WMFT Improvement Types / Definitions

To assist in the proper selection of a WMFT Improvement Type, the following provides a comparison of the Description from the *Programming Guidelines Manual* used for PPS to the corresponding WMFT Improvement Type. It is possible to have a Description listed under multiple WMFT Improvement Types; the district will need to determine the best WMFT Improvement Type based on the overall scope of the project.

Fund Type	WMFT Improvement Type	Definition (Programming Guidelines Manual)
IN	**Add Lanes-INT**	• Add through traffic lanes within an intersection. • Left turn lanes added only. • Right turn lanes added only.
RD	**Add Lanes-RDWY**	• Add through traffic lanes. • Bi-direct left turn lane. • HOV Lanes.
RD	**Agg Surface**	Aggregate surface.
RD	**Bikeway**	Bikeway.
RD	**Bit Surface Treat A1**	Asphalt is applied directly to the pavement surface followed by the application of aggregate chips, which are immediately rolled to embed the chips. Both are seal coat materials.
RD	**Bit Surface Treat A2**	Same process as A1 except it shall consist of prime coat, bituminous cover material and aggregate, and bituminous seal coat material and aggregate.
RD	**Bit Surface Treat A3**	Same process as A1 except it shall consist of prime coat, 2 applications of bituminous cover coat material and aggregate, and bituminous seal coat material and aggregate.
ST	**Bridge Beam Replace**	• Typically used for vehicle impact situation. • May be used if complete deterioration of the beam. • If more work is being done to superstructure, use **Bridge Superstructure**
ST	**Bridge Cleaning**	Includes bridge washing.
ST	**Bridge Deck Overlay**	Typically consists of one of these: Hot Mix Asphalt (HMA) with a waterproofing membrane system, microsilica or latex modified concrete, reinforced concrete to the level of unsound concrete removed. Also includes Thin Concrete Overlay – Scarification of 1/4" to 1" and a thin concrete overlay.
ST	**Bridge Deck Repairs**	Minor repairs that do not improve condition rating(s).
ST	**Bridge Deck Sealing**	Routine bridge deck sealing to extend the life of concrete bridge decks.
ST	**Bridge Inspection**	Bridge inspection and report by a consultant or in-house forces.
ST	**Bridge Joint Repair**	Joint repair work that does not improve condition rating - i.e. expansion joint repair, grout joint repair, keyway repair, bridge joint sealing. etc.
ST	**Bridge New Deck**	Used for complete deck replacement.
ST	**Bridge Painting**	Bridge painting.

ST	**Bridge Rehab**	• This improvement type can only be used on projects 2 years or more out from the annual when the scope is unknown.
ST	**Bridge Removal/Demol**	• Bridge Removal/Demolition – To be used when removing a bridge and not replacing it with a new one. Do not use with Bridge Replacement for the same structure. • Culvert Removal – To be used when removing a culvert and not replacing it with a new one. If a culvert is being removed and replaced, use **Culvert Replmt**.
ST	**Bridge Repair**	Miscellaneous bridge repair work that does not improve condition rating of the parent elements - i.e. minor concrete repair of superstructure/ substructure units, other concrete repairs, mortar repair, repair concrete structure, impact damage repair of steel or concrete elements, including bridge rail, etc.
ST	**Bridge Replacemt**	• Bridge Erection – Erection of a pre-fabricated bridge. • Bridge Fabrication – Fabrication of a bridge offsite. • Bridge Replacement – Total replacement of a bridge with a new bridge or replacement of a bridge with a culvert (see bridge/culvert replacement table in programming guidelines) • If existing structure is ≤20' and proposed structure is >20', use **New Bridge** • If any part of the existing structure is being utilized, use **Bridge Rehab**. • Pedestrian Overpass and Pedestrian Underpass if part of a bridge replacement. • Bridge Approach Roadway – Use for improvement on pavement approaching bridges. • Approach Embankment.
ST	**Bridge Scour Mit**	Scour mitigation, including engineered riprap, to address the deficiencies caused by scour, which is the removal of soil (due to stream/river water or unstable soil) from around bridge piers and abutments that can undermine bridge foundations and compromise structural integrity.
ST	**Bridge Substructure**	Bridge substructure element replacement: abutments, abutment caps, piers, pier caps, etc. If both substructure and superstructure are being done at the same time, use **Bridge Replacemt** or **New Bridge**.
ST	**Bridge Superstructur**	Bridge superstructure element replacement: steel beams, PPC I-beams, PPC I-beams, PPC deck beams, Channel beams, concrete beams, - all with inevitable deck replacement, concrete slab, etc. If both substructure and superstructure are being done at the same time, use **Bridge Replacemt** or **New Bridge**.
ST	**Bridge Widening**	Substructure and/or superstructure widening - i.e. widening of deck with/without adding beam lines, abutment cap and pier cap widening with/without crash wall widening or adding piles/columns.
RD	**Cape Seal**	Consists of a BST, followed within a few days by a micro-surfacing treatment to cover the chips and seal them in.
IN	**Channelization**	• Channelization - Channelize an intersection with only medians or pavement markings. • Median Barrier • Median Removal • New Median

