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Framework Plan

The MSP Redevelopment Project

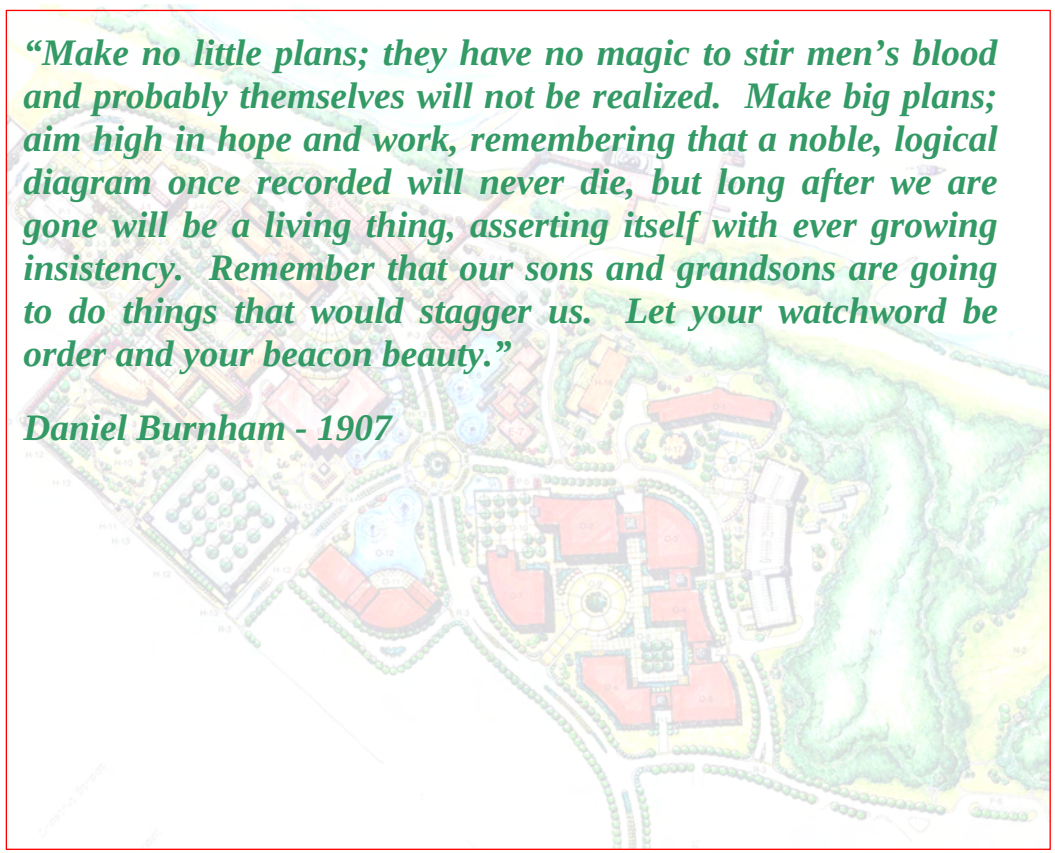
M S P

Bob Holden, Governor

[redacted]

"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty."

Daniel Burnham - 1907



Framework Plan

The MSP Redevelopment Project

M S P

October 2003

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Acknowledgements

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Governor

Bob Holden

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William J. Carr, Chairman
John Sheehan, Member
Duane Weaver, Member
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Acknowledgements

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George Dickie Associates, George Dickie

The Citizens of Jefferson City, Cole County and The State Of Missouri

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Executive Summary

Introduction

Background & History

The Jefferson City Correctional Center (JCCC) is located in the central east end of Jefferson City, within the city limits. The site is bounded on the north by the Missouri River and the Union Pacific Railroad; on the east by a privately owned parcel of land and Riverside Park; on the south by Riverside Drive, Capitol Avenue, Lafayette St. and East State St; and on the west by a parcel of land owned by the Jefferson City Housing Authority.

The Missouri State Penitentiary (later named Jefferson City Correctional Center) was the first prison built west of the Mississippi River. It was authorized in 1832 and approved by the General Assembly in 1833. By the time the first prisoner arrived in 1836, it covered a four-acre tract on the eastern edge of Jefferson City. Today, the entire site of the Jefferson City Correctional Center covers approximately 142 acres (47 acres within the perimeter walls) of river bluff land, seven blocks east of the State Capitol. Some of the area outside the walls is undeveloped wooded ridges and valleys along the Missouri River. The character of the adjoining neighborhoods range

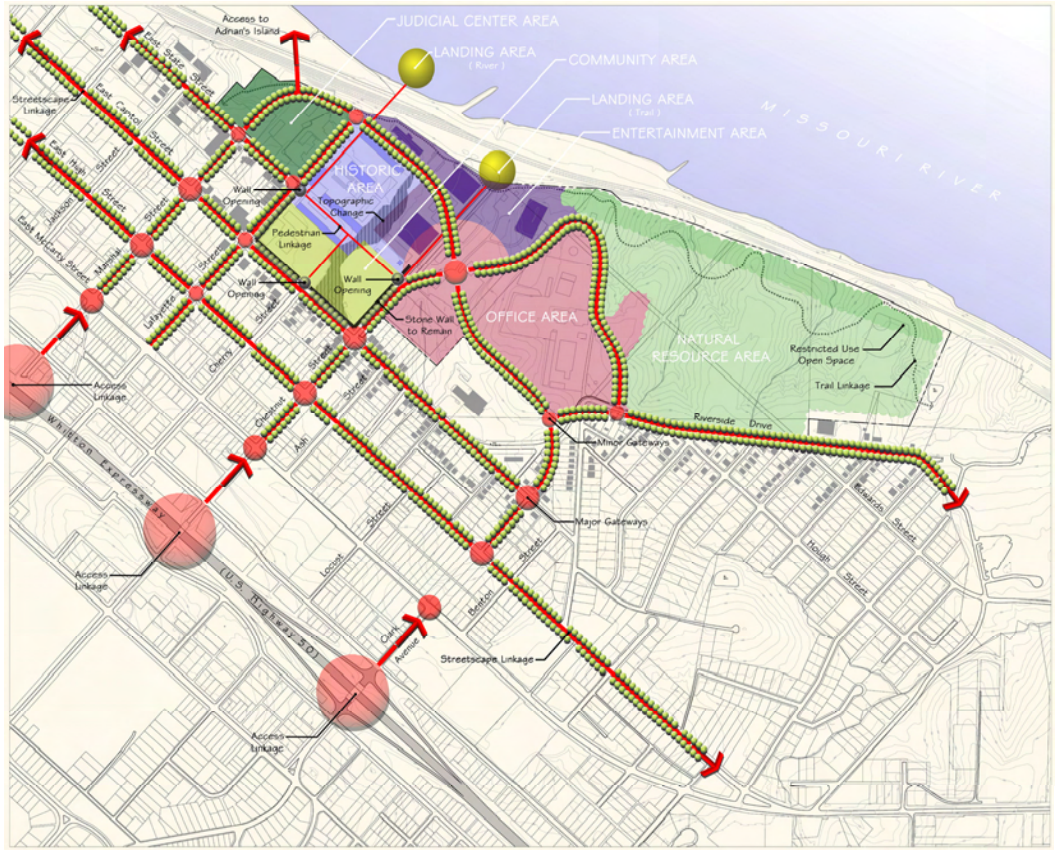
View of JCCC Looking to the Northeast

Executive Summary

from the well-maintained historic renovation of the "Marmaduke House," the former warden's house at Capitol and Lafayette, to a number of aging, poorly maintained houses found within the area. The area is included in a district classified as "distressed."

Currently (2003) a new Missouri State Corrections Facility is under construction. When the new facility is complete, the current operations of the Jefferson City Correctional Center will be moved to the new facility. The decommissioning and subsequent redevelopment of the Jefferson City Correctional Center site provides both a unique challenge and a rare opportunity. It is not often that such a large site so close to the center of a state capital becomes available. The range of redevelopment options offered for the site is wide and quite varied. The site also includes a widely diverse array of existing land uses and facilities.

In July of 1999, the State of Missouri, through the Division of Design & Construction, developed a task list to address the upcoming decommissioning of the Jefferson City Correctional Center (JCCC). By the end of 1999, a newly formed Task Force had started the preparation of an evaluation of its concepts, values and priorities. After successfully conducting a statewide design charrette for the JCCC in April 2000, the State of Missouri began the initial planning effort, titled the **Process Definition Plan** or Consensus Plan.



The Consensus Plan

Executive Summary

The plan was started in late August 2000 and completed in 100 days with general consensus from the Oversight Committee, Task Force and citizens that participated in the public input sessions. The Process Definition Plan was presented to a joint meeting of the Oversight Committee and Task Force at a public forum on November 16, 2000.

The Framework Plan

The Framework Plan (master plan) presented herein is the culmination of the creative design synthesis of data analysis, program development and site planning that has resulted in a distinct vision for the MSP Redevelopment Project (renamed from "the Jefferson City Correctional Center - JCCC"). Founded on the functional relationships achieved in the Process Definition Plan and confirmed throughout the planning process, the Framework Plan illustrates decisions that will guide the ultimate redevelopment of the Missouri State Penitentiary (MSP) for years to come.

Basis of the Master Plan

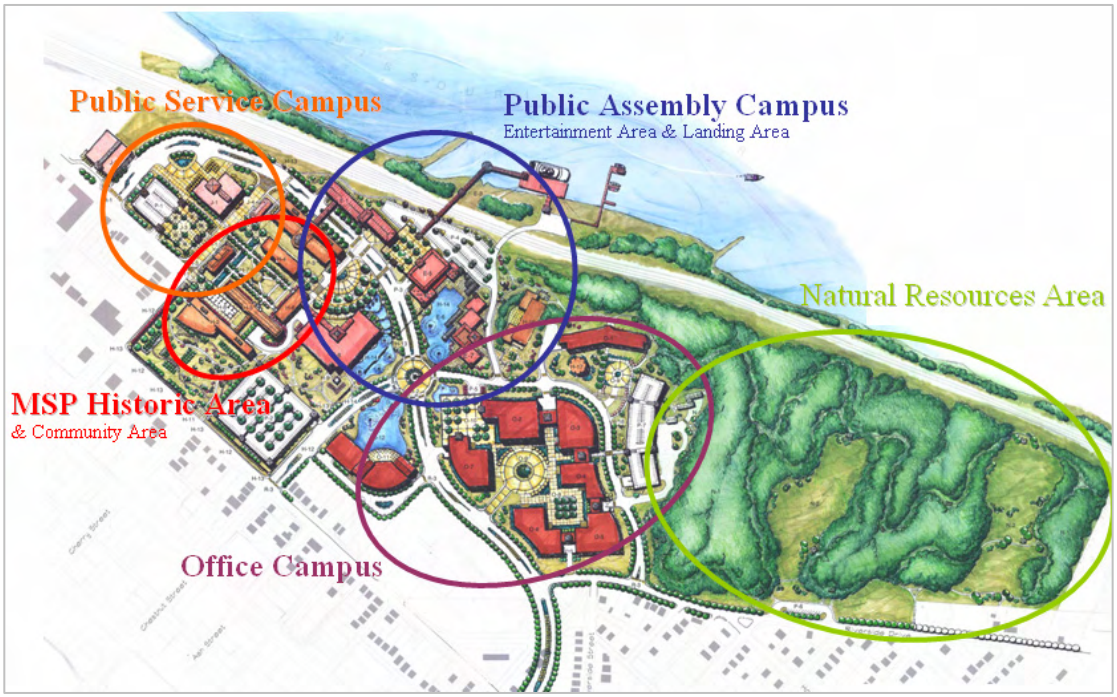
The Process Definition Plan (Consensus Plan) is the basis and beginning point of the Master Plan, a plan which has emerged illustrating a great amount of detail, while maintaining previously established planning principles. In addition, formulation of the

The Master Plan

Executive Summary

Master Plan has been based on extensive data collection, interviews with community leaders, workshops with the Planning Advisory Committee and real-time development opportunities (i.e. DNR Green Building). The formulation of the MSP Redevelopment Commission has greatly increased the reality factor of the project and has also maintained the Project's momentum, guaranteeing the planning and development process will continue, moving the Master Plan recommendations forward to fruition. The Master Plan has been presented to: the Task Force that participated in the Process Definition Plan; two separate sessions of the MSP Redevelopment Commission; and two separate public forums. The Planning Advisory Committee also conducted a workshop to review planning concepts and refine the details contained in this Master Plan.

While each presentation has generated much discussion and revealed new aspects of the master plan to ponder, the plan presented herein has been generally understood, accepted and embraced as a vision for the future of The MSP Redevelopment Project. During the interview process, one community leader summed up the project by saying "someday this will be a cool place to go!"



The Master Plan Districts

Executive Summary

The Program Statement

The Consensus Plan established seven primary land use areas that identified the redevelopment potential within the context of the historical, cultural and functional aspects of the existing MSP site. These elements have formed the basis of the program statement, evolving from seven land use classifications to five Master Plan districts. The terminology has been refined, the project vision sharpened and the level of conceptual detail has begun to illustrate the physical components of the plan.

Master Plan District	**Proposed/Reuse Area**	**Master Plan Parking**	
❖ Public Service Campus	225,000 Gross Floor Area (GFA)	485 Structured Spaces	P-1
❖ MSP Historic Area	310,048 GFA	600 Structured Spaces	P-2
❖ Public Assembly Campus	605,500 GFA	650 Structured Spaces	P-2
		100 Structured Spaces	P-3
		300 Structured Spaces	P-3
		250 Surface Spaces	P-4
❖ Office Campus	1,000,000 GFA	850 Structured Spaces	P-5
		600 Structured Spaces	P-7
❖ Natural Resources Area NA		15 Surface Spaces	P-6
Total	**2,105,548 GFA**	**3,850 Space**	

Executive Summary

Summary

The elements of the Framework Plan presented herein have been discussed, pondered, refined, even implemented from the first planning efforts of 1999 to the completion of this report. The Framework Plan has been generally endorsed by all who have reviewed its content and vision. It is a plan prepared on the basis of consensus and a rigorous planning process. The MSP Redevelopment Commission should, with all confidence, immediately move forward with implementing the recommendations contained herein. All who have participated in this planning process are reminded of the philosophy that linked each step of preparing this plan:

> *"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty." Daniel H. Burnham - 1907*

Daniel Hudson Burnham (September 4, 1846 - June 1, 1912) was an American architect and urban planner. He was the Director of Works for the World's Columbian Exposition and designed several famous buildings, including the Flatiron Building in New York City and Union Station in Washington D.C.

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The Master Plan

M S P

PARSONS in association with
Development Strategies . Trivers Associates . TSi Engineering . William Tao & Associates . George Dickie Associates

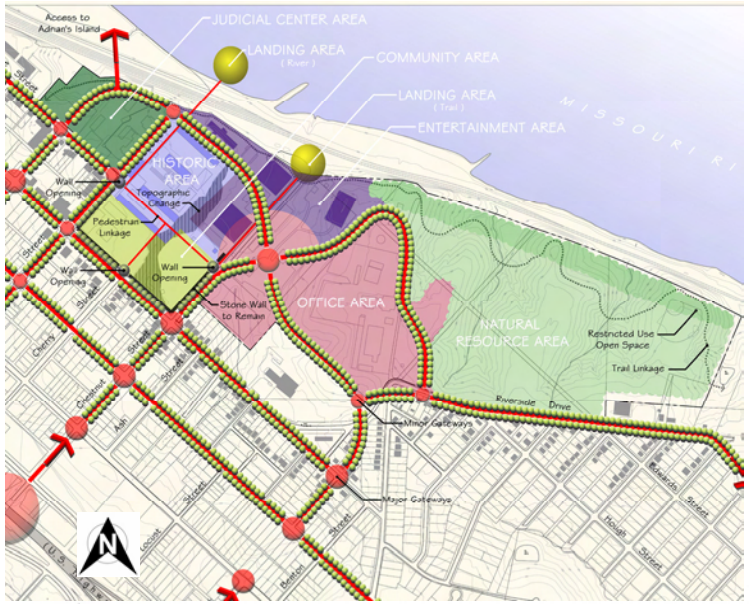
The Master Plan

Introduction

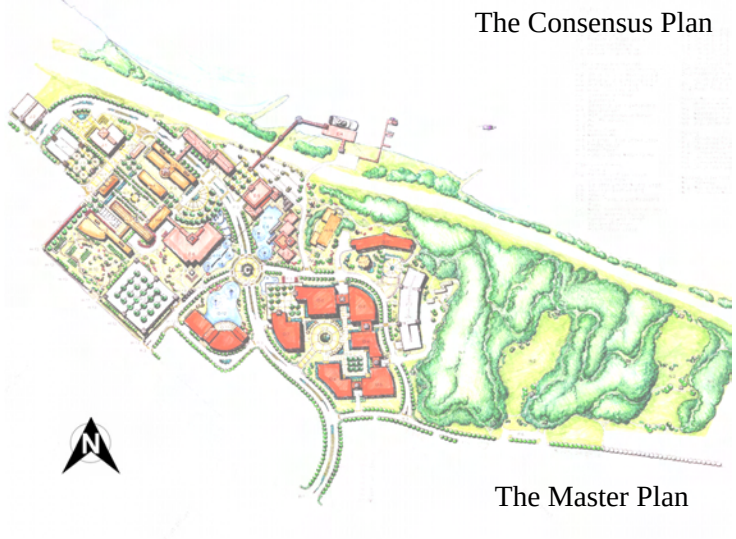
The Master Plan presented herein is the culmination of the creative design synthesis of data analysis, program development and site planning that has resulted in a distinct vision for the MSP Redevelopment Project. Founded on the functional relationships achieved in the Process Definition Plan and confirmed throughout the planning process, The Master Plan illustrates decisions that will guide the ultimate redevelopment of the Missouri State Penitentiary (MSP) for years to come.

Basis of the Master Plan

The Process Definition Plan (Consensus Plan) prepared in March 2001 is the basis and beginning point of The Master Plan. Since the final Process Definition Plan was presented to the public on November 6, 2000, the Master Plan has emerged, illustrating a great amount of detail, while maintaining the principles previously established by the Process Definition Plan. In addition, formulation of The Master Plan has been based on extensive data collection, interviews with community leaders, workshops with the Planning Advisory Committee and real-time development opportunities (i.e. DNR Green Building). The formulation of the MSP Redevelopment Commission has greatly increased the reality factor of the project and has also maintained the Project's momentum, guaranteeing the planning and development process will continue to move The Master Plan recommendations forward to fruition. The Master Plan has been presented to: the Task Force that participated in the Process Definition Plan; two separate sessions of the MSP Redevelopment Commission; and two separate public forums. The Planning Advisory Committee also conducted a



The Consensus Plan



The Master Plan

The Master Plan

Introduction *(continued)*

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While each presentation has generated much discussion and revealed new aspects of the master plan to ponder, the plan presented herein has been generally understood, accepted and embraced as a vision for the future of The MSP Project. During the interview process, one community leader summed up the project by saying "someday this will be a cool place to go!"

The Program Statement

The Consensus Plan established seven primary land use areas that identified the redevelopment potential within the context of the historical, cultural and functional aspects of the existing MSP site. These elements have formed the basis of the program statement, evolving from seven land use classifications to five master plan districts. The terminology has been refined, the project vision sharpened and the level of conceptual detail has begun to illustrate the physical components of the plan.

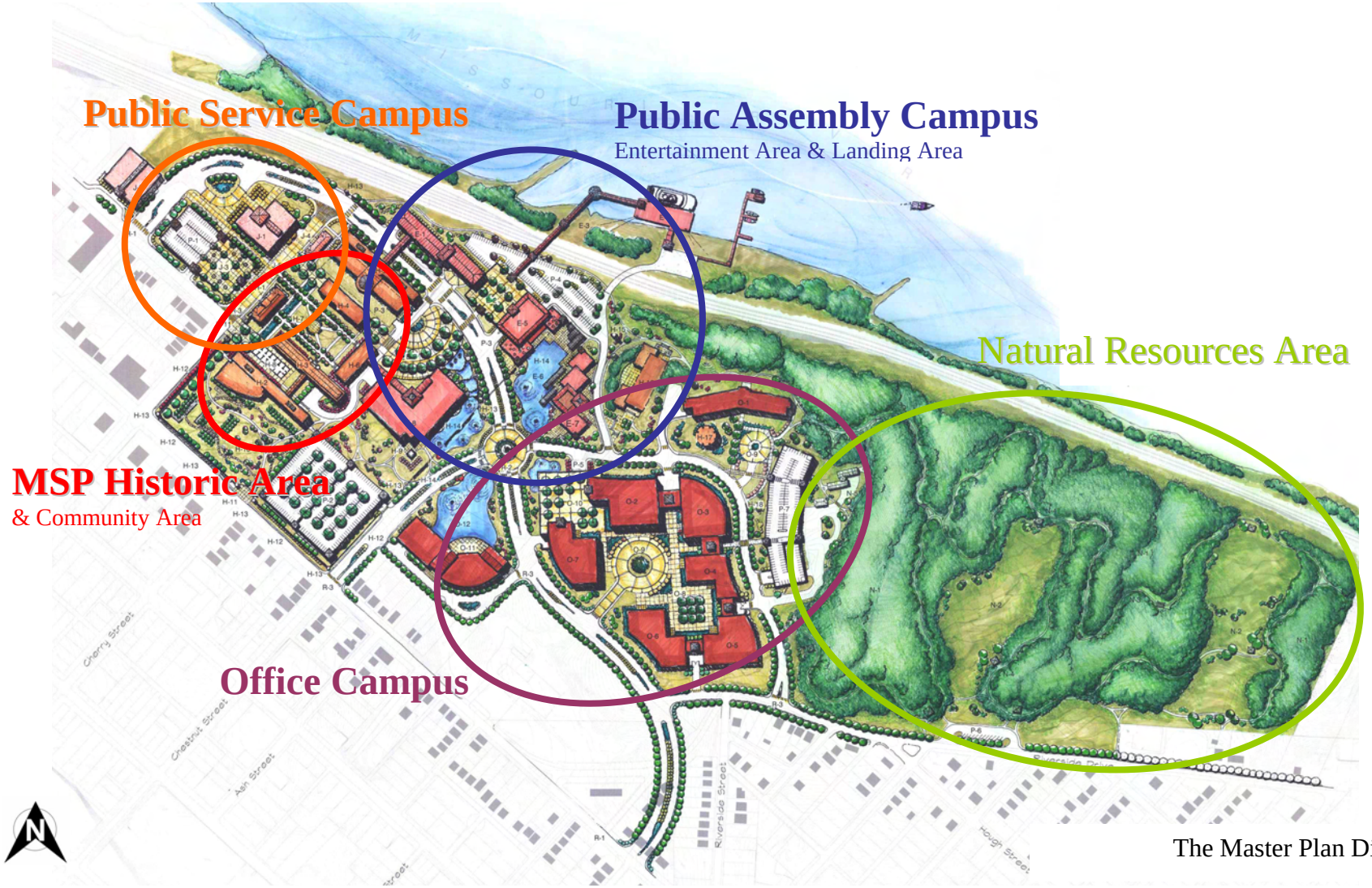
The Consensus Plan land use categories are now Master Plan Districts:

- Historic Area is now the MSP Historic Area
- Judicial Center Area is now the Public Service Campus
- Community Area is now A part of the MSP Historic Area
- Office Area is now the Office Campus
- Entertainment Area is now the Public Assembly Campus
- Landing Area is now a part of the Public Assembly Campus
- Natural Resources Area is now the Natural Resources Area

The Master Plan Program Statement is the narrative interpretation of the Process Definition Plan, founded on market analysis, user potential, community needs and an understanding of the MSP site and architectural resources. Not all the ideas suggested have made it into The Master Plan, but the ideas put into The Master Plan will…. "assert itself with ever growing insistency." (Daniel Burnham – 1907).

The Master Plan

The Program Statement



The Master Plan Districts

The Master Plan

The Program Statement Summary

Master Plan District	Proposed/Reuse Area	Master Plan Parking	
❖ Public Service Campus	225,000 GFA	485 Structured Spaces	P-1
❖ MSP Historic Area	310,048 GFA	600 Structured Spaces	P-2
❖ Public Assembly Campus	605,500 GFA	650 Structured Spaces	P-2
		100 Structured Spaces	P-3
		300 Structured Spaces	P-3
		250 Surface Spaces	P-4
❖ Office Campus	1,000,000 GFA	850 Structured Spaces	P-5
		600 Structured Spaces	P-7
❖ Natural Resources Area NA		15 Surface Spaces	P-6
Total	**2,105,548 GFA**	**3,850 Spaces**	

The Master Plan

MSP Historic Area Program Statement

Administration Building	26,300 GFA
Housing Unit #1 *(26,300 sf)*	
Historic Site, Museum/Interpretative	
MSP Commission Offices	
Redevelopment Office	
Support Retail / Commercial	
Tourist Information Center	
Film Site or Studio	
Educational	
Office Building	72,000 GFA
Housing Unit #2 *(72,000 sf)*	
Corrections Offices	
Office Building	48,000 GFA
At Housing Unit #2 – New	
Building Addition *(48,000 sf)*	
Corrections Offices	
Centennial Cells	
Historic Display	None
Office Building	
Housing Unit #3 *(75,600 sf)*	
State Offices	15,600 GFA
Record Storage	30,000 GFA
Prison Museum (40%)	30,000 GFA

The Master Plan

MSP Historic Area Program Statement *(continued)*

MSP Museum	
Housing Unit #4 *(43,000 sf)*	43,000 GFA
Conference Center	
Historic Dining Hall Basement *(11,100 sf)*	
Power Plant (Basement)	11,100 GFA
Dining Rooms & Kitchen	11,100 GFA
Conference Center	11,100 GFA
Conference Center	11,100 GFA
The Wall	None
The Perimeter Wall	
Guard Tower Reconstruction	
The Old Wall	
Pedestrian Openings	
Vehicular Openings	
The Gas Chamber *(748 sf)*	748 GFA
Community Area	None
MSP Interpretative Garden	
Pedestrian Linkages	
Open Space	
Urban Plaza (interpretative plaza)	
Office Space (see Housing Unit #2 Bldg Addition)	

Total MSP Historic Area	**310,048 GFA**	**600 Structured Spaces**	**P-2**

The Master Plan

Public Service Campus Program Statement

Justice/Office Center	150,000 GFA		
Court Rooms			
Offices			
Holding Space			
Public Service Office Building	50,000 GFA		
Private Office Space			
Support Retail/Commercial			
Art Gallery			
Science Center			
Justice/Office Center Annex	25,000 GFA		
Administrative Offices			
Library			
Museum			
Other	None		
Streetscape			
Pedestrian Entry Plaza			
Pedestrian Linkages			
Transportation Linkages			
Access to Adrian's Island			
Total Public Service Campus	**225,000 GFA**	**485 Structured Spaces**	**P-1**

The Master Plan

Public Assembly Campus Program Statement

Hotel 1	Housing Unit #5 *(102,500 sf)*	
	Hotel (250 Rooms)	102,500 GFA
Hotel 1 Conference Center		
	Housing Unit #5 Building Addition *(50,000 sf)*	
	Meeting Rooms	50,000 GFA
Hotel 2 *(144,000 sf)*		
	Hotel (275 Rooms)	144,000 GFA
Hotel 3 *(100,000 sf)*		
	Hotel (275 Rooms)	100,000 GFA
Public Assembly Facility		125,000 GFA
	Auditorium *(25,000 sf)*	
	Exhibition *(70,000 sf)*	
	Multi-Purpose Space *(25,000 sf)*	
	Support (*5,000 sf)*	
The Landing		60,000 GFA
	Support Tourism Retail Shops	
	Winery & Restaurants & Brewery	
	Excursion / Riverboat Landing	
	Observation Deck / Tower (Pedestrian Only)	
	Amtrak Station	
	Pedestrian Linkages & Access to Adrian's Island	

The Master Plan

Public Assembly Campus Program Statement *(continued)*

Potato House *(24,000 sf)*	24,000 GFA		
Commercial / Retail			
Farmers Market			
Interpretative Center			
Trail Head			
Greenway Trail Connection			
Other	None		
Streetscape			
Public Plaza			
Pedestrian Linkages			
Transportation Linkages			
Access to Adrian's Island			
Total Public Assembly Campus	**605,500 GFA**	**650 Structured Spaces**	**P-2**
		100 Structured Spaces	**P-3**
		300 Structured Spaces	**P-3**
		250 Structured Spaces	**P-4**
		1,300 Spaces Total	

The Master Plan

Office Campus Program Statement

State Government Office	750,000 GFA		
General Office Space (550,000 sf)			
DNR Green Building (120,000 sf)			
Health Lab (80,000 sf)			
Support Commercial / Retail			
Service Area			
Shuttle Access			
Private Business Office	250,000 GFA		
General Office Space			
Support Commercial / Retail			
Service Area			
Shuttle Access			
Other	None		
Streetscape			
Public Plaza			
Pedestrian Linkages			
Transportation Linkages			
Total – Office Campus	**1,000,000 GF**	**850 Structured Spaces**	**P-5**
		600 Structured Spaces	**P-7**
		1,450 Spaces	

The Master Plan

Natural Resource Area Program Statement

Riverfront Park	None		
Active and Passive Recreation			
Picnic Areas			
Public Land Open Space			
Greenway Trail Connection			
Botanical Gardens			
Amphitheater			
Build & Ground Maintenance			
Reserve Land For Future			
Total – Natural Resource Area	**0 GF**	**15 Surface Spaces**	**P-6**

The Master Plan

The Master Plan Overview

The Master Plan for The MSP Redevelopment Project is a further refinement of the Consensus Plan, illustrating a greater level of detail than previously presented. The Master Plan will change over time as development opportunities arise with more detailed programmatic statements, detailed designs and more extensive site investigations. While the graphic illustration of the Master Plan will likely change, the design principles on which it is based should be vigorously defended and preserved.

The following descriptions include:

- Circulation and Parking
- Pedestrian Circulation and Linkages
- MSP Historic Area
- Public Service Campus
- Public Assembly Campus
- Office Campus
- Natural Resources Area

Proposed Master Plan Looking East

The Master Plan

The Master Plan Overview *(continued)*

The Master Plan

The Master Plan

The Master Plan Overview
(continued)

Proposed Master Plan Looking West

The Master Plan

Circulation and Parking

The roadway system depicted in The Master Plan is a combination of new roadways within the MSP site and utilization of the existing street network. The MSP Parkway (yellow) extends in an east-west direction from East State Street at Marshall Street, through the prison site, east to East Capitol Street near Dawson Street. The Chestnut Street Parkway (purple) will connect into the MSP Parkway as will the Office Campus Loop Road (red), which will also connect The MSP Parkway to Riverside Drive.

In order to provide the appropriate level of "curb appeal" to the MSP Redevelopment Project, the parkways and roadways must provide direct and attractive access to the various components of The Master Plan. The parkways and roadways should contain a center planter island, left turn lanes, bicycle lanes, pedestrian sidewalks, street lighting and banners, and be wide enough to accommodate infrastructure such as water, gas, storm and sanitary sewer, underground electrical, etc. The existing streetscape surrounding the project area should be enhanced. Street trees, lighting, sidewalks, signage and other similar elements should be incorporated into the street system surrounding the project area.

Typical Parkway

The Master Plan

Circulation and Parking *(continued)*

The MSP Parkway as well as The Chestnut Street Parkway connector will serve as entrance gateways to the redevelopment project. Signage, plantings and gateway features should be incorporated into the intersections at East State Street, East Capitol Street and Riverside Drive.

The new roadways will converge east of the prison wall at Chestnut Street. Rather than a four way lighted intersection, The Master Plan proposes a round-a-bout at the intersection of the MSP Parkway, the Chestnut Street Parkway and the Office Campus Loop Road. The round-a-bout will efficiently distribute traffic, provide for traffic calming and create an opportunity for aesthetic enhancements such as decorative paving, lighting, signage, art work, water features, monuments, etc.

Typical Roadway

Round-A-Bout

Entrance Feature

The Master Plan

Circulation and Parking *(continued)*

The Master Plan provides for 3,850 parking spaces within the MSP site. The parking is distributed throughout the MSP site as shown below, the numbers in the circle represent parking spaces. Because of the density of the proposed development, the physical topographic site features and a desire to preserve open space, The Master Plan recommends the majority of parking to be structured spaces. The structured spaces should be low profile, blend into the site and inviting to visitors. Surface Parking should avoid large expanses of asphalt and should incorporate site amenities such as signage, plantings, lighting, banners and pedestrian walkways. On the diagram below all parking is structured spaces except for the 250 and 15 space indicators.

