

RESOLUTION NO. 280

A RESOLUTION APPROVING TEI CONSULTANTS TO COMPLETE A PAVEMENT ANALYSIS FOR SPECIFIC COUNTY ROADS AS OUTLINED IN THE REQUEST FOR PROPOSALS.

WHEREAS, the City Staff has prepared a report on the above captioned subject which is attached hereto as Exhibit "A", and

WHEREAS, the City Council has duly considered the subject and the recommendation(s) contained in the staff report, and

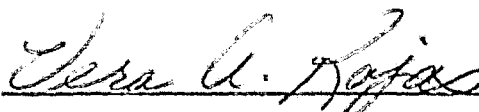
WHEREAS, interested parties, if any, have had an opportunity to be heard on the subject,

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Wilsonville does hereby adopt the staff report attached hereto as Exhibit "A", with the recommendation(s) contained therein and further instructs that action appropriate to the recommendation(s) be taken.

ADOPTED by the City Council of the City of Wilsonville at a regular meeting thereof this 18th day of October, 1982, and filed with the Wilsonville City Recorder this same day.

  
\_\_\_\_\_  
WILLIAM G. LOWRIE, Mayor

ATTEST:

  
\_\_\_\_\_  
VERA A. ROJAS, City Recorder pro tem

CITY OF WILSONVILLE  
**MEMO**

October 12, 1982  
DATE

STAFF REPORT  
Exhibit A

TO: Mayor and City Council

FROM: Larry R. Blanchard *L.B.*  
Public Works Director

SUBJECT: Approval Pavement Analysis Study

SECTION: Legal Business - Resolution # \_\_\_\_\_

At the regularly scheduled City Council meeting held September 7, 1982, the City Council instructed staff to prepare a request for proposals (R.F.P.) to do a Pavement Analysis for Boones Ferry Road. The Pavement Analysis (P.A.) was required to determine what improvements would be necessary on Boones Ferry Road south of U.S. Bank and Post Office, and north of 5th street intersection. The improvements would be those necessary to increase the pavement/structure to a minimum 10 year life.

On Tuesday, September 28, 1982, the R.F.P. was sent to 5 engineering firms who have done P.A. work for other communities and counties. Those firms sent R.F.P.'s were: DeHaas & Associates Inc., Westech Engineering Inc., Brown and Caldwell Engineers, CH<sub>2</sub>M Hill Engineers and Planners - TEI Consultants. The R.F.P. which was sent is attached with this memo for Council Reference, and is a part of this Exhibit A.

The R.F.P. was to include only a proposal for a P.A. for Boones Ferry Road. However, it was determined that in order to do a complete Clackamas County Road Improvement Analysis for all Clackamas County Roads as designated in the Intergovernmental Agreement for Capital Improvements which was approved by Council on September 20, 1982, that all roads under Clackamas County jurisdiction would need to be analyzed. Therefore the R.F.P. was divided into 3 options as mentioned in the attached R.F.P.

Option 1	Pavement Analysis	Boones Ferry Road south
Option 2	Pavement Analysis	Parkway Avenue Wilsonville Road west Wilsonville Road east
Option 3	Pavement Analysis	Boones Ferry Road north Parkway Avenue north state south state

From the five (5) request for proposals that were sent out, only two were returned with cost proposals to complete the work. The proposal were as follows:

TEI Consultants	Option 1	\$ 1,280
	Option 2	1,700
	Option 3	1,290
Option 1&2	Combined	2,500
Option 1,2&3	Together	3,340

## DeHaas &amp; Associates

	Option 1	\$ 1,982.24
	Option 2	4,682.60
	Option 3	3,297.50
	Total Cost	9,962.39

In reviewing the cost difference from DeHaas and Associates at \$9,962.39 and TEI Consultants at \$3,340 the following is observed.

1. TEI Consultants has a dynaflect unit which is faster than other conventional methods of P.A., DeHaas would either utilize a dynaflect unit from some other source or rely on conventional methods for P.A.
2. TEI Consultants primary work is in P.A. and Street Structure Design, where as DeHaas is involved in all aspects on Engineering - Water, Sewer, Storm Drainage, etc.