RD	**Cold InPlace Recycl**	Cold In-Place Recycling
PE	**Const Eng**	• CE QA/Materials Testing – On-site quality control assurance and materials testing by a consultant or in-house forces. • Construction Engineering – Construction staking and inspection by a consultant or in-house forces. • Hazardous Material Mitigation – Construction.
ST	**Contract Maint- STRC**	• Bridge Deck Waterproofing – Minor repair that doesn't improve condition rating(s). This includes resurfacing and waterproof membrane. • Contract Maintenance – When the projects are subbed out, change to the proper improvement type that describes the work that is being done. • Culvert Repair – Minor work to culverts; does not change condition ratings. If culvert length > 20'. • Pier Repair – Minor repairs only. If improvement changes condition rating, use **Bridge Rehab**.
RD	**Contract Maint-RDWY**	• Contract Maintenance – When the projects are subbed out, change to the proper improvement type that describes the work that is being done. • Culvert Repair – Minor work to culverts; does not change condition ratings. If culvert length ≤ 20'. • Ditch Cleaning. • Dredging. • Fence Repair • Fencing • Median Barrier. • Median Crossover. • Median Removal. • Median Repair. • Resurfacing (SMART) – Smart project with 1 1/2" resurfacing when reactionary maintenance, use **STANDARD OVERLAY** for preservation. • Weed Control – Includes weed spraying and/or mowing. • Slope Stabilization – To be used for any work that prevents a slope from eroding.
RD	**Crack & Joint Sealing**	Crack & Joint Sealing – May include routing.
ST	**Culvert (new)**	• All new culverts at a new location. • Replacement of a ≤ 20' structure with a culvert > 20'. • Replacement of a ≤ 20' culvert with a culvert > 20'. See bridge/culvert replacement table in the programming guidelines.
RD	**Culvert Replmt-RDWY**	Use if improvement is part of a Roadway project. • Culvert Extension • Culvert Rehabilitation – Major work to restore structural integrity utilizing any part of existing culvert • Culvert Replacement – Total replacement of a culvert except when ≤ 20' culvert being replaced with a culvert > 20', use **Culvert (new)**. See bridge/culvert replacement table in the programming guidelines.
ST	**Culvert Replmt-STC**	Use if improvement is the only improvement type or if improvement is part of a Structure project. • Culvert Extension • Culvert Rehabilitation – Major work to restore structural integrity utilizing any part of existing culvert

