

**CITY OF CELINA,
TEXAS**

2001
Flood Mitigation and
Repetitive Loss Structures
Evaluation/Disposition Plan

Public Management

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
PLANNING PROJECT
FOR
THE CITY OF CELINA, TEXAS

2001

**Flood Mitigation and Repetitive Loss Structures Evaluation/Disposition
Plan**

Prepared by

PUBLIC MANAGEMENT, INC.
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P.O. Box 1827
Cleveland, Texas 77328-1827
281 592 0439

Financed Through the Federal Emergency Management Agency (FEMA) of the United
States of America

FOREWORD

This is a study for the City of Celina financed through the Texas Water Development Board (TWDB). The study is a planning document that will assist the City in improving the living conditions of its citizens. Information, analysis, and recommendations are given in the area of mitigation measures for repetitive loss structures. This document is intended to give the citizens of Celina a guide for making decisions in the development of their community.

Previously published socio-economic, and physical planning studies that served as background for this document were: (1) 1997 Celina Comprehensive Plan, (2) Previous Community Development Block Grant Projects, (3) United States Geological Survey, (4) Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Other studies that provided specific information are cited throughout the report. Many thanks are extended to the City Council, City Staff, business owners, public officials and citizens of Celina for their assistance in this endeavor. Hopefully, this document will help to make Celina a better place to work, play and live.

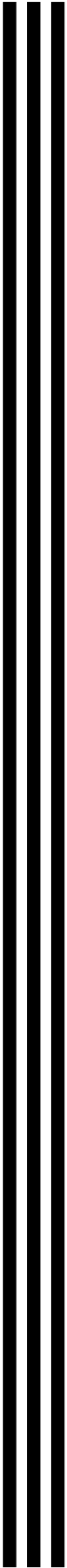
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City of Celina
Flood Mitigation and Repetitive Loss Structures
Evaluation/Disposition Plan



CITY OF CELINA
Flood Mitigation and Repetitive Loss Structures Evaluation/Disposition
Plan

SECTION I. GENERAL INFORMATION

Applicant

City of Celina
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Celina, Texas 75009
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Consultant

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San Antonio, Texas 78232
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Program Giving Financial Assistance

Federal Emergency Management Agency (FEMA)

Brief Explanation of the Purpose and Need for the Proposed Project

The city of Celina (see Exhibit A) has, at times, experienced significant damage to property and structures due to large flood events. The purpose of this project is to prepare the City for a future flood disaster by reducing the risks related to rising floodwaters, examine current policy and establish future policy, in regards to activity within the floodplain.

Concise Description of the Proposed Project

The City plans to alleviate the problem of repetitive losses to at-risk structures by drainage improvements, acquisition/clearance, and elevation. The target area is the Doe Branch floodplain within the incorporated regions of Celina (see Exhibit B). Doe Branch is the main drainage basin for the City, although a portion of the northern area drains to Elm Fork. The plan will include an analysis of current mitigation measures. The plan will also include an evaluation of costs, necessary to assess future disposition of structures, and assess mitigation measures to prevent losses to roads, bridges and other

public facilities. The plan will also include future land use within the target area as a result of this project.

Planning Process and Public Involvement

The City conducted public meetings regarding the planning project. The first of these meetings was held on July 12, 2001, 6:15 p.m. at the Celina City Hall. Another meeting was held July 26, 2001, 6:15 p.m. at the same location (see Appendix A). The purpose of these hearings was to allow residents to express their views on which direction the City should pursue in reducing risks associated with flooding. The ideas from these hearings eventually led to the formation of the goals and objectives.

SECTION II. ENVIRONMENTAL ASSESSMENT

Social and Natural Environment

Physiography

Celina is located mainly in the Gulf Coast Plains Region (coast prairie). The land surface can be characterized as broad and nearly level. In many locations across the coastal plains, farm fields are bounded by drainage ditches five (5) or more feet deep to handle runoff from heavy rains and to lower the water table.

Soils¹

The Celina area is characterized by clayey soils identified as the Houston Black-Austin Association. The soil associations range in depth from 45-58 inches, have low water capacity, and slow permeability. The very high expansive properties of the local soils could create major sewer joint damage, so embedment of the pipeline is critical.

The soils in the target area consist of the following series:

Houston: Houston Black Clay

These soils are deep, calcareous, clayey soils that formed in calcareous clay or chalky marl. These soils are moderately well drained, and runoff is slow to moderate. When the soils are dry and cracked, water enters rapidly, and when the soils are wet, water enters very slowly. These soils are very susceptible to shrinking and swelling.

¹ Information provided by 1997 City of Celina Comprehensive Plan.

As anticipated, the floodplain soils are susceptible to flooding due to slow percolation and ponding. The floodplain serves a necessary purpose and is only effective when allowed to operate under natural conditions. The stream terrace soils, however, are well drained due to their depth. The proposed project could have a direct impact on the soils because the removal of any structures from the floodplain would return the area to its natural state, thus allowing the floodplain to operate as intended.

Hydrological elements²

Storm drainage: The City of Celina has a varied terrain. The main city and the area southwest is relatively flat with minimal fall to the southwest. Rolling terrain generally surrounds the City on the north, east and southwest. Development in these areas should have sufficient drainage with the typical shoulder/bar ditch method currently predominant within the City or with a storm sewer system. Unfortunately, the majority of the developed area is located in the flatter area and is subject to inadequate drainage.

The main drainage basin encompassing the developed areas drains to Doe Branch, although a portion of the northern area drains to Elm Fork. The approximate 100-year floodplain as defined on the Flood Insurance Rate Map (Map Number 48085C01106) proposed by the Federal Emergency Management Agency dated January 19, 1996 is depicted on Exhibit B.

The Doe Branch floodplain currently extends through several lots in the southeast portion of the City. The drainage structures at Loop 483 (Bus. 289), Ash St. and Oak St. have been improved over the last several years to provide better drainage of the creek.

Additionally, the channel between Ash St. and Oak St. has been cleared of excessive sediment, vegetation and debris. One major impedance to flow down Doe Branch exists at the drainage structure at CR 55. The configuration and size appear to prevent the total flow from continuing down stream and, therefore, causes the water surface to rise upstream. The full effect of this structure and possible improvements would require a detailed engineering study.

Drainage structures within the City consist mainly of pipe culverts. Exhibit B shows the various drainage structures within the City. Many of these structures are damaged or filled with sediment. Additional, the bar ditches connecting these structures should be checked for adequate slope to allow conveyance of the storm water beyond the developed areas.

² Information provided by 1997 City of Celina Comprehensive Plan.

Water system: The City itself provides water service for the community. The proposed project could impact individual water systems because the elevation of some structures would create the need to modify individual water lines to those structures.

Wastewater system: The current collection system consists of six inch (6") to twelve inch (12") pipelines and two (2) major lift stations. An eighteen inch (18") interceptor along the north side of town and a twenty-one inch (21") interceptor along the west side of town carry the majority of the City's sewage flow to the City owned and operated 0.50 MGD wastewater treatment plant. Exhibit E shows the location and line sizes of the various wastewater system components. During periods of high precipitation, infiltration can be a problem, particularly in pipes within a few feet of the surface. The greatest number of inflow areas will probably occur in house service lines and shallow mains near the extremities of the gravity flow system.

Floodplains

The proposed project would have a significant positive impact on the floodplain because some properties would return back to their natural state, or a flood protected land use. The floodplain would then be allowed to carry out its natural function. Floodplains are intended to serve as an absorptive reservoir of floodwaters, a filter and dissolver of waterborne contaminants, and an ecosystem for numerous forms of life.

Climatic elements

Average annual precipitation is 38.44 inches per year, according to the National Oceanic and Atmospheric Administration (NOAA). The prevailing winds are southeasterly. Air quality is good. There is very little air-polluting heavy industry in the area and traffic is average compared to a major metropolitan area.

Biological elements

This project will not affect any known biological elements.

Historical or archeological resources

Any structures considered for removal will be checked against the Historical Registry. The Texas Historical Commission will be notified by correspondence of any structures designated for removal.

Social and economic conditions

The City of Celina was incorporated in 1907. Celina has a long history of farming as its main economic base. Farming still plays an integral role in the City's economy. However, this is gradually changing as the community becomes more urbanized. Although no particular industry has taken the leadership from farming as the community's primary economic driver, most workers have jobs in other fields even if they have to commute to their work. The rapid development of the area north of Dallas, specifically Plano and Frisco, has changed the complexion of Celina.

A strong business mix is already established and will serve as a base for future growth and development. It is important to support the already existing businesses and develop recruitment for complimentary businesses to further enhance this growth. The existence of a post office, pharmacy, grocery store, dry cleaners, gift shop, ice cream parlor, etc. enables the community to run most of their day to day errands in town.

Land use, land use planning and controls

The land use pattern of the planning area is typical for a rural area; agriculture, residential with some commercial, public and vacant uses. This project will affect future land use since cleared structures will not be rebuilt. In the event of a voluntary buyout, the targeted areas would return to their natural state, or a flood protected land use.

The City currently has the following land use controls:

- Subdivision Ordinance
- Zoning Ordinance
- Southern Standard Building Codes

Description and Evaluation of Potential Direct, Indirect and Secondary Impacts

Social Resources--This project will provide the city of Celina with a means for alleviating the financial and social burden caused by flooding. The social impact on the community is positive.

Economic Resources--This project will alleviate some of the financial burdens associated with flood events. Large numbers of flood victims put strains on the City's resources, including fire, police, public works, hospitals, insurance companies and government agencies. This project will affect the financial resources of the City, private sector and government agencies in a positive way.

Environmental Resources—Assuming some property owners decide to participate in a voluntary buyout program, the removal of any structures from the 100-year

floodplain will benefit the environment by eliminating a portion of impervious cover, thus decreasing runoff and allowing absorption of water. Also, the removal of structures will return the area /areas to their natural state. It is anticipated that the natural floodplain would actually decrease in some areas if the proposed structural projects were implemented.

Identification of Beneficiaries and Non-Beneficiaries

The beneficiaries of this project will be the residents of Celina.

Summary of Comments from Appropriate Agencies

After approval from the City Council, this plan will be sent to the following agencies for comment: Texas Parks and Wildlife, U. S. Fish and Wildlife Service and FEMA.

Potential Adverse Impacts

The channelization of drainage ways will produce increased noise levels, but will cease upon completion of the project.

Description of the Future of the Environment without the Proposed Project

Without the proposed project, the floodplain will continue to expand because the floodwaters will have a limited route.

Description of Tradeoff for Short Term Environmental Losses for Long Term Gains

This project will have a potentially beneficial impact on the following: stormwater drainage and open space and recreation areas.

This project will have a potentially adverse impact on the following: increased noise levels during channelization of drainage ways.

The City will be better able to deal with large storm events. Elevation of structures will reduce the risk of flood damage in the proposed areas. Any removal of structures will eliminate flooding risks on that property.

SECTION III. EVALUATION

Existing Hazards

Structures

The biggest potential hazard area for Celina is the 100-year floodplain of Doe Branch. Unofficially, three large storm events caused damage to the City of Celina. These storms occurred in 1965, 1969, and more recently in 1986. These were all spring storms. Damaged structures at the time were uninsured and therefore records are vague. There are no gauges along Doe Branch, and therefore depth readings are unavailable³.

Within the corporate limits of the city of Celina there are approximately thirty-five (35) structures located in the Doe Branch floodplain (see Exhibit C). The estimated value of these structures is \$500,000-\$600,000. Some of the structures have been vacated. The estimated population within the Doe Branch floodplain is seventy (70) persons (occupied units x 2.81 persons per household). Currently, the City has six (6) flood insurance policies in force⁴.

Doe Branch Floodplain Evaluation

# of Structures	35
Estimated Value	\$500,000-\$600,000
Estimated Population	70
# of flood insurance policies	6

The goal of this plan is to provide guidance in order to minimize, or eliminate in some areas, the impact of a large flood event. The damage is not always limited to homes, however, as many local businesses, roads, bridges, public and private utilities suffer severe losses.

Infrastructure

There have been two major infrastructure losses during the flood history of Celina. Both the Elm Street and Oak Street Bridges were lost during storm events. This project will have a significant positive impact on the existing infrastructure. The channelization projects should improve the routes necessary to drain the storm waters away from current development.

³ Information provided by the City of Celina.

⁴ Information provided by TNRCC (State Coordinator for NFIP).

Existing Floodplain Management

Elevation

According to current City policy, structures located within a flood zone must elevate 24” above the current 100-year flood level. Elevations certificates, by a licensed engineer, are required for all permits issued within the flood zone. Although effective for new structures, the process of elevating existing structures can be difficult. Structures constructed on concrete slabs often can not be elevated due to extensive costs.

Voluntary Buyout

Another technique used for reducing risks associated with flooding is the initiation of a voluntary buyout program. This mitigation measure is the only sure way to limit damage to structures and the possible loss of life and personal belongings incurred during a flood. This technique has been used very effectively in other cities throughout the state. Homeowners initiate the process by requesting the City to apply for buyout funds through the Federal Emergency Management Agency (FEMA). The homeowners are offered fair market price and the homeowners can decide whether to accept or reject the offer. The properties are then bought, the structures removed and the properties converted to a flood protected land use, or a natural state, such as a floodplain.

Structural Improvements

Structural improvements refer to channel and basin construction, levee construction, and dam construction. Exhibit E shows proposed structural improvements for the city of Celina.

