

Chapter 2

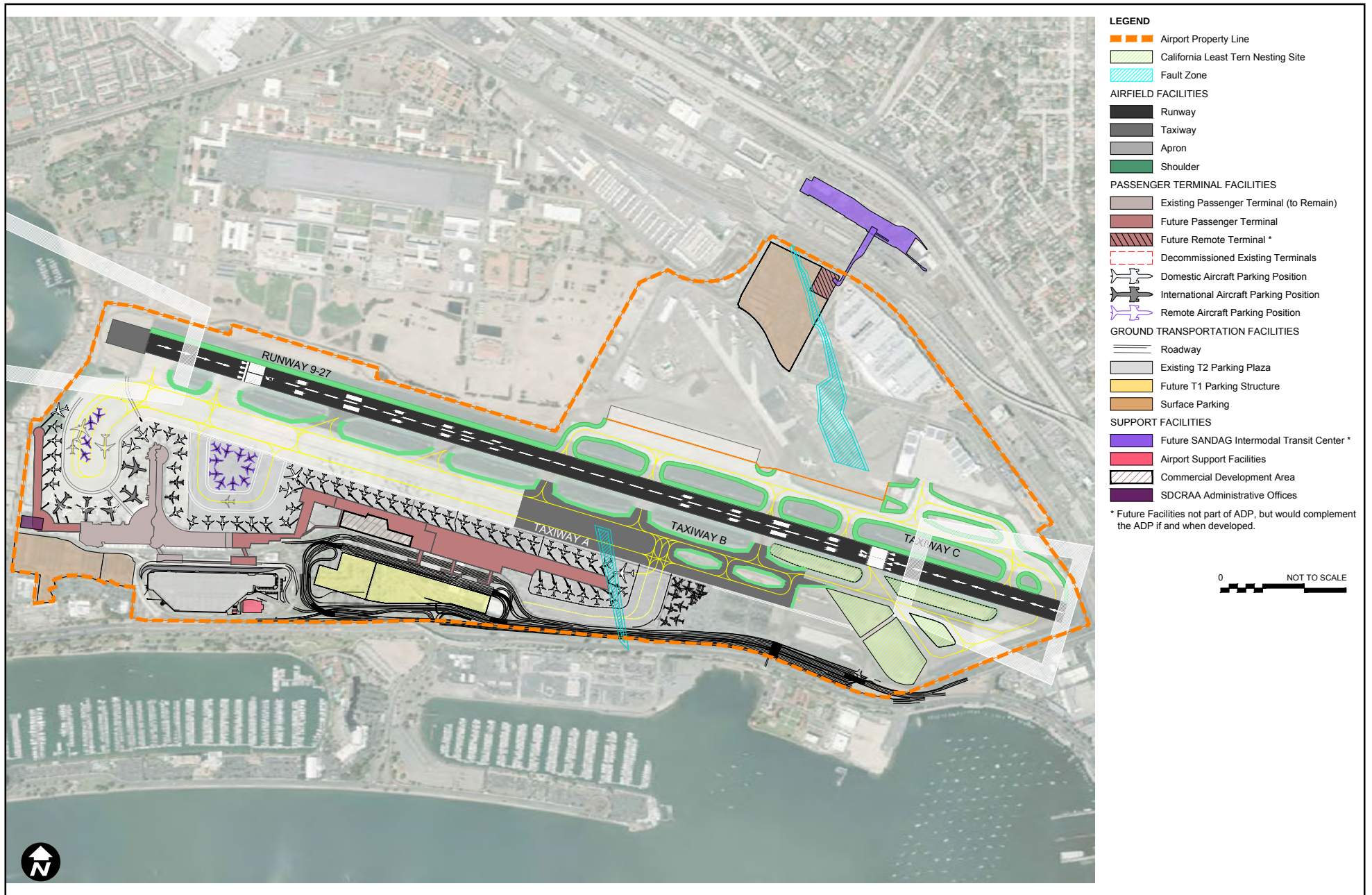
Project Description

2.1 Introduction

The San Diego County Regional Airport Authority (SDCRAA or Authority) is proposing the next master planning phase for the San Diego International Airport (SDIA or Airport), in accordance with a new Airport Development Plan (ADP). The ADP provides a development framework to implement improvements that will enable SDCRAA to accommodate future demand for air travel anticipated to occur at SDIA with more modern, efficient, and comfortable facilities. As further described below, the primary elements of the ADP include: (1) replacement of Terminal 1 with a new terminal of up to 30 gates; (2) development of circulation and roadway improvements to enhance mobility to the existing and proposed terminals from North Harbor Drive, including a new multi-use pedestrian and bicycle pathway and airport entry road for inbound vehicle traffic; (3) modifications to Terminal 2, including the addition of a new west concourse and replacement of Terminal 2 East with a linear concourse connector between Terminal 2 West and the new Terminal 1; (4) airfield taxiway improvements and new remain overnight (RON) aircraft parking areas; (5) a potential commercial development opportunity to complement the terminal function of the replacement Terminal 1 facility; (6) development of a five-story, 7,500-space parking structure adjacent to the new Terminal 1; and (7) other related improvements, such as replacement of SDCRAA's administrative offices that would be displaced by the new Terminal 1, and various infrastructure improvements. Figure 2-1 presents the overall development concept for the ADP.

These improvements, which are described in detail below in Section 2.6, constitute the proposed project to be evaluated at a project-level of analysis. It should be noted that, in response to comments received on the Draft Environmental Impact Report (EIR) circulated in July 2018 (2018 Draft EIR), the SDCRAA has formulated a project alternative that would result in reduced impacts to the environment compared to those of the proposed project. This alternative is presented in Chapter 5, Alternatives Analysis, as Alternative 4: T1 Replacement and Transportation Improvements along with the other three alternatives previously addressed in the 2018 Draft EIR. The description of Alternative 4 includes, and is accompanied by, an assessment of how the impacts of the alternative compares to the impacts of the proposed project.

Under State CEQA Guidelines Section 15124, the project description in an EIR is required to contain the following information: (1) a map showing the location and boundaries of the proposed project; (2) a statement of project objectives; (3) a general description of the project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR. The State CEQA Guidelines state that a project description need not be exhaustive, but should provide the level of detail needed for the evaluation and review of potential environmental impacts.



Source: SDCRAA, 2019.

The project description is the starting point for all environmental analysis required by CEQA. Section 15146 of the State CEQA Guidelines states that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity, which is described in the EIR. The following project description serves as the basis for the environmental analysis contained in Chapter 3, Environmental Analysis, of this Recirculated Draft EIR.

2.2 Project Location and Setting

2.2.1 Location

SDIA is in the northwest portion of the downtown area of the City of San Diego, and is generally bounded by North Harbor Drive and San Diego Bay to the south, the Navy Boat Channel and Liberty Station mixed-use development to the west, the Marine Corps Recruit Depot to the north, and Pacific Highway and Interstate 5 to the east. SDIA is located within a dense urban area developed with a range of uses, including residential, commercial, industrial, and open space. Figure 2-2 shows the general location of SDIA within the regional context.

The proposed project improvements are located within the southern portion of SDIA (south of the runway). The specific nature of the improvements is described in Section 2.6 below.

2.2.2 Setting

SDIA is comprised of 661 acres. SDIA has one runway and, based on annual aircraft operations, it is the busiest single-runway commercial airport in the nation. SDIA's air service continues to grow based upon demand for air travel, particularly in light of a strong economy and robust tourism industry. Over the past five years, passenger volumes at SDIA have increased by more than 34 percent, from approximately 18.1 million passengers in 2013 to approximately 24.3 million passengers in 2018.¹

The airfield consists of one runway (useable in both directions) and three primary taxiways. Runway 9-27 is 9,401 feet long and 200 feet wide. Taxiway B is south of, and parallel to, Runway 9-27 and runs the entire length of the runway. Taxiway C is north of, and parallel to, the eastern half of Runway 9-27. Taxiway D extends from the southeast portion of the airfield to the north-central portion of the airfield at an approximate 30-degree angle to Runway 9-27. Figure 2-3, later in this section, provides more details on the locations of these, and other, airfield facilities.

SDIA's terminal complex comprises three buildings: Terminal 1 (T1), Terminal 2 East (T2-East), and Terminal 2 West (T2-West). The terminals include 51 jet gates and other facilities to serve the passenger processing needs of commercial airline passengers. The ground transportation system located south of the terminals provides access roads, vehicle curbside, and parking lots.

T1 is the oldest terminal facility at SDIA, having opened in 1967. It is located at the east end of the primary terminal area. T1 has 19 narrowbody jet gates. Southwest Airlines, Frontier Airlines, Allegiant Air, Spirit Airlines, jetBlue Airways, and Sun Country presently serve T1.

¹ San Diego County Regional Airport Authority. Air Traffic Reports – Historical Data. Available: https://www.san.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=12777&Command=Core_Download&language=en-US&PortalId=0&TabId=403.



Source: CDM Smith, 2019. Aerial source: SDCRAA, 2016.

T2-East is immediately west of T1 and has 13 jet gates. T2-West is the newest terminal facility at SDIA, first having opened in 1998 and then expanded in 2013 as part of the Green Build. With the Green Build expansion, T2-West has 19 jet gates. More recently, a new international arrivals facility (also known as a Federal Inspection Station or “FIS”) was added to T2-West. T2-West and T2-East are served by Air Canada, Alaska Airlines, American Airlines, British Airways, Delta Air Lines, Edelweiss, Hawaiian Airlines, Japan Airlines, Lufthansa, United Airlines, and West Jet. A baggage claim facility is housed in T2-West that provides baggage claim for both T2-West and T2-East.

North of Runway 9-27, SDIA provides apron area for air cargo loading and one general aviation Fixed Base Operator. There are freight forwarding cargo facilities totaling approximately 70,000 square feet located on the south side of SDIA, between T1 and the former Commuter Terminal (current airport administration building). These are the only enclosed cargo sorting facilities located at SDIA. FedEx, UPS, and other cargo carriers maintain their own off-airport sort facilities. Apron area for FedEx, DHL, UPS, and other cargo aircraft is in the north airfield area.

A Rental Car Center that houses the majority of the rental car companies serving SDIA is also located north of Runway 9-27.

SDIA has an air traffic control tower (operated by the Federal Aviation Administration [FAA]), an aircraft rescue and fire-fighting facility, a centralized receiving and distribution center, and a fuel farm located in the north airfield area.

SDIA has a total of 29 RON aircraft parking positions. Fourteen positions are located on the north airfield adjacent to Taxiway C and Taxilane F. The remaining fifteen positions are located adjacent to the terminal areas on the south airfield.

2.3 Background

2.3.1 San Diego County Regional Airport Authority

SDIA was dedicated as the San Diego region’s municipal airport on August 28, 1928. On December 18, 1962, the San Diego Unified Port District (Port District) was created when the State Legislature approved Senate Bill 41, which was certified by the County Board of Supervisors. Port District purview included ownership and operation of SDIA.

In 2001, Assembly Bill 93, the San Diego County Regional Airport Authority Act (SDCRAA Act), was signed into law, which created the SDCRAA as a local governmental entity of regional government to oversee SDIA’s operations. As a result, the planning responsibilities, operation, and control of SDIA were shifted from the Port District to SDCRAA in January 2003, when the SDCRAA Act became effective. The SDCRAA Act grants to SDCRAA all land use planning authority and jurisdiction over lands within the original SDIA leasehold, along with any other lands that might be acquired adjacent to the existing airport property and necessary to operate SDIA.

SDCRAA is governed by a Board of Directors with nine voting members and three ex-officio, non-voting members. Seven voting Board members are appointed by mayors of various cities within San Diego County. Two voting Board members are appointed by the Chair of the San Diego County Board of Supervisors. The three non-voting members are: (1) a representative of the United States Navy; (2) the Department of Finance Representative on California’s State Lands Commission; and

(3) the District 11 Director of the California Department of Transportation. The Board Chair is designated by the Mayor of the City of San Diego. The SDCRAA Board is responsible for all policy and planning decisions for SDIA. For purposes of the proposed project and this Recirculated Draft EIR, the SDCRAA serves as the lead agency in accordance with CEQA.

2.3.2 Airport Master Plan and Airport Layout Plan

An airport master plan provides for the long-term development of an airport and allows an airport to seek specific federal grants and funds associated with federal law for improvements associated with an airport master plan. The Port District prepared SDIA's first comprehensive Master Plan document in 2001; however, it was not adopted prior to the transfer of SDIA ownership and operation to SDCRAA in 2003. In 2008, the SDCRAA Board adopted the Airport Master Plan (AMP), and the AMP continues to govern planning at SDIA. The AMP documents the SDCRAA planning process for SDIA and provides guidance for development of SDIA to meet continued passenger, cargo, and operations growth to meet the two overall objectives of:

1. Providing adequate facilities to accommodate air service demand (forecast growth through 2015), while improving levels of services, airport safety and security, and enhancing airport access.
2. Developing facilities that utilize the current airport property and facilities efficiently and are compatible with surrounding land uses.

A series of goals and detailed objectives were also developed to address specific issues related to the SDIA airport master-planning process and provide a framework for developing improved airport facilities. The AMP identified facility requirements in four categories: Airfield, Terminal, Ground Transportation, and Airport Support Facilities.

Following the adoption of the AMP in May 2008, an Airport Layout Plan (ALP) was completed in June 2009 and approved by the FAA in July 2009, subject to specified conditions, and was updated in 2014. An ALP refers to the official plan drawing approved by the FAA that depicts all existing and planned airport facilities, runway and taxiway safety areas, and the property boundary. It also includes data tables describing various components of SDIA (Figure 2-3).

The proposed project is the next master planning phase for SDIA, building upon the 2008 AMP.

This page intentionally left blank

2.3.3 Airport Transit Plan

The SDCRAA has set forth programs to improve provisions for, and use of, transit at SDIA for use by its passengers and airport employees. In 2010, the SDCRAA prepared an Airport Transit Plan to assess potential transit programs and ridership for airport employees and passengers to SDIA. In 2016, the Airport Transit Plan was updated, funded by a California Department of Transportation (Caltrans) transportation planning grant (and available for review at www.san.org).² The Airport Transit Plan update focused on near-term transit programs that could increase connectivity to the existing transit systems, particularly the light rail stations and transit centers at Santa Fe Depot and the Old Town Transit Center, which include light rail, heavy rail (such as the North County Transit District's COASTER and Amtrak), and bus connections. The recommendations in this plan focus on four alternatives developed from eight potential concepts for increasing transit ridership. Two of the programs were implemented by the SDCRAA in 2016 with the opening of an on-airport roadway connecting to the northside of SDIA (see description and implementation dates below). In conjunction with ongoing planning efforts to reduce impacts of airport operations on surrounding areas and the environment, the SDCRAA is working to implement the other two recommended programs, which require coordination and approvals from other transportation and land use agencies. The four programs identified in the Airport Transit Plan update are described below.

- **Maximize marketing and passenger information utilizing airport and non-airport information channels – Implemented January 2016.** In January 2016, the Authority improved its communication of transit information to passengers and employees. Improvements were made to SDIA's website, including links to regional and local transit trip planners, as well as improved signage, guides and brochures, and training for the information staff located in each terminal baggage claim area. Marketing and transit information was further enhanced at on-airport bus stops with new amenities including monitors that display real-time arrival information and inform passengers about transit connections to other rail services provided by the North County Transit District and Amtrak. The San Diego Metropolitan Transit System (MTS) joined SDCRAA in a marketing campaign and implemented its own signage improvements at the on-airport bus stops. MTS also installed ticket vending machines in 2016 in the T1 and T2 baggage claim areas, providing arriving passengers a convenient location to purchase transit passes.
- **Enhance access to the existing Trolley station at Middletown and launch the Trolley to Terminal shuttle bus utilizing the airport roadway – Implemented January 2016.** SDIA began operating a shuttle bus at the foot of Palm Street and Admiral Boland Way providing a free shuttle bus for any passengers and employees. This shuttle bus provides service every five minutes and has had up to 900 riders a month. Further improvements are planned by San Diego Association of Governments (SANDAG) and the City of San Diego to the pedestrian pathway along Palm Street from the Middletown Station to an on-airport bus stop, which features amenities such as signs displaying "next bus" information. The pedestrian and sidewalk improvements to Palm Street and Pacific Highway should be made as soon as

² Nelson\Nygaard Consulting Associates, Inc. San Diego International Airport Transit Plan – June 2016. Available: http://www.san.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=8765&Command=Core_Download&language=en-US&PortalId=0&TabId=451.

possible by SANDAG to enhance the pedestrian pathway for riders to use this trolley connection.

- **Convert the existing MTS bus route between SDIA and downtown San Diego, Route 992, to a “Rapid” route, with improvements to the operations on SDIA and on the route through downtown.** The MTS bus presently stops at the curbside directly outside the baggage claim areas at T1 and T2 with a published time of every 15 minutes. Further service improvements made at SDIA in collaboration with MTS included the installation of fare payment machines in T1 and T2, as well as stop consolidation. MTS has implemented Bus Rapid Transit (BRT) service on other routes comprised of a number of Rapid routes that have high frequency and limited stops for shorter travel times and increased reliability. This recommendation would designate the 992 a Rapid route that would bring BRT benefits along with improved branding. Real-time arrival information displays and mobile device information may also be implemented to inform riders at Airport stops. Rapid buses might also include airport-specific amenities such as luggage racks and information displays on which airlines are located in each terminal. This recommendation would require coordination with MTS, which is the operator of the 992 Bus Route.
- **Partner with transit operators to implement a transit line from the Old Town Transit Center and Amtrak Station to SDIA.** Adding a new shuttle service from the Old Town Transit Center would enhance access to SDIA, not only for COASTER and Trolley riders, but for many important bus lines, such as Routes 9 and 28 that serve the Old Town Transit Center.

2.3.4 Harbor Drive Mobility Committee

In March 2017, the SDCRAA Board directed and approved the formation of a multi-agency committee – comprised of key land use and transportation agencies, as well as stakeholders in the North Harbor Drive corridor – to improve traffic flow, reduce congestion, and consider road and transit improvements that would improve mobility. As the SDCRAA does not have planning jurisdiction for transportation improvements beyond its 661 acres, the SDCRAA must coordinate ground transportation improvements with the City of San Diego, SANDAG, Port of San Diego, and Caltrans. The Board specifically requested to establish a process by which data is gathered and alternatives evaluated; and solutions and recommendations are presented to decision-makers. The Board further requested the establishment of a cadre of stakeholders to evaluate and recommend transit alternatives to remedy traffic and accessibility concerns around SDIA. This direction specified that stakeholders should include a working group of entities directly impacted by traffic around SDIA and those that have a regional responsibility for transit, and that direction was to be provided by policy-level decision-makers who would evaluate the technical analysis and provide policy-level recommendations for implementation and execution among all of the impacted entities.

The Harbor Drive Mobility Committee included a Policy Group and a Working Group. The Policy Group consisted of representatives from the SDCRAA, the Port of San Diego, the City of San Diego, as well as two representatives from SANDAG (Board Chair and Transportation Committee Chair). The Policy Group, comprised of policy-level decision-makers, evaluated technical analysis and provided policy-level recommendations for implementation and execution among all of the

regional entities. The Harbor Drive Mobility Committee also included a Working Group with membership from the SDCRAA, SANDAG, Port of San Diego, Caltrans, MTS, City of San Diego, and Solar Turbines. The Working Group held regular meetings to develop transportation ideas and alternatives based on thorough technical analyses. The Working Group met periodically with the Policy Group to review and discuss analysis, concepts, and alternatives.

From 2017 through June 2018, the Harbor Drive Mobility Committee held seven Working Group meetings and five Policy Group meetings, to conduct its mission, including an assessment of potential improvements to roads, transit, and pedestrian/bicycle access in the North Harbor Drive corridor from Shelter Island to the San Diego Convention Center. The proceedings to date are summarized in a Harbor Drive Mobility Committee report included in Appendix R-J.

2.3.5 SANDAG Airport Connectivity Subcommittee

In December 2018, SANDAG established a temporary subcommittee of the Board of Directors, advisory in nature, entitled the Airport Connectivity Subcommittee to identify future transportation solutions for improved ground and transit connectivity options connecting to SDIA. SANDAG Chair and Poway Mayor Steve Vaus serves as the Chair of the Airport Connectivity Subcommittee. The Airport Connectivity Subcommittee includes Board members from the following organizations: SANDAG, City of San Diego, County of San Diego, MTS, North County Transit District, San Diego Unified Port District, SDCRAA, and Caltrans District 11.

The purpose of the Airport Connectivity Subcommittee is to lead discussions and explore options for how best to build consensus around transportation solutions for improved connectivity to SDIA for generations to come. The work of the Airport Connectivity Subcommittee will conclude upon adoption of a preferred transportation solution by the SANDAG Board of Directors. To help identify potential solutions, the Airport Connectivity Subcommittee is discussing airport connectivity options and SANDAG released two Requests for Information (RFI) to solicit innovative ideas from external entities for improved connectivity, the creation of San Diego Grand Central Station, and supportive land uses. It is anticipated that any recommended solutions by the Airport Connectivity Subcommittee will be considered by the SANDAG Board of Directors for inclusion in the upcoming 2021 Regional Plan.

2.4 Project Objectives

The proposed project – the ADP – is the next phase of master planning for SDIA, enabling SDCRAA to accommodate anticipated future demand for air travel at SDIA with more modern, efficient, and comfortable facilities. The ADP planning effort began in 2012 with defining the effort's Goals and Objectives. The objectives of the proposed project incorporate and build upon the goals identified in 2012.

