INDOT Multimodal Freight Plan Update

Appendix

prepared for

INDOT

prepared by

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with

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Table A.1 Top Truck Commodities in Indiana, 2015

TOP TRUCK COMMODITIES BY TONS			TOP TRUCK COMMODITIES BY VALUE		
Commodity	**Production Industry(s)**	**Attraction Industry(s)**	**Commodity**	**Production Industry(s)**	**Attraction Industry(s)**
Gravel	NAICS 212-Mining (Except Oil And Gas)	Population	**Motorized Vehicles**	NAICS 336 - Transportation Equipment Manufacturing	NAICS 441-Motor Vehicle And Parts Dealers
Cereal Grains	NAICS 11-Agriculture	NAICS 311-Food Manufacturing	**Mixed Freight**	Total Employment	NAICS 42-Wholesale Trade
Base Metals	NAICS 331-Primary Metal Manufacturing	NAICS 333-Machinery Manufacturing & NAICS 336-Transportation Equipment Manufacturing	**Base Metals**	NAICS 331-Primary Metal Manufacturing	NAICS 333-Machinery Manufacturing & NAICS 336-Transportation Equipment Manufacturing
Coal	NAICS 212-Mining (Except Oil & Gas)	NAICS 221-Utilities	**Electronics**	NAICS 334-Computer And Electronic Product Manufacturing & NAICS 335-Electrical Equipment Manufacturing	NAICS 42-Wholesale Trade
Nonmetal Min. Prods.	NAICS 327 Nonmetallic Mineral Product Manufacturing	NAICS 42-Wholesale Trade	**Machinery**	NAICS 333-Machinery Manufacturing	Total Employment
Gasoline	NAICS 324-Petroleum Products Manufacturing	Population	**Plastics/Rubber**	NAICS 326-Plastic & Rubber Products Manufacturing	NAICS 42-Wholesale Trade
Other Foodstuffs	NAICS 311-Food Manufacturing & NAICS 325-Chemical Product Manufacturing	NAICS 311-Food Manufacturing	**Gasoline**	NAICS 324-Petroleum Products Manufacturing	Population
Waste/Scrap	Total Employment	NAICS 562-Waste Management And Remediation Services	**Other Foodstuffs**	NAICS 311-Food Manufacturing & NAICS 325-Chemical Product Manufacturing	NAICS 311-Food Manufacturing
Other Ag Prods.	NAICS 11-Agriculture	NAICS 311-Food Manufacturing	**Pharmaceuticals**	NAICS 325-Chemical Product Manufacturing	NAICS 42-Wholesale Trade
Natural Sands	NAICS 212-Mining (Except Oil & Gas)	Population	**Misc. Mfg. Prods.**	NAICS 33-Durable Manufacturing	NAICS 42-Wholesale Trade

Table A.2 Top Rail Commodities in Indiana, 2015

TOP RAIL COMMODITIES BY TONS			TOP RAIL COMMODITIES BY VALUE		
Commodity	**Production Industry(s)**	**Attraction Industry(s)**	**Commodity**	**Production Industry(s)**	**Attraction Industry(s)**
Coal	NAICS 212 - Mining (Except Oil And Gas)	NAICS 221- Utilities	**Base metals**	NAICS 332- Fabricated Metal Product Manufacturing	NAICS 333- Machinery Manufacturing & NAICS 336- Transportation Equipment Manufacturing
Base metals	NAICS 332- Fabricated Metal Product Manufacturing	NAICS 333- Machinery Manufacturing & NAICS 336- Transportation Equipment Manufacturing	**Motorized vehicles**	NAICS 336- Transportation Equipment Manufacturing	NAICS 441- Motor Vehicle and Parts Dealers
Cereal grains	NAICS 11- Agriculture	NAICS 311- Food Product Manufacturing	**Machinery**	NAICS 333- Machinery Manufacturing	Total employment
Animal feed	NAICS 11- Agriculture	NAICS 311- Food Product Manufacturing	**Other foodstuffs**	NAICS 311- Food Product Manufacturing & NAICS 325- Chemical Product Manufacturing	NAICS 311- Food Product Manufacturing
Other foodstuffs	NAICS 311- Food Product Manufacturing & NAICS 325- Chemical Product Manufacturing	NAICS 311- Food Product Manufacturing	**Plastics/rubber**	NAICS 326- Plastic & Rubber Products Manufacturing ,	NAICS 42 - Wholesale Trade
Fertilizers	NAICS 325- Chemical Product Manufacturing	NAICS 11- Agriculture	**Coal**	NAICS 212 - Mining (Except Oil And Gas)	NAICS 221 Utilities
Metallic ores	NAICS 212 - Mining (Except Oil And Gas)	NAICS 331- Primary Metal Manufacturing	**Cereal grains**	NAICS 11- Agriculture	NAICS 311- Food Product Manufacturing
Basic chemicals	NAICS 325- Chemical Product Manufacturing	NAICS 42- Wholesale Trade	**Animal feed**	NAICS 11- Agriculture	NAICS 311- Food Product Manufacturing
Other ag prods.	NAICS 11- Agriculture	NAICS 311- Food Product Manufacturing	**Basic chemicals**	NAICS 325- Chemical Product Manufacturing	NAICS 42- Wholesale Trade
Waste/scrap	Total employment	NAICS 562- Waste Management and Remediation Services	**Fertilizers**	NAICS 325- Chemical Product Manufacturing	NAICS 11- Agriculture

Table A.3 Top Air Commodities in Indiana, 2015

TOP AIR COMMODITIES BY TONS			TOP AIR COMMODITIES BY VALUE		
Commodity	**Production Industry(s)**	**Attraction Industry(s)**	**Commodity**	**Production Industry(s)**	**Attraction Industry(s)**
Electronics	NAICS 324- Electrical Machinery Manufacturing & NAICS 335- Electronic Products Manufacturing	NAICS 42- Wholesale Trade	**Pharmaceuticals**	NAICS 325- Chemical Product Manufacturing	NAICS 42- Wholesale Trade
Pharmaceuticals	NAICS 325- Chemical Product Manufacturing	NAICS 42- Wholesale Trade	**Electronics**	NAICS 324- Electrical Machinery Manufacturing & NAICS 335- Electronic Products Manufacturing	NAICS 42- Wholesale Trade
Plastics/rubber	NAICS 326- Plastic & Rubber Products Manufacturing	NAICS 42- Wholesale Trade	**Precision instruments**	NAICS 324- Electrical Machinery Manufacturing	Total employment
Motorized vehicles	NAICS 336- Transportation Equipment Manufacturing	NAICS 441- Motor Vehicle and Parts Dealers	**Machinery**	NAICS 333- Machinery Manufacturing	Total employment
Machinery	NAICS 333- Machinery Manufacturing	Total employment	**Chemical prods.**	NAICS 325- Chemical Product Manufacturing	Total employment
Precision instruments	NAICS 324- Electrical Machinery Manufacturing	Total employment	**Transport equip.**	NAICS 336- Transportation Equipment Manufacturing	NAICS 441- Motor Vehicle and Parts Dealers
Chemical prods.	NAICS 325- Chemical Product Manufacturing	Total employment	**Plastics/rubber**	NAICS 326- Plastic & Rubber Products Manufacturing	NAICS 42- Wholesale Trade
Articles-base metal	NAICS 332- Fabricated Metal Product Manufacturing	Total employment	**Basic chemicals**	NAICS 325- Chemical Product Manufacturing	NAICS 42- Wholesale Trade,
Printed prods.	NAICS 323- Printing and Related Support Activities	NAICS 42- Wholesale Trade,	**Misc. mfg. prods.**	NAICS 33- Durable Manufacturing	NAICS 42- Wholesale Trade
Textiles/leather	NAICS 313- Textile Mills& NAICS 314- Textile Product Mills	NAICS 42- Wholesale Trade	**Motorized vehicles**	NAICS 336- Transportation Equipment Manufacturing	NAICS 441- Motor Vehicle and Parts Dealer

Table A.4 Top Water Commodities in Indiana, 2015

TOP WATER COMMODITIES BY TONS			TOP WATER COMMODITIES BY VALUE		
Commodity	**Production Industry(s)**	**Attraction Industry(s)**	**Commodity**	**Production Industry(s)**	**Attraction Industry(s)**
Gravel	NAICS 212-Mining (Except Oil And Gas)	Population	**Cereal grains**	NAICS 11-Agriculture	NAICS 311-Food Manufacturing
Cereal grains	NAICS 11-Agriculture	NAICS 311-Food Manufacturing	**Crude petroleum**	NAICS 211-Oil and Gas Extraction	NAICS 324-Petroleum and Coal Products Manufacturing
Nonmetallic minerals	NAICS 327 Nonmetallic Mineral Product Manufacturing	NAICS 42-Wholesale Trade	**Other ag prods.**	NAICS 11-Agriculture	NAICS 311-Food Manufacturing
Metallic ores	NAICS 212-Mining (Except Oil And Gas)	NAICS 331-Primary Metal Manufacturing	**Base metals**	NAICS 331-Primary Metal Manufacturing	NAICS 333-Machinery Manufacturing & NAICS 336-Transportation Equipment Manufacturing
Milled grain prods.	NAICS 311-Food Product Manufacturing	NAICS 311-Food Product Manufacturing	**Milled grain prods.**	NAICS 311-Food Product Manufacturing	NAICS 311-Food Product Manufacturing
Other ag prods.	NAICS 11-Agriculture	NAICS 311-Food Product Manufacturing	**Fertilizers**	NAICS 325-Chemical Product Manufacturing	NAICS 11-Agriculture
Crude petroleum	NAICS 211-Oil and Gas Extraction	NAICS 324-Petroleum and Coal Products Manufacturing	**Gravel**	NAICS 212-Mining (Except Oil And Gas)	Population
Base metals	NAICS 332-Fabricated Metal Product Manufacturing	NAICS 333-Machinery Manufacturing & NAICS 336-Transportation Equipment Manufacturing	**Machinery**	NAICS 333-Machinery Manufacturing	Total employment
Nonmetal min. prods.	NAICS 327 Nonmetallic Mineral Product Manufacturing	NAICS 42-Wholesale Trade	**Metallic ores**	NAICS 212 - Mining (Except Oil And Gas)	NAICS 331-Primary Metal Manufacturing
Fertilizers	NAICS 325-Chemical Product Manufacturing	NAICS 11-Agriculture	**Basic chemicals**	NAICS 325-Chemical Product Manufacturing	NAICS 42-Wholesale Trade

B. Appendix: Online Map Comments

An interactive online map was created to gather input from INDOT District staff, Corridor Development staff, and Indiana's MPOs on freight facilities, challenges and trends throughout the state. The following figure displays the location of comments. A table of comments received follows.

Figure B.1 Location of Comments on Online Map

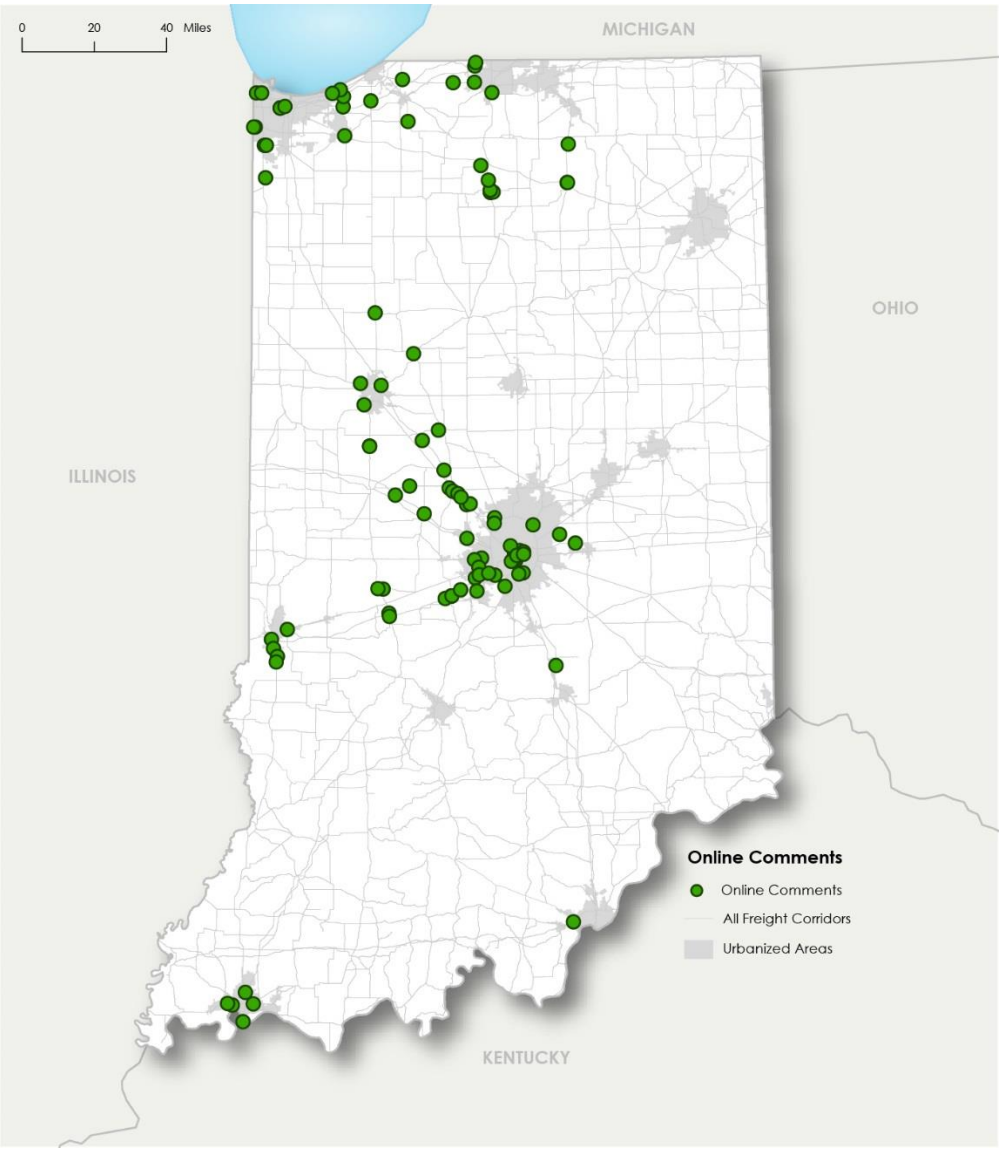


Table B.1 Comments from Online Map

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
Bridge NBI #10200			Vertical clearance ranges from 14'6" to 14'9".	0	Jim Kaspar	5/17/2017
NBI #10170			Vertical clearance: 14'5" to 15'3" left to rt lanes.	0		5/17/2017
US 31	US 30	Kokomo	Improvements are needed to make US31 a freeway. US31 and SR10 intersection is a higher priority.	1	James Turnwald, MACOG	5/22/2017
US 31	17th Street (Dewey)		Marshall Co and Town of Argos are developing Industrial Parks in this area so access to US 31 is critical	1	James Turnwald, MACOG	5/22/2017
Industrial/Rail Served Sight			Town of Argos is developing 70+ acre Industrial site. Future plans include rail spur off the NS line.	2	James Turnwald, MACOG	5/22/2017
US 30	Valparaiso	Fort Wayne	Significant freight volumes for MACOG region. US 30 needs improvements to be stoplight free, freeway.	1	James Turnwald, MACOG	5/22/2017
1300 N	Old SR15	SR 15	County is planning a new road and grade separation over NS line. CR1300N has seen marked increase in truck traffic.	2	James Turnwald, MACOG	5/22/2017
NBI Bridge #10221 carrying Cleveland/Brick			Minimum vertical clearance is 14.55	3	James Turnwald, MACOG	5/22/2017
NBI Bridge #10224 carrying Adams Rd			Minimum Vertical clearance 14.51	3	James Turnwald, MACOG	5/22/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
I-70	I-65/70 North Junction	I-465 East Leg	Recurring daily congestion: Extreme delays WB in AM peak, moderate delays EB in PM peak. ATL project proposed.	1	INDOT Corridor Development	5/22/2017
I-65	I-65/70 North Junction	Fall Creek	Recurring daily congestion: extreme delays NB in AM peak and SB in PM peak due to weaving/merging. Project proposed.	1	INDOT Corridor Development	5/22/2017
I-65/70 South Junction	Raymond Street	Vermont Street	Recurring daily congestion due to SB weave on north approach and NB weave on south approach. Project proposed.	1	INDOT Corridor Development	5/22/2017
I-70	Belmont Avenue	Madison Avenue	Recurring daily congestion: ATL and C-D's needed for connection to South Split project. Project proposed.	1	INDOT Corridor Development	5/22/2017
I-65	I-65/70 North Junction	Fall Creek	Recurring daily congestion: extreme delays NB in AM peak and SB in PM peak due to weaving/merging. Project proposed.	1	INDOT Corridor Development	5/22/2017
I-65	Fall Creek	38th Street	Recurring daily congestion: extreme delays in AM peak SB due to bottlenecks. ATL project proposed.	1	INDOT Corridor Development	5/22/2017
I-465 (includes I-865 modification)	86th Street	US 31	Recurring daily congestion: severe delays NB/EB in peaks, moderate delays WB in AM peak. ATL project proposed.	1	INDOT Corridor Development	5/22/2017
I-65 (includes I-465 Modification)	Thompson Road	Raymond Street	Recurring daily congestion: moderate delays NB in AM peak and SB in PM peak. ATL and Mod project planned.	1	INDOT Corridor Development	5/22/2017
I-465	Arlington Avenue	Meridian Street	Recurring daily congestion: moderate delays due to weaving/merging turbulence. ATL project proposed.	1	INDOT Corridor Development	5/22/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
I-465	Mann Road	I-70	Recurring daily congestion: severe delays EB in PM peak. Also, increased volumes due to I-69 Sect 6. Proposal soon.	1	INDOT Corridor Development	5/22/2017
I-70	Mount Comfort Road	SR 9	Recurring daily congestion: bottleneck delays EB at Mt. Comfort. ATL to SR 9 proposed.	2	INDOT Corridor Development	5/22/2017
US 30	SR 49	I-69	High truck volumes. Recommend remove signals and install treatments for free flow conversion. Freeway not cost effective	3	INDOT Corridor Development	5/22/2017
US 31	SR 38	US 30	Recommend remove signals and install treatments for free flow conversion to promote safety. Freeway not cost effective.	3	INDOT Corridor Development	5/22/2017
I-65	SR 32	SR 38	Heavy truck volumes: ATL proposed to expand to 6 lanes	2	INDOT Corridor Development	5/22/2017
I-65	SR 58	SR 44	Heavy truck volumes: ATL proposed to expand to 6 lanes	2	INDOT Corridor Development	5/22/2017
I-80/94	Illinois State Line	I-65	Daily recurring congestion, heavy truck volumes, hard shoulder running being considered.	2	INDOT Corridor Development	5/22/2017
I-64 EB	SR 64	Ohio River	Daily recurring congestion: 3 lanes exist WB but only 2 EB, traffic supports ATL project.	2	INDOT Corridor Development	5/22/2017
US 36	Avon Road	I-465	Need improved connectivity to rail yard. Project proposal soon.	3	INDOT Corridor Development	5/22/2017
I-80/I-94	Illinois State Line	I-65	Concur with Corridor Development's comments	1	INDOT LaPorte District Traffic	5/23/2017
US 421	I-80/I-90	I-94	Railroad Bridge Clearance 13'9"	3	INDOT LaPorte District Trafficx	5/23/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
US 421	I-80/90	I-94	Railroad Bridge Clearance 13'9"	3	INDOT LaPorte District Traffic	5/23/2017
US231	US 41	SR 55	Railroad Bridge Clearance 13'6"	3	INDOT LaPorte District Traffic	5/23/2017
US 231	US 41	SR 55	Railroad Bridge Clearance 13'6" (Bridge 2 of 2)	3	INDOT LaPorte District	5/23/2017
SR 17	SR 8	US 30	Railroad Bridge Clearance 10'11	3	INDOT LaPorte District	5/23/2017
SR 2	US 41	I-65	Railroad Bridge Clearance 14'0"	3	INDOT LaPorte District Traffic	5/23/2017
US 24	US 421	SR 43	KEY intersection for oversize/overweight vehicles. Tight-turning. Vast majority of OS/OW permits turn here. Causes crash	1	INDOT LaPorte District Traffic	5/23/2017
SR 49	I-80/90	I-94	Congestion and delay at signalized intersection of SR49 and the Toll Road	2	INDOT LaPorte District Traffic	5/23/2017
SR 49	I-80/90	I-94	Congestion and delay at the signalized intersection of Indian Boundary, just south of I-94	2	INDOT LaPorte District Traffic	5/23/2017
US 20	SR 2 West Junction	I-94	HIGH priority. Heavy Duty Route. AADT grew from 19219 in 2011 to 27160 in 2016. HV% went 31% to 37% in same time. SAFETY!	1	INDOT LaPorte District Traffic	5/23/2017
SR 2	US 20 West Junction	US 20 East Junction	Active work on power plant, Industrial Park, IN/TEK expected to increase already large HV volumes. Safety. Heavy Duty Route	1	INDOT LaPorte District Traffic	5/23/2017
US 12	Mittal Steel Signal (1.5 miles east of SR 149)	SR 520	Road surrounded by National Lakeshore. Tourists. Windy, narrow, 2-lane. Heavy trucks should use SR149>US12>Mittal Steel	3	INDOT LaPorte District Traffic	5/23/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
US 30	SR 2 West Junction	SR 49	Congestion and Delay at 3 signalized intersections. SR2/Washington. Sturdy Rd. Walmart/Strongbows.	2	INDOT LaPorte District Traffic	5/23/2017
US 421	SR 18	SR 25	Turning Radius problem downtown at Main and Washington (US 421 does a 90 degree turn)	3	INDOT LaPorte District Traffic	5/23/2017
US 30	Illinois State Line	US 41	At-grade railroad crossing	2	INDOT LaPorte District Traffic	5/23/2017
US 30	Illinois State Line	US 41	Severe congestion and delay at intersection.	2	INDOT LaPorte District Traffic	5/23/2017
US 41	I-80/94	I-90	Two adjacent at-grade railroad crossings, 4 tracks total. Causes severe backups	1	INDOT LaPorte District Traffic	5/23/2017
US 20	SR 312	US 12	At-grade railroad crossing	2	INDOT LaPorte District Traffic	5/23/2017
US 31	SR 10	US 30	At-grade railroad crossing. Although RR volume is light, hazardous carriers always stop. Unexpected stopping undesirable	3	INDOT LaPorte District Traffic	5/23/2017
SR 39	SR 42 Monrovia	US 40 Belleville	Major industrial parks developing both north and south of I-70; truck traffic already heavy; expected to greatly increase	1	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 75	US 136 Jamestown	SR 47 Thorntown	Industrial park developing SW of I-74; shipping anticipated to Lafayette and to Illinois	2	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 28	I-65	SR 39 Frankfort	Established industrial area is seeing some expansion	3	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 240	US 231	SR 75	Large Wal-Mart Distribution Center on 240; future growth likely	3	R Montgomery / INDOT Crawfordsville	5/24/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
SR 267	I-74 (Ronald Reagan Pkwy also, in future)	I-65 (& beyond, onto CR 400 S)	Heavy development of distribution centers in Anson; Love's Truck Stop; future Ronald Reagan Pkwy traffic	1	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 39	just S of I-70	just N of I-70	Interchange development must consider the bottlenecks created with in/out traffic at truck stops	1	R Montgomery/ INDOT Crawfordsville	5/24/2017
I-70	Ronald Reagan Parkway	Indiana / Illinois State Line	Minimum of 3 lanes each direction is an urgent need	1	R Montgomery / INDOT Crawfordsville	5/24/2017
I-65	SR 32 Lebanon	US 24 (District Line)	Minimum of 3 lanes for each direction is an urgent need	1	R Montgomery / INDOT Crawfordsville	5/24/2017
To be determined	S end of Hoosier Heartland (SR 25)	I-74 at Crawfordsville	Identification & upgrade of a corridor (possibly incl US 231?) to provide westbound access from the HHC to I-74	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 231	Tippecanoe CR 500 S	I-74	Needs upgrade (4-lanes?); could be part of corridor referenced in comment on SR 25 (Hoosier Heartland)	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 231	Tippecanoe CR 500 S	I-74	Need short term improvements to add passing locations while awaiting potential long-term upgrade of facility to 4 lanes	2	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 32	I-74	I-65	Increasingly used as a freight corridor; likely to need upgrades in future	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 231	SR 240	Big Walnut Creek (N side of Greencastle)	Two 90 degree turns; 14' 2" RR underpass; currently 900 trucks/day	2	R Montgomery / INDOT Crawfordsville	5/24/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
US 41	Margaret Ave	Hulman St	Additional lane NB & SB may be needed	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 41	SR 641	Johnson Dr	Has truck traffic issues; should be reviewed after SR 641 is fully functional	3	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 641	At US 41		Possibly consider an acceleration lane for trucks onto NB US 41	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 41	At Harlan Drive		Review truck traffic generated by current & future facilities at industrial park	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 40	Just E of US 40/SR 46 intersection	Intersection of US 40 & US 40/SR 46	WB left turns backing up, creating a "pinch point" for truck traffic (and other!)	2	R Montgomery/ INDOT Crawfordsville	5/24/2017
SR 32	W of I-65	SR 39	Review the impact on I-65 interchange of present & future Lebanon Industrial Area facilities	3	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 39	S of I-65	SR 32	Review the impact on I-65 interchange of present & future Lebanon Industrial Area facilities	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 52 / SR 231	Sagamore Parkway	I-65	Proposed extension should be evaluated for its potential impact on freight traffic; seems to be a local priority	2	R Montgomery / INDOT Crawfordsville	5/24/2017
SR 25	~ 1 mi W of US 52 / US 231		RR overpass has 13' 11" clearance; 440 trucks / day	3	R Montgomery / INDOT Crawfordsville	5/24/2017
US 136	At Green Street, Brownsburg		Trucks cannot make WB to NB movement; may not be a problem if they can use Ronald Reagan Pkwy; should evaluate	3	R Montgomery / INDOT Crawfordsville	5/24/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
US 231	N of CR 800 S	S of CR 800 S	Heavy truck access point; intersection upgrades needed; submitted in call as 2022 mobility project	2	R Montgomery / INDOT Crawfordsville	5/24/2017
US 231	At I-70, SB		Numerous bridge beam hits; currently under design, may need extra funding	1	R Montgomery / INDOT Crawfordsville	5/24/2017
I-74 & I-70 & I-65	Throughout the district		Provide adequate, & well located, truck parking to alleviate ramp parking (rest area improvements?)	2	R Montgomery/ INDOT Crawfordsville	5/24/2017
US 35/Hupp Rd/US 6 Intersection			Main entry point to the Kingsbury Industrial Park & Inland Logistics Port developments. Anticip increased truck traffic	2	Stephen Sostaric, NIRPC	5/26/2017
Arcelor Mittal Burns Harbor East Entrance	US 12	Arcelor Mittal Scales	Trucks backup on US 12 at the signal, at grade crossing with trucks & passenger/freight trains	0	NIRPC	5/26/2017
			Logistics growth occurring in Whitestown.	2	Indianapolis MPO	5/31/2017
			Significant logistics growth in Lebanon.	1	Indianapolis MPO	5/31/2017
West Street/Wisconsin Street			Growth in Senate Ave traffic resulting in delays for traffic on West Street and traffic to the Senate Ave Terminal.	1	Indianapolis MPO	5/31/2017
			Buildout of Plainfield industrial land forcing new logistical centers west on I-70.	3	Indianapolis MPO	5/31/2017
			Park 100 warehousing causing congestion delays. Several Indianapolis projects suggested in LRTP.	0	Indianapolis MPO	5/31/2017
Mount Comfort Road			Hancock County interested in developing industrial land along this corridor (beyond what is already developed).	1	Indianapolis MPO	5/31/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
I-65	Chicago	Indianapolis	Freight traffic from Chicago to Indianapolis could be a candidate for AV truck testing.	2	Indianapolis MPO	5/31/2017
CSX Mainline Crossing			At-grade intersections a congestion headache for Indianapolis; population growth on near-east side exacerbating issue.	1	R. Wilhite /Indianapolis MPO	5/31/2017
Avon Railyard			How does the state and region help increase rail traffic to the area?	3	R Wilhite /Indianapolis MPO	5/31/2017
SR 37 -- I-69			Conversion of 37 to I-69 raises questions about future truck traffic from Evansville along the corridor.	3	R. Wilhite /Indianapolis MPO	5/31/2017
I-69N and I-465			Mixture of significant commuter traffic and through freight traffic causing perceived congestion issues.	2	R. Wilhite /Indianapolis MPO	5/31/2017
I 70 at SR 39			Overflow for warehousing crunch in Plainfield. Must consider how to best develop areas.	2	R. Wilhite	5/31/2017
CSX Beltline			City interested in removing train traffic from Mainline and placing it on beltline.	2	R. Wilhite /Indianapolis MPO	5/31/2017
US Highway 41	Ohio River Bridge Crossing	Ohio River Bridge Crossing	incidents frequently shut down the bridge and there is no reasonable alternative route or warning	1	Evansville MPO	6/16/2017
Claremont Ave	Ray Becker Pkwy	Broadway Av	CSX Trains frequently block this connection to multi-modal facilities for hours, including to CSX Howell Yard.	2	Evansville MPO	6/16/2017
US Highway 41	Gibson County Line	I-69	mobility issues; significant number of traffic signals	3	Evansville MPO	6/16/2017
SR 62/Lloyd Expy	Fulton Ave	Posey County Line	mobility issues stemming from heavy traffic & numerous TCSs; also congestion due to crashes; no alternative route, etc	2	Evansville MPO	6/16/2017

FACILITY NAME	FROM	TO	COMMENT	PRIORITY	NAME	DATE
SR 66/Lloyd Expy	US Highway 41	I-69	mobility issues due to numerous TCSs; limited alternative routes	3	Evansville MPO	6/16/2017
New I-70 Interchange	CR 600 E	CR 525 E	Provide long-term congestion relief for I-70 interchanges subject to commuter/employee traffic growth.	3	Town of Plainfield	8/8/2017
SR 67	SR 267	County Line Road	Consider Freight Connection from SR 267 to SR 67 in anticipation of I-69 Routing (Conservation Area Considerations)	3	Town of Plainfield	8/8/2017
US-40	Ronald Reagan Parkway		Growing bottleneck of arterial intersection as logistics facilities develop north of this location.	1	Town of Plainfield	8/8/2017
Ronald Reagan Parkway	Stafford Road	Bradford Road	Expanded/conversion of logistics hubs to serve e-commerce distribution resulting in high employee traffic volumes.	2	Town of Plainfield	8/8/2017
FedEx Hub Expansion near I-70	I-465	Ronald Reagan Parkway	Planned expansion of FedEx to serve growing e-commerce delivery would invite expanded/converted distribution sites.	3	Town of Plainfield	8/8/2017

C. Appendix: Critical Rural Freight Corridors

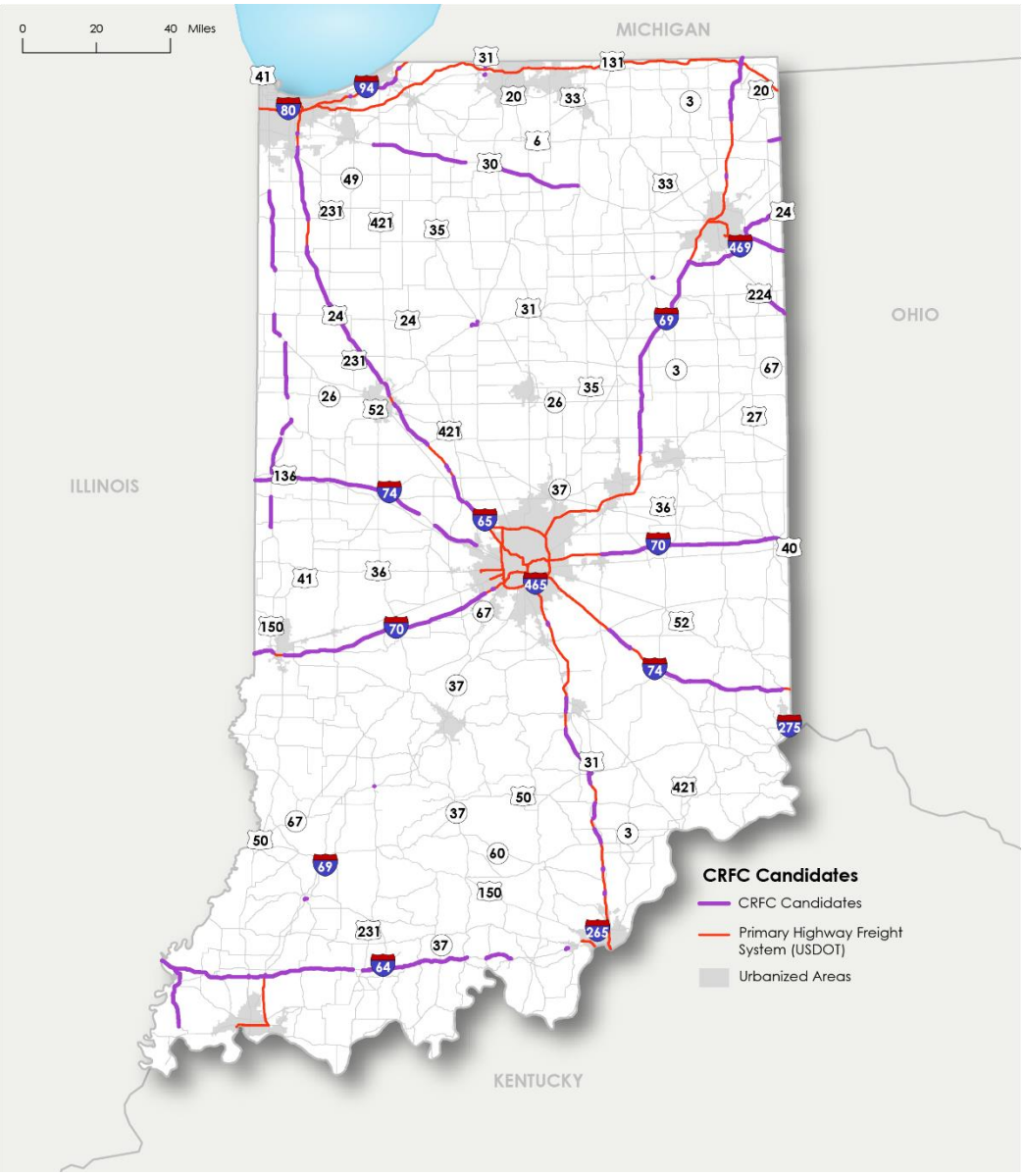
Potential candidates for Critical Rural Freight Corridors were assessed based on the number of criteria from the FAST Act each segment met. The basis of this analysis was the National High Planning Network which includes the National Highway System (NHS), the Strategic Highway Network (STRAHNET), and rural minor arterials.[1] This method identified eligible candidates and highlighted locations with freight activity. Additional factors such as truck volume, upcoming projects, or emerging opportunities may also be considered to select final corridors. Figure C.1 shows the number of criteria met by each segment. Details for each criterion follow.

[1] U.S. DOT. National Highway Planning Network. https://catalog.data.gov/dataset/national-highway-planning-network-nhpn

Figure C.1 Number of Criteria Met by CRFC Candidates

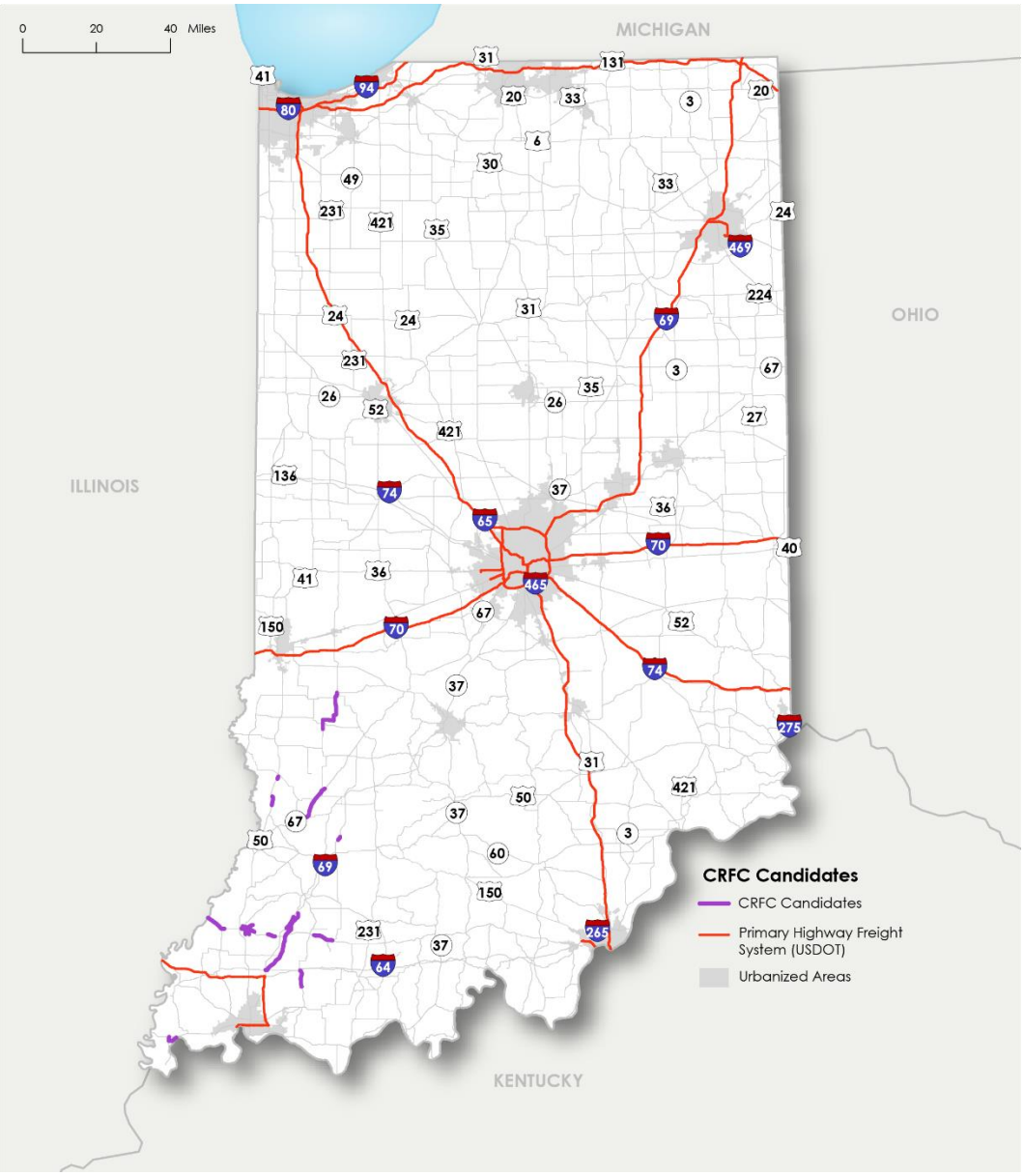
The first criteria laid out in the FAST Act states that a roadway is eligible for designation if it "is a rural principal arterial roadway and has a minimum of 25 percent of the annual average daily traffic of the road measured in passenger vehicle equivalent units from trucks (FHWA vehicle class 8 to 13)." This criteria yielded the following candidates:

Figure C.2 Candidates from Criteria 1



The second eligibility criteria provided in the FAST Act relates to the energy sector. A roadway which "provides access to energy exploration, development, installation, or production areas" is eligible for designation as a CRFC. This criteria yielded the following candidates within 1 mile of mines or plants. Corridors may be extended to connect to the National Highway Freight Network or Priority Highway Freight System depending on the destination of these commodities within or outside of the state.

