[redacted] BRIDGE

2003 TX DOT OFF SYSTEM BRIDGE
INVENTORY

Sue Ellen - Please create a file in "your area" for this called
"TxDOT OFF SYSTEM BRIDGE INVENTORY"

Thanks Jem

REPORT ON:

FY 2003 OFF-SYSTEM BRIDGE INVENTORY, INSPECTION AND APPRAISAL PROGRAM

DALLAS DISTRICT

CITY OF ADDISON

PRESENTED TO:

CITY OF ADDISON

PREPARED FOR

TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT

OCTOBER 2003

BARNHART
ENGINEERING

2003 OFF-SYSTEM BRIDGE INVENTORY, INSPECTION AND APPRAISAL PROGRAM
TxDOT DALLAS DISTRICT
CITY OF ADDISON

CONTENTS:

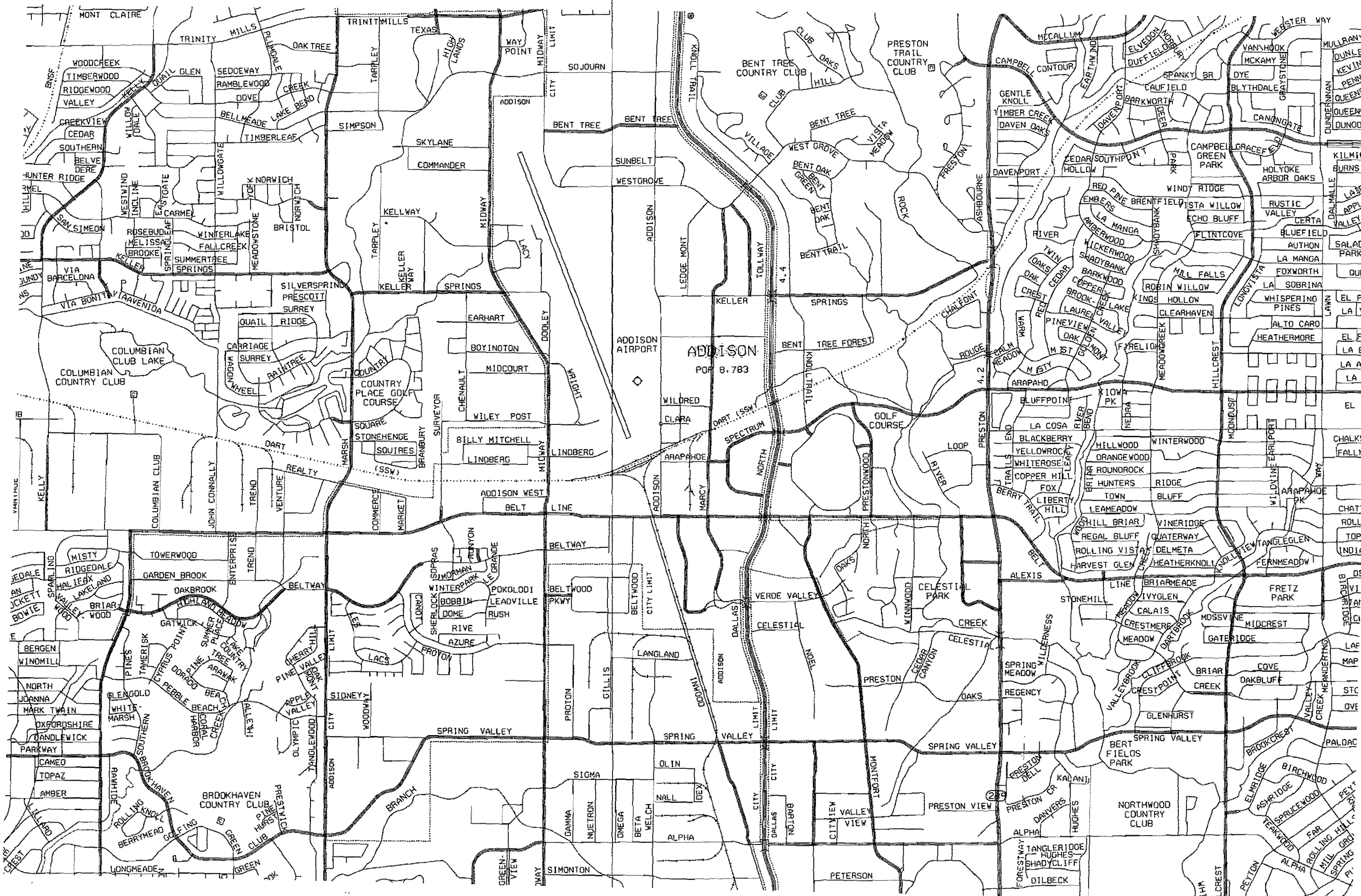
The following report has been prepared for your convenience in administering bridge management in your county. It includes Bridge inspection records, Bridge summary sheets and Bridge photos.

The scope of this investigation included a detailed field inspection of each bridge. Since plans were available for only the newest structures, measurements were made in the field of those members deemed necessary to perform a structural analysis of the bridge. Utilizing the data obtained by inspection, a structural review was made of each bridge, and its load carrying capacity was estimated in terms of an Inventory Rating Load (Heaviest load that can safely use the bridge for an indefinite period of time without causing permanent damage) and an Operating Rating Load (Maximum permissible load that can safely use the bridge on an occasional basis). It should be noted that these ratings represent the best estimate possible with a thorough visual field inspection of an existing structure, upholding a reasonable standard of care by use of routine inspection tools as afforded by routine means of access.

A Bridge Inspection Record was completed for each structure, a condition rating was determined for each of seven (7) elements of the structure. These include deck, superstructure, substructure, channel, culverts, approaches, and miscellaneous items.

A Bridge Summary Sheet containing recommended weight limits for those structures that require a posted weight limit, component ratings and recommended repairs. These are repairs that should be made to lengthen the useful life of the structure. Those structures included in the list should be repaired as soon as maintenance funds are available within the County's normal maintenance program.

State law (Sec. 9 of House Bill 1547) requires that all structures which have been structurally analyzed and rated in this report be posted or closed in accordance with the recommendations herein.


ADDISON
POP 8,783
ADDISON AIRPORT
BENT TREE COUNTRY CLUB
PRESTON TRAIL COUNTRY CLUB
COLUMBIAN COUNTRY CLUB
COLUMBIAN CLUB LAKE
COUNTRY PLACE GOLF COURSE
GOLF COURSE
BROOKHAVEN COUNTRY CLUB
NORTHWOOD COUNTRY CLUB
CAMPBEL GREEN PARK
CELESTIAL PARK
FRETZ PARK
BERT FIELDS PARK
TRINITY MILLS
MONT CLAIRE
SOJOURN
BENT TREE
KELLER SPRINGS
BELT LINE
BELTWAY
SPRING VALLEY
ARAPAHO
PRESTON
MIDWAY
MARSH
DALLAS
TOLLWAY
ADDISON
KNOLL TRAIL
HILLCREST
ALEXIS
MONTFORT
INWOOD
SIMONTON
PETERSON
SIMPSON
SKYLANE
COMMANDER
KELLWAY
EARHART
BOYINGTON
MIDCOURT
WILEY POST
BILLY MITCHELL
LINDBERG
ADDISON WEST
SPECTRUM
DART (SSW)
CELESTIAL
VERDE VALLEY
LANGLAND
PRESTON VIEW
CAMPBEL
MCCALLUM
WEBSTER WAY
DAVENPORT
BENT TREE FOREST
CHALFONT
PROTON
GILLIS
SIGMA
ALPHA
OLIN
NALL
GAMMA
NUETRON
OMEGA
BETA
WELCH
BARTON
MIDCREST
TANGLEGLEN
FERNMEADOW
BRIARMEADE
STONEHILL
REGENCY
OAKS
CITY LIMIT