The objectives for the proposed project include the following:

- Goal: Develop passenger terminal facilities to efficiently accommodate future activity levels and maintain high levels of passenger satisfaction that reflect the local feel and uniqueness of San Diego

- Objectives:
 - o Maintain appropriate level of service on the curbside, security checkpoints, passenger holdrooms, and bag claim areas.
 - o Optimize airport concessions to meet demand and generate revenue for SDIA.
 - o Minimize walking distances and mode changes from curbside to aircraft gate.
 - o Address T1 functional deficiencies, including replacement if necessary.
 - o Develop a plan that can be implemented in a phased manner.
 - o Make the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego.
- Goal: Plan for an operationally efficient airfield that meets FAA standards
 - Objectives:
 - o Improve and optimize airfield configuration for safety, efficiency, and capacity.
 - o Develop a plan to eliminate any existing modifications to standards as soon as feasibly practical and do not create conditions warranting additional modifications or waivers from the FAA.
 - o Provide flexibility to respond to future aircraft, technology, and industry changes.
- Goal: Provide a plan that is fiscally and environmentally sustainable
 - Objectives:
 - o Wherever prudent, make use of existing facilities through renewal or modernization to meet future demand.
 - o Ensure the development plan is fiscally responsible from both the capital and operational cost perspectives.
 - o Provide plans that will diversify airport revenues and strengthen the financial position of SDIA.
 - o Maximize funding resources through appropriate facility planning.
 - o Continue to implement sustainability measures at SDIA, and monitor and report on those measures consistent with Global Reporting Initiative (GRI) Sustainability Reporting Standards.³

³ Global Reporting Initiative. GRI Sustainability Reporting Standards. October 2016. Available: <https://www.globalreporting.org/information/g4/Pages/default.aspx>.

- Goal: Optimize the productive use of SDIA properties
 - Objectives:
 - o Maximize non-airline revenues.
 - o Identify opportunities for increased commercial utilization.
- Goal: Provide a plan that meets the aviation needs of the San Diego region in a socially responsible manner
 - Objectives:
 - o Support increases in air service demand for commercial passenger service to meet the needs of the San Diego regional economy and businesses.
 - o Implement airport improvements in a sustainable manner and consider the total cost of ownership including financial, environmental, and social costs.
- Goal: Improve ground access to SDIA, including coordination of transit service and facilities that interface with regional systems, and accommodate parking demand
 - Objectives:
 - o Provide enhanced vehicular access from Harbor Drive to SDIA.
 - o Improve mobility for private vehicles, transit users, and bicyclist/pedestrians along the North Harbor Drive corridor.
 - o Improve transit connections to the existing transit system planned by SANDAG and operated by MTS, including bus shuttle service to light rail stations and transit centers (Santa Fe Depot and Old Town Transit Centers).
 - o Accommodate demand for short-term and long-term parking spaces on-airport to ensure sufficient passenger satisfaction and appropriate revenue generation.

2.5 Airport Development Plan Process

In 2012, SDCRAA began the ADP planning effort by defining the plan's Goals and Objectives, as stated above. As part of the ADP planning effort, the SDCRAA prepared a forecast of international and domestic aviation activity to help inform planning decisions. The aviation forecast was projected out to the year 2050, to correspond to SANDAG's 2050 Regional Transportation Plan.⁴ The activity forecast, which was based on a 2012 baseline year, was formally approved by the FAA in 2013.⁵ The 2013 activity forecast was subsequently updated in April 2019 and approved by the

⁴ San Diego Association of Governments. 2050 Regional Transportation Plan. October 2011.

⁵ San Diego County Regional Airport Authority. Technical Memorandum Aviation Demand Forecasts - Airport Development Plan. Prepared by Leigh Fisher. March 2013.

FAA in June 2019.⁶ Appendix R-B of this Recirculated Draft EIR contains the updated forecast, as well as a copy of the earlier forecast report. A summary of the updated activity forecast is provided below.

2.5.1 Aviation Activity Forecasts

An aviation activity forecast identifies projected future aircraft movements and passenger numbers that, in turn, provide the basis for defining the types and timing of airport improvements that may be required in the short-, medium-, and long-term. As noted above, SDCRAA prepared and published an initial forecast report in 2013 and an updated forecast report in 2019. Both reports present forecasts of aviation activity for enplaned passengers, air cargo, and aircraft operations, including passenger, all-cargo, general aviation, and military operations.

2.5.1.1 Updated Unconstrained Aviation Activity Forecasts

The following summarizes the updated unconstrained activity forecasts. A more detailed breakdown of the unconstrained activity forecasts, in terms of detailed tables and graphs, is provided in Appendix R-B.

Enplaned Passengers

The number of passengers at SDIA is forecast to increase from 12.1 million passengers in 2018 to 26.7 million passengers in 2050 in the unconstrained forecast, an average increase of 2.5 percent per year. The number of domestic passengers at SDIA is forecast to increase an average of 2.3 percent per year between 2018 and 2050, compared with an average increase of 5.5 percent per year in international passenger traffic.

Air Cargo

Total air cargo at SDIA is forecast to increase from 192,351 metric tons in 2018 to 372,700 metric tons in 2050 in the unconstrained forecast, an average increase of 2.1 percent per year. Air freight and air mail at SDIA are forecast to increase an average of 2.1 percent per year between 2018 and 2050.

Aircraft Operations

Total aircraft operations at SDIA, including passenger airline aircraft operations, all-cargo airline aircraft operations, general aviation aircraft operations, and military aircraft operations, are forecast to increase from 225,058 in 2018 to 458,700 in 2050 in the unconstrained forecast, an average increase of 2.3 percent per year.

Commercial aircraft operations SDIA are forecast to increase an average of 2.3 percent per year between 2018 and 2050, while general aviation operations are forecast to increase an average of 0.5 percent per year and military operations are forecast to remain relatively unchanged.

⁶ San Diego County Regional Airport Authority. Final Technical Memorandum Aviation Activity Forecast Update – San Diego International Airport. Prepared by LeighFisher. April 2019; June 19, 2019 approval letter from FAA included in Appendix R-B.

2.5.1.2 Constrained Demand Scenario

As part of the updated forecast, a constrained demand scenario of SDIA aviation activity was developed to evaluate the potential for a single runway to meet unconstrained forecast demand. Simply put, the single runway at SDIA is the dominant constraint on aviation activity. In contrast to the unconstrained forecast summarized above, the constrained demand scenario is defined by specific assumptions about the hourly capacity of a single runway and the ability of the airlines serving SDIA to operate efficiently in a constrained environment. The constrained demand scenario addresses the real-world limitations of SDIA's single-runway on unconstrained forecast growth. This well-known and substantial limitation on the operational and passenger capacity of SDIA must be considered in planning airport improvements and analyzing their reasonably foreseeable impacts.

Approach

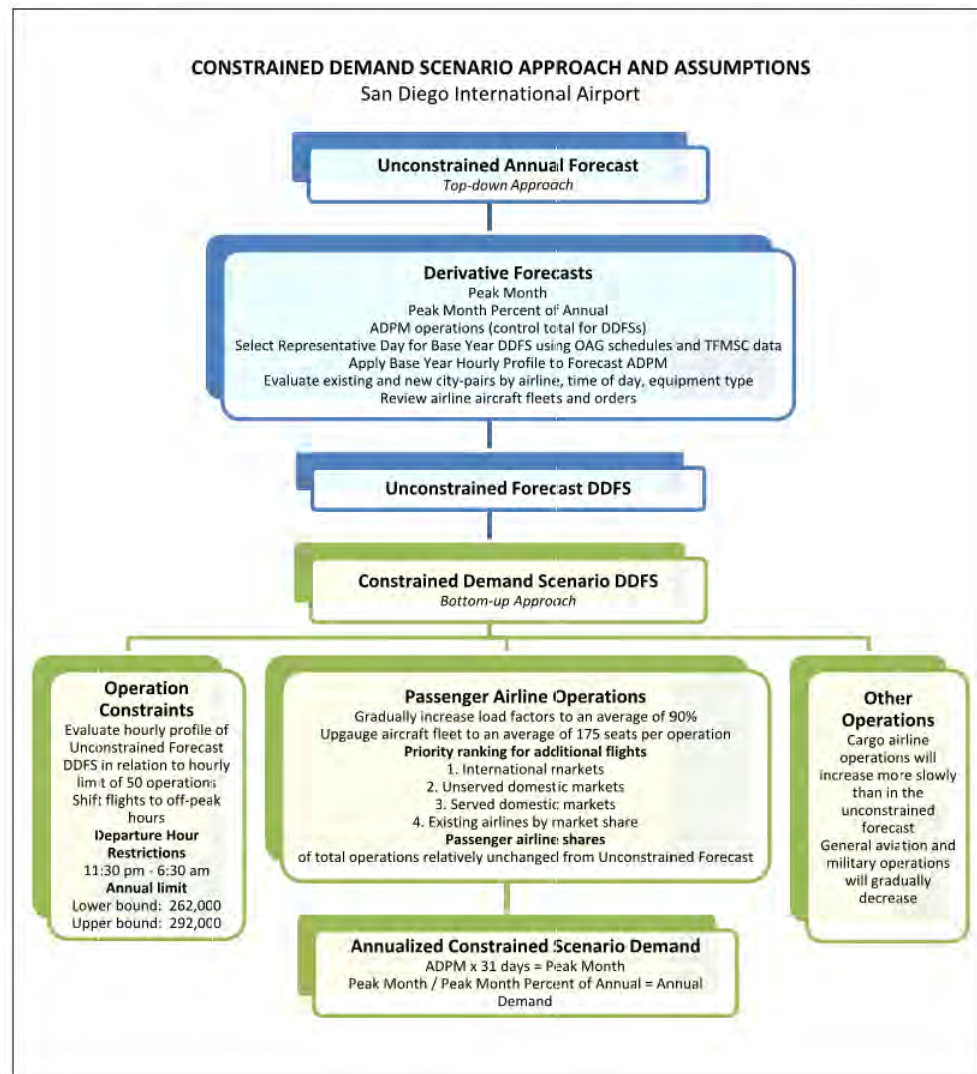
The constrained demand scenario was developed using a “bottom-up” approach based on the Design Day Flight Schedules (DDFSs) developed for the unconstrained forecast, as shown on Figure 2-4.

Design Day Flight Schedules

To build a “constrained” forecast, SDCRAA first had to establish an “unconstrained” baseline using DDFSs. Specifically, SDCRAA prepared DDFSs for the unconstrained forecasts associated with future horizon years that coincide with the proposed project's development phasing: 2024 for Phase 1a,⁷ 2026 for Phase 1b, 2030 for Phase 2a, and 2035 for Phase 2b (Buildout). Published airline schedules for a representative day in July 2018 (the peak month) were used for the base year hourly distribution of Average Day Peak Month (ADPM) passenger airline arrivals and departures, including origin, destination, equipment types, seat configurations, and scheduled arrival and departure times. U.S. Department of Transportation data for load factors by airline and market in July 2018 were used to derive ADPM passengers.

Arrivals and departures were added to the July 2018 base year schedule to reflect: (1) ADPM operations for each forecast year, which relate directly to the annual ADP forecasts and represent the “control totals” for each DDFS; (2) the hourly percentage distribution of arrivals and departures represented by the July 2018 schedule; (3) the fleet mix of the airlines serving SDIA and their future fleet plans; and (4) the markets currently served at SDIA and the potential for new markets. The hourly distribution of operations from the flight schedules obtained for July 2018 was assumed to remain relatively unchanged during the forecast period. Figure 2-5 summarizes the approach for developing DDFSs for the unconstrained forecasts.

⁷ Within the 2018 Draft EIR, completion of Phase 1a was anticipated to occur in 2022; however, in light of the extended CEQA review process associated with preparation and circulation of the Recirculated Draft EIR, completion of Phase 1a is now anticipated to occur in 2024. The DDFSs horizon year assumptions and the environmental analyses associated with the completion of Phase 1a in 2024 instead of 2022 have been updated accordingly. The estimated completion timeframes for all other phases (i.e., Phases 1b, 2a, and 2b) have not changed from the 2018 Draft EIR assumptions.



ADPM = Average Day Peak Month

TFMSC = Traffic Flow Management System Counts

Figure 2-4 Constrained Demand Scenario Approach and Assumptions

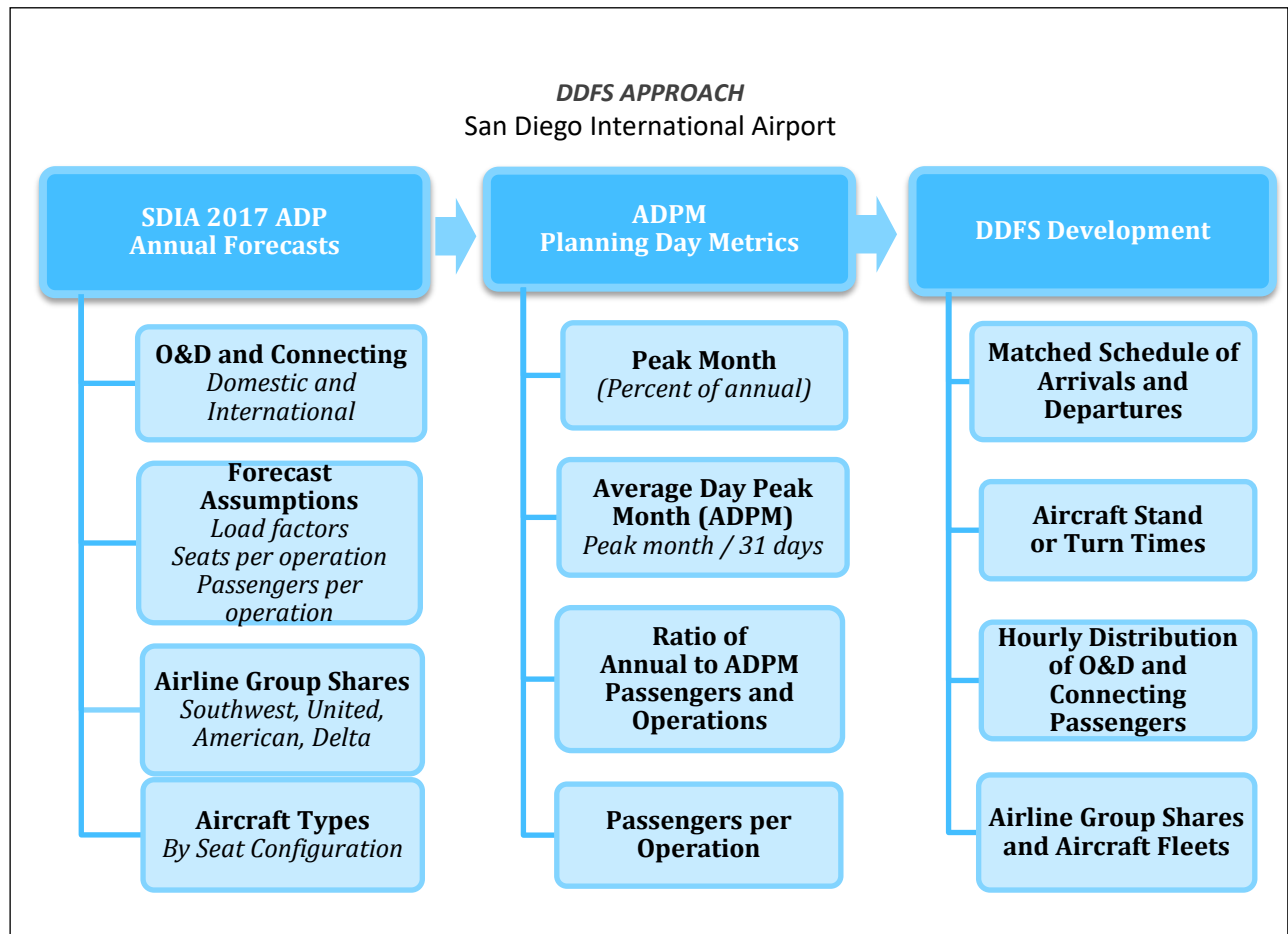


Figure 2-5 DDFS Approach

Figure 2-6 presents a chart of rolling hour counts of arrivals and departures in the DDFSs.

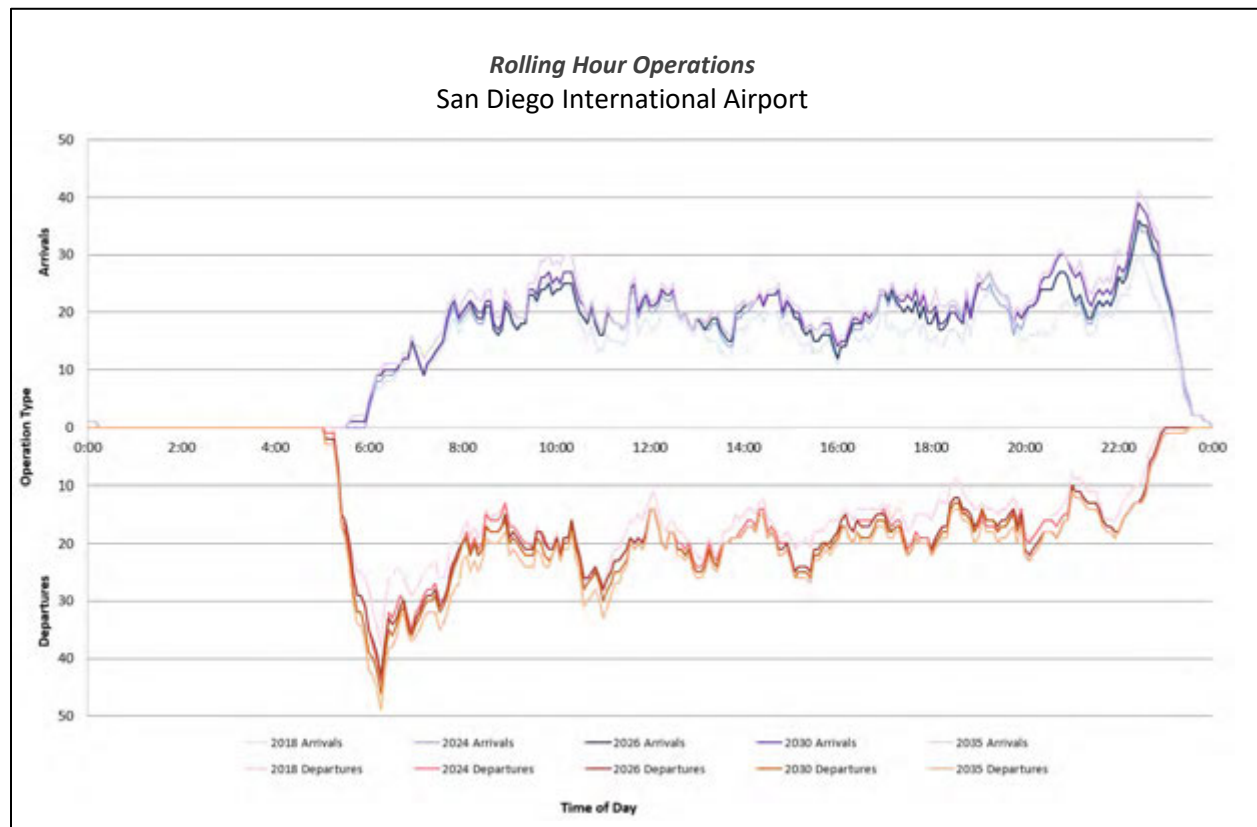


Figure 2-6 Rolling Hour Operations

Operational Constraints

As described in greater detail in Appendix R-B, to develop DDFSs for the constrained demand scenario, the unconstrained forecast DDFSs were evaluated in relation to operation constraints at SDIA, including:

- **Hourly Limit of 50 Operations.** The hourly profiles of the unconstrained forecast DDFSs were evaluated in relation to a limit of 50 operations per hour,⁸ which was exceeded in certain hours starting in 2024, as shown on Figure 2-7. For the constrained demand scenario DDFSs, a certain number of flights in hours that exceeded the 50 operations limit were shifted to other hours with fewer than 50 operations, provided that shifting the flight did not duplicate a flight to the same market by the same airline.

⁸ See 2018 Aviation Activity Forecast Update in Appendix R-B of this Recirculated Draft EIR, specifically, Appendix D of that Update, for an explanation of how and why 50 operations per hour defines the operational limits of SDIA's single-runway system.

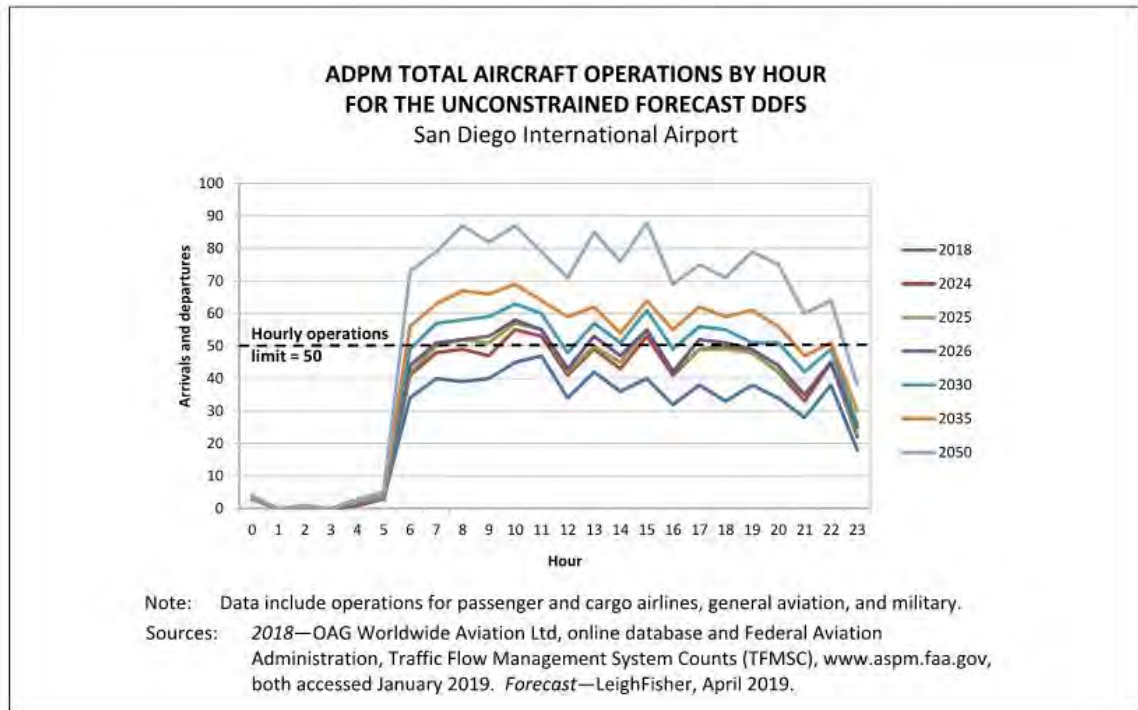


Figure 2-7 ADP Total Aircraft Operations by Hour for the Unconstrained Forecast DDFS

- **Departure Hour Restrictions.** SDIA's Airport Use Regulation restricts departures by any aircraft between the hours of 11:30 p.m. and 6:30 a.m. and gate departures between the hours of 11:15 p.m. and 6:15 a.m. There is no restriction on arrivals. Thus, for purposes of the constrained demand scenario DDFSs, the departure hour restrictions require airlines to confine any rescheduling of flights to the 17 hours each day between 6:30 a.m. and 11:30 p.m.
- **Annual Limit.** SDIA's annual limit on total aircraft operations (including passenger and cargo airlines, general aviation, military, and other unscheduled) is defined by an upper bound of 292,000 operations and a lower bound of 262,000 operations and reflects the potential Annual Service Volume (ASV) for SDIA.

