Appendix C:
NEPA Alternatives Development and Evaluation

Terminal Alternatives

ST. LOUIS LAMBERT INTERNATIONAL AIRPORT®

CONSOLIDATED TERMINAL PROGRAM

NEPA ALTERNATIVES DEVELOPMENT AND EVALUATION

JULY 2023 – FINAL DRAFT

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1 INTRODUCTION

This section describes the process by which alternatives were developed and evaluated, resulting in the selection of the proposed Consolidated Terminal Program (CTP) as the St Louis Airport Authority's (STLAA's) Preferred Alternative and the Proposed Action. This analysis was conducted as part of the recent STL Master Plan process and meets the requirements of NEPA to rigorously explore and objectively evaluate all reasonable alternatives.

The goal of the alternatives development and evaluation process was to identify a range of alternatives that could achieve the purpose and need and are reasonable. Reasonable alternatives include those that are feasible and are practical from a technical and economic standpoint and using common sense.[1] An alternative is not feasible if it cannot be built as a matter of sound engineering judgment, and only feasible alternatives were developed and included in the STL Master Plan process.

Once a range of preliminary alternatives was established, a multi-step alternatives evaluation process was applied. These steps were referred to in the STL Master Plan as "rounds." The development and evaluation of the preliminary alternatives are summarized in Sections 2 and 3, respectively.

2 PRELIMINARY ALTERNATIVES DEVELOPMENT

The initial analysis considered relocating the terminal(s) and identified 15 potential sites on the Airport property. This exercise revealed that relocating the terminals away from the existing site would require the relocation of I-70, the relocation or decommissioning of runways, and/or construction of new landside access from a highway. All of these factors were considered cost prohibitive and therefore, not practical. Thus, relocation of the terminal(s) was not advanced and only preliminary alternatives in the general area of the existing terminals between the airfield to the north and I-70 to the south were considered.

Preliminary alternatives in the area of the existing terminals (referred to as "concepts" in the STL Master Plan) were developed to achieve the project purpose and need and to avoid impacts to the airfield, I-70,[2] and Coldwater Creek, as well as to accommodate the types of aircraft in the forecast and to maintain MetroLink transit access at STL. To the greatest extent possible, the alternatives avoid impacts to the National Register of Historic Places (NRHP) eligible Lambert Field Historic District, the NRHP-eligible iconic 1956 domes of the existing main terminal ticket lobby, the NRHP-eligible Ozark Air Lines Office, Shop, and

1 Council on Environmental Quality, *Memorandum to Agencies: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, Answer to Questions 1a and 2A, March 23, 1981
2 While MoDOT is studying improvements to I-70 in the vicinity of the airport, it is likely that only minor shifts to I-70 would occur as a result of MoDOT improvements.

Hangar, and the 34-acre Department of Defense property between Lambert International Boulevard and I-70.[3,4]

Two "families" of preliminary alternatives were developed: consolidating the two existing terminals into one terminal and maintaining two separate terminals. Although the initial focus was on the concourse (gate) areas, the STL Master Plan also identified and evaluated three preliminary alternatives for passenger processing (referred to as "processors"), which contain functions such as ticketing, baggage claim, and security screening, and which would be paired later in the screening process with a concourse alternative. The STL Master Plan identified 22 preliminary alternatives: 11 one-terminal concepts, 8 two-terminal concepts, and 3 processor concepts. Included among the two-terminal alternatives were the preferred alternatives from the STL *2012 Master Plan*[5] and the City Airport Advisory Working Group *2019 Due Diligence Report.*[6] The 22 preliminary alternatives developed are illustrated in **Figure 2-1**.[7]

3 The Lambert Field Historic District is comprised of a part of the former Missouri Air National Guard campus (MoANG) northwest of Terminal 1 and it is eligible to the National Register of Historic Places (NRHP). The terminal domes were designed by an important architect, are eligible to the National Register, and are architecturally symbolic of STL. Under Section 4(f) of the U.S. Department of Transportation Act, recodified as Section 303(c), the Secretary of Transportation may approve a transportation project requiring the use of certain resources, including properties listed or eligible for listing on the NRHP, if, after a full evaluation, there is no feasible and prudent alternative to using that resource and the project includes all possible planning to minimize harm resulting from the use. ; thus, the STL Master Plan ensured at least some of the preliminary alternatives avoided these properties.

4 The STL Master Plan ensured at least some of the preliminary alternatives do not require acquisition of the Department of Defense property because acquiring the property and relocating the military uses on the site would be costly, complex, and time-consuming.

5 Landrum & Brown, *Lambert-St. Louis International Airport Master Plan Update*, November 2012.

6 Ricondo on behalf of City Airport Advisory Working Group, *St. Louis Lambert International Airport Vendor Due Diligence Report*, December 2019.

7 Figure 2-1 does not depict Alternatives 21 and 22, which alter the internal use of existing structures.

Figure 2-1: Initial Preliminary Alternatives

Note: Alternatives 10, 11 and 12 are processor alternatives that were paired with concourse alternatives later in the screening process. Alternative 21 (Swap Airline Locations in Existing Terminals) and Alternative 22 (Reopen Entire Concourse D to Connect Terminals 1 and 2), which only alter the internal use of existing structures, are not depicted here.

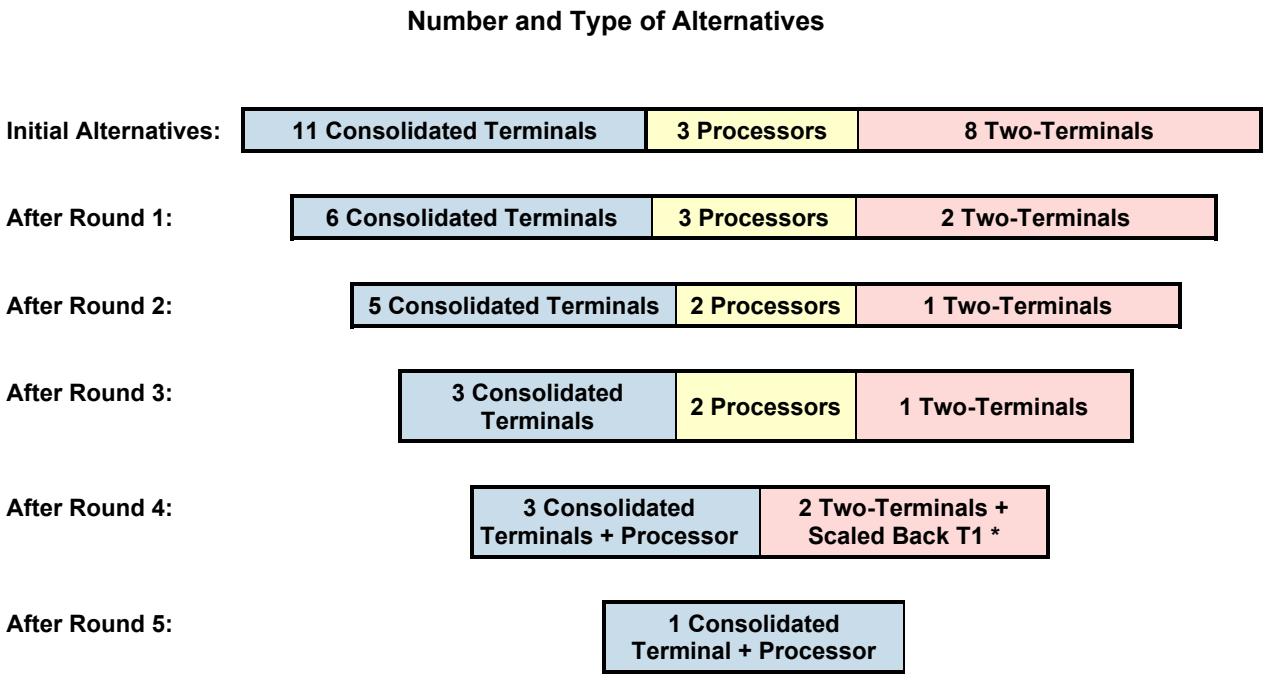
Source: WSP USA, *STL Master Plan*, 2023. WSP USA, *STL Master Plan*, 2023.

3 PRELIMINARY ALTERNATIVES EVALUATION PROCESS AND RESULTS

In the STL Master Plan, the preliminary alternatives were screened in a five-step process, in which a set of screening criteria were applied at each step to narrow the range of preliminary alternatives to be evaluated in more detail in the subsequent step. These steps were referred to in the STL Master Plan as "rounds." In each round, the screening criteria address, in different ways, whether each preliminary alternative achieves the project purpose and need and whether it is practical.

Figure 3-1 illustrates the results of the preliminary alternatives screening process.

Figure 3-1: Alternatives Screening Process



* The one remaining two-terminal alternative was paired with two different scaled-back one-terminal options.

Source: WSP USA, 2023.

The sections below report the results of applying the screening criteria to the preliminary alternatives in the five screening rounds described in the STL Master Plan. The alternatives that did not advance to the subsequent round are identified and the reasons for their elimination from further consideration are provided. **Table 3-1** lists the screening criteria applied in each round and summarizes the results of applying the criteria to each of the preliminary alternatives. As summarized in Table 3-1, Rounds 1, 2 and 3 focused on broad-scale terminal configurations. Round 4 focused on whether each remaining preliminary alternative could, in the limited envelope available between the terminal area and I-70, accommodate the roadway safety and efficiency improvements and parking capacity enhancements required to achieve the purpose and need on the landside. The optimum location of the parking garage is within walking distance from the terminal, both for passenger convenience, and to reduce roadway congestion from parking shuttles; therefore, the garage was maintained in its existing location for the Round 4 analysis.

During the alternatives evaluation process, some of the preliminary alternatives were refined to address particular issues, as reflected in Table 3-1. For example, during Round 2, two variations with an aboveground APM (Alternatives 8A and 8B) were introduced to mitigate the high cost of Alternative 8's underground APM, and Alternative 14 was refined to retain the iconic terminal domes (Alternative 14A). After Round 3, complete alternatives were formed by pairing Alternative 5 (consolidated terminal) with each of the two remaining processors and pairing Alternative 18 with each of two scaled-down single terminal alternatives to form two-terminal alternatives. These four paired alternatives, shown in **Figure 3-2**, as well as Alternative 8A, were advances from Round 4 to the final round of alternatives screening. In Round 5, Alternative 5-P1 was selected as the Preferred Alternative, because it is practical and would achieve the project purpose and need. The other remaining alternatives have one or more of the following limitations: they would be less convenient for some passengers; be more costly to construct, operate and maintain; provide less flexibility for or cost more to address future needs; and/or could result in fewer concession choices for passengers and less non-aeronautical revenue to STL.

Table 3-1: Summary Results of Alternatives Screening

Rounds and Criteria	Alternatives																					
	One Linear Terminal									Processor Only			One Pier or Satellite Terminal		Two Terminals							
Round 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Provides sufficient gate/aircraft parking positions to meet forecast need through 2040																X					X	
Meets industry standards for walking distance, has balanced walking distance to all gates	X	X				X									X						X	X
Provides dual ADG III taxilanes around concourses	X																			X		
Provides workable landside access to curb front																			X			
Avoids Navaid impacts							X															
Results	**X**	**X**	**X**[1]	**A**	**A**	**X**	**X**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**X**	**X**	**A**	**A**	**X**	**X**	**X**	**X**
Round 2				4	5		8	8A[2]	8B[2]	9	10	11	12	13	14		17[3]	18				
Construction Period																						
Reasonable duration for enabling projects																						
Maintains reasonable passenger experience				X																		
Ease of phasing and constructability				X								X										
Maintains safe and efficient operations (terminal, airside, landside)																						
Maintains flexibility to respond to demand																						
End State																						
Provides optimum passenger experience								X														
Relative cost compared to other alternatives								X														
Creates safe and efficient operations (terminal, airside, landside)																	X					
Avoids unacceptable impacts to other facilities																						
Provides flexibility and future expansion potential (beyond 2040)													X									
Results				**X**	**A**			**A**	**X**	**A**	**A**	**A**	**A**	**X**	**A**			**X**	**A**			
Round 3					5		8		8B	9	P1[4]	P2[4]			14	14A[5]			18			
Relative cost compared to other alternatives							X			X												
Acceptable walking distance																						
Acceptable level of Passenger Convenience																						
Maintains STL's image (keep domes)															X							
Results					**A**		**X**		**A**	**X**	**A**	**A**			**X**	**A**			**A**			

(continued on next page)

Rounds and Criteria	Alternatives											
	One Linear Terminal						Processor Only		One Pier or Satellite Terminal		Two Terminals	
Round 4		5[6]		8B			P-1	P-2		14A		18[7]
Fluid, independent roadway traffic flows (separate terminal traffic from non-terminal uses)												
Adequate roadway distance for decision-making and signage												
Prioritizes inbound over outbound roadway improvements (getting to terminal quickly)												
Reserves space for potential future CONRAC												
Keep roads and auto parking out of Runway Protection Zone												
Results		A		A			A	A		X[8]		A
Round 5		5		8B			P-1	P-2				18
Adequate space to address landside issues and for future facilities (e.g., CONRAC)								X				X
Relative cost compared to other alternatives				X				X				X
Passenger experience and convenience												X
Results		PA		X			PA	X				X

Notes:

A Alternative advanced to next round.

X Alternative does not achieve the criteria or is not advanced to next round.

PA Advanced for detailed analysis of environmental impacts as the Proposed Action.

1 Alternative 3 is not advanced because it is very similar to Alternative 5.

2 Two variants of Alternative 8 were introduced to reduce the cost of the Automated People Mover (APM): Alternative 8A moves the APM aboveground on the MetroLink track and Alternative 8B moves the APM aboveground along Lambert International Boulevard.

3 Alternative 17 is not advanced because it is similar to Alternative 18, and in its end state, would have substantial operational issues that Alternative 18 would not have.

4 In Round 3, the two remaining processor alternatives (10 and 11) are renamed P1 and P2, respectively.

5 A variant of Alternative 14 was introduced (14A) to retain the unused domes and repurpose them for non-terminal functions.

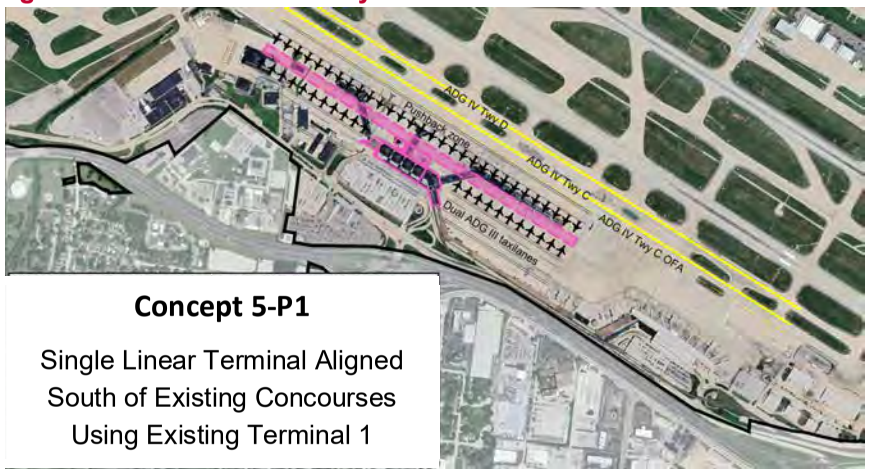
6 Alternative 5 can be paired with either P1 or P2 to make a complete alternative.

7 Alternative 18 can be paired with scaled back version of Alternatives 5 or 14 to make a complete alternative.

8 Alternative 14A was not advanced due to landside access and other problems that cumulatively cause unique problems and impacts of substantial magnitude.

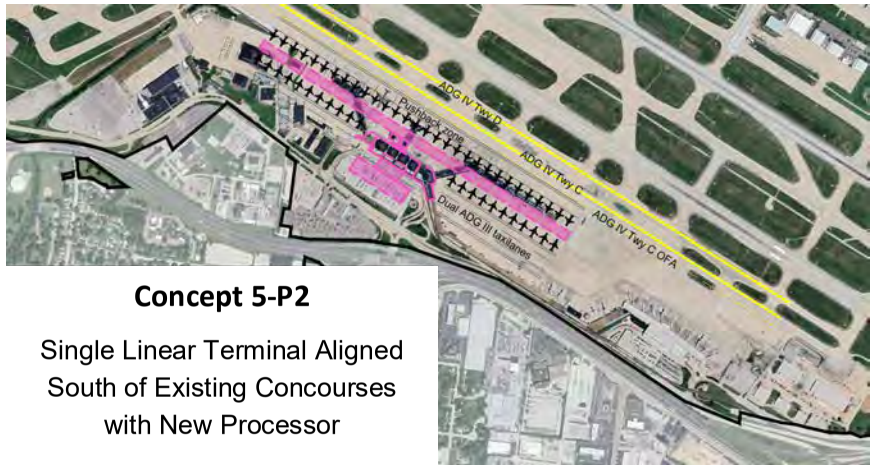
Source: WSP USA, *STL Master Plan*, 2023.

Figure 3-2: Paired Preliminary Alternatives Evaluated in Final Screening Round



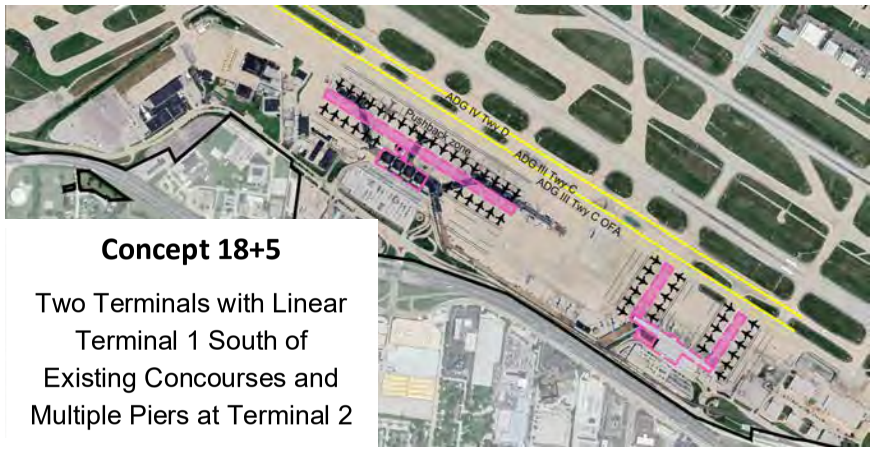
Concept 5-P1

Single Linear Terminal Aligned South of Existing Concourses Using Existing Terminal 1



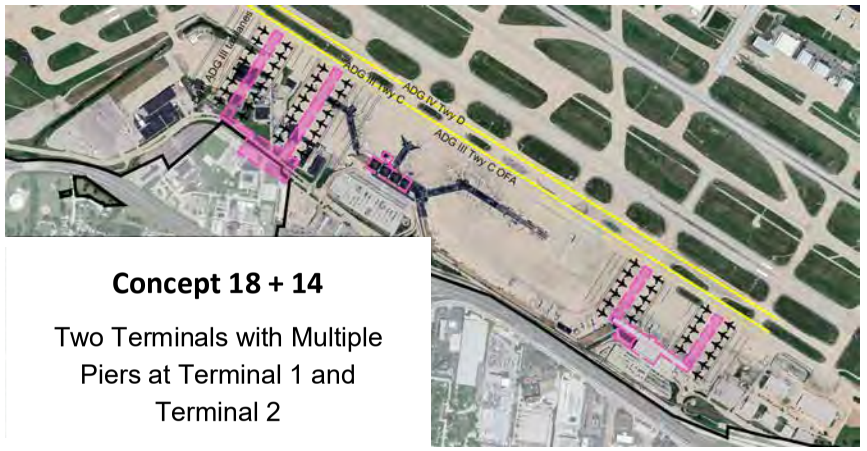
Concept 5-P2

Single Linear Terminal Aligned South of Existing Concourses with New Processor



Concept 18+5

Two Terminals with Linear Terminal 1 South of Existing Concourses and Multiple Piers at Terminal 2



Concept 18 + 14

Two Terminals with Multiple Piers at Terminal 1 and Terminal 2

Note: Alternative 8B, which did not require pairing, was also considered in Round 5.
Source: WSP USA, *STL Master Plan*, 2023.

3.1 TERMINAL ALTERNATIVES SCREENING ROUND 1

In Round 1, the 22 initial preliminary alternatives were evaluated to identify "fatal flaws", using the screening criteria shown in Table 3-1. Eleven preliminary alternatives meet all of the requirements of Screening Round 1 and were advanced to Round 2:

- Six consolidated terminal alternatives: 4, 5, 8, 9, 13 and 14
- Three processor alternatives: 10, 11 and 12
- Two two-terminal alternatives: 17 and 18

Ten preliminary alternatives were not advanced to the next round for the following reasons:

- Alternative 1 would not meet industry standards for walking distances and would not provide dual taxilanes around concourses.
- Alternatives 2, 6, 15, and 22 do not meet industry standards for walking distances and/or do not have balanced walking distance to all gates.
- Alternative 3 is nearly identical to Alternative 5.
- Alternative 7 would have unacceptable impacts to navigation aids (NAVAIDs).
- Alternative 16 would not provide sufficient gate/aircraft parking positions to meet forecast need.
- Alternative 19 would not provide workable landside access to the curb front.
- Alternative 20 would not provide dual taxilanes around concourses.
- Alternative 21 would not provide sufficient gate/aircraft parking positions to meet forecast need and does not have balanced walking distances to all gates.

3.2 TERMINAL ALTERNATIVES SCREENING ROUND 2

In Round 2, the 11 preliminary alternatives advanced from Round 1 were refined and further evaluated. Alternatives 8A and 8B with aboveground APMs were added in Round 2, and with these new variants, a total of 13 preliminary alternatives were evaluated in Round 2. In addition to evaluating the "end state" result of the preliminary alternatives, Round 2 evaluated the impacts on passengers and airport operations during construction, using the screening criteria shown in Table 3-1.

Five preliminary alternatives meet all of the requirements of Screening Round 2 and were advanced to Round 3. Although the two-terminal alternatives are challenging with regard to cost, passenger convenience, and future incremental expansion potential, one of them, Alternative 18, was advanced for refinement and more detailed evaluation at the request of the airlines. In addition, because an APM provides a very high level of passenger comfort, it was decided to advance two APM alternatives, despite the high cost. Therefore, a total of eight preliminary alternatives were advanced to Round 3:

- Five consolidated terminal alternatives: 5, 8, 8B, 9, and 14
- Two processor alternatives: 10 and 11 (hereafter referred to as P1 and P2, respectively)
- One two-terminal alternative: 18

Five preliminary alternatives were not advanced to the next round for the following reasons:

- Alternative 4 is similar to Alternative 5, except it has greater impacts during construction to walking distances and wayfinding and it would be difficult to phase the construction because it would be built over Terminal 1.
- Alternative 8A, in its end state, would not meet industry standards for customer experience and has a very high cost, as it would require building a new MetroLink terminus with processor and security capabilities.
- Processor Alternative 12 would be difficult to phase and construct because it requires building the processor on top of the existing terminal.
- Alternative 13 would be difficult to incrementally add gates as needed, because expansion would require a new pier; it also requires demolishing the terminal domes.
- Alternative 17 is similar to Alternative 18, and in its end state, would have substantial operational issues (gate access congestion inside the piers), which Alternative 18 would not have.

3.3 TERMINAL ALTERNATIVES SCREENING ROUND 3

Six terminal alternatives and two processor-only alternatives advanced from Round 2 and were refined and further evaluated. Alternative 14A was derived to retain the terminal domes with a pier alternative; with this new variant, a total of nine preliminary alternatives were evaluated in Round 3 using the screening criteria shown in Table 3-1.

Six preliminary alternatives meet all of the requirements of Screening Round 3 and were advanced to Round 4, and Alternative 18 is advanced for refinement and more detailed analysis to maintain the option of two terminals:

- Three consolidated terminal alternatives: 5, 8B, and 14A
- Two processor alternatives: P1 and P2
- One two-terminal alternative: 18

Three preliminary alternatives were not advanced to the next round because they are not practical for the following reasons:

- Alternative 8 would have a very high cost to construct the underground APM.
- Alternative 9 would have a very high cost to construct the underground APM and acquire the Department of Defense property, as well as an uncertain time frame to acquire the Department of Defense Property.
- Alternative 14 would have a very high cost and uncertain time frame to acquire the Department of Defense property.

3.4 TERMINAL ALTERNATIVES SCREENING ROUND 4

Four terminal alternatives (5, 8B, 14A and 18) and two processor alternatives (P1 and P2) advanced from Round 3 and were refined and further evaluated in Round 4. Alternative 5 must be paired with a processor and Alternative 18 must be paired with a scaled-down version of a single terminal alternative. Thus, alternatives were paired as follows:

- Consolidated terminal alternatives: 5 with P1 or P2 (5-P1 and 5-P2)
- Two-terminal alternatives: 18+5 and 18+14

These four pairings, along with Alternative 14A and Alternative 8B, are the six preliminary alternatives evaluated in Round 4.

Round 4 was a fatal-flaw assessment of whether practical landside improvements necessary to achieve the project purpose and need could be implemented with each of the preliminary alternatives. Several high-level landside improvement concepts were developed to conduct this assessment, and the preliminary alternatives were assessed, using the criteria in Table 3-1, to determine if they could be successfully paired with at least one of the landside concepts. Five preliminary alternatives that were successfully paired were advanced to Round 5:

- Three consolidated terminal alternatives: 5-P1, 5-P2, and 8B
- Two two-terminal alternatives: 18+5 and 18+14

Alternative 14A was not advanced to the next round because it does not achieve the purpose and need for the following reasons:

- It could not be successfully paired with a landside concept without causing substantial problems, including limited roadway queuing space before the terminal curbside, limited parking and roadway options in front of the terminal, and limited potential for future gate expansion.
- It would require acquisition of the entire Department of Defense property before construction is started, which would be costly, complex, and time-consuming to acquire the property and relocate the military uses, delaying implementation.
- It would position two aircraft parking positions inside the Runway Protection Zone.

3.5 TERMINAL ALTERNATIVES SCREENING ROUND 5

In Round 5, five preliminary alternatives were refined and further evaluated. Alternative 5-P1 is the Preferred Alternative, because it is practical and would achieve the project purpose and need.

The other one-terminal alternatives were not advanced for the following reasons:

- Alternative 5-P2 was not advanced because the location of the processor would reduce the potential for addressing existing landside issues and limit future landside expansion potential. In addition, while this alternative retains the terminal domes, they would serve only as a pass-through area and the cost of operating and maintaining them for this purpose is an inefficient use of airport revenue.

- Alternative 8B was not advanced because it is substantially more costly than other alternatives, because it includes an APM, which is costly to install and maintain and would require additional cost for a tunnel for baggage conveyance between the terminal processor and the concourses.

The two-terminal alternatives (5+18 and 5+14) were not advanced because:

- Two terminals are less convenient for passengers who have connecting flights in different terminals and for some international passengers, because the Federal Inspection Service/U.S. Customs (FIS) would be located in one terminal, requiring them to travel between the terminals and recheck bags.
- Two terminals would likely provide a narrower range of post-security concession choices to passengers, due to duplication of concessions in each of the two terminals; this could also result in less non-aeronautical revenue to STL.
- There are substantial space challenges on the landside in the vicinity of Terminal 2, with limited space to improve roadway and curb access and potentially requiring tradeoffs between addressing future development and parking needs.
- Construction and operation and maintenance costs for two terminals are notably higher than for one terminal because more total space is needed, and services and resources must be duplicated.
- The incremental cost of adding new gates beyond the planning period is orders of magnitude higher at Terminal 2 because it would require a new pier, whereas a consolidated terminal could be incrementally expanded.