Figure C.3 Candidates from Criteria 2



The third criteria states that a roadway is eligible if it "connects the PHFS or the Interstate System to facilities that handle more than-

i. 50,000 20-foot equivalent units per year; or

ii. 500,000 tons per year of bulk commodities."

This criteria was omitted during the initial CRFC assessment due to lack of data availability on tonnage at specific facilities. If INDOT determines this criteria to be important to CRFC selection, county-level tonnage from the disaggregated Freight Analysis Framework (FAF) has been developed by Cambridge Systematics and may be used as a proxy. Additionally, INDOT may wish to apply this criteria specifically to access a strategic facility known to handle at least this amount.

The fourth criteria lists a series of facility types that generate freight. A roadway is eligible for CRFC designation if it "provides access to-

i. a grain elevator;

ii. an agricultural facility;

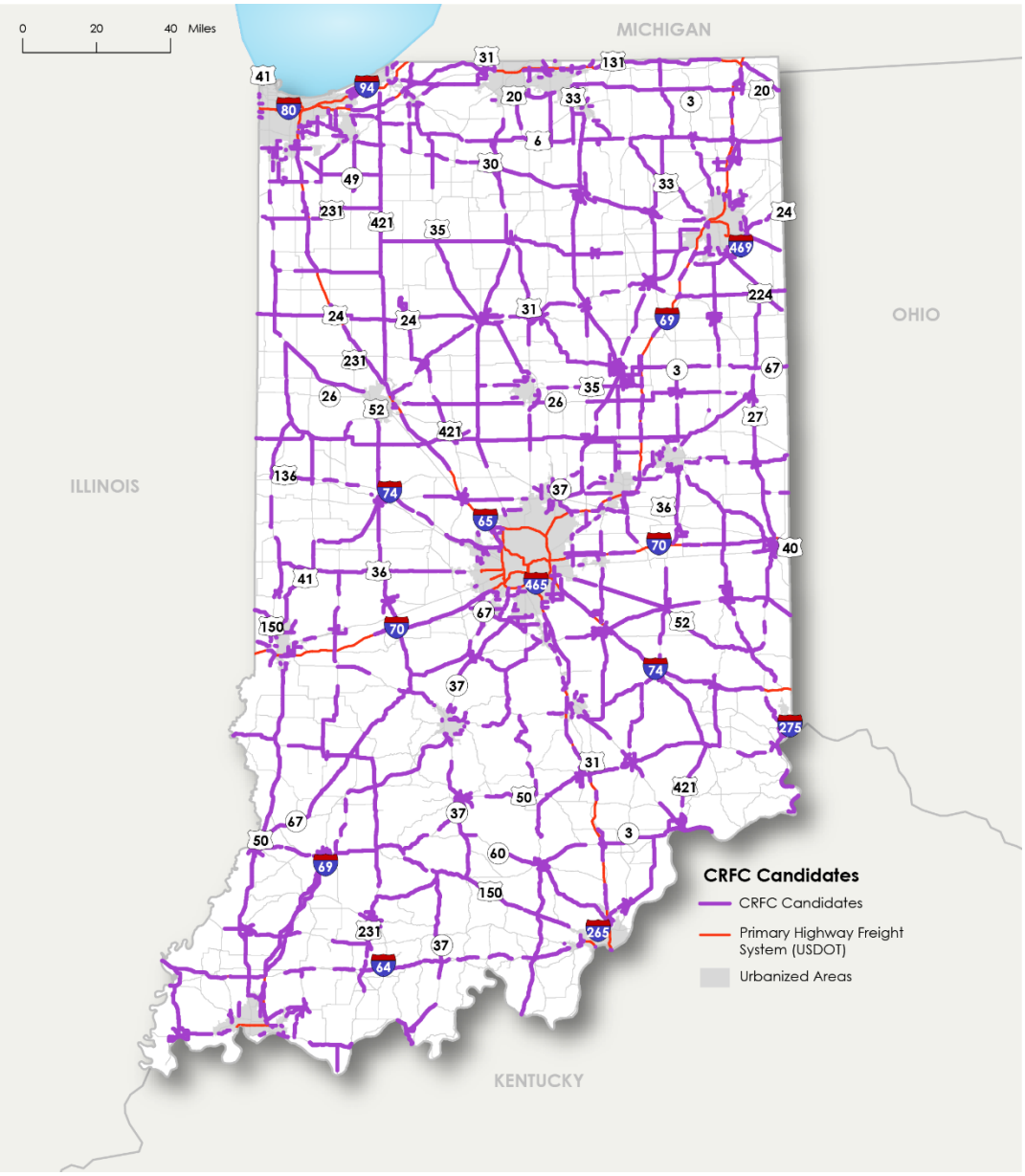
iii. a mining facility;

iv. a forestry facility; or

v. an intermodal facility."

Indiana has a large agricultural economy, and agricultural facilities are located throughout the state. As shown in the following exhibit, this criteria renders nearly every roadway in the state eligible for designation.

Figure C.4 Candidates from Criteria 4

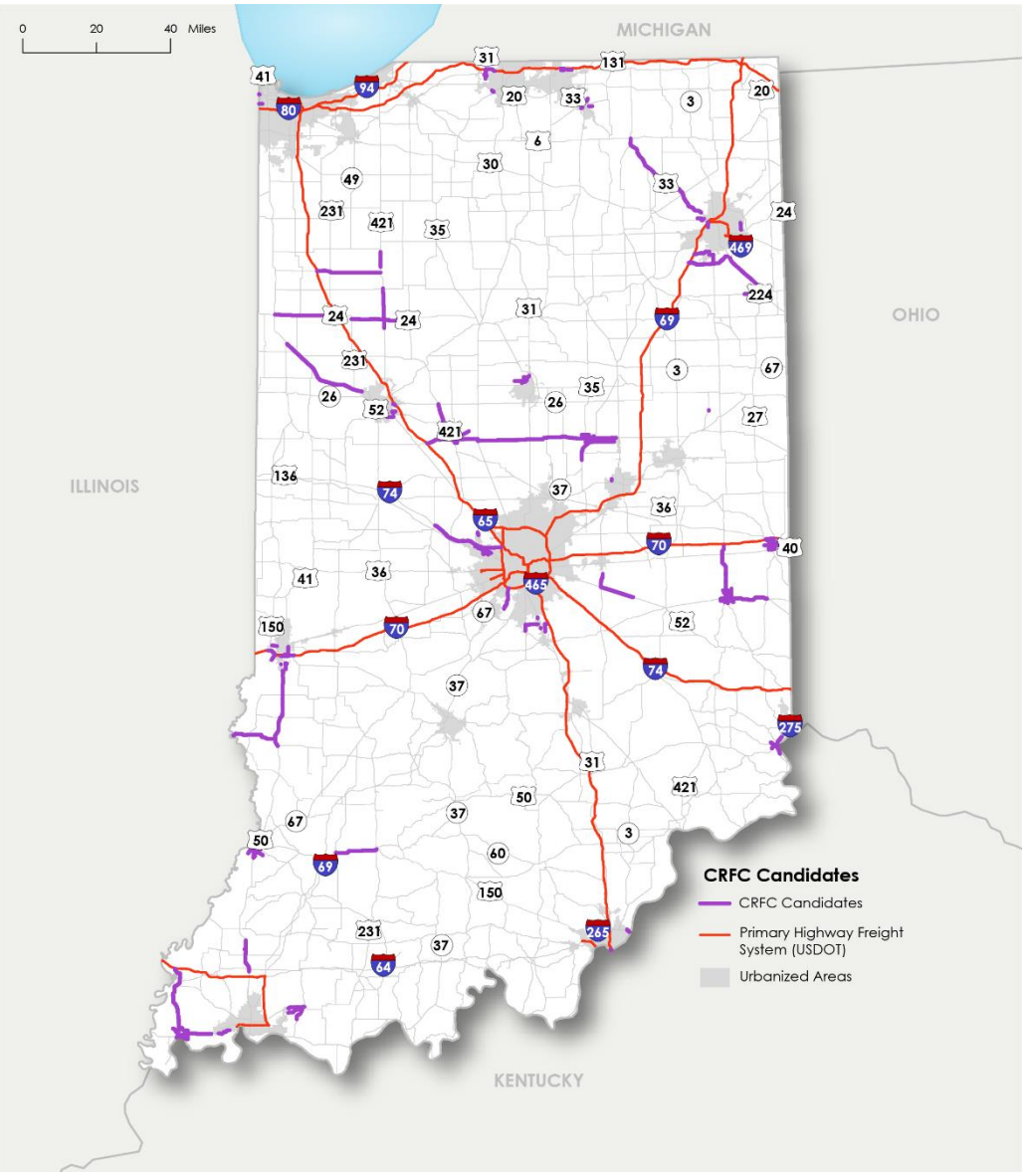


The fifth criteria pertains to international trade, and a roadway meets this criteria if it "connects to an international port of entry." Indiana's points of international trade are confined to ports and airports which are located in urbanized areas. However, INDOT may wish to designate rural roadways just outside of urbanized areas that access these facilities.

The sixth criteria relates to connections between highways and other modes, and it is the final objective criteria laid out in the FAST Act. A roadway is eligible for CRFC designation if it "provides access to significant air, rail, water, or other freight facilities in the State."

For the purpose of identifying airports with significant freight movement, only airports on the FAA's list of qualifying cargo airports were included: Indianapolis International, Fort Wayne International, and South Bend International. Connections to the PHFS were made if facilities were near a logical connection. Alternate routes are possible and may be selected by INDOT.

Figure C.5 Candidates from Criteria 6



INDOT is permitted to designate approximately 194 miles of rural roadways as Critical Rural Freight Corridors. Building on the segment-based analysis of Indiana's roadway network, candidate corridors meeting two or more criteria were formed, as shown in Table C.1. These candidate corridors are not inclusive of every segment meeting two or more criteria, but were consolidated to form meaningful connections to Primary Highway Freight System. These candidates sum to approximately 472 miles of roadway. INDOT has not elected to designate any candidates at this time.

Table C.1 Candidate Rural Corridors

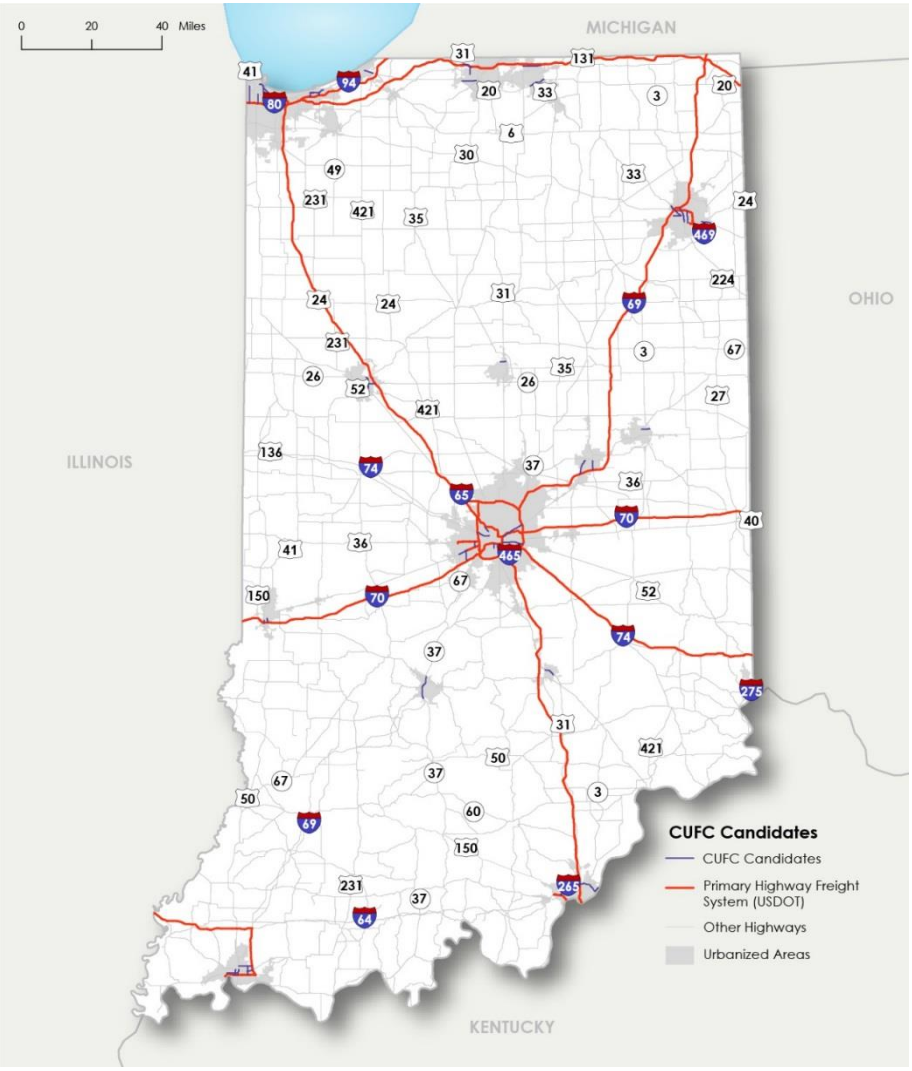
CORRIDOR	LENGTH (MILES)	CRITERIA MET*
I-469 from I-69 to US 27/ Fort Wayne Urbanized Area	10.95	3
SR 69 from SR 62 to I-64	20.29	3
I-74 from Indianapolis Urbanized Area to SR 32	23.14	2/3
US 33 from Fort Wayne Urbanized Area to SR 9	15.24	2
US 33 from SR 9 to SR 6	14.60	2
US 30 from US 31 to SR 15	23.36	2
US 27 from I-469 to US 224	13.38	2
I-469 from US 27 to Fort Wayne Urbanized Area north of Tillman	5.14	2
I-469 from Minnich Rd to US 30	1.72	2
US 24 from I-469 to Ohio state line	11.40	2
US 30 from Fort Wayne Urbanized Area to Ohio state line	9.16	2
US 52/US 41 from Lafayette Urbanized Area to US 24	34.41	2
Airport Expressway from I-69 to FWA/ Fort Wayne Urbanized Area	4.31	2
SR 28 from I-65 to Boyleston	13.99	2
SR 28 from Boyleston to US 31	14.14	2
SR 28 from US 31 to SR 37	17.04	2
SR 28 from SR 37 to Alexandria	6.55	2
SR 1 from I-70 to SR 44	15.22	2
US 24 from US 41 to I-65	16.38	2
SR 114 from I-65 to US 421	17.30	2
US 150 from SR 54 to Terre Haute Urbanized Area	21.04	2
US 41 from I-64 to SR 64	13.52	2
US 150 from I-69 to US-231	11.25	2
SR 62 from SR 69 to Evansville Urbanized Area	12.30	2
I-64 from SR 61 to SR 37	21.94	2
I-64 from US 231 to Louisville Urbanized Area	36.29	2
I-64 from I-69 to US 231	27.61	1/2
I-69 from I-64 to US 150	40.27	1/2
TOTAL CANDIDATE MILEAGE	**471.96**	
CRFC MILES ALLOWED IN FAST ACT	**194.25**	

* The number of criteria met over the majority of the segment. Where a segment was evenly split, both values are shown to differentiate eligible candidates.

D. Appendix: Critical Urban Freight Corridors

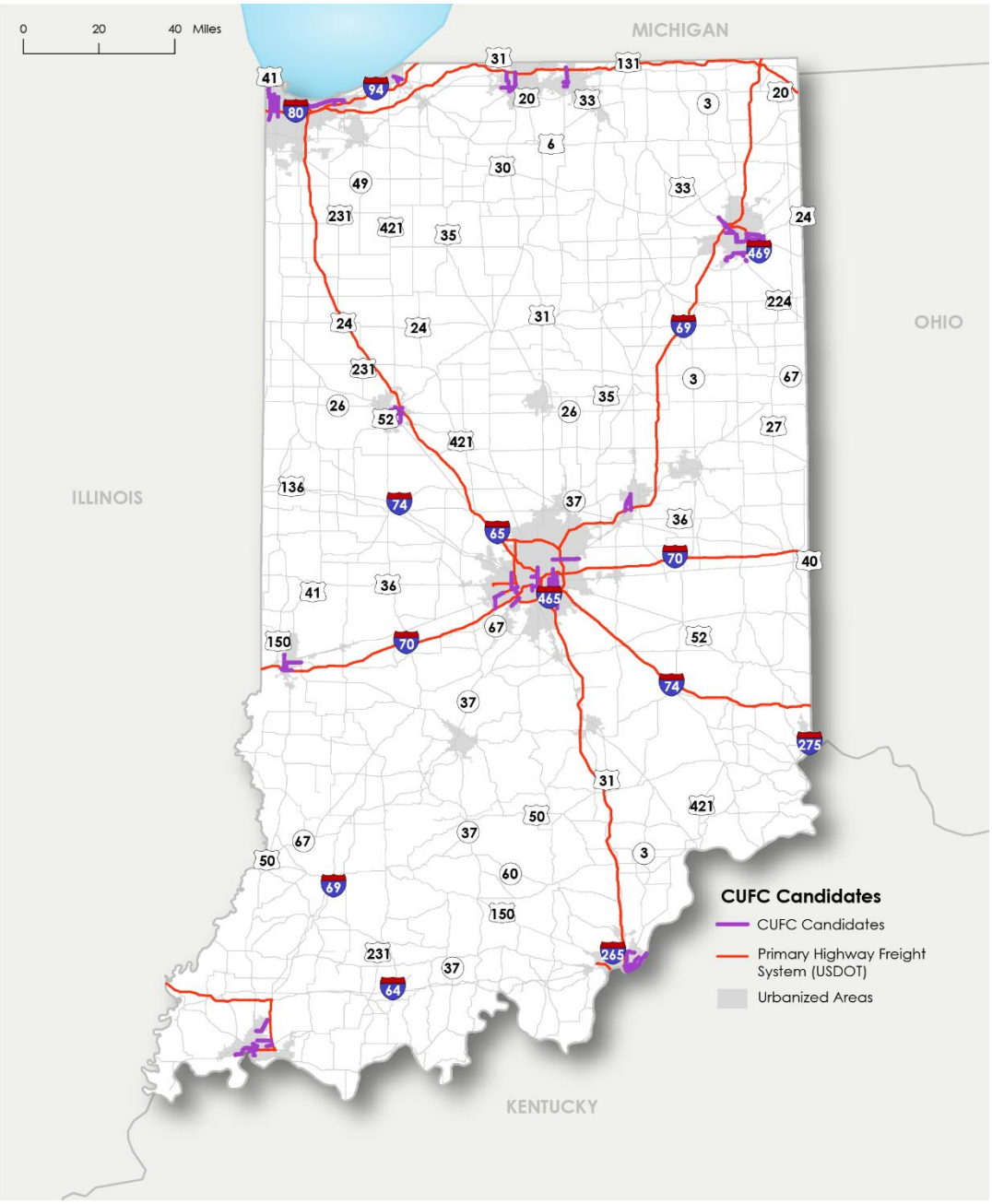
Potential candidates for Critical Urban Freight Corridors were assessed based on the number of criteria from the FAST Act each segment met. The basis of this analysis was the National High Planning Network which includes the National Highway System (NHS), the Strategic Highway Network (STRAHNET), and rural minor arterials. This method identified eligible candidates and highlighted locations with freight activity. Additional factors such as truck volume, upcoming projects, or emerging opportunities may also be considered to select final corridors. Figure D.1 shows eligible candidates based on the criteria in the FAST Act. Details for each criterion follow.

Figure D.1 CUFC Candidates



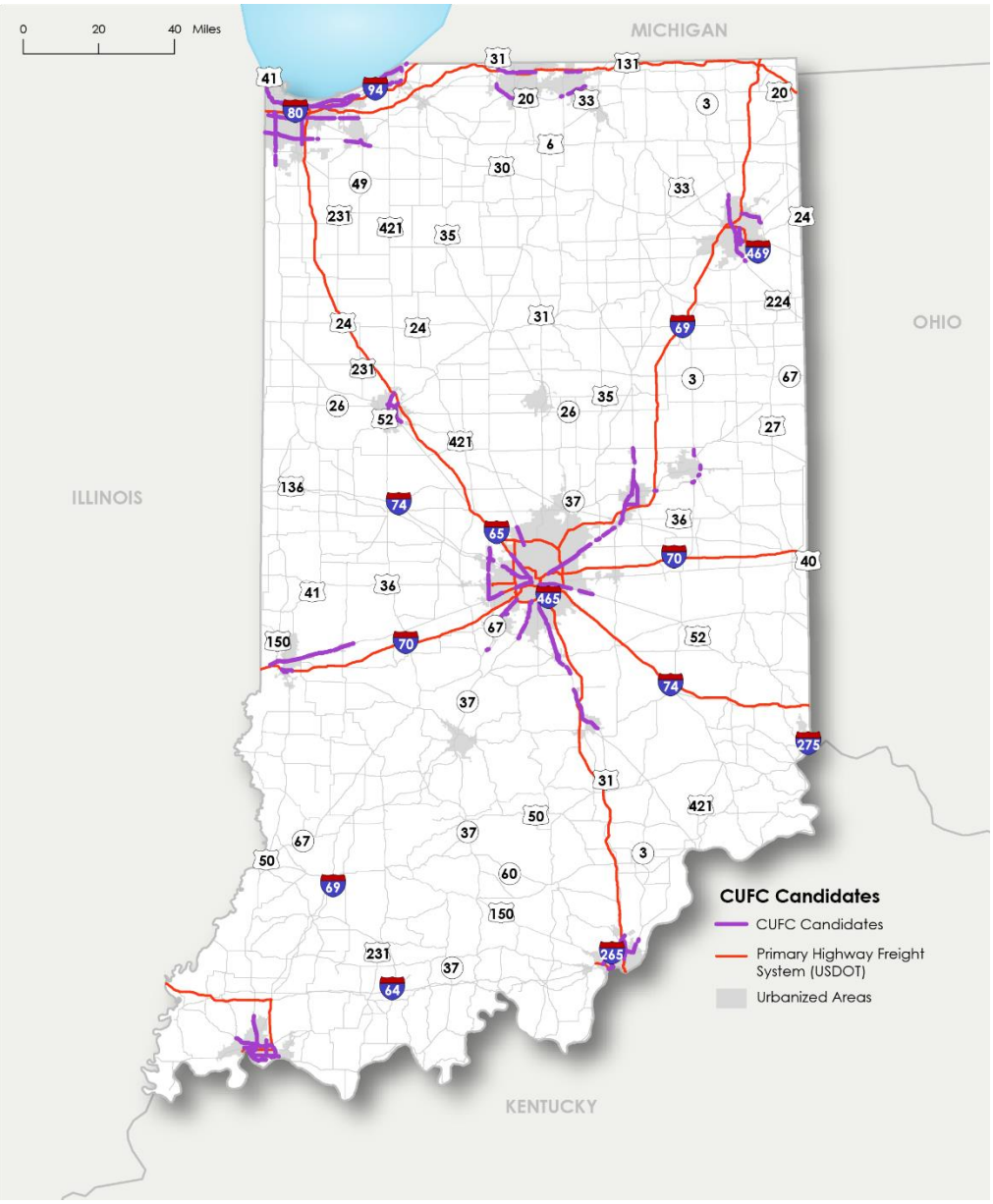
The first criteria laid out in the FAST Act states that a roadway is eligible for designation if it "connects an intermodal facility to: the PHFS [Primary Highway Freight System], the interstate system, or an intermodal freight facility." This criteria yielded the following candidates within 2 miles of an intermodal facility and within 2 miles of the PHFS or Interstate System:

Figure D.2 Candidates from Criteria 1



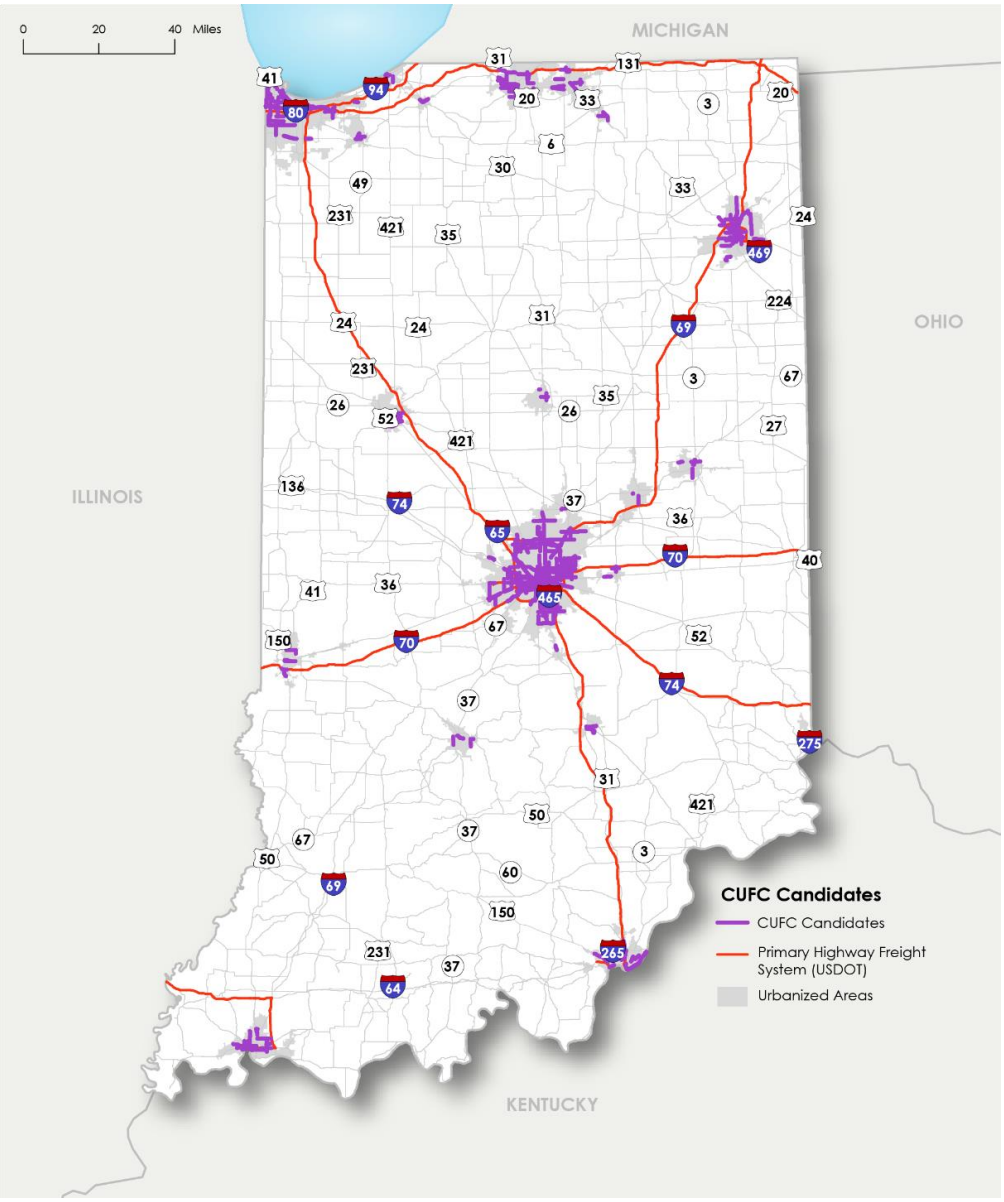
The second eligibility criteria provided in the FAST Act states that a corridor is eligible to be designated as a CUFC if it "is located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement." This criteria yielded the following candidates providing an alternate route to the PHFS:

Figure D.3 Candidates from Criteria 2



The third criteria focuses on accessing freight generators. The FAST Act states that a roadway is eligible if it "serves a major freight generator, logistic center, or manufacturing and warehouse industrial land." Three airports in Indiana on the Federal Aviation Administration's list of top cargo airports were considered freight generators: Indianapolis International Airport, Fort Wayne International Airport, and South Bend International Airport. All ports in the state were also considered freight generators. Finally, employment in freight sectors was used to identify corridors supporting the most freight transportation as a proxy for freight volume. Employment near each corridor was summed, and the top ten percent of corridors were selected.

Figure D.4 Candidates from Criteria 3



INDOT is permitted to designate approximately 97 miles of urban roadways as Critical Urban Freight Corridors. Building on the segment-based analysis of Indiana's roadway network, candidate corridors meeting two or more criteria were formed, as shown in Table D.1. These candidate corridors are not inclusive of every segment meeting two or more criteria, but were consolidated to form meaningful connections to Primary Highway Freight System. These candidates sum to approximately 146 miles of roadway. INDOT has not elected to designate any candidates at this time.

Table D.1 Candidate Urban Corridors

URBANIZED AREA	ROUTE NAME	LENGTH (MILES)	CRITERIA MET*
Anderson, IN	Doctor MLK Jr. Blvd. from Madison Ave. to I-69	4.31	2
Anderson, IN	SR 9 from Ohio Ave to I-69	2.69	2
Bloomington, IN	SR 37 from I-69 to W Acuff Rd (UA limit)	6.66	1
Chicago, IL--IN	US 41/Calumet Ave from I-90 to I-94	4.88	1
Chicago, IL--IN	Industrial Highway from US 12 to I-90	2.88	1
Chicago, IL--IN	SR 912/US 12 from Dickey Rd to I-90	3.68	1
Chicago, IL--IN	US 12 from Midwest Steel Rd to Mittal Steel Rd	4.08	2
Chicago, IL--IN	SR 149 from US 12 to I-94	0.79	1
Chicago, IL--IN	SR 249/Crisman Rd from US 12 to I-94	1.93	1
Chicago, IL--IN	Kennedy Ave from I-90 to I-94	2.54	2
Columbus, IN	US 31/N National Rd from Washington St to 10th St	2.89	1
Elkhart, IN--MI	US 20 from Prairie Street (CR 9) to CR 17	4.54	1
Elkhart, IN--MI	CR 6 W from Moose Trail to CR15 (UA limits)	5.21	2
Evansville, IN--KY	Sycamore St/Main St from USPS to SR 62	0.27	2
Evansville, IN--KY	Garvin St/Stringtown Rd from SR 66 to SR 62	1.58	2
Evansville, IN--KY	US 41 from SR 66 to SR 62	1.59	2
Evansville, IN--KY	W Columbia St from N St Joseph to US 41	3.21	3
Evansville, IN--KY	Lynch Rd from US 41 to I-69	3.83	2

URBANIZED AREA	ROUTE NAME	LENGTH (MILES)	CRITERIA MET*
Evansville, IN--KY	SR 62 from Green River Rd to I-69	1.57	3
Evansville, IN--KY	Green River Rd from Lynch Rd to SR 66	2.49	2
Fort Wayne, IN	US 33/US 30 from Merchant Rd to I-69	1.38	2
Fort Wayne, IN	Goshen Rd from W State Blvd to I-69	2.23	2
Fort Wayne, IN	W State Blvd from Hillegas Rd to Goshen Rd	2.21	2
Fort Wayne, IN	US 27/Lafayette from Wallace St (S of RR) to I-69	4.49	3
Fort Wayne, IN	S/N Anthony Blvd from Creighton Ave to SR 930	3.39	2
Fort Wayne, IN	SR 930 from Lincoln Hwy to I-469	2.66	2
Indianapolis, IN	S West St from W Raymond Street to I-70	1.31	1
Indianapolis, IN	S Harding St from Raymond St to I-70 (Alt:Drover)	1.32	2
Indianapolis, IN	Prospect/Southeastern from I-65/I-70 to I-465/I-74	6.02	2
Indianapolis, IN	S Arlington Ave from Troy Ave to I-74	1.15	2
Indianapolis, IN	S Sherman Dr from Terrace Ave to I-465	3.19	2
Indianapolis, IN	Lafayette Rd from N Tibbs to 38th St	1.66	2
Indianapolis, IN	W 16th/Crawfordsville Rd from Kessler to I-465	3.70	2
Indianapolis, IN	S Girls School Rd from US 40 to US 36	1.60	2
Indianapolis, IN	Ronald Reagan Pkwy from US 40 to I-70	2.99	1
Indianapolis, IN	US40 from Ronald Reagan Pkwy to Quaker Blvd	2.67	3
Indianapolis, IN	Massachusetts Ave from 10th St to I-465	6.56	2
Kokomo, IN	W Morgan St from Kokomo Grain Co to SR 931	1.67	1
Lafayette, IN	South St from Sagamore Pkwy N to I-65	1.98	2
Lafayette, IN	Sagamore Pkwy from SR 38/Main St to Schuyler Ave	3.25	2
Louisville/Jefferson County, KY--IN	Utica Pike from 4th St to Port Rd	1.45	2

URBANIZED AREA	ROUTE NAME	LENGTH (MILES)	CRITERIA MET*
Louisville/Jefferson County, KY--IN	Port Rd from Utica Pike to SR 841	2.53	1
Louisville/Jefferson County, KY--IN	I-265 from I-64 to I-65	6.95	2
Louisville/Jefferson County, KY--IN	SR 841 from I-265/I-65 to State Line	2.66	2
Michigan City--La Porte, IN--MI	E Michigan Blvd from N Woodland Ave to US 20 (UA)	2.54	1
Muncie, IN	E McGalliard Rd from N Walnut St to US 35	2.37	1
South Bend, IN--MI	N Bendix Dr from Lincoln Way W to I-90	2.22	2
South Bend, IN--MI	Cleveland Rd from Portage Rd to Brick Rd	2.61	2
South Bend, IN--MI	SR 2/W Western Ave from Chapin St to US31	4.07	2
Terre Haute, IN	13th St/Erie Canal Rd from Hulman St to I-70	1.24	1
Terre Haute, IN	US 41 from Voorhees St to I-70	0.72	1
	TOTAL CANDIDATE MILEAGE	**146.4**	
	CUFC MILES ALLOWED IN FAST ACT	**97.13**	

* The number of criteria met over the majority of the segment. Parallel or alternate routes for those identified may also be eligible and should be considered based on local input.

E. Appendix: Commissioner's Next Level Goals

- **Execute a 20-year plan road and bridge plan**
  - Go beyond taking care of what we have – improve what we have
    - Steady, consistent improvement in bridge and pavement quality
  - Make our transportation system safer – for those who build it and those who use it
    - Focus on engineering, education, enforcement, and emergency response
    - Reduce crashes, serious injuries and deaths
    - Strive for zero work zone incidents
  - Increase mobility
    - Invest in projects to ease congestion, eliminate delays, foster economic growth
- **Deliver great service**
  - Be efficient and effective - manage taxpayer dollars entrusted to INDOT to deliver the highest possible quality product at the best value
  - Innovate from start to finish by embracing new technology and process improvement techniques
  - Improve customer satisfaction
    - Focus on safety, asset condition, and mobility
    - Be responsive, transparent and consistently meet needs and exceed expectations
    - Partner with purpose – identify, communicate and collaborate with stakeholders – internal and external
- **Enhance Indiana's economic competitiveness and quality of life**
  - Deliver a transportation system that supports the safe, efficient movement of people and goods
  - Increase access to multiple modes of transportation to better connect people with opportunity and better connect Indiana with the world
    - Create a state highway system that supports and compliments air, water, rail, and public transit
- **Develop INDOT's 21st Century Workforce**
  - Increase bench strength
    - Develop and retain current employees through mentoring and individual development
    - Hire efficiently and effectively
    - Put the right person, with the right tools, in the right job – every time
  - Align employees around department's mission
    - Clearly communicate INDOT's mission and vision to ALL employees
    - Make sure work efforts align with strategic goals and objectives
    - Embrace performance measures and accountability

F. Appendix: Freight Investment Plan, 2016-2020

F.1 Fiscal Year 2016

The projects selected for National Highway Freight Program funding in Fiscal Year (FY) 2016 include bridge maintenance projects; bridge, deck, and superstructure replacement projects; and small structure pipe lining projects in addition to other freight projects. The relationship between each of these project types and freight follows.

- **Bridge maintenance projects**

  These projects – including bridge deck overlays, deck patching and repair; bridge painting; and joint replacement – improve system performance by preventing deterioration due to time and the elements and improving bridge condition, leading to a longer service life. Bridge maintenance projects keep bridges open for traffic, including freight traffic, and minimize traffic disruption that results from closing bridges for replacement.

- **Bridge / bridge deck / superstructure replacement projects**

  These projects improve system performance by replacing bridges or bridge elements where necessary to maintain the free flow of traffic, including freight traffic. They increase the resiliency of critical highway infrastructure

- **Small structure pipe lining projects**

  These preservation projects help maintain highway condition and increase resiliency of the transportation system. Pipe lining extends the life of these structures and maintains environmental benefits without disturbing the roadway, preserving pavement quality and minimizing traffic disruption.

The following table lists INDOT's plan for investing National Highway Freight Program funding in its freight transportation system for Fiscal Year 2016. The remaining projects through Fiscal Year 2020 are listed in Appendix F.2.

