Appendix 12-1

PICADY Junction Capacity Analysis

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY01.vpi" (drive-on-the-left) at 09:57:24 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2026 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
11.00 - 11.15				
	ARM A	0.000	0.296	0.704
		0.0	56.0	133.0
		(0.0)	(1.8)	(1.5)
	ARM B	0.915	0.000	0.085
		43.0	0.0	4.0
		(3.5)	(0.0)	(0.0)
	ARM C	0.968	0.032	0.000
		120.0	4.0	0.0
		(1.7)	(0.0)	(0.0)
11.15 - 11.30				
	ARM A	0.000	0.296	0.704
		0.0	56.0	133.0
		(0.0)	(1.8)	(1.5)
	ARM B	0.915	0.000	0.085
		43.0	0.0	4.0
		(3.5)	(0.0)	(0.0)
	ARM C	0.968	0.032	0.000
		120.0	4.0	0.0
		(1.7)	(0.0)	(0.0)
11.30 - 11.45				
	ARM A	0.000	0.296	0.704
		0.0	56.0	133.0
		(0.0)	(1.8)	(1.5)
	ARM B	0.915	0.000	0.085

```
 I                    I         I   43.0 I    0.0 I    4.0 I
 I                    I         I (  3.5)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.968 I  0.032 I  0.000 I
 I                    I         I  120.0 I    4.0 I    0.0 I
 I                    I         I (  1.7)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.296 I  0.704 I
 I                    I         I    0.0 I   56.0 I  133.0 I
 I                    I         I (  0.0)I (  1.8)I (  1.5)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.915 I  0.000 I  0.085 I
 I                    I         I   43.0 I    0.0 I    4.0 I
 I                    I         I (  3.5)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.968 I  0.032 I  0.000 I
 I                    I         I  120.0 I    4.0 I    0.0 I
 I                    I         I (  1.7)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.74        8.71     0.085                     0.0     0.1          1.3
I
 I    C-AB        0.08       11.56     0.007                     0.0     0.0          0.1
I
 I   C-A      1.88                                                                    I
 I   A-B      0.89                                                                    I
 I   A-C      2.10                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.78        8.65     0.090                     0.1     0.1          1.5
I
 I    C-AB        0.08       11.59     0.007                     0.0     0.0          0.1
I
```

```
 I   C-A       1.99                                                                  I
 I   A-B       0.93                                                                  I
 I   A-C       2.22                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.30-11.45                                                                     I
 I    B-AC        0.84        8.58     0.098                    0.1     0.1          1.6
I
 I    C-AB        0.09       11.63     0.008                    0.0     0.0          0.1
I
 I   C-A       2.14                                                                  I
 I   A-B       1.00                                                                  I
 I   A-C       2.39                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.45-12.00                                                                     I
 I    B-AC        0.76        8.68     0.088                    0.1     0.1          1.5
I
 I    C-AB        0.08       11.58     0.007                    0.0     0.0          0.1
I
 I   C-A       1.94                                                                  I
 I   A-B       0.91                                                                  I
 I   A-C       2.16                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	46.8	46.8	5.9	0.13	5.9	0.13
C-AB	4.8	4.8	0.4	0.09	0.4	0.09
C-A	119.4	119.4				
A-B	56.0	56.0				
A-C	133.0	133.0				
ALL	360.0	360.0	6.3	0.02	6.3	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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Run with file:- "e:\21513PY02.vpi" (drive-on-the-left) at 18:05:10 on Tuesday, 19 March 2024

RUN TITLE
****
N70/R567 - 2026 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
11.00 - 11.15	ARM A	0.000 0.0 (0.0)	0.311 60.0 (1.7)	0.689 133.0 (1.5)
	ARM B	0.906 48.0 (2.2)	0.000 0.0 (0.0)	0.094 5.0 (0.0)
	ARM C	0.968 120.0 (1.7)	0.032 4.0 (0.0)	0.000 0.0 (0.0)
11.15 - 11.30	ARM A	0.000 0.0 (0.0)	0.311 60.0 (1.7)	0.689 133.0 (1.5)
	ARM B	0.906 48.0 (2.2)	0.000 0.0 (0.0)	0.094 5.0 (0.0)
	ARM C	0.968 120.0 (1.7)	0.032 4.0 (0.0)	0.000 0.0 (0.0)
11.30 - 11.45	ARM A	0.000 0.0 (0.0)	0.311 60.0 (1.7)	0.689 133.0 (1.5)
	ARM B	0.906	0.000	0.094

```
 I                    I         I   48.0 I    0.0 I    5.0 I
 I                    I         I ( 2.2)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I 0.968 I 0.032 I 0.000 I
 I                    I         I 120.0 I    4.0 I    0.0 I
 I                    I         I ( 1.7)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I 0.000 I 0.311 I 0.689 I
 I                    I         I   0.0 I  60.0 I 133.0 I
 I                    I         I ( 0.0)I ( 1.7)I ( 1.5)I
 I                    I         I        I        I        I
 I                    I  ARM B  I 0.906 I 0.000 I 0.094 I
 I                    I         I  48.0 I    0.0 I    5.0 I
 I                    I         I ( 2.2)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I 0.968 I 0.032 I 0.000 I
 I                    I         I 120.0 I    4.0 I    0.0 I
 I                    I         I ( 1.7)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.84        8.82     0.095                     0.0     0.1          1.5
I
 I    C-AB        0.08       11.54     0.007                     0.0     0.0          0.1
I
 I   C-A      1.88                                                                    I
 I   A-B      0.95                                                                    I
 I   A-C      2.11                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.88        8.77     0.100                     0.1     0.1          1.6
I
 I    C-AB        0.08       11.57     0.007                     0.0     0.0          0.1
I
```

```
 I   C-A       1.99                                                                  I
 I   A-B       1.00                                                                  I
 I   A-C       2.22                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.30-11.45                                                                     I
 I    B-AC        0.94        8.69     0.108                    0.1     0.1          1.8
I
 I    C-AB        0.09       11.62     0.008                    0.0     0.0          0.1
I
 I   C-A       2.14                                                                  I
 I   A-B       1.08                                                                  I
 I   A-C       2.38                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.45-12.00                                                                     I
 I    B-AC        0.86        8.79     0.098                    0.1     0.1          1.7
I
 I    C-AB        0.08       11.56     0.007                    0.0     0.0          0.1
I
 I   C-A       1.94                                                                  I
 I   A-B       0.98                                                                  I
 I   A-C       2.16                                                                  I
 I                                                                                   I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	52.8	52.8	6.6	0.12	6.6	0.12
C-AB	4.8	4.8	0.4	0.09	0.4	0.09
C-A	119.4	119.4				
A-B	60.1	60.1				
A-C	133.1	133.1				
ALL	370.2	370.2	7.0	0.02	7.0	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY03.vpi" (drive-on-the-left) at 10:06:11 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2026 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.268 I  0.732 I
I                    I         I    0.0 I   51.0 I  139.0 I
I                    I         I (  0.0)I (  2.0)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.925 I  0.000 I  0.075 I
I                    I         I   74.0 I    0.0 I    6.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
I                    I         I  163.0 I   10.0 I    0.0 I
I                    I         I (  1.8)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.268 I  0.732 I
I                    I         I    0.0 I   51.0 I  139.0 I
I                    I         I (  0.0)I (  2.0)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.925 I  0.000 I  0.075 I
I                    I         I   74.0 I    0.0 I    6.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
I                    I         I  163.0 I   10.0 I    0.0 I
I                    I         I (  1.8)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.268 I  0.732 I
I                    I         I    0.0 I   51.0 I  139.0 I
I                    I         I (  0.0)I (  2.0)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.925 I  0.000 I  0.075 I
```

```
 I                    I         I   74.0 I    0.0 I    6.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
 I                    I         I  163.0 I   10.0 I    0.0 I
 I                    I         I (  1.8)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS         I
 I                    I         TURNING COUNTS              I
 I                    I        (PERCENTAGE OF H.V.S)        I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.268 I  0.732 I
 I                    I         I    0.0 I   51.0 I  139.0 I
 I                    I         I (  0.0)I (  2.0)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.925 I  0.000 I  0.075 I
 I                    I         I   74.0 I    0.0 I    6.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
 I                    I         I  163.0 I   10.0 I    0.0 I
 I                    I         I (  1.8)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                        I
 I    B-AC        1.27        8.81     0.144                     0.0     0.2          2.4
I
 I    C-AB        0.20       12.00     0.017                     0.0     0.0          0.3
I
 I   C-A      2.54                                                                    I
 I   A-B      0.81                                                                    I
 I   A-C      2.20                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                        I
 I    B-AC        1.33        8.75     0.152                     0.2     0.2          2.6
I
 I    C-AB        0.21       12.04     0.018                     0.0     0.0          0.3
I
```

```
 I   C-A       2.67                                                                    I
 I   A-B       0.85                                                                    I
 I   A-C       2.32                                                                    I
 I                                                                                     I
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----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        1.43        8.65     0.165                    0.2     0.2           2.9
I
 I    C-AB        0.23       12.12     0.019                    0.0     0.0           0.3
I
 I   C-A       2.87                                                                    I
 I   A-B       0.92                                                                    I
 I   A-C       2.49                                                                    I
 I                                                                                     I
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----------

