

---

# Portland Mall Operations with Light Rail

March 8, 2006

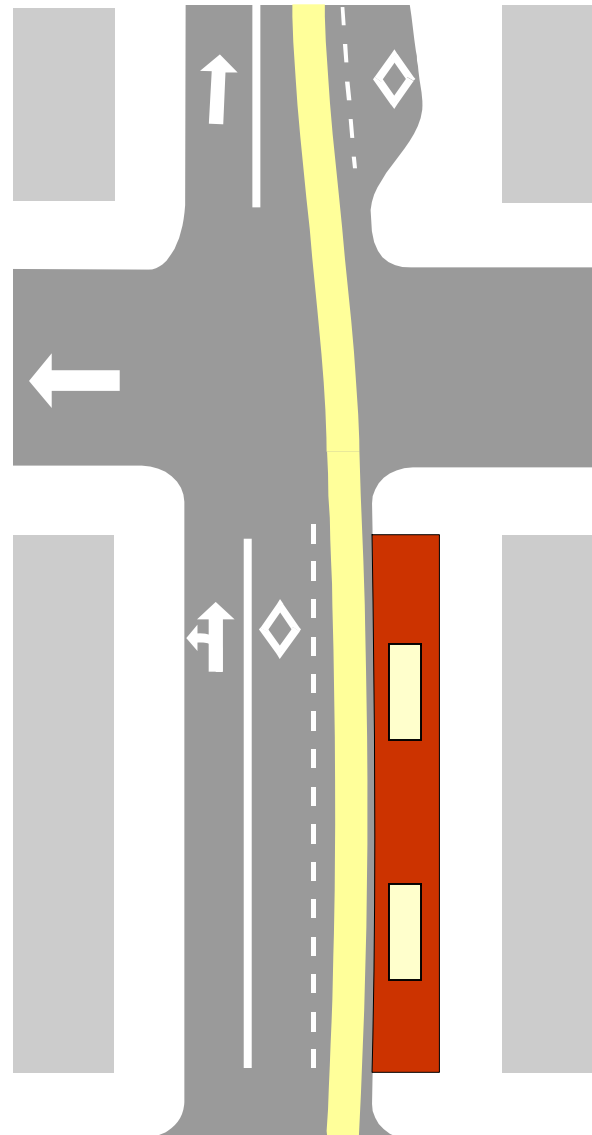
# How it works

## Light Rail and Bus movements are separated

- by lane,
- by time, and
- by standard traffic and train signals.

**Buses only allowed to merge onto rail lane when signal is green**

**Autos stay in left lane with positive separation from transit lanes.**



Buses follow standard traffic signals – just like cars and just like everywhere else in the system.



