

Management Strategies for Urban Freeway Traffic Flows in Seoul

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.

ABSTRACT

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Freeway management systems make use of traffic flow control strategies, and operational activities such as incident management and information dissemination. The need for considering urban freeway traffic management systems (FTMS) has become more evident in recent years as the demand for urban freeway facilities has increased faster than the supply of urban freeway lane-miles.

The primary objective of this study is to device effective management strategies for urban freeway traffic flows in Seoul. En route to achieving this primary objective a number of secondary objectives were accomplished:

Device traffic management schemes to reduce the impact of congestion on the freeway networks (including major adjacent arterial streets) and to improve the operational safety and efficiency of the travelling public while using the freeway system.

Define the functions (or functional requirements) of freeway management and the elements (or components) of a freeway management system.

Present control/operation procedures of several infrastructure subsystems (the motorist information system, the ramp metering system, etc.) that interface with each other to accomplish specific objectives as the need for them arises.

What is important about this study is that it provides valuable information about all aspects of effective urban freeway traffic management systems to be considered.

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	-	14.3	4	- 4	
	-	24.1	6	- ,	
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1) 가 ,
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CCTV : CCTV Pan-tilt, Zoom in,
Zoom out

가 가

VMS, ARS/FAX, INTERNET

On/Off-line Back-up

가 . , 가 , 가 , 가 , CCTV , 가 , 가 , FAX, Internet, (ARS : Automatic Response System), Videotext, (Radio) , ARS, (Radio), 가 (VMS : Variable Message Signs), (HAR : Highway Advisory Radio)

3) 가

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(1)

가
가

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		CCTV
가	O-D /	
		ARS/FAX Internet/Videotext 가 (VMS) (Radio) (HAR)

가

가 (Variable

Message Sign) : 8

(Image Detecting 1.

System) : 17 34

(Ramp Metering 1)

System) : 2

CCTV : 2

가

- 가

- MULTI-CUBE

(Monitor 8)

(Truly over saturated)

- IDS

(Real satura tion)

- VMS

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(ARS)/FAX/Internet

- RMS

가

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109

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CCTV

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(Truly under saturated)

(Apparent saturation)

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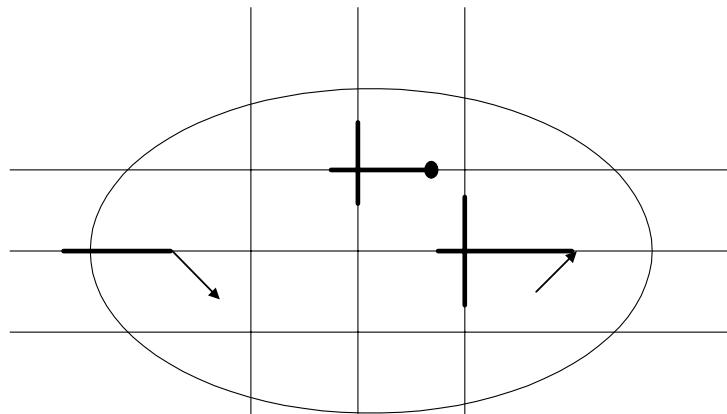
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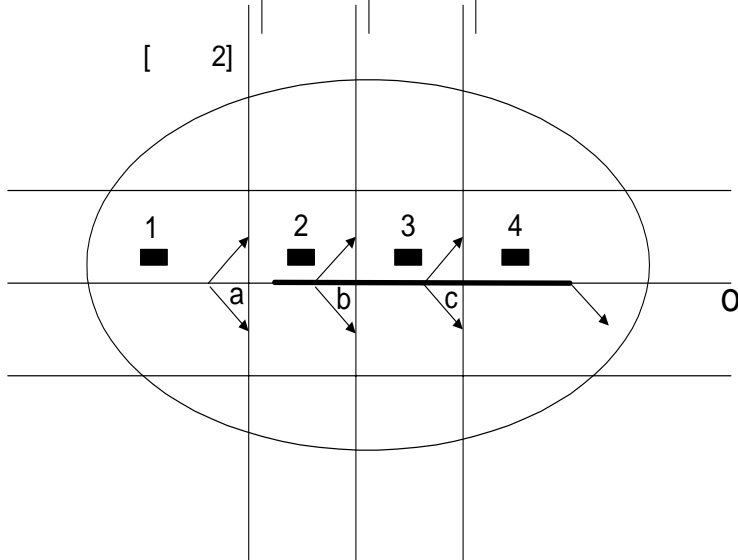
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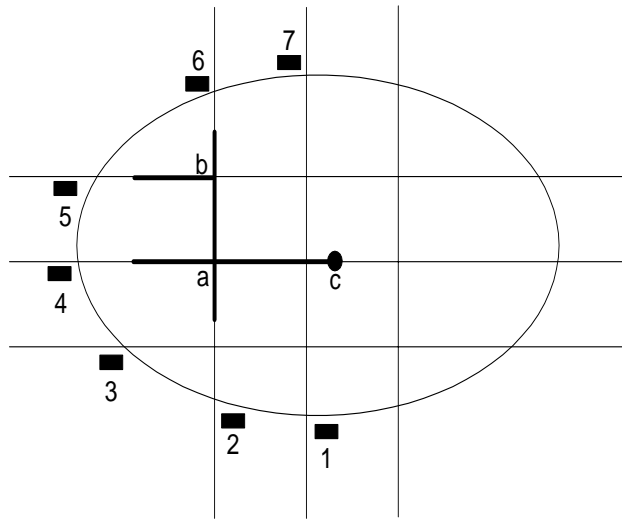
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- VMS, CCTV
HAR, ARS, Internet, Videotext,

