

The Least Restrictive Transportation Environment Continuum: What Every IEP Committee Should Know

By Dr. Ray Turner

Continuum of Transportation Related Service Options for Students with Disabilities

Copyright 2009 by Dr. Ray Turner and White Buffalo Press

Least Restrictive Transportation Environment (LRTE) ← → Most Restrictive Transportation Environment

Safe Routes to School	Parents Transport without District Reimbursement					Parents Transport with District Reimbursement					District Contracts for Commercial Service					
	Regular Route School Bus Service			Special Needs School Bus Route Service		Public Transit Bus Mixed Use Service		Paratransit Bus Service			Commercial Accessible Bus and Taxi Service					
WV Student Pedestrian to and from school alone or with peers 	RRDO Student uses regular route school bus with driver alone 	RRDTL Student uses regular route school bus with lift, driver and monitor 	RRDT Student uses regular route school bus with driver and monitor 	SSDA Student uses special needs bus with disabled peers and driver alone 	SSDT Student uses special needs bus with disabled peers and driver team 	SSDTL Student uses special needs lift bus with driver team 	SSDTNL Student uses special needs bus with driver team and nurse with special training /with limited ride time /with adapted equipment /with intervention 	SSDTA Student uses special needs bus with driver team and travels alone without peers 	SSDTP Student uses special needs bus with driver team and 1-on-1 personal Attendant 	TDOL Student uses accessible public transit one way 	TRDOL Student uses both accessible school bus and public transit 	TTDOL Student uses accessible public transit both ways 	PPDOL Student uses paratransit with driver alone 	PPDTL Student uses paratransit with driver and attendant 	TAXIL Student Rides in Accessible Taxi with a driver alone 	ORTB Student uses accessible bus for over the road bus service for out of town travel, field trips or extra-curricular activity
SAFE ROUTES TO & FROM SCHOOL	Assigned Bus Stop	Assigned Bus Stop	Assigned Bus Stop	GATE-to-GATE PICK-UP & DROP OFF		DOOR-to-DOOR PICK-UP & DROP OFF		TRANSIT BUS STOP PICKUP and/or DROP OFF		HOME PICK-UP & DROP OFF		CURB-to CURB PICK-UP & DROP OFF	CURB-to CURB PICK-UP & DROP OFF			

Table of Contents

Chapter One: Decision to Change Individual Students with Disabilities Least Restrictive Transportation Environment.....	1
LRTE=WW Student Pedestrian to and From School	
Alone or with Peers Assumptions.....	2
LRTE-WWALK Pedestrian Option to Walk without Mobility Aid.....	3
LRTE-WWBIKEWALK Pedestrian Option to Use Bicycle for	
Mobility to and from School—as a Pedestrian—Bicycling	
on Sidewalks and Walking the Bike at Crosswalks.....	4
LRTE-WWBIKELANE Pedestrian Option to Use Bicycle for	
Mobility to and from School as a Motorist—Bicycling in	
the Street or Bike Lane.....	5
LRTE-WWCANE Pedestrian Option to Use Canes.....	6
LRTE-WWCRUTCH Pedestrian Option to Use Crutches.....	7
LRTE-WWALKER Pedestrian Option to Use a Walker.....	8
LRTE-WWCMAN Student Using the Manual Wheelchair Option.....	9
LRTE-WWPC Electric (Power) Wheelchair Option.....	10
LRTE-WWSC Electric (Power) Scooter Option.....	11
LRTE-WWLONG Student Using Long Cane (Low Vision or Blind).....	13
LRTE-WWDOG Student Using Service Dog (Low Vision or Blind).....	14
LRTE Regular Route School Bus Options for Student	
Passengers with Disabilities Transportation Assumptions.....	16
LRTE=RRDO Student Passengers with Disabilities Use	
Regular Route School Buses with Drivers Alone	
at the Authorized Bus Stop Locations.....	18
LRTE=RRDTL Student Uses Regular Route School Bus	
with Lift, Driver and Monitor (Driver Team) at an	
Assigned Bus Stop.....	19
LRTE =RRDT Students Uses Regular Route School Bus with	
Driver and Monitor (Driver Team) at the Assigned Bus Stop.....	21
LRTE Special Needs Route School Bus Assumptions.....	22
LRTE=SSDA Student Uses Special Needs Bus with Disabled	
Peers and Driver Alone.....	24
LRTE-SSDAGATE Special Needs Bus Route Service with the	
Gate-to-Gate Pick Up and Drop Off Option with a Driver Alone.....	24
LRTE-SSDACURB Special Needs Bus Route Service with the	
Curb-to-Curb Pick Up and Drop Off Option and a Driver Alone.....	25
LRTE=SSDT Student Uses Special Needs Bus with Disabled Peers	
and a Driver Team.....	26
LRTE-SSDTGATE Special Needs Bus Route Service with the	
Gate-to-Gate Pick Up and Drop Off Option with a Driver Team.....	26
LRTE-SSDTCURB Special Needs Bus Route Service with the	
Curb-to-Curb Pick Up and Drop Off Option with a Driver Team.....	27