Trains follow standard MAX train signals

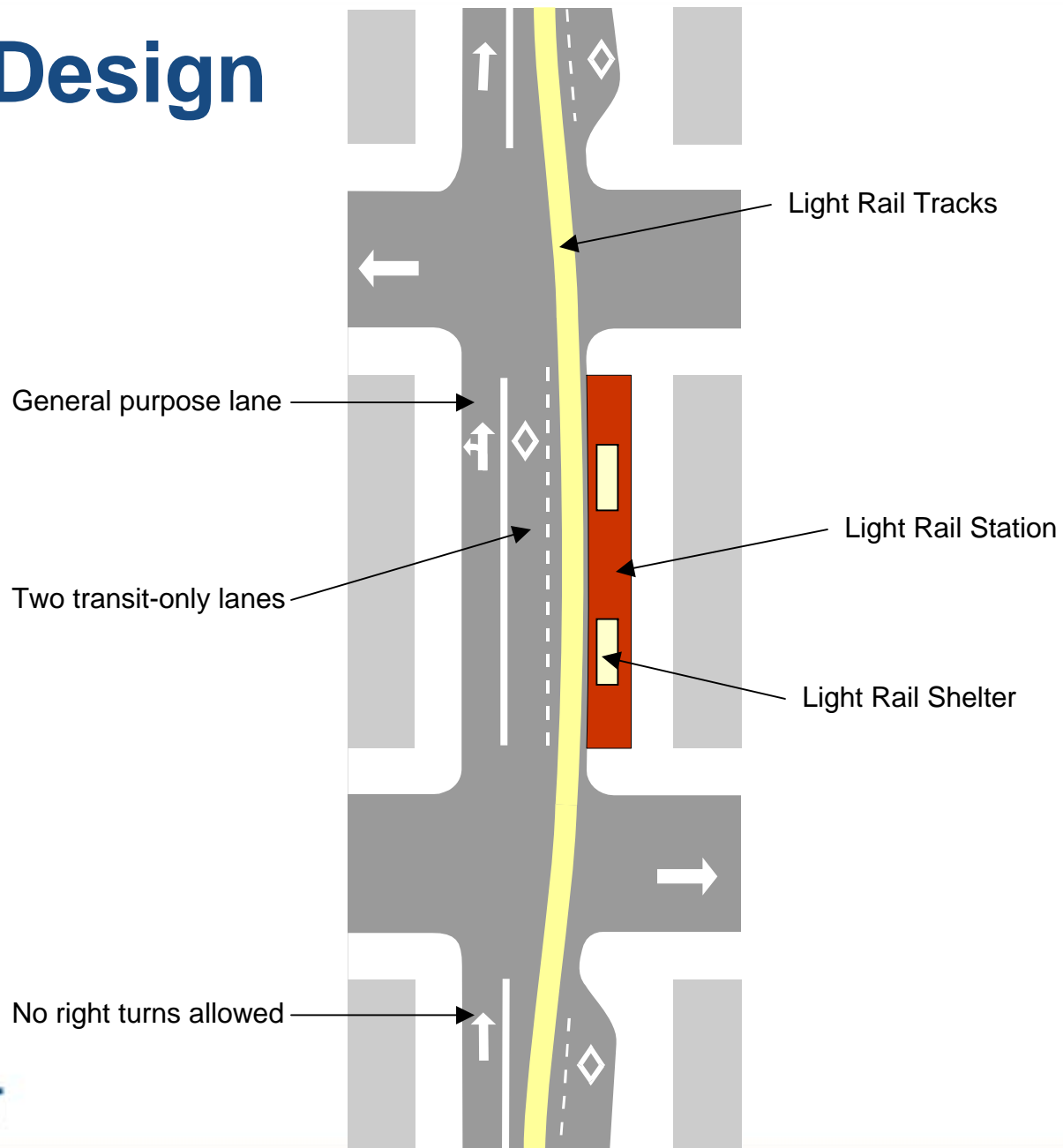
Solid Yellow horizontal = Stop

Flashing Yellow = Signal ending; Prepare to proceed