TO GUNTER

289
TEXAS

TO PILOT POINT

FARM
455
ROAD

CELINA

FARM
455
ROAD

TO WESTON

289
TEXAS

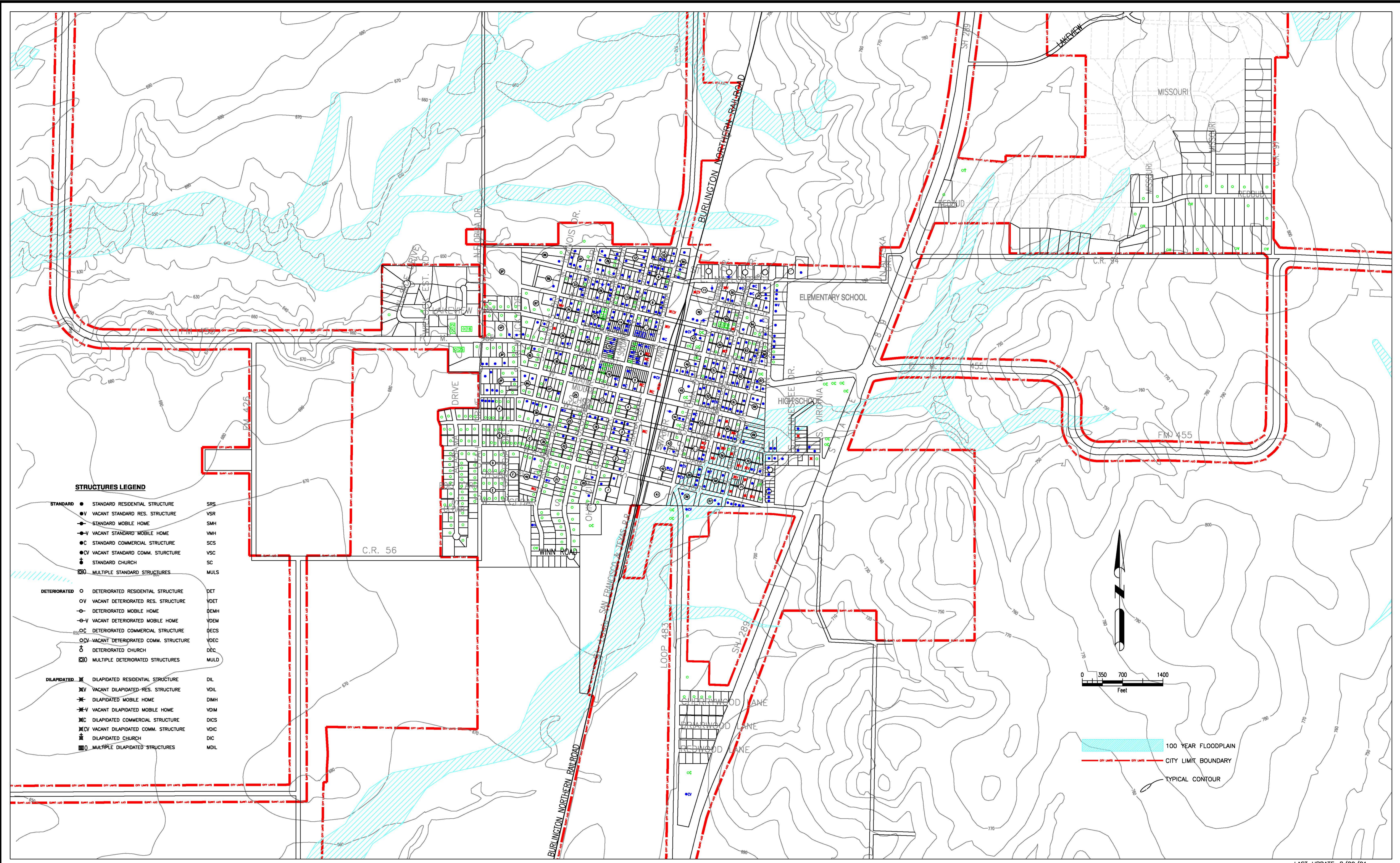
TO PROSPER

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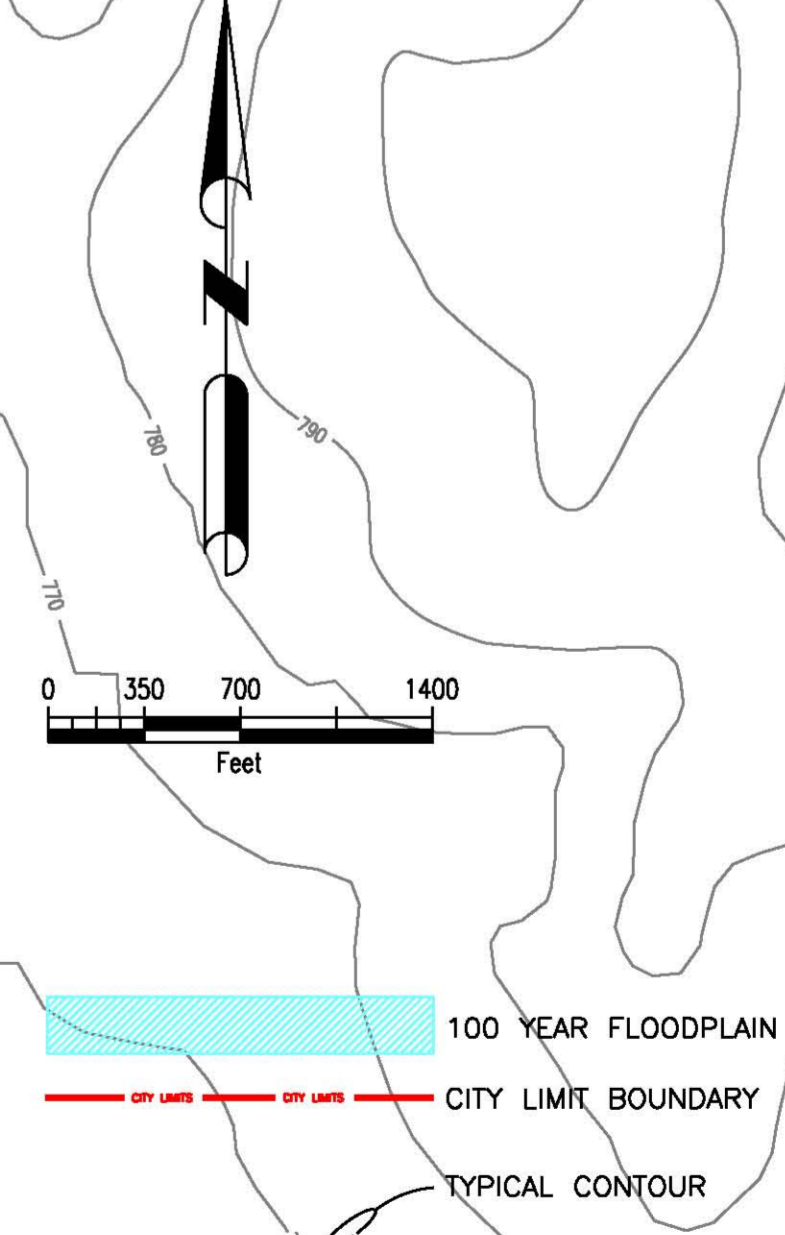
EXHIBIT
A

2001
**CITY OF CELINA, TEXAS
LOCATION MAP**



STRUCTURES LEGEND

- | | | |
|---------------------|--------------------------------------|-------|
| STANDARD | ● STANDARD RESIDENTIAL STRUCTURE | SRS |
| ● V | VACANT STANDARD RES. STRUCTURE | VSR |
| ● | STANDARD MOBILE HOME | SMH |
| ● V | VACANT STANDARD MOBILE HOME | VMH |
| ● C | STANDARD COMMERCIAL STRUCTURE | SCS |
| ● CV | VACANT STANDARD COMM. STRUCTURE | VSC |
| ⊕ | STANDARD CHURCH | SC |
| ⊙ | MULTIPLE STANDARD STRUCTURES | MULS |
| DETERIORATED | ○ DETERIORATED RESIDENTIAL STRUCTURE | DET |
| ○ V | VACANT DETERIORATED RES. STRUCTURE | VDET |
| ○ | DETERIORATED MOBILE HOME | DEMh |
| ○ V | VACANT DETERIORATED MOBILE HOME | VDEMh |
| ○ C | DETERIORATED COMMERCIAL STRUCTURE | DECS |
| ○ CV | VACANT DETERIORATED COMM. STRUCTURE | VDEC |
| ⊕ | DETERIORATED CHURCH | DEC |
| ⊙ | MULTIPLE DETERIORATED STRUCTURES | MULD |
| DILAPIDATED | ⊗ DILAPIDATED RESIDENTIAL STRUCTURE | DIL |
| ⊗ V | VACANT DILAPIDATED RES. STRUCTURE | VDIL |
| ⊗ | DILAPIDATED MOBILE HOME | DIMh |
| ⊗ V | VACANT DILAPIDATED MOBILE HOME | VDIMh |
| ⊗ C | DILAPIDATED COMMERCIAL STRUCTURE | DICS |
| ⊗ CV | VACANT DILAPIDATED COMM. STRUCTURE | VDIC |
| ⊕ | DILAPIDATED CHURCH | DIC |
| ⊙ | MULTIPLE DILAPIDATED STRUCTURES | MDIL |



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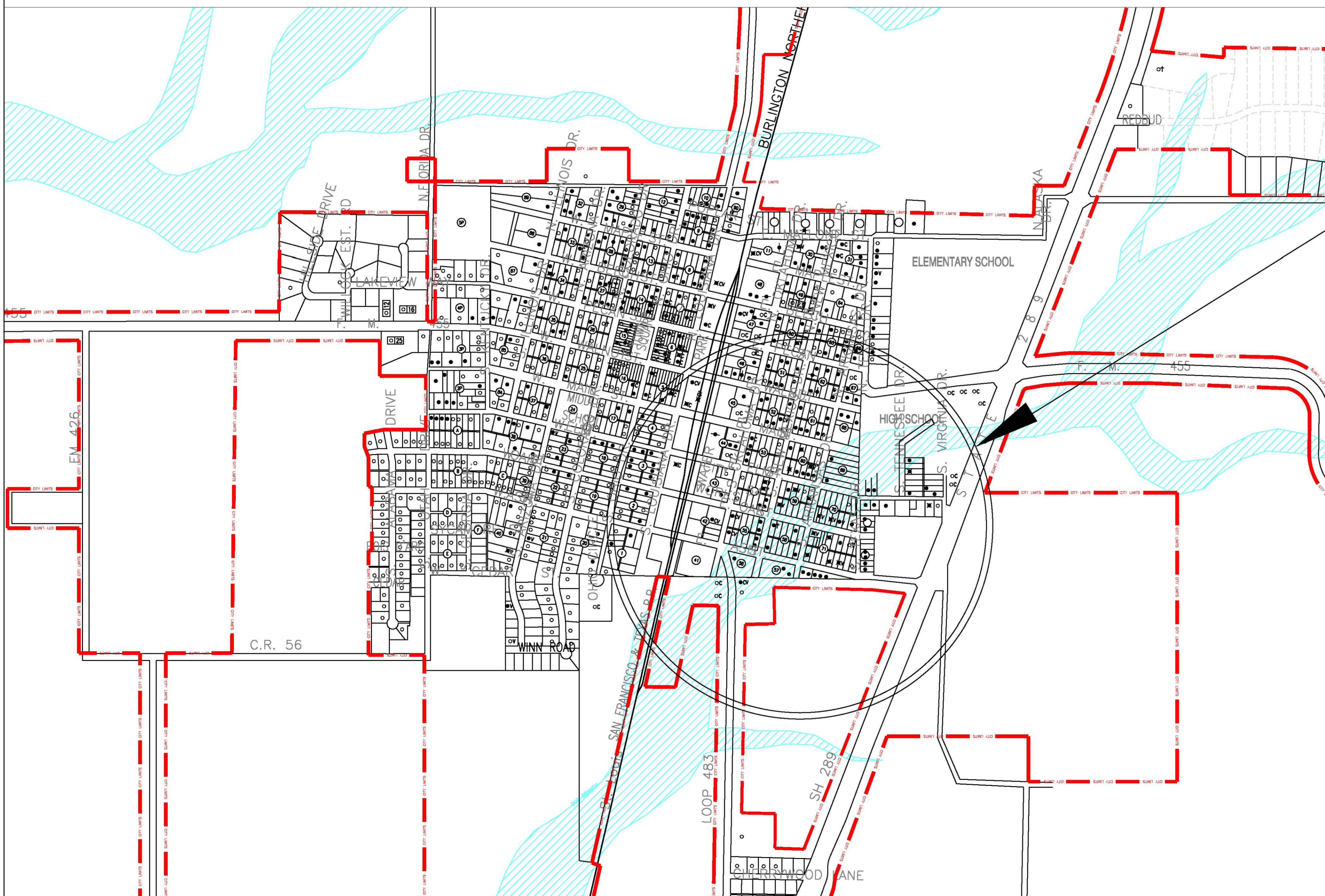
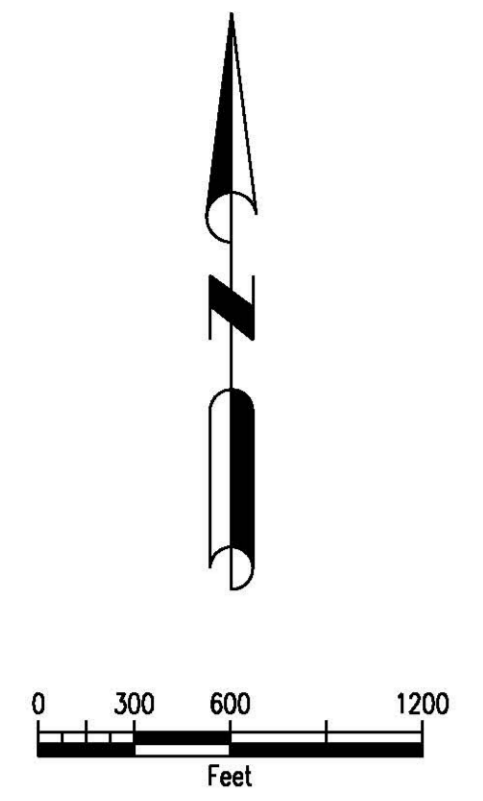
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Drawn by	Revision	Date Revised

