PROGRAMME DES ROUTES MUNICIPALES ONTARIENNES

RAPPORT DE MISSION - JUIN 1990

Service de l'orientation
et de la coordination
Ministère des Transports

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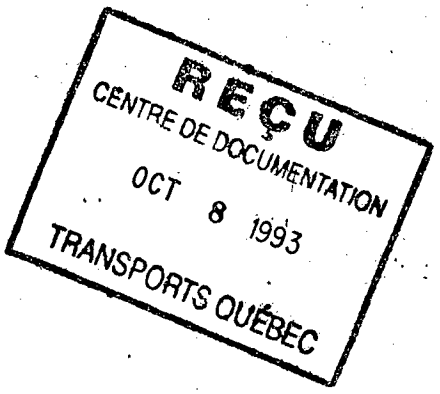

Service de l'orientation
et de la coordination
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INTRODUCTION

Le 14 juin 1990, une délégation formée de l'adjoint parlementaire du ministre des Transports et de représentants du ministère des Transports s'est rendue en Ontario afin d'obtenir des informations sur le programme des routes municipales géré par le ministère des Transports de l'Ontario.

Cette visite visait essentiellement à connaître davantage le partage de ces responsabilités en Ontario ainsi que les principales modalités du programme d'aide aux municipalités, notamment les conditions d'éligibilité, les taux de subvention, les critères utilisés afin de répartir ces subventions entre les municipalités.

Le présent document résume l'essentiel des informations recueillies au cours de cette mission. La rencontre avec les représentants ontariens a successivement porté sur:

- une présentation générale du ministère des Transports de l'Ontario;

- le programme des routes provinciales, lesquelles relèvent de ce Ministère; et,

- le programme des routes municipales.

Les présentations faites sur les deux premiers sujets sont reproduites aux annexes 1 et 2. En ce qui concerne la gestion du réseau routier on peut notamment en dégager que:

- le budget du ministère des Transports de l'Ontario atteindra 2 498 M$ en 1990-1991 dont 610 M$ pour le programme des routes provinciales et 776 M$ pour le programme des routes municipales;

- le Ministère assure la gestion d'un réseau routier de 21 271 km où on retrouve environ 2 900 structures; à cette fin, la structure administrative du Ministère comprend 5 directions régionales et 18 districts.

Quant au programme des routes municipales, le chapitre qui suit présente à la fois un résumé des renseignements obtenus lors de la réunion ainsi que d'autres informations extraites des différents documents qui ont alors été obtenus. Trois de ces documents constituent les annexes 3, 4 et 5 du présent rapport.

Finalement, la conclusion expose certaines implications et exigences liées à la mise en place au Québec d'un partage similaire des responsabilités routières.

LE PROGRAMME DES ROUTES MUNICIPALES

La province de l'Ontario, par l'entremise du Ministère des Transports, accorde une assistance financière aux municipalités pour la construction et l'entretien du réseau routier municipal. L'Office des routes municipales du Ministère, en collaboration avec les bureaux régionaux et de district, est responsable de l'administration de ce programme budgétaire qui, en fait, comprend différents programmes de subvention.

Toutes les municipalités urbaines (cités, villes, villages et municipalités régionales) et rurales ("Townships" et municipalités de comté) ainsi que les réserves indiennes et les groupes dans les territoires non organisés sont éligibles à l'assistance provinciale sur les chemins publics. Les subventions ainsi versées à près de 900 organismes atteindront quelque 720 M$ en 1990-1991.

1. Les programmes d'aide

Quatre programmes ont été mis en place afin d'appuyer les différents organismes relativement à la constuction et à l'entretien du réseau routier. Il s'agit du programme municipal (674,2 M$), du programme destiné aux routes de type "connecting link" (29 M$), de celui visant des routes dites "de développement" (4,0 M$) et du programme établi pour les territoires non organisés (12,3 M$). Les subventions versées s'appliquent même aux rues, à l'exception de celles donnant accès à de nouveaux lotissements.

1.1 Le programme municipal

Plus de 90 % des subventions destinées au réseau routier ontarien sont versées en vertu de ce programme qui s'adresse à l'ensemble des municipalités de l'Ontario. Il est subdivisé en trois sous-programmes qui correspondent à des types de

routes administrées par des municipalités de différents niveaux. Il s'agit des sous-programmes "upper-tier", "large lower-tier" et "small lower-tier".

1.1.1 Le sous-programme "upper-tier"

Le système routier "upper-tier" assure essentiellement une circulation de transit au niveau des municipalités régionales et de comté. En 1988, on retrouvait 12 557 km de "county roads" et 8 254 km de "regional municipal roads" pour un total de 20 811 km. Ce total inclut les "metropolitain roads" administrées par le Toronto métropolitain. Les routes faisant partie du système "upper-tier" sont identifiées à partir d'un système de classification routière.

Pour l'ensemble de ces routes, les municipalités concernées procèdent à des études de besoins afin d'identifier les routes et les ponts qui ont des déficiences par rapport aux normes établies et afin d'en évaluer les coûts d'amélioration. Les données sont mises à jour annuellement par les municipalités et sujettes à un examen du Ministère afin de s'assurer d'une plus grande uniformité.

Un manuel sur la méthodologie à suivre et deux autres sur la prise d'inventaire des routes, passages à niveau, ponts et ponceaux sont fournis aux municipalités par le Ministère; leur utilisation fait partie des conditions d'éligibilité aux subventions. L'étude des besoins suppose la formation d'un Comité de coordination, la préparation d'un devis d'étude et peut impliquer l'engagement d'un ingénieur consultant pour mener à terme l'étude. Les principales phases d'une étude de besoins comprennent:

- Un comptage de la circulation et estimé des volumes futurs;

- une classification et un inventaire du système routier de même qu'une évaluation des besoins de construction;

- une évaluation des coûts d'entretien et des coûts de remplacement du matériel;

- la préparation d'un rapport sommaire de l'étude.

Les subventions pour les routes et les ponts représentent entre 50 et 80 % du coût total, dépendant des besoins à rencontrer et de la capacité financière des municipalités basées sur des données annuelles d'évaluation foncière et de subventions reçues. L'étude de besoins est également défrayée en partie (50 à 75 %) par le Ministère après entente avec les municipalités.

1.1.2 Le sous programme "large lower-tier"

Ce sous-programme est mis en place pour les cités, les plus grandes villes et les "townships" en voie d'urbanisation; 135 municipalités, responsables de 41 122 km de routes et rues, ont bénéficié de ces subventions en 1988.

Comme dans le cas du réseau upper-tier, les municipalités concernées doivent procéder à des études de besoin. Toutefois, le Ministère exige un inventaire moins détaillé que dans le cas du réseau "upper-tier" pour le réseau situé exclusivement dans un environnement urbain.

Le taux de subvention pour les cités, villes et villages est de 50 % du coût total nécessaire à la construction et à l'entretien des routes. Pour les ponts, le taux se situe à 50 % pour les cités et 80 % pour les villes et villages. Les études de besoins sont défrayées au même taux que celui consenti pour le réseau "upper-tier".

1.1.3 Le sous-programme "small lower-tier"

En 1988, 711 municipalités responsables de 63 346 km de routes faisaient partie de ce sous-programme. Le budget normal pour ces petites municipalités permet de rencontrer les besoins d'entretien des routes et des ponts en plus de permettre des projets modestes de construction. Toute nouvelle construction ou reconstruction majeure se situe au-delà du programme normal de subvention. Une assistance spéciale sous forme de budget supplémentaire est alors requise et chaque requête doit être documentée adéquatement.

Depuis 1987, le Ministère a préparé à l'intention des municipalités "small lower-tier" un manuel leur permettant de procéder à un inventaire simplifié du réseau routier. Ce document contient également une procédure à suivre dans la préparation d'un plan quinquennal de gestion routière. Ce plan quinquennal, éligible aux subventions du Ministère, doit:

- présenter un inventaire du réseau et les besoins du système routier;

- formuler les stratégies les plus efficaces pour rencontrer les besoins d'entretien et de construction à long terme à l'intérieur des limites budgétaires;

- identifier les besoins qui requièrent une assistance financière spéciale;

- présenter un plan de travail sur une base annuelle.

Le taux de subvention du Ministère se situe entre 50 et 80 % pour les routes et les ponts, à l'exception des "townships" pour lesquels la subvention accordée à l'entretien et à la construction des ponts peut atteindre 100 %. Le taux varie en fonction d'un système basé sur les besoins et les ressources des municipalités établi par le Ministère depuis 1983. Les ressources sont mesurées selon un indice de la capacité financière d'une municipalité à subvenir à ses besoins, indice calculé à partir de l'évaluation foncière.

Les dépenses à consacrer au réseau routier sont établies par le personnel des districts du Ministère à partir des budgets fixés par l'administration centrale.

1.2 Les autres programmes

Un programme particulier a été établi pour les routes municipales qui relient les centres-villes au réseau provincial. En 1988, 862 km de ces routes de type **"connecting link"** situées dans 183 municipalités étaient susceptibles de faire l'objet de subventions du Ministère.

Ce dernier subventionne uniquement la construction de ces routes (selon un taux de 75 %) dans le cas des cités, alors qu'il subventionne la construction et l'entretien (selon un taux variant de 90 à 100 %) dans le cas des villes, villages et "townships". L'entretien est confié à la municipalité ou au Ministère selon les termes de l'accord conclu entre les deux parties.

Un autre programme concerne les **"routes de développement"**. Ce programme a été réduit considérablement au cours des dernières années avec l'instauration du système de subvention basé sur les besoins et les ressources des "townships". Il existe cependant encore des besoins pour les villes en régions isolées et les "townships" où le financement municipal est insuffisant (développement d'une nouvelle industrie, commerce, tourisme). Il peut également être nécessaire d'améliorer des routes pour répondre à des projets de nature provinciale ou régionale.

En 1988, un total de 14 projets municipaux se sont vus octroyer une assistance financière du Ministère. Là où les besoins le justifient, une recommandation est soumise au Ministre afin qu'il approuve jusqu'à 100 % des coûts d'amélioration des routes et des ponts situés dans les municipalités concernées.

Enfin, un dernier programme a été établi pour les **territoires non organisés.** Le Ministère procure une assistance financière à la construction et à l'entretien de routes dans les territoires sans administration municipale. Il peut procéder à des ententes avec des groupes ou des réserves indiennes sur un réseau totalisant 9 512 km de routes municipales en 1988.

La majorité des projets consiste à effectuer un entretien extraordinaire. Les travaux de construction se résument à l'amélioration des structures et des routes les plus importantes de même qu'à l'élimination des conditions de routes jugées dangereuses. Soulignons que le niveau de service pour ces routes est minimal. Le taux de subventions du Ministère représente entre 50 et 100 % du coût total d'amélioration ou d'entretien.

2. Fonctionnement des programmes de subvention

Le gouvernement ontarien verse depuis le début du siècle des subventions à des municipalités relativement à la gestion du réseau routier sous leur responsaiblité. Les diverses modalités d'application de ces programmes ainsi que leur portée ont connu de nombreuses modifications depuis.

2.1 Les principaux paramètres financiers

On peut actuellement dégager certains paramètres importants quant aux divers programmes d'aide:

- les taux de subvention mentionnés précédemment constituent autant de limites maximales;

- en janvier de chaque année, le Ministère informe chaque municipalité du montant de la subvention qui lui est allouée; ce montant est établi en tenant compte notamment:

  . de l'état général du réseau routier de la municipalité par rapport à l'objectif que s'est fixé le Ministère; à cet effet, un taux d'acceptabilité ("adequacy rate") est établi selon les types de municipalité;

  . de l'évaluation des coûts de construction et d'entretien admissibles;

  . de la capacité financière des municipalités; ainsi, dans le cas des townships, le taux de subvention passe de 50 % à 75 % et même à 100 % des travaux à

mesure que le coût global des travaux de la municipalité excède certains niveaux de capacité financière (l'aide totale versée à chaque "township" ne doit cependant pas dépasser 80 % des coûts admissibles);

- le total des subventions attribuées aux municipalités en janvier représente approximativement 85 % des subventions à être versées; l'autre 15 %, soit environ 90 M$, sera réparti entre les municipalités pour des travaux non prévus ou pour des projets dont la réalisation ne pourrait être assurée avec uniquement la subvention de base (par exemple dans le cas du remplacement ou de la reconstruction d'un pont dans une petite municipalité);

- le Ministère fait, en mai et en juillet, deux versements représentant chacun 30 % du montant de la subvention établie en janvier;

- entre septembre et novembre, la municipalité produit un document indiquant le montant et la nature des travaux de même que les dépenses effectuées dans le cadre des programmes d'aide; le district vérifie ces informations avant le dernier versement de la subvention;

- lorsqu'une municipalité a dépensé moins que prévu, la subvention est alors réduite au montant calculé à partir des dépenses réelles admissibles; le solde ne peut être transféré à l'exercice financier suivant.

2.2 Les frais admissibles

Les subventions s'appliquent à toutes les dépenses définies comme de l'amélioration au réseau routier dans la politique ministérielle, incluant les coûts de la main-d'oeuvre, des matériaux et de l'équipement.

Une évaluation détaillée montrant comment la subvention sera dépensée doit être soumise aux districts du Ministère. Les municipalités doivent également soumettre aux districts les plans et devis de même que les soumissions pour les différents projets de construction sur les routes avec un volume de 200 j.m.a. et plus, ou encore sur les routes impliquant l'amélioration de la structure ou l'achat d'équipement.

Les coûts de main-d'oeuvre incluent les coûts directs (salaires) et les coûts indirects (assurances, bénéfices marginaux, etc.). Dans le cas de l'équipement loué, le Ministère exige des soumissions pour les travaux dépassant 80 heures. Enfin, le Ministère ne subventionne aucun travail qui contrevient à la législation en matière de protection de l'environnement.

Dans le cas des **travaux de construction**, les dépenses admissibles se résument aux items suivants:

A. Routes et rues:

- Acquisition et préparation d'emprises;
- Préparation d'infrastructure;
- Drainage;
- Construction de la structure et de la surface de la route;
- Travaux connexes, tels remplacement de trottoirs, arbres, clôtures, murs de soutainement, éclairage, appareils de contrôle de la circulation, marquage, aires de repos, traverses piétonnières, etc;
- Travaux d'ingénierie.

B. Ponts, ponceaux et viaducs.

C. Traverses de chemins de fer.

D. Achat de matériaux provenant de gravières et carrières.

E. Garages et entrepôts.

F. Achat de matériel.

Dans le cas des **travaux d'entretien**, les dépenses admissibles se résument aux items suivants:

A. Routes et rues:

- Travaux d'entretien d'hiver;
- Travaux de resurfaçage;
- Entretien des abords de la route (ponceaux, barrages, drainage, fauchage, plantation d'arbres, etc.);
- Entretien des appareils de sécurité et de contrôle de la circulation;
- Entretien des compteurs de circulation;
- Études de besoins et mises à jour.

B. Ponts, ponceaux et viaducs.

Enfin, les **frais fixes** sont couverts dans les frais admissibles et se résument aux items suivants:

A. Salaires et dépenses du surintendant des travaux et des superviseurs.

B. Dépenses diverses telles achat d'ordinateurs, frais d'impression et de postes, frais de téléphone, assurances sur l'équipement.

C. Chauffage et électrification des garages et entrepôts.

D. Réparation du matériel.

E. Frais de manutention des matériaux et frais d'entreposage.

F. Frais d'outillage et d'équipement de sécurité.

G. Coûts de main-d'oeuvre indirects (assurances et bénéfices marginaux).

Dans le cas des municipalités qui ne sont pas subventionnées directement pour leurs frais fixes, un taux de 7 % sur les items de construction et d'entretien est ajouté pour les frais fixes. Les municipalités urbaines (cités, villes, villages et municipalités régionales) reçoivent ce montant de 7 % pour les frais fixes, alors que les municipalités rurales ("Townships", réserves indiennes et municipalités de comté) sont subventionnées directement.

La construction de chemins à des fins de développement (nouveaux lotissements), la construction d'égoûts sanitaires, de conduites d'eau principales, de trottoirs, d'égoûts pluviaux de 700 mm de diamètre et plus sont des exemples de travaux qui ne sont pas subventionnés dans le cadre des différents programmes des routes municipales.

CONCLUSION

Aux termes de cette analyse, il apparaît utile de tirer certaines conclusions sur les implications de l'implantation au Québec d'un programme de subventions aux municipalités similaire à celui qui existe en Ontario.

Il faut d'abord noter que l'Ontario a joué au Canada un rôle de pionnière en matière d'autonomie locale. La formation de corporations municipales à deux niveaux existe depuis 1849, avant même le développement du réseau routier. Les municipalités, locales ou régionales, ont donc toujours été responsables d'une partie importante du réseau routier et le gouvernement de l'Ontario a commencé à leur octroyer des subventions dès le début du siècle. Le système de subventions sous la forme qu'on le connaît aujourd'hui a été implanté entre 1969 et 1977 et a été amélioré graduellement.

La formule ontarienne de financement par subventions comporte également un aspect plus contraignant pour les municipalités dans la mesure où l'État doit exercer un contrôle sur les dépenses. Une formule similaire au Québec pourrait être plus difficile à accepter pour le milieu municipal dans un contexte où l'autonomie locale est grandement valorisée.

Sur un plan plus technique, les municipalités rurales et/ou les MRC devraient se doter des compétences et outils nécessaires à la gestion du réseau routier, un domaine cédé en majeure partie au ministère des Transports depuis fort longtemps.

Quant au ministère des Transports du Québec, l'établissement d'une telle formule suppose la confection de normes minimales en termes de construction et d'entretien afin d'assurer la sécurité du public et de conserver le réseau routier dans un état satisfaisant. Le Ministère devrait également préparer un mode d'évaluation équitable des besoins

routiers pour les municipalités. Soulignons que cette dernière tâche a été réalisée en Ontario aux termes de cinq années de travail par le ministère des Transports et le milieu municipal. De plus, dans un souci de plus grande équité, il faudrait envisager la mise en place d'un système permettant d'évaluer la capacité financière des municipalités à assumer ces nouvelles responsabilités afin d'en tenir compte dans la répartition des subventions.

Enfin, la mise en place de la formule ontarienne au Québec nécessiterait une révision de la structure et du mode de fonctionnement du Ministère.

Service de l'orientation
et de la coordination

Le 21 juin 1990

ANNEXE 1

PRÉSENTATION GÉNÉRALE DU MINISTÈRE DES TRANSPORTS DE L'ONTARIO

ROLE AND MISSION

- MAINTAIN THE PHYSICAL INTEGRITY OF THE EXISTING TRANSPORTATION SYSTEM

- ENHANCE SAFETY IN ALL SECTORS OF TRANSPORTATION

- INCREASE PRODUCTIVITY, EFFICIENCY, MARKET RESPONSIVENESS, AND INTERNATIONAL COMPETITIVENESS

- PROVIDE INCREASED CAPACITY IN CONGESTED AND DEVELOPING AREAS

- REDUCE BARRIERS TO INTERMODAL/INTER AGENCY AND PUBLIC/PRIVATE COOPERATION

- IMPROVE URBAN AND REGIONAL TRANSPORTATION PLANNING

- PROMOTE EFFECTIVE TRANSPORTATION USE OF THE ENVIRONMENT AND RESOURCES

THE MINISTRY

- **PERMANENT STAFF TOTALS 8,400**

- **ANNUAL BUDGET AMOUNT TO:** **2498M**
  (based on 90/91 budget)

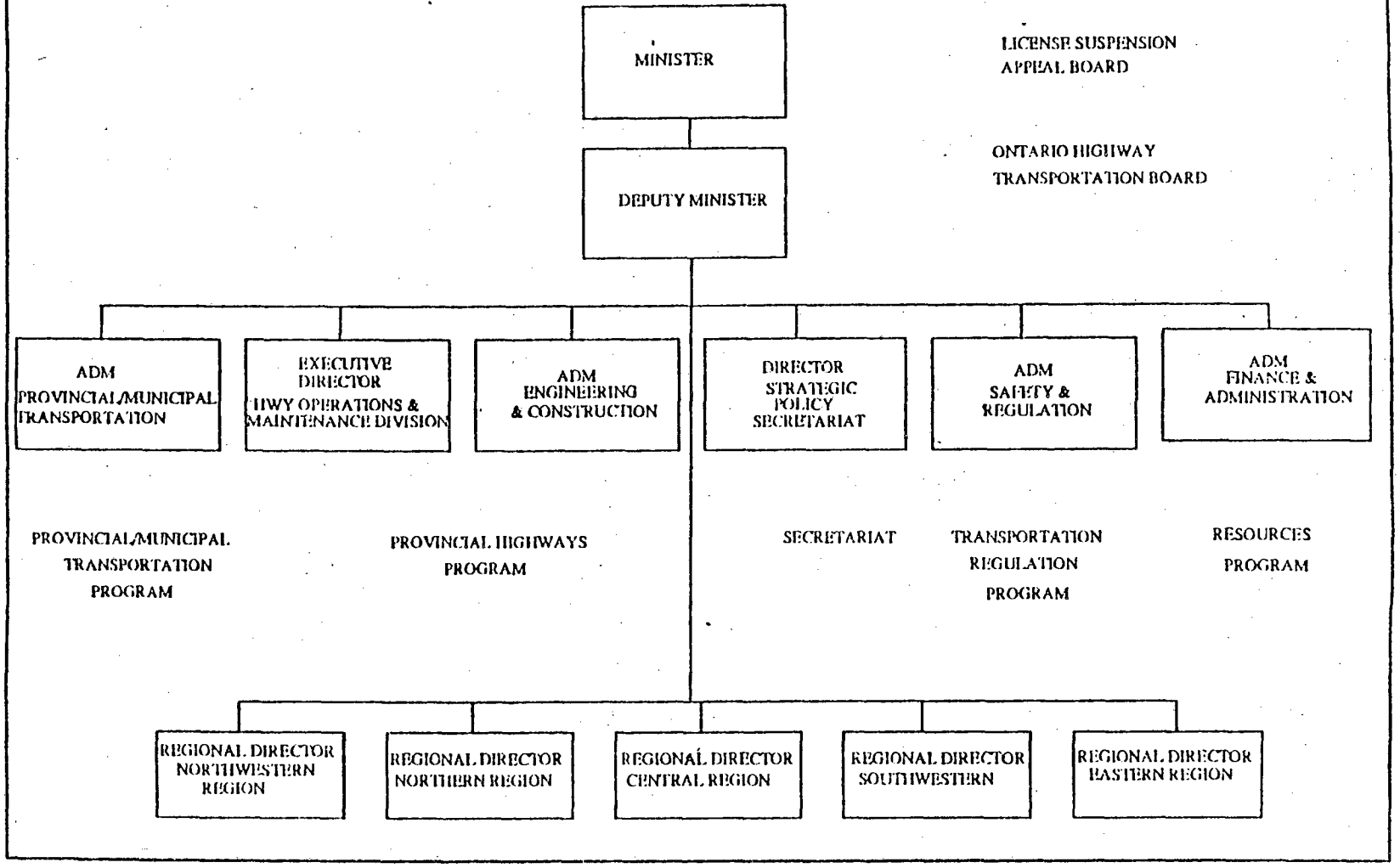
- **OPERATIONAL STRUCTURE**
  - Head office
  - 5 regions
  - 18 districts
  - 15 D&V district offices
  - 259 highway maintenance patrol stations

- **FIVE PROGRAMS:**
  - Provincial Highways
  - Municipal Transportation
  - Provincial Transportation
  - Transportation Regulation
  - Resources

- **PRIVATE SECTOR PARTICIPATION BY CONTRACT:**
  - Highway construction
  - Part of highway maintenance
  - Part of transportation regulation

- **CONSULTANT SUPPORT**
  - Infrastructure design
  - Planning
  - Systems

THE MINISTRY OF TRANSPORTATION
ORGANIZATION CHART



PRODUCTS / SERVICES

O HIGHWAY CONSTRUCTION AND MAINTENANCE

- 21,271 KM of highways
- 2,900 bridges and structures

O SAFETY AND REGULATION

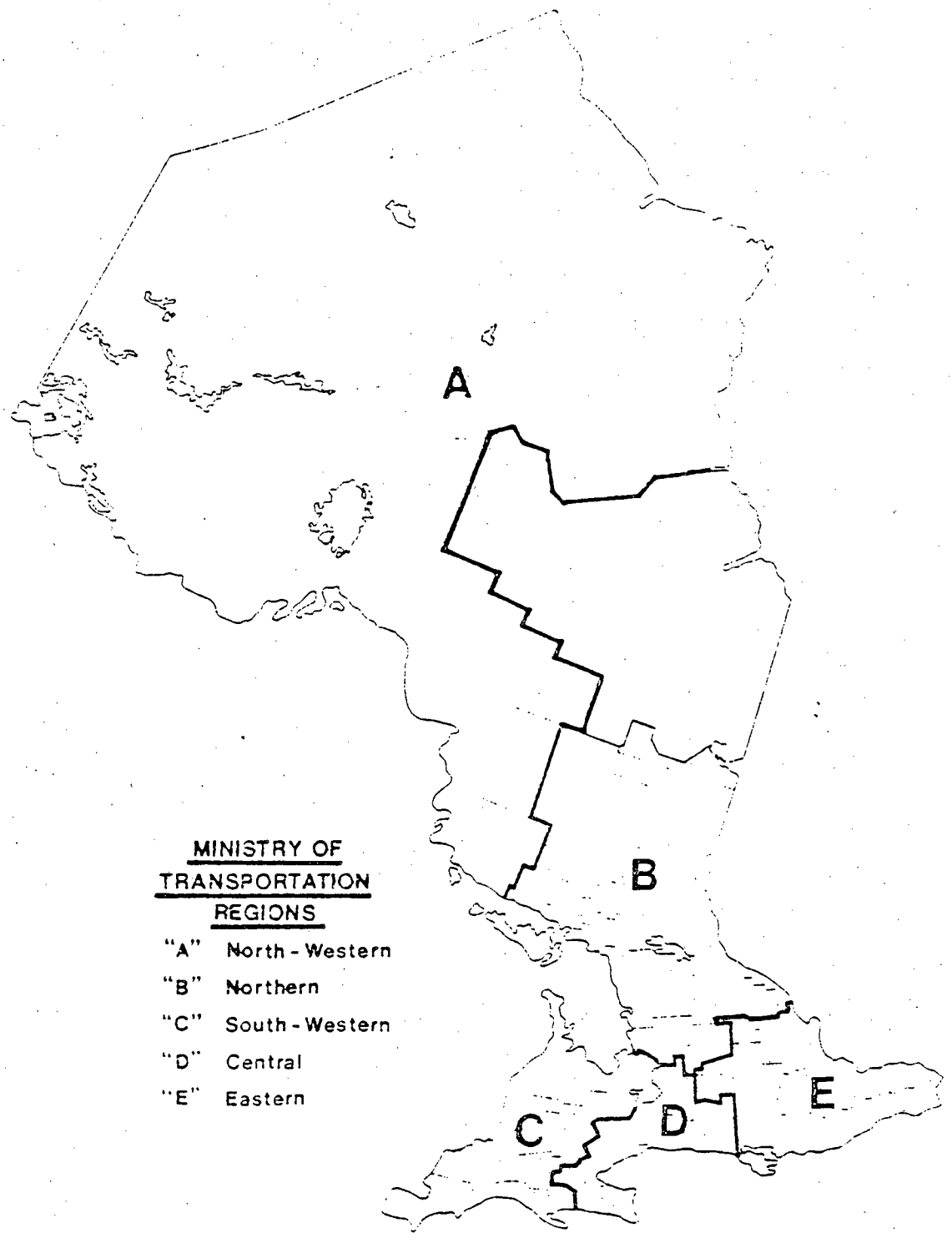
- Licensed drivers 6M
- Vehicles registered 7M
- Revenue collected 6M

O PROVINCIAL TRANSPORTATION

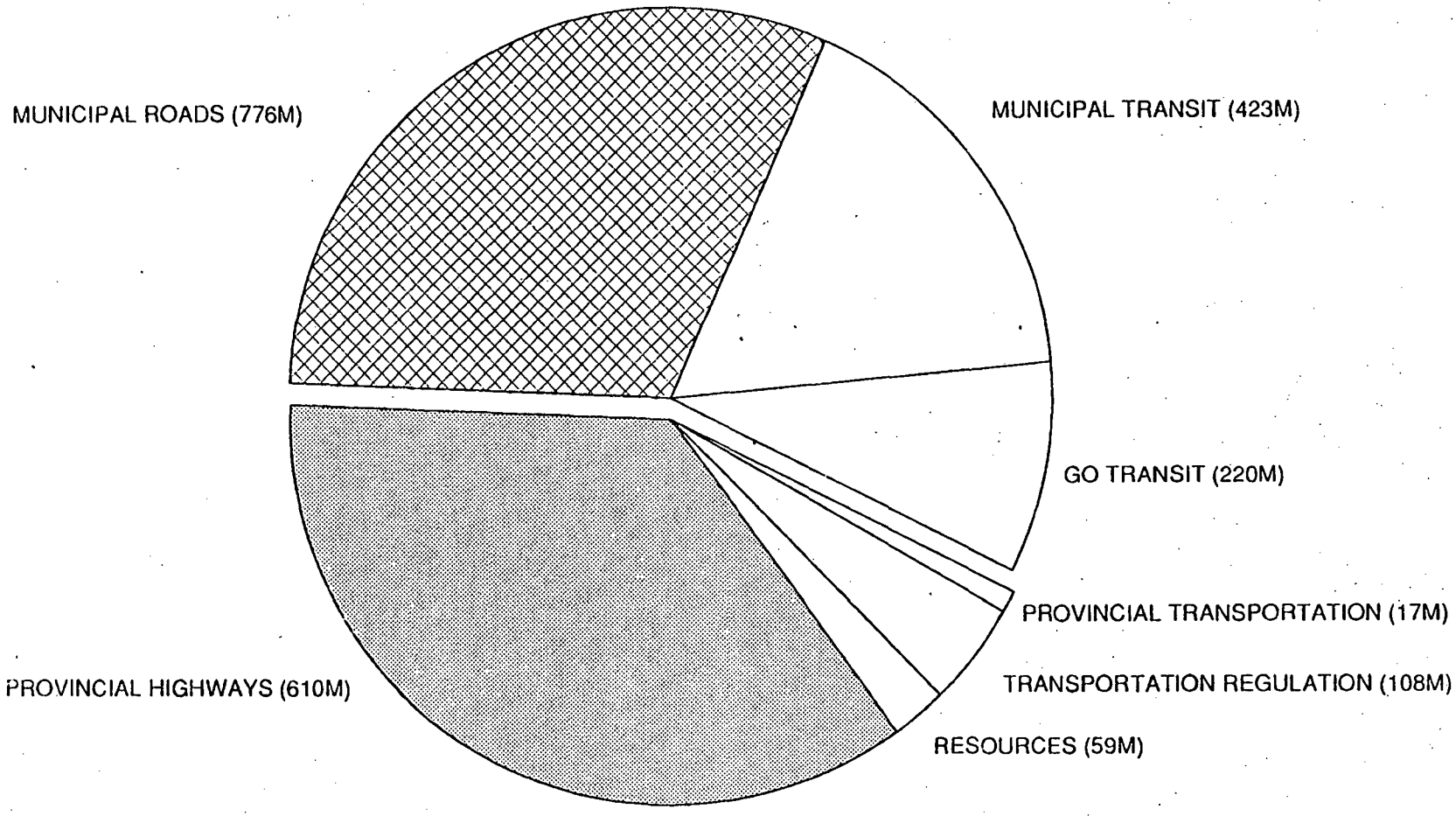
- 46 municipal airports
- 21 remote airstrips
- 55 ports
- Pelee Island Ferry

