



CAPITAL ASSET STATE OF GOOD REPAIR REPORT

Illinois Statewide Public Transportation Plan

AUGUST 2017

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I. INTRODUCTION

The state of the nation's aging infrastructure, particularly its transportation infrastructure, is becoming a greater focus as shown by the Moving Ahead for Progress in the 21st Century (MAP-21) surface transportation funding authorization bill, which was passed by the federal government in 2012. To address the capital needs of public transit systems across the country, the MAP-21 legislation mandated the creation of a Transit Asset Management (TAM) System to be implemented by the Federal Transit Administration (FTA), which would establish "a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets." 49 U.S.C. 5326(a)(3).

Critical to the safety and performance of a public transportation system is the condition of its capital assets—most notably, its rolling stock, equipment, facilities, and infrastructure. When transit assets are not in a state of good repair, the consequences include increased safety risks, decreased system reliability, higher maintenance costs, and lower system performance. The objective of the TAM system is to ensure that public transit providers maintain their capital assets in a state of good repair so that their capital assets are able to perform their designed function; that the use of their assets in their current condition do not pose a known, unacceptable safety risk; and their lifecycle investment has been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

In July 2016, FTA released its Final Rule on Transit Asset Management (TAM). The primary basis of this regulation is to ensure that transit providers are tracking the condition of their assets throughout their entire lifecycles before they start to fail. Having a TAM program in place can help transit agencies better forecast their capital needs while maintaining system reliability due to having better maintained equipment. The TAM Final Rule also outlines annual reporting requirements as they relate to the National Transit Database (NTD). The TAM Final Rule established the requirement of reporting an inventory of additional asset classes to the NTD not previously addressed, a condition assessment for assets for which the transit provider has capital replacement responsibility, and on performance measures and performance targets for all inventoried asset classes.

This supplemental report will explain the new federal rules for TAM and the NTD, examine the existing conditions of the asset inventory for all downstate transit providers, provide best practices for implementing TAM, and discuss recommendations offered for establishing TAM procedures at the state level.

II. DEFINITIONS

A. Rolling Stock

The TAM Final Rule discusses four transit asset categories; rolling stock, equipment, facilities, and infrastructure. Rolling stock refers to any type of revenue passenger vehicle used in the provision of public transit service. An indicator of state of good repair for rolling stock is age and/or mileage. Most, if not all, assets have an expected useful life threshold which the manufacturer and/or a transit provider may establish. In the case of rolling stock, the useful life threshold varies based on the vehicle type. Once an asset has reached its useful life threshold, it is said to be “beyond its useful life” or no longer in a state of good repair. Like all assets, rolling stock can still be utilized for revenue service by a transit provider after meeting its useful life threshold. This is common, due to the limited funding available to purchase all the new vehicles needed at one time. However, maintenance costs typically tend to increase the longer an asset remains in service beyond the useful life threshold unless refurbishment occurs. Between the increased likelihood of mechanical failure and increasing maintenance costs, it is in a transit provider’s best interest to maintain its vehicle fleet in a state of good repair. The same is true for all transit assets.

The Federal Transit Administration (FTA) has established guidelines for rolling stock useful life thresholds by vehicle type for vehicles purchased with FTA funds to help State Departments of Transportation (DOTs) and transit providers set their own useful life policies. These thresholds are outlined in FTA Circular 5010.1D: *Grant Management Requirements IV(3)(f)*. Each vehicle type has been assigned a threshold for years of service or total miles accumulated, whichever is met first (see Table 1). However, State DOTs and individual transit agencies are encouraged to set their own useful life thresholds based on any of the following methods outlined in the *Grant Management Requirements* circular:

- Generally accepted accounting principles
- Independent evaluation
- Manufacturer’s estimated useful life
- Internal Revenue Service guidelines
- Industry standards
- Grantee experience
- The grantee’s independent auditor who needs to concur that the useful life is reasonable for depreciation purposes
- Proven useful life developed at a federal test facility

Table 1: FTA Grant Rolling Stock Useful Life Guidelines¹

ASSET CLASS	ASSET TYPE (AKA VEHICLE TYPE)	YEARS OF SERVICE	MILES OF SERVICE
Buses	Large, heavy-duty transit buses including over the road buses (approximately 35'–40', and articulated buses	12	500,000
	Small size, heavy-duty transit buses (approximately 30')	10	350,000
	Medium-size, medium-duty transit buses (approximately 25'–35')	7	200,000
	Medium-size, light-duty transit buses (approximately 25'–35')	5	150,000
	Other light-duty vehicles used as equipment and in transport of passengers (revenue service) such as regular and specialized vans, sedans, and light duty buses including all bus models exempt from testing in the current 49 CFR part 665	4	100,000
Trolleys	A fixed guideway steel-wheeled "trolley" (streetcar or other light rail vehicle)	25	N/A
	A fixed guideway electric trolley-bus with rubber tires obtaining power from overhead catenary	15	N/A
	Simulated trolleys, with rubber tires and internal combustion engine (often termed "trolley-replica buses")	See appropriate Bus Vehicle Type above	N/A
Rail Vehicles		25	N/A
Ferries	Passenger Ferries	25	N/A
	Other Ferries (without refurbishment)	30	N/A
	Other Ferries (with refurbishment)	60	N/A

Most, if not all public transit vehicles bought with federal funds in the state of Illinois are centrally procured through Illinois Department of Transportation's (IDOT) Consolidated Vehicle Procurement Program. To be eligible for replacement, a vehicle must meet either the accumulated mileage or the age criteria for its asset class. The IDOT useful life thresholds are outlined in Table 2 below.

¹ FTA Circular 5010.1D: Grant Management Requirements, 2008.

Table 2: IDOT Vehicle Useful Life Policy²

VEHICLE TYPE	CRITERIA 1 (ACCUMULATED MILEAGE)	OR	CRITERIA 2 (AGE IN YEARS)
Autos/Mini-Vans/Raised Roof Vans	95,000 Miles	OR	5 years, in documented unsafe & poor operating condition
Light Duty Paratransit Vehicle	100,000 Miles	OR	7 years, in documented unsafe & poor operating condition
Medium Duty Paratransit Vehicle/ School Bus	120,000 Miles	OR	8 years, in documented unsafe & poor operating condition
Super Medium Duty Paratransit Vehicle (16+ passengers)	180,000 Miles	OR	9 years, in documented unsafe & poor operating condition
Heavy Duty Transit Vehicle (30+ passengers)	280,000 Miles	OR	10 years, in documented unsafe & poor operating condition

An asset inventory of all revenue passenger vehicles used in the provision of public transit service is required for TAM and NTD compliance. As the new TAM Final Rule applies to rolling stock, there are several new items that must be captured in a transit asset inventory beyond what is required for FTA grants. These additions include vehicles not involving federal funds in their acquisition and all revenue vehicles owned by any non-governmental organization that provides public transportation (as opposed to closed-door service only for participants of certain programs) that has vehicles funded with FTA's Section 5310 grant for Enhanced Mobility of Seniors and Individuals with Disabilities. A new element of the FTA's useful life policy is that a condition assessment must now also be conducted on inventoried revenue vehicles that the transit provider has direct capital replacement responsibility.

The NTD will also now require a transit provider to report an established useful life benchmark (ULB) for each vehicle type (i.e. bus, cutaway bus, articulated bus, etc.) in its entire revenue fleet in terms of age. Either the transit provider can establish its own ULB for each vehicle type or the provider may use the FTA default useful life benchmarks for each vehicle type (see Table 3 for FTA default ULBs). The TAM ULBs established by each transit provider may or may not be the same as the useful life thresholds used for vehicle procurement under FTA grant programs. The distinction between the useful life thresholds addressed in the *Grant Management Requirements* circular and the ULBs described in the TAM rulemaking is that the TAM ULBs apply to all vehicles reported in a TAM reporting provider's inventory (which involve vehicles not funded with FTA funds) while the useful life guidelines addressed in the FTA Grant Management circular only apply to vehicles funded with FTA funds. The NTD online data portal will automatically calculate how many years of useful life are remaining for each vehicle fleet (vehicles grouped by the same make, model, year of manufacture, which are reported as a group) and is identified as the performance measure for each vehicle type. An agency can enter into the NTD online portal the fleet average, instead of each vehicle. With the TAM Plan, it can be done by individual vehicle or by fleet.

² Section Chief, IDOT Consolidated Vehicle Procurement Program – July, 2016

Table 3: FTA Default Useful Life Benchmarks³

Vehicle Type	Default ULB (in years)
AB Articulated bus	14
AG Automated guideway vehicle	31
AO * Automobile	8
BR Over-the-road bus	14
BU Bus	14
CC Cable car	112
CU Cutaway bus	10
DB Double decked bus	14
FB Ferryboat	42
HR Heavy rail passenger car	31
IP Inclined plane vehicle	56
LR Light rail vehicle	31
MB Minibus	10
MO Monorail vehicle	31
MV Minivan	8
* Other rubber tire vehicles	14
RL Commuter rail locomotive	39
RP Commuter rail passenger coach	39
RS Commuter rail self-propelled passenger car	39
RT Rubber-tired vintage trolley	14
SB School bus	14
* Steel wheel vehicles	25
SR Streetcar	31
SV Sport utility vehicle	8
TB Trolleybus	13
TR Aerial tramway	12
VN Van	8
VT Vintage trolley	58

* Indicates vehicle types that are also used to categorize non-revenue, service vehicles

The transit provider must then report a performance target for the percentage of vehicles of each vehicle type that will have met or exceeded their useful life in terms of age by the end of the following reporting year. Even though FTA is using age for vehicle ULB, FTA expects each agency to determine an appropriate age based on their operating environment, which would include taking average vehicle mileage accumulated by a certain age into account.