Passenger Airline Operations

In addition to the operational constraints, the constrained demand scenario DDFSs also made certain assumptions regarding the ability of SDIA airlines to operate efficiently in a constrained environment. These assumptions included:

- **Load Factor.** In a constrained environment, it was assumed that passenger airlines would increase load factors (i.e., the percent of occupied seats on flights) to accommodate as much of the unconstrained forecast demand as possible. For the constrained demand scenario DDFSs, an average load factor of 90 percent was assumed, compared with an average of 86 percent in the unconstrained forecast.

- **Aircraft Gauge.** SDIA's aircraft gauge, or the average number of seats per operation, was assumed to reach an average of 175 seats per operation in the constrained demand scenario, compared with an average of 155 in the unconstrained forecast. It was assumed that passenger airlines would increase the average gauge of the primarily narrowbody fleet serving SDIA and that the gauge would be limited by the airlines' existing aircraft fleets and orders.
- **Priority Ranking for Additional Flights.** In the development of DDFSs, flights were added to the base year schedule in order to accommodate the unconstrained forecast demand. For the constrained demand scenario DDFSs, a priority ranking for the addition of flights was developed with guidance from SDIA's Airline Service Department. As shown in Figure 2-4, international markets were given first priority when deciding between flights to remain in the constrained demand scenario DDFSs, followed by unserved domestic markets and served domestic markets. Existing airlines were given preference, depending on their share of a certain market.
- **Passenger Airline Shares.** In the constrained demand scenario, it was assumed that the passenger airline shares of total operations would remain relatively unchanged from the unconstrained forecast (subject to the priority ranking outlined above).

Other Operations

In the constrained demand scenario, the operations of cargo airlines were assumed to increase more slowly than in the unconstrained forecast, reflecting an increase in the average tonnage per operation. In 2018, general aviation and military operations accounted for 5 percent of total aircraft operations at SDIA, down from 8 percent in 2000. It was assumed that the number of operations by general aviation and military aircraft at SDIA would gradually decrease to 3 percent of total operations in a constrained environment.

Annualized Constrained Scenario Demand

Average day peak month (ADPM) operations and passengers represented in the constrained demand scenario DDFSs were annualized based on derived values for the peak month (i.e., ADPM operations multiplied by 31 days = peak month operations) and the assumed peak month percent of annual operations (i.e., peak month operations divided by the peak month percent of annual = annual operations). It was assumed that the peak month percent of annual operations would continue to account for approximately 9.1 percent of total aircraft operations through 2050. Similarly, it was assumed that the peak month percent of annual passengers would continue to account for approximately 9.6 percent of total passengers through 2050.

Enplaned Passengers

As shown in Table 2-1 and on Figure 2-8, the number of enplaned passengers at SDIA is forecast to increase from 12.1 million enplaned passengers in 2018 to 20.3 million in 2050 in the constrained demand scenario, an average increase of 1.6 percent per year. The number of air carrier enplaned passengers at SDIA is forecast to increase an average of 1.8 percent per year between 2018 and 2050, compared with an average decrease of 3.4 percent per year in commuter passenger traffic.

Table 2-1: Constrained Demand Scenario of Aviation Activity

	Historical	Constrained Demand Scenario			
	2018	2023	2028	2033	2050
Enplaned Passengers					
Air Carrier	11,272,706	13,798,000	16,576,000	18,618,000	20,036,232
Commuter	853,232	738,000	343,000	309,000	284,768
Total Enplaned Passengers	12,125,938	14,536,000	16,919,000	18,927,000	20,321,000
Air Cargo					
Total Air Cargo	192,351	230,000	257,400	279,800	335,400
Total Aircraft Operations					
Commercial Aircraft Operations					
Passenger Airlines	197,244	227,800	244,500	257,700	271,800
Cargo Airlines	3,850	4,440	5,100	5,700	7,610
Other	372	--	510	670	380
Total Air Carrier	201,466	232,240	250,110	264,070	279,790
Air Taxi					
Passenger Airlines	--	--	--	--	--
Cargo Airlines	2,530	2,760	3,000	3,100	3,290
Other	9,967	10,210	3,850	1,650	1,400
Total Air Taxi	12,497	12,970	6,850	4,750	4,690
Total Commercial Aircraft Operations	213,963	245,210	256,960	268,820	284,480
Other					
General Aviation	10,337	9,020	8,390	7,750	5,180
Military	758	630	650	660	440
Total Aircraft Operations	225,058	254,860	266,000	277,230	290,100
Forecast Assumptions					
Load factor	85.4%	87.0%	89.1%	89.9%	90.0%
Average Seats per Operation	151.0	153.3	163.6	172.2	175.0

Sources: Historical: San Diego County Regional Airport Authority records. Forecast: LeighFisher, April 2019.

Note:

The forecasts presented in this table were prepared using the information and assumptions given in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances may occur; therefore, there are likely to be differences between the forecast and actual results, and those differences may be material.

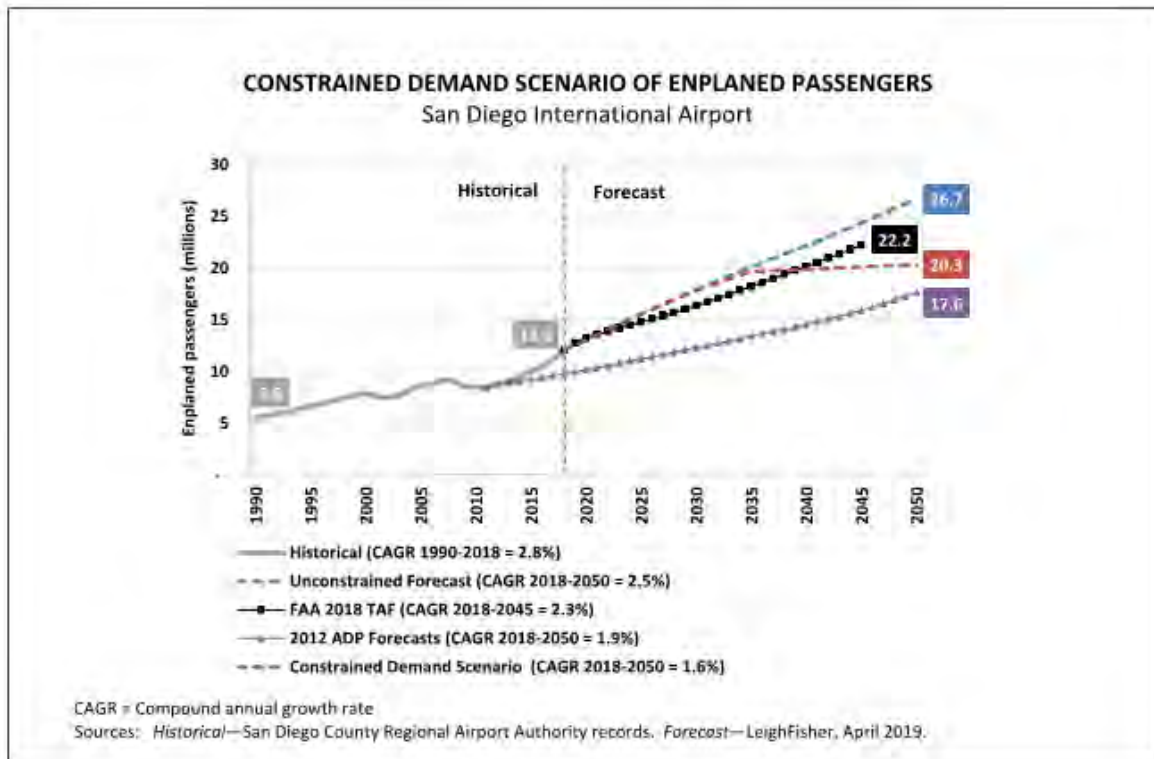


Figure 2-8 Constrained Demand Scenario of Enplaned Passengers

Air Cargo

As shown in Table 2-1 and on Figure 2-9, total air cargo at SDIA is forecast to increase from 192,351 metric tons in 2018 to 335,400 metric tons in 2050 in the constrained demand scenario, an average increase of 1.8 percent per year.

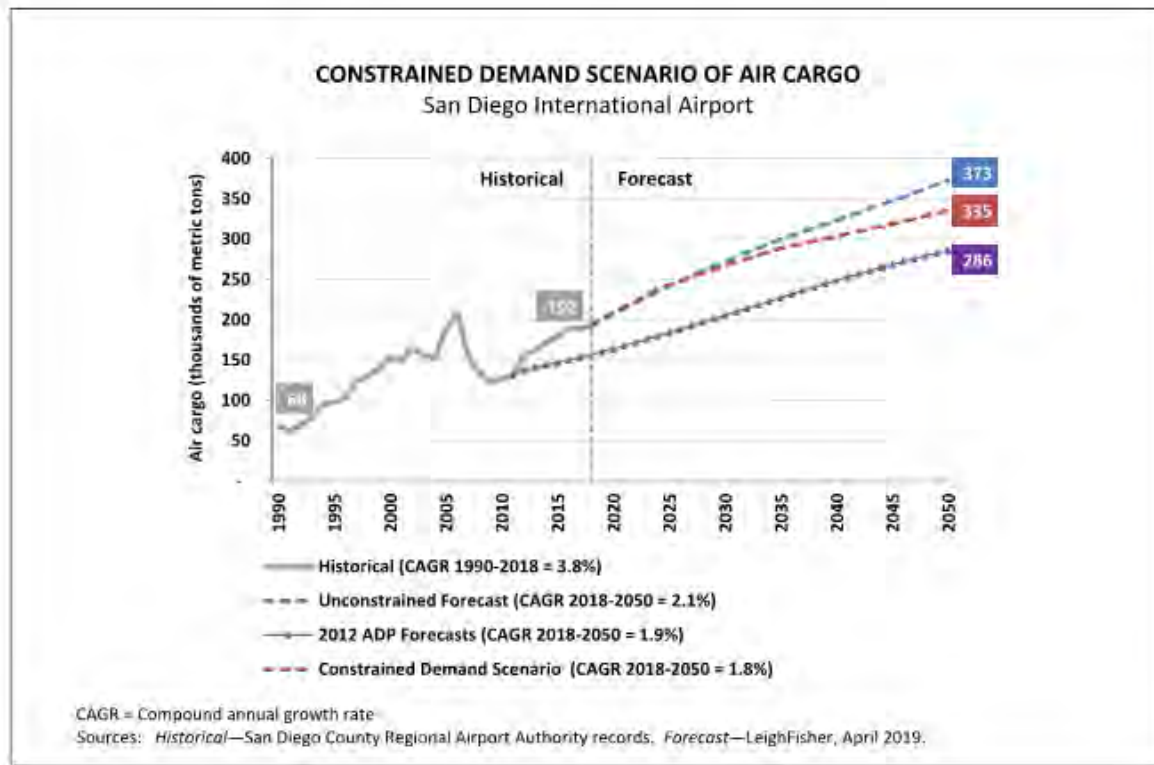


Figure 2-9 Constrained Demand Scenario of Air Cargo

Total Aircraft Operations

As shown in Table 2-1 and on Figure 2-10, total aircraft operations at SDIA are forecast to increase from 225,058 in 2018 to 290,100 in 2050 in the constrained demand scenario, an average increase of 0.8 percent per year. Commercial aircraft operations at SDIA are forecast to increase an average of 0.9 percent per year between 2018 and 2050, while general aviation and military operations are forecast to decrease an average of 2.1 percent and 1.7 percent per year, respectively.

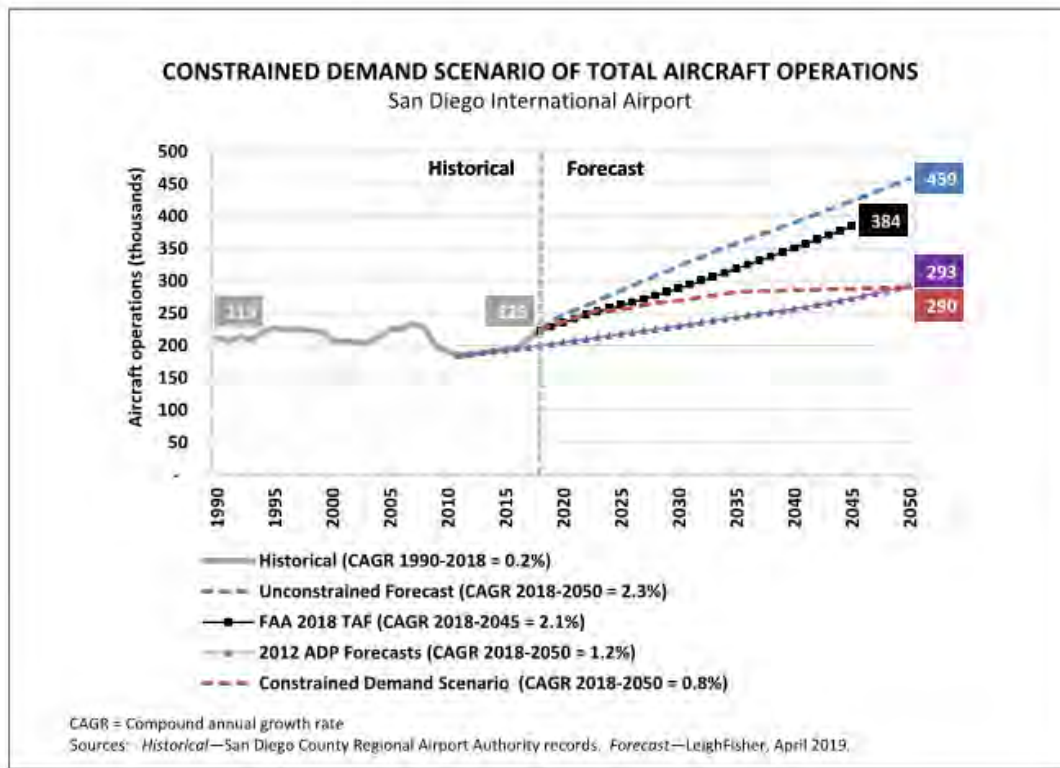


Figure 2-10 Constrained Demand Scenario of Total Aircraft Operations

Comparison with the FAA 2018 Terminal Area Forecast (TAF)

The key findings of the comparison of the SDIA updated unconstrained aviation demand forecasts (2018) and the constrained demand scenario (2018) with the FAA 2018 TAF are summarized below:

- The unconstrained forecast and constrained demand scenario for enplaned passengers at SDIA are higher than the FAA 2018 TAF in 2023 and 2028:
 - In 2023, the unconstrained forecast exceeds the FAA 2018 TAF by 3.0 percent, while the constrained forecast exceeds the FAA 2018 TAF by 2.5 percent.
 - In 2028, the unconstrained forecast exceeds the FAA 2018 TAF by 8.0 percent, while the constrained forecast exceeds the FAA 2018 TAF by 7.8 percent.
- The unconstrained forecast of commercial operations for SDIA is greater than the FAA 2018 TAF in 2023 and 2028, while commercial operations in the constrained demand scenario are less than the TAF:
 - The unconstrained forecast variance is 5.3 percent in 2023, compared with -2.7 percent for the constrained demand scenario.
 - The unconstrained forecast variance is 9.5 percent in 2028, compared with -5.8 percent for the constrained demand scenario.

- The unconstrained forecast of total aircraft operations for SDIA is greater than the 2018 TAF in 2023 and 2028, while total operations in the constrained demand scenario are less than the TAF:
 - The unconstrained forecast variance is 4.9 percent in 2023, compared with -3.2 percent for the constrained demand scenario.
 - The unconstrained forecast variance is 9.0 percent in 2028, compared with -6.5 percent for the constrained demand scenario.

Overall, both the SDIA updated unconstrained forecasts (2018) and the constrained demand scenario (2018) are similar to the FAA 2018 TAF for SDIA and “differ by less than 10 percent in the 5-year forecast period, and 15 percent in the 10-year forecast period,” as stipulated in the FAA forecast guidance.⁹

Gate Assignments

Aircraft gate assignments were developed for each combination of the aviation activity forecasts associated with the constrained demand scenario, the DDFSs, and the terminal layout associated with each phase of development of the proposed project. The assignments were made using LeighFisher’s proprietary Gate Model™ software, which assigns flights in a matched planning day flight schedule to aircraft parking positions, including contact gates and remote positions, considering the inventory of parking positions, their position sizes and dependencies, airline gate use preferences, and operational buffers.

The aircraft gate assignment of flights from the DDFSs was conducted for the proposed project, as well as for the No Project Alternative and Alternative 4, and it was determined that all flights could be successfully gated under any and all of those scenarios. Copies of the gated schedules for each scenario are included in Appendix R-B of this Recirculated Draft EIR.

The fact that all flights anticipated to occur in the future project horizon years (i.e., 2024, 2026, 2030, and 2035) could be successfully gated under any of these scenarios provides the basis for concluding that the additional gates provided under the “build” scenarios (i.e., the proposed project and Alternative 4) compared to the “no build” scenario (i.e., the No Project Alternative) would not result in higher aviation activity levels at SDIA in the future. As aviation activity at SDIA continues to grow in the future, the capacity limitations of the single-runway would constrain that future growth to a level that would be less than the point, where the existing gates could not handle more activity and additional gates are needed. The additional gates provided under the proposed project and Alternative 4, along with the associated terminal replacement/improvements, would merely provide for a better level of passenger service and more efficient terminal operations but, there too, that does not provide for greater aviation activity levels in the future than would otherwise occur without the terminal replacement/improvements.

⁹ U.S. Department of Transportation. Federal Aviation Administration. Review and Approval of Aviation Forecasts. June 2008.

2.5.2 ADP Concepts Planning Process

Using the 2012 forecasts as a basis, SDCRAA in 2013 prepared the airport facility requirements to be addressed in the ADP. Specifically, SDCRAA developed requirements for such facilities as: aircraft gates, square footage of terminal space, amount of concessions space, number of parking stalls, amount of cargo space, number of international gates with access to Federal Inspection Services (FIS) facilities, and number of RON aircraft parking spaces.

Using this information, four options were developed in 2014 and 2015 that could accommodate the facility requirements in different ways and to varying degrees. SDCRAA then refined these options based on information obtained during extensive public outreach, Authority Advisory Committee and Technical Advisory Committee meetings, technical workshops, and stakeholder briefings. All four options ultimately incorporated 61 total aircraft gates and replaced the 19 gates in existing T1. The options also addressed needs such as an expanded FIS facility, more auto parking stalls, and additional RON spaces.

The four options were presented to the SDCRAA Board in January 2015. In early 2015, a fifth option was added in response to stakeholder input, which mainly addressed the need to replace T1's gates as quickly and cost-effectively as possible.

The fifth option also had the following benefits over the original four options:

- Avoids the California least tern habitat on the southeast side of SDIA, respecting a federally protected endangered species and simplifying necessary environmental analysis;
- Offers the potential for non-airline revenue producing commercial development;
- Features a more efficient flightline, and avoids taxiway alleyways;
- Simplifies the roadway layout;
- Provides near-term FIS expansion; and
- Provides additional RON aircraft parking spaces.

The fifth option was subsequently identified as the preferred planning concept. On March 2, 2017, the SDCRAA Board provided direction to continue planning and environmental analysis based on the preferred planning concept, with the addition of a revised airport access roadway. The further refinements to the preferred planning concept constitute the proposed project that was addressed in the 2018 Draft EIR. Of note, an international arrivals/FIS facility was implemented and began operations in T2 in June 2018.

Based on comments received on the 2018 Draft EIR, the SDCRAA gave further consideration to the elements of the proposed project and formulated an additional option that reduced the overall scale and development period of the ADP improvements, including eliminating and reducing specific elements of the ADP, and placing more emphasis on transit-related improvements for SDIA. That additional option is presented in this Recirculated Draft EIR as Alternative 4. For purposes of completing the CEQA review process that began for the ADP in January 2017, the originally proposed project identified in the 2018 Draft EIR is still being carried forward for public review in

this Recirculated Draft EIR, including with new and additional analysis that was requested in the comments submitted on the 2018 Draft EIR; however, Alternative 4 has been added to the CEQA review process as SDCRAA's commitment to formulate and consider a revised ADP development option that directly responds to comments received on the 2018 Draft EIR and addresses key impacts of the proposed project.

2.6 Project Characteristics

As shown earlier on Figure 2-1, the primary components of the proposed project are the replacement of the existing T1, modifications to T2, a new administration building, and a new airport access roadway, with new bicycle and pedestrian infrastructure. As part of the T1 replacement, a new T1 access road and parking structure would be constructed. Other improvements include infrastructure upgrades and the removal/relocation of other airport support facilities to accommodate the terminal improvements. Ultimately, the number of gates at SDIA would increase from 51 to 61 under the proposed project.