4 ALTERNATIVES ADVANCED FOR ENVIRONMENTAL EVALUATION

Two alternatives advanced for detailed evaluation of environmental consequences, the No Action Alternative and the Proposed Action, are described below.

4.1 NO ACTION ALTERNATIVE

While a No Action Alternative does not meet the project purpose and need, it is required by NEPA and the regulations of the Council on Environmental Quality to be carried forward for analysis of environmental consequences. With the No Action Alternative, the Proposed Action would not be constructed, and the STL terminals would continue to operate as they currently do. The No Action Alternative serves as a baseline against which to evaluate the impacts of the Proposed Action.

4.2 PREFERRED ALTERNATIVE (ALTERNATIVE 5-P1)

Alternative 5-P1 would:

- Enhance the passenger experience by providing an optimum level of passenger service.
- Enhance the passenger experience and airport revenue by increasing space for concessions, and therefore the variety of concessions, on the post-security screening side.
- Reduce operating and maintenance costs by eliminating aging and redundant building systems and duplication of services in two terminals.
- Ensure continued safe, secure, and efficient operations by providing sufficient space and facilities for current and forecast passenger demand and aircraft operations.

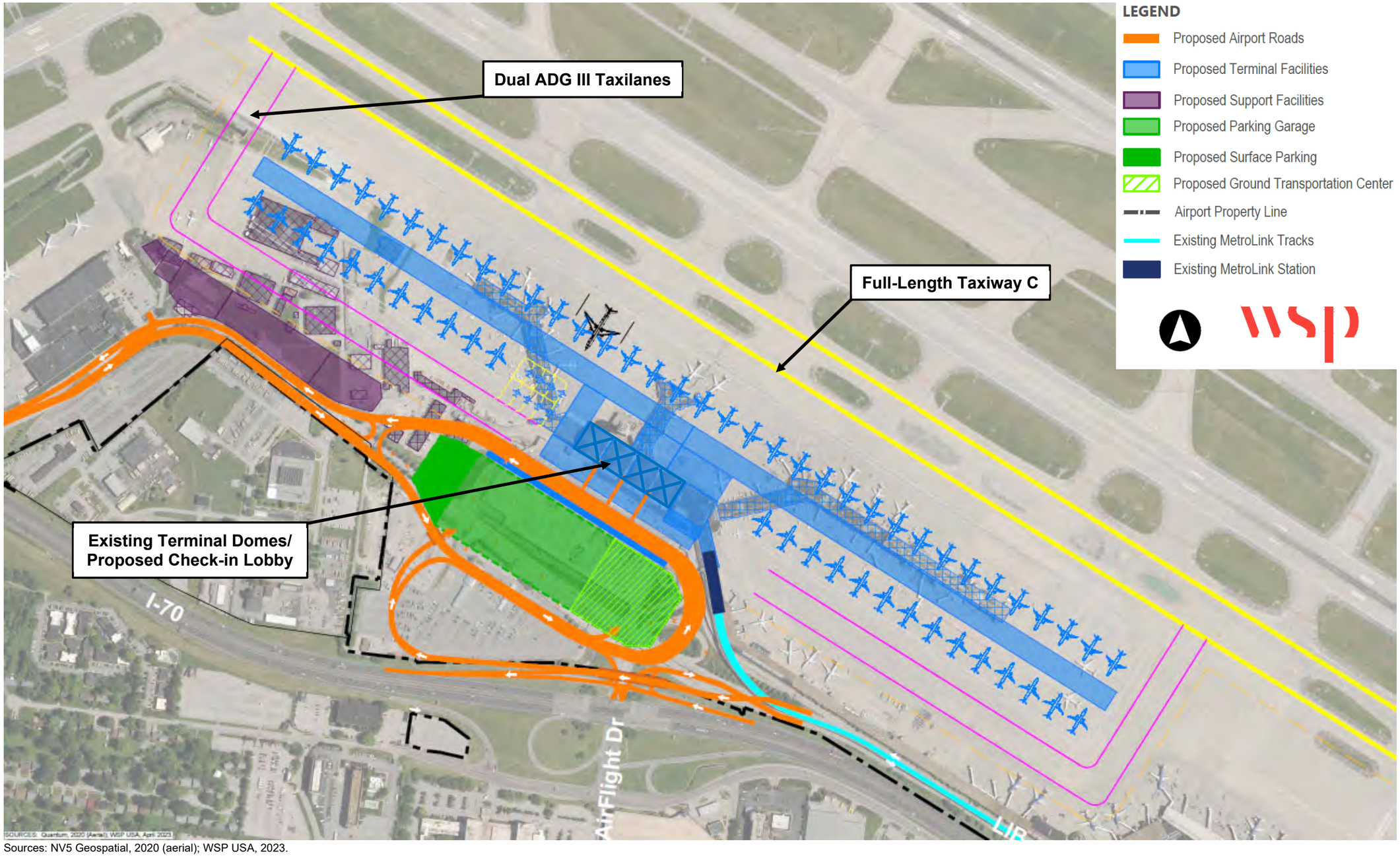
Additional benefits of the Preferred Alternative include:

- Improved airfield operations because it accommodates a full-length Taxiway C, Airplane Design Group (ADG) III dual taxilanes around the concourse, and it avoids aircraft pushing back onto Taxiway C;
- The ability to accommodate future incremental concourse expansion;
- Preservation and use of the terminal domes, which are architecturally symbolic of STL and eligible for listing on the National Register of Historic Places; and
- The opportunity to provide a new airport entrance.

The Preferred Alternative replaces the existing Terminals 1 and 2 with a consolidated terminal centered on the location of the existing Terminal 1, as depicted in **Figure 4-1.** It includes:

- A new, 110-foot-wide linear concourse, with potential for up to 62 gates in 2040 and a maximum walking distance of 2,500 feet from the security checkpoint to the farthest gate (up to 29 narrowbody gates are planned to be available upon opening in 2029);
- A full-length Taxiway C, and ADG III dual taxilanes around the concourse;
- A reconfigured check-in lobby that incorporates the terminal domes;
- New consolidated security screening centered between the check-in lobby and the concourse;
- A Federal Inspectional Service (customs) accessible to all carriers;
- A new baggage claim area on the lower level;
- A two-level passenger drop-off and pick-up curb with departures on the upper level and arrivals on the lower level;
- A new parking garage and ground transportation center directly across from the terminal;
- Space on the landside to improve driver wayfinding and decision making in the terminal roadway system and airport access; and
- Closing Terminal 2 and mothballing until a potential reuse of Terminal 2 is identified.

Figure 4-1: Sponsor's Preferred Alternative



Sources: NV5 Geospatial, 2020 (aerial); WSP USA, 2023.

Roadway Access Alternatives

5.4.1 AIRPORT ACCESS ROADS

The focus of landside improvements was to simplify the flow of traffic, reduce weaving and provide for easier decision-making while also handling the new traffic patterns. The main terminal access issue includes short decision distances that don't provide enough time for drivers to safely and efficiently move from the highway to either the curbside or parking facilities. Ideally, a single entrance to the airport would be used as the airport gateway. The airport entrance must be simple, allow free flow of traffic (no, or few, intersections and traffic signals ideally) and provide people plenty of decision time.

Ideally, airport access provides plenty of distance between the highway and the airport facilities. Figure 5.3-13 shows an ideal generic terminal access configuration. This configuration provides about a one-mile access road off the highway. This configuration simplifies traffic flow and provides ample distance for decision-making.

SUMMARY OF PASSENGER ROADWAY REQUIREMENTS

The following issues and requirements were identified for the STL roadway facilities through 2040:

- Simplify access to/from the Airport
- Provide a dedicated approach road to the airport terminals and related facilities, in order to:
  - Provide a world-class driver experience
  - Allow better decision distances
  - Minimize confusion and lead to more driver-intuitive roads
  - Reduce conflict points and congestion

Goals for terminal access prioritized passengers, employees and shuttles.

INITIAL CONCEPTS DEVELOPMENT

Thirty initial high-level roadway access concepts were developed, without cost being a key factor, and therefore consisted of several direct connectors to the interstate to provide for improved traffic flow.

Figures 5.4-1 through **5.4-12** summarize the 30 initial concepts, including the "No Build" concept and a "Minor Improvements" concept. Some concepts dramatically improve access to/from the Airport, but includes several major roadway reconstructions, elevated structures and potential right-of-way (ROW) requirements.

Figure 5.4-1: No-Build and Minor Improvement Concepts

Source: WSP USA, 2022.

Figure 5.4-2: Concept 1 - One-way Outer Roads with Slip Ramps

Source: WSP USA, 2022.

Figure 5.4-3: Concept 2 - Realign I-70 to the North

Source: WSP USA, 2022.

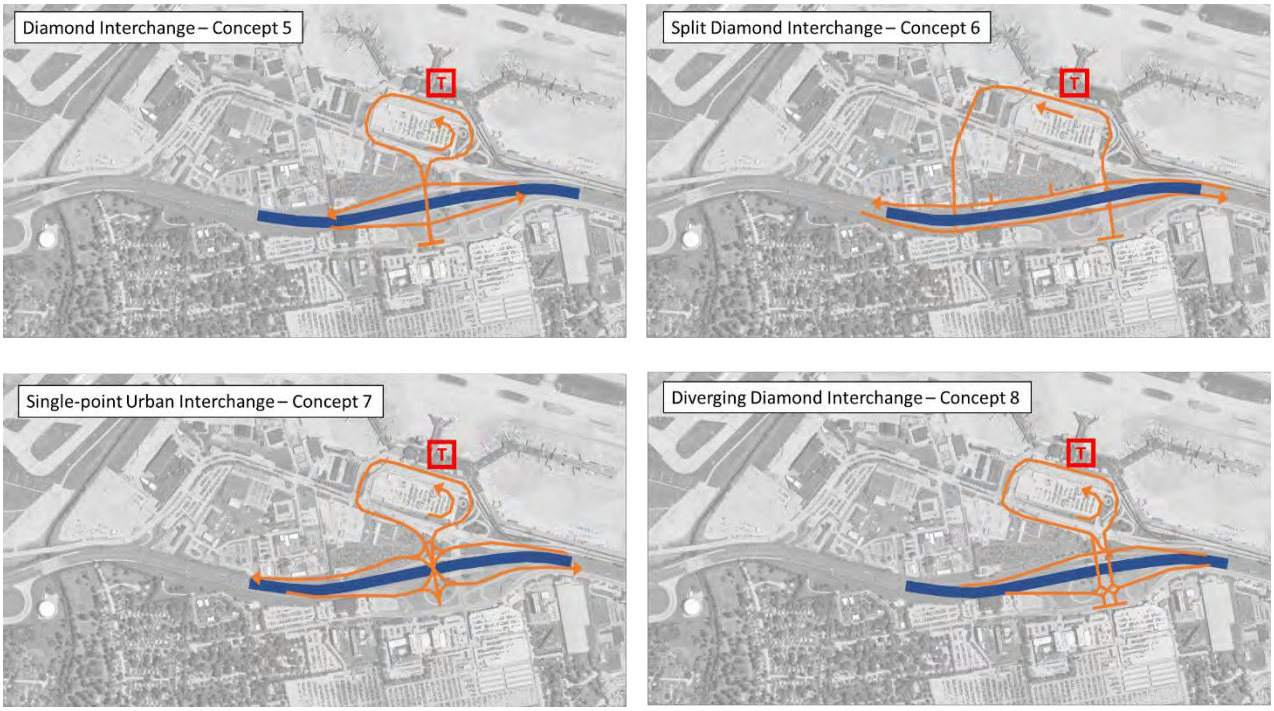
Figure 5.4-4: Concept 3 - Major Re-alignment of I-70 to the North with Tunnel

Source: WSP USA, 2022.

Figure 5.4-5: Concept 4 - Depress or Elevate I-70 Mainline

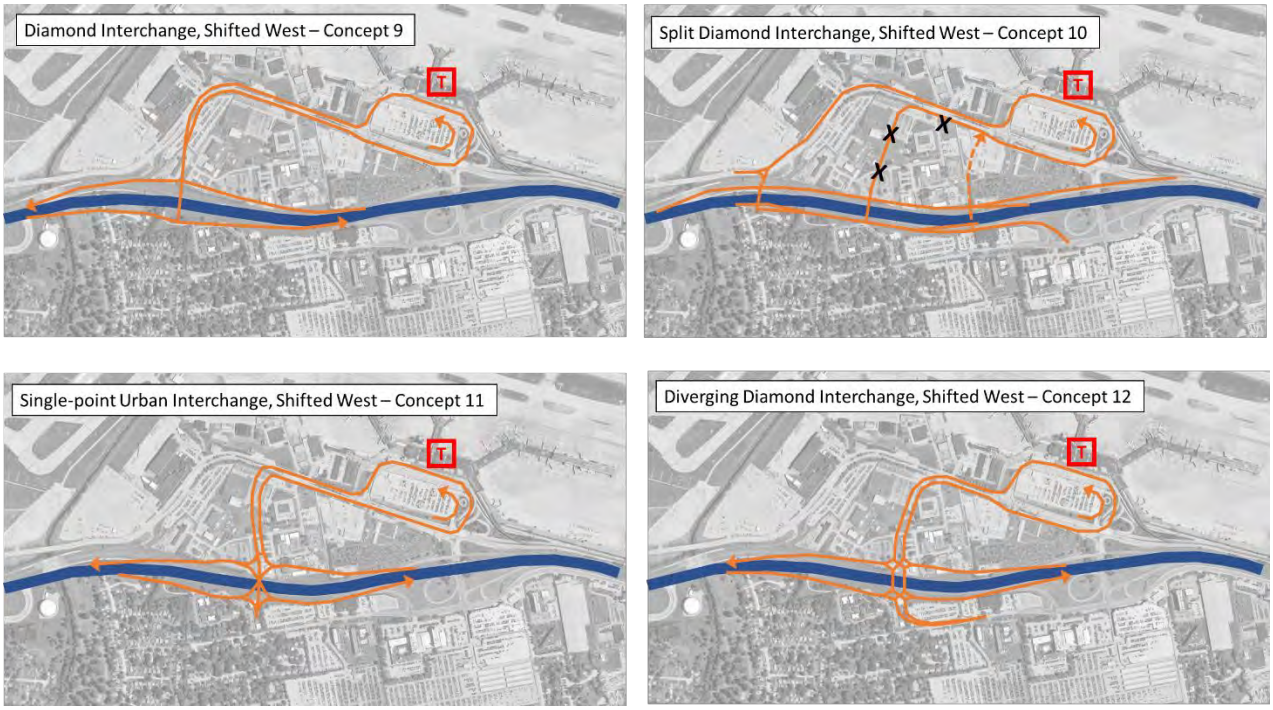
Source: WSP USA, 2022.

Figure 5.4-6: Concepts 5, 6, 7 and 8 - Various Interchange Types at Airflight Drive



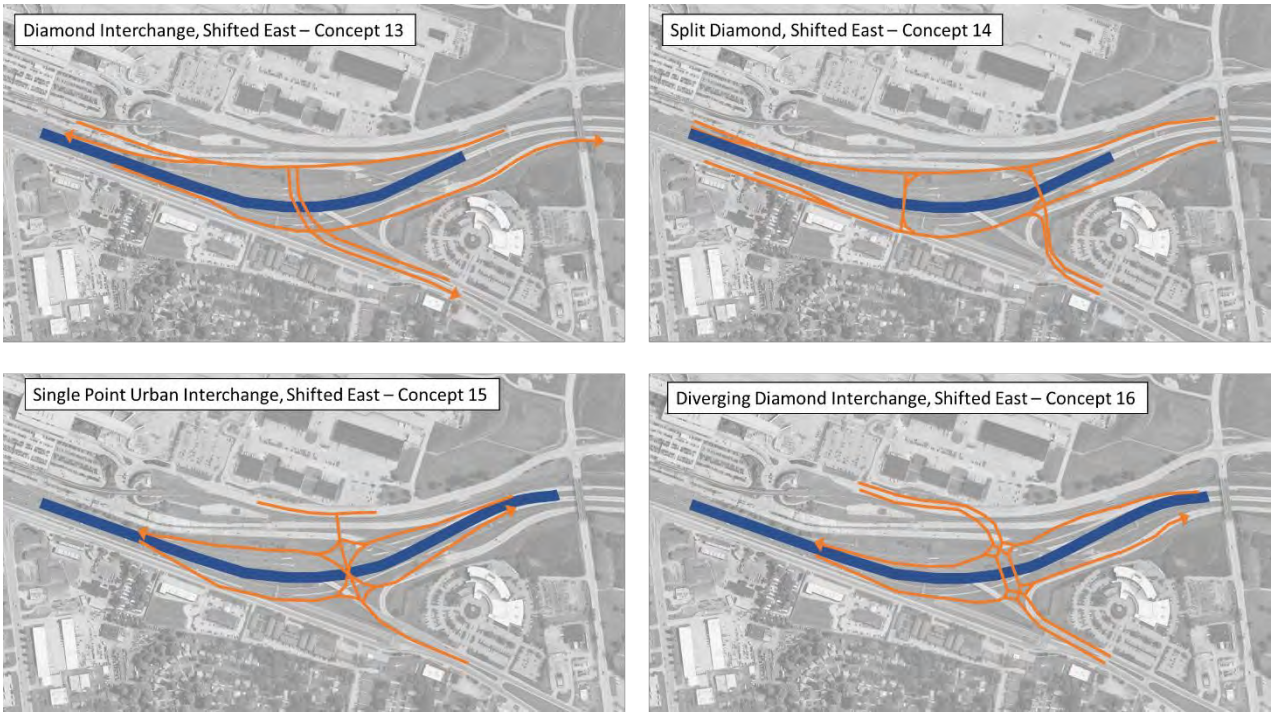
Source: WSP USA, 2022.

Figure 5.4-7: Concepts 9, 10, 11 and 12 - Various Interchange Types West of Airflight Drive



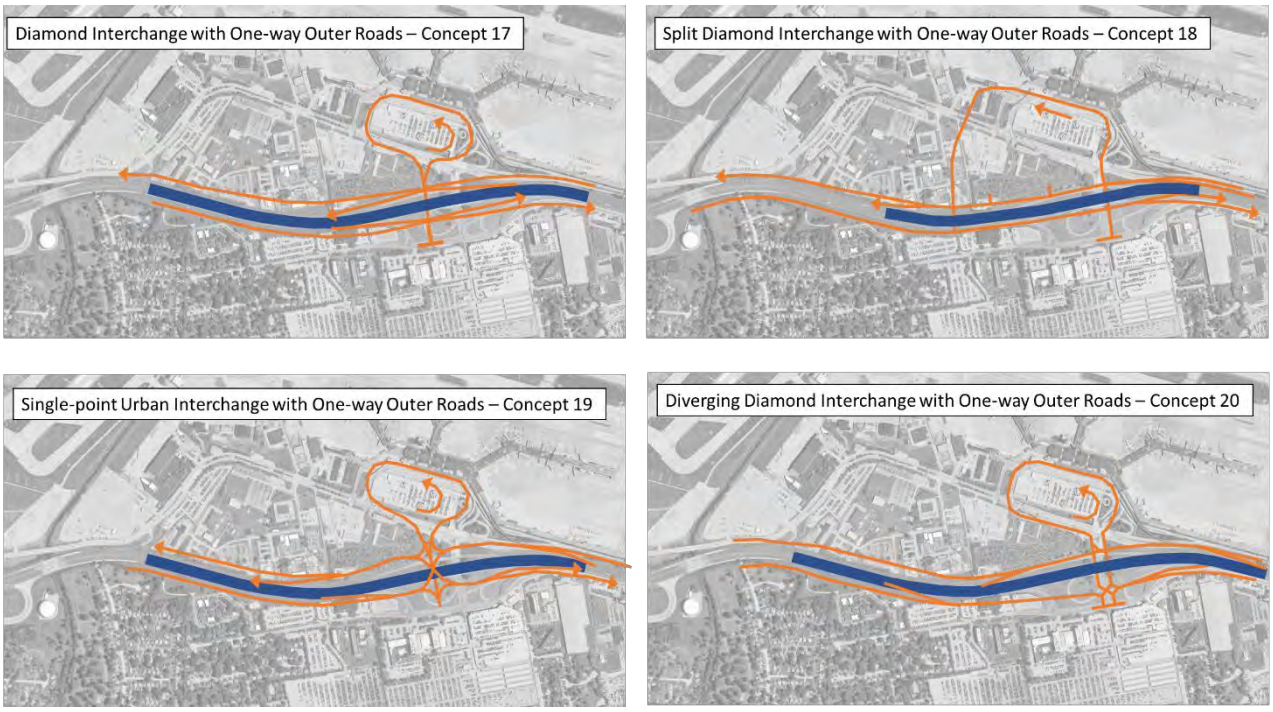
Source: WSP USA, 2022.

Figure 5.4-8: Concepts 13, 14, 15 and 16 - Various Interchange Types East of Airflight Drive



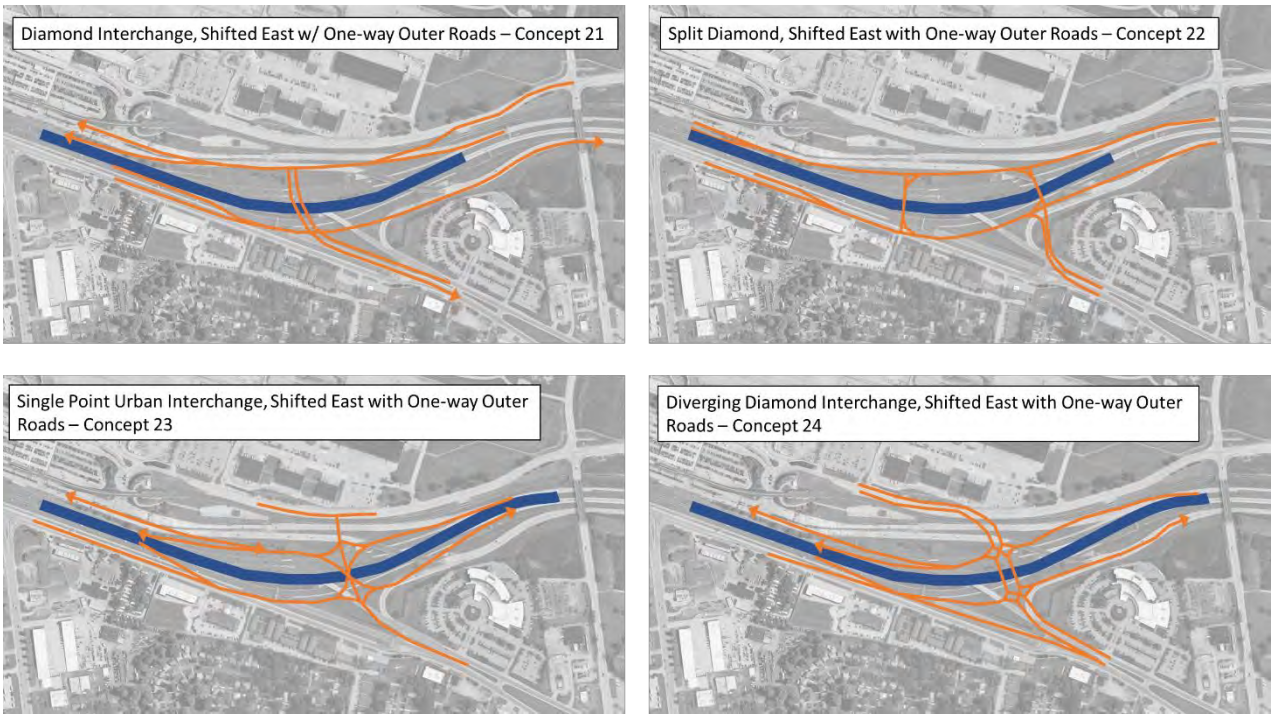
Source: WSP USA, 2022.

Figure 5.4-9: Concepts 17, 18, 19 and 20 - Various Interchange Types at Airflight Drive Combined with One-way Outer Roads



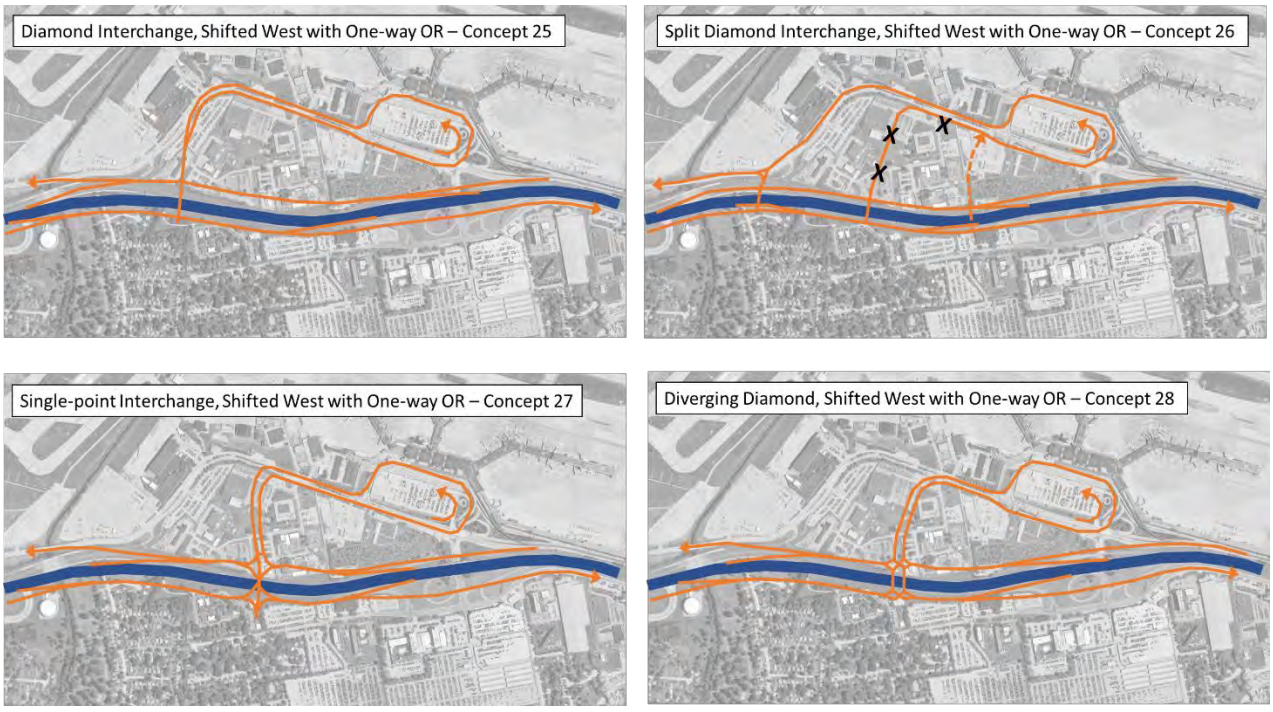
Source: WSP USA, 2022.

