AGENDA ITEM NO. 47

CITY OF SAN ANTONIO
INTERDEPARTMENTAL MEMORANDUM
PUBLIC WORKS DEPARTMENT

TO: Mayor and City Council

FROM: Thomas G. Wendorf, P.E., Director of Public Works

THROUGH: Terry M. Brechtel, City Manager

COPIES: Melissa Byrne Vossmer; Andrew Martin; Louis A. Lendman; Milo D. Nitschke; File

SUBJECT: Installation of Four (4) New All-Way Stop Signs

DATE: November 21, 2002

SUMMARY AND RECOMMENDATIONS

This ordinance authorizes the Installation of Four (4) New All-Way Stop Signs, funded by Public Works Department in the amount of $250.00, and located at the intersection of Rogers Ranch Parkway and Crosstimber/Falling Brook in Council District 9.

Staff cannot recommend approval of this ordinance because of the factors of transportation engineering principals and the Texas Manual of Uniform Traffic Control Devices.

BACKGROUND INFORMATION

Rogers Ranch is the major street at this intersection and has right-of-way as assigned by the existing stop signs on Crosstimber and on Falling Brook. Motorists who stop on Crosstimber have adequate sight distance of oncoming Rogers Ranch traffic in both directions. However, sight distance from Falling Brook is limited due to vegetation in the median and within the parkway on each corner. The Public Works Department has previously installed 'Crossroad' warning signs with appropriate supplementary distance plates to warn Rogers Ranch traffic of the slightly obscured cross street.

Traffic counts, which are based on a 24-hour period, were collected on July 9, 2002 to aid in the determination as to whether changes in the traffic control are needed. The following table compares the recent traffic counts to counts previously collect in August 2000 and in October 2001.

Count Location	Volume on 8/29/00	Volume on 10/16/01	Volume on 7/9/02
NB Rogers Ranch	1993	1884	2,505
SB Rogers Ranch	299	281	745
EB Falling Brook	405	794	513
WB Crosstimber	1472	1485	1,866
Total	**4,169**	**4,444**	**5,629**

Although the most recent traffic count shows an increase in approach volumes, the predominant traffic movements are similar now to those that existed previously.

The Texas Manual on Uniform Traffic Control Devices (TMUTCD) outlines the necessary conditions, including specific traffic volumes, which must exist at an intersection before an all-way stop sign should be installed. The measured traffic volumes at this intersection continue to fall below the criteria as required by the TMUTCD. Specifically, the total approach volume is only 78 percent of that needed to install an all-way stop sign.

Police accident records were reviewed for the intersection of Rogers Ranch and Crosstimber/Falling Brook for the time period beginning February 1, 2001 and ending July 31, 2002. During this 18-month time period, there have been no reported accidents at this intersection.

The following conclusions have been made based on the above information:

1. The traffic volume at this location is such that the existing cross-street stop sign provides safe and efficient intersection control. Accident history does not indicate that the existing cross-street stop sign needs to be changed.
2. The predominant traffic movements involve northbound right-turning traffic and westbound left turning traffic. Since these movements involve northbound, right-of-way assignment is not needed. The approach volume is insufficient to warrant all-way stop control. Accident history does not suggest a need for all-way stop control.
3. The City does not maintain the median or the parkways in this area. It is recommended that the property owners association that maintains these areas trim or remove vegetation, as needed, to improve sight distance. The visual obstruction has been reported to Code Compliance through the 311 system. The Public Works Department is available to assist the property association or its representative in the identification of vegetation, which needs to be removed.

Based on traffic characteristics and safety records, an all-way stop will not improve safety nor efficiency. In that, staff will not recommend the installation of an all-way stop sign at this time.

POLICY ANALYSIS

Approval of this ordinance will install a traffic control device in a currently unwarranted location. Due to the rapidly developing nature of the surrounding area, staff believes warrants will be met in the near future for installation at this location.

FISCAL IMPACT

The project will be funded in the amount of $250.00 from the Public Works Traffic Operations Budget.

COORDINATION

This request for ordinance has been coordinated with the Office of Management and Budget and the Finance Department.

SUPPLEMENTARY COMMENTS

This ordinance does not require a Discretionary Contracts Disclosure Form.