EXHIBIT
B

2001
CITY OF CELINA, TEXAS
EXISTING FLOODPLAIN



- STRUCTURES LEGEND**
- STANDARD
 - STANDARD RESIDENTIAL STRUCTURE
 - ◐ STANDARD MOBILE HOME
 - V VACANT STANDARD RESIDENTIAL STRUCTURE
 - ◐V VACANT STANDARD MOBILE HOME
 - OC STANDARD COMMERCIAL STRUCTURE
 - OCV VACANT STANDARD COMMERCIAL STRUCTURE
 - OT STANDARD CHURCH
 - ⊞ MULTIPLE STANDARD STRUCTURES
 - DETERIORATED
 - DETERIORATED RESIDENTIAL STRUCTURE
 - ◐● DETERIORATED MOBILE HOME
 - V VACANT DETERIORATED RESIDENTIAL STRUCTURE
 - ◐V VACANT DETERIORATED MOBILE HOME
 - C DETERIORATED COMMERCIAL STRUCTURE
 - CV VACANT DETERIORATED COMMERCIAL STRUCTURE
 - † DETERIORATED CHURCH
 - ⊞● MULTIPLE DETERIORATED STRUCTURES
 - DILAPIDATED
 - ⊞ DILAPIDATED RESIDENTIAL STRUCTURE
 - ⊞● DILAPIDATED MOBILE HOME
 - ⊞V VACANT DILAPIDATED RESIDENTIAL STRUCTURE
 - ⊞V DILAPIDATED MOBILE HOME
 - ⊞C DILAPIDATED COMMERCIAL STRUCTURE
 - ⊞CV VACANT DILAPIDATED COMMERCIAL STRUCTURE
 - ⊞† DILAPIDATED CHURCH
 - ⊞⊞ MULTIPLE DILAPIDATED STRUCTURES
 - ▨ FLOODPLAIN
 - CITY LIMIT BOUNDARY

LAST UPDATE: 8/30/01

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Drawn by	Revision	Date Revised

EXHIBIT
C

2001
CITY OF CELINA, TEXAS
AT-RISK STRUCTURES

SECTION IV. ASSUMPTIONS

There are various ways for cities to mitigate the flooding problem

1. Elevation of insured structures.
2. Acquisition of insured structures and real property.
3. Relocation or demolition of insured structures.
4. Dry floodproofing of insured structures.
5. Minor, localized structural projects that are not fundable by State or other Federal programs.

Repetitive loss structures are costly to the City and the homeowner

1. The burden of repairing houses is costly for both the homeowner and the City.
2. The destruction of personal property such as furniture, carpeting and automobiles is devastating to the homeowner.
3. Local firefighters, public works employees, health care providers and volunteers put in countless hours evacuating, rescuing victims and recovering personal property.

SECTION V. GOALS AND OBJECTIVES

Public Information

Goal: Create awareness within the community about the dangers associated with locating in or around flood prone areas.

Objective 1: Begin a community Outreach Project

- A. Contact various government agencies such as Federal Emergency Management Agency (FEMA) and National Wildlife Federation (NWF) and ask these agencies for educational materials (brochures, videos, web site addresses, etc.) concerning floodplain management. Arrange for members of these agencies to participate in public forums to discuss these issues.

- B. Provide notice to all properties in flood-prone areas (see Exhibit F). The notice must be distributed to all properties of the Special Flood Hazard Area (SFHA) and those additional areas known to have flooding problems. The notice must clearly explain that the recipient's property is subject to flooding with a phrase such as, "Your property is in or near the floodplain."
- C. Initiate one or more special projects throughout the year, such as a "flood awareness week" (distribute flyers, invite speakers from FEMA to participate, hold seminars, etc.)
- D. Designate the public library as a "Flood Protection Library" (see Appendix B)
- E. Notify property owners immediately when floodplain boundaries change for any reason.

Prevention

Goal: Continue to reduce the risks associated with flooding within the 100-year floodplain of Celina through planning and regulation.

- Objective 1: Utilize the FP designation contained in the Celina Zoning Ordinance as needed for unoccupied properties within the Doe Branch floodplain.
- Objective 2: Require elevation certificates for all repair work and new construction on properties within the Doe Branch floodplain.
- Objective 3: Adopt a stream-dumping ordinance in accordance with the National Flood Insurance Program (Community Rating System) guidelines (see Appendix D).

Natural Resource Protection/Property Protection

Goal: Eliminate the risks associated with flooding within the 100-year floodplains of Celina and return a portion of the floodplains to their natural state, or flood protected land use.

- Objective 1: Acquire flood prone areas through seizure of tax delinquent properties.
 - A. Initiate a change in policy to keep tax delinquent properties within the 100-year floodplain in public domain.

- B. Accumulate contiguous blocks of floodplain properties and restore these properties to flood protected land uses such as wildlife preserves, open spaces and recreation areas.

Objective 2: Acquire flood prone areas through phased voluntary buyout programs.

- A. Hold public hearings on a yearly basis to determine the demand for a voluntary buyout.
- B. Create a list of potential buyout candidates based on first come first serve. Review the list of candidates for eligibility.
- C. On behalf of interested property owners, propose to FEMA a mitigation program to buy repetitive loss structures along Doe Branch and remove them from the flood area. Use local funds to match FEMA funds. After buying out these homeowners, return the property to its natural state. Consider keeping the property as public property with no structures to be used as a park

Structural Projects

Goal: Reduce the risks associated with flooding within the 100-year floodplains of Celina by carrying out the objectives set forth in the Drainage element of the 1997 Comprehensive Plan.

Objective 1: Negotiate compensation with landowners in the Doe Branch floodplain for the purpose of public easements.
Timeline: (1-2 years)

Objective 2: Begin channelization procedures along Doe Branch at the following locations:
Timeline: (2-3 years)

(SH 289 to Elm St.) 1200 L.F.
(Loop 483 to Railroad) 2200 L.F.

Objective 3: Install a concrete lined channel along Doe Branch at the following location:
Timeline: (3-5 years)

(Elm St. To Loop 483) 2600 L.F.

Objective 4: Maintain drainage channels as follows:

- A. An inspection is conducted at least once each year (see Appendix D for sample forms),
- B. An inspection is conducted after each storm that could adversely impact drainage,
- C. Inspections are conducted in response to citizens complaints, and
- D. Action is taken after an inspection identifies a need for maintenance or cleaning.

Objective 5: Initiate discussions with the Texas Department of Transportation (TxDOT) about the possible improvement of the bridge on Loop 483.

Objective 6: Make necessary improvements to the drainage structure at CR 55. The configuration and size appear to prevent the total flow from continuing down stream and, therefore, causes the water surface to rise upstream. The full effect of this structure and possible improvements would require a detailed engineering study.

Objective 7: Contact the necessary authorities and initiate the process for installing flood gauges along Doe Branch.

SECTION VI. ALTERNATIVES

Alternative 1: “No Activity”

This alternative is acceptable if the homeowner is tolerant of the current situation. The current situation assumes that FEMA provides disaster relief funds for those individuals without flood insurance, and that insurance premiums remain unchanged for those with insurance.

Alternative 2: Elevation

According to current City policy, structures located within a flood zone must elevate 24” above the current 100-year flood level. Elevations certificates, by a licensed engineer, are required for all permits issued within the flood zone. Although effective for new structures, the process of elevating existing structures can be difficult. Structures constructed on concrete slabs often cannot be elevated due to extensive costs. The potential problem associated with this process is the possible inaccuracies of the elevation certificates. The benchmarks used to establish flood levels are outdated and have quite possibly experienced subsidence over the years.

Alternative 3: Voluntary Buyout

Another possible technique used for reducing risks associated with flooding is the initiation of a voluntary buyout program. This mitigation measure is the only sure way to limit damage to structures and the possible loss of life and personal belongings incurred during a flood. This technique has been used very effectively throughout the State. Homeowners initiate the process by requesting the City to apply for buyout funds through the Federal Emergency Management Agency (FEMA). The homeowners are offered fair market price and the homeowners decides to accept or decline the offer. The properties are bought, the structures removed and the properties converted to a flood protected land use, or a natural state, such as a floodplain.

Alternative 4: Structural Improvements

Structural improvements refer to channel and basin construction, levee construction, and dam construction. This technique has proven effective for various cities, assuming qualified professionals have properly researched the structural solution.

National Flood Insurance Program NFIP Compliance

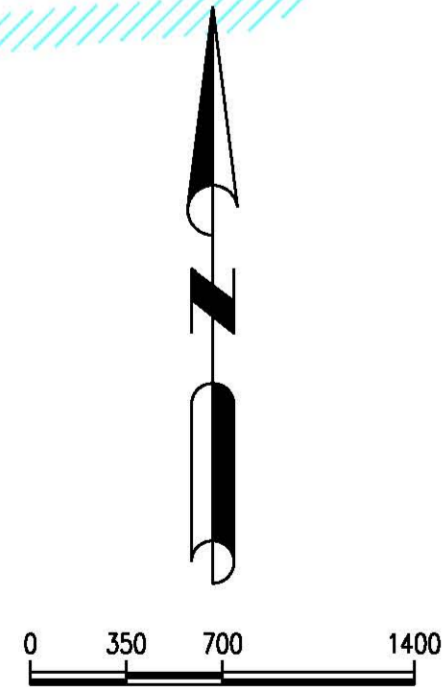
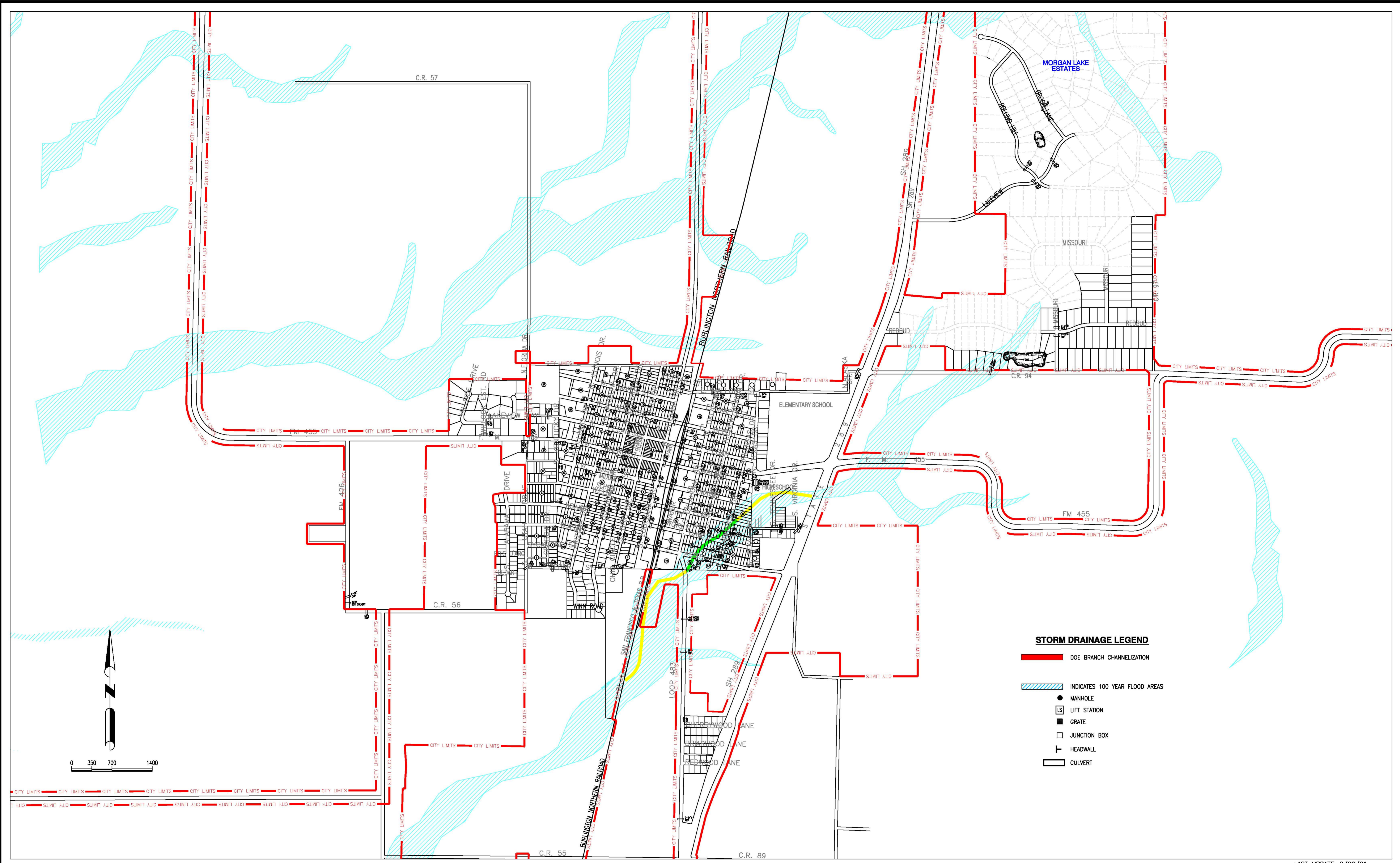
The City currently participates in the National Flood Insurance Program (NFIP). The City has exceeded its required level of participation in the NFIP by adopting this Plan. The City also plans to submit application to FEMA for reduction of insurance premiums through the Community Rating System (CRS) (see Appendix E). The City continues to remain active in searching for measures to eliminate or reduce the risks of damage to life and property associated with flooding.

Plan Implementation, Review, and Revision

The plan will be subject to review and revisions on a yearly basis. The City will meet with the planning consultant and discuss the results.

SECTION VII. FORMAL ADOPTION

On August 16, 2001, the City formally approved the Repetitive Loss Structures Evaluation and Disposition Plan by a unanimous vote. The minutes are attached as Appendix F.

