

MURPHY CITY COUNCIL AGENDA
REGULAR CITY COUNCIL MEETING
SEPTEMBER 20, 2016 AT 6:00 PM
206 NORTH MURPHY ROAD
MURPHY, TEXAS 75094



Eric Barna
Mayor

Scott Bradley
Mayor Pro Tem

Owais Siddiqui
Deputy Mayor Pro Tem

Jennifer Berthiaume
Councilmember

Betty Spraggins
Councilmember

Sarah Fincanon
Councilmember

Don Reilly
Councilmember

Mike Castro
City Manager

Susie Quinn
City Secretary

NOTICE is hereby given of a meeting of the City Council of the City of Murphy, Collin County, State of Texas, to be held on September 20, 2016 at Murphy City Hall for the purpose of considering the following items. The City Council of the City of Murphy, Texas, reserves the right to meet in closed session on any of the items listed below should the need arise and if applicable pursuant to authorization by Title 5, Chapter 551, of the Texas Government Code.

1. CALL TO ORDER

2. INVOCATION & PLEDGE OF ALLEGIANCE

3. ROLL CALL & CERTIFICATION OF A QUORUM

4. PRESENTATIONS/RECOGNITIONS

- A. Presentation of Keep Murphy Beautiful and Keep Texas Beautiful award acknowledgements.
- B. Presentation of financial report and investment report as of August 31, 2016.

5. PUBLIC COMMENTS

6. CONSENT AGENDA

All consent agenda items are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Councilmember so requests, in which event the item will be removed from the Consent Agenda and voted on separately.

- A. Consider and/or act to approve the September 6, 2016 Regular Council meeting minutes. *Susie Quinn, City Secretary*
- B. Consider and/or act to approve the September 13, 2016 Special Council meeting minutes. *Susie Quinn, City Secretary*
- C. Consider and/or act to approve Resolution Number 16-R-841 to renew the Ambulance Billing Service Agreement between Emergicon, LLC, and the City of Murphy. *Ed Henderson, Interim Fire Chief*
- D. Consider and/or act to approve Resolution Number 16-R-842 authorizing the City Manager to execute the renewals of the Clinical Affiliation Agreement, Emergency Medical Advisory Services Agreement, and Business Associate Agreement between the City of Murphy, Texas on behalf of Murphy Fire Department and Columbia Medical Center of Plano Subsidiary, L.P., d/b/a Medical Center of Plano. *Ed Henderson, Interim Fire Chief*

7. INDIVIDUAL CONSIDERATION

- A. Consider and/or act upon approval of Ordinance Number 16-09-1019 adopting the fiscal year 2016-2017 budget and appropriating funds to a sinking fund to pay interest and principal on the City's indebtedness, and appropriating funds to support the City of Murphy, Murphy Municipal Development District and Murphy Community Development Corporation for the fiscal year beginning on October 1, 2016 and ending on September 30, 2017. *Mike Castro, City Manager*
- B. Consider and/or act upon ratifying the property tax revenue increase reflected in the 2016-2017 fiscal year budget. *Mike Castro, City Manager*
- C. Consider and/or act upon approval of Ordinance Number 16-09-1020 levying ad valorem taxes for use and support of the municipal government of the City of Murphy for the fiscal year beginning October 1, 2016 and ending September 30, 2017. *Mike Castro, City Manager*
- D. Reconvene a public hearing and consider and/or act on the application of StreetLevel Investments to request approval of Ordinance Number 16-09-1021 for a zoning change from SF-20 (Single Family Residential-20) to a Planned Development located on 4.6579 acres, having the legal description of Abstract A0579, Henry Maxwell Survey Tract 75. *Kelly Carpenter Interim Community and Economic Development Director*
- E. Consider and/or act upon the approval of Ordinance Number 16-09-1022 amending Appendix A, Fee Schedule. *Steven Ventura, Interim Finance Director*
- F. Consider and/or act to approve Resolution Number 16-R-843 adopting the Collin County Hazard Mitigation Action Plan. *Ed Henderson, Interim Fire Chief*
- G. Consideration and/or act on a request for funding from the Municipal Development District for drainage and parking improvements at Murphy Village 3. This item may be discussed in executive session before action is taken. *Kelly Carpenter Interim Community and Economic Development Director*

8. CITY MANAGER/STAFF REPORTS

- A. Radio Systems
- B. Food Truck Court
- C. Sidewalk Rehabilitation Program
- D. South Maxwell Creek Sewer Line
- E. North Murphy Road
- F. Betsy Lane
- G. Safe Routes to School

9. EXECUTIVE SESSION

In accordance with Texas Government Code, Chapter 551, Subchapter D, the City Council will now recess into Executive Session (closed meeting) to discuss the following:

- A. §551.087 Deliberation regarding economic development negotiations: (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the government body and with which the governmental body is conducting economic development negotiations; or (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).

10. RECONVENE INTO REGULAR SESSION

The City Council will reconvene into Regular Session, pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, to take any action necessary regarding:

- A. §551.087 Deliberation regarding economic development negotiations: (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the government body and with which the governmental body is conducting economic development negotiations; or (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).
- B. Take Action on any Executive Session Items.

11. ADJOURNMENT

I certify that this is a true and correct copy of the Murphy City Council Meeting Agenda and that this notice was posted on the designated bulletin board at Murphy City Hall, 206 North Murphy Road, Murphy, Texas 75094; a place convenient and readily accessible to the public at all times, and said notice was posted on September 16, 2016 by 5:00 p.m. and will remain posted continuously for 72 hours prior to the scheduled meeting pursuant to Chapter 551 of the Texas Government Code.


Susie Quinn, TRMC
City Secretary

In compliance with the American with Disabilities Act, the City of Murphy will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services must be received at least 48 hours prior to the meeting. Please contact the City Secretary at 972.468.4011 or squinn@murphytx.org.

Notice of Possible Quorum: There may be a quorum of the Animal Shelter Advisory Committee, the Board of Adjustment, the Building and Fire Code Appeals Board, the Ethics Review Commission, the Murphy Community Development Corporation, the Murphy Municipal Development District Board, the Park and Recreation Board and/or the Planning and Zoning Commission members who may be present at the meeting, but they will not deliberate on any city or board business.

**City Council Meeting
September 20, 2016**

Issue

Presentation of Keep Murphy Beautiful and Keep Texas Beautiful award acknowledgements.

Staff Resource/Department

Steven Ventura, Interim Finance Director
Candy McQuiston, Manager of Customer Services

Summary

Keep Texas Beautiful and Keep Murphy Beautiful will be recognizing the following –

- Tina Pilgrim for First Place recognition in Keep Texas Beautiful Youth and Educator Awards – (Educator - Middle School)
- Ashley Rodda for First Place recognition in Keep Texas Beautiful Youth and Educator Awards – (Youth Individual - Scouts (Female))
- Isabella Haen for Second Place recognition in Keep Texas Beautiful Youth and Educator Awards – (Youth Individual - Middle School)

We will also acknowledge Keep Murphy Beautiful and the Community for the following awards-

- Keep Texas Beautiful awarded the City of Murphy/Keep Murphy Beautiful the Government Award as First Place Winner - for City – population under 40,000 - “KTB Recognizes outstanding contributions to the Texas environment made by government departments, divisions of agencies.”
- Keep Texas Beautiful awarded Keep Murphy Beautiful as a Gold Star Affiliate Award Winner
- Keep Texas Beautiful awarded Keep Murphy Beautiful the Governor’s Community Achievement Award (GCAA) - Second Place
- Keep Texas Beautiful awarded Keep Murphy Beautiful with the GCAA Sustained Excellence Award
- STAR (State of Texas Alliance for Recycling) – North Texas- presented First Place to Keep Murphy Beautiful for Outstanding Recycling Special Event (KMB Community Clean & Green Event)

**CITY COUNCIL MINUTES
REGULAR CITY COUNCIL MEETING
SEPTEMBER 6, 2016 AT 6:00 PM**

1. CALL TO ORDER

Mayor Barna called the meeting to order at 6:00 pm.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

Mayor Barna gave the invocation and led the Pledge of Allegiance.

3. ROLL CALL & CERTIFICATION OF A QUORUM

City Secretary, Susie Quinn, certified a quorum with the following Councilmembers present:

Mayor Eric Barna
Mayor Pro Tem Scott Bradley
Deputy Mayor Pro Tem Owais Siddiqui
Councilmember Jennifer Berthiaume
Councilmember Betty Nichols Spraggins
Councilmember Sarah Fincanon
Councilmember Don Reilly

4. PRESENTATIONS

- A. Presentation of Proclamation recognizing September as Leukemia, Lymphoma & Myeloma Awareness Month.

Mayor Barna stated that the proclamation for Leukemia, Lymphoma & Myeloma would be mailed to The North Texas Chapter of the Leukemia & Lymphoma Society.

- B. Proclamation – National Payroll week.

Mayor Barna thanked and presented proclamation recognizing September 5 – 9, 2016 as National Payroll Week to Pat Skinner, Payroll Specialist and Steven Ventura, Interim Finance Director.

- C. Presentation of the upcoming Maize Days to be held September 24, 2016.

Recreation Manager Caitlyn Mullins presented to Council highlights for the upcoming Maize Days event to be held on September 24, 2016. Major difference is a change in location for Maize Days with the event being held at Central Park utilizing the Food Court and Amphitheater. Market vendors are another interest highlight with fifty (50) vendors confirmed. Kid Zone activities for pre-school children will be located by the playground and splash pad. Teens and Tweens activities include zip line, spider climb, human bowling and laser tag. Jon Lashbrook with the Murphy Chamber of Commerce will be hosting the Pumpkin Chunkin in conjunction with Dunkin' Donuts. Other highlights include a car show, Touch-A-Truck and the Progressive Waste truck displaying children's art.

D. Presentation of funds from the Exchange Club to Police Chief Cotten.

Marv Williams and several members of the Exchange Club presented a brief history on the mission of the club and how the club gives back to the community. In the past, the Exchange Club has donated funds to the Police Department for purchase of a patrol bike and to the Fire Department for purchase of additional mannequins for training exercises. Once again, the Exchange Club reached out to Chief Cotten asking if the club could assist in a particular project or need. Chief Cotten explained yes there is a need for a bench. Chief Cotten addressed Council explaining that the need for the bench is for prisoners who come in to be interviewed prior to being transported to Collin County Jail. Currently, Staff is utilizing a chair that is not bolted to the floor. The new bench will be specifically designed to be bolted to the floor, able to handcuff the prisoner to the bench limiting movement therefore, keeping the officer and prisoner safe. On behalf of the Exchange Club, a check was presented to Chief Cotten in the amount of five hundred dollars (\$500.00) for the purchase of a new bench.

5. PUBLIC COMMENTS

Lorraine Chalkley, resident brought forth again her concern to Council regarding the fact that she does have proper sanitary sewer on property. The property was annexed in 1997. A temporary undocumented solution was to disconnect the septic tank and connect to Rolling Ridge subdivision sewer lines. Council requested that Staff research further and present options at the first (1st) City Council Meeting in October.

6. CONSENT AGENDA

All consent agenda items are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Councilmember so requests, in which event the item will be removed from the Consent Agenda and voted on separately.

- A. Consider and/or act on the August 16, 2016 Regular Council meeting minutes.
- B. Consider and/or act upon approval of Resolution Number 16-R-839 authorizing continued participation with the Atmos Cities Steering Committee; and authorizing the payment of two and a half cents (\$0.025) per capita to the Atmos Cities Steering Committee to fund regulatory and related activities related to Atmos Energy Corporation.
- C. Consider and/or act upon approval of Resolution Number 16-R-840 authorizing signature authority to sign and endorse checks and drafts of the City of Murphy bank accounts.

COUNCIL ACTION (6.A. through 6.C.):

APPROVED

Mayor Pro Tem Bradley moved to approve the consent agenda items 6.A. through 6.C. as presented. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

7. INDIVIDUAL CONSIDERATION

- A. Hold a public hearing on the proposed fiscal year 2016-2017 budget for the City of Murphy.

Interim City Manager Bill Shipp presented to Council an overview on the proposed fiscal year 2016-2017 budget for the City of Murphy. Two (2) dates for public hearing with the first (1st) public hearing being held tonight and second (2nd) public hearing will be held Tuesday, September 13, 2016 at 6:00pm. Budget and Tax Rate will be considered for adoption on Tuesday, September 20, 2016.

The budget will raise more total property taxes than last year's budget by \$593,517 or 5.8%, and of that amount \$131,968 is tax revenue to be raised from new property added to the roll this year. A hard copy of the budget is on file with City Secretary's office and is located on the "Notice of Tax Rate" link on the City's website. One change since the August 9, 2016 meeting, staff accidentally omitted four (4) positions from the proposed budget that was submitted to Council. The positions – two (2) firefighters and two (2) groundskeepers were vacant and inadvertently not included in the budget. The bottom line result to the General Fund is a \$99,200 deficit versus a \$91,700 surplus while the errors are regrettable, the impact can be absorbed during budget execution.

PUBLIC HEARING OPENED AT 6:52pm

Barbara Harless, resident is opposed to spending more money on services that are not necessary, services necessary are fire, police, utilities, streets and water.

PUBLIC HEARING CLOSED AT 6:54pm

The vote on the proposed fiscal year 2016-2017 budget will take place on Tuesday, September 20, 2016 at 6:00 PM in the City Council Chambers at Murphy City Hall, 206 North Murphy Road, Murphy, Texas.

COUNCIL ACTION (7.A.):

NO ACTION

- B. Hold a public hearing on the proposed tax rate of \$0.5100 per \$100 valuation for City Budget Year of October 1, 2016 through September 30, 2017.

Interim City Manager Bill Shipp presented to Council that the City is proposing a Maintenance and Operations (M&O) tax rate of \$0.327749 per \$100 valuation. The M&O tax rate funds a large portion of the City's operations, including Parks, Public Safety and Public Works. The second portion of the tax rate is for debt service, which provides funding for the current portion of the long-term debt. This year the debt service tax rate is set at \$0.182251, per \$100 valuation, a decrease from last year's tax rate.

PUBLIC HEARING OPENED at 6:55pm

Barbara Harless, resident appreciates the city decreasing the tax rate 4% but since the property values increased to 10% therefore, the city will receive 6% more in taxes which is an increase. She stated that she does not receive 6% more in services. The city will also be implementing a bond package to correct issues with streets which were improperly built four or five (4 or 5) years ago. If 60% of the budget is on labor, how many employees does the city employ? How many are vital and necessary? Collin County only increased the tax rate 2% actually decreasing 8% with a much larger budget than the City of Murphy. The city needs to cut back on non-necessary services because 6% in twelve (12) months is more than she is willing to pay.

PUBLIC HEARING CLOSED at 6:58pm

The vote on the proposed tax rate will take place on Tuesday, September 20, 2016 at 6:00 PM in the City Council Chambers at Murphy City Hall, 206 North Murphy Road, Murphy, Texas.

COUNCIL ACTION (7.B.):

NO ACTION

- C. Consider and/or act on the Community Grant Application from the Moms of Murphy organization as approved by MCDC.

Interim Director of Economic and Community Development Kelly Carpenter presented to Council an application from the Moms of Murphy for consideration of Community Grant fund award in the amount of \$2,369.06 for the purchase of event supplies including a traveling trophy, advertising, and food related items. The grant application was approved by the Murphy Community Development Corporation (4B) board on August 15, 2016 as presented, with the change to the amount from \$2,369.06 to a not to exceed amount of \$2,500.00.

Colleen Halbert, representative with the Moms of Murphy presented to Council the upcoming football game event highlighting both school districts Plano East High School and Wylie High School on Friday, September 23 at Kimbrough Stadium in Murphy. The Moms of Murphy want to take this unique opportunity for Murphy public school students to have a friendly competition. The Moms of Murphy organization want to create an annual event to celebrate "The Murphy Community Classic" supporting Murphy residents and each high school at the same time. This event has the support of both school principals. The event also has the support of Carolyn Moebius, Secretary Plano ISD School Board and Tom Westhara, Vice-President Wylie ISD School Board and their respective school boards, both are Murphy residents.

COUNCIL ACTION (7.C.):

APPROVED

Mayor Pro Tem Bradley moved to approve the Community Grant Application from the Moms of Murphy organization. Councilmember Berthiaume seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

- D. Hold a public hearing and consider and/or act on the application of StreetLevel Investments to request approval of Ordinance Number 16-09-1016 for a zoning change from SF-20 (Single Family Residential-20) to a Planned Development located on 4.6579 acres, having the legal description of Abstract A0579, Henry Maxwell Survey Tract 75.

Interim Director of Economic and Community Development Kelly Carpenter provided to Council a brief overview of the intent of this Planned Development district which is to provide high quality neighborhood services and development consistent with the Comprehensive Plan. The PD sets forth standards for mixed use development not limited to the following: 1) Restaurants; 2) Retail Shops and Boutiques; 3) Medical Facilities; and 4) Service Businesses. The Planned Development proposed will not affect any regulation found in the City of Murphy Code of Ordinances, Ordinance No. 15-09-1002, as amended, except as specifically provided herein. All regulations of the NS (Neighborhood Service) District set forth in Article 30.03, Division 13 of the City of Murphy Code of Ordinances are included by reference and shall apply, except as otherwise specified by the ordinance. Development shall be in general conformance with the approved concept plan set forth in Exhibit C; however, in the event of conflict between the concept plan and these conditions, the conditions shall prevail. Staff has suggested to the applicant a list of changes to the allowed uses and staff recommends approval of the zoning change request from SF-20 to a Planned Development. On August, 22, 2016 Planning and Zoning Commission recommended denial of the application for the Timbers PD. The motion does not contain a list of reasons for the denial. In the discussion; however, several reasons of some members were clear: 1) consideration of this PD application should wait until there is an updated comprehensive plan and 2) there are traffic concerns on FM 544. This item requires a super majority vote for approval because the Planning and Zoning Commission denied approval.

Margaret and Jim Smith, residents addressed Council on zoning change request for property 210 E. FM 544 from Single Family Residential (SF-20) to Neighborhood Services. Property is currently assessed at its highest and best use with Collin County regardless of the zoning designation that the City of Murphy has on file. Currently, the house on the property is assessed at \$4.00 and the unimproved land at a very large dollar amount, therefore the request for a zoning change is in order for them to sell the property. Margaret and Jim Smith thanked Council for listening and their time.

Jana Bean, applicant with StreetLevel Investments presented to Council a brief history on the steps and timeline taken to have the property at 210 E. FM 544 rezoned and approved by the Planning and Zoning Commission. At the August 22, 2016 Planning & Zoning meeting, the Commission denied the application on the basis that the PD application should wait until there is an updated comprehensive plan and because of traffic concerns on FM544. Applicant is requesting for a solution from Council. Council stated the options: deny the application, remand back to Planning and Zoning or chose to override and approve the rezoning.

PUBLIC HEARING OPENED at 7:32pm

Maggie Whitt, resident shared concerns with Council on Neighborhood Services. She is the President of the Timbers Community Organization and received complaints from residents in regards to the cut through traffic. She personally agrees that the City needs to have a comprehensive plan in place so properties are not rezoned piece by piece.

Barbara Harless, resident shared with Council if something other than SF-20 is going to be built on the property, the businesses will need to be stay viable for a long term. She would like to see an updated comprehensive plan as well.

Jim Taylor, resident in favor of acceptable list of uses. There is a plan, stick with that plan and come to an agreement on the types of business.

PUBLIC HEARING CLOSED at 7:38pm

Jana Bean, applicant addressed Council on the residents' concerns from the meeting on May 12, 2016. 1) Sound and noise – will install a barrier wall; 2) Lighting – no light pollution; 3) Willing to work with City on paring down the PD list of permitted uses.

Council discussion included the following items: par down the PD list of permitted uses, develop a side walk plan entrance into property, address the concerns from residents in regards to noise and lighting component. Council agrees to send Staff their recommendations on the PD permitted uses. Council requests that Staff and applicant par down the list of permitted uses and present Council an updated list.

PUBLIC HEARING RE-OPENED at 8:07pm

Mayor Barna continued the public hearing until September 20, 2016 City Council Meeting.

COUNCIL ACTION (7.D.):

NO ACTION

- E. Consider and/or act upon the approval of Ordinance Number 16-09-1017 amending Appendix A, Fee Schedule.

Interim Finance Director Steven Ventura reviewed with Council that the Appendix A, Fee Schedule has not been amended since 2013. Annually, staff reviews the fee schedule to ensure fees are lawful, in line with revenue and expense projections, and comparable to those of surrounding cities. Council discussed in detail the various fee changes/adjustments with staff. Staff to bring to City Council a comparison of cities who charge a dollar amount convenience fee or a percentage amount for credit card transactions online or by telephone. Questions about the nonrefundable deposit jumped from \$25 to \$75. The change is due to the carpet being laid to protect the flooring in the gym. The other rooms continue to be at \$25. The event determines the amount of the deposit. The rental fees for Saturday for the gym will only be after operating hours as the gym is generally reserved for open gym on the weekends. The seasonal fee was discussed regarding repeat vendors who attend more than one event. The time period was also discussed for the seasonal permit. Discussion was to allow a bi-annual permit. Ambulance fee increases were discussed. Comparison fees from other cities were also discussed. Council requested the percentage of collections and non-collection for fees in surrounding cities. Utility deposit show and increase for renters. The increase is to cover the final bill since the base rate for water usage is increasing.

COUNCIL ACTION (7.E.):

NO ACTION

- F. Consider and/or act upon the approval of Ordinance Number 16-09-1018 amending Section 8.003 of the Fee Schedule; water rates, sewer rates and irrigation rates.

Interim City Manager Bill Shipp reviewed with Council that the Volumetric Water Rates increased from \$2.34 to \$2.58 per thousand gallons of water for FY 2017 from North Texas Municipal Water District (NTMWD). Volumetric Sewer Rates, the base meter charge of \$18.00 and the city rate of \$0.76 will remain the same but North Texas Municipal Water District charge will increase for FY 2017. Staff will continue to monitor the percentage monthly charges from NTMWD. Council inquired if North Texas Municipal Water District explained the months where the City had large increases, staff's responded that NTMWD does not have an explanation. It dropped last month and staff is tracking it. The Mayor explained that in the past the City absorbed all the NTMWD increases but that is no longer feasible.

PUBLIC COMMENT

Barbara Harless, resident – not present. Mayor Barna read her comment which only stated "7. F. Water Rates."

COUNCIL ACTION (7.F.):

APPROVED

Mayor Pro Tem Bradley moved to approve Ordinance Number 16-09-1018 amending Section A8.003(a)(4)(B); A8.003(b)(2); A8.003(c)(2) of the Fee Schedule and adjusting the water, sewer and irrigation rates effective October 1, 2016. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

- G. Consider and/or act upon appointing a Capital Bond Improvement Committee.

Interim City Manager Bill Shipp addressed Council on appointing the Capital Bond Improvement Committee or name an interview panel to talk with the applicants and bring their recommendations to the September 13, 2016 Council meeting after the Public Hearing.

COUNCIL ACTION (7.G.):

NO ACTION

- H. Consider and/or act to approve the City of Murphy's ballot selection for the election of Texas Municipal League Risk Pool (TML-IRP) Board of Trustees, Places 6, 7, 8, and 9.

COUNCIL ACTION (7.H.):

APPROVED

Mayor Pro Tem Bradley moved to approve the City's ballot selection of the Texas Municipal League Risk Pool (TML-IRP) Board of Trustees, as follows: we chose for Place 6 Kyle J. Jung; we chose for Place 7 Richard Jorgensen; we chose for Place 8 Larry Melton; we chose for Place 9 Rick A. Schroder. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

- I. Consideration and/or act on a request for funding from the Municipal Development District for drainage and parking improvements at Murphy Village 3. This item may be discussed in executive session before action is taken.

COUNCIL ACTION (7.I.):

NO ACTION

8. CITY MANAGER / STAFF REPORTS

These items were not discussed at this meeting because of time limitations.

- A. Radio Systems
- B. Food Truck Court
- C. Sidewalk Rehabilitation Program
- D. South Maxwell Creek Sewer Line
- E. North Murphy Road
- F. Betsy Lane
- G. Safe Routes to School

9. EXECUTIVE SESSION

In accordance with Texas Government Code, Chapter 551, Subchapter D, the City Council recessed into Executive Session (closed meeting) at 9:01 pm to discuss the following:

- A. § 551.074 Deliberation regarding the appointment, evaluation, reassignment, duties, discipline or dismissal of the Municipal Judge and City Secretary.
- B. § 551.087 Deliberation regarding economic development negotiations: (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the government body and with which the governmental body is conducting economic development negotiations; or (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).

10. RECONVENE INTO REGULAR SESSION

The City Council reconvened into Regular Session at 9:31 pm, pursuant to the provisions of Chapter 551, Subchapter D, Texas Government Code, to take any action necessary regarding:

- A. § 551.074 Deliberation regarding the appointment, evaluation, reassignment, duties, discipline or dismissal of the Municipal Judge and City Secretary.
- B. § 551.087 Deliberation regarding economic development negotiations: (1) to discuss or deliberate regarding commercial or financial information that the governmental body has received from a business prospect that the governmental body seeks to have locate, stay, or expand in or near the territory of the government body and with which the governmental body is conducting economic development negotiations; or (2) to deliberate the offer of a financial or other incentive to a business prospect described by Subdivision (1).

C. Take Action on any Executive Session Items.

COUNCIL ACTION (10.A. – MUNICIPAL JUDGE): **APPROVED**
Mayor Pro Tem Bradley moved to continue the contract for the Municipal Judge with an effective date of August 16, 2016 and set the salary at \$85,311. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

COUNCIL ACTION (10.A. – CITY SECRETARY): **APPROVED**
Mayor Pro Tem Bradley moved to adjust the City Secretary salary to \$81,500 effective immediately. Deputy Mayor Pro Tem Siddiqui seconded the motion. For: Unanimous. The motion carried by a vote of 7-0.

11. ADJOURNMENT

With no further business, the Council meeting adjourned at 9:33 pm.

APPROVED BY:

Eric Barna, Mayor

ATTEST:

Susie Quinn, City Secretary

**CITY COUNCIL MINUTES
SPECIAL CITY COUNCIL MEETING
SEPTEMBER 13, 2016 AT 6:00 PM**

1. CALL TO ORDER

Mayor Pro Tem Bradley called the meeting to order at 6:00 pm.

2. INVOCATION AND PLEDGE OF ALLEGIANCE

Mayor Pro Tem Bradley gave the invocation and led the Pledge of Allegiance.

3. ROLL CALL & CERTIFICATION OF A QUORUM

City Secretary, Susie Quinn, certified a quorum with the following Councilmembers present:

Mayor Pro Tem Scott Bradley
Deputy Mayor Pro Tem Owais Siddiqui
Councilmember Jennifer Berthiaume
Councilmember Betty Nichols Spraggins
Councilmember Don Reilly

Councilmembers absent:

Mayor Eric Barna
Councilmember Sarah Fincanon

4. INDIVIDUAL CONSIDERATION

- A. Hold a public hearing on the proposed fiscal year 2016-2017 budget for the City of Murphy.

City Manager Mike Castro gave a brief PowerPoint presentation combining agenda items 4A and 4B. He explained the FY16 projected expenditures will be \$13,106,592 with the FY16 projected revenues at \$14,046,420 ending the year with a surplus. Next were the FY17 proposed expenditures of \$14,864,400 with the FY17 proposed revenues at \$14,765,200 possibly ending FY17 with a deficit. He explained the changes that had been addressed at the September 6, 2016 Council meeting generating the change from a projected FY17 surplus to a FY17 deficit. The next slide showed the increase in the Certified Tax rolls over several years. The pie charts for FY17 displaying the expenditures and revenues were explained next. Because we are a relatively new city, our commercial (sales tax) has not kept up with our residential growth. Most cities are at 25% to 30% in sales tax collections but we are only at 13%. The proposed tax rates were discussed. The FY16 projected utility fund expenditures will be \$8,820,150 with the FY16 projected revenues at \$8,580,900 ending the year with a surplus. Next were the FY17 proposed expenditures of \$9,485,000 with the FY17 proposed revenues at \$9,662,000 ending FY17 with a surplus. The water rates and sewer rates are “pass-through increases” from the North Texas Municipal Water District (NTMWD) only. Some key dates were discussed because the project began in April 2016 and will be completed September 20, 2016. Discussion of the implementation of the pay plan and its effect on the budget. City Manager Castro state that the recap is in part from the discussions held by Interim City Manager Bill Shipp. Staff was thanked for their help to make the budget process

Public Hearing opened at 6:12 pm

Public Hearing closed at 6:12 pm

The vote on the proposed fiscal year 2016-2017 budget will take place on Tuesday, September 20, 2016 at 6:00 PM in the City Council Chambers at Murphy City Hall, 206 North Murphy Road, Murphy, Texas.

- B. Hold a public hearing on the proposed tax rate of \$.05100 per \$100 valuation for City Budget Year of October 1, 2016 through September 30, 2017.

City Manager Castro was asked if he had any additional comments to which he stated no further comments.

Public Hearing opened at 6:13 pm

Public Hearing closed at 6:13 pm

The vote on the proposed tax rate will take place on Tuesday, September 20, 2016 at 6:00 PM in the City Council Chambers at Murphy City Hall, 206 North Murphy Road, Murphy, Texas.

5. RECESS SPECIAL MEETING

Mayor Pro Tem Bradley recommended to City Council to postpone the Capital Bond Improvement Committee.

City Manager Castro stated that staff will do the wishes of the Council but agreed with Mayor Pro Tem Bradley that since the institutional knowledge is missing from Public Works, it might be better to wait. The product needs to be solid and well researched. Council mentioned concerns about some roads not lasting for another year. Voter turnout might be low if the election is held in May, 2018 during the off-year, so it was suggested to possibly have the election in November, 2017. A calendar is to be prepared to establish a good workable time-line to produce a good bond package to go to the voters. The applications that have been received will be considered when Council is ready to name the Committee. Council will have a joint meeting with the Committee to list goals and expectations. A November election must be called in August. Debt retirement was discussed and a debt retirement calendar was requested. Also requested is a calculation as to what an eight cent tax debt increase would yield in funds received. City Manager Castro mentioned the way debt is structured is important, too and should be reviewed. The numbers should not drive the projects but that the projects and community needs should drive the numbers is an important approach but the city's financial advisor should be involved early in the process. The low interest rates are beneficial to the city for bond elections. The applicants are to be notified about the delay. Three specific requests to complete timely are: 1) debt retirement calendar 2) a calendar to structure the time-line for the bond committee and Council for a November, 2017 election and 3) originate calculations for an eight cent tax rate for debt.

6. CONVENE TO THE COMMUNITY ROOM

- A. Consider and/or act upon appointing a Capital Bond Improvement Committee.

Council Action (6.A.)

NO ACTION

7. ADJOURNMENT

With no further business, the Council meeting adjourned at 6:34 pm.

APPROVED BY:

Scott Bradley, Mayor Pro Tem

ATTEST:

Susie Quinn, City Secretary

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act upon the approval of Resolution Number 16-R-841 to renew the Ambulance Billing Service Agreement between Emergicon, LLC, and the City of Murphy.

Staff Resource/Department

Ed Henderson, Fire Department
Steven Ventura, Finance

Summary

The current billing agreement has been in place for five (5) years and it will expire on September 30, 2016. This new billing agreement is scheduled to go into effect October 1, 2016.

Background/History

The current billing agreement has been in place for five (5) years and it will expire on September 30, 2016. This new billing agreement is scheduled to go into effect October 1, 2016. Changes in the new billing agreement to consider:

1. The initial term is for one year and it will automatically renew for successive like terms unless terminated hereunder. The initial term under the current billing agreement is for a period of three (3) years and may be renewed at the end of that term for two (2) additional one (1) year periods.
2. The Client (City of Murphy) shall pay Emergicon a fee equivalent to six (6%) of all revenues collected by Emergicon on behalf of the Client and Emergicon will charge an additional two percent (2%) for credit card payments. Under the current billing agreement the City of Murphy pays Emergicon five percent (5%) of the total amount collected on accounts.

Board Discussion/Action

Motion to approve Resolution Number 16-R-841 to renew the Ambulance Billing Service Agreement between Emergicon, LLC, and the City of Murphy.

Attachments

1. Resolution with Exhibit A - Emergicon, LLC's Agreement for Specialized Professional Ambulance Billing Services
2. Three spreadsheets detailing Emergicon, LLC's performance over the past three (3) years.

RESOLUTION NO. 16-R-841

CITY OF MURPHY, TEXAS

WHEREAS, the City of Murphy has an agreement with Emergicon LLC which expires on September 30, 2016; and,

WHEREAS, staff has reviewed the renewal agreement to be effective October 1, 2016.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MURPHY, COLLIN COUNTY, TEXAS, AS FOLLOWS:

Section 1. That the City Council hereby authorizes the City Manager to execute a contract renewal with Emergicon, LLC.

Section 2. The contract is attached as *Exhibit A*.

DULY RESOLVED by the City Council of the City of Murphy, Collin County, Texas, on this the 20th day of September 2016.

APPROVED:

Eric Barna, Mayor

ATTEST:

Susie Quinn, City Secretary

AGREEMENT FOR SPECIALIZED PROFESSIONAL AMBULANCE BILLING SERVICES

This Agreement is entered into this **1st** day of **October**, 2016, by and between Emergicon, LLC, a Texas business corporation, and City of Murphy (“Client”).

RECITALS

WHEREAS, Client provides emergency and/or non-emergency ambulance services for which it is eligible for payment or reimbursement by patients, insurance carriers, governmental agencies, employers and others;

WHEREAS, Emergicon is engaged in the business of providing third-party billing and accounts receivable management specialized professional services for ambulance and emergency medical service organizations;

WHEREAS, Client desires to utilize Emergicon for billing and claims management services for its organization; and

WHEREAS, Emergicon is willing to provide such specialized professional services upon the terms and conditions provided in this Agreement;

THEREFORE, in consideration of the mutual promises contained in this Agreement, and other good and valuable consideration, the sufficiency of which is acknowledged, the parties, intending to be legally bound, agree as follows:

1. Appointment. Client hereby engages Emergicon to exclusively perform the Specialized Professional Services set described in Paragraph 2 of this Agreement and Emergicon accepts such exclusive appointment and agrees to provide Specialized Professional Services in accordance with the terms of this Agreement. Client agrees that it will not enter into any contract, agreement, arrangement or understanding with any other person or entity, the purpose of which is to provide for the same or substantially similar specialized professional services during the term of the Agreement, unless the parties agree otherwise as set forth in writing in an Addendum to this Agreement. For purposes of the appointment, the recitals set forth above are incorporated by reference and made a part of this Agreement as if set forth in their entirety.

2. Specialized Professional Services. Emergicon agrees to perform the following duties (collectively referred to as the “Services”) on behalf of Client:

a. Provide Client with instructions for the submission of Required Documentation to Emergicon. For purposes of this Agreement, “Required Documentation” shall consist of prehospital patient care reports (PCRs) (also referred to as “trip sheets” or “run reports”), physician certification statements (PCSs) (required for non-emergency transports), patient authorization signatures (sometimes referred to as “assignment of benefits form” or “signature form”), Advance Beneficiary Notices of Non-coverage (ABNs) and other documentation necessary for Emergicon to perform the Specialized Professional Services under this Agreement. All Required Documentation must be signed in accordance with applicable laws, regulations and payer guidelines.

b. Review the Required Documentation, based on the information supplied by

Client, for completeness and eligibility for submission to request reimbursement and to verify compliance under applicable laws, regulations or payer rules, based upon Emergicon's understanding of said laws, regulations or payer rules applicable to the date the ambulance services were rendered. If any Required Documentation is missing, Emergicon will request necessary documentation from Client.

c. Promptly prepare and submit claims deemed complete and eligible for reimbursement by Emergicon in conformance with this Agreement for electronic or paper submission to the appropriate party or payer based on the information supplied by Client. In the event that Emergicon deems the Required Documentation to be incomplete or inconsistent, Emergicon will notify Client that additional information may be required to process the claim, and Emergicon will return any or all of the Required Documentation to Client that Emergicon determines may be incomplete or inaccurate and will not be responsible to submit any claims with insufficient documentation. Emergicon will make a decision regarding the appropriate coding and payer for submission of the claim based on the information supplied by Client. Client understands and acknowledges that not all accounts will satisfy the eligibility requirements of all payers, and that it might not be possible to obtain reimbursement in all cases. Emergicon makes no representation or warranty that all claims are payable or will be paid, and Client agrees to abide by Emergicon's decisions with regard to proper coding and payer based on the information provided to Emergicon by Client.

d. Promptly post payments made on Client's behalf by patients, insurers and others.

e. Unless otherwise directed by Client, make reasonable efforts for the collection of co-payments, deductibles or other patient balances, to include the preparation of invoices and a maximum of three contact attempts to patients, supplemental insurers or other financially responsible parties at industry-appropriate intervals.

f. Perform follow-up for a commercially reasonable period of time following the initial billing date on all open accounts. After this follow-up period, Emergicon will either return the accounts to Client or forward the accounts to a collection agency of Client's choosing. Client and/or its designated collection agency shall bear all costs and liabilities of collections activities and collection agency charges.

g. Provide monthly reports to Client, which include, at a minimum, cash received, accounts receivable and balance summary. Emergicon shall furnish those reports to Client.

h. Notify Client of any overpayments and/or credit balances of which Emergicon becomes aware that must be refunded by Client. Client bears sole responsibility for the refund of any overpayments or credit balances to Medicare, Medicaid, patients, or other payers or insurers, and agrees to make such refunds when and within the time frames required by law. Emergicon may, at its option, assist Client in processing such refunds, but all refunds are to be made solely with Client's funds, and Emergicon has no responsibility to make such refunds unless and until Client transfers such funds to Emergicon for this purpose. Emergicon shall not advance funds on behalf of Client for this purpose. Client acknowledges that federal law requires that any

overpayments made by Medicare or any other federal health care program be refunded within 60 days of the identification of any such overpayments.

i. If Client desires that its patients be able to pay their accounts utilizing credit cards, establish a credit card merchant account and related capabilities to permit Client's patients to pay via any major credit card. Emergicon shall in its sole discretion determine which credit cards it will accept.

3. Specifically Excluded Duties of Emergicon. Notwithstanding any provisions of this Agreement to the contrary, Emergicon shall *not* be responsible to:

- a. Initiate or pursue litigation for the collection of past due accounts.
- b. Invoice for Client's non-ambulance medical transportation services, including but not limited to mobile integrated health programs, paratransit services, wheelchair van, invalid coach services, litter vans and stretcher cars, unless specific arrangements are made otherwise.
- c. Negotiate any checks made payable to Client, though Emergicon may receive funds as an agent of Client for transmittal to Client where permitted by Client;
- d. Accept reassignment of any benefits payable to Client;
- e. Provide legal advice or legal services to Client, any of Client's patients or payers, or anyone acting on Client's behalf;
- f. Obtain any prior authorizations on behalf of Client, or obtain a Physician Certification Statement or other Certificate of Medical Necessity on behalf of Client.
- g. Assist Client in preparing, filing and updating the information on its Medicare, Medicaid or other insurer provider enrollment forms, as well as responding to required revalidations of Client's provider enrollment status. Client bears the sole responsibility to ensure that its Medicare, Medicaid or other insurer provider enrollment forms are submitted and updated in accordance with federal and state law, regulations and policies. Client bears the exclusive responsibility for the submission of such form and any fees that may be associated with the submission of such forms. Upon specific written request from Client, Emergicon may agree to assist with such form submission and/or revalidation of Medicare, Medicaid or other insurer provider enrollment forms, provided that the responsibility for actual submission and all fees associated with the forms shall be borne exclusively by Client and paid prior to submission of these forms by Emergicon.

4. Responsibilities of Client. Client agrees to do the following, at its sole cost and expense:

a. Provide Emergicon with all Required Documentation, as set forth in Paragraph 2(a), above, as well as the following data: Patient Name and Address, Date of Birth,

Date of Service, Patient Medical Condition, Reason for Transport, Services Rendered (including assessments, interventions and other care), Origin and Destination with accompanying Zip Code, Transport Destination with accompanying Zip Code, Odometer Reading/Loaded Mileage (to the nearest tenth of a mile), and all relevant insurer or payer information, including identity of payer, group or plan numbers, patient's Insurance/Medicare/Medicaid Number, and all other relevant information and ensure that this data and the information contained on the Required Documentation is complete and accurate. Emergicon reserves the right to modify any Required Documentation or data at any time in accordance with new or revised payer requirements, and will provide a copy of any such revisions to Client in writing. Client acknowledges that Emergicon must rely upon the accuracy and completeness of the forms, signatures and other documentation provided to it by Client to allow Emergicon to perform the Specialized Professional Services specified in this Agreement. Emergicon is not in a position to verify the accuracy or completeness of the Required Documentation provided by Client. By forwarding any such documentation to Emergicon, Client expressly represents and warrants that any such documentation is complete and accurate, and that Emergicon may rely upon the completeness and accuracy of any such documentation in performing its Services under this Agreement. Client bears sole responsibility for the claim submissions made by Emergicon on its behalf based upon the aforementioned documentation submitted to Emergicon by Client, and, notwithstanding any other term or provision of this Agreement, Client will defend, indemnify and hold harmless Emergicon for any billing or claim submission decisions made by Emergicon based on documentation submitted to Emergicon by Client if such documentation is later determined to be incomplete or inaccurate.

b. Maintain its qualifications to provide ambulance services, including any required local, state and/or federal licenses, permits, certificates or enrollments (collectively, "Licenses"), and to remain in good standing with Medicare, Medicaid and all other state and federal health care programs. Client shall provide copies of all current Licenses, including renewals, to Emergicon. Client shall be responsible to maintain a National Provider Identifier (NPI) number and to update the information associated with its NPI. Client expressly represents and warrants that it will not forward accounts for processing by Emergicon if the account is ineligible for payment or reimbursement, or if Client is ineligible for payment by any payers or insurers as a result of its licensure status, exclusion or other sanction with such payer or insurer, or other legal impediment, and that it will promptly notify Emergicon of any suspension or revocation of any required license, permit, certification or enrollment, or exclusion from any state or federal health care program or any change in ownership or management of Client.

c. Provide Emergicon with a copy of all required Licenses, permits, certificates and enrollments as referenced in Paragraph 4(b), and forward updates of these documents to Emergicon as they are renewed.

d. Provide Emergicon with odometer readings or other documentation of mileage accepted by the payer on all calls reflecting loaded mileage (from the point of patient pickup to the destination) recorded in tenths of a mile as required by Medicare guidelines.

g. In accordance with appropriate payer guidelines, obtain the signature of the patient or other authorized representative of the patient or otherwise meet the ambulance signature requirements set forth at 42 C.F.R. § 424.36 on each call and forward to Emergicon as part of the Required Documentation.

f. In the event that Client operates a subscription or membership program, client represents and warrants that its program is actuarially sound in accordance with the guidance of the Office of Inspector General (OIG) and operated in accordance with any applicable state laws, regulations or guidelines. Emergicon will bill in accordance with the terms of such program, provided that Client furnishes those terms to Emergicon in writing. Client is responsible to inform Emergicon of its patients who are members or subscribers of Client's membership or subscription program. Notwithstanding any other provision of this Agreement, Client agrees to defend, indemnify and hold harmless Emergicon in the event that Client's subscription or membership program is not actuarially sound as set forth in applicable OIG guidance or is not permissible under State law, regulation or policy.

g. If Client is a party to any ALS-BLS "joint billing" or "bundle billing" agreement, Client shall be responsible to provide Emergicon with a copy of such agreement. Client also agrees to submit a PCR from the other party to the joint billing agreement along with the Required Documentation.

h. Obtain a completed and valid PCS form on all trips where required by law and provide copies of all PCS forms to Emergicon as part of the Required Documentation.

i. Provide Emergicon with a copy of all Client rate schedules, contracts or agreements which pertain to Client's billing or charges for services.

j. Notify Emergicon of any or all changes in billing charges for service or changes in any of Client's billing policies or contracts not later than thirty (30) days prior to the effective date of said changes.

k. Report all payments made directly to Client within twenty-four (24) hours of Client's receipt of same.

l. Cooperate reasonably with Emergicon so as to enable Emergicon to meet its obligations under this Agreement. In the event that Client's approval is required in order for Emergicon to fulfill any obligations it may have under this Agreement, Client shall not unreasonably withhold, condition or delay its approval.

m. In writing, notify Emergicon of any customized needs (reporting, scheduling, etc.). Client understands that the processing of customized needs may entail additional charges to Client by Emergicon.

n. Designate a contact person, authorized to transact business on behalf of Client, who can promptly respond to any questions raised by Emergicon, or who can execute required forms and other documents necessary to the provision of Services by Emergicon under this Agreement.

o. Agree to permit Emergicon to provide training to Client personnel in the event that Emergicon deems such training to be necessary and/or desirable at a cost to be mutually agreed upon by the parties and paid by Client.

p. Provide electronic transfer of PCR data in an acceptable NEMESIS format to Emergicon, Client agrees to bear all cost of the development and implementation of the electronic software “bridge” as agreed upon by and in conjunction with Emergicon information technology personnel, representatives or contractors.

5. Record Ownership and Access.

a. Client understands that all documentation provided to Emergicon by Client, whether in paper and/or electronic form, is for the sole and express purpose of permitting Emergicon to provide Specialized Professional Services under this Agreement. It is Client’s responsibility to maintain all of its documents and business records, including copies of any documents or records provided to Emergicon (“Client-Provided Records”). Emergicon does not act as Client’s records custodian.

b. As a convenience to Client, Emergicon will, during the term of this Agreement, produce patient care reports in response to routine attorney requests (with appropriate patient authorization) for such documentation, if those records are in Emergicon’s possession at the time it receives such attorney request. For subpoenas, as well as any requests beyond those deemed by Emergicon to be routine attorney requests, Emergicon shall forward such requests to Client for disposition.

c. During the term of this Agreement, Emergicon shall, upon Client’s written request, provide to Client, in electronic format and within 14 days of receipt of such written request, copies of any Client-Provided Records furnished to Emergicon by Client, and to any Claim Adjudication Documents generated by and received from insurers or payers in response to claims submitted by Emergicon on Client’s behalf. “Claim Adjudication Documents” shall consist of the documents generated secondary to claim submission in the normal course of claim processing by payers and insurers, including Explanation of Benefits (EOB) documents, Remittance Advice (RA) documents, Medicare Summary Notice (MSN) documents, denials and other documents of a similar type or nature.

d. Any documents, data, records or information compiled in the course of Emergicon’s provision of Specialized Professional Services under this Agreement, other than those Client-Provided Records and Claim Adjudication Records defined in Paragraphs 5(a) and (c) above, shall be the sole and exclusive property of Emergicon and shall be considered the business and/or proprietary records of Emergicon. Emergicon shall have no obligation to furnish any such business or proprietary records of Emergicon to Client, and Client shall have a right of access only to the Client-Provided Records and Claim Adjudication Documents as defined in Paragraphs 5(a) and (c), above.

e. If Client or a third party requests any documents or records to which Client or the third party has a right of access under Paragraphs 5(a) and (c) of this Agreement, and such documents cannot be provided to Client in electronic form, Emergicon may charge Client the per-copy amount for medical records permitted under applicable law at the time of Client’s request.

f. Should this Agreement be terminated for any reason, all documents and records to which Client has a right of access under Paragraphs 5(a) and (c) of this Agreement shall

be maintained in electronic format at a site convenient to Emergicon for a reasonable amount of time for follow-up of all open claims, but in any event not to exceed ninety (90) days following the effective date of termination of this Agreement. Electronic or paper copies of the records to which Client has a right of access under Paragraphs 5(a) and (c) will be made available to Client, at Client's sole cost and expense, in a format acceptable to Emergicon at the Client's written request provided that Client makes such request within thirty (30) days following termination of the Agreement, and provided that Client has no outstanding invoices due to Emergicon at the time of the request. Emergicon shall have absolutely no responsibility whatsoever after termination of this Agreement to provide any monthly reports or other such Emergicon-generated reports to Client.

g. Upon termination of this Agreement, Client is responsible to notify all payers, patients, and other correspondents of its new address, phone and/or fax numbers for billing or payment purposes. Notwithstanding any other provisions of this Agreement to the contrary, Emergicon will not be responsible for mail, deliveries, faxes, messages or other communications sent in Client's name to Emergicon after the effective termination date of this Agreement, and Emergicon shall have no duty to accept, maintain, copy, deliver or forward any such communications to Client following termination of this Agreement.

h. Costs for copies of documents required and/or requested by Client beyond the requirement of the normal daily claim handling requirements will be invoiced to Client by Emergicon at a per copy price to be established by Emergicon from time to time.

6. Client Accounting and Auditing Requirements. If Client requires Emergicon's assistance in Client's accounting or other internal audits, Emergicon will charge client for said audit support services at its customary rates, to be established by Emergicon from time to time. Upon written request of Client for same, Emergicon shall furnish said rates to Client in writing prior to undertaking any work pursuant to this Paragraph.

7. Term and Termination.

a. This Agreement is for an initial term of one year, and will automatically renew for successive like terms unless terminated hereunder.

b. This Agreement may be terminated upon the expiration of its then-current term, with or without cause, by either party, upon written notice to the other party, given no later than thirty (30) days prior to the expiration of the then-current term.

c. This Agreement may be terminated by Emergicon immediately upon written notice to Client for any of the following reasons:

i. If Client makes an assignment for the benefit of creditors, files a voluntary or involuntary petition in bankruptcy, is adjudicated insolvent or bankrupt, petitions or applies to any tribunal for the appointment of any receiver of any trustee over its assets or properties, commences any proceeding under any reorganization, arrangement, readjustment of debt or similar law or statute of any jurisdiction, whether now or hereafter in effect, or if there is commenced against the other party any such proceeding which remains un-dismissed, un-stayed,

or the other party by any act or any omission to act indicated its consent to, approval of or acquiescence in any such proceeding or the appointment of any receiver or of any trustee, or suffers any such receivership or trusteeship to continue undischarged, un-stayed, or un-vacated for a period of thirty (30) days.

ii. If Client loses its license, permit or certification necessary to do business, or is excluded from any state or federal health care program.

iii. If Client fails to perform any of its responsibilities as set forth in this Agreement, fails to pay Emergicon for its specialized professional services within thirty (30) days of the date such payment becomes due, takes any actions which Emergicon, in its sole discretion, determines to be unethical, illegal, immoral or non-compliant, or fails to cooperate with Emergicon in any way that prevents, impedes, obstructs or delays Emergicon in the performance of the Specialized Professional Services set forth in this Agreement.

d. Upon termination for any reason, Emergicon shall perform follow-up on any open accounts submitted by Emergicon on Client's behalf for a period not to exceed ninety (90) days from the date of termination. Emergicon shall have no responsibility to perform such follow-up in the event Client takes any actions which prevent Emergicon from engaging in such follow-up, or in the event that Client has any unpaid balances due to Emergicon on the date of termination of this Agreement.

e. Upon termination for any reason, Client shall be responsible to pay the fees set forth in Paragraph 10 below, for all revenues collected by Emergicon on Client's behalf during the 90-day follow-up period set forth in Paragraph 7(d) above. After notice of termination is given, all Emergicon invoices are due and payable by Client within five (5) days of same. In the event that Client does not remit payment on any such invoice within five (5) days of the invoice, Emergicon shall have no responsibility to perform any further follow-up on open accounts, notwithstanding the provisions of Paragraph 7(d) above.

8. External and Internal Audits.

a. Client shall immediately notify Emergicon if there has been any prepayment audit or review, post payment audit or review, or any investigation or other formal inquiry into the billing practices of Client and/or Emergicon, or claims submitted by Emergicon on behalf of Client, where such audit or investigation is or appears to have been initiated by any governmental agency, insurer, payer, carrier, Medicare Administrative Contractor, Recovery Audit Contract, Zone Program Integrity Contractor, Medicaid Fraud Control Unit, other Medicare or Medicaid contractor or other agency or entity authorized to carry out any such audit or investigation. This obligation shall survive termination of this Agreement for any reason.

b. The Client bears sole responsibility for obtaining and paying for any legal or consulting assistance necessary in defending itself in any such audit or investigation. Emergicon shall assist Client in producing any records, reports or documents in its possession which pertain to the audit or investigation and may charge Client a reasonable fee for copying, preparation, assembly or retrieval of such documents or reports. Emergicon shall have no obligation to perform any duties under this Paragraph 8(b) following termination of this Agreement for any reason.

c. Client is solely responsible for repaying any overpayments or recoupments sought or imposed by any insurer, carrier, payer or governmental agency or contractor, including interest, civil monetary penalties, fines or other such assessments.

d. Client understands and acknowledges that Emergicon, as part of its compliance program, may on occasion, and at its sole discretion, perform or contract for the performance of periodic, random, internal audits of its coding, billing and other business practices. These voluntary, internal compliance audits may reveal the existence of Client overpayments, and Client agrees that any such overpayments identified by Emergicon in its internal auditing process will be refunded by Client as described in more detail in Paragraph 2(h) of this Agreement.

9. Disposition of Funds.

a. All funds Emergicon receives from third party payers, patients or other sources for ambulance services provided by Client shall be made in the name of Client and forwarded monthly to Client or deposited into a Client account as directed by Client.

b. If Client desires that its patients be able to pay their accounts utilizing credit cards, then Emergicon shall accept credit card payments on behalf of Client's patients in a manner that is secure and agreed upon by the parties, and only to the extent possible and feasible, without making Emergicon a collection agency and responsible for compliance with the federal Fair Debt Collection Practices Act and other state or federal debt collection laws

c. Emergicon shall not accept a reassignment of any benefits where prohibited by law.

10. Compensation.

a. In exchange for the Specialized Professional Services described in this Agreement, Client shall pay Emergicon a fee equivalent to six percent (6%) of all revenues collected by Emergicon on behalf of Client. Credit card payments accepted by Emergicon will be charged an additional two percent (2.0%).

b. If Client instructs Emergicon to collect on an account(s) initially billed by another Contractor, Emergicon shall be compensated and paid for the collection efforts on said account in accordance with the following schedule: Twenty-two Percent (22%) of the total amount collected on the account.

c. If Client instructs Emergicon to continue to pursue Patient Pay accounts with balances beyond 120 days from the date of transport, Emergicon shall be compensated and paid for the collection efforts on said account in accordance with the following schedule: Eighteen Percent (18%) of the total amount collected on the account.

d. The fees payable by Client to Emergicon shall be calculated and invoiced to Client on a periodic basis established by Emergicon in accordance with the receipts report generated by Emergicon.

e. Emergicon shall submit invoices to Client on a periodic basis established by Emergicon. Invoices are to be paid by Client within thirty (30) days of the invoice date. Emergicon reserves the right to add simple interest at an annual rate of 18%, compounded daily, on all where Emergicon has not received payment within thirty (30) days of the date of its invoice.

f. In the event that Client is obligated to refund any overpayment or credit balance as set forth in Paragraph 2(h), fees paid to Emergicon by Client for such refunded overpayment or credit balance shall not be credited or refunded to Client.

g. The rates set forth by Emergicon to be charged to Client for Specialized Professional Services rendered are subject to change by Emergicon upon thirty (30) days written notice to Client.

~~h. In the event that Client does business in a jurisdiction in which applicable law prohibits the compensation of a billing agent on a percentage of collections basis, Client shall pay Emergicon a flat fee of \$_____ per trip, to be invoiced at the time of billing. This flat fee shall apply only to those accounts for which applicable law prohibits payment on a percentage of collections basis.~~

i. Client agrees to reimburse Emergicon for any and all sales tax liabilities that may arise as a result of this Agreement.

11. Indemnification and Insurance.

a. In addition to any specific indemnification provisions set forth in this Agreement, Client shall hold harmless, indemnify and defend Emergicon and/or its employees, officers, directors and agents from and against any and all costs, claims, losses, damages, liabilities, expenses, judgments, penalties, fines, and causes of action to the extent caused by any act or omission on the part of Client or its agents, servants, volunteers, contractors or employees. This provision shall include all costs and disbursements, including without limitation court costs and reasonable attorneys' fees.

b. In addition to any specific indemnification provisions set forth in this Agreement, Emergicon shall hold harmless, indemnify and defend Client and/or its employees, officers, directors and agents from and against any and all costs, claims, losses, damages, liabilities, expenses, judgments, penalties, fines and causes of action to the extent caused by any willful or grossly negligent misconduct of any Emergicon agent, servant, contractor or employee and which relate to the Specialized Professional Services performed by Emergicon under this Agreement.

c. Emergicon shall maintain errors and omissions insurance coverage in an amount not less than \$1,000,000. Emergicon shall provide proof of such coverage to Client upon reasonable written request for same.

d. Notwithstanding any other provision of this Agreement, Emergicon shall not be liable for any damages, including but not limited to loss in profits, or for any special,

incidental, indirect, consequential or other similar damages suffered in whole, or in part, in connection with this Agreement. Any liability of Emergicon shall not exceed any amounts paid to Emergicon by Client under this Agreement for any disputed billing performed by Emergicon on behalf of Client.

e. Where any provision of this Agreement obligates Client to defend, indemnify and/or hold harmless Emergicon, such agreement shall include any claims, losses, assessments or damages of any kind, and shall apply equally to Emergicon and to its employees, owners, agents, contractors, attorneys, consultants, accountants and servants.

12. Confidentiality. Neither Emergicon nor Client shall, during the term of this Agreement or for any extension hereof, for any reason, disclose to any third parties any proprietary information regarding the other party unless required to do so by law, regulation or subpoena. For purposes of this Agreement, “proprietary information” shall include, but not be limited to, pricing or rate information, information pertaining to contracts with payers, insurers, facilities, ambulance providers, health care systems, or other such parties, audit requests, audit results, billing processes, client lists or other such information.

13. HIPAA Business Associate Assurances. Emergicon agrees to appropriately safeguard protected health information (“PHI”) that is created, received, maintained, or transmitted on behalf of Client in compliance with the applicable provisions of Public Law 104-191 of August 21, 1996, known as the Health Insurance Portability and Accountability Act of 1996, Subtitle F – Administrative Simplification, Sections 261, *et seq.*, as amended (“HIPAA”), and with Public Law 111-5 of February 17, 2009, known as the American Recovery and Reinvestment Act of 2009, Title XII, Subtitle D – Privacy, Sections 13400, *et seq.*, the Health Information Technology and Clinical Health Act, as amended (the “HITECH Act”).

a. General Provisions

i. Meaning of Terms. The terms used in this Agreement shall have the same meaning as those terms defined in HIPAA.

ii. Regulatory References. Any reference in this Agreement to a regulatory section means the section currently in effect or as amended.

iii. Interpretation. Any ambiguity in this Agreement shall be interpreted to permit compliance with HIPAA.

b. Obligations of Emergicon

Emergicon agrees that it will:

i. Not use or further disclose PHI other than as permitted or required by this Agreement or as required by law;

ii. Use appropriate safeguards and comply, where applicable, with the HIPAA Security Rule with respect to electronic protected health information (“e-PHI”) and

implement appropriate physical, technical and administrative safeguards to prevent use or disclosure of PHI other than as provided for by this Agreement;

iii. Report to Client any use or disclosure of PHI not provided for by this Agreement of which it becomes aware, including any security incident (as defined in the HIPAA Security Rule) and any breaches of unsecured PHI as required by 45 CFR §164.410. Breaches of unsecured PHI shall be reported to Client without unreasonable delay but in no case later than 60 days after discovery of the breach;

iv. In accordance with 45 CFR 164.502(e)(1)(ii) and 164.308(b)(2), ensure that any subcontractors that create, receive, maintain, or transmit PHI on behalf of Emergicon agree to the same restrictions, conditions, and requirements that apply to Emergicon with respect to such information;

v. Make PHI in a designated record set available to Client and to an individual who has a right of access in a manner that satisfies Client's obligations to provide access to PHI in accordance with 45 CFR §164.524 within 30 days of a request;

vi. Make any amendment(s) to PHI in a designated record set as directed by Client, or take other measures necessary to satisfy Client's obligations under 45 CFR §164.526;

vii. Maintain and make available information required to provide an accounting of disclosures to Client or an individual who has a right to an accounting within 60 days and as necessary to satisfy Client's obligations under 45 CFR §164.528;

viii. To the extent that Emergicon is to carry out any of Client's obligations under the HIPAA Privacy Rule, Emergicon shall comply with the requirements of the Privacy Rule that apply to Client when it carries out that obligation;

ix. Make its internal practices, books, and records relating to the use and disclosure of PHI received from, or created or received by Emergicon on behalf of Client, available to the Secretary of the Department of Health and Human Services for purposes of determining Emergicon and Client's compliance with HIPAA and the HITECH Act;

x. Restrict the use or disclosure of PHI if Client notifies Emergicon of any restriction on the use or disclosure of PHI that Client has agreed to or is required to abide by under 45 CFR §164.522; and

xi. If Client is subject to the Red Flags Rule (found at 16 CFR §681.1 *et seq.*), Emergicon agrees to assist Client in complying with its Red Flags Rule obligations by: (a) implementing policies and procedures to detect relevant Red Flags (as defined under 16 C.F.R. §681.2); (b) taking all steps necessary to comply with the policies and procedures of Client's Identity Theft Prevention Program; (c) ensuring that any agent or third party who performs services on its behalf in connection with covered accounts of Client agrees to implement reasonable policies and procedures designed to detect, prevent, and mitigate the risk of identity theft; and (d) alerting Client of any Red Flag incident (as defined by the Red Flag Rules) of which it becomes aware, the

steps it has taken to mitigate any potential harm that may have occurred, and provide a report to Client of any threat of identity theft as a result of the incident.

c. Permitted Uses and Disclosures by Emergicon

The specific uses and disclosures of PHI that Emergicon may make on behalf of Client include:

i. The preparation of invoices to patients, carriers, insurers and others responsible for payment or reimbursement of the Services provided by Client to its patients, as set forth in this Agreement;

ii. Preparation of reminder notices and documents pertaining to collections of overdue accounts;

iii. The submission of supporting documentation to carriers, insurers and other payers to substantiate the healthcare services provided by Client to its patients or to appeal denials of payment for the same; and

iv. Other uses or disclosures of PHI as permitted by HIPAA necessary to perform the Services that Emergicon has been agreed to perform on behalf of Client, as set forth in this Agreement.

d. Termination

i. Notwithstanding the termination provisions set forth in Paragraph 7 of this Agreement, Client may terminate this Agreement if Client determines that Emergicon has violated a material term of the HIPAA Business Associate Assurances set forth in this Paragraph 13.

ii. If either party knows of a pattern of activity or practice of the other party that constitutes a material breach or violation of the other party's obligations under this Agreement, that party shall take reasonable steps to cure the breach or end the violation, as applicable, and, if such steps are unsuccessful, terminate this Agreement, according to the provisions set forth in Paragraph 7 of this Agreement, if feasible.

iii. Upon termination of this Agreement for any reason and upon the written request of Client and pursuant to the other terms and conditions set forth in this Agreement, Emergicon shall return to Client or destroy all PHI received from Client, or created, maintained, or received by Emergicon on behalf of Client that Emergicon still maintains in any form. If return or destruction is infeasible, the protections of this Agreement will extend to such PHI.

14. Compliance.

a. Emergicon will conduct its activities and operations in compliance with all state and federal statutes, rules and regulations applicable to billing activities.

b. Client shall conduct its activities, operations and documentation in compliance with all applicable state and federal statutes, rules and regulations. Client expressly represents and warrants that it is under no legal impediment to billing or receiving reimbursement for its services, and that all of Client's personnel are appropriately licensed and/or certified to furnish the services provided by Client. Client agrees to defend, indemnify and hold harmless Emergicon from any and all claims, damages and losses in the event that Client sends accounts to Emergicon which are ineligible for billing and/or reimbursement for any reason.

c. Each party is responsible for monitoring and ensuring its own compliance with all applicable state and federal laws and regulations pertaining to billing and reimbursement for its services. However, either party which becomes aware of a violation of any such state or federal laws or regulations or of a questionable claim or claim practice agrees to notify the other party within fifteen (15) days so the other party may appropriately address the matter.

d. The parties represent that they are not the subject of any actions or investigations pertaining to its participation in or standing with any state or federal health care program, are not subject to exclusion from any state and/or federal health care program, and that no persons providing services for which reimbursement is sought were at the time such services were rendered excluded from any state or Federal health care program.

e. The parties recognize that this Agreement is at all times subject to applicable state, local, and federal laws and shall be construed accordingly. The parties further recognize that this Agreement may become subject to or be affected by amendments in such laws and regulations or to new legislation or regulations. Any provisions of law that invalidate, or are otherwise inconsistent with, the material terms and conditions of this Agreement, or that would cause one or both of the parties hereto to be in violation of law, shall be deemed to have superseded the terms of this Agreement and, in such event, the parties agree to utilize their best efforts to modify the terms and conditions of this Agreement to be consistent with the requirements of such law(s) in order to effectuate the purposes and intent of this Agreement. In the event that any such laws or regulations affecting this Agreement are enacted, amended or promulgated, either party may propose to the other a written amendment to this Agreement to be consistent with the provisions of such laws or regulations. In the event that the parties do not agree on such written amendments within thirty (30) days of receipt of the proposed written amendments, then either party may terminate this Agreement without further notice, unless this Agreement would expire earlier by its terms.

f. Non-Engagement of Individuals on the OIG Exclusion List. The parties further warrant that each will take all reasonable steps as set forth by the Office of Inspector General, United States Department of Health and Human Service, to ensure that it does not employ or otherwise engage individuals who have been excluded from participation in federal health care programs. The parties agree to periodically check the OIG exclusion website to ensure that employees, volunteers and all others providing services for each respective organization are not excluded. The website is: <http://exclusions.oig.hhs.gov>.

15. Independent Contractor Relationship. Emergicon and Client stand in an independent contractor relationship to one another and shall not be considered as joint venturers or partners, and nothing herein shall be construed to authorize either party to act as general agent

for the other. There is no liability on the part of Emergicon to any entity for any debts, liabilities or obligations incurred by or on behalf of the Client.

16. Prevention of Performance. If a party's obligation to perform any duty hereunder is rendered impossible of performance due to any cause beyond such party's control, including, without limitation, an act of God, war, civil disturbance, fire or casualty, labor dispute, hardware or software failures beyond the party's control, or governmental rule, such party, for so long as such condition exists, shall be excused from such performance, provided it promptly provides the other party with written notice of its inability to perform stating the reasons for such inability and provided that the party takes all appropriate steps as soon as reasonably practicable upon the termination of such condition to recommence performance.

17. Assignment. This Agreement may be assigned by Emergicon to any successors or assigns of Emergicon. This Agreement may not be assigned by Client without the express written consent of Emergicon. This Agreement shall be binding upon all successors and assigns.

18. Notices. Notices required to be given under this Agreement shall be made to the parties at the following addresses and shall be presumed to have been received by the other party (i) three days after mailing by the party when notices are sent by First Class mail, postage prepaid; (ii) upon transmission (if sent via facsimile with a confirmed transmission report); or (iii) upon receipt (if sent by hand delivery or courier service).

<u>Emergicon:</u>	<u>Client:</u>
Emergicon, LLC.	City of Murphy
PO Box 180446	206 N. Murphy Road
Dallas, TX 75218	Murphy, TX 75094
Fax: (903) 887-1863	Attention: City Manager

19. Non-Competition and Non-Solicitation Clause. Without prior, written authorization from Emergicon, Client shall not:

a. During the term of this Agreement, or for two (2) years following its expiration or termination for any reason, employ, retain as an independent contractor, or otherwise in any way hire any personnel currently employed or employed at any time during the term of this Agreement by Emergicon. Client expressly agrees that in the event of a breach of this provision, Emergicon shall be entitled to a placement fee of two times the annual salary paid by Emergicon to such employee at the time such employee left employment of Emergicon.

b. During the term of this Agreement, or for a period of two (2) years following its expiration or termination for any reason, engage in the provision of billing services for any other ambulance service, medical transportation organization, fire department, or emergency medical services organization. Nothing in this Paragraph shall be interpreted to prohibit Client from performing its own in-house billing and/or accounts receivable management following the expiration or proper termination of this Agreement.

20. Governing Law and Forum Selection Clause. This Agreement shall be deemed to have been made and entered into in Texas and shall be interpreted in accordance with the laws



09/07/16

Performance Analysis (Web Report)_2

Date Of Service	GreaterThanOrEqualTo	10/01/2011
Date Of Service	LessThanOrEqualTo	08/31/2016
Company	Equal	48 Murphy

48 Murphy

TRANSPORT MONTH	TRIPS BILLED	CHARGES BILLED	CONT. ALLOW.	NET CHARGES	MEDICARE CHARGES	MEDICARE PAYMENTS	MEDICAID CHARGES	MEDICAID PAYMENTS	INSURANCE CHARGES	INSURANCE PAYMENTS	PRIVATE PAY CHARGES	PRIVATE PAY PAYMENTS	BILL PATIENT PAYMENTS	TOTAL COLLECTIONS	NET COLLECTIONS PERCENTAGE RATE	COLLECTED / TRIP	BILLED / TRIP
Oct-13	32	\$26,134.00	(\$4,843.66)	\$21,290.34	\$7,420.00	\$3,600.69	\$0.00	\$193.28	\$6,675.00	\$4,707.25	\$9,000.00	\$1,530.00	\$1,945.77	\$11,976.99	56.26 %	\$374.28	\$816.69
Nov-13	34	\$27,605.00	(\$7,556.06)	\$20,048.94	\$13,360.00	\$6,676.21	\$1,920.00	\$746.56	\$7,295.00	\$7,275.63	\$1,560.00	\$40.00	\$1,887.91	\$16,626.31	82.93 %	\$489.01	\$811.91
Dec-13	41	\$35,375.00	(\$9,401.56)	\$25,973.44	\$11,710.00	\$5,561.96	\$2,040.00	\$749.18	\$8,780.00	\$7,996.78	\$3,060.00	\$1,620.00	\$3,612.91	\$19,540.83	75.23 %	\$476.61	\$862.80
Jan-14	31	\$25,220.00	(\$5,191.49)	\$20,028.51	\$11,785.00	\$5,285.03	\$0.00	\$134.05	\$7,050.00	\$9,196.68	\$800.00	\$100.00	\$2,193.83	\$16,909.59	84.43 %	\$545.47	\$813.55
Feb-14	32	\$28,549.00	(\$6,786.16)	\$21,762.84	\$7,475.00	\$3,468.90	\$3,940.00	\$1,511.61	\$6,665.00	\$9,200.06	\$2,270.00	\$730.00	\$306.04	\$15,216.61	69.92 %	\$475.52	\$892.16
Mar-14	36	\$31,190.00	(\$8,611.69)	\$22,578.31	\$7,540.00	\$3,294.84	\$3,700.00	\$1,238.16	\$6,600.00	\$9,789.34	\$2,310.00	\$810.00	\$3,275.39	\$18,407.73	81.53 %	\$511.33	\$866.39
Apr-14	33	\$27,726.00	(\$5,756.28)	\$21,969.72	\$11,571.00	\$5,339.87	\$1,935.00	\$888.97	\$7,925.00	\$11,145.15	\$700.00	\$0.00	\$1,141.52	\$18,515.51	84.28 %	\$561.08	\$840.18
May-14	30	\$23,700.00	(\$4,519.48)	\$19,180.52	\$9,140.00	\$3,944.81	\$970.00	\$431.76	\$6,465.00	\$8,320.67	\$2,180.00	\$65.00	\$2,282.49	\$15,044.73	78.44 %	\$501.49	\$790.00
Jun-14	36	\$30,030.00	(\$3,688.17)	\$26,341.83	\$9,150.00	\$3,924.23	\$0.00	\$181.80	\$8,495.00	\$10,996.57	\$2,920.00	\$0.00	\$3,654.22	\$18,756.82	71.21 %	\$521.02	\$834.17
Jul-14	30	\$24,455.00	(\$3,636.10)	\$20,818.90	\$9,350.00	\$4,666.58	\$0.00	\$209.27	\$11,135.00	\$9,320.38	\$2,115.00	\$0.00	\$1,510.86	\$15,707.09	75.45 %	\$523.57	\$815.17
Aug-14	31	\$25,154.00	(\$4,017.90)	\$21,136.10	\$7,770.00	\$3,640.30	\$910.00	\$583.57	\$4,960.00	\$9,615.72	\$2,280.00	\$25.00	\$1,261.65	\$15,126.24	71.57 %	\$487.94	\$811.42
Sep-14	41	\$33,685.00	(\$5,235.20)	\$28,449.80	\$8,460.00	\$3,932.15	\$3,210.00	\$1,316.38	\$10,415.00	\$10,849.99	\$6,900.00	\$125.00	\$2,591.58	\$18,815.10	66.13 %	\$458.90	\$821.59
FY2014	407	\$338,823.00	(\$69,243.75)	\$269,579.25	\$0.00	\$53,335.57	\$18,625.00	\$8,184.59	\$92,460.00	\$108,414.22	\$36,095.00	\$5,045.00	\$25,664.17	\$200,643.55	74.4%	\$492.98	\$832.49
Oct-14	37	\$29,790.00	(\$6,272.04)	\$23,517.96	\$9,700.00	\$4,491.24	\$2,730.00	\$1,572.62	\$6,870.00	\$7,544.39	\$6,700.00	\$25.00	\$1,796.79	\$15,430.04	65.61 %	\$417.03	\$805.14
Nov-14	39	\$30,560.00	(\$4,860.45)	\$25,699.55	\$8,160.00	\$4,278.01	\$2,670.00	\$1,001.27	\$6,455.00	\$11,258.54	\$5,220.00	\$100.00	\$1,757.73	\$18,395.55	71.58 %	\$471.68	\$783.59
Dec-14	37	\$27,887.00	(\$5,929.11)	\$21,957.89	\$13,765.00	\$6,345.34	\$905.00	\$581.55	\$4,840.00	\$8,652.08	\$2,690.00	\$0.00	\$2,590.70	\$18,169.67	82.75 %	\$491.07	\$753.70
Jan-15	42	\$31,175.00	(\$8,140.43)	\$23,034.57	\$12,320.00	\$4,924.75	\$3,550.00	\$1,417.59	\$7,245.00	\$10,697.54	\$2,070.00	\$0.00	\$1,575.76	\$18,615.64	80.82 %	\$443.23	\$742.26
Feb-15	34	\$26,755.00	(\$5,678.18)	\$21,076.82	\$9,470.00	\$4,258.25	\$2,490.00	\$1,257.05	\$6,340.00	\$9,673.03	\$0.00	\$0.00	\$1,821.98	\$17,010.31	80.71 %	\$500.30	\$786.91
Mar-15	42	\$30,590.00	(\$7,566.11)	\$23,023.89	\$18,650.00	\$8,178.84	\$1,805.00	\$989.16	\$4,225.00	\$6,535.46	\$3,300.00	\$0.00	\$1,326.82	\$17,030.28	73.97 %	\$405.48	\$728.33
Apr-15	34	\$27,945.00	(\$5,839.13)	\$22,105.87	\$11,190.00	\$4,910.81	\$1,785.00	\$662.18	\$7,515.00	\$7,245.75	\$760.00	\$0.00	\$5,307.10	\$18,125.84	82.00 %	\$533.11	\$821.91
May-15	36	\$28,799.00	(\$6,614.77)	\$22,184.23	\$11,205.00	\$4,665.38	\$2,785.00	\$1,073.62	\$5,089.00	\$8,913.93	\$3,440.00	\$0.00	\$2,997.17	\$17,650.10	79.56 %	\$490.28	\$799.97
Jun-15	34	\$25,895.00	(\$4,642.61)	\$21,252.39	\$12,900.00	\$6,160.26	\$0.00	\$122.79	\$6,835.00	\$6,887.23	\$2,300.00	\$530.00	\$2,883.62	\$16,583.90	78.03 %	\$487.76	\$761.62
Jul-15	42	\$31,550.00	(\$7,357.15)	\$24,192.85	\$15,690.00	\$7,343.64	\$1,875.00	\$972.26	\$5,315.00	\$6,899.29	\$3,520.00	\$100.00	\$3,238.47	\$18,553.66	76.69 %	\$441.75	\$751.19
Aug-15	31	\$22,400.00	(\$3,296.53)	\$19,103.47	\$8,680.00	\$4,001.45	\$980.00	\$262.02	\$8,420.00	\$8,169.46	\$740.00	\$0.00	\$1,986.34	\$14,419.27	75.48 %	\$465.14	\$722.58
Sep-15	26	\$19,395.00	(\$2,951.95)	\$16,443.05	\$5,480.00	\$2,731.95	\$925.00	\$353.31	\$7,320.00	\$5,774.73	\$2,210.00	\$0.00	\$1,960.77	\$10,820.76	65.81 %	\$416.18	\$745.96
FY2015	434	\$332,741.00	(\$69,148.46)	\$263,592.54	\$0.00	\$62,289.92	\$22,500.00	\$10,265.42	\$76,469.00	\$98,251.43	\$32,950.00	\$755.00	\$29,243.25	\$200,805.02	76.2%	\$462.68	\$766.68
Oct-15	48	\$38,260.00	(\$7,055.55)	\$31,204.45	\$14,880.00	\$7,223.60	\$1,980.00	\$1,027.51	\$7,520.00	\$13,271.32	\$2,660.00	\$119.25	\$2,587.04	\$24,228.72	77.65 %	\$504.77	\$797.08
Nov-15	40	\$31,608.00	(\$7,312.38)	\$24,295.62	\$12,760.00	\$5,797.53	\$2,665.00	\$1,049.82	\$3,950.00	\$9,954.51	\$3,028.00	\$100.00	\$2,141.11	\$19,042.97	78.38 %	\$476.07	\$790.20
Dec-15	44	\$34,337.00	(\$7,871.46)	\$26,465.54	\$14,632.00	\$6,670.33	\$2,855.00	\$772.09	\$4,310.00	\$11,447.50	\$2,630.00	\$1,157.50	\$1,255.82	\$21,303.24	80.49 %	\$484.16	\$780.39
Jan-16	46	\$36,540.00	(\$7,844.33)	\$28,695.67	\$13,925.00	\$5,204.31	\$2,080.00	\$959.17	\$7,330.00	\$10,516.21	\$2,290.00	\$0.00	\$3,787.12	\$20,466.81	71.32 %	\$444.93	\$794.35
Feb-16	49	\$38,140.00	(\$7,544.88)	\$30,595.12	\$15,110.00	\$6,354.59	\$2,555.00	\$975.19	\$7,280.00	\$10,334.78	\$5,050.00	\$120.00	\$1,469.30	\$19,253.86	62.93 %	\$392.94	\$778.37
Mar-16	34	\$24,865.00	(\$5,146.75)	\$19,718.25	\$12,830.00	\$5,901.48	\$0.00	\$301.60	\$3,175.00	\$5,844.20	\$3,020.00	\$50.00	\$814.93	\$12,912.21	65.48 %	\$379.77	\$731.32
Apr-16	53	\$40,735.00	(\$8,726.96)	\$32,008.04	\$18,100.00	\$8,430.78	\$2,110.00	\$1,111.48	\$7,265.00	\$9,141.33	\$4,580.00	\$0.00	\$1,943.79	\$20,627.38	64.44 %	\$389.20	\$768.58
May-16	41	\$32,775.00	(\$5,452.79)	\$27,322.21	\$12,740.00	\$6,081.07	\$890.00	\$629.94	\$7,565.00	\$11,735.26	\$2,780.00	\$0.00	\$2,042.63	\$20,488.90	74.99 %	\$499.73	\$799.39
Jun-16	34	\$24,679.00	(\$4,529.83)	\$20,149.17	\$9,620.00	\$4,996.45	\$0.00	\$207.33	\$6,265.00	\$6,082.97	\$5,389.00	\$0.00	\$1,256.90	\$12,543.65	62.25 %	\$368.93	\$725.85
Jul-16	42	\$32,630.00	(\$5,703.91)	\$26,926.09	\$14,530.00	\$6,706.50	\$0.00	\$160.80	\$6,390.00	\$8,600.36	\$6,690.00	\$820.00	\$929.73	\$17,217.39	63.94 %	\$409.94	\$776.90
Aug-16	38	\$28,024.00	(\$1,881.53)	\$26,142.47	\$13,422.00	\$2,298.94	\$0.00	\$0.00	\$4,872.00	\$0.00	\$2,720.00	\$0.00	\$86.27	\$2,385.21	9.12 %	\$62.77	\$737.47
FY2016	469	\$362,593.00	(\$69,070.37)	\$293,522.63	\$362,593.00	\$65,665.58	\$15,135.00	\$7,194.93	\$65,922.00	\$96,928.44	\$40,837.00	\$2,366.75	\$18,314.64	\$190,470.34	64.9%	\$406.12	\$773.12



09/07/16

Performance Analysis (Web Report)_2

Date Of Service	Greater Than Or Equal	10/01/2011
Date Of Service	Less Than Or Equal	08/31/2016
Company	Equal	48 Murphy
Charge Zone Code	Equal	RES

