



SFMTA
Municipal
Transportation
Agency

RAIL RULE BOOK

December 2015
(2017 corrections)



SFMTA RAIL RULE BOOK

The purpose of the San Francisco Municipal Transportation Agency Rail Rule Book is:

1. To create a safer transportation experience for everyone (SFMTA Strategic Goal 1)
2. To identify the accepted operating practices and standards of the San Francisco Municipal Transportation Agency Rail Operations Division during revenue operations.
3. To aid in the instruction and compliance of operating practices.
4. To provide employees a reference source whenever conditions or questions arise as to the safe correct course of action.

Corrected version of 2015 Rail Rule Book

This Rule Book is an edited version of the 2015 Rail Rule Book, including the corrections made and noted in the first printing of the 2015 Rail Rule Book. Any changes to Rules and Procedures since August 2015 have been released as Bulletins and Notices which remain in effect. Significant changes are noted below:

- RWP Rules and Procedures have been removed and will be issued separately as the Roadway Worker Protection Plan.
- Artwork throughout the Rail Rule Book has been updated.

San Francisco Municipal Transportation Agency Safety Policy

The SFMTA plans, designs, builds, operates, regulates, and maintains one of the most comprehensive transportation networks in the world. Every day more than a million people move around San Francisco. We strive to continually improve the experience of traveling around this great city by staying focused on the four goals of our strategic plan: Safety, Travel choices, Livability, and Service. The policies outlined here help us achieve these goals.

Employees and contractors of the SFMTA are expected to conduct their duties safely, aimed at preventing, controlling and minimizing undesired events, such as customer or employee injury, equipment or property damage, degradation of the environment or to system safety in any SFMTA function. Employees and customers are the SFMTA's most important assets and their safety is among the SFMTA's greatest responsibilities.

While the minimizing of unsafe conditions and the prevention of accidents within the SFMTA's transportation network and its facilities are the responsibility of each employee, they are first and foremost the responsibility of the SFMTA management. The SFMTA management is responsible for developing programs to promote the safety of all employees and customers. We are fully committed to providing a safe work environment, vehicles, systems and facilities. To that end, the SFMTA Chief Safety Officer is empowered and authorized to administer the comprehensive, integrated and coordinated System Safety Program Plan (SSPP). This includes suspending service due to accidents/incidents and unacceptable hazardous conditions.

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The Chief Safety Officer is responsible for overseeing all safety issues for the SFMTA, including developing and implementing the SSPP; developing occupational safety policies; developing construction safety procedures; conducting safety related training programs; and auditing the System Safety Program and Standard Operating Procedures (SOPs) for compliance.

ALL SFMTA EMPLOYEES ARE RESPONSIBLE FOR ENSURING ADHERENCE TO THE SAFETY POLICY.



Edward D. Reiskin
Director of Transportation

Introduction

The Rail Rule Book contains rules which govern the safe performance and conduct of all rail employees and personnel responsible for revenue service and maintenance of SFMTA's Rail Operations. The intent is to assist rail employees to perform their duties safely and effectively. Rail employees shall learn, understand and practice these rules and supporting documents. Maintain a thorough familiarity with these rules as they apply to their individual work assignments.

SFMTA shall conduct training in these rules and shall provide additional training upon future revisions and additions to the Rail Rule Book. Rail employees shall direct questions concerning the rules contained herein to their immediate supervisor at any time. Suggestions to improve, clarify or enhance safety are always encouraged.

SFMTA employees, contractors and consultants are required to strictly comply with the rules in this book. Ignorance of the rules does not excuse negligence or failure to properly perform all required duties. Failure to comply with the rules contained in this book or any violation of the rules shall be considered sufficient cause for discipline of employees and when justified, shall be sufficient cause for removal of contractors and consultants and their respective employees.

Safety shall always be the first consideration. The result of unsafe practices within the SFMTA rail system can be extremely serious. When in doubt of any situation, employees and contractor personnel shall take the safe course of action and contact the proper authority for assistance. All employees and contractor personnel are required to exercise care to prevent injury to persons or damage to property.



John J. Haley
Director of Transit



Melvyn E. Henry Jr.
Chief Safety Officer

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SFMTA RAIL OPERATIONS RULE BOOK

Revised: August 2015

Corrections approved 12/31/15 included

RWP separated May 2017

Edits & Updates approved 6/22/17 included

This Rule Book is the property of the San Francisco Municipal Transportation Agency (SFMTA). It must be returned upon request or when the employee leaves the service of the SFMTA.

Issued to: _____

Employee I.D. No: _____

Unit/Division: _____

Receipt

I acknowledge receipt of the Rules and Instructions Handbook for employees.

Signature: _____

Date Issued: _____

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1 DEFINITIONS

A-End – The end of an LRV or Historic Streetcars so designated

Absence Without Leave (AWOL) – Failure to report for duty or notify Division Dispatcher at time indicated on schedules or detail list.

Active Cab – Operating compartment of a rail vehicle from which control of the vehicle is achieved.

Aspect – The appearance of a signal or sign that conveys an indication.

Aspect, Permissive – The aspect of a signal that conveys an indication that the train is cleared to proceed.

Automatic Speed Control (ASC) – A train control system that prevents trains from exceeding permissible speeds.

Automatic Train Control System (ATCS) – A moving block signal system that allows the maximum number of trains to operate safely by controlling train separation, speed regulation and programmed stopping.

ATCS Territory – Area of Mainline track controlled by ATCS, inclusive from West Portal or Duboce Portal to Ferry Portal in the subway.

Automatic Train Protection (ATP) – A train control sub-system of ATCS that maintains safe train operation through a combination of train detection, separation, speed regulation and signals.

Authorization Time – Time issued by Central Control whenever instruction or authorization is given for appropriate rail operations.

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B-End – The end of an LRV or Historic Streetcars so designated

Ballast – Selected material placed on under and around the ties of ballasted railway track for the purpose of holding the track in line and used to facilitate drainage of water, to distribute the load from the railroad ties and also keep down vegetation that might interfere with the track structure.

Backing – Reverse movement of a train from the cab opposite the direction of travel.

Bell – Device used to communicate between cable car crew members

Berth – Space designated for a train of given length to occupy when it is stopped at a station platform, in a terminal or at some other designated location.

Block – A length of Mainline track of defined limits, the use of which is controlled by fixed signals, ATCS or Central Control Authorization.

Block, Disturbed – A status of a block that prevents automatic train operation in the area of the disturbed block.

Blue Flag/Blue Light Protection – A Blue Flag, Blue Marker, Blue Cone, or Blue Light displayed on or near both ends of a rail vehicle or on a track that indicates a rail vehicle is not to be moved or coupled to another rail vehicle.

Blue Light Phone – An emergency communication telephone located in tunnels or subways and designated by a blue light, which provides direct communication to Central Control, Station Agents' Booths, or any local emergency number.

Boundary Block – A block specifically included to establish the end of a train entering/exiting ATCS territory.

Brake – A mechanical or electronic system which actively slows or stops a train.

Breaker - A device or configuration that isolates the overhead contact system into electrical sections.

Bulletin – Written instructions, rules, procedures, notices and orders that apply to all employees whose duties they affect and must be obeyed. All bulletins, orders and notices are numbered consecutively from January 1 of each year.

Bumper Bar – Mechanical device set over the cable to ensure cable is released from grip in the event a let-go is not performed by the Grip operator.

Bumping Post – A structure located on tracks to prevent trains from rolling off the end of track.

Cable Car – A cable propelled, passenger carrying rail vehicle, designed to operate only on surface lines, using a manual mechanical control system.

Cab – Compartment from which the train operator controls the vehicle, located at each end of an LRV or streetcar.

Cable Strand – A single wire or group of wires that separates from the cable.

Cable Car Rear Platform – An Entry/exit boarding area at the rear of Powell Cable Cars which also contains the rear brake control.

Call Sign – An alpha-numeric radio designation assigned to SFMTA employees.

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CCT – Communicating cut-out train

Central Control – Authority for monitoring, dispatching and controlling SFMTA Rail Operations, also known as “Central” or “OCC”.

Certification Card – A certificate which authorizes an employee to engage in specific activities for which he/she has been trained.

Clearance Line – Lines defining the operating dynamic envelope of the track way for unobstructed safe clearance.

Clearance, Negative – A location within the rail system where the dynamic envelope fouls the path of adjacent trains.

Clearance, No – see No Clearance

Clearance Permit – An official document issued by Central Control authorizing occupation of a defined section of SFMTA Property with appropriate Roadway Worker Protection.

Collision – An unforeseen event or occurrence which results in injury or property damage.

Commission – CPUC (California Public Utilities Commission)

Communicating Cut-Out Train (CCT) – A train being operated manually in Cutout Mode without ATP in ATCS Territory but with limited communication with VCC

Conductor – Part of a two-person Cable Car or Vintage Streetcar Crew, assigned to collect fares and assist with the safe operation of the vehicle.

Consist – The number and specific identity of rail vehicles that make up a train.

Console – The control panel in the cab.

Contact Wire – The electrical conductor, part of the overhead contact system, which provides 600 Volts DC power to the rail vehicle through contact with the pantograph or trolley pole.

Couple – Connecting rail vehicles together in order to permit the resulting consist to be operated from one cab.

Coupler – A device at each end of a light rail vehicle used for making mechanical, electrical and pneumatic connections between rail vehicles.

CPUC (California Public Utilities Commission) – Governs Rail Fixed Guideway Systems (RFGS) in the State of California.

Crew – A Motorman and Conductor of a Vintage Streetcar or a Grip operator and Conductor of a cable car.

Crossover – Arrangement of tracks and switches providing a route from one track to another.

Deadman Control – A device incorporated into the Master Controller or foot pedal while under Manual Operation which must be held in the operating position before movement of the rail vehicle can occur and if released, will initiate a full service brake application.

De-energize – To remove electrical power to the overhead contact system.

Depression Beam – A beam located at the bottom of hills and used to hold the cable under the slot rail. It has moveable parts to allow grip to pass through.

Depression Hatch Cover – A Cover that allows for accessing the depression beam.

Derailment – A condition in which the normal relationship between the wheel(s) of a rail vehicle and the running rail is lost.

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Derail Device – Track device designed to cause track equipment to derail.

Dips – In cable car operation, a location where the Grip operator can safely pick up the cable.

Dispatcher – The person at the division-level responsible for scheduling work assignments for Operators, filling open runs and ensuring that Operators report for work per the schedule.

Driver Display Unit (DDU) – Provides a visual indication of the train's operating performance and/or commands to the Train Operator.

Dwell Time – Period of time measured from the instant the doors are commanded open at a station/terminal zone until the doors are closed.

Dynamic Envelope – Area occupied by a moving rail vehicle.

E-Marker – Indication of an entry point for ATCS

Emergency – Any condition that has or may result in injury or death to persons, employees, damage to equipment or property, and/or impede the movement or safe operation of the rail vehicle.

Emergency Brake – The braking mode that provides the maximum amount of stopping force by applying all brake components simultaneously.

Emergency Door Release – A device located in the passenger compartment of LRVs and Historic Streetcars which allows for manual opening of the door when activated.

Emergency Vehicle – Vehicle used for official response to an emergency by SFMTA Response Vehicles, Fire Fighters, Police or Paramedics.

Employee – Any person employed or contracted by the SFMTA or a contractor working on behalf of the SFMTA.

Employee in Charge (EIC) – (See separate RWP Manual).

Entry Point – A location in ATCS Territory that can be used to re-initialize the Vehicle On-Board Controller (VOBC's) positioning system and enter the vehicle in the Vehicle Control Center database.

Flag – A device for conveying an aspect to the Rail Operator indicating a condition affecting rail operation. A flag may be made of cloth, metal or other suitable material and may be a light during hours of reduced visibility, darkness or in underground track locations.

Fouling – Placement in proximity to a track where a person, equipment, or vehicle could be struck by a moving train or on-track equipment.

Fouling Point – Location on the track where movement or storage of a rail vehicle will interfere with movement on an adjacent track, curve, or crossover/switch.

Fouling Point Marker – Painted lines indicating where vehicle movement or storage of a rail vehicle will interfere with vehicle movement on an adjacent track, curve or crossover/switch.

Frog – Track structure used at the intersection of two running rails to provide support for wheels and passageways for their flanges, permitting wheels on each rail to cross the other rail.

Gong – Loud bell used on Cable Cars, Historic Streetcars, and LRVs as a warning device.

Grade Crossing – Crossing over tracks by a road, footpath or another track.

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Grip – Device on cable cars which extends under the street to engage the cable.

Grip Operator (formerly Gripman) – Part of a two-person cable car crew, assigned to operate the cable car safely through the use of a grip.

Grounding Strap – Used by overhead line crews to ground a section of the overhead contact system to the track.

Guard Rail – A rail or other device to guide the wheel flange on curves and special track work.

Gypsy – Mechanical lever used to lift up cable into the grip.

Hazard – Any condition that may cause injury, death, damage, loss of equipment and/or property.

Headway –The time separation between two scheduled trains travelling in the same direction on the same track.

Hi-Rail Equipment – Any rubber tire vehicle with the capability of lowering auxiliary wheels onto standard gauge track running rail.

Historic Streetcar – An electrically propelled, passenger carrying rail vehicle, designed to operate only on surface lines that uses a traditional type electromechanical control system.

Incident – An unforeseen event or occurrence.

Indication – Information conveyed by the aspect of a signal or sign.