Funding for the P.A. would come under Systems Development pg. 48 line item 6 titled Engineering from the 82/83 Fiscal Budget. Funds were allocated for Engineering Consulting for the Boeckman Interchange \$22,000 and the remainder of \$4,940 for Street Engineering Consulting work. The total cost for the P.A. for Option 1, 2 and 3 is \$3,340. This would complete all work necessary to analyze all County Roads within the City.

Recommendation

Approve TEI Consultants to complete the Pavement Analysis as specified in the Request for Proposals for Options 1, 2 and 3 combined for a total cost of \$3,340. Funds shall be allocated from Systems Development line item 6 pg. 48 of the Fiscal 82/83 Budget. Designate staff to enter into a formal agreement with TEI as specified in the R.F.P. to complete the Pavement Analysis.

Attachment

LRB:ks

cc:  
3-62(pw)

REQUEST FOR PROPOSALS  
Pavement Analysis Study

I. Introduction

The City of Wilsonville has just recently approved an intra-governmental agreement with Clackamas County - Department of Environmental Services to work together to upgrade streets in the City for eventual jurisdictional transfer of streets from the County to the City. The program is designed to allow joint review of streets in need of improvements by both City and County officials. Then by utilizing design criteria as set forth in the City of Wilsonville Capital Improvements Plan, and Public Works Standards to determine an interim design capable of transporting generated traffic including truck for an interim design period until development occurs. When developers begin to move into an area, the developers are then responsible for future widening of the streets with curb, gutters, sidewalks, etc.

The interim design is based on a minimum width of 24 ft., and depending upon what type of traffic is common to the area then the depth of base rock, leveling course, and asphalt is then determined. Primarily the interim design will be the transferable part of the street from County jurisdiction to City jurisdiction. However, before this can occur a determination of the structural capabilities of the street must be calculated.

In order to complete the analysis it was necessary to divide the study into 3 sections. Each one of these areas refer to the importance of the transfer on a scheduled basis. The information necessary to complete the study is attached hereto, and if any additional information is needed call or write.

Larry R. Blanchard - Public Works Director  
City of Wilsonville - City Hall  
30470 S.W. Parkway Avenue  
Wilsonville, Oregon 97070

Thank you for your time and cooperation.

Sincerely,

*Larry R. Blanchard*

Larry R. Blanchard  
Public Works Director

II. Why is the Study being done?

- A. To determine the structural capabilities of the streets under option 1, 2 & 3 given such information as:
  - 1) Future traffic volumes
  - 2) Proposed street designs
  - 3) Proposed truck routes
- B. Given the current conditions of the street what would be the maximum traffic loads (lbs) and volume (vehicles/trucks) the section of street could handle per day.
- C. What would have to be done to the base rock leveling course, or pavement to bring the street to an interim level to handle future traffic loads (lbs)
- D. What would be the proposed cost, and what would be the expected life of the street?
- E. Would it be more cost effective to re-build the street from the ground up?

With this information the City could determine what portion the County would need to pay, and what portion the City would have to pay in order to come up with street jurisdictional transfer plan.

III. Background Information

Option 1 Street 1A: Boones Ferry Road from 200 ft. south of  
Wilsonville Road to 5th Street - .34 miles  
Width: 20 ft. Depth of rock: none  
Depth of pavement: 2" asphalt east lane  
8" concrete west lane  
Future road classification: D level industrial collector  
& minor arterial  
Traffic volumes: 7000 vehicle trips/day  
truck route designation

Option 2 Street 2A: Parkway Avenue from the entrance to Vlahos  
Drive to the north end of the Print Right Bldg.  
Length: 1.02 miles  
Width: 22 ft.  
Depth of Rock: 2-4 inches  
Depth of pavement: 2-3 inches  
Future road classification: D level industrial collector  
& minor arterial  
Traffic volume: 13500 vehicle trips/day  
truck route designation

Street 2B: Wilsonville Road from the Burlington Northern  
Railroad track west to the City limits  
Length: 1.25 miles  
Width: 22 ft.  
Depth of rock: 2-4 inches  
Depth of pavement: 2-3 inches  
Future road classification: D level industrial collector  
& minor arterial  
Traffic volume: 14,500 vehicle trips/day  
designated truck route

Street 2C: Wilsonville Road from the east end of LID #6  
to Boeckman Road and City limits

Length: 1 mile

Width: 22-20 ft.