³ FTA, Default Useful Life Benchmark (ULB) Cheat Sheet, October 2016. Accessed online on 10/28/16 at: <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20TAM%20ULB%20Cheat%20Sheet%202016-10-26.pdf>

B. Equipment

The FTA *Grant Management Requirements* circular addresses the asset category of “equipment” requiring that an asset inventory capture information about each piece of equipment, which is classified as, “an article of nonexpendable, tangible personal property having a useful life of more than one year and an acquisition cost which equals or exceeds the lesser of the capitalization level established by the governmental unit for financial statement purposes, or \$5,000.” The circular also includes light duty vehicles such as vans, sedans, and pick-up trucks employed in administrative and maintenance purposes and all other such property used in the provision of public transit service in its definition of equipment. For the purposes of the new TAM requirements, the definition of equipment is not specified any further than it was in the FTA *Grant Management Requirements* circular, but is given a higher acquisition cost threshold of \$50,000; the rationale being that there is more information that must be tracked with the new requirements so increasing the acquisition threshold is intended to reduce administrative burden while putting the focus on significant pieces of equipment. The new TAM requirements also specify that third-party equipment assets are not to be included (i.e. equipment owned by a contractor who is operating a given transit service) in the TAM program.

Just as is the case for rolling stock, transit providers are required to indicate an expected useful life for equipment purchased with FTA grants. However, the only useful life guidelines the *Grant Management* circular provides for equipment is that of non-revenue, service vehicles, which follow the same guidelines as that for the rolling stock categories outlined in Table 1. The remaining equipment items must have an anticipated useful life assigned to them using the methods outlined in the bullet points earlier in this report, which are also outlined in the circular. The new TAM requirements do not indicate that transit providers must identify a useful life benchmark for equipment with the exception of non-revenue, service vehicles. The useful life of non-revenue service vehicles is to be designated either using the same guidelines for each vehicle type outlined in the circular, the methods outlined in the bullet points on earlier in this report, which are also outlined in the circular, or using the FTA default useful life benchmarks as shown in Table 3.

IDOT has adapted its useful life guidelines for various types of Equipment from the Virginia Department of Transportation (VADOT) (see Table 4). Because FTA does not currently offer any specific guidance on equipment types other than non-revenue, service vehicles, it is helpful that IDOT has adopted its own nomenclature for the purposes of maintaining its asset inventory and for capital planning purposes.

Table 4: IDOT Equipment Useful Life Guidelines

ASSET CLASS	ASSET DETAIL	USEFUL LIFE - YEAR	SOURCE
OTHER CAPITAL EQUIPMENT	Fare Box	10	Industry Standard
	Computer Hardware	4	GAAP/Industry Standard
	Mobile Data Terminals	7	Industry Standard
	Computer Software	4	GAAP/Industry Standard
	Scheduling/Fleet Management Software	4	GAAP/Industry Standard
	Communications Equipment (radios, base stations, etc.)	10	GAAP/Industry Standard
	Surveillance Equipment - Vehicles	Same as Vehicle	
	Surveillance Equipment - Facility	10	Industry Standard
	Shop Equipment - Alignment Machines, etc.	10	Industry Standard
	Bus Lift	20	Industry Standard
	Wheelchair Lift	Same as Vehicle	
	Bus Shelters	15	Industry Standard
	Bus stop benches	10	Industry Standard
	Office Furniture	5	Industry Standard
	Carpeting	25	Industry Standard
	Repeater Tower	25	Industry Standard
	Bus Engine	4	Industry Standard
	Bus Stop Signage	10	Industry Standard
	HVAC Parts	5	Industry Standard
	Asphalt Parking Lot	15	GASB
Thermal Diesel Particle Filter Cleaner	10	Industry Standard	
Commercial Roofing	15	Industry Standard	

The TAM Final Rule requires that all non-revenue vehicles (regardless of acquisition cost) and equipment over \$50,000 used in the provision of public transit except third-party equipment assets be included in the TAM inventory. A condition assessment is only required for those inventoried non-revenue service vehicles for which the transit provider funds its replacement. For NTD purposes, the TAM Final Rule requires that only non-revenue service vehicles be reported and a useful life benchmark (ULB) be assigned to each vehicle type. Having to report non-revenue service vehicles is new for the NTD annual report. It should be noted that non-revenue service vehicles are reported under the category of “service vehicles” in the NTD report rather than being classified as “equipment”. The performance measure for non-revenue service vehicles is the same as that used for rolling stock, which is age. The performance target for non-revenue service vehicles is to be an anticipated percentage of all inventoried vehicles (in this case, just non-revenue service vehicles), which will have met their useful life benchmark by the end of the following reporting year.

C. Facilities

TAM Final Rule is the first time that facilities have been categorized further than the two general types of categories as outlined in the FTA *Grant Management* circular, of a “railroad or highway structure” and “other buildings and facilities (concrete, steel, and frame construction).” The TAM Final Rule defines facilities as, “any buildings or structures used in providing public transportation, including passenger stations, operations, maintenance, and administrative facilities.” Inherent in this definition of facilities are the asset classes (i.e. subgroup of capital assets within an asset category), which the TAM Final Rule displays in a sample asset inventory hierarchy of support facilities; which include facilities used for maintenance, administrative, and operations activities; passenger facilities, which include bus transfer stations and rail terminals (the TAM Final Rule explicitly states that basic bus shelters do not need to be included); and parking facilities, which include parking garages and park-and-ride lots.

The FTA *Grant Management* circular offers minimum useful life thresholds of 50 years and 40 years for “railroad/highway structures” and “most other buildings and facilities”, respectively. It also states that, “Determining the useful life of a facility must take into consideration such factors as type of construction, nature of the equipment used, historical usage patterns, and technological developments” and that the methods outlined in Chapter IV, Subsection 3.f.(2)(a), should be utilized when determining useful life. IDOT currently addresses one facilities category in its asset management practices, which is “Buildings constructed from concrete or steel and frame”. IDOT has assigned 40 years of useful life to its facilities category and references the *Grant Management* circular as the source of this useful life threshold. Therefore, 40 years is the useful life that will be used for the state of good repair analysis of the reported downstate facilities.

In addition to the asset inventory of all facilities used in the provision of public transit, the condition assessment that is required for the TAM Plan asset inventory is only required for facilities for which the transit provider has full or partial capital replacement responsibility. The condition measure to be used is that of the FTA TERM (Transit Economic Requirements Model) scale, which has a 1 through 5 rating scale where 1 = Poor and 5 = Excellent. FTA published a draft *Facility Condition Assessment Guidebook* in the summer of 2016, which transit providers are offered to use for guidance in conducting their facility condition assessments. The current NTD reporting requirements do not require Rural, Tribal Transit, or Section 5310 transit providers to report on facilities but they will have to start reporting in 2017. The individual facilities will need to be included in the TAM Plan asset inventory and NTD data report rather than being reported as a count of facility type as previous NTD reports required. For the TAM Final Rule, facilities were reported by number. Now, each individual facility needs to be listed. For these facilities age isn’t used; rather, they require each facility to be rated by the TERM scale.

Even though the NTD data report asks for the year the facility was constructed, the performance measure for facilities is not based on age like that of rolling stock and service vehicles, but rather, its TERM scale rating. The performance target for facilities is an established percentage of facilities with a TERM scale condition rating below 3.0 by the end of the following reporting fiscal year.

D. Infrastructure

Infrastructure had not been previously addressed in the FTA *Grant Management* circular or in the annual NTD data report. The TAM Final Rule defines infrastructure as, “the underlying framework or structures that support a public transportation system.” Although specific categories are not outlined in the TAM definition, in section 625.43 of the TAM Final Rule, which addresses state of good repair performance measures for capital assets, rail fixed guideway, track, signals, and systems are listed and in the sample transit asset hierarchy in the appendix of the Final Rule (which is noted as not intending to be comprehensive) are the following categories:

- **Fixed Guideway:**
 - *Track Segment*
 - *Ballast Segment*
 - *Exclusive Bus Right-of-Way Segment*
- **Structures:**
 - *Bridge*
 - *Tunnel*
 - *Elevated Structure (i.e. viaduct, etc.)*
- **Systems**
 - *Signal Substation*
- **Power**
 - *Catenary Segment*
 - *Third Rail Segment*

IDOT does not currently address an Infrastructure asset category in its asset management program. Therefore, the NTD reporting categories are used to categorize all reported downstate infrastructure assets in this report. The TAM Final Rule states that only the percentage of rail track segments with performance restrictions will serve as the TAM Plan inventory condition assessment performance measure for the Infrastructure category and as the performance measure and target for the annual NTD Data Report. The new NTD annual data report will capture data on rail track mileage by type (e.g. tangent or curved), major track elements (e.g. crossovers), guideway by construction type (e.g. elevated, tunnel, etc.) divided in to ten year age buckets, count of substation structures and substation equipment divided in to ten year age buckets, percentage of signal assets divided into ten year age brackets, and the percentage of third rail / catenary divided into ten year age brackets. No information was captured on any Infrastructure category previously by NTD.

III. TAM PLAN

A. TAM Plan Reporters

As mentioned previously, the TAM Final Rule described the new requirement that any transit providers that are recipients or subrecipients of federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage transit capital assets used in the provision of public transportation are, based on their size, required to either develop and implement a TAM Plan or participate in a Group Plan. A transit provider can be categorized as a Tier I provider, which means that it must develop its own TAM Plan, if it owns, operates, or manages rail transit or 101 or more bus vehicles during peak regular service across all fixed route modes or in any one non-fixed route mode. A Tier II provider operates, or manages 100 or fewer vehicles during peak regular service across all fixed modes or in any one non-fixed route mode, is a subrecipient under the 5311 Rural Area Formula Program, or is an American Indian tribe and can either develop and implement its own or participate in a group plan. A group TAM Plan sponsor is tasked with developing a group TAM Plan and is generally the State DOT or designated Section 5310 recipient. Tier I providers must include elements one through nine, as described below, in its TAM Plan while a group TAM Plan sponsor need only to include elements one through four.

B. TAM Plan Element 1: Inventory of Capital Assets

The inventory of capital assets must include all capital assets that a transit provider owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle. The inventory must also include third party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision of public transportation. The inventory must be organized at a level of detail commensurate with the level of detail in the provider's program of capital projects.

