



CHAPTER SEVEN

Capital Improvement and Phased Development Plan

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CAPITAL IMPROVEMENT AND PHASED DEVELOPMENT PLAN

Introduction

The Capital Improvement Plan (CIP) and phased development plan is the formulation of an orderly series of improvements intended for Skylark Field's (ILE) growth and development based on the preferred improvement options outlined in the Alternatives chapter. Improvement objectives are outlined to have ILE continue to operate a safe, efficient, and attractive public facility that ties in with the City of Killeen and surrounding region from an aesthetic and economic viewpoint.

Opinions of probable costs for individual projects are based on unconstrained funding and have been prepared for identified improvements. Since these probable costs are based on 2015 dollars, they are intended for planning purposes only and should not be used or construed as construction cost estimates. Formalized opinions of probable costs will be developed as a part of each project's scoping process during the design and engineering phase. It is important to note that

market demand not occurrence within a specific time frame will be the driver for when facilities are constructed. The following guidelines have been followed in the formulation of the KILE CIP and Phased Development Plan:

- The scheduling of projects is prioritized to permit improvements in a coordinated approach. The phasing and priority of each project has been determined with respect to airport safety, demand, compatibility with other airport projects, and TxDOT programming schedules;
- Overall, the CIP has been structured to provide the flexibility to meet short- and long-range goals. Therefore, individual projects should not be considered as a single improvement, but as part of a project series that arrive at the ultimate concept;
- The CIP designates specific locations for hangars/buildings of differing functions and approximate sizes to align with the long-range plans regardless of construction

order allowing the airport flexibility in accommodating surges in demand or third-party funding sources;

- The development plan does not represent an obligation of local funds, nor does it require a funding commitment without justification of demand levels by the City of Killeen, TxDOT, or Federal Aviation Administration (FAA); and,
- The expressed desire, intent, and ability of the City to achieve airport land use compatibility, coupled with favorable aesthetics transition, remains important planning and funding considerations.

The following pages identify the proposed phased development for KILE. Each phase consists of projects and improvements categorized by the following areas: 1) airfield improvements and 2) landside improvements. The Phased Development Plan is divided into the following phases:

Phase I (2015 – 2019)

Short-term development projects

Phase II (2020 – 2024)

Mid-term development projects

Phase III (2025 – 2034)

Long-term development projects

The CIP and Phased Development Plan described below, in **Tables 7-1** through **7-3**, and depicted on **Figure 7-1** encompass three development and funding phases: Phase I (0-5 years), Phase II (6-10 years), and Phase III (11-20 years).

PHASE I INCLUDES THE FOLLOWING PROJECTS:

Airfield Improvements

A1: FAA Memorandum of Agreement; Glideslope Removal; MALSR Removal; RW 01 Localizer Approach Revisions; LPV GPS RW 01 initiation; and,

A2: Design and install runway end identifier lights (REIL) RW 01 End.

Landside Improvements

A3A: Design and construct new 8-unit T-hangar east of current T-hangars (Area 3);

A3B: Design and construct associated taxiway/apron east of current T-hangars (Area 3);

A4: Terminal Area Drainage Improvement: install box culvert in ditch behind T-hangars 10-11 (Area 3)

A5: Civil and Electrical infrastructure improvements in general aviation hangar development (Area 3);

A6: Removal/demolition of former commercial terminal building (#1525) (Area 3);

A7A: Design and construct new 7-unit T-hangar (192' x 58') with jet pods (80' x 80') on each end at north terminal end (Area 1), includes demolition of original terminal building (#1511); and,

A7B: Design and construct associated taxiway and apron in support of new T-hangars and Box Hangars (Area 1).

PHASE II INCLUDES THE FOLLOWING PROJECTS:

Airfield Improvements

B3A: Rehabilitate Runway 1-19 (sealcoat and remarking);

B3B: Taxiway B rehabilitation (sealcoat and remarking);

B4: Remove and replace airfield electrical vault (#1519) and installation of new back-up generator system;

B5: Design and construct new airfield maintenance equipment building (Area 3);

B6: Redesign and construct TW D to meet FAA design criteria and align with Taxiway A; and,

B7: Rehabilitate Taxiways A, C, E, F, Y, G, K, and J (sealcoat and remarking).



