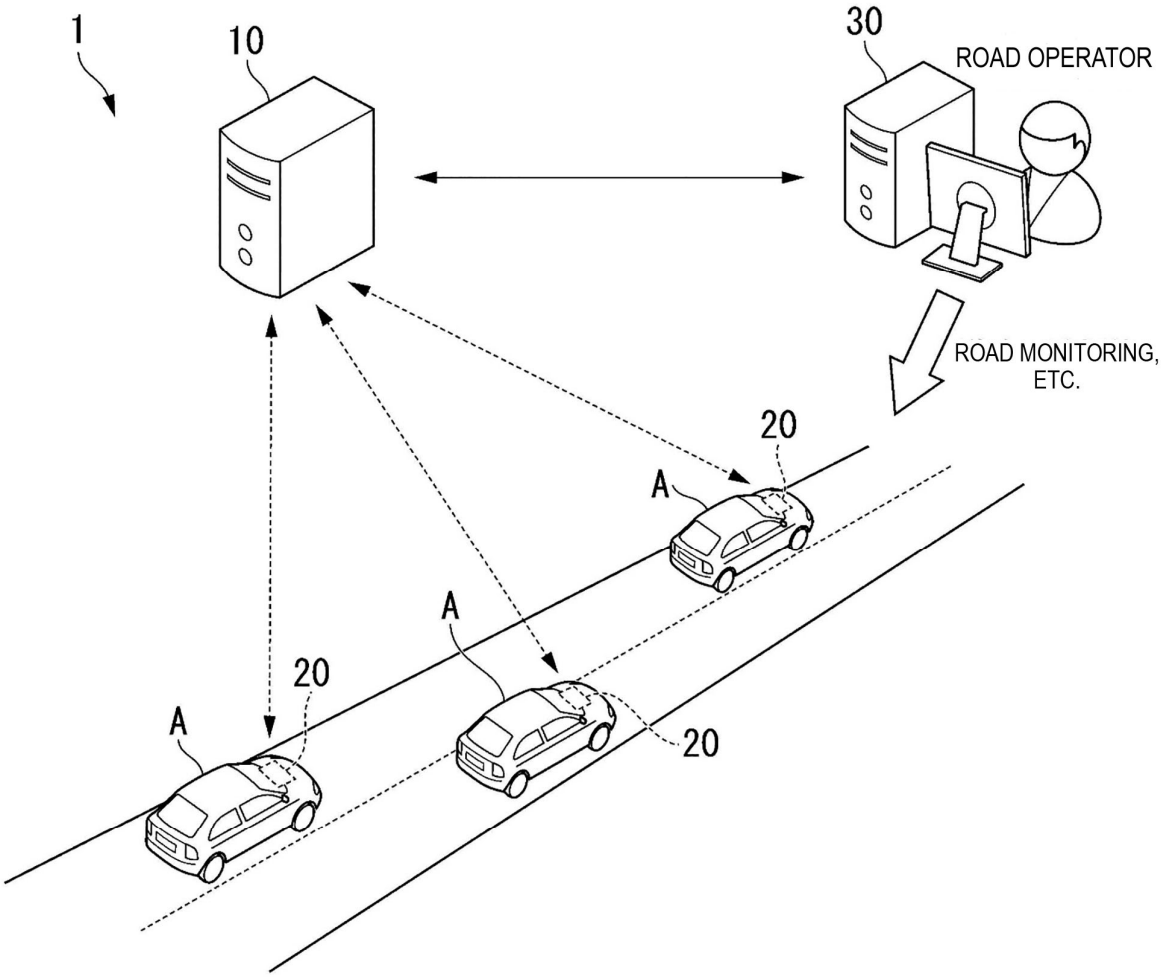


FIG. 1

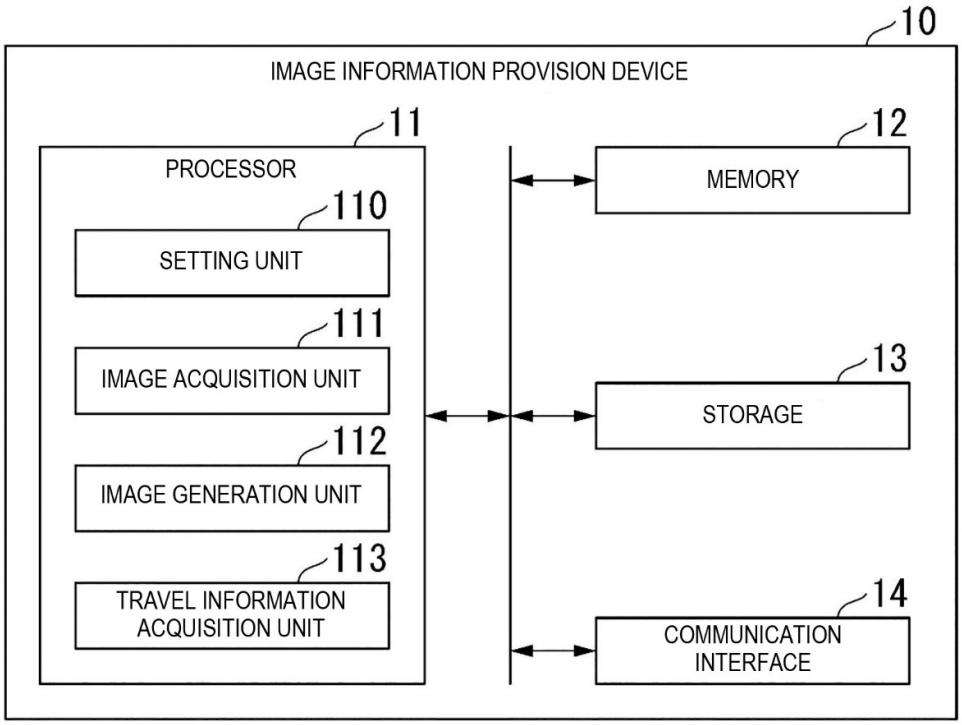

10
IMAGE INFORMATION PROVISION DEVICE
11
PROCESSOR
110
SETTING UNIT
111
IMAGE ACQUISITION UNIT
112
IMAGE GENERATION UNIT
113
TRAVEL INFORMATION ACQUISITION UNIT
12
MEMORY
13
STORAGE
14
COMMUNICATION INTERFACE

