to 460 feet west of Martin Drive.

**FISCAL IMPACT:**

Remaining FY 15/16 Project Budget:	\$62,687.00
Actual Amount:	\$54,225.67
Variance:	\$ 8,461.33

**ATTACHMENTS:**

- Resolution
- Quotes
- Map

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT UTILIZING THE TARRANT COUNTY INTERLOCAL AGREEMENT IN THE AMOUNT OF \$54,225.67 WITH TEXOP CONSTRUCTION, L.P. FOR ASPHALT MILLING ON BEDFORD ROAD FROM SH 121 TO FM 157 (INDUSTRIAL BOULEVARD) AND SH 121 TO 460 FEET WEST OF MARTIN DRIVE.

WHEREAS, the City Council of Bedford, Texas has determined that asphalt milling is necessary for the health and safety of its citizens by keeping the public roadways in good condition; and,

WHEREAS, the City Council of Bedford, Texas recognizes the importance of providing these improvements to protect the vitality of the neighborhoods.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to enter into an agreement in the amount of \$54,225.67 with TexOp Construction, L.P.

SECTION 3. That funding will come from the Street Improvement Economic Development Corporation (4B) Fund.

PRESENTED AND PASSED this 23rd day of February, 2016 by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney



P. O. Box 427  
Roanoke, Texas 76262  
(940) 648-1455 office ♦♦♦ (940) 648-1457 fax

Proposal No. 15-10-050

BID DATE: October 9, 2015

TO: CITY OF BEDFORD PUBLIC WORKS DEPARTMENT  
ATTN: Mr. Kenneth Overstreet, Field Operations Manager

COUNTY: TARRANT  
PROJECT: BEDFORD ROAD MILL & OVERLAY  
LIMITS: FROM HIGHWAY 121 TO INDUSTRIAL BOULEVARD  
PROJECT NO. per TARRANT COUNTY INTERLOCAL AGREEMENT BID NO. 2015-072  
AUTHORITY: THE CITY OF BEDFORD, TEXAS

**Quantities and Prices:**

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Extension</u>
1A	Full Depth Milling (2" - 4").....	28,205.00 SY	1.50 \$	42,307.50
1A	Mobilization.....	1.00 EA	40.00 \$	40.00
1A	Vendor to keep millings.....	28,205.00 SY	-0.03 \$	(846.15)
<b>Total</b>			<b>\$</b>	<b>41,501.35</b>

**Prices Include:**

Milling, Loading, Trucking, Sweeping, Detailing, & Water Transport  
RAP becomes the property of TexOp Construction

General Contractor to provide a project water source & the water for the milling operation.

**Prices Exclude:**

Sawcuts, Engineering, Base Repair, Traffic Control, Water, Sizing of ACP, AGC Dues,  
Stockpiling of Materials, Police personnel, Message Boards, and Barricades

Questions, please call (940) 648-1455 or (817) 308-4818.

Email [jdavis@texop.com](mailto:jdavis@texop.com)

Sincerely,

James Davis  
Estimator



P. O. Box 427  
Roanoke, Texas 76262  
(940) 648-1455 office ♦♦♦ (940) 648-1457 fax

Proposal No. 15-10-050 ADD

**BID DATE:** February 12, 2016

**TO:** CITY OF BEDFORD PUBLIC WORKS DEPARTMENT  
**ATTN:** Mr. Kenneth Overstreet, Field Operations Manager

**COUNTY:** TARRANT  
**PROJECT:** BEDFORD ROAD MILL & OVERLAY  
**LIMITS:** FROM HIGHWAY 121 TO 1391' WEST of SH 121  
**PROJECT NO.** per TARRANT COUNTY INTERLOCAL AGREEMENT BID NO. 2015-072  
**AUTHORITY:** THE CITY OF BEDFORD, TEXAS

**Quantities and Prices:**

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Extension</u>
<u>1A</u>	Full Depth Milling (2" - 4").....	8,656.00 SY	1.50 \$	12,984.00
<u>1A</u>	Mobilization.....	0.00 EA	40.00 \$	-
<u>1A</u>	Vendor to keep millings.....	8,656.00 SY	-0.03 \$	(259.68)
<b>Total</b>			<b>\$</b>	<b>12,724.32</b>

**Prices Include:**

Milling, Loading, Trucking, Sweeping, Detailing, & Water Transport  
RAP becomes the property of TexOp Construction

General Contractor to provide a project water source & the water for the milling operation.

**Prices Exclude:**

Sawcuts, Engineering, Base Repair, Traffic Control, Water, Sizing of ACP, AGC Dues,  
Stockpiling of Materials, Police personnel, Message Boards, and Barricades

Questions, please call (940) 648-1455 or (817) 308-4818.  
Email [jdavis@texop.com](mailto:jdavis@texop.com)  
Sincerely,

James Davis  
Estimator



AERIAL SOURCE: NCTCOG, 2015



# BEDFORD ROAD

S.H. 121 TO F.M. 157 (INDUSTRIAL BOULEVARD)  
AND

S.H. 121 TO 460' WEST OF MARTIN DRIVE  
INTERLOCAL AGREEMENT FOR RESURFACING



PROJECT LOCATION





# Council Agenda Background

**PRESENTER:** Bobby Sewell, Deputy Fire Chief

**DATE:** 02/23/15

**Council Mission Area:** Provide a safe and friendly community environment.

**ITEM:**

Consider a resolution authorizing the city manager to purchase two Power-LOAD Cot Fastener Systems from Stryker Medical in the amount of \$48,175.64.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The Fire Department is requesting to purchase two Power-LOAD cot fastener systems for two of the newest ambulances. The current cot fastener system does not meet the new standards recommended by National Fire Protection Association (NFPA) 1917 Sec. 6.2 and Federal Specification KKK-A-1822F. On July 1, 2015, KKK-A-1822F was updated with Change Notice 8 (Triple-K) to meet the new SAE J3027 Recommended Practice for Ambulance Litter Integrity, Retention, and Patient Restraint testing. This means that the current “antler and rail” fastener system, currently used by the Fire Department, will no longer be compliant.

The Power-LOAD system lifts and lowers the cot into and out of the ambulance, reducing spinal loads and the risk of cumulative trauma injuries. It provides power lifting of the cot and patient to provide additional injury prevention for firefighters. Funds for this purchase will come from the Fire Department Donation Fund. As you may recall, the Fire Department EMS Division was the beneficiary of a will in the amount of \$64,582.03. It was interpreted that these funds only be used for Emergency Medical Services.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to purchase two Power-LOAD Cot Fastener Systems from Stryker Medical in the amount of \$48,175.64.

**FISCAL IMPACT:**

Donation Fund: \$48,175.64

**ATTACHMENTS:**

Resolution  
Quote  
Sole Source Letter

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO PURCHASE TWO POWER-LOAD COT FASTENER SYSTEMS FROM STRYKER MEDICAL IN THE AMOUNT OF \$48,175.64.

WHEREAS, the City Council of Bedford, Texas determines the necessity to purchase power-loading cot fastener systems for two Fire Department ambulances with funds from the departments donation account; and,

WHEREAS, the City Council of Bedford, Texas determines that the purchase of two power-loading cot fastener systems for the Fire Department would provide needed safety for patients and employees.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to purchase two Power-Load Cot Fastener System for two Fire Department ambulances in the amount of \$48,175.64 through Stryker Medical a sole source provider.

SECTION 3. That funding in the amount of \$48,175.64 will come from the departments donation account and not affect the general operating budget.

PRESENTED AND PASSED this 23rd day of February, 2016, by a vote of \_\_ ayes, \_\_ nays and \_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney



Sales Account Manager

Heidi McGregor
heidi.mcgregor@stryker.com
1-800-327-0770
Fax: 505-212-0143

Remit to:

P.O. Box 93308
Chicago, IL 60673-3308

End User Shipping Address

1077783
CITY OF BEDFORD
1816 BEDFORD RD
BEDFORD, TX 76021

Shipping Address

1077783
CITY OF BEDFORD
1816 BEDFORD RD
BEDFORD, TX 76021

Billing Address

1077783
CITY OF BEDFORD
1816 BEDFORD RD
BEDFORD, TX 76021

Table with 6 columns: Customer Contact, Ref Number, Date, PO Number, Reference Field, Quote Type. Row 1: 4579650, 12/02/2015, QUOTE

Main item table with 7 columns: Line #, Quantity, Item Description, Part #, Unit Price, Extended Price, Item Comments. Includes items like PowerLOAD, Mass Casualty Fastener, 6500 PWRLOAD COMP UPGRADE KIT, etc.

Note:

Summary table with 2 columns: Description, Amount. Rows: Product Total (\$48,175.64), Freight (\$0.00), Tax (\$0.00), Total Incl Tax & Freight (\$48,175.64)

Signature: \_\_\_\_\_ Title/Position: \_\_\_\_\_ Date: \_\_\_\_\_

Deal Consummation: This is a quote and not a commitment. This quote is subject to final credit, pricing, and documentation approval. Legal documentation must be signed before your equipment can be delivered.

Confidentiality Notice: Recipient will not disclose to any third party the terms of this quote or any other information, including any pricing or discounts, offered to be provided by Stryker to Recipient in connection with this quote, without Stryker's prior written approval, except as may be requested by law or by lawful order of any applicable government agency.

Terms: Net 30 Days. FOB origin. A copy of Stryker Medical's standard terms and conditions can be obtained by calling Stryker Medical's Customer Service at 1-800-STRYKER. Cancellation and Return Policy: In the event of damaged or defective shipments, please notify Stryker within 30 days and we will remedy the situation.

**Heidi McGregor**  
Account Manager

Stryker Medical  
3800 E. Centre Ave.  
Portage, MI 49002

**stryker**<sup>®</sup>

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**Medical**

Date: Feb 2, 2015

Re: Power-Load Sole Source Information

To Whom It May Concern:

Stryker Medical certifies that we are sole source provider of the Stryker EMS Power Load (Model 6390) when purchased outside of a vehicle purchase. This correspondence is to inform you of the unique characteristics of the Power-Load cot fastening system.

Independent Qualifications

- IPX6: The system is rated to withstand powerful water jets
- IEC 60601-1 and IEC 60601-1-2
- BSN EN 1789 clause 4.5.9

Ease of Use

- Device provides a linear guide when loading and unloading
- Device allows for remote actuation from the Power-PRO cot
- Device has a safe working load of 870lbs and is capable of lifting a 700 lb patient
- Device allows for manual back up operation in the event of a power failure
- Device is power washable
- Device inductively charges the Power-PRO SMRT Batter

Please forward any further questions to myself at [heidi.mcgregor@stryker.com](mailto:heidi.mcgregor@stryker.com)

Sincerely,

*Heidi McGregor*

Heidi McGregor



# Council Agenda Background

**PRESENTER:** Don Henderson, Parks Superintendent

**DATE:** 02/23/16

**Council Mission Area:** Provide a safe and friendly community environment.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into a contract with TaylorMade Company for the replacement of rubber pads at Bedford Splash Family Aquatic Center in the amount of \$29,700.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The City of Bedford requested quotes for replacement of rubber pads for the Bedford Splash Family Aquatic Center. Three contractors submitted quotes for the project.

The Robertson Parks and Playgrounds	\$65,111
Fix Your Park LLC	\$32,850
TaylorMade Company	\$29,700

This item is to replace existing surfacing that is deteriorating. This will enhance the safety and appearance of the Bedford Splash Family Aquatic Center. This project will be completed by May 2016. This item was approved in the FY 15/16 Budget.

**RECOMMENDATION:**

Staff recommends the following motion:

Consider a resolution authorizing the City Manager to enter into a contract with TaylorMade Company for the replacement of rubber pads at Bedford Splash Family Aquatic Center in the amount of \$29,700.

**FISCAL IMPACT:**

FY 15/16 Budget:	\$30,000
Project Amount:	\$29,700
Variance:	\$ 300

**ATTACHMENTS:**

Resolution  
Quote

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT WITH TAYLORMADE COMPANY FOR THE REPLACEMENT OF RUBBER PADS AT BEDFORD SPLASH FAMILY AQUATIC CENTER IN THE AMOUNT OF \$29,700.

WHEREAS, The City Council of the City of Bedford has reviewed the quotes received; and,

WHEREAS, TaylorMade Company has provided the lowest cost for the replacement of rubber pads for Bedford Splash Family Aquatic Center; and,

WHEREAS, The City Council of the City of Bedford deems it necessary to replace the rubber pads to provide a safe and friendly community environment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to enter into a contract with TaylorMade Company for the replacement of rubber pads at Bedford Splash in the amount of \$29,700.

