



# 7000 Series Railcar RAC Overview

July 2, 2008





# Agenda

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- Carbuilders – Unit Train Experience
- Seating Plan and Side Elevation
- Strategic Facilitation Design Criteria
- 8 Car Train Capacity Concepts
- Quad Unit Train Benefits
- Long Range Railcar Procurement Timeline
- Commissioning Facility and Test Track



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# Planning Our Transportation Future.....

.....next equipment life cycle  
going beyond 2050



# 7000 Series

## Technical Platform and Capacity

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- Fleet transition - 6 to 8 pack trains utilizing Quad Cars
- Capacity increases by elimination of cabs for added seats
- Improved life cycle costs, reduced energy costs
- Standardization of Fleet , spares inventory, maintenance
- On-board Metro Channel Passenger Communication in real time
- New security capability utilizing CCTV



# 7000 Series Specification

## Carbuilders – Unit Train Experience

**AnsaldoBreda**



**ALSTOM**



**Kawasaki**  
INNOVATING RAIL



**BOMBARDIER**

**BOMBARDIER**



**Sumitomo Corporation**

**NIPPON SHARYO**



**K KINKI SHARYO**  
近畿車輛株式会社



**CAF**





## 7000 Series Railcar

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# 7000 Seating Plan and Side Elevation



7000 EXTERIOR ILLUSTRATION A-CAR



7000 INTERIOR FLOOR PLAN A-CAR



7000 EXTERIOR ILLUSTRATION B-CAR



7000 INTERIOR FLOOR PLAN B-CAR



# Strategic Facilitation Design Criteria

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- New Railcar design workshops held for stakeholder input
- Collected and analyzed 103 design comments for 7000 specification consideration
  - Suggestions adopted include:
    - Exterior finish to stainless steel
    - Floor carpeting to tile surface
    - Seating changes – Remove arm rest, new fabric
    - Camera system – CCTV for security and safety
    - Communication – Integrated system map, Display screens
    - Doors - Use both leafs in emergency, exterior release
    - Interior – provide handholds, increase vertical poles on seats





# 7000 Series Interior Improvements

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- New stainless steel seat construction with fabric covering
- Resilient flooring
- Spring grab handles
- Improved Egress/Ingress

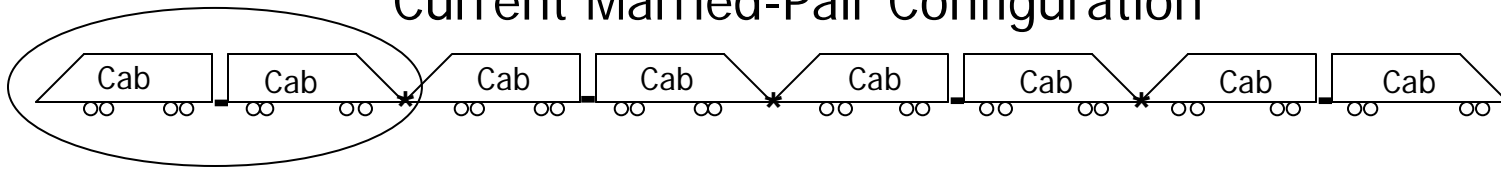


- LCD displays using The Metro Channel content
- CCTV cameras
- Equipment seat wells eliminated