Depth of rock: 2-4 inches

Depth of pavement: 2-3 inches

Future road classification: D level industrial collector  
& minor arterial

Traffic volumes: 4000 - 5000 vehicle trips per day

Not designated as a truck route

Street 2D: Boones Ferry Road from the Intersection of  
Wilsonville Road north to state jurisdiction  
100 ft. north of Pizza Merchant's driveway

Length: .28 miles

Width: 30-40 ft.

Depth of rock: 2-6 inches

Depth of pavement: 2-3 inches

Future road classification: E level major arterial

Traffic volumes: 6000 vehicle trips/day

Designated truck route

Option 3 Street 3A: Boones Ferry Road from north state jurisdiction  
to south state jurisdiction

Length: 1.89 miles

Width: 22 ft.

Depth of rock: 4-6"

Depth of pavement: 2-4 inches

Future road classification: E level major arterial

Traffic volumes: 8800 vehicle trips/day

Designated truck route

Street 3B: Parkway Avenue from north state jurisdiction  
to south state jurisdiction

Length: .60 miles

Width: 22 ft.

Depth of rock: 2-6"

Depth of pavement: 2-3 in.

Future road classification: D level industrial collector  
& minor arterial

Traffic volume: 8000 vehicle trips/day

Designated truck route

#### IV. The Study

Proposals should be submitted on all three options 1, 2, 3 and should include cost to do the following:

##### A. Dynaflect (or approved equal method for analyzing pavement)

1. A reading shall be taken at intervals not to exceed 200 ft. or where a known change in asphalt, rocking depth or material conditions has occurred. This can be determined by joint review of the Director of Public Works and the Contractor.

##### B. Core Sampling

1. The contractor and the Director shall review the results of the dynaflect or approved method and upon recommendation of the contractor the City will core sample those locations recommended.
2. The contractor shall then review the core samples in order to complete the analysis.

##### C. The Pavement Analysis

The contractor shall provide an analysis of the Pavement Structure to include the following information:

1. Given the current conditions of each street in question what would be the traffic load in (lbs) or load limit of the street, and the estimated traffic volume per day.



