



METROLINK®

# CENTRAL MAINTENANCE FACILITY ACTION PLAN

Being a Good Neighbor to the Communities We Serve

**AUGUST 2021 UPDATE**



SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

# INTRODUCTION



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## **Section 1. Introduction**

Metrolink's mission is "To provide safe, efficient, dependable, and on-time transportation service that offers outstanding customer experience and enhances quality of life." That mission applies throughout the region, including to the communities where our trains operate or near our stations and maintenance facilities.

Metrolink provides great benefits to the region, such as reduced traffic congestion and emissions. Nevertheless, we realize there may be more localized impacts to the homes, businesses and communities located adjacent to our stations and maintenance facilities. The people who make up the Metrolink Board of Directors and staff pledge to be a good neighbor in each community where our stations and maintenance facilities are located.

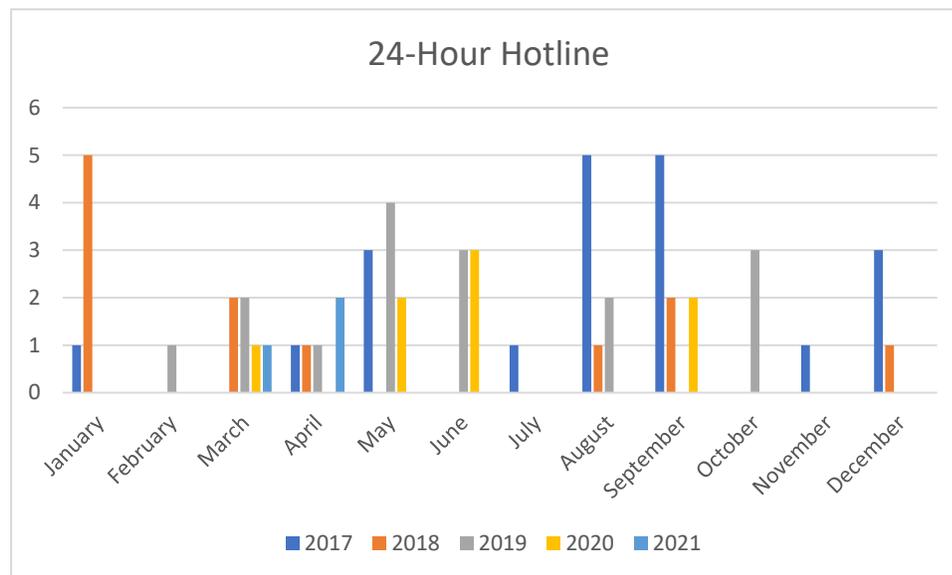
### **Background**

In order to serve the Southern California region, Metrolink operates 365 days a year. The Central Maintenance Facility (CMF) serves a critical role enabling Metrolink to provide this regional service. CMF is one of two service, inspection and repair facilities in the Metrolink system and the only facility equipped to handle heavy maintenance and repair. Following early morning peak runs, nearly all Metrolink trains arrive at CMF to be inspected, tested, fueled, cleaned and serviced for afternoon departures. During the inspection and testing process, Metrolink is required to run the locomotives and perform various functional tests mandated by the Code of Federal Regulations 49 Parts 200-299. Testing usually takes between 45-60 minutes per train set but may take longer depending on the status of the equipment arriving for service. Any defects found during testing need to be addressed prior to departure.

Metrolink has a long history with the CMF community -- including residents, businesses, elected officials and other stakeholders in Cypress Park, Glassell Park and Elysian Valley. In the past nine years, Metrolink has made various operational enhancements and modifications to reduce negative impacts to the community, including but not limited to:

- Purchasing 40 new clean Tier 4 locomotives that reduce emissions between 65% and 85% compared to legacy Tier 2 and Tier 0 locomotives, respectively (A \$279.8 million investment).
  - Initial purchase of 20 locomotives authorized by the Metrolink Board in December 2012.
  - Board exercised a contract option for another 20 units in July 2015.
  - 39 Tier 4 locomotives are in service, and 25 legacy locomotives have been decommissioned.
- Using ground power stations at the Service and Inspection track locations at CMF to provide power when locomotives are being serviced, which has reduced idling noise and emissions. In March of 2015, this program was expanded by adding five ground power stations. Overall, this program has reduced emissions, as follows:
  - **Use of ground power reduced idling time by 14%** at CMF from 2010 to 2017;

- **70% reduction of average Head End Power (HEP)** engine run time at CMF from 2010 to 2017 achieved by the implementation of Automatic Engine Stop-Start (AESS), reduction of trains at CMF from 40 trainsets to 25 trainsets, use of ground power, and optimized operational practices;
  - **47% reduction of average locomotive engine** run time from 2010 to 2017 achieved by the implementation of (AESS), reduction of trains at CMF from 40 trainsets to 25 trainsets, and optimized operations practices;
  - Reduced **HEP and Locomotive** engine runtime at CMF by **58%** since 2010 by the implementation of AESS, reduction of trains, use of ground power, and optimized operational practices.
- In August 2016, Metrolink established a 24-hour hotline for the community to contact staff in order to report anomalies taking place at the CMF. A graph of the number of calls taken since 2017 can be found below.



- Limited the hours for load testing, the loudest maintenance activity, and sand deliveries to reduce early morning or late-night disturbance to the community.
  - Assuming no emergencies load testing occurs during the weekdays from 9:00 a.m.- 6:00 p.m. and on the weekends starting at 10:00 a.m. These updates were made in April 2016.
  - Sand delivery process changes made in December 2018

Despite the modifications and commitments made in the past, members of the CMF community expressed concerns to Metrolink’s Chief Executive Officer, Stephanie Wiggins, at a community meeting on April 11, 2019. She committed to review the concerns raised at the meeting with her team and to come back to the community with an action plan. On May 9, 2019 Ms. Wiggins introduced the CMF Community Action Plan to the community and

committed to provide monthly written updates and quarterly in-person meetings to discuss progress.

**Section 2. Action Plan Outline**

Metrolink’s approach to the action plan is to focus on three key areas:

- Audit Current Operations: We will audit operations to ensure we are adhering to commitments made to the community by Metrolink in the past. Staff will re-evaluate our current operations to determine what other modifications we can make to be a better neighbor.
- An Independent Noise Study: We will engage a third party to conduct an independent noise study in coordination with the community.
- CMF Modernization: We will develop a CMF Facility Modernization Plan to identify major improvements that can modernize the facility operations to enhance the quality of life experience of the communities living near the CMF.