O MUNICIPAL TRANSPORTATION

- 884 municipalities - road transfers
- 73 municipal transit operators


A
B
C
D
E
MINISTRY OF TRANSPORTATION REGIONS
"A" North - Western
"B" Northern
"C" South - Western
"D" Central
"E" Eastern

1990/91 MINISTRY BUDGET



TOTAL BUDGET 2.5 BILLION

RESPONSIBILITIES

O HIGHWAYS	PROVINCE
O GO TRANSIT	PROVINCE
O INTERREGIONAL COORDINATION FOR THE GREATER TORONTO AREA	PROVINCE
O RESEARCH AND DEVELOPMENT	PROVINCE
O MUNICIPAL TRANSIT	PROVINCE/ MUNICIPAL
O MUNICIPAL ROADS	PROVINCE/ MUNICIPAL

MAJOR MUNICIPAL INITIATIVES

- Let's Move
  - $5 billion rapid transit plan for the 1990's
- Transportation Capital Program
  - (Highway 407, Major highway improvements, and GO Transit)

FORUMS

- Transportation Planning Forum
- Municipal Engineer's Advisory Committee
- Ontario Good Roads Association / Ontario Urban Transit Association

MUNICIPAL ASSISTANCE

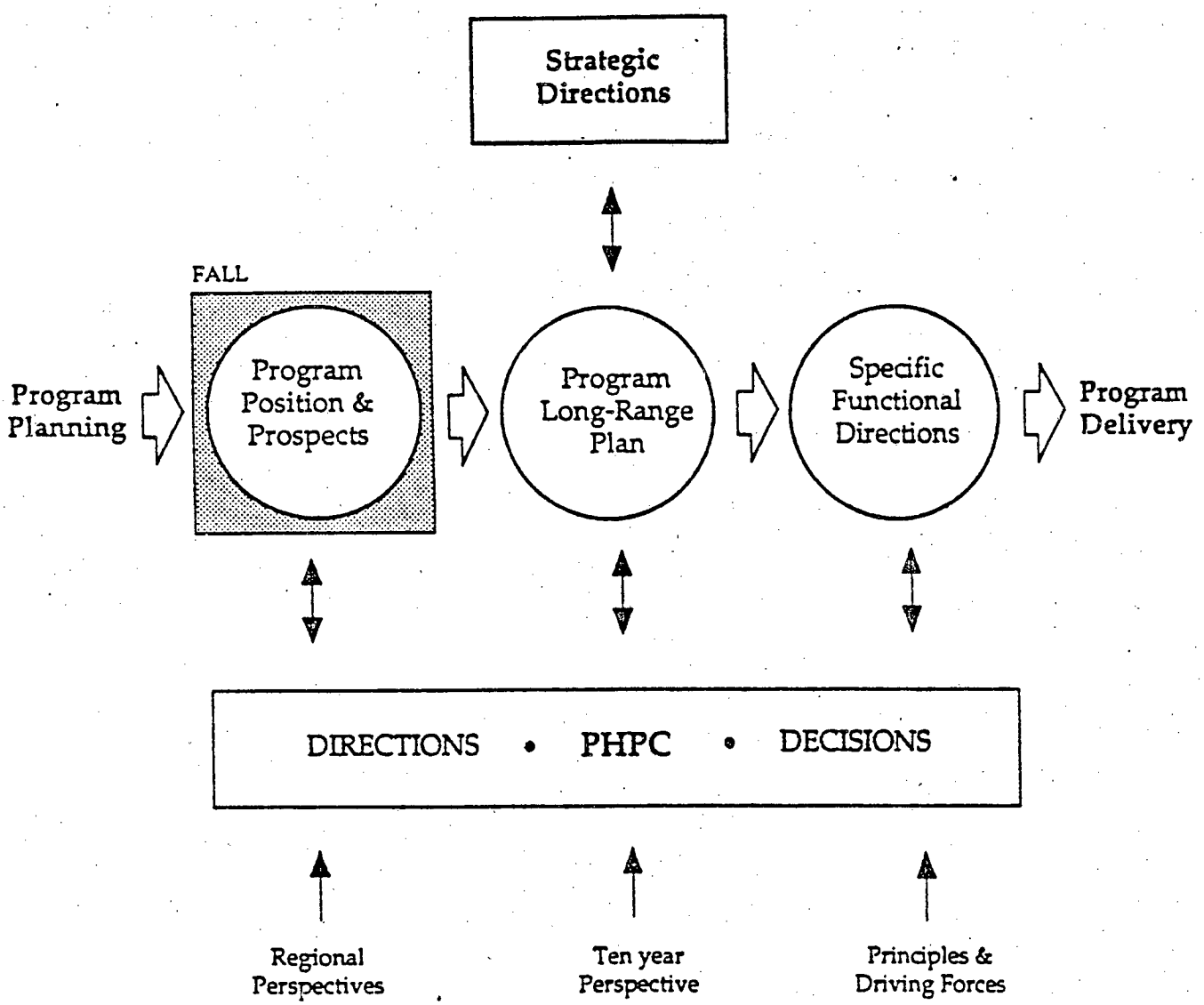
- Municipal Roads Needs Studies
- Municipal Transit Operational Studies
- Municipal Transportation Planning Studies

ANNEXE 2

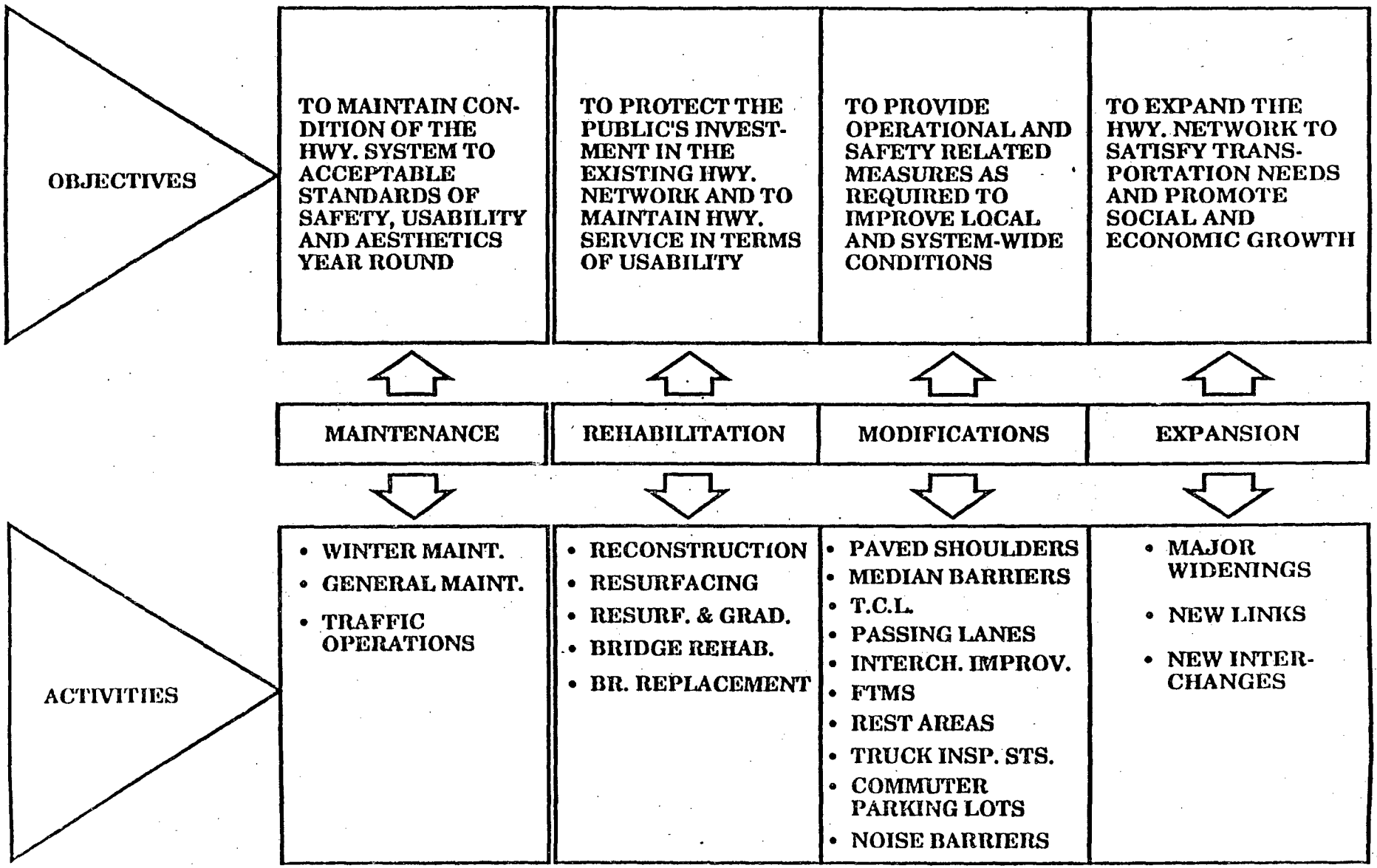
LE PROGRAMME DES ROUTES PROVINCIALES

PROGRAM PLANNING

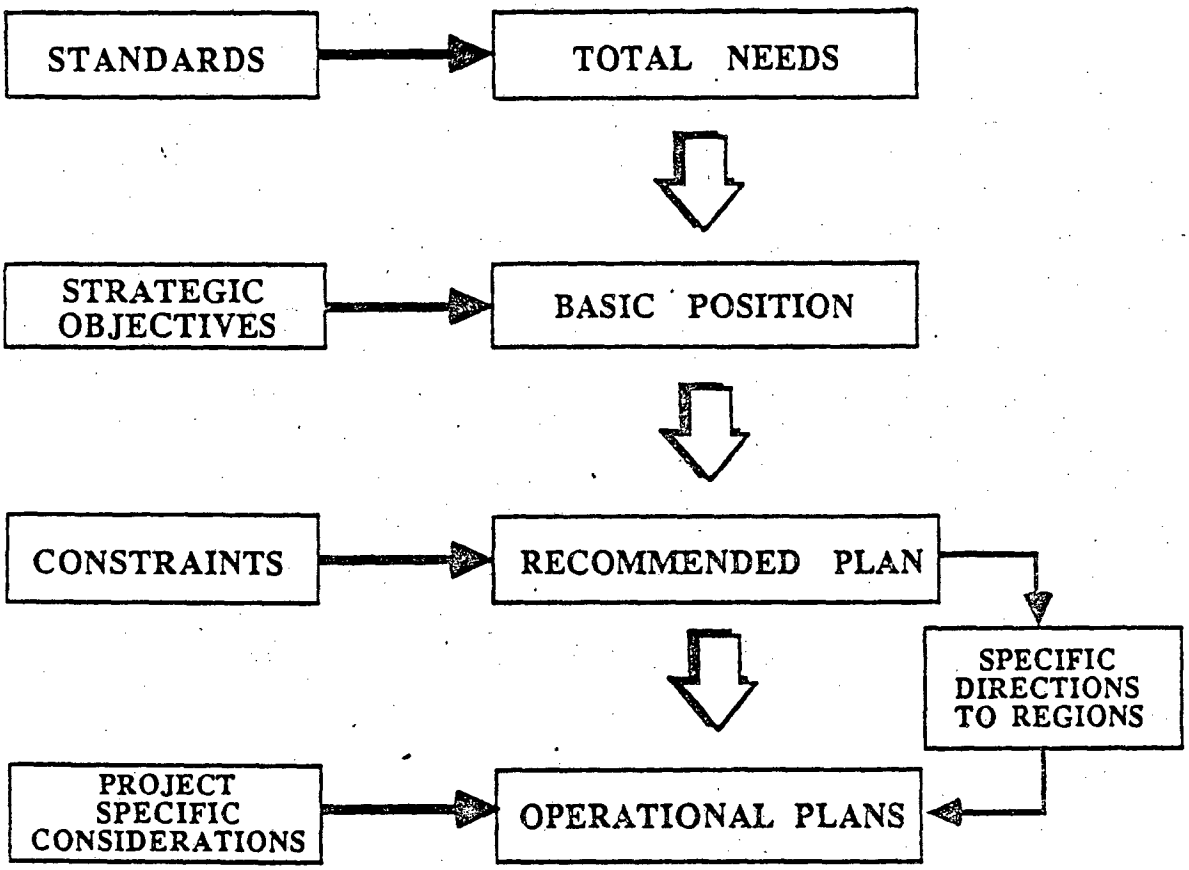
• Overall Framework •



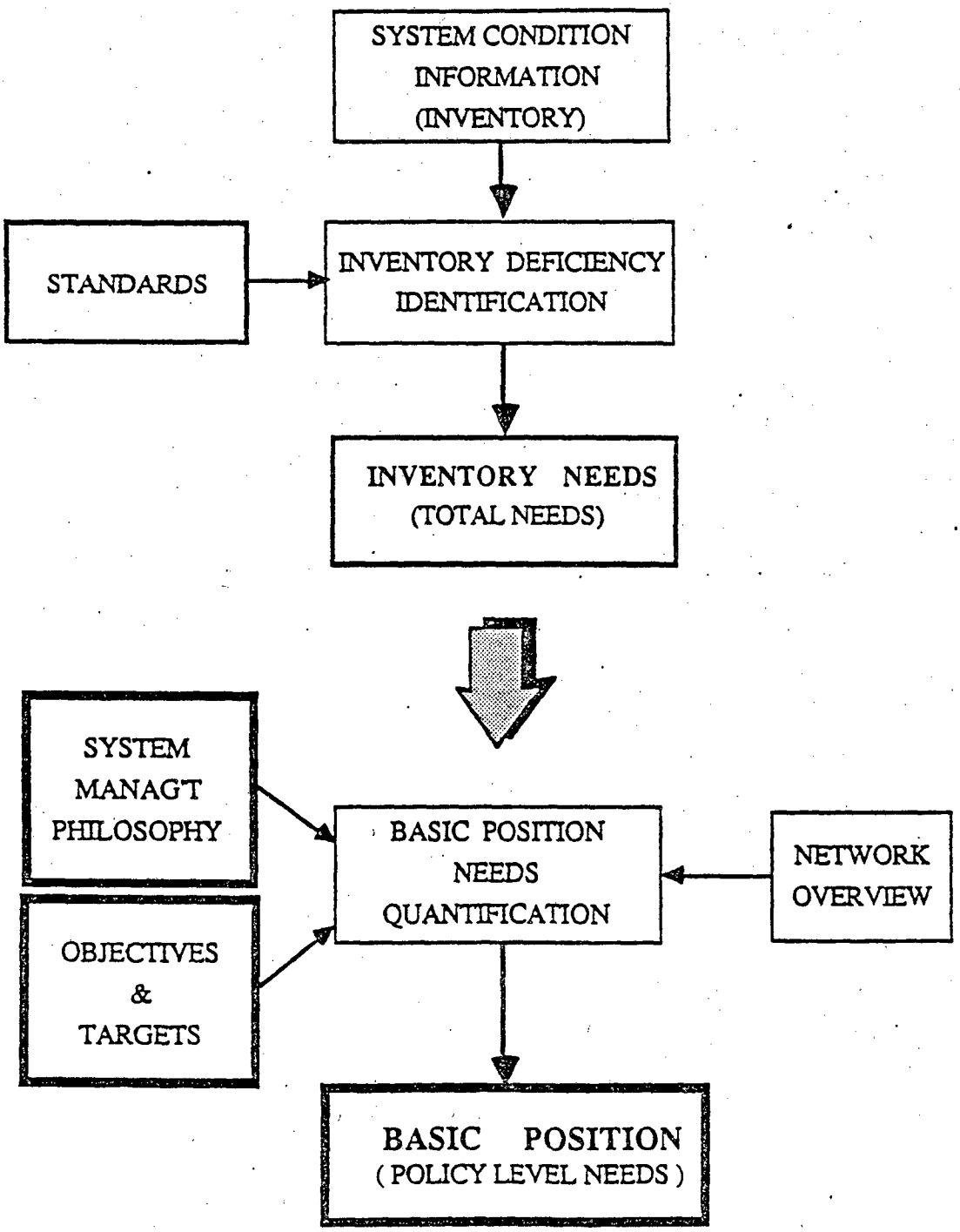
PROVINCIAL HIGHWAYS PROGRAM



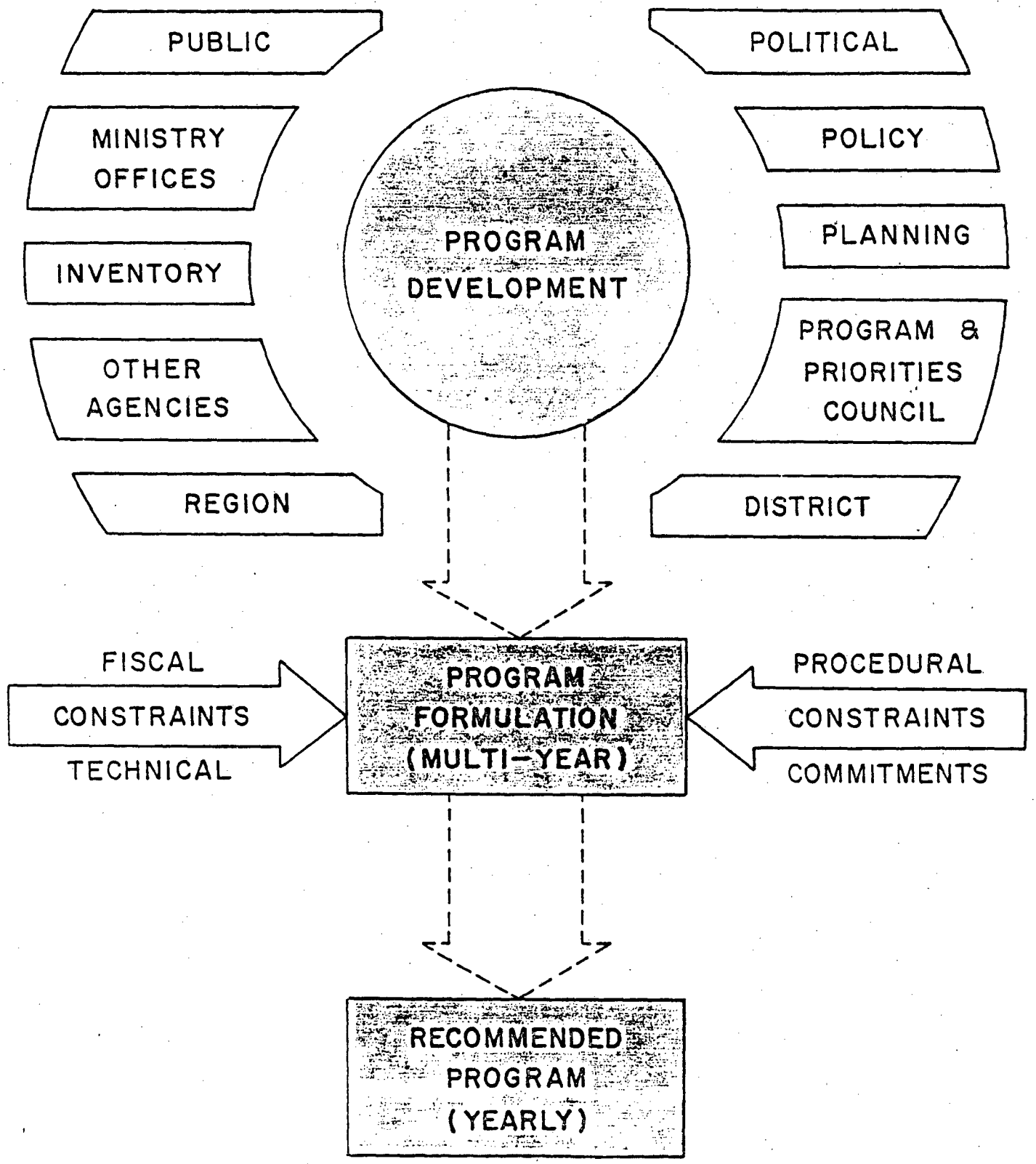
HIGHWAY CAPITAL PLANNING



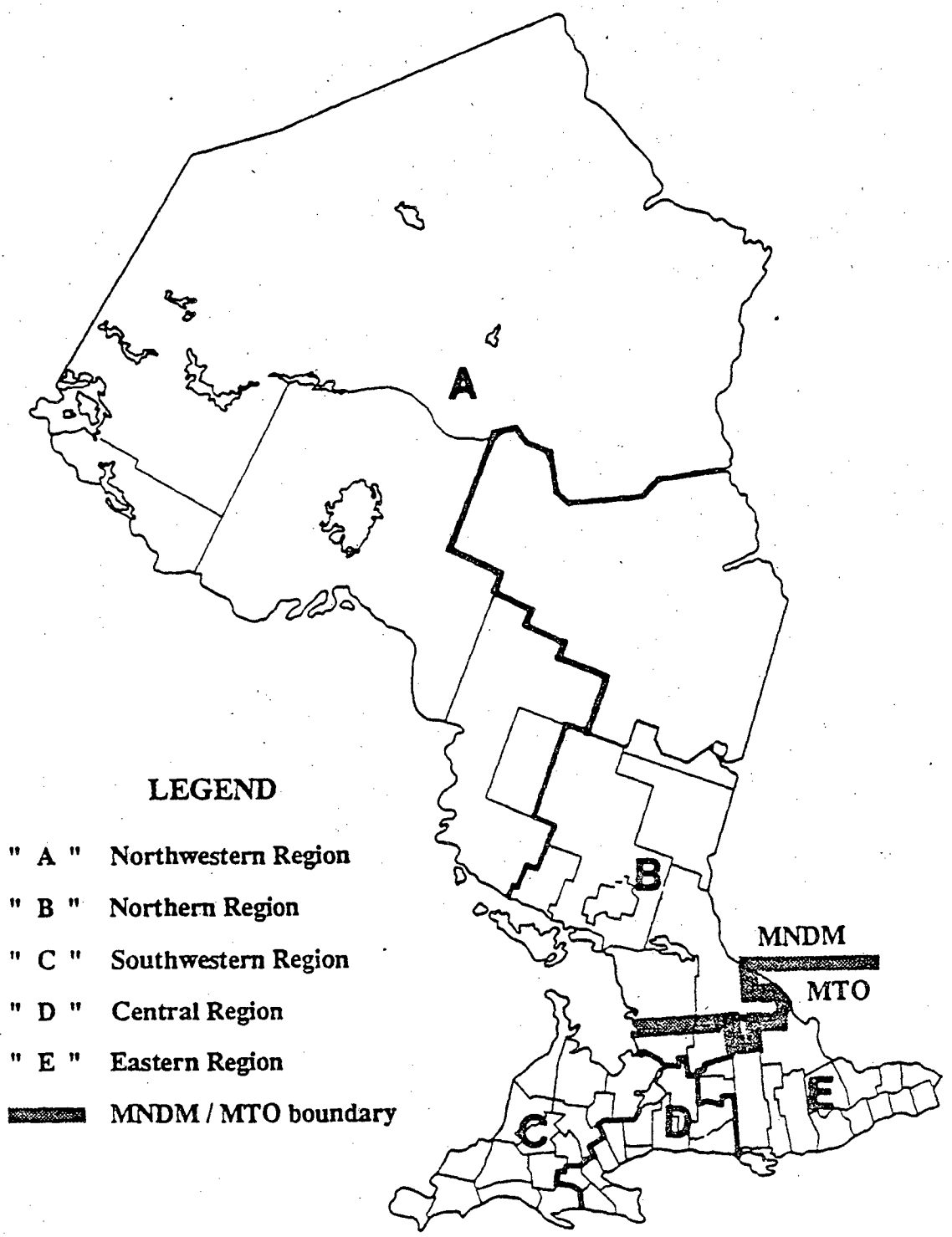
BASIC POSITION
Preparation Process



PROGRAMMING PROCESS



PROVINCE OF ONTARIO



ADMINISTRATIVE AREAS

Regions:

- *o Southwest Region*
- *o Central Region*
- *o Eastern Region*
- *o Northern Region*
- *o Northwestern Region*

Ministries:

- *o Ministry of Transportation (MTO)*
- *o Ministry of Northern Development and Mines (MND&M)*

FUNCTIONAL CLASSIFICATION

King's Highways:

Freeway	-	A multi-lane divided highway that carries relatively large volumes of through traffic at high speeds. There is full control of access and all crossroads are grade separated.
Arterial	-	A two-lane or multi-lane highway that carries significant volumes of long distance traffic at high speeds, with a high degree of access control.
Collector	-	A two-lane or multi-lane highways that provides for a for a balance of mobility and land access functions.
Local	-	Road in the highway system that primarily provides access to local land uses.

In addition, Secondary Highways have been subdivided into various categories for the purpose of defining a heirarchy for determining cost-efficient geometric design policy and standards.

Secondary Highways:

Major

Intermediate

Minor

SYSTEM SIZE (lane km)

1989

Functional Class	King's Highways	Secondary Highways	Tertiary Roads	All Highways
Freeway	7514			7514
Arterial	13921			13921
Collector	11733	3278		15011
Local	4075	7723	546	12344
Total	37243	11001	546	48790

INFORMATION SYSTEMS

- LHRS
- HIMS
- TVIS
- PIMS
- PEAS
- CREP
- CPM

KEY DOCUMENTS

- Deficiency Maps
- Highway Inventory Seclect Information
- Health of the Provincial Highway System Report
- Basic Position
- System Management Plan
- Future Perspectives Report
- Program Long Range Plan
- Multi Year Plan
- Construction Projects Book

ANNEXE 3

ONTARIO MUNICIPAL ROAD SYSTEM FACTS - 1988

ONTARIO

MUNICIPAL ROAD SYSTEM

FACTS

1988

Prepared by:
Terry Short

Policy and Planning Office
Municipal Roads Branch
November 1989

INTRODUCTION

The Province of Ontario, through the Ministry of Transportation, provides financial assistance to municipalities, Indian Reserves and groups in the unincorporated areas, for construction and maintenance of their municipal road systems. The available funds are distributed to municipalities by the following programs:

- Municipal Program
  - Upper Tier
  - Large Lower Tier
  - Small Lower Tier
- Highway Connecting Link Program
- Development Road Program
- Unincorporated Areas Program

The Municipal Roads Branch, in association with the Regional and District Offices, is responsible for the administration and delivery of these programs.

PURPOSE

The purpose of this report is to provide facts and figures to interested organizations on:

- Size and adequacy of the existing Municipal Road System
- Historical data on funding
- Major issues and strategies affecting the programs
- Corporate issues and strategies affecting the Ministry of Transportation and municipalities

HISTORICAL MINISTRY OF TRANSPORTATION EXPENDITURES TO TOTAL PROVINCIAL EXPENDITURES

In the fifties and early sixties the annual provincial budget increased rather slowly until 1965 when it began to rise almost exponentially.

During the 1955 to 1965 period, the increase in the Ministry's budget was similar to the Provincial budget increase. However, after 1965 the provincial budget rose dramatically while the Ministry's budget rose modestly.

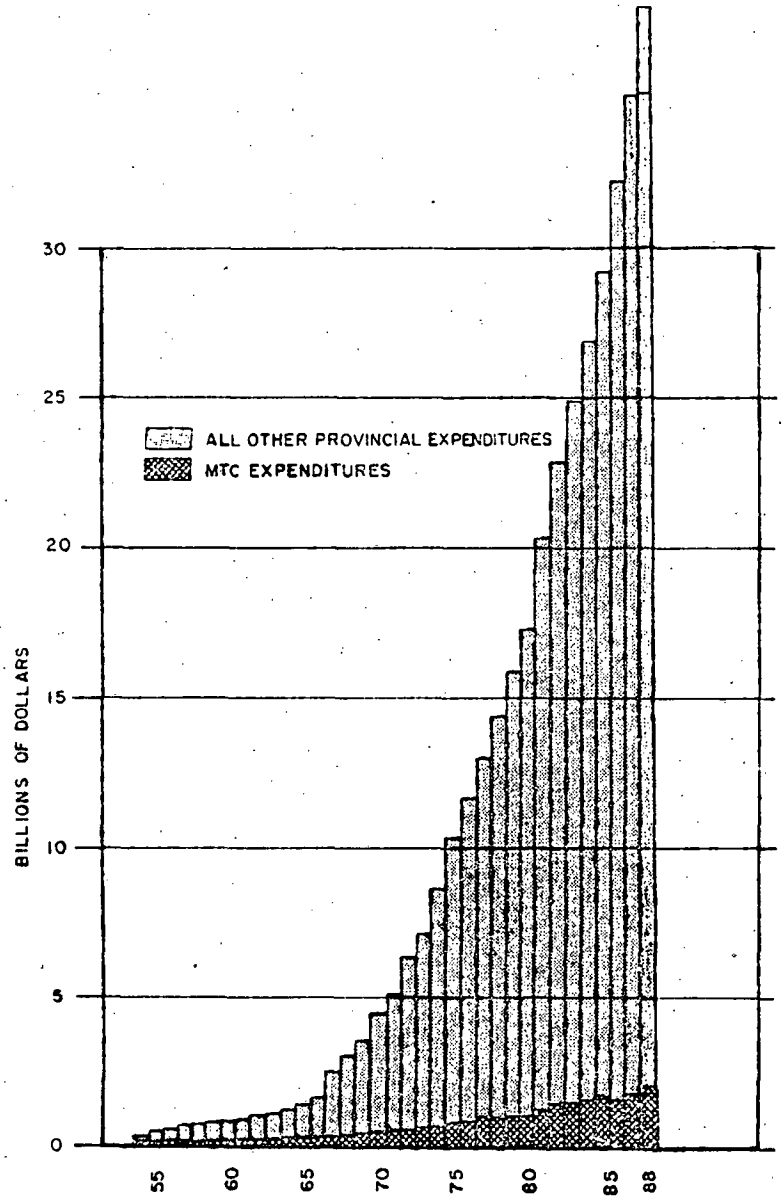
The sharp rise in Provincial expenditures since 1965 is synonymous with the Government's desire to undertake, together with Federal assistance, increasingly more socially oriented programs such as education, health and community services.