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        1.30        8.78     0.148                    0.2     0.2           2.7
I
 I    C-AB        0.21       12.02     0.017                    0.0     0.0           0.3
I
 I   C-A       2.60                                                                    I
 I   A-B       0.83                                                                    I
 I   A-C       2.26                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	80.0	80.0	10.6	0.13	10.6	0.13
C-AB	12.8	12.8	1.3	0.10	1.3	0.10
C-A	160.1	160.1				
A-B	51.1	51.1				
A-C	139.1	139.1				
ALL	443.1	443.1	11.9	0.03	11.9	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY04.vpi" (drive-on-the-left) at 18:09:08 on Tuesday, 19 March 2024

RUN TITLE
****
N70/R567 - 2026 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
17.00 - 17.15				
	ARM A	0.000	0.291	0.709
		0.0	57.0	139.0
		(0.0)	(1.8)	(0.7)
	ARM B	0.929	0.000	0.071
		78.0	0.0	6.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.942	0.058	0.000
		163.0	10.0	0.0
		(1.9)	(0.0)	(0.0)
17.15 - 17.30				
	ARM A	0.000	0.291	0.709
		0.0	57.0	139.0
		(0.0)	(1.8)	(0.7)
	ARM B	0.929	0.000	0.071
		78.0	0.0	6.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.942	0.058	0.000
		163.0	10.0	0.0
		(1.9)	(0.0)	(0.0)
17.30 - 17.45				
	ARM A	0.000	0.291	0.709
		0.0	57.0	139.0
		(0.0)	(1.8)	(0.7)
	ARM B	0.929	0.000	0.071

```
 I                    I         I   78.0 I    0.0 I    6.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
 I                    I         I  163.0 I   10.0 I    0.0 I
 I                    I         I (  1.9)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.291 I  0.709 I
 I                    I         I    0.0 I   57.0 I  139.0 I
 I                    I         I (  0.0)I (  1.8)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.929 I  0.000 I  0.071 I
 I                    I         I   78.0 I    0.0 I    6.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.942 I  0.058 I  0.000 I
 I                    I         I  163.0 I   10.0 I    0.0 I
 I                    I         I (  1.9)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                        I
 I    B-AC        1.35        8.79     0.154                     0.0     0.2          2.6
I
 I    C-AB        0.20       11.97     0.017                     0.0     0.0          0.3
I
 I   C-A      2.54                                                                    I
 I   A-B      0.90                                                                    I
 I   A-C      2.21                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                        I
 I    B-AC        1.42        8.73     0.163                     0.2     0.2          2.8
I
 I    C-AB        0.21       12.02     0.018                     0.0     0.0          0.3
I
```

```
 I   C-A       2.67                                                                    I
 I   A-B       0.95                                                                    I
 I   A-C       2.32                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        1.52        8.64     0.176                    0.2     0.2           3.1
I
 I    C-AB        0.23       12.10     0.019                    0.0     0.0           0.3
I
 I   C-A       2.87                                                                    I
 I   A-B       1.02                                                                    I
 I   A-C       2.49                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        1.39        8.76     0.159                    0.2     0.2           2.9
I
 I    C-AB        0.21       12.00     0.017                    0.0     0.0           0.3
I
 I   C-A       2.60                                                                    I
 I   A-B       0.93                                                                    I
 I   A-C       2.26                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	85.2	85.2	11.5	0.13	11.5	0.13
C-AB	12.8	12.8	1.3	0.10	1.3	0.10
C-A	160.1	160.1				
A-B	57.1	57.1				
A-C	139.1	139.1				
ALL	454.4	454.4	12.7	0.03	12.7	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY05.vpi" (drive-on-the-left) at 10:14:27 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2031 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
11.00 - 11.15				
	ARM A	0.000	0.293	0.707
		0.0	58.0	140.0
		(0.0)	(1.7)	(2.2)
	ARM B	0.918	0.000	0.082
		45.0	0.0	4.0
		(2.2)	(0.0)	(0.0)
	ARM C	0.969	0.031	0.000
		126.0	4.0	0.0
		(1.8)	(0.0)	(0.0)
11.15 - 11.30				
	ARM A	0.000	0.293	0.707
		0.0	58.0	140.0
		(0.0)	(1.7)	(2.2)
	ARM B	0.918	0.000	0.082
		45.0	0.0	4.0
		(2.2)	(0.0)	(0.0)
	ARM C	0.969	0.031	0.000
		126.0	4.0	0.0
		(1.8)	(0.0)	(0.0)
11.30 - 11.45				
	ARM A	0.000	0.293	0.707
		0.0	58.0	140.0
		(0.0)	(1.7)	(2.2)
	ARM B	0.918	0.000	0.082

```
 I                    I         I   45.0 I    0.0 I    4.0 I
 I                    I         I (  2.2)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.969 I  0.031 I  0.000 I
 I                    I         I  126.0 I    4.0 I    0.0 I
 I                    I         I (  1.8)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.293 I  0.707 I
 I                    I         I    0.0 I   58.0 I  140.0 I
 I                    I         I (  0.0)I (  1.7)I (  2.2)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.918 I  0.000 I  0.082 I
 I                    I         I   45.0 I    0.0 I    4.0 I
 I                    I         I (  2.2)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.969 I  0.031 I  0.000 I
 I                    I         I  126.0 I    4.0 I    0.0 I
 I                    I         I (  1.8)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.78        8.75     0.089                     0.0     0.1          1.4
I
 I    C-AB        0.08       11.58     0.007                     0.0     0.0          0.1
I
 I   C-A      1.98                                                                     I
 I   A-B      0.92                                                                     I
 I   A-C      2.22                                                                     I
 I                                                                                     I
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----------

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.82        8.69     0.094                     0.1     0.1          1.5
I
 I    C-AB        0.08       11.61     0.007                     0.0     0.0          0.1
I
```

```
 I   C-A       2.09                                                                    I
 I   A-B       0.97                                                                    I
 I   A-C       2.33                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        0.88        8.61     0.102                    0.1     0.1          1.7
I
 I    C-AB        0.09       11.65     0.008                    0.0     0.0          0.1
I
 I   C-A       2.24                                                                    I
 I   A-B       1.04                                                                    I
 I   A-C       2.51                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.80        8.72     0.092                    0.1     0.1          1.6
I
 I    C-AB        0.08       11.60     0.007                    0.0     0.0          0.1
I
 I   C-A       2.04                                                                    I
 I   A-B       0.94                                                                    I
 I   A-C       2.28                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	49.2	49.2	6.2	0.13	6.2	0.13
C-AB	4.9	4.9	0.4	0.09	0.4	0.09
C-A	125.3	125.3				
A-B	58.0	58.0				
A-C	140.1	140.1				
ALL	377.5	377.5	6.6	0.02	6.6	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY06.vpi" (drive-on-the-left) at 10:17:24 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2031 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   11.00 - 11.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.333 I  0.667 I
I                    I         I    0.0 I   70.0 I  140.0 I
I                    I         I (  0.0)I (  1.4)I (  2.2)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.910 I  0.000 I  0.090 I
I                    I         I   61.0 I    0.0 I    6.0 I
I                    I         I (  1.7)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
I                    I         I  126.0 I    5.0 I    0.0 I
I                    I         I (  2.4)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.15 - 11.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.333 I  0.667 I
I                    I         I    0.0 I   70.0 I  140.0 I
I                    I         I (  0.0)I (  1.4)I (  2.2)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.910 I  0.000 I  0.090 I
I                    I         I   61.0 I    0.0 I    6.0 I
I                    I         I (  1.7)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
I                    I         I  126.0 I    5.0 I    0.0 I
I                    I         I (  2.4)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.30 - 11.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.333 I  0.667 I
I                    I         I    0.0 I   70.0 I  140.0 I
I                    I         I (  0.0)I (  1.4)I (  2.2)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.910 I  0.000 I  0.090 I
```

```
 I                    I         I   61.0 I    0.0 I    6.0 I
 I                    I         I ( 1.7)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
 I                    I         I  126.0 I    5.0 I    0.0 I
 I                    I         I ( 2.4)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.333 I  0.667 I
 I                    I         I    0.0 I   70.0 I  140.0 I
 I                    I         I ( 0.0)I ( 1.4)I ( 2.2)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.910 I  0.000 I  0.090 I
 I                    I         I   61.0 I    0.0 I    6.0 I
 I                    I         I ( 1.7)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
 I                    I         I  126.0 I    5.0 I    0.0 I
 I                    I         I ( 2.4)I ( 0.0)I ( 0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        1.06        8.78     0.121                     0.0     0.1          2.0
I
 I    C-AB        0.10       11.53     0.008                     0.0     0.0          0.1
I
 I   C-A      1.97                                                                     I
 I   A-B      1.11                                                                     I
 I   A-C      2.22                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        1.12        8.72     0.128                     0.1     0.1          2.2
I
 I    C-AB        0.10       11.56     0.009                     0.0     0.0          0.1
I
```

