DRAFT
ENVIRONMENTAL ASSESSMENT

FOR THE

PROPOSED LTSCI AND CEMH PROJECTS

VA NORTH TEXAS HEALTH CARE SYSTEM
DALLAS VA MEDICAL CENTER
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DALLAS, TEXAS

U.S. DEPARTMENT OF VETERANS AFFAIRS

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
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EXECUTIVE SUMMARY

This environmental assessment (EA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with the U.S. Department of Veterans Affairs' (VA's) proposed Long-Term Spinal Cord Injury (LTSCI) and Clinical Expansion for Mental Health (CEMH) projects at the VA North Texas Health Care System (VANTHCS) – Dallas Campus (Dallas VA Medical Center or Dallas VAMC) located at 4500 South Lancaster Road in Dallas, Dallas County, Texas. This EA has been prepared as required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code 4321 et seq.), the President's Council on Environmental Quality Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), *Environmental Effects of the Department of Veterans Affairs Actions* (38 CFR Part 26), and VA's *NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010).

VA initially planned the LTSCI and CEMH projects in the early 2010s, at which time project design was initiated and Draft NEPA EAs were prepared. However, the LTSCI and CEMH projects were not constructed. VA is now revising the LTSCI and CEMH project designs and plans initiate construction within the next 5 years. This EA was prepared to evaluate the potential impacts associated with VA's renewed LTSCI and CEMH projects.

PROPOSED ACTION

VA's Proposed Action is to construct and operate new LTSCI and CEMH facilities and supporting infrastructure, including on-campus parking, to expand and enhance health care services at the Dallas VAMC campus. The proposed LTSCI and CEMH buildings include an approximately 172,000-square-foot LTSCI facility, an approximately 215,000-square-foot CEMH facility, an approximately 80,000-square-foot warehouse/office building, and an approximately 1,000-car parking garage. The LTSCI and CEMH projects include the demolition of 14 small to medium-sized, older campus buildings and temporary trailers that are primarily used for administrative and support services and/or are underutilized, to create space on the space-constrained Dallas VAMC campus for the new LTSCI and CEMH buildings. The proposed LTSCI and CEMH projects would provide larger, state-of-the-art facilities and infrastructure at the Dallas VAMC campus to meet the rapidly growing Veteran needs for health care services in the region.

The LTSCI and CEMH projects would be conducted in phases over a period of approximately 6 to 8 years to minimize campus disruption and to support continued campus operations. It is anticipated that the majority of the LTSCI construction activities would be completed prior to beginning the CEMH construction. VA is currently in the design phase for the LTSCI project and the pre-design (Project Book) phase for the CEMH project. Project design details are not available at this time. VA anticipates that the LTSCI construction would begin in 2024 and the LTSCI and CEMH construction would be completed in 2030.

PURPOSE AND NEED

The purpose of the Proposed Action is to provide larger, state-of-the-art facilities and supporting infrastructure to further expand and enhance Veteran health care services, specifically long-term spinal cord injury and mental health care services, at the Dallas VAMC campus.

Depending on the final design configuration, the proposed LTSCI facility would be equipped with approximately 30 to 60 beds and would be operationally integrated with the existing 30-bed acute spinal cord injury (SCI) center in Building 74 and would provide specialized long-term residential care for Veterans with spinal cord injuries that is not currently available in the region. The proposed CEMH facility would enable VA to consolidate existing mental health care programs, including outpatient

services, acute inpatient beds, and residential rehabilitation beds into a single, appropriately-sized, modern facility specially designed for mental health care that meets VA mental health program and safety guidelines. The proposed LTSCI and CEMH projects also include the construction of a new warehouse/office building to consolidate and house services provided by several small buildings and trailers that would be demolished for the CEMH development, a new parking garage to replace surface parking lost as a result of the LTSCI and CEMH projects, and relocating Liberty Loop Road to accommodate the LTSCI and CEMH development, meet federal physical security requirements, and to improve traffic flow at the campus.

The Proposed Action is needed to address the antiquated and undersized facilities and operational deficiencies at the Dallas VAMC to support the rapidly growing Veteran demand for health care services in the region.

There are currently no dedicated long-term care specialty facilities for Veterans with spinal cord injuries and disorders at the Dallas VAMC or other VA facilities in the region. Veterans with spinal cord injuries that require long-term care reside in VA Community Living Centers (CLCs), VA SCI Acute Care hospital wards, and community nursing homes. Community nursing homes and CLCs do not have the necessary staff, training, or specialized equipment to meet the unique medical and psychosocial needs of these patients and SCI Acute Care hospital wards are unacceptable locations for long-term residential care. In 2013, approximately 80 Texas-area Veterans with spinal cord injuries required long-term care. VA projects this number will grow to approximately 100 by 2025.

Building 1, the original VA hospital building constructed in the late 1930s, houses the primary mental health facilities at the Dallas VAMC. Building 1 does not conform to VA function, safety, and privacy standards of care that are critical to the provision of mental health services. In addition, Dallas VAMC mental health care services have outgrown the allotted space and, as a result, mental health clinics and programs are scattered throughout the campus with some programs being required to be located off campus. This dispersion of mental health services/programs impedes access to mental health care and does not conform to VA guidelines regarding delivery of patient-centered care. VA projects Veteran demand for mental health services in the Dallas area will continue to grow. Mental health outpatient visits are estimated to increase 67 percent between 2011 and 2031.

ALTERNATIVES

This EA examines in depth two alternatives, the Proposed Action and the No Action Alternative:

Proposed Action

The Proposed Action would include the construction of an approximately 172,000-square-foot LTSCI facility, an approximately 215,000-square-foot CEMH facility, an approximately 80,000-square-foot warehouse/office, and an approximately 1,000-car parking garage.

The primary components of the LTSCI project include:

- Construction and operation a new approximately 172,000-square-foot, three to four-story LTSCI facility in the southeastern portion of the campus, adjacent to Building 74. The LTSCI would provide residences for Veterans with long-term spinal cord injuries and would house an Outpatient Spinal Cord Injury Clinic and physical/occupational therapy facilities.
- Demolition of Buildings 10, 12, and 27 in the northeastern portion of the campus and the construction and operation of a new approximately 80,000-square-foot, two-story Warehouse/Office in this area.
- Reconfiguration/relocation of Liberty Loop to the south and east of the new LTSCI building and LTSCI parking garage.

The primary components of the CEMH project are anticipated to include:

- Demolition of Buildings 44, 45, TT46, TT47, TT48, TT51, TT54, and Structure 58 in the north-central portion of the campus and the construction and operation of a new approximately 215,000-square-foot, three to four-story, approximately 80-bed, CEMH facility in this area. The CEMH would consolidate and expand mental health services provided at the campus. It is anticipated the CEMH would consist of two adjacent, connected structures, one containing a mental health clinic and one containing residences for mental health patients.
- Demolition of Buildings 5, 6, 8, 9 and TT49 in the northern portion of the campus and reconfiguration/relocation of Liberty Loop and the construction of surface parking lots for the CEMH in this area. A reconfigured Dallas VAMC campus entrance may also be constructed in this area.
- Construction and operation of a new approximately 1,000-car, three to five-story parking garage associated with the CEMH facility in the northwestern portion of the campus, in the northern portion of a current Dallas VAMC parking lot.

In addition, the LTSCI and CEMH projects include the installation, relocation and removal of campus utilities to support the new development.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented; the proposed LTSCI and CEMH facilities would not be constructed at the Dallas VAMC campus. Veterans with spinal cord injuries in need of long-term care would continue to reside in VA CLCs and community nursing homes that do not have the necessary specially-trained staff and equipment or VA SCI Acute Care hospital wards that are not suitable for long-term residential needs. VA would continue to provide mental health services in antiquated Building 1, which does not conform to VA function, safety and privacy standards, and other scattered buildings at the campus and off-campus.

This alternative would severely limit VA's ability to provide necessary long-term care for Veterans with spinal cord injuries and mental health care services to Veterans in the region, and thus would not meet the purpose of or need for the Proposed Action. However, the No Action Alternative was evaluated in this EA as required under the CEQ regulations; it also provides a benchmark for comparing potential impacts of the Proposed Action.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment of the Proposed Action and its immediate surroundings, or the region of influence of the Proposed Action, is discussed in Section 3 of this EA.

The two considered alternatives are evaluated in this EA to determine their potential direct or indirect impact(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action's region of influence. Technical areas evaluated in this EA are:

- *Aesthetics*
- *Air Quality*
- *Cultural and Historic Resources*
- *Geology and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid Waste and Hazardous Materials*
- *Traffic, Transportation, and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

Potential Effects of the Proposed Action

The Proposed Action would result in impacts to the area as identified throughout Section 3 and summarized in the table below. These include short-term and/or long-term potential adverse impacts to aesthetics, air quality, cultural resources, soil and geology, hydrology and water quality, wildlife and habitat, noise, solid waste and hazardous materials, transportation, parking (short-term only), and utilities. All of these potential impacts are less than significant and would be further reduced through careful coordination and implementation of general best management practices (BMPs); management, minimization and mitigation measures; and compliance with regulatory requirements, as identified in Section 4.

Through National Historic Preservation Act (NHPA) Section 106 compliance investigations and consultation, VA identified one building at the Dallas VAMC campus (Building 1, with Building 3 as a component) as a historic property individually eligible for listing in the National Register of Historic Places (NRHP). No other buildings, structures, or archaeological sites at the Dallas VAMC campus are historic. No historic properties are anticipated to be affected by the LTSCI project; however, the CEMH design has not been completed and the full range of effects on historic properties cannot be determined at this time. Consequently, VA is developing a Programmatic Agreement (PA) in consultation with the Texas Historical Commission (THC), which serves as the Texas State Historic Preservation Office (SHPO), for the Proposed Action. It is anticipated that the PA will include project design review by THC to avoid, minimize, and/or mitigate adverse effects to historic properties; nomination of Building 1, with Building 3 as a component, for inclusion in the NRHP; documentation of Buildings 5, 6 and 10 prior to their demolition (formerly considered to be historic properties); and the installation of interpretative signage at the campus that memorializes the significance of the Dallas Veterans Administration Hospital. With the execution of the PA and implementation of its stipulations, cultural resources impacts would be less than significant.

The Proposed Action would result in beneficial short-term and long-term impacts to the local socioeconomic environment. Notably, a significant long-term beneficial effect to the health of U.S. Veterans in the region would occur should the Proposed Action be implemented.

Potential Effects of the No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented and no improvements to the current level of VA's regional health care services or capability would occur. No beneficial impacts attributable to the Proposed Action would occur and VA's ability to provide sufficient, requisite health care services to the region's Veterans would be compromised.

Summary of Impact Analysis

Resource Area	Proposed Action	No Action
Aesthetics	Proposed LTSCI and CEMH facilities would be visually consistent with the existing Dallas VAMC development. Less-than-significant adverse impact.	None
Air Quality	Dust and particulate matter emissions during construction managed with BMPs. Vehicle and minor equipment emissions during operation. Emissions anticipated to be below general conformity de minimis levels. Less-than-significant adverse impact.	Similar regional vehicle emissions

Resource Area	Proposed Action	No Action
Cultural Resources	Dallas VAMC Building 1 (with 3 as a component) is a historic property eligible for listing in the NRHP. LTSCI projects are not anticipated to impact historic properties. Historic property effects of CEMH projects cannot be fully evaluated at this time. VA will execute a Programmatic Agreement under Section 106 of the NHPA with THC to avoid, minimize, and/or mitigate potential historic property impacts from the Proposed Action. No significant impact with execution of the PA and implementation of its stipulations.	None
Geology and Soils	Soil erosion and sedimentation impacts during construction managed with BMPs. Less-than-significant adverse impact.	None
Hydrology and Water Quality	Stormwater runoff during construction managed through BMPs. Stormwater from the Dallas VAMC campus would discharge to the municipal storm sewer system. Existing campus stormwater system deficiencies will be addressed through a separate project. Less-than-significant adverse impact.	None
Wildlife and Habitat	Dallas VAMC campus is largely developed with buildings and pavements with no habitat for federally or state listed species. No/Negligible adverse impact.	None
Noise	Short-term noise impacts during construction managed through BMPs. Minor operational impacts associated with vehicle traffic, HVAC systems, and grounds maintenance, similar to existing noise levels. Less-than-significant adverse impact.	None
Land Use	Proposed Action is consistent with existing use of the Dallas VAMC and current zoning and compatible with surrounding land use. No/negligible adverse impact.	None
Floodplains, Wetlands, and Coastal Zone Management	No wetlands or floodplains located on the Dallas VAMC campus or immediately adjacent properties. Campus not located in a designated coastal zone. Not applicable – No adverse impact.	None
Socioeconomics	Short-term local beneficial impact to employment during construction. New LTSCI and enhanced and expanded mental health care services would be a significant long-term beneficial impact to Veterans in the Dallas area.	Inadequate VA health care facilities - adverse impact to local Veterans

Resource Area	Proposed Action	No Action
Community Services	Proposed Action would not put a significant additional load on local community services. No/negligible adverse impact.	None
Solid Waste and Hazardous Materials	Residual petroleum impacted soil associated with former boiler plant USTs suspected in the proposed Warehouse/Office area. Impacted soil would be properly handled and managed during construction in accordance with a Soil Management Plan. Potential impacts from petroleum and hazardous substance handling during construction and operation would be managed through BMPs and regulatory compliance. Less-than-significant adverse impact.	None
Transportation and Parking	Minor short-term impact from construction traffic and temporary loss of parking. A traffic impact study (TIS) found area roads currently operate at an acceptable level of service (LOS) and would continue to operate at an acceptable LOS with the Proposed Action. On-campus potential vehicle queueing concerns do not impact public roads. Proposed Action net increased parking spaces is approximately the same as the increased parking demand from the Proposed Action. Less-than-significant adverse impact.	None
Utilities	Utilities likely adequate for the Proposed Action currently service the Dallas VAMC campus. No/Negligible adverse impact.	None
Environmental Justice	Located in an area with a higher minority population and a higher low-income population. Proposed Action would have little impact on area residents. Low-income and minority Veterans would benefit from the implementation of the Proposed Action at the Dallas VAMC. Negligible impact.	None

Cumulative Impacts

This EA also examines the potential cumulative effects of implementing each of the considered alternatives. This analysis finds that the Proposed Action, with the implementation of the BMPs; management, minimization and mitigation measures; and regulatory compliance measures specified in this EA, would not result in significant adverse cumulative impacts to the human environment.

AGENCY AND PUBLIC INVOLVEMENT

Agencies consulted for this EA include:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- USDA Natural Resource Conservation Service
- Texas Parks and Wildlife Department
- Texas Historical Commission (Texas SHPO)
- Texas Commission of Environmental Quality, various divisions
- Texas Department of Transportation
- Texas State Soil and Water Conservation Board
- Trinity River Authority of Texas
- North Central Texas Council of Governments
- City of Dallas (various departments)
- Preservation Dallas
- Dallas County Historic Preservation Division

Responses were received from the Texas Commission of Environmental Quality (TCEQ) and the Texas Parks and Wildlife Department (TPWD). Input provided by these agencies is summarized in Section 6. Agency information and comments have been incorporated into this EA, as and where appropriate. Copies of relevant correspondence can be found in Appendix B.

Five federally-recognized Indian tribes (Wichita and Affiliated Tribes, Coushatta Tribe of Louisiana, Comanche Nation, Apache Tribe of Oklahoma, and Tonkawa Tribe of Indians of Oklahoma) were identified as having possible ancestral ties to the Dallas VAMC area. VA invited each of these Tribes to provide input regarding the Proposed Action and to participate in the NHPA Section 106 consultation process. The Comanche Nation confirmed that the Dallas VAMC campus does not hold sites significant to Comanche Nation heritage. No other Tribes have responded or elected to participate in the NHPA Section 106 consultation process. Tribal input is summarized in Section 6. Tribal correspondence is provided in Appendix C.

VA will publish and distribute the Draft EA for a 30-day public comment period, as announced by a Notice of Availability published in the Dallas Morning News. A copy of the Draft EA will be made available on the VA Office of Construction and Facilities Management Environmental Program website: (https://www.cfm.va.gov/environmental/index.asp). In addition, a hard copy of the Draft EA will be made available for public review at the Dallas Public Library. VA will also email notification of the release of the Draft EA to the stakeholders previously contacted during the NEPA scoping and NHPA Section 106 consultation. The notice will contain a link to the Draft EA on VA's website and invite stakeholder to provide comments on the document. VA will respond to agency and public comments within the Final EA.

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AADT	annual average daily traffic
ACM	asbestos-containing materials
amsl	above mean sea level
BGS	below ground surface
BMP	best management practice
CBOC	community-based outpatient clinic
CEQ	President's Council on Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
dBA	decibels, A-weighted scale
DBIED	Dallas Building Inspection and Engineering Departments
DDOT	Dallas Department of Transportation
DoD	Department of Defense
DOEQ	Dallas Office of Environmental Quality
DOHP	Dallas Office of Historic Preservation
DPR	Dallas Parks and Recreation
DPWD	Dallas Public Works Department
DSDC	Dallas Sustainable Development and Construction
DSDCP	Dallas Sustainable Development and Construction, Planning
DSWMD	Dallas Stormwater Management Department
DWU	Dallas Water Utilities
EA	environmental assessment
ESA	environmental site assessment
IPaC	USFWS Information for Planning and Conservation
JD	jurisdictional determination
LOS	level of service
MBTA	Migratory Bird Treaty Act
MOA	memorandum of agreement
NAAQS	National Ambient Air Quality Standards
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act
NFA	no further action
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PA	programmatic agreement
REC	recognized environmental condition
ROW	right-of-way
SCIP	strategic capital investment planning
SFHA	special flood hazard area
SHPO	State Historic Preservation Office
SWPPP	stormwater pollution prevention plan
TIS	transportation impact study
TDEQ	Texas Department of Environmental Quality
TDOT	Texas Department of Transportation
THC	Texas Historical Commission (Texas State Historic Preservation Office)
TPDES	Texas Pollutant Discharge Elimination System

TPWD	Texas Parks and Wildlife Department
TRAT	Trinity River Authority of Texas
TSSWCD	Texas State Soil and Water Conservation Board
U.S.	United States of America
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VA	U.S. Department of Veterans Affairs
VAMC	VA Medical Center
WOTUS	Waters of the U.S.

1.0 INTRODUCTION, INCLUDING PURPOSE OF AND NEED FOR THE ACTION

1.1 Introduction

This environmental assessment (EA) has been prepared as required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 et seq.), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), *Environmental Effects of the Department of Veterans Affairs Actions* (38 CFR Part 26), and VA's *NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010). Federal agencies are required to consider the environmental effects of their proposed actions. This EA is required to determine if VA's Proposed Action would have significant environmental impacts.

This EA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's proposed Long-Term Spinal Cord Injury (LTSCI) and Clinical Expansion for Mental Health (CEMH) projects at the VA North Texas Health Care System (VANTHCS) – Dallas Campus (Dallas VA Medical Center or Dallas VAMC) located at 4500 South Lancaster Road in Dallas, Dallas County, Texas.

VA initially planned the LTSCI and CEMH projects in the early 2010s, at which time project design was initiated and Draft NEPA EAs were prepared. However, the LTSCI and CEMH projects were not constructed. VA is renewing its effort to complete the LTSCI and CEMH projects. VA is currently in the design phase for the LTSCI project and the pre-design (Project Book) phase for the CEMH project.

In accordance with the cited regulations, this EA allows for public input into the federal decision-making process; provides federal decision-makers with an understanding of potential environmental effects of their decisions, before making these decisions; identifies measures the federal decision-maker could implement to reduce potential environmental effects; and documents the NEPA process.

1.2 Background

The Dallas VAMC is a large urban medical center serving Veterans in 38 counties in northern Texas and southern Oklahoma, including the greater Dallas metropolitan area, and is the headquarters of VANTHCS. VANTHCS provides comprehensive health care to Veterans and their families in the region and includes the Dallas VAMC, the Garland VA Medical Center in Garland, Texas, and ten regional outpatient clinics.

The approximately 100-acre Dallas VAMC campus is located approximately 5.5 miles south of the center of the City of Dallas, in a fully developed, mixed use residential, commercial, and institutional area. The Dallas VAMC campus is located north of the intersection of South Lancaster Road and Highway 12/Ledbetter Drive and between US Interstates 20 (south), 35E (west), and 45 (east). Figures 1-1 and 1-2 depict the location of the Dallas VAMC campus.

The Dallas VA Hospital opened in 1940 and required major changes in the mid-1950s to meet the increased needs of Veterans following World War II and the Korean War. Major renovations and a large building program started in the late 1970s and continued through the 1980s and 1990s to accommodate the growth in required Veterans' health care services at the Dallas VAMC campus. Dallas area Veterans' needs for health care services have continued to grow rapidly, such that even with the previous expansions, the Dallas VAMC campus is in need of additional heath care facilities along with a corresponding expansion of supporting infrastructure, including on-campus parking. Starting in the early

2010s, VA began a multi-year effort to reconfigure the Dallas VAMC campus to expand and enhance health care services in efficient, state-of-the-art facilities. Completed projects include the following:

- Two-story, 5,000-square foot building to house Magnetic Resonance Imaging (MRI) equipment and clinical support space.
- An addition of second floor to Building 2 to provide a 28,000-square foot, 35-bed Acute Mental Health Inpatient Unit.
- Various renovations of Building 1 in-patient domiciliary living quarters to provide an appropriate environment.
- 30,000-square foot Emergency Department expansion.
- Nursing Home and Domiciliary Upgrades.
- LTC Improvements.
- Traumatic Brain Injury and Polytrauma Suite.
- Buildings 1 and 2 renovation projects.
- A new 673-car parking garage constructed in the northeastern portion of the campus (Building 80).
- A new 413-car parking garage constructed in the northwestern portion of the campus (Building 81).
- A new 1,005-car LTSCI parking garage constructed in the eastern portion of the campus (Building 82).

Figure 1-3 is an aerial photograph depicting the current development at the Dallas VAMC campus.

