



# Appendix A. Document Supporting Information



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# Appendix A1. References



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## Appendix A2. List of Preparers



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**Public Agency Staff**

Name	Title
<b>Federal Transit Administration</b>	
Marisol Simón	Regional Administrator
Mark Assam, AICP	Environmental Protection Specialist
Jay Ciavarella	Director, Office of Planning and Program Development
Susan Orona, AICP	Community Planner
<b>NICTD</b>	
Cassandra Francis	Chief Real Estate and Development Officer, Project Lead
Michael Noland	President/General Manager
John Parsons	Vice President – Planning and Marketing
Nicole Barker	Director of Capital Investment and Implementation
Chris Beck	Chief Infrastructure Development Officer

**Consultant Team**

Name/Title	Education	FEIS Contribution	Years of Experience
<b>HDR</b>			
Roben Armstrong	Bachelor of Science, Aviation Science; Master of Science, Transportation	NEPA Project Lead, Freight Rail, Purpose and Need, Alternatives Considered	16
Jeanne Barnes	Bachelor of Arts, History; Master of Arts, History	Cultural Resources	12
Katherine Biesmann	Bachelor of Science, Civil Engineering	Introductions, Public Transportation, Parking, Land Use and Zoning, Land Acquisitions and Displacements, Neighborhoods and Community Resources	25
Tim Casey	Bachelor of Science, Biological/Life Sciences	Noise, Vibration	31
Richard Christopher	Bachelor of Arts, English Language and Literature; Juris Doctor, Law	Bicycle and Pedestrian Facilities, Section 4(f)	47
Elliot Dick	Bachelor of Science, Noise & Vibration Control	Noise, Vibration	24
Steven Granson	Bachelor of Business Administration, Accounting; Master of Science, Transportation Planning and Management	Socioeconomics and Economic Development	15



Name/Title	Education	FEIS Contribution	Years of Experience
Amanda Gregory	Master of Science, Environmental Management, Conservation Biology; Bachelor of Science/Bachelor of Arts, Natural Resources (Wildlife Ecology)	Soils, Geologic Resources, and Farmlands	13
Julie Hoberg	Bachelor of Science, Civil Engineering	Public and Agency Coordination	17
Melissa Jean	Bachelor of Science, Environmental Studies	Deputy Project Manager, Purpose and Need, Alternatives Considered	8
Janet Kennison	Master of Science, Environmental Management; Bachelor of Arts, Environmental Studies	Reasonably Foreseeable Future Actions, Potential Secondary and Cumulative Effects, Effectiveness in Meeting the Purpose and Need, Environmentally Preferred Alternative	42
Catherine La Fata	Master of Arts, Urban Planning, Transportation Planning; Bachelor of Arts, Psychology	Environmental Justice	32
Hannah Lake	Master of Arts, Public Policy/Bachelor of Arts, Environmental Sciences/Studies	Executive Summary, Record of Decision, Agency and Public Comments	9
Ed Liebsch	Master of Science, Meteorology/Bachelor of Arts, Earth Sciences	Air Quality	39
Sara Merchan Paniagua	Master of Science, Environmental Sciences/Studies/Bachelor of Science, Environmental Sciences/Studies	Public and Agency Involvement	16
Ruth Mazur	Bachelor of Science, Acoustics	Noise, Vibration	8
Jennifer Mitchell	Bachelor of Civil Engineering	Traffic	25
Jeanette Price	Bachelor of Science, Environmental Sciences/Studies; Associate of Arts, General Studies	Visual Resources	18
Samantha Primer	Master of Science, Biology, Plant and Microbial	Water Resources, Biological Resources (Wildlife and Habitat, Threatened and Endangered Species)	1
Hong Spores	Master of Business Administration, Business Administration; Bachelor of Science, Geological and Related Sciences	Hazardous Materials	17
Amanda Vandegrift	Master of Science, Civil Engineering Bachelor of Science, Civil Engineering	Financial Considerations	6





Name/Title	Education	FEIS Contribution	Years of Experience
John Van Kirk	Master of Arts, Geography; Bachelor of Arts, Geological and Related Sciences	Safety and Security, Air Quality, Energy, Utilities	29
<i><b>Bernardin, Lochmueller &amp; Associates, Inc.</b></i>			
Rusty Yeager	Bachelor of Science, Biology	Biological Resources (Vegetation, Bats, Insects and Herpetology, Avian)	25
<i><b>Metric</b></i>			
Charlotte Bramble	Bachelor of Science, Environmental Science	Hazardous Materials (Phase II)	19
<i><b>Environmental Specialist Inc.</b></i>			
Dale Sparks	Masters of Science, Ecology	Threatened and Endangered Species	25



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## **Appendix A3. Recipients/Distribution List**



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### ***Local Libraries***

- Hammond Public Library
- Lake County Public Library – Munster Branch
- Lake County Public Library – Dyer-Schererville Branch

### ***Elected Officials***

- Burnham
  - Mayor Robert Polk
- Calumet City
  - Mayor Michelle Qualkinbush
- Chicago
  - Mayor Rahm Emanuel
- Crown Point
  - Mayor David Uran
  - Ms. Kristie Dressel, Clerk/Treasurer
  - Councilor Robert Clemons
  - Councilor Carol Drasga
  - Councilor Scott Evorik
  - Councilor Chad Jeffries
  - Councilor Andrew Kyres
  - Councilor Chris Retson
  - Councilor Laura Sauerman
- Dyer
  - Mr. Tom DeGiulio, Town Administrator
  - Ms. Pat Hawrot, Clerk/Treasurer
  - Councilor Debbie Astor
  - Councilor Joseph Cinko
  - Councilor Jeffrey Dekker
  - Councilor Cathy Lareau
  - Councilor Mary Tanis
- Gary
  - Mayor Karen Freeman-Wilson
  - Councilor Linda Barnes-Caldwell
  - Councilor Ronald Brewer
  - Councilor Mary Brown
  - Councilor Ragen Hatcher
  - Councilor Michael Protho
  - Councilor Carolyn Rogers
  - Councilor Herbert Smith
  - Councilor Lavetta Sparks-Wade
  - Councilor Rebecca Wyatt



