SHORT RANGE TRANSIT PLAN

Central Ohio Transit Authority

April 1993

SHORT RANGE TRANSIT PLAN

CENTRAL OHIO TRANSIT AUTHORITY

1993 - 1997

April 1993

Prepared by the Department of Service Development

Central Ohio Transit Authority
1600 McKinley Avenue
Columbus, Ohio 43222

Prepared by COTA in compliance with the March 19, 1980 Short Range Transit Plan (SRTP) guidelines issued by The Federal Transit Administration

EXECUTIVE SUMMARY

The Central Ohio Transit Authority (COTA) annually develops a five year Short Range Transit Plan (SRTP).

Section I, Introduction to the Short Range Transit Plan, explains the reason that an SRTP is issued as well as factors that affect this year's report.

Section II, Public Transit in the Columbus Metropolitan Statistical Area, describes the history of COTA, the geographical area COTA serves, the existing fixed-route system, the Project Mainstream system, certain market research data and the fare structure.

Section III, The Planning Process - How Routes are Evaluated, reviews route performance and service evaluation methodology.

Section IV, Comprehensive Planning Process briefly discusses the Long Range Transit Plan which is currently being prepared for COTA by MORPC.

Section V, Planned Service Improvements, lists service changes that are scheduled for the years 1993-1997. Also shown are the number of vehicles, hours and passengers that will be added or deleted annually.

Section VI, Current and Planned Equipment and Amenities, contains a description of COTA's buildings, current bus fleet, planned expansion of buses, energy contingency fleet, passenger shelters, bus stops and park and ride lots. Existing facilities and expansion plans are discussed. In addition, this section discusses COTA's Automatic Passenger Counting Program.

Section VII describes the COTA Business Plan. This is the sixth year in which COTA has produced a business plan to provide targets for improving the quality of service.

Section VIII, Privatization, is a description of COTA's current efforts to coordinate with the private sector in providing transit and transit-related services.

Section IX, is the Transportation Improvement Program (TIP) for 1994 to 1997. This section includes vehicle hours, operating expenses and revenue, passenger projections and a financial summary of revenue sources, capital assistance sources, operating expenditures and capital expenditures.

Section X, the Conclusion of the Short Range Transit Plan, is a summary of the effects of the proposed service changes over a five year period.

The Short Range Transit Plan provides a comprehensive view of the COTA system in 1993, as well as a program of planned improvements for the system through 1997.

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SECTION I - INTRODUCTION TO THE SHORT RANGE TRANSIT PLAN

INTRODUCTION TO THE SHORT RANGE TRANSIT PLAN

The Central Ohio Transit Authority (COTA) annually develops a five year plan known as the Short Range Transit Plan (SRTP). This document constitutes an update of the original Transportation Development Plan (TDP) of COTA, in accordance with Federal, State and local eligibility requirements for funding. The SRTP analyzes the transit market in Central Ohio and the ability of the current COTA system to serve the market. Methods for prioritizing expenditures, service and funding are examined in detail. The SRTP also incorporates the Transportation Improvement Program (TIP). The TIP is based on the present and projected four year service needs of the area and identifies the capital needs, cost projections, funding requirements and programmed service improvements for each year.

In November 1988, voters rejected a 0.25% sales tax levy that would have generated sufficient funds to support the transit system for the next ten years. As a result, COTA was required to increase fares, reduce vehicle hours and lay off personnel in order to stretch its resources to the November 1989 election. With the overwhelming passage of its 0.25% 10 year sales tax in November 1989, COTA immediately restored a great majority of the more productive service it was required to cut in 1989. In addition, it began to plan for the future implementation of its community based "Transit Plan for the 1990's".

Unfortunately, COTA was required to use virtually all of its capital reserve and its entire bonding capacity (i.e., $8 million in General Obligation Bonds) to provide critical operating assistance until the receipt of the sales tax revenues in May of 1990. As a result, COTA now faces a very significant capital bus replacement shortfall for the years 1994 and 1995. In addition, the slow economic recovery has had a negative effect on the growth of COTA's sales tax receipts and passenger revenues. The net effect of these economic factors is that COTA has been required to significantly scale back its plans for future service improvements. The Short Range Transit Plan programs the first four years of those service improvements within the fiscal realities of the projected sales tax revenues, federal and state assistance and passenger revenues.

SECTION II - PUBLIC TRANSIT IN THE COLUMBUS METROPOLITAN STATISTICAL AREA

COTA HISTORY

In 1970, the Columbus and Southern Ohio Electric Company, parent corporation of the Columbus Transit Company (CTC), announced its decision to dispose of the bus company. In order to preserve transit in the Central Ohio region, a group of citizens formed the Advisory Committee on Transit. One of the Committee's first actions was to lobby the State legislature to permit the formation of regional transit authorities. Once enacted, the next step was the creation of the Central Ohio Transit Authority (COTA), as an entity.

The agreement creating COTA was authorized by the Franklin County Commissioners, and the City Councils of Bexley, Columbus, Gahanna, Grandview Heights, Grove City, Hilliard, Reynoldsburg, Upper Arlington, Westerville, Whitehall And Worthington. A thirteen member Board of Trustees was named by the mayors of the 11 member cities, including two by the County Commissioners.

On June 29, 1973, an agreement for COTA to purchase the privately owned bus company from CTC and the Columbus and Southern Ohio Electric Company was signed. The actual transition occurred in January 1974. Ridership in the last year of CTC ownership (1973) was 12,975,000. As shown in Appendix II, COTA ridership and service began to grow in the first year of public operation. Service reached its peak in 1985 with 26,700,334 passengers and 822,289 hours of operation. In 1986 and 1987 work stoppages negatively affected the amount of service provided and ridership. In 1988, the downward trend was reversed as both ridership and service increased. With the defeat of the local sales tax issue in November of 1988, COTA was required to make significant reductions in service in order to stretch its resources to the November 1989 election. As a result, COTA's ridership dropped in 1989. In November 1989, COTA passed a ten year, 0.25% sales tax which provided the essential local funds to restore the productive service eliminated in 1989 and provide for modest growth in the system. Appendix II, Passenger and Operations Statistics, provides annual data on passengers, hours and miles for the years 1974-1992.

THE TRANSIT MARKET IN THE COLUMBUS METROPOLITAN STATISTICAL AREA

The Columbus Metropolitan Statistical Area (MSA) consists of seven counties in Central Ohio. These counties include: Delaware, Fairfield, Franklin, Licking, Madison, Pickaway and Union. The population for this area is 1,377,419*.

Franklin County has a population of 961,437*, making it the MSA's largest county in terms of population. A map of the Columbus MSA and of Franklin County are shown in Figures 1 and 2, respectively.

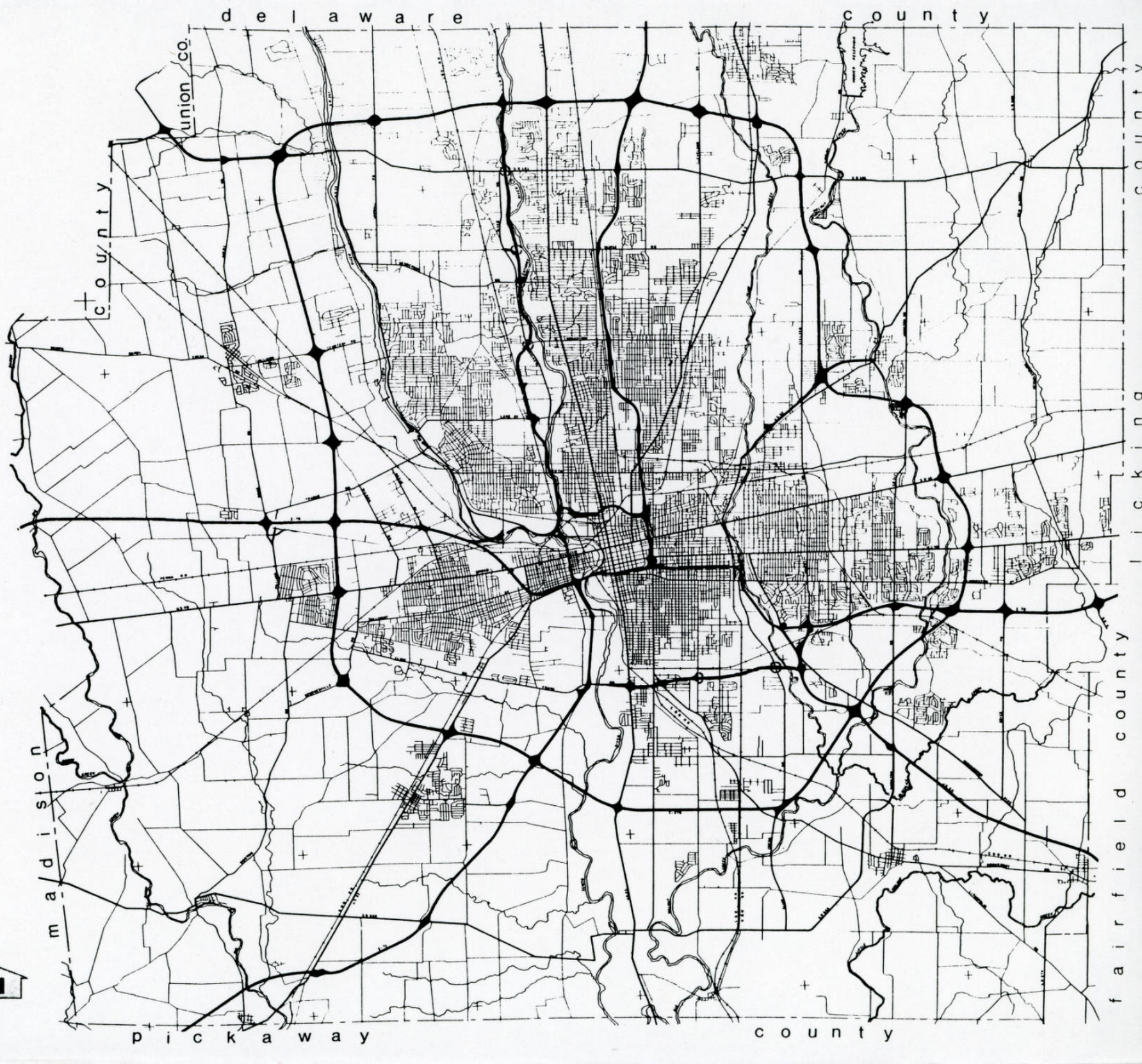
There are twenty-six incorporated municipalities in Franklin County. Columbus is the largest city in Franklin County, with a population of 632,910*.

* U.S. Census Bureau, 1990.

FIGURE 1

THE COLUMBUS MSA

FIGURE 2
COTA SERVICE AREA



COTA's Service Area consists of Franklin County and small portions of Delaware, Fairfield and Licking Counties. Outlying counties are served when a community whose incorporated boundaries lie in Franklin County also has part of its incorporated area in a bordering county.

THE COTA SYSTEM

COTA currently operates three types of regular routes: locals, which make all stops and travel through or end downtown; expresses, which make few or limited stops and start or terminate downtown; and crosstowns, which operate between two non-downtown points. A timed-transfer system goes into effect at 10:00 PM on weekdays allowing passengers to conveniently transfer in the downtown. The final trip from the downtown is 11:45 PM on weekdays. Table 1 summarizes the COTA system by day of week and time of day. Maps of the entire COTA system, as well as evening, Saturday and Sunday service follow the Service Table.

PROFILE OF COTA USERS

Telephone and on-board surveys and research projects have enabled COTA to more accurately determine the profile of the typical bus rider. Highlights from these surveys reveal the following facts:

* 59% of COTA riders are female
* 83% of express riders and 67.1% of local riders are classified as frequent users
* 85% of respondents (both riders and non-riders) felt that on-time performance and personal safety were the most important attributes of transit service
* 54% of the riders are choice riders and 46% are transit dependent.

KEY OPERATING STATISTICS

COTA provides the Federal Transit Administration with financial and operating statistics on a yearly basis. The annual Section 15 Report summarizes this data. Key operating statistics from COTA's unaudited 1992 Section 15 Report are found in Appendix II.

TABLE 1

EXISTING COTA SERVICE AS OF MARCH 1993

Route	Weekday				Saturday	Sunday & Holiday
	AM	MID	PM	Evening		
LOCALS						
#1 Cleveland/Livingston	x	x	x	x	x	x
#2 Main/N. High	x	x	x	x	x	x
#3 W. Mound	x	x	x	x	x	x
#3 N.W. Blvd.	x	x	x	x	x	No
#4 Indianola/Parsons	x	x	x	x	x	x
#5 W. Fifth	x	x	x	x	x	x
#6 Sullivant/Mt. Vernon	x	x	x	x	x	x
#7 Neil/Whittier	x	x	x	x	x	x
#8 Hamilton/Frebis	x	x	x	x	x	x
#9 Leonard/Brentnell	x	x	x	x	x	x
#10 Broad	x	x	x	x	x	x
#11 Oak/Bryden/St. Clair	x	x	x	x	x	x
#12 McKinley/Fields	x	x	x	x	x	x
#15 Grove City	x	x	x	x	x	No
#16 Long/S. High	x	x	x	x	x	x
#17 Greenlawn	x	x	x	x	No	No
#18 Kenny Road	x	x	x	x	No	No
#19 Arlington/Grandview	x	x	x	x	No	No
EXPRESSES						
#30 Smoky Row	x	No	x	No	No	No
#31 Worthington	x	No	x	No	No	No
#33 North Central	x	No	x	No	No	No
#34 Karl Road	x	No	x	x	No	No
#35 Tamarack	x	No	x	x	No	No
#36 Annehurst	x	No	x	No	No	No
#37 Westerville	x	No	x	x	No	No
#38 E. Westerville	x	No	x	No	No	No
#39 New Albany	x	No	x	No	No	No
#40 Forest Hills	x	No	x	No	No	No
#41 Gahanna	x	No	x	No	No	No
#42 Agler/Cassady	x	No	x	No	No	No
#43 E. Broad	x	No	x	No	No	No
#44 N. Reynoldsburg	x	No	x	No	No	No
#45 Reynoldsburg	x	No	x	x	No	No
#46 Eastland	x	No	x	x	No	No
#47 Brice Road	x	No	x	No	No	No
#49 Southeast	x	No	x	No	No	No
#53 Lincoln Village	x	No	x	No	No	No
#57 Hilliard	x	No	x	No	No	No

(continued)

TABLE 1 (continued)

EXISTING COTA SERVICE AS OF MARCH 1993

Route	Weekday				Saturday	Sunday & Holiday
	AM	MID	PM	Evening		
#58 Dublin	x	No	x	No	No	No
#60 Arlington	x	No	x	x	No	No
#61 Kenny Road	x	No	x	No	No	No
#62 Olentangy	x	No	x	No	No	No
#64 Grove City	x	No	x	No	No	No
#65 Berwick	x	No	x	No	No	No
#67 E. Hilliard	x	No	x	No	No	No
CROSSTOWNS						
#80 Ohio	x	x	x	x	x	No
#81 Hudson	x	x	x	x	x	No
#83 Oakland/Weber	x	x	x	x	x	No
#84 OSU/Arlington/ Grandview	x	x	x	No	No	No
#86 S. Columbus	x	x	x	No	No	No
#87 Cassady	x	x	x	No	x	No
#88 Busch Blvd.	x	x	x	x	No	No
#89 Hamilton Road	x	x	x	x	x	x
#92 James Road	x	x	x	x	x	No
#95 Morse/Henderson	x	x	x	x	x	No
#96 Fifth Ave.	x	x	x	x	No	No