LRTE =SSDTL Student Uses Special Needs Lift-Equipped Bus with Disabled Peers and the Driver Team.....	28
LRTE-SSDTLGATE Student Uses Special Needs Lift-Equipped Bus with Disabled Peers and the Driver Team with Gate-to-Gate Pick Up and Drop Off.....	28
LRTE-SSDTLCURB Student Uses Special Needs Lift-Equipped Bus with Disabled Peers and the Driver Team Curb-to-Curb Pick Up and Drop Off.....	29
LRTE =SSDTNL Student Uses Special Needs Bus with Driver Team with Nurse with Special Training, Limited Ride Time, Added Equipment and Intervention.....	31
LRTE =SSDTA Students Uses Special Needs Bus with Driver and Attendant (Driver Team) and Travels Alone without Peers.....	32
LRTE=SSDTP Students Uses Special Needs Bus with Driver and Attendant (Driver Team) and 1-on-1 Personal Attendant.....	33
LRTE=SSDTA Door-to-Door Option.....	33
LRTE Public Transit Bus Mixed Use Options.....	34
LRTE Public Transit Bus Mixed Use Assumptions.....	34
LRTE TDOL Student Uses Accessible Public Transit One Way with the Other Trip Using an Unspecified Means of Transportation Service.....	35
LRTE=TRDOL Accessible Transit Bus Inbound and School Bus Outbound or School Bus Inbound and Transit Bus Outbound.....	37
LRTE=TTDOL Student Uses Accessible Public Transit with Lift Both Ways.....	39
LRTE Paratransit Bus Service Option Assumptions.....	41
LRTE =PPDOL Student Uses Paratransit with Lift and Driver Alone.....	42
LRTE=PPDOLDOR Paratransit Door-to-Door Service Option.....	42
LRTE=PPDTL/HOME Paratransit Home Pick Up and Drop Off Option with a Driver and Attendant.....	43
LRTE=TAXIL Student Rides Provided by Commercial Lift Accessible Taxi Service Option Assumptions.....	44
LRTE=TAXIL Student Rides Provided by Commercial Lift Accessible Taxi Service Option.....	46
LRTE=TAXILCURB Student Rides Provided by Commercial Lift Accessible Taxi Service with a Driver Alone Providing Curb-to-Curb Service.....	46
LRTE=TAXILDOOR Student Rides Provided by Commercial Lift Accessible Taxi Service with a Driver Alone Providing Door-to-Door Service.....	47
LRTE=ORTB Assumptions Concerning Student Uses of Accessible Over the Road Bus (ORTB) Service for Out of Town Travel, Field Trips or Extracurricular Activities, Charter Bus Service or Tour Bus Service.....	48