Interlocking – Arrangement of interconnected signals and switches that provide train routes and prevent conflicting train movement.

Insulated Joint – Non-conductive separation of two sections of rails for the purpose of train detection.

Let-go – The act of releasing cable from the grip at designated locations.

Light Rail Vehicle (LRV) – An electrically propelled, passenger-carrying vehicle, designed to operate in both surface and subway environments, using a modern electronic control system. Distinguished from a heavy rail vehicle typically by passenger capacity and street operation.

Local Control Panel – Interlocking controls at designated wayside locations.

Locator Markers – Numbered signs on the wall of the subway identifying the location of a train in the subway between stations.

Mainline – Track where revenue service is provided under the authority of Central Control.

Manual Push Button – Manually operated device for selecting a route.

Master Controller – Control device that allows Train Operator to control the movement of a train.

Maximum Authorized Speed – The maximum operating speed authorized for a particular section of track.

Milan Car – Air brake historic streetcar with hand operated controller in surface street operation.

Muni Metro Turnback (MMT) – Area east of Embarcadero Station where special track work is used for turn back purposes.

Muni Metro Extension (MMX) – Area of Mainline tracks located between the Ferry Portal and King/6th Street.

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Near-miss – An incident infringing on the safety of a roadway worker on or near the tracks, but without contact or injury.

No Clearance – Locations within the rail system where there is not sufficient space to safely occupy areas between fixed wayside structures and moving vehicles operating on adjacent tracks.

Non-Communicating Tracked Train (NCT) – A rail vehicle being manually operated in Cut-Out Mode in ATCS Territory, without ATP, and being tracked by axle counters.

Notice – A written instruction issued by the Rail Division Superintendent, which contains reminders or clarifications on existing rules and procedures.

OCC – see Central Control.

Official Railway Time – The official time for all Transit Employees, maintained by Central Control.

Operate on Sight – To operate a rail vehicle, being prepared to stop within the range of the Operator's vision.

Operator – Employee responsible for direct control and safe operation of a rail vehicle.

Operating Clearance – see Train Orders.

Outfit – Information issued to Operators at report/relief time that contains transfers, paddles, defect cards, bulletins, notices, train orders, and/or any other information pertaining to operations.

Overhead Contact System – Electrified overhead wire system for distribution of traction and auxiliary power to rail vehicles. Also referred to as the Overhead Catenary System.

Pantograph – Roof mounted device on an LRV for collection of power from the Overhead Contact System.

Passenger Stop/Stations – Designated locations for boarding and alighting passengers.

PCC Car – All electric historic streetcars operated with foot pedals in surface street operation.

Personal Electronic Device (PED) – Headphones, cellular telephones, tablet computers, PDA devices, Bluetooth or wireless electronic devices, and personal radios or scanners not issued by the SFMTA.

Personal Protective Equipment (PPE) – Hard hats, safety glasses, safety shoes, gloves, safety vests, and/or other type of safety-related equipment required by SFMTA.

Pick-up (Take Rope) – Point where a cable car grip mechanism picks up the cable.

Platform – Elevated structure, adjacent to the trackway which passengers board or disembark a rail vehicle.

Portal – Location where trains enter/exit underground sections of track.

Posted Speed – Maximum authorized speed over a section of track by fixed signals, temporary signals, signs or rules.

Propulsion – The process of driving or propelling a rail vehicle.

Pull-In Time – Scheduled time a rail vehicle returns to the car barn or yard.

Pull-Out Time – Scheduled time a rail vehicle leaves the yard or car barn.

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Rail Transit Vehicle – SFMTA’s rolling stock, including but not limited to passenger and maintenance vehicles.

Rail Fixed Guideway System (RFGS) - Any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, cable car, automatic people mover, or automated guideway transit system used for public transit and not regulated by the Federal Railroad Administration or not specifically exempted by statute from Commission oversight.

Restricted Area – Any area where only Authorized SFMTA Employees or Contractors are permitted to enter. Examples include but are not limited to, non-operating cabs, subways, exclusive rights of way, relay rooms, substations, yards, portal entries, etc.

Restricted Speed – The operating speed that will permit stopping within one-half (1/2) the range of vision, short of another train, improperly aligned switch, track defect or obstruction or any hazard. Speed is not to exceed 10 mph.

Reverse Running – The operation of a train opposite the normal direction of traffic.

Right-of-Way (ROW) – A strip of land that is granted, through an easement or other mechanism, for transportation purposes which includes SFMTA’s rails, track, crossties, ballast, bridges, underpasses, tunnels, wayside signals, near-track communication facilities, and stations, excluding platforms.

Route – Train movement on one track over track switch(es) aligned for a pre-defined primary path.

Route, Diverging – A route changing a train’s directional movement from one track to another over track switches.

Rule – Rail Operation written directives governing conduct and behavior of rail employees.

RWP – Roadway Worker Protection.

Safety Latch – Device in the slot preventing the cable car from rolling back from the top of a steep grade.

Safety Zone – A safety zone is the area or space set apart within a roadway for the exclusive use of pedestrians which is protected, marked, or indicated by traffic markings, vertical signs, raised markers, or raised buttons.

Schedule – Prescribes direction, number, frequency and times of movement of designated trains.

Sectionalization – A specified section of contact wire that can be locally de-energized.

SFMTA Contractor – An entity that performs tasks on behalf of the SFMTA.

Shops – Those tracks designated between Shop Limit Signs.

Shop Limit Signs – Those signs on the outer limit of the Shop area.

Signal – Method or device that conveys information to the Operator about conditions ahead affecting rail vehicle operation.

Signal, Audible – Aspect conveyed by a sound producing device or method used for audible indications.

Signal Bag – Cover placed over signals indicating signal is out of service and is to be ignored. Switches associated with the signal shall be plugged.

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Signal, Fixed – Signals at specific locations along the Right of Way including interlocking signals, switch indicators or other devices for governing hand operation and movement of rail vehicles.

Signal, Hand – Aspect conveying an indication given by the motion or position of a person's hand/arm or light.

Signal, Tower – Controls all inbound and outbound cable car movement at Powell and California streets.

Skinning Cable – When the cable is held by grip in partial release position, (12 o'clock) and car is moving faster than cable speed.

Single Track Operation – The bi-directional movement of rail vehicles over a single track while operating within defined limits on the Main track. Control of this track may be by block signals or Central Control instructions.

Slot Blade – Cable car emergency brake application.

Slot Rail (Grip Slot) – A rail in between running rails of a cable car that keeps the grips in-line with the cable.

Slow Zone – An area within defined limits for wayside conditions requiring reduced operating speeds.

Spin/Slide – When wheels turn faster or slower than rail contact speed.

Spin/Slide Detection System – Vehicle system for detecting and preventing excessive wheel spins and slides.

Standard Operating Procedures (SOP) – Information and procedural instructions for rail employees.

Station Run Through – Passing a station platform without stopping.

Stop, Mandatory – Locations where signs or signal aspects convey a required stop indication.

Substation – Facilities for converting high voltage AC into 600V DC for the overhead contact system for traction power.

Surface Street Operation – Mainline tracks outside of the ATCS Territory and dedicated right of way.

Switch – Special track work for routing from one track to another.

Switch, Automatic – Electrically powered switch that is controlled remotely.

Switch, Dual-Control – Track switch controlled remotely or operated manually.

Switch, Facing Point – A switch set so that the points are directed towards an approaching rail vehicle's movement.

Switch, Manual – Track switch operated manually.

Switch Plug – Device inserted into a switch point to prevent its movement.

Switch Point – The tapered rail portion of a switch, whose alignment determines switch position (normal or diverge).

Switch, Diverge Position – Switch position aligned for diverging movement over a track switch.

Switch, Straight Position – Switch position aligned for normal movement over a track switch.

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Switch, Spring – Switch equipped with a spring arranged to restore its points to their original position after having been trailed through by each wheel.

Switch, Trailing Point – A switch set so that the points are directed away from a passing rail vehicle's movement.

Switch, Trailable – Track switches not requiring alignment for trailing movements and once moved, switch points remain aligned in the trailed position. Trailable switches shall be properly aligned for facing point movements.

Switchback – To change train and track direction.

System Safety Program Plan (SSPP) - Document adopted by SFMTA detailing safety policies, objectives, responsibilities, and procedures.

Terminals – Station where scheduled trips begin and end.

Track, Auxiliary – Track not designated as Mainline used for rail vehicle storage or non-revenue maneuvers. Includes Pocket Tracks and Siding Tracks.

Track Circuit – A section of track electrically isolated by insulated joints for the purposes of detecting track occupancy.

Track, Designation – Track Right (Inbound), Track Left (Outbound).

Track, Out of Service – Designated tracks where train entry/operation is prohibited.

Track, Pocket – Designated tracks between Mainline tracks for storing rail vehicles and other rail activities.

Track, Siding – Designated tracks auxiliary to the Mainline used for storage and turn backs. Also known as “Wye tracks”.

Examples include 11th & Market, 3rd & Armstrong, 46th & Taraval, etc.

Track, Yard – Non-mainline tracks within designated yard limits used for storage of rail vehicles, repairs or other operations.

Traffic – Designated direction of train movement over mainline tracks.

Traffic, Normal – Movement of trains over Mainline tracks in the direction defined by the rules.

Train – One or more rail vehicles operating as a single consist.

Train, Non-Scheduled – Special Event trains, Charter trains, training, test trains and other trains that may be inserted into revenue service as needed.

Train, Sweeper – Train operating over any section of mainline track to inspect the line operating manually at restricted speed.

Train, Test – Train used to verify the safe operational status of Mainline track, trains or other systems.

Train Controller – Designated employees on-duty at Central Control having authority over train movements and other activities affecting mainline operations.

Train Orders (Operating Clearance) – Document issued daily by Central Control to all Rail Employees, when reporting for duty, governing train movement on mainline track. Contains speed restrictions, presence of authorized Roadway Workers, operating information and instructions.

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Trainline – Electric and pneumatic coupling between rail vehicles allowing single cab operation of all vehicles in a consist.

Trolley Pole – Roof mounted device located over the ends or center of a Historic Streetcar for collection of power from the overhead contact system.

Truck – Rail Vehicle component consisting of wheels, traction motors (except center trucks of LRVs) and braking systems that supports the car body.

Turntables – Manually and power operated platforms that change cable car direction.

Turntable Latch – A device in the street that maintains rail alignment between rails on and off the turntable.

VCC (Vehicle Control Center) – Computer systems located at Central Control that control train movements.

Vehicle On-Board Controller (VOBC) – A vital microprocessor-based unit on each LRV which interprets commands from the VCC; controls vehicle movements according to these commands and reports vehicle status back to the VCC.

VETAG – A vehicle tagging (identification) system that operates rail vehicle track switches and signal priority, remotely activated by the operator.

VTT – Verification of Transit Training as required for all Transit Operators as certification to provide passenger service.

Watchperson – (see Lookout) (See separate RWP Manual)

Wayside Restriction – Operating instructions given to Rail Employees advising of conditions on Mainline tracks affecting Rail Operations.

Wayside Sign – A fixed sign along the right of way conveying operational information to the train operator.

Wheel Chock (Wheel Block) – A device placed between the top of the rail and the rail vehicle wheel to prevent vehicle movement.

Work Crews – Crews authorized within work areas.

Work Times – The time a train, equipment, or personnel is allowed in or to pass through an area specified by the Clearance Permit.

Worker in Charge (WIC) – same as Employee in Charge (EIC)(See separate RWP Manual)

Yard – Facility for maintenance and storage of vehicles. (Cameron Beach Yard, Green Yard, Mint Yard, and MME)

Yard Limit – Designated location between Shop Limit and Mainline.

2 GENERAL RULES

2.1 Compliance with Rule Book

- 2.1.1 Employees shall have a copy of the Rail Rule Book in their immediate possession for reference at all times while on duty.
- 2.1.2 All employees whose duties involve work within the right of way or movement of any rail vehicle shall be governed by the rules defined in the current SFMTA Rail Rule Book.

2.2 Train Orders, General Bulletins, Division Bulletins, and Notices

- 2.2.1 Employees shall comply with all applicable Train Orders, General Bulletins, Division Bulletins and Notices.
- 2.2.2 Employees reporting to a Rail Division shall check the Division Bulletin Board daily for new General Bulletins, Division Bulletins and Notices prior to operating a rail vehicle.
- 2.2.3 Employees receiving Train Orders, General Bulletins, Division Bulletins and Notices shall confirm their receipt with the dispatcher or Control and understanding of the document(s). Employees who do not confirm receipt and understanding of Train Orders, General Bulletins, Division Bulletins and Notices shall not be allowed to begin work.
- 2.2.4 Employees shall sign for Train Orders when reporting for duty and keep a copy on their person at all times.

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- 2.2.5 Employees making a relief on the line shall contact Central Control for updates to Train Orders.
- 2.2.6 Employees who do not understand any Train Orders, General Bulletins, Division Bulletins, Rules, Standard Operations/Maintenance Procedure, Notices, or any portion therein shall contact their Immediate Supervisor or Central Control for an explanation. Ignorance will not be accepted as an excuse for failure to comply.
- 2.2.7 Hierarchy of Compliance – Employees shall obey instructions, both written and verbal, issued by SFMTA management and supervisory personnel, including Central Control staff. Written instructions consist of:
 - 1. Train Orders
 - 2. General Bulletins
 - 3. Division Bulletins
 - 4. Rules
 - 5. Standard Operating/Maintenance Procedures
 - 6. Notices
- 2.2.7.1 Each form of written instructions takes precedence over the form listed below it, and is subordinate to the form listed above.
- 2.2.7.2 In the event of conflict between written and verbal instructions, the most restrictive rule or instruction shall take precedence.
- 2.2.7.3 In the event of conflict between two verbal instructions, employees are to clarify the conflict, and then follow the last instruction received.