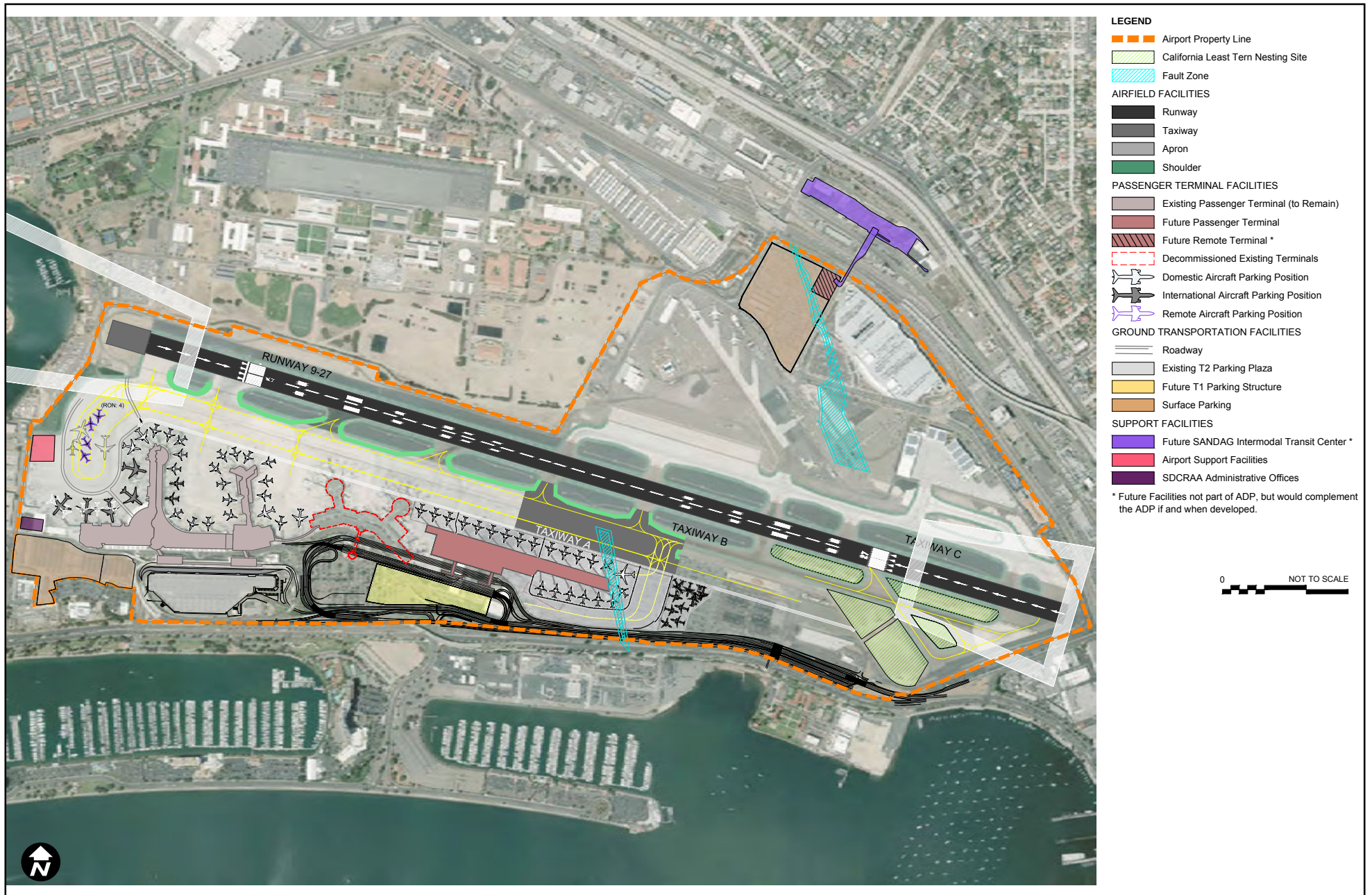
Implementation of the proposed project would occur over two phases (Phase 1 and Phase 2), each with two sub-phases (Phase 1a and Phase 1b, and Phase 2a and Phase 2b). Below is a description of each element of the proposed project at build-out, as shown in Figure 2-1. The details of the construction phasing, including a description of what elements would be constructed during each sub-phase, is described in detail in Section 2.6.8. Section 2.6.8 also includes tables and figures that delineate the development statistics for the proposed project relative to the amounts (square footages) of building area and surface features (i.e., surface parking, aircraft apron, roadways) to be demolished, reconfigured, and constructed under each sub-phase of the proposed project.

2.6.1 Terminal 1

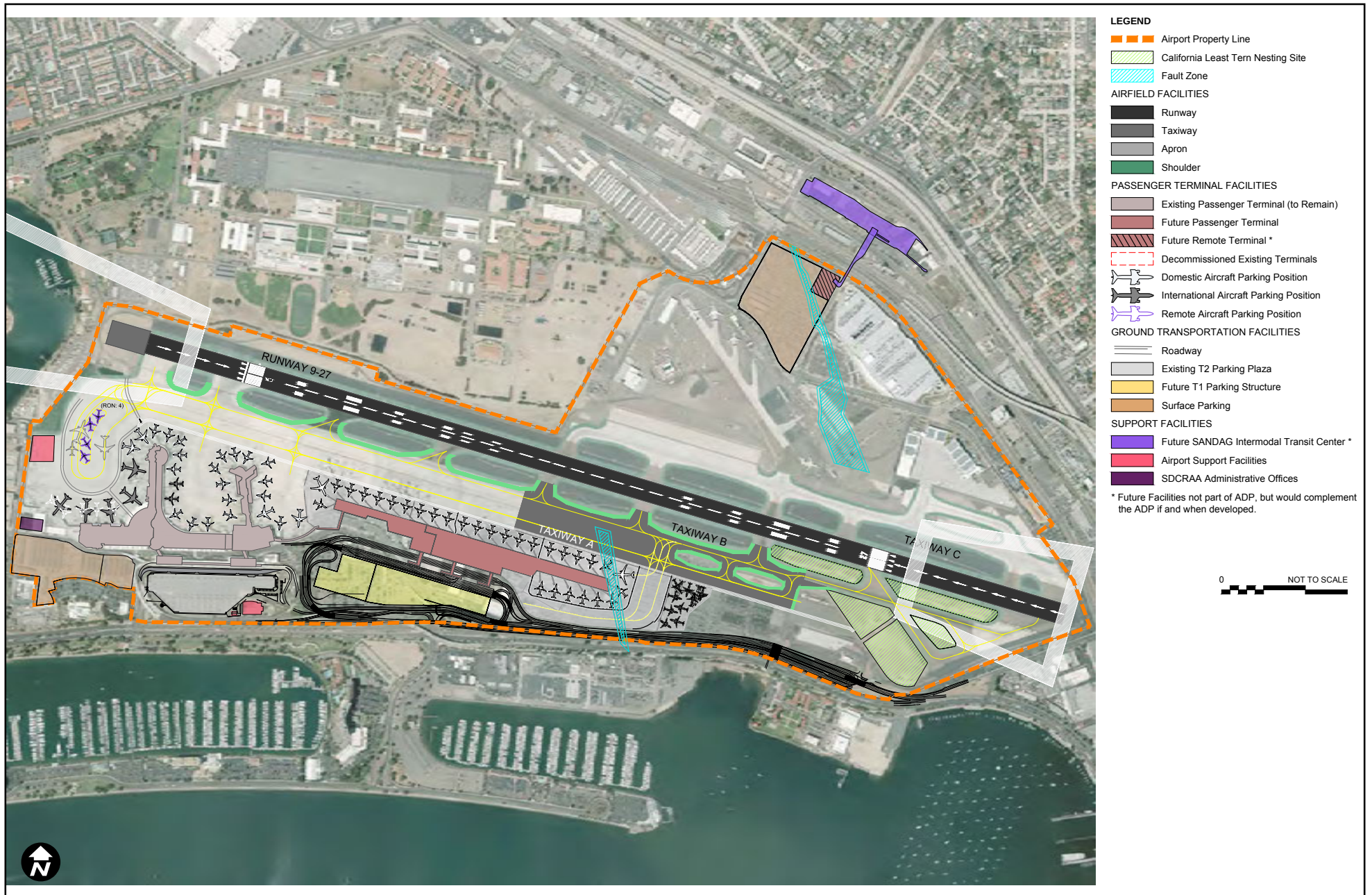
The proposed project would entail the demolition of the existing T1 and replacement with a new facility. Completed in 1967, the existing T1 is the oldest terminal at SDIA. It is outdated and does not meet current level of customer service standards or passenger and gate capacity needs. The existing terminal has two levels, with approximately 336,000 square feet of floor area and 19 narrowbody jet gates. The former Commuter Terminal, which now accommodates SDCRAA administrative offices, and several air cargo and airline support buildings located east of the existing T1 would be removed to accommodate the new T1. As described in greater detail in Section 2.6.8, surface features, including surface parking lots and apron area, would also be removed or reconfigured to accommodate the new T1 building.

As shown on Figures 2-11 and 2-12, the new T1 would be a linear building constructed in two phases (i.e., Phases 1a and 1b) that encompasses the footprint of the existing T1 and the area to the southeast. The height of the new T1 would be up to a maximum 90 feet at the terminal façade/ticketing lobby¹⁰ and have three levels. It would include landside (passenger processor) and airside functions. Arrivals, including baggage claim, would be located on the lower level. The arrivals level would also include the baggage make-up area, mechanical systems, apron and airline

¹⁰ Only the T1 main roof/façade would be 90 feet; the top of the concessions roof would be 75 feet and the top of the concourse would be 61 feet.



Source: SDCRAA, 2019.



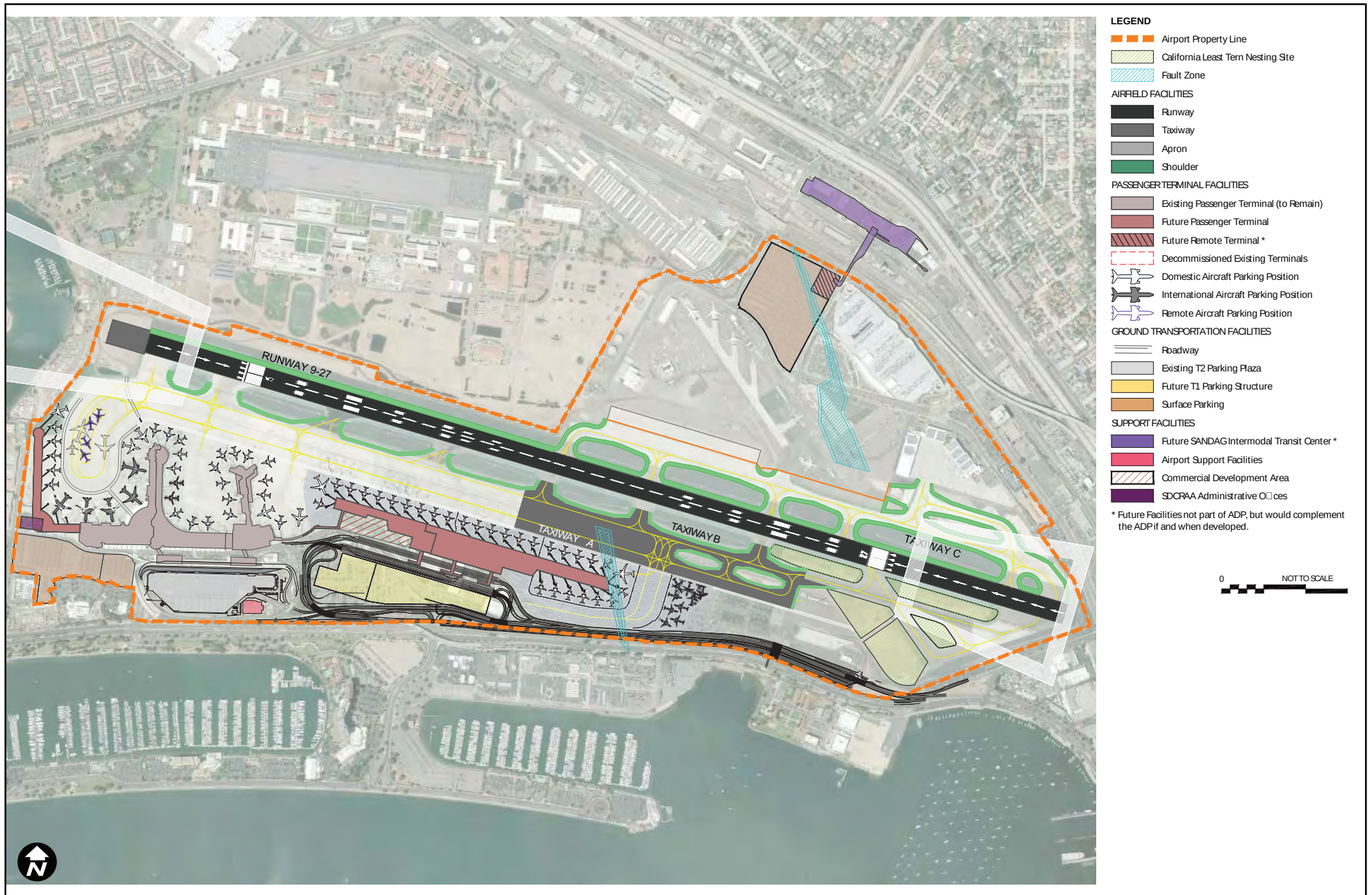
Source: SDCRAA, 2019.

operations, ground support equipment, and loading dock functions. The upper levels would include ticketing/check-in, security screening checkpoint (SSCP) functions, and concessions. The upper level would also include the concourses with components such as aircraft gates, seating areas, and associated passenger boarding bridges. At build-out, the replacement T1 would have 30 gates and be approximately 1,210,000 square feet. The positioning of the new T1 concourse would increase operational efficiency by minimizing aircraft taxi times between gates and the airfield, as the majority of gates would be located immediately adjacent to the parallel taxiways (existing Taxiway B and proposed new Taxiway A). Additionally, the apron improvements proposed along the north side of the new T1 concourse, as well as the provision of a new aircraft RON area to the east of the new concourse, would complement the realignment of Taxiway B and construction of a new Taxiway A proposed north and east of the new T1, described in Section 2.6.3 below.

The new T1 would include a potential commercial development area as a component of the T1 improvements. This opportunity for commercial development would provide a non-airline revenue source and amenities that serve travelers. While the precise elements of the commercial development area have not yet been determined, for analysis purposes, the commercial development area is assumed to encompass a maximum of 400,000 square feet in floor area, with potential uses that could include, but not be limited to, a farmers' market, a conference center, restaurants, and retail uses. As shown on Figure 2-13 the commercial development area would be located at the western end of T1. The 400,000 square feet of commercial development area would be in addition to the 1.21 million square feet of T1 floor area described above. Similar to the proposed new T1 façade/ticketing lobby, the height of the commercial development opportunity would be 90 feet.

As discussed in greater detail in Section 2.6.4.1 below, a loop road with an at-grade arrivals curb and an elevated structure for the departures curb would provide vehicle access for arriving and departing passengers. Passenger access would also be provided from a new parking structure located to the south (i.e., "T1 Parking Structure" in Figure 2-1) via crosswalks at ground level.

The new T1 would have a contemporary design that complements T2-West (the Green Build) and incorporates high-quality materials and public art. Also, similar to T2-West, the new T1 would incorporate high-performing and sustainable design and construction features consistent with the sustainability policies and goals adopted by SDCRAA, while also achieving certification from the U.S. Green Building Council (USGBC) or similar under another green infrastructure rating system. Additionally, the stormwater drainage system installed in conjunction with development of the new T1 would be connected to the SAN Stormwater Capture and Reuse System, which is further described below in Section 2.6.7.2.



Source: SDCRAA, 2019.

2.6.2 Terminal 2 Modifications

In conjunction with the T1 improvements described above, T2 would also be modified at the western and eastern ends. These modifications are referred to as T2-West modification (also referred to as the “Stinger”) and T2-East modification, respectively.

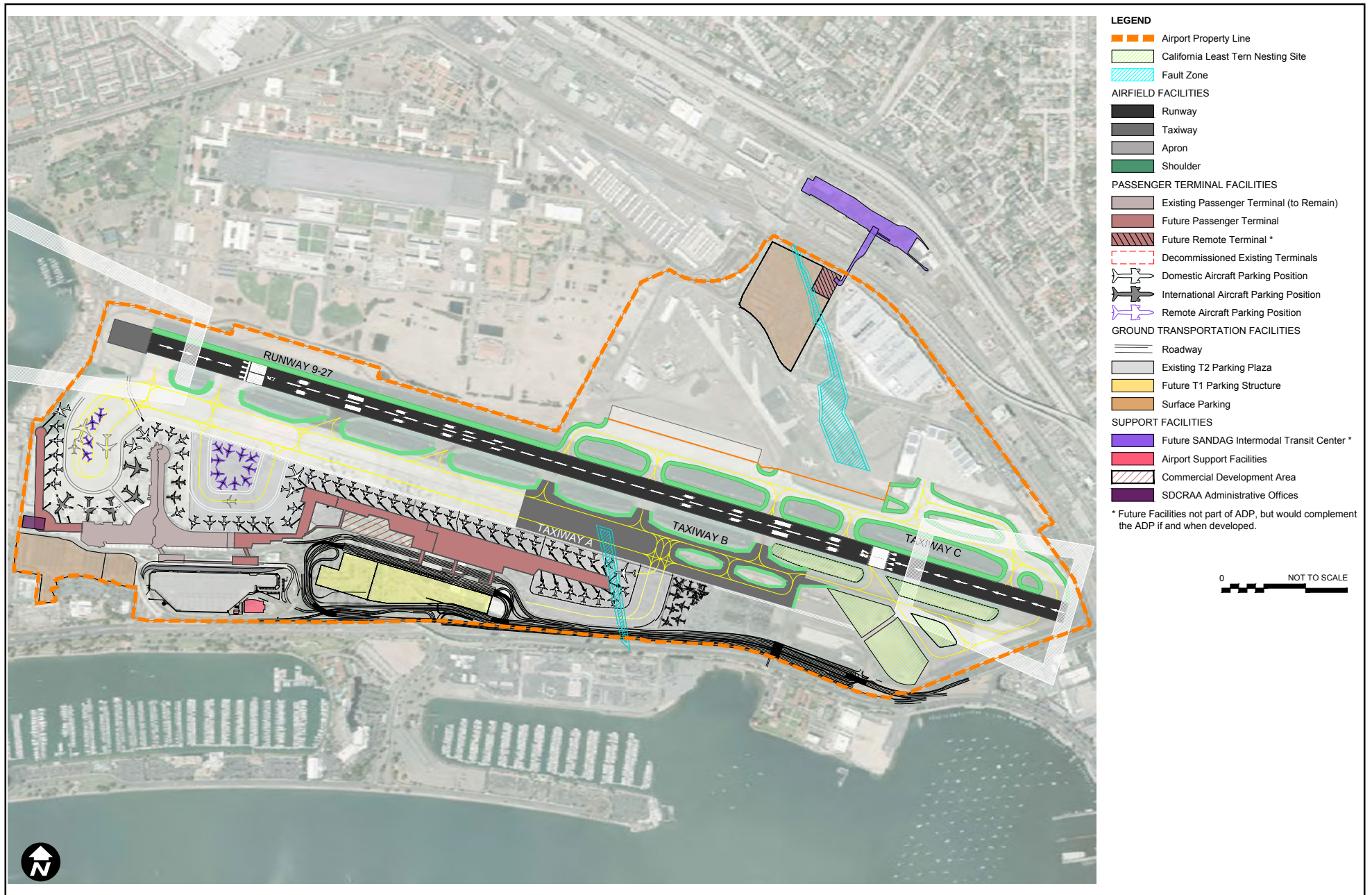
As shown in Figure 2-13, which represents Phase 2a of the proposed project, the T2-West modification consists of adding a new concourse “stinger” (up to seven gates) that extends northward from the western terminus of T2-West. The new concourse would be three-stories and consist of 450,000 square feet, added to the 889,000 square feet of the existing T2-West, with up to seven new gates, seating areas, and passenger boarding bridges. Additionally, existing aircraft apron pavement would be demolished and replaced in association with construction of the T2-West modification. No existing building square footage would be demolished for the T2-West modification.

The T2-East modification, shown in Figure 2-14 as Phase 2b of the proposed project, would entail removing the existing easternmost 350,000 square-foot T2-East concourse and replacing it with a new linear concourse that connects T2 to the new T1. Existing aircraft apron area would be demolished and replaced with reconfigured apron area and the new T2-East concourse. This would result in the loss of 13 existing gates at T2-East and the addition of seven new gates (a net decrease of six gates). The T2-East modification would provide a secure connection (i.e., an enclosed/controlled passenger corridor) between the new T1 and modified T2 to allow passengers to connect from one terminal to the other without having to exit to the non-secure side of the terminal, and only go through security once. The T2-East modification would be 250,000 square feet and three-stories which, in conjunction with the removal of the existing 350,000 square-foot T2-East concourse, would result in a net reduction of 100,000 square feet of floor area in T2-East.

As with the new T1 described above, the new construction associated with the T2-West and T2-East modifications would have a contemporary design and incorporate high-quality materials and public art. As with the new T1, the new construction would incorporate high-performing and sustainable design and construction features consistent with the sustainability policies and goals adopted by SDCRAA.

2.6.3 Taxiway A and Taxiway B Improvements/Relocation

The proposed project includes the relocation of the majority of Taxiway B, which runs parallel to the runway on the airfield’s south side. Taxiway B is the primary route for arriving and departing aircraft to taxi between the terminals and runway. The existing amount of separation between Runway 9-27 and Taxiway B does not meet FAA standards relative to Aircraft Design Group (ADG) V aircraft (i.e., newer, larger aircraft such as the Boeing 747-400) operating on Taxiway B, and therefore currently requires a Modification of Standards (MoS) for such operations. The proposed project would move the centerline of Taxiway B southward by 37.5 feet in order for SDIA’s airfield to meet the FAA standard of 400 feet (existing amount of separation is only 362.5 feet). For the western portion of Taxiway B, specifically the segment west of the intersection with Taxiway B6, relocation of Taxiway B would only require restriping existing pavement (i.e., existing concrete in the apron area is already capable of supporting aircraft movement) and relocation of taxiway lighting. The eastern portion of the relocated Taxiway B would require the removal of existing



Source: SDCRAA, 2019.

asphalt and limited pockets of concrete and placement of new concrete extending from the intersection with Taxiway B6 east to just past the intersection with Taxiway B4, but not extending into California least tern (an endangered species) habitat area (see Section 3.5, Biological Resources, for further discussion of California least tern habitat at SDIA).