Figure 1-1 Regional Location Map

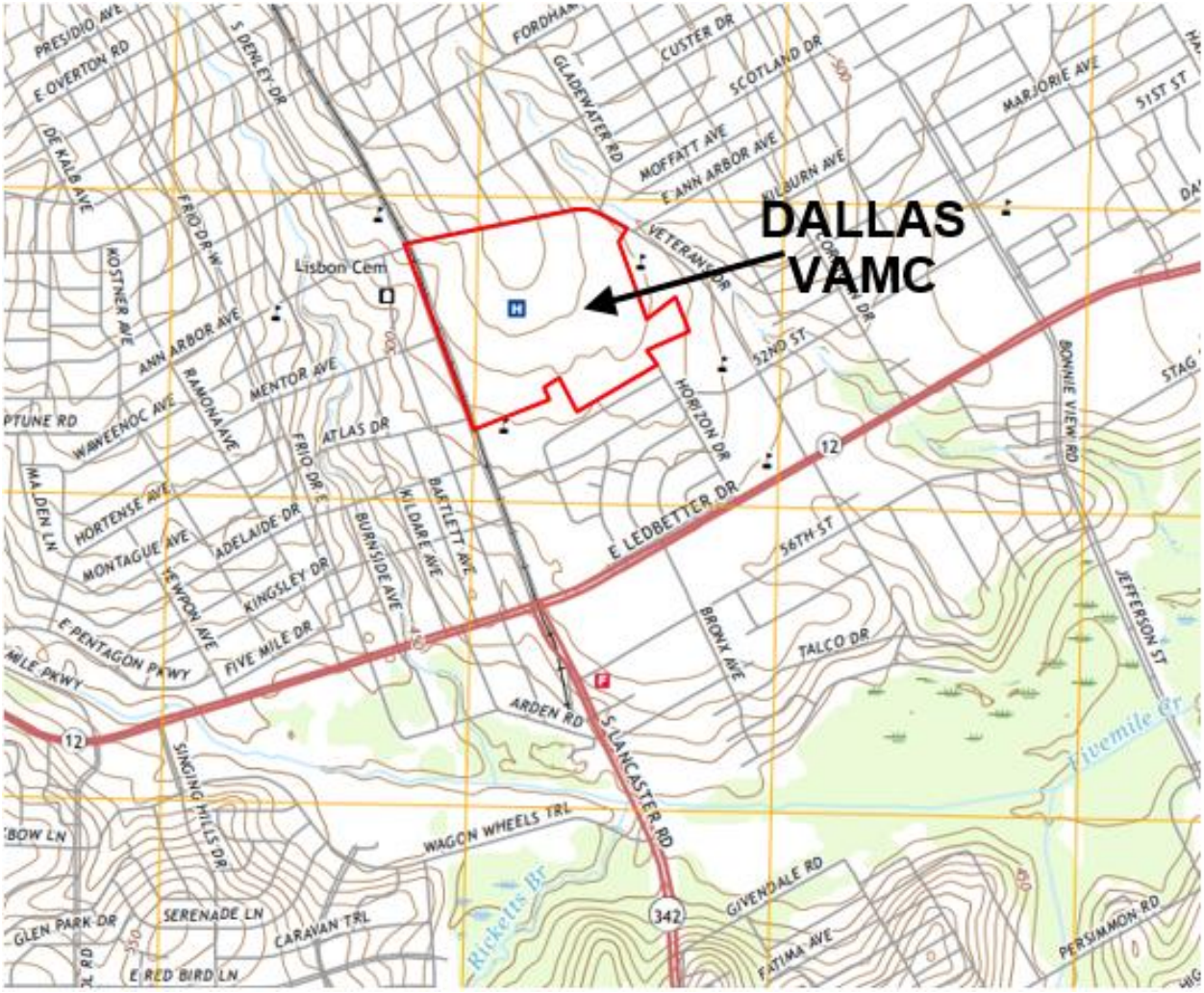

Figure 1-2 Topographic Location Map (Oak Cliff, TX 2019)

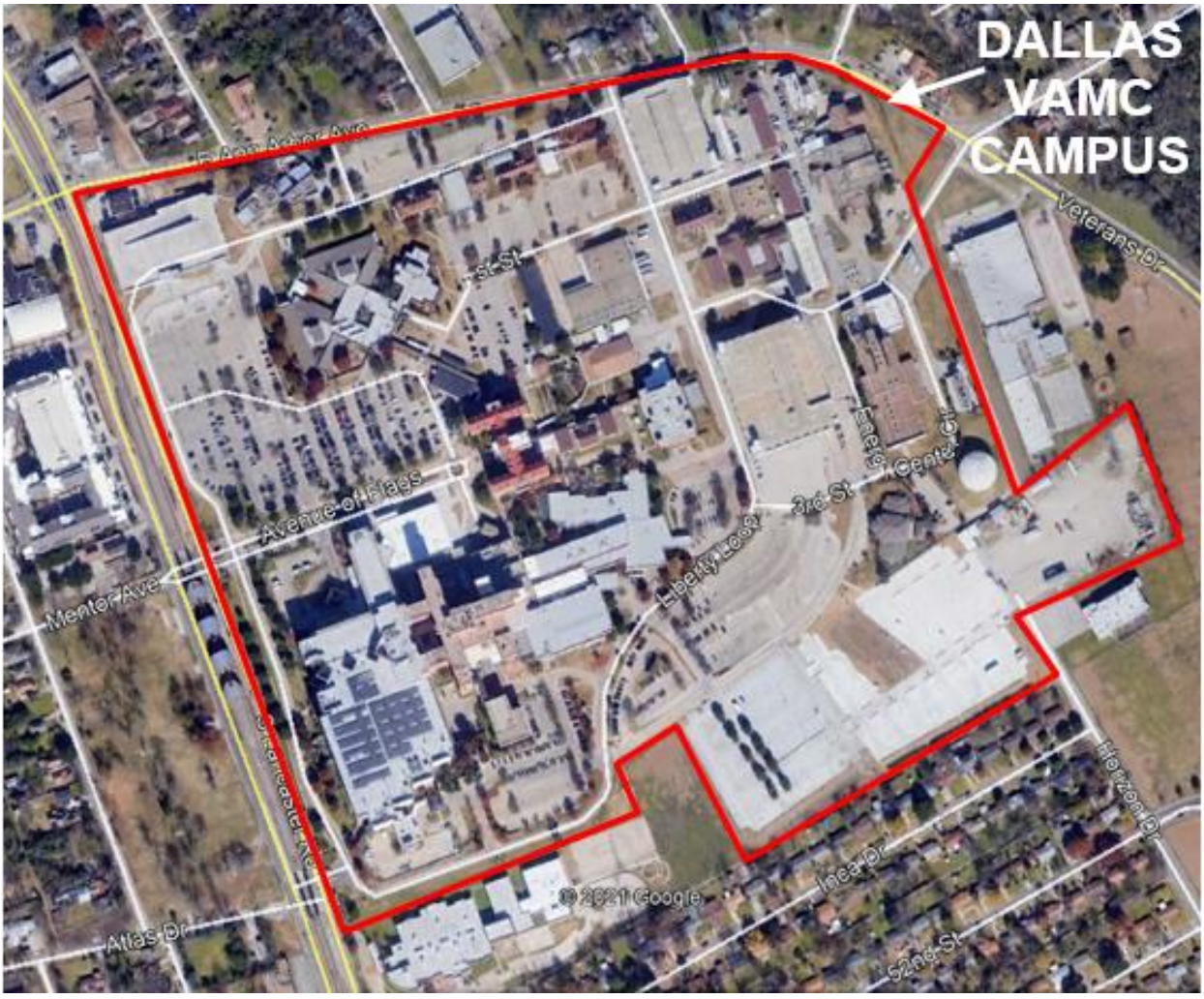

Figure 1-3 Aerial Photograph of Dallas VAMC Campus

1.3 Purpose and Need

The purpose of the Proposed Action is to provide larger, state-of-the-art facilities and supporting infrastructure to further expand and enhance Veteran health care services, specifically long-term spinal cord injury and mental health care services, at the Dallas VAMC campus.

The proposed LTSCI facility equipped with approximately 30 to 60 beds would be operationally integrated with the existing 30-bed acute spinal cord injury (SCI) center in Building 74 and would provide specialized long-term residential care for Veterans with spinal cord injuries that is not currently available in the region. The proposed CEMH facility would enable VA to consolidate existing mental health care programs, including outpatient services, acute inpatient beds, and residential rehabilitation beds into a single, appropriately-sized, modern facility specially designed for mental health care that meets VA mental health program and safety guidelines. The proposed LTSCI and CEMH projects also include the construction of a new warehouse/office building to consolidate and house services provided by several small buildings and trailers that would be demolished for the CEMH development, a new parking garage to replace surface parking lost as a result of the LTSCI and CEMH projects, and relocating Liberty Loop Road to accommodate the LTSCI and CEMH development, meet federal physical security requirements, and to improve traffic flow at the campus.

The Proposed Action is needed to address the antiquated and undersized facilities and operational deficiencies at the Dallas VAMC to support the rapidly growing Veteran demand for health care services in the region.

There are currently no dedicated long-term care specialty facilities for Veterans with spinal cord injuries and disorders at the Dallas VAMC or other VA facilities in the region. Veterans with spinal cord injuries that require long-term care reside in VA Community Living Centers (CLCs), VA SCI Acute Care hospital wards, and community nursing homes. Community nursing homes and CLCs do not have the necessary staff, training, or specialized equipment to meet the unique medical and psychosocial needs of these patients and SCI Acute Care hospital wards are unacceptable locations for long-term residential care. In 2013, approximately 80 Texas-area Veterans with spinal cord injuries required long-term care. VA projects this number will grow to approximately 100 by 2025.

Building 1, the original VA hospital building constructed in the late 1930s, houses the primary mental health facilities at the Dallas VAMC. Building 1 does not conform to VA function, safety, and privacy standards of care that are critical to the provision of mental health services. In addition, Dallas VAMC mental health care services have outgrown the allotted space and, as a result, mental health clinics and programs are scattered throughout the campus with some programs being required to be located off campus. This dispersion of mental health services/programs impedes access to mental health care and does not conform to VA guidelines regarding delivery of patient-centered care. VA projects Veteran demand for mental health services in the Dallas area will continue to grow. Mental health outpatient visits are estimated to increase 67 percent between 2011 and 2031.

1.4 Decision-Making

This EA has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with VA's proposed LTSCI and CEMH projects at the Dallas VAMC campus.

VA, as a federal agency, is required to incorporate environmental considerations into their decision-making process for the actions they propose to undertake. This is done in accordance with the regulations identified in Section 1.1.

Ultimately, VA will decide, in part based on the analysis presented in this EA and after having taken potential environmental, cultural, and socioeconomic effects into account, whether VA should implement the Proposed Action, and, as appropriate, carry out management, minimization, and mitigation measures to reduce effects on the environment.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This Section provides information on the Proposed Action and its alternatives, including those that VA initially considered, but eliminated, and the reasons for eliminating them. The screening criteria and process developed and applied by VA to hone the number of viable alternatives are described, providing an understanding of VA's rationale for analyzing the Proposed Action in this EA.

2.2 Proposed Action

VA's Proposed Action is to construct and operate new LTSCI and CEMH facilities and supporting infrastructure, including on-campus parking, to further expand and enhance health care services at the Dallas VAMC campus. The proposed LTSCI and CEMH buildings include an approximately 172,000-square-foot LTSCI facility, an approximately 215,000-square-foot CEMH facility, an approximately 80,000-square-foot warehouse/office building, and an approximately 1,000-car parking garage. The LTSCI and CEMH projects include the demolition of 15 small to medium-sized, older campus buildings and temporary trailers that are primarily used for administrative and support services and/or are underutilized, to create space on the space-constrained Dallas VAMC campus for the new LTSCI and CEMH buildings. The proposed LTSCI and CEMH projects would provide larger, state-of-the-art facilities and infrastructure at the Dallas VAMC campus to meet the rapidly growing Veteran needs for health care services in the region.

The LTSCI and CEMH projects would be conducted in phases over a period of approximately 6 to 8 years to minimize campus disruption and to support continued campus operations. It is anticipated that the majority of the LTSCI construction activities would be completed prior to beginning the CEMH construction. VA is currently in the design phase for the LTSCI project and the pre-design (Project Book) phase for the CEMH project. Project design details are not available at this time. VA anticipates that the LTSCI construction would begin in 2024 and the LTSCI and CEMH construction would be completed in 2030.

2.3 Alternatives Development

After identifying the need for a LTSCI facility and the inadequacies of the existing mental health facilities at the Dallas VAMC campus, VA examined other potential buildings and spaces within the campus for establishing a new LTSCI and consolidated, expanded mental health facilities. No suitable space was identified in the existing over-crowded and functionally-deficient campus buildings. VA also considered leasing new facilities, acquiring existing off-campus facilities, or contracting out LTSCI and mental health services, but found that none these options were viable (see Section 2.5). Consequently, VA determined that construction of new LTSCI and centralized CEMH facilities at the Dallas VAMC campus was the only viable and reasonable alternative to fully meet the purpose and need for the Proposed Action.

VA examined various locations at the campus for construction of the new LTSCI and CEMH buildings. Based on the advantages of providing integrated LTSCI care with existing SCI care, VA selected the area adjacent to the east of Building 74 (SCI) for the new LTSCI building. No centralized, unused space was available for the construction of the new CEMH facility. However, VA identified underutilized portions of the Dallas VAMC campus that were available to be repurposed to expand and enhance health care services at the campus. These underutilized portions of the campus include small, antiquated buildings

that are either unused and/or have limited use potential based on the size, location, and/or configuration, temporary trailer buildings, and areas with generally inefficient use of space, such as small surface-level parking lots. VA concluded that these buildings and areas were suited for removal and replacement with modern, state-of-the-art facilities that better utilize campus space and increase the efficiency of campus operations. The area north and northeast of Building 1 was selected for the new CEMH building.

2.4 Alternatives Evaluated in this EA

This EA examines in depth two alternatives, the Proposed Action and the No Action Alternative.

2.4.1 Proposed Action

The Proposed Action would include the construction of an approximately 172,000-square-foot LTSCI facility, an approximately 215,000-square-foot CEMH facility, an approximately 80,000-square-foot warehouse/office, and an approximately 1,000-car parking garage. The LTSCI and CEMH projects would include the demolition of 15 small to medium-sized, older campus buildings and temporary trailers that are primarily used for administrative and support services and/or are underutilized, to create space on the space-constrained Dallas VAMC campus for the new LTSCI and CEMH buildings.

The components of the LTSCI project include:

- Demolition of the small east wing of Building 74, which will be incorporated into the new LTSCI building.
- Construction and operation a new approximately 172,000-square-foot, three to four-story LTSCI facility in the southeastern portion of the campus, adjacent to Building 74. The LTSCI would provide residences for Veterans with long-term spinal cord injuries and would house an Outpatient Spinal Cord Injury Clinic and physical/occupational therapy facilities.
- Demolition of Buildings 10, 12, and 27 in the northeastern portion of the campus. Building 10 is a two-story, masonry/brick structure built in 1940 as the campus boiler house and has been vacant since the early 1990s, when the new campus Energy Center (Building 70) was constructed. Building 12 is a two-story masonry/brick structure built between 1947 and 1955 and is used for the campus laundry. Building 27 is a one-story, masonry/brick warehouse built in 1991.
- Construction and operation of a new approximately 80,000-square-foot, two-story Warehouse/Office in the northeastern portion of the campus, in the location of to be demolished Buildings 10, 12, and 27. It is anticipated that the first floor of the building would primarily be used for warehousing and would include some office space. The second floor would include VAMC offices.
- Renovation of approximately 2,000 square feet of the basement of Building 2 to replace the displaced laundry services from Building 12.
- Reconfiguration/relocation of Liberty Loop to the south and east of the new LTSCI building and LTSCI parking garage.

The components of the CEMH project are anticipated to include:

- Demolition of Buildings 44, 45, TT46, TT47, TT48, TT51, TT54, and Structure 58 in the north-central portion of the campus, northeast of Building 1. Building 44 is a one-story, concrete warehouse built in 1976. Building 45 is one-story, masonry/brick structure built in 1985 as a campus recreation facility and is also used for VA Fiscal and Medical Care Collections Fund Services offices. TT46 (VA Police Administration), TT47 (Fiscal Service), TT48 (Environmental Management Services Administrations), TT51 (Human Resources), and TT54 (Palliative

Care/Chaplain) are all temporary trailers installed on the campus between 1992 and 2008. Structure 58 is a gazebo added to the campus in 1996.

- Construction and operation of a new approximately 215,000-square-foot, three to four-story, approximately 80-bed, CEMH facility in the north-central portion of the campus, in the location of the to be demolished Buildings 44, 45, TT46, TT47, TT48, TT51, TT54, and Structure 58. The CEMH would consolidate and expand mental health services provided at the campus. It is anticipated the CEMH would consist of two adjacent, connected structures, one containing a mental health clinic and one containing residences for mental health patients.
- Demolition of Buildings 5, 6, 8, 9 and TT49 in the northern portion of the campus. Building 5 is a two-story, masonry/brick structure built in 1940 as the VA Hospital Manager's Quarters and currently houses Environment Management Services. Building 6 is a three-story masonry/brick structure built in 1940 as nurses' quarters and is currently used as a Mental Health Treatment Day Services Center and Veteran Recovery Center. Building 8 is a two-story masonry/brick structure built in 1940 as a residence for the hospital director and chief surgeon and is currently used for various administrative and support services. Building 9 is a one-story masonry/brick structure built in 1955 as a residence for the hospital physicians or other senior personnel and is currently used for Engineering Services. TT49 (Quality Management Services) is a temporary trailer that was installed on the campus in 2005.
- Reconfiguration/relocation of Liberty Loop and the construction of surface parking lots for the CEMH in the northern portion of the campus, in the location of the to be demolished Buildings 5, 6, 8, 9 and TT49. A reconfigured Dallas VAMC campus entrance may also be constructed in this area.
- Construction and operation of a new approximately 1,000-car, three to five-story parking garage associated with the CEMH facility in the northwestern portion of the campus, in the northern portion of current Parking Lot 1.
- Vacating the current mental health space in Building 1. It is anticipated VA will relocate/expand other existing Dallas VAMC operations to Building 1 after it is vacated; however, no specific plans have been developed at this time.

In addition, the LTSCI and CEMH projects include the installation, relocation and removal of campus utilities to support the new development.

Figure 2-1 identifies the locations of the current Dallas VAMC campus buildings.

The general locations of the major components of the proposed LTSCI and CEMH projects are depicted on Figures 2-2 and 2-3.

Prior to construction, VA would obtain all applicable, required federal, state and local permits for the LTSCI and CEMH projects from the appropriate government authorities. As a federal agency conducting a project on land owned by the federal government, VA is not subject to State of Texas or City of Dallas regulations and permitting requirements not based on federal statutes. However, VA intends to implement the Proposed Action generally consistent with applicable state and local regulations, where such regulations are consistent with VA's mission and are not in conflict with federal law and VA policy.

Figure 2-1 Existing Dallas VAMC Campus Configuration

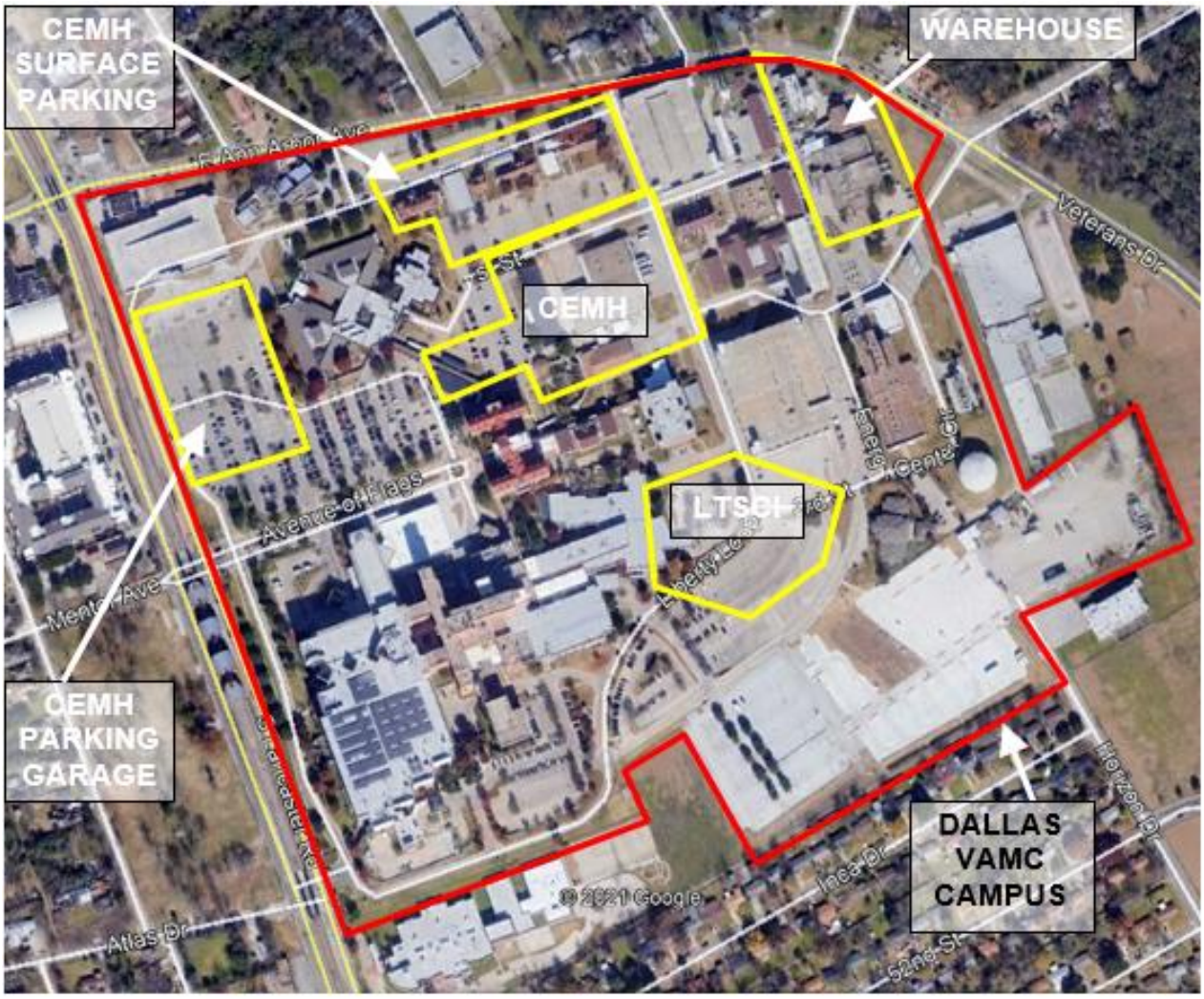

Figure 2-2 Proposed LTSCI and CEMH Project Locations

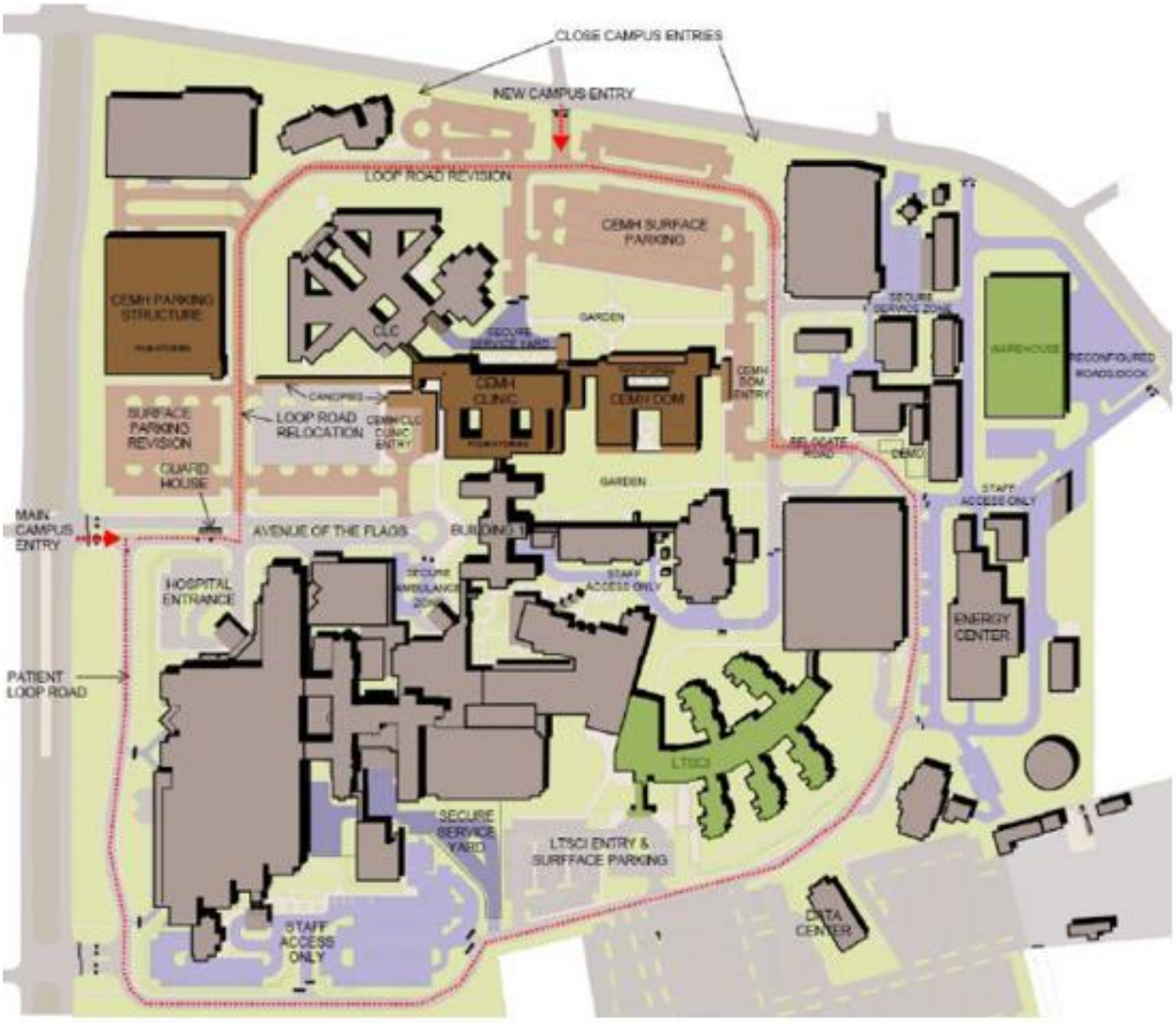

Figure 2-3 Proposed Dallas VAMC Campus Configuration Map

2.4.2 No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented; the proposed LTSCI and CEMH facilities would not be constructed at the Dallas VAMC campus. Veterans with spinal cord injuries in need of long-term care would continue to reside in VA CLCs and community nursing homes that do not have the necessary specially-trained staff and equipment or VA SCI Acute Care hospital wards that are not suitable for long-term residential needs. VA would continue to provide mental health services in antiquated Building 1, which does not conform to VA function, safety and privacy standards, and other scattered buildings at the campus and off-campus.