Figure 5.4-10: Concepts 21, 22, 23 and 24 - Various Interchange Types East of Airflight Drive Combined with One-way Outer Roads



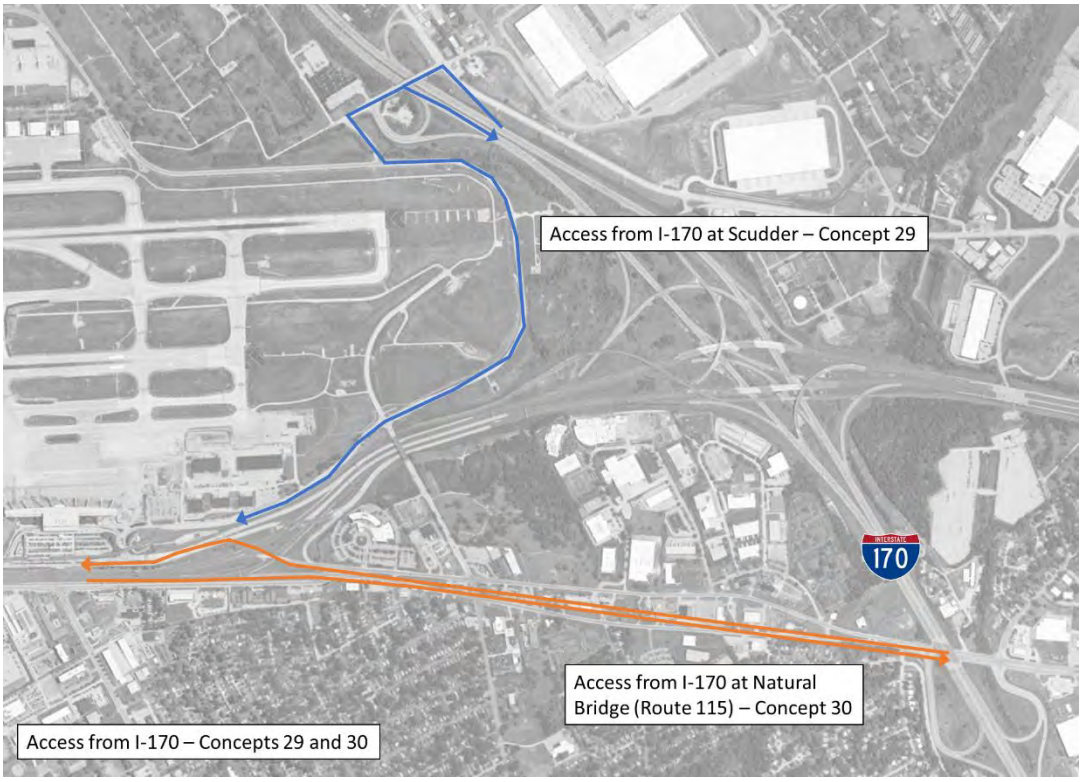
Source: WSP USA, 2022.

Figure 5.4-11: Concepts 25, 26, 27 and 28 - Various Interchange Types West of Airflight Drive Combined with One-way Outer Roads



Source: WSP USA, 2022.

Figure 5.4-12: Concepts 29 and 30 - Access from I-170



Source: WSP USA, 2022.

CONCEPT SCREENING

Each of the 30 roadway access concepts were evaluated through an initial screening process. Screening criteria were developed, weighted and applied to each of the 30 concepts. The screening criteria are:

- Access is simple/simplified
- Full access is provided (to and from EB and WB I-70)
- Access provides ample decision-making time/distance
- Sufficient capacity is provided
- Connectivity to local roads is available
- Opportunity for a grand entryway to STL and the region
- Improved north-south connectivity
- Improved bicycle and pedestrian access
- Avoids Runway Protection Zone
- Provides access to parking
- Avoids DOD property
- Order of magnitude cost (high, medium, low; noted for reference)

Table 5.4-1 summarizes the results of the initial screening. Each screening criteria was weighted on a scale of 1 to 3 scale. Several roadway planners individually screened each concept against the criteria, by allocating a score of 0, 1 or 2 (low, medium or high) to each screening criteria. Screening results from each planner were then consolidated, reviewed and finalized.

Table 5.4-1: Results of Initial Roadway Concepts Screening

Concept No.	Alternative	Alt Description	Simplified Access	Symmetrical (Full) Access	Long Decision Making	Sufficient Capacity	Good Local Access	Gateway (Grand) Entry	Improved North-South Connectivity	Improved Bike/Ped Circulation	New Roadway Alignment Inside RPZ	Good Access to Parking Options	Avoids DOD Property	TOTAL	Order of Magnitude Cost
0	No-build	Existing ramp/access configuration	0	2	0	0	0	0	0	0	2	1	2	10	L
1	One-way outer roads, slip ramps	Ramp locations variable	0	2	1	2	0	0	0	1	2	1	0	16	M
2	I-70 Realignment to the North	Combine with Alts 5 thru 8												NA	M
3	Major realignment of I-70, Tunnel	Combine with Alts 5 thru 8	2	0	2	1	0	1	0	0	1	2	0	16	H
4	Depress or Elevate I-70	Combine with any other Alts												NA	H
5	Diamond Interchange	at Airflight	2	2	1	0	0	0	0	1	2	1	1	14	L
6	Split Diamond Interchange	at Airflight	2	1	1	1	0	0	0	2	2	1	0	16	M
7	Single point Urban Interchange	at Airflight	2	2	1	0	0	0	0	1	2	1	1	14	L
8	Diverging Diamond Interchange	at Airflight	2	2	1	0	0	0	0	1	2	1	1	14	L
9	Diamond Interchange	Towards or at Cypress	2	2	2	1	1	2	0	0	1	1	1	22	M
10	Split Diamond Interchange	Towards or at Cypress	2	1	2	2	1	2	1	2	2	1	1	31	M
11	Single point Urban Interchange	Towards or at Cypress	2	2	2	1	1	2	1	1	2	1	0	25	M
12	Diverging Diamond Interchange	Towards or at Cypress	2	2	2	1	1	2	1	1	2	1	0	25	M
13	Diamond Interchange	Towards or at Natural Bridge	2	2	2	1	1	2	1	1	2	1	2	29	M
14	Split Diamond Interchange	Towards or at Natural Bridge	2	1	2	2	2	2	1	2	2	1	2	35	M
15	Single point Urban Interchange	Towards or at Natural Bridge	2	2	2	1	0	2	1	1	2	1	2	27	M
16	Diverging Diamond Interchange	Towards or at Natural Bridge	2	2	2	1	0	2	1	1	2	1	2	27	M
SCORE WEIGHTING			1	1	2	3	2	2	2	2	1	2	2		

Source: WSP USA, 2022.

Concepts 17 through 30 were scored with similar results. The addition of one-way outer roads to Concepts 5 through 16 resulted in no change to the scoring relative to each other. For example, Concept 22 (split diamond towards cypress with one-way outer roads) and Concept 26 (split diamond towards Natural Bridge with one-way outer roads), both scored highest in comparison to all other alternatives with one-way outer roads.

Concepts 10 and 14 scored the highest overall and were retained for further evaluation and refinement. Note that Concept 10 performs similarly with or without one-way outer roads; it was decided that this concept, without corridor-wide outer road assumptions, was carried forward (i.e., with Natural Bridge and Lambert International Boulevard remaining with two-way operation).

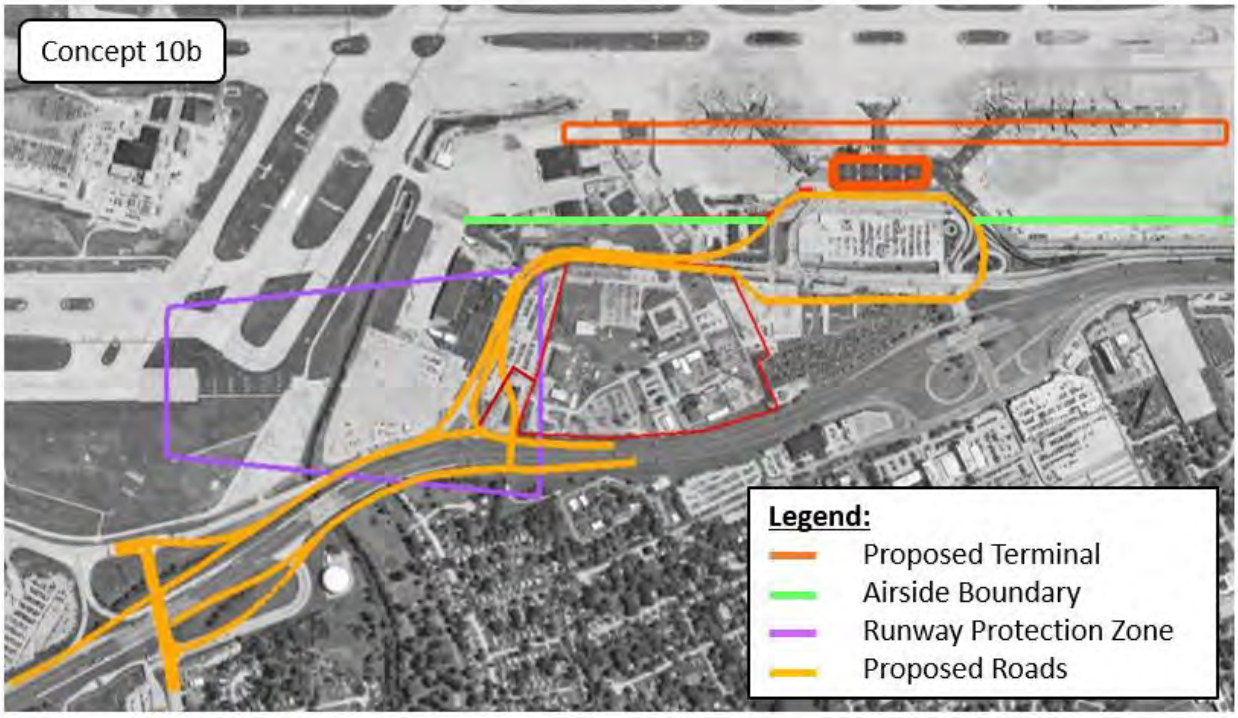
CONCEPT REFINEMENT

Refinement of shortlisted Concepts 10 and 14 resulted in Alternatives 10b and 10c, as well as Alternative 14b.

ALTERNATIVE 10B

Alternative 10b, depicted on **Figure 5.4-13**, is a modified split diamond configuration with one crossover at Cypress Road and a new crossover to the east, near Lamber International Boulevard (LIB). Access to and from the terminal loop road is via LIB. Access from I-70 in this concept is just east of Cypress (from eastbound I-70) and just east of the new crossover (from westbound I-70). Access to I-70 is provided just east of Cypress (to westbound I-70) and just east of the new crossover (to eastbound I-70).

Figure 5.4-13: Roadway Alternative 10b – Split Diamond to the West

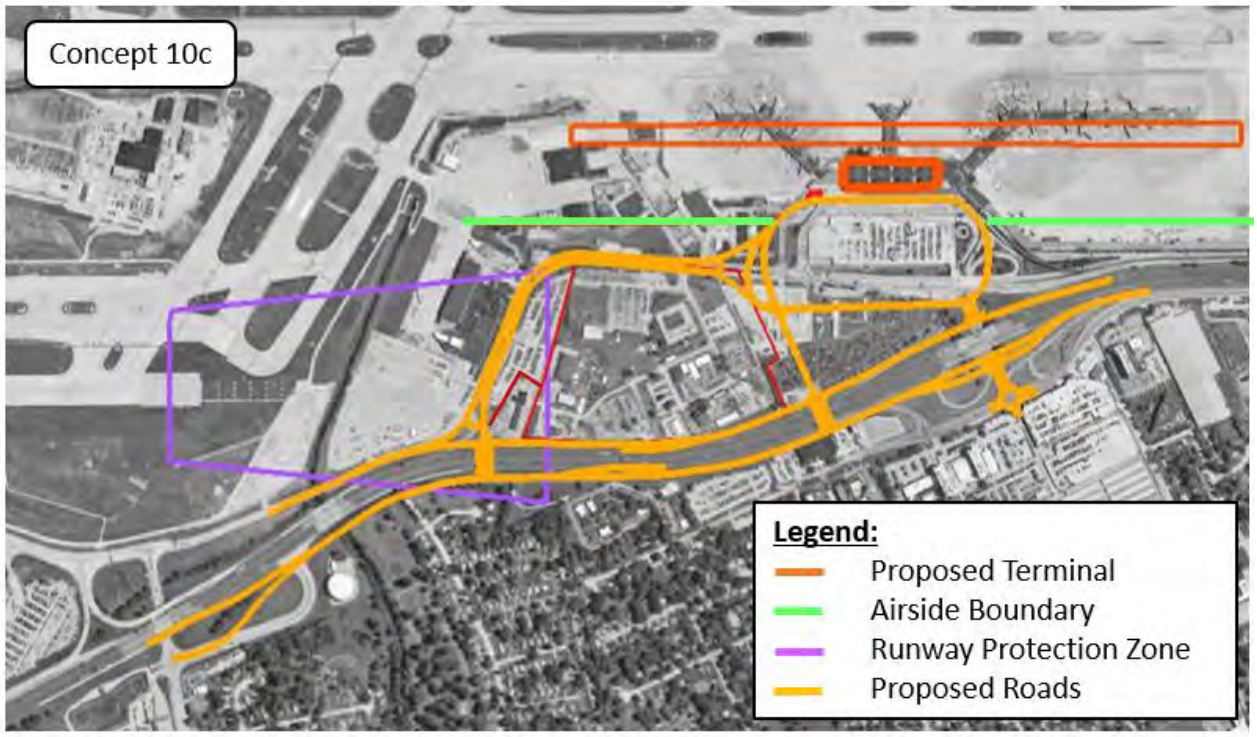


Source: WSP USA, 2022.

ALTERNATIVE 10C

Alternative 10c, depicted on **Figure 5.4-14**, is another variation of a modified split diamond configuration with two new crossovers of I-70; one near LIB and the other west of Airflight Drive. Access to the terminal loop road is provided via LIB. Access from the loop road back to the interstate is via LIB or via a new direct access that is grade-separated from the inbound movements just west of the terminal loop. Access from I-70 is provided just east of Cypress (from eastbound I-70) and east of Airflight (from westbound I-70). Access to I-70 is provided between the two crossovers (to westbound I-70) or east of Airflight (to eastbound I-70). A secondary westbound I-70 access is also available via LIB and Cypress Road.

Figure 5.4-14: Roadway Alternative 10c – Split Diamond West of Airflight

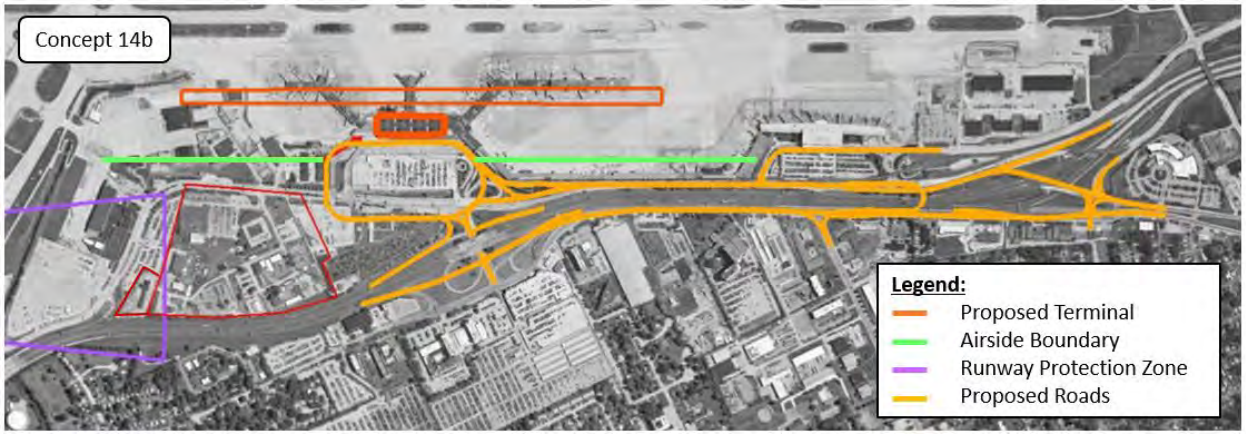


Source: WSP USA, 2022.

ALTERNATIVE 14B

Alternative 14b, depicted on **Figure 5.4-15**, is a modified split diamond between Airflight Drive and Natural Bridge Road to the east, with crossovers at Airflight and a new overpass between Woodson Road and Natural Bridge. Access to and from the terminal loop is via LIB (converted to westbound) and via Natural Bridge (converted to eastbound) between the two crossovers. Access from I-70 is provided west of Airflight (from eastbound I-70) and east of Natural Bridge (from westbound I-70). Access to I-70 is provided at Airflight (to both eastbound and westbound I-70).

Figure 5.4-15: Roadway Alternative 14b – Split Diamond East of Airflight



Source: WSP USA, 2022.

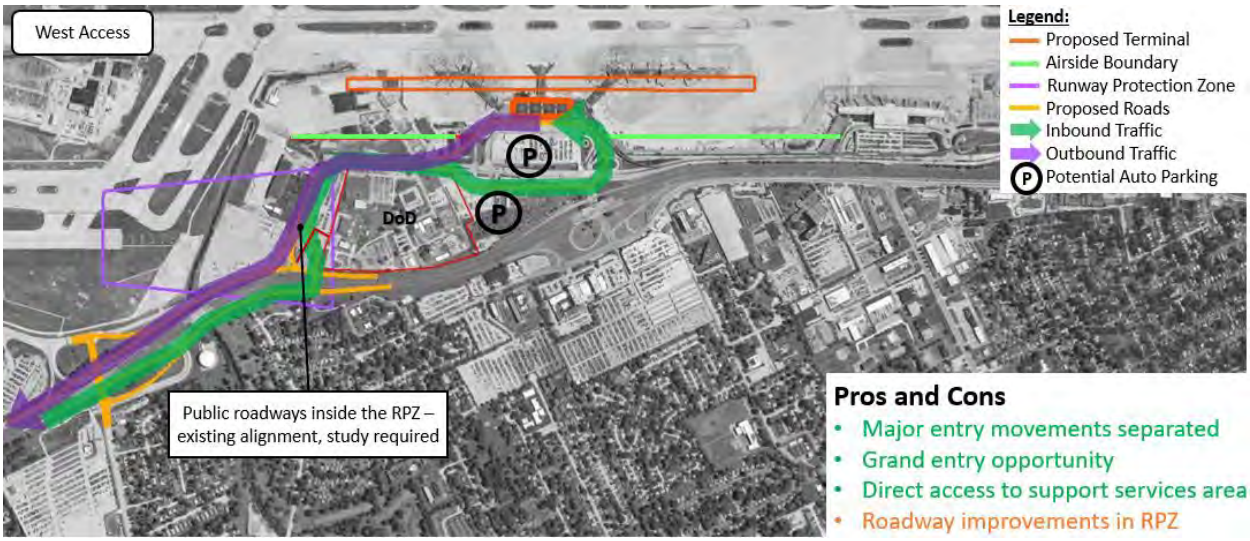
EVALUATION OF REMAINING ACCESS ROAD ALTERNATIVES

AIRPORT ACCESS

Access to and from the east and west was reviewed for each alternative. **Figures 5.4-16** to **5.4-21** summarize access and pros and cons for Concepts 10b, 10c and 14b.

In each scenario, primary ingress and egress access is provided. Factors evaluated included the length of each route, redundancy of adjacent alternative routes, and visibility of the airport destination for each approach.

Figure 5.4-16: East/West Airport Access

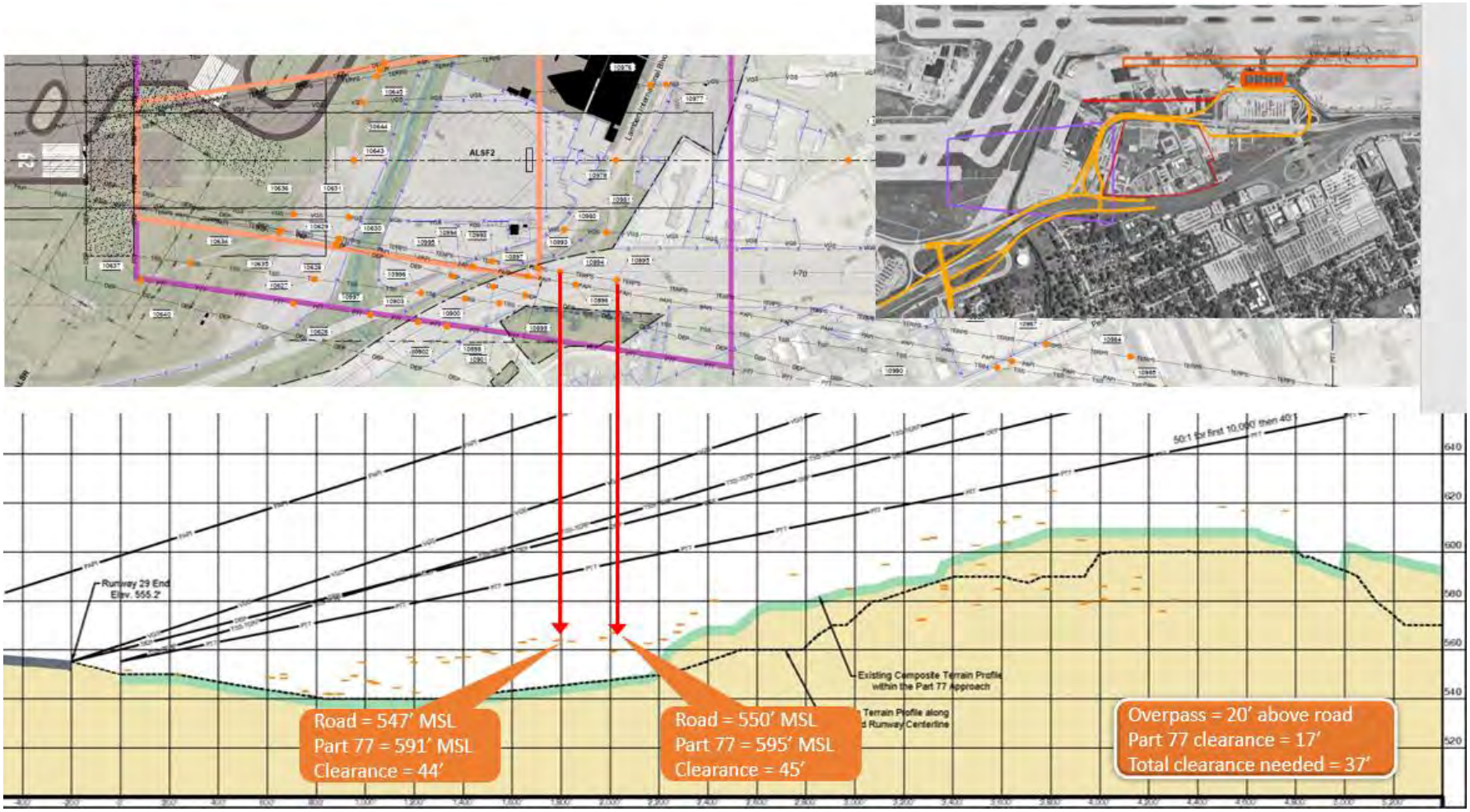


Source: WSP USA, 2022.

Figure 5.4-17: East Access for Concept 10b

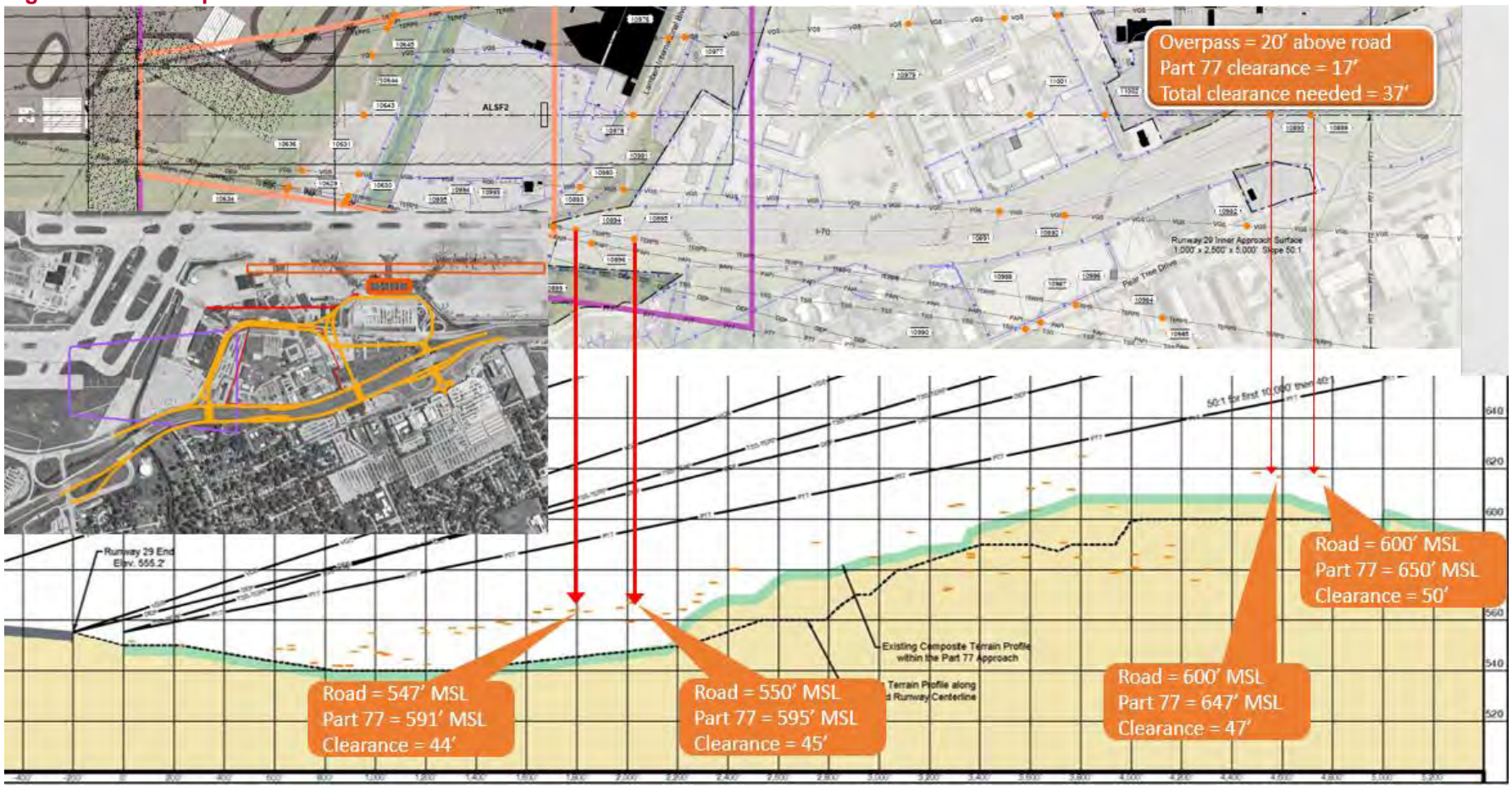
Source: WSP USA, 2022.

Figure 5.4-22: Airspace Considerations for Alternative 10b



Sources: WSP USA, 2022; CMT, 2022.

Figure 5.4-23: Airspace Considerations for Alternative 10c



Sources: WSP USA, 2022; CMT, 2022.

PREFERRED ACCESS ROAD ALTERNATIVE

ULTIMATE PREFERRED ALTERNATIVE

Concept 10b was removed due to the proximity and overlapping traffic patterns with the Cypress and Lindbergh Boulevard interchange. Concepts 10c and 14b were then evaluated and compared, based on the ingress and egress pros and cons and access configuration for all modes. Results are summarized in **Table 5.4-2**.

