



Link Light Rail



Rulebook

Effective June 1

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Link Light Rail Rulebook

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Approved By:

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King County Metro

Rulebook Sections That Apply

Employee Job Role	1	2	3	4	5	6	7	8	9
BOE	Х								
Business and Administration Superintendent	Х								
Business and Admin Manager	Х								
Communications Superintendent	Х	X	X	X	X	X	X	X	X
Deputy Director	Х								
Facilities Chief	Х				X				
Facilities Custodian	Х				X				
Facilities Electrician	X				X				
Facilities Grounds Specialist	X				X				
Facilities Lead Facilities Custodian	Х				X				
Facilities Lead Facilities Mechanic	X				X				
Facilities Lead Grounds Specialist	X				X				
Facilities Lead Station Custodian	X				X				
Facilities Mechanic	X				X				
Facilities Painter	Х								
Facilities Rail Laborer	Х				Х				
Facilities Station Custodian	Х				X				
Facilities Superintendent	Х				Х				
Light Rail Operator	Х	Х	X	X	X	X	X		
MSC Chief	Х								
MSC Worker	Х								
Operations Chief	Х	X	X	X	X	X	X	X	X
Operations Superintendent	Х	Х	Х	Х	Х	Х	Х	Х	Х
Power Superintendent	Х	X	X	X	X	X		X	X
Rail Admin Staff	Х								

Section 1 - General Rules	Section 4 - Signals	Section 7 - LRV Operating Rules
Section 2 - Rail Operating Rules	Section 5 - Communications	Section 8 - On-Track (OTE) Operation
Section 3 - Switches	Section 6 - Protection of Workers on Trackway	Section 9 - Maintenance Facility and Storage Yard

Rulebook Sections That Apply

Employee Job Role	1	2	3	4	5	6	7	8	9
Rail Electrical Worker	X	X	X	X	X	X		X	X
Rail Electrical Worker Lead	X	X	X	X	X	X		X	X
Rail Manager	X								
Rail Safety Officer	X	X	X	X	X	X	X	X	X
Rail Supervisor	X	X	X	X	X	X	X	X	X
Rail Technical Trainer	X	X	X	X	X	X	X	X	X
Resource Superintendent	X								
SCADA Chief	X				X				
SCADA Specialist	X				X				
Signal/Comm Chief	X	X	Х	X	X	X		X	X
Signal/Comm Tech	X	X	X	X	X	X		X	X
Signal/Comm Tech Lead	X	X	X	X	X	X		X	X
Sr. SCADA Specialist	X				X				
Track and ROW Chief	X	X	X	X	X	X		X	X
Track Laborer	X	X	X	X	X	X		X	X
Track Maintainer Lead	X	X	X	X	X	X		X	X
Track Maintainer	X	X	X	X	X	X		X	X
Track, Structure & Signals Superintendent	X	X	X	X	X	X		X	X
Traction Power Chief	X	X	X	X	X	X		X	X
Training Chief	X	X	X	X	X	X	X	X	X
Training Superintendent	X	X	X	X	X	X	X	X	X
Ventilation Systems Coordinator	X				X				
VM Chief	X	X	X	X	X	X	X	X	X
VM Electro-Mechanic	Х	X	X	X	X	X	X	X	X
VM Rail Service Worker	Х	X	X	X	X	X	Х		X
VM Superintendent	X	X	X	X	X	X	X	X	Х

Section 1 - General Rules	Section 4 - Signals	Section 7 - LRV Operating Rules
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Safety

The mission of King County Metro Rail Section is to provide safe and reliable light rail service to the Puget Sound region and a safe work environment for our employees. Employees and passengers are our most important asset. Safety and security are among our greatest responsibilities.

Accordingly, safety is a primary concern that affects all rail section employees. The result of unsafe practices can be extremely serious. Eliminating unsafe conditions and preventing accidents are the responsibilities of each employee.

All employees are required to conduct their duties safely with a focus on preventing injury to any member of the public, passengers, or other employees, damage to equipment or property, or degradation of any system safety device. Employees in doubt or uncertain in any situation must take the safest course of action and contact the designated authority. The safety of our passengers, employees and the public is the responsibility of all of us.

When an employee identifies an act, behavior or condition that clearly presents an imminent risk of death or serious physical harm, the employee should initiate a Good Faith Challenge. (Per KCM Safety "Employee Good Faith Challenge Policy" PER-11-1-DP.)

Introduction

This rulebook has three primary purposes:

- 1. To identify the Link Light Rail system's rules.
- 2 To aid in the understanding and instruction of these rules.
- 3. To provide direction to all employees and serve as a point of reference whenever questions arise on which is the correct course of action to be taken.

This rulebook is for the purpose of performing operations and maintenance activities on the Link Light Rail system. These rules apply to all Sound Transit and King County Metro light rail employees and govern any and all activities on the Link Light Rail system.

The intent of these rules is to help employees perform their duties safely and effectively. Each employee is responsible to learn and understand the rules and maintain a thorough understanding of all procedures specific to individual work assignments.

Rail transit systems run on the operational discipline of the employees who perform the vital work of operating and maintaining the service. Therefore, adherence to rules assures a maximum level of safety and security for everyone. These rules are the foundation for a safe rail operation.

Employees are encouraged to direct questions about interpretation of the rules to their immediate supervisor at any time. Suggestions designed to improve or clarify any rule should be submitted through the employee's supervisor.

Ignorance of a rule or its meaning does not excuse negligence or failure to properly perform all required duties in a safe manner. Failure to comply with the rules as identified in this book or violation of the rules contained herein is a serious matter and shall be considered sufficient cause for discipline. Link rules must be used in conjunction with the approved standard operating procedures (SOPs), standard maintenance procedures (SMPs), train orders, special instructions, notices, directives, bulletins and established policies.

This rulebook is the official resource for the proper operation of the Link Light Rail system. This rulebook is a dynamic document and shall be subject to future revisions in accordance with SOP 1.1 rules and procedures development, issuance and revision.

Abbreviations

ABBREVIATION TERM

AC Alternating Current

ADU Aspect Display Unit

APS Auxiliary Power Supply

ATP Automatic Train Protection

CCP Communication Control Panel

CCTV Closed Circuit Television

DC Direct Current

DSTT Downtown Seattle Transit Tunnel

EIC Employee In Charge

E-TEL Emergency Telephone

FSB Full Service Brake

IJ Insulated Joint

KCM King County Metro

LCC Link Control Center

LIP Local Indicator Panel

LRV Light Rail Vehicle

MP Milepost

MPH Miles Per Hour

MXB Maximum Brake

OCS Overhead Contact System

OMF Operations & Maintenance Facility

OTE On Track Equipment

PA Public Address System

PED Personal Electronic Device

PEI Passenger Emergency Intercom

PPE Personal Protective Equipment

ROW Right Of Way

SCADA Supervisory Control And Data

Acquisition

SI Sectionalization Insulator

SMP Standard Maintenance Procedure

SOC Security Operation Center

SOP Standard Operating Procedure

ST Sound Transit

TOD Train Operator Display

TPSS Traction Power Substation

TWC Train-To-Wayside Communications

VM Vehicle Maintenance

VMS Variable Message Sign

Definitions

TERM	DEFINITION
A – End	The end of the LRV so designated.
Access Approval	An authorization to enter and exit the trackway in one minute or less with full attention on surroundings. Work is prohibited under access approval.
Accident	An event that involves any of the following: a loss of life, a report of a serious injury to a person, a collision involving a rail transit vehicle, a runaway train, an evacuation for life safety reasons or a derailment of a rail transit vehicle at any location, at any time, whatever the cause.
Acknowledge	An appropriate response when a message is received and understood.
All Call	A general radio announcement made by LCC with information for all trains.
Apron	The concrete surrounding the OMF maintenance shop.
Area Of Safety	The area on or near the trackway in which personnel are to be considered a safe distance from risk of contact with rail vehicles. A station platform is the preferred area of safety location.
Aspect Display Unit (ADU)	A cab console display that indicates the current speed of the LRV. The ADU also displays the track speed limit in ATP Territory and a fixed

speed of 25mph/35mph in street running territory.

TERM **DEFINITION ATP Territory** Area in which train operation shall be governed by the rulebook and speeds indicated on the ADU not to exceed 55mph for all normal and reverse mainline moves, unless instructed by LCC. An electronic system which displays on the ADU Automatic the maximum allowable speed for the affected Train **Protection** section of track. In ATP the train also (ATP) automatically initiates a braking command in advance of an amber signal and when encroaching on a track presence ahead. ATP is active only in ATP territory and is bi-directional. ATP is not active in reverse. The end of the LRV so designated. B-End Back-Up The operation of a train from the non-leading cab with the reverser in reverse. Ballast The crushed rock base for rail ties and track that is placed onto the railroad bed for the purpose of maintaining track alignment, profile and drainage. **Berthing Point** The stopping point designated for a train of a given length at a station platform, terminal or designated place. **Block** A length of track having defined limits with its occupancy governed by signals, pilot flag, LCC instructions or train order.

other entry is permitted.

A strictly defined block authorized by LCC and

governed by a designated employee where no

Absolute

Block

TERM		DEFINITION
	Permissive Block	A strictly defined block authorized by LCC and governed by a designated employee where another work group, train or rail vehicle may be permitted conditional entry.
	Single Track Block	A defined length of track between two interlockings where bi-directional rail traffic operates on a single track while the adjacent track is taken out of service.
	Test Block	A defined section of track having specified limits for conducting specific tests as authorized by LCC.
Brake		A primary safety system designated to either reduce the speed of a train or to bring the train to a complete stop.
	Dynamic Brake	A primary braking system in which traction motors acting as generators provide braking action.
	Friction Brake	A power operated system which applies stopping forces to brake discs on the truck axles.
	Track Brake	An electromagnetic brake located between the wheels of each truck, which operates through direct contact with the running rail.
Bumping Post		A structure, at the end of a track that prevents train movement past that point.
Bypass		A means of overriding a specific function.
Cab		The operating compartment of an LRV.
Cab Signal System		Carborne and wayside equipment that decodes and displays speed commands on the ADU.

TERM	DEFINITION
Cab Signal Territory	Rail tracks where cab signals provide an over speed warning and, if not acknowledged, a penalty stop shall occur.
ATP Speed	Sections of the alignment under which speed is governed by ATP with a maximum allowable speed of 55mph.
Street Running Speed	Sections of the alignment under which speed is governed solely by the rulebook with a maximum allowable speed of 35mph (25mph East Link).
Car	A single LRV.
Coast	A position on the master controller, in which neither power nor braking is commanded.
Communication Control Panel	Located on the cab console, is the operator's interface for control of the PEI, automatic message system and PA System.
Consist	A train consisting of one or more cars acting as a single unit.
Contact	Any contact made with a person, vehicle or object by a moving or stopped rail vehicle.
Controller	The designated employee on duty in LCC having authority over the entire light rail system.
Couple	To connect rail vehicles in order to permit them to be operated as a single operating unit (consist).

TERM	DEFINITION
Coupler	A device for joining mechanical, electrical and pneumatic systems of rail vehicles together, thus allowing train-like control functions to reach each car in the consist.
Crossing Gate	Gate that blocks the normal direction of vehicular traffic from entering a grade crossing.
Crossover	Two track switches connected to form a continuous passage between two parallel tracks.
Current Of Traffic	The normal established movement of trains on a mainline in a designated direction of travel.
Cushioning	An on-duty employee riding the train as part of their duties.
Deadman Control	A spring loaded device incorporated into the master controller in each LRV cab which must be held in the operating position to permit train movement and when released shall bring the train to a safe brake stop.
De-Energize	To remove electrical power.
Derailment	When a rail vehicle wheel departs the face of the rail.
Directive	An official document issued by the KCM light rail manager.
Diverging Movement	A rail vehicle movement from one track to another over a track switch set in the reverse position.
Downtown Seattle Transit Tunnel	The tunnel portion of the Link Light Rail system located in the Seattle central business district.

