Metro E3 Initiatives
Expose, Educate, & Employ the Next Generation

Technical Advisory Committee
January 9, 2019
AGENDA

I. Workforce Considerations in Transportation
II. E3 Initiative Mission
III. SEED LA Transportation School Model
IV. Other E3 Initiative Efforts
V. Questions
What is the Global Transportation Infrastructure Industry

The industry includes all businesses and agencies that move people or goods by:

### AIR
- Airports, but not Airline Industry

### LAND
- Rail and Road

### SEA
- Seaports

**What it takes to move things**
- Operations (Pilots, Drivers, Scheduling)
- Electrical
- Public Safety
- Logistics
- Information Technology

**What it takes to develop infrastructure**
- Urban Planning
- Engineering
- Manufacturing
- Construction
- Information technology

**What it takes to maintain infrastructure**
- Maintenance
- Mechanics
- Painters

**What it takes to run transportation agencies & companies**
- Management
- Human Relations
- Accounting
- Communications
- Project Management

The industry is positioned to be an incubator for technology and innovation!
Job opportunities in the transportation infrastructure industry are increasing

MEASURE M WILL GENERATE MORE THAN

778,000
New jobs in the next 40 years

But the pool of qualified applicants IS NOT

50%

Over 50% of the transportation industry workforce will be eligible for retirement in the next 10 years – a pace double that of the nation’s entire workforce

https://www.metro.net/projects/main_page/boomtown/
METRO’S WORKFORCE NEEDS

- Metro employees who will be eligible for retirement in the next 5 years: 46%
- Metro employees who are currently over 40 years old: 69%
- Number of new employees Metro hires annually: 2,200

We must expand Metro’s highly skilled and diverse workforce to meet growing workforce demands, skills-gaps, and looming retirements.

Link: WIN-LA Program Framework, Metro Data
MISSION: Prepare Los Angeles County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable (STEAM) industry skills.

- **Expose** LA County youth to careers in the global transportation industry
- **Educate** and train LA County youth in transferrable transportation industry-skills
- **Expand** Metro’s highly skilled and diverse workforce to meet growing demands and retirements
- **Reinforce** Metro’s role as an innovative Public Agency
- **Support** Youth’s transition into college and careers in the global transportation industry

_NGLC MyWays, 2017, Visual Summary of the MyWays Student Success Series._
• **April 2017:** Develop framework for a pilot educational and job training program targeting historically under-served youth in Los Angeles

• **June 2017:** Metro Board received and filed the proposed framework with the objective of facilitating career pathways for local youth in Los Angeles County’s transportation infrastructure sector

• **December 2017:** Los Angeles County Board of Supervisors approved the acquisition of 4.2 acres of land on the 8400 and 8500 blocks of Vermont Ave in South Los Angeles. Los Angeles County received possession of the property on May 7, 2018

• **May 2018:** Metro entered into an MOU with the County for the development of the transportation school

• **June 2018:** LA County entered an Exclusive Negotiating Agreement with the SEED Foundation to serve as the boarding school operator

• **September 2018:** Metro Board approved $1M for the predevelopment activities associated with the school site
METRO CANNOT DO THIS ALONE
KEY STAKEHOLDERS FOR THIS PROJECT

SUCCESSFUL PROGRAMS

K-12 Schools
Labor/Industry
Colleges
Wrap-Around
METRO TRANSPORTATION SCHOOL & SUPPLEMENTAL E3 PROGRAMS

- Field Trips and Tours
- Mobile Bus Workshop
- Metro TCAP Internship
- Metro Mentors
- Metro Real World Learning Projects
BOARDING SCHOOL SITE
Commitment to serve *Young Opportunity Youth ages 12-18* who are currently receiving services from, or at risk of entering, the County’s child welfare system, probation department/juvenile justice system, or homeless services.

- **18,000**: Foster youth in LA County in 2016
- **10,000**: Over 10,000 youth are currently on probation or incarcerated in LA County (600 in halls, 400 in camps. Largest juvenile justice system in the nation)
- **77,146**: Homeless students identified across LA County (6,000 unsheltered, 4,300 motels, 6,000 in shelters, 61,000 doubled up)
- **31%**: 31% of the resident youth labor force is underutilized
Provide students with the skills needed in the workplace that cannot be taught within the core academic curriculum.