Table F.1 Indiana's Fiscal Year 2016 Freight Investment Plan

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Bridge deck overlay	0710346	$11,556.00	$138,442.50	$16,666.50	$166,665.00	Bridge deck overlay on I-65
Bridge deck overlay	0710459	$10,530.00	$156,784.50	$18,590.50	$185,905.00	Bridge deck overlay on I-65
Bridge deck overlay	0800911	$890,305.81	$210,892.93	$122,355.42	$1,223,554.16	Bridge deck overlay on I-70
Bridge deck overlay	1296049	$40,455.00	$19,124.55	$6,619.95	$66,199.50	Bridge deck overlay on I-65
Bridge deck overlay	1296051	$752,452.08	$102,623.46	$106,270.90	$961,346.44	Bridge deck overlay on I-70
Bridge deck overlay	1296405	$263,492.16	$0.00	$29,276.90	$292,769.06	Bridge deck overlay on I-69
Bridge deck overlay	1296592	$562,048.67	$51,629.14	$68,186.43	$681,864.24	Bridge deck overlay on I-65
Bridge deck overlay	1296702	$814,220.13	$92,169.99	$100,710.01	$1,007,100.13	Bridge deck overlay on I-74
Bridge deck overlay	1296703	$342,557.66	$92,215.08	$48,308.09	$483,080.83	Bridge deck overlay on I-74
Bridge deck overlay	1296704	$246,159.57	$2,907.00	$27,674.07	$276,740.64	Bridge thin deck overlay on I-74
Bridge deck overlay	1296734	$168,945.00	$7,771.47	$19,635.17	$196,351.64	Bridge deck overlay on I-69
Bridge deck overlay	1298256	$1,418.58	$63,751.47	$7,241.12	$72,411.17	Bridge thin deck overlay on I-74
Bridge deck overlay	1400344	$22,488.87	$315,534.72	$37,558.17	$375,581.76	Bridge deck overlay on I-70
Bridge deck overlay	1500632	$87,840.00	$20,700.00	$152,045.18	$260,585.18	Bridge deck overlay on I-70
Bridge deck overlay	1500657	$7,650.00	$152,190.00	$17,760.00	$177,600.00	Bridge deck overlay on I-70
Bridge deck overlay	1500661	$37,800.00	$0.00	$66,512.26	$104,312.26	Bridge deck overlay on I-70
Other bridge maintenance	0900324	$3,395,696.85	$1,131,954.73	$531,783.50	$5,059,435.08	Bridge deck patching on I-65
Other bridge maintenance	1400439	$11,859.43	$545.53	$1,378.33	$13,783.29	Bridge deck patching on I-69
Other bridge maintenance	1400443	$12,232.12	$562.68	$1,421.65	$14,216.45	Bridge deck patching on I-69
Other bridge maintenance	1400444	$9,859.32	$453.53	$1,145.87	$11,458.72	Bridge deck patching on I-69
Other bridge maintenance	1400441	$23,133.24	$1,083.02	$2,690.69	$26,906.95	Repair or replace joints on I-69

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Other bridge maintenance	1400448	$15,807.06	$727.12	$1,837.13	$18,371.31	Repair or replace joints on I-69
Other bridge maintenance	1400501	$3,502.82	$73,395.98	$8,544.31	$85,443.11	Repair or replace joints on I-65
Other bridge maintenance	1296698	$137,371.95	$28,819.11	$18,465.67	$184,656.73	Bridge maintenance and repair on I-74
Other bridge maintenance	1382300	$1,166.79	$78,007.62	$8,797.15	$87,971.56	Bridge maintenance and repair on I-70
Other bridge maintenance	1400433	$16,687.03	$2,764.25	$2,161.26	$21,612.54	Repair or replace joints on I-69
Other bridge maintenance	1400434	$16,687.03	$767.60	$1,939.41	$19,394.04	Repair or replace joints on I-69
Other bridge maintenance	1400435	$45,845.35	$2,422.09	$5,363.05	$53,630.49	Superstructure repair and rehab on I-69
Other bridge maintenance	1400436	$62,168.46	$2,859.75	$7,225.36	$72,253.57	Superstructure repair and rehab on I-69
Bridge painting	0800965	$546,433.83	$274,172.59	$91,178.50	$911,784.92	Bridge painting on I-65
Bridge painting	0800979	$626,264.68	$55,318.27	$77,796.24	$759,379.19	Bridge painting on I-70
Bridge painting	0900359	$808,921.35	$17,634.49	$91,839.54	$918,395.38	Bridge painting on I-65
Bridge painting	1006316	$15,241.47	$395,246.26	$45,609.75	$456,097.48	Bridge painting on I-465
Bridge painting	1592285	$4,500.00	$125,347.39	$14,427.48	$144,274.87	Bridge painting on I-69 in Delaware County
Bridge painting	1592286	$4,500.00	$81,625.91	$14,554.84	$100,680.75	Bridge painting on I-69 in Delaware County
Bridge / deck / superstructure replacement	0201058	$140,850.00	$774,009.75	$936,613.08	$1,851,472.83	Bridge deck replacement on I-65
Bridge / deck / superstructure replacement	0710661	$1,500,679.18	$40,187.46	$171,207.40	$1,712,074.04	Bridge deck replacement and widening on I-70

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Bridge / deck / superstructure replacement	1005682	$522,377.77	$0.00	$7,554,386.16	$8,076,763.93	Bridge deck replacement and widening on I-65
Bridge / deck / superstructure replacement	0200923	$4,463.98	$1,828,362.29	$203,647.39	$2,036,473.66	Bridge replacement (concrete) on I-69
Bridge / deck / superstructure replacement	1173615	$13,500.00	$3,513,680.46	$1,587,484.44	$5,114,664.90	Bridge replacement (steel) on I-65
Bridge / deck / superstructure replacement	1296815	$341,953.61	$1,345,160.52	$187,457.14	$1,874,571.27	Bridge replacement (concrete) on I-69
Bridge / deck / superstructure replacement	1296426	$1,135,010.02	$256,460.34	$154,607.81	$1,546,078.17	Replace superstructure on I-69
Bridge / deck / superstructure replacement	1296455	$516,220.07	$32,130.91	$60,927.90	$609,278.88	Replace superstructure on I-69
Bridge / deck / superstructure replacement	1296460	$1,584,388.61	$63,339.67	$183,080.92	$1,830,809.20	Replace superstructure on I-69
Bridge / deck / superstructure replacement	1296462	$1,169,015.34	$325,569.54	$166,064.98	$1,660,649.86	Replace superstructure on I-69
Bridge / deck / superstructure replacement	1500308	$9,900.00	$336,127.50	$38,447.50	$384,475.00	Replace superstructure on I-65
Bridge / deck / superstructure replacement	9709062	$1,733,428.41	$596,128.21	$258,839.64	$2,588,396.26	Bridge deck replacement and widening on I-70, WB bridge over US 41, 4.34 miles W of SR 46

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Bridge / deck / superstructure replacement	9709066	$1,661,980.28	$696,913.72	$262,099.34	$2,620,993.34	Bridge deck replacement and widening on I-70, WB bridge over Thompson Ditch and RR, 1.88 mi E of US 41
Small structure pipe lining	1006237	$263,453.40	$101,141.19	$40,510.52	$405,105.11	Small structure paved invert on I-65
Small structure pipe lining	1296053	$72,995.08	$3,708.15	$8,522.59	$85,225.82	Small structure pipe lining on I-69
Small structure pipe lining	1296227	$87,668.10	$131,800.87	$126,391.97	$345,860.94	Small structure pipe lining on I-65
Small structure pipe lining	1296235	$1,295.91	$70,979.37	$84,599.49	$156,874.77	Small structure pipe lining on I-65
Small structure pipe lining	1400234	$9,900.00	$56,897.40	$7,421.93	$74,219.33	Small structure replacement on I-65
Small structure pipe lining	1400235	$9,900.00	$386,738.10	$44,070.90	$440,709.00	Small structure pipe lining on I-70
Small structure pipe lining	1400236	$9,900.00	$41,048.10	$5,660.90	$56,609.00	Small structure pipe lining on I-70
Small structure pipe lining	1400237	$9,900.00	$5,948.10	$1,760.90	$17,609.00	Small structure pipe lining on I-70
Small structure pipe lining	1400238	$9,900.00	$74,978.10	$9,430.90	$94,309.00	Small structure pipe lining on I-70
Small structure pipe lining	1400239	$9,900.00	$24,897.60	$51,577.19	$86,374.79	Small structure pipe lining on I-70
Small structure pipe lining	1500619	$7,200.00	$30,539.10	$4,193.23	$41,932.33	Small structure pipe lining on I-65
Small structure pipe lining	1500620	$7,200.00	$26,931.10	$3,792.34	$37,923.44	Small structure pipe lining on I-65
Small structure pipe lining	1500621	$11,700.00	$26,931.10	$4,292.34	$42,923.44	Small structure pipe lining on I-65
Small structure pipe lining	1500627	$7,200.00	$33,642.00	$4,538.00	$45,380.00	Small structure pipe lining on I-70
Small structure pipe lining	1500628	$10,800.00	$0.00	$25,918.40	$36,718.40	Small structure pipe lining on I-70
Small structure pipe lining	1500630	$11,700.00	$52,221.60	$7,102.40	$71,024.00	Small structure pipe lining on I-65
Small structure pipe lining	1500635	$7,200.00	$60,379.20	$7,508.80	$75,088.00	Small structure pipe lining on I-70
Small structure pipe lining	1500636	$7,200.00	$18,652.56	$2,872.51	$28,725.07	Small structure pipe lining on I-65
Other projects	0065300	$6,565.99	$6,595,239.68	$1,367,964.69	$7,969,770.36	Interchange modification on I-65 from 0.45 mi south of I-80 to 0.51 mi north of I-80

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Other projects	0902222	$30,420.00	$14,620,675.29	$581,022.38	$15,232,117.67	New interchange construction on I-69, N of SR 1; improve mobility, decrease anticipated congestion from local hospital expansion.
Other projects	0902297	$42,554.82	$31,766,292.86	$3,755,022.12	$35,563,869.80	Interchange modification on I-65 - at I-465 and I-65 on south side of Indianapolis. Relieve congestion at interchange with LOS F during peak.
Other projects	1006430	$264,846.15	$15,409,933.11	$10,530,137.31	$26,204,916.57	HMA overlay, preventative maintenance on I-65 between SR 252 and SR 26
Other projects	1173697	$13,500.00	$1,938,312.45	$217,479.16	$2,169,291.61	Aux lane construction on I-70; EB added travel lane from Franklin Way Overpass to Post Road. Improve mobility in a congested area.
Other projects	1173713	$79,127.22	$6,951,010.17	$837,792.14	$7,867,929.53	HMA overlay, preventative maintenance on I-69 between SR 32 / SR 67 and SR 44
Other projects	1173875	$35,989.68	$7,774,319.67	$867,812.15	$8,678,121.50	Weigh station construction / reconstruction on I-65 near Seymour. Outdated weigh station in poor condition replaced. Includes full mainline WIM for enforcement screening.
Other projects	1296933	$418,612.56	$10,622.25	$47,692.76	$476,927.57	Interchange modification on I-69, SB at the I-469 S Jct. weave area. High truck traffic area; currently there is not enough acceleration lane for trucks to get up to speed before merging onto I-69. Improve interchange configuration to allow trucks to accelerate to a higher speed before merging onto I-69.

PROJECT TYPE	DES	NHFP FUNDING	TOTAL OTHER FEDERAL FUNDING	STATE FUNDING	TOTAL FUNDING	PROJECT DESCRIPTION
Other projects	1383343	$194,000.00	$4,201,893.10	$35,016,618.68	$39,412,511.78	Added travel lanes on I-65, 4.72 miles S of I-465 south leg to 2.88 miles S of I-465 south leg. Added capacity in congested area.
Other projects	1500413	$5,440,510.65	$349,727.17	$643,359.76	$6,433,597.58	HMA overlay, preventative maintenance on I-65, 2.9 mi N of SR14 to 0.56 mi S of SR 10
Other projects	1592429	$294,003.40	$14,935.37	$34,326.53	$343,265.30	HMA overlay, preventative maintenance on I-69, 1.4 mi N to 1.94 mi N of US 30
Totals		**$27,726,708.54**	**$104,288,909.86**	**$67,877,827.09**	**$199,893,445.49**	

F.2 FISCAL YEARS 2017-2020

INDOT applied NHFP funding in FY 2016 to existing projects on the PHFS to improve Interstate conditions and freight mobility. In FY2017-2020, INDOT's focus is to invest the NHFP funds on larger interstate improvements that align with analysis and input presented in this plan. These interstate projects are included in Indiana's approved STIP, have other federal and state funds identified, and are ready to proceed. The table below illustrates how the projects selected for FY2017 – 2020 align with the plan.

Table F.2 Justification for Projects in FY 2017-2020

PROJECT	PLAN ALIGNMENT
1005681 I-65 Bridge deck replacement and widening over Wabash River	– On the Primary Highway Freight System (PHFS) – Aligns with NHS, INDOT Statewide Mobility Corridor (INDOT LRTP) – Improves system performance on a heavily-used freight route
0501212 I-65 Added travel lanes	– On the PHFS – Aligns with NHS, INDOT Statewide Mobility Corridor (INDOT LRTP) – Corridor identified by Conexus Logistic Council as a priority for added capacity – Addresses performance measures and INDOT goal for Capacity to Meet Demand
1400075 **1400076** I-69 & I 465 Interchange and added travel lanes (adjacent projects addressing same mobility concerns)	– On the PHFS – Aligns with NHS, INDOT Statewide Mobility Corridor (INDOT LRTP) – Interchange identified as bottleneck through state freight plan analysis – Interchange identified by ATRI as one of the nation's Top 100 Freight Bottlenecks – Addresses performance measures and INDOT goal for Capacity to Meet Demand

G. Appendix: Freight Mobility Speed Data

NPMRDS Speed data, provided by the Regional Integrated Transportation Information System (RITIS), was utilized to better understand speed deficits between free flow speed (how fast trucks wish to travel) and peak hour speeds (what speed trucks are actually able to travel) at the previously identified locations, from observations received from multiple resources. Not all locations were analyzed since RITIS supplies data only for routes on the National Highway System. Out of the 32 provided locations, 5 locations did not have speed data.

A query using RITIS's Massive Data Downloader was run for each location for the time periods of April 1, 2016 to October 31, 2016 and April 1, 2017 to October 31, 2017 (Monday thru Friday only). Winter months were not analyzed to minimize the presence of non-recurring congestion due to environmental factors, such as snow and ice, and not due to recurring conditions.

To obtain a free flow speed, an off peak time in the AM (10:00 AM to 11:00 AM) was selected to gather speed data during uninhibited travel conditions. The peak hour operating speeds were queried using the time periods of 7:15 AM to 8:30 AM for the AM peak and 4:45 PM to 6:00 PM for the PM peak for each direction of the roadway segments in the study areas.

Once the free flow speed and peak hour speeds were determined, for each location, the data was then graphed to show the speed deficits between free flow speed and the peak periods. The x-axis of the graphs are laid out to follow increasing direction in relation to reference posts; for example, on a north/south route the left edge of the horizontal axis represents the southernmost part of the segment of roadway while the right edge of the horizontal axis represents the northernmost part of the segment. This also applies to east/west routes with the left edge of the horizontal axis being the westernmost part of the segment and the right edge of the horizontal axis being the easternmost part of the segment.

The graphs indicate, in most cases, that there are speed deficits at most locations with varying intensities. The majority of the speed deficits range between 0 and 10 mph when comparing free flow and peak hour speeds. There are also many locations that experience speed deficits between 13 and 35 mph. While most cases show a speed deficit, there are instances where the peak observed speeds are greater than the free flow speed. This

often occurs on commuter corridors where the motorists are used to the conditions and feel more comfortable to travel slightly faster than free flow speed. While there is not a speed deficit indicated, there have been field observations of congestion in these areas. Methods/equations within the Highway Capacity Manual (HCM) imply that a speed deficit of 5 mph is generally deemed unacceptable to most road users.