```
 I   C-A       2.08                                                                    I
 I   A-B       1.17                                                                    I
 I   A-C       2.33                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                         I
 I    B-AC        1.21        8.64     0.140                    0.1      0.2           2.4
I
 I    C-AB        0.11       11.59     0.010                    0.0      0.0           0.2
I
 I   C-A       2.23                                                                    I
 I   A-B       1.25                                                                    I
 I   A-C       2.51                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                         I
 I    B-AC        1.09        8.75     0.125                    0.2      0.1           2.2
I
 I    C-AB        0.10       11.55     0.009                    0.0      0.0           0.1
I
 I   C-A       2.03                                                                    I
 I   A-B       1.14                                                                    I
 I   A-C       2.27                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.2
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	67.2	67.2	8.7	0.13	8.7	0.13
C-AB	6.1	6.1	0.6	0.09	0.6	0.09
C-A	124.7	124.7				
A-B	70.0	70.0				
A-C	140.0	140.0				
ALL	408.0	408.0	9.3	0.02	9.3	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY07.vpi" (drive-on-the-left) at 10:21:19 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2031 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
17.00 - 17.15				
	ARM A	0.000	0.271	0.729
		0.0	54.0	145.0
		(0.0)	(1.9)	(0.7)
	ARM B	0.918	0.000	0.082
		78.0	0.0	7.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.940	0.060	0.000
		172.0	11.0	0.0
		(2.3)	(0.0)	(0.0)
17.15 - 17.30				
	ARM A	0.000	0.271	0.729
		0.0	54.0	145.0
		(0.0)	(1.9)	(0.7)
	ARM B	0.918	0.000	0.082
		78.0	0.0	7.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.940	0.060	0.000
		172.0	11.0	0.0
		(2.3)	(0.0)	(0.0)
17.30 - 17.45				
	ARM A	0.000	0.271	0.729
		0.0	54.0	145.0
		(0.0)	(1.9)	(0.7)
	ARM B	0.918	0.000	0.082

```
 I                    I         I   78.0 I    0.0 I    7.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
 I                    I         I  172.0 I   11.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.271 I  0.729 I
 I                    I         I    0.0 I   54.0 I  145.0 I
 I                    I         I (  0.0)I (  1.9)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.918 I  0.000 I  0.082 I
 I                    I         I   78.0 I    0.0 I    7.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
 I                    I         I  172.0 I   11.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                        I
 I    B-AC        1.35        8.76     0.154                    0.0     0.2          2.6
I
 I    C-AB        0.22       12.05     0.019                    0.0     0.0          0.3
I
 I   C-A      2.68                                                                    I
 I   A-B      0.85                                                                    I
 I   A-C      2.30                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                        I
 I    B-AC        1.42        8.70     0.163                    0.2     0.2          2.9
I
 I    C-AB        0.24       12.10     0.020                    0.0     0.0          0.4
I
```

```
 I   C-A       2.81                                                                    I
 I   A-B       0.90                                                                    I
 I   A-C       2.42                                                                    I
 I                                                                                     I
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----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        1.53        8.60     0.178                    0.2     0.2           3.2
I
 I    C-AB        0.26       12.18     0.021                    0.0     0.0           0.4
I
 I   C-A       3.02                                                                    I
 I   A-B       0.97                                                                    I
 I   A-C       2.60                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        1.38        8.73     0.158                    0.2     0.2           2.9
I
 I    C-AB        0.23       12.07     0.019                    0.0     0.0           0.3
I
 I   C-A       2.74                                                                    I
 I   A-B       0.88                                                                    I
 I   A-C       2.36                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	85.2	85.2	11.5	0.14	11.5	0.14
C-AB	14.3	14.3	1.4	0.10	1.4	0.10
C-A	168.7	168.7				
A-B	54.1	54.1				
A-C	145.1	145.1				
ALL	467.4	467.4	12.9	0.03	12.9	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

ADAPTED FROM PICADY/3 WHICH IS CROWN COPYRIGHT
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FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY08.vpi" (drive-on-the-left) at 10:24:37 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2031 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

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.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.341 I  0.659 I
I                    I         I    0.0 I   75.0 I  145.0 I
I                    I         I (  0.0)I (  1.3)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.912 I  0.000 I  0.088 I
I                    I         I   93.0 I    0.0 I    9.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
I                    I         I  172.0 I   13.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.341 I  0.659 I
I                    I         I    0.0 I   75.0 I  145.0 I
I                    I         I (  0.0)I (  1.3)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.912 I  0.000 I  0.088 I
I                    I         I   93.0 I    0.0 I    9.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
I                    I         I  172.0 I   13.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.341 I  0.659 I
I                    I         I    0.0 I   75.0 I  145.0 I
I                    I         I (  0.0)I (  1.3)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.912 I  0.000 I  0.088 I
```

```
 I                    I         I   93.0 I    0.0 I    9.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
 I                    I         I  172.0 I   13.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.341 I  0.659 I
 I                    I         I    0.0 I   75.0 I  145.0 I
 I                    I         I (  0.0)I (  1.3)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.912 I  0.000 I  0.088 I
 I                    I         I   93.0 I    0.0 I    9.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
 I                    I         I  172.0 I   13.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        1.62        8.73     0.186                     0.0     0.2          3.2
I
 I    C-AB        0.26       11.97     0.022                     0.0     0.0          0.4
I
 I   C-A      2.67                                                                      I
 I   A-B      1.19                                                                      I
 I   A-C      2.29                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        1.70        8.66     0.196                     0.2     0.2          3.6
I
 I    C-AB        0.28       12.02     0.023                     0.0     0.0          0.4
I
```

```
 I   C-A       2.80                                                                    I
 I   A-B       1.25                                                                    I
 I   A-C       2.42                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        1.83        8.56     0.214                    0.2     0.3          4.0
I
 I    C-AB        0.31       12.09     0.026                    0.0     0.0          0.5
I
 I   C-A       3.00                                                                  I
 I   A-B       1.35                                                                  I
 I   A-C       2.60                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        1.66        8.69     0.191                    0.3     0.2          3.6
I
 I    C-AB        0.27       11.99     0.023                    0.0     0.0          0.4
I
 I   C-A       2.73                                                                  I
 I   A-B       1.22                                                                  I
 I   A-C       2.36                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.3
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	102.2	102.2	14.4	0.14	14.4	0.14
C-AB	16.9	16.9	1.7	0.10	1.7	0.10
C-A	167.9	167.9				
A-B	75.1	75.1				
A-C	145.1	145.1				
ALL	507.1	507.1	16.2	0.03	16.2	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

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Run with file:- "e:\21513PY09.vpi" (drive-on-the-left) at 10:28:19 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2041 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   11.00 - 11.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.294 I  0.706 I
I                    I         I    0.0 I   59.0 I  142.0 I
I                    I         I (  0.0)I (  1.7)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.920 I  0.000 I  0.080 I
I                    I         I   46.0 I    0.0 I    4.0 I
I                    I         I (  2.2)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.970 I  0.030 I  0.000 I
I                    I         I  128.0 I    4.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.15 - 11.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.294 I  0.706 I
I                    I         I    0.0 I   59.0 I  142.0 I
I                    I         I (  0.0)I (  1.7)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.920 I  0.000 I  0.080 I
I                    I         I   46.0 I    0.0 I    4.0 I
I                    I         I (  2.2)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.970 I  0.030 I  0.000 I
I                    I         I  128.0 I    4.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.30 - 11.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.294 I  0.706 I
I                    I         I    0.0 I   59.0 I  142.0 I
I                    I         I (  0.0)I (  1.7)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.920 I  0.000 I  0.080 I
```

```
 I                    I         I   46.0 I    0.0 I    4.0 I
 I                    I         I (  2.2)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.970 I  0.030 I  0.000 I
 I                    I         I  128.0 I    4.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.294 I  0.706 I
 I                    I         I    0.0 I   59.0 I  142.0 I
 I                    I         I (  0.0)I (  1.7)I (  2.1)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.920 I  0.000 I  0.080 I
 I                    I         I   46.0 I    0.0 I    4.0 I
 I                    I         I (  2.2)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.970 I  0.030 I  0.000 I
 I                    I         I  128.0 I    4.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.79        8.73     0.090                     0.0     0.1          1.4
I
 I    C-AB        0.08       11.59     0.007                     0.0     0.0          0.1
I
 I   C-A      2.01                                                                     I
 I   A-B      0.93                                                                     I
 I   A-C      2.25                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.83        8.67     0.096                     0.1     0.1          1.6
I
 I    C-AB        0.08       11.62     0.007                     0.0     0.0          0.1
I
```

```
 I   C-A       2.12                                                                    I