Solid White vertical = Proceed with caution

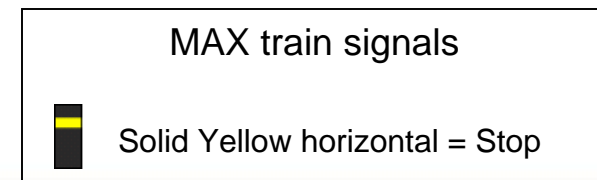
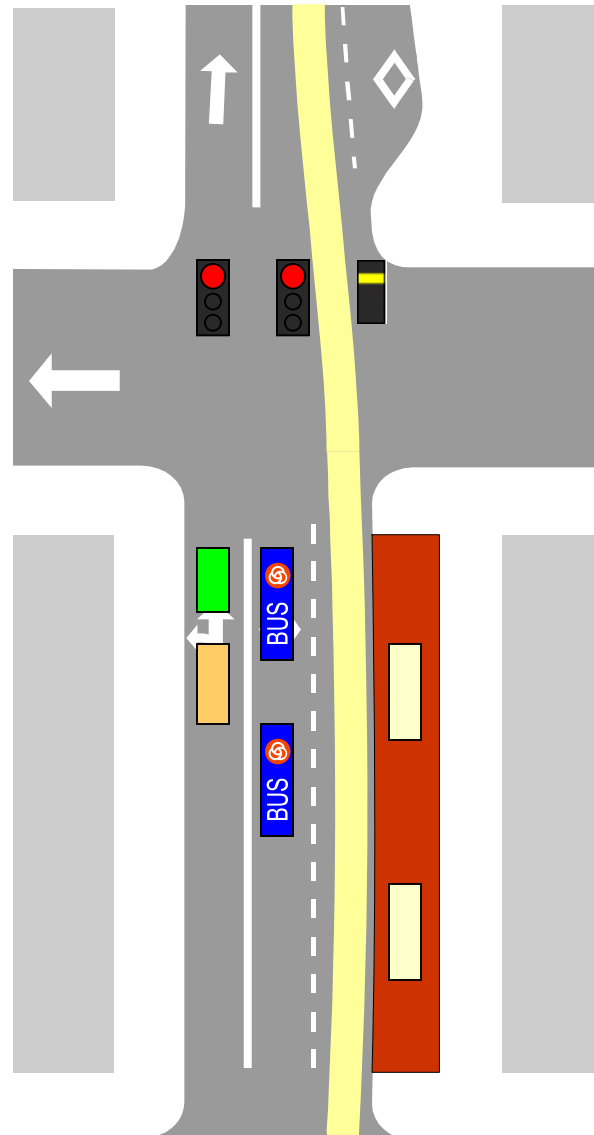
Flashing White = Signal ending; Prepare to stop