Structured Parking

Surface Parking

The Master Plan

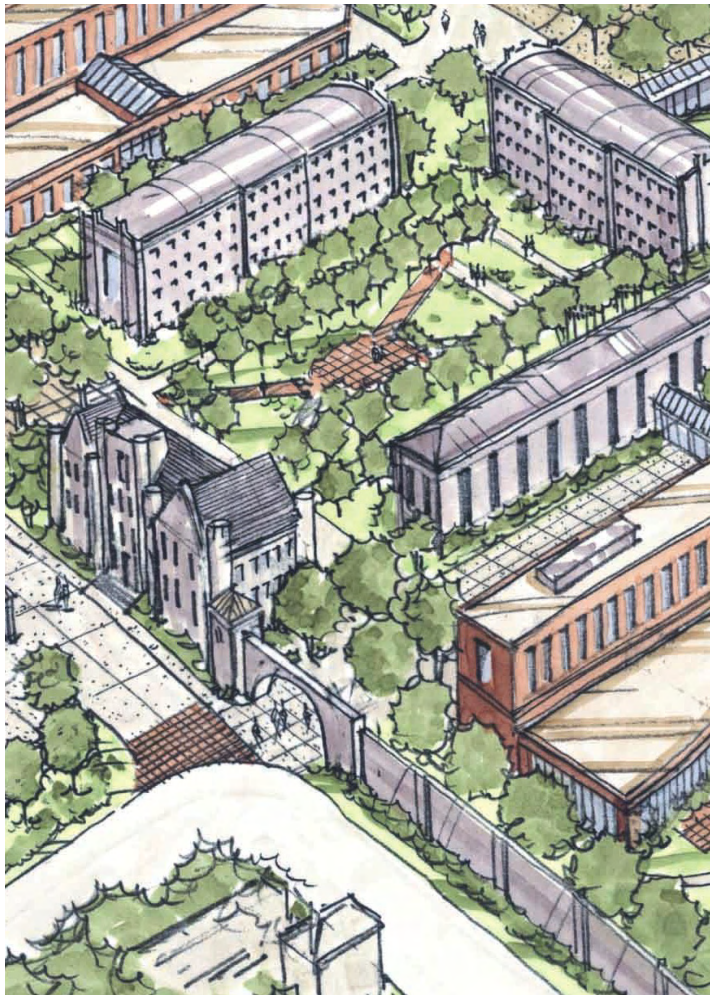
Pedestrian Circulation and Linkages

The Master Plan provides pedestrian access between the various districts within the MSP project area as well as to land uses surrounding the MSP site. The campus planning principle which has guided the development of The Master Plan places great emphasis on consolidated perimeter parking, direct service/emergency access and extensive pedestrian connections. Vehicular movements and vehicular/pedestrian conflicts should be minimized with "shuttle bus" connections to the Capitol Complex, downtown, and other business/entertainment/education venues.

Connections to the neighborhood will be reinforced with "wagon gate" openings in the existing wall that remains, located at Cherry Street and at the intersection of East State Street and Lafayette Street. In addition there will be open pedestrian access where the wall will be removed at the extension of Lafayette Street to the MSP Parkway and along the western side of the Chestnut Street Parkway.

Internally, pedestrians will have safe access throughout the site with designated pedestrian crossings and internal walkways and corridors, free of vehicular conflicts. The Natural Resource Area will contain an extensive "nature trail" system that will serve the working population, the neighborhood and the entire community. The Natural Resource Area trail system will provide the opportunity to connect Ellis Porter Riverside Park ,through the MSP site to the Capitol Complex via a combination of trails and urban sidewalks.

Bicycle connections and access through the existing and proposed streets system will be critical in maximizing the potential of reducing vehicular movements, saving energy and creating an environment commensurate with the "smart growth" principles that have guided the master plan development.



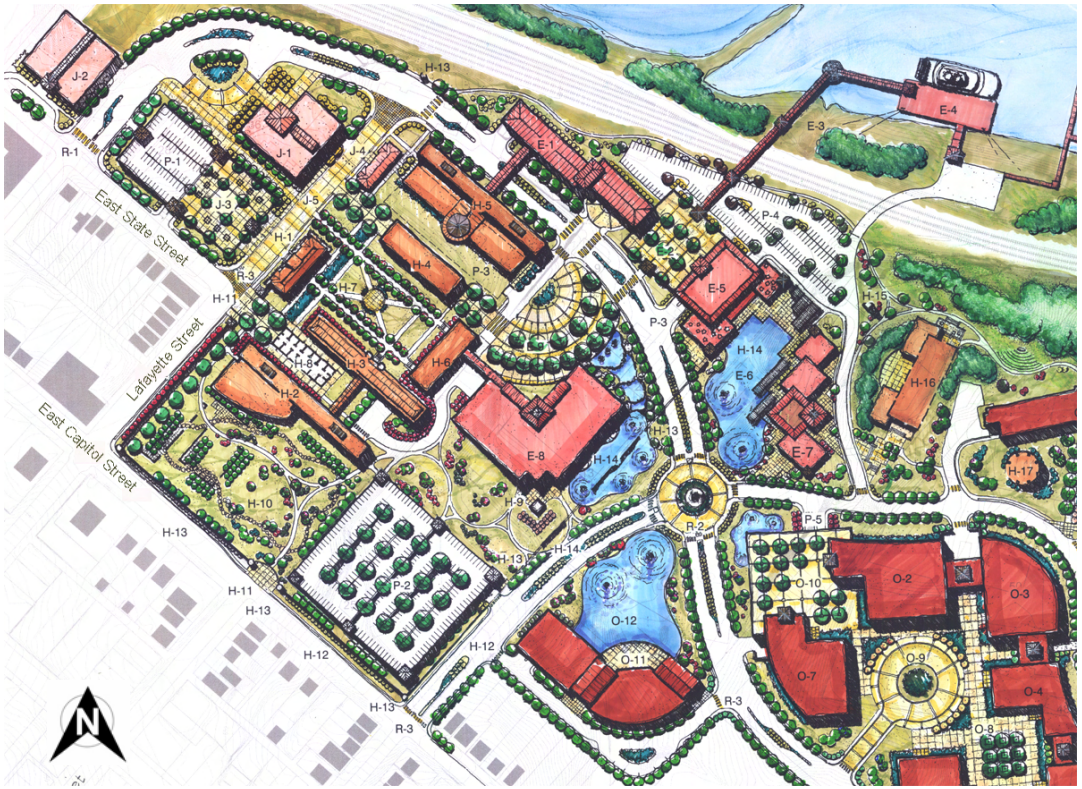
Wagon Gate at Lafayette Street

The Master Plan

MSP Historic Area

The MSP Historic Area is generally located on the upper yard, inside the existing prision wall. The Master plan calls for extension of Lafayette Street (after the existing Administration Building is razed) to the MSP Parkway. This area contains the core group of historic buildings that have been incorporated into the master plan for adaptive reuse, preservation or restoration. The MSP Historic Area is intended to represent a time spectrum of prision environments, creation of theme opportunities for interpretation and the reconstruction of buildings lost or "covered up" by newer construction over time. Housing Unit #5 (H-5) is discussed in the Public Assembly Campus chapter.

The MSP Historic Area is focused around several outdoor pedestrian spaces; a pedestrian quadrangle (H-7) formed by Housing Units 4, 3 and 1; and an interpretative garden (H-10) between Housing Unit 2 and the Wall. These community park spaces will serve the working population within this district and provide access and green space to the adjoining neighborhood. Visitors to the points of interest such as the Prison Museum (H-4) located in Housing Unit 4 will use these outdoor spaces for resting, enjoying the views, contemplative space and enjoying the spatial quality formed by the historic buildings.



The Master Plan

MSP Historic Area *(continued)*

Several remote site features have been included in the MSP Historic Area, even though not immediately adjacent to the core redevelopment area, they are closely aligned to the history of the prison operations. The Gas Chamber (H-9), Slaughter House Smokestack (H-15), Potato House (H-16), Water Tower (H-17) and Historic Stone Retaining Wall (H-18) are important historical features of the site that will provide important interpretative opportunities as visitors explore the site.

The Gas Chamber (H-9) is located on the lower yard at its original site, remote from the former housing units. The Master Plan retained this location to convey the separation and isolation inmates must have felt toward the chamber. This location will also promote visitors to move out into the site and explore other features such as the Potato House. Each of the remote features will encourage visitors to explore the site and discover the uniqueness of the project area.

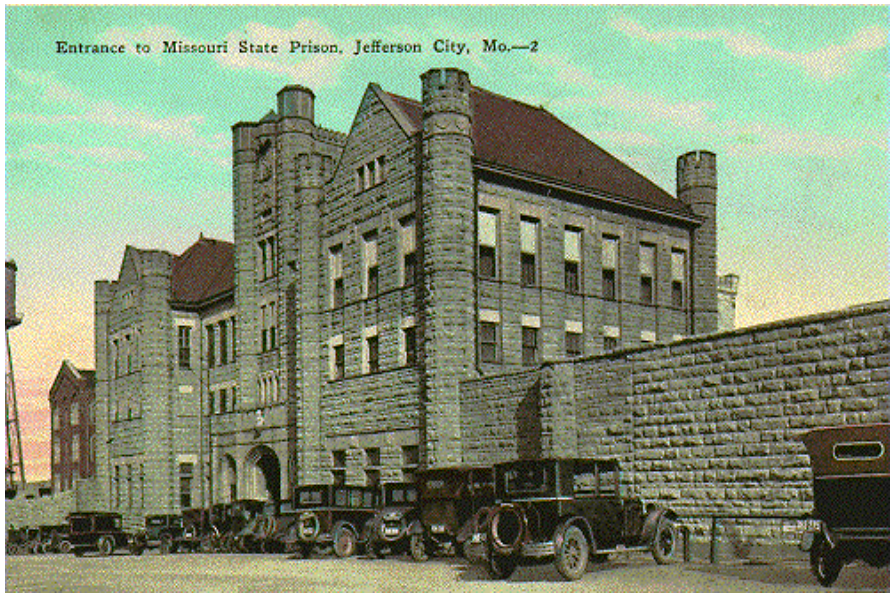
Parking for the MSP Historic Area will be primarily from the proposed parking structure P-2 located “behind the wall” at the intersection of East Capitol and the Chestnut Street Parkway.

The Master Plan

MSP Historic Area *(continued)*

The MSP Office Building (H-1) contains 26,300 GFA and is also known as Housing Unit #1. A portion of this building is encased by the existing Administrative Building. After the existing Administration Building is removed and Layafette Street is extended to the MSP Parkway, the MSP Office Building will regain its' status as one of the site's main architectural features, serving as the architectural gateway to the redevelopment. Anticipated uses for the MSP Office Building include:

- Historic Site, Museum/Interpretative
- MSP Commission Offices
- Redevelopment Office
- Support Retail / Commercial
- Tourist Information Center
- Film Site or Studio
- Educational

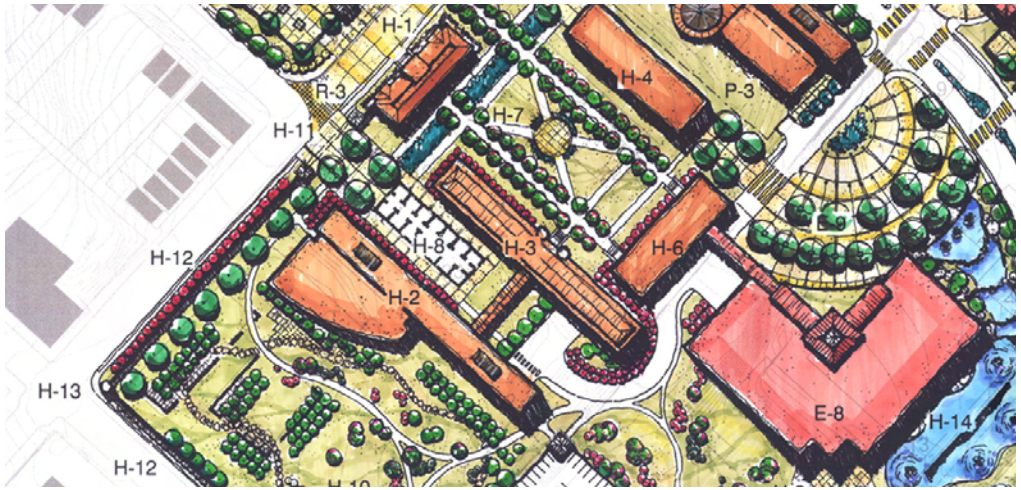


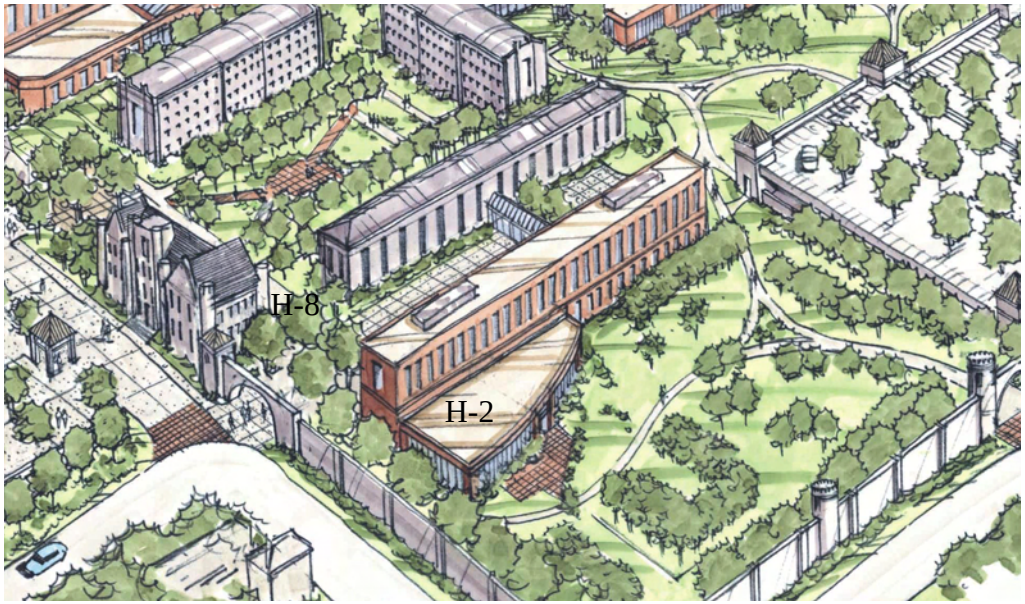
The Master Plan

MSP Historic Area *(continued)*

Office Building (H-2) is known as Housing Unit #2 and contains 72,000 GFA. The master Plan calls for the existing building to receive a 48,000GFA **Office Building** addition. Currently the office space is slated for the State of Missouri, Department of Corrections for administrative functions. The addition would be a low rise structure that would contrast and complement the existing "bookend" Housing Unit #2. Other features associated with the renovation of this project include a second story pedestrian link to Housing Unit #3 (H-3) and development of the MSP Interpretative Garden (H-10) immediately adjacent to Housing Unit #2. The Interpretative Garden could be the beginning point of interpretative walks throughout the site, could explain past prision events (i.e. 1954 prison riots) and provide a transition green space between the redevelopment project and the ajoining neighborhood.

The Centennial Cells (H-8) are located beneath and covered by an asphalt hardstand between Housing Unit #2 and Housing Unit #3. After the surprise discovery of these cells in the early 1980s, they were "resealed" for preservation and future excavation. The interpretative potiential for excavation and display of these historic cells is in the demonstration of both the incarceration story as well as the archeological dig process and findings.

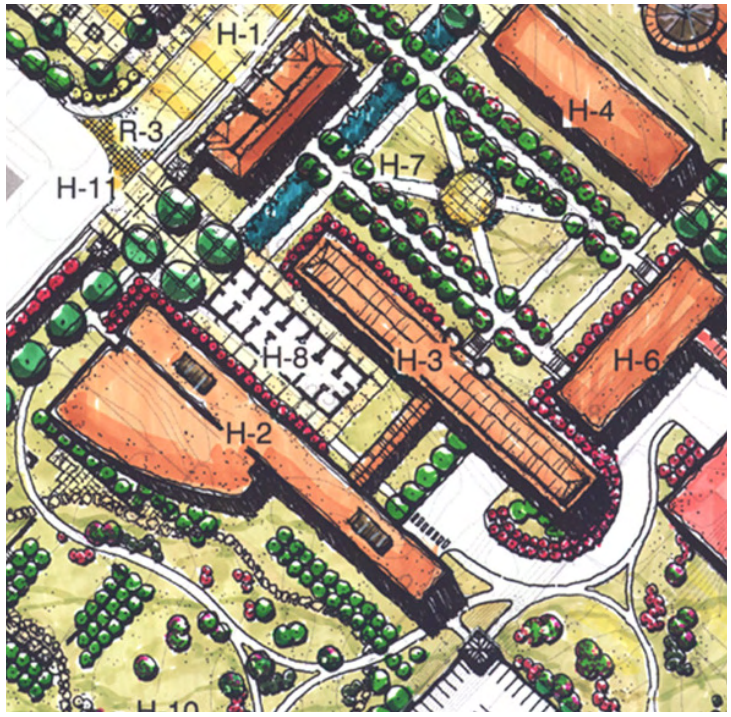




The Master Plan

MSP Historic Area *(continued)*

The Office Building (H-3), Housing Unit #3 contains 75,600 GFA and will contain 3 primary functions. First, the esisting structure will house 15,600GFA of State office space. Approximatly 30,000 GFA will be allocated to records storage, while the remaining 30,000 GFA will be preserved as cell blocks for intrepretative purposes. The office space will connect to Office Building (H-2) via the second story sky walk and will support the interpretative museums' administrative needs. The history of the building is rich in content, the 1954 riots started and ended in this housing unit and the interior stairwell and gun walk are historic features and should be preserved. The existing structure offers good delivery access and compatable use for record storage.

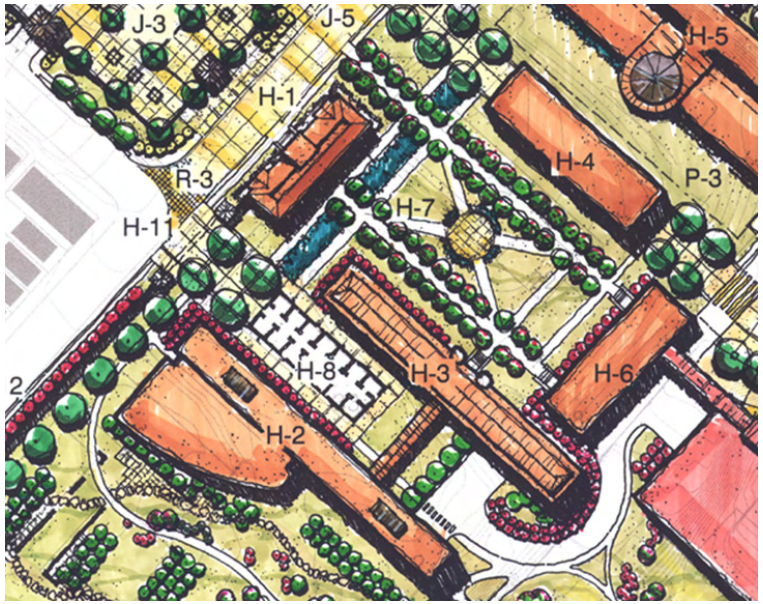


The Master Plan

MSP Historic Area *(continued)*

The MSP Museum (H-4) is the oldest building (1868) within the MSP site. Also known as Housing Unit # 4, the 43,000 GFA historic structure has been a continued favorite of committees, taskforce members and citizens who have participated in the redevelopment planning process. The preservation/ reuse of Housing Unit #4 will consist of a prison museum theme. The multiple level interior cellblock floors may offer the opportunity to interpret a "prison life" era on each floor level, starting with 1868 on the first floor up to decommissioning on the top floor level.

The outdoor space between H-3 and H-4 forms two sides of a pedestrian quadrangle that will conveying the spatial quality created by the buildings at the prison site, and experienced by so many inmates. A place where a prisoner could go to reflect or scheme, depending on his plan to do good or evil on society. A place where post prison visitors will feel the scale of the "yard"; imagine what it must have been like in the heat of summer or cold of winter and at the same time wonder how the architecture detailing was accomplished. The quadrangle will be formed through the reconstruction of the proposed Conference Center (H-6).



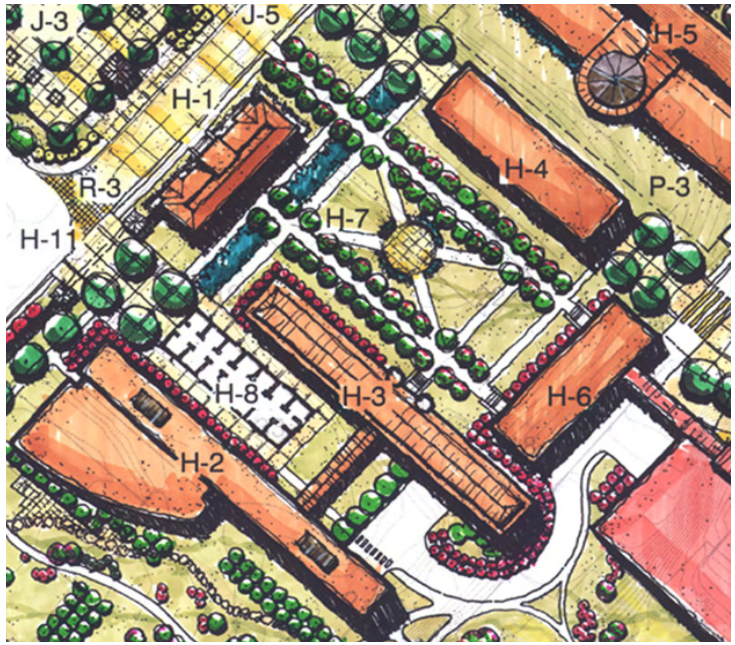
The Master Plan

MSP Historic Area *(continued)*

The Conference Center (H-6) will be located on the historic foundation of the former Dining Hall. Currently the historic foundation and basement are capped with a "contempory" structure that is known as the Education Building. The existing structure is not compatable with the historic architecture surrounding the quadrangle and will be replaced (keeping the historic foundation and basement) with a new structure that will replecate the character of the original Dining Hall. The proposed 4 story structure (including basement) will total 44,400 GFA and serve as the MSP Historic Area's Conference Center. The basement of the conference center(11,100 GFA) will house the power plant for the MSP Historic Area. The first floor will contain the kitchen and food service facilities that will serve the day workers, tourists, conference attendees and the general public. The top two floors (22,200 GFA) will serve as the conference space. As a stand alone conference center the facility will service not only the MSP Historic Area but the surrounding master plan districts as well.

The Wall (H-12) contains contains a variety of construction dates, materials and existing conditions. The master plan incorporates a majority of the existing stone wall with minor modifications. From the renovated MSP Office Building (H-1) the wall will be extended and reattached to the existing wall when the existing administration building is removed. A "wagon gate" (H-11) will be added to allow direct public access to the MSP Historic Area and the guard towers will be reconstructed to their original "castle" motief. The wall will be rebuilt along East Capitol Street and visible piping, conduit or other non-approperiate appurtenances will be removed from the face of the wall. The wall will remain in place along East Capitol Street, an additional wall penetration (H-11) will be

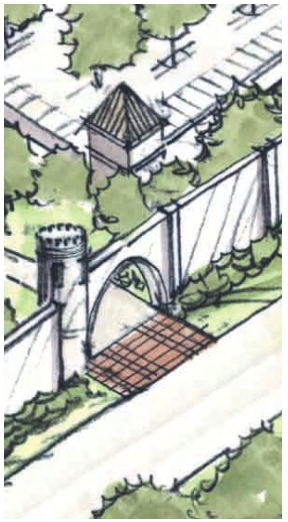
Original Stone Dining Hall

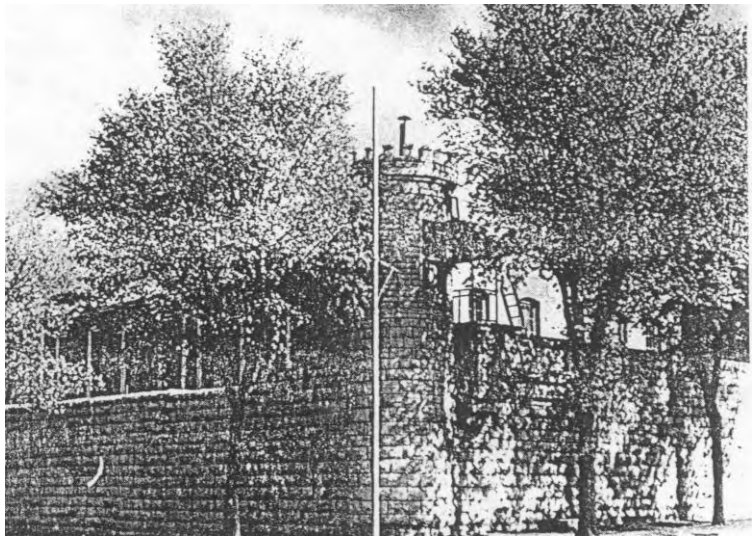


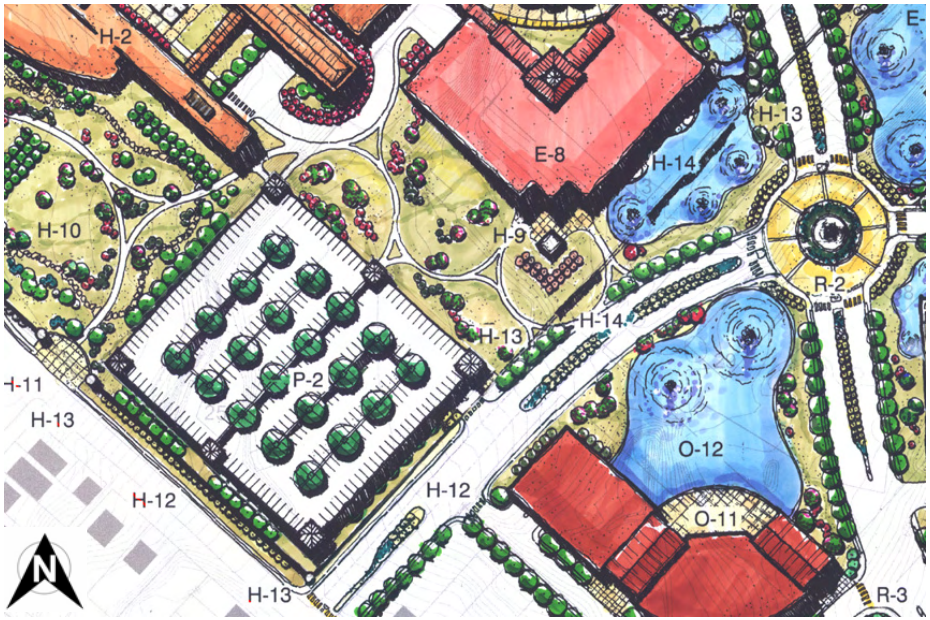
The Master Plan

MSP Historic Area *(continued)*

added near Cherry Street, allowing direct access to the MSP Historic Area. The wall will continue along East Capitol Street to the Chestnut Street Parkway, there turning northward, visually screening the parking structure (P-2) on the other side of the wall. The wall will contain pedestrian and vehicular openings for access to the parking structure. At the northeast corner of the proposed parking structure (P-2), the stone wall will begin to quickly diminish in height down to a field stone reminant wall (H-14) with pedestrian access openings. The wall will continue in this fashion in







The Master Plan

MSP Historic Area *(continued)*

front of the Gas Chamber, continuing northward into a water feature pond, the wall height at one foot height above the water elevation.

At the northern edge of the pond the wall becomes a symbolic stone line in the lawn and paved areas.

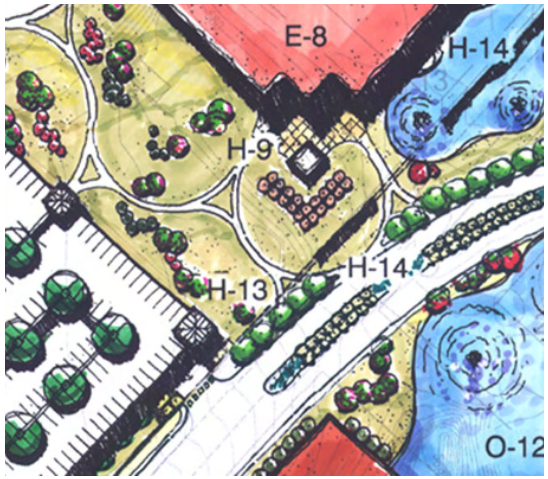
The reminants of the stone wall terminate on the north side of the MSP Parkway in an architectural rendention of a guard tower. Several other guard towers along the riverside of the project area should be considered for rention, for visitor access, theme development and for display of the evolution of architectural tower styles.

The Gas Chamber (H-9) is located on the lower yard in its original location, providing an excellent stopping point on the historic walking tour of the site. As the site is opened to the public and visable from the Chestnut Street Parkway, the gas chamber is destined to become a local landmark.

Summary

The MSP Historic Area will contain something for everyone. From office space to adaptive reuse of historic buildings; from visitors touring a one-of-a-kind museum to green space for the neighborhood. The district will be a dynamic mix of commerce, tourist attraction, education and cultural understanding that will ensure the long term success of the MSP Redevelopment Project.

The total MSP Historic Area will contain 310,048 GFA and will be served primarily by parking structure P-2 offering approximately 600 spaces.



The Master Plan

Public Service Campus

The Public Service Campus is located along East State Street from Jackson Street on the west to Lafayette Street on the east to the railroad tracks on the north. The extension of Lafayette Street to the MSP Parkway will define the distinct difference between this district and the adjoining architectural chacter and density of the MSP Historic Area. In addition, Lafayette Street will be pedestrian friendly with good access between The Public Service Campus and the MSP Historic Area. The Public Service Campus will serve as the front door to the MSP Redevelopment Project, making this district very important in establishing a worker/visitor environment that will convey quality, culture and capitalize on the proximity to ajoining features such as the Capitol Complex, downtown and the views to the Missouri River.

The **Justice/Office Center (J-1)** contains approximatly 150,000 GFA within a four to five story building. The Justice/Office Center includes potiential for holding space, offices and court rooms. This location will accommodate below structure parking, sally port, passenger drop-off and excellent

The Master Plan

Public Service Campus *(continued)*

vehicular access. The site location is in close proximity to the Capitol Complex with a commanding view of the Missouri River and supported by several other features contained in the Public Service Campus. A "time line walk" between the Justice/Office Center (J-1) and the MSP Museum (H-4) is approximatly 200 feet and spans a time frame of 135 years. With this portion of the existing wall removed there will be open access and sightline connection between the Justice/Office Center and the MSP Museum.

The **Justice/Office Center Annex (J-4)** will provide 25,000 GFA support for the Justice/Office Center including administrative offices and records storage. This location also offers an excellent opportunity for related community activities such as a branch library, community meeting space or specialized musuem with focus on the interrelationship between the judicial system and MSP as a prison.

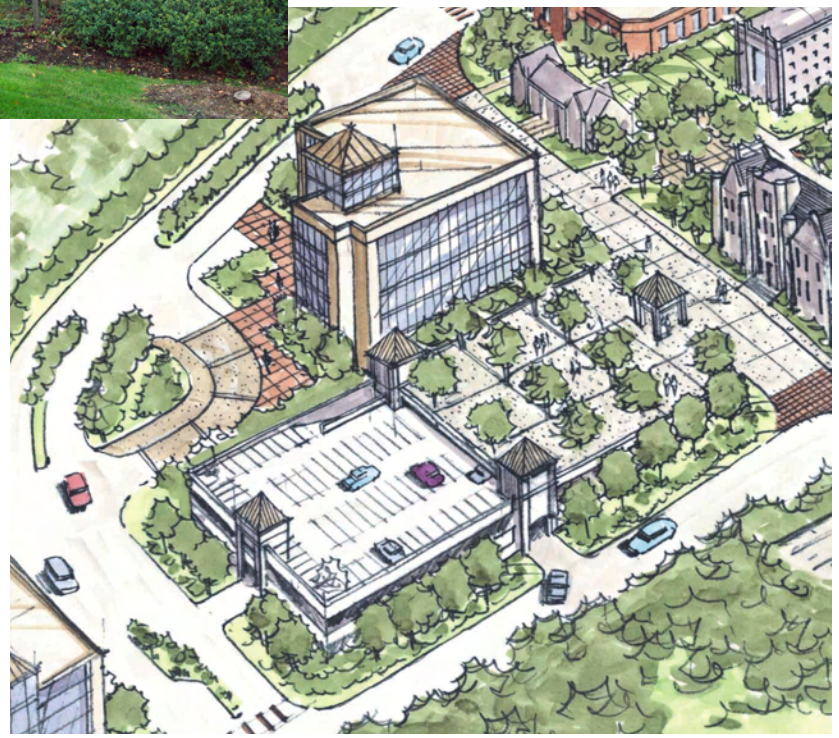
The Public Service Office Building (J-2) will contain approximately 50,000 GFA. The proposed facility is located at the intersection of East State Street and the entrance to the MSP Parkway, clearly making this a highly visible site

The Master Plan

Public Service Campus *(continued)*

with good vehicular access and pedestrian access to the surrounding neighborhood and other MSP features. Potential uses for the Public Service Office Building include private office space, best suited to support legal/judicial activities of the district. A support retail/commercial function within this facility would serve off-hour needs of the district while providing little competition to other retail/commercial business. The street front nature of this facility can also serve niche markets such as gallery space for art collections and sales; education/ science center novelty; natural resource display, sales or tours.