2.3 Duties

- 2.3.1 Employees shall not allow anyone, unless properly authorized, to perform any part of their assigned duties.

2.4 Compliance with Traffic Laws

- 2.4.1 Employees shall comply with all applicable traffic laws while operating on city streets.

2.5 Record of Employees

- 2.5.1 Employees shall immediately notify their Immediate Supervisor of any change in their Driver's License status.

2.6 Personal Appearance

- 2.6.1 Current Rail Operator ID Number (Cap Number) shall remain in designated place on the uniform, properly displayed in plain view, at all times while on duty.
- 2.6.2 Employees shall only wear SFMTA issued or approved articles of clothing, headgear and PPE while on duty.

2.7 Conduct

- 2.7.1 Employees shall not be careless or indifferent to their own safety or the safety of others.
- 2.7.2 Employees shall not be indifferent or inattentive in performance of their duties.
- 2.7.3 Employees shall not be discourteous to the public or other SFMTA employees.
- 2.7.4 Employees shall perform their duties competently in accordance with SFMTA standards, training, rules, and procedures.

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- 2.7.5 Employees shall not be dishonest in performing their duties.
- 2.7.6 Employees shall not provide any information regarding SFMTA operations or personnel, except what is required by the riding public or as part of normal operations.

Requests for confidential information, interviews, records or requests of similar nature shall be referred to their immediate supervisor.
- 2.7.7 Employees shall not consume intoxicants while on duty or off duty while in SFMTA issued uniform.
- 2.7.8 Employees shall not be insubordinate to their SFMTA supervisory or managerial personnel.
- 2.7.9 Employees shall not willfully damage or deface SFMTA property or commit acts of vandalism
- 2.7.10 Employees shall not engage in any form of confrontation.
- 2.7.11 Employees shall not engage in misconduct, as defined by SFMTA policy and the Employee Handbook.
- 2.7.12 Employees shall not disregard known or common risks to human life and safety in the performance of their duties.
- 2.7.13 Employees shall not interfere with any vehicle in revenue service or willfully disrupt or delay service.
- 2.7.14 Employees shall not use profane or vulgar language while on duty, or on SFMTA property and/or vehicles.
- 2.7.15 Employees shall properly handle fares and transfers.

- 2.7.16 Employees shall not solicit nor accept gratuities of any kind.
- 2.7.17 Employees shall not engage in acts of theft.
- 2.7.18 Employees shall not abandon their assigned SFMTA vehicle.
- 2.7.19 Employees shall properly account for their passengers during emergencies.
- 2.7.20 Employees shall not knowingly make false statements or reports.
- 2.7.21 Employees shall not knowingly conceal facts during an SFMTA investigation.
- 2.7.22 Operators, upon request, are to give their identification number and vehicle number.
- 2.7.23 All SFMTA employees other than Operators are required to give their name and division upon request.
- 2.7.24 Employees while on SFMTA property or in vehicles, on or off-duty, shall not have in their possession or use any type of firearm or other weapon.
- 2.7.25 Employees shall not gamble while on duty, in uniform or on SFMTA property.
- 2.7.26 Employees shall not perform unauthorized passenger stops without authorization from Central Control.
- 2.7.27 Employees shall not wear any eyewear with tinted lenses during hours of darkness, while in underground sections or in other circumstances where visibility is reduced.

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2.7.28 Employees shall not eat, drink, or read any material in the cab of any SFMTA vehicle while the vehicle is in motion. Food and beverages carried by the Employee shall be kept packaged in a spill proof container and out of sight at all times. Drinking may be permitted but only when the vehicle is stopped, and safe to do so.

2.8 Safety – Safety First!

2.8.1 Employees shall devote full attention to the proper performance of duties. The Operator is ultimately the person responsible for safe vehicle operation.

2.8.2 Employees shall be alert for hazards or obstructions regardless of the mode of operation.

2.8.3 Employees shall use the emergency brake to avoid immediate contact with any person, obstruction, or hazard.

2.8.4 Employees in doubt or uncertain in any situation shall take the safest course of action and immediately contact Central Control or their Supervisor.

2.8.5 Employees shall be fully alert at all times while on duty. Sleeping or the appearance of sleeping while on duty is prohibited.

2.8.6 Employees shall not engage in unnecessary conversation or allow themselves to be distracted while operating a SFMTA vehicle.

2.8.7 Employees shall remain in the operator seat at all times while vehicle is in motion, except on cable cars, vintage and Milan cars.

- 2.8.8 When operating in double track areas, operators shall not pass another train on adjacent track when pedestrians are standing between the tracks.
- 2.8.9 When operating in a flag protected area, employees shall follow the directions of the watchperson and operate with caution. If unsure of the watchperson's instructions, employees shall STOP, not move the rail vehicle and contact Central Control for further instructions.
- 2.8.10 When operating PCC Cars, employees shall have the door interlock bypass switch in the "off" or normal position while in service.
- 2.8.11 When operating Milan Cars, employees shall have the door bypass ('Sblocco Porte') switch in the "off" position while in service.
- 2.8.12 When operating LRVs, employees shall set the door interlock bypass switch to the "operational" position when rail vehicles are in service.
- 2.8.13 Employees shall not break the safety seal or activate the bypass mechanism on the door interlock bypass switch without approval from Central Control.
- 2.8.14 Operators shall not operate an LRV with a broken bypass switch seal unless authorized by Rail Vehicle Maintenance or Central Control.
- 2.8.15 If the safety seal on the door interlock bypass switch is broken, the employee shall immediately contact Central Control for instructions.
- 2.8.16 Rail vehicles are to be brought to a complete stop before activating the door open controls.

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- 2.8.17 Employees shall not adjust seats, mirrors or signs while the rail vehicle is in motion.
- 2.8.18 Employees shall immediately inform Central Control of any emergency, unsafe condition or defective equipment and shall take action if an immediate or potential safety hazard exists.
- 2.8.19 Employees shall wear approved PPE when working on or about the tracks or within six feet of the right of way.
- 2.8.20 Employees shall not place or hang items in cab windows.
- 2.8.21 Employees shall not lean against any standing vehicle.
- 2.8.22 Employees shall not occupy seats when there are no seats available for passengers.
- 2.8.23 Employees shall not board or alight any vehicle that is in motion.
- 2.8.24 Employees shall only operate trains from the forward cab of the lead car while performing normal operations.
- 2.8.25 Employees shall not stop or store trains closer than five (5) feet from a bumping post.
- 2.8.26 Employees shall not release brakes on disabled vehicles until the disabled vehicle is coupled to a rescue vehicle.
- 2.8.27 Employees shall not use the Deadman feature as a service brake.
- 2.8.28 Employees shall not circumvent, modify, or disable the Deadman feature.

- 2.8.29 Employees observing an unauthorized person (or persons) on the right of way or underground sections of the track shall:
- a) STOP;
 - b) Sound Audible Signal;
 - c) Contact Central Control with the following information:
 - (1) Description of person(s)
 - (2) Location of person(s)
 - (3) Direction of travel
 - d) Employees shall follow Central Control Instructions

2.9 Medical Issues

- 2.9.1 Employees who have any medical condition or are prescribed medication which may impair their ability to operate equipment shall notify their supervisor immediately and shall not operate any SFMTA equipment until cleared to do so.
- 2.9.2 SFMTA employees that operate rail vehicles in revenue service shall maintain a valid California Class A or Class B Commercial Driver's License with no air brake restriction and a "Passenger (P)" endorsement, current VTT Certificate and a valid medical certification.
- 2.9.3 Employees shall wear corrective lenses at all times as required by the conditions of their California Driver License or medical certificate.

2.10 Training

- 2.10.1 An employee shall not operate any equipment that he or she has not been trained and certified to operate.
- 2.10.2 Employees shall attend training sessions as directed by SFMTA supervisory or managerial personnel.

2.11 Schedules

- 2.11.1 Operators shall not operate ahead of schedule except when authorized by Central Control or supervisor.
- 2.11.2 Operators shall leave terminals as scheduled, unless authorized by Central Control or supervisor.
- 2.11.3 Train Operators running five (5) minutes late or more must notify Central Control with a brief reason for the delay.
- 2.11.4 Returning to the yard ahead of schedule is prohibited without authorization from Central Control or supervisor.
- 2.11.5 While on duty, operators and supervisors shall carry a reliable watch that displays hours, minutes and seconds and is synchronized to the time kept at Central Control.

2.12 Hours of Service

- 2.12.1 Safety-Sensitive employees shall not be on duty more than twelve (12) consecutive hours nor shall a Rail Operator be on duty more than twelve (12) aggregate hours over a period of sixteen (16) consecutive hours, except in the event of a declared emergency.
- 2.12.2 Any hours worked by Safety-Sensitive employees outside of the SFMTA shall be logged against the hours of service for that day.

2.13 Routes

- 2.13.1 Employees shall not deviate from established routes or switchback before reaching the scheduled terminal except when authorized by Central Control, LMC or MRO.
- 2.13.2 Employees shall not deviate from authorized pull in and pull out routes unless authorized by Central Control, LMC or MRO.

2.14 Relief

- 2.14.1 Relief shall be made only at designated locations according to the schedule. Employees who miss scheduled relief shall contact Division Dispatcher or Central Control immediately for instructions.
- 2.14.2 Operators not relieved shall contact Central Control immediately for further instructions.

2.15 Personal Items – Personal Electronic Devices

- 2.15.1 Unauthorized reading material shall be kept packaged and out of sight at all times.
- 2.15.2 Employees shall politely ask passengers to lower volume on sound devices.
- 2.15.3 Employees, while working in a safety sensitive capacity, shall not use Personal Electronic Devices within six (6) feet of the outside rail within the SFMTA right-of-way.
- 2.15.4 SFMTA employees while operating a rail vehicle shall turn off all Personal Electronic Devices and secure them in a location out of sight and off person (not stored in a pocket or clipped/attached in any way) and away from the employee.

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- 2.15.5 In the event of a communication system failure or emergency situation, a wireless phone may be used by the employee only as an alternate means to contact Central Control. This shall only be done when the rail vehicle is brought to a complete stop and secured (LRV: with the emergency brake applied). The employee shall step outside of the operating cab or compartment. No movement shall be initiated until communication is completed and the phone secured per Rail Rule Book 2.15.4

2.16 Fares

- 2.16.1 Employees shall inform passengers of the correct fare and avoid argument or conflict with them. Transfers shall not be issued unless the proper fare is paid.

2.17 Lost Articles

- 2.17.1 Operators finding lost articles shall turn them over to the dispatcher at the end of their shift.
- 2.17.2 On vehicles with a two Operator crew, the conductor will be responsible for turning in recovered lost property to the Dispatcher.

2.18 Tools or Equipment

- 2.18.1 Employees shall have all proper tools, equipment and supplies before starting work.
- 2.18.2 Employees shall use SFMTA issued tools and equipment in a proper manner and for the intended purpose only.
- 2.18.3 Employees shall not place tools, equipment and materials where they present a safety hazard.

- 2.18.4 Upon the discovery of defective tools or equipment, employee shall not use the tools or equipment and shall report the defects to their supervisor.
- 2.18.5 All employee lockers and toolboxes are subject to search without notice.

2.19 Restrooms

- 2.19.1 Where locks are provided, employees shall ensure doors are locked when leaving.

3. COMMUNICATIONS

3.1 SFMTA Radio System

- 3.1.1 Employees shall ensure radios are on while in service and volume is adjusted and set to the proper channel.
- 3.1.2 Employees shall ensure the channel is clear prior to transmitting.
- 3.1.3 Employees shall identify themselves by line and run number or call sign, location, and direction.
- 3.1.4 Employees shall not engage in unnecessary or unprofessional radio communication.
- 3.1.5 Employees shall use SFMTA designated radio codes/call signs at all times. Use of personal names is prohibited while transmitting over radio channels.
- 3.1.6 Employees shall not tamper with or damage communication equipment.

3.2 Emergency Priority – Code 33

- 3.2.1 Employees shall immediately report Emergency conditions to Central Control.
- 3.2.2 On handheld radios, emergency radio transmission should be in the following manner: “Emergency!” and provide identification, location, and reason for transmission.
- 3.2.3 Upon hearing a Code-33 from Central Control, Employees shall refrain from using the radio unless called by Central Control or making another emergency transmission.