		• Culvert Replacement – Total replacement of a culvert except when ≤ 20' culvert being replaced with a culvert > 20', use **Culvert (new)**. See bridge/culvert replacement table in the programming guidelines.
IN	**Curb & Gutter-INT**	Curb and Gutter within an intersection.
RD	**Curb & Gutter-RDWY**	Curb and Gutter along a roadway.
RD	**Demolition**	Buildings only.
RD	**Designed Overlay**	On non-interstates includes overlay of 3.75”. See BDE Manual for 3P or 3R resurfacing policy.
RD	**Diamond Grooving**	Diamond Grooving – Process of cutting narrow, discrete grooves in the PCC surface to reduce hydroplaning and wet-pavement crashes in localized areas.
RD	**Drainage**	• Drainage – Includes new drainage, drainage corrections & drainage systems. • Retention Basin. • Rip Rap. • Storm Sewer (New). • Storm Sewer Inspection. • Storm Sewer Repair. • Underdrains.
PE	**Engineering Study**	Engineering Study not included in other PE work.
RD	**Erosion Control**	Erosion Control.
RD	**Flood Repair**	Flood Repair.
RD	**Fog Seal**	Light application of diluted asphalt emulsion placed directly on the pavement surface with no aggregate.
RD	**Grading**	Grading.
RD	**Grinding**	• Grinding – Includes micro-milling (HMA surface correction) and diamond grinding (PCC surface correction). Removal of a thin layer to restore a smooth-riding surface. • Reprofiling – Involves patching and grinding, usually on concrete.
RD	**Guardrail-RDWY**	• Guardrail not on a structure. • Guardrail End Section – Including replacement. • Impact Attenuators. • Median Cable.
ST	**Guardrail-STRC**	• Guardrail or bridge rail on a structure. • Guardrail End Section – Including replacement.
RD	**Half Smart Resurface**	Placing 3/4" HMA level binder followed by a BST.
RD	**Hi Frict Surf Treat**	Composed of calcined bauxite aggregate bound with a polymeric resin. Placed on a HMA or PCC pavement surface to restore or enhance the skid resistance.
RD	**Hot InPlace Recyclng**	Process of correction HMA distress by softening the existing surface with heat, mechanically loosening the surface, mixing the loosened material with rejuvenators, aggregate, or HMA and relaying the recycle material without removing it from the site.

IN	**Intersect Impvmt**	• Roadway work only; no traffic signal work. May include improving turning radii. • Left turn lanes added. • Right turn lanes added.
LA	**Land Acquisition**	• Appraisal/Negotiation • Hazardous Material LA (Studies) • Land Acquisition Final Judgment – For use with post construction final judgement. • Land Acquisition • Post-Acquisition Activity • Pre-Acquisition Activity • Wetland Credits – The intent is to use this type of work where the LPA is purchasing credits from a private firm or IDOT to mitigate damages to wetlands instead of building a replacement wetland. • Wetland Mitigation (LA)
RD	**Landscaping**	• Landscaping – Includes plantings. • Tree Removal. • Wetland Mitigation – Restoration, creation, or enhancement of wetland areas.
IN	**Lighting-INT**	Light pole fabrication and/or lighting within an intersection.
RD	**Lighting-RDWY**	Light pole fabrication and/or lighting along the roadway. Temporary Lighting.
ST	**Lighting-STRC**	Light pole fabrication and/or lighting on a bridge.
RD	**Longit Joint Repair**	Longitudinal crack is milled to a depth of 2 to 3 inches with a width of 12 to 14 inches. The milled area is filed with HMA without a need to overlay.
RD	**Microsur Joint Repr**	Microsurfacing that is placed only at centerline or edge joints and does not address the full width of pavement.
RD	**Microsurface 1 Pass**	Mixture of latex-modified emulsified asphalt, mineral aggregate, water and additives placed using specialized compartmented trucks using an augured screed box. One lift placed.
RD	**Microsurface 2 Pass**	Mixture of latex-modified emulsified asphalt, mineral aggregate, water and additives placed using specialized compartmented trucks using augured screed box. Two lifts placed.
RD	**Misc- RDWY**	• Base – Includes aggregate base. • Building. • Cold Milling – Bituminous surface removal. • Curve Corrections – Change radii of a curve. • Detour – Temporary detour; not improvement of an existing road. • Ditch Cleaning. • Dredging. • Emergency Call Boxes. • Experimental Rehab. • Fence Repair. • Fencing. • Horizontal Realignment. • Knee Wall – For knee-high barrier wall with a fence on top; divides mainline from frontage roads.