LRTE=ORTB Student Uses Accessible Bus for Over the Road Bus (ORTB) Service for Out of Town Travel, Field Trips or Extracurricular Activity.....	50
LRTE=ORTB Curb-to-Curb Pick Up and Drop Off.....	50
LRTE Parents Transport and District Reimbursement: Assumptions of the IEP Committee.....	52
LRTE DISTRICTPAY Parents Transport the Child with a Disability and the District Reimburses the Parents for their Services.....	53
LRTE=PARENTPAY Student Uses Parental Accessible Van Inbound to School and Outbound from School without District Reimbursement.....	54
Chapter Two: Student Pedestrian Risks in the Walking Environment.....	55
The Least Restrictive Transportation Environment (LRTE) Defined.....	55
Legal Basis for the LRTE Continuum.....	55
IEP Committee Members Joint Responsibility for Determining LRTE.....	55
School District Policy Concerning Campus Walking Distances (CWDs).....	58
Safe Routes to School for Students with Disabilities.....	60
Pedestrian Injuries and Fatalities: The Hostile Roadway Environment.....	60
Pedestrian Fatality and Injury Pyramid.....	62
Student Pedestrian Crashes and Crash Risks.....	63
Student Pedestrian Crash Locations—Intersection and Non-Intersection Danger Zones.....	64
Specific Student Pedestrian Crash Scenarios.....	66
Student Pedestrian Risk at Intersection Crosswalks—The Walking Speed Factor.....	69
How to Conduct a Pedestrian Walking Route Assessment.....	73
What is a Pedestrian Walking Route Assessment?.....	73
Why Conduct a Pedestrian Walking Route Assessment?.....	73
When Should the Pedestrian Walking Assessment Be Conducted?.....	73
Who Should Conduct the Pedestrian Review?.....	74
Where Should a Pedestrian Review Be Conducted?.....	74
Overall Pedestrian Walking Route Condition Assessment.....	74
Using the Pedestrian Intersection Safety Index (PED ISI).....	76
Data Required for the Pedestrian Safety Index (PED ISI).....	77
PED ISI Variable Descriptions.....	78
PED ISI Calculator (Microsoft Excel™ File See Appendix	79
Pedestrian Safety Index Data Collection Forms.....	80

Chapter Three: Least Restrictive Transportation Environment (LRTEs)	
For Student Bicyclists with Disabilities.....	81
Bicycling between Home and School as a Related Service	
under the Individuals with Disabilities	
Improvement Act of 2004.....	81
The Right to Attend School and to Safely Commute	
Between Home and School.....	82
School Districts with an Open Enrollment Policy	
and Students with Disabilities.....	82
IEP Committee Authority to Authorize a Student with	
Disability’s Commute between Home and School	
Using a Bicycle as a Mobility Aid.....	83
Individual Transition Plans (ITPs) and the Bicycle as a	
Lifelong Mobility Aid.....	83
Bicycle Safety Education as a State-Mandated Curriculum	
Requirement for Public School Students Including	
Students with Disabilities.....	83
Assumed Risks of Student Bicyclists with Disabilities.....	84
Student Bicyclists Commuting within the Campus	
Biking Distance (CBD) Though Eligible for Regular	
or Special Needs Bus Route Service.....	86
Student Cyclists with Disabilities and Their Length of	
Time Commuting: Assuring Travel Time Equity.....	87
Increasing IEP Committee Members Bicycle Awareness.....	89
Observation of the Student with a Disability and	
Their Cycling Skills and Safety Status.....	89
Developmental Stages before Walkway Cyclist Status.....	90
Cyclists with Developmental Delays and Their	
Readiness for Walkway Cyclist Status.....	91
IEP Committee Member Observation of a Student with a	
Disability and Their Walkway Cyclist Status:	
The At-School Assessment.....	93
IEP Committee Member Observation of Student Cyclist	
Behavior on or Near the School Campus: Safety	
Rules to Avoid Fatal Crashes.....	98
Safe Routes to School for Cyclists with Disabilities.....	99
IEP Committee and the Cyclist Safe Route to	
School Assessment.....	101
Bicycle Intersection Safety Index (BIKE ISI).....	104
Bicycle and Intersection Variables.....	104
Bike ISI.....	106