The result was a significant change from the 1955 to 1965 period when transportation comprised between 26% to 33% of the total Provincial budget to 1988/89 where it is only slightly more than 5.3%. Although the Ministry of Transportation's percent share of Provincial expenditure is substantially lower, the actual dollars have increased from $344 Million in 1965 to $2.07 Billion in 1988.

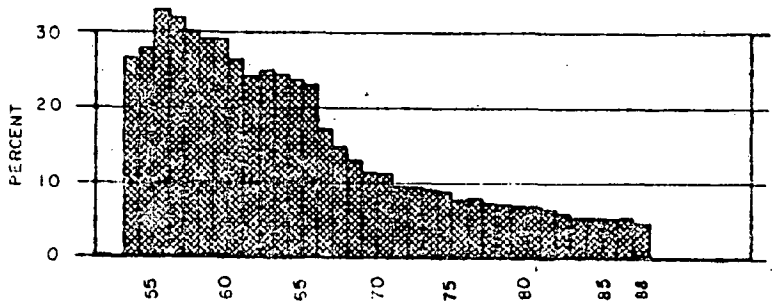
The following figure titled **Ministry of Transportation Expenditures to Total Provincial Expenditures** shows graphically the funding changes.

MTC EXPENDITURES TO TOTAL PROVINCIAL EXPENDITURES

MTO DOLLARS TO TOTAL PROVINCIAL DOLLARS



PERCENT MTC EXPENDITURE TO TOTAL PROVINCIAL EXPENDITURES



HISTORICAL MINISTRY OF TRANSPORTATION ASSISTANCE

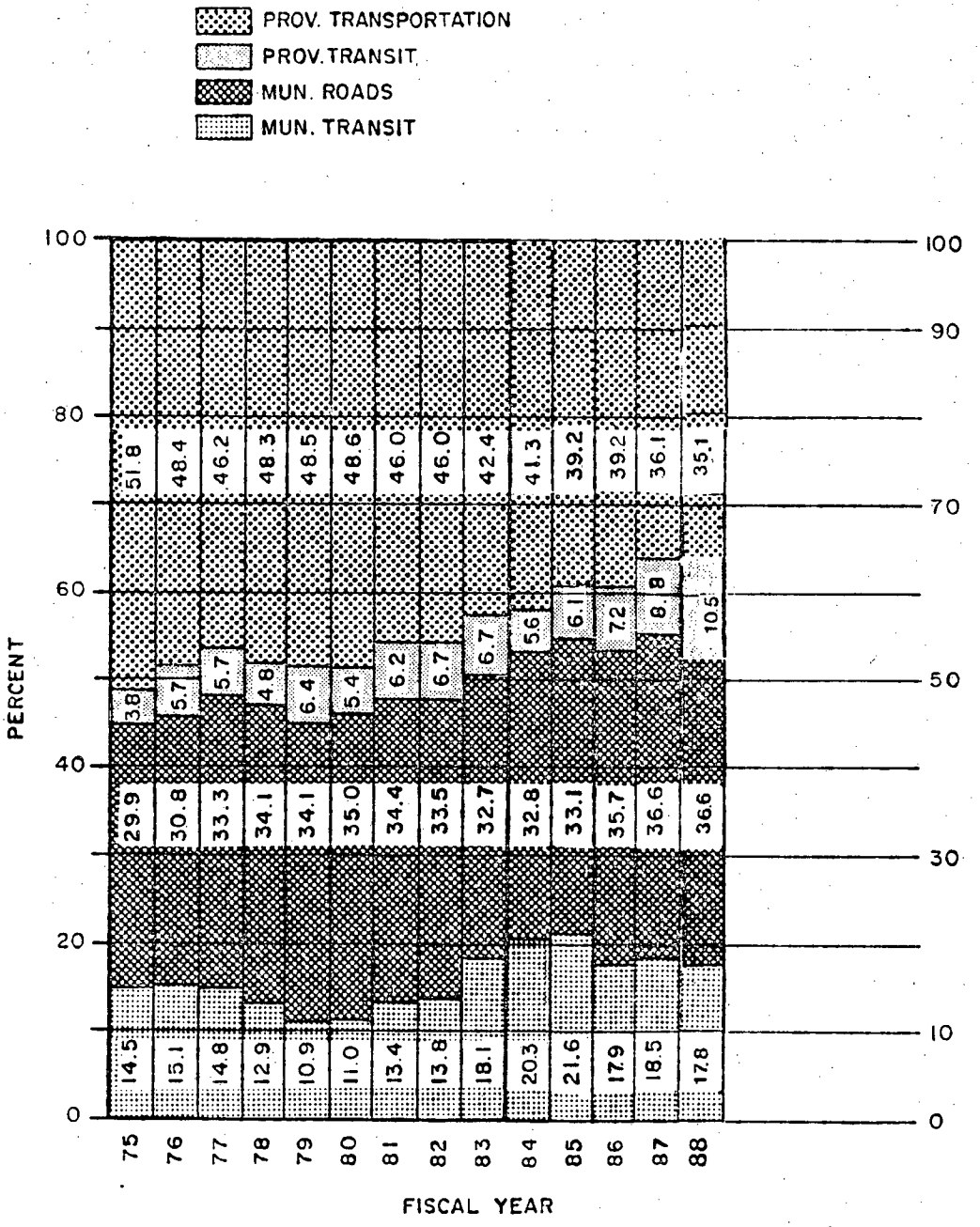
Using the 1975 as a base Year, the annual increase in the transportation budget between 1975 and 1988 did not keep pace with inflation. During the same period the Provincial transportation component, which is primarily Provincial highways, was flat-lined and most of the budget increases were directed to municipal transportation, particularly transit. These trends are clearly evident in the figure **Percentage Comparisons of Ministry of Transportation Road and Transit Assistance** which shows:

- Provincial Transportation funding, as a percent of Ministry of Transportation budget, has been on a gradual decline since 1975.
- Provincial Transit has increased rapidly from 5.6% in 1984 to 10.5% in 1988.
- Municipal Roads has varied between a low of 30% in 1976 to a high of 36.6% in 1988.
- Municipal Transit has remained constant at 18% for the past 3 years.

COMPARISON OF CURRENT SPENDING LEVEL TO PREVIOUS YEARS

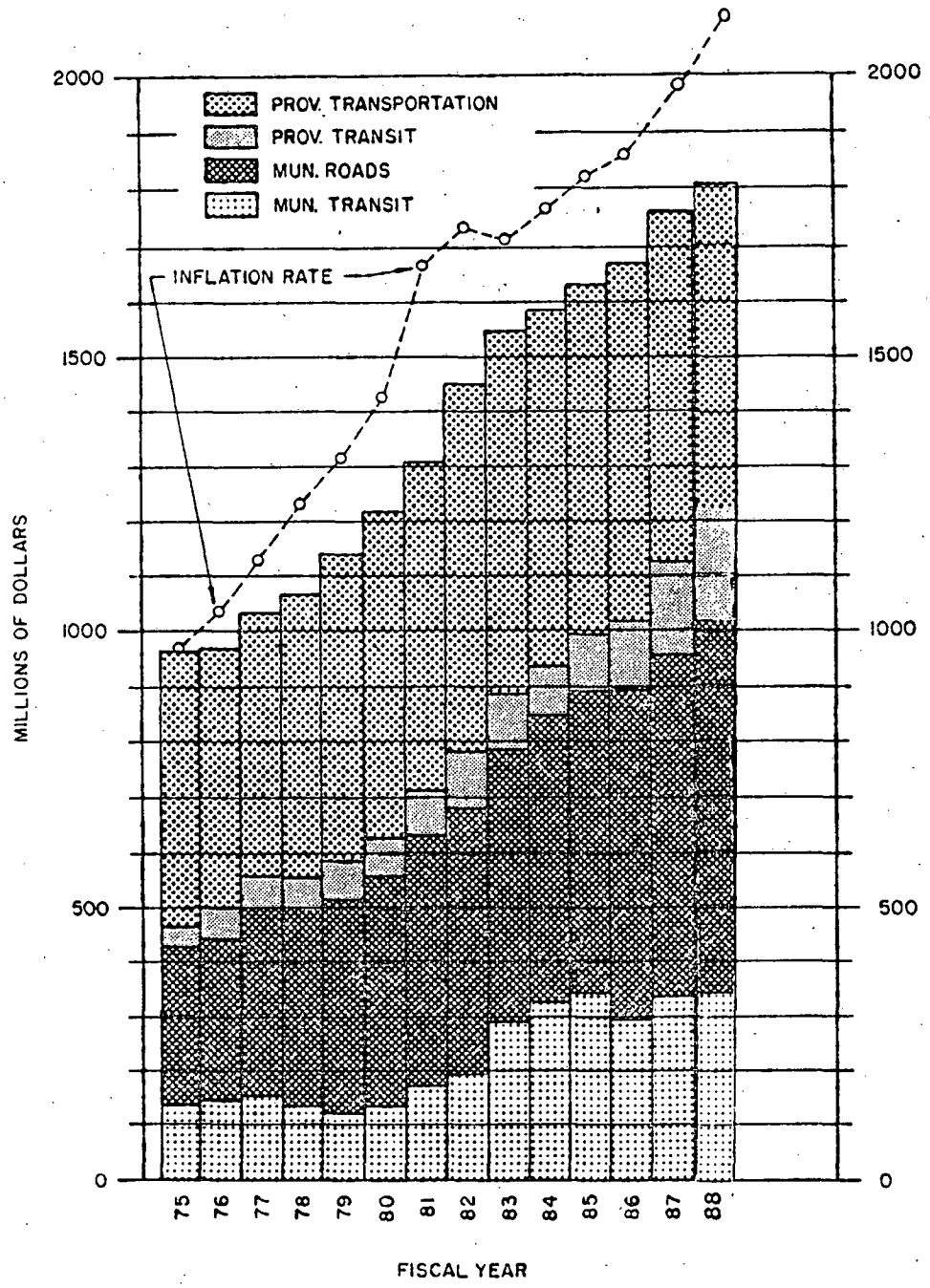
During the period of 1975 to 1988 the annual budget assigned to the Ministry did not meet the annual inflation increases. The figure titled **Historical MTO Assistance** clearly shows that Provincial funding did not meet inflation nor did it address the growth in the municipal road systems. However, in 1986 the Municipal Road budget exceeded the annual inflation level resulting in an increase in it's share of the total Ministry budget from 33.1% in 1985 to 36.6% in 1987 and 1988, as shown in figure titled **Total Ministry Assistance to Municipal Roads.**

PERCENTAGE COMPARISONS OF MTC ROAD AND TRANSIT ASSISTANCE



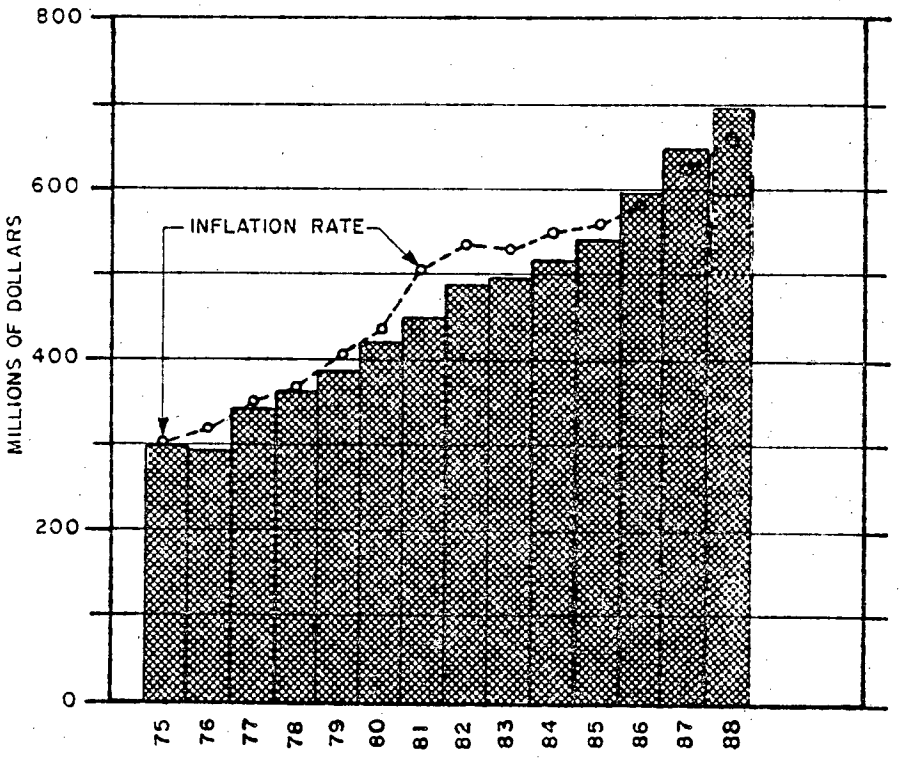
PROVINCIAL ROADS SHARE IS DECREASING

HISTORICAL MTO TRANSPORTATION ASSISTANCE

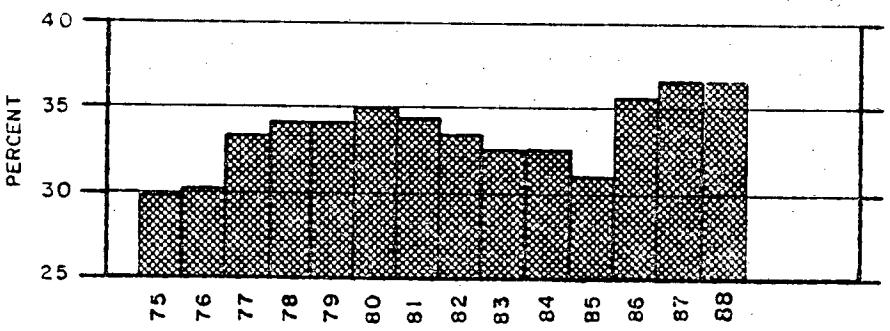


TOTAL MINISTRY ASSISTANCE TO MUNICIPAL ROADS

TOTAL MTO ASSISTANCE TO INFLATION



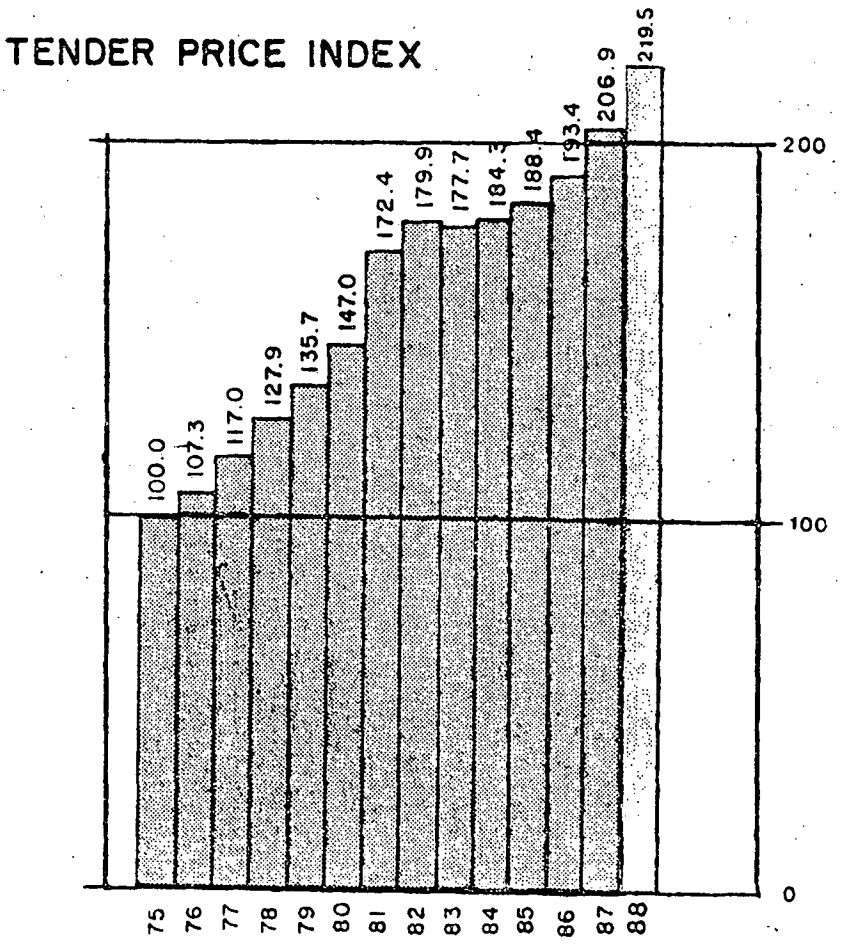
PERCENT OF MUNICIPAL ROAD ASSISTANCE TO TOTAL MTO FUNDS



TENDER PRICE INDEX

The tender price index is developed by Financial Planning and Administration Branch and is based on MTO highway contracts.

This particular inflation measuring index is deemed to be most relevant to Municipal Roads, particularly the capital portion of the budget. Between 1975 and 1981 the tender prices increased sharply reflecting overall inflation increases. Between 1981 and 1985, it has softened reflecting, to some degree, the affects budget contraints and an oversupply of contractors resulting in intense competition for available projects. In 1986, due to the increase in the Municipal budget, the resurgency in the road building sector and the overall growth in the Provincial economy has resulted in a significant increase in the unit prices. It is expected that this trend will continue to the 1990's.



MUNICIPAL ROAD SYSTEM BY SUB-PROGRAM

The Municipal Road System expanded by 1653 km from 1987 to 1988, well above the average of 600 km/year. The total system now measures 134,792 with the annual increases graphically shown in figure title **Municipal Road System.**

Table A - System Description by Program shows the breakdown of the municipal road system since 1981 and that the total system has grown 4848 km over the past 7 years. Most of the road system growth is taking place in the large urban areas because of new residential and industrial subdivision development, more particularly in the Greater Toronto and Ottawa/Carleton Areas.

The total km of paved roads continues to increase as a result of the 1258 km of new development, which are usually paved subdivision roads, and the overlaying of 681 km of gravel roads in the rural environment.

Since 1981 some 5989 km of gravel roads have been paved which is an average of approximately 750 km per year.

The Ministry, in conjunction with a number of municipalities, is monitoring a number of roads to establish if there is a significant saving in maintenance costs by surface treating a gravel road vs maintaining the gravel road. Early indications are promising but more time is needed to more accurately asssess the benefits.

Table B - Surface Type Breakdown shows the increase in km of paved roads which is a combination of new residential development and the hard surfacing of gravel roads in the rural areas.

The Upper Tier Municipalities now have less than 8% of their road systems with gravel surfaces.

The reduction of gravel surfaces in the Lower Tier municipalities is primarily in the Townships.

There is very little change in Surface Type in the Unincorporated Areas due to the low traffic volumes.

TOTAL MUNICIPAL ROAD SYSTEM

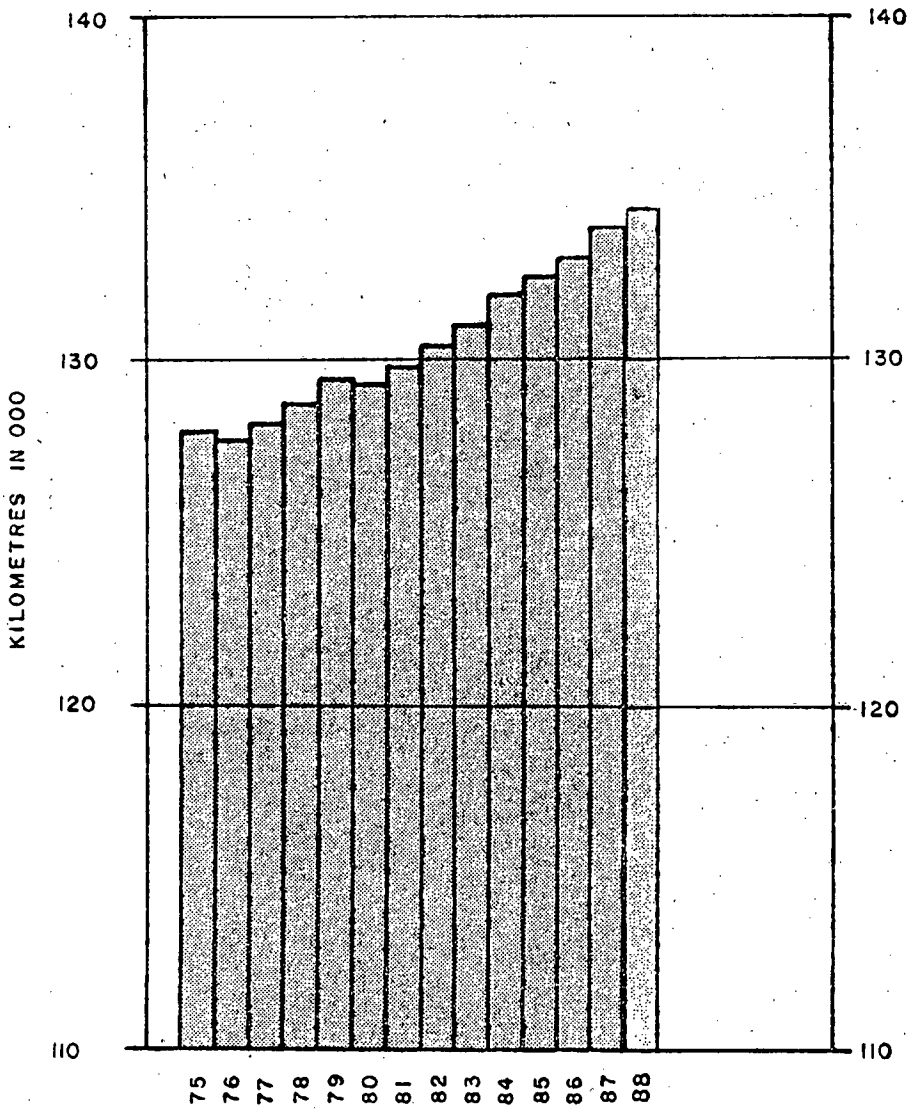


Table A - SYSTEM DESCRIPTION BY PROGRAM

	1981 KM	1982 KM	1983 KM	1984 KM	1985 KM	1986 KM	1987 KM	1988 KM
UPPER TIER - COUNTIES AND REGIONS	20,164	20,359	20,490	20,577	20,577	20,719	20,719	20,810
LOWER TIER								
LARGE LOWER TIER CITIES, TOWNS, TOWNSHIPS	37,249	38,023	38,302	39,202	39,718	40,010	40,567	41,124
SMALL LOWER TIER TOWNS, VILLAGES, TOWNSHIPS INDIAN RESERVES	64,409	62,626	62,863	62,815	62,841	63,020	62,829	63,346
UNINCORPORATED AREAS	8,122	9,626	9,610	9,494	9,374	9,390	9,418	9,512
TOTAL	129,944	130,634	131,265	132,088	132,510	133,139	133,533	134,792

TABLE B - SURFACE TYPE BREAKDOWN

UPPER TIER	PAVED KM	%	UNPAVED KM	%	INCREASE PAVED KM
1981	17,543	86.8	2,654	13.2	
1982	17,881	87.8	2,477	12.2	338
1983	18,117	88.4	2,373	11.8	236
1984	18,332	89.1	2,240	10.9	215
1985	18,514	89.9	2,063	10.1	182
1986	18,780	90.6	1,939	9.4	266
1987	18,902	91.2	1,818	8.8	122
1988	18,161	92.1	1,650	7.9	259
LOWER TIER					
1981	38,091	37.9	62,399	62.1	
1982	39,266	39.0	61,383	61.0	1,175
1983	40,111	39.6	61,054	60.4	845
1984	41,458	40.6	60,559	59.4	1,347
1985	42,926	41.9	59,633	58.1	1,468
1986	44,031	42.7	58,997	57.3	1,105
1987	45,387	43.9	58,009	56.1	1,356
1988	47,036	45.0	57,433	55.0	1,649
UNINCORPORATED					
1981	356	3.8	8,935	96.2	
1982	380	3.9	9,246	96.1	24
1983	406	4.2	9,204	95.8	26
1984	526	5.5	8,968	94.5	120
1985	516	5.5	8,858	94.5	0
1986	542	5.8	8,849	94.2	26
1987	565	6.0	8,853	94.0	23
1988	596	6.0	8,916	94.0	31
TOTAL					
1981	55,990	43.1	73,988	56.9	
1982	57,527	44.0	73,105	56.0	1,537
1983	58,634	44.7	72,631	55.3	1,107
1984	60,316	45.7	71,767	54.3	1,682
1985	61,956	46.8	70,554	53.2	1,650
1986	63,353	47.6	69,785	52.4	1,397
1987	64,853	48.6	68,680	51.4	1,500
1988	66,793	49.5	67,999	50.5	1,939

MINISTRY FUNDING TO UPPER TIER, LARGE LOWER TIER AND SMALL LOWER TIER MUNICIPALITIES

Since 1975 the Ministry's contribution to municipalities has more than doubled from $273.6 Million in 1975 to $636 Million in 1988. However, the level of support of the total municipal road expenditures has reduced from 53.9% in 1975 to 48.3% in 1988. This reduction is a result of municipalities overspending their supported expenditure level.

Table C shows the annual Ministry and Municipalities share of the total municipal expenditures on roads and the resultant percent of Ministry support.

There continues to be a strong demand for supplementary funding. In 1988, an additional $40 Million was provided to municipalities under the Ontario Transportation Improvement Initiative (OTII). However, there was about $222 Million in requests that were not met.

TABLE C - LEVEL OF MINISTRY SUPPORT TO UPPER TIER, LARGE LOWER TIER AND SMALL LOWER TIER PROGRAMS

YEAR	TOTAL MTO ASSISTANCE	TOTAL LOCAL CONTRIBUTION	LEVEL OF MTO SUPPORT
75	273,641	234,443	53.9%
76	270,082	244,544	52.5%
77	312,938	272,048	53.5%
78	333,053	295,084	53.0%
79	356,792	308,808	53.6%
80	391,485	337,337	53.7%
81	421,901	367,919	53.4%
82	453,678	418,797	51.9%
83	464,892	431,148	51.9%
84	485,357	459,854	51.3%
85	509,627	520,529	49.5%
86	543,414	541,334	50.1%
87	592,580	599,662	49.9%
88	636,045	680,644	48.3%

UPPER TIER PROGRAM

The Upper Tier Road System provides for the through movement of traffic at the County/Regional level and is based on published quantity standards.

The network of Upper Tier Roads is the supporting road system to the Provincial Highway System.

POSITION

The Upper Tier Road System is administered by the County and Regional Municipalities as follows:

- 27 Counties	12,557 km
- 12 Regional Municipalities	8,254 km

The figure **Upper Tier Road System** shows that since 1975 there has been a very slight increase in the road system from 19,700 km to 20,811 km in 1988. Generally, the road additions are the result of new roads in the urban areas of the Regions and the Counties taking over some township roads in the rural area to improve traffic service.

POLICY TARGET

The overall road system adequacy target is 75%.

Maintenance target is to provide sufficient funds to meet the present maintenance service levels.

UPPER TIER TRENDS

Table D - Upper Tier Road and Structure Needs shows that since 1980 the Now plus 1 to 5 Year needs have almost doubled from $1,661 Billion to $3,202 Billion in 1988. Since 1985 expenditures have not kept up with the rate of inflation.