The action plan is divided into three timeframes: short-term (0-6 months), mid-term (6-18 months) and long-term (18+months) (Table 1).

<b>Short-term (0-6 months)</b>	<b>Mid-term (6-18 months)</b>	<b>Long-term (18+ months)</b>
<ol style="list-style-type: none"> <li>1. Optimize Use of Ground Power Stations</li> <li>2. Installation of Sound Monitors</li> <li>3. Internal Audit</li> <li>4. Independent New Noise Study</li> <li>5. Expedite 8 Tier 4 Locomotives into Service</li> <li>6. Change the Accountability Metrics of the Equipment Maintenance Contractor</li> </ol>	<ol style="list-style-type: none"> <li>7. Fleet Modernization Study</li> <li>8. CMF Modernization Study</li> <li>9. Complete Deployment of 40 Tier 4 Locomotives</li> </ol>	<ol style="list-style-type: none"> <li>10. Work Towards a Zero-Emissions Future</li> <li>11. New Contracting Approach System-Wide Goes in Effect with New Accountability Metrics</li> </ol>

**Table 1.** Shows the action items divided across the different timeframes.

UPDATE



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**Section 3. Community Action Plan**
**SHORT-TERM (0-6 months)**

Action Plan	Description	Completion Time Frame	Status Update
<b>1.</b> Optimize Use of Ground Power	Metrolink will establish ways to optimize the use of existing ground power stations at the CMF to reduce idling. Ground power stations provide power to the locomotives to run lights, and sometimes the air conditioner as the locomotives are being serviced. There are currently 19 ground power stations at the CMF. These ground power stations help reduce noise emissions as locomotives are being serviced.		Evaluation and analysis were completed on July 25, 2019 ahead of schedule. 15 ground power stations can be used at one time, with a total of 19 stations at the CMF. New procedures with the contractor were implemented on September 16, 2019. Additional improvements to operating procedures were made in response to the Internal Audit completed on November 9, 2019. Also, additional plug in cables were ordered to ensure staff have a 10% spare ratio to ensure a cable can be quickly replaced in the event it is damaged or becomes non-functional for any reason.  (100% complete) (See Appendix A and Appendix C for more details.)
<b>2.</b> Installation of Sound Monitors	Metrolink will install sound monitors throughout the yard to better track the origin of sound emissions to improve operations. By internally keeping track of sound we will have a better understanding of where sound is emitted from on our yard. This information will help us identify ways to improve operations to reduce sound emissions.		On June 12, staff installed 2 monitors and rotated them throughout the yard at 8 strategic locations. Temporary sound monitor installation completed on July 1, on schedule.  (100% complete) (See Appendix B. for more details.)
<b>3.</b> Performance Audit Report	Metrolink's Internal Audit department, which reports directly to the Metrolink Board of Directors, will audit the agency's CMF operations to ensure we are adhering to the previous commitments we have made to the community. The results will be presented to the Metrolink Board and shared with the community.		The Internal Audit department completed the audit, which went to the Audit and Finance committee, and then to the Board in January 2020. These findings were also presented to the community at the community meeting on February 22, 2020. The Internal Audit Report can be <a href="#">HERE</a> or <a href="http://metrolinktrains.com/cm">metrolinktrains.com/cm</a> in the "community resources" section. Additionally, specific community comments and responses to those comments have now been posted to the website. (100% complete)

Action Plan	Description	Completion Time Frame	(See Appendix C for more information.) Status Update
<b>4.</b> LA Metro New Noise Study	An independent new noise study will be conducted and paid for by The Los Angeles County Metropolitan Transportation Authority (LA Metro).		Metro conducted a virtual meeting on March 27, 2021 to engage in a deeper conversation and understanding in regard to the key findings from the study. The Final Report is now available for review and download <a href="#">here</a> . Complete study information, including all meeting materials, presentations, and related reports can be found at <a href="http://www.MetroCMFStudy.com">www.MetroCMFStudy.com</a> .
<b>5.</b> Expedite 8 Tier 4 Locomotives into Service	Metrolink has ordered 40 Tier 4 locomotives. As of initiation of this action plan on May 30, 2019, 23 locomotives had been delivered, with 15 of those units being deployed. Metrolink will expedite the deployment of the remaining eight Tier 4 units that have been delivered.		Metrolink expedited eight Tier 4 locomotives into service on August 22, 2019 ahead of the target date. Metrolink will have a total of 38 locomotives on property in September. 35 Tier 4 locomotives are currently in revenue service. The remaining locomotives will be delivered in fall 2020. Deliveries had been delayed due to manufacturer challenges as a result of the COVID-19 pandemic. (See Appendix D for more details.)
<b>6.</b> Add Accountability Metrics for the Equipment Maintenance Contractor	Metrolink is in the process of changing our approach on how we hire equipment maintenance contractors. Metrolink is enhancing our maintenance contract and adding accountability metrics as part of the new bundled contract. This new structure will bundle rail operations, maintenance, and support services to improve the customer experience and service reliability, while maintaining the agency's strong commitment to safety.		Advertised in RFP with more specific requirements and higher assessments for contractors who do not comply with requirements at CMF. Completed on June 17, ahead of schedule.  (100% complete) (See Appendix E. for more details)

**MID-TERM (6-18 months)**

<b>Action Plan</b>	<b>Description</b>	<b>Completion Time Frame</b>	<b>Status Update</b>
7. Fleet Modernization Study	Metrolink will conduct a Fleet Modernization Study to identify other emission control methods and review vehicle technologies such as battery-operated locomotives and zero-emission multiple units.		Staff presented the findings of the study to the Metrolink Board of Directors in April. The Board approved the pursuit of grant funding for the replacement of the Tier 2 fleet with new Tier 4 locomotives as well as a demonstration of zero-emissions locomotive technology.
8. CMF Modernization Study	Metrolink will conduct a CMF Modernization and EMF Phase 3 build out Study which will include the review of the 30+ year old facility, identify state-of-the-art facility operations, and integrate community input into service expansion design.		<p>An overview and the final report of recommended projects for CMF and EMF were presented to the Board of Directors on March 26, 2021. The item was received and filed by the Board. The next steps include continued community engagement, and briefings with elected officials to advocate for the funding of these important projects.</p> <p>Metrolink completed the temporary sound barrier construction on June 27, 2021. Please refer to the June CMF monthly newsletter for a summary and pictures of the barriers. Additional updates on the progress of this effort were provided at the community meeting on June 26, 2021. You can review the PowerPoint <a href="#">HERE</a>. You can also access a recording of the meeting in our virtual meeting room until July 26, 2021: <a href="http://www.virtualeventroom.com/metrolink-cmf/">www.virtualeventroom.com/metrolink-cmf/</a></p>
9. Complete Deployment of 40 Tier 4 Locomotives	Deploy all 40 Tier 4 locomotives.		All 40 Tier 4 locomotives are in service as of July 31, 2021.