- Hammond
  - Mayor Thomas McDermott
  - Councilor William Emerson
  - Councilor Anthony Higgs
  - Councilor Mark Kalwinski
  - Councilor Robert Markovich
  - Councilor Scott Rakos
  - Councilor Daniel Spitale
  - Councilor Pedro Torres
  - Councilor Janet Venecz
  - Councilor David Woerpel
- Highland
  - Mr. Michael Griffin, Clerk/Treasurer
  - Councilor Mark Herak
  - Councilor Konnie Kuiper
  - Councilor Steven Wagner
  - Councilor Bernie Zemen
  - Councilor Dan Vassar
- Hobart
  - Mayor Brian Snedecor
  - Councilor John Brezik
  - Councilor Jerry Herzog
  - Councilor Josh Huddlestun
  - Councilor Pasquale Maggio
  - Councilor David Vinzant
  - Councilor Daniel Waldrop
  - Councilor Monica Wiley
- Indiana House of Representatives
  - Honorable Hal Slager
  - Honorable Linda Lawson
  - Honorable Mara Candelaria Reardon
  - Honorable Michael Aylesworth
  - Honorable Michael Jerome Aylesworth
  - Honorable B. Patrick Bauer
  - Honorable Charlie Brown
  - Honorable Dale DeVon
  - Honorable Ryan M. Dvorak
  - Honorable Earl Harris
  - Honorable Charles Moseley
  - Honorable Julie Olthoff
  - Honorable Scott D. Pelath
  - Honorable James R. Pressel
  - Honorable Mara Candelaria Reardon
  - Honorable Vernon G. Smith
  - Honorable Edmond L. Soliday
  - Honorable Joe Taylor
  - Honorable Timothy Wesco



- Indiana Senate
  - Honorable Michael Bohacek
  - Honorable Edward E. Charbonneau
  - Honorable Frank Mrvan
  - Honorable Lonnie Randolph
  - Honorable Rick Niemeyer
  - Honorable Eddie Melton
  - Honorable Ryan D. Mishler
  - Honorable David L. Niezgodski
  - Honorable Karen Tallian
  - Honorable Joseph C. Zakas
- Lake County
  - Commissioner Kyle Allen
  - Commissioner Michael Repay
  - Commissioner Jerry Tippy
  - Planning Commissioner Ned Kovachevich
  - Councilor Ted Bilski
  - Councilor Elsie Brown Franklin
  - Councilor Christine Cid
  - Councilor Daniel Dernulc
  - Councilor David Hamm
  - Councilor Eldon Strong
  - Councilor Jamal Washington
- Lake Station
  - Mayor Christopher Anderson
  - Councilor Neil Anderson
  - Councilor Ericka Castillo
  - Councilor Rick Long
  - Councilor Carlos Luna
  - Councilor Jennifer Miller
  - Councilor Esr Rocha-Baldazo
  - Councilor Frederick Williams
  - Mr. Joe Castellanos, Clerk/Treasurer
- Lowell
  - Ms. Judith Walters, Clerk/Treasurer
  - Councilor Leann Angerman
  - Councilor Edgar Corns
  - Councilor William Farrellbegg
  - Councilor Michael Gruszka
  - Councilor Christopher Salatas
- Merrillville
  - Mr. Eugene Guernsey, Clerk/Treasurer
  - Councilor Christine Barron
  - Councilor Richard Hardaway
  - Councilor Roxanne Lamarca



- Councilor Jeffrey Minchuk
- Councilor Shawn Pettit
- Councilor Donald Spann
- Councilor Margaret Uzelac
- Munster
  - Mr. Dustin Anderson, Town Manager
  - Mr. David Shafer, Clerk/Treasurer
  - Councilor Andy Koultourides
  - Councilor Lee Mellon
  - Councilor David Nellans
  - Councilor John Reed
  - Councilor Joseph Simonetto
- New Chicago
  - Ms. Lori Reno, Clerk/Treasurer
  - Councilor Jimmy Gibson
  - Councilor Tara Pelfrey
  - Councilor Pamela Richard
  - Councilor Brenda Swallow
  - Councilor Sharon Szwedo
- Schererville
  - Ms. Janice Malinowski, Clerk/Treasurer
  - Councilor Kevin Connelly
  - Councilor David DeJong
  - Councilor Rob Guetzloff
  - Councilor Thomas Schmitt
  - Councilor Michael Troxell
- Schneider
  - Ms. Jenny Beier, Clerk/Treasurer
  - Councilor Jason Beier
  - Councilor Jack Jerals
  - Councilor Stephen Wilson
- United States House of Representatives
  - Honorable Peter Visclosky
- United States Senate
  - Honorable Joe Donnelly
  - Honorable Todd Young
- Whiting
  - Mayor Joseph Stahura
  - Councilor Rebeca Michko
  - Councilor Thomas Michniewicz
  - Councilor Chris Sarvanidis
  - Councilor Shawn Turpin
  - Councilor Kenneth Zubeck
  - Mr. John Haynes, Clerk/Treasurer