FIG. 2

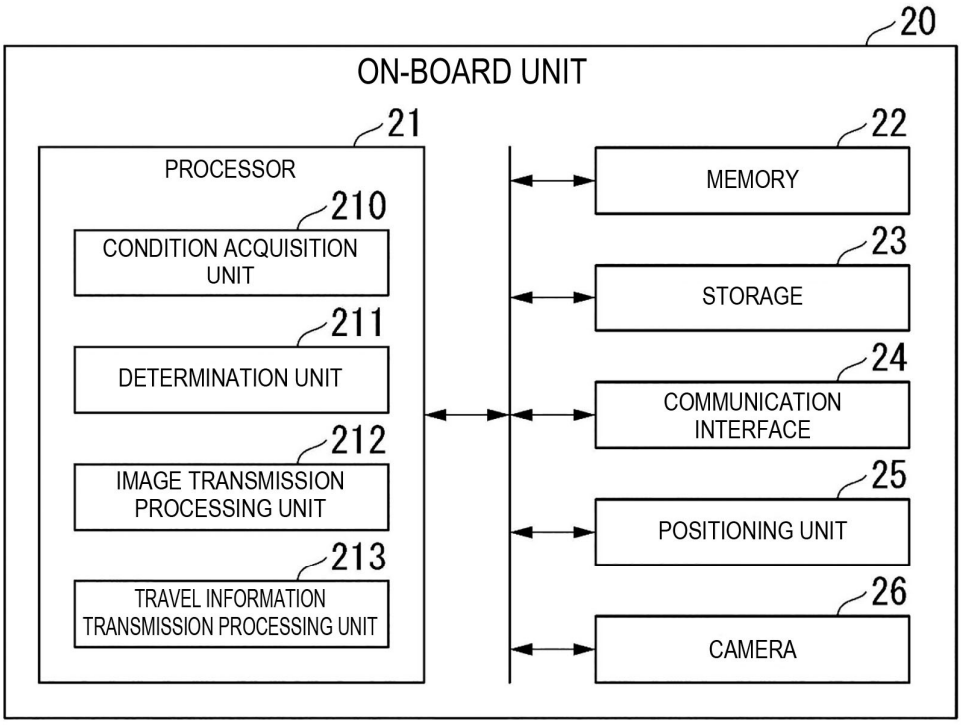

20
ON-BOARD UNIT
21
PROCESSOR
210
CONDITION ACQUISITION UNIT
211
DETERMINATION UNIT
212
IMAGE TRANSMISSION PROCESSING UNIT
213
TRAVEL INFORMATION TRANSMISSION PROCESSING UNIT
22
MEMORY
23
STORAGE
24
COMMUNICATION INTERFACE
25
POSITIONING UNIT
26
CAMERA

FIG. 3

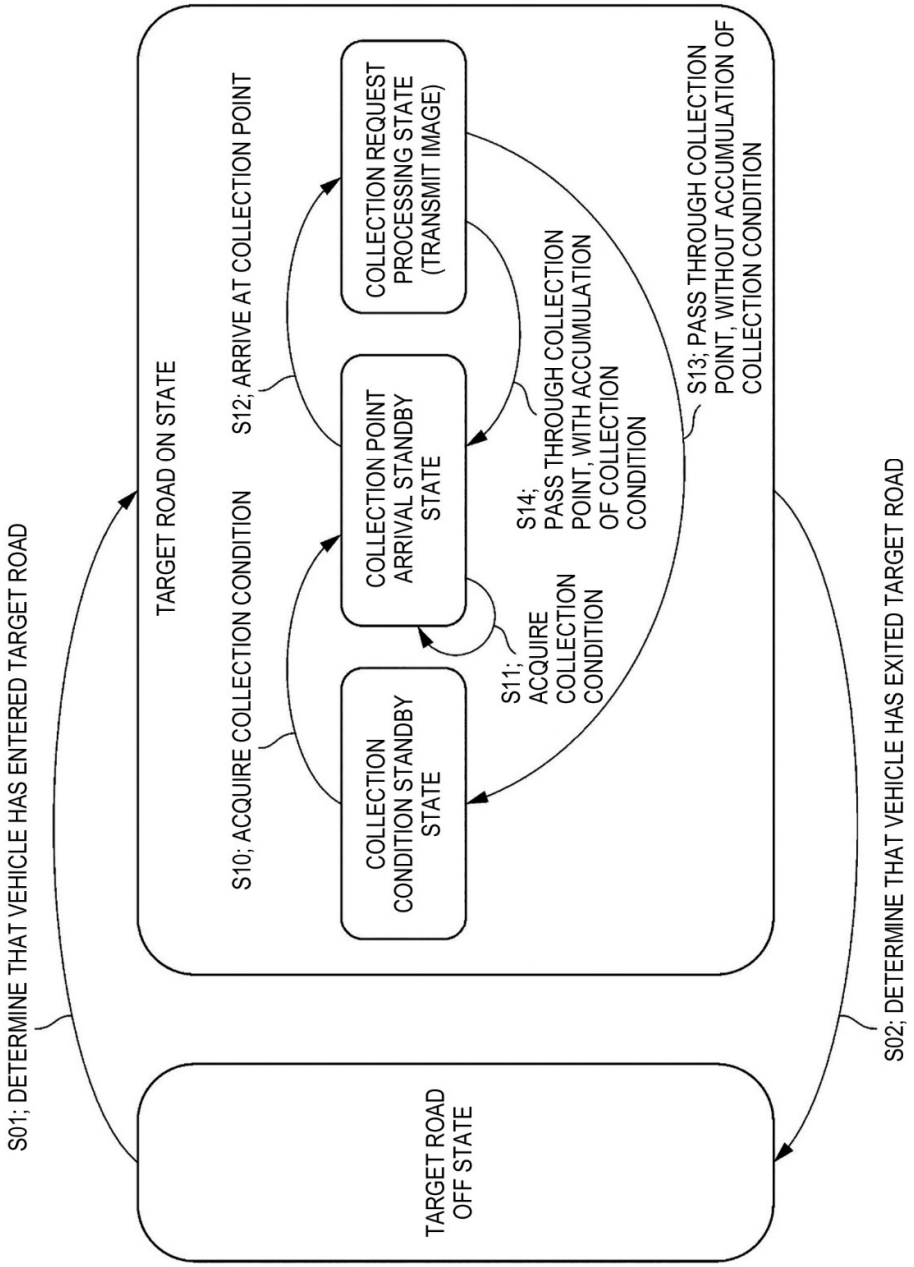

S01; DETERMINE THAT VEHICLE HAS ENTERED TARGET ROAD
TARGET ROAD OFF STATE
TARGET ROAD ON STATE
COLLECTION CONDITION STANDBY STATE
COLLECTION POINT ARRIVAL STANDBY STATE
COLLECTION REQUEST PROCESSING STATE (TRANSMIT IMAGE)
S10; ACQUIRE COLLECTION CONDITION
S11; ACQUIRE COLLECTION CONDITION
S12; ARRIVE AT COLLECTION POINT
S13; PASS THROUGH COLLECTION POINT, WITHOUT ACCUMULATION OF COLLECTION CONDITION
S14; PASS THROUGH COLLECTION POINT, WITH ACCUMULATION OF COLLECTION CONDITION
S02; DETERMINE THAT VEHICLE HAS EXITED TARGET ROAD