Texas Department of Transportation

P.O. BOX 133067 • DALLAS, TEXAS 75313-3067 • (214) 320-6100

December 10, 2003

Mr. Michael Murphy
Director of Public Works
City of Addison
P.O. Box 9010
Addison, TX. 75001-9010

RE: Off-System BRINSAP Summary Package

Dear Mr. Murphy:

An inspection and analysis of Off-System public bridges, consistent with Federal Regulations and the National Bridge Inspection Standards, was recently completed by this department. The bridge inspection was conducted and the recommendations were prepared by private consultants. Since some bridges are within your jurisdiction and subject to your control, supervision and maintenance, we are forwarding Summary Packages containing the following for each structure. This information can be used in carrying out your responsibilities for the bridge maintenance, repair, closures, and weight limit posting.

1. Bridge Summary Sheet

2. Bridge Inspection Record

3. Color Photos

4. Bridge location map

Please notify us of any other new or old structures within your jurisdiction that need to be added to or deleted from our database.

If you have any questions, comments, suggestions or need additional information, please contact Mr. Ibrahim Musa, P.E. in the Dallas District Bridge Section, at tel. (214)320-4423 or fax (214)319-6439.

Sincerely,

Anthony Okafor, P.E.
District Bridge Engineer

IAM/dla
Attachments

2 Di	3 Cd	8 4 Cd	8 5	8 6 S	5	4 Place	6 1 Feat Xed	7 Fac Carried	9 Location	126 Dist Us
18	057	P001	00	003	1	00200	HUTTON BRANCH	MIDWAY ROAD	0.2 MI N KELLER SP. RD.	03
18	057	P001	45	001	1	00200	WHITE ROCK CREEK TRIB	LAKE FOREST DRIVE	0.1 MI SO OF BELT LINE RD	03
18	057	P002	00	001	1	00200	FARMERS BRANCH	FARMBROOK DRIVE	0.1 MI S OF BROOKHAVEN CR	03
18	057	P002	20	001	1	00200	WHITE ROCK CREEK TRIB	OAKS NORTH DRIVE	0.1 MI S OF BELT LINE RD	03

2003 *OFF-SYSTEM MAINTENANCE REPAIR FORM (City of Addison)*

ID	HIGHWAY NAME OR NUMBER	FEATURE CROSSED	1085 RATING	ITEM	DESCRIPTION	RECOMMENDATION (UPGRADE)	DATE	RESPONSE	DATE
18-057-P001-45-001	Lake Forest Drive	Tributary of White Rock Creek	5	61	Moderate to severe erosion of the downstream channel has undermined the channel apron 4 feet, causing it to settle 2" and crack in two.	Construct gabions, similar to those along the banks, along the end of the downstream apron.	9/16/2003		
18-057-P002-00-001	Farmbrook Drive	Farmers Branch	5	65	Moderate settlement cracks through south approach slab, curb, and sidewalk. Approach slab has been undermined 6" deep and at least 10' back.	Pump concrete in hole under approach slab.	6/11/2003		

BRIDGES WITHOUT PLANS IN THE BRINSAP FILE

(Culverts Excluded & Railroad Overpasses)

Bridge ID	Facility Carried	Featured Crossed
P002-00-001	Farmbrook Drive	Farmers Branch

NO OTHER CONDITIONS WHICH REQUIRE MAINTENANCE AT THIS TIME

Bridge Inspection Record

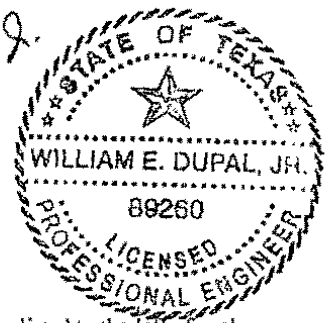
Texas Department of Transportation

Modified (12-5-2008)

District: 18 County: 057 Cont- P001-00 Structure: 003 Route: Midway Road
Description: 3 Barrel 9.0' X 6.0' Reinforced Concrete Box Culvert With Cast In Place Wingwalls - Skew Varies
Feature Crossed: Hutton Branch Inspector's Signature: William E. Dupal, Jr., P.E. Date: June 16, 2003
Company Name: BARNHART ENGINEERING City Of Addis

N- Not applicable
9- Excellent Condition
8- Very good condition - no problem noted
7- Good condition - some minor problems
6- Satisfactory condition minor deterioration of structural elements (limited)
5- Fair condition - minor deterioration of structural elements (extensive)
4- Poor condition - deterioration significantly affects structural capacity
3- Serious condition - deterioration seriously affects structural capacity
2- Critical condition - bridge should be closed until repaired
1- Failing condition - bridge closed but repairable
0- Failed condition - bridge closed and beyond repair

William E. Dupal Jr.
16 June 2003



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)	Rating
1	Deck-Rating	N
6	Wearing Surface Concrete 1)	7
6	Joints, Expansion, Open	N
6	Joints, Expansion, Sealed	N
6	Joints, Other	N
6	Drainage System	8
6	Curbs, Sidewalks & Parapets	8
6	Median Barrier	N
6	Railings Pedestrian Rails 2)	7
7	Railing Protective Coating	8
7	Delineation (curve markers)	N
	Other	N

Comments:
1) Minor longitudinal and transverse cracks in the concrete wearing surface.
2) Minor to moderate impact damage to the west end of the north rail.

Min.	Superstructure (Item 59)	Rating
	Main Members - Steel	N
	Main members - Concrete	N
	Main Members - Timber	N
	Main Members Connections	N
	Floor System Members	N
	Floor System Connections	N
	Secondary Members	N
	Secondary Member Connections	N
	Expansion Bearings	N
	Fixed Bearings	N
	Steel Protective Coating	N
	Other	N
	Component Rating	N

Comments:

Texas Department of Transportation

BRIDGE SUMMARY SHEET

Bridge I.D.: 18-057-P001-00-003
Facility: Midway Road
Feature X'ed: Hutton Branch
Bridge Owner: City Of Addison

Company Name: BARNHART ENGINEERING *Signature:* William E. Dupre' D. *Date:* 29 July 2003

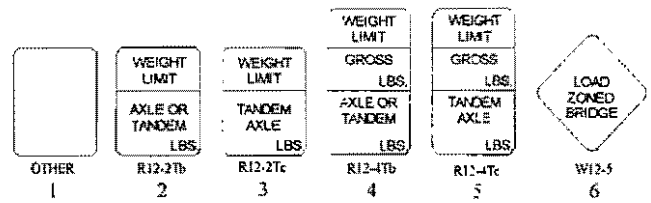
Selected Component Description and Rating:	Inspection Rating	Inventory Rating		Operating Rating	
Inspection Date: June 16, 2003	1085	H	HS	H	HS
Reinforced Concrete Box Culvert (H S 15 Assumed)	6		15.0		20.0
Load Rating			15.0		20.0