- Winfield
  - Mr. Richard Anderson, Clerk/Treasurer
  - Councilor David Anderson
  - Councilor Bridget Baird
  - Councilor Timothy Clayton
  - Councilor James Simmons
  - Councilor Gerald Stiener

### ***Federal Agencies***

- Advisory Council on Historic Preservation
- Federal Railroad Administration
- Federal Transit Administration
- United States Army Corps of Engineers
- United States Coast Guard
- United States Department of Agriculture, Natural Resources Conservation Service
- United States Department of Homeland Security, Federal Emergency Management Agency
- United States Department of Interior, Office of Environmental Policy and Compliance
- United States Department of Interior, National Park Service
- United States Environmental Protection Agency
- United States Fish and Wildlife Service

### ***Tribes***

- Ho-Chunk Nation
- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma
- **Miami Tribe of Oklahoma**
- Otoe-Missouria Tribe
- **Peoria Tribe of Indians of Oklahoma**
- Potawatomi – Citizen Potawatomi Nation
- Potawatomi – Forest County Potawatomi
- Potawatomi – Hannahville Indian Community
- Potawatomi – Pokagon Band of Potawatomi
- Potawatomi – Prairie Band Potawatomi Nation
- Sac and Fox Tribe of the Mississippi in Iowa/Meskwaki
- Sac and Fox Nation of Missouri
- Sac and Fox Nation of Oklahoma
- Winnebago Tribe of Nebraska

### ***State Agencies***

- Illinois Department of Agriculture, Bureau of Land and Water Resources
- Illinois Department of Natural Resources
- Illinois Department of Transportation
- Illinois Environmental Protection Agency
- Illinois Historic Preservation Agency
- Indiana Department of Agriculture
- Indiana Department of Environmental Management



- Indiana Department of Natural Resources
- Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
- Indiana Department of Transportation
- Indiana Natural Resource Conservation Service

***Local and Regional Agencies***

- Chicago Department of Transportation
- Chicago Metropolitan Agency for Planning
- City of Chicago Department of Planning and Development
- Chicago Transit Authority
- Cook County Bureau of Administration
- Cook County Department of Transportation and Highways
- Hammond Historic Preservation Commission
- Illinois Historic Preservation Agency
- Indiana Landmarks
- Lansing Municipal Airport
- Northeastern Illinois Regional Transportation Authority
- Northern Indiana Public Service Company
- Northwest Indiana Regional Development Authority
- Northwestern Indiana Regional Planning Commission

***Railroad and Transit Operators***

- Amtrak
- Canadian National Railway
- Chicago South Shore
- Consolidated Rail Corporation
- CSX Transportation
- East Chicago Transit
- Gary Public Transportation Corporation
- Indiana Harbor Belt Railway
- Metra
- Michigan City Transit
- Norfolk Southern Corporation
- North Township and Lake County Equal Opportunity Council Dial-a-Ride
- Tri-State Coach Lines
- Union Pacific Railroad
- Valparaiso Transit



# Appendix A4. Abbreviations and Acronyms



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ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily traffic
AOC	area of concern
APE	area of potential effects
AST	aboveground storage tank
BEA	Bureau of Economic Analysis
BMP	best management practice
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CIG	Capital Investment Grant
CMAP	Chicago Metropolitan Agency for Planning
CMMP	Contaminated Media Management Plan
CN	Canadian National Railway
CO	carbon monoxide
COC	contaminant of concern
Conrail	Conrail Shared Assets
CREC	Controlled Recognized Environmental Condition
CRP	<i>2040 Comprehensive Regional Plan</i>
CRSF	Commuter Rail Service Fund
CSS	Chicago South Shore & South Bend
CSX	CSX Transportation
CTA	Chicago Transit Authority
CTPP	Census Transportation Planning Products
CWA	Clean Water Act
CY	calendar year
CZMA	Coastal Zone Management Act of 1972
dB	decibels
dBA	A-weighted decibel



DEIS	Draft Environmental Impact Statement
DHHS	Department of Health and Human Safety
DHPA	Indiana Division of Historic Preservation and Archaeology
ECT	East Chicago Transit
EJ	environmental justice
EIS	Environmental Impact Statement
EMS	emergency medical services
EMU	Electric Multiple Unit
EO	Executive Order
ERSF	Electric Rail Service Fund
ESA	Environmental Site Assessment
Farm Bill	Farm Security and Rural Investment Act of 2002
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FPPA	Federal Farmland Protection Policy Act
FRA	Federal Railroad Administration
FSA	Farm Service Agency
FTA	Federal Transit Administration
FY	Fiscal Year
GBN	ground-borne noise
GBV	ground-borne vibration
GHG	greenhouse gas
GIS	geographic information system
GPTC	Gary Public Transportation Corporation
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HASP	Health and Safety Plan
HCM	<i>Highway Capacity Manual</i>
HEA	House Enrolled Act
HREC	Historical Recognized Environmental Condition
Hz	hertz
I-55	Interstate 55