48 Murphy

TRANSPORT MONTH	TRIPS BILLED	CHARGES BILLED	CONT. ALLOW.	NET CHARGES	MEDICARE CHARGES	MEDICARE PAYMENTS	MEDICAID CHARGES	MEDICAID PAYMENTS	INSURANCE CHARGES	INSURANCE PAYMENTS	PRIVATE PAY CHARGES	PRIVATE PAY PAYMENTS	BILL PATIENT PAYMENTS	TOTAL COLLECTIONS	NET COLLECTIONS PERCENTAGE RATE	COLLECTED / TRIP	BILLED / TRIP
Oct-13	23	\$18,274.00	(\$3,607.44)	\$14,666.56	\$5,820.00	\$2,917.81	\$0.00	\$193.28	\$3,655.00	\$3,184.05	\$5,760.00	\$710.00	\$1,075.77	\$8,080.91	55.10 %	\$351.34	\$794.52
Nov-13	25	\$18,605.00	(\$5,460.38)	\$13,144.62	\$12,540.00	\$6,328.63	\$0.00	\$91.82	\$5,125.00	\$3,884.84	\$740.00	\$40.00	\$1,762.91	\$12,108.20	92.12 %	\$484.33	\$744.20
Dec-13	29	\$24,155.00	(\$6,649.35)	\$17,505.65	\$10,870.00	\$5,075.31	\$0.00	\$194.69	\$5,790.00	\$6,487.41	\$740.00	\$0.00	\$2,538.61	\$14,296.02	81.67 %	\$492.97	\$832.93
Jan-14	29	\$22,940.00	(\$5,165.49)	\$17,774.51	\$11,785.00	\$5,285.03	\$0.00	\$134.05	\$4,770.00	\$7,138.68	\$800.00	\$100.00	\$2,193.83	\$14,851.59	83.56 %	\$512.12	\$791.03
Feb-14	23	\$19,834.00	(\$4,509.16)	\$15,324.84	\$5,750.00	\$2,789.72	\$2,790.00	\$1,128.32	\$4,700.00	\$5,754.53	\$1,460.00	\$730.00	\$306.04	\$10,708.61	69.88 %	\$465.59	\$862.35
Mar-14	23	\$18,900.00	(\$4,384.63)	\$14,515.37	\$5,880.00	\$2,670.84	\$945.00	\$345.70	\$4,615.00	\$7,414.86	\$1,510.00	\$0.00	\$1,243.39	\$11,674.79	80.43 %	\$507.60	\$821.74
Apr-14	18	\$13,836.00	(\$2,796.25)	\$11,039.75	\$8,411.00	\$4,025.06	\$0.00	\$86.98	\$1,950.00	\$4,224.07	\$700.00	\$0.00	\$895.19	\$9,231.30	83.62 %	\$512.85	\$768.67
May-14	22	\$16,825.00	(\$3,714.18)	\$13,110.82	\$7,500.00	\$3,598.80	\$970.00	\$431.76	\$4,450.00	\$4,984.95	\$2,080.00	\$65.00	\$1,764.67	\$10,845.18	82.72 %	\$492.96	\$764.77
Jun-14	27	\$22,380.00	(\$2,612.62)	\$19,767.38	\$6,860.00	\$2,880.58	\$0.00	\$94.55	\$8,495.00	\$8,812.21	\$660.00	\$0.00	\$3,654.22	\$15,441.56	78.12 %	\$571.91	\$828.89
Jul-14	21	\$16,835.00	(\$2,163.61)	\$14,671.39	\$6,310.00	\$3,391.25	\$0.00	\$209.27	\$9,155.00	\$7,529.05	\$1,370.00	\$0.00	\$1,510.86	\$12,640.43	86.16 %	\$601.93	\$801.67
Aug-14	21	\$16,464.00	(\$2,618.01)	\$13,845.99	\$5,490.00	\$2,644.52	\$910.00	\$498.47	\$4,960.00	\$6,541.93	\$740.00	\$0.00	\$904.41	\$10,589.33	76.48 %	\$504.25	\$784.00
Sep-14	23	\$18,220.00	(\$3,402.69)	\$14,817.31	\$7,720.00	\$3,645.07	\$1,020.00	\$579.21	\$4,740.00	\$5,417.92	\$2,840.00	\$25.00	\$1,578.94	\$11,246.14	75.90 %	\$488.96	\$792.17
FY2014	284	\$227,268.00	(\$47,083.81)	\$180,184.19	\$0.00	\$45,252.62	\$6,635.00	\$3,988.10	\$62,405.00	\$71,374.50	\$19,400.00	\$1,670.00	\$19,428.84	\$141,714.06	78.6%	\$498.99	\$800.24
Oct-14	21	\$15,870.00	(\$3,554.39)	\$12,315.61	\$8,880.00	\$4,160.38	\$0.00	\$175.54	\$2,900.00	\$3,986.06	\$2,130.00	\$25.00	\$1,229.41	\$9,576.39	77.76 %	\$456.02	\$755.71
Nov-14	29	\$22,145.00	(\$3,833.79)	\$18,311.21	\$6,700.00	\$3,389.74	\$1,620.00	\$663.09	\$6,455.00	\$9,774.96	\$2,350.00	\$100.00	\$1,109.42	\$15,037.21	82.12 %	\$518.52	\$763.62
Dec-14	25	\$17,420.00	(\$4,609.83)	\$12,810.17	\$10,835.00	\$5,062.02	\$905.00	\$424.93	\$1,895.00	\$3,608.22	\$1,960.00	\$0.00	\$1,605.00	\$10,700.17	83.53 %	\$428.01	\$696.80
Jan-15	30	\$21,245.00	(\$6,761.63)	\$14,483.37	\$10,840.00	\$4,252.32	\$3,550.00	\$1,417.59	\$4,205.00	\$5,692.31	\$600.00	\$0.00	\$1,472.76	\$12,834.98	88.62 %	\$427.83	\$708.17
Feb-15	30	\$22,855.00	(\$5,678.18)	\$17,176.82	\$9,470.00	\$4,258.25	\$2,490.00	\$1,257.05	\$5,360.00	\$6,438.63	\$0.00	\$0.00	\$1,821.98	\$13,775.91	80.20 %	\$459.20	\$761.83
Mar-15	41	\$29,880.00	(\$7,566.11)	\$22,313.89	\$18,650.00	\$8,178.84	\$1,805.00	\$989.16	\$4,225.00	\$6,535.46	\$2,590.00	\$0.00	\$1,326.82	\$17,030.28	76.32 %	\$415.37	\$728.78
Apr-15	30	\$24,225.00	(\$5,499.05)	\$18,725.95	\$10,330.00	\$4,640.89	\$1,785.00	\$662.18	\$5,415.00	\$4,834.34	\$0.00	\$0.00	\$5,057.10	\$15,194.51	81.14 %	\$506.48	\$807.50
May-15	29	\$22,639.00	(\$4,199.74)	\$18,439.26	\$10,485.00	\$4,384.01	\$895.00	\$410.01	\$3,009.00	\$7,088.94	\$2,710.00	\$0.00	\$2,997.17	\$14,880.13	80.70 %	\$513.11	\$780.66
Jun-15	27	\$19,910.00	(\$3,937.26)	\$15,972.74	\$11,330.00	\$5,588.48	\$0.00	\$122.79	\$5,980.00	\$4,983.36	\$770.00	\$530.00	\$2,863.62	\$14,088.25	88.20 %	\$521.79	\$737.41
Jul-15	37	\$27,595.00	(\$5,964.95)	\$21,630.05	\$14,200.00	\$6,751.07	\$890.00	\$633.15	\$5,315.00	\$6,820.97	\$2,040.00	\$100.00	\$3,238.47	\$17,543.66	81.11 %	\$474.15	\$745.81
Aug-15	26	\$17,900.00	(\$3,296.53)	\$14,603.47	\$8,680.00	\$4,001.45	\$0.00	\$262.02	\$5,960.00	\$5,726.46	\$740.00	\$0.00	\$1,774.34	\$11,764.27	80.56 %	\$452.47	\$688.46
Sep-15	18	\$12,710.00	(\$2,372.33)	\$10,337.67	\$4,840.00	\$2,395.25	\$925.00	\$353.31	\$3,620.00	\$3,590.95	\$740.00	\$0.00	\$1,320.87	\$7,660.38	74.10 %	\$425.58	\$706.11
FY2015	343	\$254,394.00	(\$57,273.79)	\$197,120.21	\$0.00	\$57,062.70	\$14,865.00	\$7,370.82	\$54,339.00	\$69,080.66	\$16,630.00	\$755.00	\$25,816.96	\$160,086.14	81.2%	\$466.72	\$741.67
Oct-15	36	\$27,860.00	(\$5,824.71)	\$22,035.29	\$12,600.00	\$6,268.01	\$1,980.00	\$1,027.51	\$3,555.00	\$8,348.89	\$2,560.00	\$19.25	\$1,297.85	\$16,961.51	76.97 %	\$471.15	\$773.89
Nov-15	27	\$20,585.00	(\$4,606.59)	\$15,978.41	\$9,740.00	\$4,611.23	\$795.00	\$450.12	\$3,095.00	\$7,122.42	\$830.00	\$100.00	\$889.99	\$13,173.76	82.45 %	\$487.92	\$762.41
Dec-15	35	\$26,177.00	(\$6,469.34)	\$19,707.66	\$13,092.00	\$6,050.02	\$920.00	\$394.24	\$2,510.00	\$8,256.06	\$2,630.00	\$1,157.50	\$1,255.82	\$17,113.64	86.84 %	\$488.96	\$747.91
Jan-16	34	\$26,335.00	(\$5,754.84)	\$20,580.16	\$10,055.00	\$3,899.44	\$2,080.00	\$771.82	\$3,695.00	\$9,766.12	\$680.00	\$0.00	\$3,112.64	\$17,550.02	85.28 %	\$516.18	\$774.56
Feb-16	30	\$22,380.00	(\$5,321.93)	\$17,058.07	\$12,820.00	\$5,608.49	\$825.00	\$395.32	\$3,595.00	\$4,922.70	\$670.00	\$0.00	\$1,469.30	\$12,395.81	72.67 %	\$413.19	\$746.00
Mar-16	28	\$19,940.00	(\$4,771.30)	\$15,168.70	\$12,090.00	\$5,611.02	\$0.00	\$227.51	\$1,340.00	\$4,009.20	\$670.00	\$50.00	\$814.93	\$10,712.66	70.62 %	\$382.60	\$712.14
Apr-16	33	\$24,410.00	(\$6,670.22)	\$17,739.78	\$15,030.00	\$7,261.89	\$1,130.00	\$621.19	\$3,535.00	\$4,582.60	\$1,370.00	\$0.00	\$901.33	\$13,367.01	75.35 %	\$405.06	\$739.70
May-16	29	\$22,370.00	(\$4,057.25)	\$18,312.75	\$9,660.00	\$4,788.83	\$890.00	\$629.94	\$4,685.00	\$7,261.60	\$2,030.00	\$0.00	\$1,318.67	\$13,999.04	76.44 %	\$482.73	\$771.38
Jun-16	28	\$20,274.00	(\$4,529.83)	\$15,744.17	\$9,620.00	\$4,996.45	\$0.00	\$207.33	\$5,185.00	\$4,708.88	\$3,909.00	\$0.00	\$1,156.90	\$11,069.56	70.31 %	\$395.34	\$724.07
Jul-16	33	\$24,950.00	(\$4,950.56)	\$19,999.44	\$12,890.00	\$6,215.52	\$0.00	\$160.80	\$6,390.00	\$7,680.36	\$2,850.00	\$0.00	\$929.73	\$14,986.41	74.93 %	\$454.13	\$756.06
Aug-16	29	\$21,184.00	(\$1,575.98)	\$19,608.02	\$10,472.00	\$1,960.76	\$0.00	\$0.00	\$4,422.00	\$0.00	\$1,980.00	\$0.00	\$86.27	\$2,047.03	10.44 %	\$70.59	\$730.48
FY2016	342	\$256,465.00	(\$54,532.55)	\$201,932.45	#####	\$57,271.66	\$8,620.00	\$4,885.78	\$42,007.00	\$66,658.83	\$20,179.00	\$1,326.75	\$13,233.43	\$143,376.45	71.0%	\$419.23	\$749.90



09/07/16

Performance Analysis (Web Report)_2

Date Of Service	Greater Than Or Equal	10/01/2011
Date Of Service	Less Than Or Equal	08/31/2016
Company	Equal	48 Murphy
Charge Zone Code	Equal	NRES

48 Murphy

TRANSPORT MONTH	TRIPS BILLED	CHARGES BILLED	CONT. ALLOW.	NET CHARGES	MEDICARE CHARGES	MEDICARE PAYMENTS	MEDICAID CHARGES	MEDICAID PAYMENTS	INSURANCE CHARGES	INSURANCE PAYMENTS	PRIVATE PAY CHARGES	PRIVATE PAY PAYMENTS	BILL PATIENT PAYMENTS	TOTAL COLLECTIONS	NET COLLECTIONS PERCENTAGE	COLLECTED / TRIP	BILLED / TRIP
Oct-11	13	\$10,623.00	(\$2,702.80)	\$7,920.20	\$5,173.00	\$2,570.91	\$960.00	\$486.41	\$1,730.00	\$644.53	\$810.00	\$0.00	\$431.13	\$4,132.98	52.18%	\$317.92	\$817.15
Nov-11	9	\$7,320.00	(\$428.00)	\$6,892.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,210.00	\$3,782.00	\$3,110.00	\$60.84	\$182.52	\$4,025.36	58.41%	\$447.26	\$813.33
Dec-11	11	\$10,189.00	(\$2,121.28)	\$8,067.72	\$2,983.00	\$1,452.31	\$0.00	\$83.43	\$1,796.00	\$3,641.67	\$1,640.00	\$0.00	\$1,090.31	\$6,267.72	77.69%	\$569.79	\$926.27
Jan-12	11	\$9,741.00	(\$1,005.12)	\$8,735.88	\$901.00	\$325.18	\$940.00	\$351.40	\$2,890.00	\$4,486.30	\$3,250.00	\$0.00	\$81.00	\$5,243.88	60.03%	\$476.72	\$885.55
Feb-12	6	\$4,560.00	(\$601.54)	\$3,958.46	\$830.00	\$390.77	\$0.00	\$0.00	\$0.00	\$188.53	\$1,610.00	\$0.00	\$0.00	\$579.30	14.63%	\$96.55	\$760.00
Mar-12	15	\$13,384.46	(\$567.58)	\$12,816.88	\$840.00	\$416.33	\$0.00	\$0.00	\$970.00	\$3,788.09	\$5,964.46	\$1,900.00	\$1,222.00	\$7,326.42	57.16%	\$488.43	\$892.30
Apr-12	9	\$9,041.93	(\$1,948.79)	\$7,093.14	\$1,631.98	\$761.85	\$0.00	\$0.00	\$2,282.97	\$5,052.60	\$0.00	\$0.00	\$821.98	\$6,636.43	93.56%	\$737.38	\$1,004.66
May-12	14	\$12,702.96	(\$1,912.62)	\$10,790.34	\$2,373.96	\$1,189.50	\$1,100.00	\$379.85	\$0.00	\$2,572.16	\$5,960.00	\$0.00	\$459.07	\$4,600.58	42.64%	\$328.61	\$907.35
Jun-12	15	\$11,555.50	(\$906.14)	\$10,649.36	\$700.00	\$297.07	\$905.00	\$301.79	\$2,450.50	\$656.00	\$6,680.00	\$230.00	\$0.00	\$1,484.86	13.94%	\$98.99	\$770.37
Jul-12	13	\$11,788.96	(\$1,297.92)	\$10,491.04	\$830.00	\$388.52	\$0.00	\$0.00	\$2,818.96	\$4,238.11	\$4,090.00	\$0.00	\$343.67	\$4,970.30	47.38%	\$382.33	\$906.84
Aug-12	19	\$18,201.98	(\$4,211.33)	\$13,990.65	\$2,490.00	\$1,187.18	\$2,240.00	\$745.63	\$8,226.98	\$4,220.24	\$3,290.00	\$0.00	\$1,608.24	\$7,761.29	55.47%	\$408.49	\$958.00
Sep-12	12	\$9,725.45	(\$1,370.37)	\$8,355.08	\$820.00	\$406.77	\$965.00	\$311.16	\$3,619.46	\$3,431.16	\$3,405.99	\$800.00	\$0.00	\$4,949.09	59.23%	\$412.42	\$810.45
Oct-12	13	\$11,165.89	(\$1,908.76)	\$9,257.13	\$1,590.00	\$783.17	\$822.97	\$449.04	\$3,011.97	\$2,278.55	\$4,052.97	\$0.00	\$1,223.40	\$4,734.16	51.14%	\$364.17	\$858.91
Nov-12	7	\$5,903.46	(\$1,987.78)	\$3,915.68	\$840.00	\$394.70	\$2,663.46	\$1,032.30	\$0.00	\$120.00	\$1,850.00	\$0.00	\$0.00	\$1,547.00	39.51%	\$221.00	\$843.35
Dec-12	7	\$6,298.40	(\$281.60)	\$6,016.80	\$0.00	\$0.00	\$0.00	\$0.00	\$2,925.93	\$2,628.45	\$1,510.00	\$0.00	\$0.00	\$2,628.45	43.69%	\$375.49	\$899.77
Jan-13	8	\$7,434.00	(\$1,006.71)	\$6,427.29	\$810.00	\$264.44	\$835.00	\$545.65	\$2,000.00	\$2,765.39	\$1,720.00	\$0.00	\$150.00	\$3,725.48	57.96%	\$465.69	\$929.25
Feb-13	7	\$6,907.92	(\$708.07)	\$6,199.85	\$810.00	\$522.75	\$0.00	\$0.00	\$3,872.97	\$2,585.47	\$0.00	\$0.00	\$1,192.59	\$4,300.81	69.37%	\$614.40	\$986.85
Mar-13	7	\$6,082.00	(\$596.67)	\$5,485.33	\$808.00	\$263.87	\$0.00	\$0.00	\$2,874.00	\$1,725.60	\$2,400.00	\$800.00	\$0.00	\$3,589.47	65.44%	\$512.78	\$868.86
Apr-13	9	\$8,615.00	(\$1,541.96)	\$7,073.04	\$810.00	\$370.51	\$1,130.00	\$394.02	\$1,060.00	\$2,925.51	\$3,570.00	\$0.00	\$1,252.00	\$4,942.04	69.87%	\$549.12	\$957.22
May-13	7	\$5,870.00	(\$742.08)	\$5,127.92	\$1,640.00	\$739.26	\$0.00	\$0.00	\$1,060.00	\$1,037.66	\$3,170.00	\$0.00	\$81.00	\$1,857.92	36.23%	\$265.42	\$838.57
Jun-13	7	\$6,230.00	(\$2,216.07)	\$4,013.93	\$1,610.00	\$739.35	\$1,900.00	\$645.98	\$0.00	\$188.60	\$1,630.00	\$0.00	\$0.00	\$1,573.93	39.21%	\$224.85	\$890.00
Jul-13	9	\$7,870.00	(\$1,481.70)	\$6,388.30	\$1,640.00	\$632.93	\$0.00	\$0.00	\$900.00	\$1,344.92	\$4,340.00	\$0.00	\$20.45	\$1,998.30	31.28%	\$222.03	\$874.44
Aug-13	10	\$8,411.00	(\$1,553.34)	\$6,857.66	\$1,850.00	\$781.57	\$0.00	\$0.00	\$3,170.00	\$2,141.54	\$2,510.00	\$200.00	\$731.55	\$3,854.66	56.21%	\$385.47	\$841.10
Sep-13	9	\$8,730.00	(\$3,206.69)	\$5,523.31	\$1,735.00	\$539.96	\$0.00	\$0.00	\$1,060.00	\$1,678.42	\$1,610.00	\$0.00	\$0.00	\$2,218.38	40.16%	\$246.49	\$970.00
Oct-13	9	\$7,860.00	(\$1,236.22)	\$6,623.78	\$1,600.00	\$682.88	\$0.00	\$0.00	\$3,020.00	\$1,523.20	\$3,240.00	\$820.00	\$870.00	\$3,896.08	58.82%	\$432.90	\$873.33
Nov-13	9	\$9,000.00	(\$2,095.68)	\$6,904.32	\$820.00	\$347.58	\$1,920.00	\$654.74	\$2,170.00	\$3,390.79	\$820.00	\$0.00	\$125.00	\$4,518.11	65.44%	\$502.01	\$1,000.00
Dec-13	12	\$11,220.00	(\$2,752.21)	\$8,467.79	\$840.00	\$486.65	\$2,040.00	\$554.49	\$2,990.00	\$1,509.37	\$2,320.00	\$1,620.00	\$1,074.30	\$5,244.81	61.94%	\$437.07	\$935.00
Jan-14	2	\$2,280.00	(\$26.00)	\$2,254.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,280.00	\$2,058.00	\$0.00	\$0.00	\$0.00	\$2,058.00	91.30%	\$1,029.00	\$1,140.00
Feb-14	9	\$8,715.00	(\$2,277.00)	\$6,438.00	\$1,725.00	\$679.18	\$1,150.00	\$383.29	\$1,965.00	\$3,445.53	\$810.00	\$0.00	\$0.00	\$4,508.00	70.02%	\$500.89	\$968.33
Mar-14	13	\$12,290.00	(\$4,227.06)	\$8,062.94	\$1,660.00	\$892.46	\$0.00	\$0.00	\$2,755.00	\$2,374.48	\$1,600.00	\$810.00	\$2,032.00	\$6,732.94	83.50%	\$517.92	\$945.38
Apr-14	15	\$13,890.00	(\$2,960.03)	\$10,929.97	\$3,160.00	\$1,314.81	\$1,935.00	\$801.99	\$5,975.00	\$6,921.08	\$0.00	\$0.00	\$246.33	\$9,284.21	84.94%	\$618.95	\$926.00
May-14	8	\$6,875.00	(\$805.30)	\$6,069.70	\$1,640.00	\$346.01	\$0.00	\$0.00	\$2,015.00	\$3,335.72	\$100.00	\$0.00	\$517.82	\$4,199.55	69.19%	\$524.94	\$859.38
Jun-14	9	\$7,650.00	(\$1,075.55)	\$6,574.45	\$2,290.00	\$1,043.65	\$0.00	\$87.25	\$0.00	\$2,184.36	\$2,260.00	\$0.00	\$0.00	\$3,315.26	50.43%	\$368.36	\$850.00
Jul-14	9	\$7,620.00	(\$1,472.49)	\$6,147.51	\$3,040.00	\$1,275.33	\$0.00	\$0.00	\$1,980.00	\$1,791.33	\$745.00	\$0.00	\$0.00	\$3,066.66	49.88%	\$340.74	\$846.67
Aug-14	10	\$8,690.00	(\$1,399.89)	\$7,290.11	\$2,280.00	\$995.78	\$0.00	\$85.10	\$0.00	\$3,073.79	\$1,540.00	\$25.00	\$357.24	\$4,536.91	62.23%	\$453.69	\$869.00
Sep-14	18	\$15,465.00	(\$1,832.51)	\$13,632.49	\$740.00	\$287.08	\$2,190.00	\$737.17	\$5,675.00	\$6,432.07	\$4,060.00	\$100.00	\$1,012.64	\$7,568.96	55.52%	\$420.50	\$859.17
Oct-14	16	\$13,920.00	(\$2,717.65)	\$11,202.35	\$820.00	\$330.86	\$2,730.00	\$1,397.08	\$3,970.00	\$3,558.33	\$4,570.00	\$0.00	\$567.38	\$5,853.65	52.25%	\$365.85	\$870.00
Nov-14	10	\$8,415.00	(\$1,026.66)	\$7,388.34	\$1,460.00	\$888.27	\$1,050.00	\$338.18	\$0.00	\$1,483.58	\$2,870.00	\$0.00	\$648.31	\$3,358.34	45.45%	\$335.83	\$841.50
Dec-14	12	\$10,467.00	(\$1,319.28)	\$9,147.72	\$2,930.00	\$1,283.32	\$0.00	\$156.62	\$2,945.00	\$5,043.86	\$730.00	\$0.00	\$985.70	\$7,469.50	81.65%	\$622.46	\$872.25
Jan-15	12	\$9,930.00	(\$1,378.80)	\$8,551.20	\$1,480.00	\$672.43	\$0.00	\$0.00	\$3,040.00	\$5,005.23	\$1,470.00	\$0.00	\$103.00	\$5,780.66	67.60%	\$481.72	\$827.50
Feb-15	4	\$3,900.00	\$0.00	\$3,900.00	\$0.00	\$0.00	\$0.00	\$0.00	\$980.00	\$3,234.40	\$0.00	\$0.00	\$0.00	\$3,234.40	82.93%	\$808.60	\$975.00
Mar-15	1	\$710.00	\$0.00	\$710.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$710.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$710.00
Apr-15	4	\$3,720.00	(\$340.08)	\$3,379.92	\$860.00	\$269.92	\$0.00	\$0.00	\$2,100.00	\$2,411.41	\$760.00	\$0.00	\$250.00	\$2,931.33	86.73%	\$732.83	\$930.00
May-15	7	\$6,160.00	(\$2,415.03)	\$3,744.97	\$720.00	\$281.37	\$1,890.00	\$663.61	\$2,080.00	\$1,824.99	\$730.00	\$0.00	\$0.00	\$2,769.97	73.97%	\$395.71	\$880.00
Jun-15	7	\$5,985.00	(\$705.35)	\$5,279.65	\$1,570.00	\$571.78	\$0.00	\$0.00	\$855.00	\$1,903.87	\$1,530.00	\$0.00	\$20.00	\$2,495.65	47.27%	\$356.52	\$855.00
Jul-15	5	\$3,955.00	(\$1,392.20)	\$2,562.80	\$1,490.00	\$592.57	\$985.00	\$339.11	\$0.00	\$78.32	\$1,480.00	\$0.00	\$0.00	\$1,010.00	39.41%	\$202.00	\$791.00
Aug-15	5	\$4,500.00	\$0.00	\$4,500.00	\$0.00	\$0.00	\$980.00	\$0.00	\$2,460.00	\$2,443.00	\$0.00	\$0.00	\$212.00	\$2,655.00	59.00%	\$531.00	\$900.00
Sep-15	8	\$6,685.00	(\$579.62)	\$6,105.38	\$640.00	\$336.70	\$0.00	\$0.00	\$3,700.00	\$2,183.78	\$1,470.00	\$0.00	\$639.90	\$3,160.38	51.76%	\$395.05	\$835.63
Oct-15	11	\$10,300.00	(\$1,230.84)	\$9,069.16	\$2,280.00	\$955.59	\$0.00	\$0.00	\$3,965.00	\$4,922.43	\$0.00	\$0.00	\$1,289.19	\$7,167.21	79.03%	\$651.56	\$936.36
Nov-15	12	\$10,283.00	(\$2,396.19)	\$7,886.81	\$2,280.00	\$843.38	\$1,870.00	\$599.70	\$855.00	\$2,744.61	\$2,198.00	\$0.00	\$1,251.12	\$5,438.81	68.96%	\$453.23	\$856.92
Dec-15	9	\$8,160.00	(\$1,402.12)	\$6,757.88	\$1,540.00	\$620.31	\$1,935.00	\$377.85	\$1,800.00	\$3,191.44	\$0.00	\$0.00	\$0.00	\$4,189.60	62.00%	\$465.51	\$906.67
Jan-16	12	\$10,205.00	(\$2,089.49)	\$8,115.51	\$3,870.00	\$1,304.87	\$0.00	\$187.35	\$3,635.00	\$750.09	\$1,610.00	\$0.00	\$674.48	\$2,916.79	35.94%	\$243.07	\$850.42
Feb-16	19	\$15,760.00	(\$2,222.95)	\$13,537.05	\$2,290.00	\$746.10	\$1,730.00	\$579.87	\$3,685.00	\$5,412.08	\$4,380.00	\$120.00	\$0.00	\$6,858.05	50.66%	\$360.95	\$829.47
Mar-16	6	\$4,925.00	(\$375.45)	\$4,549.55	\$740.00	\$290.46	\$0.00	\$74.09	\$1,835.00	\$1,835.00	\$2,350.00	\$0.00	\$0.00	\$2,199.55	48.35%	\$366.59	\$820.83
Apr-16	19	\$16,225.00	(\$2,056.74)	\$14,168.26	\$3,070.00	\$1,168.89	\$980.00	\$490.29	\$3,730.00	\$4,558.73	\$3,110.00	\$0.00	\$1,042.46	\$7,260.37	51.24%	\$382.12	\$853.95
May-16	12	\$10,405.00	(\$1,395.54)	\$9,009.46	\$3,080.00	\$1,292.24	\$0.00	\$0.00	\$2,880.00	\$4,473.66	\$750.00	\$0.00	\$723.96	\$6,489.86	72.03%	\$540.82	\$867.08
Jun-16	6	\$4,405.00	\$0.00	\$4,405.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,080.00	\$1,374.09	\$1,480.00	\$0.00	\$100.00	\$1,474.09	33.46%	\$245.68	\$734.

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act to approve Resolution Number 16-R-842 authorizing the City Manager to execute the renewals of the Clinical Affiliation Agreement, Emergency Medical Advisory Services Agreement, and Business Associate Agreement between the City of Murphy, Texas on behalf of Murphy Fire Department and Columbia Medical Center of Plano Subsidiary, L.P., d/b/a Medical Center of Plano.

Staff Resource/Department

Ed Henderson/Fire Department

Greg Werner/Fire Department

Summary

This renewal allows for the continuation of a clinical learning experience through the application of knowledge and skills in actual patient-centered situations in a health care Hospital. It also provides Clinical Affiliation Services under the terms and conditions of the Agreement; through the utilization of an assigned Medical Director and other hospital staff personnel.

This Agreement ensures that all participants will perform their duties and services in accordance with all relevant local, state and federal laws, and will comply with the standards and guidelines of all applicable accrediting bodies and bylaws, rules and regulations of the Hospital, and any rules and regulations of the Murphy Fire Department.

Background/History

October 1, 2010, the City of Murphy, Texas on behalf of the Murphy Fire Department entered into an Education Agreement for Clinical Training Services Agreement with Columbia Medical Center of Plano. We have gone through one or more renewal periods and the expiration date for the current Agreement is September 30, 2016. The new Clinical Affiliation Agreements will serve us for the next three (3) years with consideration given for three (3) additional years. The term of the new Agreement is October 1, 2016 to September 30, 2019.

Board Discussion/Action

Motion to approve Resolution Number 16-R-842 authorizing the City Manager to execute the renewals of the Clinical Affiliation Agreement, Emergency Medical Advisory Services Agreement, and Business Associate Agreement between the City of Murphy, Texas on behalf of Murphy Fire Department and Columbia Medical Center of Plano Subsidiary, L.P., d/b/a Medical Center of Plano.

Attachments

1. Resolution 16-R-843 with Agreement A (Clinical Affiliation), Agreement B (Emergency Medical Advisory Services), and Agreement C (Business Associate)

RESOLUTION NUMBER 16-R-841

CITY OF MURPHY, TEXAS

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MURPHY, TEXAS, AWARDING A CONTRACT FOR AN AGREEMENT FOR EMERGENCY MEDICAL ADVISORY SERVICES, A CLINICAL AFFILIATION AGREEMENT, AND A BUSINESS ASSOCIATE AGREEMENT ON THIS DATE OCTOBER 1, 2016, BY AND BETWEEN THE CITY OF MURPHY, TEXAS ON BEHALF OF MURPHY FIRE DEPARTMENT AND COLUMBIA MEDICAL CENTER OF PLANO SUBSIDIARY, L.P., D/B/A MEDICAL CENTER OF PLANO (HOSPITAL).

WHEREAS, the City owns and operates directly through the fire department an ambulance service and it is necessary to have medical control and continuing education for these services; and

WHEREAS, The Medical Center of Plano offers medical control, continuing education, and other BLS and ALS support services to municipalities and private companies providing emergency services and transport services;

WHEREAS, the term of the agreement shall be an initial three year term beginning on October 1, 2016 and includes three one-year options for renewal provided both parties are in agreement; and

WHEREAS, the City Council of the City of Murphy desires to engage The Medical Center of Plano to provide certain support services for Murphy Fire Department.

Now therefore be it resolved by the City Council of the City of Murphy, Texas:

Section 1: The City of Murphy does hereby award a contract for Emergency Medical Advisory Services (*Agreement A*), Clinical Affiliation (*Agreement B*) and Business Associate (*Agreement C*) for Murphy Fire Department to the Medical Center of Plano.

Section 2: The City of Murphy does hereby authorize the City Manager to execute the agreement after City Attorney approval and the issuance of purchase orders to conform to this resolution pursuant to approval.

Section 3: This resolution shall become effective immediately upon its passage.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Murphy, Texas this 20th day of September, 2016.

Eric Barna, Mayor

ATTEST:

Susie Quinn, City Secretary

**AGREEMENT FOR EMERGENCY MEDICAL ADVISORY SERVICES
FOR THE CITY OF MURPHY, TEXAS**

This Agreement (“Agreement”) is entered into this 1st of October 2016 (“Effective Date”), by and between the **CITY OF MURPHY, TEXAS**, a Texas home-rule municipality (“City”), acting by and through its duly authorized City Manager, or in his absence, its Fire Chief, and **COLUMBIA MEDICAL CENTER OF PLANO SUBSIDIARY, L.P.**, a Texas Limited Partnership d/b/a Medical Center of Plano (“Medical Center of Plano”). The City and Medical Center of Plano are each referred to herein as a “party” or collectively as the “parties.”

W I T N E S S E T H:

WHEREAS, there is a recognized need to provide high quality Emergency Medical Services (“EMS”) in the City; and

WHEREAS, the means for providing EMS in the City is vested in the City’s Fire Department (“Fire Department”); and

WHEREAS, in providing high quality EMS, the City recognizes the need for an Emergency Medical Advisory Service consisting of a Medical Director and other appropriate personnel to assist in the training, supervision, and implementation of EMS in the City; and

WHEREAS, the City desires to contract with Medical Center of Plano to fulfill the duties of the EMS Medical Director (“EMS Medical Director”) and other appropriate personnel for the Fire Department and to provide on-line medical direction, continuing education, and quality assurance-quality improvement services to the Fire Department; and

WHEREAS, the Medical Center of Plano is willing to fulfill the duties of EMS Medical Director and other appropriate personnel and to provide on-line medical direction, continuing education, and quality assurance-quality improvement services to the Fire Department under the terms and conditions stated herein.

NOW, THEREFORE, in consideration of the premises, the agreements herein, and other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereby agree as follows:

SECTION 1: STATEMENT OF WORK

Medical Center of Plano hereby contracts with the City as an independent contractor to fulfill the duties and responsibilities of providing to City: an EMS Medical Director, on-line medical control, continuing education, and quality assurance/quality improvement services for the Fire Department as specified in the terms and conditions stated herein and in the Statement of Work, attached hereto as Exhibit “A”, and incorporated herein for all purposes (“Statement of Work”).

SECTION 2: EMS MEDICAL DIRECTOR

(A) General

- (1) The Medical Center of Plano shall provide or arrange for the services of a qualified and licensed physician to fulfill the duties of EMS Medical Director for the City. Such physician shall be subject to the City’s approval and such approval shall not

be unreasonably withheld. The EMS Medical Director and his designee shall be board-certified or eligible for certification in the field of Emergency Medicine.

- (2) The EMS Medical Director shall have and be the final authority for making medical decisions concerning the direct delivery of emergency patient medical care as provided by the Fire Department.
- (3) With respect to direct delivery of patient care as provided by the Fire Department, the EMS Medical Director shall be attendant to, but not governed by, other agencies or persons involved with EMS provided by the Fire Department.
- (4) The EMS Medical Director will report directly to the Fire Chief or his designee in all matters concerning the personnel, management, and administration of EMS provided by the Fire Department.
- (5) The EMS Medical Director or his designee will assist the Fire Department in making major policy decisions affecting the direct delivery of patient care services.
- (6) The Fire Chief or his designee and the EMS Medical Director or his designee will act jointly as a liaison with the medical community concerning issues that may arise relating to the delivery of EMS as provided by the Fire Department.
- (7) Upon request by the City, Medical Center of Plano and the EMS Medical Director or his designee will make public appearances from time to time as reasonably necessary to provide education regarding the function of EMS.
- (8) Upon request by either party, Medical Center of Plano and the EMS Medical Director or his designee will meet with staff members of the Fire Department to discuss problems and positive aspects of EMS provided by the Fire Department.
- (9) If at any time the EMS Medical Director is unable to carry out the duties and functions as outlined in this Agreement, the Medical Center of Plano shall promptly notify the City and obtain its approval before appointing a designee.
- (10) Each party and its officials, employees, and subcontractors agree to interact with one another in a manner that is conducive to maintaining a positive and productive working environment.

(B) Protocols

- (1) The EMS Medical Director shall develop, and keep current, a set of standing orders known as “Protocols” to be used by each Emergency Medical Technician-Paramedic (“Paramedic”) and Emergency Medical Technician-Basic (“EMT”) employed by the Fire Department in the delivery of patient care in the field as directed by the EMS Medical Director. The protocols must be designed to:
 - (a) Define the circumstances in which on-line medical direction is requested;
 - (b) Avoid communicable health risks and the transmission of infectious diseases to EMT and Paramedic personnel in the direct delivery of patient care;

- (c) Provide emergency care at a standard which meets or exceeds the standard customarily provided in the greater Dallas-Ft. Worth area;
 - (d) Comply with all applicable federal, state, and local laws and regulations, as they exist presently and are promulgated or amended in the future, including but not limited to, the direct delivery of patient care; and
 - (e) Not infringe upon or be in violation of any intellectual property rights, including but not limited to, trademark, copyright, patent, or trade secret rights.
- (2) The Fire Department will bear the responsibility and cost for providing copies of the protocols, as described herein, to each Paramedic and EMT employed by the Fire Department for the purpose of delivering emergency patient care to the public. In addition, the Fire Department will be responsible for placing a copy of the protocols on each piece of paramedic apparatus that responds to emergency calls.

SECTION 3: ON-LINE MEDICAL DIRECTION

(A) General

- (1) The Medical Center of Plano shall provide on-line medical direction to Paramedic and EMT personnel on a continuous, twenty-four (24)-hour basis on each day of the week. Such on-line medical direction shall include, but not be limited to, the provision of on-line communications with a Medical Center of Plano emergency physician as needed during prehospital responses.
- (2) Emergency physicians providing on-line medical direction shall be appropriately trained in the use of the protocols described herein; shall be familiar with the capabilities of prehospital providers, local EMS operational policies, and regional critical care referral patterns/protocols; and shall use established guidelines and medical protocols through voice contact and, if possible, appropriate cardiac telemetry signals between the physician and a representative of the Fire Department's EMS personnel.

SECTION 4: CONTINUING EDUCATION

(A) General

- (1) The Medical Center of Plano and the EMS Medical Director or his designee shall develop and provide basic and advanced continuing education (“CE”) programs for Paramedic and EMT personnel employed by the Fire Department. Such CE programs shall meet or exceed the State of Texas’ educational requirements for recertification of Paramedic and EMT personnel. CE classes shall be scheduled and conducted in a manner and location agreeable to both parties.
- (2) The Fire Department shall ensure that Paramedic and EMT personnel employed by the Fire Department attend the CE programs provided by the EMS Medical

Director or his designee so that the State of Texas' recertification and EMS Medical Director's requirements are met.

- (3) If any EMT or Paramedic of the Fire Department fails to receive the required number of CE hours for any one (1) year, then the Fire Department shall require that individual to participate in additional CE activities acceptable to the State of Texas and EMS Medical Director for credit.
- (4) The Fire Department shall secure, at its expense, locations for monthly CE classes provided by the EMS Medical Director or his designee. Such classes shall be held at locations that are conducive to learning.

SECTION 5: QUALITY ASSURANCE-QUALITY IMPROVEMENT

(A) General

- (1) The EMS Medical Director, in cooperation with the Fire Department, shall develop and participate in a system of ongoing review and evaluation of EMS rendered by the Fire Department. Such system may consist of, but not be limited to, in-service examinations, basic and advanced skills testing, and/or ride out evaluations by the EMS Medical Director and/or his designee.
- (2) The EMS Medical Director and the Fire Chief or his designee shall evaluate the competency of all EMTs and Paramedics employed by the Fire Department for the purpose of providing emergency patient care to the public. Final decisions regarding composite evaluations of all EMTs and Paramedics shall be made by the Fire Chief or his designee. The EMS Medical Director may make recommendations to the Fire Chief or his designee concerning the removal or remediation of EMTs and Paramedics. Such recommendations shall be in writing and accompanied by supporting documentation, as appropriate. The Fire Chief or his designee shall have sole and independent authority to determine what, if any, action should be taken.
- (3) The Fire Chief or his designee shall have sole and independent authority to prohibit any EMT or Paramedic from delivering advanced life support to the public should the EMT or Paramedic demonstrate an attitude or action that causes the EMS Medical Director to reasonably believe that the medical care rendered to the public by the EMT or Paramedic may be unacceptable, inadequate, or harmful. Within seventy-two (72) hours of any such incident, the EMS Medical Director shall provide written documentation of the facts and circumstances surrounding the incident, together with a recommendation to the Fire Chief or his designee. The Fire Chief or his designee will promptly initiate an investigation of the incident and will have sole and independent authority to determine what, if any, action should be taken.
- (4) EMS Patient Records, EKG Code Summaries, EKG rhythm strips, and all other records created or produced by employees of the Fire Department concerning the treatment and transportation of patients by the Fire Department are the property of the City. The EMS Medical Director or medical/nursing/paramedic staff under his direction may use such records for the limited purpose of developing quality assurance and educational programs to benefit the EMTs and Paramedics

employed by the Fire Department. The City retains all rights to this property. All such records are privileged as provided by law and shall not be made available to third parties, except as authorized by law.

SECTION 6: SUBCONTRACTING PERSONNEL SERVICES

(A) Authority to Subcontract

Subject to prior City approval, which will not be unreasonably withheld, the Medical Center of Plano may arrange with other entities to provide the components of on-line or off-line medical control and/or continuing medical education benefiting the EMT and Paramedic personnel employed by the Fire Department. The use of these services shall not incur any additional expense to the City beyond that set forth in Section 4(D).

(B) Personnel Resources

The Medical Center of Plano shall be responsible for monitoring the performance, activities, and conduct of the personnel resources contracted under subsection 6(A) above, with the implementation and/or maintenance of the quality assurance-quality improvement services and CE programs developed by the EMS Medical Director.

(C) Performance Complaints

Any complaints regarding the performance of personnel arranged by the Medical Center of Plano under subsection 6(A) above shall be made in writing to the Chief Executive Officer or designee of the Medical Center of Plano, with appropriate documentation. The Medical Center of Plano shall promptly investigate and shall reasonably respond to any such complaints and take appropriate remedial action.

SECTION 7: INSURANCE

(A) Commercial General Liability Insurance

During the term of this Agreement and any renewal or extension hereof, each of the Medical Center of Plano and any contractors performing services under this Agreement shall, at no cost or expense to the City, obtain and continuously maintain a Commercial General Liability Insurance Policy with a policy limit of at least **ONE MILLION AND 00/100 DOLLARS (\$1,000,000.00)** per occurrence and **TWO MILLION AND 00/100 DOLLARS (\$2,000,000.00)** in the aggregate. This policy shall contain all coverages, including but not limited to, Premises / Operations, Products and Completed Operations, and Personal Injury, with no basic coverages removed by exclusion.

(B) Physician's Professional Liability Insurance

During the term of this Agreement and any renewal or extension hereof, the EMS Medical Director shall, at no cost or expense to the City, obtain and continuously maintain a Physician's Malpractice Liability Insurance Policy with a combined single policy limit of at least **FIVE HUNDRED THOUSAND AND 00/100 DOLLARS (\$500,000.00)** per occurrence and **ONE MILLION FIVE HUNDRED THOUSAND AND 00/100 DOLLARS (\$1,500,000.00)** in the aggregate.

(C) Hospital Professional Liability Insurance

During the term of this Agreement and any renewal or extension hereof, the Medical Center of Plano shall, at no cost or expense to the City, obtain and continuously maintain a Hospital Professional Liability Insurance Policy with a policy limit of at least **FIVE MILLION AND 00/100 DOLLARS (\$5,000,000.00)**. Any subcontractors hired by the Medical Center of Plano shall comply with the professional liability insurance requirements with the appropriate coverage with a minimum policy limit of **FIVE MILLION AND 00/100 DOLLARS (\$5,000,000.00)**. Any subcontractor of the Medical Center of Plano who provides services under this Agreement shall provide the City with evidence of this coverage.

(D) Workers' Compensation and Employers' Liability Insurance

All Medical Center of Plano employees who provide services under this Agreement shall be covered by Workers' Compensation benefits up to the statutory limits if required by the State of Texas, in a manner acceptable under the laws of the State of Texas. The Medical Center of Plano waives all rights against the City and its agents, officers, directors, and employees for recovery of damages under the Medical Center of Plano workers' compensation and employers' liability insurance. The Medical Center of Plano must cause a waiver of subrogation to be effected under its workers' compensation coverage. In the event that the Medical Center of Plano is not required by the laws of the State of Texas to provide Workers' Compensation benefits, the Medical Center of Plano shall provide a written statement to that effect on company letterhead. More specifically, the Medical Center of Plano represents and warrants that in lieu of Workers' Compensation, it participates in an Employment Retirement Income Security Act-approved Employee Health and Safety Program ("Health and Safety Program").

(E) Additional Insurance Requirements

- (1) All insurance policies required hereunder shall endeavor to provide for at least thirty (30) days' written notice of cancellation, non-renewal, material change, or reduction in coverage of any policies, evidenced by return receipt or United States mail.
- (2) The Medical Center of Plano acknowledges and agrees that the City requires that all insurance companies providing the required insurance shall be authorized to transact business in Texas and rated at least "A" by A.M. Best's Key Rating Guide, or other equivalent rating service(s). However, based on the Medical Center of Plano's representation and warranty, the Commercial General Liability Insurance and Hospital Professional Liability Insurance are written through Health Care Indemnity, Inc. ("HCI"), which is not rated by A.M. Best's Key Rating Guide, but is authorized to transact business in Texas; therefore, the parties agree that the Medical Center of Plano may utilize HCI for the purpose of this Section 7(E)(2).

(F) Verification of Coverage

The Medical Center of Plano shall provide the City with certificates of insurance indicating the coverage required hereunder when the Medical Center of Plano delivers an executed copy of this Agreement to City. If this Agreement is renewed or extended by the City, a

certificate of insurance shall also be provided to the City prior to the date this Agreement is renewed or extended. The Medical Center of Plano shall provide the City with evidence that any/all subcontractors performing services under this Agreement have the same types and amounts of coverage as required herein; or that the subcontractors are included under the Medical Center of Plano's policy

SECTION 8: COMPENSATION

Compensation under this Agreement shall be according to Statement of Work, attached hereto as **Exhibit "A"**, based on services provided.

The Medical Center of Plano shall invoice the City on the first business day of the month during the term of this Agreement and any renewal or extension hereof. Such invoices shall be itemized to show services performed, expenses, and corresponding charges. The Medical Center of Plano shall keep accurate records of its services and expenses incurred in the performance of this Agreement and shall make the same available to the City for inspection and copying within five (5) days after the City's request for the same. Such records shall be kept by Medical Center of Plano for two (2) years following the expiration of this Agreement. No interest or other late payment charges shall ever be due.

The Medical Center of Plano recognizes that this Agreement shall commence upon the effective date of this Agreement and continue in full force and effect until termination in accordance with its provisions. The Medical Center of Plano and City recognize that the continuation of this Agreement after the close of any given fiscal year of the City shall be subject to City approval. In the event that the City does not approve the appropriation of funds for this Agreement, the Agreement shall terminate at the end of the fiscal year for which funds were appropriated and the parties shall have no further obligations hereunder.

SECTION 9: TERM

Unless otherwise terminated as provided herein, this Agreement will continue for an initial term of two (2) years, beginning on October 1, 2016.
Contract may be extended upon mutual agreement of the City and Medical Center of Plano for up to three (3) additional one (1) year renewals.

SECTION 10: TERMINATION

(A) Default

In the event of default by either party of any condition or obligation of this Agreement and upon written notice thereof describing the event(s) of default, the defaulting party shall cure the default within the time prescribed, which shall not be less than thirty (30) days. A failure to correct the default within the time prescribed will result in termination unless waived by the non-defaulting party. Termination of the Agreement will be without penalty or prejudice to any other remedy the defaulting party may be entitled to at law or in equity or otherwise under this Agreement.

(B) Fiscal Funding

In the event that the City does not approve the appropriation of funds for the City's performance of this Agreement, the Agreement shall terminate at the end of the fiscal year

for which funds were appropriated and the parties shall have no further obligations hereunder.

SECTION 11. INDEPENDENT CONTRACTOR

The Medical Center of Plano covenants and agrees that it is an independent contractor and not an officer, agent, servant or employee of the City; that the Medical Center of Plano shall have the exclusive control of and the exclusive right to control the details of the work performed hereunder, and all persons performing same, and shall be responsible for the acts and omissions of its officers, agents, employees, contractors, subcontractors and consultants. The doctrine of respondeat superior shall not apply as between the City and the Medical Center of Plano, its officers, agents, employees, contractors, subcontractors and consultants. Nothing herein shall be interpreted or construed as creating an association, partnership, joint venture, or joint enterprise between the parties or as imposing any partnership obligation or liability upon either party. Neither party has any right, power, or authority to enter any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other party. The parties to this Agreement are, and shall be considered for all purposes, independent contractors.

SECTION 12. INDEMNIFICATION

MEDICAL CENTER OF PLANO AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY AND ITS RESPECTIVE OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGMENTS, FINES, PENALTIES, COSTS AND EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM OR VIOLATIONS FOR WHICH RECOVERY OF DAMAGES, FINES, OR PENALTIES IS SOUGHT, SUFFERED BY ANY PERSON OR PERSONS (COLLECTIVELY, "CLAIMS"), THAT MAY ARISE OUT OF OR BE OCCASIONED BY MEDICAL CENTER OF PLANO'S BREACH OF ANY OF THE TERMS OR PROVISIONS OF THIS CONTRACT, VIOLATIONS OF LAW, OR BY ANY NEGLIGENT, GROSSLY NEGLIGENT, INTENTIONAL, OR STRICTLY LIABLE ACT OR OMISSION OF MEDICAL CENTER OF PLANO, ITS OFFICERS, AGENTS, EMPLOYEES, INVITEES, SUBCONTRACTORS, OR SUB-SUBCONTRACTORS AND THEIR RESPECTIVE OFFICERS, AGENTS, OR REPRESENTATIVES, OR ANY OTHER PERSONS OR ENTITIES FOR WHICH MEDICAL CENTER OF PLANO IS LEGALLY RESPONSIBLE IN THE PERFORMANCE OF THIS CONTRACT. THE INDEMNITY PROVIDED FOR IN THIS PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE SOLE NEGLIGENCE OF THE CITY, AND ITS OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONTRACTORS. THE CITY DOES NOT WAIVE ANY GOVERNMENTAL IMMUNITY OR OTHER DEFENSES AVAILABLE TO IT UNDER TEXAS OR FEDERAL LAW. THE PROVISIONS OF THIS PARAGRAPH ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND ARE NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY.

MEDICAL CENTER OF PLANO AT ITS OWN EXPENSE IS EXPRESSLY REQUIRED TO DEFEND CITY AGAINST ALL SUCH CLAIMS. CITY RESERVES THE RIGHT TO PROVIDE A PORTION OR ALL OF ITS OWN DEFENSE; HOWEVER, CITY IS UNDER NO OBLIGATION TO DO SO. ANY

SUCH ACTION BY CITY IS NOT TO BE CONSTRUED AS A WAIVER OF MEDICAL CENTER OF PLANO'S OBLIGATION TO DEFEND CITY OR AS A WAIVER OF MEDICAL CENTER OF PLANO'S OBLIGATION TO INDEMNIFY CITY PURSUANT TO THIS AGREEMENT. MEDICAL CENTER OF PLANO SHALL RETAIN DEFENSE COUNSEL WITHIN SEVEN (7) BUSINESS DAYS OF CITY'S WRITTEN NOTICE THAT CITY IS INVOKING ITS RIGHT TO INDEMNIFICATION UNDER THIS AGREEMENT. IF MEDICAL CENTER OF PLANO FAILS TO RETAIN COUNSEL WITHIN THE REQUIRED TIME PERIOD, CITY SHALL HAVE THE RIGHT TO RETAIN DEFENSE COUNSEL ON ITS OWN BEHALF AND MEDICAL CENTER OF PLANO SHALL BE LIABLE FOR ALL COSTS INCURRED BY THE CITY.

SECTION 13: MISCELLANEOUS PROVISIONS

(A) Authorization to Execute/Binding on Parties

The individuals executing this Agreement on behalf of the respective parties below represent to each other and to others that all appropriate and necessary action has been taken to authorize the individual who is executing this Agreement to do so for and on behalf of the party for which his or her signature appears, that there are no other parties or entities required to execute this Agreement in order for the same to be an authorized and binding agreement on the party for whom the individual is signing this Agreement, that each individual affixing his or her signature hereto is authorized to do so and that such authorization is valid and effective on the date hereof.

This Agreement shall not be considered fully executed or binding on the City until the same shall have been executed by Medical Center of Plano, the City Manager or his designee, and approved and accepted by the City Council of the City in open meeting as required by law.

This Agreement shall be binding upon the parties hereto, and their successors, heirs, representatives and assigns.

(B) Severability

The provisions of this Agreement are severable. If any paragraph, section, subdivision, sentence, clause, or phrase of this Agreement is for any reason held to be contrary to the law or contrary to any rule or regulation having the force and effect of the law, such decision shall not affect the remaining portions of the Agreement. However, upon the occurrence of such event, either party may terminate this Agreement by giving the other party thirty (30) days' written notice.

(C) No Prohibited Interest

The Medical Center of Plano acknowledges and represents that it is aware of the laws, City Charter, and City Code of Conduct regarding prohibited interests and that the existence of a prohibited interest at any time will render the Agreement voidable.

(D) Entire Agreement

This Agreement, and any attachments hereto, embodies the entire understanding and agreement between the parties and supersedes any prior oral or written agreements or understandings. Any modifications to this Agreement must be in writing and executed by both parties.

(E) Warranties/Representations

All warranties, representations and covenants made by one party to the other in this Agreement or in any certificate or other instrument delivered by one party to the other under this Agreement shall be considered to have been relied upon by the other party and will survive the satisfaction of any fees and/or obligations under this Agreement, regardless of any investigation made by either party.

(F) Governing Law/Venue

This entire Agreement is performable in Collin County, Texas, and the venue for any action related, directly or indirectly, to this Agreement or in any manner connected therewith shall be in a court of appropriate jurisdiction in Collin County, Texas. This Agreement shall be construed under the laws of the State of Texas.

(G) Notices

Any notice provided or permitted to be given under this Agreement must be in writing and may be served by depositing same in the United States Mail, addressed to the party to be notified, postage pre-paid and registered or certified with return receipt requested; facsimile; electronic mail, with documentation evidencing the addressee’s receipt thereof; or by delivering the same in person to such party a via hand-delivery service, or any courier service that provides a return receipt showing the date of actual delivery of same to the addressee thereof. Notice given in accordance herewith shall be effective upon receipt at the address of the addressee. For purposes of notification, the addresses of the Parties shall be as follows:

If to the Medical Center of Plano:

Charles Gressle
President and Chief Executive Officer
Columbia Medical Center of Plano
Subsidiary, L.P., d/b/a Medical Center of Plano
3901 W. 15th Street
Plano, TX 75075-7799

If to the City:

Fire Chief
206 N. Murphy Rd.
Murphy TX 75094

(H) Headings

AGREEMENT FOR EMERGENCY MEDICAL ADVISORY SERVICES

The headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation thereof.

(I) Non-Assignment

The Medical Center of Plano shall not assign any of its obligations or duties under this Agreement without first obtaining written consent from the City Council. This prohibition shall not apply to assignments to wholly owned subsidiaries of the Medical Center of Plano or mergers where the Medical Center of Plano retains at least eighty-five per cent (85%) of the controlling stock.

(J) Non-Waiver

Waiver by the City of any breach of this Agreement, or the failure of the City to enforce any of the provisions of this Agreement, at any time, shall not in any way affect, limit, or waive the City's right thereafter to enforce and compel strict compliance.

(K) Adherence to Transportation Policy

The parties to this Agreement expressly agree that nothing contained in this Agreement shall require any party or its representatives to refer or admit any patients to, or order any goods or services from the Medical Center of Plano. Notwithstanding any unanticipated effect of any provision of this Agreement, neither party will knowingly or intentionally conduct itself in such a manner as to violate the prohibition against fraud and abuse in connection with the Medicare and Medicaid programs (42 USC Section 1320a-7b), and any related state statutes or regulations, as they exist or may be amended. Furthermore, the parties and their representatives acknowledge they will strictly abide by the EMS Transportation Policy, as revised on May 26, 2009, during the term of this Agreement.

(L) No Excluded Individuals

City represents and warrants that it will not employ or contract with any individual or entity who is excluded from participation in Medicare or any federal health care program under Section 1128 and 1128A of the Social Security Act or as defined at 42 U.S.C. section 1320a-7b(f). The City represents and warrants that the City is not excluded from participation in any federal health care program as defined at 42 U.S.C. section 1320a-7b(f). The City will promptly notify the Medical Center of Plano if the City is excluded from participating under Medicare or any other governmental program, at which time the Medical Center of Plano will have the right to immediately terminate this Agreement.

(M) Multiple Counterparts

This Agreement may be executed in a number of identical counterparts, each of which shall be deemed an original for all purposes. An electronic mail and/or facsimile signature will also be deemed to constitute an original if properly executed and delivered to the other party.

(N) Representations

Each signatory represents this Agreement has been read by the party for which this Agreement is executed and that such party has had the opportunity to confer with its counsel.

(O) Assignment

This Agreement or any part thereof shall not be assigned or transferred by either party without the prior written consent of the other party.

(P) Indemnity

The parties agree that the Indemnity provision set forth in Section 12 herein is conspicuous and that the parties have read and understood the same.

(Q) No Third Party Beneficiaries

Nothing in this Agreement shall be construed to create any right in any third party not a signatory to this Agreement, and the parties do not intend to create any third party beneficiaries by entering into this Agreement.

(R) Consideration

This Agreement is executed by the parties hereto without coercion or duress for substantial consideration, the sufficiency of which is forever confessed.

(S) Immunity

It is expressly understood and agreed that, in the execution of this Agreement, the City has not waived, nor shall be deemed hereby to have waived, any immunity, governmental, sovereign or official, or defense that would otherwise be available to it against claims arising in the exercise of governmental powers and functions. By entering into this Agreement, the parties do not create any obligations, express or implied, other than those set forth herein.

(T) Warranties/Representations

All warranties, representations and covenants made by one party to the other in this Agreement or in any certificate or other instrument delivered by one party to the other under this Agreement shall be considered to have been relied upon by the other party and will survive the satisfaction of any fees and/or obligations under this Agreement, regardless of any investigation made by either party.

(U) Attorneys' Fees

In any legal proceeding brought to enforce the terms of this Agreement, the prevailing party, in addition to other remedies available, may recover its reasonable and necessary attorneys' fees from the non-prevailing party, subject to the limitations in § 271.153, TEX. LOC. GOV'T CODE, as it exists or may be amended.

(V) Reference to the Medical Center of Plano

When referring to the “Medical Center of Plano” herein, this Agreement shall refer to and be binding upon the Medical Center of Plano, and its officers, directors, partners, employees, representatives, contractors, subcontractors, licensees, invitees, agents, successors, assignees (as authorized herein), vendors, grantees, trustees, legal representatives and/or any other third parties for whom the Medical Center of Plano is legally responsible.

(W) Reference to the City

When referring to the “City” herein, this Agreement shall refer to and be binding upon the City, its Council Members, officers, agents, representatives, employees and/or any other authorized third parties for whom the City is legally responsible.

(X) Binding Effect

This Agreement shall be binding on and inure to the benefit of the parties.

(Y) Inconsistency or Conflict

In the event of an inconsistency or conflict between the provisions of this Agreement and any exhibit hereto, the provisions in this Agreement shall take precedence over the exhibit.

(Z) Miscellaneous Drafting Provisions

This Agreement shall be deemed drafted equally by the Parties hereto. The language of all parts of this Agreement shall be construed as a whole according to its fair meaning, and any presumptions or principle that the language herein is to be construed against any party shall not apply. Headings in this Agreement are for the convenience of the parties and are not intended to be used in construing this document.

IN WITNESS WHEREOF, the duly authorized representatives of the Medical Center of Plano and the City have executed this Agreement as of the date and year first written above.

**COLUMBIA MEDICAL CENTER OF
PLANO SUBSIDIARY, L.P., a Texas Limited
Partnership d/b/a MEDICAL CENTER OF
PLANO**

Date: _____, 2016

By: _____
Melissa McLeroy
Vice President and Chief Financial Officer

CITY OF MURPHY, TEXAS
a Texas home-rule municipality

Date: _____, 2016

By: _____
Mike Castro
City Manager

STATE OF TEXAS §
§
COUNTY OF COLLIN §

BEFORE ME, the undersigned authority, on this day personally appeared **Melissa McLeroy**, known to me to be one of the persons whose names are subscribed to the foregoing instrument; he acknowledged to me he is the President and Chief Executive Officer and duly authorized representative for **Columbia Medical Center of Plano Subsidiary, L.P., d/b/a Medical Center of Plano**, a Texas limited partnership, and he executed said instrument for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this ___ day of _____, 2016.

Notary Public in and for the State of Texas

STATE OF TEXAS §
§
COUNTY OF COLLIN §

BEFORE ME, the undersigned authority, on this day personally appeared **Mike Castro**, known to me to be one of the persons whose names are subscribed to the foregoing instrument; he acknowledged to me he is the City Manager and duly authorized representative for the **City of Murphy, Texas**, a Texas home-rule municipality, and he executed said instrument for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this ___ day of _____, 2016.

Notary Public in and for the State of Texas

CLINICAL AFFILIATION AGREEMENT

Pursuant to agreement for Emergency Medical Advisory Services (“Agreement”), this Clinical Affiliation Agreement is made as of this date October 1, 2016, by and between the City of Murphy, Texas (“City”) on behalf of Murphy Fire Department (“MFD”) hereinafter referred to as “MFD” and Columbia Medical Center of Plano Subsidiary, L.P., d/b/a Medical Center of Plano (“Hospital”) agree to implement a **Clinical Affiliation Agreement** (“Agreement”).

WITNESSETH:

Whereas, there is a recognized need to provide continuing education as provided within Agreement for Emergency Medical Advisory Services with Medical Center of Plano; and

Whereas, the City desires to fulfill the objectives as stated in **Exhibit A** and provide to its employees a clinical learning experience through the application of knowledge and skills in actual patient-centered situations in a health care Hospital and

Whereas, Hospital operates a comprehensive acute-care medical-surgical Hospital; and

Whereas, Hospital has agreed to make its Hospital available to City for such purposes

Now, Therefore, in consideration of the mutual promises contained herein, the parties hereby agree as follows:

SECTION 1: PURPOSE

Hospital agrees with the City to provide Clinical Affiliation Services under the terms and conditions of the Agreement; through the utilization of the assigned Medical Director or his successor.

SECTION 2: RESPONSIBILITIES OF MFD

A. General

Pursuant to Statement of Work of the Agreement, City will implement the clinical training services component of its CE Program at Hospital. The Program will be developed jointly by MFD and the Medical Director as assigned by the Agreement; and approved in advance by Hospital. Such responsibilities shall include, but not be limited to, the following: All students, faculty, employees, agents and representatives of MFD participating in the Program at Hospital (the "Program Participants") will be accountable to Hospital Administration. MFD will provide, on request by Hospital, any verifications or certifications required by this Agreement.

1. Orientation of students to the clinical experience at Hospital

2. Provide practical instruction to program participants before their clinical assignments at Hospital
3. Communicate with Hospital regarding performance and evaluation, absences and assignments of program participants, and other pertinent information;
4. Supervise program participants and their performance at Hospital
5. Perform other duties as may from time to time be agreed to between MFD and Hospital
6. Provide a liaison between MFD and the Hospital, to assist with scheduling of program participants and to ensure program participants are abiding by all rules and regulations of the Hospital
7. Implement any required program participant corrective action plans in accordance with MFD procedures; and if needed, removal of the program participants when they are not compliant.

All employees, agents and representatives of MFD participating in the Program at Hospital (the "Program Participants") shall be accountable to the Hospital's Administrator.

B. Participant Competency

Paramedic status is required by MFD for participation in this CE program. MFD will provide adequate documentation that all Program Participants are currently certified/licensed and in good standing with the State of Texas and the City of Murphy Fire Department, and are not subject to terms of a current probation or any other restriction.

C. Program Participant Statements

MFD will require each Program Participant to sign a Statement of Responsibility in the form attached as **Exhibit B**, and a Statement of Confidentiality in the form attached as **Exhibit C**.

D. Dress Code

MFD shall require the Program Participant to dress in accordance with dress and personal appearance standards approved by MFD. Such standards shall be in accordance with Hospital's standards regarding same.

E. Performance

MFD and all Program Participants shall perform its and their duties and services hereunder in accordance with all relevant local, state, and federal laws and shall comply with the standards and guidelines of all applicable accrediting bodies and the bylaws, rules and regulations of Hospital and any rules and regulations of School as may be in effect from time to time. Neither MFD nor any Program Participant shall interfere with or adversely affect the operation of Hospital or the performance of services therein.

F. Insurance

1. With a company acceptable to MFD and Hospital, MFD will carry and maintain professional liability insurance covering the acts and omissions of its Program

Participants while participating in clinical settings in accordance with this Agreement in amounts not less than \$1,000,000 per occurrence and \$3,000,000 in aggregate. If occurrence type liability insurance is not available, MFD will purchase claims-made liability insurance covering the same amounts. If claims made insurance is obtained during the term of this Agreement, then that insurance will be maintained throughout the term of this Agreement and, upon termination of this Agreement, or the expiration of or cancellation of the insurance whichever occurs first, MFD will purchase tail coverage insurance covering for a period of three years after the termination or cancellation to the same extent and amount as the claims made coverage covering the acts, and omissions of the student upon termination of its claims made policy, or student otherwise ceases to be insured.

2. MFD will at its own expense, carry, maintain and provide workers' compensation insurance, and unemployment insurance for MFD employees assigned to Hospital.
3. For all insurance required by this paragraph (d), MFD will require that Hospital be notified by the insurance carrier at least thirty days in advance of any cancellation or modifications of such insurance policy. In each instance, the insurance carrier will be reasonably acceptable to Hospital. MFD will provide to Hospital, upon request, certificates of insurance evidencing the above coverage and renewals thereof.

G. Health of Participants and Background Checks

MFD will be responsible for ensuring that all program participants have met, and have evidence on file, the following requirement for participation in the clinical education program, prior to, and not expiring anytime during the clinical rotation:

1. Negative Tuberculin (TB) Test (Annual requirement) (can be either TST or QFT) and/or negative CXR. If history of positive PPD test or having had TB, must provide documentation of negative chest x-ray or completed treatment; and
2. Proof of Rubella and Rubeola immunity by positive antibody titers or 2 doses of MMR; and
3. Varicella immunity, by positive history of chickenpox or proof of Varicella immunization; and
4. Proof of Hepatitis B immunization or declination of vaccine, if patient contact is anticipated.
5. Proof of Influenza vaccination during the Flu season, October 1 to March 31, (or dates defined by CDC), or a signed Declination Form; and
6. Tdap (Tetanus, Diphtheria and Pertussis) Booster (one dose as an adult) within 10 years; and
7. For cause drug screening policy in place; and

8. Trained in accordance with the Occupational Safety and Health Administration's (OSHA) Occupational Exposure to Bloodborne Pathogens Final rule, 29 CFR 1910.1030, as published in the Federal Register on Friday, December 6, 1991; and
9. Trained in the modes of transmission, epidemiology, and symptoms of Hepatitis B virus (HBV), Human Immunodeficiency virus (HIV), and other bloodborne pathogens; and
10. Trained in the methods of control that prevent or reduce exposure including universal precautions, appropriate engineering controls, work practices, and personal protective equipment usage.

H. Background Checks

MFD represents that it will timely conduct (or will timely have conducted) a background check on each and every Program Participant at the Hospital. Said background check shall include, at a minimum, the following:

1. Social Security Number Verification;
2. Criminal Search (7 years or up to 5 criminal searches);
3. Employment Verification to include reason for separation and eligibility for re-employment for each employer for 7 years (*not required for students younger than 21 years of age*);
4. Violent Sexual Offender and Predator Registry Search;
5. HHS/OIG List of Excluded Individuals/Entities;
6. GSA List of Parties Excluded from Federal Programs;
7. Education verification (Highest Degree Received)
8. U.S. Treasury, Office of Foreign Assets Control (OFAC), List of Specially Designated Nationals (SDN);
9. Applicable State Exclusion List, if one.

The background check for Program Participants who are licensed or certified caregivers shall include the above, and in addition, shall include the following:

1. Education verification (highest level);
2. Professional License Verification;
3. Certification & Designations Check;
4. Professional Disciplinary Action Search;

5. Department of Motor Vehicle Driving History, based on responsibilities;
6. Consumer Credit Report, based on responsibilities.

MFD shall provide an *Attestation of Satisfactory Background Investigation* in the form attached hereto as the Exhibit D prior to each student and staff/faculty member's participation in the Program at the Hospital. Should the background check disclose adverse information as to any Program Participant, School shall immediately remove said Program Participant from the Program.

I. Drug and Alcohol Testing

MFD represents that it maintains a "for cause" drug and alcohol testing policy for all program participants. MFD will be notified immediately if there is reasonable suspicion that the Program Participant has violated policy or has been involved in an "on the job" accident, which involves injury requiring medical treatment or evaluation of the Program Participant or another person, or property damage. MFD will ensure immediate removal of the participant from the clinical site and testing to include amphetamines, barbiturates, benzodiazepines, carisoprodol, opiates, fentanyl analogues, methadone, meperidine, marijuana, cocaine, and ETOH.

J. MFD Status

City represents and warrants to Hospital that MFD and its Program Participants participating hereunder: (i) are not currently excluded, debarred, or otherwise ineligible to participate in the Federal health care programs as defined in 42 U.S.C. Section 1320a-7b(f) (the "Federal health care programs"); (ii) are not convicted of a criminal offense related to the provision of health care items or services but has not yet been excluded, debarred or otherwise declared ineligible to participate in the Federal health care programs, and (iii) are not under investigation or otherwise aware of any circumstances which may result in MFD or a Program Participant being excluded from participation in the Federal health care programs. This shall be an ongoing representation and warranty during the term of this Agreement and the City shall immediately notify Hospital of any change in status of the representation and warranty set forth in this section. Any breach of this Paragraph 1(h) shall give Hospital the right to immediately terminate this Agreement for cause.

K. General Standards

MFD and all program participants will perform their duties and services under this Agreement in accordance with all relevant local, state and federal laws, and will comply with the standards and guidelines of all applicable accrediting bodies and the bylaws and rules and regulations of Hospital, and any rules and regulations of MFD. Neither party will interfere with or adversely affect the operation of Hospital or the performance of services. MFD will assign program participants who have completed sufficient classroom and other course work which allow for meaningful participation in a clinical experience without disruption to patient care or any other Hospital operations.

SECTION 3: RESPONSIBILITIES OF HOSPITAL**A. General**

1. Hospital will accept the Program Participants assigned to the Program by MFD and reasonably cooperate in the orientation of all Program Participants to Hospital. Hospital will provide reasonable opportunities for Program Participants, who will be supervised by MFD and Hospital, to observe and assist in various aspects of patient care to the extent permitted by applicable law and without disruption of patient care or Hospital operations, as determined by Hospital in its sole discretion. Hospital will coordinate Program Participants rotation and assignment schedule with its own schedule. Hospital will at all times retain ultimate control of the Hospital and responsibility for patient care.
2. Upon the request of MFD, Hospital will assist MFD in the evaluation of each Program Participant's performance in the Program. However, MFD will at all times remain solely responsible for the evaluation of Program Participants, and will indemnify and hold harmless Hospital for any expense or claim incurred by Hospital as a result of Hospital's assistance hereunder.

B. Withdrawal of Program Participant

Hospital may request that MFD withdraw or dismiss a program participant when his/her clinical performance is unsatisfactory to Hospital; or if his or her behavior, in Hospital's discretion, is disruptive or detrimental to Hospital and/or its patients. In that event, the program participant's participation in the Program will immediately cease. It is understood that all corrective action plans, up and including withdrawal from the Program, will be administered by MFD.

C. Medical Care

Hospital and or Program Participant will arrange for medical care including transportation of program participants who become ill or injured during a clinical education experience. In no event will Hospital be financially responsible for that medical care and treatment.

D. Facility Coordinator:

Hospital will utilize the assigned Medical Director, Mark Gamber D.O., or his successor, as a facility coordinator of clinical education whose responsibilities will be to ensure the orientation of the program participant to the Hospital; assist with planning the learning experience; and evaluate program participants at the request of MFD.

SECTION 4: COMPENSATION

All services provided by this Agreement are understood by both parties to be included in the existing Contract fee schedule.

SECTION 5: TERM

The terms of this Agreement shall begin effective with date of execution and shall continue through the end of the Contract agreement; expiring on September 30, 2019.

SECTION 6: TERM; TERMINATION

The initial term of this Agreement shall be 3 year(s), commencing on October 1, 2016 and ending on September 30, 2019.

The City may elect to terminate this portion of the CE program, and shall notify Hospital in writing at least 30 days prior to termination.

SECTION 7: MISCELLANEOUS**A. No Requirement to Refer**

Nothing in this Agreement requires or obligates MFD to admit or cause the admittance of a patient to Hospital, or to use its services. None of the benefits granted under this Agreement is conditioned on any requirement or expectation that the parties make referrals to, be in a position to make or influence referrals to, or otherwise generate business for the other party. Neither party is restricted from referring any service to, or otherwise generating any business for any other entity of their choosing.

B. Confidentiality

The Hospital and MFD, their agents, Program Participants, representatives and employees agree to keep strictly confidential and hold in trust all confidential information of Hospital and/or its patients and not disclose or reveal any confidential information to any third party without the express prior written consent of Hospital. City shall not disclose the terms of this Agreement to any person who is not a party to this Agreement, except as required by law or as authorized by Hospital. Unauthorized disclosure of confidential information or of the terms of this Agreement shall be a material breach of this Agreement and shall provide Hospital with the option of pursuing remedies for breach, or, notwithstanding any other provision of this Agreement, immediately terminating this Agreement upon written notice to City.

C. Independent Contract; No other Beneficiaries

The parties hereby acknowledge that they are independent contractors, and neither the City nor any of its agents, representatives, Program Participants, or employees shall be considered agents, representatives, or employees of Hospital. In no event shall this Agreement be construed as establishing a partnership or joint venture or similar relationship between the parties hereto. City shall be liable for its own debts, obligations, acts and omissions, including the payment of all required withholding, social security and other taxes or benefits. No Program Participant shall look to Hospital for any salaries,

insurance or other benefits. No Program Participant or other third person is entitled to, and shall not, receive any rights under this Agreement.

D. Non-Discrimination

There shall be no discrimination on the basis of race, national origin, religion, creed, sex, age, veteran status, or handicap in either the selection of students for participation in the Program, or as to any aspect of the clinical training; provided, however, that with respect to handicap, the handicap must not be such as would, even with reasonable accommodation, in and of itself preclude the Program Participant's effective participation in the Program.

E. Indemnification

To the extent permitted by applicable law and without waiving any defenses, City shall indemnify and hold harmless Hospital and its officers, medical and nursing staff, representatives and employees from and against all liabilities, claims, damages and expenses, including reasonable attorneys' fees, relating to or arising out of any act or omission of the City or any of its Program Participants, agents, representatives and employees under this Agreement, including, but not limited to, claims for personal injury, professional liability, or with respect to the failure to make proper payment of required taxes, withholding, employee benefits or statutory or other entitlements. Hospital shall indemnify School against liabilities, claims, damages and expenses, including reasonable attorneys' fees, incurred by City in defending or compromising actions brought against City arising out of or related to the Hospital's performance of duties hereunder.

F. Agreement

To the extent that this Agreement is not in conflict with Contract # EMS Medical Control, this Agreement and its accompanying Exhibits set forth the entire Agreement between the parties and supersedes any prior agreements, oral or written, and all other communications between the parties relating to the subject matter. This Agreement will not be modified or amended except by mutual written agreement. All continuing covenants, duties and obligations will survive the expiration or termination of the Agreement. All original terms as set forth in Contract # EMS Medical Control shall remain in full force.

G. Severability

If any provision of this Agreement is held to be invalid or unenforceable for any reason, this Agreement shall remain in full force and effect in accordance with its terms disregarding such unenforceable or invalid provision.

H. Captions

The captions contained herein are used solely for convenience and shall not be deemed to define or limit the provisions of this Agreement.

I. No Waiver

Any failure of a party to enforce that party's right under any provision of this Agreement shall not be construed or act as a waiver of said party's subsequent right to enforce any of the provisions contained herein.

J. Governing Law

This Agreement shall be governed and construed in accordance with the laws of the State of Texas ("State").

K. Assignment; Binding Effect

City may not assign or transfer any of its rights, duties or obligations under this Agreement, in whole or in part, without the prior written consent of Hospital. This Agreement shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors and permitted assigns.

L. Notices

All notices hereunder by either party to the other shall be in writing, delivered personally, by certified or registered mail, return receipt requested, or by overnight courier, and shall be deemed to have been duly given when delivered personally or when deposited in the United States mail, postage prepaid, addressed as follows:

If to Hospital: _____

Attention: Chief Executive Officer

Copy to: HCA
One Park Plaza, Bldg. 1, 2-East
Nashville, TN 37203

Attention: Operations Counsel

If to City: _____
Murphy Fire Rescue
206 N. Murphy Rd.

Murphy TX 75094

Attention: Fire Chief

or to such other persons or places as either party may from time to time designate by written notice to the other.

M. Execution of Agreement

This Agreement shall not become effective or in force until all of the below named parties have fully executed this Agreement.

N. HIPAA Requirements

To the extent applicable to this Agreement, the City agrees to comply with the Health Information Technology for Economic and Clinical Health Act of 2009 (the "HITECH ACT"),

the Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996, as codified at 42 USC § 1320d through d-8 (“HIPAA”) and any current and future regulations promulgated under either the HITECH Act or HIPAA including without limitation the federal privacy regulations contained in 45 C.F.R. Parts 160 and 164 (the “Federal Privacy Regulations”), the federal security standards contained in 45 C.F.R. Parts 160, 162 and 164 (the “Federal Security Regulations”) and the federal standards for electronic Transactions Regulations”, all as may be amended from time to time, and all collectively referred to herein as “HIPAA Requirements.” MFD further agrees not to use or disclose any Protected Health Information (as defined in 45 C.F.R. § 164.501) or Individually Identifiable Health Information (as defined in 42 USC § 1320d), other than as permitted by HIPAA Requirements and the terms of this Agreement. The School agrees to enter into any further agreements as necessary to facilitate compliance with HIPAA Requirements.

MFD shall direct its Program Participants to comply with the policies and procedures of Hospital, including those governing the use and disclosure of individually identifiable health information under federal law, specifically 45 CFR parts 160 and 164. Solely for the purpose of defining the Program Participants' role in relation to the use and disclosure of Hospital's protected health information, the Program Participants are defined as members of the Hospital's workforce, as that term is defined by 45 CFR 160.103, when engaged in activities pursuant to this Agreement. However, the Program Participants are not and shall not be considered to be employees of Hospital.

O. Compliance with Hospital Policies and Procedures

MFD and Program Participants shall comply with Hospital Policies and Procedures to the extent such Hospital Policies and Procedures do not conflict with the terms of this Agreement.

THE PARTIES HERETO have executed this Agreement as of the day and year first above written.

**COLUMBIA MEDICAL CENTER OF PLANO
Subsidiary L.P., d/b/a Medical Center of Plano**

By: _____
Sandra L. Haire
Senior Vice President, Patient Svcs and
Chief Nursing Officer

Date: _____

CITY OF MURPHY, TEXAS,

By: _____
Mike Castro, City Manager

Date: _____

ACKNOWLEDGEMENTS

STATE OF TEXAS)
)
COUNTY OF COLLIN)

This instrument was acknowledged before me on the ____ day of _____, 2016 by **Sandra L. Haire, Senior Vice President, Patient Services and Chief Nursing Officer.**

Notary Public in and for the State of Texas

STATE OF TEXAS)
)
COUNTY OF COLLIN)

This instrument was acknowledged before me on the ____ day of _____, 2016 by **Mike Castro, City Manager, City of Murphy, Texas.**

Notary Public in and for the State of Texas

EXHIBIT A**CLINICAL AFFILIATION OBJECTIVES**

During the clinical services training, the program participant will be precepted by the assigned EMS Medical Director, or his designee, as the participant evaluates and treats patients in the Hospital. The participant will have a current CPR card and will complete all hospital requirements per the student clinical affiliation agreement prior to participating in any hospital rotations. This will be tracked and recorded by the EMS Office.

Primary Objective

Enhance assessment and treatment skills of program participants

Secondary Objective

- Enhance assessment and treatment skills of paramedic personnel within a structured reporting environment; under the direct supervision EMS Medical Director or designee
 - Perform endotracheal intubation in the Emergency Department and/or Operating Room
 - Perform intravenous access and IO access
 - Listen to radio reports from other EMS agencies from the hospital receiving perspective
 - Review and evaluate 12 lead EKGs, lab results, routine x-rays, CT scans, and MRI
 - Participate in the administration of medications as approved by their designated protocol and EMS Medical Directors (IV, IM, IN, and IO)
 - Participate in the reduction and splinting of fractures and dislocations
 - Discuss continuum of care for critical events such as trauma, stroke, and STEMI
 - Attend Trauma Multidisciplinary Rounds and review relevant cases
 - Review relevant medical and trauma cases during ED rotations
 - Observe procedures and cases for those patient who may go to the cardiac catheterization lab, operating room, neurointerventional, etc.
 - Respond to Code Blue with ED Physician
- Program participant will be required to review skills performed at the end of their clinical shift with EMS Medical Director or designee. Skills tracking card will be signed by EMS Medical Director or designee and forwarded to EMS Department for skills tracking.

EXHIBIT B

STATEMENT OF RESPONSIBILITY

For and in consideration of the benefit provided the undersigned in the form of experience in a clinical setting at Columbia Medical Center of Plano Subsidiary, L.P. d/b/a Medical Center of Plano ("Hospital"), the undersigned and his/her heirs, successors and/or assigns do hereby covenant and agree to assume all risks and be solely responsible for any injury or loss sustained by the undersigned while participating in the Program operated by the contracted school at Hospital unless such injury or loss arises solely out of Hospital's gross negligence or willful misconduct.

Program Participant Signature

Printed Name

Date: _____

EXHIBIT C**CONFIDENTIALITY STATEMENT**

I understand that the Hospital or business entity (the "Hospital") for which I work, volunteer or provide services manages health information as part of its mission to treat patients. Further, I understand that the Hospital has a legal and ethical responsibility to safeguard the privacy of all patients and to protect the confidentiality of their patients' health information. Additionally, the Hospital must assure the confidentiality of its human resources, payroll, fiscal, research, internal reporting, strategic planning information, or any information that contains Social Security numbers, health insurance claim numbers, passwords, PINs, encryption keys, credit card or other financial account numbers (collectively, with patient identifiable health information, "Confidential Information").

In the course of my employment/assignment at the Hospital, I understand that I may come into the possession of this type of Confidential Information. I will access and use this information only when it is necessary to perform my job related duties in accordance with the Hospital's Privacy and Security Policies, which are available on the Hospital intranet (on the Security Page) and the Internet (under Ethics & Compliance). I further understand that I must sign and comply with this Agreement in order to obtain authorization for access to Confidential Information or Hospital systems.

General Rules:

1. I will act in the best interest of the Hospital and in accordance with its Code of Conduct at all times during my relationship with the Hospital.
2. I understand that I should have no expectation of privacy when using Hospital information systems. The Hospital may log, access, review, and otherwise utilize information stored on or passing through its systems, including email, in order to manage systems and enforce security.
3. I understand that violation of this Agreement may result in disciplinary action, up to and including termination of employment, suspension, and loss of privileges, and/or termination of authorization to work within the Hospital, in accordance with the Hospital's policies.

Protecting Confidential Information:

1. I understand that any Confidential Information, regardless of medium (paper, verbal, electronic, image or any other), is not to be disclosed or discussed with anyone outside those supervising, sponsoring or directly related to the learning activity.
2. I will not disclose or discuss any Confidential Information with others, including friends or family, who do not have a need to know it. I will not take media or documents containing Confidential Information home with me unless specifically authorized to do so as part of my job. Case presentation material will be used in accordance with Hospital policies.
3. I will not publish or disclose any Confidential Information to others using personal email, or to any Internet sites, or through Internet blogs or sites such as Facebook or Twitter. I will only use such communication methods when explicitly authorized to do so in support of Hospital business and within the permitted uses of Confidential Information as governed by regulations such as HIPAA.
4. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any Confidential Information except as properly authorized. I will only reuse or destroy media in accordance with Hospital Information Security Standards and Hospital record retention policy.

5. In the course of treating patients, I may need to orally communicate health information to or about patients. While I understand that my first priority is treating patients, I will take reasonable safeguards to protect conversations from unauthorized listeners. Whether at the School or at the Hospital, such safeguards include, but are not limited to: lowering my voice or using private rooms or areas (not hallways, cafeterias or elevators) where available.
6. I will not make any unauthorized transmissions, inquiries, modifications, or purgings of Confidential Information. I will not access data on patients for whom I have no responsibilities or a need-to-know the content of the PHI concerning those patients.
7. I will not transmit Confidential Information outside the Hospital network unless I am specifically authorized to do so as part of my job responsibilities. If I do transmit Confidential Information outside of the Hospital using email or other electronic communication methods, I will ensure that the Information is encrypted according to Hospital Information Security Standards.

Following Appropriate Access:

1. I will only access or use systems or devices I am officially authorized to access, and will not demonstrate the operation or function of systems or devices to unauthorized individuals.
2. I will only access software systems to review patient records or Hospital information when I have a business need to know, as well as any necessary consent. By accessing a patient's record or Hospital information, I am affirmatively representing to the Hospital at the time of each access that I have the requisite business need to know and appropriate consent, and the Hospital may rely on that representation in granting such access to me.

Using Portable Devices and Removable Media:

1. I will not copy or store Confidential Information on removable media or portable devices such as laptops, personal digital assistants (PDAs), cell phones, CDs, thumb drives, external hard drives, etc., unless specifically required to do so by my job. If I do copy or store Confidential Information on removable media, I will encrypt the information while it is on the media according to Hospital Information Security Standards
2. I understand that any mobile device (Smart phone, PDA, etc.) that synchronizes Hospital data (e.g., Hospital email) may contain Confidential Information and as a result, must be protected. Because of this, I understand and agree that the Hospital has the right to:
 - a. Require the use of only encryption capable devices.
 - b. Prohibit data synchronization to devices that are not encryption capable or do not support the required security controls.
 - c. Implement encryption and apply other necessary security controls (such as an access PIN and automatic locking) on any mobile device that synchronizes Hospital data regardless of it being a Hospital or personally owned device.
 - d. Remotely "wipe" any synchronized device that: has been lost, stolen or belongs to a terminated employee or affiliated partner.
 - e. Restrict access to any mobile application that poses a security risk to the Hospital network.

Doing My Part – Personal Security:

1. I understand that I will be assigned a unique identifier (e.g., 3-4 User ID) to track my access and use of Confidential Information and that the identifier is associated with my personal data provided as part of the initial and/or periodic credentialing and/or employment verification processes.

2. I will:
 - a. Use only my officially assigned User-ID and password (and/or token (e.g., SecurID card)).
 - b. Use only approved licensed software.
 - c. Use a device with virus protection software.
3. I will never:
 - a. Disclose passwords, PINs, or access codes.
 - b. Use tools or techniques to break/exploit security measures.
 - c. Connect unauthorized systems or devices to the Hospital network.
4. I will practice good workstation security measures such as locking up diskettes when not in use, using screen savers with activated passwords, positioning screens away from public view.
5. I will immediately notify my manager, Hospital Information Security Official (FISO), Director of Information Security Operations (DISO), or Hospital or Corporate Client Support Services (CSS) help desk if:
 - a. my password has been seen, disclosed, or otherwise compromised;
 - b. media with Confidential Information stored on it has been lost or stolen;
 - c. I suspect a virus infection on any system;
 - d. I am aware of any activity that violates this agreement, privacy and security policies; or
 - e. I am aware of any other incident that could possibly have any adverse impact on Confidential Information or Hospital systems.

Upon Termination:

1. I agree that my obligations under this Agreement will continue after termination of my employment, expiration of my contract, or my relationship ceases with the Hospital.
2. Upon termination, I will immediately return any documents or media containing Confidential Information to the Hospital.
3. I understand that I have no right to any ownership interest in any Confidential Information accessed or created by me during and in the scope of my relationship with the Hospital.

By signing this document, I acknowledge that I have read this Agreement and I agree to comply with all the terms and conditions stated above.

Signature	Hospital Name and COID	Date
Printed Name	Business Entity Name	

EXHIBIT D**Attestation Letter
The Medical Center of Plano EMS Medical Control
Clinical Track Program Participant Eligibility Form**

This letter is to verify that Murphy Fire Department and _____ (Program Participant) have met and, has evidence on file, the background investigation Level I requirements as outlined in HCA's Human Resources Policy HR.OP.002. Level I requirements are:

- Confirmation of a valid Texas EMS license or certification
- Education Verification
- Professional Disciplinary Action Search
- Social Security Number verification
- Criminal Search (7 years or up to 5 criminal searches)
- Employment Verification to include reason for separation and eligibility for reemployment for each employer for 7 years (not required for students younger than 21)
- Violent Sexual Offender and Predator Registry Search
- HHS/OIG List of Excluded Individuals/Entities
- GSA List of parties Excluded from Federal Programs
- US Treasury, Office of Foreign Asset Control (OFAC), List of Specially Designated Nations (SDN)
- Texas Medicaid Exclusions List
- Current BLS

As a Chief Officer of the Plano Fire, I attest that the above named person is in compliance with the following:

Bloodborne Pathogens Training:

1. Trained in accordance with the Occupational Safety and Health Administration's (OSHA) Occupational Exposure to Bloodborne Pathogens Final rule, 29 CFR 1910.1030, as published in the Federal Register on Friday, December 6, 1991.
2. Trained in the modes of transmission, epidemiology, and symptoms of Hepatitis B virus (HBV), Human Immunodeficiency virus (HIV), and other bloodborne pathogens.
3. Trained in the methods of control that prevent or reduce exposure including universal precautions, appropriate engineering controls, work practices, and personal protective equipment usage.