PRESENTED AND PASSED this 23rd day of February, 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney

TaylorMade Co  
 7356 Holliday DR  
 Kansas City, KS 66106

# Estimate

Tel: 913-713-1573  
 Fax: 913-548-0668

Date	Estimate #
12/1/2015	15189

Name / Address
Don Henderson City of Bedford TX

Ship To
Don Henderson City of Bedford, TX

Terms	Project	Other
Net 15	15189	

Description	Qty	Rate	Total	
Installation of Ecoturf Aquatic Pad with Aliphatic Binder 3.5"	2,200	11.50	25,300.00	
Removal of Existing Surfacing	2,200	2.00	4,400.00	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">           100% FULL PAYMENT DUE IN NET 15 DAYS            UPON COMPLETION             CUSTOMER TO SUPPLY TRASH DUMPSTER            CUSTOMER TO SUPPLY SECURITY WHILE SURFACE            DRIES         </td> </tr> </table>				100% FULL PAYMENT DUE IN NET 15 DAYS UPON COMPLETION  CUSTOMER TO SUPPLY TRASH DUMPSTER CUSTOMER TO SUPPLY SECURITY WHILE SURFACE DRIES
100% FULL PAYMENT DUE IN NET 15 DAYS UPON COMPLETION  CUSTOMER TO SUPPLY TRASH DUMPSTER CUSTOMER TO SUPPLY SECURITY WHILE SURFACE DRIES				

**Total** \$29,700.00

Signature \_\_\_\_\_

E-mail	Web Site
kristin@ecoturfsurfacing.com	www.ecoturfsurfacing.com



# Council Agenda Background

**PRESENTER:** Wendy Hartnett, Special Events Manager

**DATE:** 02/23/16

**Council Mission Area:** Encourage Citizen Involvement

**ITEM:**

Consider a resolution authorizing the sale of beer and wine at 4thFEST held at the Boys Ranch Park.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

In 2015, staff received approval to sale alcoholic beverages during the 4thFEST event. This change in policy was well received by the patrons and proved to be beneficial in increasing revenue for this event.

Due to the success of this pilot program, staff is recommending approval for the sale of alcoholic beverages (i.e. beer and wine) at all future 4thFEST events.

All applicable Texas Alcohol and Beverage Commission (TABC) certifications and permits will be acquired. Outside alcoholic beverages will not be allowed within the perimeter of the event.

All alcoholic beverage sales will end one hour prior to the conclusion of the fireworks.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the sale of beer and wine at 4thFEST held at the Boys Ranch Park.

**FISCAL IMPACT:**

Tourism Fund: Revenue of approximately \$7,000

**ATTACHMENTS:**

Resolution

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE SALE OF BEER AND WINE AT 4THFEST HELD AT THE BOYS RANCH PARK.

WHEREAS, the City Council of Bedford, Texas desires to provide the citizens of Bedford with a 4thFEST event; and,

WHEREAS, the City Council of Bedford, Texas authorizes the sale of beer and wine for patrons at 4thFEST.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the sale of beer and wine at 4thFEST held at the Boys Ranch Park.

SECTION 3. That this resolution shall take effect from and after the date of passage.

PRESENTED AND PASSED this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

---

Jim Griffin, Mayor

ATTEST:

---

Michael Wells, City Secretary

APPROVED AS TO FORM:

---

Stan Lowry, City Attorney



# Council Agenda Background

**PRESENTER:** Jeff Florey, Cultural Coordinator

**DATE:** 02/23/16

**Council Mission Area:** Support and develop arts and culture in Bedford.

**ITEM:**

Consider a resolution authorizing the sale of alcoholic beverages at ArtsFest held at the Boys Ranch Park.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

In 2015, staff received approval to sale alcoholic beverages during the ArtsFest event. This event was a new festival that was introduced last year, but due to the popularity, has since become an annual event.

Staff and the Cultural Commission have been busy planning the upcoming ArtsFest, which will be held on Saturday, April 2, 2016 from 10:00 a.m. – 8:00 p.m. Plans for the event include:

- Juried Artists booths,
- Craft artists section,
- Student/Youth art section,
- Entertainment stage,
- Food trucks, and
- Free admission

Staff recommends approval of the sale of alcoholic beverages for the upcoming and all future ArtsFest events. Depending on the structure of future sponsorship agreements, either staff or the sponsor will fulfill all of the TABC certification or permitting requirements.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the sale of alcoholic beverages at ArtsFest held at the Boys Ranch Park.

**FISCAL IMPACT:**

Tourism Fund: Revenue of approximately \$2,000

**ATTACHMENTS:**

Resolution

**RESOLUTION NO. 16-**

**A RESOLUTION AUTHORIZING THE SALE OF ALCHOLIC BEVERAGES AT ARTSFEST HELD AT THE BOYS RANCH PARK.**

**WHEREAS, the City Council of Bedford, Texas wishes to expand and grow ArtsFest; and,**

**WHEREAS, the City Council of Bedford, Texas wishes to authorize the sale of alcoholic beverages for patrons at ArtsFest.**

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:**

**SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.**

**SECTION 2. That the City Council does hereby authorize the sale of alcoholic beverages at ArtsFest held at the Boys Ranch Park.**

**SECTION 3. That this resolution shall take effect from and after the date of passage.**

**PRESENTED AND PASSED this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.**

---

**Jim Griffin, Mayor**

**ATTEST:**

---

**Michael Wells, City Secretary**

**APPROVED AS TO FORM:**

---

**Stan Lowry, City Attorney**



# Council Agenda Background

**PRESENTER:** Maria Redburn, Library

**DATE:** 02/23/16

**Council Mission Area:** Demonstrate excellent customer service in an efficient manner.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into a contract with ByWater Solutions to migrate, install, customize, host, train staff and support the Koha Open Source Integrated Library System (ILS) in the amount of \$17,100.

**City Attorney Review:** Yes

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

Innovative Interfaces provides the Bedford Public Library's ILS, which manages the online public access catalog, circulation, acquisitions and cataloging functions. The Library migrated to Innovative Interfaces' Millennium ILS in 1999. The system has proven to be reliable and user-friendly with great customer service. In 2013, the original owner sold the company to Huntsman Gay Global Capital and JMI Equity. The company then proceeded to buy two competing integrated library systems which were Polaris and VTLS in 2014. The Library started to experience a decline in responsiveness to equipment and software issues. In January 2015, the three year old server crashed and the Library was down for four days. The technicians trying to restore functionality were unfamiliar with the system and were reading out of manuals. It was obvious that there was a language barrier. After resolving the issue, Innovative did not apologize or let staff know what caused the equipment failure.

To make matters worse, the Innovative Interfaces annual extended maintenance contract, which provides hardware and technical support for the equipment, increases each time the Library purchases a module and has a built-in increase of up to 5% annually. This year, the Library paid \$47,160 for the server replacement plan and annual maintenance. In October of last year, the Library received an email stating that the server would not be supported after May 2017 and that it would be necessary to upgrade to the new Sierra software because Millennium had reached its end-of-life and would not be supported past December 2018. At this time, the Library has informed the company that staff would have to investigate migrating to an open source ILS.

An open source software ILS can be used freely without having to pay license fees to its developers. Library staff investigated Evergreen and Koha open source systems. While both systems would provide the functionality required to operate the Library, staff determined that selecting a web-based system was imperative for customer service and staff efficiencies. At this time, Evergreen is a client-based system and has not yet released a web-based system. Koha is used by over 15,000 libraries and provides a stable and vibrant community for development of enhancements.

**Advantages of an Open Source ILS**

- non-proprietary system
- lower automation costs
- free access to enhancements developed by other libraries
- ability to control and contribute to the development of enhancements

**Disadvantages of an Open Source ILS**

- requires staff with the ability to configure and support the system
- requires on-site server hardware

After discussions with IT and Library staff, it was decided that having a professional library software vendor migrate, host and maintain the system would allow the Library to switch to the Koha open source solution while maintaining a high level of functionality and responsiveness. The Library received quotes and demonstrations from ByWater Solutions and Equinox to assist with these services. Library and IT staff evaluated each of the proposals to determine which systems best met the qualifications set forth in the RFP. The selection team studied the proposals, contacted references, and formulated a list of questions to gain a thorough understanding of the pros and cons of each system.

The selection team determined that ByWater Solutions was the best company to meet the needs of the Library. ByWater Solutions supports 987 Koha libraries, of which 608 are public libraries. Equinox only supports 30 libraries, with their primary business being dedicated to supporting the Evergreen system. During the demonstrations, it was clearly evident that Equinox was not as familiar with the Koha product and could not answer questions that ByWater Solutions easily addressed. ByWater Solutions offers an all-inclusive package of services for customization, development and support. Equinox offers a setup of logos, color schemes and links, but charges for any customization. They also have an expectation that libraries will attempt to solve problems before contacting them. The ByWater Solutions model plans on providing libraries with unlimited support and report writing. ByWater Solutions has also included a clause in the contract, which will allow the Library to add other libraries who would then share the hosting costs.

The cost of migrating to the new system is \$13,500. ByWater Solutions has agreed to allow the Library to pay an initial \$5,900 payment to start the project, with the remaining \$7,600 due October 15. The Bedford Public Library will also have to pay \$3,600 for staff training. Ongoing annual maintenance costs will be \$13,500. The annual maintenance and server payment to Innovative Interfaces for 2016 is \$47,160. Migrating to this new system will reduce annual maintenance and server costs by \$33,660 annually.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to enter into a contract with ByWater Solutions to migrate, install, customize, host, train staff and support the Koha Open Source Integrated Library System (ILS) in the amount of \$17,100.

**FISCAL IMPACT:**

Budget FY 15/16:	\$ 5,900
Budget FY 16/17:	\$24,700
Savings:	\$33,600

**ATTACHMENTS:**

- Resolution
- Contract
- ILS Cost Comparison
- Support Package

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT WITH BYWATER SOLUTIONS TO MIGRATE, INSTALL, CUSTOMIZE, HOST, TRAIN STAFF AND SUPPORT THE KOHA INTEGRATED LIBRARY SYSTEM (ILS) IN THE AMOUNT OF \$17,100.

WHEREAS, the City Council of Bedford, Texas, has determined the public necessity for an integrated library operating system to provide online public access catalog, acquisitions, cataloging, circulation functions; and,

WHEREAS, the City Council of Bedford, Texas has determined the public necessity to contract with ByWater Solutions to provide migrate, install, customize, host, train staff and support the Koha ILS to enhance customer service and provide a robust stable environment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to enter into a contract with ByWater Solutions to migrate, install, customize, host, train staff and support the Koha Integrated Library System.

SECTION 3. That funding in the amount of \$17,100 will be paid from the FY 2015-16 Library Equipment Fund.

PRESENTED AND PASSED this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

---

Jim Griffin, Mayor

ATTEST:

---

Michael Wells, City Secretary

APPROVED AS TO FORM:

---

Stan Lowry, City Attorney



## ***CONTRACT FOR SERVICES***

This Contract for Services ("Contract") is made effective as of 2/29/2016, by and between the City of Bedford of Bedford, TX. 76021 ("Client"), and ByWater Solutions LLC, of Santa Barbara, California 93102 ("ByWater").

**1. TERM.** This Contract shall be effective from 10/15, 2016 to 10/15 2018. Upon completion of the initial Term, Client may elect to renew the Contract for successive two-year terms. Any changes to the original terms of this contract must be communicated to the Client within sixty (90) days prior to the completion of the then current term.

**2. DESCRIPTION OF SERVICES.** ByWater will provide the Client the following services (collectively, the "Services"):

- (a) Installation and Implementation of Koha Integrated Library System ("Koha"), including migration of no more than 150,000 Bibliographic Records to Koha.
  - (1) Data extraction from current legacy system is the responsibility of the Client.
  - (2) Testing of initial migration is the responsibility of the Client
- (b) Terms regarding technical support for the Client are as follows:
  - (1) Support will be available 24 hours. Support calls during hours in which the Client's facility is closed will be addressed by level of importance; i.e. system failure dictates immediate response time, training questions will be addressed within 24 hours.
  - (2) The support package will also cover software updates and Koha enhancements that may be applicable to the Client.
- (c) Hosting for the Client's data will be located in a remote cloud, and Service providers may change at any time, at the sole discretion of ByWater. ByWater will not be responsible for force majeure events including natural disasters and communication line failures that may cause data corruption.
- (d) Training is required and will be provided for a minimum of three (3) days. Additional training will be provided upon request of Client. Clients not previously using Koha as the library's primary ILS must receive training.

**3. PAYMENT FOR SERVICES.** In exchange for the Services the Client will pay ByWater according to the following schedule:

- (a) Installation/Data Migration: \$13,500.00. \$5,900.00 invoiced upon signing, \$7,600.00 due on or before 10/15/2016.
- (b) Annual support and hosting fee: \$13,500.00, due on or before 10/15 of each year, beginning on 10/15, 2016.
- (c) Training: \$3,600.00 for the first 3 days (24 hours) payment due on or before 10/15/2016

**4. FUTURE GROWTH OF CLIENT CATALOG:** In the event of further additions to the Client's union catalog in excess of the contracted libraries, additional charges will be applied according to the following:

- (a) Annual support and hosting increases: \$2,000.00 per added library, first year's payment to be pro-rated on a monthly basis and due upon completion of installation. Subsequent payments will be due as stated in section Contract for Services section 3 (b) "Annual Support and Hosting Fee"
- (b) Data Migration into Catalog: \$.10 Per bibliographic record migrated into the catalog, payment due upon completion of services.

**5. WORK PRODUCT OWNERSHIP.** Any copyrightable works, ideas, discoveries, inventions, patents, products, or other information (collectively the "Work Product") developed in whole or in part by ByWater solely in connection with the Services will be the exclusive property of the Client. Upon request, ByWater will execute all documents necessary to confirm or perfect the exclusive ownership of the Client to the Work Product.

All such Work Product developed on behalf of the Client will be made available under the terms of the open source license in effect for Koha at the time the code is written (currently GPL v2). A copy of the code will be given to the library even though the code may be hosted. A good faith effort will be made both by the library, and by ByWater at the coding stage, to integrate all code into the public, [koha-community.org](http://koha-community.org) code base, or wherever the public code base may subsequently be located.