 I   A-B       0.98                                                                    I
 I   A-C       2.37                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                         I
 I    B-AC        0.89        8.59     0.104                    0.1      0.1           1.7
I
 I    C-AB        0.09       11.66     0.008                    0.0      0.0           0.1
I
 I   C-A       2.28                                                                    I
 I   A-B       1.06                                                                    I
 I   A-C       2.54                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                         I
 I    B-AC        0.81        8.70     0.093                    0.1      0.1           1.6
I
 I    C-AB        0.08       11.61     0.007                    0.0      0.0           0.1
I
 I   C-A       2.07                                                                    I
 I   A-B       0.96                                                                    I
 I   A-C       2.31                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	49.8	49.8	6.3	0.13	6.3	0.13
C-AB	4.9	4.9	0.4	0.09	0.4	0.09
C-A	127.3	127.3				
A-B	59.0	59.0				
A-C	142.0	142.0				
ALL	383.0	383.0	6.7	0.02	6.7	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY10.vpi" (drive-on-the-left) at 10:31:28 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2041 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

I DATA ITEM I MINOR ROAD B I

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------
I                   I         TURNING PROPORTIONS         I
I                   I         TURNING COUNTS              I
I                   I        (PERCENTAGE OF H.V.S)        I
I                   ------------------------------------
I       TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------
I   11.00 - 11.15   I         I        I        I        I
I                   I  ARM A  I  0.000 I  0.333 I  0.667 I
I                   I         I    0.0 I   71.0 I  142.0 I
I                   I         I (  0.0)I (  1.4)I (  2.1)I
I                   I         I        I        I        I
I                   I  ARM B  I  0.912 I  0.000 I  0.088 I
I                   I         I   62.0 I    0.0 I    6.0 I
I                   I         I (  1.6)I (  0.0)I (  0.0)I
I                   I         I        I        I        I
I                   I  ARM C  I  0.962 I  0.038 I  0.000 I
I                   I         I  128.0 I    5.0 I    0.0 I
I                   I         I (  2.3)I (  0.0)I (  0.0)I
I                   I         I        I        I        I
-----------------------------------------------------------
I   11.15 - 11.30   I         I        I        I        I
I                   I  ARM A  I  0.000 I  0.333 I  0.667 I
I                   I         I    0.0 I   71.0 I  142.0 I
I                   I         I (  0.0)I (  1.4)I (  2.1)I
I                   I         I        I        I        I
I                   I  ARM B  I  0.912 I  0.000 I  0.088 I
I                   I         I   62.0 I    0.0 I    6.0 I
I                   I         I (  1.6)I (  0.0)I (  0.0)I
I                   I         I        I        I        I
I                   I  ARM C  I  0.962 I  0.038 I  0.000 I
I                   I         I  128.0 I    5.0 I    0.0 I
I                   I         I (  2.3)I (  0.0)I (  0.0)I
I                   I         I        I        I        I
-----------------------------------------------------------
I   11.30 - 11.45   I         I        I        I        I
I                   I  ARM A  I  0.000 I  0.333 I  0.667 I
I                   I         I    0.0 I   71.0 I  142.0 I
I                   I         I (  0.0)I (  1.4)I (  2.1)I
I                   I         I        I        I        I
I                   I  ARM B  I  0.912 I  0.000 I  0.088 I
```

```
 I                    I         I   62.0 I    0.0 I    6.0 I
 I                    I         I (  1.6)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
 I                    I         I  128.0 I    5.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.333 I  0.667 I
 I                    I         I    0.0 I   71.0 I  142.0 I
 I                    I         I (  0.0)I (  1.4)I (  2.1)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.912 I  0.000 I  0.088 I
 I                    I         I   62.0 I    0.0 I    6.0 I
 I                    I         I (  1.6)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.962 I  0.038 I  0.000 I
 I                    I         I  128.0 I    5.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        1.08        8.77     0.123                     0.0     0.1          2.0
I
 I    C-AB        0.10       11.55     0.008                     0.0     0.0          0.1
I
 I   C-A      2.01                                                                     I
 I   A-B      1.12                                                                     I
 I   A-C      2.25                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        1.13        8.71     0.130                     0.1     0.1          2.2
I
 I    C-AB        0.10       11.57     0.009                     0.0     0.0          0.1
I
```

```
 I   C-A       2.12                                                                    I
 I   A-B       1.18                                                                    I
 I   A-C       2.37                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                         I
 I    B-AC        1.21        8.62     0.140                    0.1      0.2           2.4
I
 I    C-AB        0.11       11.61     0.010                    0.0      0.0           0.2
I
 I   C-A       2.28                                                                    I
 I   A-B       1.27                                                                    I
 I   A-C       2.55                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                         I
 I    B-AC        1.10        8.74     0.126                    0.2      0.1           2.2
I
 I    C-AB        0.10       11.56     0.009                    0.0      0.0           0.1
I
 I   C-A       2.07                                                                    I
 I   A-B       1.15                                                                    I
 I   A-C       2.31                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.2
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.0
   11.30           0.0
   11.45           0.0
   12.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	67.8	67.8	8.8	0.13	8.8	0.13
C-AB	6.1	6.1	0.6	0.09	0.6	0.09
C-A	127.2	127.2				
A-B	71.0	71.0				
A-C	142.0	142.0				
ALL	414.2	414.2	9.4	0.02	9.4	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY11.vpi" (drive-on-the-left) at 10:34:41 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2041 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.20 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 160.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 160.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.65 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.270 I  0.730 I
I                    I         I    0.0 I   54.0 I  146.0 I
I                    I         I (  0.0)I (  1.9)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.919 I  0.000 I  0.081 I
I                    I         I   79.0 I    0.0 I    7.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
I                    I         I 173.0 I   11.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.270 I  0.730 I
I                    I         I    0.0 I   54.0 I  146.0 I
I                    I         I (  0.0)I (  1.9)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.919 I  0.000 I  0.081 I
I                    I         I   79.0 I    0.0 I    7.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
I                    I         I 173.0 I   11.0 I    0.0 I
I                    I         I (  2.3)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.270 I  0.730 I
I                    I         I    0.0 I   54.0 I  146.0 I
I                    I         I (  0.0)I (  1.9)I (  0.7)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.919 I  0.000 I  0.081 I
```

```
 I                    I         I   79.0 I    0.0 I    7.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
 I                    I         I  173.0 I   11.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS         I
 I                    I         TURNING COUNTS              I
 I                    I        (PERCENTAGE OF H.V.S)        I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.270 I  0.730 I
 I                    I         I    0.0 I   54.0 I  146.0 I
 I                    I         I (  0.0)I (  1.9)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.919 I  0.000 I  0.081 I
 I                    I         I   79.0 I    0.0 I    7.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.940 I  0.060 I  0.000 I
 I                    I         I  173.0 I   11.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                        I
 I    B-AC        1.36        8.76     0.155                    0.0     0.2          2.6
I
 I    C-AB        0.22       12.06     0.018                    0.0     0.0          0.3
I
 I   C-A      2.69                                                                    I
 I   A-B      0.85                                                                    I
 I   A-C      2.31                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                        I
 I    B-AC        1.43        8.69     0.165                    0.2     0.2          2.9
I
 I    C-AB        0.24       12.11     0.020                    0.0     0.0          0.4
I
```

```
 I   C-A       2.83                                                                    I
 I   A-B       0.90                                                                    I
 I   A-C       2.43                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        1.54        8.59     0.179                    0.2     0.2           3.2
I
 I    C-AB        0.26       12.19     0.021                    0.0     0.0           0.4
I
 I   C-A       3.04                                                                    I
 I   A-B       0.97                                                                    I
 I   A-C       2.63                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        1.39        8.72     0.159                    0.2     0.2           2.9
I
 I    C-AB        0.23       12.09     0.019                    0.0     0.0           0.3
I
 I   C-A       2.77                                                                    I
 I   A-B       0.88                                                                    I
 I   A-C       2.37                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	85.8	85.8	11.6	0.14	11.6	0.14
C-AB	14.3	14.3	1.4	0.10	1.4	0.10
C-A	169.9	169.9				
A-B	54.0	54.0				
A-C	146.1	146.1				
ALL	470.1	470.1	13.0	0.03	13.0	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY12.vpi" (drive-on-the-left) at 10:37:44 on Thursday, 1 February 2024

RUN TITLE
****
N70/R567 - 2041 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS N70 South
ARM B IS R567
ARM C IS N70 North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.20 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.	
- LANE 1 WIDTH	(WB-C)	2.65 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
17.00 - 17.15	ARM A	0.000	0.339	0.661
		0.0	75.0	146.0
		(0.0)	(1.3)	(0.7)
	ARM B	0.913	0.000	0.087
		94.0	0.0	9.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.930	0.070	0.000
		173.0	13.0	0.0
		(2.3)	(0.0)	(0.0)
17.15 - 17.30	ARM A	0.000	0.339	0.661
		0.0	75.0	146.0
		(0.0)	(1.3)	(0.7)
	ARM B	0.913	0.000	0.087
		94.0	0.0	9.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.930	0.070	0.000
		173.0	13.0	0.0
		(2.3)	(0.0)	(0.0)
17.30 - 17.45	ARM A	0.000	0.339	0.661
		0.0	75.0	146.0
		(0.0)	(1.3)	(0.7)
	ARM B	0.913	0.000	0.087