The Pedestrian Plaza is located at the intersection of East Capitol and Lafayette Street adjacent to and above the structured parking (P-1) that serves parking needs for this district. The Pedestrian Plaza will provide a multitude of activities for the Public Service Campus as well as the total redevelopment project. The plaza will first set the standard to provide quality outdoor space for the day-to-day work force, visitors, tourist and to the ongoing revitalization of the surrounding neighborhood. The plaza will accommodate public gatherings such as commemoration, sun lunching and neighborhood/cultural/ patriotic celebrations. The plaza can also serve as a tourist staging area where buses could drop visitors, instructions delivered, tours disperse to points of interest and likewise to gather visitors at the end of the day.



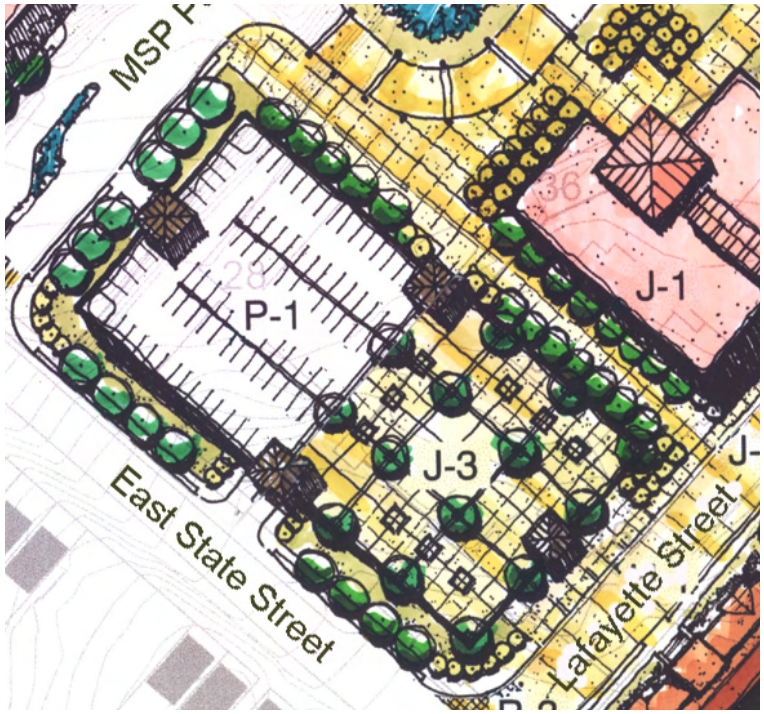
The Master Plan

Public Service Campus *(continued)*

The Structured Parking (P-1) is intended to be low profile to facilitate the transition between the Public Service Campus and the surrounding land uses. It is expected that the plaza, streetscape treatment and plantings will also help to blend the structured parking into the neighborhood. The structure of the parking area will provide the cap for the pedestrian plaza increasing the efficiency of the available land in proximity to the other planned features.

Summary

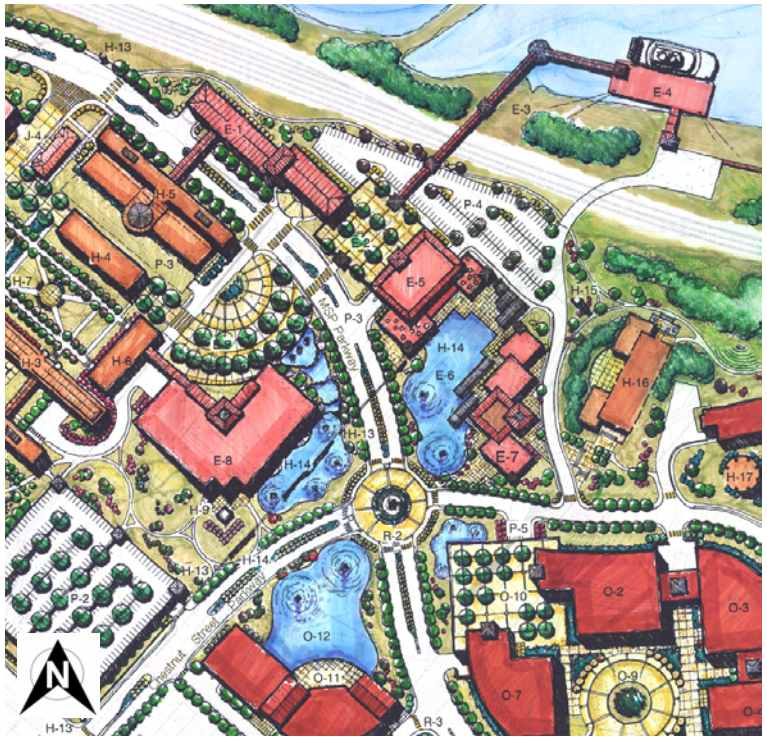
The **Public Service Campus** will provide 225,000 GFA and 485 structured parking spaces in a full-service business and judical setting with outstanding site attributes and in close proximity to where the decisions are made.



The Master Plan

Public Assembly Campus

The Public Assembly Campus is centrally located within the built environment of the MSP Redevelopment Project, transitioning between inside and outside "the wall" character of the site. Opportunities will exist to incorporate historic structures such as Housing Unit #5 (H-5) together with contemporary design solutions, contrasting and complementing one another. The district will provide the lodging, entertainment and assembly opportunities for the project area, community and region.



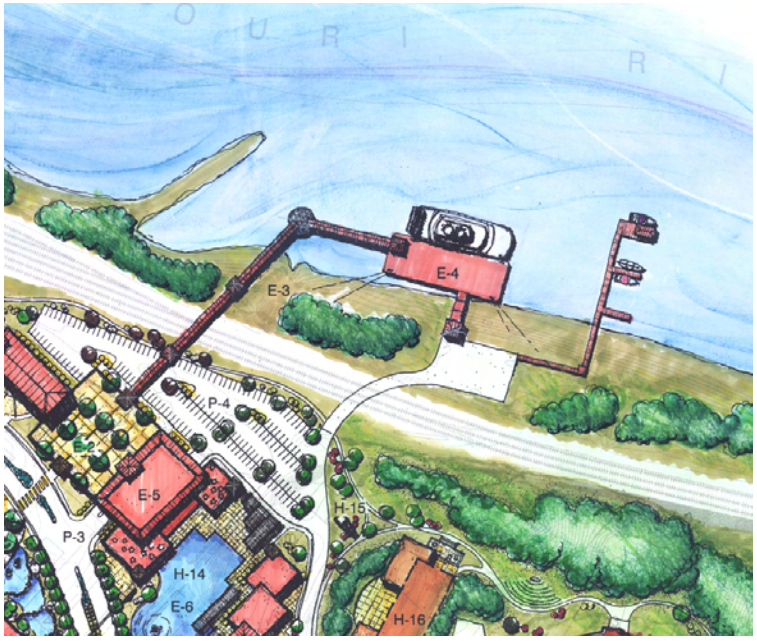
Significant site features will be incorporated into the design solutions within the district. The elevation transition from the upper yard to the lower yard will provide opportunities for architectural features to link the elevation differences via multi-story structures. Incorporating remnants of the original (pre-1885) prison wall separating the upper and lower yards, will provide potential design lines, linkages and interpretative opportunities as the design of various features are accomplished. The existing wall along Chestnut will fall in height from East Capitol to a remnant (H-14) wall through a water feature then crossing the MSP Parkway as a symbolic line in the pavement. This district will provide visual and pedestrian access to the Missouri River by way of the pedestrian plaza (E-2) and the elevated link to the rivers' edge (E-3).

The Public Assembly Campus will be oriented to serving regional guests that come to visit and work in the central location that Jefferson City offers. This same uniqueness will provide "close in" lodging, conferencing, gathering and entertainment venues to the workforce and citizens of Cole County, all within a campus setting, steeped in historic values and one of a kind features.

The Master Plan

Public Assembly Campus (continued)

Hotel 1 (H-5) is located in Housing Unit #5 and contains 102,500 GFA. It is estimated that approximately 250 hotel rooms could be accommodated within the existing structure. On the south side of Hotel 1, the master plan includes a proposed expansion of the existing structure to include meeting rooms, guest services and recreation services associated with the proposed hotel. The addition would be a low rise, low profile structure suitably compatible with the historic character of Housing Unit #5. The 50,000 GFA addition would also contain 100 structured parking spaces located below the addition.



Hotel 2 (E-1) is located immediately north of Hotel 1, across the MSP Parkway. Hotel 2 contains 144,000 GFA and is connected to Hotel 1 by a second story pedestrian skywalk. Hotel 2 was programmed to provide 275 hotel rooms in a multiple-story structure. The character of Hotel 2 may eventually contain some architectural elements/structure of the existing Shoe Factory that occupies the Hotel 2 site today. Hotel 2 will contain direct access off of the MSP Parkway and will provide a guest drop-off and motor court at the front door. The site of the hotel will provide great views to the river and back to the Capitol Complex to the west.

The third hotel site in the Public Assembly Campus is located immediately east of Hotel 2. **Hotel 3 (E-5)**, will be a medium rise, 100,000 GFA hotel with 275 rooms. The hotel will share structured parking located below each hotel.

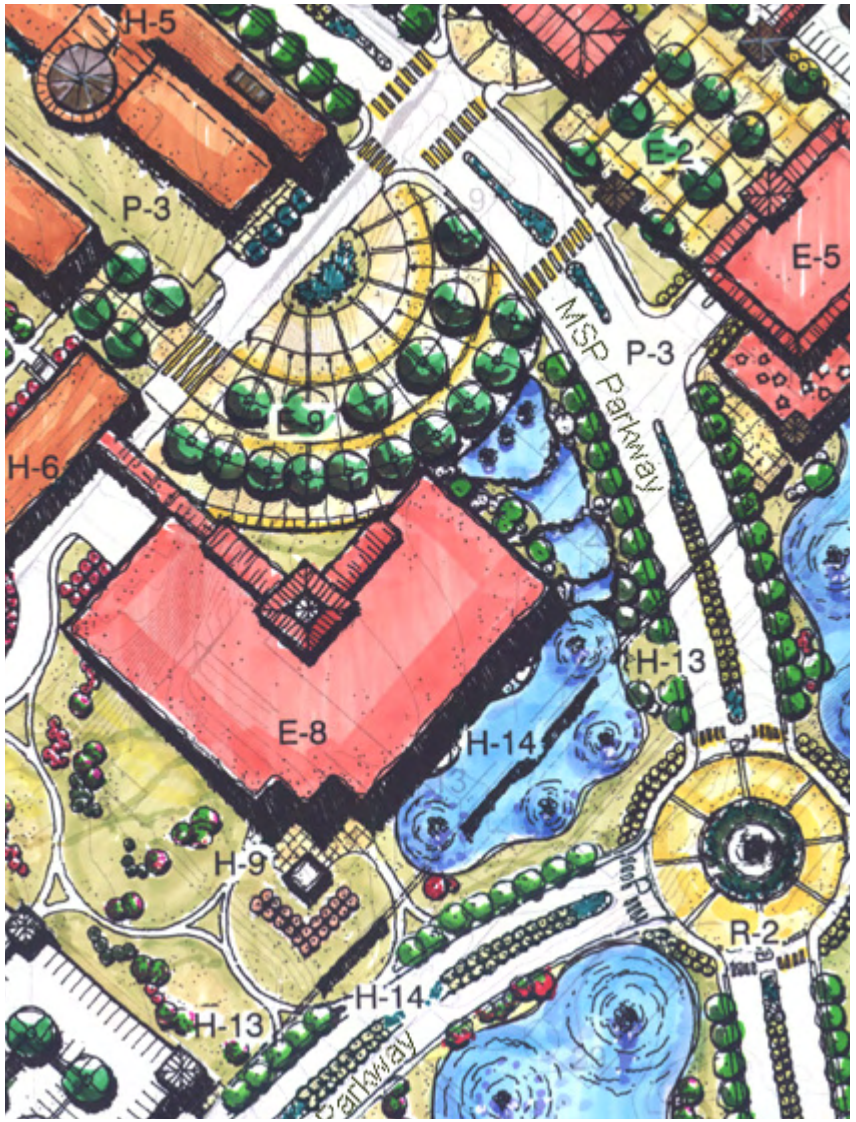
Hotel 3 and Hotel 2 also share a common **Pedestrian Plaza (E-2)** that offers outdoor space for gatherings, social events and provides pedestrian access to the riverfront and the **Excursion Boat Landing (E-4)**. The Excursion Boat Landing, is envisioned as a mooring barge with pedestrian access via

The Master Plan

Public Assembly Campus (continued)

elevated walkway (E-3), ramped gangplank and floating dock for excursion boats to board and unload passengers in a safe and convenient location. There is also a small transient marina located at the landing for boaters to land in the proximity of the redevelopment project. The Excursion Boat Landing site will also be served by ground access with an at-grade crossing of the railroad tracks from the redevelopment. The at-grade crossing will not be a public crossing.

Public Assembly Facility (E-8) is the feature attraction of the Public Assembly Campus, which could emerge as the commerce and cultural center of Mid-Missouri. The convention center setting contains 125,000 GFA on two floors, connecting the upper and lower yards. The facility will contain a 25,000 GFA Auditorium for performing arts. There will be two 35,000 GFA Exhibition Centers, providing a

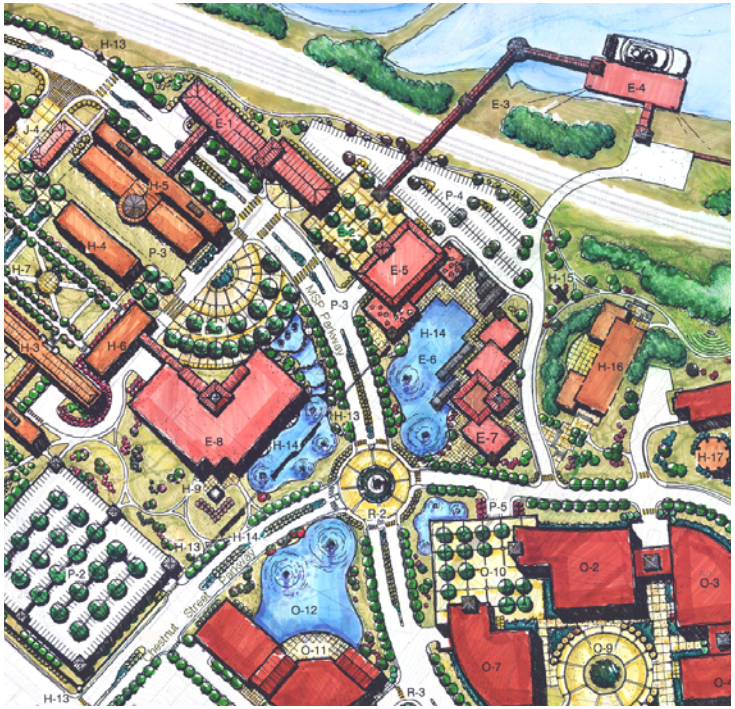


The Master Plan

Public Assembly Campus *(continued)*

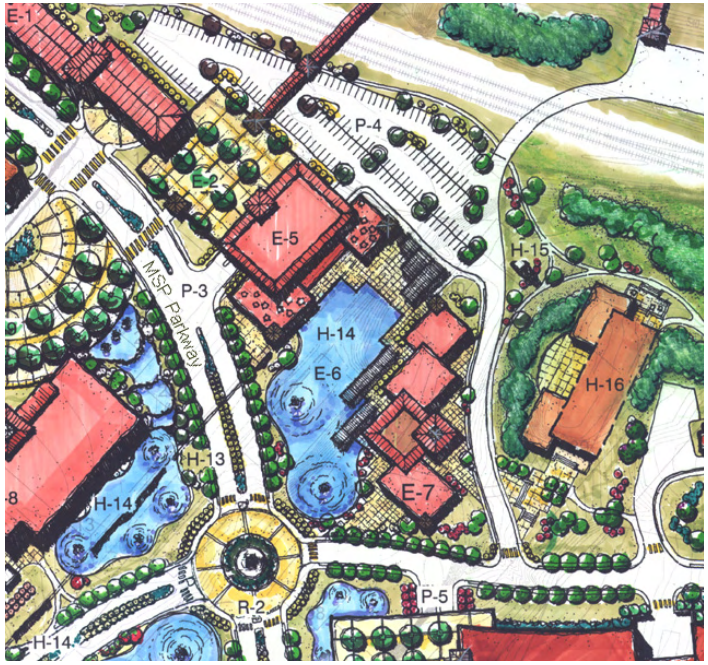
maximum of 70,000 GFA for a single convention event. The Public Assembly Facility will also contain 25,000 GFA allocated to Multi-Purpose Space for community events or convention activities. Support services within the facility account of 5,000 GFA.

The Public Assembly Facility is located literally and figuratively in the center of the project's redevelopment opportunities. The facility has direct access off the MSP Parkway to a large motor court/pedestrian drop/urban plaza that defines the front door to the facility. The entry plaza on the upper level will collect the walking visitors from the hotel complex and provides an outdoor staging area for queuing facility access. The pedestrian plaza will contain seating areas, artwork display areas, civic displays and water features. The change in elevation may provide an opportunity to develop a cascading waterfall along the north and east side of the facility. The water feature would calm at the lower



The Master Plan

Public Assembly Campus *(continued)*



pool providing visual relief between the round-a-bout and the facility. As the central feature of this district, the Public Assembly Facility will set the standard for civic development on this highly visible site.

The Landing (E-7) is located on the north side of the MSP Parkway immediately east of the Hotel 3 (E-5) complex. The area will contain 60,000 GFA in a series of small buildings clustered around the Water Feature and Pedestrian Plaza (E-6). The area will be served by the P-4 surface parking area and will be interconnected with the walkway system that extends to the other districts within the project. Potiential uses within The Landing include support Retail Shops for tourist, Winery, Restaurants and Brewery. The landing will serve the working population within the redevelopment project, will serve as a gathering/resting space for visitors and will serve the public as a potential evening entertainment district.

Immediately adjacent to The Landing are two site features that support the district's activities. The **Potato House (H-16)** and the **Slaughter House Smoke Stake (H-15)**. The Potato House is a unique, earth-covered structure containing 24,000 GFA. As a former farm food product storage facility, the Potato House will attract visitors and should be considered as a farmers market, greenhouse, café/food/drink service and trail head. The Smoke Stack site will become a resting spot along the trail system, offering the potential as an

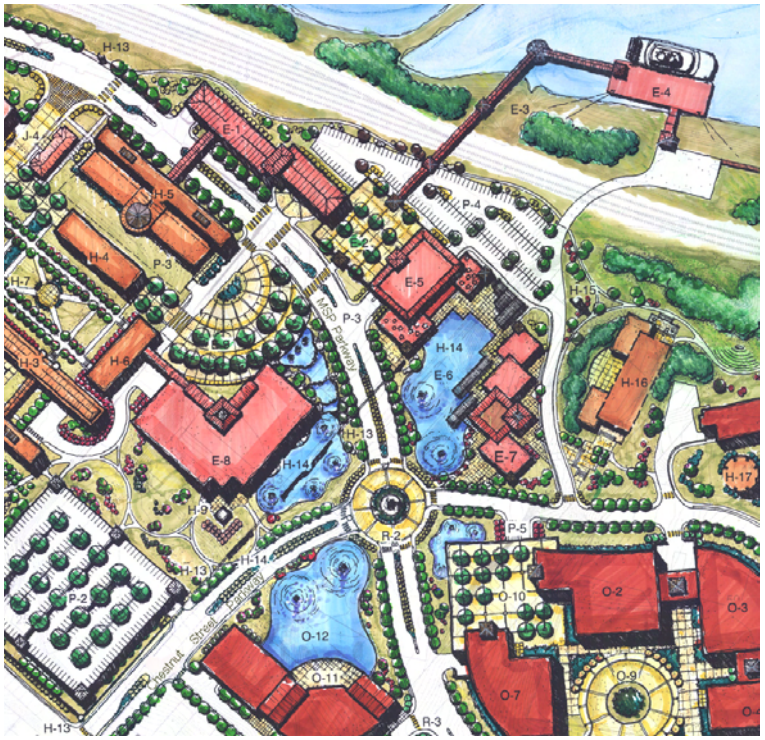
The Master Plan

Public Assembly Campus *(continued)*

interpretative site and will become a visual icon for the district.

Summary

The **Public Assembly Campus** will provide 605,500 GFA catering to the commerce, cultural and entertainment needs of the region. The district will provide numerous opportunities for rest, comfort and entertainment to the working population as well as the visitors to the project. There will be 1,300 parking spaces to support the multitude of events and activities that will be possible in the district.

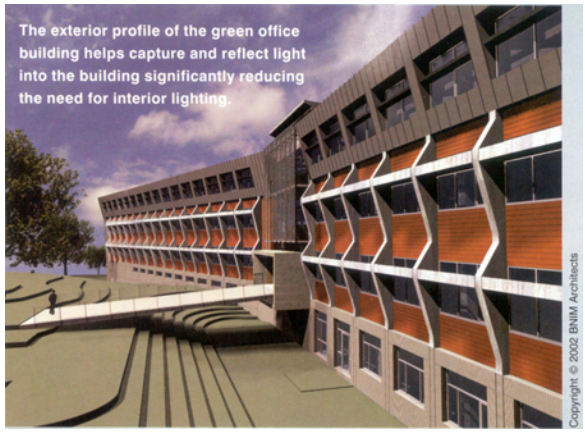


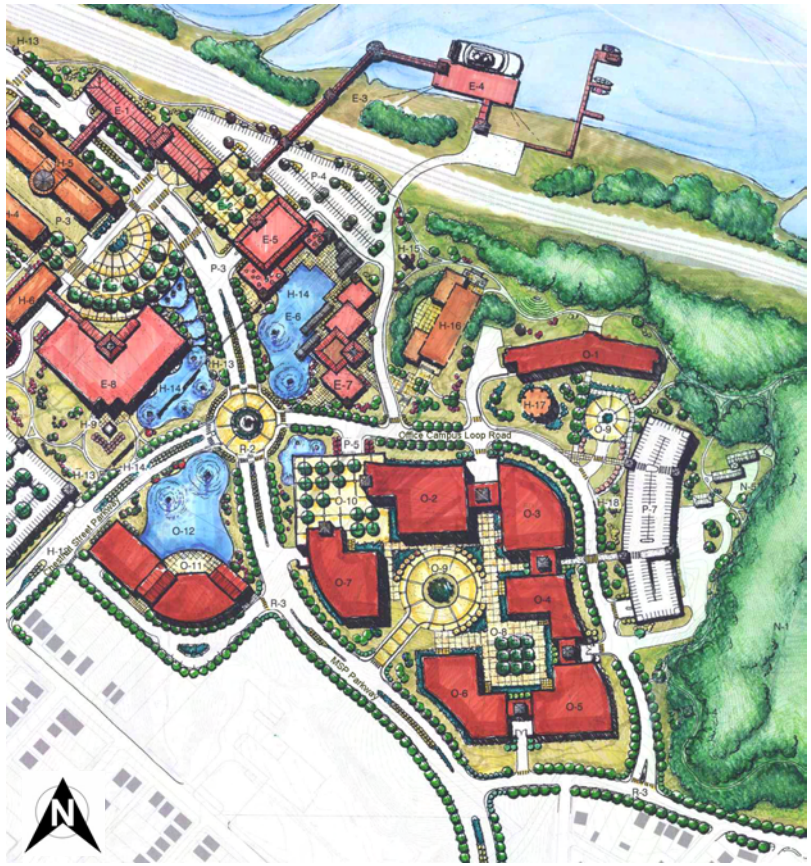
The Master Plan

Office Campus

The Office Campus is located east of The Chestnut Street Parkway to the eastern slope of Minor's Hill, site of the DNR Green Building. The Office Campus is easily accessible from the proposed Chestnut Street Parkway, The MSP Parkway and The Office Campus Loop Road. The district is served by parking areas P-6 and P-7 providing 1,450 structured spaces. The Office Campus is expected to be a combination of State Government Office space and Private sector office space.

The State of Missouri, following Governor Holden's executive order promoting "smart growth", has already began the redevelopment process within the Office Campus. **Office Building (O-1)** is the DNR Green Building that is approximately 120,000 GFA and is located atop Minor's Hill, overlooking the Missouri River. The Green Building has set a high standard for distinctive architecture, that standard will be expected with other office building developments. The second **State Office Building (O-11)** to be relocated to the MSP Redevelopment Project is the State Health Lab. This facility will be located East of The Chestnut Street Parkway, one block north of East Capitol Street. The State Health Lab is approximately 80,000 GFA and is at the upper





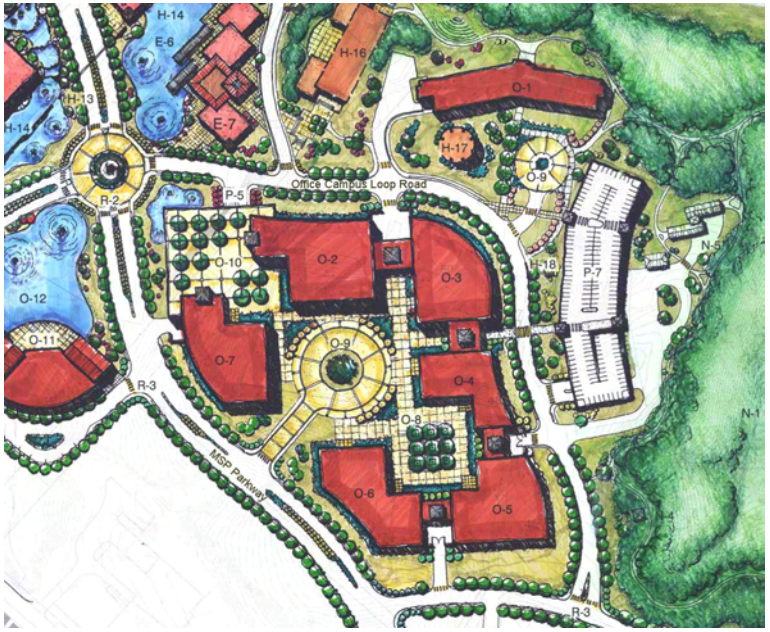
The Master Plan

Office Campus *(continued)*

end of the water feature ponds that flow through the project area.

The remaining 550,000 GFA of state **Office Building** and 250,000 GFA of private **Office Building (O-2 thru O-7)**, is programmed to be located in the center of the Office Campus within the Office Campus Loop Road and the MSP Parkway. While the building footprints appear to be finalized, the master plan represents the space requirements and not the building configurations. In the Master Plan Scenario, the office buildings have been divided into five separate buildings with multiple building heights. The primary concepts contained in the master plan that should be followed are:

- Multiple smaller buildings rather than one large building the size of the Truman Building
- Consider high density development with open space conserved and pedestrian plazas established throughout the building clusters
- Provide a central Motor Court (O-9) to accommodate mass transit and reduce driving and parking needs
- The building complex should have pedestrian links to all adjacent areas



The Master Plan

Office Campus *(continued)*

- There should be a consistent theme of architectural design and consistent use of building materials throughout the office complex
- Site amenities such as streetscape improvements, signage, entry features, water features, ponds, seasonal plantings must be a part of each building program, coordinated with other improvements
- Low profile structured parking should be utilized in lieu of surface parking to conserve open space and sprawl

If the Redevelopment Project is to succeed there must be high architectural and site development standards established to create the kind of aesthetic environment demanded by employers to attract the best employees, customers and visitors.

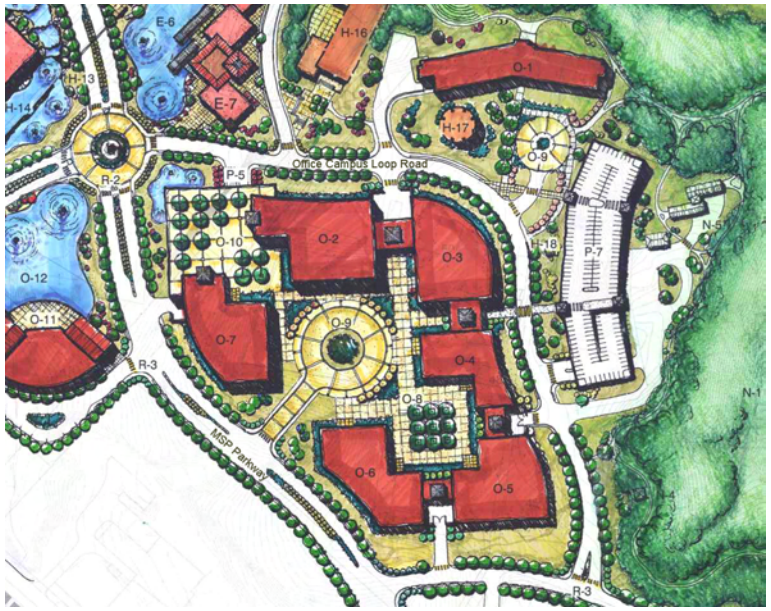
The Master Plan

Office Campus *(continued)*

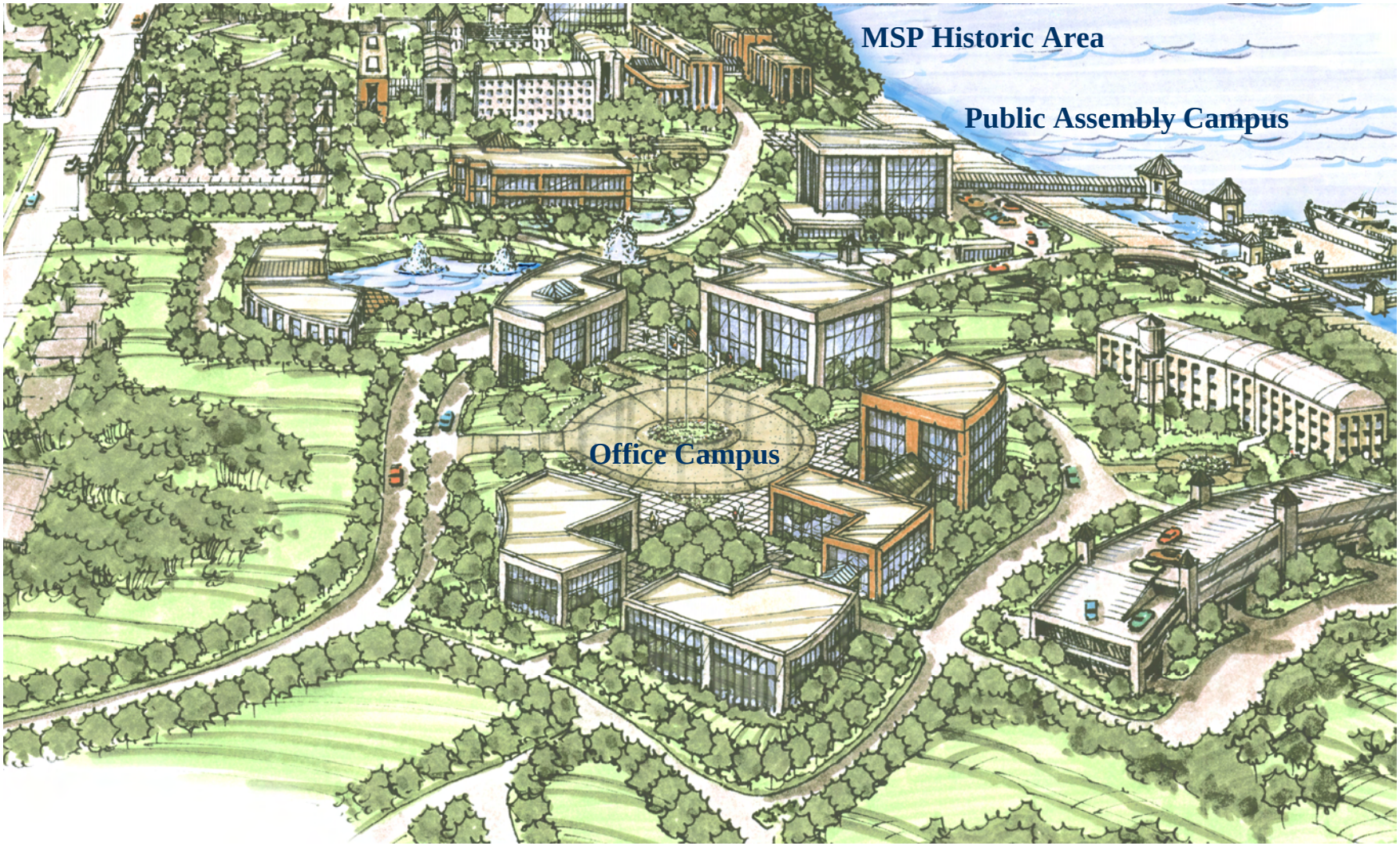
Summary

The Office Campus plan provides 1,000,000 GFA in a setting that is easily accessible, within walking distance of food, lodging, conference, cultural and entertainment venues. With continued leadership and support from State Government and the Commission's commitment to provide quality facility development, the MSP Redevelopment Project offers a potential work environment second to none.