Upon expiration or termination of this Contract, ByWater will: (a) return to the Client all records, notes, documentation and other items owned by the Client that were used, created, or controlled by ByWater during the term of this Contract; and (b) assist Client in exporting data from ByWater's data cloud to Client, at no additional charge.

**6. CONFIDENTIALITY.** ByWater, and its employees, agents, or representatives will not at any time or in any manner, either directly or indirectly, use for the personal benefit of ByWater, or divulge, disclose, or communicate in any manner, any information that is proprietary to the Client, except (a) if and to the extent the information is already a matter of public knowledge; (b) such disclosures as may be necessary to ByWater's attorney or accountant (collectively, "Permitted Confidants"); or (c) such disclosures as are required by law or by any litigation between the parties hereto with respect to this Contract. ByWater shall also timely require each of its Permitted Confidants to keep that information confidential. Before making any disclosure required by law, ByWater, or the Permitted Confidant, as the case may be, shall give Client as much notice thereof as is legally permitted, along with a copy of the proposed disclosure. The foregoing duties of confidentiality shall survive the termination of this Contract.

**7. RELATIONSHIP OF PARTIES.** Client and ByWater agree that the status of ByWater is that of independent contractor, and not that of employee, principal, agent or joint venture partner of Client. Neither party has authority to enter into contracts or assume any obligations for or on behalf of the other party or to make any warranties or representations for or on behalf of the other party.

**8. WARRANTY.** ByWater shall provide the Services and meet its obligations under this Contract in a timely and workmanlike manner, using knowledge and recommendations for performing the Services which meet generally accepted standards in ByWater's industry.

ByWater disclaims all other warranties, expressed or implied. ByWater does not in any way warrant that Koha will operate without interruption or be error free.

ByWater shall have no liability for damages resulting from: hosting inoperability, interruption due to product or delivered software malfunction (provided that regular daily backups are conducted by ByWater), loss of profits, goodwill, damage or loss of data, or any other indirect, special or consequential damages suffered by Client. ByWater will in good faith and using its best reasonable effort work to resolve any such issues.

**9. REMEDIES.** If Client or ByWater fails to perform its obligations under this Contract, the non-breaching party shall have the right to terminate the Contract and to seek whatever remedy may be available to it, either in law or in equity.

**10. LIMITATION OF LIABILITY.** Either party's aggregate liability to the other under this agreement, under any legal doctrine whatsoever, shall not exceed the total sum paid by client to ByWater for services rendered under this contract.

**11. TERMINATION WITHOUT CAUSE.** Client's request for termination of this contract without cause will be at the sole discretion of ByWater and may carry penalties of up to 30% of total contract value.

**12. ENTIRE AGREEMENT.** This Contract contains the entire agreement of the parties, and there are no other promises or conditions in any other agreement whether oral or written concerning the subject matter of this Contract. This Contract supersedes any prior written or oral agreements between the parties.

**13. SEVERABILITY.** If any provision of this Contract will be held to be invalid or unenforceable for any reason, the remaining provisions will continue to be valid and enforceable, provided that no party is, as a result thereof, deprived of its substantial benefits under this Contract. If a court finds that any provision of this Contract is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision will be deemed to be written, construed, and enforced as so limited.

**14. AMENDMENT.** This Contract may only be changed, modified, amended or discharged by an agreement in writing executed by the parties hereto.

**15. GOVERNING LAW.** This Contract shall be construed in accordance with the laws of the State of Texas

**16. NOTICE.** Any notice or communication required or permitted under this Contract shall be sufficiently given if delivered in person or by certified mail, return receipt requested, to the address set forth in the opening paragraph or to such other address as one party may have furnished to the other in writing.

**17. ASSIGNMENT.** The Client may not assign or transfer this Contract without the prior written consent of ByWater.

**18. BINDING EFFECT.** This Contract shall inure to the benefit of and be binding upon the parties named herein and their respective heirs, successors and assigns.

*Signatures located on the following page*

**19. SIGNATURES**

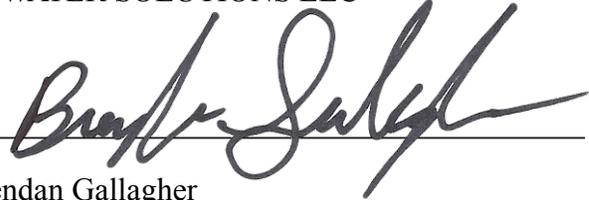
CITY OF BEDFORD

By: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

BYWATER SOLUTIONS LLC

By:  \_\_\_\_\_

Brendan Gallagher  
CEO

Date: \_\_\_\_\_

### Integrated Library System Cost Comparison

Integrated Library System	Migration & Training Costs	Year 1 Hosting & Maintenance	Year 2 Hosting & Maintenance	Year 3 Hosting & Maintenance
ByWater Solutions Koha <sup>1</sup>	\$17,100	\$13,600	\$13,600	\$13,600
Equinox Evergreen <sup>2</sup>	\$37,900	\$18,750	\$19,250	\$19,828
Equinox Koha <sup>2</sup>	\$34,150	\$6,500	\$6,695	\$6,896

1. ByWater Solutions will hold current hosting prices up to six (6) years, if we sign a six (6) year contract. ByWater Solutions has also agreed to include a clause in the contract so that we will be able to add other libraries who would then share the hosting costs. Customization is included in the migration costs. Development fees for features not currently included in the Koha software are \$150/hour.
2. Equinox only guarantees a no more than a 3% increase after the first year. However, if they deem that a library requires too much support they will decrease/increase accordingly. Equinox charges fees for customizations. Development fees for features not currently included in the Koha software are \$200/hour.

# ByWater Solutions Support Package and Interfaces

**The ByWater Solutions support package includes, but is not limited to:**

- Technical consulting and problem solving
- Training questions
- Consultation with network configuration
- Customizations and "tweaking" to the OPAC and staff side interfaces
- Report generation
- Bug fixes and the application of community released bug fix enhancements as they become available
- Management and updating of community or customer sponsored enhancements.
- Training for all major updates to Koha's functionality via webinar to your team at no additional cost
- 24/7 emergency support via toll free number
- Regular updates to your Koha system as new functionality becomes available to you, as well as the application of new releases to your system as they are made available (usually every 4-6 months)

**Methods of interface for support include:**

- 24/7 toll free calling
- Ticketing system with report generation
- Staff email
- Live chat during business hours via Koha Community IRC
- Access to administrative contact information for escalation of support issues



# Council Agenda Background

<b><u>PRESENTER:</u></b> Clifford Blackwell, CGFO, Director of Admin Services, & BKD		<b><u>DATE:</u></b> 02/23/16
<b>Council Mission Area:</b> Demonstrate excellent customer service in an efficient manner.		
<b><u>ITEM:</u></b>  Consider a resolution accepting the report from the independent auditor and the audited financial statements for the fiscal year ending September 30, 2015 and providing an effective date.  <b>City Attorney Review:</b> N/A  <b>City Manager Review:</b> _____		
<b><u>DISCUSSION:</u></b>  On January 26, 2016, Andrew Sherwood, Senior Associate for BKD, L.L.P. and David Coleman, Senior Manager for BKD, L.L.P., presented the detailed audit report to the Audit Committee. The Committee consists of Mayor Jim Griffin, Council Member Roy Turner, Council Member Roger Fisher, and City Manager Roger Gibson, Assistant City Manager Kelli Agan, Accounting Manager Paula McPartlin and Director of Administrative Services Clifford Blackwell.  In the meeting, the BKD staff presented the City of Bedford's financial statements, with respect to its net position, its comparison to budgetary constraints and its ending fund balance. The auditors conducted an audit of the City of Bedford in accordance with both auditing standards and accounting principles generally accepted in the United States of America. One item of note was a significant change in accounting principle by which the City had to recognize a liability, as well as deferred inflows/outflows pertaining to pensions. In summary, BKD found that that the City of Bedford's financial statements for the fiscal year ending September 30, 2015 present fairly, in all material respects, without any material misstatement.  On May 8, 2012, BKD, L.L.P. was awarded the contract to conduct the annual audit for the fiscal years ending 2012, 2013, 2014, with two one-year options to renew. They are currently in the fourth year (first renewal) of the initial three-year term agreement.		
<b><u>RECOMMENDATION:</u></b>  Staff recommends the following motion:  Approval of a resolution accepting the report from the independent auditor and the audited financial statements for the fiscal year ended September 30, 2015 and providing an effective date.		
<b><u>FISCAL IMPACT:</u></b>  N/A	<b><u>ATTACHMENTS:</u></b>  Resolution CAFR (separate attachment) Management Letter	

RESOLUTION NO. 16-

**A RESOLUTION ACCEPTING THE REPORT FROM THE INDEPENDENT AUDITOR AND THE AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2015 AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS, the City has completed the annual audit of the City's financial statements for the fiscal year ending September 30, 2015; and,**

**WHEREAS, the City Council of Bedford, Texas has received the report from the City's independent audit firm, BKD, L.L.P.; and,**

**WHEREAS, the Audit Committee of the City of Bedford has reviewed and voted to accept the report as written.**

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:**

**SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.**

**SECTION 2. That the City Council does hereby accept the report of the independent auditor and the audited financial statements for the fiscal year ending September 30, 2015 as presented.**

**SECTION 3. That this resolution shall take effect from and after the date of its passage.**

**PRESENTED AND PASSED on this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.**

\_\_\_\_\_  
**Jim Griffin, Mayor**

**ATTEST:**

\_\_\_\_\_  
**Michael Wells, City Secretary**

**APPROVED AS TO FORM:**

\_\_\_\_\_  
**Stan Lowry, City Attorney**

**Independent Auditor's Report on Internal Control Over  
Financial Reporting and on Compliance and Other Matters Based on an  
Audit of the Financial Statements Performed in Accordance with  
Government Auditing Standards**

The Mayor and City Council  
City of Bedford, Texas  
Bedford, Texas

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of the City of Bedford, Texas, as of and for the year ended September 30, 2015, and the related notes to the financial statements, which collectively comprise City's basic financial statements, and have issued our report thereon dated February 8, 2016, which contained an Emphasis of Matter paragraph regarding a change in accounting principle.

***Internal Control Over Financial Reporting***

Management of the City is responsible for establishing and maintaining effective internal control over financial reporting (internal control). In planning and performing our audit of the financial statements, we considered the City's internal control to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the City's financial statements will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

### ***Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the City's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### ***Purpose of this Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

**BKD, LLP**

Dallas, Texas  
February 8, 2016

Honorable Mayor and  
Members of the City Council  
City of Bedford  
Bedford, Texas

As part of our audit of the financial statements of the City of Bedford, Texas (City) as of and for the year ended September 30, 2015, we wish to communicate the following to you.

## **AUDIT SCOPE AND RESULTS**

### **Auditor's Responsibility Under Auditing Standards Generally Accepted in the United States of America and the Standards Applicable to Financial Audits Contained in Government Auditing Standards Issued by the Comptroller General of the United States**

An audit performed in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States is designed to obtain reasonable, rather than absolute, assurance about the financial statements. In performing auditing procedures, we establish scopes of audit tests in relation to the financial statements taken as a whole. Our engagement does not include a detailed audit of every transaction. Our engagement letter more specifically describes our responsibilities.

These standards require communication of significant matters related to the financial statement audit that are relevant to the responsibilities of those charged with governance in overseeing the financial reporting process. Such matters are communicated in the remainder of this letter or have previously been communicated during other phases of the audit. The standards do not require the auditor to design procedures for the purpose of identifying other matters to be communicated with those charged with governance.

An audit of the financial statements does not relieve management or those charged with governance of their responsibilities. Our engagement letter more specifically describes your responsibilities.

### **Qualitative Aspects of Significant Accounting Policies and Practices**

#### **Significant Accounting Policies**

The City's significant accounting policies are described in *Note 1* of the comprehensive annual financial report (CAFR). Aside from the adoption of Government Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, as amended, the City's accounting policies did not change from prior year.

### Alternative Accounting Treatments

No matters are reportable.

### Management Judgments and Accounting Estimates

Accounting estimates are an integral part of financial statement preparation by management, based on its judgments. The following areas involve significant areas of such estimates for which we are prepared to discuss management's estimation process and our procedures for testing the reasonableness of those estimates:

- Valuation for allowance for various receivables
- Estimated useful lives of depreciable assets
- Net pension liability
- Obligation for other post-employment benefits

### Financial Statement Disclosures

The following areas involve particularly sensitive financial statement disclosures for which we are prepared to discuss the issues involved and related judgments made in formulating those disclosures:

- Revenue recognition
- Long-term liabilities
- Defined benefit pension plan, GASB 68 disclosures
- Other post-employment benefits

### Audit Adjustments

During the course of any audit, an auditor may propose adjustments to financial statement amounts. Management evaluates our proposals and records those adjustments which, in its judgment, are required to prevent the financial statements from being materially misstated. Some adjustments proposed were not recorded because their aggregate effect is not currently material; however, they involve areas in which adjustments in the future could be material, individually or in the aggregate.

Areas in which adjustments were proposed include:

#### *Proposed Audit Adjustments Recorded*

- Implementation entries as required by GASB Statement No. 68, as amended by Statement No. 71

#### *Proposed Audit Adjustments Not Recorded*

- None

**Auditor's Judgments About the Quality of the Entity's Accounting Principles**

No matters are reportable.