# Basic Design



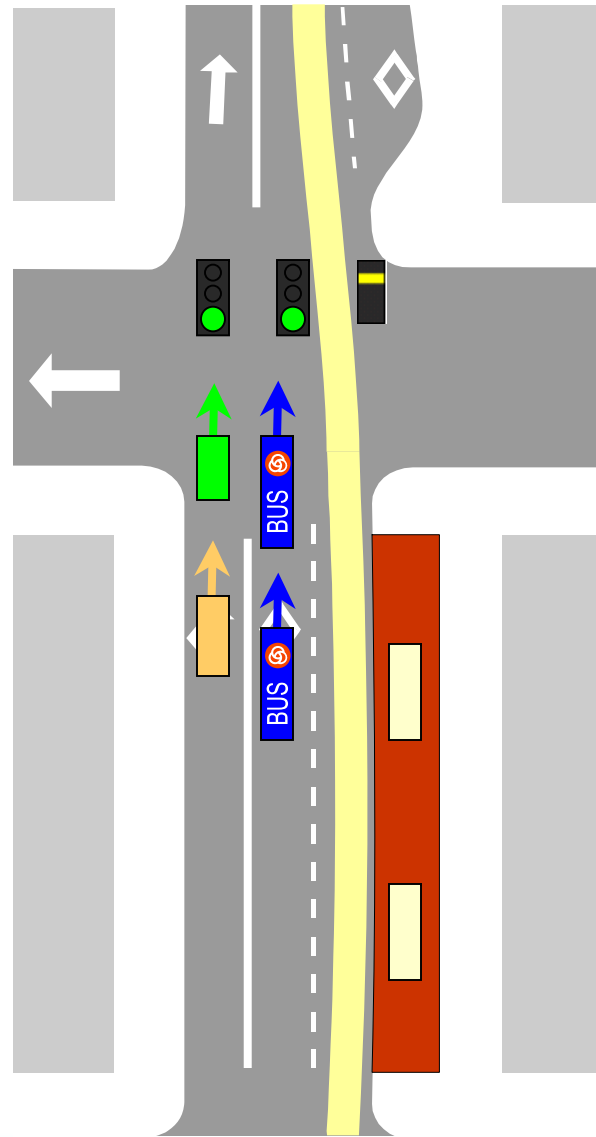
# When no MAX present

Cars and buses  
follow standard  
traffic signals



# When no MAX present

Signal turns green

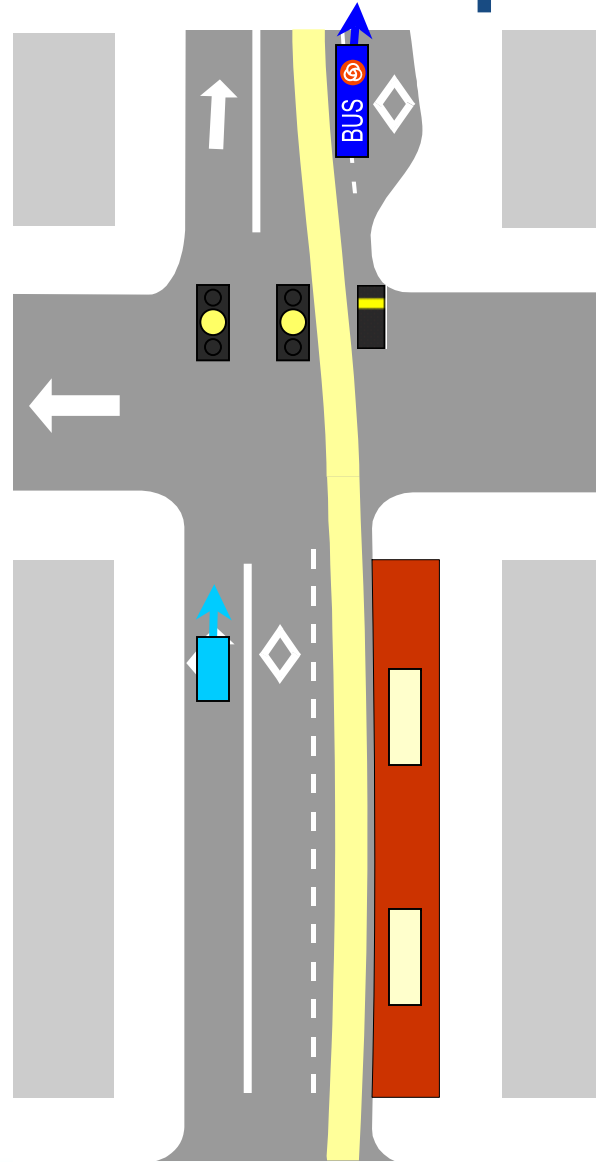






