

TO: CITY MANAGER

1998 September 30

FROM: DIRECTOR PLANNING & BUILDING
DIRECTOR ENGINEERING

OUR FILE: 08.109

SUBJECT: **Greater Vancouver Transportation Authority Major Road Network**

PURPOSE: To request Council approval of the specific major roads in Burnaby to be included in the Major Roads Network and the municipal roads capital projects in Burnaby required to assist in developing a Five Year Capital Plan for the Major Roads Network.

RECOMMENDATIONS:

1. **THAT** Council approve the Burnaby section of the Major Roads Network as outlined in Section 3 and shown on the map entitled "Major Roads Network in Burnaby" *attached* as Figure 1 to this report.
2. **THAT** Council authorize staff to submit the projects outlined in Section 4 and Attachment A of this report to assist the Major Roads Technical Advisory Committee as the City of Burnaby priorities for inclusion in a Five Year Capital Program for the Greater Vancouver Transportation Authority.

REPORT

1.0 BACKGROUND

In 1999 April, the Greater Vancouver Transportation Authority (GVTA) will be responsible for overall planning and funding of transit, major roads and bridges, transportation demand management and AirCare in the Region. The newly appointed GVTA Board will begin meeting in 1998 October. Municipal staff response to the GVTA Board is being coordinated through a Major Roads Technical Advisory Committee (MRTAC) comprising of staff representing all municipalities in the Greater Vancouver Region and other stakeholder agencies. The MRTAC has been assigned the tasks of developing and recommending a Major Roads Network, developing overall standards and a program for maintenance of the MRN and developing a five year capital program, funding sources and cost sharing agreements for upgrading the MRN.

City of Burnaby staff have been working with MRTAC on the criteria for defining a major road, the roads to be included in the MRN, the existing features of each road in the MRN and the municipal road capital projects to upgrade the MRN. Staff received direction from Council on these matters in a report to its regular meeting of 1998 July 13.

The purpose of this report is to update Council on the progress of MRTAC in these areas and to seek the approval of Council for Burnaby's section of the Major Roads Network and a list of projects to be submitted for consideration as part of the GVTA Five Year Capital Program.

2.0 DEFINITION OF A MAJOR ROADS NETWORK

2.1 Original Criteria for Defining a Major Roads Network

The report of the Regional Engineers Advisory Committee (REAC) of the GVRD in 1997 April defined a Major Road as "***a road that has a significant role in providing mobility, accessibility and connectivity at the regional level.***" This definition was subsequently specified in the Agreement that applied the following six criteria to develop the initial MRN proposal which was incorporated in the Agreement:

- Activity Centre - provides direct access to an Activity Centre or connects interacting Activity Centres.
- Inter-Municipal Travel - roads that carry inter-municipal travel between municipalities. These roads are specifically defined as roads with a minimum of 70% of trips with a distance greater than 10 km and a traffic volume greater than 800 vehicles in the peak hour.
- Transit Corridor - roads that carry a minimum of ten buses in the peak hour and the peak direction.
- Goods Movement - roads that carry a minimum of 800 trucks per day.
- Emergency Response - roads that are elements of the Greater Vancouver Emergency Routes Plan.
- Network Continuity - roads that connect network elements to each other.

MRTAC reviewed these criteria as a starting point and based on comments from municipalities revised the criteria as follows:

- **Relationship to Land Use** - *The road allows people and goods from other parts of the Region access to pre-defined regional activity centres*

- **Usage** - *The road provides an intra-regional function in that a significant proportion of the traffic on the road is intra- regional **OR** significant regional transit services occur on this road **OR** this road carries a heavy truck volume*
- **Reasonableness and Completeness** - *overall subjective review of the major road network for continuity*

In response to a request from the City of Burnaby representatives on MRTAC, it was agreed that the proposed inclusion of municipal town centres (eg. Brentwood, Lougheed and Edmonds Town Centres) as “Activity Centres” would be evaluated in the final annual review of the Major Road Network.

These criteria were then rigorously applied to the draft MRN which included the roads which were in the initial proposal in the Agreement and the roads which were submitted for inclusion by the municipalities. The following section describes the Burnaby section of the MRN which resulted from this process.