FIG. 4

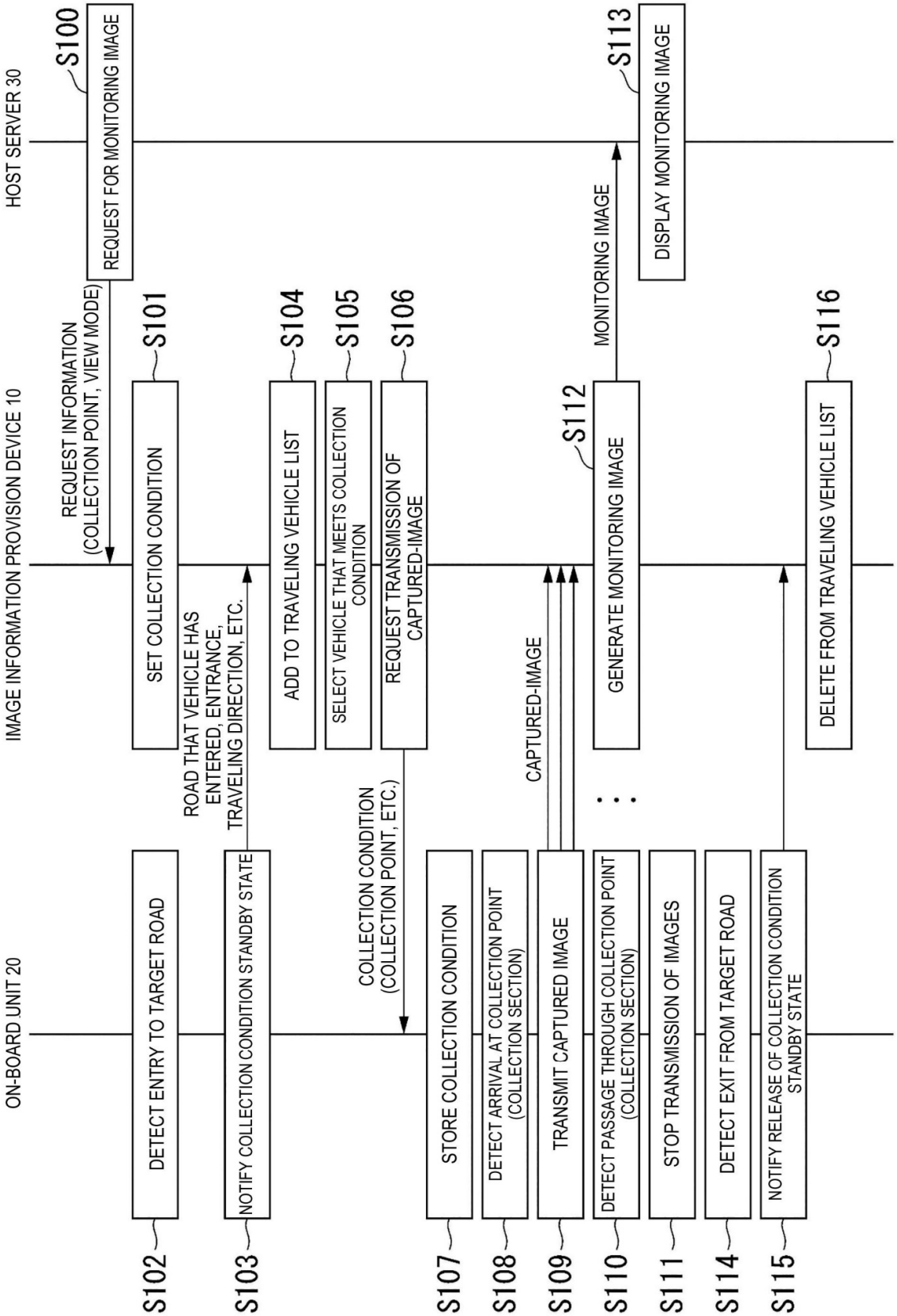

HOST SERVER 30
IMAGE INFORMATION PROVISION DEVICE 10
ON-BOARD UNIT 20
S100
REQUEST FOR MONITORING IMAGE
REQUEST INFORMATION (COLLECTION POINT, VIEW MODE)
S101
SET COLLECTION CONDITION
ROAD THAT VEHICLE HAS ENTERED, ENTRANCE, TRAVELING DIRECTION, ETC.
S102
DETECT ENTRY TO TARGET ROAD
S103
NOTIFY COLLECTION CONDITION STANDBY STATE
S104
ADD TO TRAVELING VEHICLE LIST
S105
SELECT VEHICLE THAT MEETS COLLECTION CONDITION
S106
REQUEST TRANSMISSION OF CAPTURED-IMAGE
COLLECTION CONDITION (COLLECTION POINT, ETC.)
S107
STORE COLLECTION CONDITION
S108
DETECT ARRIVAL AT COLLECTION POINT (COLLECTION SECTION)
S109
TRANSMIT CAPTURED IMAGE
CAPTURED-IMAGE
S110
DETECT PASSAGE THROUGH COLLECTION POINT (COLLECTION SECTION)
S111
STOP TRANSMISSION OF IMAGES
S112
GENERATE MONITORING IMAGE
MONITORING IMAGE
S113
DISPLAY MONITORING IMAGE
S114
DETECT EXIT FROM TARGET ROAD
S115
NOTIFY RELEASE OF COLLECTION CONDITION STANDBY STATE
S116
DELETE FROM TRAVELING VEHICLE LIST