TERM DEFINITION

Dwell Time The total elapsed time from the time that a train

stops in a station until the time it resumes

moving.

Emergency A condition that results in injury to passengers,

public and/or employees, and/or damage to the equipment or property, or the immediate threat of injury or damage. On the radio, the word "priority" is used to report an emergency.

Employee In Charge (EIC)

The designated KCM employee, with a current KCM Light Rail EIC training certificate, which is

in charge of a work group. The EIC shall be

assisted by flaggers when necessary.

Energize To turn on electric power.

Evacuation The supervised de-boarding of passengers from

a train due to imminent danger.

Flag A device (including cloth, light or marker) used

for relaying information indicating condition(s) of

the Right-of-Way.

Flagger A KCM employee, with a current KCM Rail ROW

training certificate, designated to protect workers

and equipment on or near the tracks and to

ensure the safe passage of trains. The EIC may

be a flagger.

Frog The crossing point of two rails.

Fouling Point The location beyond which rail vehicle

movement or placement or storage of equipment

or personnel shall physically interfere with

movement on another track.

TERM	DEFINITION
Interlocking Fouling Point	In interlocking(s) the location beyond which the train movement or storage shall interfere with diverging movement through the interlocking for another train.
Good Faith Challenge	A non-punitive mechanism for raising and resolving potentially unsafe acts, behaviors or conditions so that work can be performed safely.
Grade Crossing	A crossing used by vehicles, pedestrians or other modes of transportation over the track by a road or footpath.
Guard Rail	A rail installed parallel to and inside of the running rails of a track to hold wheels in correct alignment to protect special track work (such as frogs and switches) and to prevent the train from derailing.
Hazardous Materials	Any substance that poses a significant threat to human safety or the environment. Hazardous materials may include such materials that may pose the following risks: flammable, explosive, toxic or corrosive.
Headway	The time separation between two scheduled trains traveling in the same direction on the same track.
Hi-Rail Vehicle	Any on-track equipment equipped with flanged rail wheels and rubber tires that allows the equipment to be operated on tracks or a roadway.
High-Speed Area	Any area where trains may travel at speeds of 40mph or higher.

TERM **DEFINITION**

Hours Of Darkness 30 minutes prior to sunset to 30 minutes after

sunrise.

Incident An event or occurrence.

Interlocking An arrangement of signals, switches and control

apparatus interconnected to provide a route and

prevent conflicting train movement.

Island Circuit A section of the track circuit that, when

occupied, activates the gate crossing arms.

KCM Rail Incident

Commander

The first or most qualified KCM employee at the scene of an emergency incident coordinating all on scene communications/activities with outside

emergency agencies, LCC and other KCM

personnel.

(LCC)

Link Control Center The primary location for controlling, monitoring and dispatching the entire link rail system. Also

used to address the controller in charge of the

rail system at any given time.

Lockout And

Tagout

A procedure for safely de-energizing a section of

the OCS to protect personnel working on or

within 10 feet of the overhead. It requires the use of locks and tags, voltage testers, grounds,

cones, and flags.

Mainline Track(s) designated for passenger service

extending through stations and terminals upon

which trains are operated.

TERM	DEFINITION
Master Controller	The propulsion/braking device that allows the operator to control movement of the train.
Milepost Marker	A sign along the trackway every one tenth of one mile indicating the distance in miles from milepost zero (the YE).
Minimum Clearance Time (15 SECOND RULE)	Employees working in the trackway shall be clear of approaching rail vehicles a minimum of 15 seconds before a rail vehicle moving at the maximum authorized speed can pass the location of the worker.
Near-Miss	A near-miss is an unplanned event that did not result in injury, illness, or damage – but had the potential to do so.
Normal Operation	Movement of trains over a mainline in the established current of traffic for that track.
Notice	A written instruction issued by a KCM Rail superintendent or designee which contains specific instructions or modifications of train orders, special instructions, rules, or SOP/SMPs.
On-Track Equipment	Hi-rail or rail bound equipment.
Operations & Maintenance Facility (OMF)	Link Light Rail operating base including the main storage yard, transportation and maintenance facilities.
Operator	The employee having direct control and responsibility for the safe movement of a rail vehicle.

TERM	DEFINITION
Overhead Contact System (OCS)	The overhead wires and equipment that distribute DC Electric power from substations to light rail vehicles.
Overspeed	A condition that exists when the train speed exceeds the speed indication on the ADU.
Overspeed Warning	The visual and audible indication when train speed exceeds the speed indication on the ADU.
Pantograph	The roof mounted device of an LRV for collecting DC electricity from the OCS.
Peak Hours	Weekdays between 5am & 10:30am and 2:30 pm & 8pm.
Pedestrian Barriers	A fixture that restricts and/or directs pedestrian movement.
Penalty Stop	The cab signal component which stops the train if an overspeed warning is detected and not acknowledged. In ATP territory, it also prevents the train from advancing too closely on a track presence or amber signal.
Personal Electronic Device	(PED) includes but are not limited to: Mobile phone devices, music or photo devices, headphones, ear buds or any device that projects sound or portable computing devices.
Pilot	An employee with a valid rail card who guides and instructs equipment operators that are not certified to operate on the trackway.

TERM	DEFINITION
Pilot Flag	A specific person or object designated by LCC that provides authorization for movement through a single track block.
Pre-Departure Check-Out	A safety inspection performed on the interior and exterior of a LRV or Hi-Rail vehicle to ensure the rail vehicle is ready for mainline or test track operation.
Public Address System (PA)	An electronic audible system on trains and at stations used to convey verbal information to passengers.
Rail Card	A card that authorizes a rail employee to engage in specific on-rail activities, for which they have been trained and certified.
Railroad Light	High-intensity light mounted in the upper portion of the cab mask of an LRV.
Rail Vehicle / Rail Transit Vehicle	Any vehicle that has the capability to travel on railroad tracks including, but not limited to, light rail vehicles and on-track equipment.
Rail Vehicle Warning Devices	Devices such as a horn, bell, railroad light, headlights and hazard lights.
Rescue Train	A train used to retrieve a disabled LRV or to transfer or pick up passengers.
Restraining Rail	A type of guard rail used to counteract lateral forces of rail equipment moving over a curve.
Reverse Running	The operation of a train against the normal established current of traffic for a specific track.

TERM	DEFINITION
Reverser	The LRV control switch that allows the operator to select a direction of travel or place the vehicle in neutral.
Right-Of-Way (ROW)	The area and property that extends 10 feet from the nearest rail and/or property that is dedicated to light rail mainline operations.
Right-Of-Way Worker (ROW WORKER)	Any employee who performs work on the Right-of-Way.
Roll Call	A radio announcement by LCC that requires each train to read back specific information.
Run Card	A document that identifies scheduled times for a specific train route, including trip indicates.
Running Rail	The rail that carries and supports the rail vehicle load.
Safe Location	A location where trains can be safely stopped and passengers de-boarded. Whenever possible, station platforms shall be used as the primary egress location.
Sectionalization	A process for de-energizing or energizing individual segments of the OCS.
Sectionalization Insulator (SI)	A piece of OCS equipment that physically separates segments of the OCS allowing for sectionalization.

DEFINITION TERM

Signal A method or device that conveys information

governing movement of rail vehicles.

The combination of color and position of a fixed Aspect

signal light which conveys an indication as

viewed by an operator.

Audible Signal A signal indication of which is given by a horn 4

or bell <u>流</u>.

Bar Signal A fixed signal at the entrance to a track section

governing train clearance to enter that section. A

bar signal may be located on either side of the

track that it governs.

Dark Signal Any signal which does not display an aspect.

Fixed Signal A permanently located signal indicating a

condition affecting the movement of a train.

Hand Signal A signal indication used to govern train

movement by the motion and position of a

person's hand and arm.

Indication The information conveyed by the signal aspect.

A fixed signal at the entrance to an interlocking Interlocking

Bar Signal governing train clearance to enter that

interlocking. An interlocking bar signal may be

located on either side of the track that it governs.

Interlocking bar signals have aspects on the signal head that allow for diverging movement.

TERM	DEFINITION
Simple Approval	The permission given by LCC, to link ROW certified KCM employees or KCM approved ST employees, to access the trackway in increments of 30 minutes for inspections, minor adjustments or to clear debris.
Slow Zone	An area that may be defined by flags, signs and/or train order where train speed is reduced for track defect(s) or other purposes.
Special Instructions	The official document used to notify employees of long-term restrictions and conditions affecting rail operations. Special instructions supersede rules and SOPs/SMPs and remain in effect until cancelled or superseded by a train order, new special instruction, or the issuance of a new rulebook or SOPs/SMPs.
Spin/Slide	A condition that exists when any wheel or axle on a rail vehicle travels at a different rate than any other wheel or axle.
Standard Maintenance Procedures (SMPS)	The documents containing instructions regarding the maintenance, performance and procedural responsibility for KCM Rail employees.
Standard Operating Procedures (SOPS)	The documents containing instructions regarding the operation, performance and procedural responsibility for KCM Rail employees.

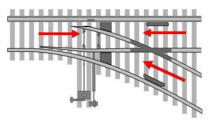
TERM		DEFINITION
Street Running Territory		Area in which train operation shall be governed by the rulebook and speeds not to exceed 35mph (25mph for East Link) for all normal and reverse mainline moves, unless instructed by LCC.
Substation		A facility also known as a traction power substation (TPSS) used to convert AC voltage to DC voltage for distribution to the OCS.
Supervisory Control & Data Acquisition (SCADA)		A communications system which allows LCC to monitor and operate field devices.
Sweep		An inspection of the ROW performed by an operator or a person to ensure the area is clear of personnel, equipment and defects.
Switch		A set of track components where tracks converge allowing straight through or diverging movement of a rail vehicle.
	Embedded Switch	A track switch located in embedded track.
	Facing Point	When viewing a switch, the points are facing towards the vehicle.
	Manual Switch	A track switch that must be operated by hand.

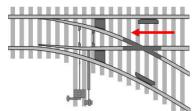
TERM

DEFINITION

Misaligned Switch

A switch that, because of the location of the switch points, does not allow the safe movement of a train. Examples of a misaligned switch include, but are not limited to, the pictures shown below where the train is traveling in the direction of the arrow.





Power Switch

Power operated track switch that can also be

operated manually.

Trailing Point

When viewing the switch, the points are facing

away from the vehicle.

Switch Clamp

A device used to lock a switch point in a

particular position.

Switch Point

Tapered rails that are moveable and designed to

fit against the running rail to route the train straight through or to divert the train onto

another track.

Switch Target

A reflective device attached to a manual switch

stand that indicates the switch position.

Terminal

The location at each end of the rail system

where turnback operations are normally made.

Test Director

The individual responsible for conducting and

documenting rail integration tests.

TERM	DEFINITION
Test Train	A non-revenue train operating for the purpose of performing specific tests.
Tie	A concrete or wooden structure, placed under the tracks in ballasted area, which supports the track.
Timetable	The times trains are scheduled to leave specific locations.
Track	Two adjacent running rails upon which the trains or other rail vehicles operate.
Auxiliary Track	All tracks not designated as mainline, yard or shop tracks.
Pocket Track	An auxiliary track between two mainline tracks, primarily used for storing, crossing over, or turning back trains.
Tail Track	An auxiliary track designated for train (or On- Track Equipment) storage commonly at a terminal station.
Ballasted Track	Tracks which are connected to ties, laid in a crushed rock base.
Direct Fixation Track	A track which is mounted on top of a concrete base.
Daubla Trast	The main tracks for apposite accurant of traffic

Track base.