3.3 Communication Codes

700	In service
701	Out of service
702	Personal necessity
703	Out of service at home
704	Receiving poorly
705	Not out
706	Late pull out
707	Rendezvous
708	Media on scene
709	Repeat last transmission
710	Telephone number given
711	Proceed or proceeding to location given
712	Arrived on scene
713	All clear
714	Return to last assignment
715	Cancel last assignment
716	Request for shuttles
717	Recovered vehicle, specify (stolen or abandoned)
718	Vehicle accident (property damage)
719	Vehicle accident (personal injury)
720	Abandoned vehicle
721	Stolen vehicle
722	Fire or fire equipment
723	Line delay
724	Pedestrian collision
725	Fall on board
726	Fall alighting/ boarding (specify)
727	Wheelchair
728	Wheelchair with a disabled passenger
729	Terrorist threat

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730	Bomb threat
732	Derailed LRV, streetcar, or Cable Car
740	Police/Police activity
741	Ambulance/Paramedic
743	Fight on board
744	Intoxicated operator/ passenger
745	Altercation operator/passenger (verbal/ physical)
746	Juvenile disturbance
747	Operator assaulted
749	Open feeder (specify feeder #)
750	Overhead problem
751	Propulsion/no forward motion
752	Coupler
753	Pantograph
755	Dead tow/push
756	No power
757	Trolley pole (specify problem)
758	Retriever
759	Trolley rope
760	Trolley shoes
763	Brakes
Code 33	Clear communications-emergency in progress
Code 100	Silent alarm
Code 101	Serious Accident, Police/Emergency response needed
Code 800	Alleged insane person Code
Code 802	Coroner's case
Code 900	Stop the cable-emergency
Code 903	Request for vehicle inspection by police

4. OPERATING RULES

4.1 Reporting For Duty – Operators

- 4.1.1 Operators shall check in for duty at the designated location at their scheduled report and/or relief time.
- 4.1.2 Operators who report to Divisions shall sign the daily sign in sheet.
- 4.1.3 Operators shall report only in proper SFMTA-issued uniform and SFMTA-issued safety shoes.
- 4.1.4 Operators making a relief shall notify Central Control and update their Operating Clearance with the Controller
- 4.1.5 Operators shall wear their SFMTA-issued ANSI-approved safety vest at all times while they are in service, in or around the rail yard, shop, or outside the vehicle on the mainline.
- 4.1.6 Operators reporting for duty shall have the following items in their possession at all times:
 - A. SFMTA Rail Rulebook
 - B. Valid Class B-P California Driver's License
 - C. Valid Medical Card (if issued)
 - D. Valid VTT Card
 - E. Train Orders
 - F. SFMTA Issued Safety Vest
 - G. Transit Vehicle Keys
 - H. Flashlight
 - I. Functioning Watch
 - J. Portable Radio (if issued)

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- 4.1.7 Operators reporting sick by telephone shall notify their Division Dispatcher at least forty-five (45) minutes prior to their scheduled reporting time.
- 4.1.8 Operators reporting sick in person shall request to be placed on the sick book at least fifteen (15) minutes prior to their scheduled reporting time.
- 4.1.9 Operators returning to work from sick leave of five (5) days or less shall notify the division dispatcher before 12:30 p.m. the day prior to returning to work.

4.2 Absent Without Leave (AWOL)

- 4.2.1 Operators who are AWOL shall be charged with an additional AWOL on each succeeding day (except on regular days off) the operator fails to notify the Division Dispatcher at least forty-five (45) minutes before the reporting time of their regular assignment on such days.
- 4.2.2 An extra board Employee who is AWOL and who fails to report to the Division Dispatcher at least forty-five (45) minutes before the scheduled reporting time, or before 12:30 p.m., whichever is earlier on their next working day, will be charged with an additional AWOL. Furthermore, an AWOL will be charged each time the Operator fails to report before 12:30 p.m. on each succeeding workday.
- 4.2.3 Operators shall report for duty not later than the times indicated on schedules or detail list, unless absent with proper authorization. Failure to report as required will be considered AWOL.

4.3 Preparatory Duties – Operators

- 4.3.1 Operators scheduled for a vehicle pullout shall first check bulletin board, pick up outfit and check location of assigned vehicle.
- 4.3.2 Operators shall ensure they have all required SFMTA-issued equipment prior to pull out.
- 4.3.3 Employees shall only take rail vehicles from the yard when authorized.
- 4.3.4 Prior to placing rail vehicles in service, employees shall perform a pre-operational inspection.
- 4.3.5 Employees shall notify Shop Personnel of defects discovered in the pre-operational inspection (Pre-Op) affecting proper operation of the vehicle before putting the vehicle in service.
- 4.3.6 Operators shall pull-out in accordance with their schedule.
- 4.3.7 Operator outfits shall be properly passed on at the time of relief.
- 4.3.8 Operators shall operate all rail vehicles in revenue service from pull-out to pull-in unless authorized by Central Control.

4.4 Lights

- 4.4.1 Employees shall always operate rail vehicles, (except cable cars), with headlights “on.”
- 4.4.2 Employees shall always operate rail vehicles (except cable cars) with interior lights “on.”

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- 4.4.3 Employees shall operate cable cars with headlights “on” during times of darkness, inclement weather, or any situation where visibility is reduced.

4.5 Equipment Status

- 4.5.1 Operators shall not alter, change or interfere with the normal intended function of any device without permission from Central Control or Supervisor.
- 4.5.2 Employees shall not bypass, circumvent or disable rail vehicle systems and safety devices unless authorized by Central Control or supervisor.

4.6 Student Employees

- 4.6.1 Student employees shall not operate any SFMTA equipment unless accompanied and authorized by an Instructor/Trainer.

4.7 Defect Cards

- 4.7.1 Operators shall complete defect cards for each vehicle assigned during each shift worked.
- 4.7.2 Operators shall ensure that defect cards are included in their outfit for pullout runs.
- 4.7.3 When surrendering the rail vehicle, operators shall turn in completed defect cards to the relief operator or shop personnel at Meet and Greet.
- 4.7.4 During Pre-Op, pullout operators shall perform a check for defects and/or damage before leaving the Yard. For Relief Operators, a check for defects and/or damage shall be performed at the designated relief point or at the first terminal.

4.8 Central Control Notification

- 4.8.1 Employees shall immediately notify Central Control of any unsafe operating condition.
- 4.8.2 Employees shall immediately notify Central Control before leaving the train to inspect on or around the vehicle for any unusual conditions.
- 4.8.3 Employees shall immediately notify Central Control when any condition exists which affects schedules or causes delay.
- 4.8.4 Employees shall notify Central Control when crowding conditions restrict boarding additional passengers.
- 4.8.5 Employees shall request authorization from Central Control prior to performing any mode change in ATCS territory, with the exception of entry and exit at portals.

4.9 Reports – Non-Accidents and Near-Misses

- 4.9.1 Employees shall complete the proper incident report forms to document any unusual occurrences.
- 4.9.2 Employees shall report near-miss or close call incidents involving activities to Central Control.

4.10 Stopping For Passengers

- 4.10.1 Operators shall stop at all raised platforms and at all designated stops where passengers are waiting.
- 4.10.2 Operators shall not exceed 10 MPH when entering or exiting a surface street stop.
- 4.10.3 Operators shall check that pedestrians are clear of the vehicle prior to and during departure.

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- 4.10.4 Employees shall request passengers to keep the area adjacent to the LRV cab door clear.
- 4.10.5 Employees shall request passengers to stay behind the yellow line and/or remain clear of restricted yellow areas on PCCs, historic vehicles, and cable cars.

4.11 Operation when Passing Subway Stations in Manual Mode

- 4.11.1 Operators shall not bypass stations unless authorized by Central Control.
- 4.11.2 When passing a station where no stop is to be made, the operator shall not exceed 10 MPH and shall continuously sound the gong.

4.12 Assisting Passengers with Special Needs – Americans with Disabilities Act (ADA)

- 4.12.1 Operators shall announce all stops along a line over the Public Announcement (PA) system.
- 4.12.2 Operators shall announce their route and destination at all stops served by multiple lines or destinations over the (PA) system.
- 4.12.3 When necessary, operators shall make an announcement over the PA system requesting passengers to yield seats in the securement area for passengers in wheelchairs when passengers with disabilities are boarding.
- 4.12.4 When necessary, operators shall make an announcement over the PA system requesting passengers to yield the forward seats to persons with disabilities and seniors.

- 4.12.5 Operators shall stop for all customers intending to board at designated ADA boarding locations.
- 4.12.6 Operators shall allow any number of guide, signal and service animals for passengers with disabilities to ride free on all equipment during all hours. All service animals shall be under the control of their owner and are not required to be muzzled or caged.
- 4.12.7 Employees may deposit fare in the fare box for a passenger who is disabled and unable to deposit the fare.
- 4.12.8 Operators shall provide ample time for passengers to board and alight vehicles. Seniors and persons with disabilities may require additional time for boarding and alighting.
- 4.12.9 Operators shall allow persons with respiratory and/or portable oxygen supply to board and ride any rail vehicle.

4.13 Speed

- 4.13.1 Employees shall operate able to stop within the range of vision that is consistent with weather, visibility, road and track conditions, traffic conditions, and signal indications.
- 4.13.2 Employees shall be prepared AT ALL TIMES to stop short of any person, object or obstruction within range of their vision. When in doubt, STOP and contact Central Control for instructions.
- 4.13.3 Employees shall always maintain control of the rail vehicle based on current weather, visibility, road or track conditions.

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- 4.13.4 Employees shall operate at the most restrictive speed whenever conflicting maximum speed indications exist.
- 4.13.5 In manual operations, the speed shall be regulated in the subway and tunnel, to ensure the operator's range of vision is greater than the stopping distance of the train.
- 4.13.6 Employees shall reduce speed entering intersections, auxiliary tracks, curves, or operating within the yard.
- 4.13.7 Employees shall observe posted speeds in curves until rear of the consist or car has cleared the curve. If no speed posting is visible, employees shall not exceed 5 mph.
- 4.13.8 Operators shall operate between 5mph and 9mph when passing over ATCS entry or exit loops until the entire train has passed over them.
- 4.13.9 Employees shall never allow the train to roll back, utilizing the Full Service Brake or Track Brake, if necessary.

4.14 Maximum Authorized Speeds

- 4.14.1 Maximum Speeds are described in the following table (unless otherwise posted for rail vehicles):

Rail Vehicles:	
Location/Situation	Maximum Authorized Speed
Mainline Surface	25
Mainline Curves	5, unless otherwise posted
Shop	3
Yard Straight Track	5
Yard Curves	3
Switches	
• Surface	5
• Subway	25
• Yard	3
Restricted Speed (subway and tunnel)	one-half (1/2) the range of vision, short of another train, improperly aligned switch, track defect or obstruction or any hazard Not to exceed 10mph
Work Zone	Restricted Speed
Subway Crossover	5

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Pushing or towing:	
• Pushing	5
• Towing	10
Station Run Through Manually	
• Surface	10
• Subway	10
Carwash	2
Overhead Switch	5
Sweep Speed	Restricted Speed
ATCS Portal Entries	5 to 9 mph

4.15 Yard Operations

- 4.15.1 Rail Vehicle Maintenance shall have absolute authority within Yard limits.
- 4.15.2 Employees shall observe posted yard speed and operate safely in the yard prepared to stop short of all rail vehicles, persons, obstructions, improperly aligned switches and track defects.
- 4.15.3 Unattended rail vehicles shall be properly secured with brakes applied (LRV – Emergency Brake (mushroom) depressed).

- 4.15.4 Employees shall store LRVs with inoperative brakes coupled to a car with operative brakes.
- 4.15.5 Employees shall secure PCCs or Historic Streetcars with inoperative brakes with a tow bar connected to a vehicle with operative brakes.
- 4.15.6 Employees shall not store a rail vehicle over a switch or fouling tracks, roadways, or walkways.
- 4.15.7 Employees shall observe switch points and not operate rail vehicles through damaged or misaligned switches.
- 4.15.8 Employees shall not move or power up a vehicle protected by a marker (blue flag/blue light) indicating Rail Maintenance is working on the vehicle.

4.16 Shop Operations

- 4.16.1 Rail vehicle maintenance supervisor or designee shall have absolute authority over all track and rail vehicle movements within Shop Limits.
- 4.16.2 Shop doors shall be fully opened prior to operating rail vehicles into or out of shop buildings.
- 4.16.3 Employees operating rail vehicles in shops shall inspect rail vehicles prior to moving them and inform other employees in proximity prior to movement within shop limits.

4.17 Entering or Leaving Mainline

- 4.17.1 Operators shall obtain authorization from Central Control prior to entering mainline track from Yard Limits or Siding Track access points.

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4.17.2 When leaving mainline track, Operators shall notify Central Control when the rail vehicle is clear and all manually operated switches are in proper switch alignment.

4.18 Mainline Operations

4.18.1 Central Control shall have absolute authority over Mainline operations.

4.18.2 Operators shall be prepared to stop when approaching pedestrians standing in a safety zone.

4.18.3 Operators shall stop when they observe anyone walking or standing on the right-of-way

4.18.4 Employees observing persons on or near the track way that may be ill, intoxicated or under any other condition that may affect their ability to care for themselves, shall notify Central Control immediately.

4.18.5 Operators shall ensure the proper destination sign is displayed at all times.

4.18.6 Operators shall not change designated direction of train movement without authorization from Central Control.

4.18.7 Operators shall not reverse rail vehicles on the mainline unless authorized by Central Control.

4.18.8 Employees shall not back a rail vehicle without a qualified employee stationed on the ground or at the rear of the car to give audible or hand signals.

4.18.9 Operators shall not allow any persons in the operating cab at any time unless authorized by Central Control.

- 4.18.10 Operators shall not allow any persons to ride in the non-operating cab of any rail vehicle unless authorized by Central Control.
- 4.18.11 Operators shall not bypass surface stops without authorization from Central Control.
- 4.18.12 When authorized by Central Control, operators shall not exceed 10 mph when bypassing surface stops, and shall sound the gong until clear of the station platform.
- 4.18.13 Rail vehicles passing through a subway station without lighting shall travel at no more than 10 mph and sound the gong until clear of the station platform.
- 4.18.14 Operators shall not discharge passengers at a subway station where there is no lighting.
- 4.18.15 Operators approaching occupied surface street stops shall sound the gong on approach.
- 4.18.16 Employees shall immediately report any unauthorized passenger evacuation from a rail vehicle to Central Control.