Comments and/or Upgrade Recommendations (if applicable):

Maintenance Not Required At This Time

Load Posting Limits for Present Condition (if applicable):

Inventory		Operating	
_____	lbs Gross	_____	lbs Gross
_____	lbs Tandem Axle	_____	lbs Tandem Axle
_____	lbs Axle or Tandem	_____	lbs Axle or
_____	Sign Code	_____	Sign Code



Posting Recommendation: *Load Posting Not Required At This Time*

Previous Load Posting Recommendations:

_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or

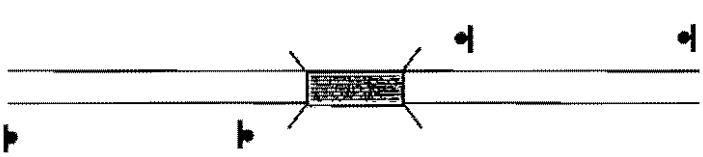
Observed Load Posting at Bridge:

_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or Tandem
	Other		

Material Needed

_____ - R12-2Tb
_____ - R12-2Tc
_____ - R12-4Tb
_____ - R12-4Tc
_____ - W12-5
_____ - Posts
_____ - Hardware Sets
_____ - Decals

COMPASS



Sign Code	Advance Warning (optional)	Bridge Approach	Bridge Approach	Advance Warning (optional)
Condition Code				
Maintenance				

A. Visible & Legible
B. Obscured by Vegetation
C. Sign Needs Cleaning
D. Improper Position
E. Damaged Beyond
F. Sign Down
G. Sign Missing
H. Sign & Post Missing
J. Clear Vegetation
K. Clean Sign
L. Reposition Sign
M. Reposition Sign & Post
N. None
P. Replace Sign
S. Replace Sign & Post

Bridge Inspection Record

Texas Department of Transportation

Modified (12-5-2000)

District: 18 County: 057 Cont-Sec: P001 - 45 Structure: 001 Route: Lake Forest Drive

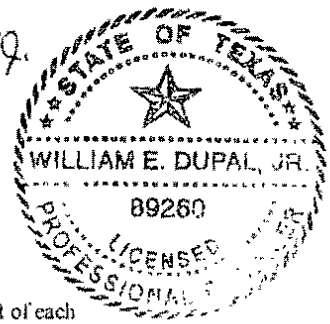
Description: 5 Barrels 8.0' X 4.0' Reinforced Concrete Box Culvert With Masonry Headwalls

Feature Crossed: Tributary of White Rock Creek Inspector's Signature: William E. Dupal Jr., P.E. Date: September 16, 2003

Company Name BARNHART ENGINEERING Maintenanee Section: City of Addison

N- Not applicable
9- Excellent condition
8- Very good condition - no problems noted
7- Good condition - some minor problems
6- Satisfactory condition - minor deterioration of structural elements (limited)
5- Fair condition - minor deterioration of structural elements (extensive)
4- Poor condition - deterioration significantly affects structural capacity
3- Serious condition - deterioration seriously affects structural capacity
2- Critical condition - bridge should be closed until repaired
1- Failing condition - bridge closed but repairable
0- Failed condition - bridge closed and beyond repair

William E. Dupal Jr.
24 Sept 2003



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)		Rating
1	Deck-Rating		N
6	Wearing Surface	Direct Traffic Culvert 1)	7
6	Joints, Expansion, Open		N
6	Joints, Expansion, Sealed		N
6	Joints, Other		N
6	Drainage System		8
6	Curbs, Sidewalks & Parapets		8
6	Median Barrier		N
6	Railings	Pedestrian Rails	8
7	Railing Protective Coating		8
7	Delineation (curve markers)		N
	Other		N

Comments:
1) Minor surfaee spall and hairline map craeks in the surface of the direct traffic culvert.

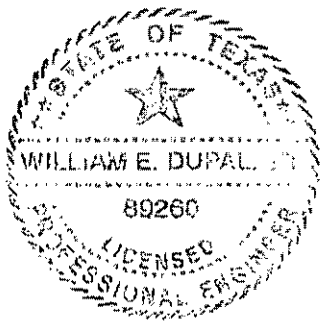
Min.	Superstructure (Item 59)	Rating
0	Main Members - Steel	N
0	Main Members - Concrete	N
0	Main Members - Timber	N
0	Main Member Conneetions	N
1	Floor System Members	N
1	Floor System Conneetions	N
5	Secondary Members	N
5	Seeondary Members Connections	N
6	Expansion Bearings	N
6	Fixed Bearings	N
6	Steel Protective Coating	N
	Other	N
	Component Rating	N

Comments:

Texas Department of Transportation

Summary.d67

BRIDGE SUMMARY SHEET



Bridge I.D.: 18-057-P001-45-001

Facility: Lake Forest Drive

Feature X'ed: Tributary of White Rock Creek

Bridge Owner: City Of Addison

Company Name: BARNHART ENGINEERING *Signature:* William E. Dupal Jr. *Date:* 1 Oct 2003

Selected Component Description and Rating:	Inspection Rating	Inventory Rating		Operating Rating	
Inspection Date: September 16, 2003	1085	H	HS	H	HS
Reinforced Concrete Box Culvert (H S 15 Assumed)	7		15.0		20.0
Channel	5				
Load Rating			15.0		20.0

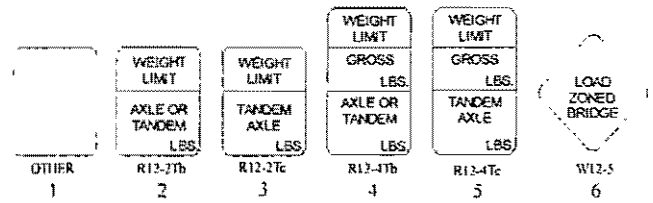
Comments and/or Upgrade Recommendations (if applicable):

Moderate To Severe Erosion Of The Downstream Channel Has Undermined The Channel Apron 4 Feet, Causing It To Settle 2" And Crack In Two.

Recommendation: Construct Gabions, Similar To Those Along The Banks, Along The End Of The Downstream Apron.

Load Posting Limits for Present Condition (if applicable):

Inventory		Operating	
_____	lbs Gross	_____	lbs Gross
_____	lbs Tandem Axle	_____	lbs Tandem Axle
_____	lbs Axle or Tandem	_____	lbs Axle or
_____	Sign Code	_____	Sign Code



Posting Recommendation: *Load Posting Not Required At This Time*

Previous Load Posting Recommendations:

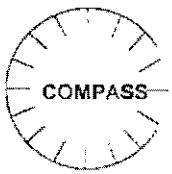
_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or

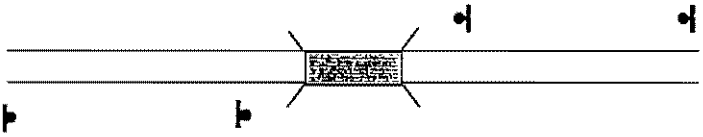
Observed Load Posting at Bridge:

_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or Tandem
	Other		

Material Needed

- _____ - R12-2Tb
- _____ - R12-2Tc
- _____ - R12-4Tb
- _____ - R12-4Tc
- _____ - W12-5
- _____ - Posts
- _____ - Hardware Sets
- _____ - Decals