Chapter Four: Least Restrictive Transportation Environments (LRTEs) for Students with Disabilities Using Mobility Aids.....	107
Student Pedestrian Risks as Mobility Aid Users in the Walking Environment between Home and School.....	108
Determining Risk Factors for Students with Disabilities Using Mobility Aids to Commute between Home and School: A Case Study.....	110
Determining the Overall Distance the Student Using a Mobility Aid Must Travel between Home and School on a Safe Route to School.....	115
Students Using Mobility Aids and Their Estimated Walking Speeds, Uphill Slope Restrictions and Distance Before Exhaustion.....	119
Estimating Various Mobility Aid Users and Their Crash Scenario Risks.....	123
Determining the Walking Speed of Student Pedestrians Using Mobility Aids and the Time Required to Traverse Crosswalks.....	128
Determining the Width of Each Crosswalk to Be Used by the Student Using a Mobility Aid for Crosswalks Included in the Safe Route to School.....	132
How to Conduct a Walking Route Assessment on Behalf of a Student Pedestrian with Disabilities.....	133
What is a Pedestrian with Disabilities Walking Route Assignment?.....	133
Why Conduct a Pedestrian Route Assignment?.....	133
When Should this Pedestrian Walking Route Assessment be Conducted?.....	134
Who Should Conduct the Pedestrian Walking Route Assessment?.....	134
Where Should a Pedestrian Walking Route Assessment be Conducted?.....	134
Pedestrian Walking Route Assessments:	
One Point of View.....	135
Ranking PED ISI Intersection Values Assessed.....	138
PED ISI Data Required.....	138
PED ISI.....	138
Variable Descriptions.....	139
PED ISI Calculator.....	140
Consolidating the Data to Determine Overall Pedestrians with Disabilities Risk Factors across Different Types of Mobility Aids.....	141
Summary.....	146

Chapter Five: Students with Disabilities Using Regular Route	
School Bus Service.....	147
IEP Committee Decision Making Alternatives: The LRTE	
Minimum Risk System and Regular Routes.....	148
LRTE Regular Route School Bus Options for Student	
Passengers with Disabilities Transportation	
Assumptions.....	149
LRTE=RRDT Students Uses Regular Route School Bus	
With Driver and Monitor (Driver Team) at the	
Assigned Bus Stop.....	154
IEP Committee Review of Policies and Procedures	
Currently School Board Approved Regarding	
Regular Route School Bus Service.....	159
Chapter Six: Students with Disabilities Using Special Needs	
School Bus Route Service.....	165
Students with Disabilities with their Peers and a	
Single Driver.....	166
LRTE=SSDAGATE Gate-to-gate Special Needs Bus	
Route Service.....	166
LRTE=SSDACURB Curb-to-curb Special Needs Bus	
Route Service.....	168
LRTE=SSDT Students Uses a Special Needs Bus with	
Disabled Peers and a Driver Team.....	169
Student Help at the Bus Stairwell.....	169
Student Supervision on Board.....	170
Where the Bus Attendant Sits Is Where the Authority of the	
Attendant is Limited.....	170
Bus Attendants Must Have the Physical Ability and Desire to	
Help Students.....	170
Monitoring Bus Attendant and Driver Performance.....	171
LRTE=SSDTGATE Special Needs Bus Route Service	
With a Driver Team for Gate-to-gate Pick up and	
Drop off Option.....	171
Increased Access to Curb-to-Curb Service within the Gated	
Community.....	171
Driver Help to Back the Bus Safely within the Gated	
Community.....	171
Gate Opening Assistance.....	171
Gate Closing Assistance.....	172
LRTE=SSDTCURB Special Needs Bus Route Service	
With the Curb-to-curb Pick Up and Drop Off with	
A Driver Team.....	172
Curb-to-Curb vs. Street-to-Street Service.....	172
The Difference between a Student Passenger and a Student	
Pedestrian.....	172