3.0 MAJOR ROAD NETWORK IN BURNABY

3.1 Process

The initial proposal identified in the Agreement between the Province and GVRD for the MRN in Burnaby included Boundary Road, North Road and Willingdon (Hastings to Kingsway) as the only municipal elements to be “uploaded” to the MRN. To this initial proposal, Council in July endorsed for inclusion in the Burnaby section of the MRN a number of additional municipal arterial roads.

MRTAC has reviewed all submissions and developed a Major Road Network to forward to the GVRD Board for consideration and forwarding to the municipalities for comment.

3.2 Recommended MRN in Burnaby

The recommended MRN in Burnaby includes all of the downloaded provincial highways and approved municipal roads as shown in Figure 1 **attached**. The disposition of the municipal roads approved by Council in 1998 July and submitted for inclusion is outlined as follows:

- Canada Way (Kensington Avenue to Boundary Road)- **Recommended for Inclusion**

- Kensington Avenue (Sprott Street to Lougheed Highway)- ***Recommended for Inclusion***
- 19th Street/Griffiths Street (Kingsway to 10th Avenue) ***Recommended for Further Study*** for possible inclusion pending a more detailed review in 1999. The exclusion by New Westminster of 20th Street removed the regional continuity of this corridor.
- Austin Avenue (Lougheed Highway to North Road) ***Recommended for Inclusion***
- Imperial Street (Boundary Road to Kingsway) ***Not recommended for Inclusion*** due to its lack of regional continuity with the MRN in the City of Vancouver.

In summary, as a result of this process three additional roads in Burnaby were included in the MRN that were not in the initial Major Roads Network in Burnaby in the Agreement.

4.0 MUNICIPAL ROADS CAPITAL PROJECTS

4.1 Process

As part of the process to develop a Five Year Capital Program for the MRN, staff have submitted a list of municipal roads projects approved by Council and capital projects for the declassified Provincial highways. From this submission and the submissions of other agencies, including the BCTFA, BC Transit and the Ministry of Transportation and Highways, GVRD staff have compiled a list of projects in Burnaby and have applied a set of criteria to rank these projects. The criteria include the following:

- **Regional Traffic Volume** - 75% of trips of greater than 10 km. and more than 800 vehicles per hour (peak direction)
- **Transit Usage** - minimum of ten buses per hour in one direction
- **Goods Movement** - more than 800 trucks per day
- **Transit/HOV Project** - facilitates transit or High Occupancy Vehicles
- **Traffic Congestion** - provides relief for traffic congestion “hot spot”

- **Safety** - improves safety
- **Network Connectivity** - a new road that connects two major MRN segments

4.2 Roads Capital Projects

Attachment A provides a list of roads capital projects proposed to be submitted by the City of Burnaby involving improvements both to municipal roads and to provincially downloaded roads in the MRN and scored according to the above set of regional criteria. As the GVRD has also requested that a municipal score be provided for each project, staff has undertaken this on a broad three level priority ranking basis for the consideration of Council. Staff has also categorized these projects according to cost with \$1,000,000 as the breakout point. At this stage it is anticipated that projects costing over \$1,000,000 would compete for funding at a regional level, while the smaller projects may be implemented on a "block funding" basis assigned to the City. Adequacy of Capital funding remains unknown, as does any potential cost sharing arrangements. In addition to these, BC Transit has submitted several transit projects involving signalization changes, bus bays and queue jumpers that have been separately identified in Attachment B.

5.0 IMPACT ON OPERATIONS

Mainroad Contracting Ltd. has a contract with the Ministry of Transportation and Highways to maintain the Provincial highways in the Region until March, 2001. That contract will continue in force for the highways devolved to the municipalities on 1999 April 01 and, accordingly, raises issues of contract administration, performance accountability and liability concerns. It also raises concerns that have to be addressed relative to what happens when the contract ends.