FIGURE 3
THE COTA SYSTEM AS OF
MARCH 1993

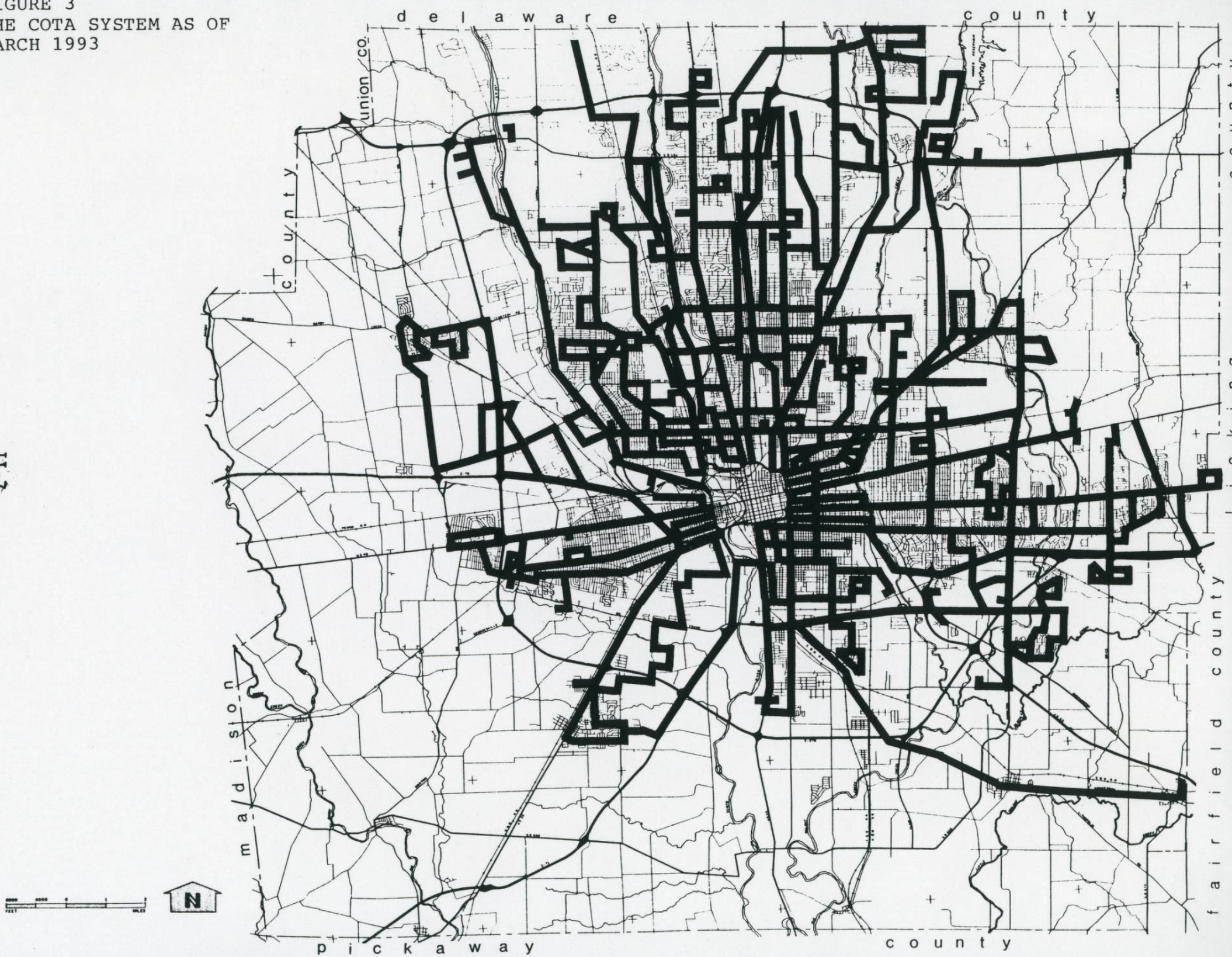


FIGURE 4
COTA WEEKDAY ROUTES
OPERATING ONE COMPLETE
TRIP AFTER 6:00 P.M. AS
OF MARCH 1993

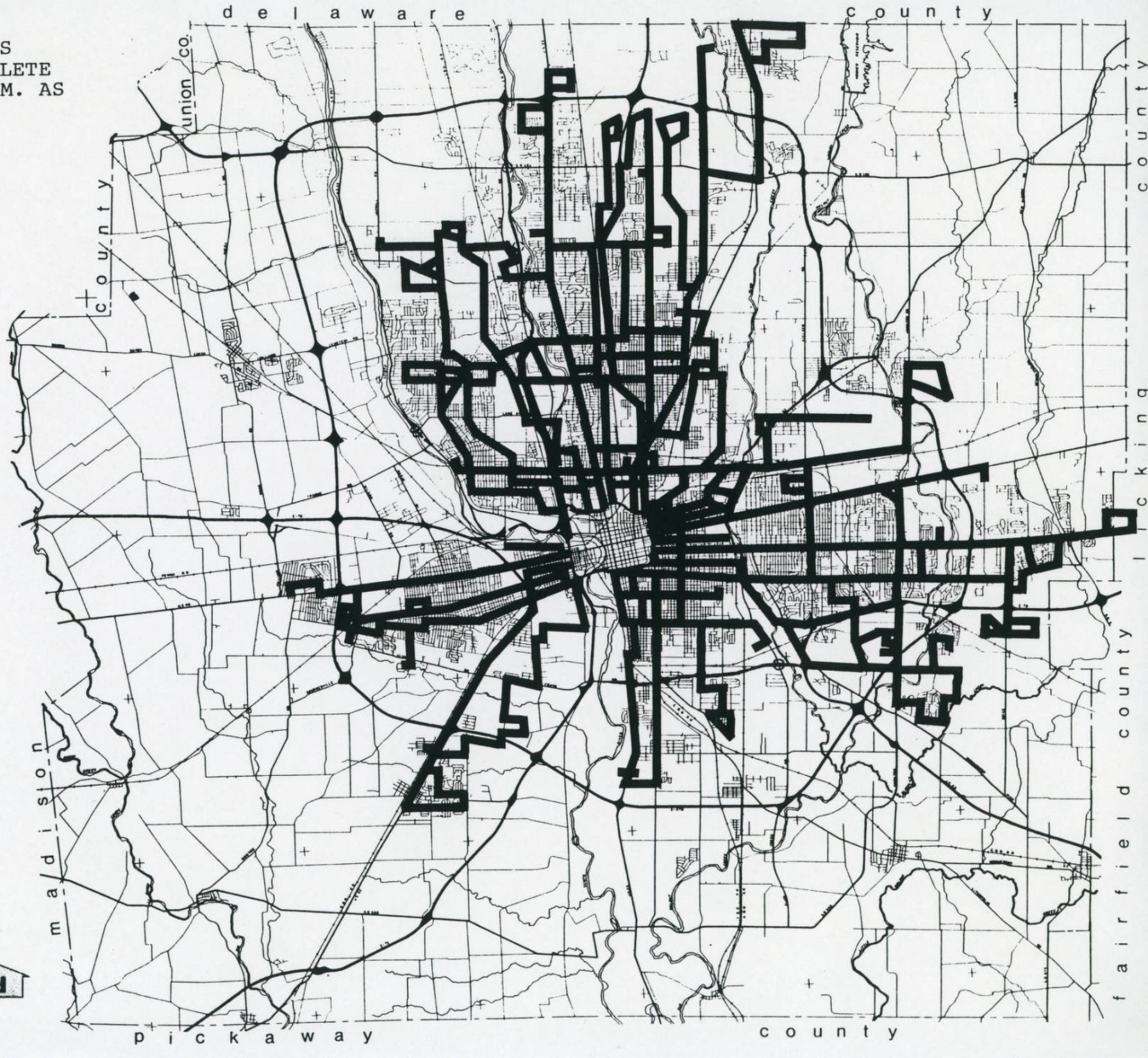


FIGURE 5
SATURDAY SERVICE AS OF
MARCH 1993

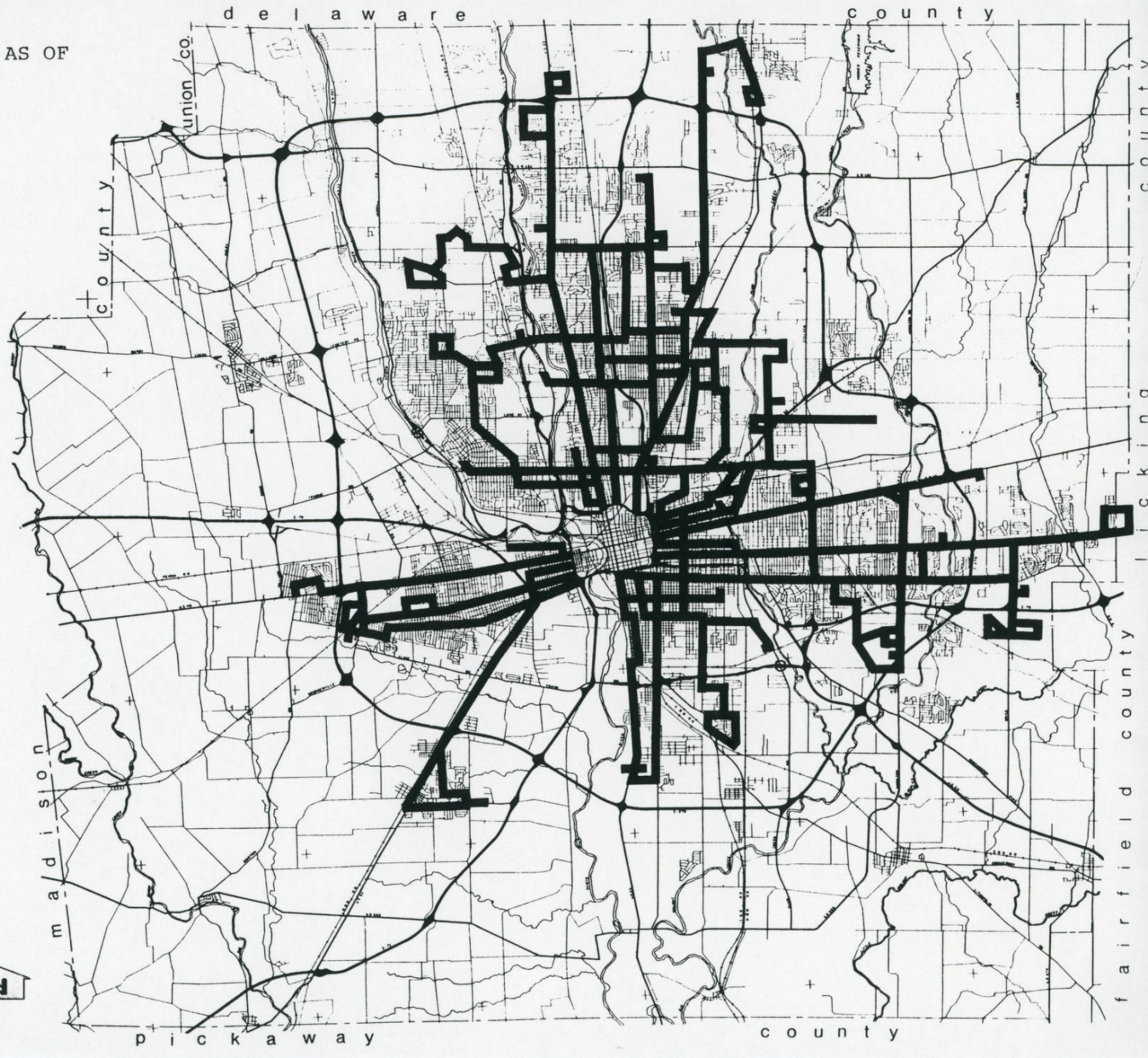
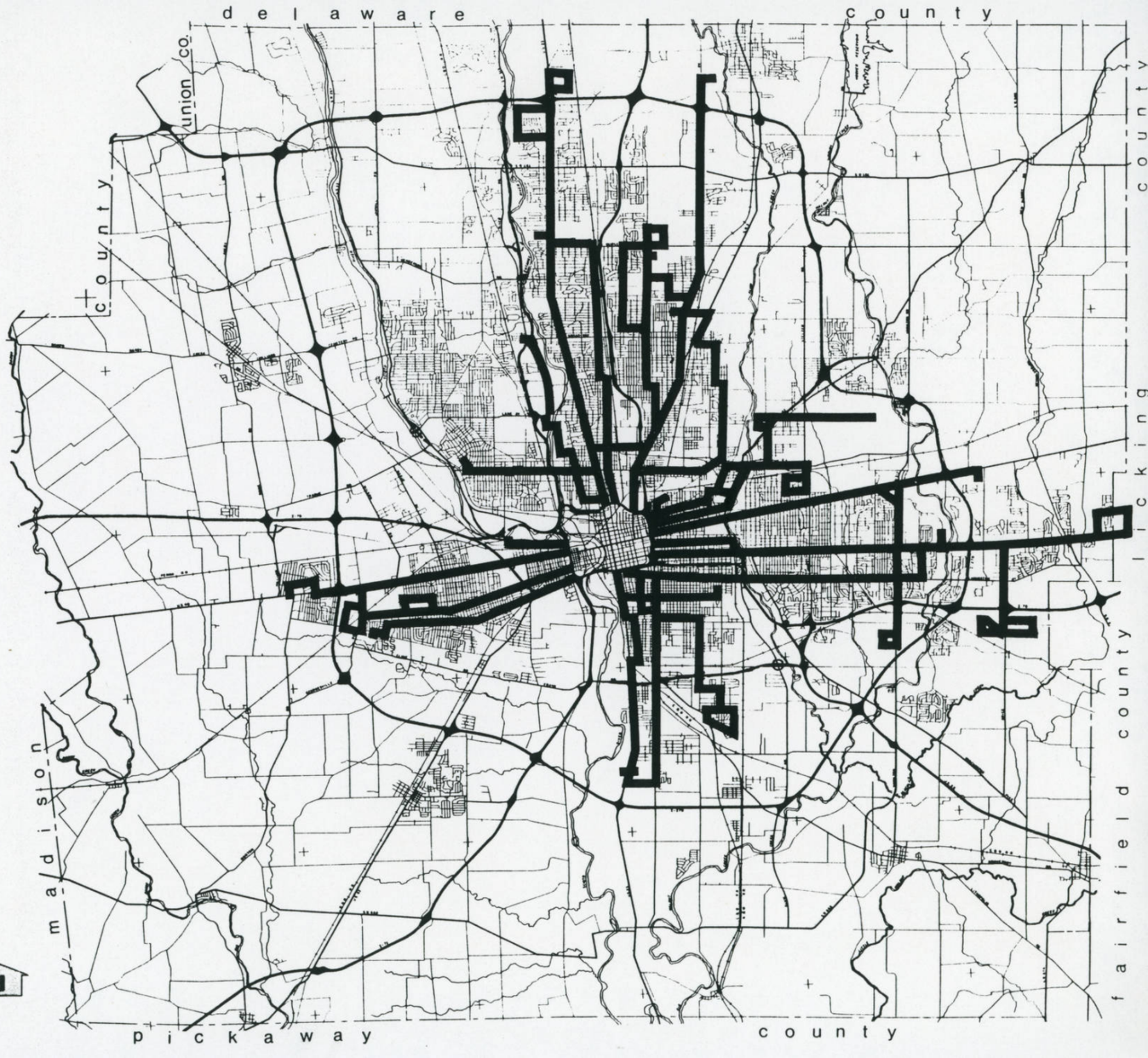


FIGURE 6
SUNDAY/HOLIDAY
SERVICE AS OF
MARCH 1993



SPECIAL SERVICES

Project Mainstream

Project Mainstream provides public transportation to Franklin County residents who are unable to use fixed-route service. COTA has provided Project Mainstream services through a contract with DAVE Transportation Services, Inc. (formerly DAVE Systems) since April, 1987. In April 1992, DAVE was awarded a three year contract with an option to extend the contract for an additional two years.

The operations and financial status of Project Mainstream service are monitored on a consistent basis. Performance standards such as schedule adherence, passenger trips per revenue hour and vehicle maintenance are reviewed monthly. Operating expenses, cost per passenger, revenue and revenue to cost ratio are also calculated monthly. In order to identify trends and/or problems, figures for the current month and those of the same month for the previous year are compared. (See Table 2 for annual comparison).

The Americans with Disabilities Act (ADA) specifies the criteria to be used in determining eligibility for complementary paratransit service. New application procedures were initiated in October 1992 for new applicants, and in addition, all passengers currently eligible for Project Mainstream are required to be recertified under the ADA criteria. Individuals who do not meet the ADA criteria will continue to be eligible for service under a "grandfather" criterion until recertification takes place again in 1996. Current passengers have until April 1, 1993 to submit recertification forms.

Project Mainstream provides two types of service, subscription and reservation. Subscription riders travel from the same origin to the same destination at least once a week. Reservation riders do not travel on a regular basis, but request trips as needed. In order to comply with the ADA regulations, no more than 50% of total trips provided during any time period can be for subscription service. COTA met this goal in 1992.

COTA owns all twenty (20) vehicles which comprise the Project Mainstream fleet. In 1993, eleven (11) new vehicles will be purchased; nine (9) are replacement vehicles and two (2) are additional vehicles necessary to provide increased service hours (see ADA section). With the purchase of these vehicles, the entire fleet will be diesel-fueled Ford Eldorado minibuses which accommodate three wheelchair and six ambulatory passengers.

Americans with Disabilities Act

In October 1992 COTA received approval of its Complementary Paratransit Service Plan from the FTA. One issue yet to be resolved, however, is whether or not COTA's express routes qualify as commuter routes; this determination will have a significant effect on the paratransit service area. Efforts to resolve this issue will continue during 1993.