Double Track Two main tracks for opposite current of traffic.

Embedded Track ties.

Mainline Tracks outside the yard limits on which revenue service is operated.

TERM	DEFINITION
Shop Track	All tracks located within the shop and up to the outer edge of the apron.
Storage Track	Tracks used for storing trains or other rail equipment.
Test Track	A section of track with defined limits that is designated for testing.
Track One	Northbound mainline track defined on the mile post marker.
Track Two	Southbound mainline track defined on the mile post markers.
Yard Track	All tracks within the yard limits except shop tracks.
Trackway	The area extending 10 feet from the nearest rail not designated for public use or separated from the rail by a permanent, fixed barrier.
Track Access Permit	Written permission which allows work to be performed on the ROW or within 10 feet of the OCS and restricts that work to specific areas and time periods.
Track Allocation	Process which governs work to be performed on the ROW, or within 10 feet of the OCS, and restricts that work to specific areas and time periods.
Track Circuit	A section of track electrically isolated for the purpose of detecting train presence.

TERM DEFINITION Any combination of one or more rail vehicles, Train including on- track equipment (OTE), combined to form a single operating unit. Train orders are the official document used to Train Order notify employees of short-term restrictions and conditions affecting rail operations. Train orders supersede special instructions, rules and SOPs/SMPs; and remain in effect until cancelled or they become a new special instruction. Train-To-Wayside A two-way communication system between the Communications LRV and the signaling system. (TWC) **Trainline** Electronic control circuits which run between the couplers of coupled LRVs to enable commands from the operating cab to be transmitted to all LRVs in the consist. Transit Vehicle Any rolling stock used on a rail fixed guideway public transportation system, including but not limited to, passenger and maintenance vehicles. Uncouple The process of separating rail vehicles that are coupled. Walk Across A safe location where two trains going in opposite directions arrive at approximately the same time, in which the operators switch trains to regain their original schedule, and only authorized by LCC. Walk Around A brief inspection performed prior to train movement.

TERM DEFINITION

Walking Inspection A regularly scheduled inspection conducted by

KCM personnel to inspect the alignment for

defects, damage and normal wear of all systems

that comprise the operating infrastructure.

Warning Devices Gates, mast lights and bells at a grade crossing

which are activated by the approach of a train or

by a TWC request.

Wheel Stop A device that, when in an upright position,

prevents a rail vehicle from proceeding past its

location.



Work Zone An area defined by flags, signs and/or other

appropriate warning devices and noted in a train

order in which work adjacent to, or in the

trackway, is being performed.

Yard The location of tracks with defined limits used for

repair, storage of cars, train formation or other

purposes as prescribed by rules.

Yard Limits A specific location which designates the

separation of yard tracks from auxiliary tracks.

Section 1 General Rules

- 1.1 Knowledge of Rules, Procedures, Train Orders, Special Instructions, Directives, and Notices Employees are responsible to understand, obey and be conversant in all rules, procedures, train orders, special instructions, directives and notices. If in doubt as to their meaning, employees shall consult with their supervisor for clarification before taking any action they are unsure of.
 - 1.1.1 Ignorance of the rules, procedures, train orders, special instructions, directives and notices shall not be accepted as an excuse for non-compliance or for neglect of duties.
- 1.2 Insubordination In accordance with the current KCM policy, insubordination or refusal to comply with a reasonable, lawful and safe order from management or LCC is a serious offense that may result in disciplinary action, up to and including dismissal.
- **1.3 Absenteeism** In accordance with the current KCM policy, excessive and/or chronic absenteeism may be cause for disciplinary action, up to and including dismissal.
- **1.4 Fighting** In accordance with the current KCM policy, fighting is strictly prohibited and may be cause for disciplinary action, up to and including dismissal.
- 1.5 Firearms and Weapons —In accordance with the current KCM policy, carrying firearms or objects considered a weapon is strictly prohibited and may be cause for disciplinary action, up to and including dismissal.

- 1.6 Solicitation Soliciting money or public support by employees while on duty, while on rail property or in uniform for political, religious, social or other causes is not permitted without written consent.
- 1.7 Personal Electronic Devices Personal electronic devices must be turned off and stowed out of sight while in the cab or operating any equipment. The use of personal electronic devices and/or personal electronic device accessories (this includes wearable devices such as smartwatches and activity trackers) or the appearance of such use, is prohibited.
 - 1.7.1 In addition, personnel are forbidden from utilizing the AC outlets on rail vehicles to power any personal electronic devices.
- 1.8 Personal Electronic Devices in Yard and Maintenance
 Facilities While in the OMF-C/OMF-E yard, trackway or vehicle
 maintenance shops, the use of personal electronic devices
 and/or hearing protection of any kind is prohibited, unless the
 employee is using a company issued device/equipment.
 - 1.8.1 When outside of the vehicle maintenance shop, approved ROW protection must be in place, such as Work Zone, Simple Approval, Blue Flag Protection, or a track is out of service.
 - 1.8.2 In all cases, the personal electronic device and/or hearing protection should be used by the employee only when and where it is safe to do so and must not create a distraction that could expose the employee or others to danger.

- **1.9** Authorized Personnel In LCC Only rail operations department supervisors, or persons authorized by the LCC controller or light rail director (or designee), are permitted to be in the LCC.
- 1.10 Intoxicants, Narcotics or Drugs In accordance with KCM policy, all employees of KCM Rail who are on duty, subject to duty or on ST/KCM property are prohibited from the use, possession or sale of alcoholic beverages, intoxicants, narcotics, marijuana or controlled substances. It is the employee's responsibility, (before start of duty) to advise their supervisor of any medication they are taking which may impair their performance.
 - 1.10.1 Employees are prohibited from being on ST/KCM property while under the influence of alcohol or other intoxicants at any time.
- **1.11 Tobacco** Employees are prohibited from smoking, chewing or spitting of tobacco while in any LRV and ST/KCM vehicle or in any area designated as a non-smoking area.
- 1.12 Food/Beverages Employees shall not have open food or beverages in the cab at any time while between terminals. Food and beverages must be contained in a spill proof container.
 - 1.12.1 Debris created while consuming food and beverages shall be placed in the cab's waste receptacle.
- **1.13 Reporting For Duty** It is the responsibility of employees to report for duty at the designated time, place and uniform (if work group requires uniform).
 - 1.13.1 The only authorized use of any property, time or personnel is in the transaction of ST/KCM business.

- 1.13.2 Employees shall not exchange their scheduled hours, assignments or duties unless authorized to do so by management.
- 1.13.3 Employees directed by their immediate supervisor to report for duty daily to the LCC, shall notify the LCC at the start of their shift. A craft lead employee or designee may notify LCC of all their crafts employees on duty by identifying each employee by their assigned radio ID. The report should include start and end times for that shift.
- 1.14 Outside Employment Employees shall not engage in any outside business or activity that may interfere with, or have an adverse effect on either the business of ST/KCM, or in the performance of their duties.
- 1.15 Safeguarding Property Each employee is responsible for the storage, use, and proper operation of all ST/KCM equipment. Any abuse or willful neglect of ST/KCM equipment shall result in disciplinary action. Employees shall report any damage or loss of equipment to LCC or their supervisor immediately.
- **1.16 Hours of Service** The hours of service identified in the current labor agreements shall govern.
 - 1.16.1 Employee shall not accept or sign up for a work assignment that will conflict with maximum time worked or minimum time off as defined in the current Labor Agreements.
- 1.17 Code of Conduct Employees shall conduct themselves in a safe, courteous, professional and cooperative manner at all times as defined in the Behavioral Expectations Directive. Code of conduct violations may be subject to discipline up to and including dismissal.

- **1.18 Unnecessary Delays** Employees shall not cause unnecessary delays.
 - 1.18.1 Employees shall make a reasonable effort to avoid delaying the work of other employees and/or to avoid causing delays to revenue service schedule.
- 1.19 Injured or III Persons Employees shall immediately notify LCC of any persons on ST/KCM property that appear to be ill, intoxicated or injured and shall follow the instructions given by LCC. If it is unsafe to use the radio, or radio is inoperable, employees should call 911 to request medical attention and then call LCC as soon as possible.
- 1.20 Disturbances Employees shall immediately notify LCC of any disturbance observed on a train, in station areas, ROW or on any other KCM/ST property.
 - 1.20.1 If a passenger is creating an unsafe environment for themselves or passengers, the employee shall contact LCC immediately. The employee shall not touch or attempt to physically eject any passenger from the train.
 - 1.20.2 Operators authorized by LCC to leave the cab to report and observe onboard situations, should do so from a safe distance. Rail supervisors, security personnel, and support personnel are on duty to respond to any onboard situations that may occur.
- 1.21 News Media Contact While on duty, employees shall refer all inquiries by members of the news media to the ST Public Relations Department. Employees shall not submit any comments or interviews to the media without authorization. Posting on any social media inappropriate work related comments or photos will be considered a violation of the Behavioral Expectations Directive.

- **1.22 Attention to Duties** An employee's primary duty is to maintain rail service; focusing on safety, service and schedule.
- 1.23 Lost and Found Per KCM policy, any article or equipment found while on ST/KCM property must be turned in to lost and found. Employees are responsible to protect themselves, the passengers and ST/KCM in instances when articles are lost and found.
- 1.24 Address Notification Employees are responsible to keep KCM informed of their current address and phone number. Change of address forms are available at the dispatch window, at section payroll, or from a human resources representative.
- 1.25 Fitness For Duty Employees must be medically qualified to perform their standard work and routine duties. Employees whose health becomes impaired to the extent that safety might be compromised, must notify their supervisor or LCC immediately.
- 1.26 Uniforms Designated employees must report for duty in uniform and remain in uniform with their proper rail ID card. While in uniform or a recognizable portion thereof, employees shall not appear to consume or purchase alcohol and/or intoxicants, or engage in any activities which shall be contrary to the interest of ST or KCM.
- 1.27 Blood Borne Pathogens Employees shall not touch any items, including needles that have the potential of carrying a blood borne pathogen or biohazard unless trained and qualified to do so.
 - 1.27.1 If possible, Operators shall block off the area and advise their passenger not to touch the item(s) and call LCC immediately for assistance.

- **1.28 Personal Protective Equipment –** All personnel entering the Trackway or OMF yard shall wear a high visibility ANSI 2 safety vest or outer garment.
- 1.29 Electrical Safety Employees shall consider any electrical wire, OCS, or apparatus to be energized (live) at all times. Employees shall never allow any part of the body, article of clothing, or objects being carried to come within ten feet of the OCS or in contact with live electrical equipment or circuits, unless working with a qualified high-voltage electrical worker with equipment locked and tagged out of service.

Section 2 Rail Operating Rules

- 2.1 Possession of Operating Rulebook All Operators shall have a copy of the current rulebook in their possession while on duty.
- **2.2 Applicability of Rulebook** All employees whose duties involve work within the Right of Way or movement of any train or vehicle on link tracks, are governed by rules defined in the current Link Light Rail Rulebook.
- 2.3 Certification and Licensing All employees whose duties require a commercial driver's license (CDL), rail card and medical certificates as required by KCM, are responsible for maintaining the validity of such certifications. Employees must have their license and medical certificate in their possession while on duty.
 - 2.3.1 No employee shall operate any rail vehicle or rail equipment without having been certified on that piece of equipment except under the authorization of LCC and/or under direct supervision of a certified operator, instructor, or supervisor.
 - 2.3.2 Employees shall only operate within the light rail system upon which they are trained, certified and authorized by LCC to operate in.
 - 2.3.3 Employees shall not permit others, even though certified, to perform any part of the employee's assigned duties, unless authorized to do so.
 - 2.3.4 Employees who operate rail vehicles are required to recertify annually. Recertification requires a written examination (based on the applicable rulebook and SOP/SMPs) and an onboard vehicle performance examination with a training chief or their designee.