4.19 Coupling/Uncoupling

- 4.19.1 Employees shall couple cars at no more than 2 mph.
- 4.19.2 Employees shall not couple or uncouple cars outside of the yard unless authorized by Central Control.
- 4.19.3 Employees shall perform a safety stop prior to coupling the cars.
- 4.19.4 Employees shall not exceed 5 MPH prior to the safety stop.

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- 4.19.5 Employees shall not attempt to couple or uncouple cars on curves or when not properly aligned.
- 4.19.6 Employees shall not couple or uncouple cars over switches.
- 4.19.7 Employees shall not stand between cars that are being coupled or uncoupled.
- 4.19.8 Employees shall not climb on, over or under the couplers.

4.20 Switches and Crossovers

- 4.20.1 Employees shall not exceed 5 mph when performing a switch or crossover move until the last axle of the train has cleared the switch.
- 4.20.2 Employees shall not reverse direction of a train over a switch.
- 4.20.3 Employees shall not change position of any Mainline switches outside of the alignment required for their normal movement unless authorized by Central Control.
- 4.20.4 Employees shall verify the switch points are aligned for the intended move prior to operating through the switch.
- 4.20.5 Employees observing switch points that are open, gapped, damaged, or missing shall stop and immediately contact Central Control for instruction.
- 4.20.6 Employees shall not exceed maximum operating speed over switches.
- 4.20.7 Employees shall not perform manual sanding over switches except in an emergency.

4.21 Passing a Stop Indication

- 4.21.1 Employees shall get authorization with read back from Central Control prior to passing interlocking signals displaying a non-permissive indication within ATCS territory. Employees shall stop at facing and trailing point switches to verify proper alignment governed by the interlocking signal and ensure switches are properly aligned for intended move.

4.22 Wayside Protected Areas

- 4.22.1 Employees shall not perform work on or about tracks within six (6) feet of outside rail without proper protection and authorization from Central Control
- 4.22.2 Employees engaged in work activities on or about the tracks shall be alert to train movement at all times and from any direction.
- 4.22.3 Employees working on or within six (6) feet of the tracks shall wear SFMTA approved or issued high visibility safety vests on their outermost layer of clothing.
- 4.22.4 Employees working as watchpersons shall have appropriate signaling appliances and shall keep them in working order and ready for immediate use.
- 4.22.5 Operators shall be familiar with and obey all hand signal rules and procedures.
- 4.22.6 Operators shall resume normal speed after their entire consist has cleared the work zone.

4.23 Rail Vehicle Spacing

- 4.23.1 Trains operating on surface tracks shall maintain a safe distance of at least 250 feet from the preceding train except at terminals and when pulling in or out of the yard limits.
- 4.23.2 When approaching a surface street passenger stop occupied by another transit vehicle, operators shall stop short of the platform without obstructing any intersection or pedestrian crosswalk.
- 4.23.3 Operators shall approach at no more than 5 MPH after stopping 100 feet short of a transit vehicle occupying a surface street stop, using close up procedures.

4.24 Leaving Vehicles

- 4.24.1 Employees shall not leave any rail vehicle without authorization from Central Control, unless in cases of emergency, to put trolley poles back up after a dewirement, or at terminals.
- 4.24.2 Employees shall secure the vehicle with applicable brakes and procedures prior to exiting the cab.
- 4.24.3 Employees shall notify Central Control when leaving vehicle unattended except at terminals.
- 4.24.4 Employees shall contact Central Control prior to performing any train inspection outside of yard limits.
- 4.24.5 Employees shall not leave their assigned vehicle until properly relieved.
- 4.24.6 Employees shall secure all doors and cab windows prior to leaving a rail vehicle unattended.

4.25 Train Doors

- 4.25.1 Operators shall ensure rail vehicles are properly positioned so that the doors are clear of any obstruction on the passenger stop.
- 4.25.2 Operators shall only open doors after the train is completely stopped.

4.26 Train Steps

- 4.26.1 Operators shall ensure the proper annunciator panel indication light is activated for proper step level and the correct doors are activated for each passenger stop.
- 4.26.2 Operators shall announce step movements over the Public Address (PA) system prior to activation.

4.27 Rail Vehicle Cab Security

- 4.27.1 Non-operating cabs shall:
 - A. Not be occupied;
 - B. Have windows closed and locked;
 - C. Have the door closed and locked;
 - D. Have curtains in fully open position.

4.28 Stopped on an Incline

- 4.28.1 Employees shall not attempt to hold rail vehicles on an incline utilizing propulsion power or door interlock system.

4.29 Emergency Stops

- 4.29.1 Employees shall immediately report all emergency stops and emergency braking applications to Central Control.

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- 4.29.2 Employees shall determine the reason for a passenger emergency stop application before resetting the button or switch.
- 4.29.3 Employees shall contact Central Control for authorization to clear an ATCS activated emergency brake application.

4.30 ATCS Territory Operation

- 4.30.1 Employees shall immediately notify Central Control of ATCS failure and follow instructions.
- 4.30.2 Employees shall not operate an LRV in excess of speed designated by Central Control.
- 4.30.3 When operating in ATCS Territory, employees shall be alert for hazards and obstructions, and activate the emergency brake (“mushroom”) to prevent contact.
- 4.30.4 Employees shall monitor all cab warnings and indicators. In the event of abnormal operating conditions or indications, employees shall immediately stop the train and contact Central Control for instructions.

4.31 Rail Operations Mandatory Stops

- 4.31.1 Employees shall make mandatory stops at the following locations:
 - A. At locations where there is a solid yellow bar (stop bar) between rails with an “XX” on the near side;
 - B. At all locations where signs, signals, flags and/or hand signals indicate a stop is required;
 - C. At a restrictive aspect or where an improper signal indication is displayed. Employees shall contact Central Control for instructions.

4.32 Manual Operation of Automatic Switches

- 4.32.1 Employees shall verify the proper alignment prior to moving over any switch.
- 4.32.2 Employees shall ensure that cranks or disabling rods remain in the switch machines until the switch move is completed.
- 4.32.3 Employees shall ensure that all switch cranks or rods are removed and notify Central Control prior to leaving the switch unattended.

4.33 Negative Clearance and Curve Clearance

- 4.33.1 Employees shall not pass opposing trains in curves with negative clearance, which include but are not limited to:
 - A. Church and Duboce
 - B. 30th Street and Church
 - C. 30th Street and San Jose Avenue
 - D. San Jose Avenue and Ocean Avenue
 - E. Cameron Beach Yard Pull in and Pull out Gate
 - F. Green Yard Pull out Gate onto San Jose Avenue.
- 4.33.2 Employees shall not exceed 5 mph in an intersection curve until the train has passed the end of the curve section.
- 4.33.3 Employees shall yield the right of way to the train on the outer track of the curve.
- 4.33.4 Employees shall hold their position until the opposing train has cleared the curve.

4.34 Sweep/Inspection Train

- 4.34.1 Employees shall stop and immediately report any hazards, obstructions, or unsafe conditions to Central Control and await instructions.
- 4.34.2 Employees on a sweep/inspection train shall contact Central Control for authorization and instructions prior to entering and exiting the subway and tunnel.
- 4.34.3 Employees shall operate in manual mode for the entire sweep of the subway according to existing conditions and/or instructions from Central Control.


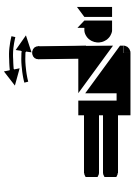
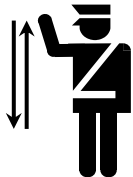

5. SIGNALS AND SIGNS

5.1 Hand Signals

- 5.1.1 Employees shall use a lantern or flashlight to give signals during hours of darkness, in underground sections or when required by poor visibility conditions.
- 5.1.2 Employees shall regard any unclear hand signal as an instruction to stop and shall sound four (4) short audible signals to request a new hand signal. Employees shall stop on any signal given by a red flag, red light or red object.
- 5.1.3 Employees shall acknowledge receiving and understanding a hand signal by sounding two short gongs or bells and perform the action indicated by the hand signal.
- 5.1.4 Employees shall give signals clearly in the prescribed manner below while facing the operator of the vehicle:

(See chart on next page)

- A. Swing horizontally across the body
- B. Slight vertical movement at arm's length at a right angle to the vehicle operator.
- C. Raise and lower vertically, in the direction of the vehicle operator.
- D. Swing vertically in a circle at $\frac{1}{2}$ arm's length across the body, below the shoulder

5.1.4 Hand Signals			
RULE	SIGNAL	ASPECT	INDICATION
5.1.4.A		Swing horizontally across the body.	STOP
5.1.4.B		Slight vertical movement at arm's length at a right angle to the vehicle operator.	REDUCE SPEED
5.1.4.C		Raise and lower vertically, in the direction of the vehicle operator.	PROCEED FORWARD
5.1.4.D		Swing vertically in a circle at $\frac{1}{2}$ arm's length across the body, below the shoulder	MOVE BACKWARD

5.2 Audible Signals

- 5.2.1 Employees shall sound the gong/bell on the surface when entering intersections or approaching platforms, passenger islands or pedestrians.
- 5.2.2 Employees shall sound the gong/bell prior to moving from a stopped position.
- 5.2.3 Employees shall sound gong/bell as required for warning.
- 5.2.4 Excessive horn or gong signals are prohibited.
- 5.2.5 Operators shall report defective horns or gong/bell equipment to Central Control.
- 5.2.6 Operators shall only use horns in emergency situations.
- 5.2.7 Operators shall continuously sound the horn to signal that an emergency condition exists on or about the train.
- 5.2.8 Employees shall use the following audible signals:
Sounds are illustrated by using “•” for a short sound and “—” for a longer sound.

—	When an emergency condition exists on or about the train.
Succession of short sounds	Passing stations where no stop is to be made, warning to persons on or about the track, or approaching a train stopped on adjacent track.
• •	Confirmation of understanding any hand movement. Prior to any forward movement from a stopped position.
• • •	Before moving backward.
• • • •	Request for hand signal or when hand signal is unclear.

5.3 Wayside Signals (see Appendix A)

- 5.3.1 Employees shall be governed by all signal aspects.
- 5.3.2 At powered switches on the surface, employees shall not proceed unless both a Lunar White Confirmation Light and the Proper Directional Bar is illuminated and the Red Crossbuck is extinguished.
- 5.3.3 Employees shall stop short of any signal aspect improperly displayed, non-permissive, dark, not understood, or absent. Employees shall immediately contact Central Control for instructions.
- 5.3.4 Employees shall never proceed through any permissive signal indication unless it is safe to do so and the track is clear of any condition or situation which could be hazardous to the operation of the train.
- 5.3.5 When operating on surface alignments, employees shall comply with the signal aspects and corresponding indications as found in **Appendix A**.

5.4 Compliance with Tunnel and Subway Signals (see Appendix A)

- 5.4.1 While in manual mode in the subway, employees shall comply with all signal indications.
- 5.4.2 Employees shall comply with the signal aspects and indications found in **Appendix A**
- 5.4.3 If you observe a red-over-red or dark signal indication, stop and contact Central Control.
- 5.4.4 If you observe an improperly displayed signal indication, stop and contract Central Control

5.5 Signage

- 5.5.1 Employees shall be responsible for the proper display of all signs on the train.
- 5.5.2 Employees shall properly set all destination signs, train or run numbers, thumbwheels and radio displays.
- 5.5.3 Employees shall not display the “Not in Service” Sign, except when authorized by Central Control.
- 5.5.4 Employees shall only change destination signs for the opposite direction when they are at the terminal unless instructed by Central Control.
- 5.5.5 Employees shall not adjust sign controls while the vehicle is in motion.
- 5.5.6 Employees shall ensure that all signs are properly set and displayed before loading at terminals.
- 5.5.7 Negative Clearance – wherever “NC” marking are painted between the rails, employees shall comply with Rule 4.33.1
- 5.5.8 Employees shall comply with the signs and painted markings found in **Appendix B**

6. COORDINATING WITH PASSENGERS

6.1 Passenger Restrictions

- 6.1.1 Employees shall not allow passengers to ride vehicles into yard limits.
- 6.1.2 Employees shall immediately notify Central Control of any unusual occurrence or disturbances on the rail vehicle and follow instructions.

6.2 Passenger Notification

- 6.2.1 In the event of delays greater than two (2) minutes, Employees shall make an announcement such as: “May I have your attention, please. We are experiencing a short delay. We should be moving shortly. Thank you for your patience.”
- 6.2.2 Employees shall not make unauthorized Public Address (PA) announcements.
- 6.2.3 Employees shall contact Central Control, and advise passengers to remain on board the train with the doors closed in the event that a train becomes disabled between subway stations.
- 6.2.4 Employees shall notify passengers in advance of any switchback that differs from the original scheduled route and ensure the proper destination signs are displayed to indicate modified route.

6.3 Passenger Safety

- 6.3.1 Employees shall not permit any articles on board rail vehicles that may cause damage and/or injury to passengers.

- 6.3.2 Employees shall politely inform passengers to keep aisles clear of all articles that may block or prevent safe movement through the vehicle in the event of an emergency.
- 6.3.3 When necessary, employees shall inform passengers that bicycles are not allowed on rail vehicles.