TABLE 2

PROJECT MAINSTREAM

ANNUAL REPORT FOR 1992

PASSENGER TRIP	1992	1991	CHANGE
Subscription:			
Weekday	29,462	34,728	
Saturday	210	518	
Sunday	0	717	
TOTAL	29,672	33,693	- 11.9%
Reservation:			
Weekday	41,171	33,777	
Saturday	3,729	3,110	
Sunday	3,190	2,779	
TOTAL	48,090	39,666	21.2%
Total Weekday	70,633	66,935	
Total Saturday	3,939	3,628	
Total Sunday	3,190	2,796	
TOTAL TRIPS	77,762	73,359	6.0%
PRODUCTIVITY			
Operating Expenses	$1,360,401.79	$1,246,888.07	9.1%
Cost/Passenger	$ 17.49	$ 17.00	2.9%
Service Days	366	365	0.3%
Van/Hours	55,010.95	51,014.03	7.8%
Total Revenue Generated	$ 70,370.50	$ 67,150.75	4.8%
Revenue/Cost	5.2%	5.39%	-3.9%
Passengers/Van Hour	1.68	n/a	n/a
Cancellation	12,474 16.0%	11,817 16.11%	
No-shows	998 1.3%	715 0.97%	
Trip Denial	8,961 11.5%	12,168 16.59%	
Complaints	37 0.0%	64 0.09%	
ADMINISTRATIVE			
Applications Requesting	719	844	
Applications Processed	595	593	
New Subscription users	0	29	
Subscription Waiting List	138	147	
Weekday subscription users	115	130	
TOTAL CERTIFIED USERS	2,565	5,113	

1992 CONSISTED OF 257 WEEKDAYS, 51 SATURDAYS, 58 SUNDAYS/HOLIDAYS
1991 CONSISTED OF 255 WEEKDAYS, 52 SATURDAYS, 58 SUNDAYS/HOLIDAYS

As required, the Complementary Paratransit Service Plan Annual Update was submitted to the FTA by January 26, 1993. The update included a review of milestones reached in 1992 and a revised timeline for full compliance by January 26, 1997. As stated in the original plan, COTA will continue to increase Project Mainstream service hours by 10% and add two vehicles to the fleet each year through 1996. Due to COTA's financial situation, it is still planned that the paratransit service area will be restricted in 1996.

COTA staff will continue to work with its Accessible Transportation Advisory Committee (formerly Handicapped Consumers Advisory Committee) as well as other groups representing people with disabilities throughout the implementation of ADA regulations and service changes.

Project ACTION

Activities from Phase 1 of the Project ACTION grant series were completed early in 1992. COTA and FOCUS (Focus on Community Understanding and Services), a local advocacy group, were joint recipients of the grant and sponsored events aimed at training individuals with disabilities to use accessible fixed-route service.

FOCUS applied for and was awarded a Phase II Project ACTION grant for 1992-1993. The proposal again centered on enhancing the mobility of individuals with disabilities. COTA staff will play an active role in these activities by serving on the Project ACTION advisory committee and assisting with mobility-related events.

Accessible Fixed Route Service

COTA's 41 wheelchair lift-equipped fixed route buses completed the first full calendar year of service by providing 6332 lifts during the year. This rate of use exceeded expectations by COTA staff and reflects support of this new type of service throughout the community.

Public meetings for consumers and their advocates will be held in the spring of 1993 to seek input on route placement of the 67 coaches which will be in service later in 1993. COTA will propose that the new buses be assigned to crosstown and local routes not currently served by accessible coaches. The fact that there could still be long periods between accessible buses on some routes will be stressed, however, it is anticipated that the community will support system-wide placement of the new buses.

Senior Citizens on The Town

Senior Citizens on The Town (SCOT) provides convenient, inexpensive transportation for the elderly. This is a "special efforts" service in keeping with Section 16 of the Urban Mass Transportation Act. The service is offered weekdays during the midday and evening hours and provides senior citizens easy access to their favorite events and activities. This service operates as a group demand-responsive service.

Other Services

In previous years, COTA has provided supplementary bus service for the following seasonal special events:

* Red, White and Boom (i.e., downtown Independence Day Celebration) - COTA has augmented its normal service with additional trips on local routes as well as express service from selected Park and Ride lots.

* Christmas Service - COTA has operated four Christmas coaches which provide special fixed-route service during the Christmas season. A retired wheelchair lift-equipped Project Mainstream van became the fifth Christmas coach in December 1992 to provide complementary service for passengers with disabilities.

* Zoo Bus - COTA has operated a bus during the summer between downtown and the Columbus Zoo. The Zoo and other local businesses subsidize the cost of this service, and passengers pay the regular fare.

Staff and Board continually review the merits of each of these services on a case by case basis before a decision is made to commit transit resources.

PASSENGER INFORMATION

COTA provides information to its passengers in a variety of ways. COTA operates a Customer Service Center at 177 South High Street in downtown Columbus. Monthly passes, DayPasses, Senior Discount, Key Cards and schedule information can be obtained at this location. A Customer Information Center, which provides telephone information to the public seven days a week, and COTA's Quality Service Office are also housed at this location. Monthly passes and DayPasses are also available for purchase at a variety of locations in Franklin County.

COTA communicates to its passengers on board the bus via Commuter Bulletins and the monthly Riders Digest publication which features articles about the COTA system. In addition, during 1992, COTA planning staff presented service-related information to the public at 25 community meetings. COTA will continue such presentations in 1993.

COTA has also restored an automated customer information system. In 1989, this service was temporarily suspended to reduce operating costs. In 1991, COTA contracted with Megadyne to install a new automated telephone customer information system which was implemented in 1992.

TABLE 3

COTA FARE STRUCTURE

APRIL 1993

REGULAR FARES

Local, Crosstown	$1.00
Project Mainstream	$1.00
Express	$1.35
Transfer	10¢

SPECIAL FARES

Senior Discount/Medicare, Key Card or ADA Card	50¢
Children 7-12 years	50¢
Children under 7. (limit 3 with Adult Family Member)	FREE
Transfer	10¢

PASSES

Monthly

Local	$33
Express	$45
Senior Discount/Medicare or Key Card	$15
Project Mainstream.	$30

DayPass

Adult	$2
An additional 35¢ is required on express service	
Human Service Agency	$1.50
Children 7-12, Key Card, ADA Card, Senior Discount/Medicare.	$1

SECTION III - THE PLANNING PROCESS

HOW ROUTES ARE EVALUATED

SERVICE STANDARDS

COTA has had service standards in effect since 1977.

The current loading standards are shown below:

Local Radials:	Maximum Load	=	120% seating capacity
Local Crosstowns:	Maximum Load	=	120% seating capacity
Express Radials:	Maximum Load	=	100% seating capacity

Seating capacity ranges from 36 persons to 48 persons per bus in the active fleet. Since a large majority of the fleet seats 48 passengers, COTA uses an average seating capacity of 48 on most routes.

If a route is consistently above maximum load standards, additional service is added.

ROUTE PRODUCTIVITY

COTA measures the productivity of its routes by the revenue (fare paying) passengers per vehicle hour. Vehicle hour is a measure of the amount of service COTA provides. Passengers (total) is a measure of how many people use the service. Revenue passengers per vehicle hour is a combination measure showing how productive a route is in relation to the service provided.

A minimum productivity standard is specified for each type of COTA route. They are shown below:

Local radials:	Revenue passengers/vehicle hour	=	19
Express radials:	Revenue passengers/vehicle hour	=	20
local crosstown:	Revenue passengers/vehicle hour	=	7

As shown in the chart on the next page, 5 local routes, 25 express routes and 1 crosstown route do not currently meet these productivity standards.

COTA will continue to monitor these routes and to update the productivity standards in 1993.

TABLE 4

ROUTES WITH WEEKDAY PRODUCTIVITY DEFICIENCIES

Route		Date Implemented or Last Change	Revenue Passengers per Vehicle Hour*
LOCALS			(Standard = 19)
#12	McKinley/Fields	6/08/92	4.6
#15	Grove City	1/29/90	15.7
#17	Greenlawn	9/02/91	10.2
#18	Kenny Road	1/04/93	15.0
#19	Arlington/Grandview	1/07/91	12.9
EXPRESSES			(Standard = 20)
#30	Smoky Row	5/07/90	12.7
#33	North Central	10/18/91	14.4
#34	Karl Road	10/18/91	18.1
#35	Tamarack	5/06/91	13.4
#36	Annehurst	10/18/91	15.1
#37	Westerville	9/07/92	13.1
#38	E. Westerville	5/04/92	17.3
#39	New Albany	1/04/93	10.1
#40	Forest Hills	5/07/90	12.7
#42	Agler/Cassady	5/04/76	18.2
#43	E. Broad	9/05/86	17.2
#44	N. Reynoldsburg	2/10/87	17.5
#45	Reynoldsburg	1/07/91	15.6
#46	Eastland	1/06/92	12.9
#47	Brice Road	2/10/87	17.4
#49	Southeast	1/29/90	9.7
#53	Lincoln Village	5/04/92	13.9
#57	Hilliard	1/29/90	13.1
#58	Dublin	1/06/92	13.3
#60	Arlington	5/07/90	15.2
#61	Kenny Road	1/04/93	16.4
#62	Olentangy	5/07/90	10.1
#64	Grove City	9/01/88	13.9
#65	Berwick	1/06/92	9.2
#67	E. Hilliard	5/01/89	14.8
CROSSTOWNS			(Standard = 7)
#86	S. Columbus	5/01/89	6.1

*1992 Ridership Report; 1992 Fare Survey

HOW COTA EVALUATES SERVICE

COTA currently uses a number of methods to review service for possible changes or improvements.

COTA uses the revenue passengers per vehicle hour standard to monitor the performance of routes. A Trimester Report developed from Automatic Passenger Counter (APC) data tracks average performance by route for a four month period. Routes not meeting productivity standards are targeted for review.

COTA also evaluates service through manual ridership and data collection gathering efforts. Comments from the public, the operators, COTA management and Board members and the jurisdictions in the service area are all reviewed and considered. The COTA Department of Service Development works closely with other offices at COTA to coordinate service-related projects. Service Development also tracks new growth in Franklin County, especially as it relates to new potential passenger generators such as housing areas, regional shopping centers, employment sites and other institutions. Standards from the Transportation Research Board are used as a general rule of thumb when dealing with growth areas.

HOW DATA IS COLLECTED

Route performance data is used to evaluate service. COTA collects data in a number of ways. Thirty-seven buses equipped with automatic passenger counters provide COTA with running time, passenger load data and other statistics used in route planning.

The Department of Scheduling has two checkers who ride routes and conduct on/off counts, maximum load counts and running time checks.

The Department of Service Development has a Data Collection/Survey Clerk. Her primary emphasis is to conduct and tabulate passenger surveys. In addition, she also produces ride checks, bus stop counts, park and ride counts and maximum load counts.

Service changes are recommended by Service Development with the concurrence of the Scheduling Department. The two departments prepare a list of changes which are reviewed by the Board of Trustees and the General Manager. The final set of changes are then directed to the offices and departments which have responsibility for the implementation of new service. Service Development monitors the progress of each service change to ensure that the process stays on schedule. Changes are scheduled three times a year on the first Monday in each January, May and September.

TITLE VI ADHERENCE

In addition to the previously discussed evaluation procedures, COTA's planning process is sensitive to the needs of the minority communities. As a federally funded transit provider, through the Federal Transit Administration, COTA has a responsibility to adhere to the objectives of

Title VI of the Civil Rights Act of 1964. The objectives of the FTA Title VI program are as follows:

1. To ensure FTA-assisted benefits and related services are equitably distributed without regard to race, color or national origin.

2. To ensure that both the level and quality of transit services provide equal access and mobility for any person without regard to race, color or national origin.

3. To ensure that access to the planning and decision-making process is open and without regard to race, color or national origin.

4. To ensure that decisions on the location of transit facilities and services are made without regard to race, color or national origin.

These objectives are the basis for the implementation of the FTA Title VI program. To comply with these objectives, COTA has adopted the suggested methodology and framework set forth in the Title VI reporting guidelines (UMTA Circular 4702.1, Chapter IV) for compliance assessment.

By using this methodology, COTA will monitor and compare performance of all its routes based on level of service and quality of service criteria. To facilitate this evaluation, COTA will continue to collect data relating to its service standards, such as load factor, vehicle assignment, headway and on time analysis. These analyses will be conducted on a route by route basis, thus enabling a systemwide evaluation. The findings of these analyses will be used to modify service delivery, to bring it in line with the stated objectives of the Title VI program, where a variance exists.

In November of 1991, COTA submitted a report to FTA which documented the results of this methodology and showed COTA's compliance with the Title VI regulations. This document was approved by FTA on January 13, 1993.

SECTION IV - COMPREHENSIVE PLANNING PROCESS

COMPREHENSIVE PLANNING PROCESS

In February 1991, the COTA Board of Trustees adopted a resolution to proceed on a new Long Range Planning effort. As a result, COTA has entered into an agreement with the Mid-Ohio Regional Planning Commission (MORPC) to produce a Long Range Transit System Study with a 2010 time horizon. The primary purpose of this analysis is to identify and prioritize the transportation corridors which have the highest ridership potential. MORPC has retained the services of Parsons Brinckerhoff Ohio, Inc. and Robert J. Harmon and Associates to assist in the land use and ridership projections. It is believed that the results of this study will identify a corridor(s) with sufficient ridership potential to support the development of a fixed guideway for the following major reasons: the recently completed Columbus Comprehensive Plan is very supportive of public transit and will strongly encourage the type of density in the selected transit corridor(s) that will make the operation of a fixed guideway more cost-effective; the continued rapid growth of the downtown, and the northwest, north and northeast corridors of COTA's service area; and the proposed development of a fixed guideway by The Ohio State University to move its students/staff from large remote west campus parking lots to the main campus which could provide a direct connection from their campus to a corridor guideway system. The timetable for the remainder of the Systems Study is as follows:

1993

April — Completion of the final analysis for the Systems Study. (e.g., development of operating/capital costs for the base, transportation systems management and fixed guideway alternatives)

May — Final documentation of the Long Range Systems Study. Presentation of the study results to the Long Range Plan Steering Committee, the COTA Board of Trustees and the MORPC Policy Committee/Commission.

June — Transmittal of the Long Range System Study to the Federal Transit Administration (FTA) for review and comment.

The next step in FTA's major capital investment project development process is the preparation of an Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS). Given the timely review and approval of the Long Range System Study, COTA/MORPC will begin work on the AA/DEIS in early July. The AA/DEIS will examine the priority North Corridor in detail and develop alternative solutions to the transportation problems identified in the system planning phase. The range of alternatives typically will include one or more rail options, a busway alternative and a transportation systems management (TSM) alternative that represents the best that can be done without a major investment in new infrastructure. This phase also includes the development of a draft environmental impact statement (DEIS) documenting the results of the study, a public hearing selection of a locally preferred alternative and preparation of a realistic funding plan. It is hoped that this phase will take approximately 12-15 months.

At the conclusion of the AA/DEIS phase, a locally Preferred Alternative Report is transmitted to FTA together with a request for approval to initiate preliminary engineering.

In addition, COTA is an active participant in the Downtown Multi-Modal Transportation Terminal Feasibility and Cost Analysis Study. The purpose of this study is to identify the optimal location of and develop costs for a multi-modal terminal in the northern portion of The Central Business District. The terminal would be located and designed in a manner which would enable it to accommodate: high speed or conventional inter-city rail; inter-city buses; COTA express buses and future light rail transit service; and taxicabs. This 18 month study should be completed in April of 1994.

SECTION V - PLANNED SERVICE CHANGES

TABLE 5

SCHEDULE OF SERVICE IMPROVEMENTS FOR JANUARY 1993

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
	Jan.	Cleveland Ave. Bridge over I-670 is completed						
X		- #1 Livingston - extend to Reynoldsburg Park & Ride	0	0	0	0	0	+ 510
X		- #1 Cleveland - extend Midday service to Westerville and extend Sunday service to St. Ann's Hospital	0	0	0	0	0	+ 120
X		- #9 Leonard/Brentnell - extend Sunday service to Northland and eliminate Sunday service to St. Ann's	0	0	0	0	0	+ 50
X		- Eliminate reroutes around the Cleveland Ave. Bridge (i.e., #1, #35, #37, #38 and #40)	-1	0	-1	0	- 34.47	0
		- #10 E. Broad - reduction in in service relating to Ameriflora	0	0	0	0	- 6.00	0
		- #18 Kenny - extend service from Bethel and Reed to Bethel and Sawmill	0	0	0	0	0	+ 150

(Table 5 continued on next page)

TABLE 5 (continued)

SCHEDULE OF SERVICE IMPROVEMENTS FOR JANUARY 1993

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
X		- #39 New Albany and #41 Gahanna realign to use I-670 from Fifth Ave to St. Clair Ave.	0	0	0	0	- 0.67	+ 80
X		- #61 Kenny - extend service from Slade and Hollister to Bethel and Sawmill area	0	0	0	0	+ 3.58	+ 160
		TOTAL REGULAR SERVICE	-1	0	-1	0	- 37.56	+ 1070

Regular Service

Total Added Weekly Hours = - 37.56 veh. hrs.
Total Added Hours For 1993 = - 37.56 veh. hrs. x 52 wks. = - 1953.12
Total Annualized Hours = - 37.56 veh. hrs. x 52 wks. = - 1953.12

Total Added Weekly Passengers = 1070 pass.
Total Added Passengers For 1993 = 1070 pass. x 52 wks. = 55,640
Total Annualized Passengers = 1070 pass. x 52 wks. = 55,640

TABLE 6

SCHEDULE OF SERVICE IMPROVEMENTS FOR MAY 1993

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
	MAY	#61 Kenny Express - Add PM Trip	0	0	+1	0	+10.00	+75
		TOTAL REGULAR SERVICE	0	0	+1	0	+10.00	+75

Total Added Weekly Hours = 10 veh. hrs.
Total Added Hours For 1993 = 10 veh. hrs. x 35 wks. = 350
Total Annualized Hours = 10 veh. hrs. x 52 wks. = 520

Total Added Weekly Passengers = 75 pass.
Total Added Passengers For 1993 = 75 pass. x 35 wks. = 2,625
Total Annualized Passengers = 75 pass. x 52 wks. = 3,900

TABLE 7

SCHEDULE OF SERVICE IMPROVEMENTS FOR SEPTEMBER 1993

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
	Sept.	ARC South Industries relocates to Hamilton Rd. and Williams Rd.						
		- #89 Hamilton - extend service to Hamilton Rd and Williams Rd	+ 1	+ 1	+ 1	+ 1	+ 65.00	+ 455
		- #86 S. Columbus eliminate service	- 1	0	- 1	0	- 35.33	- 185
		Implement express service to Newark*	+ 2	0	+ 2	0	+ 55.00	+ 500
		TOTAL REGULAR SERVICE	+ 2	+ 1	+ 2	+ 1	+ 84.67	+ 770

* This service will be subsidized through a Congestion Mitigation and Air Quality Grant for the first two years.