The Office Campus is served by parking area P-5 containing 850 spaces and P-7 containing 600 structured parking spaces.



The Master Plan



Proposed Master Plan Looking West

The Master Plan

Natural Resource Area

From the beginning of the planning process that began in 1999, the majority of participants generally concured that the eastern half of the MSP Property should be preserved in its current condition and used as a natural area. The master plan reflects that general principle as important to the long term success of the redevelopment project. Preservation of this open space will support "smart growth" through:

- The provision of green space in close proximity to a large working population
- The preservation of urban wildlife habitat
- Creating denser development on appropriate sites and avoiding sprawl onto sites with unique natural resources
- The preservation of views and vistas
- Retaining unique landscapes for all to enjoy

The **Natural Resources Area** is located immediately east of the Office Campus and consists of approximately 50 acres of typical Missouri oak-hickory forest with man cleared and shaped ridge tops (former prison farmland), steep wooded side slopes, steep narrow drainage ravines with shallow rock and highly erodible soils.

The Master Plan

Natural Resource Area *(continued)*

The **Wooded Areas (N-1)**, will provide enormous benefits to the workers and visitors to the MSP site as well as the wildlife that currently inhabit the area. Passive recreation in the form of walking/hiking, bird watching, sightseeing, picnicking will all be enhanced through preservation and resource management of the existing wooded areas of the site.

The **Open Prairie (N-2)** grasslands of the Natural Resources Area are the most vulnerable to development pressure. These open spaces are highly desirable development sites that are, and will be under constant pressure to " be developed". These sites possess outstanding spatial attributes and afford some of the most spectacular views of the Missouri River Valley in the region. The open prairie should be preserved and used for the benefit of the total citizenry and wildlife habitat. The prairie /open space offer opportunities for open field research, natural science education and resource management demonstration.

Recreation Trails (N-3) have been incorporated into the plan to provide walkers, hikers and bikers (on selected trails) a variety of natural experiences and access to the natural features of the site without excessive impact to the resource. The walks will be

The Master Plan

Natural Resource Area *(continued)*

made of natural materials, suitable for handicapped accessibility and bicycle access on selected routes. The sharing of trails with equestrian use is generally deemed acceptable, while the use of motorized vehicles (such as ATV's) anywhere on site should not be allowed.

Throughout the site along the trail system there are several **Recreation Pavilions (N-4)** that will provide walkers/hikers shelter during inclement weather, rest stops, shade and picnicking opportunities.

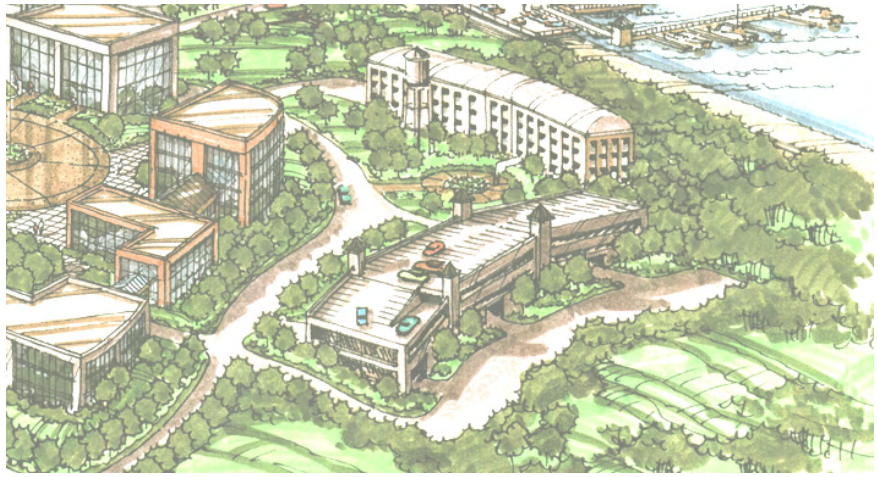
The **Grounds Maintenance (N-5)** complex is located on the east side and adjacent to the bottom floor of the Office Campus parking area (P-7) that borders the Natural Resources Area. The Grounds Maintenance area will serve the Capitol Complex maintenance operations that occur on the MSP site currently. This location has good access, is out of public view and compatible with the surrounding land use. The P-7 structure can provide

The Master Plan

Natural Resource Area *(continued)*

secured storage and office space required by the grounds maintenance operations.

A majority of the visitors to the Natural Resources Area will originate from other districts within the project area such as the Office Campus, and thus the other districts will be connected via trails and walks to the Natural Resources Area. A small parking lot (P-6) will provide 15 surface parking spaces located off Riverside Drive.



Summary

The Natural Resources Area will contribute to the success of the MSP Redevelopment Project by preserving open space, protecting our natural resources and improving the quality of life for the citizens of Missouri. Workers will have a place to go at lunch, visitors can view the river corridor from the bluff tops and school kids can learn about Missouri's flora and fauna. The Natural Resource Area must be buffered from development pressures and protected for the greater good of current and future generations.

The Master Plan

The Master Plan

The Next Steps

The planning, design and development process for the MSP Redevelopment Project started in July of 1999 with the formulation of a high level Task Force assigned to think through and begin the redevelopment process. Since that time hundreds of citizen, agency and consultant man-hours have been focused on achieving various redevelopment tasks. Major accomplishments thus far, include:

- Task Force & Oversight Committee appointed
- Public input received and public awareness increased
- Completion of The Process Definition Plan and approval of the Consensus Plan
- The new JCCC is under construction (off-site) and on schedule for 2005 opening
- Planning, design and construction of the DNR Green Building (first new building of the redevelopment)
- The MSP Commission is authorized, appointed and functioning
- The Executive Advisory Committee has been appointed by the MSP Commission
- Public input received on the Framework Plan
- Planning and design underway for the new State Health Laboratory
- The Framework Plan completed

The Master Plan

The Next Steps *(continued)*

- The Master Plan receives a planning & design award from the St. Louis Chapter of ASLA
- Utility companies contacted and developing long range planning strategies
- On-going environmental, archeologial, site feasibility studies for potiential development sites
- Preparation of the redevelopment Design Guidelines started
- Infrastructure planning and design started
- Decomissioning planning started

The detailed list of accomplishments is much longer than the summary list above. The development process has passed the test of changing administrations at the local, county and state level. Past, current and future political and community leaders continue to participate in the planning and redevelopment process.

Future Activities

Following is a list of activities that will be accomplished in the short term future in order for the redevelopment process to move forward. The items have not been priortized, defined or scheduled.

- **Phase I Archeological Investigations**
  - DNR Site
  - Lab Site
  - Remaining Site
- **Phase II Archeological Investigations**
  - Remaining Site
- **Phase II Environmental Investigation**
  - Remaining Site
- **Existing Facility Protection/Disposition**
  - Demolition Phasing Plan (timeline / strategies)
  - Site & Building Demolition Plan
  - Demolition Material Recycle
  - Wall Stabilization
- **New & Existing Infrastructure**
  - New & Existing Infrastructure Implementation Plan
  - Historic District Heating/Cooling

The Master Plan

The Next Steps *(continued)*

- **Site Improvements**
  - On-site Road Plan
  - Parking Plan
  - Grading Plan
  - Landscape Plan
- **Natural Resource Analysis**
  - Flora & Fauna
  - Threatened & Endangered
- **Historic Designations**
  - Section 106 - Districts, Buildings & The Wall
- **Surplus Property Relocation**
  - Relocation Program
  - Site Selection
- **Implementation Strategies & Planning**
  - Site & Architectural Design Guidelines
  - Delivery Systems Guidelines - Design / Build - Lease Purchase - Conventional
  - Phasing Plan / Facility Interim Use / Public Access / Decision Timeline
- **Financial Guidelines & Planning**
  - Project Feasibility
  - Development Fees
  - Development Incentives
  - Funding
  - Revenue Generation

These activities will be coordinated with other planning and design events scheduled to take place in the project area. The City, Housing Authority, Cole County, State and Federal government agencies all have ongoing projects in or immediately adjacent to the MSP Redevelopment Project. Efforts will continue to be made to share information, vision and resources to best serve the citizens of Missouri.

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Master Plan Amendments

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Master Plan Amendments

Introduction

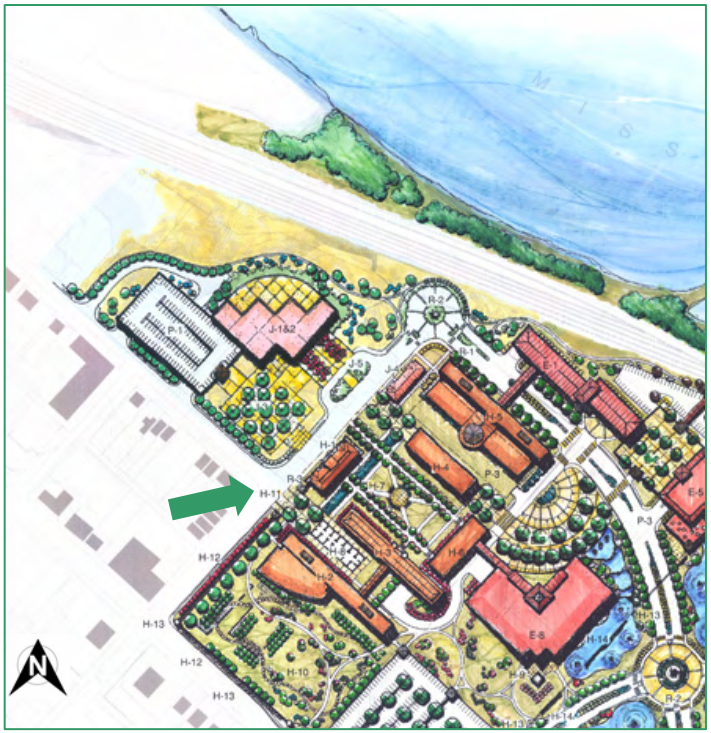
As predicted in the previous chapter "The Master Plan will change over time as development opportunities arise", several key changes to the Master Plan have occurred during finalization of the plan. These plan modifications reflect changed conditions or program clarifications and generally improve or enhance the quality of the design principles contained within the Master Plan.

The Lafayette Street Entrance

The Original Master Plan located the western entrance of the redevelopment project at the intersection of East State Street and Marshal Street. From there the proposed MSP Parkway would traverse the site from west to east. After further consideration the west entrance to the MSP Redevelopment Project was realigned along Lafayette Street and the Marshal Street connection was abandoned. The reasons for this change include:

Original Plan

Revised Plan



Master Plan Amendments

- Lafayette Street appears to be a more desirable traffic connection to the west, south and east via the existing City street pattern.
- Sight distances and terrain are better at Lafayette Street than at Marshal Street.
- The Public Service Campus is no longer divided into two small parcels, but one larger tract making it more desirable for redevelopment.
- Lafayette Street was the original front door to the site.

Original Plan

The Health Lab Site Development

The Master Plan has been updated to illustrate the final design footprint of the new State Health Lab located northeast and east of the intersection of Chestnut Street and East Capitol Street. The related changes include:

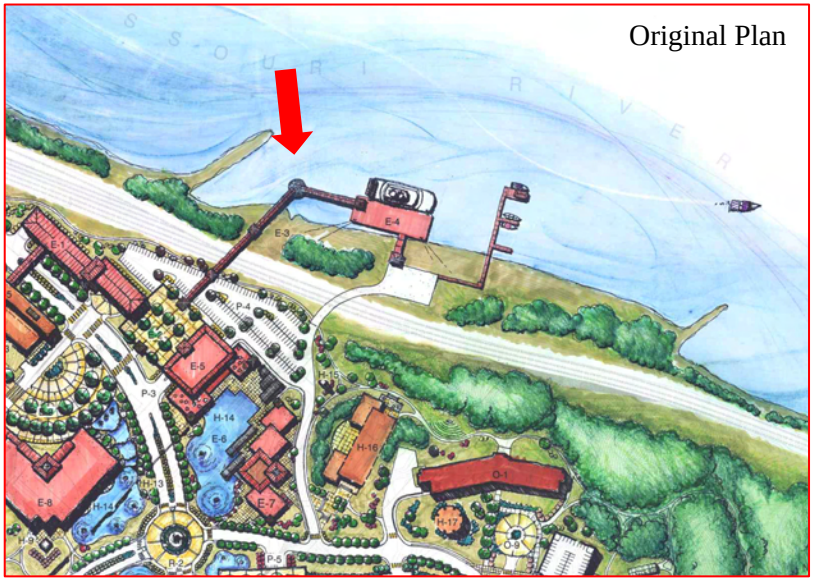
- Modified building footprint.
- Vehicular Circulation pattern modified to reflect functional aspects of the new building.
- The vehicular entrance to the P-2 structured parking has been moved south.
- A service drive has been added to the north side of the new building.

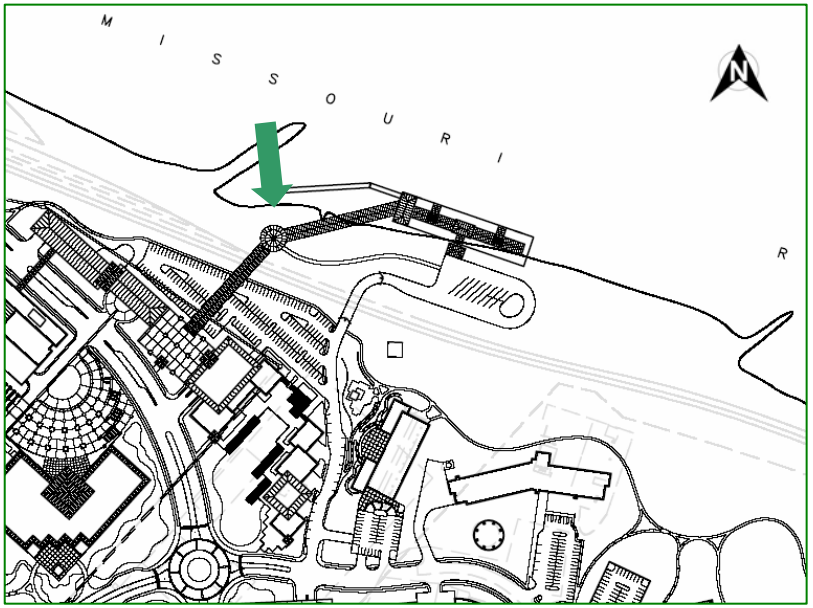
Master Plan Amendments

The Waterfront Modifications

The riverfront connection as shown on the Master Plan has been slightly refined to accomplish the following:

- The pedestrian skyway over the railroad tracks has been shortened.
- The revised plan holds the riverboat landing structure closed to the shoreline.
- The plan is intended to provide pedestrian access to Adrian's Island.





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Market Analysis

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Market Analysis

Methodology and Rationale

The basis for planning any changes in land use must include an analysis of the ability of the market to need and absorb that land. This creates an understanding for a realistic plan and opportunities for financing the plan's implementation.

The U.S. economy is primarily market-based. This economy relies on the creativity, risk-taking, and energy of the private market to create value in the economy. Almost always, of course, there is public involvement through incentives and/or regulation in order to attract and manipulate market forces for the benefit of the larger community.

The Missouri State Prison site does not exist in a vacuum. It is part of the regional, state, and national economies and should take advantage of opportunities within that context. Thus, the economic and market research focused on trends on which the MSP site can capitalize. As it turns out, one of the most powerful of these trends is the growth in state government. Because Jefferson City is the state capital and because it is a relatively small city, state government exerts an unusually high amount of "market" influence. To this degree, state government is the underlying "basic industry" in the Jefferson City area.

The methodology for the market analysis of the MSP site included the following major steps:

1. Projections of market absorption and timing
2. Analysis of regional, state, and national economic contexts
3. Interviews of public and private officials
4. Correlations of past growth with data indicators
5. Projections of growth based on indicators
6. Conversion of trends to building and land area needs

Market Analysis

Comparative Population Trends

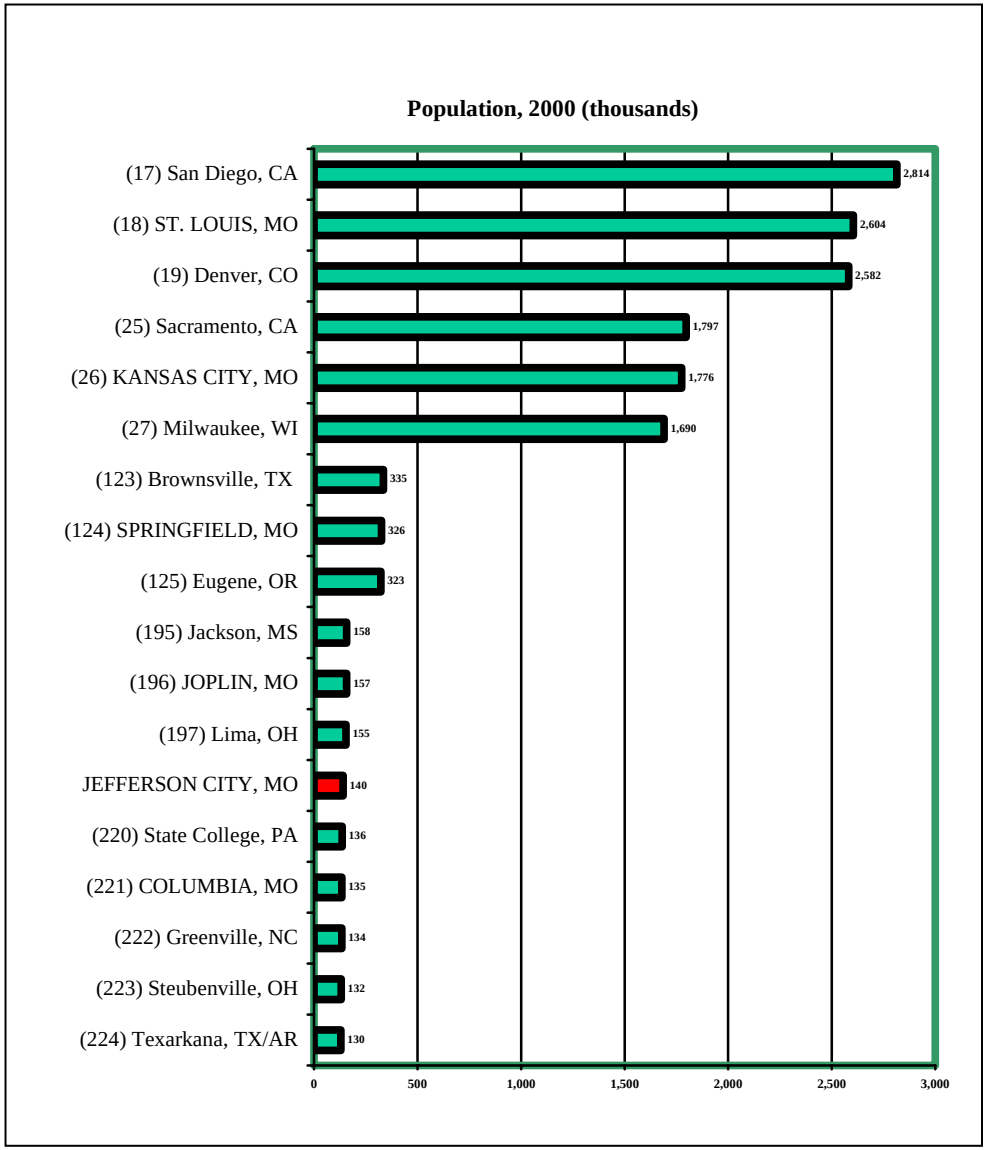
The focus of our regional economic context is a four-county area of Mid-Missouri. This includes Cole, Moniteau, Osage, and Callaway Counties. Together, these had a combined 2000 population of just over 140,000.

If Mid-Missouri was a formal metropolitan statistical area, it would rank about 210 out of America's almost 300 metro areas. Boone County, where Columbia is located, is its own metro area with 135,000 people, which is obviously also part of the regional economy of Jefferson City.

The Mid-Missouri counties, therefore, rank on a par with formally designated metropolitan areas like Lima, Ohio (155,000) and State College, Pennsylvania (136,000), not to mention Columbia, Missouri. By comparison, other Missouri metro areas rank as follows:

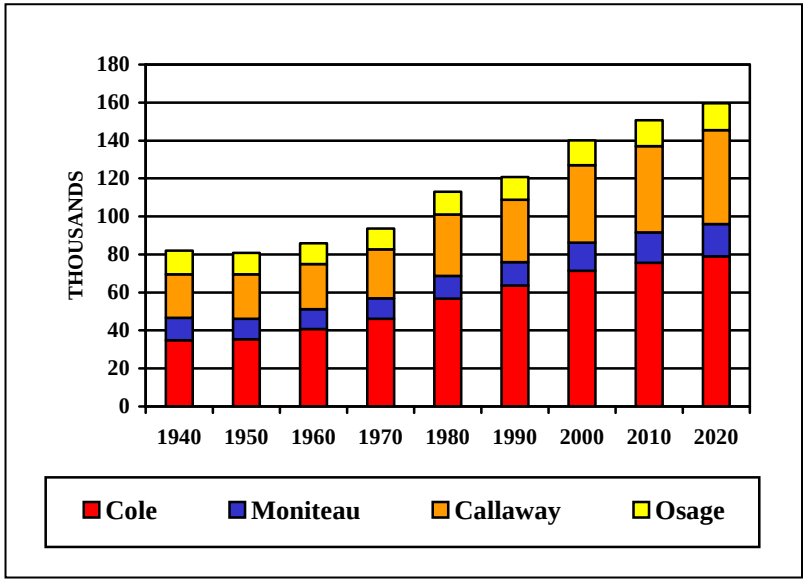
- St. Louis is the 18th largest metro area with over 2.6 million people.
- Kansas City is the 26th largest with 1.8 million.
- Springfield is the nation's 124th largest metro area with 326,000 residents.
- Joplin is 196th with 157,000.
- Columbia is 221st with 135,000.

Jefferson City is one of only eight state capitals that is not part of a formally designated metro area.



Market Analysis

Mid-Missouri County Populations



Cole County is certainly the largest of the four Mid-Missouri Counties with about 71,500 residents as of the 2000 census. Since 1940, it is the only one of the four counties to have grown significantly.

Callaway County is the second largest at 41,000 residents. Its growth rate during the 1990s, however, was about twice as fast as Cole County. Each county added roughly 8,000 residents but, because Callaway was smaller to begin with, its growth rate was just over 24 percent compared to about 12 percent in Cole County.

Independent projections of population for Missouri counties prepared after the 1990 Census by the Missouri Office of Administration suggest that the population of the Mid-Missouri counties would have a combined total of about 160,000 by 2020. This includes an adjustment by Development Strategies to the projections to adjust for actual counts in 2000. Independent projections have not yet been completed to reflect Census 2000.

This 20,000 increase in population between 2000 and 2020 is about a 14 percent growth rate. This would be slightly faster than the Census Bureau's 11 percent growth rate projection for the entire state of Missouri but slower than the U.S. national projection of about 18 percent (middle series).

Market Analysis

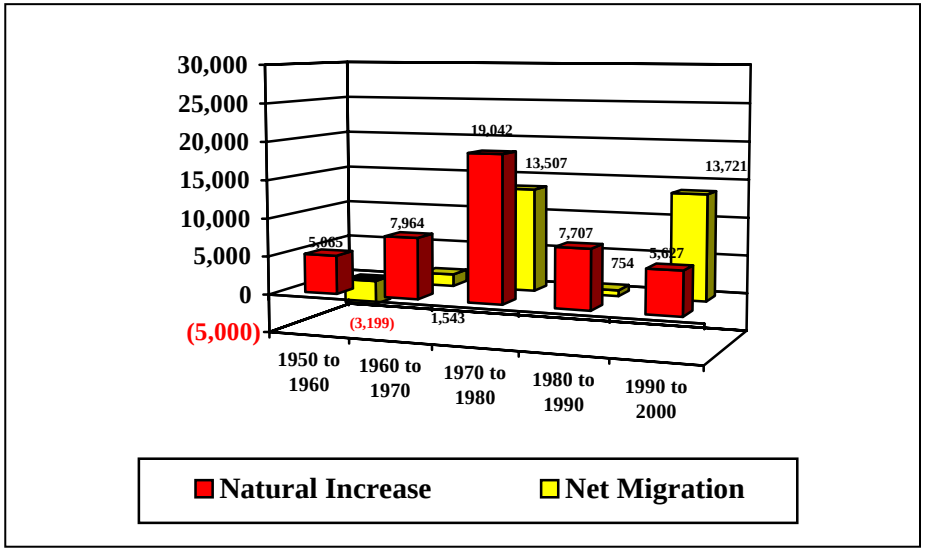
Mid-Missouri Components of Growth

Population growth results from two major forces: More births than deaths and more in-migration than out-migration. The four Mid-Missouri counties have done well in both respects.

- The red bars show the net difference between births and deaths—positive for all decades since 1950.

- The yellow bars show net migration, which has been positive in all decades except the 1960s.

Remarkably, the net in-migration to the four counties during the 1990s was about 2.5 times the net natural increase, resulting in almost 14,000 more residents in 2000 than in 1990 because of new residents attracted from elsewhere. These new in-migrants made up 71 percent of all net new population growth.



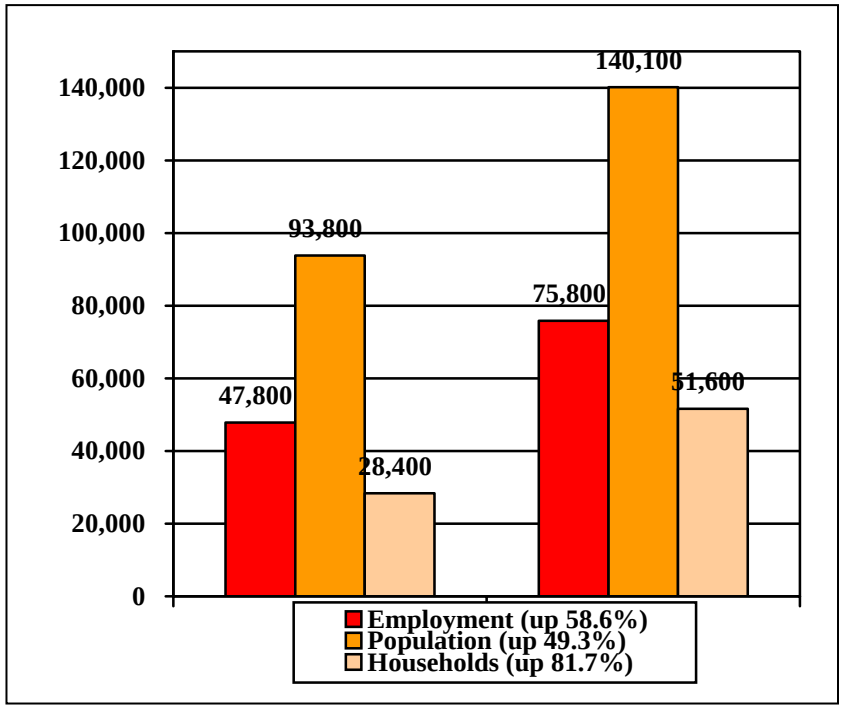
Overall, the region has had a 49 percent rate of growth in the last 30 years, much higher than the rate of growth for the St. Louis metro area, for example, at 5.7 percent for 30 years. Net in-migration in metro St. Louis, by the way, was negative in the 1990s. Thus, the net gains in Mid-Missouri suggest an ability of the four counties to attract new residents with quality of life characteristics and decent jobs. This ability to attract residents will be important in forging a larger and more diverse economy in the coming years.

Market Analysis

Mid-Missouri Jobs and Households

In the last three decades, however, jobs and housing development grew faster than population. To accommodate the 49 percent increase in population in the four Mid-Missouri counties, there are now 82 percent more housing units (actually, growth in households which are occupied housing units). And many of these people wanted or came for jobs. Employment in the four counties increased by 59 percent between 1970 and 2000.

Corresponding growth rates in metro St. Louis, for comparative purposes as the largest metro area in the state, were 5.7 percent for population 23 percent for housing, and 33 percent for jobs. While these growth rates represent larger absolute numbers, it is clear that Mid-Missouri has been growing relatively rapidly, most notably through its ability to attract in-migrants to take a rapidly expanding number of jobs.



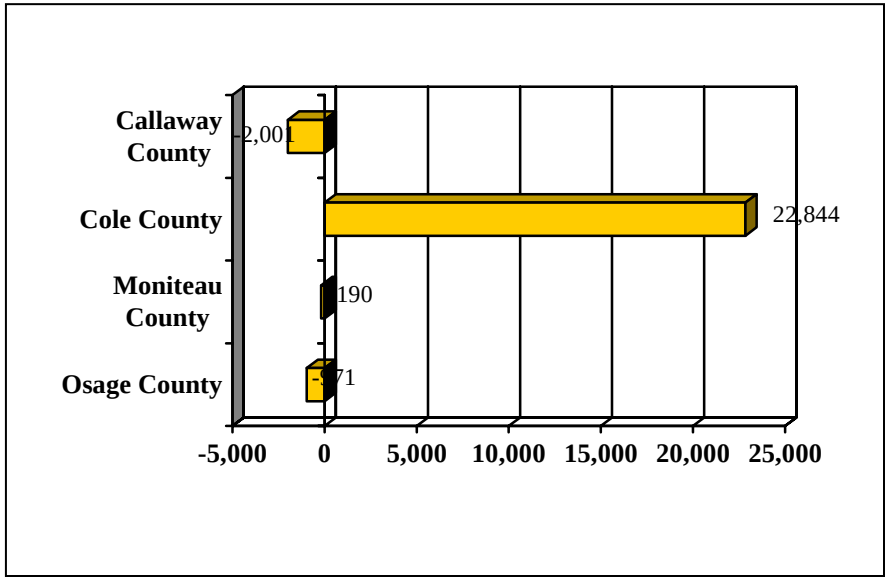
Market Analysis

Commuting to Jobs Mid-Missouri, 1999

Cole County is the center of jobs in Mid-Missouri, as long as Boone County is ignored. Of the four Mid-Missouri counties, only Cole attracts a *net* number of commuters each day while the others all have net decreases.

This is based on comparing the number of jobs in a county with the number of residents who hold jobs—no matter where those jobs are. Cole County has almost 23,000 more jobs within its borders than residents who have jobs. Thus, there is a whole lot of in-commuting in the morning, and out-commuting at night.