Landside Improvements

B1A: Design and construct new general aviation terminal building (Area 3) (includes demolition of existing GA terminal building);

B1B: Design and construct new general aviation terminal building (#1523) (Area 3) auto access and parking;

B2A: Remove shade hangar (#1603) in northeast part of terminal area (Area 3) and replace with series of 8 small box hangars (45' x 35') fronting to the south;

B2B: Design and construct associated taxilane/apron for series of 8 small box hangars (45' x 35');

B8: Design and construct new access taxilane from Taxiway A north into the former commercial terminal building parking area to be redeveloped with new T-hangars and box/common hangars;

B9A: Design and construct new 8-unit T-hangar on former commercial terminal building parking lot;

B9B: Design and construct taxilane/apron on former commercial terminal building parking lot in support of new 8-unit T-hangar;

B10A: Design and construct new box hangar (100' x 100') on former commercial terminal building site;

B10B: Design and construct apron associated with new box hangar (100' x 100');

B10C: Design and construct auto access/parking improvements associated with new box hangar (100' x 100');

B11: Rehabilitate apron (sealcoat and remarking) between Taxiway B, Taxiway K, Central Texas College hangars, and the northern apron end;

B12A: Design and construct new 12-unit T-hangar (300' x 50') (Area 1); and,

B12B: Design and construct associated taxilane/apron for new 12-unit T-hangar (Area 1).

PHASE III INCLUDES THE FOLLOWING PROJECTS:

Airfield Improvements

C4: Runway 1-19 structural overlay/reconstruction;

C5: Design and install medium intensity LED runway lights on Runway 1-19;

C6: Taxiway B structural overlay/reconstruction;

C7: Taxiway A mill and overlay/reconstruction;

C8: Rehabilitate medium intensity taxiway lights along all taxiways;

C9: Extend Taxiway B north to the Runway 19 end;

C10: Extend Taxiway B south to the Runway 1 end; and,

C11: Update the Airport Master Plan.

Landside Improvements

C1A: Design and construct new box hangar (80' x 80') fronting onto TW A east of former commercial terminal building (Area 3)

C1B: Design and construct taxilane/apron associated with new box hangar (80' x 80') (Area 3)

C1C: Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 3);

C2A: Design and construct new box hangar (80' x 80') fronting west towards Taxiway B immediately north of new GA terminal building (includes demolition of aircraft rescue and firefighting station);

C2B: Design and construct apron associated with new box hangar (80' x 80') fronting west towards Taxiway B immediately south of new GA terminal building;

C2C: Design and construct auto access and parking associated with new box hangar (80' x 80') fronting west towards Taxiway B immediately south of new GA terminal building;



C3A: Design and construct taxiway/apron associated with new 10-unit T-hangar (220' x 50') on former commercial terminal auto parking lot (Area 3);

C12A: Design and construct new box hangar (80' x 80') and associated taxiway/apron fronting onto TW A east of former commercial terminal building (Area 3);

C12B: Design and construct apron associated with new box hangar (80' x 80') (Area 3);

C12C: Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 3);

C13A: Design and construct new 80' x 80' common/box hangar;

C13B: Design and construct taxiway/apron associated with new box hangar (80' x 80');

C13C: Design and construct auto access and parking associated with new box hangar (80' x 80');

C14A: Design and construct series of five 50' x 50' common/box hangars on former commercial terminal east overflow parking area (Area 3); and,

C14B: Design and construct taxiway/apron associated with series of 50' x 50' box hangars;

C15A: New 80' x 80' common/box hangar (Area 2);

C15B: Design and construct taxiway/apron associated with new box hangar (80' x 80') (Area 2); and,

C15C: Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 2).

Project Cost Estimates

Opinions of probable costs for individual projects are based on unconstrained funding and have been prepared for improvements identified to meet facility requirements and forecast demand while maximizing available airport property for terminal development. Since these probable costs are based on 2015 dollars, they are intended for planning purposes only and should not be used or construed as construction cost estimates. Formalized opinions of probable costs will be developed as part of each project's scoping process during the design and engineering. It is important to note that market demand, not occurrence within a specific time frame, will drive facility need. Additionally, the project list is flexible and evolving. For example, if a project is slated for year three of the Phasing Plan, this does not mean it needs to occur during this time. Project importance changes over time which may allow certain items to move up or down in the priority order.