Table E - Upper Tier Expenditures shows the historical expenditures for construction and maintenance and the split between Ministry and local share

UPPER TIER ROAD SYSTEM

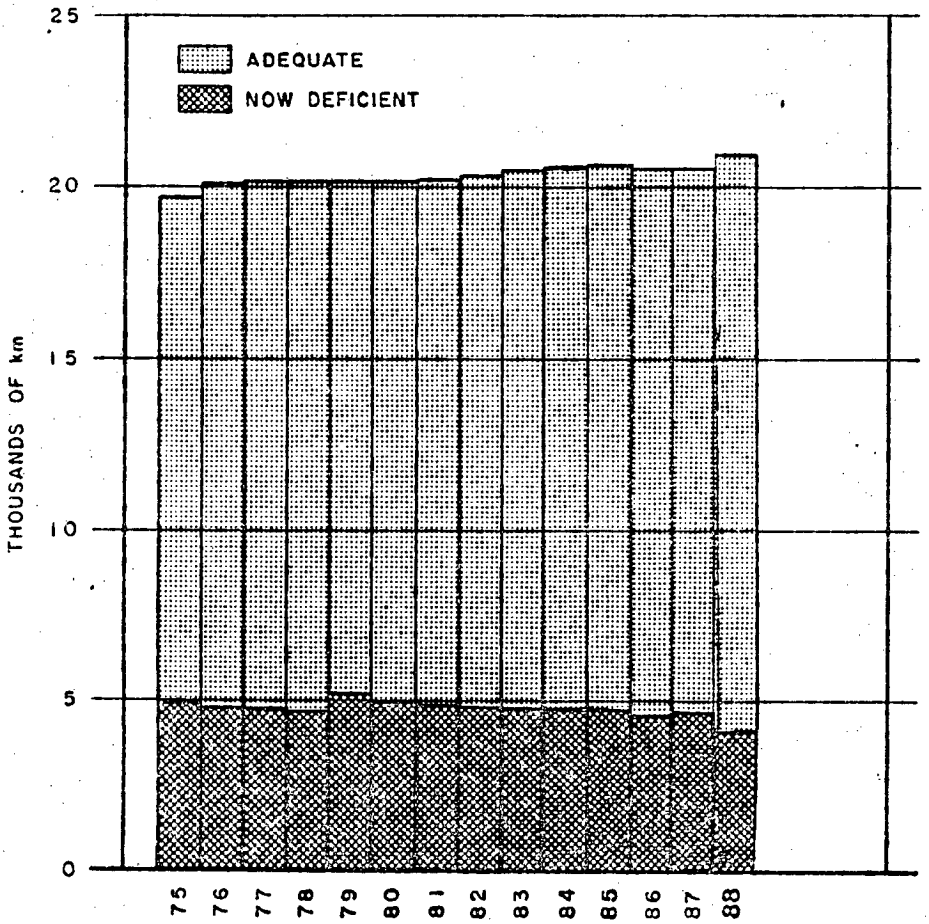


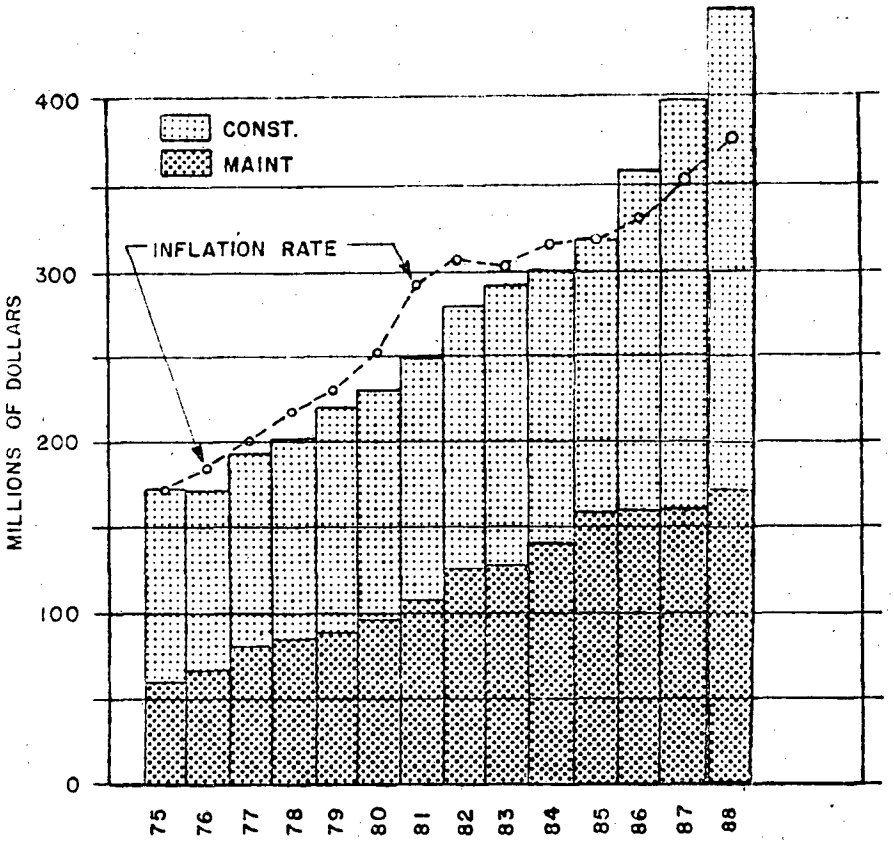
TABLE D - UPPER TIER ROAD AND STRUCTURE NEEDS ($MILLION)

NOW NEEDS	1980	1981	1982	1983	1984	1985	1986	1987	1988
ROADS	935	974	1,148	1,163	1,367	1,387	1,492	1,544	1,606
STRUCTURES	142	166	172	186	193	209	201	230	249
TOTAL	1,077	1,140	1,320	1,349	1,560	1,596	1,693	1,774	1,855
1 TO 5 YEAR NEEDS									
ROADS	532	626	720	758	977	988	1,008	1,076	1,266
STRUCTURES	52	53	61	60	74	73	75	76	81
TOTAL	584	679	781	818	1,051	1,061	1,083	1,152	1,347
NOW + 1 TO 5 YEAR NEEDS									
ROADS	1,467	1,600	1,868	1,921	2,344	2,375	2,500	2,620	2,872
STRUCTURES	194	219	233	246	267	282	276	306	330
TOTAL	1,661	1,819	2,101	2,167	2,611	2,657	2,776	2,926	3,202

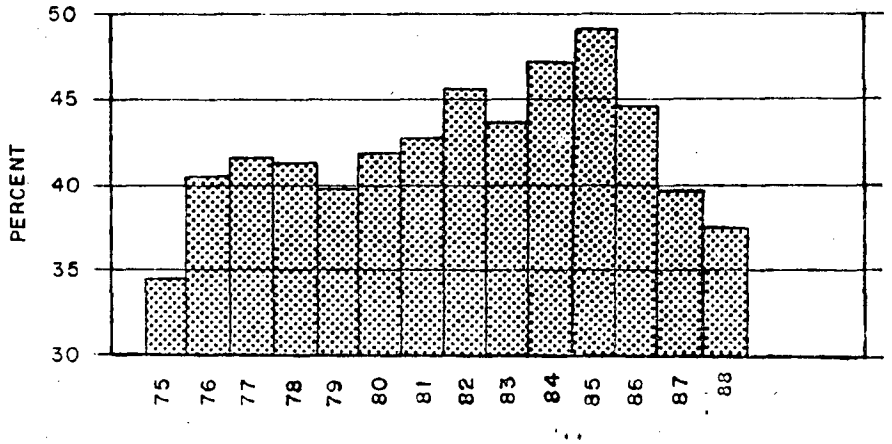
TABLE E - UPPER TIER EXPENDITURES - COUNTIES 7 REGIONS (INCLUDING METRO)

	CONSTRUCTION		MAINTENANCE	
	SUBSIDY	LOCAL	SUBSIDY	LOCAL
1975	64,593,334	47,403,435	35,036,216	24,049,453
1976	60,014,695	41,343,472	39,523,379	29,759,312
1977	63,473,105	48,788,518	49,180,207	30,761,014
1978	65,221,151	53,066,461	51,445,510	32,122,663
1979	75,270,562	57,692,439	53,571,597	34,578,270
1980	77,852,000	55,752,678	59,446,917	36,811,236
1981	81,707,000	61,001,000	66,727,000	40,251,000
1982	88,941,000	62,599,000	80,805,000	46,841,000
1983	94,827,000	69,424,000	80,586,000	47,128,000
1984	89,028,000	71,031,000	89,801,000	52,231,000
1985	93,091,000	71,612,000	89,563,000	67,896,600
1986	99,431,200	99,333,400	99,199,100	61,202,000
1987	121,878,800	117,500,800	97,093,300	60,691,700
1988	128,584,400	152,065,200	109,922,900	60,417,300

UPPER TIER EXPENDITURE
CONSTRUCTION & MAINTENANCE EXPENDITURES



PERCENT MAINTENANCE OF TOTAL EXPENDITURE



The percent local share of maintenance has been relatively constant at approximately 40%. However, the percent local share of construction has been increasing from 42% in 1975 to 54% in 1988. This change is a result of the municipal overexpenditure which is all contained in the construction category as the Ministry's subsidy meets the expenditure level for maintenance by transferring funds from construction.

The figure **Upper Tier Expenditures** shows that the total municipal expenditures for construction and maintenance have been slightly below the inflation level from 1975 to 1985. Since 1986, expenditures have continued to exceed inflation.

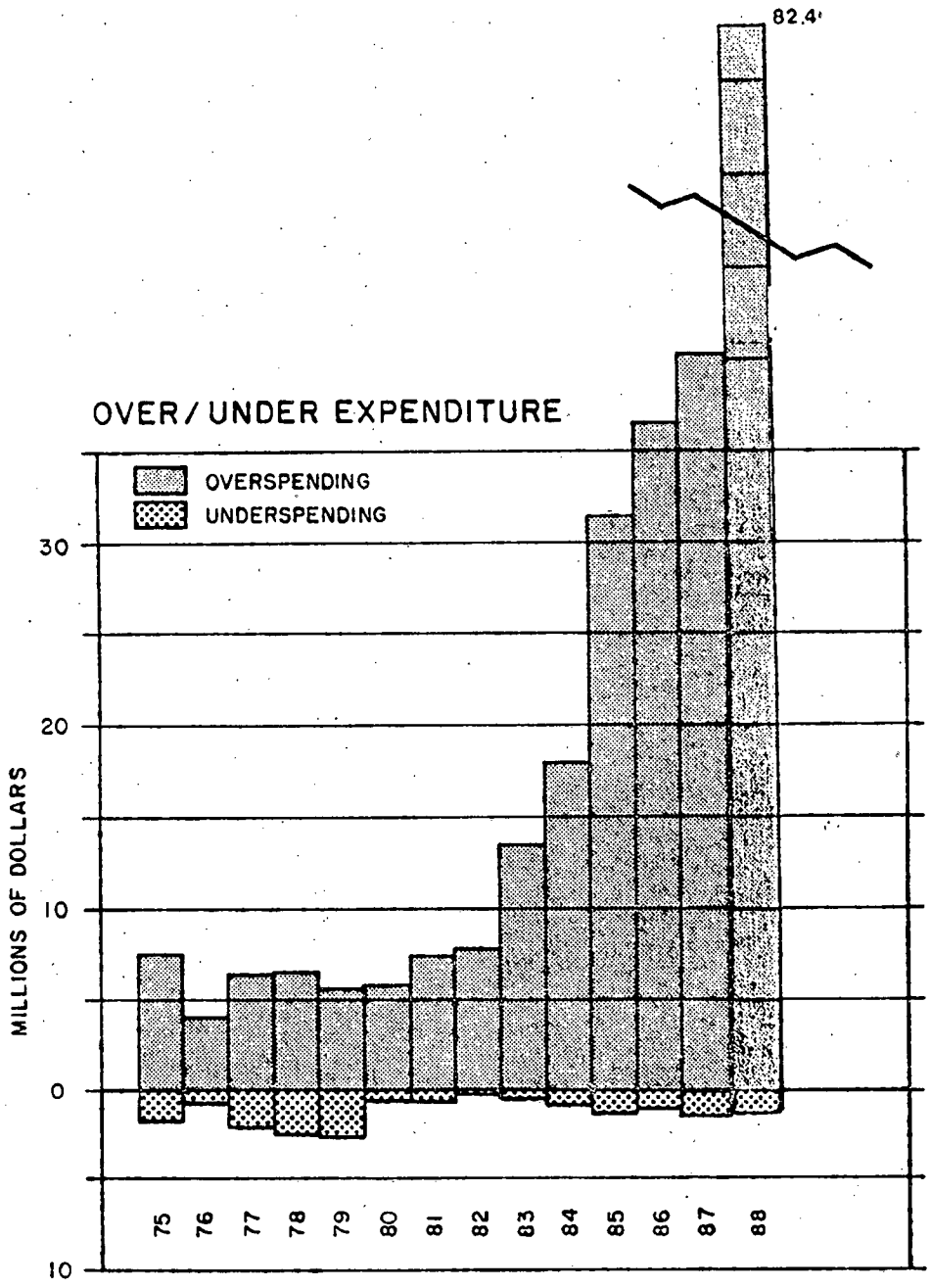
The figure also shows that the percent maintenance of the total expenditure dropped to 38% in 1988 which is a result of a higher Ministry subsidy to the Upper Tier program although there continues to be a high level of overexpenditure by the municipalities.

Upper Tier municipalities continue to spend large sums of unsubsidizable funds on their road systems. Overexpenditures have risen from a low of about $4 Million in 1976 to over $58 Million in 1988. assuming that most of these funds would be eligible for 91% subsidy, the Ministry's shortfall would be just over $53 Million. The overexpenditure trends are shown in the figure titled **Upper Tier Overexpenditure and MTO shortfall in subsidy.**

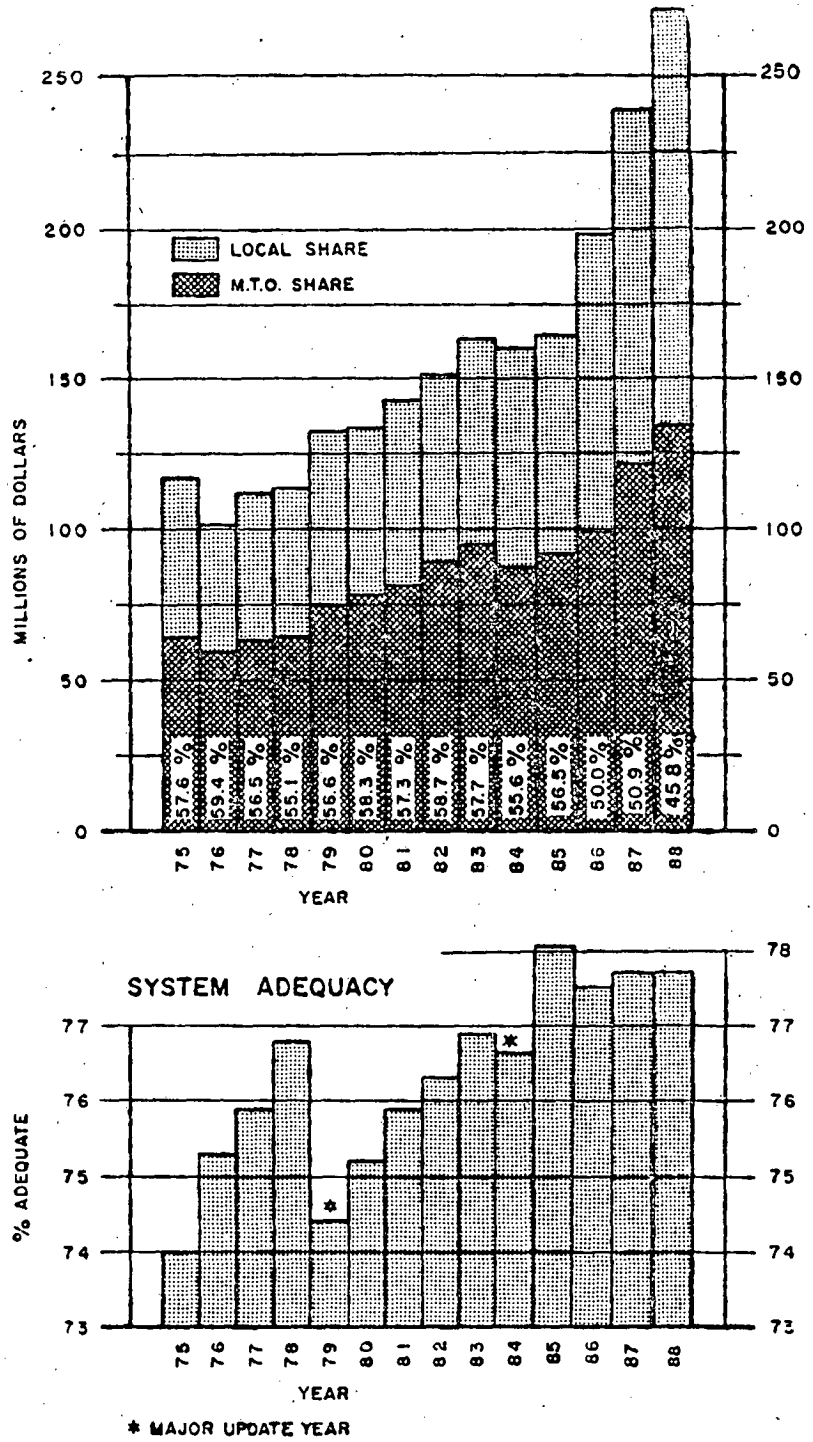
In recording the road expenditures, the overexpenditure is applied to construction. The figure **Upper Tier Program Construction Expenditures and % System Adequacy** shows that the Ministry support has been reducing from a higher of 59.4% in 1976 to 45.8% in 1988.

Based on the "Now" needs measures, the system adequacy shows an increase from 75% in 1975 to a high of 78% in 1985 to 77.7% in 1987. However, a look at the **Upper Tier Program - % System Adequacy - Now plus 1 to 5 Year** shows that the system adequacy peaked in 1979 at about 65.9% and has since continued to drop and, in 1988, was measured at 64.0%. Capital needs in Metropolitan Toronto, Ottawa-Carleton and Hamilton-Wentworth are high due to major projects that have been deferred over the years due to their high cost. these projects are now being given a high priority to ease the traffic congestion on the existing street systems. They will require long term funding commitments with special funding over the normal roads budget.

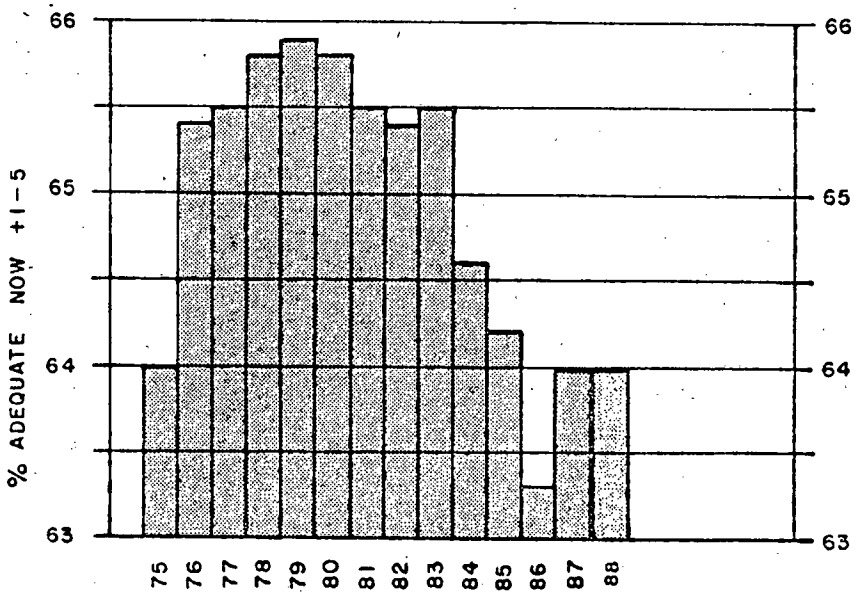
UPPER TIER OVEREXPENDITURE & MTO SHORTFALL IN SUBSIDY (PLUS METRO)



UPPER TIER PROGRAM
CONSTRUCTION EXPENDITURES AND % SYSTEM ADEQUATE
CONSTRUCTION EXPENDITURES & MTO SUBSIDY



UPPER TIER PROGRAM
% SYSTEM ADEQUATE NOW +1-5 YEAR



LARGE LOWER TIER PROGRAM

The 135 municipalities in this program represents all cities, the largest towns and urbanizing townships.

POLICY TARGETS

Since legal jurisdiction is not a good indicator for comparison purposes of a municipality's needs, the 135 municipalities have been placed in 4 groups relative to their size and development patterns. Each group has a separate system adequacy target as noted below in Table 'F'.

TABLE 'F' HISTORICAL SYSTEM ADEQUACY BY MOST APPROPRIATE JURISDICTION

				SYSTEM ADEQUACY				
	NO.OF MUNIC.	TOT. KM 1988	TARGET	1988	1987	1986	1985	1984
LARGE URBAN	9	8,530	90%	87.2%	86.6%	87.0%	88.1%	89.1%
MEDIUM URBAN	34	12,267	85%	80.3%	80.0%	80.9%	80.8%	82.1%
SMALL URBAN	42	4,707	75%	72.0%	71.5%	70.5%	70.5%	73.8%
URBAN & RURAL	50	15,618	65%	59.4%	59.8%	59.5%	61.2%	63.2%
TOTAL	135	41,122	79%	72.8%	74.5%	72.6%	72.6%	74.8%

LARGE LOWER TIER TRENDS

The Large Lower Tier road system is expanding at the rate of approximately 1.0% per year. In 1988 there were 456 km added to the road system. These are primarily local residential subdivisions in the rapidly expanding municipalities such as the Towns of Vaughan, Markham, Oakville, Pickering, Whitby and the cities of London, Mississauga, Brampton, Burlington, Nepean and Gloucester.

Figure - Road System and Percent System Adequacy shows graphically that the growth in the road system is in the Large and Medium Urban group and that since 1980, system adequacies in 2 groups have been declining and all groups are now significantly below the target adequacy levels. To bring all groups up to their target levels would require the improvement of 1,846 km of roads that are in the Now time period as follows:

o	Large Urban	243 km
o	Medium Urban	580 km
o	Small Urban	141 km
o	Urban & Rural	882 km
	Total	1,846 km

Road and structure needs continue to increase due to inflation and the lower system adequacy levels. The Now plus 1 to 5 Year needs are over $4.6 Billion. **Table G** shows the breakdown of needs.

A comparison of the increase in needs to the level of inflation is shown graphically in figure **Now plus 1 to 5 Year Road and Structure Construction Needs vs Inflation** clearly indicates the rapid rise in needs due the increase in identified needs.

There has been a significant shift in the expenditure levels from construction to maintenance. For example, in 1975 maintenance expenditures were 48.9% of the total expenditures on the municipal road system. In 1985, the percent of maintenance expenditures to total expenditures had risen to 59.8% and in 1988 stands at 54.7%.

This indicates that through the years of financial constraint municipalities continued to maintain their road system to their established level of service resulting in cutbacks in their construction spending. These expenditure trends are shown in **Table H** and figure **Large Lower Tier Expenditures.**

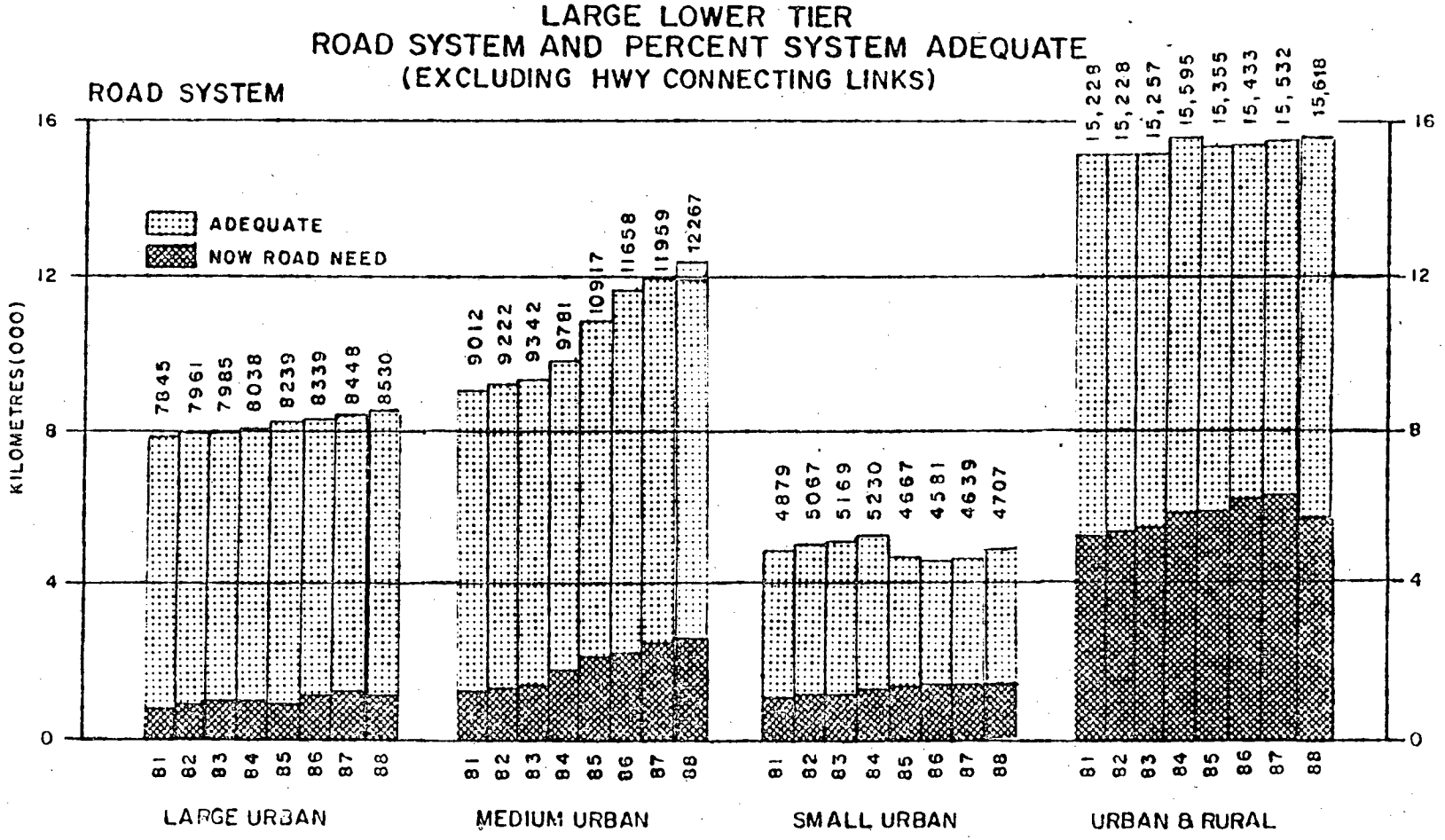

LARGE LOWER TIER
ROAD SYSTEM AND PERCENT SYSTEM ADEQUATE
(EXCLUDING HWY CONNECTING LINKS)
ROAD SYSTEM
KILOMETRES(000)
ADEQUATE
NOW ROAD NEED
16
12
8
4
0
7845
7961
7985
8038
8239
8339
8448
8530
9012
9222
9342
9781
10917
11658
11959
12267
4879
5067
5169
5230
4667
4581
4639
4707
15,229
15,228
15,257
15,595
15,355
15,433
15,532
15,618
81
82
83
84
85
86
87
88
LARGE URBAN
MEDIUM URBAN
SMALL URBAN
URBAN & RURAL

TABLE G - ROAD AND STRUCTURE NEEDS IN LARGE LOWER TIER ($ MILLIONS)

NOW NEEDS	* 1980 (130 MUN)	1981 (133 MUN)	1982 (134 MUN)	1983 (135 MUN)	1984 (135 MUN)	1985 (135 MUN)	1986 (135 MUN)	1987 (135 MUN)	1988 (135 MUN)
ROADS	1,341	1,545	1,900	2,032	2,090	2,447	2,574	2,683	2,830
STRUCTURES	129	183	213	228	223	232	239	258	279
TOTAL	1,470	1,728	2,113	2,260	2,313	2,679	2,813	2,942	3,109
1 TO 5 YEAR NEEDS									
ROADS	808	980	1,149	1,158	1,187	1,375	1,367	1,359	1,474
STRUCTURES	18	33	35	41	41	48	57	66	71
TOTAL	826	1,013	1,184	1,199	1,228	1,423	1,424	1,425	1,545
NOW PLUS 1 TO 5 YEAR NEEDS									
ROADS	2,149	2,525	3,049	3,190	3,277	3,822	3,941	4,042	4,304
STRUCTURES	147	216	248	269	264	280	298	324	350
TOTAL	2,296	2,741	3,297	3,459	3,541	4,102	4,239	4,366	4,654
6 TO 10 YEAR NEEDS									
ROADS	479	654	728	785	815	857	885	893	873
STRUCTURES	24	27	28	30	27	35	45	46	51
TOTAL	503	681	756	815	842	892	930	939	924

* MAJOR UPDATE YEAR ** EXISTING SYSTEM INCLUDING THE CONNECTING LINK PART 10 COSTS

LARGE LOWER TIER
NOW +1-5 YEAR ROAD AND STRUCTURE CONSTRUCTION NEEDS VS INFLATION

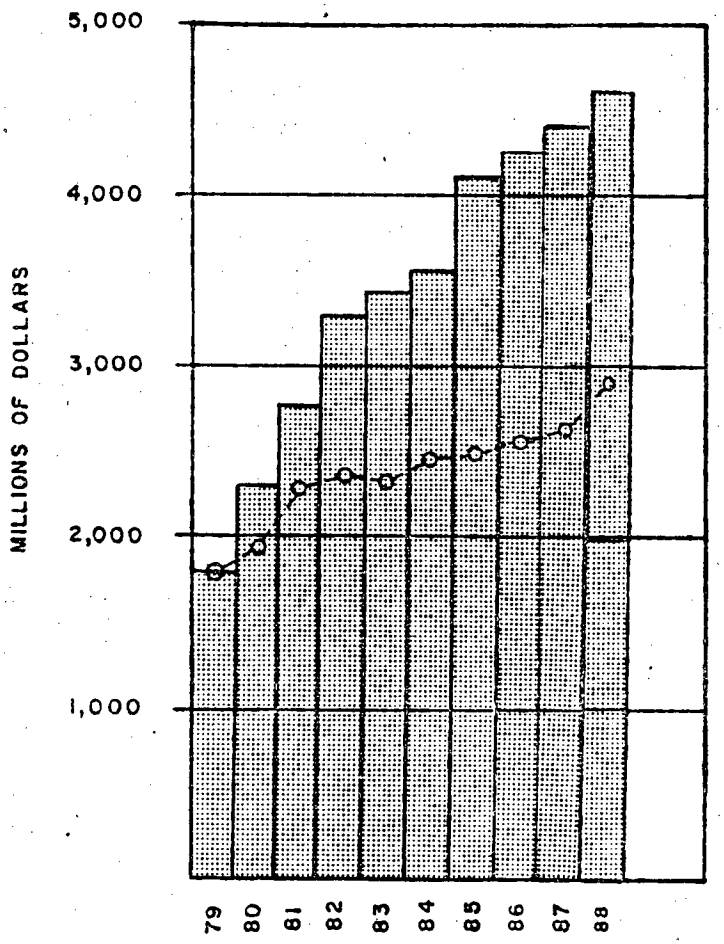


TABLE H - LARGE LOWER TIER EXPENDITURES

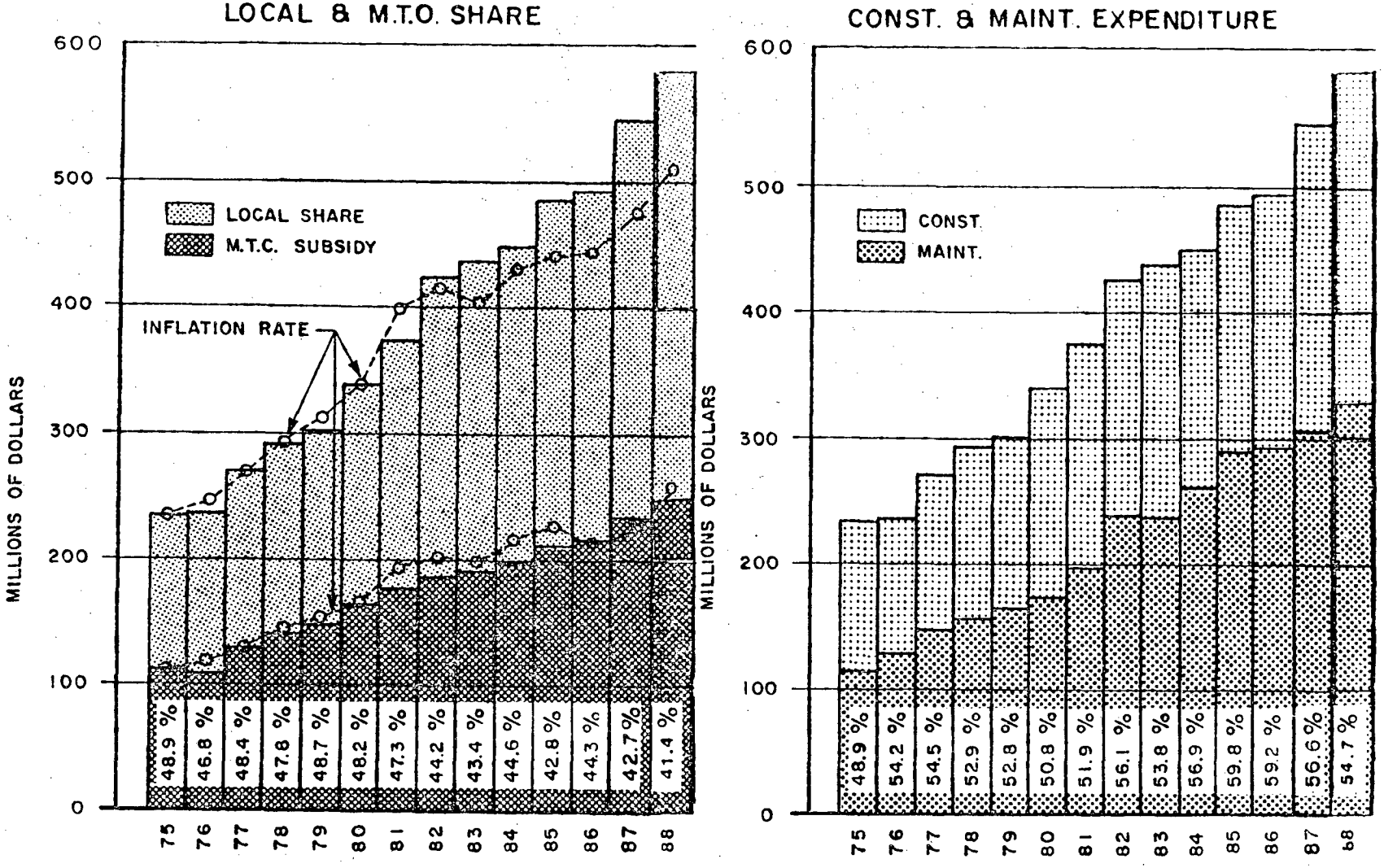
	CONSTRUCTION ($ 000)		MAINTENANCE ($000)	
	SUBSIDY	LOCAL	SUBSIDY	LOCAL
* 75	56,547	61,636	56,456	56,562
* 76	47,370	60,681	63,379	65,029
* 77	57,028	65,905	73,621	73,596
* 78	62,419	74,877	77,096	77,273
* 79	67,762	76,547	81,131	80,409
* 80	76,271	90,812	87,585	85,007
81	80,368	99,284	96,537	97,526
82	67,121	118,184	119,351	117,693
83	70,896	130,817	118,468	116,156
84	69,438	122,574	129,633	124,080
85	61,676	135,086	147,716	144,957
86	70,509	130,764	148,381	144,140
87	77,584	161,022	153,655	149,682
88	81,399	189,092	165,904	161,061

* Construction and maintenance breakdown estimated.