Thomas G. Wendorf, P.E.
Director of Public Works

11/13/02

Melissa Byrne Vossmer
Assistant City Manager

Approved:

Terry M. Brechtel
City Manager

CITY OF SAN ANTONIO
OFFICE OF THE CITY COUNCIL
INTERDEPARTMENTAL MEMORANDUM

TO: MAYOR AND COUNCIL

FROM: Councilman Carroll W. Schubert, District 9

COPIES TO: Terry M. Brechtel, City Manager; Melissa B. Vossmer, Assistant City Manager; Norma Rodriguez, City Clerk; Andrew Martin, City Attorney; Gayle McDaniel, Assistant to City Council

SUBJECT: Four (4) New All-Way Stop Signs

DATE: November 7, 2002

I respectfully request your concurrence with placing an ordinance on the November 14, 2002 City Council Agenda authorizing the installation of four (4) all-way stop signs at the intersection of Rogers Ranch Parkway and Crosstimber/ Falling Brook. Staff does not support this action. The traffic Engineering Study for the Rogers Ranch Parkway and Crosstimber/ Falling Brook intersection is attached hereto as "Exhibit A". The estimated cost of $250.00 for the installation of these all-way stop signs will be funded by the Public Works Department.

Your support in this matter is appreciated.

Carroll W. Schubert, District 9

Ed Garza, Mayor

Bobby Perez, District 1

John Sanders, District 2

Antoniette Moorhouse, District 3

Enrique "Kike" Martin, District 4

David A. Garcia, District 5

Enrique M. Barrera, District 6

Julian Castro, District 7

Bonnie Conner, District 8

David Carpenter, District 10

City of San Antonio
Public Works Department
Traffic Engineering Division

Traffic Engineering Study

SUBJECT: Citizen Request for All-Way Stop

LOCATION: Rogers Ranch and Crosstimber/Falling Brook

REPORT DATE: August 5, 2002

ISSUE: Increased Volume of Traffic

Policy Regarding All-Way Stop Sign Installation

Traffic conditions at the intersection should meet the conditions for the installation of an all-way stop sign as outlined in The *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*. An all-way stop sign should only be installed if it is expected to improve the operational efficiency and/or safety of the intersection.

Data Requirements

- 24-hour approach volumes,
- Accident history for prior 12 months,

Field Survey

Rogers Ranch is the major street at this intersection and has right-of-way as assigned by the existing stop signs on Crosstimber and on Falling Brook. Sight distance has been measured from each of the minor-street approaches. See attachment # 1. The following sight distances were measured on August 6, 2002:

Location	Measurement
Crosstimber looking north	400' +
Crosstimber looking south	400' +
Falling Brook looking north	280'
Falling Brook looking south	265'

Motorists stopped on Crosstimber have adequate sight distance of oncoming Rogers Ranch traffic in both directions. However, sight distance from Falling Brook is limited due to vegetation in the median and within the parkway on each corner. See Attachment 2.

The Public Works Department has previously installed 'Crossroad' warning signs with appropriate supplementary distance plates to warn Rogers Ranch traffic of the slightly obscured cross street.

Traffic counts were collected on July 9, 2002 to for all-way stop sign analysis.

EXHIBIT
A

Data Tabulation and Analysis

Traffic counts were collected on July 9, 2002 to aid in the determination as to whether changes in the traffic control are needed. The following table compares the recent traffic counts to counts previously collected in August 2000 and in October 2001.

Count Location	Volume on 8/29/00	Volume on 10/16/01	Volume on 7/9/02
NB Rogers Ranch	1993	1884	2,505
SB Rogers Ranch	299	281	745
EB Falling Brook	405	794	513
WB Crosstimber	1472	1485	1,866
Total	**4169**	**4444**	**5,629**

Although the most recent traffic count shows an increase in approach volumes, the predominant traffic movements are similar now to those that existed previously. The measured traffic volumes indicate that the major movements continue to consist of northbound right-turning traffic and westbound left-turning traffic. Right-of-way assignment is not needed at such locations since the major traffic movements do not conflict. See attachment 3.

The *Texas Manual on Uniform Traffic Control Devices (TMUTCD)* outlines the necessary conditions, including specific traffic volumes, which must exist at an intersection before an all-way stop sign should be installed. The measured traffic volumes at this intersection continue to fall below the criteria as required by the *TMUTCD*. Specifically, the total approach volume is only 78 percent of that needed to install an all-way stop sign. See attachment 4. Since right-turning traffic does not benefit significantly from the installation of all-way stop signs, it is reasonable to reduce the approach volumes by the amount of right-turning traffic when evaluating for all-way stop control. Thus, the actual approach volume is much lower than the *TMUTCD* requirement.