Regular Service

Total Added Weekly Hours	=	84.67 veh. hrs.		
Total Added Hours For 1993	=	84.67 veh. hrs. x 17 wks.	=	1,439.39
Total Annualized Hours	=	84.67 veh. hrs. x 52 wks.	=	4,402.84
Total Added Weekly Passengers	=	770 pass.		
Total Added Passengers For 1993	=	770 pass. x 17 wks.	=	13,090
Total Annualized Passengers	=	770 pass. x 52 wks.	=	40,040

TABLE 8

SCHEDULE OF SERVICE IMPROVEMENTS FOR 1994

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
	Jan.	#6 Mt. Vernon - realign to serve V.A. Clinic at Taylor Ave. and Maryland Ave.	0	0	0	0	0	+ 250
		Mainline I-670 is open to Fourth St. and Third St.						
		- Through route the #9 Leonard/ Brentnell with #11 Oak/Bryden	+ 1	+ 1	+ 1	+ 1	+ 52.00	+ 400
		- Realign #80 Ohio through the Sawyer/Bolivar Complex	0	0	0	0	0	+ 200
		- Eliminate the #11 St. Clair	- 1	- 1	- 1	- 1	- 52.00	- 400
X		COTA provides supplemental service to the I-70 west corridor as part of the Traffic Management Program*	N/A	0	N/A	0	N/A	N/A
		Implement express service to Delaware**	+ 2	0	+ 2	0	+ 55.00	+ 500
	May	COTA provides supplemental service to the SR 315 northwest corridor as part of the Traffic Management Program***	N/A	0	N/A	0	N/A	N/A
		Implement CBD Circulator	0	+ 6	0	0	+ 100.00	+ 5000
		TOTAL REGULAR SERVICE	+ 2	+ 6	+ 2	0	+ 155.00	+ 5950

NOTE: N/A equals Not Available

* This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the west corridor during the reconstruction of I-70 West. This service will begin in March of 1994 and extend through November of 1994. The exact level of COTA's participation has not yet been determined.

TABLE 8 (continued)

** This service will be subsidized through a Congestion Mitigation and Air Quality Grant for the first two years.

*** This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the northwest corridor during the reconstruction of SR 315 (Ackerman Rd. to SR 161). This service will begin in July of 1994 and extend through November of 1995. The exact level of COTA's participation has not yet been determined.

Regular Service

Total Added Weekly Hours	=	55 veh. hrs. January, 100 veh. hrs. May
Total Added Hours For 1994	=	(55 veh. hrs. x 52 wks.) + (100 veh. hrs. x 35 wks.) = 6,360
Total Annualized Hours	=	(55 veh. hrs. x 52 wks.) + (100 veh. hrs. x 52 wks.) = 8,060

Total Added Weekly Passengers	=	950 pass. January, 5,000 pass. May
Total Added Passengers For 1994	=	(950 pass. x 52 wks.) + (5,000 pass. x 35 wks.) = 224,400
Total Annualized Passengers	=	(950 pass. x 52 wks.) + (5,000 pass. x 52 wks.) = 309,400

TABLE 9

SCHEDULE OF SERVICE IMPROVEMENTS FOR 1995

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
X	Jan	COTA provides supplemental service to the I-70 East corridor as part of the Traffic Management Program*	N/A	0	N/A	0	N/A	N/A
		COTA provides supplemental service to the SR 315 northwest corridor as part of the Traffic Management Program**	N/A	0	N/A	0	N/A	N/A
		Continually refine the route network and service levels in order to better match the supply and demand for transit services.						
	Sept.	Implement neighborhood circulator service to transit center***	+2.00	0	+2.00	0	+40.00	+600
		TOTAL REGULAR SERVICE	+2.00	0	+2.00	0	+40.00	+600

NOTE: N/A Equals not available

* This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the east corridor during the reconstruction of I-70 East. This service would begin in July 1995 and extend through November of 1996. The exact level of COTA's participation has not yet been determined.

** This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the northwest corridor during the reconstruction of SR 315 (Ackerman Rd. to SR 161). This service will begin in July of 1994 and extend through November of 1995. The exact level of COTA's participation has not yet been determined.

TABLE 9 (continued)

*** This service will test the transit center concept. Small buses would circulate in the neighborhoods and provide timed transfer to express and/or local buses at a transit center/park and ride.

Regular Service

Total Added Weekly Hours	=	40 veh. hrs.		
Total Added Hours For 1995	=	40 veh. hrs. x 17 wks.	=	680
Total Annualized Hours	=	40 veh. hrs. x 52 wks.	=	2080
Total Added Weekly Passengers	=	600 pass.		
Total Added Passengers For 1995	=	600 pass. x 17 wks.	=	10,200
Total Annualized Passengers	=	600 pass. x 52 wks.	=	31,200

TABLE 10

SCHEDULE OF SERVICE IMPROVEMENTS FOR 1996

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRED				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
X	Jan	COTA provides supplemental service to the northwest corridor as part of the Traffic Management Program*	N/A	0	N/A	0	N/A	N/A
		COTA provides supplemental service to the I-70 east corridor as part the Traffic Management Program **	N/A	0	N/A	0	N/A	N/A
		Continually refine the route network and service levels in order to better match the supply and demand for transit services.						
		TOTAL REGULAR SERVICE						

NOTE: N/A equals Not Available

* This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the northwest corridor during the reconstruction of Spring/Sandusky Interchange. This service would begin in July of 1996 and extend through July of 1998. The exact level of COTA's participation has not yet been determined.

** This temporary service will be subsidized by FHWA and ODOT in order to help mitigate traffic congestion in the east corridor during the reconstruction of I-70 East. This service would begin in July 1995 and extend through November of 1996. The exact level of COTA's participation has not yet been determined.

TABLE 11

SCHEDULE OF SERVICE IMPROVEMENTS FOR 1997

SRTP 1992	MONTH	PROJECTS	ESTIMATED CHANGE IN VEHICLES REQUIRES				ESTIMATED CHANGE IN VEH. HRS. PER WEEK	ESTIMATED CHANGE IN PASSENGER TRIPS/WEEK
			AM PEAK	MIDDAY	PM PEAK	OTHER		
X	Jan	COTA provides supplemental service to the northwest corridor as part of the Traffic Management Program* Continually refine the route network and service levels in order to better match the supply and demand for transit services.	N/A	0	N/A	0	N/A	N/A
		TOTAL REGULAR SERVICE						

NOTE: N/A equals Not Available

* This temporary service will be subsidized by the FHWA and ODOT in order to help mitigate traffic congestion in the northwest corridor during the reconstruction of Spring/Sandusky Interchange. This service would begin in July of 1996 and extend through July of 1998. The exact level of COTA's participation has not yet been determined.

SECTION VI - CURRENT AND PLANNED EQUIPMENT AND AMENITIES

COTA'S FACILITIES

1600 McKinley Avenue: This bus storage and maintenance facility was completed in 1980. It has indoor storage capacity for 240 buses. Both heavy and light maintenance are performed at this location. In addition to bus operations, the facility is the site of COTA's administrative headquarters.

1333 Fields Avenue: This 200 bus facility provides indoor storage and light maintenance work areas opened in September 1984. It features advanced technology in the areas of ventilation, energy conservation and maintenance. The radio control room is also housed at this facility.

177 South High Street: This downtown office opened in 1988. It replaced the Customer Service office at 155 N. High Street which was destroyed by fire in 1987. This office houses the Customer Service Center, the Customer Information Center and the office of Quality Service. It is the main sales outlet for passes, as well as the location where passengers are photographed for Senior Discount and Key Cards.

COTA'S DOWNTOWN TERMINALS

COTA provides two downtown terminals for many of its express routes. They are described in greater detail in the following paragraphs.

North Terminal: The North Terminal is located on Spring Street between High and Front Streets. There are six bays for express routes. At present, twelve express routes use the North Terminal to serve passengers in the north downtown area. Approximately 1,300 passengers per day are served from the The North Terminal.

City Center Terminal: In November 1989, COTA moved into its new 41,000 square foot City Center Express Terminal. The terminal is located east of High Street between Rich Street and Main Street in the City Center Parking Garage. Access to the terminal is from Rich and Main Streets. Elevators at both entrances provide pedestrian access to the terminal from all floors. The terminal is able to accommodate ten buses at one time, five in each direction. The terminal design permits buses to pull in at an angle and pull out directly after passenger loading and unloading. This feature increases the safety for COTA's passengers and facilitates the smooth flow of buses through the terminal. At present, nineteen express routes serve the City Center Terminal. Approximately 1,000 passengers per day travel through the City Center Terminal to use COTA express buses.

COTA BUS FLEET

As of January 4, 1993, COTA operated an active fleet of 342 coaches. An additional 9 were kept in reserve as an inactive fleet. Table 12 provides information on the number of coaches, status, year of manufacture, manufacturer and seating capacity for COTA's total fleet.

In order to improve the accessibility of our fixed route services and to reduce the wear on our existing 41 lift-equipped coaches, COTA has accelerated the replacement of 99 1982 Flxible coaches. In September of 1993, COTA will take delivery on 67 new lift-equipped buses. As a result, COTA will sell the 67 least serviceable 1982 coaches and reimburse FTA for the prorated value of their active life (i.e., these vehicles were scheduled for replacement in April 1994). The 32 remaining 1982 coaches will be moved to the inactive fleet in April 1994. Eight of the inactive 1982 coaches will then be utilized for special purposes (e.g., Christmas coaches, Zoo bus) with the other 24 available for the Traffic Management Program or emergency energy contingencies.

From August 1990 through October 1991, COTA was an active participant in the Traffic Management Program (TMP) for the reconstruction of the I-71 North Freeway. As part of the TMP, COTA agreed to add 15 peak period vehicles to the North Corridor in an effort to reduce congestion during this mainline reconstruction. The FHWA and ODOT provided a partial subsidy for this supplemental service which carried approximately 200,000 passenger trips. The TMP has expressed a strong interest in having COTA provide supplemental bus service for the northwest, east and west corridors during the reconstruction of SR 315, I-70 East and I-70 West respectively. In addition, COTA anticipates that it will participate in the traffic mitigation efforts for the Spring Sandusky Interchange Project. Beginning in March of 1994, the TMP will gear up for the I-70 West reconstruction. Although the exact level of COTA's participation in these projects has not yet been determined, COTA believes the peak vehicle requirements will be similar to the I-71 North reconstruction project (i.e., 15 buses per peak period per corridor). If the actual peak vehicle requirements for the TMP program are less than currently projected, COTA will scale back future bus purchases in 1995 and 1996 to ensure that COTA's spare ratio is at or below 20%.

FTA guidelines state that transit buses have a 12 year service life. Listed in Table 13 is a summary of when COTA buses are scheduled for replacement.

Fleet Spare Ratio

As of January 4, 1993, COTA operated 244 coaches in the morning peak period and 251 coaches in the afternoon peak period. The remaining active vehicles are retained as emergency spares (i.e., for breakdowns and overloads) or for preventive maintenance. The ratio of spare vehicles to the afternoon peak fleet is currently 36%. Table 14 displays important COTA fleet data for each year of the Transportation Improvement Plan (i.e., 1993-1997). It should be noted that the additional peak vehicle requirements for the Traffic Management Program are not included in Table 14.

If it is assumed that COTA participates in the TMP at a level comparable to the I-71 North project, the spare ratio for the 2nd Trimester of 1994 would be approximately 11% (i.e., COTA would provide a total of 30 additional buses for the reconstruction of I-70 West and SR 315). The Mid-Ohio Regional Planning Commission is currently modeling the impacts of the major freeway reconstruction projects on the radial highway level-of-service in the affected corridors. Based on the results of this work, a recommendation will be made to the TMP on the appropriate level of transit participation.

Future Purchases

COTA will be required to replace a total of 135 buses between 1995 and 1996 (see Table 13). In addition, the Authority will pursue funding for 8 new 25' buses in 1993 which would be used for a midday downtown circulator. Unfortunately, COTA was required to use virtually all of its capital reserve during the time period between the passage of the November 1989 1/4% sales tax and the initial receipt of those revenues in May 1990. The primary purpose of the capital reserve was to pay for that portion of COTA's future bus replacement needs which were over and above the projected capital assistance COTA would receive from ODOT and FTA. In addition, COTA sold $8 million in General Obligation Bonds in March 1990 in order to provide critical operating assistance until receipt of the sales tax revenues and local match for short term capital needs. This bond issue, which is payable in full by the year 2000, makes full use of COTA's realistic bonding capacity for the duration of this 10 year sales tax. As a result, COTA now faces a very significant capital bus replacement shortfall for the years 1995 and 1996 with very limited funding options.

In addition to the formula Section 9 Federal Grant monies, COTA intends to actively pursue the discretionary Section 3 Federal Grant monies. The competition for Section 3 Grants is extremely intense and therefore COTA cannot be confident about the availability of these monies to fund the entire bus replacement capital shortfall. As a result, COTA will actively pursue all other possible sources of capital grant monies. In this regard, the new Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) allows a region much greater discretion in the allocation of transportation monies between highway and public transit improvements. COTA will work with the MORPC to identify opportunities for funding COTA's bus replacement needs which this new legislation has created.

If COTA is to provide reliable cost-effective transit service to the citizens of Central Ohio, it must adhere to current bus replacement schedules by identifying and securing the necessary capital funding to purchase new vehicles.

TABLE 12

ROSTER OF EQUIPMENT

The Central Ohio Transit Authority Fleet Roster as of April 1993 is listed below:

ACTIVE FLEET

Year of Manufacture and Manufacturer	Seating Capacity	Equipment Operation	Number of Vehicles	Replacement Year
1991 FLX	46	A/C	41	2003
1987A GMC	45	A/C	43	1999
1987B GMC	36	A/C	24	1999
1984A FLX	48	A/C	32	1996
1984B FLX	40	A/C	18	1996
1983A FLX	48	A/C	65	1995
1983B FLX	40	A/C	20	1995
1982 FLX	48	A/C	99	1994
	TOTAL ACTIVE FLEET		342	

COTA is currently demonstrating a 1989 Flxible CNG powered bus which is leased from Columbus Gas. This vehicle is available for use on a sporadic basis only and, therefore, is not included as part of the active or inactive fleet.

CONTINGENCY FLEET

Year of Manufacture and Manufacturer	Seating Capacity	Equipment Operation	Number of Vehicles
1975 GMC	47	A/C	4
1968 GMC	53	A/C	1
1967 GMC	53	A/C	1
1965 GMC	53	A/C	2
1963 GMC	53	A/C	1
	TOTAL INACTIVE FLEET		9

This inactive coach status includes four coaches used for Christmas Coaches, one coach as a Training Bus, one coach used for the Zoo Bus and three coaches used for the I Know I Can Program.

Note: FLX = Flxible
GMC = General Motors Corp.

TABLE 13

BUS REPLACEMENT SCHEDULE

Entered Year in service	Number of ADB Buses	1993			1994			1995			1996			1997		
		1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
1982	99			67*												
1983	85								85							
1984	50											50				
1987	67															
1991	41															
1994	8					8										
New Expansion:		0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
Replaced:		0	0	67	0	0	0	0	85	0	0	50	0	0	0	0
Total Active Fleet:		342	342	342	342	318	318	318	318	318	318	318	318	318	318	318

ADB = Advanced Design buses are buses which are manufactured after 1980.

* In September of 1993, COTA will sell 67 1982 Flxible buses. The 32 remaining 1982 buses will be moved to the inactive fleet in April of 1994.