C. TAM Plan Element 2: Condition Assessment of Inventoried Capital Assets

The inventory of capital assets must also include a condition assessment of those inventoried assets for which a provider has direct capital responsibility. The final rule does not speak to what condition rating scale for rolling stock or equipment should be used or prescribe how a condition assessment must be conducted (except in the case of facilities and rail track), rather the required result of the assessment, which is the rating of the inventoried assets (i.e. age, good/fair/poor, percentage of residual life). Condition assessments may be collected at the individual or asset class level by conducting a sampling of assets within an asset class, or use another method of a provider's choosing. Whatever evaluation methodology is used, the condition assessment must generate information in a level of detail sufficient to monitor and predict the performance of the assets and to inform the investment prioritization. FTA has published two proposed guidebooks for conducting a condition assessment on facilities and on guideway infrastructure which must be reported to NTD in terms of the TERM scale and percentage of rail track segments with performance restrictions.

D. TAM Plan Element 3: Decision Support Tools

A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization needs to be provided. Although there are software programs available that can be used to input data to help prioritize capital investment decisions (TERM being one of them), it is not required to utilize such programs. A transit provider simply needs to document the process it uses in understanding its capital investment needs and in prioritizing reasonably anticipated funding towards those needs.

E. TAM Plan Element 4: Investment Prioritization

This element is a provider's project-based prioritization of investments. A provider must also rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year. A provider's project rankings must be consistent with its TAM policy and strategies. The provider must adequately consider identified unacceptable safety risks and Americans with Disabilities Act (ADA) accessibility requirements.

F. TAM Plan Element 5: TAM and SGR Policy

Policies that should be present in the plan include a transit asset management (TAM) policy that documents a transit provider's commitment to achieving and maintaining a state of good repair for all of its capital assets. The TAM policy defines the transit provider's TAM objectives and defines and assigns roles and responsibilities for meeting those objectives. This plan should also have an operational level process for implementing the plan. The process should include a description of actions needed to implement the TAM Plan for each year of the plan's horizon, and a summary or list of the resources, including personnel that a provider needs to develop and carry out the plan. Finally, a provider needs an outline of how they will monitor, update, and evaluate its TAM Plan as needed and related business practices, to ensure the continuous improvement of its TAM practices.

G. TAM Plan Element 6: Implementation Strategy

In this section of the plan, the provider will discuss the operational level processes for implementing the TAM Plan.

H. TAM Plan Element 7: List of Key Annual Activities

Description of actions needed to implement the TAM Plan for each year of the plan's horizon.

I. TAM Plan Element 8: Identification of Resources

A summary or list of the resources, including personnel that a provider needs to develop and carry out the TAM Plan.

J. TAM Plan Element 9: Evaluation Plan

An outline of how a provider will monitor, update, and evaluate its TAM Plan as needed and related business practices, to ensure the continuous improvement of its TAM practices.

IV. EXISTING CONDITIONS

A. Data Used for IDOT Rolling Stock State of Good Repair Analysis

FTA administers the NTD, which collects asset inventory and operating data annually from all federally funded transit agencies across the country. The data is entered online by each reporting agency or, in the case of rural agencies, by the State DOT. The NTD rolling stock inventory data for all the downstate agencies were not available in digital format for this rolling stock state of good repair analysis. Therefore, data from the Western Illinois University Rural Transit Assistance Center's (RTAC) 2015 annual Capital Needs Assessment (CNA) was the primary data source used for this analysis. Hard copies of the providers' inventories were provided to the consultant team for the NTD annual reports by IDOT but it was not noted on the forms for which fiscal years the inventories represented. Data from the hard copy NTD vehicle inventories supplemented the CNA vehicle roster as did vehicle inventories that were also provided by IDOT for the state Section 5311 grant application for fiscal years 2014 - 2017.

The RTAC sends out an asset inventory data collection Excel workbook to be filled out by all downstate transit agencies (those agencies outside of the Chicago Metropolitan Statistical Area) every year. The workbook solicits data on the current and planned asset inventory. The purpose of this inventory is to produce a projected capital budget for IDOT.

Asset management consultants at Booz Allen Hamilton developed the CNA data collection workbook cost projection formulas for IDOT. RTAC gathers information from the agencies and produces the asset cost projections for IDOT. It should be noted that the asset classes used in the RTAC CNA form differ from those outlined in the IDOT useful life policy used for the IDOT Consolidated Vehicle Procurement Program, which could be a potential source of inaccurate capital budget projections. The characteristics of the vehicle types laid out in the IDOT vehicle useful life policy and in the RTAC CNA are not defined, which may further exacerbate any potential discrepancy of the cost projections.

For the purposes of this state of good repair analysis, the CNA vehicle types have been recategorized to the IDOT and FTA *Grant Management* circular vehicle types outlined in its useful life policy using the vehicle type descriptions and seating capacity provided in the CNA (see Table 5).

The two types of vehicles not listed in the IDOT useful life policy which were Rail and Water Taxi. Only one agency has water taxis (MetroLink) and one system (St Louis Metro) has a rail system. For these two non-IDOT identifiable vehicle types, the following FTA grants management useful life guidelines asset classes were used: fixed guideway steel-wheeled trolleys and ferry. Service vehicles are also not a vehicle type addressed in the IDOT Useful Life Policy. However, the FTA *Grant Management* circular does address the definition of equipment, which includes service vehicles so service vehicles are categorized under the equipment asset category for the purposes of this report.

Table 5: Downstate Reported Vehicle Types Recategorized into IDOT and FTA Grant Management Useful Life Asset Classes

IDOT TYPE <i>(IDOT PROVIDED)</i>	CNA TYPE <i>(USED IN WIU CAPITAL NEEDS ASSESSMENT)</i>	FTA TYPE <i>(PROVIDED IN FTA C 5010.1 D)</i>	
Autos/Mini-Vans/Raised Roof Vans	Car		
	Mini-Van		
	Raised Roof Van		
	Vanpool		
Light Duty Paratransit Vehicle	Light-Duty (12-pass)		
Medium Duty Paratransit Vehicle / School Bus	Medium-Duty (14-pass)		
	Medium-Duty HYBRID (14-pass)		
	Medium-Duty Fixed Route		
Super Medium Duty Paratransit Vehicle (>16 passenger)	Super Medium-Duty (22-pass)		
	Super Medium-Duty Fixed Route		
	Small Bus (<25 pass)		
Heavy Duty Transit Vehicle (>30 pass)	Heavy Duty		
	Large Bus (>35 pass)		
	Large Bus HYBRID (>35 pass)		
	Articulated Bus		
	Medium Bus (25-35 pass)		
	Medium Bus HYBRID (25-35 pass)		
	BRT Vehicle		
N/A	Light Rail	Fixed Guideway Steel-Wheeled "Trolley" (Streetcar or other Light Rail Vehicle)	
N/A	Rail Car		
N/A	Ferry	Ferry	
N/A	River Taxi		
N/A	Service Vehicle	Equipment (i.e. Service Vehicle)	
	Other		

Note: Red font indicates the Vehicle categories used for this analysis.

B. Vehicle Fleet Characteristics

Table 6 displays the vehicle fleet breakdown for each of the 49 downstate transit agencies. It should be noted that this inventory may not be comprehensive as it is possible that non-governmental agencies that provide public transportation with Section 5310 funded vehicles are not included in this rolling stock inventory. Per the new TAM Final Rule, all Section 5310 vehicles used to provide public transit by non-governmental entities will need to be included in all TAM Plan inventories and planning activities.

There were 2,192 vehicles in the vehicle inventory provided by RTAC and IDOT. MCT had the most vehicles (244) and Stateline MTD had the smallest fleet having just three vehicles. In order of highest to lowest vehicle count among all the agencies combined, the vehicle categories were as follows: heavy duty transit vehicle (30+ passengers) (642), medium duty paratransit vehicle/school bus (609), autos/mini-vans/raised roof vans (388), light duty paratransit vehicle (291), super medium duty paratransit vehicle (16+ passengers) (173), service vehicles (62), fixed guideway steel-wheeled (streetcar or other light rail vehicle) (24), and ferry (3).

Table 6: Vehicle Fleet Profile by Agency

AGENCY	AUTOS / MINIVANS / RAISED / ROOF VANS	LIGHT DUTY PARATRANSIT VEHICLE	MEDIUM DUTY PARATRANSIT VEHICLE / SCHOOL BUS	SUPER MEDIUM DUTY PARATRANSIT VEHICLE (>16 PASSENGER)	HEAVY DUTY TRANSIT VEHICLE (>30 PASSENGER)	A FIXED GUIDEWAY STEEL- WHEELED "TROLLEY" (STREETCAR OR OTHER LIGHT RAIL VEHICLE)	PASSENGER FERRIES	SERVICE VEHICLES	TOTAL	TOTAL BEYOND USEFUL LIFE	PERCENTAGE OF PROVIDER FLEET BEYOND USEFUL LIFE	AVERAGE YEARS BEYOND USEFUL LIFE
RIM	10	5	1	-	-	-	-	-	16	16	100%	2.9
River Valley Metro	1	-	11	1	10	-	-	3	26	25	96%	2.2
GoWest/McDonough County Transit	14	-	5	7	27	-	-	-	53	40	75%	4.5
Warren Achievement Center	6	3	6	-	-	-	-	-	15	11	73%	1.8
MetroLink	13	2	10	-	58	-	3	5	91	66	73%	4.3
Decatur Public Transit System	2	4	1	-	24	-	-	8	39	27	69%	6.2
CIPT	10	-	27	3	-	-	-	-	40	25	63%	8
Marshall-Stark Transportation	5	2	1	-	-	-	-	-	8	5	63%	5.1
Hancock County	4	-	4	2	-	-	-	-	10	6	60%	1.5
Henry County	8	-	7	-	-	-	-	-	15	9	60%	1.6
Macoupin County Public Transportation	13	2	14	1	-	-	-	-	30	18	60%	3.6
TransVac	9	8	13	6	-	-	-	-	40	24	60%	2.2
Galesburg City Bus	-	4	6	-	7	-	-	-	17	10	59%	3.2
Quincy Transit	5	2	8	13	1	-	-	-	29	17	59%	5.2
CRIS Rural MTD	3	2	24	-	-	-	-	-	29	17	59%	4.8
SHOWBUS	1	7	35	14	1	-	-	-	58	33	57%	4.1
Bond County Senior Center	5	4	4	1	-	-	-	-	14	8	57%	3.8
South Central MTD	19	18	47	36	35	-	-	-	155	87	56%	4.3
Jo Daviess County Transit	4	-	16	-	-	-	-	-	20	11	55%	3.1
Connect Transit	1	-	15	-	34	-	-	5	55	29	53%	4.6