I-65	Interstate 65
I-80	Interstate 80
I-90	Interstate 90
I-94	Interstate 94
IC	Indiana Code
IDEM	Indiana Department of Environmental Management
IFA	Indiana Finance Authority
IIAS	Inventory of Illinois Archaeological Sites
IGS	Indiana Geological Survey
IHB	Indiana Harbor Belt
IHPA	Illinois Historic Preservation Agency
IHSSI	Indiana Historic Sites and Structures Inventory
ILCS	Illinois Compiled Statutes
INDNR	Indiana Department of Natural Resources
INDOT	Indiana Department of Transportation
ISM	Illinois State Museum
KVP	key viewpoints
Ldn	day-night average sound level
Leq	equivalent average sound level
LESA	land evaluation and site assessment
LMCP	Lake Michigan Coastal Program
LOD	limit of disturbance
LOS	level of service
LPA	Locally Preferred Alternative
LUST	leaking underground storage tank
LWCFA	Land and Water Conservation Fund Act of 1965
MED	Metra Electric District (district and line)
Metra	Metra system including MED
MGP	Manufactured Gas Plant
MMBTU	1 million British thermal units
MP	milepost
mph	miles per hour
MPO	Metropolitan Planning Organization
MOA	Memorandum of Agreement
MSAT	mobile source air toxic



MSE	mechanically stabilized earth
MSF	Maintenance and Storage Facility
MSL	mean sea level
MUTCD	<i>Manual on Uniform Traffic Control Devices</i>
MW	megawatt
MWRDGC	Metropolitan Water Reclamation District of Greater Chicago
NAAQS	National Ambient Air Quality Standards
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NICTD	Northern Indiana Commuter Transportation District
NIPSCO	Northern Indiana Public Service Company
NIRPC	Northwestern Indiana Regional Planning Commission
NPS	National Park Service
NOI	Notice of Intent
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NS	Norfolk Southern Railway
O&M	Operations and Maintenance
OCS	overhead contact system
OESS	Onboard Energy Storage System
OSHA	Federal Occupational Safety and Health Act
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PIP	Public Involvement Plan
PM	particulate matter
PMP	Project Management Plan
PMTF	Public Mass Transportation Fund
PPE	personal protective equipment
Project	West Lake Corridor Project
qty.	quantity
PSA	Purchase of Service Agreement
PTC	positive train control
RCG	Remediation Closure Guide
RCRA	Resource Conservation and Recovery Act of 1976





RDA	Regional Development Authority
REC	Recognized Environmental Condition
RIMS	Regional Input-Output Modeling System
RMS	root mean square
ROD	Record of Decision
ROW	right-of-way
RSL	Regional Screening Level
RTA	Regional Transportation Authority
Safety Act	Federal Railroad Safety Act
SARA	Superfund Amendments and Reauthorization Act
SEL	single event level
SEPP	<i>Safety and Emergency Preparedness Plan</i>
SHAARD	State historic Architectural and Archaeological Research Database
SHPO	State Historic Preservation Office(r)
SIP	State Implementation Plan
SL	screening level
SPL	sound pressure level
SSL	South Shore Line
SSMP	<i>Safety and Security Management Plan</i>
SSPP	<i>System Safety Program Plan</i>
STIP	Statewide Transportation Improvement Program
STOPS	Simplified Trips-on-Project Software
SWL	sound power level
TAZ	Traffic Analysis Zone
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Load
TOD	transit-oriented development
TPSS	traction power substation
TRB	Transportation Research Board
TSCA	Toxic Substance Control Act
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USC	United States Code
USDA	United States Department of Agriculture



USDOJ	United States Department of the Interior
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VdB	vibration decibels
VHT	vehicle hours traveled
VMT	vehicle miles traveled
VOC	volatile organic compound



## Appendix A5. Glossary



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**100-year floodplain:** The areas along or adjacent to a stream or body of water that are capable of storing or conveying floodwaters during a 100-year frequency event. In any given year, a 100-year flood event has the probability of occurring 1 percent of the time.

**100-year floodplain impacts:** Refers to the acres of land within the 100-year floodplain that would be affected by a particular Project Alternative.

**Accessibility:** A measure of how reachable locations or activities are from a given site; it is influenced by changes in travel time, safety, vehicle operating costs, and transportation choice.

**Acquisitions and displacements:** The process of obtaining right-of-way to construct a project. A full acquisition is the acquisition of an entire parcel of land, which would thus displace the entire current use of the land. Parcels that are needed in their entirety for the Project would be subject to be acquired in full, as would parcels that may not be fully needed, but would be affected to such an extent that the current uses would be substantially impaired (e.g., a parcel is acquired for a "Park-and-Ride"). A partial acquisition is the acquisition of a portion of a parcel of land, with the remaining portion being untouched. The acquisition would not prevent the continued use of the property (e.g. a portion of a parcel is acquired for a lane widening, but access is maintained and the use of the property is not prevented).

**Adverse effect:** Defined in Section 106 of the National Historic Preservation Act. An adverse effect to a historic property occurs when the project under consideration alters any characteristic that qualifies the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property.

**Affected environment:** Existing conditions at the time an Environmental Assessment is prepared.

**Alignment:** The route of a roadway, rail, or other fixed guideway.

**Ambient air:** A physical and chemical measure of the existing concentration of various chemicals in the outside air, usually determined over a specific time (e.g., 1 hour, 8 hours).

**Ambient background noise:** The existing cumulative noise that is characteristic of an area based on current activity levels.

**Americans with Disabilities Act:** A federal civil rights law that mandates access to public facilities for all persons with disabilities. Enacted in 1990, it specifically addresses transportation facilities in Title 2.

**Aquatic:** Pertaining to, consisting of, or relating to species living in the water. Aquatic communities and habitats within the Project Area consist of many small intermittent and perennial streams, as well as a few larger perennial streams and their associated wetlands.

**Archeological resources:** Within a given study area, the prehistoric and historic deposits of artifacts and physical remains of human activities.

