

B. Core Planning Area

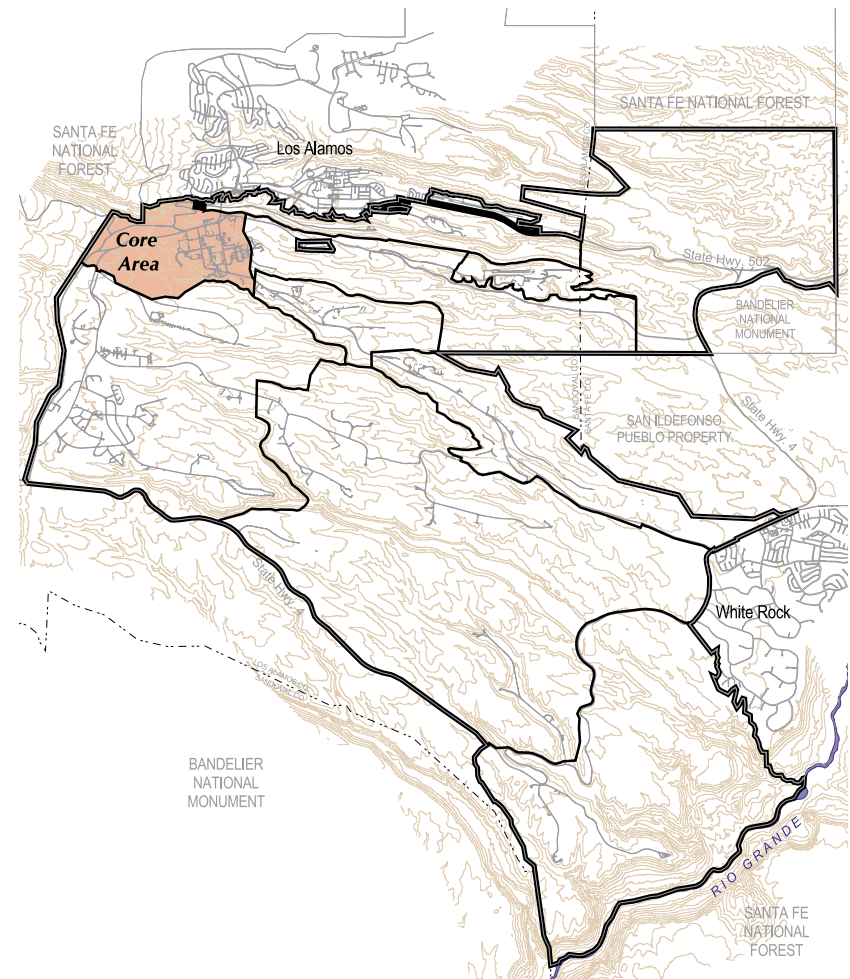
1. General Description

The Core Planning Area is in the northwest corner of the Laboratory and encompasses 2 square miles. It contains the majority of the Laboratory's population, buildings and infrastructure. The Core Planning Area, see Map VI-B1, is the heart of the Laboratory and is its central business district. All major roads within the Laboratory lead to this area. The Core Planning Area includes TAs-03, -06, -58, -59, -60, -61, and -62.

The following planning assumptions will guide the physical planning of the Core Planning Area for the next 10 years:

- *The Core Planning Area will remain the Laboratory administrative center.*
- *The Core Planning Area will house*
 - *theoretical and computational science,*
 - *experimental science to a limited degree,*
 - *biosciences growth as it becomes the “third pillar” at the Laboratory,*
 - *the Strategic Computing Complex (SCC), and*
 - *the Nonproliferation and International Security Center (NISC).*
- *SNM activities will be removed from the Chemical and Metallurgy Research (CMR) Building within 10 years.*
- *Major support functions and services will be relocated to Sigma Mesa.*
- *TA-03 will be the area for primary public interface.*
- *The Research Park north of TA-03 will be the primary interface area with private research and development firms.*
- *The Core Planning Area will be the initial focus of the Laboratory's revitalization efforts to replace older buildings.*

Map VI-B1: Core Planning Area Key Map



2. *Opportunities and Constraints*

The following opportunities and constraints affect physical planning in the Core Planning Area.