- Career Exposure
- Hands-On Real World Learning
- Mentorship
- Internships
- Employment

SEED + EXED
K-12 Schools

Provide an outstanding, intensive educational program that prepares students both academically and socially for success in college, career, and life.

- Education
- Boarding
- Funding

Provide wrap-around supports to address barriers to education.

- Mental Health
- Probation
- Homelessness
- Foster Care
- Facilitate Partnerships

COLLABORATIVE PARTNERSHIP
The SEED Foundation

• Access to quality education and college completion as a solution to urban poverty

• Innovative model

• Industry aligned, college-prep and career readiness for the global transportation infrastructure industry
• SEED’s model produces nearly **twice as many high school graduates** as its peer schools and **three times as many college graduates** as its national peer population.

• 94% of SEED graduates enroll in college and they **graduate at 3.5 times the rate** of low-income, first generation students who enroll.

• Nearly 90% student and faculty retention rate at SEED School of Washington, D.C.
In order to maximize its impact on LA County youth, Metro plans to offer a range of programs that support learning about the global transportation infrastructure industry.

**Year one implementation:**
- Youth Career Experience
- Career Exposure Video
- Educator Exchange and Tour
- Teacher Externship Pilot
Metro Youth Career Experience

Pilot program with Compton High School

**Impact:** 125 Compton High School 9th graders with GPA of 2.0-2.5 that have not yet decided on a CTE career path/sector

**Roll-Out:** First module will be facilitated in January 2019—one module will be facilitated each month thereafter (Jan-May)

5 full day project based learning modules that will examine: Transportation Planning, Systems Engineering, Operations, Communications and Construction Engineering
  - Each module will accommodate 25 students

Project team will host 3 information sessions at Compton High School to inform students and get them excited about this opportunity (November & December)
Career Exposure Video

**Impact:** 171 Schools, 90,000 students and educators

**Roll-Out:** Early 2019

This video will become an introduction to Metro’s E3 initiative for all of our stakeholders. It will also be used in collaboration with our internal partners, Metro Community Education (MCE) to share during their school visits.

- Career Paths highlighted in this video will include both trades and professional roles

We anticipate these videos to reach schools that are located within ½ mile of all our rail lines, targeting middle school and high school students.
Target Impact: 100 teachers by June 30, 2019

Current Impact: 50 teachers 5,304 students
  • 22 LAUSD teachers; 2,782
  • 22 LACOE teachers; 2,187
  • 6 Probation teachers; 335
  • 35 schools involved

Teacher professional development opportunities to expose educators to careers at LA Metro. The goal is to educate 100 teachers (four groups of 25) to expose 10,000 students to careers in the transportation infrastructure industry.
Briefly share an example of how transportation-related content could be incorporated into your subject area based on the information you learned today:

- "I teach auto mechanics and there is so much information to cover. I especially appreciated learning about all the different opportunities at Metro from skill areas to management positions. Also the great help for employees to go back to school."

- "I really enjoyed the example where we were shown how 3D printed parts were utilized to create a tool to fix an item on a bus. We utilize 3D modeling software all the time and I am excited to be able to show our students a real life application."
Briefly share an example of how transportation-related content could be incorporated into your subject area based on the information you learned today:

- “As a chemistry teacher, the development or adaptation of curriculum to assess how debris can affect rail ways and performance.”

- "As an engineering teacher, basic concepts in robotics, process flow diagrams, and coding that would go into components of transportation.”

- "Technology at LA Metro is embedded in many areas. Technology plays a huge part in my curriculum. I want to incorporate what I’ve seen today in my classroom.”

- "Touring the shops and experiencing how the different processes are done. The fact that Metro uses the same software and Machines that we use at the high school.”
Teacher Externship Pilot

**Target:** 10 teachers, 2 from each district

**Program Dates:** June 17 – July 31, 2019

- Announce January 2019
- Applications due March 2019
- Selections April 2019

The Teacher Externship is a pilot program that allows teachers to connect theory and practice by aligning classroom content to workplace practices and policies within the transportation industry. This six-week paid externship will provide 10 selected teachers within LA County schools an opportunity to learn about the transportation infrastructure industry and develop a project-based learning experience for their middle or high school students.
Metro is poised to dramatically transform the transportation infrastructure of the region:

- Impact the cycle of poverty
- Address multiple infrastructure agency needs
- Give back to our local communities
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