The proposed project also includes the development of a new Taxiway A just south of Taxiway B. Although the new Taxiway would not run the full length of the runway, the addition of a new taxiway would improve airfield efficiency by allowing bidirectional flow of aircraft taxiing between the terminals and runway (as with Taxiway B discussed above, Taxiway A would not extend into California least tern habitat area). Because of the linear design of the proposed Terminal 1, Taxiway A would also help avoid aircraft blocking Taxiway B, when they are pushed back from the new terminal's gates. Finally, construction of a new Taxiway A is proposed to precede the Taxiway B relocation, which would facilitate access to the east end of the runway while Taxiway B is temporarily taken out of service for relocation/reconstruction.

Construction of the Taxiway A and Taxiway B improvements is anticipated to occur between 2021 and late 2026.

2.6.4 Ground Transportation

The proposed project modifications include a new on-airport entry roadway with an accompanying bicycle and pedestrian pathway that would connect to North Harbor Drive and allow westbound airport traffic to enter SDIA at the existing intersection of North Harbor Drive and Laurel Street. This would reduce the amount of westbound airport traffic using North Harbor Drive and, thus, help free up space on North Harbor Drive for a potential regional transit corridor along the waterfront in the future. Other improvements include a new loop road that would provide access to the new T1 and a new T1 parking structure and completion of the Terminal Link Road that allows high-occupancy buses and shuttles to travel between the north and south sides of SDIA without accessing public roads, as further described below.

2.6.4.1 On-Airport Vehicle Circulation

The ADP includes proposed circulation and roadway improvements to enhance mobility to the existing and proposed terminals from North Harbor Drive. The circulation and roadway improvements include:

- Inbound on-airport road with multi-use pedestrian and bicycle path;
- On-airport circulation roadways and curbside fronts connecting vehicle users and emergency responders to the terminals, parking, and transit stops; and
- Outbound airport circulation, including completion of the Terminal Link Road that is reserved for high-occupancy vehicles traveling to SDIA's north side.

The ADP would modify access to SDIA terminals for traffic approaching SDIA from the east by constructing a new inbound on-airport road. The inbound on-airport road would connect with North Harbor Drive at approximately Laurel Street to allow west-bound vehicles to access SDIA terminals. The new west-bound inbound on-airport road would begin as a right-turn lane on Laurel Street just outside SDIA's boundary and add approximately 0.8 to 0.9 mile of a three-lane road parallel to and north of North Harbor Drive to serve access to SDIA terminals. An additional

0.4 to 0.5 mile of a west-bound two-lane road would connect the on-airport road to the existing T2 on-airport circulation roadways. The inbound on-airport road would function as a limited access roadway, similar to a freeway without intersections or crossing traffic, to reduce congestion to SDIA terminals. Eliminating intersections requires grade separation of the on-airport road above the intersection at North Harbor Drive with the existing Rental Car Center access road and the proposed access to the airport support facilities near the U.S. Coast Guard Base.

The proposed project proposes no modifications to access SDIA terminals from the west along east-bound North Harbor Drive. T2 access from the west would remain at Spanish Landing. T1 access from the west would remain at Harbor Island Drive. T1 traffic would then be provided grade-separated direct access to T1 via dedicated roadway connections to the curbside roadways.

The on-airport circulation roadways for T1 would connect to the inbound on-airport road, Harbor Island Drive access, and the existing outbound airport circulation. The T1 curbside roadways would include 1,300 to 1,500 linear feet of private vehicle curbside on-grade for arriving passengers, 1,200 to 1,400 linear feet of private vehicle curbside for departing passengers on an elevated structure, and 2,000 to 2,400 linear feet of curbside for commercial vehicles on-grade.

The on-airport circulation roadways for T2 would remain substantially consistent with existing conditions. The on-airport circulation for T2 would connect to the new inbound on-airport road and the existing outbound airport circulation. T2 curbsides would remain unchanged.

The outbound airport circulation would remain consistent with existing conditions. The existing exit road from each terminal would be reconfigured to connect with the existing Harbor Island Drive intersection and the existing flyover to east-bound North Harbor Drive. Reconfiguration includes elevating traffic exiting T1 over traffic accessing T2 via the inbound on-airport road. East of the Harbor Island Drive intersection, approximately 0.8 to 0.9 mile of a one-lane east-bound on-airport road parallel to the west-bound on-airport road would be added for dedicated airport circulation. This east-bound lane would provide access to the Terminal Link Road and the west-bound on-airport roadway.

Vehicles accessing SDIA terminals from the east would exit North Harbor Drive at the inbound on-airport roadway. Traffic would follow the west-bound roadway until it splits to access each T2 facility, just east of T1. Traffic accessing T1 arrivals, departures, or commercial curbsides would keep right at the split. Traffic accessing parking or T2 arrivals, departures, or commercial curbsides would keep left at the split. An exit from the west-bound access to T2 would provide access to parking at T1. After interacting with the T1 curbsides in a west-bound flow, vehicles exiting SDIA, and those vehicles desiring to circulate back to T1, would merge together. Once merged, vehicles would have the choice between exiting to the flyover ramp to east-bound North Harbor Drive or to Harbor Island Drive. Vehicles recirculating to T1 would exit from Harbor Island Drive and then merge with traffic accessing SDIA from the west to return to T1.

Transit vehicles accessing SDIA terminals would operate similar to existing conditions. Vehicles would access SDIA terminals from the new inbound on-airport road, exit the limited access on-airport roadway for the T1 circulation road, pick-up and drop-off passengers at the T1 arrivals curbside (directly adjacent to the terminal), access T2 from an at-grade convenience connection

to T2 (similar to the existing connection), pick-up and drop-off passengers at the T2 arrivals curbside, and exit SDIA from the outbound airport circulation roadway system.

Access to and egress from SDIA terminals for Rental Car Center buses and Employee Parking Lot shuttles would change significantly by eliminating their circulation on North Harbor Drive. These buses and shuttles dropping-off passengers at SDIA terminals would instead use the completed Terminal Link Road and then be provided a direct on-ramp access to the west-bound on-airport roadway to access both Airport terminals. Rental Car Center buses and Employee Parking Lot shuttles returning to SDIA's north side from the terminals would utilize one new dedicated east-bound lane to connect with the completed on-airport Terminal Link Road.

2.6.4.2 Pedestrian and Bicycle Circulation

Safe, recognizable, and continuous connections along North Harbor Drive and to SDIA terminals would be provided for bicycles and pedestrians. Existing pedestrian and bicycle connections would be retained, while, additionally, new connections would also be established. For westbound passengers accessing SDIA, at the intersection of North Harbor Drive and Laurel Street, a pedestrian/bicycle crossing would be provided along the on-airport entry ramp. A multi-use bicycle and pedestrian path would be built along North Harbor Drive connecting Laurel Street to T1. At the intersection of North Harbor Drive and Harbor Island Drive, there would be a crossing that connects to the T1 Parking Structure. From there, pedestrians and bicyclists could access all new T1 facilities.

2.6.4.3 Parking

Close-in parking for the new T1 would be provided in a structure to the south of the new T1 (i.e., the T1 Parking Structure in Figure 2-12) at the current site of the existing 1,225-space surface parking lot for T1. This parking structure would be five levels and 60 feet in height for the main deck. The elevator penthouses and lighting poles may extend up to 84 feet. The structure would be a maximum of 2,780,000 square feet and provide approximately 7,500 spaces. The additional parking spaces provided by the new T1 Parking Structure would be largely offset by the loss of existing parking spaces eliminated in conjunction with the proposed project. Table 2-2 provides a breakdown of parking for existing (2018) conditions and with the proposed project. As shown in the table, implementation of the proposed project would result in a net increase of 2,650 parking spaces compared to existing conditions.

Parking for T2, including the T2-West Stinger and replacement of T2-East with the T2 Connector, would be provided by the T2 Parking Plaza that opened in May 2018 along with existing surface parking in the nearby area, with modifications made to the public and employee parking lot located at the west end of SDIA.

Table 2-2: Airport Parking Spaces: Existing Conditions and Proposed Project

Type	Lot	Existing (2018) Baseline	Proposed Project
Passenger Parking			
	T1 Parking	1,200	7,500
	T2W Surface Lot (NTC)	1,100	900
	T2 Parking Plaza	2,900	2,900
	Long-Term Lot #1 (Harbor Dr.)	1,400	0
	Economy Lot (Pacific Hwy)	1,950	0
	Subtotal	8,550	11,300
Valet Parking			
	Various	450	0
Employee Parking			
	Admin Building Lot #7	200	0
	Employee Lot #6 (Harbor Dr.)	1,550	0
	ADC Lot (McCain Rd.)	50	0
	Employee Lot (Pacific Hwy)	0	1,950
	T2W Employee Lot (NTC)	0	200
	Subtotal	1,800	2,150
Total			
	TOTAL	10,800	13,450
APPROXIMATE NET INCREASE			2,650

Source: SDCRAA, 2019.

2.6.5 Central Utility Plant

In conjunction with the above terminal improvements, the existing Central Utility Plant (CUP), located along Airport Terminal Road adjacent to the T2 Parking Plaza, would be expanded by 12,000 square feet at its existing location in order to increase its capacity for providing heated and chilled water for building heating and cooling. The location of the existing CUP is shown on Figure 2-1.

The existing CUP currently has five chillers that provide a total of approximately 3,200 tons of cooling during peak demands, and six boilers that provide a total of approximately 16 million British thermal units per hour (MMBh) of heating during peak demands. In light of anticipated shortfalls in meeting the future heating and cooling needs of SDIA, the heating and cooling capacity of the CUP would be expanded by replacing all of the aging boilers with four new boilers and associated pumps and pipes, and by installing three new upsized chillers along with an additional cooling tower cell. These improvements would increase the capabilities of the CUP to a total of approximately 5,000 tons of cooling during peak demands and a total of approximately 28.8 MMBh of heating during peak demands.

2.6.6 Airport Administrative Offices

The former 132,000 square-foot Commuter Terminal, where SDCRAA administrative offices are currently located, would be demolished for construction of the new T1. New airport administration offices would be constructed south of the proposed T2-West modification, near the intersection of McCain Road and Airport Terminal Road. The new airport administration building would be 95-foot-high and approximately 150,000 square feet. Parking for the administration building would be at the existing surface lot located at the current T2 Parking Lot at McCain Road and Airport Terminal Road. The lot would be resurfaced and reconfigured.

2.6.7 Other Improvements

2.6.7.1 Utilities¹¹

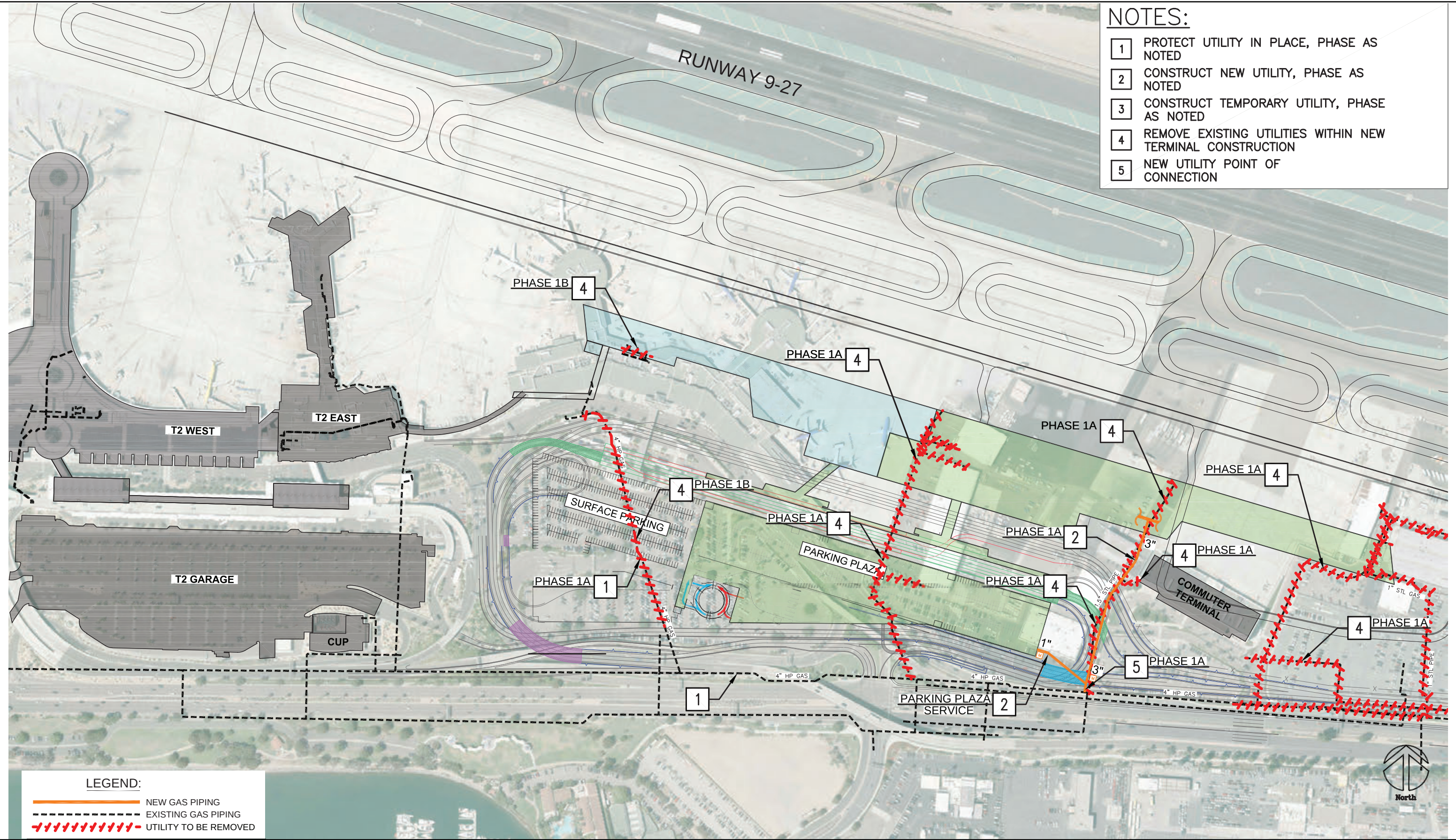
Underground utilities required for Airport facilities include: electric; natural gas; water; sanitary sewer; heating, ventilation, and air conditioning (HVAC); telecommunications; and stormwater. In conjunction with implementation of the proposed project, improvements to existing utilities serving the project area would occur. The proposed improvements would require removing existing underground utility lines to accommodate the new and modified structures, and installing new lines and new connections to connect the new and modified structures with the existing lines. Utility improvements would occur in coordination with the applicable service provider. During the first phase of project construction, improvements to the utilities would include the following:

- Electricity – an existing 12kV underground feeder would be re-routed and some portions would be removed. A new primary duct bank would be installed that is generally parallel to the new on-airport access roadway. It would connect to a secondary duct bank that extends along the Airport Terminal Road between the new T1 and T1 Parking Structure (Figure 2-15).
- Natural Gas – existing 1-inch pipelines east of the existing T1 and east of the (former) Commuter Terminal would be removed and new 1-inch and 3-inch pipelines would be installed to connect the new T1 and T1 Parking Structure with existing pipelines along North Harbor Drive (Figure 2-16).

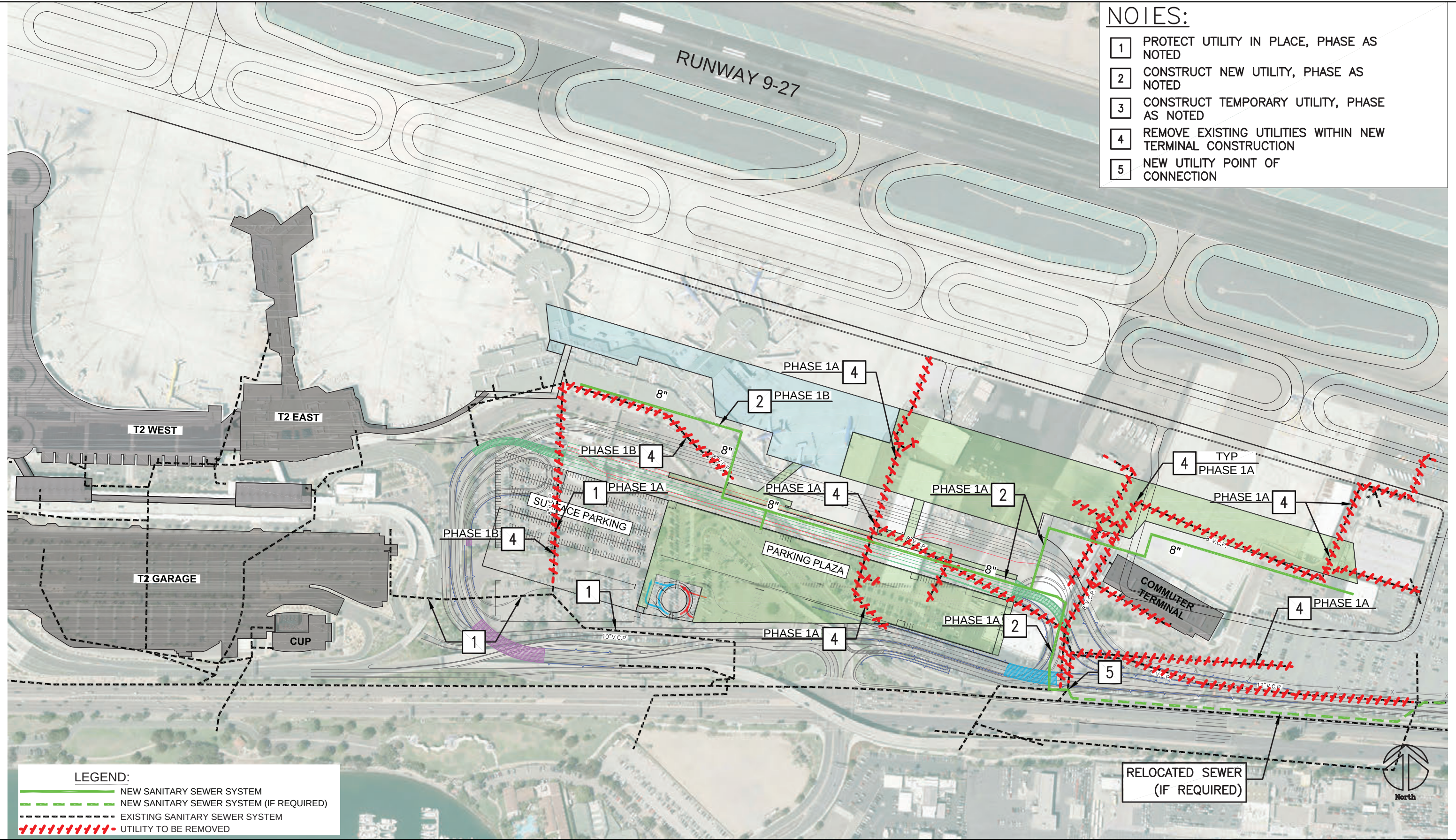
Water – existing pipelines that vary in size from 8-inches to 16-inches located east and southeast of the existing T1 and west and east of the (former) Commuter Terminal would be removed. New domestic water and fire water pipelines that vary in size from 2-inches to 16-inches would be installed to connect the new T1 and T1 Parking Structure to existing pipelines, including connections to existing lines along North Harbor Drive and Airport Terminal Road (Figure 2-17).

- Sewer – existing 8-inch sewer lines east and southeast of the existing T1 and near the (former) Commuter Terminal would be removed and new 8-inch lines would be installed to connect existing lines within SDIA's boundary (Figure 2-18).

¹¹ The Project Description in the 2018 Draft EIR included discussion of an aircraft fuel hydrant system and fuel rack as part of the ADP. Development of such elements can have independent utility from the ADP, meaning that its implementation is not reliant on the ADP nor is implementation of the ADP reliant on the aircraft fuel hydrant system and/or fuel rack. As such, the SDCRAA is now pursuing implementation of the aircraft fuel hydrant system and fuel rack separately, and they are no longer a part of the ADP. They are, however, accounted for as a cumulative project in Chapter 4, Cumulative Impacts Analysis, of this Recirculated Draft EIR.



Source: San Diego County Regional Airport Authority, 2019



Source: San Diego County Regional Airport Authority, 2019

- HVAC – new hydronic heating water piping and chilled water piping would be installed to connect the new T1 and the T1 Parking Structure with existing piping east of the T2 Parking Plaza (Figure 2-19).
- Telecommunications – existing underground fiber would be rerouted to avoid conflict with the T1 Parking Structure and other improvements and to connect to the new T1 (Figure 2-20). Improvements would include installation of new 4 foot by 4 foot communications vaults and installation of conduit duct banks, including approximately six duct banks for third party service carriers. A new duct bank would be installed along North Harbor Drive outside of the lanes of traffic.
- Stormwater – existing storm drains east of the existing T1 and north of the (former) Commuter Terminal would be removed. New stormwater piping and trench drains would be constructed between the runway and the new T1 and along the new T1 and T1 Parking Structure (Figures 2-21a through 2-21c). Additional information on system-wide stormwater system upgrades is provided below.