Physical Constraints

In the Core Planning Area, the land use for TAs-58, -62, and portions of -06 and -69 is essentially Reserve, with ongoing archeological survey areas with them. Federally protected species habitat areas encompass the northern portions of TAs-03, -61 and -62. One-hundred-year floodplains and associated and isolated wetlands exist throughout the area. TAs-06, -58, and -69 have severe to moderate topographic (slope) constraints.

The seismic surface rupture hazard is probably very low in the Core Planning Area. TA-03 lies within a structurally complex zone at the southern end of the Diamond Drive graben. In TA-03, the worst-case scenario would affect facilities sited directly on a principal rupture plane of a potentially active fault.

Although the probabilities for seismic surface rupture are extremely low, the Rendija Canyon fault zone, the Pajarito fault zone, and the east-southeast trending cross faults must be considered potentially active, or “capable” in the definitions for the Code of Federal Regulations. For facility siting and new construction, these capable fault zones should be treated in a fashion similar to the special study zones of the state of California. Project-specific fault investigations should be conducted, and siting new facilities over a potentially active fault should be avoided.

Operational Constraints

Point nuclear sources in TA-03 create safety analysis report (SAR) areas that lead to development and adjacency restrictions. Affected areas cover most of TA-03 and portions of TAs-06, -58, -59, -60, -62, and -69. Work within these areas is restricted to Laboratory and Laboratory contractor personnel only. The Sigma Building and two of its adjacent facilities (03-35 and 03-141) house nuclear materials. The Sigma Building is also the site of a solid waste management unit (SWMU). These uses create serious adjacency issues in this planning area.

Several facilities within the Core Planning Area have Nuclear Facilities Authorization Basis (NFAB) restrictions. These restrictions are specific regarding availability and reliability of water and electrical supplies that must exist in order to operate these facilities. Future development could affect the NFAB – most notably the new Strategic Computing Complex (SCC) facility’s electrical needs.

The planning area has several fuel storage tanks and other potential release sites (PRS) which could constrain development on or near their locations.

The eastern portions of TA-03 have several support facilities such as the steam plant, the gas cylinder plant, and maintenance operations. The major constraints on these sites involve

effects on redevelopment costs, particularly for relocation of infrastructure, demolition and site remediation.

Other broad scale constraints include the CMR building’s nuclear materials R&D activity and exhaust stack noise levels that result in noise complaints from as far away as White Rock.