**Area of Potential Effect:** For purposes of complying with Section 106 of the National Historic Preservation Act, a geographic area or areas where an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties are located in the area of the project.

**Arterial:** A roadway designed to connect two distant areas at higher speeds and higher capacity travel than a local road.

**At-grade:** Typically refers to an intersection of two roadways, or a rail line and a roadway that are at the same level (on the ground).



**At-grade alignment:** An alignment that is on the ground, at surface level.

**At-grade crossing:** A crossing on rail tracks at the ground level. Vehicles cross at the same level intersection for all modes traveling through the intersection.

**Attainment area:** An area where the quality of air is good or, in some cases, better than the National Ambient Air Quality Standards that are defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

**Best management practices:** Specific standards used during construction and design to minimize the effect on surrounding resources.

**Build Alternative:** The alternative being evaluated as the proposed action during the Environmental Impact Statement process.

**Capital cost:** The cost to plan and build a project. For a commuter rail, this includes the cost of engineering and design, the land on which the system is built (right-of-way), site preparation work, and all physical elements of the system including track, ballast, catenary (overhead wires), station platforms, any needed street reconstruction, utility relocations, wetland mitigation, "Park-and-Ride" lots, light rail vehicles, a maintenance and storage facility, pedestrian bridges. It also includes associated soft costs such as insurance and professional services (such as attorneys).

**Census tract:** A small statistical subdivision of a county, defined by a local committee of United States Census data users for the purpose of presenting Census information every 10 years. The Census tract boundaries, which are nested within counties, generally follow visible features and often follow governmental unit boundaries or invisible features.

**Civil Rights Act of 1964:** Title VI of this federal law provides that no person shall, on the grounds of race, color, national origin, or sex, be discriminated against in federally funded programs or activities.

**Clean Air Act of 1970:** Legislation mandating that the United States Environmental Protection Agency to set national air quality standards to protect the public against common pollutants. State governments are required to devise clean-up plans to meet these United States Environmental Protection Agency standards.

**Clean Air Act Amendments of 1990:** A strategy for the United States to address the problem of urban smog. It requires states and the federal government to reduce emissions from automobiles, trucks, buses, ships, barges, and consumer products, and to meet air quality standards. It particularly, it addresses the urban problem of ozone, carbon monoxide, and particulate matter. It defines how areas are designated attainment and allows the United States Environmental Protection Agency to classify non-attainment areas as those that do not meet the federal air quality standards.

**Clean Water Act:** Federal law that establishes basic structure for regulating discharges of pollutants in to the waters of the United States. The act also continued requirements to set water quality standards for all contaminants in surface waters. It is codified at 33 United States Code 1251, et seq.

**Code of Federal Regulations:** The codification of the general and permanent rules published in the Federal Register by the departments and agencies of the federal government. The Code of Federal Regulations is published annually.



**Community Facility:** Public or publicly funded facilities, such as police and fire protection facilities, emergency medical response facilities, hospitals, schools, and libraries, as well as private facilities such as hospitals and schools.

**Commuter Rail:** A transit mode that is an electric or diesel propelled railway for urban passenger train service consisting of local short distance travel operating between a central city and adjacent suburbs. Service must be operated on a regular basis by or under contract with a transit operator for the purpose of transporting passengers within urbanized areas, or between urbanized areas and outlying areas. Such rail service, using either locomotive hauled or self-propelled railroad passenger cars, is generally characterized by multi-trip tickets, specific station to station fares, railroad employment practices, and usually only one or two stations in the central business district.

**Comprehensive Environmental Response, Compensation, and Liability Act:** Commonly known as Superfund, this law was passed in 1980 to create a tax on the chemical and petroleum industries and provide broad federal authority to respond directly to releases or hazardous substances that may endanger public health or the environment.

**Conformity:** A designation given to transportation plans, programs, and projects that conform to federally mandated state air quality plans.

**Construction impact:** The temporary impact that occurs over short period of time while a project is under construction.

**Council on Environmental Quality:** Established by the National Environmental Policy Act, the council coordinates federal environmental efforts, policies, and initiatives, and ensures that federal agencies meet National Environmental Policy Act requirements.

**Cumulative effect:** The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

**Critical habitat:** Defined under the Endangered Species Act as areas within a listed species' current range (at the time of listing) that contain the physical or biological features that are essential to that species' conservation or that for some reason require special management and areas outside the species' current range that the Secretary of the Interior determines to be essential to its conversation.

**Cross section:** The cross-sectional configuration of a transportation corridor (railway, trail, roadway, etc.) that specifies typical widths for tracks and travel lanes, related facilities, buffer areas, and total rights-of-way.

**Cultural resources:** Within a study area, the historic and archaeological resources.

**Decibel:** A unit of measure of sound pressure used to describe the loudness of sound on the A-weighted scale.

**de minimis:** A legal term that means of insufficient significance. A *de minimis* impact means that condition would essentially be the same whether or not the Project is implemented. The term is used when evaluating impacts on Section 4(f) of the Department of Transportation Act of 1966 resources for transportation projects.

**Determination of eligibility:** The decision made by the State Historic Preservation Office regarding whether historic buildings or historic districts are eligible for listing on the National Register of Historic Places.

**Direct effects:** Effects that occur as a direct result of the Project.



**Draft Environmental Impact Statement:** A detailed written statement, required by the National Environmental Policy Act, that is required for projects that involve a federal action such as funding. The Draft Environmental Impact Statement serves to provide information about significant environmental impacts and informs decision-makers and the public of practical alternatives that would prevent or minimize adverse impacts or improve the quality of the human environment.