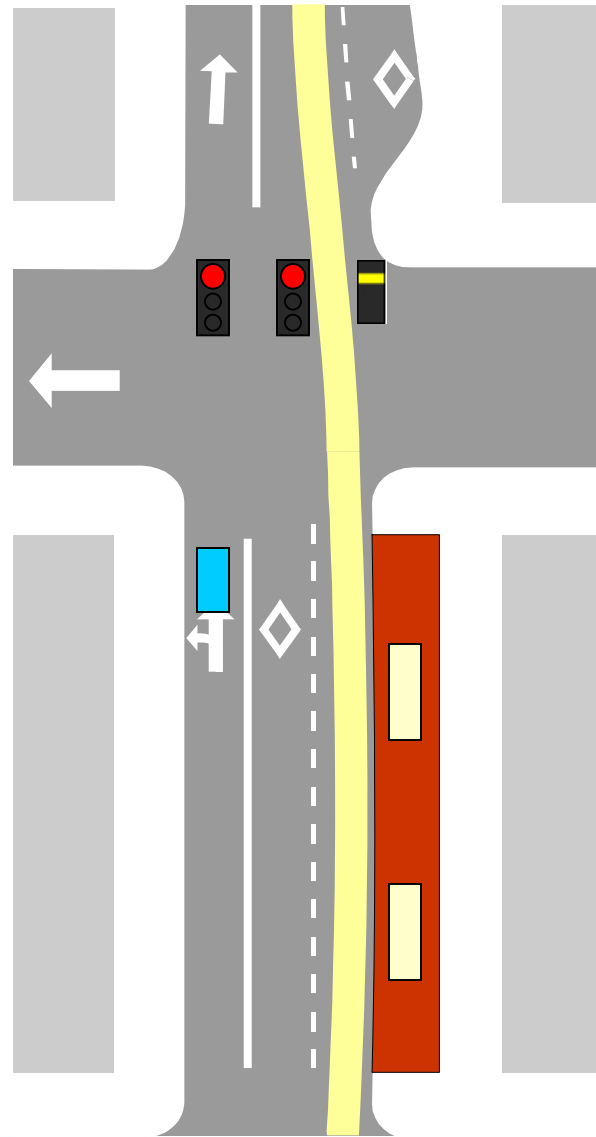
# When no MAX present

Signal turns yellow



# When no MAX present

All red

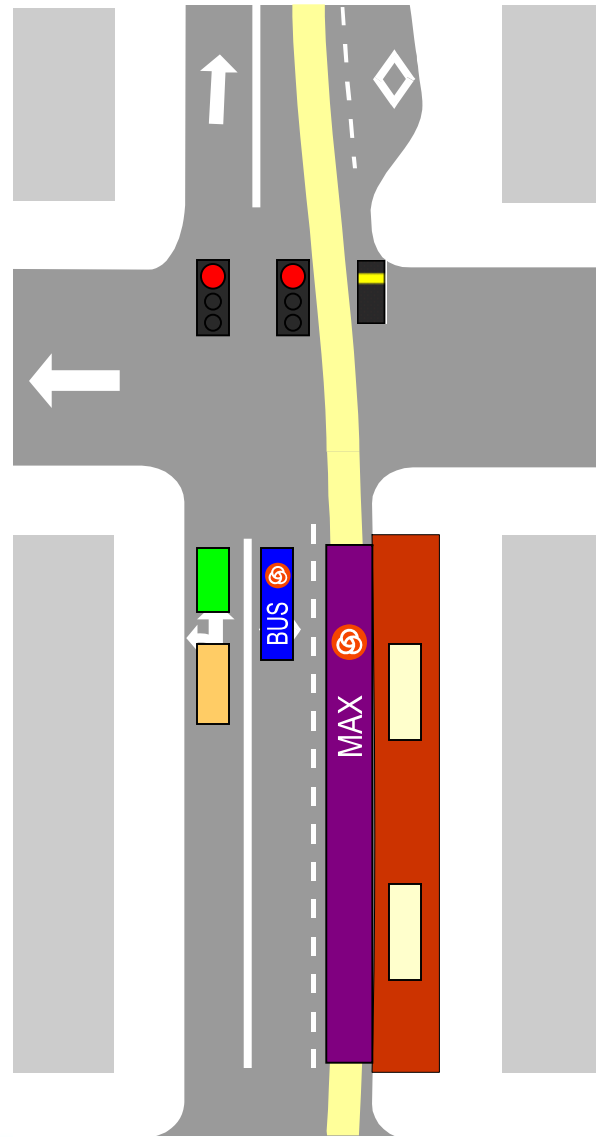


---

**When MAX is present**

# All Red

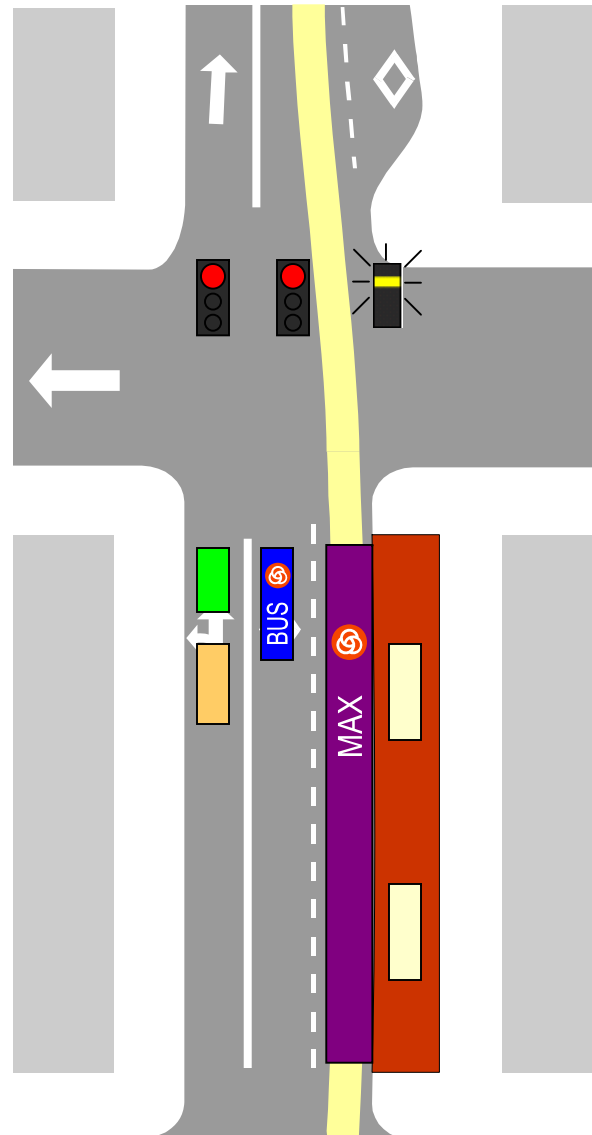