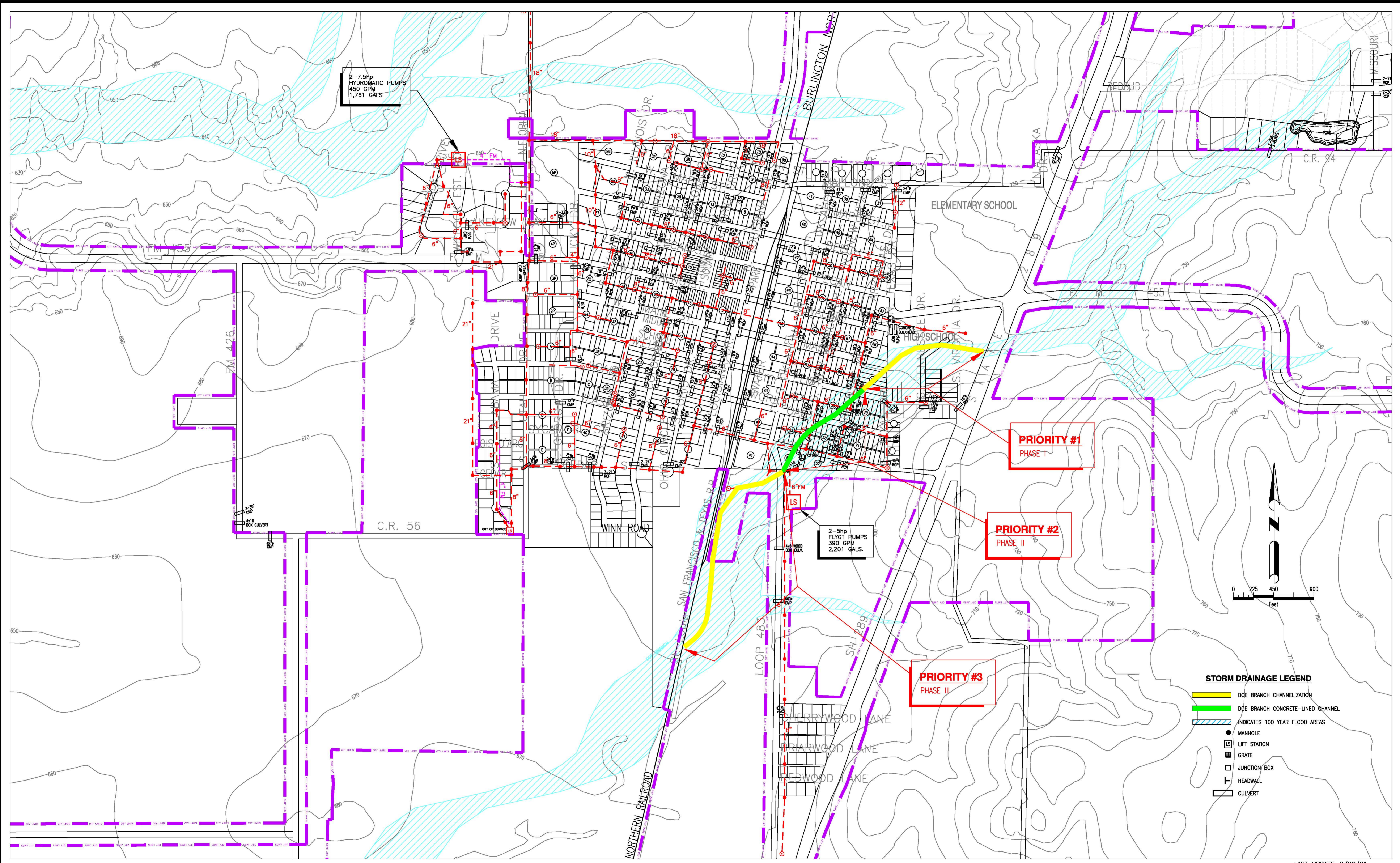


- STORM DRAINAGE LEGEND**
- DOE BRANCH CHANNELIZATION
 - ▨ INDICATES 100 YEAR FLOOD AREAS
 - MANHOLE
 - LS LIFT STATION
 - ▣ GRATE
 - JUNCTION BOX
 - └ HEADWALL
 - ▭ CULVERT

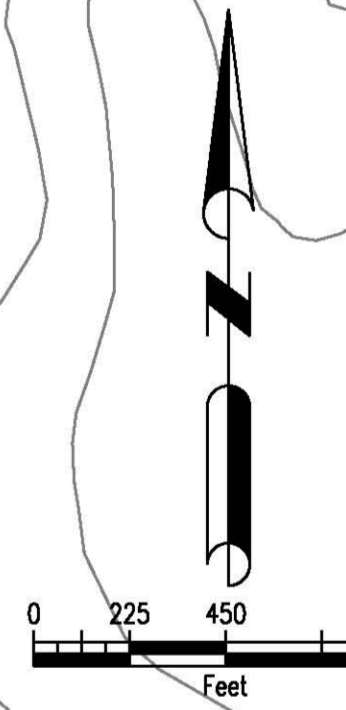
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EXHIBIT
D



- STORM DRAINAGE LEGEND**
- DOE BRANCH CHANNELIZATION
 - DOE BRANCH CONCRETE-LINED CHANNEL
 - INDICATES 100 YEAR FLOOD AREAS
 - MANHOLE
 - LIFT STATION
 - GRATE
 - JUNCTION/BOX
 - HEADWALL
 - CULVERT



LAST UPDATE: 8/29/01

Prepared by
PUBLIC MANAGEMENT, INC.

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P.O. Box 1827
 Cleveland, Texas 77328-1827
 (281) 592-0439

Drawn by	Revision	Date Revised

EXHIBIT
E

2001
CITY OF CELINA, TEXAS
PROPOSED STRUCTURAL IMPROVEMENTS

EXAMPLE 1

SUBDIVISION XYZ

THE PROPERTY WITHIN THIS SUBDIVISION LIES WITHIN THE 100-YEAR FLOODPLAIN OF THE CITY OF CELINA.

CERTAIN RESTRICTIONS WILL APPLY TO THE DEVELOPMENT OF THIS PROPERTY.

THE OWNER ASSUMES ALL RISKS ASSOCIATED WITH LOCATING IN A FLOODPLAIN.

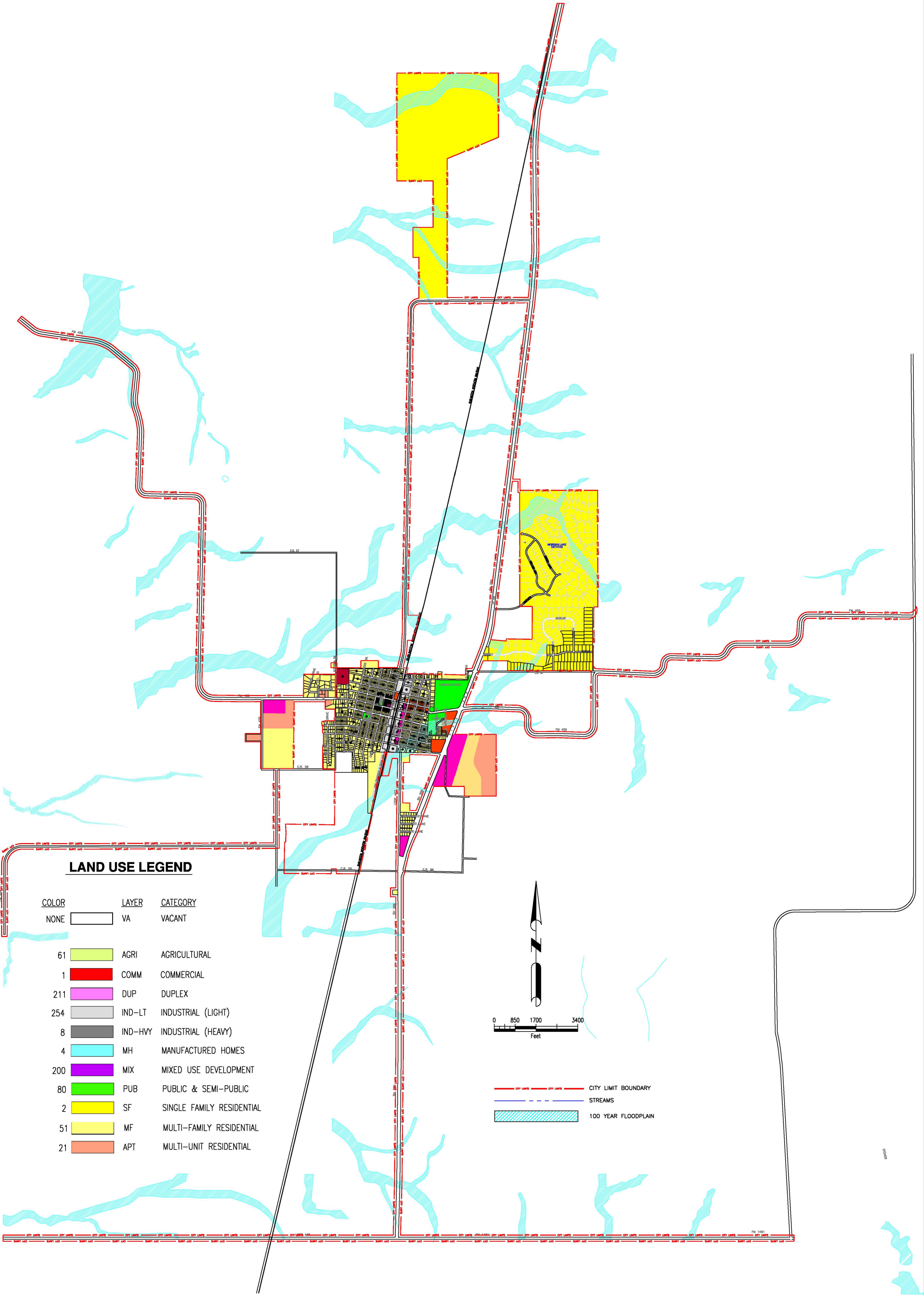
EXAMPLE 2

ATTENTION PROPERTY BUYERS:

PLEASE REFER TO THE CITY FLOODPLAIN MAP TO DETERMINE IF YOUR POTENTIAL PROPERTY IS LOCATED IN A FLOODPLAIN.

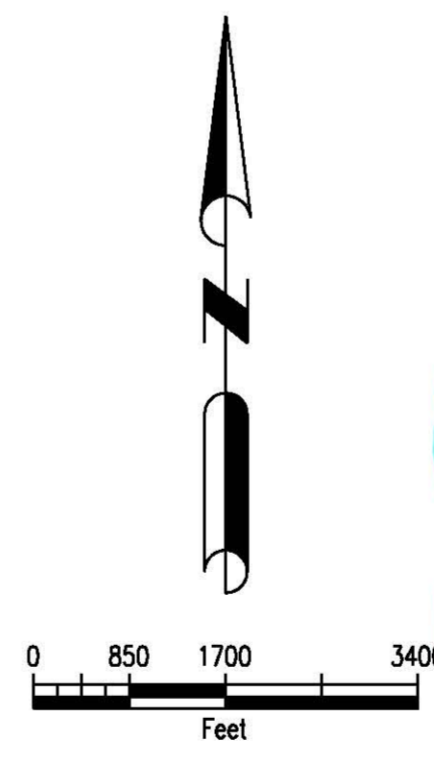
IF SO, CERTAIN RESTRICTIONS WILL APPLY TO THE DEVELOPMENT OF THIS PROPERTY.

THE OWNER ASSUMES ALL RISKS ASSOCIATED WITH LOCATING IN A FLOODPLAIN.



LAND USE LEGEND

COLOR	LAYER	CATEGORY
NONE	VA	VACANT
61	AGRI	AGRICULTURAL
1	COMM	COMMERCIAL
211	DUP	DUPLEX
254	IND-LT	INDUSTRIAL (LIGHT)
8	IND-HVY	INDUSTRIAL (HEAVY)
4	MH	MANUFACTURED HOMES
200	MIX	MIXED USE DEVELOPMENT
80	PUB	PUBLIC & SEMI-PUBLIC
2	SF	SINGLE FAMILY RESIDENTIAL
51	MF	MULTI-FAMILY RESIDENTIAL
21	APT	MULTI-UNIT RESIDENTIAL



	CITY LIMIT BOUNDARY
	STREAMS
	100 YEAR FLOODPLAIN

Drawn by	Revision	Date Revised

Public Hearing Attendees

The table area is mostly obscured by thick black redaction lines. A vertical line runs down the left side, and a horizontal line runs across the bottom. The intersection of these lines is at the bottom left. There are also some diagonal lines at the very bottom left corner.