2.6.7.2 Stormwater Capture and Reuse System

To comply with the post-construction stormwater treatment control requirements for new development, the proposed project will expand the capture area of the SAN Stormwater Capture and Reuse System (see Figures 2-21a through 2-21c). When completed by the proposed project, the system would capture runoff from approximately 200 acres of the SDIA's 661-acre site, as further described in Section 3.10, Hydrology and Water Quality. The SAN Stormwater Capture and Reuse System would reduce the amount of potable water currently used for non-potable purposes at SDIA. In addition, the SAN Stormwater Capture and Reuse System would reduce the discharge of stormwater runoff from SDIA into San Diego Bay.

The project-related elements of the SAN Stormwater Capture and Reuse System include the construction of an underground storage tank with approximately 3.4 million gallons of storage and an underground infiltration area that would temporarily store approximately 3 million gallons of stormwater, while simultaneously allowing the stormwater to infiltrate into the ground. As shown in Figure 2-22, the SAN Stormwater Capture and Reuse System improvements would occur throughout much of the southern and eastern portions of SDIA, encompassing the new T1 facility and the adjacent aircraft RON parking area, as well as the Taxiways A and B improvements area, and providing additional capture area to account for the runoff volumes associated with the project-related improvements at T2.

This page intentionally left blank

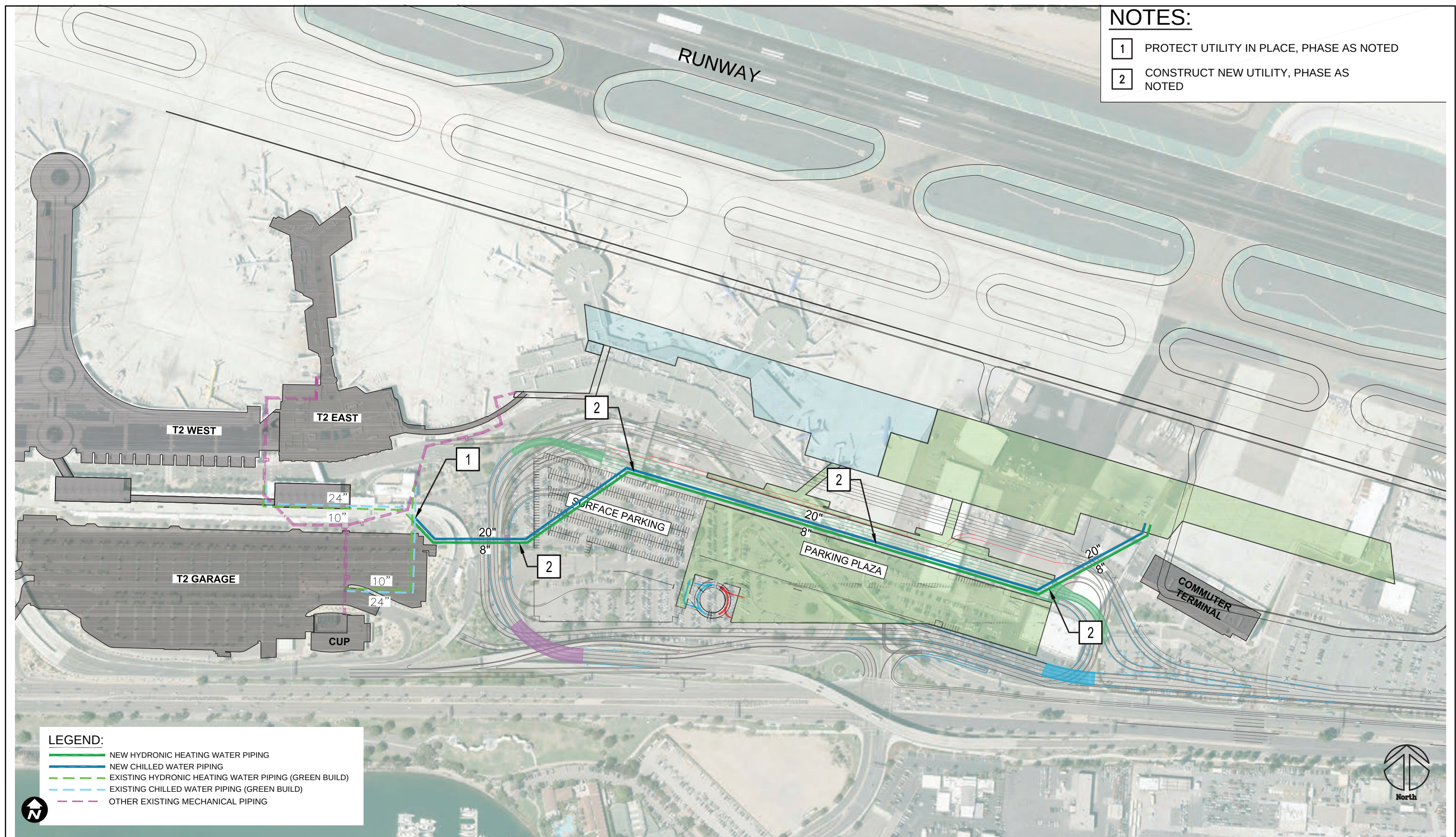
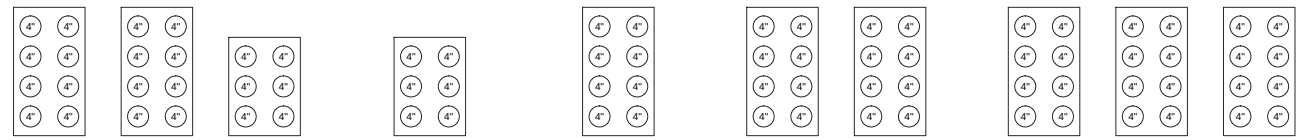


Figure 2-19



SECTION A-A

SECTION B-B

SECTION C-C

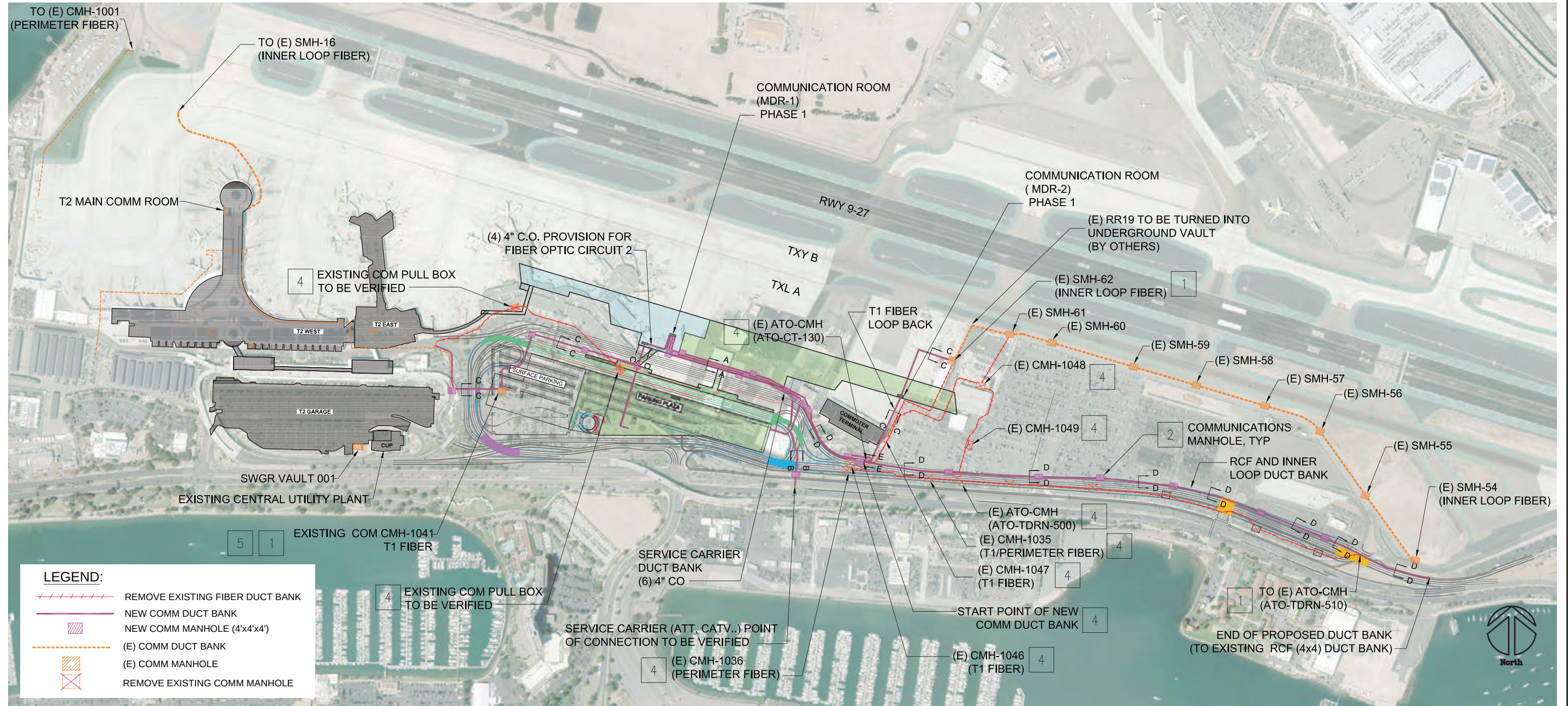
SECTION D-D

SECTION E-E

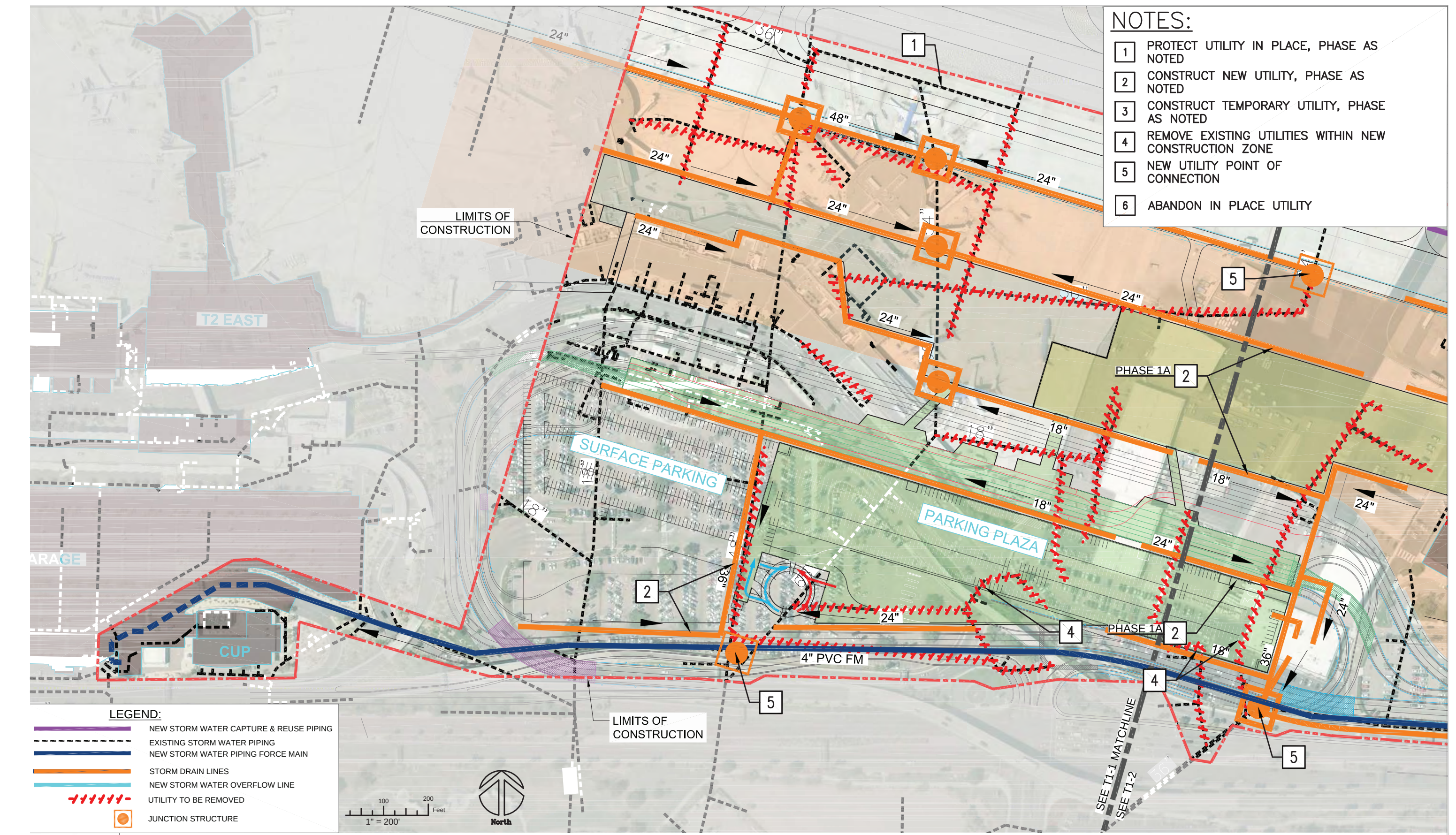
NOTES:

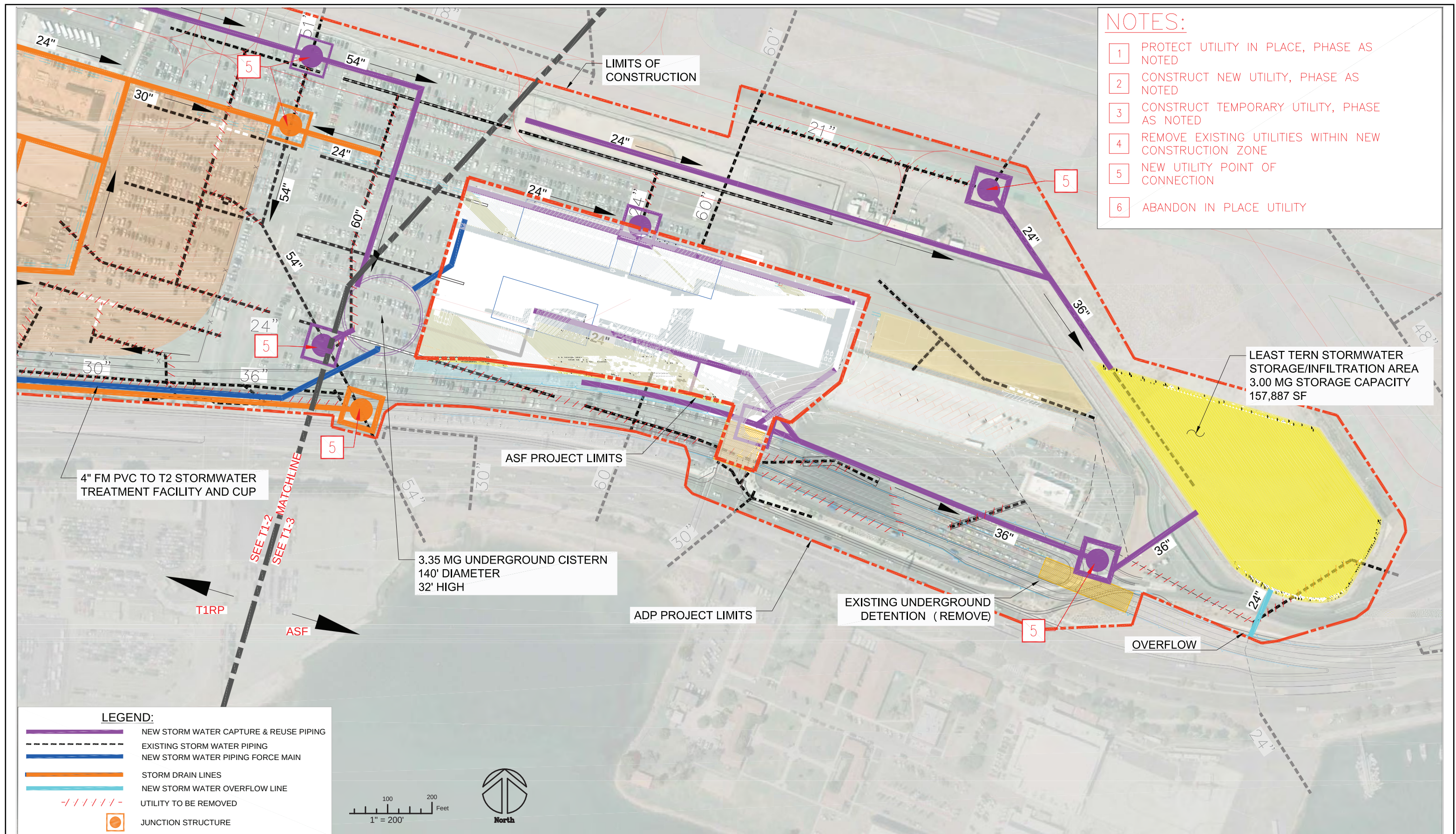
- 1 PROTECT UTILITY IN PLACE, PHASE AS NOTED
- 2 CONSTRUCT NEW UTILITY, PHASE AS NOTED

- 3 FIBER RE-ROUTED IN 20' CLEAR AREA NORTH OF PROPOSED ROADWAY
- 4 REMOVE EXISTING UTILITIES WITHIN NEW TERMINAL CONSTRUCTION
- 5 NEW UTILITY POINT OF CONNECTION

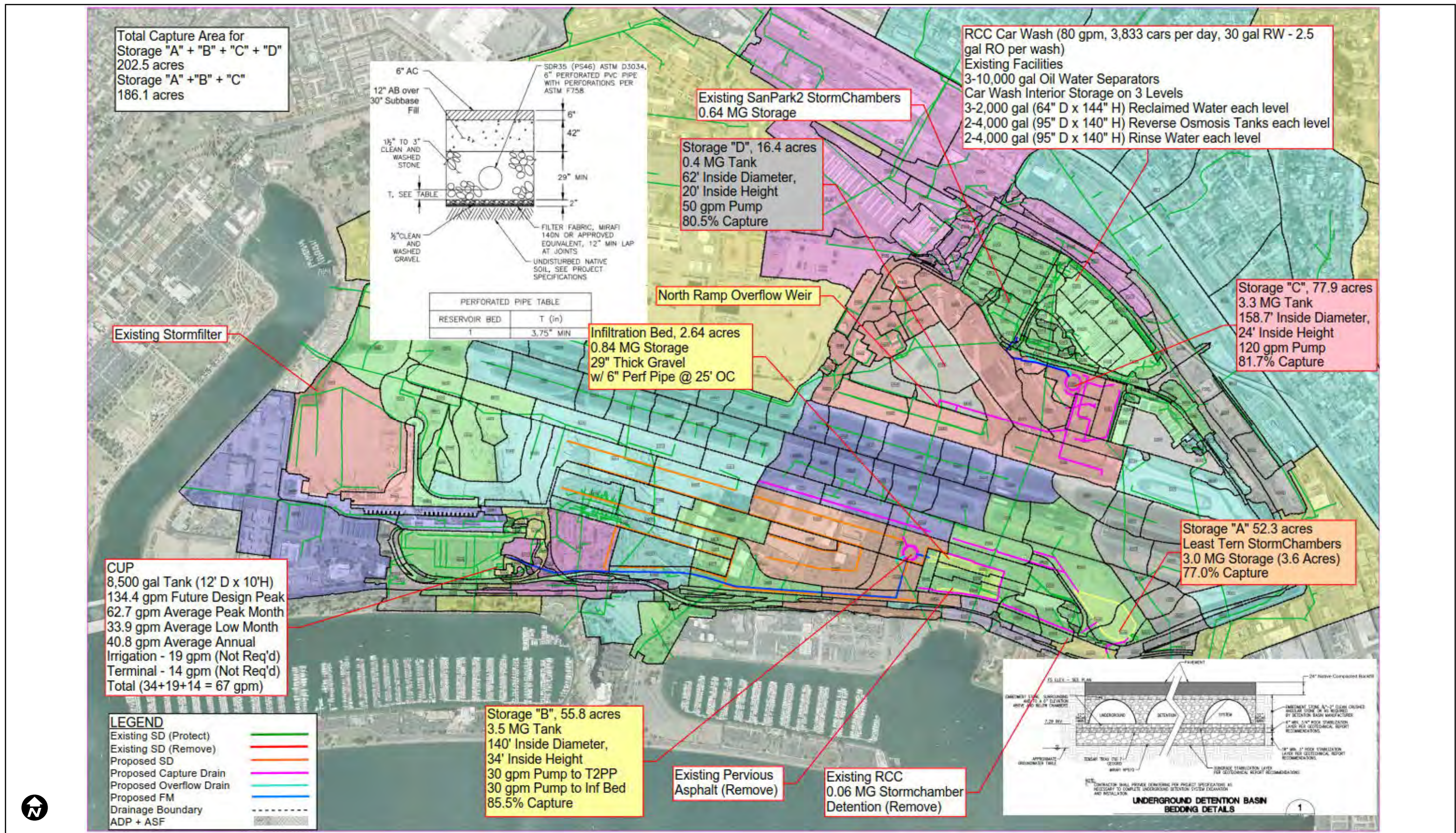


Source: San Diego County Regional Airport Authority, 2019





Source: San Diego County Regional Airport Authority, 2019



Source: San Diego County Regional Airport Authority, 2019

Instead of discharging into San Diego Bay, stormwater captured in the storage tank would be conveyed (piped) to the stormwater treatment facility that was constructed as part of the T2 Parking Plaza Project and reused in the cooling towers of the CUP or potentially for irrigation on the south side of SDIA. At final build-out, the total storage capacity of the SAN Stormwater Capture and Reuse System would be approximately 9.4 million gallons and allow for the capture and reuse (or infiltration) of approximately 39 million gallons of stormwater per year.

The overall purpose, intent, and design of the SAN Stormwater Capture and Reuse System is three-fold: (1) to obtain the credits needed to accommodate the post-construction stormwater treatment control requirements of the Municipal Permit for new developments/ redevelopments applicable to the proposed project; (2) to provide a stormwater treatment control process to address copper and zinc and meet the Numeric Action Levels (NALs) in the Industrial General Permit and the Airport Authority's goals listed in the San Diego Bay Watershed Management Area Water Quality Improvement Plan (WQIP); and (3) to offset the amount of potable water being used for non-potable purposes at SDIA.