All vehicles stopped



MAX train signals  
Solid Yellow horizontal = Stop

# Red Signal Ending

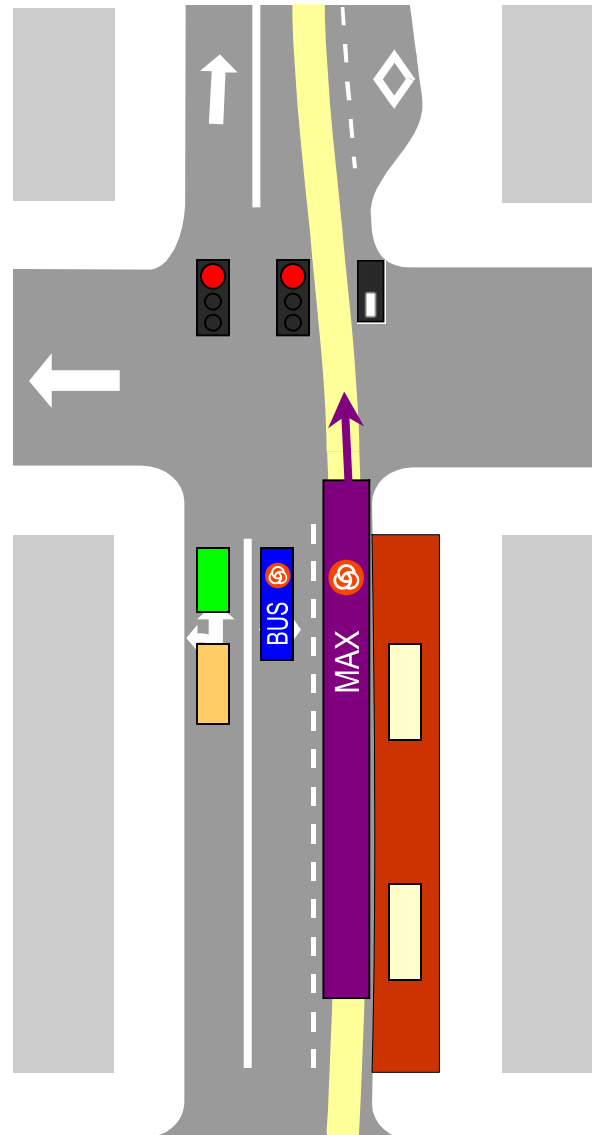
- Traffic on cross-streets stopping
- MAX operator has closed doors and preparing to proceed