		• Median Barrier. • Median Crossover. • Median Removal. • Median Repair. • Misc. Traffic Control. • Miscellaneous. • New Median. • New Pump. • New Shoulders. • Noise Barriers – Includes repairs. • Observation Tower – Use for Enhancement & Scenic Byway projects. • Overlook Construction – Use for Enhancement & Scenic Byway projects. • Overlook Reconstruction – Use for Enhancement & Scenic Byway projects. • Pump Repair. • Pump Replacement. • Pump Station. • Retaining Wall – Includes retaining wall repair. • Rip Rap. • Sanitary Sewer. • Scenic Enhancement – Use for Enhancement & Scenic Byway projects. • Slope Stabilization – To be used for any work that prevents a slope from eroding. • Slope Wall. • Slope Wall Repair. • Streetscaping/Beautification – Enhancement-type beautification projects. • Surveillance – Includes video equipment. • Tourist Info Center – Use for Enhancement & Scenic Byway projects. • Transportation Center – Bus + train stop building & parking. • Underdrains. • Water Main. • Water Well. • Wing Wall Repair.
RR	**Misc- RR**	• Misc. Traffic Control. • Miscellaneous. • Remove RR Tracks. • RR Crossing Closure • Scenic Enhancement – Use for Enhancement & Scenic Byway projects. • Wire Line Adjustments – Use on a bridge over a RR.
ST	**Misc- STRC**	• Bridge Approach Roadway – Use for improvement germane to the structure on pavement approaching bridges. • Bridge Approach Spans. • Bridge Raising – Increases vertical under clearance. • Handrail Replacement – Includes retrofitting handrail. • Lower Roadway – Increases vertical under clearance. • Misc. Traffic Control. • Miscellaneous. • Navigation Lighting Repairs – Includes installation or repairs to navigation lighting.

		• Pedestrian Overpass. • Pedestrian Underpass. • Retaining Wall – Includes retaining wall repair. • Scenic Enhancement – Use for Enhancement & Scenic Byway projects. • Seismic Retrofit – Improvement to provide earthquake resistant structure; doesn't include major Rehabilitation. • Slope Wall. • Slope Wall Repair. • Ventilate Tunnel. • Wing Wall Repair.
IN	**Misc-INT**	• Cold Milling – Bituminous surface removal. • Curve Corrections – Change radii of a curve. • Flashing Light. • Median Removal. • Median Repair. • Misc. Traffic Control. • Miscellaneous. • Retaining Wall – Includes retaining wall repair. • Surveillance – Includes video equipment.
IN	**Modern Traf Sign**	• Controllers. • Loop Detectors.
ST	**New Bridge**	• New bridge at new location, if length > 20'. • Approach Embankment. • Bridge Approach Roadway – Use for improvement on pavement approaching bridges. • Bridge Erection – Erection of a pre-fabricated bridge. • Bridge Fabrication – Fabrication of a bridge offsite. • Bridge Replacing Culvert if existing culvert is ≤20' and proposed structure is > 20'. • If existing structure is ≤20' and proposed structure is >20'. See bridge/culvert replacement table in the programming guidelines. • Pedestrian Overpass. • Pedestrian Underpass – Use if it meets the definition of a bridge and not a culvert.
RR	**New Construct- RR**	New Construction – Includes grading & paving.
ST	**New Construct- STRC**	New Construction – Includes grading & paving.
IN	**New Construct-INT**	• Intersection Construction – New location; no intersection at this location before. • New Construction – Includes grading & paving.
RD	**New Construct-RDWY**	• Access Roads - Constructions of access roads (for parking areas, EDP projects, transportation facilities, etc.) • New Construction – Includes grading & paving . • New Median. • New Pump. • New Shoulders. • Truck Climbing Lane – Use only for new construction of truck climbing lane.
RD	**Parking**	• Commuter Parking.