6.4 Fare Collection

- 6.4.1 Employees shall check the operation of the farebox during their pre-operational checks, reporting any defects to the shop immediately.
- 6.4.2 Employees shall notify Central Control if the fare box is not working properly and shall continue in revenue service. If the cash compartment door is stuck open, the employee shall remove the vehicle from service.
- 6.4.3 Employees shall report a defective fare box on the Defect Card.
- 6.4.4 Employees shall not cover a functioning fare box unless authorized by Central Control.
- 6.4.5 Employees shall cut transfers no less than one and a half (1 ½) hours and no more than two (2) hours from the time of boarding.
- 6.4.6 Employees shall not handle cash fares on LRVs or Historic Streetcars except as specified by ADA.

6.5 Transfer – Misuse

- 6.5.1 Employees shall not improperly sell, trade, or distribute transfers.

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6.5.2 Employees with pull-in assignments shall turn in all unused transfers at the completion of duty to the transfer receptacle at the Division.

6.5.3 Employees shall not take transfers from passengers.

6.6 Refunds

6.6.1 Employees shall not make refunds and shall refer passengers to contact 311 for any refunds or payment issues.

6.7 Passenger Assistance

6.7.1 Employees shall provide sufficient time for passengers to board and alight vehicles. Seniors and persons with disabilities may require additional time for boarding and alighting.

6.7.2 Employees shall ensure passengers have boarded and alighted prior to closing the doors.

7. SPECIAL OPERATIONS

7.1 ATCS Territory

- 7.1.1 At subway portals, Employees shall stop their trains at the “Stop Here to Acquire ATCS” sign.
- 7.1.2 Employees shall not proceed until their train acquires ATCS and the signal displays a white “**A**” indication.
- 7.1.3 If the train does not acquire ATCS and the signal continues to display a red-over-red indication, Employees shall immediately contact Central Control and request instruction.
- 7.1.4 Employees shall not proceed until they receive read-back authorization from the train controller.
- 7.1.5 Employees operating a NCT train shall operate on sight, and comply with spacing and speed restrictions, and be prepared to stop short of any obstruction within half (1/2) the range of vision.
- 7.1.6 Employees shall not enter ATCS territory with a non-revenue rail vehicle unless authorized by Central Control.
- 7.1.7 Employees shall stop and contact Central Control for instructions in the event of an ATCS system failure.
- 7.1.8 Employees operating vehicles that are not equipped with ATCS shall operate at restricted speed and be governed by signal indications.

7.2 Reverse Running

7.2.1 Employees shall obtain authorization from Central Control prior to reverse running in street or ATCS Territory.

7.3 Pushing or Towing of Disabled Rail Vehicles

7.3.1 Employees shall not exceed 5 mph when pushing or 10 mph when towing a rail vehicle.

7.3.2 Employees shall ensure vehicles being pushed or towed are properly secured.

7.3.3 Employees shall alight passengers at the most convenient and safe location, as directed by Central Control or the on-site Supervisor.

7.3.4 Employees shall obtain authorization from Central Control prior to moving a disabled vehicle on the Mainline.

7.4 Sick or Injured Passenger

7.4.1 Employees shall immediately notify Central Control and request assistance when a passenger becomes ill or injured.

7.5 Collisions, Incidents and Unsafe Conditions

7.5.1 Employees shall immediately report all workplace injuries to Central Control.

7.5.2 Employees shall complete all necessary documentation to report a workplace injury prior to the end of their shift.

7.5.3 Employees shall immediately report all collisions, incidents, personal injuries and/or unsafe conditions to Central Control.

- 7.5.4 Employees shall complete an incident report for any passenger injury, fall boarding or alighting, fall on board, body part caught in doors, or injury in the immediate vicinity of the rail vehicle regardless of circumstances.
- 7.5.5 Employees shall only discuss, comment or give any information about an incident to an authorized agent of the SFMTA, City and County of San Francisco, and/or Law Enforcement Officers with proper credentials.
- 7.5.6 Employees must not move trains following a collision or derailment until authorized by Central Control or on-site Supervisor.
- 7.5.7 Operators shall be required to present their Commercial Driver License, Medical Certificate (if issued) and VTT Certificate upon request only to SFMTA investigating staff. Employees shall provide their name, address, telephone number, location of the incident/collision, direction of travel, identification number, time, line, run number, and vehicle number. (See California Vehicle Code Section 12953 for license requirements)
- 7.5.8 If more than one SFMTA vehicle is involved in a collision, employees on each vehicle shall complete and submit a separate report.
- 7.5.9 Employees shall carry witness cards and SFMTA identification card at all times while on duty.
- 7.5.10 In the event of an incident/collision, employees shall request witness information.

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- 7.5.11 Employees shall fully complete a collision/incident report for all incidents including, but not limited to:
- A. A collision/incident, or alleged collision/incident
 - B. Damage to equipment or property;
 - C. Injury or alleged injury to any person;
 - D. Any physical encounter between persons;
 - E. The removal of or arrest of passengers;
 - F. Any unusual occurrence on or around the vehicle;
 - G. As requested by Central Control or Supervisor.
- 7.5.12 Employees issued a citation for a traffic violation in connection with a collision/incident shall present the citation to the Dispatcher or Supervisor as soon as possible.
- 7.5.13 Employees shall not attempt to conceal or misrepresent the facts of a collision or incident.
- 7.5.14 Employees shall not speak to the media regarding SFMTA-related business and activities.

7.6 Door Malfunctions

- 7.6.1 Employees shall notify Central Control of doors failing to operate properly or being placed out of service.
- 7.6.2 Employees shall not operate in-service vehicles with doors open.
- 7.6.3 In the event that a door opens while the train is in motion, employees shall immediately stop the vehicle, inspect for passengers who may have fallen from the vehicle and contact Central Control for further instructions.

- 7.6.4 Employees shall contact Central Control and follow their instructions before activating the door interlock bypass switch.
- 7.6.5 When isolating LRV doors, employees shall secure the malfunctioning doors and verify door pins are in place before placing the LRV in motion.

7.7 Pantograph Malfunctions

- 7.7.1 Employees experiencing pantograph malfunctions shall immediately stop their trains and contact Central Control for instructions.

7.8 Single Tracking

- 7.8.1 Employees shall obtain authorization from Central Control for any single track operation.

7.9 General - Fires

- 7.9.1 Employees shall immediately notify Central Control in the event of smoke or fire on or near SFMTA vehicles and/or property.
- 7.9.2 Employees shall follow Central Control Instructions for evacuation procedures and train movement.
- 7.9.3 Employees shall provide clear instructions to passengers as to the safe evacuation route provided by Central Control.
- 7.9.4 Employees shall assist passengers during evacuations when safe to do so.

7.10 Fire on a Train (In Subway or Tunnel)

- 7.10.1 While operating in the subway or tunnel and when smoke or fire is evident on the vehicle or in the tunnel, employees shall immediately stop and contact Central Control for instructions.
- 7.10.2 Employees shall comply with those instructions received from Central Control.

7.11 Flood

- 7.11.1 Employees observing flooding on or near the track or in a station shall stop their vehicle short of the flooded area and contact Central Control for further instructions.
- 7.11.2 If the water level is even with or below the head of rail, employees may proceed, only with read-back authorization from Central Control, at Restricted Speed.
- 7.11.3 Employees shall not operate trains over a flooded track if the water level is above the head of the rail. Employees must contact Central Control for instructions.

7.12 Bomb Threats & Unattended Packages

- 7.12.1 In the event of a bomb threat, Employees shall report the emergency to Central Control and follow instructions.
- 7.12.2 In the event that an employee observes an unattended package, the employee shall immediately notify Central Control. Under no circumstances should employees touch unattended packages.

7.13 Earthquakes

- 7.13.1 In the event of an earthquake, Employees shall STOP at a safe location and contact Central Control for instructions.

7.14 Derailment

- 7.14.1 In the event of a derailment, Employees shall immediately stop and contact Central Control for instructions.

8. TRACTION POWER OPERATION

8.1 Electrical Hazards

- 8.1.1 In the event of downed overhead or an electrical hazard, employees shall stop and contact Central Control for instructions.
- 8.1.2 Employees shall instruct passengers to remain on the train.
- 8.1.3 Employees shall consider all wires, pantographs, electrical switches and other electrical apparatus live at all times. Employees shall not touch electrical equipment and shall notify anyone in the area of the hazard.
- 8.1.4 Employees not trained or certified shall maintain a minimum of ten (10) feet away from electrical hazards including, but not limited to: overhead wires, pantographs, electrical switches, or downed overhead components.

8.2 Power Removal

- 8.2.1 Employees shall contact Central Control when a section of overhead needs to be de-energized.
- 8.2.2 Employees requesting that power be removed shall maintain communication with Central Control until confirmation that the section has been de-energized.

8.3 Power Restoration

- 8.3.1 Power Control Center shall not restore power without first obtaining authorization from Central Control.

- 8.3.2 Requests to restore power shall be made by the same person who originally made the request to de-energize or designee reported to Central Control.

8.4 Power Failure

- 8.4.1 In the event of a power failure, Employees shall contact Central Control for instructions.
- 8.4.2 Employees shall properly secure vehicles whenever power is off for any period exceeding five (5) minutes.

8.5 Electrical Equipment and Wires

- 8.5.1 Maintenance employees shall not perform any work on the roof of an LRV, PCC, or Historic Streetcar unless the overhead power is de-energized and the vehicle is fully secured.
- 8.5.2 Maintenance employees shall not perform work on the roof of any LRV, PCC, or Historic Streetcar unless they have received appropriate training and are equipped with fall protection.
- 8.5.3 Maintenance employees performing electrical work on any LRV, PCC, or Historic Streetcar shall follow the SFMTA lock out/tag out procedure.
- 8.5.4 Maintenance employees using lock out/tag out shall verify that overhead wire is de-energized before starting work
- 8.5.5 Employees shall not operate LRVs, PCCs, or Historic Streetcars into sections where power has been de-energized.

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8.5.6 Employees shall not enter electrical power enclosures or operate electrical switches unless properly trained and authorized to do so by Power Control.

8.5.7 Employees shall not close any electrical switch that has been locked and tagged out.

8.6 Sectionalizing

8.6.1 Employees shall not operate sectionalizing switches unless trained and authorized to do so.

8.7 Trolley Poles

8.7.1 Maintenance Employees shall not climb onto the roof of LRVs, PCCs or Historic Streetcars unless trained and equipped with fall-prevention equipment

8.7.2 Rail Operators shall never climb onto the roof of a rail vehicle.

8.7.3 Employees shall not have both trolley poles up at the same time.

8.7.4 Operators shall not back-pole at any time without proper assistance.

9. SAFETY RULES & PROCEDURES (see separate RWP Manual)

9.1 Employees Working in the Track Zone

Refer to Roadway Worker Protection Plan (separate manual) for current Roadway Worker Protection rules, policies and procedures.

- 9.1.1 When working in a work zone, completing a Minor Task, and/or performing work under the protection of a watchperson, Employees shall wear a safety vest.
- 9.1.2 Any time Employees are within six feet of the outside rail of either side of the track, they must wear a safety vest.
- 9.1.3 Employees shall wear a safety vest while in any rail yard or shop
- 9.1.4 When wayside workers, MRU, or ERU are present in the subway or tunnel, trains shall not be operated in AUTO.
- 9.1.5 Employees shall obtain permission from Central Control prior to performing Minor Tasks in the track zone.
- 9.1.6 Employees performing any work other than a Minor Task within the track zone shall have an approved Clearance Permit from Central Control.
- 9.1.7 Employees shall not use or wear apparel or items which restrict hearing (other than SFMTA-issued and/or approved hearing protection) while on, or about, the Right-Of-Way.
- 9.1.8 Employees shall not enter “no clearance” areas unless work zone protection has been established with authorization by Central Control.

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- 9.1.9 Employees shall not leave tools between the running rails or place tools, equipment or materials where they may present a hazard.
- 9.1.10 Employees observing persons or equipment within ten (10) feet of the overhead wires shall notify Central Control immediately.
- 9.1.11 Employees shall contact Central Control to activate a clearance permit prior to entering any trackway on any alignment.
- 9.1.12 The Employee in Charge shall notify Central Control to release the clearance permit when all personnel and equipment are clear of the work zone.

9.2 Emergency Ventilation Fan Rooms

- 9.2.1 Employees shall not activate, modify or disable an emergency ventilation fan without authorization from Central Control.
- 9.2.2 Employees shall not enter a subway emergency ventilation fan room without authorization from Central Control.

9.3 Crossing Tracks

- 9.3.1 Employees shall not step, stand, sit or walk on any part of the rail structure.
- 9.3.2 Employees shall never step, stand, sit or walk on track switches or their components.
- 9.3.3 Employees shall never place their feet, hands or fingers between the stock rail and switch point.
- 9.3.4 Employees shall confirm tracks are clear of all train

movement prior to crossing the tracks.

- 9.3.5 Employees shall use extreme caution when passing between standing rail vehicles.
- 9.3.6 Before walking around the front or rear of a train, Employees must make sure that the train is not moving or about to move.
- 9.3.7 Employees shall not cross between standing rail vehicle unless there is at least 7 feet of clearance
- 9.3.8 Employees shall not cross over the coupler area on any consist
- 9.3.9 While crossing in front of standing trains or equipment, employees shall use extreme caution and be aware of train movement on adjacent tracks.
- 9.3.10 Employees shall enter and exit the Right of Way only at approved areas.