Sign Code	Advance Warning (optional)	Bridge Approach	Bridge Approach	Advance Warning (optional)
Condition Code				
Maintenance				

A. Visible & Legible
B. Obscured by Vegetation
C. Sign Needs Cleaning
D. Improper Position
E. Damaged Beyond
F. Sign Down
G. Sign Missing
H. Sign & Post Missing
J. Clear Vegetation
K. Clean Sign
L. Reposition Sign
M. Reposition Sign & Post
N. None
P. Replace Sign
S. Replace Sign & Post

Bridge Inspection Record

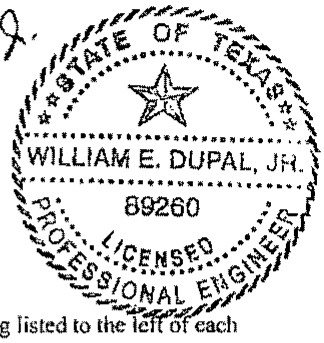
Texas Department of Transportation

Modified (12-5-2000)

District: 18 County: 057 Cont- P001-00 Structure: 003 Route: Midway Road
Description: 3 Barrel 9.0' X 6.0' Reinforced Concrete Box Culvert With Cast In Place Wingwalls - Skew Varies
Feature Crossed: Hutton Branch Inspector's Signature: William E. Dupal, Jr., P.E. Date: June 16, 2003
Company Name: BARNHART ENGINEERING City Of Addison

N- Not applicable
9- Excellent Condition
8- Very good condition - no problem noted
7- Good condition - some minor problems
6- Satisfactory condition minor deterioration of structural elements (limited)
5- Fair condition - minor deterioration of structural elements (extensive)
4- Poor condition - deterioration significantly affects structural capacity
3- Serious condition - deterioration seriously affects structural capacity
2- Critical condition - bridge should be closed until repaired
1- Failing condition - bridge closed but repairable
0- Failed condition - bridge closed and beyond repair

William E. Dupal Jr.
18 June 2003



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)	Rating
1	Deck-Rating	N
6	Wearing Surface Concrete 1)	7
6	Joints, Expansion, Open	N
6	Joints, Expansion, Sealed	N
6	Joints, Other	N
6	Drainage System	8
6	Curbs, Sidewalks & Parapets	8
6	Median Barrier	N
6	Railings Pedestrian Rails 2)	7
7	Railing Protective Coating	8
7	Delineation (curve markers)	N
	Other	N

Comments:
1) Minor longitudinal and transverse cracks in the concrete wearing surface.
2) Minor to moderate impact damage to the west end of the north rail.

Min.	Superstructure (Item 59)	Rating
	Main Members - Steel	N
	Main members - Concrete	N
	Main Members - Timber	N
	Main Members Connections	N
	Floor System Members	N
	Floor System Connections	N
	Secondary Members	N
	Secondary Member Connections	N
	Expansion Bearings	N
	Fixed Bearings	N
	Steel Protective Coating	N
	Other	N
	Component Rating	N

Comments:

District 18 County 057 Cont-Sec P001-00 Structure 003 Route Midway Road

Min.	Substructure (Item 60)		Rating
0	Abutment Caps		N
0	Above Ground		N
0	Below Ground or Foundation		N
5	Backwalls & Wingwalls		N
0	Intermediate Supports		
	Caps - Concrete		N
	Caps - Steel		N
	Caps - Timber		N
	Above Ground - Concrete		N
	Above Ground - Steel		N
	Above Ground - Timber		N
	Above Ground - Masonry		N
	Below Ground or Foundation		N
5	Collision Protection System		N
6	Steel Protective Coating		N
	Component Rating		N

Comments: CONTINUED FROM ITEM 62

3) Minor to moderate spall with exposed rebar at the end of the northwest wingwall. Minor vertical cracks at the north wingwall connections and in the headwalls..

Min.	Channel (Item 61)		Rating
0	Channel Banks		8
0	Channel Bed	1)	7
5	Rip Rap, Toe Walls & Aprons		8
5	Dikes		N
5	Jetties		N
	Other		N
	Component Rating		7

Comments:

1) Up to 15" of erosion along the upstream side of the culvert. See view through photo. Minor rock and sediment accumulation in the barrels.

Min.	Culverts (Item 62)		Rating
0	Top Slabs	1)	7
0	Bottom Slab or Footings		8
0	Abutments & Intermediate Supports	2)	6
5	Headwalls & Wingwalls	3)	6
	Other		N
	Component Rating		6

Comments: CONTINUED UNDER ITEM 60

1) Minor spalls with exposed rebar in the top slab of the west barrel about drainage inlet. Minor longitudinal cracks with efflorescence and stalactites in the top slabs.

2) Minor spalls with exposed rebar about drill holes in the west abutment wall. Minor vertical with efflorescence in the barrel walls. Minor spalls in upstream end of the interior and abutment walls.

Min.	Approaches (Item 65)		Rating
0	Embankments	1)	7
4	Embankment Retaining Walls		N
5	Slope Protection	1)	7
5	Roadway	Concrete 2)	7
6	Relief Joints		N
6	Drainage	1)	7
6	Guardfence	(0000)	N
7	Delineation		N
7	Sight Distance		8
	Others		N
	Component Rating		7

Comments:

1) Minor embankment erosion along the southeast and southwest wingwalls.

2) Minor longitudinal and transverse cracks in the approach pavement.

Min.	Miscellaneous	Rating
7	Signs	N
7	Illumination	N
7	Warning Devices	N
7	Utility Lines	N
	Other	N

Comments:

Texas Department of Transportation

Summary.d67

BRIDGE SUMMARY SHEET

Bridge I.D.: 18-057-P001-00-003
Facility: Midway Road
Feature X'ed: Hutton Branch
Bridge Owner: City Of Addison

Company Name: BARNHART ENGINEERING *Signature:* William E. Dupre' *Date:* 29 July 2003

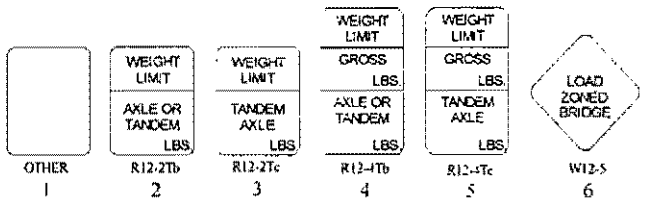
Selected Component Description and Rating:	Inspection Rating	Inventory Rating		Operating Rating	
Inspection Date: June 16, 2003	1085	H	HS	H	HS
Reinforced Concrete Box Culvert (H S 15 Assumed)	6		15.0		20.0
Load Rating			15.0		20.0

Comments and/or Upgrade Recommendations (if applicable):

Maintenance Not Required At This Time

Load Posting Limits for Present Condition (if applicable):

Inventory		Operating	
_____	lbs Gross	_____	lbs Gross
_____	lbs Tandem Axle	_____	lbs Tandem Axle
_____	lbs Axle or Tandem	_____	lbs Axle or
_____	Sign Code	_____	Sign Code



Posting Recommendation: *Load Posting Not Required At This Time*

Previous Load Posting Recommendations:

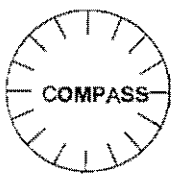
_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or

Observed Load Posting at Bridge:

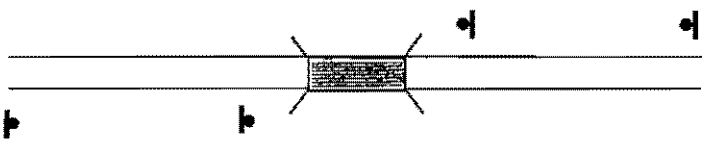
_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or Tandem
	Other		

Material Needed

_____ - R12-2Tb
_____ - R12-2Tc
_____ - R12-4Tb
_____ - R12-4Tc
_____ - W12-5
_____ - Posts
_____ - Hardware Sets
_____ - Decals



Sign Code
Condition Code
Maintenance



Advance Warning *(optional)*	Bridge Approach	Bridge Approach	Advance Warning *(optional)*

A. Visible & Legible
B. Obscured by Vegetation
C. Sign Needs Cleaning
D. Improper Position
E. Damaged Beyond
F. Sign Down
G. Sign Missing
H. Sign & Post Missing
J. Clear Vegetation
K. Clean Sign
L. Reposition Sign
M. Reposition Sign & Post
N. None
P. Replace Sign
S. Replace Sign & Post

NEG. 495

ROADWAY VIEW - LOOKING NORTH

NEG. 493

SIDE ELEVATION - LOOKING SOUTHWEST

Barnhart Engineering

DATE: 6/16/2003 **COUNT 057** **BRIDGE NUMBER:** **P001-00-003**

Texas Department of Transportation

Modified (12-5-2000)

Bridge Inspection Record

District: 18 County: 057 Cont-Sec: P001 - 45 Structure: 001 Route: Lake Forest Drive

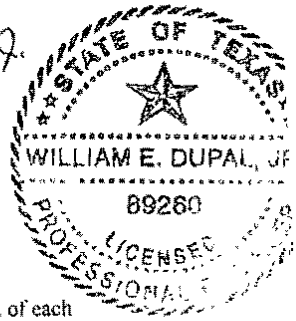
Description: 5 Barrels 8.0' X 4.0' Reinforced Concrete Box Culvert With Masonry Headwalls

Feature Crossed: Tributary of White Rock Creek Inspector's Signature: William E. Dupal Jr., P.E. Date: September 16, 2

Company Name BARNHART ENGINEERING Maintenance Section: City of Addison

N- Not applicable
9- Excellent condition
8- Very good condition - no problems noted
7- Good condition - some minor problems
6- Satisfactory condition - minor deterioration of structural elements (limited)
5- Fair condition - minor deterioration of structural elements (extensive)
4- Poor condition - deterioration significantly affects structural capacity
3- Serious condition - deterioration seriously affects structural capacity
2- Critical condition - bridge should be closed until repaired
1- Failing condition - bridge closed but repairable
0- Failed condition - bridge closed and beyond repair

William E. Dupal Jr.
24 Sept 2005



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)		Rating
1	Deek-Rating		N
6	Wearing Surface	Direct Traffic Culvert 1)	7
6	Joints, Expansion, Open		N
6	Joints, Expansion, Scaled		N
6	Joints, Other		N
6	Drainage System		8
6	Curbs, Sidewalks & Parapets		8
6	Median Barrier		N
6	Railings	Pedestrian Rails	8
7	Railing Protective Coating		8
7	Delineation (curve markers)		N
	Other		N

Comments:
1) Minor surface spall and hairline map eracks in the surface of the direct traffic culvert.

Min.	Superstructure (Item 59)	Ra
0	Main Members - Steel	
0	Main Members - Concrete	
0	Main Members - Timber	
0	Main Member Connections	
1	Floor System Members	
1	Floor System Connections	
5	Secondary Members	
5	Secondary Members Connections	
6	Expansion Bearings	
6	Fixed Bearings	
6	Steel Protective Coating	
	Other	
	Component Rating	N

Comments:

District: 18 County: 057 Cont-Sec: P001 - 45 Structure: 001 Route: Lake Forest Drive

Min.	Substructure (Item 60)		Rating
0	Abutment Caps		N
0	Above Ground		N
0	Below Ground or Foundation		N
5	Backwalls & Wingwalls		N
0	Intermediate Supports		
	Caps - Concrete		N
	Caps - Steel		N
	Caps - Timber		N
	Above Ground - Concrete		N
	Above Ground - Steel		N
	Above Ground - Timber		N
	Above Ground - Masonry		N
	Below Ground or Foundation		N
5	Collision Protection System		N
6	Steel Protecetive Coating		N
	Component Rating		N

Comments:

Min.	Culverts (Item 62)		Rating
0	Top Slab	1)	7
0	Bottom Slab or Footings		8
0	Abutments & Intermediate Supports	2)	7
5	Headwalls & Wingwalls	3)	7
	Other		N
	Component Rating		7

Comments:
1) Numerous patches in the top slabs. Hairline transverse crack with stalactites at the east end of the center barrel.
2) Minor vertical cracks in the barrel walls.
3) Minor spalls along the top of the northwest wingwall. Minor vertical crack in the southeast wingwall connection. Minor cracking in the northeast wingwall connection.

Min.	Approaches (Item 65)		Rating
0	Embankments	1)	7
4	Embankment Retaining Walls		N
5	Slope Protection		8
5	Roadway	Concrete & Asphalt 1)	7
6	Relief Joints		N
6	Drainage		8
6	Guardfence		N
7	Delineation		N
7	Sight Distance	2)	7
	Other		N
	Component Rating		7

Comments:
1) Minor to moderate cracks in the approach slabs. Minor settlement of the south approach slab. Minor to moderate spalls in the north approach slab. Widespread alligator cracking and rutting in the south approach pavement. There is a 1' drop off along the west side of the south approach pavement.
2) Horizontal curves at both ends of the culvert limits sight distance. No speed reduction required.

Min.	Channel (Item 61)		Rating
0	Channel Banks	1)	6
0	Channel Bed	2)	5
5	Rip Rap, Toe Walls & Aprons	2) 3)	6
5	Dikes		N
5	Jetties		N
	Other	Weir 3)	8
	Component Rating		5

Comments:
1) Minor to moderate erosion of the downstream channel banks. Gabions have been placed along the bottom of the banks and have helped stabilized the banks.
2) Moderate to severe erosion of the downstream channel has undermined the channel apron 4 feet, causing it to settle 2" and crack in two. See view through photo.
3) Minor crack and spall in the northwest riprap.

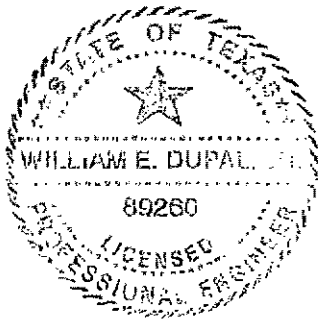
Min.	Miscellaneous		Rating
7	Signs	"Duck Xing"	8
7	Illumination		8
7	Warning Devices		N
7	Utility Lines	1)	8
	Other		N

Comments:
1) There is an electrical conduit along the south abutment.