I certify that Murphy Fire Department and _____ (Program Participant) have met, and have evidence on file, the following requirement for participation in the clinical education program, prior to, and not expiring anytime during the clinical rotation:

- Required immunizations completed including:
 - Negative Tuberculin (TB) Test (Annual requirement) (can be either TST or QFT) and/or negative CXR. If history of positive PPD test or having had TB, must provide documentation of negative chest x-ray or completed treatment.
 - Full Hepatitis B Series and/or immunity to Hepatitis B
 - Influenza/Seasonal Seasonal Flu Immunization required annually during flu season usually from September through March or April. Exceptions made for medical and religious reasons, but must adhere to hospital policies.
 - MMR (Measles/Rubeola, Mumps, & Rubella/German Measles) Immunization Documentation of 2 doses or positive titers
 - Varicella vaccination or titer
 - TDaP (Tetanus, Diphtheria and Pertussis) Booster (one dose as an adult) within 10 years
- Liability Insurance
- 10 Panel Drug Screening – must be completed 6 months or less before starting at The Medical Center of Plano

In addition, I certify that Murphy Fire Department and _____ (Program Participant) have completed, and have evidence on file, all required forms for participation in the clinical education program, prior to, and not expiring anytime during the clinical rotation:

- Confidentiality and Security Agreement
- Education Guest Addendum
- Statement of Responsibility Form
- Policy 900-RI-101 Healthcare Students and Student Observers in Clinical/ Patient Care Areas
- Acknowledgement of Student Policies and Procedures form
- DFW Hospital Council's Standard Hospital Orientation Booklet
- Acknowledgement of the DFW Hospital Council's Standard Hospital Orientation Booklet Form

Chief Officer's
Printed Name/Signature:

_____ / _____

Title: _____

Date: _____

BUSINESS ASSOCIATE AGREEMENT**(Facility Agreement)**

This Business Associate Agreement (“**Agreement**”) dated October 1, 2016 (“**Effective Date**”), is entered into by and between Columbia Medical Center of Plano Subsidiary, L.P. d/b/a Medical Center of Plano (“**Facility**”) and (“**Business Associate**”), each a “**Party**” and collectively, the “**Parties.**”

WHEREAS, Facility is a covered entity (“**Covered Entity**”) as defined in the federal regulations at 45 C.F.R. Parts 160 and 164 (the “**Privacy Standards**”) promulgated pursuant to the Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) and the Health Information Technology for Economic and Clinical Health Act of 2009 (“**HITECH**”);

WHEREAS, pursuant to HIPAA and HITECH the U.S. Department of Health & Human Services (“**HHS**”) promulgated the Privacy Standards and the security standards at 45 C.F.R. Parts 160 and 164 (the “**Security Standards**”) requiring certain individuals and entities subject to the Privacy Standards and/or the Security Standards to protect the privacy and security of certain individually identifiable health information (“**Protected Health Information**” or “**PHI**”), including electronic protected health information (“**EPHI**”);

WHEREAS, the Parties wish to comply with Privacy Standards and Security Standards as amended by the HHS regulations promulgated on January 25, 2013, entitled the “Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules Under the Health Information Technology for Economic and Clinical Health Act and the Genetic Information Nondiscrimination Act,” as such may be revised or amended by HHS from time to time;

WHEREAS, in connection with Business Associate’s performance under its agreement(s) and/or other documented arrangements between Facility and Business Associate (collectively “**Business Arrangements**”), Business Associate may provide services for, or on behalf of, Facility that require Business Associate to use, disclose, access, create, maintain and/or transmit health information that is protected by state and/or federal law; and

WHEREAS, Facility desires that Business Associate use and disclose PHI and/or EPHI in accordance with the terms specified herein, and the Parties desire to enter into this Agreement;

NOW, THEREFORE, in consideration of the mutual promises set forth in this Agreement and the Business Arrangements, and other good and valuable consideration, the sufficiency and receipt of which are hereby severally acknowledged, the parties agree as follows:

1. **Business Associate Obligations.** Business Associate may use, disclose, access, create, maintain and/or transmit health information that is protected under applicable state and/or federal law, including without limitation, PHI and EPHI. Business Associate acknowledges and agrees it meets the definition of a “**business associate**” at 45 C.F.R. §160.103. All capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in the Privacy Standards, Security Standards or the HITECH Act, as applicable (collectively referred to hereinafter as the “**Confidentiality Requirements**”). All references to PHI herein shall be construed to include EPHI. PHI shall mean only that PHI Business Associate uses, discloses, accesses, creates, maintains and/or transmits for or on behalf of Facility

pursuant to the Business Arrangements. The Parties hereby acknowledge that the definition of PHI includes “**Genetic Information**” as set forth at 45 C.F.R. §160.103. Business Associate agrees not to use or disclose (or permit the use or disclosure of) PHI in a manner that would violate the Confidentiality Requirements if the PHI were used or disclosed by Facility in the same manner. To the extent the Business Associate is to carry out Facility’s obligations under the Confidentiality Requirements, the Business Associate shall comply with the provision(s) of the Confidentiality Requirements that would apply to the Facility in the performance of such obligation(s).

2. **Use of PHI.** Except as otherwise required by law, Business Associate shall use PHI in compliance with 45 C.F.R. § 164.504(e). Business Associate agrees not to use (or permit the use of) PHI in a manner that would violate the Confidentiality Requirements if the PHI were used by the Facility in the same manner. Furthermore, Business Associate shall use PHI: (i) solely for Facility’s benefit and only for the purpose of performing services for, or on behalf of, Facility as such services are defined in Business Arrangements, and (ii) as necessary for the proper management and administration of the Business Associate or to carry out its legal responsibilities, provided that such uses are permitted under federal and state law. Facility shall retain all rights in the PHI not granted herein. Except as necessary to perform services for Facility under the Business Arrangements, Business Associate may not de-identify PHI or other identifiable data without the express written authorization of Facility. All de-identification of PHI must be performed in accordance with the Confidentiality Requirements, specifically, 45 C.F.R. §164.514(b).

3. **Disclosure of PHI.**

3.1. Subject to any limitations in this Agreement, Business Associate may disclose PHI to any third party as necessary to perform its obligations under the Business Arrangements and as permitted or required by applicable federal and state law. Business Associate agrees not to disclose (or permit the disclosure of) PHI in a manner that would violate the Confidentiality Requirements if the PHI was disclosed by the Facility in the same manner. Further, Business Associate may disclose PHI for the proper management and administration of the Business Associate, provided that: (i) such disclosures are required by law, or (ii) Business Associate: (a) obtains reasonable assurances from any third party to whom the information is disclosed that it will be held confidential and further used and disclosed only as required by law or for the purpose for which it was disclosed to the third party; and (b) requires the third party to agree to immediately notify Business Associate of any instances of which it is aware that PHI is being used or disclosed for a purpose that is not otherwise provided for in this Agreement or for a purpose not expressly permitted by the Confidentiality Requirements. Business Associate shall report to Facility any use or disclosure of PHI not permitted by this Agreement of which it becomes aware. Such report shall be made within five (5) business days of the Business Associate becoming aware of such use or disclosure.

3.2. If Business Associate uses or contracts with any agent, including a subcontractor (collectively, “**Subcontractors**”) that uses, discloses, accesses, creates, receives, maintains, or transmits PHI on behalf of Facility, Business Associate shall require its Subcontractors to agree in writing to the same restrictions and conditions that apply to the Business Associate under this Agreement; specifically, Business Associate agrees to enter into business associate agreements with its Subcontractors that

meet the requirements of the Confidentiality Requirements; including but not limited to 45 C.F.R. §§164.314, 164.410, 164.502 and 164.504(e). In addition to Business Associate's obligations under **Section 9**, Business Associate agrees to mitigate, to the extent practical and unless otherwise requested by Facility in writing, any harmful effect that is known to Business Associate and is the result of a use or disclosure of PHI by Business Associate or any Subcontractors in violation of this Agreement. Additionally, Business Associate shall ensure that all disclosures of PHI by Business Associate and the third party comply with the principle of "**minimum necessary use and disclosure**," (i.e., in accordance with 45 C.F.R. §164.502(b), only the minimum PHI that is necessary to accomplish the intended purpose may be disclosed).

4. **Individual Rights Regarding Designated Record Sets.** If Business Associate maintains a Designated Record Set on behalf of Facility, Business Associate shall: (i) provide access to, and permit inspection and copying of, PHI by Facility under conditions and limitations required under 45 C.F.R. §164.524, as it may be amended from time to time, and (ii) amend PHI maintained by Business Associate as requested by Facility. Business Associate shall respond to any request from Facility for access by an Individual within five (5) business days of such request and shall make any amendment requested by Facility within ten (10) business days of such request. Any information requested under this **Section 4** shall be provided in the form or format requested, if it is readily producible in such form or format. Business Associate may charge a reasonable fee based upon the Business Associate's labor costs in responding to a request for electronic information (or a cost-based fee for the production of non-electronic media copies). Business Associate shall notify Facility within five (5) business days of receipt of any request for access or amendment by an Individual. Facility, not Business Associate, shall determine whether to grant or deny any access or amendment requested by the Individual. Business Associate shall have a process in place for requests for amendments and for appending such requests to the Designated Record Set when requested by Facility.

5. **Accounting of Disclosures.** Business Associate shall make available to Facility in response to a request from an Individual, information required for an accounting of disclosures of PHI with respect to the Individual in accordance with 45 CFR §164.528 (or such shorter time as may be required by state or federal law). Business Associate shall provide to Facility such information necessary to provide an accounting within thirty (30) days of Facility's request or such shorter time as may be required by state or federal law. Such accounting must be provided without cost to the Individual or to Facility if it is the first accounting requested by an individual within any twelve (12) month period. For subsequent accountings within a twelve (12) month period, Business Associate may charge a reasonable fee based upon the Business Associate's labor costs in responding to a request for electronic information (or a cost-based fee for the production of non-electronic media copies) so long as Business Associate informs the Facility and the Facility informs the Individual in advance of the fee, and the Individual is afforded an opportunity to withdraw or modify the request. Such accounting obligations shall survive expiration or termination of this Agreement and shall continue as long as Business Associate maintains PHI.

6. **Withdrawal of Authorization.** If the use or disclosure of PHI under this Agreement is based upon an Individual's specific authorization regarding the use of his or her PHI, and: (i) the Individual revokes such authorization in writing, (ii) the effective date of such authorization has expired, or (iii) the authorization is found to be defective in any manner that renders it invalid for whatever reason, then

Business Associate agrees, if it has notice of such revocation or invalidity, to cease the use and disclosure of any such Individual's PHI except to the extent Business Associate has relied on such use or disclosure, or where an exception under the Confidentiality Requirements expressly applies.

7. **Records and Audit.** Business Associate shall make available to HHS or its agents, its internal practices, books, and records relating to the use and disclosure of PHI received from, created, or received by Business Associate on behalf of Facility for the purpose of determining Facility's compliance with the Confidentiality Requirements, in a time and manner designated by HHS. Except to the extent prohibited by law, Business Associate agrees to notify Facility immediately upon receipt by Business Associate of any and all requests by or on behalf of any and all federal, state and local government authorities served upon Business Associate for PHI.

8. **Implementation of Security Standards; Notice of Security Incidents.** Business Associate will comply with the Security Standards and, by way of example and not limitation, use appropriate safeguards to prevent the use or disclosure of PHI other than as expressly permitted under this Agreement. In accordance with the Security Standards, Business Associate will implement administrative, physical, and technical safeguards that protect the confidentiality, integrity and availability of the PHI that it uses, discloses, accesses, creates, receives, maintains or transmits. To the extent feasible, Business Associate will use commercially reasonable efforts to ensure that the technology safeguards used by Business Associate to secure PHI will render such PHI unusable, unreadable and indecipherable to individuals unauthorized to acquire or otherwise have access to such PHI in accordance with HHS Guidance published at 74 Federal Register 19006 (April 17, 2009) or such later regulations or guidance promulgated by HHS or issued by the National Institute for Standards and Technology ("NIST") concerning the protection of identifiable data such as PHI. Business Associate will promptly report to Facility any Security Incident of which it becomes aware; provided, however, that Facility acknowledges and shall be deemed to have received notice from Business Associate that there are routine occurrences of: (i) unsuccessful attempts to penetrate computer networks or services maintained by Business Associate; and (ii) immaterial incidents such as "pinging" or "denial of services" attacks. At the request of Facility, Business Associate shall identify: the date of the Security Incident, the scope of the Security Incident, Business Associate's response to the Security Incident, and to the extent permitted by law, the identification of the party responsible for causing the Security Incident, if known.

9. **Data Breach Notification and Mitigation.**

9.1. **HIPAA Data Breach Notification and Mitigation.** Business Associate agrees to implement reasonable systems for the discovery and prompt reporting of any "breach" of "unsecured PHI" as those terms are defined by 45 C.F.R. §164.402 (hereinafter a "**HIPAA Breach**"). The Parties acknowledge and agree that 45 C.F.R. §§164.404 and 164.410, as described below in this **Section 9.1**, govern the determination of the date of a HIPAA Breach. In the event of any conflict between this **Section 9.1** and the Confidentiality Requirements, the more stringent requirements shall govern. Business Associate will, following the discovery of a HIPAA Breach, notify Facility immediately and in no event later than five (5) business days after Business Associate discovers such HIPAA Breach, unless Business Associate is prevented from doing so by 45 C.F.R. §164.412 concerning law enforcement investigations. For purposes of reporting a HIPAA Breach to Facility, the discovery of a

HIPAA Breach shall occur as of the first day on which such HIPAA Breach is known to the Business Associate or, by exercising reasonable diligence, would have been known to the Business Associate. Business Associate will be considered to have had knowledge of a HIPAA Breach if the HIPAA Breach is known, or by exercising reasonable diligence would have been known, to any person (other than the person committing the HIPAA Breach) who is an employee, officer or other agent of the Business Associate. No later than seven (7) business days following a HIPAA Breach, Business Associate shall provide Facility with sufficient information to permit Facility to comply with the HIPAA Breach notification requirements set forth at 45 C.F.R. §164.400 *et seq.* Specifically, if the following information is known to (or can be reasonably obtained by) the Business Associate, Business Associate will provide Facility with: (i) contact information for individuals who were or who may have been impacted by the HIPAA Breach (e.g., first and last name, mailing address, street address, phone number, email address); (ii) a brief description of the circumstances of the HIPAA Breach, including the date of the HIPAA Breach and date of discovery; (iii) a description of the types of unsecured PHI involved in the HIPAA Breach (e.g., names, social security number, date of birth, address(es), account numbers of any type, disability codes, diagnostic and/or billing codes and similar information); (iv) a brief description of what the Business Associate has done or is doing to investigate the HIPAA Breach, mitigate harm to the individual impacted by the HIPAA Breach, and protect against future HIPAA Breaches; and (v) appoint a liaison and provide contact information for same so that the Facility may ask questions or learn additional information concerning the HIPAA Breach. Following a HIPAA Breach, Business Associate will have a continuing duty to inform Facility of new information learned by Business Associate regarding the HIPAA Breach; including but not limited to, the information described in items (i) through (v), above. This **Section 9.1** shall survive the expiration or termination of this Agreement and shall remain in effect for so long as Business Associate maintains PHI.

9.2. Data Breach Notification and Mitigation Under Other Laws. In addition to the requirements of **Section 9.1**, Business Associate agrees to implement reasonable systems for the discovery and prompt reporting of any breach of individually identifiable information (including but not limited to PHI and referred to hereinafter as “**Individually Identifiable Information**”) that, if misused, disclosed, lost or stolen, would trigger an obligation under one or more State data breach notification laws (each a “**State Breach**”) to notify the individuals who are the subject of the information. Business Associate agrees that in the event any Individually Identifiable Information is lost, stolen, used or disclosed in violation of one or more State data breach notification laws, Business Associate shall promptly: (i) notify the Facility within five (5) business days of such misuse, disclosure, loss or theft; (ii) cooperate and assist Facility with any investigation into any State Breach or alleged State Breach; (iii) cooperate and assist Facility with any investigation into any State Breach or alleged State Breach conducted by any State Attorney General or State Consumer Affairs Department (or their respective agents); (iv) cooperate with Facility regarding the Facility’s and Business Associate’s obligations to mitigate to the extent practicable any potential harm to the individuals impacted by the State Breach; and (v) assist with the implementation of any decision by any State agency, including any State Attorney General or State Consumer Affairs Department (or their respective agents), to notify individuals impacted or potentially impacted by a State Breach. This **Section 9.2** shall survive the expiration or termination of this Agreement and shall remain in effect for so long as Business

Associate maintains PHI or Individually Identifiable Information.

9.3. **Breach Indemnification.** Business Associate shall indemnify, defend and hold Facility, and each of its officers, directors, employees, agents, successors and assigns harmless from and against any and all losses, claims, actions, demands, liabilities, damages, costs and expenses (including costs of judgments, settlements, court costs and reasonable attorneys' fees actually incurred) (collectively "**Information Disclosure Claims**") arising from or related to: (i) the use or disclosure of Individually Identifiable Information (including PHI) in violation of the terms of this Agreement or applicable law; and (ii) whether in oral, paper or electronic media, any HIPAA Breach of unsecured PHI and/or State Breach of Individually Identifiable Information. If Business Associate assumes the defense of an Information Disclosure Claim, Facility shall have the right, at its expense, to participate in the defense of such Information Disclosure Claim. Business Associate shall not take any final action with respect to any Information Disclosure Claim without the prior written consent of Facility. To the extent permitted by law, Business Associate shall be fully liable to Facility for any acts, failures or omissions of Business Associate's Subcontractors and agents in furnishing the services as if they were Business Associate's own acts, failures or omissions. For purposes of this **Section 9.3**, PHI and Individually Identifiable Information shall refer to PHI and Individually Identifiable Information used, disclosed, accessed, created, maintained, received or transmitted by and/or under the direction or control of Business Associate and/or its Subcontractors at the time of any HIPAA Breach and/or State Breach. This **Section 9.3** shall survive the expiration or termination of this Agreement and shall remain in effect for so long as Business Associate maintains PHI or Individually Identifiable Information.

10. **Term and Termination.**

10.1. **Termination.** This Agreement shall commence on the Effective Date and shall remain in effect until terminated in accordance with the terms of this **Section 10**; *provided, however*, that termination shall not affect the respective obligations or rights of the parties arising under this Agreement prior to the effective date of termination, all of which shall continue in accordance with their terms.

10.2. **Termination without Cause.** Facility shall have the right to terminate this Agreement for any reason upon thirty (30) days written notice to Business Associate.

10.3. **Termination for Cause.** Either Party may immediately terminate this Agreement as set forth in this **Section 10.3** ("**Terminating Party**") and shall have no further obligations to the other Party ("**Terminated Party**") hereunder if either of the following events have occurred and are continuing to occur:

- i. The Terminated Party fails to observe or perform any material covenant or obligation contained in this Agreement for ten (10) days after written notice thereof has been given to the Terminated Party; or
- ii. The Terminated Party materially violates any provision of the Confidentiality Requirements or other applicable federal or state privacy law relating to the obligations of the Terminated

Party under this Agreement.

10.4. Facility May Terminate Business Arrangements in Event of for Cause Termination.

Termination of this Agreement for either of the two reasons set forth in **Section 10.3** above shall be cause for Facility to immediately terminate for cause any Business Arrangement pursuant to which Business Associate is entitled to receive PHI from Facility.

10.5. Termination Upon Conclusion of Business Arrangements. Upon the termination of all Business Arrangements, either Party may terminate this Agreement by providing written notice to the other Party.

10.6. Return of PHI Upon Termination. Upon termination of this Agreement for any reason, Business Associate agrees either to return to Facility or to destroy all PHI received from Facility or otherwise through the performance of services for Facility, that is in the possession or control of Business Associate or its agents. In the case of PHI which is not feasible to return or destroy, Business Associate shall extend the protections of this Agreement to such PHI and limit further uses and disclosures of such PHI to those purposes that make the return or destruction infeasible, for so long as Business Associate maintains such PHI. Business Associate further agrees to comply with other applicable state or federal law, which may require a specific period of retention, redaction, or other treatment of such PHI. This **Section 10.6** shall survive the expiration or termination of this Agreement and shall remain in effect for so long as Subcontractor maintains PHI.

11. **No Warranty.** PHI IS PROVIDED TO BUSINESS ASSOCIATE SOLELY ON AN “AS IS” BASIS. FACILITY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

12. **Ineligible Persons.** Business Associate represents and warrants to Facility that Business Associate, its directors, officers, and key employees: (i) are not currently excluded, debarred, or otherwise ineligible to participate in any federal health care program as defined in 42 U.S.C. Section 1320a-7b(f) or any state healthcare program (collective, the “**Healthcare Programs**”); (ii) have not been convicted of a criminal offense related to the provision of health care items or services and not yet been excluded, debarred, or otherwise declared ineligible to participate in the Federal Healthcare Programs, and (iii) are not under investigation or otherwise aware of any circumstances which may result in Business Associate being excluded from participation in the Federal Healthcare Programs (collectively, the “**Warranty of Non-exclusion**”). Business Associate’s representations and warranties underlying the Warranty of Non-exclusion shall be ongoing during the term, and Business Associate shall immediately notify Facility of any change in the status of the representations and warranties set forth in this **Section 12**. Any breach of this **Section 12** shall give Facility the right to terminate this Agreement immediately for cause.

13. **Miscellaneous.** This **Section 13** shall survive the expiration or termination of this Agreement and shall remain in effect for so long as Subcontractor maintains PHI.

13.1. **Notice.** All notices, requests, demands and other communications required or permitted to be given or made under this Agreement shall be in writing, shall be effective upon receipt or attempted delivery, and shall be sent by: (i) personal delivery; (ii) certified or registered United States mail, return receipt requested; (iii) overnight delivery service with proof of delivery; or (iv) facsimile with return facsimile acknowledging receipt. Notices shall be sent to the addresses below. Neither Party shall refuse delivery of any notice hereunder.

FACILITY:

BUSINESS ASSOCIATE:

Medical Center of Plano
3901 W 15th Street
Plano, Texas 75075

Murphy Fire Rescue
206 N. Murphy Rd.
Murphy TX 75094

Attention: Bonnie R Mockler
Tel. No.: 972-519-1523
Fax No.: _____

Attention: Fire Chief _____
Tel. No.: 972 468-4300
Fax No.: _____

Copy to FACILITY Counsel:

Copy to:

HCA Legal Department
PO Box 550
Nashville, TN 37202-0550

Attention: _____
Tel. No.: _____
Fax No.: _____

Attention: _____
Tel. No.: _____
Fax No.: _____

13.2. **Waiver.** No provision of this Agreement or any breach thereof shall be deemed waived unless such waiver is in writing and signed by the Party claimed to have waived such provision or breach. No waiver of a breach shall constitute a waiver of or excuse any different or subsequent breach.

13.3. **Assignment.** Neither Party may assign (whether by operation of law or otherwise) any of its rights or delegate or subcontract any of its obligations under this Agreement without the prior written consent of the other Party. Notwithstanding the foregoing, Facility shall have the right to assign its rights and obligations hereunder to any entity that is an affiliate or successor of Facility, whether by merger, acquisition, change in control, or other transaction involving the sale of all or substantially all of Facility's assets, without the prior approval of Business Associate.

13.4. **Severability.** Any provision of this Agreement that is determined to be invalid or unenforceable will be ineffective to the extent of such determination without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such remaining provisions.

13.5. **Entire Agreement.** This Agreement constitutes the complete agreement between Business Associate and Facility relating to the matters specified in this Agreement and supersedes all prior representations or agreements, whether oral or written, with respect to such matters. This Agreement

constitutes the complete agreement between Business Associate and Facility relating to the matters specified in this Agreement and supersedes all prior representations or agreements, whether oral or written, with respect to such matters. In the event of any conflict between the terms of this Agreement and the terms of the Business Arrangements or any such later agreement(s), the terms of this Agreement shall control unless the terms of such Business Arrangements are more strict with respect to PHI and comply with the Confidentiality Requirements, or the Parties specifically otherwise agree in writing. No oral modification or waiver of any of the provisions of this Agreement shall be binding on either Party to this Agreement; *provided, however*, that upon the enactment of any law, regulation, court decision or relevant government publication and/or interpretive guidance or policy that Facility believes in good faith will adversely impact the use or disclosure of PHI under this Agreement, Facility may amend the Agreement to comply with such law, regulation, court decision or government publication, guidance or policy by delivering a written amendment to Business Associate which shall be effective thirty (30) calendar days after receipt. No obligation on either Party to enter into any transaction is to be implied from the execution or delivery of this Agreement. This Agreement is for the benefit of, and shall be binding upon the Parties, their affiliates and respective successors and assigns.

13.6. **Governing Law.** This Agreement shall be governed by, and interpreted in accordance with, the laws of the state in which Facility is located, excluding its conflicts of laws provisions. Jurisdiction and venue for any dispute relating to this Agreement shall exclusively rest with the state and federal courts in the county in which Facility is located.

13.7. **Equitable Relief.** Business Associate understands and acknowledges that any disclosure or misappropriation of any PHI in violation of this Agreement will cause Facility irreparable harm, the amount of which may be difficult to ascertain, and therefore agrees that Facility shall have the right to apply to a court of competent jurisdiction for specific performance and/or an order restraining and enjoining any such further disclosure or breach and for such other relief as Facility shall deem appropriate. Such right of Facility is to be in addition to the remedies otherwise available to Facility at law or in equity. Business Associate expressly waives the defense that a remedy in damages will be adequate and further waives any requirement in an action for specific performance or injunction for the posting of a bond by Facility.

13.8. **Nature of Agreement; Independent Contractor.** Nothing in this Agreement shall be construed to create: (i) a partnership, joint venture or other joint business relationship between the parties or any of their affiliates, or (ii) a relationship of employer and employee between the parties. Business Associate is an independent contractor and not an agent of Facility. This Agreement does not express or imply any commitment to purchase or sell goods or services.

13.9. **Counterparts.** This Agreement and any amendments hereto may be executed by the Parties hereto individually or in any combination, in one or more counterparts, each of which shall be an original and all of which shall together constitute one and the same agreement. Execution and delivery of this Agreement and any amendments by the Parties shall be legally valid and effective through: (i) executing and delivering the paper copy of the document, (ii) transmitting the executed paper copy of the document by facsimile transmission or electronic mail in “portable document

format” (“.pdf”) or other electronically scanned format, or (iii) creating, generating, sending, receiving or storing by electronic means this Agreement and any amendments, the execution of which is accomplished through use of an electronic process and executed or adopted by a Party with the intent to execute this Agreement (i.e., “electronic signature” through a process such as DocuSign®).

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

FACILITY:
Medical Center of Plano
3901 W 15th Street
Plano, Texas 75075

BUSINESS ASSOCIATE:
City of Murphy

By: _____

By: _____

Melissa McLeroy
(Print or Type Name)

Mike Castro
(Print or Type Name)

CFO
(Title)
Date: _____

City Manager _____
(Title)
Date: _____

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act upon approval of Ordinance Number 16-09-1019 adopting the fiscal year 2016-2017 budget and appropriating funds to a sinking fund to pay interest and principal on the City's indebtedness, and appropriating funds to support the City of Murphy, Murphy Municipal Development District and Murphy Community Development Corporation for the fiscal year beginning on October 1, 2016 and ending on September 30, 2017.

Staff Resource/Department

Mike Castro – City Manager

Steven Ventura – Interim Finance Director

Background/History

The budget is adopted annually by the governing body of the City for revenues and expenditures of City funds. The City Charter requires the Council to adopt a budget for the next fiscal year at least ten days prior to the beginning of that fiscal year. The budget must be adopted prior to adoption of the tax rate. Several meetings were held with City Council to discuss and review the proposed budget. Two budget hearings were held on September 6th and September 13th for public input.

The Murphy Municipal Development District approved its budget on August 1, 2016 at its regularly scheduled meeting.

The Murphy Community Development Corporation approved its budget on July 18, 2016 at its regularly scheduled meeting.

The FY 2016-2017 budget must be adopted by a record vote of the City Council. The adopted budget must contain a cover page stating a record vote of each member of the governing body by name, the property tax rates for the current and preceding fiscal year, the total amount of debt obligations and the following statement in 18 point font:

This budget will raise more revenue from property taxes than last year's budget by an amount of \$593,517, which is a 5.8 percent increase from last year's budget. The property tax revenue to be raised from new property added to the tax roll this year is \$131,968.

Financial Considerations

Adoption of the annual budget constitutes the proposed revenues and expenditures as approved by the governing body for the fiscal year.

THIS BUDGET WILL RAISE MORE TOTAL PROPERTY TAXES THAN LAST YEAR'S BUDGET BY \$593,517 OR 5.8%, AND OF THAT AMOUNT \$131,968 IS TAX REVENUE TO BE RAISED FROM NEW PROPERTY ADDED TO THE TAX ROLL THIS YEAR.

The proposed FY 2016-2017 General Fund budget includes a proposed tax rate of \$0.327749, a decrease of \$0.005472 from the FY 2015-2016 tax rate. While the Debt Service Fund budget includes a proposed tax rate of \$0.182251 which is a \$0.014528 decrease from the FY 2015 -2016 tax rate. The total proposed tax rate is \$0.5100 for FY 2016-2017, a decrease of \$0.0200 from the FY 2015-2016 tax rate of \$0.5300.

Action Requested

Motion to approve Ordinance Number 16-09-1019 adopting the budget for the fiscal year beginning October 1, 2016 and ending September 30, 2017 and making the appropriations as reflected in said budget.

Attachments

- 1) Budget Cover Page
- 2) Ordinance
- 3) Exhibit "A" attachment - budget

City of Murphy

Fiscal Year 2016-2017

Budget Cover Page

This budget will raise more total property taxes than last year's budget by \$593,517 or 5.8%, and of that amount \$131,968 is tax revenue to be raised from new property added to the roll this year.

The members of the governing body voted on the budget as follows:

FOR:

AGAINST:

PRESENT and not voting:

ABSENT:

Property Tax Rate Comparison

	2016-2017	2015-2016
Property Tax Rate:	\$0.510000/100	\$0.530000/100
Effective Tax Rate:	\$0.484776/100	\$0.511745/100
Effective Maintenance & Operations Tax Rate:	\$0.304767/100	\$0.312876/100
Rollback Tax Rate:	\$0.511399/100	\$0.534685/100
Debt Rate:	\$0.182251/100	\$0.196779/100

Total debt obligation for City of Murphy secured by property taxes: \$3,980,688

ORDINANCE 16-09-1019

AN ORDINANCE MAKING APPROPRIATIONS FOR THE SUPPORT OF THE CITY OF MURPHY, TEXAS, MURPHY MUNICIPAL DEVELOPMENT DISTRICT AND MURPHY COMMUNITY DEVELOPMENT CORPORATION FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2016, AND ENDING SEPTEMBER 30, 2017; APPROPRIATING MONEY TO A SINKING FUND TO PAY INTEREST AND PRINCIPAL ON THE CITY'S INDEBTEDNESS; AND ADOPTING THE ANNUAL BUDGET OF THE CITY OF MURPHY, TEXAS, FOR THE 2016-2017 FISCAL YEAR.

WHEREAS, an annual budget for the fiscal year beginning October 1, 2016 and ending September 30, 2017 has been duly created by the City Manager of the City of Murphy, Texas, in accordance with sections 102.002 and 102.003 of the Local Government Code; and

WHEREAS, the budget officer for the City of Murphy filed the proposed budget, attached as *Exhibit A*, in the office of the City Secretary on or before August 9, 2016 and the proposed budget was made available for public inspection by the taxpayers in accordance with section 102.005(b) of the Local Government Code; and

WHEREAS, section 7.05 of the City of Murphy Home-Rule Charter requires the Public Hearing on the Budget be published at least once in the official newspaper of the City, and on the official City website; and

WHEREAS, the budget, attached as *Exhibit A*, for the fiscal year beginning October 1, 2016, and ending September 30, 2017, was duly presented to the City Council by the City Manager and two Public Hearings were ordered by the City Council and a Public Notice of said hearings was caused to be given by the City Council and said notice was published in the Murphy Monitor and said Public Hearings were held according to said notice; and

WHEREAS, a public hearing was held by the Murphy City Council on September 6, 2016 and September 13, 2016 in accordance with section 102.006 of the Local Government Code and section 7.05 of the City of Murphy Home-Rule Charter at which time all citizens and parties of interest were given the opportunity to be heard regarding the proposed 2016-2017 fiscal year budget.

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

Section 1: That all of the above premises are found to be true and correct and are incorporated into the body of this Ordinance as if copied in their entirety.

Section 2: That the appropriations for the fiscal year beginning October 1, 2016, and ending September 30, 2017, for the, support of the General Debt Services of the City of Murphy,

Texas, expenditures shown in the City's fiscal year 2016-2017 budget, a copy of which is attached hereto as *Exhibit A*.

Section 3: That the budget, as shown in words and figures in *Exhibit A*, and the City's pay plan are hereby approved in all respects and the budget is adopted at the departmental level as the City's budget for the fiscal year beginning October 1, 2016, and ending September 30, 2017.

Section 4: That there is appropriated the amount shown in said budget necessary to provide for a sinking fund for the payment of the principal and interest and the retirement of the bonded debt.

Section 5: That this Ordinance shall take effect and be enforced from and after its passage.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Murphy, Texas, on this 20st day of September, 2016.

Eric Barna, Mayor
City of Murphy

ATTEST:

Susie Quinn, City Secretary
City of Murphy

APPROVED AS TO FORM AND LEGALITY:

Wm. Andrew Messer, City Attorney

EXHIBIT A



City of Murphy

Fiscal Year 2017 Budget

City of Murphy

Fiscal Year 2016-2017

Budget Cover Page

This budget will raise more total property taxes than last year's budget by \$593,517 or 5.8%, and of that amount \$131,968 is tax revenue to be raised from new property added to the roll this year.

The members of the governing body voted on the budget as follows:
FOR:

AGAINST:

PRESENT and not voting:

ABSENT:

Property Tax Rate Comparison

	2016-2017	2015-2016
Property Tax Rate:	\$0.510000/100	\$0.530000/100
Effective Tax Rate:	\$0.484776/100	\$0.511745/100
Effective Maintenance & Operations Tax Rate:	\$0.304767/100	\$0.312876/100
Rollback Tax Rate:	\$0.511399/100	\$0.534685/100
Debt Rate:	\$0.182251/100	\$0.196779/100

Total debt obligation for City of Murphy secured by property taxes:
\$3,980,688



This budget will raise more total property taxes than last year's budget by \$593,517 or 5.8%, and of that amount \$131,968 is tax revenue to be raised from new property added to the roll this year.



City Council

City Manager

Leadership Team

**Eric Barna
Mayor**

**Scott Bradley
Mayor Pro-Tem**

**Owais Siddiqui
Deputy Mayor
Pro-Tem**

Sarah Fincanon

Betty Nichols Spraggins

Jennifer Berthiaume

Don Reilly

Mike Castro

**Susie Quinn,
City Secretary**

**Trey Cotten,
Chief of Police**

**Wendle Medford,
Director of Innovation
& Technology**

**Director Public Services
(Vacant)**

**Kelly Carpenter, Interim
Dir. of Community &
Economic Development**

**Steven Ventura, Interim
Finance Director**

**Ed Henderson,
Interim Fire Chief**

**Jana Traxler,
Human Resources
Manager**

Table of Contents

Murphy’s Vision Statement/Mission..... 8

Transmittal Letter..... 9

General Fund Budget..... 19

 Summary of Revenues & Expenditures..... 20

 City Administration..... 22

 Human Resources..... 23

 Information Technology..... 24

 City Council..... 25

 City Secretary..... 26

 Finance 27

 Fire & Rescue..... 28

 Public Works..... 29

 Facilities 30

 Community Services..... 31

 Economic Development 32

 Police 33

 Animal Control..... 34

 Recreation 35

 Parks 36

 Municipal Court..... 37

 Solid Waste..... 38

Proposed Operational Capital Projects..... 39

 FY 2017 Proposed General Fund Capital Projects 40

 FY 2017 Proposed Utility Fund Capital Projects.....41

 FY 2018 Proposed General Fund Capital Projects.....42

 FY2018 Proposed Utility Fund Capital Projects.....43

 FY 2019 Proposed Operational Capital Projects.....44

 FY 2019 Proposed Utility Fund Capital Projects.....45

 FY 2020 Proposed General Fund Capital Projects.....46

 FY 2020 Proposed Utility Fund Capital Projects.....47

Court Restricted Funds.....48

 Summary of Revenues & Expenditures.....49

Community Events.....50

 Summary of Revenues & Expenditures.....51

Murphy Cable TV PEG.....52
 Summary of Revenues & Expenditures.....53

Utility Fund Budget..... 54
 Summary of Revenues & Expenditures 55
 Water Distribution..... 56
 Wastewater Collections 57
 Customer Service..... 58

Capital Improvement Fund Budget 59
 Summary of Revenues & Expenditures..... 60

Capital Construction Fund Budget..... 61
 Summary of Revenues & Expenditures 62

Utility Capital Construction Fund Budget.....63
 Summary of Revenues & Expenditures..... 64

Municipal Development District Budget..... 65
 Municipal Development District 66
 Summary of Revenues & Expenditures..... 67

Community Development Corporation Budget 68
 Summary of Revenues & Expenditures..... 69
 Community Development Corporation..... 69

Debt Service Fund Budget..... 70
 Summary of Revenues & Expenditures..... 71

Impact Fund Budget 72
 Summary of Revenues & Expenditures..... 73

Additional Information 74
 Organization Chart 75

Personnel Schedule 76

Budgetary Financial Policies..... 81

Budget Ordinance.....

Tax Rate Ordinance



Murphy's Vision Statement

Murphy Values a safe, vibrant, family – orientated distinctive city that fosters a strong sense of community.

Murphy's Guiding Principles

- We will seek innovative solutions for local issues;
- We will have engaging community activities and programs for all ages;
- We will have attractive and inviting parks and trails;
- We will encourage civic and community involvement;
- We have a bold sense of economic vitality;
- We will maintain professional and highly trained staff with a servant leadership focus;
- We will respectfully enforce all laws and regulations;
- We will have well maintained infrastructure;
- We will uphold quality building standards
- We will have strong relationships with neighboring communities;
- We will be compassionate, caring, citizens, neighbors and city staff



September 20, 2016
Mayor Eric Barna
Murphy City Council
206 N. Murphy Road
Murphy, Texas 75094

Dear Mayor Barna and Members of the City Council,

In accordance with the City of Murphy's Charter, Section 7.02, and with the financial policies of the City, I am pleased to submit the FY17 Annual Budget for the period of October 1, 2016 through September 30, 2017.

The Leadership Team began developing the FY17 Annual Budget in April. The City Council and Leadership Team met in June to discuss the proposed budgets and how the departmental budgets were meeting the needs of the Community.

FINANCIAL SUMMARY

Total budget for FY17 is \$32,784,700 and is an increase of .37% from the FY16 adopted budget. The following table illustrates the adopted budgets for FY16 and the proposed FY17 as well as the percent change from one fiscal year to the next.

Funds	FY16 Adopted	FY17 Proposed	Percent Change
General Fund	\$ 13,450,000	\$ 14,864,400	10.52%
Court Technology Fund	5,200	5,200	-
Building Security Fund	16,700	14,700	-11.98%
Judicial Efficiency Fund	1,000	1,000	-
JUV Case Manager Fund	30,000	17,000	-43.33%
Community Events Fund	309,600	295,300	-4.62%
Cable TV PEG Fund	5,200	13,000	250%
Utility Fund	8,403,000	9,485,000	12.02%
Capital Project Fund	-	-	-
Community Development Fund	1,247,000	840,900	-32.57%
Municipal Development Fund	590,500	570,700	-3.35%
Debt Service Fund	3,877,400	3,982,700	2.72%
Capital Construction Fund	2,690,800	1,520,000	-43.51%
Utility Capital Construction Fund	1,591,000	800,000	-49.72
Impact Fund	373,800	374,800	0.27%
Total budget	\$ 32,664,600	\$ 32,784,700	0.37%

Property Values

The City of Murphy saw an increase in certified appraised values this year of approximately 10% for a certified total of \$2,108,125,222; with \$83,944,475 under review. Of that increase \$25,876,000 is due to new construction. The increase in property values has been a trend for several years with the largest increase of approximately 9.5% in FY 15 and the smallest of approximately 0.40% in FY12. As the City reaches build out in the next couple of years, this trend of increase will slow down. The City will not be able to continue to rely on increased property values as an additional source of revenue.

Valuations

Tax Year	Certified	Review	Total	% of Change
2010-2011	1,468,140,104	3,786,377	1,471,926,481	-
2011-2012	1,474,146,277	25,468,692	1,499,614,969	0.41%
2012-2013	1,526,307,177	18,353,253	1,544,660,430	3.48%
2013-2014	1,614,305,560	24,392,305	1,638,697,865	5.70%
2014-2015	1,774,655,435	25,968,662	1,800,624,097	9.79%
2015-2016	1,916,589,023	58,428,710	1,975,017,733	7.88%
2016-2017	2,108,125,222	83,944,475	2,192,069,697	10.00%

The City's property taxes are divided into two components: Operations and Maintenance (O&M) and Debt Service. The O&M portion funds the daily operations of City government, such as administration, fire, police, parks, streets, code compliance, community development and sanitation. Debt Service is the portion that funds the debt the City has incurred to provide essential infrastructure and quality of life amenities for our community. The City has maintained an average total tax rate of \$0.56000 for the past six years while the average O&M tax rate has averaged at \$0.3300 with the balance of the tax rate funding the debt of the City. The proposed tax rate for FY 17 is \$0.5100 per \$100 valuation, a two cent decrease from FY 16. The proposed O&M rate is \$0.3277 (a decrease of \$0.0055) and the proposed debt service rate is \$0.1823 (a decrease of \$0.0145).

This is the third consecutive year that the City has decreased the property tax rate. Even though the appraised values have increased over the past several years, other revenue sources within the General Fund have fallen short of expectations.

Tax Rate

Tax Year	O&M	Debt	Total	O&M Change	O&M % of Change
2009-2010	0.334089	0.204316	0.538405	-	-
2010-2011	0.317442	0.247558	0.565000	0.016647	-4.98%
2011-2012	0.309993	0.255007	0.565000	0.007449	-2.35%
2012-2013	0.329495	0.240505	0.570000	0.019502	6.29%
2013-2014	0.341521	0.228479	0.570000	0.012026	3.65%
2014-2015	0.336270	0.213730	0.550000	0.005251	-1.54%
2015-2016	0.333221	0.196779	0.530000	0.003049	-0.91%
2016-2017	0.327749	0.182251	0.510000	0.005472	-1.64%

GENERAL FUND BUDGET**REVENUES**

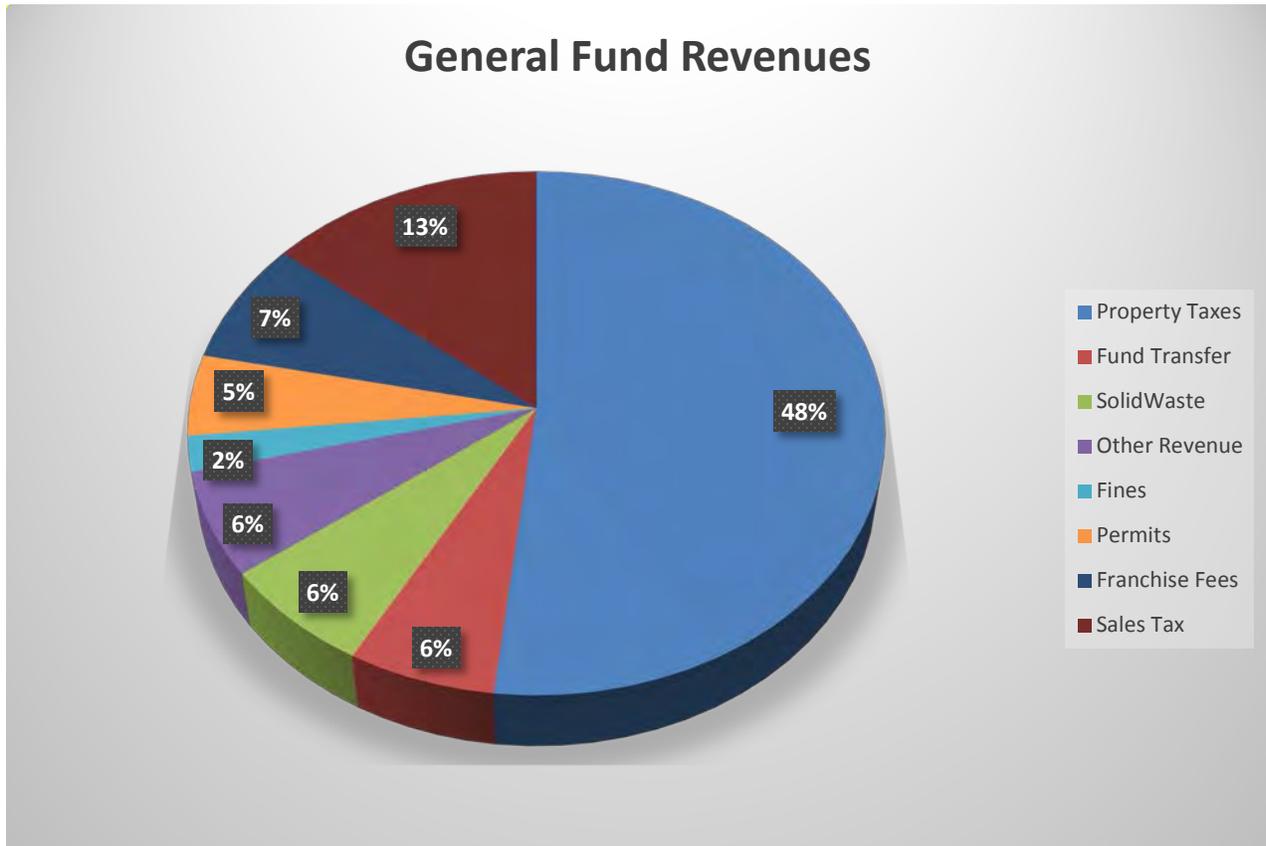
The City of Murphy receives approximately 48% of the budgeted revenues from property taxes. The City's property taxes are divided into two components: Operations and Maintenance (O&M) and Debt Service. The O&M portion funds the daily operations of City government, such as administration, fire, parks, police, streets and sanitation.

Debt service is the portion that pays for debt the City has incurred to provide essential services to our community. The proposed tax rate for FY17 is \$0.5100 per \$100 valuation.

The proposed O&M rate is \$0.3277 (a decrease of \$0.0055) and the proposed debt service rate is \$0.1823 (a decrease of \$0.0145). The average market value of a single family home is currently at \$340,004 and will pay approximately \$1,734.02 in city property tax.

Sales Tax revenue is budgeted at a 3.0% increase as the economy continues to improve and will generate approximately 13% of the General Fund revenue. Other Revenue generates approximately 6% of General Fund revenue, Franchise Fees at 7%, followed by Solid Waste at 6%, Permits & Licenses at 5% and Municipal Court Revenue at 2%.

The General Fund also receives an \$850,000 transfer from the City's Utility Fund and a \$17,000 transfer from the City's Juvenile Case Manager Fund (funded from court costs). The transfer from the Utility Fund is used to offset Administrative expenses incurred in the General Fund for the benefit of the Utility Fund and will allow the City to purchase the needed capital without increasing taxes. The transfer from the City's Juvenile Case Manager Fund will pay a portion of the Municipal Court Juvenile Case Manager's salary and benefits. These transfers are approximately 6% of the General Fund revenue.

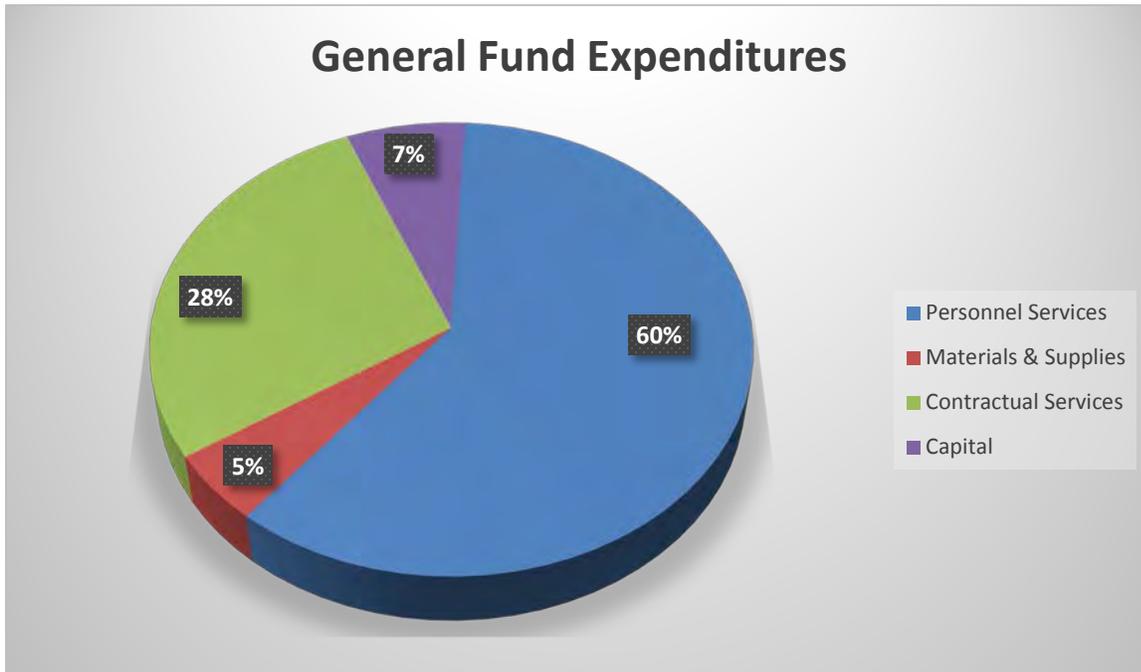


As evidenced above, the City is heavily dependent on property taxes for General Fund revenue. The City must continue to diversify revenue sources by growing the commercial businesses which generate sales tax. However, we must be careful in the area of economic development. The City should encourage businesses that are unique and complement our community. They should not only increase sales taxes but also increase property values for them and surrounding neighbors.

EXPENDITURES

The greatest asset of the City of Murphy is our employees. The City of Murphy will maintain professional and highly trained staff with a servant leadership focus. The City Council approved a Pay Plan for all employees in the summer 2016, and is proposed to be implemented October 2016. Personnel costs represent approximately 60% of the approved expenditures.

Contractual services are the second greatest expenditures at approximately 28%. This is due to outsourcing of park mowing, right-of-way maintenance and service contracts for City facilities. Supplies account for 5% and capital account for 7% of the expenditures.

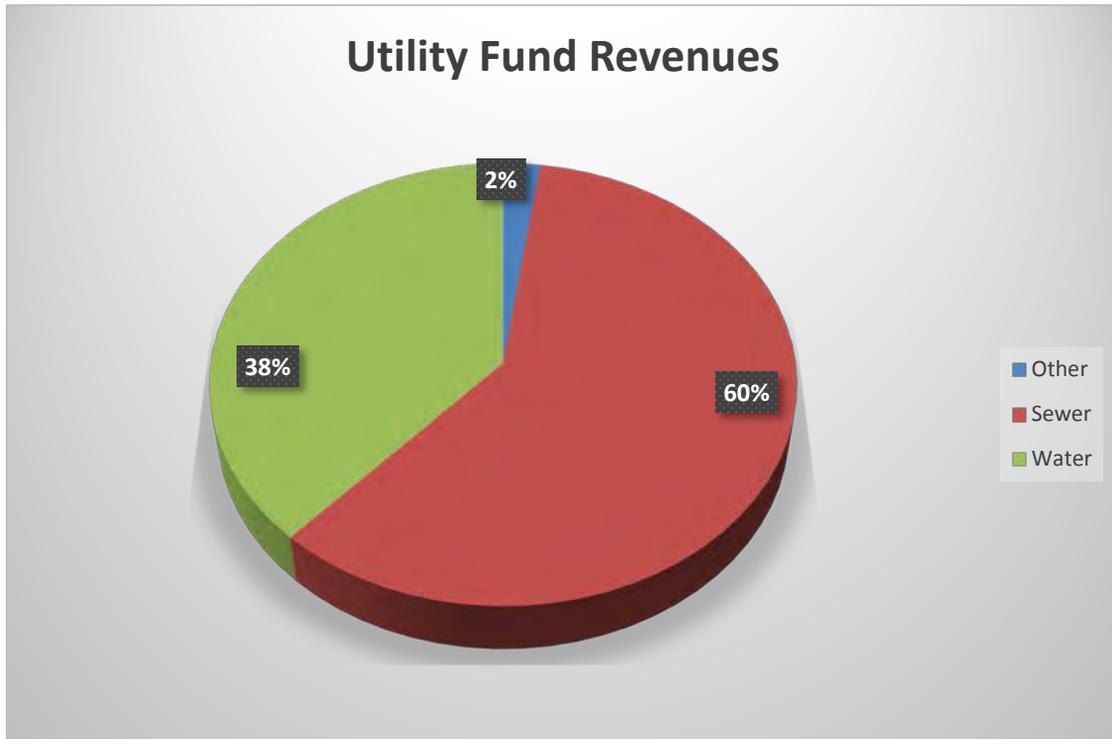


UTILITY FUND BUDGET

The Utility Fund accounts for the water and waste water services provided to the residents of the City of Murphy. All activities necessary to provide such services are accounted for in this fund, including construction, financing and related services. No taxes are used to support these services.

The following departments are funded through the Utility Fund:

- Water Distribution
- Wastewater Collection
- Customer Service (utility billing/receiving)



The main focuses for the Utility Fund are to maintain current levels of service, provide services for the continued residential growth, improve commercial development within the City and to provide maintenance and capital dollars for the general health of the system.

Total expenditures for the FY17 budget are \$9,485,000 which includes \$3,570,900 for the purchase of water and \$1,310,800 for the treatment of wastewater from North Texas Municipal Water District. The City of Murphy will purchase 1,384,066,000 gallons of water at \$2.58 per thousand gallons of water for a total cost of \$3,570,900 for FY 2016 from North Texas Municipal Water District regardless of how many gallons of water the city sells/uses. The City also shares the cost of the Muddy Creek Waste Water Treatment Plant and the Muddy Creek Interceptor (sewer collection line) with the City of Wylie at cost of approximately \$1.7 million.

The City's Utility fund is our enterprise fund and should generate enough revenue to ensure the investment in infrastructure is adequate for current and future use. The fund should also provide for the expenses of personnel, customer services, development and maintenance.

COMMUNITY IMPROVEMENT BUDGET

The citizens of Murphy approved a \$16 million bond program in November 2008. During the past five years, the City built new parks, revitalized existing parks, remodeled and opened a Community Center, beautified medians and streetscapes, purchased land for parks and repaired various streets throughout the City.

The bond program has cost the taxpayers approximately \$.05 cents per \$100 valuation to cover the cost of the issued debt.

MUNICIPAL DEVELOPMENT DISTRICT FUND BUDGET

The Murphy Municipal Development District (MMDD) was formed in April 2012 to allow the City of Murphy to adopt a sales tax to fund the district. The Corporation receives funds from a half-cent sales tax generated within the city limits. The MMDD can undertake a variety of projects with high flexibility using the sales tax proceeds, similar to a Community Development Corporation. The revenues are used to promote economic growth, carry out programs related to community development, and promotion of new and expanded business enterprises. Total revenues for FY17 are projected at \$958,500, with a projected fund balance of \$1,513,272.

COMMUNITY DEVELOPMENT CORPORATION FUND BUDGET

The Murphy Community Development Corporation (MCDC) is a Community Development Sales Tax Corporation whose purpose is to promote projects to enhance the community's image through beautification, parks and open space ventures. The MCDC was created in June 2003 by the Murphy City Council and residents who recognize the need to set aside the money for these important public services. Total revenues for FY17 are projected at \$954,000 with a projected fund balance of \$353,076.

DEBT SERVICE FUND BUDGET

The total general obligation outstanding debt including principal and interest is \$32,295,332. The debt portion of the debt payable in FY 17 is \$2,960,000 of principal and \$1,020,688 of interest for a total of \$3,980,688. The tax rate necessary to generate the appropriated amount of taxes to pay the debt service requirement is \$0.1823 per \$100 valuation. During FY 2009, FY 2011 and FY 2012, the City refunded/refinanced outstanding bonds with higher interest rates with a lower interest rate bond and saved the City \$1,822,090 of interest over a 15 year period. City staff and the City's Financial Advisor continue to monitor the bond market and interest rates to ensure that the City is taking advantage of any interest savings.

IMPACT FUND BUDGET

An "Impact Fee" is a charge or assessment imposed by a political subdivision for new development within its service area in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development. The City of Murphy water and wastewater service area is all land within the City limits.

The first step in determining an impact fee is to prepare land use and growth assumptions for the service area for the next ten years. Next, a Capital Improvement Plan must be created to describe the water and wastewater infrastructure that will be necessary to serve the anticipated land uses and growth. The following items can be included in the impact fee calculation:

- The portion of the cost of the new infrastructure that is to be paid by the City, including engineering, property acquisition and construction costs;
- Existing excess capacity in lines and facilities that will serve future growth and which were paid for in whole or part by the City; and
- Interest and other finance charges on bonds issued by the City to cover its portion of the cost.

The City's Capital Improvement Plan must be reviewed and updated in 2016 to accommodate the needs of the City. A Capital Improvement Program committee will begin this process in the next couple of months.

Water and Sewer impact fees are currently funding a portion of the debt incurred by North Texas Municipal Water District for the construction of the Muddy Creek Waste Water Treatment Plant and various waste water collection lines and the debt incurred by the City for the construction of the elevated water storage tank on Rodeo Drive. With the anticipated build-out of the City within the next five years, impact fees may no longer be available to fund the debt for the Muddy Creek Waste Water Treatment Plant, waste water collection lines and the elevated water storage tank. The funding of this debt will be the responsibility of the Utility Fund and will require adjustment to the water and sewer rates.

CONCLUSION

Murphy is an outstanding community that was just awarded #1 place to live by *Movoto Real Estate* and has been ranked several times in the top 10 best suburbs in the Dallas/Ft. Worth area by *D Magazine*. We are very proud of our city and will continue to strive for excellence, and to make this an excellent place to work, live and play.

This is a strong budget that will enable the staff the opportunity to provide exceptional customer and community services to our citizens. However, the budget is not without challenges. The staff will continue to monitor and manage the budget throughout the fiscal year. The staff will also make the necessary adjustments to ensure our compliance with the FY17 Annual Budget.

I would like to thank the City Council and Leadership Team for their contributions and support in the development of the FY17 Annual Budget. I especially want to thank Steven Ventura, Interim Finance Director, for his tireless hours and dedication to the preparation of the budget.

Sincerely,

Mike Castro, PhD
City Manager



General Fund Budget

Fiscal Year 2017

General Fund

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 3,635,401	\$ 3,960,567	\$ 3,960,567	\$ 4,900,395
Revenues				
Property Taxes	6,047,999	6,520,000	6,591,000	7,115,300
Sales Tax	1,800,561	1,863,000	1,905,000	1,932,000
Franchise Tax	1,035,658	1,023,600	1,028,800	1,047,100
Permits & Licenses	620,024	530,000	903,000	688,000
Other Revenue	965,439	1,035,000	1,548,620	881,100
Court Revenue	335,330	300,000	275,000	300,000
Solid Waste	906,797	915,000	915,000	915,000
Miscellaneous Revenue	-	-	-	-
Total Revenues	11,711,807	12,186,600	13,166,420	12,878,500
Transfer from Utility Fund	850,000	850,000	850,000	850,000
Transfer from Court Restricted Fund	30,000	30,000	30,000	17,000
Transfer From Reserves – Capital	-	-	-	1,019,700
Total Other Sources	880,000	880,000	880,000	1,886,700
Total Revenues & Other Sources	12,591,807	\$13,066,600	14,046,420	14,765,200
Expenditures				
Administration	420,700	485,800	627,100	598,700
Human Resources	179,829	164,400	163,750	181,800
Information Technology	832,075	998,500	1,050,500	1,214,800
City Council	364,968	337,900	293,600	473,600
City Secretary	149,437	192,000	178,625	205,900
Finance	453,470	504,100	575,200	547,600
Fire	2,816,694	2,782,900	2,729,750	3,182,200
Public Works	308,251	353,900	259,400	364,700
Facilities	390,431	643,700	539,279	662,700
Community Services	530,908	637,600	500,500	494,500
Economic Development	151,514	187,600	160,200	198,000
Police	3,206,466	3,522,900	3,524,200	3,675,800
Animal Control	205,691	166,700	153,650	237,100
Recreation	298,414	353,600	341,380	386,400
Parks	838,988	1,035,900	870,383	1,232,600
Municipal Court	335,927	380,800	369,075	432,900
Solid Waste	756,114	775,100	770,000	775,100
Transfer Out	-	-	-	1,019,700
Total Expenses	12,266,641	13,450,000	13,106,592	14,864,400

Exhibit A

Revenue Less Expenses	325,166	(383,400)	939,828	(99,200)
Ending Fund Balance	3,960,567	3,577,167	4,900,395	3,781,495

City Administration

The City of Murphy operates under a “Council-Manager form of government.” The City Council appoints the City Manager, who shall serve as the Chief Administrative Officer for the City of Murphy. The City Manager is responsible for the administration of all affairs of the City and manages the diverse departments to keep the City running smoothly. The City Manager is supported by a Leadership Team who leads the dynamic force of 100 plus employees every day to accomplish the goals, objectives and expectations of the Mayor, City Council and Citizens. The City Manager is the primary point of contact between the City’s departments and the Mayor and City Council. The main functions are to lead, guide and provide coordination to the departments as they implement City policy decisions made by the Mayor and City Council. The City Manager enforces municipal laws and ordinances and recommends improvement in operations.

This office is also responsible for presenting the Annual Budget and Community Improvement Program to City Council and provides accurate, timely information and recommendations regarding City-wide policies.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 232,557	\$ 274,900	\$ 321,400	\$374,300
Materials & Supplies	21,787	24,700	23,700	24,700
Contractual Services	166,356	186,200	282,000	199,700
Total	\$ 420,700	\$ 485,800	\$ 627,100	\$ 598,700

Personnel Breakdown	FY15	FY16	FY17
City Manager	1	1	1
Executive Assistant to the City Manager	1	1	1
Total	2	2	2

Human Resources

The Human Resources Department is driven by core leadership values of trust, integrity and excellence, the Human Resources Department strives to administer quality service to our employees by providing education and support in training, recruiting, employee relations, benefits, compensation and professional development. The Human Resources Department is also responsible for risk management for the City.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 96,277	\$ 102,400	\$ 100,900	\$116,600
Materials & Supplies	191	800	1,050	1,000
Contractual Services	83,361	61,200	61,500	64,200
Capital Outlay	-	-	-	-
Total	\$ 179,829	\$ 164,400	\$ 163,750	\$181,800

Personnel Breakdown	FY15	FY16	FY17
Human Resources Manager	1	1	1
Total	1	1	1

Information Technology

The Murphy Information Technology Department (ITD) develops and maintains the vital infrastructure and services which enable city employees to serve the citizens of Murphy.

The department secures, operates, enhances and supports a broad variety of products and technical systems for city departments ranging from water and wastewater, SCADA systems, economic development, social media, fiscal and payroll applications to public safety applications which require 24x7x365 support and reliability.

In addition to technical support, the ITD provides business analysis and project management resources in an effort to help city departments determine the best solutions to meet their needs. The department is responsible for data and voice communication, including local, wide-area and wireless networks, business application development, as well as hardware, software and desktop troubleshooting and support.

The Murphy ITD is also tasked with ensuring that internal business processes and technical systems comply with a variety of regulations to include, but are not limited to, the Payment Card Industry (PCI), Health Insurance Portability and Accountability Act (HIPAA), Open Records Act/Public Information Act, Americans with Disabilities Act (ADA), Federal Bureau of Investigation Criminal Justice Information System (FBI CJIS), Texas Department of Public Safety Texas Law Enforcement Telecommunications System (TxDPS), Texas Commission on Environmental Quality (TCEQ), and the Department of Homeland Security (DHS).

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 306,833	\$ 421,900	\$421,900	\$425,700
Materials & Supplies	6,842	10,200	15,000	9,600
Contractual Services	410,583	444,300	475,800	480,500
Capital Outlay	107,816	122,100	134,000	270,000
Total	\$ 832,075	\$ 998,500	\$1,050,500	\$1,214,800

Personnel Breakdown	FY15	FY16	FY17
IT Manager	1	1	1
Network Analyst	1	1	1
Web Admin/Support Analyst	1	1	1
IT Business Analyst	1	1	1
GIS Analyst	0	1	1
Total	4	5	5

City Council

The City Council is elected at large and is composed of a Mayor and six Councilmembers. They are responsible for appointing and removing the City Manager, City Secretary, City Attorney, and Municipal Judge. Other responsibilities include adopting the budget and setting the tax rate, legislating policies, making board appointments, and establishing a vision for the City's development.

The City Council currently meets on the first and third Tuesday each month to transact the business of the City. Special meetings of the City Council shall be called by the City Secretary upon request of the Mayor, City Manager or three (3) Councilmembers.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 13,995	\$ 13,800	\$15,700	\$15,900
Materials & Supplies	31,252	23,600	20,900	23,600
Contractual Services	297,329	300,500	256,100	314,100
Capital Outlay	31,392	-	900	120,000
Total	\$373,968	\$ 337,900	\$293,600	\$473,600

Personnel Breakdown	FY15	FY16	FY17
No Personnel	0	0	0
Total	0	0	0

City Secretary

The City Secretary's office strives to provide quality service and information to the citizens, the City Council, and City staff, as well as maintain official city records for historical preservation. This office is responsible for preparing Council agenda packets, recording Council meeting minutes, preparing and posting public notices, managing public information requests, and administering City elections.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 97,587	\$ 103,800	\$102,900	\$107,800
Materials & Supplies	2,284	1,300	1,300	1,300
Contractual Services	48,476	78,300	65,825	96,800
Capital Outlay	1,091	8,600	8,600	-
Total	\$149,437	\$ 192,000	\$178,625	\$205,900

Personnel Breakdown	FY15	FY16	FY17
City Secretary	1	1	1
Total	1	1	1

Finance

The Finance Department is responsible for critical operations, including supervision, administration and overall planning of the City of Murphy's financial activities. This includes financial reporting, billing, collections, procurement, risk management, debt management and compliance, purchasing, and cash and budget management.

Our mission is to ensure fiscal responsibility to the citizens while providing timely and accurate information, and competent quality service to the external and internal customers of the Finance Department.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$329,126	\$366,100	\$412,600	\$385,200
Materials & Supplies	1,579	1,700	1,700	1,700
Contractual Services	122,765	136,300	160,900	160,800
Capital Outlay	-	-	-	-
Total	\$453,470	\$504,100	\$575,200	\$547,700

Personnel Breakdown	FY15	FY16	FY17
Finance Director	1	1	1
Assistant Finance Director	1	1	1
AP/Payroll Specialist II	1	1	1
AP/Payroll Specialist I	1	1	1
Total	4	4	4

Fire & Rescue

The Murphy Fire Department is responsible for serving the community through fire and life safety prevention, planning, preparation, response, restoration, and review. Our mission is to look for ways to provide for a high quality of life for those living, or visiting the city.

This department provides fire, emergency medical system and emergency management services. Some incidents require resources greater than available in Murphy so a reliance on neighboring communities is also planned for. This additional aid is also reciprocated to those other communities as needed.

Whether the department is reviewing development plans for future commercial occupancies or delivering life safety messages at an HOA meeting the idea is to prevent occurrences that require emergency response. Those existing programs will be continued and new programs will be sought out. Murphy Fire Rescue stands ready to serve.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$2,033,731	\$2,190,900	\$2,114,200	\$2,251,500
Materials & Supplies	179,124	169,800	145,050	185,300
Contractual Services	303,015	324,200	379,000	345,400
Capital Outlay	300,824	98,000	91,500	400,000
Total	\$2,816,694	\$2,782,900	\$2,729,750	\$3,182,200

Personnel Breakdown	FY15	FY16	FY17
Fire Chief	1	1	1
Assistant Fire Chief	1	1	1
Fire Marshall	1	1	1
Lieutenant	3	3	3
Administrative Assistant	1	1	1
Driver/Engineer	3	3	3
Firefighter/Paramedic	15	15	15
Total	25	25	25

Public Works

The Public works department is comprised of Streets/Sidewalks and Storm Water.

The Street/Sidewalk Division is responsible for the surface repair and maintenance of streets and sidewalks throughout the City. Additional functions include minimizing hazardous roadway conditions, performing drainage work, and responding to citizen requests for service. This division also responds to emergencies and weather related events as needed in an effort to assure safe conditions for citizens and motorists.

The Storm Water Maintenance division checks and maintains storm inlets. Debris collects in these inlets which can restrict the outflow and cause a flooding hazard during excessive rainfalls. Inlets and outlets are inspected monthly, after heavy rainfall and in response to a citizen request that may cause a potential problem.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Materials & Supplies	\$ 43,094	\$ 112,500	\$41,600	\$76,500
Contractual Services	242,214	241,400	217,800	280,200
Capital Outlay	22,944	-	-	8,000
Total	\$ 308,251	\$ 353,900		

Personnel Breakdown	FY15	FY16	FY17
No Personnel	0	0	0
Total	0	0	0

Facilities

The Facilities Department is comprised of 3 employees and two divisions.

The Facilities division has one employee responsible for the maintenance and repairs for all city facilities consisting of 7 public buildings, 2 elevated storage tanks, 911 Communication building, WHF lift station, NS Pump station. Responsibilities including but not limited to, regular maintenance, repairs, state inspections, contract maintenance/repairs, staff work orders, set up and take down for meetings, elections etc. and supervision of the custodial crew.

The Custodian division has two employees that are responsible for cleaning 6 city facilities including City Hall, Fire Rescue, Activity Center, Community Center, Police/Courts and Public Works buildings.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 117,070	\$195,400	\$153,829	\$226,200
Materials & Supplies	35,388	66,600	56,600	66,800
Contractual Services	237,973	357,000	304,150	324,700
Capital Outlay	-	24,700	24,700	45,000
Total	\$390,431	\$643,700	\$539,279	\$662,700

Personnel Breakdown	FY15	FY16	FY17
Facilities Superintendent	1	1	1
Custodian	2	2	2
Maintenance Technician	0	1	1
Total	3	4	4

Community Services

Community Services have several responsibilities in many areas. Building inspections is responsible for reviewing permit plans and performing inspections for new projects as well as, additions, and remodeling projects for residential and commercial properties. The Building Inspections Department enforces the building, electrical, plumbing, mechanical, fuel gas and energy codes, zoning ordinances, and certain State statutes relating to construction.

Code Compliance is responsible for inspecting properties within the city to enforce specific City ordinances related to public nuisances, zoning violations and substandard buildings. Our Code Compliance Officers are authorized to pursue criminal and civil remedies to abate nuisances within Murphy for the purpose of maintaining a safe, sanitary and clean city.

The Health Department is charged with protecting the health and safety of the public. The Health Inspectors ensures that all food service establishments, public and semi-public swimming pools, and daycare and retirement centers meet safe and sanitary requirements by developing and implementing health education, investigation and enforcement programs.

The Planning & Zoning Department processes all zoning and development including but not limited to specific use permits, site plans, landscape plans, and plats. This department is also responsible for processing Planning & Zoning Commission and Zoning Board of Adjustment cases. Updating and managing the City's Comprehensive Plan is another primary objective of the Planning & Zoning Department.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$249,334	\$271,400	\$152,800	\$339,900
Materials & Supplies	5,514	11,300	8,200	7,900
Contractual Services	273,823	282,100	339,500	146,700
Total	\$528,670	\$564,800	\$500,500	\$494,500

Personnel Breakdown	FY15	FY16	FY17
Administrative Assistant	0.6	0.6	0.6
Code Compliance Supervisor	1	1	1
Code Compliance Officer	2	2	2
Director of Community Development & Economic Development	0.6	0.6	0.6
Total	4.2	4.2	4.2

Economic Development

The Economic Development Department is responsible for assisting with business retention and attracting new businesses. Retaining local businesses and attracting new businesses that will enhance the City of Murphy is an important element to the city's economic development; as such, with the addition of the Economic Development Coordinator, the department has direct contact with businesses in the city and coordinates Buy Murphy programs.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 119,251	\$ 124,200	\$114,700	\$136,300
Materials & Supplies	1,330	600	500	600
Contractual Services	30,933	61,000	45,000	61,100
Capital Outlay	-	-	-	-
Total	\$151,514	\$185,800	\$160,200	\$198,000

Personnel Breakdown	FY15	FY16	FY17
Director of Community Development & Economic Development	0.4	0.4	0.4
Administrative Assistant	0.4	0.4	0.4
Economic Development Coordinator	1	1	1
Total	1.8	1.8	1.8

Police

The men and women of the Murphy Police Department are committed to delivering the most progressive, responsive and professional police services possible while maintaining outstanding customer service. The department provides a safe environment for residents, businesses and visitors by engaging in high visibility patrol activities to deter crime and facilitate the safe flow of traffic. The department provides 24/7 dispatch operations and promptly answers all emergency and public safety related calls. Patrol Officers provide a prompt and professional response to all requests for police services, and Detectives contact victims and conduct follow-up investigations on all reported criminal offenses.

The Police Department's School Resource Officer and School Crossing Guard programs provide a high level of safety and security for our schools. The department sponsors programs such as Citizens on Patrol, Police Explorers, Citizen Police Academy, and Youth Citizen Police Academy to establish partnerships and engagement with the community.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$2,715,312	\$2,923,200	\$2,906,000	\$3,121,600
Materials & Supplies	101,660	160,400	117,800	160,600
Contractual Services	328,642	297,800	358,900	335,600
Capital Outlay	60,853	141,500	141,500	58,000
Total	\$3,206,466	\$3,522,900	\$3,524,200	\$3,675,800

Personnel Breakdown	FY15	FY16	FY17
Police Chief	1	1	1
Executive Administrative Assistant	1	1	1
Lieutenant	1	1	1
Sergeant	4	4	4
Police Officers	16	16	16
School Campus Protection Officer	1	1	1
School Resource Officer	1	1	1
Support Services Manager	1	1	1
Communications Supervisor	1	1	1
Communications Officers	8	8	8
Crossing Guards - PART TIME	13	11	11
Total	48	46	46

Animal Control

Animal Control, a division of the Police Department, responds to domestic animal, wildlife, and livestock issues that arise throughout the City. Their duties include rabies awareness, investigating animal bites, lost pets, animals at large, adoptions, housing/caring for stray animals, public awareness on West Nile Virus, along with treatment of stagnant water in the City.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$107,943	\$115,200	\$115,900	\$128,600
Materials & Supplies	9,315	14,700	12,050	18,300
Contractual Services	19,976	36,800	25,700	35,500
Capital Outlay	68,458	-	-	54,700
Total	\$205,691	\$166,700	\$153,650	\$237,100

Personnel Breakdown	FY15	FY16	FY17
Animal Control Officer	2	2	2
Total	2	2	2

Recreation

The City of Murphy Recreation Department is responsible for providing quality and affordable programs for the residents of Murphy and surrounding areas. The Department's core activities include: community events, recreational, social and educational/tutorial activities and programs; fitness and promotion of healthy lifestyles. The Department is able to provide these services by conducting and overseeing recreational programs for youth as well as programs for adults. The Recreation Department provides exciting community events including Murphy Maize Days, Moonlight Movies, and Sounds at Sundown and Christmas in the Park, as well as many excellent volunteer opportunities for residents.

The Department also partners with multiple local and national recreational associations and organizations. They oversee reservations for all indoor and outdoor recreational facilities including practice fields for ten parks, nine pavilions and one amphitheater. These parks, programs, and activities are offered in hopes of improving the quality of life and physical and mental well-being of our citizens. The Recreation Department is a very important and growing part of the City of Murphy, and its objective is to expand its abilities to provide meaningful and accessible recreational opportunities for all.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 173,195	\$ 189,000	\$181,100	\$221,700
Materials & Supplies	12,434	13,300	12,350	15,300
Contractual Services	112,786	151,300	147,930	149,400
Total	\$ 298,414	\$ 353,600	\$ 341,380	\$ 386,400

Personnel Breakdown	FY15	FY16	FY17
Manager of Recreation Services	1	1	1
Recreation Specialist II	1	1	1
Recreation Specialist I	1	1	1
Recreation Specialist - PART TIME	4	4	4
Total	7	7	7

Parks

The Parks Department is comprised of 9 employees, who are responsible for the maintenance of approximately 324 acres of developed and undeveloped park land, thoroughfares/medians, applicable rights-of-ways, and other City-owned property and facilities.

Maintenance duties include mowing maintenance; tree trimming; bed planting and upkeep; irrigation scheduling, checks, repairs, and monitoring; restroom cleaning and repairs; general maintenance on park amenities.

The Parks Department is also responsible for assisting in the majority of the set-up and tear down for special events that are hosted by the Recreation Department, and many other special projects that take place in the City.

The overall goal of the Parks Department is to strive to improve the quality of life for the citizens of Murphy by providing an aesthetically pleasing park system that fosters a sense of community amongst the residents.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personal Services	\$ 573,842	\$ 666,000	\$635,700	\$734,700
Materials & Supplies	110,934	197,100	157,483	210,000
Contractual Services	154,213	172,800	80,200	263,900
Capital Outlay	-	-	-	24,000
Total	\$ 838,988	\$ 1,035,900	\$ 873,383	\$ 1,232,600

Personnel Breakdown	FY15	FY16	FY17
Director of Public Services	0.5	0.5	0.5
Parks Superintendent	1	1	1
Sr. Grounds Keeper	1	1	1
Grounds Keeper II	4	4	4
Grounds Keeper I	3	4	4
Administrative Assistant	0.5	0.5	0.5
Total	10	11	11

Municipal Court

The Municipal Court is the Judicial Branch of City government. These Courts hear Class C misdemeanor cases, which are punishable by a fine only, and includes traffic, the Penal Code and ordinance violations.

The Murphy Municipal Court will provide the public with prompt and courteous service for the just resolution of all citations, complaints and court appearances involving Class C misdemeanor offenses and violations of the City's ordinances occurring within the corporate limits of Murphy.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$309,278	\$326,800	\$317,400	\$338,700
Materials & Supplies	2,675	4,600	4,100	3,600
Contractual Services	43,975	50,600	47,575	50,600
Capital Outlay	-	-	-	40,000
Total	\$355,927	\$382,000	\$369,075	\$432,900

Personnel Breakdown	FY15	FY16	FY17
Court Administrator	1	1	1
Juvenile Case Manager	1	1	1
Deputy Court Clerk	1	1	1
Total	3	3	3

Solid Waste

The Solid Waste Department is responsible for the City's weekly solid waste and recycling services, which is provided by an outside contractor.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Contractual Services	\$756,114	\$775,100	\$770,000	\$775,100
Total	\$756,114	\$753,000	\$770,000	\$775,100

Personnel Breakdown	FY15	FY16	FY17
No Personnel	0	0	0
Total	0	0	0



Proposed Operational Capital Projects

Fiscal Year 2017

**City of Murphy – General Fund
Approved Operational Capital Projects ***

FY 2017		
Department	Description of item/project	Amount
IT	Replace Enterprise Wireless Access Point System - Phase II	25,000
	Replace (4) Servers/(2)ISCSI Switches/Enterprise Data Storage (City Hall Data Center) **	145,000
	(3) Server/(2) ISCSI Switches/ Enterprise Storage for DisasterRecovery Site	100,000
	Total	270,000
Court	Ticket Writers – PD/Court	40,000
	Total	40,000
City Council	Council Chambers AV Upgrade	120,000
	Total	120,000
Fire	1999 F450 Squad Replacement - every six years (12 overall)	250,000
	SCBA Replacement (10 year replacement program)	150,000
	Total	400,000
Public Works	Skid Steer Grapple Bucket Attachment	8,000
	Total	8,000
Facilities	UPS - PW & FD	45,000
	Total	45,000
Police	Police Patrol Vehicle(s): 1 @ \$57,500 with all equipment	58,000
	Total	58,000
Animal Control	New AC Vehicle and Box	54,700
	Total	54,700
Parks	Replacement of Truck #115 - F250 Regular Cab w/Tow Package and Safety Lighting Package	24,000
	Reel Mower	4B
	(2) Trailers - 18' w/trailer brakes	4B
	Total	24,000
General Fund Capital Item Total:		<u><u>\$1,019,700</u></u>

City of Murphy - Utility Fund		
Approved Operational Capital Projects *		
FY 2017		
Department	Description of item/project	Amount
Water Distribution	Replace Jet/Vac truck – 50% shared with Waste Water	MDD
	Pump Starters	10,000
	Rebuild Pump No.6 & Motor	40,000
	Total	<u>\$ 50,000</u>
Wastewater Collection	Main Line Camera System/trailer combo	MDD
	Replace Jet/Vac truck – 50% shared with Water Distribution	MDD
Customer Service	ReCollect Digital Solutions for Waste Management/ Work Order Software	9,000
	Physical Surveillance System/AV System.	17,800
	Total	<u>26,800</u>
Total Utility Fund		<u><u>\$ 76,800</u></u>

*\$5,000 plus life span of more than one (1) year

Proposed Operational Capital Projects *		
FY 2018		
Department	Description of item/project	Amount
IT	Computer / Printer Replacement Program	\$ 30,000
	Replace Enterprise Tier1 Data Storage (City Hall)	35,000
	Total	65,000
Fire	AED Replacement x 4 - O&M	6,000
	Mattresses x 10 - O&M	8,000
	Replace SCBA x 15	150,000
	Replace 1 Staff Vehicle - Asst Fire Chief	85,000
	Total	249,000
Facilities	Replace Roof on Police	98,000
	Replace Roof on City Hall	126,000
	Total	224,000
Police	Universal Gym for PD Fitness Room	10,000
	Automatic License Plate Reader	20,000
	Radio Replacement Program (all mobiles, HH, consolettes, etc.)	514,000
	2 Complete Taser Systems	3,000
	2 Patrol Vehicles @ 57,500 ea.	115,000
	Total	662,000
Parks	Replacement Batwing Mower	65,000
	Additional Ventrac Tractor	32,000
	F-250 Truck for replacement of Truck #117 (2003 F-150)	26,000
	Total	123,000
Recreation	Passenger Van	40,000
	Murphy Activity Center Renovation	850,000
	Construction of more Outdoor Athletic Fields	100,000
	Construction of Amphitheater Cover/Roof	300,000
	Consession stand renovation at Central Park	300,000
	Total	1,590,000
Total General Fund		\$2,913,000

*\$5,000 plus life span of more than one (1) year

City of Murphy – Utility Fund
Proposed Operational Capital Projects *
FY 2018

Department	Description of item/project	Amount
Water Distribution	Replace Truck 118 F-350 Diesel flatbed with light bar	\$ 40,000
	Bunny Run Drive Water Line Loop. From end of Bunny Run Dr. to Exist 20" W.L. ** Engineer Quote - 2014 Project #5	66,000
	Replace 2100' 8" asbestos water main on Murphy Rd from FM544 to Briar Oak Dr** Engineer Quote - 2014 Project #2	757,000
	Total	863,000
Wastewater Collection	Smoke Testing & Rehab for sewer main leaks	100,000
	Total	100,000
	Total Utility Fund	\$ 963,000

*\$5,000 plus life span of more than one (1) year

City of Murphy – General Fund		
Proposed Operational Capital Projects *		
FY 2019		
Department	Description of item/project	Amount
Fire	Ambulance Replacement	\$250,000
	AED Replacement – O&M	6,000
	Total	256,000
Facilities	Replace Roof on Public Works and Pumpstation Buildings	68,000
	Total	68,000
Police	Elliptical Trainer	5,500
	3-Wheel Segway (patrolling linear park and events) (Move 2019)	8,000
	Covert Radar Data Collector/Analysis System	10,000
	2 Patrol Vehicles	115,000
	Total	138,500
Parks	F-250 Truck - replacement for Truck #117 (2003 F-150)	26,000
	Replacement Batwing Mower	65,000
	Replacement Toro ZTR Mower	13,500
	Total	104,500
Recreation	Construction of more Outdoor Athletic Fields	100,000
	Construction of Amphitheater Cover/Roof	300,000
	Concession stand renovation at Central Park	300,000
	Total	700,000
Total General Fund		\$493,000

*\$5,000 plus life span of more than one (1) year

City of Murphy – Utility Fund		
Proposed Operational Capital Projects *		
FY 2019		
Department	Description of item/project	Amount
Customer Service	\$1,500 x 6 workstations	\$ 9,000
	Total	\$ 9,000
Water Distribution	Valve machine trailer	20,000
	Replace Cast Iron Water Main on Kinney Drive (from S Maxwell/Kinney Dr. to Ridgeview/Kinney Drive)** Engineer Quote - 2014 Project #6	616,000
	S Maxwell Creek Road to Ridgeview Drive Water Loop** Engineer Quote - 2014 Project #7	150,000
	Betsy Lane Elevated Storage Tank - Internal Paining	365,000
	Total	1,151,000
Wastewater Collection	Smoke Testing & Rehab for sewer main leaks	100,000
	Total	100,000
	Total Utility Fund	\$ 1,260,000

*\$5,000 plus life span of more than one (1) year

City of Murphy - General Fund Proposed Operational Capital Projects * FY 2020		
Department	Description of item/project	Amount
Water Distribution	North Maxwell Creek Road Waterline Replacement ** Quote 2014 Project #3	\$ 247,000
	South Maxwell Creek Road Waterline Replacement ** Quote 2014 Project #4	716,000
	Total	963,000
	Total General Fund	\$ 963,000

*\$5,000 plus life span of more than one (1) year

City of Murphy - Utility Fund		
Proposed Operational Capital Projects *		
FY 2020		
Department	Description of item/project	Amount
Fire	Replace 1 Staff Vehicle - Fire Chief	\$ 90,000
	Certified Physical Ability Test w/ Trailer	60,000
	Total	150,000
Police	1 Staff Car (CID) @ 26,000 (Unit 40)(Move to 2020)	26,000
	Replace 3 patrol units @ \$57,500 each	115,000
	2 Tasers @ \$1,500 each	3,000
	Handheld Replacement Program 2 HH @ \$5,000 each	10,000
	Total	154,000
Total General Fund		\$ 304,000

*\$5,000 plus life span of more than one (1) year



Court Restricted Funds

(Building Security Fund

Judicial Efficiency Fund

Juvenile Case Management Fund Budgets)

Fiscal Year 2017

Court Restricted Fund

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Approved
Beginning Fund Balance	\$ 101,372	\$ 88,458	\$ 88,458	\$ 63,758
Revenue				
Building Security Fund	8,003	9,000	5,700	6,000
Court Technology Fund	10,665	11,000	8,000	8,000
Judicial Efficiency Fund	518	900	500	500
Juv Case Mgt Fund	15,770	15,000	12,000	12,000
Total Revenues	34,956	35,900	26,200	26,500
Expenditures				
Building Security Fund	12,832	16,700	14,700	14,700
Court Technology Fund	5,038	5,200	5,200	5,200
Judicial Efficiency Fund	-	1,000	1,000	1,000
Juv Case Mgt Fund	30,000	30,000	30,000	17,000
Total Expenditures	47,870	52,900	50,900	37,900
Revenues less Expenditures	(12,914)	(17,000)	(24,700)	(11,400)
Ending Fund Balances	\$ 88,458	\$ 71,458	\$ 63,758	\$ 52,358



Community Events

Fiscal Year 2017

Community Events

The City of Murphy holds numerous community events annually including Arbor Day, two Recycle/Shredding days, Rainbow Trout Roundup, Moonlight Movies, Sounds at Sundown, Experience Murphy. Our biggest annual event is Murphy Maize Days and 5k; anticipated attendance is 10,000 to enjoy the vendors, Kids Zone, bounce houses, various performers, and the Grand Finale Show which includes fireworks. Murphy has a strong community spirit which continues to grow through these community events.