9.4 Hi-Rail/Rail Bound Maintenance Equipment

- 9.4.1 Employees operating Hi-Rail/Rail Bound Maintenance Equipment shall abide by all signal indications, rules found in this Rail Rule Book, and applicable procedures.
- 9.4.2 Employees operating Hi-Rail/Rail Bound Maintenance equipment shall not exceed 5 mph when operating over switches, turnouts or other special track work.

9.5 Employees – Personal Protection

- 9.5.1 Employees shall wear required and approved personal protective equipment when working at locations or performing duties where there is the possibility of injury or health hazard to the body.

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- 9.5.2 Employees shall wear the required and approved hand protection when performing tasks where there is likely possibility of injury or health hazard exposure to the hands.
- 9.5.3 Employees shall not use defective electrical protection gloves.
- 9.5.4 Employees shall wear required and approved respirators when working in areas where dust, gas-fumes or vapors are present or being generated.
- 9.5.5 Only trained and authorized employees are permitted to enter confined spaces, only with authorization from the Industrial Safety & Environmental Compliance Unit. If a confined space is located in the subway/tunnel or within 6 feet of surface tracks, trained and authorized employees shall also need a clearance permit issued by Central Control
- 9.5.6 Employees working in confined spaces shall wear required and approved protective clothing and respirator.
- 9.5.7 Employees shall not enter any confined space until it has been ventilated and an air-quality test confirms the presence of breathable air and the absence of potentially harmful contaminants.
- 9.5.8 Employees shall not look in the direction of cutting or welding operations unless wearing proper eye protection.
- 9.5.9 Employees shall wear fall protection equipment at all times while performing work at heights where such equipment is required.

10. CABLE CAR OPERATION

10.1 Preparatory Duties

- 10.1.1 Conductors shall assist Grip Operator to ensure timely pullout from the Cable Car Barn.
- 10.1.2 Conductors and Grip operators shall properly conduct all pre-operation tasks as outlined in the Cable Car Training Manual.
- 10.1.3 The Grip Operator shall report to the Dispatcher and sign the Daily Register prior to starting their duties.
- 10.1.4 Prior to lifting the derail lever exiting the Barn, the Conductor shall ensure that:
 - A. No cable car is at Washington/Jones or descending Washington Street from Jones;
 - B. No cable car is at Washington/Mason;
 - C. There is no steady red traffic signal on Washington at Mason, indicating the approach of cable car from Mason Street.

10.2 Responsibility

- 10.2.1 The Conductor and Grip Operator shall comply with all operating rules governing their duties.
- 10.2.2 The Grip Operator shall not leave the grip unattended unless at a Terminal with the cable not engaged and brakes set.
- 10.2.3 Cable car Employees shall ensure their radio is on and functioning at all times and set on the proper channel.

10.3 Starting Car

- 10.3.1 The Grip Operator shall ensure that the front steps are clear of boarding and alighting passengers before starting the car.
- 10.3.2 Grip Operator shall not allow the car to roll backwards.

10.4 Exceeding Cable Speed

- 10.4.1 The Grip Operator shall not operate the cable car faster than cable speed, with cable in or out of grip.
- 10.4.2 The Grip Operator shall not skin the cable.

10.5 Getting On or Off Moving Cars or Equipment

- 10.5.1 Employees shall not alight from moving cable cars or equipment, except in case of emergency
- 10.5.2 Employees shall warn passengers not to get on or off moving cars.

10.6 Stopping Car

- 10.6.1 The Grip Operator shall not apply the track brake when passing over the crown of a hill, except in emergency or wet conditions.
- 10.6.2 Grip Operator shall not stop car when ascending steep grades, at the crown of a hill, depression beams or offsets, in 'pull curves' or when pulling cars in, except in an emergency.

10.7 Cable Control

- 10.7.1 When stopped on severe grades, cable car shall be backed down to a level surface prior to restarting the cable car.
- 10.7.2 Grip Operator shall stop and contact Central Control in the event the cable is dropped out of the grip when cable car is being backed down grade.
- 10.7.3 Conductors shall immediately apply rear brake and leave it applied when Cable Car is being backed down.
- 10.7.4 The Grip Operator shall not back the cable car over any switch, except:
 - A. Line 61 cable cars on California between Hyde and Leavenworth;
 - B. Two crossover switches, one at Hyde between Filbert and Greenwich; and the other at Mason between Broadway and Vallejo.

10.8 Cable Stoppage

- 10.8.1 When cable stops, the Grip Operator shall set brakes, signal the Conductor to set rear brakes, and then release the grip.
- 10.8.2 Cable Car Employees shall not move a cable car on a stopped cable without Central Control authorization.

10.9 Audible Signals

- 10.9.1 Cable Car Operators shall use the proper audible signals at all times.

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- 10.9.2 Bell signals given by the Conductor to the Grip operator:
- A. One Bell – While Cable Car is in motion; stop at the next regular stop
 - B. One Bell – While Cable Car is leaving the stop; stop the Cable Car immediately
 - C. Two Bells – While Cable Car is stopped; rear steps are clear and it is safe to proceed
 - D. Three Bells – While Cable Car is in motion; stop immediately
 - E. Four Bells – Back up slowly.
- 10.9.3 Bell signals given by the Grip operator to the Conductor:
- A. One Bell – Apply rear brake
 - B. Two Bells – While Cable Car is in motion; release rear brake slightly
 - C. Two Bells – While Cable Car is stopped; request Conductor to come forward
 - D. Three Bells – Conductor apply slot blade **(Only on Line 61)**
 - E. Four Bells – Ready to back up.
- 10.9.4 Grip Operator shall not begin movement of a Cable Car until a two bell signal is received from the Conductor.
- 10.9.5 The Conductor shall verify that the rear step is clear of boarding and alighting passengers before giving the signal to proceed.
- 10.9.6 The bells or ropes shall never be altered in any manner that could interfere with their function.

10.10 Gong Signal

10.10.1 Grip Operator shall sound the gong twice and wait for the proper signal whenever receiving an unclear signal.

10.11 Cable Car Signal Lights (Appendix A)

10.11.1 Cable Car Operators shall notify Central Control immediately in the event of any signal malfunction.

10.11.2 When a signal changes from green to red at a turntable, the Grip Operator shall stop and check for track and slot alignment.

10.11.3 When the signal changes from green to red southbound on Mason at Jackson, the Grip Operator shall stop immediately and perform a let-go to prevent the grip of westbound cars on Jackson cars from damaging the Mason cable.

10.11.4 When the signal changes from green to red on California, westbound at Stockton, the Grip Operator shall stop immediately and back down to level in accordance with backing up procedures.

10.11.5 Prior to leaving the tower unattended, the tower operator shall switch the signal to the "702" setting: California IB/OB and Powell IB, red; Powell OB, flashing red/green. IB cars on both lines can be flagged by conductor, OB California must wait; OB Powell may proceed with caution.

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10.11.6 The Grip Operator on the Powell Line Cable Car shall yield right of way to outbound Line 61 Cable Cars. The Grip Operator shall stop before reaching the nearest Line 61 Cable Car tracks and drop the cable if a Line 61 Cable Car is near the crown of the grade on the east side of Powell.

10.12 Schedules

10.12.1 Cable Car Employees waiting to enter turntables shall immediately move the Cable Car onto the turntable after the Cable Car ahead has left the loading area.

10.12.2 The Conductor and Grip Operator shall leave the terminals on time unless authorized by Central Control.

10.12.3 Cable Car Operators shall arrive at time points as scheduled unless authorized by Central Control.

10.13 Fares

10.13.1 The Conductor shall properly collect fares from all passengers.

10.13.2 The Conductor shall issue a numbered receipt and correct change for each fare collected.

10.13.3 Conductors shall complete each fare transaction individually. Bunching of fares is prohibited.

10.13.4 Cable Car Employees shall immediately return all cash, tickets and receipts at completion of run, collect, and/or tour of duty.

10.13.5 Cable Car Employees shall remain available until the turn-in process is fully complete.

10.14 Reverse Grip Locations

- 10.14.1 The Grip operator shall reverse grip prior to turning any cable car into the Cable Car Barn.
- 10.14.2 The Grip operator shall reverse the grip at the required locations described in the Cable Car Training Manual.

10.15 Securing Inactive Grip Double-Ended Cable Car

- 10.15.1 The Grip operator shall secure the inactive grip on a double-ended cable car.

10.16 Grades

- 10.16.1 The Grip operator shall assure that grip is properly adjusted to prevent slipping the cable on grades.

10.17 Spacing

- 10.17.1 The Grip operator shall maintain a minimum of two (2) blocks spacing between Cable Cars when ascending or descending steep grades.

Except at the following locations:

- A. Northbound Line 60 Cable Cars on Hyde must not leave Chestnut when two or more Cable Cars are at Beach St.
 - B. Southbound Line 60 Cable Cars are not to leave Hyde and Beach until the Cable Car ahead has left Chestnut.
- 10.17.2 Westbound Line 61 Cable Cars shall not leave the stop at Kearny until the Cable Car ahead has reached Powell.

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- 10.17.3 The Grip operator shall maintain a minimum of one (1) block distance spacing between cable cars when operating on level or near-level streets. Except:
- A. Inbound at Washington and Powell
 - B. Outbound at Powell and Jackson
- Due to delays
- C. OB Powell between Geary and Post
 - D. OB Hyde at Lombard

10.18 Curves

- 10.18.1 The Grip Operator and the Conductor shall warn all passengers to “hold on” when approaching a curve.
- 10.18.2 The Grip Operator shall operate the cable car with caution at one-half (1/2) the cable speed while approaching and entering all curves, except southbound Line 59 cable cars from Columbus to Mason, where cable speed is permissible.
- 10.18.3 The Grip Operator shall not allow a cable car to pass another cable car in a curve.
- 10.18.4 The Grip Operator shall yield right of way to cable cars on ascending grades.
- 10.18.5 The Grip Operator shall stop at the stop mark and remain standing until the cable car on the ascending grade has cleared the curve.
- 10.18.6 The Conductor shall warn following motor vehicles when a cable car is stopped on a curve.

10.19 Cable Strand – Emergency

10.19.1 The Conductor shall immediately notify Central Control of a strand.

10.20 Cable Pick Up

10.20.1 The Grip Operator shall make a full stop at all cable pick-ups and dips at the control line with the grip dies parallel with the cable.

10.20.2 The Grip Operator shall ensure that the cable is securely in the grip and adjusted to the proper tension before proceeding.

10.21 Let-Go

10.21.1 The Grip Operator shall let-go of the cable in ample time to avoid carrying the cable into the bumper bar at all let-go locations.

10.21.2 The Grip Operator shall not make foot let-goes, except southbound, Sutter to O'Farrell, and in cases of emergency.

10.22 Switches and Special Track Work

10.22.1 The Grip Operator shall ensure that switches and grip slot guides are properly set and clear of debris before proceeding.

10.22.2 The Grip Operator shall not allow the cable car to exceed one-half (1/2) the cable speed when passing through facing point switches and special track work, except when backing through the pull-in switch on Jackson between Mason and Taylor.

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- 10.22.3 The Conductor shall ensure rear trucks have passed through the switch before dropping lever.
- 10.22.4 The Grip Operator, after passing through a switch, shall bring the cable car to a stop and wait for the Conductor to board, at any location where the Conductor is required to step off the car and lift a switch lever.
- 10.22.5 A cable car shall not exceed 5 mph when crossing through a depression beam while travelling downhill.

10.23 Turntables

- 10.23.1 Cable Car Employees shall not permit passengers to ride onto turntables.
- 10.23.2 The Grip Operator shall ensure that the track and slots are properly lined up and the signal is green before moving onto turntables.
- 10.23.3 No cable car shall leave any turntable until the Cable Car in the adjacent loading zone has departed.
- 10.23.4 The Grip Operator shall assist the Conductor in resetting the turntable.
- 10.23.5 The Grip Operator and Conductor shall use the push pads to turn the cable car at the turntable.
- 10.23.6 The Conductor shall be responsible for the proper resetting of the turntable for the following cable car and verifying the track and slots are properly lined up and the signal is green, except when a starter is on duty.

10.24 Gypsy

- 10.24.1 The Conductor shall operate gypsies to lift the cable into the grip.

10.24.2 The Grip Operator shall make sure the cable is in the grip before proceeding.

10.25 Disabled Cable Car

10.25.1 Cable Car Employees shall immediately notify Central Control in the event a cable car becomes disabled.

10.25.2 Cable Car Employees shall remain aboard the cable car and at their controls properly assisting a rescue vehicle when a cable car is being pushed or towed.

10.26 Obstructions

10.26.1 Cable Car Employees shall stop clear of any obstructions and immediately contact Central Control.

10.26.2 The Grip Operator or Conductor shall not open any access covers located in the system.

10.27 Safety Latches

10.27.1 If the cable is released while passing over safety latches and before the crown of the hill, cable car employees shall not attempt to re-grip the cable, remain stopped, and immediately notify Central Control.

10.28 Turning Cars In

10.28.1 Cable car employees shall not allow any passenger to ride the cable car into the Cable Car Barn.

10.28.2 Upon arrival at the stop marker on Jackson, between Mason and Taylor, after passing through the switch, the Grip Operator shall stop the car but shall not let-go of the cable until instructions are received from the shop person. Once the Grip Operator has confirmed instructions, the Grip Operator shall drop the cable and

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fully reverse the grip handle, making sure that the cable is out of the grip.