Table 5.4-2: Summary of Ingress and Egress Opportunities for Concepts 10c and 14b

CATEGORY	ALTERNATIVE 10C	ALTERNATIVE 14B
VEHICULAR ACCESS		
Terminal Access from the West	Exit near Cypress, new crossover of I-70 to reach LIB; route length of 1.3 miles.	Exit near Airflight, double back on north outer road; route length of 2.0 miles.
Terminal Access from the East	Exit near Airflight, outer road access to LIB; route length of 1.8 miles.	Exit near McDonnell Boulevard and follow north outer road; route length of 1.3 miles.
Exit to the West	Fast direct access; route length of 0.9 miles.	Fast direct access; route length of 0.6 miles.
Exit to the East	Fast direct access; route length of 0.9 miles.	Fast direct access; route length of 1.1 miles.
Local Access at Cypress	Unchanged	Unchanged
Local Access at Airflight Drive	Full access; must double-back 0.5 miles to access from the East; must exit at Cypress to access from the West	3/4 access - NB Airflight has to double back 1.6 miles to access Terminal or WB I-70
Local Access at Natural Bridge	Unchanged	Mostly unchanged; removed left side entrance to WB I-70
Redundancy to/from the West	Redundancy to Terminal; three routes to exit to the West	Redundancy to Terminal provided at Natural Bridge; two routes to exit to the West
Redundancy to/from the East	Redundancy to Terminal provided at Cypress; three routes to exit to the East	Redundancy to Terminal provided at Airflight (requires double-back on north outer road); two routes to exit to the East
Capacity Pinch Points	North (WB) Collector/Outer Road at Exit Route	Exiting traffic at Airflight
BIKE & PEDESTRIAN ACCESS		
North-South at Cypress	Unchanged	Unchanged
North-South at Airflight	Greatly improved	Greatly improved
North-South at Natural Bridge	Unchanged	Greatly improved
New overpass East of Cypress	New potential route	Not applicable
ENTRYWAY AND DEPARTURE EXPERIENCE		

Location	West side of loop road; also, opportunity near I-70 east of Cypress	I-70 near Airflight and LIB
Visibility	Good visibility to both locations noted above	Limited, screened by MetroLink
Arriving at the Terminal Experience	Simple and long arrival experience; some doubling back for arrivals from the East	Not as simple but adequate in length; long double-back for arrivals from the West
Leaving the Terminal Experience	Relatively short, simple and redundant	Possibly too short; congestion pinch point possible at Airflight (especially for EB traffic)

Source: WSP USA, 2022.

Alternative 10c, depicted in **Figure 5.4-24**, was selected as the preferred Airport access road alternative for the following reasons:

- Drivers are provided improved traffic flow and ample decision-making time arriving predominantly via eastbound and westbound I-70. Ingress and egress routes are relatively simple and not excessively circuitous.
- Connectivity to local roadway network is improved, including for bicycles and pedestrians. Transit access is maintained at current levels.
- Traffic volumes are distributed across ingress and egress movements in order to provide adequate peak capacity through foreseeable future scenarios.
- North-south connectivity to the community and adjacent businesses

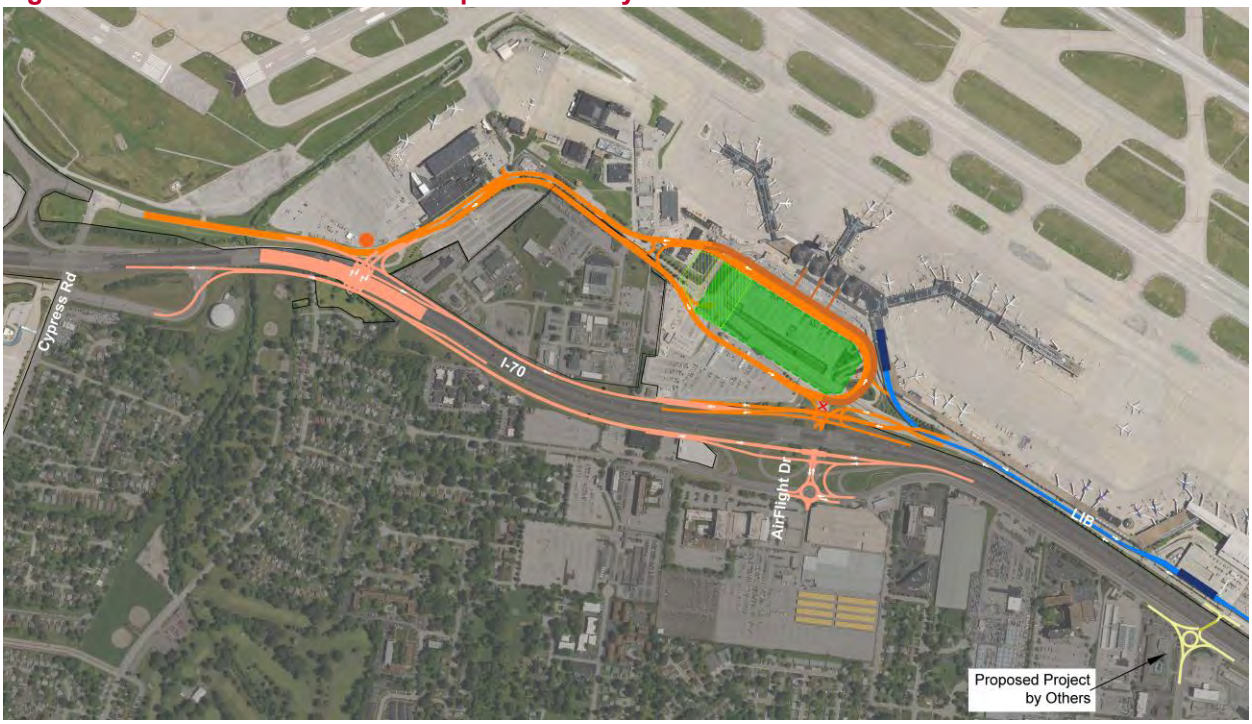
Refinements to accommodate shuttle access and circulation at Airflight Drive and to and from LIB, east of the terminal loop, will be considered in Advanced Planning. Coordination with Missouri Department of Transportation (MoDOT) and other third-party agencies will continue for further analysis and implementation.

INTERIM PREFERRED ALTERNATIVE

The preferred ultimate roadway alternative requires several connections to MODOT roadways, as well as improvements/new sections of road by MODOT. Until MODOT completes its analysis of the roadway network around the airport and defines how to best connect with the Master Plan's preferred alternative, an interim roadway access plan will be implemented, based on the current 2040 plan. The interim airport roadway access is depicted on **Figure 5.4-25**.

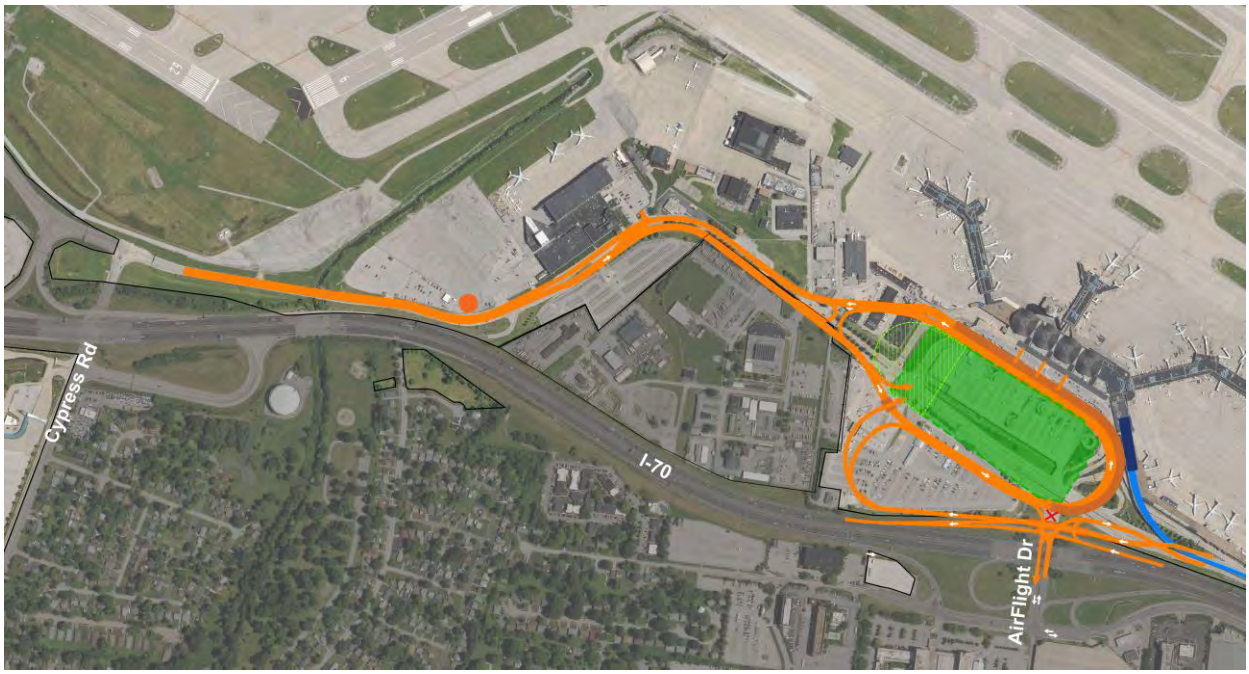
Both the interim and ultimate plans are still evolving, and will be refined in Advanced Planning.

Figure 5.4-24: Preferred Ultimate Airport Roadway Alternative



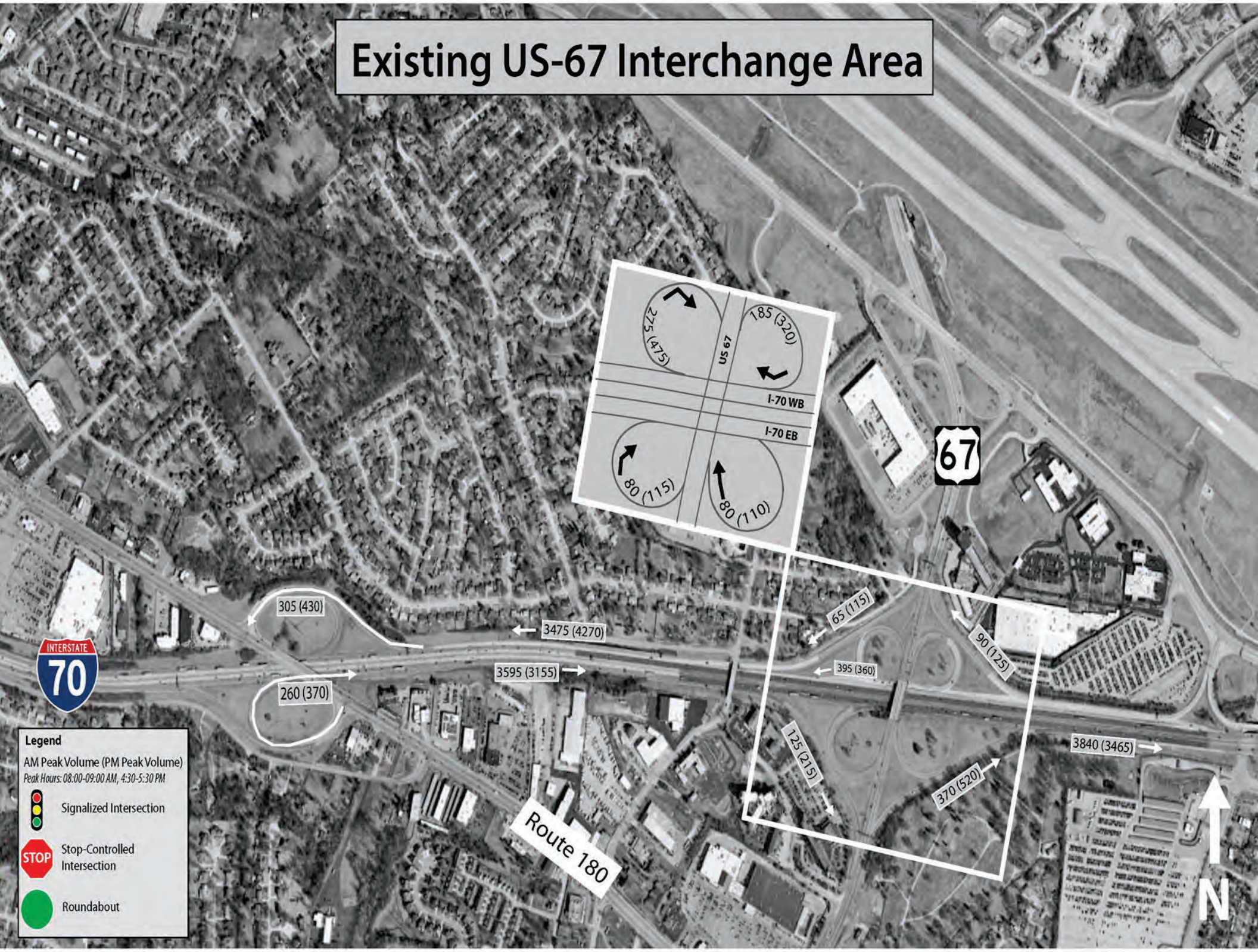
Source: WSP USA, 2023.

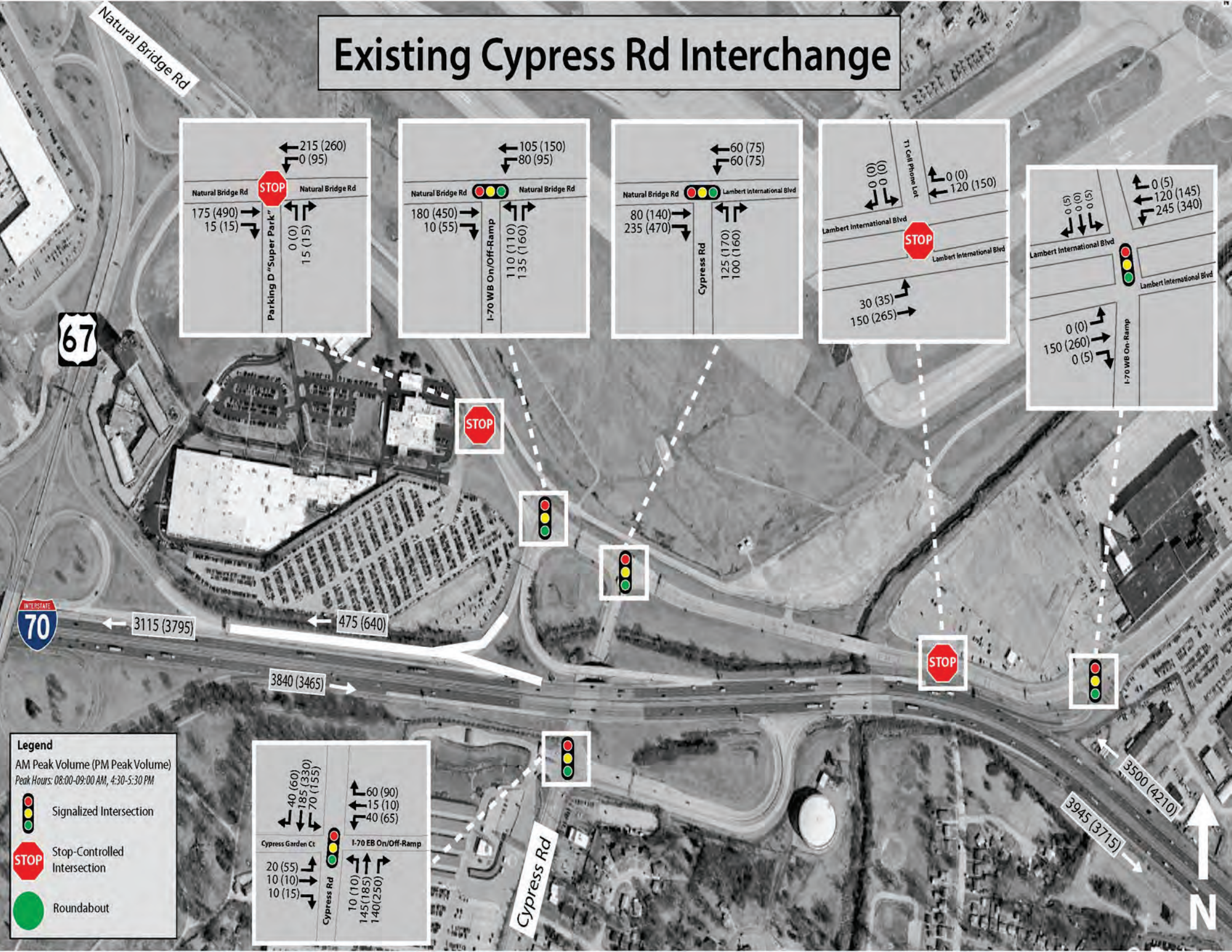
Figure 5.4-25: Interim Airport Roadway Access Plan



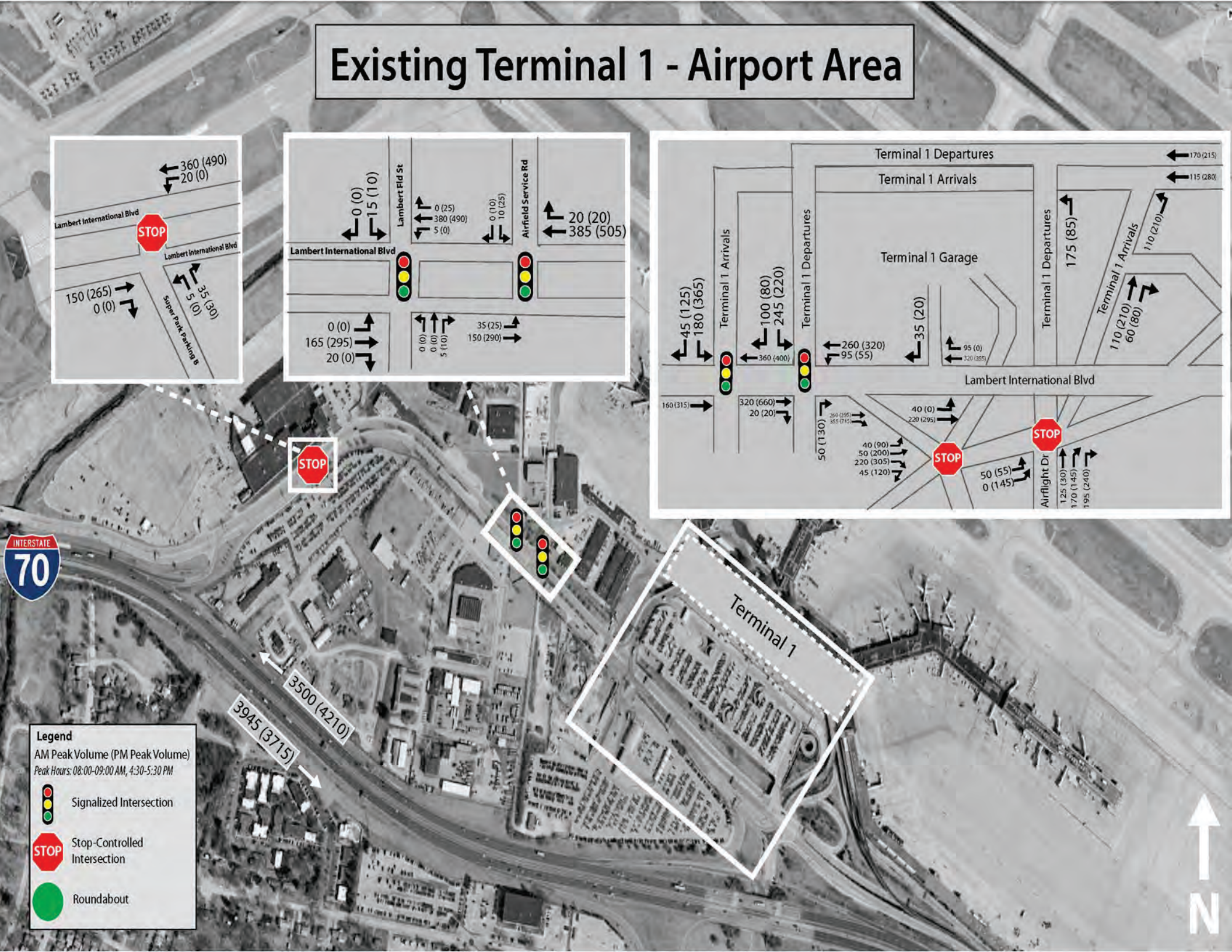
Source: WSP USA, 2023.

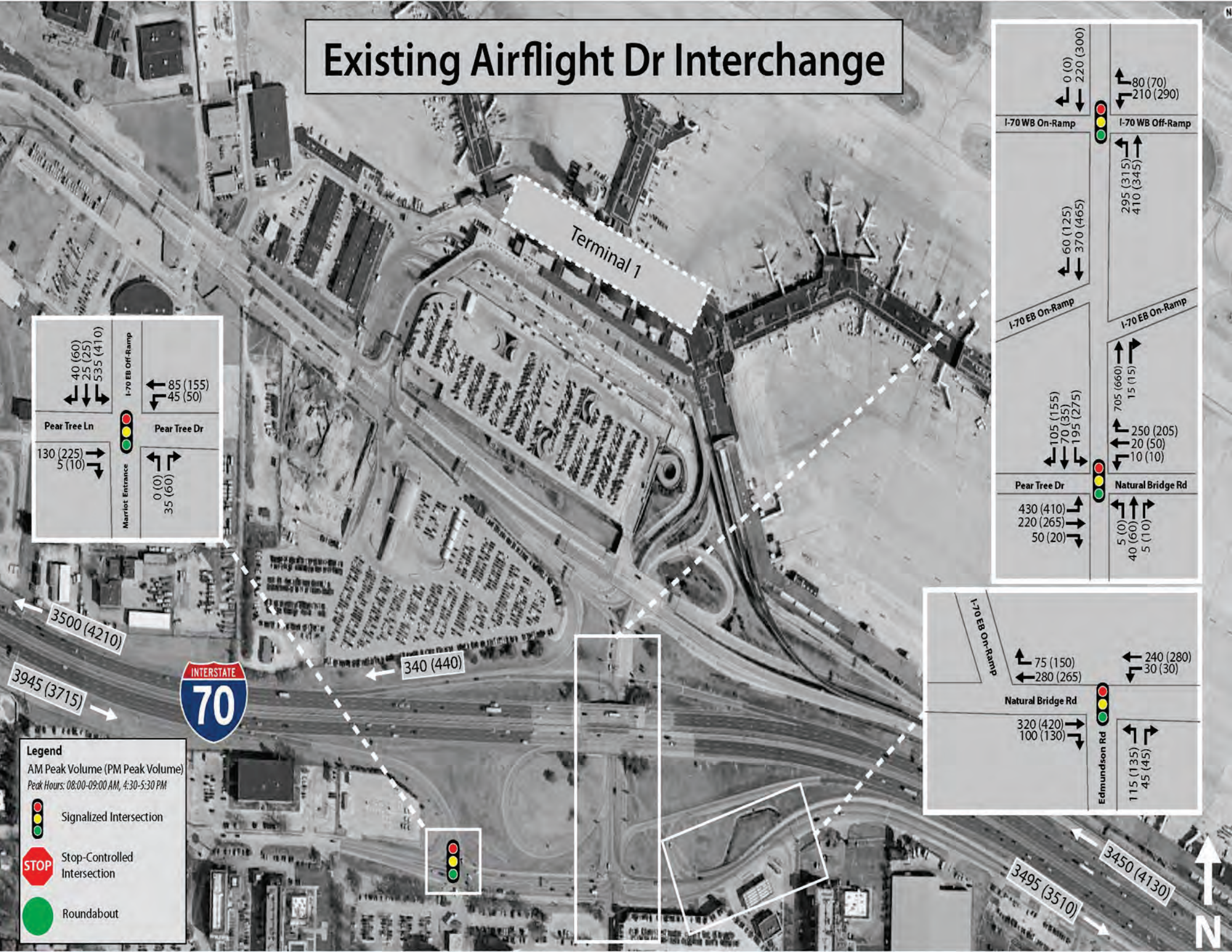
APPENDIX C


Existing US-67 Interchange Area
US 67
I-70 WB
I-70 EB
275 (475)
185 (320)
80 (115)
80 (110)
67
305 (430)
3475 (4270)
65 (115)
90 (125)
3595 (3155)
395 (360)
260 (370)
125 (215)
370 (520)
3840 (3465)
INTERSTATE
70
Route 180
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

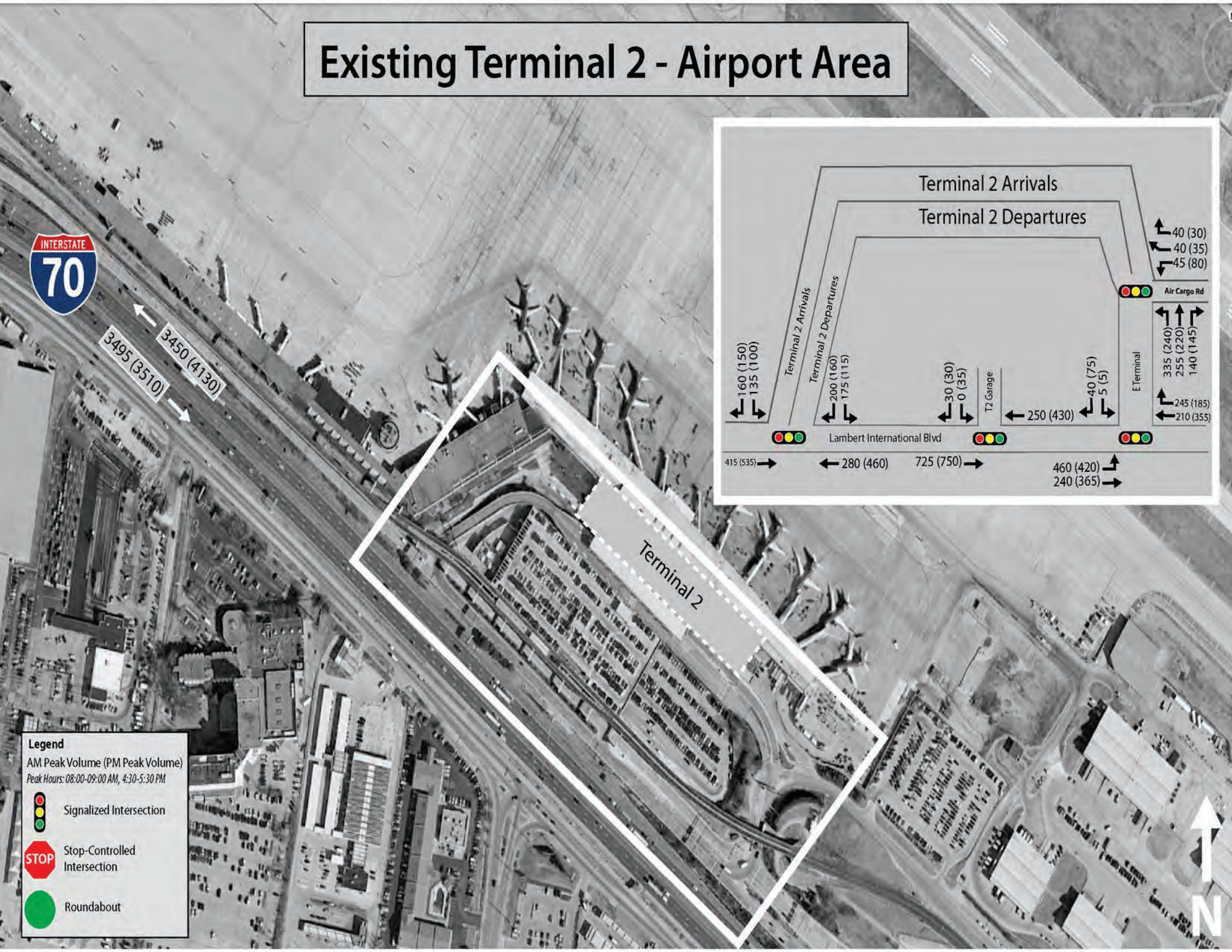

Existing Cypress Rd Interchange
Natural Bridge Rd
215 (260)
0 (95)
Natural Bridge Rd
STOP
Natural Bridge Rd
175 (490)
15 (15)
Parking D "Super Park"
0 (0)
15 (15)
105 (150)
80 (95)
Natural Bridge Rd
Natural Bridge Rd
180 (450)
10 (55)
I-70 WB On/Off-Ramp
110 (110)
135 (160)
60 (75)
60 (75)
Natural Bridge Rd
Lambert International Blvd
80 (140)
235 (470)
Cypress Rd
125 (170)
100 (160)
T1 Cell Phone Lot
0 (0)
0 (0)
0 (0)
120 (150)
Lambert International Blvd
STOP
Lambert International Blvd
30 (35)
150 (265)
0 (5)
0 (0)
0 (5)
0 (5)
120 (145)
245 (340)
Lambert International Blvd
Lambert International Blvd
0 (0)
150 (260)
0 (5)
I-70 WB On-Ramp
67
STOP
INTERSTATE
70
3115 (3795)
475 (640)
3840 (3465)
STOP
3500 (4210)
3945 (3715)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
40 (60)
185 (330)
70 (155)
Cypress Garden Ct
20 (55)
10 (10)
10 (15)
Cypress Rd
60 (90)
15 (10)
40 (65)
I-70 EB On/Off-Ramp
10 (10)
145(185)
140(250)
Cypress Rd