This alternative would severely limit VA's ability to provide necessary long-term care for Veterans with spinal cord injuries and mental health care services to Veterans in the region, and thus would not meet the purpose of or need for the Proposed Action. However, the No Action Alternative was evaluated in this EA as required under the CEQ regulations; it also provides a benchmark for comparing potential impacts of the Proposed Action.

2.5 Alternatives Eliminated from Further Consideration

As described in Section 2.3, VA eliminated other initially considered alternatives for providing LTSCI services and consolidated, expanded mental health services for Dallas area Veterans. Options considered and the reasons for their elimination are summarized below.

- **Renovation of Existing Dallas VAMC Facilities:** Renovation of existing Dallas VAMC buildings for the new LTSCI and expanded, consolidated CEMH was not considered a feasible option due to the space limitations, age and functionality of the existing buildings. The Dallas VAMC does not have sufficient vacant building space that would enable this option to be developed.
- **Lease a Newly Constructed Facility:** The lease option assumes that a lessor would build new facilities off-campus to accommodate the LTSCI and CEMH programs. Leasing off-campus space is an expensive option that breaks the continuity of care provided at the Dallas VAMC campus. This option would also be operationally inefficient due to its remoteness from the main Dallas VAMC clinical and ancillary support and would require Veterans and staff to travel from the leased space to the Dallas VAMC campus.
- **Contract Out Veteran Services on a Fee Basis Arrangement:** VA considered contracting out long-term spinal cord injury care and mental health care services to private health care providers in the Dallas area. However, this alternative is not cost-effective and would not guarantee clear access and consistent standard and continuity of care. In addition, non-VA LTSCI facilities in the region are already operating near maximum capacity and, due to the complexity and specialty care required by Veterans with SCIs, the quality of care in the non-VA SCI facilities is less than optimal.
- **Acquire an Existing Facility:** VA considered the acquisition and renovation of an existing facility in the Dallas area for the LTSCI and CEMH facilities; however, this is not a feasible option. LTSCI patients are highly acute and require resource intensive care that cannot be provided in any location other than a specialty inpatient unit. In addition, existing facilities near the Dallas VAMC campus that meet mental health criteria are limited. Extremely costly renovation would have to be performed before an existing building could be made suitable for VA's needs. In addition, like the lease of a newly constructed facility option, this option would break the continuity of care provided by the Dallas VAMC and would be operationally inefficient.
- **VA/DoD Joint Project:** A VA/DoD joint venture project is not a feasible alternative as there are no DoD facilities in proximity of the Dallas VAMC that would be suitable for this function.

For the reasons stated above, these other alternatives were eliminated from further consideration.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This Section describes the baseline (existing) environmental, cultural, and socioeconomic conditions at the Dallas VAMC campus (see Figures 1-1 through 1-3 and 2-1) and its general vicinity (that is, the Proposed Action's region of influence), with emphasis on those resources potentially impacted by the Proposed Action. Under each resource area (Sections 3.2 through 3.16), the potential direct and indirect effects of implementing the Proposed Action and the No Action Alternative are identified. Potential cumulative impacts are discussed in Section 3.17.

In this EA, impacts are identified as either significant, less than significant (that is, impacts that would not be of the context or intensity to be considered significant under the CEQ regulations), or no/negligible impact. As used in this EA, the terms "effects" and "impacts" are synonymous. Where appropriate and clearly discernible, each impact is identified as either adverse or beneficial.

The CEQ regulations specify that in determining the significance of effects, consideration must be given to both "*context*" and "*intensity*" (40 CFR 1508.27):

Context refers to the significance of an effect to society as a whole (human and national), to an affected region, to affected interests, or to just the locality. Significance varies with the setting of the Proposed Action.

Intensity refers to the magnitude or severity of the effect and whether it is beneficial or adverse.

In this EA, the significance of potential direct, indirect, and cumulative effects has been determined through a systematic evaluation of each considered alternative in terms of its effects on each individual environmental resource component.

Resource areas considered in this EA are as follows:

- *Aesthetics*
- *Air Quality*
- *Cultural and Historic Resources*
- *Geology and Soils*
- *Hydrology and Water Quality*
- *Wildlife and Habitat*
- *Noise*
- *Land Use*
- *Floodplains, Wetlands, and Coastal Zone Management*
- *Socioeconomics*
- *Community Services*
- *Solid Waste and Hazardous Materials*
- *Traffic, Transportation, and Parking*
- *Utilities*
- *Environmental Justice*
- *Cumulative Impacts*
- *Potential for Generating Substantial Controversy*

3.2 Aesthetics

The approximately 100-acre Dallas VAMC is located in a fully developed mixed use, residential, commercial, and institutional area. Figure 3-1 is an aerial photograph depicting the Dallas VAMC campus and surrounding area.

Figure 3-1 Dallas VAMC Campus and Surrounding Area

The Dallas VAMC campus contains numerous buildings of various ages, sizes and architectural styles that have been constructed at the campus since the late 1930s. The campus also includes three parking garages and several surface parking lots. Campus buildings range in height from one to eleven stories. The central portion of the campus contains the original hospital building (Building 1), a five-story brick building with a Colonial Revival style exterior. The southwestern portion of the campus contains the current hospital building (Building 2), an eleven-story, brick, utilitarian structure built in 1955. Several additions have been constructed adjacent to Building 2 between 1955 and 2001, the largest being Building 2J, a five-story brick, concrete and glass structure constructed in 1998. Buildings in other areas of the campus are less than five stores tall.

The proposed LTSCI building location is currently a paved parking lot adjacent to Building 74 (one-story tall). The proposed Warehouse/Office building area is located in the northeastern portion of the campus and currently contains three one to two-story brick industrial buildings (Buildings 10, 12 and 27). The proposed CEMH building area contains a one-story warehouse (Building 44), a one-story recreational building (Building 45), five temporary trailer buildings (TT46, TT47, TT48, TT51, and TT54), and a gazebo. The proposed CEMH surface parking area/reconfigured entrance area contains four one to three-

story brick buildings constructed between 1940 and 1955 that were formerly used as quarters (Buildings 5, 6, 8, and 9) and a temporary trailer (TT49). The proposed CEMH parking garage is located in a Dallas VAMC surface parking lot, just south of an existing, three-story concrete and brick parking garage.

To the north of the Dallas VAMC campus, across East Ann Arbor Avenue, are commercial properties, a church, and a residential neighborhood. To the east of the Dallas VAMC campus are Whitney M. Young Jr. Elementary School, Veterans Park, and across Veterans Drive undeveloped land associated with a Fivemile Creek tributary, beyond which is a residential neighborhood. To the south of the Dallas VAMC campus is Harry Stone Montessori Academy, Lisbon Swimming Pool, New Tech High School, and a residential neighborhood. To the west of the Dallas VAMC campus, across South Lancaster Road, are commercial properties, apartments, and vacant land associated with a former residential area.

The City of Dallas enforces and controls development aesthetics through various Articles of the Dallas Development Code (DDC) of the Dallas City Code (DCC). As a federal agency, VA is not subject to the City of Dallas development standards or permitting requirements not based on federal statues; however, it is anticipated that the proposed LTSCI and CEMH projects would be generally consistent with these requirements.

3.2.1 Effects of the Proposed Action

The Proposed Action would result in less-than-significant aesthetic impacts. The Proposed Action projects would change the appearance of the Dallas VAMC campus and would be visible from the surrounding properties, but would not result in an abrupt change to the visual resources of the area, as the project buildings would be constructed in areas that are currently developed, would be consistent with existing campus buildings, and would be no greater than five stories tall. The new buildings would be designed to be architecturally and visually consistent with the existing Dallas VAMC campus.

Aesthetics impacts associated with the Proposed Action construction would be temporary and less than significant.

3.2.2 Effects of the No Action Alternative

Under the No Action Alternative, no aesthetic impacts would occur as the Dallas VAMC campus would continue its current operations with no new construction.

3.3 Air Quality

3.3.1 Ambient Air Quality

The ambient air quality in an area can be characterized in terms of whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act requires the U.S. Environmental Protection Agency (U.S. EPA) to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for the following principal pollutants, called “criteria pollutants” (as listed under Section 108 of the Clean Air Act):

- Carbon monoxide
- Lead
- Nitrogen oxides
- Ozone
- Particulate matter, divided into two size classes:
    - Aerodynamic size less than or equal to 10 micrometers
    - Aerodynamic size less than or equal to 2.5 micrometers

- Sulfur dioxide

Areas are designated by the U.S. EPA as "attainment", "non-attainment", "maintenance", or "unclassified" with respect to the NAAQS. Regions in compliance with the standards are designated as attainment areas. In areas where the applicable NAAQS are not being met, a non-attainment status is designated. Areas that have been classified as non-attainment, but are now in compliance, can be re-designated as maintenance status if the state completes an air quality planning process for the area. Areas for which no monitoring data are available are designated as unclassified and are by default considered to be in attainment of the NAAQS. As of October 31, 2021, information from the Texas Council on Environmental Quality (TCEQ) and USEPA Green Book internet websites indicated that Dallas County is included in the Dallas-Fort Worth (DFW) Nonattainment Area for the 2008 8-hour ozone standard (serious) and the 2015 8-hour ozone standard (marginal). Dallas County is located in an area of "attainment" for the remaining NAAQS pollutants.

3.3.2 State and Local Regulations

The federal Clean Air Act sections 111 and 112 allow U.S. EPA to transfer primary implementation and enforcement authority for most of the federal air quality standards to state regulatory agencies through a process called delegation. Pursuant to such delegation, the TCEQ Air Permits Division (APD) oversees a coordinated statewide program to control present and future sources of emissions of air contaminants through the Texas Administrative Code (TAC) Title 30, Part 1, Chapters 101 through 118 (Air Quality Rules). TCEQ APD oversees air compliance and enforcement data management and provides required data to U.S. EPA. The Dallas VAMC currently operates its equipment under TAC Title 30, Part 1, Chapter 106 (Permits by Rule or PBR), where the TCEQ has state air authorizations for activities that produce more than a *de minimis* level of emissions, but less than other New Source Review permitting options. All campus equipment, including emergency generators, boilers, and combined-heat and power systems, fall under this category. Additional equipment or modification to existing equipment at the Dallas VAMC as part of the Proposed Action would require PBR registration through TCEQ Form 10228.

The City of Dallas assists TCEQ with local air quality management through Chapter 5A (Air Pollution) of the DCC. The City of Dallas air quality regulations require that any construction of new facilities that has the potential to emit air contaminants be registered with the City of Dallas Office of Environmental Quality (DOEQ), regardless of the need for TCEQ air permit(s). As a federal agency, VA is not subject to the City of Dallas standards or permitting requirements not based in federal statutes; however, it is anticipated that the proposed LTSCI and CEMH projects would be generally consistent with these requirements.

3.3.3 Sensitive Receptors

Sensitive air quality receptors in the vicinity of the Dallas VAMC campus include:

- Dallas VAMC users
- Dallas VAMC Community Living Center (CLC) located in the northwestern portion of the campus (Building 60)
- Dallas VAMC Community Center located in the northwestern portion of the campus (Building 75)
- Fisher House located in the southeastern portion of the campus
- Residential neighborhood located north of the campus, across Ann Arbor Avenue
- Baptist Church located northeast of the campus, across Ann Arbor Avenue

- Whitney M. Young Jr. Elementary School located easterly adjacent to the campus
- Veterans Park located easterly adjacent to the campus
- Lisbon Swimming Pool located southeasterly adjacent to the campus
- Harry Stone Montessori School located approximately 500 feet southeast of the campus
- Residential neighborhood located southerly adjacent to the campus
- New Tech High School located southerly adjacent to the campus
- Lancaster Urban Apartments located west of the campus, across South Lancaster Road
- Additional residential neighborhoods located farther north, east, south and west of the campus.

Sensitive receptors are depicted on Figure 3-2.

Figure 3-2 Sensitive Receptors Map

3.3.4 Effects of the Proposed Action

Air emissions generated from the Proposed Action would have less-than-significant direct and indirect, short-term and long-term adverse impacts to the existing air quality environment around the Dallas VAMC campus. Impacts would include short-term air emissions as a result of demolition and construction activities and long-term increased air emissions associated with the operation of the new LTSCI and CEMH facilities.

Demolition and construction activities would be performed in accordance with federal and state air quality requirements. Demolition and construction-related emissions are generally short-term, but may still have adverse impacts on air quality, primarily due to the production of dust. Dust can result from a variety of activities, including excavation, grading, and vehicle travel on paved and unpaved surfaces. Dust from demolition and construction can lead to adverse health effects and nuisance concerns, such as reduced visibility on nearby roadways. The amount of dust is dependent on the intensity of the activity, soil type and conditions, wind speed, and dust suppression activities used. Implementing dust control measures (BMPs) substantially reduces dust emissions from demolition and construction. Demolition and construction-related emissions also include the exhaust from the operation of construction equipment, including diesel particulate matter (DPM). The use of newer construction equipment with emissions controls and minimizing the time that the equipment is idling (BMPs) reduces construction equipment exhaust emissions. Implementation of BMPs, discussed in Section 4, would minimize these anticipated less-than-significant adverse, short-term demolition and construction-related, air quality impacts.

The structures to be renovated or demolished at the Dallas VAMC campus contain asbestos-containing building materials (ACM) and may contain lead-based paint (LBP). Identified ACMs would be removed by licensed asbestos abatement contractors in accordance with the federal Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAP) and State of Texas requirements prior to building renovation or demolition. Asbestos abatement procedures require the removal of ACM with various controls and monitoring to prevent asbestos emissions. The demolition of buildings containing LBP can result in the generation of LBP-containing dust. Standard demolition BMPs to control dust would reduce LBP dust emissions during demolition to less-than-significant levels.

The Dallas VAMC campus is included in the DFW nonattainment area for 2008 eight-hour ozone standard (serious) and 2015 eight-hour ozone standard (marginal). The general conformity provision of the CAA prohibits the federal government from conducting, supporting, or approving any actions that do not conform to a U.S. EPA-approved State Implementation Plan (SIP), the state's plan for achieving and maintaining compliance with the goals of the CAA. Federal actions with emissions below de minimis levels are exempt from the general conformity regulations. In response to a request for input regarding the Proposed Action, TCEQ stated in a letter dated July 22, 2021, based on their review of the project information, the emissions from the Proposed Action are likely to be below the general conformity de minimis level (50 tons per year) for ozone precursor pollutants (VOCs and NO_X) in serious ozone nonattainment areas and the Proposed Action is not anticipated to impact the Texas SIP. Preliminary air quality modeling conducted for the Proposed Action found that annual construction emissions for ozone precursor pollutants would be well below the general conformity de minimis level.

Operational (long-term) air quality impacts from the LTSCI and CEMH facilities would include emissions from equipment, such as boilers and generators. The Proposed Action would also result in a localized increase in vehicle air emissions from patients, staff and visitors driving to the campus, which would have expanded facilities and parking. VA estimates approximately 2,338 additional daily one-way vehicle trips to the Dallas VMC campus would result from the Proposed Action. However, regional vehicle emissions would be similar to current emissions, as most patients, staff and visitors who would use the LTSCI and CEMH facilities already currently travel to the campus and other medical facilities in the Dallas area. Preliminary air quality modeling found that annual additional vehicle emissions

associated with the Proposed Action would be well below the general conformity de minimis level for ozone precursor pollutants in serious ozone nonattainment areas.

3.3.5 Effects of the No Action Alternative

Under the No Action Alternative, no air quality effects from the Proposed Action would occur. Air emissions from operational activities at the Dallas VAMC campus would remain near current levels.

3.4 Cultural and Historic Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve throughout the country. The process begins when a federal or federally-assisted project has the potential to affect historic properties, if any are present.

The Dallas VAMC initiated NHPA Section 106 consultation with the Texas Historical Commission (THC) regarding the proposed LTSCI and CEMH projects in September 2010. THC is the agency that serves as the Texas State Historic Preservation Office (SHPO). In 2010, the Dallas VAMC provided THC a description of the LTSCI and CEMH projects, delineation of the Area of Potential Effect (APE), identification of historic properties, and an assessment of the potential adverse effects of the projects. The Dallas VAMC determined that Buildings 5, 6, and 10 were eligible for listing in the National Register of Historic Places (NRHP) and would be adversely affected (demolished) by the proposed LTSCI and CEMH projects. THC concurred with Dallas VAMC's determinations and findings =. A Memorandum of Agreement (MOA) to resolve adverse effects of the proposed LTSCI and CEMH projects was executed on January 22, 2013. The Dallas VAMC, THC, and the Advisory Council on Historic Preservation (ACHP) were the signatories for the 2013 MOA, with Preservation Dallas as a concurring party. The MOA was amended to extend the duration on December 6, 2017 and remains in effect through January 22, 2023 when it is scheduled to expire.

On October 13, 2021, Row 10 Historic Property Solutions (Row 10) completed an Identification of Historic Properties Potentially Affected report (Historic Properties report) for the LTSCI and CEMH projects on behalf of VA. The Historic Properties report re-evaluated the Dallas VAMC campus for historic properties and re-assessed the potential historic property effects of the LTSCI and CEMH projects based on refinements of the projects since the preparation of the MOA in 2013. The Historic Properties report recommended that the entirety of the Dallas VAMC campus be included in the APE for the Proposed Action, as the LTSCI and CEMH projects may include alteration of the existing roadways, utility upgrades and installation, and construction staging throughout the campus. The Historic Properties report concluded that only Building 1 (the original hospital building) and Building 3 (the original kitchen and dining hall, connected to/a component of Building 1) met the necessary criteria for eligibility for individual listing on the NRHP. The Historic Properties report found that Buildings 5, 6 and 10 (and the remaining campus buildings) do not possess the necessary significance and/or integrity for individual listing in the NRHP and no portion of the Dallas VAMC campus meets the criteria for listing in the NRHP as a Historic District.

The Historic Properties report also noted that an archaeological site, associated with a former farmstead that predated the Dallas VAMC, is located along the northern border of the Dallas VAMC campus. In 2011, the THC concurred the archaeological site had little research potential and was not eligible for listing in the NRHP. In 2011, the archaeological site was revisited and additional ground near the engineering buildings investigated. This effort determined the portions of the site investigated held no potential due to the extensive ground disturbances in the area from site development.

3.4.1 Effects of the Proposed Action

Only one building within the Dallas VAMC campus (APE), Building 1 with component Building 3, is identified as eligible for listing in the NRHP. Based on the locations of the proposed LTSCI projects relative to Buildings 1 and 3, no historic properties are anticipated to be affected by the LTSCI projects. However, the CEMH design has not be completed; therefore, the full range of effects on historic properties cannot be determined at this time. Based on the 2021 updated analysis of historic properties at the campus, ongoing project design changes, and the need to phase the assessment of adverse effects, VA determined that it is appropriate to develop a new Programmatic Agreement (PA) to supersede the 2013 MOA. THC and ACHP concurred with this determination.

On November 19, 2021, VA initiated new NHPA Section 106 consultation for the Proposed Action with THC, ACHP, federally-recognized Indian tribes, the City of Dallas Office of Historic Preservation, Preservation Dallas, and the Dallas County Historical Commission. As part of this effort, VA submitted information regarding the undertaking (Proposed Action), the delineation of the APE (the entire Dallas VAMC campus), the identification of historic properties (based on the 2021 Historic Properties report), and the assessment of potential adverse effects. A draft PA was included in the consultation package.

VA hosted a consultation meeting with the consulting parties on December 1, 2021, and provided information about the Proposed Action. Representatives of THC, ACHP, and the City of Dallas Office of Historic Preservation attended the consultation meeting. THC and the City of Dallas Office of Historic Preservation provided input and comments. On December 2, 2021, ACHP notified VA that they had elected not to participate in the NHPA Section 106 consultation. In January and February 2022, VA held meetings with THC to discuss their comments and also hosted a campus visit for THC staff members to see the Dallas VAMC campus. VA provided formal responses to THC and City of Dallas Office of Historic Preservation comments and a revised draft PA on March 8, 2022.

On April 7, 2022, THC concurred with VA's determination that Building 1, with Building 3 as a component, is the only historic property eligible for listing in the NRHP within the APE. THC also concurred with VA's determination that the one known archaeological site located within the APE (Site 41DL499) is not eligible for the NRHP and that subsurface archaeological deposits meeting the criteria for listing in the NRHP are unlikely to be present within the proposed areas of ground disturbance due to past construction activities. THC also concurred with VA's determination that a historic district at the campus that THC had previously recommended is not eligible for listing in the NRHP due to lack of integrity. However, THC determined that the Proposed Action would contribute to a cumulative adverse effect to the historic district that occurred as a result of numerous construction projects at the campus over many years.