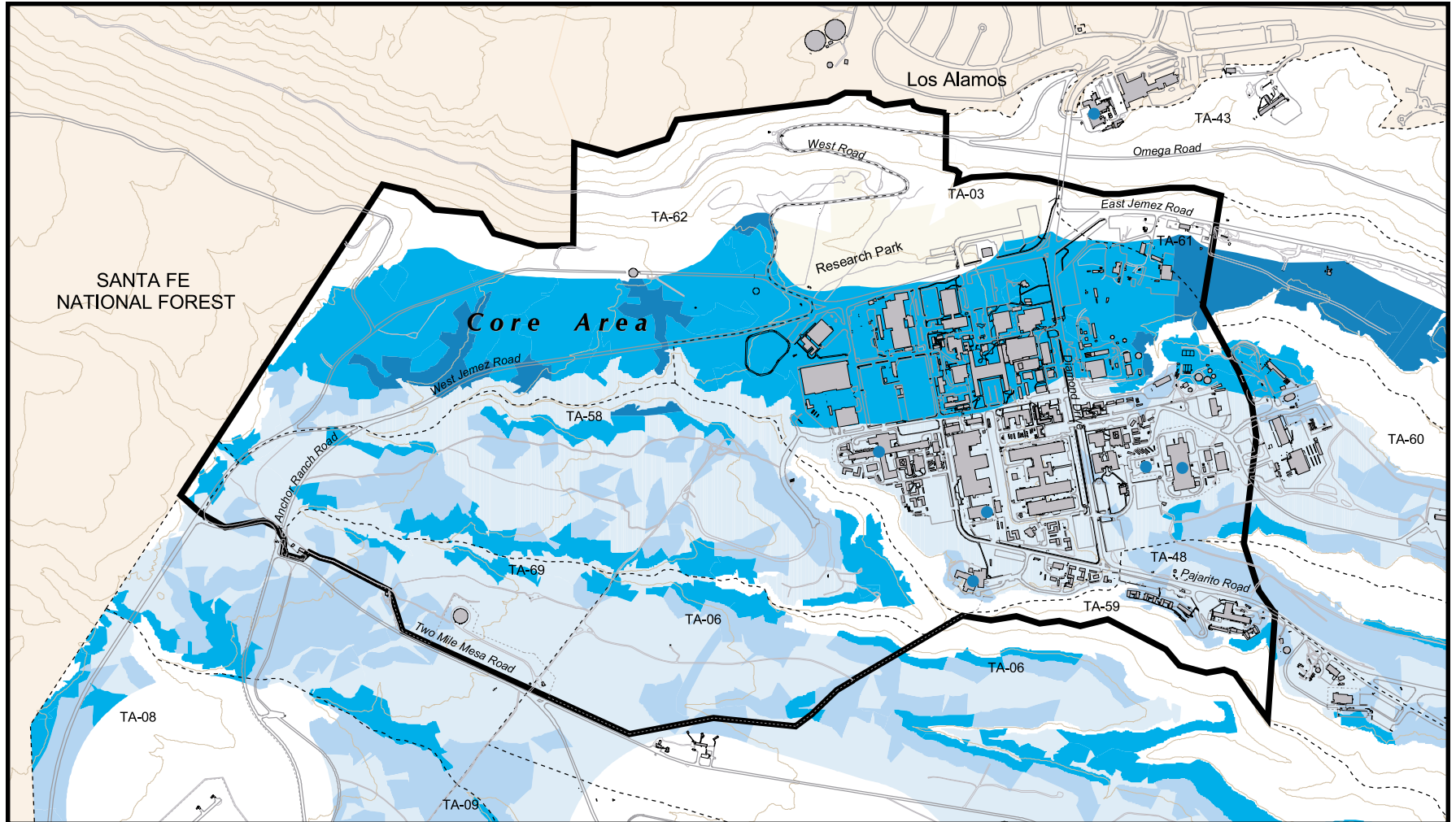
The Core Planning Area has a number of buildings listed as “Exceptionally High Risk” for a seismic event, including in TA-03, Buildings 29, 30, 38, 39, 43, 66, 70, 123, 132, 200, 207, 316, and 422, totaling 1.75 million square feet, and in TA-59, Building 1, containing 53,900 square feet. The Research Park north of TA-03 will preclude development of Laboratory facilities in that area.

Development Opportunities

Major development opportunities become available with the relocation of CMR activities to TA-55 and the relocation of major support facilities to the Sigma Mesa Planning Area.

Approximately 200 acres are available for development in TAs-58, and -69 as shown on Map VI-B2. In the western portion of TA-06, road and utility improvements need to be extended to develop these areas.

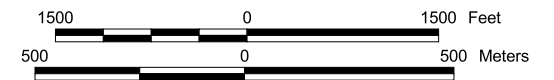
Map VI-B2: Core Planning Area Development Opportunities Map



LEGEND

- Technical Area Boundary
- Non Dept. of Energy Property
- ▭ Planning Area
- Unique Operational and/or Physical Considerations Exist
- Excellent Development Potential
- Good Development Potential
- Fair Development Potential
- Poor Development Potential
- Radiation Source

Areas of one acre or less are incorporated into the surrounding larger areas.