```
 I                    I         I   94.0 I    0.0 I    9.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
 I                    I         I  173.0 I   13.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.339 I  0.661 I
 I                    I         I    0.0 I   75.0 I  146.0 I
 I                    I         I (  0.0)I (  1.3)I (  0.7)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.913 I  0.000 I  0.087 I
 I                    I         I   94.0 I    0.0 I    9.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.930 I  0.070 I  0.000 I
 I                    I         I  173.0 I   13.0 I    0.0 I
 I                    I         I (  2.3)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        1.63        8.72     0.187                      0.0     0.2          3.3
I
 I    C-AB        0.26       11.98     0.022                      0.0     0.0          0.4
I
 I   C-A      2.69                                                                      I
 I   A-B      1.19                                                                      I
 I   A-C      2.31                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        1.72        8.65     0.199                      0.2     0.2          3.6
I
 I    C-AB        0.28       12.03     0.023                      0.0     0.0          0.4
I
```

```
 I   C-A       2.82                                                                    I
 I   A-B       1.25                                                                    I
 I   A-C       2.43                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        1.85        8.55     0.216                    0.2     0.3          4.0
I
 I    C-AB        0.31       12.10     0.026                    0.0     0.0          0.5
I
 I   C-A       3.02                                                                  I
 I   A-B       1.34                                                                  I
 I   A-C       2.62                                                                  I
 I                                                                                     I
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.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        1.68        8.68     0.193                    0.3     0.2          3.7
I
 I    C-AB        0.27       12.00     0.023                    0.0     0.0          0.4
I
 I   C-A       2.75                                                                  I
 I   A-B       1.22                                                                  I
 I   A-C       2.37                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.2
   17.30           0.2
   17.45           0.3
   18.00           0.2
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.0
   17.30           0.0
   17.45           0.0
   18.00           0.0
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	103.2	103.2	14.6	0.14	14.6	0.14
C-AB	16.9	16.9	1.7	0.10	1.7	0.10
C-A	169.1	169.1				
A-B	75.0	75.0				
A-C	146.0	146.0				
ALL	510.2	510.2	16.4	0.03	16.4	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY13.vpi" (drive-on-the-left) at 10:59:03 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2026 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	160.0 M.
- BLOCKS TRAFFIC		YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	120.0 M.
- VISIBILITY TO RIGHT	(VB-A)	120.0 M.
- LANE 1 WIDTH	(WB-C)	2.70 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
11.00 - 11.15				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.095	0.000	0.905
		4.0	0.0	38.0
		(0.0)	(0.0)	(2.6)
	ARM C	0.486	0.514	0.000
		35.0	37.0	0.0
		(2.9)	(2.7)	(0.0)
11.15 - 11.30				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.095	0.000	0.905
		4.0	0.0	38.0
		(0.0)	(0.0)	(2.6)
	ARM C	0.486	0.514	0.000
		35.0	37.0	0.0
		(2.9)	(2.7)	(0.0)
11.30 - 11.45				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.095	0.000	0.905

```
 I                    I         I    4.0 I    0.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.6)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.486 I  0.514 I  0.000 I
 I                    I         I   35.0 I   37.0 I    0.0 I
 I                    I         I (  2.9)I (  2.7)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.116 I  0.884 I
 I                    I         I    0.0 I    5.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.095 I  0.000 I  0.905 I
 I                    I         I    4.0 I    0.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.6)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.486 I  0.514 I  0.000 I
 I                    I         I   35.0 I   37.0 I    0.0 I
 I                    I         I (  2.9)I (  2.7)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.67      10.63     0.063                    0.0     0.1          1.0
I
 I    C-AB        0.62      11.00     0.056                    0.0     0.1          0.9
I
 I   C-A      0.52                                                                    I
 I   A-B      0.08                                                                    I
 I   A-C      0.60                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.70      10.62     0.066                    0.1     0.1          1.0
I
 I    C-AB        0.65      11.01     0.059                    0.1     0.1          1.0
I
```

```
 I   C-A       0.55                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.64                                                                    I
 I                                                                                     I
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.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        0.75       10.60     0.071                    0.1      0.1           1.1
I
 I    C-AB        0.70       11.02     0.064                    0.1      0.1           1.1
I
 I   C-A       0.59                                                                    I
 I   A-B       0.09                                                                    I
 I   A-C       0.68                                                                    I
 I                                                                                     I
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.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.68       10.63     0.064                    0.1      0.1           1.0
I
 I    C-AB        0.63       11.00     0.058                    0.1      0.1           1.0
I
 I   C-A       0.54                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.62                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	42.0	42.0	4.2	0.10	4.2	0.10
C-AB	39.1	39.1	4.0	0.10	4.0	0.10
C-A	32.9	32.9				
A-B	5.0	5.0				
A-C	38.0	38.0				
ALL	157.0	157.0	8.2	0.05	8.2	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY14.vpi" (drive-on-the-left) at 18:14:03 on Tuesday, 19 March 2024

RUN TITLE
****
R566/R567 - 2026 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	160.0 M.
- BLOCKS TRAFFIC		YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	120.0 M.
- VISIBILITY TO RIGHT	(VB-A)	120.0 M.
- LANE 1 WIDTH	(WB-C)	2.70 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
11.00 - 11.15				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.087	0.000	0.913
		4.0	0.0	42.0
		(0.0)	(0.0)	(2.5)
	ARM C	0.467	0.533	0.000
		35.0	40.0	0.0
		(2.9)	(2.6)	(0.0)
11.15 - 11.30				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.087	0.000	0.913
		4.0	0.0	42.0
		(0.0)	(0.0)	(2.5)
	ARM C	0.467	0.533	0.000
		35.0	40.0	0.0
		(2.9)	(2.6)	(0.0)
11.30 - 11.45				
	ARM A	0.000	0.116	0.884
		0.0	5.0	38.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.087	0.000	0.913

```
 I                    I         I    4.0 I    0.0 I   42.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.467 I  0.533 I  0.000 I
 I                    I         I   35.0 I   40.0 I    0.0 I
 I                    I         I (  2.9)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.116 I  0.884 I
 I                    I         I    0.0 I    5.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.087 I  0.000 I  0.913 I
 I                    I         I    4.0 I    0.0 I   42.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.467 I  0.533 I  0.000 I
 I                    I         I   35.0 I   40.0 I    0.0 I
 I                    I         I (  2.9)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                          I
 I    B-AC        0.73      10.66     0.068                     0.0     0.1          1.1
I
 I    C-AB        0.67      11.01     0.061                     0.0     0.1          1.0
I
 I   C-A      0.52                                                                     I
 I   A-B      0.08                                                                     I
 I   A-C      0.60                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                          I
 I    B-AC        0.76      10.65     0.071                     0.1     0.1          1.1
I
 I    C-AB        0.70      11.02     0.064                     0.1     0.1          1.1
I
```

```
 I   C-A       0.55                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.64                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        0.82       10.63     0.077                    0.1      0.1           1.2
I
 I    C-AB        0.76       11.03     0.069                    0.1      0.1           1.2
I
 I   C-A       0.58                                                                    I
 I   A-B       0.09                                                                    I
 I   A-C       0.68                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.74       10.65     0.069                    0.1      0.1           1.1
I
 I    C-AB        0.69       11.01     0.062                    0.1      0.1           1.1
I
 I   C-A       0.53                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.62                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	45.8	45.8	4.6	0.10	4.6	0.10
C-AB	42.2	42.2	4.4	0.10	4.4	0.10
C-A	32.8	32.8				
A-B	5.0	5.0				
A-C	38.0	38.0				
ALL	163.8	163.8	9.0	0.05	9.0	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY15.vpi" (drive-on-the-left) at 11:05:44 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2026 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.140 I  0.860 I
I                    I         I    0.0 I    8.0 I   49.0 I
I                    I         I (  0.0)I (  0.0)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.095 I  0.000 I  0.905 I
I                    I         I    4.0 I    0.0 I   38.0 I
I                    I         I (  0.0)I (  0.0)I (  2.6)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.431 I  0.569 I  0.000 I
I                    I         I   47.0 I   62.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.140 I  0.860 I
I                    I         I    0.0 I    8.0 I   49.0 I
I                    I         I (  0.0)I (  0.0)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.095 I  0.000 I  0.905 I
I                    I         I    4.0 I    0.0 I   38.0 I
I                    I         I (  0.0)I (  0.0)I (  2.6)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.431 I  0.569 I  0.000 I
I                    I         I   47.0 I   62.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.140 I  0.860 I
I                    I         I    0.0 I    8.0 I   49.0 I
I                    I         I (  0.0)I (  0.0)I (  2.1)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.095 I  0.000 I  0.905 I
```

```
 I                    I         I    4.0 I    0.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.6)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.431 I  0.569 I  0.000 I
 I                    I         I   47.0 I   62.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.140 I  0.860 I
 I                    I         I    0.0 I    8.0 I   49.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.1)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.095 I  0.000 I  0.905 I
 I                    I         I    4.0 I    0.0 I   38.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.6)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.431 I  0.569 I  0.000 I
 I                    I         I   47.0 I   62.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        0.67      10.55     0.063                      0.0     0.1          1.0
I
 I    C-AB        1.05      11.34     0.093                      0.0     0.1          1.6
I
 I   C-A      0.68                                                                      I
 I   A-B      0.13                                                                      I
 I   A-C      0.77                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        0.70      10.54     0.066                      0.1     0.1          1.1
I
 I    C-AB        1.11      11.36     0.098                      0.1     0.1          1.8
I
```

```
 I   C-A       0.71                                                                    I
 I   A-B       0.13                                                                    I
 I   A-C       0.82                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        0.75      10.52     0.071                    0.1      0.1           1.1
I
 I    C-AB        1.20      11.38     0.106                    0.1      0.1           1.9
I
 I   C-A       0.76                                                                    I
 I   A-B       0.14                                                                    I
 I   A-C       0.88                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        0.68      10.55     0.064                    0.1      0.1           1.1
I
 I    C-AB        1.08      11.35     0.095                    0.1      0.1           1.7
I
 I   C-A       0.69                                                                    I
 I   A-B       0.13                                                                    I
 I   A-C       0.80                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	42.0	42.0	4.2	0.10	4.2	0.10
C-AB	66.7	66.7	7.0	0.11	7.0	0.11
C-A	42.5	42.5				
A-B	8.0	8.0				
A-C	49.0	49.0				
ALL	208.2	208.2	11.3	0.05	11.3	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY16.vpi" (drive-on-the-left) at 18:18:07 on Tuesday, 19 March 2024