**LONG-TERM (18+ months)**

Action Plan	Description	Completion Time Frame	Status update
<b>10.</b> Work towards a Zero-Emissions Future	Metrolink will pilot a program to explore battery operated locomotives or other technology to reduce emissions, which will initially be used in combination with diesel electric.		<p><b>August Update:</b></p> <p>The renewable diesel demonstration on a Tier 2 locomotive was completed in May. The California Air Resources Board (CARB) is partnering with Metrolink to measure and calculate the emissions improvement of using this non-fossil fuel-based diesel. Phase 2 of the pilot test began in mid-July. If that demonstration is successful, Metrolink may expand renewable diesel across the entire fleet.</p> <p>Staff is continuing this effort and will provide an update in October.</p> <p>(45% complete)</p>
<b>11.</b> New Contracting Approach System-Wide Goes in Effect with New Accountability Metrics	The implementation of the bundled contracting approach will include more specific and higher assessments for contractors who do not comply with commitments made to CMF neighbors.		<p>As reported at the September CMF meeting, the Metrolink Board of Directors cancelled the bundled contract procurement due to budgetary concerns. Metrolink is enforcing the Good Neighbor Standards and Practices with the existing Maintenance Contractor. (See Exhibit D).</p> <p>Staff is reviewing all related contracts to determine how additional accountability measures can be applied. Staff will determine how to integrate additional accountability measures into future contracts that will remain unbundled, in addition to determining how additional accountability measures can be integrated into current contracts by amendment.</p> <p>Staff will continue to incorporate the community guidelines into its compliance provisions of the maintenance contractor agreement to guide its work going forward.</p>

#### **Section 4. Accountability & Transparency**

Accountability is important as we complete our action plan. One aspect of accountability is providing more transparency. We will report on our progress and increase engagement with the community by:

1. Continuing the CMF monthly e-newsletter;
2. Updating the CMF Community Action Plan on a monthly basis and posting on the Metrolink website at: [metrolinktrains.com/cmfi](http://metrolinktrains.com/cmfi);
3. Holding quarterly community meetings.

#### **Contact information**

If you have any questions, please contact Sylvia Novoa, Metrolink Public Affairs Manager, at (213) 452-0300 or [Novoas@scrra.net](mailto:Novoas@scrra.net). We also have a 24/7 hotline (213) 452-0400. Or you can visit our website: [metrolinktrains.com/community](http://metrolinktrains.com/community).

If you would like to attend a Board of Directors meeting, information can be found at

# APPENDICES



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## Appendix A

### 1. Optimize Use of Ground Power

**Description:** Metrolink will establish ways to optimize the use of existing ground power stations at the CMF to reduce idling. Ground power stations provide power to the locomotives to run lights, and sometimes the air conditioner as the locomotives are being serviced. There are currently 19 ground power stations at the CMF. These ground power stations help reduce noise emissions as locomotives are being serviced. Completion time frame of August 1, 2019.

**Date Completed:** July 30, 2019

**Benefits:** Cleaner air and less noise

**Action:**

- Tracked power stations to evaluate usage of ground power and compiled analysis to determine how we can increase usage. (See Exhibit B for ground power location sat the CMF.)

**Findings:**

- Inconsistent use of ground power by contractors
- Some ground power stations were malfunctioning and needed repair
- Shortage of ground power stations
  - Shortage of ground power stations limit the number of ground power stations that can be used. Different locomotives require different adapter cables and different cable lengths. Bombardier performed a survey and inventory check of all cables at every ground power station at CMF and has identified cable types and quantities needed in order to utilize all ground power stations. Bombardier then provided request for additional cables to Material control to place order.

**Response by Metrolink:**

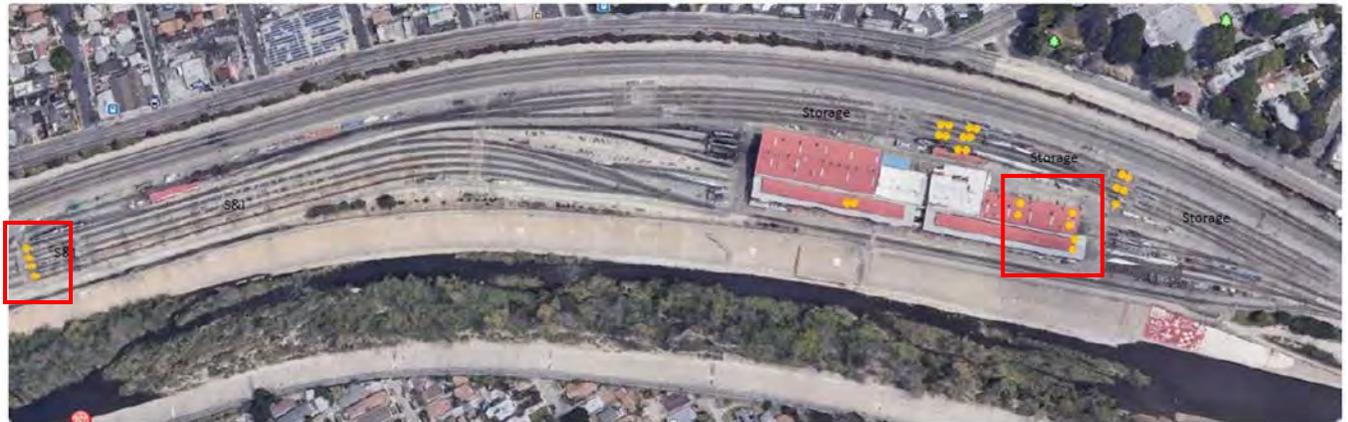
- Sent official notice to Bombardier regarding required use of ground power.
  - First project letter was sent from SCRRA on 8/22/19 for Bombardier to implement a daily checklist which includes when unit was connected to ground power and when it was disconnected. We requested Bombardier to provide proposed daily checklist format. Over next two weeks, SCRRA and Bombardier worked on final format of tracking sheet as well as creating an SOP. On 9/16/19, SCRRA issued final SOP and tracking sheet that Bombardier would use and provide on a daily basis as part of their Morning submittal packet.
- Repair ground power stations as defects are reported.
  - The repair of ground power stations has been an ongoing task. On daily basis, Bombardier's Morning packet report has a section that lists facilities issues. Facilities team then coordinates to address these. On 8/26/19, Bombardiers report was that only ground power station functional at storage tracks is one on 1A and all were repaired by 9/4/19. As of now all are functional, no reports on Bombardier Morning packet.