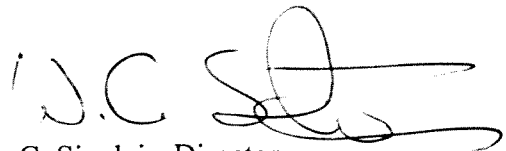
A more immediate issues flows from the transfer of highways in April of next year. The Ministry has confirmed that it will not be able to carry on maintenance and operation tasks that it undertakes with its own forces. These include the maintenance and operation of traffic signals, streetlights, signs and pavement markings. City staff are grappling with the issues that arise from taking over these functions on April 01 and we will report to Council shortly relative to these concerns. Of paramount concern is the funding of startup costs and the adequacy of GVTA funding for ongoing operations.

6.0 CONCLUSION

The combination of provincially devolved highways and municipally uploaded roads will leave the City of Burnaby dependent on adequate funding from the GVTA for one of the largest sections of the MRN in the Greater Vancouver Region. Therefore, the definition of the MRN, the funding of operation, maintenance, and rehabilitation functions and the development of capital programs for upgrading the MRN will have a major impact on the development of the transportation system in the City and the costs of sustaining the network. The MRTAC is preparing to forward a recommended Major Roads Network to the GVRD Board for consideration and this network may be submitted to the municipal councils for comment. This report outlines the process and resulting recommended MRN for Council consideration and updates Council on the status of the MRTAC to develop a Five Year Capital Program for the GVTA. When a draft major roads capital program is completed, staff will provide a further report to Council.



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PLANNING & BUILDING



C. Sinclair, Director
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Attachments
RG/PL:sk

cc: Director Finance

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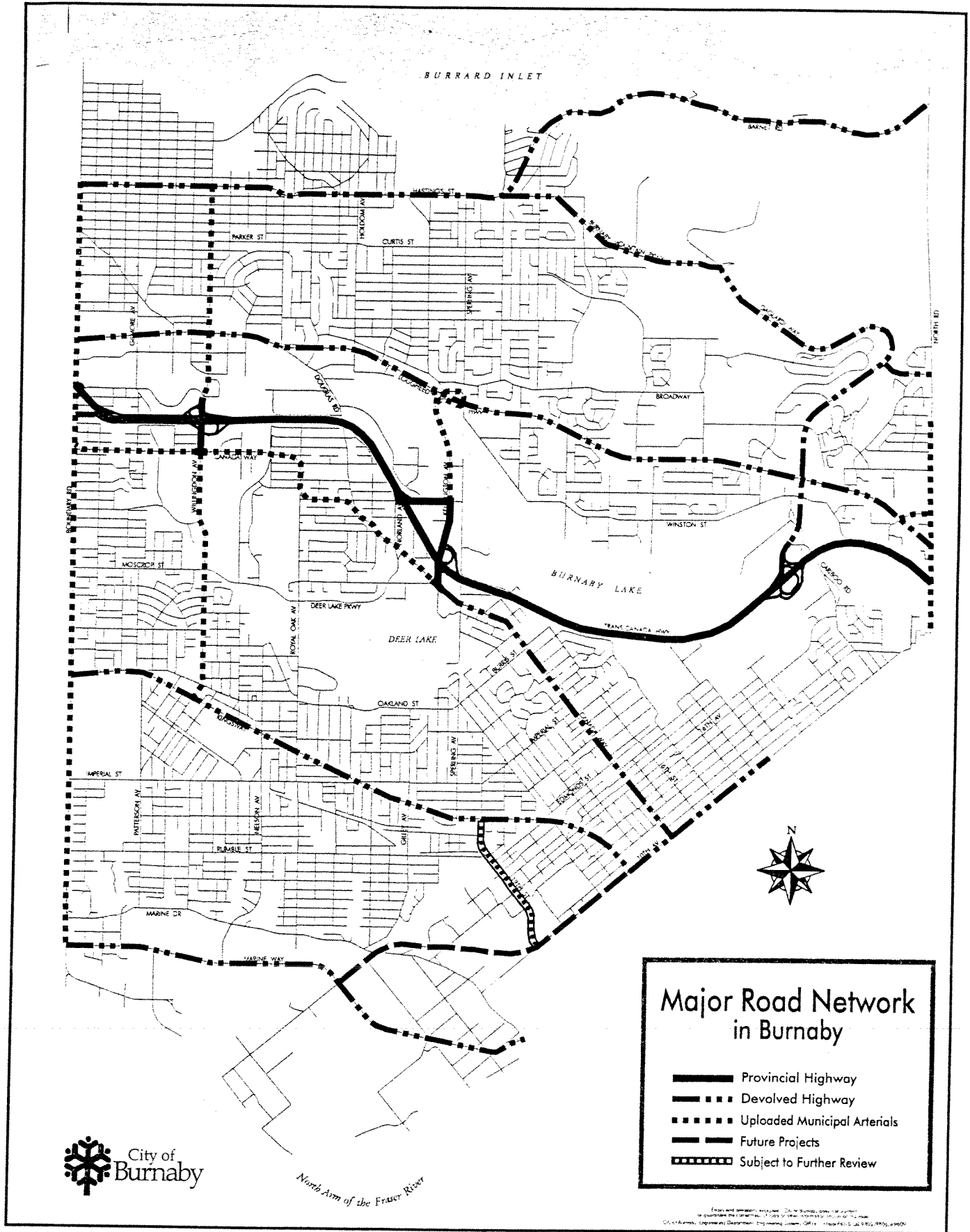