TABLE 7-1 | PHASE I (0-5 YEARS) DEVELOPMENT COSTS

	Project Type	Local Funding	State/ Federal Funding	Total Cost
A1	FAA Memorandum of Agreement; Glideslope Removal; LPV GPS RW 01; MALSR Removal; RW 01 Localizer Approach Revisions	\$450,000	\$	\$450,000
A2	Design and install runway end identifier lights (REIL) RW 01 End	\$100,000	\$0	\$100,000
A3A	Design and construct new 8-unit T-hangar east of current T-hangars (Area 3) •	\$74,100	\$666,900	\$741,000
A3B	Design and construct associated taxilane/apron east of current T-hangars (Area 3) •	\$36,000	\$324,000	\$360,000
A4	Terminal Area Drainage Improvement: install box culvert in ditch behind T-hangars 10-11 (Area 3)	\$42,000	\$378,000	\$420,000
A5	Civil and Electrical infrastructure improvements in general aviation hangar development (Area 3)	\$250,000	\$0	\$250,000
A6	Removal/demolition of former commercial terminal building (Area 3)	\$9,000	\$81,000	\$90,000
A7A	Design and construct new 7-unit T-hangar (192' x 58') with jet pods (80' x 80') on each end at north terminal end (Area 1), includes demolition of original terminal building •	\$1,800,000	\$0	\$1,800,000
A7B	Design and construct associated taxilane and apron in support of new T-hangars and Box Hangars (Area 1) •	\$88,900	\$800,100	\$889,000
PHASE I TOTAL		\$2,850,000	\$2,250,000	\$5,100,000

Source: Costs reflect 2015 dollars and should be used for planning purposes only. Engineering/ design and construction costs are inclusive. * Fee exclusive of construction costs to be determined by on-call engineering firm. # Costs for ILS replacement encompassed within the Rosewood Highway Project. • If airport owned, hangars are funded at 80%/20% cost share through NPE up to \$600,000. The Airport Sponsor is responsible for 100% of the remaining balance. If privately owned, 100% of the cost is private or third party funding.



TABLE 7-2 | PHASE II (6-10 YEARS) DEVELOPMENT COSTS

	Project Type	Local Funding	State/ Federal Funding	Total Cost
B1A	Design and construct new general aviation terminal building (Area 3) (includes demolition of existing GA terminal building #1523)	\$500,000	\$500,000	\$1,000,000
B1B	Design and construct new general aviation terminal building (Area 3) auto access and parking	\$119,000	\$119,000	\$238,000
B2A	Remove shade hangar (#1603) in northeast part of terminal area (Area 3) and replace with series of 8 small box hangars (45' x 35') fronting to the south •	\$89,500	\$805,500	\$895,000
B2B	Design and construct associated taxilane/apron for series of 8 small box hangars (45' x 35')	\$18,000	\$162,000	\$180,000
B3A	Rehabilitate Runway 1-19 (sealcoat and remarking)	\$76,000	\$684,000	\$760,000
B3B	Taxiway B rehabilitation (sealcoat and remarking)	\$23,000	\$207,000	\$230,000
B4	Remove and replace airfield electrical vault (#1519) and installation of new back-up generator system	\$71,000	\$639,000	\$710,000
B5	Design and construct new airfield maintenance equipment building (Area 3)	\$250,000	\$50,000	\$300,000
B6	Redesign and construct TW D to meet FAA design criteria and align with Taxiway A	\$54,000	\$486,000	\$540,000
B7	Rehabilitate Taxiways A, C, E, F, Y, G, K, and J (sealcoat and remarking)	\$28,000	\$252,000	\$280,000
B8	Design and construct new access taxilane from Taxiway A north into the former commercial terminal building parking area to be redeveloped with new T-hangars and box/common hangars	\$29,000	\$261,000	\$290,000
B9A	Design and construct new 8-unit T-hangar on former commercial terminal building parking lot •	\$73,000	\$657,000	\$730,000
B9B	Design and construct taxilane/apron on former commercial terminal building parking lot in support of new 8-unit T-hangar	\$38,400	\$345,600	\$384,000
B10A	Design and construct new box hangar (100' x 100') on former commercial terminal building site •	\$993,000	\$0	\$993,000
B10B	Design and construct apron associated with new box hangar (100' x 100') •	\$9,700	\$87,300	\$97,000
B10C	Design and construct auto access/parking improvements associated with new box hangar (100' x 100') •	\$180,500	\$9,500	\$190,000
B11	Rehabilitate apron (sealcoat and remarking) between Taxiway B, Taxiway K, Central Texas College hangars, and the northern apron end	\$26,000	\$234,000	\$260,000



TABLE 7-2 (CONTINUED) | PHASE II (6-10 YEARS) DEVELOPMENT COSTS

	Project Type	Local Funding	State/ Federal Funding	Total Cost
B12A	Design and construct new 12-unit T-hangar (300' x 50') (Area 1) •	\$943,000	\$0	\$943,000
B12B	Design and construct associated taxilane/apron for new 12-unit T-hangar (Area 1) •	\$90,700	\$816,300	\$907,000
PHASE II TOTAL		\$3,611,800	\$6,315,200	\$9,927,000

Source: Costs reflect 2015 dollars and should be used for planning purposes only. Engineering/ design and construction costs are inclusive. • If airport owned, hangars are funded at 80%/20% cost share through NPE up to \$600,000. The Airport Sponsor is responsible for 100% of the remaining balance. If privately owned, 100% of the cost is private or third party funding.