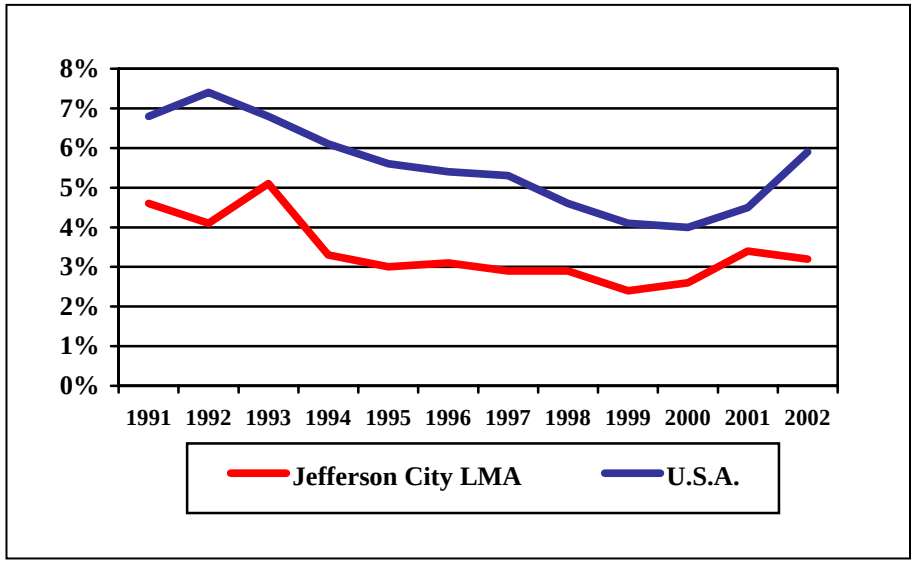
Note, however, that the "negatives" of Callaway, Moniteau, and Osage Counties do not equal the "positive" of Cole County. This indicates that Cole is attracting commuters from a wider range of counties, not just the other three. In fact, the Greater Jefferson City Chamber of Commerce defines its economic region over ten counties, which would probably better reflect the "commuting shed" for Jefferson City.



Market Analysis

Mid-Missouri Unemployment Rates

The good news is that the unemployment rate in Mid-Missouri is and has been consistently below the national rate all through the 1990s until today. The bad news is that the unemployment rate has been so far below the national rate.



Analysis of these curves suggests that there is a relatively small labor pool in the Jefferson City labor market area (LMA) that can be immediately called upon to fill new job creations. The LMA consists of the four counties of Mid-Missouri. It also suggests that there may be a relatively high number of jobs not being adequately filled with the right kinds of workers.

This latter factor tends to attract workers from outside the region to take such jobs. Indeed, as was shown with the net migration graph, this area has been attracting population and labor force at a fairly strong rate.

The recent convergence of the unemployment rate lines in this graph suggests that this pressure to attract in-migrants may be softening a little bit, but the trends are far too short to make any such firm conclusion.

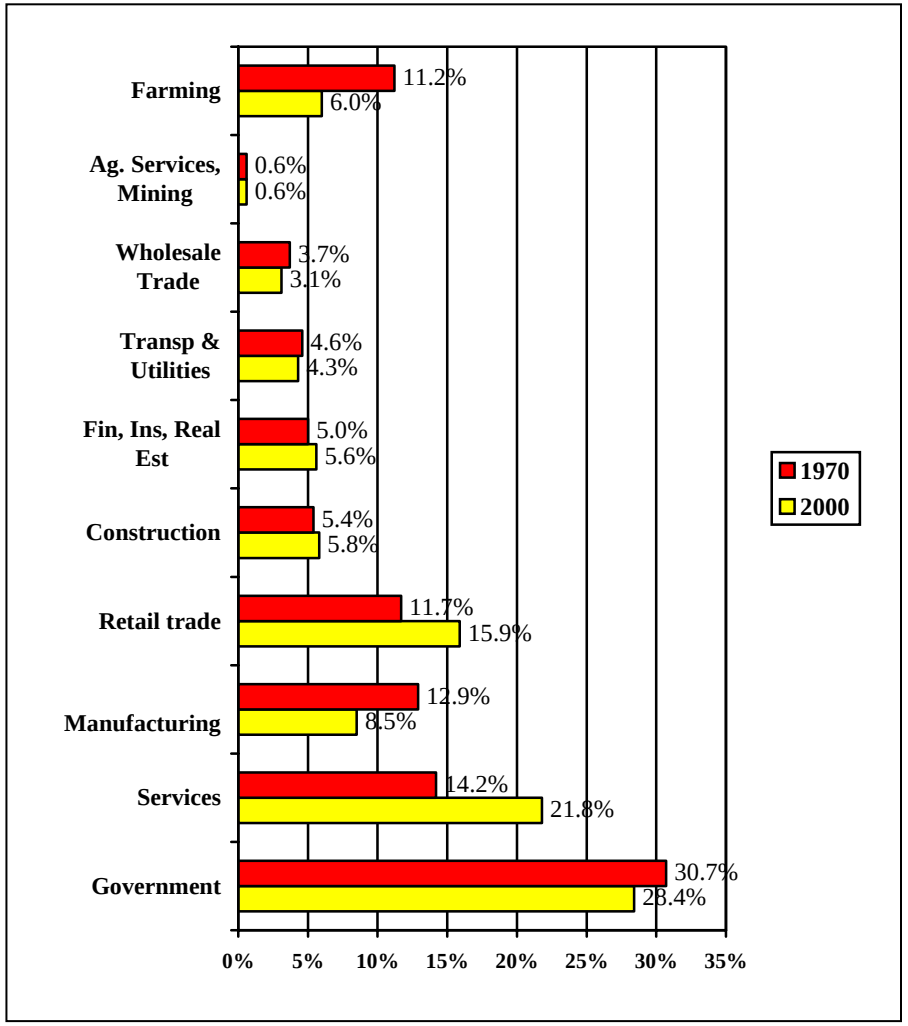
Market Analysis

Changes in Mid-Missouri Employment by Sector, 1970 - 2000

The "business" of Mid-Missouri is not so much business as it is government. Almost three out of ten jobs in the region are in government. Of course, this isn't surprising since this is the seat of state government in the 17th most populous state in the nation (almost 5.6 million residents).

The federal government's computer model that determines multipliers for economic sectors shows that state government in the four counties of Mid-Missouri has a multiplier of 1.68, meaning that, for every dollar spent to support state government in Mid-Missouri, another 68 cents are generated in "gross domestic product" in the four counties. And one state government job in Mid-Missouri creates another 1.1 jobs in the four counties.

These multipliers emphasize how important state government is because it attracts so many dollars from elsewhere in the state to be spent locally. Projecting a potential development program for the MSP site, therefore, should start with analysis of growth in government employment.



Since 1970, however, the proportion of government workers has dropped slightly from 30.7 percent of all jobs to 28.4 percent. While the four counties never constituted a large manufacturing center (12.9 percent of all jobs in 1970), they have experienced much the same rate of decrease in manufacturing employment as the rest of the nation, coupled with a shift to more jobs in the services sector.

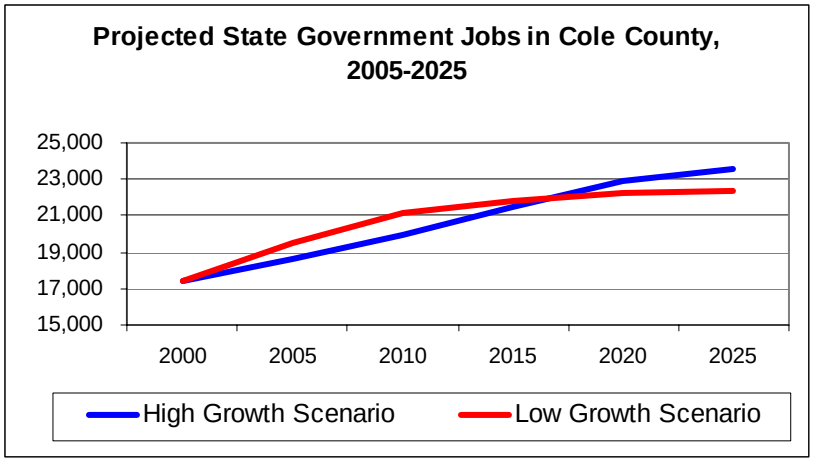
Market Analysis

State Government Employment Projections in Cole County

Growth in state government employment implies the need for growth in places to work. This graph illustrates two scenarios for projecting state employment in Cole County.

- The blue line is based on the long-term relationship between state government jobs in the state and the population of the state. As the population grows, so does the need for government workers to continue to serve that population.

- The red line assumes there is a relationship between state government jobs and all other jobs. That is, there is long-term ratio of state jobs to the entire economy of the Missouri.



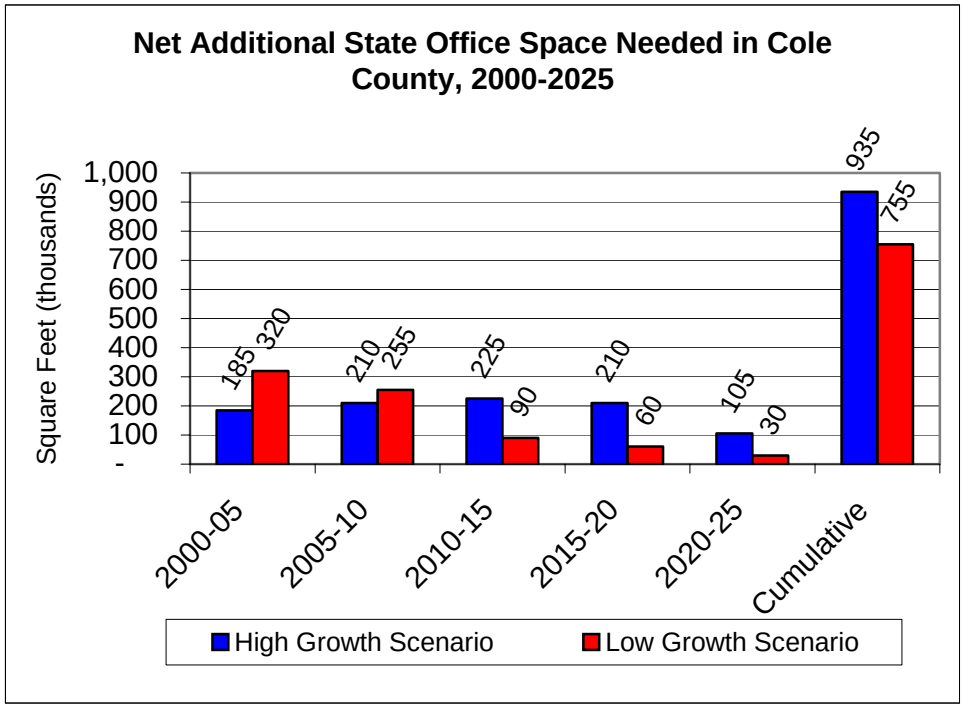
The graph depicts these effects on state government jobs located within Cole County alone. The second scenario would suggest that present state jobs in Cole County are well below the long-term relationship between state government and other jobs. Thus, there would have to be a lot of catching up to do by 2005 to get on the "trend line." But further growth in state jobs on this line would be slower than the other scenario.

In 2000, there were about 17,350 state government jobs in Cole County. The blue line scenario would increase this to 18,600 by 2005 while the red line scenario would increase it to 20,500 by 2005. These projections would "cross" in about 2015 so that, by 2025, Cole County would need to be home to some 24,300 state employees based on the per capita scenario or 22,400 state employees based on the per all jobs scenario. Thus, between 5,000 and 6,900 additional state jobs would be located in Cole County in 25 years.

Market Analysis

State Government Office Space Needs in Cole County

On an assumption that 75 percent of the jobs projected on the previous graph would be located in office space in Cole County (the other 25 percent would not require office space, per se), an additional 755,000 to 1,040,000 square feet of office space would need to be in place in Cole County by 2025 to accommodate this growth.



But this presumes only *net new growth* in office needs. There would also likely have to be other office space construction in the time frame to account for *replacement space* that would become (or already is) obsolete by 2025.

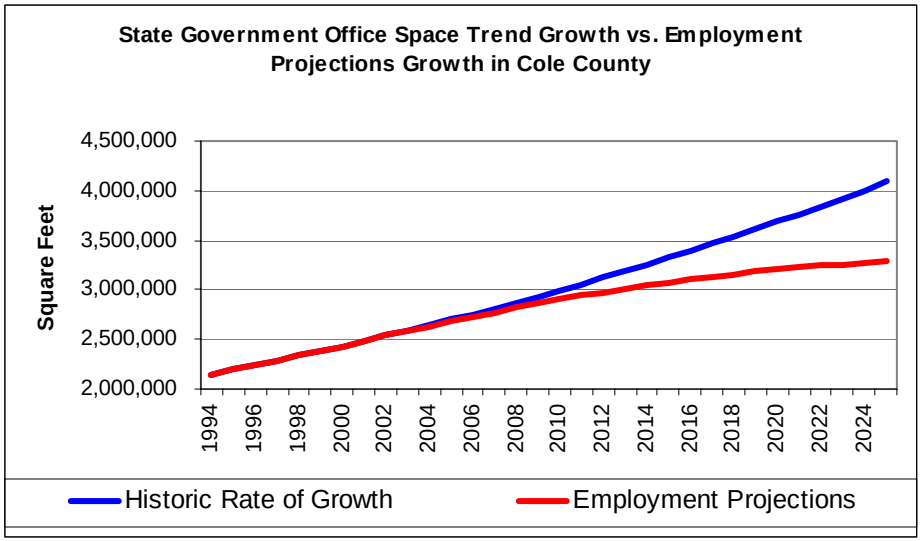
By way of comparison, the Truman State Office Building in downtown Jefferson City has approximately 800,000 square feet of floor area. Thus, the projections suggest that, on a net new basis, the equivalent of another Truman Building would be necessary by 2025.

This is not to suggest that such a single, large building be constructed in Jefferson City in the near future. But it suggests that the scale of future development may be about the same.

Market Analysis

State Government Office Space Projections in Cole County

Based on estimates of existing state government office (and related) space in Cole County, the projections shown on the previous graph would yield the red line (lower line) on this graph. In essence, there would be a total need for about 3.3 million square feet of state government office space in the year 2025 in Cole County.



In 1995, a study was completed for the State of Missouri on the office space needs of state government. *(That study was headed by Sverdrup Facilities, Inc. and included Development Strategies and Stifel, Nicolaus as subcontractors.)* To that time, state office space in Cole County had averaged about 2.1% annual growth over a long period of time. Projecting that same rate into the future, however, yields the blue line (top line) of this graph, showing a potential need for over four million square feet.

Both lines are the same from 1994 through 2002, using available information on actual state office space occupancy.

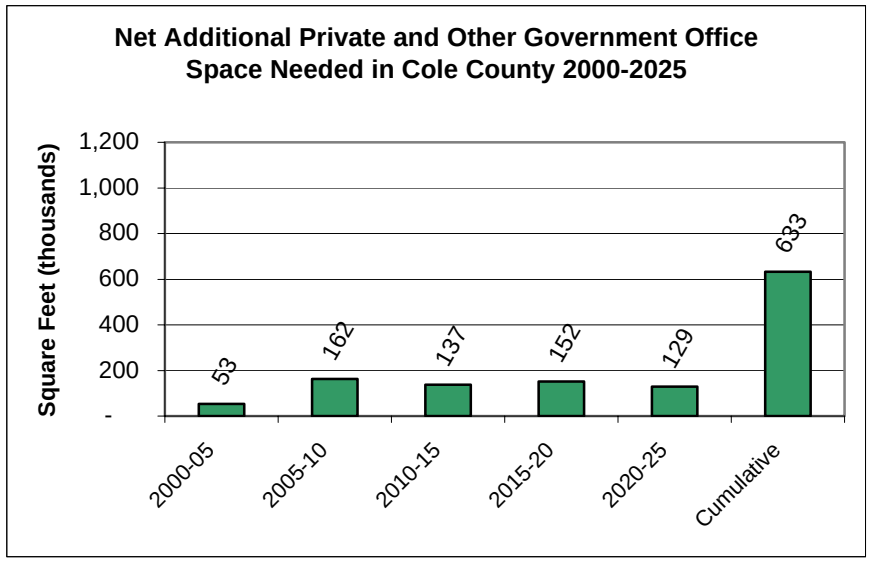
Thus, the employment projections model, used for this study, is more "conservative" than the historic growth rates. That is, the space projections shown earlier would yield less net new office space than if trend line projections were used. In many ways, it is best to be that conservative because the statistical relationship between state government employment and other indicators is not likely to be as "direct" as assumed here. And there are likely to be economies of scale in state government as its importance grows, such that past trends will be dampened by greater attention to costs and greater use of office technology leading to a need for relatively less space per employee.

Market Analysis

Private and Other Government Office Space Projections

Applying similar projection techniques to the rest of the Cole County economy, and applying different ratios of office space within each major economic sector, the non-state component of employment growth in the County would require more than 600,000 net additional square feet of office space by 2025.

Thus, Cole County may have to construct between about 1.4 million and 1.7 million *net additional square feet* of office space in the next 25 years. Plus there will be need for replacement space from outdated facilities. Planning for the location of such space is of critical importance to Jefferson City and Cole County authorities. The MSP site may offer an exceptional solution to these market-based pressures.



Market Analysis

Public Assembly Facility: Reasons for Potential Success

The other major land use that emerges as a market-based opportunity for the MSP site is for a public assembly facility. Long debated in the Jefferson City area, there has yet been no resolution of the issue as to whether and where it might be built.

Reasons for Potential Success
PUBLIC ASSEMBLY FACILITY

- Center of state government
- Statewide and Mid-America growth in organizations needing to meet:
  - Religious
  - Social
  - Hobbies
  - Professional
  - Athletic
  - Political
- Central location, ease of access
- State economic growth: More reasons to meet.
- Sufficient and convenient hotel rooms are a necessity.

There are many reasons why Jefferson City should have a large meeting facility. Tops among them is that it is the state capital and should be a center for meetings that involve state-wide issues. With economic growth come more reasons to meet. As the state economy grows, so do business meetings.

Moreover, the entire nation continues to see growth and change in the number of organizations that are created and hold regular meetings. Americans, in fact, are noted worldwide for their willingness and ability to organize into interest groups. As a free and democratic society, this will not change. We constantly find commonality with one another and we organize to fulfill many missions that, ideally, improve the human condition. With more groups, combined with more leisure time, more income, and longer life spans, will come the need for more and better places to meet. There is little reason why the capital of the 17th largest state should not be a major meeting place for Missouri-based organizations.

Increasingly, Jefferson City is easier to reach. Four-lane highways and Amtrak serve it well. While Jefferson City is one of only two state capitals not directly on an Interstate highway, Route 54 and, to a lesser degree, Highway 50 help to circumvent this shortfall. Better road access, however, would improve the ability of the city to market itself for statewide meetings.

Meanwhile, there are two key indicators that local demand is in need of more facilities:

(1) The Greater Jefferson City Convention & Visitors Commission says the city is turning away business because of a lack of facilities;

Market Analysis

(2) The Truman Building is perennially booked and is increasingly more "in-scheduled" for government business with less room for "out-scheduling" to serve other organizations.

But one factor will be critical in meeting the challenges of meetings: overnight accommodations. A successful convention and conference facility must have sufficient numbers of lodging rooms. If Jefferson City is a great place to meet and there will be more meetings, there will need to be more hotel rooms.

Public Assembly Facility: Anticipated Scale of Development

To date, a few proposals have been put forth for a Jefferson City convention center, none of which has been able to get underway. Moreover, a number of other small cities in a variety of economic contexts have constructed various kinds of convention, conference, and arena facilities. Conclusions from this analysis discount indoor sporting events as a major opportunity for Jefferson City in light of the facilities in Columbia, Springfield, Kansas City, and St. Louis. Also discounted are major concerts from being significant attractions because of the facilities in the aforementioned cities.

But meeting space is necessary. A consensus arises from an evaluation of other facilities and the size of the Jefferson City "market" that a facility could be created that has up to 60,000 square feet, plus parking, as outlined on the adjacent table. The exhibit hall/ballroom should be at least 30,000 square feet in scale, subdividable for smaller groups and/or multiple groups. And there should be break-out meeting spaces, perhaps with a formal lecture hall/small theater. A larger facility is also possible if a performing arts venue is created. But this should be done only after fuller testing of the market potential for attracting theatrical and small concert programs, possibly in conjunction with the Greater Lake of the Ozarks market and the Columbia/Boone County market.

Recommended Physical Components
PUBLIC ASSEMBLY FACILITY

- Single, open floor space to accommodate up to 2,500 participants (approx. 30,000 square feet)
  - Exhibits
  - Ballroom
  - Large group meetings
- Separate, divisible meeting areas:
  - 10 to 15 rooms
  - Combinable
- Possible performing arts venue
- Full service kitchen
- Large and well-appointed lobby and pre-event area
- Appropriate number of parking spaces.

Market Analysis

Market Analysis: Summary Conclusions

1. The Jefferson City area needs more sites for office development.

    a. State government alone could add over 750,000 square feet by 2025.
    b. The private market adds perhaps another 600,000 square feet.
    c. Plus land for campus settings, parking, road system.

2. Public Assembly Facility appears to be a crucial need for accommodating demand and diversifying the local economy.

    a. There is a pressing need to resolve location issues.
    b. There is absolutely a need support good quality and walkable hotel rooms.

3. MSP site offers solutions to these opportunities.

    a. Little else will be ready and available in time.
    b. Fulfills Governor's order to concentrate state facilities in existing cities (Smart Growth philosophy)

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Architecture

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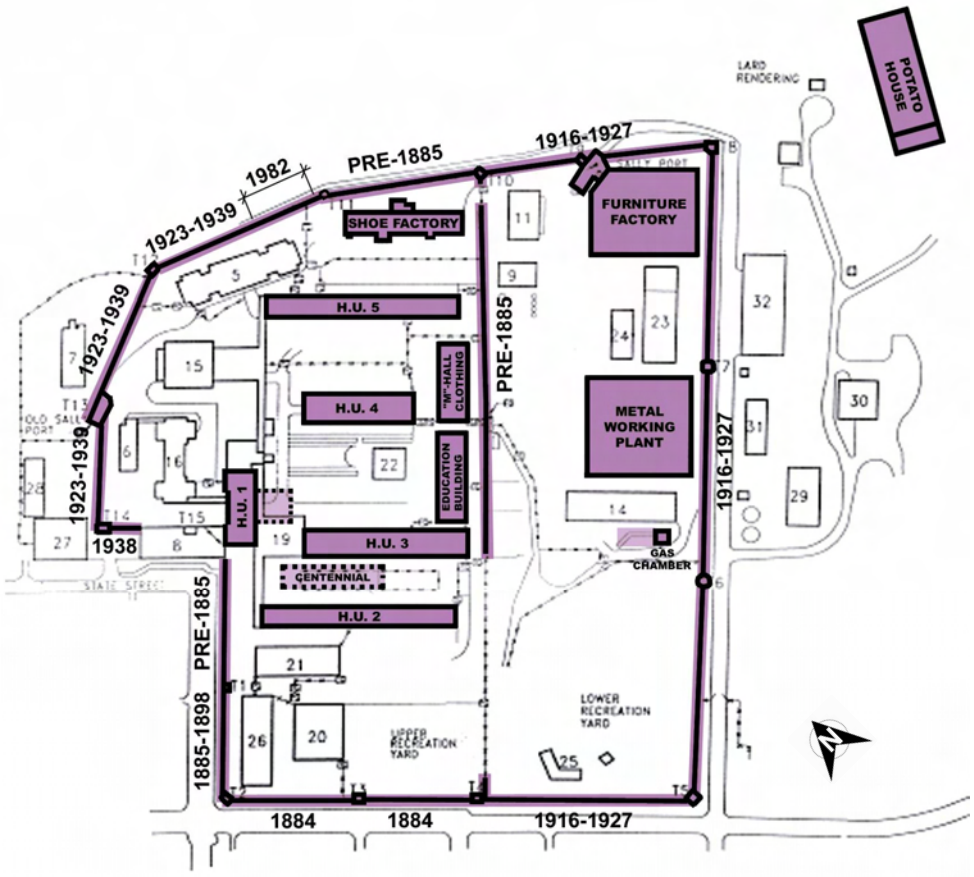
Architecture

Introduction

The Project Team has conducted a redevelopment/reuse overview evaluation of the existing project structures which were identified in the Process Definition Plan (the Consensus Plan) for further consideration and inclusion in the Framework Plan. The structures evaluated included:

- Housing Unit 1
- Housing Unit 2
- Housing Unit 3
- Housing Unit 4
- Housing Unit 5
- Shoe Factory
- Furniture Factory
- Metal Working Plant
- Centennial Cells
- Gas Chamber
- Potato House
- Education Building & Maintenance Building
- Stone Walls



Architecture

Process

The Project Team reviewed existing drawings and established background floor plans; conducted building and site walk-throughs; conducted visual inspection and findings; developed existing building diagrams, studied volume/space opportunities and identified potential uses.

A generalized program statement for the reuse of the existing buildings was prepared along with functional diagram concepts for the reuse of the existing buildings. These recommendations are illustrated on the following pages and integrated into the site, urban design and community context plan solutions.

Buildings Re-Use

During the planning process three building re-use concepts emerged as viable solutions within the framework plan. Examples of the re-use scenarios include:

- Preserve & Restore (HU 4)
- Combination Restore and Adaptive Re-Use (HU 1)
- Adaptive Re-Use (HU 2)

Summary

The build evaluations and recommendations were generally formulated based on the following basic principles: first, preserving the context of the site from a “public” view and a “user” view; preserving the “essence of the prison”; structural considerations of the existing buildings; architectural/historic value; Consensus Plan perspective; and surrounding land use recommendations contained in the Framework Plan.

Architecture

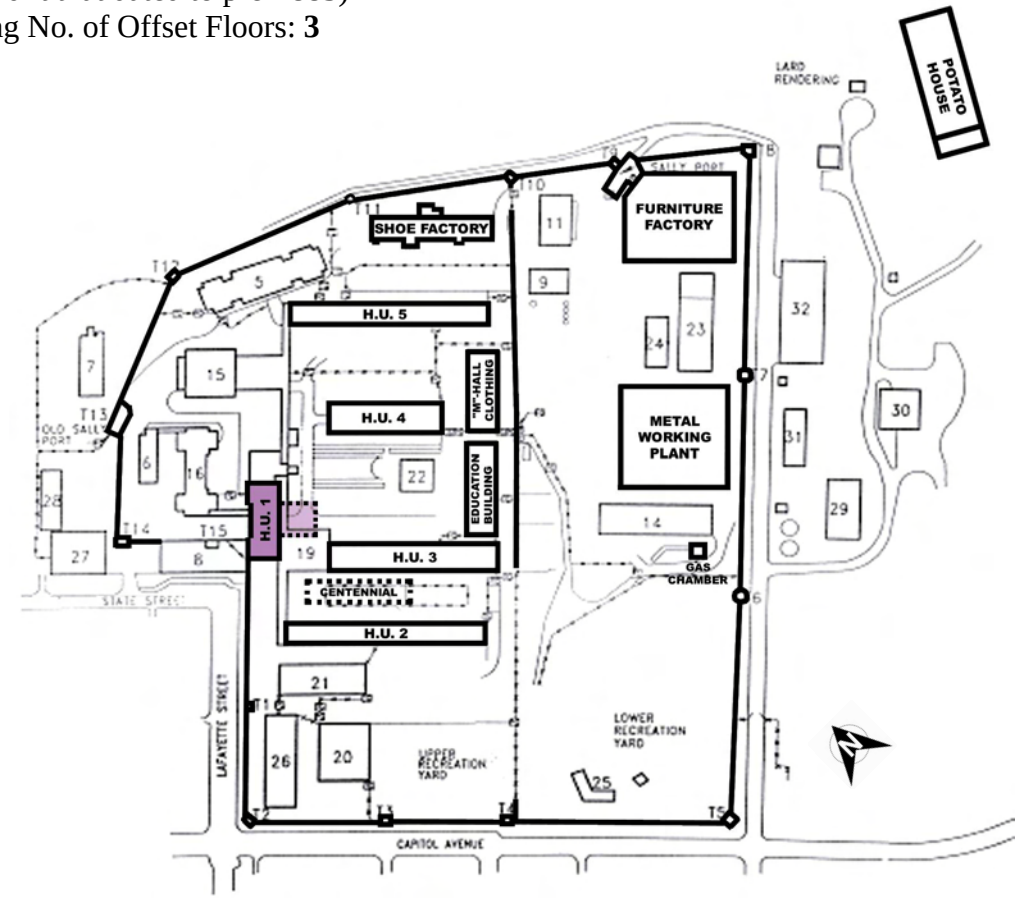
Housing Unit #1 – Existing Information

General Information

Date of Construction: **1905** (Earlier building once existed behind it that dated to pre-1885)
Existing No. of Floors: **5** Existing No. of Full Floors: **1** Existing No. of Offset Floors: **3**
Existing Area per Full Floor Plates**: 7,000 gross sq. ft.**
Existing Total Floor Area: **26,300 gross sq. ft.**
Existing Prison Cell Floor to Floor Height: **7'-4"**

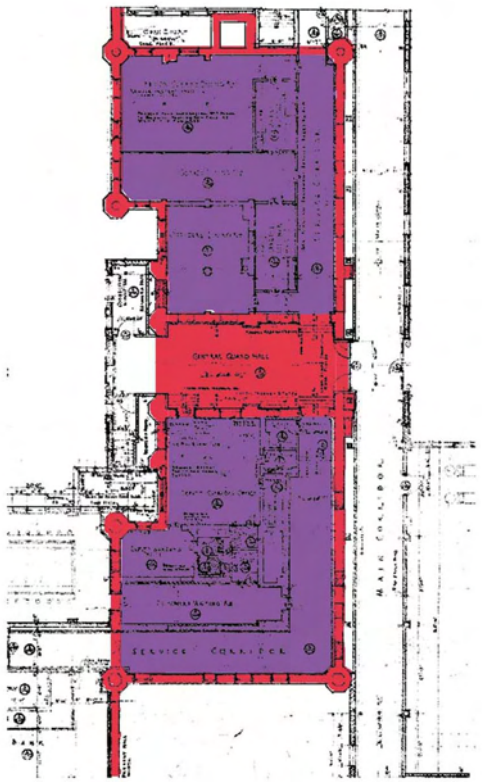
Historic Information

1. WPA construction has covered the exterior of this building on almost every elevation.
2. Rear (east) elevation compromised by the removal of a pre-1885 structure during the WPA remodeling. The earlier building acted as a gated entrance into the prison.
3. Emma Goldman lived here; famous anarchist and communist, she argued for prison reform.
4. "Red Kate" O'Hare lived here; American socialist and federal prisoner, the U.S. had no female prisons at the time.
5. A bust of Governor Alexander Dockery, a clock and a state seal carved out of stone exist on the main (west) elevation above the entrance.



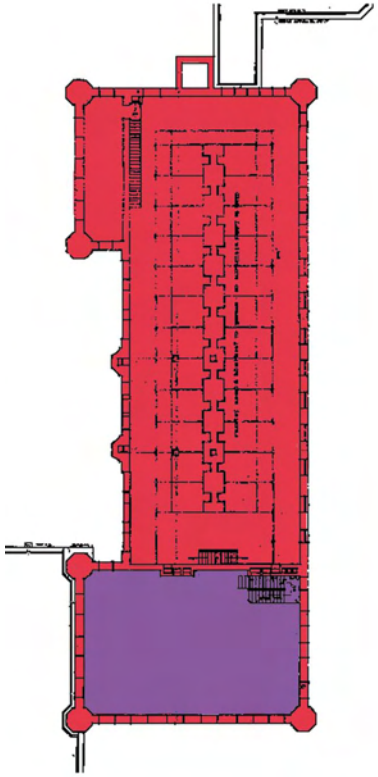
Architecture

Housing Unit #1 – Existing Information



Existing First Floor Plan

0' 25' 50'



Existing 2nd Floor Plan

0' 25' 50'

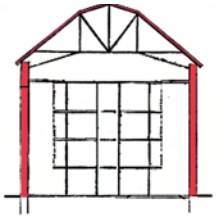
Preservation Zones

Level 1 - Preservation Zone
The character & qualities of this zone should be maintained & preserved as the highest priority

Level 2 - Preservation Zone
Every effort should be made to maintain and preserve the character and qualities of this zone

Level 3 - Rehabilitation Zone
Undertake all work in this zone as sensitive as possible; However, contemporary methods, materials, & designs may be selectively incorporated

Level 4 - Free Zone
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs



Existing Section

0' 25' 50'

West Elevation

View from Northeast

Architecture

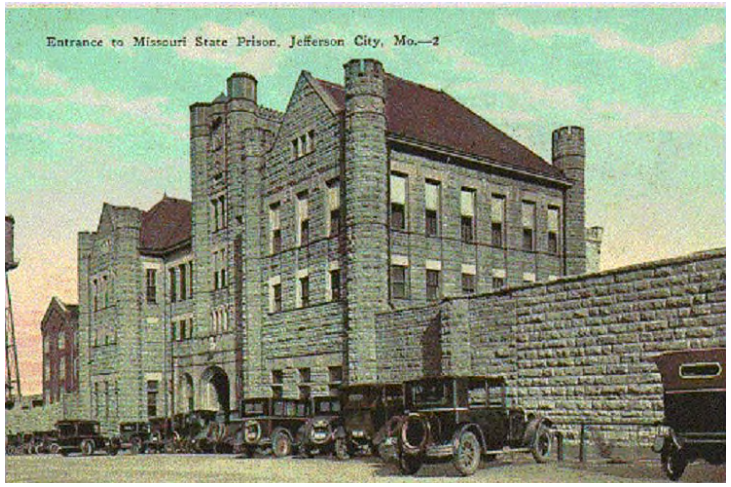
Housing Unit #1 – Possible Use

Redevelopment Issues

1. How should the east elevation be restored once the WPA corridor is removed? The brick infill where H.U. #1 attached to the pre-1885 structure is somewhat unsightly. Rebuilding this structure should be considered in redevelopment plans.
2. Major modifications should be reversed for appearance and historic integrity. These include restoring the roof overhang, rebuilding approximately 5'-0" to the tops of the turrets, 7'-0" of the clock tower and restoring window openings that have been bricked in.