- 2.4 Mainline Track, Auxiliary Track and Yard Track LCC has authority over all rail equipment on the mainline and auxiliary tracks and over any activities which may affect rail operations. The vehicle maintenance duty chief or designee has authority over yard and shop tracks. In the event of a hazardous condition, LCC has ultimate authority over all track movements.
- 2.5 Reading on Duty Operators may only read work related materials while in the performance of their duties. The reading materials must be associated with their duties and read only when it safe to do so.
- 2.6 Sunglasses Sunglasses may be worn at the wearer's discretion but are prohibited from wear during: Sunset to sunrise, limited visibility, while in any tunnel or darkened, enclosed covered area.
- **2.7 Watches** All employees whose duties affect mainline train movements shall have an accurate watch in their possession while on duty.
 - 2.7.1 LRV Operators shall check their watch with the master clock in the operator's room, OTE Operators shall call dispatch/LCC. If the watch varies by more than 20 seconds, it shall be reset to the correct time.
 - 2.7.2 Watches shall be shown to supervisors and the training department on request.

- 2.8 Hierarchy of Compliance Employees shall comply with both written and verbal instructions issued by the rail section (which includes those of LCC and rail supervisors). Written instructions consist of:
 - a. Directives
 - b. Notices
 - c. Train Orders
 - d. Special Instructions
 - e. Rules
 - f. Standard Operating/Maintenance Procedures
 - 2.8.1 In the case of conflict between written instructions, each type takes precedence over those listed below it and is subordinate to those listed above it.
 - 2.8.2 In case of conflict between the two, verbal instructions shall supersede written instructions.
 - 2.8.3 In case of conflict of verbal instructions between LCC and those in the field; field instructions shall be confirmed by LCC before being obeyed. Failure to comply with LCC instructions may result in a direct order.
- 2.9 Operator Appearance Standards Employees are expected to maintain a high standard of personal cleanliness and neatness; hairstyles that obscure operator vision is prohibited.
- 2.10 Observing Defects Operators shall be alert for and notify LCC of defects on their train, passing trains, and along the ROW. Items along the ROW include, but are not limited to, overhead wires, signals, tracks, switch points, exterior lights, station platforms, crossing gates and substations.
 - 2.10.1 If any abnormal condition or problem makes the passage of trains unsafe, the train shall stop, notify LCC and follow instructions.

- 2.10.2 Operators are not permitted to move past any wheel stop that is in the upright position.
- 2.11 Impaired Clearances Operators shall be alert for persons standing or walking between track and stationary objects such as foundations, underpass/tunnel walls or center walkways with OCS poles.
- **2.12 Basic Speed Rule** The operator of the train shall at all times operate at a safe speed which is consistent with weather, visibility, traffic and track conditions, traffic signal indications and signal indications.
- 2.13 On Sight Speed A speed that allows the train to stop within ½ the range of vision of another train, a stop signal, a misaligned switch, a track defect or an obstruction.

Section 3 Switches

- 3.1 Observance of Switch Points Operators shall ensure that both switch points are properly aligned for the route desired before proceeding through the switch.
- **3.2 Inspecting a Switch** After a switch has been aligned, the employee requesting or aligning the switch shall examine the switch points to assure that they are correctly aligned for the route desired.
- 3.3 Crossovers Do not commence movement over any crossover unless all switches are aligned for the route desired and the bar signal is displaying the correct aspect.
 - 3.3.1 Whenever possible, routes shall be lined through interlockings before LCC authorizes anyone to bypass an amber.
- 3.4 Unattended Switches When mainline power switches are placed in manual mode and left unattended, they must be left aligned for normal movements and locked, unless otherwise instructed by LCC. (Note: manual mode shall affect both interlocking aspects for the corresponding switch.)
- 3.5 Trailing Point Switches When making a trailing point movement through a switch, the train must not make a reverse move and change directions until the entire consist has passed through the entire switch.
- **3.6 Misaligned Switches** A train shall not be operated through a misaligned switch.
- **Fouling Point** Trains shall not be left standing between the fouling point and the switch points at any time.

- 3.8 Mainline Switches Employees shall not change the position of any mainline switch except as scheduled or when directed by LCC.
- 3.9 **Damaged Switches** If a switch is damaged, the operator shall stop short of the switch and notify LCC immediately. A damaged switch shall be protected by red flag, flare or flag person until repaired.
- **3.10 Aligning a Switch** A switch shall not be aligned or a route requested while any portion of a train is standing or moving over it.
- 3.11 Switch Out of Service at Interlocking Switches that are associated with interlocking signals that are out of service shall, whenever possible, be clamped in the appropriate position or placed in the manual mode and locked.
- **3.12 Securing Track Switches** Switches equipped with foot latches shall be latched after the switch is lined for the desired move.

Section 4 Signals

- **Stop Indications** When any signal displays a stop indication, the train shall be stopped before passing the signal and not proceed until receiving a "proceed" signal aspect or authorization, either verbal or written from LCC.
 - 4.1.1 If LCC authorizes a train to bypass an amber bar signal, the operator shall operate the train at sweep speed until the next bar signal is reached or cab signaling is restored. If LCC authorizes an operator to bypass an amber signal prior to reaching its location, the operator must stop the train at the amber signal and proceed only when safe to do so.
 - 4.1.2 LCC shall only authorize operators to bypass stop signals when safe to do so.
 - 4.1.3 Trains cannot proceed over the train barriers at Royal Brougham on an amber bar signal unless the barrier has been locked out by trained personnel.
- **4.2 Hand Signals** Hand signals governing train operation are indicated in section 4 Rules 4.10.1 through 4.10.4. Signals may be given by hand, proper flag, flashlight or lantern. Operators shall acknowledge all hand signals by use of the train horn.
 - 4.2.1 Bells must be used instead of horns for hand signal request/acknowledgement and prior to back up movement in the shop, tunnel, or tunnel portal.
 - 4.2.2 When Train Orders reference noise ordinance procedures, operators are to use the railroad light, instead of train horn, to acknowledge or call for hand signals.

- 4.3 Giving and Receiving Hand Signals Hand signals shall be given from a point where they can be plainly seen and in such a manner that they cannot be misunderstood. If there is any doubt as to the meaning of a hand signal, or for whom it is intended, it shall be regarded as a stop signal.
 - 4.3.1 When it is necessary to signal a train using hand signals, the person giving the signal shall continue the signal until the signal has been acknowledged with an audible response per rule 4.13.
 - 4.3.2 In the event of a conflict between a hand signal and a bar signal the operator shall adhere to the most restrictive signal indication unless authorized by LCC.
- 4.4 Obscured View of Hand Signals When the operator enters an area that is under control of hand signals, the disappearance from view of the person controlling the movement shall be regarded as a stop signal.
- **4.5 Night Hand Signals** Between sunset and sunrise or during times of limited visibility, hand signals shall be given by flashlight or lantern.
- **4.6 Use of Red Flag or Red Light** The use of a red flag or red light can only be used as a stop signal. Operators must not accept any other signal given with a red flag or red light.
- **4.7 Other Stop Signals** Any object waved violently by any person on the ROW or station shall be treated as a stop signal.
- **4.8 Overrun of Stop Indication** Operators must immediately report an overrun of a stop indication after bringing the train to a safe stop. The train must not be moved until authorized by LCC.

4.9 Flares – Outside agencies such as police or fire departments may use flares to protect locations where a hazard exists. If a lighted flare is placed within the trackway, operators shall stop the train immediately and contact LCC for instructions.

Hand Signals

4.10 Hand Signals – Authorized Hand Signals are as follows:

RULE	ASPECT	INDICATION
4.10.1	SWUNG AT RIGHT ANGLE TO THE TRACK	Sтор
4.10.2	SLIGHT VERTICAL MOVEMENT AT ARM'S LENGTH AT RIGHT ANGLE TO THE TRACK.	REDUCE SPEED
4.10.3	RAISED AND LOWERED VERTICALLY.	PROCEED
4.10.4	SWUNG SLOWLY IN A CIRCLE AT RIGHT ANGLE TO THE TRACK.	Васк Up

Light and Flag Signals

4.11 Light and Flag Signal Colors – Authorized colors for flags or lights are as follows:

RULE	COLOR	INDICATION
	Red	STOP
4.11.1		DEFINITION: TRAIN SHALL BE STOPPED PRIOR TO REACHING THE LIGHT OR FLAG.
	YELLOW	PROCEED AT REDUCED SPEED
4.11.2		DEFINITION: SPEED SHALL BE REDUCED SPEED PRIOR TO REACHING THE LIGHT OR FLAG, AS INDICATED IN THE TRAIN ORDERS, UNLESS INSTRUCTED OTHERWISE.
	GREEN	PROCEED
4.11.3	OKLEN	DEFINITION: MAINTAIN APPROPRIATE SPEED. IF IN A WORK ZONE RESUME NORMAL OPERATION WHEN THE FRONT OF THE TRAIN REACHES THE LIGHT OR FLAG.
	BLUE DO NOT MOVE C	
4.11.4		DEFINITION: WORKERS IN, UNDER, OR ABOUT THE LRV ARE PROTECTED BY THIS LIGHT OR FLAG.
	WHITE	WORK ZONE AHEAD
4.11.5	WORK ZONE AHEAD	DEFINITION: WORK ZONE AHEAD, BE PREPARED FOR REDUCED SPEED.
4.11.6	EXCEPT IN AN EMERGENCY, CONES SHALL NOT BE USED AS A SIGNAL. UNDER NORMAL CIRCUMSTANCES A FLAG MUST BE USED WITH CONES.	

4.12 Temporary Signals – LCC may impose temporary signals. LCC shall notify all operators and all other personnel working in the affected/designated area, of the location and meaning of the signal and provide the appropriate instructions.

Audible Signals

4.13 Bells and Horn Signals – Authorized audible signals are listed below. A sounding of the horn or bell is indicated by ♠ or ☼ and operators are required to have their bell switch set to high from 0600 - 2200 and set to low from 2200 - 0600.

RULE	AUDIBLE SOUNDS	INDICATION
4.13.1	₄ (1)	ACKNOWLEDGMENT OF A STOP HAND SIGNAL.
4.13.2	<1 <1 (2)	ACKNOWLEDGEMENT OF A PROCEED OR REDUCE SPEED HAND SIGNAL.
4.13.3	☆ ☆ (2)	BEFORE MAKING A FORWARD MOVEMENT.
4.13.4	44 (3)	BEFORE MAKING A BACK-UP MOVEMENT, OR TO ACKNOWLEDGE A BACK-UP HAND SIGNAL.
4.13.5	444(4)	CALL FOR HAND SIGNAL.
4.13.6	近近近… (MULTIPLE)	TO BE SOUNDED AT STATION PLATFORMS.
4.13.7	↔ ↔(MULTIPLE)	TO BE USED AT STATION PLATFORMS IF THE BELL SIGNALS IN R4.13.6 ARE NOT SUFFICIENT.