TABLE 7-3 | PHASE III (11-20 YEARS) DEVELOPMENT COSTS

	Project Type	Local Funding	State/ Federal Funding	Total Cost
C1A	Design and construct new box hangar (80' x 80') fronting onto TW A east of former commercial terminal building (Area 3) •	\$620,000	\$0	\$620,000
C1B	Design and construct taxiway/apron associated with new box hangar (80' x 80') (Area 3) •	\$28,000	\$252,000	\$280,000
C1C	Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 3) •	\$180,500	\$9,500	\$190,000
C2A	Design and construct new box hangar (80' x 80') fronting west towards Taxiway B immediately north of new GA terminal building (includes demolition of aircraft rescue and firefighting station) •	\$64,500	\$580,500	\$645,000
C2B	Design and construct apron associated with new box hangar (80' x 80') fronting west towards Taxiway B immediately south of new GA terminal building	\$30,800	\$277,200	\$308,000
C2C	Design and construct auto access and parking associated with new box hangar (80' x 80') fronting west towards Taxiway B immediately north of new GA terminal building	\$35,500	\$35,500	\$71,000
C3A	Design and construct new 10-unit T-hangar (220' x 50') on former commercial terminal auto parking lot (Area 3) •	\$89,000	\$801,000	\$890,000
C3B	Design and construct taxiway/apron associated with new 10-unit T-hangar (220' x 50') on former commercial terminal auto parking lot (Area 3)	\$54,400	\$489,600	\$544,000
C4	Runway 1-19 structural overlay/reconstruction	\$482,000	\$4,338,000	\$4,820,000
C5	Design and install medium intensity LED runway lights on Runway 1-19	\$36,000	\$324,000	\$360,000
C6	Taxiway B structural overlay/reconstruction	\$227,000	\$2,043,000	\$2,270,000
C7	Taxiway A mill and overlay/reconstruction	\$56,000	\$504,000	\$560,000
C8	Rehabilitate medium intensity taxiway lights along all taxiways	\$77,000	\$693,000	\$770,000
C9	Extend Taxiway B north to the Runway 19 end	\$66,000	\$594,000	\$660,000
C10	Extend Taxiway B south to the Runway 1 end	\$77,000	\$693,000	\$770,000
C11	Update the Airport Master Plan	\$38,000	\$342,000	\$380,000
C12A	Design and construct new box hangar (80' x 80') fronting onto TW A east of former commercial terminal building (Area 3) •	\$660,000	\$0	\$660,000
C12B	Design and construct apron associated with new box hangar (80' x 80') (Area 3)	\$33,500	\$301,500	\$335,000
C12C	Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 3)	\$99,750	\$5,250	\$105,000



TABLE 7-3 (CONTINUED) | PHASE III (11-20 YEARS) DEVELOPMENT COSTS

	Project Type	Local Funding	State/ Federal Funding	Total Cost
C13A	Design and construct new 80' x 80' common/box hangars •	\$650,000	\$0	\$650,000
C13B	Design and construct taxilane/apron associated with new box hangar (80' x 80')	\$33,700	\$303,300	\$337,000
C13C	Design and construct auto access and parking associated with new box hangar (80' x 80')	\$61,750	\$3,250	\$65,000
C14A	Design and construct series of five 50' x 50' common/box hangars on former commercial terminal east overflow parking area (Area 3) •	\$118,500	\$1,066,500	\$1,185,000
C14B	Design and construct taxilane/apron associated with series of 50' x 50' box hangars	\$48,600	\$437,400	\$486,000
C15a	New 80' x 80' common/box hangar (Area 2)	\$650,000	\$0	\$650,000
C15B	Design and construct taxilane/apron associated with new box hangar (80' x 80') (Area 2)	\$33,700	\$303,300	\$337,000
C15C	Design and construct auto access and parking associated with new box hangar (80' x 80') (Area 2)	\$61,750	\$3,250	\$65,000
PHASE III TOTAL		\$4,612,950	\$14,400,050	\$19,013,000
TOTAL		\$11,074,750	\$22,965,250	\$34,040,000

Source: Costs reflect 2015 dollars and should be used for planning purposes only. Engineering/design and construction costs are inclusive. • If airport owned, hangars are funded at 80%/20% cost share through NPE up to \$600,000. The Airport Sponsor is responsible for 100% of the remaining balance. If privately owned, 100% of the cost is private or third party funding.