Community Events

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$-	\$ 79,208	\$ 79,208	\$ 93,008
Revenue				
Donations/Fees	28,317	10,000	10,000	10,000
Transfers from MCDC	200,500	309,600	309,600	242,500
Total Revenues	228,817	319,600	319,600	252,500
Expenditures				
Community Events	149,609	309,600	305,800	295,300
Total Expenditures	149,609	309,600	305,800	295,300
Revenues less Expenditures	79,208	10,000	13,800	(42,800)
Ending Fund Balance	\$ 79,208	\$ 89,208	\$ 93,008	\$ 50,208



Murphy Cable TV PEG

Fiscal Year 2017

Murphy Cable TV PEG

The state issued cable service or video franchise requires that the cable services and video service provider pays directly to each city in which it provides service a franchise fee of 5% of its gross revenue (a defined term in Chapter 66), even if the incumbent cable provider is paying a smaller percentage or on different gross revenue base amount. Pro rata and 1% payment in lieu of in-kind PEG/I-Net facilities (Section 66.006): Chapter 66 also provides that if the incumbent cable provider pays any cash payments to the city in support of public educational, governmental channels or to support an institutional network, those cash payments are matched by the state-issued franchise holder as calculated by the city on a per subscriber basis. After the expiration of the incumbent cable franchise, all the state-issued franchise holders pay, at the cities choice, either an additional PEG capital support fee equal to 1% of its gross revenue or a fee equal to the per subscriber cash payments that were made under the expired incumbent's cable franchise.

Murphy Cable TV PEG**Summary of Revenues & Expenditures**

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 12,765	15,026	15,026	8,026
Revenue				
Cable TV	5,246	5,200	6,000	6,000
Total Revenues	5,246	5,200	6,000	6,000
Expenditures				
Software Maintenance	2,985	5,200	13,000	13,000
Total Expenditures	-	5,200	13,000	13,000
Revenues less Expenditures	2,261	-	(7,000)	(7,000)
Ending Fund Balance	15,026	15,026	8,026	1,026



Utility Fund Budget

Fiscal Year 2017

City of Murphy
FY 17 Proposed Budget Summary

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Water/Sewer Fund				
REVENUES				
Other Revenue	\$ 198,437	\$ 178,500	\$ 175,900	\$ 193,000
Water Revenue	5,337,825	4,700,000	5,600,000	6,038,500
Sewer Revenue	2,810,777	3,013,700	2,805,000	3,430,520
TOTAL REVENUES	8,347,039	7,892,200	8,580,900	9,662,020
DEPARTMENT				
Water Distribution	5,047,023	4,729,100	4,986,200	5,190,600
Wastewater Collection	1,366,295	2,033,100	2,302,400	2,640,900
Customer Service	692,635	790,800	681,550	803,500
Total Department	7,105,953	7,553,000	7,970,150	8,635,000
Transfer to General Fund	850,001	850,000	850,000	850,000
Total Expenses	7,955,955	8,403,000	8,820,150	9,485,000
Revenues less Expenses	\$ 391,085	\$ (510,800)	\$ (239,250)	\$ 177,020

Water Distribution

The Water Distribution division operates, maintains and repairs the city's water distribution system. The crews are responsible for the safe delivery of high-quality potable water within the City of Murphy, by conducting daily sampling of water, flushing fire hydrants, monitoring all water facilities, visual inspections and responding to citizen requests. The system includes a pump station, 3 ground storage tanks and 2 elevated storage tanks.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$ 530,865	\$ 652,100	560,400	715,900
Materials & Supplies	1,061,715	136,600	124,800	128,900
Contractual Services	3,008,753	3,563,600	3,957,700	3,907,600
Capital Outlay	-	136,500	103,000	201,500
Debt Services	445,690	240,300	240,300	236,700
Total	\$5,047,023	\$ 4,729,100	4,986,200	5,190,600

Personnel Breakdown	FY15	FY16	FY17
Director of Public Services	0.5	0.5	0.5
Public Works Superintendent	1	1	1
Sr. Maintenance Worker	1	1	1
Maintenance Worker II	3	3	3
Maintenance Worker I	4	4	4
Administrative Assistant	0.5	0.5	0.5
Total	10	10	10

Wastewater Collection

The Wastewater division maintains and repairs the wastewater system to ensure efficient disposal of wastewater within the City. The crews perform routine and emergency cleaning, line stoppage removals, sewer taps, manhole repairs and clean-out installation and repairs. The system includes a lift station.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	45,238	65,600	60,200	67,700
Materials & Supplies	9,735	63,700	49,900	62,800
Contractual Services	1,071,046	960,200	1,248,700	1,448,200
Capital Outlay	-	-	-	130,000
Debt Services	240,276	943,600	943,600	932,200
Total	\$1,366,295	\$2,033,100	\$2,302,400	\$2,640,900

Personnel Breakdown	FY15	FY16	FY17
Maintenance Worker II	1	1	1
Total	1	1	1

Customer Service

The Customer Service Center for the City of Murphy is committed to delivering superior customer service that meets and strives to exceed the needs of our residents, business owners, and others with unsurpassed professionalism, politeness, and promptness. Our Customer Service Center is uniquely positioned to handle a variety of demands including, but not limited to, building projects, water, sewer and solid waste issues. This allows our department to be the center of customer service needs.

The Customer Service Center oversees many aspects of utility billing and building projects. Not only does this department manage the City's billing for water, wastewater, recycling, and trash service. It is also responsible for overseeing the permitting and building project process which includes handling commercial, residential and health permits along with building inspections request.

Expenditures by Category	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Personnel Services	\$348,877	\$383,200	359,000	383,800
Materials & Supplies	111,588	150,200	66,900	114,500
Contractual Services	232,170	227,700	225,950	278,400
Capital Outlay	-	29,700	29,700	26,800
Total	\$692,635	\$790,800	\$681,550	\$803,500

Personnel Breakdown	FY15	FY16	FY17
Customer Service Manager	1	1	1
Assistant Customer Service Manager	1	1	1
Customer Service Specialist	3	3	3
Meter Tech	1	1	1
Total	6	6	6



Capital Improvement Fund Budget

Fiscal Year 2017

Capital Improvement Fund
Summary of Revenues & Expenditures

	FY15	FY16	FY16	FY17
	Actual	Budget	Projected	Proposed
Beginning Fund Balance	\$ 252,192	\$ 252,260	\$ 252,192	\$ 253,092
Revenues				
Miscellaneous Revenue	7,000	-	-	-
Interest Income	267	300	600	600
Total Revenues	7,267	300	600	600
Expenditures				
Capital Outlay	7,199	-	-	-
Total Expenditures	7,199	-	-	-
Revenues Over (Under) Expenditures	68	300	600	600
Fund Balance	\$ 252,260	\$ 252,560	\$ 253,092	\$ 253,692



Capital Construction Fund Budget

Fiscal Year 2017

Exhibit A
Capital Construction Fund
Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Approved
Beginning Fund Balance	\$3,174,583	\$1,705,449	\$1,705,449	\$1,895,035
Revenue				
Interest	4,230	2,000	3,500	3,000
Texas Parks WD Grants	-	-	-	-
Collin County Grant	463,797	-	52,798	-
State of Texas - RTR	1,788,415	-	-	-
Safe Routes To School	563,442	-	389,838	-
Collin County Betsy	-	-	-	1,045,000
Transfer from MMDD	-	-	-	-
Misc Revenue	-	-	1,800,000	-
Donations	5,000	-	-	-
Total Revenues	2,824,883	2,000	2,246,136	1,048,000
Expenditures				
Contractual Services	134,792	20,000	24,000	20,000
Capital Outlay	4,159,226	2,670,800	2,032,550	1,500,000
Total Expenditures	4,294,017	2,690,800	2,056,550	1,520,000
Revenues less Expenditures	(1,469,134)	(2,688,800)	189,586	(472,000)
Ending Fund Balance	\$1,705,449	\$ (983,351)	1,895,035	1,423,035



Utility Capital Construction Fund Budget

Fiscal Year 2017

Utility Capital Construction Fund

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 1,066,656	\$ 1,058,433	\$ 1,058,433	\$ 343,333
Revenue				
Interest	3,373	1,200	6,500	1,200
Bond Proceeds	-	-	-	-
Total Revenues	3,373	1,200	6,500	1,200
Expenditures				
Contractual Services	11,596	300,000	50,000	50,000
Capital Outlay	-	1,291,000	403,600	750,000
Total Expenditures	11,596	1,591,000	718,600	800,000
Revenues less Expenditures	(8,223)	(1,589,800)	(715,100)	(798,800)
Ending Fund Balance	\$ 1,058,433	\$ (531,367)	\$ 343,333	\$ (455,467)



Municipal Development District Budget

Fiscal Year 2017

Municipal Development District

The Murphy Municipal Development District (MMDD) was created through an election for an additional sales tax by the City of Murphy's voters, similar to 4B EDC. Formed in April 2012 by the voters of Murphy, the MMDD replaced the Murphy Economic Development Corporation (4A). The MMDD receives funds from a half-cent sales tax generated within the city limits, and a five-member Board is appointed by the Murphy City Council.

The MMDD's primary purpose is to manage a development project fund in which the MMDD must deposit the half-cent sales tax proceeds into the fund. The revenues may be used to pay costs associated with development projects in the MMDD such as promoting economic growth, carrying out programs related to community development, and promoting new and expanded business enterprises.

The goals of the MMDD include promoting and retaining businesses that are unique to Murphy that will enhance the quality of life with family oriented activities, encouraging organizations and residents to reinvest in their community and strengthening the economic base with businesses that generate sales tax revenue.

Murphy Municipal Development District

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 1,235,640	\$ 1,755,582	1,755,582	1,198,572
Revenue				
Sales Tax	869,734	931,500	940,000	953,500
Other Revenue	22,269	2,800	76,090	5,000
Total Revenues	892,002	934,300	1,016,090	958,500
Expenditures				
Contractual Services	244,058	405,800	438,400	499,200
Capital Outlay	-	53,500	1,006,500	15,500
Debt Service	128,002	131,200	128,200	129,100
Total Expenditures	372,060	590,500	1,573,100	643,800
Transfer to Capital Construction	-	-	-	-
Revenues less Expenditures	519,943	343,800	(557,010)	314,700
Ending Fund Balance	\$ 1,755,582	\$ 2,099,382	\$ 1,198,572	\$ 1,513,272



Community Development Corporation Budget

Fiscal Year 2017

Community Development Corporation

The Murphy Community Development Corporation was formed in 2003 by the voters of Murphy and receives funds from the half-cent sales tax for community development projects. The seven-member board is appointed by the Murphy City Council. Community projects are identified and funded by sales tax. Expenditures are subject to the provisions of the Development Corporation Act of 1979.

The half-cent sales tax has enabled the City of Murphy to fund several quality-of-life projects such as park improvements and community events.

Murphy Community Development Corporation

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Approved
Beginning Fund Balance	\$ 454,709	\$ 498,726	\$ 498,726	\$ 239,976
Revenue				
Sales Tax	886,706	931,500	940,000	953,500
Interest	391	300	600	500
Total Revenues	887,097	931,800	940,600	954,000
Expenditures				
Personnel Services	47,437	100,400	78,600	70,900
Materials & Supplies	200,283	344,000	343,400	243,000
Contractual Services	133,576	278,900	254,150	151,000
Capital Outlay	132,939	189,500	189,000	37,000
Debt Service	328,846	334,200	334,200	339,000
Total Expenditures	843,081	1,247,000	1,199,350	840,900
Revenues less Expenditures	44,016	(315,200)	(258,750)	113,100
Ending Fund Balance	\$ 454,709	\$ 183,526	\$ 239,976	\$ 353,076



Debt Service Fund Budget

Fiscal Year 2017

Debt Service Fund

Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 836,120	\$ 860,379	\$ 835,979	\$ 860,379
Revenue				
Property Taxes	3,837,171	3,874,600	3,874,600	3,980,700
Delinquent Property Taxes	(1,461)	8,000	8,000	8,000
Interest	8,715	13,000	13,000	13,000
Other Revenue	1,551	2,000	6,200	2,000
Total Revenues	3,845,976	3,897,600	3,901,800	4,003,700
Expenditures				
Principal	2,680,000	2,795,000	2,680,000	2,960,000
Interest	1,163,817	1,079,600	1,163,900	1,020,700
Agent Fee	2,300	2,800	2,800	2,000
Total Expenditures	3,846,117	3,877,400	3,877,400	3,982,700
Revenues less Expenditures	(141)	20,200	24,400	21,000
Ending Fund Balance	\$ 836,120	\$ 880,579	\$ 860,679	\$ 881,379



Impact Fund Budget

Fiscal Year 2017

Impact Fund

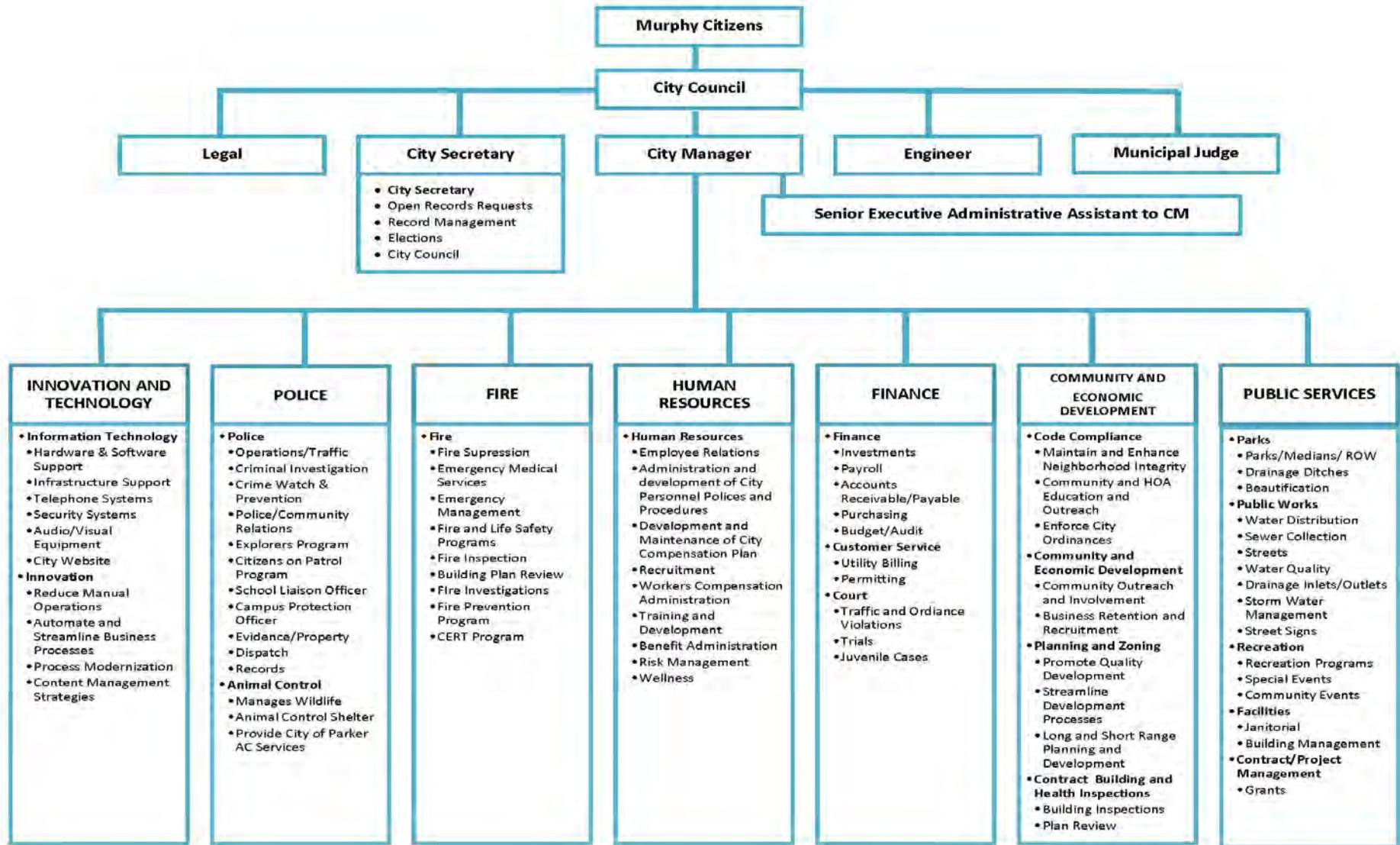
Summary of Revenues & Expenditures

	FY15 Actual	FY16 Budget	FY16 Projected	FY17 Proposed
Beginning Fund Balance	\$ 647,150	\$ 584,216	\$ 584,216	\$ 492,216
Revenue				
Water Impact Fee	77,742	58,400	90,000	72,000
Sewer Impact Fee	222,992	163,000	281,000	176,500
Interest	518	400	1,500	1,500
Total Revenues	301,252	221,800	372,500	250,000
Expenditures				
Capital Projects	364,186	373,800	464,500	374,000
Total Expenditures	364,186	373,800	464,500	374,000
Revenues less Expenditures	(62,934)	(152,000)	(92,000)	(124,000)
Ending Fund Balance	\$ 584,216	\$ 432,216	\$ 492,216	\$ 368,216



Additional Information

Fiscal Year 2017





Personnel Schedule

Fiscal Year 2017

**PERSONNEL SCHEDULE
FISCAL YEAR 2017**

DEPARTMENT/POSITION TITLE	FY16	FY17
City Manager		
City Manager	1	1
Executive Assistant to the City Manager	1	1
TOTAL FULL - TIME	2	2
Human Resources		
Human Resources Manager	1	1
TOTAL FULL - TIME	1	1
Information Technology		
IT Manager	1	1
Network Analyst	1	1
Web Admin/Support Analyst	1	1
IT Business Analyst	1	1
GIS Analyst	1	1
TOTAL FULL - TIME	5	5
City Secretary		
City Secretary	1	1
TOTAL FULL - TIME	1	1
Finance		
Finance Director	1	1
Assistant Finance Director	1	1
AP/Payroll Specialist II	1	1
AP/Payroll Specialist I	1	1
TOTAL FULL - TIME	4	4
Fire		
Fire Chief	1	1
Assistant Fire Chief	1	1
Fire Marshall	1	1
Lieutenant	3	3
Administrative Assistant	1	1
Driver/Engineer	3	3
Firefighter/Paramedic	15	15
TOTAL FULL - TIME	25	25

**PERSONNEL SCHEDULE
FISCAL YEAR 2017**

DEPARTMENT/POSITION TITLE	FY16	FY17
Facilities		
Facilities Superintendent	1	1
Custodian	2	2
Maintenance Technician	1	1
TOTAL FULL - TIME	4	4
Community Services		
Administrative Assistant	0.6	0.6
Code Compliance Supervisor	1	1
Code Compliance Officer	2	2
Director Of Community & Economic Development	0.6	0.6
TOTAL FULL - TIME	4.2	4.2
Economic Development		
Director of Community & Economic Development	0.4	0.4
Administrative Assistant	0.4	0.4
Economic Development Coordinator	1	1
TOTAL FULL - TIME	1.8	1.8
Police		
Police Chief	1	1
Executive Administrative Assistant	1	1
Lieutenant	1	1
Sergeant	4	4
Police Officers	16	16
School Campus Protection Officer	1	1
School Resource Officer	1	1
Support Services Manager	1	1
Communications Supervisor	1	1
Communications Officer	8	8
Crossing Guards - PART TIME	11	11
TOTAL FULL - TIME	35	35
TOTAL PART - TIME	11	11
Animal Control		
Animal Control Officer	2	2
TOTAL FULL - TIME	2	2

PERSONNEL SCHEDULE			
FISCAL YEAR 2017			
DEPARTMENT/POSITION TITLE	FY16	FY17	
Recreation			
Manager of Recreation Services	1	1	
Recreation Specialist II	1	1	
Recreation Specialist I	1	1	
Recreation Specialist - PART TIME	4	4	
TOTAL FULL - TIME	3	3	
TOTAL PART - TIME	4	4	
Parks			
Director of Public Services	0.5	0.5	
Parks Superintendent	1	1	
Sr. Grounds Keeper	1	1	
Grounds Keeper II	4	4	
Grounds Keeper I	4	4	
Administrative Assistant	0.5	0.5	
TOTAL FULL - TIME	11	11	
Municipal Court			
Judge	1	1	
Court Administrator	1	1	
Juvenile Case Manager	1	1	
Deputy Court Clerk	1	1	
TOTAL FULL - TIME	4	4	
Water Distribution			
Director of Public Services	0.5	0.5	
Public Works Superintendent	1	1	
Sr. Maintenance Worker	1	1	
Maintenance Worker II	3	3	
Maintenance Worker I	4	4	
Administrative Assistant	0.5	0.5	
TOTAL FULL - TIME	10	10	
Waste Water Collections			
Maintenance Worker II	1	1	
TOTAL FULL - TIME	1	1	

**PERSONNEL SCHEDULE
FISCAL YEAR 2017**

DEPARTMENT/POSITION TITLE	FY16	FY17
Customer Service		
Customer Service		
Manager	1	1
Assistant Customer Service		
Manager	1	1
Customer Service		
Specialist	3	3
Meter Tech	1	1
TOTAL FULL - TIME	6	6
Murphy Community Development Corporation		
Special Events		
Coordinator	1	1
TOTAL FULL - TIME EMPLOYEES	1	1
TOTAL FULL - TIME EMPLOYEES	121	121
TOTAL PART - TIME EMPLOYEES	15	15

2017 Budgetary Financial Policies

Financial policies set forth the basic framework for the fiscal management of the City. Policies, which are reviewed and approved by the City Council, will be updated and implemented annually to ensure the City maintains a sound financial position in each of the City's fund and account groups. These policies are developed within the parameters set forth in the City's Charter, Article VII. The policies will provide guidelines for short and long term decision making.

A. Operating Funds Budget Policies

1. Prior to August 10th of each year the City Manager shall prepare and submit to the City Council, the annual budget covering the next fiscal year. A budget message shall be prepared in accordance with City Charter requirements.
2. The City shall operate on a current funding base. Expenditures shall be budgeted and controlled so as not to exceed current revenues plus the planned use of fund balance accumulated through prior year savings and any transfers.
3. Transfers between funds shall only be permitted to the extent that the basis and justification of the transfer can be quantified. Periodic transfers are made for administrative cost reimbursements to the various funds. In addition, fund transfers may occur when surplus fund balances are used to support non-recurring capital expenses.
4. One-time revenues in operating funds will not be used for funding of ongoing expenditures. One-time revenues shall only be used to fund capital improvements, capital equipment, or other one-time expenditures.

B. General Fund Revenue Policies

1. All new programs or service enhancements shall be implemented according to Council direction as a part of the budget process. In the event additional revenues are required to implement a new program or service enhancement, a cost benefit analysis of the program change will be conducted by the staff to determine if a new revenue source or increase in existing revenue will be needed. The analysis shall include the applicability of user fees as a source of revenue to support the new or expanded program. The maintenance and operation portion of the General Fund ad valorem tax rate shall only be raised after thorough review of other revenue sources.
2. Through the proposed budget the City shall strive to develop a balance in major revenue sources to protect the financial stability of the City in the event of severe fluctuation in the national and/or local economy. This balance will maintain a diversified and stable revenue system. The major revenue sources of the General Fund are Ad Valorem taxes, Sales Tax, Permits and all other charges for fines and services.

3. Charges for services shall be reviewed and updated at least every five years. The review will consider the cost of providing the service and a review of similar charges in comparable cities in the region.
4. Revenues shall be projected based on actual collections from the preceding year and estimated collections of the current fiscal year, while taking into account known circumstances that will impact revenues for the new fiscal year. Revenue projections will be made conservatively.

C. Utility Fund Revenue Policies

1. A cost of service rate study will be conducted to determine rates necessary to fund the utility fund for five years. Annual reviews by staff will be performed and updates to the study will be performed as necessary to ensure that the rates in effect will fund the utility budgets.
2. Capital improvements and participation in the oversizing of utility facilities during the development of the City required as a result of growth should be paid in part through impact fees that are reviewed and adjusted within the requirements of the statute allowing their utilization.
3. Utility Fund revenues are budgeted on the basis of a normal year, not on the basis of forecasted extreme wet or dry years. The City will make every reasonable effort to ensure that an accurate measurement of water purchased and sold is maintained.
4. The City shall consider the appropriateness of using contract revenue bonds issued through the NTMWD when considering the issuance of revenue bonds.

D. Debt Service Fund Revenue and Expenditure Policies

1. The City will issue only multi-year debt and the debt will be used only to fund capital projects that cannot be funded by current revenues except as may be otherwise required by an emergency or other unforeseen circumstance.
2. To minimize interest costs on issued debt, the City will structure debt with maturities not to exceed 20 years. Longer issues may be authorized in the unusual case of a substantially longer life or other extenuating circumstances. The final maturity date for any multi-year debt will not exceed the expected useful life of the capital improvement so financed.
3. An evaluation of existing and projected overlapping and direct debt shall be reviewed by the City Council, City's Financial Advisors, as well as any committee appointed by the Council to develop recommendations for proposed new debt for the City. Estimates of growth shall be conservative and consideration will be given as to the City's future ability to repay the debt and maintain an ability to issue additional unforeseen debt.

E. Special Revenue Funds Revenue and Expenditure Policies

1. Special revenues include funds received for park programs. Funds generated from this source will be used for the expansion of park services.

F. Reserve Fund Balance Policies

1. The proposed General Fund budget shall be submitted to the City Council with a fund balance reserve of not less than 10 percent of total budgeted expenditures for each fiscal year. It is the goal of the Council to accumulate a fund balance of 15 percent of total expenditures.

Within the Reserve Fund, Replacement Fund shall be created and funded. The Replacement Fund is intended to fund major expenditures that the City will incur as it strives to provide for its citizens. The City Council will consider allocating the following percentages of the total General Fund expenditure budget annually during its budget retreat:

1% Fire Department Vehicle and Equipment Replacement Fund;

1% Vehicle Replacement Fund;

1% Equipment Replacement Fund; and

2% Building Renovation and Repair Fund

2. Debt Service Fund balances shall not have a balance that exceeds five percent of the general obligation debt outstanding principal. Debt service fund balances in excess of this requirement may be drawn down to be used to reduce ad valorem tax revenue for bond principal and interest payments on existing or new debt. Consideration will be given to the impact such use would have on future tax rate calculations. Fund balance requirements shall always be in agreement with bond covenants.

3. All other fund balances shall be maintained at a level necessary to ensure stability in the event of a decline in revenues dedicated to that fund.

4. Fund balances which exceed the minimum levels established for each fund may be used for non-recurring capital projects or programs or in emergency situations.

G. Operating Fund Expenditures

1. Operating fund expenditures shall be accounted for and budgeted in four major categories:

- a. Personnel Services
- b. Materials and Supplies
- c. Contractual Services
- d. Capital Outlay

2. The operating budgets for all Funds shall be approved by the City Council at the departmental level. ***Any change to a department's line item budget more than 25%, the City Manager shall notify the City Council and discuss the change in the next monthly financial report.*** Reviews of the operating budgets shall be performed quarterly or as needed and budget amendments shall be presented to City Council when necessary.
3. The proposed budget shall appropriate sufficient funds for operations to maintain existing quality and scope of City services and where appropriate include funds for expanded or new services.
4. The City will regularly examine programs and services in order to reduce operating cost or enhance service levels without cost increases.
5. Personnel service expenditures will reflect the minimum staffing to provide approved quality and scope of City services.
6. The City will provide a competitive compensation and benefit plan to attract and retain quality employees in order to provide high quality service.
7. Supply expenditures shall be sufficient to ensure optimal productivity of City employees. Maintenance expenditures shall be sufficient to ensure a relatively stable level of maintenance expenditures each budget year and to enhance and prolong the life of capital equipment and property.
8. Expenditures for new capital equipment shall be made only to enhance employee productivity, improve quality of service, or expand scope of services.
9. The City will evaluate the methods for providing public services in order to reduce operating expenditures and/or enhance quality and scope of services without increased costs.

H. Capital Project Expenditures

1. The City will develop a multi-year plan for capital projects, which identifies all projects likely to be constructed within a five-year period. The multi-year plan will reflect for each project the likely funding source and timeframe for completion.
2. Capital projects will be constructed to:
 - a. Protect or improve the community's quality of life.
 - b. Protect or enhance the community's economic vitality.
 - c. Support and service new citizens and development.
 - d. Provide significant rehabilitation of City infrastructure for sustained service.
3. The City will develop and implement a vehicle and equipment replacement program. This program will address the age, mileage/hours, repairs and condition of each vehicle and equipment in order to provide a timely replacement.

I. Budgetary Finance Committee

The City Council may appoint a Budgetary Finance Committee in July of each year for a one (1) year term. The Committee will review the City Manager's submitted August Annual Budget, the Audit Financial Report in March, and the Budgetary Financial Policies of the City. Any items of concern or interest shall be brought to the City Council's attention within thirty (30) days of receiving the proposed budget or Audit Financial Report. The Committee shall be comprised of two council members, finance director, and two citizens at large.

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act upon ratifying the property tax revenue increase reflected in the 2016-2017 fiscal year budget.

Staff Resource/Department

Mike Castro – City Manager
Steven Ventura – Interim Finance Director

Background/History

The budget is adopted annually by the governing body of the City of Murphy for revenues and expenditures of City funds. Legislation requires two votes by the City Council when the budget will raise more property tax revenue than was generated in the previous year. The first vote is to adopt a budget. The second vote by the City Council is to ratify the property tax revenue increase reflected in the budget.

Adoption of the annual budget constitutes the proposed revenues and expenditures as approved by the governing body for the fiscal year.

Financial Considerations

This budget will raise more total property taxes than last year's budget by \$593,517 or 5.8%, and of that amount \$131,968 is tax revenue to be raised from new property added to the roll this year.

Action Requested

Motion to approve ratifying the property tax revenue increase reflected in the budget for the 2016-2017 fiscal year.

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act upon approval of Ordinance Number 16-09-1020 levying ad valorem taxes for use and support of the municipal government of the City of Murphy for the fiscal year beginning October 1, 2016 and ending September 30, 2017.

Staff Resource/Department

Mike Castro – City Manager

Steven Ventura – Interim Finance Director

Background/History

Legislation requires two votes by the City Council when the budget will raise more property tax revenue than was generated in the previous year. The first vote is to adopt a budget. The second vote by the City Council is to ratify the property tax revenue increase reflected in the budget.

The property tax rate must be approved and adopted by the governing body of the City by September 30, 2016. The Collin County Tax Office collects the property taxes for the City and has requested the adopted tax rate by September 21, 2016 in order to mail tax statements in October.

Financial Considerations

Property taxes fund the debt service obligations of the City and accounts for a large portion of the general fund revenue.

Action Requested

The following is the motion that must be made to adopt the ordinance levying ad valorem taxes: **“I move that the property tax rate be increased by the adoption of a tax rate of \$0.510000, which is effectively a 3.59 percent increase in the tax rate. Approve Ordinance Number 16-09-1020 fixing and levying municipal ad valorem taxes for the fiscal year beginning October 1, 2016 and ending on September 30, 2017, and for each fiscal year thereafter until otherwise provided.”**

Attachments

- 1) Ordinance

ORDINANCE NO. 16-09-1020

AN ORDINANCE OF THE CITY OF MURPHY, TEXAS, LEVYING AD VALOREM TAXES FOR USE AND SUPPORT OF THE MUNICIPAL GOVERNMENT OF THE CITY OF MURPHY, TEXAS FOR THE 2015-2016 FISCAL YEAR; PROVIDING FOR APPORTIONING EACH LEVY AND SPECIFIC PURPOSES; PROVIDING WHEN TAXES SHALL BECOME DUE AND WHEN SAME SHALL BECOME DELINQUENT IF NOT PAID.

WHEREAS, Section 26.05 of the Texas Tax Code requires that the City of Murphy, Texas, adopt a tax rate for the next fiscal year by September 30, 2016; and

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

Section 1: That there is hereby levied and there shall be collected for the use and support of the municipal government of the City of Murphy for the 2016-2017 fiscal year, upon all property, real, personal and mixed, within the corporate limits of said City subject to taxation, a tax of **\$0.510000** on each \$100 valuation of property, said tax being so levied and apportioned to the specific purposes here set forth:

- a. For the maintenance and support of the General Government (General Fund) for the fiscal year 2016-2017, **\$0.327749** on each \$100 valuation of property. **THIS TAX RATE WILL RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR'S TAX RATE.**

THE TAX RATE WILL EFFECTIVELY BE RAISED BY 6.73 PERCENT AND WILL RAISE TAXES FOR MAINTENANCE AND OPERATIONS ON A \$100,000 HOME BY APPROXIMATELY \$-5.47

- b. For debt services for the fiscal year 2016-2017, **\$0.182251** on each \$100 valuation of property. **THIS TAX RATE WILL DECREASE TAXES FOR DEBT SERVICE WHEN COMPARE TO LAST YEAR'S TAX RATE.**

THE TAX RATE WILL DECREASE THE TAXES PAID FOR DEBT SERVICE ON A \$100,000 HOME BY APPROXIMATELY \$14.53.

Section 2: That taxes levied under this ordinance shall be due October 1, 2016, and if not paid on or before January 31, 2017, shall immediately become delinquent.

Section 3: All taxes shall become a lien upon the property against which assessed, and the City Tax Collector, or designee, of the City of Murphy, is hereby authorized and empowered to enforce the collection of such taxes according to the Constitution and laws of the State of Texas and Ordinances of the City of Murphy, Texas. Shall, by virtue of the tax rolls, fix

and establish a lien by levying upon such property, whether real or personal, for the payment of said taxes, penalty and interest and the interest and penalty collected from such delinquent taxes shall be apportioned to the General Fund of the City of Murphy. All delinquent taxes shall bear interest from date of delinquency at the rate as prescribed by State Law.

Section 4: That the City Manager or his designee shall put the following notice on the homepage of the City's Internet website:

There is hereby levied and there shall be collected for the use and support of the municipal government of the City of Murphy for the 2016-2017 fiscal year, upon all property, real, personal and mixed, within the corporate limits of said City subject to taxation, a tax of **\$0.510000** on each \$100 valuation of property, said tax being so levied and apportioned to the specific purposes here set forth:

“City of Murphy ADOPTED A TAX RATE THAT WILL RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR’S TAX RATE.

THE TAX RATE WILL EFFECTIVELY BE RAISED BY 6.73 PERCENT AND WILL RAISE TAXES FOR MAINTENANCE AND OPERATIONS ON A \$100,000 HOME BY APPROXIMATELY \$-5.47.”

“IN ADDITION, THE CITY OF MURPHY, TEXAS ADOPTED A TAX RATE OF \$0.182251 THAT WILL DECREASE TAXES FOR DEBT SERVICE WHEN COMPARED TO LAST YEAR’S TAX RATE.

THE TAX RATE WILL DECREASE THE TAXES PAID FOR DEBT SERVICE ON A \$100,000 HOME BY APPROXIMATELY \$14.53.”

Section 5: That this Ordinance shall take effect and be enforced from and after its passage.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Murphy, Texas, on this 20th day of September, 2016.

Eric Barna, Mayor
City of Murphy

ATTEST:

Susie Quinn, City Secretary
City of Murphy

**City Council Meeting
September 20, 2016**

Issue

Reconvene a public hearing and consider and/or act on the application of StreetLevel Investments to request approval of Ordinance Number 16-09-1021 for a zoning change from SF-20 (Single Family Residential-20) to a Planned Development located on 4.6579 acres, having the legal description of Abstract A0579, Henry Maxwell Survey Tract 75.

Staff Resource/Department

Kelly Carpenter AICP, Interim Director of Economic and Community Development
Tina Stelnicki, Community Development Coordinator

Summary

The intent of this Planned Development District is to provide high quality neighborhood services and development consistent with the Comprehensive Plan. The PD sets forth standards for mixed use development not limited to the following:

- Restaurants;
- Retail shops and Boutiques;
- Medical Facilities; and
- Service Businesses

This Planned Development proposes to not affect any regulation found in the City of Murphy Code of Ordinances, Ordinance No. 15-09-1002, as amended, except as specifically provided herein. All regulations of the NS (Neighborhood Service) District set forth in Article 30.03, Division 13 of the City of Murphy Code of Ordinances are included by reference and shall apply, except as otherwise specified by this ordinance. Development shall be in general conformance with the approved concept plan set forth in Exhibit C; however, in the event of conflict between the concept plan and these conditions, the conditions shall prevail. Council and staff have suggested to the applicant a list of changes to allowed uses.

A public hearing notification for this zoning change request was published in the newspaper and notification was mailed to the property owners within the required 200 feet notification radius. To date three reply forms: three in objection and one in favor of the zoning change request were received on this application.

Planning and Zoning Commission Recommendation

The Planning and Zoning Commission on August 22 recommended denial of the application for the Timbers PD. The motion does not contain a list of reasons for the denial. In the discussion; however, several reasons of some members were clear: 1) consideration of this PD application should wait until there is an updated comprehensive plan and 2) there are traffic concerns on FM544.

This item requires a super majority vote for approval because the Planning and Zoning Commission denied approval.

Since the September 6, City Council meeting, the applicant has worked with staff, and with recommendation from council members, to further define the list of approved uses for the site. The Planned Development document presented reflects those changes; additionally, the applicant has agreed to construct sidewalks along the west side of Hawthorne.

Attachments

1. Ordinance 16-09-1021
2. Property location map
3. Planned Development
4. City of Murphy Comprehensive Plan Future Land Use map
5. Reply Forms

ORDINANCE NUMBER 16-09-1021

AN ORDINANCE OF THE CITY OF MURPHY, COLLIN COUNTY, TEXAS, AMENDING THE COMPREHENSIVE ZONING ORDINANCE AND MAP, CHAPTER 30, OF THE CITY OF MURPHY CODE OF ORDINANCES, AS AMENDED, BY CHANGING THE ZONING CLASSIFICATION ON APPROXIMATELY 4.696 ACRES OF LAND LOCATED AT 210 EAST FM 544 IN THE CITY OF MURPHY, COLLIN COUNTY, TEXAS, FROM SINGLE FAMILY RESIDENTIAL-20 (SF-20) TO PLANNED DEVELOPMENT DISTRICT FOR NEIGHBORHOOD SERVICE USES WITH ADDITIONAL DEVELOPMENT STANDARDS; PROVIDING A CUMULATIVE/ REPEALER CLAUSE, A SEVERABILITY CLAUSE, A PENALTY CLAUSE, A SAVINGS CLAUSE, AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the landowners of approximately 4.696 acres of land located at 210 East FM 544 in the City of Murphy, Collin County, Texas, have requested a change in the zoning for the property described in this ordinance from Single Family Residential-20 (SF-20) to PD (Planned Development) District for Neighborhood Services with additional development standards consistent with the Comprehensive Plan; and

WHEREAS, the Planning and Zoning Commission and the City Council of the City of Murphy, in compliance with the laws of the State of Texas, have given the requisite notices by publication and otherwise, and have held due hearings and afforded full and fair hearings to all property owners generally and to all persons interested in this regard; and

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

Section 1. That all of the above recitals are found to be true and correct and are incorporated into the body of this ordinance as if fully set forth herein.

Section 2. That the Zoning Ordinance and Map of the City of Murphy, Texas, be, and the same are hereby amended so as to change the zoning (designation) from Single Family Residential-20 (SF-20) to PD (Planned Development) District for Neighborhood Services and additional development standards for the property, being an approximately 4.6469 acre tract of land located at 210 East FM544 in the City of Murphy, Collin County, Texas, and more particularly described in **Exhibit A (Legal Description)**, attached hereto and incorporated herein by reference.

Section 3. That the Development Conditions and Standards for this planned development district are attached hereto as **Exhibit B** and incorporated herein by reference, and the same are hereby approved by the City Council for said planned development district as required by the City of Murphy, Texas, Code of Ordinances.

Section 4. That the concept plan for this planned development district is attached hereto as Exhibit A (Concept Plan) within the planned development Development Conditions and Standards as required by the City of Murphy, Texas, Code of Ordinances.

Section 5. That Chapter 30 of the City of Murphy Code of Ordinances, as amended, shall be and remain in full force and effect save and except as amended by this ordinance, and that said property shall in all other respects be subject to all applicable regulations of the City of Murphy.

Section 6. Cumulative/Repealer Clause. This ordinance shall be cumulative of all provisions of state or federal law and all ordinances of the City of Murphy, Texas, except where the provisions of this ordinance are in direct conflict with the provisions of such other ordinances, in which event the conflicting provisions of such ordinances are hereby repealed to the extent of such conflict.

Section 7. Severability Clause. If any word, section, article, phrase, paragraph, sentence, clause or portion of this ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, such holding shall not affect for any reason, the validity of the remaining portions of this ordinance or the Comprehensive Zoning Ordinance, Chapter 86 of the City of Murphy Code of Ordinances, and the remaining portions shall remain in full force and effect.

Section 8. Penalty Clause. Any person, firm or corporation violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction, in the municipal court of the City of Murphy, Texas, shall be punished by a fine not to exceed the sum of two thousand dollars (\$2,000.00) for each offense, and each and every day any such violation shall continue shall be deemed to constitute a separate offense.

Section 9. Effective Date. This ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law and City Charter in such cases provide.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Murphy, Texas, on this 20th day of September 2016.

Eric Barna, Mayor
City of Murphy

ATTEST:

Susie Quinn, City Secretary

APPROVED AS TO FORM:

Wm. Andrew Messer, City Attorney

**Legal Description
EXHIBIT A**

PROPERTY DESCRIPTION

STATE OF TEXAS §
COUNTY OF COLLIN §

BEING a 4.696 acre (204,555 sq. ft.) tract of land situated in the HENRY MAXWELL SURVEY, ABSTRACT NO. 579, in the City of Murphy, Collin County, Texas, and being more particularly described as follows:

BEGINNING at a 1/2-inch iron rod with a red plastic cap stamped "W.A.I." set for the Northwest corner of Lot 1, Block C, The Timbers No. 1, an addition to the City of Murphy, Collin County, Texas, according to the Plat thereof recorded in Cabinet C, Page 653, Official Public Records, Collin County, Texas, on the South right-of-way of F. M. (Farm to Market) Road 544, a variable width right-of-way, said point being the Southeast corner of a tract of land described in deed to the State of Texas as recorded in Volume 4371, Page 2229, Official Public Records, Collin County, Texas;

THENCE South 00 deg 40 min 29 sec East, departing the South right-of-way of said F. M. Road 544, along the West line of Block C of said The Timbers No. 1, a distance of 246.85 feet to a 1/2-inch iron rod with a red plastic cap stamped "W.A.I." set for corner on the West line of Lot 4, Block C, of said The Timbers No. 1, said point being the Northeast corner of Lot 22, Block C, of The Timbers No. 3, an addition to the City of Murphy, Collin County, Texas, according to the Plat thereof recorded in Cabinet C, Page 654, Official Public Records, Collin County, Texas;

THENCE North 89 deg 30 min 36 sec West, along the North line of said Block C (Cabinet C, Page 654), a distance of 600.06 feet to a 1/2-inch iron rod with a red plastic cap stamped "W.A.I." set for the Northwest corner of Lot 28, Block C, of said The Timbers No. 3 and the Northeast corner of Lot 29, Block C, of The Timbers No. 4, an addition to the City of Murphy, Collin County, Texas, according to the Plat thereof recorded in Cabinet H, Page 75, Official Public Records, Collin County, Texas;

THENCE North 89 deg 14 min 10 sec West, along the North line of said Block C (Cabinet H, Page 75), a distance of 255.60 feet to a 1/2-inch iron rod with a red plastic cap stamped "W.A.I." set for corner on the East line of Block A, of The Timbers No. 4-A, an addition to the City of Murphy, Collin County, Texas, according to the Plat thereof recorded in Cabinet I, Page 539, Official Public Records, Collin County, Texas, said point being the Northwest corner of Lot 30, Block C, of said The Timbers No. 4;

THENCE North 00 deg 26 min 57 sec West, along the East line of said Block A, a distance of 231.52 feet to a point for corner on the South right-of-way of said F. M. Road 544 from which a 1/2-inch iron rod with a plastic cap stamped "ROOME" found for corner bears

LEGAL DESCRIPTION
EXHIBIT A
(cont'd)

South 78 deg 41 min 08 sec East, 0.95 feet, said point being the Southwest corner of said State of Texas tract;

THENCE North 89 deg 37 min 26 sec East, along the South right-of-way of said F. M. Road 544 and the South line of said State of Texas tract, a distance of 541.60 feet to a 1/2-inch iron rod with a red plastic cap stamped "W.A.I." set for corner;

THENCE North 89 deg 24 min 33 sec East, continuing along the South right-of-way of said F. M. Road 544 and the South line of said State of Texas tract, a distance of 312.95 feet to the POINT OF BEGINNING.

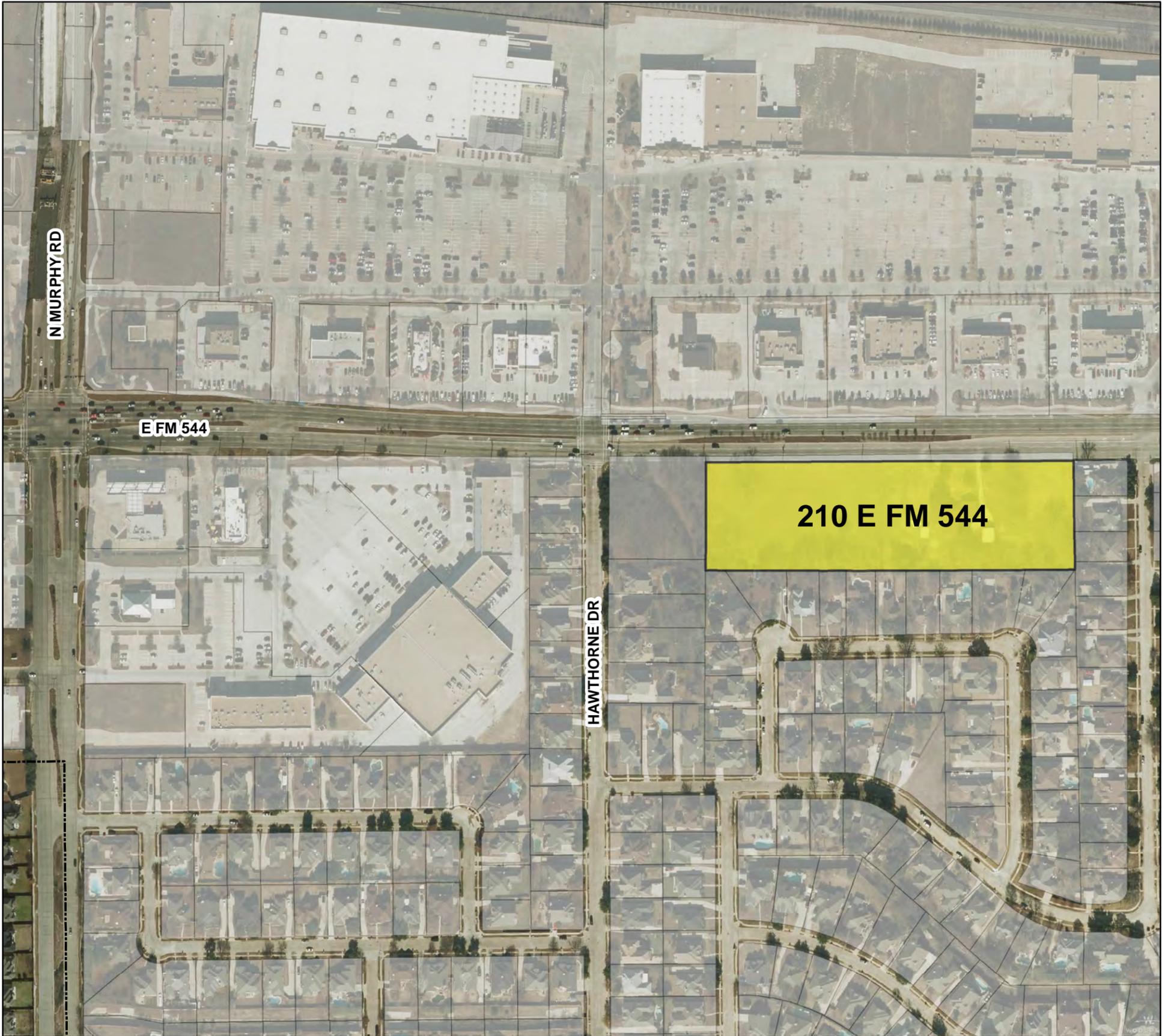
CONTAINING within these metes and bounds 204,555 square feet or 4.696 acres of land, more or less. Bearings shown hereon are based upon an on-the-ground Survey performed in the field on the 18th day of March, 2016, utilizing a G.P.S. measurement (WGS 84) along the Easterly line of Block C, of The Timbers No. 1, recorded in Cabinet C, Page 653, Official Public Records, Collin County, Texas.

EXHIBIT B

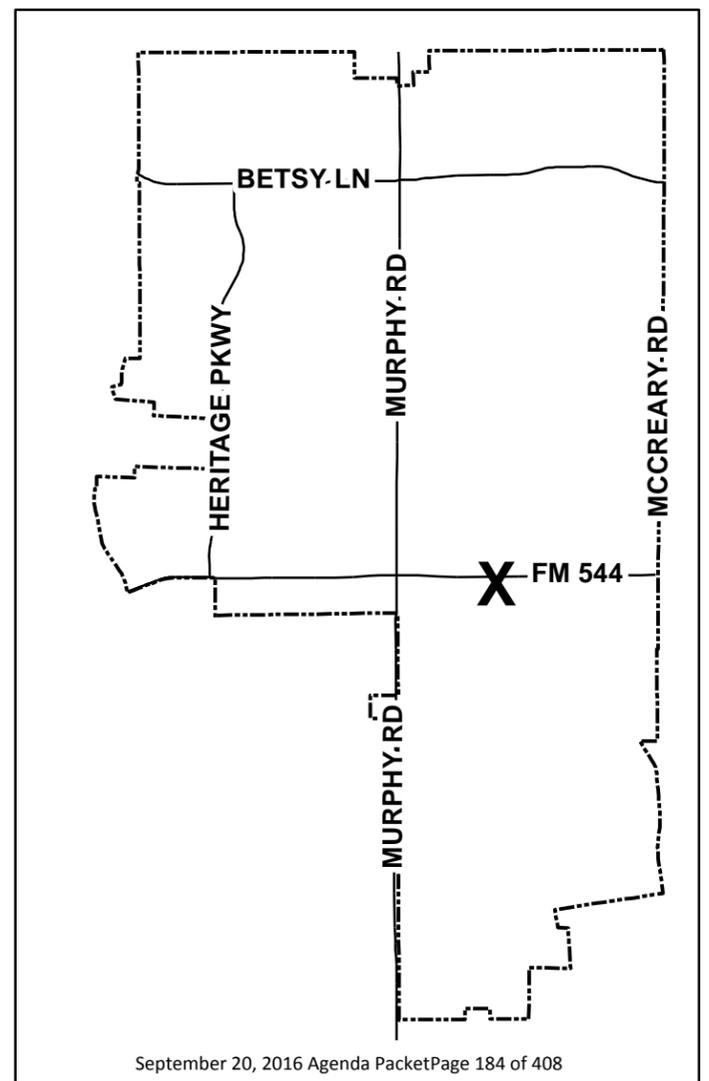
PLANNED DEVELOPMENT – VILLAGE AT TIMBERS, MURPHY, TX
SEC FM 544 and Hawthorne Drive
PLANNED DEVELOPMENT CONDITIONS

This will be added following Council's approval of the Planned Development Conditions

210 E FM 544 Property



- Murphy City Limits
- Parcel Boundaries



0 250 500 Feet



Data Sources:
Collin County Appraisal District
Collin County 911 Addressing

PLANNED DEVELOPMENT – VILLAGE AT TIMBERS, MURPHY, TX

SEC FM 544 and Hawthorne Drive

PLANNED DEVELOPMENT CONDITIONS

- I. **Statement of Intent:** The intent of this Planned Development District is to provide high quality neighborhood services development that is consistent with the Comprehensive Plan and that is beneficial and complementary to the City of Murphy in terms of visual identity.
- II. **Statement of Purpose:** The purpose of this Planned Development District is to ensure that any development that occurs within the area designated by this Planned Development encourages a mixed-use result including, but not limited to the following:
- Restaurants;
 - Retail shops and boutiques;
 - Medical Facilities; and
 - Service Businesses
- III. **Statement of Effect:** This Planned Development shall not affect any regulation found in the City of Murphy Code of Ordinances, Ordinance No. 15-09-1002, as amended, except as specifically provided herein.
- IV. **General Regulations:** All regulations of the NS (Neighborhood Service) District set forth in Article 30.03, Division 13 of the City of Murphy Code of Ordinances are included by reference and shall apply, except as otherwise specified by this ordinance.
- V. **Development Plans:**
- A. **Concept Plan:** Development shall be in general conformance with the approved concept plan set forth in Exhibit A; however, in the event of conflict between the concept plan and these conditions, the conditions shall prevail.
- VI. **Specific Regulations:**
- A. **Permitted Uses:** The following uses shall be permitted:
- ~~1. Accessory Building/structure (nonresidential) (e.g. Gazebo)~~
 - ~~2. Amusement Services (Indoor) (SUP)~~
 - ~~3. Amusement Services (Outdoor) (SUP)~~
 - ~~4. Antique Shop (household items only; no outside storage)~~
 5. Art Dealer/Gallery
 6. Artist Studio
 - ~~7. Automatic Teller Machine (ATM)~~
 - ~~8. Automobile Driving School (SUP)~~
 - ~~9. Auto Supply Store for new and rebuilt parts (SUP)~~
 10. Bakery (Retail)
 - ~~11. Barber/Beauty Shop (Nail Salon requires SUP)~~
 - ~~12. Barber/Beauty Shop College~~
 13. Bed and Breakfast Inn
 14. Bike Sales and/or Repair
 15. Book Store
 - ~~16. Cafeteria~~
 - ~~17. Car Wash (full-service, detail shop) (SUP)~~

- ~~18. Car Wash (self-service; automated) (SUP)~~
19. Child Care Center Business, Kindergarten (SUP)
- ~~20. Clinic (Medical)~~
- ~~21. Community Center (municipal)~~
22. Computer Sales
23. Confectionary Store (Retail)
- ~~24. Convenience Store without gas sales~~
- ~~25. Contractor's Temporary on-site construction office (with permit)~~
- ~~26. Credit Agency~~
27. Credit Union
28. Dance/drama/music schools
29. Dinner Theater (SUP)
30. Drapery Shop (SUP)
- ~~31. Emergency Care Clinic (SUP)~~
32. Financial Services (Advice/Invest)
- ~~33. Fire Station~~
34. Florist
- ~~35. Boutique Food or Grocery Store, approximately 5000 square feet in size~~
- ~~36. Fraternal Organization (SUP)~~
37. Furniture Sales (Indoor) (SUP)
38. Garden Shop (inside only, no outside storage)
- ~~39. Golf Course (mini) (SUP)~~
- ~~40. Golf Course (private) (SUP)~~
- ~~41. Daycare Home (SUP)~~
42. Handicraft Shop
43. Hardware Store
44. Health Club (indoors only) (SUP)
- ~~45. Hospital (Acute/Chronic Care/Surgical Center) (SUP)~~
46. Insurance Agency Offices
- ~~47. Kiosk (providing a service) (SUP)~~
- ~~48. Laundry/Dry Cleaning (Drop-Off/Pickup Only)~~
49. Locksmith
50. Mailing Service (private)
51. Martial Arts School
- ~~52. Motion Picture Theater (Indoors) (SUP)~~
- ~~53. Museum (Indoors)~~
54. Needlework Shop
- ~~55. Nonprofit activities by Church~~
- ~~56. Nursing Home (SUP)~~
57. Offices (brokerage, health, medical, legal, professional services)
- ~~58. Offices (parole-probation) (SUP)~~
- ~~59. Park and/or Playground (Private) (SUP)~~
60. Pet Shop/Supplies
- ~~61. Pharmacy (SUP), including compounding pharmacy~~
62. Philanthropic Organization (SUP)
- ~~63. Phone Exchange/Switching Station (SUP)~~
64. Photo Studio
65. Photocopying/Duplicating
- ~~66. Plant Nursery (retail sales/outdoor storage) (SUP)~~
- ~~67. Police Station~~
- ~~68. Quick Lube/oil change/minor inspections~~

- 69. Real Estate Office
- ~~70. Recycling Kiosk (SUP)~~
- 71. Restaurant
- ~~72. Restaurant (Drive-In) (SUP)~~
- 73. Retail Store
- ~~74. School, K through 12 (Private) (SUP)~~
- ~~75. Security Monitoring Company (no outside storage) (SUP)~~
- 76. Shoe Repair
- ~~77. Skating Rink, Indoor~~
- ~~78. Studio for radio or television (without tower)~~
- ~~79. Swimming Pool (Private/membership) (SUP)~~
- 80. Tailor Shop
- ~~81. Telemarketing Agency (SUP)~~
- 82. Travel Agency
- ~~83. Vacuum Cleaner Sales and Repair~~
- ~~84. Veterinarian (indoor kennels)~~
- ~~85. Video Rental/Sales~~

B. Area and Yard Regulations:

- 1. Setbacks From Property Lines:
 - a. Building Setbacks - No building of any kind and no part thereof shall be placed within the following setback lines:
 - i. Minimum 40 feet from FM 544.
 - ii. Minimum 50 feet from residentially zoned property.
 - iii. Minimum 40 feet from west property line.
 - b. Building Height:
 - i. From North Property Line - Building height will not exceed 30 feet in height and will allow for architectural and tenant branding elements.
 - ii. From East Property Line – Building front height will not exceed 30 feet in height along the store fronts facing FM 544 and will allow for architectural and tenant branding elements. Building sides and rear walls will not exceed 25 feet in height.
 - iii. From South Property Line - Building height will not exceed 30 feet in height along the store fronts facing FM 544 and will allow for architectural and tenant branding elements. Building sides and rear walls will not exceed 25 feet in height.
 - iv. From West Property Line – Building front height will not exceed 30 feet in height and will allow for architectural and tenant branding elements. Building sides and rear walls will not exceed 25 feet in height.
 - c. Landscape Buffers:
 - i. Minimum 25 feet landscaped buffer strip measured from back of curb to back of curb required along FM 544.
 - ii. Minimum 20 feet landscaped buffer strip where adjacent to residentially zoned property along the east and south property line.
 - iii. Minimum 20 feet landscaped buffer strip adjacent to the west property line.

iv. Landscaping within the landscaped buffer strip shall at a minimum comply with code. See Item VI. F. below.

2. There is no maximum building size as long as fire standards and all other site requirements, such as parking and landscaping, for example, are met.

C. Parking, Driveways & Sidewalks:

1. Parking areas shall not be permitted within any landscape buffer strip. See Item VI. F. below.
2. Fire lanes, driveways, loading areas and access easements shall be paved in accordance with the minimum design standards of the City of Murphy Code and Ordinances.
3. The number of required parking spaces shall be dependent upon the use and shall meet the requirements of the City of Murphy Code of Ordinances. No required parking space may be occupied by signs, cart corrals, merchandise, or display items at any time.
4. Sidewalks along FM 544 shall be a minimum of (8) eight feet in width.

D. Loading and Unloading:

1. Truck loading berths and apron space shall not be located on the street side of any building.
2. Truck loading shall be screened by a combination of the building itself and landscaping. Truck loading will occur behind the buildings. Along the south property line, a landscaped buffer strip and a masonry screening wall are required by code and will be providing additional screening from adjacent residential zoning.
3. Truck loading berths and apron space shall not be located within any required setback or landscape buffer strip.

E. Minimum Exterior Construction Standards, Building Materials and Design:
Exterior Construction and Design Requirements shall be architecturally compatible and comply with the following:

1. All structures, including all building elevations, shall be constructed utilizing a unified design that is substantially consistent with or contains architectural design elements including but not limited to the following:
 - a. Canopies and awnings.
 - b. Outdoor patios.
 - c. Display windows/decorative windows. See Item VI. E.(3) below.
 - d. Architectural details (such as decorative tile, stone or brick work) integrated into the building facade.
 - e. Articulated cornice line or trim.
 - f. Accent materials (minimum 15% of exterior facade)
 - g. Other architectural features as approved with the City site plan review and approval process.
2. At least two masonry materials shall be used in addition to glass on any single

building. The following masonry and decorative materials shall be allowed:

- a. Brick Material - Brick material used for masonry construction shall be hard fired (kiln fired) clay or slate material which meets the latest version of ASTM standard C216, Standard Specification for Facing Brick (Solid Masonry Unit Made of Clay or Shale), and shall be Severe Weather (SW) grade, and type FBA or FBS or better. Unfired or underfired clay, sand, or shale brick are not allowed. Brick veneer is acceptable with a minimum thickness of three inches.
 - b. Stone Material - Masonry construction using stone material may consist of granite, marble, limestone, slate, river rock, and other hard and durable naturally occurring all-weather stone. Cut stone and dimensioned stone techniques are acceptable. Synthetic stone is not acceptable. Stone veneer is acceptable with a minimum thickness of three and five-eighths inches.
 - c. Concrete panel construction - Concrete finish, precast panel, tilt wall, or cementitious composite reinforced panel construction shall be painted, fluted, or exposed aggregate. Smooth or untextured concrete finishes are not acceptable.
 - d. Concrete masonry units - Concrete masonry units used for masonry construction shall meet the latest version of the following applicable specifications; ASTM C90, Standard Specification for Hollow Load Bearing Concrete Masonry Units; ASTM C145, Standard Specification for Solid Load Bearing Masonry Units; ASTM C129, Standard Specification for Hollow and Solid Nonload Bearing Units. Concrete masonry units shall have an indented, hammered, split face finish or other similar architectural finish as approved by the city council. Lightweight concrete block or cinderblock construction is not acceptable as an exterior finish. Colored concrete masonry units are prohibited.
 - e. EIFS and Stucco Trim (limited to no more than 12% of total façade).
 - f. Awnings or overhangs constructed of decorative metal and fabric material.
3. Glass and metal standards - Glass and metal standards are as follows: Glass walls shall include glass curtain walls or glass block construction. "Glass curtain wall" shall be defined as an exterior wall which carries no structural loads, and which may consist of the combination of metal, glass, or other surfacing material supported in a metal framework.
 4. Color schemes shall reflect the tone and quality consistent with the existing architectural character currently found in the City of Murphy. Accent colors may be used to identify architectural features or highlight details. The exterior color of all structures shall be muted, rustic earth tones. Bright colors and those classified as primary colors are expressly prohibited. When civil and architectural plans are submitted, building colors will be noted for city approval and will be presented to the City of Murphy Planning and Zoning and the City of Murphy City Council.
 5. Stand fans, skylights, cooling towers, communication towers, satellite dishes, vents, and any other structures or equipment, whether located on the roof or elsewhere, shall be architecturally compatible with the surrounding developments or effectively shielded from view from any public dedicated street by an architecturally effective method.
 6. Each commercial building, complex of buildings, or separate commercial business enterprise shall have a trash bin on the premises adequate to handle the trash and

waste items generated, manufactured, or acquired thereon by such commercial activities. The sorting, handling, moving, storing, removing and disposing of all waste materials must be housed or screened from view as prescribed in city ordinances.

7. Building roofs shall be so designed and constructed to prevent water ponding and to shed water in a reasonable amount of time. Built-up roofs and roof-top items which include equipment, piping, flashing, and other items shall be maintained for continuity of the roof appearance.
8. Roof top equipment, piping, flashing, and other items on the roof shall be screened by a perimeter parapet wall so as not to be visible from roadways.
9. In all cases, mechanical equipment on roofs and outcroppings should be clad by a like building material or painted with a color scheme similar to the principal structure walls or roof.

F. Landscape Standards: Landscaping shall be compatible and comply with the standards set forth in the City of Murphy Code of Ordinances, except as provided below:

1. All landscaping shall use a unified design for the entire development. Landscaping shall be required on all developments within the Planned Development District and shall be complete prior to the issuance of any certificate of occupancy or final building inspection for the development. An automatic underground irrigation system shall be installed and maintained for all required landscaping and shall be in place and operable at time of planting.
2. A landscape buffer shall be provided 25 feet in depth adjacent to the right-of-way of FM 544 as measured from the back of curb of the public street to the back of curb of any site paving. No parking may be placed within any landscape buffer. Pedestrian easements may be located within a landscape buffer. The width of the sidewalk may be included in the calculation of the buffer depth for 25 foot buffers.
3. Parking Lots:
 - a. A minimum percentage of the parking area shall be landscaped according to the following requirements. Such landscaping shall be distributed within the parking area, occurring within medians, islands, or peninsulas. All such landscape areas shall be protected by concrete curbing or other acceptable devices which prohibit vehicular access to landscaped areas. Bumper overhang shall not be included as part of required landscaping.

(4) feet by four (4) feet shall be provided surrounding each tree located in a surface parking area.

 - i. A total of five (5) percent of the interior of the entire parking lot regardless of location, shall be landscaped. One large tree or three (3) ornamental trees from the Plant List, shall be provided for each twelve (12) parking spaces, and planted within the five (5) percent area. Trees shall be distributed so that bays of parking spaces shall not exceed eighteen (18) spaces in length.

G. Screening. Screening shall comply with the standards set forth in the City of Murphy Code of Ordinances. Screening abutting residentially zoned land will comply with City of Murphy Code of Ordinances for design and construction standards.

1. **Developer shall construct an eight (8) foot masonry wall along the South side of the property (adjacent to the single family residential). Landscaping, for sound buffering purposes, will be planted along the wall.**

- H. Site Lighting.** Lighting shall comply with the standards set forth in the Code of Ordinances, except as provided below.
1. Lighting should be provided for vehicular, pedestrian, signage, and architectural features.
 2. Site lighting fixtures used shall be uniform and a consistent design within the development. Lighting standards for illuminating these areas shall be no taller than 35 feet high. However, the height of all light standards shall be subject to review of the lighting plan during the Site Plan review.
 3. The pattern of light pooling from each fixture shall be carefully considered to provide smooth, even lighting of driveways and parking, while eliminating light intrusion into adjacent property outside of the planned development district and where abutting residentially zoned land. Parking areas shall have a minimum of 3-foot candles initial and a minimum average 2-foot candle on a maintained basis. Light sources shall be metal halide, mercury vapor or of similar color. Yellow/orange source lights are prohibited from use. Incandescent source lighting should be considered for pedestrian areas and near buildings. Lighting for areas directly abutting residential use shall not exceed 0.5 foot-candles.
 4. General illumination shall commence one half hour before sunset and last until the Building Site is closed for the evening.
- I. Signage and Graphics:** Signage shall comply with the standards set forth in the City of Murphy Code of Ordinances, except as provided below:
1. General
 - a. Single Tenant Monument signs - One (1) monument sign shall be allowed on each lot where one tenant occupies the building and shall be limited to a maximum sign area of 50 square feet and a maximum structure area of 80 square feet. The site plan review and approval process will reflect the lot or lots that are allowed single tenant monument signs.
 - b. Multi-Tenant Monument signs - One (1) multi-tenant monument sign shall be allowed on each lot where more than one tenant occupies the building as shown on the site plan and shall be limited to a maximum sign area of 80 square feet and a maximum structure area of 120 square feet. The site plan review and approval process will reflect the lots that require multi-tenant monument signs.
 2. Single Tenant Monument Signs
 - a. Monument signs shall identify individual tenants or uses within a lot where the building contains one business occupant. Monument signs shall be a maximum of eight (8) feet tall.
 - b. All single tenant monument signs shall be double-sided, internally illuminated Plexiglas sign panels contained within a masonry structure. Single tenant monument signage may also be lit by ground mounted flood lighting or internal letter illumination either face lit or reverse channel lit. Light fixtures should be screened from view in front of the sign.
 - c. Monument signs shall be located at a setback distance of not less than eight (8) feet from the right-of-way line of FM 544 and incorporated within the landscaped buffer strip.

- d. Construction of monument signs shall include a base of material compatible with the material used for buildings.

3. Multi-Tenant Monument Signs

- a. Multi-tenant monument sign shall identify each tenant or uses within a lot where the building contains multiple business occupants. The multi-tenant monument sign shall be a maximum of eight (8) feet tall.
- b. All multi-tenant monument signs shall be double-sided, internally illuminated Plexiglas sign panels contained within a masonry structure. Multi-tenant monument signage may also be lit by ground mounted flood lighting or internal letter illumination either face lit or reverse channel lit. Light fixtures shall be screened from view in front of the sign.
- c. Monument signs shall be located at a setback distance of not less than eight (8) feet from the right-of-way line of any adjacent street and incorporated within the landscaped buffer strip.
- d. Construction of monument signs shall include a base of material compatible with the material used for buildings.

4. Temporary Marketing Signage

- a. Two (2) free-standing temporary marketing signs shall be permitted for the proposed development. These signs shall be for a term of six (6) months from the date of installation.
- b. The maximum signage area will be 64 square feet. The maximum height shall be 5 feet.
- c. All other temporary signage not specifically referred to in the Signage Criteria package or in this section shall comply with the City of Murphy standards.
- d. Temporary signs are not required to be constructed of the material used for buildings.

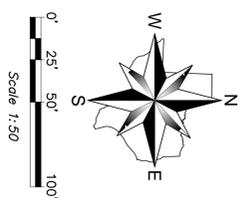
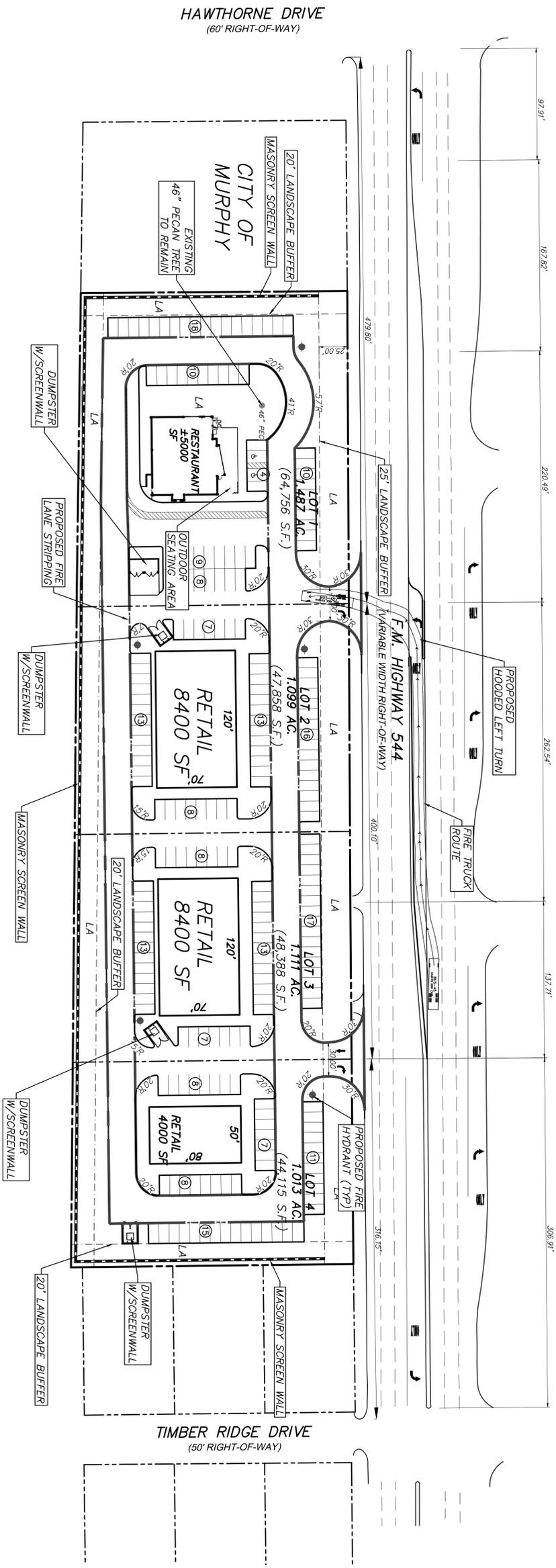
J. Open Space

- 1. The proposed development should make a positive impact to the City by providing defined public spaces and activity centers so that varied activities are encouraged within these areas. This can be accomplished through the incorporation of open spaces that become public amenities and that provide interest within the Lots at the pedestrian level.
- 2. Outdoor Seating. Any establishment serving food for consumption on- premises is encouraged to provide an outdoor seating area and shall be approved with the site plan. The outdoor seating area may be included as a portion of the 5% open space requirement. ~~as stated in (b.) below.~~
- 3. An additional 5% of open space is required in addition to the landscape, setback, and parking lot island requirements. The additional 5% may be located adjacent to the required setbacks or landscaping at the ROW and property lines or in front or in some cases to the side of the structure. The additional open space percentage may not include the building footprint or vehicular parking lot. This area and associated amenities shall be approved on the site plan. ~~At least one of the following amenities shall be located within the additional 5% open space area and count towards the required percentage.~~ Public benches along walkways and sidewalks will be incorporated to meet this requirement.

VII. Special Regulations:

1. Utility/Power Lines: New utility distribution and service lines for individual business establishments, buildings, signs and for any other site development features shall be placed underground.
2. Pedestrian Streetscape: Pedestrian spaces throughout the Planned Development District shall be treated with amenities that are selected based upon their ability to unify the streetscape and shall be established on the overall concept plan for each Lot. These features shall include, but are not limited to, benches, trash receptacles, bicycle racks, lighting poles, etc.
3. Cross-Access Requirement: A joint access (i.e. – ingress, egress) easement shall be required to minimize the number of driveway openings along FM 544. The location(s) of access easement(s) shall be shown on the site plan and shall comply with the Texas Department of Transportation (TxDOT) Access Management Standards.
4. Building Placement/Orientation: Buildings shall be placed in a manner that is conducive to a pedestrian-oriented atmosphere, wherever possible. Any building within 200 feet of FM 544 shall either face such right-of-way or shall have a facade facing such right-of-way that is in keeping with the character of the building's main facade.
5. Traffic Impact Analysis: If requested by the City, a Traffic Impact Analysis report will be provided for the permit application to TXDOT for roadway improvements that impact FM 544.
6. Sidewalks: The developer shall construct a sidewalk from the project property line on the west side of the property, along FM544, to the corner of FM544 and Hawthorne as well as on the east side of Hawthorne. The sidewalk constructed on the east side of Hawthorne will run from FM544 and adjoin existing sidewalk at 112 Hawthorne.

NOTE: TxDOT IMPROVEMENTS
HAVE NOT BEEN APPROVED AT
THIS TIME (AUGUST 2016)



SITE DATA TABLE				
BUILDING TYPE	LOT 1	LOT 2	LOT 3	LOT 4
RESTAURANT	RESTAURANT	RETAIL	RETAIL	RETAIL
LOT SIZE (ACRES)	1.487	1.099	1.111	1.013
BUILDING SIZE (SQ. FT.)	5,000	8,400	8,400	4,000
PARKING RATIO (1 SPACE PER X SQ. FT.)	100	200	200	200
REQUIRED PARKING	50	42	42	20
PROVIDED PARKING	59	44	45	49

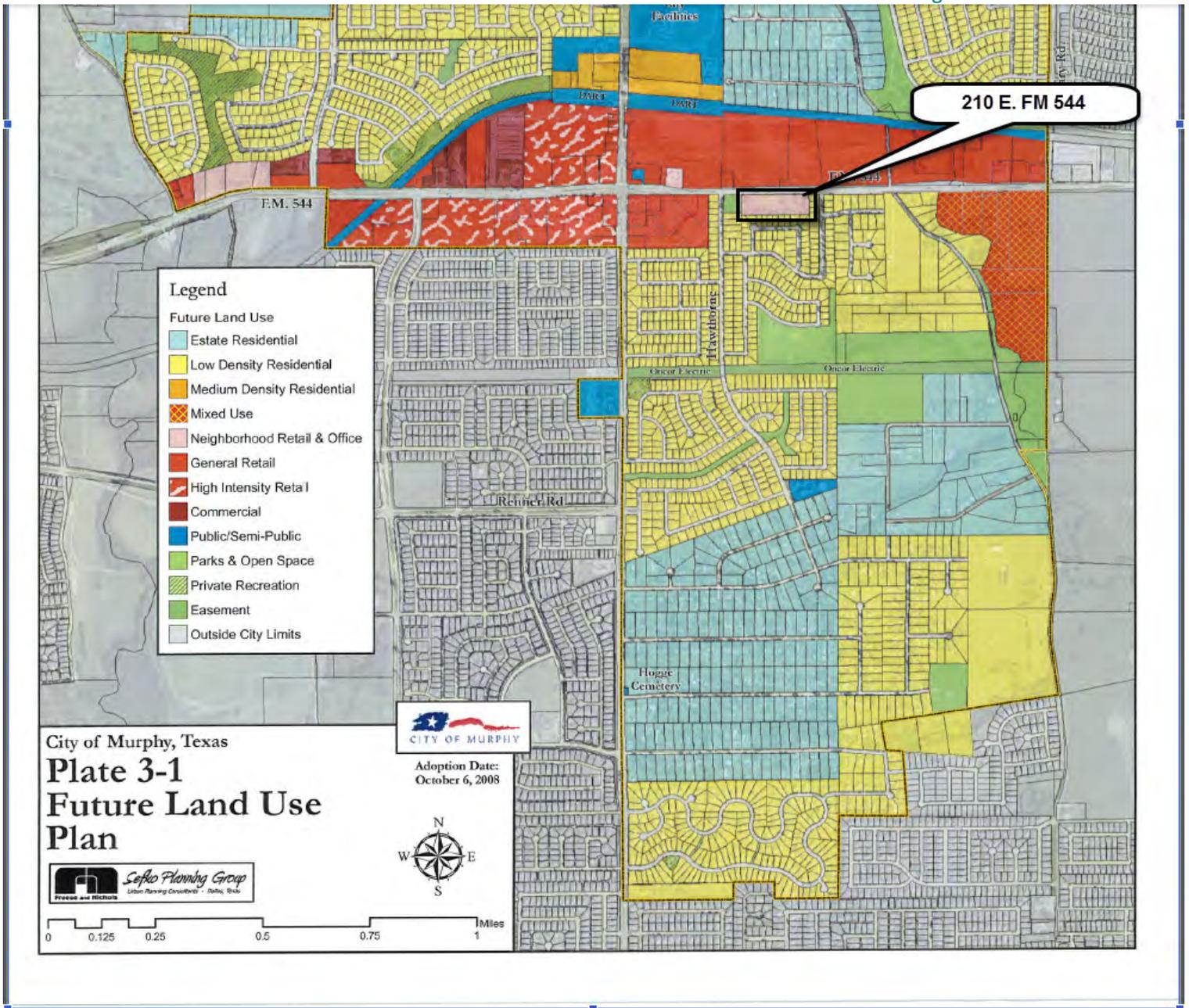
CITY PROJECT #2016-010

CONCEPT PLAN A
THE VILLAGE AT TIMBERS
MURPHY, TEXAS

EXHIBIT A

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DRIVE, SUITE 325
DALLAS, TEXAS 75230
Texas Engineers Registration No. 89
Texas Surveyors Registration No. 100866-00
COPYRIGHT © 2016, Winkelmann & Associates, Inc.

No.	DATE	REVISION	APPROV.
3.	08-11-16	City PD Comments	WRW
2.	08-02-16	City PD Comments	WRW
1.	06-24-16	City Comments	WRW





Reply Form
2016-010 – Zoning Change Request

Planning & Zoning Commission
206 North Murphy Road
Murphy, Texas 75094



This letter is regarding a request for approval of a zoning change from SF-20 (Single Family Residential-20) to a Planned Development located on 4.6579 acres, having the legal description of Abstract A0579, Henry Maxwell Survey Tract 75. This property is located on East FM 544, just east of Hawthorne Drive.

I am IN FAVOR of the request for approval of a zoning change.

I am OPPOSED to the request for approval of a zoning change.

This item will be heard at the Planning and Zoning Commission on Monday, August 22, 2016 at 6:00 p.m. and by City Council on Tuesday, September 6, 2016 at 6:00 p.m. at Murphy City Hall, in the City Council Chambers at 206 N. Murphy Road, Murphy, Texas. Please provide your written comments below regarding the requested change. If additional space is required, you may continue writing on a separate sheet, one-sided for printing purposes.

- 1 Already excessive traffic on FM 544.
2 Excessive traffic cutting through Hawthorne and FM 544. the Timbers.
3 Excessive speeding from vehicles cutting through Hawthorne.
4 Impact to property values on Hawthorne and the Timbers.
5 We already have too much development on FM 544 and Murphy Road giving small town feel.

By signing this letter, I declare I am the owner or authorized agent of the property at the address written below.

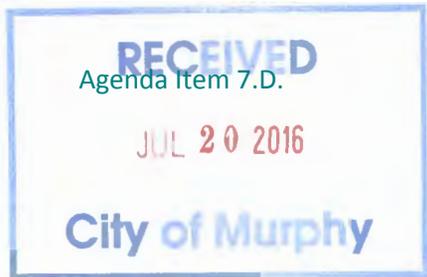
JASON HILL
Name (Please Print)

Jason C. Hill
Signature

124 Hawthorne Dr
Address

8-12-2016
Date

Reply Form
2016-010 – Zoning Change Request



Planning & Zoning Commission
206 North Murphy Road
Murphy, Texas 75094



This letter is regarding a request for approval of a zoning change from SF-20 (Single Family Residential-20) to a Planned Development located on 4.6579 acres, having the legal description of Abstract A0579, Henry Maxwell Survey Tract 75. This property is located on East FM 544, just east of Hawthorne Drive.

I am **IN FAVOR** of the request for approval of a zoning change.

I am **OPPOSED** to the request for approval of a zoning change.

This item will be heard at the **Planning & Zoning Commission on Monday, July 25, 2016 at 6:00 p.m. and by City Council on Tuesday, August 16, 2016 at 6:00 p.m.** at Murphy City Hall, in the City Council Chambers at 206 N. Murphy Road, Murphy, Texas. Please provide your written comments below regarding the requested change. If additional space is required, you may continue writing on a separate sheet, one-sided for printing purposes.

I am in favor of the proposed zoning change for the property described herein as it is what the 2008 Comprehensive plan for the City of Murphy envisioned as the best future use.

By signing this letter, I declare I am the owner or authorized agent of the property at the address written below.

MARGARET SMITH
Name (Please Print)

Margaret Smith
Signature

124 Timber Ridge Dr
Address Murphy

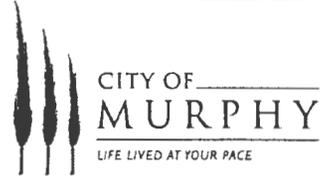
7/16/16
Date

JUL 20 2016

City of Murphy

Reply Form 2016-010 – Zoning Change Request

Planning & Zoning Commission
206 North Murphy Road
Murphy, Texas 75094



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I am **IN FAVOR** of the request for approval of a zoning change.