3. Projects for the Core Planning Area

Proposed, planned or budgeted projects noted below and on the facing summary map, VI-B3, for this planning area were identified through Laboratory documents or by stakeholders during the Comprehensive Site Plan 2000 process. The symbol *NS* stands for project “Not Shown” on the Summary Map.

Development of Strategic Computing Capabilities

- ① Budgeted construction of SCC building.
- ② Budgeted construction of parking lots to replace lots removed by SCC/NISC.

Development of NIS Initiatives

- ③ Budgeted construction of NISC building.

Revitalization of TA-03

- ④ Proposed removal of Administration, Sherwood, Scylac and JCNNM buildings and trailers and transportables.
- ⑤ Proposed replacement with new Administration facility, an office building for classified use, an office building for unclassified use.
- ⑥ Planned development of pedestrian campus environment around new facilities.
- ⑦ Proposed pedestrian mall and site landscaping with utility corridors.

Non-Nuclear Activities

- ⑧ Planned expansion of Sigma facilities.
- ⑨ Considered reuse of CMR building for other new programmatic issues.

Land Use Development

- ⑩ Proposed extension of roads and utilities to TA-58 and-69 to prepare for future development and to establish new vehicular links with the Experimental Engineering Planning Area.

Security Development

- ⑪ Planned relocation of SNM activities from CMR to TA-55.
- ⑫ Proposed building of guard gates to control access to TA-03.
- ⑬ Proposed closure of Pajarito Road to public access. Closure at RT4 or near TA-66.

Transportation Development

- ⑭ Planned development of west loop road at TA-03 to reduce public through traffic.
 - ⑮ Planned development of east loop road at TA-03 to reduce public traffic through TA-03.
 - ⑯ Planned redesign of Omega Bridge/Diamond Drive intersection for safety concerns.
 - ⑰ Proposed upgrade of traffic controls and intersection along West Jemez Road in response to new development at TA-03.
 - ⑱ Proposed elimination of Bikini Atoll and Parry Roads to remove central area vehicular traffic.
 - ⑲ Proposed upgrade of West Mercury Road to correct deficiencies.
 - ⑳ Planned establishment of bus stops for shuttle system to outlying parking lots.
 - ㉑ Proposed creation of bicycle and pedestrian path/trails system for alternative transportation.
- NS* Long term planning for TA-03 revitalization should provide replacement lighting for the adjoining roads and walks on the SCC perimeter.

Infrastructure Revitalization

- ㉒ Planned initial phase of sewer upsizing to correct capacity issue:
 - replace Mercury Road collector pipe
 - replace 10-inch line to WW Treatment facility
 - ㉓ Budgeted replacement of steel steam line at Omega Bridge to replace leaking section.
- NS* Ongoing utility revitalization activities as noted in Site Wide Planning Area section.