More municipalities are overspending their allocations to a greater amount due to provincial constraints resulting in the MTO share dropping from 48.9% in 1975 to 41.4% in 1988.

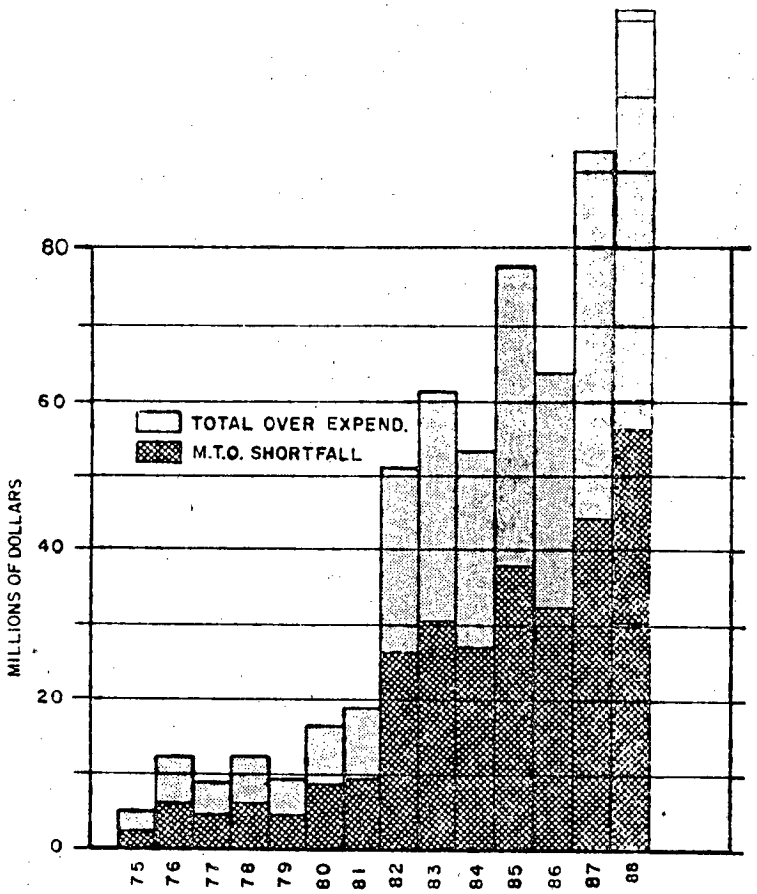
Overexpenditures by municipalities is a reflection of their concern of the deterioration of the municipal roads systems. Even with increased municipal funding in 1988 the overexpenditure continued to increase to $111 Million as shown in graphically in the figure **Overexpenditure and MTO Shortfall in Subsidy.** However, the percent Ministry shortfall in construction expenditures remains high at about 69.5% or $56 Million.

LARGE LOWER TIER EXPENDITURES

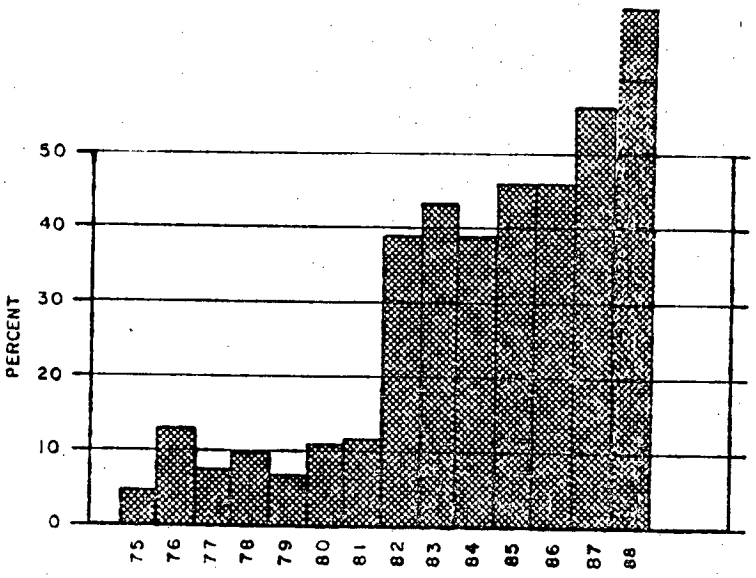


LARGE LOWER TIER
OVEREXPENDITURE AND MTO SHORTFALL IN SUBSIDY

TOTAL OVEREXPENDITURE & MTO SHORTFALL IN SUBSIDY



PERCENT MTO SHORTFALL IN CONSTRUCTION EXPENDITURES



SMALL LOWER TIER PROGRAM

POSITION

This program includes 711 municipalities not in the Upper Tier or Large Lower Tier Programs and have total of 63,346 km of ROADS. The figure **Small Lower Tier Road System** shows the historical size of the road system. The significant change from 1981 to 1982 was a result from a change in recording the road system which eliminated the "Unopened Road Allowance" from the statistics. The road kilometres shown since 1982 reflect roads that are actually opened to traffic, including summer maintained roads.

The small lower tier road system is relatively stable over the last 5 years. The following is a breakdown of jurisdictions within this group:

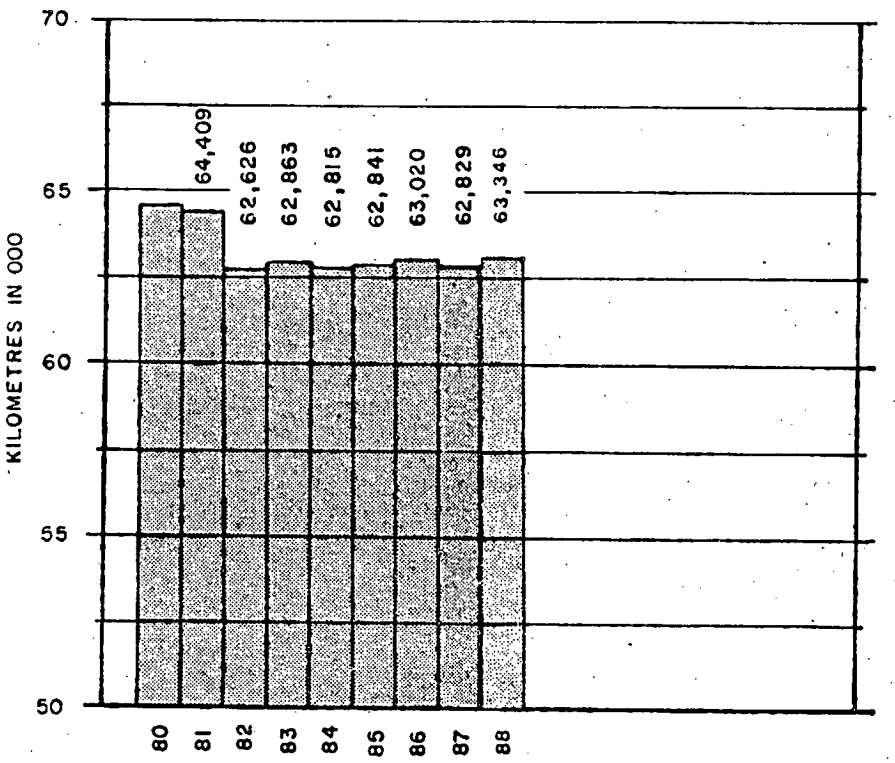
- 95 Towns
- 119 Villages
- 446 Townships
- 5 Improvements Districts
- 47 Indian Reserves

POLICY TARGET

There is no formal needs measure for Small Lower Tier municipalities.

These municipalities are primarily maintenance oriented except where bridge rehabilitation or bridge reconstruction is required. Construction funds are generally applied to bridge improvements and the purchase of road equipment.

SMALL LOWER TIER ROAD SYSTEM



Supported expenditure levels are established by MTO District staff within assigned budgets. The subsidy is based on the Ministry's Needs/Resource program which was implemented in 1983.

SMALL LOWER TIER TRENDS

Needs/Resources Subsidy System for townships has been in place since 1983 including subsidy administration processes and has achieved acceptance.

Total expenditures between 1980 and 1984 were below the inflation rate while 1985 to 1988 the total expenditures exceeded the inflation rate.

MCT share of total expenditure is following a similar pattern as shown in figure **Total expenditures for Construction and Maintenance.**

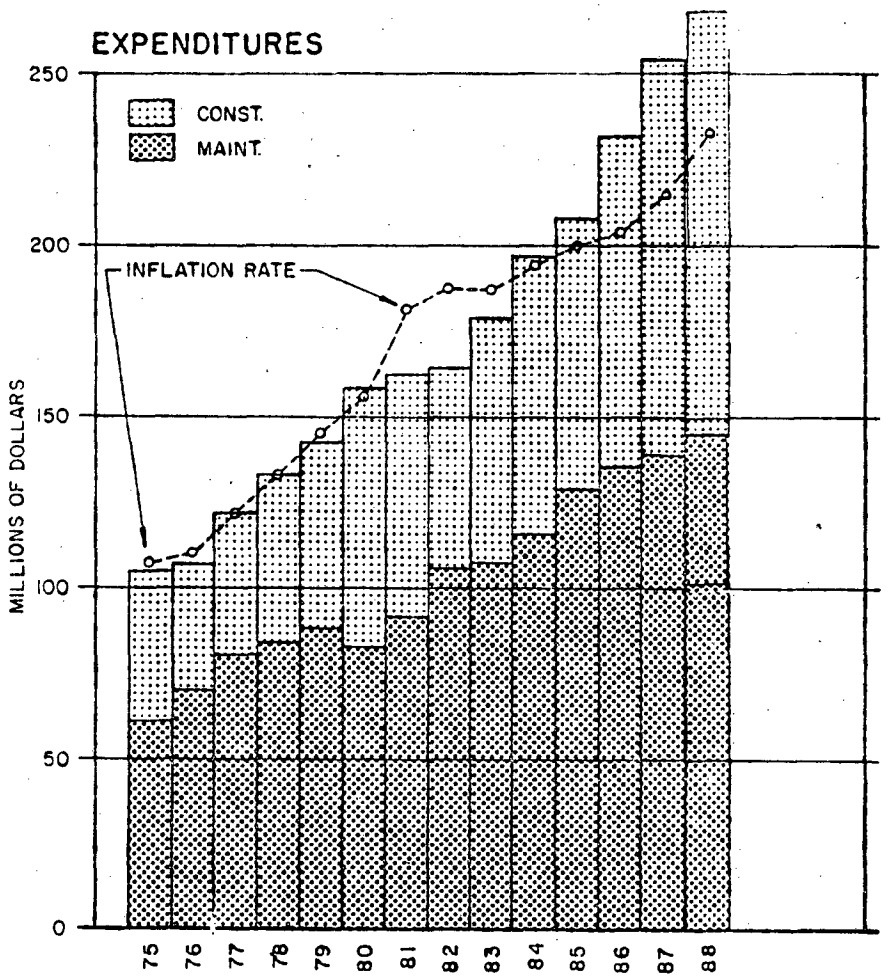
The proportion of maintenance expenditures has increased from 52.8% in 1975 base year to 55.2% in 1988 reflecting the need for municipalities to maintain the existing road system at the expense of either new construction or reconstruction.

Table 1 - Small Lower Tier Expenditures shows the historical expenditures for maintenance and construction and the shared cost to the municipalities and the Ministry.

The Ministry's share of the total expenditure has reduced from 57.7% in 1975 to 56.0% in 1988. This reduction is due in part to some overspending by municipalities and the increased assessment in some townships resulting in a lower tate of subsidy to support their approved road expenditures.

In general, the Ministry's subsidy to the Small Lower Tier municipalities has kept pace with inflation as shown in figure **Small Lower Tier Expenditures.**

SMALL LOWER TIER
TOTAL EXPENDITURES FOR CONSTRUCTION AND MAINTENANCE



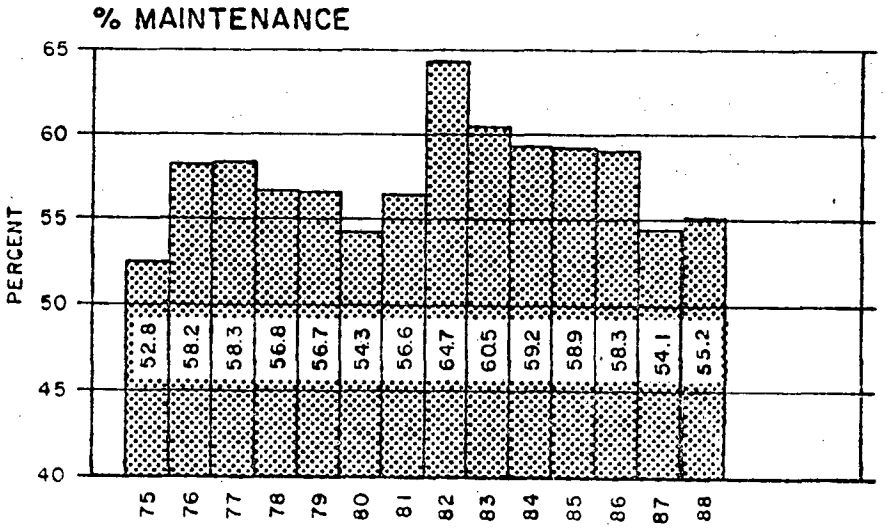
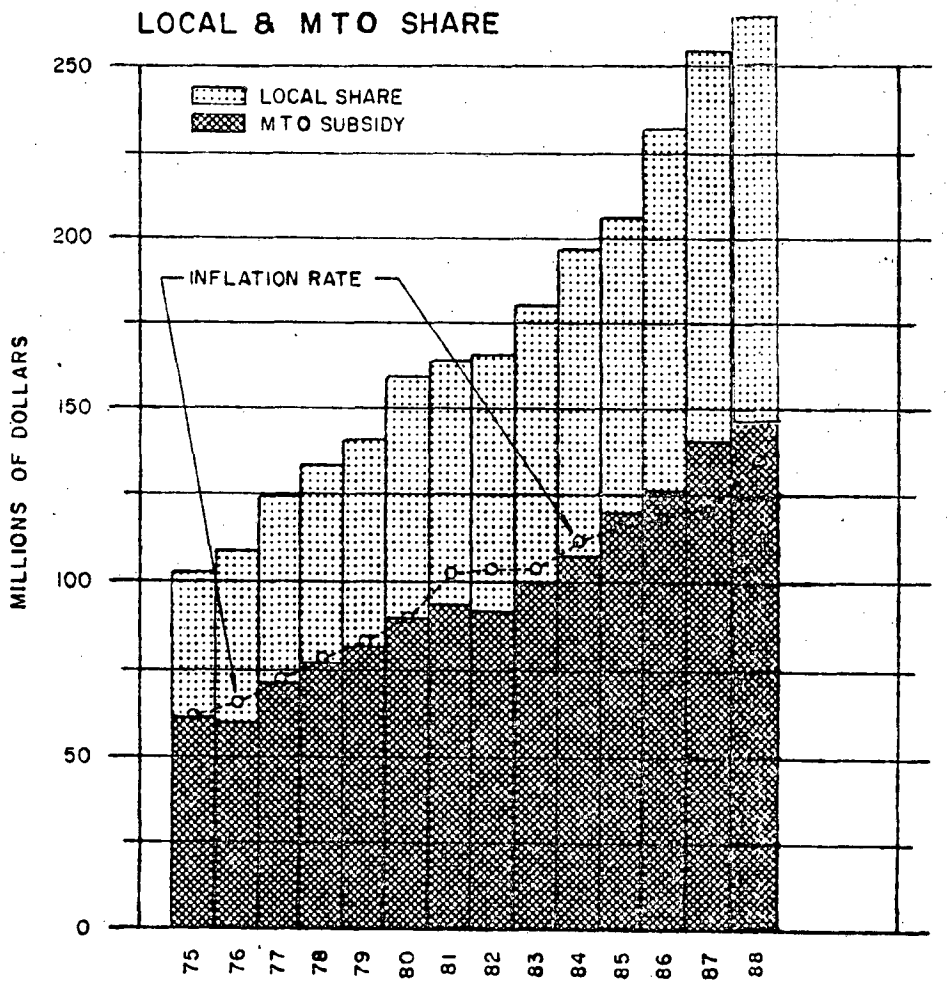


TABLE 1 - SMALL LOWER TIER EXPENDITURES

		CONSTRUCTION ($ 000)		MAINTENANCE ($ 000)	
		SUBSIDY	LOCAL	SUBSIDY	LOCAL
*	75	27,852	22,797	33,256	21,996
*	76	23,331	22,443	37,222	25,289
*	77	28,087	24,376	43,238	28,621
*	78	30,744	27,694	45,278	30,051
*	79	33,376	28,312	47,649	31,270
	80	38,669	33,867	51,232	35,089
	81	36,412	34,361	56,748	35,496
	82	28,573	29,743	63,010	43,737
	83	36,084	34,747	64,031	44,462
	84	37,058	43,438	70,398	46,501
	85	47,760	41,991	69,807	58,999
	86	45,607	51,029	80,287	54,966
	87	59,249	56,771	83,120	53,993
	88	60,176	59,452	89,586	58,152

* Construction and Maintenance breakdown estimated.

SMALL LOWER TIER EXPENDITURES



HIGHWAY CONNECTING LINK PROGRAM

DEFINITION

Highway connecting Links are the municipal road connections within a municipality of provincial highways passing through, connecting with other highways or the extension of a highway.

They are usually the main street through or near the downtown core, have a high profile with the public and, generally, have an above average cost per kilometre.

POSITION

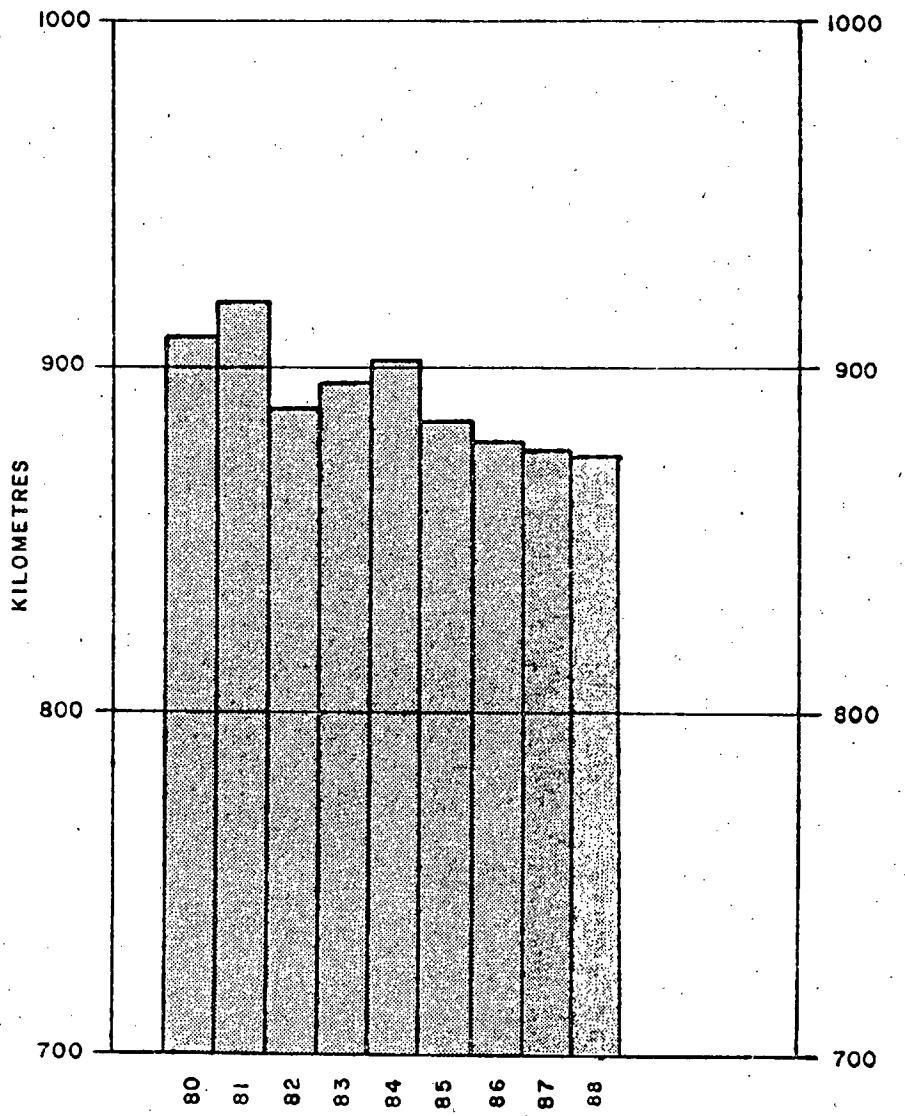
There are 862 km of HCL designations in 183 municipalities which is fewer than in 1980 and 1981 when there were about 920 kms as shown in figure **Highway Connecting Link Road Kilometres.**

The reduction in HCL kilometres is a result of Ministry policy to revoke HCL designations in regional municipalities when an identified road need is improved.

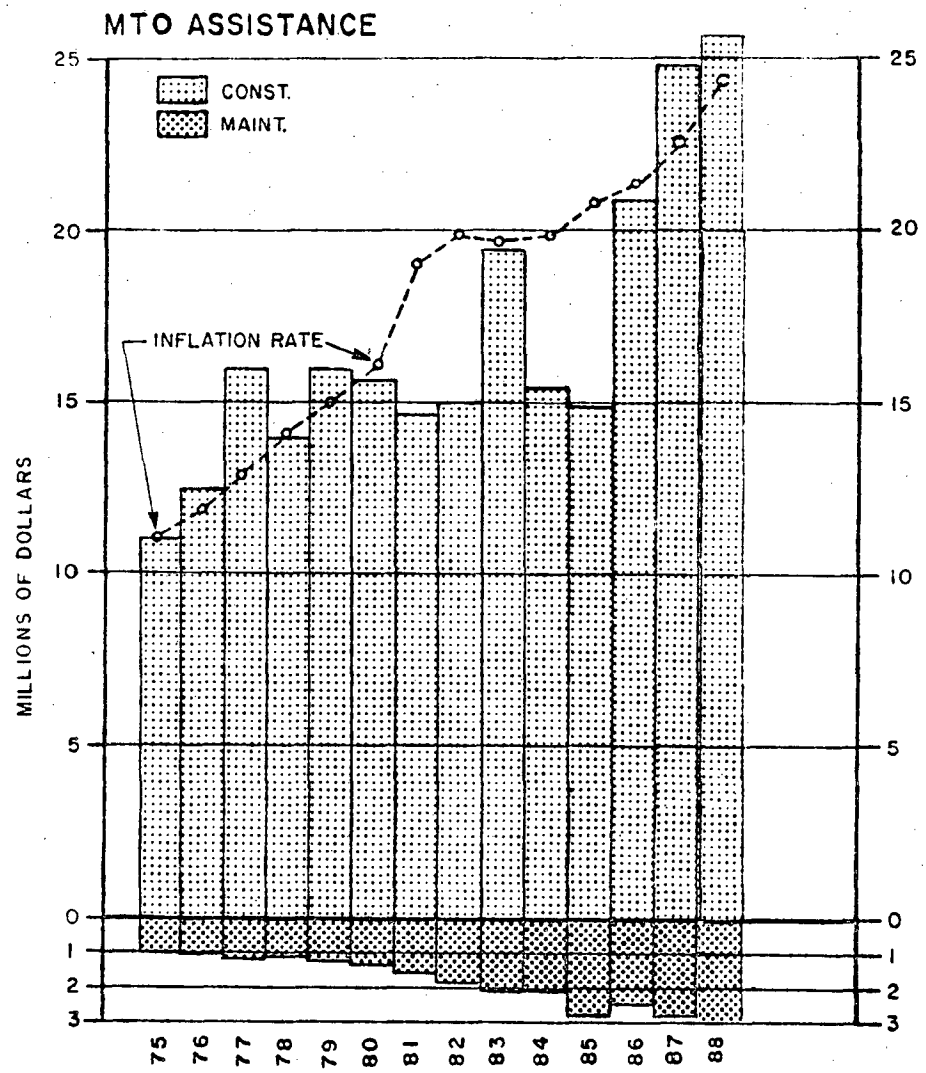
Construction funding was basically flat lined between 1977 and 1985 as shown in Figure **Highway Connecting Link Assistance and System Adequacy.** Consequently the system adequacy dropped from 90% in 1981 to 86%. However, from 1986 to 1988 funding was substantially increased and, undoubtedly will result in the system adequacy increasing.

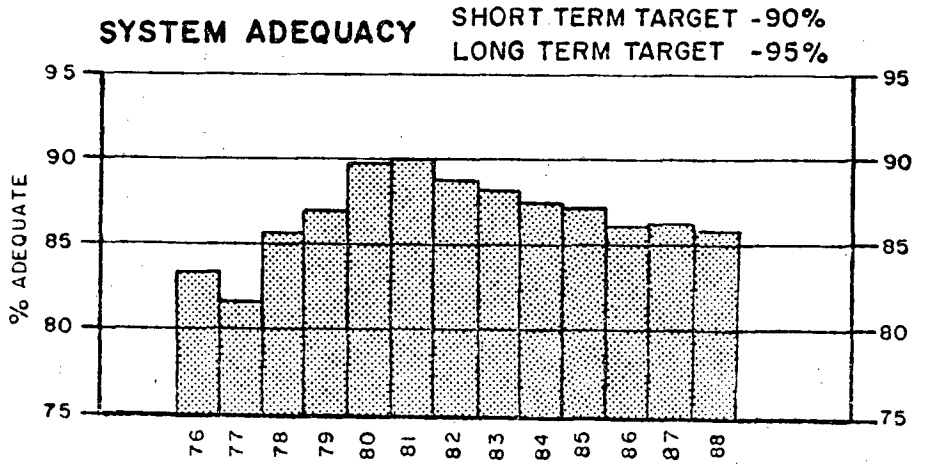
Urban Municipalities have 592 km of HCL at a system adequacy of 88.2% while the 271 km of HCL's in the smaller semi-urban and rural areas have a system adequancy of 81.8%

HIGHWAY CONNECTING LINK ROAD KILOMETRES



HIGHWAY CONNECTING LINK ASSISTANCE & SYSTEM ADEQUACY





Maintenance funding is set each year to meet the maintenance requirements based on the previous years expenditures.

In the smaller municipalities, most of the traffic on the HCL is highway traffic passing through the municipality.

In the larger municipalities, most of the traffic on the HCL is local traffic to the central business district and the abutting land use activity. Exceptions are where the HCL is the direct route to a Provincial boundary crossing.

POLICY TARGET

The short term, 4 years, target for system adequacy is 90%. The long term target is to 95% adequate, similar to the provincial highway system.

HIGHWAY CONNECTING LINK TRENDS

The basic construction budget did not increase between 1977 and 1985 and was at about the $15 Million level. In 1983, additional funding was provided late in the year and was used to pay some costs that would have normally been carried over to 1984.

The 1988 base construction budget was $21.9 Million with an additional $3.1 Million added from the Ontario Transportation Investment Initiative and $.475 Million from the Ministry of Northern Development and Mines. Actual subsidy was almost $26 Million.

To meet the established target levels of 90% in 4 years and 95% in 9 years it would require a base Ministry construction funding level of about $29,000,000.

Table J - Highway Connecting Link Expenditures shows the historical expenditures for both construction and maintenance. Due to the various subsidy rates the overall municipality's share has been estimated at 15% for construction and 5% for maintenance.