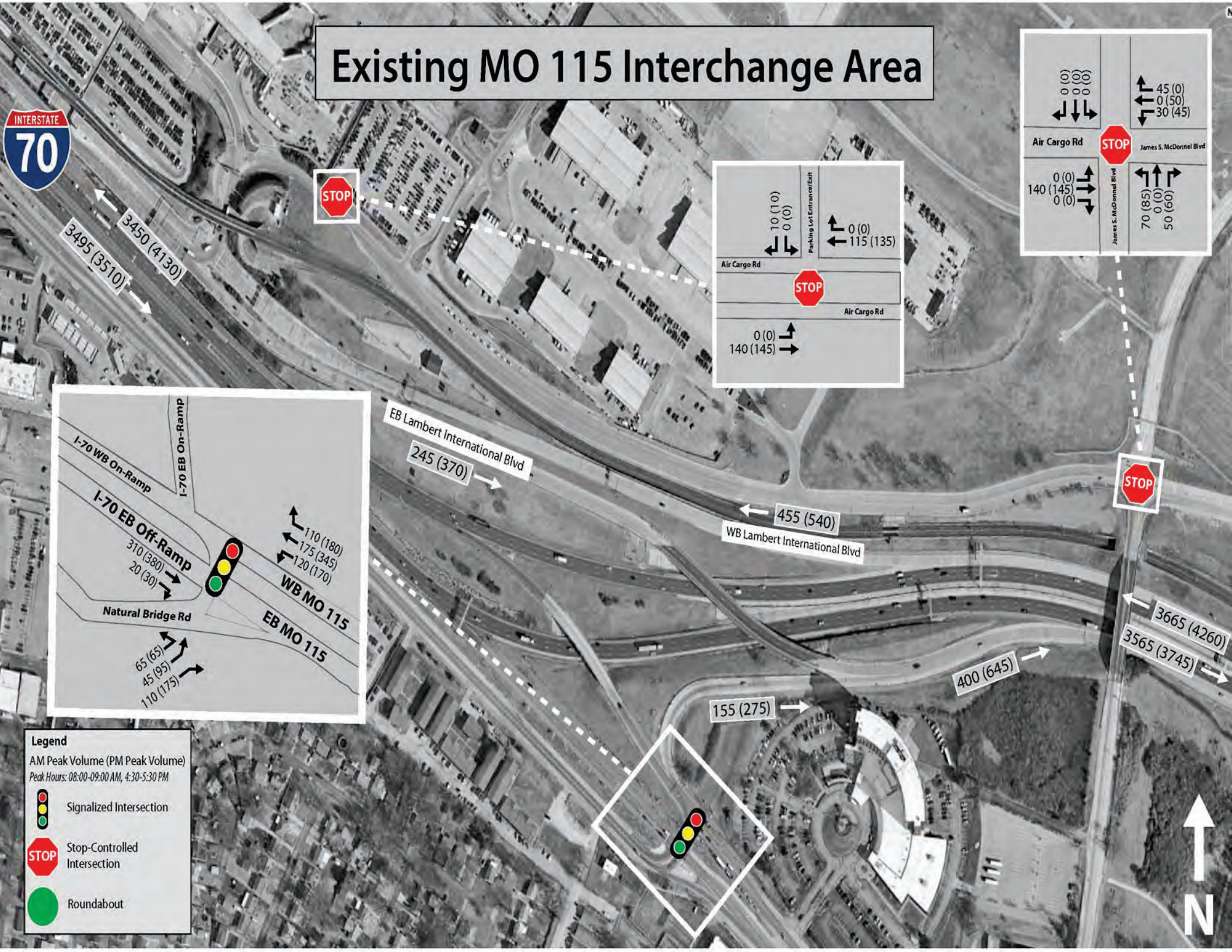
Existing Terminal 1 - Airport Area



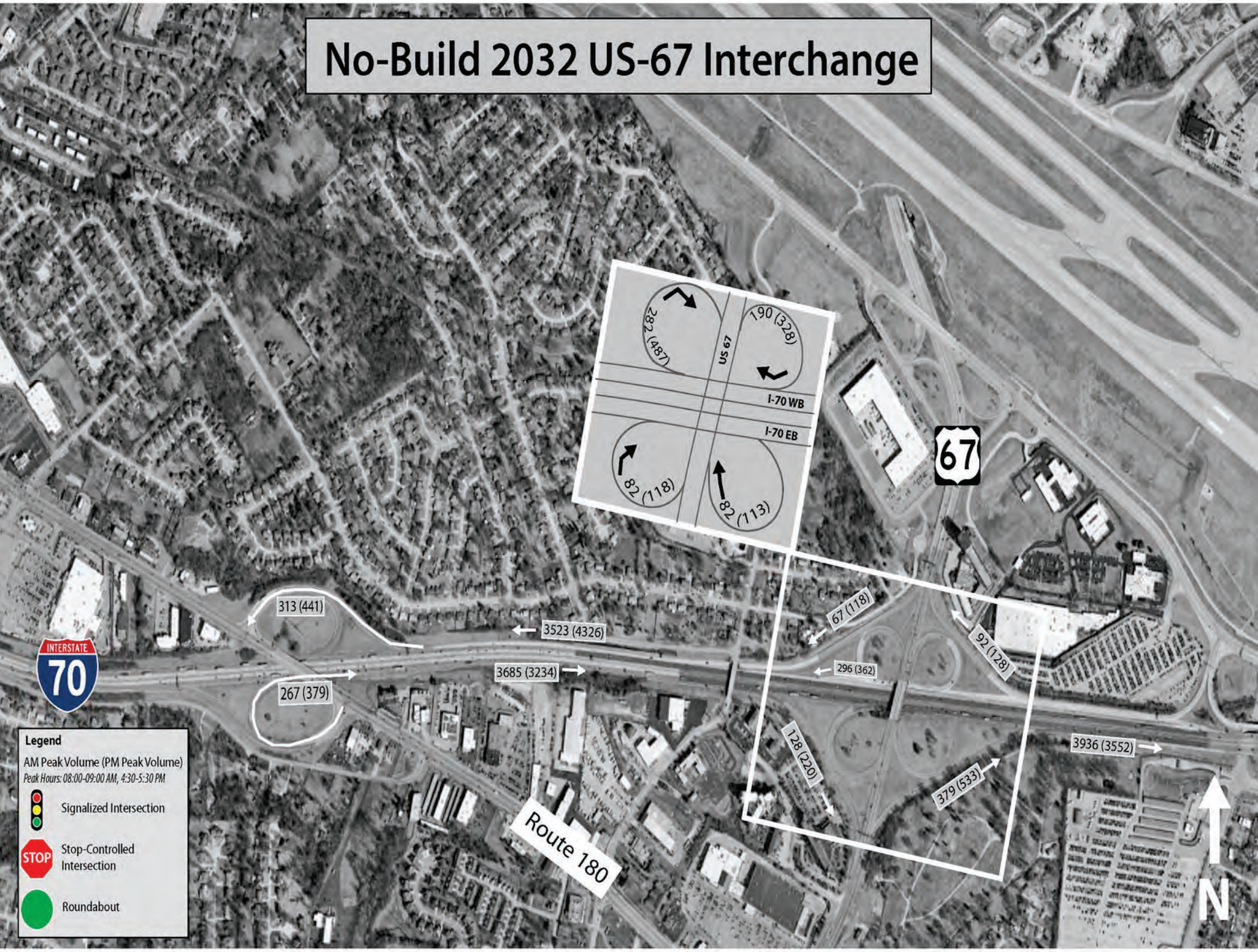

Existing Airflight Dr Interchange
Terminal 1
I-70 WB On-Ramp
I-70 WB Off-Ramp
I-70 EB On-Ramp
I-70 EB On-Ramp
Pear Tree Dr
Natural Bridge Rd
I-70 EB Off-Ramp
Pear Tree Ln
Pear Tree Dr
Marriot Entrance
I-70 EB On-Ramp
Natural Bridge Rd
Edmundson Rd
INTERSTATE
70
3500 (4210)
3945 (3715)
340 (440)
3450 (4130)
3495 (3510)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

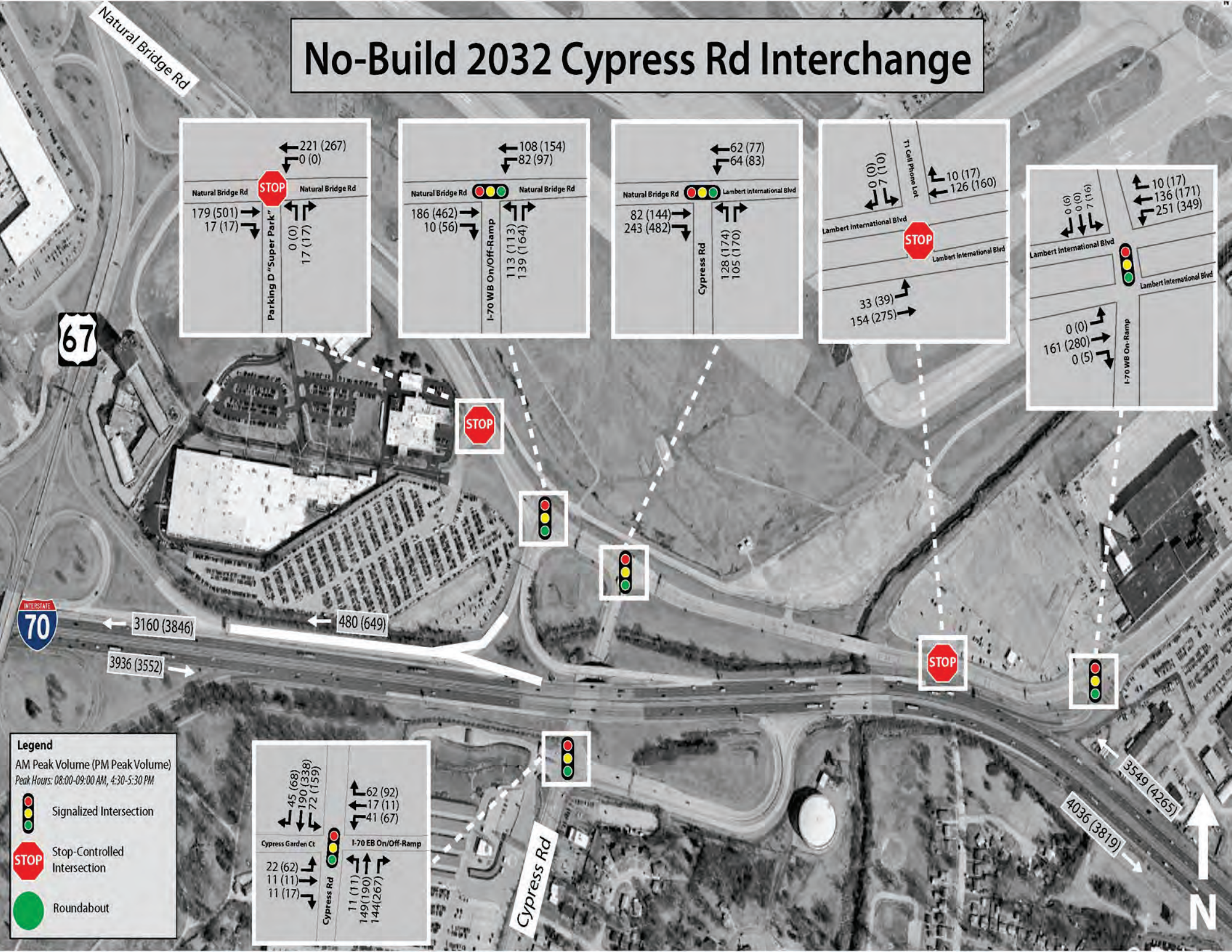
Existing Terminal 2 - Airport Area



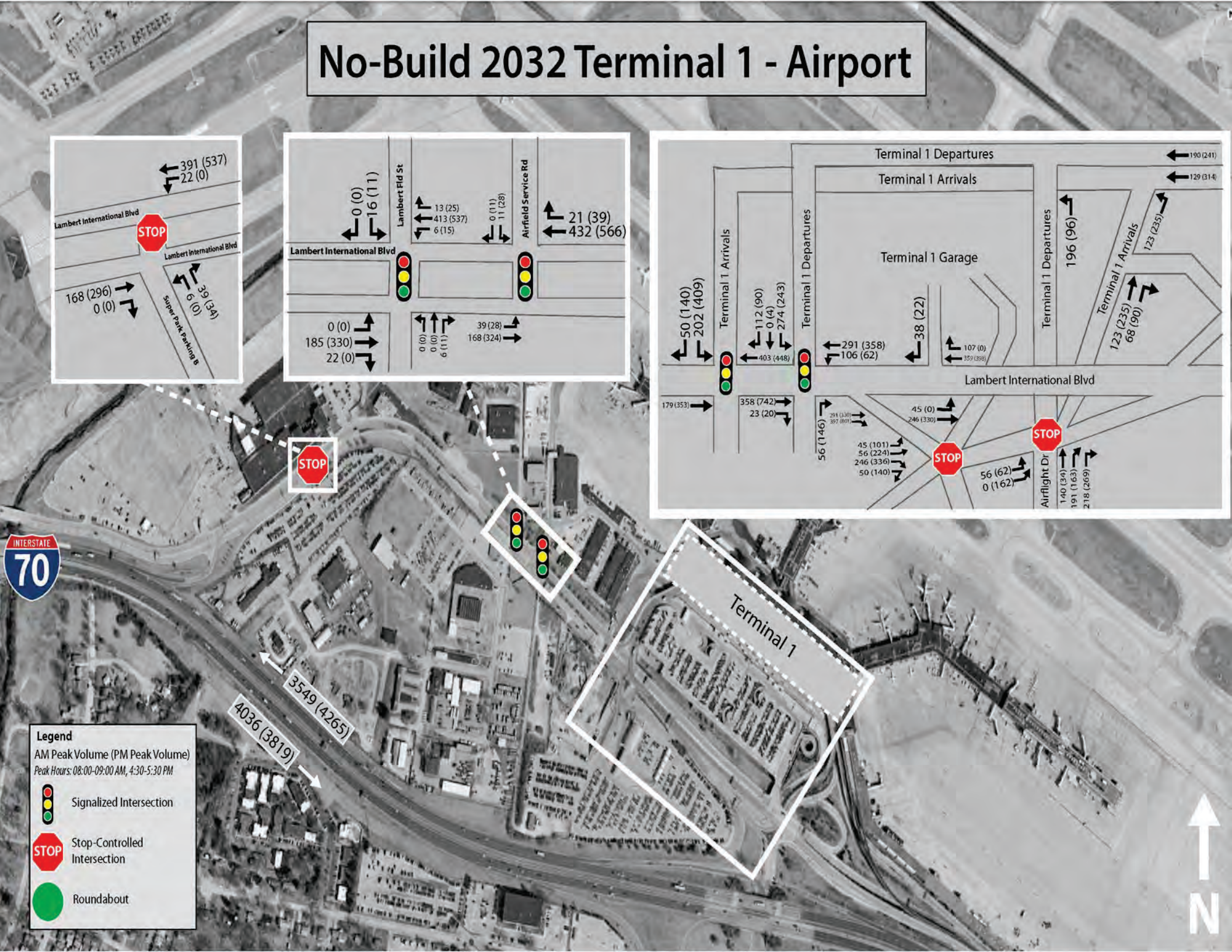

Existing MO 115 Interchange Area
INTERSTATE 70
3450 (4130)
3495 (3510)
STOP
10 (10)
0 (0)
Parking Lot Entrance/Exit
0 (0)
115 (135)
Air Cargo Rd
STOP
Air Cargo Rd
0 (0)
140 (145)
0 (0)
45 (0)
0 (50)
30 (45)
Air Cargo Rd
STOP
James S. McDonnel Blvd
0 (0)
140 (145)
0 (0)
James S. McDonnel Blvd
70 (85)
0 (0)
50 (60)
I-70 WB On-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
310 (380)
20 (30)
110 (180)
175 (345)
120 (170)
WB MO 115
EB MO 115
Natural Bridge Rd
65 (65)
45 (95)
110 (175)
EB Lambert International Blvd
245 (370)
455 (540)
WB Lambert International Blvd
STOP
3665 (4260)
3565 (3745)
400 (645)
155 (275)
111
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

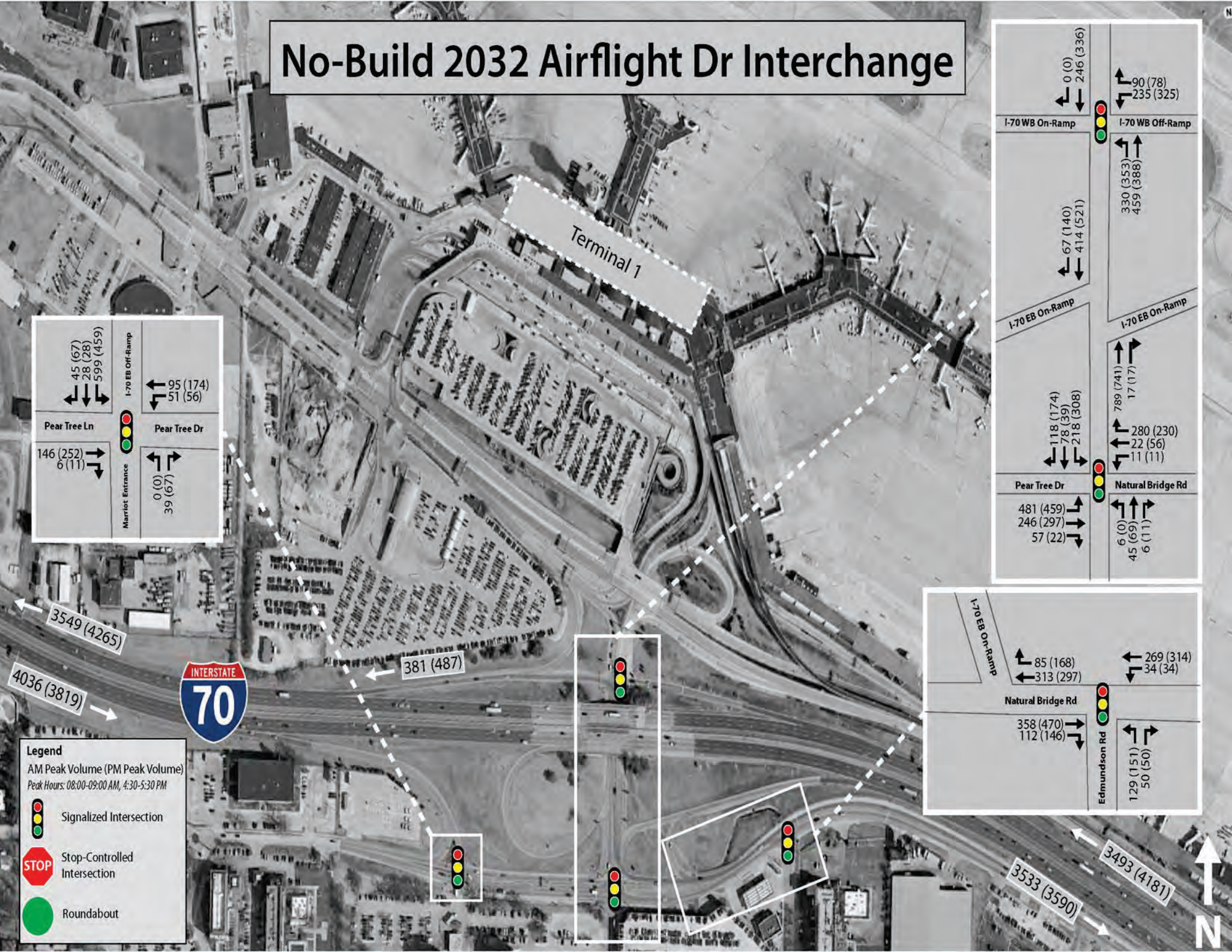

Existing I-170 Interchange Area
INTERSTATE
170
INTERSTATE
70
480 (560)
3665 (4260)
135 (140)
3565 (3745)
335 (470)
750 (1165)
940 (920)
2290 (2355)
2300 (2395)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N


No-Build 2032 US-67 Interchange
US 67
I-70 WB
I-70 EB
282 (487)
190 (328)
82 (118)
82 (113)
67
313 (441)
3523 (4326)
67 (118)
92 (128)
3685 (3234)
296 (362)
267 (379)
128 (220)
379 (533)
3936 (3552)
INTERSTATE
70
Route 180
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

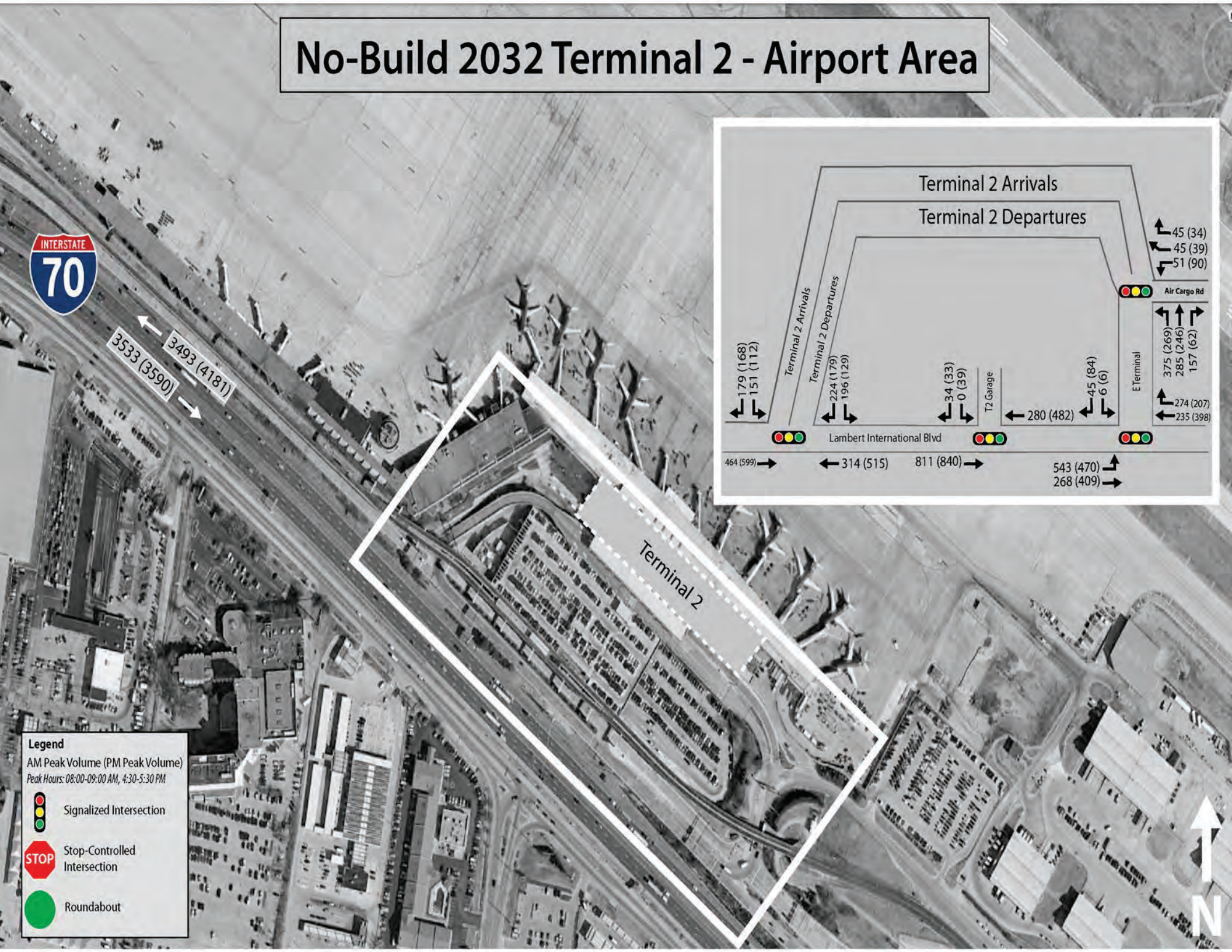

No-Build 2032 Cypress Rd Interchange
Natural Bridge Rd
221 (267)
0 (0)
Natural Bridge Rd
STOP
Natural Bridge Rd
179 (501)
17 (17)
Parking D "Super Park"
0 (0)
17 (17)
108 (154)
82 (97)
Natural Bridge Rd
Natural Bridge Rd
186 (462)
10 (56)
I-70 WB On/Off-Ramp
113 (113)
139 (164)
62 (77)
64 (83)
Natural Bridge Rd
Lambert International Blvd
82 (144)
243 (482)
Cypress Rd
128 (174)
105 (170)
0 (0)
7 (10)
T1 Cell Phone Lot
10 (17)
126 (160)
Lambert International Blvd
STOP
Lambert International Blvd
33 (39)
154 (275)
0 (6)
0 (0)
7 (16)
10 (17)
136 (171)
251 (349)
Lambert International Blvd
Lambert International Blvd
0 (0)
161 (280)
0 (5)
I-70 WB On-Ramp
67
STOP
INTERSTATE
70
3160 (3846)
480 (649)
3936 (3552)
STOP
3549 (4265)
4036 (3819)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
45 (68)
190 (338)
72 (159)
62 (92)
17 (11)
41 (67)
Cypress Garden Ct
I-70 EB On/Off-Ramp
22 (62)
11 (11)
11 (17)
Cypress Rd
11 (11)
149(190)
144(267)
Cypress Rd