- Placed order for additional cable connections.
  - Bombardier provided final request for shortage of cables to Material control on 9/11/19. Order for shortage of cables was issued to vendor on 9/13/19. Lead time for various items vary from 11/30/19 to 12/6/19.
- Established new procedures to track and document plugged-in equipment and power station defects.
  - New procedures to track ground power station usage in effect as of 9/16/19 when SCRRRA issued final SOP and tracking sheet that Bombardier would use and provide on a daily basis as part of their Morning submittal packet.
- Established policy for locations where ground power is not accessible, available or practical to shut down equipment if departure time is more than one hour away
- Work with contractor to enhance ground power optimization (beginning mid-October)

**Results:**

- Increasing usage of ground power during servicing by four more train sets per day will reduce up to 150 hours of idling per month
  - The results will be seen when cables have arrived, and all ground power stations can be used under ideal conditions (i.e. equipment can be plugged in and other service/troubleshooting is not needed requiring equipment to be running)

## Exhibit A



-  Single ground power station
-  Double ground power station

## Appendix B

### 2. Installation of Sound Monitors

**Description:** Metrolink will install sound monitors throughout the yard to better track the origin of sound emissions to improve operations. (The location map can be found in Exhibit A.) By internally keeping track of sound we will have a better understanding of where sound is emitted from on our yard. This information will help us identify ways to improve operations to reduce sound emissions. Completion time frame of July 1, 2019.

**Date Completed:** July 1, 2019

**Benefits:** Less noise

**Action:**

- Performed temporary sound monitoring for three weeks at ten locations

**Findings:**

- Noise levels were highest during the mandatory horn and load testing activities which occur throughout the day

**Response by Metrolink:**

- Requested quotes for permanent sound monitoring equipment installation to provide internal information and accountability for compliance with noise restriction policies.
  - Quotes for permanent sound monitors were requested on 8/8/19 and received on 9/12/19.