MAX train signals  
Flashing Yellow = Signal ending;  
Prepare to proceed

# Train Signal Begins

- MAX proceeds
- Cars and buses stopped – controlled by red

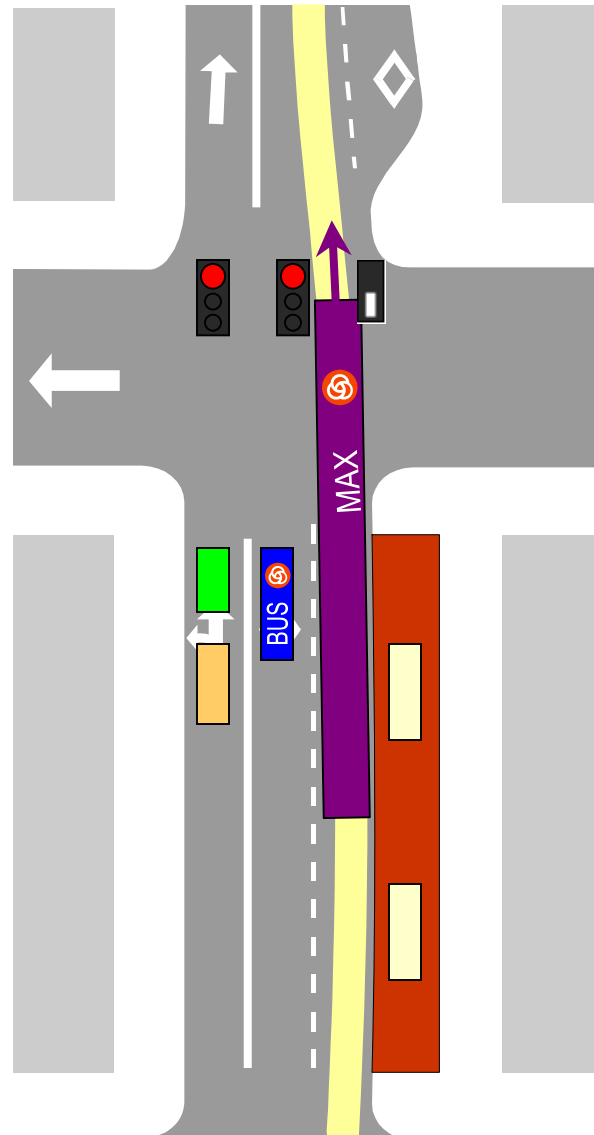


MAX train signals

 Solid White vertical = Proceed with caution

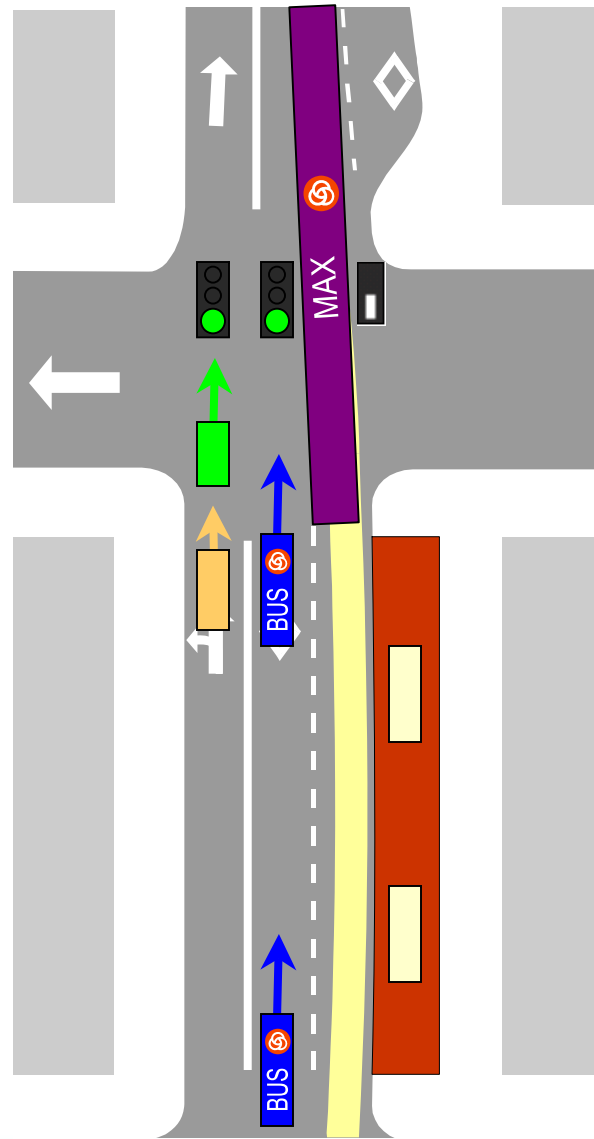
# Train Signal Continues

- MAX proceeds