10.28.3 Cable Car Employees shall follow all pull-in procedures as described in the Cable Car Training Manual.

10.29 Bumper Bars

10.29.1 Cable Car Employees shall immediately stop if they activate a bumper bar and notify Central Control.

10.30 Conductor's Brake

10.30.1 The Conductor shall remain on the rear platform to properly operate the rear brake(s) on all grades.

10.31 Mandatory Stops

10.31.1 Cable cars shall be brought to a full stop at all XX-Bar locations.

10.32 Stopping For Passengers

10.32.1 The Grip Operator shall stop the cable car for passengers at all passenger stops.

10.32.2 Cable Car Employees shall operate in service and stop for passengers during pull-in and pull-out trips.

10.33 Lights

10.33.1 Cable car employees shall turn on interior lights during hours of darkness and reduced visibility.







10.34 Safety Practices – General

10.34.1 The Grip Operator shall operate the cable car at a safe rate of speed and shall be in the proper position to reach the levers at all times.




- 10.34.2 The Grip Operator shall have one hand on the grip lever at all times whenever the cable is in the grip and both hands on the lever when ascending severe grades.
- 10.34.3 If a cable car is derailed while ascending or descending a severe grade, the Grip Operator shall hold the cable securely in the grip until reaching an intersection or let-go location.
- 10.34.4 When passing a stationary cable car, the Grip Operator shall operate the cable car at less than one-half (1/2) the cable speed and be ready to stop unless ascending a severe grade.
- 10.34.5 The Grip Operator shall not stop the cable car closer than fifteen (15) feet from the rear of any vehicle that is on the track, except at terminal locations.
- 10.34.6 Cable Car Employees shall not hold the cable in the grip while waiting for scheduled leaving time at terminals.
- 10.34.7 In the event it becomes necessary to clear the line by use of the rear grip on Line 61, the front grip must be secured. The Conductor shall position themselves at the front controls so as to assist the Grip Operator.
- 10.34.8 One member of the crew shall remain onboard the cable car at all times.
- 10.34.9 Prior from stepping down from any cable car, employees must ensure that traffic is stopped or there are no vehicles approaching that are close enough to constitute a hazard.

A APPENDIX – SIGNAL & ASPECT INDICATIONS

A.A. Muni Metro Subway Aspects and Indications

 <p>A vertical signal with six lenses. From top to bottom: red, black, black, red, black, black.</p>	 <p>A vertical signal with six lenses. From top to bottom: black, white, black, black, black, green.</p>	 <p>A vertical signal with six lenses. From top to bottom: black, white, black, black, amber, black.</p>
<p>Red Over Red STOP</p>	<p>White Over Green PROCEED STRAIGHT</p>	<p>White Over Amber PROCEED DIVERGE</p>
 <p>A vertical signal with six lenses. From top to bottom: black, black, black, red, black, green.</p>	 <p>A vertical signal with six lenses. From top to bottom: black, black, black, red, amber, black.</p>	 <p>A vertical signal with six lenses. From top to bottom: black, white, black, red, black, black.</p>
<p>Red Over Green PROCEED STRAIGHT RESTRICTED SPEED</p>	<p>Red Over Amber PROCEED DIVERGE RESTRICTED SPEED</p>	<p>White Over Red REVERSE RUN RESTRICTED SPEED</p>

A.B. Muni Metro Turnaround (MMT) Signals

		
<p>White Over Green PROCEED STRAIGHT</p>	<p>White Over Right Amber Bar PROCEED DIVERGE RIGHT</p>	<p>White Over Left Amber Bar PROCEED DIVERGE LEFT</p>

A.C. Automatic Train Control – Wayside Signal Aspects










Red Over Red
STOP
 Train in AUTO mode
 Or CABS mode

Lunar White "A"
 Train in AUTO mode
 Or CABS mode

A.D. Surface Switch Signal Aspects and Indications

1a. PROPERLY DISPLAYED SIGNALS (Yellow Directional Bar)

		
<p>Lunar White Over Vertical Bar PROCEED STRAIGHT</p>	<p>Lunar White Over Left Diagonal Bar PROCEED DIVERGE LEFT</p>	<p>Lunar White Over Right Diagonal Bar PROCEED DIVERGE RIGHT</p>

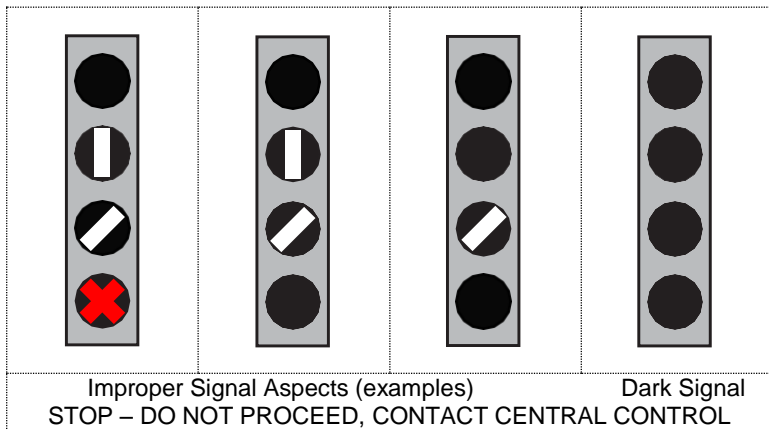
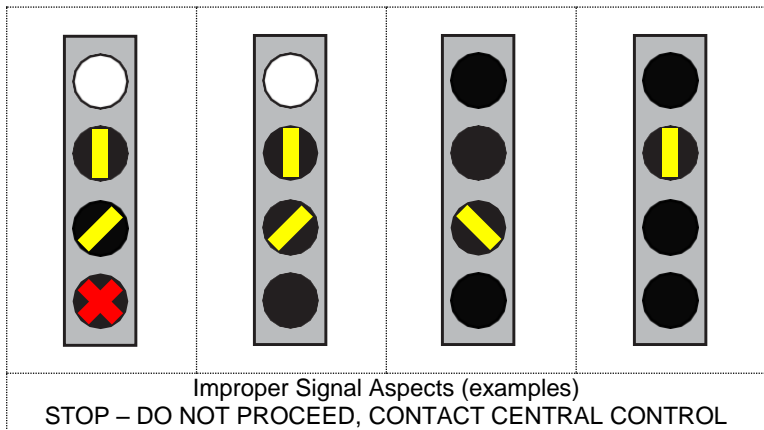
			
<p>Red Crossbar STOP – DO NOT PROCEED</p>			

1b. PROPERLY DISPLAYED SIGNALS (White Directional Bar)

<p>Lunar White Over Vertical Bar PROCEED STRAIGHT</p>	<p>Lunar White Over Left Diagonal Bar PROCEED DIVERGE LEFT</p>	<p>Lunar White Over Right Diagonal Bar PROCEED DIVERGE RIGHT</p>



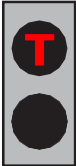
<p>Red Crossbuck STOP – DO NOT PROCEED</p>			

2. IMPROPERLY DISPLAYED SIGNALS



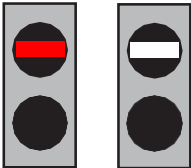


A.E. “T” and “Bar” Traffic Signals

“T” Signals were mostly replaced with “Bar” signals in 2014. “T” and “Bar” signals are designed as a “traffic” signal for rails and have a similar function as regular traffic lights. “T” signals only remain where the train operator has to comply with both a switch signal and a traffic signal.




		
<p>White T PROCEED</p>	<p>Flashing White T PREPARE TO STOP</p>	<p>Red T STOP</p>

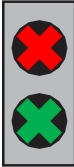


“Bar” signals have mostly replaced “T” signals, primarily on the T-Line, “MMX,” and Embarcadero F-Line.

		
<p>White Vertical Bar PROCEED</p>	<p>Flashing White Vertical Bar PREPARE TO STOP</p>	<p>Red or White Horizontal Bar STOP</p>



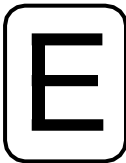

A.F. “Crossbuck” Signals




The few remaining crossbuck signals govern rail traffic (with or without other signals present).





		
<p>Red Crossbuck STOP</p>	<p>Green Crossbuck PROCEED</p>	<p>Yellow Crossbuck PROCEED WITH CAUTION</p>

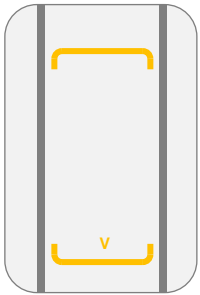

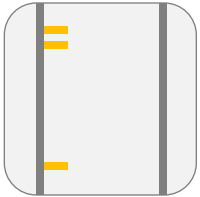
		
<p>Improper Aspect STOP - DO NOT PROCEED CONTACT CENTRAL CONTROL</p>		<p>Dark Signal STOP DO NOT PROCEED CONTACT CENTRAL CONTROL</p>




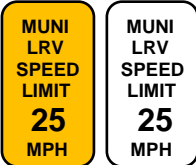
B APPENDIX - SIGNS AND MARKINGS



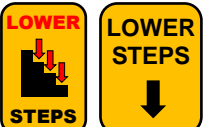

Sign	Aspect	Indication
B.A Subway Signage		
	BEGIN ATCS	Sign notifying operator of the beginning of ATCS territory. The operator should follow procedures and instructions given.
	END ATCS	Sign notifying operator of the end of ATCS territory. The operator should switch to "STREET" Mode.
	"E" Marker	ATCS Entry Point. The operator should follow procedures and instructions given.
	Subway Milepost 504	Typical Subway Milepost marker.

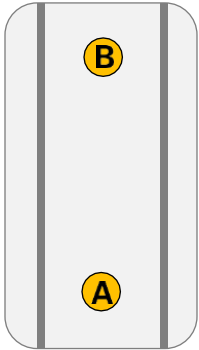
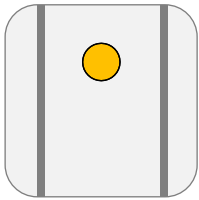

Sign	Aspect	Indication
B.B Surface Signage and Markings		
	Information Signs	Surface Signage for rail operators. Provides information for operators. In mixed traffic, they may be marked “MUNI ONLY”.
B.C Stop Bars and Signage/Markers		
	Stop Bar	Car stop position indicator.
	Mandatory Stop	Mandatory stop in street and yard.

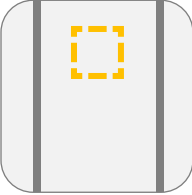

Sign	Aspect	Indication
	NC	Negative Clearance mark. Operators shall not pass this mark when another car is on the adjacent curve.
	Control Stop	Car stop position to avoid conflict for opposing crossover move.
	Yellow bar with ACCESSIBLE	Indicates to operator where to position their car when aligning to service an ADA lift or ramp.
	Blue Light/Blue Flag	Rail vehicle marked with a blue flag/light/cone is under control of Rail Maintenance. Operators shall not move the vehicle until maintenance staff remove the blue flag.

Sign	Aspect	Indication
B.D Switch Markings and Signs		
	VETAG	Marks position of a VETAG loop. Position the front of the car inside the loop where the VETAG Control Box in the cab illuminates to set switches and signals.
	Setting Square	Position front of car to set a sequential switch or trigger a signal control.
	Small hash marks by left rail	Indicates when the trailing end of a (respectively) 1-4 car LRV consist is clear of the switch, restriction, or hazard being passed over.

Sign	Aspect	Indication
B.E Speed Markings and Signs		
	Hexagon Paint	Supplemental speed indication, marks the beginning of speed restriction at curves, switches, or hazards. Refer to Rule 4.14.1
	Hexagon Sign	Supplemental speed indication, marks the beginning of speed restriction at curves, switches, or hazards. Refer to Rule 4.14.1
	Speed Sign - Events	Rail vehicles to reduce speed to 5 mph during events.
	Speed Sign	Maximum Allowable Speed on the surface, or in tunnels when not in AUTO mode.

Sign	Aspect	Indication
B.F Step Markings and Signs		
	Raise Steps Paint	Operators shall raise steps for upcoming high-platform stop.
	Raise Steps Signs	Operators shall raise steps for upcoming high-platform stop.
	Lower Steps Signs	Operator shall lower steps for upcoming low-platform stops.
	Check Steps Sign	Operator shall verify that steps are in the correct position.

Sign	Aspect	Indication
B.G Breaker Markings		
	Painted yellow circle with "A" or "B"	LRV breaker indicators, pantograph is crossing breaker when marked end of LRV is crossing that circle. Operators shall avoid powering through or stopping on breakers. For historic streetcars, the pole is crossing the breaker when the front of the car is passing over the 2nd or "B" breaker circle.
	Yellow painted circle	Streetcar breaker indicator, pole is crossing the breaker when the front of the car is passing over the circle. Operators shall avoid powering through or stopping on breakers.
	Yellow painted circle with "tail"	Tailed breakers indicate which direction is crossing a breaker. A tail pointed anywhere but towards the vehicle indicates that the breaker belongs to a different direction of travel.

Sign	Aspect	Indication
B.H Bus/Transit Signs & Markings		
	Yellow open square	Transit signal detection square. A proximity detector for rubber-tired vehicles to request traffic control signals
	Transit signal signage for rubber-tired vehicles	Applies to rubber-tired vehicles, unless marked otherwise

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Agency