TABLE 14

PEAK FLEET UTILIZATION

Trimester	1993			1994			1995			1996			1997		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Advanced Design Buses, 35' and 40'	342	342	342	342	310	310	310	310	310	310	310	310	310	310	310
Advanced Design Buses 25'	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8
Active AM Peak Fleet	244	244	246	248	248	248	248	248	250	250	250	250	250	250	250
Active PM Peak Fleet	251	252	253	255	256	255	255	256	257	257	258	257	257	258	257
Available Spare Fleet in Higher Peak	91	90	89	87	62	63	63	62	61	61	60	61	61	60	61
COTA Spare Ratio	36.3	35.7	35.2	34.1	24.2	24.7	24.7	24.2	23.7	23.7	23.3	23.7	23.7	23.3	23.7
Total Active Fleet	342	342	342	342	318	318	318	318	318	318	318	318	318	318	318

1. Active Peak Fleet are those vehicles actually in service during the peak hours.

2. Available Spare Fleet is the total active fleet minus the higher active peak fleet requirement.

3. COTA Spare Ratio = $\frac{\text{Total Spare Fleet}}{\text{Highest Peak Fleet}}$

4. Total active fleet are all revenue vehicles which are 12 years old or less.

5. In September of 1993, COTA receives 67 replacement buses and sells 67 1982 buses. The 32 remaining 1982 buses will be moved to the inactive fleet in April of 1994.

6. The additional peak vehicle requirements for the Traffic Management Program have not been defined and, thus, are not included in this table.

THE COTA ENERGY CONTINGENCY FLEET

In the spring of 1979, as it became likely that gasoline shortages would appear in Ohio, the Central Ohio Transit Authority prepared an Energy Emergency Action Plan. This plan set forth COTA's goals in the event of a transportation fuel emergency, and describes the measures that could be taken to obtain these goals. In addition, the Mid-Ohio Regional Planning Commission produced a Transportation Fuel Contingency Plan (April, 1980) which is intended to compliment the COTA measures and enable their implementation.

Goal 4 of COTA's plan states that COTA should: "Increase the size of the COTA bus fleet and operations." Maintaining old COTA buses for emergency use is one means of realizing this goal (i.e., Action 4-B in the COTA plan). As COTA purchases new buses, the old vehicles would be maintained and used in an energy emergency.

The appropriate size of COTA's Energy Contingency Fleet should be based on the following factors:

* The estimated increase in ridership which would accompany another energy crisis;
* The size of the existing Active PM Peak Fleet and the Available Spare Fleet;
* PM peak vehicle loads on all Local, Crosstown and Express routes;
* Maximum load standards for Local, Crosstown and Express routes.

The Energy Emergency Action Plan defines an energy crisis as: a transit ridership increase of 20% or more from the existing demand due to a reduction in gasoline supplies. During the 1979 Energy Crisis, COTA experienced a 9.8% increase in ridership for the month of July.

With the delivery of the 67 new lift-equipped Flxible coaches in September of 1993, COTA will sell 67 1982 Flxible coaches which are the least serviceable and shift the 32 remaining 1982 coaches to the inactive fleet in April of 1994. Eight of these coaches will be dedicated to special services (e.g., Christmas coach and Zoo bus) and would thus require significant modification in order to be used for conventional fixed route service. Following retirement of the 1982 coaches, COTA will sell 7 buses in the current inactive fleet (i.e., 1975 or older). In April of 1994 COTA would have a total of 25 buses in the inactive fleet which could be easily used to supplement the active fleet for the Traffic Management Program and/or an energy emergency.

Assuming that there was a 20% increase in existing transit demand and that these trips were added proportionately to the PM peak vehicle loads on all of COTA's service, approximately 30 trips would exceed maximum load standards. Given the inactive fleet and existing available spare buses in the PM peak fleet, COTA would be able to accommodate the added demand while maintaining an adequate spare ratio.

The maintenance of an energy contingency fleet is one measure in a comprehensive package of actions which COTA would take in the event of another serious energy crisis. A complete discussion of other actions is found in the Energy Emergency Action Plan.

FLEET MAINTENANCE OBJECTIVES

The objective of the Maintenance Department is to provide safe and reliable vehicles to meet COTA's service requirements.

The preventive maintenance program is built around a 3,000 mile inspection interval for "New Look" buses and 4,000 mile interval for "Advance Design" buses. This inspection is referred to as an "A" inspection. A comprehensive inspection of thirty-two different components of the vehicle is done at this level.

A "B" inspection is performed at 12,000 mile intervals, and incorporates all items of an "A" inspection, plus an oil change and oil filters and fuel filter change.

A "C" inspection occurs at 24,000 miles. In additional to work done for "A" and "B" inspections, the transmission fluid, transmission filter and secondary fuel filters are changed. At 48,000 miles, a "D" inspection takes place. This includes all parts of "A", "B" and "C", as well as changing the gear oil of the differential.

This system is designed to meet all manufacturers' recommended requirements. More importantly, use of this program keeps vehicles operating safely and reliably throughout the life of the vehicle.

PASSENGER SHELTERS

COTA currently owns and maintains 333 passenger shelters. These shelters are scattered throughout Franklin County and serve major boarding/transfer locations, Park & Ride lots, the turnarounds, shopping areas, medical/elderly facilities, etc.

The shelter location methodology for each COTA stop is based on the following criteria:

A) Boardings at the bus stop:

Low volume of boardings = score of 5 (lowest need)
Medium volume of boardings = score of 15
High volume of boardings = score of 25 (highest need)

B) Average waiting time at the bus stop:

Short wait time = score of 5 (lowest need)
Medium wait time = score of 15
Long wait time = score of 25 (highest need)

C) Special populations (elderly, disabled, etc.) using the stop:

Low number of special user = score of 0 (lowest need)
High number of special user = score of 30 (highest need)

D) Park & Ride, Terminal, Bus loop and Bus Stops

The overall score for each bus stop is the combined score for each indicator. All bus stops are ranked according to their overall score. Bus stops on new routes are placed on the list before the route is implemented.

Any or all of the following conditions render a potential bus shelter infeasible:

1. Maximum boardings are equal to or less than 25 passengers per day.
2. Adequate shelter of some type is readily available.
3. Another COTA shelter is in the near vicinity.
4. Shelter location is not approved by the local authorities.
5. Shelter location generates severe local citizen/business opposition.
6. Site geometrics are prohibitive.
7. Directional orientation of shelter is prohibitive.
8. Excessive high maintenance costs for a relatively low boarding volume.

Features to be available with each COTA shelter are divided within two categories, necessary and desired. The following features are necessary:

1. Benches (not necessarily full length).

2. Accessible to passengers with disabilities.

3. Security of the shelter by limitation of nearby vegetation and non-obscured visibility and nearby/attached lighting.

4. Bus stop location is directly accessible from the shelter.

The following features are desired:

1. Newspaper facilities.

2. Telephone nearby.

3. Full shelter site.

4. Public service announcements (with no other advertising).

Fifty-five shelters and receptacles will be installed in 1993 at a cost of $216,000. Forty-five of these will replace existing structures and ten will be installed at new locations. A complete list of the present shelters is listed in Appendix I.

BUS STOP SIGNS

In 1993, COTA plans to purchase 750 bus stop signs and post assemblies at a cost of approximately $35,000. These signs will be used to replace any remaining blue and white signs, as well as to replace damaged signs and provide for expansion.

PARK AND RIDE LOTS

COTA currently has twenty-one established park and ride lots located throughout Franklin County. A description of these lots is located in Tables 15 and 16. There are presently 1,777 park and ride spaces in these lots, as well as an additional twenty-four spaces available at two parking loops. Usage of the lots, as of March 1993, is shown in Table 19. Four lots, Northern Lights, Village Square, Broad and Hamilton and Broad and Southampton average at or above capacity, while Reynoldsburg has the highest average number of spaces used.

During 1992, COTA acquired land for a new Whitehall Park and Ride to replace the existing site at Broad and Hamilton. Construction is underway and should be completed by late spring of 1993. On the north side of Columbus, COTA is preparing to begin construction to upgrade the park and ride at High and Jeffrey Place. This project should be completed within 4 to 6 weeks.

Also during 1992, COTA entered into an agreement to purchase 5.74 acres of Crosswoods for use as a park and ride and a potential light rail transit boarding facility. Construction of the park and ride is expected to begin May of 1993.

Future park and ride developments will be located in areas that will be conducive to transit utilization In 1993, COTA will continue to draw down on the $1,029,606 in federal money which has been made available for the acquisition and development of land for new park and ride lots.

Future Park and Ride Improvements:

* Acquisition of a lot in the Westland area to replace the one COTA was forced to vacate in the Westland Mall.
* Acquisition of a lot in the Eastland area to replace the one COTA was forced to vacate in the Eastland Mall.
* Acquisition of a Morse Rd./I-270 lot which will serve commuters in Northeastern Franklin County.
* Acquisition of a lot in the Sawmill Road Corridor to serve commuters in this fast growing area.

COTA also plans to begin installing bicycle lockers at selected park and ride sites as part of a new 'bike and ride' program. The sites will be selected with input from bicycle and recreational organizations. The first set of lockers should be in place by the fall of 1993.

TABLE 15

COTA PARK & RIDE LOTS AS OF MARCH 1993

Map Site	Name and Date Effective	Location	City	Number of Spaces	Shelter	Serving	Agreement
A.	Berwick 2/24/75	Refugee Rd. & Winchester Pike	Columbus	60	Yes	#46,#65	Informal Agreement No Lease
B.	Broad & Hamilton 1978	E. Broad St. & Hamilton Rd.	Whitehall	55	Yes	#10,#43 #87.89	Informal Agreement No Lease
C.	Broad & Southampton 1/1/74	W. Broad St. & Southampton Ave.	Columbus	68	Yes	#10,#53	COTA Owned
E.	Great Southern 1974	South High St. & Obetz Rd.	Columbus	84	Yes	#4, #16	5 year lease as of 9/87 $1/year
F.	Grove City 9/17/84	Stringtown Rd. & Old Stringtown	Grove City	150	Yes	#15,#64	COTA owned
G.	High & Jeffrey 3/85	N. High St. & Jeffrey Place	Columbus	40	Yes	#2, #31 #95	COTA owned
H.	High & Royal Forest Pre-1980	N. High St. & Royal Forest Blvd	Columbus	40	No	#2, #31 #95	COTA owned
K.	Kingsdale 1974	Northwest Blvd. & Zollinger	Upper Arlington	35	Yes	#3, #60 #83,#84	Informal Agreement No Lease
L.	Livingston & Barnett 9/29/82	Livingston Ave. & Barnett Ave.	Columbus	101	Yes	#1, #92	COTA owned
M.	Morse & Indianola 10/81	Morse Rd. & Indianola Ave.	Columbus	105	Yes	#4, #88 #95	25 yr. lease $1/year
N.	New Albany 9/83	Reynoldsburg - New Albany Rd. S. of 161	New Albany	50	Yes	#39	10 yr. lease(85) $480/year
O.	Northern Lights 1978	Cleveland Ave. at Innis Ave.	Clinton Township	45	Yes	#1,9,35 #37,38 #83, 87	10 yr. lease (86) $1/year

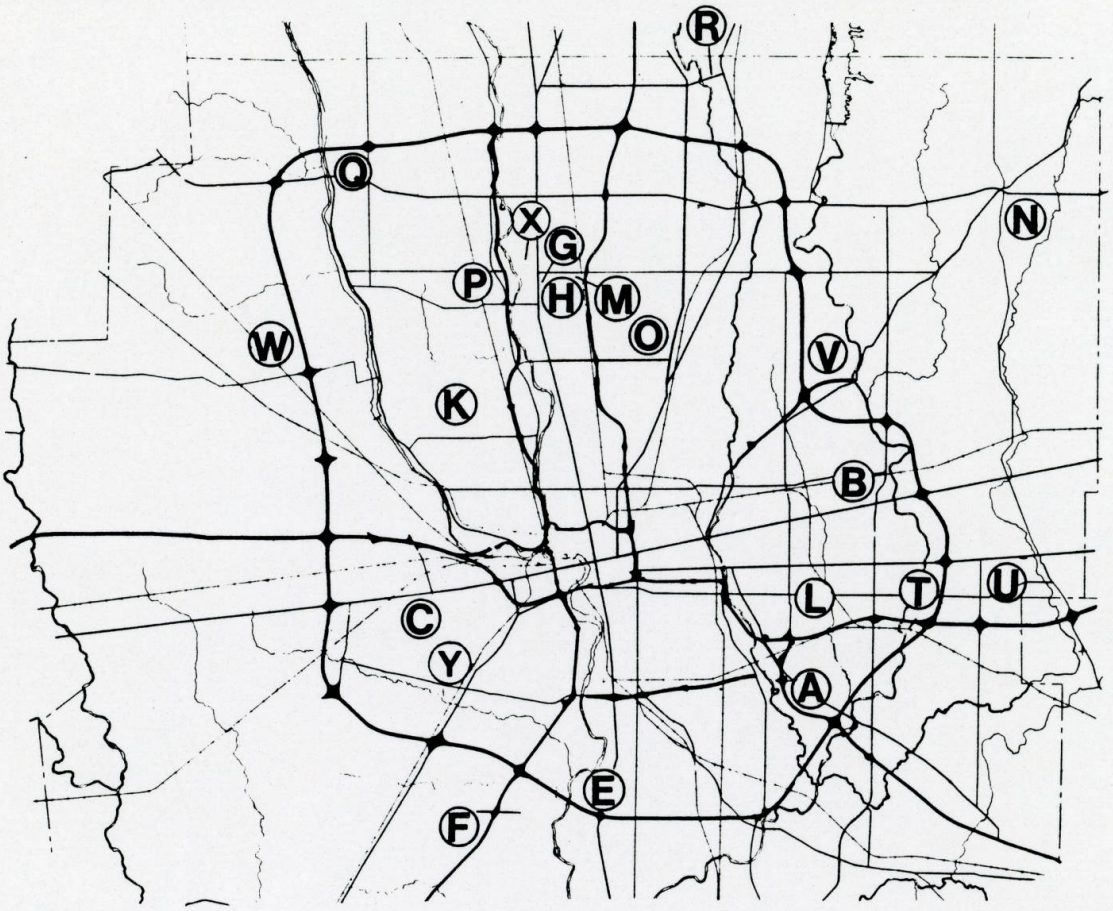
TABLE 15 (continued)

COTA PARK & RIDE LOTS AS OF MARCH 1993

Map Site	Name and Date Effective	Location	City	Number of Spaces	Shelter	Serving	Agreement
P.	Olentangy and Bethel 1982	Olentangy River Rd. & Bethel Rd.	Columbus	150	Yes	#62,#95	$1/yr. lease
Q.	Village Square 10/29/82	U.S. 33 & SR. 161	Dublin	43	Yes	#58	25 yr. lease (1986) $1/year
R.	Westerville 1/9/81	Main St., E. of Cleveland	Wester-ville	230	Yes	#1,#33, #36,#40	(1982) 10 yr. lease $1/year
T.	York Plaza 1983	Livingston Ave. & Lonsdale Place	Columbus	47	Yes	#1, #45	Informal Agreement No Lease
J.	Reynoldsburg 7/85	Eastgreen Blvd. at Birchview Dr.	Reynolds-burg	214	Yes	#2, #45	COTA
?.	Royal Plaza 7/86	Agler & Stygler	Gahanna	60	Yes	#10,#41	$500/yr. lease
V.	Hilliard 9/2/86	Cemetary Rd. & Parkway Lane	Hilliard	100	Yes	#57,#67	COTA owned
X.	Graceland 10/91	N. High St. N. of Morse Rd.	Columbus	50	Yes	#2, #4 #31,#88	$12,500/yr lease
Y.	Southwest Square 10/91	US 62 & Eakin Rd.	Columbus	50	No	#15	$800/yr lease
TOTAL:				1,777 Park & Ride Spaces			
Loops Used for Parking							
	Cleveland & Mecca	Cleveland Ave. & Mecca Rd.	Columbus	12	No	#1, #35 #37,#38	COTA owned
	Main & Weyant	E. Main St. & Weyant Ave.	Columbus	12	Yes	#2	COTA owned
GRAND TOTAL:				1,801 Park & Ride Spaces			

TABLE 16

COTA PARK & RIDE LOCATIONS AS OF MARCH 1993



Park & Ride	Number of Spaces	Routes Serving
A. Berwick	60	#46, #65
B. Broad & Hamilton	55	#10, #43, #87, #89
C. Broad & Southampton	68	#10, #53
E. Great Southern	84	#4, #16,
F. Grove City	150	#15, #64,
G. High & Jeffrey	40	#2, #31, #95
H. High & Royal Forest	40	#2, #31, #95
K. Kingsdale Shopping Center	35	#3, #60, #83, #84
L. Livingston & Barnett	101	#1, #92
M. Morse & Indianola	105	#4, #88, #95
N. New Albany	50	#39
O. Northern Lights	45	#1,#9, #35, #37 #38, #83, #87,
P. Olentangy & Bethel	150	#62, #95
Q. Village Square (Dublin)	43	#58
R. Westerville	230	#1, #33, #36, #40
T. York Plaza	47	#1, #45
U. Reynoldsburg	214	#2, #45, #47
V. Royal Plaza	60	#10, #41
W. Hilliard	100	#57, #67
X. Graceland	50	#2, #4, #31, #88
Y. Southwest Square	50	#15

TABLE 17

PARK & RIDE UTILIZATION AS OF MARCH 1993

Note: These counts were taken in March 1993.