Figure G.1 Speed Data: Eastbound US 30 from SR 2 West Jct to SR 49

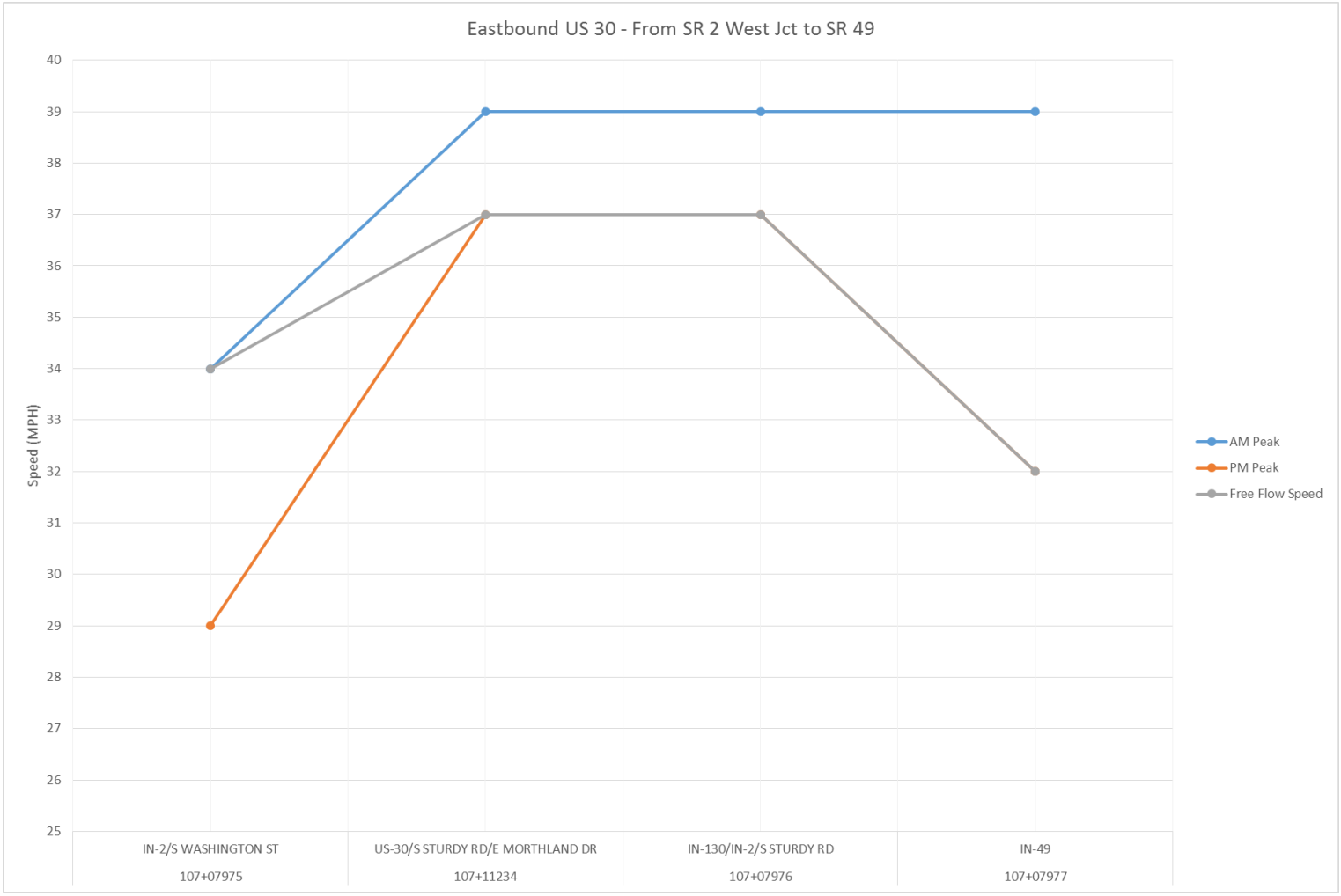


Figure G.2 Speed Data: Westbound US 30 from SR 2 West Jct to SR 49

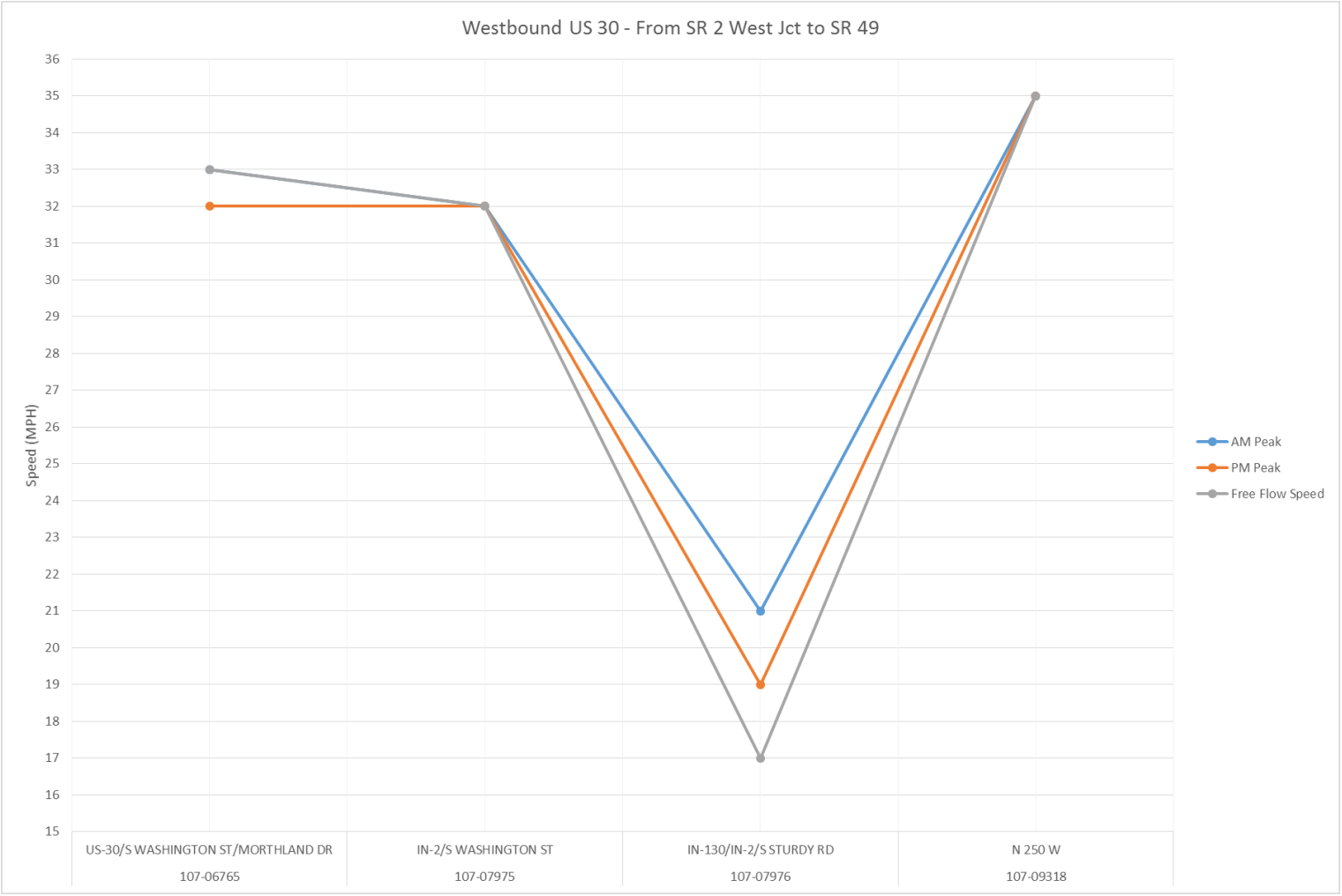


Figure G.3 Speed Data: Eastbound US 30 from Illinois State Line to US 41

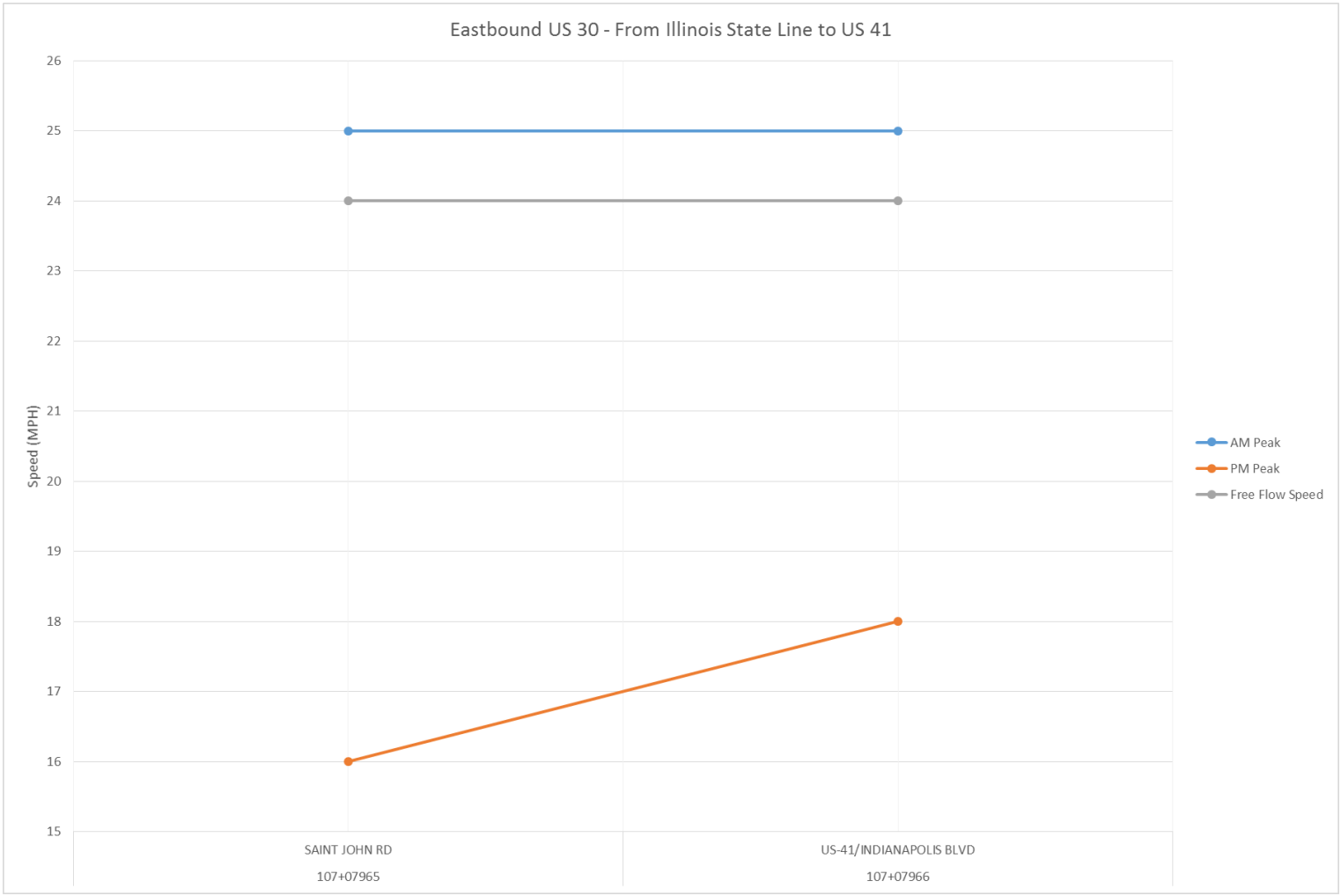


Figure G.4 Speed Data: Westbound US 30 from Illinois State Line to US 41

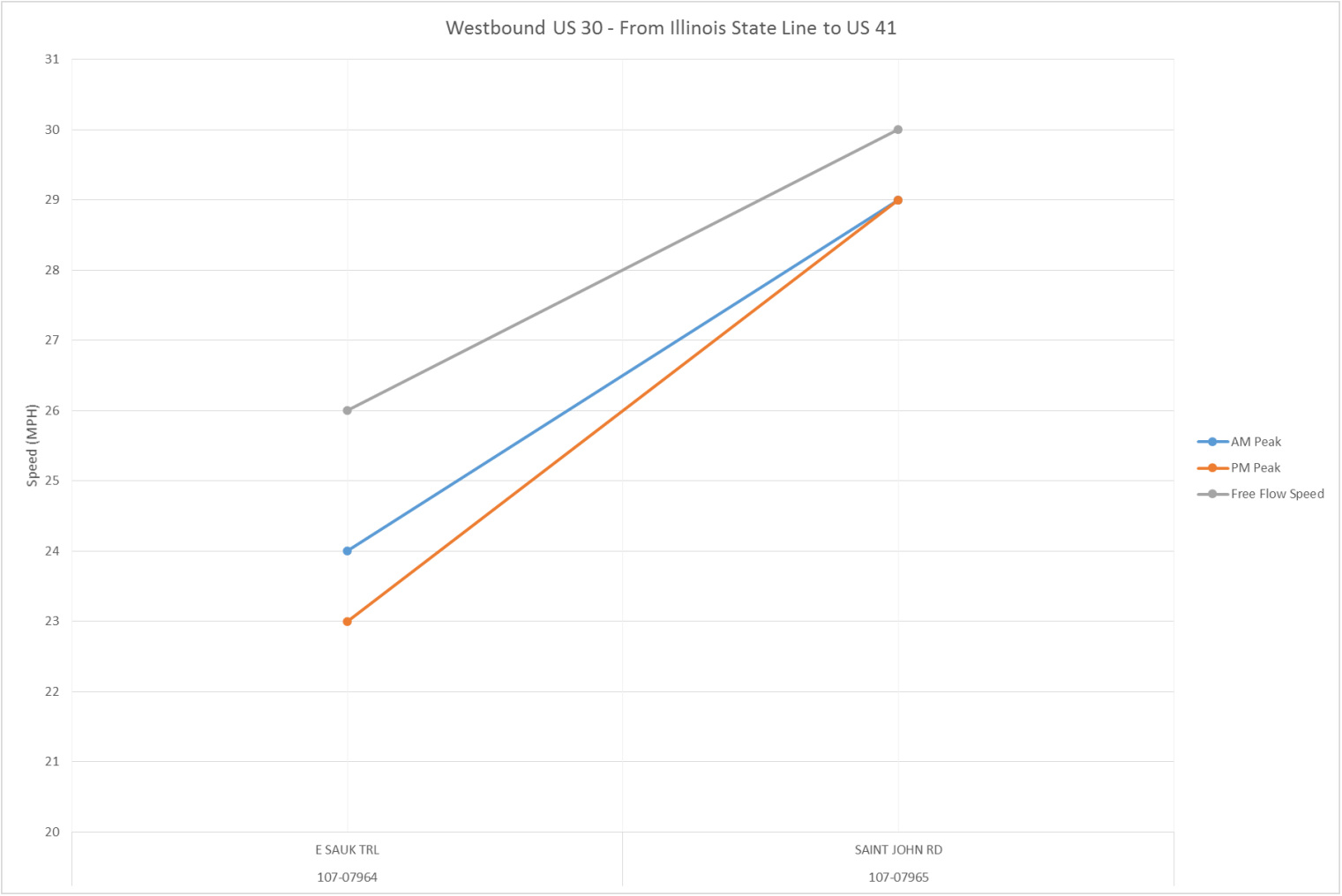


Figure G.5 Speed Data: Northbound US 41 from I-80/94 to I-90

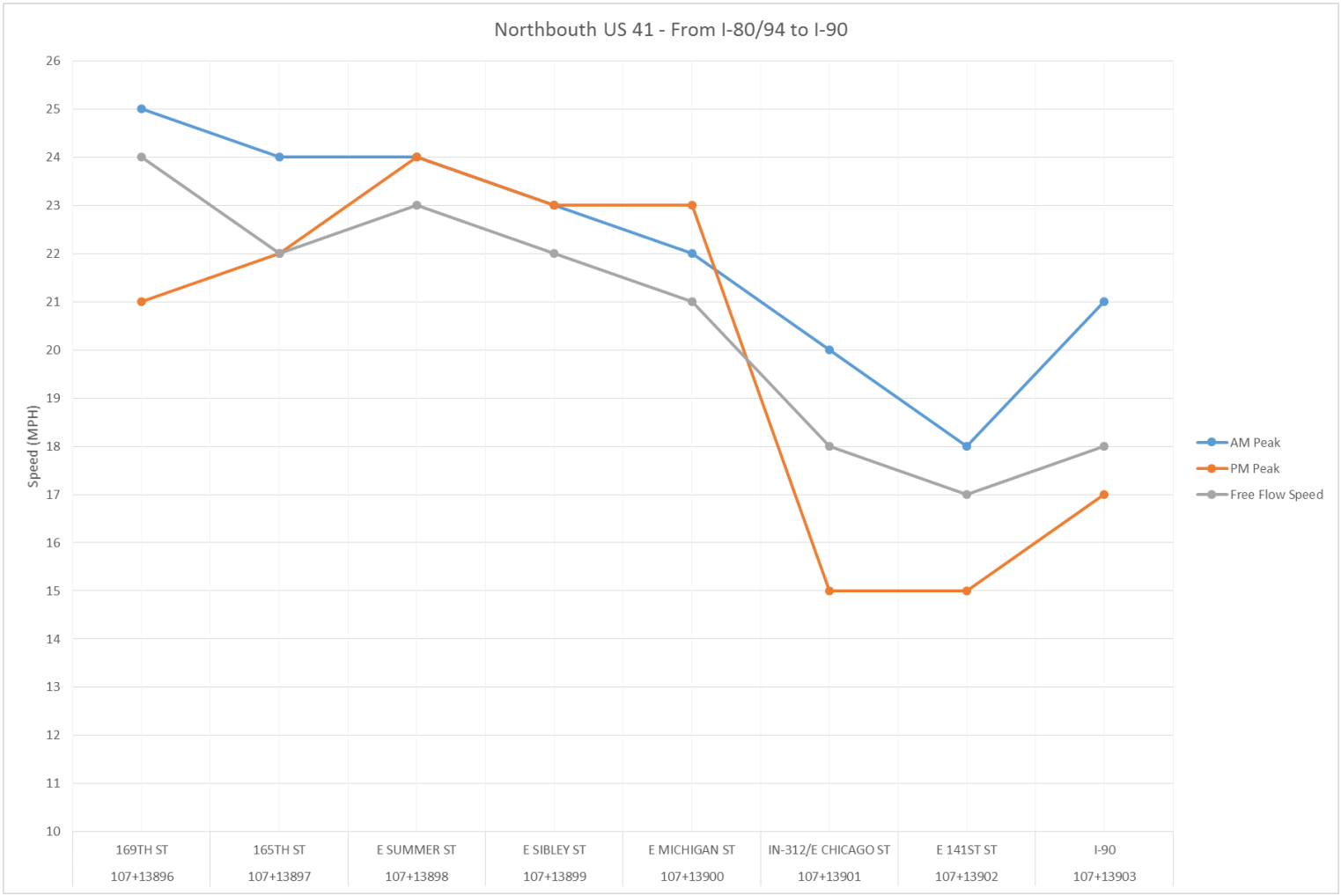


Figure G.6 Speed Data: Southbound US 41 from I-80/94 to I-90

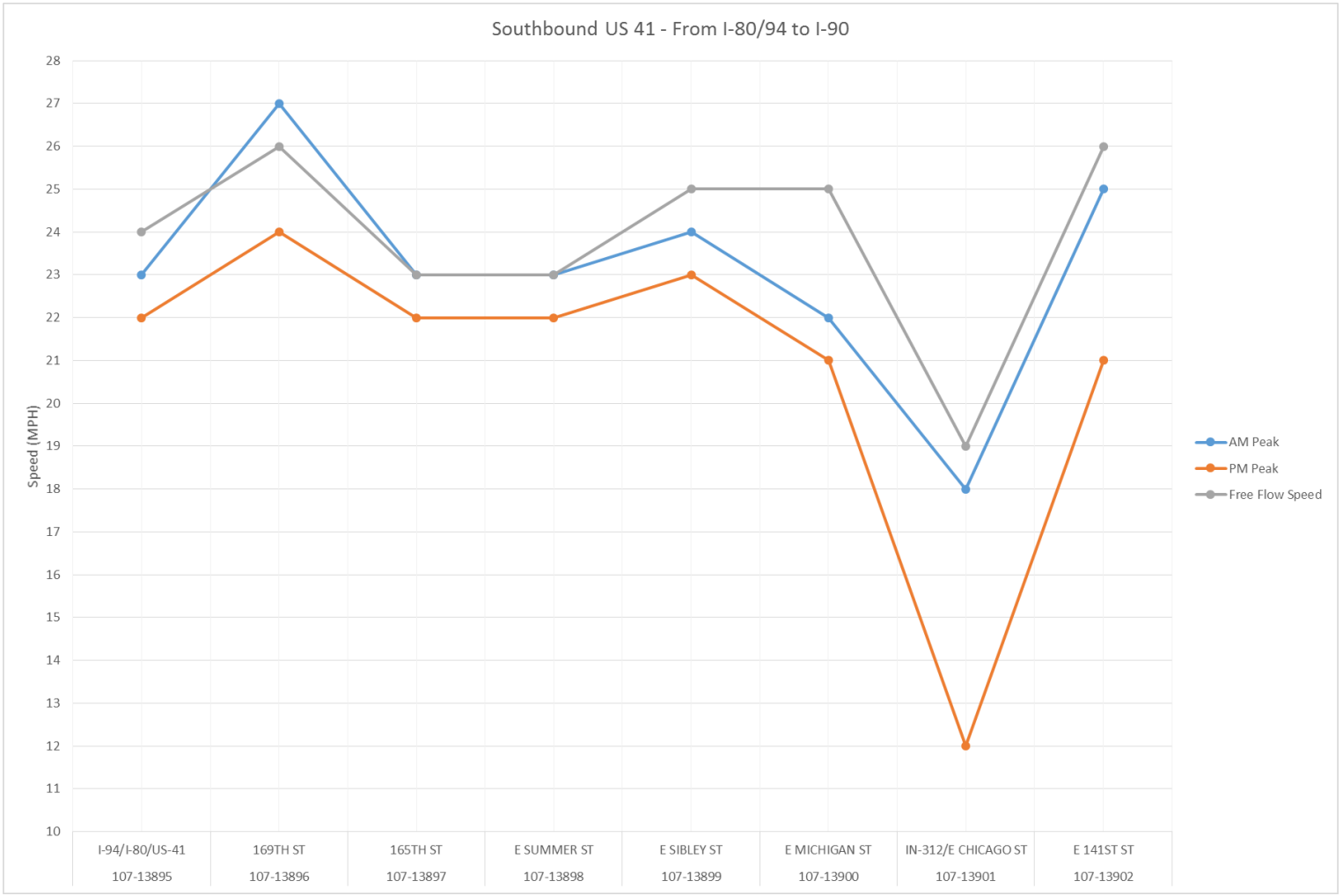


Figure G.7 Speed Data: Eastbound Wabash Avenue at US 40/SR 46

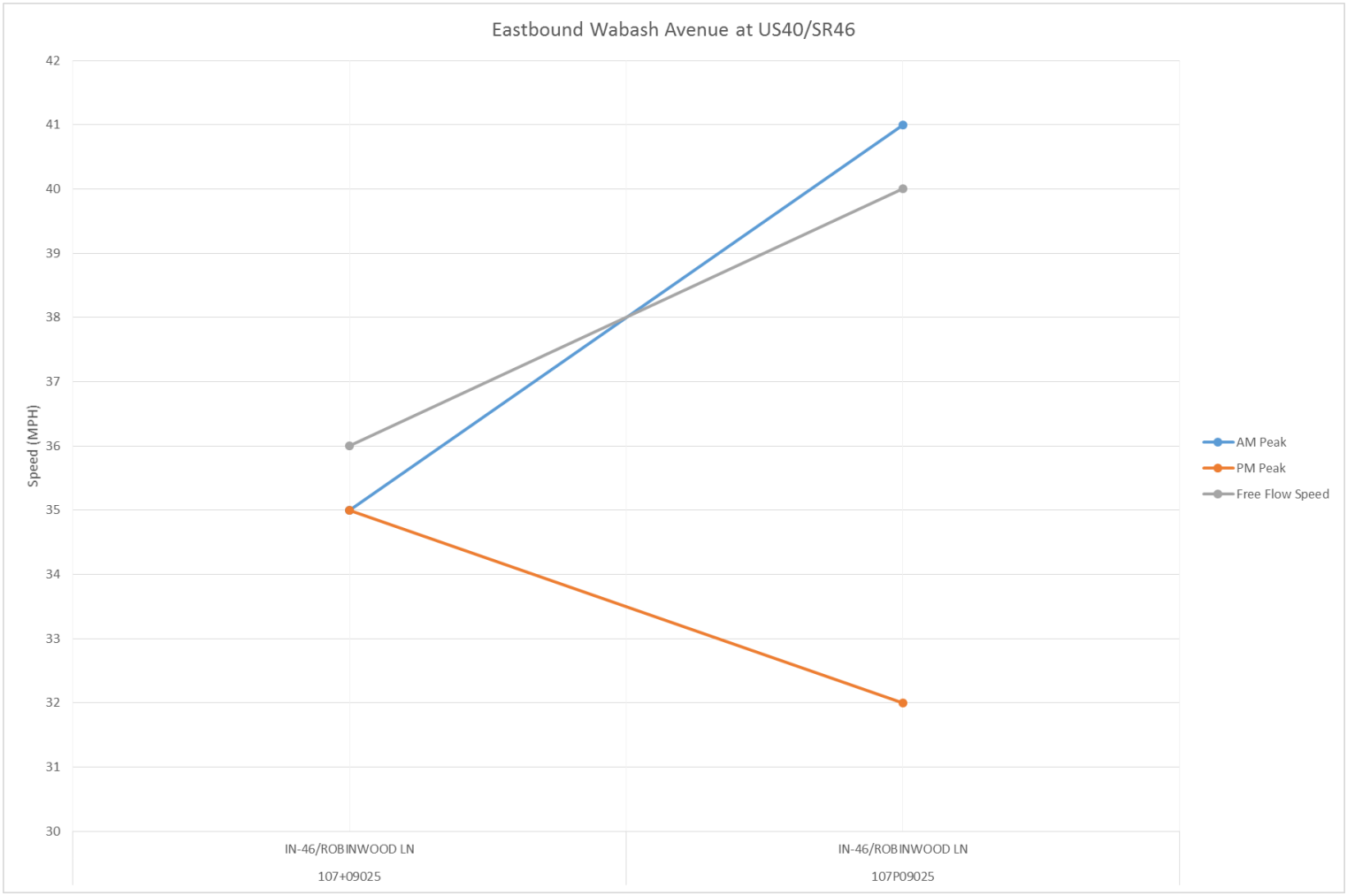


Figure G.8 Speed Data: Westbound Wabash Avenue at US 40/SR 46

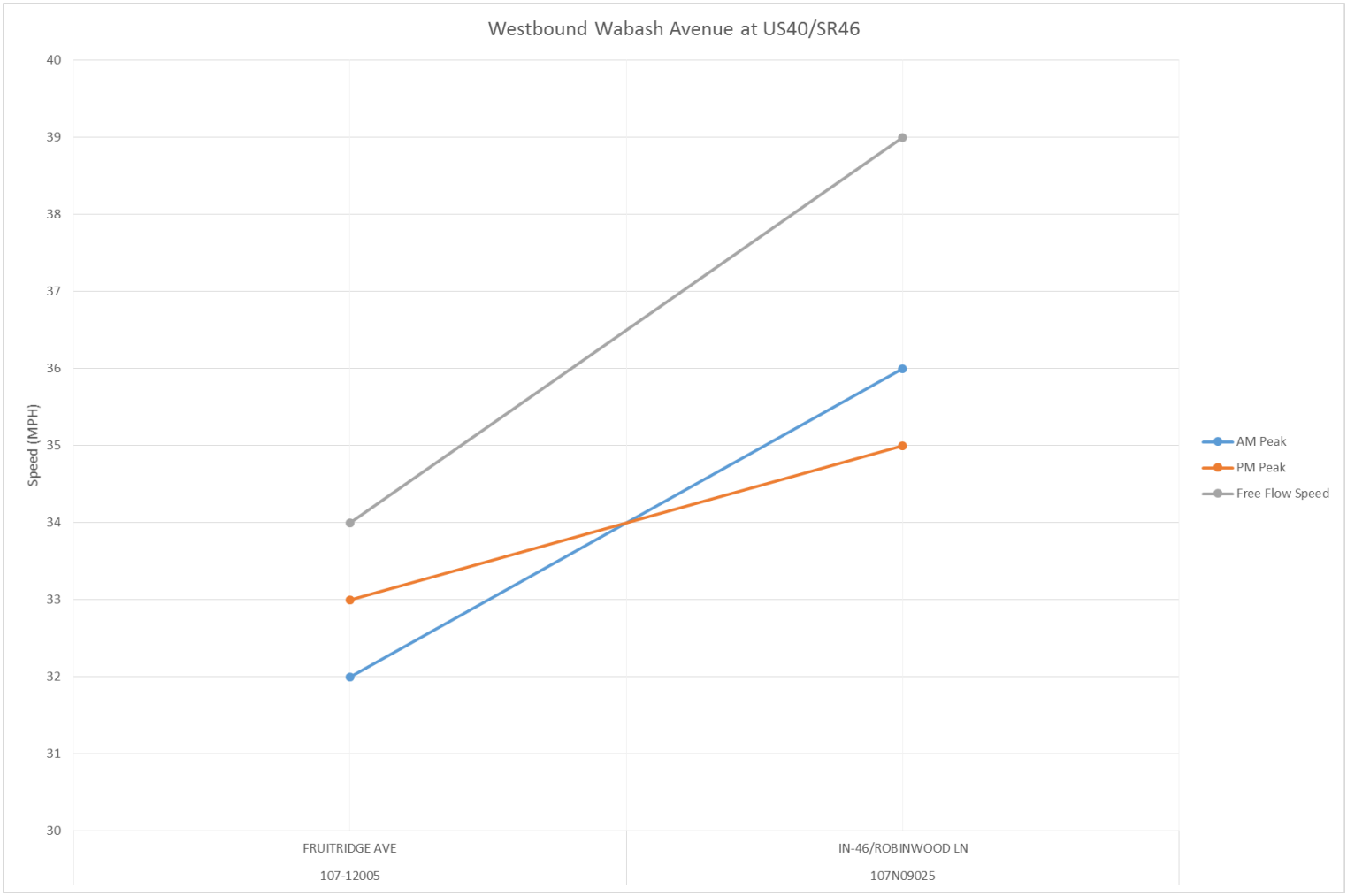


Figure G.9 Speed Data: Northbound US 40/SR 46 at Wabash Avenue

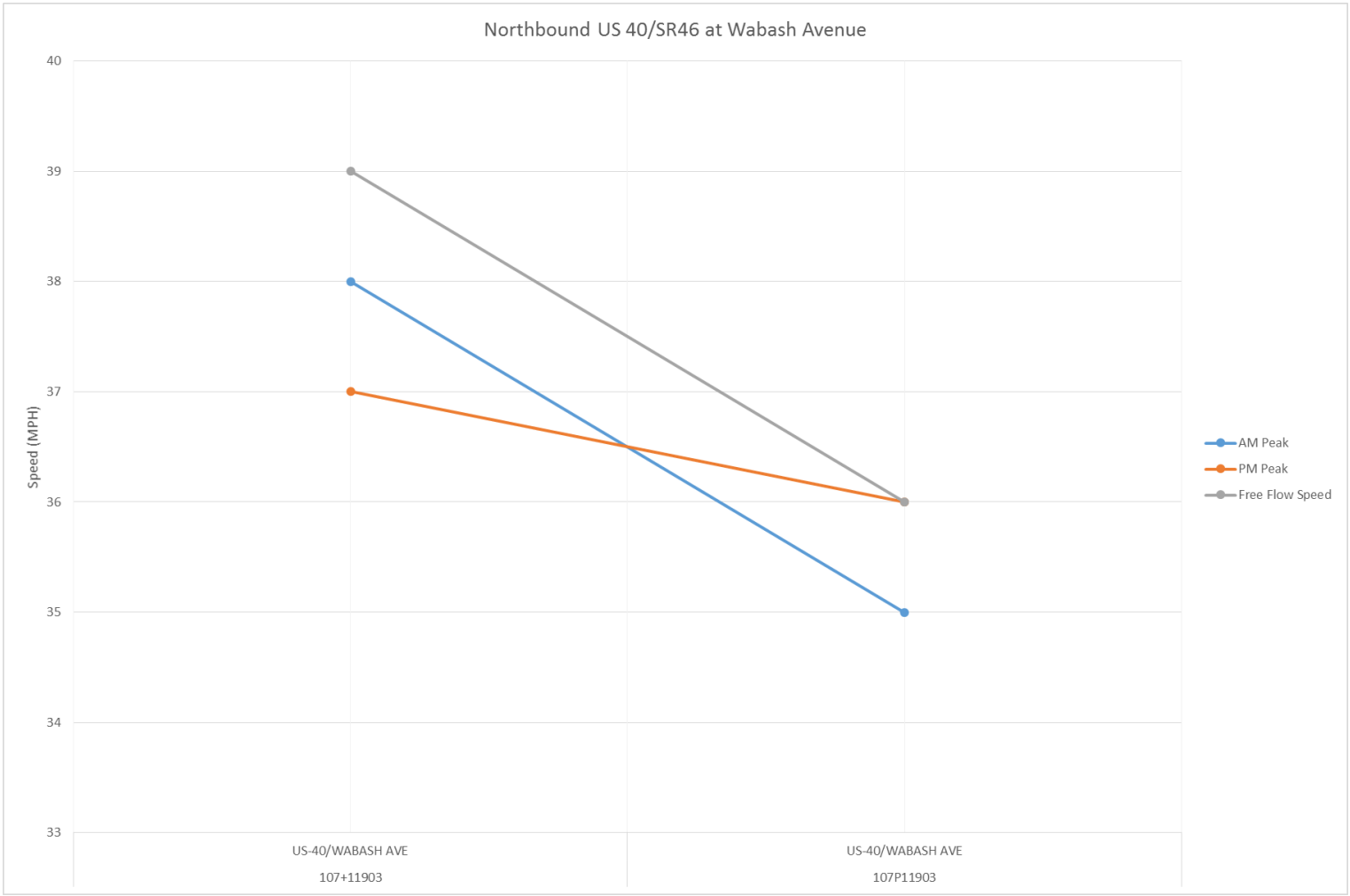


Figure G.10 Speed Data: Southbound US 40/SR 46 at Wabash Avenue

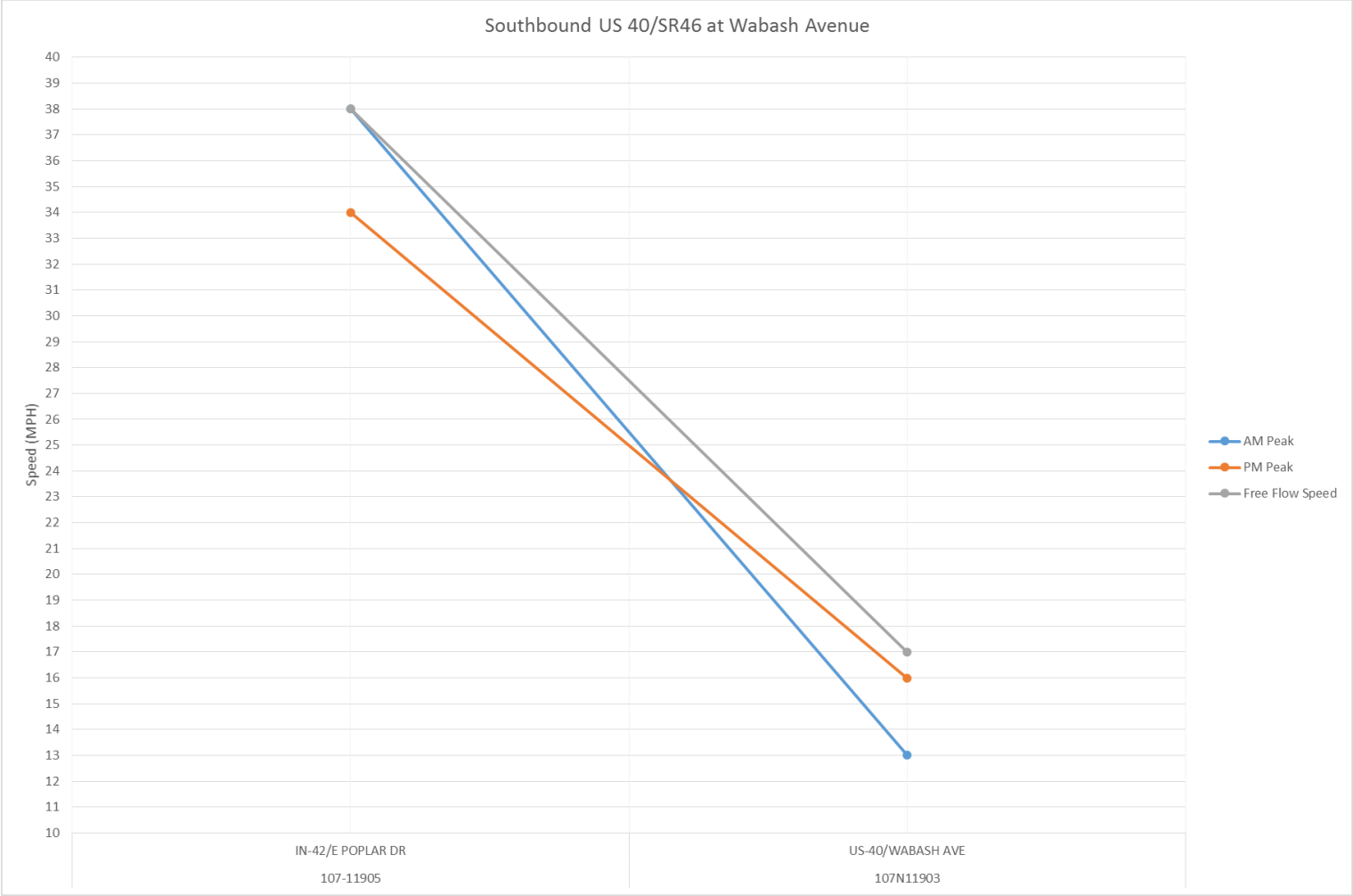


Figure G.11 Speed Data: Eastbound US 40 at US 40/SR 46 and Wabash Avenue

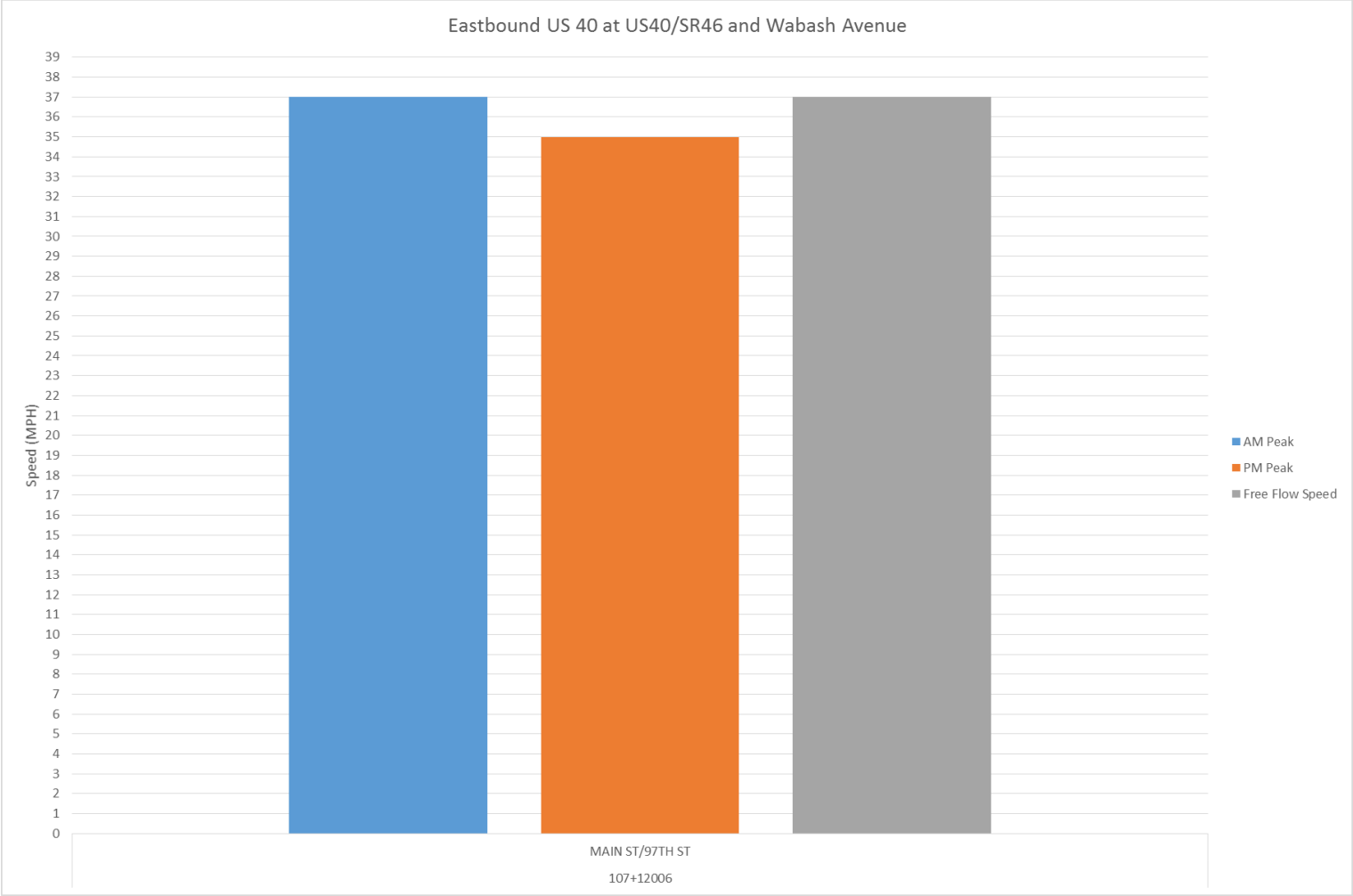


Figure G.12 Speed Data: Westbound US 40 at US 40/SR 46 and Wabash Avenue

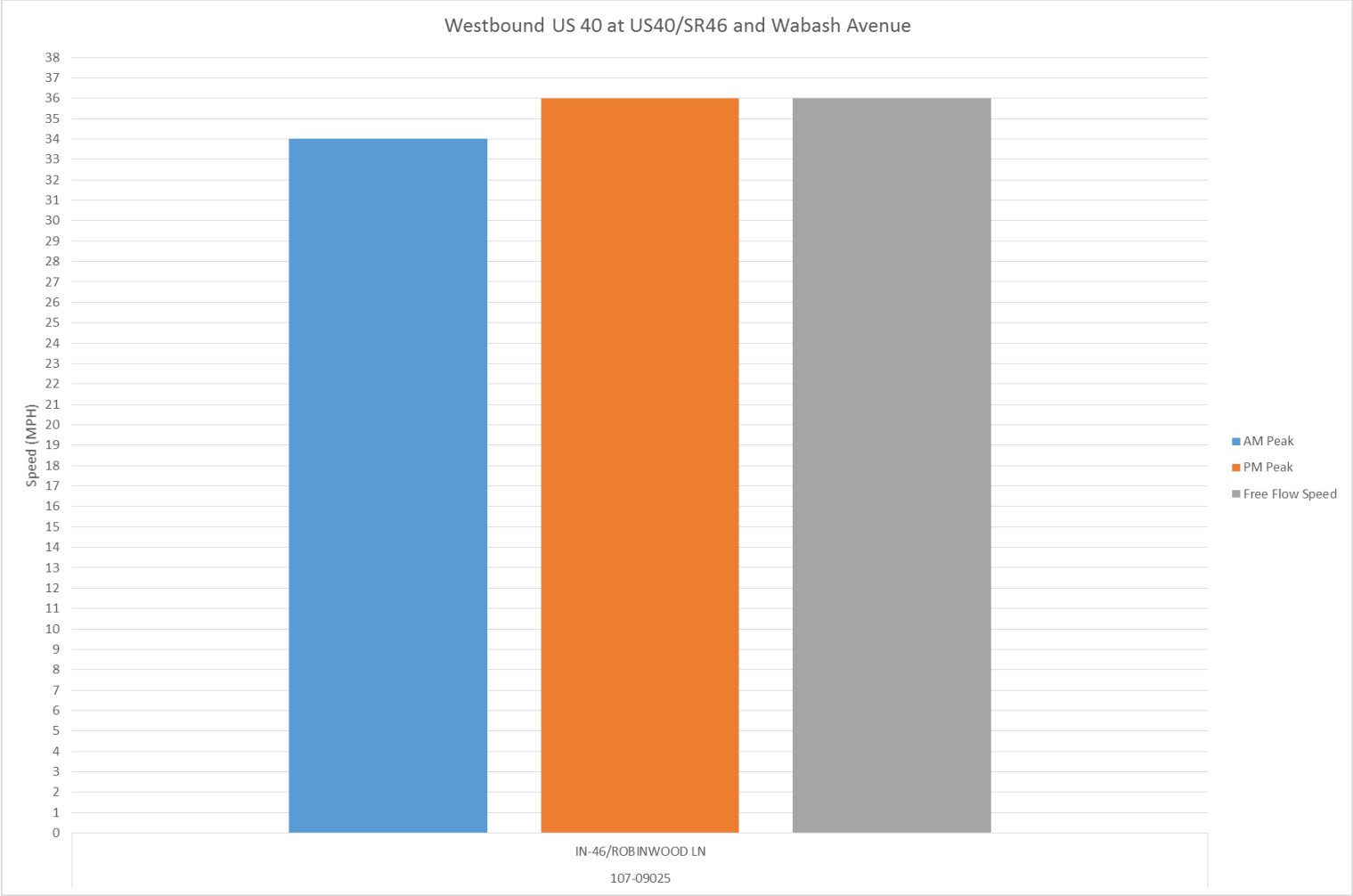


Figure G.13 Speed Data: Northbound I-465 from 71st street to 86th Street

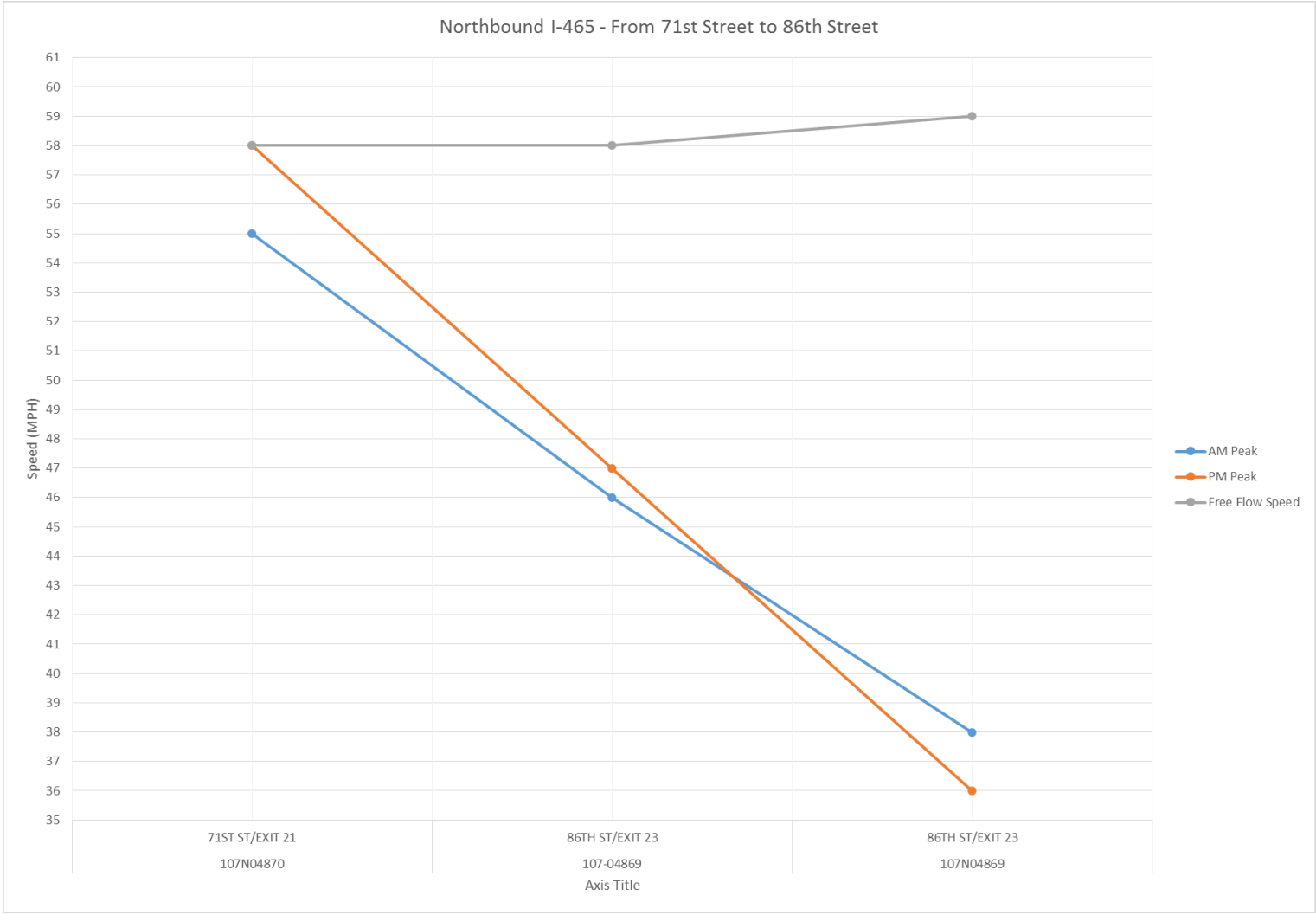


Figure G.14 Speed Data: Southbound I-465 from 71st street to 86th Street

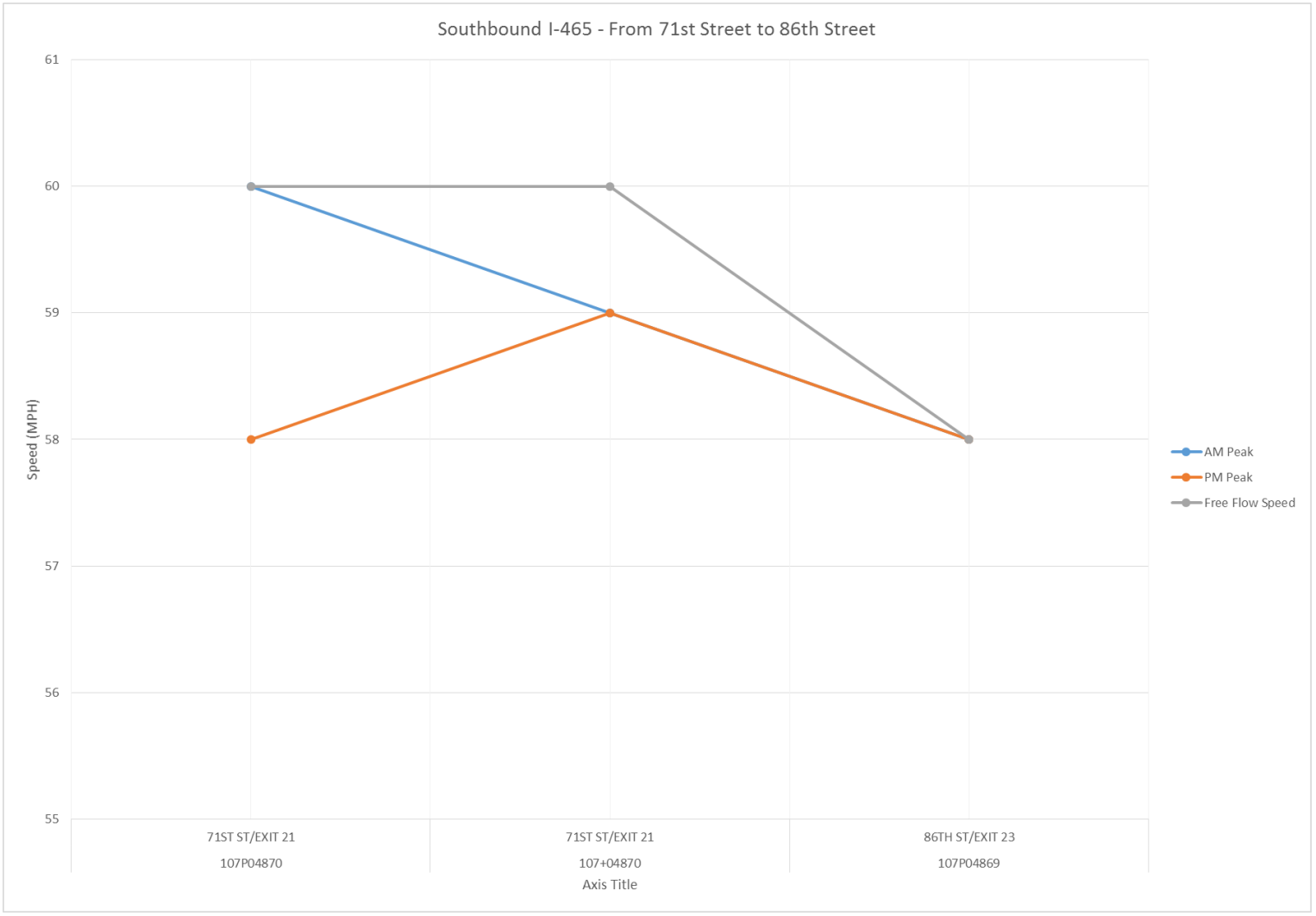


Figure G.15 Speed Data: Northbound Binford Boulevard from East 75th Street to I-465

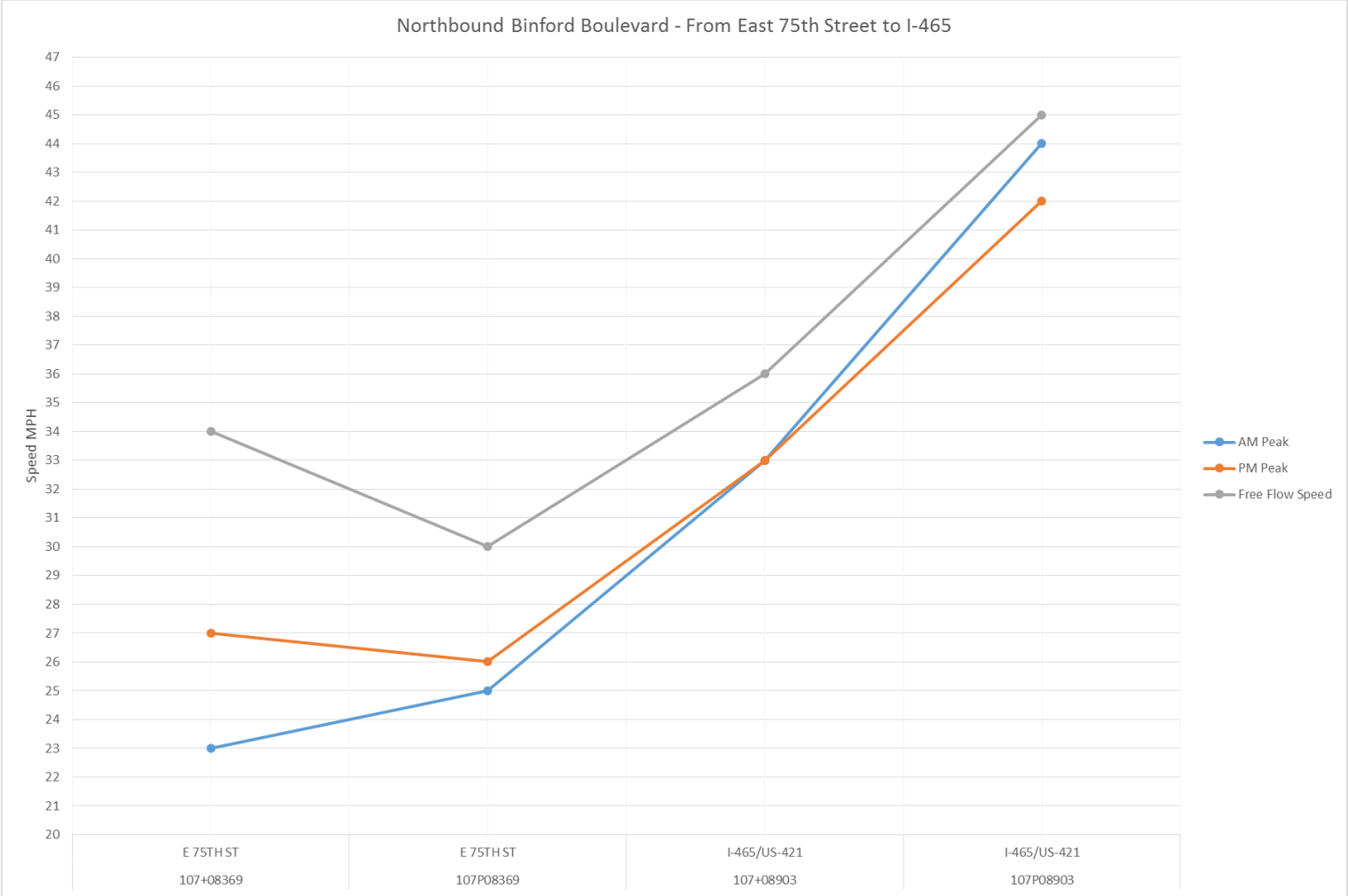


Figure G.16 Speed Data: Southbound Binford Boulevard from East 75th Street to I-465

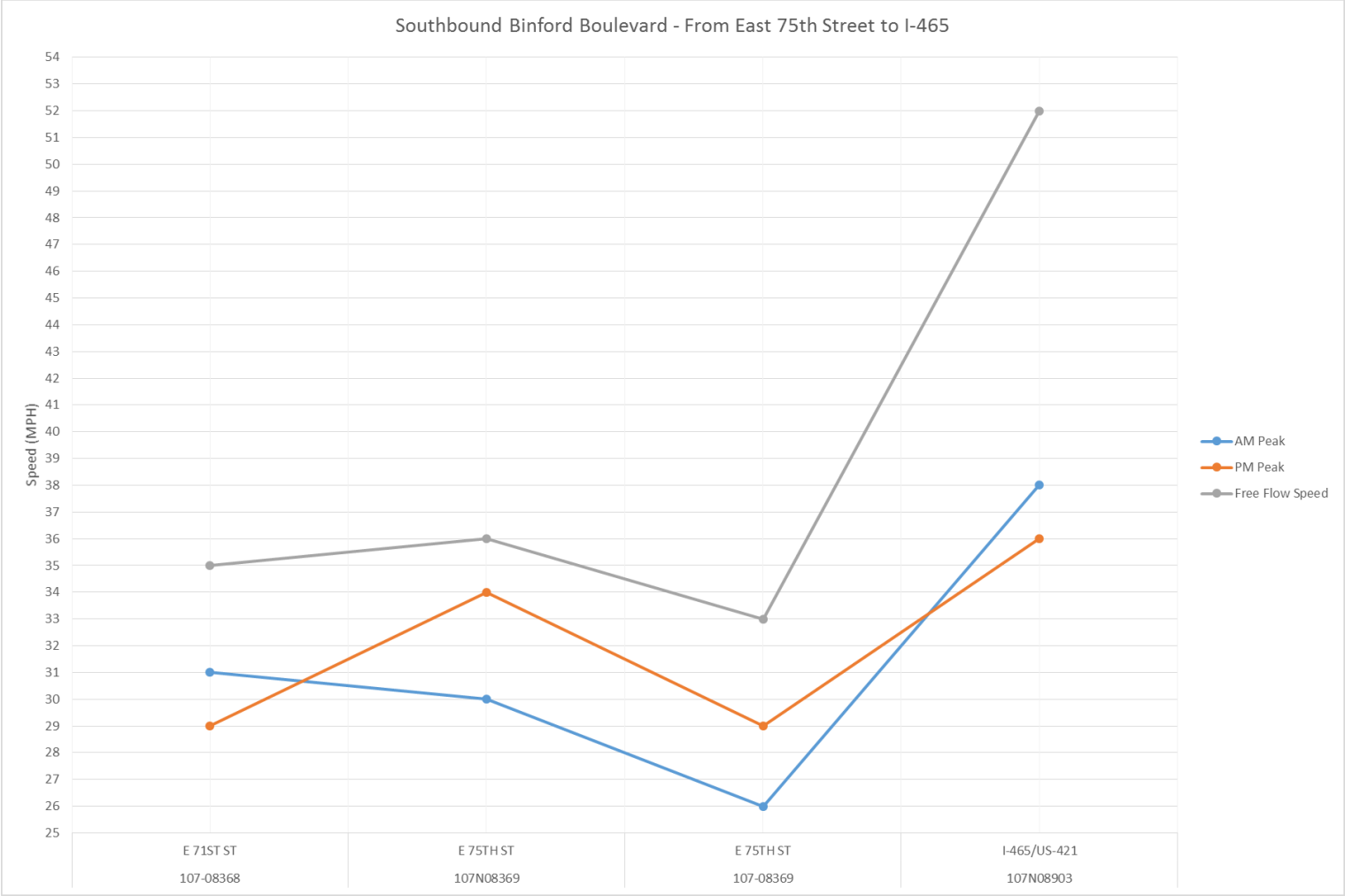


Figure G.17 Speed Data: Northbound I-465 from Shadeland Avenue/East 56th Street to Allisonville Road

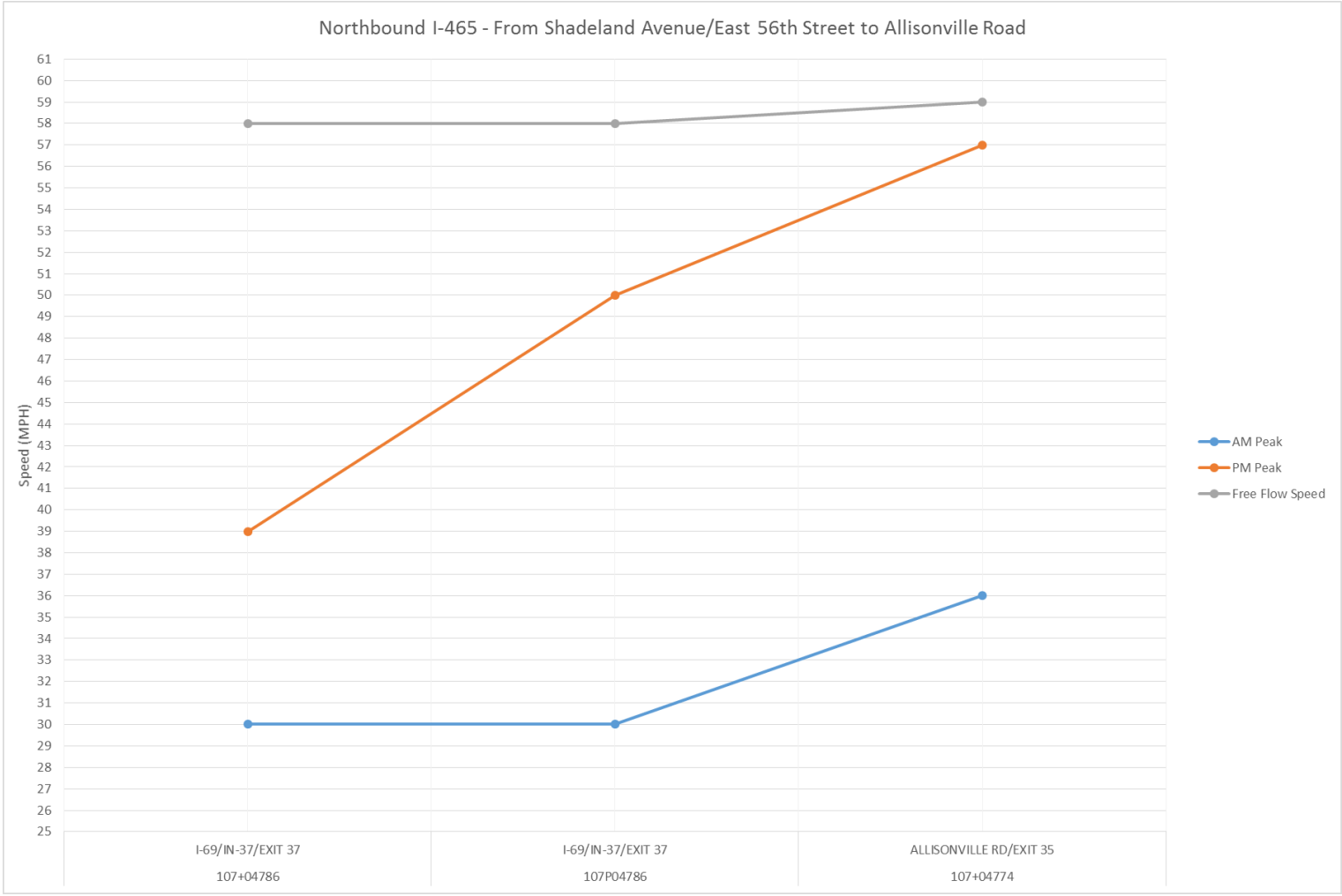


Figure G.18 Speed Data: Southbound I-465 from Shadeland Avenue/East 56th Street to Allisonville Road