Texas Department of Transportation

Summary.d67

BRIDGE SUMMARY SHEET



Bridge I.D.: 18-057-P001-45-001

Facility: Lake Forest Drive

Feature X'ed: Tributary of White Rock Creek

Bridge Owner: City Of Addison

Company Name: BARNHART ENGINEERING *Signature:* William E. Dupal Jr. *Date:* 1 Oct 2003

Selected Component Description and Rating:	Inspection Rating	Inventory Rating		Operating Rating	
Inspection Date: September 16, 2003	1085	H	HS	H	HS
Reinforced Concrete Box Culvert (H S 15 Assumed)	7		15.0		20.0
Channel	5				
Load Rating			15.0		20.0

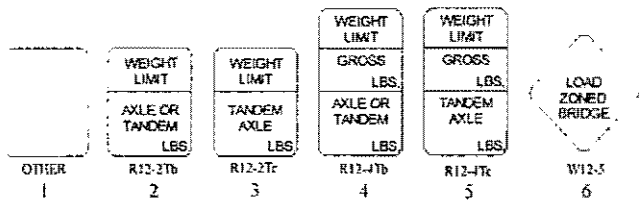
Comments and/or Upgrade Recommendations (if applicable):

Moderate To Severe Erosion Of The Downstream Channel Has Undermined The Channel Apron 4 Feet, Causing It To Settle 2" And Crack In Two.

Recommendation: Construct Gabions, Similar To Those Along The Banks, Along The End Of The Downstream Apron.

Load Posting Limits for Present Condition (if applicable):

Inventory		Operating	
_____	lbs Gross	_____	lbs Gross
_____	lbs Tandem Axle	_____	lbs Tandem Axle
_____	lbs Axle or Tandem	_____	lbs Axle or
_____	Sign Code	_____	Sign Code



Posting Recommendation: *Load Posting Not Required At This Time*

Previous Load Posting Recommendations:

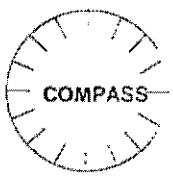
_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or

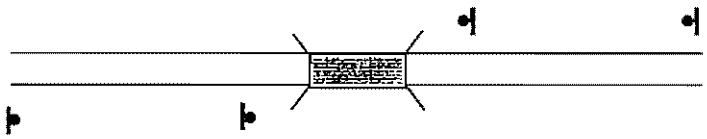
Observed Load Posting at Bridge:

_____	R12-2Tb	X	None
_____	R12-2Tc	_____	lbs Gross
_____	R12-4Tb	_____	lbs Tandem Axle
_____	R12-4Tc	_____	lbs Axle or Tandem
	Other		

Material Needed

_____ - R12-2Tb
_____ - R12-2Tc
_____ - R12-4Tb
_____ - R12-4Tc
_____ - W12-5
_____ - Posts
_____ - Hardware Sets
_____ - Decals





Sign Code	Advance Warning (optional)	Bridge Approach	Bridge Approach	Advance Warning (optional)
Condition Code				
Maintenance				

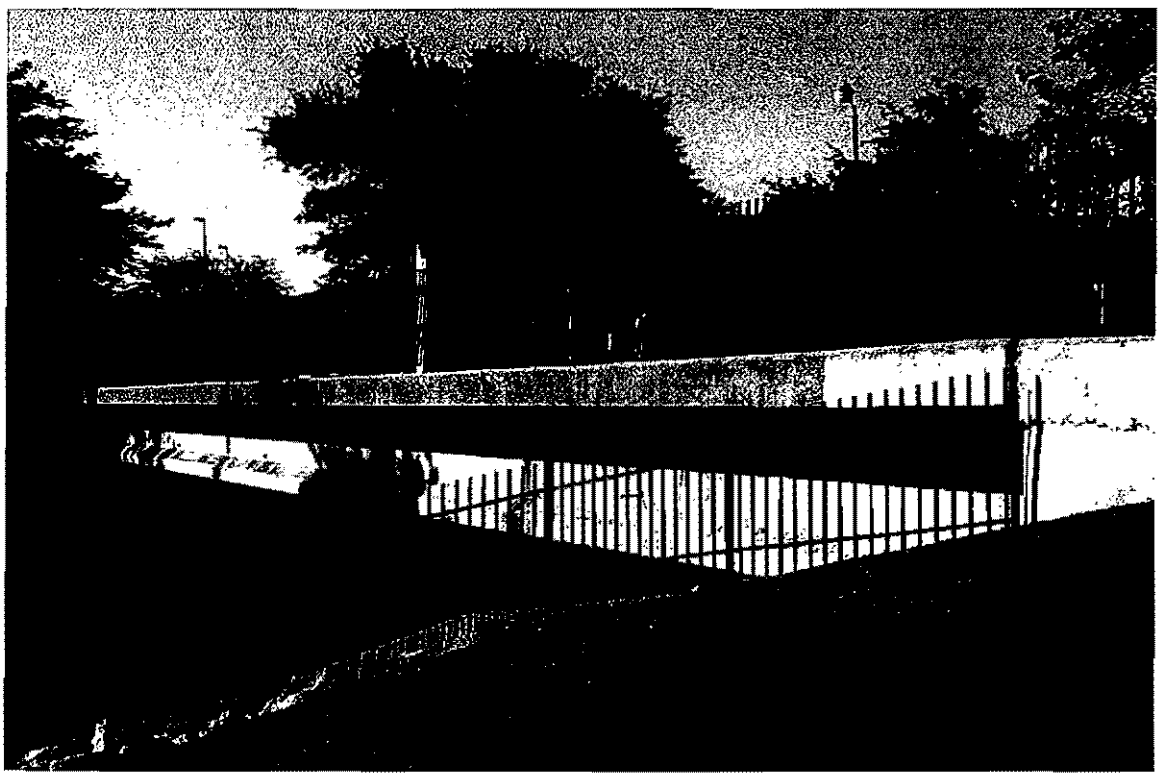
A. Visible & Legible
B. Obscured by Vegetation
C. Sign Needs Cleaning
D. Improper Position
E. Damaged Beyond
F. Sign Down
G. Sign Missing
H. Sign & Post Missing
J. Clear Vegetation
K. Clean Sign
L. Reposition Sign
M. Reposition Sign & Post
N. None
P. Replace Sign
S. Replace Sign & Post