Public Mtg Flood Mitigation

DATE OF MEETING 7/31/01

CITIZENS INPUT SIGN UP SHEET

NAME	COMPLETE MAILING ADDRESS	PHONE NUMBER	SUBJECT MATTER
1. <i>Laura Warner</i>	<i>Warner Place</i>		<i>Why the change for FEMA from 86 to 98?</i>
2. <i>James Bruce</i>	<i>James Bruce</i>		
3. <i>Carla Boyd</i>			
4. <i>John Davis</i>			
5. <i>John Elie</i>			

Flood Mitigation Assistance

DATE OF MEETING 7/12/01

CITIZENS INPUT SIGN UP SHEET

NAME COMPLETE MAILING ADDRESS PHONE NUMBER SUBJECT MATTER

1. Low Warner

2. Janette Harner

3. JERRY HASKELL

4. Joe Willard

5. Monique Luper

6. ISIAH MOORE, JR 402 New Mexico DR 972 382-2337

7. Venita Haskell P.O. 1204574 Celina

Flood Mitigation

JM/MH Mrs. Cornelius Price

8. Ira Williams

Elvyn Mack 303 St. Virginia @ Celina

9. Loretta Francis

Ernestine Jones

Maxine Moore

Cinna Booy 407 S. New Mex Dr. 972-382-3563

Richard Gray 312 East Ash

Jeanette Beckman 405 S. New Mexico Dr. Flood Zone

ADA MAE DAVIS

Kathy + Dan Bassierski 3473 Preston Lakes Dr Celina Tx 75009

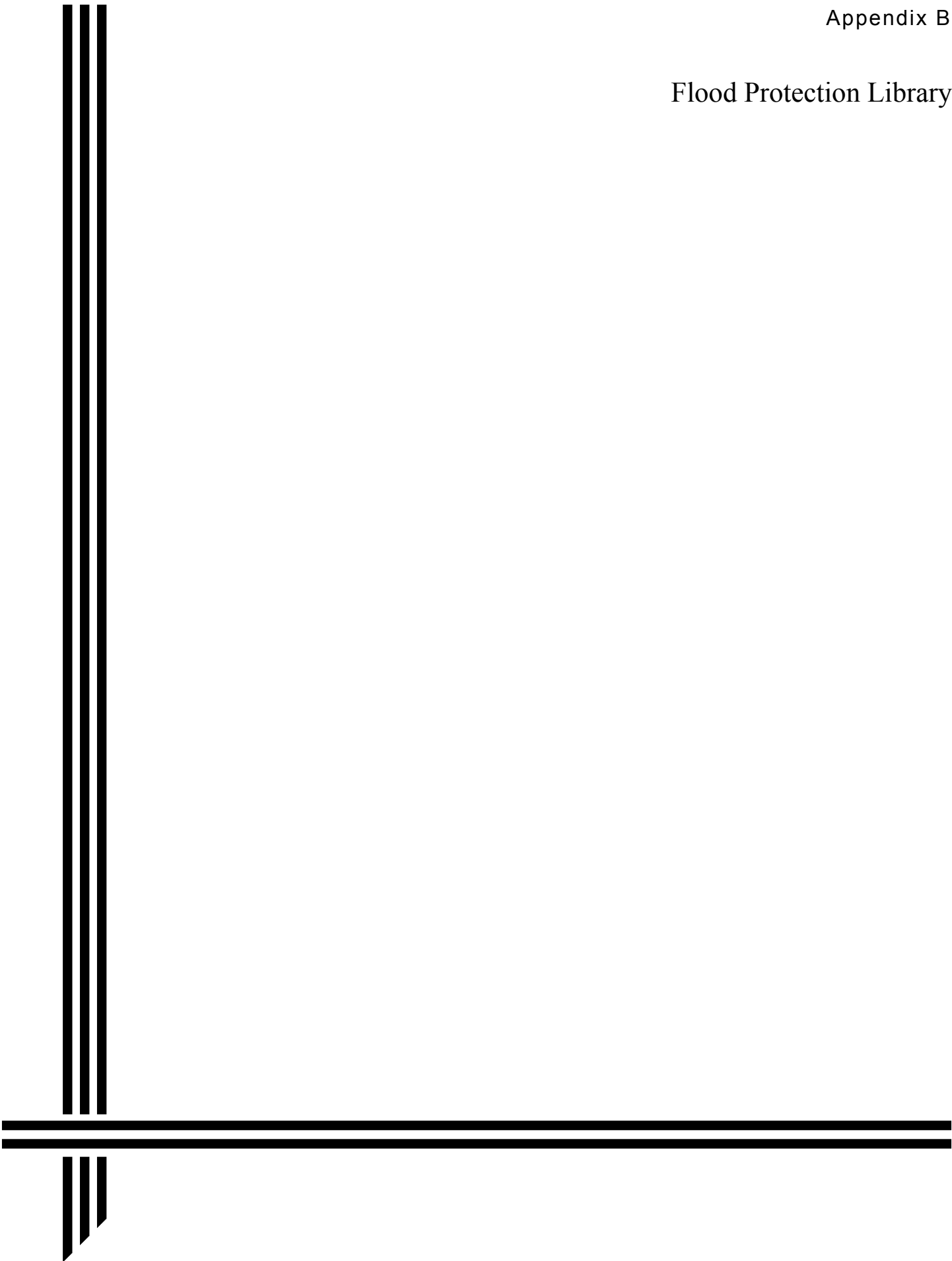
Lindsay + Chris Hesser 3509 Blue Goose Way, Celina, Tx 75009

Teresa + Duane Ballard 3472 Preston Lake Circle Celina Tx 75009

Kevin + Carol Higar 3509 Mallard Ln Celina Tx 75009

Bill + F. Harkin P.O. Box 1118 Celina, TX 75009

Flood Protection Library



FLOOD PROTECTION LIBRARY

This activity's credit points are provided if your local public library contains flood-related documents. For the purpose of CRS credit, "library" means the public library most accessible and most widely used by your residents. In a community with branch libraries, the publications and other documents must be available to all branches, although it is not necessary for each branch to maintain a full set. Credit is not allowed for keeping documents in a city office or location other than a public library. The documents must be entered into the library's card catalog or similar system that allows patrons to find publications related to flooding and flood protection. Some libraries place these documents in the reference library that includes items not cataloged. In such cases, the card catalog still needs an entry under "flood" that could read "See Reference Librarian for materials on flooding and flood protection."

Federal Publications Available for a Flood Protection Library

The following references on protecting a building from flooding are available free from:

U.S. Army Corps of Engineers, ATTN: CECW-PF
20 Massachusetts Avenue, N.W.
Washington, DC 20314

Flood Proofing Techniques, Programs and References, January 1996.
Flood Proofing Systems & Techniques, December 1984.
Flood-Proofing Regulations, EP 1165 3 314, March 1992.
Flood Proofing: How to Evaluate Your Options, July 1993.
Local Flood Proofing Programs, June 1994.

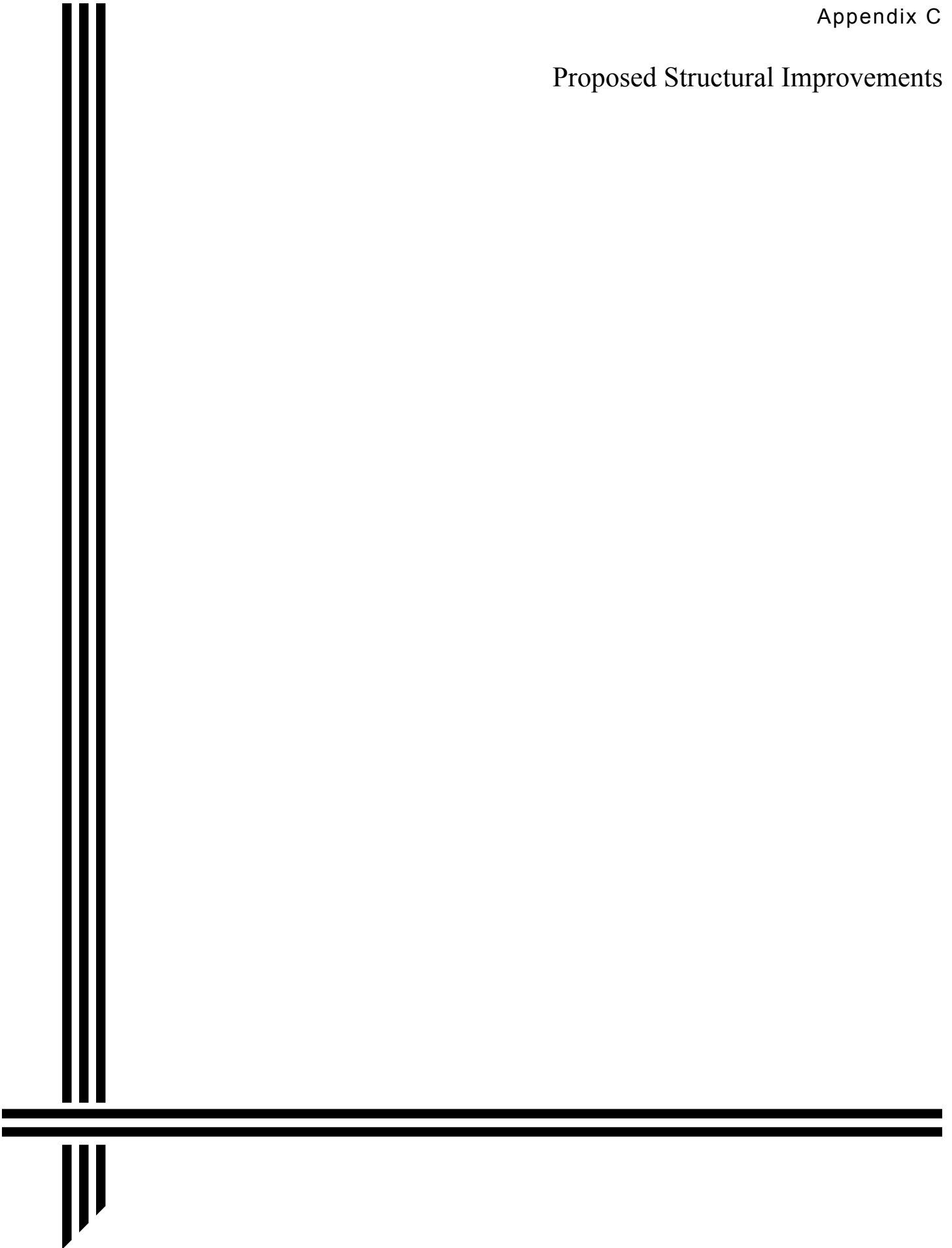
Additional information about the National Flood Insurance Program and other FEMA programs can be accessed on the World Wide Web (<http://www.fema.gov>) or by calling "FEMA FAX" ((202) 646-FEMA). FEMA FAX is a 24-hour service with a voice mail menu that leads the caller through a series of choices and sends a facsimile response to the inquiry. A variety of posters and citizen information materials on the natural and beneficial functions of floodplains and watersheds are being prepared by the Terrene Institute for the U.S. Environmental Protection Agency. Get the latest list from the Terrene Institute at (703) 548-5473.

The Floodplain Management Resource Center

The Floodplain Management Resource Center is located at the Natural Hazards Center in Boulder, Colorado. It houses the nation's largest collection of documents on flood protection and floodplain management. Each document has been categorized and summarized. The summaries have been entered into a computer database that enables Center staff to quickly identify those documents most appropriate for an inquirer's needs. The Center may be contacted by calling (303) 492-6818 between 9:00 and 4:00 Mountain

Time, Monday through Friday, or by writing to the Natural Hazards Center, IBS No. 6, Campus Box 482, Boulder, Colorado, 80309-0482. Upon receiving an inquiry, a Center staff person will review the database and retrieve summaries of those documents that appear most useful. The Center staff person may read excerpts from the document summaries over the telephone or mail printed document summaries to the inquirer. The Resource Center does not send a document to the inquirer, it only tells the inquirer how to obtain a copy. The staff may copy all or portions of a document that are in the public domain (especially those out of print). The cost of answering inquiries, including printing and mailing up to 10 document summaries, is borne by the Center. There is no cost for these services to any caller. The Center may charge a fee for copying a document or providing additional services. The fee is based on the actual cost of duplicating or performing the service. More information on using the Center can be found in the Corps book, *Flood Proofing Techniques, Programs and References*.

Proposed Structural Improvements



APPENDIX C

PROPOSED STRUCTURAL IMPROVEMENTS

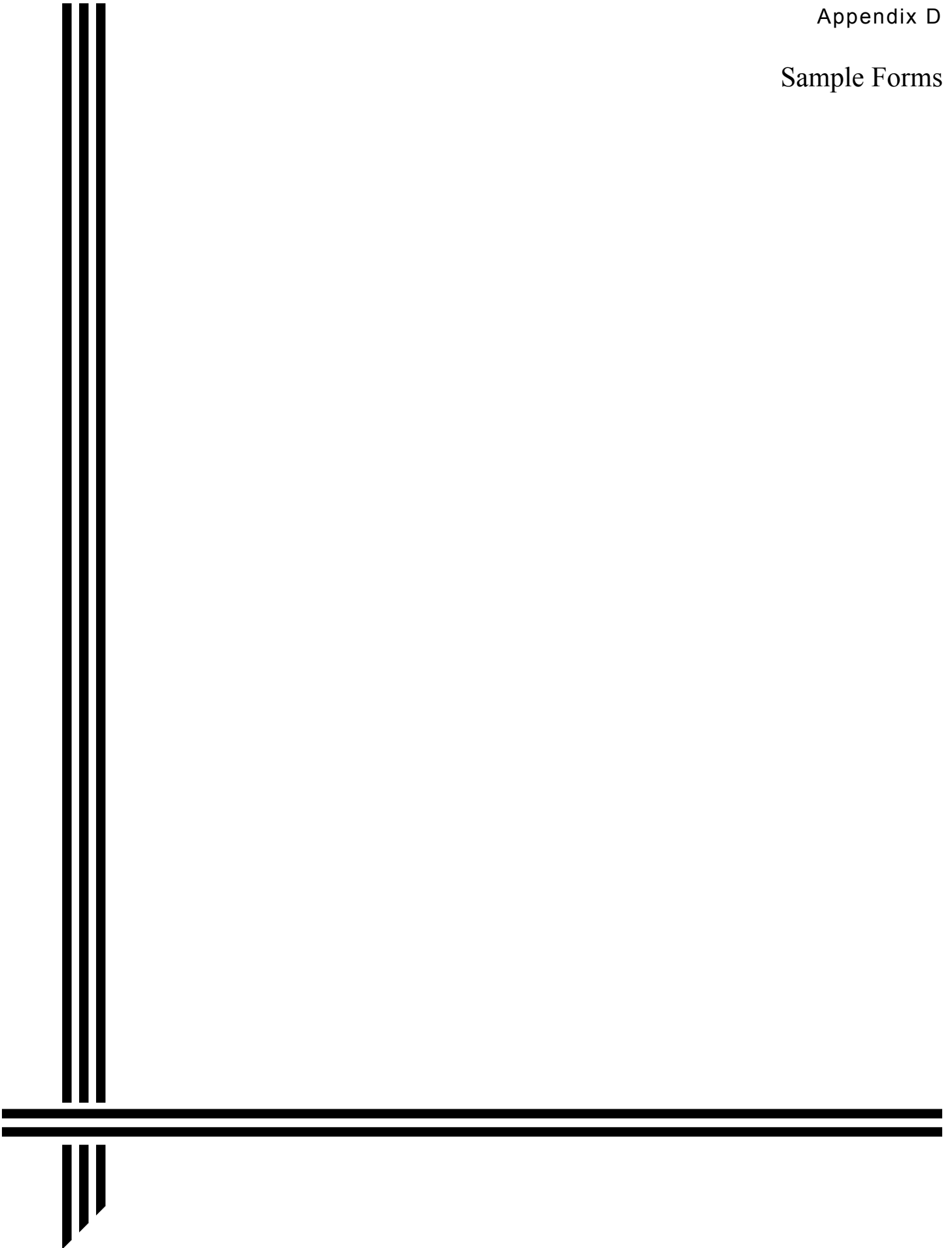
City of Celina
Storm Drainage System--5 Year Plan