- Cars and buses remain stopped



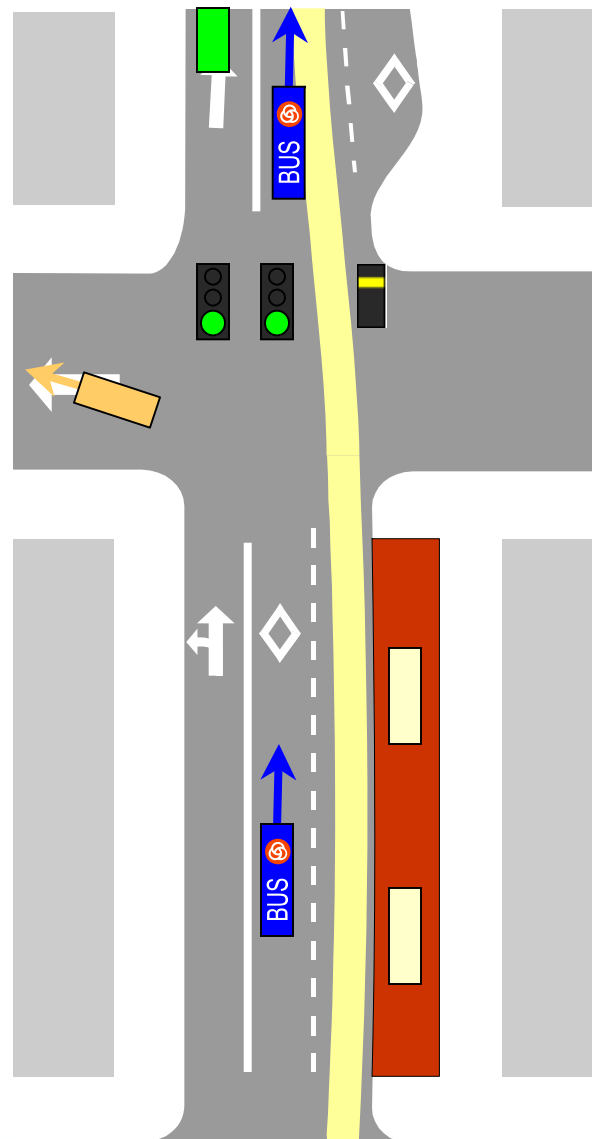
# Traffic Signal Turns Green

- MAX proceeds
- Cars proceed
- Buses proceed behind MAX




# Signals continue

- MAX leaving area; MAX signal changes to “stop”
- Cars continue
- Buses continue



MAX train signals

 Solid Yellow horizontal = Stop