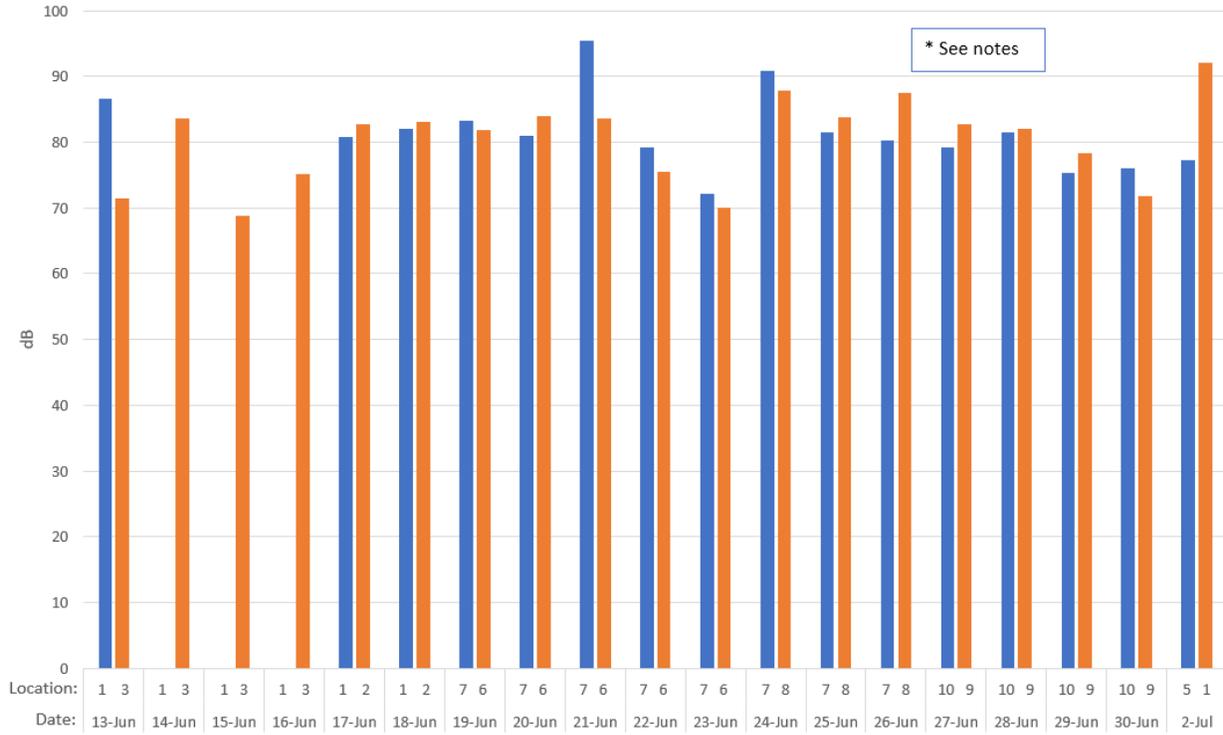
**Results:**

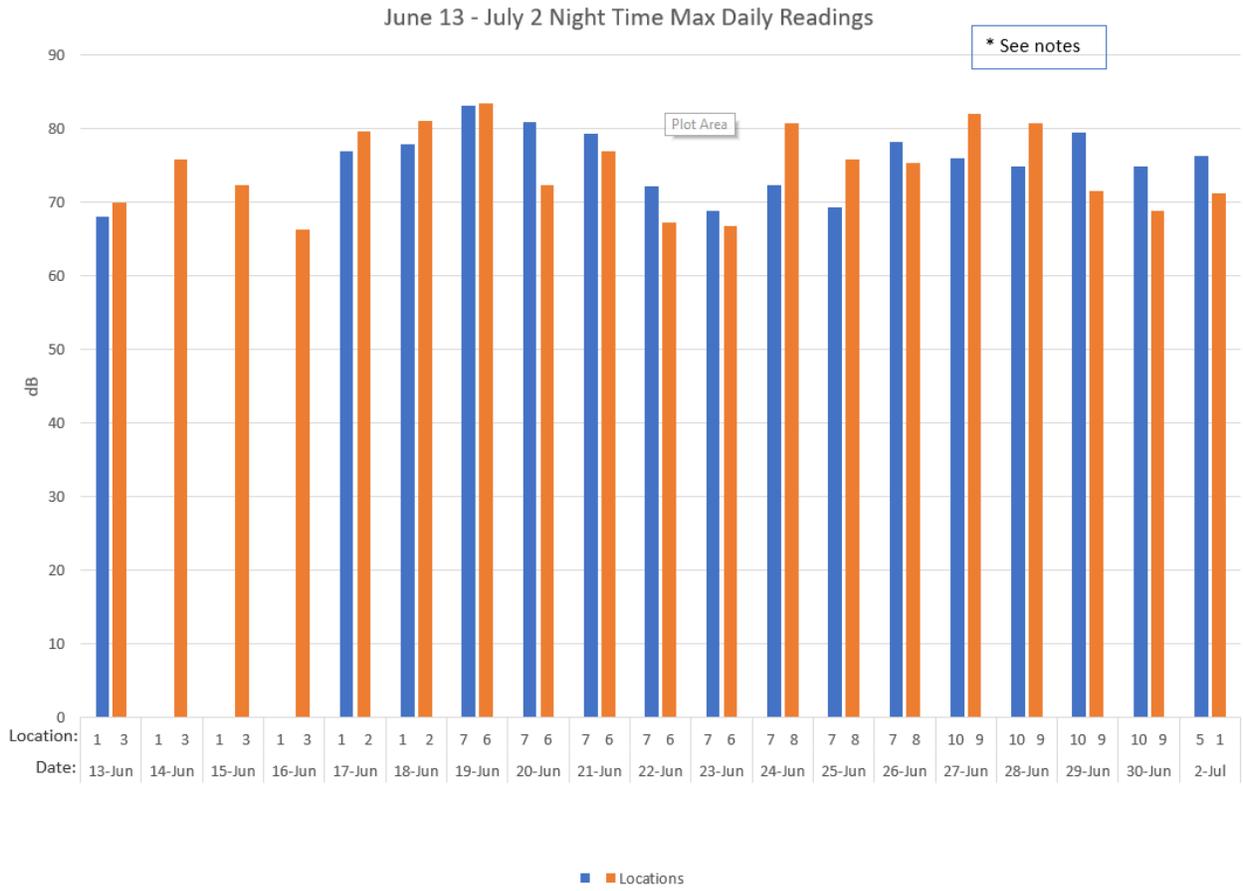
- Metrolink has better data on noise levels in the yard to support future mitigation efforts
- Metrolink plans to install permanent sound monitors to provide improved data and accountability for compliance with noise restriction policies
  - Funding was identified and pre-award authority on the project was approved on 10/15/19. Scope of work is written and will be send to contracts for procurement on 10/21/19