PROJECT	ESTIMATED COST
Doe Branch Channelization:	
Channelization (SH 289 to Elm St.) 1200 L.F.	\$50,000
Concrete-Lined Channel (Elm St. To Loop 483) 2600 L.F.	430,000
Channelization (Loop 483 to Railroad) 2200 L.F.	92,000
TOTAL CONSTRUCTION COST	\$572,000
ADMINISTRATION, LEGAL (8%)	46,000
ENGINEERING, TECHNICAL (10%)	57,000
CONTINGENCY (10%)	57,000
TOTAL ESTIMATED PROJECT AMOUNT	\$732,000

SOURCES OF FUNDING

Some of Celina's local drainage improvements can be incorporated into a regular maintenance and replacement program. This approach will allow the scheduling of major maintenance, repairs, and replacements over several years, thereby minimizing budgetary impacts. With this approach, many of the needed improvements can be financed as needed through the annual budget of the City of Celina. To the extent that limited funds are available, specific improvements could be financed with local General Obligation (Tax) Bonds through the City and public support. In some cases, it may also be possible to obtain some assistance from the Texas Department of Transportation for drainage improvements in conjunction with their major thoroughfares inside the Corporate Limits. Another source of funds to be considered is aid administered by the Texas Department of Commerce Program. Finally, county funds may be made available on a shared basis from the Collin County Commissioners. Federal funds might be available for major drainage improvements but would have to be preceded by a study by the U.S. Army Corps of Engineers.

Sample Forms



Attachment E

The attached flyer is updated and put in the January water bills every year. They are sent to all water customers in Planton and some outside the City limits.

Spring is Planton's Flood Season

And February __is our Flood Awareness Week. Be prepared: check with the Building Department or the Emergency Manager in City Hall to see if you live or work in a floodplain.

Know our flood warning signals: When you hear a long steady fire siren blowing, turn on your radio and tune to KPLN (780 on your AM dial) or, if you have cable TV, turn on Channel 33. You may also hear a warning over police car loudspeakers.

If you are in an area subject to flooding or you have to walk or drive through an area that is or will be flooded, follow these safety precautions:

Do not walk through flowing water. Drowning is the number one cause of flood deaths, mostly during flash floods. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to feel your way.

Do not drive through a flooded area. More people drown in their cars than anywhere else. Don't drive around road barriers; the road or bridge may be washed out.

Stay away from power lines and electrical wires.

The number two flood killer after drowning is electrocution. Electrical current can travel through water. Report downed power lines to the Power & Light Company or the City Emergency Management Office.

Turn off your electricity at the fuse or breaker box. Some appliances, such as television sets, keep electrical charges even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned, and dried.

Look out for animals, especially snakes. Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step. After a flood, the ground and floors are covered with debris including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

Be alert for gas leaks. Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know the gas has been turned off and the area has been ventilated.

AN ORDINANCE PROHIBITING DUMPING AND DEPOSITING
MATERIAL IN THE RIVERS, CREEKS, AND DITCHES OF
THE CITY OF WATERTOWN.

WHEREAS, the City of Watertown has previously adopted an ordinance prohibiting the throwing of litter and other materials on streets, sidewalks, and other public places; and

WHEREAS, the City of Watertown wants to further prohibit littering or dumping of garbage, refuse, or other materials within its rivers, creeks, and ditches to further protect its drainage system.

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

Section 1: Chapter 12 - Health and Sanitation of the Watertown City Code is hereby amended by adding a new Section 12-10 to read as follows:

“Sec. 12-10. No person shall throw or place any refuse, paper, trash, glass, nails, tacks, wire, bottles, cans, grass clippings, brush, yard trash, concrete, earthen fill, garbage, containers, or litter or other debris in any ditch, stream, river, or retention basin that regularly or periodically carries surface water runoff. Any persons who deposits any of the above shall remove it or shall cause it to be removed therefrom immediately.”

Section 2: A violation of the foregoing shall be a second degree misdemeanor and punishable per the provisions of State Revised Statutes Ch. 47, para. 12-082 and 12-083.

Section 3: In the event that the City of Watertown deems it necessary to bring civil action to enforce the terms of this Ordinance, the violator shall be responsible for all court costs and attorney fees incurred by the City.

PASSED by the City Council of the City of Watertown, this 17th day of October, 19 94.

Ronnie Ivall
Clerk

APPROVED by me this 17th day of October, 19 94.

Richard O'Dell
Mayor

ATTESTED and FILED in my office this 17th day of October, 19 94.

Ronnie Ivall
Clerk

5. Records

City of Watertown, ST

DRAINAGE INSPECTION RECORD

Date: _____ Inspector: _____

Type of inspection: Post-storm Routine

I have inspected the following surface drainage facilities and found them as noted. A Drainage Problem Report has been completed for all problems found and forwarded to the responsible party.

Problem areas

- | | | |
|--------------------------------------|-------------------------------------|--|
| Center Creek at Superior Boulevard | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| North Ditch at Superior Boulevard | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Chestnut Creek at Superior Boulevard | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Indian Estates Retention Basin | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Bayberry Ditch in Alexander Park | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Center Creek at Cornhusker | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| SR 153 Ditch | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |

Routine inspection

- | | | |
|--|-------------------------------------|--|
| Center Creek, Superior to Benton | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Center Creek, Benton to Cornhusker | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Center Creek, Cornhusker to Riley River | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| North Ditch, Superior to Center Creek | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Bayberry Ditch, Alexander Park to Center Creek | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Chestnut Creek, Chestnut to Prison | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Riley River, Prison to Cornhusker | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Riley River, Cornhusker to Center Creek | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| Riley River, Center Creek to city limits | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| _____ | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |
| _____ | <input type="checkbox"/> No problem | <input type="checkbox"/> Problem found |

Signature: _____

5. Records

City of Watertown, ST

DRAINAGE PROBLEM REPORT

Date: _____ Inspector: _____

Type of inspection: Post-storm Complaint Routine

Location: (Identify stream or basin name, downstream and upstream streets or reference points, and location of problem. Provide sketch as needed.)

Type of problem: Trash Minor Obstruction Structural

Recommended maintenance: _____

Is equipment needed? ____ If so, list equipment needed: _____

Date: _____ Right of entry needed? ____

Work order description: _____

State permit needed? ____ Work order number: _____

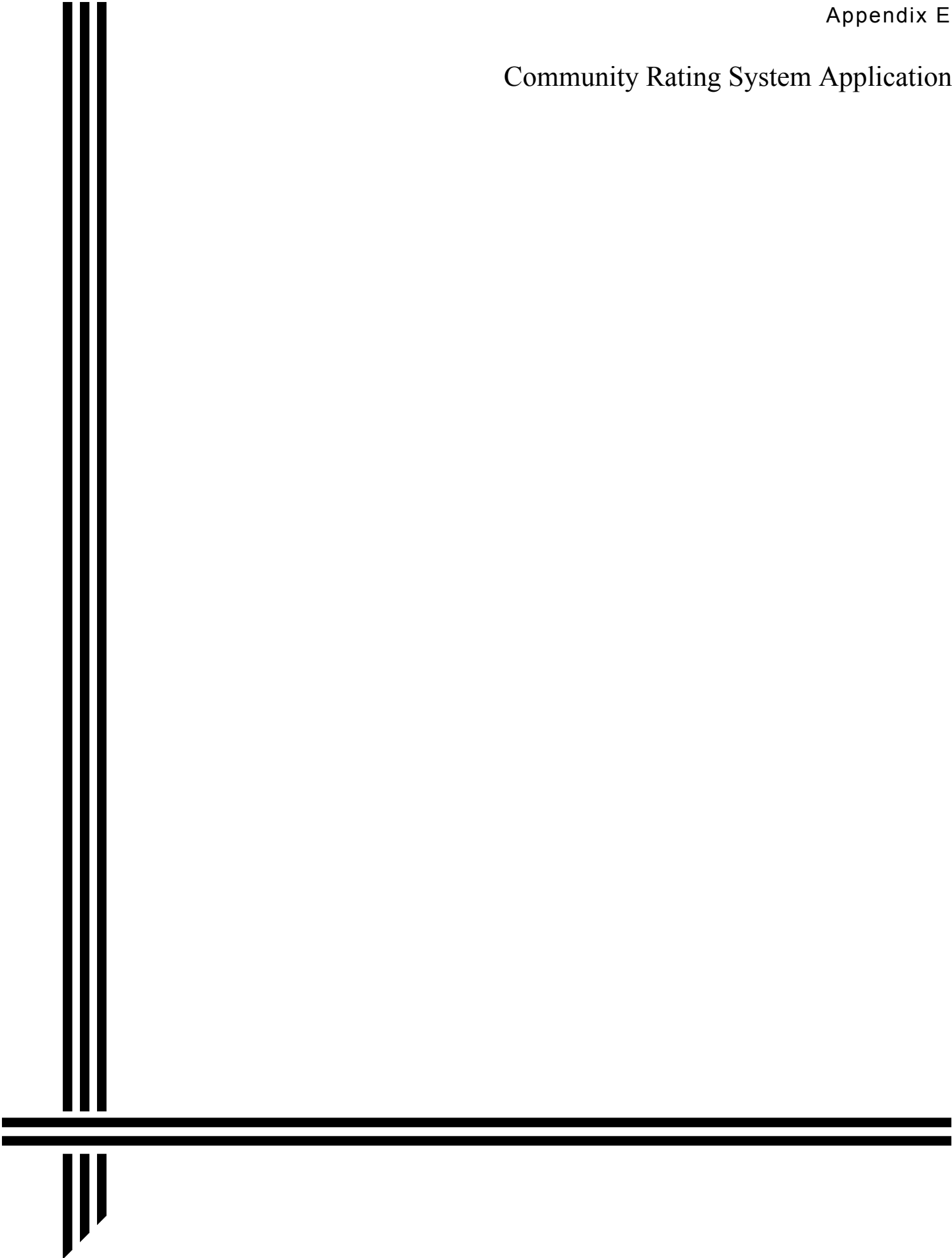
Date: _____ Crew chief: _____

Maintenance performed: _____

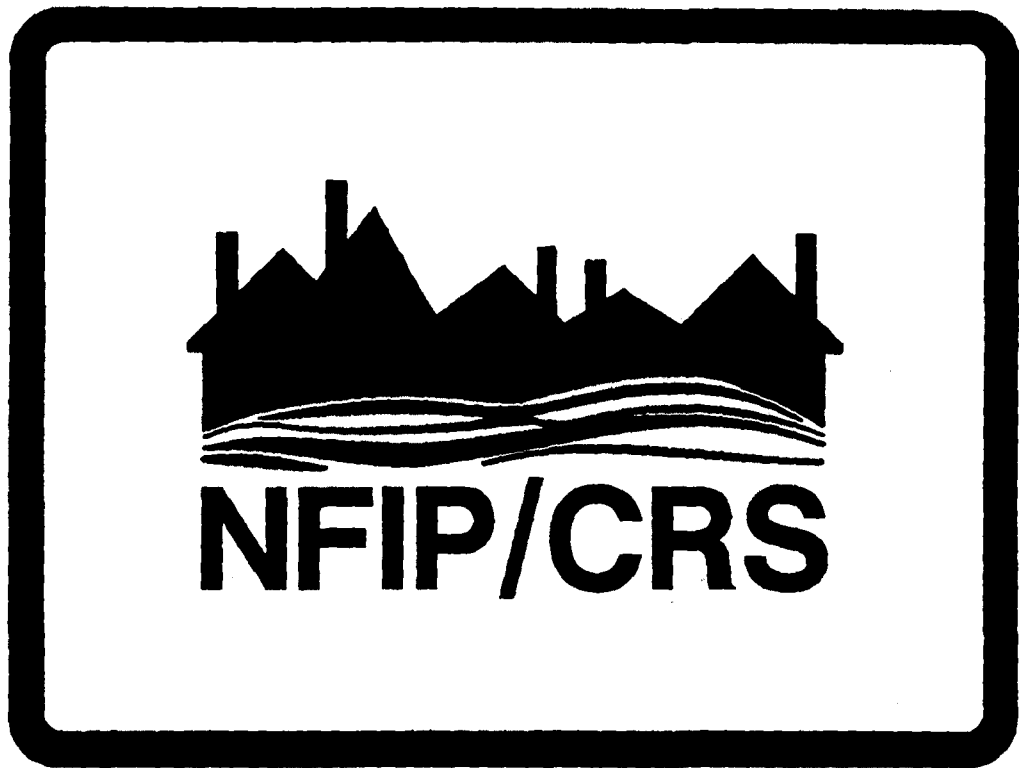
Inspected by: _____

Use other side for additional recommendations for this site.

Community Rating System Application



National Flood Insurance Program Community Rating System



CRS APPLICATION
JANUARY 1999

This document was prepared for the Community Rating Task Force by the Insurance Services Office, Inc., with support from French & Associates, Ltd., and the Association of State Floodplain Managers, Inc.