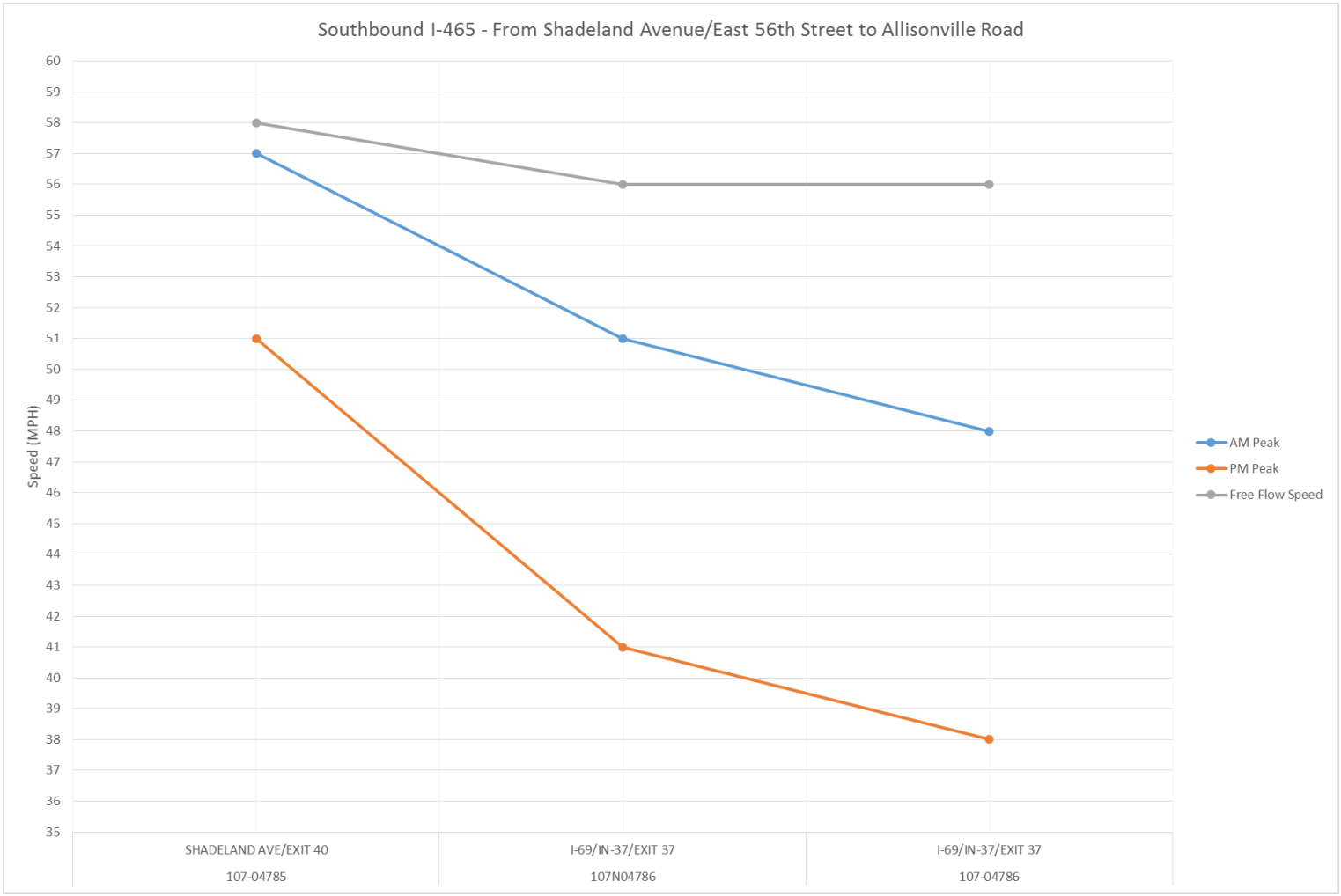


Figure G.19 Speed Data: Northbound I-69 from I-465 to East 82nd Street

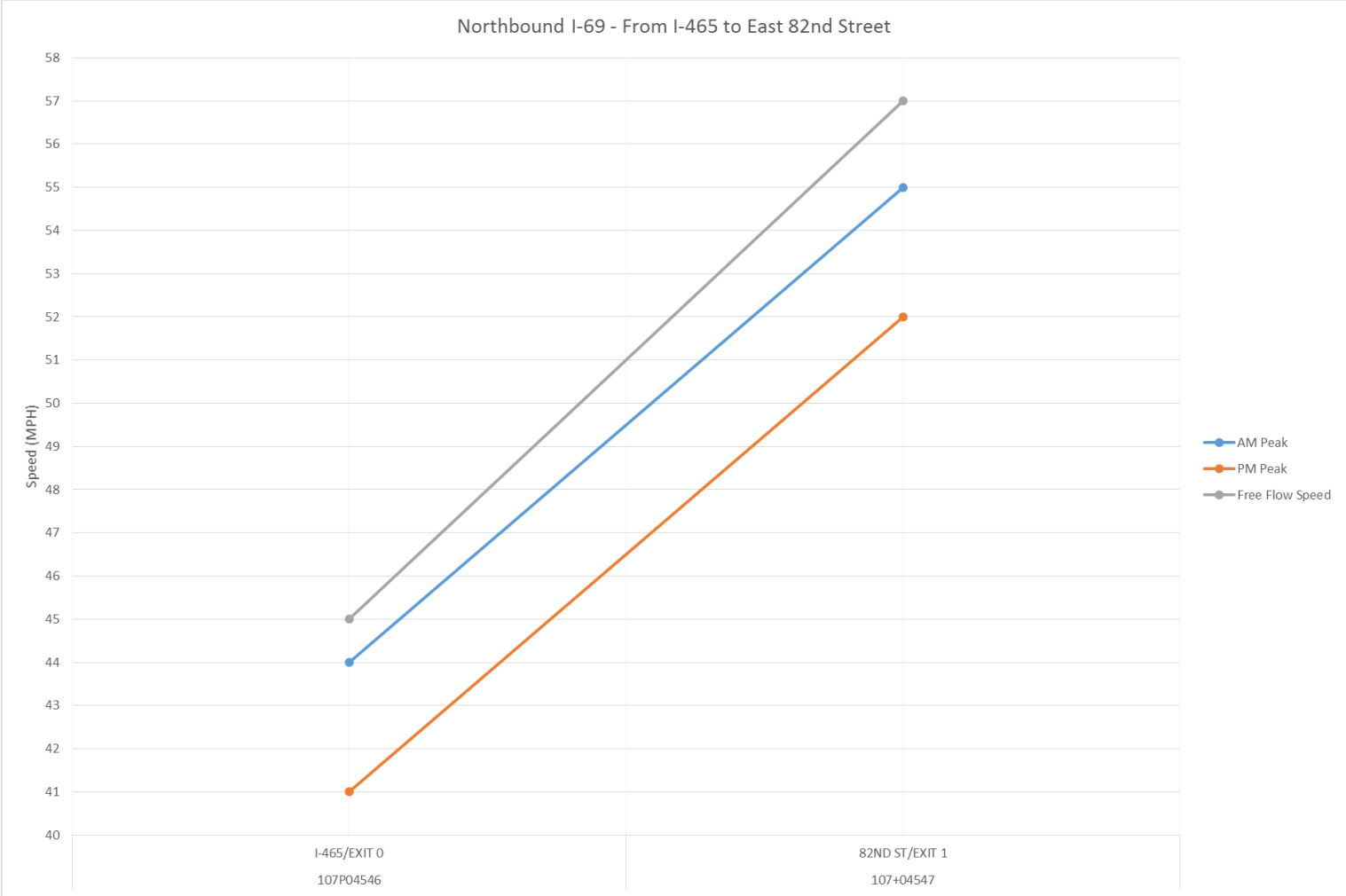


Figure G.20 Speed Data: Southbound I-69 from I-465 to East 82nd Street

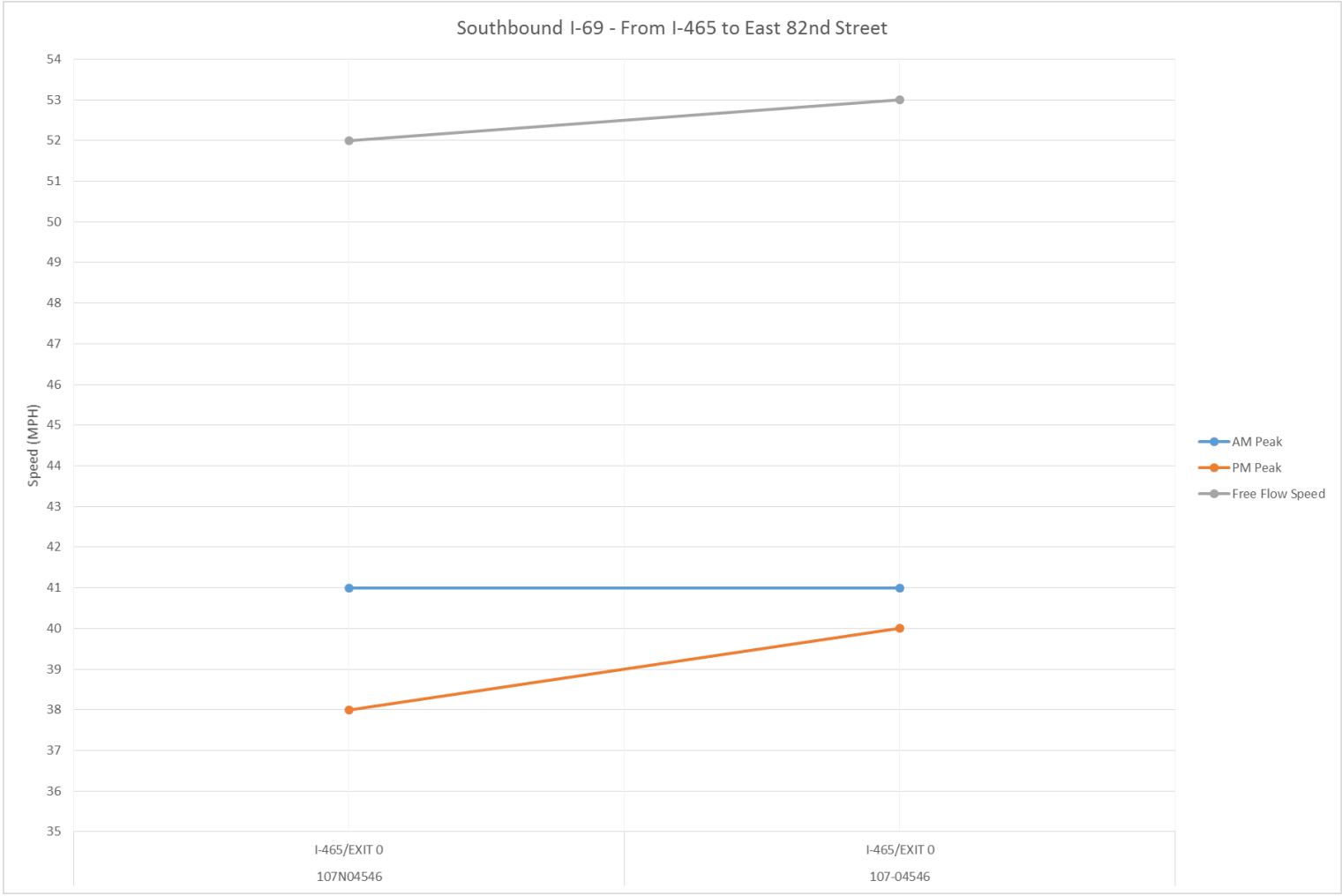


Figure G.21 Speed Data: Northbound US 41 from Kentucky State Line to I-69

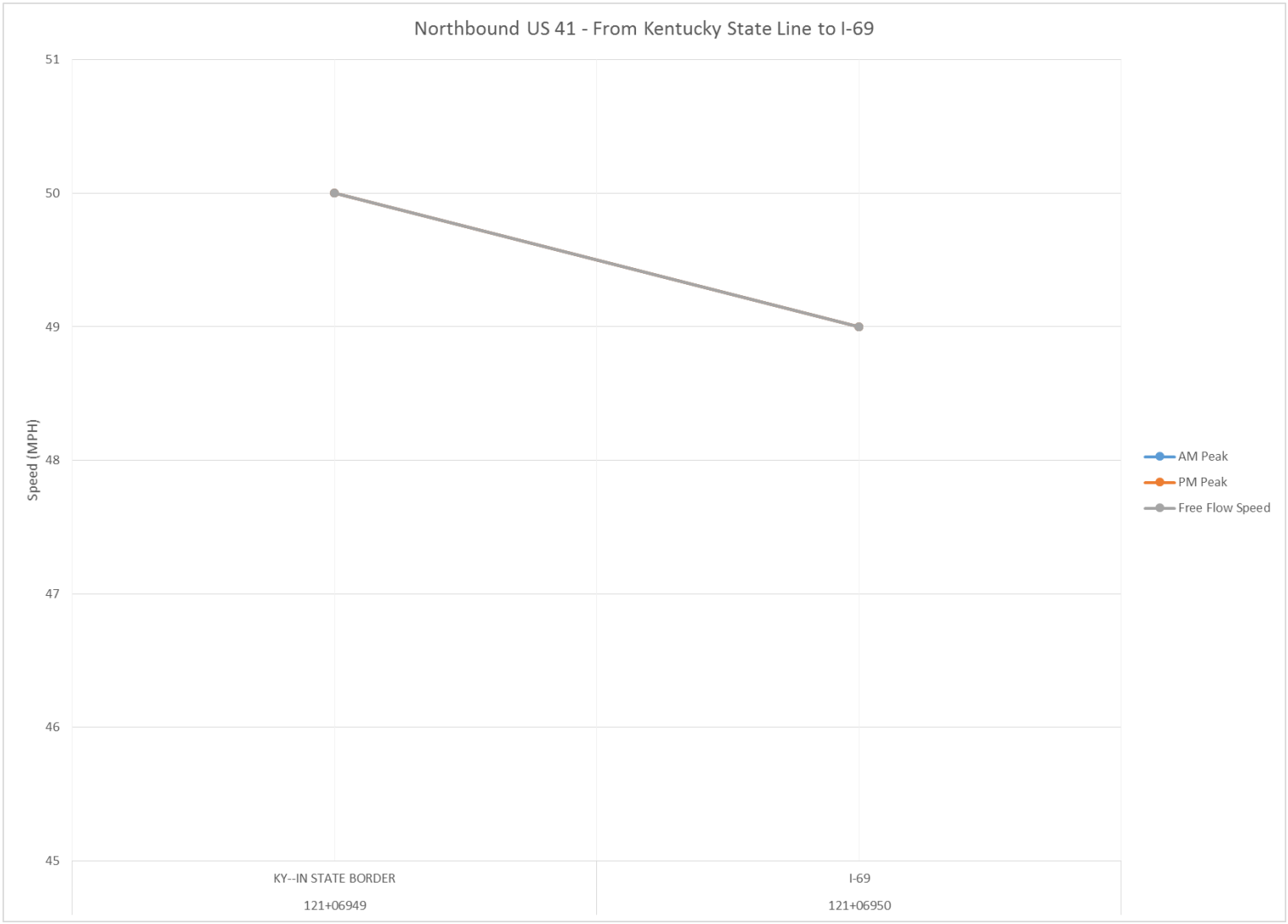
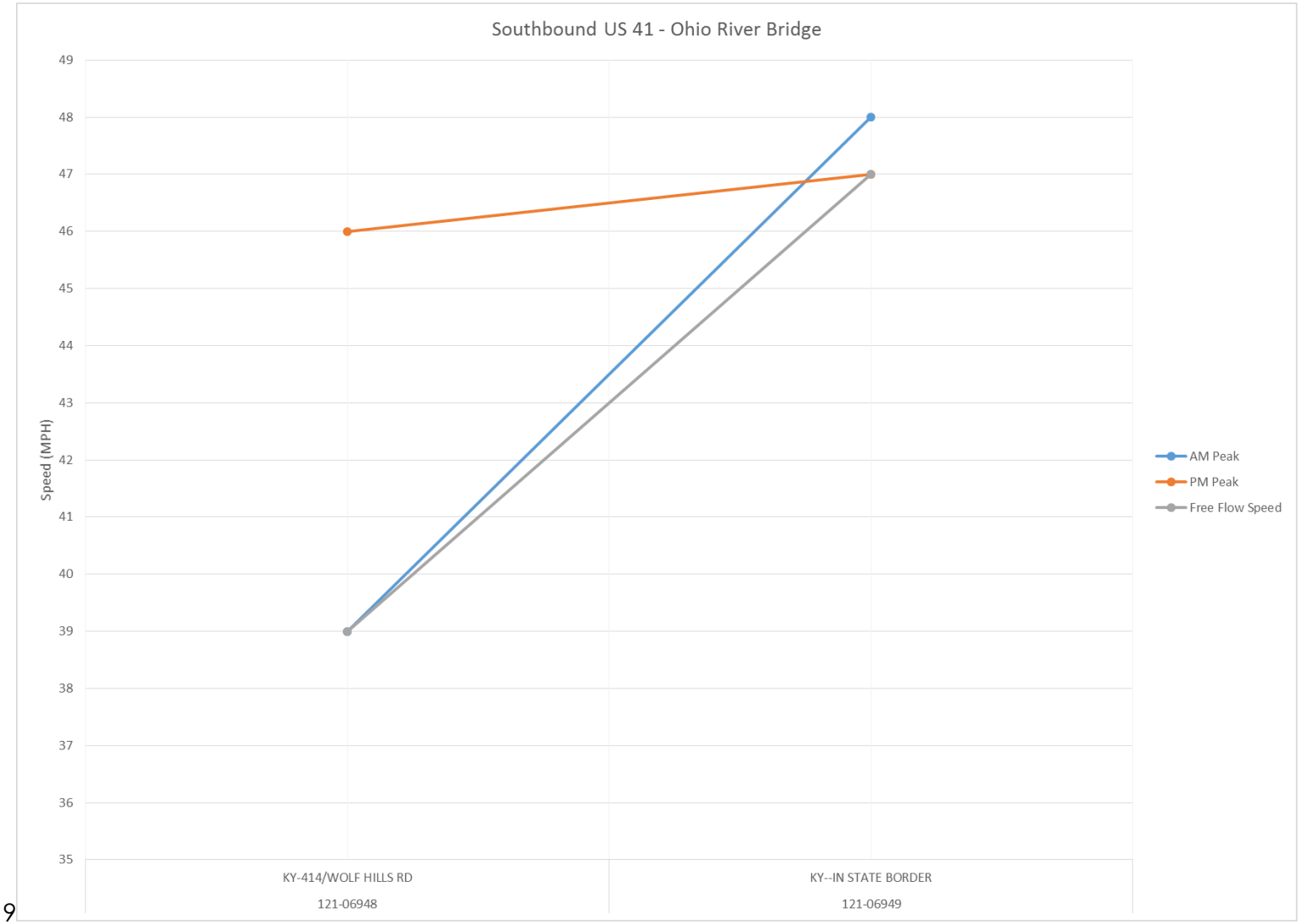


Figure G.22 Speed Data: Southbound US 41 at Ohio River Bridge



9

Figure G.23 Speed Data: Eastbound SR 62 from Fulton County to Posey County Line

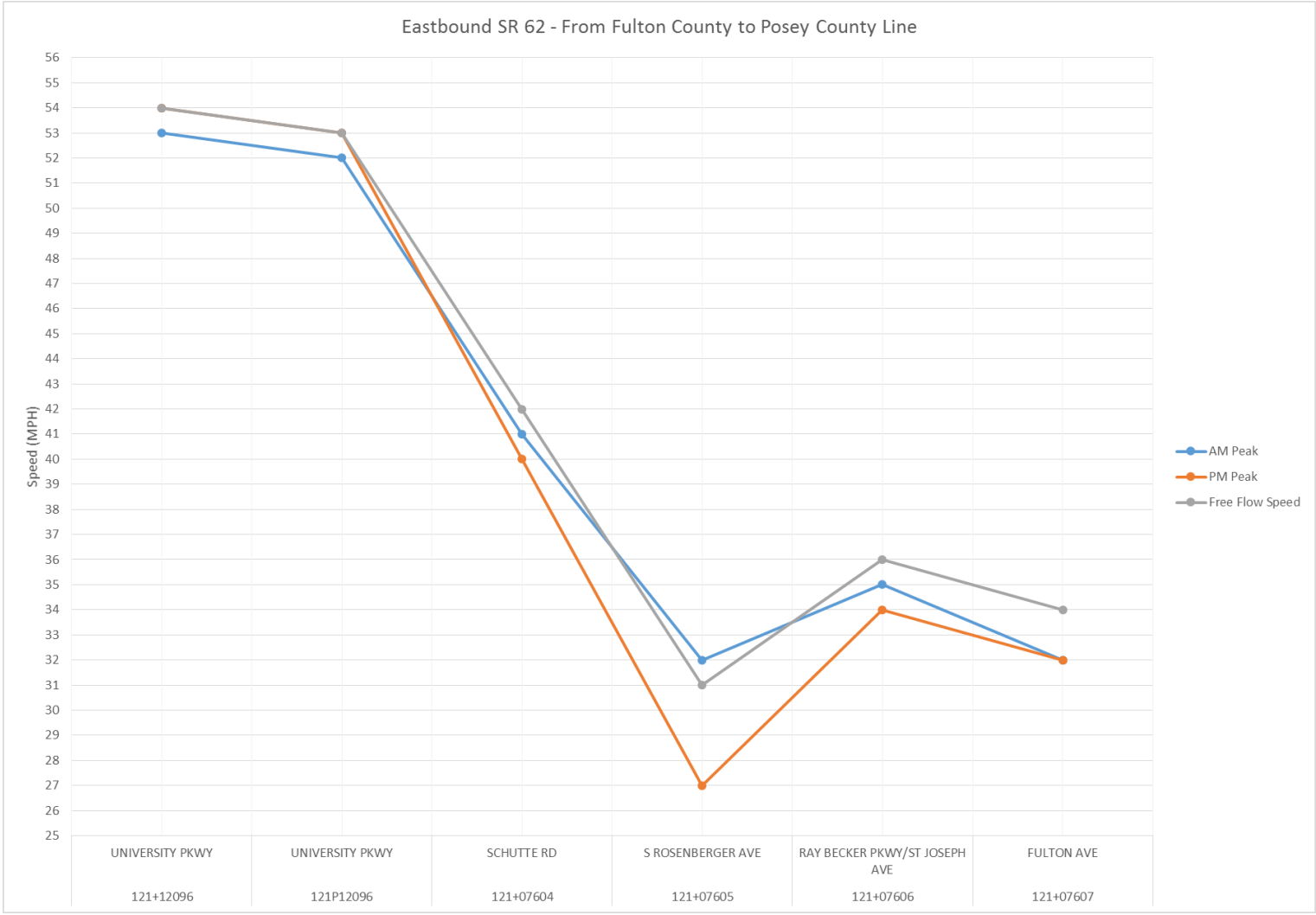


Figure G.24 Speed Data: Westbound SR 62 from Fulton Avenue to Posey County Line

Figure G.25 Speed Data: Eastbound SR 66 from US 41 to I-69

Figure G.26 Speed Data: Westbound SR 66 from US 41 to I-69

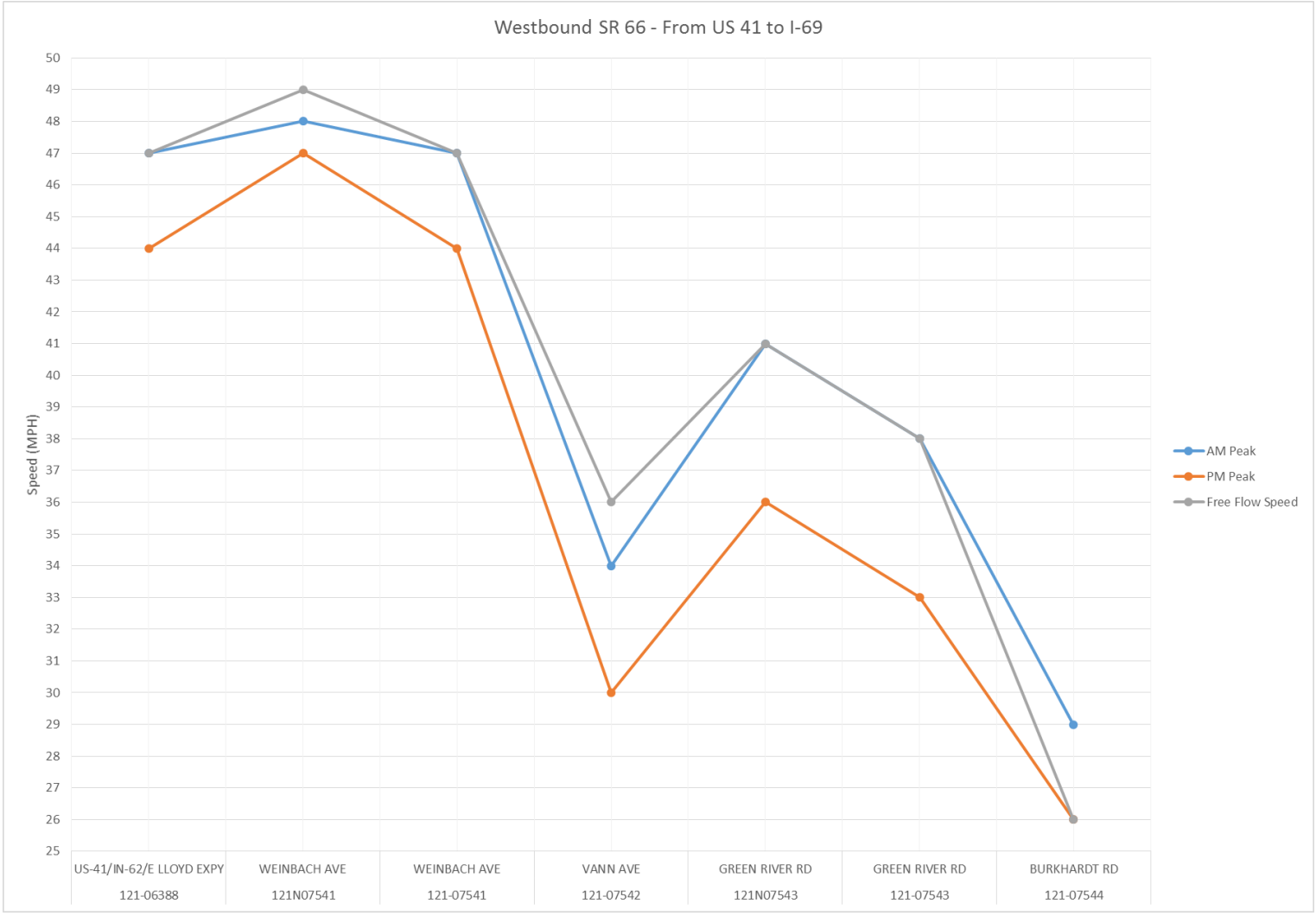


Figure G.27 Speed Data: Eastbound US 40 from SR 267 East Junction to Raceway Road

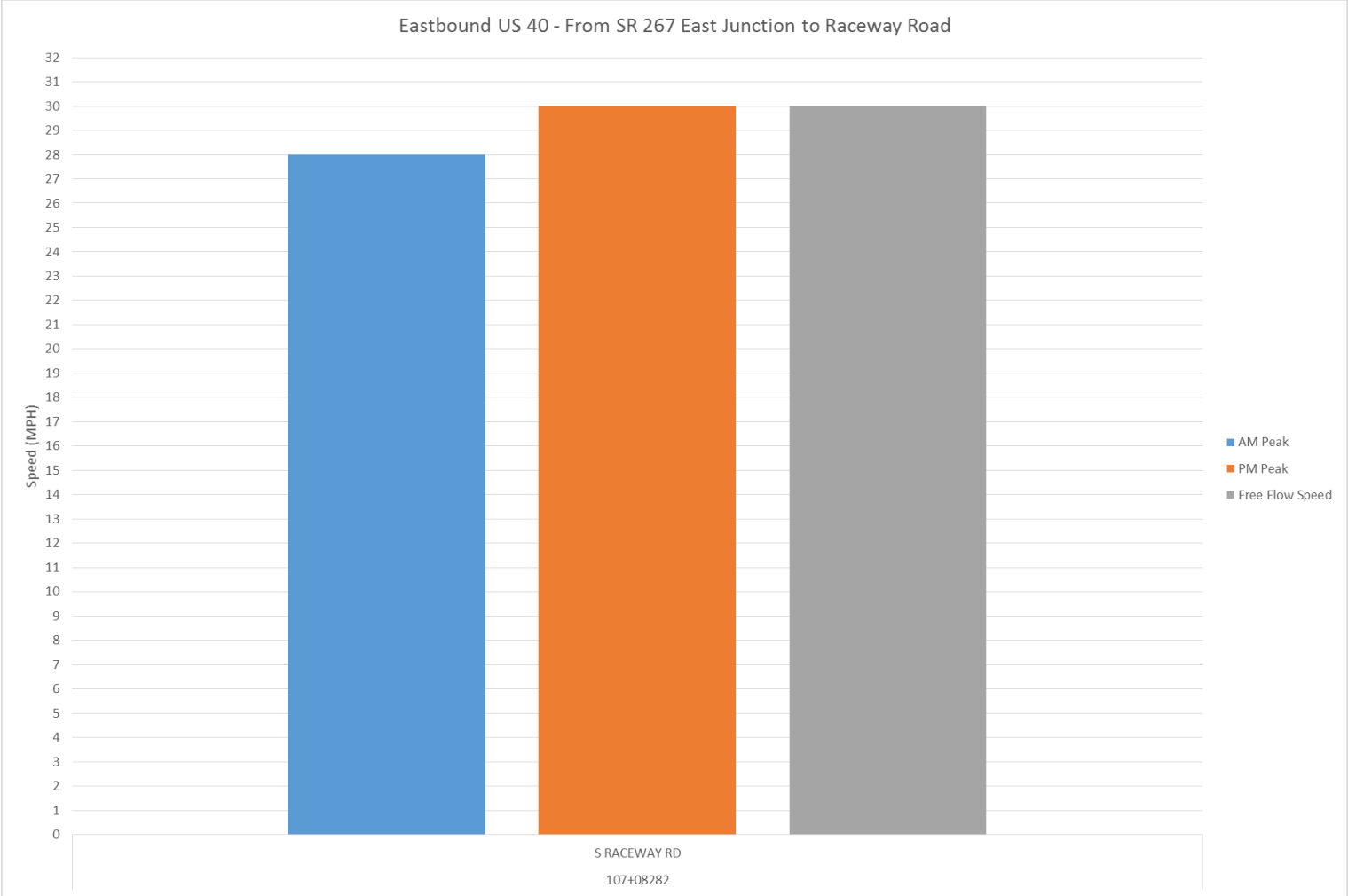


Figure G.28 Speed Data: Westbound US 40 from SR 267 East Junction to Raceway Road

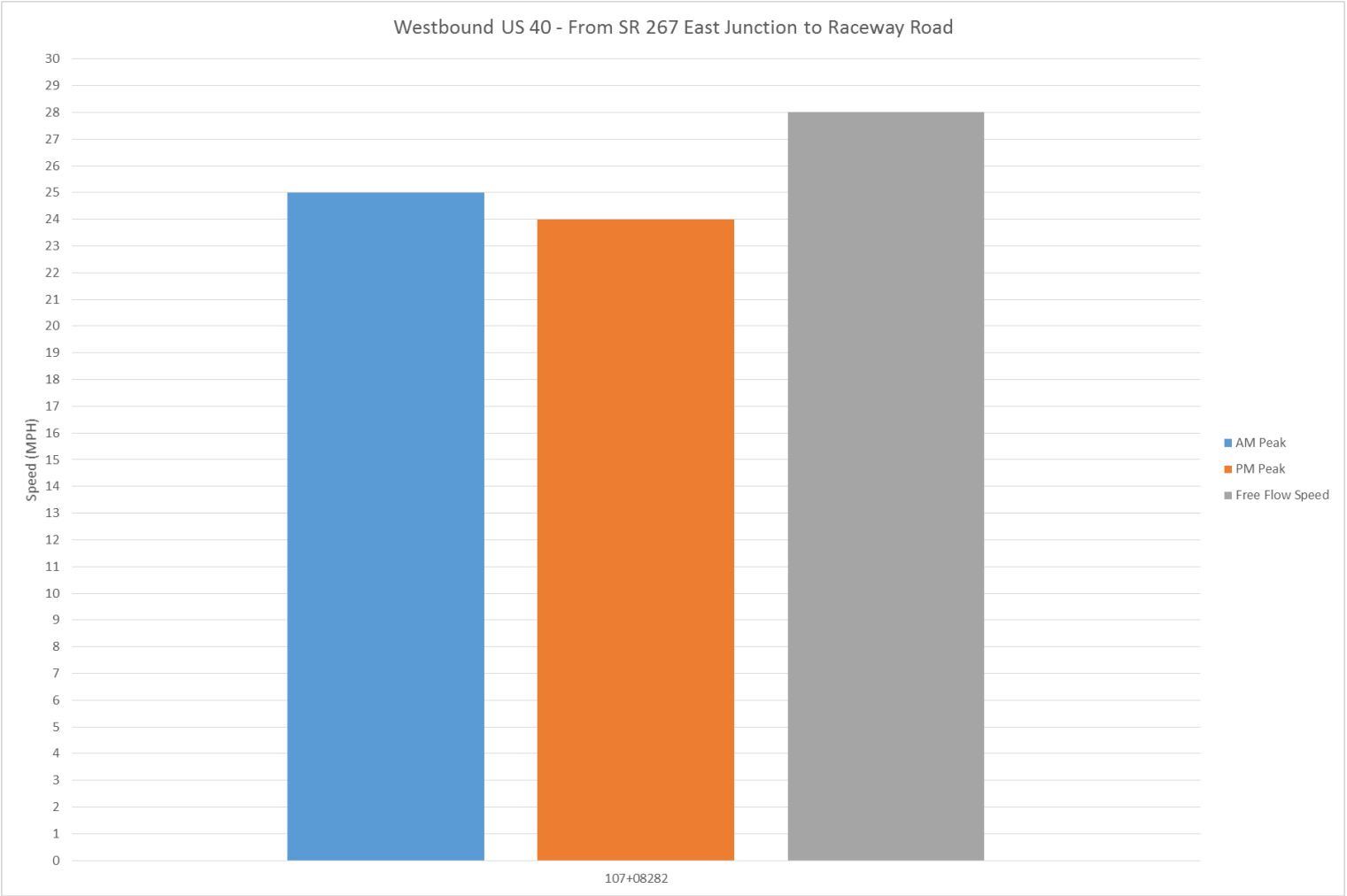


Figure G.29 Speed Data: Northbound Ronald Reagan Parkway from US 40 to US 36

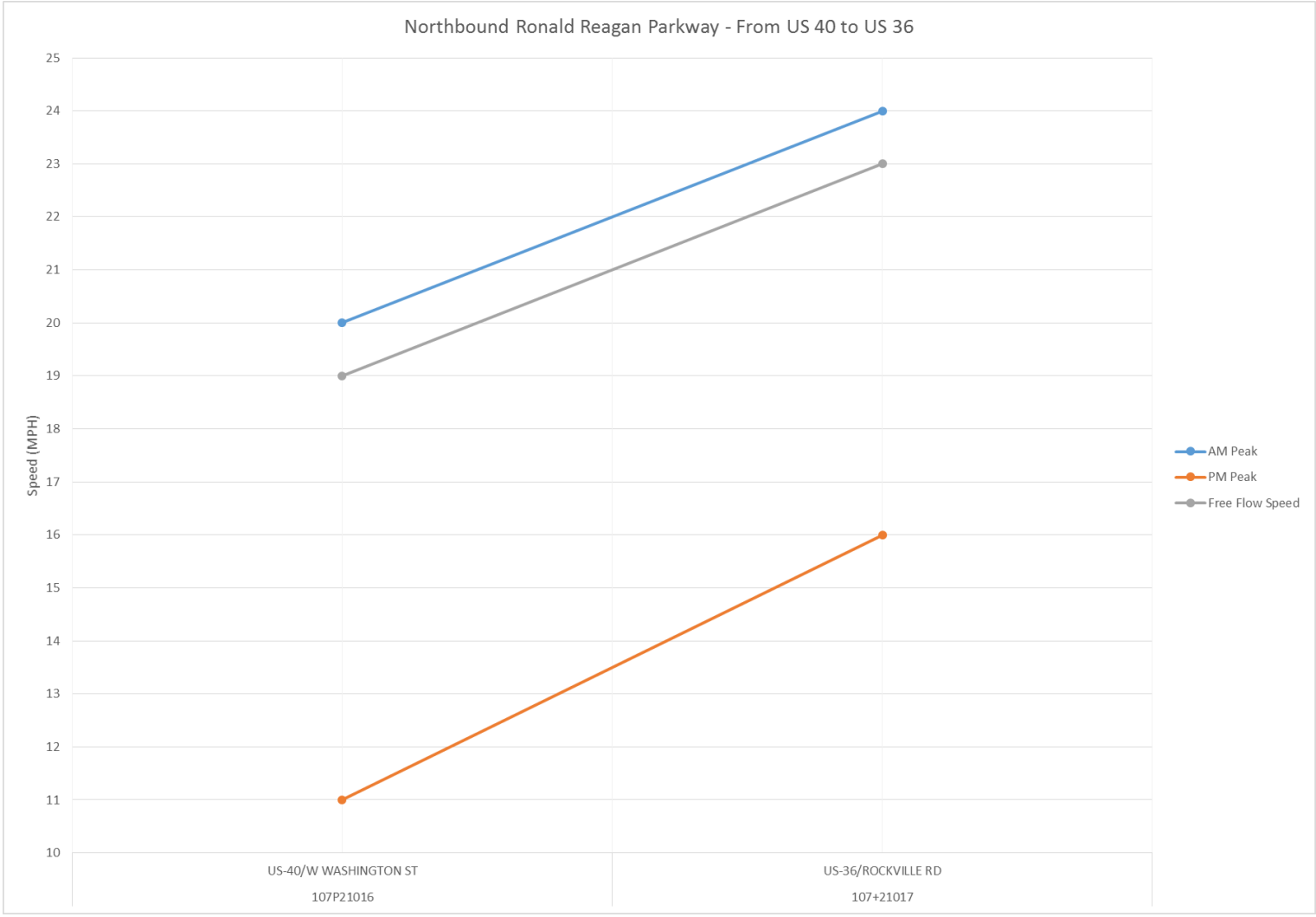


Figure G.30 Speed Data: Southbound Ronald Reagan Parkway from US 40 to US 36

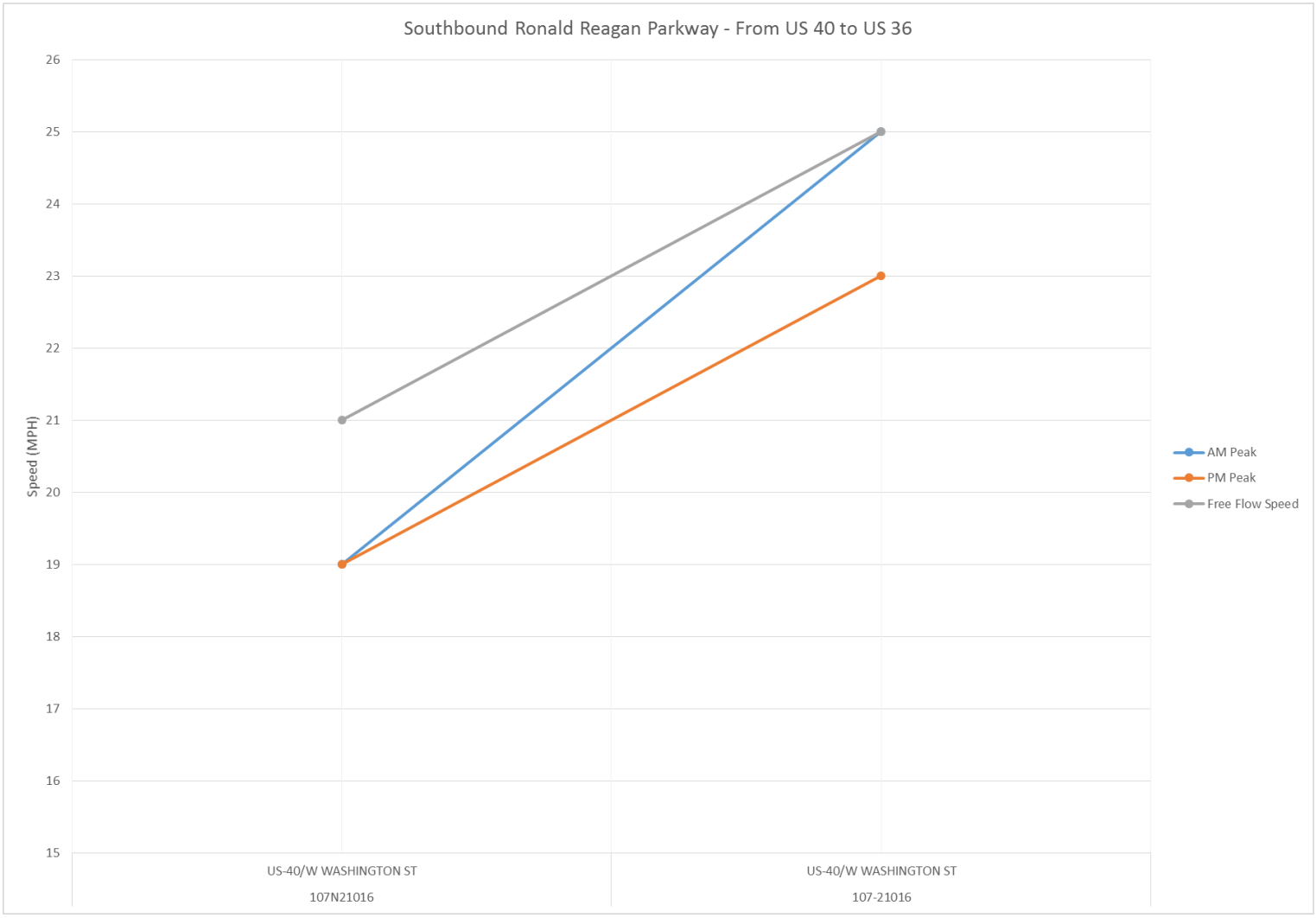


Figure G.31 Speed Data: Eastbound I-70 from I-65/70 North Junction to I-465 East Junction