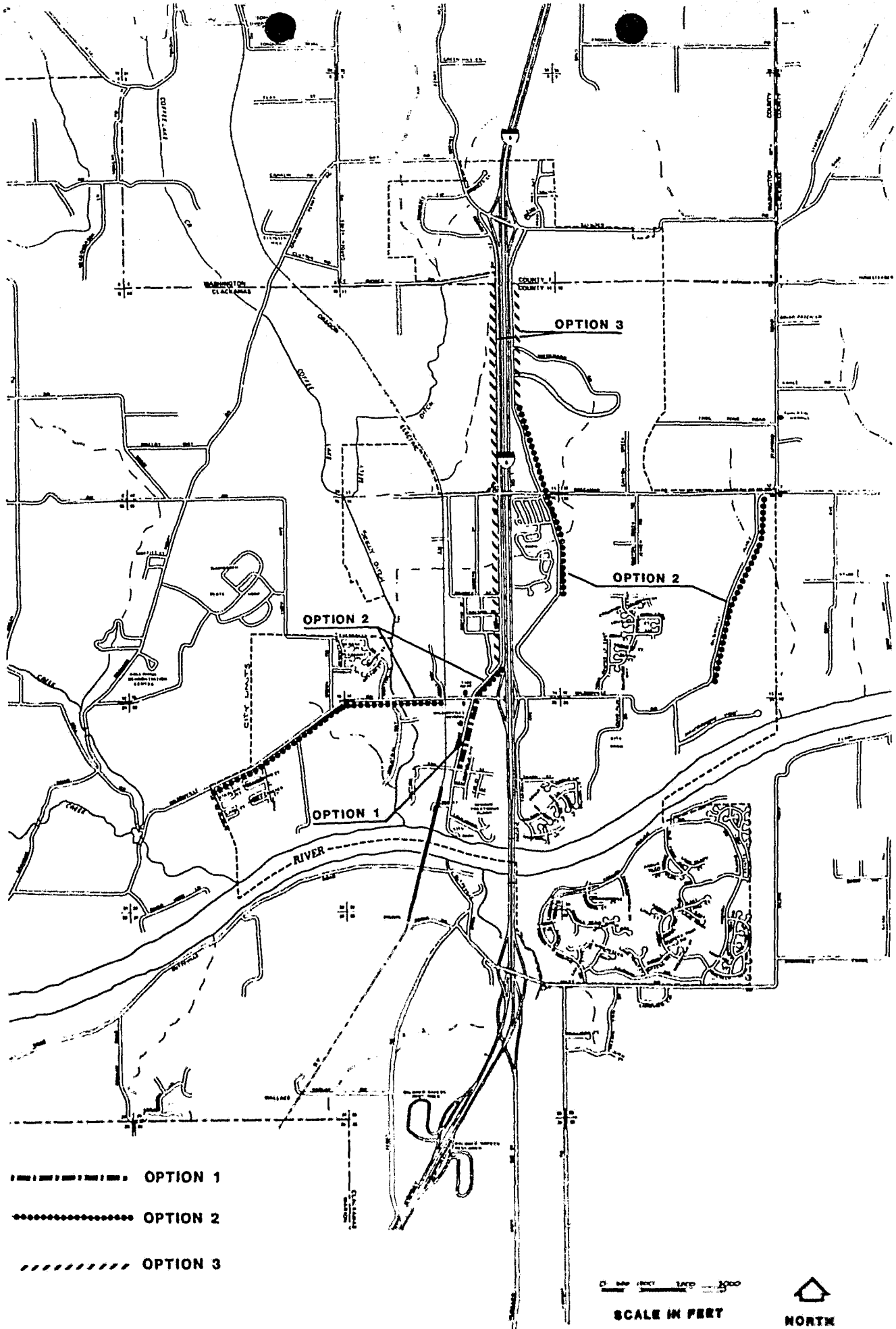
2. Given the future use of the street and taking into consideration the 24 ft. interim design standard, what improvements would be necessary to the rocking and/or pavement to handle traffic loads. For streets in designated truck routes maximum truck weight must be taken into consideration.
3. Given the future use of the street in question and the recommended improvements, what would be the longevity of the street.
4. Would it be more cost effective to completely rebuild the streets.
5. Given the above what would be the estimated maintenance cost for rebuilding the street vs. complete reconstruction.
6. Construction recommendation for improvements, taking into consideration funding availability.

V. Proposals

I \_\_\_\_\_ shall complete the PAVEMENT ANALYSIS STUDY as designated in the proposal herein for the total cost as follows. Proposals shall be submitted on or before 2:00 pm on October 10, 1982, at Wilsonville City Hall. Proposal shall have on the front "City of Wilsonville - Pavement Analysis Study."

		<u>Cost</u>
Option 1	Dynalect or approved analysis method Pavement Analysis	_____ _____ _____
	TOTAL	_____ _____
Option 2	Dynalect or approved analysis method Pavement Analysis	_____ _____ _____
	TOTAL	_____ _____
Option 3	Dynalect or approved analysis method Pavement Analysis	_____ _____ _____
	TOTAL	_____ _____
Option 1	Total Cost	_____
Option 2	Total Cost	_____
Option 3	Total Cost	_____
	GRAND TOTAL	_____

The Owner maintains the right to delete any option of this study.