Best Potential Uses

1. Prison Museum / Interpretive Education Center, Support Retail, Tourist Information Center & Restrooms
2. Film Site or Studio
3. MSP Commission Offices & CVB Offices

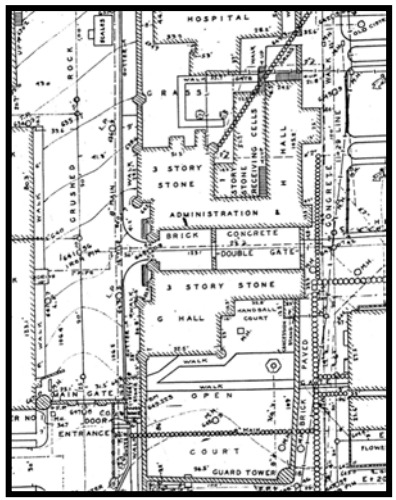


Historic View of West Elevation prior to WPA (1936) additions, the rear pre-1885 structure is barely visible to the right.

Historic View of East Elevation prior to WPA (1936) additions, the rear pre-1885 structure is shown here.

Architecture

Housing Unit #1 – Possible Use



1935 plan of 1st floor of H.U. #1. Notice the double gate through the center of the building

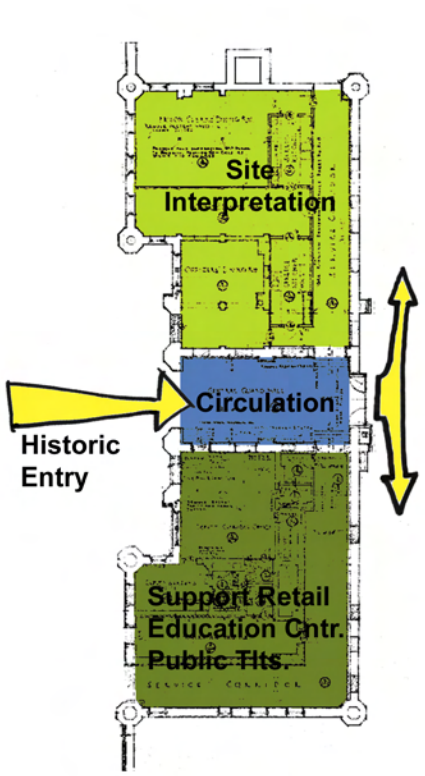
Possible Use Zones

Primary Use
This area identifies the primary use for the building

Secondary Use
This area identifies additional uses for the building beyond the primary use

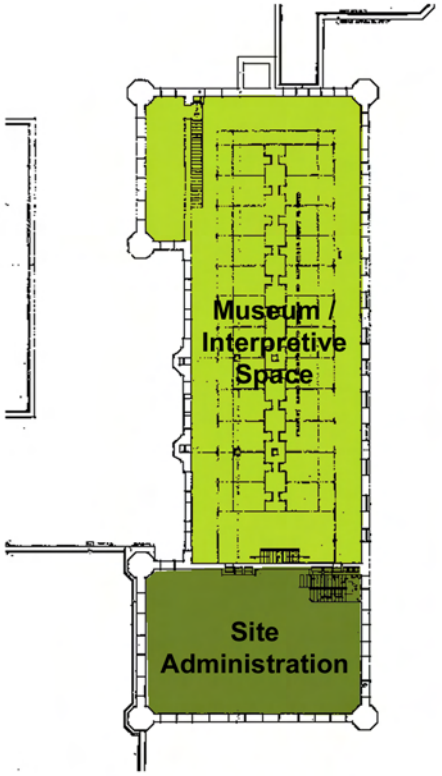
Circulation
This area identifies a zone for potential hallways, new required stairs, lobbies and elevator cores

Possible Addition
This area identifies a zone for potential development attached to this historic building and suggestion as to how it could be done in a sensitive manner



Proposed First Floor Plan

0' 25' 50'



Proposed 2nd Floor Plan

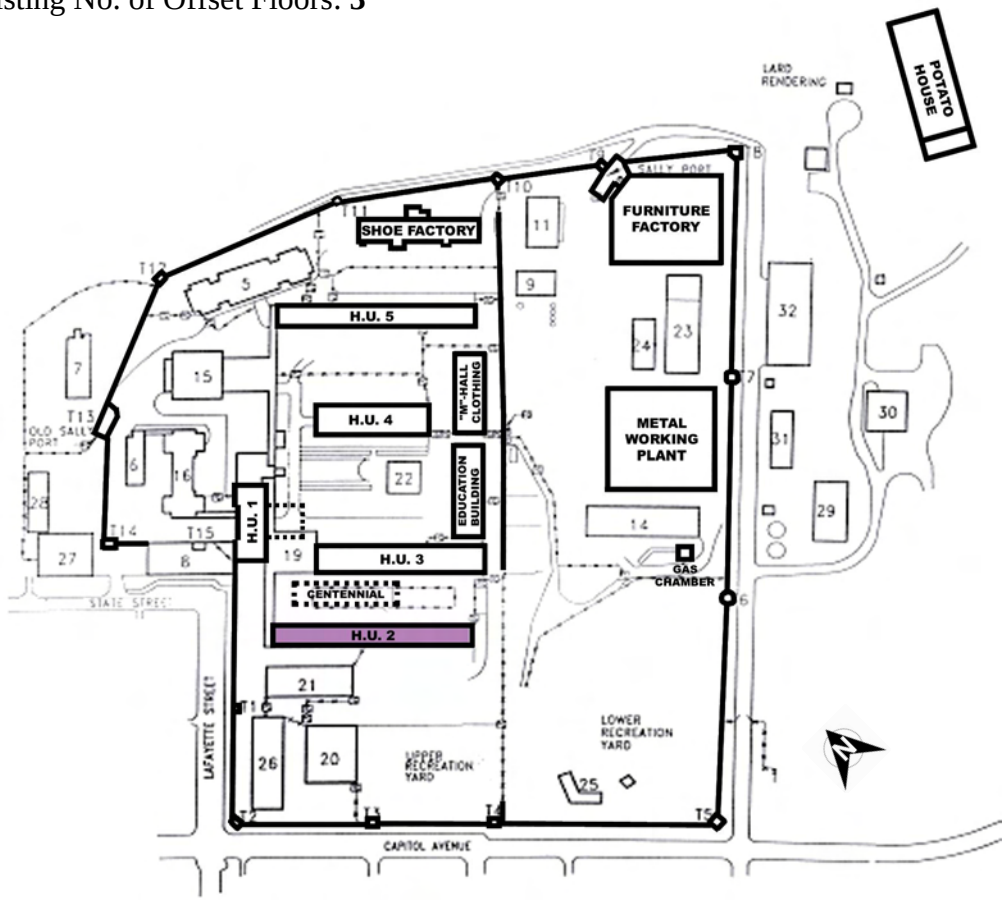
0' 25' 50'

Architecture

Housing Unit #2 – Existing Information

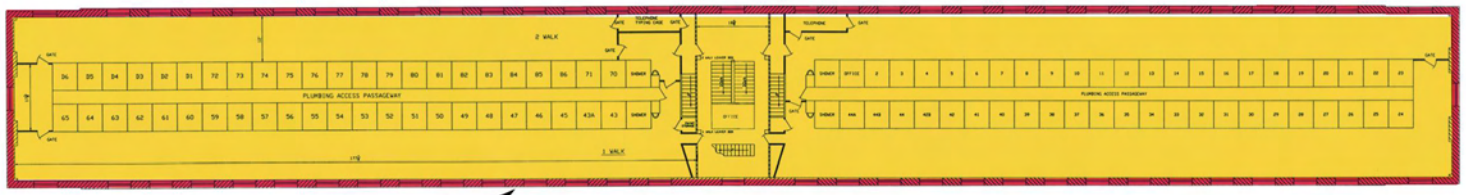
General Information
Date of Construction: **1938**
Existing No. of Floors: **5** Existing No. of Full Floors: **2** Existing No. of Offset Floors: **3**
Existing Area per Full Floor Plates**: 18,000 gross sq. ft.**
Existing Total Floor Area: **49,000 gross sq. ft.**
Existing Prison Cell Floor to Floor Height: **9'-0"**

Historic Information
1. Prison Cells are a significant feature within the building although examples of similar era cell construction will be preserved in Housing Unit #1 and potentially H.U. #3.
2. New floor levels to replace cells will eliminate full view of multi-level windows from the interior.
3. New construction for addition may require archeological work to comply with Section 106.
4. Constructed during extensive WPA work at this site.



Architecture

Housing Unit #2 – Existing Information



NORTH ELEVATION PRIMARY, FACES HISTORIC QUADRANGLE & SERVES AS BACKDROP TO VIEWS FROM 1868 H.U. #4

Preservation Zones over Existing Plan

0' 25' 50'

Preservation Zones

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The character & qualities of this zone should be maintained & preserved as the highest priority

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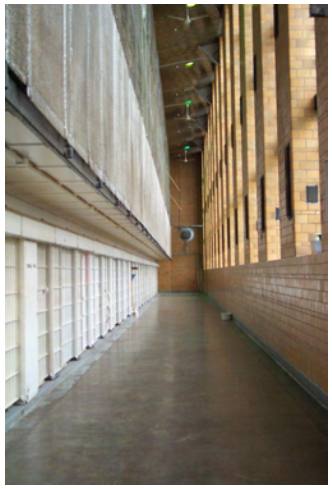
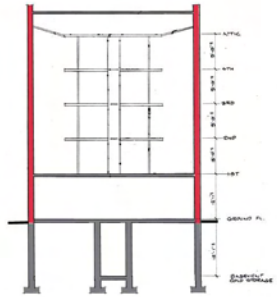
Level 3 - Rehabilitation Zone
Undertake all work in this zone as sensitive as possible; However, contemporary methods, materials, & designs may be selectively incorporated

Level 4 - Free Zone
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs



Typical View Into Cell Block Area

North elevation

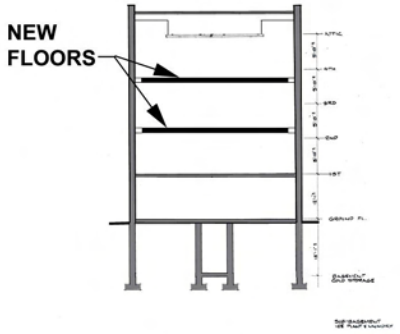


Existing Section

0' 25' 50'

Architecture

Housing Unit #2 – Possible Use



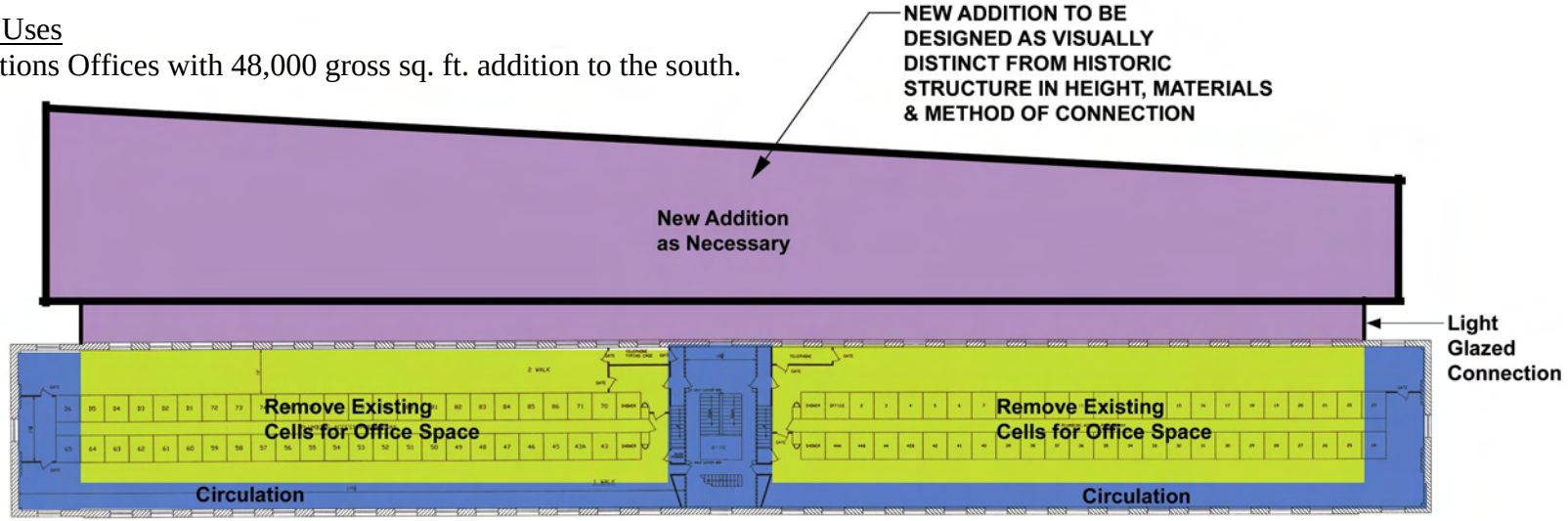
Alternate Section

0' 25' 50'

General Information
Date of Construction: **1938**
Proposed No. of Floors: **4** Proposed No. of Full Floors: **4** Proposed No. Of Offset Floors: **0**
Proposed Area per Full Floor Plates**: 18,000 gross sq. ft.**
Proposed Total Floor Area: **72,000 gross sq. ft.**
Redevelopment plan: **Cells to be removed and new floors installed**

Redevelopment Issues
1. The north elevation of this building can serve as the southern backdrop for the historic zone.
2. The steel cells are independent of the building structure, they can be removed without effecting the roof structure.

Potential Uses
1. Corrections Offices with 48,000 gross sq. ft. addition to the south.



Alternative overlayed onto Existing Plan

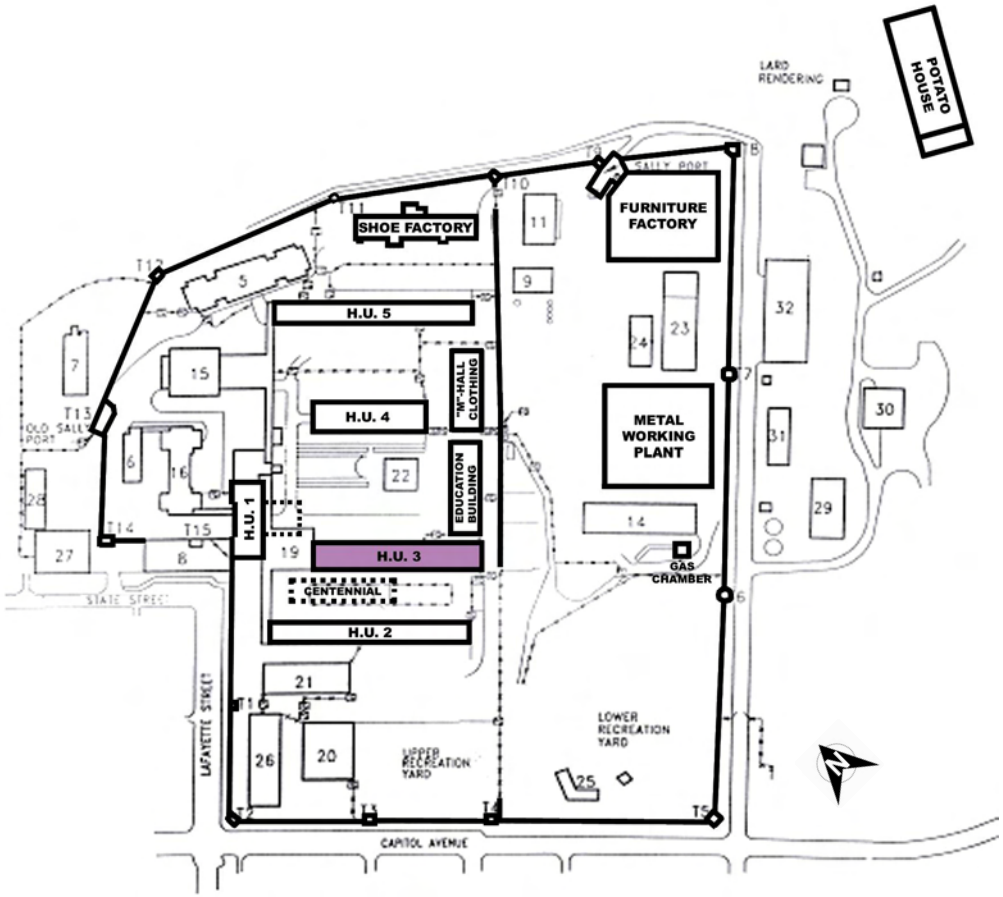
0' 25' 50'

Architecture

Housing Unit #3 – Existing Information

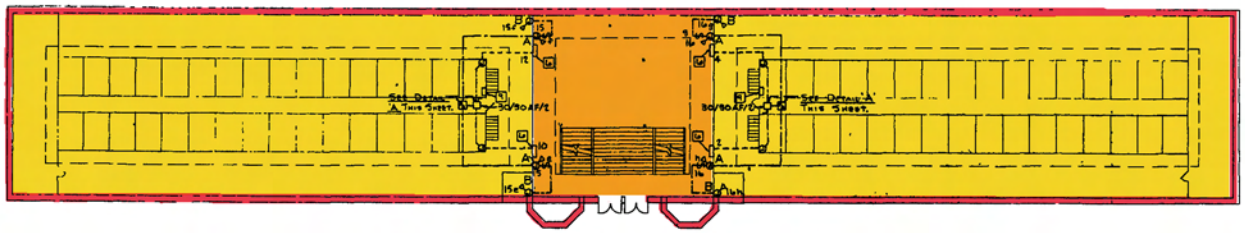
General Information
Date of Construction: **1914**
Existing No. of Floors: **6** Existing No. of Full Floors: **2** Existing No. Of Offset Floors: **4**
Existing Area per Full Floor Plates**: 16,000 gross sq. ft.**
Existing Total Floor Area: **75,000 gross sq. ft.**
Existing Prison Cell Floor to Floor Height: **8'-4"**

Historic Information
1. Prison Cells are a significant feature within the building although examples of similar era cell construction will be preserved in Housing Unit #1. Cells at one-half of the building's length could be preserved for interpretive purposes.
2. New floor levels to replace cells will eliminate full view of multi-level windows from the interior.
3. Interior stairwell is a significant historic feature; these should be retained although new floor levels will not match the existing landing elevations.
4. 1954 riot started and ended in this building.



Architecture

Housing Unit #3 – Existing Information



Existing First Floor Plan

0' 25' 50'

Preservation Zones

Level 1 - Preservation Zone
The character & qualities of this zone should be maintained & preserved as the highest priority

Level 2 - Preservation Zone
Every effort should be made to maintain and preserve the character and qualities of this zone

Level 3 - Rehabilitation Zone
Undertake all work in this zone as sensitive as possible; However, contemporary methods, materials, & designs may be selectively incorporated

Level 4 - Free Zone
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs

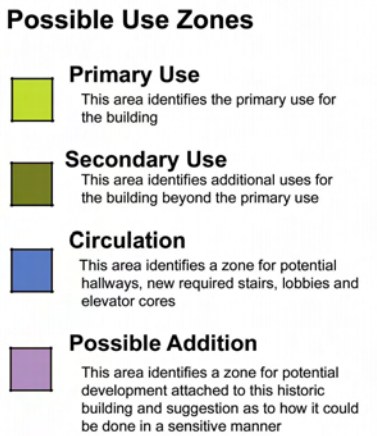
View of gun walk

Existing North Elevation

Architecture

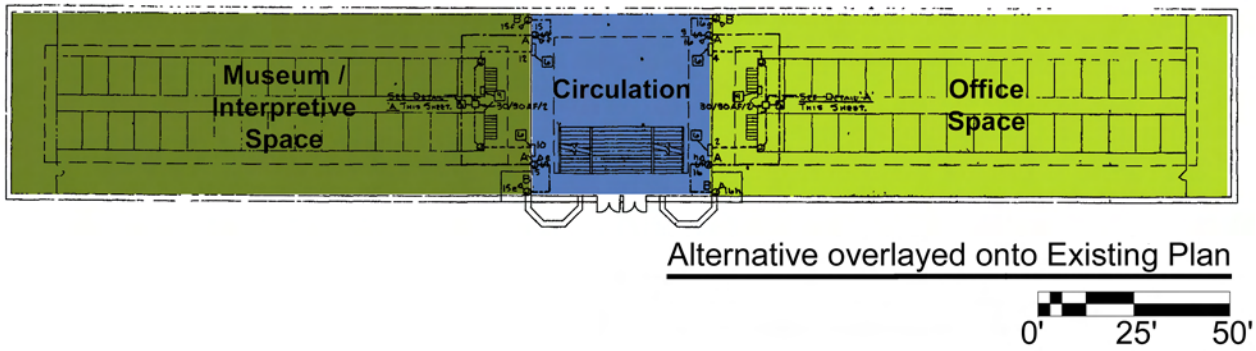
Housing Unit #3 – Possible Use

General Information
Date of Construction: **1914**
Proposed No. of Floors: **5 1/2** Proposed No. of Full Floors: **2** Proposed No. Of Offset Floors: **4**
Proposed Area per Full Floor Plates**: 16,000 gross sq. ft.**
Proposed Total Floor Area: **75,600 gross sq. ft.**
Redevelopment plan: **Cells at west half of building could be removed for office space & new full floors installed**



Redevelopment Issues
1. Interior gun walk / stairwell is a historic feature that should be preserved; landing levels are at each cell floor level. Existing cell floor-to-floor heights are not acceptable for modern offices. If the cells of at least one side of the building are removed for new development the stair landings will no longer line up with the new floor levels; a creative solution will be required.
2. WPA Canteen should be removed from the west elevation and the exterior then restored to pre-WPA appearance.

Potential Uses
1. Offices
2. Prison museum

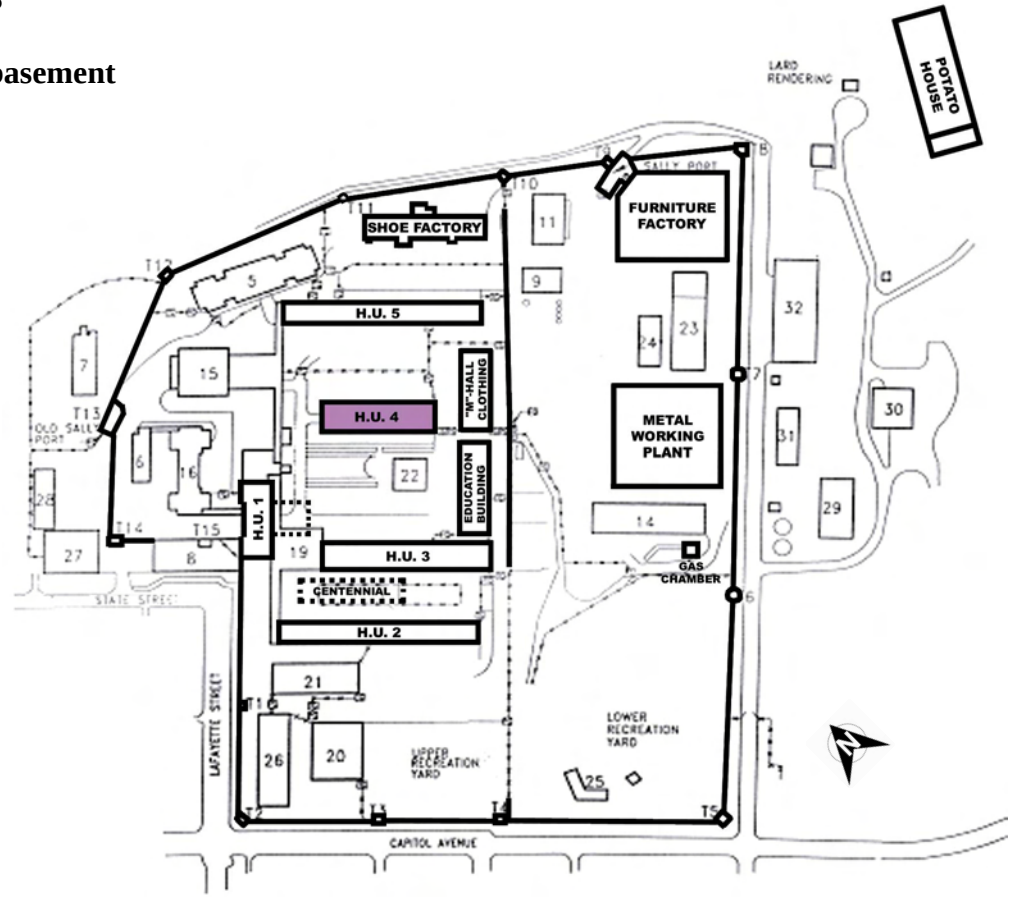


Architecture

Housing Unit #4 – Existing Information

General Information
Date of Construction: **1868**
No. of Floors: **5** No. of Full Floors: **1** No. Of Offset Floors: **3**
Existing Area per Full Floor Plates**: 13,500 gross sq. ft.**
Existing Total Floor Area: **43,000 gross sq. ft. not included basement**
Cell Floor to Floor Height: **10'-3"**

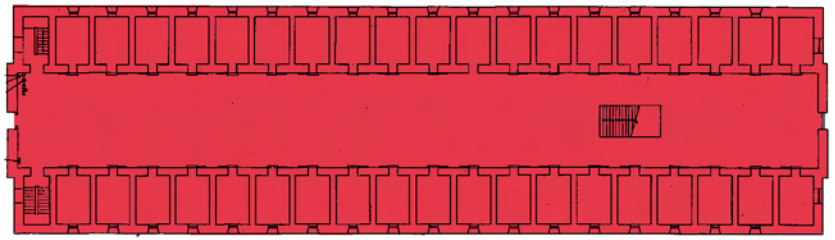
Historic Information
1. To what period should building be restored?
2. Roof overhang was removed.
3. A vertical mullion stone appears to have been removed at each window opening at the north and south elevations. This divided each opening into what was originally two separate windows.
4. Built for post-Civil War criminals.
5. Designed by Warden Horace Swift.
6. Stone was quarried on site by prisoners.
7. Oldest building existing on the site.



Architecture

Housing Unit #4 – Existing Information

View of typical window



Existing First Floor Plan

0' 25' 50'

Preservation Zones

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Level 2 - Preservation Zone
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Level 3 - Rehabilitation Zone
Undertake all work in this zone as sensitive as possible; However, contemporary methods, materials, & designs may be selectively incorporated

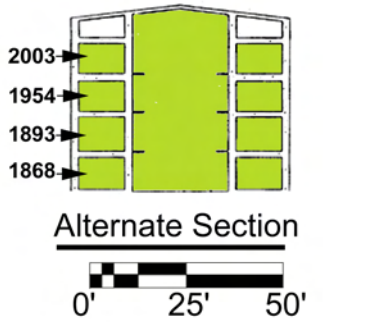
Level 4 - Free Zone
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs

Interior View

View from Northwest

Architecture

Housing Unit #4 – Possible Use

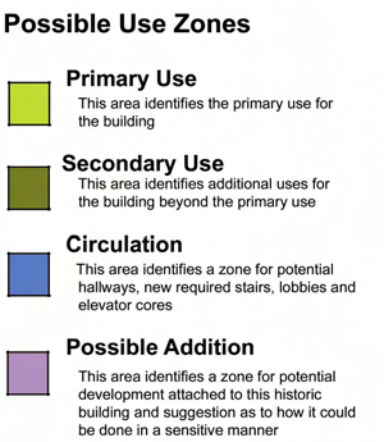


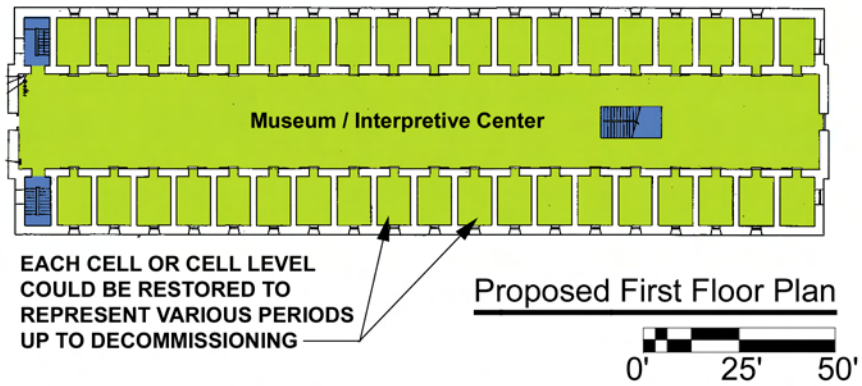
Redevelopment Issues

1. What period should the building be restored? Many modifications have occurred to the building since it's construction.
2. It appears that the roof overhang and soffits were removed exposing brick backup material above the stone walls, these should be restored.
3. Stone restoration will be necessary. There are crushed stones at various locations and missing stone mullions in the window openings that should be restored.
4. Integrating modern mechanical systems could be completely hidden. The extent to which this is done will be dependant on the interpretive philosophy for this building.

Potential Uses

1. Prison Museum / Interpretive Center. Each floor level could be restored and furnished to represent distinct time periods of prison life as shown in the Alternate Section above.