To supplement the information provided by the phased project list and development cost estimates, phasing graphics have been prepared. These graphics, represented in **Figures 7-1, 7-2, and 7-3** indicate the suggested phasing for improvements for both short-term, mid-term, and long-term projects throughout the next 20-years. It is set up as a color coded system to easily identify projects as they are listed and itemized in **Tables 7-1, 7-2, and 7-3**.



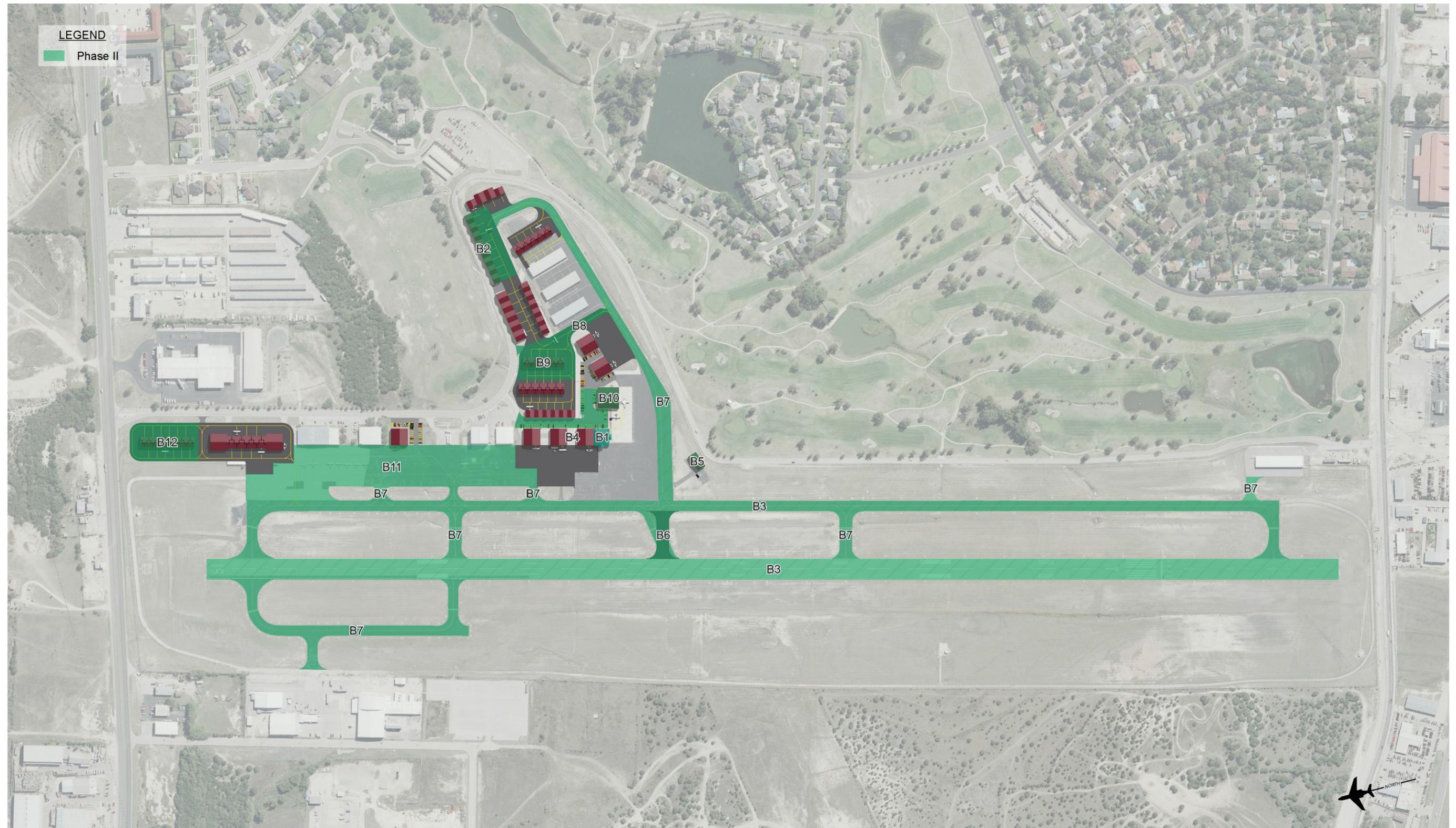
FIGURE 7-1 | PHASE I (0-5 YEARS) DEVELOPMENT COSTS



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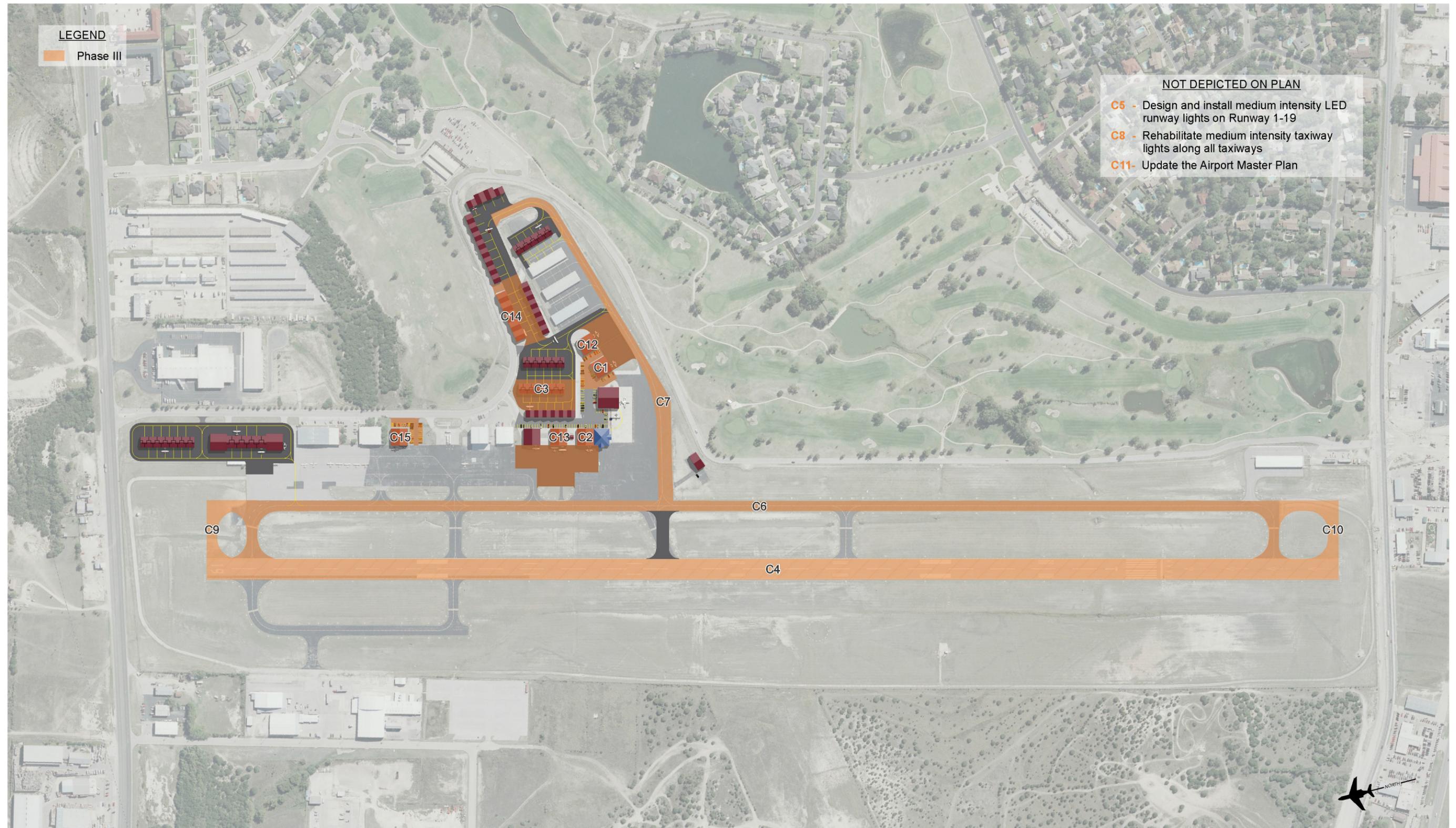
FIGURE 7-2 | PHASE II (6-10 YEARS) DEVELOPMENT COSTS



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FIGURE 7-3 | PHASE III (11-20 YEARS) DEVELOPMENT COSTS



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