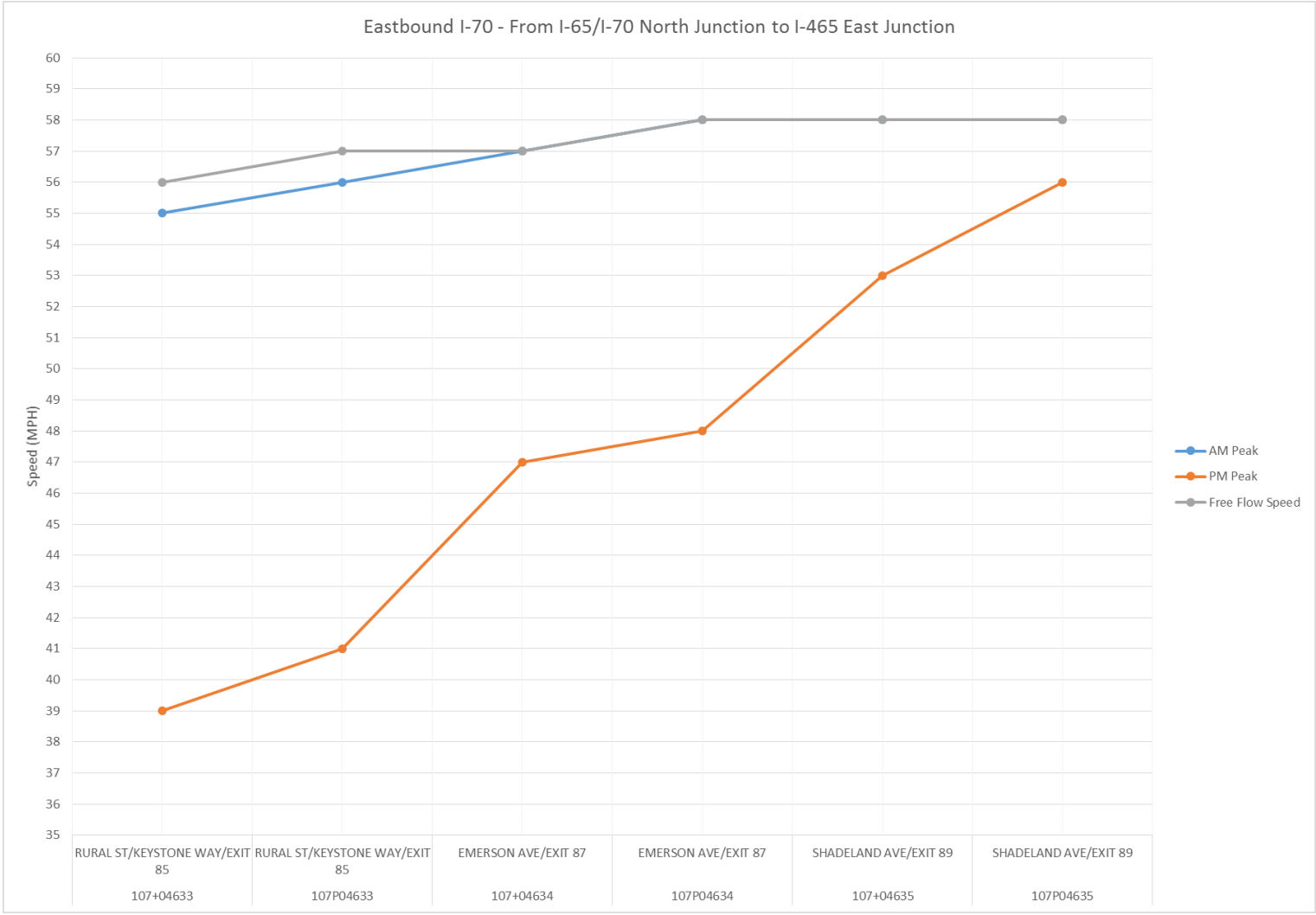


Figure G.32 Speed Data: Westbound I-70 from I-65/70 North Junction to I-465 East Junction

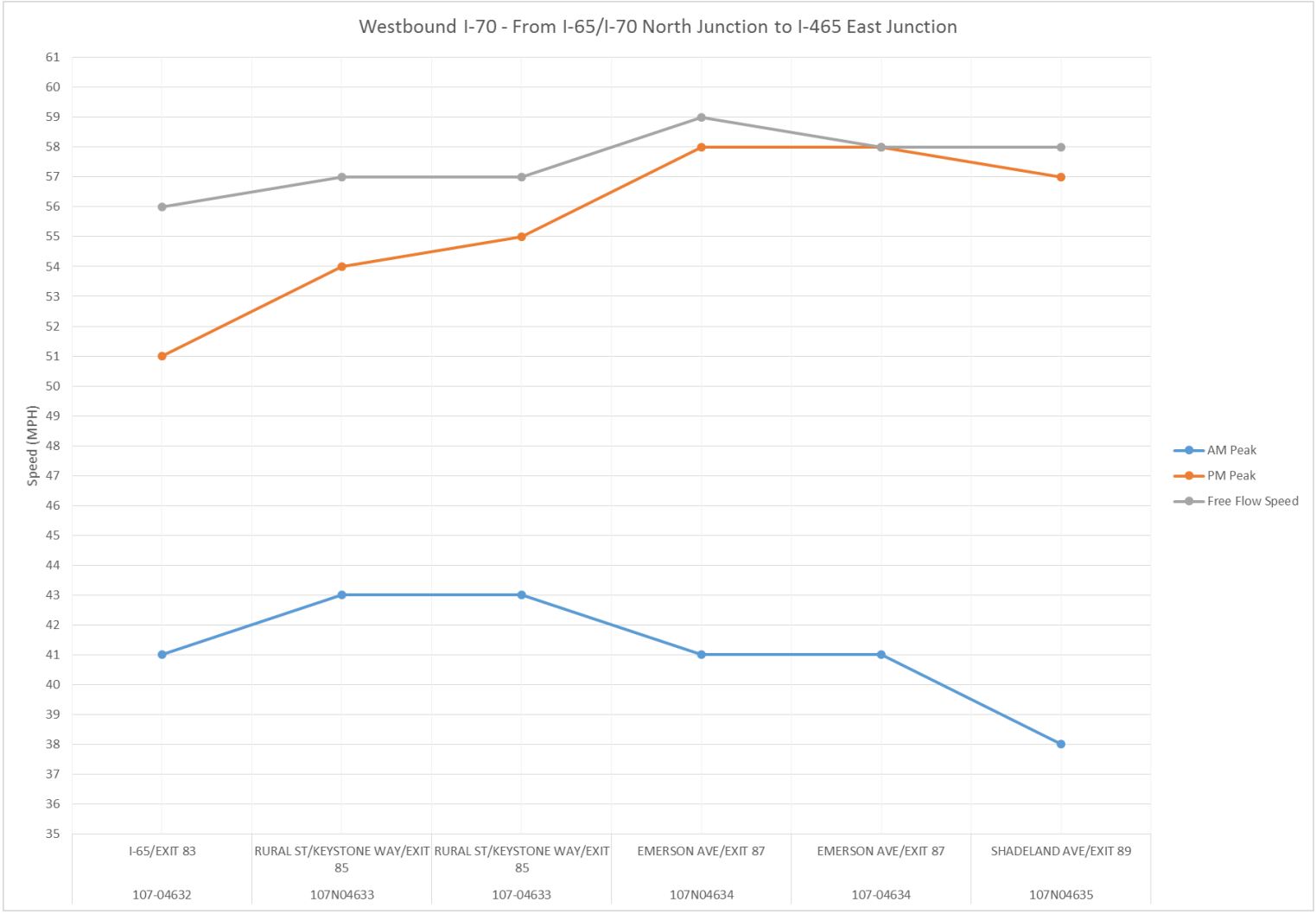


Figure G.33 Speed Data: Northbound I-65 from I-65/70 North Junction to Fall Creek

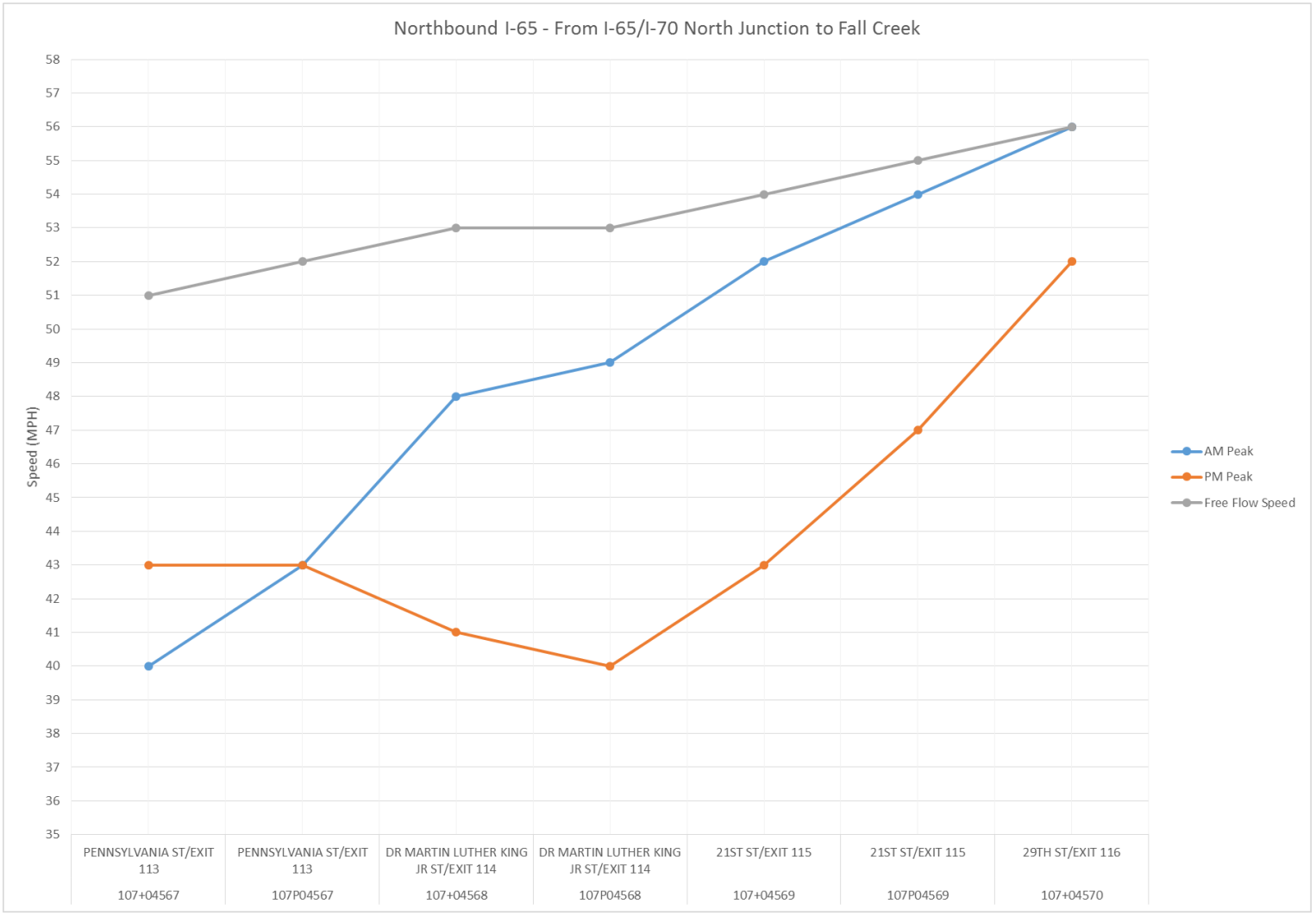


Figure G.34 Speed Data: Southbound I-65 from I-65/70 North Junction to Fall Creek

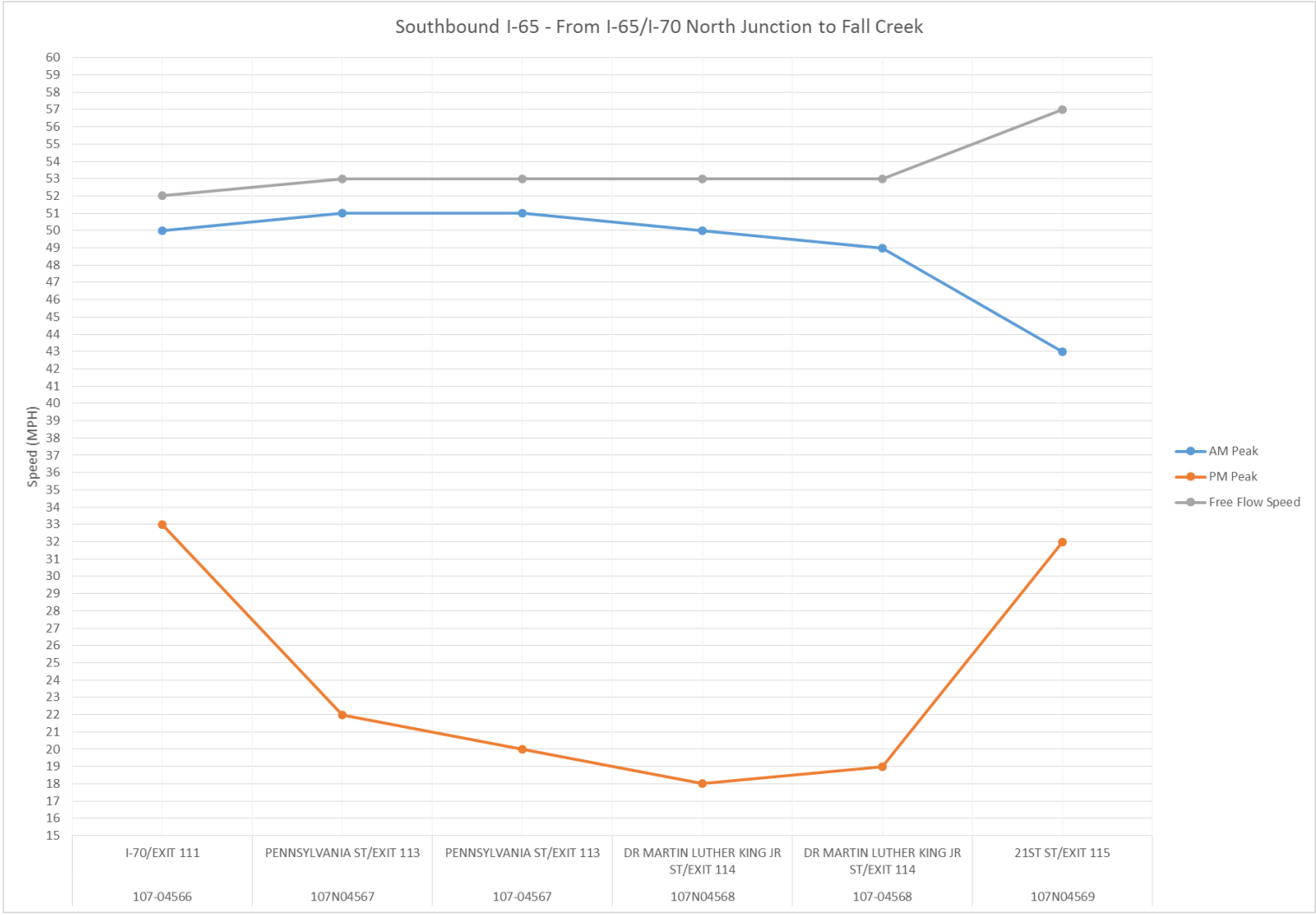


Figure G.35 Speed Data: Northbound I-65 from Raymond Street to Vermont Street

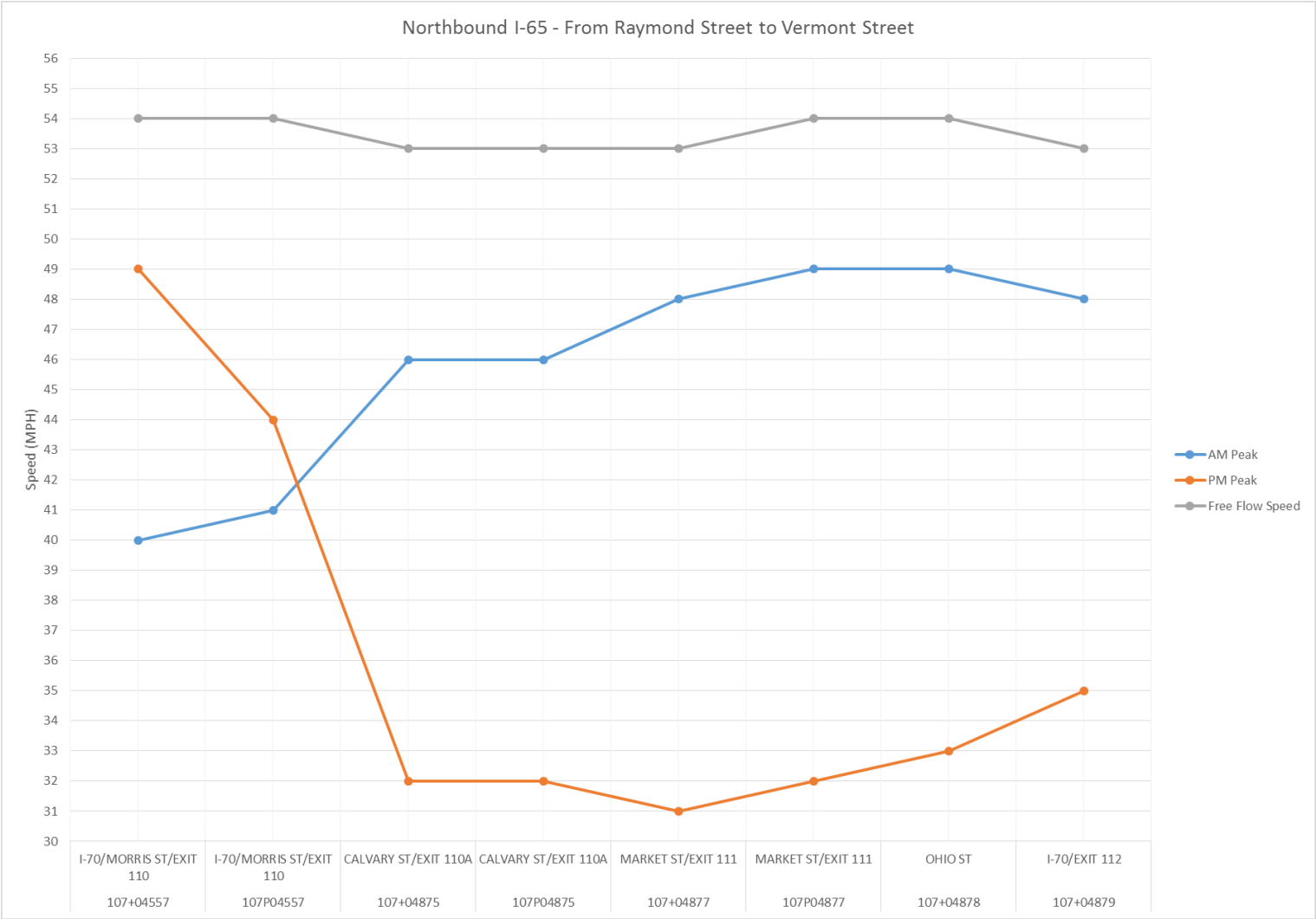


Figure G.36 Speed Data: Southbound I-65 from Raymond Street to Vermont Street

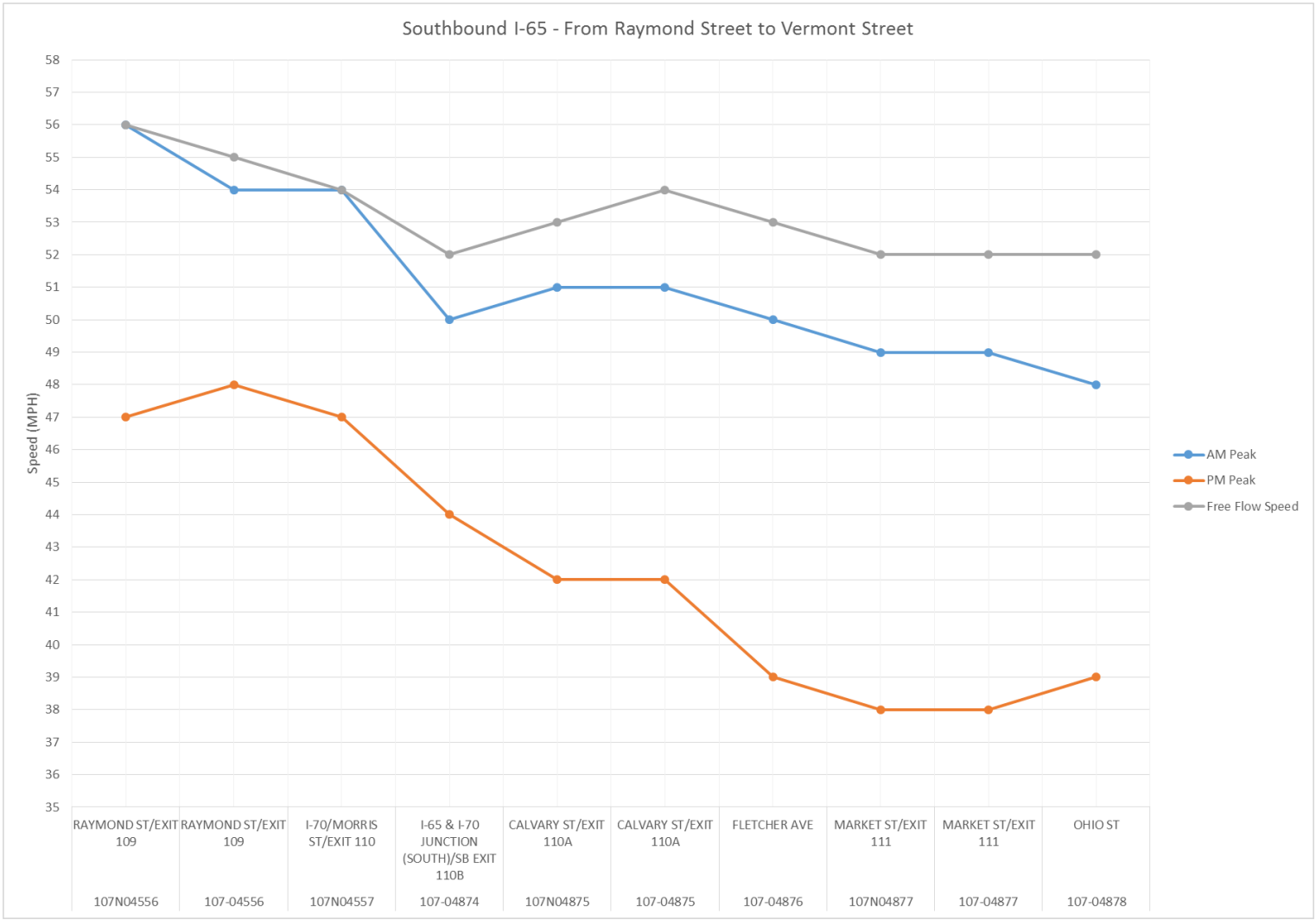


Figure G.37 Speed Data: Eastbound I-70 from Belmont Avenue to I-65/70 South Junction

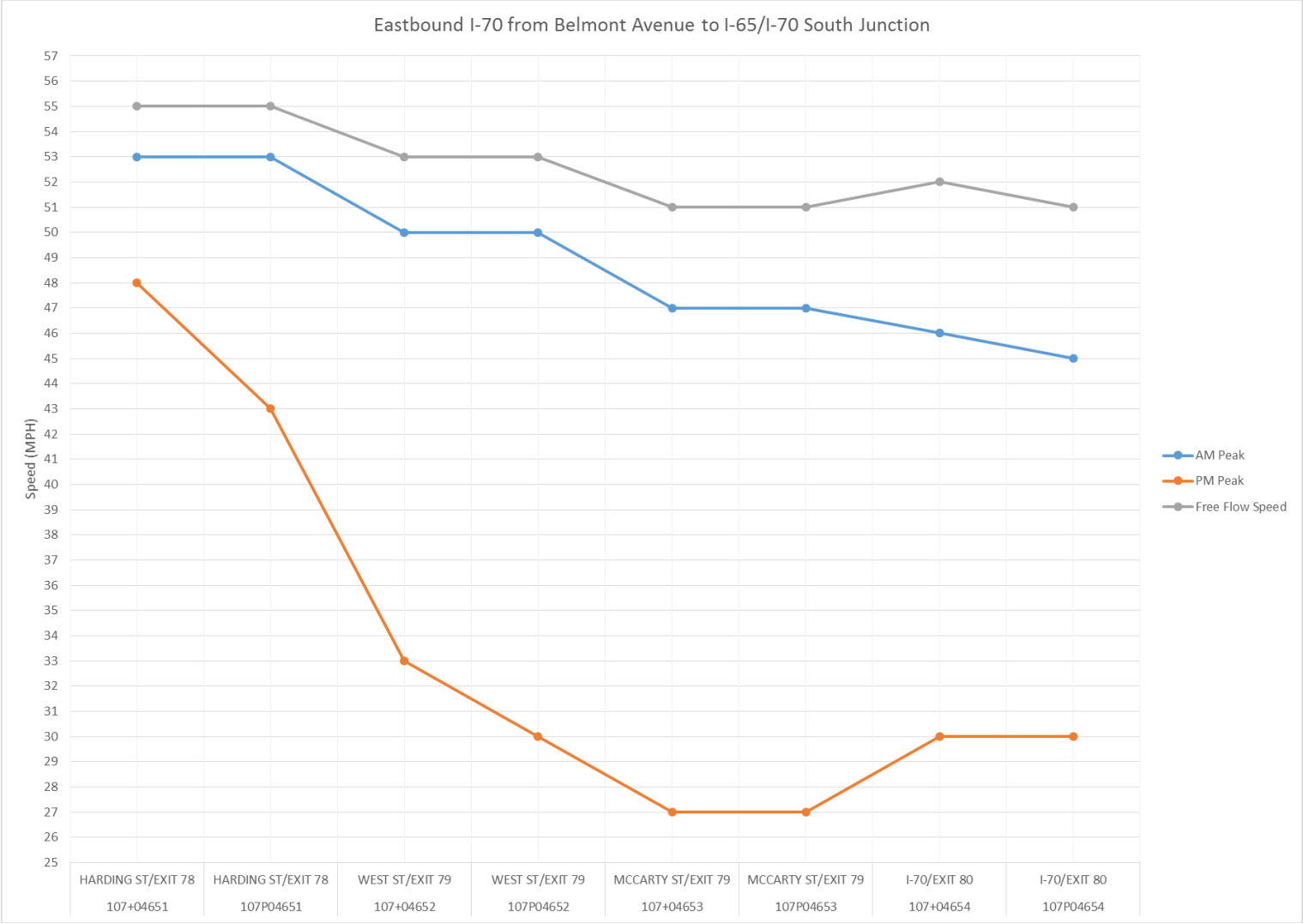


Figure G.38 Speed Data: Westbound I-70 from Belmont Avenue to I-65/70 South Junction