**Significant Issues Discussed with Management**

During our discussion with management prior to our engagement, the following issues regarding application of accounting principles or auditing standards were discussed:

- Implementation of GASB Statement No. 68

**Difficulties Encountered in Performing the Audit**

Our audit requires cooperative effort between management and the audit team. There were no difficulties encountered during the course of our audit. Management of the City was extremely cooperative throughout the audit process. We very much appreciate their hard work in preparing for the audit and in seeing it through to completion.

**Other Material Communications**

Listed below are other material written communications between management and us related to the audit:

- Engagement letter dated September 29, 2015
- Management representation letter (*attached*)

This communication is intended solely for the information and use of management, City Council, and others within the City, and is not intended to be and should not be used by anyone other than these specified parties.

*BKD, LLP*

February 8, 2016



February 8, 2016

**BKD, LLP**

Certified Public Accountants  
14241 Dallas Parkway, Suite 1100  
Dallas, Texas 75254

We are providing this letter in connection with your audit of our financial statements as of and for the year ended September 30, 2015. We confirm that we are responsible for the fair presentation of the financial statements in conformity with accounting principles generally accepted in the United States of America. We are also responsible for adopting sound accounting policies, establishing and maintaining effective internal control over financial reporting, operations and compliance, and preventing and detecting fraud.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, the following:

1. We have fulfilled our responsibilities, as set out in the terms of our engagement letter dated September 29, 2015 with an addendum dated January 14, 2016, for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America.
2. We acknowledge our responsibility for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
3. We acknowledge our responsibility for the design, implementation and maintenance of internal control to prevent and detect fraud.
4. We have reviewed and approved a draft of the financial statements and related notes referred to above, which you prepared in connection with your audit of our financial statements. We acknowledge that we are responsible for the fair presentation of the financial statements and related notes.



5. We have provided you with:
  - (a) Access to all information of which we are aware that is relevant to the preparation and fair presentation of the financial statements such as records, documentation and other matters.
  - (b) Additional information that you have requested from us for the purpose of the audit.
  - (c) Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
  - (d) All minutes of meetings of the governing body held through the date of this letter.
  - (e) All significant contracts.
6. All transactions have been recorded in the accounting records and are reflected in the financial statements.
7. We have informed you of all current risks of a material amount that are not adequately prevented or detected by entity procedures with respect to:
  - (a) Misappropriation of assets.
  - (b) Misrepresented or misstated assets, liabilities or net position.
8. We have no knowledge of any known or suspected:
  - (a) Fraudulent financial reporting or misappropriation of assets involving management or employees who have significant roles in internal control.
  - (b) Fraudulent financial reporting or misappropriation of assets involving others that could have a material effect on the financial statements.
9. We have no knowledge of any allegations of fraud or suspected fraud affecting the City received in communications from employees, customers, regulators, suppliers or others.
10. We have disclosed to you the identity of the City's related parties and all the related party relationships and transactions of which we are aware. Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with accounting principles generally accepted in the United States of America. We understand that the term related party refers to an affiliate; management, and members of their immediate families, component



units; and any other party with which the entity may deal if it can significantly influence, or be influenced by, the management or operating policies of the other. The term affiliate refers to a party that directly or indirectly controls, or is controlled by, or is under common control with us.

11. Except as reflected in the financial statements, there are no:
  - (a) Plans or intentions that may materially affect carrying values or classifications of assets and liabilities.
  - (b) Material transactions omitted or improperly recorded in the financial statements.
  - (c) Material gain/loss contingencies requiring accrual or disclosure, including those arising from environmental remediation obligations.
  - (d) Events occurring subsequent to the statement of net position/balance sheet date through the date of this letter requiring adjustment or disclosure in the financial statements.
  - (e) Agreements to purchase assets previously sold.
  - (f) Restrictions on cash balances or compensating balance agreements.
  - (g) Guarantees, whether written or oral, under which the City is contingently liable.
12. We have disclosed to you all known instances of noncompliance or suspected noncompliance with laws and regulations whose effects should be considered when preparing financial statements.
13. We have disclosed to you all known actual or possible litigation and claims whose effects should be considered when preparing the financial statements. The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with accounting principles generally accepted in the United States of America.
14. Adequate provisions and allowances have been accrued for any material losses from:
  - (a) Uncollectible receivables
  - (b) Service commitments, including those unable to be fulfilled;
  - (c) Purchase commitments in excess of normal requirements or above prevailing market prices.



15. Except as disclosed in the financial statements, we have:
  - (a) Satisfactory title to all recorded assets, and they are not subject to any liens, pledges or other encumbrances.
  - (b) Complied with all aspects of contractual and grant agreements, for which noncompliance would materially affect the financial statements.
16. We have not been designated as a potentially responsible party (PRP or equivalent status) by the Environmental Protection Agency (EPA) or other cognizant regulatory agency with authority to enforce environmental laws and regulations.
17. With regard to deposit and investment activities:
  - (a) All deposit, repurchase and reverse repurchase agreements and investment transactions have been made in accordance with legal and contractual requirements.
  - (b) Disclosures of deposit and investment balances and risks in the financial statements are consistent with our understanding of the applicable laws regarding enforceability of any pledges of collateral.
  - (c) We understand that your audit does not represent an opinion regarding the enforceability of any collateral pledges.
18. With respect to any nonattest services you have provided us during the year, including preparation of the draft financial statements:
  - (a) We have designated a qualified management-level individual to be responsible and accountable for overseeing the nonattest services.
  - (b) We have established and monitored the performance of the nonattest services to ensure that they meet our objectives.
  - (c) We have made any and all decisions involving management functions with respect to the nonattest services and accept full responsibility for such decisions.
  - (d) We have evaluated the adequacy of the services performed and any findings that resulted.
19. We acknowledge that we are responsible for compliance with applicable laws, regulations and provisions of contracts and grant agreements.



20. We have identified and disclosed to you all laws, regulations and provisions of contracts and grant agreements that have a direct and material effect on the determination of amounts in our financial statements or other financial data significant to the audit objectives.
21. We have identified and disclosed to you any violations or possible violations of laws, regulations and provisions of contracts and grant agreements whose effects should be considered for recognition and/or disclosure in the financial statements or for your reporting on noncompliance.
22. We have taken or will take timely and appropriate steps to remedy any fraud, abuse, illegal acts or violations of provisions of contracts or grant agreements that you or other auditor's report.
23. We have a process to track the status of audit findings and recommendations.
24. We have identified to you any previous financial audits, attestation engagements, performance audits or other studies related to the objectives of your audit and the corrective actions taken to address any significant findings and recommendations made in such audits, attestation engagements or other studies.
25. The financial statements disclose all significant estimates and material concentrations known to us. Significant estimates are estimates at the statement of net position/balance sheet date which could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets for which events could occur which would significantly disrupt normal finances within the next year. Significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.
26. The supplementary information required by the Governmental Accounting Standards Board (GASB), consisting of management's discussion and analysis, budgetary comparisons and pension/other post-employment benefit information, has been prepared and is measured and presented in conformity with the applicable GASB pronouncements, and we acknowledge our responsibility for the information. The information contained therein is based on all facts, decisions and conditions currently known to us and is measured using the same methods and assumptions as were used in the preparation of the financial statements. We believe the significant assumptions underlying the measurement and/or presentation of the information are reasonable and appropriate. There has been no change from the preceding period in the methods of measurement and presentation.



27. With regard to supplementary information:
- (a) We acknowledge our responsibility for the presentation of the supplementary information in accordance with the applicable criteria.
  - (b) We believe the supplementary information is fairly presented, both in form and content, in accordance with the applicable criteria.
  - (c) The methods of measurement and presentation of the supplementary information are unchanged from those used in the prior period, aside from that relating to pension information, which is now prepared in accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, as amended.
  - (d) We believe the significant assumptions or interpretations underlying the measurement and/or presentation of the supplementary information are reasonable and appropriate.
  - (e) If the supplementary information is not presented with the audited financial statements, we acknowledge we will make the audited financial statements readily available to intended users of the supplementary information no later than the date such information and the related auditor's report are issued.

Clifford Blackwell, III, Director of  
Administrative Services

2-8-16

Date

Paula Y. McPartlin, Accounting Manager

2/8/2016

Date



# Council Agenda Background

**PRESENTER:** Clifford Blackwell, CGFO, Director of Administrative Services **DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to negotiate and enter into an agreement with Wells Fargo Bank to provide Depository Bank and related banking services to the City of Bedford from April 1, 2016 through March 31, 2018, with an option for three one-year term extensions.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

Chapter 105 of the Local Government Code requires that the City competitively solicit and select a qualified financial institution to serve as its Primary Depository Bank.

As part of the City's existing investment advisory services contract with Valley View Consulting, Inc., Valley View Consulting assisted with the preparation and distribution of the Request for Applications (RFA) and subsequent evaluation of the applications received.

On November 23, 2015, an RFA for Primary Depository Bank services was distributed to eight financial institutions with branches located in Bedford, and was duly advertised in the Fort Worth Star-Telegram on November 22 and November 29. The solicited financial institutions included JP Morgan Chase, Wells Fargo, Comerica, BBVA Compass, Capital One, Bank of America, Citibank, and Affiliated Bank. The RFA described the required banking services, transaction volumes, and provided other pertinent information for the financial institutions to respond with an application as requested by December 21, 2015.

In addition, a non-mandatory pre-application conference was held on December 4, 2015 in order to respond to any specific questions from prospective applicants and provide clarification as needed. Representatives of JP Morgan Chase, Wells Fargo, and Comerica Bank attended.

This process provided a competitive environment with three banks submitting applications. The objective was to identify the application that provided the "best value" to the City.

On December 21, 2015, JP Morgan Chase, Capital One, and Wells Fargo Bank submitted applications by the 2:00 p.m. deadline. Comerica Bank chose not to submit applications by the scheduled deadline.

While JPMorgan Chase Bank has been a responsive business partner over the current contract period, they simply were not competitive with their application, did not offer an important, required service (Securities Safekeeping), and were therefore eliminated from further consideration

Capital One and Wells Fargo were invited to meet the City's staff, provide a demonstration of their on-line banking platforms, and discuss the transition planning and approach they would take if selected.

City Staff also performed due diligence by contacting references provided by both banks.

Based on the demonstrations, the transition discussions, and comments of the references, staff believes that, despite the slightly higher cost over the expected contract term, the “best value” to the City is offered by Wells Fargo.

On January 29, 2016, City staff presented the two final bank applications to the Investment Committee for consideration. After careful review, the Investment Committee voted to recommend that the City Council award the Primary Depository Bank contract to Wells Fargo.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to negotiate and enter into an agreement with Wells Fargo Bank to provide Primary Depository Bank and related banking services to the City of Bedford from April 1, 2016 through March 31, 2018, with an option for three one-year term extensions.

**FISCAL IMPACT:**

N/A

**ATTACHMENTS:**

- Resolution
- Recap of RFA process
- RFA analysis by Valley View Consulting LLC
- Draft copy of Investment Committee Minutes

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND ENTER INTO AN AGREEMENT WITH WELLS FARGO BANK TO PROVIDE DEPOSITORY BANK AND RELATED BANKING SERVICES TO THE CITY OF BEDFORD FROM APRIL 1, 2016 THROUGH MARCH 31, 2018, WITH AN OPTION FOR THREE ONE-YEAR TERM EXTENSIONS.

WHEREAS, the City Council of Bedford determines the need for depository bank and related services.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to enter into an agreement with Wells Fargo Bank for Depository Bank and related services.

SECTION 3. The contract term is April 1, 2016 through March 31, 2018, with an option for three one-year term extensions.

SECTION 4. That this resolution shall take effect from and after the date of its passage.

PRESENTED AND PASSED on this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney



February 11, 2016

Clifford W. Blackwell, III  
Director of Administrative Services  
City of Bedford  
2000 Forest Ridge Drive  
Bedford, TX 76021

Dear Mr. Blackwell:

As part of the services provided under the current Investment Advisory Contract, we welcome the opportunity to assist the City of Bedford (the "City") with this Primary Depository Bank Services Request for Applications (the "RFA") project.

The objective of this engagement was to select a primary depository bank following the expiration of the current contract which originally extended to August 31, 2016. The incumbent (JPMorgan) chose to alter the agreement in the last renewal year of the contract and the City decided to conduct the solicitation prior to expiration. This recommendation, upon approval, will commence on May 1, 2016 and terminate on April 30, 2018 with 3 additional one-year extension options.

### **Procedure**

The Primary Depository Bank Services RFA project began with the establishment of a Calendar of Events to ensure that the required project steps were performed in a timely and sequential manner.

The process for selecting a Primary Depository Bank is governed by the State of Texas Local Government Codes: Chapter 105 Municipal Depository Act; Chapter 176 Conflict of Interest Act; Chapter 2256 Public Funds Investment Act; and Chapter 2257 Public Funds Collateral Act.

In addition to complying with these State statutory requirements, it was necessary to understand and comply with the City's financial and purchasing policies and Investment Policy.