VA hosted a second consulting party meeting on April 25, 2022 to discuss additional revisions to the draft PA. Representatives of THC attended the meeting. On April 27, 2022, VA submitted a revised PA to the consulting parties based on the April 25, 2022 meeting. It is anticipated that the final PA will include stipulations requiring project design review by THC to minimize adverse effects to historic properties; nomination of Building 1, with Building 3 as a component, for inclusion in the NRHP; documentation of Buildings 5, 6 and 10 prior to their demolition (formerly considered to be historic properties); and the installation of interpretative signage at the campus that memorializes the significance of the Dallas Veterans Administration Hospital. With the completion of these NHPA minimization and mitigation measures, cultural resources impacts would be less than significant.

3.4.2 Effects of the No Action Alternative

Under the No Action Alternative, the Proposed Action demolition and construction activities would not occur and there would be no cultural resources impacts.

3.5 Geology and Soils

According to the Physiographic Regions of the US, dated 2003 and published by the United States Geological Survey (USGS), Dallas, Texas is located in the West Gulf Coast Plain Section of the Atlantic Coastal Plain Province and is characterized by unconsolidated Coastal Plain sediments of alternating and interfingering beds of clay, silt, sand, and gravel. According to the Physiographic Map of Texas, dated 1996 and published by the University of Texas at Austin, the site vicinity is specifically included in the Blackland Prairie Province with the upper bedrock generally consisting of Austin Chalk a chalky limestone with some interbeds of calcareous clay, and thin bentonitic beds in the lower part. The Austin Chalk is approximately 300-500 feet thick.

No know faults or seismic areas are known to be present in the vicinity of the Dallas VAMC campus and the campus is located outside of Texas's karst region.

The Oak Cliff, Texas U.S. Geological Survey (USGS) Topographic Quadrangle (dated 1995) indicated that the Dallas VAMC campus is located in a slightly sloped area. Elevations at the campus range from approximately 540 feet above mean sea level (amsl) in the north-central portion to approximately 510 feet amsl in the eastern, southern, and western portions. The ground surface in the vicinity of the Dallas VAMC campus generally slopes down to the south towards Fivemile Creek (elevation 450 feet amsl), located approximately 4,200 feet south of the campus.

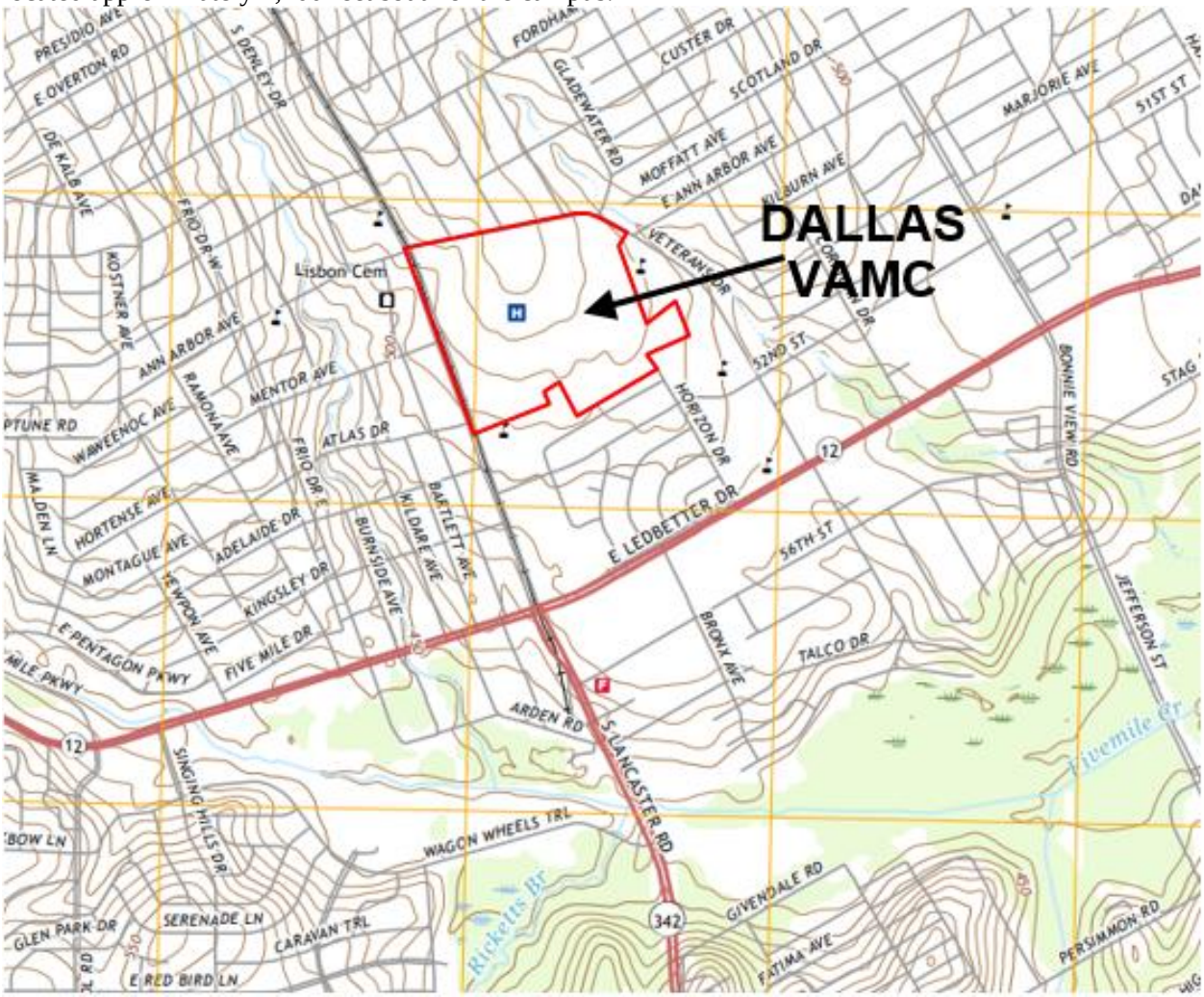

Figure 1-2 Topographic Location Map (Oak Cliff, TX 2019)

depicts the topography of the campus and the surrounding area.

A review of soil survey information provided by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey indicated that the soils at the Dallas VAMC campus primarily consist of Stephen-Urban land complex (1 to 4 percent slopes) and Austin-Urban land complex (2 to 5 percent slopes) soils with smaller areas of Dalco-Urban land complex (0 to 3 percent slopes) and Lewisville-Urban land complex (0 to 4 percent slopes) soils. The Austin, Stephen and Dalco soils series consist of primarily well drained silty clay that is formed from weathered Austin Chalk formation. The Lewisville soil series consists of primarily well drained silty clay that is formed from alluvium of quaternary age derived from mixed sources. Urban land consists mainly of buildings, streets, and parking lots, with small areas of open space where the soils have been disturbed. Very little natural soil remains and identification of the original soils is not feasible. The Dallas VAMC campus soils are shown on Figure 3-3.

.A Geotechnical Engineering Report was prepared by Terracon Consultants, Inc. (Terracon) for the Dallas VAMC campus in 2010. General subsurface stratigraphy encountered in the borings included fill material underlain by clays and silty clays to a depth of 2 to 14 feet below ground surface (bgs), underlain by tan limestone with clay layers to a depth of 7 to 27 feet bgs, further underlain by gray limestone to at least 50 feet bgs.

Soils encountered during the removal of an underground storage tank (UST) system in the northeastern of the site consisted of clayey-sand to depths of three and four feet bgs, overlying silty clay and weathered limestone at approximately five feet bgs. Limestone was encountered between 5.5 feet and 10 feet bgs.

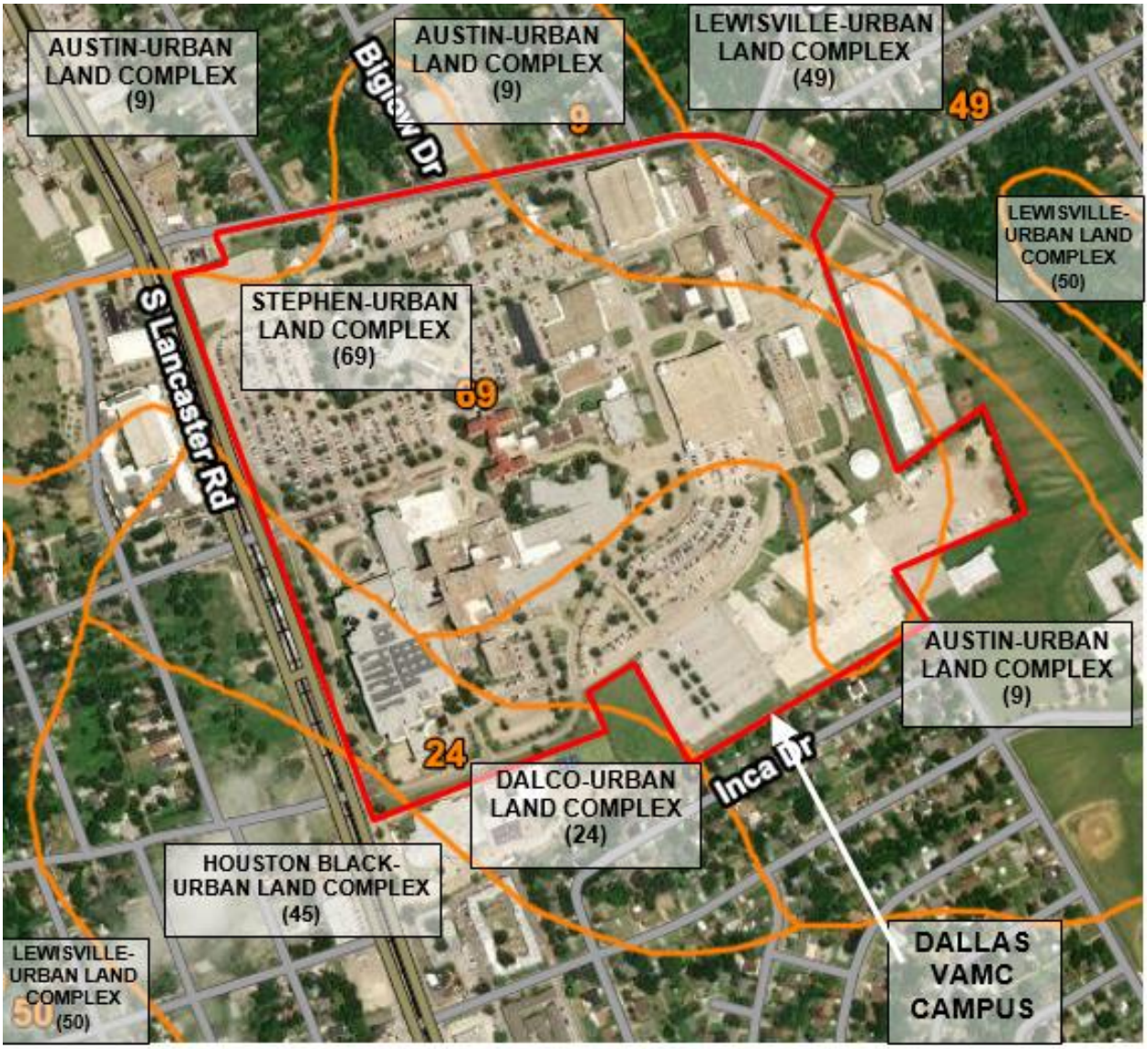

Figure 3-3 Soils Map

3.5.1 Prime and Unique Agricultural Land Soils

Prime and unique farmlands are regulated in accordance with the Farmland Protection Policy Act (7 USC 4201, *et seq*.) to ensure preservation of agricultural lands that are of statewide or local importance. Soils designated as prime agricultural land are capable of producing high yields of various crops when managed using modern farming methods. Prime agricultural land is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Unique agricultural lands are also capable of sustaining high crop yields and have special combinations of favorable soil and climate characteristics that support specific high-value foods or crops.

According to the USDA NRCS Web Soil Survey, none of the campus soils are classified as prime farmland. In addition, the Dallas VAMC campus is located in an area identified by the U.S. Census Bureau as an "urbanized area" and exempt from the Farmland Protection Policy Act.

3.5.2 Effects of the Proposed Action

Less-than-significant impacts to geology and soils are anticipated. No major changes to topography or drainage would occur on the Dallas VAMC campus due to the Proposed Action. The Proposed Action construction projects would be designed in concert with the site's current topography to the extent possible. It is anticipated that minor cutting and filling would be required to establish relatively level areas for the construction of buildings and maintaining campus drainage patterns; however, the campus topography is currently suited to minimize cutting and filling activities.

Based on preliminary design information, it is anticipated the LTSCI building would include a full basement and a partial sub-basement that would require excavations up to 35 feet below the existing grade. The CEMH building is anticipated to include a partial basement that would require excavations up to 25 feet below the existing grade and the CEMH parking garage is anticipated to include a sub-grade parking level that would require excavations up to 15 feet below the existing grade. The proposed LTSCI and CEMH buildings would include short tunnel sections connecting to the existing utility tunnel that runs east-west from Building 2 to Building 70 (Energy Center). The utility tunnel connections would require excavations up to 30 feet below the existing grade. The Dallas VAMC is underlain by shallow bedrock identified as Austin Chalk (limestone). As such, excavation and removal of shallow rock would likely be required for the proposed building construction, particularly for excavations greater than 10 feet bgs. However, the Terracon Geotechnical Report indicated that standard bedrock removal practices (breaker hoes and large dozers with single tooth rippers) are likely to be effective in the removal of bedrock. No rock blasting is anticipated.

During construction, less-than-significant, direct and indirect, short-term soil erosion and sedimentation impacts would be possible as the proposed buildings and other project components are constructed. Construction would expose and disturb the soil surface and compact the soil. The soil would then be susceptible to erosion by wind and surface runoff. Exposure of the soils during construction has the potential to result in increased sedimentation to stormwater management systems and offsite discharges of sediment-laden runoff. However, such potential adverse erosion and sedimentation effects would be prevented through utilization of appropriate BMPs (Section 4) and adherence to the terms of an approved TCEQ Texas Pollution Discharge Elimination System (TPDES) stormwater permit, including the development and implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP).

The City of Dallas manages stormwater and waste water discharges to the City's municipal system through the Stormwater Management Department. All construction activities taking place in the City must comply with the City's Stormwater Drainage Systems ordinance in addition to TPDES permit rules and regulations.

Once construction is complete, no long-term erosion and sedimentation impacts would be anticipated. Areas where soils are exposed during construction would be mostly covered with pavement or buildings. Stormwater would be managed through the campus stormwater management system in accordance with City of Dallas Stormwater Management Department requirements. Additional information regarding stormwater management is provided in Section 3.6.

3.5.3 Effects of the No Action Alternative

Under the No Action Alternative, no demolition or construction would occur and there would be no impacts to soil, topography or geology.

3.6 Hydrology and Water Quality

3.6.1 Surface Waters

No surface waters are located on or immediately adjacent to the Dallas VAMC campus. The nearest surface waters to the campus are an unnamed tributary to Fivemile Creek, located approximately 200 feet east of the campus across Veterans Drive, and a second unnamed tributary to Fivemile Creek located approximately 1,000 feet west of the campus. The campus area generally drains to the south, southeast and southwest toward Fivemile Creek, located approximately 4,200 feet south of the Dallas VAMC campus, which flows generally east to the Trinity River, located approximately 3.1 miles east of the campus.

Stormwater at the Dallas VAMC is currently directed to more than 250 catch basins and inlets throughout the campus, and conveyed to the City of Dallas municipal stormwater system. The majority of Dallas VAMC campus is divided into five drainage sections for stormwater runoff that discharge to the municipal stormwater system via three main outfalls. The main outfalls are located at the northwestern corner, southwestern corner, and northeast side of the campus. A sixth drainage section, the far southeastern portion of the campus, discharges to a drainage swale located south of the campus. A Hydrology Evaluation completed by Calibre Engineering in October 2021 (Second Revision) found that: the northern and central sections of the existing Dallas VAMC campus stormwater system contain one or more pipes that cannot fully accommodate 5-year and 10-year storms, with the west-central basin containing the greatest number of pipes that are overcapacity during 5-year and 10-year storm events. Much of the northern and central sections of the existing Dallas VAMC campus stormwater system cannot fully accommodate a 100-year storm. The evaluation found that most of the southwestern section of the existing campus stormwater system can accommodate 5-year, 10-year, and 100-year storms. The City of Dallas Drainage Manual and VA design criteria require stormwater piping to accommodate a 100-year storm event. The Dallas VAMC has requested and secured funding for required upgrades to the Dallas VAMC stormwater collection and conveyance system as a separate project from the Proposed Action, which would alleviate the current stormwater capacity issues at the campus.

3.6.2 Groundwater

According to the Groundwater Atlas of the United States, the Dallas VAMC area is underlain by the Woodbine Aquifer, a minor aquifer that supplies large quantities of water to a small area, and is characterized by fine to coarse ferruginous sand and sandstone, clay, shale, and sandy shale and some lignite and gypsum. The Woodbine Aquifer is at least 500 feet bgs.

Groundwater was not encountered during the 2010 Terracon geotechnical investigation, which included 34 soil borings to depths up to 50 feet below grade at the Dallas VAMC campus.

The Dallas VAMC campus is not located within an U.S. EPA-designated sole source aquifer area, per the U.S. EPA Sole Source Aquifers internet application.

3.6.3 Effects of the Proposed Action

The proposed LTSCI and CEMH buildings would be serviced by the Dallas municipal water system. It is not anticipated that groundwater would be used or impacted by the Proposed Action. If shallow groundwater is encountered during construction, appropriate engineering controls would be utilized to ensure there are no adverse impacts to groundwater. Groundwater impacts would be less than significant.

The Proposed Action would not result in significant impacts to surface waters, provided that the BMPs described in Section 4 are implemented. These BMPs would control construction-related impacts of soil erosion and sedimentation and would provide proper stormwater management following the completion

of the Proposed Action. Stormwater at the campus would be collected and managed on-site through the campus stormwater collection and conveyance system and discharged to the municipal stormwater system.

The proposed LTSCI and CEMH construction projects would modify, replace and upgrade portions of the existing campus stormwater collection and conveyance system. VA anticipates the main outfalls from the campus stormwater system to the municipal stormwater system would be upgraded/replaced as a part of the Proposed Action. Other upgrades to the campus stormwater collection and conveyance system would be conducted by Dallas VAMC as a separate project.

The Dallas Stormwater Management Department is responsible for ensuring that the City meets the requirements of its Municipal Separate Storm Sewer System (MS4) TPDES Permit. The City requires that stormwater discharges to the municipal stormwater system receive prior authorization from the City through its service connection authorization process. The planned modifications to the campus stormwater collection and conveyance system would require authorization from the Dallas Stormwater Management Department. Stormwater would be managed in accordance with City of Dallas Stormwater Management Department requirements.

3.6.4 Effects of the No Action Alternative

Under the No Action Alternative, no demolition and construction would occur and there would be no impacts to hydrology and water quality. Planned upgrades to the existing campus stormwater system associated with the Proposed Action would not occur.

3.7 Wildlife and Habitat

The approximately 100-acre Dallas VAMC campus is largely developed with buildings and pavements and limited greenspaces. Greenspaces are mostly maintained lawns with some trees, shrubs, and landscaped areas. With the exception of limited wooded areas along the Fivemile Creek tributary located east of the campus across Veterans Drive, the area surrounding the campus consists of developed commercial, residential, institutional, and recreational properties with scattered trees and maintained landscaping. The campus and surrounding area support limited wildlife species typical of developed urban areas of Dallas.

3.7.1 Threatened and Endangered Species

As part of the preparation of this EA, the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) were contacted to identify the potential for the presence of state or federally listed species on or in the vicinity of the Dallas VAMC campus.

A protected species list for Dallas VAMC campus was obtained through the USFWS Information for Planning and Consultation (IPaC) internet application. The IPaC report indicated the Dallas VAMC is within the range of two federally-listed endangered bird species (golden-cheeked warbler and whooping crane), two federally-listed threatened bird species (piping plover and red knot), and one federally-listed threatened clam species (Texas fawnsfoot). The IPaC report did not identify any critical habitat of protected species on or near the campus. Table 3-1 provides a summary of the federally protected species, their habitat requirements, and the potential presence of their required habitat at the Dallas VAMC campus. Based on the developed nature of the Dallas VAMC, the habitat requirements of the identified protected species, and the absence of critical habitat for protected species in the Dallas VAMC area, none of these species are likely to be present at the campus.

Table 3-1 Federally Listed Species in the Vicinity of the Dallas VAMC Campus

Species	Federal Status	Habitat	Potential Habitat Present at the Site
Birds			
Golden-cheeked warbler (*Dendroica chrysoparia*)	Endangered	Old-growth and mature regrowth Ashe juniper-oak woodlands in limestone hills and canyons, at 180 to 520 meters elevation. No designated critical habitat.	No
Piping Plover (*Charadrius melodus*)	Threatened	Sandy upper beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments. Campus is outside of final critical habitat.	No
Red Knot (*Calidrus canutus rufa*)	Threatened	Seacoasts on tidal flats and beaches, less frequently in marshes and flooded fields. No designated critical habitat.	No
Whooping Crane (*Grus americana*)	Endangered	Marshes, shallow lakes, lagoons, salt flats, grain and stubble fields, and barrier islands. Campus is outside of final critical habitat.	No
Clams			
Texas Fawnsfoot (*Truncilla macrodon*)	Threatened	Little is known about habitat requirements for this species; however, it appears to prefer rivers and larger streams. No designated critical habitat.	No

Certain birds are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act. The IPaC report identified one bird species (Harris's sparrow) protected under the MBTA that may be present in the Dallas VAMC campus area at various times of the year. However, the IPaC report indicated Harris's sparrow breeds elsewhere.

TPWD indicated that there are no known state-listed protected species occurrences within the Dallas VAMC campus area. TPWD stated the Proposed Action is planned for existing developed and lawn areas

of the Dallas VAMC campus and they do not anticipate adverse impacts to state-listed threatened or endangered species associated with implementation of the Proposed Action.

TPWD recommended that VA exclude vegetation clearing activities during the general bird nesting season, between March 15, and September 15, to avoid adverse impacts to breeding birds protected under the MBTA. TPWD stated that if vegetation clearing during nesting season is not avoidable, a survey of the area for active nests should be conducted and a 150-foot disturbance-free buffer implemented for any identified active nests. TPWD also recommended that VA minimize permanent nighttime lighting and focus lighting downward to protect resident and migrant bird species. TPWD also recommended taking precautions to avoid impacts to species of greatest conservation need (SGCN) flora and fauna, natural plant communities, riparian zones, streams, wetlands, native prairie, or special features if discovered in the project area during the site assessment, construction, operation, and maintenance activities. TPWD also recommended implementing BMPs with respect to plant and animal encounters, revegetation, sediment and erosion control, and contractor and public outreach.

3.7.2 Effects of the Proposed Action

Based on the developed nature of the Dallas VAMC campus, the habitat requirements for protected species identified for the campus area, and information obtained from the USFWS IPaC report and TPWD, no federally-listed or state-listed protected species are likely to be present at the campus or affected by the Proposed Action. No further consultation with USFWS is required.

VA would implement recommendations provided by the TPWD, to the extent applicable and practicable, to reduce wildlife impacts associated with the Proposed Action.