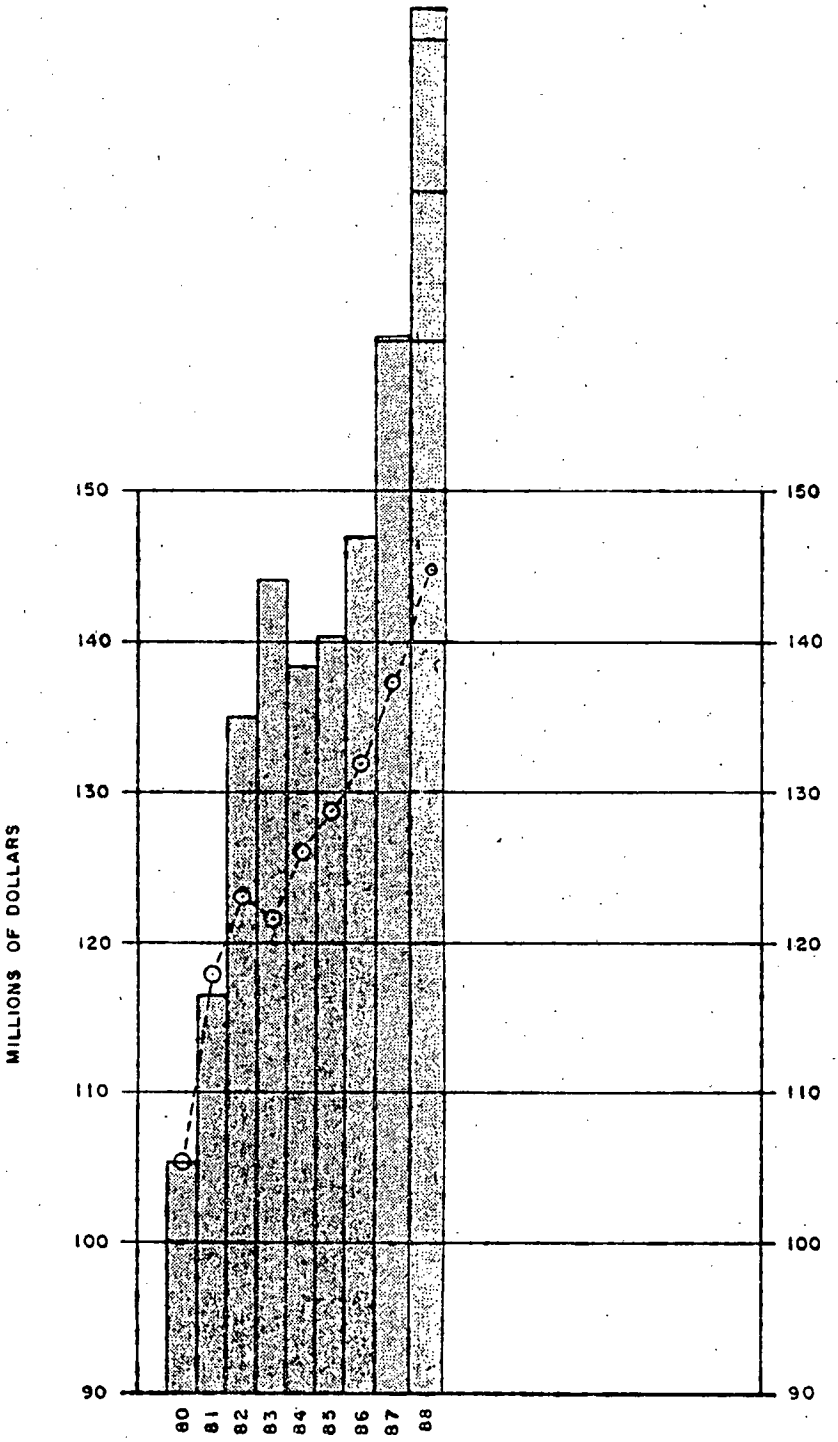
There were 112 projects of various sizes undertaken in 1987/88 with 42 of the projects being carried over from the previous years and 70 new projects started. Projects range from traffic signal installation and resurfacing to five lane reconstruction.

The figure **Now Plus 1 to 5 Year Road and Structure Construction Needs vs Inflation** shows that the needs are rising faster than inflation and is a result of the lower system adequacy level and the higher cost for these projects.

TABLE J - HIGHWAY CONNECTING LINK EXPENDITURES

	CONSTRUCTION		MAINTENANCE	
	M.T.O.	LOCAL EST. (15%)	M.T.O.	LOCAL EST. (5%)
75/76	11,041,700	1,948,000	1,000,000	52,000
76/77	12,416,200	2,191,000	1,014,500	53,000
77/78	16,000,300	2,823,000	1,165,100	61,000
78/79	14,050,200	2,479,000	1,121,800	58,800
79/80	16,012,000	2,824,000	1,220,300	63,000
80/81	15,583,900	2,750,000	1,415,500	75,000
81/82	14,687,000	2,591,000	1,614,900	85,000
82/83	15,084,000	2,662,000	1,903,000	100,000
83/84	19,479,000	3,437,000	2,094,000	110,000
84/85	15,442,000	2,725,000	2,155,000	113,000
85/86	14,969,000	2,245,000	2,722,000	136,000
86/87	20,859,000	3,129,000	2,474,000	124,000
87/88	24,849,900	3,727,485	2,635,600	131,780
88/89	25,803,100	3,870,465	2,930,700	146,535

HIGHWAY CONNECTING LINK
NOW + 1-5 YEAR ROAD AND STRUCTURE CONSTRUCTION NEEDS VS INFLATION



DEVELOPMENT ROAD PROGRAM

The Development Road Program was initiated many years ago to provide financial assistance for the upgrading of sub-standard roads to a standard warranted by their use, in towns in territorial districts and incorporated townships where the cost of the road improvements were beyond the municipality's financial capability.

POSITION

With the implementation of new Township Needs/Resource Grant System in 1983, the existing Development Road Program was being gradually reduced as most of these road improvements could be accommodated within the new system. However, there was still a need for Development Road Funding for the towns in territorial districts and to meet several long term commitments which require the expenditure of development road funds to 1989.

Table K and figure **Expenditures and Accomplishment** shows the funding trends since 1975. Most development road projects are subsidized at the rate of between 75% and 95% with the overall average of about 90%.

The 1988 supported expenditure was almost $6.6 Million providing financial assistance to 14 municipal projects.

TABLE K - DEVELOPMENT ROAD EXPENDITURES

	M.T.O. SUBSIDY	LOCAL SHARE ESTIMATED (10%)
1975/76	7,993,300	0
1976/77	6,377,600	0
1977/78	5,910,800	145,000
1978/79	5,955,400	290,000
1979/80	5,450,100	436,000
1980/81	6,306,800	620,000
1981/82	7,473,300	739,000
1982/83	7,405,000	740,000
1983/84	5,448,000	554,000
1984/85	4,224,000	469,000
1985/86	3,872,000	387,000
1986/87	3,346,100	335,000
1987/88	5,469,200	547,000
1988/89	6,620,400	662,040

DEVELOPMENT ROAD TRENDS

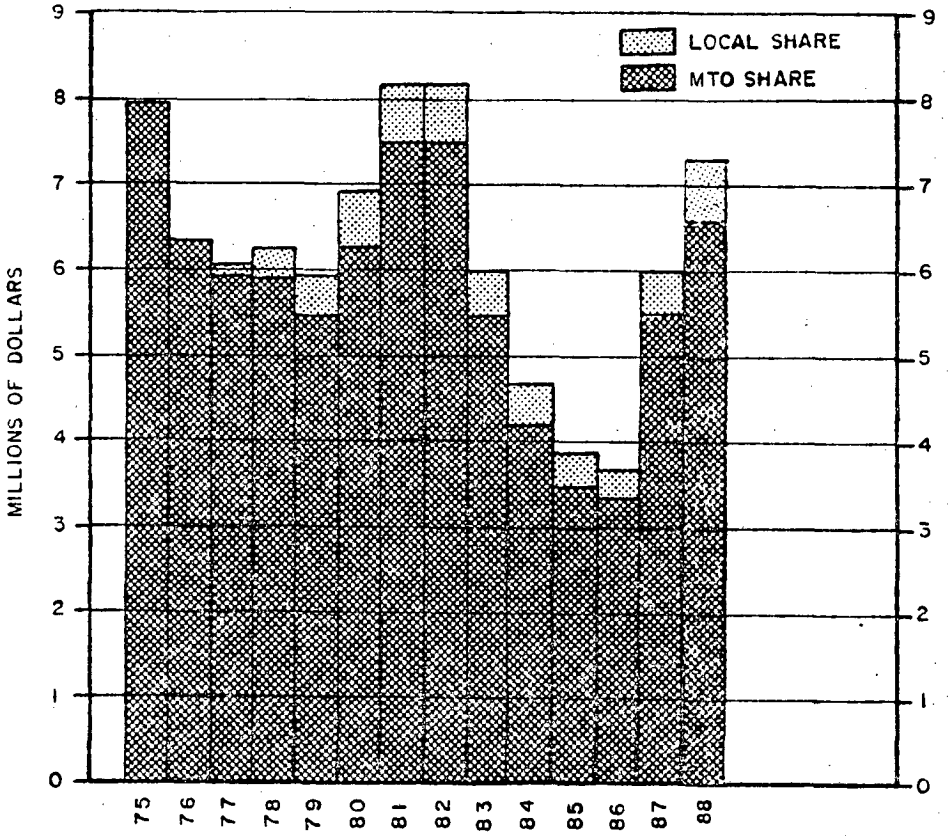
In 1987, amendments to the existing legislation were proposed that would allow Development Road assistance to Towns and Villages in Southern Ontario.

The Ministry revised its criteria for Development Road assistance to:

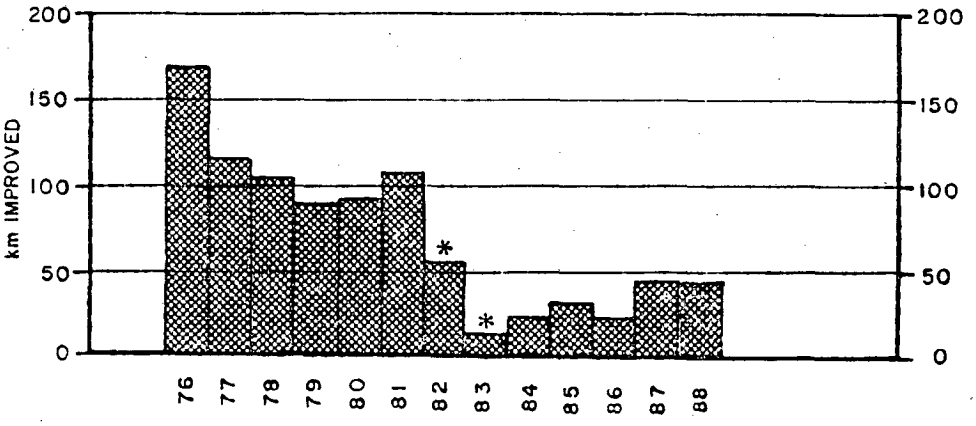
- Encourage economic growth of a municipality.
- Support a provincial initiative to encourage growth in the manufacturing, resource and tourism industries.

DEVELOPMENT ROAD PROGRAM
EXPENDITURES AND ACCOMPLISHMENT

EXPENDITURES



ACCOMPLISHMENT



* LARGE BRIDGE (TOWN OF BRACEBRIDGE)

UNINCORPORATED AREA PROGRAM

The Ministry provides financial assistance for the construction and maintenance of road in areas without municipal organizations.

POSITION

In 1988 there were 9,512 km of roads in:

- o 238 Local Roads Boards
- o 14 Statute Labour Boards
- o 25 Indian Reserves (approximate)
- o 120 Other groups (approximate)

Level of service provided is to "tolerable standards" only.

The majority of work could be considered as extraordinary maintenance.

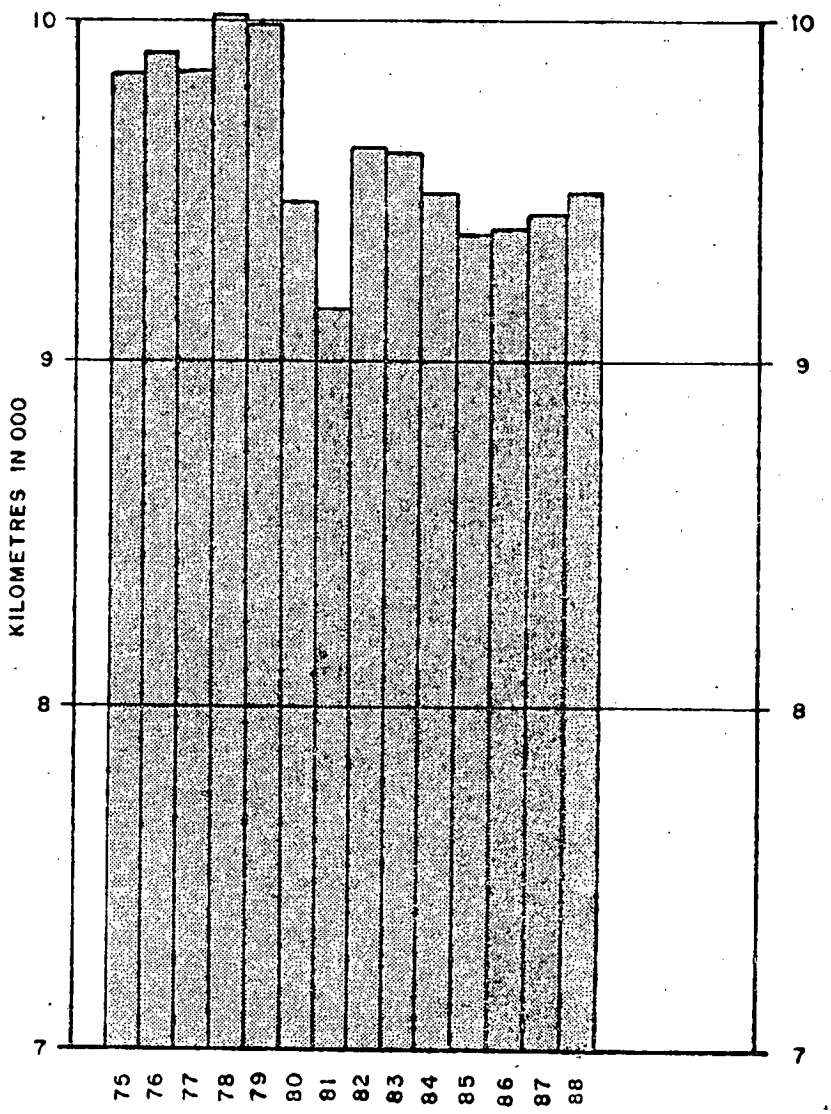
Construction funds are mainly directed towards structure improvements, removal of dangerous road conditions and upgrading of the principal (high volume) roads.

UNINCORPORATED AREA TRENDS

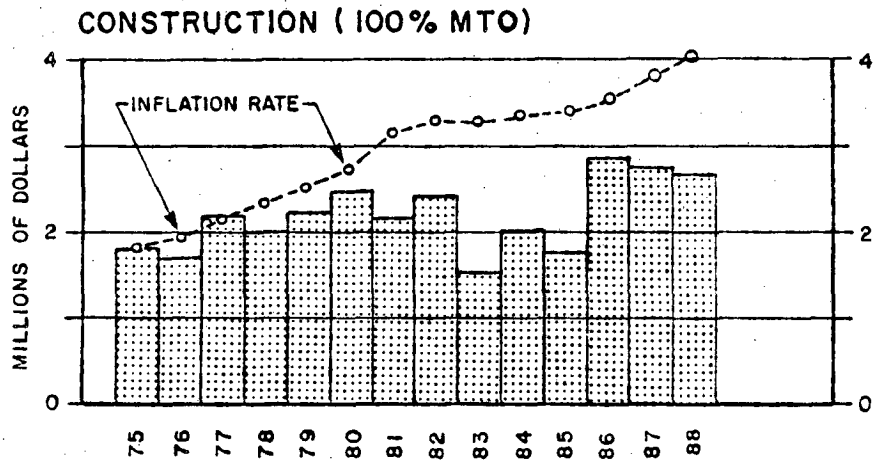
Over the past several years the road system has been relatively stable with 9,512 km in 1988. Historical measure of the road system is shown in figure **Unincorporated Areas Road System kilometres.**

Figure **Construction and Maintenance Expenditures and Table L** shows that since 1975 the annual expenditures and Ministry subsidy for maintenance has dept pace with inflation. However, construction expenditures, which are 100% Ministry costs, have been flat-lined at around the $2 Million level until 1986 when additional construction funds where provided to about $2.8 Million.

UNINCORPORATED AREAS ROAD SYSTEM KILOMETRES



UNINCORPORATED AREAS
CONSTRUCTION AND MAINTENANCE EXPENDITURES



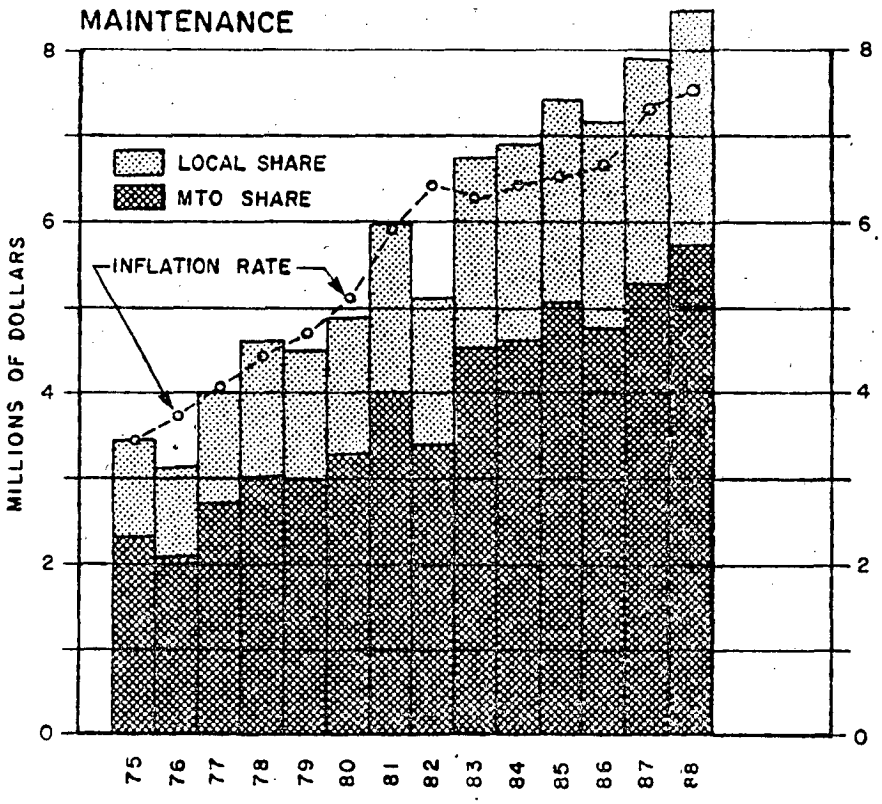


TABLE L - UNINCORPORATED AREAS EXPENDITURES

	CONSTRUCTION		MAINTENANCE	
	M.T.O.	LOCAL	M.T.O.	LOCAL EST. 33%
75/76	1,829,700	0	2,300,300	1,150,000
76/77	1,678,200	0	2,094,400	1,047,000
77/78	2,194,200	0	2,669,900	1,335,000
78/79	2,018,200	0	3,071,200	1,536,000
79/80	2,228,400	0	3,023,900	1,512,000
80/81	2,453,300	0	3,296,900	1,648,000
82/83	2,220,000	0	3,406,000	1,703,000
83/84	1,523,000	0	4,508,000	2,254,000
84/85	2,016,000	0	4,585,000	2,293,000
85/86	1,766,000	0	5,026,000	2,513,000
86/87	2,872,600	0	4,788,100	2,394,000
87/88	2,797,400	0	5,290,800	2,645,400
88/89	2,736,000	0	5,772,100	2,886,050

Additional construction funding was provided in 1988/89 in the amount of $2,736,000. The Unincorporated Areas can always spend additional construction funds to rehabilitate or replace bridges and culverts and to remove poor geometric conditions.

The level of accomplishment is shown in **Table M** and indicates the relative low cost per km for road improvements and the importance placed on improving bridges and culverts.

TABLE M - CONSTRUCTION ACCOMPLISHMENT

	KM IMPROVED	AVG. COST PER KILOMETRE	BRIDGES REPLACED	BRIDGES REPAIRED	CULVERT REPLACED
1979	184	6,700	11	25	15
1980	154	12,000	7	17	19
1981	103	13,575	7	10	22
1982	164	10,270	4	10	5
1983	91	11,240	4	7	5
1984	144	8,000	1	12	15
1985	162	4,700	3	26	22
1986	145	10,260	3	29	8
1987	148	15,780	1	20	3
1988	151	8,540	7	15	8

MUNICIPAL BRIDGES

The Ministry is concerned about the condition of municipal bridges and, more specifically, the safe load capacity.

Bridges in the Upper tier and Large Lower Tier road system are reviewed, if necessary, during the Annual Needs Update. They are all reviewed every 5 years during the major update.

Bridges located on the Small Lower Tier and Unincorporated Road Systems have generally not been reviewed since the bridge data was assembled in 1976/77.

POSITION

There are 8,637 municipal structures with a span of 6.0 metres or greater than have been inventoried. In 1988, 1,837 bridges were identified as less than desirable for load capacity of which 613 were rated below 10 tonnes.

Over the past 10 years, supplementary funds for the improvement of identified sub-standard bridges has been given a high priority.

The Ministry, in association with the Municipal Engineers Association, are presently reviewing the existing Bridge Inventory Manual in an effort to improve the methods of rating bridges and to bring the manual in line with the Ontario Bridge Design Code. This work will be completed in 1990.

The Ministry now provides municipalities with a listing of bridges that are sub-standard for load limit. Also provided is a list of bridge posting bylaws so that the municipality is aware of bridges that have been posted, those that should be posted and the dates that bylaws expire.

MUNICIPAL BRIDGES TRENDS

The number of municipal bridges increases each year and now stands at 8,637.

The number of sub-standard bridges for safe loading (17 tonnes and under) have decreased as shown in **Table N** and figure **Load Capacity Groupings.** However, there is concern that the bridges in the Small Lower Tier municipalities and in the Unincorporated Areas may be in poorer condition than noted on the bridge appriasal forms since they have not been reappraised since 1976/77.

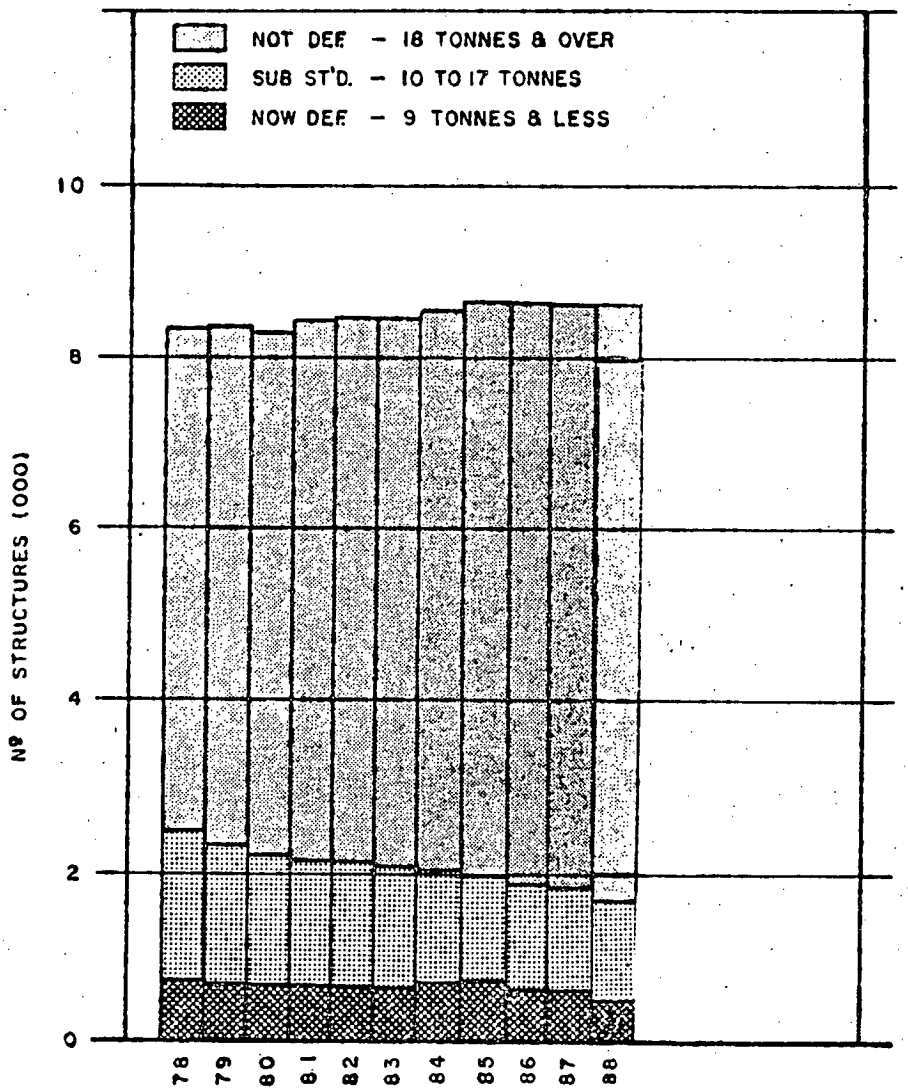
The Ministry continues to give a high priority for supplementary funding to improve identified sub-standard bridges.

Upon completion on the revised bridge and culvert inventory and appraisal manual, scheduled for 1990, it is the Ministry's intention to embark on a complete review of the condition of all municipal bridges beginning in 1991 in the Upper Tier and Large Lower Tier Municipalities and continuing in the early 1990's in the Small Lower Tier Municipalities and Unincorporated Areas.

TABLE N - CONDITION OF MUNICIPAL BRIDGES - 1986

1987 LOAD CAPACITY GROUPINGS (TONNES)				
	0-9	10-17	18 AND OVER	TOTAL
o UPPER TIER	101	233	2,536	2,860
o LARGE LOWER TIER	126	218	1,829	2,173
o TWPS., IMP. DIST. & IND. RESERVES	344	696	2,046	3,086
o SMALL TOWNS & VILLAGES	14	17	93	124
o HWY. CONN. LINKS	2	5	209	216
o UNINCORPORATED	26	65	87	178
1988 TOTALS	613	1,224	6,800	8,637
1987 TOTALS	613	1,224	6,800	8,637
1986 TOTALS	643	1,247	6,753	8,643
1985 TOTALS	654	1,328	6,658	8,640
1984 TOTALS	639	1,371	6,497	8,507
1983 TOTALS	624	1,428	6,410	8,462
1982 TOTALS	673	1,471	6,308	8,452
1981 TOTALS	673	1,475	6,277	8,425
1980 TOTALS	712	1,496	6,136	8,344
1979 TOTALS	704	1,630	6,050	8,384
1978 TOTALS	751	1,765	5,838	8,351

MUNICIPAL STRUCTURE LOAD CAPACITY GROUPINGS



ANNEXE 4

SUBSIDIES OR GRANTS AVAILABLE UNDER MUNICIPAL ROAD PROGRAMS

SUBSIDIES OR GRANTS AVAILABLE

UNDER

MUNICIPAL ROADS PROGRAMS

June 1985

Ministry of
Transportation and
Communications

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PROGRAM DESCRIPTION

The objective of all Municipal Roads Programs is to foster and encourage an adequate network of municipal roads and streets fully integrated with the Provincial Highway System to best serve the general travelling public in the Province of Ontario. This objective is met through financial assistance provided in a fair and equitable manner and through technical support by guidance and control procedures established over the period of the programs' development.

HISTORICAL DEVELOPMENT

These programs have a long history of development dating back to the turn of the century and amended over the years to better meet the needs and objectives of the rapidly growing transportation system. Key dates in the development of these programs are listed below.

1896 - Mr. A. W. Campbell appointed as Provincial Instructor of Roads to instruct municipal officials in methods of road construction and maintenance.

1901 - Under the Act for Improvement of Public Highways, counties given 33 1/3% subsidy on road construction.

1917 - Provincial Highway System established with counties contributing 30% of the cost, and cities contributing 30% of the cost of suburban highways.

1919 - Subsidy on county roads raised to 40% applicable to both construction and maintenance.

1920 - Subsidy for townships introduced at 20% for construction and maintenance.

1924 - 40% grant for county bridges.

1926 - County and suburban road grants raised to 50% and for townships to 30%.

1927 - Sharing introduced for construction on King's Highway Connecting Links:
- Villages - 75%
- Towns - 50%.

1929 - Sharing introduced for maintenance on King's Highway Connecting Links at the same rates.

1930 - Township road grants increased to 40%.

1935 - Sharing on King's Highway Connecting links revised:
- Towns and villages with population less than 2,500 - 100%
- Towns and villages with population over 2,500 - 50%.

1935 - Municipal contribution to King's Highways abolished.

1937 - Department of Northern Development dissolved with townships in Northern Ontario to be administered as in the South and grants for work in Unincorporated Areas handled under the forerunner of Part XII of the present Act.

1937 - Subsidies increased - townships 50% to 80% range.

1946 - Introduction of cost-sharing on roads designated as development roads in Townships, Counties and Improvement Districts, usually at 100%.

1947 - Subsidy in Urban Municipalities introduced:
- Towns and villages at 50% for roads and bridges
- Cities and separated towns at 33 1/3%
- Upper limit of all road grants established at 2 mills on taxable assessment.

1947 - Subsidy increased:
- bridges in counties at 80%
- bridges in townships at 80% to 100% range.

1949 - Upper limit of 2 mills removed but Cities and Separated Towns limited to 33 1/3%.

1955 - Sharing under agreement on King's Highway Connecting Links introduced for construction only in cities and separated towns at 50%.

1955 - Subsidy for bridges and culverts for towns and villages increased to 80%.

1958 - King's Highway Connecting Link routes to be designated by the Lieutenant Governor-in-Council, rather than the Minister.

1960 - Sharing on King's Highway Connecting Links revised:
- Towns and Villages with population less than 2,500 - 100%
- Towns and Villages with population over 2,500 - 75%
- Cities and separated towns - 50% (construction only).

1960 - Sharing under agreement at 75% introduced for preparation of reports "on the whole or any part of the transportation system".

1963 - King's Highway Connecting Links introduced in Townships under certain conditions and sharing under Connecting Link increased:
- Towns, villages and townships with population less than 2,500 - 100%
- Towns, villages and townships with population over 2,500 - 90%
- Cities and separated towns - 75% (construction only).

1963 - Township subsidy rates reviewed using standard expenditures per mile and desirable mill rate. Province acted on increases only - no decreases approved.

1964 - Funding program introduced in Counties using Department road funds for resource equalization and program incentive.

1965 - Introduction of development roads in Towns and Villages in Territorial Districts, usually at 100%.

1969 - First Regional Government with subsidy "upon consideration of the estimated money needs to implement the plan (approved by the Minister) and the financial capability of the municipality", at 50% to 80%.

1970 - Road and bridge subsidies in Separated Towns and Cities increased to 50%.

1973 - Subsidy to Counties, for roads and bridges, "upon consideration of the estimated money needs required to implement the plan (approved by the Minister) and the financial capability of the municipality", at 50% to 80% with no differentiation between bridges and roads. Development Road assistance to Counties discontinued.

1974 - Development of formula for guidance in allocating funds to lower tier municipalities.

1975 - Commenced program of Needs Studies in 126 large municipalities to establish rational method of allocating construction funds.

1976 - Development of formula for guidance in allocating maintenance funds to upper tier municipalities.