Location	# of spaces	# of spaces used	% of spaces used
Berwick Plaza	60	31	51.7%
Broad/Hamilton	55	83	151.0%
Broad/Southampton	68	68	100.0%
Graceland	50	37	74.0%
Great Southern	84	29	34.6%
Grove City	150	61	40.7%
High/Jeffrey	40	5	12.5%
High/Royal Forest	40	12	30.0%
Hilliard	100	13	13.0%
Kingsdale	35	25	71.5%
Livingston/Barnett	101	23	22.8%
Morse/Indianola	105	25	23.9%
New Albany	50	13	26.0%
Northern Lights	45	50	111.2%
Olentangy/Bethel	150	25	16.7%
Reynoldsburg	214	93	43.5%
Royal Plaza	60	20	33.3%
Southwest Square	50	1	2.0%
Village Square (Dublin)	43	50	116.3%
Westerville	230	54	23.5%
York Plaza	47	6	12.8%
Total:	1,777	724	40.8%
Loops			
Cleveland/Mecca	12	2	16.7%
Main/Weyant	12	7	58.4%
Total - All lots	1,801	733	40.7%

AUTOMATIC PASSENGER COUNTERS (APC'S)

The Automatic Passenger Counters (APC's) are part of a computerized system that collects and processes valuable data used for management decision making. The on-board system can record bus travel time from one location to the next, bus schedule adherence, passenger loads at selected intersections and the number of persons boarding and alighting at bus stops by the time of day and route. The APC system is also used for the passenger mile section of the FTA Section 15 Report. With APC technology, COTA can better monitor route performance and the performance of special services. Also, APC data can analyze effects of service changes and monitor trends in route performance and service efficiency. The riding public benefits because COTA can quickly respond to troubled areas in existing service.

COTA installed the APC Software on an in-house microcomputer in July 1989. The 386-16MHz computer originally purchased for this application was replaced with a 386-33MHz micro and networked to COTA's VAX in late 1992.

Day to day processing has been improved through FORTRAN programs written in 1992. For example, a program was written to automatically produce sampling plans. Not only has this program reduced staff time by 10 hours per week, it has also enhanced the overall quality of the data by improving coverage. This reduction in processing time allowed the creation of programs to revive COTA's Trimester Report. Further streamlining programs will be written in 1993. The possibility of converting the FORTRAN programs to C++ will also be explored during 1993. This would speed processing and make the APC software easier to support in the future.

COTA currently owns 37 APC units, having purchased five additional units in 1992. Plans for 1993 include the acquisition of two more APC's for installation on the lift-equipped buses.

The APC location component continues to be the major flaw of the system. Steps were taken in 1992 to improve the quantity of data received from the signposts. New antennae were tested on the 9100-series buses which proved to be very effective. The older antennae on the 32 other buses will gradually be replaced over the course of 1993. COTA has also contracted with Urban Transportation Associates to do a general overhaul and tuning of the entire location system. This process was started in late 1992 and will continue through the first quarter of 1993. Further, a programmable scanner was purchased early this year that will indicate if a signpost is working and if it is on frequency. Finally, a FORTRAN program was written in February 1993 that pinpoints signpost and location receiver failures and provides this information in summary format to the contractor.

With the exception of the location system, current tests show the APC units to be operating reliably (running 90% of the time) and accurately (+99% accuracy when compared to audited farebox figures). Unfortunately, increased vandalism in 1992 took its toll on the amount of data collected throughout the year.

The addition of lift-equipped buses to the fleet has proven to be a major challenge to the APC system. First, because COTA is trying to keep the vehicles on the street as much as possible, it has been difficult to retrieve the data from the APC units on these buses and nearly impossible to perform maintenance on them. Second, the data tapes in these APC's fill up sooner, necessitating more tape changes than are required for the units on other buses. They are also more prone to vandalism than the other APC-equipped buses.

As a larger percentage of COTA's service becomes lift-equipped, APC units will be moved from the older 8300's and 8400's to the newer coaches.

OTHER EQUIPMENT

In addition to obvious passenger amenities as buses, park and ride lots, bus stops and shelters, COTA has other equipment and facilities which are a part of a behind-the-scenes effort to keep operations running efficiently. This equipment is described below:

Non-Revenue Vehicles: COTA has established a consistent replacement schedule for service vehicles, which include company automobiles and trucks. For 1994 through 1997, nine (9) non-revenue vehicles are scheduled for replacement each year. Also, a capitalized tire lease in the amount of $250,000 has been programmed for 1993.

Automatic Data Processing Equipment: Improvements planned for 1992 include implementation of upgrades for the VAX Computer System to improve speed and efficiency of operation.

PASSENGER SECURITY

COTA's efforts to ensure passenger security and safety focus on off-duty police assistance, security devices on buses and procedures for operators.

COTA will spend $160,000 in 1993 to hire off-duty police officers to perform the following functions:

- uniformed officers ride with COTA Street Supervisors everyday;
- uniformed officers monitor evening bus lineups downtown everyday;
- undercover officers ride buses to monitor passenger activity;
- special duty officers monitor transit operations at special events such as Red, White and Boom and the Ohio State Fair;
- traffic control officers work at COTA's two downtown terminals Monday through Friday.

Security-related devices on all buses include the following:

- convex mirrors for complete driver view of passengers:
- identification numbers on top of buses;
- two-way radios;
- emergency radio buttons indicating either highest priority or 2nd level of priority (radio base screen indicates route and block number of bus in emergency).

Operator procedure is to contact radio base either by verbal contact and/or by pressing emergency buttons. Radio base will then give instructions to operator appropriate for the situation.

SECTION VII

1993 BUSINESS PLAN

1993 BUSINESS PLAN

Since 1988, COTA has used a Quarterly Business Plan Report to measure systemwide performance. The goal of each business plan indicator serves as a benchmark by which various aspects of transit performance can be evaluated.

The plan is comprehensive enough to measure all the key facets of providing transit service. It is simple enough so that all of the business plan goals are easily understood.

There are three types of business plan goals: 1) cost effectiveness, 2) service effectiveness and 3) resource efficiency. The cost effectiveness goals attempt to answer the question "How much public transportation service is used or passenger revenue received per dollar of resource expended?" Service effectiveness goals address such issues as how available, reliable, attractive, safe and comfortable are the public transit services provided. Resource efficiency aims to answer the question "How much public transportation service is produced per dollar of resource expended?"

The 1992 Business Plan goals shown in Table 18 illustrate that COTA continues to be successful in meeting its goals. The favorable results were 61% in the first quarter, 74% in the second quarter, 68% in the third quarter and 78% in the fourth quarter with an annualized average of 68%.

For 1992, COTA used nineteen business plan goals. In 1993, COTA will use twenty business plan goals. One new goal has been added for 1993: Vehicle Miles per Maintenance Liable Road Call. Some goals have been adjusted as the nature of COTA service will be different between 1992 and 1993. During 1992, COTA was quite successful in performing its role in AmeriFlora. While attendance at the event did not match projections, COTA did carry several thousand people per day to the event while more than recovering its direct cost through the farebox. When the Broad Street Bridge opened in June of 1992, a subsidized shuttle service was eliminated after having carried an average of over 1,500 passengers per weekday during the past two and a half year period. During 1993, there will be no large special events such as AmeriFlora or major construction projects such as the Broad Street Bridge. Thus, the goals involving passengers, vehicles hours and passenger revenue have been modified accordingly. The remainder of the goals are the same as 1992 or in many cases have been raised. A summary of 1993 Quarterly Business Plan goals is found in Table 19.

The 1993 Business Plan continues to challenge the organization to improve its performance in all areas. The goals established for 1993 are realistic, but will require all parts of the organization to operate in a coordinated and professional manner for the goals to be realized.

TABLE 18

SUMMARY OF 1992 BUSINESS PLAN GOALS

		Quarter				
		1st	2nd	3rd	4th	ANNUAL
1.	Revenue Passenger per $1,000 Operating Expense	F	U	U	U	U
2.	Revenue Recovery	F	U	U	F	U
3.	Vehicle Hours per Security Incident	F	F	F	F	F
4.	Comprehensive Interior Cleanings per 1,000 Vehicle Hours	U	F	F	F	F
5.	Passenger Shelter Cleanings per Month	F	F	F	F	F
6.	Park and Ride Cleanings per Month	U	F	U	U	U
7.	On-time Performance	F	F	F	F	F
8.	Percent of Active Fleet Available for Service	F	F	F	F	F
9.	Vehicle Miles per Roadcall	U	F	F	F	F
10.	Percent of Active Fleet with Working Air Conditioners	N/A	U	F	N/A	U
11.	Revenue Passengers per Vehicle Hour	U	U	U	U	U
12.	Project Mainstream Passengers per Vehicle Revenue Hour	F	F	F	F	F
13.	Number of Buses out of service due to lack of parts	F	F	F	F	F
14.	Vehicle Hours per $1,000 Operating Expense	F	F	U	F	F
15.	Percent Platform Hours to Operator Pay Hours	U	F	F	U	F
16.	Vehicle Miles Between Traffic Accidents	U	F	F	F	F
17.	Percent of Workforce Reporting to Work	F	F	F	F	F
18.	Number of Lifts on Accessible Buses	F	F	F	F	F
19.	Customer Service Phone Calls Lost	U	U	U	F	U

U = Unfavorable
F = Favorable

TABLE 19

SUMMARY OF 1993 BUSINESS PLAN GOALS

1. Revenue Passengers per $1,000 Operating Expense

   1992 Goal: 449 1993 Goal: 363

2. Revenue Recovery

   1992 Goal: 29.96% 1993 Goal: 24.2%

3. Vehicle Hours per Security Incident

   1992 Goal: 5,000 1993 Goal: 10,000

4. Comprehensive Interior Cleanings per Month

   1992 Goal: 170 1993 Goal: 160

5. Passenger Shelter Cleanings per Month

   1992 Goal: 2,300 1993 Goal: 2,500

6. Park and Ride Cleanings per Month

   1992 Goal: 40 1993 Goal: 40 (1st & 4th qtrs.)
   50 50 (2nd & 3rd qtrs.)

7. On-time Performance

   1992 Goal: 81% 1993 Goal: 81%

8. Percent of Active Fleet Available for Service

   1992 Goal: 89% 1993 Goal: 89%

9. Vehicle Miles per Road Call

   1992 Goal: 2,500 (1st & 4th Qtrs.)
   2,000 (3rd & 4th Qtrs.

   1993 Goal: 2,500 (1st & 4th Qtrs.)
   2,000 (2nd & 3rd Qtrs.)

10. Vehicle Miles Per Maintenance Liable Roadcall

    1992: N/A

    1993: Goal: 3,500 (1st & 4th Qtrs)
    3.800 (2nd & 3rd Qtrs)

TABLE 19 (continued)

SUMMARY OF 1993 BUSINESS PLAN GOALS

11. Percent of Active Fleet with Working Air Conditioners

1992 Goal: 95% 1993 Goal: 95%

12. Revenue Passengers per Vehicle Hour

1992 Goal: 27.1 1993 Goal: 23.6

13. Project Mainstream Revenue Passengers per Vehicle Revenue Hour

1992 Goal: 1.60 1993 Goal: 1.62

14. Number of Lifts Accessible Buses per Month

1992 Goal: 203 1993 Goal: 350 (1st & 4th Qtrs.)
380 500 (2nd & 3rd Qtrs.)

15. Vehicle Hours per $1,000 Operating Expense

1992 Goal: 16.5 1993 Goal: 15.5

16. Percent Platform Hours to Operator Pay Hours

1992 Goal: 67.6% 1993 Goal: 69.4%

17. Vehicle Miles between Traffic Accidents

1992 Goal: 35,000 1993 Goal: 35,000

18. Percent of Workforce Reporting to Work

1992 Goal: 92.0% 1993 Goal: 92.0%

19. Buses Out of Service Due to Lake of Parts per Month

1992 Goal: 55 1993 Goal: 19

20. Customer Service Phone Calls Lost

1992 Goal: 9.0% 1993 Goal: 7.0%

SECTION VIII - PRIVATIZATION

PRIVATE ENTERPRISE PARTICIPATION

PRIVATE ENTERPRISE PARTICIPATION

COTA is constantly seeking better and more cost-effective means to provide transportation in Central Ohio. One major step in this direction is the use of a private contractor to provide special services for the transportation of persons with disabilities under the Project Mainstream Program. In accordance with the FTA's policies concerning Privatization, COTA is continuing to look for ways to involve more private contractors in providing service, without being in conflict of existing labor agreements.

In the past seven years COTA has issued two Requests for Proposals for regular fixed-route service. In 1986, COTA sought bids for three new express routes. In 1991, COTA requested bids to provide express service for the six month AmeriFlora 92 Event. Unfortunately, no private provider submitted a bid for these services.

Over the last few years, COTA's attempts to expand the role of private contractors in the provision of transit service have been aggressively challenged by Local 208 of the Transport Workers' Union. Conflict over this issue has been a major factor in several strikes by the Union and in continued labor strife which was resolved by an agreement in February, 1990. This agreement prohibits COTA from contracting with private carriers to provide fixed-route service. However, COTA expanded its ability to subcontract paratransit services to the elderly and persons with disabilities.

COTA will also continue to subcontract the sweeping and snow removal at Park and Ride sites as well as janitorial and security services at the administrative facilities. COTA also contracts out the trash removal at bus stop shelter sites.

COTA and the Mid-Ohio Regional Planning Commission (MORPC) have established a local process for considering private enterprise participation which complies with the guidelines established by FTA in Circular 7005.1, effective December 5, 1986. In accordance with these guidelines, COTA is committed to pursue all reasonable opportunities to expand private enterprise participation in the provision of cost-effective transit service for its service area. However, quality of service and accountability will not be sacrificed in this pursuit of a more cost-effective public transit service.

A draft policy and procedures on private sector participation in the planning and operation of public transit services were developed by MORPC and COTA staff in 1986. These were included in COTA's Short Range Transit Plan of April 1986 and were adopted as part of the MORPC Regional Transportation Plan. In 1990, COTA became a member of MORPC's new Public/Private Transportation Coordinating Committee. This subcommittee of the Transportation Advisory Committee has been established to provide notice and improved early consultation with private providers on plans involving new or restructured service as well as the periodic reexamination of existing service. During 1992 the committee has met to discuss the following issues:

- 5/1/92 COTA presented its revised Transportation Improvement Program (TIP) for the years 1993-1997. The operating and capital plan elements were discussed in detail. Also discussed was the issue of the Columbus area's attainment of air quality standards and its relationship to federal funding for the region.

- 12/10/92 MORPC and COTA staff described the alternatives being considered for the Long Range Plan. There was discussion of the potential for private providers to operate elements of a 2010 circulator network which would feed transit centers. Members were also given an update on COTA's ADA Paratransit Plan.

During the upcoming year COTA looks forward to continued cooperation and coordination with the private sector providers and their representatives on the Public/Private Transportation Coordinating Committee.

SECTION IX - THE TRANSPORTATION IMPROVEMENT PROGRAM

1994 - 1997

THE TRANSPORTATION IMPROVEMENT PROGRAM 1994-1997

Background

The Transportation Improvement Program (TIP) delineates a four year operating and capital plan. Listed annually are service levels, operating and capital expenses, and anticipated financing levels.

To avoid confusion, it should be noted that though this program was designed to span four years (1994-1997), it actually covers five fiscal years for the Central Ohio Transit Authority, (COTA). COTA begins its fiscal year January 1st, while the State of Ohio begins its fiscal year July 1st, and the Federal Government begins its fiscal year October 1st. Therefore, it is necessary for the span of this document to encompass five COTA fiscal years in order to meet the state and federal requirements of a four year program.

A discussion of the operating and capital components of the TIP follows.

Operating Explanations and Summary

The following is a summary, with supporting tables, of the four year operating component of the TIP including years 1994 through 1997. The most recently projected data for 1993 has also been included in each of the tables. Table 20 displays the existing and projected bus hours of service based on the planned service improvements described in Tables 5 to 11 in Section V. The primary purpose of non-scheduled service hours is to allow for unforeseen contingencies (e.g., road and bridge closures). Staff has made detailed plans for many of the road closures projected to occur in 1993. As a result, non-scheduled hours grow at a 1% rate in 1993 and at a 1.5% rate from 1994 through 1997. Special service hours, line 6, includes charter, SCOT and temporary services. The SCOT and charter service hours grow at a 2% rate from 1993 through 1997. Total regular vehicle service hours (Line 5) increase in 1994 and 1995 and then remain constant in 1996 and 1997.