3.7.3 Effects of the No Action Alternative

Under the No Action Alternative, no impacts to biological resources would occur.

3.8 Noise

The existing noise environment at the Dallas VAMC campus is dominated by vehicle traffic/parking, delivery/service trucks, mechanical equipment, and routine landscaping and maintenance at the campus. Off-site noise sources in the campus vicinity include vehicle traffic on the adjacent South Lancaster Road and Ann Arbor Avenue, the Dallas Area Rapid Transit (DART) system line located within the South Lancaster Road median, and commercial properties along South Lancaster Road. No other notable noise-generating sources are present in the immediate vicinity of the campus. Noise levels are typical of those in a fully developed urban area.

Day time noise levels in this urban type setting typically range from approximately 50 decibels (dBA) to 70 dBA or more, based on proximity to noise-generating sources, such as roads and mechanical equipment. Higher day time noise levels occur as a result of landscaping and other maintenance operations. However, these noise sources are intermittent and of short duration. Night time noise levels are typically approximately 10 dBA lower than day time noise levels.

3.8.1 Sensitive Receptors

Sensitive receptors are land uses for which there is a sensitivity to noise, such as residences, schools, hospitals, libraries, churches, nursing homes, auditoriums, playgrounds and parks. Sensitive noise receptors in the vicinity of the Dallas VAMC campus are identified in Section 3.3.3 and depicted on Figure 3-2.

3.8.2 Effects of the Proposed Action

The proposed LTSCI and CEMH projects would have temporary (short-term) impacts to the existing noise environment due to construction activities. Noise generating sources during demolition and construction would be associated primarily with standard construction equipment and construction equipment and material transportation. These increased noise levels could directly affect the identified sensitive receptors and neighboring areas.

Demolition and construction activities generate noise by their very nature and are highly variable, depending on the type, number, and operating schedules of equipment. Construction projects are usually executed in stages, each having its own combination of equipment and noise characteristics and magnitudes.

Demolition activities would include the complete demolition of each project building, including the removal of the structure, its below grade foundation, and the surrounding pavements, and transportation of the demolition debris to a permitted disposal facility. Construction activities would include excavation for the new building foundations, installation of the foundations, construction of the building shells and the exterior façades, complete interior build out, utility installation, paving, and landscaping.

Construction and demolition activities are expected to generally be typical of other similar construction projects and would include mobilization, site preparation, building demolition, excavation, drilling into bedrock for concrete pier foundation installation, placing foundations, utility development, heavy equipment movement, and paving. The most prevalent noise source at typical demolition and construction sites is the internal combustion engine. General demolition and construction equipment using engines includes, but is not limited to: heavy, medium, and light equipment such as excavators; roller compactors; front-end loaders; bulldozers; graders; backhoes; dump trucks; water trucks; concrete trucks; pump trucks; utility trucks; cranes; and lube, oil, and fuel trucks.

It is anticipated that the basement levels of the LTSCI and CEMH buildings will be excavated to depths up to 25 to 35 feet below grade and would require removal of the weathered limestone bedrock, which occurs at a depth of approximately 10 feet below grade. Based on available geotechnical information, the bedrock removal would likely be conducted with excavators equipped with rock teeth. Rock blasting, which would produce additional noise and vibration, is not anticipated to be required.

Peak noise levels vary at a given location based on line of sight, topography, vegetation, and atmospheric conditions. Peak noise levels would be variable and intermittent because each piece of equipment would only be operated when needed. However, peak construction noise levels would be considerably higher than existing noise levels. Relatively high peak noise levels in the range of 93 to 108 dBA would occur on the active construction site, decreasing with distance from the construction areas. Generally speaking, peak noise levels within 50 feet of active demolition and construction areas and material transportation routes would most likely be considered “striking” or “very loud”, comparable to peak crowd noise at an indoor sports arena. At approximately 200 feet, peak noise levels would be loud - approximately comparable to a garbage disposal or vacuum cleaner at 10 feet. At 0.25-mile, demolition and construction noise levels would generally be quiet enough so as to be considered insignificant, although transient noise levels may be noticeable at times. Table 3-2 presents peak noise levels that could be expected from a range of equipment during proposed demolition and construction activities.

Table 3-2 Peak Noise Levels Expected from Typical Construction Equipment

Source	Peak Noise Level (dBA, attenuated)							
	Distance from Source (feet)							
	0	**50**	**100**	**200**	**400**	**1,000**	**1,700**	**2,500**
Heavy Truck	95	84-89	78-93	72-77	66-71	58-63	54-59	50-55
Dump Truck	108	88	82	76	70	62	58	54
Concrete Mixer	108	85	79	73	67	59	55	51
Jack-hammer	108	88	82	76	70	62	58	54
Scraper	93	80-89	74-82	68-77	60-71	54-63	50-59	46-55
Bulldozer	107	87-102	81-96	75-90	69-84	61-76	57-72	53-68
Generator	96	76	70	64	58	50	46	42
Crane	104	75-88	69-82	63-76	55-70	49-62	45-48	41-54
Loader	104	73-86	67-80	61-74	55-68	47-60	43-56	39-52
Grader	108	88-91	82-85	76-79	70-73	62-65	58-61	54-57
Pile driver	105	95	89	83	77	69	65	61
Forklift	100	95	89	83	77	69	65	61
Worst-Case Combined Peak Noise Level (Bulldozer, Jackhammer, Scraper)								
Combined Peak Noise Level	**Distance from Source (feet)**							
	50	**100**	**200**	**¼ Mile**	**½ Mile**			
	103	97	91	74	68			

Source: Tipler 1976

Combined peak noise levels, or worst-case noise levels when several loud pieces of equipment are used in a small area at the same time, are expected to occur rarely during the project. However, under these circumstances, peak noise levels could exceed 90 dBA within 200 feet of the construction areas, depending on equipment being used.

Although noise levels would be quite loud in the immediate area, the intermittent nature of peak construction noise levels would not create the steady noise level conditions for an extended duration that could lead to hearing damage. Construction workers would follow standard Federal Occupational Safety and Health Administration (OSHA) requirements to prevent hearing damage.

Much of the Dallas VAMC campus would be directly or indirectly affected by the proposed LTSCI and CEMH construction projects as a result of building demolition, building construction, road construction, utility installation/replacement, and material/equipment transportation and storage. However, the five primary areas where existing buildings would be demolished and/or new buildings would be constructed are anticipated to have the highest and most pervasive construction noise levels. A composite of these five areas was used as the noise generating source area to estimate worst-case peak noise levels from the LTSCI and CEMH construction activities (Figure 3-4). Noise contours depicted on Figure 3-4 illustrate the estimated peak construction noise levels at varying distances from the primary construction areas.

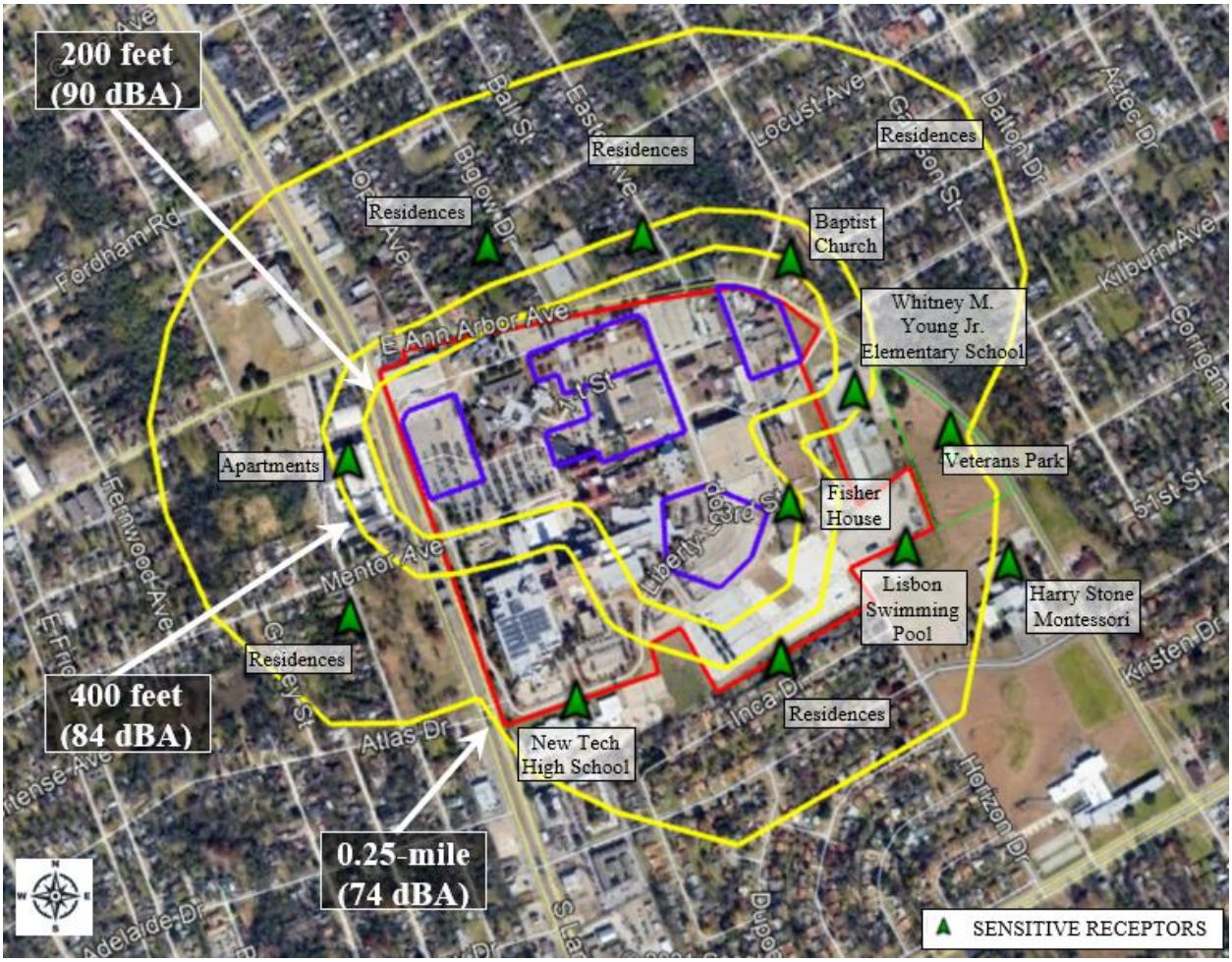

Figure 3-4 Estimated Peak Construction Noise Level Contour Map

Areas that could be most affected by noise from construction are those closest to the construction footprint, including the remainder of the Dallas VAMC campus (including the CLC and Fisher House), Whitney M. Young Jr. Elementary School, New Tech High School, Veterans Park, and nearby residential areas surrounding the campus. Indoor noise levels would be expected to be 15-25 decibels lower than outdoor levels. Under the City of Dallas Noise Ordinance, noise from construction activities is permissible, as long as the construction occurs between the hours of 7:00 a.m. and 7:00 p.m. on Monday through Friday and between the hours of 8:00 a.m. and 7:00 p.m. on Saturdays and legal holidays. It is anticipated construction activities would be conducted during these hours. In addition, BMPs, described in Section 4, would reduce temporary construction noise impacts.

Indirect impacts include noise from workers commuting and material transport. Area traffic volumes and noise levels would increase as construction employees commute to and from work at the project area, and delivery and service vehicles (including trucks of various sizes) transit to and from the site. Persons in the project area would experience temporary increases in traffic noise during day-time hours. These effects are not considered significant because they would be temporary, intermittent, and generally similar to existing traffic noise levels in the area.

No notable additional long-term operational noise impacts would be associated with the proposed LTSCI and CEMH projects. The Dallas VAMC campus would continue to be used for medical and administrative support functions with dedicated parking areas, similar to its existing uses. No significant new noise-generating activities or operations would be conducted at the Dallas VAMC campus. A minor

increase in vehicle traffic is expected with the new LTSCI and CEMH operations; however, noise levels associated with vehicle traffic are anticipated to be similar to current conditions at the campus.

3.8.3 Effects of the No Action Alternative

Under the No Action Alternative, the noise environment surrounding the Dallas VAMC campus would not change. The Dallas VAMC campus would continue its current operations.

3.9 Land Use

The Dallas VAMC campus contains numerous buildings of various ages, sizes and architectural styles that have been constructed at the campus since the late 1930s. The campus also includes three parking garages and several surface parking lots. Campus buildings range in height from one to eleven stories. The Dallas VAMC campus has been used for Veteran health care services and administrative support services since 1940.

The Dallas VAMC is located in a fully developed mixed use, residential, commercial, and institutional area. To the north of the Dallas VAMC campus, across East Ann Arbor Avenue, are commercial properties, a church, and a residential neighborhood. To the east of the Dallas VAMC campus are Whitney M. Young Jr. Elementary School, Veterans Park, and across Veterans Drive undeveloped land associated with a Fivemile Creek tributary, beyond which is a residential neighborhood. To the south of the Dallas VAMC campus is Harry Stone Montessori Academy, Lisbon Swimming Pool, New Tech High School, and a residential neighborhood. To the west of the Dallas VAMC campus, across South Lancaster Road, are commercial properties, apartments, and vacant land associated with a former residential area.

Zoning in the City of Dallas is regulated by Chapter 51A (DDC), Article IV (Zoning Regulations) of the DCC and managed by the Dallas Sustainable Development and Construction Department (DSDCD). Information from the DSDCD indicates the Dallas VAMC campus has a base zoning designation of Single-family District, 7,500 square feet [R-7.5(A)], with a Special Use Permit (SUP), Permit No. 173.

The surrounding areas to the north, east, and south of the Dallas VAMC campus are also mostly zoned R-7.5(A), with areas immediately adjacent to the east (school and park) also included in the SUP 173. The areas to the northwest of the campus are zoned Community Retail (CR) and Planned Development (PD). The area adjacent to the south of the southwest corner of the campus is zoned PD and is also included in the SUP 173. The remaining areas to the southwest of the campus are zoned CR, PD, and Multi-family residential [MF-2(A)]. The areas to the west of the campus across South Lancaster Road are zoned CR and PD.

Zoning designations for the Dallas VAMC campus and surrounding properties are shown on Figure 3-5.

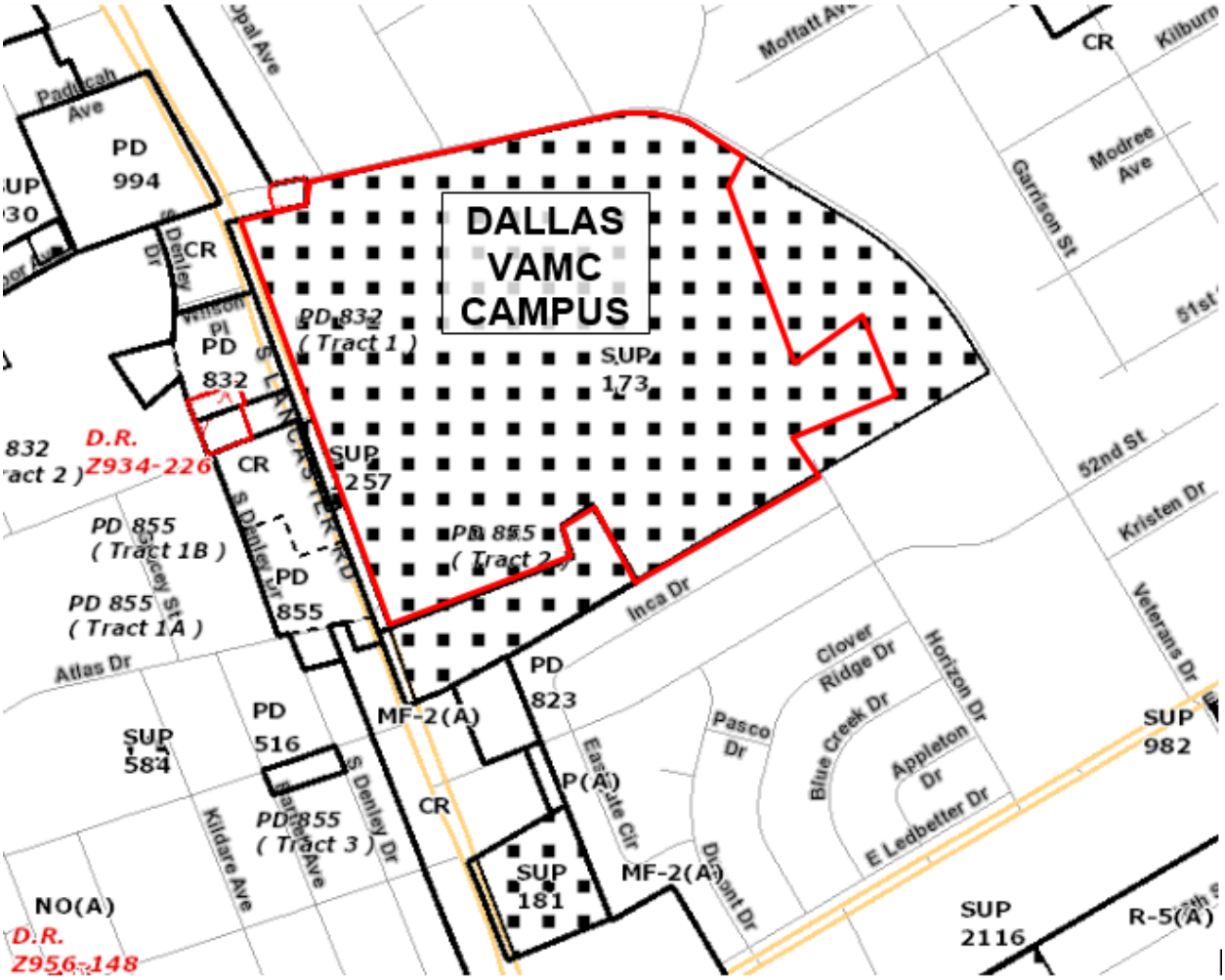

Figure 3-5 Area Zoning Map

3.9.1 Effects of the Proposed Action

The Proposed Action would result in negligible land use effects. The Dallas VAMC has been in operation since 1940; the proposed LTSCI and CEMH projects would enhance and expand Veteran health care services at the campus; the overall use of the campus would not change. In addition, the Proposed Action would be consistent with local zoning and compatible with surrounding land use.

Federal actions on federal government-owned property are exempt from local zoning regulations. Although, as a federal agency, VA is not subject to local zoning regulations or restrictions, the Proposed Action projects would be designed and implemented in consonance with Dallas development standards, to the extent practicable, to ensure they are consistent with other Dallas VAMC campus and surrounding area developments. No adverse on-site building function or architecture impacts are anticipated.

3.9.2 Effects of the No Action Alternative

Under the No Action Alternative, no land use impacts would occur.

3.10 Wetlands, Floodplains, and Coastal Zone Management

3.10.1 Wetlands

No wetlands or natural surface waters were identified at the Dallas VAMC campus or immediately adjacent properties on the USFWS National Wetland Inventory (NWI) internet wetland mapper. No visual evidence of wetlands or natural water features were observed at the campus during the site reconnaissance. The NWI map depicts the unnamed tributaries to Fivemile Creek located approximately 200 feet east of the campus and approximately 1,000 feet west of the campus. No other wetlands or surface waters were identified in the campus area on the NWI map (Figure 3-6).

3.10.2 Floodplains

The Federal Emergency Management Agency (FEMA) National Flood Hazard Flood Layer FIRMette internet mapping application was used to determine if the Dallas VAMC campus or surrounding properties are located in designated floodplains. The FEMA Flood Insurance Rate Map (FIRM) indicates the Dallas VAMC campus (Zone X) is not located within 100-year or 500-year floodplains. The FIRM map depicts the 100-year floodplain (floodway or Zone AE) associated with the eastern intermittent tributary of Fivemile Creek extends to the eastern side of Veterans Drive (Figure 3-7). No other 100-year or 500-year floodplains are located in the immediate vicinity of the campus.

3.10.3 Coastal Zone

The Coastal Zone Management Act (CZMA) was promulgated to control nonpoint pollution sources that affect coastal water quality. The CZMA encourages states to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. The CZMA requires that federal actions within and outside the coastal zone that could have reasonably foreseeable impacts on land, water, and natural resources of the coastal zone be consistent with the state's federally-approved Coastal Management Program. Texas General Land Office Coastal Management Program mapping indicates Dallas County and the Dallas VAMC are not located within or near a designated coastal zone.

3.10.4 Effects of the Proposed Action

No wetlands were identified on or adjacent to the Dallas VAMC campus. In addition, the campus is not located within the 100-year or 500-year floodplains or a designated coastal zone. The area east of the campus across Veterans Drive is located with the 100-year floodplain; however, the Proposed Action would include no construction, filling or other activities that would affect the flood elevations within the floodplain. No impacts to wetlands, floodplains, or coastal zones would occur as a result of the Proposed Action.

3.10.5 Effects of the No Action Alternative

Under the No Action Alternative, no impacts to wetlands, floodplains, or coastal zones would occur.

Figure 3-6 NWI Wetlands Map

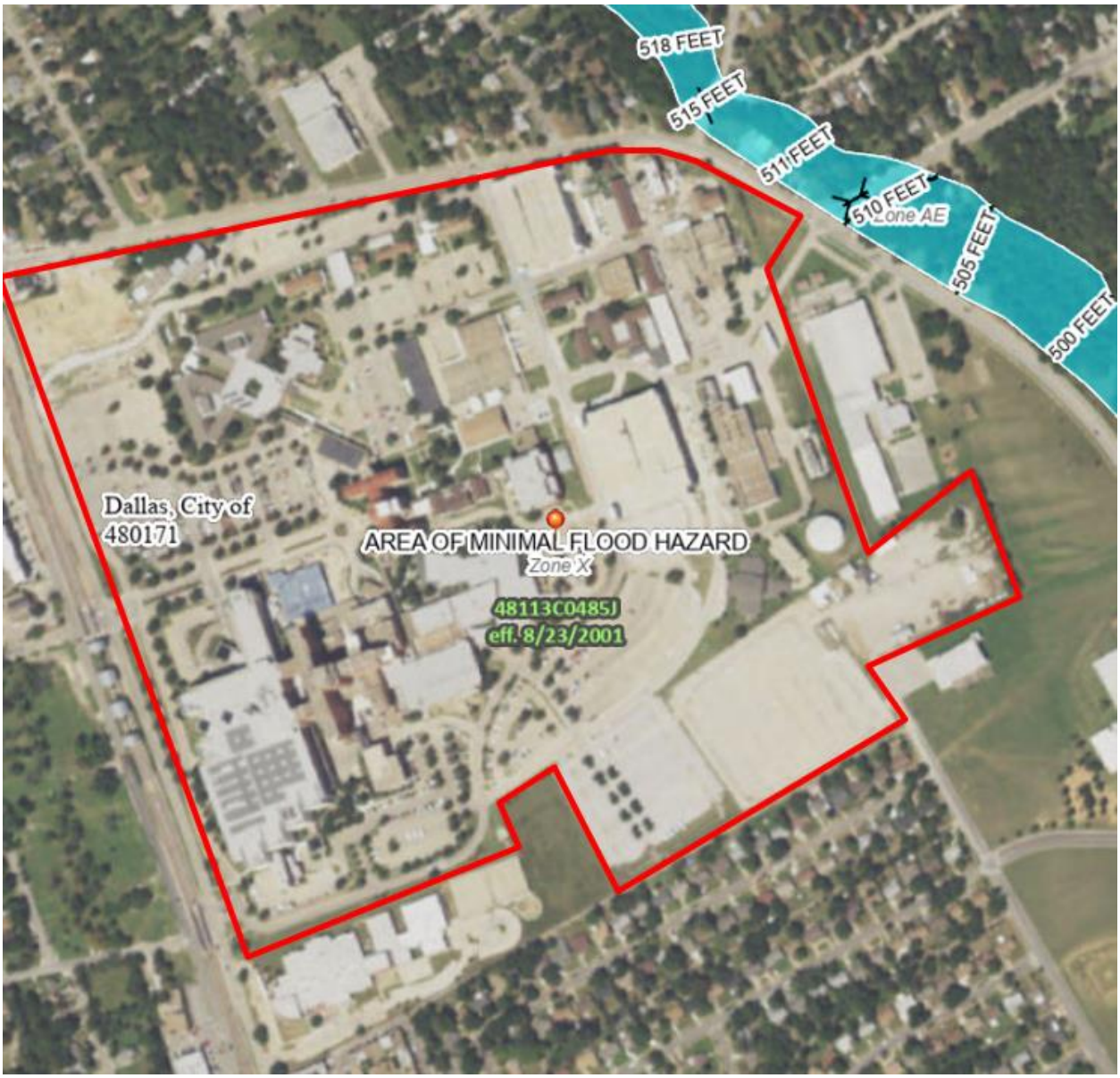

Figure 3-7 FEMA Floodplains Map

3.11 Socioeconomics

The following subsections identify and describe the socioeconomic environment of the City of Dallas, Dallas County, and the State of Texas. The data provide an understanding of the socioeconomic factors that have developed the area. Socioeconomic areas of discussion include the local demographics of the area, regional and local economy, and local recreation activities. Data used in preparing this section were collected from the 2010 Census of Population and Housing (U.S. Census Bureau), subsequent U.S. Census Bureau data, and the U.S. Department of Commerce Bureau of Economic Analysis.