# 8 Car Train Capacity Concepts

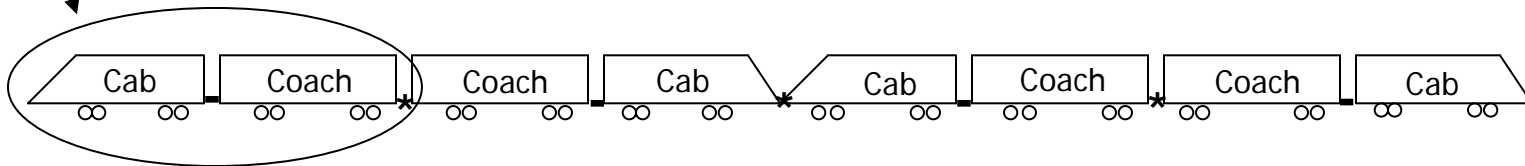
## Current Married-Pair Configuration



4 Married-Pairs = 8 car train = 8 cabs

Total Passengers - 1488

## Quad Unit Configuration



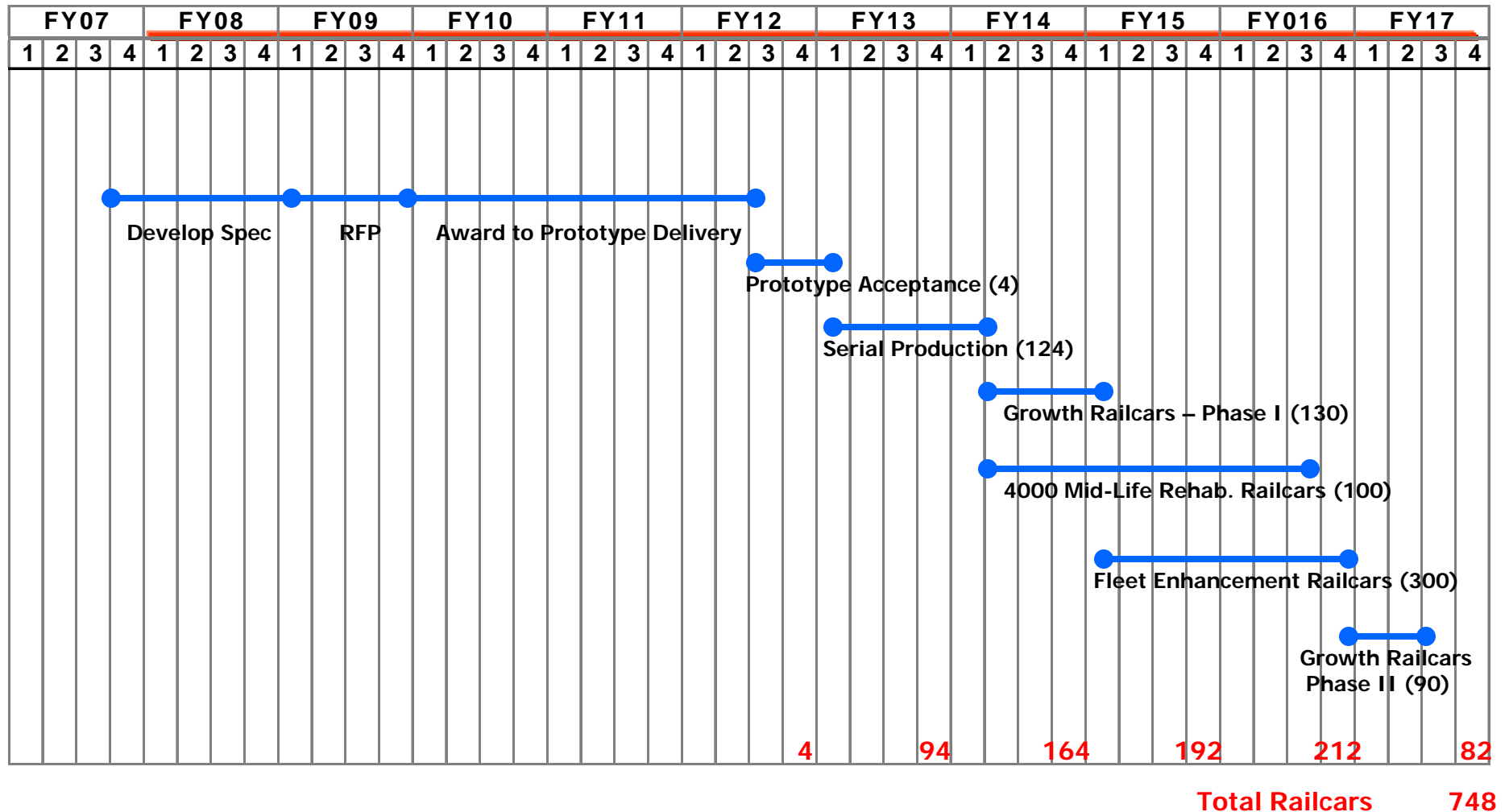
2 Quad Units = 8 car train = 4 cabs

Total Passengers – 1528

40 additional passengers per 8 pack train



# 7000 Series Railcar Procurement



### Assumptions:

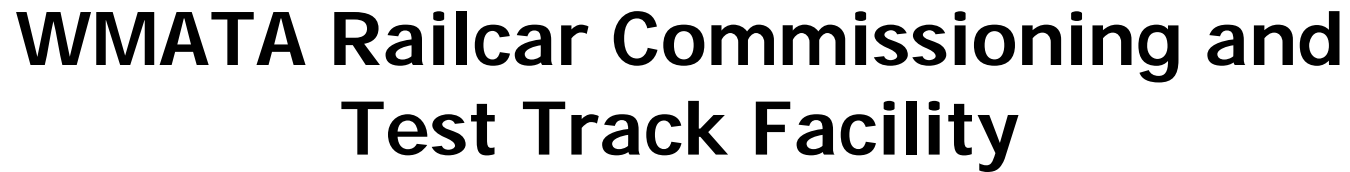
1. RFP issued 2008 with NTP 2009
2. Dedicated Commissioning Facility – 16-20 cars/month



## 7000 Series Commissioning Facility and Test Track

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- Start-up date of Facility / Test track to coincide with Pilot car delivery FY 12
- Dedicated 30,000 sq. ft facility / 12,000 foot test track to support 16-20 cars/month commissioning program
- Elimination of “single track” during revenue periods
- Maintenance Facilities not impacted during railcar commissioning
- Location: Greenbelt Facility existing land available



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- DESIGNED** \_\_\_\_\_ DATE \_\_\_\_\_  
**DRAWN** \_\_\_\_\_ DATE \_\_\_\_\_  
**CHECKED** \_\_\_\_\_ DATE \_\_\_\_\_  
**APPROVED** \_\_\_\_\_ DATE \_\_\_\_\_
- | NUMBER | REFERENCE DRAWINGS<br>DESCRIPTION | DATE | BY | REVISIONS<br>DESCRIPTION |
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- WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

DEPARTMENT OF OPERATIONS SERVICES  
ENGINEERING SUPPORT SERVICES
- GREENBELT ROUTE  
GREENBELT S&I YARD**

PROPOSED COMMISSIONING BUILDING AND ACCESS TRACK - CONCEPT B

SCALE: 1" = 60'

SHEET NO.
- CONTRACT NO.