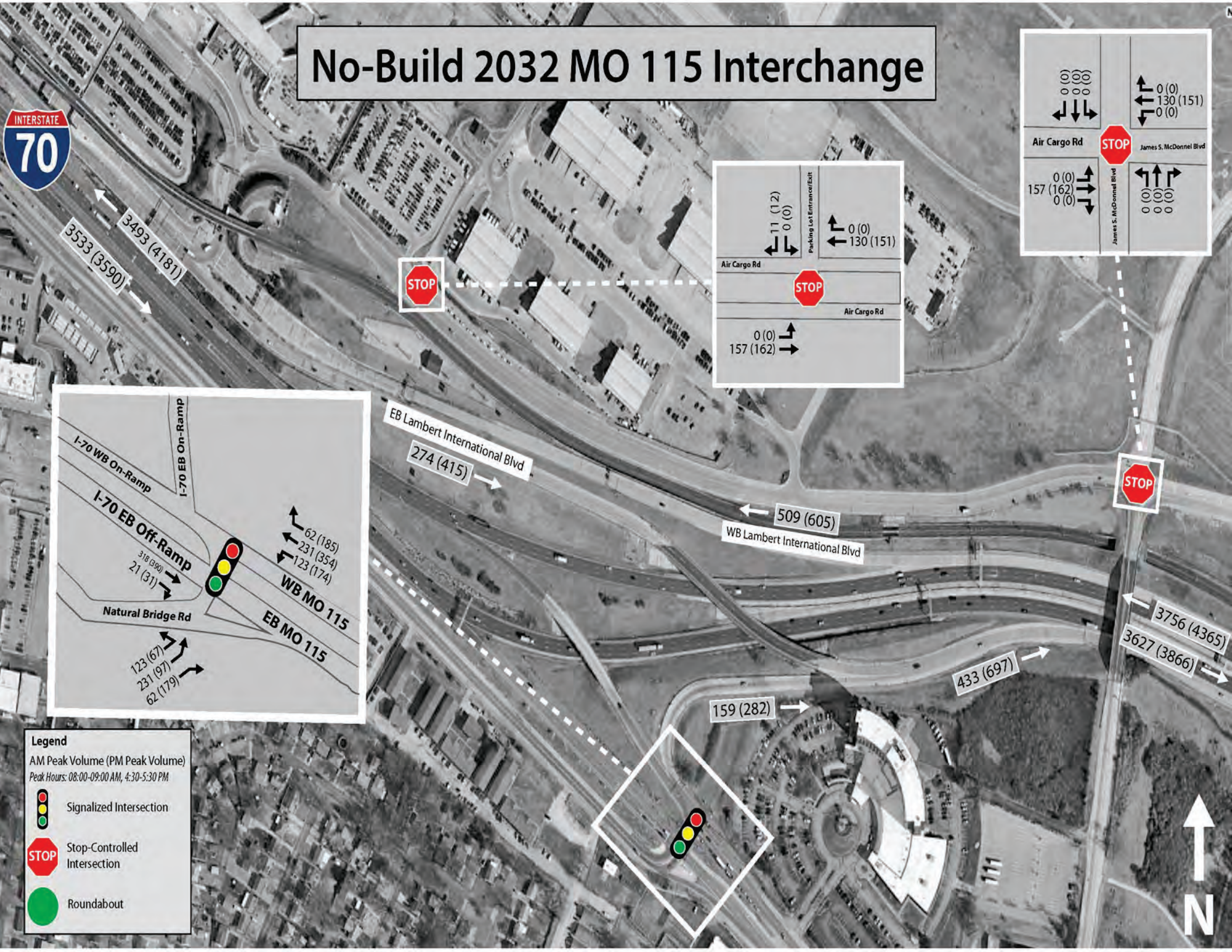
No-Build 2032 Terminal 1 - Airport



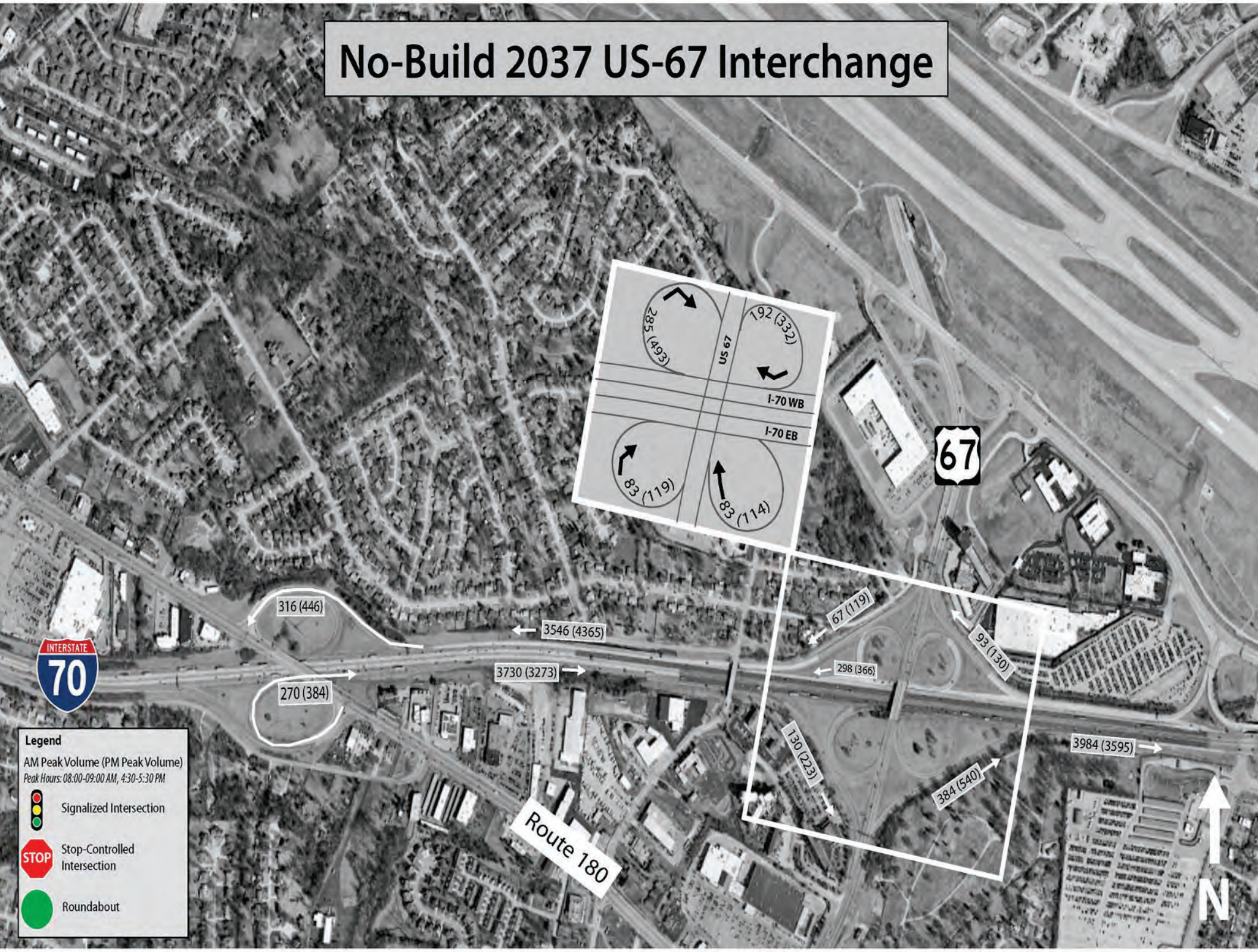

No-Build 2032 Airflight Dr Interchange
Terminal 1
I-70 WB On-Ramp
I-70 WB Off-Ramp
I-70 EB On-Ramp
I-70 EB On-Ramp
Pear Tree Dr
Natural Bridge Rd
I-70 EB Off-Ramp
Pear Tree Ln
Pear Tree Dr
Marriot Entrance
I-70 EB On-Ramp
Natural Bridge Rd
Edmundson Rd
INTERSTATE
70
3549 (4265)
4036 (3819)
381 (487)
3493 (4181)
3533 (3590)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

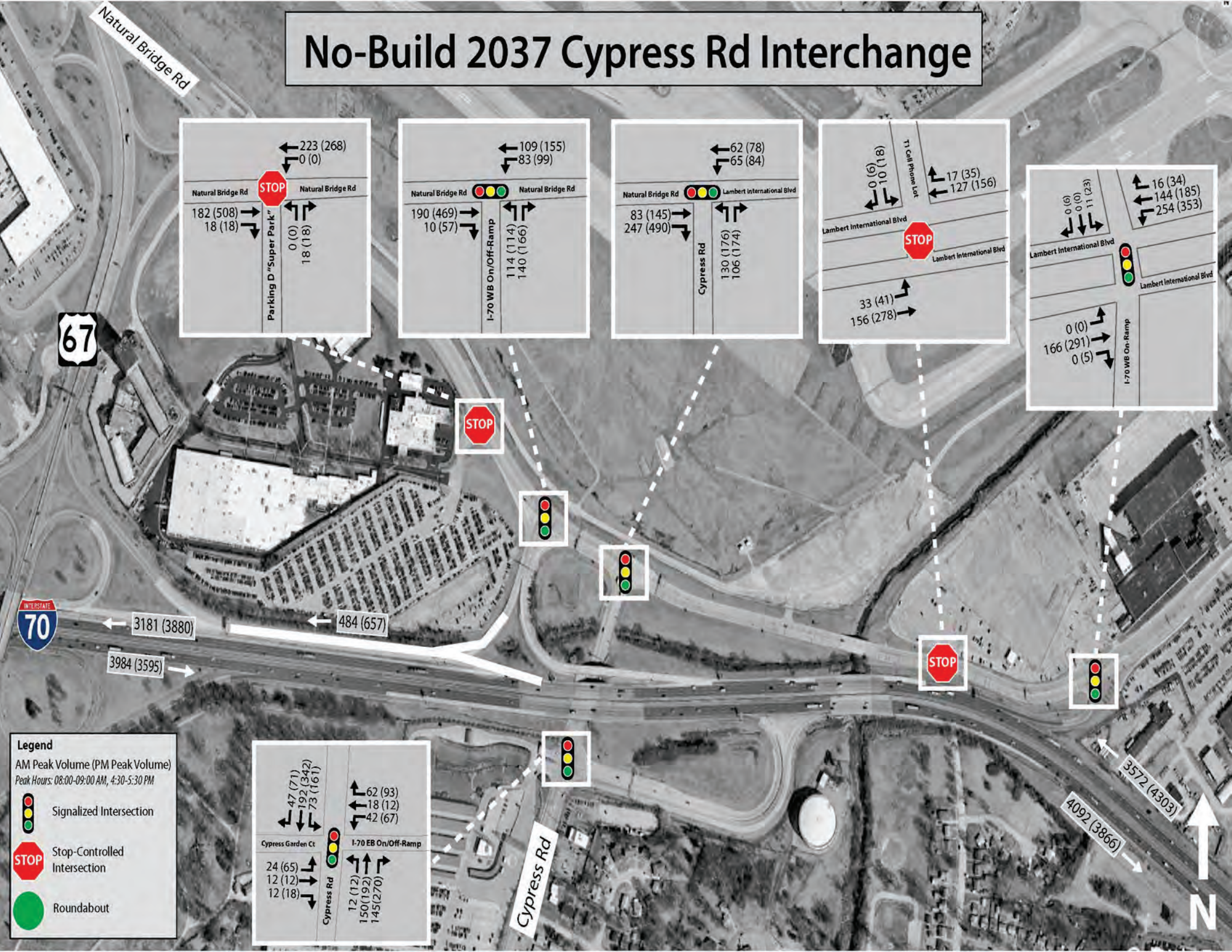
No-Build 2032 Terminal 2 - Airport Area



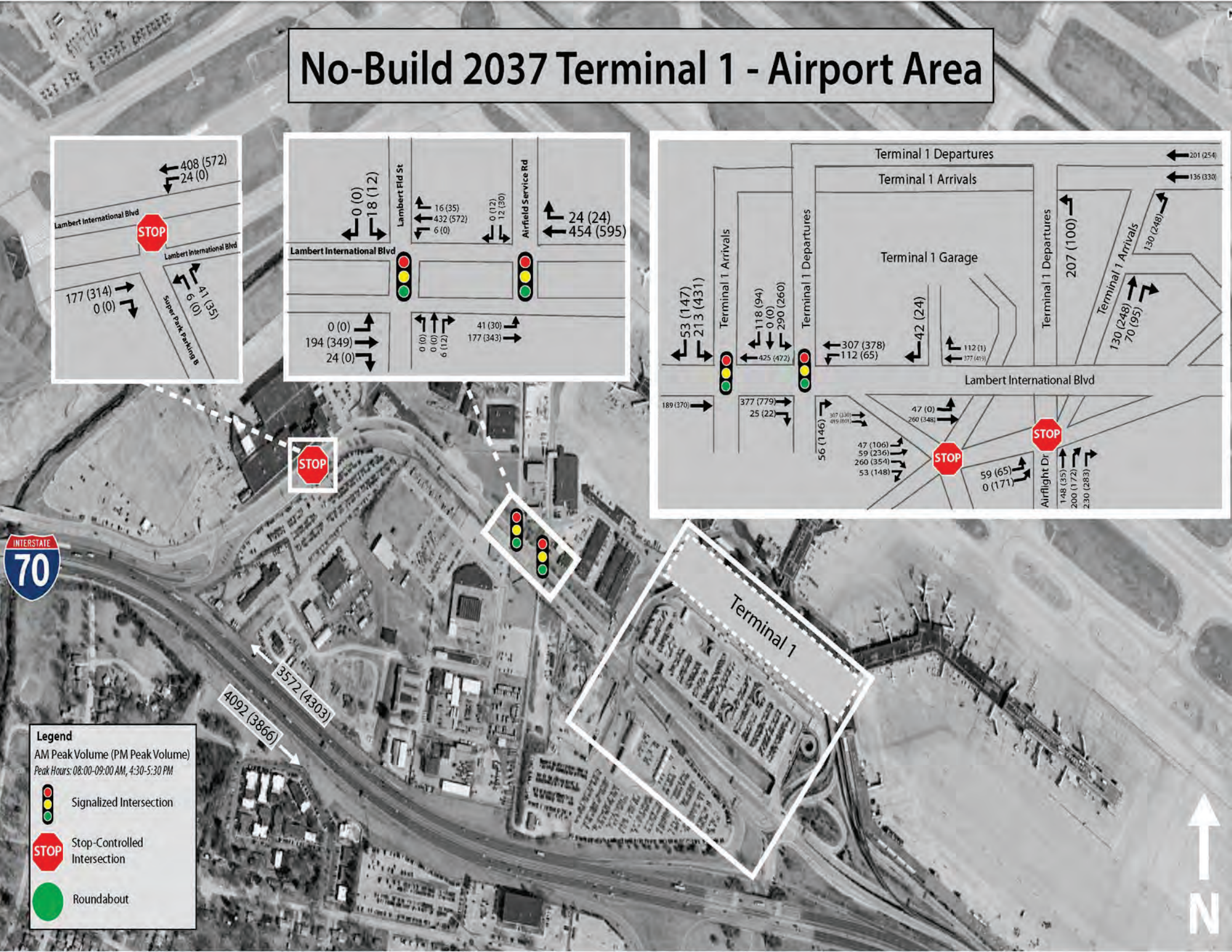

No-Build 2032 MO 115 Interchange
INTERSTATE 70
3493 (4181)
3533 (3590)
STOP
11 (12)
0 (0)
Parking Lot Entrance/Exit
0 (0)
130 (151)
Air Cargo Rd
STOP
Air Cargo Rd
0 (0)
157 (162)
0 (0)
130 (151)
0 (0)
Air Cargo Rd
STOP
James S. McDonnel Blvd
0 (0)
157 (162)
0 (0)
James S. McDonnel Blvd
EB Lambert International Blvd
274 (415)
509 (605)
WB Lambert International Blvd
STOP
I-70 WB On-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
318 (390)
21 (31)
62 (185)
231 (354)
123 (174)
WB MO 115
EB MO 115
Natural Bridge Rd
123 (67)
231 (97)
62 (179)
3756 (4365)
3627 (3866)
433 (697)
159 (282)
111
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N


No-Build 2032 I-170 Interchange Area
INTERSTATE
170
INTERSTATE
70
492 (574)
3756 (4365)
138 (143)
3627 (3866)
341 (485)
769 (1194)
956 (950)
2330 (2431)
2357 (2454)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N

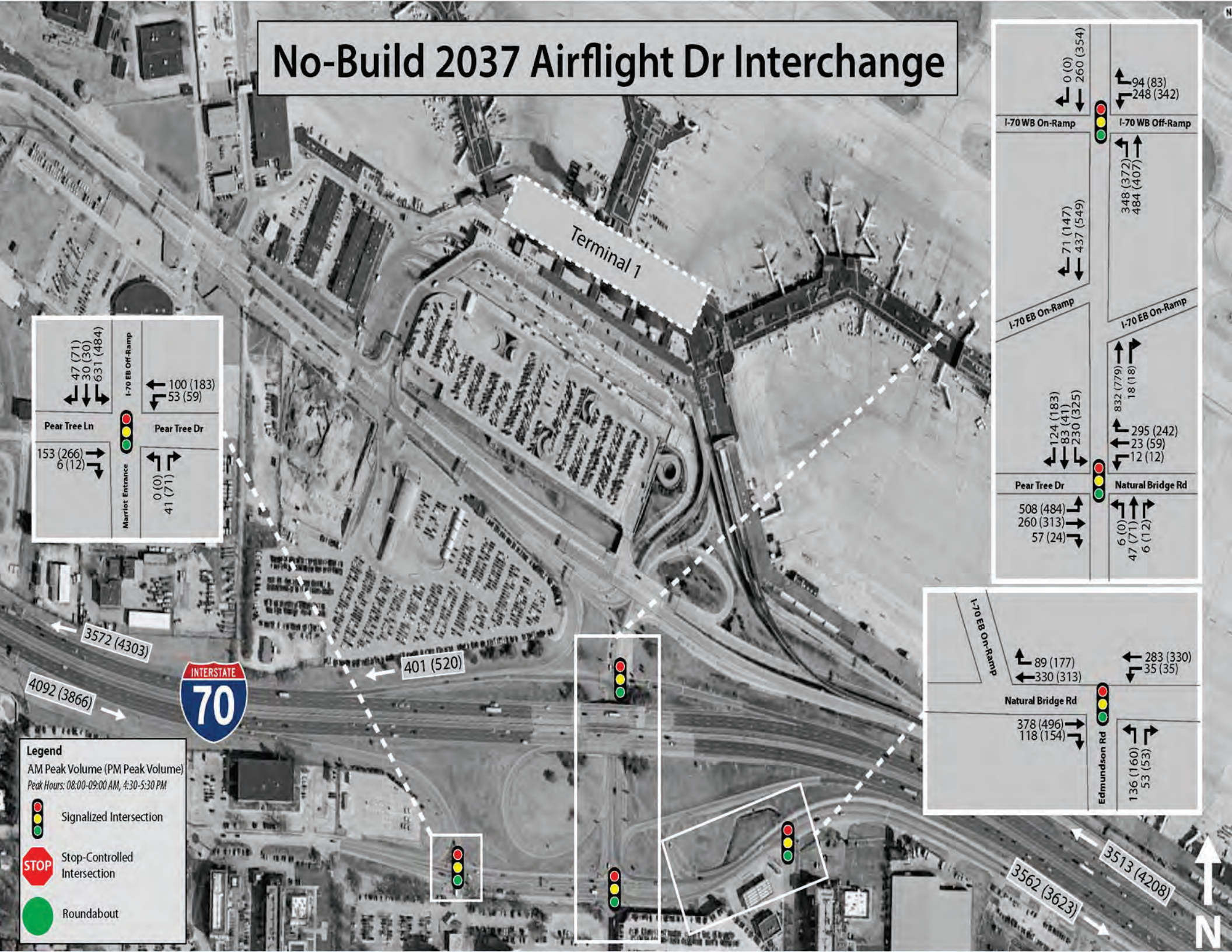

No-Build 2037 US-67 Interchange
285 (493)
US 67
192 (332)
I-70 WB
I-70 EB
83 (119)
83 (114)
67
316 (446)
3546 (4365)
67 (119)
93 (130)
INTERSTATE
70
3730 (3273)
298 (366)
270 (384)
130 (223)
3984 (3595)
384 (540)
Route 180
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout


No-Build 2037 Cypress Rd Interchange
Natural Bridge Rd
223 (268)
0 (0)
Natural Bridge Rd
STOP
Natural Bridge Rd
182 (508)
18 (18)
Parking D "Super Park"
0 (0)
18 (18)
109 (155)
83 (99)
Natural Bridge Rd
Natural Bridge Rd
190 (469)
10 (57)
I-70 WB On/Off-Ramp
114 (114)
140 (166)
62 (78)
65 (84)
Natural Bridge Rd
Lambert International Blvd
83 (145)
247 (490)
Cypress Rd
130 (176)
106 (174)
0 (6)
10 (18)
T1 Cell Phone Lot
17 (35)
127 (156)
Lambert International Blvd
STOP
Lambert International Blvd
33 (41)
156 (278)
0 (6)
0 (0)
11 (23)
16 (34)
144 (185)
254 (353)
Lambert International Blvd
Lambert International Blvd
0 (0)
166 (291)
0 (5)
I-70 WB On-Ramp
67
STOP
INTERSTATE
70
3181 (3880)
484 (657)
3984 (3595)
STOP
3572 (4303)
4092 (3866)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
47 (71)
192 (342)
73 (161)
62 (93)
18 (12)
42 (67)
Cypress Garden Ct
I-70 EB On/Off-Ramp
24 (65)
12 (12)
12 (18)
Cypress Rd
12 (12)
150(192)
145(270)
Cypress Rd

No-Build 2037 Terminal 1 - Airport Area



No-Build 2037 Airflight Dr Interchange



Legend

AM Peak Volume (PM Peak Volume)

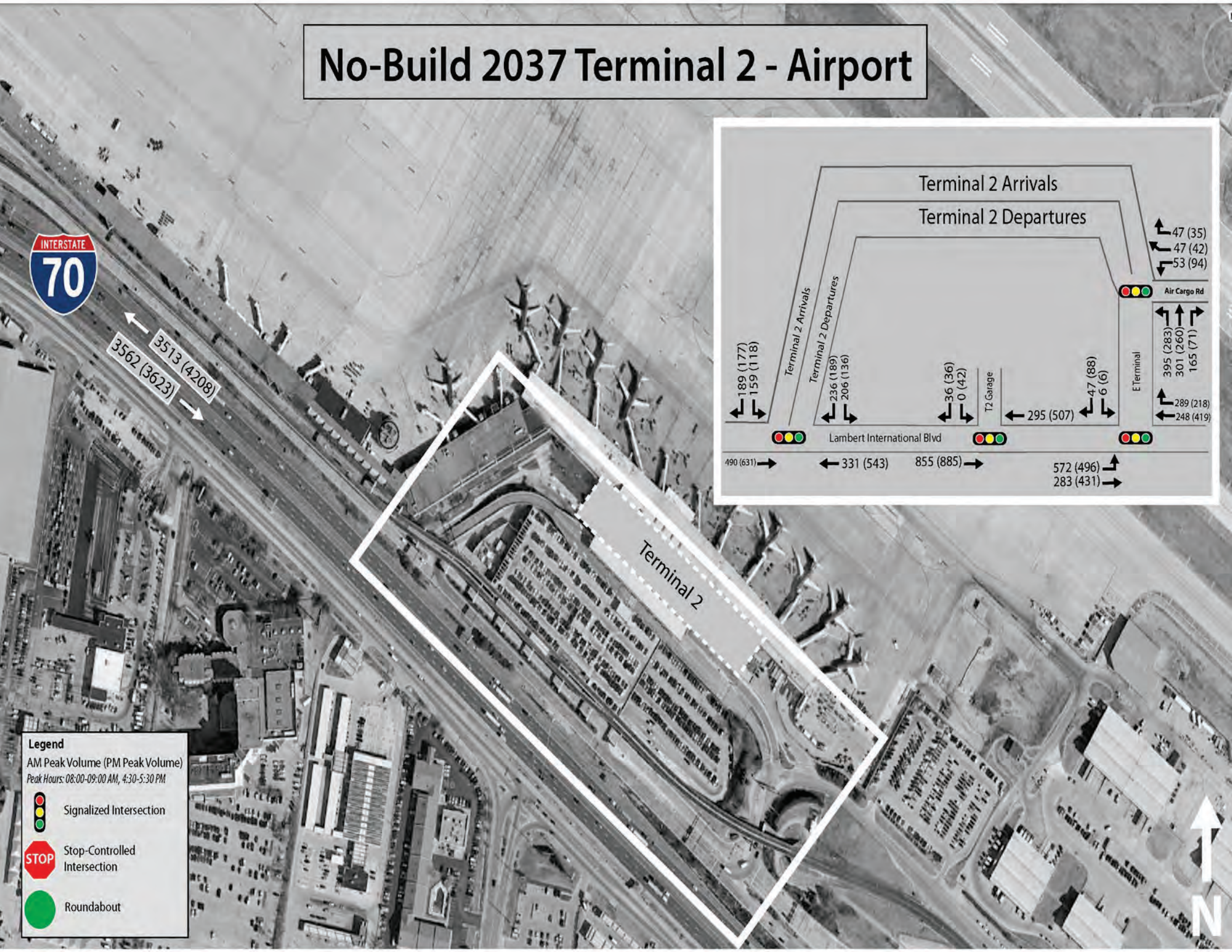
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM

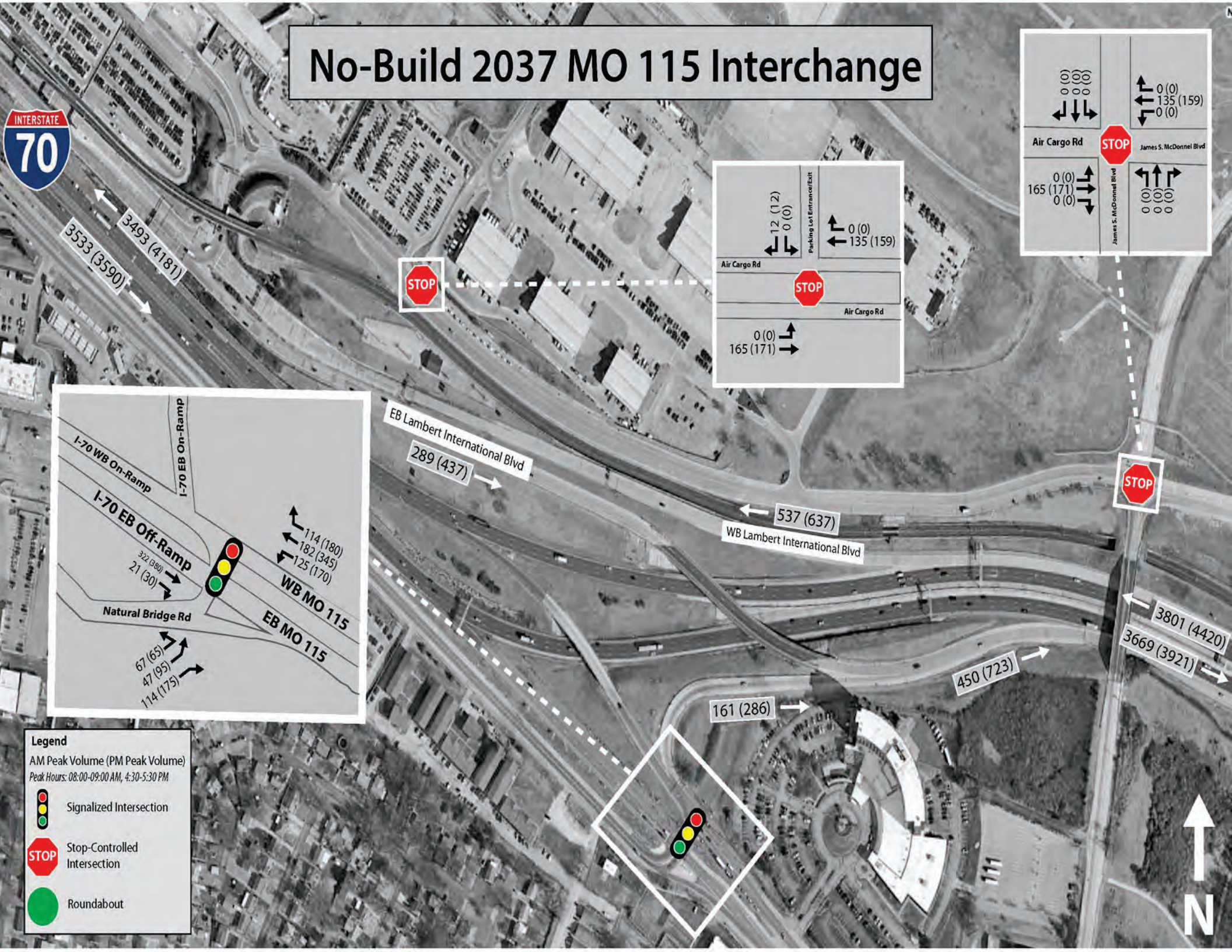
Signalized Intersection

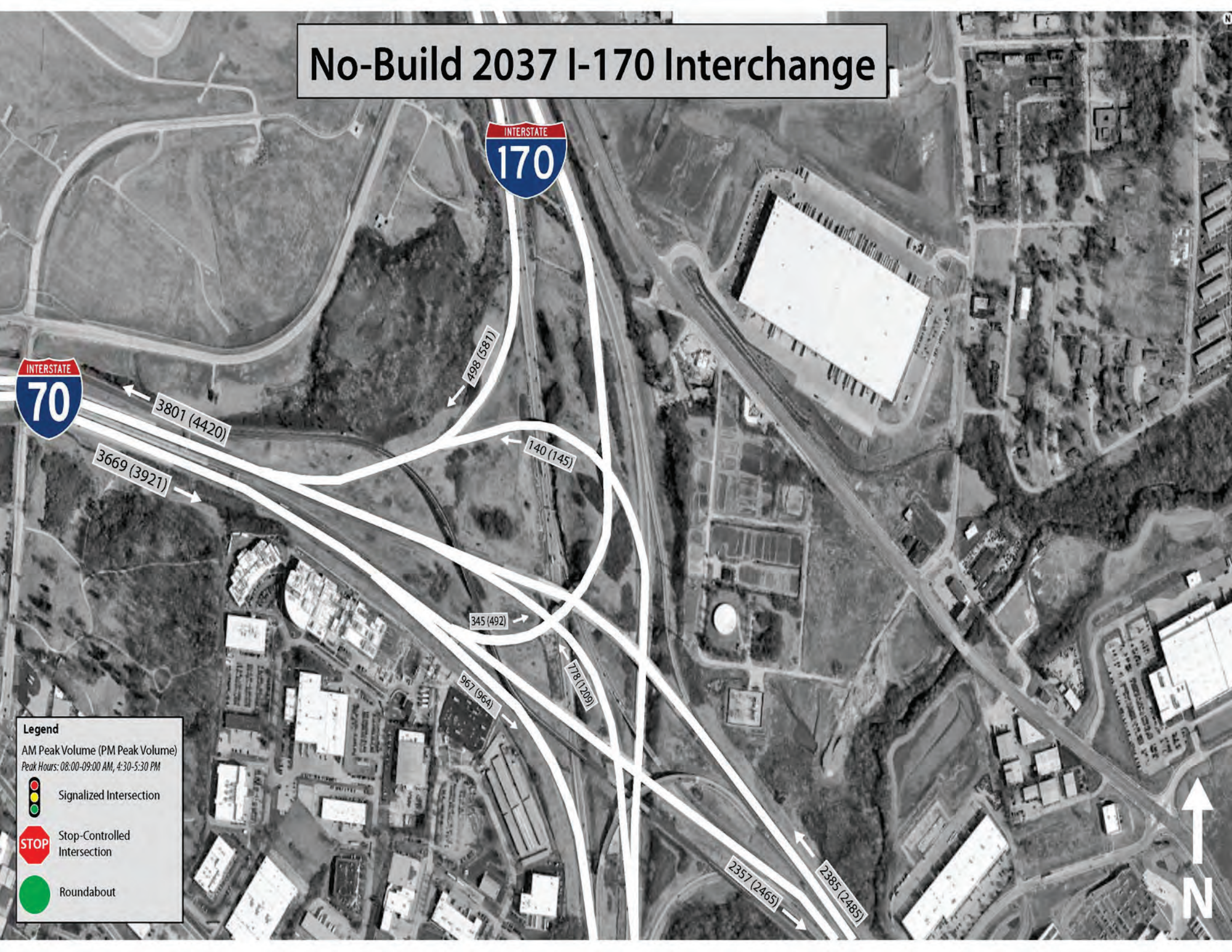
Stop-Controlled Intersection

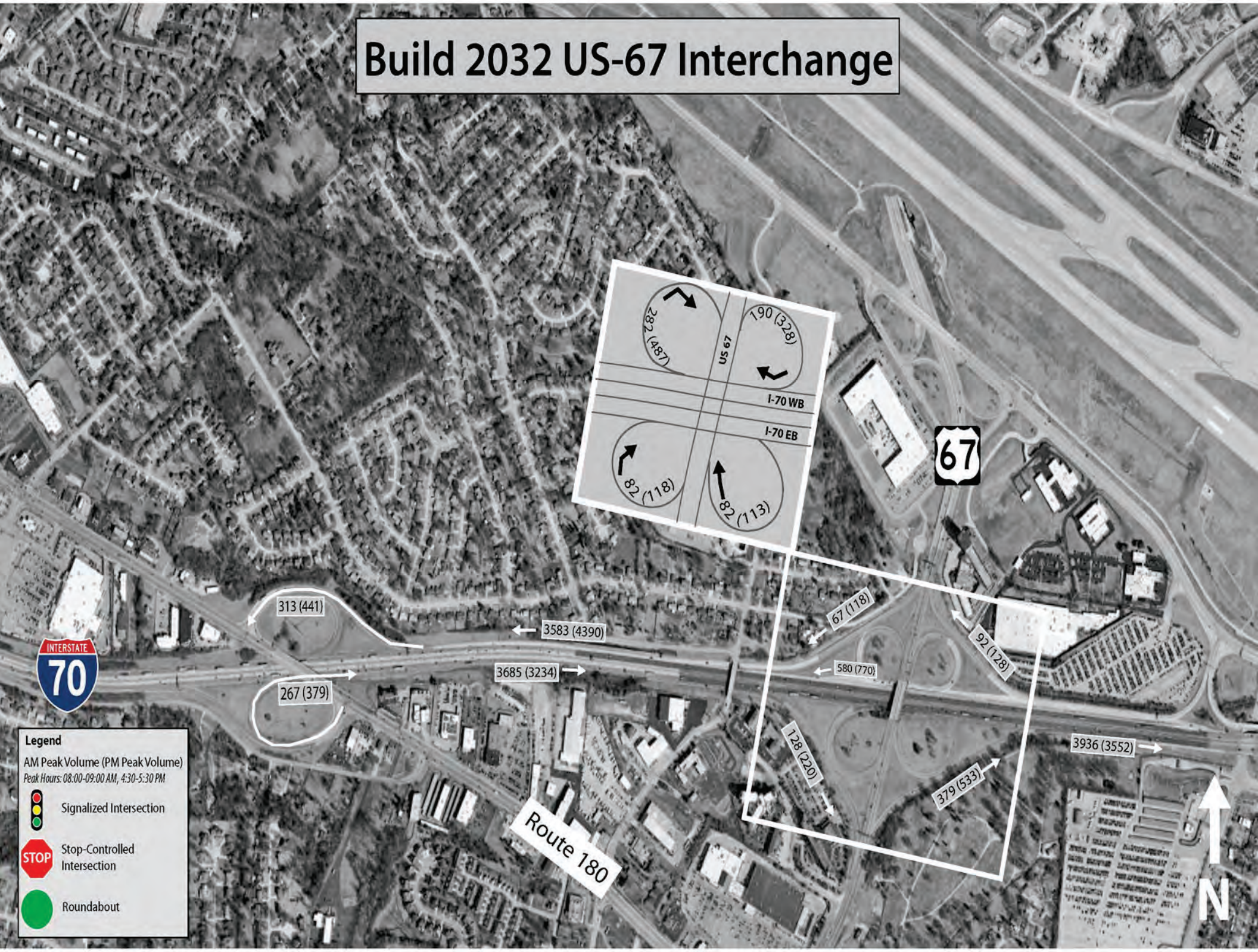
Roundabout

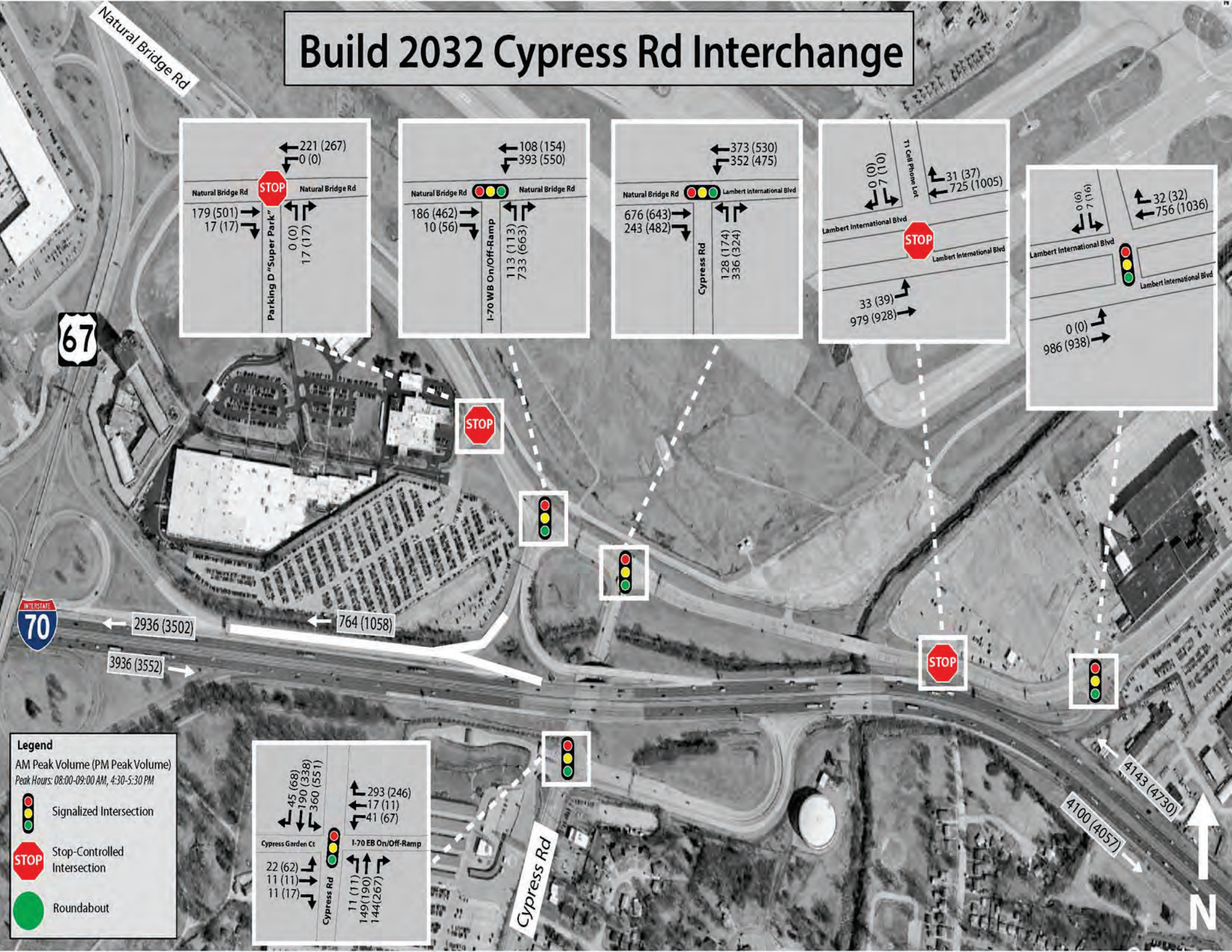
No-Build 2037 Terminal 2 - Airport



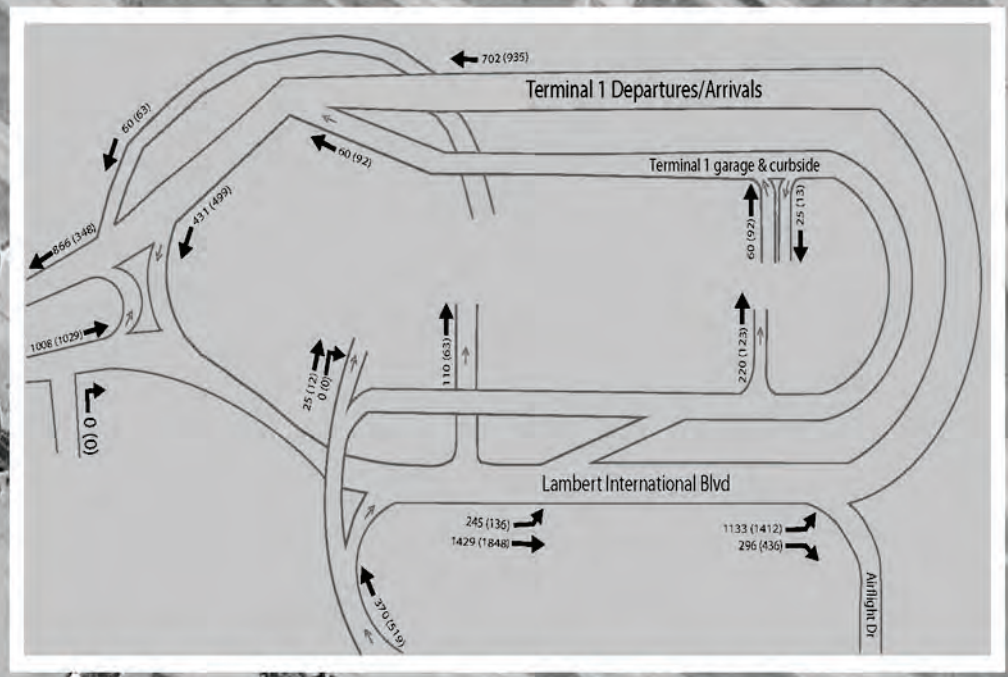

No-Build 2037 MO 115 Interchange
INTERSTATE 70
3493 (4181)
3533 (3590)
STOP
12 (12)
0 (0)
Parking Lot Entrance/Exit
0 (0)
135 (159)
Air Cargo Rd
STOP
Air Cargo Rd
0 (0)
165 (171)
0 (0)
0 (0)
135 (159)
0 (0)
Air Cargo Rd
STOP
James S. McDonnel Blvd
0 (0)
165 (171)
0 (0)
James S. McDonnel Blvd
0 (0)
0 (0)
0 (0)
I-70 WB On-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
322 (380)
21 (30)
114 (180)
182 (345)
125 (170)
WB MO 115
EB MO 115
Natural Bridge Rd
67 (65)
47 (95)
114 (175)
EB Lambert International Blvd
289 (437)
537 (637)
WB Lambert International Blvd
STOP
3801 (4420)
3669 (3921)
450 (723)
161 (286)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N


No-Build 2037 I-170 Interchange
INTERSTATE
170
INTERSTATE
70
498 (581)
3801 (4420)
140 (145)
3669 (3921)
345 (492)
778 (1209)
967 (964)
2357 (2465)
2385 (2485)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N


Build 2032 US-67 Interchange
US 67
I-70 WB
I-70 EB
282 (487)
190 (328)
82 (118)
82 (113)
67
313 (441)
3583 (4390)
67 (118)
92 (128)
3685 (3234)
580 (770)
267 (379)
128 (220)
379 (533)
3936 (3552)
INTERSTATE
70
Route 180
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout


Build 2032 Cypress Rd Interchange
Natural Bridge Rd
221 (267)
0 (0)
Natural Bridge Rd
STOP
Natural Bridge Rd
179 (501)
17 (17)
Parking D "Super Park"
0 (0)
17 (17)
108 (154)
393 (550)
Natural Bridge Rd
Natural Bridge Rd
186 (462)
10 (56)
I-70 WB On/Off-Ramp
113 (113)
733 (663)
373 (530)
352 (475)
Natural Bridge Rd
Lambert International Blvd
676 (643)
243 (482)
Cypress Rd
128 (174)
336 (324)
0 (0)
7 (10)
TI Cell Phone Lot
31 (37)
725 (1005)
Lambert International Blvd
STOP
Lambert International Blvd
33 (39)
979 (928)
0 (6)
7 (16)
32 (32)
756 (1036)
Lambert International Blvd
Lambert International Blvd
0 (0)
986 (938)
67
STOP
INTERSTATE
70
2936 (3502)
764 (1058)
3936 (3552)
STOP
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
45 (68)
190 (338)
360 (551)
Cypress Garden Ct
293 (246)
17 (11)
41 (67)
I-70 EB On/Off-Ramp
22 (62)
11 (11)
11 (17)
Cypress Rd
11 (11)
149(190)
144(267)
Cypress Rd
4143 (4730)
4100 (4057)
N

Build 2032 Terminal 1 - Airport Area



STOP

Terminal 1

4143 (4730)

4100 (4075)

Legend

AM Peak Volume (PM Peak Volume)

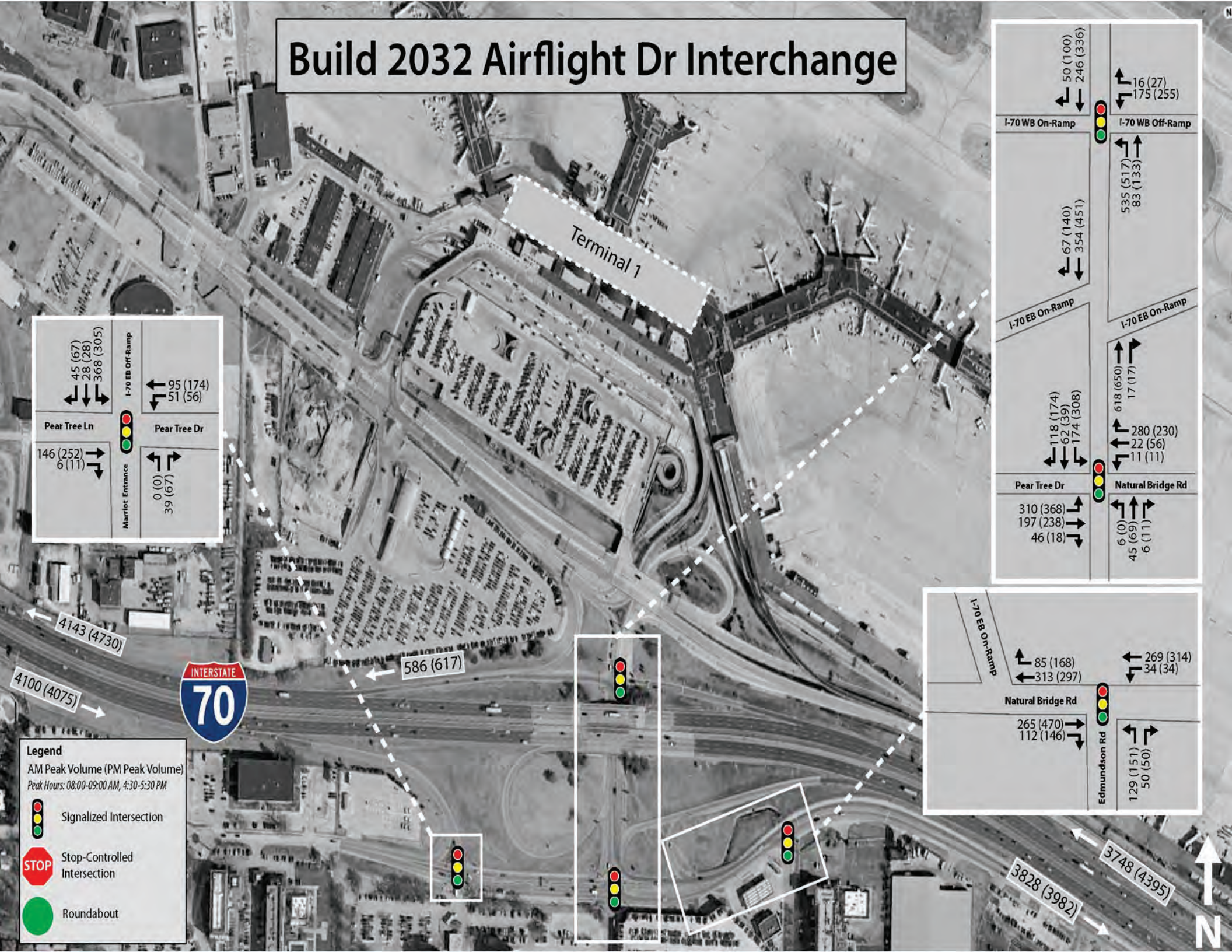
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM

Signalized Intersection

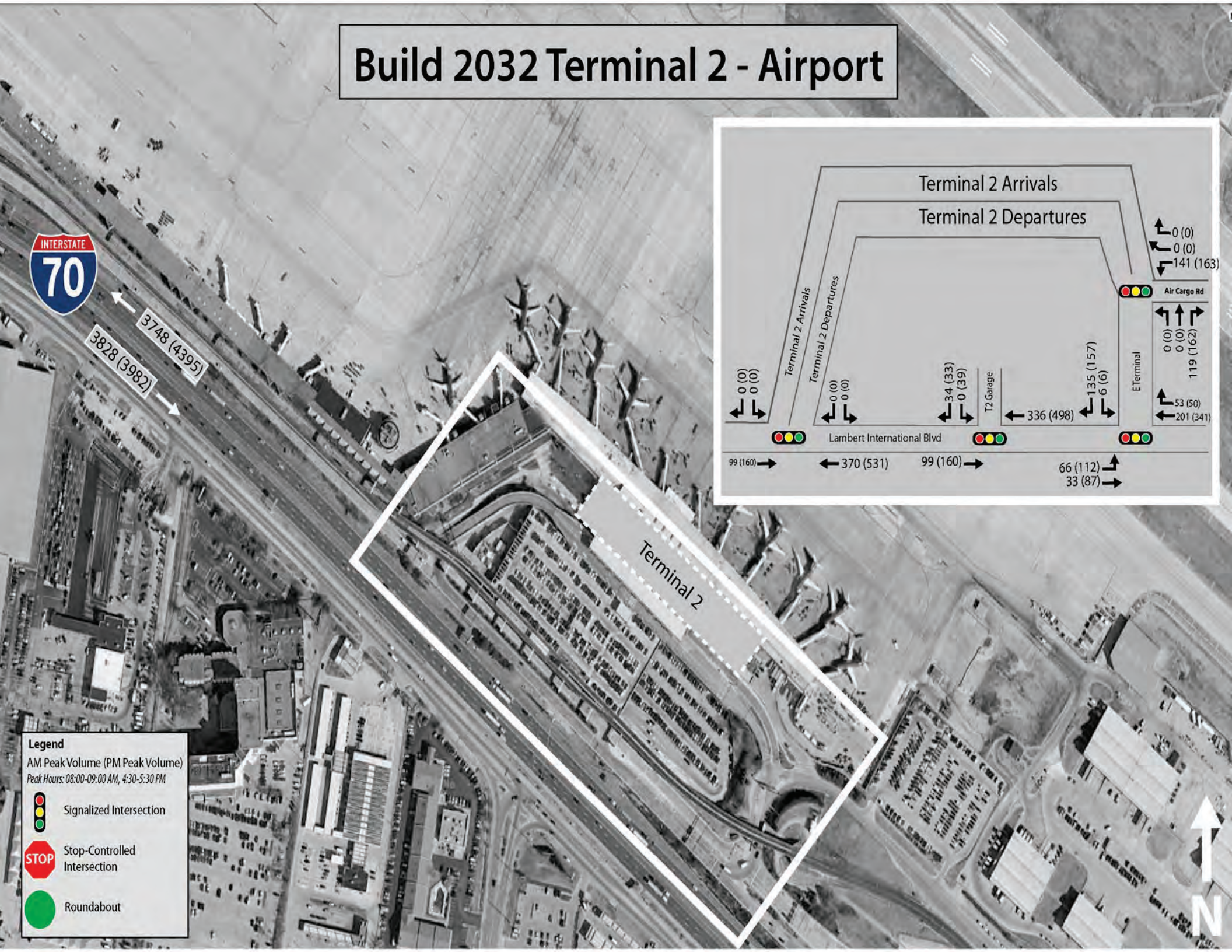
STOP Stop-Controlled Intersection

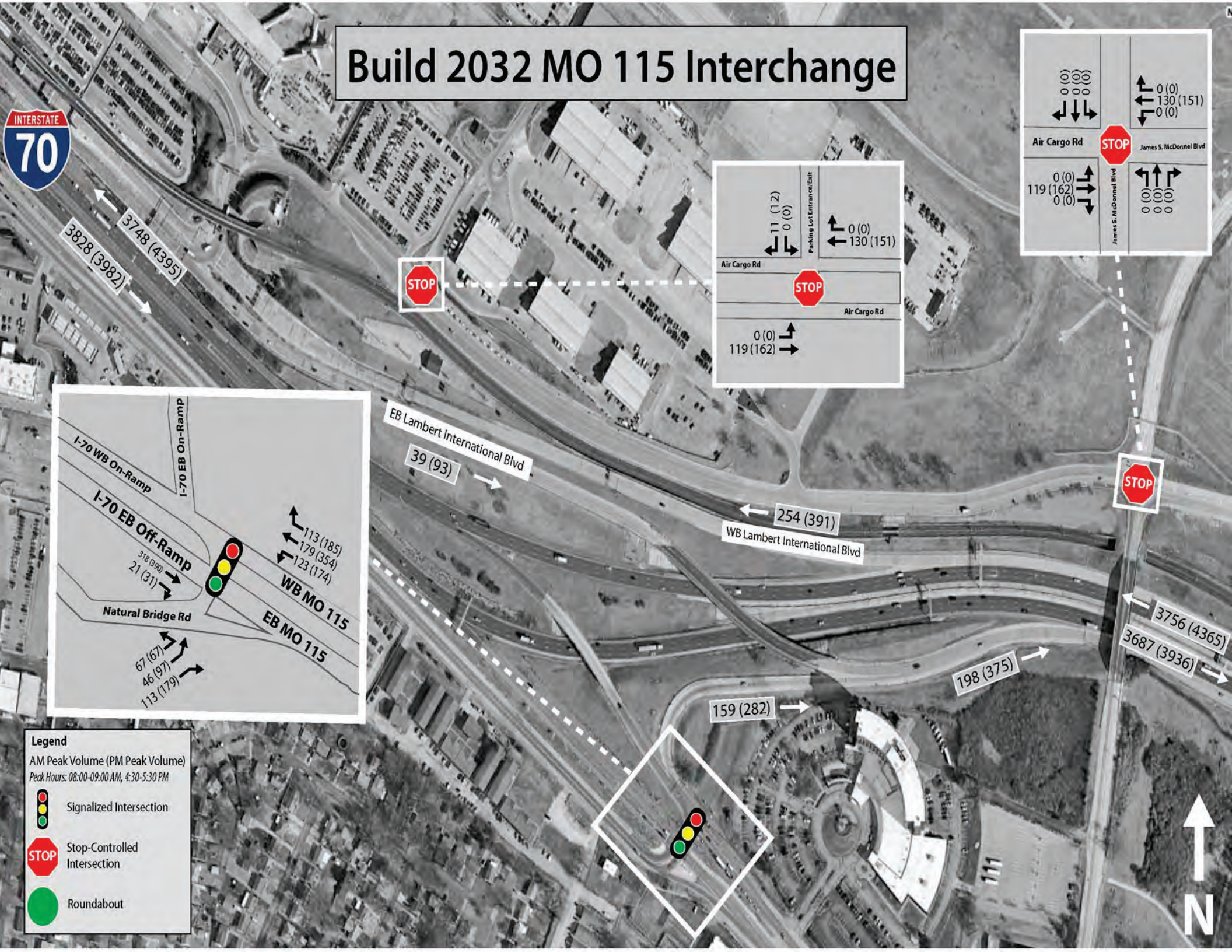
Roundabout

N

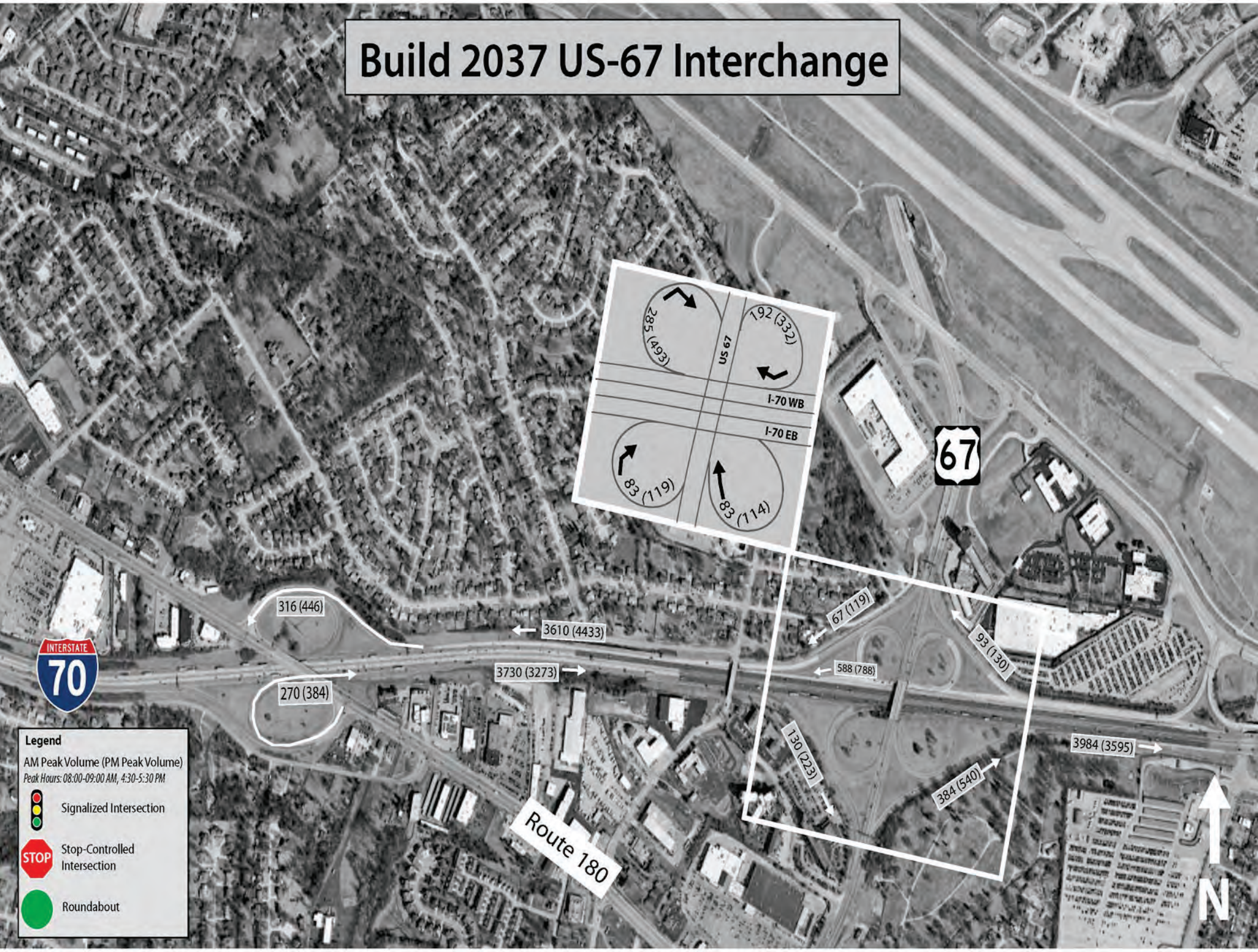

Build 2032 Airflight Dr Interchange
Terminal 1
I-70 WB On-Ramp
I-70 WB Off-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
Pear Tree Ln
Pear Tree Dr
Marriot Entrance
Natural Bridge Rd
Edmundson Rd
INTERSTATE 70
4143 (4730)
4100 (4075)
586 (617)
3748 (4395)
3828 (3982)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
Stop-Controlled Intersection
STOP
Roundabout

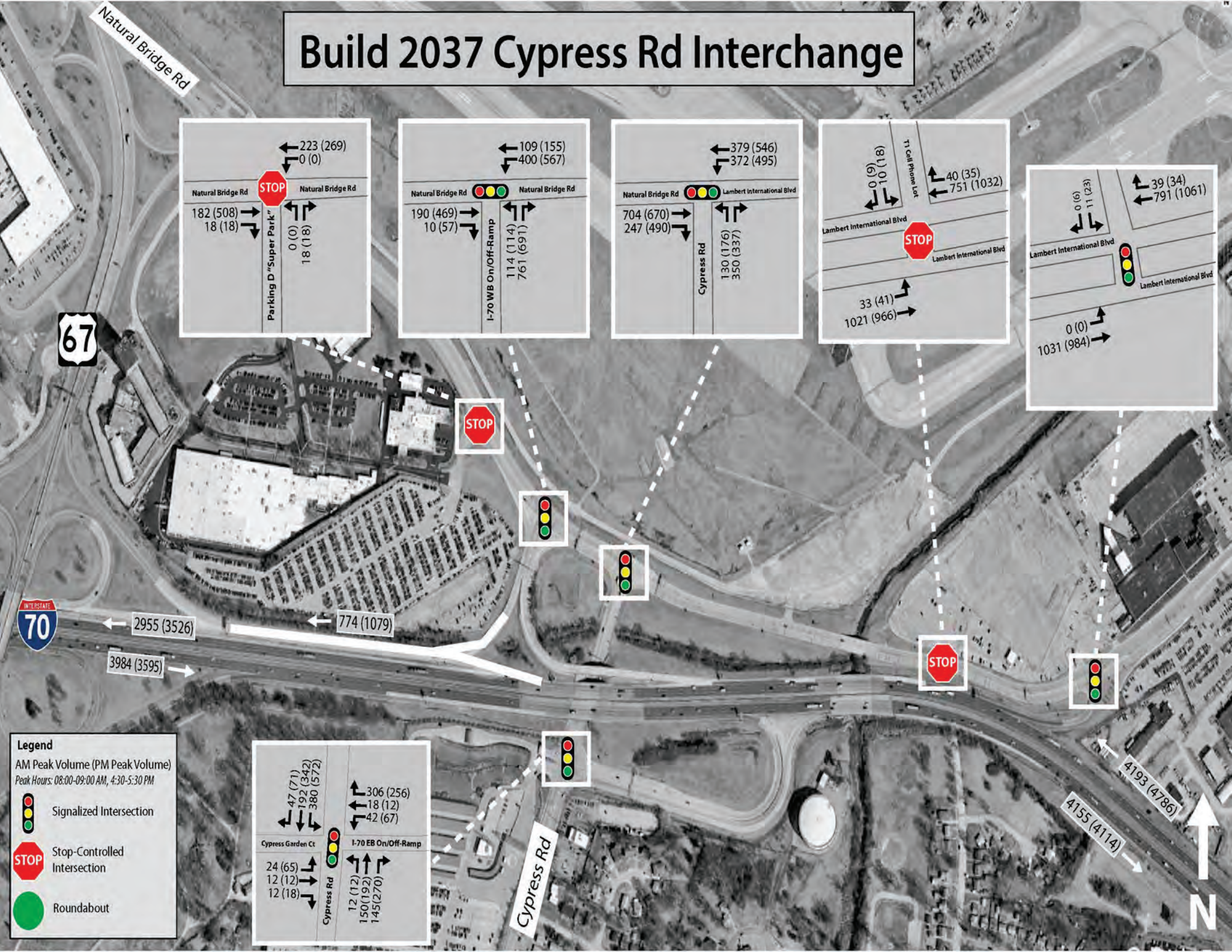
Build 2032 Terminal 2 - Airport



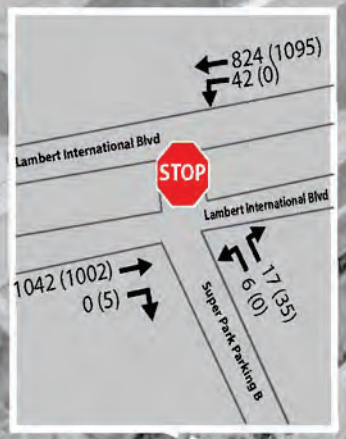

Build 2032 MO 115 Interchange
INTERSTATE 70
3748 (4395)
3828 (3982)
STOP
11 (12)
0 (0)
Parking Lot Entrance/Exit
0 (0)
130 (151)
Air Cargo Rd
STOP
Air Cargo Rd
0 (0)
119 (162)
0 (0)
130 (151)
Air Cargo Rd
STOP
James S. McDonnel Blvd
0 (0)
119 (162)
0 (0)
James S. McDonnel Blvd
EB Lambert International Blvd
39 (93)
254 (391)
WB Lambert International Blvd
STOP
I-70 WB On-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
318 (390)
21 (31)
113 (185)
179 (354)
123 (174)
WB MO 115
EB MO 115
Natural Bridge Rd
67 (67)
46 (97)
113 (179)
3756 (4365)
3687 (3936)
198 (375)
159 (282)
111
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout

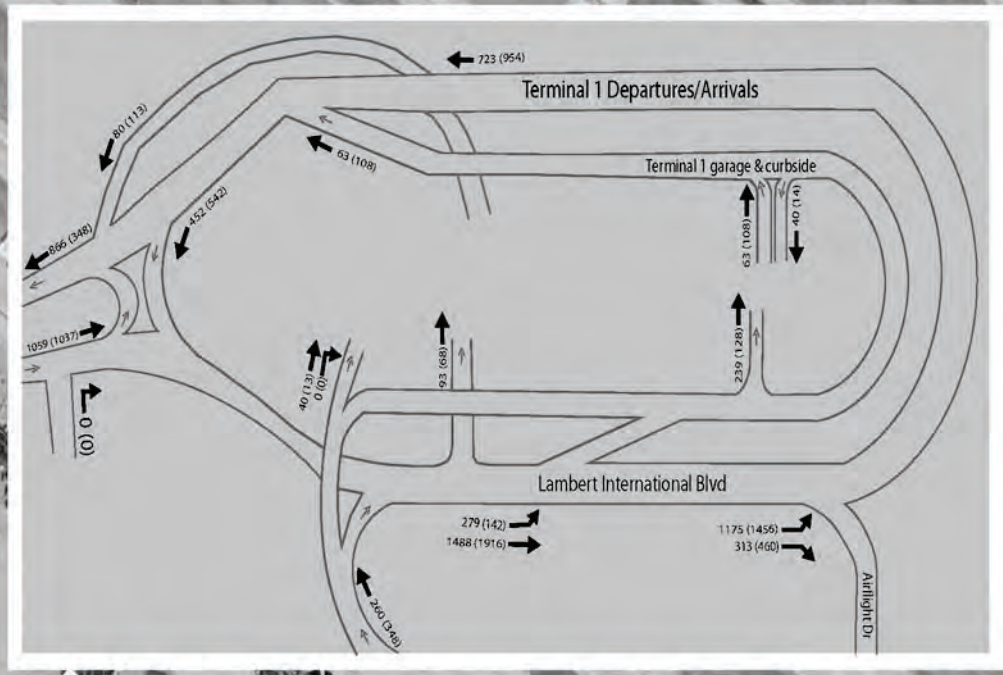

Build 2032 I-170 Interchange
INTERSTATE
170
INTERSTATE
70
492 (574)
3756 (4365)
3687 (3936)
138 (143)
341 (485)
769 (1194)
956 (950)
2390 (2501)
2357 (2454)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
N


Build 2037 US-67 Interchange
285 (493)
US 67
192 (332)
I-70 WB
I-70 EB
83 (119)
83 (114)
67
316 (446)
3610 (4433)
67 (119)
93 (130)
INTERSTATE
70
3730 (3273)
588 (788)
270 (384)
130 (223)
384 (540)
3984 (3595)
Route 180
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout


Build 2037 Cypress Rd Interchange
Natural Bridge Rd
223 (269)
0 (0)
Natural Bridge Rd
STOP
Natural Bridge Rd
182 (508)
18 (18)
Parking D "Super Park"
0 (0)
18 (18)
109 (155)
400 (567)
Natural Bridge Rd
Natural Bridge Rd
190 (469)
10 (57)
I-70 WB On/Off-Ramp
114 (114)
761 (691)
379 (546)
372 (495)
Natural Bridge Rd
Lambert International Blvd
704 (670)
247 (490)
Cypress Rd
130 (176)
350 (337)
0 (9)
10 (18)
T1 Cell Phone Lot
40 (35)
751 (1032)
Lambert International Blvd
STOP
Lambert International Blvd
33 (41)
1021 (966)
0 (6)
11 (23)
39 (34)
791 (1061)
Lambert International Blvd
Lambert International Blvd
0 (0)
1031 (984)
67
STOP
INTERSTATE
70
2955 (3526)
774 (1079)
3984 (3595)
STOP
4193 (4786)
4155 (4114)
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
47 (71)
192 (342)
380 (572)
306 (256)
18 (12)
42 (67)
Cypress Garden Ct
I-70 EB On/Off-Ramp
24 (65)
12 (12)
12 (18)
Cypress Rd
12 (12)
150(192)
145(270)
Cypress Rd

Build 2037 Terminal 1 - Airport Area





Terminal 1

4193 (4786)

4156 (4114)

Legend

AM Peak Volume (PM Peak Volume)

Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM

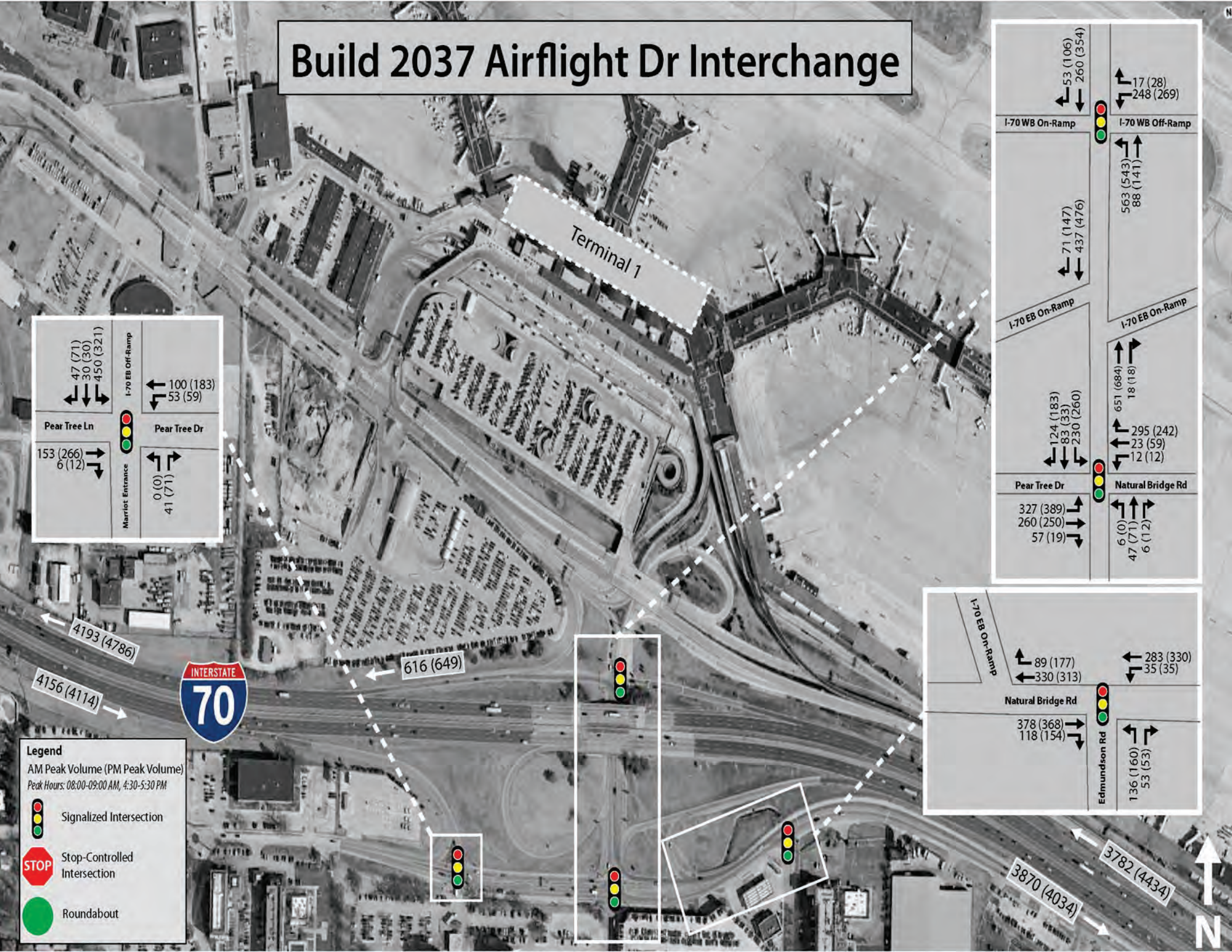
Signalized Intersection

STOP Stop-Controlled Intersection

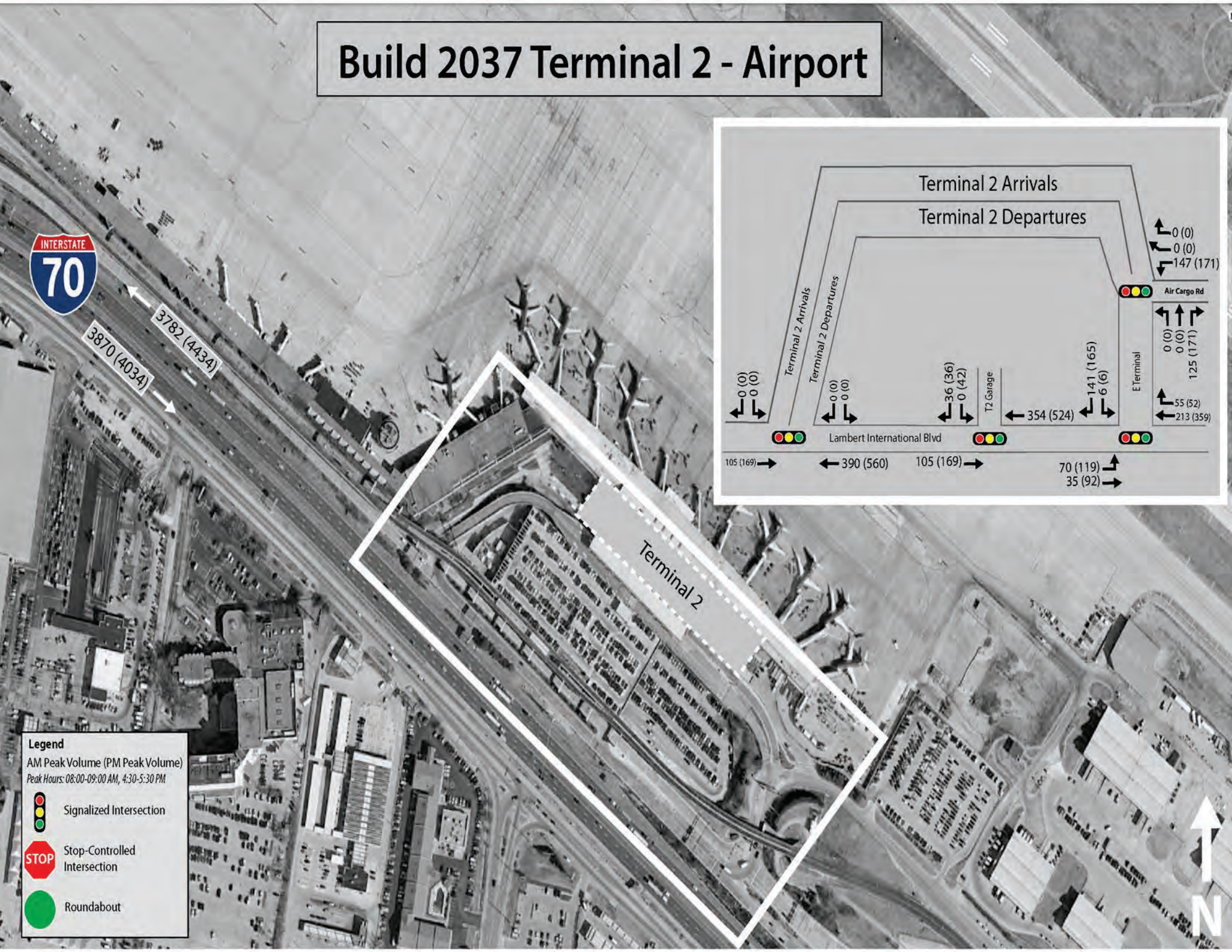
Roundabout

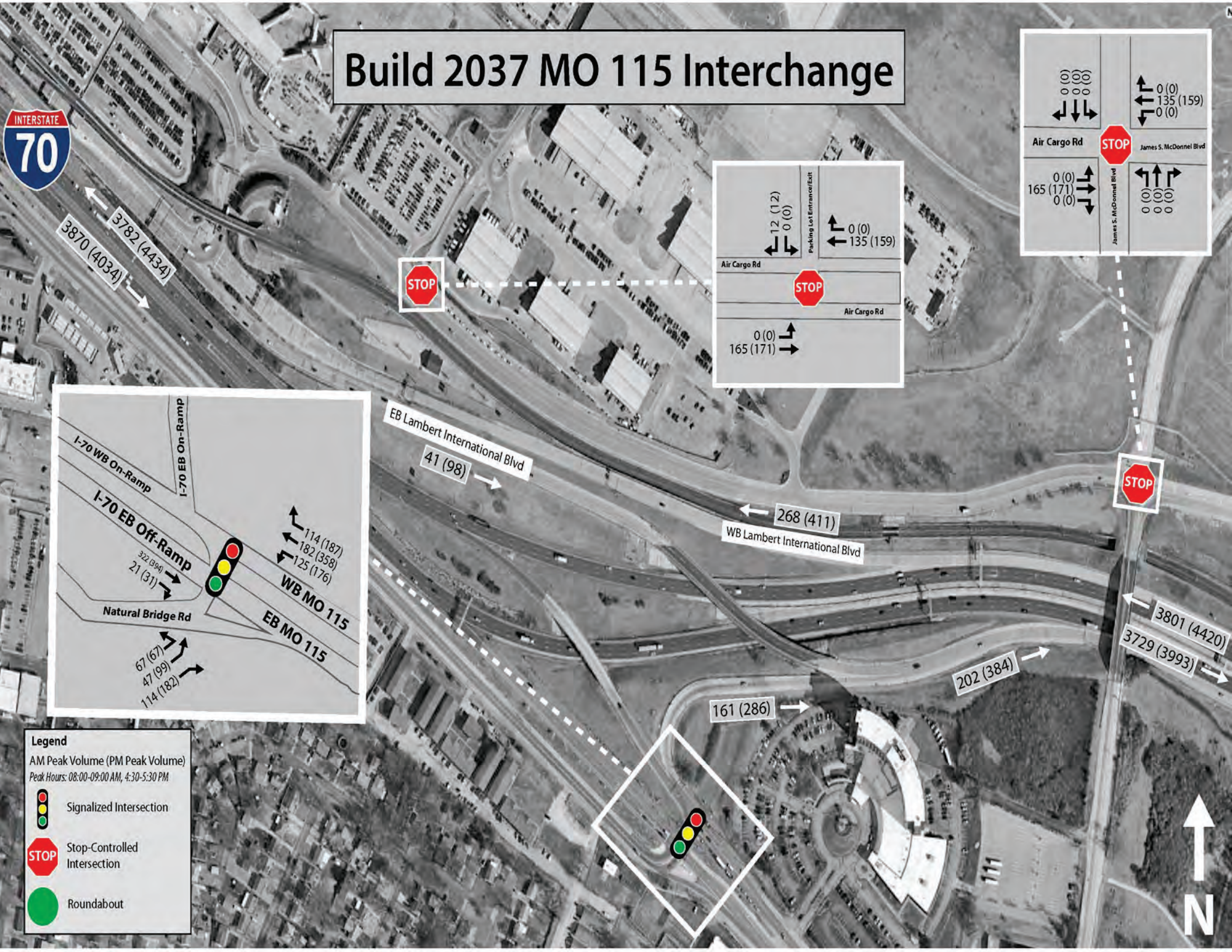
N

Build 2037 Airflight Dr Interchange



Build 2037 Terminal 2 - Airport




Build 2037 MO 115 Interchange
INTERSTATE 70
3782 (4434)
3870 (4034)
STOP
12 (12)
0 (0)
Parking Lot Entrance/Exit
0 (0)
135 (159)
Air Cargo Rd
STOP
Air Cargo Rd
0 (0)
165 (171)
0 (0)
0 (0)
135 (159)
0 (0)
Air Cargo Rd
STOP
James S. McDonnel Blvd
0 (0)
165 (171)
0 (0)
James S. McDonnel Blvd
0 (0)
0 (0)
0 (0)
I-70 WB On-Ramp
I-70 EB On-Ramp
I-70 EB Off-Ramp
322 (394)
21 (31)
114 (187)
182 (358)
125 (176)
WB MO 115
EB MO 115
Natural Bridge Rd
67 (67)
47 (99)
114 (182)
EB Lambert International Blvd
41 (98)
268 (411)
WB Lambert International Blvd
STOP
3801 (4420)
3729 (3993)
202 (384)
161 (286)
111
N
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout


Build 2037 I-170 Interchange
INTERSTATE
170
INTERSTATE
70
498 (581)
3801 (4420)
140 (145)
3729 (3993)
345 (492)
778 (1209)
967 (964)
2417 (2537)
2385 (2485)
Legend
AM Peak Volume (PM Peak Volume)
Peak Hours: 08:00-09:00 AM, 4:30-5:30 PM
Signalized Intersection
STOP
Stop-Controlled Intersection
Roundabout
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