AGENCY	AUTOS / MINIVANS / RAISED ROOF VANS	LIGHT DUTY PARATRANSIT VEHICLE	MEDIUM DUTY PARATRANSIT VEHICLE / SCHOOL BUS	SUPER MEDIUM DUTY PARATRANSIT VEHICLE (>16 PASSENGER)	HEAVY DUTY TRANSIT VEHICLE (>30 PASSENGER)	A FIXED GUIDEWAY STEEL-WHEELED "TROLLEY" (STREETCAR OR OTHER LIGHT RAIL VEHICLE)	PASSENGER FERRIES	SERVICE VEHICLES	TOTAL	TOTAL BEYOND USEFUL LIFE	PERCENTAGE OF PROVIDER FLEET BEYOND USEFUL LIFE	AVERAGE YEARS BEYOND USEFUL LIFE
Shawnee MTD	15	8	23	14	11	-	-	-	71	36	51%	3.9
Boone County Council on Aging	-	1	9	-	-	-	-	-	10	5	50%	1.3
Pretzel City Area Transit	4	6	-	2	-	-	-	-	12	6	50%	2.4
CityLink	12	43	2	-	65	-	-	4	126	60	48%	4.3
BPART	5	17	4	-	-	-	-	-	26	12	46%	2
Champaign-Urbana MTD	8	-	15	-	103	-	-	6	132	60	45%	4.3
NCAT	5	11	6	-	-	-	-	-	22	10	45%	2.9
Danville MTD	2	-	1	4	10	-	-	1	18	8	44%	5.0
Springfield MTD	5	-	24	-	56	-	-	3	88	39	44%	5.5
West Central MTD	15	21	20	2	3	-	-	-	61	27	44%	4.9
LOTS	5	13	5	3	-	-	-	-	26	11	42%	1.9
Dial-a-Ride	1	-	13	4	1	-	-	-	19	8	42%	4.6
WeCare	5	3	23	-	-	-	-	-	31	13	42%	1.4
Jackson County MTD	3	12	3	-	-	-	-	-	18	7	39%	2.6
Whiteside County Public Transportation	3	7	7	1	-	-	-	-	18	7	39%	3.2
Piatttran	3	3	5	2	-	-	-	-	13	5	38%	0.9
KAT	1	9	5	1	-	-	-	-	16	6	38%	0.6
St. Clair County	2	-	36	5	72	24	-	8	147	55	37%	5.4
Rides MTD	17	14	81	43	4	-	-	-	159	57	36%	5.5
Logan-Mason County Public Transportation	8	8	1	-	-	-	-	-	17	6	35%	4.0
Monroe Randolph MTD	8	4	8	-	-	-	-	-	20	6	30%	1.6

AGENCY	AUTOS / MINIVANS / RAISED ROOF VANS	LIGHT DUTY PARATRANSIT VEHICLE	MEDIUM DUTY PARATRANSIT VEHICLE / SCHOOL BUS	SUPER MEDIUM DUTY PARATRANSIT VEHICLE (>16 PASSENGER)	HEAVY DUTY TRANSIT VEHICLE (>30 PASSENGER)	A FIXED GUIDEWAY STEEL- WHEELED "TROLLEY" (STREETCAR OR OTHER LIGHT RAIL VEHICLE)	PASSENGER FERRIES	SERVICE VEHICLES	TOTAL	TOTAL BEYOND USEFUL LIFE	PERCENTAGE OF PROVIDER FLEET BEYOND USEFUL LIFE	AVERAGE YEARS BEYOND USEFUL LIFE
Rockford MTD	7	-	25	6	40	-	-	4	82	21	26%	6.1
Carroll County Transit	5	3	-	-	-	-	-	-	8	2	25%	2.6
MCT	111	42	-	-	76	-	-	15	244	50	20%	2.9
Fulton County	2	1	3	2	-	-	-	-	8	1	13%	10.1
Grundy Transit System	-	2	7	-	-	-	-	-	9	1	11%	0.6
CountyLink	1	-	11	-	-	-	-	-	12	1	8%	4.4
C-CARTS	2	-	14	-	-	-	-	-	16	-	0%	-
Stateline MTD	-	-	3	-	-	-	-	-	3	-	0%	-
Total	388	291	609	173	642	24	3	62	2,192	1,004	46%	4.2

C. IDOT Rolling Stock State of Good Repair

Because useful life is a benchmark being used by the NTD and TAM Final Rule to determine a vehicle's state of good repair, the age of all the vehicles reported by all 49 downstate agencies were compared to their useful life threshold as currently established by IDOT for this state of good repair analysis. The date range by which the age of the reported vehicles was extrapolated started with the date the vehicle was built and ended on February 1, 2017. This date was chosen as the end date because that date is around the time this asset inventory and analysis was completed. If a manufacture date was not provided, the manufacture date was listed as January 1 of the reported vehicle model year.

As shown in Table 6, the transit agency with the highest percentage of its fleet to be beyond its state of good repair was RIM with 100 percent of its 16 vehicles being beyond their useful life with an average excess of 2.9 years. River Valley Metro has the second highest percentage of its fleet beyond their useful life thresholds with 96 percent of its 26 vehicles being beyond their useful life and an average excess of 2.2 years. All agencies that had fleets averaging five years above their useful life had their average years beyond useful life numbers highlighted in red in Table 6. The two highest average excesses were observed for Fulton County (10.1 years), Decatur Public Transit System (6.2 years), and Rockford MTD (6.1 years). Two of the transit providers had no vehicles that are beyond their useful life--C-CARTS and Stateline MTD. Condition reports were provided for many of the vehicles on the Section 5311 statewide grant application vehicle inventories; however, this information is incomplete. Therefore, the consultant team opted to use age for the purpose of this analysis. Ideally, a condition assessment would be reported for all vehicles which could then be compared with the years beyond useful life in order to determine a more applicable useful life benchmark for each vehicle type.

Table 7 displays a breakdown of how many vehicles from each asset class were beyond their useful life and what the average years beyond useful life the vehicles from each class were. If IDOT wanted to establish a different ULB for each asset class than what FTA provides, it could continue using the current IDOT useful life policy thresholds initially. Then, they could continue to track the average age beyond useful life of each vehicle type, and then decide whether to adjust their own benchmarks. For example, because the average years beyond useful life for the autos / minivans / raised roofs vehicle type is 8.9 years, IDOT may want to consider adjusting the useful life benchmark from five years for this vehicle type to nine years so that the benchmark can be more reflective of its current capital funding realities.

Table 7: Observed Average Age Beyond Useful Life of Vehicle Asset Classes

ASSET CATEGORY	ASSET CLASS	TOTAL IN ASSET CLASS	TOTAL BEYOND USEFUL LIFE			CURRENT IDOT USEFUL LIFE POLICY AGE THRESHOLD	AVERAGE YEARS OVER AGE + IDOT POLICY AGE THRESHOLD	RECOMMENDED ULB FOR ASSET CLASS (AVERAGE YEARS OVER AGE + IDOT POLICY AGE ROUNDED)	YEARS DIFFERENCE BETWEEN RECOMMENDED ULB & IDOT POLICY	
			TOTAL	% OF ASSET CLASS	AVERAGE YEARS OVER AGE					
ROLLING STOCK	Autos / Minivans / Raised Roof Vans	388	248	64%	3.9	5	8.9	9	4	
	Light Duty Paratransit Vehicle	291	151	52%	2.6	7	9.6	10	3	
	Medium Duty Paratransit Vehicle / School Bus	609	239	39%	3.5	8	11.5	12	4	
	Super Medium Duty Paratransit Vehicle (>16 Passenger)	173	63	36%	5.1	9	14.1	14	5	
	Heavy Duty Transit Vehicle (>30 Passenger)	642	255	40%	4.8	10	14.8	15	5	
	A Fixed Guideway Steel-Wheeled "Trolley" (Streetcar or Other Light Rail Vehicle)	24	-	0%	-	25	25	25	0	
	Passenger Ferries	3	-	0%	-	25	25	25	0	
	SERVICE VEHICLES		62	48	77%	9.2	*5	14.2	14	9

*Note: Five years is used as the useful life threshold for Service Vehicles in this state of good repair analysis because the majority of those vehicles that were indicated as "Service Vehicle" or "Other" in the CNA inventory would have fit in the "Autos / Minivans / Raised Roof Vans" IDOT vehicle type based on the observation of their make and model had they not been indicated as "Service Vehicle" or "Other".

D. Data Used for IDOT Equipment State of Good Repair Analysis

The data used for this analysis was obtained from the RTAC 2015 CNA. The data was self-reported in the CNA as either “facility equipment” or “ITS”. Non-revenue service vehicles were not prompted to be recorded in either of these sections of the CNA but rather in the “vehicles” section of the report. For the purposes of this report, the inventory and state of good repair analysis for non-revenue service vehicles are maintained in Section 2a of the report. All other equipment that was reported in the CNA and had an acquisition cost of \$50,000 or more was documented in Section 2b of the report. Office furniture and bus shelters that had an acquisition cost of \$50,000 or more were excluded from documentation in this report per the TAM Final Rule, as the rule determined that these items do not need to be inventoried.

For the purposes of this report, the equipment types reported in the CNA were recategorized into the IDOT Asset Categories (see Table 8). It should be noted, however, that the recategorization is based on the description of the asset without regard to its reported useful life. This means that in many cases the IDOT assigned useful life thresholds are not going to be the same as those reported for each asset in the CNA. The useful life that is reported for each asset in the following tables is what was reported for that asset in the CNA.