RUN TITLE
****
R566/R567 - 2026 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	120.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	120.0 M.	
- LANE 1 WIDTH	(WB-C)	2.70 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

TIME	FROM/TO	ARM A	ARM B	ARM C
		TURNING PROPORTIONS		
		TURNING COUNTS		
		(PERCENTAGE OF H.V.S)		
17.00 - 17.15				
	ARM A	0.000	0.155	0.845
		0.0	9.0	49.0
		(0.0)	(0.0)	(2.1)
	ARM B	0.087	0.000	0.913
		4.0	0.0	42.0
		(0.0)	(0.0)	(2.5)
	ARM C	0.412	0.588	0.000
		47.0	67.0	0.0
		(2.1)	(0.0)	(0.0)
17.15 - 17.30				
	ARM A	0.000	0.155	0.845
		0.0	9.0	49.0
		(0.0)	(0.0)	(2.1)
	ARM B	0.087	0.000	0.913
		4.0	0.0	42.0
		(0.0)	(0.0)	(2.5)
	ARM C	0.412	0.588	0.000
		47.0	67.0	0.0
		(2.1)	(0.0)	(0.0)
17.30 - 17.45				
	ARM A	0.000	0.155	0.845
		0.0	9.0	49.0
		(0.0)	(0.0)	(2.1)
	ARM B	0.087	0.000	0.913

```
 I                    I         I    4.0 I    0.0 I   42.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.412 I  0.588 I  0.000 I
 I                    I         I   47.0 I   67.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.155 I  0.845 I
 I                    I         I    0.0 I    9.0 I   49.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.1)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.087 I  0.000 I  0.913 I
 I                    I         I    4.0 I    0.0 I   42.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.412 I  0.588 I  0.000 I
 I                    I         I   47.0 I   67.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        0.73      10.58     0.069                      0.0     0.1          1.1
I
 I    C-AB        1.13      11.34     0.100                      0.0     0.1          1.8
I
 I   C-A      0.67                                                                      I
 I   A-B      0.14                                                                      I
 I   A-C      0.78                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        0.76      10.56     0.072                      0.1     0.1          1.1
I
 I    C-AB        1.20      11.35     0.106                      0.1     0.1          1.9
I
```

```
 I   C-A       0.70                                                                    I
 I   A-B       0.15                                                                    I
 I   A-C       0.82                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        0.82       10.54     0.078                    0.1      0.1           1.2
I
 I    C-AB        1.29       11.37     0.114                    0.1      0.1           2.1
I
 I   C-A       0.75                                                                    I
 I   A-B       0.16                                                                    I
 I   A-C       0.88                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        0.74       10.57     0.070                    0.1      0.1           1.2
I
 I    C-AB        1.17       11.34     0.103                    0.1      0.1           1.9
I
 I   C-A       0.68                                                                    I
 I   A-B       0.15                                                                    I
 I   A-C       0.80                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	45.8	45.8	4.6	0.10	4.6	0.10
C-AB	71.9	71.9	7.6	0.11	7.6	0.11
C-A	42.0	42.0				
A-B	9.0	9.0				
A-C	49.2	49.2				
ALL	217.8	217.8	12.2	0.06	12.2	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
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EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY17.vpi" (drive-on-the-left) at 11:11:43 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2031 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
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.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
11.00 - 11.15	ARM A	0.000 0.0 (0.0)	0.111 5.0 (0.0)	0.889 40.0 (0.0)
	ARM B	0.091 4.0 (0.0)	0.000 0.0 (0.0)	0.909 40.0 (2.5)
	ARM C	0.487 37.0 (2.7)	0.513 39.0 (2.6)	0.000 0.0 (0.0)
11.15 - 11.30	ARM A	0.000 0.0 (0.0)	0.111 5.0 (0.0)	0.889 40.0 (0.0)
	ARM B	0.091 4.0 (0.0)	0.000 0.0 (0.0)	0.909 40.0 (2.5)
	ARM C	0.487 37.0 (2.7)	0.513 39.0 (2.6)	0.000 0.0 (0.0)
11.30 - 11.45	ARM A	0.000 0.0 (0.0)	0.111 5.0 (0.0)	0.889 40.0 (0.0)
	ARM B	0.091	0.000	0.909

```
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.487 I  0.513 I  0.000 I
 I                    I         I   37.0 I   39.0 I    0.0 I
 I                    I         I (  2.7)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.111 I  0.889 I
 I                    I         I    0.0 I    5.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.487 I  0.513 I  0.000 I
 I                    I         I   37.0 I   39.0 I    0.0 I
 I                    I         I (  2.7)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                          I
 I    B-AC        0.70      10.64     0.066                      0.0     0.1          1.0
I
 I    C-AB        0.65      11.02     0.059                      0.0     0.1          1.0
I
 I   C-A      0.55                                                                      I
 I   A-B      0.08                                                                      I
 I   A-C      0.63                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                          I
 I    B-AC        0.73      10.63     0.069                      0.1     0.1          1.1
I
 I    C-AB        0.69      11.03     0.063                      0.1     0.1          1.1
I
```

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 I   C-A       0.58                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.67                                                                    I
 I                                                                                     I
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.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                         I
 I    B-AC        0.79       10.61      0.074                    0.1      0.1           1.2
I
 I    C-AB        0.75       11.05      0.068                    0.1      0.1           1.2
I
 I   C-A       0.62                                                                    I
 I   A-B       0.09                                                                    I
 I   A-C       0.72                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                         I
 I    B-AC        0.71       10.63      0.067                    0.1      0.1           1.1
I
 I    C-AB        0.67       11.03      0.061                    0.1      0.1           1.1
I
 I   C-A       0.57                                                                    I
 I   A-B       0.08                                                                    I
 I   A-C       0.65                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	44.0	44.0	4.4	0.10	4.4	0.10
C-AB	41.4	41.4	4.3	0.10	4.3	0.10
C-A	34.8	34.8				
A-B	5.0	5.0				
A-C	40.0	40.0				
ALL	165.1	165.1	8.7	0.05	8.7	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY18.vpi" (drive-on-the-left) at 11:14:44 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2031 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
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.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
11.00 - 11.15	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.105 6.0 (0.0)	0.000 0.0 (0.0)	0.895 51.0 (2.0)
	ARM C	0.440 37.0 (2.7)	0.560 47.0 (2.1)	0.000 0.0 (0.0)
11.15 - 11.30	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.105 6.0 (0.0)	0.000 0.0 (0.0)	0.895 51.0 (2.0)
	ARM C	0.440 37.0 (2.7)	0.560 47.0 (2.1)	0.000 0.0 (0.0)
11.30 - 11.45	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.105	0.000	0.895

```
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
 I                    I         I   37.0 I   47.0 I    0.0 I
 I                    I         I (  2.7)I (  2.1)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.130 I  0.870 I
 I                    I         I    0.0 I    6.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
 I                    I         I   37.0 I   47.0 I    0.0 I
 I                    I         I (  2.7)I (  2.1)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                        I
 I    B-AC        0.90      10.64     0.085                    0.0     0.1          1.3
I
 I    C-AB        0.79      11.07     0.071                    0.0     0.1          1.2
I
 I   C-A      0.54                                                                    I
 I   A-B      0.10                                                                    I
 I   A-C      0.63                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                        I
 I    B-AC        0.95      10.63     0.089                    0.1     0.1          1.4
I
 I    C-AB        0.83      11.08     0.075                    0.1     0.1          1.3
I
```

```
 I   C-A       0.57                                                                    I
 I   A-B       0.10                                                                    I
 I   A-C       0.67                                                                    I
 I                                                                                     I
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----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        1.02       10.61      0.096                    0.1      0.1           1.6
I
 I    C-AB        0.90       11.09      0.081                    0.1      0.1           1.4
I
 I   C-A       0.61                                                                    I
 I   A-B       0.11                                                                    I
 I   A-C       0.72                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.93       10.64      0.087                    0.1      0.1           1.5
I
 I    C-AB        0.81       11.07      0.073                    0.1      0.1           1.3
I
 I   C-A       0.56                                                                    I
 I   A-B       0.10                                                                    I
 I   A-C       0.65                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	57.0	57.0	5.8	0.10	5.8	0.10
C-AB	49.9	49.9	5.2	0.10	5.2	0.10
C-A	34.3	34.3				
A-B	6.0	6.0				
A-C	40.2	40.2				
ALL	187.4	187.4	11.0	0.06	11.0	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY19.vpi" (drive-on-the-left) at 11:18:08 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2031 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

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-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
I                    I         I    4.0 I    0.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  2.5)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.430 I  0.570 I  0.000 I
I                    I         I   49.0 I   65.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
I                    I         I    4.0 I    0.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  2.5)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.430 I  0.570 I  0.000 I
I                    I         I   49.0 I   65.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
```