Demographics

The City of Dallas and Dallas County have similar minority populations. The State of Texas has a slightly lower minority population than those of the City of Dallas and Dallas County. Minority populations specific to the Dallas VAMC campus area are discussed in Section 3.16 (Environmental Justice). Persons

under 18 years of age and over 65 years of age, and high school graduation rates are generally similar between the City of Dallas, Dallas County, and the State of Texas (Table 3-3).

Table 3-3 Demographic Data for Dallas, Dallas County, and Texas

Area	All Individuals (2019 Estimate)	Population Under 18 Years of Age (2019)	Population Over 65 Years of Age (2019)	Minority (2019)	High School Graduates (2015-2019)	Veterans (2015-2019)
Texas	28,995,881	25.5%	12.9%	58.9%	83.7%	1,453,450
Dallas County	2,635,516	25.8%	11.1%	72.3%	79.3%	91,155
Dallas	1,343,573	25.0%	10.3%	70.6%	77.5%	40,872

Note: People of Hispanic or Latino origin may be of any race
Source: U.S. Census Bureau, 2010 Census, Profile of General Demographic Characteristics, 2015-2019 (U.S. Census Bureau 2021)

Employment and Income

The City of Dallas has a slightly lower median household income and slightly larger population below the poverty line than the State of Texas as a whole and Dallas County (**Error! Reference source not f ound.**). Household incomes specific to the Dallas VAMC campus area are discussed in Section 3.16. Unemployment rates are generally similar between the City of Dallas, Dallas County, and the State of Texas

Table 3-4 Regional Income for Dallas, Dallas County, and Texas

Area	Number of Households (2015-2019)	Median Household Income (2015-2019)	Population Below Poverty Level	Unemployment Rate (June 2021)
Texas	9,691,947	$61,874	13.6%	6.2%
Dallas County	928,341	$59,607	14.0%	6.5%
Dallas	513,443	$52,580	18.9%	6.0%

Source: U.S. Census Bureau, 2010 Census, Profile of General Demographic Characteristics, 2015-2019 (U.S. Census Bureau 2021) and U.S. Bureau of Labor Statistics, Unemployment rate in States and Local Areas (U.S. Bureau of Labor Statistics 2021)

Commuting Patterns

Residents of the Dallas area are largely dependent on personal automobiles for transportation to and from work. Other methods of transit include public transportation (Dallas Area Rapid Transit or DART), carpooling, and walking. The average commuting time in Dallas and Dallas County was approximately 27 minutes in 2019.

Protection of Children

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children. This section identifies the distribution of children and

locations where numbers of children may be proportionately high (such as schools, childcare centers, family housing) in areas potentially affected by the Proposed Action.

Children are not regularly present at the Dallas VAMC campus, with the exception of the VA Community Center (Building 75) in the northwestern portion of the campus, which provides childcare services. Children are regularly present in the off-site residential areas located near the campus, Whitney M. Young Jr. Elementary School located easterly adjacent to the campus, Lisbon Swimming Pool located southeasterly adjacent to the campus, Harry Stone Montessori School located approximately 500 feet southeast of the campus, and New Tech High School located southerly adjacent to the campus.

3.11.1 Effects of the Proposed Action

The Proposed Action would provide additional temporary construction jobs in the private sector, providing short-term socioeconomic benefit to the area through increased employment and increased spending at local businesses. The Proposed Action would also provide additional long-term employment for the area through the addition of full-time service and professional jobs at the Dallas VAMC. Most importantly, the Proposed Action would result in significant long-term beneficial socioeconomic impacts by providing improved and modernized health care facilities and services to regional Veterans

No significant adverse health or safety risks to children are anticipated to result from the Proposed Action. With the exception of the VA Community Center, children would only be present at the Dallas VAMC campus as visitors, as all Veterans are above the age of 18. Construction areas would be secured to prevent unauthorized access by children from the nearby residential areas. The construction contractors would limit and control dust and noise, as discussed in Section 5, thereby minimizing adverse effects to children in the area.

3.11.2 Effects of the No Action Alternative

The No Action Alternative would result in no construction and no increased short-term or long-term economic benefit due to VA's action.

Most importantly, the No Action Alternative would limit VA’s ability to provide necessary long-term care for Veterans with spinal cord injuries and mental health care services, a significant adverse, long-term, direct impact to Veterans in the region.

3.12 Community Services

The Dallas VAMC campus is located in the Dallas Independent School District. Whitney M. Young Jr. Elementary School (easterly adjacent), Harry Stone Montessori School (approximately 500 feet southeast), and New Tech High School (southerly adjacent) are located in the immediate vicinity of the Dallas VAMC campus. No other institutional facilities (schools or hospitals) are located in the immediate vicinity of the campus.

The City of Dallas Police and Fire Departments provide police and fire protection and emergency medical services to the campus and its vicinity.

The City of Dallas Transportation Department and the Texas Department of Transportation (TxDOT) provide maintenance to primary roads and bridges in the vicinity of the campus.

Veterans Park and Lisbon Swimming Pool are located easterly and southeasterly adjacent to the Dallas VAMC campus. No other developed recreational facilities are located in the immediate vicinity of the campus.

Public transportation is provided to the vicinity of the Dallas VAMC campus by DART via rail (Blue Line) every approximately 20 to 30 minutes with one rail stop on South Lancaster Road adjacent to the campus. DART also provides bus service to the campus every approximately 30 minutes (Bus Route 444) with bus stops at the northwest corner of the campus (intersection of South Lancaster Road and East Ann Arbor Avenue), at the main entrance of the campus (intersection of South Lancaster Road and Avenue of Flags), and at the southwest corner of the campus (intersection of South Lancaster Road and Atlas Road). Additional information regarding public transportation in the campus vicinity is provided in Section 3.14.

3.12.1 Effects of the Proposed Action

No significant additional load is expected to be placed on the fire or police departments as the result of implementing the Proposed Action. The proposed LTSCI and CEMH facilities are expected to generate increased Veteran, staff and visitor trips to the campus, which may result in a minor increased use of public transportation to the campus. Increased use of other public or community services as a result of the Proposed Action is not expected. The Proposed Action is not anticipated to impede existing public services. As such, the Proposed Action is expected to have a negligible impact on local public services.

3.12.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed LTSCI and CEMH facilities would not be constructed and no impacts to community services would occur.

3.13 Solid Waste and Hazardous Materials

Hazardous and toxic materials or substances are generally defined as materials or substances that pose a risk (through either physical or chemical reactions) to human health or the environment.

TTL Associates, Inc. (TTL) completed a Phase I Environmental Site Assessment (Phase I ESA) for the Proposed Action in July 2021. The Phase I ESA identified recognized environmental conditions (RECs) in the proposed Warehouse/Office area in the northeastern portion of the campus. No RECs were identified in the proposed LTSCI building, CEMH building, CEMH parking garage, or CEMH surface parking areas. Proposed Warehouse/Office area environmental concerns and RECs were primarily related to diesel/fuel oil underground storage tanks (USTs) that had been used for the former central boiler plant (Building 10) prior to its decommissioning in the 1990s. Six diesel USTs are known to have been historically associated with Building 10, including one installed in 1940 (1,500-gallon diesel UST), one installed in 1940/1950 (6,500-gallon diesel UST), and four installed in 1971 (30,000-gallon diesel USTs). In addition, one 1,000-gallon gasoline UST and dispenser were installed in the northwest corner of the Warehouse/Office area in 1971. All of these USTs, with the exception of one 30,000-gallon diesel UST located beneath an addition to Building 27, have been removed with residual petroleum impacts below TCEQ Petroleum Storage Tank (PST) Program Action Levels and/or with TCEQ regulatory closure. The UST located beneath the current eastern Building 27 addition was closed-in-place (filled with sand) due to its location. In addition to the USTs, a storage shed located south of Building 10 that was previously used for chemical storage was considered to be a REC. Figure 3-8 depicts the proposed Warehouse/Office area and the former UST and shed locations.

Figure 3-8 Warehouse/Office Area Features

3.13.1 Effects of the Proposed Action

Implementing the Proposed Action would result in short-term, less-than-significant adverse impacts due to the increased presence and use of petroleum and hazardous substances during construction. An increase in construction vehicle traffic would increase the likelihood for release of vehicle operating fluids (such as oil, diesel, gasoline, and antifreeze) and maintenance materials. As such, a less-than-significant, direct, short-term adverse impact is possible. Implementation of standard construction BMPs would serve to ensure this impact is further minimized.

Residual petroleum impacted soil is known or suspected to exist in the proposed Warehouse/Office area in the vicinity of the 30,000-gallon closed-in-place diesel UST (beneath Building 27) and other former UST locations near Building 10. Although the impacted soils may not exceed applicable TCEQ PST Program Action Levels and may not require remediation, impacted soil that is encountered during construction must be properly managed. A Soil Management Plan for subsurface construction activities would be prepared to inform construction contractors of the possible presence of impacted soil in the proposed Warehouse/Office area and to ensure the proper handling and disposal of excavated soil during construction. The Soil Management Plan would also provide procedures for managing any additional, unknown USTs that may be encountered during construction. With the completion of these BMPs, potential impacts associated with contamination identified in the proposed Warehouse/Office area would be less than significant.

The structures to be renovated or demolished at the Dallas VAMC campus contain ACM and may contain LBP. Identified ACMs would be removed by licensed asbestos abatement contractors in accordance with the NESHAP and State of Texas requirements prior to building renovation or demolition. Asbestos abatement procedures require the removal of ACM with various controls and monitoring to prevent asbestos emissions and worker exposure. The demolition of buildings containing LBP can result in the generation of LBP-containing dust. Standard demolition BMPs to control dust (Section 4) would reduce LBP dust emissions during demolition to less-than-significant levels.

No significant adverse long-term impacts during operation of the proposed LTSCI and CEMH facilities are anticipated. Long-term operational solid wastes, hazardous materials, and medical wastes would be managed in accordance with applicable federal and state laws. Wastes would be collected and properly disposed of by licensed, contracted transportation and disposal companies.

It is anticipated that one or more emergency power generators would be installed to serve the proposed LTSCI and CEMH project buildings. The generators would likely be fueled by diesel stored in new USTs or aboveground storage tanks (ASTs) located near the generators. Petroleum storage and handling would be conducted in accordance with the Dallas VAMC's Spill Prevention, Control and Countermeasures (SPCC) Plan and, if applicable based on size, TCEQ PST requirements. With these BMPs, potential impacts associated with petroleum storage for emergency power generators would be less than significant.

3.13.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed LTSCI and CEMH facilities would not be constructed and no potential petroleum and hazardous substances impacts associated with the Proposed Action would occur.

3.14 Traffic, Transportation, and Parking

3.14.1 Traffic and Transportation

Traffic in the vicinity of the Dallas VAMC campus is regulated by the Dallas Transportation Department and TxDOT.

Public transportation is provided to the vicinity of the Dallas VAMC campus by DART via rail (Blue Line) every approximately 20 to 30 minutes with one rail stop on South Lancaster Road adjacent to the campus. DART also provides bus service to the campus every approximately 30 minutes (Bus Route 444) with bus stops at the northwest corner of the campus (intersection of South Lancaster Road and East Ann Arbor Avenue), at the main entrance of the campus (intersection of South Lancaster Road and Avenue of Flags), and at the southwest corner of the campus (intersection of South Lancaster Road and Atlas Road).

Primary access to the Dallas VAMC campus is provided from the main entrance along South Lancaster Road at the intersection with Avenue of Flags. Secondary access to the campus is provided from one entrance along South Lancaster Road near the southwest corner of the campus, two entrances from East Ann Arbor Avenue along the northern boundary of the campus, and one entrance from Veterans Drive along the eastern boundary of the campus. A secure, gated entrance is also available from Veterans Drive via 52nd Street and Horizon Drive at the southeast corner of the campus.

South Lancaster Road is a north-south oriented, four-lane, divided road with a median containing the DART rail line along the western boundary of the campus. East Ann Arbor Avenue is an east-west oriented, four-lane road along the northern boundary of the campus. Veterans Drive is a north-south oriented, two-lane road along the eastern boundary of the campus. According to TxDOT, the 2019 annual average daily traffic (AADT) for South Lancaster Road in the vicinity of the Dallas VAMC campus was 15,037 vehicles near the northern portion of the campus and was 22,627 vehicles south of the campus. The 2019 AADT for East Ann Arbor Avenue in the vicinity of the campus was 5,806 vehicles and the 2019 AADT for Veterans Drive in the vicinity of the campus was 4,321 vehicles. Roads and intersections near the Dallas VAMC campus are illustrated on 3-9. Refer to **Error! Reference source not found.** for r oadway information for the Dallas VAMC campus.

Table 3-5 Dallas VAMC Campus Area Roadways

Type	Route	Direction	Road Width (feet)	Lanes	Average Daily Traffic (year)
Urban Principal Arterial	South Lancaster Road	north-south	120	4	15,037 to 22,627 (2019)
Community Collector	East Ann Arbor Avenue	east-west	40	4	5,806 (2019)
Community Collector	Veterans Drive	north-south	40	2	4,321 (2019)
AADT Source: (Texas Department of Transportation 2019) Additional Data Sources: TTL Site Reconnaissance, (May 12, 2021); and Traffic Impact Study, Spack Solutions September 24, 2021					

Spack Solutions (Spack) completed a Transportation Impact Study (TIS) for the Dallas VAMC in September 2021 that identified current traffic conditions in the campus area and modeled projected transportation and parking impacts associated with the proposed LTSCI and CEMH projects. The TIS evaluated the following intersections:

- South Lancaster Road/Atlas Road/Southwest Dallas VAMC Access (A).
- South Lancaster Road/ Mentor Avenue/Avenue of Flags (B).
- South Lancaster Road/East Ann Arbor Avenue (C).
- East Ann Arbor Avenue/6th Street (North Dallas VAMC Access) (D).
- East Ann Arbor Avenue/Liberty Loop (North Dallas VAMC Access) (E).
- Veterans Drive/East Ann Arbor Avenue/East Dallas VAMC Access (F).
- Horizon Drive (Southeast Dallas VAMC Access) (G).
- Proposed Dallas VAMC Campus Access at East Ann Arbor Avenue and Biglow Drive (H).
- 15 Internal Dallas VAMC Intersections (1-15).

The intersections along South Lancaster Road (Intersections A-C) are signalized. All remaining study intersections are stop sign controlled, as shown on Figure 3-9.

Note: Letters in parentheses denote the intersection letters on Figure 3-9. Numbers in parentheses denote the internal campus intersection numbers on Figure 3-9.

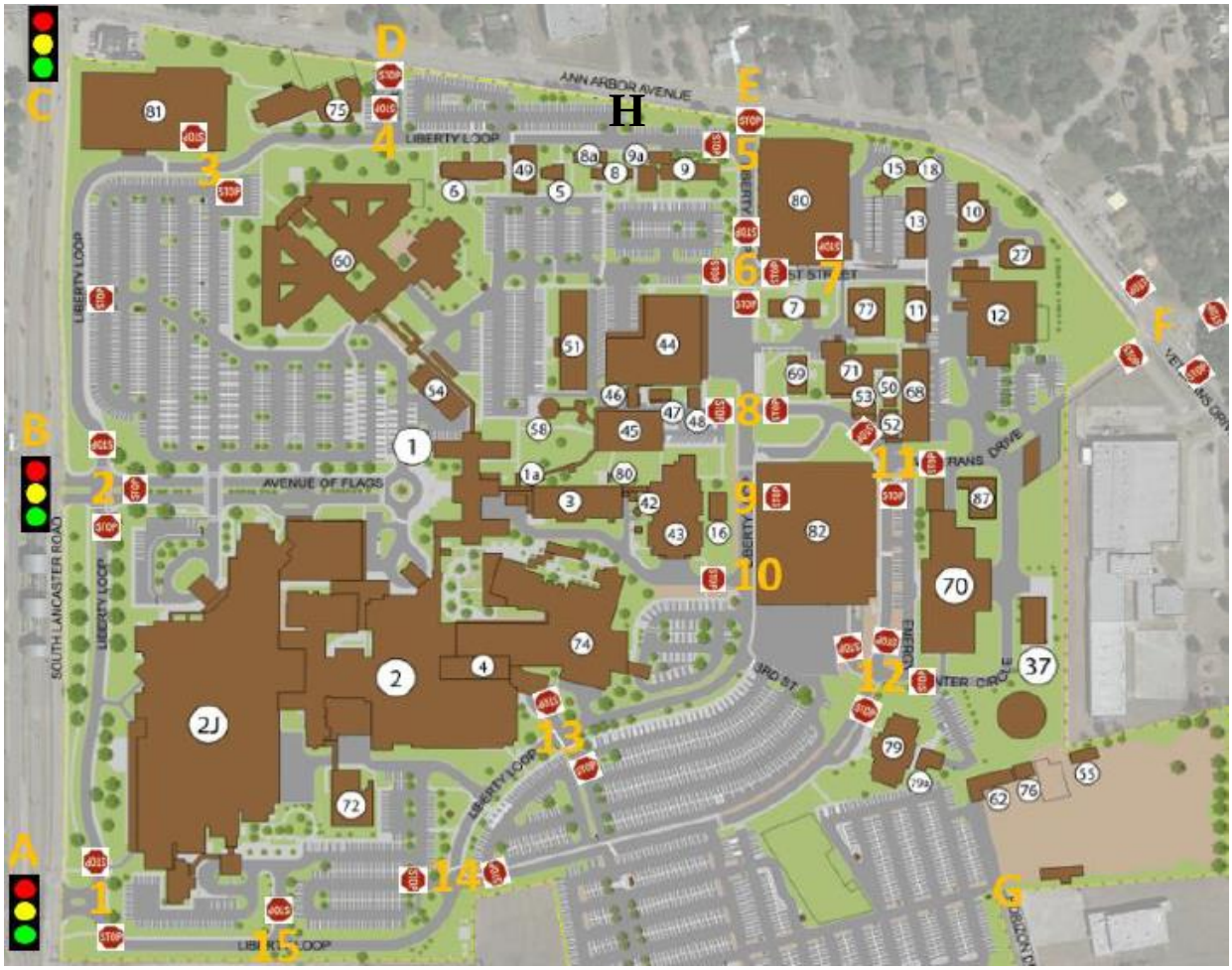

Figure 3-9 Dallas VAMC Campus Traffic Study Intersections

The 2021 daily traffic volumes detailed in the TIS were developed using 24-hour intersection video monitoring. The collected traffic data indicated that, during the 24-hour monitoring period, 5,764 vehicles entered the Dallas VAMC campus and 5,707 vehicles exited the campus (11,471 total vehicle trips). The 2021 traffic counts were similar to 2018 and 2019 traffic counts (pre-COVD-19). The collected data indicated that 1,468 vehicles entered/exited the campus during the a.m. peak hour (7:15 to 8:15 am) and 1,268 vehicles entered/exited the campus during the p.m. peak hour (3:45 to 4:45 pm). The TIS reported that 68 percent of the vehicles entered/exited from South Lancaster Road, while 28 percent entered/exited from East Ann Arbor Avenue, and 4 percent entered/exited from Horizon Drive. Refer to Table 3-6.

Table 3-6 Dallas VAMC Campus Daily Vehicle Trips (January 2021)

Type of Trip	Daily	AM Peak Hour	PM Peak Hour
Entering Campus	5,764 vehicles 70% from Lancaster Rd 26% from Ann Arbor Dr 4% from Horizon Dr	1,221 vehicles 51% from Lancaster Rd 40% from Ann Arbor Dr 9% from Horizon Dr	148 vehicles 75% from Lancaster Rd 24% from Ann Arbor Dr 1% from Horizon Dr
Exiting Campus	5,707 vehicles 66% from Lancaster Rd 30% from Ann Arbor Dr 4% from Horizon Dr	248 vehicles 86% from Lancaster Rd 10% from Ann Arbor Dr 4% from Horizon Dr	1,120 vehicles 49% from Lancaster Rd 41% from Ann Arbor Dr 10% from Horizon Dr
Total	11,471 vehicles 68% from Lancaster Rd 28% from Ann Arbor Dr 4% from Horizon Dr	1,469 vehicles 57% from Lancaster Rd 35% from Ann Arbor Dr 8% from Horizon Dr	1,268 vehicles 52% from Lancaster Rd 39% from Ann Arbor Dr 9% from Horizon Dr

The TIS used the Institute of Transportation Engineers (ITE) Trip Generation Manual to estimate the additional vehicle trips that would be generated by the new LTSCI and CEMH facilities when fully operational in 2030. The TIS projected approximately 2,338 additional one-way daily vehicle trips generated by the Proposed Action, with approximately 194 additional one-way vehicle trips during the a.m. peak hours and approximately 212 additional one-way vehicle trips during the p.m. peak hours.

The TIS evaluated each of the study intersections for existing traffic conditions (2021) and predicted future traffic conditions in 2030 with the operation of the proposed LTSCI and CEMH facilities. The TIS assessed worst-case peak traffic conditions, during the a.m. and p.m. weekday rush hours, for each scenario. Level of Service (LOS) evaluations of each intersection were conducted in accordance with the Highway Capacity Manual. LOS is a qualitative measure of traffic flow and is represented by letter designations ranging from "A" to "F" with an LOS of A representing the best conditions and an LOS of F representing the worst conditions. The TIS noted that overall intersection operations of LOS D or better are considered acceptable. The peak hour LOS results for the eight studied intersections (Intersections A-H) are summarized in Table 3-7.