Ultimately, vehicle hours drive each year's operating expenses. Direct cost per hour and indirect expenses have been budgeted for 1993 and are included in Table 20. From 1994 through 1997 the direct cost per hour will be escalated at 5% per year to account for inflation. Annual operating expenses are derived by multiplying all vehicle hours by direct cost per hour and then adding total indirect cost. Total indirect cost grows at 5% per year and includes the funds necessary to administer and operate COTA's Project Mainstream service. A more detailed discussion of the Project Mainstream program is contained in Section II, Special Services.

Operating revenue has been estimated based on operating revenue during 1992 and historical operating revenue trends. Operating revenue increases in 1993, 1995 and 1997. Larger percentage increases occur in 1994 and 1996 due to fare increases which are programmed for those years.

The operating component of the TIP serves to summarize the various sources of revenue and assistance and relates this income to total operating and capital expenses. The figures for operating revenue and operating expenses are derived from lines 86 through 99 (see Table 22), while the capital expense figures are derived from lines 39 through 85 (see Table 21), which is found in the capital component of the TIP.

Local Funding

From 1980 to 1985, COTA received a 1/2% sales tax which had been approved by voters in 1980. From August of 1985 through May of 1990, COTA funded its daily operations through a combination of passenger fares, the financial reserve generated by the 1980 tax and federal and state operating assistance.

COTA has had three sales tax initiatives on the ballot in recent years. In May 1986, voters defeated a new ten year 1/2% sales tax to finance jointly a convention center and COTA. In November 1988, a ten year 1/4% sales tax to fund COTA was also defeated at the polls. As a result, COTA was required to increase fares, reduce vehicle hours and lay off personnel in order to stretch its resources to the November 1989 election. Even with the overwhelming passage of the 1/4% 10 year sales tax in November of 1989 (76% for and 24% against), COTA was still required to deplete the balance of its operating and capital reserve in order to continue operations through May of 1990 when it would begin to receive the tax receipts. In addition, COTA found it necessary to sell $8 million in bonds to help fund its operations during the period prior to receiving these tax monies. Given the positive trend in the 1992 sales tax growth rate, this plan assumes that the tax receipts will grow at an annual rate of 5% from 1993 through 1997. As a result of the recent increase to the state's sales tax base, this plan assumes an additional 5% increase to COTA's sales tax receipts in 1993.

As a result of the depletion of the capital reserve, COTA will be required to apply for Section 3 Federal Capital Assistance in order to purchase 8 new small buses in 1994, replace 85 buses in 1995 and replace 50 buses in 1996. New federal and state guidelines prohibit COTA from programming Section 3 funds in the TIP until after they have been appropriated for COTA's use by Congress. As a result, funding for these bus replacements are not currently shown in the Capital Plan (Table 21). In addition, the competition for Section 3 grants is extremely intense and therefore COTA cannot be confident about the availability of these monies to fund all of our bus replacement capital shortfall. As a result, COTA will continue to vigorously pursue all other potential sources of capital grant monies (e.g., Congestion Mitigation and Air Quality grants).

The recently passed Intermodal Surface Transportation Efficiency Act of 1991 provides 80% federal participation, 10% state and 10% local on all Section 9 and Section 3 grants. This plan assumes full state participation on all bus and paratransit vehicle purchases. Therefore, COTA will need to earmark 10% of the total cost of the 8 new small buses in 1993, and the 1995 and 1996 bus replacement for the local match (i.e., approximately $3.1 million). A portion of COTA's self-insurance fund, which has in excess of $10 million, may be available for this purpose.

Capital Plan Explanations and Summary

An outline of the capital acquisition plan is provided in lines 39 through 85 in Table 21. The first section of the table includes Section 9 eligible capital. Projects appearing in the 1993 column are those projected for the current calendar year. The grant section of the tables for 1993 lists all the grant projects that have been applied for and approved. All capital items mentioned below are described in greater detail in the section titled "Current and Planned Equipment and Amenities". Items listed in lines 39 through 54 are shown under the heading "Section 9 Eligible", and would be paid for with Section 9 federal grant funds. Major items included in the unexpended balances from prior years grants (line 60) are: 3 park and ride lots; upgrade of the HVAC Systems at both the McKinley and Fields Avenue facilities; various computer hardware upgrades; and various other facility improvements (e.g., 3 bus wash lines). Items that are shown in lines 79 through 81 are listed under the heading "Locally Funded", and would be paid with local funds. Capital costs are escalated at 5% per year to account for inflation.

Federal Funds

The TIP programs federal capital assistance for the following major projects in 1994:

- $92,400 has been programmed for two new project mainstream vehicles;
- $1,125,000 will be spent on the replacement of 350 two-way bus radios;
- $262,500 will be budgeted for the capitalized tire lease;
- $164,850 for the acquisition of nine non-revenue vehicles;
- $210,000 has been programmed for the purchase of computer hardware and software;
- $1,475,000 will be spent on a replacement for our bus radio base system;
- $420,000 for the upgrade or replacement of shop and other equipment;
- $315,000 will be budgeted for facility improvements; and
- $47,250 for the purchase of 10 new bus shelters with trash receptacles.

Financial Summary

Lines 86 through 127 are a financial summary of the system. Lines 86 through 95 show COTA's sources of revenue: fares; federal and state funding; assistance from the Ohio Department of Transportation for funding; elderly and disabled service; fuel tax refund; sales tax receipts; and CMAQ operating subsidies. Federal and state funding, shown in lines 88 and 89 respectively, is expected to remain constant from 1993 to 1997. Total revenue is shown in line 97 and total operating expense is shown on line 99. Capital assistance, both federal and state, is shown in lines 103 to 114. Interest income is shown in line 124.

It is anticipated that the previously described combination of revenues and assistance will adequately meet the expected operating and capital expenses through the end of calendar year 1997. Unfortunately, COTA's revenues provide very little opportunity to extend service to the growth areas of Franklin County. COTA and the Mid-Ohio Regional Planning Commission are currently engaged in a Long Range Transit Planning process which may prompt added local sales tax support. In the near term, COTA's Board of Trustees and Management will work vigorously to provide affordable, cost-effective public transit services to the citizens of Central Ohio.

TABLE 20

TRANSPORTATION IMPROVEMENT PROGRAM

OPERATING PLAN

		1993	1994	1995	1996	1997
1	Beginning Veh Service Hours:	656,060	656,060	666,870	668,950	668,950
2	Vehicle Hour Changes:	0	9,110	680	0	0
3	Non-Scheduled Service:	6,589	9,978	10,013	10,034	10,034
4						
5	TOTAL REGULAR SERVICE HOURS:	662,649	675,148	677,563	678,984	678,984
6	Charter +SCOT +Other Hours:	5,712	5,769	5,826	5,885	5,945
7						
8	ALL VEHICLE HOURS:	668,361	680,916	683,390	684,870	684,930
9	Direct Cost/hour:	$41.33	$43.40	$45.57	$47.84	$50.24
10	Total Indirect Costs:	$16,663,142	$17,496,299	$18,371,114	$19,289,670	$20,254,154
11	OPERATING EXPENSES:	$44,286,519	$47,184,025	$49,524,504	$52,057,148	$54,662,894
12						
13	TOTAL PASSENGERS:	16,598,217	16,085,100	16,965,675	16,535,993	17,328,107
14	Average Fare per Passenger:	$0.6372	$0.7372	$0.7372	$0.8372	$0.8372
15						
16	PASSENGER REVENUE:	$10,576,198	$11,857,756	$12,506,906	$13,843,748	$14,506,897
17	Other Operating Revenue:	$562,000	$573,240	$584,705	$596,399	$608,327
18						
19	TOTAL OPERATING REVENUE:	$11,138,198	$12,430,996	$13,091,611	$14,440,147	$15,115,224
20						
21	Pass. Revenue/Oper. Expense:	23.88%	25.13%	25.25%	26.59%	26.54%
22	Total Passengers/Ser. Hour:	25.05	23.82	25.04	24.35	25.52
23						
24	ANNUALIZED CHANGES IN HOURS:	0	10,810	2,080	0	0

PREDICTED TOTAL PASSENGERS BASED ON SERVICE IMPROVEMENTS, GROWTH AND FARE INCREASE IMPACT

		1993	1994	1995	1996	1997
25	Revenue Base Passengers:	15,772,170	15,768,306	15,948,219	16,137,341	16,298,715
26	Other Base Passengers:	826,047	829,911	839,380	849,334	857,827
27	Total Base Passengers:	16,598,217	16,598,217	16,787,599	16,986,675	17,156,542
28	Growth Factor:	1.00	1.01	1.01	1.01	1.01
29	Predicted Passengers:	16,598,217	16,764,199	16,955,475	17,156,542	17,328,107
30	New Service Passengers:	0	23,400	10,200	0	0
31	TOTAL PREDICTED PASSENGERS:	16,598,217	16,787,599	16,965,675	17,156,542	17,328,107
32	Fare Inc. Passenger Loss:	0	(702,499)	0	(620,549)	0
33	Service Cut Passenger Loss:	0	0	0	0	0
34	TOTAL REVISED PASSENGERS:	16,598,217	16,085,100	16,965,675	16,535,993	17,328,107
35	Annual New Service Pass.:	0	23,400	31,200	0	0
36	Newark/Delaware Passengers:	0	52,520	53,045	53,576	54,111
37	CBD Circulator Passengers:	0	175,000	262,600	265,226	267,878
38	Total Including Above:	16,598,217	16,336,020	17,312,520	16,854,794	17,650,097

TABLE 21

TRANSPORTATION IMPROVEMENT PROGRAM

CAPITAL PLAN

	1993	1994	1995	1996	1997
SECTION 9 ELIGIBLE:					
Buses:		$0	$0		
Capital inventory (buses):	$224,500	$0	$0		
E & H Vans (11,2,6,9,11,2):	$485,000	$92,400	$291,060	$458,420	$588,305
Two-way Bus Radios (350):		$1,225,000			
Fareboxes (350):	$3,125,000				
Capitalized Tire Lease:	$250,000	$262,500	$275,625	$289,406	$303,877
Nonrev. Vehicles (9/year):	$157,000	$164,850	$173,093	$181,747	$190,834
Computer Hardware:	$200,000	$105,000	$110,250	$115,763	$121,551
Computer Software:	$203,500	$105,000	$110,250	$115,763	$121,551
Bus Radio Base System:		$1,475,000			
Shop Equipment:	$498,100	$315,000	$330,750	$347,288	$364,652
Other Equipment:	$85,900	$105,000	$110,250	$115,763	$121,551
Facility Improvements:	$265,000	$315,000	$330,750	$347,288	$364,652
Shelters/Rcept.(10/year):	$45,000	$47,250	$49,613	$52,093	$54,698
Unexpended balances from prior years grants:	$2,132,280				
TOTAL SEC. 9 CAPITAL:	$7,671,280	$4,212,000	$1,781,640	$2,023,529	$2,231,669
FAUS CAPITAL - Buses (18):	$3,970,000				
CMAQ CAPITAL - Buses (20):	$4,375,000				
Park & Ride (1):	$659,000				
SECTION 3 CAPITAL - Buses (24,85,50)	$5,084,875	$0	$0		
STP/SECTION 9 PLANNING - Alternatives Analysis:	$1,500,000				
TOTAL OTHER FEDERAL CAPITAL:	$15,588,875	$0	$0	$0	$0
LOCALLY FUNDED:					
Miscellaneous equipment:	$15,478	$78,750	$82,688	$86,822	$91,163
TOTAL LOCALLY FUNDED:	$15,478	$78,750	$82,688	$86,822	$91,163
TOTAL CAPITAL EXPENDITURES:	$23,275,633	$4,290,750	$1,864,328	$2,110,351	$2,322,832

TABLE 22

TRANSPORTATION IMPROVEMENT PROGRAM

FINANCIAL SUMMARY

	1993	1994	1995	1996	1997
REVENUE SOURCES					
Operating Revenue:	$11,138,198	$12,430,996	$13,091,611	$14,440,147	$15,115,224
Federal Assistance:	$4,334,561	$4,334,561	$4,334,561	$4,334,561	$4,334,561
State Assistance:	$2,901,546	$2,901,546	$2,901,546	$2,901,546	$2,901,546
State Elderly/Hand. Assist:	$335,318	$335,318	$335,318	$335,318	$335,318
Fuel Tax Refund:	$472,490	$500,473	$502,291	$503,379	$503,423
Supplied Local Revenue:	$24,934,300	$26,181,015	$27,490,066	$28,864,569	$30,307,797
CBD Circulator Fares:	$0	$43,750	$65,650	$66,307	$66,970
Newark/Delaware Fares:	$0	$131,300	$132,613	$133,939	$135,279
Newark/Delaware Subsidy:	$0	$112,154	$123,014	$134,469	$146,550
TOTAL REVENUE:	$44,116,413	$46,971,113	$48,976,670	$51,714,235	$53,846,669
OPERATING EXPENSES:	$44,286,519	$47,184,025	$49,524,504	$52,057,148	$54,662,894
Operating Income(Deficit):	($170,106)	($212,911)	($547,835)	($342,914)	($816,225)
CAPITAL ASSISTANCE SOURCES					
Sec.9 Federal 80%/Local 20%:	$6,737,024	$3,053,360	$1,425,312	$1,618,823	$1,785,336
Sec.3 Federal 80%/Local 20%:	$4,067,900	$0	$0	$0	$0
CMAQ Federal 80%/Local 20%:	$4,150,000	$0	$0	$0	$0
STP Federal 80%/Local 20%	$600,000	$0	$0	$0	$0
FAUS Federal 75%/Local 25%:	$2,977,500	$0	$0	$0	$0
Total Federal Cap. Assist:	$18,532,424	$3,053,360	$1,425,312	$1,618,823	$1,785,336
State Capital Assist:	$1,088,654	$9,240	$29,106	$45,842	$58,831
TOTAL CAPITAL ASSISTANCE:	$19,621,078	$3,062,600	$1,454,418	$1,664,665	$1,844,166
TOTAL CAPITAL EXPENDITURES:	$23,275,633	$4,290,750	$1,864,328	$2,110,351	$2,322,832
Local capital required:	($3,654,555)	($1,228,150)	($409,910)	($445,687)	($478,666)
Operating Income(Deficit):	($170,106)	($212,911)	($547,835)	($342,914)	($816,225)
Subtotal:	($3,824,661)	($1,441,061)	($957,744)	($788,600)	($1,294,892)
BOND PRINCIPAL PAYMENTS:	($25,000)	($940,000)	($995,000)	($1,060,000)	($1,130,000)
Interest Income:	$890,970	$777,214	$707,729	$648,082	$573,649
ANNUAL INCOME(DEFICIT):	($2,958,691)	($1,603,848)	($1,245,015)	($1,200,518)	($1,851,243)
CURRENT COTA CASH BALANCE:	$6,853,538	$5,249,690	$4,004,675	$2,804,157	$952,914

SECTION X - CONCLUSIONS OF THE SHORT RANGE TRANSIT PLAN

CONCLUSIONS OF THE SHORT RANGE TRANSIT PLAN

The Short Range Transit Plan (SRTP) documents the status of the COTA system in 1993 and projects revenues, operating expenses, service levels, patronage and equipment requirements through 1997.

The year 1989 was a turning point for COTA. With the overwhelming passage of the 10 year 1/4% sales tax issue, COTA was able to restore the more productive service which it was forced to cut earlier in the year. In addition, COTA began to actively plan for the future implementation of its community based "Transit Plan for the 1990's".

Total regular service hours increase in 1994 with the implementation of the Newark Express, Delaware Express and the midday downtown circulator. The addition of these express services will be made possible by Congestion Mitigation and Air Quality operating subsides. As a result of the lingering recession and its negative effect on COTA's sales tax receipts and passenger revenue, this plan calls for modest growth in regular service hours from 1995-1997. As part of the Traffic Management Program, COTA anticipates providing supplemental service to the I-70 East, I-70 West and SR 315 Corridors to help mitigate congestion during their reconstruction. This temporary service, which would be subsidized by FHWA/ODOT, would be provided between 1994-1997. Major proposed capital improvements for 1994 include procurement of: 8 small buses; 350 two-way bus radios and a bus radio base system; one park and ride lot; and two project mainstream vans. Major capital items which have been programmed from 1995 through 1997 include: 135 replacement buses; 26 Project Mainstream vans; and two park and ride lots.

Unfortunately, COTA was required to use virtually all of its capital reserve and its entire bonding capacity to provide critical operating assistance until receipt of the sales tax revenues in May 1990. As a result, the Authority now faces a very significant capital bus replacement shortfall for the years 1994 and 1995. COTA will actively pursue Section 3 discretionary grant money and other sources of federal grant money in an effort to provide for this bus replacement.