Table 8: CNA Equipment Categories Recategorized into IDOT Equipment Categories

EQUIPMENT TYPE (IDOT CATEGORIES)	EQUIPMENT TYPE (CNA CATEGORIES)
Bus Lift	In-Ground Lifts
	Other Lifts At Ground
	Portable Lifts
Communications Equipment (radios, base stations, etc.)	6/03 COMM SYS DIRECT COSTS
	6/04 DIR COST- COMM EQUIPMT
	ADD'L PORTABLE RADIOS
	COMMUNICATION EQ FOR SAFB
	High Bandwidth Cellular Communication Equipment
	IL Y&S COMMUN SYSTEM
	Mobile Radios
	PHONE & DATA SYSTEM
	Radio Equipment
	Radio Transmitters
	STN#2** COMMUN SYSTEM
Telephone Equipment	
Computer Hardware	Automatic Passenger Counters (APC)
	Automatic Vehicle Location (AVL)
	AVL System
	Computers & Software
Computer Software	Computer Software
Electronic Signage*	Electronic Sign
Elevator*	Elevators
Fare Box	Bus Fareboxes
	Farebox Collection Equipment
	Fareboxes and Vault Equip.
	Smart Card Readers/Validators and Driver Control Units
Fuel Islands*	Fuel Islands / System
Mobile Data Terminals	CAD/AVL Equipment on Illinois buses
	Mobile Data Terminals (MDT)
	Mobile Data Terminals MDTs & AVLs
Other	10 TON O.H. BRIDGE CRANE
	CHAIN LINK FENCE/PRIVACY
	Driving Simulators
	FIRE ALARM & SMOKE DET SYS
	RERAIL EQ FOR TRAINS
	Security Gate Equipment @ 29th Street
	Sign Curtain
Train Mover	

EQUIPMENT TYPE (IDOT CATEGORIES)	EQUIPMENT TYPE (CNA CATEGORIES)
Scheduling/Fleet Management Software	Computer Aided Dispatch (CAD)
	Computer Software Dispatch/Scheduling
	CTS - Software / Hardware
	Dispatching Software
	MDT Software
	Paratransit Computer Aided Dispatch (CAD)
	RM Software
Shop Equipment - Alignment Machines, etc.	Bus Vacuum System
	Bus Wash
	Bus Wash Rack
	Bus Washers
	Floor Sweeper/Scrubber
	Maintenance Equipment
	Mobile Equipment Bus Tug
	Other Installed Equip Generator
	Other Installed Equipment
	PARTS STORAGE EQUIPMENT
	PARTS STORGE RACKS&CABINT
	Roll Way Tool Chests
	Train Paint Booth at IL Metrolink
	TRUCK TURNTABLE- IN THE FLOOR
	VACUUM SYSTEM-BUS
VEHICLE WASHER	
WASH SYSTEMS-BUS (2)	
Surveillance Equipment - Vehicles	Bus On-Board Video System
	In-Bus Camera System
Ticket Vending Machine*	Fare Collection
	Ticket Vending Machine - TVM 400***

- * Indicates equipment types created by the consultant team to better align with CAN categories.
- ** Indicates that there were more of this line item reported in the CNA that were labeled "STN#2 – 9 COMMUN SYSTEM"
- *** Indicates that there were more of this line item reported in the CNA that were labeled "Ticket Vending Machine - TVM 400 – 453"

E. Equipment Inventory

According to the TAM Final Rule, equipment components that are part of an asset (i.e. surveillance cameras on a bus, automatic vehicle location (AVL) devices, fareboxes, shop equipment, etc.) are to be itemized in the asset inventory at the level of detail found in a transit providers program of capital projects. For the purposes of this report, any equipment line item that was listed in the CNA that had an acquisition cost of \$50,000 or more was documented in this inventory. For some agencies, there are several of the same equipment types listed. In these instances, the equipment types were not consolidated because they either had a different purchase year and/or a different expected useful life. NTD records asset types in groups by manufacture/construction date and expected service years when new so this inventory follows suit. It should also be noted that the column labeled “Condition Assessment Required?” is based on the response in the column “Facility Equipment Leased? (yes/no)”. If the response in the latter labeled column is “Yes”, the assumption made by the consultant team was that the asset is not owned by or that the provider does not have any capital replacement responsibility for the listed asset and, therefore, no condition assessment is required per the TAM Final Rule. The cells in the tables that have a dash indicate that there was no data provided or that information cannot be extrapolated because there was no data provided from which to extrapolate.

Out of the 49 reporting downstate agencies, 22 reported having pieces of equipment with an acquisition value of \$50,000 or greater. Among the items with the highest quantities reported among all the agencies combined were surveillance equipment for vehicles (616 units); communications equipment (radios, base stations, etc.) (576 units); fareboxes (466 units); mobile data terminals (294 units); and computer hardware. Out of the 2,450 equipment units inventoried among all the agencies, 99 percent (2,421 units) require a condition assessment.

F. Equipment State of Good Repair

Although the TAM Final Rule does not give state of good repair criteria on equipment types other than non-revenue service vehicles, years beyond useful life was used as placeholder to examine the state of good repair of inventoried equipment over \$50,000 since this data was provided. IDOT can use useful life (age) for its condition assessment of equipment or other criteria. Table 9 provides the median expected useful life identified for each asset type based on what was reported in the CNA, the median age of the assets in each group, the median years beyond useful life the assets in each group are, and the percentage of assets in each asset group that are beyond their useful life. The only equipment type that does not have any units that are beyond their useful life is bus lift.

Computer software, electronic signage, and fuel Islands were the only three equipment types that did not have expected useful life data reported in the CNA, therefore their state of good repair status, in terms of useful life, could not be determined. The equipment type with the most assets beyond their useful life is “elevator”, however there was only one elevator reported. The reported elevator is nine years beyond its expected useful life of 15 years. The other equipment type, computer hardware (the units that had useful life reported for them), and shop equipment had the next highest number of units beyond their useful life at 88 percent, 86 percent, and 84 percent, respectively. The equipment types with the highest median years beyond useful life are: communications equipment, elevator, and surveillance equipment for vehicles at ten, nine, and nine median years, respectively, beyond useful life. It is important to pay attention to the number of units in each asset type group that are beyond their useful life but even more important to prioritize replacement of those that have the most years beyond their useful life.

Table 9: Equipment Inventory and Useful Life Assessment

EQUIPMENT TYPE	UNIT COUNT	MEDIAN EXPECTED USEFUL LIFE	MEDIAN AGE	MEDIAN YEARS BEYOND USEFUL LIFE	% UNITS BEYOND USEFUL LIFE
Bus Lift	16	17.5	7	N/A	N/A
Communications equipment (radios, base stations, etc.)	576	5	11	10	40%
Computer Hardware	231	5	5	1	86%
	8	various	-	-	-
Computer Software	1	-	2	-	-
Electronic Signage	1	-	2	-	-
Elevator*	1	15	24	9	100%
Fare Box	466	12	5	4	16%
Fuel Islands*	3	20	7	-	-
Mobile Data Terminals	294	7.5	6	4	41%
Other*	8	10	12	5	88%
Scheduling/Fleet Management Software	40	10	6	2	50%
Shop Equipment - Alignment Machines, etc.	152	10	9	6	84%
Surveillance equipment - Vehicles	616	7	5	9	48%
Ticket Vending Machine*	39	12	17	6	28%

G. Data Used for IDOT Facilities State of Good Repair Analysis

The data used for this facilities state of good repair analysis was obtained from the RTAC 2015 CNA and from the facilities inventory compiled for the *Inventory and Technical Report*. In the CNA, the facilities were to be reported in two separate sections, one for administrative and maintenance facilities and one for passenger facilities. Because the NTD asset inventory collects data on these two facility categories separately as was reported in the CNA, the data is reported in separate tables below even though they are both considered to fall under the facilities category in terms of TAM and NTD.

It should be noted that it is possible that some of the individual facilities reported in the following tables may be duplicates but because a facility may have been described differently in the CNA report vs the Transit Agency Profile data, the consultant team viewed them as two separate facilities. Table 10 displays how the administrative and maintenance facilities were recategorized in to the NTD categories. Unlike the equipment inventory and state of good repair analysis reviewed in the previous sections, all facilities reported in the CNA and the Transit Agency Profiles were recategorized into the NTD reporting asset types because IDOT only currently uses one asset class for facilities, which are described as “concrete, steel and frame construction”. Some facilities were only listed in the CNA report, some were only listed in the Transit Agency Profiles report, and some were reported in both. All facilities were recategorized into the NTD facility types based on the NTD types most similar in description to the functions each facility was described to have in the CNA and Transit Agency Profiles report. The useful life threshold for facilities used for the purposes of this report is 40 years as suggested by the FTA *Grant Management* circular, which is what IDOT has adopted for its facilities asset class. There was no useful life threshold reported for each facility reported in the CNA and the Transit Agency Profiles report.

The column labeled “Condition Assessment Required?” is based on the response in the column “Facility Equipment Leased? (yes/no)”. If the response in the latter labeled column is “Yes”, the assumption made by the consultant team was that the asset is not owned by or that the grantee does not have any capital replacement responsibility for the listed asset and, therefore, no condition assessment is required per the TAM Final Rule. The cells in the tables that have a dash indicate that there was no data provided or that information cannot be extrapolated because there was no data provided from which to extrapolate.