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Step 2 : -

- Highway Helper,
Step 3 : ()
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1) -
, 2) 가

2)

Step 1 :

CCTV,

Step 2 :

CCTV,

Step 2 :

Step 3 :

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Highway Helper

3)

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Step 1 :

1)

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(3)

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- Highway Helper

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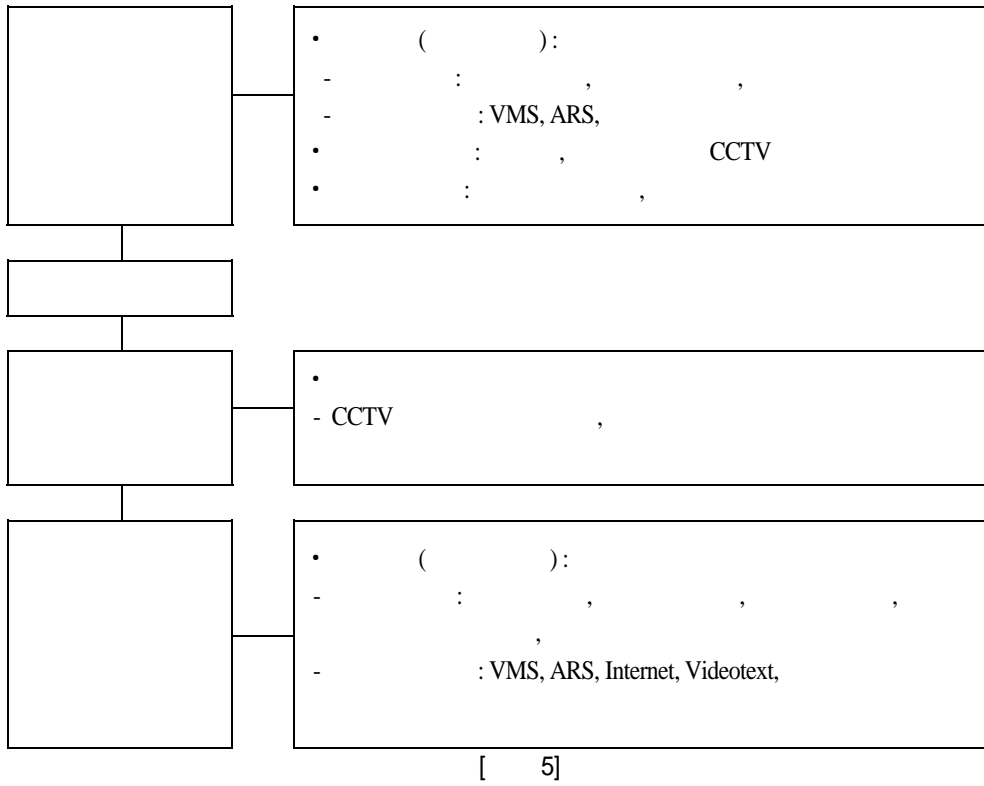
(4)