1976 - Municipal Bridge Inventory initiated and funded at 100% Ministry cost to identify critically deficient structures, the type and cost estimate to remove the deficiency.

1977 - Large Lower Tier Funding Program initiated in 114 municipalities with completed needs studies. Construction allocation based on the measured needs of the municipalities.

1978 - Urban Transportation Assistance Program (UTAP), a joint program of Federal, Provincial, Municipal and Railway funding to eliminate at-grade road and railway crossings (terminated in 1984).

1979 - County/Regional needs information converted to metric measurements and standards.

1980 - Large Lower Tier and Highway Connecting Link needs information converted to metric measurements and standards.

1981 - Municipal Bridge information system converted to metric measurements and standards.

1983 - Implementation of Township funding program based on "Basic and Special Needs" and Resource Index reflecting the Townships financial capability to carry out the work. The subsidy rate is between 50% and 100% with an overall maximum of 80% on road and 100% on bridge expenditures. The same funding program is proposed for implementation in urban municipalities.

LEGISLATIVE AUTHORITY

Legislative Authority for all Transportation programs is found in the Public Transportation and Highway Improvement Act, Chapter 421, RSO 1980, previously the Highway Improvement Act, with additional legislative guidance in the Statute Labour Act, the Local Roads Board Act and various individual Acts outlining the responsibilities of Regional, District, Metropolitan and Restructured County Municipalities. Under these Acts, subsidies are paid on the basis of expenditures made by municipalities on specific items defined as road improvements. These may include other

items specified by the Minister as road improvements and defined by policy of the Ministry.

ELIGIBILITY CRITERIA FOR DETERMINING PROVINCIAL ASSISTANCE

All municipalities and Indian Reserves are eligible for provincial assistance on public roads as are Local Roads Boards, Statute Labour Boards, groups or individuals in unincorporated areas of the Province.

Subsidies apply on all expenditures which are defined as road improvements in the legislation or by policy of the Ministry developed consistent with the intent of the legislation. These expenditures are supported by a certified statement from the Treasurer of the municipality and the engineer or road superintendent and are reviewed and approved by Ministry auditors to ensure expenditures claimed are in accordance with legislation and policy.

TOTAL SHAREABLE COST

Subsidies are limited to the total approved allocation for that calendar year or the appropriate share of the municipality's expenditure, whichever is the lesser.

Table "A" lists the grants paid under various Ministry Road programs over the last few years. It should be noted that although the grant (subsidy) figures are accurate, the total of local expenditures is on the assumption that the municipalities have reported all of their expenditures. It will, however, serve to provide an understanding of the size of the program.

In general, all road maintenance and re-construction costs are eligible for subsidy within the limits of the approved allocation. Construction of new roads is eligible only if it is an alternative to an existing alignment or is designated as a "Main Thoroughfare" as required by legislation.

Construction of roads for land development purposes (new subdivision) is

expressly exempted by legislation as is sanitary sewer construction. Watermain installations, sidewalks, the portion of storm sewers over 700 mm diameter are examples of items not eligible for subsidy by policy consistent with the intent of the legislation, which is interpreted to apply to road improvement only. Expenditures submitted by rural municipalities (Townships, Improvement Districts, Indian Reserves and Counties) may include actual capital and operating costs for road equipment, also overhead directly attributable to road improvements. Since work crews and equipment in urban municipalities (Cities, Towns, Villages and Regions) are assigned to operations other than roads, such as watermains, sanitary sewers, etc., equipment usage is charged at a common rental rate established by the Ministry. Overhead for simplication, is applied at 7% of the total subsidizable expenditure.

Contributions from the Federal Government or from other Provincial Ministries are deducted from the expenditures eligible for subsidy (except contributions by the Ontario Heritage Foundation) as required by legislation except by specific approval of the Minister. Such approval is given only in extenuating circumstances.

TABLE "A"

HISTORICAL EXPENDITURES AND SUBSIDY - ($000)

SUBSIDY PROGRAM	1980	1981	1982	1983	1984
Total Expenditure	726,283	784,724	863,412	895,753	945,210
Subsidy Payable	388,945	417,600	446,240	464,893	482,999
Subsidy eligible but not paid (no approved allocation)	20,721	28,997	47,700	**84,052	**94,847
Local Expenditure	337,338	367,124	417,172	430,860	462,211
CONNECTING LINK PROGRAM					
Grants Paid	16,999	16,302	16,987	21,573	17,596
Local Share (approx.)	2,550	2,445	2,762	3,547	3,105

DEVELOPMENT ROAD PROGRAM

Grants Paid	6,307	7,473	7,405	5,448	4,225
Local Share (approx.)	505	598	740	554	469

UNINCORPORATED AREAS PROGRAM

Total Grant	5,750	6,128	5,626	6,031	6,577
Local Expend.* (approx.)	1,180	1,995	1,703	2,254	2,134
Total Expend. (approx.)	6,930	8,123	7,329	8,285	8,711

NOTE: * Approximately 15% - 20% of Local Expenditure is spent by Statute Labour Boards with remaining local fund spent directly by the Ministry.

** Expenditures

PROVINCIAL RATE OF SUPPORT

Grant rates for various types of municipalities are controlled by legislation as follows:

A - Subsidy

	Roads	Bridges
Regions, Counties, District of Muskoka & Metro Toronto	50% to 80%	50% to 80%
Cities & Separated Towns	50%	50%
Towns and Villages	50%	80%
Twps., Improvement Districts, Indian Reserves & Boroughs	50% to 80%	50% to 100%

B - Development Road Agreements

Townships	up to 100%	up to 100%
Towns & Villages in Territorial Districts	up to 100%	up to 100%

C - King's Highway Connecting Link Agreements

Cities & Separated Towns - (Construction only)	75%	75%
Towns, Villages, Twps. & Imp. Districts (Construction & Maintenance)		
- Population up to 2,500	100%	100%
- Population greater than 2,500	90%	90%

The Act states that the Provincial Funds contributed are "not to exceed" the subsidy rates quoted. Ministry policy has been to contribute at the rate quoted.

D - Unincorporated Areas

Local Roads Boards	66 2/3% to 100%	66 2/3% to 100%
Statute Labour Boards	50% to 100%	50% to 100%
Other Groups	50% to 100%	50% to 100%

E - Traffic Operations Studies, Needs Studies and Transportation or Planning Studies

By agreement — Variable - 50% to 75%

A. SUBSIDY

(a) Upper Tier Municipalities

Needs Studies have been carried out by all Upper Tier Municipalities to identify those road and bridges which are deficient measured against established criteria and to cost the necessary improvements. This data is updated annually by the municipalities and is subject to scrutiny by the Ministry to ensure uniformity. Through these studies, the Ministry has a measure of the relative condition of the road systems and also the overall cost, in each, to remove the deficiencies. Each year, or over a

five-year period, the Ministry can get a measure of accomplishment in the road system. The kilometres of road improved or deteriorated can be established and thereby a measure of the trends in the condition of the system, overall or individual, improvement or decline, can be obtained and adjustments in the funding or spending levels can be triggered.

In the early years of the program, 1964-69, the Ministry's objective was to improve the Upper Tier Road system substantially, and by 1969 this objective had been met in most counties sufficiently to warrant the need for a review of the objective. As a result, the objective became to maintain the overall condition of the system at the then existing service level and yet provide an incentive to those counties with high construction needs and low local resources to improve their system. It was necessary to provide sufficient funds to eliminate deficiencies equivalent to those which were estimated to come into the system over a planning period, chosen to be five years. It was decided to provide funds to eliminate 9% of the current deficiencies each year within the planning period. Although the system is updated annually, a detailed major update is made at the end of the five-year planning period. When such an update was completed in 1974, it was established that the overall system had improved but marginally, and that, by establishing construction funds on this basis the program was, in fact, meeting the objective.

Between 1969 and 1979 Ministry funding was provided to eliminate 9% of the current deficiencies each year with the exception of 1976 when it was lowered to 8%. That decision was based on the funding of the 1974 update. The system had improved marginally and there were constraints on the Ministry budget. However, a review of the effect of the reduction in funding, the continuing effect of inflation and the availability of additional funds for 1977, combined to provide the decision to return the funding level to 9% of the value of the current deficiencies for 1977.

In 1980, following the 5-year major needs update, the funding level was reduced from 9% to 6% of the value of the current deficiencies. At the same time the program was amended to increase the needs value annually with an inflation factor. This change kept the overall expenditure at, relatively, the same level as the previous year. Subsequent updates in 1980 and 1981 have shown that the overall system improved marginally indicating that the 6% funding level was continuing to meet the program objectives.

In 1982 budget constraints imposed on the Ministry made it necessary to reduce the overall level of funding by 2%. As these budget constraints continued the funding level was further reduced to 4.6% in 1983 and to 4.4% in 1984.

The results of the 5-year major update completed in 1984 indicated that the funding level continued to meet program objectives and although the overall system was improving slightly, specific systems continued to decline. In order to reverse this trend, the overall funding level was reduced to 3.6% with additional funding provided for road improvements in low adequacy systems.

To determine the total spending objective for the municipality it is necessary to include funds for maintenance as well as construction. It is the Ministry's policy to provide funds for the full amount of maintenance needs in addition to the construction spending level to meet the Ministry's objective. Until 1976, the estimated annual expenditure for maintenance submitted by the municipalities was generally accepted by the Ministry in establishing the overall spending objective.

During 1976, with the co-operation of the Municipal Engineers Association, a method was developed for determining relative maintenance needs in each municipality.

Such factors as type of road, winter conditions, labour rates and material costs are applied to the road kilometres. A regression analysis was used to express historical expenditure per adjusted kilometre as a function of traffic volumes and per cent deficient roads. The average level of spending arrived at in this way is applied to each municipality's adjusted road kilometres, to produce an equitable level of maintenance spending. This value is compared with the municipality's requested spending level, their historic spending level and the total amount of subsidy funds available to ensure that changes from the historic level are transitional.

The total spending objective having thus been established, it becomes necessary to examine the municipalities' ability to pay its share.

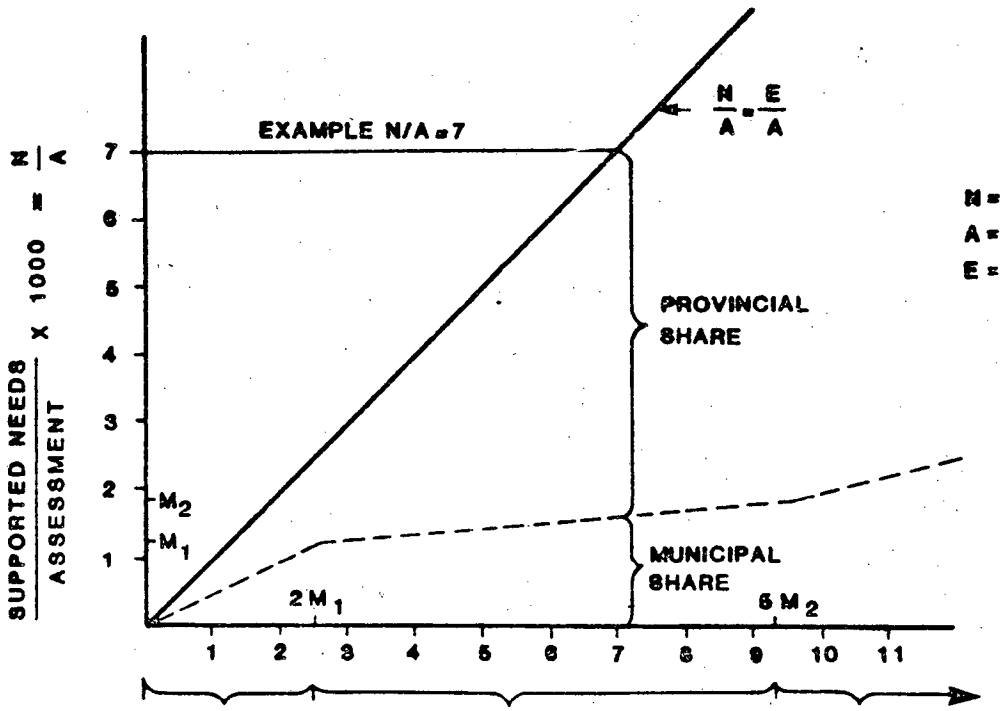
Total Equalized Assessment data obtained annually from the Ministry of Municipal Affairs and Housing is used to reflect the municipality's ability to pay. The assessment data considers taxable assessment plus equivalent assessments of other payments received, such as grants in-lieu of taxes. The assessments for the 1983 funding and subsequent years are based on the new equalization factors developed in 1979.

The formula used to establish the Ministry's share of the total spending objective or supported needs is illustrated in Figure 1.

If the actual expenditure is less than the supported needs level, the grant is calculated using the actual expenditure rather than the supported needs. If the actual expenditure is greater than the supported needs, the grant is calculated using the supported needs and any expenditure exceeding the supported needs is an addition to the Municipality's share. This is shown graphically in Figure 2.

FIGURE 1

UPPER TIER FINANCIAL MODEL



N = SUPPORTED NEEDS
A = ASSESSMENT
E = ACTUAL EXPENDITURE

$\frac{\text{PROV.SHARE}}{\text{MUN.SHARE}} = \frac{50}{50}$ SEE NOTE 1 BELOW $\frac{\text{PROV. SHARE}}{\text{MUN. SHARE}} = \frac{80}{20}$

$$\frac{\text{ACTUAL EXPENDITURE}}{\text{ASSESSMENT}} \times 1000 = \frac{E}{A}$$

NOTE: 1

$$\text{PROVINCIAL SHARE} = \left[1 - \frac{M_2 - M_1}{5M_2 - 2M_1} - \frac{3M_1 M_2}{\frac{N}{A}(5M_2 - 2M_1)}\right] \times \text{SUPPORTED NEEDS}$$

NOTE: 2

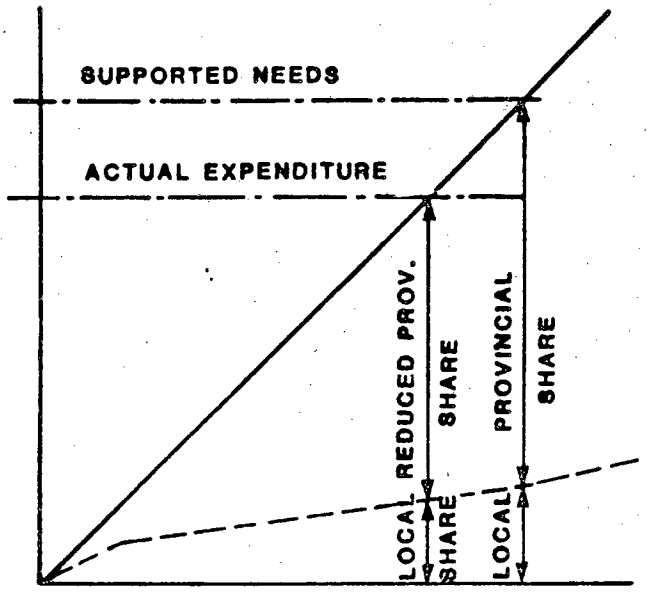
THE MILL RATE LIMITS HAVE BEEN SET AT $M_1 = 1.25$ AND $M_2 = 1.875$.
USING THESE LIMITS THE FORMULA FOR PROVINCIAL SHARE OF THE SUPPORTED NEEDS CAN BE SIMPLIFIED TO $0.90909 \frac{N}{1,000} - 1,02273 \frac{A}{1,000}$ OR 80%

WHERE N > E, PROVINCIAL SHARE IS CALCULATED USING $\frac{E}{A}$

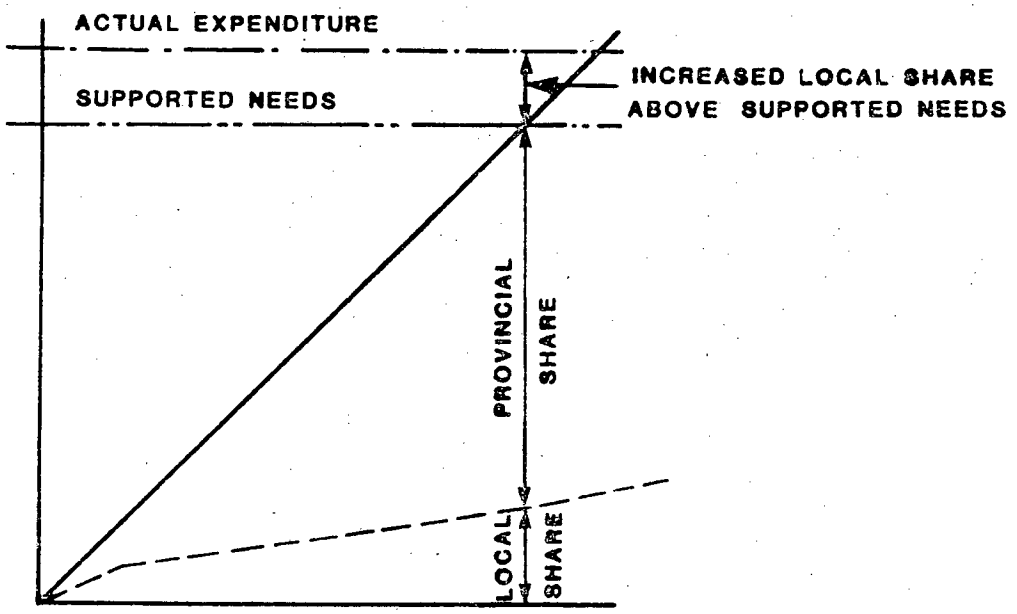
WHERE N < E, PROVINCIAL SHARE IS CALCULATED USING $\frac{N}{A}$.

FIGURE 3

EXAMPLE OF MINISTRY'S SHARE OF ACTUAL EXPENDITURES



A - ACTUAL EXPENDITURE LESS THAN SUPPORTED NEEDS



B - ACTUAL EXPENDITURE GREATER THAN SUPPORTED NEEDS

(b) Large Lower Tier Municipalities

In 1975, a program was initiated to measure the construction needs in the cities, major towns and large townships. There were 126 municipalities identified as candidates for inclusion in the program. Road needs studies were carried out and, in 1979, the construction allocation was established from the needs measurements for 114 municipalities. The program has been expanded and in 1985 included 135 municipalities.

The road needs information is updated annually. In 1980, all data was converted to metric measurements and standards. A detailed major update is underway in 1985.

The road needs information provides a relative measure of the condition of road systems. It also provides the type, cost and timing of the road improvement to remove the identified deficiencies.

A computer program establishes the construction allocation based on the value of the needs measurements, the adequacy of the road system and the previous years construction expenditures. The program is designed to achieve a specific result over the next 5 years.

Because the municipalities and/or the Ministry may not be able to accommodate large variations in the construction allocation, there is a constraint factor used to limit the maximum increase or decrease to the municipalities funding level.

(c) Small Lower Tier Municipalities

Historically, small lower tier municipalities were allocated subsidy funds for maintenance and construction to suit the annual program which they established, subject to overall provincial priority, governed primarily by availability of provincial funds.

In 1974 a methodology was developed whereby relative maintenance needs among the lower tier municipalities could be established by taking into account the kilometres of road by type, winter conditions, rural or urban subsidy arrangements, subsidy rates and level of service. The level of service factor is established by a regression analysis using the historic (last three years) spending level, population and percent urban kilometres as variables. The factors and regression analysis are updated annually to accommodate changes in the municipalities' road systems.

The same factors are used to establish a basic construction level for each municipality excluding those for winter conditions and urban/rural subsidy arrangements. This basic construction level is adjusted on an individual basis to accommodate special circumstances in individual municipalities and to provide for larger projects which could not be recognized or accommodated by any formulated process. This requires an intimate knowledge of the municipality's specific needs and priorities in order to establish a rational method of meeting requests within the limitations of the total Provincial funds available and considering the overall comparative Provincial priorities of these larger projects.

Until 1982 the Ministry used a system of fixed subsidy rates to determine township subsidy allocations and to calculate the subsidy payable on eligible township road and bridge expenditures. The subsidy rate on township bridge expenditures was 80% while, for road expenditures, each township had a specified fixed subsidy rate between 50% and 80%. There was a growing awareness that this subsidy rate system had lost much of its effectiveness. It did not assure equity.

The Special Advisory Committee to the Ministry recommended a "Needs/Resource Grant System" for townships which could be implemented under the existing provisions of the Public

Transportation and Highway Improvement Act. In 1981, the overall Needs/Resources Grant System was developed and approved by the Minister and announced at the OGRA convention in February, 1982. This system was introduced in 1983.

Needs/Resources Approach

The needs/resources method of determining the cost-sharing between the Ministry and townships considers two main components:

NEEDS and RESOURCES.

NEEDS are estimates of the funds necessary for an adequate plan of road improvements and maintenance by a township.

RESOURCES are measured in the township system as a RESOURCE INDEX which is a relative scale of ability of a township to pay for its needs, based on assessment.

The relationship between the needs and the resource index for a township determines its cost-sharing. The Ministry will share a larger proportion of a township's eligible road expenditures when the ratio between needs and resources is high.

The Needs/Resources Formula

The needs/resources formula for township grant allocations is:

MTC Share = 50% of supported needs
+ 25% of supported needs over 2 X resource index
+ 25% of supported needs over 4 X resource index

The supported needs are the amount of the accepted needs supported by the allocation.

The MTC share is subject to the limitation imposed by the Public

Transportation and Highway Improvement Act that subsidies must not exceed 80% for road work and 100% for bridge work. If this limitation is exceeded then the allocation is reduced to the maximum permissible amount.

Examination of the above formula reveals that there are, in effect, three different rates that apply to three distinct levels of supported needs. All townships get a rate of 50% up to 2 times the Resource Index. All supported needs between 2 and 4 times the Resource Index are effectively subject to a rate of 75% (50% + 25%). All needs over 4 times the resource index get a rate of 100% (50% + 25% + 25%). The average subsidy rate is simply the formula allocation divided by the supported needs (see Figure 3).

(d) Grant Limitation

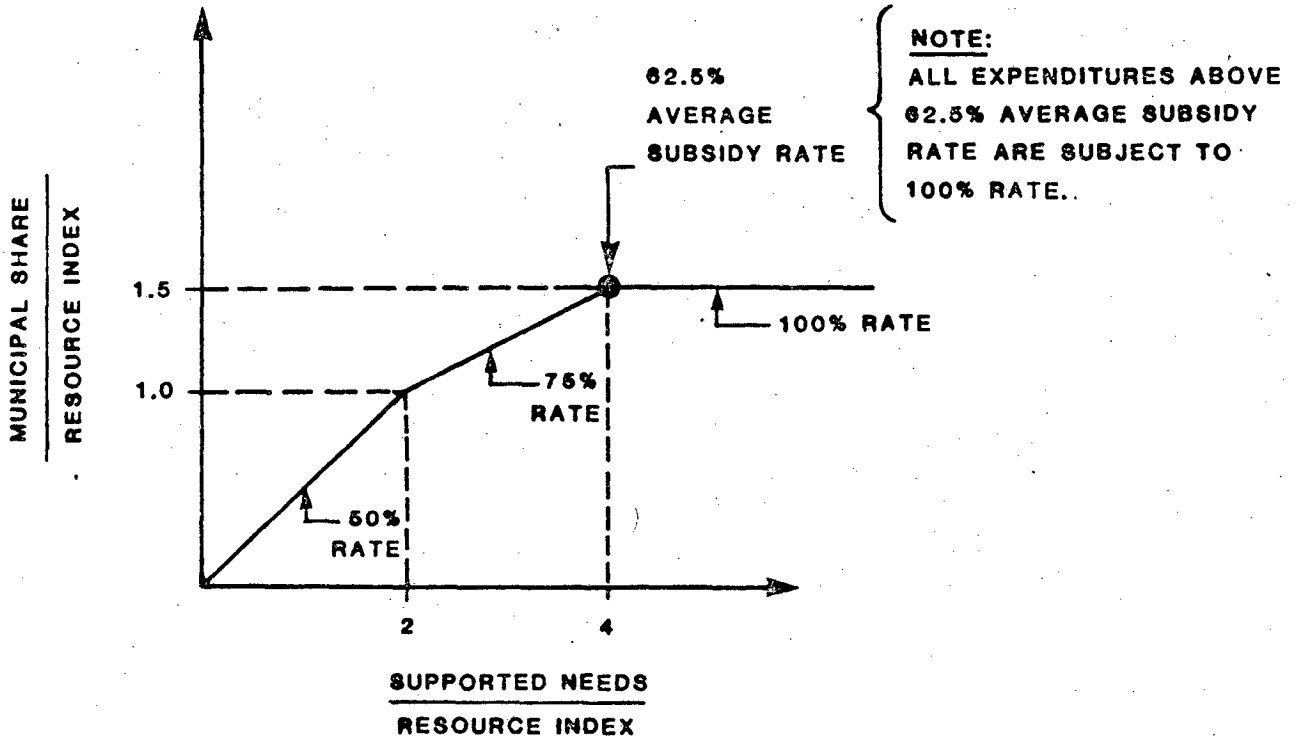
The allocations provided to municipalities in the manner previously described are the upper limits of grants. It should be noted that if a municipality spends less than the expenditure required to produce a grant equal to the allocation, the subsidy is limited to the amount calculated on the actual expenditure.

Over the years, the amount of "under-expenditure" by municipalities as a whole is relatively consistent and the amount of funds allocated is increased beyond the limit of the vote or total budget, with the knowledge and approval of Management Board, by the amount anticipated to be "underspent". In this manner, the unused funds are redistributed equitably at the earliest date possible to ensure that those municipalities who do require extra funds are given the full opportunity to make use of them.

It should also be noted that the Ministry allocates all maintenance funds and about 85% of the available capital funds in the normal subsidy allocation which is provided in the first week of January. The remaining capital funds and those made available to compensate for anticipated under-expenditures are allocated as supplementary subsidies.

FIGURE 3

GRAPHICAL REPRESENTATION OF THE NEEDS RESOURCES FORMULA



(e) Supplementary Subsidy

Supplementary allocations of subsidy are made in order to provide Ministry support for the special expenditures of municipalities. Special expenditures (or needs) are those larger non-recurring expenditures which are not supported by the municipality's basic allocation, such as the reconstruction of a bridge in a small municipality.

B. DEVELOPMENT ROAD

The program is used to address particular development needs, provincial initiatives and needs of a regional nature.

Development Roads may be designated in townships, and those towns and villages in the Territorial District, having regard to the requirements of traffic and the economic situation of the municipality. Requests for assistance by designation of a Development Road are assessed using the following criteria:

(1) The road for which assistance is requested must be critically deficient as defined by the Municipal Roads Needs Study Inventory Procedure.

(2) The economic benefit of improving the road.

(3) The economic burden imposed on the municipality by such a project.

Where special assistance is justified, a recommendation is submitted to the Minister for approval of up to 100% of the cost of the work deemed necessary. In most cases, designations are made for one project which may be staged over one or more years as funding is available in the program.

C. KING'S HIGHWAY CONNECTING LINK

Routes connecting a King's Highway or serving as an extension of the King's Highway in an urban municipality may be designated as a Connecting Link by the Lieutenant Governor-In-Council. Routes are chosen by the municipality, and where agreed, a recommendation is submitted by the Minister for the necessary Order-In-Council. It should be noted that designated connecting link routes remain under the jurisdiction of the local municipality.

Maintenance on the connecting links is carried out as agreed by either the municipality or the Ministry with costs shared in accordance with the connecting link agreement. Where the municipality or the Ministry considers improvement is necessary to the road, either party may present a proposal to the other and subject to the terms of the agreement, payment is then shared between the parties.

The Highway Connecting Link road and bridge information was converted to metric measurements and standards in 1980 and is updated annually. All roads were reviewed and recommended improvements were updated to current cost values.

D. UNINCORPORATED AREAS

The Minister may arrange with groups in unorganized areas to carry out maintenance and construction work on public roads and may contribute 50% to 100% as deemed requisite. In the case of Statute Labour Boards or miscellaneous groups, the contribution is usually 50% with a 100% contribution for bridges, culverts and major improvements. In the case of Local Roads Boards the basic rate is 66 2/3% up to 80% dependent on crown lot assessment and the local mill rate but specific approval may be given for up to 100% for any major improvements. The Boards or Groups contribute their share of the funds to the Ministry, and the work proposed by them is carried out by the Ministry with expenditures limited to the contributions plus the Ministry's

share. In the case of Statute Labour Boards, the Board may spend their own funds directly and the Ministry may match the expenditure if the funds were spent in a proper manner.

E. NEEDS STUDIES AND OTHER RELATED ROAD OR TRANSPORTATION SYSTEM MANAGEMENT STUDIES

The Minister and any municipality may enter into an agreement for the preparation of a report on the whole or any part of the transportation system required to meet the needs of the municipality. A technical advisory committee, including Ministry representation, usually directs the studies.

The costs of these studies are eligible for funding up to 75% under Part I - Section 20 of the Public Transportation and Highway Improvement Act.

F. FEDERAL TRANSPORTATION ASSISTANCE

The major source of federal funding was the Urban Transportation Assistance Program (UTAP) which was initiated in April 1978. This program allocated $82,646,000 of federal funds to Ontario for the five year term of the program.

UTAP was initiated with four objectives:

- to improve the efficiency of the urban transportation system;
- to improve standards or urban environmental quality and land use efficiency;
- to conserve energy;
- to improve safety at railway crossings.

Except for railway relocation studies, the Ontario Government decided that funds from this program would be applied entirely to grade separation projects (both provincial and municipal projects).

Projects were approved in principle by the Federal Government, following which a formal application was made to the CTC and the Minister of Transport.

The balance of payments made by a municipality after deduction of the federal grants were eligible for subsidy by this Ministry in the normal manner. Similarly, the municipality's net expenditure after deduction of federal grants from such programs as DREE were also eligible for subsidy in the normal manner.

Cost-sharing on this program included the Federal Government, the Railway companies, the Municipality and MTC. The cost-sharing arrangement varied with the size of the project.

This program ended on March 31, 1984. However, it is expected that a similar program will be established in the near future.

G. ONIP and CAIP

The Ontario Neighbourhood Improvement Program (ONIP) and Commercial Area Improvement Program (CAIP) are administered by the Ministry of Municipal Affairs and Housing. MTC may also provide some financial assistance as follows:

- When the grant provides 50% of the total cost, MTC will not provide further funding.

- When the grant provides less than 50% of the total cost, the grant plus the corresponding municipal share will be subtracted from the total cost and the balance of expenditures on eligible road work will be eligible for subsidy.

H. HERITAGE BRIDGES

The MTC recognizes that the cost of preservation of a heritage bridge may exceed the replacement cost. Such additional cost will be considered eligible for subsidy in whole or in part providing:

- an effective transportation facility results.
- all other possible sources of funding have been investigated by the municipality for contributions.