Table 10: Reported Administrative / Maintenance Facilities Recategorized into NTD Facility Types

RECATEGORIZED FACILITY TYPE <i>(NTD CATEGORIES)</i>	FUNCTION <i>(FROM 2015 CAPITAL NEEDS ASSESSMENT)</i>	FUNCTION <i>(FROM IDOT TRANSIT AGENCY PROFILES FACILITY INVENTORY)</i>
Administrative Office / Sales Office	Admin	Administration, Dispatch, Training Facility
Combined Administrative & Maintenance Facility	Admin, Admin/Maintenance	Administration, Dispatch, Main Bus Storage, Park and Ride, Training Facility, Transit Center, Remote Bus Storage
	Combination (e.g., admin, storage) with maintenance	Administration, Dispatch, Main Bus Storage, Transit Center, Training Facility, Remote Bus Storage
	Combination (e.g., admin, storage) with maintenance	
	Admin/Maintenance	Administration, Dispatch, Main Bus Storage, Training Facility, Transit Center, main bus storage, remote bus storage
General Purpose Maintenance Facility / Depot	Maintenance	Main Bus Storage, Rail Maintenance, Remote Bus Storage
	Maintenance	
	Storage	
	Vehicle Storage	Main Bus Storage, Remote Bus Storage
	Vehicle Storage	Main Bus Storage, Maintenance, remote Bus Storage
Vehicle Fueling Facility	CNG Fueling	

H. Facilities Inventory

There were 158 administrative and maintenance facilities reported by 48 out of the 49 downstate agencies combined. TransVac was the only agency that did not report any of these types of facilities. However, TransVac does have one of these facilities as they expressed in an interview that their administrative and maintenance facility is out of date, (even though it is less than 40 years old and does not meet the definition of end of useful life). Rides MTD reported the most administrative and maintenance facilities (14) and South Central MTD reported the second most administrative and maintenance facilities (13). In order of most to least in each facility type were combined administrative and maintenance facility (73), general purpose maintenance facility/depot (51), administrative office/sales office (31), other-parking lot (2), and vehicle fueling facility (1). Among all the reported administrative and maintenance type facilities, 70 will require a condition assessment, 46 will not require a condition assessment, and there were 42 reported that did not indicate whether or not the facility was leased so the agencies' capital responsibility and, hence, whether or not a condition assessment is required, could not be determined at this time for these facilities. combined administrative & maintenance facilities and general purpose maintenance facility / depot had the highest numbers of facilities, 39 and 22, respectively, that were not leased and, therefore, assumed to be owned and required a condition assessment (see Table 11).

As far as passenger facilities are concerned (i.e. bus transfer centers, surface parking lots, ferry docks, and fixed guideway stations), 13 out of the 49 downstate agencies reported having them. Since bus shelters are not included, only fixed route agencies operating in urban areas are likely to have this type of facility. St. Clair County had the most reported passenger facilities (19) while MCT and MetroLink had 15 and 7 passenger facilities, respectively. Bus transfer centers were the most common passenger facility with 17 reported among the agencies while there were 15 surface parking lots (e.g. park-and-ride lots), 12 elevated fixed guideway stations, four docks, and three at-grade fixed guideway stations. Fourteen bus transfer centers and six surface parking lots will require condition assessments and four facilities were reported without indication of whether or not the facility is leased. Therefore, it could not be determined whether or not these latter facilities will need a condition assessment.

Table 11: Administrative / Maintenance Facility Inventory and Useful Life Assessment

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
Bond County Senior Center	Combined Administrative & Maintenance Facility	2013	4	No	-	7,740	100.00%	No	Yes
Boone County Council on Aging	Administrative Office / Sales Office	2001	16	No	-	12,890	10.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1940	77	Yes	37	6,000	100.00%	Yes	-
BPART	Administrative Office / Sales Office	1990	27	No	-	615	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1960	57	Yes	17	10,000	25.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1998	19	No	-	900	100.00%	No	Yes
	Administrative Office / Sales Office	1950	67	Yes	27	2,772	20.00%	No	Yes
Carroll County Transit	Combined Administrative & Maintenance Facility	1982	35	No	-	34,074	-	No	Yes
C-CARTS	Combined Administrative & Maintenance Facility	1974	43	Yes	3	50,300	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1992	25	No	-	32,800	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1980	37	No	-	47,500	100.00%	No	Yes
	Administrative Office / Sales Office	1968	49	Yes	9	500	100.00%	Yes	No
Champaign-Urbana MTD	Administrative Office / Sales Office	1964	53	Yes	13	50,076	50.00%	Yes	No
	Combined Administrative & Maintenance Facility	1989	28	No	-	800	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1930	87	Yes	47	1,500	10.00%	Yes	No
	Combined Administrative & Maintenance Facility	1920	97	Yes	57	2,000	20.00%	Yes	No
CIPT	Combined Administrative & Maintenance Facility	1910	107	Yes	67	4,000	10.00%	Yes	No
	General Purpose Maintenance Facility / Depot	1992	25	No	-	2,880	100.00%	Yes	No

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
CityLink	Administrative Office / Sales Office	1992	25	No	-	6,724	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1991	26	No	-	36,190	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1978	39	No	-	22,469	100.00%	No	Yes
Connect Transit	Combined Administrative & Maintenance Facility	2010	7	No	-	20,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2010	7	No	-	50,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2010	7	No	-	100,000	100.00%	No	Yes
CountyLink	Administrative Office / Sales Office	1936	81	Yes	41	4,100	25.00%	No	Yes
CRIS Rural MTD	Combined Administrative & Maintenance Facility	1987	30	No	-	5,500	30.00%	No	Yes
Danville MTD	Combined Administrative & Maintenance Facility	1987	30	No	-	32,700	100.00%	No	Yes
Decatur Public Transit System	Combined Administrative & Maintenance Facility	1996	21	No	-	17,736	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2013	4	No	-	768	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1980	37	No	-	14,200	100.00%	No	Yes
Dial-a-Ride	Combined Administrative & Maintenance Facility	2005	12	No	-	15,000	100.00%	No	Yes
Galesburg City Bus	Combined Administrative & Maintenance Facility	2015	2	No	-	21,600	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1972	45	Yes	5	4,000	25.00%	No	Yes
	Combined Administrative & Maintenance Facility	2012	5	No	-	80,000	100.00%	No	Yes
Fulton County	Combined Administrative & Maintenance Facility	1952	65	Yes	25	12,000	2.00%	Yes	No
Grundy Transit System	Administrative Office / Sales Office	-	-	-	-	-	-	-	-
	Combined Administrative & Maintenance Facility	-	-	-	-	-	-	-	-
	General Purpose Maintenance Facility / Depot	-	-	-	-	-	100.00%	No	Yes

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
Hancock County	General Purpose Maintenance Facility / Depot	2012	5	No	-	80,000	100.00%	No	Yes
Henry County	Combined Administrative & Maintenance Facility	1963	54	Yes	14	20,000	30.00%	No	Yes
Jackson County MTD	Combined Administrative & Maintenance Facility	1960	57	Yes	17	1,475	100.00%	Yes	No
Jo Daviess County	Combined Administrative & Maintenance Facility	1992	25	No	-	5,000	100.00%	No	Yes
KAT	Combined Administrative & Maintenance Facility	1856	161	Yes	121	22,000	3.00%	No	Yes
LOTS	General Purpose Maintenance Facility / Depot	2010	7	No	-	13,145	27.00%	No	Yes
Logan-Mason County Public Transportation	Combined Administrative & Maintenance Facility	2013	4	No	-	13,800	100.00%	No	Yes
Macoupin County Public Transportation	Combined Administrative & Maintenance Facility	1963	54	Yes	14	15,106	10.00%	Yes	No
MCT	General Purpose Maintenance Facility / Depot	1992	25	No	-	-	10.00%	Yes	No
Marshall-Stark Transportation	Administrative Office / Sales Office	1972	45	Yes	5	2,200	50.00%	No	Yes
	Combined Administrative & Maintenance Facility	1997	20	No	-	31,354	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1987	30	No	-	24,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	-	-	-	-	-	-	-	-
	Administrative Office / Sales Office	1949	68	Yes	28	30,000	100.00%	No	Yes
	Administrative Office / Sales Office	1920	97	Yes	57	11,000	25.00%	Yes	No
MetroLink	Combined Administrative & Maintenance Facility	2014	3	No	-	130,000	100.00%	No	Yes
	Vehicle Fueling Facility	2002	15	No	-	1,200	100.00%	No	Yes

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
Monroe-Randolph MTD	Administrative Office / Sales Office	1920	97	Yes	57	250	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1980	37	No	-	2,490	100.00%	Yes	No
NCAT	Administrative Office / Sales Office	2013	4	No	-	13,800	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1989	28	No	-	12,000	2.00%	No	Yes
Plattran	Combined Administrative & Maintenance Facility	2015	2	No	-	9,625	100.00%	No	Yes
Pretzel City Area Transit	Administrative Office / Sales Office	1978	39	No	-	600	21.00%	Yes	No
	Combined Administrative & Maintenance Facility	1994	23	No	-	185,000	1.00%	Yes	No
Quincy Transit	Combined Administrative & Maintenance Facility	1999	18	No	-	50,000	38.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1960	57	Yes	17	12,768	100.00%	No	Yes

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
Rides MTD	Combined Administrative & Maintenance Facility	2015	2	No	-	14,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	2015	2	No	-	14,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	2012	5	No	-	14,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	2012	5	No	-	750	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	2008	9	No	-	10,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	2000	17	No	-	1,150	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	2000	17	No	-	5,600	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1994	23	No	-	8,400	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1990	27	No	-	6,000	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1980	37	No	-	1,800	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1980	37	No	-	750	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1965	52	Yes	12	144	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1960	57	Yes	17	13,400	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1960	57	Yes	17	800	100.00%	No	Yes
RIM	Combined Administrative & Maintenance Facility	1974	43	Yes	3	2,496	4.00%	No	Yes

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
River Valley Metro	Combined Administrative & Maintenance Facility	1975	42	Yes	2	17,400	65.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2008	9	No	-	8,000	100.00%	No	Yes
Rockford MTD	Combined Administrative & Maintenance Facility	1988	29	No	-	73,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2008	9	No	-	15,800	100.00%	No	Yes
Shawnee MTD	Combined Administrative & Maintenance Facility	2015	2	No	-	15,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1995	22	No	-	8,000	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1995	22	No	-	4,500	2.00%	Yes	No
	Combined Administrative & Maintenance Facility	1965	52	Yes	12	3,500	100.00%	Yes	No
	Administrative Office / Sales Office	1960	57	Yes	17	2,500	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1997	20	No	-	12,800	100.00%	No	Yes
SHOWBUS	Combined Administrative & Maintenance Facility	1960	57	Yes	17	11,275	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1950	67	Yes	27	7,085	100.00%	Yes	No
	General Purpose Maintenance Facility / Depot	1930	87	Yes	47	5,640	100.00%	Yes	No