FIG. 5

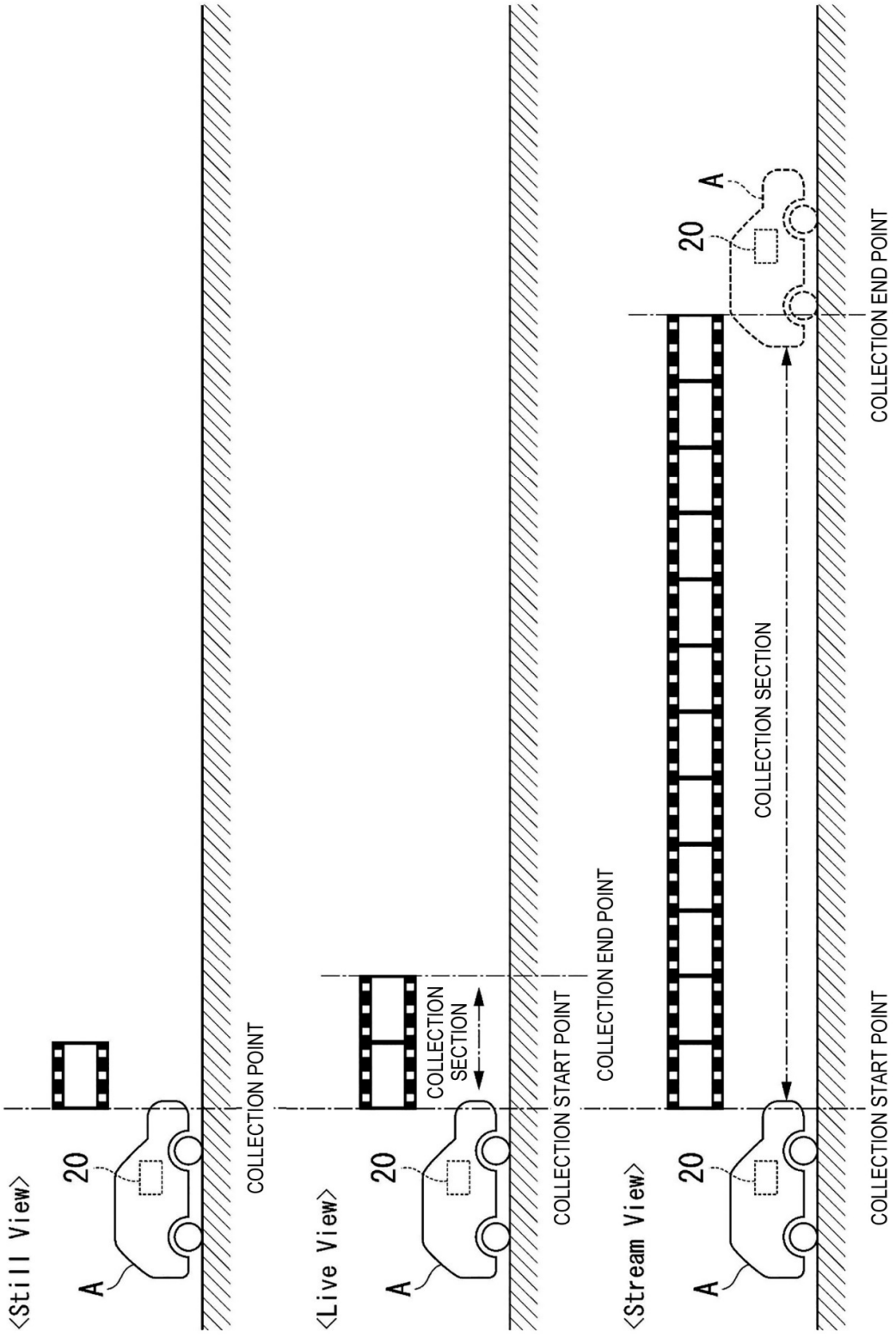

<Still View>
20
A
COLLECTION POINT
<Live View>
20
A
COLLECTION SECTION
COLLECTION START POINT
COLLECTION END POINT
<Stream View>
20
A
COLLECTION SECTION
COLLECTION START POINT
COLLECTION END POINT

FIG. 6

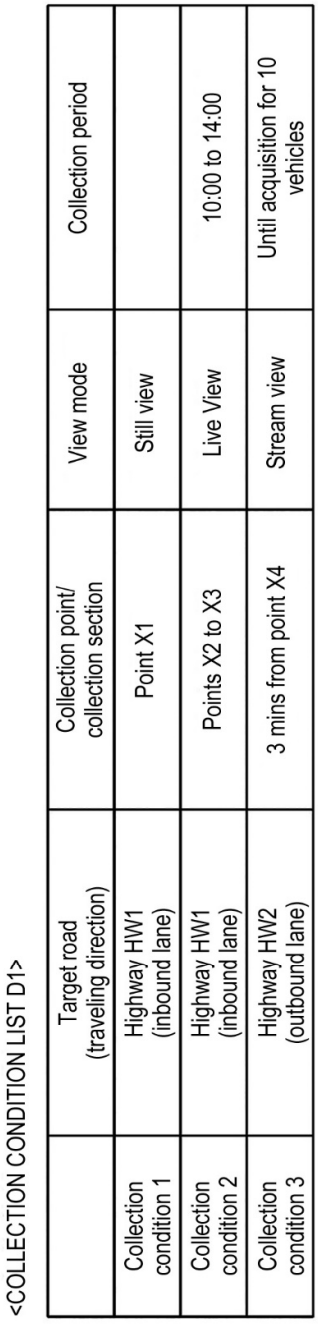

<COLLECTION CONDITION LIST D1>
Target road (traveling direction)
Collection point/ collection section
View mode
Collection period
Collection condition 1
Highway HW1 (inbound lane)
Point X1
Still view
Collection condition 2
Highway HW1 (inbound lane)
Points X2 to X3
Live View
10:00 to 14:00
Collection condition 3
Highway HW2 (outbound lane)
3 mins from point X4
Stream view
Until acquisition for 10 vehicles