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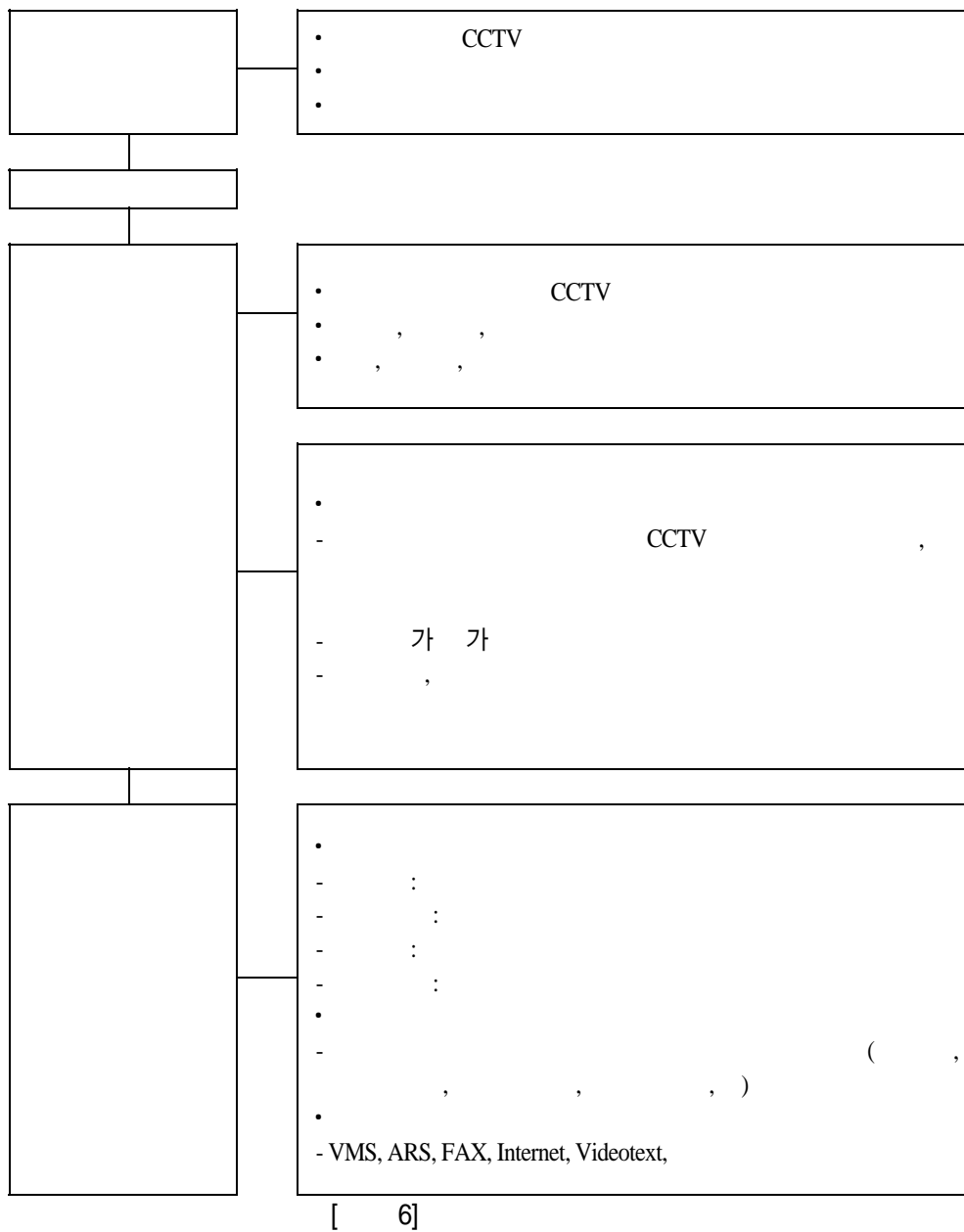
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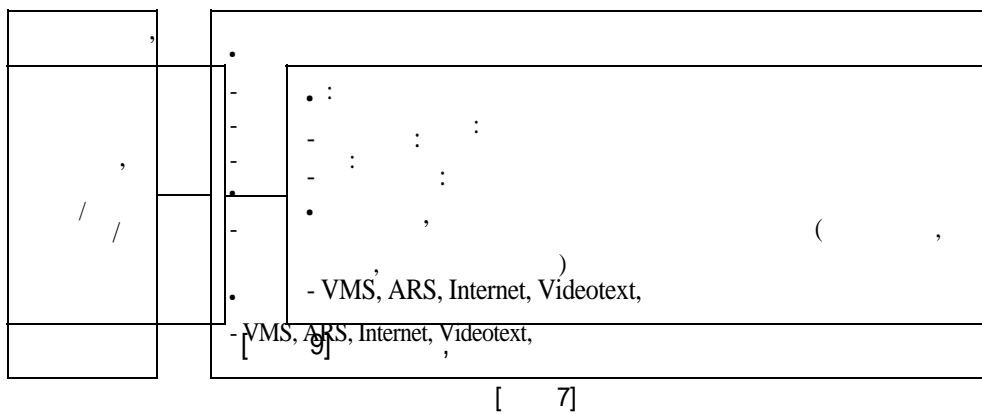
가 CCTV , , , , , 가 , , .