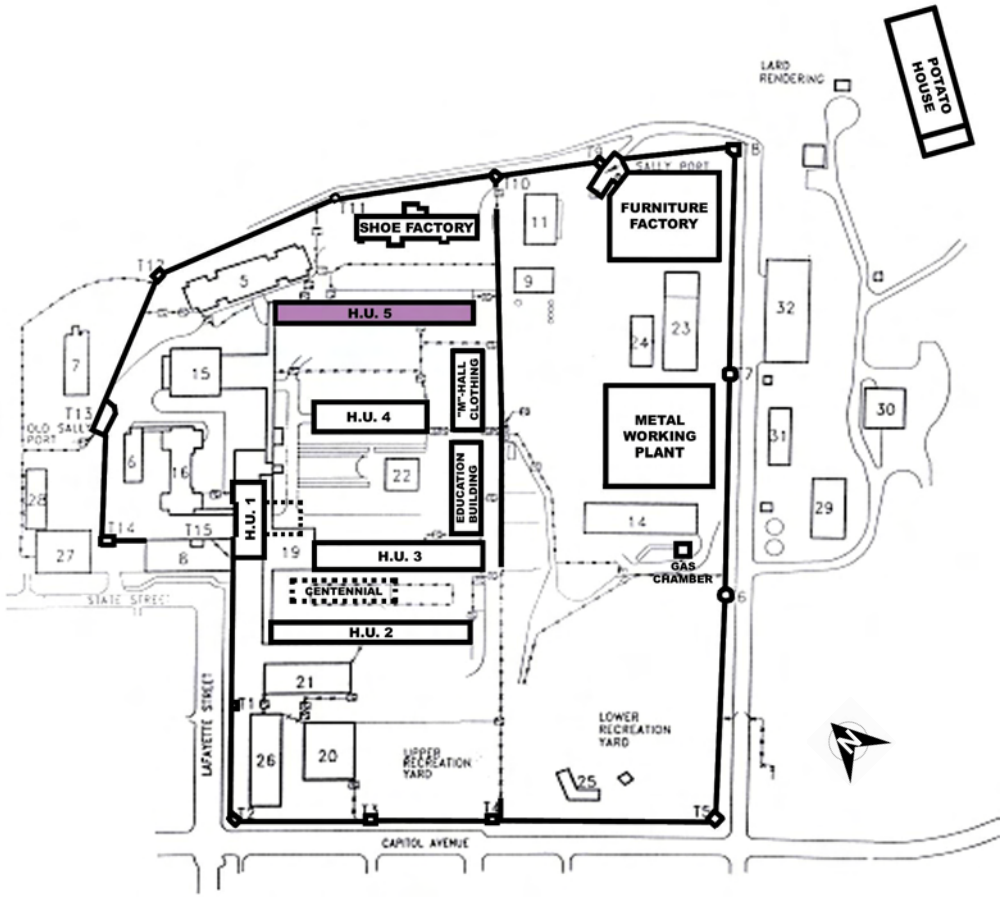


Architecture

Housing Unit #5 – Existing Information

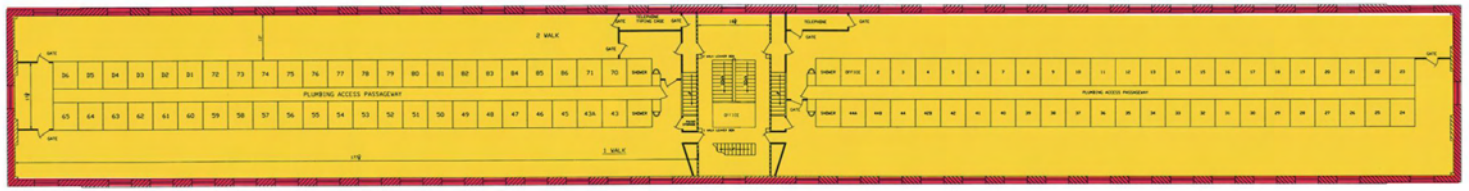
General Information
Date of Construction: **1938**
No. of Floors: **7** No. of Full Floors: **4** No. Of Offset Floors: **3**
Existing Area per Full Floor Plates**: 17,000 gross sq. ft.**
Existing Total Floor Area: **97,500 gross sq. ft.**
Cell Floor to Floor Height: **9'-0"**

Historic Issues
1. Prison Cells are a significant feature within the building although examples of similar era cell construction will be preserved in Housing Unit #1 and potentially H.U. #3.
2. New floor levels to replace cells will eliminate full view of multi-level windows from the interior.
3. Constructed during extensive WPA work at this site.



Architecture

Housing Unit #5 – Existing Information



Preservation Zones over Existing Plan
1"=50'-0"

Preservation Zones

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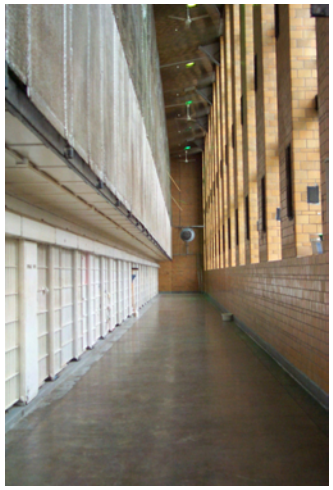
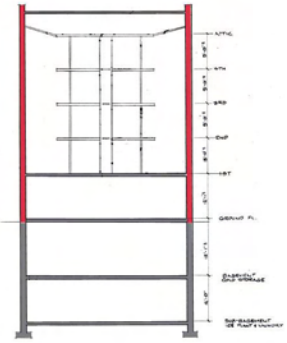


Typical View Into Cell Block Area

South Elevation



Existing Section
1"=50'-0"

Architecture

Housing Unit #5 – Possible Use

General Information
Date of Construction: **1938**
No. of Floors: **6** No. of Full Floors: **6** No. Of Offset Floors: **0**
Proposed Area per Full Floor Plates**: 17,000 gross sq. ft.**
Proposed Total Floor Area: **102,500 gross sq. ft.**
Cells to be completely removed

Redevelopment Issues
1. Locked in between Housing Unit #4 preservation area to the south and proposed vehicular circulation to the north.
2. West elevation is integrated into the WPA corridor since they were built at the same time; if the corridor is removed, the detailing of this at the building will be important.
3. Water infiltration problems are occurring in the sub-basement level due to the extended lower levels under courtyard to the south.
4. Shallow floor plates.
5. The south elevation can serve as the northern backdrop for the historic zone.

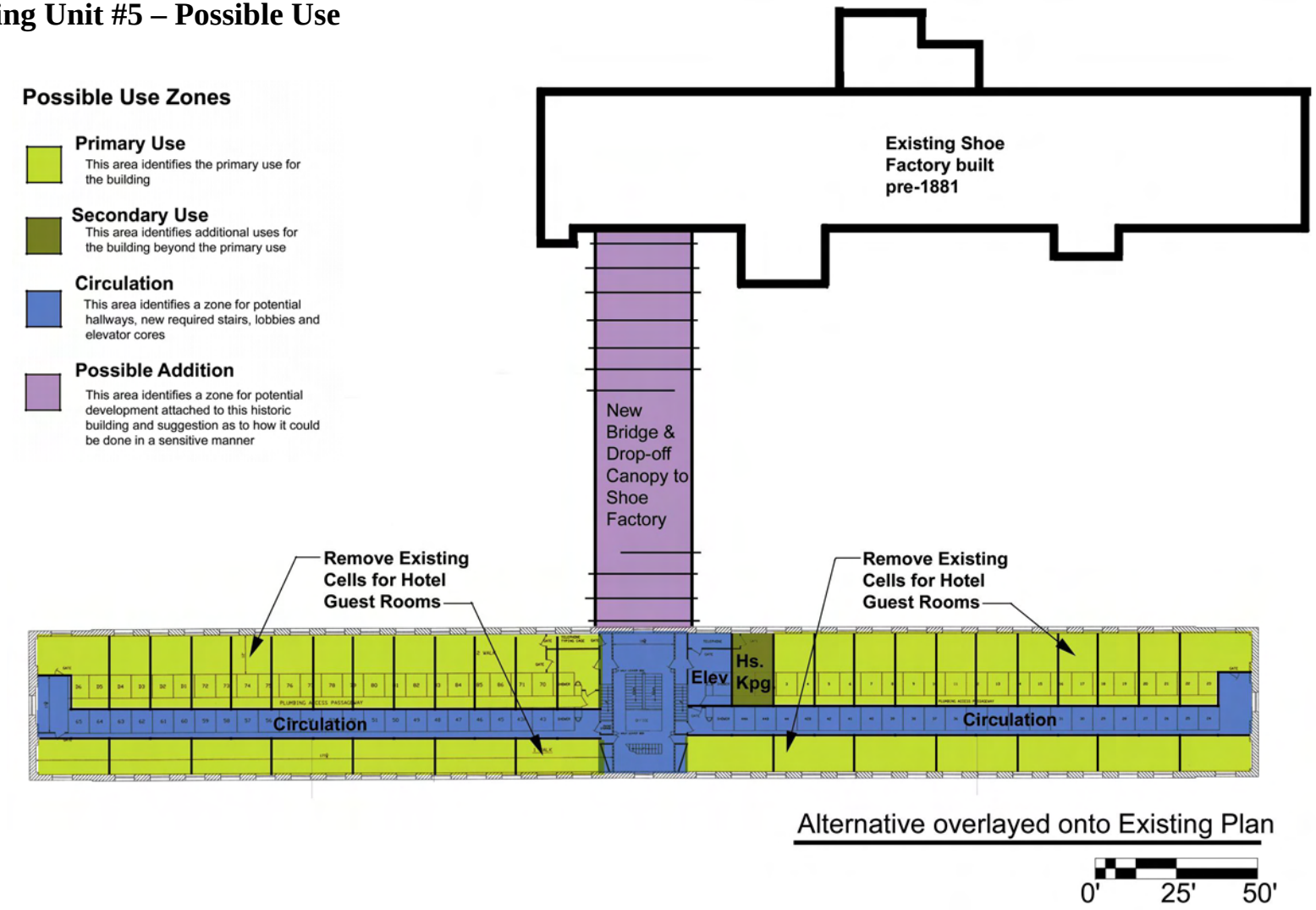
Potential Uses
1. Hotel – approximately 152 rooms (38 rooms on each floor x 4 floors)
2. Offices

Alternate Section

0' 25' 50'

Architecture

Housing Unit #5 – Possible Use

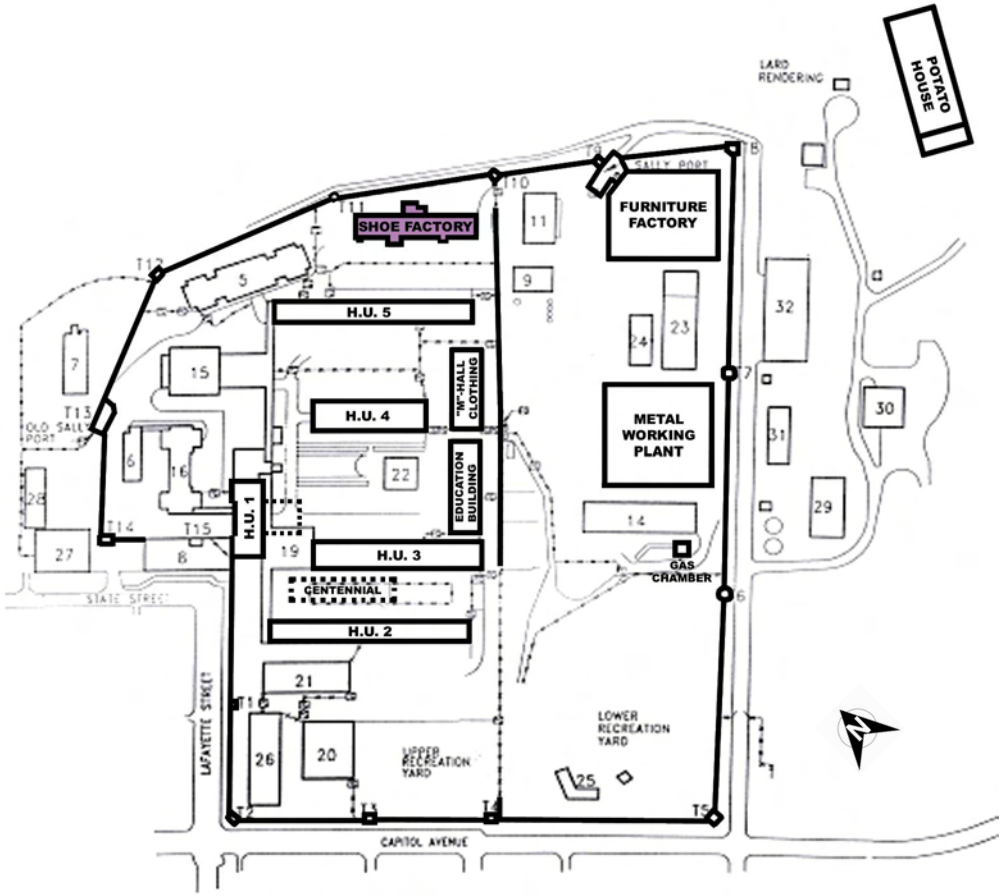


Architecture

Shoe Factory – Existing Information

General Information
Date of Construction: **pre-1881 although burned in 2 major fires**
No. of Floors: **4**
Existing Area per Floor Plates**: 12,000 gross sq. ft.**
Existing Total Floor Area: **46,600 gross sq. ft.**
Floor to Floor Height: **12'-0"-16'-0"**

Historic Information
1. The 2nd oldest building on the prison site
2. Somewhat cut-off from historic courtyard by H.U. 5, which was built during the WPA work.
3. Was one of the largest Saddletree manufacturer's in the world, owned by J.S. Sullivan Saddletree Factory
4. The only building on the site representing both 19th and 20th century prison inmate labor by lease, contract and state operated methods.



Architecture

Shoe Factory – Existing Information

Preservation Zones

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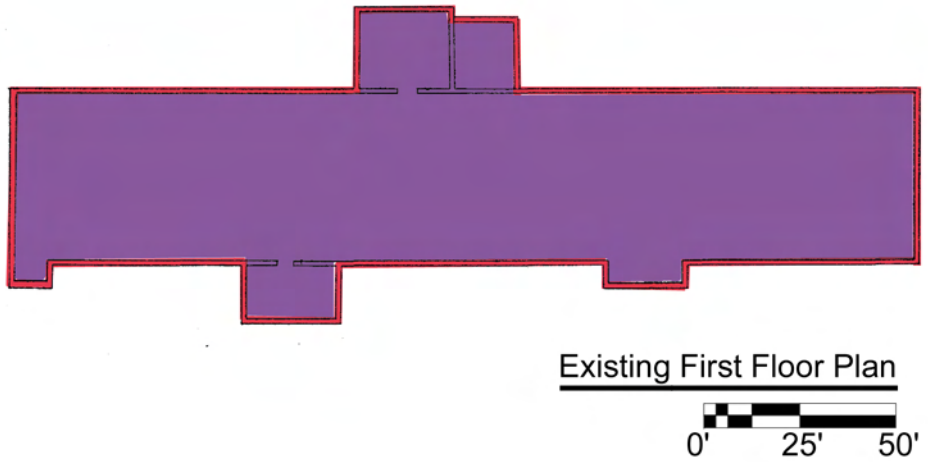
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs



Northeast corner of building, H.U. 5 is in the background

View of interior structure

Architecture

Shoe Factory – Possible Use

General Information
Date of Construction: **pre-1881 although it burned in 2 major fires**
No. of Floors: **4**
Existing Area per Floor Plates**: 12,000 gross sq. ft.**
Existing Total Floor Area: **46,600 gross sq. ft.**
Cell Floor to Floor Height: **12'-0"-16'-0"**

Redevelopment Issues
1. A significant amount of the original window openings have been bricked in over the years, these should be re-opened and restored.
2. Paint should be removed from the exterior brick surface.
3. The original window design should be replicated and installed.
4. Existing floor-to-floor height is ideal for redevelopment.

Potential Uses
1. Hotel / Convention Center

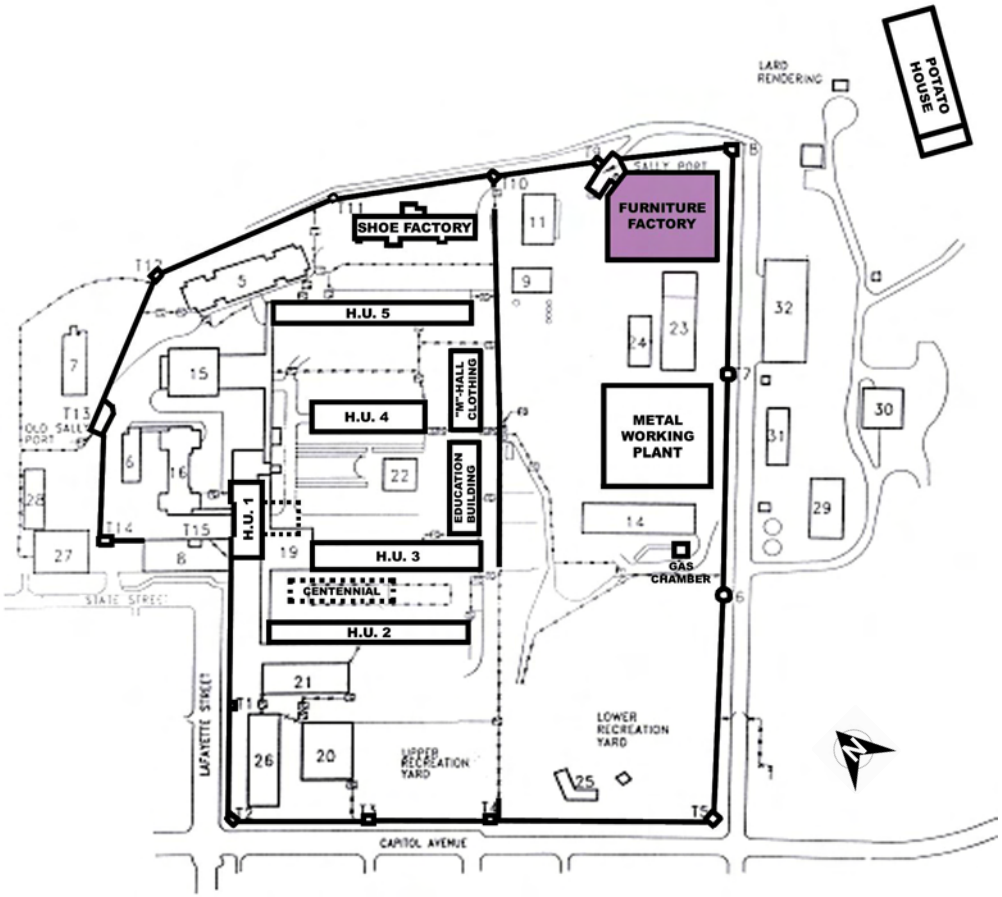
Other Successful Examples
1. The Westin Hotel, St. Louis

Architecture

Furniture Factory – Existing Information

General Information
Date of Construction: **between 1925-1936**
No. of Floors: **1** No. of Full Floors: **1**
Existing Area**: 35,200 gross sq. ft.**

Historic Information
1. Represents history of 20th century prison labor.
2. Built at the same time as the Metal Working Plant, the two should remain as a pair.



Architecture

Furniture Factory – Existing Information

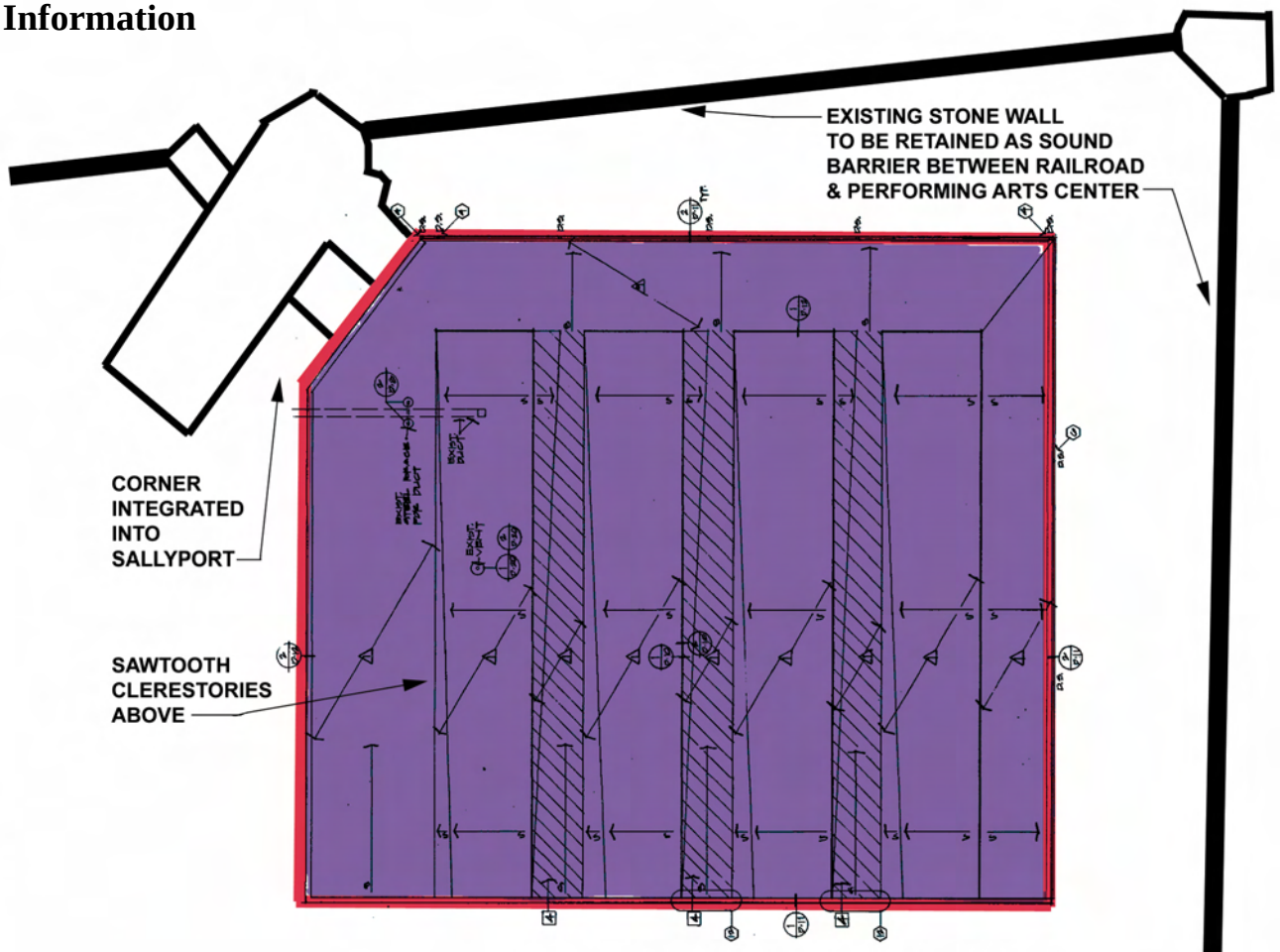
Preservation Zones

Level 1 - Preservation Zone
The character & qualities of this zone should be maintained & preserved as the highest priority

Level 2 - Preservation Zone
Every effort should be made to maintain and preserve the character and qualities of this zone

Level 3 - Rehabilitation Zone
Undertake all work in this zone as sensitive as possible; However, contemporary methods, materials, & designs may be selectively incorporated

Level 4 - Free Zone
Treatments in this zone, while sympathetic to the historic qualities & character of the building, may incorporate extensive changes or total replacement through the introduction of contemporary methods, materials & designs



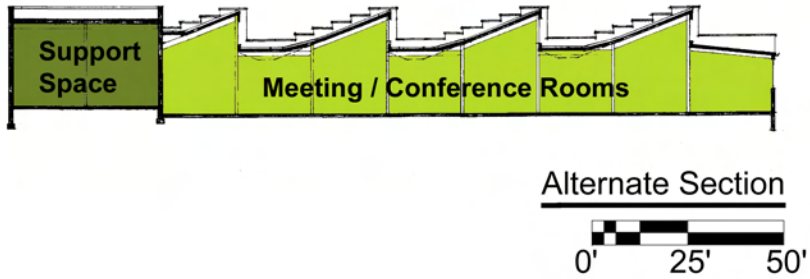
Preservation Zones over Existing Plan

Architecture

Furniture Factory – Possible Use

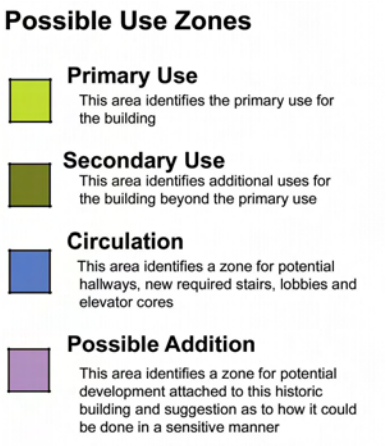
Redevelopment Issues

1. Adjacent to the existing rail line, the prison stone wall should remain around this building as a sound barrier.
2. Early graveyard may be located around and/or under this building.
3. The adjacent Sallyport is an integral part of this building and should remain.
4. The number of columns throughout the space could potentially be reduced with transfer beams.



Potential Uses

1. Meeting Rooms for Hotel / Convention and Conference Center
2. Exhibit Hall
3. Performing Arts Center
4. Restaurant



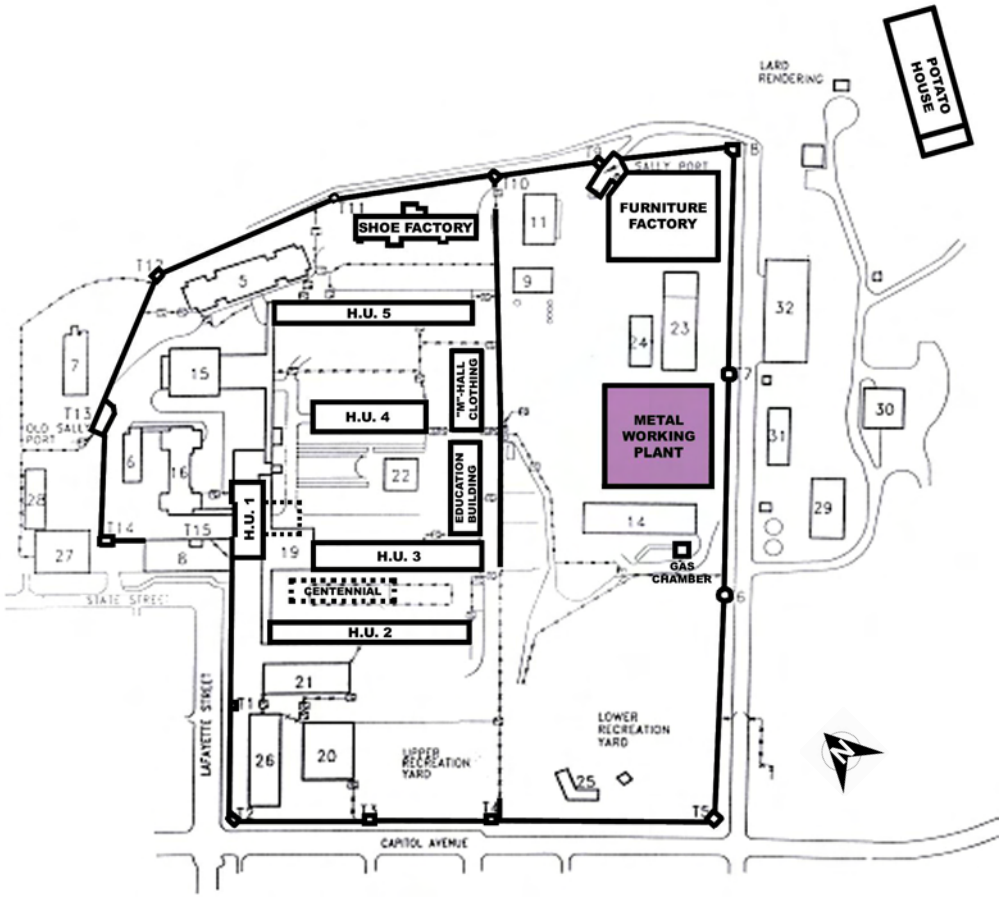
Existing view of South elevation, I-Hall is in the foreground to the right

Architecture

Metal Working Plant – Existing Information

General Information
Date of Construction: **between 1925-1936**
No. of Floors: **1**
Proposed Total Floor Area: **40,000 sq. ft.**

Historic Information
1. Represents history of 20th century prison labor.
2. Built at the same time as the Furniture Factory, the two should remain as a pair.



Architecture

Metal Working Plant – Existing Information

Existing Interior View

Preservation Zones

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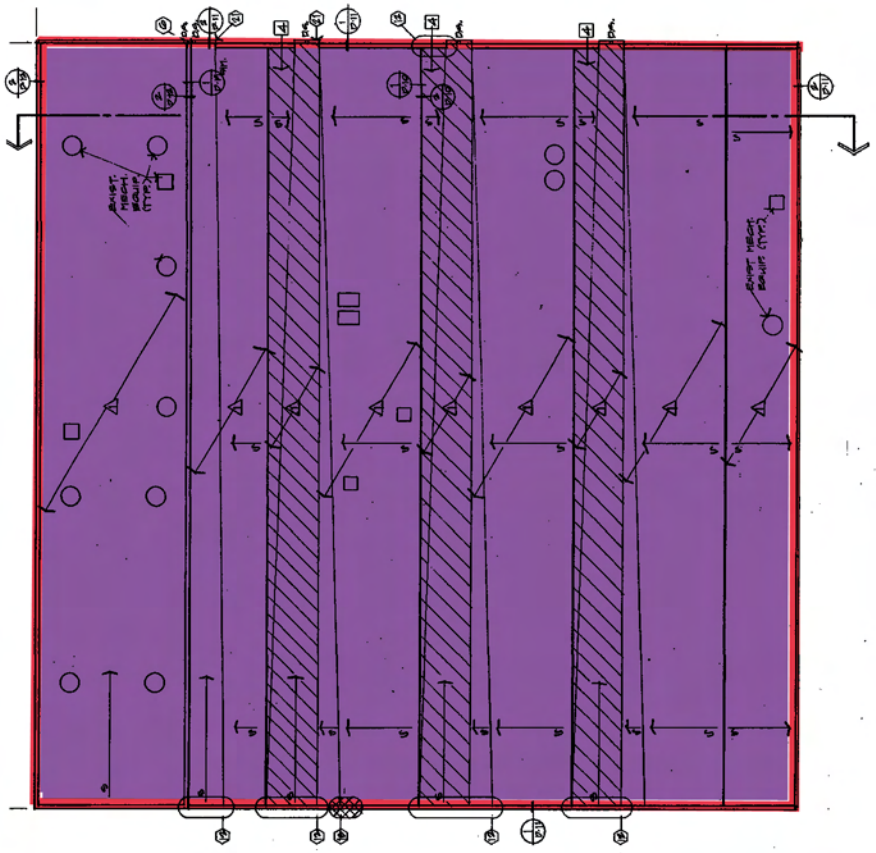


Existing First Floor Plan

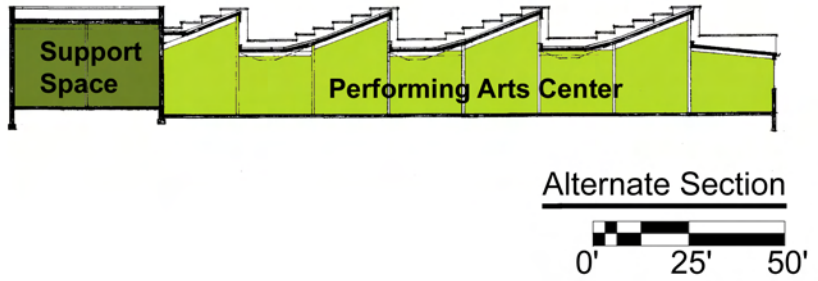
0' 25' 50'

Architecture

Metal Working Plant – Possible Use

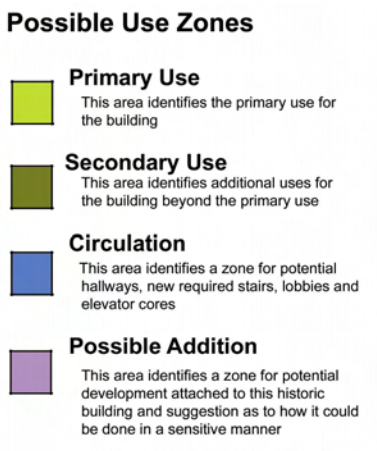
Redevelopment Issues

1. Skylights are a feature that should be incorporated into the re-use. This would require that the interior space remains a fairly open plan.
2. The number of columns throughout the space could potentially be reduced with transfer beams.