RULE	AUDIBLE SOUNDS	INDICATION
4.13.8	20£ 20£ 20£	WHEN OPERATING ON MARTIN LUTHER KING JR. WAY SOUTH, OPERATORS SHALL DEPRESS AND HOLD THE BELL BUTTON UNTIL THREE BELLS ARE SOUNDED, PRIOR TO ENTERING A GRADE CROSSING. AFTER WHICH, IF NO HAZARD IS PRESENT, CEASE RINGING THE BELL.
4.13.9	近近近近… (CONTINUOUS)	TO BE USED WHEN PROCEEDING THROUGH ANY GRADE CROSSING (EXCEPT MLK), IN THE YARD, WORK ZONES, PASSING WORKERS ON THE RIGHT OF WAY, PASSING STANDING TRAINS, AND AS A WARNING TO PEOPLE OR VEHICLES ON OR NEAR THE TRACK. (SEE R4.13.8 REGARDING BELL USE FOR MLK GRADE CROSSINGS.)
4.13.10	←1 ←1 ←1(CONTINUOUS)	TO BE USED WHEN PROCEEDING THROUGH ANY GRADE CROSSING (EXCEPT MLK), IN THE YARD, WORK ZONES, PASSING WORKERS ON THE RIGHT OF WAY, PASSING STANDING TRAINS, AND AS A WARNING TO PEOPLE OR VEHICLES ON OR NEAR THE TRACK. TO BE USED IF THE BELL SIGNALS IN R4.13.9 ARE NOT SUFFICIENT.
4.13.11	近近近(5)	TO BE USED TO INDICATE THE TRAIN SHALL BE THE NEXT TRAIN DEPARTING THE TERMINAL STATION. TO BE USED ONE MINUTE PRIOR TO DEPARTURE.

- **4.14 Unnecessary Use of Bell or Horn** Unnecessary use of the bell or horn is prohibited.
- **4.15 Bell or Horn Failure** In case of bell or horn failure, the operator shall notify LCC immediately. If the train is operated with inoperable horn and bell, grade crossings shall be crossed at restricted speed.

Bar Signals

4.16 Bar Signals – Authorized bar signals are as follows:

RULE	ASPECT	INDICATION
4.16.1	AMBER BAR – HORIZONTAL	STOP
	LUNAR BAR – VERTICAL	
4.16.2		PROCEED
	LUNAR BAR - SLANTED RIGHT	
4.16.3		PROCEED RIGHT ON DIVERGING ROUTE

RULE	ASPECT	INDICATION
4.16.4	LUNAR BAR - SLANTED LEFT	PROCEED LEFT ON DIVERGING ROUTE
4.16.5	FLASHING AMBER BAR – HORIZONTAL	STOP PREPARE TO PROCEED
4.16.6	FLASHING LUNAR BAR – VERTICAL	PROCEED PREPARE TO STOP

- **4.17 Bar Signal Routing Indications** If a bar signal is providing a proceed indication for anything other than the route authorized per run card, train order/special instruction or LCC, the operator shall stop prior to the bar signal and call LCC.
- 4.18 Interlocking Signals When an interlocking bar signal displaying a "proceed" indication changes to a stop indication as a train is closely approaching the interlocking, LRV operators shall immediately bring the train to a stop using FSB application, OTE operators shall immediately bring the vehicle to a stop and in both cases notify LCC. MXB should not be used unless a hazard is seen.
- 4.19 Dark or Malfunctioning Bar Signals The first Operator encountering a dark or malfunctioning bar signal shall stop prior to the affected bar signal and notify LCC immediately. LCC shall provide instructions to all operators on what action to take at the affected bar signal.
 - 4.19.1 LCC may authorize rail vehicle movement past the bar signal if safe to do so. The operator must ensure it is safe to proceed.
- 4.20 Dark or Malfunctioning Signals at Non-Gated Grade Crossing – The first operator encountering a dark or malfunctioning signal at a non-gated grade crossing shall stop at the bar signal prior to the non-gated grade crossing and notify LCC immediately. Upon notification to all trains, and with LCC authorization, operators shall adhere to the following applicable rules:
 - 4.20.1 When auto traffic signals are dark or displaying a four- way flashing red, operators shall treat the non-gated grade crossing as a four-way stop. The operator shall sound the Horn and proceed with parallel auto traffic only when safe to do so.

- 4.20.2 When reverse running through a non-gated grade crossing with a dark or malfunctioning bar signal the train shall stop prior to the non-gated grade crossing, sound the horn and proceed with parallel auto traffic on a green signal when safe to do so.
- 4.21 Dark or Malfunctioning Signals at Gated Grade Crossings The first operator encountering a gated grade crossing where the gates are operating normally but the auto traffic signals are dark or displaying a four-way flashing red, shall notify LCC and proceed through the grade crossing at restricted speed.

Upon notification to all trains, and with LCC authorization, Operators shall proceed through the gated grade crossing at restricted speed.

Signs on the Light Rail Line – Authorized signs are as follows:

RULE	INDICATION	ASPECT
4.22.1	SPEED SIGN DEFINITION: THE MAXIMUM ALLOWABLE SPEED FOR THE AFFECTED SECTION OF TRACK. OPERATORS SHALL OPERATE AT LOWER SPEEDS IF CONDITIONS DICTATE.	8
4.22.2	NO CLEARANCE MARKERS DEFINITION: THERE IS NO ROOM FOR A PERSON TO STAND BETWEEN THE TRAIN AND THE OBJECT THE SIGN IS AFFIXED TO.	ZO CLHARAZCH
4.22.3	BERTHING POINT MARKERS DEFINITION: Train must stop at each station platform at the correct berthing point marker for the length of their consist	Side View BERTHING MARKERS MAY BE DESIGNATED BY A 2, 4, OR TRAIN SYMBOL DEPENDING ON LOCATION.

RULE	INDICATION	ASPECT
4.22.4	TWC MARKERS DEFINITION: INDICATES THE LOCATION OF THE TWC CALL LOOP IN EMBEDDED TRACK.	
4.22.5	DESIGNATED CROSSINGS DEFINITION: START SOUNDING APPROPRIATE AUDIBLE WARNING ON APPROACH TO AND UNTIL LEAD CAB IS CLEAR OF THE GRADE CROSSING.	
4.22.6	YARD LIMIT DEFINITION: DELINEATES THE YARD LIMIT BOUNDARIES.	YARD LIMIT
4.22.7	POWER/COAST SIGNAGE DEFINITION: BEGIN POWER OR COAST AT THIS LOCATION, COMMENSURATE WITH VEHICLE DIRECTION OF TRAVEL.	O P C O O W A E S R T
4.22.8	REFLECTIVE TAPE DEFINITION: REFLECTIVE TAPE WILL ASSIST OPERATORS IN RECOGNIZING SIGNAL LOCATION.	

- **4.23** Signs Signs posted on the right of way shall be observed and obeyed.
 - 4.23.1 Any damaged or imperfectly displayed signs shall be reported to LCC immediately.
- **4.24 Unauthorized Employees** Unauthorized employees shall not tamper with any sign or component of any signaling system.

Section 5 Communications

- 5.1 Communication Mode Communication that affects train movement shall be by radio. All Radio users shall repeat the essential information to LCC to ensure the message is understood.
 - 5.1.1 North/South Control Trains shall use North/South control protocol, 24 hours a day. South control is MLOPS-01 starting from the SB berthing marker at Beacon Hill Station and all areas south. North control is MLOPS-02 starting from the NB berthing marker at Beacon Hill Station and all areas to the north.
 - 5.1.2 **Yard Pull-outs and Pull-ins** to be conducted on North Control MLOPS 02.
 - 5.1.3 All trains going offline after 1900 hours will call LCC for offline. Once in yard limits over the call loop, Operator will switch radio to channel Yard Ops (ops4), and request storage track from the Yard Coordinator.
- 5.2 Communications Equipment Employees using communications equipment shall test such equipment at the beginning of their shift or first trip. Any defect observed shall be reported to LCC and if appropriate a notation shall be made on the train defect card.
- **5.3 Setting of Controls** Employees are responsible for proper setting of volume and channel controls.

- 5.4 Use of Radio Employees shall not use radios for anything other than Link Light Rail business. Employees using radios shall speak in a clear, concise and professional manner. No train to train transmissions are permitted, except in emergencies or authorized by LCC.
- 5.5 Acknowledgment of Messages When LCC requests acknowledgment of a message transmitted to more than one train, the acknowledgment shall be given in train number sequence.
- **5.6 False Information and Obscene Language** No employee shall knowingly transmit any false information or obscene language by radio.
- 5.7 **Transmitting** Before using the radio, employees shall monitor a sufficient time to determine that the channel is not in use, particularly for emergency traffic. Emergency traffic has priority for use of radio channels.
- 5.8 **Identification** All persons making radio transmissions shall identify themselves by proper train number/radio call numbers and report their direction of travel and location.

Section 6 Protection of Workers on Trackway

- 6.1 Working on the Trackway Personnel entering the Link Trackway shall wear a high visibility ANSI 2 safety vest or outer garment and have a current KCM Light Rail ROW training certificate. Workers must obtain permission from LCC before entering the Trackway. All personnel shall notify LCC prior to entering the Trackway and once clear of the Trackway.
 - 6.1.1 An Operator observing any work zone without prior notification from LCC or an improper work zone shall stop and call LCC immediately.
- **Simple Approval** All KCM Rail employees performing shortterm work within the trackway that does not require the establishment of a work zone or a walking inspection must obtain simple approval from LCC before entering the trackway.
 - 6.2.1 LCC is responsible to notify all trains that may operate in the work area of personnel in the trackway working under Simple Approval.
 - 6.2.2 The area between the tracks north of the Stadium Station signal house and south of the Stadium Station platform, that is protected by bollards, will not require Simple Approval. Workers will be required to request Access Approval to enter and exit that area.
- 6.3 Access Approval All employees entering and exiting the trackway in less than one minute must obtain access approval from LCC before entering the trackway.

Access Approval is an authorization to enter and exit the trackway in one minute or less with full attention on surroundings.

- 6.3.1 The use of tools is prohibited under access approval.
- 6.3.2 LCC is responsible to notify all trains that may operate where personnel are in the trackway under Access Approval.
- 6.4 Walking on the Trackway Personnel walking on the trackway shall walk facing on-coming traffic for that specific track whenever possible unless protected by an EIC/Flagger. Personnel shall expect trains to operate on any track in either direction at any time. They shall not walk between rails unless necessary to carry out their work and only when authorized by LCC.
 - 6.4.1 Upon approach of a train, personnel shall move out of the trackway or into the area of safety. Where inadequate clearance exists, the area must be protected by a work zone. When personnel and equipment are clear of the track, they shall give a "proceed" signal to the operator. If the personnel cannot reach a safe location, personnel must give a stop signal to the operator.
 - 6.4.1.1 Employees working in the trackway shall be clear of approaching rail vehicles a minimum of 15 seconds before a rail vehicle moving at the maximum authorized speed can pass the location of the worker.
 - 6.4.2 Operators shall call for a signal when approaching personnel on the trackway. Unless a "reduce speed" or "proceed" signal is given, operators shall stop prior to reaching personnel on the trackway. LCC shall be notified when personnel fail to give a signal.

- 6.4.3 If a train is approaching a person who is in the trackway where there is not sufficient room to safely remain while the train passes, the train shall stop to allow the person to reach a safe place. If two opposing trains are approaching a person who is between the tracks where there is not sufficient room to safely remain while the trains pass, both trains shall stop to allow the person to reach a safe place.
- 6.4.4 In the performance of an emergency train back-up procedure, personnel may not be clear of the trackway or in an area of safety, however, the operator shall continuously sound the horn while continuing to move the train out of the vent zone.
- Protection of Personnel During Hours of Darkness When personnel are on the trackway during hours of darkness, the area should be lighted adequately and at least one member of the crew must be assigned the responsibility to provide a hand signal with a lighted lantern or flashlight to approaching trains. When the personnel and equipment are clear of the track, a "proceed" signal shall be given to the approaching train.
- 6.6 Mainline Car Repair Protection Prior to repair work being performed to LRVs on the mainline, LCC shall be notified and work performed must be coordinated directly with the operator. The operator must remain in the cab unless instructed otherwise.
 - 6.6.1 If responding technicians are not in direct communication with the operator, blue lights shall be placed at each end of the train in a visible location and the master controller handles shall be blue tagged by the person performing the repair.
 - 6.6.2 Blue lights and blue tags shall be removed only by the person who placed them or their designee.
 - 6.6.3 The operator shall notify LCC prior to proceeding.