Development of the SAN Stormwater Capture and Reuse System would require excavation of approximately 66,000 cubic yards of soil to allow for construction of the 3.4-million-gallon underground storage tank and the 3-million-gallon underground storage/infiltration area. It is anticipated that the excavated soil not retained on-site would be exported to Otay Landfill in Chula Vista for reuse and alternative daily cover. The storage tank and the storage area would each be constructed over an approximately 6-month period. In addition to construction of the underground storage tank and storage/infiltration area, development of the proposed stormwater capture and reuse system would include trenching to reconfigure or install new storm drain line infrastructure. The system would require the installation of approximately 20,000 linear feet of storm drain pipe, the largest pipes being 24 inches in diameter. Installation of storm drain pipe would occur during the same periods as underground storage tank installation.

2.6.8 Project Phasing

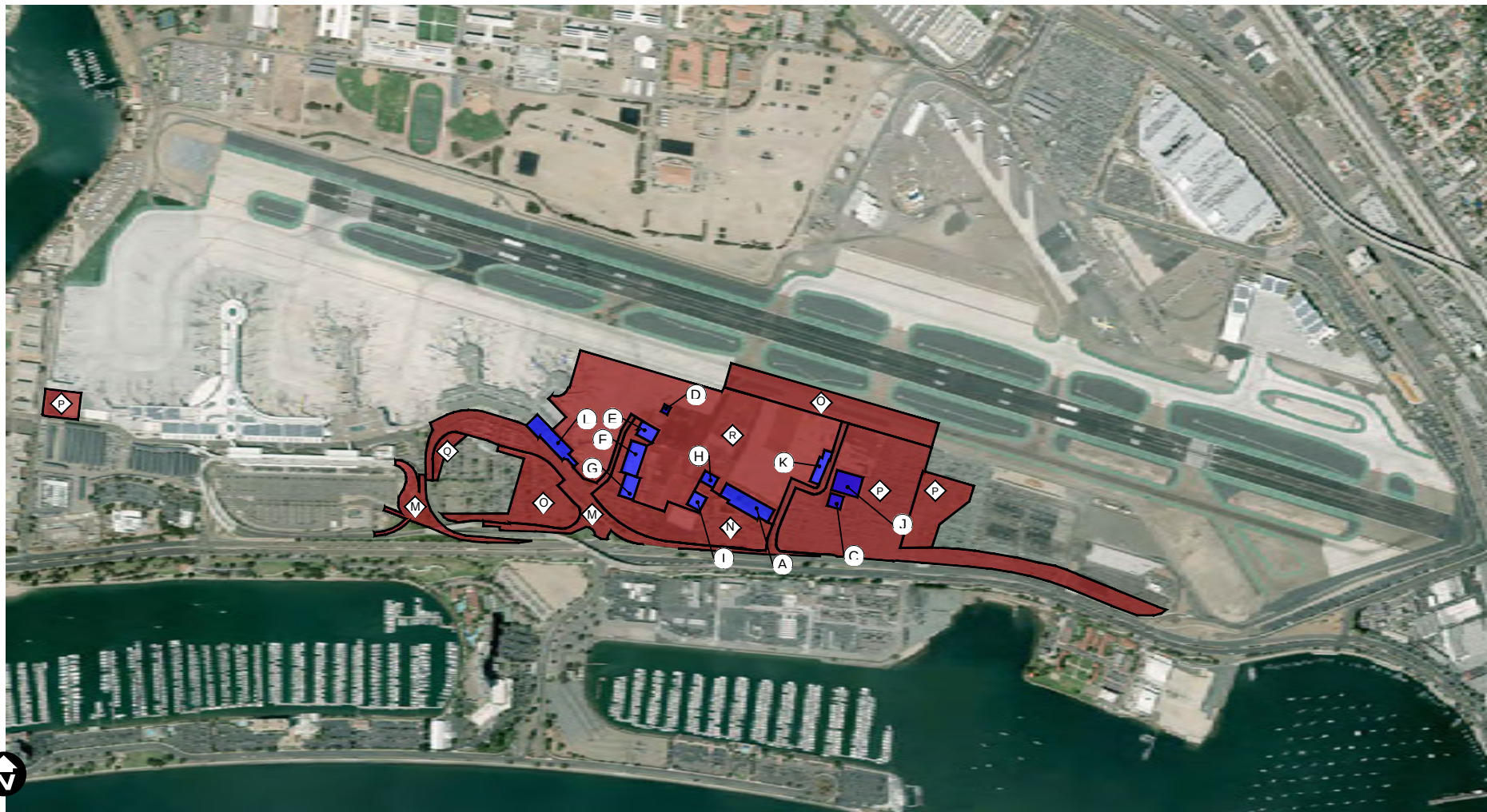
The proposed project would be implemented in two major phases, each with two sub-phases, that would ensure that regular airport operations would be maintained at a sufficient level during construction. As described in detail below, the primary components of Phase 1 are the replacement of T1 (including realignment of Taxiway B and construction of a new Taxiway A), a new T1 Parking Structure, a T1 loop road, and the on-airport entry roadway (including a multi-use pedestrian and bicycle path). The primary components of Phase 2 are the T2-West and T2-East modifications, as well as the commercial development opportunity. The two phases and sub-phases are described below. Tables 2-3 and 2-4 provide a detail of the demolition and construction, respectively, that would occur under each sub-phase. As shown in the tables, the total demolition would be over 1 million square feet of building area and over 6 million square feet of surface elements, while new construction would entail over 5 million square feet of buildings and just under 5 million square feet of surface elements. The features to be demolished under each phase are shown in Figures 2-23 through 2-26, and the features to be constructed are shown on Figures 2-27 through 2-31. The Map ID# listed on Tables 2-3 and 2-4 corresponds to the location of features depicted on Figures 2-23 through 2-31.

BUILDINGS

- | | |
|---|---|
| (A) AIRPORT ADMINISTRATION BUILDING | (J) FMD WORKSHOPS; PAINT SHOP & PROCUREMENT |
| (C) FMD ADMINISTRATION BUILDING | (K) FMD MAINTENANCE SHOPS |
| (D) TRITURATOR & WASH RACK | (L) TERMINAL 1 (GATES 1, 1A & 2) |
| (E) UNITED CARGO | |
| (F) SOUTHWEST CARGO | |
| (G) AIR FREIGHT (SOUTHWEST, ALASKA, HAWAIIAN, DELTA, JETBLUE) | |
| (H) MENZIES AVIATION MAINTENANCE | |
| (I) AMERICAN AIRLINES MAINTENANCE | |

SURFACE ELEMENTS

- ◇ ON-AIRPORT ROADWAY
- ◇ ADMINISTRATION BUILDING PARKING LOT & ACCESS ROADS
- ◇ TAXIWAY B
- ◇ EMPLOYEE/PUBLIC PARKING LOTS
- ◇ TERMINAL 1 PARKING LOT
- ◇ AIRCRAFT APRON



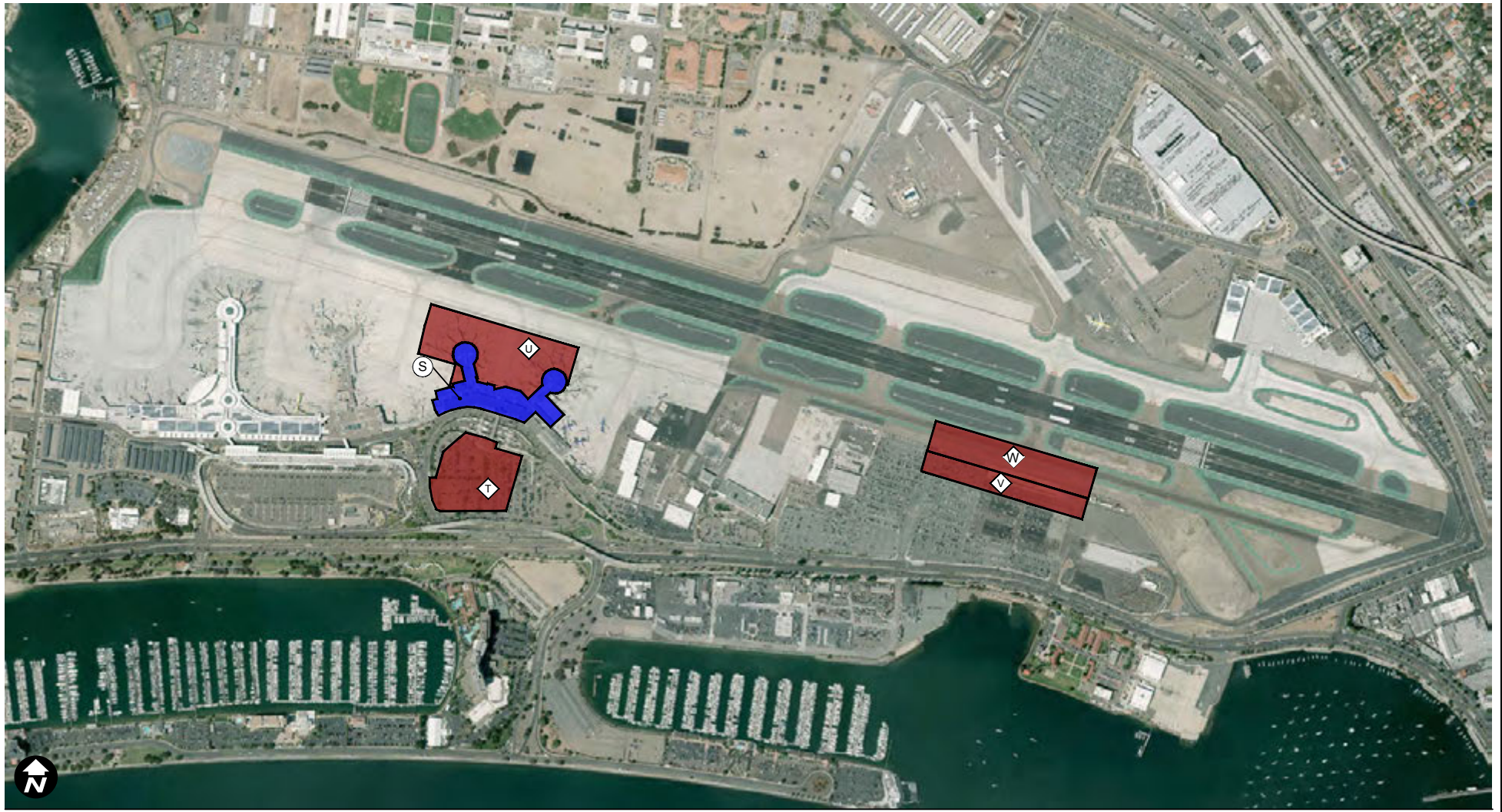
Source: SDCRAA, 2019.

BUILDINGS

⑤ TERMINAL 1

SURFACE ELEMENTS

- ① TERMINAL 1 PARKING LOT
- ② AIRCRAFT APRON
- ③ EMPLOYEE PARKING LOT
- ④ TAXIWAY B



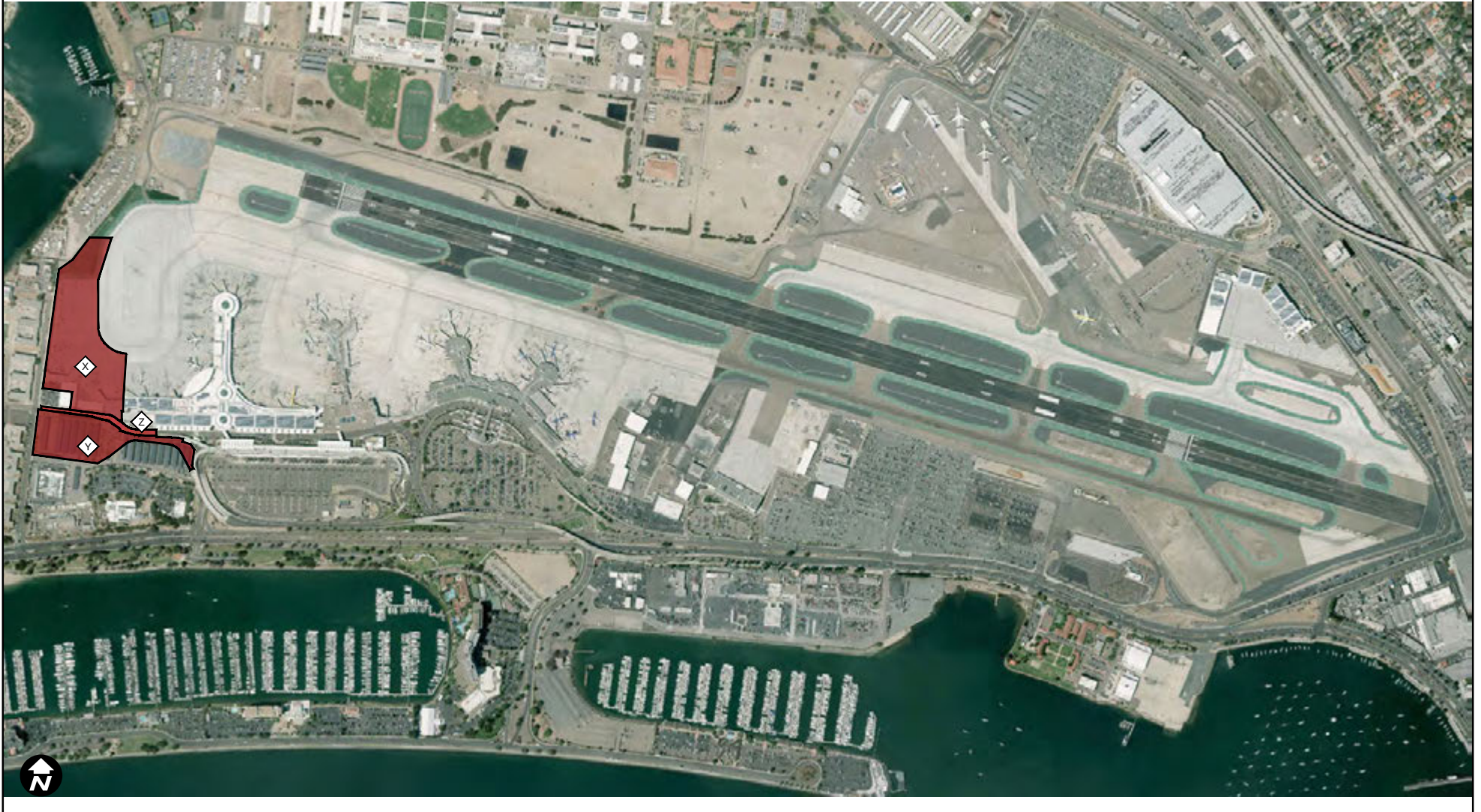
Source: SDCRAA, 2019.

BUILDINGS

NO STRUCTURE DEMOLITION IN THIS PHASE

SURFACE ELEMENTS

- ◇ AIRCRAFT APRON
- ◇ NTC PARKING LOT
- ◇ ON-AIRPORT ROADWAYS



Source: SDCRAA, 2019.

BUILDINGS

AA TERMINAL 2 EAST

SURFACE ELEMENTS

AB AIRCRAFT APRON



Source: SDCRAA, 2019.

BUILDINGS

- 1 TERMINAL 1 - 22 GATES
- 3 TERMINAL 1 PARKING STRUCTURE - EAST
- 4 AIRPORT ADMINISTRATION BUILDING
- 5 CUP CAPACITY EXPANSION

SURFACE ELEMENTS

- 6 AIRCRAFT APRON
- 7 TAXIWAY A
- 8 TAXIWAY B
- 9 TERMINAL AREA ROADS - ON GRADE
- 10 TERMINAL AREA ROADS - STRUCTURE
- 11 AIRPORT ACCESS ROAD - ON GRADE
- 12 AIRPORT ACCESS ROAD - STRUCTURE
- 13 AIRCRAFT OVERNIGHT PARKING



Source: SDCRAA, 2019.

BUILDINGS

- 13 TERMINAL 1 - 8 GATES
- 14 TERMINAL 1 PARKING STRUCTURE - WEST

SURFACE ELEMENTS

- 15 AIRCRAFT APRON
- 16 TAXIWAY A
- 17 TAXIWAY B
- 18 TERMINAL AREA ROAD - ON GRADE



Source: SDCRAA, 2019.

BUILDINGS

- 20 TERMINAL 2W (STINGER) - 7 GATES
- 21 COMMERCIAL DEVELOPMENT OPPORTUNITY

SURFACE ELEMENTS

-  AIRCRAFT APRON
-  TERMINAL AREA ROAD - STRUCTURE
-  TERMINAL AREA ROAD - ON GRADE
-  SURFACE PARKING LOT



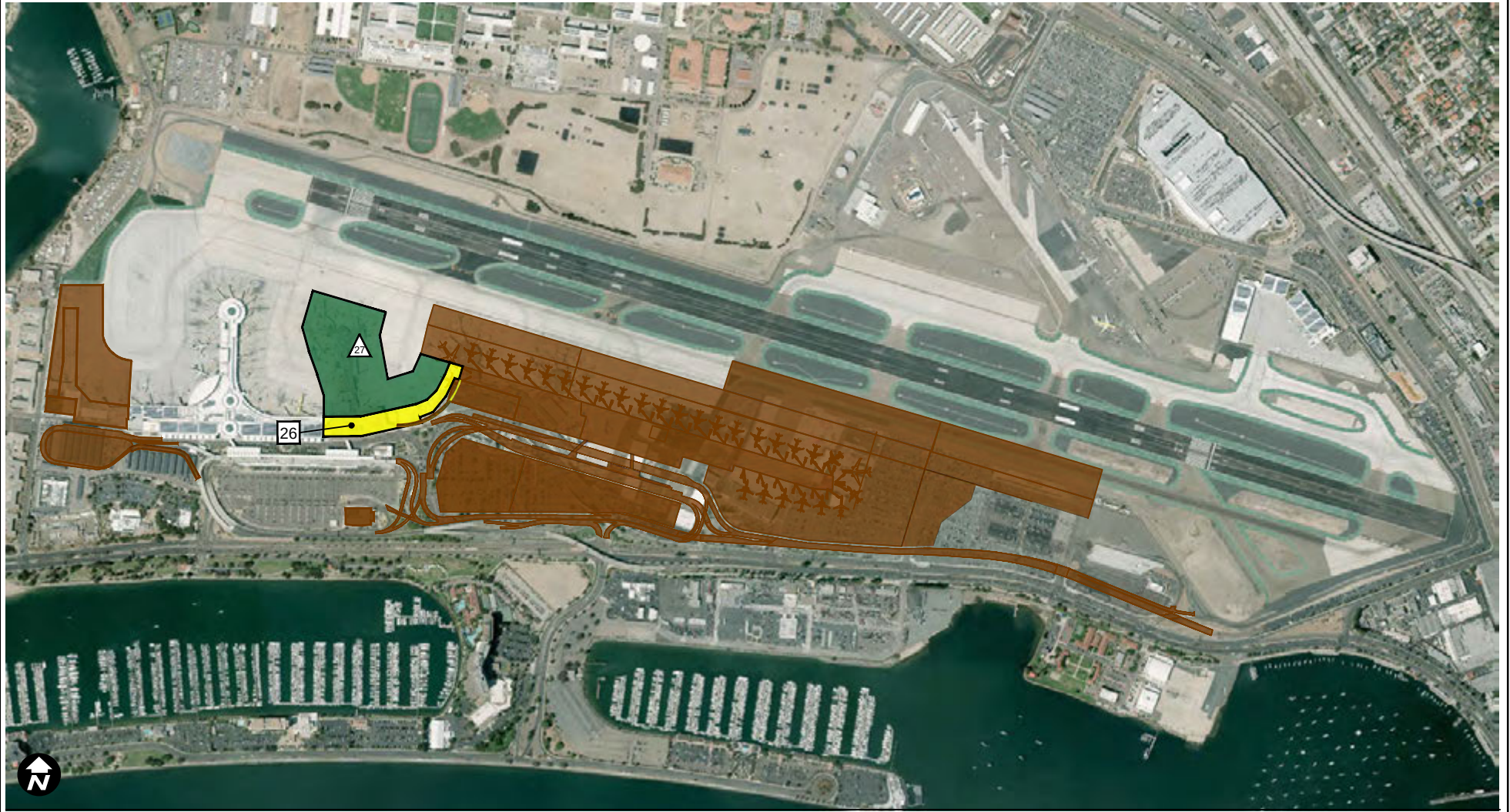
Source: SDCRAA, 2019.