As shown in Table 3-7, the existing and 2030 (build) LOS results are similar for each traffic movement, indicating the new traffic generated by the LTSCI and CEMH would have a minor impact on the intersections. All intersections have the same overall LOS results in the existing and 2030 build scenario, except Intersection A (the southwest campus entrance from South Lancaster Road). This intersection sees overall operational performance drop from LOS C to LOS D with the Proposed Action, but would remain within the acceptable range (LOS D or better).

The TIS noted that some movements at some intersections experience higher than desirable delays; however, this is not uncommon for left turn and side street traffic at larger intersections as the majority of green light time is dedicated to mainline through movements and larger cycle lengths are used.

Table 3-7 Summary of Peak Hour LOS Results

Movement	AM LOS		PM LOS		Movement	AM LOS		PM LOS	
	Exist	Build	Exist	Build		Exist	Build	Exist	Build
Intersection A					Intersection C				
NBL	F	F	E	E	NBL	E	E	E	E
NBT	A	A	A	A	NBT	B	B	B	C
NBR	A	A	A	A	NBR	B	B	B	C
WBL	D	D	F	F	WBL	D	C	C	C
WBT	D	D	F	F	WBT	D	D	D	D
WBR	D	D	D	D	WBR	D	D	D	D
SBL	E	E	F	E	SBL	E	E	E	E
SBT	A	A	A	A	SBT	A	A	B	C
SBR	A	A	A	A	SBR	A	A	B	C
EBL	E	E	E	E	EBL	D	C	C	C
EBT	E	E	E	E	EBT	E	D	D	C
EBR	E	E	E	E	EBR	E	D	D	C
Overall Intersection	B	B	C	D	Overall Intersection	C	C	C	C
Intersection B					Intersection D				
NBL	E	E	E	E	NBL	B	-	B	-
NBT	A	B	B	B	NBT	-	-	-	-
NBR	A	B	B	B	NBR	A	-	A	-
WBL	E	E	E	E	WBL	A	-	A	-
WBT	E	E	E	E	WBT	A	-	A	-
WBR	D	D	D	D	WBR	-	-	-	-
SBL	E	E	E	E	SBL	-	-	-	-
SBT	A	A	B	B	SBT	-	-	-	-
SBR	A	A	B	B	SBR	-	-	-	-
EBL	E	E	E	E	EBL	-	-	-	-
EBT	E	E	E	E	EBT	A	-	A	-
EBR	E	E	E	E	EBR	A	-	A	-
Overall Intersection	C	C	C	C	Overall Intersection	A	-	A	-

Movement	AM LOS		PM LOS		Movement	AM LOS		PM LOS	
	Exist	Build	Exist	Exist		Exist	Build	Exist	Build
Intersection E					Intersection G				
NBL	B	-	C	-	NBL	-	-	-	-
NBT	-	-	-	-	NBT	A	A	A	A
NBR	A	-	C	-	NBR	-	-	-	-
WBL	A	-	A	-	WBL	-	-	-	-
WBT	A	-	A	-	WBT	-	-	-	-
WBR	-	-	-	-	WBR	-	-	-	-
SBL	-	-	-	-	SBL	-	-	-	-
SBT	-	-	-	-	SBT	A	A	A	A
SBR	-	-	-	-	SBR	-	-	-	-
EBL	-	-	-	-	EBL	-	-	-	-
EBT	A	-	A	-	EBT	-	-	-	-
EBR	A	-	A	-	EBR	-	-	-	-
Overall Intersection	A	-	A	-	Overall Intersection	A	A		A
Intersection F					Future Intersection H				
NBL	A	A	B	B	NBL	-	B	-	C
NBT	A	A	B	B	NBT	-	B	-	D
NBR	A	A	B	B	NBR	-	A	-	C
WBL	B	B	B	B	WBL	-	A	-	A
WBT	A	A	A	A	WBT	-	A	-	A
WBR	A	A	A	A	WBR	-	A	-	A
SBL	A	B	B	B	SBL	-	B	-	B
SBT	A	A	A	A	SBT	-	C	-	B
SBR	A	A	A	A	SBR	-	A	-	A
EBL	A	A	B	B	EBL	-	A	-	A
EBT	A	A	B	B	EBT	-	A	-	A
EBR	A	A	B	B	EBR	-	A	-	A
Overall Intersection	A	A	B	B	Overall Intersection	-	A	-	B

To further evaluate the traffic conditions and potential impacts of the Proposed Action at the study intersections, the TIS reviewed intersection queueing by movement. Table 3-8 summarizes the queueing conditions for the existing and 2030 build scenarios at each intersection. Queue lengths and storage capacities are provided in Table 3-8 in feet.

Table 3-8 Intersection Queue Lengths by Movement

Movement	AM 95% Queue (ft)		PM 95% Queue (ft)		Available Storage (ft)	Movement	AM 95% Queue (ft)		PM 95% Queue (ft)		Available Storage (ft)
	Exist	Build	Exist	Build			Exist	Build	Exist	Build	
Intersection A						Intersection C					
NBL	10	10	83	90	185	NBL	38	43	102	123	185
NBT	190	230	73	95	335	NBT	93	112	166	213	970
NBR	172	213	72	93	335	NBR	92	109	163	209	970
WBL	51	63	552	680	40	WBL	13	16	90	97	390
WBT	51	63	552	680	40	WBT	117	113	322	370	390
WBR	6	11	28	45	40	WBR	117	113	322	370	390
SBL	21	48	9	24	200	SBL	114	118	110	124	190
SBT	48	57	181	217	800	SBT	46	59	220	268	585
SBR	48	57	180	217	800	SBR	45	57	214	261	585
EBL	116	122	62	71	300	EBL	37	33	56	59	215
EBT	116	122	62	71	300	EBT	252	246	138	153	215
EBR	116	122	62	71	300	EBR	252	246	138	153	215
Intersection B						Intersection D					
NBL	28	31	35	43	185	NBL	1	-	11	-	125
NBT	105	153	127	168	800	NBT	-	-	-	-	-
NBR	98	142	126	165	800	NBR	1	-	11	-	125
WBL	171	239	234	266	30 (265*)	WBL	2	-	1	-	255
WBT	171	239	234	266	30 (265*)	WBT	1	-	1	-	255
WBR	46	71	63	86	30 (265*)	WBR	-	-	-	-	-
SBL	51	91	76	94	290	SBL	-	-	-	-	-
SBT	41	60	177	211	300	SBT	-	-	-	-	-
SBR	41	59	175	210	300	SBR	-	-	-	-	-
EBL	77	87	82	87	350	EBL	-	-	-	-	-
EBT	77	87	82	87	350	EBT	0	-	0	-	225
EBR	77	87	82	87	350	EBR	0	-	0	-	225

* - 265 feet of storage provided with relocation and alignment of Liberty Loop Road

Movement	AM 95% Queue (ft)		PM 95% Queue (ft)		Available Storage (ft)	Movement	AM 95% Queue (ft)		PM 95% Queue (ft)		Available Storage (ft)
	Exist	Build	Exist	Build			Exist	Build	Exist	Build	
Intersection E						Intersection G					
NBL	2	-	80	-	25	NBL	-	-	-	-	-
NBT	-	-	-	-	-	NBT	0	0	0	0	200
NBR	2	-	80	-	25	NBR	-	-	-	-	-
WBL	4	-	1	-	180	WBL	-	-	-	-	-
WBT	2	-	1	-	180	WBT	-	-	-	-	-
WBR	-	-	-	-	-	WBR	-	-	-	-	-
SBL	-	-	-	-	-	SBL	-	-	-	-	-
SBT	-	-	-	-	-	SBT	0	0	0	0	75
SBR	-	-	-	-	-	SBR	-	-	-	-	-
EBL	-	-	-	-	-	EBL	-	-	-	-	-
EBT	0	-	0	-	410	EBT	-	-	-	-	-
EBR	0	-	0	-	410	EBR	-	-	-	-	-
Intersection F						Future Intersection H					
NBL	1	2	54	67	210	NBL	-	6	-	137	95
NBT	1	2	54	67	210	NBT	-	6	-	137	95
NBR	1	2	54	67	210	NBR	-	6	-	137	95
WBL	23	27	9	11	140	WBL	-	6	-	1	630
WBT	23	27	9	11	140	WBT	-	3	-	1	630
WBR	20	23	13	15	140	WBR	-	0	-	0	630
SBL	27	31	9	12	820	SBL	-	3	-	1	540
SBT	27	31	9	12	820	SBT	-	3	-	1	540
SBR	9	10	13	15	820	SBR	-	3	-	1	540
EBL	10	11	30	36	365	EBL	-	1	-	1	500
EBT	10	11	30	36	365	EBT	-	0	-	1	500
EBR	10	11	27	33	365	EBR	-	0	-	0	500

Five intersections were identified to have potential queueing concerns (Intersections A, B, C and E and future Intersection H). Intersection C (South Lancaster Road/Ann Arbor Avenue) experiences very minor queueing shortages in the east through and east right turn movements during the a.m. peak hour. The minor queueing shortages are nearly identical for the existing and 2030 build scenarios (not impacted by the Proposed Action). Intersection E (Ann Arbor Avenue/Liberty Loop) currently experiences minor queueing shortages in the north right turn and north left turn movements (exiting the campus) during the p.m. peak hour, but is anticipated to be replaced by Intersection H by 2030. Consequently, the TIS focused on queueing at Intersections A and B and future Intersection H.

Intersection A (South Lancaster Road/Atlas Drive) and Intersection B (South Lancaster Road/Avenue of Flags) currently experience considerable westbound queueing shortages, particularly Intersection A during the p.m. peak hour, associated with vehicles leaving the campus. The planned relocation and realignment of Liberty Loop as part of the Proposed Action would mostly accommodate queueing at Intersection B. Westbound queueing shortages would remain at Intersection A and would be notably longer during the 2030 p.m. peak hour, as Dallas VAMC staff leave the campus at the end of the work day. Future Intersection H would experience minor northbound p.m. peak hour queueing shortages, associated with vehicles leaving the campus.

All identified existing and potential future (2030) queueing concerns at Intersections A and B and future Intersection H are associated with vehicles exiting the Dallas VAMC campus. No potential queueing/traffic backup concerns were identified for the off-campus public roads at these intersections.

The TIS identified potential roadway and traffic signal improvements that would reduce the backup of vehicles leaving the campus. These include creating designated northbound (exit) left turn and shared through/right turn lanes on the campus during the design of Intersection H; adjusting the signal timing and restriping the westbound (exit) lanes on the campus at Intersection B; and adjusting the signal timing, split phasing the traffic signal, and/or possibly restricting the eastbound approach of off-campus Atlas Drive at Intersection A.

3.14.2 Parking

Parking at the Dallas VAMC campus is distributed across 29 separate parking areas, including 3 parking garages (Liberty/Building 80, Patriot/Building 81, and Freedom/Building 82) and 26 surface-level parking lots, totaling approximately 4,691 parking spaces. Current Dallas VAMC campus parking areas are depicted on Figure 3-10.

Parked vehicle counts were taken in the parking areas in January 2021 as part of the TIS. The TIS stated that the total campus parking occupancy peaked between 62 and 65 percent during the morning hours, with only Parking Lot 1 and the two parking areas immediately adjacent to Buildings 44 and 45 reaching 100 percent occupancy during the morning hours. No other parking areas reached 100 percent occupancy during the day; however, Parking Lots 8, 11, 17, 20, 21, 22, and 26 exceeded 90 percent occupancy during the morning hours and Parking Lot 1 exceeded 90 percent occupancy during the afternoon hours. The TIS stated that with the exception of Parking Lot 21 (physician parking), all of the parking areas with greater than 90 percent occupancy are either patient or general surface-level parking lots.

As part of the Proposed Action, Parking Lots 7, 8, 10, 11, 16, and 30 would be removed to accommodate the proposed CEMH building; Parking Lots 3, 4, and 5 would be modified to accommodate the future entrance from East Ann Arbor Avenue (Intersection H); Parking Lots 19, 20, and 21 would be removed to accommodate the proposed LTSCI building; and approximately 200 parking spaces would be removed from Parking Lot 1 for the construction of the proposed CEMH parking garage. In addition, Parking Lots 15 and 28 would be removed and replaced with the same or increased capacity to accommodate the proposed Warehouse building.

The TIS estimated a loss of approximately 1,174 existing parking spaces resulting from the Proposed Action. However, with anticipated addition of approximately 660 surface-level parking spaces and the approximately 1,000-parking space proposed CEMH parking garage, the Proposed Action is anticipated to result in a net gain of approximately 486 parking spaces, resulting in a total of approximately 5,177 vehicle parking spaces at the Dallas VAMC campus. The TIS estimated that the additional parking spaces created by the Proposed Action (486 parking spaces) would be approximately the same as the increased parking demand created by the new LTSCI and CEMH facilities (491 parking spaces).

Figure 3-10 Existing Dallas VAMC Parking Areas

3.14.3 Effects of the Proposed Action

The Proposed Action would have less-than-significant short-term (construction) and long-term (operational), direct and indirect, transportation and parking impacts.

Construction traffic, consisting of trucks, workers' personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause delays if this occurred during morning and evening peak periods. Construction traffic would be minimized by utilizing available staging areas in the southeastern portion of the campus and minimizing interruptions to campus roadways and parking lots during construction.

Following the completion of the Proposed Action construction activities, public roads in the vicinity of the Dallas VAMC campus would experience additional traffic associated with the operation of the new LTSCI and CEMH facilities. The estimated traffic associated with the Proposed Action (2,338 one-way vehicle trips/day) would be an increase of at most approximately nine percent on the roadways accessing

the Dallas VAMC campus. A significant traffic impact is defined by 38 CFR 26(26.62)(ii) as "an increase in average daily traffic volume of at least 20 percent on access roads to a site or the major roadway network." The increased traffic on the roadways accessing the Dallas VAMC campus is below the 20 percent threshold that indicates a potential significant traffic impact.

The TIS found that the intersections in the Dallas VAMC campus area currently operate at acceptable LOS (D or better) and would continue to operate at acceptable LOS in the 2030 build scenario. All intersections have the same overall LOS results in the existing and 2030 build scenarios, except Intersection A (the southwest campus entrance from South Lancaster Road). This overall operational performance of this intersection would decrease from LOS C to LOS D with the Proposed Action, but would remain within the acceptable range (LOS D or better).

Three intersections in the Dallas VAMC campus area (Intersections A and B and future Intersection H) were identified to have potential queueing concerns partially associated with the Proposed Action. All identified existing and potential future (2030) queueing concerns at Intersections A and B and future Intersection H are associated with vehicles exiting the Dallas VAMC campus. No potential queueing backup concerns were identified for the off-campus public roads at these intersections.

The TIS identified potential roadway and traffic signal improvements that would reduce the on-campus backup of vehicles leaving the Dallas VAMC campus. Potential roadway and traffic signal improvements would be further evaluated and discussed with the City of Dallas Transportation Department, if applicable, during the project design.

Approximately 1,174 existing parking spaces would be eliminated as a result of the Proposed Action. However, approximately 1,660 new parking spaces would be created, resulting in a net gain of approximately 486 parking spaces. The TIS estimated that the additional parking spaces created by the Proposed Action would be approximately the same as the increased parking demand created by the new LTSCI and CEMH facilities (491 parking spaces). Long-term parking impacts would be negligible.

3.14.4 Effects of the No Action Alternative

Under the No Action Alternative, no transportation or parking impacts associated with VA's Proposed Action would occur. Intersections in the Dallas VAMC campus area would continue to operate at acceptable LOS. Intersections with excessive on-campus queueing, would continue to operate with lengthy queuing times, unless improved through another initiative.

3.15 Utilities

The Dallas VAMC campus is currently serviced by natural gas, electricity, potable water, sanitary sewerage, stormwater sewerage, and telecommunication utilities. The proposed LTSCI and CEMH facilities would also be serviced by these utilities. Utility providers to the Dallas VAMC include the following:

- **Oncor Electric** supplies electricity to the campus.
- **Atmos Mid-Tex.** supplies natural gas to campus.
- **Dallas Water Utility (DWU)** supplies potable water service and provides sanitary sewer service to the campus.
- **City of Dallas** provides stormwater sewer service to the campus.
- **AT&T, Sprint Mobile, T-Mobile, Verizon Wireless, and Frontier** provide telecommunication services to the campus vicinity.

3.15.1 Effects of the Proposed Action

The Proposed Action would result in an increase in the consumption of utilities, including electricity, natural gas, potable water, and sanitary sewer discharges. All major utility services are currently provided to the Dallas VAMC campus. Oncor Electric is currently in the process of installing additional electrical service to the campus area that would support the proposed new LTSCI and CEMH developments. No other utility service upgrades are anticipated to be required for the Proposed Action. However, each utility provider would require a review of detailed design drawings to determine the connection and service requirements. The Proposed Action is not anticipated to require alteration of the existing utility mains or affect off-site utility consumers. Proposed Action utility impacts would be negligible.

The Dallas VAMC discharges wastewater to the City of Dallas sanitary sewerage system, operated by the DWU. The DWU Pretreatment Program requires significant industrial users, such as hospitals, to obtain and maintain a wastewater discharge permit. The addition of the LTSCI and CEMH facilities would likely require a modification to the DWU wastewater discharge permit, as the wastewater volumes and waste streams would be altered. VA would consult with the DWU Pretreatment Program to determine the specific permit modification requirements.

3.15.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed LTSCI and CEMH facilities would not be constructed. Utility use at the Dallas VAMC campus would remain unchanged.

3.16 Environmental Justice

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed.

According to the USEPA-developed EJSCREEN (an environmental justice mapping and screening internet application), the Dallas VAMC campus is located in an area with a higher minority population (97 percent) and higher low-income population (66 percent) than the State of Texas as a whole (58 percent and 35 percent, respectively).

3.16.1 Effects of the Proposed Action

The Proposed Action would have negligible environmental justice effects. Although the Dallas VAMC campus is located in an area with larger than average minority and low-income populations, the Proposed Action would have only minor impact on the residents in the area. During demolition and construction, effects on nearby residents, such as through noise and dust, would be limited and controlled through BMPs described in Section 4, thereby minimizing adverse effects to minority and low-income populations within the region of influence.

Proposed Action construction activities are anticipated to have a short-term beneficial socioeconomic (and environmental justice) effect on the local employment and personal income in the region of influence, as described in Section 3.11.

3.16.2 Effects of the No Action Alternative

Under the No Action Alternative, the proposed LTSCI and CEMH facilities would not be constructed and there would be no direct environmental justice effects. However, Veterans in the Dallas area, including

low-income and minority populations, would continue to be served by undersized, inadequate long-term spinal cord injury and mental health care facilities.

3.17 Cumulative Impacts

As defined by the CEQ regulations in 40 CFR Part 1508.7, cumulative impacts are those which "result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (federal or non-federal) or individual who undertakes such other actions." Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions taken before, during, or after the Proposed Action in the same geographic area.

The 100-acre Dallas VAMC campus is located in a mixed-use residential, commercial, and institutional area. The region of influence for the campus is almost fully developed with residential and limited commercial properties to the north; institutional, recreational, and residential properties to the east; residential and institutional properties to the south; and commercial and residential properties to the west. Approximately seven acres of vacant land (formerly mostly residential) are located west of the southern portion of the campus across South Lancaster Road. This area has been mostly vacant for approximately ten years. No remaining undeveloped land is located in the immediate vicinity of the Dallas VAMC.

The area across South Lancaster Road to the west of the northern portion of the campus was redeveloped with a large, three-story apartment building with first floor commercial space (Lancaster Urban Village) in 2013. Otherwise, there has been no large-scale development in the vicinity of the Dallas VAMC campus in at least the last 20 years. Other than the approximately seven-acre property west of the campus, further potential development in the area is limited due to the fully developed nature of the area. Most potential future development in the area would likely be a result of the replacement or transformation of older developments that have reached the end of their effective useful lives. One such development occurred between 2015 and 2020, when Heroes Houses purchased a vacant, abandoned apartment complex at 2120 52nd Street (approximately 700 feet south of the campus) and transformed the building into 67 supportive housing apartments for Veterans. No additional specific development plans for off-campus properties in the Dallas VAMC campus area were identified.

As noted in Section 1.2, several new construction and renovation projects have been completed at the Dallas VAMC over the past ten years, including building additions and expansions, and the construction of three new parking garages (Buildings 80, 81 and 82) in the northwestern, northeastern, and southeastern portions of the campus. These new parking garages provide approximately 2,091 parking spaces for Veterans, staff and visitors at the campus. Additional VA projects planned for the campus include upgrades to the central utility plant (Building 70) and its cooling towers (Building 37), located in the southeastern portion of the campus (beginning in 2022) and the future construction of a new data center building at a yet to be determined location. In addition, in 2015 VA acquired approximately 12.7 acres of land located at 4601 Veterans Drive (now the southeastern portion of the approximately 100-acre Dallas VAMC campus) from the Dallas Independent School District. VA had been leasing this property and using it for parking and construction staging prior to 2015 and has continued to use it in this manner since its acquisition. The acquisition of the 12.7-acre parcel was evaluated in a final EA completed in November 2014, resulting in a Finding of No significant Impact (FONSI) dated January 5, 2015. The EA and FONSI concluded there would be no significant adverse impact, either individually or cumulatively, as a result of VA's acquisition and use of the property.

3.17.1 Effects of the Proposed Action

The Proposed Action would result in impacts to the Dallas VAMC campus area as identified throughout Section 3. These include short-term and/or long-term potential adverse impacts to aesthetics, air quality,

cultural resources, soil and geology, hydrology and water quality, wildlife and habitat, noise, solid waste and hazardous materials, transportation, parking (short-term only), and utilities. All of these potential impacts are less than significant and would be further reduced through careful coordination and implementation of general BMPs and management measures, and compliance with regulatory requirements, as identified in Section 4. Given the nature of the Proposed Action and the limited recent and potential future large, off-campus development in the Dallas VAMC campus area, no significant cumulative adverse impacts to any of these resource areas are anticipated. Other potential off-campus development in the area of the Dallas VAMC would be subject to zoning requirements and site plan approval by the City of Dallas, which would serve to maintain and control regional, potentially cumulative impacts.

The Proposed Action could have cumulative impacts with respect to other recent and future Dallas VAMC campus projects, as the proposed LTSCI and CEMH projects are part of a multi-year effort to reconfigure the Dallas VAMC campus to expand and enhance health care services in efficient, state-of-the-art facilities. Collectively, these projects provide significant beneficial cumulative impact to the health of Veterans in the Dallas area. VA planned the sequencing of campus improvement projects to avoid potential adverse cumulative effects caused by conducting several construction projects the same time. The construction of the first three parking garages addressed the immediate need for increased on-campus parking, but also provided a complimentary effect of providing additional parking capacity to address short-term parking loss during the construction of the proposed LTSCI and CEMH facilities. VA would continue to carefully coordinate projects at the campus to minimize impacts to campus operations and the surrounding area. With this coordination, potential cumulative impacts would be minor.

No significant adverse cumulative impacts to the environment induced by the Proposed Action are anticipated within the region. Close coordination between federal and state agencies, the City of Dallas, and community representatives would serve to manage and control cumulative effects within the region, including managing regional transportation increases with adequate infrastructure. Implementation of local land use and resource management plans would serve to control the extent of environmental impacts, and continued planning would ensure future socioeconomic conditions maintain the quality of life the area's residents currently enjoy. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem, cultural, or human environment within the region of influence of the Proposed Action.