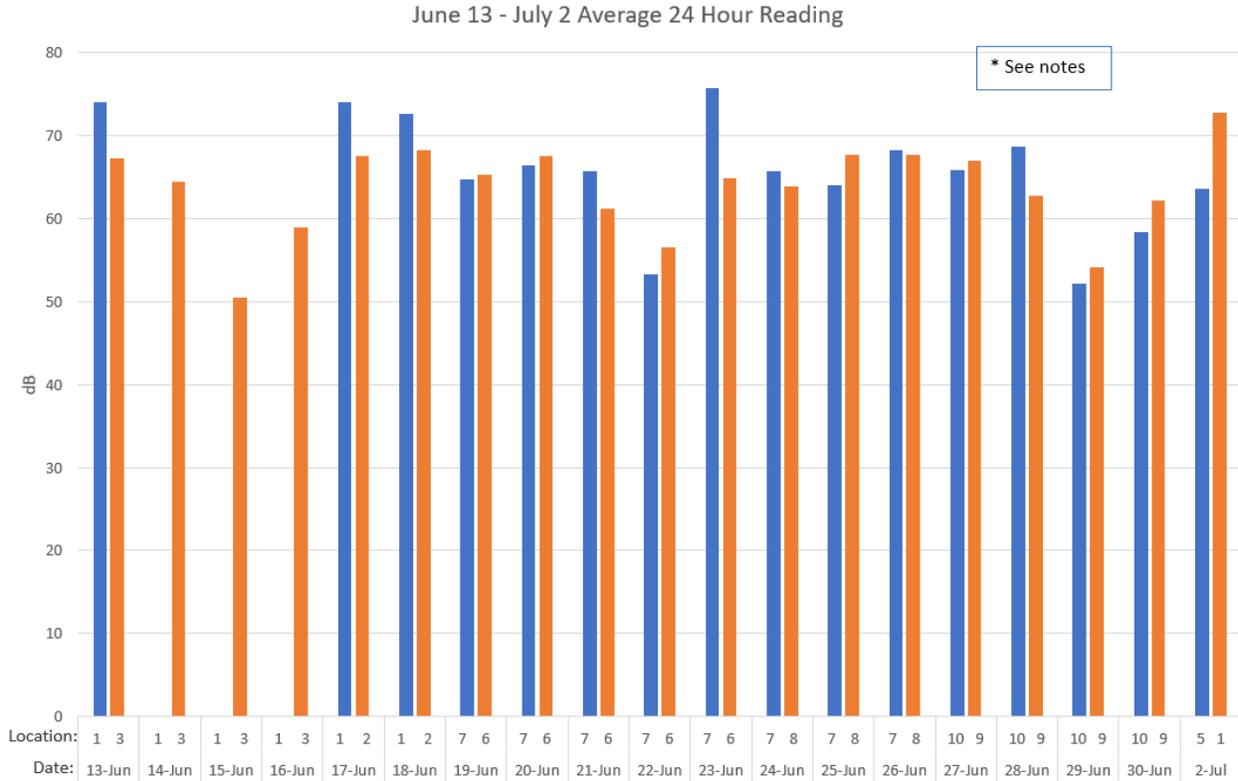
### Exhibit B

### Sound Monitor Results

June 13 - July 2 Day Time Max Daily Reading

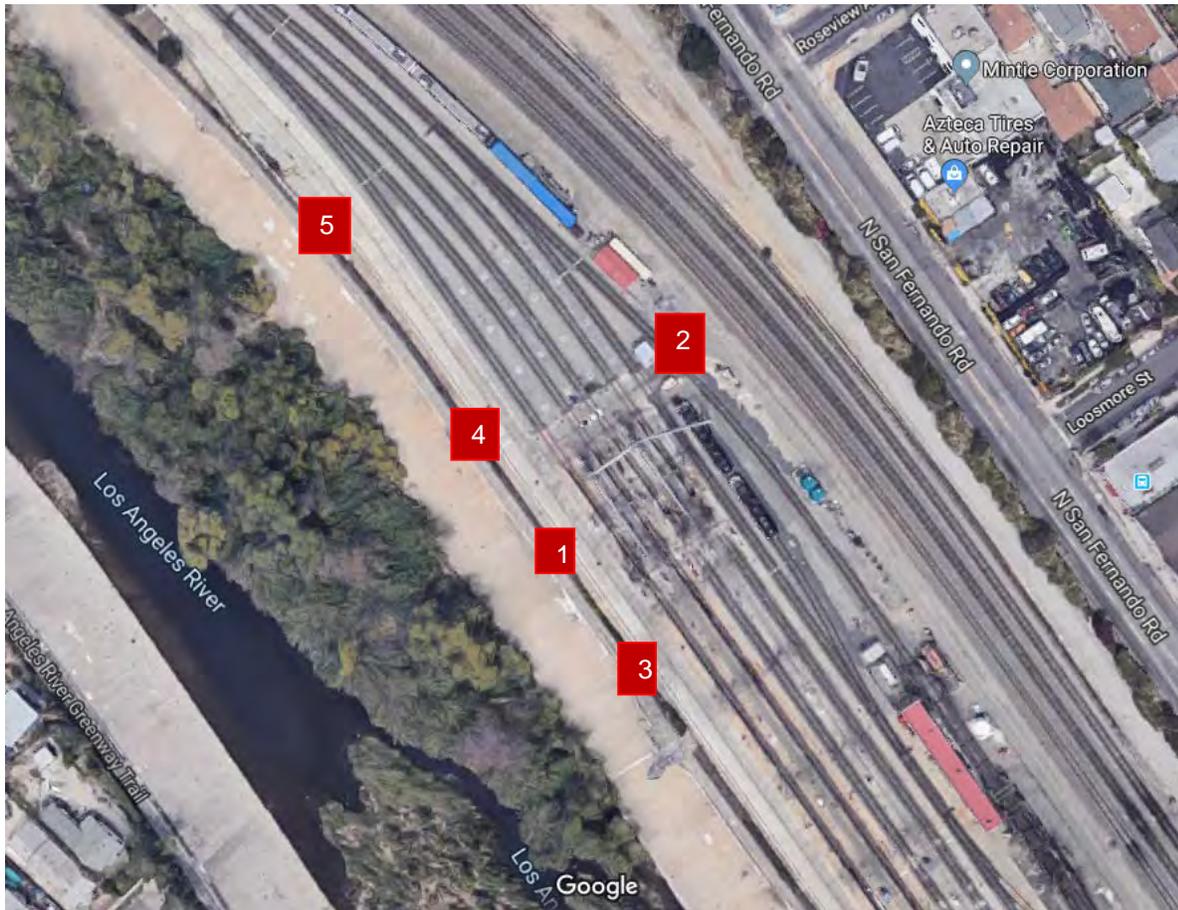






\* Sound study decibel readings represent sound level inside yard limits and **not** the sound emanating outside of the CMF property or heard by neighbors. Sound was recorded on intervals of one-minute average and **not** comparable to the 15-minute average outlined by city ordinance.

### Sound Monitor Locations Maps





## Appendix C

### 3. Internal Audit

**Description:** Metrolink’s Internal Audit department, which reports directly to the Metrolink Board of Directors, will audit the agency’s CMF operations to ensure we are adhering to the previous commitments we have made to the community. The results were presented to the Metrolink Board and then shared with the community at the CMF community meeting on February 22, 2020. The Internal Audit Report can be [HERE](#) or [metrolinktrains.com/cmfc](http://metrolinktrains.com/cmfc) in the “community resources” section.

**Date Completed:** November 8, 2019

**Benefits:** Accountability of operating procedures and commitments already in place

**Process:**

- Metrolink’s Internal Audit Department had a kickoff meeting with departments involved
- Internal Audit toured the CMF Facility
- Internal Audit gathered procedures and materials from involved departments
- Survey distributed to 2,900 residents to include community concerns in audit scope (Exhibit C)

**Findings:**

- Internal Audit issued six findings:

Finding	Requirement
1. Contractor monitoring needs improvement	<ul style="list-style-type: none"> <li>• No process was in place to monitor locomotives idling. An instance was noted where a locomotive was idling but there was nobody servicing the train</li> <li>• No effective process in place to monitor compliance with load testing requirements</li> <li>• Head End Power was running on 3 of the 5 test trips taken from Union Station to CMF</li> </ul>
2. Ground Power Stations missing equipment	<ul style="list-style-type: none"> <li>• It was noted there were 26 out of 50 jumper cables needed to optimize the use of Ground Power Stations.</li> </ul>
3. Sand Silo Filter Housing: Timeliness and documentation of inspections needs improvement	<ul style="list-style-type: none"> <li>• Inspection Documentation               <ul style="list-style-type: none"> <li>○ Pressure gauge readings, filter housing &amp; dust seal joint condition not consistently documented</li> </ul> </li> <li>• Inspection Timeliness               <ul style="list-style-type: none"> <li>○ During the period between January 1, 2019 – October 31, 2019 two (2) instances of noncompliance noted</li> </ul> </li> </ul>
4. Sand Silo Hatch - Lack of guidance and training to use the access hatch	<ul style="list-style-type: none"> <li>• Terminated sand delivery on September 28, 2019 due to damaged access hatch seal</li> <li>• No guidelines to use the access hatch.</li> </ul>
5. Environment stewardship requirements are not consistently followed	<ul style="list-style-type: none"> <li>• Instances where trash containers were not covered</li> <li>• Excess trash noted in service area</li> </ul>