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*HOUSES ARE FINE
THERE ARE ENOUGH FAST FOOD PLACES ALREADY*

By signing this letter, I declare I am the owner or authorized agent of the property at the address written below.

JERRY S. SALT

Name (Please Print)

[Handwritten Signature]

Signature

331 LOCING OAK RD

Address
MURPHY, TX 75094

15 JUL 2016

Date

Reply Form 2016-010 – Zoning Change Request

Planning & Zoning Commission
206 North Murphy Road
Murphy, Texas 75094



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_____ I am **IN FAVOR** of the request for approval of a zoning change.

I am **OPPOSED** to the request for approval of a zoning change.

This item will be heard at the **Planning and Zoning Commission** on **Monday, August 22, 2016 at 6:00 p.m.** and by **City Council** on **Tuesday, September 6, 2016 at 6:00 p.m.** at Murphy City Hall, in the City Council Chambers at 206 N. Murphy Road, Murphy, Texas. Please provide your written comments below regarding the requested change. If additional space is required, you may continue writing on a separate sheet, one-sided for printing purposes.

I strongly oppose the requested change.

By signing this letter, I declare I am the owner or authorized agent of the property at the address written below.

Phillip Campbell

Name (Please Print)

[Handwritten Signature]

Signature

113 Timber Ridge, Murphy TX

Address

8/31/16

Date

**City Council Meeting
September 20, 2016**

Issue

Consider and/or act upon the approval of Ordinance Number 16-09-1022 amending Appendix A, Fee Schedule, Code of Ordinances, as it relates to various fees.

Staff Resource/Department

Mike Castro – City Manager

Steven Ventura – Interim Finance Director

Summary

A comprehensive update has been made to the current City of Murphy Fee Schedule.

Current recommendations are detailed on the comparison sheet, some of which are housekeeping in nature while others are additions, verbiage changes and fee change recommendations.

Background/History

On September 15, 1988, the City Council adopted the City's first comprehensive fee schedule. Since that time, the City has established fees for a variety of services that the City provides. The last comprehensive update to the fee schedule was adopted by ordinance (Ordinance No. 09-10-817) on October 5, 2009. There has been individual Fee Schedule section updates at various times (March 22, 2010, January 4, 2011, March 1, 2011, May 17, 2011, July 19, 2011, April 3, 2012, November 1, 2012, May 7, 2013, July 15, 2014, September 1, 2015, October 6, 2015 and August 16, 2016) since the last comprehensive update. During the year if sections need to be updated, staff will bring those section recommendations to City Council for consideration.

Financial Considerations

Annually, staff reviews the Fee Schedule to ensure fees are lawful, in line with revenue and expense projections, and comparable to those of surrounding cities.

Action Requested

Motion to approve Ordinance Number 16-09-1022 amending Appendix A – Fee Schedule, Code of Ordinances, as it relates to various fees per attached schedule.

Attachments

- 1) Summary Recommendations
- 2) Ordinance Number 16-09-1022

Attachment 1

Schedule Fee Changes:

Sec. A1.001 – City payment charges

- Increased fee from \$2.00 to \$4.00 for online and telephone credit card payments for municipal court and building permits. *See Fee Schedule Review, next page* Subject to change as Council may approve a percentage.

Sec. A3.001 – Parks and recreation usage fees

- Changed Resident rental fees to \$75/hr for conference/meeting/banquet rental and *added* “Available only after normal operating hours.”

Sec. A5.004 - Food, Food Establishments, and Food Vendor Permit and Inspection Fees

- Inserted (c) Seasonal event vendor permit valid for six months: \$200.00

Sec. A6.001 - Emergency medical services

- Increased (a) Base fee resident: from \$600.00 to \$700.00
- Changed (b) Base fee nonresident from Resident + 15% = \$690.00 to \$800.00
- Increased (c) BLS supplies from \$125.00 to \$200.00
- Increased (e) Treatment/no transport from \$100.00 to \$125.00
- Increased (f) Mileage from \$10.00/loaded mile to \$14.00/loaded mile
- Increased (g) Oxygen from \$70.00 to \$100.00

Section A1.001

City of Murphy

Credit Card Fee Review	Credit Card Processor Fee Visa	Credit Card Processor Fee MasterCard	Software Application Processor Fee	Current Fee Schedule	Proposed Fee Schedule
Building Projects					
In person/counter	2.35%	2.39%	\$ -	\$ -	\$0.00
Online/web transaction	2.35%	2.39%	\$1.25	\$2.00	\$4.00
Phone transaction	2.35%	2.39%	\$ -	\$2.00	\$4.00
Monthly Maintenance Fee	\$60.00		\$120.00		
Court					
In person/counter	2.35%	2.39%	\$ -	\$ -	
Online/web transaction	2.35%	2.39%	\$1.25	\$2.00	\$4.00
Phone transaction	2.35%	2.39%	\$ -	\$2.00	\$4.00
Monthly Maintenance Fee	\$60.00		\$120.00		
Utility Billing					
In person/counter	2.35%	2.39%	\$0.00	\$ -	\$0.00
Online/web transaction	2.35%	2.39%	\$1.25	\$ -	\$0.00
Phone transaction	2.35%	2.39%	\$0.00	\$ -	\$0.00
Moto CC Draft	2.35%	2.39%			
Monthly Maintenance Fee	\$120.00		\$670.00		

CREDIT CARD PROCESSING FEES FOR SURROUNDING CITIES					
CITY	FEE BY PHONE	FEE ONLINE	FEE IN PERSON	PERMIT PROCESSING FEE	COURT FEES/MISCELLANEOUS
Allen	-	-	-		
Azle	3.60%	3.60%	3.60%		3.6% IS CHARGED ARRCOSS THE BOARD FOR ANYTHING IN THE City being paid by credit card.
Cedar Park	\$2.00	-	-		
Celina	3%	3%	3%		3% FOR COURTS AND ALL OTHER PAYMENTS MADE BY CREDIT CARD.
Fate	5%	5%	5%		5% for Court Payments by credit card in person and \$2.50 charge online.
Frisco	2%	2%	2%		
Garland	-	-	-	25% OF THE PERMIT FEE OR A MINIMUM OF \$15	
Haslet	2%	DOES NOT HAVE AN ONLINE SYSTEM FOR PERMITTING	2%		2% CHARGED IN PERSON OR OVER THE PHONE FOR COURTS AND ALL OTHER CITY FEES PAID BY CREDIT CARD.
Parker	No response at time of survey				
Plano	No response at time of survey				
Richardson	-	-	-		No Fees
Wylie	\$3	\$3	\$3		\$1.75 FOR UTILITY PAYMENTS

ORDINANCE NO. 16-09-1022

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MURPHY, TEXAS, ADMENDING THE CODE OF ORDINANCES, APPENDIX A, FEE SCHEDULE FORMERLY ORDINANCE 09-10-817, EXHIBIT A: FEE SCHEDULE; AND PROVIDING FOR SAID ORDINANCE TO TAKE EFFECT FROM AND AFTER ITS DATE OF PUBLICATION.

WHEREAS, the City Council has previously adopted a Fee Schedule on October 5, 2009; and

WHEREAS, the City Council amended the fee schedule on March 22, 2010, January 4, 2011, March 1, 2011, May 17, 2011 July 19, 2011, April 3, 2012, November 1, 2012, March 18, 2014, May 7, 2013, July 15, 2014, October 7, 2014, September 1, 2015, October 6, 2015; and August 16, 2016; and

WHEREAS, City Council desired to amend the Fee Schedule to reflect the charges which may be assessed to recover the costs incurred by the City to provide services.

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

Section 1. Findings Incorporated. The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2. Waive Fee Clause. The City Manager is authorized to waive any fee contained in this Fee Schedule which is determined by the City Manager to have a public purpose and be in the best interest of the City of Murphy, Texas.

Section 3. Fee Schedule. The Fee Schedule, attached hereto as *Exhibit A* is hereby adopted.

Section 4. Cumulative/Repealer Clause. This ordinance shall be cumulative of all provisions of state or federal law and all ordinances of the City of Murphy, Texas, except where the provisions of this ordinance are in direct conflict with the provisions of such other ordinances, in which event the conflicting provisions of such ordinances are hereby repealed to the extent of such conflict.

Section 5. Severability Clause. If any word, section, article, phrase, paragraph, sentence, clause or portion of this ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, such holding shall not affect for any reason, the validity of the remaining portions of this ordinance or of Appendix A of the City of Murphy Code of Ordinances, and the remaining portions shall remain in full force and effect.

Section 6. Penalty Clause. Any person, firm or corporation violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction, in the municipal court of the City of Murphy, Texas, shall be punished by a fine not to exceed the sum of two thousand dollars (\$2,000.00) for each offense, and each and every day any such violation shall continue shall be deemed to constitute a separate offense.

Section 7. **Effective Date.** This ordinance shall take effect October 1, 2016 after its passage and the publication of the caption, as the law and City Charter in such cases provide.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Murphy, Texas this 20th day of September, 2016.

Eric Barna, Mayor

ATTEST:

Susie Quinn, City Secretary

The following schedule of fees shall apply to the permits, licenses, services and programs provided by the city. In the occasion the city must hire an outside service or consultant to perform any of these services or any unlisted service, the city may charge the applicant 100% of the outside service or consultant charges including actual costs, administrative and overhead costs.

ARTICLE A1.000 MISCELLANEOUS FEES

Sec. A1.001 City payment charges

- (a) \$35.00 for any returned check.
- (b) \$4.00 for all credit card payments made online, and over the telephone for municipal court and building permits. *Subject to change as Council may approve a percentage.*

(Ordinance 13-05-949, sec. 2.400, adopted 5/7/13)

Sec. A1.002 Notary charges

- (a) Texas Government Code Ann. sec. 406.024 sets out the maximum fees a notary public, or their employer, may charge for notary public services. A notary public who charges more than the maximum set out below subjects the notary to possible criminal prosecution and suspension or revocation of the notary's notary public commission by the secretary of state's office.
- (b) Notary public may charge the following fees:
 - (1) No charge for signature and seal.
 - (2) No charge for each additional signature.
 - (3) No charge per page for copies of all records or papers in the notary public's office.

(Ordinance 13-05-949, sec. 6.200, adopted 5/7/13)

Sec. A1.003 Police reports

- (a) Additionally, a charge of \$15.00 per hour, plus 20% personnel charge, may apply to any request requiring extensive time and research.
- (b) Accident reports: \$6.00.
- (c) Computer-generated offense reports (over 10 pages): \$0.10 per page.
- (d) Local background check: \$10.00.
- (e) Fingerprinting fee: \$10.00.

(Ordinance 13-05-949, sec. 6.400, adopted 5/7/13)

Sec. A1.004 Public information requests

- (a) The charges in this section to recover costs associated with providing copies of public information are based on estimated average costs to governmental bodies across the state. When actual costs are 25% higher than those used in these rules, governmental bodies other than agencies of the state, may request an exemption in accordance with §70.4 of this title (relating to Requesting an Exemption).
- (b) Copy charge.
- (1) Standard paper copy. The charge for standard paper copies reproduced by means of an office machine copier or a computer printer is \$.10 per page or part of a page. Each side that has recorded information is considered a page.
 - (2) Nonstandard copy. The charges in this subsection are to cover the materials onto which information is copied and do not reflect any additional charges, including labor, that may be associated with a particular request. The charges for nonstandard copies are:
 - (A) Rewritable CD (CD-RW)--\$1.00;
 - (B) Non-rewritable CD (CD-R)--\$1.00;
 - (C) Digital video disc (DVD)--\$3.00;
 - (D) Flash Drive--\$4.00;
 - (E) Oversize paper copy (e.g.: 11 inches by 17 inches, greenbar, bluebar, not including maps and photographs using specialty paper--See also §70.9 of this title)--\$.50;
 - (F) Specialty paper (e.g.: Mylar, blueprint, blueline, map, photographic--actual cost.
- (c) Labor charge for programming. If a particular request requires the services of a programmer in order to execute an existing program or to create a new program so that requested information may be accessed and copied, the governmental body may charge for the programmer's time.
- (1) The hourly charge for a programmer is \$28.50 an hour. Only programming services shall be charged at this hourly rate.
 - (2) Governmental bodies that do not have in-house programming capabilities shall comply with requests in accordance with §552.231 of the Texas Government Code.
 - (3) If the charge for providing a copy of public information includes costs of labor, a governmental body shall comply with the requirements of §552.261(b) of the Texas Government Code.
- (d) Labor charge for locating, compiling, manipulating data, and reproducing public information.
- (1) The charge for labor costs incurred in processing a request for public information is \$15 an hour. The labor charge includes the actual time to locate, compile, manipulate data, and reproduce the requested information.
 - (2) A labor charge shall not be recovered for any time spent by an attorney, legal assistant, or any other person who reviews the requested information:
 - (A) To determine whether the governmental body will raise any exceptions to disclosure of the requested information under the Texas Government Code, Subchapter C, Chapter 552; or
 - (B) To research or prepare a request for a ruling by the attorney general's office pursuant to §552.301 of the Texas Government Code.
 - (3) When confidential information pursuant to a mandatory exception of the Act is mixed with public information in the same page, a labor charge may be recovered for time spent to redact, blackout, or otherwise obscure confidential information in order to release the public information. A labor charge shall not be made for redacting confidential information for requests of 50 or fewer pages, unless the request also qualifies for a labor charge pursuant to Texas Government Code, §552.261(a)(1) or (2).
 - (4) If the charge for providing a copy of public information includes costs of labor, a governmental body shall comply with the requirements of Texas Government Code, Chapter 552, §552.261(b).
- (e) Overhead charge.

- (1) Whenever any labor charge is applicable to a request, a governmental body may include in the charges direct and indirect costs, in addition to the specific labor charge. This overhead charge would cover such costs as depreciation of capital assets, rent, maintenance and repair, utilities, and administrative overhead. If a governmental body chooses to recover such costs, a charge shall be made in accordance with the methodology described in paragraph (3) of this subsection. Although an exact calculation of costs will vary, the use of a standard charge will avoid complication in calculating such costs and will provide uniformity for charges made statewide.
 - (2) An overhead charge shall not be made for requests for copies of 50 or fewer pages of standard paper records unless the request also qualifies for a labor charge pursuant to Texas Government Code, §552.261(a)(1) or (2).
 - (3) The overhead charge shall be computed at 20% of the charge made to cover any labor costs associated with a particular request. Example: if one hour of labor is used for a particular request, the formula would be as follows: Labor charge for locating, compiling, and reproducing, \$15.00 x .20 = \$3.00; or Programming labor charge, \$28.50 x .20 = \$5.70. If a request requires one hour of labor charge for locating, compiling, and reproducing information (\$15.00 per hour); and one hour of programming labor charge (\$28.50 per hour), the combined overhead would be: \$15.00 + \$28.50 = \$43.50 x .20 = \$8.70.
- (f) Computer resource charge.
- (1) The computer resource charge is a utilization charge for computers based on the amortized cost of acquisition, lease, operation, and maintenance of computer resources, which might include, but is not limited to, some or all of the following: central processing units (CPUs), servers, disk drives, local area networks (LANs), printers, tape drives, other peripheral devices, communications devices, software, and system utilities.
 - (2) These computer resource charges are not intended to substitute for cost recovery methodologies or charges made for purposes other than responding to public information requests.
 - (3) The charges in this subsection are averages based on a survey of governmental bodies with a broad range of computer capabilities. Each governmental body using this cost recovery charge shall determine which category(ies) of computer system(s) used to fulfill the public information request most closely fits its existing system(s), and set its charge accordingly. Type of System--Rate: mainframe--\$10 per CPU minute; Midsize--\$1.50 per CPU minute; Client/Server--\$2.20 per clock hour; PC or LAN--\$1.00 per clock hour.
 - (4) The charge made to recover the computer utilization cost is the actual time the computer takes to execute a particular program times the applicable rate. The CPU charge is not meant to apply to programming or printing time; rather it is solely to recover costs associated with the actual time required by the computer to execute a program. This time, called CPU time, can be read directly from the CPU clock, and most frequently will be a matter of seconds. If programming is required to comply with a particular request, the appropriate charge that may be recovered for programming time is set forth in subsection (d) of this section. No charge should be made for computer print-out time. Example: If a mainframe computer is used, and the processing time is 20 seconds, the charges would be as follows: \$10 / 3 = \$3.33; or \$10 / 60 x 20 = \$3.33.
 - (5) A governmental body that does not have in-house computer capabilities shall comply with requests in accordance with the §552.231 of the Texas Government Code.
- (g) Miscellaneous supplies. The actual cost of miscellaneous supplies, such as labels, boxes, and other supplies used to produce the requested information, may be added to the total charge for public information.
- (h) Postal and shipping charges. Governmental bodies may add any related postal or shipping expenses which are necessary to transmit the reproduced information to the requesting party.

- (i) Sales tax. Pursuant to Office of the Comptroller of Public Accounts' rules sales tax shall not be added on charges for public information (34 TAC, Part 1, Chapter 3, Subchapter O, §3.341 and §3.342).
- (j) Miscellaneous charges: A governmental body that accepts payment by credit card for copies of public information and that is charged a "transaction fee" by the credit card company may recover that fee.
- (k) These charges are subject to periodic reevaluation and update.

Sec. A1.005 Nuisance abatement

Mowing and clearing of acreage: Administrative fee of \$200.00 plus contractor fee for mowing. (Ordinance adopting 2015 Code)

ARTICLE A2.000 MUNICIPAL COURT FEES

Sec. A2.001 Municipal court fees

- (a) Court security fee: \$3.00 per conviction.
- (b) Court technology fee: \$4.00 per conviction.
- (c) Court juvenile case manager fee: \$5.00 per conviction.

(Ordinance 13-05-949, sec. 6.100, adopted 5/7/13)

ARTICLE A3.000 PARKS AND RECREATION FEES

Sec. A3.001 Parks and recreation usage fees

- (a) Fee waiver. The city manager or designee is authorized to waive any fee contained in this section which is determined by the city manager to be in the best interest of the city.
- (b) Community use fees for private events, all facilities except the Murphy Central Park Amphitheatre. The city may levy and collect a fee for community meeting rooms.
 - (1) Community Center meeting rooms (Rooms 117 or 118).

Fee Type	City Fee
Deposit	\$100.00 (<i>Renter may be responsible for any damage above \$100</i>)
Nonrefundable administrative fee	\$25.00
Resident	\$20.00/hr during operating hours
	\$40.00/hr after hours
Nonresident	\$40.00/hr during operating hours
	\$60.00/hr after hours
Nonprofits	\$10.00/time block during operating hours

(2) Community Center meeting rooms (Rooms 117 and 118).

Fee Type	City Fee
Deposit	\$100.00 (Renter may be responsible for any damage above \$100)
Nonrefundable administrative fee	\$25.00
Resident	\$40.00/hr during operating hours
	\$60.00/hr after hours
Nonresident	\$60.00/hr during operating hours
	\$80.00/hr after hours
Nonprofits	\$20.00/time block during operating hours

(3) Community Center gymnasium.

Fee Type	City Fee
Deposit	\$100.00 (Renter may be responsible for any damage above \$100)
Nonrefundable administrative fee	\$75.00 (<i>Nonrefundable administrative fee is waived for Half and Full Court Rentals which are intended for private recreational sports play use only.</i>)
Resident Conference/Meeting/Banquet Rental (<i>Available only after normal operating hours</i>)	\$75.00/hr
Resident Court Rental	\$45.00/hr full court \$25.00/hr ½ court
Nonresident Conference/Meeting/Banquet Rental	\$100.00/hr
Nonresident Court Rental	\$65.00/hr full court \$35.00/hr ½ court
Nonprofit Group	\$50.00/time block

(4) Murphy Activity Center.

Fee Type	City Fee
Deposit	\$100.00 (Renter may be responsible for any damage above \$100)
Nonrefundable administrative fee	\$25.00
Resident	\$75.00/hr during operating hours

	\$100.00/hr after hours
Nonresident	\$100.00/hr during operating hours
	\$150.00/hr after hours
Nonprofits	\$50.00/time block <i>(Limited to one time per month for each group on Saturdays unless approved by a director)</i>

(5) Park pavilions.

Fee Type	City Fee
Resident	\$25.00 for two hours, then \$10.00/hour
Nonresident	\$50.00 for two hours, then \$10.00/hour

(6) Athletic field reservations.

Fee Type	City Fee
Resident	No fee
Nonresident	Team must have 40% Murphy residents

(7) Community Center Memberships

Membership Fees	Resident	Non-resident
Youth (4 - 17 yrs)	No Fee	\$20.00/year
Adult (18 – 49yrs)	No Fee	\$50.00/year
Senior Adults (50 yrs+)	No Fee	\$20.00/year
Daily Drop In Fee	No Fee	\$5.00/day

(8) Activity registration

Fee Type	City Fee
Resident	No fee
Nonresident	\$5.00 per activity registration

(c) Community use fees for private events, Murphy Central Park Amphitheater only. Special event associated fees for facilities and services. Fees regarding City employees may include event preparation as well as day of

event staffing. The City of Murphy reserves the right to decide staffing requirements for the health and safety of all involved.

(1) Rates based on group type.

SERVICE	NON PROFIT	PRIVATE RESIDENT	COMMERCIAL
Security Deposit –refundable (based on event)	\$100-\$250	\$100-\$1500	\$100-\$1500
Special Event Application Fee	\$10	\$0	\$50
FACILITY	NON PROFIT	PRIVATE RESIDENT	COMMERCIAL
Amphitheater Rental SUN – THUR (8 Hour Contract)	\$150	\$500	\$1000
Amphitheater Rental FRI/SAT (8 Hour Contract)	\$350	\$650	\$1200
Amphitheater and Pavilion SUN – THUR (8 Hour Contract)	\$175	\$550	\$1100
Amphitheater and Pavilion FRI/SAT (8 Hour Contract)	\$375	\$700	\$1300
Amphitheater and Exhibition Field Rental SUN – THUR (8 hr. contract)	\$250	N/A	\$1500
Amphitheater and Exhibition Field Rental FRI/SAT (8 hr. Contract)	\$450	N/A	\$1700
Amphitheater, Pavilion and Exhibition Field Rental SUN – THUR (8 hr. contract)	\$275	N/A	\$1600
Amphitheater, Pavilion and Exhibition Field Rental FRI/SAT (8 hr. contract)	\$475	N/A	\$1800

(2) Rates based on event size

ITEM	<100	100-250	250-1000	1000-1500	1500-2500	2500+
Security Deposit –refundable (based on event)	\$0	\$100	\$300	\$500	\$1000	\$1500
Special Event Permit Fee (TBD)						
Amphitheater Rental Mon-Thurs (8 Hour Contract)	\$50	\$75	\$200	\$500	\$750	\$1000
Amphitheater Rental Fri-Sun (8 Hour Contract)	\$75	\$100	\$300	\$650	\$1000	\$1200
Amphitheater and Exhibition Field Rentals (8 hour contract)	\$150	\$300	\$500	\$850	\$1250	\$1500
Exhibition Field I (8 hours) (rectangular space)	\$75	\$100	\$200	\$200	\$250	\$300

(3) Rates for staff. The City reserves the right to determine if onsite staff will be necessary for event on a case by case basis.

DEPARTMENT	HRLY RATE	MIN HRS	BASE TOTAL
FIRE	\$ 32.50	4 HRS	\$ 130.00
FACILITIES	\$ 19.50	2 HRS	\$ 39.00
POLICE	\$ 45.00	4 HRS	\$ 180.00

RECREATION	\$ 23.00	2 HRS	\$ 46.00
EVENT STAFF	\$ 27.00	2 HRS	\$ 55.00
PARKS	\$ 26.50	2 HRS	\$ 53.00
PUBLIC WORKS	\$ 26.00	2 HRS	\$ 52.00
TECHNICAL (IT) STAFF	\$ 40.50	2 HRS	\$ 81.00
FINANCE/CASH HANDLERS	\$ 33.00	2 HRS	\$ 66.00
CODE COMPLIANCE	\$ 32.00	2 HRS	\$ 64.00
ANIMAL CONTROL	\$ 28.50	2 HRS	\$ 57.00

(4) Ticket information, sales and admission fees. There are three options for admission: free and to the public; by invitation only; or tickets available for purchase. The lessee may charge an admission fee to the event. If so, the city receives 10% of gross ticket sales or to pay a flat fee. Ticket sales shall not exceed the actual number of available seating. Admission to ticketed events can be monitored with the setup of a temporary perimeter or monitoring ticketed guests with the use of special wristbands.

(A) Gross ticket sales option. The city receives 10% of gross ticket sales.

(B) Flat rate admission option.

Expected Number of Attendants	<250	250-750	750 - <1200	1200- <1800	1800- <2500	2500+
Rate	\$150	\$500	\$1,000	\$1,500	\$2,150	\$3,000

(5) Food, beverage and souvenir sales fees. If the lessee wishes to sell items on the premises, a vendor permit must be obtained. Applicants are responsible for all necessary vendor permitting fees and associated permitting costs. Vendors are responsible for their own booth, equipment and labor. Vendor locations must be approved by the department manager. The city reserves the right to collect an additional fee of 10% of all gross sales or a flat rate to be determined at the time of application from the vendor.

(6) Refunds. Full refunds will require advanced written notice at least 90 days prior to the rental date. If the event is cancelled less than 90 days prior to the rental date, any fees and deposits will be forfeited by the lessee. If the event cannot be held or rescheduled due to weather, the lessee is still responsible for all incurred expenses and a refund of the rental fee may be available after all other fees are paid. The city will retain a \$50.00 application fee from the deposit refund for any cancellation.

(Ordinance 13-05-949, sec. 6.300, adopted 5/7/13; Ordinance 14-01-968, secs. 2, 3, adopted 1/21/14)

ARTICLE A4.000 ANIMAL CONTROL FEES

Sec. A4.001 Animal control fees

(a) Animal impound*:

- (1) 1st impound: \$50.00.
 - (2) 2nd impound: \$75.00.
 - (3) 3rd impound: \$125.00.
 - (4) 4th impound: \$150.00.
- (b) Daily handling fee: \$10.00 per day.
- (c) Pet registration:
- (1) Sterilized: \$10.00 per year.
 - (2) Non-sterilized: \$15.00 per year.
- (d) Dangerous animal registration, per animal: \$50.00 per year.
- (e) Dog and cat adoption fee, not sterilized: \$85.00 per animal.
- (f) Dog and cat adoption fee, already sterilized: \$45.00.
- (g) Standard shipping for rabies testing: Actual Shipping Cost.
- (h) Quarantine fee, per animal: \$150.00.
- (i) Microchipping fee, per animal: \$20.00.
- (j) Euthanasia fee, per animal: \$25.00.
- (k) Disposal fee, per animal: \$25.00.
- (l) Owner surrender fee, per animal: \$20.00
- (m) Duplicate animal registration fee, per animal: \$5.00
- (n) Wild/Exotic Animal registration fee, per animal: \$50.00

*These fees are above and beyond any citation fees related to violations of city ordinance or state laws.

(Ordinance 13-05-949, sec. 1.400, adopted 5/7/13; Ordinance adopting 2015 Code)

ARTICLE A5.000 BUSINESS RELATED FEES

Sec. A5.001 Alarm permits

- (a) An alarm permit must be obtained before inspection of the alarm system can be scheduled. The residential alarm permit will be automatically billed on the monthly water bill statement when submitting a new alarm permit and subsequently on the annual renewal date. All false alarm charges will be billed as well.

- (1) Residential, new and renewal, annually: \$25.00.
 - (2) Commercial, new and renewal, annually: \$50.00.
 - (3) Late renewal fee, after 10 days late: \$10.00.
- (b) False alarms:
- (1) \$50.00 for each false alarm after three (3).
 - (2) \$75.00 for each false alarm after eight (8) or more.
 - (3) No false alarm fee for a newly installed system for the first thirty (30) days.
- (c) Permit holder or emergency contact person fails to respond to scene and the premises are secured by city representatives: \$50.00.
- (d) Service fee when alarm system company relays incorrect permit number with alarm notification to city: \$50.00.

(1993 Code, secs. 98.04, 98.05; 2006 Code, secs. 6-4, 6-5; Ordinance 375, secs. 1-4, 1-5 adopted 4/3/95; Ordinance 13-05-949, sec. 1.100, adopted 5/7/13)

Sec. A5.002 Alcoholic beverage permits

The city may levy and collect a fee not to exceed one-half of the state fee for each license issued for premises located within the city. License fee(s) for businesses located within the city and who hold a license from the Texas Alcoholic Beverage Commission in accordance with the 2009 TABC chapter 26 and chapter 28:

All renewals are on a bi-annual basis.

Permit Code	Type of Permit	Issuance	State Fee	City Fee
BG	Wine & Beer Retailer's	Bi-annually	\$350.00	\$175.00
BQ	Wine & Beer Retailer's Off-Premise	Bi-annually	\$120.00	\$60.00
LB	Mixed Beverage Late Hours	Bi-annually	\$300.00	\$150.00
MB	Mixed Beverage Permit	Original	\$6,000.00	N/A
		1st renewal	\$4,500.00	N/A
		2nd renewal	\$3,000.00	\$1,500.00
		3rd and all subsequent renewals	\$1,500.00	\$750.00
RM	Mixed Beverage Restaurant with Food & Beverage	Original	\$6,000.00	N/A
		1st renewal	\$4,500.00	N/A
		2nd renewal	\$3,000.00	\$1,500.00
		3rd and all subsequent renewals	\$1,500.00	\$750.00

Sec. A5.003 Amusement and entertainment permits

	Type	Comments	Permit Period	Fee
(a)	Amusement buildings	Inspect for fire and public safety	Until revoked	\$50.00
(b)	Places of assembly	Inspect for fire and public safety	Until revoked	\$50.00
(c)	Carnivals and fairs	Inspect for fire and public safety	2 weeks	\$50.00
(d)	Exhibits and trade shows	Inspect for fire and public safety	2 weeks	\$50.00
(e)	Pyrotechnic special effects	Inspect for fire and public safety	1 day	\$200.00

(Ordinance 13-05-949, sec. 1.300, adopted 5/7/13)

Sec. A5.004 Food, food establishments, and food vendor's permit and inspection fees

- (a) Mobile catering vendors, annual permit: \$300.00/hot, \$200.00/cold. This permit requires a solicitor permit to be obtained as well.
- (b) Temporary event vendor, 1 day: \$100.00.
- (c) Seasonal event vendor permit only valid for six months: \$200.00
- (d) Convenience stores, annual permit: \$150.00.
- (e) Grocery stores, annual permit: \$500.00.
- (f) Restaurants/cafes, annual permit, \$350.00.
- (g) Other facilities serving the public food and/or beverage, annual permit: \$150.00.
- (h) Health plan review fee: \$300.00.

(Ordinance 13-05-949, sec. 4.100, adopted 5/7/13)

Sec. A5.005 Solicitor permits and licensing

- (a) Door-to-door solicitation - valid for 3 months from date of issue:
 - (1) \$200.00 company registration and one agent.
 - (2) \$75.00 registration per each additional agent.

(Ordinance 13-05-949, sec. 8.200, adopted 5/7/13)

Sec. A5.006 Sexually oriented businesses

- (a) Nonrefundable license application fee: \$500.00.
- (b) Nonrefundable application processing fee: \$60.00.
- (c) Replacement of personal card or on-site card: \$35.00.
- (d) Reinstatement fee in lieu of suspension: \$500.00.

(2006 Code, secs. 22-41, 22-49, 22-62; Ordinance 10-09-853, sec. 2, adopted 9/7/10)

ARTICLE A6.000 EMERGENCY MEDICAL SERVICES FEES

Sec. A6.001 Emergency medical services

- (a) Base fee resident: \$700.00.
- (b) Base fee nonresident: \$800.00.
- (c) BLS supplies: \$200.00.
- (d) ALS supplies: \$250.00.
- (e) Treatment/no transport: \$125.00.
- (f) Mileage: \$14.00/loaded mile.
- (g) Oxygen: \$100.00.

(Ordinance 13-05-949, sec. 3.100, adopted 5/7/13)

ARTICLE A7.000 FIRE AND SAFETY PERMITS AND INSPECTIONS

Sec. A7.001 Fire alarm, fire line, and sprinkler plan review fees

- (a) The fees below include plan review, construction permit, initial inspection and one reinspection.

Initial installation/finish out of fire alarm	1 - 100,000 sq. ft.	\$0.035 sq. ft. (\$60.00 minimum)
	100,001 - 300,000 sq. ft.	Add \$0.017 sq. ft.
	300,001 + sq. ft.	Add \$0.01 sq. ft.
Initial installation/finish out of fire sprinkler	1 - 100,000 sq. ft.	\$0.035 sq. ft. (\$60.00 minimum)
	100,001 - 300,000 sq. ft.	Add \$0.017 sq. ft.
	300,001 + sq. ft.	Add \$0.01 sq. ft.
Underground hydro and flush	Per system	\$50.00
Fire pump	Per system	\$300.00
Automatic extinguishing system (hood)	Per system	\$75.00

Standpipe system	Per system	\$300.00
Re-stamp, provide lost plans or addend a project after permit has been issued	Per incident	\$30.00
Work started without a permit		Permit fee \$ x 2

(b) The fees above include the plan review and one visual inspection and one hydrostatic test of the fire sprinkler supply line or fire sprinkler system in the case of hydraulic systems or one visual inspection and one system test of the fire alarm system in the case of alarms.

(c) Plans that are rejected after the initial review may be resubmitted with corrections one time without penalty. Any subsequent reviews will incur a fee equal to the appropriate fee from the schedule above plus an additional fee of \$50.00.

(Ordinance 13-05-949, sec. 3.200, adopted 5/7/13)

Sec. A7.002 Fire and safety inspection fees

Fees for follow-up inspections after initial inspection and reinspection shall be based upon the amount of interior square footage of the building premises, or portions thereof that are inspected, such fees set as follows:

(1) First follow-up inspection fee schedule:

Interior Square Footage	Fee
1 to 3,000	\$25.00
3,001 to 6,000	\$50.00
6,001 to 12,000	\$75.00
12,001 to 18,000	\$100.00
18,001 to 24,000	\$150.00
24,001 to 100,000	\$200.00
Over 100,000	\$250.00

(2) All subsequent follow-up inspection:

Interior Square Footage	Fee
1 to 3,000	\$50.00
3,001 to 6,000	\$75.00
6,001 to 12,000	\$100.00
12,001 to 18,000	\$125.00
18,001 to 24,000	\$175.00

24,001 to 100,000	\$225.00
Over 100,000	\$275.00

(Ordinance 13-05-949, sec. 3.300, adopted 5/7/13)

Sec. A7.003 Fire and safety permits

Fire and safety permit fees:

	Type	Comments	Permit Period	Fee
(1)	Aerosol products	Manufacture, store or handle	Until revoked	\$100.00
(2)	Amusement buildings	Special amusement buildings	Until revoked	\$100.00
(3)	Automatic fire extinguishing systems		No limit	\$100.00
(4)	Aviation facilities	Aircraft service or repair	Until revoked	\$100.00
(5)	Battery systems	Lead acid systems 50 gal.+	Until revoked	\$100.00
(6)	Cellulose nitrate film	Store, handle, or use	Until revoked	\$100.00
(7)	Combustible dust producing operations	Inspect for fire safety	2 weeks	\$100.00
(8)	Compressed gases	Limits set by fire code	1 year	\$100.00
(9)	Covered mall buildings	Per display as per fire code	Quarter	\$100.00
(10)	Cryogenic fluids		1 year	\$100.00
(11)	Cutting and welding operation		1 year	\$100.00/site
(12)	Dry cleaning plants		Until revoked	\$100.00
(13)	Exhibits and trade shows		2 weeks	\$100.00
(14)	Explosives		2 weeks	\$100.00
(15)	Fire hydrants and valves	Installation inspection	Until revoked	\$100.00
(16)	Fire pumps and equipment		No limit	\$100.00
(17)	Flammable and combustible liquids		1 year	\$100.00/site
(18)	Floor finishing		1 month	\$100.00
(19)	Fruit and crop ripening		Until revoked	\$100.00
(20)	Fumigation		1 day	\$100.00
(21)	Hazardous production materials		1 year	\$100.00
(22)	High piled storage		Until revoked	\$100.00
(23)	Hot work operations		1 week to 1 year	\$100.00
(24)	Industrial ovens		1 year	\$100.00
(25)	Liquid or gas fueled vehicles in assembly buildings		1 year	\$100.00
(26)	LP-gas		1 year	\$100.00
(27)	Lumber yards		1 year	\$100.00
(28)	Magnesium		1 year	\$100.00

(29)	Miscellaneous combustible storage		Until revoked	\$100.00
(30)	Motor fuel dispensing facilities		1 year	\$100.00
(31)	Outdoor/open burning		1 day	\$1,000.00/site
(32)	Open flames and candles		1 year	\$100.00
(33)	Open flames and torches		1 day - 1 year	\$100.00
(34)	Organic coatings		1 year	\$100.00
(35)	Pyroxylin plastics		1 year	\$100.00
(36)	Refrigeration equipment		Until revoked	\$100.00
(37)	Repair garages		1 year	\$100.00
(38)	Rooftop heliports		1 year	\$100.00
(39)	Scrap tire product		1 year	\$100.00
(40)	Spraying or dipping		1 year	\$100.00
(41)	Temporary membrane structures, tents or canopies - greater than 200 sq. ft.		2 weeks	\$100.00
(42)	Waste handling		1 year	\$100.00
(43)	Wood products		Until revoked	\$100.00
(44)	Woodworking plants		1 year	\$100.00
(45)	Tank or fuel line repair (LP-gas or flammable/combustible liquids)	Per location		\$250.00
(46)	Tank or fuel line removal (LP-gas or flammable/combustible liquids)	Per location		\$250.00
(47)	Environmental site assessment	Per each request		\$75.00

(Ordinance 13-05-949, sec. 3.400, adopted 5/7/13)

Sec. A7.004 Hazardous material incident

Fire department services related to hazardous material incident: \$400.00 per hour for each engine or truck company and \$200.00 per hour for each medical unit or utility vehicle plus supplies.

(1993 Code, sec. 99.03; 2006 Code, sec. 82-403; Ordinance 408, sec. 3, adopted 4/7/97)

ARTICLE A8.000 UTILITY RATES AND CHARGES

Sec. A8.001 Solid waste collection and disposal

(a) Residential pickup.

(1) Cart fee (95-gallon trash and 95-gallon recycling bin): \$12.62*/mo.

(2) Additional cart fee: \$7.80/mo.

- (3) Unusual accumulations (4 - 12 cubic yards): \$25.00/lift.
- (4) Special collections (12+ cubic yards): \$125.00/hr + \$25.00/ton.
- (5) Unscheduled household hazardous waste/e-waste collection: \$125.00 call out + cost of disposal.

*5% franchise fee will be added to the cart fee (\$12.62 + \$0.63 = \$13.25)

(b) Commercial pickup.

(1) For the weekly manual or automated solid waste collection:

- (A) Commercial or industrial unit utilizing one (1) polycart: \$24.50/mo.
- (B) Commercial or industrial unit utilizing two (2) polycarts: \$32.30/mo.
- (C) Commercial or industrial unit utilizing three (3) polycarts: \$40.10/mo.

(2) For the weekly collection of recyclable materials:

- (A) Commercial or industrial unit utilizing one (1) polycart: \$5.00/mo.
- (B) Commercial or industrial unit utilizing one (1) 6-yard dumpster: \$50.00/mo.
- (C) Commercial or industrial unit utilizing one (1) 8-yard dumpster: \$65.00/mo.
- (D) Commercial or industrial unit utilizing a recycling compactor: \$195.00/haul.

(3) For the solid waste collection services to commercial or industrial units requiring the use of front-load containers, the contractor shall charge per month, for each container utilized, the following rates (extra lifts will be charged per container, per extra lift):

Commercial Rate Schedule

Lifts Per Week - Monthly Service Rates

Container Size	1	2	3	4	5	6	Extra Lifts
2 cubic yard	\$66.15	\$116.10	\$163.35	\$197.10	\$244.35	\$291.60	\$30.00
3 cubic yard	\$76.65	\$137.70	\$191.70	\$245.70	\$313.20	\$380.70	\$35.00
4 cubic yard	\$99.90	\$174.15	\$248.40	\$322.65	\$396.90	\$471.15	\$40.00
6 cubic yard	\$120.15	\$207.90	\$295.65	\$383.40	\$471.15	\$558.90	\$45.00
8 cubic yard	\$140.40	\$234.90	\$337.74	\$450.32	\$562.90	\$625.48	\$50.00

(4) The foregoing rates apply to all commercial and industrial units that are located within the city's corporate limits and billed by the city for water and sewer services.

(c) Roll-off containers. Subject to adjustment by the contractor, the contractor shall charge for each roll-off utilized the following fees:

Roll-Off Rate Schedule

	Roll-Off Open Tops			
Container Size	Haul	Daily Rent	Disposal	Delivery/ Exchange Fee
20 cubic yard	\$230.00	\$3.00	\$35.00 per ton	\$75.00
30 cubic yard	\$230.00	\$3.00	\$35.00 per ton	\$75.00
40 cubic yard	\$230.00	\$3.00	\$35.00 per ton	\$75.00

(d) Compactors. For the solid waste collection services to commercial or industrial units requiring the use of compactors, the contractor shall charge the following rates:

Compactor Rate Schedule

	Compactors	
Container Size	Haul	Disposal
6 cubic yard	\$121.50	(included)
8 cubic yard	\$139.50	(included)
20 cubic yard	\$230.00	\$35.00 per ton
30 cubic yard	\$230.00	\$35.00 per ton
35 cubic yard	\$230.00	\$35.00 per ton
40 cubic yard	\$230.00	\$35.00 per ton

(Ordinance 13-05-949, sec. 8.300, adopted 5/7/13)

Sec. A8.002 Stormwater fee

Stormwater fee: \$3.00 per month per water meter.

(Ordinance 13-05-949, sec. 8.400, adopted 5/7/13)

Sec. A8.003 Water and sewer usage rates

(a) Water service.

- (1) \$100.00 new residential and commercial customer deposit.
- (2) \$200.00 new renter customer deposit.
- (3) \$100.00 for builder's new construction deposit.

The City of Murphy holds utility account deposits until the accounts are terminated. If there is a remaining balance due, the customer receives a final billing. If there is a credit balance, the customer receives a final billing and a refund check in the account holder's name only.

(4) Monthly base meter fee:

(A) Base meter charge:

Meter Size	Charge
3/4 inch	\$20.00
1 inch	\$33.00
1-1/2 inch	\$67.00
2 inch	\$107.00
3 inch	\$200.00
4 inch	\$333.00

Larger meters will be charged \$15.00 times the living unit equivalent according to the water and wastewater impact fee update.

(B) Volumetric water rate (per 1,000 gallons):

Gallons	City	NTMWD	Total
0 –15,000	\$1.69	\$2.58	\$4.27
15,001–30,000	1.95	2.58	4.53
30,001–45,000	2.24	2.58	4.82
45,001–60,000	2.57	2.58	5.15
60,001+	2.96	2.58	5.54

*NTMWD - North Texas Municipal Water District fees

(5) \$10.00 for a meter re-read when there is no problem found.

(6) Leak Credit Requirements

(A) A leak credit will be considered after a customer presents proof of repair of leak within ninety (90) days.

(B) This average will apply to water usage only and leak credit shall be applied only once per 12-month period as appropriate, and cannot cover a period greater than 90 days (3 months).

(C) Leak credit will be based on a 24 month average by using the following calculations -

- i. Leak usage 0 to 15,000 gallons will be calculated by 1st tier rate minus wholesale rate,
- ii. Leak usage 15,000 and above will be calculated at 2nd tier rate minus wholesale rate.

(New customers will be charged the citywide residential average usage of 9,400 gallons until their own independent 24 month average has been established).

(D) If a leak is detected by the City and the location has been notified, the homeowner must repair the leak within 90 days of notification to be considered for a credit.

(7) 10% penalty will be applied to the account balance if payment in full is not received within 20 days from the billing date.

(8) \$30.00 service fee will be applied to the account balance if payment in full is not received within 30 days from the billing date. All disconnections will take place on the following Wednesdays.

(9) Disconnect fees will be waived in the month of December.

(10) \$50.00 service fee will be applied during after-hours, weekends and holidays with documentation that the bill has been paid at the city online website or placed in after-hours drop box (if payment is not in night box prior to next business day there will be assessed an additional \$30.00 service fee for another disconnection).

(11) At the discretion of the billing manager, a one-time courtesy adjustment of late penalty or \$30.00 service fee can be waived if account is in good standing for a period of 12 months straight.

(12) At the discretion of the billing manager, adjustments of late penalty and service fee can be waived for uncontrollable circumstances with proper documentation from the resident. Examples include: hospitalization, illness, family death, and/or other qualifying events.

(13) If any due date falls on a weekend or holiday, payments will be due on the next city business day.

(b) Irrigation rates.

(1) Irrigation base charge:

Meter Size	City Portion
3/4"	\$20.00
1"	\$33.00
1-1/2"	\$67.00
2"	\$107.00
3"	\$200.00
4"	\$333.00

(2) Volumetric rate (per 1,000 gallons):

Volumetric Irrigation Rate	City Portion	NTMWD Portion	Total
0–15,000	\$2.02	\$2.58	\$4.60
15,001–30,000	2.32	2.58	4.90
30,001–45,000	2.67	2.58	5.25
45,001–60,000	3.07	2.58	5.65
60,000+	3.53	2.58	6.11

(c) Wastewater service.

(1) Base meter charge:

Type	Charge
Residential	\$18.00
Commercial	\$18.00
HOA	\$18.00
Church	\$18.00

(2) Volumetric wastewater rates (per 1,000 gallons):

Type	City	NTMWD	Total
Residential	\$.76	\$2.58	\$3.44
Commercial	.76	2.58	3.44
HOA	.76	2.58	3.44
Church	.76	2.58	3.44

(3) Volumetric rate (per 1,000 gallons) based on 3-month (November, January and February) winter average of water usage for residential only.

(4) The city will use a winter averaging for the purpose of calculating sewer charges on customer's utility bill. The new sewer charges will be based on the water consumption average for three months (November, January and February). Average consumption is applied against current sewer rates and becomes the constant sewer charge for 12 months beginning with each April 1st.

(5) New customers to the system will be charged the citywide residential average usage of 9,400 gallons until their own independent winter average has been established.

(d) Water meter fees.

(1) 3/4 inch (residential standard): \$330.00.

(2) 1 inch: \$420.00.

- (3) 1-1/2 inch: \$950.00.
 - (4) 2 inch turbine: \$1,125.00.
 - (5) 2 inch compound: \$1,615.00.
 - (6) A price quote will be given by the Customer Service Department for meters over 2 inches.
- (e) Sewer connection fees.
- (1) 4 inch tie-in: \$150.00.
 - (2) 6 inch tie-in: \$300.00.
 - (3) 8 inch tie-in: \$500.00.
- (f) Sewer taps and water taps.
- (1) 100% of cost for installation plus sewer connection fee plus meter fee.
- (g) Hydrant meter rental.
- (1) Deposit: \$1,500.00, refundable upon return of meter in working condition.
 - (2) Water fee: \$100.00 + \$3.00 per 1,000 gallons used.
 - (3) Water readings will be given to the city customer service department on a weekly basis or a \$500.00 penalty may result.

(Ordinance 13-05-949, sec. 9.100, adopted 5/7/13; Ordinance 13-09-959 adopted 9/17/13; Ordinance 14-07-980 adopted 7/15/14; Ordinance 14-10-987 adopted 10/7/14; Ordinance 15-19-997 adopted 9/1/15; Ordinance 15-10-1004 adopted 10/6/15)

Sec. A8.004 Drought restriction violations

Reconnection charge when water service is discontinued for violation of drought contingency and water emergency response plan: \$50.00. (2006 Code, sec. 82-376; Ordinance 11-10-897, sec. 2, adopted 10/18/11; Ordinance 14-03-973, sec. 2, adopted 3/18/14)

Sec. A8.005 Individual sewage disposal system permit

Application fee: \$300.00. (Ordinance adopting 2015 Code)

Sec. A8.006 Water wells

Permit to drill new water well: \$250.00. (Ordinance adopting 2015 Code)

Sec. A8.007 Extension charges

Assessment of pro rata charge; rates:

- (1) Per front foot of the lot or tract of land to which water connections may be made: \$4.75.
- (2) Per front foot of the lot or tract of land to which sanitary sewer connections may be made: \$4.90.

(1984 Code, sec. 3-1-9B; 1993 Code, sec. 51.47; 2006 Code, sec. 82-113; Ordinance 63, sec. 2, adopted 3/25/75)

Sec. A8.008 Water and sewer capital cost and recovery charge

- (a) Commercial, industrial, retail: \$0.50 per square foot of building floor area.
- (b) Single-family subdivision (attached or detached): \$500.00 per lot.
- (c) Patio home or other single-family (attached or detached): \$400.00 per dwelling unit.
- (d) Duplex: \$1,000.00 per lot.
- (e) Apartments with individual water and sewer services: \$450.00 per dwelling unit.
- (f) Apartments without individual water and sewer services: \$450.00 per dwelling unit.
- (g) Retirement housing: \$200.00 per dwelling unit.
- (h) Hospital, nursing home: \$100.00 per bed.

(1993 Code, sec. 51.70; 2006 Code, sec. 82-151; Ordinance 238, secs. II, III, adopted 1/6/86)

ARTICLE A9.000 BUILDING, CONSTRUCTION AND DEVELOPMENT RELATED FEES**Sec. A9.001 Building/construction plan review fees**

- (a) Minimum fee for any permit is \$75.00.
- (b) No refunds will be issued for permit fees unless approved in writing by the city manager.
- (c) 100% of any outside service costs will be charged, including but not limited to engineering plan review.
- (d) All fees (building permit, impact fee, meter, etc.) will be paid prior to each building permit being issued.
- (e) Work started without a permit: Permit fee \$ x 2.
- (f) Stop work order - red tag: \$50.00.
- (g) Permit replacement: \$25.00.
- (h) Re-stamp fee: \$30.00/hour (minimum \$30.00).
- (i) Addendum review fee: \$30.00/hour (minimum \$15.00).

- (j) Structure demolition: \$10.00 per \$1,000.00 (minimum \$100.00).
- (k) Interior finish demolition: \$10.00 per \$1,000.00 (minimum \$100.00).
- (l) Structure moving permit: \$10.00 per \$1,000.00 (minimum \$100.00). If applicable, plumbing, electrical and mechanical permits are required. A bond in the amount of \$50,000 shall be required. For further bond information see [section 16.04.062](#) of the Code of Ordinances.
- (m) Fence permit:
 - (1) Residential: \$75.00.
 - (2) Commercial: \$150.00.
- (n) Residential one- and two-family dwellings: new, additions, remodels:
 - (1) Building permit: \$0.64 per total square feet of structure. (minimum \$75.00). Calculate the permit fee by multiplying \$0.64 x square footage.
 - (2) Service inspection certificate fee of \$30.00 for each single-family residence permit.
 - (3) Mechanical, electrical, plumbing fees for trade permits: \$75.00.
 - (4) Residential flatwork, new, addition, alteration permit: \$10.00 per \$1,000.00 valuation of work (\$75.00 minimum).
 - (5) Residential irrigation: \$150.00.
 - (6) Residential accessory structures:
 - (A) Less than 500 square feet: \$75.00.
 - (B) 500 square feet and greater: \$10.00 per \$1,000.00 (minimum \$75.00).
 - (7) New additions, remodels, alterations: \$10.00 per \$1,000.00 valuation of work (minimum \$75.00). Examples: Roof replacement, window replacement, etc.
- (o) Commercial projects: new, addition, alteration, or interior finish and multifamily dwellings:
 - (1) Building permit: \$10.00 per \$1,000.00 valuation of work (minimum \$75.00). Calculate the building permit fee by multiplying the valuation of work by 0.010.
 - (2) When applicable, add mechanical, electrical, plumbing fees to building permit. MEP fees are calculated by the addition of the following for each trade:

Calculated by Square Footage Per Trade	
1 - 3,000 square feet	\$60.00
3,001 - 10,000 square feet	\$80.00

10,001 - 100,000 square feet	\$100.00
Over 100,000 square feet	\$120.00

- (3) Mechanical, electrical, plumbing fees for single trade permits: \$75.00.
- (4) Commercial irrigation: \$250.00.

(Ordinance 13-05-949, sec. 2.100, adopted 5/7/13; Ordinance adopting 2015 Code)

Sec. A9.002 Building, construction and trades inspection fees

- (a) Applicable to fire alarms, fire sprinkler supply line and fire sprinkler reinspections; not applicable to fire safety inspections - see applicable section.
- (b) Reinspection fees are charged for all failed inspections.
- (c) All fees and balances must be paid prior to building final inspection being released:
 - (1) No charge for first failed inspection with the exception of any public works failed inspection; \$100.00 for first and each additional failed inspection.
 - (2) \$100.00 for second and each additional failed inspection.
- (d) Same day inspection called in after cut-off time specified by building department: \$60.00; due prior to inspection request being made.
- (e) Requested same day reinspection: \$100.00 + reinspection fee, due prior to inspection request being made.

(Ordinance 13-05-949, sec. 2.200, adopted 5/7/13)

Sec. A9.003 Certificate of occupancy permits

- (a) A certificate of occupancy is required prior to any commercial structure being occupied by a new business and/or new management.
- (b) A separate permit is required for all certificates of occupancy, fee \$75.00.
- (c) All final inspections are to be completed and inspection fees paid prior to the occupancy inspection.
- (d) Clean and show: \$75.00.
- (e) In-home day care certificate of occupancy: \$75.00.

(Ordinance 13-05-949, sec. 2.300, adopted 5/7/13)

Sec. A9.004 Contractor registration fees

(a) Annual registration is to be renewed upon the expiration date assigned by the city. Photo ID, proof of liability insurance, and any required state-issued licenses must be presented in person by the license holder at the time of registration. Fire alarm installers and fire sprinkler installers who are properly registered with the state fire marshal are exempt from this registration requirement as a matter of state law. Only persons properly registered may submit plans or perform installations of fire alarms or fire sprinklers.

- (1) General contractor: \$100.00.
- (2) Subcontractor: \$100.00.
- (3) Electrical master: \$100.00.
- (4) Plumbing master: Exempt from fee.
- (5) Backflow master: \$100.00.
- (6) Mechanical master: \$100.00.
- (7) Third party energy contractors: \$100.00.

(Ordinance 13-05-949, sec. 2.500, adopted 5/7/13)

Sec. A9.005 Land zoning and development fees

(a) Zoning fees.

- (1) Annexation request (waived if city initiated): \$1,000.00.
- (2) Zoning verification letter: \$50.00.
- (3) Pre-application work session: \$0.00.
- (4) Zoning work session: \$200.00.
- (5) Zoning change request: \$1,000.00.
- (6) Special use permit, residential: \$1,000.00 + \$50.00 per acre.
- (7) Commercial and planned development:
 - (A) Planned development district (new): \$1,000.00 + \$50.00 per acre.
 - (B) Planned development district (amendment of conditions): \$500.00.

(b) Development fees.

- (1) Concept plan: \$500.00.
- (2) Site plan: \$500.00.

- (3) Construction (preliminary plat):
 - (A) Residential: \$500.00 + \$50.00 per acre.
 - (B) Commercial planned development: \$500.00 + \$50.00 per acre.
- (4) Final plat (also known as “as-built” or “record plat”):
 - (A) Residential: \$500.00 + \$50.00 per acre.
 - (B) Commercial and/or planned development: \$500.00 + \$50.00 per acre.
- (5) Replat: Same as final.
- (6) Amended/minor plat: Same as final.
- (7) Vacation of plat: Same as final.
- (8) City tax certificates: Issued by county.
- (9) Street name change (after prel. plat): \$250.00 + cost of new blade.
- (10) Traffic impact analysis review: \$1,000.00 or 100% of consultant cost.
- (11) Parkland dedication: \$1,200.00 per residential lot or acceptable donation of land per park ordinance.
- (12) Sidewalk escrow: Cost per city engineer.
- (13) Street escrow: Cost per city engineer.
- (14) Copies (24" x 36" sheets): \$5.00 per sheet.
- (15) Engineering inspection fees (not to include laboratory tests): 4% of estimated cost of public improvements.
- (16) Engineering plan review: 100% of cost.
- (17) 2-year subdivision maintenance bond: 100% of costs of public improvements.
- (18) Utility inspection fee for after regular business hours and weekends: \$50.00 per hour, per inspector, \$100.00 minimum.
- (19) Appeal boards:
 - (A) Zoning board of adjustment:
 - (i) Residential (homestead): \$200.00.
 - (ii) Residential–other/commercial: \$300.00.

(B) Building and fire codes appeal board:

- (i) Residential: \$200.00.
- (ii) Commercial: \$300.00.

(Ordinance 13-05-949, sec. 5.100, adopted 5/7/13; Ordinance adopting 2015 Code)

Sec. A9.006 Water and wastewater impact fees

(a) Impact fees:

Meter Size	Irrigation Water	Wastewater	Domestic Total
3/4 inch	\$883.43	\$2,715.22	\$3,598.65
1 inch	\$2,208.58	\$6,788.05	\$8,996.63
1-1/2 inch	\$4,417.15	\$13,576.10	\$17,993.25
2 inch compound	\$7,067.44	\$21,721.76	\$28,789.20
2 inch turbine	\$8,834.30	N/A	\$8,834.30
3 inch compound	\$14,134.88	\$43,443.52	\$57,578.40
3 inch turbine	\$21,202.32	N/A	\$21,202.32
4 inch compound	\$22,085.75	\$67,880.50	\$89,966.25
4 inch turbine	\$37,104.06	N/A	\$37,104.06
6 inch compound	\$44,171.50	\$135,761.00	\$179,932.50
6 inch turbine	\$81,275.56	N/A	\$81,275.56
8 inch compound	\$70,674.40	\$217,217.60	\$287,892.00
8 inch turbine	\$141,348.80	N/A	\$141,348.80

(b) Domestic meters require both water and wastewater fees to be paid.

(c) Irrigation meters require only a water fee to be paid.

(Ordinance 13-05-949, sec. 5.200, adopted 5/7/13; Ordinance adopting 2015 Code)

Sec. A9.007 Sign permits

(a) Sign permit fees:

- (1) Work started without a permit: Permit fee \$ x 2.
- (2) Permit replacement fee: \$25.00.
- (3) Change sign face: \$175.00.

- (4) Attached sign, non-illuminated: \$200.00.
- (5) Attached sign, illuminated: \$250.00.
- (6) Electronic changeable sign: \$250.00.
- (7) Monument sign, non-illuminated: \$200.00.
- (8) Monument sign, illuminated: \$250.00.
- (9) Movement control sign: \$175.00.
- (10) Builder, developer, or model home sign: \$250.00/valid for 12 months.
- (11) Special purpose temporary freestanding: \$250.00/valid for 12 months.
- (12) Temporary construction sign: \$250.00/valid for 12 months.
- (13) Temporary for sale or lease sign: \$250.00/valid for 12 months.
- (14) Temporary promotional event: \$75.00/valid for 7 days from issue.
- (15) Temporary promotional banner: \$50.00/valid for 7 days from issue.

(Ordinance 13-05-949, sec. 8.100, adopted 5/7/13)

Sec. A9.008 Swimming pool and spa permit

- (a) Work started without a permit: Permit fee \$ x 2.
- (b) Permit replacement: \$25.00.
- (c) In-ground pool and/or spa combination: \$275.00.
- (d) Above-ground pool or spa: \$150.00.
- (e) Public/semi-public pools, annual operation permit: \$200.00.

(Ordinance 13-05-949, sec. 8.500, adopted 5/7/13)

Sec. A9.009 Substandard buildings

Administrative fee when city performs work on substandard building or structure: \$200.00. (2006 Code, sec. 18-543; Ordinance 07-02-713, sec. 2, adopted 2/5/07)

Sec. A9.010 Temporary construction/job trailer permits

- (a) Work started without a permit: Permit fee \$ x 2.
- (b) Permit replacement: \$25.00.

(c) Trailer permit: \$100.00.

(d) Temporary electrical: \$75.00.

(e) Temporary plumbing: \$75.00.

(Ordinance 13-05-949, sec. 8.600, adopted 5/7/13)

Sec. A9.011 Multiple dwelling or rooming house

Operating license: \$200.00. (Ordinance adopting 2015 Code)

Sec. A9.012 Street cuts, excavations, encroachments

Permit for making cut or excavation or installing encroachment on street: \$50.00. (1993 Code, sec. 96.34; 2006 Code, sec. 66-65; Ordinance 342, sec. 3, adopted 11/2/92; Ordinance adopting 2015 Code)

Issue

Consider and/or act to approve Resolution Number 16-R-843 adopting the Collin County Hazard Mitigation Action Plan.

Staff Resource/Department

Ed Henderson, Interim Fire Chief

Fire/Office of Emergency Management; City Manager/Council; Parks; Public Works; Engineering

Summary

The Federal Code of Regulations 44 CFR Part 201.6

1. The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.
2. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.
3. For disasters declared after November 1, 2003, a local government must have a mitigation plan approved pursuant to this section in order to receive HMGP program grants.

Background/History

Until November 1, 2003, local mitigation plans were able to be developed concurrent with the implementation of the project grant but now must have a mitigation plan approved pursuant to The Federal Code of Regulations 44 CFR Part 201.6, in order to receive HMGP project grants.

The original multi-jurisdictional Hazard Mitigation Action Plan for Collin County was adopted in 2011 and six jurisdictions were involved in the development of that plan (Collin County, City of Allen, City of Frisco, City of Lavon, City of Lucas, and the City of Wylie). Updating of the HMAP started in 2014 with the addition of 14 jurisdictions, including the City of Murphy. The City of Murphy assembled a planning team to participate in the updating of the 2011 HMAP and the team consisted of the Mayor, Fire Chief, Fire Marshal, Assistant Fire Chief, Community ISD Board Member and NT Municipal Water District Board Member. Within the updated plan each jurisdiction is represented by an annex that serves to address their specific areas of vulnerability (Dam/Levee Failure, Drought, Earthquake, **Expansive Soils**, Extreme Heat, Flooding, Hail, High Winds, **Lightning**, Tornado, Wild Fire, Winter Storms, etc.).

The Collin County HMAP has been given a preliminary approval by FEMA but now they are requesting a resolution signed by the Mayor before issuing their final approval of the plan.

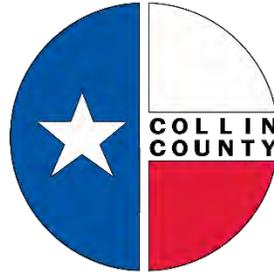
Board Discussion/Action

Motion to approve Resolution No. 16-R-843 adopting the Collin County Hazard Mitigation Action Plan.

Attachments

1. Copy of the Collin County Hazard Mitigation Action Plan (City of Murphy pertinent pages only).
2. Resolution for the adoption of the plan.
3. Copy of the Federal Code of Regulations 44 CFR Part 201.6.

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Hazard Mitigation Action Plan

Collin County, Texas



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Collin County Hazard Mitigation Action Plan

Executive Summary

Mitigation is commonly defined as sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. Hazard mitigation focuses attention and resources on community policies and actions that will produce successive benefits over time. A mitigation plan states the aspirations and specific courses of action that a community intends to follow to reduce vulnerability and exposure to future hazard events. These plans are formulated through a systematic process centered on the participation of citizens, businesses, public officials, and other community stakeholders.

The planning area for this plan update is for Collin County, Texas and includes the following jurisdictions:

- A. Collin County (unincorporated)
- B. City of Allen
- C. City of Anna*
- D. City of Blue Ridge*
- E. City of Celina*
- F. Town of Fairview*
- G. City of Farmersville*
- H. City of Frisco
- I. City of Josephine*
- J. City of Lavon
- K. City of Lowry Crossing*
- L. City of Lucas
- M. City of Melissa*
- N. City of Murphy*
- O. Town of New Hope*
- P. City of Parker*
- Q. City of Princeton*
- R. Town of Prosper*
- S. Town of St. Paul*
- T. City of Wylie

**New jurisdiction not included in the 2011 HazMAP*

The contents of this plan update are designed and organized to be as reader-friendly and functional as possible. The structure and format of this plan has significantly changed from the initial Mitigation Plan that was adopted in 2011. However, the content or base information has been maintained.

As this plan is an update to the original plan, there have been developments and evolutions to the hazard mitigation strategy of Collin County. The first is the addition of new jurisdictions to the plan. Each jurisdiction's individual mitigation strategy is discussed in their annex. Fourteen new jurisdictions participated in this plan. Jurisdictions that participated in the 2011 HazMAP have changes in development highlighted in their individual annex.

As the growth of Collin County has expanded since the previous version of the plan, the vulnerability analysis has changed. New hazards have been added, including:

- Expansive Soils
- Lightning

Discussion of these hazards, along with expanded discussion of all previously-included hazards, can be found in chapter 3.

Collin County Hazard Mitigation Action Plan

The objectives of this updated plan remain the same as in the previous plan. These include:

- To save lives and reduce injuries.
- Minimize damage to buildings and infrastructure (especially critical facilities).
- Minimize economic losses

Further examination of the action items from the 2011 plan, including the status of each action item, can be found in Chapter 4 of the main plan. New action items for each jurisdiction are located in the jurisdictional annexes.

During the development phase of this updated planning document, the review team noted some changes. While the scope and intent of the 2011 priorities remain the same, some of the underlying factors driving the priorities reflect new external trends, such as public perceptions and expectations, or are indicative of new awareness and approaches to community mitigation strategies.

2011 Plan Priorities:

- 1) Local Plans and Regulations, including: changes to plans and regulations across a variety of community departments and commissions for the purpose of strengthening future documents
- 2) Structure and Infrastructure Projects, including: construction regulations; rights-of-way, easements and road specifications; implementation of the Tornado Safe Room Rebate Program; development of extreme temperature shelters
- 3) Natural Systems Protection, including: flood zone regulations, wildland fire planning and prevention, and acquisition of hazard prone land; studies to further identify hazard-prone areas
- 4) Educations and Awareness Programs, including: systems to alert residents of impending hazard events, and public education programs to promote awareness of natural hazards and mitigation efforts

Areas of 2015 Priority Refinement:

- Post disaster conditions
 - With the potential for significant reimbursement for post-disaster projects through FEMA grants, it was prudent the plan be updated.
- Financial, legal and political realities
 - The Collin County Hazard Mitigation Action Plan (HazMAP) was updated to new standards utilizing a HMA grant and the North Central Texas Council of Governments (NCTCOG). This provided the necessary financial assistance and personnel to help organize the jurisdictions of Collin County, as well as compile the data into a cohesive plan.
 - Due to a HMA grant funding the NCT Safe Room Rebate Program, there was initial concern that only jurisdictions that were part of the county plan or had their own HazMAP would be eligible. As a result, most of the Collin County jurisdictions opted to participate in the Collin County HazMAP.
- Changes in hazard focus
 - Collin County has not changed the overall focus on hazards but has updated the likelihood of an occurrence based on new data from past meteorological and archival data. With these updates, the data has shown we are more likely to experience certain disasters over others. Through the use of the Priority Risk Index, persons interested in the plan will be able to better understand the rank of disasters and why one disaster may be considered at a higher risk than others. In addition, expansive soils and lightning were included as potential hazards. These hazards were not included in the 2011 plan.

Collin County Hazard Mitigation Action Plan

The 2015 Planning Team acknowledges this mitigation plan is a planning document, not a regulatory document. The plan meets Federal Emergency Management Agency (FEMA) planning requirements by addressing hazards, vulnerability and risk.

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Collin County Hazard Mitigation Action Plan

Table of Contents

Executive Summary	1
Table of Contents	5
Chapter 1: Introduction	7
1.1 Purpose	7
1.2 Collin County Hazard Mitigation Action Plan Planning Process	7
1.3 HazMAP Planning Process Point of Contact and Demographics	8
1.4 Collin County Hazard Mitigation Action Plan Organization	10
1.5 Collin County Hazard Mitigation Strategy Maintenance Process	10
1.6 Collin County Hazard Mitigation Action Plan Adoption	11
Chapter 2: Planning Process	13
Chapter 3: Hazard Identification and Risk Assessment	15
3.1 Profiling Hazards	15
3.2 Location of Hazards	19
3.3 Extent	263
3.4 Geographic Information System Based Analysis	279
3.5 Statistical Risk Assessment	307
3.6 Qualitative Assessment	337
3.7 Summary	341
Chapter 4: 2011 Plan Action Items	343
4.1 Collin County Action Items: 2011 Plan	343
4.2 City of Allen Action Items: 2011 Plan	349
4.3 City of Frisco Action Items: 2011 Plan	355
4.4 City of Lavon Action Items: 2011 Plan	359
4.5 City of Lucas Action Items: 2011 Plan	365
4.6 City of Wylie Action Items: 2011 Plan	375
Chapter 5: Plan Maintenance	383
5.1 Monitoring, Evaluating, and Updating the Plan	383
5.2 Plan Incorporation	384
5.3 Continued Public Involvement	384
Chapter 6: Introduction to Jurisdictional Annexes	385
Jurisdictional Annexes	A-1
Appendix A: Planning Process Documentation	App-1

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Collin County Hazard Mitigation Action Plan

Chapter One: Introduction

1.1 Purpose

Collin County is susceptible to a number of different natural hazards that have potential to cause property damage or loss, loss of life, economic hardship, and threats to public health and safety. Occurrence of natural disasters cannot be prevented; however, their impact on people and property can be lessened through hazard mitigation measures.

The Collin County Hazard Mitigation Action Plan has been developed by the Collin County Hazard Mitigation Planning Team (HMPT). The plan represents collective efforts of citizens, elected and appointed government officials, business leaders, non-profit organizations, and other stakeholders.

Through the development of this plan, the Planning Team identified the natural hazards that could affect Collin County, and evaluated the risks associated with these hazards. The implementation of this plan will make Collin County more disaster- resilient because the benefits that can be gained by planning ahead and taking measures to reduce damages before the next disaster strikes have been recognized. The plan will allow Collin County and participating jurisdictions to comply with the Disaster Mitigation Act of 2000 (DMA 2000) and its implementing regulations 44 CFR Part 201.6, thus resulting in eligibility to apply for federal aid for technical assistance and post-disaster hazard mitigation project funding.

1.2 Collin County Hazard Mitigation Action Plan Planning Process

The Collin County Hazard Mitigation Action Plan (HazMAP) was created in order to meet current federal and state hazard mitigation plan regulations in compliance with the following rules and regulations:

Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390)

Federal Emergency Management Administration's Interim Final Rule, published in the Federal Register on February 26, 2002, at 44 CFR Part 201.

Each jurisdiction participated by having a Hazard Mitigation Planning Committee (HMPC). Each HMPC participated in the creation of and contributed to the Hazard Mitigation Action Plan. The North Central Texas Council of Governments (NCTCOG) Emergency Preparedness Department also participated in the HazMAP update³⁴¹. NCTCOG's role was to assist in compiling the jurisdictional information and preparing the plan for submission. Collin County hazard mitigation planning meetings were held on June 11, 2014 and September 18, 2014.

Collin County Hazard Mitigation Action Plan

1.3 HazMAP Planning Process Point of Contact and Demographics

The following were the points of contacts during the HazMAP planning process for 2014:

Jurisdiction	Agency	Title	Jurisdiction	Agency	Title
Collin County	Homeland Security	Assistant EMC	Lowry Crossing	Administration	City Secretary
Allen	Fire Dept.	Fire Marshal	Lucas	Fire Dept.	Fire Chief/EMC
Anna	Fire Dept.	Fire Chief	Melissa	Fire Dept.	Fire Chief
Blue Ridge	Public Works	Public Works Director	Murphy	Fire Dept.	Fire Chief
Celina	Fire Dept.	Deputy Chief	New Hope	City Council	Mayor
Fairview	Fire Dept.	Fire Chief	Parker	Fire Dept.	Fire Chief
Farmersville	Fire Dept.	Fire Chief	Princeton	Administration	City Manager
Frisco	Fire Dept.	EMC	Prosper	Fire Dept.	EM Specialist
Josephine	Fire Dept.	Fire Captain	St. Paul	City Council	Mayor
Lavon	Police Dept.	Police Chief	Wylie	Fire Dept.	EMC

Jurisdiction	2010 Population	2014 Population
Collin County	782,341	846,850
Allen	84,246	90,030
Anna	8,249	10,250
Blue Ridge	822	822
Celina	7,248	6,660
Fairview	3,301	8,310
Farmersville	3,301	3,292
Frisco	116,989	137,310
Josephine	812	811
Lavon	2,219	2,740
Lowry Crossing	1,711	1,710
Lucas	5,166	5,970
Melissa	4,695	6,190
Murphy	17,708	18,020
New Hope	614	614

Collin County Hazard Mitigation Action Plan

Jurisdiction	2010 Population	2014 Population
Parker	3,811	4,110
Princeton	6,807	7,840
Prosper	9,423	14,710
St. Paul	1,066	1,070
Wylie	41,427	44,280

Source: North Central Texas Council of Governments Research and Information Services 2014 current population estimates, United States Census Bureau

Figure 1. Collin County



Source: Texas National Resource Inventory

1.4 Collin County Hazard Mitigation Action Plan Organization

The Collin County Hazard Mitigation Action Plan is organized into five chapters which satisfy the mitigation requirements in 44 CFR Part 201, with an appendix providing the required supporting documentation.

Chapter One: Introduction

Describes the purpose of the Collin County Hazard Mitigation Action Plan and introduces the mitigation planning process.

Chapter Two: Planning Process

Describes the planning process and organization for each participating jurisdiction, satisfying requirements 201.6(c)(1), 201.6(b)(2), 201.6(b)(1), 201.6(b)(3), 201.6(c)(4)(iii), 201.6(c)(4)(i).

Chapter Three: Hazard Identification and Risk Assessment

Describes the hazards identified, known national extent scales, location of hazards, previous events, and jurisdictional profiles, satisfying requirements 201.6(c)(2)(i), 201.6(c)(2)(ii).

Chapter Four: Previous Action Items

Examines the ability of Collin County and participating jurisdictions to implement and manage a comprehensive mitigation strategy. The past action items are listed with their current status of deferred, in progress, completed or deleted.

Chapter Five: Plan Maintenance

Describes the monitoring, evaluating, updating, plan incorporation, and future public updates for each participating jurisdiction, satisfying requirements 201.6(c)(4)(i), 201.6(c)(4)(ii), 201.6(c)(4)(iii).

Chapter Six: Individual Jurisdictional Annexes

Each participating jurisdiction has written a personalized annex detailing their planning process, hazard analysis, capabilities, mitigation strategies and action items, and maintenance plan.

Appendix A: Documentation from Planning and Public Meetings

1.5 Collin County Hazard Mitigation Strategy Maintenance Process

The Collin County Hazard Mitigation Action Planning Team will continue to collaborate as a planning group in coordination with the North Central Texas Council of Governments (NCTCOG) Emergency Preparedness Department. Primary Contact will be through emails and conference calls with strategy meetings to occur at least annually. Collin County will lead the plan maintenance and update processes by:

Collin County Hazard Mitigation Action Plan

- Assisting jurisdictional Hazard Mitigation Planning Teams in updating their individual contributions to the County HazMAP
- Assisting interested jurisdictions in the County who would like to begin their mitigation planning process
- Facilitating Collin County HazMAP meetings and disseminating information
- Corroborating data for the county-wide sections
- Requesting updates and status-reports on planning mechanisms
- Requesting updates and status reports on mitigation action projects
- Assisting jurisdictions in mitigation grants
- Assisting jurisdictions in implementing mitigation goals and action projects
- Providing mitigation training opportunities
- Maintaining documentation of local adoption resolutions for the County Hazard Mitigation Action Plan

1.6 Collin County Hazard Mitigation Action Plan Adoption

Once the Collin County Hazard Mitigation Action Plan has received FEMA “Approved Pending Local Adoption” each participating jurisdiction will take the Collin County HazMAP to their Commissioner’s Courts or City Councils for final public comment and local adoption. A copy of the resolution will be inserted into the Collin County HazMAP and held on file at the North Central Texas Council of Governments.

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Collin County Hazard Mitigation Action Plan

Chapter Two: Planning Process

(In compliance with 201.6(c)(1))

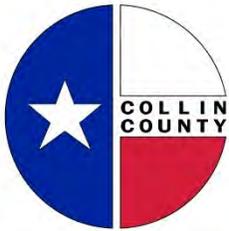
Chapter Two of the Collin County Hazard Mitigation Action Plan (HazMAP) describes the comprehensive planning and open public process utilized by the participating jurisdictions within Collin County during the plan development and through to plan completion. Each of the jurisdictions involved developed an integrated approach specific to their jurisdiction that provided for not only hazard mitigation teams and management input, but also an opportunity for the public to comment on the plan. This information is included in each individual jurisdictional annex.

The development of the Hazard Mitigation Action

Plan was orchestrated to provide an opportunity for all stakeholders to participate in the planning process. This planning process also included review and incorporation of other existing plans, documents, and studies related to reducing the effects of natural disasters, so as to avoid duplication and streamline hazard mitigation efforts. The following outlines the planning process:



Planning Process



Collin County has been and continues to be proactive in efforts to provide a comprehensive hazard mitigation program. Preparation and use of the Hazard Mitigation Action Plan is expected to bring an even higher level of cohesion and direction to emergency preparation in Collin County.

As a contributor to the Collin County Hazard Mitigation Action Plan (HazMAP), all jurisdictions participated in the planning process. Emergency management staff assessed a readiness to plan, secured political support from elected officials, and began to engage the communities in the process of emergency planning.

Public Involvement

The Hazard Mitigation Planning Team knows that participation and feedback from their community is pertinent in developing a successful Hazard Mitigation Action Plan. Collin County worked to increase public response to the plan by holding public meetings and posting notices in the Collin Record-Chronicle and on the County website.

The HazMAP planning process provides an excellent avenue for residents to exchange quality information and improve the county response to emergencies. This is accomplished through speaking engagements, website information, disaster awareness campaigns and information pamphlets, among other opportunities.

Plan Incorporation

The Emergency Management Office made efforts for a comprehensive mitigation plan by incorporating other city plans and creating layers of data. These layers were useful in determining vulnerabilities and susceptible neighborhoods. This information was used when creating current risk assessment data. City and County Appraisal Data (2012), and the Texas Forest Service and Texas Wildfire Risk Assessment

Collin County Hazard Mitigation Action Plan

Summary Report (2012) were also incorporated. Other sources listed in the annexes were also used for the mitigation action plan.

By reviewing plans and documents from the sources listed in the individual annexes, the Hazard Mitigation Team was able to take pertinent information and turn it into the Hazard Mitigation Action Plan.

Chapter Three: Hazard Identification Risk Assessment

3.1 Profiling Hazards

The Hazard Mitigation Action Plan for Collin County is a tool to assist in the identification and documentation of all the hazards faced in the region.

The Collin County profile is one of many developed by the North Central Texas Council of Governments (NCTCOG) under the FEMA Hazard Mitigation program. These plans are created by compiling data from the NCTCOG regional natural hazards risk assessments, damage assessments, hazard profiling and identification as well as historical data and geographic information.

Hazards Addressed. The Collin County Hazard Mitigation Action Plan has identified the following natural hazards as having the potential to cause damage in the county. Of the 15 hazards identified in the State of Texas Hazard Mitigation Plan, 12 will be discussed. The remaining three (coastal erosion, land subsidence, and hurricane/tropical storm) have no impact on the area. This applies to all participating jurisdictions in this plan, as listed on page 1. Wildland fire, flooding, and dam failure are the only hazards recognized to have predictable vulnerable areas. All other hazards are equally likely to occur throughout Collin County jurisdictions.

Dam Failure. A dam is defined as a barrier constructed across a watercourse for the purpose of storage, control, or diversion of water. Dams typically are constructed of earth, rock, concrete, or mine tailings. A dam failure is an accidental or unintentional collapse, breach, or other failure of an impoundment structure that results in downstream flooding. Because dams are man-made structures, dam failures are usually considered technological hazards. However, since most dam failures result from prolonged periods of rainfall, they are often cited as secondary or cascading effects of natural flooding disasters and are not named as the primary hazard that causes disaster declarations.

There have not been any inundation studies for the dams in Collin County and the county does not have information from the owners or Emergency Operations Plans for the dams. Therefore, more research is needed for inundation data before the next update. The data presented is from the National Inventory of Dams (NID). Based on a quantitative analysis of the dams currently in place in Collin County and a qualitative analysis of the potential impacts that dam failures would have on the social, economic, and environmental components of the region, the risk of a dam failure hazard is moderate.

Drought. Drought can be defined as a water shortage caused by the natural reduction in the amount of precipitation expected over an extended period of time, usually a season or more in length. It can be aggravated by other factors such as high temperatures, high winds, and low relative humidity. Texas experiences a cycle of extended wet and drought conditions that can extend over a period of months even years. Extended periods of drought can have an enormous impact on an area by affecting the abundance of water supply, the agriculture economy, and foundations of structures. Drought has the potential to occur within the entire planning area.

Earthquake. An earthquake is a sudden motion or trembling caused by an abrupt release of accumulated strain on the tectonic plates that comprise the Earth's crust. The theory of plate tectonics holds that the Earth's crust is broken into several major plates. These rigid, 50- to 60- mile thick plates move slowly and continuously over the interior of the earth, meeting in some areas and separating in others. As the tectonic plates move together they bump, slide, catch, and hold. Eventually, faults along or near plate boundaries slip abruptly when the stress exceeds the elastic limit of the rock, and an earthquake occurs.

The ensuing seismic activity and ground motion provoke secondary hazards: surface faulting, ground failure, and tsunamis. The vibration or shaking of the ground during an earthquake is referred to as ground motion. In general, the severity of ground motion increases with the amount of energy released and decreases with distance from the causative fault or epicenter. When a fault ruptures, seismic waves are propagated in all directions, causing the ground to vibrate at frequencies ranging from 0.1 to 30 Hz. Seismic waves are referred to as P waves, S waves, and surface waves. Due to the risk associated to a distant quake, earthquakes have the potential to occur anywhere within the planning area.

The most likely risk for a significant earthquake event is associated to a large quake which might occur in Missouri, Tennessee, or Oklahoma, though these earthquakes are probable to occur only once every 500 years. There is no history of earthquakes occurring within Collin County, however, there have been earthquakes measuring up to 3.7 on the Richter scale in nearby counties. Because of the lack of earthquake data for Collin County and increasing quakes in nearby jurisdictions, more research is needed.

Expansive Soils Expansive soils are soils that contain large percentages of swelling clays that may experience volume changes of up to 40% in the absence or presence of water. This type of plastic deformation is common in the North Central Texas region. Over time, expansive soils can be hazardous to buildings and other infrastructure, with the most extensive damage occurring to highways, streets, and building foundations. Expansive soils have the potential to affect the entire planning area, however a study needs to be conducted to collect more precise data.

Extreme Heat Extreme heat is characterized by a combination of a very high temperatures and exceptionally humid conditions. When persisting over a period of time, it is called a heat wave. Extreme heat can also be a factor that drastically impacts drought conditions as high temperatures lead to an increased rate of evaporation. Extreme heat can also lead to heat stroke and even death in vulnerable populations such as the elderly and the very young if exposed to the high temperatures for an extended period of time. Extreme heat has the potential to affect the entire planning area.

Flooding Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto adjacent floodplain lands. The floodplain is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. The statistical meaning of terms like “25-year storm” and “100-year flood” can be confusing. Simply stated, a floodplain can be located anywhere; it just depends on how large and how often a flood event occurs. Floodplains are those areas that are subject to inundation from flooding. Floods and the floodplains associated with them are often described in terms of the percent chance of a flood event happening in any given year. As a community management or planning term, “floodplain” most often refers to an area that is subject to inundation by a flood that has a one percent chance of occurring in any given year (commonly and incorrectly referred to as the 100-year floodplain). Common flooding hazards within the planning area include flash flooding and flood hazards resulting from new development.

A flash flood is a rapid flood that inundates low-lying areas in less than six hours. This is caused by intense rainfall from a thunderstorm or several thunderstorms. Flash floods can also occur from the collapse of a man-made structure or ice dam. Construction and development can change the natural drainage and create brand new flood risks as new buildings, parking lots, and roads create less land that can absorb excess precipitation from heavy rains, hurricanes, and tropical storms. Flash floods are a high risk hazard since they can roll boulders, tear out trees, and destroy buildings and bridges.

Collin County Hazard Mitigation Action Plan

Hail Hail occurs when, at the outgrowth of a severe thunderstorm, balls or irregularly shaped lumps of ice greater than 0.75 inches in diameter fall with rain. Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to warm air rising rapidly into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight, they fall as precipitation. Hail has the potential to occur within the entire planning area.

High Winds Wind is defined as the motion of air relative to the earth's surface. The horizontal component of the three-dimensional flow and the near-surface wind phenomenon are the most significant aspects of the hazard. Straight-line winds are often responsible for the wind damage associated with a thunderstorm. These winds are often confused with tornados because of similar damage and wind speeds. However, the strong and gusty winds associated with straight-line winds blow roughly in a straight line unlike the rotating winds of a tornado. Downbursts or micro-bursts are examples of damaging straight-line winds. A downburst is a small area of rapidly descending rain and rain-cooled air beneath a thunderstorm that produces a violent, localized downdraft covering 2.5 miles or less. Wind speeds in some of the stronger downbursts can reach 100 to 150 miles per hour, which is similar to that of a strong tornado. The winds produced from a downburst often occur in one direction, and the worst damage is usually on the forward side of the downburst. High winds has the potential to occur within the entire planning area.