The RFA project included the following steps:

1. Analyzed historical bank service usage and balance records.
2. Reviewed the minimum banking services and potential additional services.
3. Developed a list of eligible financial institutions within the City's municipal boundaries:
  - a. Affiliated Bank

- b. Bank of America
  - c. BBVA Compass Bank
  - d. Capital One Bank
  - e. Citibank
  - f. Comerica Bank
  - g. JPMorgan Chase Bank (incumbent)
  - h. Wells Fargo Bank
4. Contacted the financial institutions to confirm distribution information, describe process, and identify the designated recipient.
  5. Drafted the RFA for staff review and approval.
  6. Posted the notice and advertised as required.
  7. Distributed RFAs to the identified and receptive financial institutions.
  8. Held a non-mandatory pre-application conference that was attended by representatives of:
    - a. Comerica Bank
    - b. JPMorgan Chase (incumbent)
    - c. Wells Fargo Bank
  9. No additional RFA requests were received as a result of the advertisement.
  10. By the closing deadline, applications were received from:
    - a. JPMorgan Chase (incumbent)
    - b. Wells Fargo Bank
    - c. Capital One Bank

This process provided a competitive environment with three banks submitting applications. The evaluation of the applications was based on, but not limited to, the following criteria, in no particular order of priority. The objective was to identify the application that provided the “Best Value” to the City.

1. Ability to perform and provide the required and requested services,
2. Reputation of respondent and quality of services,
3. Cost of services,
4. Funds availability,
5. Interest paid on interest bearing accounts and deposits,
6. Earnings credit calculation on compensating balances,
7. Completeness of application and agreement to points in the RFA,
8. Convenience of locations,
9. Previous service relationship with the City, and
10. Financial strength and stability of the institution.

### **Application Analysis**

The analysis began with an overall review of each bank’s general financial strength and ability to provide the bank services necessary to meet the City’s current and future service needs. Each of

the responding banks exhibited acceptable financial strength and adequately passed the bank service test. The attached Bank RFA Analysis highlights each response.

### Fees

Each bank’s fee schedule was analyzed based on the City’s banking service needs and estimated activity levels. Each bank offered a variety of conversion/retention credits and incentives (including waived fees, supplies and check scanners). Where quantifiable and appropriate, the estimated service fees were adjusted for any incentives:

	<u>Est. Monthly Fees</u>	<u>Est. 2 Year Fees</u>	<u>Est. 5 Year Fees</u>
JPMorgan Chase	(\$4,859)	(\$102,048)	(\$276,987)
Capital One	(\$3,461)	(\$72,690)	(\$197,301)
Wells Fargo	(\$3,547)	(\$84,120)	(\$211,801)

### Earnings Credit

Each bank’s earnings credit was calculated as “soft-dollar” earnings credit to be netted against the estimated service fees. The City’s most recent agreement which involved maintaining a compensating balance of \$4,000,000 to completely offset bank fees is no longer an option. The average balance that the City has maintained over the last year has been approximately \$6,000,000; we used that amount to calculate the estimated net cost of each of the banks proposals over the initial two (2) year contract term.

	<u>JPMorgan Chase</u>	<u>Capital One</u>	<u>Wells Fargo</u>
Average Balance	\$6,000,000	\$6,000,000	\$6,000,000
Fees 2_year	(\$102,048)	(\$72,690)	(\$84,120)
Effective Earnings Credit Rate	0.30%	0.54%	0.50%
Earnings Credit 2-year	36,000	64,800	60,000
Hard Interest Earned	0	0	0
Net 2-Year (Cost)	(\$66,048)	(\$7,890)	(\$24,120)
Fees 5-year	(\$276,987)	(\$197,301)	(\$211,801)
Earnings Credit 5-year	90,000	162,000	150,000
Hard Interest Earned	0	0	0
Net 5-year (Cost)	(\$186,987)	(\$35,301)	(\$61,801)

### Recommendation

While JPMorgan Chase Bank has been a responsive business partner over the current contract period they simply were not competitive with their proposal, did not offer an important, required service (Securities Safekeeping), and were therefore eliminated from further consideration.



Capital One and Wells Fargo were invited to meet the City's staff, provide a demonstration of their on-line banking platforms, and discuss the transition planning and approach they would take if selected.

City Staff also performed due diligence by contacting references provided by both banks.

Based on the demonstrations, the transition discussions, and comments of the references the City Staff believes that, despite the slightly higher cost over the expected five (5) year term, the "Best Value" to the City is offered by Wells Fargo.

As the City's consultant's we concur with the City's Staff and Investment Committee recommendation that the City Council award the Primary Depository Bank Services role to Wells Fargo Bank, subject to negotiation of mutually agreeable documentation.

Please contact Dick Long or me to discuss any questions or additional information needs. Thank you for this opportunity to serve the City.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. Ross".

Thomas H. Ross  
Valley View Consulting, L.L.C.

Attachments

**City of Bedford Bank RFA Analysis by VVC**

February 9, 2016	JPMC Bank (Incumbent)	Capital One	Wells Fargo
<b>Proposed Fees - Bank Depository Services</b>			
Monthly Fee Estimate (w/o Security Safekeeping)	(4,859)	(3,461)	(3,547)
Monthly Estimated Assessment Fee	(650)	Waived	Waived
Fees for Two Year Term	(116,626)	(83,074)	(85,120)
Fees for Five Year Term	(291,565)	(207,685)	(212,801)
<b>Contract Incentives</b>			
Waived Fees	14,578	10,384	
Conversion Costs (Allowance)			1,000
Initial Order of Checks & Deposit Slips (Credit)			
Other			
<b>Total Fees for Two Year Term less Incentives</b>	<b>(102,048)</b>	<b>(72,690)</b>	<b>(84,120)</b>
<b>Total Fees for Five Year Term less Incentives</b>	<b>(276,987)</b>	<b>(197,301)</b>	<b>(211,801)</b>
<b>Earnings Credit</b>			
	JPMC Premium Rate; Managed Rate w/no Floor	Managed Rate; Floor for Contract term	Greater of 90 day T-bill or 0.50% for Contract term
Earnings Credit Rate	0.30%	0.60%	0.50%
Target Balance Allocated To Offset Fees	6,000,000	6,000,000	6,000,000
Monthly Earnings Credit less Reserve	1,500	2,700	2,500
Earnings Credit for Two Year Term	36,000	64,800	60,000
Earnings Credit for Five Year Term	90,000	162,000	150,000
Reserve Requirement	0%	10%	0%
<b>Net Fees for Two Year Term</b>	<b>(66,048)</b>	<b>(7,890)</b>	<b>(24,120)</b>
<b>Net Fees for Five Year Term</b>	<b>(186,987)</b>	<b>(35,301)</b>	<b>(61,801)</b>
<b>Interest Income Estimate</b>			
Investment Option	Managed Rate; Hybrid DDA; No Floor	Blended Checking; 0.35% Floor for Contract Term	Texpool +3 bps (0.25% on Day of Submittal)
Interest Rate	0.16%	0.35%	0.25%
Investment Balance	-	-	-
Monthly Investment Income	-	-	-
Two Year Investment Income	-	-	-
Five Year Investment Income	-	-	-
<b>Two Year Income/(Cost)</b>	<b>(66,048)</b>	<b>(7,890)</b>	<b>(24,120)</b>
<b>Five Year Income/(Cost)</b>	<b>(186,987)</b>	<b>(35,301)</b>	<b>(61,801)</b>
<b>12/21/2015 Submission Date</b>			
Historical Bank Balance	6,000,000	6,000,000	6,000,000
91-Day T-Bill Discount Rate	0.25%	0.25%	0.25%
Fed Funds Rate Actual	0.35%	0.35%	0.35%
Fed Funds Rate Target	0.50%	0.50%	0.50%
Local Government Investment Pool	0.22%	0.22%	0.22%

**City of Bedford Bank RFA Analysis by VVC**

February 9, 2016

**JPMC Bank  
(Incumbent)**

**Capital One**

**Wells Fargo**

One Month LIBOR

0.42%

0.42%

0.42%

**DETAIL RESPONSE ANALYSIS**

**BANK DEPOSITORY SERVICES**

**"Best Value" Criteria**

- 1 Ability to perform and provide the required and requested services
- 2 Reputation of applicant and quality of services
- 3 Cost of services
- 4 Transition cost; retention and transition offers and incentives
- 5 Funds availability
- 6 Interest paid on interest bearing accounts and deposits
- 7 Earnings credit calculation on compensating balances
- 8 Completeness of application and agreement to points in the RFA
- 9 Physical location within municipal boundaries
- 10 Convenience of locations
- 11 Previous service relationship with the City
- 12 Financial strength and stability of institution
- 13 Ability to provide collateral for all deposits in compliance with statutory requirements

**Responses**

- 1 On-Line Banking Services (R) Yes Yes Yes
- 2 Controlled Disbursement Account (R) Yes Yes Yes
- 3 Zero Balance Account (R) Yes Yes Yes
- 4 Positive Pay & Account Reconciliation (R) Yes Yes Yes
- 5 Reverse Positive Pay Service (R) Yes Yes Yes
- 6 ACH (R) Yes Yes Yes
- 7 ACH Debit Blocking (R) Yes Yes Yes
- 8 Wire Transfers (R) Yes Yes Yes
- 9 Remote Deposit Capture (R) Yes Yes Yes
- 10 Consumer Bill Pay Processing (R) Yes Yes Yes
- 11 Retail Lockbox Processing (R) Yes Yes Yes
- 12 Post No Checks (R) Yes Yes Yes
- 13 Funds Availability (R) Yes Yes Yes
- 14 Employee Check Cashing (R) Yes Yes Yes
- 15 Returned Check Reprocessing (R) Yes Yes Yes
- 16 Account Analysis (R) Yes Yes Yes
- 17 Bank Statements ® Yes Yes Yes
- 18 Payment for Services (R) Yes Yes Yes
- 19 Account Settlement (R) Yes Yes Yes
- 20 Research (R) Yes Yes Yes
- 21 Bank Errors (R) Yes Yes Yes
- 22 Safekeeping Custody Services (R) No Yes Yes
- 23 Investment Account (R) Yes Yes Yes
- 24 Audit Confirmations (R) Yes Yes Yes
- 25 Balance Assessment (R) In Full to City Waived Waived
- 26 Reserve Requirement (R) None Yes None

**Services That May be Considered**

- 1 Bank Provided ATM No No No
- 2 Integrated Disbursement Services Yes Yes Yes
- 3 Provisional Credit Capabilities Yes - But Unclear Yes - But Unclear Yes - But Unclear

**City of Bedford Bank RFA Analysis by VVC**

	<b>February 9, 2016</b>	<b>JPMC Bank (Incumbent)</b>	<b>Capital One</b>	<b>Wells Fargo</b>
4	Electronic Data Interchange	Yes	Yes	Yes
5	Courier Service	<b>No</b>	<b>No</b>	<b>No</b>
<b>Collateral Requirements</b>				
1	Collateralization	Yes	Yes	Yes
2	Collateral Amount	Yes	Yes	Yes
3	Custody/Safekeeping	Yes - FRB	<b>Yes - FRB ???</b>	<b>No - BNYM</b>
4	Collateral Substitution	Yes	Yes	<b>No</b>
5	Collateral Report	Yes	Yes	<b>No - but OK</b>
6	Board Resolution	Yes	Yes	Yes
<b>Investment Activities</b>				
1	Direct Investment Alternative	<b>No (No Safekeeping)</b>	<b>Yes, Maybe</b>	Yes
2	Certificates of Deposit	Yes	Yes	Yes
3	Certificates of Deposit => \$250,000	Provided	Provided	Provided
<b>Overdraft Provisions</b>				
1	Net Overdraft Defined	Yes	Yes	<b>No</b>
2	Notification	Yes	Yes	Yes
3	Stipulations	JPMC Prime + 3.0%	Case by case	Case by case; Prime + 2%
<b>Other Stipulations</b>				
1	Regulation Notifications	Yes	Yes	Yes
2	Notifications of Incoming Wires	Yes	Yes	Yes
3	Right to Cancel under Federal & State Law Rulings	Yes	Yes	Yes
4	Access to Bank Records	Yes	Yes	Yes
5	Right to open and maintain other accounts	Yes	Yes	Yes
6	Bank Depository Services Agreement	Yes - See Narrative	Yes	<b>Yes - See Attachment 3</b>
7	Secondary Bank Depository	<b>No</b>	Yes	Yes
8	Right to terminate	Acknowledged	Acknowledged	Acknowledged
9	Terms Fixed	Yes	Yes	Yes
10	One Relationship Officer	Glen Forbes - VP 817-884-5024	Michael Bradford, SVP 214-855-2601	Tim Pinon, Relationship Manager 214-777-4062
<b>Miscellaneous</b>				
1	Semi-Annual Meeting	Yes	Yes	Yes
2	Formal Agreement Required	Yes - See Narrative	Yes	Yes
3	Advertisement Acknowledged	Acknowledged	Acknowledged	Acknowledged
<b>Application Submission</b>				
		Provided	Provided	Provided
<b>Fee Schedules</b>				
1	Bank Services	Provided	Provided	Provided
<b>Information Requirements Response Attachments</b>				
1	Account Analysis	Provided	Provided	Provided
2	Rate Basis	Provided	Provided	Provided
3	Sample Collateral Agreement	Provided	Provided	Provided
4	Security Measures	Provided	Provided	Provided