A community interested in more information on obtaining flood insurance premium credits through the Community Rating System (CRS) should have the *CRS Coordinator's Manual*. It and other publications on the CRS are available free from:

Flood Publications NFIP/CRS
P.O. Box 501016 Indianapolis, IN 46250-1016 (317) 848-2898
Fax: (317) 848-3578

The Emergency Management Institute (EMI) is a Federal Emergency Management Agency training center located in Emmitsburg, Maryland. It offers five-day courses on:

- The Community Rating System,
 - Digital Hazard Data,
 - Managing Floodplain Development Through the National Flood Insurance Program, and
- As noted on pages 24 and 28, CRS credit is provided for graduating from the last two courses. Stipends to cover travel, registration, and rooms are usually available from FEMA. For more information, call EMI at 1-800-238-3358 or your state emergency management agency's training office.

FOREWORD

The Community Rating System (CRS) is a part of the National Flood Insurance Program (NFIP). Flood insurance premium rates are reduced based on a community's CRS classification. In a Class 10 community, there is no premium rate reduction. A community may apply to become a Class 9 or better in order to give its flood insurance policy holders a 5% or better reduction. The best classification is a Class 1, which results in a 45% rate reduction.

To receive a classification better than a Class 10, your community must apply to the Federal Emergency Management Agency (FEMA) and document how it is implementing certain creditable floodplain management activities. This *CRS Application* is used to apply for a CRS classification. The credit points listed are based on the average points received by most communities and are considered preliminary.

After you submit your application, you will be contacted by an ISO/CRS Specialist. The Specialist will review your application according to the *CRS Coordinator's Manual*. The *Coordinator's Manual* is a separate document that includes detailed explanations of the creditable activities and the algebraic formulae for calculating your verified or final credit points. This *CRS Application* can only be used for a community's first application. The activity worksheets in the *Coordinator's Manual* are used for modifying an application later.

NOTE: FOR THE SAKE OF BREVITY, THIS CRS APPLICATION DOES NOT INCLUDE ALL OF THE INFORMATION ON CREDITING ACTIVITIES THAT IS CONTAINED IN THE MORE DETAILED CRS COORDINATOR'S MANUAL. The section numbering matches the numbering in the Coordinator's Manual, so some section numbers are missing from this publication.

This *CRS Application* discusses only the documentation that is submitted with your initial application. The *Coordinator's Manual* and your ISO/CRS Specialist will explain additional materials that are needed for the verification visit and that are submitted annually to document continued implementation of the activities.

Some of the activities may appear to have relatively low scores. This *CRS Application* intentionally provides lower credit points for the more complicated activities where it is difficult to communicate the CRS credit criteria. The ISO/CRS Specialist or a technical reviewer will calculate the correct verified score based on the documentation submitted. You are encouraged to review the more detailed credit criteria in the *CRS Coordinator's Manual* before you submit your application.

Where to start: Pages 1 through 3 provide a summary of the Community Rating System. If you have seen the 13-minute video on the CRS, you may want to skip this section and begin on page 4.

For more information: Additional publications are listed in Appendix B on page 51. Technical assistance can be obtained from your FEMA Regional Office (see page 49), State NFIP Coordinator, or ISO/CRS Specialist.

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100 INTRODUCTION

Background: Communities that regulate new development in their floodplains are able to join the National Flood Insurance Program (NFIP). In return, the NFIP provides federally backed flood insurance for properties in participating communities.

Today over 18,500 communities are in the NFIP. There are over 4 million policies in effect and over \$8 billion have been paid in flood insurance claims since 1978. The NFIP is one of the nation's largest programs to manage floodplain development and help pay for repairs to flooded properties.

The Community Rating System (CRS) is a part of the NFIP. The CRS reduces flood insurance premiums to reflect what a community does above and beyond the NFIP's minimum standards for floodplain regulation. The objective of the CRS is to reward communities for what they are doing, as well as to provide an incentive for new flood protection activities.

CRS Classes: The reduction in the insurance premiums is in the form of a CRS classification. There are 10 classes, each providing an additional 5% premium rate reduction for properties in the community's mapped floodplain: Class 10 receives no premium reduction, Class 9 receives 5%, Class 8 receives 10%, etc.. In addition, classes 1-9 all provide a 5% reduction for properties outside of the floodplain.

A community's class is based on the number of credit points it receives for its floodplain management activities. A community that does not apply for the CRS, or applies but does not obtain the minimum number of credit points, or fails to continuously implement the credited activities, is a Class 10 community.

Application: Community participation in the CRS is VOLUNTARY. Any community in full compliance with the rules and regulations of the NFIP may apply for a CRS classification better than Class 10. To date, over 900 communities are participating as CRS class 9 or better.

To apply, a community submits documentation that it is implementing floodplain management activities recognized in the *CRS Coordinator's Manual*. The submittal uses worksheet pages included in the *CRS Application* and includes additional materials appropriate for each activity.

It is important that the community submit correct and complete materials to show what it is doing. Only through a review of the submitted documentation can the credit be verified.

A CRS application is submitted to the community's ISO/CRS Specialist (see page 57). The ISO/CRS Specialist is an employee of the Insurance Services Office, Inc. (ISO). ISO works on behalf of FEMA and the insurance companies to review CRS applications, verify the communities' credit points, and perform program improvement tasks. A copy may also be sent to the Regional Office of the Federal Emergency Management Agency (FEMA) and the state NFIP Coordinator.

No fee is charged for a community to apply for participation in the CRS. The only costs the community incurs are those of implementing creditable floodplain management activities and the staff time needed to prepare the CRS application. All CRS publications and software are available at no cost by using the order form on page 53.

Verification: FEMA and the State NFIP Coordinator send their comments on the application to the ISO/CRS Specialist. The ISO/CRS Specialist reviews the community's application documents to confirm that there are enough credit points to warrant a Class 9 or better. If so, a verification visit is scheduled. During the visit, the community's program is reviewed in detail and verified both in the office and in the field. The ISO/CRS Specialist submits the findings to FEMA.

FEMA sets the credit to be granted and notifies the community, the state, insurance companies, and other appropriate parties. The community's CRS classification takes effect on either April 1 or October 1, whichever comes first after the community's program is verified.

Each year the community must recertify that it is continuing to perform the activities that are being credited by the CRS. Recertification is an annual activity that includes copies of projects conducted during the year, progress reports, and similar items that document continued implementation of the credited activities. Every few years, the community must also verify its program again. This is done on a cyclical basis and involves another verification visit.

Community Responsibilities: As part of its application, the community's Chief Executive Officer (CEO) must designate a staff person as the CRS Coordinator. The Coordinator is the point of contact for FEMA and the ISO/CRS Specialist on CRS matters. The CRS Coordinator should be someone familiar with the operation of all community departments that implement the credited activities.

Once it has submitted its CRS application, a community must continue to implement its credited activities to keep its classification. Specifically, a community is responsible for:

- cooperating with the ISO/CRS Specialist and the verification procedures,
 - recertifying each year that it is continuing to implement its activities,
 - submitting the appropriate documents with its recertification,
 - advising FEMA of modifications in its activities,
 - maintaining elevation certificates, other permit records, and old Flood Insurance Rate
- Communities will receive periodic updates to the *CRS Coordinator's Manual* and other CRS materials. They are encouraged to order other background publications, attend CRS workshops, and ask their ISO/CRS Specialists for help in understanding the CRS credit criteria for their current and planned activities.

CRS Activities: There are 18 floodplain management activities credited by the Community Rating System, organized under four series:

300 Public Information

400 Mapping and Regulations

500 Flood Damage Reduction

600 Flood Hazard Assessment

Activity 310 (Elevation Certificates) is required of all CRS communities. Designated repetitive loss communities must undertake certain activities as explained on pages 33-34. The rest of the activities are optional.

Communities should prepare and implement those activities that best deal with their local problems, whether or not they are creditable under the CRS. They may already be implementing several activities that deserve CRS credit.

Often a community wants to undertake a new floodplain management activity for CRS credit. In such cases, all of the benefits of the activity should be weighed in order to determine whether it is worth implementing. Besides insurance premium reductions, benefits that should be considered can include increased public safety, reduction of damage to property and public infrastructure, avoidance of economic disruption and losses, reduction of human suffering, and protection of the environment.

Many communities can qualify for "uniform minimum credit," whereby a state or regional agency can apply for a CRS activity that it is implementing on behalf of its communities. For example, some states have disclosure laws that are creditable under Activity 340 (Flood Hazard Disclosure). Any community in those states will receive those credit points when it applies for CRS credit and demonstrates that the law is effectively implemented within its jurisdiction.

The *CRS Coordinator's Manual* is not a federal regulation or a model with design standards for local floodplain management. The *Manual* is a tool that describes methods of calculating credit points for various community activities. The fact that the CRS does not provide a direct credit for some activities does not mean that they should not be implemented by communities that need them.

The CRS welcomes innovative ways to prevent or reduce flood damage. Communities that are implementing floodplain management activities not listed in the *CRS Coordinator's Manual* are encouraged to request a review to determine if they should be credited.

CRS Publications: This CRS Application provides summary information that is spelled out in more detail in the *CRS Coordinator's Manual*. Additional guidance is provided in other publications listed in Appendix B on pages 51-55.

All CRS materials use the same numbering system. All of them use the following terms and acronyms:

ISO/CRS Specialist: The person who reviews and verifies your application, and is also available to help you with questions on these materials.

FIRM: Flood Insurance Rate Map, published by FEMA and provided to communities.

SFHA or Special Flood Hazard Area: The floodplain delineated on the FIRM as A and V Zones.

CEO or Chief Executive Officer: The mayor, county board chair, city manager, or other person of equivalent position.

210 REQUESTING CRS CREDIT

Application for a CRS classification is voluntary. Preapplication activities are covered in Section 211 and the application documents needed are explained in Section 212. If you do apply, you are required to submit all of the application documents needed, including application for credit under Activity 310 (Elevation Certificates). Repetitive loss communities are also required to submit additional materials as explained on pages 33-34.

211 Credit Prerequisites

a. Application Prerequisites: There are two prerequisites to applying to become a Class 9 or better community. First, The community must have been in the Regular Phase of the NFIP for at least one year. Second The community must be in full compliance with the minimum requirements of the NFIP. If a CRS community is determined at any time to not be in full compliance, it will revert to a CRS Class 10.

Your application must include a letter from the FEMA Regional Office stating that your community is in full compliance with the NFIP. (The Regional Offices are listed on page 49.) The letter must have been written no earlier than six months before your application is submitted. The Regional Office or State NFIP Coordinator may need to visit your community if they have not been there recently. If so, your application cannot be submitted until the visit is conducted and FEMA confirms the community's full compliance.

b. Class 7 Prerequisite: While not this does not affect your application, you should be aware that in order to be a Class 7 or better, your community must have received a classification of 6 or better under the Building Code Effectiveness Grading Schedule (BCEGS). Both BCEGS classifications (residential/personal and commercial) must be at least a Class 6 or better. The Building Code Effectiveness Grading Schedule is administered by the Insurance Services Office, Inc. (ISO). It measures a community's building code standards as they relate to natural hazard mitigation and how the community administers its code. More information about BCEGS can be obtained from your ISO/CRS Specialist (see page 57).

c. Application Information: YOU MUST check with your FEMA Regional Office (listed on page 49) to obtain information important to your application. Ask the following questions:

1. Is your community in full compliance with the NFIP? If so, ask for a letter of confirmation. You cannot apply for a CRS classification until the FEMA Regional Office provides the letter. You may have to wait for the Region or the State Coordinator to conduct a community visit.
2. What parts of the application are submitted to the Regional Office and the State NFIP Coordinator? Some FEMA Regions and State Coordinators will want the entire application and some will want to review only certain parts. In any case, the entire application is submitted to the ISO/CRS Specialist. See also "Application Submittal" on page 8
3. Is your community a repetitive loss community? If so, ask for the FEMA repetitive loss list so that you can meet the requirements of Sections 501-503 and Activity 510 (Floodplain Management Planning) on pages 33-37
4. How many credit points will you receive for your state's dam safety program under Activity 630 (Dam Safety)? Enter this number in the blank before Section 63 1 .a on page 45.

5. What is the U.S. Census growth rate for your county? Enter this number in the blank before 711 .a on page 46.

The Regional Office can tell how many NFIP policies are in your community, how much flood insurance coverage is provided, and what are the annual premiums paid. This information is not required, but it will help determine the monetary impact of your participation in the CRS.

You may also want to call your ISO/CRS Specialist (see page 57) and discuss your application. The Specialist can provide advice on helpful hints, common mistakes to avoid, how neighboring communities have handled certain activities, and possible timing of the verification visit.

212 Application Documents

A complete application must include the appropriate worksheet pages from this CRS Application and the documents that must be submitted with them as noted in the Application Documentation section for each activity. No credit is given if your application is incomplete.

This document includes two sets of worksheet pages. One set is with the text on pages 7-47; use it for notes and to figure your credit points and needed documentation. The second set of worksheet pages is at the end; it has no page numbers. Once you have decided what you are going to apply for, fill out the appropriate pages from the second set and submit them with your formal application.

Application Cover Page: On page 7 is the application cover page that includes data needed about your community. It should be the first page of your application. The following notes explain Sections 1 through 8 on the cover page. All of these items must be included with your application package.

1. Your NFIP number and "FIRM Effective Date" are found on the legend of your FIRM. The latter is usually the date of conversion to the Regular Program of the NFIP. The "Current FIRM Date" is the date on the FIRM Index Map.
2. Your Chief Executive Officer (CEO) is your mayor, county board chair, city manager, or other person of equivalent position. Your CEO must designate your community's CRS Coordinator. The CRS Coordinator coordinates the application work of the various departments and offices performing the activities for which credit is being requested. This person serves as the liaison between the community and FEMA and the ISO/CRS Specialist on CRS matters.

The CRS Coordinator need not be the person who normally handles NFIP activities. The program will be best managed when the CRS Coordinator can speak for the CEO, e.g., an assistant city manager. The CRS Coordinator should attend all CRS workshops. This person should know the operations of all community departments that deal with floodplain management and public information. The CRS Coordinator must coordinate the application process and know where to obtain the documentation needed for each activity.