FIG. 7

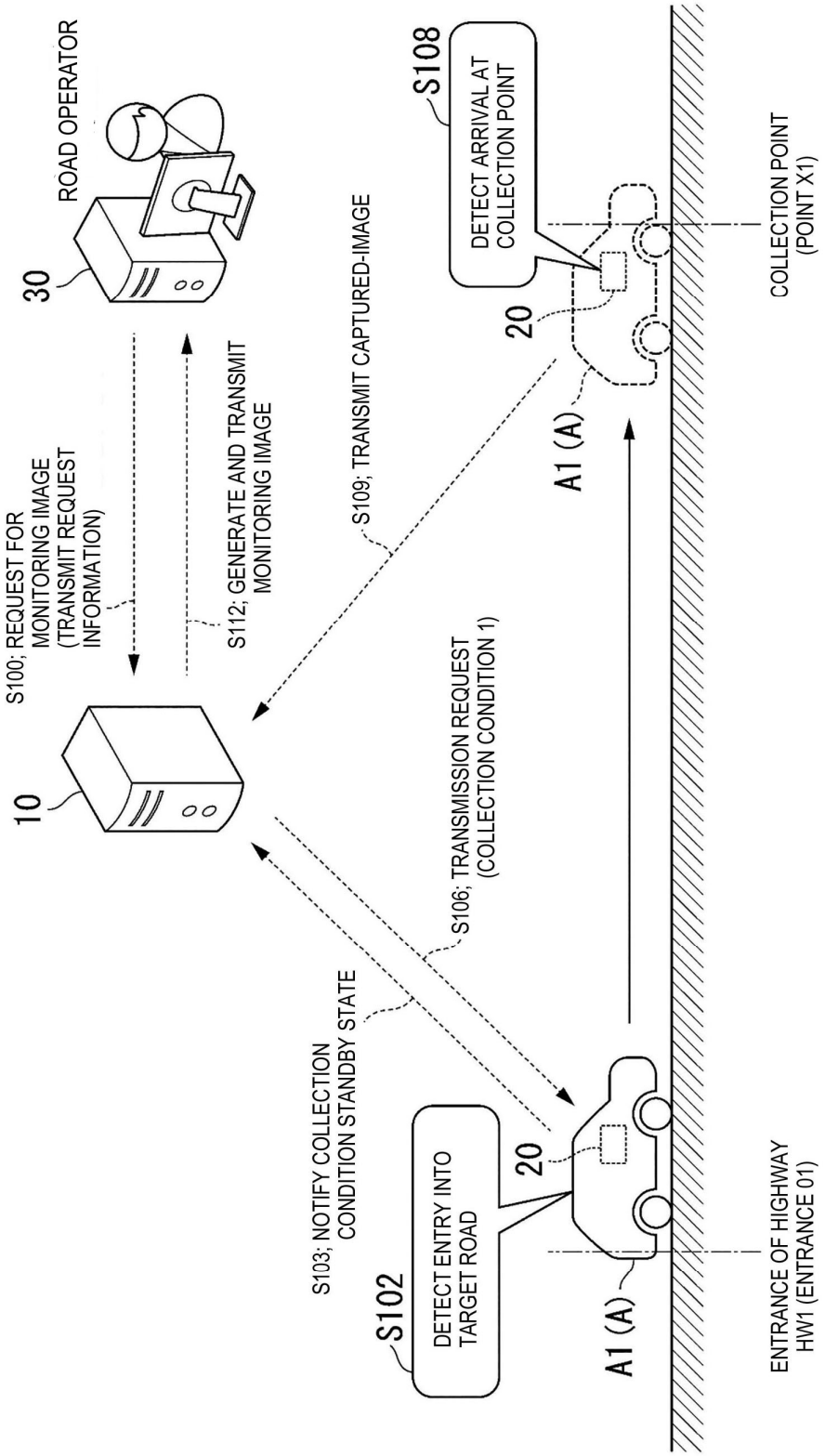

ROAD OPERATOR
30
S100; REQUEST FOR MONITORING IMAGE (TRANSMIT REQUEST INFORMATION)
S112; GENERATE AND TRANSMIT MONITORING IMAGE
10
S103; NOTIFY COLLECTION CONDITION STANDBY STATE
S106; TRANSMISSION REQUEST (COLLECTION CONDITION 1)
S109; TRANSMIT CAPTURED-IMAGE
S102
DETECT ENTRY INTO TARGET ROAD
S108
DETECT ARRIVAL AT COLLECTION POINT
20
20
A1 (A)
A1 (A)
ENTRANCE OF HIGHWAY HW1 (ENTRANCE 01)
COLLECTION POINT (POINT X1)

FIG. 8

<TRAVELING VEHICLE LIST D2>

Target road: highway HW1			
Vehicle identification information (on-board unit ID)	Entry point (entrance ID)	Travel direction	Entry date and time
A1	Entrance 01	Inbound lane	*****
A2	Entrance 02	Inbound lane	*****
A3	Entrance 02	Inbound lane	*****
A4	Entrance 05	Outbound lane	*****

FIG. 9

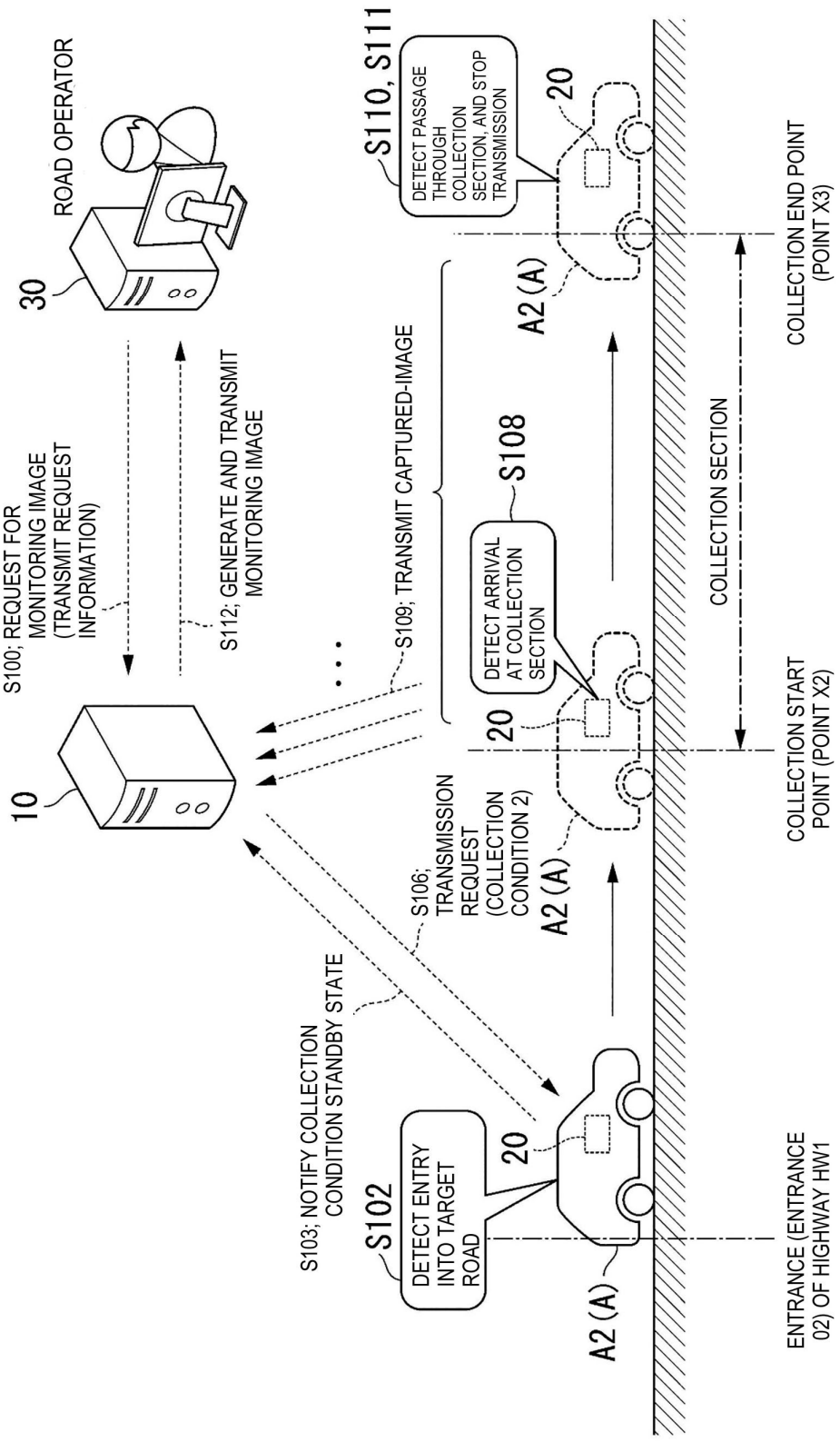

ROAD OPERATOR
30
10
S100; REQUEST FOR MONITORING IMAGE (TRANSMIT REQUEST INFORMATION)
S112; GENERATE AND TRANSMIT MONITORING IMAGE
S109; TRANSMIT CAPTURED-IMAGE
S110, S111
DETECT PASSAGE THROUGH COLLECTION SECTION, AND STOP TRANSMISSION
S108
DETECT ARRIVAL AT COLLECTION SECTION
S106; TRANSMISSION REQUEST (COLLECTION CONDITION 2)
S103; NOTIFY COLLECTION CONDITION STANDBY STATE
S102
DETECT ENTRY INTO TARGET ROAD
20
A2 (A)
COLLECTION END POINT (POINT X3)
COLLECTION SECTION
COLLECTION START POINT (POINT X2)
ENTRANCE (ENTRANCE 02) OF HIGHWAY HW1