MUNICIPAL BRIDGE INFORMATION SYSTEM

In 1975, the Ministry was concerned about the number of municipal bridge failures. The Ministry initiated a study in 1976 to review all municipal bridges of 6.0 metres span and greater using the criteria in the Ministry's Inventory Manual - Municipal Roads and Structure.

The bridge inventory was carried out during 1977 and 1978. Although all types of deficiencies were identified the main concern was the "safe loading" deficiency.

For Lower Tier Municipalities, computer programs summarized the structural rating of the bridges into groupings, suggested by the Structural Office, as shown below.

0-6 Tonnes	These bridges are considered NOW DEFICIENT and should be improved as soon as possible. In the interim, appropriate load limits should be posted.
7-9 Tonnes	These bridges should be reviewed, as soon as possible, to determine more accurately the load capability for either improvement (0-6 Tonnes) or a more thorough investigation (10-17 Tonnes).

10-17 Tonnes	Although these bridges are not critically deficient they should have a thorough investigation in the near future to determine the type of improvement required to achieve an 18-Tonne capacity as required by the new Ontario Bridge Design Code.
18 Tonnes & Over	Adequate for highway loading.

Preliminary costs for improving these bridges to an adequate standard were developed. This is an on-going program and the Ministry will continue to give a high priority to bridges with load capacity deficiencies and encourage municipalities to up-grade their deficient bridges.

MUNICIPAL FINANCING OF SERVICES OR PROJECTS

The Ministry has no involvement in the municipality's method of financing road projects. If debentures are raised the OMB occasionally checks to ensure that the project is eligible for subsidy before their approval is given. Some municipalities may partially finance local road projects through the Local Improvement Act. Costs may be shared between municipalities such as boundary roads between neighbouring area municipalities, in which case each municipality's net expenditure for road purposes is eligible for subsidy.

MTC CASH FLOW

(a) Road and Bridge Subsidy

In May each year, 30% of the initial subsidy allocation provided to each municipality is paid automatically without claim. A further 30% of the initial subsidy allocation is paid in July.

During September to November of each year any municipality may submit an interim return which by declaration, without other support, entitles the municipality to subsidy on the expenditure to date in excess of the advance payments, with a holdback of 10% on the total subsidy due.

Additional interim returns and claims outside of this period are accepted where it can be demonstrated that unusually large payments are a hardship to the municipality.

After January 1st and up to mid-March of the subsequent year each municipality must file a "Return" for the prior year, and payment is made on the balance of the expenditures up to the limit imposed by the subsidy allocated.

Interim and Final Returns are checked by the Engineer and subsequently audited, with any necessary adjustments made to the claim in question or in the subsequent year where payment has been made.

The following is an example of the cash flow process for a municipality receiving 50% subsidy with a normal allocation of $100,000 and a supplementary allocation of $30,000.

Payment Date	
May - First advance payment 30% X $100,000 =	$30,000
July - Second advance payment 30% X $100,000 =	30,000
Interim return shows expenditure of $190,000 to October 31st.	
Subsidy at 50% =	95,000
Less 10% Holdback =	9,500
	85,500
Less Advance Payments	60,000
Dec. 1st - Interim subsidy payment =	25,500
Final return shows expenditure of $255,000 to December 31st	
Subsidy at 50% =	127,500
Less previous payments	85,500
Feb. 15th - Final subsidy payment =	$42,000
Total subsidy payment	$127,500

(b) Development Roads/King's Highway Connecting Link Reports on Transportation Systems

Claims may be submitted for expenditures to date, usually each month and payment is made on the basis of the agreement.

Claims are reviewed by the Engineer and are subject to final audit.

(c) Unincorporated Areas

Funds of a Board, group or individual are deposited with the Ministry and work is done, as agreed, up to the extent possible with such funds plus the Ministry's contribution. All expenditures are paid directly by the Ministry.

ANNEXE 5

A GUIDE TO SUBSIDY POLICY - MUNICIPAL ROAD PROGRAM

A GUIDE TO SUBSIDY POLICY MUNICIPAL ROADS PROGRAM

UNDER THE PUBLIC TRANSPORTATION AND HIGHWAY IMPROVEMENT ACT FOR URBAN AND RURAL MUNICIPALITIES

Ontario
Ministry of Transportation

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MUNICIPAL ROADS PROGRAM - A GUIDE TO SUBSIDY POLICY

Road improvement expenditures made by municipalities for labour, material and machinery, are eligible for subsidy under the Public Transportation and Highway Improvement Act, subject to the limitations of Ministry policy.

Conditions:

1. The Subsidy must be within the limit of the subsidy allocation approved for the year by the Minister of Transportation.

2. A detailed estimate showing how subsidy allocated by the Ministry is proposed to be spent must be submitted to the District Engineer not later than the 31st day of March. The extent of detail will be governed by the complexity of the program and by the direction of the District Engineer. The District Engineer is to be notified of any significant changes to the program during the year.

3. The submission of design criteria, plans, profiles and tender documents to the District Engineer is mandatory for construction projects, on which subsidy will be claimed where the current traffic volume exceeds 200 vpd, or where structure improvements or equipment purchases ("rural" municipalities only where non-MTO equipment specs are used) are involved, unless the District Engineer directs otherwise. Submission of the above information is not required for resurfacing projects subject to MTR Directive B-36.

4. While the submission of contract documents for design review is required, in accordance for 3.0 above, prior approval of contracts before award is not required for any normal or supplementary program project in accordance with Municipal Transportation Roads Directive A-1. However, a municipality may submit any tender for a formal subsidy eligibility assessment prior to advertising. A request for a formal subsidy assessment, prior to advertising, is recommended for all complex projects and those that have non-subsidizable components.

5. Labour includes direct salary and indirect labour. Indirect labour includes unemployment insurance, Worker's Compensation premiums, Worker's Compensation awards and adjudication fees, vacation allowance, statutory holiday pay, sick leave benefits, municipal contributions to pension plans, group life insurance premiums, group surgical-medical insurance premiums, Ontario Health Insurance premiums, group accident insurance premiums, group sickness insurance premiums, dental hearing and eye glass benefits and nursing services, and payment of half the value of accumulated sick credits on termination of an employee not in excess of one half of annual earnings rate. Municipalities on a "rural" road accounting system report all indirect labour costs (i.e. benefits, etc) as "Overhead". Municipalities on an "Urban" road

accounting system distribute both direct and indirect labour costs of all roads personnel other than overhead staff, directly to work activities and do not distinguish between direct and indirect labour.

6. Charges for municipally-owned equipment:

   (1) If the purchase price was subsidized, actual operating costs, or

   (2) If the purchase price was not subsidized, charges are limited to the current Ministry MRA-135 rates.

7. Charges for hired equipment (all requirements estimated to exceed 80 hours should be tendered):

   (1) Where tenders have not been called, for work exceeding 80 hours, subsidy eligibility is limited to the lesser of the actual rate paid or 80% of the Ministry's Form 27 rate.

   (2) Where tenders have been called, subsidy will be based on the low tender meeting the specifications.

8. The following items eligible for subsidy are subject to detailed Ministry policy statements. Reference should be made to the appropriate Ministry directives for definitive policy statements. A list of these Directives will be forwarded under separate cover by the District Engineer and the list will be updated periodically.

9. This Ministry will not subsidize any works in contravention of legislation designed to protect the environment. While this Ministry will provide assistance where possible, it is the responsibility of the municipality to comply with legislative requirements.

PART I - CONSTRUCTION

A. ROADS AND STREETS

Subject to the application of MTO policy the following items are eligible for subsidy:

1. Right-of-Way Acquisition

   (1) Appraisal, negotiation, record search, registration and legal fees or the costs of properly documented municipal staff.

   (2) Land purchase or expropriation costs. When purchasing land in excess of right-of-way requirements, a municipality will be subsidized based on either:

(a) the percentage of the total price that the area of the right-of-way bears to the total area acquired where the total area is uniform in value throughout, or

(b) the full purchase price less the amount received for any subsequent sale of surplus land, at market value, or

(c) the full purchase price less the current market value of surplus land as established by a fee appraiser. Determination of the subsidizable amount is subject to the approval of the District Engineer.

(3) Permanent or temporary easement costs.

(4) Legal survey costs and costs for the production of plans.

(5) Injurious affection payments approved by the District Engineer.

(6) Cost of expropriation hearings including amounts awarded to an owner by arbitration/land compensation board or appeal court. Court costs, hearings, exhibitions, transportation, witness fees, legal fees and interest paid to vendors.

(7) Fencing, if included in the land purchase agreement.

(8) Moving, demolishing and/or renovation of buildings, if included in the land purchase agreement.

(9) Cost of altering entrances, if included in the land purchase agreement.

(10) Replacement of existing facilities, i.e. sidewalks, hedges, etc., if included in the land purchase agreement.

(11) Cost of accommodating works of a government or private interest, if included in land purchase agreement.

(12) Outstanding taxes or Local Improvement Act charges, if included in the land purchase agreement.

(13) Advance payments to a solicitor "in trust" for a purchase or advance payments under Section 25 of Expropriation Act in accordance with confirming documentation.

(14) Leased land provided:
- lease exceeds 50 years
- annual cost less than 10% of current market value
- expropriation not possible
  and
- purchase negotiations have not been successful.

(15) Advertising.

2. Right-of-Way Preparation

(1) Tree removal.

(2) Clearing and grubbing.

(3) Demolition or removal of buildings.

(4) Removal of old works from the right-of-way, i.e. pavement, curb and gutter, sidewalks, manholes, catch basins, etc.

(5) Relocation and/or alteration of public utilities, subject to limitations of MTO policy.

(6) Relocation and/or alteration of other municipal services, i.e. meters, signals, etc. subject to limitations of MTO policy.

(7) Retaining walls supporting or protecting roadways.

(8) Construction and maintenance of detours and temporary accesses, including costs of temporary easements, if required.

(9) Alteration of entrances not included under A-1.

3. Sub-Grade Preparation

(1) Swamp treatment.

(2) Earth or rock excavation.

(3) Earth or rock fill.

(4) Sub-grade stabilization, compaction and shaping.

(5) Frost treatment at culverts.

(6) Shoreline protection, where no action would result in a short term road failure, with the approval of the District Engineer.

(7) Ditch erosion prevention or correction.

(8) Subgrade slide prevention or correction.

4. Drainage

(1) Subdrain installation, open ditching, including off-take ditches and related easement costs to nearest sufficient outlet, if included as a secondary item in a construction contract (i.e. less than 25% of total cost). All other drainage works are considered to be "Maintenance".

(2) Concrete curbs, asphalt curbs, and granite curbs up to the value of equivalent concrete or asphalt curbs.

(3) Storm sewers installation, including pumping stations where required, subject to limitations of MTO policy.

(4) A portion of the cost of storm water detention/retention, ponds/tanks and oversize sewer pipes subject to limitations of MTO policy.

(5) Initial municipal drainage construction assessments on roads. Sufficient upkeep is "Maintenance".

(6) Stream improvement, over 150 m in length, if required beyond a structure. Shorter improvements are considered to be "Maintenance". (Also see B(2), pg. 8).

(7) Culverts under 400 mm if part of a construction contract, otherwise such culverts are considered to be "Maintenance " (Also see B(2), page 8).

5. Base Construction

(1) Base construction materials, i.e. sand cushion, Granular A (over 100 mm in depth), Crushed Concrete, Granular B, or other approved materials, meeting Ontario Provincial Standard Specification gradation and quality requirements.

(2) Compaction of base.

(3) Stabilization.

(4) Portland cement concrete.

(5) Asphalt concrete (deep strength).

6. Surface Construction

(1) Fine grading before surfacing.

(2) Adjustments of manholes, valve boxes, etc.

(3) Surface treatment, by itself, is considered to be "Maintenance". However, where surface treatment is included as a secondary item (less than 25% of total cost) in a construction contract it is considered to be "Construction".

(4) Interlocking paving stone up to the value of an equivalent conventional concrete or asphalt surface.

(5) Surfacing and resurfacing with plant-mixed bituminous materials including dense-graded hot mixed bituminous surfacing and dense-graded sand-asphalt, seal and levelling courses and including shoulder paving.

(6) Portland cement concrete.

(7) Resurfacing with gravel or stone greater than 100 mm in depth and 150 m in length. Shallower depths or shorter lengths are considered to be "Maintenance".

7. Ancillary Items

(1) Replacement of sidewalks, trees, fences, entrances, retaining wall, wheelchair curb cuts, etc. due to grade or alignment change.

(2) Placing of top soil in areas to be sodded or seeded.

(3) Seeding and mulching, sodding, tree planting for erosion protection or snow protection (beautification is not eligible).

(4) Medians and channelization works.

(5) Illumination at intersections with warranted traffic signals or unsignalized, fully channelized, rural intersections, or at unprotected level railway crossings subject to Transportation Agency Board Order at crossing (see PDD 76-08).

(6) All signs in Part A (except Division 5) of the Manual of Uniform Traffic Control Devices (MUTCD) and "Extended Green when Flashing," "Left or Right Turn Lane," "Bus Lane" tab attachments and internally illuminated Part A signs. Division 5 signs are considered to be "Overhead" except as part of construction project.

(7) All warranted traffic control devices and pavement markings (except parking markings) in the MUTCD. Long life pavement markings, listed in the Ministry's Designated Sources Manual, are eligible at interchanges, freeways, and high volume intersections.

(8) All warranted pedestrian crossovers in accordance with current Highway Traffic Act Regulations.

(9) Guide rail, including steel beam guide rail and traffic barrier over 150 m in length. Shorter sections are considered to be "Maintenance".

(10) Boulevard paving in lieu of shouldering or sod maintenance for erosion protection.

(11) Tender advertising (pro-rate for any non-eligible items).

(12) Surveys and mapping, including aerial surveys, where used by the municipal road department in accordance with MTR Directive B-47.

(13) As constructed surveys, if taken within one year of construction.

(14) Claims for increased taxes by Contractors are eligible for subsidy subject to current MTO policy.

(15) Payments by the municipality to settle contractor's claims are eligible for subsidy, if paid, with the approval of the Regional Director.

(16) Roadside rest areas, truck lay bys and turn arounds .

(17) Commuter lots built by an Upper Tier municipality, adjacent to an Upper Tier road, in a rural area without private parking services, and meeting MTO warrants.

8. Engineering

(1) Municipalities where overhead and equipment are not subsidized directly:

(a) *Consultant's fees for design, if submitted in the year the expenditure is made or

(b) *Five percent of the construction costs eligible for subsidy but excluding right-of-way costs under A-1 to be claimed in the same year the construction cost is accepted for subsidy. The five percent shall be claimed as an allowance for design work provided plans, profiles, surveys for collecting design data, estimates of quantities and, when necessary, contract documents, are actually prepared.

*Subsidy will normally be held in abeyance by District Engineer if the contract will not be awarded within 5 years, until the contract is awarded.

(2) Municipalities where overhead and equipment are subsidized directly.

(a) Consultant's fees for design, or

(b) Direct salaries of municipal employees engaged in design, if such salaries are supported by time sheets.

(3) Consultant's fees for supervision and inspection, or direct salaries of municipal employees for on-site supervision and inspection, if supported by time sheets.

(4) Materials testing.

(5) Field office rental.

(6) Traffic counting.

(7) Soils and foundation investigations.

(8) Functional, environmental or feasibility studies, only if covered by specific approval. Cost eligible in year of construction. See MTR Directive B-32.

B. BRIDGES, CULVERTS AND GRADE SEPARATIONS

Subsidizable at bridge and culvert rate.

1. Structure costs including new structures, deck replacement, bridge widenings, major painting, major repair of existing structures, replacement of primary bridge components such as beams or piles, installation and removal of bailey bridges and retaining walls. Minor repairs and replacements of secondary components are considered to be "Maintenance".

2. Where culvert installations are done individually, and not as part of a construction contract, they are considered to be "Maintenance", except for culvert installations in excess of 1.5 m in equivalent circular diameter. Culvert installations over 1.5 m are always considered to be "Construction", whether done individually or as part of a construction contract.

   Culvert installations under 400 mm are eligible at the road rate not the bridge rate. Culvert installations over 400 mm are eligible at the bridge rate.

3. Outlet sewers for underpasses, including pumping stations when required, subject to limitations of MTO policy for storm sewers.

4. Illumination - replacement to the equivalent of existing facilities only where necessary due to construction, except for underpasses.

5. Stream improvement, if required, for 30 m along bed of stream measured from the outer extremities of a new structure.

6. Stream diversion in lieu of structures, if covered by specific approval.

7. Construction and maintenance of detours in immediate vicinity of temporary crossings.

8. All items under A-2 to A-8 inclusive as applicable on the approaches for 30 m from the outer extremities of any new bridge or culvert having an end area of 4.5 m^2 or more, except as under B-9, or

9. All items under A-2 to A-8 for new railway grade separations from grade point to grade point. If no Federal contribution is received towards the project, a 50% assumed Federal contribution and all other contributions will be deducted from the total cost of the grade separation. The balance remaining shall be eligible for subsidy.

C. RAILWAY CROSSINGS

1. Crossing improvements as ordered by the National Transportation Agency.

2. Engineering, in accordance with A-8.

3. Installation of pre-formed railway inserts of a type listed in the Ministry's Designated Sources Manual.

D. PITS AND QUARRIES

(Applicable only to those municipalities whose overhead and equipment expenditures are subsidized directly). Land purchase and preparation in accordance with A subject to specific approval.

E. GARAGE

(Applicable only to those municipalities whose overhead and equipment expenditures are subsidized directly). Construction of machinery garages, storage buildings and yards, in accordance with A subject to specific approval of the District Engineer. Sand dome tenders must allow for at least 2 alternative types of domes. Conventional wooden, fabric and "Hi-Arch" Gambrel structures are eligible. Only domes supplied and erected by Ministry approved dome contractors are eligible for subsidy.

F. EQUIPMENT PURCHASE

(Applicable only to those municipalities where overhead and equipment expenditures are subsidized directly).

1. Road construction and maintenance machinery, including trucks, self-propelled machinery and other related items of machinery, subject to use of Ministry equipment specifications or approval of the District Engineer of non-Ministry specifications.

2. Portable vehicle telephones or radio communications equipment, subject to acceptance by the District Engineer of non-Ministry specifications and tendering procedures.

3. Furniture and office equipment, if used solely with respect to the subsidizable roads activity.

4. Used equipment purchases subject to the prior approval of the District Engineer. Purchases less than $5000 do not require prior Ministry approval.

5. "Rental-Purchase", "Life Cycle" and "Extended Warranty" purchase agreements are not eligible for subsidy.

PART II - MAINTENANCE

A. ROADS AND STREETS

Subject to the limitations of MTO policy, the following items of expenditure by a municipality for maintenance of its roads and streets are eligible for subsidy:

1. Winter Control

   (1) Snow plowing, winging, ice blading.

   (2) Snow removal.

   (3) Salting and sanding.

   (4) Snow plow marker installation.

   (5) Snow fencing - purchase, erection and dismantling, and maintenance.

   (6) Snow hedge - planting and maintenance.

   (7) Thawing culverts, catchbasins, manholes, and opening ditches, including off-take ditches to sufficient outlet.

   (8) Spring clean-up.

   (9) Winter road patrol.

   (10) Municipal employees standby at home if no winter crew shift system.

2. Surface

   (1) Loose top:
   - (a) resurfacing with gravel or stone, less than or equal to 100 mm in depth. Greater thickness is "Construction".
   - (b) dust control including calcium chloride, prime, oil, lignosulfonates and salt brine.
   - (c) gravel or stone patching, less than 150 m in length (any depth). Greater length over 100 mm in depth is "Construction".
   - (d) blading, scarifying or dragging.
   - (e) shouldering and washout repairs.

   (2) Bituminous:
   - (a) crack-filling, cold mix and spray patching, and hot mix patching less than 150 m in length except for utility cuts. Utility cuts are the responsibility of the utility company.
   - (b) double surface treatments, and road mixed asphalts. Prime and surface treatment requires prior District Engineer's approval.

(3) Concrete:
   (a) patching less than 150 m in length except for utility cuts. Utility cuts are the responsibility of the utility company.
   (b) crack-filling and joint repair.
   (c) repair or replacement of isolated sections.
   (d) sealing.

(4) Engineering, as in Part I, A-8 as applicable.

(5) Sweeping and flushing subject to MTO policy limitations.

(6) Isolated frost heave treatments.

3. Roadside

(1) Entrance culverts - cleaning, repairs, replacement.

(2) Ditches, including off-take - installation, cleaning, repairs and relocation.

(3) Minor erosion control, seeding and mulching and sodding for erosion control.

(4) Subdrains, catchbasins, man holes and curb and gutters - cleaning, repairs, replacement and installation where not included in a construction contract.

(5) Storm sewer repair, subject to limitations of MTO policy.

(6) Removal of obstructions/beaver dams in water courses to directly facilitate road drainage.

(7) Weed and brush control including:

   (a) Mowing,

   (b) Spraying,

   (c) Brushing and/or grubbing, day lighting,

   and,

   (d) Soil sterilization.

(8) Curb and gutter repairs and replacement.

(9) Maintenance of retaining walls, if supporting or protecting the roadway.

(10) Tree planting on right-of-way, but not for beautification purposes.

(11) Tree removal on right-of-way as required for construction or traffic safety.

(12) Tree trimming as required for traffic safety.

(13) Municipal drainage maintenance assessments on roads.

(14) Engineering, as in Part I, A-8, as applicable.

(15) Removal and disposal from the right-of-way of trash, leaves, rubbish and other litter.

(16) Municipally owned fence upkeep and new fence installations.

(17) Upkeep of eligible rest area, commuter parking lots, truck layby and turnaround upkeep.

(18) Accident repair and cleanup not recoverable from third parties.

(19) Repair and replacement of culverts under 400 mm in diameter.

(20) Maintenance of noise barriers where the original construction was subsidizable.

4. Traffic Control and Safety Devices

(1) Traffic signals, traffic signs, zone painting, pavement markings, pedestrian crossovers, railway crossing signs and protective devices, including replacement, as listed in the Manual of Uniform Traffic Control Devices subject to limitations of MTO policy.

(2) All guide rail maintenance, and replacement of lengths under 150 m in length. Larger lengths are considered to be "Construction".

(3) Medians and channelization works under 150 m in length.

(4) Upkeep of railway crossings including billings for signalized rail crossings from railway companies, in accordance with the National Transportation Agency approved rate schedule.

(5) Engineering, as in Part I, A-8, as applicable.

5. Routine Traffic Counting

Labour and equipment, if not included under Part III.

6. General

(1) Time loss due to:

(a) when less than a full day's shift, weather, traffic conditions, minor adjustments to equipment, waiting time;

(b) attendance at special meetings and field office assignments.

(2) Field supervision by first line supervisor at work site but not physically engaged in work.

(3) Tender advertising, (pro-rate for any non-eligible items).

(4) A portion of the cost of the initial survey or mapping for general purposes (including aerial surveys) in accordance with current MTO policy.

(5) Municipal road employees attending MTO approved courses (for list of approved courses see Part III). For municipalities administered on a "rural" accounting basis such course costs are considered to be overhead. For urbans they are considered to be a miscellaneous maintenance expense.

7. Maintenance Management, Pavement Management and Small Lower Tier Roads Management Studies

Implementation and operation, with prior approval subject to limitations of MTO policy. Where such studies are done "in house" by municipalities, on an urban accounting system, they are included in the "7% Overhead Allowance". (See Part III Section B).

8. Needs Studies and Updates

Initial Needs are eligible through the Municipal Roads Office with the special approval of that office. Updates are considered to be "Overhead" (see part III).

B. BRIDGES, CULVERTS AND GRADE SEPARATIONS

Subsidizable at bridge and culvert rate:

1. Cleaning of structures.

2. Spot Painting.

3. Replacement of auxiliary structure components.

4. Minor spot repairs (i.e. concrete patches, plank replacements in wooden decks, etc.)

5. Where culvert installations are done individually and not as part of a construction project, they are considered to be "Maintenance", except for culvert installations in excess of 1.5 m in equivalent circular diameter. Culvert installation over 1.5 m are always

considered to be "Construction" whether done individually or as part of a construction contract.

Culvert installations under 400 mm are eligible at the road rate not the bridge rate. Culvert installations over 400 mm are eligible at the bridge rate.

6. Culvert extensions.

7. Under-pinning and other remedial measures intended to prolong the life of a structure.

8. Joint and crack filling.

9. Rip-rap installation and upkeep.

10. Engineering, as in Part I, A-8, as applicable.

** NOTE: Where maintenance activities are included as secondary items in a construction contract they are considered to be "Construction" and reported as such for road subsidy purposes.

PART III - OVERHEAD

A. Where a municipal road authority is subsidized directly on its overhead expenditures, the following items are included in overhead.

1. Salaries and Expenses of Superintendent and Supervisors

(1) Salary of superintendent and salaries of other supervisory personnel, if not included elsewhere.

(2) Superintendent's car or light truck:

(a) If privately-owned, kilometerage allowance as approved by bylaw, if not included elsewhere, but not in excess of Provincial employee kilometerage rates.

(b) If municipally-owned, actual operating costs, if not included elsewhere.

(3) General travelling expenses of road superintendent when on approved road business, but not in excess of Provincial employee expense allowances.

(4) Conference and training course expenses and salaries, as follows:

(a) County Suburban Roads Commission Engineers, and Township Road Superintendent.

(i) Attending Ontario Good Roads Association Convention (OGRA):
- Engineer, Assistant County Engineer and Township Road Supervisor.

(ii) Attending Roads and Transportation Association of Canada Convention (RTAC):
- County Engineer only, unless Assistant attends in lieu of County Engineer.

(iii) Attending Ontario Traffic Conference:
- County Engineer only, unless Assistant attends in lieu of County Engineer.

(b) Municipal road employees attending;

(i) T. J. Mahoney Roads School

(ii) C. S. Anderson Road School.

(iii) Grader Operation Updating Program (OGRA-Sponsored).

(iv) Effective Management Seminar (OGRA Sponsored) (Administrative Staff Only).

(v) Micro Computer Seminar (administrative staff only)

(vi) Subsidy for all other courses requires specific approval of the Manager of the Municipal Roads Office.

(vii) MTO Municipal Courses

(5) Annual dues for Road Superintendents Associations.

2. Miscellaneous Expenses

(1) Clerical:

(a) Full-time - salaries and expenses of employees, if not included elsewhere.

(b) Part-time - where time is divided between roads and other services, salary to be apportioned. Time spent on roads work to be supported by time sheets.

(c) Computer acquisition and operation costs if dedicated to roads department. Otherwise a portion only is shared or a reasonable rental fee is subsidizable in accordance with MTR Directive B-27.

(2) Printing, stationery and postage.

(3) Telephone and telegraph.

(4) Insurance on machinery garages, storage buildings, machinery and equipment but not general liability insurance, and not environmental liability or spray liability insurance.

3. Machinery Garages and Storage Buildings

(1) Hydro.

(2) Heating.

(3) Repairs and maintenance, including improvement of yards.

(4) Where buildings are not dedicated to the roads department a portion of the cost of the building maintenance is eligible or a reasonable rental rate is eligible as approved by the District Engineer.

4. Miscellaneous Repairs

Machinery and equipment, not covered by a separate machinery operation account.

5. Materials Handling and Storage

(1) Stockroom expenses, if not included elsewhere.

(2) Materials, handling costs, if not included elsewhere.

(3) Materials in stock.

6. Plant, Small Tools, etc.

(1) Road construction and maintenance machinery, not included under Part I, F-1.

(2) Small tools, lanterns, barricades, etc.

(3) Protective clothing.

(4) Safety equipment required under the Occupational Health and Safety Act.

7. Urban Rebates

In accordance with the Public Transportation and Highway Improvement Act.

8. Indirect Labour Costs

See Page 1, Condition #3. Matching pension contributions for past contributory service, and contributions by the municipality to an individual's private Registered Retirement Savings plan are not eligible.

B. OVERHEAD ALLOWANCE

Where a municipal road authority is not subsidized directly on its overhead expenditures, seven percent of the cost of items eligible for subsidy under Parts 1 and 11 will be allowed for overhead. This is intended to cover all overhead which includes the following:

1. Salaries and expenses of the engineering staff.
2. Clerical and other expenses.
3. Maintenance of works yard.
4. Handling of materials through stores.
5. Plant, small tools, etc.

In line with the above, the following items are among those considered to be covered by the 7% overhead allowance:

(1) Advertising, except specific tender and land advertising.

(2) Association fees including Road Superintendent Association.

(3) Barricades, except rentals for a specific project.

(4) Car allowances.

(5) Clerical assistance.

(6) Clothing - protective.

(7) Committee meetings.

(8) Conferences and conventions.

(9) Containers - drinking water - portable or stationary.

(10) All computer and data processing costs.

(11) Equipment - repairs and maintenance - non-rated.

(12) First-aid kits.

(13) Furniture.

(14) Group insurance - premiums applicable to overhead personnel.

(15) Holiday pay - salaries applicable to overhead personnel.

(16) Hospitalization - premiums applicable to overhead personnel.

(17) All insurance.

(18) Legal - municipal solicitor(s).

(19) Maintenance bonds.

(20) Materials - handling costs not chargeable to project or contract.

(21) Miscellaneous engineering.

(22) Miscellaneous inspections.

(23) Office equipment.

(24) Office supplies - stationery.

(25) Office and storage rent.

(26) Ontario Municipal Board - all charges thereof except hearing costs re land acquisition.

(27) Pensions on overhead personnel.

(28) Printing.

(29) Safety awards.

(30) Safety Council.

(31) Safety Equipment

(32) Salt protection.

(33) Sick time for overhead personnel.

(34) Signs - general.

(35) Special functions.

(36) Staff salaries - clerical, engineering, property, subdivision control, bylaw inspections, trench safety inspections, supervision, superintendents.

(37) Stock Room operation and expense.

(38) Storage yards - improvement and maintenance.

(39) Telephone.

(40) Temporary personnel building.

(41) Testing laboratory.

(42) Time-off for funerals, union business, etc.

(43) Traffic counting meters.

(44) Training courses, other than MTO approved courses.

(45) Tool repairs.

(46) Tool crib operation.

(47) Uniforms.

(48) Union business.

(49) Vehicle rental charges applicable to overhead personnel.

(50) Vacation for overhead personnel.

(51) Weather reports.

(52) Yard maintenance, including:

(a) general maintenance, cleaning and sanitary supplies;

(b) salaries for guards and janitors;

(c) lighting;

(d) heating;

(e) water;

(f) repairs and alterations;

(g) rental of garages.

(53) Radio and communication equipment including portable phones; repair, purchase or rental.

NOTE: If an employee's salary is charged to an overhead account, vehicle allowance and all other items referenced thereto will also be charged to overhead.