```
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.430 I  0.570 I  0.000 I
 I                    I         I   49.0 I   65.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
 I                    I         I    0.0 I    9.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.430 I  0.570 I  0.000 I
 I                    I         I   49.0 I   65.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        0.70       10.56     0.066                      0.0      0.1          1.0
I
 I    C-AB        1.11       11.35     0.098                      0.0      0.1          1.7
I
 I   C-A      0.70                                                                      I
 I   A-B      0.14                                                                      I
 I   A-C      0.81                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        0.73       10.55     0.069                      0.1      0.1          1.1
I
 I    C-AB        1.17       11.36     0.103                      0.1      0.1          1.9
I
```

```
 I   C-A       0.73                                                                    I
 I   A-B       0.15                                                                    I
 I   A-C       0.85                                                                    I
 I                                                                                     I
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----------

.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        0.79       10.52     0.075                    0.1      0.1           1.2
I
 I    C-AB        1.26       11.38     0.111                    0.1      0.1           2.0
I
 I   C-A       0.78                                                                    I
 I   A-B       0.16                                                                    I
 I   A-C       0.92                                                                    I
 I                                                                                     I
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.------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        0.71       10.55     0.067                    0.1      0.1           1.1
I
 I    C-AB        1.13       11.35     0.100                    0.1      0.1           1.8
I
 I   C-A       0.72                                                                    I
 I   A-B       0.15                                                                    I
 I   A-C       0.83                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	44.0	44.0	4.4	0.10	4.4	0.10
C-AB	70.0	70.0	7.4	0.11	7.4	0.11
C-A	44.0	44.0				
A-B	9.0	9.0				
A-C	51.1	51.1				
ALL	218.1	218.1	11.9	0.05	11.9	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY20.vpi" (drive-on-the-left) at 11:21:22 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2031 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	160.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	120.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	120.0 M.	
- LANE 1 WIDTH	(WB-C)	2.70 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
TIME	FROM/TO	ARM A	ARM B	ARM C
17.00 - 17.15	ARM A	0.000 0.0 (0.0)	0.177 11.0 (0.0)	0.823 51.0 (2.0)
	ARM B	0.105 6.0 (0.0)	0.000 0.0 (0.0)	0.895 51.0 (2.0)
	ARM C	0.377 49.0 (2.1)	0.623 81.0 (0.0)	0.000 0.0 (0.0)
17.15 - 17.30	ARM A	0.000 0.0 (0.0)	0.177 11.0 (0.0)	0.823 51.0 (2.0)
	ARM B	0.105 6.0 (0.0)	0.000 0.0 (0.0)	0.895 51.0 (2.0)
	ARM C	0.377 49.0 (2.1)	0.623 81.0 (0.0)	0.000 0.0 (0.0)
17.30 - 17.45	ARM A	0.000 0.0 (0.0)	0.177 11.0 (0.0)	0.823 51.0 (2.0)
	ARM B	0.105	0.000	0.895

```
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.377 I  0.623 I  0.000 I
 I                    I         I   49.0 I   81.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.177 I  0.823 I
 I                    I         I    0.0 I   11.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.377 I  0.623 I  0.000 I
 I                    I         I   49.0 I   81.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        0.90      10.55     0.085                    0.0     0.1          1.3
I
 I    C-AB        1.38      11.34     0.121                    0.0     0.1          2.2
I
 I   C-A      0.68                                                                     I
 I   A-B      0.17                                                                     I
 I   A-C      0.81                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        0.95      10.53     0.090                    0.1     0.1          1.5
I
 I    C-AB        1.46      11.36     0.128                    0.1     0.2          2.4
I
```

```
 I   C-A       0.71                                                                    I
 I   A-B       0.18                                                                    I
 I   A-C       0.85                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        1.02      10.51     0.097                    0.1     0.1          1.6
I
 I    C-AB        1.57      11.37     0.138                    0.2     0.2          2.6
I
 I   C-A       0.76                                                                  I
 I   A-B       0.20                                                                  I
 I   A-C       0.91                                                                  I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        0.93      10.54     0.088                    0.1     0.1          1.5
I
 I    C-AB        1.42      11.35     0.125                    0.2     0.2          2.3
I
 I   C-A       0.70                                                                  I
 I   A-B       0.18                                                                  I
 I   A-C       0.83                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	57.0	57.0	5.9	0.10	5.9	0.10
C-AB	87.4	87.4	9.5	0.11	9.5	0.11
C-A	42.8	42.8				
A-B	11.0	11.0				
A-C	51.0	51.0				
ALL	249.2	249.2	15.4	0.06	15.4	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY21.vpi" (drive-on-the-left) at 11:28:08 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2041 AM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
11.00 - 11.15	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.091 4.0 (0.0)	0.000 0.0 (0.0)	0.909 40.0 (2.5)
	ARM C	0.487 37.0 (2.7)	0.513 39.0 (2.6)	0.000 0.0 (0.0)
11.15 - 11.30	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.091 4.0 (0.0)	0.000 0.0 (0.0)	0.909 40.0 (2.5)
	ARM C	0.487 37.0 (2.7)	0.513 39.0 (2.6)	0.000 0.0 (0.0)
11.30 - 11.45	ARM A	0.000 0.0 (0.0)	0.130 6.0 (0.0)	0.870 40.0 (0.0)
	ARM B	0.091	0.000	0.909

```
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.487 I  0.513 I  0.000 I
 I                    I         I   37.0 I   39.0 I    0.0 I
 I                    I         I (  2.7)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.130 I  0.870 I
 I                    I         I    0.0 I    6.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.487 I  0.513 I  0.000 I
 I                    I         I   37.0 I   39.0 I    0.0 I
 I                    I         I (  2.7)I (  2.6)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                          I
 I    B-AC        0.70      10.64     0.066                      0.0     0.1          1.0
I
 I    C-AB        0.65      11.02     0.059                      0.0     0.1          1.0
I
 I   C-A      0.55                                                                      I
 I   A-B      0.10                                                                      I
 I   A-C      0.63                                                                      I
 I                                                                                      I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                          I
 I    B-AC        0.73      10.63     0.069                      0.1     0.1          1.1
I
 I    C-AB        0.69      11.03     0.063                      0.1     0.1          1.1
I
```

```
 I   C-A       0.58                                                                    I
 I   A-B       0.10                                                                    I
 I   A-C       0.67                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        0.79      10.61     0.074                    0.1      0.1           1.2
I
 I    C-AB        0.76      11.05     0.069                    0.1      0.1           1.2
I
 I   C-A       0.63                                                                    I
 I   A-B       0.11                                                                    I
 I   A-C       0.72                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.71      10.63     0.067                    0.1      0.1           1.1
I
 I    C-AB        0.67      11.02     0.061                    0.1      0.1           1.1
I
 I   C-A       0.57                                                                    I
 I   A-B       0.10                                                                    I
 I   A-C       0.65                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	44.0	44.0	4.4	0.10	4.4	0.10
C-AB	41.6	41.6	4.3	0.10	4.3	0.10
C-A	34.9	34.9				
A-B	6.0	6.0				
A-C	40.2	40.2				
ALL	166.6	166.6	8.7	0.05	8.7	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY22.vpi" (drive-on-the-left) at 11:30:48 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2041 AM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 11.00 AND ENDS 12.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   11.00 - 11.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.149 I  0.851 I
I                    I         I    0.0 I    7.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
I                    I         I    6.0 I    0.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
I                    I         I   37.0 I   47.0 I    0.0 I
I                    I         I (  2.7)I (  2.1)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.15 - 11.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.149 I  0.851 I
I                    I         I    0.0 I    7.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
I                    I         I    6.0 I    0.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
I                    I         I   37.0 I   47.0 I    0.0 I
I                    I         I (  2.7)I (  2.1)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   11.30 - 11.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.149 I  0.851 I
I                    I         I    0.0 I    7.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
```

```
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
 I                    I         I   37.0 I   47.0 I    0.0 I
 I                    I         I (  2.7)I (  2.1)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   11.45 - 12.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.149 I  0.851 I
 I                    I         I    0.0 I    7.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.440 I  0.560 I  0.000 I
 I                    I         I   37.0 I   47.0 I    0.0 I
 I                    I         I (  2.7)I (  2.1)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.00-11.15                                                                          I
 I    B-AC        0.90      10.64     0.085                    0.0     0.1          1.3
I
 I    C-AB        0.79      11.06     0.071                    0.0     0.1          1.2
I
 I   C-A      0.54                                                                     I
 I   A-B      0.11                                                                     I
 I   A-C      0.64                                                                     I
 I                                                                                     I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.15-11.30                                                                          I
 I    B-AC        0.95      10.63     0.089                    0.1     0.1          1.4
I
 I    C-AB        0.83      11.08     0.075                    0.1     0.1          1.3
I
```

```
 I   C-A       0.57                                                                    I
 I   A-B       0.12                                                                    I
 I   A-C       0.66                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.30-11.45                                                                       I
 I    B-AC        1.02       10.61     0.096                    0.1      0.1           1.6
I
 I    C-AB        0.90       11.09     0.081                    0.1      0.1           1.4
I
 I   C-A       0.61                                                                    I
 I   A-B       0.13                                                                    I
 I   A-C       0.71                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 11.45-12.00                                                                       I
 I    B-AC        0.93       10.64     0.087                    0.1      0.1           1.5
I
 I    C-AB        0.81       11.07     0.073                    0.1      0.1           1.3
I
 I   C-A       0.56                                                                    I
 I   A-B       0.11                                                                    I
 I   A-C       0.65                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   11.15           0.1
   11.30           0.1
   11.45           0.1
   12.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	57.0	57.0	5.8	0.10	5.8	0.10
C-AB	49.9	49.9	5.2	0.10	5.2	0.10
C-A	34.3	34.3				
A-B	7.0	7.0				
A-C	40.0	40.0				
ALL	188.1	188.1	11.0	0.06	11.0	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:- "e:\21513PY23.vpi" (drive-on-the-left) at 11:33:18 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2041 PM Peak Hour Without Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
```

.

.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

.