In conclusion, the Short Range Transit Plan has programmed a series of improvements which will serve the needs of Central Ohio for the next five years within the fiscal constraints of our projected tax receipts, passenger revenues and federal and state operating and capital assistance.

APPENDIX I - EXISTING COTA SHELTER LOCATIONS

SHELTER SITES FOR THE

CENTRAL OHIO TRANSIT AUTHORITY

NORTH & NORTHWEST

HORIZON CT. -7450
COURTYARD & CAMPUS VIEW
CAMPUS VIEW & SCHMENCK
E. CAMPUS VIEW & VANTAGE DR.
DOUBLETREE & CHEINREIN
WILSON BRIDGE & WORTH. SQ.
N. HIGH AND LARRIMER AVE.
N. HIGH & NORTH (WORTHINGTON)
NEIL & 8TH
NEIL & 4TH
NEIL & GOODALE
BUTTLES & HIGH E/B
BUTTLES & HIGH W/B
BUTTLES & NEIL
N. HIGH & BROADMEADOWS
N. HIGH & FENWAY
N. HIGH & GRACELAND
MORSE & N. HIGH
N. HIGH & JEFFREY PL.
N. HIGH & ROYAL FOREST
N. HIGH & SHEFFIELD
N. HIGH & HENDERSON RD.
N. HIGH & W. COOKE RD.
N. HIGH AT BLENHEIM LOOP
N. HIGH & CHATHAM
N. HIGH & N. BROADWAY (SB)
W/N. BROADWAY & N. HIGH (EB)
W/N. BROADWAY & N. HIGH (WB)
N. HIGH & LAKEVIEW
N. HIGH & ACR. CRESTVIEW
N. HIGH ACR. OLENTANGY ST.
ARCADIA & N. HIGH ST.
N. HIGH & 4TH AVE.
N. HIGH & 1ST AVE.
W. FIFTH & N. HIGH
CLEVELAND & MT. VERNON N/B
CLEVELAND & MT. VERNON S/B
DENNISON & THIRD
910 DUBLIN RD. (WATER DEPT.)
N. HIGH & HUDSON S/B
N. HIGH & HUDSON N/B
HUDSON & N. HIGH (WB)
N. HIGH & FRAMBES
N. HIGH & 15TH
N. HIGH & CHITTENDEN
N. HIGH & 9TH
N. HIGH & KING
N. HIGH & CLARK
N. HIGH & 6TH
W. 5TH & PERRY
W. 5TH & EDGEHILL
NORTHWEST & 5TH
NORTHWEST & CHAMBERS
W. 5TH & GRANDVIEW
W. 5TH & WESTWOOD
RIVERSIDE DR. & W. 5TH AVE.
NORTHWEST & LANE
DUBLIN PARK & RIDE
250 W. DODRIDGE
OLENTANGY & HARLEY DR.
OLENTANGY & BETHEL P & R
REED ENTRANCE LOEW'S
KINGSDALE CENTER
ACKERMAN & BUCKEYE VILL. ENT.

NORTH & NORTHWEST (continued)

WOODY HAYES & KENNY
2050 KENNY RD.
KENNY & WEYBRIDGE
KENNY & FOLKSTONE
REED & HENDERSON
HILLIARD P & R
3RD & PENNSYLVANIA

SOUTH & WEST

STURBRIDGE & MEDFIELD
MURRAY HILL RD. & BROAD
W. BROAD IN FRONT-WESTLAND
W. BROAD & GEORGESVILLE
WESTLAND (BEHIND RITZY'S)
WESTPORT & FRANSHIRE, EAST
W. BROAD & GM GATE #1
W. BROAD & WILSON RD.
W. BROAD & BROADLAWN
W. BROAD & SOUTHAMPTON
W. BROAD & HAGUE
W. BROAD & BURGESS
W. BROAD & WHEATLAND
W. BROAD & WHITETHORNE
W. BROAD & STEVENS
W. BROAD & CENTRAL (EB)
W. BROAD & CENTRAL (WB)
BELL & W. BROAD
W. BROAD & STARLING (WB)
BELL & W. STATE
McKINLEY ACROSS COTA
W. BROAD & DAVIS (EB)
W. BROAD & DAVIS (WB)
EAKIN & WEDGEWOOD
SULLIVANT & HOLLY HILL
SULLIVANT & DERRER RD.
TOWN & DAVIS
SULLIVANT & HILLTONIA
SULLIVANT & CRESCENT
SULLIVANT & HAGUE
W. MOUND & HIGHLAND
W. MOUND & WREXHAM
W. MOUND & LARCOMB
W. MOUND & CENTRAL
W. MOUND ACROSS GLENWOOD
W. MOUND & MT. CALVARY
RICH & McDOWELL
S. HIGH & SYCAMORE
S. HIGH & WHITTIER
S. HIGH & MITHOFF
S. HIGH & WILLIAMS
PARSONS & THURMAN (SB)
PARSONS & THURMAN (NB)
PARSONS & COLUMBUS
GROVEPORT & PARSONS
PARSONS & WILLIAMS
GREAT SOUTHERN
GROVE CITY PARK & RIDE
COLUMBUS & LEITHART
RICHARD & ADDISON
BROADWAY & HOME
GANTZ & FRANK
FIRST & URBANCREST COMM. CTR.
HARRISBURG PIKE & ROSEMONT

SOUTHEAST

CARLYLE & MAIN
MAIN & WAGGONER
MAIN & BRIARCLIFF
MAIN & ROSEHILL
MAIN & BRICE
MAIN & LONG JOHN SILVER
MAIN & COUNTRY CLUB
MAIN & FOUNTAIN LANE
MAIN & HAMILTON
MAIN & SHADY LANE
ROSEHILL & LIVINGSTON
REYNOLDSBURG PARK & RIDE
CONSUMER SQUARE EAST
LIVINGSTON & McNAUGHTEN
LIVINGSTON & LONSDALE
LIVINGSTON & HAMILTON
HAMILTON & LIVINGSTON (SB)
LIVINGSTON & YEARLING
LIVINGSTON & COURTRIGHT
LIVINGSTON & RAND
LIVINGSTON & BARNETT P & R
LIVINGSTON & HAMPTON
LIVINGSTON & ZETTLER
LIVINGSTON & JAMES (EB)
LIVINGSTON & JAMES (WB)
LIVINGSTON & MONTROSE
LIVINGSTON & COLLEGE
LIVINGSTON & FAIRWOOD
LIVINGSTON & ALUM CREEK (EB)
LIVINGSTON & ALUM CREEK (WB)
LIVINGSTON & CHAMPION
LIVINGSTON & ANN (WB)
LIVINGSTON & ANN (EB)
LIVINGSTON & SEYMOUR
LIVINGSTON & PARSONS (WB)
LIVINGSTON & PARSONS (EB)
LIVINGSTON & GRANT
WHITTIER & OHIO
WHITTIER & LOCKBOURNE
WHITTIER & SEYMOUR LOOP
FREBIS & ALUM CREEK
WINSLOW & CAMBRIDGE APTS.
BERWICK PARK & RIDE
HAMILTON & DUNDEE
HAMILTON & EASTLAND DR.
EASTLAND & HAMILTON RD.
STUDER LOOP
UNIVERSAL & ADVANCE
LOCKBOURNE & MOLER
1340 MARION RD.
KOEBEL & FAIRWOOD
FAIRWOOD & WATKINS
GROVEPORT & COLLEGE
GROVEPORT & CHILLICOTHE
FREBIS & FAIRWOOD

NORTHEAST-CLEVELAND-MORSE

NORTHERN LIGHTS (2)
KARL & NORTHLAND (SB) (2)
5TH & CASSADY
CALDWELL & CALDWELL PL.
CLEVELAND & 11TH
CLEVELAND & 5TH
11TH & DAUGHERTY
CLEVELAND & 15TH
17TH & CLEVELAND
CLEVELAND & 19TH
CLEVELAND & 24TH
CLEVELAND & GENESSEE
CLEVELAND & HUDSON
McGUFFEY & HUDSON
McGUFFEY & WEBER
CLEVELAND & OAKLAND PARK
CLEVELAND & WEBER
INNIS & SCHOTTENSTEINS
CLEVELAND & FERRIS
CLEVELAND & MORSE
CLEVELAND & RT. 161
CLEVELAND & LAURELWOOD
CLEVELAND & COMMUNITY PARK
KARL & NORTHRIDGE
MAIZE & MOON
MORSE & MAIZE
MORSE & ALMONT
INDIANOLA & TORRENCE
INDIANOLA & JEFFREY
INDIANOLA & COOKE
INDIANOLA & OAKLAND PARK
E.N. BROADWAY & INDIANOLA
SUMMIT & MAYNARD
SUMMIT & 5TH
SUMMIT & 1ST
4TH & 19TH
ROCKY FORK & HAMILTON
NEW ALBANY PARK & RIDE
BUENOS AIRES & RT. 161
STATE & SCHROCK
WESTERVILLE PARK & RIDE
RT. 161 & FOREST HILLS
RT. 161 & PONDEROSA
NORTHTOWNE & NORTHCLIFF
WALFORD & BELCHER
TAMARACK & PINETREE
TAMARACK & MORSE
KARL & RT. 161
AGLER & LINVIEW
CASSADY & CASSADY PLACE
GATEWOOD & AGLER
STYGLER & AGLER
BRENTNELL & WOODWARD
DELAVAN & BAR HARBOR
BRENTNELL & DANBY
MOCK & LINTON GARDEN

EAST

E. BROAD & 20TH
E. BROAD & NELSON
E. BROAD & OHIO (EB)
E. BROAD & OHIO (WB)
E. BROAD & PARKWOOD
E. BROAD & WINNER
OAK & OHIO
BROAD & HOFFMAN
BROAD & HAMILTON PARK
BROAD & FRANKLIN PARK
BROAD & BROADLEIGH
FAIRWAY & BROAD
HAMILTON & BROADHURST
HAMILTON & SHAKER SQ.
E. BROAD & FAIRWAY (WB)
E. BROAD & HAMILTON RD.
E. BROAD & ROBINWOOD
E. BROAD & MAPLEWOOD
E. BROAD & BEECHTREE (EB)
E. BROAD & BEECHTREE (WB)
E. BROAD & WEYANT
E. BROAD & HAMPTON
E. BROAD & JAMES (WB)
E. BROAD & JAMES (EB)
JAMES & RUHL
RUHL & GOULD
BROAD & CASSINGHAM
E. BROAD & DREXEL

ALLEGHENY & VIRGINIA LEE S.
BROAD & TAYLOR
BROAD & 17TH
CLIFTON & WOODLAND
MAIN & WEYANT
MAIN & ROBINWOOD
MAIN & HOLTZMAN
MAIN & KELTON
MAIN & WILSON AVE.
MAIN & CHAMPION
MAIN & CHELSEA
MAIN ACROSS KENWICK
MAIN & JAMES
JAMES & MAIN (S/B)
JAMES & MAIN (N/B)
JAMES & E. BROAD
MAIN & BEECHWOOD
MAIN & YEARLING
MT. VERNON & ST. CLAIR
MT. VERNON & GARFIELD
MT. VERNON PLAZA
MT. VERNON & 20TH
MT. VERNON & CHAMPION
GREENWAY LOOP
S. HAMILTON RD. & MAIN
LONG & OHIO
LONG & TAYLOR
SUNBURY & MARYLAND
NELSON & MARYLAND

Twenty-five new distinctive passenger shelters have been installed on the expanded sidewalks of High Street between Fulton Street and Nationwide Blvd. These shelters are a part of the High Street Improvement Project which was completed in July of 1991.

These new shelters are located at the following locations.

Northbound:

(1) High at Fulton St.
(1) High at Cherry St.
(2) High at Walnut St.
(2) High at State St.
(3) High at Lynn St.
(2) High at Elm St.
(2) High at Lafayette St.
(1) High at Chestnut St.

Southbound:

(1) High at Chestnut St.
(1) High at Lafayette St.
(2) High at Elm St.
(3) High at Lynn St.
(2) High at Walnut St.
(1) High at Cherry St.
(1) High at Mound St.

Note: In most cases bus stops are located midblock at vacated east/ west streets along High Street (e.g., Lynn Street).

<u>OTHER DOWNTOWN SHELTERS</u>

SPRING & MARCONI

W. BROAD & FRONT ST.

TOWN & LESTER

RICH & 5TH ST.

LONG & FOURTH

APPENDIX II - PASSENGER AND OPERATION STATISTICS

TOTAL ANNUAL PASSENGER AND OPERATION STATISTICS**

Year	Passengers	Hours	Miles
1974	13,887,122*	559,565*	6,806,365*
1975	13,893,944*	599,619*	7,542,495*
1976 (S)	14,237,118*	609,150*	7,598,775*
1975	14,527,593*	614,488	7,843,071
1978 (S)	18,477,775	609,245	7,665,788
1979	19,681,204	620,029	7,805,151
1980	19,994,928	615,293	7,539,367
1981	21,251,742	694,404	8,411,585
1982 (S)	22,936,000	683,036	8,748,425
1983	23,779,353	735,115	9,603,572
1984	26,217,876	763,728	10,162,610
1985	26,700,334	822,289	10,857,371
1986 (S)	24,043,816	759,035	10,282,175
1987 (S)	17,510,515	704,854	9,649,526
1988	20,456,535	752,986	10,423,949
1989	17,346,747	650,420	9,046,173
1990	18,338,024	664,337	9,076,179
1991	17,538,350	673,586	9,549,994
1992***	18,068,524	685,413	9,488,639

* - Represents Revenue Totals

** - Fixed Route Service Only

*** - 1992 Statistics Are Unaudited

(S) - Strikes occurred during these years:

1976 - 7 days
1978 - 11 days
1982 - 17 days
1986 - 26 days
1987 - 41 days

1992 KEY OPERATING STATISTICS

Item	Average Weekday				Average Weekday Total	Average Saturday Total	Average Sunday Total	Annual Total
	AM PK	MIDDAY	PM PK	Other				
Service Supplied								
Total actual veh. miles	7,593	8,576	8,219	7,140	31,528	16,485	8,018	9,488,639
Total actual veh. hours	544	614	589	511	2,258	1,225	621	685,473
Total actual veh. rev. miles	6,210	7,013	6,721	5,840	25,784	14,596	6,886	7,835,470
Total actual veh. rev. hours	484	547	524	456	2,011	1,153	577	615,143
Service Consumed								
Unlinked passenger trips	13,639	17,081	17,653	12,631	61,004	30,728	14,196	18,068,524
Passenger miles					347,072	172,342	73,459	102,247,568

APPENDIX III - SUMMARY OF NET EMISSIONS REDUCTIONS 1993-1997

SUMMARY OF NET GROSS EMISSION REDUCTIONS 1993 - 1997

The following is a summary of the positive effect COTA has in improving the air quality in Central Ohio. The figures are based on a methodology developed by the Mid-Ohio Regional Planning Commission.

	(A) Unlinked Passenger Trips	(B) Total Vehicle Hours	(C) Total Vehicle Miles
1993	16,598,217	668,361	9,143,178
1994	16,336,020	680,916	9,314,931
1995	17,312,520	683,390	9,348,775
1996	16,854,794	684,870	9,369,022
1997	17,650,097	684,930	9,369,842

	(D) Total VMT Reduction
1993	64,733,046
1994	63,710,478
1995	67,518,828
1996	65,733,697
1997	68,835,378

	(E) Gross Emissions Reduction per Year (Tons)
1993	190.76
1994	187.75
1995	198.97
1996	193.71
1997	202.85

	(F) Total Bus Emmissions
1993	36.11
1994	36.78
1995	36.92
1996	37.00
1997	37.00

	(G) Net Emissions Reductions per Year (Tons)
1993	154.66
1994	150.96
1995	162.05
1996	156.71
1997	165.85

	(H) Change from Previous Year Net Emissions Reductions Per Year
1993-94	(3.69)
1994-95	11.09
1995-96	(5.34)
1996-97	9.14

Listed below is an explanation of each column listed in the Summary of Net Emission Reductions:

Column A: The total unlinked passenger trips is from Line 38 of Table 22: Transportation Improvement Program Operating Plan.

Column B: The total vehicle hours is from Line 8 of Table 22: Transportation Improvement Program Operating Plan.

Column C: The total vehicle miles is calculated by multiplying the total vehicle hours in Column B times 13.68 miles per hour, COTA's historical system speed.

Column D: The total vehicle miles traveled reduction is calculated by multiplying Column A times an average bus passenger trip length of 4.68 miles and dividing 1.2, the average auto occupancy.

Column E: The gross emissions reduction per year is calculated by multiplying Column D times 2.679 grams per miles times 0.0000011 equaling the number of tons emitted annually.

Column F: The total bus emission per year is calculated by multiplying Column C times 3.59 grams per miles times 0.0000011 equaling the number of tons emitted annually.

Column G: The total net emissions reductions per year calculated by subtracting Column F from Column E. <u>This column shows the total reduction in air pollution resulting from COTA service versus not having COTA service.</u>

Column H: This column shows the annual difference between each year listed in Column G.