Lightning Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas within thunderstorms. A "bolt" or brilliant flash of light is created when the buildup becomes strong enough. These bolts of lightning can be seen in cloud-to-cloud or cloud-to-ground strikes. Bolts of lightning can reach temperatures approaching 50,000° Fahrenheit. While lightning is mostly affiliated with thunderstorms, lightning often strikes outside of these storms, as far as 10 miles away from any rainfall. Federal Emergency Management Agency states that an average of 300 people are injured and 80 people are killed in the United States each year by lightning. Direct strikes have the power to cause significant damage to buildings, critical facilities, infrastructure, and ignition of wildfires which can result in widespread damages to property. Lightning has the potential to occur anywhere in the planning area.

Tornado A tornado is a violently rotating column of air, in contact with the ground, both pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a condensation funnel. Tornadoes have the potential to occur anywhere in the planning area.

Wildland Fire Wildland fire is any fire occurring on grassland, forest, or prairie, regardless of ignition source, damages or benefits. Wildland fires are fueled almost exclusively by natural vegetation. They typically occur in national forests and parks, where federal agencies are responsible for fire management and suppression. Interface or intermix fires are urban/wildland fires in which vegetation and the built-environment provide fuel. Firestorms are events of such extreme intensity that effective suppression is virtually impossible. Firestorms occur during extreme weather and generally burn until conditions change or the available fuel is exhausted. For the purposes of this hazard analysis, wildland fires are assessed under what is known as the Wildland Urban Interface (WUI). The WUI is an area of development that is susceptible to wildland fires due to the amount of structures located in an area with vegetation that can act a fuel for a wildland fire. Wildfires are most likely to occur within the WUI.

Winter Storms Winter storms originate as mid-latitude depressions or cyclonic weather systems, sometimes following the path of the jet stream. A winter storm or blizzard combines heavy snowfall, high winds, extreme cold and ice storms. Many winter depressions give rise to exceptionally heavy rain and

Collin County Hazard Mitigation Action Plan

widespread flooding and conditions worsen if the precipitation falls in the form of snow. The winter storm season varies widely, depending on latitude, altitude and proximity to moderating influences. Winter storms have the potential to occur within the entire planning area. Cold snaps in which temperatures fall below the freezing point of 32° Fahrenheit do happen on an annual basis in the planning area and can lead to issues with infrastructure, especially frozen roads and bridges.

Collin County Hazard Mitigation Action Plan

3.2 Location of Hazards

The following maps illustrate the location of the hazards in Collin County. Maps concerning tornado and hail incidents are in reference to previous events as they have equal potential to occur throughout the county. Winter storms, extreme heat, and drought have potential to occur equally throughout the county and their previous events data is not represented by a map. Likewise, it is assumed that those hazard listed as having equal potential to occur throughout the HazMAP planning area will affect the area as described in each city's critical infrastructure and structure maps G.1-G.6, in section 3.6.

Map Series A Dams

- Map A.1 Collin County Dams
- Map A.2 City of Allen Dams
- Map A.3 City of Anna Dams
- Map A.4 City of Blue Ridge Dams
- Map A.5 City of Celina Dams
- Map A.6 City of Fairview Dams
- Map A.7 City of Farmersville Dams
- Map A.8 City of Frisco Dams
- Map A.9 City of Josephine Dams
- Map A.10 City of Lavon Dams
- Map A.11 City of Lowry Crossing Dams
- Map A.12 City of Lucas Dams
- Map A.13 City of Melissa Dams
- Map A.14 City of Murphy Dams
- Map A.15 City of New Hope Dams
- Map A.16 City of Parker Dams
- Map A.17 City of Princeton Dams
- Map A.18 City of Prosper Dams
- Map A.19 City of St. Paul Dams
- Map A.20 City of Wylie Dams

Map Series B Flood Zones

- Map B.1 Collin County Land Use, Critical Infrastructure, and Flood Zones
- Map B.2 City of Allen Land Use, Critical Infrastructure, and Flood Zones
- Map B.3 City of Anna Land Use, Critical Infrastructure, and Flood Zones
- Map B.4 City of Blue Ridge Land Use, Critical Infrastructure, and Flood Zones
- Map B.5 City of Celina Land Use, Critical Infrastructure, and Flood Zones
- Map B.6 City of Fairview Land Use, Critical Infrastructure, and Flood Zones
- Map B.7 City of Farmersville Land Use, Critical Infrastructure, and Flood Zones
- Map B.8 City of Frisco Land Use, Critical Infrastructure, and Flood Zones
- Map B.9 City of Josephine Land Use, Critical Infrastructure, and Flood Zones
- Map B.10 City of Lavon Land Use, Critical Infrastructure, and Flood Zones
- Map B.11 City of Lowry Crossing Land Use, Critical Infrastructure, and Flood Zones
- Map B.12 City of Lucas Land Use, Critical Infrastructure, and Flood Zones
- Map B.13 City of Melissa Land Use, Critical Infrastructure, and Flood Zones
- Map B.14 City of Murphy Land Use, Critical Infrastructure, and Flood Zones
- Map B.15 City of New Hope Land Use, Critical Infrastructure, and Flood Zones
- Map B.16 City of Parker Land Use, Critical Infrastructure, and Flood Zones

Map B.17 City of Princeton Land Use, Critical Infrastructure, and Flood Zones
Map B.18 City of Prosper Land Use, Critical Infrastructure, and Flood Zones
Map B.19 City of St. Paul Land Use, Critical Infrastructure, and Flood Zones
Map B.20 City of Wylie Land Use, Critical Infrastructure, and Flood Zones

Map Series C Hail Incident

Map C.1 Collin County Hail Incidents
Map C.2 City of Allen Hail Incidents
Map C.3 City of Anna Hail Incidents
Map C.4 City of Blue Ridge Hail Incidents
Map C.5 City of Celina Hail Incidents
Map C.6 City of Fairview Hail Incidents
Map C.7 City of Farmersville Hail Incidents
Map C.8 City of Frisco Hail Incidents
Map C.9 City of Josephine Hail Incidents
Map C.10 City of Lavon Hail Incidents
Map C.11 City of Lowry Crossing Hail Incidents
Map C.12 City of Lucas Hail Incidents
Map C.13 City of Melissa Hail Incidents
Map C.14 City of Murphy Hail Incidents
Map C.15 City of New Hope Hail Incidents
Map C.16 City of Parker Hail Incidents
Map C.17 City of Princeton Hail Incidents
Map C.18 City of Prosper Hail Incidents
Map C.19 City of St. Paul Hail Incidents
Map C.20 City of Wylie Hail Incidents

Map Series D Tornado Incident

Map D.1 Collin County Tornado Incidents
Map D.2 City of Allen Tornado Incidents
Map D.3 City of Anna Tornado Incidents
Map D.4 City of Blue Ridge Tornado Incidents
Map D.5 City of Celina Tornado Incidents
Map D.6 City of Fairview Tornado Incidents
Map D.7 City of Farmersville Tornado Incidents
Map D.8 City of Frisco Tornado Incidents
Map D.9 City of Josephine Tornado Incidents
Map D.10 City of Lavon Tornado Incidents
Map D.11 City of Lowry Crossing Tornado Incidents
Map D.12 City of Lucas Tornado Incidents
Map D.13 City of Melissa Tornado Incidents
Map D.14 City of Murphy Tornado Incidents
Map D.15 City of New Hope Tornado Incidents
Map D.16 City of Parker Tornado Incidents
Map D.17 City of Princeton Tornado Incidents
Map D.18 City of Prosper Tornado Incidents
Map D.19 City of St. Paul Tornado Incidents

Map D.20 City of Wylie Tornado Incidents

Map Series E Wildfire Risk Assessment

Map E.1 Collin County Wildfire Threat
Map E.2 City of Allen Wildfire Threat
Map E.3 City of Anna Wildfire Threat
Map E.4 City of Blue Ridge Wildfire Threat
Map E.5 City of Celina Wildfire Threat
Map E.6 City of Fairview Wildfire Threat
Map E.7 City of Farmersville Wildfire Threat
Map E.8 City of Frisco Wildfire Threat
Map E.9 City of Josephine Wildfire Threat
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Map E.14 City of Murphy Wildfire Threat
Map E.15 City of New Hope Wildfire Threat
Map E.16 City of Parker Wildfire Threat
Map E.17 City of Princeton Wildfire Threat
Map E.18 City of Prosper Wildfire Threat
Map E.19 City of St. Paul Wildfire Threat
Map E.20 City of Wylie Wildfire Threat

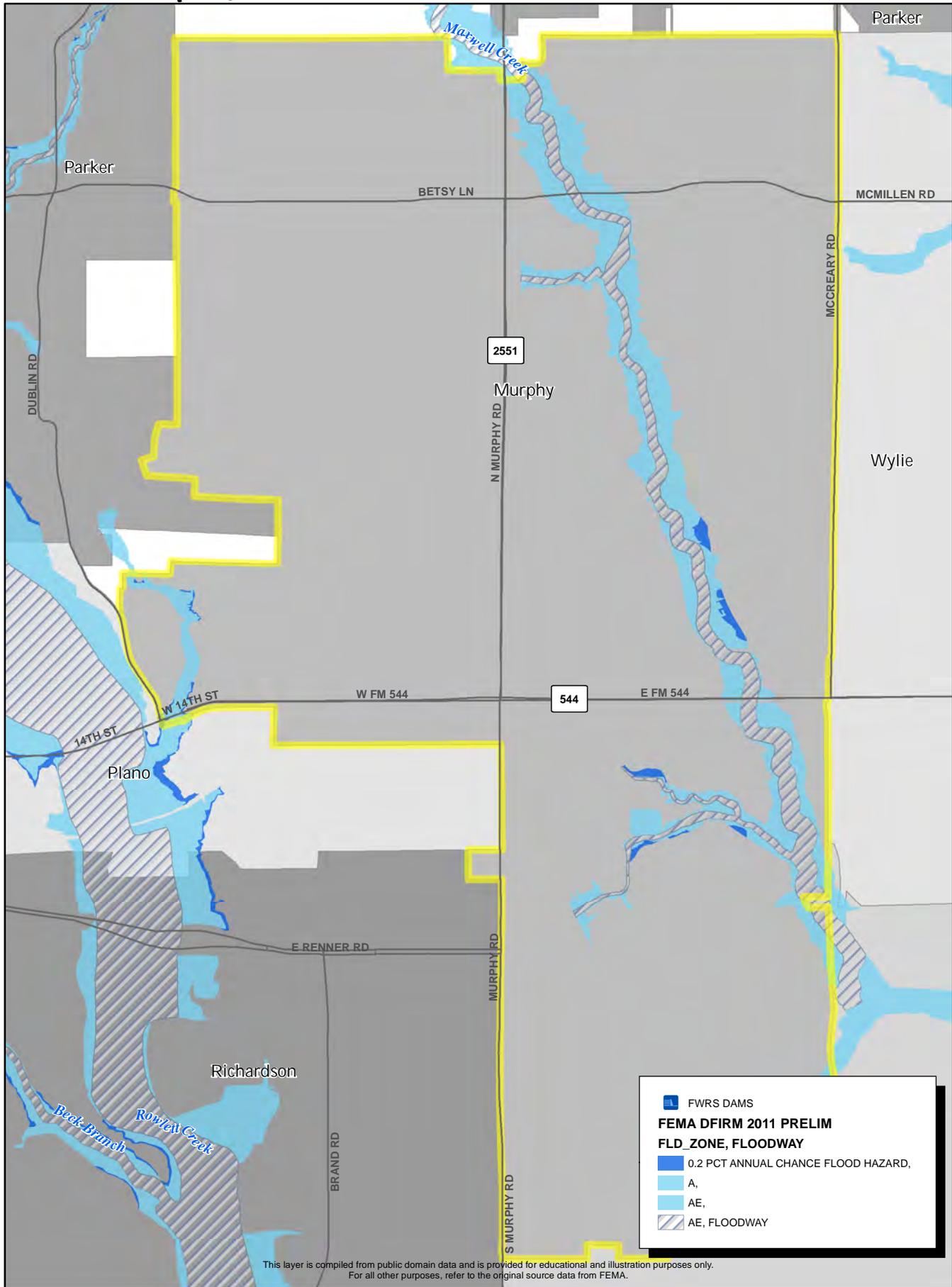
Map Series F Wildland Urban Interface

Map F.1 Collin County Wildland Urban Interface
Map F.2 City of Allen Wildland Urban Interface
Map F.3 City of Anna Wildland Urban Interface
Map F.4 City of Blue Ridge Wildland Urban Interface
Map F.5 City of Celina Wildland Urban Interface
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Map F.17 City of Princeton Wildland Urban Interface
Map F.18 City of Prosper Wildland Urban Interface
Map F.19 City of St. Paul Wildland Urban Interface
Map F.20 City of Wylie Wildland Urban Interface

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INSERT PDF OF COLLIN COUNTY DAMS

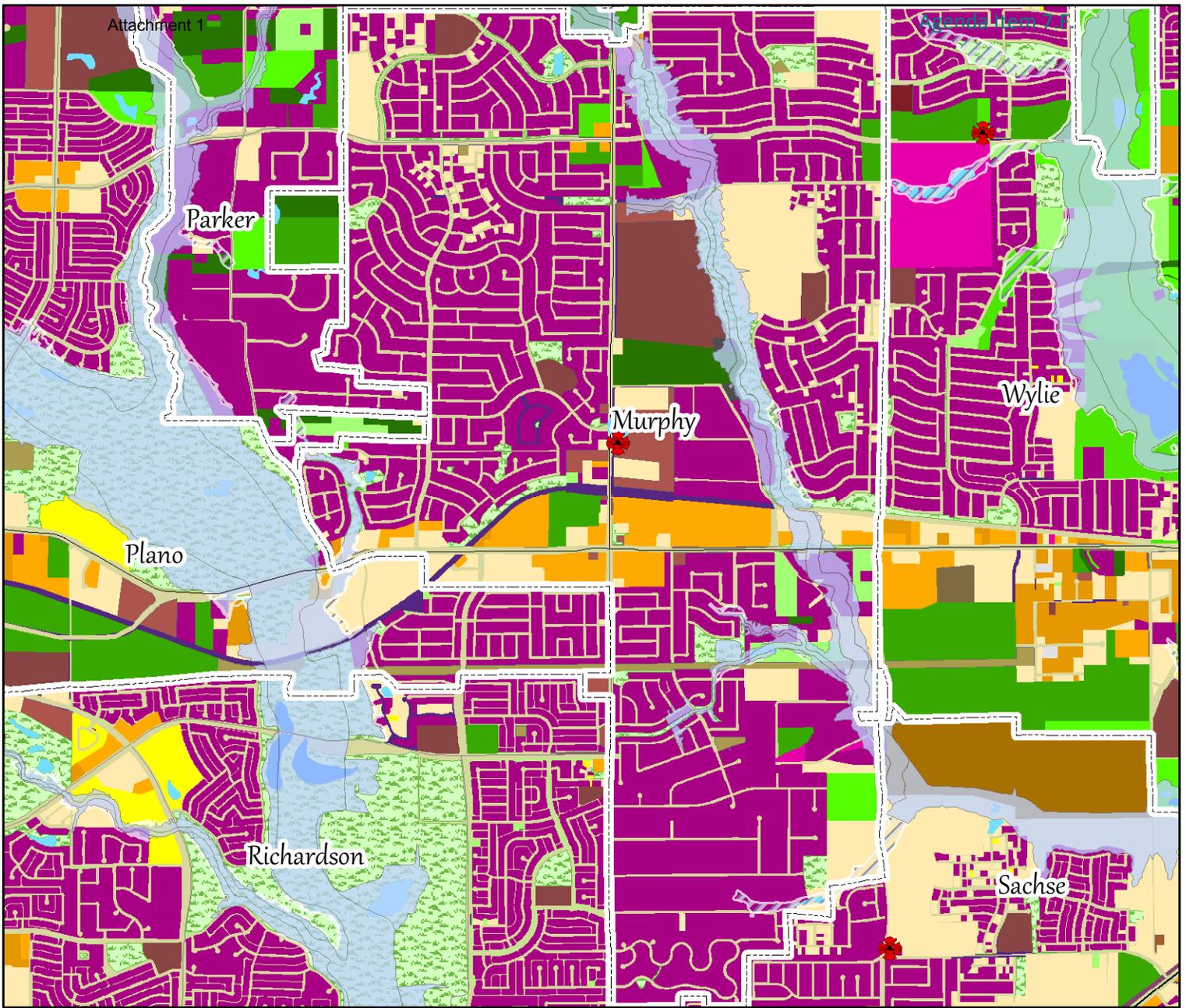
Murphy Area Flood Zones and Dams



This layer is compiled from public domain data and is provided for educational and illustration purposes only.
For all other purposes, refer to the original source data from FEMA.



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City of Murphy

Collin County Land Use, Flood Zones, and Critical Infrastructure

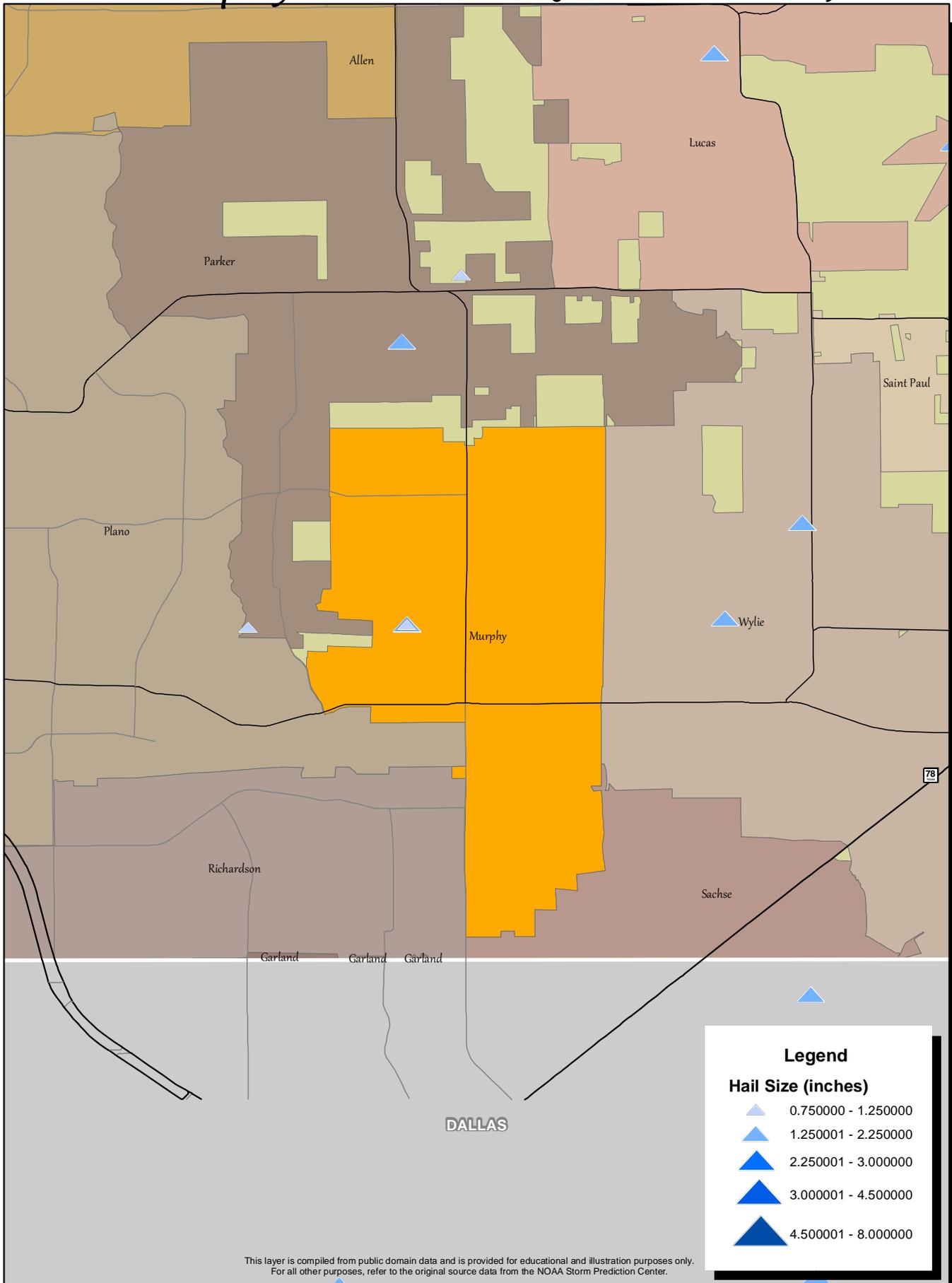


Legend

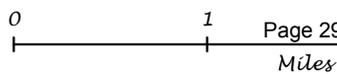
FIRE	2010 LAND USE	Multi-family
POLICE	CATEGORY	Office
EOCs	Airport	Parking
FLOOD ZONE	Cemeteries	Parks/recreation
AE	Commercial	Railroad
A	Communication	Ranch land
0.2% chance (yearly)	Education	Residential acreage
	Farmland	Retail
	Flood control	Roadway
	Group quarters	Runway
	Hotel/motel	Single family
	Improved acreage	Small water bodies
	Industrial	Timberland
	Institutional/semi-public	Transit
	Landfill	Under construction
	Large stadium	Utilities
	Mixed use	Vacant

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Murphy Area Hail (1955 - 2011)

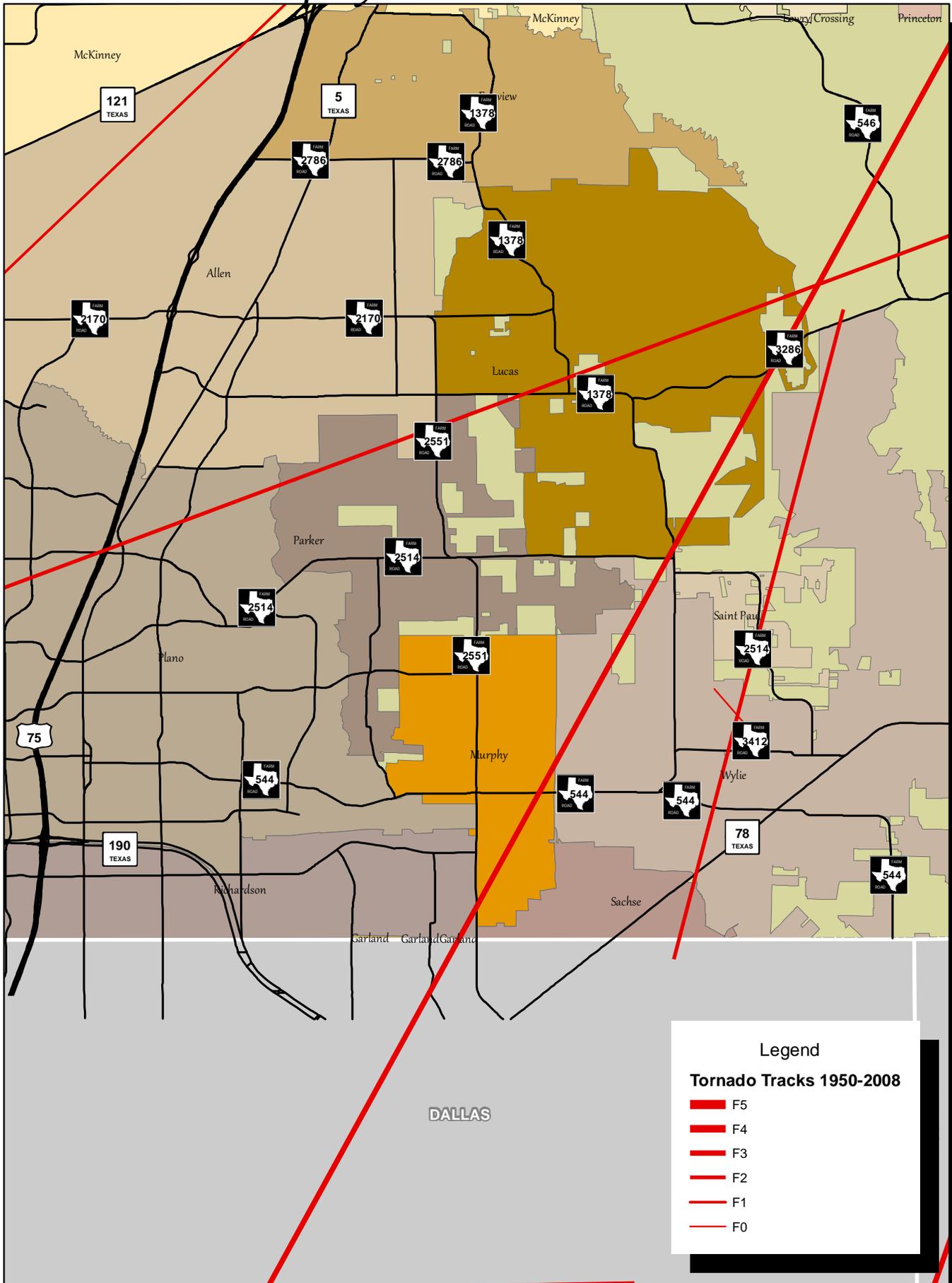


This layer is compiled from public domain data and is provided for educational and illustration purposes only.
 For all other purposes, refer to the original source data from the NOAA Storm Prediction Center.



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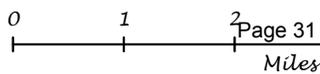
Murphy Area Tornadoes



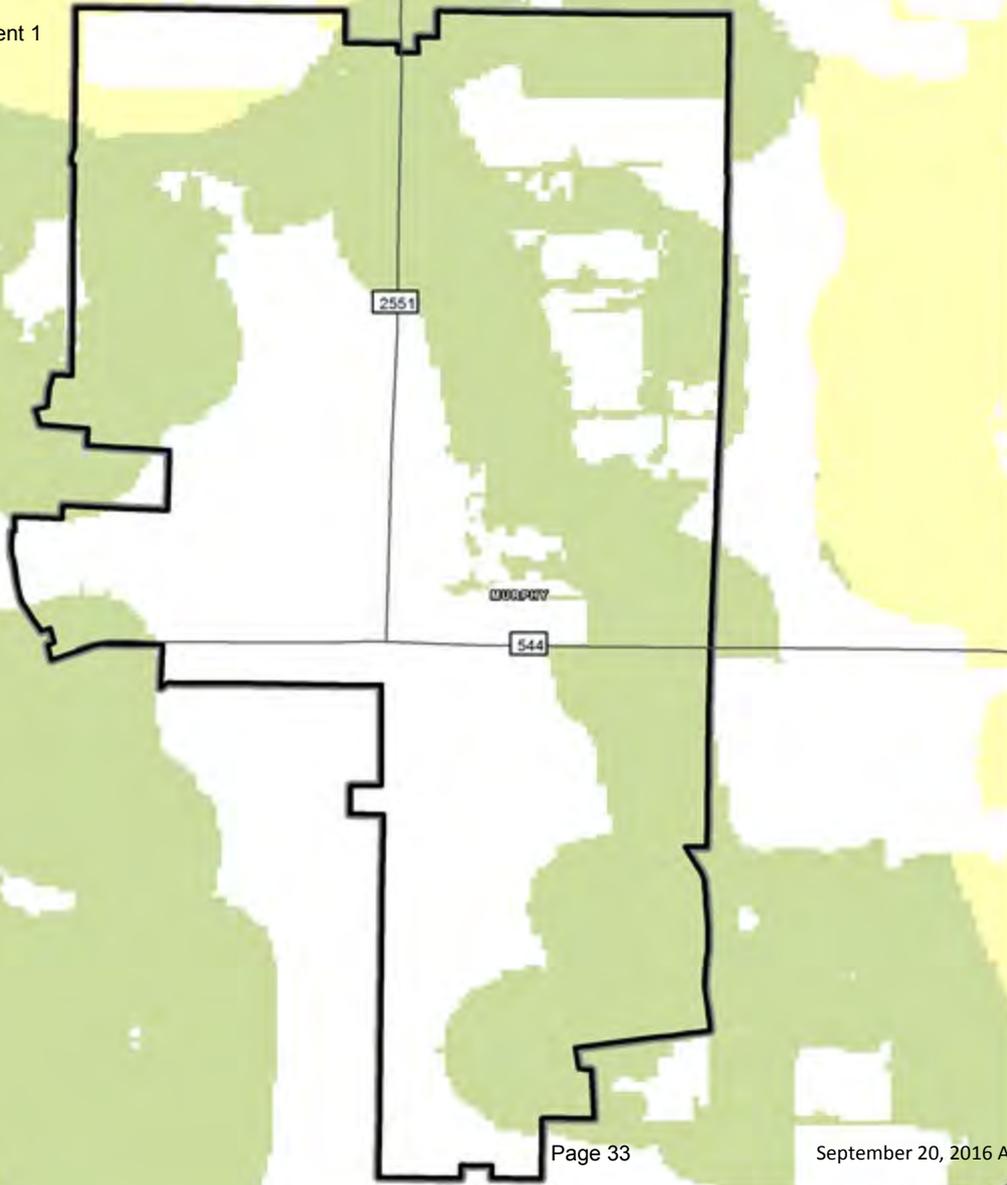
Legend

Tornado Tracks 1950-2008

- █ F5
- █ F4
- █ F3
- █ F2
- █ F1
- █ F0

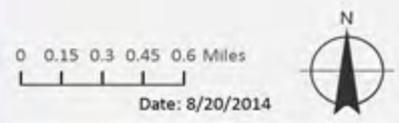


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Wildfire Threat

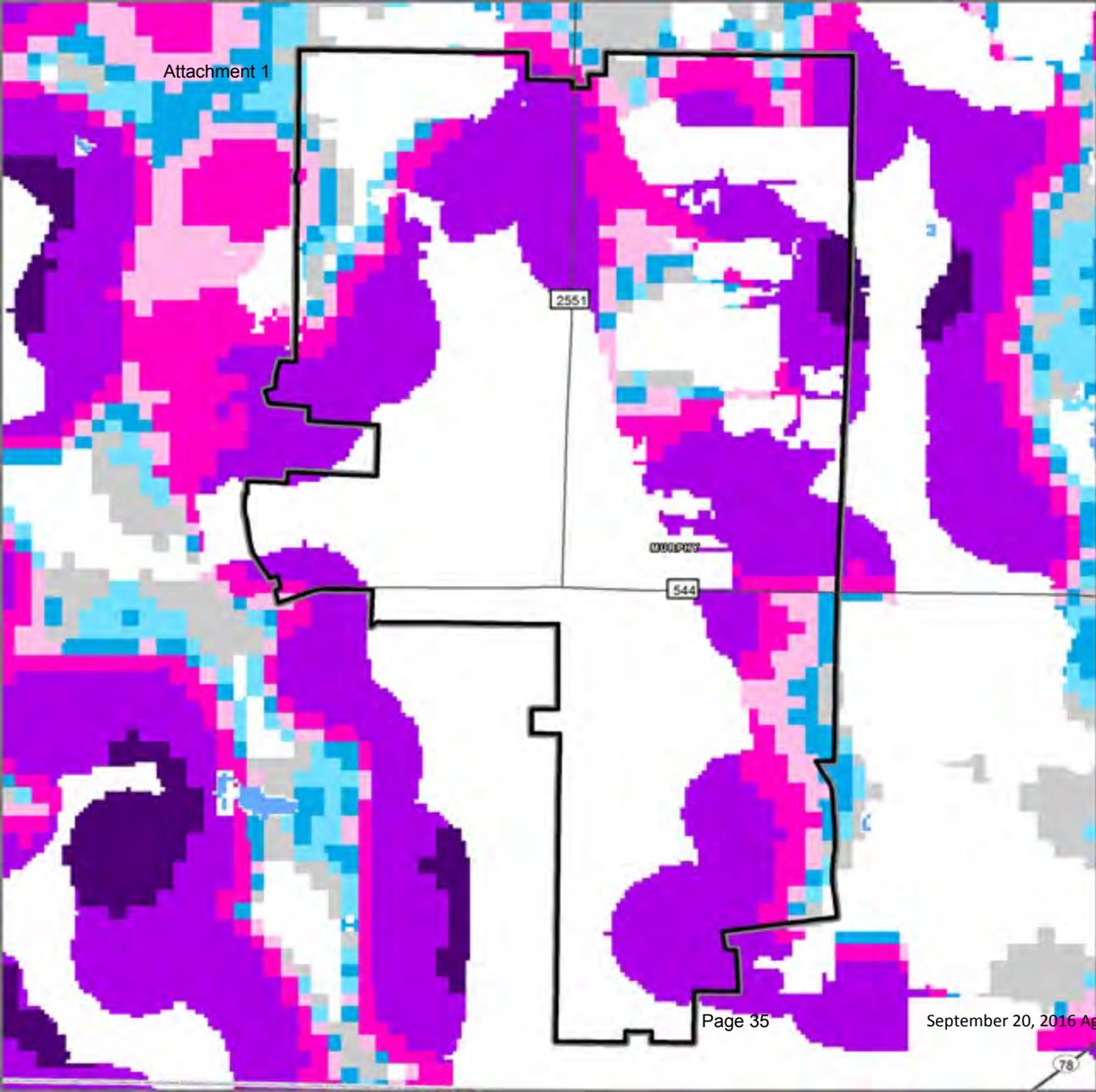
- Non-Burnable
- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)



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Wildland Urban Interface

- 1 - LT 1 hs/40 ac
- 2 - 1 hs/40 to 1 hs/20 ac
- 3 - 1 hs/20 to 1 hs/10 ac
- 4 - 1 hs/10 to 1 hs/5 ac
- 5 - 1 hs/5 to 1 hs/2 ac
- 6 - 1 hs/2 to 3 hs/ac
- 7 - GT 3 hs/ac



0 0.15 0.3 0.45 0.6 Miles



Date: 8/20/2014



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Collin County Hazard Mitigation Action Plan

3.3 Extent

Natural Hazards are judged on specific extent scales. The following are the known extent scales for the natural hazards as addressed in the Collin County Hazard Mitigation Action Plan.

Drought

Drought Severity Classification							
		Ranges					
Category	Description	Possible Impacts	Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	Objective Short and Long-term Drought Indicator Blends (Percentiles)
D0	Abnormally Dry	Going into drought; short-term dryness slowing planting, growth of crops or pastures. Coming out of drought, some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21-30	21-30	-0.5 to -0.7	21-30
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11-20	11-20	-0.8 to -1.2	11-20
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	-1.3 to -1.5	6-10
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	-1.6 to -1.9	3-5
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies	-5.0 or less	0-2	0-2	-2.0 or less	0-2

Short-term drought indicator blends focus on 1-3 month precipitation. Long-term blends focus on 6-60 months. Additional indices used, mainly during the growing season, include the USDA/NASS Topsoil Moisture, Keetch-Byram Drought Index (KBDI), and NOAA/NESDIS satellite Vegetation Health Indices. Indices used primarily during the snow season and in the West include snow water content, river basin precipitation, and the Surface Water Supply Index (SWSI). Other indicators include groundwater levels, reservoir storage, and pasture/range conditions.

PDSI Classifications for Dry and Wet Periods	
4.00 or more	Extremely wet
3.00 to 3.99	Very wet
2.00 to 2.99	Moderately wet
1.00 to 1.99	Slightly wet
0.50 to 0.99	Incipient wet spell
0.49 to -0.49	Near normal
-0.50 to -0.99	Incipient dry spell
-1.00 to -1.99	Mild drought
-2.00 to -2.99	Moderate drought
-3.00 to -3.99	Severe drought
-4.00 or less	Extreme drought

Source: <http://drought.unl.edu/whatis/indices.htm>

Drought conditions do occur in this community. The PDSI Classification allows community planners to anticipate the effects of drought and plan preparedness and mitigation activities for future events as they will likely occur. The last event of widespread drought in Collin County was in March 2014.

Collin County and participating jurisdictions have experienced 39 drought events, ranging from Abnormally Dry (D0) to Exceptional Drought (D4), during the time period analyzed for this plan (01/01/1996-03/31/2014). It can be expected that future drought events will be of similar magnitude.

Earthquake: Mercalli & Richter Scales Comparison

Mercalli Scale	Richter Scale	
I.	0 – 1.9	Not felt. Marginal and long period effects of large earthquakes.
II.	2.0 -2.9	Felt by persons at rest, on upper floors, or favorably placed.
III.	3.0 – 3.9	Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.
IV.	4.0 - 4.3	Hanging objects swing. Vibration like passing of heavy trucks. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink the upper range of IV, wooden walls and frame creak.
V.	4.4 - 4.8	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Pendulum clocks stop, start.
VI.	4.9 - 5.4	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Books, etc., off shelves. Pictures off walls. Furniture moved. Weak plaster and masonry D cracked. Small bells ring. Trees, bushes shaken.
VII.	5.5 - 6.1	Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices. Some cracks in masonry C. Waves on ponds. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.
VIII.	6.2 - 6.5	Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.
IX.	6.6 - 6.9	General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluvial areas sand and mud ejected, earthquake fountains, sand craters.
X.	7.0 - 7.3	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.
XI.	7.4 - 8.1	Rails bent greatly. Underground pipelines completely out of service.
XII.	> 8.1	Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

Masonry A: Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B: Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

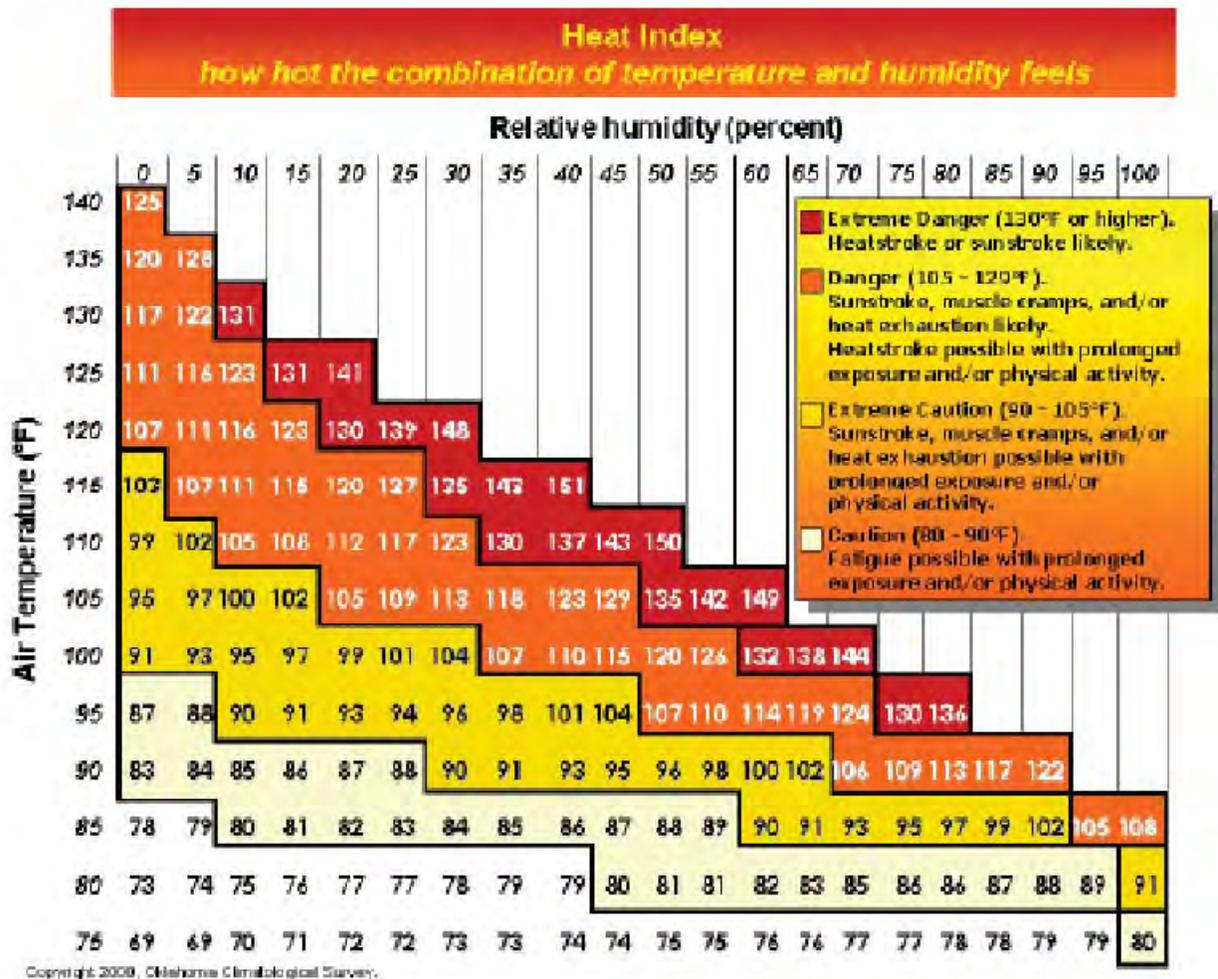
Masonry C: Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

Source: <http://www.abaq.ca.gov/bayarea/eqmaps/doc/mmigif/m10.html>

The Mercalli and Richter Scales allow planners to assess the impact earthquakes have. There have been no recorded earthquakes in Collin County. Collin County and participating jurisdictions did not experience any earthquakes during the time period analyzed for this plan (01/01/1996 – 03/31/2014). There is the potential for future earthquake events.

Extreme Heat / Heat Index



Source: <http://www.ima.army.mil/southwest/sites/divisions/Safety/Heat%20Index.gif>

The Heat Index chart displays the relative danger in regards to air temperature and relative humidity. Extreme heat is a hazard this community faces on an annual basis during the summer season. A combination of high temperatures and high humidity prompt heat advisories. This chart allows communities to assess the citizen’s danger in regards to heat index. According to the National Climatic Data Center there have been 8 extreme heat events recorded in Collin County since 1/1/1996.

Collin County and participating jurisdictions experienced 8 excessive heat events during the time period analyzed for this plan (01/01/1996 – 03/31/2014). The whole North Texas region experienced over a month of 100-degree plus temperatures during this time. It can be expected that any future heat or excessive heat incidents will be similar in magnitude.

Expansive Soils



Swelling Clays Map

Source: U.S. Geological Survey; Swelling Clays Map of the Conterminous U.S.

The U.S. Geological Survey map above shows the varying types of expansive soils found in Texas. The type of soil predominate in Collin County is generally comprised of less than 50% of clay that has a high swelling potential.

Collin County Hazard Mitigation Action Plan

Flooding

Flood Zones	
	The 100-year or Base Floodplain. There are six types of A zones:
Zone A	A The base floodplains mapped by approximate methods, i.e., BFEs are not determined. This is often called an unnumbered A zone or an approximate A zone.
	A1-30 These are known as numbered A zones (e.g., A7 or A14). This is the base floodplain where the firm shows a BFE (old format).
	AE The base floodplain where base flood elevations are provided. AE zones are now used on new format FIRMs instead of A1-30 zones.
	AO The base floodplain with sheet flow, ponding, or shallow flooding. Base flood depths (feet above ground) are provided.
	AH Shallow flooding base floodplain. BFE's are provided.
	A99 Area to be protected from base flood by levees or Federal flood protection systems under construction. BFEs are not determined.
	AR The base floodplain that results from the de-certification of a previously accredited flood protection system that is in the process of being restored to provide a 100-year or greater level of flood protection
Zone V and VE	V The coastal area subject to velocity hazard (wave action) where BFEs are not determined on the FIRM.
	VE The coastal area subject to velocity hazard (wave action) where BFEs are provided on the FIRM.
Zone B and Zone X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and the 500-year floods. B zones are also used to designate base floodplains or lesser hazards, such as areas protected by levees from the 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
Zone C and Zone X (unshaded)	Area of minimal flood hazard, usually depiction FIRMs as exceeding the 500-year flood level. Zone C may have ponding and local drainage problems that do not warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood.
Zone D	Area of undetermined but possible flood hazards.

Source: <http://www.fema.gov/floodplain-management/flood-zones>

Flood hazard areas are identified as a Special Flood Hazard Area (SFHA). SFHAs are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone V, and Zone VE. Moderate flood hazard areas, labeled Zone B or Zone X, are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are defined as Zone C or Zone X. These flood zone identifications allow planners to determine appropriate land use in designated zones.

The planning communities are participants in the National Flood Insurance Program and actively take measures to plan land use. The communities are subject to flash flooding hazards such as the event in 6/26/2007 that occurred in the City of Celina. According to the National Climatic Data Center, the flash flood event resulted in \$20,000 worth of property damage.

Collin County and participating jurisdictions experienced 63 flood and flash flood events during the time period analyzed for this plan (01/01/1996 - 03/31/2014). Most of the flood and flash flood events were a result of excessive rainfall over a short amount of time. These events resulted mainly in over-the-road flooding and minor to moderate property damage. Floodwaters during these events ranged from 2-5 inches to feet. It can be expected that any future flood or flash flood events will be similar in magnitude.

Hail

Combined NOAA/TORRO Hailstorm Intensity Scales

Size Code	Intensity Category	Typical Hail Diameter (inches)	Approximate Size	Typical Damage Impacts
H0	Hard Hail	up to 0.33	Pea	No damage
H1	Potentially Damaging	0.33-0.60	Marble or Mothball	Slight damage to plants, crops
H2	Potentially Damaging	0.60-0.80	Dime or grape	Significant damage to fruit, crops, vegetation
H3	Severe	0.80-1.20	Nickel to Quarter	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	1.2-1.6	Half Dollar to Ping Pong Ball	Widespread glass damage, vehicle bodywork damage
H5	Destructive	1.6-2.0	Silver dollar to Golf Ball	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	2.0-2.4	Lime or Egg	Aircraft bodywork dented, brick walls pitted
H7	Very destructive	2.4-3.0	Tennis ball	Severe roof damage, risk of serious injuries
H8	Very destructive	3.0-3.5	Baseball to Orange	Severe damage to aircraft bodywork
H9	Super Hailstorms	3.5-4.0	Grapefruit	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	4+	Softball and up	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: <http://www.torro.org.uk/site/hscale.php>

The Hailstorm Intensity Scale is representative of the damage from hail storms this community has experienced in the past and will likely experience in the future. The Hailstorm Intensity Scale allows planners to gauge past damage and mitigate for future expected damage. For example, according to the National Climatic Data Center, on 5/21/2011, 2.00in (H6/egg size) hail caused \$25,000 of property damage in the City of Celina.

Collin County and participating jurisdictions experienced 273 hail events ranging from magnitude H2 (.75 inch diameters) to magnitude H10 (4+ inch diameters), during the time period analyzed for this plan (01/01/1950—03/31/2014). It can be expected that any future hail events will be similar in magnitude.

Collin County Hazard Mitigation Action Plan

High Winds

Beaufort Wind Scale

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects	
			On the Water	On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 ft. taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 ft., whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-20 ft., white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (13-20 ft.) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Whole trees in motion, resistance felt walking against wind
9	41-47	Strong Gale	High waves (20 ft.), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	48-55	Storm	Very high waves (20-30 ft.) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	Exceptionally high (30-45 ft.) waves, foam patches cover sea, visibility more reduced	
12	64+	Hurricane	Air filled with foam, waves over 45 ft., sea completely white with driving spray, visibility greatly reduced	

Source: <http://www.spc.noaa.gov/faq/tornado/beaufort.html>

The Beaufort Wind Scale is representative of the damage from high winds this community may endure. The Beaufort Wind Scale allows planners in the community to assess historical data and mitigate for future high wind storms. For example, according to the National Climatic Data Center, in 2010 the City of Wylie experienced Force 12 (64+ knots) winds that blew down trees and fences, which caused \$50,000 worth of damage.

Collin County and participating jurisdictions experienced 256 high wind events ranging from Force 0 to Force 12 (0 knots to 64+ knots), during the time period analyzed for this plan (01/01/1950—03/31/2014). It can be expected that any future high wind events will be similar in magnitude.

Lightning Activity Level Grid

Lightning Activity Level (LAL) A scale which describes lightning activity. Values are labeled 1-6:	
LAL 1	No thunderstorms
LAL 2	Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent, 1 to 5 cloud to ground strikes in a five minute period.
LAL 3	Widely scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, 6 to 10 cloud to ground strikes in a 5 minute period.
LAL 4	Scattered thunderstorms. Moderate rain is commonly produced Lightning is frequent, 11 to 15 cloud to ground strikes in a 5 minute period.
LAL 5	Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, greater than 15 cloud to ground strikes in a 5 minute period.
LAL 6	Dry lightning (same as LAL 3 but without rain). This type of lightning has the potential for extreme fire activity and is normally highlighted in fire weather forecasts with a Red Flag Warning.

Source: <http://www.nws.noaa.gov/forecasts/wfo/definitions/defineLAL.html>

The Lightning Activity Level grid provides a way to gauge the average number of strikes that may accompany a given type of storm. The average number of strikes is given since the density of lightning strikes varies from storm to storm.

Collin County and participating jurisdictions experienced 27 lightning events during the time period analyzed for this plan (01/01/1996—3/31/2014). It can be expected that any future lightning events will be similar in magnitude.

Collin County Hazard Mitigation Action Plan

Tornado Fujita Scale

F-Scale Number	Intensity Phrase	Wind Speed	Type of Damage
F0	Gale tornado	40-72 mph	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards.
F1	Moderate tornado	73-112 mph	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; manufactured homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
F2	Significant tornado	113-157 mph	Considerable damage. Roofs torn off frame houses; manufactured homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	Severe tornado	158-206 mph	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted
F4	Devastating tornado	207-260 mph	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	Incredible tornado	261-318 mph	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel reinforced concrete structures badly damaged.
F6	Inconceivable tornado	319-379 mph	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies

Source: <http://tornadoproject.com/fscale/fscale.htm>

On February 1, 2007, the Fujita scale was decommissioned in favor of the more accurate Enhanced Fujita Scale, which replaced it. None of the tornados recorded on or before January 31, 2007 will be re-categorized. Therefore maintaining the Fujita scale will be necessary when referring to previous events.

Enhanced Fujita Scale

Enhanced Fujita Category	Wind Speed (mph)	Potential Damage
EF0	65-85	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	86-110	Moderate damage. Roofs severely stripped; manufactured homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	111-135	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; manufactured homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3	136-165	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	166-200	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF5	>200	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 m (109 yd.); high-rise buildings have significant structural deformation;

Source: <http://www.spc.noaa.gov/efscale/>

The Enhanced Fujita Scale is representative of the damage from tornados this community has faced in the past and will no doubt face in the future. The Enhanced Fujita Scale allows planners to prepare and mitigate future potential damage by assessing the historical nature of tornados in the planning community. For example, according to the National Climatic Data Center in 2007, an F0 tornado occurred in the City of Wylie. The tornado caused \$500,000 worth of property damage.

Collin County and participating jurisdictions experienced 42 tornado events ranging from EF0 to F3 (65mph to 206mph), during the time period analyzed for this plan (01/01/1950 — 3/31/2014). It can be expected that any future tornado events will be similar in magnitude.

Collin County Hazard Mitigation Action Plan

Wildfire

Keetch-Byram Drought Index

KBDI	Fire Potential
0-200	Soil and fuel moisture are high. Most fuels will not readily ignite or burn. However, with sufficient sunlight and wind, cured grasses and some light surface fuels will burn in spots and patches.
200-400	Fires more readily burn and will carry across an area with no gaps. Heavier fuels will still not readily ignite and burn. Also, expect smoldering and the resulting smoke to carry into and possibly through the night.
400-600	Fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.
600-800	Fires will burn to mineral soil. Stumps will burn to the end of underground roots and spotting will be a major problem. Fires will burn through the night and heavier fuels will actively burn and contribute to fire intensity.

Source: <http://www.tamu.edu/ticc/KBDI%20Fact%20Sheet.pdf>

The index scale ranges from 0 to 800 and represents moisture deficiency in hundredths of an inch. By looking at indicators of moisture deficiency in the soil in this chart, communities are able to assess when they are at a heightened danger for a wildfire. According to the National Climatic Data Center there have been four wildfire events in Collin County since 1/1/1996. In 9/5/2011, a wildfire caused \$50,000 in property damage.

Collin County and participating jurisdictions experienced four wildfire events during the time period analyzed for this plan (01/01/1996 — 3/31/2014). These fires ranged from grassfires that destroyed 12 bales of hay, five homes, and caused one death, to a wildfire that burned 100 acres. It can be expected that any future wildland fire events will be similar in magnitude.

Fire Danger

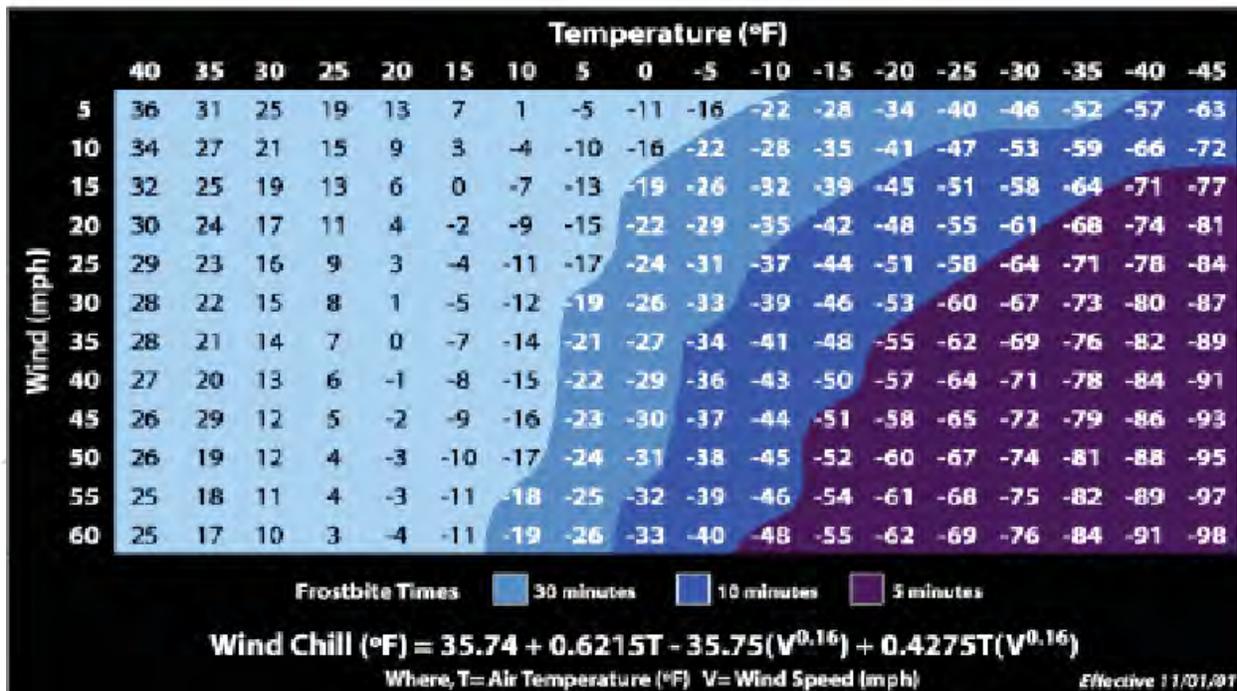
Rating	Basic Description	Detailed Description
CLASS 1: Low Danger (L) COLOR CODE: Green	fires not easily started	Fuels do not ignite readily from small firebrands. Fires in open or cured grassland may burn freely a few hours after rain, but wood fires spread slowly by creeping or smoldering and burn in irregular fingers. There is little danger of spotting.
CLASS 2: Moderate Danger (M) COLOR CODE: Blue	fires start easily and spread at a moderate rate	Fires can start from most accidental causes. Fires in open cured grassland will burn briskly and spread rapidly on windy days. Woods fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel – especially draped fuel – may burn hot. Short-distance spotting may occur, but is not persistent. Fires are not likely to become serious and control is relatively easy.
CLASS 3: High Danger (H) COLOR CODE: Yellow	fires start easily and spread at a rapid rate	All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High intensity burning may develop on slopes or in concentrations of fine fuel. Fires may become serious and their control difficult, unless they are hit hard and fast while small.
CLASS 4: Very High Danger (VH) COLOR CODE: Orange	fires start very easily and spread at a very fast rate	Fires start easily from all causes and immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high-intensity characteristics - such as long-distance spotting - and fire whirlwinds, when they burn into heavier fuels. Direct attack at the head of such fires is rarely possible after they have been burning more than a few minutes.
CLASS 5: Extreme (E) COLOR CODE: Red	fire situation is explosive and can result in extensive property damage	Fires under extreme conditions start quickly, spread furiously and burn intensely. All fires are potentially serious. Development into high-intensity burning will usually be faster and occur from smaller fires than in the Very High Danger class (4). Direct attack is rarely possible and may be dangerous, except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions, the only effective and safe control action is on the flanks, until the weather changes or the fuel supply lessens.

Source: <http://www.wfas.net/index.php/fire-danger-rating-fire-potential--danger-32/class-rating-fire-potential-danger-51?task=view>

Collin County Hazard Mitigation Action Plan

Wind Chill

Wind Chill is a measure of how cold the wind makes real air temperature feel to the human body. Since wind can dramatically accelerate heat loss from the body, a blustery 30° day would feel just as cold as a calm day with 0° temperatures. The index was created in 1870, and on November 1, 2001, the National Weather Service released a more scientifically accurate equation, which we use today. Here is a chart for calculating wind chill. (Please note that it is not applicable in calm winds or when the temperature is over 50°.)



Source: National Weather Service and NOAA

The Wind Chill Chart displays the frostbite times in regards to temperature and wind. This chart allows the communities to prepare for severe winter storm or an ice event. These events are infrequent but can cause damage. The primary areas of concern are on bridges and roadways. For example, according to the National Climatic Data Center, on 2/11/2010, a heavy snow storm caused \$1,000,000 in property damage across Collin County.

Collin County and participating jurisdictions experienced 35 winter storm events ranging from heavy snow to ice, during the time period analyzed for this plan (01/01/1996—3/31/2014). Accumulations during these events ranged from 1-3 inches of sleet, .25-1.5 inches of ice, and .5 to 12 inches of snow. It can be expected that any future events will be similar in magnitude.

Collin County Hazard Mitigation Action Plan

Local Extent Having identified the extent scales by which hazards are ranked, the participating jurisdictions have utilized the following definitions to determine the expected extent/severity for their planning area.

	High	Medium	Low
Dam Failure	<ul style="list-style-type: none"> Greater than 50% of city structures are in the inundation zone. Greater than 50% of the city's critical infrastructure in the identified inundation zone 	<ul style="list-style-type: none"> 20%-50% of city structures are in the inundation zone. 20%-50% of the city's critical infrastructure in the inundation zone 	<ul style="list-style-type: none"> Less than 20% of city structures are in the inundation zone. Less than 20% of the city's critical infrastructure in the inundation zone
Drought	<ul style="list-style-type: none"> PDSI -3.00- -4.00 or less Severe to extreme drought conditions 	<ul style="list-style-type: none"> PDSI -1.00- -2.99 Mild to moderate drought conditions 	<ul style="list-style-type: none"> PDSI 4.00 or more - -0.99 Extremely wet to incipient dry spells
Earthquake	<ul style="list-style-type: none"> Mercalli Scale: VIII-XII Richter Scale: 6.2->8.1 Driving will be difficult, increase in damage to infrastructures and objects can be thrown 	<ul style="list-style-type: none"> Mercalli Scale: VI-VII Richter Scale: 4.9-6.1 All will feel the event, walking will be difficult, glassware will break, irrigation ditches damaged 	<ul style="list-style-type: none"> Mercalli Scale: I-V Richter Scale: 0-4.8 Range of feeling the event is cannot be felt to being felt outdoors. Doors may swing close and liquids may be disturbed.
Expansive Soils	<ul style="list-style-type: none"> EI Expansion Potential: 91-130 (High) EI Expansion Potential: >130 (Very High) 	<ul style="list-style-type: none"> EI Expansion Potential: 51-90 (Medium) 	<ul style="list-style-type: none"> EI Expansion Potential: 21-50 (Low) EI Expansion Potential: 0-21 (Very Low)
Extreme Heat	<ul style="list-style-type: none"> Heat Index >130F Heatstroke or sunstroke likely 	<ul style="list-style-type: none"> Heat Index 105F-129F Sunstroke, muscle cramps, and/or heat exhaustion likely. Heatstroke possible with prolonged exposure and/or physical activity. 	<ul style="list-style-type: none"> Heat Index 80F-105F Fatigue possible with prolonged exposure and/or physical activity, Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Flooding	<ul style="list-style-type: none"> 100yr Flood Zone, Zone A The extent of severity in the 100yr Flood Zone will be dependent on the structures and livestock located in the identified area. 	<ul style="list-style-type: none"> 500yr Flood Zone, Zone B The extent of severity in the 500yr Flood Zone will be dependent on the structures and livestock located in the identified area. 	<ul style="list-style-type: none"> Outside of 100yr and 500yr Flood Zones, Zone C, F, X Potential for flooding due to local drainage problem
Hail	<ul style="list-style-type: none"> H7-H10, 2.4"->4" There will be severe damage. Including roof and structural damage and risk of serious injuries to fatalities. 	<ul style="list-style-type: none"> H5-H6, 1.6"-2.4" There will be a range of severe damage from well-constructed houses being destroyed to houses being swept away. 	<ul style="list-style-type: none"> H0-H4, 0"-1.6" There will be a variance of destruction to vegetation and slight damage to glass.
High Winds	<ul style="list-style-type: none"> Force: 8-12 Knots: 28-64+ Whole trees moving to considerable structure damage 	<ul style="list-style-type: none"> Force: 4-6 Knots: 11-27 Dust, leaves, and loose paper lifted. Small to Large branches moving. 	<ul style="list-style-type: none"> Force: 0-3 Knots: <1-10 Calm, leaves rustle, light flags extended

Collin County Hazard Mitigation Action Plan

	High	Medium	Low
Tornado	<ul style="list-style-type: none"> EF3-EF5 There will be a range of severe damage from well-constructed houses being destroyed to houses being swept away 	<ul style="list-style-type: none"> EF1-EF2 There will be a range of moderate to considerate damage. Roofs will be severely stripped, manufactured homes overturned, and cars lifted off of the ground 	<ul style="list-style-type: none"> EF0 There will be light damage. Roofs will be peeled off, gutters damaged, and branches broken
Wildland Fire	<ul style="list-style-type: none"> KBDI 600-800 Associated with severe drought. Intense, deep-burning fires with significant downwind spotting. 	<ul style="list-style-type: none"> KBDI 200-400 Ranges from lower litter and duff layers are drying and beginning to contribute to fire intensity to them causing the fire to burn actively. 	<ul style="list-style-type: none"> KBDI 0-200 Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity.
Winter Storms	<ul style="list-style-type: none"> Temperatures 15F- -45F Wind Chill 7F- -98F At wind chill of -19 frostbite will occur in 30 minutes increasing in severity to occurrence in 5 minutes. 	<ul style="list-style-type: none"> Temperatures 30F- 20F Wind Chill 25F- -4F Bridges and roadways are at risk to ice 	<ul style="list-style-type: none"> Temperatures 40F- 35F Wind Chill 36F-17F Vulnerable populations and agriculture at risk to lower temperatures and wind chill.

The charts below depict the estimated average of extent as ranked by the jurisdictions.

	Collin County	Allen	Anna	Blue Ridge	Celina
Dam Failure	Low	Low	Low	Low	Low
Drought	Medium	Low	Medium	Medium	Medium
Earthquake	Low	Low	Low	Low	Low
Expansive Soils	Low	Low	Low	Low	Low
Extreme Heat	Medium	Medium	Low	Medium	Medium
Flooding	Low	Low	Low	Low	Medium
Hail	Medium	Medium	Low	Low	Low
High Winds	Low	Medium	Medium	Medium	Low
Lightning	Low	Low	Low	Low	Low
Tornado	Medium	Medium	Medium	Medium	Medium
Wildland Fire	Medium	Low	Low	Medium	Medium
Winter Storms	Medium	Medium	Medium	Medium	Medium

Collin County Hazard Mitigation Action Plan

	Fairview	Farmersville	Frisco	Josephine	Lavon
Dam Failure	Low	Low	Low	Low	Low
Drought	Medium	Low	Low	Medium	Low
Earthquake	Low	Low	Low	Low	Low
Expansive Soils	Low	Low	Low	Low	Low
Extreme Heat	Low	Low	Low	Low	Medium
Flooding	Low	Low	Low	Low	Low
Hail	Low	Low	Medium	Low	Low
High Winds	Low	Low	Medium	Low	Low
Lightning	Low	Low	Medium	Low	Low
Tornado	Medium	Medium	Medium	Medium	Medium
Wildland Fire	Low	Low	Low	Medium	Medium
Winter Storms	Medium	Medium	Medium	Medium	Medium

	Lowry Crossing	Lucas	Melissa	Murphy	New Hope
Dam Failure	Low	Low	Low	Low	Low
Drought	Medium	Medium	Medium	Medium	Medium
Earthquake	Low	Low	Low	Low	Low
Expansive Soils	Medium	Low	Low	Low	Low
Extreme Heat	Low	Low	Low	Medium	Low
Flooding	Low	Low	Low	Low	Low
Hail	Low	Low	Low	Low	Low
High Winds	Low	Low	Low	Low	Low
Lightning	Low	Low	Low	Low	Low
Tornado	Medium	Medium	Medium	Low	Medium
Wildland Fire	Low	Medium	Medium	Low	Medium
Winter Storms	Medium	Medium	Medium	Medium	Medium

	Parker	Princeton	Prosper	St. Paul	Wylie
Dam Failure	Low	Low	Low	Low	Low
Drought	Medium	Medium	Low	Medium	Low
Earthquake	Low	Low	Low	Low	Low
Expansive Soils	Low	Low	Low	Low	Low
Extreme Heat	Low	Medium	Medium	Low	Low
Flooding	Low	Medium	Low	Low	Low
Hail	Low	Low	Medium	Low	Medium
High Winds	Low	Low	Medium	Low	Low
Lightning	Low	Low	Medium	Low	Low
Tornado	Medium	Medium	Medium	Medium	Medium
Wildland Fire	Low	Low	Medium	Medium	Low
Winter Storms	Low	Medium	Medium	Medium	Medium

3.4 Geographic Information System Based Analysis

For the Geographic Information System-based assessment, digital data was collected from local, state, and national sources. ESRI® ArcMap™ 10.2 was used to assess risk utilizing digital data, which included local tax records for individual parcels and geo-referenced point locations for buildings and critical facilities.

The objective of the Geographic Information System-based analysis was to determine the estimated vulnerability of the five categories of assets to the identified hazards for Collin County using best available geospatial data. Local databases made available through Collin County, such as local tax assessor records, parcel boundaries, building footprints and critical and emergency facilities data, were used in combination with digital hazard data obtained from the National Climatic Data Center and the Regional Hazard Assessment Tool. The results of the analysis provided an estimated number of people, as well as the numbers and values of buildings and critical facilities determined to be potentially at risk to hazards with delineable geographic hazard boundaries.

For some of the hazards, the Geographic Information System analysis was supplemented with a statistical analysis conducted on the historical data obtained from National Climatic Data Center and the Texas Forest Service for wildfires. The data included both casualty and property losses from hazard events that occurred in Collin County from 1/1/1950 or 1/1/1996 to 6/30/2014. Annualized personal and property losses were calculated by dividing the total losses by the number of years for which data was available (i.e. 18 or 64 years).

Drought

Because drought impacts large areas that cross jurisdictional boundaries, all of the improved property and population in Collin County are considered to be exposed to this hazard. However, drought impacts are mostly experienced in water shortages and crop losses on agricultural lands, with little to no impact on buildings.

Since crop losses are expected to be the most vulnerable assets for this hazard, agricultural land acreage was acquired from the USGS land cover classification data to estimate the relative area of Collin County that would be affected by this event. *Table 3.1* below provides the distribution of agricultural land for each jurisdiction in Collin County. Collin County as a whole has a total of 313,819.70 acres of agricultural lands, which represents approximately 63.76% of Collin County territory, with the vast majority located in the unincorporated areas.

Table 3.1 Agricultural Land in Collin County

Jurisdiction	Total Acres	Agricultural Land Acres	Percentage (%) of Total Acres
Unincorporated County	335,601	263,472.20	78.51%
Allen	16,887.03	2,448.58	14.50%
Anna	8,272	6,509.40	78.69%
Blue Ridge	494	160.30	32.46%
Celina	11,637	9,675.70	83.14%
Fairview	5,656.46	1291.4621	22.83%
Farmersville	1,870	577.80	30.90%
Frisco	26,922.73	10,107.14	37.54%
Josephine	868	386.40	44.51%
Lavon	1,142	413.40	36.19%
Lowry Crossing	1,508	546.60	36.26%
Lucas	9,855.78	2,887.17	29.29%
Melissa	5,509	946.60	17.18%
Murphy	3,633.74	167.9491	4.62%
New Hope	852	318.40	37.36%
Parker	4,819	1643	34.09%
Princeton	4,074	2,814.00	69.07%
Prosper	11,558.36	5,924.23	51.25%
St. Paul	895.01	184.456	20.61%

Collin County Hazard Mitigation Action Plan

Jurisdiction	Total Acres	Agricultural Land Acres	Percentage (%) of Total Acres
Wylie	18,097	2,239.30	12.37%
Total	471,336	313,453	66.50%

Sources: Texas Forest Service, U.S. Geological Survey, and local jurisdictions

Based on the available information, vulnerability to drought was assessed using two techniques: (1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the Texas Hazard Mitigation Package was used to predict expected monetary and human losses from the event; (2) in fulfillment of Element A of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for drought and the nature of the impacts expected from drought events were used to identify the assets, including existing structures, vulnerable to this hazard. The vulnerability to future structures was not conducted at this time due to unattainable data. Therefore, compliance with Element B of *Requirement 201.6(c)(2)(ii)(A)*, describing vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities will be an objective in the five-year planning cycle.

Table 3.2 presents Collin County's recorded historical losses due to drought events as provided in the hazard events database obtained from the National Climatic Data Center. Property and personal losses in each expected in each jurisdiction are presented in Table 3.2.

Table 3.2 Historical Losses Due to Drought (1/1/1996-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	8/1/1996	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	7/1/1998	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	8/1/2000	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	9/1/2000	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	5/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	6/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	7/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	8/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	9/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	10/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	11/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	12/1/2005	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	1/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	2/1/2006	0:00	Drought		0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	3/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	4/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	5/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	6/6/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	7/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	8/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	9/1/2006	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	10/1/2006	0:00	Drought		0	0	\$500,000	\$500,000
Collin (Zone)	11/1/2006	0:00	Drought		0	0	\$0	\$800,000
Collin (Zone)	3/21/2011	0:00	Drought		0	0	\$0	\$8,000
Collin (Zone)	4/1/2011	0:00	Drought		0	0	\$0	\$10,000
Collin (Zone)	8/1/2011	0:00	Drought		0	0	\$0	\$10,000
Collin (Zone)	9/1/2011	0:00	Drought		0	0	\$0	\$25,000
Collin (Zone)	10/1/2011	0:00	Drought		0	0	\$0	\$5,000
Collin (Zone)	8/7/2012	0:00	Drought		0	0	\$0	\$0
Collin (Zone)	9/25/2012	0:00	Drought		0	0	\$0	\$2,000
Collin (Zone)	11/1/2012	0:00	Drought		0	0	\$0	\$3,000
Collin (Zone)	12/1/2012	0:00	Drought		0	0	\$0	\$2,000
Collin (Zone)	1/1/2013	0:00	Drought		0	0	\$0	\$3,000
Collin (Zone)	2/1/2013	0:00	Drought		0	0	\$0	\$2,000
Collin (Zone)	3/1/2013	0:00	Drought		0	0	\$2,000	\$0
Collin (Zone)	7/9/2013	0:00	Drought		0	0	\$0	\$1,000
Collin (Zone)	8/1/2013	0:00	Drought		0	0	\$0	\$3,000
Collin (Zone)	9/1/2013	0:00	Drought		0	0	\$0	\$3,000
Collin (Zone)	3/1/2014	0:00	Drought		0	0	\$0	\$4,000
Totals:					0	0	\$502,000	\$1,381,000

Source: National Climatic Data Center

Collin County Hazard Mitigation Action Plan

As observed in Table 3.2 Historical Losses Due to Drought, calculations of annualized losses were conducted using historical data obtained from the National Climatic Data Center. The annualized loss value can be interpreted as the impact expected from drought in terms of annualized human losses and human injuries, and annualized property losses. As observed in *table 3.2*, Collin County can expect approximately an annual \$27,888.89 in property losses, and \$76,722.22 of crop losses each year as a result of drought, with no injuries or deaths expected from this event.

Since the geographical occurrence of drought is typically regional, the area of potential impacts corresponds to all of Collin County's territory. However, due to the nature of this event, property losses are more likely related to crop damage. Buildings and infrastructure are not expected to be directly impacted by drought events. Therefore, improved property, emergency and critical facilities, and critical structures are not exposed to this hazard.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to drought and impacts to assets expected from drought events can be summarized as follows:

- **Population**: According to National Climatic Data Center (NCDC) zero recorded injuries or fatalities have been recorded for drought events. There are no personal losses expected from drought events. All the population of Collin County is exposed to this hazard.
- **Improved Property**: According to National Climatic Data Center (NCDC), a loss of \$27,888.89 per year can be expected in property loss due to damage from drought. Available historical data indicates that the expected losses from drought correspond to crop losses in the amount of \$76,722.22 per year, mostly experienced in water shortages and crop losses on agricultural lands.
- **Emergency Facilities**: Because of the nature of this hazard, there are no losses or direct impacts expected on emergency facilities due to drought events.
- **Critical Facilities**: Because of the nature of this hazard, there are no losses or direct impacts expected on critical facilities due to drought events.
- **Critical Infrastructure**: Because of the nature of this hazard, there are no losses or direct impacts expected on critical infrastructure due to drought events.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Flood

Floods impact large areas and cross jurisdictional boundaries. All five categories of assets are considered vulnerable and can be exposed to this hazard. Based on the available information, vulnerability to flooding was assessed using two techniques: (1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from National Climatic Data Center was used to predict expected monetary and human losses from the event; (2) in fulfillment of Element A of *Requirement 201.6(c)(2)(ii)(A)*, geographical data was used to identify the assets, including existing structures, vulnerable to flooding. The vulnerability to future structures was not assessed at this time due to unattainable data. Therefore, compliance with Element B of *Requirement 201.6(c)(2)(ii)(A)*, describing vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities will be an objective in the five-year planning cycle.

Table 3.3 presents Collin County's recorded historical losses due to flooding as provided in the hazard events database obtained by National Climatic Data Center. Although specific data is provided by jurisdiction, the figures presented may reflect the place where the event was more relevant or where it started. There were no recorded floods or flash flood events for the following jurisdictions: Josephine, Lowry Crossing, Lucas, New Hope, and St. Paul.

Table 3.3 Historical Losses Due to Flood Events (1/1/1996-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Frisco	10/27/1996	21:20	Flash Flood		0	0	\$0	\$0
Melissa	11/7/1996	0:30	Flash Flood		0	0	\$10,000	\$0
Plano	2/19/1997	16:30	Flash Flood		0	0	\$0	\$0
Mc Kinney	2/19/1997	16:51	Flash Flood		0	0	\$0	\$0
Lolaville	2/19/1997	18:00	Flash Flood		0	0	\$0	\$0
Farmersville	2/19/1997	18:25	Flash Flood		0	0	\$0	\$0
Mc Kinney	4/4/1997	22:25	Flash Flood		0	0	\$0	\$0
Plano	5/19/1997	18:15	Flash Flood		0	0	\$0	\$0
Plano	5/19/1997	19:02	Flash Flood		0	0	\$10,000	\$0
Plano	5/19/1997	19:30	Flash Flood		0	0	\$0	\$0
Plano	6/9/1997	20:48	Flash Flood		0	0	\$0	\$0
Allen	6/9/1997	21:00	Flash Flood		0	0	\$0	\$0
Plano	12/20/1997	20:00	Flash Flood		0	0	\$0	\$0
Mc Kinney	1/4/1998	16:40	Flash Flood		0	0	\$0	\$0
Mc Kinney	1/4/1998	16:45	Flash Flood		0	0	\$0	\$0
Blue Ridge	1/4/1998	16:50	Flash Flood		0	0	\$0	\$0
Princeton	1/4/1998	17:52	Flash Flood		0	0	\$0	\$0
Prosper	1/4/1998	21:09	Flash Flood		0	0	\$0	\$0
Nevada	12/4/1998	1:00	Flash Flood		0	0	\$0	\$0
Central Portion	12/4/1998	1:00	Flash Flood		0	0	\$0	\$0
Lavon	5/17/1999	15:33	Flash Flood		0	0	\$0	\$0
Plano	6/8/1999	19:00	Flash Flood		0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Farmersville	6/4/2000	2:15	Flash Flood		0	0	\$0	\$0
Murphy	6/11/2000	12:55	Flash Flood		0	0	\$0	\$0
Wylie	6/15/2000	2:00	Flash Flood		0	0	\$0	\$0
Countywide	2/16/2001	1:34	Flash Flood		0	0	\$0	\$0
Countywide	2/16/2001	3:51	Flash Flood		0	0	\$0	\$0
Mc Kinney	5/6/2001	1:28	Flash Flood		0	0	\$0	\$0
Melissa	10/19/2002	2:05	Flash Flood		0	0	\$25,000	\$0
Plano	12/30/2002	14:30	Flash Flood		0	0	\$0	\$0
Plano	8/15/2005	19:45	Flash Flood		0	0	\$0	\$0
Countywide	3/19/2006	15:00	Flash Flood		0	0	\$0	\$0
McKinney	1/12/2007	17:15	Flash Flood		0	0	\$0	\$0
McKinney	3/30/2007	20:00	Flash Flood		0	0	\$0	\$0
Plano	4/3/2007	18:52	Flash Flood		0	0	\$0	\$0
Celina	4/24/2007	20:09	Flash Flood		0	0	\$0	\$0
Frisco	5/2/2007	19:00	Flash Flood		0	0	\$50,000	\$0
Lavon	5/27/2007	9:06	Flash Flood		0	0	\$0	\$0
McKinney	5/30/2007	8:30	Flash Flood		0	0	\$10,000	\$0
Anna	6/18/2007	2:00	Flash Flood		0	0	\$10,000	\$0
Melissa	6/18/2007	8:00	Flash Flood		0	0	\$0	\$0
Celina	6/26/2007	15:01	Flash Flood		0	0	\$20,000	\$0
Farmersville	6/27/2007	17:43	Flash Flood		0	0	\$0	\$0
Wylie	7/5/2007	13:30	Flash Flood		0	0	\$0	\$0
Plano	7/11/2007	16:42	Flash Flood		0	0	\$0	\$0
Plano	10/15/2007	7:42	Flash Flood		0	0	\$80,000	\$0
Plano	3/18/2008	11:54	Flash Flood		0	0	\$0	\$0
Biggers	3/18/2008	14:38	Flash Flood		0	0	\$0	\$0
Wylie	3/18/2008	16:54	Flash Flood		0	0	\$0	\$0
McKinney	3/18/2008	17:00	Flash Flood		0	0	\$4,000	\$0
Melissa	4/23/2008	22:55	Flash Flood		0	0	\$2,000	\$0
Parker	8/20/2008	6:00	Flash Flood		0	0	\$0	\$0
McKinney	8/20/2008	6:00	Flash Flood		0	0	\$20,000	\$0
Wylie	8/20/2008	6:45	Flash Flood		0	0	\$4,000	\$0
Forest Grove	8/20/2008	15:00	Flash Flood		0	0	\$0	\$0
Plano	5/2/2009	18:25	Flash Flood		0	0	\$20,000	\$0
McKinney	5/2/2009	20:38	Flash Flood		0	0	\$2,000	\$0
Blue Ridge	5/3/2009	4:05	Flash Flood		0	0	\$0	\$0
Celina	10/25/2009	21:21	Flash Flood		0	0	\$3,000	\$0
McKinney	10/25/2009	22:44	Flash Flood		0	0	\$3,000	\$0
Desert	11/20/2009	11:00	Flood		0	0	\$20,000	\$0
Celina	1/25/2012	5:00	Flood		0	0	\$50,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Lolaville	3/20/2012	0:00	Flood		0	0	\$0	\$0
Totals:					0	0	\$343,000	\$0

Source: National Climatic Data Center

NFIP repetitive losses due to flood events. Some events may duplicate NCDC reported events.

Table 3.4 NFIP Losses Due to Flood Events

Location	Date	Type	Total Payments for Damages
Collin County	05/12/1982	Flood	\$137,421.75
Collin County	10/13/1981	Flood	\$56,653.53
Collin County	03/18/2008	Flood	\$30,538.62
Collin County	03/19/2006	Flood	\$2,804.32
Collin County	12/20/1991	Flood	\$15,420.52
Fairview	03/15/1997	Flood	\$8,234.44
Fairview	06/01/1994	Flood	\$10,533.74
Fairview	04/11/1991	Flood	\$15,263.41
Fairview	01/31/1990	Flood	\$8,844.92
Fairview	05/16/1989	Flood	\$6,033.50
Fairview	01/04/1998	Flood	\$5,701.14
Fairview	05/16/1989	Flood	\$6,532.68
Murphy	04/12/1991	Flood	\$69,726.51
Murphy	05/02/1990	Flood	\$10,137.18
Murphy	05/17/1989	Flood	\$37,866.00
Murphy	05/12/1982	Flood	\$9,283.31
Murphy	10/31/1981	Flood	\$14,429.25
Parker	04/12/1991	Flood	\$4,962.09
Parker	05/02/1990	Flood	\$4,880.80
Parker	04/11/1991	Flood	\$9,256.63
Parker	05/02/1990	Flood	\$2,298.37
Parker	08/20/2008	Flood	\$20,750.05
Parker	12/29/2006	Flood	\$15,835.07
Parker	04/11/1991	Flood	\$24,872.33
Parker	05/02/1990	Flood	\$8,110.35
Parker	05/16/1989	Flood	\$30,207.89
Parker	08/19/2008	Flood	\$118,111.47
Parker	04/11/1991	Flood	\$45,394.51
Parker	05/01/1990	Flood	\$2,971.26
Parker	05/16/1989	Flood	\$8,714.54

As observed in Table 3.3, Historical Losses Due to Flood Events, calculations of annualized losses were conducted using historical data obtained from National Climatic Data Center. The annualized loss value

Collin County Hazard Mitigation Action Plan

can be interpreted as the impact expected from flooding in terms of annualized human losses and human injuries, and annualized property losses. As observed in *Table 3.3*, Collin County can expect a total property loss of \$19,056 each year as a result of flooding, with no injuries, no fatalities, and no crop losses.

In order to assess flood risk and vulnerability of the identified assets, a Geographic Information System-based analysis was conducted to estimate exposure to flood events using Federal Emergency Management Agency’s digital 100-year floodplain in combination with Collin County Central Appraisal District property records and the geo-referenced assets provided by Regional Hazard Assessment Tool.

By overlaying the geo-referenced assets and the floodplain layers using Geographic Information System, the number of emergency facilities, critical facilities, and critical infrastructure located within the 100-year floodplain was calculated. Although, having a facility located within the floodplain does not necessarily imply that would be impacted by the 100-year storm event (e.g., the building could be flood-proofed, or the buildings may be constructed above the 100-year elevation), it provides with a good approximation of potential impacts from flooding.

According to the analysis conducted, no emergency or critical facilities are located within the 100-year floodplain. Critical infrastructure located within the 100-year floodplain is presented in *Table 3.5*.

Table 3.5 Critical Infrastructure Located in 100-year FEMA Floodplain

Jurisdiction	Critical Infrastructure											
	Railway/ Highway Bridges		Dams		Water Treatment Facilities		Waste Water Treatment Facilities		Natural Gas		Airports	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
<i>Collin County</i>	142	34.4%	67	48.6%	0	0%	13	61.9%	0	0%	0	0%
Total	142	34.4%	67	48.6%	0	0%	13	61.9%	0	0%	0	0%

Source: Regional Hazard Assessment Tool and local jurisdictions

As noted in *Table 3.5*, the total and percentage of critical infrastructure located within the 100-year floodplain corresponds to approximately 48.6% of dams and 61.9% of wastewater treatment works. Additionally, treated wastewater is typically discharged towards streams, which makes portions of wastewater treatment facilities likely to be located within the floodplain. However, some of the critical facilities located within the 100-year floodplain may be subject to impacts from flooding.

Vulnerability to flooding can also be measured by assessing the number of people and buildings exposed to flood events. *Table 3.6* shows Residential Parcels and Improved Property at risk from flooding events.

The determination of residential parcel vulnerability was calculated by adding the total residential parcel counts from 2013 that had at least some portion located within the 100-year floodplain. The determination of commercial and utility property value at-risk (exposure) was calculated adding the total assessed

building values for only those parcels that were confirmed to have at least one building located within the 100-year floodplain.

Table 3.6 Residential Parcels and Buildings potentially located within the 100-year floodplain

Jurisdiction	Residential Parcels located in the 100-year Floodplain	Percentage of Total Residential Parcels located in the 100-year Floodplain	Commercial and Utility parcels in the 100-year Floodplain	Percentage of Commercial and Utility Parcels in the 100-year Floodplain
Collin County*	1,123	7.03%	61	7.72%
Allen	40	0.15%	0	0%
Anna	119	3.11%	6	3.95%
Blue Ridge	15	2.69%	0	0%
Celina	119	4.67%	13	6.70%
Fairview	62	1.98%	0	0%
Farmersville	75	6.17%	27	9.44%
Frisco	41	0.17%	12	1.15%
Josephine	83	14.59%	11	64.71%
Lavon	8	0.61%	0	0%
Lowry Crossing	127	20.19%	0	0%
Lucas	54	2.92%	0	0%
Melissa	45	1.89%	0	0%
Murphy	88	1.56%	0	0%
New Hope	4	1.53%	0	0%
Parker	106	8.45%	0	0%
Princeton	117	4.17%	7	4.07%
Prosper	16	0.40%	2	1.25%
St. Paul	0	0%	0	0%
Wylie	443	3.48%	48	8.03%
Total	2,686	1.09%	187	1.97%

Source: Regional Hazard Assessment Tool, National Climatic Data Center, and local jurisdictions

*Collin County unincorporated areas

Collin County Hazard Mitigation Action Plan

As it can be observed in *Table 3.6*, approximately 1.09% of the residential parcels in Collin County, and 1.97% of its commercial and utility parcels are located within the 100-year floodplain.

