**Appendix A**

**Arbitrary strategy’s average waiting time**

|  |  |  |
| --- | --- | --- |
|  |  | (1) |

Where: is the average waiting time, is the average headway, is the standard variance of headway.

**Appendix X**

**Arbitrary tactic’s home departure time.**

|  |  |  |
| --- | --- | --- |
|  |  | (3) |

Where: is the median of the target bus and its subsequent bus and is the walking time. is the bus’s actual real-time departure and is the very first prior bus’s actual real-time departure time.

**Appendix X**

**Null tactic’s home departure time.**

**Appendix B**

**Optimization problem of prudent strategy’s waiting time.**

We constitute the optimization problem in the following formula.

|  |  |  |
| --- | --- | --- |
|  |  | (2) |

Subject to:

|  |  |  |
| --- | --- | --- |
|  |  | (3) |
|  |  | (4) |
|  |  | (5) |
|  |  |  |

Where: is the actual waiting time for the user who lives walking time from the stop and intends to catch trip . is the collection of all trips, and is the stops on trip , is the designated walking time range. is the actual departure time of target bus, and is the actual arrival time at the stop for the user. is the expected waiting time as well as the insurance buffer. is the expected departure time of the scheduled bus.