FIG. 10

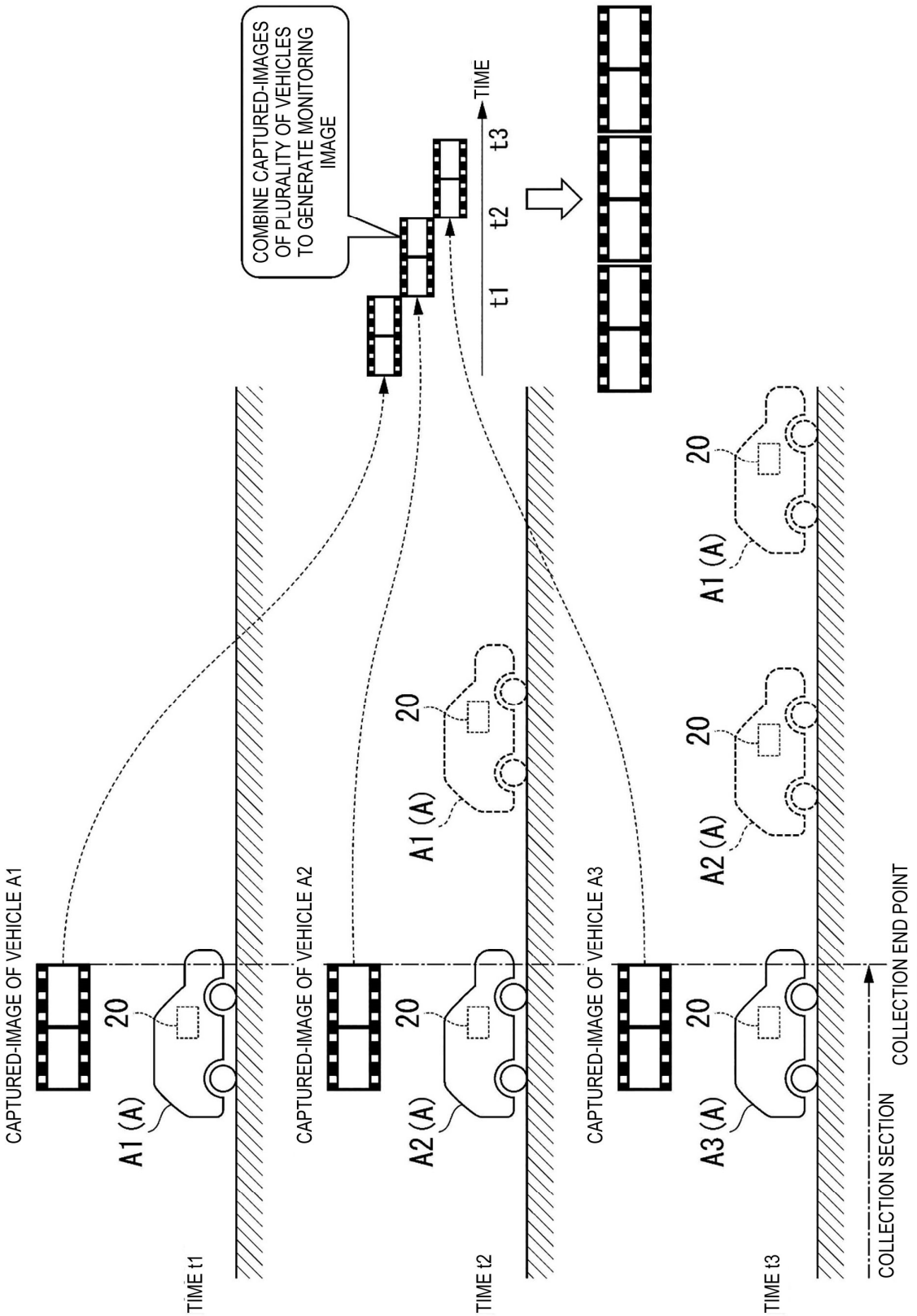

COMBINE CAPTURED-IMAGES OF PLURALITY OF VEHICLES TO GENERATE MONITORING IMAGE
TIME
t1
t2
t3
CAPTURED-IMAGE OF VEHICLE A1
CAPTURED-IMAGE OF VEHICLE A2
CAPTURED-IMAGE OF VEHICLE A3
A1 (A)
A2 (A)
A3 (A)
20
TIME t1
TIME t2
TIME t3
COLLECTION SECTION
COLLECTION END POINT

FIG. 11

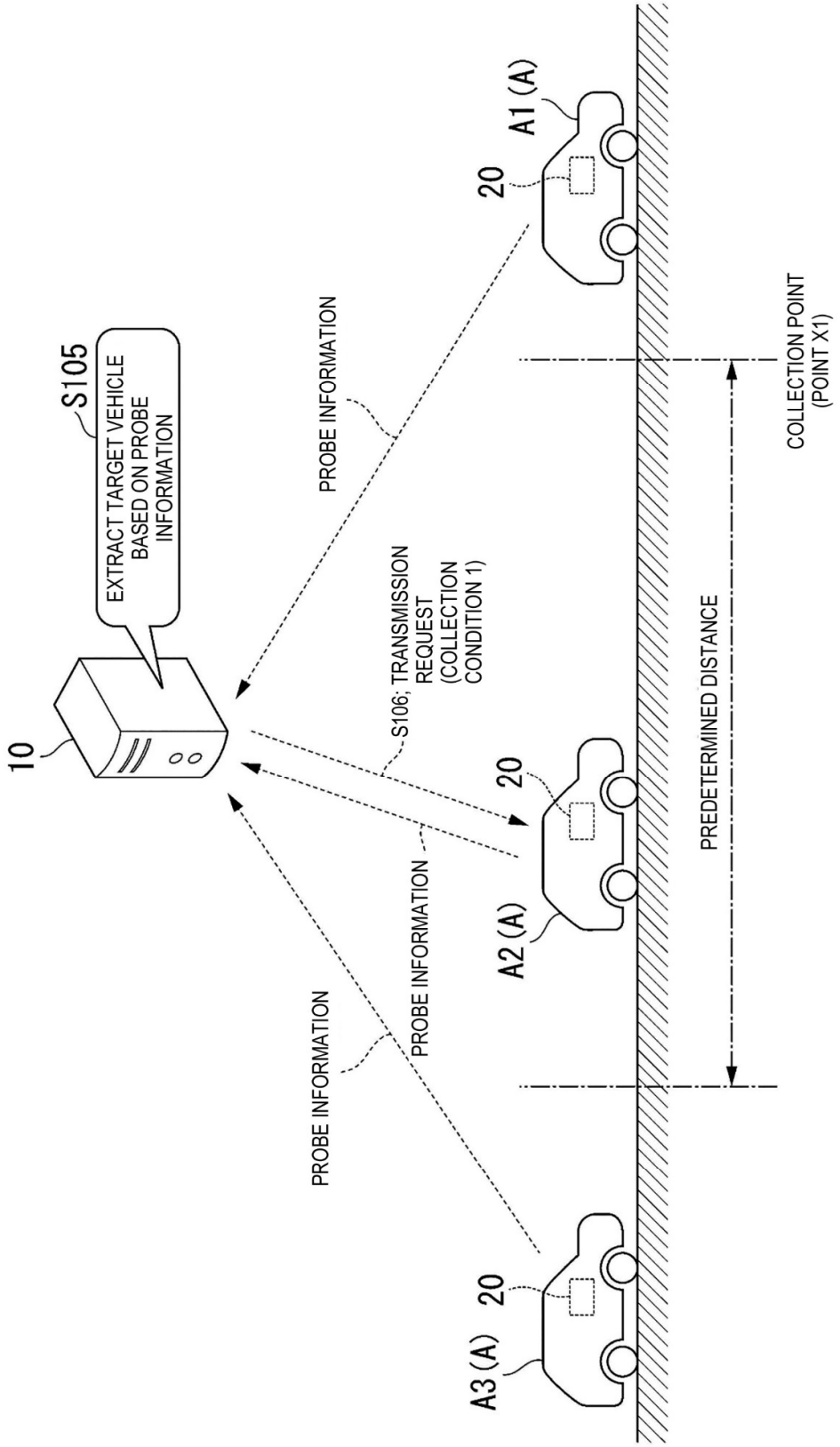

S105
EXTRACT TARGET VEHICLE BASED ON PROBE INFORMATION
10
PROBE INFORMATION
S106; TRANSMISSION REQUEST (COLLECTION CONDITION 1)
PROBE INFORMATION
PROBE INFORMATION
20
A1 (A)
20
A2 (A)
20
A3 (A)
COLLECTION POINT (POINT X1)
PREDETERMINED DISTANCE