Since Collin County is composed by large areas used for cropland, an analysis was conducted to determine the vulnerability of the land to flooding relative to the type of land cover (*Table 3.7*). The calculations were made using Geographic Information System. The USGS land cover shapefile was clipped with the 100-year floodplain to calculate the area (acreage) of each land cover type potentially affected by flooding. Reservoirs, streams, and channels were excluded from the calculations.

Table 3.7 Land Cover Types and Acreage located within the 100-year Floodplain

Land Cover Type	Total Areas For Collin County (Acres)	Total Area Affected By 100-year Flood (Acres)	Percentage of Area Affected By 100-year Flood (%)
Commercial	16,631.60	4,506.30	27.09%
Utilities	1,071.10	213.20	19.90%
Residential	56,298.20	8,077.80	14.35%
Farmland/Undeveloped	313,957.20	149,292.40	47.55%
Total	387,958.10	162,089.70	41.78%

Source: USGS

As observed, on average approximately 41.78% of the total area of Collin County is located within the 100-year floodplain. Note, that a higher percentage than the average of the total farm and undeveloped land (47.55%) located within the floodplain, while commercial (27.09%), utilities (19.90%), and residential (14.35%) are all below the total average area.

In compliance to *Requirement 201.6(c)(2)(ii)* Collin County vulnerability from flooding and impacts to assets expected from flooding can be summarized as follows:

- **Population:** Based on historical data, flooding produces an expected annualized zero injuries and fatalities per year. In total, portions of the Collin County population are vulnerable to the 100-year floodplain.
- **Improved Property:** Based on historical data, a loss of \$19,055.56 per year can be expected in property loss due to flooding, with no expected crop losses. Based on geographic information and assuming that a facility within the 100-year floodplain is exposed to impact, 3.99% of the total assessed value of improvements in Collin County is at risk from the 100-year storm event.
- **Emergency Facilities:** Based on geographic information and assuming that a facility within the 100-year floodplain is exposed to impact, there are no emergency facilities at imminent risk from the 100-year storm event.
- **Critical Facilities:** Based on geographic information and assuming that a facility within the 100-year floodplain is exposed to impact, there are no critical facilities at imminent risk from the 100-year storm event.
- **Critical Infrastructure:** Based on geographic information and assuming that a critical infrastructure within the 100-year floodplain is exposed to impact, 13 wastewater treatment facilities and 91 railway and highway bridges are at risk from the 100-year storm event. Note that treated wastewater is typically discharged towards streams, which makes portions of wastewater treatment facilities likely to be located within the floodplain.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Repetitive Loss

As per Requirement 201.6(c)(2)(ii) “The risk assessments in all plans approved after October 1, 2008 must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged by floods.” Repetitive Loss Property information provides local jurisdictions with the properties that had submitted insurance claims due to flooding damage to buildings and its contents. The information provided by Federal Emergency Management Agency included repetitive loss properties in Collin County as of 5/31/2014 (*Table 3.8*).

Address information available for repetitive loss properties recorded allowed those properties to be geo-referenced using ESRI® ArcMap™ 10.2. The probability of future repetitive losses on those properties was estimated using Geographic Information System by overlying the geo-referenced properties with the 100-year floodplain layer. *Table 3.8* summarizes with the number of properties located within the 100-year floodplain as obtained using this approach.

Table 3.8 Repetitive Loss Properties located within the 100-year Floodplain

Jurisdiction	Total Number of Repetitive Loss Properties	Properties within 100-year Floodplain			Total Number of Repetitive Loss Properties Within 100-year Floodplain	Percent of Repetitive Loss Properties Within 100-year Floodplain
		Single Family	Other Residential	Non Residential		
Collin County*	2	2	0	0	1	50%
Allen	0	0	0	0	0	0
Anna	0	0	0	0	0	0
Blue Ridge	0	0	0	0	0	0
Celina	0	0	0	0	0	0
Fairview	2	2	0	0	1	50%
Farmersville	0	0	0	0	0	0
Frisco	0	0	0	0	0	0
Josephine	0	0	0	0	0	0
Lavon	0	0	0	0	0	0
Lowry Crossing	0	0	0	0	0	0
Lucas	0	0	0	0	0	0
Melissa	0	0	0	0	0	0
Murphy	1	1	0	0	1	100%
New Hope	0	0	0	0	0	0
Parker	5	5	0	0	5	100%
Princeton	0	0	0	0	0	0
Prosper	0	0	0	0	0	0
St. Paul	0	0	0	0	0	0
Wylie	0	0	0	0	0	0
Total	10	10	0	0	8	80%

Source: Federal Emergency Management Agency

Collin County Hazard Mitigation Action Plan

As noted in *Table 3.8* there are few repetitive loss properties located within the 100-year floodplain in Unincorporated Collin County and all participating jurisdictions. In compliance with *Requirement 201.6(c)(2)(ii)*, *Table 3.7* provides the type (residential, commercial, institutional, etc.) and numbers of repetitive loss properties located in the identified flood hazard zones within Collin County.

Table 3.9 shows the repetitive loss property statistics for the zero properties recorded in the Collin County classified by jurisdiction. The numbers provided can be used to estimate the vulnerability to repetitive loss properties in terms of dollar losses.

Table 3.9 Repetitive Loss Property Statistics

Unincorporated Collin County	Years	Properties	Number of losses	Payments
Single Family	1981, 1982, 1991, 2006, 2008	2	5	\$242,838.74
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	1981, 1982, 1991, 2006, 2008	2	5	\$242,838.74

Allen	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Anna	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Blue Ridge	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Collin County Hazard Mitigation Action Plan

Celina	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Fairview	Years	Properties	Number of losses	Payments
Single Family	1989-1991, 1994, 1997, 1998	2	7	\$61,143.83
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	1989-1991, 1994, 1997, 1998	2	7	\$61,143.83

Farmersville	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Frisco	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Josephine	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Collin County Hazard Mitigation Action Plan

Lavon	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Lowry Crossing	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Lucas	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Melissa	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Murphy	Years	Properties	Number of losses	Payments
Single Family	1981, 1982, 1989, 1990	1	5	\$141,442.25
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Collin County Hazard Mitigation Action Plan

New Hope	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Parker	Years	Properties	Number of losses	Payments
Single Family	1989, 1990, 1991, 2006, 2008	5	13	\$296,365.36
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	1989, 1990, 1991, 2006, 2008	5	13	\$296,365.36

Princeton	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Prosper	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

St. Paul	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Collin County Hazard Mitigation Action Plan

Wylie	Years	Properties	Number of losses	Payments
Single Family	0	0	0	\$0.00
Other Residential	0	0	0	\$0.00
Non Residential	0	0	0	\$0.00
Total	0	0	0	\$0.00

Source: Federal Emergency Management Agency

The dollar amounts in the tables represent the payments made for insurance claims due to flood damage to buildings and contents.

Although both repetitive loss information (*Tables 3.8 and 3.9*) and the historical annualized losses expected from flooding (*Table 3.3*) represent actual historical information, the data cannot be compared or correlated to each other. The repetitive loss information presents insurance claims on properties and buildings, whereas the historical annualized losses represent property losses in the community due to flood events.

Collin County Hazard Mitigation Action Plan

Hail

As described in section 3.3, damage from hail events is determined by the intensity of the storm, which, based on the hail diameter, ranges from hard hail to super hailstorm. These events are unpredictable, and all areas Collin County can be affected. All five categories of assets are exposed to this hazard and could potentially be impacted. However, the most vulnerable assets are those related to property and infrastructure, particularly roofs and structures. Damages from hail can potentially translate into significant insurance claims and expenses.

Based on the available information, vulnerability to hail was assessed using two techniques: (1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center was used to predict expected monetary and human losses from the event; (2) in fulfillment of Element A of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for hail and the nature of the impacts expected from hail were used to identify the assets, including existing structures, vulnerable to this hazard event. The vulnerability to future structures was not conducted at this time due to unattainable data. Therefore, compliance with Element B of *Requirement 201.6(c)(2)(ii)(A)*, describing vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities will be an objective in the five-year planning cycle.

Table 3.10 presents Collin County's recorded historical losses due to hailstorm events as provided in the hazard events database obtained from the National Climatic Data Center. Based on the starting location of the hailstorm event, these events were geo-referenced using ESRI® ArcMap™ 10.2. The resulting layer was overlaid with the jurisdiction boundary layer to determine the property and personal losses in each jurisdiction.

Table 3.10 Historical Losses Due to Hail Events (1/1/1985-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	4/29/1985	20:58	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	7/2/1985	15:35	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	3/11/1986	18:58	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	4/12/1986	0:15	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	4/12/1986	0:50	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	5/24/1986	10:00	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	5/24/1986	10:34	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	5/3/1987	21:03	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	5/14/1987	15:10	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	7/2/1987	23:30	Hail	1.50 in.	0	0	\$0	\$0
Collin Co.	4/1/1988	14:02	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	4/5/1988	16:35	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	5/8/1988	6:50	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	11/15/1988	15:00	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	11/15/1988	15:29	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	4/28/1989	19:25	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	4/28/1989	20:10	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	4/28/1989	20:30	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	4/28/1989	21:50	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	7/2/1989	15:43	Hail	1.00 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	7/2/1989	16:06	Hail	4.50 in.	0	0	\$0	\$0
Collin Co.	7/2/1989	16:21	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	4/15/1990	20:52	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	4/27/1990	15:00	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	4/27/1990	15:30	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	3/22/1991	6:12	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	4/18/1991	18:12	Hail	1.00 in.	0	0	\$0	\$0
Collin Co.	4/27/1991	2:30	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	6/22/1991	19:10	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	6/22/1991	19:20	Hail	2.00 in.	0	0	\$0	\$0
Collin Co.	10/28/1991	16:45	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	3/24/1992	14:05	Hail	1.74 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	20:16	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	20:28	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	21:15	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	21:30	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	21:45	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	5/11/1992	22:00	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	5/14/1992	9:15	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	6/10/1992	21:55	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	6/25/1992	4:30	Hail	1.75 in.	0	0	\$0	\$0
Collin Co.	8/2/1992	15:12	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	8/2/1992	15:47	Hail	0.88 in.	0	0	\$0	\$0
Collin Co.	9/2/1992	23:15	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	9/2/1992	23:20	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	9/3/1992	0:15	Hail	0.75 in.	0	0	\$0	\$0
Collin Co.	10/7/1992	16:12	Hail	1.75 in.	0	0	\$0	\$0
Wylie	4/19/1993	17:15	Hail	0.88 in.	0	0	\$0	\$0
Garland	4/19/1993	18:00	Hail	1.00 in.	0	0	\$0	\$0
Airport	4/19/1993	18:30	Hail	1.75 in.	0	0	\$0	\$0
Love Field	4/19/1993	18:30	Hail	1.75 in.	0	0	\$0	\$0
Plano	9/20/1993	17:50	Hail	1.00 in.	0	0	\$0	\$0
Melissa	10/19/1993	4:00	Hail	0.75 in.	0	0	\$0	\$0
Frisco	4/25/1994	18:25	Hail	0.88 in.	0	0	\$0	\$0
McKinney	4/29/1994	1:45	Hail	1.00 in.	0	0	\$0	\$0
Wylie	5/2/1994	13:56	Hail	0.75 in.	0	0	\$0	\$0
Frisco	5/2/1994	14:20	Hail	0.75 in.	0	0	\$0	\$0
Lake Lavon	5/14/1994	17:40	Hail	0.75 in.	0	0	\$0	\$0
Farmersville	5/14/1994	18:01	Hail	0.75 in.	0	0	\$0	\$0
Nevada	5/14/1994	19:23	Hail	0.75 in.	0	0	\$0	\$0
Allen	7/12/1994	19:50	Hail	0.75 in.	0	0	\$0	\$0
Plano	7/15/1994	17:39	Hail	0.75 in.	0	0	\$0	\$0
Plano	8/7/1994	13:25	Hail	0.75 in.	0	0	\$0	\$0
Plano	10/21/1994	12:45	Hail	0.75 in.	0	0	\$0	\$0
Plano	10/21/1994	13:33	Hail	0.75 in.	0	0	\$0	\$0
Meridian	4/22/1995	15:39	Hail	0.75 in.	0	0	\$0	\$0
Plano	4/22/1995	15:40	Hail	1.75 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Westminster	5/1/1995	1:08	Hail	0.75 in.	0	0	\$0	\$0
McKinney	5/7/1995	22:40	Hail	0.75 in.	0	0	\$0	\$0
Plano	5/24/1995	16:37	Hail	1.75 in.	0	0	\$0	\$0
Anna	5/24/1995	17:05	Hail	0.75 in.	0	0	\$0	\$0
Princeton	5/25/1995	17:05	Hail	1.00 in.	0	0	\$0	\$0
Farmersville	2/27/1996	9:15	Hail	0.75 in.	0	0	\$0	\$0
Copeville	2/27/1996	10:15	Hail	0.75 in.	0	0	\$0	\$0
Allen	3/18/1996	0:10	Hail	0.75 in.	0	0	\$0	\$0
Plano	3/24/1996	15:10	Hail	0.75 in.	0	0	\$0	\$0
Plano	3/24/1996	15:20	Hail	1.00 in.	0	0	\$0	\$0
Plano	3/24/1996	15:27	Hail	1.25 in.	0	0	\$0	\$0
Mc Kinney	3/24/1996	15:40	Hail	0.75 in.	0	0	\$0	\$0
Princeton	4/4/1996	1:40	Hail	0.88 in.	0	0	\$0	\$0
Mc Kinney	4/12/1996	12:38	Hail	0.88 in.	0	0	\$0	\$0
Anna	4/12/1996	12:38	Hail	0.88 in.	0	0	\$0	\$0
Frisco	4/12/1996	16:45	Hail	0.75 in.	0	0	\$0	\$0
Anna	4/12/1996	16:48	Hail	0.75 in.	0	0	\$0	\$0
Wylie	4/12/1996	17:26	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	4/13/1996	21:39	Hail	0.88 in.	0	0	\$0	\$0
Weston	4/13/1996	21:48	Hail	1.00 in.	0	0	\$0	\$0
Murphy	4/13/1996	22:08	Hail	0.75 in.	0	0	\$0	\$0
Lucas	5/27/1996	4:14	Hail	1.00 in.	0	0	\$0	\$0
Murphy	5/28/1996	17:42	Hail	1.50 in.	0	0	\$0	\$0
Culleoka	5/28/1996	18:10	Hail	1.00 in.	0	0	\$0	\$0
Plano	6/12/1996	17:10	Hail	1.00 in.	0	0	\$0	\$0
Mc Kinney	6/17/1996	16:50	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	6/17/1996	16:55	Hail	0.88 in.	0	0	\$0	\$0
Mc Kinney	7/23/1996	12:30	Hail	0.75 in.	0	0	\$0	\$0
Princeton	7/30/1996	19:08	Hail	1.75 in.	0	0	\$0	\$0
Plano	10/21/1996	10:50	Hail	0.75 in.	0	0	\$0	\$0
Plano	10/21/1996	14:35	Hail	2.00 in.	0	0	\$0	\$0
Plano	10/21/1996	14:50	Hail	2.00 in.	0	0	\$0	\$0
Prosper	4/22/1997	3:30	Hail	1.00 in.	0	0	\$0	\$0
Celina	5/25/1997	22:04	Hail	1.00 in.	0	0	\$0	\$0
Plano	6/9/1997	20:14	Hail	1.00 in.	0	0	\$0	\$0
Plano	6/9/1997	20:19	Hail	0.75 in.	0	0	\$0	\$0
Allen	6/9/1997	20:19	Hail	0.75 in.	0	0	\$0	\$0
Plano	6/9/1997	20:45	Hail	1.00 in.	0	0	\$0	\$0
Plano	6/16/1997	19:03	Hail	0.75 in.	0	0	\$0	\$0
Plano	6/16/1997	19:10	Hail	0.88 in.	0	0	\$0	\$0
Anna	8/13/1997	16:10	Hail	0.88 in.	0	0	\$0	\$0
Mc Kinney	1/4/1998	16:22	Hail	0.75 in.	0	0	\$0	\$0
Allen	1/4/1998	16:25	Hail	1.00 in.	0	0	\$0	\$0
Branch	1/4/1998	16:30	Hail	1.00 in.	0	0	\$0	\$0
Murphy	1/21/1998	16:25	Hail	1.00 in.	0	0	\$0	\$0
Anna	2/25/1998	19:39	Hail	0.75 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Prosper	2/25/1998	19:40	Hail	0.75 in.	0	0	\$0	\$0
Celina	4/16/1998	0:30	Hail	1.75 in.	0	0	\$0	\$0
Desert	5/2/1998	21:28	Hail	1.00 in.	0	0	\$0	\$0
Anna	5/2/1998	21:35	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	5/8/1998	20:25	Hail	1.00 in.	0	0	\$0	\$0
Frisco	5/8/1998	20:35	Hail	1.75 in.	0	0	\$0	\$0
Mc Kinney	5/8/1998	20:53	Hail	0.75 in.	0	0	\$0	\$0
Melissa	5/8/1998	20:54	Hail	1.75 in.	0	0	\$0	\$0
Frisco	5/8/1998	21:26	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	5/8/1998	21:54	Hail	1.75 in.	0	0	\$0	\$0
Mc Kinney	5/8/1998	21:55	Hail	1.75 in.	0	0	\$0	\$0
Blue Ridge	10/2/1998	18:20	Hail	1.00 in.	0	0	\$0	\$0
Frisco	2/6/1999	19:54	Hail	1.75 in.	0	0	\$0	\$0
Farmersville	2/6/1999	20:50	Hail	0.75 in.	0	0	\$0	\$0
Celina	4/3/1999	5:11	Hail	1.00 in.	0	0	\$0	\$0
Weston	5/4/1999	12:10	Hail	1.00 in.	0	0	\$0	\$0
Wylie	5/25/1999	18:18	Hail	1.00 in.	0	0	\$0	\$0
Lavon	2/25/2000	23:17	Hail	0.75 in.	0	0	\$0	\$0
Prosper	3/2/2000	18:10	Hail	1.75 in.	0	0	\$0	\$0
Plano	3/2/2000	18:15	Hail	1.00 in.	0	0	\$0	\$0
Plano	3/2/2000	18:24	Hail	1.75 in.	0	0	\$0	\$0
Mc Kinney	3/2/2000	18:29	Hail	1.00 in.	0	0	\$0	\$0
Farmersville	3/2/2000	18:50	Hail	1.00 in.	0	0	\$0	\$0
Plano	3/10/2000	10:45	Hail	0.75 in.	0	0	\$0	\$0
Wylie	3/16/2000	21:28	Hail	0.75 in.	0	0	\$0	\$0
Parker	5/12/2000	16:40	Hail	0.75 in.	0	0	\$0	\$0
Wylie	5/27/2000	16:50	Hail	0.75 in.	0	0	\$0	\$0
Plano	3/11/2001	14:40	Hail	0.88 in.	0	0	\$0	\$0
Plano	5/6/2001	18:22	Hail	1.00 in.	0	0	\$0	\$0
Plano	5/6/2001	18:43	Hail	3.00 in.	0	0	\$0	\$0
Allen	5/6/2001	19:00	Hail	1.00 in.	0	0	\$0	\$0
Blue Ridge	4/16/2002	23:15	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	5/9/2002	23:10	Hail	0.75 in.	0	0	\$0	\$0
Frisco	12/30/2002	13:30	Hail	1.75 in.	0	0	\$0	\$0
Plano	12/30/2002	14:30	Hail	1.00 in.	0	0	\$0	\$0
Plano	4/5/2003	22:16	Hail	2.00 in.	0	0	\$0	\$0
Plano	4/5/2003	22:32	Hail	3.00 in.	0	0	\$0	\$0
Plano	4/6/2003	12:55	Hail	1.00 in.	0	0	\$0	\$0
Plano	4/6/2003	13:00	Hail	1.00 in.	0	0	\$0	\$0
Blue Ridge	5/13/2003	5:22	Hail	1.00 in.	0	0	\$0	\$0
Nevada	5/24/2003	21:30	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	5/24/2003	22:47	Hail	1.00 in.	0	0	\$0	\$0
Allen	6/14/2003	16:23	Hail	1.50 in.	0	0	\$0	\$0
Plano	6/14/2003	16:40	Hail	1.00 in.	0	0	\$0	\$0
Celina	7/2/2003	16:15	Hail	0.75 in.	0	0	\$0	\$0
Anna	7/22/2003	15:46	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	7/22/2003	16:22	Hail	1.00 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Plano	7/22/2003	16:45	Hail	0.75 in.	0	0	\$0	\$0
Mc Kinney	6/5/2004	16:35	Hail	1.75 in.	0	0	\$0	\$0
Frisco	6/19/2004	13:22	Hail	0.88 in.	0	0	\$0	\$0
Plano	1/12/2005	17:15	Hail	1.25 in.	0	0	\$0	\$0
Wylie	2/22/2005	23:21	Hail	1.00 in.	0	0	\$0	\$0
Blue Ridge	2/23/2005	0:15	Hail	0.75 in.	0	0	\$0	\$0
Westminster	2/23/2005	0:25	Hail	1.75 in.	0	0	\$0	\$0
Plano	4/5/2005	15:50	Hail	1.00 in.	0	0	\$0	\$0
Frisco	4/5/2005	16:00	Hail	0.88 in.	0	0	\$0	\$0
Frisco	4/5/2005	16:12	Hail	0.75 in.	0	0	\$0	\$0
Frisco	4/5/2005	16:14	Hail	1.00 in.	0	0	\$0	\$0
Anna	4/5/2005	16:58	Hail	1.75 in.	0	0	\$0	\$0
Blue Ridge	4/5/2005	17:50	Hail	1.00 in.	0	0	\$0	\$0
Plano	5/25/2005	12:30	Hail	0.75 in.	0	0	\$0	\$0
Farmersville	6/13/2005	22:52	Hail	0.88 in.	0	0	\$0	\$0
Melissa	5/9/2006	21:04	Hail	1.75 in.	0	0	\$5,000	\$0
Plano	4/3/2007	18:05	Hail	1.25 in.	0	0	\$0	\$0
Plano	4/3/2007	18:23	Hail	1.00 in.	0	0	\$0	\$0
Melissa	4/24/2007	14:26	Hail	1.00 in.	0	0	\$0	\$0
Blue Ridge	4/24/2007	14:52	Hail	1.75 in.	0	0	\$5,000	\$0
McKinney	5/30/2007	8:45	Hail	0.75 in.	0	0	\$0	\$0
Murphy	5/30/2007	9:05	Hail	0.75 in.	0	0	\$0	\$0
Wylie	6/4/2007	14:50	Hail	0.88 in.	0	0	\$0	\$0
Melissa	6/9/2007	13:44	Hail	0.88 in.	0	0	\$0	\$0
Westminster	6/20/2007	5:05	Hail	1.00 in.	0	0	\$0	\$0
Anna	2/5/2008	2:20	Hail	1.75 in.	0	0	\$5,000	\$0
Wylie	2/5/2008	14:00	Hail	0.75 in.	0	0	\$0	\$0
Allen	2/16/2008	6:40	Hail	1.00 in.	0	0	\$0	\$0
McKinney	2/16/2008	6:40	Hail	1.75 in.	0	0	\$25,000	\$0
Foot	2/16/2008	6:45	Hail	1.00 in.	0	0	\$0	\$0
Melissa	2/16/2008	6:47	Hail	1.00 in.	0	0	\$0	\$0
Anna	2/16/2008	6:54	Hail	1.75 in.	0	0	\$5,000	\$0
McKinney	4/4/2008	1:15	Hail	1.75 in.	0	0	\$10,000	\$0
Plano	4/4/2008	2:40	Hail	1.00 in.	0	0	\$0	\$0
Allen	4/4/2008	2:50	Hail	1.00 in.	0	0	\$0	\$0
Plano	4/8/2008	22:20	Hail	1.00 in.	0	0	\$0	\$0
Allen	4/8/2008	22:33	Hail	0.75 in.	0	0	\$0	\$0
Lucas	4/8/2008	22:48	Hail	0.88 in.	0	0	\$0	\$0
Copeville	4/8/2008	23:19	Hail	1.00 in.	0	0	\$0	\$0
Shepton	4/8/2008	23:44	Hail	0.75 in.	0	0	\$0	\$0
Princeton	4/17/2008	21:01	Hail	0.88 in.	0	0	\$0	\$0
Anna	5/7/2008	16:19	Hail	0.88 in.	0	0	\$0	\$0
Melissa	5/7/2008	16:30	Hail	1.75 in.	0	0	\$5,000	\$0
Celina	6/28/2008	16:50	Hail	0.75 in.	0	0	\$0	\$0
Melissa	2/10/2009	22:03	Hail	1.00 in.	0	0	\$0	\$0
Celina	4/12/2009	22:09	Hail	1.00 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Melissa	4/12/2009	22:32	Hail	1.00 in.	0	0	\$2,000	\$0
McKinney	5/2/2009	13:47	Hail	1.00 in.	0	0	\$0	\$0
Melissa	5/2/2009	19:10	Hail	1.25 in.	0	0	\$0	\$0
Parker	7/19/2009	13:15	Hail	0.75 in.	0	0	\$0	\$0
Farmersville	10/24/2010	15:41	Hail	2.00 in.	0	0	\$500	\$0
Allen	3/15/2011	15:10	Hail	0.88 in.	0	0	\$0	\$0
Plano	4/4/2011	4:04	Hail	0.75 in.	0	0	\$0	\$0
Rockhill	4/10/2011	23:29	Hail	1.50 in.	0	0	\$10,000	\$0
Prosper	4/10/2011	23:34	Hail	2.75 in.	0	0	\$200,000	\$0
Plano	4/14/2011	21:39	Hail	1.00 in.	0	0	\$0	\$0
Shepton	4/14/2011	21:40	Hail	1.25 in.	0	0	\$20,000	\$0
Shepton	4/14/2011	21:45	Hail	1.75 in.	0	0	\$25,000	\$0
Plano	4/14/2011	21:48	Hail	1.00 in.	0	0	\$0	\$0
Allen	4/14/2011	21:49	Hail	1.00 in.	0	0	\$0	\$0
Melissa	4/14/2011	22:32	Hail	0.88 in.	0	0	\$0	\$0
Plano	4/19/2011	16:25	Hail	1.25 in.	0	0	\$0	\$0
Prosper	4/24/2011	18:53	Hail	1.75 in.	0	0	\$15,000	\$0
Wylie	4/24/2011	21:35	Hail	1.00 in.	0	0	\$0	\$0
Wylie	4/25/2011	9:48	Hail	1.00 in.	0	0	\$0	\$0
Melissa	4/25/2011	15:04	Hail	0.75 in.	0	0	\$0	\$0
Wylie	4/26/2011	16:28	Hail	1.00 in.	0	0	\$0	\$0
Plano	5/1/2011	22:03	Hail	0.88 in.	0	0	\$0	\$0
Plano	5/1/2011	22:05	Hail	0.75 in.	0	0	\$0	\$0
Wylie	5/2/2011	0:18	Hail	1.25 in.	0	0	\$0	\$0
Frisco	5/2/2011	1:20	Hail	0.75 in.	0	0	\$0	\$0
Shepton	5/20/2011	13:25	Hail	0.88 in.	0	0	\$0	\$0
Shepton	5/20/2011	13:25	Hail	1.25 in.	0	0	\$0	\$0
Plano	5/20/2011	14:19	Hail	1.00 in.	0	0	\$0	\$0
Lucas	5/20/2011	15:58	Hail	1.50 in.	0	0	\$0	\$0
Renner	5/23/2011	11:39	Hail	0.88 in.	0	0	\$0	\$0
Celina	5/24/2011	20:48	Hail	2.00 in.	0	0	\$25,000	\$0
Frisco	5/24/2011	21:10	Hail	0.88 in.	0	0	\$0	\$0
Prosper	9/18/2011	18:05	Hail	1.00 in.	0	0	\$0	\$0
McKinney	9/18/2011	18:25	Hail	1.00 in.	0	0	\$0	\$0
McKinney	9/18/2011	18:38	Hail	1.25 in.	0	0	\$0	\$0
Plano	9/18/2011	19:01	Hail	1.00 in.	0	0	\$0	\$0
Shepton	10/17/2011	20:25	Hail	0.75 in.	0	0	\$0	\$0
McKinney	10/23/2011	0:20	Hail	0.75 in.	0	0	\$0	\$0
Frisco	4/3/2012	13:50	Hail	1.75 in.	0	0	\$800,000	\$0
Frisco	4/3/2012	13:50	Hail	2.00 in.	0	0	\$1,000,000	\$0
Allen	4/3/2012	16:10	Hail	1.00 in.	0	0	\$0	\$0
Allen	5/14/2012	17:53	Hail	0.88 in.	0	0	\$0	\$0
Plano	5/30/2012	22:30	Hail	0.75 in.	0	0	\$0	\$0
Murphy	5/30/2012	22:45	Hail	0.75 in.	0	0	\$0	\$0
Plano	6/6/2012	14:50	Hail	0.75 in.	0	0	\$0	\$0
Frisco	6/6/2012	15:12	Hail	1.50 in.	0	0	\$0	\$0
Frisco	6/6/2012	15:15	Hail	0.75 in.	0	0	\$0	\$0
Wylie	6/6/2012	15:50	Hail	1.00 in.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Shepton	6/13/2012	16:45	Hail	1.75 in.	0	0	\$80,000	\$0
Shepton	6/13/2012	16:52	Hail	2.00 in.	0	0	\$75,000	\$0
McKinney	6/13/2012	19:03	Hail	1.00 in.	0	0	\$60,000	\$0
Parker	6/13/2012	19:34	Hail	3.25 in.	0	0	\$800,000	\$0
Shepton	8/17/2012	20:52	Hail	1.00 in.	0	0	\$0	\$0
Shepton	8/17/2012	20:53	Hail	1.00 in.	0	0	\$0	\$0
Shepton	8/17/2012	20:54	Hail	0.88 in.	0	0	\$0	\$0
Shepton	8/17/2012	21:00	Hail	1.25 in.	0	0	\$0	\$0
Shepton	8/17/2012	21:13	Hail	1.50 in.	0	0	\$2,000	\$0
Plano	8/17/2012	21:15	Hail	0.88 in.	0	0	\$0	\$0
Foot	3/23/2013	14:09	Hail	0.88 in.	0	0	\$0	\$0
Valdasta	3/31/2013	6:34	Hail	0.88 in.	0	0	\$0	\$0
Prosper	3/31/2013	6:43	Hail	1.00 in.	0	0	\$0	\$0
Blue Ridge	3/31/2013	6:50	Hail	1.00 in.	0	0	\$0	\$0
Farmersville	3/31/2013	7:20	Hail	0.88 in.	0	0	\$0	\$0
McKinney	3/27/2014	19:18	Hail	1.50 in.	0	0	\$5,000	\$0
Princeton	3/27/2014	19:24	Hail	1.00 in.	0	0	\$0	\$0
Farmersville	3/27/2014	19:43	Hail	0.75 in.	0	0	\$0	\$0
Blue Ridge	3/28/2014	14:23	Hail	1.50 in.	0	0	\$3,000	\$0
Totals:					0	0	\$3,182,500	\$0

Source: National Climatic Data Center

As observed in Table 3.10, Historical Losses Due to Hail Events, calculations of annualized losses were conducted using historical data obtained from the National Climatic Data Center. The annualized loss value can be interpreted as the impact expected from hail in terms of annualized human losses and human injuries, and annualized property losses. As observed in *Table 3.10*, Collin County can expect a total property loss of \$109,741.38 each year as a result of hail, with no injuries, deaths, or crop losses expected from this event.

The geographical occurrence of hailstorm events cannot be predicted; therefore, the area of potential impacts corresponds to all of Collin County's territory. Therefore, all improved property, emergency and critical facilities, and critical structures are exposed to this hazard, including 58 fire stations, 15 police stations, 179 hospitals, 246 schools, and 388 historical properties. As described above, roofs and structures are more vulnerable to this hazard. Therefore, it is expected that building improvements would be most affected.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to hail and impacts to assets expected from hail events can be summarized as follows:

- **Population:** According to National Climatic Data Center (NCDC), zero recorded injuries or fatalities have been recorded for hailstorm events. All the population of Collin County is exposed to this hazard, but there are no personal losses expected from hailstorm events.
- **Improved Property:** Based on historical data, a loss of \$109,741.38 per year can be expected in property loss due to hailstorm damage. Because of the unpredictability of the geographical location of hailstorms, all improved property in Collin County is exposed to this hazard. Although some crops are susceptible to hail hazards, available historical data for Collin County indicates that there are no expected crop losses from this event.

Collin County Hazard Mitigation Action Plan

- **Emergency Facilities**: Because of the unpredictability of the geographical location of hailstorms, all emergency facilities in Collin County are exposed to this hazard.
- **Critical Facilities**: Because of the unpredictability of the geographical location of hailstorms, all critical facilities in Collin County are exposed to this hazard.
- **Critical Infrastructure**: Because of the unpredictability of the geographical location of hailstorms, all critical infrastructure in Collin County is exposed to this hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Wildfires

By definition, wildfires are fires occurring in a wildland area (e.g., grassland, forest, brush land) except for fire under prescription. Therefore, impacts from this hazard are related to wildland areas and what is known as Wildland Urban Interface (WUI), which are defined as the area where structures and other human development meet or intermingle with undeveloped wildland. The WUI creates an environment in which fire can move readily between structural and vegetation fuels. The expansion of these areas has increased the likelihood that wildfires will threaten structures and people.

Wildfires can cause significant damage to property and threatens the lives of people who are unable to evacuate WUI areas. All five categories of assets located in these wildfire-prone areas are considered vulnerable and can be exposed to this hazard.

WUI data was obtained from the Texas Forest Service wildfire database. The data provides GIS data for wildfires and households affected. Data from the National Climatic Data Center provided the property and crop damage totals for Collin County wildfires. According to the NCDC, there were no specific recorded instances of wildfire during the period studied for Anna, Celina, Fairview, Farmersville, Josephine, Lavon, Lowry Crossing, Lucas, Melissa, Murphy, New Hope, Parker, Prosper, St. Paul, and Wylie.

Table 3.11 provides the magnitude, number of fatalities, property and crop damage caused by fires in the county.

Table 3.11 Historical Losses due to Wildfires (1/1/1996-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Princeton	2/15/1996	10:00	Wildfire		0	0	\$0	\$0
Collin (Zone)	6/25/2006	11:00	Wildfire		0	0	\$17,000	\$2,400
Collin (Zone)	9/5/2011	13:00	Wildfire		0	0	\$50,000	\$0
Collin (Zone)	5/23/2012	10:10	Wildfire		1	0	\$0	\$0
Totals:					1	0	\$67,000	\$2,400

Source: National Climatic Data Center

In order to assess wildfire risk and vulnerability of the identified assets, a Geographic Information System-based analysis was conducted to estimate exposure to this event using GIS data in combination with Collin Central Appraisal District property records, and the Regional Hazard Assessment Tool.

Wildland fires in Collin County are highly likely to occur in the next year and will impact the county as a whole. Based on previous occurrences, the extent of wildland fires will be very high. Fires will start easily and spread at a rapid rate, which can result in extensive county wide property damage. According to the Texas Forest Service Wildfire Summary Report, 32% of Collin County's population is located in the Wildland Urban Interface.

Collin County Hazard Mitigation Action Plan

Table 3.12 Distribution of WUI Interface Communities in Collin County

Jurisdiction	Area (Sq. Mile)	WUI-Interface Community				
		Low Density (Sq. Mile)	Medium Density (Sq. Mile)	High Density (Sq. Mile)	Total (Sq. Mile)	Percentage of Total Area (%)
Unincorporated	483.6	20.91	6.87	2.68	30.46	6.30%
Allen	26.3	0.76	1.26	7.09	9.11	34.59%
Anna	15.1	2.11	1.21	1.38	4.70	31.12%
Blue Ridge	1.6	0.17	0.16	0.68	1.01	63.76%
Celina	22.3	4.68	2.39	2.32	9.39	42.02%
Fairview	8.9	0.91	1.78	4.78	7.48	84.34%
Farmersville	4.1	0.45	0.50	1.66	2.61	64.12%
Frisco	69.4	5.20	3.10	12.98	21.28	30.65%
Josephine	2.0	0.05	0.40	0.50	0.95	48.21%
Lavon	2.3	0.27	0.28	0.73	1.28	54.88%
Lowry Crossing	2.5	0.08	0.45	1.81	2.34	92.65%
Lucas	15.0	1.20	3.64	5.69	10.53	70.20%
Melissa	10.1	0.10	0.18	4.35	4.6	45.55%
Murphy	5.7	0.16	0.44	2.06	2.66	46.87%
New Hope	1.4	0.11	0.35	0.85	1.31	91.65%
Parker	8.0	0.04	.40	4.22	4.65	89.42%
Princeton	4.3	0.70	0.66	2.08	3.44	80.01%
Prosper	25.1	2.78	1.90	2.87	7.55	30.11%
St. Paul	1.4	0.01	0.12	1.01	1.14	81.69%
Wylie	36.8	2.41	2.89	8.27	13.57	36.92%

Source: Texas Forest Service

Collin County Hazard Mitigation Action Plan

The determination of property vulnerability to wildfires was calculated by overlaying the County's parcel data and the Texas Fire Service data. The determination of assessed value at-risk (exposure) to wildfires was calculated by overlaying the improved property shapefile to the WUI polygons, and adding the total assessed building values within each of the low/medium/high density WUI Interface communities (*Table 3.12*).

Table 3.13 Parcels and Assessed Value of Improvements

Jurisdiction	Residential Parcels	Commercial Parcels	Total Assessed Value of Improvements (Buildings & Contents) at Risk	Percentage (%) of Assessed Value of Improvements (Buildings & Contents) at Risk
Collin County	97,956	3,967	\$14,929,298,582	38.59%

Source: Texas Forest Service

As observed in *Table 3.13* approximately 38.59% of Collin County's improved property is vulnerable to wildfires. Based on geographical location, a total of \$14,929,298,582 worth of property value composed of buildings and its contents are vulnerable to this hazard.

In compliance to *Requirement 201.6(c)(2)(ii)* Collin County's vulnerability to wildfire and impacts to assets expected from this event can be summarized as follows:

- **Population:** Based on geographical data, approximately 97,956 residential parcels in Collin County are vulnerable to wildfires.
- **Improved Property:** Based on geographical data, a loss of \$14,929,298,582 worth of buildings and its contents is exposed to wildfires. This corresponds to a 38.59% overall property improvement values across Collin County.
- **Emergency Facilities:** Based on geographic information and assuming that the facilities located within the WUI, there are emergency facilities exposed to the wildfire hazard.
- **Critical Facilities:** Based on geographic information and assuming that the facilities located within the WUI, there are critical facilities exposed to the wildfire hazard.
- **Critical Infrastructure:** Based on geographic information and assuming that the infrastructure located within the WUI, there are critical infrastructure exposed to the wildfire hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Collin County Hazard Mitigation Action Plan

3.5 Statistical Risk Assessment

A statistical risk assessment uses statistical and mathematical tools to predict hazard frequency and hazard estimated impacts. Data collected from National Climatic Data Center storm events database (recorded historic hazard events), census block data from the U.S. Census 2010 block data provided by the Texas Forest Service and Regional Hazard Assessment Tool were used to assess vulnerability of the five vulnerable categories of assets: population, improved property, critical facilities, critical infrastructure, and emergency facilities.

The statistical analysis was conducted using the historical data obtained from National Climatic Data Center. The data included both casualty and property losses from hazard events that occurred in Collin County from 1/1/1950 or 1/1/1996 to 6/30/2014. Annualized personal and property losses were calculated by dividing the total losses by the number of years for which data was available (i.e. 18 or 64 years).

Extreme Heat

Extreme heat impacts large areas and cross jurisdictional boundaries; therefore, all Collin County and all of the jurisdictions participating on this plan are exposed to this hazard. Improved property, emergency facilities, critical infrastructure, and critical facilities are not considered vulnerable to extreme heat or cold events; therefore, estimated vulnerability to these assets is anticipated to be minimal. However, population is significantly vulnerable to extreme heat.

Based on the available information, vulnerability to extreme heat was assessed using two techniques: 1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center was used to predict expected monetary and human losses from the event; 2) in fulfillment of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for extreme heat and the nature of the impacts expected from this hazard event were used to identify the vulnerable assets.

Table 3.14 presents Collin County's recorded historical losses due to extreme heat events as provided in the hazard events database obtained from the National Climatic Data Center. The annualized losses due to extreme events were calculated using the methodology described in section 3.3

Table 3.14 Extreme Heat Historical Occurrences Between (1/1/1996-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	7/19/1997	18:00	Heat		0	0	\$0	\$0
Collin (Zone)	7/1/1998	0:00	Heat		0	0	\$0	\$0
Collin (Zone)	8/1/1999	0:00	Heat		0	0	\$0	\$0
Collin (Zone)	7/1/2000	0:00	Heat		0	0	\$0	\$0
Collin (Zone)	8/1/2000	0:00	Heat		0	0	\$0	\$0
Collin (Zone)	9/1/2000	0:00	Heat		0	0	\$0	\$0
Collin (Zone)	8/1/2011	6:00	Excessive Heat		1	0	\$0	\$0
Collin (Zone)	8/6/2011	2:21	Heat		1	0	\$0	\$0
Totals:					2	0	\$0	\$0

Source: National Climatic Data Center

The annualized loss value can be interpreted as the impact expected from extreme heat in terms of annualized human losses and human injuries, and annualized property losses. As observed in *Table 3.14*, Collin County can expect 0.11 fatalities and zero injuries per year, and no property or crop losses expected from extreme heat.

The occurrence of extreme heat is regional; therefore the area of potential impacts corresponds to all Collin County's territory. However, according to the recorded historical information, extreme heat does not have a significant impact on property value.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to extreme heat and impacts to assets expected from these events can be summarized as follows:

- **Population:** Based on historical data, extreme heat can be expected to produce an average of 0.11 fatalities and zero injuries per year. All the population of Collin County is exposed to this hazard.

Collin County Hazard Mitigation Action Plan

- **Improved Property**: Based on historical data and the negligible impact of extreme heat to developed areas, the improved property in Collin County is not exposed to this hazard.
- **Emergency Facilities**: Based on historical data and the negligible impact of extreme heat to buildings, the existing and future emergency facilities in Collin County are not exposed to this hazard.
- **Critical Facilities**: Based on historical data and the negligible impact of extreme heat to buildings, the existing and future critical facilities in Collin County are not exposed to this hazard.
- **Critical Infrastructure**: Based on historical data and the negligible impact of extreme heat to existing and future critical infrastructure, exposure to this hazard is considered minimal in Collin County.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Collin County Hazard Mitigation Action Plan

High Wind

High wind events impact large areas and cross jurisdictional boundaries; therefore, all of Collin County is exposed to this hazard. Improved property, emergency facilities, critical infrastructure, and critical facilities, and population are considered vulnerable to this hazard.

Based on the available information, vulnerability to high winds was assessed using two techniques: (1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center was used to predict expected monetary and human losses from the event; (2) in fulfillment of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for high winds and the nature of the impacts expected from this hazard event were used to identify the vulnerable assets.

Table 3.15 presents Collin County's recorded historical losses due to high wind events as provided in the hazard events database obtained from the National Climatic Data Center. According to the NCDC, there were no recorded high winds events for New Hope, Princeton, and St. Paul.

Table 3.15 High Wind Historical Occurrences Between (1/1/1950-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	11/17/1958	9:50	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/5/1959	21:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/31/1959	23:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/8/1961	3:27	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/27/1963	19:40	Thunder storm Wind	62 Kts.	0	0	\$0	\$0
Collin Co.	3/3/1970	4:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/25/1970	5:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/25/1970	5:35	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/23/1971	16:55	Thunder storm Wind	0 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	4/15/1972	5:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/29/1972	18:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/6/1975	17:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/27/1977	7:35	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/23/1978	19:15	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/23/1978	19:25	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/2/1978	22:15	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/28/1978	15:48	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/28/1978	17:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	7/10/1979	2:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/22/1979	1:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/24/1980	21:10	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/20/1980	3:15	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	10/17/1980	5:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/17/1981	20:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	4/3/1981	18:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/28/1981	19:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/23/1981	20:45	Thunder storm Wind	56 Kts.	0	0	\$0	\$0
Collin Co.	8/26/1981	15:42	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/17/1982	1:25	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	5/31/1982	4:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/22/1983	22:00	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	7/5/1983	3:55	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/12/1983	0:10	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	3/18/1984	18:20	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/27/1984	0:20	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/27/1984	21:40	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/30/1984	15:00	Thunder storm Wind	0 Kts.	0	1	\$0	\$0
Collin Co.	12/13/1984	10:45	Thunder storm Wind	0 Kts.	0	5	\$0	\$0
Collin Co.	2/23/1985	2:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	3/26/1985	22:45	Thunder storm Wind	61 Kts.	0	0	\$0	\$0
Collin Co.	7/22/1985	15:35	Thunder storm Wind	56 Kts.	0	0	\$0	\$0
Collin Co.	3/11/1986	18:58	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/11/1986	19:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/19/1986	13:15	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/19/1986	13:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/19/1986	13:49	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/9/1986	20:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	7/21/1986	13:45	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	9/28/1986	17:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/28/1986	17:30	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	2/14/1987	21:35	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/3/1987	19:47	Thunder storm Wind	51 Kts.	0	0	\$0	\$0
Collin Co.	5/14/1987	16:29	Thunder storm Wind	55 Kts.	0	0	\$0	\$0
Collin Co.	5/28/1987	17:52	Thunder storm Wind	61 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	5/28/1987	18:10	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/19/1987	19:08	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/23/1987	19:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	7/2/1987	10:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/23/1988	19:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/17/1988	16:40	Thunder storm Wind	0 Kts.	0	2	\$0	\$0
Collin Co.	11/12/1988	6:10	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	11/15/1988	15:45	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/2/1989	20:10	Thunder storm Wind	56 Kts.	0	0	\$0	\$0
Collin Co.	6/4/1989	0:35	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/4/1989	2:00	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	6/4/1989	2:30	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	6/12/1989	5:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/13/1989	4:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	7/2/1989	18:50	Thunder storm Wind	61 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	8/6/1989	14:25	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	1/17/1990	7:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	1/17/1990	7:30	Thunder storm Wind	60 Kts.	0	0	\$0	\$0
Collin Co.	1/19/1990	7:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	3/14/1990	9:45	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/15/1990	20:45	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/2/1990	22:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	5/11/1990	21:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/21/1990	17:30	Thunder storm Wind	62 Kts.	0	0	\$0	\$0
Collin Co.	10/17/1990	16:20	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/11/1991	22:30	Thunder storm Wind	0 Kts.	0	4	\$0	\$0
Collin Co.	4/17/1991	17:11	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	4/28/1991	13:10	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	4/28/1991	13:25	Thunder storm Wind	50 Kts.	0	0	\$0	\$0
Collin Co.	5/4/1991	16:20	Thunder storm Wind	0 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	6/5/1991	14:15	Thunder storm Wind	61 Kts.	0	0	\$0	\$0
Collin Co.	7/15/1991	16:55	Thunder storm Wind	65 Kts.	0	0	\$0	\$0
Collin Co.	9/24/1991	12:00	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Collin Co.	5/11/1992	20:05	Thunder storm Wind	51 Kts.	0	0	\$0	\$0
Collin Co.	5/11/1992	20:55	Thunder storm Wind	51 Kts.	0	0	\$0	\$0
Collin Co.	6/6/1992	2:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/8/1992	15:35	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	6/28/1992	5:12	Thunder storm Wind	65 Kts.	0	0	\$0	\$0
Collin Co.	7/28/1992	16:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	8/2/1992	17:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/2/1992	22:21	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/2/1992	22:40	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/2/1992	22:45	Thunder storm Wind	61 Kts.	0	0	\$0	\$0
Collin Co.	9/2/1992	23:05	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Collin Co.	9/2/1992	23:50	Thunder storm Wind	0 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	11/1/1992	1:00	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
McKinney	10/19/1993	4:00	Thunder storm Wind	70 Kts.	0	0	\$50,000	\$0
Frisco	4/2/1994	20:15	Thunder storm Wind	0 Kts.	0	0	\$5,000	\$0
Allen	4/26/1994	23:05	Thunder storm Wind	4 Kts.	0	0	\$0	\$0
Allen	5/13/1994	4:40	Thunder storm Wind	0 Kts.	0	0	\$50,000	\$0
Melissa	5/29/1994	9:15	Thunder storm Wind	0 Kts.	0	0	\$50,000	\$0
Wylie	5/29/1994	9:45	Thunder storm Wind	57 Kts.	0	0	\$0	\$0
Farmersville	6/19/1994	15:00	Thunder storm Wind	0 Kts.	0	0	\$5,000	\$0
Frisco	7/12/1994	19:39	Thunder storm Wind	0 Kts.	0	0	\$5,000	\$0
Wylie	7/12/1994	20:10	Thunder storm Wind	0 Kts.	0	0	\$5,000	\$0
Anna	8/7/1994	12:10	Thunder storm Wind	0 Kts.	0	0	\$500	\$0
McKinney	8/7/1994	12:30	Thunder storm Wind	0 Kts.	0	0	\$500	\$0
Royse City	11/4/1994	22:50	Thunder storm Wind	0 Kts.	0	0	\$5,000	\$0
Celina	4/17/1995	21:05	Thunder storm Wind	0 Kts.	0	0	\$30,000	\$0
Frisco	4/17/1995	21:05	Thunder storm Wind	0 Kts.	0	0	\$40,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Plano	4/17/1995	21:30	Thunder storm Wind	0 Kts.	0	0	\$2,000	\$0
Parker	5/7/1995	22:10	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Culleoka	5/7/1995	22:39	Thunder storm Wind	0 Kts.	0	0	\$15,000	\$0
Farmersville	5/7/1995	22:50	Thunder storm Wind	0 Kts.	0	0	\$200,000	\$0
Melissa	5/24/1995	17:00	Thunder storm Wind	0 Kts.	0	0	\$100,000	\$0
McKinney	5/24/1995	17:10	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Countywide	5/24/1995	17:30	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Arthur City	5/24/1995	18:45	Thunder storm Wind	0 Kts.	0	0	\$0	\$0
Celina	7/4/1995	23:15	Thunder storm Wind	0 Kts.	0	0	\$2,000	\$0
Plano	7/5/1995	2:45	Thunder storm Wind	0 Kts.	0	0	\$2,000	\$0
Melissa	8/20/1995	17:45	Thunder storm Wind	0 Kts.	0	0	\$75,000	\$0
McKinney	8/20/1995	18:00	Thunder storm Wind	0 Kts.	0	0	\$100,000	\$0
Lucas	5/27/1996	4:15	Thunder storm Wind	68 Kts.	0	0	\$1,000	\$0
Prosper	6/6/1996	21:20	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Plano	3/29/1997	21:52	Thunder storm Wind	52 Kts.	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Allen	3/29/1997	22:16	Thunder storm Wind	52 Kts.	0	0	\$20,000	\$0
Plano	5/19/1997	17:58	Thunder storm Wind	57 Kts.	0	0	\$0	\$0
Plano	6/16/1997	19:10	Thunder storm Wind	58 Kts.	0	0	\$0	\$0
Mc Kinney	5/8/1998	20:25	Thunder storm Wind	53 Kts.	0	0	\$0	\$0
Frisco	5/8/1998	20:35	Thunder storm Wind	61 Kts.	0	0	\$100,000	\$0
Mc Kinney	5/8/1998	20:50	Thunder storm Wind	61 Kts.	0	0	\$100,000	\$0
Mc Kinney	5/8/1998	20:57	Thunder storm Wind	52 Kts.	0	0	\$0	\$0
Plano	11/9/1998	23:10	Thunder storm Wind	50 Kts.	0	0	\$0	\$0
Wylie	2/25/2000	22:35	Thunder storm Wind	61 Kts. E	0	0	\$0	\$0
Lavon	2/25/2000	23:17	Thunder storm Wind	52 Kts. E	0	0	\$0	\$0
Plano	2/25/2000	23:40	Thunder storm Wind	61 Kts. E	0	0	\$0	\$0
Frisco	5/27/2000	16:20	Thunder storm Wind	57 Kts. M	0	0	\$0	\$0
Wylie	5/27/2000	16:50	Thunder storm Wind	61 Kts. E	0	0	\$0	\$0
Mc Kinney	5/28/2001	0:08	Thunder storm Wind	57 Kts. E	0	0	\$0	\$0
Countywide	6/14/2001	18:45	Thunder storm Wind	58 Kts. E	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Mc Kinney	6/14/2001	19:00	Thunder storm Wind	61 Kts. E	0	0	\$0	\$0
Melissa	9/18/2001	18:05	Thunder storm Wind	73 Kts. E	0	0	\$0	\$0
Celina	10/10/2001	22:51	Thunder storm Wind	52 Kts. E	0	0	\$0	\$0
Mc Kinney	10/12/2001	20:20	Thunder storm Wind	52 Kts. E	0	0	\$0	\$0
Celina	8/25/2002	14:26	Thunder storm Wind	52 Kts. E	0	0	\$10,000	\$0
Mc Kinney	8/27/2002	5:50	Thunder storm Wind	52 Kts. E	0	0	\$5,000	\$0
Farmersville	5/24/2003	21:20	Thunder storm Wind	52 Kts. ES	0	0	\$20,000	\$0
Mc Kinney	5/24/2003	22:47	Thunder storm Wind	52 Kts. ES	0	0	\$0	\$0
Frisco	6/11/2003	21:55	Thunder storm Wind	52 Kts. ES	0	0	\$5,000	\$0
Plano	8/22/2003	16:10	Thunder storm Wind	61 Kts. ES	0	0	\$0	\$0
Plano	8/22/2003	16:30	Thunder storm Wind	61 Kts. ES	0	0	\$2,000	\$0
Mc Kinney	8/26/2003	14:38	Thunder storm Wind	52 Kts. ES	1	4	\$15,000	\$0
Frisco	8/26/2003	14:58	Thunder storm Wind	61 Kts. ES	0	0	\$5,000	\$0
Nevada	3/4/2004	15:20	Thunder storm Wind	60 Kts. ES	0	0	\$75,000	\$0
Farmersville	3/4/2004	15:41	Thunder storm Wind	61 Kts. ES	0	0	\$250,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Mc Kinney	6/2/2004	18:32	Thunder storm Wind	50 Kts. ES	0	0	\$2,000	\$0
Mc Kinney	4/5/2005	16:50	Thunder storm Wind	58 Kts. MS	0	0	\$0	\$0
Allen	5/25/2005	12:38	Thunder storm Wind	50 Kts. ES	0	0	\$0	\$0
Princeton	7/15/2005	15:53	Thunder storm Wind	55 Kts. MS	0	0	\$0	\$0
Wylie	8/4/2005	16:37	Thunder storm Wind	52 Kts. ES	0	0	\$1,000	\$0
Princeton	9/28/2005	18:35	Thunder storm Wind	50 Kts. ES	0	0	\$15,000	\$0
Frisco	3/13/2006	1:11	Thunder storm Wind	61 Kts. ES	0	0	\$0	\$0
Collin (Zone)	4/7/2006	16:35	Strong Wind	45 Kts. ES	0	0	\$20,000	\$0
Collin (Zone)	6/16/2006	15:20	Strong Wind	48 Kts. ES	0	0	\$2,000	\$0
Mc Kinney	8/12/2006	16:10	Thunder storm Wind	50 Kts. ES	0	0	\$0	\$0
Plano	8/22/2006	16:45	Thunder storm Wind	40 Kts. MS	0	0	\$15,000	\$0
Mc Kinney	8/22/2006	17:10	Thunder storm Wind	50 Kts. ES	0	0	\$0	\$0
Mc Kinney	8/23/2006	17:00	Thunder storm Wind	50 Kts. ES	0	0	\$0	\$0
Plano	8/27/2006	15:30	Thunder storm Wind	50 Kts. ES	0	0	\$5,000	\$0
Frisco	9/17/2006	4:30	Thunder storm Wind	50 Kts. ES	0	0	\$5,000	\$0
Collin (Zone)	10/31/2006	10:00	Strong Wind	32 Kts. EG	0	0	\$2,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	11/15/2006	6:00	Strong Wind	40 Kts. MG	0	0	\$20,000	\$0
Collin (Zone)	2/24/2007	12:00	High Wind	50 Kts. EG	0	0	\$200,000	\$0
Murphy	3/30/2007	20:10	Thunder storm Wind	52 Kts. EG	0	0	\$25,000	\$0
Plano	4/3/2007	18:10	Thunder storm Wind	52 Kts. EG	0	0	\$0	\$0
Allen	4/13/2007	18:15	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
Allen	4/24/2007	14:23	Thunder storm Wind	50 Kts. EG	0	0	\$5,000	\$0
McKinney	4/24/2007	19:35	Thunder storm Wind	50 Kts. EG	0	0	\$40,000	\$0
Blue Ridge	4/24/2007	20:55	Thunder storm Wind	55 Kts. MG	0	0	\$0	\$0
Plano	5/2/2007	18:20	Thunder storm Wind	52 Kts. EG	0	0	\$0	\$0
Plano	5/2/2007	18:30	Thunder storm Wind	65 Kts. EG	0	0	\$0	\$0
Plano	5/2/2007	18:31	Thunder storm Wind	59 Kts. MG	0	0	\$5,000	\$0
Allen	5/2/2007	18:34	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
McKinney	5/2/2007	18:55	Thunder storm Wind	50 Kts. EG	0	0	\$40,000	\$0
Frisco	5/2/2007	19:00	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
McKinney	5/2/2007	19:03	Thunder storm Wind	62 Kts. MG	0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Plano	5/30/2007	8:47	Thunder storm Wind	50 Kts. EG	0	0	\$15,000	\$0
Plano	8/29/2007	14:54	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
Collin (Zone)	1/29/2008	10:50	High Wind	51 Kts. MG	0	0	\$0	\$0
Collin (Zone)	1/29/2008	7:00	Strong Wind	30 Kts. MS	0	0	\$65,000	\$0
McKinney	4/10/2008	3:03	Thunder storm Wind	56 Kts. MG	0	0	\$0	\$0
McKinney	4/10/2008	3:17	Thunder storm Wind	76 Kts. MG	0	0	\$0	\$0
Celina	6/17/2008	10:20	Thunder storm Wind	50 Kts. EG	0	0	\$1,000	\$0
Plano	6/17/2008	10:38	Thunder storm Wind	52 Kts. EG	0	0	\$0	\$0
McKinney	6/17/2008	10:38	Thunder storm Wind	55 Kts. MG	0	0	\$0	\$0
Plano	6/17/2008	10:45	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
Celina	6/28/2008	17:07	Thunder storm Wind	50 Kts. EG	0	0	\$1,000	\$0
Prosper	2/9/2009	4:05	Thunder storm Wind	58 Kts. EG	0	0	\$15,000	\$0
Wylie	2/10/2009	22:00	Thunder storm Wind	65 Kts. EG	0	0	\$50,000	\$0
Frisco	4/30/2009	2:05	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
Frisco	5/2/2009	20:50	Thunder storm Wind	55 Kts. EG	0	0	\$5,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Celina	5/6/2009	5:07	Thunder storm Wind	50 Kts. EG	0	0	\$2,000	\$0
Wylie	5/6/2009	5:23	Thunder storm Wind	52 Kts. EG	0	0	\$3,000	\$0
Frisco	6/10/2009	18:14	Thunder storm Wind	63 Kts. MG	0	0	\$4,000	\$0
Frisco	6/10/2009	18:15	Thunder storm Wind	65 Kts. EG	0	0	\$10,000	\$0
Frisco	6/10/2009	18:15	Thunder storm Wind	65 Kts. EG	0	0	\$6,000	\$0
Plano	6/10/2009	18:19	Thunder storm Wind	68 Kts. MG	0	0	\$5,000	\$0
Plano	6/10/2009	18:20	Thunder storm Wind	65 Kts. EG	0	0	\$3,000	\$0
Allen	6/10/2009	18:30	Thunder storm Wind	61 Kts. EG	0	0	\$5,000	\$0
Foot	6/10/2009	18:30	Thunder storm Wind	61 Kts. EG	0	0	\$5,000	\$0
McKinney	6/10/2009	18:35	Thunder storm Wind	65 Kts. EG	0	0	\$5,000	\$0
Celina	6/10/2009	18:35	Thunder storm Wind	61 Kts. EG	0	0	\$5,000	\$0
Celina	6/10/2009	18:35	Thunder storm Wind	61 Kts. EG	0	0	\$3,000	\$0
Anna	6/10/2009	18:50	Thunder storm Wind	61 Kts. EG	0	0	\$12,000	\$0
Shepton	7/8/2009	16:10	Thunder storm Wind	52 Kts. EG	0	0	\$6,000	\$0
Plano	7/19/2009	13:13	Thunder storm Wind	50 Kts. EG	0	0	\$8,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Melissa	8/5/2009	16:16	Thunder storm Wind	61 Kts. EG	0	0	\$5,000	\$0
Shepton	5/14/2010	12:23	Thunder storm Wind	50 Kts. EG	0	0	\$5,000	\$0
McKinney	8/17/2010	17:10	Thunder storm Wind	52 Kts. EG	0	0	\$100	\$0
Prosper	4/10/2011	23:34	Thunder storm Wind	70 Kts. EG	0	0	\$5,000	\$0
Melissa	4/14/2011	22:32	Thunder storm Wind	56 Kts. EG	0	0	\$0	\$0
Shepton	4/23/2011	22:37	Thunder storm Wind	52 Kts. EG	0	0	\$2,000	\$0
Melissa	4/25/2011	14:58	Thunder storm Wind	50 Kts. EG	0	0	\$0	\$0
Celina	5/24/2011	20:48	Thunder storm Wind	56 Kts. EG	0	0	\$5,000	\$0
Plano	5/24/2011	21:25	Thunder storm Wind	61 Kts. EG	0	0	\$8,000	\$0
Copeville	5/24/2011	21:37	Thunder storm Wind	54 Kts. MG	0	0	\$5,000	\$0
Collin Co.	6/21/2011	2:09	Thunder storm Wind	58 Kts. EG	0	0	\$8,000	\$0
Farmersville	7/2/2011	17:00	Thunder storm Wind	56 Kts. EG	0	0	\$10,000	\$0
Westminster	9/18/2011	18:45	Thunder storm Wind	52 Kts. EG	0	0	\$15,000	\$0
Murphy	9/18/2011	19:10	Thunder storm Wind	61 Kts. EG	0	0	\$15,000	\$0
Frisco	10/23/2011	0:15	Thunder storm Wind	52 Kts. EG	0	0	\$2,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Plano	10/23/2011	0:21	Thunder storm Wind	61 Kts. MG	0	0	\$0	\$0
Celina	5/4/2012	20:25	Thunder storm Wind	52 Kts. EG	0	0	\$20,000	\$0
Prosper	5/4/2012	20:35	Thunder storm Wind	52 Kts. EG	0	0	\$5,000	\$0
Lolaville	5/30/2012	2:25	Thunder storm Wind	62 Kts. MG	0	0	\$15,000	\$0
Forest Grove	6/6/2012	15:30	Thunder storm Wind	43 Kts. EG	0	0	\$3,000	\$0
Foot	6/6/2012	15:35	Thunder storm Wind	52 Kts. EG	0	0	\$5,000	\$0
Princeton	7/20/2012	15:10	Thunder storm Wind	52 Kts. EG	0	0	\$160,000	\$0
McKinney	7/20/2012	15:20	Thunder storm Wind	52 Kts. EG	0	0	\$2,000	\$0
Prosper	8/6/2012	14:30	Thunder storm Wind	52 Kts. EG	0	0	\$2,000	\$0
Rhea Mills	8/6/2012	14:36	Thunder storm Wind	55 Kts. EG	0	0	\$8,000	\$0
Copeville	12/19/2012	21:30	Thunder storm Wind	65 Kts. EG	0	0	\$150,000	\$0
Collin (Zone)	12/20/2012	0:00	Strong Wind	43 Kts. EG	0	0	\$13,000	\$0
Shepton	2/10/2013	3:05	Thunder storm Wind	50 Kts. EG	0	0	\$1,000	\$0
Fairview	5/21/2013	13:33	Thunder storm Wind	56 Kts. EG	0	0	\$50,000	\$0
Biggers	5/21/2013	13:33	Thunder storm Wind	59 Kts. MG	0	0	\$50,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
McKinney	5/21/2013	13:33	Thunder storm Wind	56 Kts. EG	0	0	\$50,000	\$0
McKinney	5/21/2013	13:33	Thunder storm Wind	56 Kts. EG	0	0	\$50,000	\$0
Princeton	5/21/2013	13:49	Thunder storm Wind	56 Kts. EG	0	0	\$50,000	\$0
Farmersville	5/21/2013	14:00	Thunder storm Wind	54 Kts. EG	0	0	\$40,000	\$0
Allen	6/17/2013	6:45	Thunder storm Wind	35 Kts. EG	0	0	\$2,000	\$0
Anna	8/23/2013	16:05	Thunder storm Wind	43 Kts. EG	2	0	\$10,000	\$0
Total:					3	16	\$2,757,100	\$0

Source: Texas Forest Service and National Climatic Data Center

The annualized losses due to high wind events were calculated using the methodology described previously. The annualized loss value can be interpreted as the impact expected from high wind in terms of annualized human losses and human injuries, and annualized property losses. As observed in *Table 3.15*, Collin County can expect a per year average of \$43,080 in property losses, 0.05 fatalities, 0.25 injuries, and zero crop losses from high wind events.

The occurrence of high winds is regional; therefore, the area of potential impacts corresponds to all Collin County's territory. According to the recorded historical information, high winds impact property. Currently, there is no information available that specifically identifies to the type structures that have been historically damaged by high wind events. However, fatalities, injuries, and crop and property damage has occurred. Because of the regional character of this hazard event, all improved property, emergency and critical facilities, and critical structures are exposed to this hazard.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to high wind and impacts to assets expected from this event can be summarized as follows:

- **Population:** Based on historical data, high wind events can be expected to produce an average of .25 injuries and 0.05 fatalities per year. All the population of Collin County is exposed to this hazard.
- **Improved Property:** Based on historical data, an average loss of \$43,080 per year in property losses are expected from high wind events in Collin County. Zero crop losses are expected from this hazard in Collin County.
- **Emergency Facilities:** Because of the expected geographical widespread nature of high winds, all existing and future emergency facilities in Collin County are exposed to this hazard.
- **Critical Facilities:** Because of the expected geographical widespread nature of high winds, all existing and future emergency facilities in Collin County are exposed to this hazard.

Collin County Hazard Mitigation Action Plan

- **Critical Infrastructure**: Because of the expected geographical widespread nature of high winds, all existing and future critical infrastructures in Collin County are exposed to this hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Collin County Hazard Mitigation Action Plan

Lightning

Because the location at which a lightning event cannot be predicted, all existing and future buildings, critical facilities, critical infrastructure, emergency facilities, improved property, and population are considered to be exposed to this hazard.

Based on the available information, vulnerability to lightning was assessed using two techniques: (1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center was used to predict expected monetary and human losses from the event; (2) in fulfillment of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for lightning and the nature of the impacts expected from this hazard event were used to identify the vulnerable assets.

Table 3.16 presents Collin County's recorded historical losses due to lightning events as provided in the hazard events database obtained from the National Climatic Data Center. According to the NCDC, there were no recorded lightning events for the Fairview, Farmersville, Frisco, Josephine, Lavon, Lowry Crossing, Melissa, New Hope, Parker, Princeton, St. Paul, and Wylie.

Table 3.16 Historical Lightning Occurrences between (1/1/1996-6/30/2014)

Location	Date	Time	Event	Magnitude	Fatalities	Injuries	Property Damage	Crop Damage
Weston	7/8/1996	16:30	Lightning		0	0	\$100,000	\$0
Plano	7/23/1996	12:45	Lightning		0	0	\$80,000	\$0
Plano	5/19/1997	17:45	Lightning		0	0	\$50,000	\$0
Blue Ridge	1/4/1998	22:00	Lightning		0	0	\$20,000	\$0
Allen	10/9/1999	6:00	Lightning		0	0	\$5,000	\$0
Plano	12/12/1999	8:00	Lightning		0	0	\$30,000	\$0
Plano	3/10/2000	12:30	Lightning		0	0	\$25,000	\$0
Plano	2/16/2001	0:24	Lightning		0	0	\$750,000	\$0
Mc Kinney	4/29/2002	15:00	Lightning		0	1	\$0	\$0
Mc Kinney	8/26/2003	15:30	Lightning		0	0	\$300,000	\$0
McKinney	4/24/2007	15:30	Lightning		0	0	\$20,000	\$0
Plano	5/3/2007	18:10	Lightning		0	0	\$250,000	\$0
Anna	5/30/2007	9:20	Lightning		0	0	\$50,000	\$0
McKinney	7/31/2007	14:45	Lightning		0	0	\$7,300	\$0
Lebanon	2/15/2008	1:45	Lightning		0	0	\$500,000	\$0
McKinney	5/27/2008	10:30	Lightning		0	0	\$70,000	\$0
Lucas	7/19/2009	13:15	Lightning		0	0	\$405,000	\$0
Murphy	7/19/2009	13:20	Lightning		0	0	\$200,000	\$0
Lolaville	8/21/2009	4:21	Lightning		0	0	\$750,000	\$0
Murphy	9/11/2009	17:00	Lightning		0	0	\$150,000	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Magnitude	Fatalities	Injuries	Property Damage	Crop Damage
Murphy	9/11/2009	17:00	Lightning		0	0	\$5,000	\$0
Celina	9/1/2010	13:30	Lightning		0	0	\$25,000	\$0
Collin Co.	6/21/2011	23:18	Lightning		0	0	\$30,000	\$0
Foot	5/30/2012	10:15	Lightning		0	0	\$275,000	\$0
Lebanon	5/30/2012	10:22	Lightning		0	0	\$450,000	\$0
Foot	5/30/2012	10:30	Lightning		0	0	\$275,000	\$0
Foot	5/30/2012	10:59	Lightning		0	0	\$250,000	\$0
Totals:					0	1	\$5,072,300	\$0

Source: National Climatic Data Center

The annualized losses due to lightning events were calculated using the methodology described in table 3.16. The annualized loss value can be interpreted as the impact expected from lightning in terms of annualized human losses and human injuries, and annualized property losses. As observed in Table 3.16, Collin County can expect \$281,794.44 in property losses, with no fatalities, 0.06 injuries, and no losses in crop production from lightning events.

The geographical occurrence of lightning events cannot be predicted; therefore the area of potential impacts corresponds to all Collin County's territory. According to the recorded historical information, lightning impact property. Because of the regional character of this hazard event, all improved property, emergency and critical facilities, and critical structures are exposed to this hazard.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to lightning and impacts to assets expected from this event can be summarized as follows:

- **Population:** Based on historical data, lightning events can be expected to cause zero fatalities and 0.06 injuries in Collin County per year. All the population of Collin County is exposed to this hazard.
- **Improved Property:** Based on historical data, an average of \$281,794.44 per year in property losses and \$0 in crop losses is expected from lightning events in Collin County.
- **Emergency Facilities:** Because of the expected geographical widespread nature of lightning, all existing and future emergency facilities in Collin County are exposed to this hazard.
- **Critical Facilities:** Because of the expected geographical widespread nature of lightning, all existing and future critical facilities in Collin County are exposed to this hazard.
- **Critical Infrastructure:** Because of the expected geographical widespread nature of lightning, all existing and future critical infrastructures in Collin County are exposed to this hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this Hazard Mitigation Plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Collin County Hazard Mitigation Action Plan

Tornado

The areas of impact from tornado events cannot be predicted, and they can affect extensive areas of a county. All existing and future buildings, critical facilities, critical infrastructure, emergency facilities, improved property, and population are considered to be vulnerable to this hazard.

Based on the available information, vulnerability to tornados was assessed using two techniques: 1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center, and the Texas Hazard Mitigation Action Plan was used to predict expected monetary and human losses from the event; 2) in fulfillment of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for tornados and the nature of the impacts expected from this hazard event were used to identify the vulnerable assets.

Table 3.17 presents Collin County's recorded historical losses due to tornado events as provided in the hazard events database obtained from the National Climatic Data Center.

Table 3.17 Historical Tornado Occurrences between (1/1/1950-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	3/24/1954	21:30	Tornado	F1	0	4	\$25,000	\$0
Collin Co.	5/25/1954	18:15	Tornado	F0	0	0	\$0	\$0
Collin Co.	4/2/1957	16:20	Tornado	F3	0	2	\$250,000	\$0
Collin Co.	4/27/1958	15:30	Tornado	F2	0	0	\$250,000	\$0
Collin Co.	10/4/1959	6:00	Tornado	F3	0	5	\$250,000	\$0
Collin Co.	4/22/1963	17:30	Tornado	F2	0	0	\$250,000	\$0
Collin Co.	4/28/1963	12:30	Tornado	F1	0	0	\$2,500	\$0
Collin Co.	5/19/1963	15:00	Tornado	F0	0	0	\$0	\$0
Collin Co.	3/25/1967	21:00	Tornado	F0	0	0	\$0	\$0
Collin Co.	3/25/1967	21:00	Tornado	F0	0	0	\$0	\$0
Collin Co.	4/22/1968	7:50	Tornado	F1	0	0	\$25,000	\$0
Collin Co.	5/13/1968	3:00	Tornado	F2	0	0	\$25,000	\$0
Collin Co.	4/27/1969	5:10	Tornado	F2	0	45	\$250,000	\$0
Collin Co.	10/12/1969	7:44	Tornado	F3	0	0	\$2,500	\$0
Collin Co.	4/18/1970	21:30	Tornado	F1	0	2	\$2,500	\$0
Collin Co.	9/1/1970	16:15	Tornado	F1	0	0	\$0	\$0
Collin Co.	7/19/1971	17:15	Tornado	F1	0	0	\$25,000	\$0
Collin Co.	12/14/1971	18:15	Tornado	F0	0	0	\$25,000	\$0
Collin Co.	8/10/1972	16:00	Tornado	F0	0	0	\$2,500	\$0
Collin Co.	11/20/1973	1:10	Tornado	F1	0	3	\$25,000	\$0
Collin Co.	6/9/1975	18:40	Tornado	F0	0	0	\$0	\$0
Collin Co.	3/27/1977	4:54	Tornado	F2	0	0	\$250,000	\$0
Collin Co.	9/7/1977	15:40	Tornado	F1	0	0	\$2,500	\$0
Collin Co.	9/12/1977	16:20	Tornado	F2	0	0	\$25,000	\$0
Collin Co.	3/29/1979	14:15	Tornado	F0	0	0	\$0	\$0
Collin Co.	7/27/1982	13:00	Tornado	F0	0	0	\$2,500	\$0
Collin Co.	3/27/1984	16:30	Tornado	F1	0	0	\$2,500	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin Co.	10/18/1985	9:30	Tornado	F2	0	2	\$250,000	\$0
Collin Co.	3/17/1987	19:40	Tornado	F0	0	0	\$0	\$0
Collin Co.	9/13/1993	10:10	Tornado	F0	0	0	\$0	\$0
Farmersville	7/12/1994	21:15	Tornado	F0	0	0	\$50,000	\$0
Princeton	10/7/1994	15:00	Tornado	F1	0	2	\$500,000	\$0
Mc Kinney	3/16/1998	19:05	Tornado	F1	0	0	\$200,000	\$0
Frisco	9/5/2001	14:05	Tornado	F0	0	0	\$0	\$0
Celina	9/5/2001	14:30	Tornado	F1	0	0	\$30,000	\$0
Frisco	7/1/2003	13:50	Tornado	F0	0	0	\$0	\$0
Lavon Res	3/4/2004	15:35	Tornado	F1	0	2	\$150,000	\$0
Anna	5/9/2006	21:26	Tornado	F0	0	0	\$0	\$0
Anna	5/9/2006	21:33	Tornado	F0	0	0	\$30,000	\$0
Anna	5/9/2006	21:37	Tornado	F3	2	6	\$1,000,000	\$0
Wylie	3/30/2007	20:20	Tornado	EF0	0	0	\$500,000	\$0
Allen	4/10/2008	3:04	Tornado	EF1	0	0	\$12,000,000	\$0
Totals:					2	73	\$16,402,500	\$0

Source: Texas Forest Service, National Climatic Data Center

The annualized losses due to tornado events were calculated using the methodology described in Table 3.17. The annualized loss value can be interpreted as the impact expected from tornadoes in terms of annualized human losses and human injuries, and annualized property losses. As observed in Table 3.17, Collin County can expect an average of 0.03 fatalities and 1.14 injuries per year. All the population of Collin County is exposed to this hazard. Also, an expected average of \$256,289.06 per year in property losses is expected from tornadoes, with most of the historical events occurring in the unincorporated areas of Collin County. Finally, there are no expected crop losses as result of tornado events.

As stated previously, the geographical area of impact for tornado events cannot be predicted, the area of potential impacts corresponds to all Collin County's territory, and all improved property, emergency and critical facilities, and critical structures are exposed to this hazard. According to the recorded historical information, expected casualties and property losses from tornado events are significant.

In compliance to Requirement 201.6(c)(2)(ii), vulnerability to tornadoes and impacts to assets expected from this event can be summarized as follows:

- **Population:** Based on historical data, tornado events can be expected to cause an average of 1.14 injuries and 0.03 fatalities per year in Collin County. All the population of Collin County is exposed to this hazard.
- **Improved Property:** Based on historical data, an average loss of \$256,289.06 per year in property losses are expected to result from tornado events in Collin County. No crop losses are expected from this hazard in Collin County.
- **Emergency Facilities:** Because of the impossibility to predict the geographical area of impact for tornadoes, all existing and future emergency facilities in Collin County are exposed to this hazard.
- **Critical Facilities:** Because of the impossibility to predict the geographical area of impact for tornadoes, all existing and future critical facilities in Collin County are exposed to this hazard.

Collin County Hazard Mitigation Action Plan

- **Critical Infrastructure**: Because of the impossibility to predict the geographical area of impact for tornados, all existing and future critical infrastructures in Collin County are exposed to this hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(C)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Winter Storms

Because winter storm events are large and can affect extensive areas of a county, all existing and future buildings, critical facilities, critical infrastructure, emergency facilities, improved property, and population are considered to be exposed to this hazard.

Based on the available information, vulnerability to winter storms was assessed using two techniques: 1) to comply with *Requirement 201.6(c)(2)(ii)(B)*, historical loss data obtained from the National Climatic Data Center was used to predict expected monetary and human losses from the event; 2) in fulfillment of *Requirement 201.6(c)(2)(ii)(A)*, geographical hazard areas identified for winter storms and the nature of the impacts expected from this hazard event were used to identify the vulnerable assets.

Table 3.18 presents Collin County's recorded historical losses due to winter storm events as provided in the hazard events database obtained from the National Climatic Data Center.

Table 3.18 Winter Storm Historical Occurrences between (1/1/1996-6/30/2014)

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	11/24/1996	14:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	12/17/1996	12:00	Winter Weather		0	0	\$0	\$0
Mc Kinney	1/6/1997	12:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	1/12/1997	20:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	1/14/1997	23:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	12/22/1998	0:00	Ice Storm		0	0	\$0	\$0
Collin (Zone)	1/25/2000	0:00	Winter Storm		1	0	\$0	\$0
Collin (Zone)	12/12/2000	18:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	12/25/2000	0:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	12/31/2000	0:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	1/1/2001	0:00	Heavy Snow		0	0	\$0	\$0
Collin (Zone)	11/29/2001	6:00	Ice Storm		0	0	\$0	\$0
Collin (Zone)	2/5/2002	8:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	3/2/2002	6:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	2/24/2003	11:20	Winter Storm		0	0	\$0	\$0
Collin (Zone)	2/14/2004	3:00	Heavy Snow		0	0	\$0	\$0
Collin (Zone)	12/22/2004	0:01	Winter Weather		0	0	\$0	\$0
Collin (Zone)	12/7/2005	12:00	Winter Storm		0	0	\$0	\$0

Collin County Hazard Mitigation Action Plan

Location	Date	Time	Event	Mag	Fatalities	Injuries	Property Damage	Crop Damage
Collin (Zone)	2/18/2006	3:30	Winter Weather		0	0	\$0	\$0
Collin (Zone)	11/30/2006	1:00	Winter Storm		0	0	\$0	\$0
Collin (Zone)	1/13/2007	11:00	Ice Storm		0	0	\$30,000	\$0
Collin (Zone)	1/17/2007	3:00	Winter Weather		0	0	\$30,000	\$0
Collin (Zone)	2/2/2007	1:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	3/3/2008	22:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	12/15/2008	18:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	12/23/2008	6:00	Winter Weather		0	0	\$0	\$0
Collin (Zone)	1/27/2009	7:00	Ice Storm		0	0	\$60,000	\$0
Collin (Zone)	12/24/2009	12:30	Winter Weather		0	0	\$100,000	\$0
Collin (Zone)	2/11/2010	5:00	Heavy Snow		0	0	\$1,000,000	\$0
Collin (Zone)	3/20/2010	19:00	Heavy Snow		0	0	\$0	\$0
Collin (Zone)	1/9/2011	9:00	Heavy Snow		0	0	\$150,000	\$0
Collin (Zone)	2/1/2011	0:30	Ice Storm		0	0	\$150,000	\$0
Collin (Zone)	2/3/2011	23:30	Heavy Snow		0	0	\$10,000	\$0
Collin (Zone)	12/25/2012	13:30	Heavy Snow		0	0	\$550,000	\$0
Collin (Zone)	12/5/2013	14:30	Winter Storm		0	0	\$500,000	\$0
Totals:					1	0	\$2,580,000	\$0

Source: National Climatic Data Center

The annualized losses due to winter storm events were calculated using the methodology described previously. The annualized loss value can be interpreted as the impact expected from winter storm in terms of annualized human losses and human injuries, and annualized property losses. As observed in *Table 3.18*, Collin County can expect in average an annual \$143,333.33 in property losses, with zero injuries, 0.06 fatalities, and no crop losses from winter storm events.

The geographical occurrence of winter storm events is widespread; therefore, the area of potential impacts corresponds to all Collin County's territory. According to the recorded historical information, winter storm events impact property. Because of the regional character of this hazard event, all improved property, emergency and critical facilities, and critical structures are exposed to this hazard.

In compliance to *Requirement 201.6(c)(2)(ii)*, vulnerability to winter storm events and impacts to assets expected from this event can be summarized as follows:

Collin County Hazard Mitigation Action Plan

- **Population**: Based on historical data, winter storm events can be expected to cause an average of zero injuries and 0.06 fatalities per year in Collin County. All the population of Collin County is exposed to this hazard.
- **Improved Property**: Based on historical data, an average loss of \$143,333.33 per year in property losses are expected to result from winter storm events in Collin County. Zero crop losses are expected from this hazard in Collin County.
- **Emergency Facilities**: Because of the expected geographical widespread nature of winter storms, all existing and future emergency facilities in Collin County are exposed to this hazard.
- **Critical Facilities**: Because of the expected geographical widespread nature of winter storms, all existing and future critical facilities in Collin County are exposed to this hazard.
- **Critical Infrastructure**: Because of the expected geographical widespread nature of winter storms, all existing and future critical infrastructures in Collin County are exposed to this hazard.

Information needed to fulfill *Requirement 201.6(c)(2)(ii)(c)*, which addresses land uses and development trends was unattainable during the preparation of this hazard mitigation plan. Compliance with this requirement will be an objective in the five-year planning cycle.

Collin County Hazard Mitigation Action Plan

3.6 Qualitative Analysis

In compliance to *Requirement 201.6(c)(2)(ii)* a qualitative analysis was made for three of the hazards representing low risk to Collin County: Dam Failure, Earthquake, and Expansive Soil. Because historical and geographical data regarding these events is unattainable for quantitative analysis at the present time, a qualitative analysis is in order. Quantitative analyses for these hazards will be an objective in the five-year planning cycle update, should information become available.

Dam Failure

The probability of occurrence for dam and/or levee events in Collin County is likely. There is no record of a dam failing in Collin County; therefore, there is a lack of information regarding this hazard and quantitative predictions are not available at the present time. A study is needed to gather more inundation information. All five categories, population, improved property, emergency facilities, critical facilities, and critical infrastructure are considered vulnerable to damage caused by dam and/or levee failure. According to the Priority Risk Index analysis presented in section 3.3, any estimated losses associated with this hazard are anticipated to be of moderate to no risk across Collin County. Based on data from the participating jurisdictions a total of 153 dams are located in Collin County (*Table 3.19*).

Table 3.19 Dams located in Collin County and Participating Jurisdictions

Jurisdiction	Number of Dams	Dam Classification		
		High	Significant	Low
<i>Collin County</i>	153	59	9	85
Total	153	59	9	85

Source: National Inventory of Dams

The Hazard Mitigation Planning Team provided a list of high hazard dams located in Collin County. (*Table 3.19*).