BUILDINGS

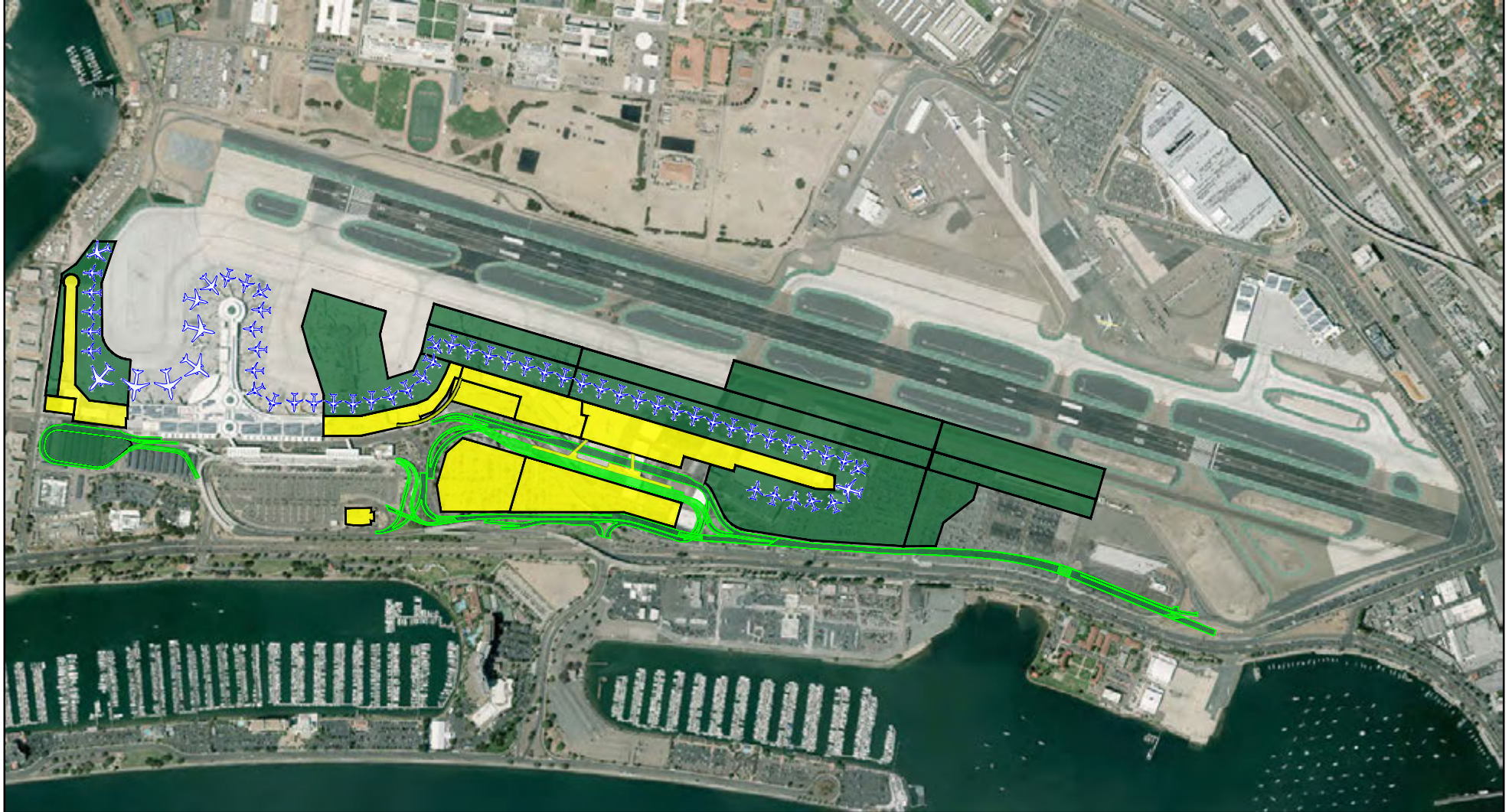
SURFACE ELEMENTS

26 TERMINAL T2E CONNECTOR - 7 GATES

27 AIRCRAFT APRON



Source: SDCRAA, 2019.



Source: SDCRAA, 2019.

Table 2-3: Demolition by Phase

Phase	Map ID #	Facility	Approximate Area (SF) ¹	Current Use	Disposition of Facility/Use
Phase 1a					
1a	A	Airport Administration Building	132,000	Airport Administration Offices	Building to be demolished. Function to be moved to a new building constructed on the west side of airport as part of the proposed project.
1a	C	Facilities Management Department (FMD) Administration Building	10,000	FMD administrative offices	Building to be demolished. Function moved to new support facilities complex developed on the north side to be developed separate from the proposed project.
1a	D	Triturator & Wash Rack	3,500	Lavatory waste trituration and vehicle washing	Buildings to be demolished. Function relocated to a smaller consolidated facility within the south side support facilities area.
1a	E	United Cargo	17,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	F	Southwest Cargo	32,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Facility Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	G	Air Freight (Southwest, Alaska, Hawaiian, Delta, jetBlue)	30,000	Aircraft belly cargo handling	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	H	United Airlines Hangar and Terminal Building (a.k.a. the ASIG building or Menzies Aviation Maintenance) ²	9,000	Fueling administration and support facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	I	American Airlines Maintenance	12,000	Airline maintenance facility	Building to be demolished. Function relocated to the consolidated Airline Support Building on the south side (east of the new T1) to be developed separate from the proposed project.
1a	J	FMD Workshop; Paint Shop & Procurement	29,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.
1a	K	FMD Maintenance Shops	25,000	FMD maintenance workshop	Building to be demolished. Function moved to new support facilities complex on the north side to be developed separate from the proposed project.

Table 2-3: Demolition by Phase

Phase	Map ID #	Facility	Approximate Area (SF) ¹	Current Use	Disposition of Facility/Use
1a	L	Terminal 1 (Gates 1, 1A, & 2)	36,000	Passenger terminal	Partial structure to be demolished to make way for construction of initial phase of new Terminal 1 (East).
1a	M	On-Airport Roadways	590,000	Arrivals/departure entry roadway	Airport roads and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	N	Administration Building Parking Lot & Access Roads	390,000	Airport administration parking and access roads	Surface parking, airport roads, and associated features to be demolished for construction of new roadway improvements in Phase 1a.
1a	O	Taxiway B	300,000	Taxiway B	Taxiway pavement to be demolished and replaced in conjunction with new T1 improvements in Phase 1a.
1a	P	Employee/Public Parking Lots	1,003,000	Employee and public parking	Surface parking lot and associated features to be demolished in conjunction with new T1 improvements in Phase 1a.
1a	Q	Terminal 1 Parking Lot	270,000	Terminal 1 surface parking lot	Surface parking lot and associated features to be demolished for construction of new roadway and parking improvements in Phase 1a.
1a	R	Aircraft Apron	1,415,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with initial phase of new T1.
Phase 1a - Buildings Total			335,500		
Phase 1a - Surface Elements Total			3,968,000		
Phase 1a - Total			4,303,500		
Phase 1b					
1b	S	Terminal 1	300,000	Passenger terminal	Building to be demolished and replaced with remainder of new T1.
1b	T	Terminal 1 Parking Lot	300,000	Surface parking lot	Surface parking lot and associated features to be demolished for construction of remainder of new T1 Parking Structure (East).
1b	U	Aircraft Apron	410,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with remaining phase of new T1.
1b	V	Employee Parking Lot	490,000	Employee Parking Lot	Surface parking lot and associated features to be demolished for construction of RON area and nearby taxiway improvements.
1b	W	Taxiway B	300,000	Taxiway B	Taxiway pavement to be demolished and replaced in conjunction with construction of new RON area nearby.
Phase 1b - Buildings Total			300,000		
Phase 1b - Surface Elements Total			1,500,000		

Table 2-3: Demolition by Phase

Phase	Map ID #	Facility	Approximate Area (SF) ¹	Current Use	Disposition of Facility/Use
Phase 1b - Total			1,800,000		
Phase 2a					
2a	X	Aircraft Apron	440,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced in conjunction with construction of new concourse (stinger) at T2-West.
2a	Y	NTC Parking Lot	250,000	Public and employee parking lot	Surface parking lot and associated features to be replaced with parking improvements in Phase 2a.
2a	Z	On-Airport Roadways	35,000	On-airport roadways	Airport roads and associated features to be demolished and replaced with roadway improvements in Phase 2a.
Phase 2a - Buildings Total			0		
Phase 2a - Surface Elements Total			725,000		
Phase 2a - Total			725,000		
Phase 2b					
2b	AA	Terminal 2 East	350,000	Passenger terminal	Building to be demolished and replaced with new apron area and new concourse between the new T1 and existing T2-East.
2b	AB	Aircraft Apron	540,000	Aircraft apron	Aircraft apron pavement to be demolished and replaced with new apron area and new concourse between the new T1 and existing T2-East.
Phase 2b - Buildings Total			350,000		
Phase 2b - Surface Elements Total			540,000		
Phase 2b - Total			890,000		
Project Total (Phases 1 and 2) [demolition]					
Project Total - Buildings			985,500		
Project Total - Surface Elements			6,733,000		
Grand Total			7,718,500		

Source: AECOM/SDCRAA, 2019.

Notes:

1. SF = square feet
2. Mitigation Measure MM-HR-2 recommends relocation of the United Airlines Hangar and Terminal Building as discussed in Section 3.6, Cultural Resources.

Table 2-4: New Construction by Phase

Phase	Map ID #	Facility Type	Approximate Area (square feet)	Building Height (feet above ground level)	Building Stories
Sub-Phase 1a					
1a	1	Terminal 1 - 22 Gates	810,000	90 ¹	3
1a	3	Terminal 1 Parking Structure - East	1,500,000	60 ²	5
1a	4	Airport Administration Building	150,000	95	6
1a	5	Existing CUP Capacity Expansion	12,000	45 (Existing)	1 (Existing)
1a	6	Aircraft Apron	1,230,000	-	-
1a	7	Taxiway A	385,000	-	-
1a	8	Taxiway B	360,000	-	-
1a	9	Terminal Area Roads-On Grade	310,000	-	-
1a	10	Terminal Area Roads-Structure	170,000	-	-
1a	11	Airport Access Road-On Grade	165,000	-	-
1a	12	Airport Access Road-Structure	9,300	-	-
1a	18	Aircraft Overnight Parking	230,000	-	-
Phase 1a - Buildings Total			2,472,000		
Phase 1a - Surface Elements Total			2,859,300		
Phase 1a - Total			5,331,300		
Phase 1b					
1b	13	Terminal 1 - 8 Gates	400,000	90 ^a	3
1b	14	Terminal 1 Parking Structure - West	1,280,000	60 ^b	5
1b	15	Aircraft Apron	260,000	-	-
1b	16	Taxiway A	380,000	-	-
1b	17	Taxiway B	290,000	-	-
1b	19	Terminal Area Road-On Grade	20,000	-	-
Phase 1b - Buildings Total			1,680,000		
Phase 1b - Surface Elements Total			950,000		
Phase 1b - Total			2,630,000		
Phase 2a					
2a	20	Terminal T2-West (Stinger) - 7 Gates	450,000	65	3
2a	21	Commercial Development Opportunity	400,000	90	10
2a	22	Aircraft Apron	310,000	-	-

Table 2-4: New Construction by Phase

Phase	Map ID #	Facility Type	Approximate Area (square feet)	Building Height (feet above ground level)	Building Stories
2a	23	Terminal Area Road-Structure	20,000	-	-
2a	24	Terminal Area Road-On Grade	60,000	-	-
2a	25	Surface Parking Lot	130,000	-	-
Phase 2a - Buildings Total			850,000		
Phase 2a - Surface Elements Total			520,000		
Phase 2a – Total			1,370,000		
Phase 2b					
2b	26	Terminal T2-East Connector - 7 Gates	250,000	65	3
2b	27	Aircraft Apron	560,000	-	-
Phase 2b - Buildings Total			250,000		
Phase 2b - Surface Elements Total			560,000		
Phase 2b - Total			810,000		
Project Total (Phases 1 and 2) [new construction]					
<i>Project Total - Buildings</i>			<i>5,252,000</i>		
<i>Project Total - Surface Elements</i>			<i>4,889,300</i>		
<i>Grand Total</i>			<i>10,141,300</i>		

Source: AECOM/SDCRAA, 2018.

Notes:

1. Only the T1 main roof/façade would be 90 feet; the top of the concessions roof would be 75 feet and the top of the concourse would be 61 feet.
2. The main deck of the parking structure would be 60 feet. The elevator penthouses and light poles may extend up to 84 feet.

2.6.8.1 Phase 1

Phase 1 consists of replacing the outdated T1 with a new facility that meets the current level of customer service standards and meets passenger and gate capacity needs. Additionally, roadway modifications constructed in Phase 1 would provide both improved overall airport access and access to the new T1. Improvements occurring in Phase 1 would include those related to the SAN Stormwater Capture and Reuse System. The T1 replacement would occur over two sub-phases, Phase 1a and Phase 1b, which would allow operation of the existing T1 to continue while construction of the replacement T1 facility begins. The portion of T1 constructed in Phase 1a would be open and operational prior to demolition of the existing T1, thereby ensuring that sufficient passenger and gate facilities are available to serve the anticipated flight schedule throughout Phase 1a and Phase 1b construction.

Phase 1a

Under Phase 1a, the eastern portion of the replacement T1 would be constructed (referred to as T1(a)). The new T1(a) would include approximately 810,000 square feet, consisting of landside terminal space (passenger processor) and airside terminal space (concourse). T1(a) would be located immediately to the east of the existing T1. As shown in Figure 2-27, T1(a) would have a linear design and consist of 22 gates. Also occurring in Phase 1a would be the construction of a new RON aircraft parking area on the east side of the new terminal.

Other improvements that would occur during Phase 1a include the new T1 access loop, on-airport entry roadway with multi-use pedestrian and bicycle pathway, and eastern portion of the T1 Parking Structure. Additionally, construction would include the new airport administrative office building, the expansion of the existing CUP, and implementation of approximately 3 million square feet of surface elements, including roadways, access roads, and aircraft apron.

To accommodate the Phase 1a improvements, approximately 336,000 square feet of existing buildings would be demolished, including air cargo and airline support buildings, a 36,000 square-foot portion of T1 (Gates 1, 1A, and 2), and the former Commuter Terminal, which is the current airport administrative building. Additionally, approximately 3,968,000 square feet of surface elements, including roadways, parking lots, access roads, aircraft apron, and Taxiway B would be demolished for construction of Phase 1a building and surface element improvements.

During Phase 1a, the existing T1 would remain in operation. Upon completion of Phase 1a, the majority of operations within the existing T1 would be moved to the T1(a) facilities, and the remaining operations that could not be accommodated in T1(a) would be consolidated within T2. As shown in Table 2-5, at completion of Phase 1a, there would be a net increase of three gates in the total number of gates at SDIA (from 51 gates to 54 gates). This corresponds with the elimination of 19 gates at the existing T1 and the addition of 22 new gates at T1(a). It is anticipated that Phase 1a of the T1 improvements would be completed by the end of 2024.

Phase 1b

As described above, at the completion of Phase 1a, operations at the existing T1 would be relocated to T1(a) and T2. As shown on Figure 2-28, the existing T1 terminal would be demolished to make way for completing the remaining portion of the new T1 (referred to as T1(b)). T1(b) would expand T1(a) westward in the area that is currently occupied by the existing T1. T1(b) would be

comprised of approximately 400,000 square feet, including eight additional gates. T1(b) would also include additional bag claim device and support spaces, additional space for screening lanes level, and additional space for the check-in hall. As mentioned, the concourse would include eight additional gates and space for boarding, seating, and concessions area on the upper level and baggage make-up, operations, mechanical, and support space on the arrivals level. Additionally, T1(b) would include construction of a post-security corridor connection between T1(b) and the existing T2-East terminal.

Phase 1b would also include the completion of the T1 Parking Structure, resulting in the removal of the remaining surface parking lot. Other improvements that would occur during Phase 1b include implementation of approximately 950,000 square feet of surface elements, including aircraft apron, portions of Taxiways A and B, and access road.

To accommodate the Phase 1b improvements, the approximately 300,000 square-foot existing T1 would be demolished as well as approximately 1,500,000 square feet of surface elements, including the T1 surface parking lot, employee parking lot, aircraft apron, and portion of Taxiway B.

As shown in Table 2-5, no gates would be eliminated at completion of Phase 1b and, thus, there would be a net increase of eight gates in the total number of gates at SDIA (from 54 gates at the completion of Phase 1a to 62 gates at the completion of Phase 1b). It is anticipated that Phase 1b would be completed by late 2026 or early 2027.

Table 2-5: Number of Airport Gates at SDIA during Project Construction Phases

Terminal	Total Number of Gates at SDIA				
	Existing	Phase 1a	Phase 1b	Phase 2a	Phase 2b
Existing T1	19	0	0	-	-
Replacement T1(a)	-	22	22	22	22
Replacement T1(b)	-	0	8	8	8
Existing T2-West	19	19 ^a	19 ¹	17 ²	17
Modified T2-West	-	0	0	7	7
Existing T2-East	13	13	13	13	0
Modified T2-East	-	0	0	0	7
Total Gates	51	54	62	67	61

Source: LeighFisher, April 2017.

Notes:

1. Four widebody positions west of existing T2-West would operate as six narrowbody positions in Phases 1a and 1b.

2. Two of the four widebody positions west of existing T2-West would operate as three narrowbody positions in Phase 2a.

2.6.8.2 Phase 2

Phase 2 consists of the T2-West and T2-East modifications. As with Phase 1, Phase 2 would occur in two sub-phases (Phase 2a and Phase 2b) as described below.

Phase 2a

The primary component of Phase 2a is the T2-West modification. This entails the construction of a new seven-gate concourse “stinger,” as shown in Figure 2-29. The new construction would result in a reconfiguration of the western terminus of the existing T2-West concourse, necessitating the

elimination of two gates. As shown in Table 2-5, at completion of Phase 2a, the total number of gates at SDIA would be 67.

Other improvements that would occur during Phase 2a include development of the commercial development opportunity and approximately 520,000 square feet of surface elements including surface parking, access roads, and aircraft apron. To accommodate Phase 2a, approximately 725,000 square feet of surface elements consisting of surface parking, access roads, and aircraft apron would be demolished.

It is anticipated that Phase 2a would be completed by the end of 2030.

Phase 2b

Phase 2b consists of the T2-East modification, which entails the demolition of the existing 350,000 square-foot T2-East concourse, and construction of a new 250,000 square-foot linear concourse that would connect T2 to T1, as shown on Figure 2-30. Other improvements that would occur during Phase 2b include demolition of 540,000 square feet of aircraft apron and construction of 560,000 square feet of replacement aircraft apron.

The new construction would result in the elimination of 13 existing gates in the existing T2-East concourse and the construction of seven new gates at the new T2-East. This would result in a net decrease of six gates from Phase 2a to 2b. As shown in Table 2-5, at completion of Phase 2b, the total number of gates at SDIA would be 61. It is anticipated that Phase 2b would be completed by the end of 2035. As already explained in more detail in Section 2.5.1.2, future activity levels at SDIA, in terms of aircraft operations and annual numbers of passengers, are anticipated to grow with or without the proposed project (i.e., future activity levels at SDIA are the same for both the proposed project and the No Project Alternative). The addition and redistribution of aircraft gates as part of the proposed project, as reflected in Table 2-5, would not affect future activity levels at SDIA.

2.7 Construction Assumptions

2.7.1 General

Construction activities associated with implementation of the proposed project are assumed in the EIR analysis to begin in approximately late 2020/early 2021, subject to completion of the required environmental reviews and entitlement approvals, and continue through each of the four subphases described above to project buildout in 2035.

Specifics regarding the construction approach, construction equipment, construction laydown/staging areas, and other such details have not yet been developed at the current level of project planning; however, general assumptions regarding construction activities as related to the identification and evaluation of potential air quality impacts and noise impacts are provided in Sections 3.2 and 3.12, respectively, of this Recirculated Draft EIR. With respect to construction laydown/staging areas and construction worker parking areas, it is anticipated that such areas would be incorporated into the construction footprint of each subphase of development.

2.7.2 Construction Traffic Management Program

Although the specifics of the proposed project construction program have not yet been defined, a Construction Traffic Management Program (CTMP), similar to that successfully implemented during the SDIA Green Build construction program, is proposed to be implemented as part of the proposed project to reduce potential construction-related traffic impacts. The following describes the basic elements of the CTMP.

- Establish an ADP Construction Coordination Office within the Ground Transportation Department. This office would operate during the life of the proposed project construction period to coordinate deliveries, monitor traffic conditions, advise motorists about detours, congested areas, and alternative parking areas, and monitor and enforce delivery times and routes. The SDCRAA will periodically analyze traffic conditions on designated routes during construction to evaluate and optimize the transportation system during the construction period.

This office will undertake a variety of duties, including but not limited to:

- Review traffic control plans that will be required as part of construction contracts in order to ensure that construction worker and truck trips are minimized during a.m. and p.m. peak hours and will not use residential streets to access SDIA;
- Inform motorists about detours, alternative parking, and congestion by use of static or changeable message signs, media announcements, airport website, airport information roadway radio station, etc.;
- Work with police to enforce delivery times and routes, including specified truck routes;
- Establish staging areas;
- Coordinate with emergency response agencies to maintain emergency access and response times;
- Coordinate Caltrans and city roadway projects with SDIA projects, so as to minimize impacts to travel;
- Monitor and coordinate deliveries, with emphasis on avoiding peak commute hours whenever possible;
- Establish detour routes;
- Work with transit agencies to minimize disturbances to bus routes/stops along Harbor Drive and on SDIA;
- Coordinate with the City of San Diego Development Services Department on construction activity proposed to occur in City right-of-way to obtain the necessary traffic control permits, and to accommodate pedestrian and bicycle access at all times during construction, as required;

- Work with neighbors to address their concerns regarding construction activity traffic; and
- Analyze traffic conditions to determine the need for additional traffic controls, communication, signal modifications, lane restriping, rerouting, etc.
- Require Orientation for Construction Personnel. All construction personnel will be required through contractual means to participate in an ADP project-specific orientation that includes where to park, where staging areas are located, construction policies, delivery routes, detours, airport construction area driving protocol, etc., in addition to airport safety and security issues training. It should be noted that construction work hours would typically begin before 7:00 a.m. and end by 3:00 p.m. or 3:30 p.m., which serves to minimize, if not avoid, construction worker commute traffic occurring at the same time as typical morning and afternoon peak commute hours.

2.8 Intended Use of this EIR/Proposed Federal, State, and Local Actions and Required Permits

The SDCRAA is the Lead Agency for the project and will consider approving the proposed project and certifying the EIR. As discussed in greater detail in Chapter 1, Introduction, the proposed project would require various permits or approvals from other federal, state, and local agencies with jurisdiction over portions of the project or over resources that could be affected by the proposed project. Those agencies may rely on the EIR in a review capacity or as a basis for issuance of a permit or other approval.

The proposed federal actions include FAA approval of the proposed development through the processing of an ALP amendment and the preparation and completion of the National Environmental Policy Act (NEPA) documentation, which would occur separate from this EIR.

The proposed state and local actions required for approval of the specific projects in the proposed project include, but are not limited to, the following:

- California Coastal Commission Coastal Development Permit
- City of San Diego Building Permits
- Port of San Diego Lease/Agreement for Access to New On-Airport Road
- San Diego County Air Pollution Control District – Stationary Source Permit