NEG. 170

ROADWAY VIEW - LOOKING NORTH

Note: Speed Bump In Center Of Bridge

Bridge Is Inside Apartment Complex

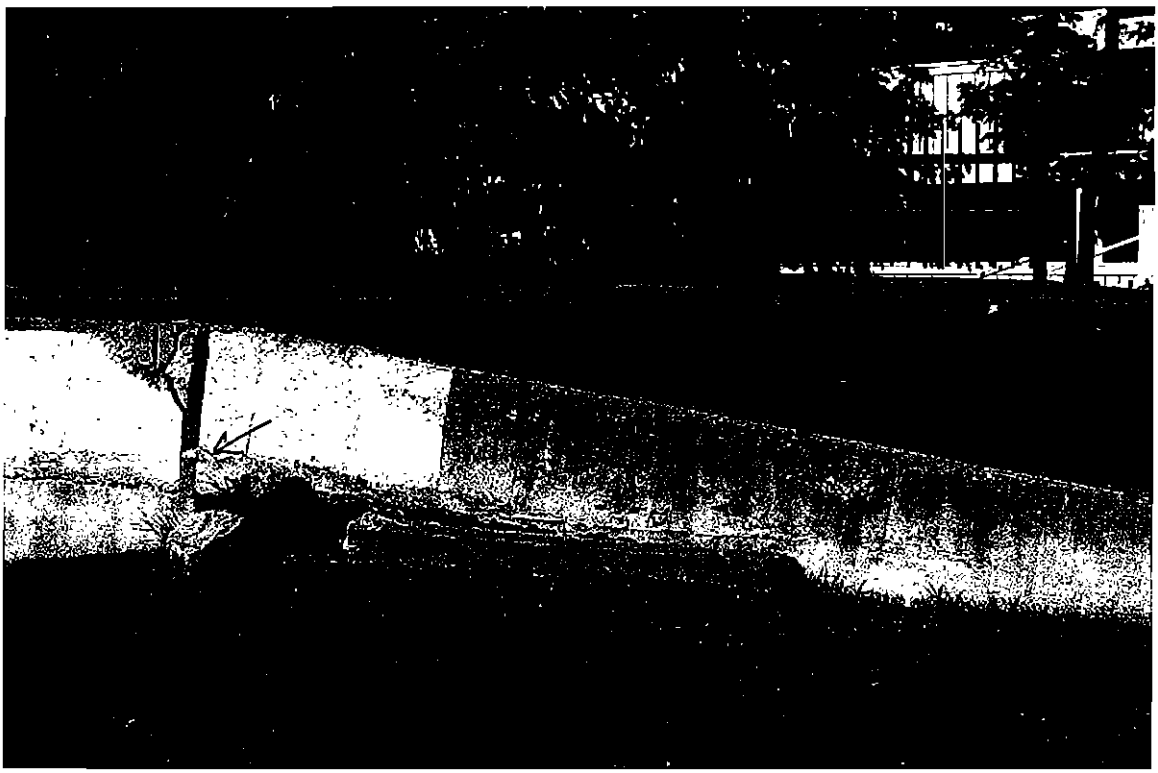


NEG. 174

Barnhart Engineering

SIDE ELEVATION - LOOKING NORTHEAST

DATE: 6/11/2003 **COUNTY: 57** **BRIDGE NUMBER: P002-00-001**



NEG. 173

Barnhart Engineering

SOUTH APPROACH SLAB - LOOKING NORTHEAST

Note: Moderate Settlement Of South Approach Slab

Moderate Transverse Cracks Through Slab, Curb, And Sidewalk

DATE: 6/11/2003 **COUNTY: 57** **BRIDGE NUMBER: P002-00-001**

Texas Department of Transportation

Modified (12-5-2000)

Bridge Inspection Record

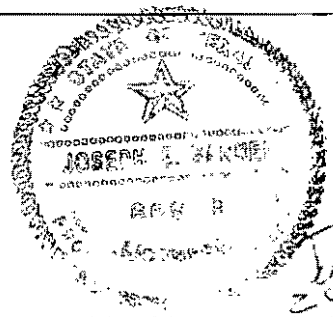
District: 18 County: 057 Cont-Sec: P002-20 Structure: 001 Route: Oaks North Drive

Description: 4 Barrels 8.0' X 4.0' Reinforced Concrete Box Culvert With Cast In Place Concrete Wingwalls

Feature Crossed: White Rock Creek Tributary Inspector's Signature: Joseph Garner, P.E. Date: July 7, 2003

Company Name BARNHART ENGINEERING Maintenance Section: City of Addison

N- Not applicable
9- Excellent condition
8- Very good condition - no problems noted
7- Good condition - some minor problems
6- Satisfactory condition - minor deterioration of structural elements (limited)
5- Fair condition - minor deterioration of structural elements (extensive)
4- Poor condition - deterioration significantly affects structural capacity
3- Serious condition - deterioration seriously affects structural capacity
2- Critical condition - bridge should be closed until repaired
1- Failing condition - bridge closed but repairable
0- Failed condition - bridge closed and beyond repair



Enter a rating for each element of each component. The rating should equal or exceed the minimum rating listed to the left of each element. Component Ratings should equal the lowest rating of any element of the component. Fully supportive comments are to be made hereon or on attachments for all ratings of 7 or below.

Min.	Deck (Item 58)	Rating
1	Deck-Rating	N
6	Wearing Surface — Concrete 1)	7
6	Joints, Expansion, Open	N
6	Joints, Expansion, Sealed	N
6	Joints, Other	N
6	Drainage System	8
6	Curbs, Sidewalks & Parapets	8
6	Median Barrier	N
6	Railings — Non-standard 2)	8
7	Railing Protective Coating	8
7	Delineation (curve markers)	8
	Other	8

Comments:
1) Minor diagonal cracks in concrete pavement.
2) Non-standard rails consist of brick walls topped with steel bars.

Min.	Superstructure (Item 59)	Rating
0	Main Members - Steel	N
0	Main Members - Concrete	N
0	Main Members - Timber	N
0	Main Member Connections	N
1	Floor System Members	N
1	Floor System Connections	N
5	Secondary Members	N
5	Secondary Members Connections	N
6	Expansion Bearings	N
6	Fixed Bearings	N
6	Steel Protective Coating	N
	Other	N
	Component Rating	N

Comments:

District: 18 County: 057 Cont-Sec: P002-20 Structure: 001 Route: Oaks North Drive

Min.	Substructure (Item 60)		Rating
0	Abutment Caps		N
0	Above Ground		N
0	Below Ground or Foundation		N
5	Backwalls & Wingwalls		N
0	Intermediate Supports		
	Caps - Concrete		N
	Caps - Steel		N
	Caps - Timber		N
	Above Ground - Concrete		N
	Above Ground - Steel		N
	Above Ground - Timber		N
	Above Ground - Masonry		N
	Below Ground or Foundation		N
5	Collision Protection System		N
6	Steel Protecetive Coating		N
	Component Rating		N

Comments:

Min.	Culverts (Item 62)		Rating
0	Top Slab	1)	7
0	Bottom Slab or Footings		8
0	Abutments & Intermediate Supports	2)	7
5	Headwalls & Wingwalls	3)	7
	Other		N
	Component Rating		7

Comments:
1) Minor spall with exposed rebar in top slab of south interior barrel at east end.
2) Minor spalls in south abutment wall about storm sewer outlets.
3) Minor vertical cracks in western wingwalls.
Minor spalls in western headwall.

Min.	Approaches (Item 65)		Rating
0	Embankments		8
4	Embankment Retaining Walls		N
5	Slope Protection		8
5	Roadway	Concrete 1)	7
6	Relief Joints		N
6	Drainage		8
6	Guardfence		N
7	Delineation		N
7	Sight Distance		8
	Other		N
	Component Rating		7

Comments:
1) Minor diagonal cracks in concrete pavement.

Min.	Channel (Item 61)		Rating
0	Channel Banks	1)	7
0	Channel Bed		7
5	Rip Rap, Toe Walls & Aprons		N
5	Dikes		N
5	Jetties		N
	Other		N
	Component Rating		7

Comments:
1) Approximately 2' of erosion along downstream toe of culvert.
Minor drift caught at upstream face of culvert. See side elevation and view through photos.

Min.	Miscellaneous		Rating
7	Signs		N
7	Illumination		N
7	Warning Devices		N
7	Utility Lines	1)	8
	Other		N

Comments:
1) 12" pipeline runs through north barrel.
Two 1" conduits run through south barrel.