- 6.7 Radios Any individual on the Trackway, unless under the direction of an EIC, flagger or simple approval escort, must carry a portable radio and monitor the appropriate radio frequency to ensure they remain aware of LRV movements and other activities on the Rail System.
- **Slow Zones** LCC shall alert operators to any established slow zones. A slow zone cannot be used as a work zone.

Section 7 LRV Operating Rules

- 7.1 Run Cards During revenue service hours, all LRV Operators who enter the mainline shall have a copy of all run cards for that specific day in their possession.
- 7.2 Required Items All LRV Operators who enter the mainline shall have all required certifications and licenses, current train order and special instructions, fully stocked accident kit, current rulebook, functioning portable radio, safety vest, watch, lost and found tag, caution tape, and a flashlight in their possession.
 - 7.2.1 If you are without a portable radio, call LCC before departing from terminals and when departing the yard.
- 7.3 Bar Signals- If a bar signal remains amber for longer than one(1) minute, the operator must notify LCC.
 - 7.3.1 In the DSTT trains must hold at the station platform until a lunar bar signal is received (except for southbound at international district station). Trains must also stop at least 20 feet prior to the amber bar signals at WLS-L2 and IDS-L1.
 - 7.3.2 At non-gated grade crossings when the proceed bar signal governing straight-through movements fails to cycle normally, operators shall stop and re-request the bar signal. If the proceed bar signal fails to appear, the operator shall call LCC and with permission sound the horn and proceed with parallel auto traffic on a green signal when safe to do so.

- 7.3.3 Primary and secondary bar signals on MLK Way S. are redundant signals. When one signal is out of service, Operators shall follow the indication provided by the other signal. Stop and call LCC if the redundant signal becomes dark.
- 7.4 Cab Signal System All train operation on the Link Light Rail system is governed by the cab signal system. The cab signal systems consist of ATP or Street Running on a defined section of track.
 - 7.4.1 In ATP territory, train operation shall be governed by the rulebook and the speed indicated on the ADU for all normal and reverse mainline moves, unless instructed by LCC.
 - 7.4.2 In Street Running territory, train operation shall be governed by the Rulebook and speeds not to exceed 35 mph (25 mph for East Link) for all normal and reverse mainline moves unless instructed by LCC.
 - 7.4.3 Operators require permission from LCC prior to selecting street running when in ATP areas unless required by a run card.
 - 7.4.4 Operators of northbound trains arriving at International District Station shall not proceed until receiving a street running cab speed. If the street running cab speed does not activate, call LCC.
 - 7.4.5 Operators of southbound trains arriving at international district station shall not proceed until receiving an ATP cab speed. If the ATP cab speed does not activate, call LCC.

- 7.5 Cab Signal Failure When any cab signal failure occurs, the operator must immediately notify LCC. Upon authorization by LCC to proceed, the operator must assure it is safe to proceed and use caution.
- 7.6 Change To Cab Signal Indication When a cab signal indication becomes more restrictive, the operator must take action at once to acknowledge the authorized speed.
 - 7.6.1 If the cab signal becomes more restrictive, and the cause is not apparent to the operator, the operator must notify LCC immediately. Operators must look for any obstruction.
- 7.7 Radio Monitoring Radios shall be turned on, the volume set at a level that can be heard, and the proper channel selected whenever the operator is on duty or the train is keyed up, unless otherwise directed by LCC. Setting the radio to scan mode is prohibited.
 - 7.7.1 When in the operator cab with a functioning train radio the portable radio shall be turned down to avoid feedback during radio transmissions.
- 7.8 Loss of Communication If there is a loss of communication between the Operator and LCC; the operator shall follow all applicable rules and procedures and make every reasonable effort to contact LCC. If unable to establish communication with LCC the train shall stop and hold at the nearest safe location until communication is reestablished. Operators have permission to leave the cab if necessary.
- 7.9 **DSTT Train Operations** A train shall never be in the same station platform or tunnel bore at the same time as another train in the same direction of travel unless authorized by LCC.

- **7.10 Non-Operational Crossing Gates** Operators shall approach gated crossings prepared to stop short of the crossing if gates fail to lower.
 - 7.10.1 The first operator that observes a non-operational crossing gate must stop their train prior to the grade crossing, notify LCC and follow their instructions.
 - 7.10.2 Upon notification to all trains, and with LCC authorization, Operators shall stop, sound the horn and proceed at restricted speed with parallel auto traffic on a green signal when safe to do so.
- 7.11 Sleeping Patrons Employees should cautiously (without touching them) attempt to awaken sleeping passengers on trains. If unable to waken a sleeping passenger, the employee shall contact LCC for instructions.
- **7.12 Passengers With Special Needs** When requested, operators shall assist passengers with special needs. Based on federal and state civil rights laws, an operator shall not ask the rider for proof of disability.
- 7.13 Information To Passengers Employees must respond to questions from passengers in a courteous, accurate, and complete manner. If a train is in motion, the operator shall politely inform the passenger a response shall be provided when the train is stopped at the next station platform.
 - 7.13.1 Operators are required to answer PEI calls as soon as it safe to do so. The operator shall make at least two attempts to communicate with the affected PEI call prior to closing the request.

- 7.14 Hazardous Materials Operators observing persons attempting to bring hazardous materials onboard a train shall make a PA announcement stating, hazardous materials are prohibited on the train and cannot leave the station until the hazardous materials are removed. If the person does not comply, the operator shall remain at the station with the passenger doors open and call LCC to report the situation.
- 7.15 Responsibility For Train Movement The person operating the train has full responsibility for its safe operation. Operators shall question and/or refuse any unsafe instruction. In case of doubt or uncertainty, the safest course shall be taken.
 - 7.15.1 **Defensive Operation** Operators are required to employ defensive operating principles consistent with training.
 - 7.15.1.1 Aim high while operating.
 - 7.15.1.2 View the total traffic picture.
 - 7.15.1.3 Keep your eyes scanning.
 - 7.15.1.4 Leave yourself an out.
 - 7.15.1.5 Make sure they see you.
- 7.16 Preparing Train For Service Prior to leaving the yard, Operators shall check their trains for defects and note them on the defect card. Car body damage, discharged fire extinguishers and/or any defect affecting safe operation of the car shall be reported to LCC immediately.
- 7.17 Operator Relief When being relieved, the Operator shall ensure that the train orders and special instructions are in the operating cab. Operator reliefs shall be done in the most expedient manner possible.
 - 7.17.1 The Operator being relieved shall advise the relieving Operator of any condition(s) which may affect train operations.

- 7.17.2 The relief Operator shall contact LCC prior to reaching the next station or as soon as radio traffic is clear to do so. The relief operator shall advise LCC of their duty number, train number, direction, location, badge number and that they have read and understood the current train orders and special instructions.
- 7.17.3 If the relief Operator fails to appear at the scheduled time and place, the Operator due to be relieved shall notify LCC immediately and continue in service until relieved.
- 7.17.4 When stopping for an Operator relief, Operators shall make a passenger announcement that the train will be stopping for an operator change and activate the hazard lights.
- 7.17.5 When relieving an Operator at any location other than a platform, Operators are required to use their crew key to open the door closest to the operator cab on the correct side. This door must be guarded until the Operator being relieved has exited and the door has closed.
- 7.17.6 SB trains encountering a NB train stopped at the OMF relief shack shall stop prior to passing any portion of the NB train. SB trains shall not proceed until doors are closed on the NB train and all personnel are clear of the trackway.
- 7.18 Adherence To Schedule Operators shall not close passenger doors in advance of the scheduled departure time. Trains shall not leave a station or terminal ahead of schedule unless directed by LCC. Trains shall not be delayed unnecessarily.
- **7.19 Emergency Vehicles** When an emergency vehicle is seen or heard, Operators shall slow their train to a stop until emergency vehicles have passed.

- 7.19.1 When a train activates a crossing gate in motion and an emergency vehicle is seen or heard, the Operator shall continue through the grade crossing at restricted speed.
- 7.19.2 Trains shall not stop and block grade crossings when emergency vehicles are seen or heard.
- 7.19.3 Operators will not "call" for their route when emergency vehicles are seen or heard.
- 7.20 Following Distance In street running operations, only one train is allowed between any two bar signals, unless authorized by LCC.
 - 7.20.1 When authorized to "close-up" and trains are less than 300 feet apart, train speed shall not exceed 10 mph (except when in the yard). Trains must make a complete stop with at least 10 feet separating couplers. If necessary to get closer, trains shall proceed at no more than 3 mph. Trains shall stop no closer than 2 feet between couplers or end of the car.
- 7.21 Train Door Operation Passenger doors on the mainline shall be closed outside of the station platform except when necessary for an operator relief, completed in accordance with operator relief rules or authorized by LCC.
 - 7.21.1 Passenger doors shall be opened on the platform side only. If a train is significantly delayed at a station stop, the doors should remain closed and enabled to maintain onboard climate control.
 - 7.21.2 Cab doors on the mainline shall be closed while the train is in motion, except when instructed by LCC, Link Rail supervision or training personnel.

- 7.21.3 Operators shall not open passenger doors until the vehicle has come to a complete stop. Prior to leaving a station, Operators shall check the CCTV monitors, close the doors, check the CCTV monitors a second time and depart when safe to do so.
- 7.21.4 After de-boarding passengers at terminal platforms, the Operator shall close and enable platform side doors. One minute prior to departure, the Operator shall open all platform side doors on the correct side and make the departure announcement.
- 7.22 Access To the Cab Only employees with a valid rail card and those authorized by LCC shall be allowed in the cab. The Operator must notify LCC immediately when there is a cab passenger.
 - 7.22.1 Individuals riding in the cab must not distract the Operator from the safe operation of the train.
 - 7.22.2 It is the responsibility of the Operator to ask the cab passenger to leave if they feel it is a distraction.
 - 7.22.3 Any employee shall not key up the non-active cab when a train is in motion or in service.
- 7.23 Leaving the Cab While On the Mainline While in mainline service, Operators shall request permission from LCC to leave the cab and state the reason for doing so. Once permission is given, the Operator shall key down the train, take the portable radio and crew key with them and close the cab door.
 - 7.23.1 Situations exempt from calls when leaving the cab are: at terminal locations, checking for passengers, lost and found items on revenue trains at the last station prior to entering the yard, and operator reliefs as scheduled or directed by LCC.