Accident History

Police accident records were reviewed for the intersection of Rogers Ranch and Crosstimber/Falling Brook for the time period beginning February 1, 2001 and ending July 31, 2002. During this 18-month time period, there have been no reported accidents at this intersection.

Alternatives

1. Retain existing two-way stop control
2. Install all-way stop sign
3. Trim vegetation to improve sight distance

Conclusions

1. The traffic volume at this location is such that the existing cross-street stop sign provides safe and efficient intersection control. Accident history does not indicate that the existing cross-street stop sign needs to be changed.
2. The predominant traffic movements involve northbound right-turning traffic and westbound left turning traffic. Since these movements do not conflict, right-of-way assignment is not needed. The approach volume is insufficient to warrant all-way stop control. Accident history does not suggest a need for all-way stop control.

3. The City of San Antonio does not maintain the median or the parkways in this area. It is recommended that the property owners association that maintains these areas trim or remove vegetation, as needed, to improve sight distance. The visual obstruction has been reported to Code Compliance through the 311 system. The Public Works Department is available to assist the property association or its representative in the identification of vegetation, which needs to be removed.

Recommendations

All-way stop sign is not recommended. Vegetation should be trimmed or removed, as necessary, to improve sight distance.

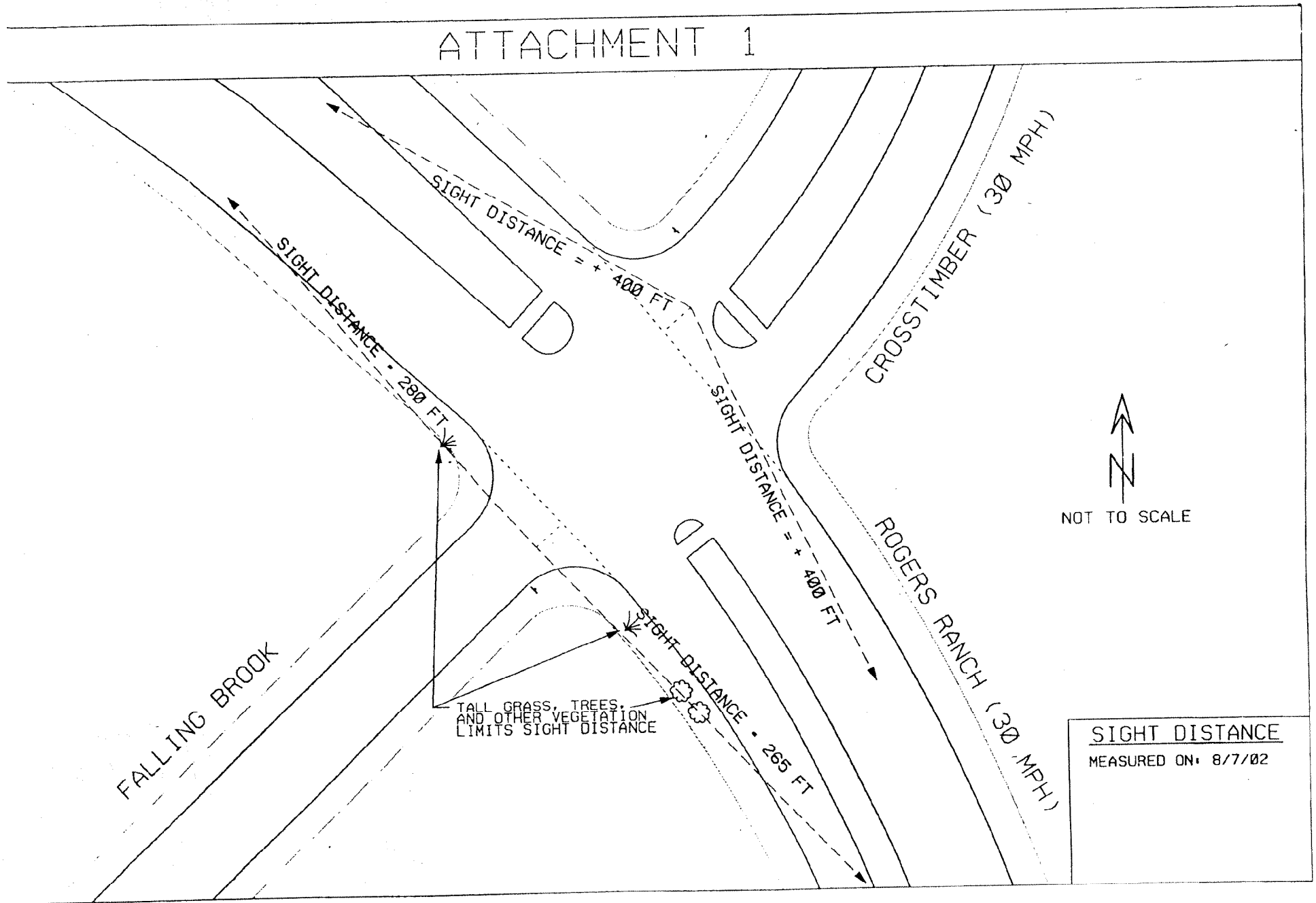
List of Attachments

- All-way stop/delay analysis
- Traffic count data
- Police accident report

David Haldeman 8/23/02
Prepared By: Date

[signature] 8/23/02
Reviewed/Approved By: Date

ATTACHMENT 1



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ATTACHMENT 2
Rogers Ranch and Crosstimber/Falling Brook

From Falling Brook – Looking North on Rogers Ranch

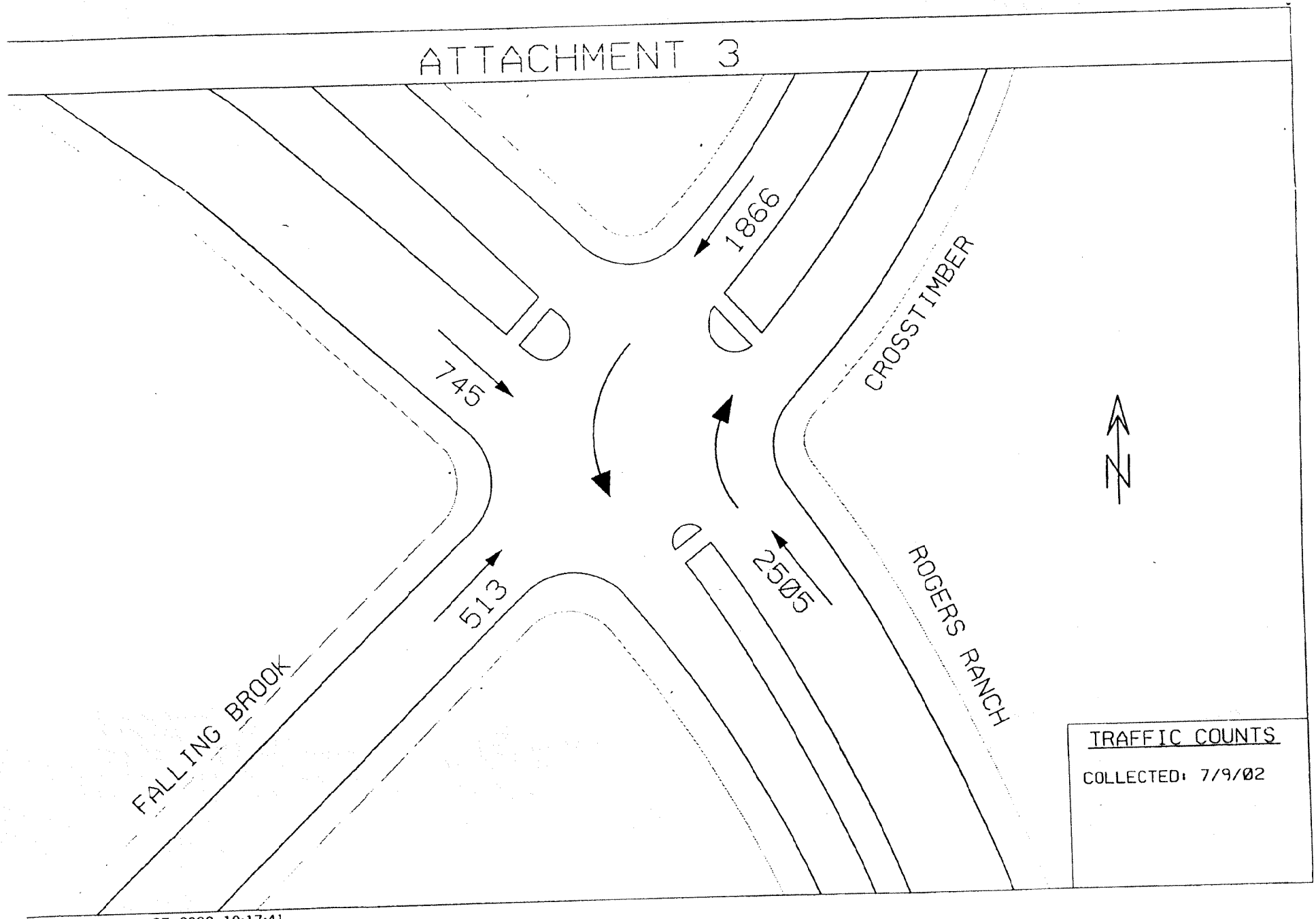
From Falling Brook – Looking South on Rogers Ranch