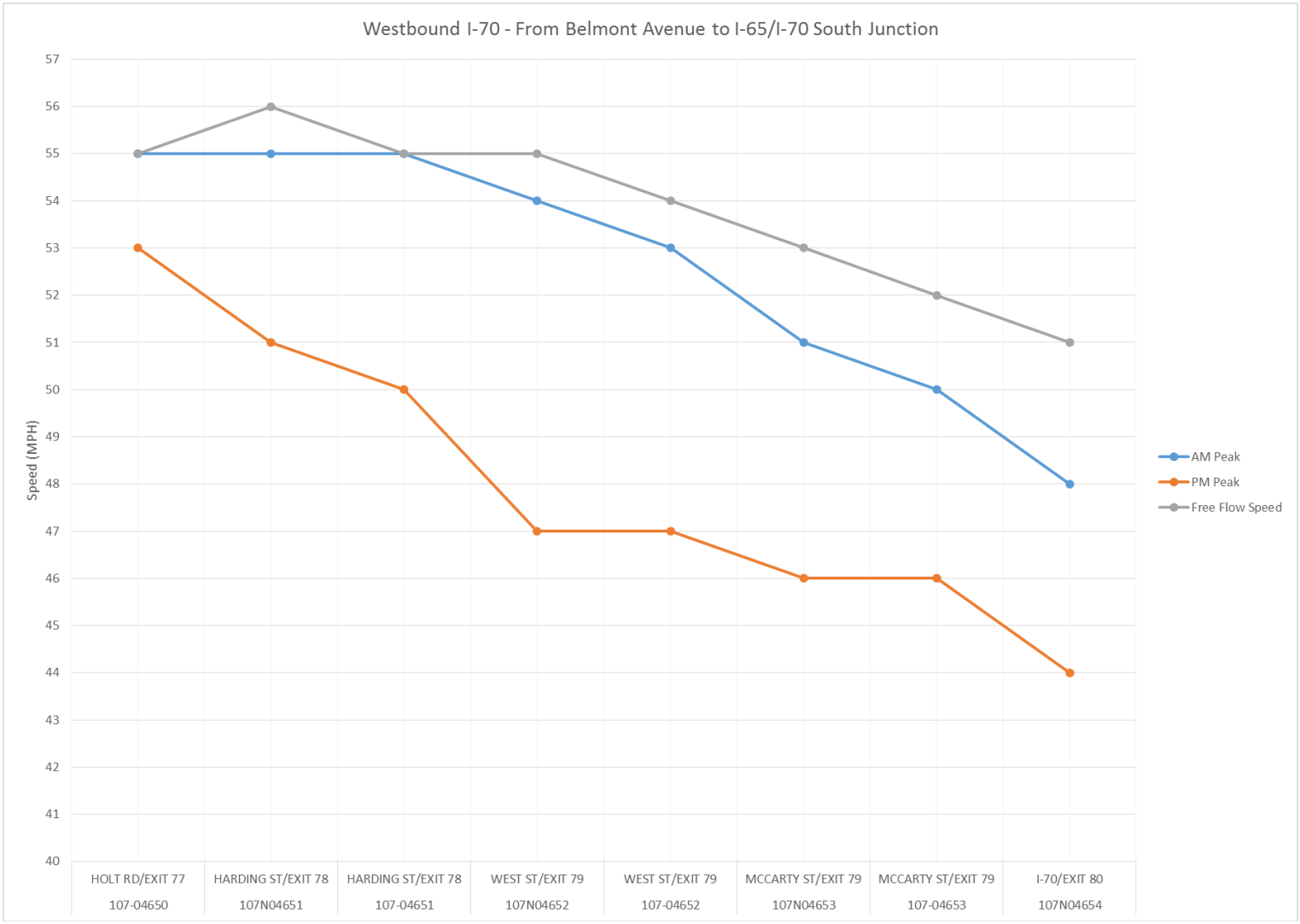


Figure G.39 Speed Data: Northbound I-65 from Fall Creek to 38th Street

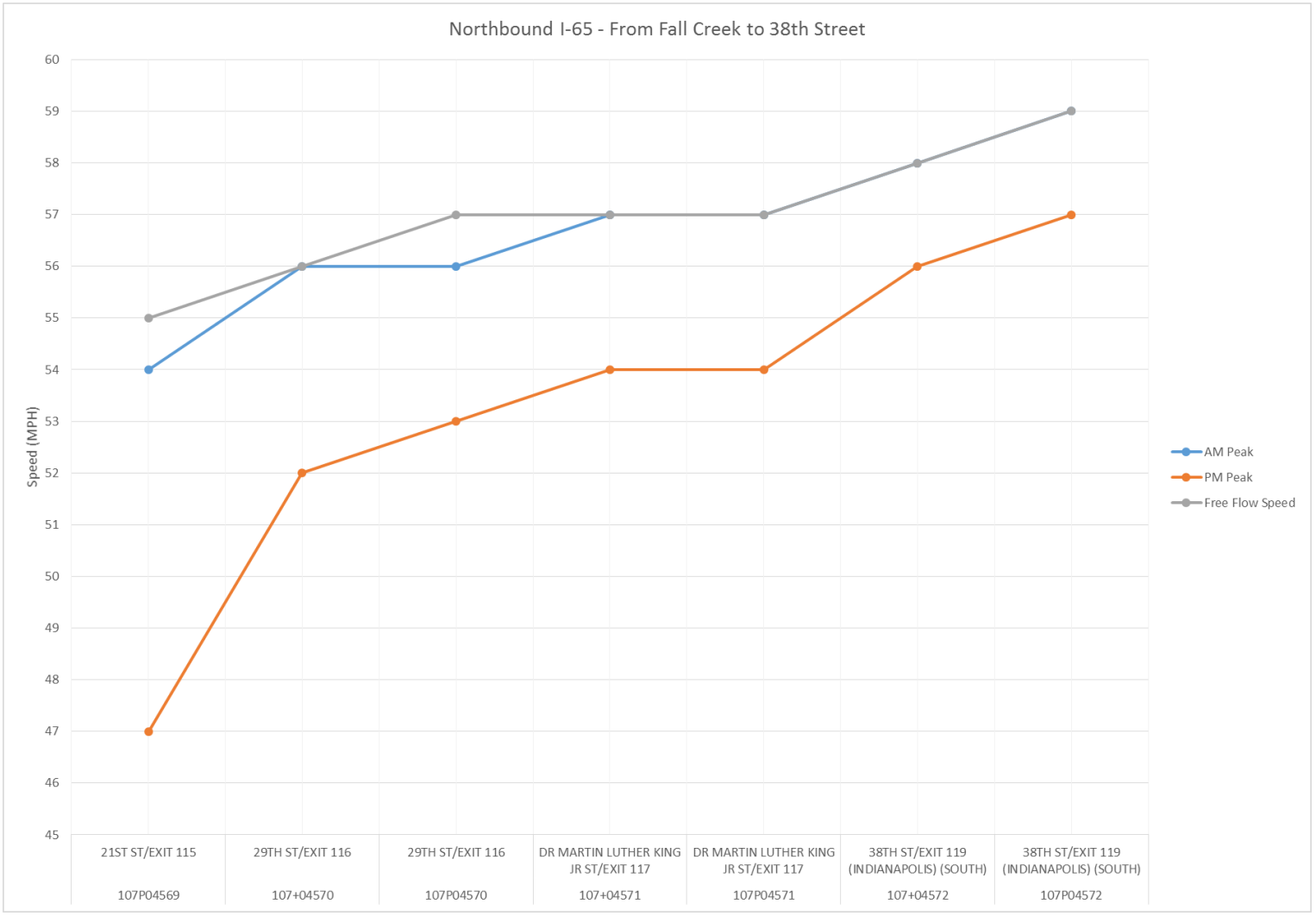


Figure G.40 Speed Data: Southbound I-65 from Fall Creek to 38th Street

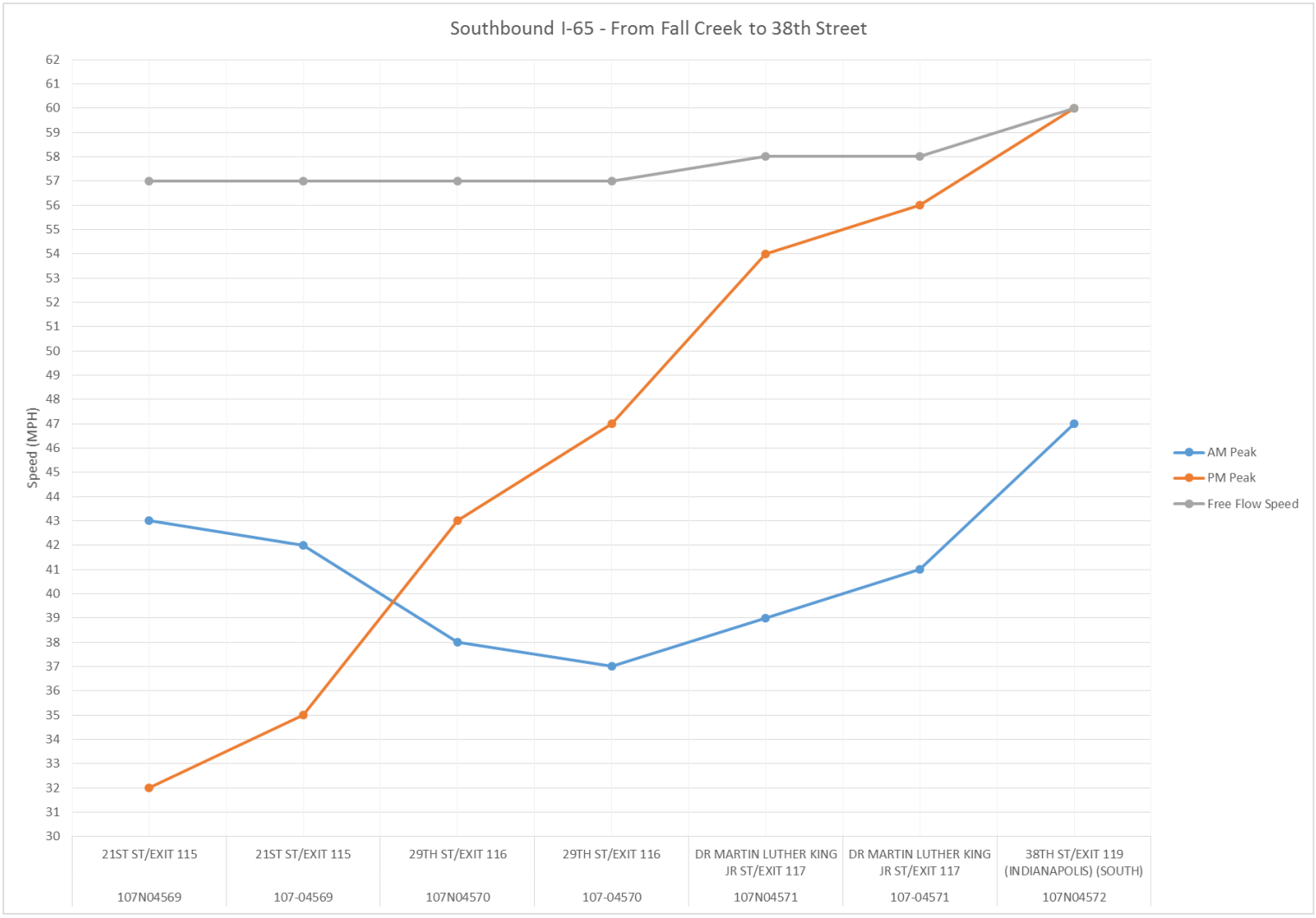


Figure G.41 Speed Data: I-465 Inner Loop from 86th Street to US 31

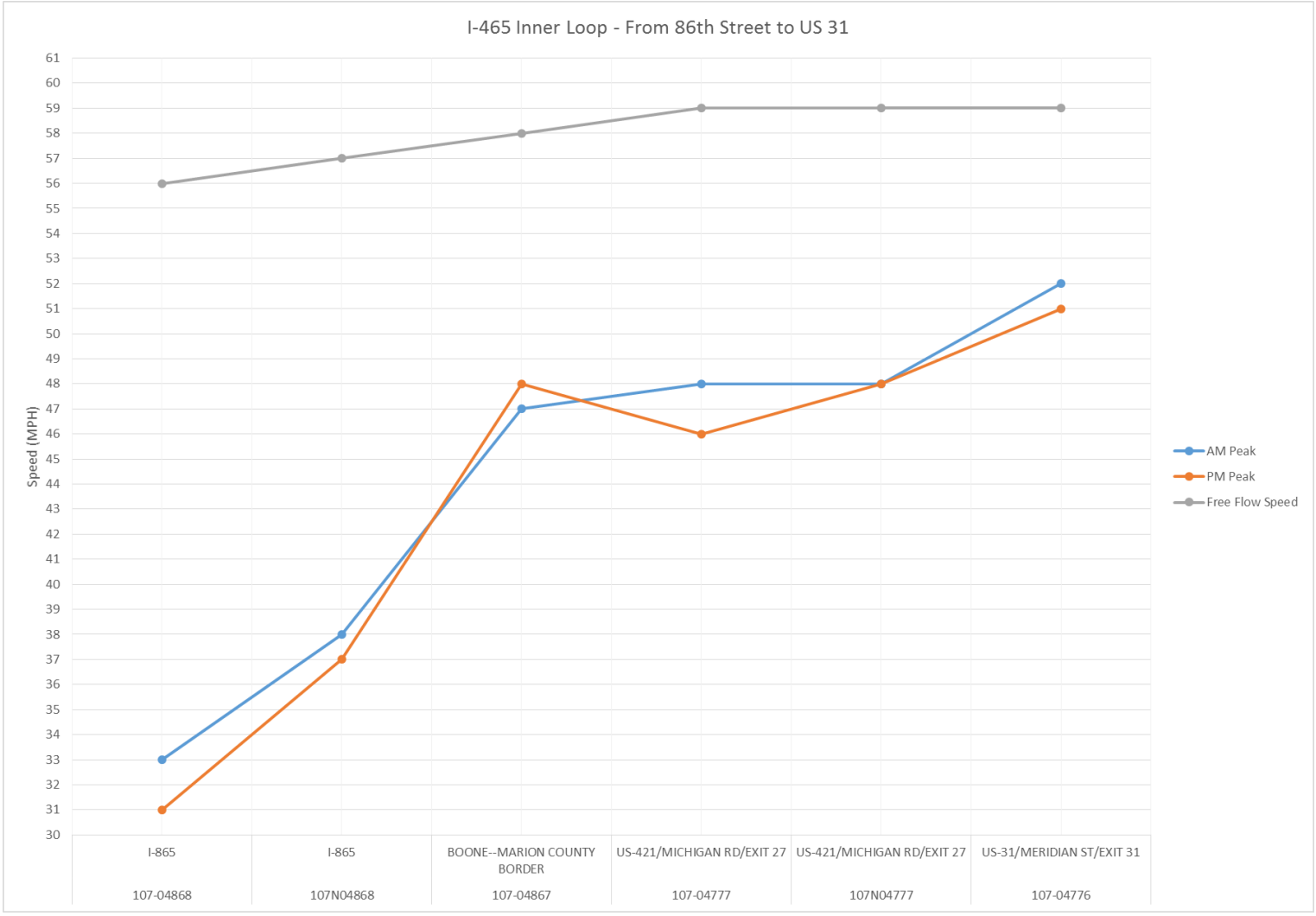


Figure G.42 Speed Data: I-465 Outer Loop from 86th Street to US 31

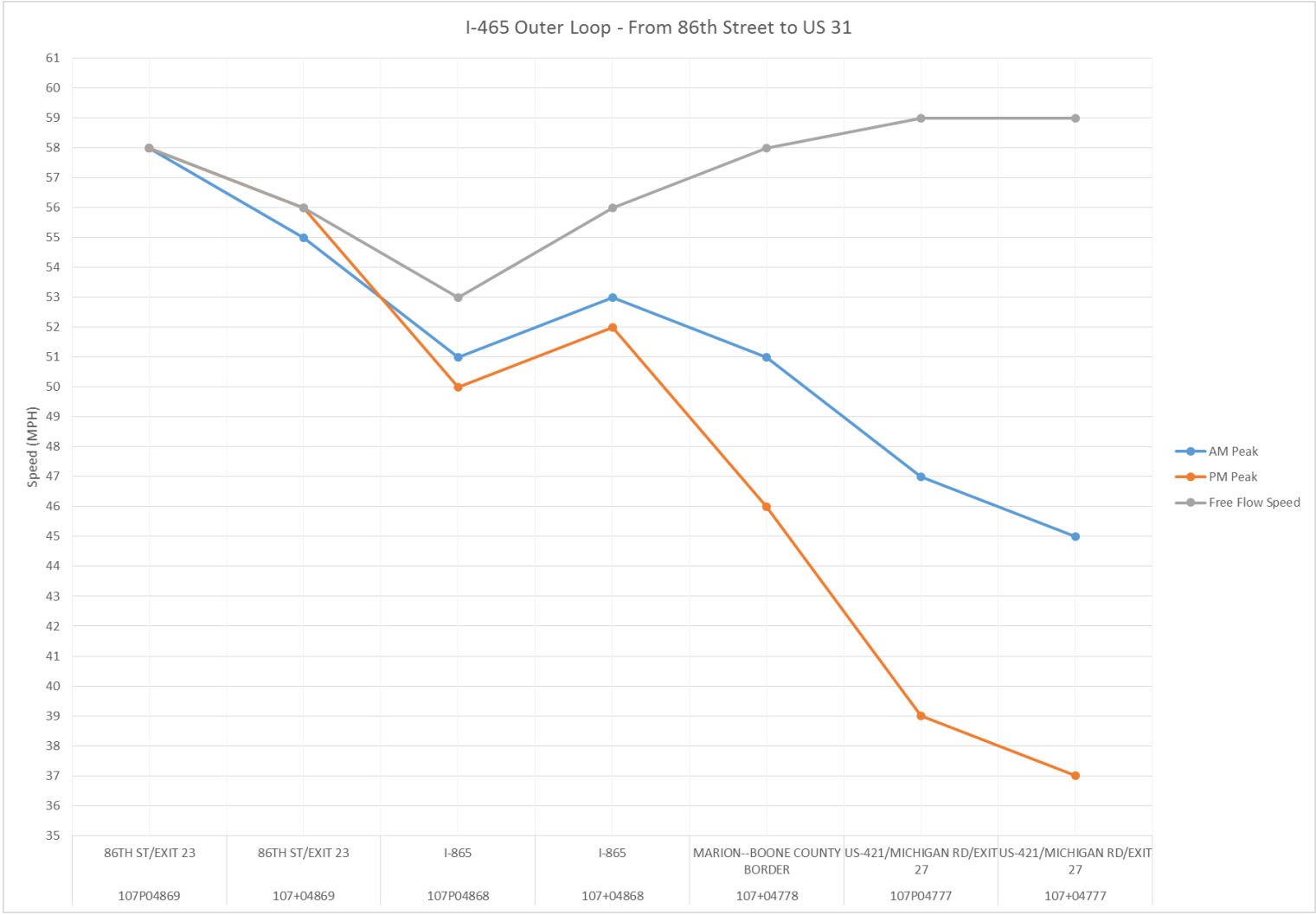


Figure G.43 Speed Data: Northbound I-65 from Thompson Road to Raymond Street

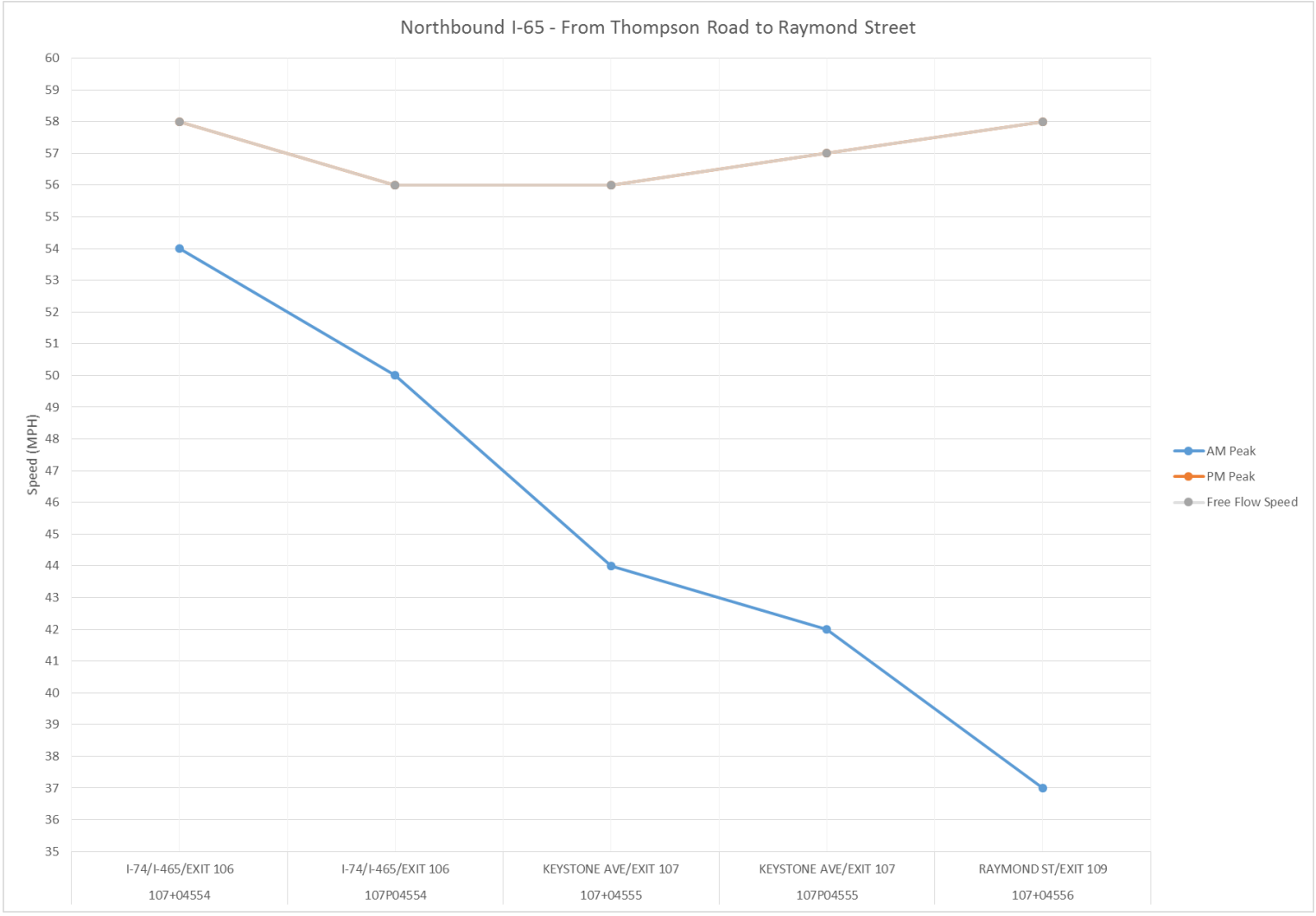


Figure G.44 Speed Data: Southbound I-65 from Thompson Road to Raymond Street

Figure G.45 Speed Data: I-465 Outer Loop from Arlington Avenue to Meridian Street

Figure G.46 Speed Data: I-465 Inner Loop from Arlington Avenue to Meridian Street