- OPTION 1
- ..... OPTION 2
- ////// OPTION 3

0 100 200 300 400 500 600 700 800 900 1000

SCALE IN FEET

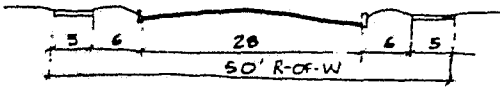


NORTH

# FUNCTIONAL STREET

Cul-de-sac

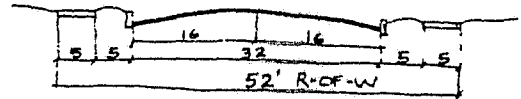
A



# CLASSIFICATION STANDARDS

Local Residential

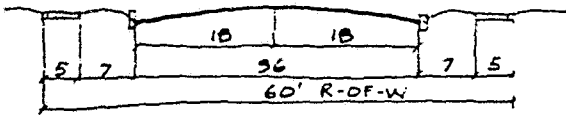
B



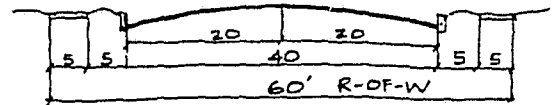
Residential Collector

Industrial Collector,  
and Minor Arterial

C

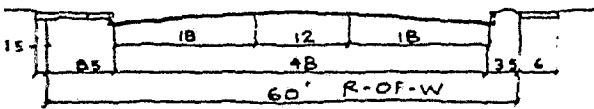


D