Texas Department of Transportation

BRIDGE SUMMARY SHEET

Bridge I.D.: 18-057-P002-20-001

Facility: Oaks North Drive

Feature X'ed: White Rock Creek Tributary

Bridge Owner: City Of Addison

Company Name: BARNHART ENGINEERING *Signature:* Todd Barnhart *Date:* 4 August 2003

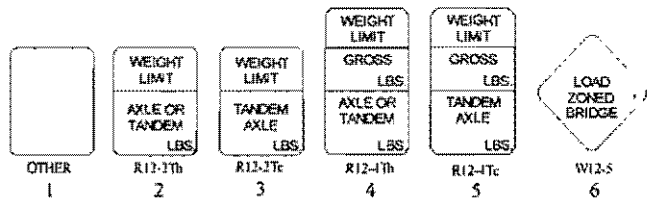
Selected Component Description and Rating:	Inspection Rating	Inventory Rating		Operating Rating	
Inspection Date: July 7, 2003	1085	H	HS	H	HS
Reinforced Concrete Box Culvert (No Plans; H S 15 Assumed)	7		15.0		20.0
Load Rating			15.0		20.0

Comments and/or Upgrade Recommendations (if applicable):

Maintenance Not Required At This Time

Load Posting Limits for Present Condition (if applicable):

Inventory		Operating	
	lbs Gross		lbs Gross
	lbs Tandem Axle		lbs Tandem Axle
	lbs Axle or Tandem		lbs Axle or
	Sign Code		Sign Code



Posting Recommendation: *Load Posting Not Required At This Time*

Previous Load Posting Recommendations:

	R12-2Tb	X	None
	R12-2Tc		lbs Gross
	R12-4Tb		lbs Tandem Axle
	R12-4Tc		lbs Axle or

Observed Load Posting at Bridge:

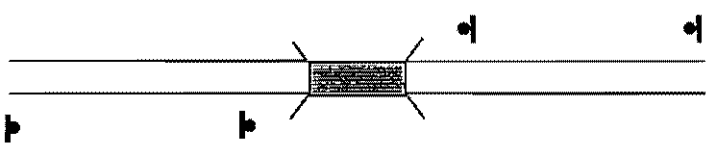
	R12-2Tb	X	None
	R12-2Tc		lbs Gross
	R12-4Tb		lbs Tandem Axle
	R12-4Tc		lbs Axle or Tandem
	Other		

Material Needed

- ____ - R12-2Tb
- ____ - R12-2Tc
- ____ - R12-4Tb
- ____ - R12-4Tc
- ____ - W12-5
- ____ - Posts
- ____ - Hardware Sets
- ____ - Decals

COMPASS

Sign Code
Condition Code
Maintenance



Advance Warning (optional)	Bridge Approach	Bridge Approach	Advance Warning (optional)

A. Visible & Legible
B. Obscured by Vegetation
C. Sign Needs Cleaning
D. Improper Position
E. Damaged Beyond
F. Sign Down
G. Sign Missing
H. Sign & Post Missing
J. Clear Vegetation
K. Clean Sign
L. Reposition Sign
M. Reposition Sign & Post
N. None
P. Replace Sign
S. Replace Sign & Post

Texas Department of Transportation

P.O. BOX 3067 • DALLAS, TEXAS 75221-3067 • (214) 320-6100

October 28, 1996

Mr. Ron Whitehead
City Manager
City of Addison
5300 Belt Line Road
P.O. Box 144
Addison, Tx. 75001-0144

RE: FAU and Off-System BRINSAP Inspection Folders

Dear Whitehead:

An inspection and analysis of FAU and Off-System public bridges, consistent with Federal Regulations and the National Bridge Inspection Standards, was recently completed by this department. The bridge inspection was conducted and the recommendations were prepared by private consultants. Since these bridges are within your jurisdiction and are subject to your control, supervision and maintenance, we are forwarding these folders containing the pertinent findings. This information can be used in carrying out your responsibilities for bridge maintenance, repair, closures, and weight limit posting.

A map showing the location of the bridges along with the following lists (if applicable) are also enclosed.

List 1. Structures showing the condition rating for Deck, Superstructure, Substructure, Channel, Approach and Culverts.

List 2. Recommended for load posting.

List 3. Bridges with condition rating of 4 or less.

List 4. Bridges with HS10 rating or less.

List 5. Bridges with H10 rating or less with Recommendations.

Structures with a condition rating of 4 or lower or with an operating rating of HS10 (or H10) or lower need prompt attention. If you have such structures in your jurisdiction, you should take necessary steps to improve the condition rating of the structure.

Under federal law, if a closure is recommended, the bridge must be strengthened or closed with a positive barrier at each end of the structure, also, all bridges incapable of safely carrying the state legal load must be posted by erecting the appropriate signs. To enforce this requirement, as per the Code of Federal Regulations, The Federal Highway Administration can withhold federal highway funds from those jurisdictions that do not comply with these regulations.

The FHWA is stressing the importance of follow-up procedures to monitor bridges with critical findings. In order to comply, we request a record of corrective actions taken, if any, on each bridge.

New signs, posts and hardware for those bridges that now require posting, as well as those that now require a change in existing load posting signs to the new requirements, will be sent to the TxDOT Maintenance yard in your County. They will contact you when this sign material is ready for you to pick up.

We have spent considerable time and effort in sorting the folders and compiling the list. However, we may have included folders outside your jurisdiction by mistake. Please cross check the list of bridges within your jurisdiction with the folders forwarded to you to ensure you received all the bridge folders. If you received folders outside your jurisdiction, please return them to us. Please bring to our attention any inconsistencies between the information provided in the inspection folders and the lists of bridges.

If you have any questions, comments, suggestions or need additional information, please contact Mr. Ibrahim Musa, P.E. in the District Bridge Section, at (214)320-4423.

Sincerely,

Charles R. Tucker

Charles R. Tucker, P.E.
Director of Transportation
Planning and Development

Attachments

BRINSAP OFF-SYSTEM BRIDGES BY CITIES

COUNTY=057 OWNER=ADDISON

OBS	COUNTY	CNTL_SEC	STR_NO	STR_FUNC	INTRSCT	FCLTY_OV	LOCATION	DECK	SUP_STR	SUB_STR	CHANNEL	RWDY_APP	CULVERT
227	057	P00200	001	1	FARMERS BRANCH CREEK	FARMBROOK DRIVE	0.1 MI S OF BROOKHAVEN CR	7	6	8	8	5	N
228	057	P00220	001	1	FARMERS BRANCH CREEK	OAKS NORTH	0.1 MI S OF BELT LINE RD	N	N	N	7	8	7

BRINSAP FAU BRIDGES

COUNTY=057 CITY=ADDISON

OBS	COUNTY	CITY	CNTL_SEC	STR_NO	INTRSCT	FCLTY_OV	LOCATION	DECK	SUP_STR	SUB_STR	CHANNEL	RWDY_APP	CULVERT
75	057	ADDISON	804118	011	RAWHIDE CREEK	MARSH LANE	0.1 MI S OF BELT LINE RD	N	N	N	8	8	7
76	057	ADDISON	804218	003	HUTON BRANCH	MIDWAY ROAD	0.2 MI N KELLER SP. RD.	N	N	N	5	6	6
77	057	ADDISON	805018	026	WHITE ROCK CREEK	BELTLINE ROAD	0.25 MI W OF SH 289	7	6	7	7	7	N