**City of Bedford Bank RFA Analysis by VVC**

	<b>February 9, 2016</b>	<b>JPMC Bank (Incumbent)</b>	<b>Capital One</b>	<b>Wells Fargo</b>
5	Technology Specifications	Provided	Provided	Provided
6	Sample Safekeeping Report	<b>N/A</b>	Provided	Provided
7	Sweep/Investment Account Information	Provided	Provided	Provided
8	Summary Business Continuity Plan	Provided	Provided	Provided
9	References	Cities of Mansfield, North Richland Hills, Garland	Dallas Housing Authority, City of Port Arthur, City of Dickinson	City of DeSoto; City of Duncanville; City of Hurst
10	Sample FIRREA Compliant Document	Provided	Provided	<b>Not Provided</b>
<b>Other Considerations</b>				
1	Implementation/retention Credit (set up Fee waiver )	N/A	N/A	Set up Fees Waived; \$1,000 Transition "Allowance"
2	Supply allowance	N/A	N/A	N/A
3	Monthly Service Charge Waiver	3 months	3 months	N/A
4	Payment to City (alternative to waiver option)	N/A	N/A	N/A
5	Discounts	N/A	N/A	N/A
6	Minimum balance requirement	N/A	N/A	N/A
7	Maximum balance limitation	N/A	N/A	N/A
8	Other	N/A	N/A	N/A
9	List of branch locations	N/A	N/A	N/A
10	Availability Schedule	Provided	N/A	N/A
11	Affirmative Action Plan	N/A	N/A	N/A
12	Community Reinvestment Act	N/A	N/A	N/A
13	Bankrate.com Rating	4 Stars	4 Stars	4 Stars
14	Employee Banking Program	Available	N/A	N/A
15	Investment Policy Certification	N/A	N/A	N/A
16	Safekeeping Services	<b>Will Not Provide</b>	Available	Available
17	Notice of Negative Information	N/A	N/A	N/A
18	Personal Information Disclosure	N/A	N/A	N/A
19	Sample bank service agreements	Provided	N/A	N/A
20	Bank Services information	Provided	N/A	N/A
21	Sample Collateral Report	Provided	N/A	N/A
22	Additional Services	Provided	N/A	N/A
23	Implementation Plan	N/A	N/A	N/A
24	Addendum I Acknowledgement	N/A	N/A	N/A
25	RDC scanners	N/A	Up To three (3) Scanners at NC	N/A
26	Conflict of Interest Questionnaire	N/A	N/A	N/A
27	Term & Conditions, and Addendum	N/A	N/A	N/A
28	Bank Relationship Team	Provided	Provided	Provided
29	Fee Proforma	Provided	Provided	Provided
30	Financial Information	Provided	Provided	Provided

## **NEW BUSINESS (continued)**

### **2. REVIEW AND APPROVAL OF QUARTERLY INVESTMENT REPORT FOR THE QUARTER ENDED 12/31/2015.**

Tom Ross led the discussion on the quarterly investment report for the quarter ended December 31, 2015. The average yield for the pools overall are 24 basis points, and the average yield for securities/cd's are 70 basis points. He stated that the stock market was trending upwards, but then things happened in China which affects everything. The quarter end average yield is 45 basis points mainly due to the Fed's decision to start moving the Federal Funds rate up. There is a \$1 million 18-month CD maturity that is coming up on February 25<sup>th</sup>, 2016. In regards to the graphs on page 2, there is an overall improvement of the treasury yield curve this year (December) as compared to the same time last year. The strategy is to replace old investments with new ones at a higher interest yield. On page 3, the detail of investment holdings reflects a \$1 million 18-month CD maturing on February 25<sup>th</sup> at Bank Texas. Mr. Ross said they have been looking at solicitations going out 2 years at the 1% range, and will further investigate that option the closer the maturity date gets. Mr. Ross stated he would like for us to consider moving our funds at Southwest MMA to Southside MMA for greater earning potential. The composition of the total portfolio on page 4 is about the same as last quarter representing 13% as the \$4 million compensating balance currently at the bank, 22% in securities/CD's, and 65% representing the pools. The book value between the 3<sup>rd</sup> and 4<sup>th</sup> quarter represents an increase of \$4,119,133 mainly due to the release of a portion of the 2015 CO-SWIFT funds into our TEXSTAR Account.

### **3. DISCUSSION OF CURRENT MARKET CONDITIONS**

Tom Ross led the discussion on the market outlook as of January 8, 2016. He stated there had been a great deal of volatility previously and at the December 16, 2015 meeting, the Federal Open Market Committee (FOMC) raised the Fed Fund Rate by 25 basis points. The Unemployment rate remained steady at 5%. The market is still in a volatile state. Mr. Ross said CD's are still the best investment option, and that he anticipates that rates changing over the next year.

### **4. BANK RFA STATUS REVIEW**

Mr. Blackwell said the discussion regarding the bank RFA will be a combination of Paula McPartlin, Tom Ross, and himself. JP Morgan has been our depository for more than 20 years, but once we looked at the schedule of fees and services provided from the applications, JP Morgan Chase cost to us was more than 3 times than the other two applicants being Capital One and Wells Fargo. JP Morgan Chase is no longer safekeeping the funds. Staff is preparing themselves for a transition between banks. Staff is evaluating processes, on-line use, and reviewing the two contender's bank demonstrations as well as the fee structure. We came to the conclusion that both banks Capital One and Wells Fargo can provide the services. Wells Fargo has more North Texas municipal references as compared to Capital One, and the cities we contacted had raving reviews. Capital One Banks' on-line system is still being developed, while Wells Fargo on-line system has been in place for quite some time and easier to use. Comparing the fee analysis and the services provided, Wells Fargo is a little higher in cost, mainly due to a 3 month fee waiver by Capital One Bank. Tom Ross said Wells Fargo has waived setup fees which is a significant number. He continued with Wells Fargo having a stronger presence in the government market, and that the proposal we received from Capital One was a rushed thru process, and that some of the responses they provided were cut and paste which causes concern for paying attention to detail. It is my belief the city would be better served with Wells Fargo. Paula McPartlin stated after performing due diligence and checking references as well as visiting with the City of Hurst that Wells Fargo does a one on one weekly meeting during transition, and they are available at any point and time with any issues and/or concerns. From a staffing perspective, the Wells Fargo system was easier to use for our daily operations. Cliff Blackwell stated our agreement is for two years, with three-one year options. If we are not happy with them, we can terminate the agreement with a 60 days' notice. Cliff stated that our recommendation is moving from JP Morgan Chase Bank to Wells Fargo Bank, and proposing

it to council on February 23<sup>rd</sup>, 2016. We start the bank transitioning in April. He also stated that Chase has agreed to hold off charging us any fees until April. Cliff said there is a great deal of work in transitioning banks such as templates, credit card payments, vendor wires, ACH files for payroll, etc. Dr. Turner said it appears you all have done your due diligence and reviews of these banks, and that Council appreciates the time and relies on your expertise in coming up with the best choice. Tom Ross said that once Council gives its approval, that it will take some time to transition. Paula McPartlin said we will run the systems parallel for a month or two before totally converting over making sure any outstanding checks have cleared and that the payrolls are running smooth. Tom Ross stated that time will be needed due to you just going thru a system conversion, and that the new files going to/from our system to the bank will be in the right format, so running the systems parallel is advantageous.

## 5. OTHER ITEMS

### ADJOURNMENT

Motion to adjourn: Mr. Blackwell moved to adjourn. Michael Wells seconded the motion. The meeting was adjourned at 9:41 am.



# Council Agenda Background

**PRESENTER:** Jeff Gibson, Police Chief

**DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to purchase a new Mobile Message Switch and related components from Tyler Technologies, Inc., in the amount of \$15,750.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

The Mobile Message Switch (MMS) provides a protected venue for the sharing of data between the CAD System (Dispatch) and the Mobile application on the mobile computers used in Police and Fire/EMS emergency vehicles. The current device has been operational for approximately 12-14 years although the average life expectancy of such technology normally does not exceed eight years. Without a MMS, communication between CAD and Mobile would cease to function. Recently, there have been several incidents where the MMS failed, resulting in emergency personnel having to call into the Dispatch center for all communications. Resetting of the MMS requires Police Department personnel to contact New World/Tyler Technologies for assistance in restarting the MMS.

Funding in the amount of \$5,000 will come from the 2002 General Obligation Bonds for Public Safety Improvements for the MMS. Funding is available in the amount of \$10,750 from the Tarrant County 9-1-1 District PSAP Assistance Program Funding for the necessary support equipment. Representatives from Tyler Technology will travel to the City for installation; those costs will be covered from the Information Technology budget and are estimated at \$2,500.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to purchase a new Mobile Message Switch and related components from Tyler Technologies, Inc., in the amount of \$15,750.

**FISCAL IMPACT:**

Public Safety Improvements 2002 General	
Obligation Bonds Balance:	\$15,768.31
Message Switch:	<u>\$ 5,000.00</u>
Balance:	\$10,768.31
Tarrant County 9-1-1 District PSAP:	\$10,750.00
Information Technology Budget:	\$ 2,500.00

**ATTACHMENTS:**

Resolution  
Agreement

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO PURCHASE A NEW MOBILE MESSAGE SWITCH AND RELATED COMPONENTS FROM TYLER TECHNOLOGIES, INC., IN THE AMOUNT OF \$15,750.

WHEREAS, the replacement of the Mobile Message Switch is necessary for the daily operation of Police Officers; and,

WHEREAS, Tyler Technologies, Inc. is the software provider for the Police Department's software system; and,

WHEREAS, the City Council of Bedford, Texas recognizes the need to replace the message switch and related equipment utilizing Tyler Technologies, Inc. to ensure compatibility.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein

SECTION 2. That the City Council hereby authorizes the City Manager to purchase a new Mobile Message Switch and related components from Tyler Technologies, Inc., in the amount of \$15,750.

SECTION 3. That funding for the message switch will come from the 2002 General Obligation Bonds for Public Safety Technology and \$10,750 will come from the Tarrant County 9-1-1 District PSAP Assistance Program Funding.

PRESENTED AND PASSED on this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney

November 19, 2015**ADDITIONAL SERVICES AND THIRD PARTY AGREEMENT**

Ms. Kelli Agan  
The City of Bedford  
2000 Forest Ridge Drive  
Bedford, TX 76021

Dear Ms. Agan:

New World Systems is pleased to provide additional services and third party products for implementation of a New Mobile Message Switch.

The attached forms (Exhibits B and Appendix 1) are to be reviewed and approved by you and/or your authorized representative. They describe the additional services you have requested along with the related fees.

Other than for the purposes of internal review, we ask that you treat our fees as confidential information. This is due to the competitive nature of our business.

The General Terms and Conditions from our original License Agreement are incorporated and continue to apply. Any taxes or fees imposed from the course of this Agreement are the responsibility of the Customer.

We thank you for your continued business with New World Systems. We look forward to working on this project with you.

**ACKNOWLEDGED AND AGREED TO BY:**

*Tyler Technologies Inc*  
**NEW WORLD SYSTEMS® CORPORATION**  
(New-World)

By: *[Signature]* *President*  
Authorized Signature Title

**THE CITY OF BEDFORD, TEXAS**  
(Customer)

By: *[Signature]* *City Manager*  
Authorized Signature Title

By: *[Signature]* *Asst. City Manager*  
Authorized Signature Title

Date: *1-7-16*

Date: *12/23/15*

Each individual signing above represents that (s)he has the requisite authority to execute this Agreement on behalf of the organization for which (s)he represents and that all the necessary formalities have been met.

The "Effective Date" of this Agreement is the latter of the two dates in the above signature block.

**PRICING IS VALID THROUGH DECEMBER 15, 2015.**

**EXHIBIT B**  
**ADDITIONAL SUPPORT SERVICES AND FEES**

**1. Service Fees and Travel Costs**

The fixed fee for Message Switch Operating System Assurance will be \$5,000. (Plus all actual and reasonable travel expenses and time incurred by **New World** divided proportionately between all **New World** customers visited on a single trip. Travel costs are estimated at \$2,000 per trip.) The installation and training support services are typically performed at **Customer's** premises but may be provided at **New World** national headquarters in Troy, Michigan. **Customer** agrees to reimburse **New World** for support trips canceled by **Customer** less than ten (10) days before the scheduled start date to cover **New World's** out of pocket costs and lost revenues.

Additional support services provided by **New World** outside the scope of this Agreement will be provided at the **Customer's** daily rate in effect at that time, currently \$1,200 per day.

**2. Message Switch Operating System Assurance Service**

**New World** shall provide Message Switch Operating System Assurance. These services do not include hardware and/or third party product costs which shall be **Customer's** responsibility, if required. On-site installation is required. **Customer** will be responsible for the actual travel expenses and time.