Quality Environment Development

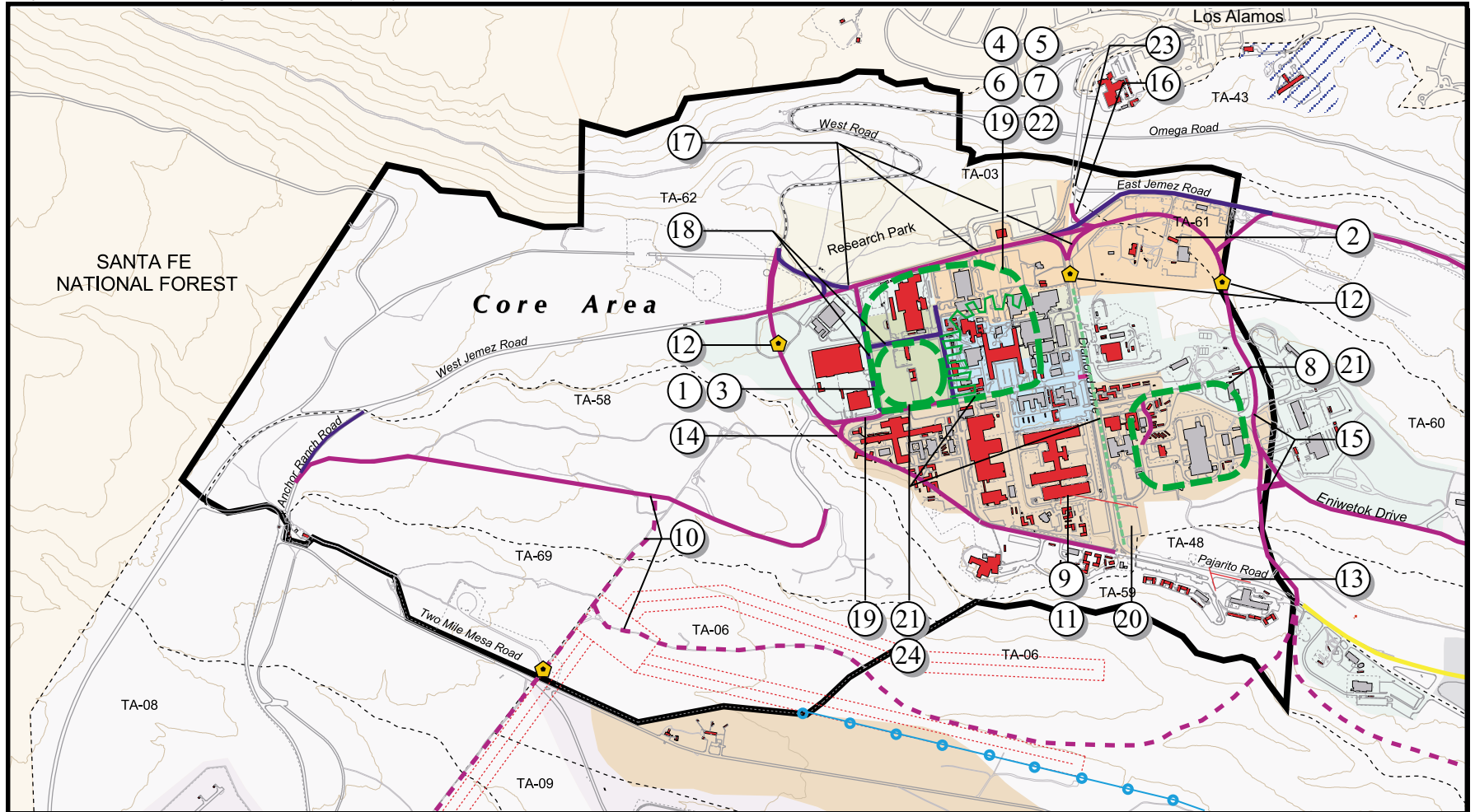
- NS* Proposed TA-03 signage and monumentation improvements.
- ㉔ Proposed pedestrian mall and campus landscaping.

CSP 2000 Issues for Core Planning Area

Important issues that need discussion for continued refinement of the CSP planning for this area:

- *What should happen to CMR after SNM activities vacate the building? Are there alternatives to demolition?*
- *Security has stated that all Category I and II security be eliminated from the Core Planning Area. What should be the process to accomplish this?*

Map VI-B3: Core Planning Area Summary Map



LEGEND

Administration	Research Park	Electric Line 115 kV	Proposed Pedestrian Improvements
Experimental Science	Reserve	Proposed Elec. Line 115 kV	Road Elimination
High Explosives R&D	Theoretical/Computational Science	Gas Pipeline	
Non-DOE Property	Land Transfer Tracts	Long Range New or Improved Roads	
Nuclear Materials R&D	Planning Area	New or Improved Roads	
Physical/Technical Support	Poor or Failed Bldg.	Proposed Fences	
Public/Corporate Interface	Area of Interest	Proposed Guard Gate	