	<ul style="list-style-type: none"> <li>○ Plastic bottles, bottle caps, food containers, paper napkins, crushed cans, etc.</li> <li>• A loose drainage connection between a passenger car being serviced to the sewage receptacle             <ul style="list-style-type: none"> <li>○ No contamination was noted however due to overflow catch being in place</li> </ul> </li> </ul>
6. Various standard operating procedures are inconsistent with current practice or other internal documents	<ul style="list-style-type: none"> <li>• Load testing times - Good Neighbor Standards and Practices vs. posted signs at CMF</li> <li>• Sand delivery time frames (Saturdays between 10 AM – 12 PM) – SOP vs. practice</li> <li>• Load testing areas – diagram on the Metrolink website vs. practice</li> </ul>

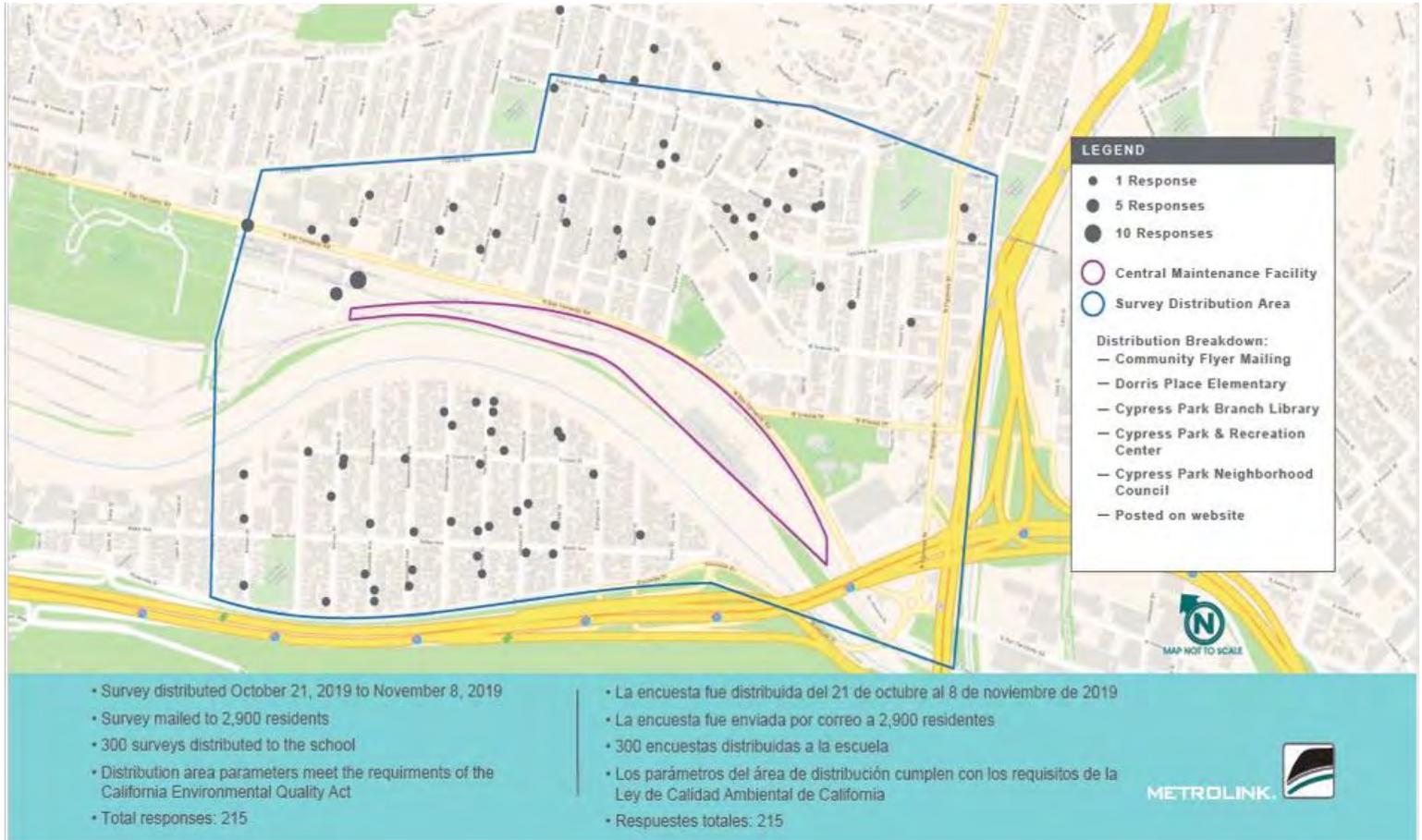
**Response by Metrolink:**

Responses	Status
<b>Audit Finding 1:</b> Metrolink to provide contractors the current Good Neighbor Standards and Practices and Fuel Conservation Program <ul style="list-style-type: none"> <li>○ Contractor received Good Neighbor Standards/Practices and Fuel Conservation Program</li> <li>○ Operations Manager will establish compliance checks with train crews at LAUS</li> </ul>	Completed 1/15/20
<b>Audit Finding 1:</b> Equipment Contractor to document Head End Power (HEP) status where HEP should be turned off when arriving to CMF. Equipment Contractor to log emergency load testing performed outside of load testing area <ul style="list-style-type: none"> <li>○ Tracking began</li> <li>○ Permanent Sound Monitors to be installed at the CMF.</li> </ul>	Completed 1/20/20
<b>Audit Finding 1:</b> Compliance checks to be established on Equipment Contractor for load testing on special trains as well as random compliance checks on idling equipment.	Completed 1/21/20
<b>Audit Finding 2:</b> Missing equipment received	Completed 12/9/19
<b>Audit Finding 2:</b> Good Neighbor Standard Practices to be drafted to clarify necessary equipment connections and usage of ground power stations. <ul style="list-style-type: none"> <li>○ SOP was drafted and submitted to Contractor and effective</li> </ul>	Completed 1/21/20
<b>Audit Finding 2:</b> Ensure there is a 10% reserve inventory on Ground Power Station cables <ul style="list-style-type: none"> <li>○ Receipt of inventory pending</li> </ul>	Completed 9/22/20
<b>Audit Finding 3:</b> Inspections completed weekly. Email notification provided to Management following each inspection.	Completed 10/1/19