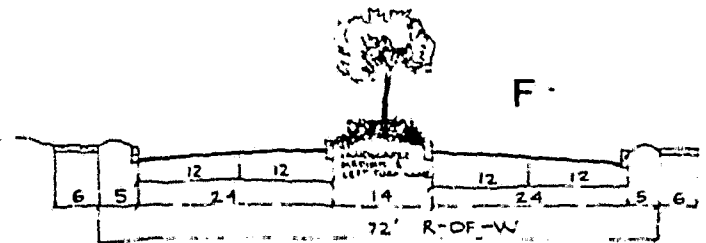
Major Arterial

E

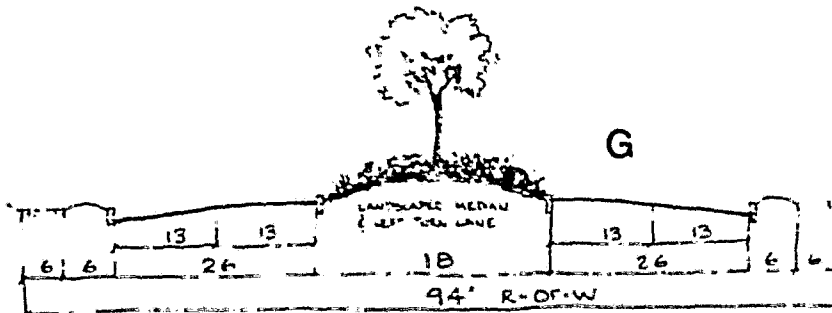


CAN BE STRIPED FOR EITHER 3 OR 4 LANES

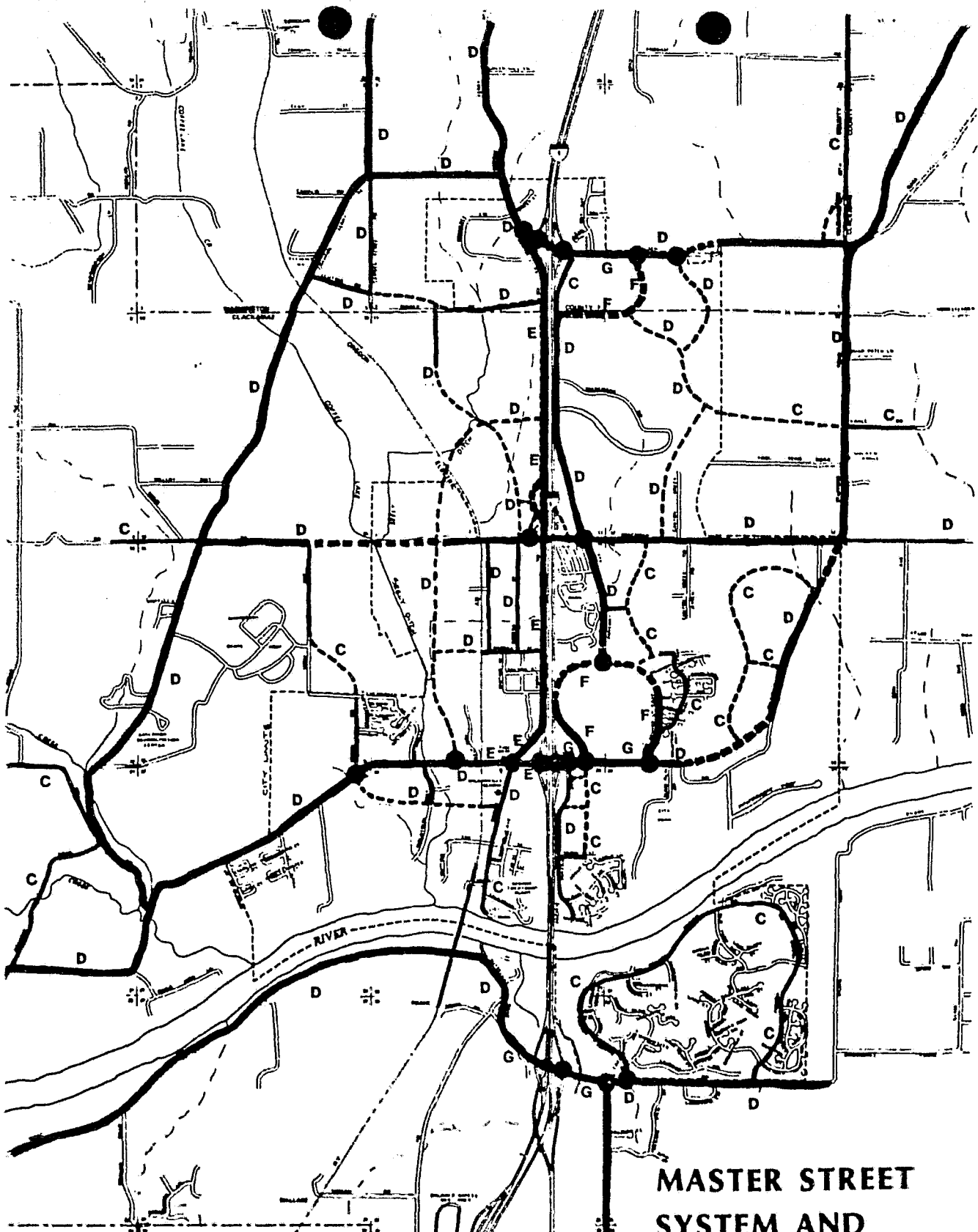
F



G



Primary Bike Paths may be located on easements in accordance with Primary Bike Path Master Plan.



EXISTING PROPOSED

- — — — — COLLECTOR STREETS
- — — — — ARTERIAL STREETS

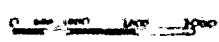
C to G DESIGN STANDARDS

● TRAFFIC SIGNALS

# MASTER STREET SYSTEM AND FUNCTIONAL CLASSIFICATION

(Recommended Plan)