**Easement:** A permanent or temporary right to use the land of another for a specific purpose. Easements may be purchased from the property owner or donated from the property owner to an agency.

**Effects:** Synonymous with impact, includes the result of actions that may have a beneficial or detrimental outcome.

**Eminent domain:** Authority of a public agency to acquire property at fair market value for public purposes. Also known as condemnation.

**Endangered:** A species whose prospects for survival within the state are in immediate danger based on a loss of habitat, over-exploitation, predation, competition, or disease. An endangered species requires immediate attention or extinction will likely follow.

**Environmental Justice:** The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The United States Environmental Protection Agency has this goal for all communities and persons across the United States. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

**Environmental Site Assessment Phase I:** Involves researching a property's potential for contamination on a cursory level from known database and reports. A Phase I Environmental Site Assessment involves limited site reconnaissance and historical research.

**Environmental Site Assessment Phase 2:** Involves gathering primary data based on information gathered in Phase 2. A Phase 2 Environmental Site Assessment includes testing for contamination and determination of its historical duration.

**Environmental Impact Statement:** A comprehensive study of potential environmental impacts related to federally assisted projects. Projects for which such a statement is required are defined in the National Environmental Policy Act.

**Federal Highway Administration:** The portion of the United States Department of Transportation charged with ensuring that America's roads and highways remain safe and technologically up-to-date.

**Federal Lead Agency:** A federal agency that takes the primary responsibility for preparing the Environmental Impact Statement. The Federal Transit Administration is the federal lead agency for the West Lake Corridor Project.

**Federal Transit Administration:** The division of the United States Department of Transportation responsible for regulation and funding of public transportation.

**Final design:** The final engineering phase of a project's design process. During final design, contract plans and specifications necessary for bidding are prepared. These contract documents provide all the necessary information needed by suppliers and contractors to construct the project.





**Final Environmental Impact Statement:** The document that is published following a Draft Environmental Impact Statement that addresses revisions in the design of the Project and incorporates public and agency comments received during the public circulation period of the Draft Environmental Impact Statement and during the Draft Environmental Impact Statement public hearing.

**Fiscally Constrained Long Range Plan:** The regional long range plan that has funding sources identified for all strategies and improvements included in the plan.

**Fixed Guideway Transit:** An exclusive travel way used by a particular mode of public transportation.

**Flood Insurance Rate Map:** The official map of a community on which the Federal Emergency Management Agency has delineated both the special hazard areas and the risk premium zones applicable to the community.

**Floodplain:** The riverside land that is periodically inundated by a river's floodwaters is called a floodplain. Floodplains serve important purposes; they temporarily store water during flooding events, improve water quality, provide important habitat for river wildlife, and create opportunities for recreation.

**Fugitive dust:** Dust that leaves a property during construction, demolition, or other induced activity that can alter the air quality at a given location.

**Geographic Information Systems:** Systems of computer software and hardware, data, and personnel used to manipulate, analyze, and present geographically referenced information or data identified by location.

**Grade crossing:** An intersection where a roadway crosses a railway at the same elevation.

**Grade separated:** Used to describe an alignment that is elevated or below ground, or crossings that use an overpass or underpass. Grade separation allows traffic or transit vehicles to pass through intersections without stopping for intersecting traffic.

**Greenway:** A linear parcel of land set aside to preserve open space. Greenways are generally located in floodplain areas, along wooded stream corridors unsuitable for development. Greenways provide a recreational amenity for walking, jogging, and bicycling that is separated from vehicular traffic; preserve open space; linked neighborhoods with parks, schools, community centers, and other neighborhoods; can help control stormwater runoff, curb erosion, and minimize flooding which can damage our property; and can improve water quality by buffering streams, filtering pollutants, and recharging ground water.

**Habitat:** The area or environment where an organism or ecological community normally lives or occurs.

**Headway:** The frequency of service on a transit route.

**Historic resources:** Within a given study area, the built environment—including buildings, industrial structures, bridges and culverts—with an estimated age of at least 50 years old.

**Household income:** The amount of money income received in the preceding calendar year by all household members 15 years old and older, including all household members not related to the householder.

**Hydric:** Having high water content.



**Jurisdictional Determination:** Regulatory review of previously identified wetlands and waters of the United States Army Corps of Engineers in compliance with Section 404 of the Clean Water Act.

**Jurisdictional Waters of the United States:** The term used in the Clean Water Act to refer to bodies of water that are under the jurisdiction of the Clean Water Act. It is defined at 40 Code of Federal Regulations 122.2.

**Land use:** Classification providing information on land cover and the types of human activity occurring on a parcel of land, such as commercial, industrial, residential, or open space.

**Level of service:** A letter grade designation used to describe given roadway traffic conditions, with A being at or close to free flow and F being at or close to over-saturation of the roadway; usually based on the progression of vehicles through the green phase of a signal, driver discomfort and frustration, lost travel time, and fuel consumption.

**Limited English Proficiency:** Percentage of households where no one older than 14 years old who lives there speaks English at home as a primary language, or speaks English very well.

**Limits of disturbance:** The horizontal boundary where soil will be exposed during construction activities. The limits of disturbance includes, but is not limited to the limits of excavation, borrow areas, storage areas, staging areas, areas to be cleared and grubbed, and roadways.