FIG. 12

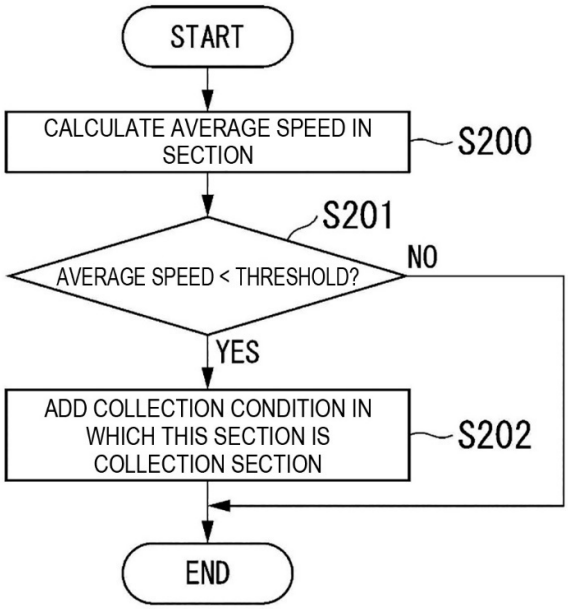

START
CALCULATE AVERAGE SPEED IN SECTION
S200
S201
AVERAGE SPEED < THRESHOLD?
NO
YES
ADD COLLECTION CONDITION IN WHICH THIS SECTION IS COLLECTION SECTION
S202
END