Rogers Ranch and Crosstimber/Falling Brook

From Crosstimber – Looking South on Rogers Ranch

From Crosstimber – Looking North on Rogers Ranch

ATTACHMENT 3



rogers2.dgn Aug. 07, 2002 10:17:41

ATTACHMENT 4

Traffic Counts Entering Intersection of Rogers Ranch @ Crosstimber/Falling Brook
Counts conducted 07.10.02
PW 000.00

Input values in the red text fields.
After inputting values, press the **Run All-Way Stop Analysis** button.

Major Road	Rogers Ranch
Minor Road	Crosstimber / Falling Brook

Time	Minor Road Direction 1	Minor Road Direction 2	Major Road Direction 1	Major Road Direction 2	Minor Road Total	Major & Minor Total	Sorted Total Total	Corresponding Minor Total	Total Delay (Veh-sec) 2-Way Stop	4-Way Stop
12 AM	5	8	17	2	13	32	449	167	395	600
1	1	0	8	0	1	9	392	142	316	392
2	0	4	3	2	4	9	391	169	372	391
3	0	1	3	0	1	4	385	180	390	385
4	3	4	2	1	7	10	385	180	390	385
5	6	26	4	8	32	44	377	154	337	377
6	20	86	26	16	106	148	373	152	332	373
7	47	184	100	39	231	370	370	231	457	370
8	36	144	156	49	180	385	359	173	365	359
9	38	135	130	56	173	359	357	135	296	357
10	25	110	163	59	135	357	351	118	152	351
11	36	133	160	62	169	391	349	136	151	349
12 PM	24	130	165	58	154	377	298	127	129	298
1	28	108	165	48	136	349	212	70	92	212
2	30	112	182	68	142	392	181	61	78	181
3	38	114	169	52	152	373	148	106	64	148
4	34	113	172	66	147	385	97	38	42	97
5	24	94	187	46	118	351	47	15	20	47
6	32	135	233	49	167	449	44	32	19	44
7	24	103	146	25	127	298	32	13	14	32
8	26	44	126	16	70	212	10	7	4	10
9	13	48	106	14	61	181	9	1	4	9
10	14	24	53	6	38	97	9	1	4	9
11	9	6	29	3	15	47	4	1	2	4
Total	513	1866	2505	745						

Maximum 8 - hour Averages		
Based on Total Volume	390	veh/hour
Based on Minor Volume for same 8 - hours	172	veh/hour
Maximum Delay (veh-sec) for 2-Way Stop	1581	veh-sec per hour
Maximum Delay (veh-sec) for 4-Way Stop	2400	veh-sec per hour
Average Delay (for max 8 hours) for 2-Way Sto	4	sec/veh
Average Delay (for max 8 hours) for 4-Way Sto	6	sec/veh
Max Increase in Delay for Installing 4-Way Stop	2	sec/veh

Criteria for All Way Stop

	8-Hour Avg	Req Avg	% Met	
Total	390	>= 500	78%	Condition Not Satisfied
Minor Road	172	>=200	86%	Condition Not Satisfied

Does not meet the traffic volume requirements of the Texas Manual on Uniform Traffic Control Devices. All-way stop would increase the delay at the intersection.

Spreadsheet development by RDG
All Way Stop Determination.xls
Version 2.0 b
June 2001