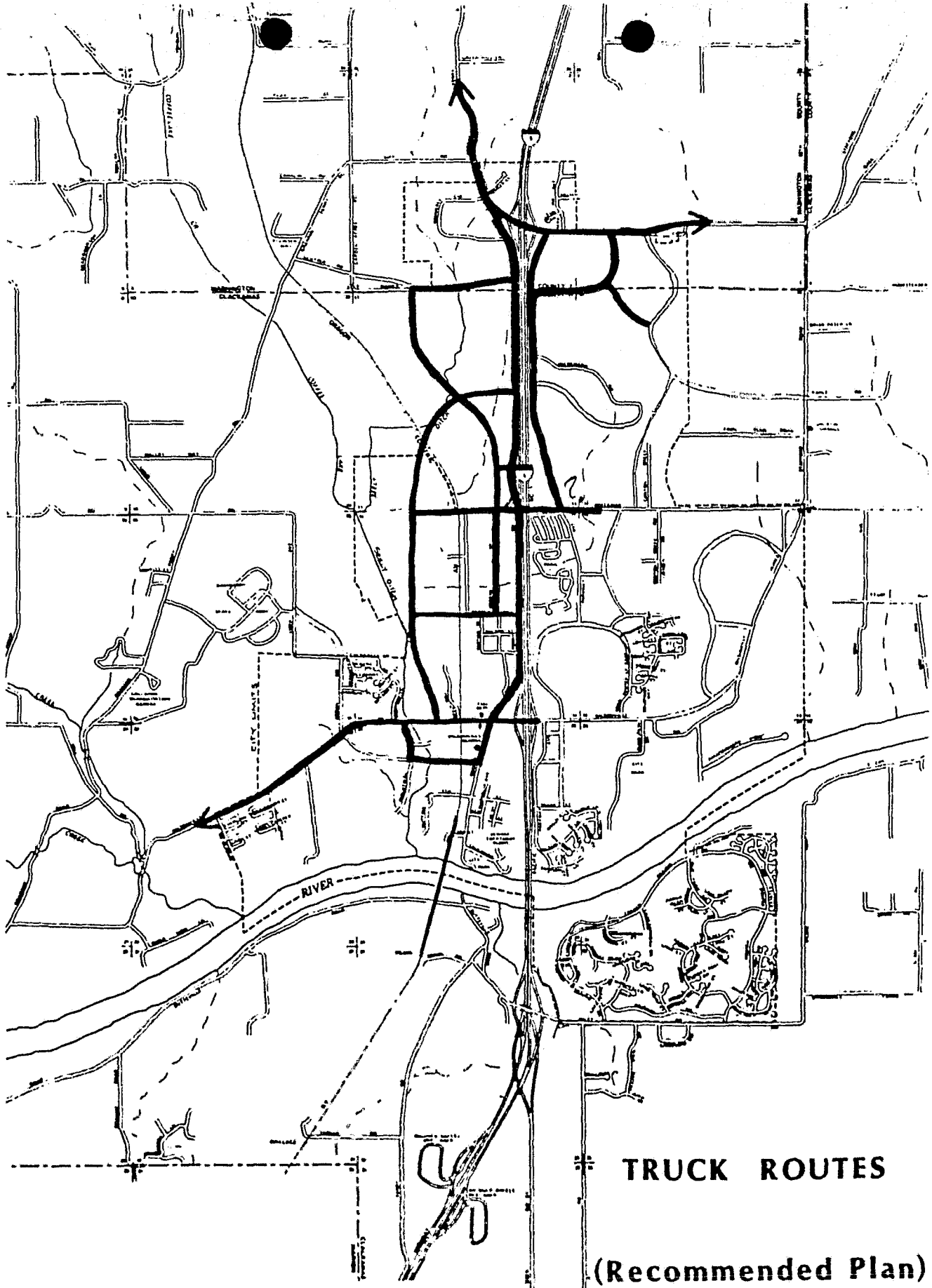
MAP I





SCALE IN FEET



NORTH



**TRUCK ROUTES**  
**(Recommended Plan)**

**LEGEND:**  
**ARTERIAL**   
**COLLECTOR**   
 6500 = AVG. WKDY VOL  
 2-3 = LANE ROOTS