**Low-income:** Any household with income at or below the United States Census Bureau poverty thresholds.

**Master Plan:** An exhaustive plan for a community's future development activities.

**Metropolitan Planning Organization:** The forum for cooperative transportation decision-making for a metropolitan area. The regulation codified at 23 United States Code 134 requires that 1) a Metropolitan Planning Organization be designated for each urbanized area containing 50,000 or more persons based on the latest United States Census, and 2) the metropolitan area have a continuing, cooperative, and comprehensive transportation planning process.

**Minority:** A member of the following races: 1) Black or African American, 2) American Indian or Alaska Native, 3) Asian, 4) Native Hawaiian or other Pacific Islander, or 5) Hispanic or Latino.

**Mitigation:** The actions necessary to reduce or eliminate an impact and thereby restore the affected environment.

**Mixed-use:** Combination of land uses, such as residential, office, retail, public, entertainment, and manufacturing.

**National Ambient Air Quality Standards:** Limitations on levels of pollutant in the air regulated by the United States Environmental Protection Agency.

**National Environmental Policy Act of 1969:** An Act of Congress passed and signed into law in 1970 that requires any federal agencies to consider the environmental impacts of any action, prior to taking any major or significant action. Consideration of those impacts may take the form of various environmental reviews and types of documentation.

**National Historic Landmark:** A place that is designated by the United States Department of the Interior as possessing exceptional value or quality in illustrating and interpreting the heritage of the United States. The National Park Service administers the National Historic Landmarks program for the Secretary of the Interior. Only 3 percent of properties listed in the National Register of Historic Places are designated as National Historic Landmarks.



**National Historic Preservation Act:** Federal legislation intended to preserve historical and archaeological sites in the United States.

**National Pollution Discharge Elimination System:** A program, as authorized by the Clean Water Act, which controls water pollution by regulating point sources that discharge pollutants into the waters of the United States.

**National Register Eligible:** Cultural resources eligible for inclusion in the National Register of Historic Places. Eligible resources do not have the full designation of National Register Listed properties but are afforded the same protection under the National Historic Preservation Act.

**National Register Listed:** Cultural resources include in the National Register of Historic Places.

**National Register of Historic Places:** A federal list of buildings, sites, district, or other properties that have a historic significance. The National Register of Historic Places is maintained by the Keeper of the National Register.

**No Build Alternative:** A do nothing alternative to compare as a benchmark to other Project Alternatives.

**Off-peak period:** Used to describe times of day when travel is not at its peak, or highest level. Off-peak travel usually occurs in the midday and evening.

**Operating cost:** Generally referred to as Operations and Maintenance Costs, this is the cost to operate a transit system, typically calculated on an annual basis. These figures include all costs to operate a transit system, including the labor of operators, maintenance personnel, and managers; general vehicle maintenance; electricity to power vehicles and other facilities; and administrative costs. Operating costs do not include vehicle depreciation or the cost of capital projects such as vehicle replacement.

**Operating Plan:** An operating plan details the service plan for a transit service. The plan details characteristics such as running times, service frequency, required number of vehicles, changes in frequency throughout the day, and assumptions pertaining to stations.

**Ozone (O<sub>3</sub>):** A colorless gas. The most chemically active form of oxygen having three atoms. It is naturally formed in the ozone layer of the stratosphere and filters out the most harmful ultraviolet light and high-energy radiation preventing it from reaching the earth's surface.

**Park-and-Ride facilities:** Parking lots or parking garages where people park their vehicle and board a bus, train, or ferry to complete their remaining journey.

**Passenger boardings:** The number of revenue passengers embarking a transit vehicle.

**Passenger miles:** A factor that determines the number of miles a transit vehicle carries passengers; one passenger transported 1 mile.

**Peak hour:** The time of day when the greatest amount of travel occurs; the period of highest transportation service demand. Most cities experience a morning peak and an evening peak period associated with home-to-work and work-to-home trips, also called rush hour.

**Protected species:** An organism that is legally protected because it is considered endangered or threatened to become endangered, or one of special concern. Protection may be granted at the federal, state, or local levels.

**Public parklands:** Parks, recreational lands, wildlife refuges, and waterfowl refuges, as determined under Section 4(f) of the Department of Transportation Act of 1966.



**Record of Decision:** The final step in the Environmental Impact Statement process. The Record of Decision identifies the selected alternative, presents the basis for the decision, identifies all the alternatives considered, specifies the environmentally preferable alternative, and provides information on the adopted means to avoid, minimize, and compensate for environmental impacts. The Record of Decision allows a project to move forward into more detailed engineering and design, and allows a project to qualify for federal funding assistance.

**Ridership:** The number of people using a public transportation system or route during a given time period.

**Right-of-way:** Land available or used for operation of transportation facilities (roadways or rail lines). The land is typically government-owned (local, state, or federal). A transportation facility may occupy all or part of the right-of-way, which may be grade-separated or at-grade.

**Riparian:** Means pertaining to anything connected with or immediately adjacent to the banks of a stream; in other words, the land on the margins of streams, rivers and other bodies of water.

**Riparian areas and buffers:** Riparian areas are lands adjacent to water bodies. The vegetation in the riparian areas filter nutrients and pollutants from runoff and is thus referred to as buffers. Overall, riparian areas perform a variety of ecological functions that help to improve or maintain local water quality and maintain the health of both the stream and the adjoining land.

**Riparian habitat:** A habitat type associated with riparian land. In non-desert areas, riparian habitats typically are characterized by dense vegetation consisting primarily of willow, alder, and cottonwood species that support a wide variety of waterfowl, songbirds, amphibians, and small mammals.