Table 3.20 High Hazard Dams

Jurisdiction	Dam Name
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 32A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 1C DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 3A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 8A DAM
Collin County	LAVON LAKE
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 5A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 10 DAM
Collin County	LITTLE ELM AND LATERALS WS SCS SITE 18A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 33 DAM
Collin County	ROWLETT CREEK WS SCS SITE 5 DAM
Collin County	PILOT GROVE CREEK WS SCS SITE 83A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 3C DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 4 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 11 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 9 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 30 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 2B DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 1A DAM
Collin County	WILLOW BEND LAKE NO 1 DAM

Collin County Hazard Mitigation Action Plan

Jurisdiction	Dam Name
Collin County	PILOT GROVE CREEK WS SCS SITE 82 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 8G DAM
Collin County	PILOT GROVE CREEK WS SCS SITE 80 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 16 DAM
Collin County	UPPER EAST FK LATERALS WS SCS SITE 2 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 3B DAM
Collin County	ROWLETT CREEK WS SCS SITE 7 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 12 DAM
Collin County	PILOT GROVE CREEK WS SCS SITE 28 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 3E DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 31 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 14 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 3D DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 17 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 15 DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 2A DAM
Collin County	EAST FORK ABOVE LAVON WS SCS SITE 32 DAM
Collin County	ROWLETT CREEK WS SCS SITE 4 DAM
Collin County	PILOT GROVE CREEK WS SCS SITE 79 DAM
Collin County	STONEBRIDGE LAKE F 3 DAM
Collin County	STONEBRIDGE LAKE F 4 DAM
Collin County	STONEBRIDGE LAKE F 2 DAM
Collin County	STONEBRIDGE LAKE 13 DAM
Collin County	STONEBRIDGE LAKE 11 D DAM
Collin County	STONEBRIDGE LAKE 12 DAM
Collin County	PRESTONWOOD WEST DAM
Collin County	STONEBRIDGE LAKE 11 A DAM
Collin County	STONEBRIDGE LAKE B DAM
Collin County	STONEBRIDGE LAKE F 1 DAM
Collin County	SISTER GROVE CREEK WS SCS SITE 38 DAM
Collin County	LAGO GRANDE DAM
Collin County	SISTER GROVE CREEK WS SCS SITE 3 DAM
Collin County	WILLOW BEND LAKE NO 2 DAM
Collin County	ROACH TRACT LOWER DAM
Collin County	ROACH TRACT DAM
Collin County	STONEBRIDGE LAKE A DAM
Collin County	LAKE LACIMA DAM
Collin County	GLENEAGLES DAM D6
Collin County	STONEBRIDGE LAKE C DAM
Collin County	CARTER RANCH DAM

Source: National Inventory of Dams

Earthquake

The probability of occurrence for an earthquake event in Collin County is extremely low. Due to unattainable information regarding this hazard, quantitative predictions are not available at the present time and further study is needed.

All five categories, population, improved property, emergency facilities, critical facilities, and critical infrastructure are considered vulnerable to damage caused by an earthquake. According to the Priority Risk Index analysis presented in section 3.3 any estimated losses associated with this hazard are anticipated to be of little to no risk across Collin County.

Expansive Soils

The probability of occurrence for expansive soil events in Collin County is at a low to moderate risk. Damage from expansive soils is difficult to document. Further studies are needed. There have been no documented previous occurrences of expansive soils in Collin County and the jurisdictions participating on this plan, with the exception of Fairview. The documentation of the occurrence can be found in Annex F.

Population is not considered vulnerable to damage caused by expansive soils; therefore, any estimated population losses associated with this hazard are anticipated to be minimal across Collin County. Improved property, emergency facilities, critical facilities, and critical Infrastructures are more vulnerable to this event. Collin County is located in an area which contains abundant clay with high swelling potential. According to the Priority Risk Index analysis, impacts from expansive soils have a low to moderate risk of creating a hazard that could cause damage to highways, streets, as well as other structures

Collin County Hazard Mitigation Action Plan

3.7 Summary

Table 3.21 provides a summary of annualized losses for each of the nine hazard events for which the quantitative analysis (Geographic Information System and/or statistical) was conducted. Table 3.22 summarizes the qualitative analysis conducted on the remaining three hazard events. Hurricane/Tropical Storm, Land Subsidence, and Coastal Erosion are not listed due to lack of impact.

Table 3.21 Annualized Losses Expected from Hazards Analyzed using a Quantitative Analysis

Hazard Event	Annualized Expected Fatalities	Annualized Expected Injuries	Annualized Expected Property Losses	Annualized Expected Crop Loss	Annualized Expected Crop Loss per Acre
Drought	0	0	\$27,888.89	\$76,722.22	\$0.25
Extreme Heat	0.11	0	\$0	\$0	\$0
Flood	0	0	\$19,056	\$0	\$0
Hail	0	0	\$109,741.38	\$0	\$0
High Wind	0.05	0.25	\$43,080	\$0	\$0
Lightning	0	0.06	\$281,794.44	\$0	\$0
Tornado	0.03	1.14	\$256,289.06	\$0	\$0
Wildfire	0.06	0	\$3,722.22	\$133.33	\$0.01
Winter Storm	0.06	0	\$143,333.33	\$0	\$0

Table 3.22 Summary of Qualitative Analysis

Hazard Event	Probability of Occurrence According to the Priority Risk Index	Vulnerable Categories				
		Population	Property Damage	Emergency Facilities	Critical Facilities	Critical Infrastructures
Dam Failure	Moderate to No Risk	√	√	√	√	√
Earthquake	Low to No Risk	√	√	√	√	√
Expansive Soils	Negligible to No Risk		√	√	√	√

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Collin County Hazard Mitigation Action Plan

Chapter Four: 2011 Plan Action Items

Deferred actions are also located in jurisdictional annexes.

4.1 Collin County Action Items: 2011 Plan

Collin County Action Item	Expand and coordinate Outdoor Warning Systems to mitigate the effects of severe weather on new populations.
Hazard(s) Addressed	Tornado, hail, high winds, lightning, wildfire
Goal/Objective	1-B
Priority	Medium
Estimated Cost	\$50-100K
Potential Funding Sources	SHSGP, HMGP, Local funding, USDA
Lead Department	Collin County Sheriff's Office
Implementation Schedule	1-3 years
Effect on Old Buildings	No effect
Effect on New Buildings	No effect
Cost Effectiveness	The cost effectiveness is found in the ability to save lives by warning people to take appropriate action during a severe weather event.
Discussion	The outdoor warning system is one of many tools employed to warn citizens about disasters. The outdoor warning siren system is an effective tool for outdoor notification.

Status: Complete/Deferred: Outdoor warning sirens have been added in some areas, still needed in others

Collin County Action Item	Conduct a hazard/vulnerability assessment and inundation study on NRCS Flood Retention Structures
Hazard(s) Addressed	Dam Failure
Goal/Objective	2-A
Priority	High
Estimated Cost	\$10-50K
Potential Funding Sources	NRCS Grant Fund, HMGP
Lead Department	Collin County Development Services, Engineering Department, GIS
Implementation Schedule	1-5 years
Effect on Old Buildings	No effect
Effect on New Buildings	No effect
Cost Effectiveness	The cost of this project is low compared to the potential benefits of reduction or elimination in personal injuries, deaths, and property damage that would result from a dam failure.
Discussion	This project involves the evaluation of each dam's hazard classification and then the steps that will be needed to rehabilitate flood retention structures prioritized based on the estimated amount of damage or loss of life that would be sustained in the event of a flood retention structure failure.

Status: In Progress

Collin County Hazard Mitigation Action Plan

Collin County Action Item	Implement results of the hazard and vulnerability assessment and inundation study on NRCS flood retention structures and rehabilitate structures found to be a high hazard.
Hazard(s) Addressed	Dam Failure
Goal/Objective	2-B
Priority	High
Estimated Cost	Will be reported upon resulted findings and estimates after completion of inundation study. (\$25,000-2,000,000)
Potential Funding Sources	NRCS Grant Fund, HMGP
Lead Department	Collin County Development Services, Engineering Department, GIS
Implementation Schedule	1-5 years
Effect on Old Buildings	No effect
Effect on New Buildings	No effect
Cost Effectiveness	The cost of this project is low compared to the potential benefits of reduction or elimination in personal injuries or deaths that would result from a dam failure.
Discussion	This project involves the rehabilitation or new construction of each dam deemed to be a hazard. The rehabilitating of flood retention structures will be prioritized based on the estimated amount of damage or loss of life that would be sustained in the event of a flood retention structure failure.

Status: Deferred until completion of previous action item

Collin County Action Item	Enhance public education campaign for long term water conservation efforts.
Hazard(s) Addressed	Drought
Goal/Objective	4-B
Priority	Medium
Estimated Cost	\$10,000
Potential Funding Sources	Local Funding
Lead Department	Collin County Engineering
Implementation Schedule	1-2 years
Effect on Old Buildings	The ability to educate the public about the changes that can be made to existing buildings.
Effect on New Buildings	The ability to incorporate water conservation projects into new construction.
Cost Effectiveness	The cost of the project is moderately inexpensive compared with the potential benefits of educating the public on drought mitigation
Discussion	Educating the population on water conservation will help reduce water demands- aiding in water conservation- thus mitigating some impacts of a drought on the local population.

Status: In Progress - This has been implemented by North Texas Municipal Water District and member cities

Collin County Hazard Mitigation Action Plan

Collin County Action Item	Develop and implement a drought contingency plan to include water conservation and mandatory water rationing.
Hazard(s) Addressed	Drought
Goal/Objective	3-C
Priority	Low
Estimated Cost	\$5,000
Potential Funding Sources	Local Funding
Lead Department	Collin County Engineering
Implementation Schedule	1-5 years
Effect on Old Buildings	This action will not reduce the effects of drought on existing buildings
Effect on New Buildings	. This action will not reduce the effects of drought on new buildings
Cost Effectiveness	The cost of this project is low compared to the potential benefits of reducing the effects of drought.
Discussion	During times of drought, the demand for potable water may exceed the county's capacity to produce sufficient potable water for domestic, sanitation and fire protection. The drought contingency plan provides the ability to regulate the use of potable water for non-essential uses.

Status: Deferred

Collin County Action Item	Develop and implement a hazard/vulnerability assessment for personal properties and structures located in the floodplain, promote NFIP.
Hazard(s) Addressed	Flooding
Goal/Objective	3-A
Priority	Low
Estimated Cost	\$100-150K
Potential Funding Sources	HMGP, Local funding
Lead Department	Collin County Development Services Engineering Department
Implementation Schedule	1-3 years
Effect on Old Buildings	To be determined based on the study's findings, but could include future limiting of building permits, types/uses of buildings allowed in floodplain (residence, commercial, etc.), requirement of flood insurance coverage for buildings, etc.
Effect on New Buildings	To be determined based on the study's findings.
Cost Effectiveness	The cost effectiveness is found in the ability to protect lives and property by assessing the current structures located in floodplain for public awareness and insurance coverage purposes.
Discussion	This assessment will used to promote insurance coverage for properties at risk for flooding

Status: Deferred

Collin County Hazard Mitigation Action Plan

Collin County Action Item	Implement the Texas Individual Tornado Safe Room Rebate Program
Hazard(s) Addressed	Tornado
Goal/Objective	1-C
Priority	Medium
Estimated Cost	50% of (up to) \$3,000 per shelter. Number of shelters to be determined
Potential Funding Sources	County Budget, HMGP, PDM, Homeowner, Work-in-kind
Lead Department	Building Inspections Department, Emergency Management, HMC
Implementation Schedule	Within two years of funding
Effect on Old Buildings	1-5 years
Effect on New Buildings	. This action will improve the safety of new homes with either in-ground or in-house shelters.
Cost Effectiveness	The cost of this project is low compared to the potential benefits of reduction in personal injuries and/or deaths.
Discussion	Residential safe room sheltering can decrease potential personal injuries or deaths in the event of a tornado.

Status: In Progress regionally, Deferred locally - see new action item for local program implementation

Collin County Action Item	Develop and implement a community awareness and education campaign in order to mitigate the loss of life caused by tornados.
Hazard(s) Addressed	Tornado
Goal/Objective	4-B
Priority	High
Estimated Cost	\$50-100K
Potential Funding Sources	HMGP and Local Funding
Lead Department	Collin County Department of Homeland Security
Implementation Schedule	1-2 years
Effect on Old Buildings	Educate the public on what they can do with existing structures.
Effect on New Buildings	Educate the public on what they can do to new construction.
Cost Effectiveness	The cost effectiveness is found in the ability to save lives by warning people to take appropriate action to mitigate potential hazards during severe weather/tornado conditions.
Discussion	The community awareness and education campaign will improve the citizens' awareness and knowledge of tornados and their ability to mitigate the hazard by/through preparing their persons and property for the even thus reducing the impact and threat of the hazard.

Status: Deferred – captured in new comprehensive Pub Ed action item

Collin County Hazard Mitigation Action Plan

Collin County Action Item	Develop and implement a hazard/vulnerability assessment for personal properties and structures located in the floodplain.
Hazard(s) Addressed	Flooding
Goal/Objective	2-E
Priority	Medium
Estimated Cost	\$15,000
Potential Funding Sources	Hazard Mitigation Grant Funding
Lead Department	Engineering
Implementation Schedule	2-3 years
Effect on Old Buildings	Identification of personal properties and structures in the floodplain and the ability to rank these structures in terms of risk
Effect on New Buildings	None
Cost Effectiveness	The cost of the project is moderately inexpensive compared with the potential benefits of knowing where these structures are and their vulnerability.
Discussion	Identification of these properties and structures and their vulnerabilities is necessary to prioritize any actions to mitigate them.

Status: Deferred

Collin County Action Item	Based on assessment, develop and implement a buyout program for personal properties and structures located in the floodplain
Hazard(s) Addressed	Flooding
Goal/Objective	2-E
Priority	Low
Estimated Cost	\$250,000
Potential Funding Sources	Hazard Mitigation Grant Funding
Lead Department	Engineering
Implementation Schedule	2-5 years
Effect on Old Buildings	Purchase and demolition of personal properties and structures in the floodplain
Effect on New Buildings	None
Cost Effectiveness	The cost of this project is expensive compared to the limited number of structures that would be affected.
Discussion	Removing personal property and structures from the floodplain will reduce the impact of flooding in Collin County

Status: Deferred

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National Flood Insurance Program (NFIP) Compliance



The National Flood Insurance Program (NFIP)

The National Flood Insurance Program is a federally run program which enables property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages.

Community Participation

A community applies for participation in the National Flood Insurance Program (NFIP) either as a result of interest in eligibility for flood insurance or as a result of receiving notification from FEMA that it contains one or more Special Flood Hazard Areas (SFHAs). In order for a community to apply for and receive participation in the NFIP, that community must adopt resolutions or ordinances to minimally regulate new construction in identified SFHAs. FEMA works closely with state and local officials to identify flood hazard areas and flood risks. The floodplain management requirements within the SFHA are designed to prevent new development from increasing the flood threat and to protect new and existing buildings from anticipated flood events.

When a community chooses to join the NFIP, it must require permits for all development in the SFHA and ensure that construction materials and methods used will minimize future flood damage. Permit files must contain documentation to substantiate how buildings were actually constructed. In return, the Federal Government makes flood insurance available for almost every building and its contents within the community.

Communities must ensure that their adopted floodplain management ordinance and enforcement procedures meet program requirements. Local regulations must be updated when additional data are provided by FEMA or when Federal or State standards are revised.

A more in-depth description of each jurisdiction's NFIP program is addressed in the jurisdictional annexes.

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Collin County Hazard Mitigation Action Plan

Chapter Five: Plan Maintenance**5.1 Monitoring, Evaluating and Updating the Plan**

In compliance with requirement § 201.6(c)(4)(i), Collin County has developed a plan maintenance process which is described in the following paragraphs. Collin County, along with participating jurisdictions, is responsible for monitoring the implementation of the plan, executing a yearly evaluation of its effectiveness, and updating the plan within a 5-year cycle.

Following formal adoption by the Collin County Commissioners Court and the city council of each participating jurisdiction, the actions outlined in the Collin County Hazard Mitigation Action Plan (HazMAP) will be implemented by the County and participating jurisdictions as described throughout this document.

The Collin County Emergency Management Coordinator will be responsible for ensuring the mitigation action items and implementation are monitored, evaluated, and reviewed biannually by emailing all the participating jurisdictions for updates on their individual action items. The progress of the action items will be tracked electronically as “in progress”, “deferred” or “completed”. Project implementation will be included in the Mitigation Strategies for the 5 year update of the plan.

The Collin County Emergency Management Coordinator, working in conjunction with the respective jurisdictions, will be responsible for ensuring the mitigation plan is monitored, evaluated, and reviewed on an annual basis. This will be accomplished by calling an annual meeting of the Hazard Mitigation Planning Team (HMPT), whose members will provide assistance and expertise for plan review, evaluating, updating, and monitoring. This meeting will be open to the public and public notices will encourage community participation. During this annual meeting, Collin County will provide information on the implementation status of each action included in the plan. As part of the annual monitoring, review and evaluation process, Collin County will provide reports regarding implementation of actions and project completion dates for the plan. Also, as part of the evaluation, the HMPT will assess whether goals and objectives address current and expected conditions, whether the nature and/or magnitude of the risks have changed, if current resources are appropriate for implementing the plan, whether outcomes have occurred as expected, and if agencies and other partners participated as originally proposed.

At least once every five years the HazMAP will undergo a major update. During this process, all sections of the plan will be updated with current information and analyses, and new and/or modified mitigation plans will be developed. The revised collaborative plan will be submitted for state and federal review and approval. It will then be presented for approval to the Collin County Commissioner’s Court and to the city councils of the respective incorporated cities included on the Collin County plan. Each participating jurisdiction will undertake the same process for reviewing, revising and updating their respective plans, with submission to the local governing body for approval. The plan will be updated every five years in accordance with federal requirements.

** Each individual city’s maintenance schedule is included in their annex.

5.2 Plan Incorporation into Existing Planning Mechanisms

(In compliance with 201.6(c)(4)(ii))

Based on the requirements set forth in § 201.6(c)(4)(ii), the State of Texas Mitigation Plan, the vulnerability and capabilities assessment for each jurisdiction was carefully reviewed and considered when developing the mitigation actions for this plan. The Hazard Mitigation team will use an established process in which the mitigation strategy, goals, objectives and actions outlined in this plan will be incorporated into the existing regional and local planning strategies.

Past and present Collin County Hazard Mitigation Action Plans discuss incorporating mitigation activities through various vehicles. Local planning mechanisms identified include: building codes, planning and zoning ordinances, fire codes, NFIP, and capital improvement plans. Information was also incorporated into the Collin County Emergency Operations Plan and the State of Texas Hazard Mitigation Action Plan. This integration and incorporation strategy will continue with all members of the Collin County HazMAP, provided there is sufficient political, fiscal, and administrative capital to do so.

**Each jurisdiction's individual integration plan can be found in their respective annex.

Once the plan is adopted, the HMPT will coordinate implementation with the engineering, planning, and emergency management departments for the county, participating jurisdictions, river authorities, and drainage districts.

5.3 Continued Public Involvement

(In compliance with 201.6(c)(4)(iii))

As stated in requirement § 201.6(c)(4)(iii) the plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process.

To address this requirement, ongoing public participation will be encouraged throughout the planning and implementation process. A copy of the plan will be provided on the Collin County website. The planning committee will continue meeting on a regular basis to ensure the successful implementation of the plan and to discuss any additional issues regarding the emergency management of Collin County. The annual meetings for monitoring, evaluating, and updating the plan will be open to the public and public notices will encourage community participation.

Chapter Six: Individual Jurisdictional Annexes

Chapter Six contains the individual jurisdictional annexes. The annexes were developed by each individual jurisdiction in order to provide a greater level of detail specific to the jurisdiction. Each annex contains seven sections.

Section One provides a brief introduction to jurisdiction and contents of the annex

Section Two covers the planning process and those involved. Elements included in this section are: plan development and adoption process, planning organization, existing data and plans incorporation, the planning committee, hazard mitigation team members, external stakeholders, the dates of planning meetings, and public involvement. The planning process documentation is contained in Appendix A, located at the back of the plan. (Requirements: §201.6(c)(1)), §201.6(b)(2)), §201.6(b)(1)), §201.6(b)(3)), §201.6(c)(4)(iii)), and §201.6(c)(4)(i)).

Section Three is the hazard identification and risk assessment. This section contains the Priority Risk Index, which allows each individual jurisdiction to rank the hazards in their area; vulnerability narratives, which identifies points of vulnerability in each jurisdiction for each hazard; and the asset identification and vulnerability assessment. (Requirements §201.6(c)(2)(i) and §201.6(c)(2)(ii))

Section Four provides a summary of jurisdictional capabilities. Elements in this section include: legal and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and implementation capabilities. (Requirement §201.6(c)(3)).

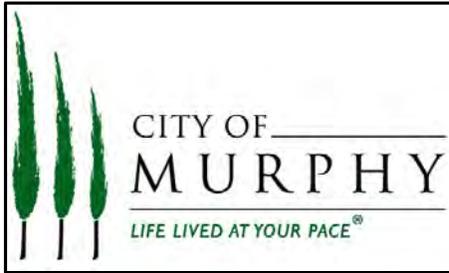
Sections Five and Six provide the jurisdictional mitigation strategies and action items. The elements included are: mitigation goals and the action items associated with those goals. Additionally, Section Six includes National Flood Insurance Program (NFIP) compliance information. (Requirements §201.6(c)(3)(ii)), §201.6(c)(3)(i)), §201.6(c)(3)(iv)), and §201.6(c)(3)(iii)).

Section Seven is the maintenance portion of the annex. Included are: plan monitoring, evaluating, and updating; and plan incorporation mechanisms. (Requirements §201.6(c)(4)(i)) and §201.6(c)(4)(ii)).

Jurisdictional Annexes:

- A. Unincorporated Collin County**
- B. Allen**
- C. Anna**
- D. Blue Ridge**
- E. Celina**
- F. Fairview**
- G. Farmersville**
- H. Frisco**
- I. Josephine**
- J. Lavon**
- K. Lowry Crossing**
- L. Lucas**
- M. Melissa**
- N. Murphy**
- O. New Hope**
- P. Parker**
- Q. Princeton**
- R. Prosper**
- S. St. Paul**
- T. Wylie**

Annex N: City of Murphy



1. Introduction

This annex was prepared in 2014 as part of an update to the Collin County Multi-Jurisdictional Hazard Mitigation Action Plan. The City of Murphy participated on the Collin County Hazard Mitigation Planning Team (HMPT). This is a new hazard mitigation plan and the first to be submitted to FEMA for the City of Murphy. In addition to the countywide hazards and strategies discussed in the main plan, this annex serves as a complete

hazard mitigation planning tool for the City of Murphy. It contains capability assessment information, a specific vulnerability assessment, and a complete mitigation strategy. The methodology and process for developing this annex are explained throughout the following sections.

2. Plan Development and Adoption Process

In order to apply for federal aid for technical assistance and post-disaster funding, local jurisdictions must comply with Part 201.3 of the Disaster Mitigation Act of 2000 implemented in the Federal Code of Regulations 44 CFR Part 201.6. While the City of Murphy has historically implemented measures to reduce their vulnerability to hazards, passage of DMA 2000 helped Murphy officials recognize the benefits of a long-term approach to hazard mitigation, which achieves a gradual decrease of impacts associated through the implementation of a Hazard Mitigation Plan. Collin County's Hazard Mitigation Action Plan represents the collective efforts of all participating jurisdictions, the general public, and stakeholders.

Organizing the Planning Effort

A comprehensive county approach was taken in developing the plan. An open public involvement process was established for the public, neighboring communities, regional agencies, businesses, academia, etc. to provide opportunities for everyone to become involved in the planning process and to make their views known. The meetings were advertised with notices in public places and the local newspaper.

In accordance with Part 201.6(c)(5) of the Disaster Mitigation Act of 2000 (DMA 2000), Collin County developed this Hazard Mitigation Action Plan. This plan identifies hazards and mechanisms to minimize future damages associated with these hazards, which threaten Collin County and its jurisdictions.

Existing Data and Plans

Existing hazard mitigation information and other plans were reviewed during the development of the Hazard Mitigation Action Plan. GIS, statistical and qualitative data was gathered through numerous sources. The table below outlines the sources of data for the plan:

Table 2.1 Plan Source Data

Source	Data
City and County Appraisal Data 2012	Population and demographics
Regional Hazard Assessment Tool	Hazard occurrences
National Climatic Data Center (NCDC)	Hazard occurrences
Texas Forest Service/Texas Wildfire Risk Assessment Summary Report	Wildfire Threat and Wildland/Urban Interface
National Resource Conservation Services	Dam information
National Inventory of Dams	Dam information

Collin County Hazard Mitigation Action Plan

Planning Committee

This Hazard Mitigation Action Plan was developed by the City of Murphy Hazard Mitigation Planning Committee, with support of the North Central Texas Council of Governments and in conjunction with the HMPT.

The Collin County HMPT was assembled in June 2014 with representatives from participating jurisdiction planning committees, including mayors, police chiefs, fire chiefs, and the general public. The City of Murphy acted as the plan development consultant providing hazard mitigation planning services; the efforts of the planning committees and the HMPT were led by the Collin County Assistant Emergency Management Coordinator. The table below provides a list of the primary representatives on the Murphy planning committee.

Table 2.2 Hazard Mitigation Committee – Primary Representatives

Representing	Position	Role
Murphy Fire Rescue	Fire Chief/Emergency Management Coordinator	Facilitator/Plan Development
Murphy Fire Rescue	Fire Marshal/Emergency Management Specialist	Plan Development/Data Research
Murphy City Management	City Manager	Provided Data/Mapping
Murphy Fire Rescue	Assistant Fire Chief/Operations	Plan Development

Collin County served as the coordinator and lead agency for all jurisdictions by accomplishing the following activities through the planning process:

1. Assigned the County's Assistant Emergency Management Coordinator to provide technical assistance and necessary data to the planning committee.
2. Scheduled, coordinated, and facilitated community meetings with the assistance of the HMPT and the planning committees.
3. Provided any necessary materials, handouts, etc. for public planning meetings.
4. Worked with the HMPT and planning committees to collect and analyze data and develop goals and implementation strategies.
5. Prepared, based on community input and planning team/committee direction, the first draft of the plan and provided technical writing assistance for review, editing and formatting.
6. Coordinated with the stakeholders within the jurisdictions and the unincorporated areas of Collin County during plan development.

Each of the individual jurisdictions participated in accomplishing similar activities associated with development of the plan as follows:

1. Coordinated input from representatives of neighborhood stakeholder groups and provided a representative to the County HMPT.
2. Attended regular meetings of the planning team as coordinated by Collin County.
3. Assisted Collin County staff with identifying hazards and estimating potential losses from future hazard events.
4. Assisted Collin County in developing and prioritizing mitigation actions to address the identified risks.
5. Assisted Collin County in coordinating public meetings to develop the plan.
6. Identified the community resources available to support the planning effort.

Collin County Hazard Mitigation Action Plan

7. Worked for the support of neighborhood stakeholders for the recommendations resulting from the planning process.
8. Submitted the proposed plan to all appropriate departments for review and comment and worked with Collin County to incorporate the resulting comments into the proposed plan.

External stakeholders involved in reviewing the Collin County Hazard Mitigation Action Plan:

Table 2.3 External Stakeholders

Representing	Position	Role
Community ISD	School Board Member	Review of plan
North Texas Municipal Water District	Board Member	Review of plan

Subsequent to the State of Texas and FEMA approval of the plan, each jurisdiction also is committed to accomplishing the following activities:

1. Appoint members to a coordinating committee to monitor and work toward plan implementation.
2. Publicize the plan to neighborhood interests and ensure that new community members are aware of the plan and its contents.
3. Monitor progress in achieving the plan's goals through regular maintenance and implementation projects.

Planning Meetings

During the planning process, the HMPT met to obtain relevant information from the participating jurisdictions and to discuss the objectives and progress of the plan. The objectives of these meetings were to gather information and to provide guidance for each jurisdiction throughout the planning stages.

The following meetings were held by Collin County and included all jurisdiction's participation:

- Collin County HazMAP Kickoff Meeting – June 11, 2014
- Murphy Hazard Mitigation Team Meeting – June 20, 2014
- Murphy Hazard Mitigation Team Meeting – July 9, 2014
- Murphy Hazard Team Meeting – October 6, 2014
- Murphy HazMAP Discussion/Update – October 17, 2014

Public Involvement

Support from the community is vital for any successful hazard mitigation plan. The HMPT and planning committees provided opportunities, announced through public communication means, for public participation and input throughout the planning process prior to this draft and before approval of the finalized plan. Advertisement and sign in sheets for these meetings are located in Appendix A.

- The first public meeting was held on June 6, 2014 and advertised in the City Hall Miscellaneous Section public bulletin board inviting the public, neighboring communities, local business, academia, agencies, and nonprofits to comment.
- A second public meeting was held on September 18, 2014. An advertisement was posted in the City Hall Miscellaneous Section public bulletin board inviting the public, neighboring communities,

Collin County Hazard Mitigation Action Plan

local business, academia, agencies, and nonprofits to view and comment on the HazMAP prior to plan submission.

There were no comments directly related to the mitigation plan received from citizens, non-profits, businesses, academia, or interested parties; therefore, no feedback was incorporated. An additional opportunity for the public to comment on the plan will be held prior to formal plan adoption.

This provided all citizens, stakeholders, neighboring communities, agencies, businesses, academia, non-profit organizations, and all interested parties an opportunity to be involved in the planning process and to take part in the decisions making process that affect the future of the communities that they live in.

3. Jurisdictional Hazard Identification and Risk Assessment

The Hazard Mitigation Planning Team Committee for the City of Murphy identified several natural hazards and man-made hazards that could affect the city. The committee decided to focus on the natural hazards identified in Section 5 of this update. This was done after reviewing the 2010 HazMAP, the State of Texas Hazard Mitigation Plan, as well as other sources such as federal and state agencies. The hazards were ranked using the Priority Risk Index.

Priority Risk Index

A Priority Risk Index (PRI) was developed with the purpose of categorizing potential hazards for the City of Murphy and ranks each hazard as high, moderate, low, or negligible to no risk. The hazard classification generated through the use of the PRI allows for the prioritization of those high hazard risks for mitigation planning purposes, and more specifically, the identification of hazard mitigation opportunities for Collin County jurisdictions to consider as part of their proposed mitigation strategy.

The PRI is used to assist all jurisdictions participating in the Collin County HazMAP in determining which hazards pose the most significant threat based on a variety of factors. The PRI is not scientifically based, but is rather meant to be utilized as an objective and systematic planning tool for classifying and prioritizing hazard risks in Collin County based on standardized criteria. The PRI results in numerical values that allow identified hazards to be ranked against one another. The sum of all four categories equals the final PRI value, as shown below:

$$\text{PRI Value} = (\text{Probability} \times .30) + (\text{Life Impact} \times .35) + (\text{Property Impact} \times .25) + (\text{Spatial Extent} \times .10)$$

The higher the PRI value, the greater the hazards risk. These values were obtained by assigning varying degrees of risk to four categories for each hazard: Probability, Life Impact, Property Impact, and Spatial Extent (*Table 3.1*). Each category has been assigned an Index Value (0 to 3) and a Weighing Factor (0 – 100%). These values may be adjusted during future plan updates. In order to evaluate the risk of each hazard, the assigned PRI Value for each category is multiplied by the weighing factor. Then, the PRI for each hazard is calculated by adding the product obtained in each category. According to the weighing scheme applied for Collin County, the highest possible PRI value is 3.0. The PRI calculations are presented in *Table 3.2*. *Table 3.1* breaks down the value of each category.

Collin County Hazard Mitigation Action Plan

Table 3.1 Priority Risk Index Value

Assigned Weighing Factor	PRI Category	Degree of Risk		
			Criteria	Index Value
30%	Probability	Unlikely	Less than 1% annual probability	0
		Possible	Between 1 and 10% annual probability	1
		Likely	Between 10 and 100% annual probability	2
		Highly Likely	100% annual probability	3
35%	Life Impact	Minor	Very few injuries, if at all none	0
		Limited	Minor Injuries	1
		Critical	Multiple deaths/injuries	2
		Catastrophic	High number of deaths/injuries	3
25%	Property Impact	Minor	Only minor property damage and minimal disruption of life. Temporary shutdown of critical facilities.	0
		Limited	More than 10% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one day.	1
		Critical	More than 25% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for more than one week.	2
		Catastrophic	More than 50% of property in affected area damaged/destroyed. Complete shutdown of critical facilities for 30 days or more.	3
10%	Spatial Extent	Negligible	Less than 1% of area affected	0
		Small	Between 1 and 10% of area affected	1
		Moderate	Between 10 and 50% of area affected	2
		Large	Between 50 and 100% of area affected	3

Table 3.2 Priority Risk Index for the City of Murphy

Hazard	Category/Degree of Risk				
	Probability Index Value	Life Impact Index Value	Property Impact Index Value	Spatial Extent Index Value	PRI Value
Dam Failure	0	0	0	0	0
Drought	2	0	1	3	1.15
Earthquake	0	1	0	1	0.45
Expansive Soils	2	0	0	1	0.7
Extreme Heat	2	1	0	2	1.15
Flooding	1	1	0	2	0.5
Hail	1	0	0	2	0.5
High Winds	1	0	1	2	0.75
Lightning	2	0	2	1	0.95
Tornado	1	0	0	1	0.9
Wildfire	1	0	0	1	0.4
Winter Storms	2	0	1.5	3	1.275

The conclusions drawn from the hazard profiling process for the City of Murphy, resulted in the classification of risk for each identified hazard according to four categories: High Risk, Moderate Risk, Low Risk, and Negligible to No Risk (*Table 3.3*). For purposes of these classifications, risk is expressed in relative terms according to the probability of occurrence and estimated impact that a hazard will have on human life and property in the City of Murphy.

Collin County Hazard Mitigation Action Plan

Table 3.3 Hazard Ranking for the City of Murphy

High Risk (PRI 2 - 3)	
Moderate Risk (PRI 1.01 -1.9)	Extreme Heat Drought Winter Storms
Low Risk (PRI 0.50 – 1)	Expansive Soils Flooding Hail High Winds Lightning Tornado
Negligible to No Risk (PRI 0 – 0.49)	Wildfire Earthquake Dam Failure

Vulnerability Narratives

The natural hazards identified that were rated of negligible to no risk were not included in this plan. This annex therefore focuses on specific areas of vulnerability the City of Murphy faces with each hazard. The hazards identified earlier in the plan are all addressed in this annex.

Dam and Levee Failure A dam is defined as a barrier constructed across a watercourse for the purpose of storage, control, or diversion of water. Dams typically are constructed of earth, rock, concrete, or mine tailings. A dam failure is an accidental or unintentional collapse, breach, or other failure of an impoundment structure that results in downstream flooding. Because dams are man-made structures, dam failures are usually considered technological hazards. However, since most dam failures result from prolonged periods of rainfall, they are often cited as secondary or cascading effects of natural flooding disasters and are not named as the primary hazard that causes disaster declarations. The City of Murphy is not subject to dam failure because no Dams are located inside the city limits and the city is not vulnerable to a dam failure that might occur outside the city limits. As a participant in the county plan inundation studies will be considered.

Drought The City of Murphy is a moderate risk for drought Drought has the potential to impact the entire planning area equally; all improved property, emergency facilities, critical facilities, critical infrastructure, and the entire population of Murphy are vulnerable to this hazard. Foundations of all buildings are vulnerable; however, older structures, or those built under less stringent foundation code requirements are most vulnerable. The City of Murphy receives its water supply from the North Texas Municipal Water District (NTMWD). Restrictions sanctioned on the City of Murphy by the NTMWD caused by a drought affect local revenues significantly. The lack of water can also impact emergency responder capabilities in the form of firefighting efforts (not facilities). Lower income populations who may not have the resources to buy containerized water in the event of a shortage may be more vulnerable than other populations.

Earthquake An earthquake is a sudden motion or trembling caused by an abrupt release of accumulated strain on the tectonic plates that comprise the Earth's crust. The theory of plate tectonics holds that the Earth's crust is broken into several major plates. These rigid, 50- to 60- mile thick plates move slowly and continuously over the interior of the earth, meeting in some areas and separating in others. As the tectonic plates move together they bump, slide, catch, and hold. Eventually, faults along or near plate boundaries slip abruptly when the stress exceeds the elastic limit of the rock, and an earthquake occurs. The ensuing seismic activity and ground motion provoke secondary hazards: surface faulting, ground failure, and tsunamis. The vibration or shaking of the ground during an earthquake is referred to as ground motion. In general, the severity of ground motion increases with the amount of energy released and decreases with distance from the causative fault or epicenter. When a fault ruptures, seismic waves are propagated in all directions, causing the ground to vibrate at frequencies ranging from 0.1 to 30 Hz. Seismic waves are referred to as P waves, S waves, and surface waves. Due to the risk being associated to a distant quake, earthquakes may affect the entire planning area equally. Buildings constructed under older building codes, aging underground infrastructure, and roads are most vulnerable to damages from seismic activity.

There is no history of earthquakes occurring within the City of Murphy; however, there have been six (6) earthquake activity events between 1997 – 2008. Those ranged from 27.3 miles to 96.7 miles away from the city center. There have also been hundreds of small earthquakes recently in North Texas possibly from the gas and oil industry drilling and disposal known as fracking. Venture companies continue to look for new drill sites in this general area.

Collin County Hazard Mitigation Action Plan

The City of Murphy is a low risk for an earthquake. The most likely risk to a significant earthquake event is associated to either a distant larger quake which might occur in Missouri, Tennessee, or Oklahoma, though these earthquakes are probable to occur only once every 500 years.

Expansive Soils Expansive soils contain minerals such as “smectite” clays that are capable of absorbing water. When they absorb water they increase in volume. The more water they absorb the more their volume increases. Expansions of ten percent or more are not uncommon. This change in volume can exert enough force on a building or other structure to cause damage. Expansive soils will also shrink when they dry out. This shrinkage can remove support from buildings or other structures and result in damaging foundations. Fissures in the soil can also develop. These fissures can facilitate the deep penetration of water when moist conditions or runoff occurs. This produces a cycle of shrinkage and swelling that places repetitive stress on structures, especially those constructed under older building codes. The City of Murphy is a low risk for expansive soils.

Extreme Heat Extreme heat is characterized by a combination of a very high temperatures and exceptionally humid conditions. When persisting over a period of time, it is called a heat wave. Extreme heat can also be a factor that drastically impacts drought conditions as high temperatures lead to an increased rate of evaporation. Extreme heat can also lead to heat stroke and even death in vulnerable populations such as the homeless, elderly, very young, and populations without air conditioning if exposed to the high temperatures for an extended period of time. Extreme heat may affect the entire population equally.

The City of Murphy is a moderate risk of extreme heat. The City of Murphy has the potential during heat emergencies to exceed capabilities of our local hospitals and Emergency Medical System. Extreme heat happens regularly and often for extended periods of time during the June through September timeframe.

Flooding Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto adjacent floodplain lands. The floodplain is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. The statistical meaning of terms like “25-year storm” and “100-year flood” can be confusing. Simply stated, a floodplain can be located anywhere; it just depends on how large and how often a flood event occurs. Floodplains are those areas that are subject to inundation from flooding. Floods and the floodplains associated with them are often described in terms of the percent chance of a flood event happening in any given year. As a community management or planning term, “floodplain” most often refers to an area that is subject to inundation by a flood that has a one percent chance of occurring in any given year (commonly and incorrectly referred to as the 100-year floodplain). Common flooding hazards within the planning area include flood hazards from flash flooding and from new development.

A flash flood is a rapid flood that inundates low-lying areas in less than six hours. This is caused by intense rainfall from a thunderstorm or several thunderstorms. Flash floods can also occur from the collapse of a man-made structure or ice dam. Construction and development can change the natural drainage and create brand new flood risks as new buildings, parking lots, and roads create less land that can absorb excess precipitation from heavy rains, hurricanes, and tropical storms. Flash floods are a high risk hazard since they can roll boulders, tear out trees, and destroy buildings and bridges.

The City of Murphy is a low risk for flooding. There are a few homes currently lying within a flood plain within the City of Murphy. A large creek system dissects the city basically in half and abuts approximately 30% of all neighborhood subdivisions. The city only houses one fire station. Emergency responses may be severely impacted when attempting to respond to the other side of the creek with flooding present.

Hail Hail occurs when, at the outgrowth of a severe thunderstorm, balls or irregularly shaped lumps of ice greater than 0.75 inches in diameter fall with rain. Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to warm air rising rapidly into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight, they fall as precipitation. Hail may affect the entire planning area equally. Exposed populations, manufactured homes, and older properties are most vulnerable.

The City of Murphy is a low risk for hail. The City of Murphy covers a small area with a higher population ratio than the more rural areas in Collin County. All areas of the city are susceptible to hail damage. Damage in the city due to hail could result in a much higher loss due to density.

High Winds Wind is defined as the motion of air relative to the earth's surface. The horizontal component of the three-dimensional flow and the near-surface wind phenomenon are the most significant aspects of the hazard. Straight-line winds are often responsible for the wind damage associated with a thunderstorm. These winds are often confused with tornadoes because of similar damage and wind speeds. However, the strong and gusty winds associated with straight-line winds blow roughly in a straight line unlike the rotating winds of a tornado. Downbursts or micro-bursts are examples of damaging straight-line winds. A downburst is a small area of rapidly descending rain and rain-cooled air beneath a thunderstorm that produces a violent, localized downdraft covering 2.5 miles or less. Wind speeds in some of the stronger downbursts can reach 100 to 150 miles per hour, which is similar to that of a strong tornado. The winds produced from a downburst often occur in one direction, and the worst damage is usually on the forward side of the downburst. High winds may affect the entire planning area equally.

The City of Murphy typically has power outages, fires, damage to roofs, cars, out buildings, and electrical utilities due to high winds. These events create significant planning and recovery issues. The City of Murphy is a low risk for high winds. The City of Murphy has and encourages a high density of trees with the city limits. High winds create a lot of power outages due to tree limbs compromising such power lines and also creates a Significant vegetative debris is generated during high wind events that requires removal to keep roads passable.

Lightning Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas within thunderstorms. A "bolt" or brilliant flash of light is created when the buildup becomes strong enough. These bolts of lightning can be seen in cloud-to-cloud or cloud-to-ground strikes.

Bolts of lightning can reach temperatures approaching 50,000° Fahrenheit. While lightning is mostly affiliated with thunderstorms, lightning often strikes outside of these storms, as far as 10 miles away from any rainfall. Federal Emergency Management Agency states that an average of 300 people are injured and 80 people are killed in the United States each year by lightning. Direct strikes have the power to cause significant damage to buildings, critical facilities, infrastructure, and ignition of wildfires which can result in widespread damages to property. Property without lightning protection and exposed populations are most vulnerable. The City of Murphy is a low risk for lightning.

Tornado A tornado is a violently rotating column of air, in contact with the ground, both pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a condensation funnel. Tornadoes may affect the entire planning area equally, manufactured homes and exposed populations are most vulnerable.

Collin County Hazard Mitigation Action Plan

The City of Murphy is a low risk for tornado activity. Tornadoes are likely to occur within the City of Murphy as they are within any other area in Collin County. Special issues concerning a tornado incident within the City are due to a population density of 3,608 per square mile. An additional concern is the vast numbers of large trees in the residential areas that could impact power lines and the restriction into areas needing assistance due to trees and limbs blocking roadways.

Wildland Fire Wildland fire is any fire occurring on grassland, forest, or prairie, regardless of ignition source, damages or benefits. Wildland fires are fueled almost exclusively by natural vegetation. They typically occur in national forests and parks, where federal agencies are responsible for fire management and suppression. Interface or intermix fires are urban/wildland fires in which vegetation and the built-environment provide fuel. Firestorms are events of such extreme intensity that effective suppression is virtually impossible. Firestorms occur during extreme weather and generally burn until conditions change or the available fuel is exhausted. Wildland fires affect the entire planning area equally. For the purposes of this hazard analysis, wildland fires are assessed under what is known as the Wildland Urban Interface (WUI). The WUI is an area of development that is susceptible to wildland fires due to the amount of structures located in an area with vegetation that can act a fuel for a wildland fire.

The City of Murphy is a low risk for wildland fire. 36% of Murphy's population lives in the Wildland Urban Interface which is predominately in the north and east sides of the city, according to the Texas Forest Service Wildfire Risk Assessment Summary.

Winter Storms Winter storms originate as mid-latitude depressions or cyclonic weather systems, sometimes following the path of the jet stream. A winter storm or blizzard combines heavy snowfall, high winds, extreme cold and ice storms. Many winter depressions give rise to exceptionally heavy rain and widespread flooding and conditions worsen if the precipitation falls in the form of snow. The winter storm season varies widely, depending on latitude, altitude and proximity to moderating influences. Winter storms affect the entire planning area equally. Cold snaps in which temperatures fall below the freezing point of 32° Fahrenheit do happen on an annual basis in the planning area and can lead to issues with infrastructure, especially frozen roads and bridges.

Winter storms affect the entire City of Murphy when they occur and have multiple impacts including, but not limited to travel, power, and exposure for the homeless, elderly, and populations without access to heat. With the potential for freezing precipitation, icing of roadways are of an utmost concern. These winter storms have the potential to make roads impassable for days. Residents may be confined to their homes due to the storm and may be without basic services, such as water and electricity, for an extended period of time. The city has two state highways, FM 544 and FM 2551 that can be impacted during winter storms. Areas impacted include local commerce, exceeding the capabilities of our local hospital, over extending local capabilities to shelter stranded motorist. The City of Murphy serves as a cross connection point between IH 30 and US Highway 75 and is a major thoroughfare. The vehicle count for FM 544 alone is approximately 50,000 cars per day. With a very high tree population within the city; public works, fire and police departments are overwhelmed with the impacts caused by the loss of limbs associated with severe weather.

Identification of Assets and Vulnerability Assessment

An inventory of the City of Murphy geo-referenced assets was created in order to identify and characterize property and population potentially at risk to the identified hazards. By understanding the type and number of assets that exist and where they are located in relation to known hazard areas, the relative risk and vulnerability for such assets can be assessed. For this assessment, five categories of assets were evaluated using Geographic Information System and statistical analysis. The five categories of vulnerable assets include:

- **Population**: Includes the number of people residing in Collin County jurisdictions as delineated by the 2013 NCTCOG Population Estimates.
- **Improved property**: Includes all developed properties according to local parcel data from the Collin County Central Appraisal District. The information has been expressed in terms of the total assessed value of improvements that may be exposed to the identified hazards.
- **Emergency facilities**: Includes fire stations, police stations and hospitals, provided by the Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions.
- **Critical facilities**: Includes schools and historic places provided by Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions. These are non-emergency facilities, but still provide critical services and functions for vulnerable sectors of the population.
- **Critical infrastructure**: Includes airports, natural gas facilities, wastewater facilities, potable water treatment facilities, wastewater treatment facilities, dams, and bridges. Data for all critical facilities was obtained from Regional Hazard Assessment Tool, Collin County Emergency Management Coordinator, and participating jurisdictions.

The following tables provide a breakdown by municipal jurisdiction of the geo-referenced assets that were used for the vulnerability assessment.

Collin County Hazard Mitigation Action Plan

Population

According to the 2013 NCTCOG Population Estimates, the total population of Collin County in 2013 was 18,830 people, with 5,280 households. The count breakdown by municipal jurisdiction is provided in *Table 3.4*.

Table 3.4 Population Counts

Jurisdiction	Population			Households		
	Population	% of County Total	Population Density (Sq. Mile)	Household	% of County Total	Household Density (Sq. Mile)
<i>City of Murphy</i>	18,830	2.22%	3,316.96	5,280	1.72%	930.09

Source: 2014 NCTCOG Population Estimates

Table 3.5 summarizes population counts and population change (absolute and percent predications for the City of Murphy).

Table 3.5 Population Predictions

Jurisdiction	Population 2010 Census	Population 2013 Estimate	Population 2014 Estimate	Absolute Change 2013-2014	Percent (%) Change 2013-2014
City of Murphy	17,708	18,440	18,830	390	2.1

Source: 2014 and 2013 North Central Texas Council of Governments Population Estimate

Property

There are an estimated 6,729 parcels in the City of Murphy, with an estimated \$1,342,223,290 in total assessed value of, *Table 3.6* lists the total number and percentage of parcels by jurisdiction.

Table 3.6 Parcel Counts and Improvements Value

Jurisdiction	Number of Parcels	% of County Total	Total Assessed Value of Improvements (Buildings) ¹
<i>City of Murphy</i>	6,729	2.35%	\$1,342,223,290

Source: 2010 Census Data and 2014 North Central Texas Council of Governments Population Estimate

Emergency Facilities

There is one identified emergency facility in the City of Murphy, including one fire station, one police station, and no hospitals. *Table 3.7* presents the distribution of emergency facilities by jurisdiction. Geographic coordinates were used to determine the location of each facility.

Table 3.7 Emergency Facilities

Jurisdiction	Fire Stations	Police Stations	Hospitals
City of Murphy	1	1	0

Source: County Data and Regional Hazard Assessment Tool

Critical Facilities

There are five critical facilities, which are considered non-emergency in the City of Murphy. The critical facilities include five schools and zero historical property sites (*Table 3.8*). Geographic coordinates (i.e., latitude and longitude) were used to determine the location of each facility.

Table 3.8 Critical Facilities

Jurisdiction	Schools	Historical Property
City of Murphy	5	0

Source: Local jurisdictions

Critical Infrastructure

There are no identified critical infrastructure facilities in the City of Murphy, including no airports, no natural gas facilities, no water treatment facilities, no wastewater treatment facilities, no dams, and 0 railway/highway bridges (*Table 3.9*).

Table 3.9 Critical Infrastructure

Jurisdiction	Airports	Natural Gas Facilities	Wastewater Treatment Facilities	Potable Water Treatment Facilities	Dams	Railway/ Highway Bridges
City of Murphy	0	0	0	0	0	4

Source: Local jurisdictions

Collin County Hazard Mitigation Action Plan

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Methodology

Based on the type of information available for analysis, the City of Murphy's vulnerability assessment was conducted using two distinct methodologies, a Geographic Information System-based analysis and a statistical risk assessment methodology. Each approach provides estimates for the potential impact of hazards by using a common, systematic framework for evaluation of historical occurrence information provided by National Climatic Data Center, the Texas Forest Service, and NCTCOG Regional Hazard Assessment Tool. The results of the vulnerability assessment are provided by jurisdiction for each hazard analyzed.

Of the 12 hazards evaluated for the City of Murphy, four were analyzed using a Geographic Information System-based analysis, five using a statistical risk assessment methodology, and the remaining three hazards using a qualitative analysis. Qualitative analysis was used due to lack of information, the inability to define specific areas of risk, and/or inexistence of historical records. Additional information regarding these hazards is unattainable at the present time; studies to address this data deficiency are noted as action items in this update. *Table 3.10* summarizes the methodology used for each hazard.

Table 3.10 Analysis used for Vulnerability Assessment

Hazard	Geographic Information System-based Analysis	Statistical Analysis	Qualitative Analysis
Dam Failure			X
Drought	X		
Earthquake			X
Expansive Soils			X
Extreme Heat		X	
Flooding	X		
Hail	X		
High Winds		X	
Lightning		X	
Tornado		X	
Wildfire	X		
Winter Storms		X	

Collin County Hazard Mitigation Action Plan

Summary of Vulnerability Assessment

A summary of the vulnerability assessment for each hazard using geographic and statistical analysis is presented in the following pages. The detailed assessment is presented in the following sections.

Summary Table 3.11

Drought	
Population	According to National Climatic Data Center (NCDC) zero recorded injuries or fatalities have been recorded for drought events. There are no personal losses expected from drought events.
Improved Property	According to National Climatic Data Center (NCDC), a loss of zero per year can be expected in property loss due to damage from drought. Available historical data indicates that the expected losses from drought correspond to crop losses in the amount of \$0.00 per year, mostly experienced in water shortages and crop losses on agricultural lands.
Emergency Facilities	Because of the nature of this hazard, no losses are expected on emergency facilities but foundation issues could occur due to drought events.
Critical Facilities	Because of the nature of this hazard, no losses are expected on critical facilities but foundation issues could occur due to drought events.
Critical Infrastructure	Because of the nature of this hazard, no losses are expected on critical infrastructure but foundation issues and road degradation could occur due to drought events.

Summary Table 3.12

Extreme Heat	
Population	According to National Climatic Data Center (NCDC), there were zero injuries or fatalities recorded due to extreme heat. The City of Murphy and its population are vulnerable to this hazard.
Improved Property	According to National Climatic Data Center (NCDC), there is zero impact of extreme heat to developed areas and the improved property in the City of Murphy; predominantly a residential community, is vulnerable to this hazard.
Emergency Facilities	According to National Climatic Data Center (NCDC), there is zero impact of extreme heat to emergency facilities; however, there are two standalone emergency room facilities, one fire station, one police station and one animal shelter in the City of Murphy which are vulnerable to this hazard.
Critical Facilities	According to National Climatic Data Center (NCDC), there are zero critical facilities; however, there are five school facilities in the City of Murphy which are vulnerable to this hazard.
Critical Infrastructure	According to National Climatic Data Center (NCDC) there is zero impact of extreme heat to critical infrastructure, and exposure; however, there are four bridges within the City of Murphy and the risk is considered minimal.

Summary Table 3.13

Flooding	
Population	Flooding produces an expected annualized count of zero fatalities and injuries per year. Approximately 5,633 residential parcels in the City of Murphy are located within the 100-year floodplain.
Improved Property	A loss of \$0 per year can be expected in property loss due to flooding in the City of Murphy. Approximately \$1,234,040,690 of the total assessed value is at risk from the 100-year storm event.
Emergency Facilities	Emergency facilities have the potential to be at risk in the 100-year storm event.
Critical Facilities	Critical facilities have the potential to be at risk in the 100-year storm event.
Critical Infrastructure	Critical Infrastructure have the potential to be at risk in the 100-year storm event.

Summary Table 3.14

Hail	
Population	According to National Climatic Data Center (NCDC), no recorded injuries or fatalities have been recorded for hailstorm events. There are no personal losses expected from hailstorm events.
Improved Property	According to National Climatic Data Center (NCDC), a loss of \$15.50 per year can be expected in property loss due to hailstorm damage, and all improved property is vulnerable to this hazard. Although some crops are susceptible to hail hazards, available historical data for the City of Murphy indicates that there are no expected crop losses from this event.
Emergency Facilities	Because of the unpredictability of the geographical location of hailstorms, all emergency facilities in the City of Murphy are vulnerable to this hazard.
Critical Facilities	Because of the unpredictability of the geographical location of hailstorms, all critical facilities in the City of Murphy are vulnerable to this hazard.
Critical Infrastructure	Because of the unpredictability of the geographical location of hailstorms, all critical infrastructures in the City of Murphy are vulnerable to this hazard.

Collin County Hazard Mitigation Action Plan

Summary Table 3.15

High Wind	
Population	According to National Climatic Data Center (NCDC), there are zero recorded injuries or fatalities from high wind events. All the population of the City of Murphy is vulnerable to this hazard.
Improved Property	According to National Climatic Data Center (NCDC), an average loss of \$0.00 per year in property losses is expected from high wind events in the City of Murphy. Zero crop losses resulted from this hazard in the City of Murphy.
Emergency Facilities	Because of the expected geographical widespread nature of high winds, all emergency facilities in the City of Murphy are vulnerable to this hazard.
Critical Facilities	Because of the expected geographical widespread nature of high winds, all critical facilities in the City of Murphy are vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of high winds, all critical infrastructures in the City of Murphy are vulnerable to this hazard.

Summary Table 3.16

Lightning	
Population	According to National Climatic Data Center (NCDC), lightning events can be expected to cause zero deaths and zero injuries in City of Murphy. All the population of the City of Murphy is vulnerable to this hazard.
Improved Property	According to National Climatic Data Center (NCDC), there have been three (3) recorded properties or crop losses resulting from lightning in the City of Murphy. An average loss of \$0.00 per year in property losses is expected from lightning events in the City of Murphy. Murphy is exposed to this hazard.
Emergency Facilities	Because of the expected geographical widespread nature of lightning, all emergency facilities in the City of Murphy are vulnerable to this hazard.
Critical Facilities	Because of the expected geographical widespread nature of lightning, all critical facilities in the City of Murphy are vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of lightning, all critical infrastructures in the City of Murphy are vulnerable to this hazard.

Summary Table 3.17

Tornado	
Population	According to National Climatic Data Center (NCDC), there have been zero recorded injuries or fatalities from tornado events in the City of Murphy. All the population of the City of Murphy is exposed and vulnerable to this hazard.
Improved Property	According to National Climatic Data Center (NCDC), an average loss of \$0.00 per year in property losses is expected to result from tornado events. Zero crop losses are expected from this hazard in the City of Murphy.
Emergency Facilities	Because of the impossibility to predict the geographical area of impact for tornados, all emergency facilities in the City of Murphy are exposed and vulnerable to this hazard.
Critical Facilities	Because of the impossibility to predict the geographical area of impact for tornados, all critical facilities in the City of Murphy are exposed and vulnerable to this hazard.
Critical Infrastructure	Because of the impossibility to predict the geographical area of impact for tornados, all critical infrastructures in the City of Murphy are exposed and vulnerable to this hazard.

Collin County Hazard Mitigation Action Plan

Summary Table 3.18

Wildfire	
Population	Based on geographical data, approximately 36% of the City of Murphy is vulnerable to wildfires.
Improved Property	Based on historical data, annual financial losses expected from property loss due to wildfires are unknown; therefore, percentage of the overall property improvement values across the City of Murphy are also unknown.
Emergency Facilities	Based on geographic information there are 0 fire stations at risk from wildfire events.
Critical Facilities	Based on geographic information there are no schools at risk from wildfire events.
Critical Infrastructure	Based on geographic information there are 0 bridges, 0 dams, 0 wastewater treatment facility, and 0 water treatment facility at risk from wildfire events.

Summary Table 3.19

Winter Storm	
Population	According to National Climatic Data Center (NCDC), there have been no recorded injuries or fatalities from winter storms. All the population of the City of Murphy is exposed and vulnerable to this hazard.
Improved Property	According to National Climatic Data Center (NCDC), an average loss of \$0.00 per year in property losses is expected to result from winter storm events. No crop losses are expected from this hazard in the City of Murphy. With significant ice storms for this area the City of Murphy is exposed and vulnerable to this hazard with
Emergency Facilities	Because of the expected geographical widespread nature of winter storms, all emergency facilities in the City of Murphy are exposed and vulnerable to this hazard.
Critical Facilities	Because of the expected geographical widespread nature of winter storms, all critical facilities in the City of Murphy are exposed and vulnerable to this hazard.
Critical Infrastructure	Because of the expected geographical widespread nature of winter storms, all critical infrastructures in the City of Murphy are exposed and vulnerable to this hazard.

4. Capability Assessment

The risk assessment and capabilities assessment serves as the foundation for the development of a meaningful hazard mitigation strategy. During the process of identifying specific mitigation actions to pursue, the City of Murphy considered not only its level of hazard risk but also the existing capabilities to minimize or eliminate that risk.

Table 4.1 Legal and Regulatory Capability Summary

Legal and Regulatory Capabilities															
Jurisdiction	Building Code	Zoning Ordinance	Subdivision Ordinance or regulation	Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances wildfire ordinances, hazard setback requirements)	Growth management ordinances (also called "smart Growth" or anti-sprawl programs)	Site Plan review requirements	General or comprehensive plan	A capital improvements plan	An economic development plan	An emergency response plan	A post-disaster recovery plan	A post-disaster recovery ordinance	Real estate disclosure requirements	Other	% Yes per Jurisdiction
City of Murphy	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	64%
Average % Yes Capabilities – 64%															
Y- Yes N- No ?- Don't Know															

Collin County Hazard Mitigation Action Plan

Table 4.2 Administrative and Technical Capability Summary

Administrative and Technical Capabilities											
Jurisdiction	Planner(s) or engineer(s) with knowledge of land development and land management	Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Planners or engineer(s) with an understanding of natural and/or human caused hazards	Floodplain manager	Surveyors	Staff with education or expertise to assess the community's vulnerability to hazards	Personnel skilled in GIS	Scientists familiar with the hazards of the community	Emergency manager	Grant writers	% Yes
City of Murphy	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	90%
Average % Yes Capabilities – 90%											
Y- Yes N- No ?- Don't Know											

Table 4.3 Fiscal Capability Summary

Fiscal Capabilities											
Jurisdiction	Community Development Block Grants (CDBG)	Capital improvements project funding	Authority to levy taxes for specific purposes	Fees for water, sewer, gas, or electric service	Impact fees for homebuyers or developers for new developments/homes	Incur debt through general obligation bonds	Incur debt through special tax bonds	Incur debt through private activity bonds	Withhold spending in hazard-prone areas	Other	% Yes
City of Murphy	N	Y	Y	Y	Y	Y	Y	N	N	N	60%
Average % Yes Capabilities – 60%											
Y- Yes N- No ?- Don't Know											

To quantify Collin County’s legal and regulatory capabilities, administrative and technical, and fiscal capabilities, an overall rating system was administered for each category: limited (0-30%), moderate (31-70%), and strong (70-100%). Questionnaire responses indicated that on average, the City of Murphy has 64% of identified legal and regulatory capabilities, 90% of identified administrative and technical capabilities, and 60% of identified fiscal capabilities.

Table 4.4 Administrative Information

Jurisdiction	Chief Administrative Officer	Ability to Implement Capabilities
City of Murphy	City Manager	The city council, including the mayor, mayor pro-tem, and council members, along with the city manager, address the budget; pass laws, regulations, and codes; hire staff; approve plans; and determine the direction of the city overall. Ability to implement and approve mitigation actions and integrate mitigation into existing policies and programs is a function of this group.

Specific actions that can expand and improve existing capabilities, authorities, plans, policies, and resources for mitigation include: budgeting and passing policies and procedures, adopting and implementing stricter mitigation regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation updates and additions to existing plans as new needs are recognized.

Collin County Hazard Mitigation Action Plan

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5. Mitigation Strategies

Based on the results of the risk and capability assessments, and reviews of the goals and objectives included in the 2011 HazMAP, the City of Murphy Hazard Mitigation Planning Committee developed mitigation strategies for the plan update.

Goal 1 Reduce or eliminate loss of life, injuries and property damage resulting from severe weather events.

Objective 1-A Provide adequate warning and communication before, during, and after a hazard event.

Objective 1-B Expand and coordinate Early Warning Systems currently in use.

Objective 1-C Reduce or eliminate loss of life and property damage from tornados through the construction and use of safe rooms or shelter areas.

Objective 1-D Reduce or eliminate loss of life and property damage from tornado, ice events, power outages and high winds through tree pruning practices.

Goal 2 Protect existing and new properties from the effects of all natural hazards.

Objective 2-A Conduct studies to determine hazard and vulnerability threat assessment for all natural hazards.

Objective 2-B Rehabilitate or retrofit identified high hazard critical infrastructure.

Objective 2-C Enact and enforce regulatory measures that enforce hazard mitigation measures.

Objective 2-D Construct enhancements or additions to current and new facilities which mitigate the effects of natural hazards.

Objective 2-E Maintain NFIP compliance, storm water management, and implement drainage projects.

Goal 3 Reduce losses and repetitive damages for chronic hazard events.

Objective 3-A Conduct a hazard/vulnerability assessment of personal properties and structures located in flood zones within the City of Murphy.

Objective 3-B Develop and implement a buyout program for those personal properties and structures located in high hazard flood zones starting with those that are most vulnerable to life and property loss.

Objective 3-C Develop and execute new programs which identify and reduce threats from natural hazards.

Goal 4 Develop public education campaigns to disseminate information about actions to mitigate potential loss of life, injuries and property damage resulting from natural hazards.

Objective 4-A Educate the public on risks, threats, and vulnerability from all natural hazards.

Objective 4-B Educate the public on actions they can take to prevent or reduce the loss of life or property from all natural hazards.

Objective 4-C Develop and implement a community education campaign to heighten public awareness about chronic flooding and options for insurance coverage to protect their personal properties as well as long term benefits from a buyout program.

Collin County Hazard Mitigation Action Plan

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6. Action Items

Below is a list of action items identified for the HazMAP Update. Each of the actions in this section were prioritized based on FEMA's STAPLE+E criteria, which includes considering the social, technical, administrative, political, legal, economic and environmental factors necessary for the implementation of each action. As part of the STAPLE+E analysis, economic considerations were weighed for each action. Priority rankings are classified as indicated in the table below.

Priority	Description
High	Benefits of mitigating risk of death or severe bodily injury outweigh costs to implement actions rated as high priorities.
Medium	Reducing vulnerability to threats and the resulting improvement in quality of life and peace of mind are benefits for actions rated as medium priorities.
Low	Awareness of low risk/low impact hazards offer benefits of time to assess, plan and integrate low priority mitigation actions as time, need, and funding permit.

City of Murphy Action Item	Increase the percentage of population covered by Outdoor Warning Sirens by relocating one siren and purchasing and installing an additional siren.
Hazard(s) Addressed	Tornado, High Winds, Hail
Goal/Objective	1-B
Priority	High
Estimated Cost	\$38,000
Potential Funding Sources	HGMP, PDM, General Fund
Potential Matching Sources	Local funds, in-kind
Lead Department	Fire/OEM
Implementation Schedule	6-18 months
Effect on Old Buildings	N/A
Effect on New Buildings	N/A
Cost Effectiveness	Very cost effective. Quantifying the value of a human life is extremely difficult at best.
Discussion	The city has four tower sites currently, but has a gap in coverage in some areas. Relocating an existing site and adding one site would allow full coverage for the city and its residents.

Collin County Hazard Mitigation Action Plan

City of Murphy Action Item	Obtain portable generators to ensure continuity of operations at critical facilities.
Hazard(s) Addressed	Tornado, Wildfire, Winter Storm, Extreme Heat, High Winds, Flooding, Hail, Earthquake, Lightning, Dam Failure
Goal/Objective	1-E
Priority	High
Estimated Cost	\$7,500 each
Potential Funding Sources	HGMP, HMA, General Fund
Potential Matching Sources	Local, In-kind
Lead Department	Fire
Implementation Schedule	3-6 Months
Effect on Old Buildings	Would require retrofit for generator hookups
Effect on New Buildings	N/A
Cost Effectiveness	Very cost effective
Discussion	Natural hazards can create power outages for extended periods of time.

City of Murphy Action Item	Purchase and Install CASA-WX Weather Radar
Hazard(s) Addressed	Tornado, High Winds, Hail
Goal/Objective	1-A, 1-B
Priority	High
Estimated Cost	\$2.5 Million
Potential Funding Sources	HGMP, PDM, General Fund
Potential Matching Sources	Local funds, in-kind
Lead Department	Fire/OEM
Implementation Schedule	3-6 months
Effect on Old Buildings	N/A
Effect on New Buildings	N/A
Cost Effectiveness	Very cost effective. Quantifying the value of a human life is extremely difficult at best.
Discussion	The Collaborative Adaptive Sensing of the Atmosphere (CASA WX) project is a multi-sector partnership dedicated to engineering revolutionary weather-sensing networks. The more accurate data will also provide a better means to analyze severe weather post event which can also help in the assessment of damage after a severe weather event.

Collin County Hazard Mitigation Action Plan

City of Murphy Action Item	Implement the Residential Safe Room Rebate Program locally
Hazard(s) Addressed	Tornado, High Winds
Goal/Objective	1-C
Priority	Medium
Estimated Cost	\$3,000 per safe room
Potential Funding Sources	HGMP, PDM, General Fund
Potential Matching Sources	Local funds, in-kind
Lead Department	City Council – City Manager
Implementation Schedule	1-3 years
Effect on Old Buildings	Some buildings may be modified for shelter retrofit
Effect on New Buildings	New home construction would result in safer houses
Cost Effectiveness	Moderate: Residential safe room shelters potentially decrease personal injuries and death during severe weather, tornados or high winds events.
Discussion	Support the existing active FEMA 320 safe room rebate program for North Central Texas by helping offset the cost to the resident.

City of Murphy Action Item	Develop and implement seasonal program for identifying and removing tree limbs that threaten infrastructure.
Hazard(s) Addressed	Tornado, Wildfire, Winter Storm, High Winds, Lightning
Goal/Objective	1-D
Priority	Medium
Estimated Cost	\$25,000
Potential Funding Sources	HGMP, General Fund
Potential Matching Sources	Local funds, in-kind
Lead Department	Parks
Implementation Schedule	3-6 Months
Effect on Old Buildings	Reduce potential for power line/debris/limb damage to existing buildings during extreme weather
Effect on New Buildings	Reduce potential for power line/debris/limb damage to new construction during extreme weather
Cost Effectiveness	Very cost effective in mitigating tree limbs prior to severe weather events.
Discussion	Severe storms, winter storms, and wildfires damage tree limbs and power lines that damage homes, buildings, vehicles and create power outages when they fall. Roads become impassable due to the obstructions created by the falling limbs and charged power lines as well. The ability to mitigate these overgrowth items and strategically located limbs will lessen the effects of the hazards.

Collin County Hazard Mitigation Action Plan

City of Murphy Action Item	Retrofit the existing Emergency Operations Center to harden it against multiple hazards
Hazard(s) Addressed	Tornado, Wildfire, Winter Storm, Extreme Heat, High Winds, Flooding, Expansive Soils, Hail, Drought, Earthquake, Lightning, Dam Failure
Goal/Objective	2-B
Priority	High
Estimated Cost	\$30,000-\$150,000
Potential Funding Sources	HGMP, PDM, HMA, General Fund
Potential Matching Sources	Local, In-kind, Bond
Lead Department	Public Works
Implementation Schedule	12 – 24 months
Effect on Old Buildings	Existing building would be retrofitted to mitigate against structure-impacting hazards.
Effect on New Buildings	N/A
Cost Effectiveness	Low cost effectiveness for construction, but very cost effective for 'command structure' to remain intact to operate through emergency events
Discussion	Dry floodproofing ground floor; reinforcing doors and windows; installing flame-retardant, hail and wind resistant external materials (window coatings, roofing); roof bracing; higher grade insulation; foundations stabilizers; lightning rods; soil stabilizing plants, and low-flow plumbing.

City of Murphy Action Item	Replace undersized culverts at five locations.
Hazard(s) Addressed	Flooding
Goal/Objective	2-A, 2-E
Priority	Moderate
Estimated Cost	\$620,000
Potential Funding Sources	HGMP, PDM, HMA, General Fund
Potential Matching Sources	Local, in-kind, Bonds
Lead Department	Engineering
Implementation Schedule	1-2 years
Effect on Old Buildings	Reduce flooding for existing structures in area
Effect on New Buildings	Reduce flooding for planned construction in area
Cost Effectiveness	Very effective for the long term results gained
Discussion	Providing proper water flow and drainage during times of excessive rains is imperative. Improper water flow results in damage to roads, bridges and property; which may lead to injuries and deaths. These replacements will be for 5 separate projects that have been identified as insufficient.

City of Murphy Action Item	Purchase and Distribute NOAA Weather Radios to Vulnerable Residents
Hazard(s) Addressed	Dam Failure, Drought, Earthquake, Expansive Soils, Extreme Heat, Flooding, Hail, High Winds, Lightning, Tornado, Wildfire, Winter Storms
Goal/Objective	1-A
Priority	High
Estimated Cost	\$75,000
Potential Funding Sources	Grant Funds, HMPG, PDM, Partial payment by receiving party
Potential Matching Sources	Local funds, in-kind, donations, citizen cost-share
Lead Department	Emergency Management
Implementation Schedule	2-5 years
Effect on Old Buildings	Depending on mitigation actions taken for structures, can make existing building safer, stronger and less vulnerable to damages through retrofits
Effect on New Buildings	Depending on mitigation actions taken for structures, can make new building safer, stronger and less vulnerable to damages
Cost Effectiveness	Advanced warning and mitigation information saves lives which outweighs the cost of a radio.
Discussion	Weather Alert Radios are a proven means to alert and warn citizens and provide information about severe weather as well as provide other emergency and hazard information

City of Murphy Action Item	Drainage channel improvements and additions.
Hazard(s) Addressed	Flooding
Goal/Objective	2-A, 2-E
Priority	Moderate
Estimated Cost	\$3.11 Million
Potential Funding Sources	HGMP, PDM, HMA, General Fund
Potential Matching Sources	Local, in-kind, Bonds
Lead Department	Engineering
Implementation Schedule	12 – 18 Months
Effect on Old Buildings	Reduce flooding for existing structures in area
Effect on New Buildings	Reduce flooding for planned construction in area
Cost Effectiveness	Very effective for the long term results gained
Discussion	Providing proper water flow and drainage during times of excessive rains is imperative. Improper water flow results in damage to roads, bridges and property; which may lead to injuries and deaths. These replacements will be for 4 separate projects that have been identified as insufficient.

Collin County Hazard Mitigation Action Plan

City of Murphy Action Item	Purchase and install lightning detection equipment for city parks
Hazard(s) Addressed	Lightning
Goal/Objective	1-A
Priority	Moderate
Estimated Cost	\$10,000
Potential Funding Sources	HGMP, PDM, General Fund
Potential Matching Sources	Local, in-kind
Lead Department	Public works
Implementation Schedule	12 months
Effect on Old Buildings	N/A
Effect on New Buildings	N/A
Cost Effectiveness	Very cost effective. Quantifying the value of a human life is extremely difficult at best.
Discussion	The city has two major parks with outdoor sporting event capabilities, pavilions and an amphitheater where multiple events are held throughout the year. Providing a secondary source of severe weather information such as lightning indication could prevent injury or death to one or more of our citizens or guests

City of Murphy Action Item	Develop and implement a water conservation plan
Hazard(s) Addressed	Drought, Expansive Soils
Goal/Objective	3-A
Priority	Medium
Estimated Cost	\$10,000
Potential Funding Sources	HMGP, PDM, General Fund
Potential Matching Sources	Local sponsors, in-kind
Lead Department	Public Works
Implementation Schedule	12 - 18 months
Effect on Old Buildings	Will identify need for retrofits, such as low-flow plumbing
Effect on New Buildings	May require new codes for low-flow plumbing and protection of foundation integrity
Cost Effectiveness	Low cost for effective means of preserving water.
Discussion	Promote water conservation and work with local water supplies to increase mitigation measures for drought. Develop and implement mandatory water restrictions/codes for water conservation measures that address soil stabilization.

National Flood Insurance Program (NFIP) Compliance

The City of Murphy is participating in the National Flood Insurance Program and has identified their respective areas as vulnerable to flooding. This is incorporated into all current and future planning for dealing with repetitive loss vulnerabilities.

Table 6.1 NFIP Compliance

CID	Community Name	County	Initial FHBM Identified	Initial FIRM Identified	Curr Eff Map Date	Reg-Emer Date	Tribal
480137#	MURPHY, CITY OF	COLLIN COUNTY	12/7/1973	4/1/1980	6/2/2009	4/1/1980	No

Source: <http://www.fema.gov/cis/TX.html>

Jurisdiction Compliance

Once the community applies for the NFIP, FEMA arranges for a study of the community to determine base flood elevations and flood risk zones. Consultation with the community occurs at the start of and during the study, and those communities with minimal flood risk are converted to the Regular Program without a study.

FEMA provides the studied community with a Flood Insurance Rate Map delineating base flood elevations and flood risk zones. The community is then given 6 months to adopt base flood elevations in its local zoning and building code ordinances. Once the community adopts more stringent ordinances, FEMA converts the community to the NFIP's Regular Program. FEMA then authorizes the sale of additional flood insurance in the community up to the Regular Program limits. The community must implement and enforce the adopted floodplain management measures. FEMA provides periodic community assistance visits with local officials to provide technical assistance regarding complying with NFIP floodplain management requirements.

Jurisdiction Activities

In order to maintain eligibility with NFIP, jurisdictions are required to maintain their list of properties that hold a policy with NFIP, along with up-to-date maps of the floodplains in the jurisdictions. Each jurisdiction participating in the Collin County Hazard Mitigation Action Plan completes this basic requirement and has the information on file with the jurisdiction's designated floodplain manager. Using this plan, participating jurisdictions will be able to continue their compliance with NFIP by implementing damage control measures and take action to minimize the effects of flooding in their respective jurisdictions.

Collin County Hazard Mitigation Action Plan

Table 6.2 NIFP Activity

Jurisdiction	Community Floodplain Administrator	NFIP Activity	Activity Description	Enforcement
City of Murphy	City Manager	Maintain FEMA elevation certificates for pre-FIRM and or post-FIRM buildings	Permits are issued through the City Manager’s Office. City of Murphy requires 2 feet of freeboard above the base flood elevation for the top of bottom floor on residential structures and non-residential structures that will be built on properties created or platted after the effective date of the Flood Damage Prevention Order	NFIP compliance is implemented and enforced through a process of floodplain identification using FEMA floodplain maps, permit issuance, building requirements, and compliance inspections pending approval. Failure to comply with City’s flood damage prevention order shall result in fines up to \$500 per violation plus court costs.
		Floodplain development permits	Permits are required for any construction in a floodplain.	
		Take action to minimize the effects of flooding on people, property, and building contents through measures including flood warning, emergency response, and evacuation planning	City of Murphy Street Department distributes barricades during times of flooding events.	
		Future Mitigation Projects	City of Murphy will continue to monitor for new areas of flooding that have not been previously identified for mitigation.	

7. Plan Maintenance

Monitoring, Evaluating and Updating the Plan

In Compliance with requirement § 201.6(c)(4)(i), Collin County has developed a plan maintenance process which is described in the following paragraphs. Collin County, along with participating jurisdictions are responsible for monitoring implementation of the plan, executing a yearly evaluation of its effectiveness, and updating the plan within a 5-year cycle.

Following formal adoption by the City of Murphy, the county, and the city council of each participating jurisdiction, the actions outlined in the Collin County Hazard Mitigation Action Plan (HazMAP) will be implemented by participating jurisdictions as described throughout this document.

The Collin County Emergency Management Coordinator, working in conjunction with the respective jurisdictions, will be responsible for ensuring the mitigation plan is monitored, evaluated, and reviewed on an annual basis. This will be accomplished by calling an annual meeting of the planning committee, whose members will provide assistance and expertise for plan review, evaluating, updating, and monitoring. This meeting will be open to the public and public notices will encourage community participation. During this annual meeting, The City of Murphy will provide information on the implementation status of each action included in the plan. As part of the evaluation, the planning committee will assess whether goals and objectives address current and expected conditions, whether the nature and/or magnitude of the risks have changed, if current resources are appropriate for implementing the plan, whether outcomes have occurred as expected, and if agencies and other partners participated as originally proposed. These activities will take place according to the timetable presented below:

Table 7.1 Plan Maintenance Timeline

Jurisdiction	Personnel	Activity	Time
City of Murphy	Fire Marshal	Monitoring Plan : Track implementation and action items, changes to risk assessment, changes to planning team members, changes to capabilities, plan integrations	Biannually
		Evaluate Plan: Assess effectiveness by evaluating completed actions, implementation processes, responsible personnel and lessons learned.	Annually
		Update Plan	Once every 5 years

At least once every five (5) years, or more frequently, if such a need is determined by the participating jurisdiction, the multi-jurisdictional plan will undergo a major update. During this process, all sections of the plan will be updated with current information, analyses done and new and/or modified mitigation action plans will be developed. The revised plan will be submitted for state and federal review and approval, and presented for approval to the Collin County Commissioner's Court and the respective councils of incorporated cities/towns included in the Collin County plan. Each participating jurisdiction will undertake the same process for reviewing, revising and updating their respective plans and submitting them for approval. The plans will be updated every five years in accordance with federal requirements.

Collin County Hazard Mitigation Action Plan

Plan Incorporation into Existing Planning Mechanisms *(In compliance with 201.6(c)(4)(ii))*

Based on the requirements set forth in § 201.6(c)(4)(ii), the State of Texas Mitigation Plan, the vulnerability and capabilities assessment for each jurisdiction was carefully reviewed and considered when developing the mitigation actions for this plan. The HMPT and planning committees will establish a process in which the mitigation strategy, goals, objectives and actions outlined in this plan will be incorporated into the existing regional and local planning strategies.

Local and regional planning committees currently use comprehensive land use planning, capital improvements planning, and building code ordinances to guide development. The mitigation strategy, goals, objectives and actions outlined in this plan will be integrated into these existing mechanisms as applicable. Those mechanisms include the following:

Table 7.2 Plan Incorporation Mechanisms

Jurisdiction	Responsible Personnel	Jurisdictional Plans	Integration Schedule	Integration Plan
City of Murphy	City Council	Budget Meetings	Annually	Integration of mitigation projects identified in HazMAP, grants, and other fiscal allowances for mitigation actions and related costs
	Emergency Management Specialist	Emergency Action Plan updates	Every Five Year	EAP Mitigation annex updates based on HazMAP HIRA; update preparedness, response and recovery actions related to identified hazards
	Designated Floodplain Manager	Floodplain ordinances	As needed	Enhance mitigation of flood hazards using HazMAP flood data for floodplain management and community development.
	City Council, Director of Planning	Capital improvement plans	Annually	Strengthen critical infrastructure and key resources based on HazMAP hazard analysis, incorporate vulnerability data and action items.
	Public Works Director, City Council	Drought Contingency plans	Assessed annually and updated as needed.	Integrate drought actions such as xeriscaping, water restrictions, and public education
	Planning Director, City Council	Natural Resource Conservation Plan	Assessed annually and updated as needed.	Integrate conservation measures by directing development away from hazard-prone areas identified in HazMAP.

Although it is recognized there are many possible benefits to integrating components of this HazMAP into other planning mechanisms, the Murphy Hazard Mitigation Planning Team considers this HazMAP, including development and maintenance, to be the primary vehicles to ensure implementation of local hazard mitigation actions.

Continued Public Involvement (In compliance with 201.6(c)(4)(iii))

As stated in requirement § 201.6(c)(4)(iii) The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process.

To address this requirement, ongoing public participation will be encouraged throughout the entire planning and implementation process. A copy of the plan will be provided on the Collin County website. The planning team and committee will continue meeting on a regular basis to ensure the successful implementation of the plan and to discuss any additional issues regarding the emergency management of Collin County. The annual meetings for monitoring, evaluating, and updating the plan will be open to the public and public notices will encourage community participation.

Collin County Hazard Mitigation Action Plan

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RESOLUTION NO. 16-R-843

CITY OF MURPHY, TEXAS

**A RESOLUTION OF THE CITY OF MURPHY ADOPTING THE
COLLIN COUNTY HAZARD MITIGATION ACTION PLAN,
SEPTEMBER 2016**

WHEREAS the **City Council of Murphy** recognizes the threat that natural hazards pose to people and property within Collin County; and

WHEREAS the County of Collin has prepared a multi-hazard mitigation plan, hereby known as Collin County Hazard Mitigation Action Plan, September 2016, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Collin County Hazard Mitigation Action Plan, September 2016 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the **City of Murphy** from the impacts of future hazards and disasters; and

WHEREAS adoption by the **City Council of Murphy** demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Collin County Hazard Mitigation Action Plan, September 2016.

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF MURPHY, TEXAS, THAT:

Section 1. The **City Council of Murphy** adopts the Collin County Hazard Mitigation Action Plan, September 20, 2016.

ADOPTED by a vote of ____ in favor and ____ against, and ____ abstaining, this 20th day of September, 2016.

Eric Barna, Mayor

ATTEST:

Susie Quinn, City Secretary

APPROVED AS TO FORM:

Wm. Andrew Messer, City Attorney

In order to apply for federal aid for technical assistance and post-disaster funding, local jurisdictions must comply with Part 201 .3 of the Disaster Mitigation Act of 2000 implemented in the **Federal Code of Regulations 44 CFR Part 201.6.**

§ 201.6 Local Mitigation Plans.

The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.

(a) *Plan requirement.*

- (1) For disasters declared after November 1, 2003, a local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants. Until November 1, 2003, local mitigation plans may be developed concurrent with the implementation of the project grant.
- (2) Regional Directors may grant an exception to the plan requirement in extraordinary circumstances, such as in a small and impoverished community, when justification is provided. In these cases, a plan will be completed within 12 months of the award of the project grant. If a plan is not provided within this timeframe, the project grant will be terminated, and any costs incurred after notice of grant's termination will not be reimbursed by FEMA.
- (3) Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan. State-wide plans will not be accepted as multijurisdictional plans.

(b) *Planning process.* An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

- (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
- (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

(c) *Plan content.* The plan shall include the following:

- (1) Documentation of the *planning process used* to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.
- (2) A *risk assessment* that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:
 - (i) A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
 - (ii) A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of:

- (A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;
 - (B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate;
 - (C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.
- (iii) For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.
- (3) *A mitigation strategy* that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:
- (i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
 - (ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.
 - (iii) An action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.
 - (iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.
- (4) *A plan maintenance process* that includes:
- (i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
 - (ii) A process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.
 - (iii) Discussion on how the community will continue public participation in the plan maintenance process.
- (5) *Documentation* that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.
- (d) *Plan review.*
- (1) Plans must be submitted to the State Hazard Mitigation Officer for initial review and coordination. The State will then send the plan to the appropriate FEMA Regional Office for formal review and approval.
 - (2) The Regional review will be completed within 45 days after receipt from the State, whenever possible.

- (3) Plans must be reviewed, revised if appropriate, and resubmitted for approval within five years in order to continue to be eligible for HMGP project grant funding.
- (4) Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c) will be delegated approval authority for local mitigation plans, and the review will be based on the criteria in this part. Managing States will review the plans within 45 days of receipt of the plans, whenever possible, and provide a copy of the approved plans to the Regional Office.

**City Council Meeting
September 20, 2016**

Issue

Consideration and/or act on a request for funding from the Municipal Development District for drainage and parking improvements at Murphy Village 3. This item may be discussed in executive session before action is taken.

Staff Resource/Department

Kelly Carpenter AICP, Interim Director of Economic and Community Development

Summary

The Murphy Municipal Development District (MDD) board approved this request for improvements at Murphy Village 3 on August 8, 2016.

This item did not receive any action at the September 6, 2016 City Council meeting.

Financial Consideration

This funding will be fulfilled through the MDD budget.

Staff Recommendation

Staff recommends approval of this item due to the positive financial impact.