가 , , , , , 가 , 가 , , ARS, , (3) Veditext, Internet, .

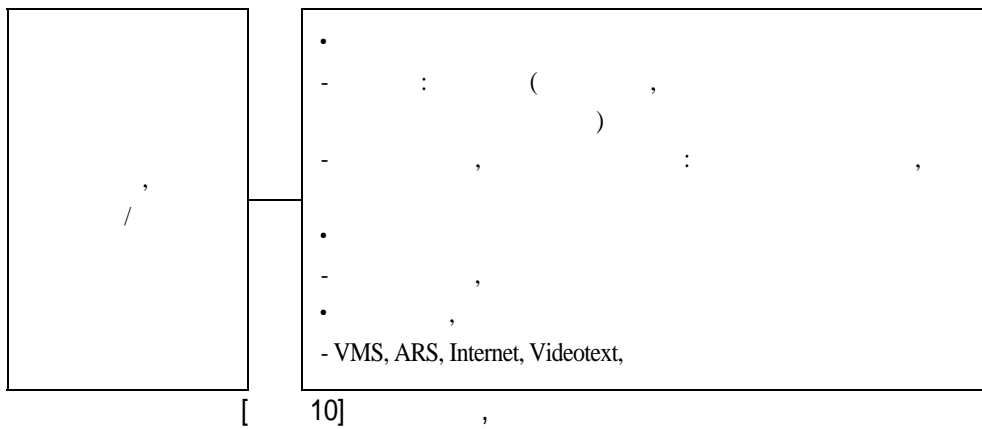
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[6] 가 .