3. As noted in Section 211 on page 4, your application must include the letter from your FEMA Regional Office stating that your community is in full compliance with the NFIP. The letter must be dated no more than six months before your application date.

4. Check each activity for which you are applying. Your application must include completed copies of the appropriate worksheet pages of this CRS Application and the documentation that is required for each activity. See "Worksheet Pages" on page 8.

Two spaces are already checked because they are required of every application. Activity 310 (Elevation Certificates) is a minimum requirement for participation in the CRS. You must complete and submit the worksheet page for Activity 310. The worksheet page for 720 (Community Total Points) is also required to show your total points. You may apply for any of the other activities, as long as all of your activities add up to 500 points or more.

5. As noted on page 4, you must check with your FEMA Regional Office to see if you are a repetitive loss community. If FEMA tells you that you have one or more repetitive loss properties, you must obtain the list of properties from FEMA, read Sections 501-503 and complete the two worksheet pages for Sections 500-503 on pages 33-34. Category C communities (those with more than 10 repetitive loss properties) must also apply for Activity 510 (Floodplain Management Planning).
6. The National Flood Insurance Act, as amended in 1973, requires "the purchase of flood insurance by property owners who are being assisted by federal programs or by federally supervised, regulated or insured agencies or institutions in the acquisition or improvement of land or facilities located or to be located in identified areas having special flood hazards." This requirement is also explained on page 14.

As a property owner, a local government is subject to this law as well. If your community received federal financial assistance for a community-owned building in the floodplain, you are required to maintain flood insurance on that building. Examples of federal financial assistance you may have received include Environmental Protection Agency grants to improve wastewater treatment plants, Community Development Block Grants, and FEMA disaster assistance for damaged buildings.

Your CEO must certify that you have all the flood insurance policies that you have been required to have. The CRS is not concerned with past lapses in flood insurance coverage. What counts is that NFIP insurance is in effect when you apply and is kept in the future. The CRS Coordinator should make every effort to determine the community's legal requirement for flood insurance.

7. Your CEO must certify that your community is actually implementing the activities in your application. This certification does NOT mean that you will START doing them; it means that your community is doing them as of the date of your application. With this certification, you do not need to submit certifications for individual activities or "certified true copies" of ordinances or other documents, although some activities require certifications by registered professional engineers.

This CRS Application contains examples of certifications and ordinance language. It is recommended that all certifications and proposed ordinances be reviewed by your attorney or corporation counsel.

8. The cover page must be signed by your community's CEO. This form cannot be signed by a department head or other staff person.

210 CRS APPLICATION COVER PAGE

1. Community Name:

State:

Application Date:

19 County:

----- /

NFIP Number:

, 19__

Population:

FIRM Effective Date:

, 19__

2. Chief Executive

Current FIRM Date:

Officer: Name:

Title:

Address:

Coordinator's Telephone:

Fax:

3. Attached is our letter from FEMA stating that we are in full compliance with the minimum requirements of the National Flood Insurance Program.
4. Attached are copies of the appropriate CRS Application worksheet pages and the needed documentation to apply for the following activities (check the ones that apply):

<input type="checkbox"/> ~ 310 Elevation Certificates	<input type="checkbox"/> 440 Flood Data Maintenance
<input type="checkbox"/> 320 Map Information	<input type="checkbox"/> 450 Stormwater Management
<input type="checkbox"/> 330 Outreach Projects	<input type="checkbox"/> 510 Floodplain Management
<input type="checkbox"/> 340 Hazard Disclosure	<input type="checkbox"/> 520 Acquisition and Relocation
<input type="checkbox"/> 350 Flood Protection Library	<input type="checkbox"/> 530 Retrofitting
<input type="checkbox"/> 360 Flood Protection Assistance	<input type="checkbox"/> 540 Drainage System Maintenance
<input type="checkbox"/> 400SH Special Hazard Areas	<input type="checkbox"/> 610 Flood Warning Program
<input type="checkbox"/> 410 Additional Flood Data	<input type="checkbox"/> 620 Levee Safety
<input type="checkbox"/> 420 Open Space Preservation	<input type="checkbox"/> 630 Dam Safety
<input type="checkbox"/> 430 Higher Regulatory Standards	<input type="checkbox"/> 710 Community Growth Adjustment
<input type="checkbox"/> 430LZ Low Density Zoning	<input type="checkbox"/> 720 Community Total Points

5. Check which applies: There are no repetitive loss properties in our community. Attached are the two worksheet pages for Sections 500-503 (Repetitive Loss Areas).
6. I hereby certify that to the best of my knowledge and belief, we are maintaining in force all flood insurance policies that have been required of us as a condition of federal financial assistance for insurable buildings owned by us and located in the Special Flood Hazard Area shown on our Flood Insurance Rate Map.
7. I hereby certify that [community name] is implementing those activities designated on the attached pages. We will continue to implement these activities and will advise the Federal Emergency Management Agency if any of them are not being conducted in accordance with this application.
8. Signed: (Chief Executive Officer)

Worksheet Pages: Each activity has one or more pages that explains the credit points and/or a worksheet page (the one with the space at the top for the community's name). Enter the appropriate credit points in the blanks in the left column of the worksheet page. The credit points are added and the total points for each activity are transferred to page 47.

The last section of each activity is the Application Documentation section. You must check off the documentation that is needed with the application and you must check that those items needed for verification will be provided during the verification visit. Attach the documentation needed with the application to the worksheet page for that activity. Mark the margins to show where the credited element is covered. Your ISO/CRS Specialist will explain any additional documentation that may be needed for the verification visit or your annual recertification.

213 Application Procedures

a. Application Submittal: Ask your FEMA Regional Office or ISO/CRS Specialist about who gets what parts of the application. A complete application (appropriate worksheet pages and all needed documentation) is sent to your ISO/CRS Specialist.

All or parts of the application are sent to the FEMA Regional Office, Attn: Director, Mitigation Division, and to your State NFIP Coordinator. The FEMA Regional offices are listed in Appendix A, page 49. They or the ISO/CRS Specialist can provide the name, address, and telephone number of your State NFIP Coordinator.

Your application will be returned under the following circumstances:

- If your community is not in full compliance with the NFIP,
- If your application is incomplete, or
- If your application does not have the 500 points needed to warrant a Class 9.

b. Application Review: CRS classifications take effect on April 1 and October 1 of each year. Although you may apply for a CRS classification at any time, you should be aware of the time needed to process and review the application.

The ISO/CRS Specialist and FEMA Regional Office will need approximately one month to conduct the application review. Once the application review confirms that your community should have the 500 points needed for a Class 9, the ISO/CRS Specialist schedules a verification visit. This visit must be held within six months of receipt of a complete application.

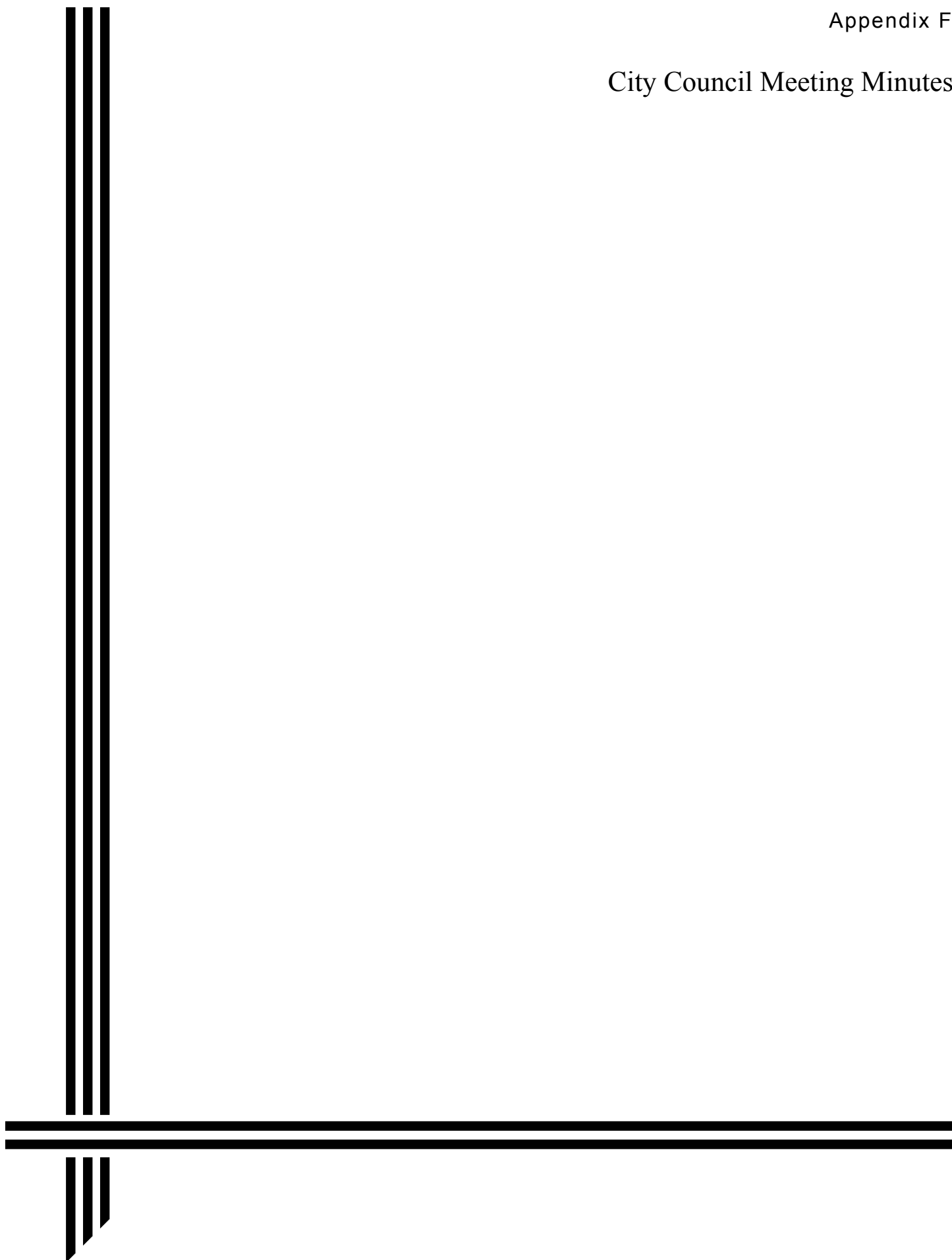
During the verification visit, the ISO/CRS Specialist will review your activities according to the scoring criteria in the *CRS Coordinator's Manual*. For example, a random sample of your elevation certificates will be checked to see if they are complete and correct. Your credit points could increase or decrease based on these reviews and the more accurate scoring formulae in the *Coordinator's Manual*.

After the verification visit is complete and all needed documentation has been received, FEMA and ISO need another three months to review, double check, and confirm the

Specialist's verification report. Once FEMA confirms your community's classification, it sends a notice to your CEO and the insurance companies. This must be done before January 1 and July 1 in order to give the insurance companies three months to distribute the community classification lists that take effect on April 1 and October 1.

Therefore, it takes 5-9 months for FEMA and ISO to review, verify, and double check the application and then to advise the insurance companies of the new classification. The insurance companies need an additional 3 months to advise their agents. Accordingly, your CRS classification will take effect on the April 1 or October 1 approximately 8-12 months after you submit your application.

City Council Meeting Minutes



PUBLIC HEARING

THURSDAY, JULY 12, 2001 6:15P.M.
CITY HALL

AGENDA

1. CALL TO ORDER

The meeting was called to order at 6:15p.m. by Mayor Mark Peterman. Council Members present were Bud Phillips, Fred Helms, Jim Lewis and Nelson Carter. Billie Huddleston was absent.

2. QUESTIONS AND/OR COMMENTS RELATED TO THE
FLOOD MITIGATION ASSISTANCE PLANNING PROJECT.

Ken with Public Management presented the process to the audience.

Reverend Isiah Moore, Jr. spoke of the need to communicate with the Community in the area to establish a working trust between the community and the City. Has the city ever had a plan before? They had been approached before and nothing was ever done. What does the city want from the community?

Jerry Haskell had concerns with the plan being presented in language the community could understand. He was concerned about being forced to give up his land.

Councilman Nelson Carter stated a need to include guidelines in the plan, so that future councils will fulfill the promises made to the community.

3. ADJOURN

Fred Helms motioned to adjourn. Nelson Carter seconded. Motion carried. 4-yes; or no The meeting adjourned at 7:00p.m.

Mark D. Peterman
Mayor

Vicki Faulkner
City Secretary

PUBLIC HEARING

TUESDAY, JULY 31, 2001 6:15P.M.

MINUTES

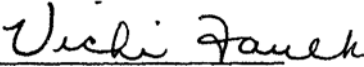
1. CALL TO ORDER

The hearing was called to order at 6:15p.m. by Mayor Mark Peterman. Council persons present were Billie Huddleston, Nelson Carter, Jim Lewis and Fred Helms. Bud Phillips was absent.

2. QUESTIONS AND/OR COMMENTS REGARDING PROPOSED 2001 FLOOD MITIGATION PLAN.

General discussion took place. Ms. Varner asked questions regarding the process FEMA takes in establishing flood plains and how often they update the designations.

3. ADJOURN



Vicki Faulkner
City Secretary



CITY OF
CELINA

302 W. Walnut • Celina, Texas 75009 - (972) 382-2682 • Fax(972)382-3736

I, Vicki Faulkner, City Secretary of the City of Celina do hereby certify that at a regular council meeting held August 16, 2001 at City Hall in Celina that a motion was made by Bud Phillips and seconded by Billie Huddleston to accept the 2001 Flood Mitigation Plan. The motion passed with a unanimous 5-yes;or-no vote. All council persons were in attendance.

A handwritten signature in black ink that reads "Vicki Faulkner". The signature is written in a cursive, flowing style.

Vicki Faulkner
City Secretary