		• Off Street Parking. • Parking (New) – For on-street parking only. • Parking Improvement.
RD	**Patching**	Includes cutting out pavement & replacing pavement.
IN	**Pavemt Marking**	Pavement marking on intersections or roadways – May include thermo-plastic pavement marking and raised pavement markers.
RD	**Paving**	For new construction only.
RD	**Ped Underpass-RDWY**	• Pedestrian Overpass, if length ≤ 20'. • Pedestrian Underpass, if length ≤ 20'.
ST	**Ped Underpass-STRC**	• Pedestrian Overpass, if length > 20'. • Pedestrian Underpass, if length > 20'.
PE	**Prelim Eng (PE I)**	• Agricultural Survey – Survey of Agricultural Areas by a consultant or other agency or in-house forces. • Archaeological Survey – Survey of Prehistoric Resources of an area by a consultant or other agency or in-house forces. • Biological Surveys – Survey of Plant and Animal Species and Habitats by a consultant or other agency or in-house forces. • Geological Survey Map. • Hazardous Material P.E. • Historical Survey – Survey of Historic Resources by a consultant or other agency or in-house forces. • P.E. (LPA TSL) – Use for LPA preparation of Type, Size & Location plans only for structures. • P.E. (Consultant Plans). • P.E. (Consultant TSL) – For structures only. Use for consultant preparation of Type, Size and Location plans or in-house forces. • P.E. (Corridor Study) – Engineering and Environmental Analysis for a Corridor Report by a consultant or in-house forces. • P.E. (Feasibility Study) – Engineering and Environmental Analysis for a Feasibility Report by a consultant or in-house forces. • P.E. (Phase I) – Engineering and Environmental Studies for a Design & Environmental Report(s) by a consultant or in-house forces. • P.E. Building – Preliminary Architectural Analysis and Design for a building by a consultant or in-house forces. • P.E. Project Managers – Engineering consultants hired to manage the LPA's consultant engineering contracts. • P.E. Soils (Phase I) – Geotechnical Analysis for a Geotechnical Report by a consultant or in-house forces. • P.E. Surveys (Phase I) – Roadway Surveys for Design Studies by a consultant or in-house forces.
PE	**Prelim Eng (PE II)**	• Architectural Engineering – Structural Contract Plans and Specifications for a building by a consultant or in-house forces. • P.E. (Consultant Plans) – For structures only. Use for consultant preparation of Type, Size and Location plans & Final Plans. • P.E. (Phase II) – For roadway and/or structures use for consultant or in-house forces preparation of plans. • P.E. (ROW) – Right-of-Way Plats and Plan of Highways by a consultant or in-house forces.

		• P.E. II (Signals) – Contract Plans and Specifications for Signals by a consultant or in-house forces. • P.E. Project Managers – Engineering consultants hired to manage LPA's consultant engineering contracts. • P.E. Soils (Phase II) – Geotechnical Analysis for Contract Plans by a consultant or in-house forces. • P.E. Subsurface Utilities. • P.E. Surveys (Phase II) – Roadway Surveys for Contract Plans by a consultant or in-house forces. • P.E. Surveys (ROW) – Survey to layout existing and proposed right-of-way by a consultant or in-house forces. • Preliminary Engineering – LPA wide/Various/On-Call projects by a consultant. Roadways: Phase I or Phase II. Structures: Only Geotechnical Reports, Hydraulic Reports, and Bridge Condition Reports. • Railroad Engineering – For use with railroad required engineering.
IN	**Reconstruct- INT**	• Reconstruction – Remove & replace existing roadway within an intersection; not for ramps or shoulders. • Intersection Improvement – Roadway work only; no traffic signal work. May include improving turning radii. • Intersection Reconstruction – Roadway work; may include traffic signal work.
RD	**Reconstruct-RDWY**	• Reconstruction – Remove & replace existing roadway along the roadway; not for ramps or shoulders. • Rubblization/Overlay – Rubblization of existing surface and overlay. • Vertical Realignment – Vertical curve corrections; roadway improvement only. • Shoulder Reconstruction.
RD	**Relocation**	May include grading & paving.
RD	**Resurfacing Intermit**	• Resurfacing Intermittent. • Partial Width Resurfacing – For use with non-accomplishment resurfacing that is less than full width of pavement and intermittent length.
RR	**RR Crossing**	• RR Approaches – Pavement work at RR crossings. • RR Crossing Construction – New construction. • RR Crossing Improvement – Upgrade existing crossing surface; may include lights and/or gates. • RR Flagger – For RR flagger cost estimates tracking, since they have to be handled by a separate RR agreement and not included in the actual construction contract. • RR Insurance – Insurance for construction workers on RR ROW. • RR Relocation.
ST	**RR Grade Sep**	• RR Grade Separation – A new bridge carrying a RR over a highway. • RR Separation Rehab – Rehabilitate an existing bridge carrying a RR over a highway. • RR Separation Replacement – Replacement of bridge carrying a RR over a highway. • RR Flagger – For RR flagger cost estimates tracking, since they have to be handled by a separate RR agreement and not included in the actual construction contract.