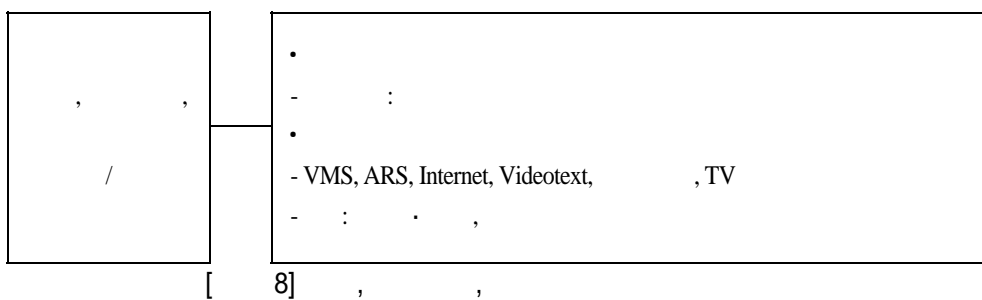
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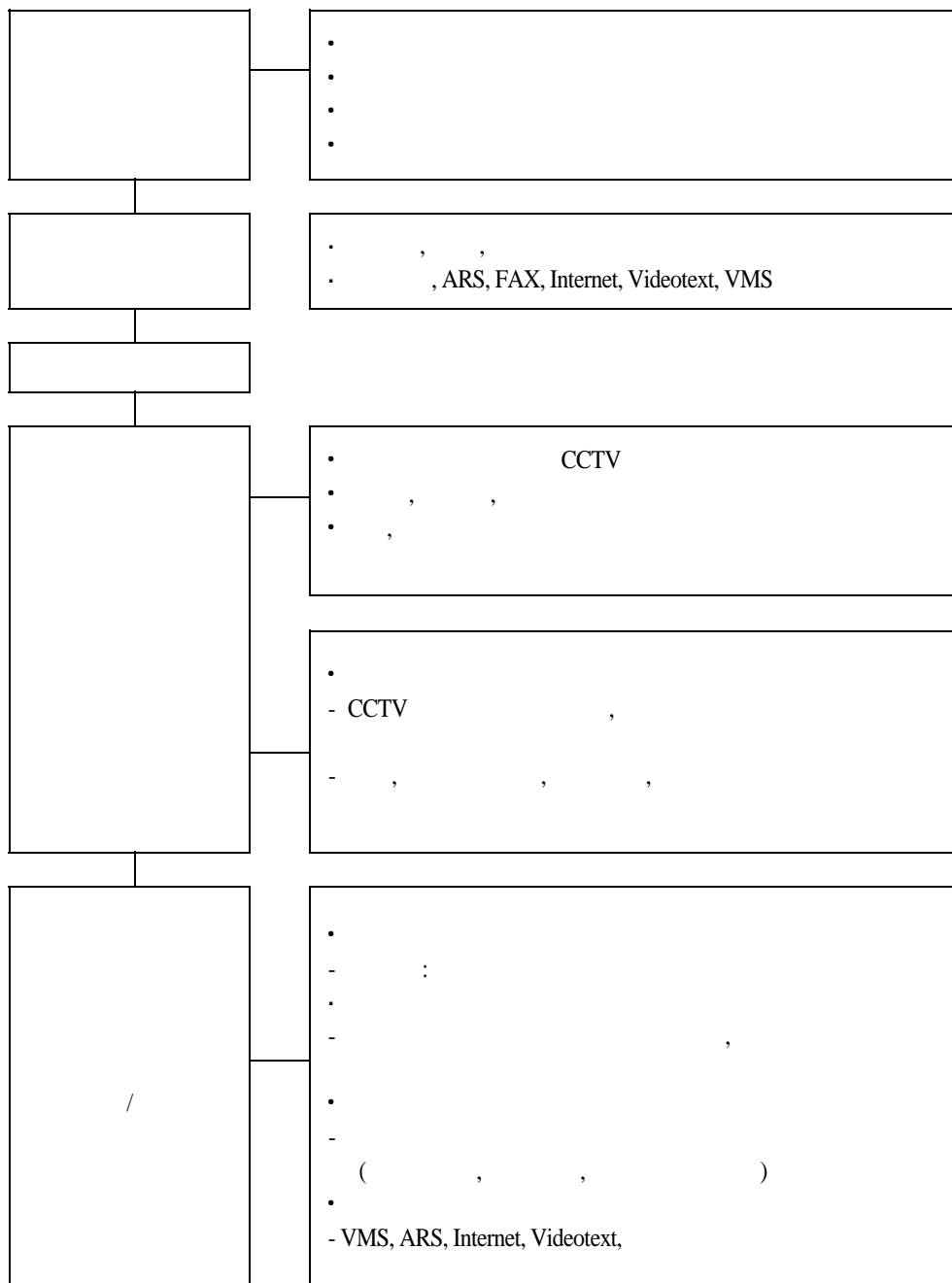
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[11]

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2.

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(Highway Helper)

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2)

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VMS

가

3.

가 (VMS :
Variable Message Sign)
VMS

4

가

가

, VMS

가

1)

(ARS), FAX, Internet, Videotext

, 2)

가

(VMS),

, VMS

(ARS),

(HAR)

가

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VMS

가

ITS

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(HAR : Highway

Advisory Radio)

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On-line

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2. , , , (ATMS) , 4 , 1997. 11
3. , , 1998. 4
4. , , 1995
5. , , 1995
6. , , 1997
7. , , 1996
8. , , 1998
9. , , 1997. 8
10. , , 1997. 8
11. , “ , : (ITS) , 1997
12. , , 1992. 11
13. , , 2 , 1994. 9
14. , , , 1994. 12
15. , , , 1996. 5



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