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
South Central MTD	Administrative Office / Sales Office	2007	10	No	-	1,536	100.00%	Yes	No
	Administrative Office / Sales Office	1985	32	No	-	1,000	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	2008	9	No	-	15,200	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	2003	14	No	-	5,152	100.00%	No	Yes
	Combined Administrative & Maintenance Facility	1990	27	No	-	5,600	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1951	66	Yes	26	19,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2006	11	No	-	5,280	100.00%	Yes	No
	General Purpose Maintenance Facility / Depot	2003	14	No	-	4,200	100.00%	Yes	No
	General Purpose Maintenance Facility / Depot	2002	15	No	-	4,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1985	32	No	-	5,400	100.00%	Yes	No
Springfield MTD	Administrative Office / Sales Office	2001	16	No	-	9,324	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2012	5	No	-	8,454	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2012	5	No	-	1,992	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2011	6	No	-	14,581	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2011	6	No	-	15,920	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	2003	14	No	-	6,000	100.00%	No	Yes
	General Purpose Maintenance Facility / Depot	1973	44	Yes	4	9,920	100.00%	No	Yes
	Other - Parking Lot*	1930	87	Yes	72	17,682	100.00%	No	Yes
	Administrative Office / Sales Office	1981	36	No	-	106,000	100.00%	-	-
	General Purpose Maintenance Facility / Depot	2001	16	No	-	51,800	100.00%	No	0
St. Clair County	General Purpose Maintenance Facility / Depot	1984	33	No	-	286,000	100.00%	No	0
	General Purpose Maintenance Facility / Depot	1983	34	No	-	344,300	100.00%	No	0
	Other - Parking Lot*	1986	31	Yes	16	-	-	-	-
	Administrative Office / Sales Office	-	-	-	-	-	-	-	-
Stateline MTD	Administrative Office / Sales Office	-	-	-	-	-	-	-	

AGENCY	ADMINISTRATIVE / MAINTENANCE FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FT)	PERCENT OF FACILITY DEDICATED TO TRANSIT	LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
TransVac	Combined Administrative & Maintenance Facility	1988	29	No	-	13,000	100.00%	Yes	No
Warren Achievement Center	Combined Administrative & Maintenance Facility	1970	47	Yes	7	13,080	100.00%	No	Yes
WeCare	Combined Administrative & Maintenance Facility	1975	42	Yes	2	6,200	100.00%	Yes	No
West Central MTD	Administrative Office / Sales Office	1990	27	No	-	20,000	100.00%	Yes	No
	Administrative Office / Sales Office	1990	27	No	-	100	10.00%	Yes	No
	Administrative Office / Sales Office	1960	57	Yes	17	150	100.00%	Yes	No
	Administrative Office / Sales Office	1960	57	Yes	17	1,000	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	2008	9	No	-	5,000	100.00%	Yes	No
Whiteside County Public Transportation	Combined Administrative & Maintenance Facility	2005	12	No	-	5,000	100.00%	Yes	No
	Combined Administrative & Maintenance Facility	1984	33	No	-	10,000	25.00%	No	Yes

Table 12: Passenger Facility Inventory and Useful Life Assessment

AGENCY	PASSENGER FACILITY TYPE (NTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FEET)	PERCENT OF FACILITY DEDICATED TO TRANSIT	FACILITY LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?
Champaign-Urbana MTD	Bus Transfer Center	1999	18	No	-	52,650	13.00%	No	Yes
CityLink	Bus Transfer Center	2003	14	No	-	67,780	100.00%	No	Yes
Connect Transit	Bus Transfer Center	2012	5	No	-	68,000	unknown	Yes	-
Danville MTD	Bus Transfer Center	1991	26	No	-	32,000	100.00%	No	Yes
Decatur Public Transit System	Bus Transfer Center	2002	15	No	-	5,075	100.00%	No	Yes
GoWest/ McDonough County Transit	Bus Transfer Center	2011	6	No	-	5,000	100.00%	No	-
LOTS	Bus Transfer Center	2013	4	No	-	13,800	100.00%	No	-
MCT	Bus Transfer Center	2009	8	No	-	5,500	100.00%	No	Yes
		2006	11	No	-	978	100.00%	No	Yes
		2006	11	No	-	1,054	100.00%	No	Yes
		2000	17	No	-	1,993	100.00%	No	Yes
		1993	24	No	-	1,225	100.00%	No	Yes
		2014	3	No	-	45,000	100.00%	No	Yes
		2012	5	No	-	20,000	100.00%	No	Yes
		2007	10	No	-	20,000	100.00%	No	Yes
		2000	17	Yes	2	36,000	100.00%	No	Yes
		1997	20	Yes	5	20,000	100.00%	No	Yes
		1993	24	Yes	9	35,000	100.00%	No	Yes
		-	-	-	-	-	50.00%	Yes	-
		-	-	-	-	-	100.00%	yes	-
		-	-	-	-	-	100.00%	Yes	-
-	-	-	-	-	25.00%	Yes	-		

AGENCY	PASSENGER FACILITY TYPE (MTD CATEGORIES)	YEAR BUILT	AGE	BEYOND USEFUL LIFE?	YEARS BEYOND USEFUL LIFE	SIZE (SQ FEET)	PERCENT OF FACILITY DEDICATED TO TRANSIT	FACILITY LEASED? (YES/NO)	CONDITION ASSESSMENT REQUIRED?		
MetroLink	Bus Transfer Center	2014	3	-	-	2,000	100.00%	No	Yes		
		2005	12	-	-	45,000	100.00%	No	Yes		
		1998	19	-	-	202,000	50.00%	No	Yes		
River Valley Metro	Dock	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	
Rockford MTD	Bus Transfer Center	-	-	-	-	-	-	-	-		
		2011	6	-	-	12,186	85.00%	No	Yes		
		1988	29	-	-	2,800	100.00%	No	Yes		
St. Clair County	At-Grade Fixed Guideway Station	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	
	Elevated Fixed Guideway Station	-	-	-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	-	-	
	Surface Parking Lot	Surface Parking Lot	-	-	-	-	-	-	-	-	
			-	-	-	-	-	-	-	-	
			-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-

I. Facility State of Good Repair

For the purposes of the annual NTD report, the FTA TERM scale will need to be used to generate a TERM score which will determine each facility's state of good repair. Because TERM scores were not available at the time of this analysis for the reported facilities, examination of the reported facilities' age in comparison to their useful life threshold was used to determine their state of good repair status. The median years beyond the IDOT established useful life (40 years) for administrative office / sales office, combined administrative and maintenance facility, and general purpose facility / depot was 17 years and the median years beyond the IDOT established useful life threshold (15 years) for the two recorded parking lots was 44 years. Relatively low percentages of facilities within each type of administrative and maintenance facility were found to be beyond their useful life with the exception of the two reported parking lots that were both beyond their useful life. Aside from the parking lots, only 35 percent of administrative /sales offices, 15 percent of combined administrative and maintenance facilities, 10 percent of general purpose maintenance facilities / depots, and 0 percent for the one reported vehicle fueling facility were beyond their useful life. For those facilities that are beyond their useful life, the years beyond their useful life is high (17 years) so replacement of the facilities that have more years beyond their useful life should be prioritized for replacement or renovation in order to maintain a state of good repair (see Table 13).

There were no dates provided for when any of the reported at-grade fixed guideway stations, docks, or elevated fixed guideway stations were built, therefore, their age and whether or not any of them are beyond their useful life was unable to be determined. Among those bus transfer centers and surface parking lots that did have their year of construction reported, no bus transfer centers were beyond their useful life and only 20 percent of the surface parking lots were beyond their useful life. The median years beyond useful life for the surface parking lots were only five years (see Table 14).

Table 13: Aggregate of Administrative / Maintenance Facilities by Type and Useful Life Assessment

ADMINISTRATIVE / MAINTENANCE FACILITY TYPE	COUNT	% OF REPORTED ADMIN./ MAINT. FACILITIES	MEDIAN AGE	MEDIAN YEARS BEYOND USEFUL LIFE	% UNITS BEYOND USEFUL LIFE	CONDITION ASSESSMENT REQUIRED "YES"
Administrative Office / Sales Office	24	19%	42	17	46%	8
Combined Administrative & Maintenance Facility	66	52%	28	17	32%	39
General Purpose Maintenance Facility / Depot	33	26%	18	17	15%	23
Other - Parking Lot	2	1%	59	44	100%	1
Vehicle Fueling Facility	1	1%	15	0	0%	1
TOTAL	126					72

Table 14: Aggregate of Passenger Facilities by Type and Useful Life Assessment

PASSENGER FACILITY TYPE	COUNT	%	MEDIAN YEAR BUILT	MEDIAN AGE	MEDIAN YEARS BEYOND USEFUL LIFE	% UNITS BEYOND USEFUL LIFE	CONDITION ASSESSMENT REQUIRED "YES"
At-Grade Fixed Guideway Station	3	5%	-	-	-	-	0
Bus Transfer Center	17	33%	2005	12	0	0%	14
Dock	4	7%	-	-	-	-	0
Elevated Fixed Guideway Station	12	21%	-	-	-	-	0
Surface Parking Lot	15	27%	2004	13.5	5	20%	6
TOTAL	51						20

J. Data Used for IDOT Infrastructure State of Good Repair Analysis

The infrastructure data used in this infrastructure element inventory and state of good repair analysis were obtained from the 2015 CNA. The elements needed to be recategorized from the CNA elements into the NTD track and guideway elements as IDOT does not have an infrastructure asset category in its transit asset management program. The track elements are subcategorized into revenue and non-revenue track elements as NTD and TAM record the performance of the Infrastructure asset category by the percentage of revenue track rail directional route miles with performance restrictions only. Directional route miles represent the mileage in each direction over which public transportation vehicles travel while in revenue service. If any segment of rail has speed restrictions below its design speed due to any cause, it is said to have a performance restriction. The CNA data does not provide data on performance restrictions or directional miles, however it does indicate which track elements are revenue and non-revenue, linear mileage, age, and expected useful life from which an indication of the state of good repair of the reported track elements can be extrapolated at least in terms of useful life. The grantee will need to report the performance restriction data to NTD and in its TAM Plan based on the data collection methods prescribed by NTD.