- 7.23.2 At the OMF relief point and/or during a walk-across, the Operator shall leave the train keyed up and shall place the reverser in neutral and close the cab door.
- **7.24 Accelerating and Braking** Operators shall accelerate and brake trains smoothly to avoid injury or discomfort to passengers. In order to do so, operators shall:
 - 7.24.1 Not increase speed coming out of curves or crossovers until the train is completely on straight track.
 - 7.24.2 Any use of MXB to a complete stop, near miss or emergency brake mushroom must be reported to LCC. The operator shall not proceed until authorized to do so by LCC.
- 7.25 Person on the Trackway Trains approaching an unauthorized person on the trackway shall reduce speed and sound audible warnings. If the trackway is not clear, the Operator will stop prior to reaching the unauthorized person.
 - 7.25.1 The appropriate audible warning shall be sounded early enough to allow the unauthorized person to move clear of the trackway. Notify LCC if the unauthorized person does not clear the trackway.
 - 7.25.2 In the performance of an emergency train back-up procedure, personnel may not be clear of the trackway or in an area of safety, however, the operator shall continuously sound the horn while continuing to move the train out of the vent zone.
- **7.26 Station Announcements** Proper signage shall be displayed and station announcements shall be made for all stations.
 - 7.26.1 At terminal stations Operators must announce the name of each station on the train P.A. system prior to reaching the station platform and define which side of the train the

- passengers are to exit. The announcements shall be made in the same manner if the automated station announcement system fails or is inoperable.
- 7.26.2 All trains terminating at intermediate destinations shall make announcements at each station informing passengers of that trains destination.
- 7.26.3 Operators of out of service trains shall make announcements to intending passengers that the train is out of service.
- 7.27 Circuit Breakers and Sealed Switches Operations Employees must receive authorization from the LCC prior to cycling circuit breakers or breaking the seals on bypass switches.
- **7.28 Other Safety Devices** Operators shall not disable the normal operation of any safety device without LCC authorization.
- 7.29 Deadman Control The Deadman Control must be engaged at all times when the train is in motion, except when testing the functionality of the Deadman Control. Operators shall never hold the Deadman Control in the operating position by any means other than by their left hand.
- 7.30 Backing Up of a Train Backing up of trains is only allowed when uncoupling or when an employee with a valid rail card provides assistance from the rear of the train. The train shall only travel the minimum distance needed while backing up.
 - 7.30.1 Outside of the yard limits, any back-up movement of trains must also be authorized by LCC.
 - 7.30.2 In the performance of an emergency train back-up procedure, an employee with a valid rail card at the rear of the train is not required.

- 7.31 Exterior Lights If the headlights and railroad light fail during daylight hours, the train shall proceed through grade crossings at restricted speed. If the headlights and railroad light fail during limited visibility (nighttime, fog, etc.), the operator shall reduce speed and bring the train to a stop at the nearest safe location and notify LCC immediately.
 - 7.31.1 The railroad light shall remain on dim at all times unless visibility is impaired.
 - 7.31.2 High beam headlights shall not be used when they interfere with the vision of motorists or other operators.
 - 7.31.3 No train shall move with the headlights obscured on the operating end.
- **7.32 Interior Lighting** Interior lights shall be illuminated on all trains at all times, unless parked in storage areas or authorized by LCC.
 - 7.32.1 Sunscreens may be used but in no case should they be more than halfway down the length of the window or limiting the Operators line of sight.
- **7.33 Stations** Trains in revenue service must stop at all stations.
 - 7.33.1 Unless required for an emergency evacuation or authorized by LCC, trains shall not stop to load or unload passengers at any location other than at stations.
 - 7.33.2 Rail Employees may board or de-board trains at locations other than station platforms only when needed to conduct their immediate job duties and authorized by LLC. At these locations rail employees shall use their crew key to open and close the passenger door to enter or exit the train.
 - 7.33.3 All trains stop at 4 car berthing markers.

- 7.33.4 If back-up camera is inoperable, call LCC before departing NB from Capitol Hill and Roosevelt stations and SB from Northgate and University of Washington stations.
- 7.33.5 When reverse running 1 or 2 car trains that will make station stops, LCC must notify SOC of the train's location and final destination.
- 7.33.6 When operating out of service trains, operators are required to stop at each station platform at the correct berthing point.
- 7.34 Train Orders Train orders shall be issued daily and entries shall be numbered consecutively beginning with the number 1. When a train order is canceled the number may not be used again on the same calendar day.
 - 7.34.1 Train orders shall be brief and clear. They shall specify exact locations, using readily identifiable reference points such as mileposts, stations, cross streets, switches or any other fixed point along the right of way and trackway.
 - 7.34.2 When a new train order or an amendment to a train order is required, a message shall be broadcast by LCC over the radio. Operators shall repeat the specific information to LCC to ensure the message is understood.
 - 7.34.3 Upon request, all operators shall comply with a roll call.
 - 7.34.4 When speed restrictions are specified by train orders, such restrictions supersede any ATP/designated speed in the affected area.
 - 7.34.5 When making an operator relief or going online, the operator is required to verify they have read and understood the day's train orders. Operators should only use the following phonetics when referring to train order versions: A Alpha, B Bravo, C Charlie, D Delta.

- 7.35 Special Instructions Changes to the special instructions shall be issued on Monday effective at 0001 hours. If changes are required after that time, they shall be carried in train orders until the following Monday. At that time, they shall be included in the special instructions amendment for that date.
 - 7.35.1 When speed restrictions are specified by special instructions, such restrictions supersede any ATP/designated speeds in the affected area.
- **7.36 OCS Sectionalization Insulators** Trains must coast through all sectionalization insulators.
- 7.37 Yard Track Operation Trains operated by operations employees must be brought to a stop at the edge of the apron prior to the entrance of the maintenance building or shop except when authorized by the vehicle maintenance duty Chief or their designee.
- **7.38 Operating Speeds** The following are the maximum authorized speeds:
 - 7.38.1 Auxiliary track speed: On sight speed not to exceed 10 mph.
 - 7.38.2 Crossover speed: On sight speed not to exceed 10 mph, unless in ATP territory.
 - 7.38.3 Platform speed: On sight speed not to exceed 30 mph.
 - 7.38.4 Restricted speed: On sight speed not to exceed 20 mph.
 - 7.38.5 Shop speed: On sight speed not to exceed 3 mph.
 - 7.38.6 Simple approval speed: On sight speed not to exceed 20 mph.

- 7.38.7 Sweep speed: On sight speed, not to exceed 25 mph. Exception: University of Washington Station to University District Station, which shall be performed between 27 mph and 30 mph due to coast zone.
- 7.38.8 Walking inspection speed: On sight speed not to exceed 20 mph.
- 7.38.9 Work zone speed: On sight speed not to exceed 10 mph.
- 7.38.10 Yard speed: On sight speed not to exceed 8 mph.
- 7.38.11 Angle Lake Crossover speed: On sight speed not to exceed 15 mph until the rear of the train is clear of the interlocking.
- 7.38.12 Holgate Street N/B and S/B at the Pedestrian Crossing: On sight speed not to exceed 20 mph.
- 7.38.13 International District Station to Pioneer Square Station NB and SB tracks: On sight speed not to exceed 20 mph.
- 7.38.14 Pioneer Square Station to University Street Station NB and SB tracks: On sight speed not to exceed 30 mph.
- 7.38.15 University Street Station to Westlake Station NB and SB tracks: On sight speed not to exceed 30 mph on straight track, 20 mph on curved track.
- 7.38.16 Roosevelt Station to end of line at Northgate Track Two, (Siemens trains only when reverse running): On sight speed not to exceed 30 mph.
- 7.38.17 University of Washington Station to University District Station Track Two, (Siemens trains only when reverse running): On sight speed not to exceed 30 mph.
- 7.38.18 Approaching cross passage #19 (approx. MP 5.9N), operators shall coast until clear of delineators/reflectors.

- 7.38.19 Approaching cross passage #26 (approx. MP 6.9N), operators shall coast until clear of delineators/reflectors.
- 7.38.20 Approaching cross passage #39 NB only (approx. MP 9.2N. Green Lake mid-point signal), operators shall coast until clear of delineators/reflectors.
- **7.39 Reverse Running** Operators must receive permission from LCC to operate against the current of traffic.
- 7.40 Protection During Car Cuts During an assisted car cut, the revenue operator may not board the train until receiving a "proceed" hand signal from a cut-crew member in direct observation of the cut.
 - 7.40.1 After car cut, an ATP test must be performed prior to operating on the previously non-active operator cab of the train. A pre-departure brake check must be performed as soon as practical.
- 7.41 Storage of Cars Prior to storing or cutting cars/trains, the operator shall walk through the cars to ensure all passengers have de-boarded the cars to be stored or cut. Employees storing cars shall stop with the couplers or the end of the car no closer than two (2) feet from the bumping post or from the car ahead.
 - 7.41.1 Before coupling, operator must verify both hoods are up and couplers are deployed.
- 7.42 Inspection Employees shall not move, couple or uncouple unattended cars on mainline or auxiliary track before completing an inspection of both operating cabs to ensure that no blue flags/tags/lights have been placed and that personnel are not in or about the car(s).

- 7.43 Opposing Train Movements No two trains shall simultaneously operate towards each other without authorization. Any operator seeing another train on the same track with headlights on shall immediately stop, place the reverser in neutral and notify LCC.
 - 7.43.1 In the yard, the operator shall immediately notify the VM Chief or their designee.
- **7.44 Water Over Rails** Any Operator observing water over the top of the rail shall stop, notify LCC and follow instructions.
 - 7.44.1 Exempted location: MP N 1.5 on the southbound track, just south of the International District Station platform.
 - 7.44.2 Upon Authorization from LCC, proceed at no more than 5 mph through standing water.
- **7.45 Defect Cards** Faults on the TOD reported to LCC and all LRV defects must be documented on the defect card.
 - 7.45.1 Each operating cab shall have a defect card completed each calendar day. If no defect is found, at the end of service the pull-in operator will note "No Defect" and place the completed defect card in the designated location for that base.
- **7.46 Single Track Blocks** While operating through a single track block, operators shall pass personnel on the out of service track at restricted speed unless otherwise instructed by LCC.
- 7.47 Use of Track Brake Over Switches When operating over switches, track brakes shall only be applied in the event of an emergency. Use of track brake over switches shall be reported to LCC.

- **7.48 Master Clock** The master clock in the Operator's Room will be used to determine the time.
 - 7.48.1 To ensure accuracy, it is the responsibility of the AM Dispatcher to make a time check by calling LCC, no later than five (5) minutes after the start of the AM dispatch shift, and adjusting the clock accordingly. If there is a dispute as to the accuracy of the mast clock, the LCC clock will be the determinant.

Section 8 On-Track Equipment (OTE) Operation

8.1 Operator Certification and Training

- 8.1.1 A valid driver's license with the appropriate endorsements is required for the equipment operated.
- 8.1.2 All OTE Operators who enter the mainline shall have all required certifications and licenses, current train orders and special instructions, functioning portable radio, ANSI 2 safety vest or outer garment and a flashlight in their possession.
- 8.1.3 All personnel must be qualified before operating any OTE. Operation of any OTE by non-certified employees is prohibited, except when directly supervised by a pilot.

8.2 General Safety Requirements

- 8.2.1 Responsibility For OTE Movement The person operating the OTE has full responsibility for its safe operation. Operators shall question and/or refuse any unsafe instruction. In case of doubt or uncertainty, the safest course shall be taken.
- 8.2.2 **Defensive Operation** Operators are required to employ defensive operating principles consistent with training.
 - 8.2.2.1 Aim high while operating.
 - 8.2.2.2 View the total traffic picture.
 - 8.2.2.3 Keep your eyes scanning.
 - 8.2.2.4 Leave yourself an out.
 - 8.2.2.5 Make sure they see you.

- 8.2.3 OTE are considered to be trains when the vehicle, either on rubber tires or with Hi-Rail wheels deployed, is operating on the trackway.
- 8.2.4 OTE operation is subject to all OTE rules and procedures governing train movement as described in the rulebook. Employees operating OTE on the mainline must comply with all applicable operating rules, the current Train Orders and Special Instructions.
- 8.2.5 Before entering the vehicle, the operator must perform a full pre-trip inspection and brake check.
- 8.2.6 Headlights, taillights and beacon lights must be turned on at all times when occupying any portion of the mainline, auxiliary track or the yard.
- 8.2.7 The Operator being relieved shall advise the relieving Operator of any condition(s) which may affect OTE operations
- 8.2.8 While on Rail, the OTE ignition shall remain on with the OTE running unless one of the following requirements are met:
 - 8.2.8.1 OTE will be parked for storage; secured with Rail Chocks & is clear of train movement, OTE will either be shunting or insulated from shunting per LCC instructions
 - 8.2.8.2 OTE will be stationary while within an absolute or permissive block and the OTE is parked with rail chocks applied
- 8.2.9 While on the Mainline, maintain a safe distance (200 feet minimum) between On-Track Equipment and trains.