Residence-to-Residence Service.....	173
Avoiding Business-to-Business Service.....	173
Daycare-to-Daycare Service.....	173
Bus Attendant Help at Daycare Centers.....	173
LRTE=SSDTL Student Uses Special Needs Lift- Equipped Bus with Disabled Peers and the Driver Team.....	174
LRTE=SSDTLGATE Student Uses Special Needs Lift- Equipped Bus with Disabled Peers and the Driver Team with Gate-to-gate Pick up & Drop Off.....	174
LRTE=SSDTLCURB Student Uses Special Needs Lift- Equipped Bus with Disabled Peers and the Driver Team for Curb-to-curb Pick Up and Drop off.....	174
Curb-to-Curb Pick Up and Drop off Service.....	174
Stairwell Assistance and a Hearty Greeting Every Day.....	175
Teamwork during Lift Bus Equipment Boarding Procedures.....	175
Who Operates the Wheelchair or Scooter Controls?.....	175
Canes, Crutches and Walker Mobility Aid Users.....	175
Mobility Aide Storage on the Lift Bus.....	176
LRTE=SSDTNL Student Uses Special Needs Bus with Driver Team with Nurse Having Special Training, Limited Ride Time, Added Equipment and Intervention.....	176
Picking up the Nurse for the Morning or Afternoon Run.....	176
Door-to-door or Home-to-Home Service?.....	176
Lift Support Equipment and Supplies for the Student with Special Health Care Needs.....	177
Who is the Boss: Driver, Attendant or Nurse?.....	177
LRTE=SSDTA Student Uses Special Needs Bus with Driver and Attendant (Driver Team) and Travels Alone without Peers.....	178
LRTE=SSDTP Student Uses Special Needs Bus with Driver and Attendant (Driver Team) and 1-on-1 Personal Attendant.....	179
Summary.....	187
Chapter Seven: Students with Disabilities and Their School	
Commute Using Public Transit.....	189
Evaluating the Student's Public Transit Needs.....	189
Understanding the Local Transit System before Student Use of the Public Transit LRTE.....	190
Student Travel Training before Independence on the Transit Bus.....	191
Walking or Using a Mobility Aid to the Transit Bus Stop Using a Partial Safe Route to School.....	191

Locating the Correct Transit Bus within the Established Service Schedule.....	191
Orienting to a Transit Center.....	191
Making a Successful Transfer between Routes.....	191
Avoiding Slips, Trips and Falls at the Bus Stop during Vehicle Approach.....	192
Displaying Appropriate Behavior at the Bus Stop Location.....	192
Appropriate Use of the Bus Stairwell without Slipping, Tripping or Falling to Safely Board the Transit Bus.....	192
Providing Authorization to Ride the Bus.....	192
Determining Who Will Pay for the Transit Service.....	193
Access to Seating for the Disabled on Transit Buses.....	193
Transit Bus Seating without Crash Protection for Students with Disabilities Comparable to School Buses.....	196
Side-facing Seats.....	196
Forward-facing Seats.....	196
Bench Seats.....	196
Transit Bus Operator Rules for Assisting Passengers with Disabilities... 	197
Wheelchair Loading on Transit vs. School Bus Procedures.....	198
Wheelchair Securement on Transit vs. School Bus Procedures.....	201
Transit Operator vs. School Bus Driver Responsibilities To Student Passengers.....	203
Passengers Alighting from Transit vs. School Lift Buses.....	204
Transit Bus Operators and the Level of Assistance Provided Students with Disabilities Using Wheelchairs or Scooters.....	206
Travel Training Affords Students with Disabilities Access to Transit, Not Just for Childhood and Adolescence, but for Lifelong Access.....	206
Transit Bus Service for Students with Disabilities Is a Strictly Pay-as-You-go Basis with No Room for Exceptions.....	207
Transit Bus Service for Students with Disabilities Who Are Latchkey Students.....	207
Transit Buses Late for Their Scheduled Passenger Service.....	208
Chapter Eight: Students with Disabilities Using Paratransit.....	211
Who Determines the Student with a Disability's Paratransit Eligibility?.....	213
IEP Committee Must Request a Paratransit Eligibility Determination from the Local Transit Authority For a Student to be Eligible for Paratransit Service.....	214