		• RR Insurance – Insurance for construction workers on RR ROW.
RR	**RR Protection**	• RR Interconnect – Provides a connection between highway traffic signals and railroad warning devices. • RR Protection Improvement – Gates and/or signals. • RR Flagger – For RR flagger cost estimates tracking, since they have to be handled by a separate RR agreement and not included in the actual construction contract. • RR Insurance – Insurance for construction workers on RR ROW.
RD	**Safety Impvmt**	• Milled Rumble Strip – The milling of a rumble strip into the shoulder or centerline for improving safety. • Skidproofing. • Various minor safety improvements.
RD	**Sand Seal**	A spraying of non-diluted emulsion, spreading a thin layer of fine aggregate and rolling.
RD	**Shoulder Repair**	• Minor shoulder work. Includes shoulder seal. • Shoulder Reconstruction.
RD	**Sidewalks**	• ADA Improvements – For use with all 4 categories of ADA Improvements. • Sidewalks.
IN	**Signal Timing Prog.**	Computerized timing of existing signals.
RD	**Signing**	• Changeable Message Signs – Changeable Message Signs. • Sign Board System. • Sign Maintenance - Replacing or repairing damaged signs, modernization & rehabilitation. • Signing (New).
RD	**Slurry Seal**	Mixture of crushed aggregate (sand and mineral filler) and emulsion that is spread over the entire surface with a squeegee or spreader box attached to the back of a truck.
RD	**Standard Overlay**	On non-interstates includes overlay of 2-3” and SMART overlay. See BDE Manual for 3P or 3R resurfacing policy.
RD	**Storm Sewer Repair**	Storm Sewer Repair.
IN	**Traf Signal Install**	• New traffic signals where there have never been any before or any signal work by Chicago Force Account • Pedestrian Signals.
IN	**Traf Signal Replmt**	• Controllers. • Loop Detectors. • Pedestrian Signals. • Traf Signal Modernization – Change heads, add turning arrows, LEDs, etc. • Traf Signal Replacement – Replace existing traffic signals. • Traffic Signals By CFA – Any signal work by Chicago Force Account
RD	**Training**	NBIS Training.
IN	**Turning Lanes**	Both right & left turn lanes added.

RD	**UltraThin Bond Wear**	One pass application of a heavy polymer-modified asphalt emulsion tack coat and a gap-graded, polymer modified HMA layer.
UNK	**Unknown-IN**	May be used temporarily for planning projects.
UNK	**Unknown-LA**	May be used temporarily for planning projects.
UNK	**Unknown-PE**	May be used temporarily for planning projects.
UNK	**Unknown-RD**	May be used temporarily for planning projects.
UNK	**Unknown-RR**	May be used temporarily for planning projects.
UNK	**Unknown-ST**	May be used temporarily for planning projects.
UNK	**Unknown-UT**	May be used temporarily for planning projects.
UT	**Utility Adjust.**	Utility Adjustment or utility adjustment by Chicago Force Account (CFA).
RD	**White Topping**	A PCC layer that is applied over an existing HMA pavement.
RD	**Widening**	Widening existing pavement; not to be used if number of through traffic lanes is increased. If number of through lanes increased, use **Add Lanes-INT or Add Lanes-RDWY**.