<b>Audit Finding 3:</b> Employees to be trained on required procedure	Completed 10/1/19
<b>Audit Finding 4:</b> Ensure Metrolink personnel are trained under new guidelines of SOP for sand delivery to address the use of the access hatch.	Completed 9/30/19
<b>Audit Finding 5:</b> Large new trash containers with damaged covers were replaced	Completed 1/16/20
<b>Audit Finding 5:</b> Housekeeping practices for each section of the facility are developed by contractor to address housekeeping. Checklists/ spot checks implemented.	Completed 11/7/19
<b>Audit Finding 5:</b> Equipment contractor required to red tag and remove any and all broken hoses	Completed 1/21/20
<b>Audit Finding 6:</b> Updated Sand Delivery times in the SOP. In the future, communication to the CMF community will reflected updated delivery times.	Completed 12/9/19
<b>Audit Finding 6:</b> Fuel Conservation Program updated to reflect the current Metrolink fleet and conservation policies.	Completed 1/31/20
<b>Audit Finding 6:</b> Updated locations and verbiage provided regarding load testing areas on the CMF map. Updated map has been posted to the website.	Completed 2/20/20

Si necesita traducción en español por favor comuníquese con Sylvia Novoa al 213 452-0300 or [novoas@scrra.net](mailto:novoas@scrra.net).

### Exhibit C CMF Survey Distribution and Responses Map



## Appendix D

### 5. Expedite 8 Tier 4 Locomotives into Service

**Description:** Metrolink has ordered 40 Tier 4 locomotives. As of initiation of this action plan on May 30, 2019, 23 locomotives had been delivered, with 15 of those units being deployed. Metrolink will expedite the deployment of the remaining eight Tier 4 units that have been delivered. Completion time frame of November 9, 2019.

**Date Completed:** August 22, 2019

**Benefits:** Cleaner air

**Action:**

- Metrolink has deployed Tier 4 locomotives each month since the Action Plan began in May 2019
- Eight new Tier 4 locomotives have been deployed, for a total of 23 locomotives in-service
- This goal was completed August 20, 2019 -- ahead of schedule

**Results:**

- Eight Tier 4 locomotives only emit 19.6 tons of NO<sub>x</sub> and particulate matter, while the eight decommissioned Tier O emitted 129.6 NO<sub>x</sub> and particulate matter per year
- 84.88% reduction in emissions per unit

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## Appendix E

### 6. Add Accountability Metrics for the Equipment

**Description:** Metrolink is in the process of changing our approach on how we hire equipment maintenance contractors. Metrolink is enhancing our maintenance contract and adding accountability metrics as part of the new bundled contract. This new structure will bundle rail operations, maintenance, and support services to improve the customer experience and service reliability, while maintaining the agency's strong commitment to safety. Completion time frame of July 1, 2019.

**Date Completed:** July 1, 2019

**Benefits:** Cleaner air and less noise

**Action:**

- Metrolink staff included new accountability metrics pertaining to load testing, idling and movement of equipment in the yard as well as environmental stewardship and sand delivery as part of the new maintenance contracts which are being advertised

**Findings:**

- Insufficient contract requirements in existing contracts pertaining to neighborhood impacts

**Response by Metrolink:**

- Added requirements, as well as incentives and assessments, to address neighborhood impacts in the new maintenance contract which is in the procurement process (see Exhibit D)

**Results:**

- Added contract requirements, including "Good Neighbor" Standards and Practices (see Exhibit D)
- Added incentives for Innovation and Sustainability.
- Added assessments (monetary penalties of \$5,000 per instance) for failure to comply with the "Good Neighbor" Standards and Practices

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## Exhibit D

### METROLINK MAINTENANCE FACILITY OPERATIONS STANDARDS

#### “GOOD NEIGHBOR” STANDARDS & PRACTICES

This standard applies to any maintenance facilities located near residential neighborhoods. The Contractor shall schedule and perform all train and facility maintenance and repair activities to minimize the impact of noise and emissions on the surrounding community.

Work restrictions include, but are not limited to, the following:

- Locomotives should not be left to idle in the yard except when necessary for service or repair. Trains should be hooked up to ground power whenever possible (this applies to all SCRRA train service locations).
- Load testing should only be done in designated areas between the hours of 7:00 AM & 6:00 PM weekdays, and 10:00 AM & 1:00 PM on weekends.
- Contractor shall make every effort to schedule special train service and facility or track repairs to minimize community impact.
- Contractor shall not communicate directly with members of the adjacent communities. Contractor should coordinate communication through SCRRA Community Relations personnel.
- Contractor shall schedule sand deliveries on Saturdays after 10:00 AM.
- When performing night work, the Contractor shall disable back-up alarms on all utility trucks and equipment (Cal OSHA allows this when alarm is substituted with a spotter).

#### ENVIRONMENTAL STEWARDSHIP

- All waste generated must be separated as trash or recyclable (all SCRRA facilities).
- All trash and recyclable containers must be covered and not allowed to over flow (all SCRRA facilities).
- When receiving fuel or handling petroleum or other chemical products, all nearby storm drains must be covered.

#### SPECIFIC TO CENTRAL MAINTENANCE FACILITY

- Adhere to original MOU between Metrolink and the City of LA which requires that locomotives “will not idle at the site unless for the purpose of being serviced, and will not be moved at the site after 10 p.m. except for returning train sets destined for overnight storage at the facility or to initiate early morning service, thus noise at the CMF site will be reduced from former freight yard operating levels.”

## Exhibit E