Categories of Paratransit Eligibility.....	214
Category I Paratransit Eligibility.....	214
Category II Paratransit Eligibility.....	214
Category III Paratransit Eligibility.....	215
Questions to be Answered for Determining the	
Category of Paratransit Eligibility.....	215
Category II Paratransit Eligibility: Transitional Category.....	216
Conditional Eligibility.....	216
Conditional Eligibility—Category I.....	217
Conditional Eligibility—Category II.....	217
Conditional Eligibility—Category III.....	217
Temporary Paratransit Eligibility.....	217
Personal Care Attendants.....	217
Americans with Disabilities Act (ADA) and Individuals with Major Life	
Activity Impairments.....	217
Paratransit Passenger’s Eligibility Based on a	
Functional Assessment.....	219
Paratransit Applicant’s Eligibility Based on an	
Evaluation of Physical Functioning.....	222
Paratransit Applicant’s Functional Assessment	
Based on Adverse Weather and Terrain.....	224
Conditional Eligibility—Winter Months.....	224
Permanent Eligibility.....	224
Transitional Eligibility.....	224
Conditional Eligibility.....	224
Conditional Eligibility—Summer Months.....	225
Conditional Eligibility—Temporary for Training.....	225
Temporary Eligibility Based on Disability Condition.....	225
Temporary Eligibility as a Visitor.....	225
Paratransit Applicant’s Cognitive Functional	
Assessment.....	225
IEP Committees Reviewing the Local Transit Authority’s	
Paratransit Eligibility Policy.....	230
Summary.....	232
Chapter Nine: Students with Disabilities, Accessible	
Taxis and Over the Road Bus Service.....	233
Accessible Taxi Equipment.....	233
Limited Room for an Additional Adult in the	
Accessible Taxi.....	234
Personal Attendants Sit in Front.....	234
Student Requiring Nursing Care Is Not Appropriate	
For Taxi Service.....	234
Rotating Drivers on a First Available Basis.....	234
Increased Risk of Disruptive Student Behavior	
Onboard.....	234

Accessible Taxi Service is Not Appropriate for Emotionally Disturbed Students.....	234
Accessible Taxi Drivers May Not Be Properly Screened with Adequate Background Checks.....	235
Accessible Taxi Drivers Are Not Well Trained or Certified.....	235
Taxi Service Dispatchers Do Not Know the Student's Special Handling or Emergency Protocol Needs.....	235
Reduced Route Service.....	236
IEP Committees Must Assure That Student Requirements Are in Place in the Taxi Service Contract and Enforced with the Service Provided.....	236
School Calendar Scheduling Changes, Student No-Shows, and Sick Days When Taxi Services are Not Needed.....	236
Accessible Taxis, Van Crashworthiness and Passenger Safety.....	236
Students with Disabilities and Over-the-Road Bus Service Accessibility.....	237
OPRTB Motorcoach Accessibility Must Be Assured.....	237
Committee Special Handling Requirements and the School District Contract with the Private ORTB Provider.....	237
ORTB First Step and Stepwell Accessibility.....	237
ORTBs May Not Be Accessible for All Types of Students with Disabilities and Their Mobility Aids.....	237
ORTB Driver Safety Training and Certification Standards.....	238
ORTB Caravans of Vehicles and Student with Disability Segregation On the Road.....	238
Highway Speeds, Using Interstate Roads and Safe ORTB Driving.....	239
Students with Disabilities and the Relative Risks of Field Trips And Excursions.....	239
Chapter Ten: Students with Disabilities and Parent Provided Transportation.....	241
Assumptions of the IEP Committee Regarding LRTE Parent Transport and District Reimbursement.....	241
School District Liability Issues When Crashes Occur during Parental Transportation Service Provided to Their Own Child.....	242
Correct Child Safety Restraint System (CSRS) Use during Parental Transportation Service.....	242
LRTE=DISTRICTPAY Parents Transport the Child with a Disability And the District Reimburses the Parents for Their Services.....	243
Informal or Verbal Agreements to Pay for Parental Transportation Of Their Child is Null and Void.....	243
LRTE=PARENTPAY Student Uses Parental Accessible Van Inbound	

To School and Outbound from School without District Pay.....244
Summary.....247

References.....248
Subject Index.....257
Glossary.....270
Appendix A—How to Make a Slope Map.....282