The column labeled “Condition Assessment Required?” is based on the response in the column “Element Leased? (yes/no)”. If the response in the latter labeled column is “Yes”, the assumption made by the consultant team was that the asset is not owned by or that the grantee does not have any capital replacement responsibility for the listed asset and, therefore, no condition assessment is required per the TAM Final Rule. The cells in the tables that have a dash indicate that there was no data provided or that information cannot be extrapolated because there was no data provided from which to extrapolate.

K. Infrastructure Inventory

Outside of the Chicago metropolitan area, which is not addressed in this report, St. Clair County is the only place in Illinois with rail track and guideway infrastructure. There are 66.95 linear miles of revenue track and 44.18 miles of non-revenue track totaling 111.13 miles of total rail track. There were 110.45 miles of fixed guideway and three substations reported, which fall into the fixed guideway asset type. The total mileage of track and guideway combined is 221.58 miles. The percentage of mileage and units constructed during each decade were reported into ten year intervals as this is how the guideway inventory is to be reported for NTD and TAM purposes. There were no track or guideway elements constructed before 1990 while the majority of the infrastructure (83 percent of total mileage and two out of the three substation buildings) were constructed between 1990 and 1999. Seventeen percent of the track and guideway infrastructure was constructed between 2000 and 2009 while only one percent was constructed between 2010 and 2020 (in 2015).

L. Infrastructure State of Good Repair

Because data was not available on revenue track segments with performance restrictions, comparison of the age of all revenue track segments with their respective expected useful life was used to determine the state of good repair for St. Clair County's revenue track mileage. The median expected useful life of all reported revenue track segments was 25 years while the median age was 18 years. Only two segments of track have exceeded their useful life: one curve segment and one single turnout segment. Combined, both segments make up only four percent of linear track mileage. Both segments have exceeded their useful life by only two years.

The TAM Final Rule does not require performance targets for fixed guideways at this time. However, because construction year and expected useful life were provided for each segment and unit of fixed guideway reported, a state of good repair analysis was conducted on the reported elements based on a comparison of the current age of the elements with their expected useful life. All eight of the reported segments of train control and signaling systems, one segment of overhead contact systems/power distribution, and one substation building are beyond their useful life. The percentage of guideway, in terms of miles, that has exceeded its useful life is 41 percent of the total reported guideway mileage. The median expected useful life for all fixed guideway segments that had a reported expected useful life was 20 years while the median age was 18 years. Among those guideway segments that had exceeded their useful life, the median years beyond which the useful life had been exceeded was only five years. Whether or not each track and fixed guideway segment was leased was only provided for two segments of train control and signaling while the leasing status, and therefore the assumed capital replacement responsibility, for all other reported track and fixed guideway elements was not provided. The two segments of train control and signaling were not leased therefore the assumption is that St. Clair County owns these segments (i.e. has capital replacement responsibility for them).

V. BEST PRACTICES

Transit agencies have established various frameworks for determining when assets should be replaced and the prioritization method to select which vehicles should be replaced before others. For vehicles, age appears to be the most commonly used factor in determining replacement since it is the most easily recordable. Researchers note that the preferred measures to determine which vehicles should be replaced first are those that tie asset condition to the impact its deterioration is having on the service⁴. An example of this kind of performance measure is the number of lost customer hours, which is used by London Underground. The one common theme across all agencies is that the replacement schedule is ultimately limited by the anticipated capital budget.

Many of the large transit systems in the United States, such as MBTA in Boston and MTC in San Francisco, have developed asset management database programs to help track inventory. The FTA has also developed the TERM model that State DOTs and transit agencies alike can use to predict their capital needs. TERM takes economic and asset condition assessment information in to account to produce a score between one and five where 1 = Poor and 5 = Excellent.

The NTD records asset condition information at the group level but many transit agencies will capture information at the individual asset vehicle level during regular inventory cycles. Some transit agencies have weighted prioritization systems in place where various performance measures are weighted to determine a score for each asset or an average score for an entire fleet may be used (see Table 15).

*Table 15: Representative Measures of Transit Asset Conditions and Performance*⁵

Category	Type	Measure	Example Application
	Delay to Customers	Lost Customer Hours	London Underground (Appendix D)
		Subway Wait Assessment	NYCT (Appendix D)
		Delays per 100 Trips	BART (32)
		Actual Number of Departures as Percent of Scheduled Number of Departures During Peak Hours	Hong Kong MTRCL (28)
Service Quality	Passenger Comfort and Convenience	Ambience Score	London Underground (Appendix D)
		Cleanliness Score	CTA (31), BART (32), Foothills Transit (36), Hong Kong MTRCL (33),
		Comfortable Temperature Score	BART (32)
	Ride Quality	Acceleration/Jerk Levels	Amtrak (Appendix D)

⁴ Spy Pond Partners, LLC., et. al, TCRP Report 157 - State of Good Repair: Prioritizing the Rehabilitation and Replacement of Existing Capital Assets and Evaluating the Implications for Transit, 2012.

⁵ Spy Pond Partners, LLC., et. al, TCRP Report 157 - State of Good Repair: Prioritizing the Rehabilitation and Replacement of Existing Capital Assets and Evaluating the Implications for Transit, 2012.

VI. RECOMMENDATIONS

In order to ensure that its investment in its public transit assets remains viable over a longer period of time, IDOT should consider implementing several practices.

A. Standardize Asset Classification

There is no description provided of what constitutes the various types of assets in the IDOT asset useful life policy or the RTAC CNA. For example, a review of the CNA vehicle inventory shows that the same vehicle models have been categorized in to different vehicle categories by different transit agencies. A turtle top (raised roof van model) was classified as a light duty paratransit vehicle by some agencies and as an auto/mini-van/raised roof van vehicle by other agencies. It also needs to be made clear, again, in the case of rolling stock, that any spare or back-up revenue vehicles must be categorized as revenue vehicles rather than non-revenue vehicles per NTD policy.

In order to ensure that the correct asset types are prioritized and budgeted for, IDOT and RTAC should consider developing a joint asset type manual which includes pictures of the various asset types and what specifications would qualify each asset to fit in to a certain asset type. Furthermore, it is recommended that the asset categories align with those used in the NTD as this will make the annual reporting process more seamless.

B. Develop a Group TAM Plan

With the establishment of the new TAM rulemaking, all State DOTs are responsible for developing a Group TAM Plan which encompasses all the assets of its subrecipients. All Tier II agencies must be included in a group plan as must any Small Urban Recipient (FTA Section 5307 grant) that wishes to be included. TCRP Report 172: *Guidance for Developing a Transit Asset Management Plan* can be a helpful resource for developing the group plan. FTA has also posted the PowerPoint presentations FTA staff presented on the new TAM requirements including TAM Plan elements on their webpage: <https://www.transit.dot.gov/TAM/rulemaking>.

C. Establish Useful Life Benchmarks (ULB) for Rolling Stock and Equipment

As previously discussed, establishing a ULB for each vehicle type or for each asset class for the rolling stock and equipment asset categories is a requirement of the new TAM rulemaking. IDOT can continue to use the age thresholds established for its consolidated vehicle procurement program, utilize the FTA default ULBs that were recently published, or utilize the useful life guidelines that are established for FTA grant programs. If IDOT wishes to tailor its useful life benchmarks for its agencies' operating environments, it may want to consider tracking at what age the majority of vehicles for each class are marked as "unsafe" or "request replacement" in the annual CNA reports. Over time, IDOT can ascertain what ULBs are appropriate to establish for revenue and non-revenue vehicle types or classes. It may also want to consider having the agencies keep track of the reasons why the vehicles marked this way are being marked as such.

D. Establish State of Good Repair Performance Targets for all Asset Categories

The performance measures vary by asset category and, according to the TAM Final Rule, must be established by all applicable transit providers by January 1, 2017. “Useful life benchmark (ULB)” is the performance measure to be used for rolling stock and equipment (e.g. non-revenue service vehicles), while “percentage of track with performance restrictions” is the performance measure for the infrastructure asset category and “condition”, as determined by the TERM scale, is the performance measure for facilities. For the rolling stock and equipment asset categories, the performance targets must be set in terms of percentage of vehicles per asset class that have met or exceeded its ULB. In considering what percentage of vehicles is appropriate for each asset class, IDOT should evaluate the percentage of assets that are beyond their useful life. What needs to be considered is if there will be the budget available in the upcoming fiscal year to purchase new vehicles so that the percentage of vehicles in each asset class beyond their agency-established useful life benchmark can be lowered. If there won’t be funds available to purchase new vehicles in the upcoming fiscal year, then the performance measure target for each asset class should be established at a percentage that matches the projected percentages of assets to be beyond their useful life for the upcoming fiscal year. A similar methodology would be applied to determining appropriate percentage of track with performance restrictions⁶ and facilities with a TERM score below 3.0 after the necessary data to make these determinations has been collected.

E. Establish Prioritization System for Asset Replacement

The decision of which assets to replace before others throughout the state can be made easier by establishing a ranking system for asset replacement based on certain criteria. Age is perhaps the easiest criteria to collect by keeping track of the date a new vehicle is placed in to service. Other performance criteria such as those outlined in Table 16 can provide inspiration for developing and giving weight to various factors that should be considered. Another alternative ranking system to consider implementing is that of the FTA TERM model, which FTA has developed spreadsheet templates that agencies can utilize.

F. Establish Dedicated Transit Facilities

A common refrain among providers was that sharing space with other uses presents difficulties. In many cases, lack of office space has hampered the ability to hire staff to expand service. In addition, many of these shared use facilities lack indoor vehicle storage and on-site maintenance facilities. This leads to the deterioration of vehicles quicker than what would be expected under useful life guidelines. For agencies using above ten revenue vehicles, a purpose built transit facility should be provided, with administration and maintenance facilities co-located. In downstate Illinois, this would mean that 11 facilities will need to be built.

⁶ St. Clair County is the only agency that reported having track assets. Therefore, it is considered a Tier I transit provider (in terms of TAM) and will need to develop its own TAM Plan. Therefore IDOT won’t be responsible for doing this