**Secondary effect:** The impact or effect of an action that takes place sometime after a primary event has occurred.

**Scoping:** The effort taken at the beginning of a study to consider all issues that should be addressed in the study. It is the first phase of activity in the preparation of an Environmental Impact Statement.

**Section 4(f):** A section of the United States Department of Transportation Act of 1966, which stipulates that the United States Department of Transportation agencies (e.g., Federal Transit Administration) will not approve any program or project that requires the use of any publically owned park, recreation area, or wildlife or waterfowl refuge, or any land form an historic site of national, state or local significance unless 1) there is no feasible and prudent alternative to the use, and 2) all possible planning to minimize harm resulting from such use is included. Section 4(f) is currently codified into law at 49 United States Code 303 and 23 United States Code 138.

**Section 6(f):** A section of the Land and Water Conservation Fund Act of 1965 that becomes effective when parkland developed with funds from the Land and Water Conservation Fund Act of 1965 is required for roadway improvements.

**Section 106:** A section of the National Historic Preservation Act that requires federal agencies to take into account the effects of their undertakings (projects) on historic properties, and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in 36 Code of Federal Regulations 800 Protection of Historic Properties.

**Section 401:** A section of the Clean Water Act that regulates water quality through water quality certification program. The permit review and issuance process first encourages avoidance of impacts, followed by minimizing impacts, and lastly through mitigating unavoidable impacts.

**Section 404:** A section of the Clean Water Act that regulates the discharge of dredged or fill material in waters of the United States through a United States Army Corps of Engineers permitting program.

**Sensitive receiver/receptor:** A land use that would receive noise or vibration caused by a project. The type of the land use in question (e.g., residences, schools, libraries, laboratories, etc.) is generally sensitive to noise and vibration effects.

**Shoofly:** A temporary track used to avoid an obstacle that blocks movement on the normal track section. Shooflies often are constructed to allow temporary passage around construction.

**Significant:** Describes the effects or impacts of a project in an Environmental Impact Statement. An action is considered in both context and intensity to determine whether or not the action significantly impacts a habitat, neighborhood, species, or other item being assessed.

**State Historic Preservation Office:** A state administrative agency responsible for carrying out consultation in accordance with the National Historic Preservation Act and other historic preservation laws and regulations.

**Stormwater:** Runoff water that is generated by a storm. Stormwater discharges include runoff from land, pavements, building rooftops, and other surfaces. Stormwater runoff can accumulate a variety of pollutants such as oil and grease, chemicals, nutrients, metals, and bacteria as it travels across land before discharging into surface and other receiving waters. Heavy surges in stormwater runoff can cause other negative effects, including flooding and erosion, to streams and adjacent low-lying areas, especially in urbanized watersheds.

**Study Area:** The special limits within which Project Alternatives are considered.

**Threatened species:** A species that may become endangered if surrounding conditions begin or continue to deteriorate.

**Topography:** The surface features of a place or region.

**Traction Power Substation:** Substations converting alternating current from the power grid to the voltage and type of current needed for a light rail vehicle.

**Transit-dependent population:** Defined by the Federal Transit Administration as persons in one or more of the following categories: without private transportation; elderly (over the age of 65); youths (under the age of 18); or persons below poverty or median income levels defined by the United States Census Bureau.

**Travel demand forecasting:** A technique of estimating the number and travel times of potential users of a transportation system.

**Transit-oriented development:** A land use designation intended to encourage the use of transit. Measures employed in areas with transit-oriented development designations include increased densities, clustered development, pedestrian amenities, parking restrictions, and urban design enhancements.

**Travel time:** The time that it takes to travel from one location to another.

**United States Army Corps of Engineers:** The federal agency that has jurisdiction over and manages the extensive water resource management lands of the United States. Also, the



federal agency that delineates waters of the United States and issues Section 404 and Section 401 of the Clean Water Act permits.

**Vehicle maintenance and storage facility:** A site with facilities and buildings for the storage, maintenance, and cleaning of transit vehicles. May also include crew facilities such as locker rooms and break facilities.

**Vehicle miles traveled:** The number of miles traveled regionally by vehicles for a period of 1 year.

**Viewshed:** The area that can be seen from the Project and the area from where the commuter rail can be seen. In other words, what people on the light rail vehicles can see, and where anyone else can see the vehicles and associated facilities.

**Visual and aesthetic:** The aesthetic quality of a community is composed of visual resources, or the physical features that make up its visible landscape. The National Environmental Policy Act identifies aesthetics as one of the factors in the human environment that must be considered in determining the effects of a project. Federal regulations require that visual impacts be addresses for Section 106 of the National Historic Preservation Act and Section 4(f) of the Department of Transportation Act of 1966 resource properties.

**Watercourses:** A brook, stream, or artificially constructed water channel.

**Waterfowl:** Any birds, such as ducks and geese that frequent the water, or lives about rivers or lakes.

**Water resources:** The physical elements of the aquatic environment, such as streams, rivers, lakes, and shorelands, as well as life forms such as aquatic plants and fish that live within the aquatic environment. Water resources include the following features: groundwater, surface waters, wetlands, floodplains, floodways, and water quality.

**Wetlands:** Tidal areas or swamps with water-saturated soil characteristics and associated vegetation that meet certain criteria on which filling and development are federally or state-regulated.

**Wetland impact:** Refers to the acreage of wetlands that are considered waters of the United States that would be affected by a particular Project Alternative.

**Zoning ordinance:** A local land use ordinance that identifies and regulates the use of property in the municipality. Zoning ordinances prescribe land use type, relationships to nearby uses, densities, height and setback requirements, parking requirements, and related elements.



# Appendix A6. Index



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