- 8.2.10 While on the Mainline, a minimum 50 foot separation must be maintained when necessary to "bunch up" to move across grade crossings or as authorized by LCC.
- 8.2.11 OTE must be stored no less than 250 feet from any public grade crossing.
- 8.2.12 OTE steering wheel must be centered and locked (if applicable).
- 8.2.13 Operators who leave the operating cab of the OTE must install rail mounted wheel chocks.
- 8.2.14 Requests to the track department shall be made to turn off rail lubricator(s) 24 hours in advance before OTE travels through them.
- 8.2.15 Employees shall not board or alight any on-track equipment while it is in motion, or lean against standing equipment.
- 8.2.16 OTE operators must promptly notify their immediate supervisor or LCC of any unsafe condition or defective equipment and take necessary precautions if an immediate safety hazard exists.

8.3 On-Track Equipment Communications

- 8.3.1 The vehicle operator or pilot must maintain radio contact with LCC at all times.
- 8.3.2 OTE operators will understand and acknowledge any instructions from LCC regarding the OTE movement requested or the planned OTE movement to be conducted. If the OTE operator is unsure of the instruction they will not proceed until they fully understand and have acknowledged the instructions from LCC.

- 8.3.3 If there is a loss of communication between the OTE operator and LCC, the Operator shall continue at restricted speed and stop the vehicle at the nearest safe location until communication is restored.
- 8.3.4 If OTE is between trains and radio communication with LCC is lost, OTE operator will attempt to re-establish communication via cell phone (using speakerphone option), if still unable to re-establish communication; the OTE operator will maintain direction and rate of travel until reaching the next interlocking, station platform or stationary LRV, OTE operator will then stop and hold remaining in the OTE until communication is re-established.
- 8.3.5 The OTE operator shall contact LCC and receive authorization prior to "setting-on" a Hi-Rail vehicle. The Hi-Rail operator shall contact the vehicle maintenance duty chief or designee prior to "setting-on" and operating in the yard.
- 8.3.6 The OTE operator shall contact LCC to provide location and inform the controller prior to "setting-off" the Hi-Rail vehicle. The OTE operator shall contact the Vehicle Maintenance duty Chief or designee prior to "setting-off" the OTE in the yard.
- 8.3.7 The OTE operator shall request and receive authorization from LCC for any movement outside of an absolute or permissive block.
- 8.3.8 Operators must receive permission from LCC to operate against the current of traffic outside of an absolute or permissive block.

- 8.4 **Vehicle Speeds** The maximum speeds governing movement of OTE are as follows:
 - 8.4.1 Auxiliary Track Speed: On sight speed not to exceed 10mph.
 - 8.4.2 Backing up Speed: On sight speed not to exceed 10 mph.
 - 8.4.3 Crossover Speed: On sight speed not to exceed 5 mph.
 - 8.4.4 Curve Speed: On sight speed not to exceed 7 mph.
 - 8.4.5 Holgate Street N/B and S/B at the Pedestrian Crossing: On sight speed not to exceed 20 mph.
 - 8.4.6 Mainline Track Speed: On sight speed not to exceed 30 mph.
 - 8.4.7 Platform Speed: On sight speed not to exceed 15 mph.
 - 8.4.8 Restricted Speed: On sight speed not to exceed 20 mph.
 - 8.4.9 Shop Speed: On sight speed not exceed 3 mph.
 - 8.4.10 Simple Approval Speed: On sight speed not to exceed 20 mph.
 - 8.4.11 Sweep Speed: On sight speed not to exceed 25 mph.
 - 8.4.12 Test Track Speed: On sight speed not to exceed 30 mph.
 - 8.4.13 Walking Inspection Speed: On sight speed not to exceed 20 mph.
 - 8.4.14 Work Zone Speed: On sight speed not to exceed 10 mph.
 - 8.4.15 Yard Speed: On sight speed not to exceed 5 mph.

8.5 Work Zones

- 8.5.1 When a work zone is required, all procedures for establishing a work zone shall be conducted before ontrack equipment starts work at a site.
- 8.5.2 Movement of OTE through another group's work zone shall be coordinated by LCC and the Employee in charge (EIC) of the work zone. Radio communications between the operator, LCC, and the EIC of the Work Zone shall be conducted on a designated channel.

8.6 Interlockings, Signals, and Crossings on the Mainline

- 8.6.1 OTE movement shall be conducted during non-revenue service hours unless an emergency condition exists, or as approved by LCC.
- 8.6.2 All routes set for OTE shall be under the authority of LCC. Any TWC equipment installed in OTE shall not be operated on the Mainline during revenue service hours.
- 8.6.3 The Operators of OTE must contact LCC before occupying any interlocking.
 - 8.6.3.1 When a hi-rail vehicle requests authorization to occupy an interlocking per Rule 8.6.3, Link Control Center (LCC) shall line the route via SCADA and ensure that the route is set with a proceed indication before giving the hi-rail vehicle operator authorization to "proceed on proper signal."
- 8.6.4 Before proceeding through an interlocking, the OTE operator must visually verify that all switches are properly aligned for the move. Switches must not be trailed through while in the misaligned position.

- 8.6.5 Do not commence movement over any crossover unless all switches are aligned for the route desired and the bar signal is displaying the correct aspect.
- 8.6.6 OTE shall not pass a horizontal amber without LCC permission; except when operating through grade crossings on MLK Way from South Walden Street to South Norfolk Street. OTE shall stop at the grade crossing, sound the horn, and proceed with parallel auto traffic on a green signal when safe to do so.
- 8.6.7 The vehicle horn shall be used to sound audible signals as required per section 4 rule 4.13 of the Rulebook.
- 8.6.8 In case of horn failure, the operator shall notify LCC immediately. If the OTE is operated with inoperable horn, the Operator shall stop at each grade crossing and shall proceed when safe to do so, at restricted speed.
- 8.6.9 The first Operator encountering a dark or malfunctioning bar signal shall stop prior to the affected bar signal and notify LCC immediately. LCC shall provide instructions to all operators on what action to take at the affected bar signal.
 - 8.6.9.1 LCC may authorize rail vehicle movement past the bar signal if safe to do so. The Operator must ensure it is safe to proceed.
- 8.6.10 The first operator encountering a dark or malfunctioning signal at a grade crossing shall stop at the bar signal prior to the grade crossing and notify LCC immediately. Upon notification, and with LCC authorization, Operators shall adhere to the following applicable rules:

- 8.6.10.1 When auto traffic signals are dark or displaying a four-way flashing red, operators shall treat the grade crossing as a four-way stop. The Operator shall sound the horn and proceed with parallel auto traffic only when safe to do so.
- 8.6.10.2 When the proceed bar signal governing straightthrough movements fails to cycle normally, the OTE shall stop prior to the grade crossing and notify LCC. If permission to proceed is granted, the vehicle shall sound the horn and proceed with parallel auto traffic on a green signal when safe to do so.
- 8.6.10.3 When reverse running through a grade crossing with a dark or malfunctioning bar signal the OTE shall stop prior to the grade crossing, sound the horn, and proceed with parallel auto traffic on a green signal when safe to do so.

Section 9

Maintenance Facility and Storage Yard

- 9.1 Rulebook Access Maintenance employee whose duties are not being performed on the mainline must have access to a current Rulebook
- 9.2 Protection of Workers Anytime a repair is being performed; the master controller handle shall be tagged with a blue tag in both operating cabs. If work is performed outside of the shop, blue tags/flags/lights must also be placed at each end of the train by the person performing the work.
 - 9.2.1 Blue tags/flags/lights shall be removed only by the person who placed them or by the Vehicle Maintenance duty Chief (or their designee) following a brief investigation to determine why the protection was not removed.
 - 9.2.2 LRVs protected by blue tags on the master controller and/or blue flags/lights shall not be moved or coupled while protected.
 - 9.2.3 When passing car(s) on the adjacent track, continuous bell warning shall be sounded until completely past the car(s).
- 9.3 Storage of Cars Employees storing cars on any track in the yard shall stop with the end of the LRV or couplers no closer than two (2) feet from the end of track or of the car ahead.
 - 9.3.1 Before coupling, operator must verify both hoods are up and couplers are deployed.
- 9.4 Walk-Around Employees shall not move or couple/uncouple unattended cars in the yard before completing a walk around of the cars to ensure that no one is in, under, or about the car(s).

- 9.5 LRV Movement All operators with a Yard Card are authorized to move with the hood up. The Railroad Light must be on high anytime movement occurs with the headlights obstructed.
- 9.6 Yard Communications Employees moving cars within yard limits must have a working radio and they must monitor the proper channel.
- 9.7 **Switch Under Train** Whenever possible, employees shall not stop trains over switches. If trains are stopped over a switch, employees shall ensure that any switches under the train are aligned for the intended route prior to commencing movement.
- 9.8 Working in the Yard Personnel entering the OMF yard shall wear a high visibility safety vest and have a current KCM Light Rail ROW training certificate. Workers must obtain permission from Vehicle Maintenance (VM) before entering the yard. All personnel shall notify VM prior to entering the yard and once clear of the yard. Once VM has been notified, the VM Chief (or their designee) must then notify all VM personnel in the yard or shop of the presence of these workers and also when the workers have left the yard.
- 9.9 Walking in the Yard Personnel walking in the yard shall walk facing on-coming traffic for that specific track whenever possible unless protected by an EIC/Flagger. Personnel shall expect trains in the yard to operate on any track in either direction at any time. They shall not walk between rails unless necessary to carry out their work.

- 9.9.1 Upon approach of a train in the yard, personnel shall move out of the trackway or into the area of safety a minimum of 15 seconds before the train arrives. Where inadequate clearance exists, the area must be protected by an EIC/Flagger. The EIC/Flagger is to answer all train requests for a signal with the appropriate hand signal. When personnel and equipment are clear of the track, they shall give a "proceed" signal to the operator. If the personnel cannot reach a safe location, personnel must give a stop signal to the operator.
- 9.9.2 Operators shall call for a signal when approaching personnel in the yard. Unless a "reduce speed" or "proceed" signal is given, operators shall stop prior to reaching personnel on that track. The Vehicle Maintenance chief (or their designee) shall be notified when personnel fail to give a signal.
- 9.9.3 If a train is approaching a person who is in the yard where there is not sufficient room to safely remain while the train passes, the train shall stop to allow the person to reach a safe place. If two opposing trains are approaching a person who is between the tracks where there is not sufficient room to safely remain while the trains pass, both trains shall stop to allow the person to reach a safe place.
- 9.10 Working in the Yard During Hours of Darkness When personnel are in the yard during hours of darkness, personnel giving hand signals must provide a hand signal with a lighted lantern or flashlight to approaching trains. When the personnel and equipment are clear of the track, a "proceed" signal shall be given to the approaching train.

- 9.11 Yard Car Repair Protection Prior to inspections or work being performed on or about LRVs in the yard, blue lights shall be placed at each end of the train in a visible location and the master controller handles shall be blue tagged by the person performing the repair.
 - 9.11.1 Blue lights and blue tags shall be removed only by the person who placed them or their designee.
- 9.12 Radios Any individual in the yard, unless under the direction of an EIC, Flagger or accompanied by a vehicle maintenance escort, must carry a portable radio and monitor the appropriate radio frequency to ensure they remain aware of LRV movements and other activities in the yard.