- a) Message Switch Operating System Assurance Services:
- Operating System Assurance and Software Installation Services
  - Unpack and assemble hardware
  - Verify core hardware functionality (network/video/storage devices/usb)
  - Install and update AIX Operating System
  - Install and update applicable system manual pages
  - Set AIX environment variables
  - Build system user-ids and applicable authorizations
  - Install and stage message handler and compilers
  - Verify and allocate disk space
  - Mirror hard drives and boot sequencing
  - Migrate all Message Switch data from the old server to the new server
  - Configure devices on the new server (Ethernet cards, print queues, tty's, etc.)
  - Verify all scripts are adjusted for new machine
  - Migrate all source code from old machine to the new machine
  - Compile **New World** Message Switch programs
  - Assure Message Switch operation in the live environment
  - Adjust any tables as needed during the assurance phase
  - Setup automatic "cron" jobs
  - Complete full system and log backups
  - Perform any necessary administrator training

Exhibit B / PROJECT MANAGEMENT, IMPLEMENTATION AND TRAINING SUPPORT SERVICES

3. Payments for Services and Travel Costs

Support Services will be billed as follows:

a) Amount invoiced upon the Effective Date (100%)	\$5,000
<b>TOTAL DUE .....</b>	<b><u>\$5,000</u></b>

All travel costs will be billed weekly for the previous calendar week. Any taxes or fees imposed from the course of this Agreement will be calculated and added as applicable to each billing and are the responsibility of the **Customer**. **Customer** agrees to remit when imposed. If an exemption is claimed by the **Customer**, an exemption certificate must be submitted to **New World**. **Payments are due within fifteen (15) days from receipt of invoice.**

COPY

**APPENDIX 1**  
**AGREEMENT AND AUTHORIZATION FOR PROCUREMENT**  
**OF THIRD PARTY PRODUCTS AND SERVICES**

November 18, 2015

This agreement (**Agreement**) between the **The City of Bedford, Texas (Customer)** and **New World Systems® Corporation, (New World)** is to cover the procurement of Third Party products and services by **New World for Customer**.

The attached configuration (Exhibit 1) describes the Third Party products and services that **New World** will obtain for **Customer**. By their written approval below, **Customer** authorizes **New World** to order the Exhibit 1 products for delivery to:

Bedford Police Department  
Attn: Chief Gibson  
2121 L. Don Dodson Drive  
Bedford, TX 76021

Upon execution of this **Agreement**, a down payment of 50% of the Exhibit 1 cost is due. The balance is due upon delivery of the Third Party products. **Customer** agrees that failure to pay the amount billed within fifteen (15) days will result in a daily finance charge equal to .1% (.001) of the Exhibit 1 cost. If applicable, the finance charge will be computed and invoiced separately based on the receipt of **Customer's** payment to **New World** for Exhibit 1 amounts due. **Customer** agrees to pay all applicable finance charges (if any) promptly.

**Customer** is responsible for the site preparation and related costs to install the Exhibit 1 Third Party products. **Customer** is responsible for any returned product charges, including re-stocking and shipping fees, for all Third Party products ordered by **New World** on the **Customer's** behalf. Travel Expenses incurred by **New World** are in addition to the Exhibit 1 cost and will be billed weekly as incurred.

Any taxes or fees imposed from the course of this **Agreement** are the responsibility of the **Customer** and **Customer** agrees to remit when imposed. If an exemption is claimed by the **Customer**, an exemption certificate must be submitted to **New World**.

The Exhibit 1 components and cost may only be changed by mutual agreement of the parties. If a change order in the configuration requires additional costs, **New World** shall notify **Customer** of the additional costs and with **Customer's** approval these costs shall be borne by **Customer**. Without such approval, the change order will not be processed.

**Customer** shall or may be required to execute selected agreements with vendors and **New World** shall not confirm the ordering of any Exhibit 1 products without **Customer's** authorized signature on said **Agreements**. **Customer** shall receive the benefit of all warranties, services, etc. provided for in the **Agreements**.

**EXHIBIT 1**  
**CONFIGURATION**

MESSAGE SWITCH	
SYSTEM HARDWARE	INVESTMENT
<b>IBM POWER 7 Model 710 Express 8231-E1D</b>	\$7,650
- (2) RDX 320GB Removable Disk Drives (System Backup)	
- USB Internal Docking Station for Removable RDX Disk Drives	
- PCIe2 LP 4-Port 1GbE Adapter	
- (2) 146GB 15K-RPM SFF SAS Disk Drives	
- Primary OS - AIX	
- 8GB System Memory	
- Power GXT145 Graphics Adapter	
- (2) 1725W AC Power Supplies (Primary & Redundant)	
- SATA Slimline DVD-RAM	
- (2) 6' Power Cords, 125V, 15A - Plug Type #4	
- Chassis with One Processor Planar	
- 4 Core 3.6GHz POWER 7 Processor Module	
- (2) Factory Deconfiguration of 1-Core	
- Language Group Specify - US English	
<b>Total System Hardware</b>	<b>\$7,650</b>
SYSTEM SOFTWARE	INVESTMENT
<b>IBM POWER 7 Model 710 Express 8231-E1D</b>	
- IBM AIX Standard Edition Ver. 7.1	N/C
- Per Processor Activation, 2 Core	\$1,000
- DVD Process Charge	\$350
<b>Total System Software</b>	<b>\$1,350</b>
IBM SERVICES	INVESTMENT
<b>IBM POWER 7 Model 710 Express 8231-E1D</b>	
- 3 Year HW/SW Maintenance, 24X7X4 WSU	\$1,750
<b>Total IBM Services</b>	<b>\$1,750</b>
<b>TOTAL INVESTMENT</b>	<b><u>\$10,750</u></b>

ADDENDUM

This Addendum is made as of the last signature date set forth below ("Addendum Effective Date") by and between Tyler Technologies, Inc., a corporation in good standing under the laws of Delaware, with offices at One Tyler Drive, Yarmouth, ME 04096 ("Tyler"), and the customer identified in the signature block (the "Customer").

WHEREAS, Customer selected New World Systems Corporation ("New World") to provide certain software and related services pursuant to a license and services agreement (the "Agreement"); and

WHEREAS, on November 16, 2015, New World merged with and into Tyler, with Tyler being the surviving entity (the "Merger"), and Tyler and Customer desire to update the Agreement with this Addendum.

NOW, THEREFORE, in consideration of the mutual promises hereinafter contained, Tyler and the Customer agree as follows:

1. Effective as of the Merger, Tyler became the successor-in-interest to New World and assumed all rights and obligations of New World under the Agreement.
2. All references in the Agreement to "New World," "NWS," or other similar naming conventions shall now be understood to refer to Tyler.
3. Until further notified by Tyler, the location of Customer's payments as set forth in the Agreement remains unchanged. Where Customer is required to provide notice under the Agreement, that notice shall be provided to:

Tyler Technologies, Inc.  
 One Tyler Drive  
 Yarmouth, ME 04096  
 Attention: Associate General Counsel

4. Tyler represents that the Tyler signatory to the Agreement and this Addendum is an authorized signatory, and that by such signature, Tyler is bound to the terms and conditions of the Agreement.
5. All other terms and conditions of the Agreement shall remain in full force and effect, and this Addendum shall be governed by and construed in accordance with those terms and conditions.

IN WITNESS WHEREOF, the parties hereto have executed this Addendum as of the dates set forth below.

**Tyler Technologies, Inc.**

**Customer Name: Bedford, Texas**

By: 

By: 

Name: Greg Sebastian

Name: ROGER GIBSON

Title: President, Public Safety Division

Title: CITY MANAGER

Date: 1-7-16

Date: 1-26-2015

**Customer Address:**  
**2121 L. Don Dodson Drive**  
**Bedford, TX 76021**



# Council Agenda Background

**PRESENTER:** Michael Wells, City Secretary

**DATE:** 02/23/16

**Council Mission Area:** Encourage citizen involvement.

**ITEM:**

Consider a resolution appointing members to Bedford's Citizen Boards and Commissions.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

On Tuesday, February 9, 2016, the City Council interviewed three applicants to fill vacancies on various Bedford's Citizen Boards and Commissions. The Mayor conducted a phone interview the same day.

Vacancies on the Cultural Commission and the Parks and Recreation Board will be filled.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution appointing members to Bedford's Citizen Boards and Commissions.

**FISCAL IMPACT:**

N/A

**ATTACHMENTS:**

Resolution

RESOLUTION NO. 16-

A RESOLUTION APPOINTING MEMBERS TO BEDFORD'S CITIZEN BOARDS AND COMMISSIONS.

WHEREAS, the City Council of Bedford, Texas desires to fill openings on various Citizen Boards and Commissions.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are true and correct, and are incorporated herein.

SECTION 2. That the City Council appoints the following members to various Bedford Citizen Boards and Commissions established to serve at the will of the Council:

Cultural Commission

Sonya Hood, Place 4: Term Expires September 30, 2016

Parks and Recreation Board

Alex Cowart, Place 9: Term Expires September 30, 2017

Dylan Hoey, Place 10: Term Expires September 30, 2017

Randy Newby, Place 11: Term Expires September 30, 2017

PRESENTED AND PASSED this 23rd day of February 2016, by a vote of \_\_\_ ayes, \_\_\_ nays and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney



# Council Agenda Background

**PRESENTER:** Kenneth Overstreet,  
Interim Public Works Director

**DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company utilizing the City of Grand Prairie Interlocal Agreement for the milling and two inch asphalt overlay on Shady Lake Drive in the amount of \$67,792.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

Shady Lake Drive is used by visitors to the Boys Ranch Park, and also as a cut-through from Forest Ridge Drive and Lakeview Drive. Two contractors have used the roadway while completing Phase I of the Boys Ranch Park Improvement project and the Boys Ranch Sewer Main project causing additional stress to the roadway.

The entire strip of roadway has developed multiple base failures. Also, the road has alligator cracking that will develop into additional base failures if moisture is allowed to penetrate below the surface. Staff has determined that the best option to maintain the road is to complete base repairs, milling, and an asphalt overlay.

This project will consist of a wedge mill of the outside area of the roadway and a two inch asphalt overlay over the entire surface. Public Works staff will complete the repair of all the base failures.

Funding in the amount of \$67,792 will come from the 2011 General Obligation Bonds.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company utilizing the City of Grand Prairie Interlocal Agreement for the milling and two inch asphalt overlay on Shady Lake Drive in the amount of \$67,792.

**FISCAL IMPACT:**

2011 GO Bond Available Balance :	\$76,920.83
Actual Project Amount:	\$67,792.00
Variance	\$ 9,128.83

**ATTACHMENTS:**

Resolution  
Quote  
Map

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH REYNOLDS ASPHALT AND CONSTRUCTION COMPANY UTILIZING THE CITY OF GRAND PRAIRIE INTERLOCAL AGREEMENT FOR THE MILLING AND TWO INCH ASPHALT OVERLAY ON SHADY LAKE DRIVE IN THE AMOUNT OF \$67,792.

WHEREAS, the City Council of Bedford, Texas has determined the need for the milling and two inch asphalt overlay of Shady Lake Drive; and,

WHEREAS, the City Council of Bedford, Texas recognizes the importance of providing these improvements to be responsive to the needs of the community.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council does hereby authorize the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company utilizing the City of Grand Prairie Interlocal Agreement for the milling and two inch asphalt overlay on Shady Lake Drive in the amount of \$67,792.

SECTION 3. That funding will come from the 2011 General Obligation Bonds.

PRESENTED AND PASSED this 23th day of February, 2016 by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

---

Jim Griffin, Mayor

ATTEST:

---

Michael Wells, City Secretary

APPROVED AS TO FORM:

---

Stan Lowry, City Attorney

**REYNOLDS ASPHALT & CONSTRUCTION COMPANY**

P.O. Box 370 \* Euless, TX 76039

...Since 1981

Ph (817) 267-3131 \* Fax (817) 267-7022

**JOB**

2016-081B - Revised

**Interlocal Unit Rates**

**PRICES VALID FOR 30 DAYS FROM DATE OF PROPOSAL**

Proj: **Bedford - Boys Ranch Activity Center Areas - Shady Lake Dr**  
 Cust: **City of Bedford**

Quoted: 16-Feb-16  
 06:46 PM

No.	Description	Estimated Bid Quantity	Unit Bid	Bid Extension
<b>Shady Lake Dr - Mill &amp; Overlay - 4200 SY</b>				
1.0	Move-Ins - Milling & Paving	2.00 Ea	\$750.00 / Ea	\$1,500.00
2.0	Milling -Wedge	2,996.00 LF	\$4.50 / LF	\$13,482.00
3.0	HMAC - Type D Delivered under 1499 Tons	640.00 Tonos	\$81.50 / Tonos	\$52,160.00
4.0	Traffic Control & Barricades	1.00 LS	\$650.00 / LS	\$650.00
<b>Project Total</b>				<b>\$67,792.00</b>
<b>Notes:</b>				
A -	HMAC Specs - Type D (PG 64-22)			
B -	All Items except Striping Items & Traffic Control & Barricades reflect Interlocal Unit Rates.			
C -	Bid Quantities and Subgrade/HMAC sections as requested.			
D -	Estimate includes no consideration for repairs or "soft spots" identified after milling, Treatment of these areas - if found - will be limited to the cleaning of loose debris and placement of asphalt.			
E -	Item 3.0 includes approx 60 Tons for repair paving.			