FIG. 13

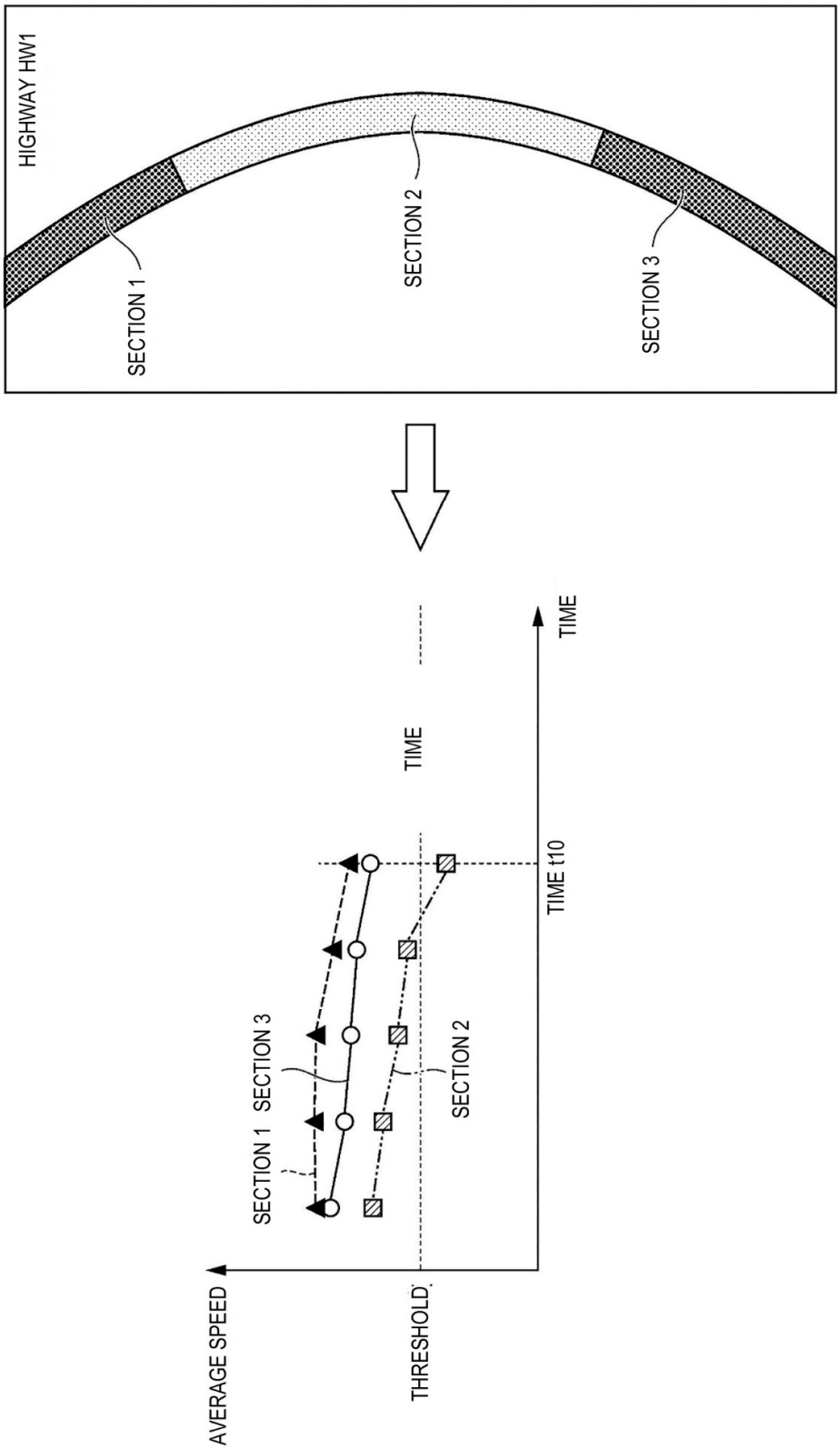

HIGHWAY HW1
SECTION 1
SECTION 2
SECTION 3
TIME
TIME
TIME t10
SECTION 1
SECTION 3
SECTION 2
AVERAGE SPEED
THRESHOLD

FIG. 14

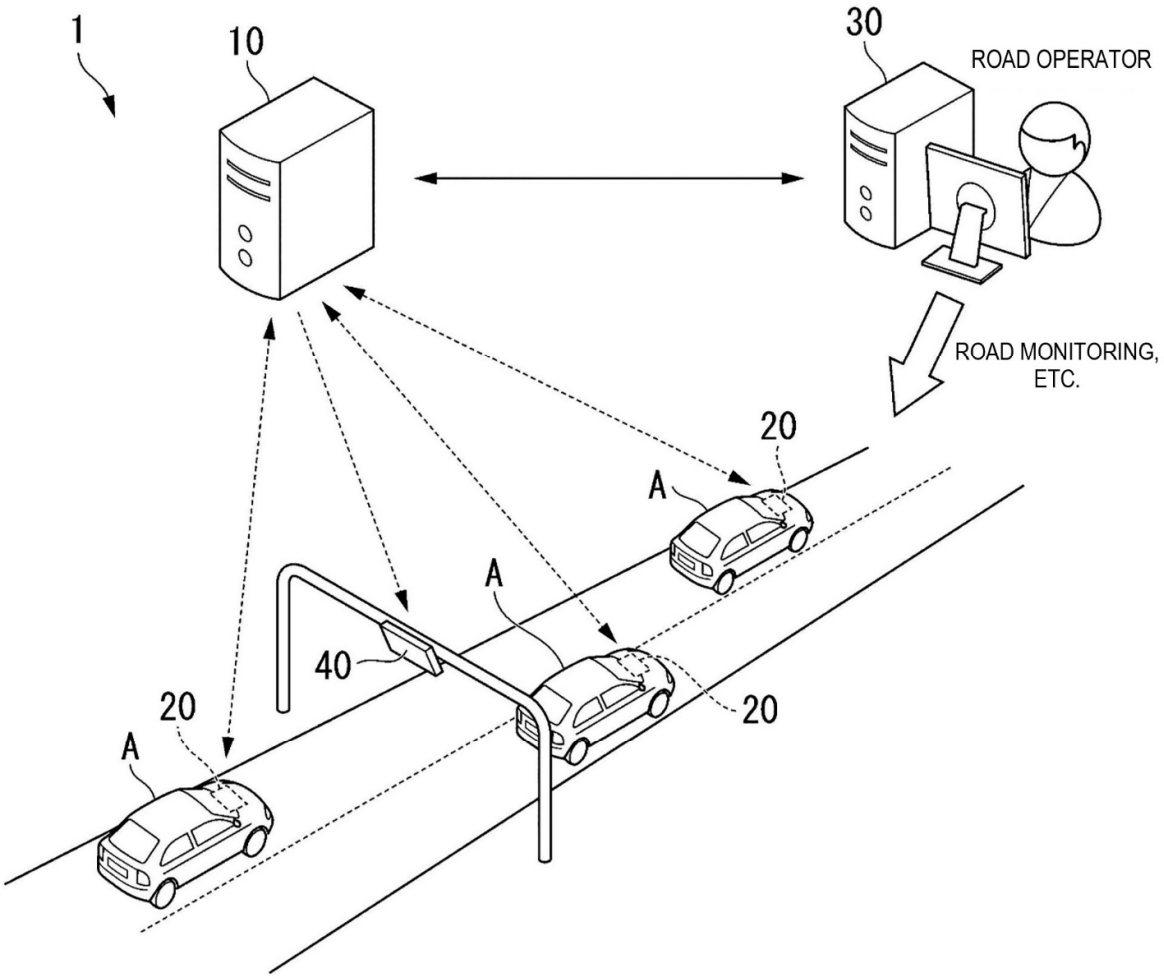


FIG. 15

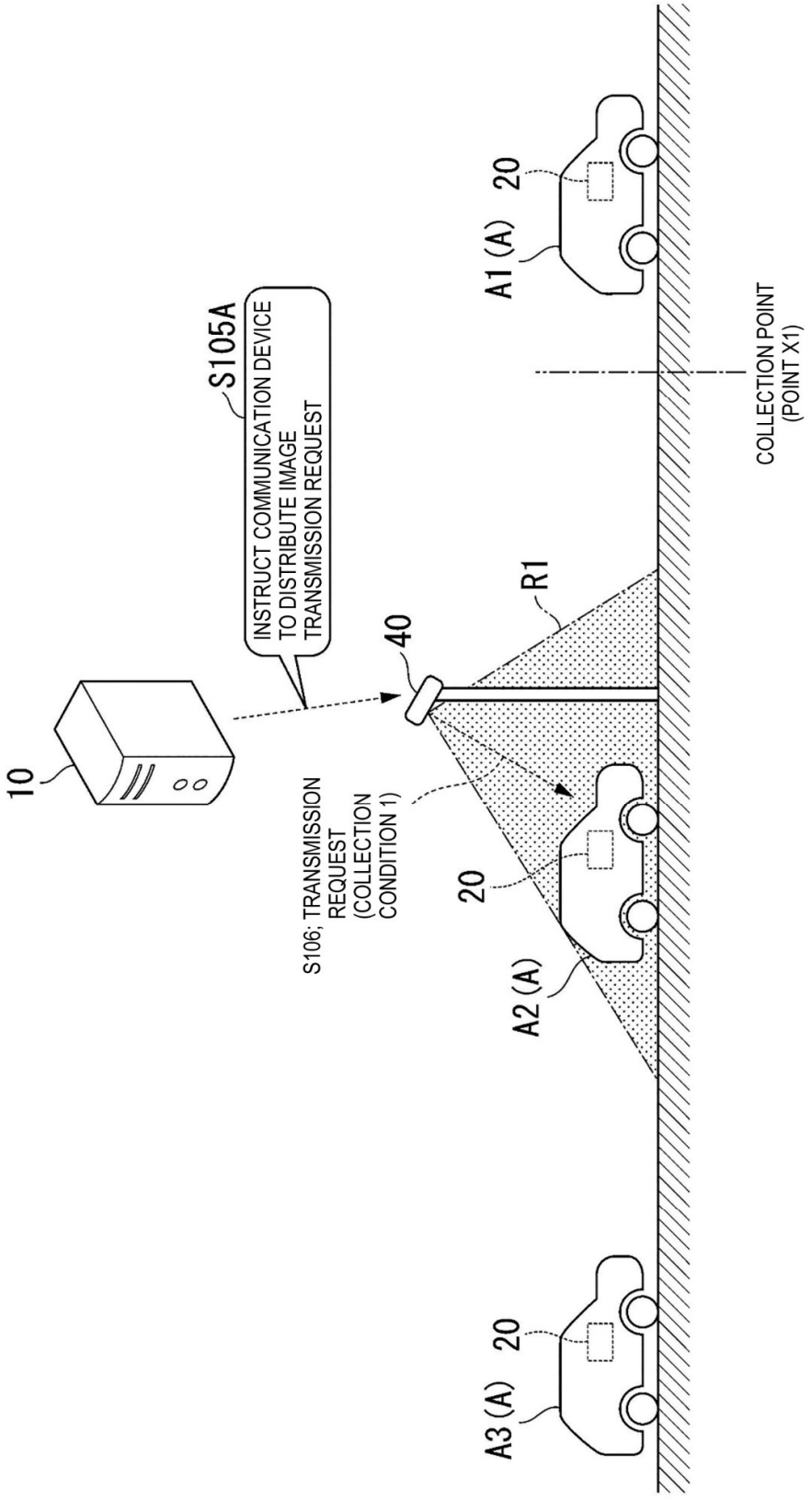

10
S105A
INSTRUCT COMMUNICATION DEVICE TO DISTRIBUTE IMAGE TRANSMISSION REQUEST
40
R1
S106; TRANSMISSION REQUEST (COLLECTION CONDITION 1)
A1 (A)
20
A2 (A)
20
A3 (A)
20
COLLECTION POINT (POINT X1)

FIG. 16