MILES  
 0 0.25 0.5 0.75 1.0



CARL H. BUTTKE, INC.  
 CONSULTING TRANSPORTATION ENGINEER

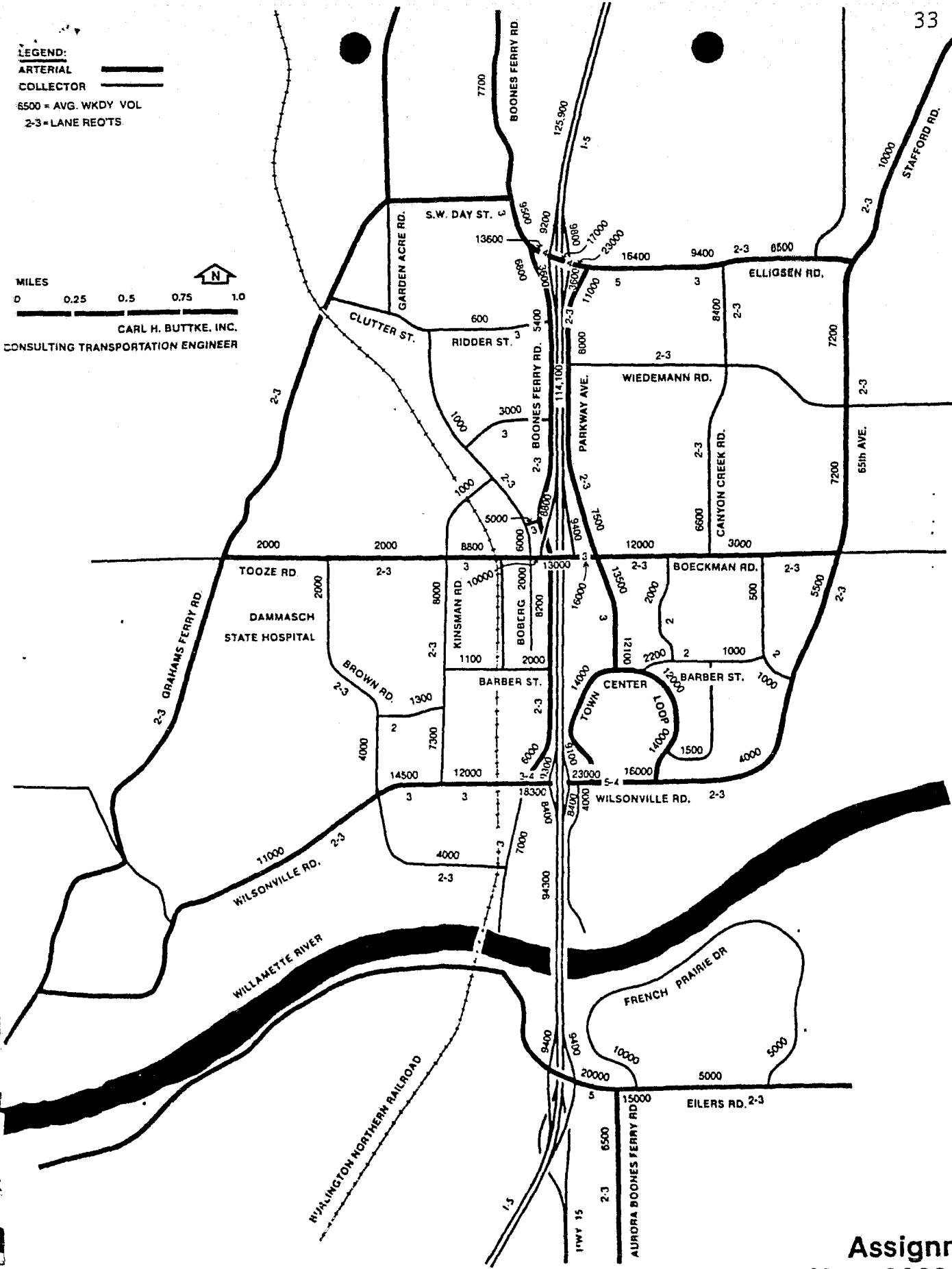


Figure 9  
 Assignment of  
 Year 2000 Traffic  
 Alternative 3