**Standard Qualifications:**

- 1 Price does not include applicable Sales Tax.
- 2 Excludes bond, engineering/layout, barricades/traffic control, clearing/grubbing, excavation/embankment, subgrade prep, concrete work, sawcuts, removals/hauloff, permits/inspection fees, utility adjustments/relocations, pavement markings/striping - including ADA logos and signs, erosion control, hydromulch/sodding/seeding, SWPPP, signs, weed/grass/soil treatment, patching, proof rolling, backfill pavement, topsoil, testing, subgrade prime, dewatering, cleaning/sweeping, detours/detour maintenance, milling, header cuts, stringline and AGC dues *unless specifically included in estimate items or notes.*
- 3 Estimates include prime for subgrade under HMAC and tack coat as applicable.
- 4 Excludes stringline. We will pave from a string if one is provided.
- 5 No staking has been included. Off-set staking/Marking of Limits by others is required.
- 6 Quantities are estimates only. Final payment to be made on measured/dispatched/ticketed quantities upon completion.
- 7 Estimate excludes all wheel stops, buttons, ADA logos and ADA signage.
- 8 Subgrade assumed to be provided "at grade" prior to mobilization.
- 9 Density requirements cannot be assured for lift sections less than 2.5" for HMAC Type B, and 2" for HMAC Types C & D.
- 10 Items per current TxDOT Item 340/341 Specifications exclusively. No other specifications apply. NO MARSHALL MIX.
- 11 Estimate based upon field review of existing conditions and/or Customer request. Estimate does not reflect an engineering evaluation of soil/subgrade conditions and does not constitute an engineered solution.
- 12 Warranty limited to material and workmanship.
- 13 Owner and/or GC responsible for availability of local source of water.
- 14 All prices are based on a mutually agreed upon construction schedule, and ample access to project site, without interference by others, during construction.
- 15 Estimate excludes curb cuts and backfill and damage to subgrade by others. Restoration of the prepared subgrade after other work (such as concrete curbing) is not included in this estimate.
- 16 Contract language must be acceptable to Reynolds Asphalt in regards to addressing Qualifications and Notes specified herein.
- 17 Unless specifically noted, this estimate is not submitted for consideration of a Lump Sum contract.
- 18 Any cost for job specific employee screening, training, orientation, badging or related activity; or any registration required to be completed by the Customer, Subcontractor, Contractor or General Contractor that is not specifically identified in the Pay Items or Notes will be invoiced at cost plus 15% with the initial invoice.

ESTIMATOR: RICHARD BAKER, 817-822-4552 Cell, Email: rbaker@reynoldsasphalt.com

**00.0 MHrs**

Ver160125

END



AERIAL SOURCE: NCTCOG, 2015



# Boy's Ranch Paving Improvements

Shady Lake Drive



 PROJECT LOCATION





# Council Agenda Background

**PRESENTER:** Kenneth Overstreet,  
Interim Public Works Director

**DATE:** 02/23/16

**Council Mission Area:** Be responsive to the needs of the community.

**ITEM:**

Consider a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company, utilizing the City of Grand Prairie Interlocal Agreement, for paving improvements to the Trinity Arts Building parking lot in the amount of \$43,611.

**City Attorney Review:** N/A

**City Manager Review:** \_\_\_\_\_

**DISCUSSION:**

City staff has noted that the Trinity Arts Building parking lot is deteriorating and in need of repairs. The parking lot has multiple base failures, alligator cracking, and the deterioration of the asphalt material. It was noted by staff that in most areas of the parking lot, approximately one quarter of the asphalt surface has deteriorated and the aggregate has washed away.

This agreement will include the stabilization (recycling) of the base, paving of two inches of asphalt, hauling the excess material, backfilling needed areas, and restriping the parking spaces.

Funding in the amount of \$43,611, which includes traffic control and barricades, will come from the 2007 General Obligation Bonds.

**RECOMMENDATION:**

Staff recommends the following motion:

Approval of a resolution authorizing the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company, utilizing the City of Grand Prairie Interlocal Agreement for paving improvements to the Trinity Arts Building parking lot in the amount of \$43,611.

**FISCAL IMPACT:**

2007 GO Bond Available Balance:	\$71,838.18
Actual Project Amount:	\$43,611.00
Variance:	\$28,227.18

**ATTACHMENTS:**

Resolution  
Quote  
Map

RESOLUTION NO. 16-

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH REYNOLDS ASPHALT AND CONSTRUCTION COMPANY, UTILIZING THE CITY OF GRAND PRAIRIE INTERLOCAL AGREEMENT, FOR PAVING IMPROVEMENTS TO THE TRINITY ARTS BUILDING PARKING LOT IN THE AMOUNT OF \$43,611.

WHEREAS, the City Council of Bedford, Texas has determined the need for the paving improvements to the Trinity Arts Building parking lot; and,

WHEREAS, the City Council of Bedford, Texas recognizes the importance of providing these improvements to be responsive to the needs of the community.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That the findings above are found to be true and correct, and are incorporated herein.

SECTION 2. That the City Council hereby authorizes the City Manager to enter into an agreement with Reynolds Asphalt and Construction Company, utilizing the City of Grand Prairie Interlocal Agreement, for paving improvements to the Trinity Arts Building parking lot in the amount of \$43,611.

SECTION 3. That funding will come from the 2007 General Obligation Bonds.

PRESENTED AND PASSED this 23th day of February, 2016 by a vote of \_\_\_ ayes, \_\_\_ nays, and \_\_\_ abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

\_\_\_\_\_  
Jim Griffin, Mayor

ATTEST:

\_\_\_\_\_  
Michael Wells, City Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
Stan Lowry, City Attorney

**REYNOLDS ASPHALT & CONSTRUCTION COMPANY**

P.O. Box 370 \* Euless, TX 76039

...Since 1981

Ph (817) 267-3131 \* Fax (817) 267-7022

**JOB**

2016-081A - Revised

**Interlocal Unit Rates**

**PRICES VALID FOR 30 DAYS FROM DATE OF PROPOSAL**

Proj: **Bedford - Boys Ranch Activity Center Areas - Art Center Parking Lot**

Cust: **City of Bedford**

Quoted: 18-Feb-16  
01:38 PM

No.	Description	Estimated Bid Quantity	Unit Bid	Bid Extension
<b>Art Center Parking Lot - Rehabilitation - 2100 SY</b>				
1.0	Move-Ins - Recycling & Paving	2.00 Ea	\$750.00 / Ea	\$1,500.00
2.0	Recycling - 8" Deep less than 2999 SY	2,100.00 SY	\$8.25 / SY	\$17,325.00
3.0	Hauling Excess Material	120.00 CY	\$16.75 / CY	\$2,010.00
4.0	HMAC - Type D Delivered less than 499 Tons	232.00 Tons	\$87.00 / Tons	\$20,184.00
5.0	Backfill	600.00 LF	\$0.85 / LF	\$510.00
6.0	Re-Stripe per Existing Scheme	1.00 LS	\$1,832.00 / LS	\$1,832.00
7.0	Traffic Control & Barricades	1.00 LS	\$250.00 / LS	\$250.00
<b>Total</b>				<b>\$43,611.00</b>
<b>Notes:</b>				
A - HMAC Specs - Type D (PG 64-22)				
B - All Items except Striping Items & Traffic Control & Barricades reflect Interlocal Unit Rates.				
C - Bid Quantities and Subgrade/HMAC sections as requested.				
D - Estimate includes no consideration for repairs or "soft spots" identified after milling, Treatment of these areas - if found - will be limited to the cleaning of loose debris and placement of asphalt.				
E - Move-in Items could provide economies based on final work scope.				

**Standard Qualifications:**

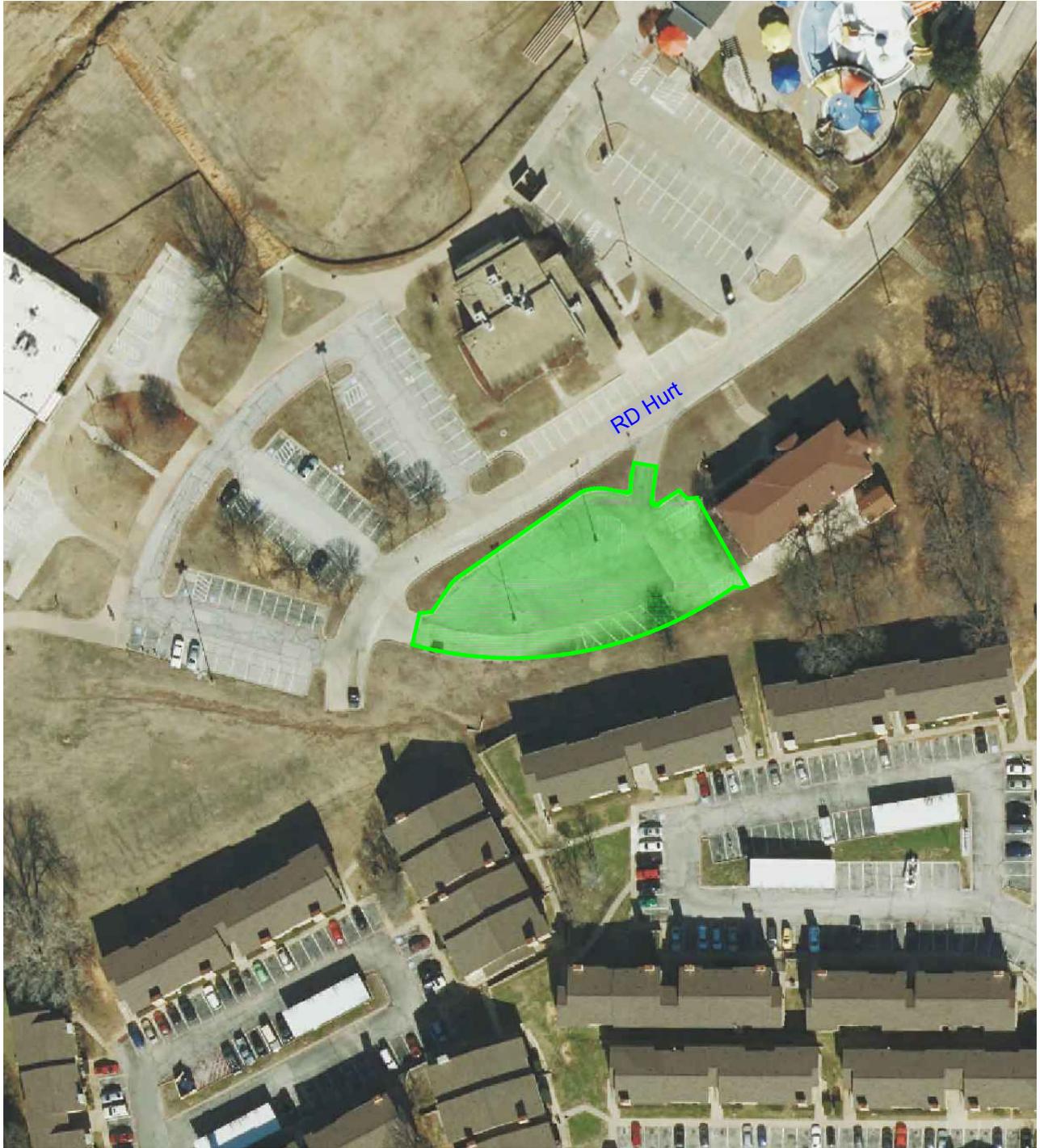
- 1 Price does not include applicable Sales Tax.
- 2 Excludes bond, engineering/layout, barricades/traffic control, clearing/grubbing, excavation/embankment, subgrade prep, concrete work, sawcuts, removals/hauloff, permits/inspection fees, utility adjustments/relocations, pavement markings/striping - including ADA logos and signs, erosion control, hydromulch/sodding/seeding, SWPPP, signs, weed/grass/soil treatment, patching, proof rolling, backfill pavement, topsoil, testing, subgrade prime, dewatering, cleaning/sweeping, detours/detour maintenance, milling, header cuts, stringline and AGC dues *unless specifically included in estimate items or notes.*
- 3 Estimates include prime for subgrade under HMAC and tack coat as applicable.
- 4 Excludes stringline. We will pave from a string if one is provided.
- 5 No staking has been included. Off-set staking/Marking of Limits by others is required.
- 6 Quantities are estimates only. Final payment to be made on measured/dispatched/ticketed quantities upon completion.
- 7 Estimate excludes all wheel stops, buttons, ADA logos and ADA signage.
- 8 Subgrade assumed to be provided "at grade" prior to mobilization.
- 9 Density requirements cannot be assured for lift sections less than 2.5" for HMAC Type B, and 2" for HMAC Types C & D.
- 10 Items per current TxDOT Item 340/341 Specifications exclusively. No other specifications apply. NO MARSHALL MIX.
- 11 Estimate based upon field review of existing conditions and/or Customer request. Estimate does not reflect an engineering evaluation of soil/subgrade conditions and does not constitute an engineered solution.
- 12 Warranty limited to material and workmanship.
- 13 Owner and/or GC responsible for availability of local source of water.
- 14 All prices are based on a mutually agreed upon construction schedule, and ample access to project site, without interference by others, during construction.
- 15 Estimate excludes curb cuts and backfill and damage to subgrade by others. Restoration of the prepared subgrade after other work (such as concrete curbing) is not included in this estimate.
- 16 Contract language must be acceptable to Reynolds Asphalt in regards to addressing Qualifications and Notes specified herein.
- 17 Unless specifically noted, this estimate is not submitted for consideration of a Lump Sum contract.
- 18 Any cost for job specific employee screening, training, orientation, badging or related activity; or any registration required to be completed by the Customer, Subcontractor, Contractor or General Contractor that is not specifically identified in the Pay Items or Notes will be invoiced at cost plus 15% with the initial invoice.

ESTIMATOR: RICHARD BAKER, 817-822-4552 Cell, Email: rbaker@reynoldsasphalt.com

**00.0 MHrs**

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END



AERIAL SOURCE: NCTCOG, 2015



# BOY'S RANCH PAVING IMPROVEMENTS

Parking Lots



 PROJECT LOCATION