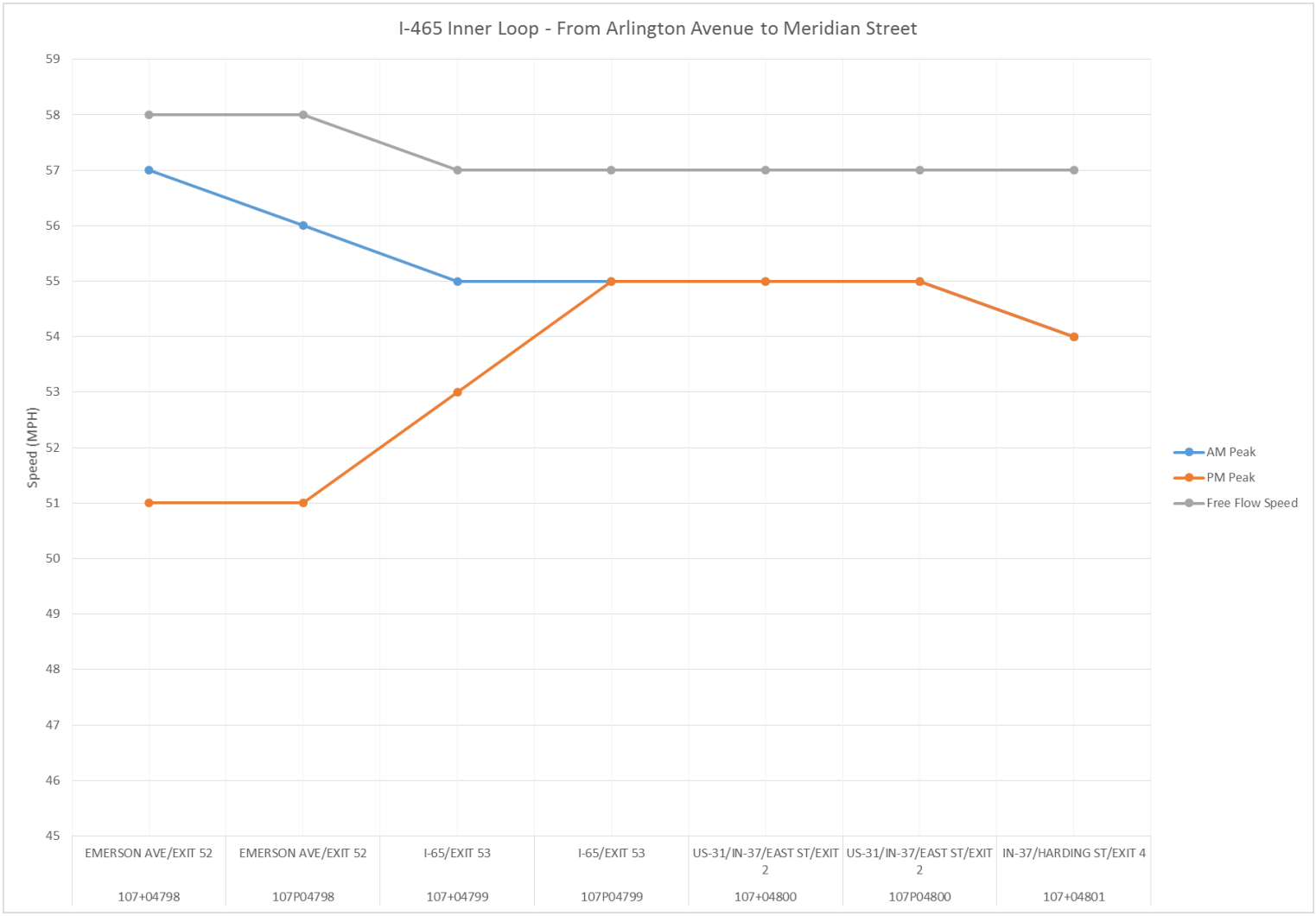


Figure G.47 Speed Data: I-465 Outer Loop from Mann Road to I-70

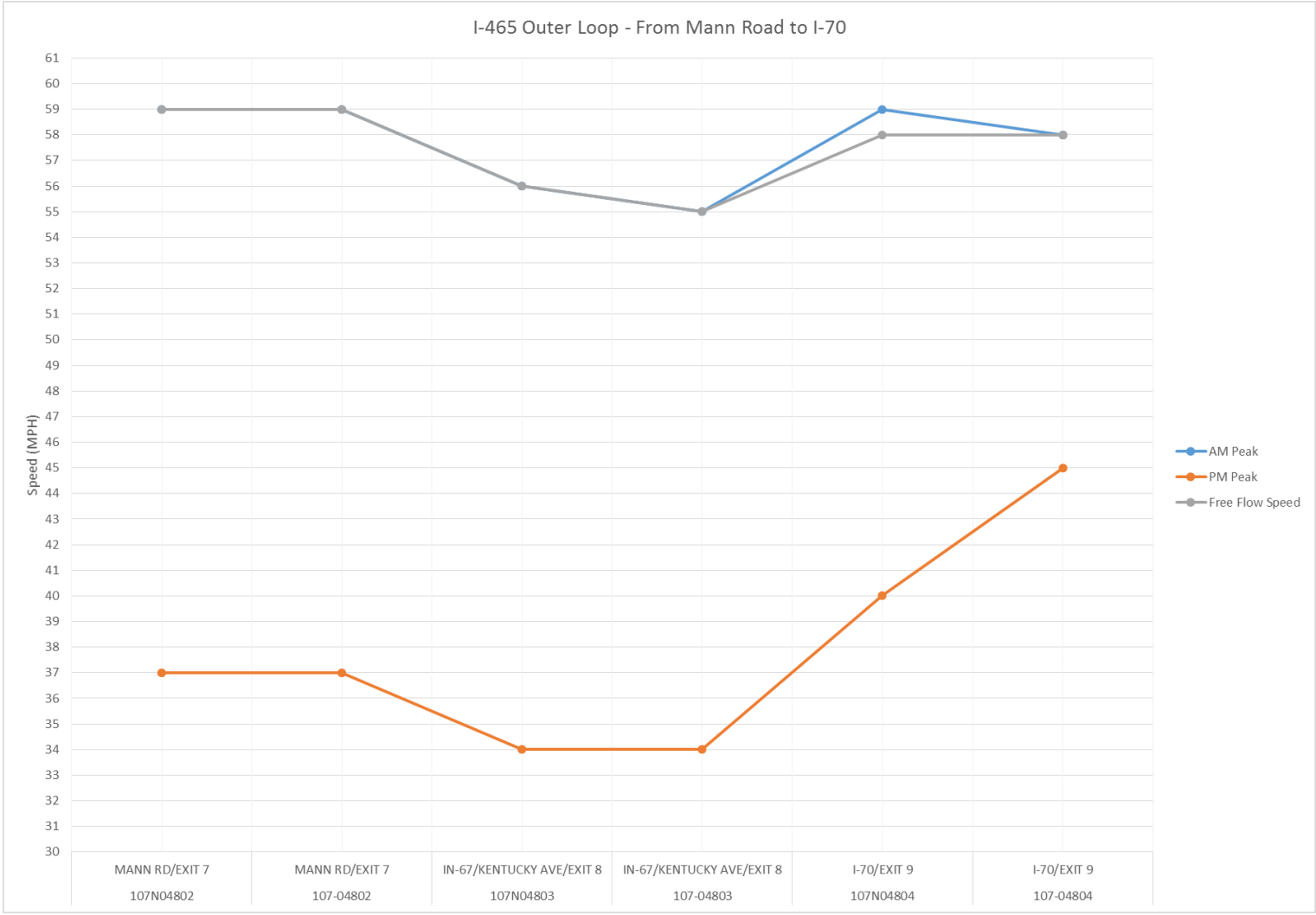


Figure G.48 Speed Data: I-465 Inner Loop from Mann Road to I-70

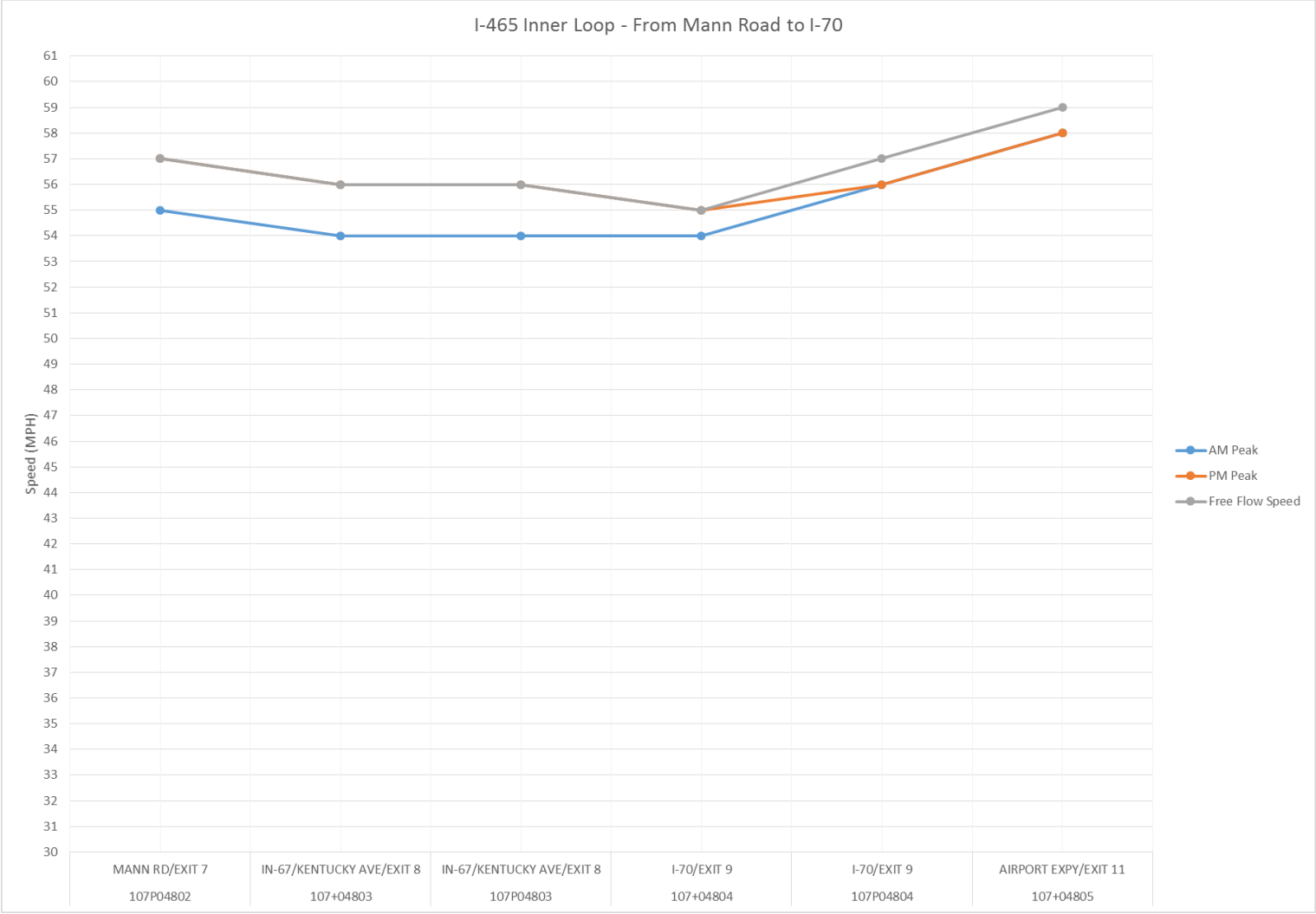


Figure G.49 Speed Data: Eastbound I-70 from Mount Comfort Road to SR 9

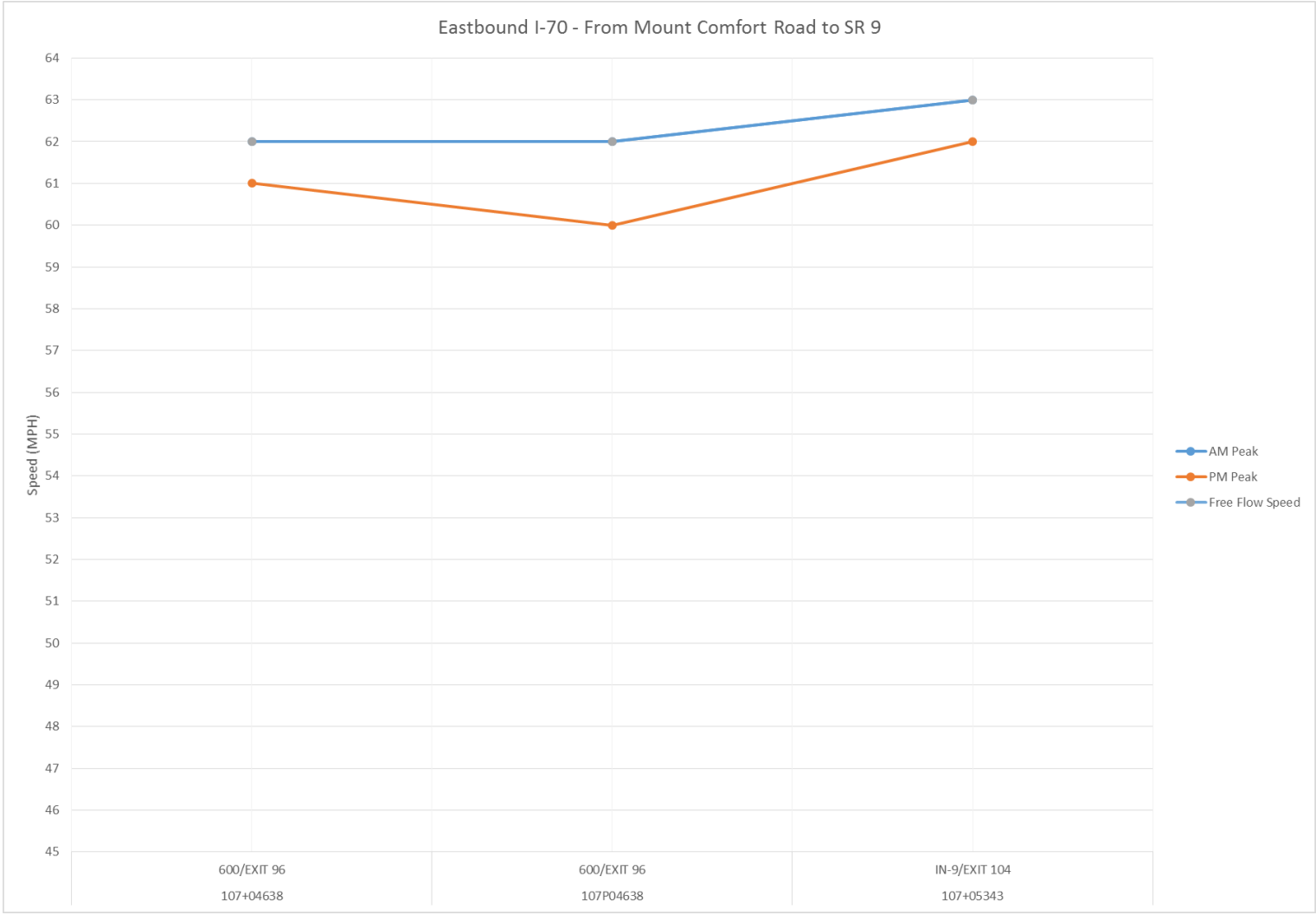


Figure G.50 Speed Data: Westbound I-70 from Mount Comfort Road to SR 9

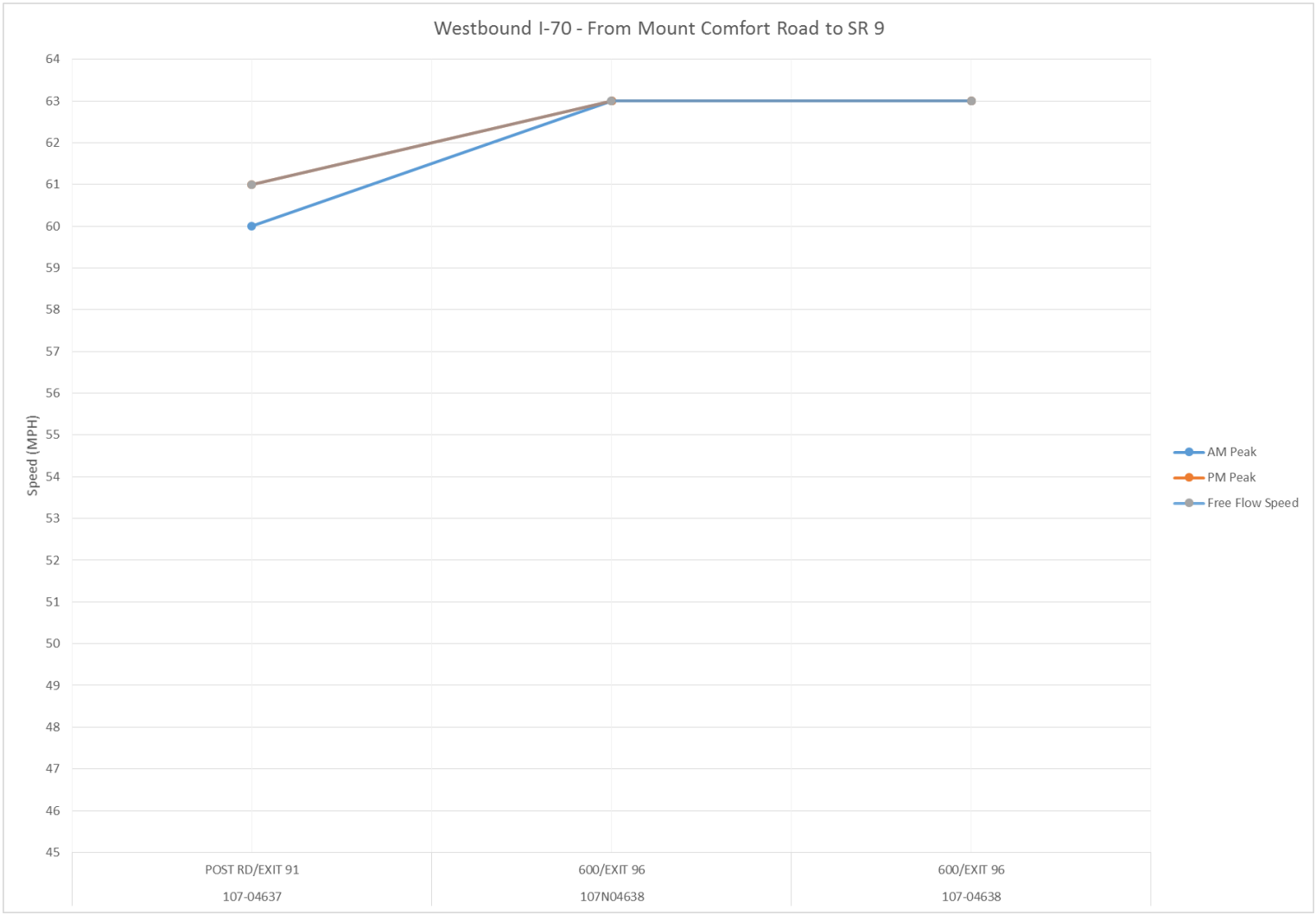


Figure G.51 Speed Data: Eastbound US 30 from SR 49 to I-69

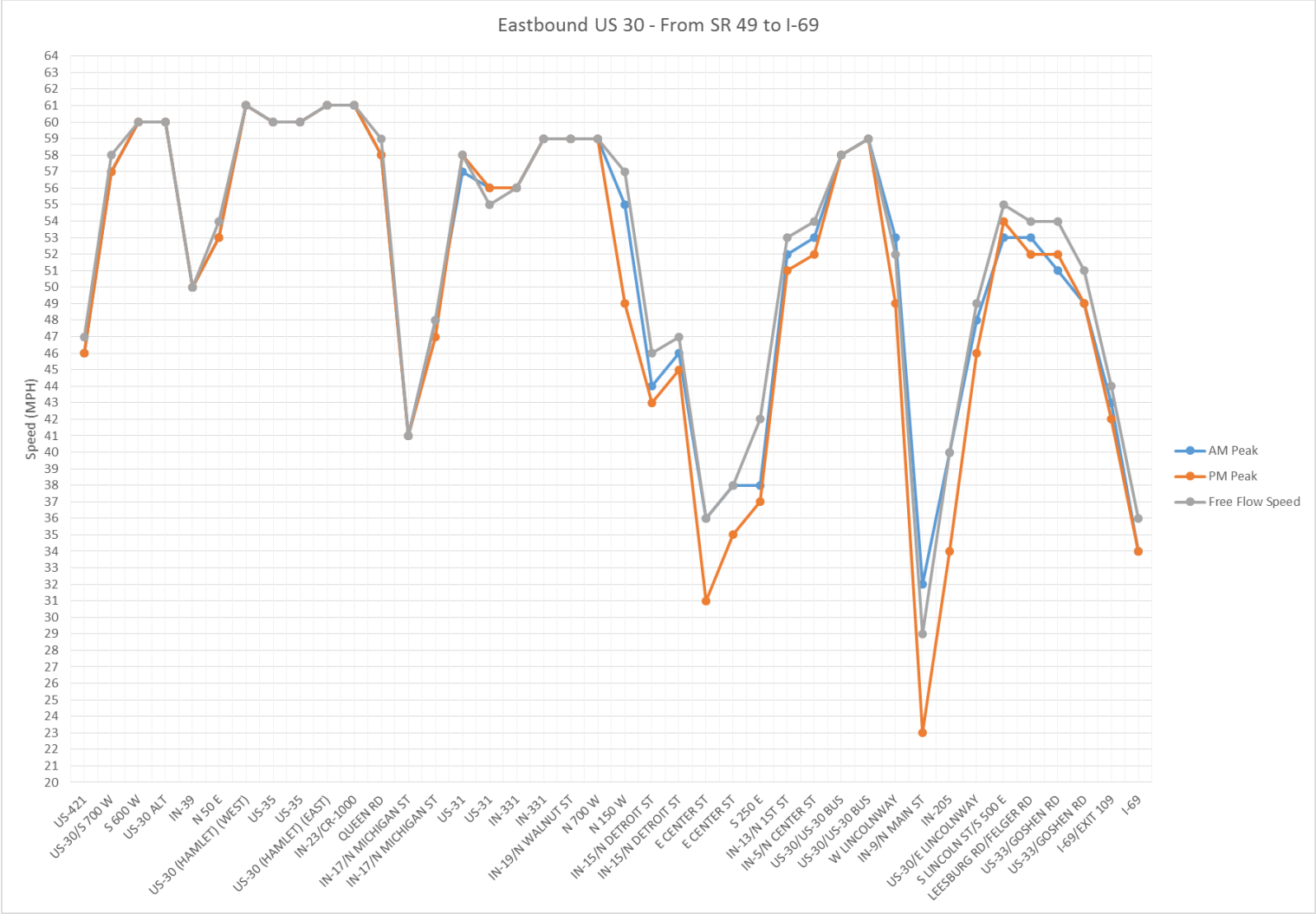


Figure G.52 Speed Data: Westbound US 30 from SR 49 to I-69

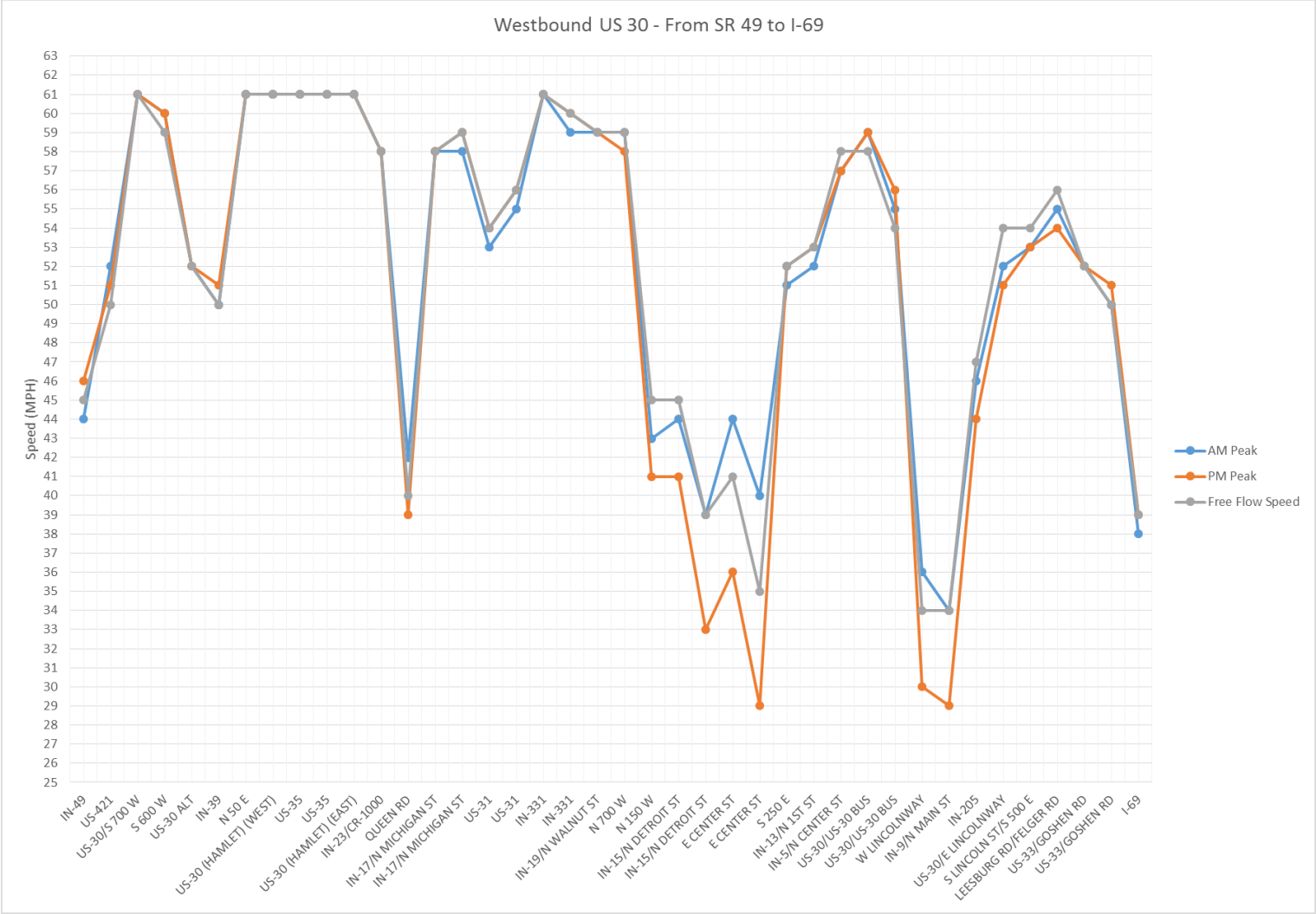


Figure G.53 Speed Data: Northbound I-65 from SR 32 to SR 38

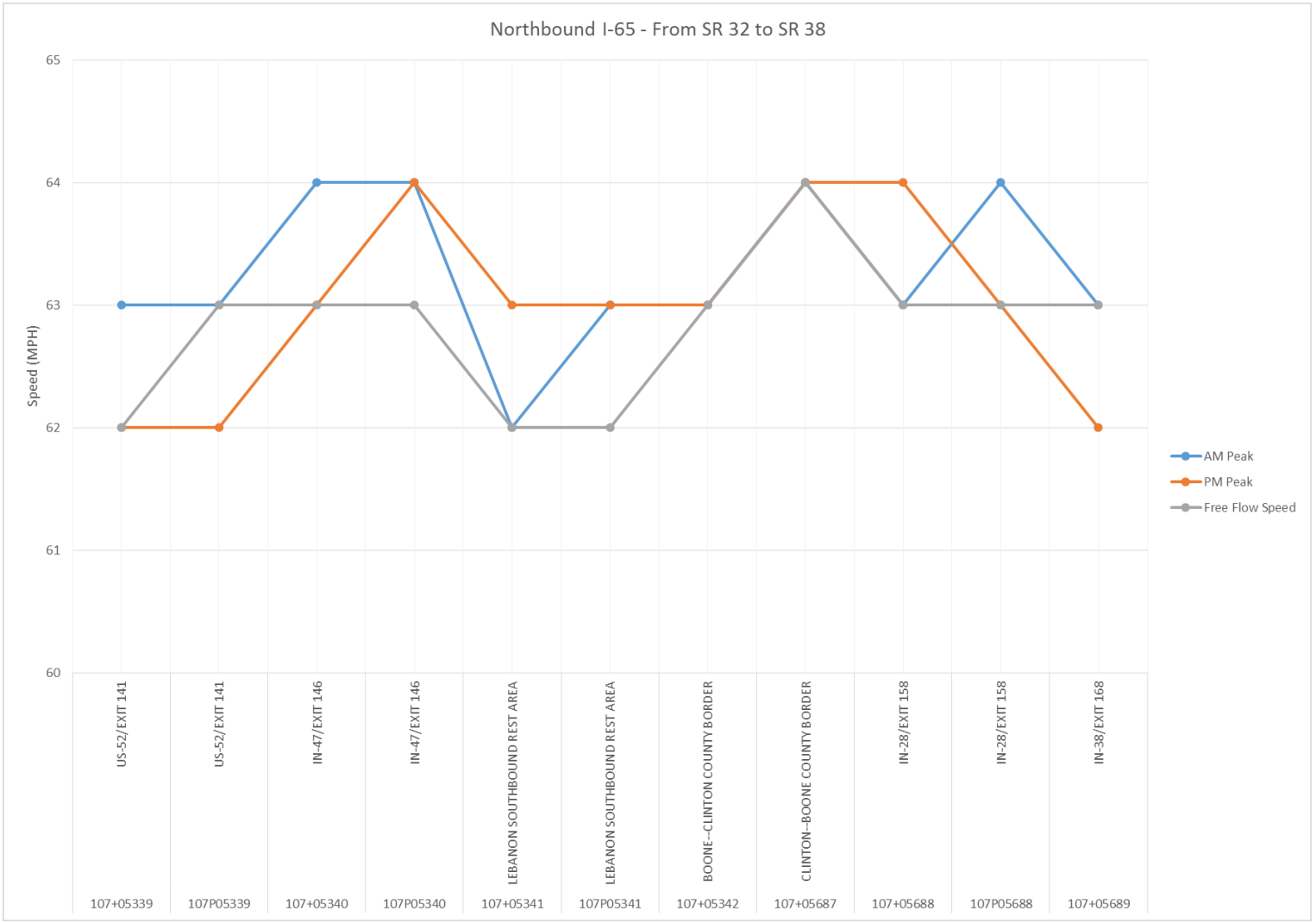


Figure G.54 Speed Data: Southbound I-65 from SR 32 to SR 38

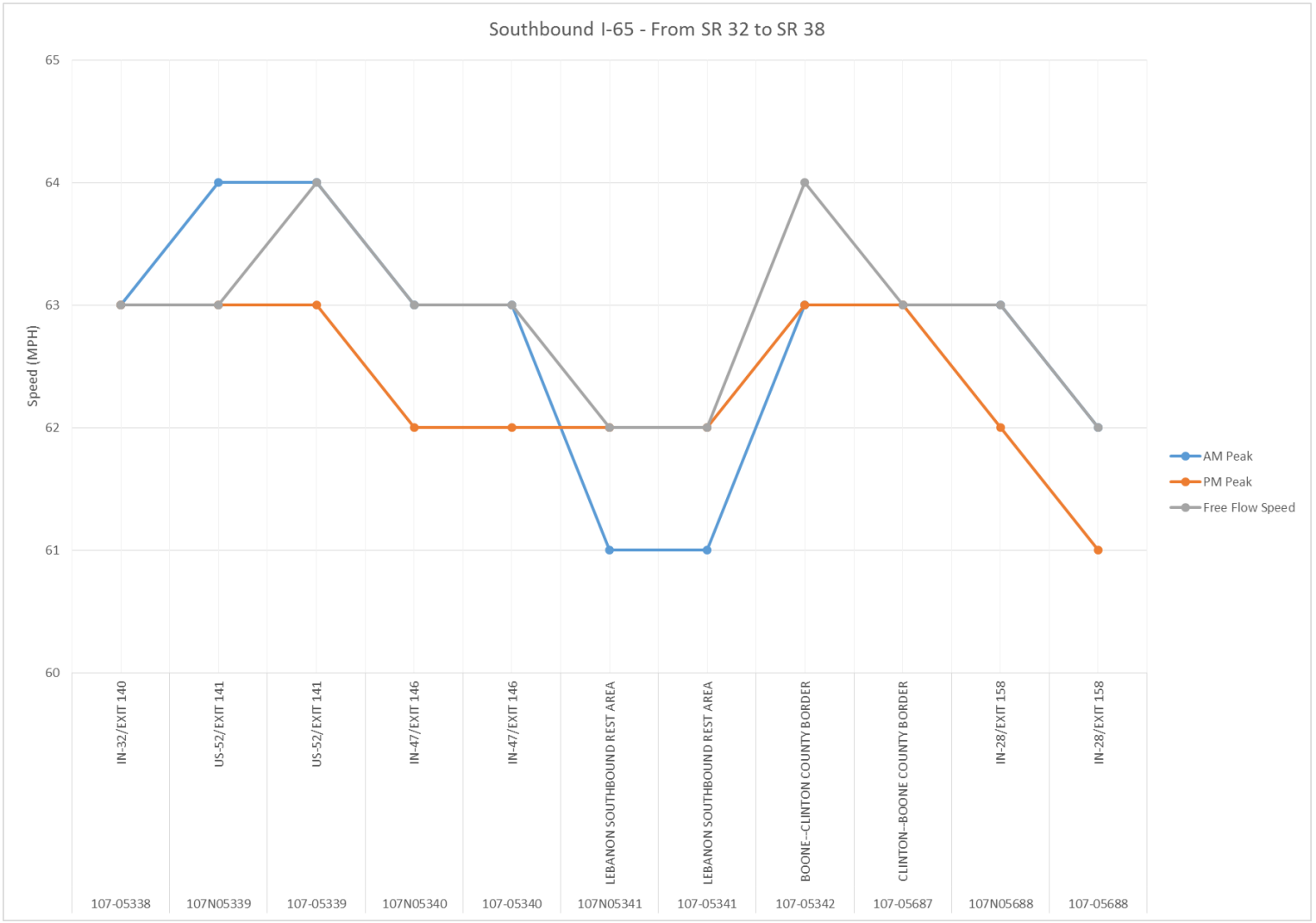


Figure G.55 Speed Data: Northbound I-65 from SR 58 to SR 44

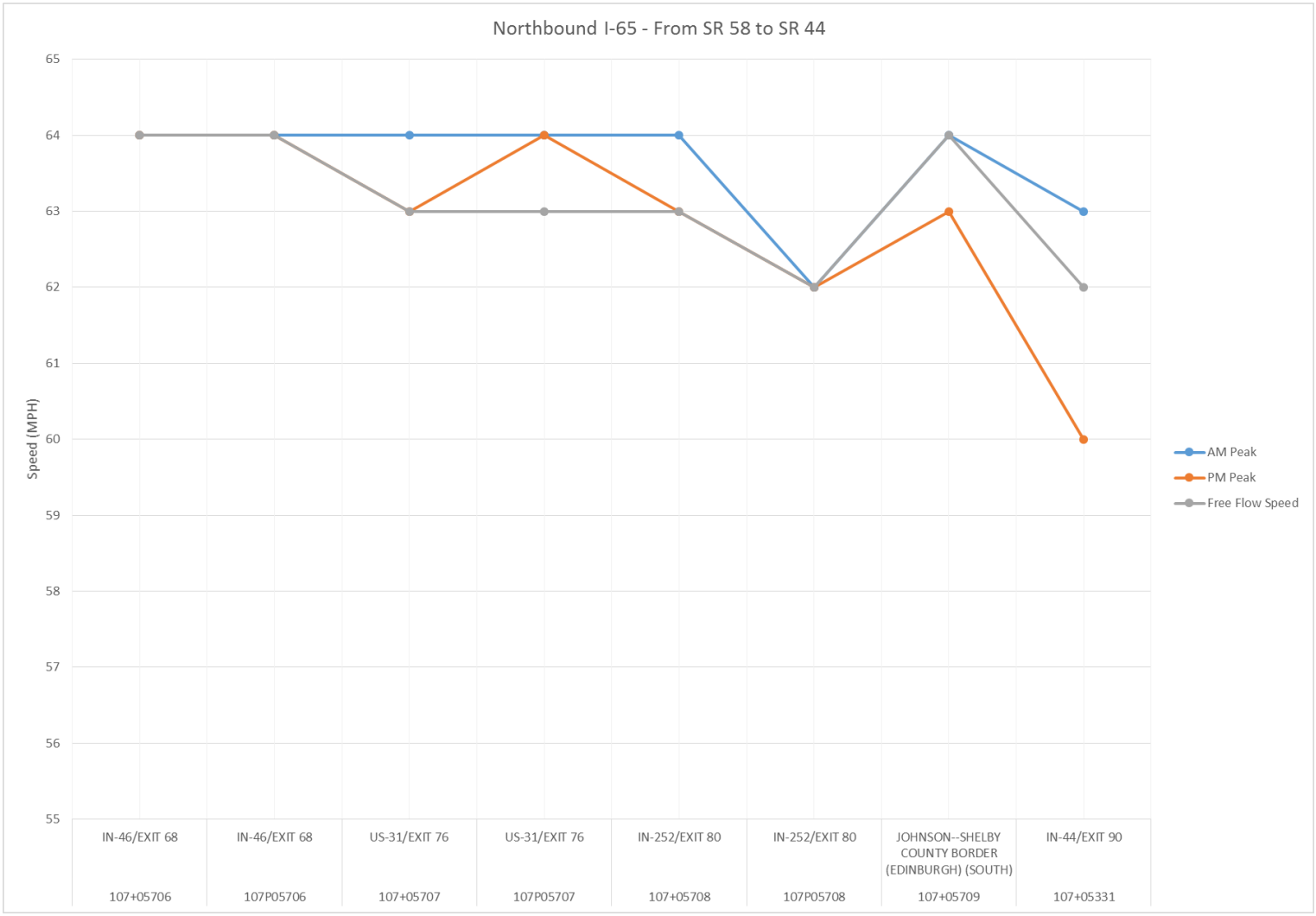


Figure G.56 Speed Data: Southbound I-65 from SR 58 to SR 44

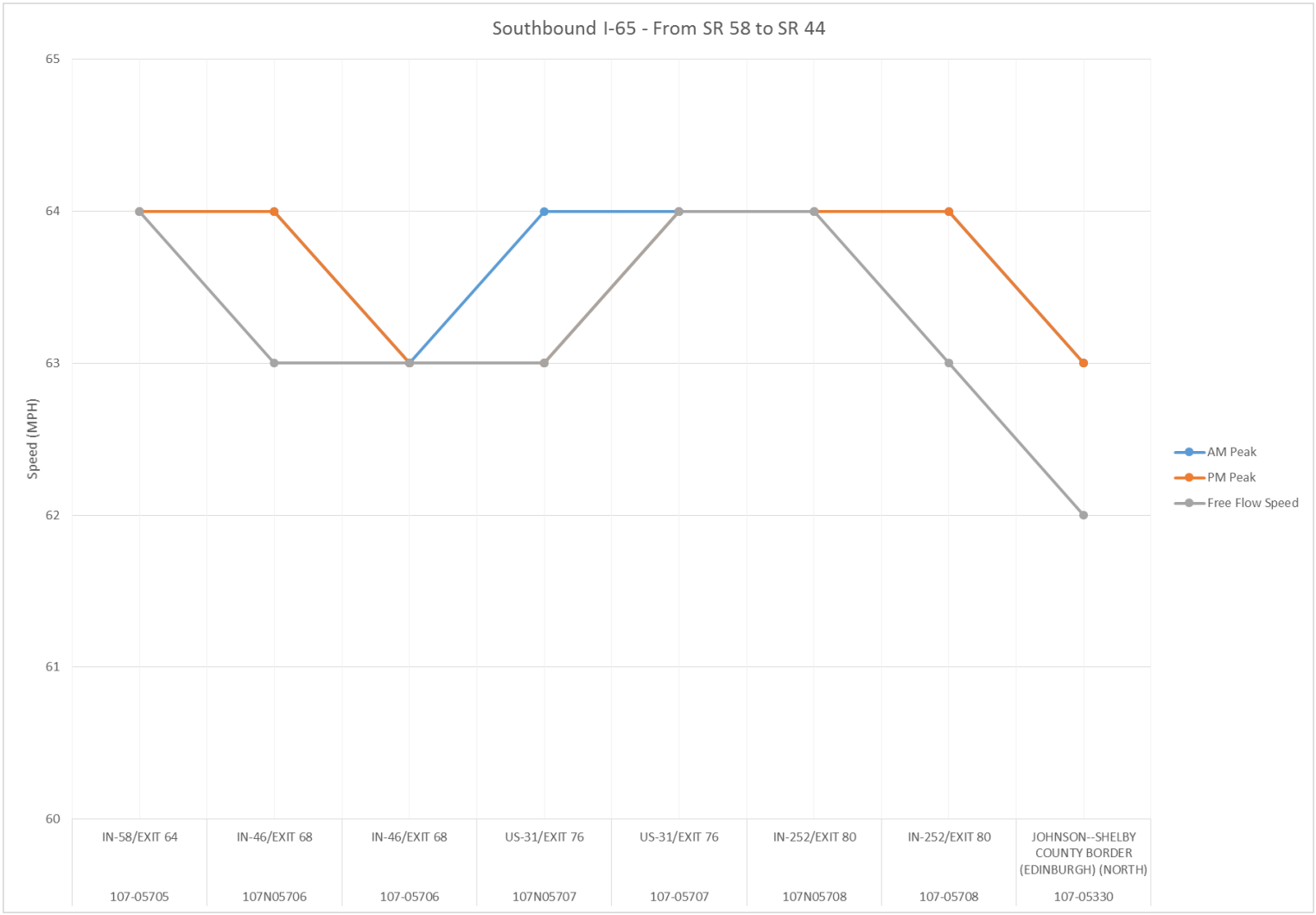


Figure G.57 Speed Data: Eastbound I-80/94 from Illinois State Line to I-65

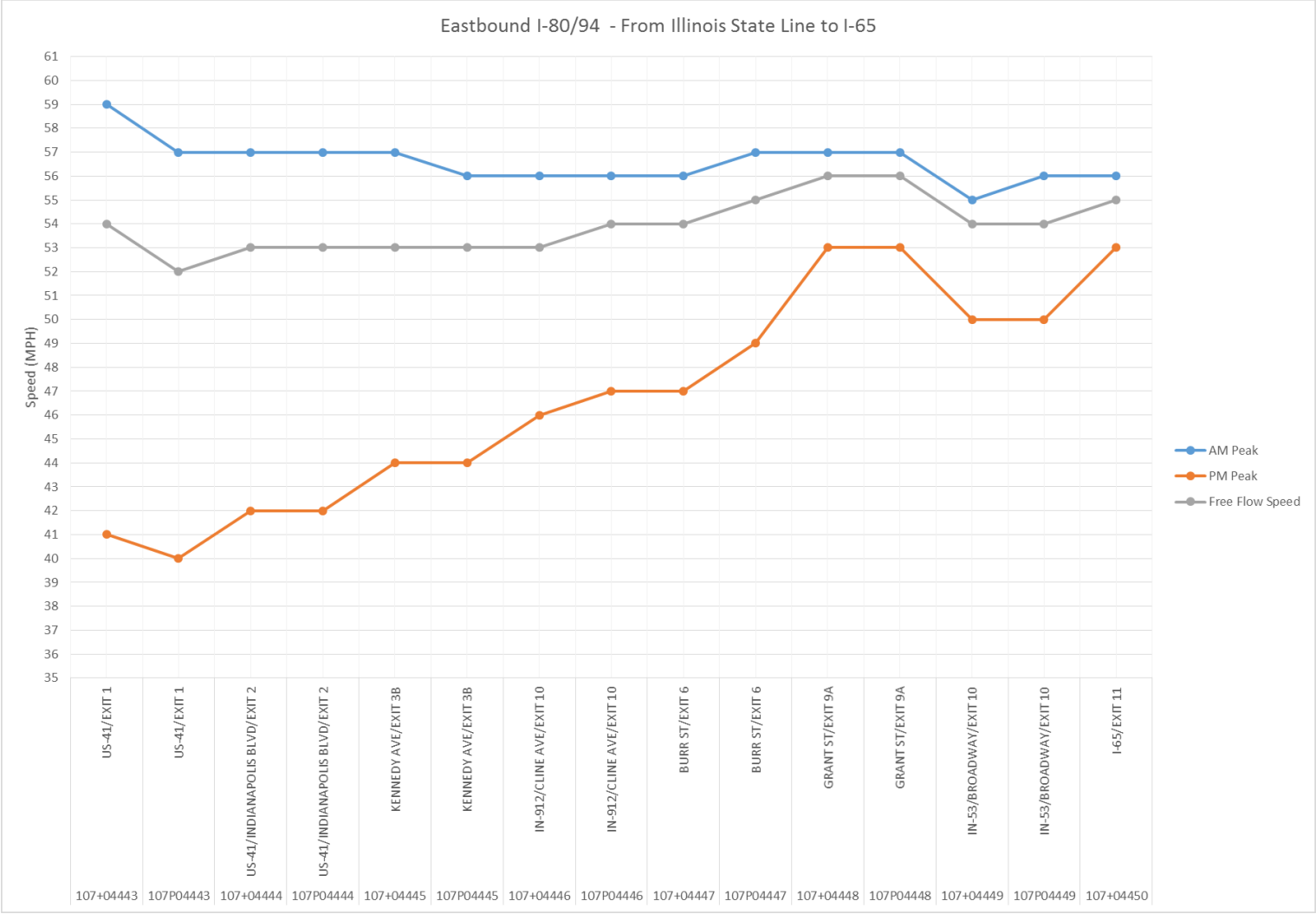


Figure G.58 Speed Data: Westbound I-80/94 from Illinois State Line to I-65

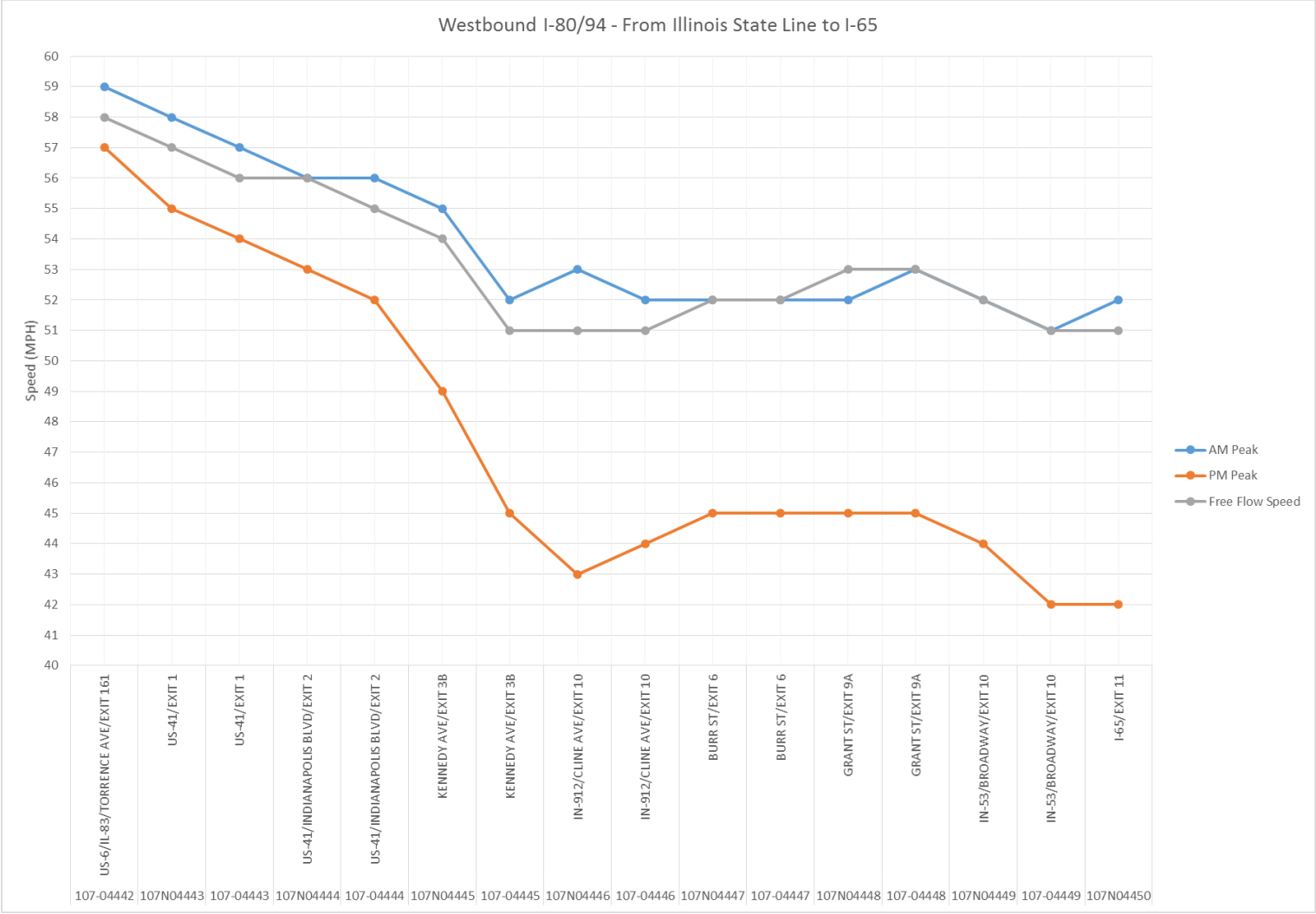


Figure G.59 Speed Data: Eastbound I-64 from SR 64 to Ohio River

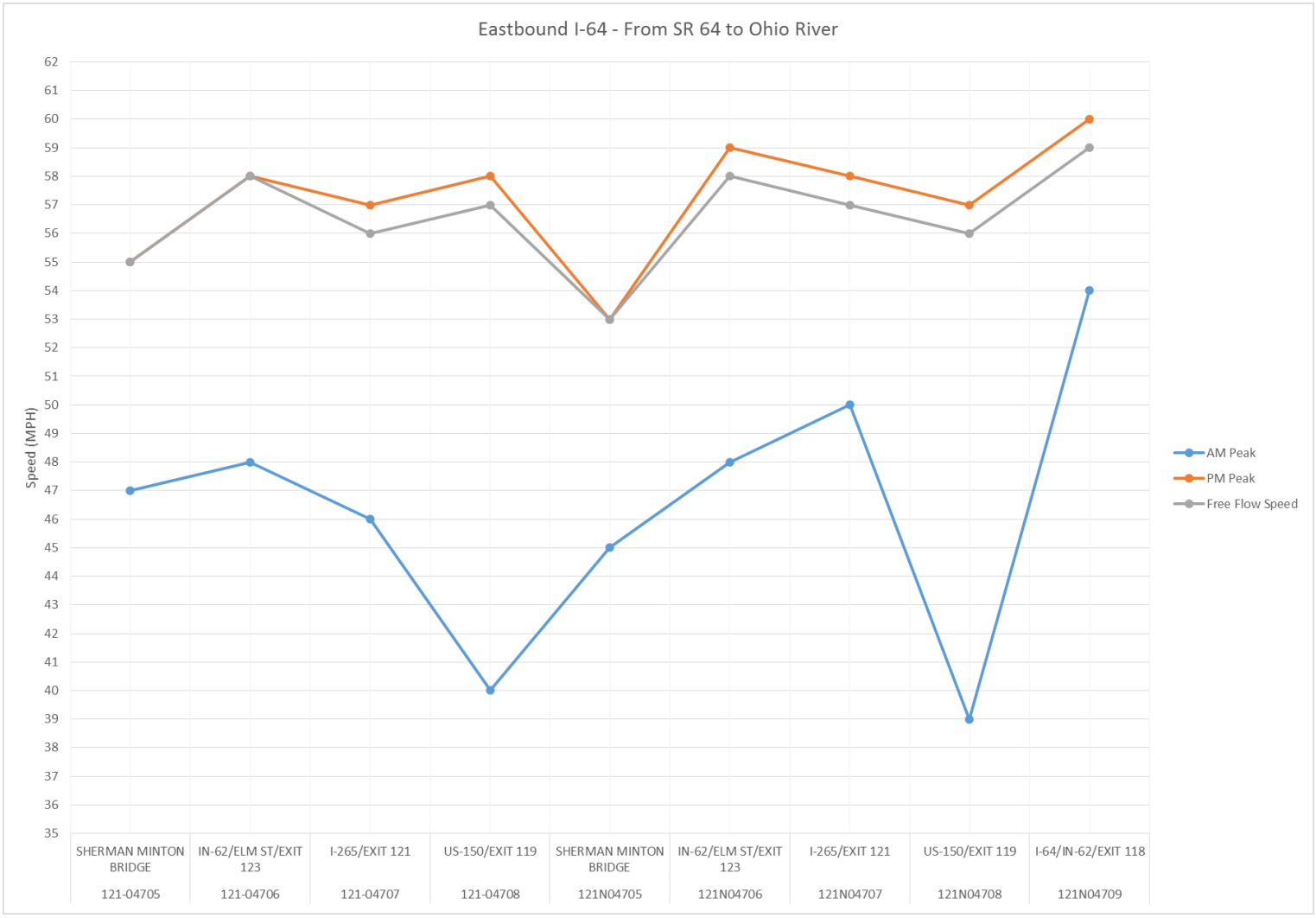


Figure G.60 Speed Data: Westbound I-64 from SR 64 to Ohio River

Figure G.61 Speed Data: Eastbound US 50 from SR 56 to I-275

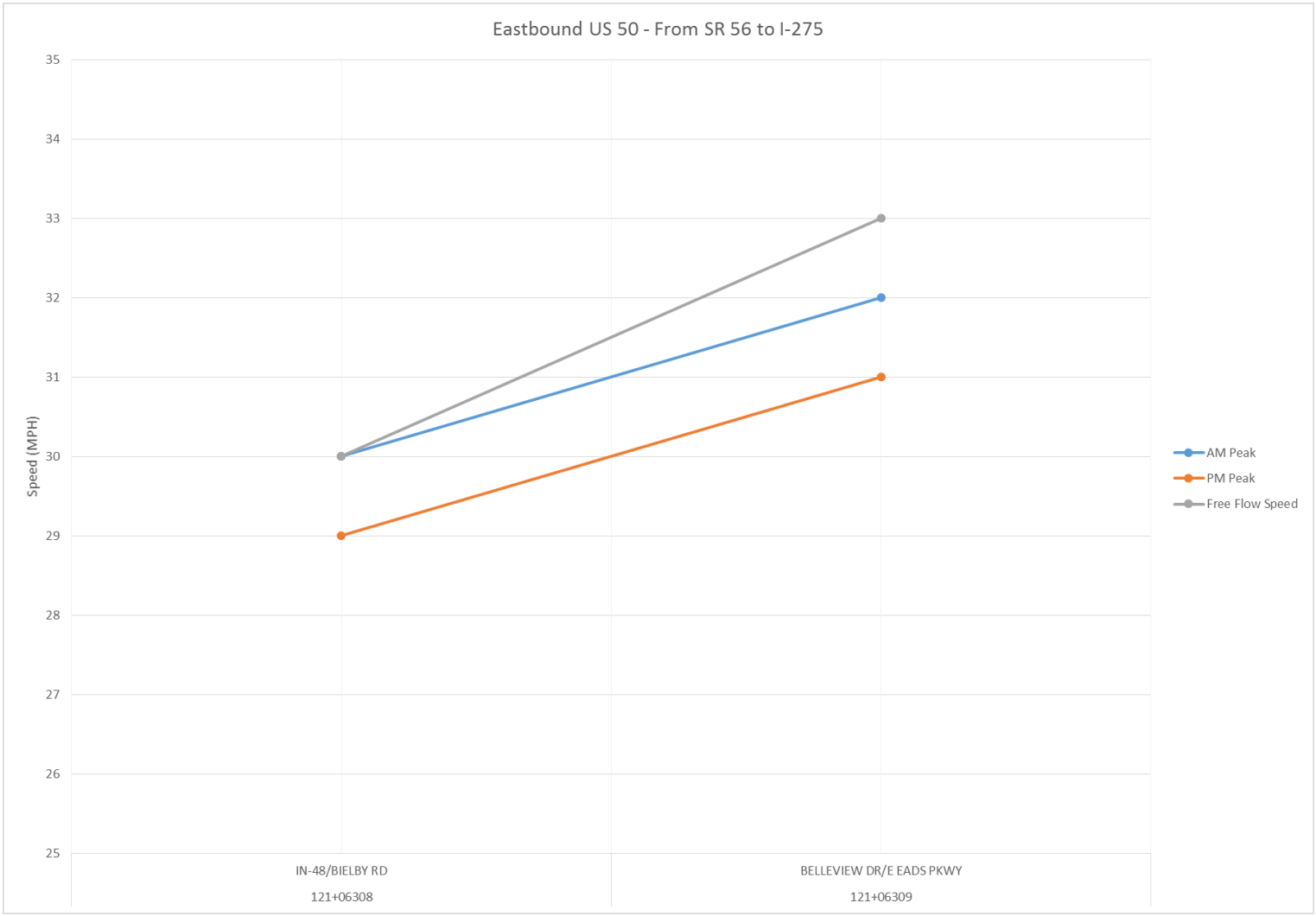


Figure G.62 Speed Data: Westbound US 50 from SR 56 to I-275

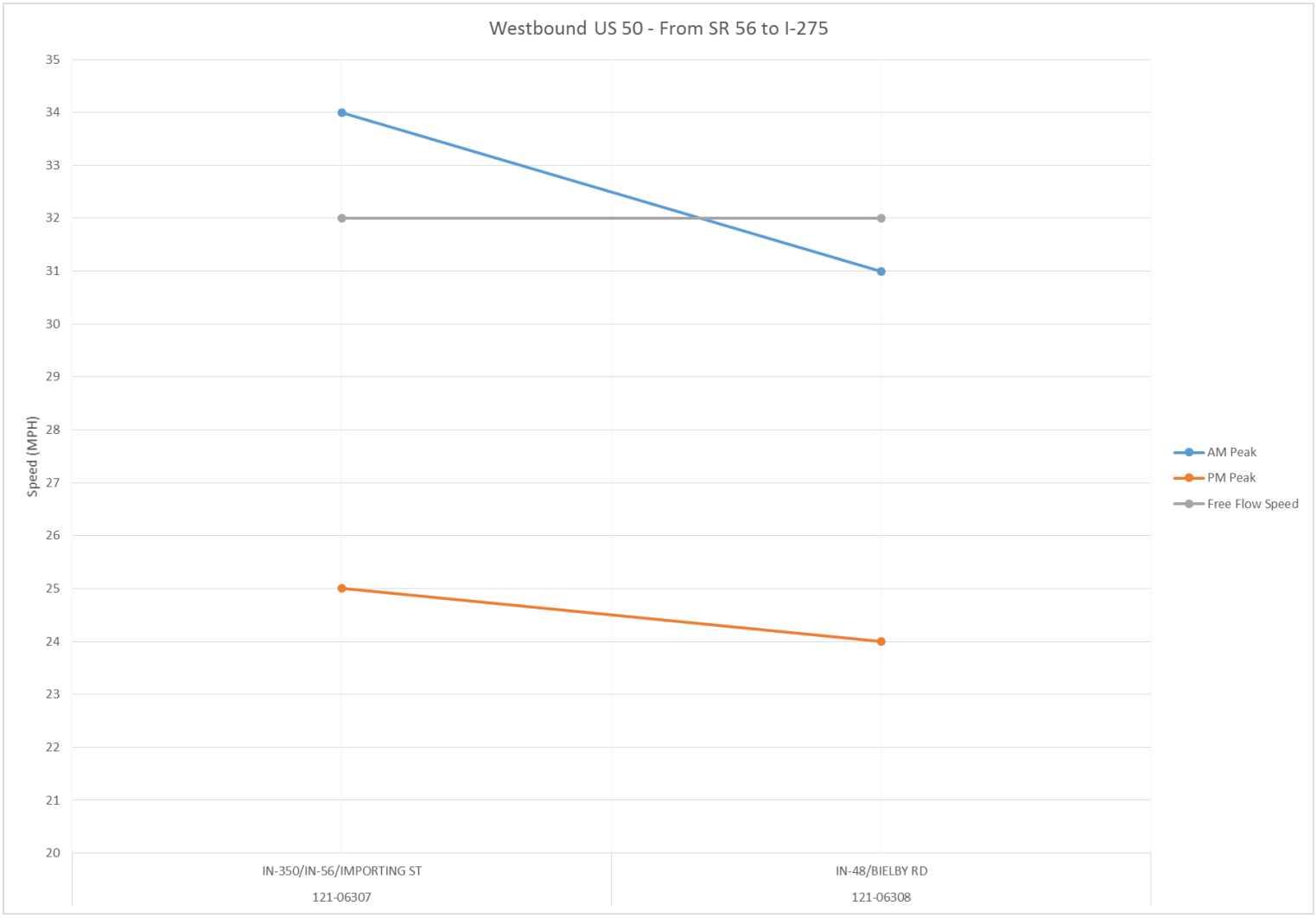


Figure G.63 Speed Data: Northbound US 31 from I-65 (Columbus) to Whiteland Road