3.17.2 Effects of the No Action Alternative

Under the No Action Alternative, no adverse cumulative impacts due to the Proposed Action would occur.

3.18 Potential for Generating Substantial Public Controversy

As discussed in Sections 5 and 6, VA has solicited input from the public and various federal, state, and local government agencies regarding the Proposed Action. Government agencies have provided input; none of the input has identified opposition or controversy related to the Proposed Action. No input was received from the public in response to the scoping notice. VA will publish and distribute this Draft EA for a 30-day public comment period. Public comments will be considered and addressed in the Final EA.

4.0 MANAGEMENT, MINIMIZATION, AND MITIGATION MEASURES

This section summarizes the management and minimization measures, and mitigation measures (if necessary), that are proposed to minimize and maintain potential adverse effects of the Proposed Action at acceptable, less-than-significant levels.

Per established protocols, procedures, and requirements, VA and its construction contractors would implement BMPs and would satisfy all applicable regulatory requirements in association with the Proposed Action. These "management measures" are described in this EA, and are included as components of the Proposed Action. "Management measures" are defined as routine BMPs and/or regulatory compliance measures that are regularly implemented as part of proposed activities, as appropriate, in the Dallas, Texas area. In general, implementation of such management measures would maintain impacts at acceptable levels for all resource areas analyzed. These are different from "mitigation measures," which are defined as project-specific requirements, not routinely implemented as part of development projects, necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels.

The management, minimization, and mitigation measures summarized in Table 4-1 would be included by VA in the Proposed Action to minimize and maintain adverse effects at less-than-significant levels.

Table 4-1 Management, Minimization and Mitigation Measures Incorporated into the Proposed Action

Technical Resource Area	Measure
Aesthetics	Comply with the development standards of the Dallas City Code (DCC), to the extent practicable.
	Use shielded, downward-facing outdoor lighting.
Air Quality	Use appropriate dust suppression methods (such as the use of water, dust, palliative, covers, and suspension of earth moving in high wind conditions) during onsite construction activities.
	Stabilize disturbed area through re-vegetation or mulching if the area would be inactive for several weeks or longer.
	Implement measures to reduce diesel particulate matter emissions from construction equipment, such as reducing idling time and using newer equipment with emissions controls.
	Comply with the federal Clean Air Act as adopted in TCEQ air quality regulations. Complete Permit By Rule (PBR) registration through TCEQ Form 10228.
Cultural and Historic Resources	Conclude NHPA Section 106 review for the Proposed Action. Execute and implement the Programmatic Agreement (PA) to avoid, minimize, and/or mitigate potential adverse effects to historic properties.
	Should potentially historic or culturally significant items be discovered during project construction, the construction contractor would immediately cease work in the area until VA, a qualified archaeologist, Texas SHPO, and other consulting parties are contacted to properly identify and appropriately treat discovered items in accordance with applicable state and federal laws.

Technical Resource Area	Measure
Geology and Soils	Control soil erosion and sedimentation impacts during construction by implementing erosion prevention measures and complying with the TCEQ-issued Texas Pollutant Discharge Elimination System (TPDES) permit required under the federal Clean Water Act, including the development and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP). The TPDES permit would require stormwater runoff and erosion management using BMPs, such as earth berms, vegetative buffers and filter strips, and spill prevention and management techniques. The construction contractor would implement the sedimentation and erosion control measures specified in the TPDES permit and the SWPPP to protect surface water quality.
	Comply with DCC Stormwater Drainage Systems ordinance, as required to comply with the federal Clean Water Act.
Hydrology and Water Quality	Control soil erosion and sedimentation impacts during construction by complying with the TCEQ TPDES permit.
	Comply with DCC Stormwater Drainage Systems ordinance, as required to comply with the federal Clean Water Act.
	Receive prior authorization for stormwater discharges to the municipal stormwater system from the Dallas Stormwater Management Department.
	Ensure Dallas VAMC stormwater infrastructure is upgraded to accommodate a 100-year storm event (separate project).
	Design improvements in accordance with the requirements of Energy Independence and Security Act Section 438 with respect to stormwater runoff quantity and characteristics.
Wildlife and Habitat	Native species should be used to the extent practicable when re-vegetating land disturbed by construction to avoid the potential introduction of non-native or invasive species.
	Conduct vegetation clearing between September 16 and March 14 or conduct a survey for active bird nests prior to clearing.
	Use downward facing outdoor lighting.
Noise	Limit, to the extent possible, construction and associated heavy truck traffic to occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between the hours of 8:00 a.m. and 7:00 p.m. on Saturdays and legal holidays.
	Locate stationary operating equipment as far away from sensitive receptors as possible.
	Comply with the noise control provisions of the DCC, to the extent practicable.
	Shut down noise-generating heavy equipment when it is not needed.
	Maintain equipment per manufacturer's recommendations to minimize noise generation.
	Encourage construction personnel to operate equipment in the quietest manner practicable (such as speed restrictions, retarder brake restrictions, engine speed restrictions).
Land Use	Comply with the applicable DCC zoning regulations and development standards, to the extent practicable.
Wetlands, Floodplains, and Coastal Zone Management	None required.

Technical Resource Area	Measure
Socioeconomics	Construction areas would be secured to prevent unauthorized access by children from nearby residential areas.
Community Services	None required.
Solid Waste and Hazardous Materials	Comply with applicable federal and state laws governing the use, generation, storage, transportation, and disposal of solid and hazardous materials and medical wastes.
	Prepare a Soil Management Plan to notify construction contractors of the soil conditions in the proposed Warehouse/Office area and ensure proper handling and disposal of impacted soil that may be encountered during construction.
	Remove asbestos containing materials (ACMs) in accordance with the federal and state requirements prior to building renovation or demolition activities.
	Implement dust control measures, such as the use of water, during building demolition to control lead-based paint emissions.
	Register, install, and operate new emergency generator USTs and ASTs in accordance with TCEQ petroleum storage tank (PST) requirements, as applicable and to the extent practicable.
Traffic, Transportation, and Parking	Work with the City of Dallas Transportation Department during site design to identify and implement roadway and traffic signal improvements to reduce on-campus vehicle queueing.
	Ensure debris and/or soil is not deposited on local roadways during the demolition and construction activities.
Utilities	Submit design plans to each utility provider to determine the specific connection/extension requirements and implement the necessary requirements.
	Obtain a modified wastewater discharge permit from the Dallas Water Utility Pretreatment Program, if required.
Environmental Justice	None required.

5.0 PUBLIC PARTICIPATION

VA invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 38 CFR Part 26, VA's regulations for implementing NEPA. Additional guidance is provided in VA's *NEPA Interim Guidance for Projects* (U.S. Department of Veterans Affairs 2010). Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. Members of the public with a potential interest in the Proposed Action are encouraged to participate. A record of the public involvement associated with this EA is provided in Appendix F.

5.1 SCOPING

VA initiated the NEPA public scoping process for the Proposed Action in July 2021, which included a public notice published in the Dallas Morning News on July 4 and 6, 2021. No public comments or input were received in response to the scoping notice.

5.2 PUBLIC REVIEW

VA will publish and distribute the Draft EA for a 30-day public comment period, as announced by a Notice of Availability published in the Dallas Morning News. A copy of the Draft EA will be made available on the VA Office of Construction and Facilities Management Environmental Program website: (https://www.cfm.va.gov/environmental/index.asp). In addition, a hard copy of the Draft EA will be made available for public review at the Dallas Public Library. VA will also email notification of the release of the Draft EA to the stakeholders previously contacted during the NEPA scoping and NHPA Section 106 consultation. The notice will contain a link to the Draft EA on VA's website and invite stakeholder to provide comments on the document. VA will respond to agency and public comments within the Final EA.

6.0 AGENCIES AND PERSONS CONSULTED

6.1 AGENCY COORDINATION

Agencies consulted for this EA include:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- USDA Natural Resource Conservation Service
- Texas Parks and Wildlife Department
- Texas Historical Commission (Texas SHPO)
- Texas Commission of Environmental Quality, various divisions
- Texas Department of Transportation
- Texas State Soil and Water Conservation Board
- Trinity River Authority of Texas
- North Central Texas Council of Governments
- City of Dallas (various departments)
- Preservation Dallas
- Dallas County Historic Preservation Division

VA initiated the agency scoping process for the Proposed Action in July 2021, which included an email request for information and comments based on available information regarding the Proposed Action.

Responses were received from TCEQ, TPWD, and TPWD TXNDD. Input provided by these agencies is addressed in the appropriate resource sub-sections of Section 3. Written correspondence from the agencies is provided in Appendix B. The following summarizes that input, which VA used to focus this EA's analysis:

- **TCEQ** stated that the Proposed Action was reviewed for air quality impacts. TCEQ noted Dallas County is a designated non-attainment area for the ozone NAAAQS. Consequently, TCEQ stated a general conformity demonstration may be required when ozone precursor (VOCs and NOX) emissions exceed the de minimis level (50 tons per year). However, TCEQ stated, based on their review of the project information, the emissions from the Proposed Action are likely to be below the general conformity de minimis threshold for ozone precursor pollutants and are not anticipated to impact the Texas SIP.

  TCEQ stated the Office of Water does not anticipate significant long-term environmental impacts from the Proposed Action, as long as construction and waste disposal activities are completed in accordance with applicable environmental permits, statutes, and regulations. TCEQ also recommend the use of BMPs to control construction site runoff.

- **TPWD** indicated that there are no known state-listed protected species occurrences within the Dallas VAMC area. TPWD stated the Proposed Action is planned for existing developed and lawn areas of the Dallas VAMC campus and they do not anticipate adverse impacts to state-listed threatened or endangered species associated with implementation of the Proposed Action.

  TPWD recommended that VA exclude vegetation clearing activities during the general bird nesting season, between March 15, and September 15, to avoid adverse impacts to breeding birds protected under the MBTA. TPWD stated that if vegetation clearing during nesting season is not avoidable, a survey of the area for active nests should be conducted and a 150-foot disturbance-free buffer implemented for any identified active nests. TPWD also recommended that VA

minimize permanent nighttime lighting and focus lighting downward to protect resident and migrant bird species. TPWD also recommended taking precautions to avoid impacts to species of greatest conservation need (SGCN) flora and fauna, natural plant communities, riparian zones, streams, wetlands, native prairie, or special features if discovered in the project area during the site assessment, construction, operation, and maintenance activities. TPWD also recommended implementing BMPs with respect to plant and animal encounters, revegetation, sediment and erosion control, and contractor and public outreach.

- **TPWD TXNDD** indicated that there are no known state-listed protected species occurrences within the vicinity of the Dallas VAMC.

6.2 NATIONAL HISTORIC PRESERVATION ACT SECTION 106 CONSULTATION

From 2010 to 2013, VA completed NHPA Section 106 consultation for the proposed LTSCI and CEMH projects, resulting in the execution of a MOA in 2013 to resolve adverse effects to historic properties from the projects. The MOA was amended to extend its duration in 2017 to provide more time to implement the proposed LTSCI and CEMH projects. Due to an updated (2021) identification of historic properties at the campus, ongoing project design changes, and the need to phase the assessment of adverse effects, VA determined that it is appropriate to develop a new Programmatic Agreement (PA) to supersede the 2013 MOA. THC and ACHP concurred with this determination.

On November 19, 2021, VA initiated new NHPA Section 106 consultation for the Proposed Action with THC, ACHP, federally-recognized Indian ribes, the City of Dallas Office of Historic Preservation, Preservation Dallas, and the Dallas County Historical Commission. As part of this effort, VA submitted information regarding the undertaking (Proposed Action), the delineation of the APE (the entire Dallas VAMC campus), the identification of historic properties (based on the 2021 Historic Properties report), and the assessment of potential adverse effects. A draft PA was included in the consultation package.

VA hosted a consultation meeting with the consulting parties on December 1, 2021, and provided information about the Proposed Action. Representatives of THC, ACHP, and the City of Dallas Office of Historic Preservation attended the consultation meeting. On December 2, 2021, ACHP notified VA that they had elected not to participate in the NHPA Section 106 consultation. On December 17, 2021, THC provided comments on consultation package and draft PA. THC comments included:

- A request for an archival review to determine the potential of archaeological Site 41DL499, a reported former farmstead located in the northern portion of the campus, to hold intact subsurface deposits eligible for listing in the NRHP.
- Concurrence with VA's determination that Building 1 with component Building 3 is individually eligible for listing in the NRHP and no other Dallas VAMC campus buildings are individually eligible for listing in the NRHP.
- Recommendation that a portion of the Dallas VAMC campus is a historic district with Buildings 1, 3, 5, 6, 10, 11, 13, 18 and Structure 15 as contributing resources.

On December 24, 2021, the City of Dallas Office of Historic Preservation provided comments on the consultation package and draft PA. Comments included:

- Noted that it appears VA took a building-centric evaluation of historic properties and VA should also look at potential group/association values for determining historic properties.
- There is insufficient evidence of the consideration of the alternative to the demolition of building that were determined to be eligible for NRHP listing in 2010.

- There is insufficient visual analysis of the assessments of integrity.
- The proposed undertakings appear to further compromise the residual setting of historic properties, which will likely have cumulative effects that may benefit from further evaluation.

In January and February 2022, VA held meetings with THC to discuss their comments and also hosted a campus visit for THC staff members to see the Dallas VAMC campus on February 22, 2022. On March 8, 2022, VA provided formal responses to THC and City of Dallas Office of Historic Preservation comments, including additional requested documentation and a revised draft PA.

On April 7, 2022, THC concurred with VA's determination that Building 1, with Building 3 as a component, is the only historic property eligible for individual listing in the NRHP within the APE. THC also concurred with VA's determination that subsurface archaeological deposits, including Site 41DL499, meeting the criteria for listing in the NRHP are unlikely to be present within the proposed areas of ground disturbance due to past construction activities. In addition, THC concurred with VA's determination that a historic district at the campus that THC had previously recommended is not eligible for listing in the NRHP due to lack of integrity. However, THC advised that the Proposed Action would contribute to a cumulative adverse effect to the former historic district that occurred due to numerous construction projects at the campus over many years.

VA hosted a second consulting party meeting on April 25, 2022 to discuss additional revisions to the draft PA. Representatives of THC attended the meeting. On April 27, 2022, VA submitted a revised PA to the consulting parties based on the April 25, 2022 meeting. It is anticipated that the final PA will include stipulations requiring project design review by THC to avoid, minimize, and/or mitigate adverse effects to historic properties; nomination of Building 1, with Building 3 as a component, for inclusion in the NRHP; documentation of Buildings 5, 6 and 10 prior to their demolition (formerly considered to be historic properties); and the installation of interpretative signage at the campus that memorializes the significance of the Dallas Veterans Administration Hospital.

Section 106 correspondence is provided in Appendix C.

6.3 NATIVE AMERICAN CONSULTATION

VA initiated consultation with five federally-recognized Indian tribes (Wichita and Affiliated Tribes, Coushatta Tribe of Louisiana, Comanche Nation, Apache Tribe of Oklahoma, and Tonkawa Tribe of Indians of Oklahoma) as part of this NEPA and NHPA Section 106 process, in accordance with 36 CFR 800.2 and EO 13175, *Consultation and Coordination with Indian Tribal Governments*, November 2000. These Tribes, identified as having possible ancestral ties to the area of the Dallas VAMC campus, were invited by VA to participate in the NHPA Section 106 consultation process as Sovereign Nations per EO 13175. The Comanche Nation confirmed that the Dallas VAMC campus does not hold sites significant to Comanche Nation heritage. No other Tribes have responded or elected to participate in the NHPA Section 106 consultation process. Tribal correspondence is provided in Appendix C.

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9.0 GLOSSARY

100-Year Flood – A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a one percent chance of it occurring in a given year.

Aesthetics – Pertaining to the quality of human perception of natural beauty.

Ambient - The environment as it exists around people, plants, and structures.

Ambient Air Quality Standards - Those standards established under the Clean Air Act to protect health and welfare.

Aquifer - An underground geological formation containing usable amounts of groundwater which can supply wells and springs.

Asbestos - Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters. Asbestos is a carcinogenic substance.

Attainment Area - Region that meets the National Ambient Air Quality Standard (NAAQS) for a criteria pollutant under the Clean Air Act.

Bedrock - The solid rock that underlies all soil, sand, clay, gravel and loose material on the earth's surface.

Best Management Practices (BMPs) - Methods, measures, or practices to prevent or reduce the contributions of pollutants to U.S. waters. Best management practices may be imposed in addition to, or in the absence of, effluent limitations, standards, or prohibitions (AR 200-1).

Commercial land use – Land use that includes private and public businesses (retail, wholesale, etc.), institutions (schools, churches, etc.), health services (hospitals, clinics, etc.), and military buildings and installations.

Contaminants - Any physical, chemical, biological, or radiological substances that have an adverse effect on air, water, or soil.

Council on Environmental Quality (CEQ) - An Executive Office of the President composed of three members appointed by the President, subject to approval by the Senate. Each member shall be exceptionally qualified to analyze and interpret environmental trends, and to appraise programs and activities of the federal government. Members are to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

Criteria Pollutants - The Clean Air Act of 1970 required the USEPA to set air quality standards for common and widespread pollutants in order to protect human health and welfare. There are six "criteria pollutants": ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), lead (Pb), nitrogen dioxide (NO_2), and particulate matter.

Cultural Resources - The physical evidence of our Nation's heritage. Included are: archaeological sites; historic buildings, structures, and districts; and localities with social significance to the human community.

Cumulative Impact - The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Decibel (dB) - A unit of measurement of sound pressure level.

Direct Impact - A direct impact is caused by a Proposed Action and occurs at the same time and place.

Emission - A release of a pollutant.

Endangered Species - Any species which is in danger of extinction throughout all or a significant portion of its range.

Environmental Assessment (EA) - An EA is a publication that provides sufficient evidence and analyses to show whether a proposed system will adversely affect the environment or be environmentally controversial.

Erosion - The wearing away of the land surface by detachment and movement of soil and rock fragments through the action of moving water and other geological agents.

Agricultural land - Cropland, pastures, meadows, and planted woodland.

Fauna - Animal life, especially the animal characteristics of a region, period, or special environment.

Flora - Vegetation; plant life characteristic of a region, period, or special environment.

Floodplain - The relatively flat area or lowlands adjoining a river, stream, ocean, lake, or other body of water that is susceptible to being inundated by floodwaters.

Fugitive Dust - Particles light enough to be suspended in air, but not captured by a filtering system. For this document, this refers to particles put in the air by moving vehicles and air movement over disturbed soils at construction sites.

Geology - Science which deals with the physical history of the earth, the rocks of which it is composed, and physical changes in the earth.

Groundwater - Water found below the ground surface. Groundwater may be geologic in origin and as pristine as it was when it was entrapped by the surrounding rock or it may be subject to daily or seasonal effects depending on the local hydrologic cycle. Groundwater may be pumped from wells and used for drinking water, irrigation, and other purposes. It is recharged by precipitation or irrigation water soaking into the ground. Thus, any contaminant in precipitation or irrigation water may be carried into groundwater.

Hazardous Substance - Hazardous materials are defined within several laws and regulations to have certain meanings. For this document, a hazardous material is any one of the following:

Any substance designated pursuant to section 311 (b)(2)(A) of the Clean Water Act.

Any element, compound, mixture, solution, or substance designated pursuant to Section 102 of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Any hazardous substance as defined under the Resource Conservation and Recovery Act (RCRA).

Any toxic pollutant listed under TSCA.

Any hazardous air pollutant listed under Section 112 of the Clean Air Act.

Any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Subsection 7 of TSCA.

The term does not include: 1) Petroleum, including crude oil or any thereof, which is not otherwise specifically listed or designated as a hazardous substance in a above. 2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). A list of hazardous substances is found in 40 CFR 302.4.

Hazardous Waste - A solid waste which, when improperly treated, stored, transported, or disposed of, poses a substantial hazard to human health or the environment. Hazardous wastes are identified in 40 CFR 261.3 or applicable foreign law, rule, or regulation.

Hazardous Waste Storage - As defined in 40 CFR 260.10, ". . . the holding of hazardous waste for a

temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere".

Hydric Soil - A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-lacking) conditions that favor the growth and regeneration of hydrophytic vegetation. A wetland indicator.

Indirect Impact - An indirect impact is caused by a Proposed Action that occurs later in time or farther removed in distance, but is still reasonably foreseeable. Indirect impacts may include induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural and social systems. For example, referring to the possible direct impacts described above, the clearing of trees for new development may have an indirect impact on area wildlife by decreasing available habitat.

Industrial Land Use – Land uses of a relatively higher intensity that are generally not compatible with residential development. Examples include light and heavy manufacturing, mining, and chemical refining.

Isolated Wetland – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, but do not have a direct connection to the Waters of the U.S.

Jurisdictional Wetland – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, and have a direct connection to the Waters of the U.S. These wetlands are regulated by the USACE.

Listed Species - Any plant or animal designated by a state or the federal government as threatened, endangered, special concern, or candidate species.

Mitigation - Measures taken to reduce adverse impacts on the environment.

Mobile Sources - Vehicles, aircraft, watercraft, construction equipment, and other equipment that use internal combustion engines for energy sources.

Monitoring - A process of inspecting and recording the progress of mitigation measures implemented.

National Ambient Air Quality Standards (NAAQS) - Nationwide standards set up by the USEPA for widespread air pollutants, as required by Section 109 of the Clean Air Act. Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide.

National Environmental Policy Act (NEPA) - U.S. statute that requires all federal agencies to consider the potential effects of major federal actions on the human and natural environment.

Non-attainment Area - An area that has been designated by the EPA or the appropriate State air quality agency as exceeding one or more national or state ambient air quality standards.

Parcel - A plot of land, usually a division of a larger area.

Particulates or Particulate Matter - Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air.

Physiographic Region - A portion of the Earth's surface with a basically common topography and common morphology.

Pollutant - A substance introduced into the environment that adversely affects the usefulness of a resource.

Potable Water - Water which is suitable for drinking.

Prime Agricultural land - A special category of highly productive cropland that is recognized and described by the U.S. Department of Agriculture's Natural Resource Conservation Service and receives special protection under the Surface Mining Law.

Remediation - A long-term action that reduces or eliminates a threat to the environment.

Riparian Areas - Areas adjacent to rivers and streams that have a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

Sensitive Receptors - Include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

Significant Impact - According to 40 CFR 1508.27, "significance" as used in NEPA requires consideration of both context and intensity.

Context. The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the Proposed Action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.

Soil - The mixture of altered mineral and organic material at the earth's surface that supports plant life.

Solid Waste - Any discarded material that is not excluded by section 261.4(a) or that is not excluded by variance granted under sections 260.30 and 260.31.

Threatened species - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Topography - The relief features or surface configuration of an area.

Toxic Substance - A harmful substance which includes elements, compounds, mixtures, and materials of complex composition.

Waters of the United States - Include the following: Territorial seas and traditional navigable waters; perennial and intermittent tributaries that contribute surface water flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters.

Watershed - The region draining into a particular stream, river, or entire river system.

Wetlands - Areas that are regularly saturated by surface or groundwater and, thus, are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes, and estuaries.

Wildlife Habitat - Set of living communities in which a wildlife population lives.