```
-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
I                    I         I    4.0 I    0.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  2.5)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.426 I  0.574 I  0.000 I
I                    I         I   49.0 I   66.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
I                    I         I    4.0 I    0.0 I   40.0 I
I                    I         I (  0.0)I (  0.0)I (  2.5)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.426 I  0.574 I  0.000 I
I                    I         I   49.0 I   66.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
I                    I         I    0.0 I    9.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
```

```
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.426 I  0.574 I  0.000 I
 I                    I         I   49.0 I   66.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.150 I  0.850 I
 I                    I         I    0.0 I    9.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.091 I  0.000 I  0.909 I
 I                    I         I    4.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.5)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.426 I  0.574 I  0.000 I
 I                    I         I   49.0 I   66.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                        I
 I    B-AC        0.70      10.56     0.066                    0.0     0.1          1.0
I
 I    C-AB        1.12      11.35     0.099                    0.0     0.1          1.8
I
 I   C-A      0.70                                                                    I
 I   A-B      0.14                                                                    I
 I   A-C      0.81                                                                    I
 I                                                                                    I
 -------------------------------------------------------------------------------------------
----------

.-------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                        I
 I    B-AC        0.73      10.54     0.069                    0.1     0.1          1.1
I
 I    C-AB        1.19      11.36     0.104                    0.1     0.1          1.9
I
```

```
 I   C-A       0.73                                                                    I
 I   A-B       0.15                                                                    I
 I   A-C       0.85                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.30-17.45                                                                       I
 I    B-AC        0.79      10.52     0.075                    0.1      0.1          1.2
I
 I    C-AB        1.28      11.38     0.113                    0.1      0.1          2.1
I
 I   C-A       0.78                                                                  I
 I   A-B       0.16                                                                  I
 I   A-C       0.92                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.45-18.00                                                                       I
 I    B-AC        0.71      10.55     0.067                    0.1      0.1          1.1
I
 I    C-AB        1.19      11.37     0.105                    0.1      0.1          1.9
I
 I   C-A       0.74                                                                  I
 I   A-B       0.15                                                                  I
 I   A-C       0.83                                                                  I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                ----------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	44.0	44.0	4.4	0.10	4.4	0.10
C-AB	71.7	71.7	7.6	0.11	7.6	0.11
C-A	44.2	44.2				
A-B	9.0	9.0				
A-C	51.1	51.1				
ALL	220.1	220.1	12.1	0.05	12.1	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 4.0 (NOV 2003)

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Run with file:- "e:\21513PY24.vpi" (drive-on-the-left) at 11:35:56 on Thursday, 1 February 2024

RUN TITLE
****
R566/R567 - 2041 PM Peak Hour With Proposed Development

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS R566 North
ARM B IS R567
ARM C IS R566 South

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B

```
-----------------------------------------------------------------
I  TOTAL MAJOR ROAD CARRIAGEWAY WIDTH      I ( W  )  6.00 M.   I
I  CENTRAL RESERVE WIDTH                   I (WCR )  0.00 M.   I
I                                          I                   I
I  MAJOR ROAD RIGHT TURN - WIDTH           I (WC-B)  2.20 M.   I
I                        - VISIBILITY      I (VC-B) 160.0 M.   I
I                        - BLOCKS TRAFFIC  I         YES       I
I                                          I                   I
I  MINOR ROAD - VISIBILITY TO LEFT         I (VB-C) 120.0 M.   I
I             - VISIBILITY TO RIGHT        I (VB-A) 120.0 M.   I
I             - LANE 1 WIDTH               I (WB-C)  2.70 M.   I
I             - LANE 2 WIDTH               I (WB-A)  0.00 M.   I
-----------------------------------------------------------------
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.TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

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-----------------------------------------------------------------
I                    I         TURNING PROPORTIONS         I
I                    I         TURNING COUNTS              I
I                    I        (PERCENTAGE OF H.V.S)        I
I                    ---------------------------------------
I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
-----------------------------------------------------------------
I   17.00 - 17.15    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.177 I  0.823 I
I                    I         I    0.0 I   11.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
I                    I         I    6.0 I    0.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.374 I  0.626 I  0.000 I
I                    I         I   49.0 I   82.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.15 - 17.30    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.177 I  0.823 I
I                    I         I    0.0 I   11.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
I                    I         I    6.0 I    0.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM C  I  0.374 I  0.626 I  0.000 I
I                    I         I   49.0 I   82.0 I    0.0 I
I                    I         I (  2.1)I (  0.0)I (  0.0)I
I                    I         I        I        I        I
-----------------------------------------------------------------
I   17.30 - 17.45    I         I        I        I        I
I                    I  ARM A  I  0.000 I  0.177 I  0.823 I
I                    I         I    0.0 I   11.0 I   51.0 I
I                    I         I (  0.0)I (  0.0)I (  2.0)I
I                    I         I        I        I        I
I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
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```
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.374 I  0.626 I  0.000 I
 I                    I         I   49.0 I   82.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

.
 ------------------------------------------------------------
 I                    I         TURNING PROPORTIONS        I
 I                    I         TURNING COUNTS             I
 I                    I        (PERCENTAGE OF H.V.S)       I
 I                    ------------------------------------
 I        TIME        I FROM/TO I  ARM A I  ARM B I  ARM C I
 ------------------------------------------------------------
 I   17.45 - 18.00    I         I        I        I        I
 I                    I  ARM A  I  0.000 I  0.177 I  0.823 I
 I                    I         I    0.0 I   11.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM B  I  0.105 I  0.000 I  0.895 I
 I                    I         I    6.0 I    0.0 I   51.0 I
 I                    I         I (  0.0)I (  0.0)I (  2.0)I
 I                    I         I        I        I        I
 I                    I  ARM C  I  0.374 I  0.626 I  0.000 I
 I                    I         I   49.0 I   82.0 I    0.0 I
 I                    I         I (  2.1)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I
 ------------------------------------------------------------

 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

 THE TURNING PROPORTIONS USED VARY BETWEEN TIME SEGMENTS

 THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.00-17.15                                                                          I
 I    B-AC        0.90      10.55     0.085                    0.0     0.1          1.3
I
 I    C-AB        1.39      11.34     0.123                    0.0     0.1          2.2
I
 I   C-A      0.68                                                                     I
 I   A-B      0.17                                                                     I
 I   A-C      0.81                                                                     I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/     (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME
SEGMENT) I
 I 17.15-17.30                                                                          I
 I    B-AC        0.95      10.53     0.090                    0.1     0.1          1.5
I
 I    C-AB        1.47      11.35     0.129                    0.1     0.2          2.4
I
```

```
 I   C-A       0.71                                                                    I
 I   A-B       0.18                                                                    I
 I   A-C       0.85                                                                    I
 I                                                                                     I
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----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.30-17.45                                                                         I
 I    B-AC        1.02      10.51     0.097                    0.1      0.1           1.6
I
 I    C-AB        1.59      11.37     0.139                    0.2      0.2           2.6
I
 I   C-A       0.75                                                                    I
 I   A-B       0.20                                                                    I
 I   A-C       0.91                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
----------

.------------------------------------------------------------------------------------------
----------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY     GEOMETRIC
DELAYI
 I        (VEH/MIN) (VEH/MIN) CAPACITY     FLOW     QUEUE  QUEUE    (VEH.MIN/      (VEH.MIN/
I
 I                                (RFC)     (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)   TIME
SEGMENT) I
 I 17.45-18.00                                                                         I
 I    B-AC        0.93      10.54     0.088                    0.1      0.1           1.5
I
 I    C-AB        1.43      11.35     0.126                    0.2      0.2           2.3
I
 I   C-A       0.70                                                                    I
 I   A-B       0.18                                                                    I
 I   A-C       0.83                                                                    I
 I                                                                                     I
 ------------------------------------------------------------------------------------------
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 *WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM   B-AC
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.1
   17.45           0.1
   18.00           0.1
.
 QUEUE FOR STREAM   C-AB
 -------------------------
 TIME SEGMENT    NO. OF
   ENDING      VEHICLES
               IN QUEUE
   17.15           0.1
   17.30           0.2
   17.45           0.2
   18.00           0.2
.
                QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                -------------------------------------------
```

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	57.0	57.0	5.9	0.10	5.9	0.10
C-AB	88.2	88.2	9.6	0.11	9.6	0.11
C-A	42.6	42.6				
A-B	11.0	11.0				
A-C	51.0	51.0				
ALL	249.8	249.8	15.5	0.06	15.5	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========