TABLE 1

MAJOR ROADS NETWORK
Burnaby-Submitted Projects Under \$1,000,000

| Project | Locations | Start Dates | Completion Dates | Estimated Cost/Cost Sharing | % MRN | Regional Traffic | Transit | Goods | Transit/HOV Project | Congestion - Hot Spot | Safety | Network Connectivity | GVTA RANKING | MUNICIPAL RANKING |
|---|--|--------------------|-------------------------|------------------------------------|--------------|-------------------------|----------------|--------------|----------------------------|------------------------------|---------------|-----------------------------|---------------------|--------------------------|
| Lougheed Hwy. / Madison Ave. Intersection Improvement | Lougheed Hwy./Madison Ave. | 1999 | | \$600,000 | 50% | 1 | 1 | 1 | 1 | 1 | 1 | | 6.0 | A |
| Lougheed Hwy. / Beta Ave. Intersection Improvement | Lougheed/Beta Ave. | 1999 | | \$500,000 | 50% | 1 | 1 | 1 | 1 | 1 | 1 | | 6.0 | A |
| Willington Ave. HOV / Bus Lane | Deer Lake Parkway/Moscrop to Lougheed Hwy. | 1999 | | \$500,000 | 100% | | | 1 | 1 | 1 | .03 | | 3.33 | A |
| Canada Way/16th Ave. Ped. Signal | Canada Way / 16 th Ave. | 2001 | | \$85,000 | 50% | 1 | | | | 1 | 1 | | 3.0 | A |
| Canada Way / Stanley Ped. Signal | Canada Way / Stanley | 2001 | | \$85,000 | 50% | 1 | | | | 1 | 1 | | 3.0 | A |
| Marine Way / Nelson Intersection Improvement | Marine Way / Nelson | 2002 | | \$300,000 | 50% | 1 | | 1 | | | 1 | | 3.0 | B |
| Marine Way / Greenall Signal | Marine Way / Greenall | 1999 | | \$110,000 | 50% | 1 | | 1 | | | 1 | | 3.0 | A |
| Kingsway / Inman Ped. Signal | Kingsway / Inman | 1999 | | \$75,000 | 50% | 1 | | | | | 1 | | 2.0 | B |
| Arterial & Coordination & Optimization | | 2000 | | \$900,000 | 100% | | | | | | 1 | | 1.0 | A |
| Kingsway / Marlborough Ped. Signal | Kingsway / Marlborough | 1999 | | \$85,000 | 50% | | | | | | 1 | | 1.0 | A |

MAJOR ROADS NETWORK CAPITAL PROGRAM

Burnaby-Submitted Projects \$1,000,000 or Greater

| Project | Type | Start Dates | Total Cost | % MRN | Regional Traffic | Transit Usage | Goods Movement | Transit/HOV | Congestion - Hot Spot | Safety Improvement | Network Connectivity | GTA RANKING | MUNICIPAL RANKING |
|--|------------------|-------------|--------------|--------|------------------|---------------|----------------|-------------|-----------------------|--------------------|----------------------|-------------|-------------------|
| Boundary Road - Laurel to Fir St. | Reconstruction | 2002 | \$1,000,000 | 100 % | 1 | | 1 | | 1 | 1 | | 4.0 | A |
| Kingsway/Edmonds | Intersection | 1999 | \$1,200,000 | 50% | 1 | 1 | 1 | | 1 | 1 | | 5.0 | A |
| Kingsway/Imperial | Intersection | 2001 | \$5,000,000 | 50% | | 1 | 1 | | | 1 | | 3.0 | A |
| Willingdon Ave. - Hastings to Dawson | Reconstruction | 2000 | \$3,000,000 | 100% | | 1 | 1 | 1 | | 1 | | 4.0 | B |
| Marine Way/10th Connector - Southpoint to 20 th St. | New Construction | 2000 | \$10,000,000 | Future | 1 | | 1 | | .5 | 1 | 1 | 4.5 | A |
| Canada Way - Westminster to Gilmore | Reconstruction | 2001 | \$2,000,000 | 100% | 1 | | | | | 1 | | 2.0 | B |
| Lougheed-Gagliardi Way | Intersection | 2002 | \$1,000,000 | 100% | 1 | | 1 | | 0 | 1 | | 6.0 | B |
| North Road - Cameron to Delaste | Reconstruction | 2000 | \$1,000,000 | 100% | 1 | 1 | | | 1 | 1 | | 4.0 | A |
| Marine Way/Boundary to Roseberry | Reconstruction | 2001 | \$1,200,000 | 100% | 1 | | 1 | | | .7 | | 2.7 | C |
| Kingsway-Boundary to Paterson | Reconstruction | 2000 | \$3,500,000 | 100% | 1 | | | | .5 | .7 | | 2.2 | B |
| Kingsway-10th Ave. | Intersection | 2003 | \$2,000,000 | 100% | 1 | | | | 1 | 1 | | 3.0 | B |
| Kingsway-Royal Oak | Intersection | 2002 | \$2,000,000 | 50% | | | 1 | | 1 | | 1 | 3.0 | A |

**MAJOR ROADS NETWORK
TRANSIT PROJECTS BURNABY
BC Transit Submission**

| Project | Locations | Start Dates | Completion Dates | Estimated Cost/Cost Sharing | % MRN | Regional Traffic | Transit | Goods Movement | Transit/HOV Project | Congestion - Hot Spot | Safety Improvement | Network Connectivity | GVTA RANKING |
|---|--------------------------------|--------------------|-------------------------|------------------------------------|--------------|-------------------------|----------------|-----------------------|----------------------------|------------------------------|---------------------------|-----------------------------|---------------------|
| Bus bay construction at EB Lougheed Hwy. f/s Brighton | EB Lougheed Hwy. f/s Brighton | 1999 | 1999 | \$40,000 | 0 | 1 | 1 | 1 | 1 | 1 | 0.3 | | 5.33 |
| Bus bay reconstruction on WB Lougheed north side of Willingdon | WB Lougheed n/s Willingdon | 1999 | 1999 | \$40,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 5.33 |
| Bus queue jumpers at EB/WB Lougheed at Gaglardi Way | EB/WB Lougheed at Gaglardi Way | 1999 | 1999 | \$50,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 5.33 |
| Left turn phase at WB Hastings & Gilmore | WB Hastings at Gilmore | 1999 | 1999 | \$10,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 4.33 |
| EB/WB Lougheed Hwy. At Bell-bus bays | EB/WB Lougheed Hwy. At Bell | 1999 | 1999 | \$6,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 4.33 |
| Bus Bay construction on WB Canada Way f/s Sperling | WB Canada Way f/s Sperling | 1999 | 1999 | \$25,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 4.33 |
| Bus Bay Construction NB/SB Barnet at Union St. | NB/SB Barnet at Union St. | 1999 | 1999 | \$50,000 | | 1 | 1 | 1 | 1 | 1 | .03 | | 3.33 |
| Improve SW (landing area) at SB Willingdon f/s Moscrop bus stop | SB Willingdon f/s Moscrop | 1999 | 1999 | \$20,000 | | | | | | 1 | .03 | | 2.33 |
| Bus-activated signal at Willingdon Ave. at Brentlawn | Willingdon Ave. at Brentlawn | 1999 | 1999 | \$50,000 | | | | | 1 | | .03 | | 1.33 |