Potential Uses

1. Performing Arts Center
2. Restaurant
3. Meeting Rooms for Hotel / Convention and Conference Center
4. Exhibit Hall



Existing South Elevation, above grade steam pipes are in the foreground

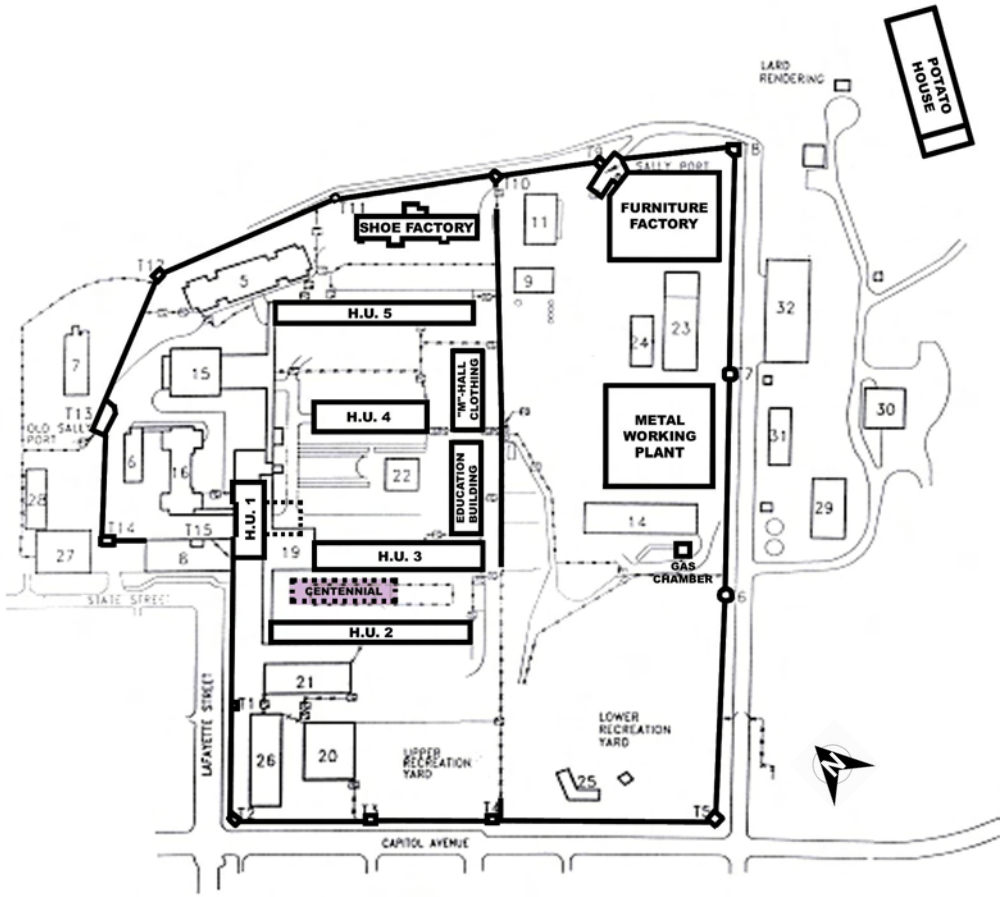
Architecture

Centennial Cells – Existing Information

General Information
Date of Construction: **pre-1885 (exact date unknown)**
No. of Floors: **Underground Foundation Remains Only**
Existing Area: **7,200 gross sq. ft.**

Historic Issues
1. Archeological investigations may have to occur if foundation is disturbed for future development.
2. According to early Sanborn maps, it appears that the north wall of the Centennial Cells was incorporated into an earlier stone prison wall that ran east and west.

View of secure exercise yards above the Centennial Cells



Architecture

Centennial Cells – Possible Use

Redevelopment Issues

1. Difficult to preserve ruins for viewing without a new structure to serve as protection from weather and erosion.
2. If plans were to include preserving these foundation remains, should other remains be left undisturbed, some may be even older than this structure. Through available Sanborn maps we know exactly where many foundation remains may be. In fact, the “E” Hall foundation, which was built before 1898, is exposed in the yard north of Housing Unit #4.

Potential Uses

1. Leave site undisturbed underground, interpret through maps, drawings & other historical information.
2. Excavate and interpret as ruins.

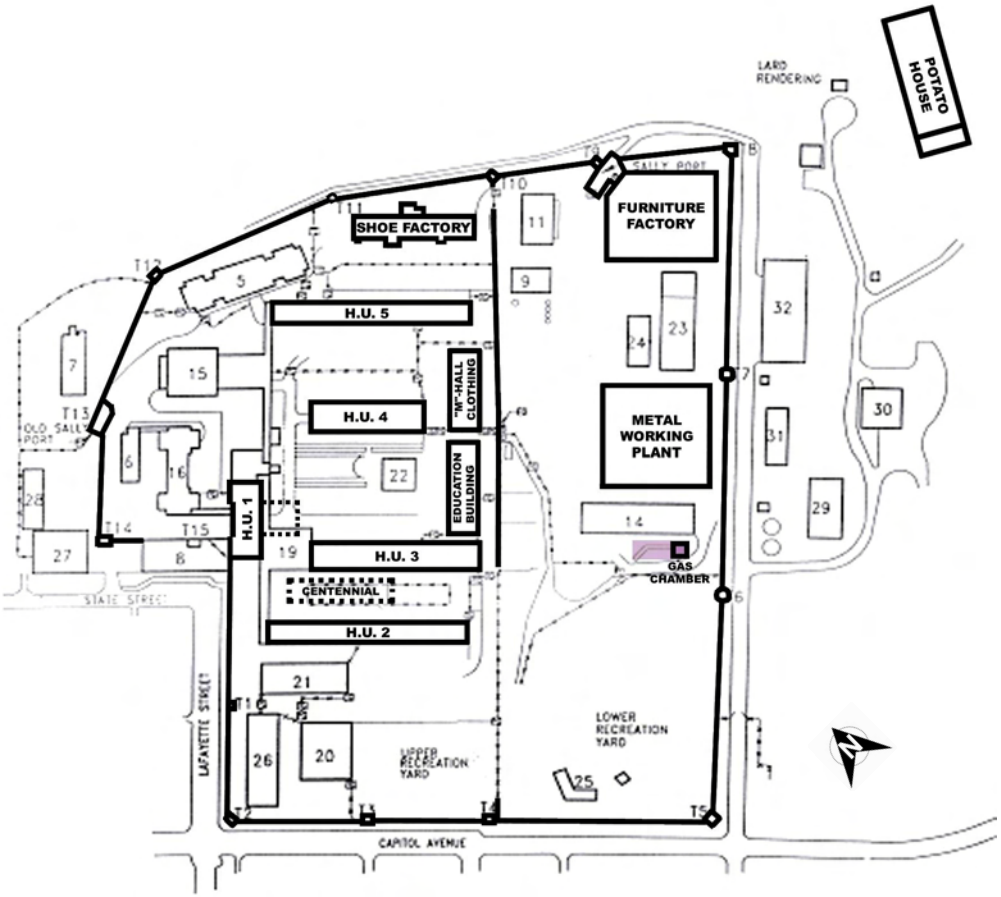
Photograph by Mark Schreiber taken during archeological investigation

Architecture

Gas Chamber – Existing Information

General Information
Date of Construction: **1937**
No. of Floors: **1** No. of Full Floors: **1**
Existing Area**: 750 gross sq. ft.**

Historic Information
1. The context of this building is important. An arbor once existed just outside the entrance along the walk to the west. The walk has an inlaid cross.
2. 39 executions and 1 lethal injection occurred here.
3. Last used in 1989.
4. Built by inmate labor; the stone is from the prison-operated quarry.



Architecture

Gas Chamber – Existing Information

Existing interior view

Preservation Zones

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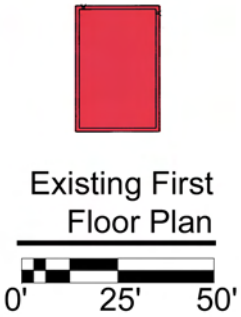


Existing view from Southwest

Architecture

Gas Chamber – Possible Use

Redevelopment Issues

1. Location may hinder new development; extra effort must be made to integrate with new construction around it.
2. The arbor and walk should be restored to retain historic setting.

Potential Uses

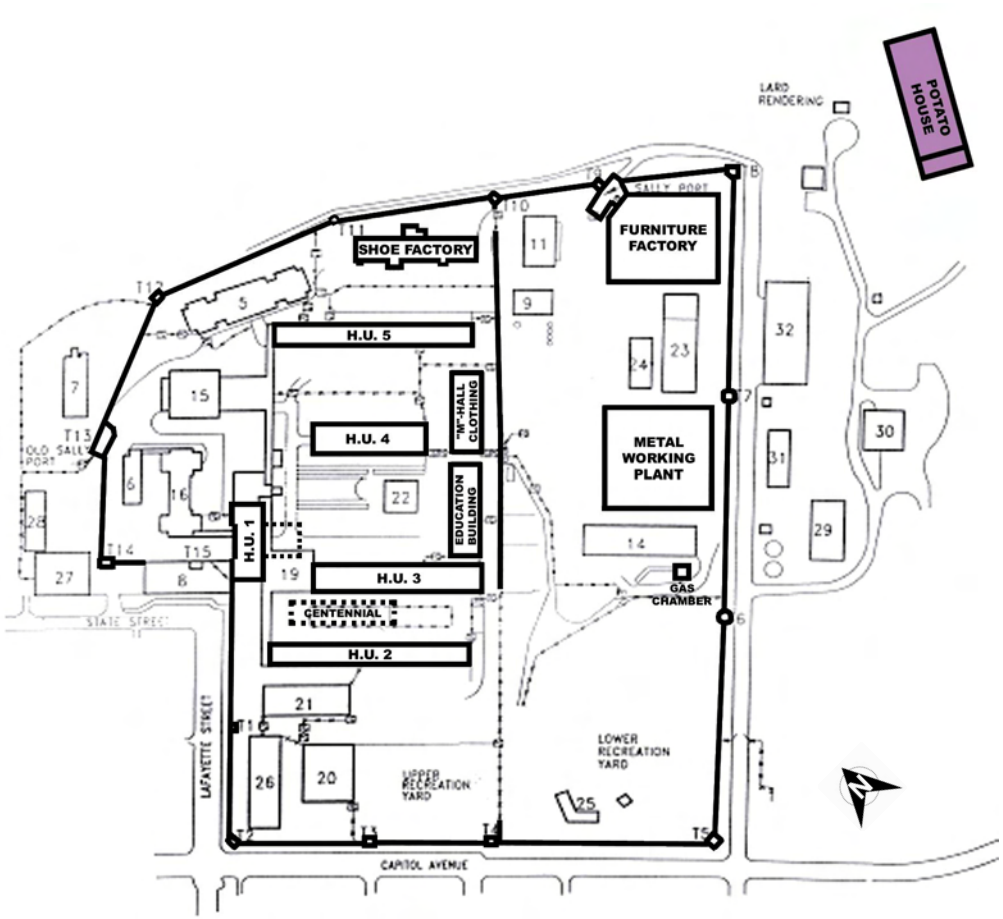
1. Prison Museum / Interpretive
2. Gas Chamber Museum H-9, an icon for future redevelopment

Architecture

Potato House – Existing Information

General Information
Date of Construction: **1935**
No. of Floors: **1** No. of Full Floors: **1**
Existing Area**: 24,000 gross sq. ft.**

Historic Information
1. Separated from the historic area by the roadway and stone walls.
2. The structure is buried under an earth berm. Some large trees have grown on top of the structure; the larger trees should be removed in order to maintain the building.



Architecture

Potato House – Existing Information

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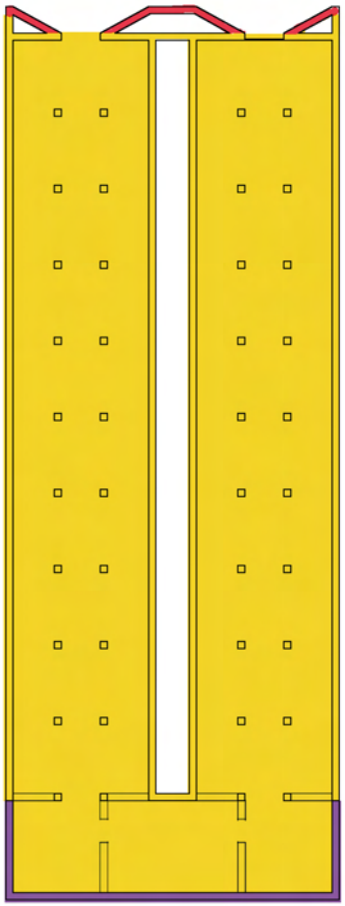


Existing First Floor Plan

0' 25' 50'

Existing view of interior

Existing view of North elevation

Architecture

Potato House – Possible Use

Redevelopment Issues
1. Waterproofing the roof will be expensive and require careful detailing.
2. There are no windows on the east or west elevations.

Potential Uses
1. Interpretive Center for Department of Natural Resources
2. Farmer's Market

Architecture

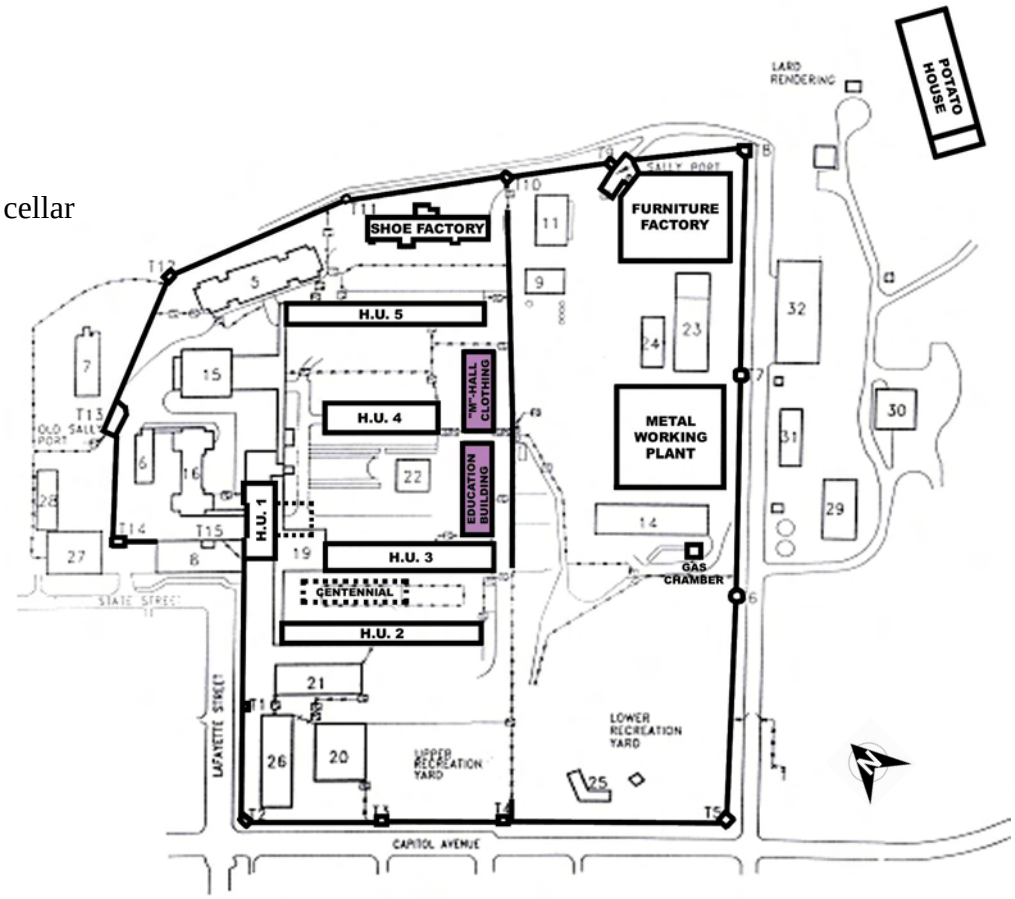
Education Building / Dining Hall & Clothing Factory – Existing Information

Education Building / Dining Hall General Information
Date of Construction: **1885**
No. of Floors: **2**
Existing Area per Full Floor Plates**: 11,100 gross sq. ft.**
Existing Total Floor Area: **22,200 gross sq. ft.**
Original Uses: 1st floor: Lower Dining Hall & Kitchen
2nd floor: Larger Dining Hall
3rd floor: Chapel, Library
Basement: ice plant, cold storage & vegetable cellar

Clothing Factory General Information
Date of Construction: **pre-1885**
No. of Floors: **2**
Existing Area per Full Floor Plates**: 9,600 gross sq. ft.**
Existing Total Floor Area: **19,200 gross sq. ft.**

Education Building / Dining Hall Historic Information
1. Upper floors were destroyed during the 1954 riot.
2. Originally enclosed courtyard.

Clothing Factory Historic Information
1. Upper floors were destroyed during the 1954 riot.
2. Older than the Dining Hall but original construction date unknown.



Architecture

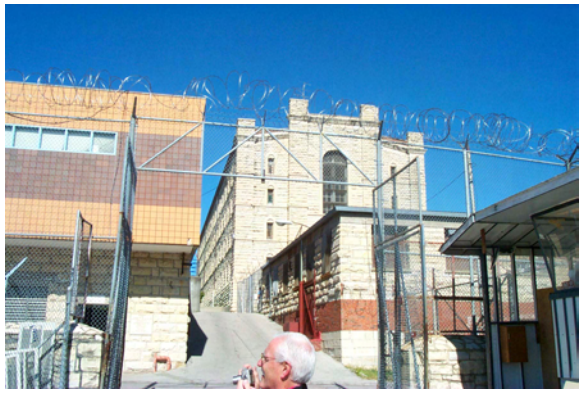
Education Building / Dining Hall & Clothing Factory – Possible Use

Dining Hall General Information
Date of Construction: **1885**
No. of Floors: **4**
Proposed Area per Full Floor Plates**: 11,100 gross sq. ft.**
Proposed Total Floor Area: **44,400 gross sq. ft.**

Dining Hall Redevelopment Issues
1. Modern top floor addition should be removed.
2. More photographs or drawings need to be located.

Dining Hall Potential Uses
1. Offices

View of the north elevation of the Education Building / Dining Hall



Current photograph looking west with H.U. 4 in the background. The Dining Hall is to the left and the Clothing Factory (currently Maintenance), to the right.

Clothing Factory General Information
Date of Construction: **pre-1885**
No. of Floors: **3**
Proposed Area per Full Floor Plates**: 9,600 gross sq. ft.**
Proposed Total Floor Area: **28,800 gross sq. ft.**

Clothing Factory Redevelopment Issues
1. Since the original upper floors were destroyed during the 1954 riot a new modern roof and/or potentially glass clerestory could be constructed according to needs of the new use.

Clothing Factory Potential Uses
1. Meeting Hall for Convention Center

Early photograph / rendering of stone Dining Hall with brick Clothing Factory to the north.

Architecture

Stone Walls – Existing Information

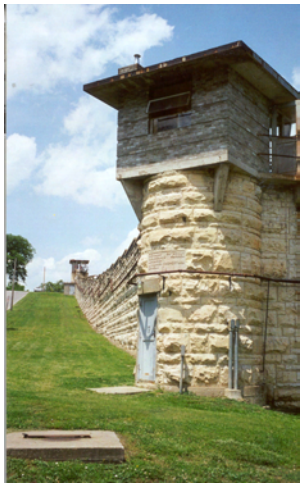
General Information

Date of Construction: **Pre-1885 to 1980's**

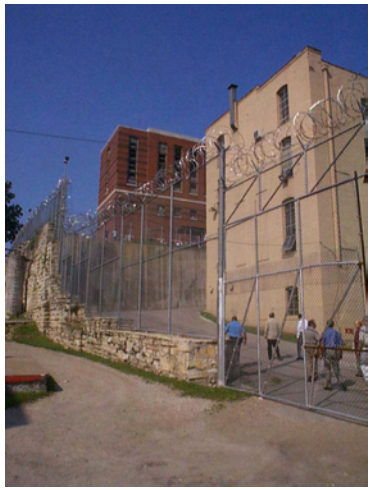
(The earliest date is unknown at this time, although a stone wall was contracted for construction as early as 1834.)

Historic Issues

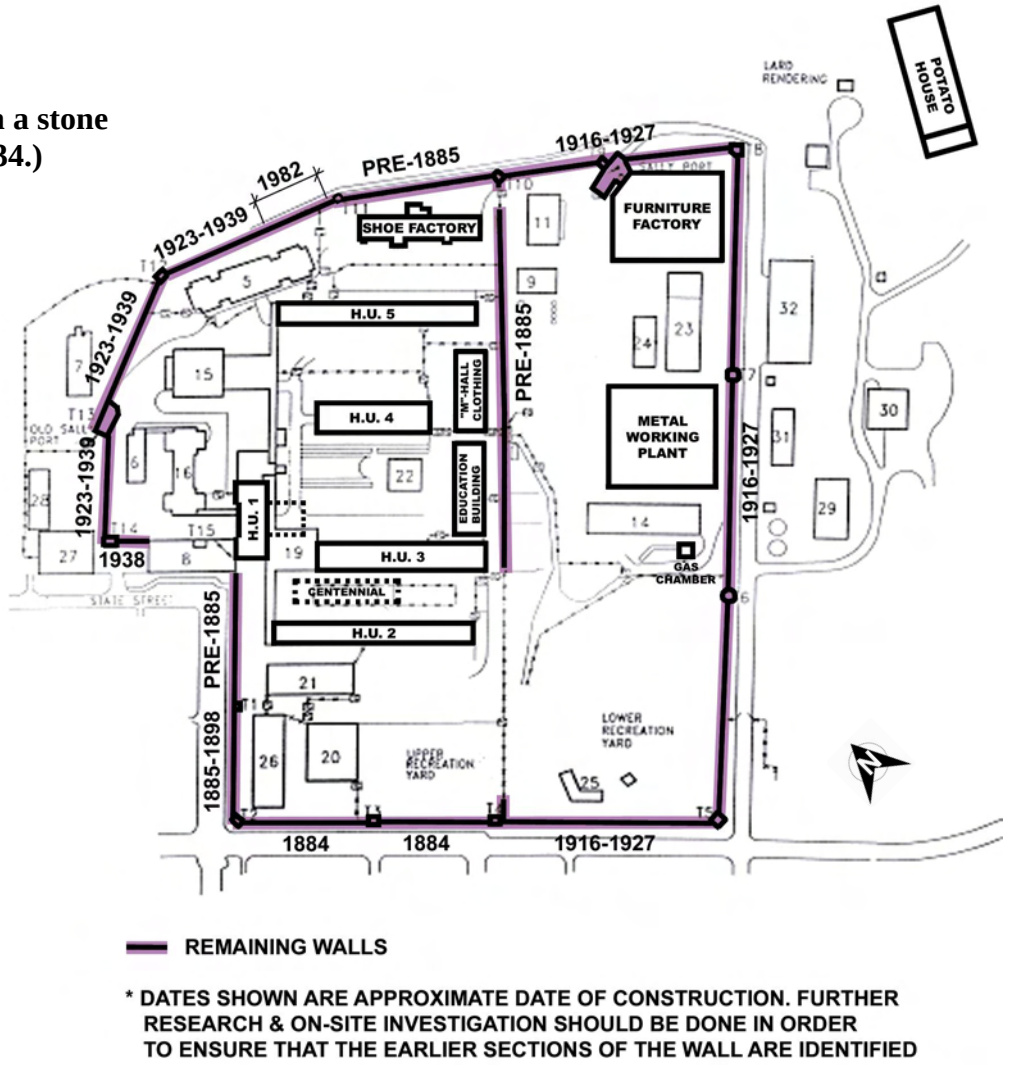
1. The stone walls have been modified over time as the prison was enlarged and security improved. A more extensive evaluation should be done to determine what periods certain sections of the walls were built.
2. Some stones have early markings by prisoners, quarrying and earlier uses.



Existing view of typical guard tower.



Existing view of Northern end of pre-1885 wall @ Shoe Factory



Architecture

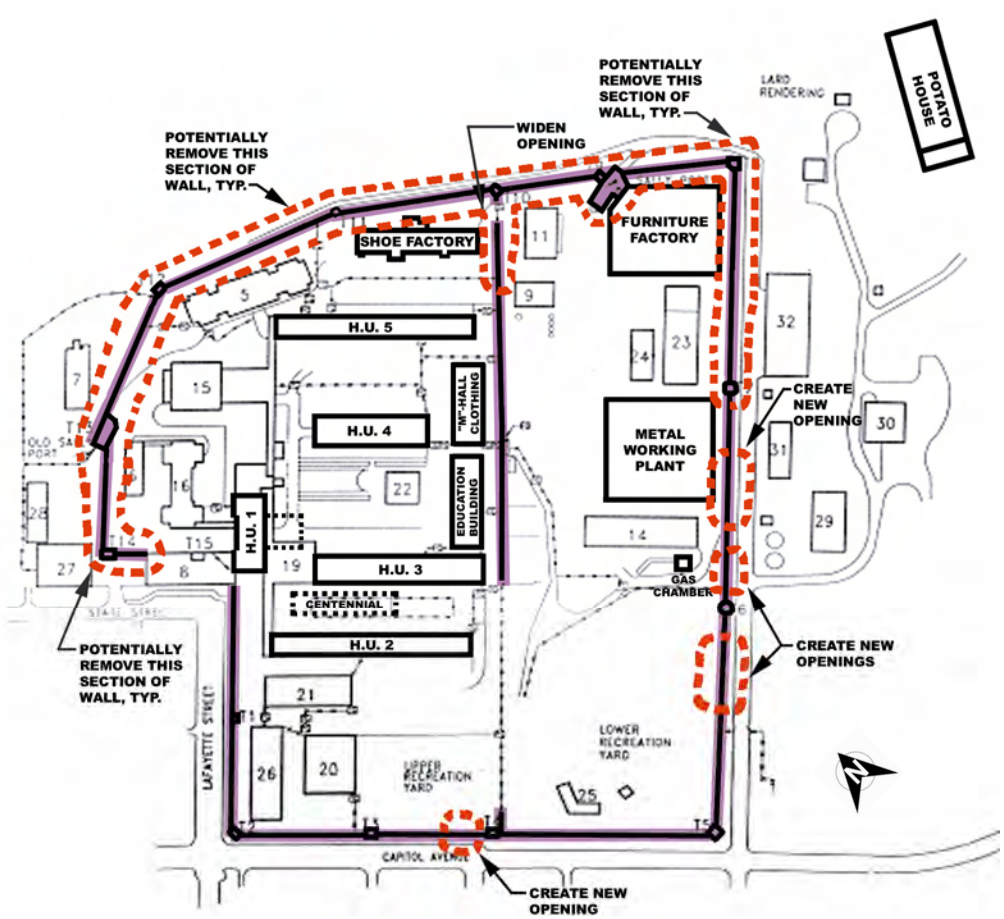
Stone Walls – Possible Use

Redevelopment Issues

1. New openings will be required through the walls for vehicular and pedestrian access.
2. Some guard towers should be restored to their original appearance through photographic documentation.
3. Corners should be retained in order to preserve the boundaries of the enclosed prison site for interpretative purposes.
4. Care must be taken to retain the walls as a key historic feature to the site.
5. Any new openings should be clearly defined as different from restored openings with careful and consistent detailing.

Potential Uses

1. Interpretation of the prison site boundaries.
2. Existing sound barrier against rail line to the north.
3. Defines the historic zone.
4. Tourist destination feature as observation points from guard stations. It would be interesting a guard station as a modern example and restore others to an earlier period. Many people would be curious as to what it would be like to have monitored the site for long shifts as they do now. Also, access into the northern guard stations could offer tremendous views up and down the Missouri River.



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Building Systems

M S P

PARSONS in association with
Development Strategies . Trivers Associates . TSi Engineering . William Tao & Associates . George Dickie Associates

Building Systems

Introduction

The following are descriptions of heating, ventilating and air conditioning (HVAC), plumbing, fire protection and electrical systems at major buildings within the Jefferson City Correction Center, are based on a brief building and site walk-throughs and discussions with facility operating personnel.

Central Plant

Existing Conditions

The central plant consists of four 1000 BHP and one 300 BHP high-pressure steam boilers. They are headered together to provide a redundant heating system for the prison. Under current operating conditions, the summer boiler (300 BHP) is to small too satisfy the summer load. In the winter, two large boilers can satisfy the load. The plant has been well maintained and appears to be in excellent condition.

Central hot water is also generated and distributed to each building from the central plant through a steam to hot water heat exchanger.

Proposed Actions

The plant if maintained at its current level could service the facility for the next 20 to 30 years. The boilers are currently an asset to the State and should be considered in any transfer of the property.

In our opinion, the future of the boiler plant hinges on ownership of the property and individual buildings. If the property, or a significant portion of the property, is held by a single entity, then a central boiler plant could provide operating benefits to the facility of reduced maintenance, optimized operational (energy and personnel) cost savings and reduced building construction costs. The cost of central utilities could

Boiler Plant Auxiliaries

Boiler Plant Exterior

Building Systems

be incorporated into the individual rate structures. A full cost benefit ratio could be performed to determine if this would be a viable/attractive concept. However, if individual title is transferred for the properties, then we believe that the central utility system should be abandoned and individual systems serving each facility constructed.

It should be noted that the current development plant calls for major new road construction directly at the current boiler plant site. If this is the case this equipment will need to be relocated, or some combination of central and distributed plant established, or the unused portions of the facility mothballed under new individual heating plant are established.

If the plant is to be disposed, of the State should considered dismantling the plant and relocating it to the new prison or other State facility.

Boilers

Overhead Steam, Condensate & DHW Piping from Boiler Plant

Building Systems

Utility Distribution & Steam Tunnels

Existing Conditions

The steam tunnels are a mixture of brick arch structures and new reinforced concrete tunnels. The piping in these tunnels were replaced in the mid-1980's. The steam piping appears to be in good condition, but operating personnel indicate that they have noticed increased maintenance requirements with the piping. No water leakage or standing water was observed during our visit, although some steel angle supports showed signs of advanced deterioration.

Central domestic hot water piping appears to be in good condition. A large portion of this piping appears to be uninsulated.

Domestic cold water piping is also installed in the tunnels. This piping appears to be in very poor condition.

Proposed Actions

The steam tunnels, in general, appear to be in satisfactory condition and could be reutilized; however, we have observed structural conditions that need to be addressed. The piping in the tunnel is currently 20 years old and will require escalating maintenance. Again, we believe that the future of the tunnels and piping depend on the future ownership of the campus. See Central Plant.

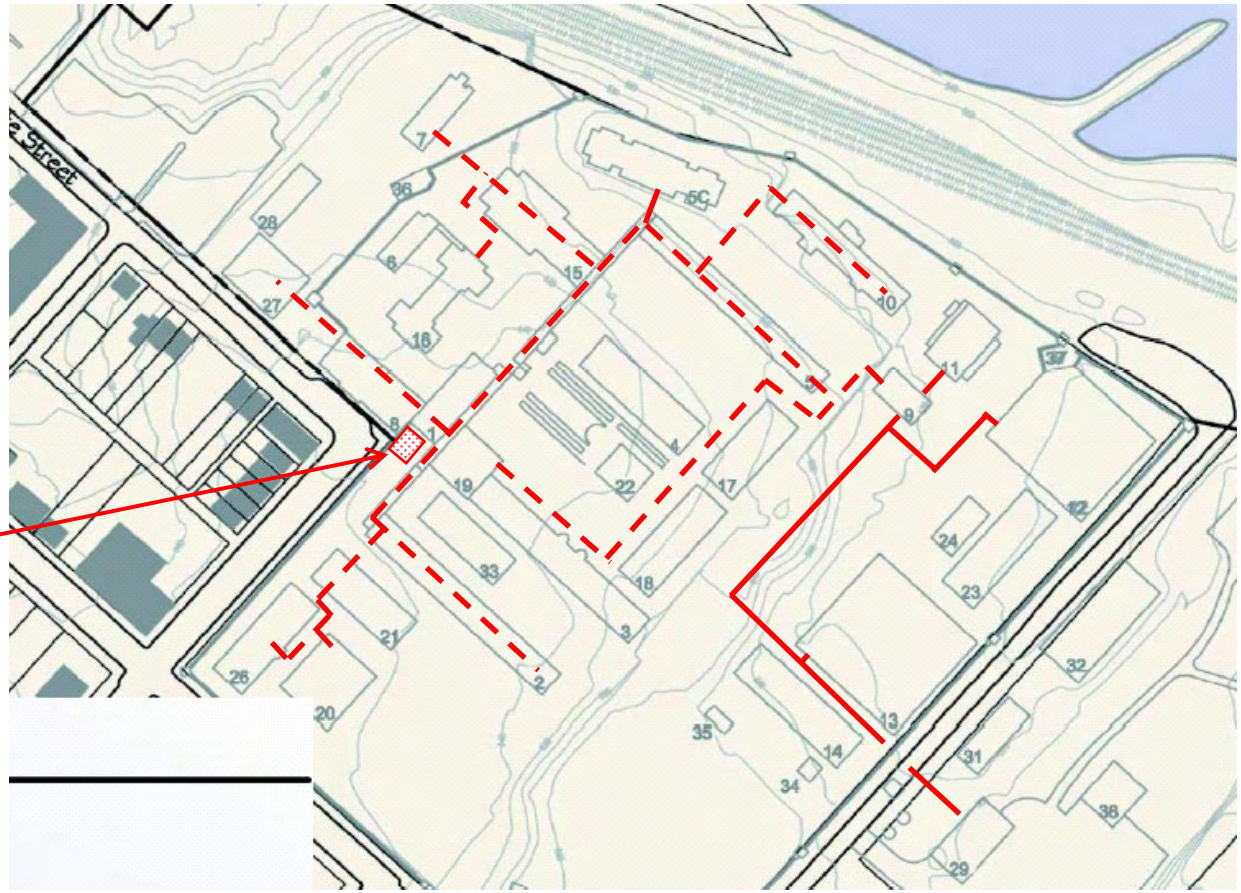
Building Systems

Steam Tunnels – Utility Distribution

Overhead Distribution

Underground (Direct Buried, Tunnels or Through Basements) Distribution

Utility Transformers



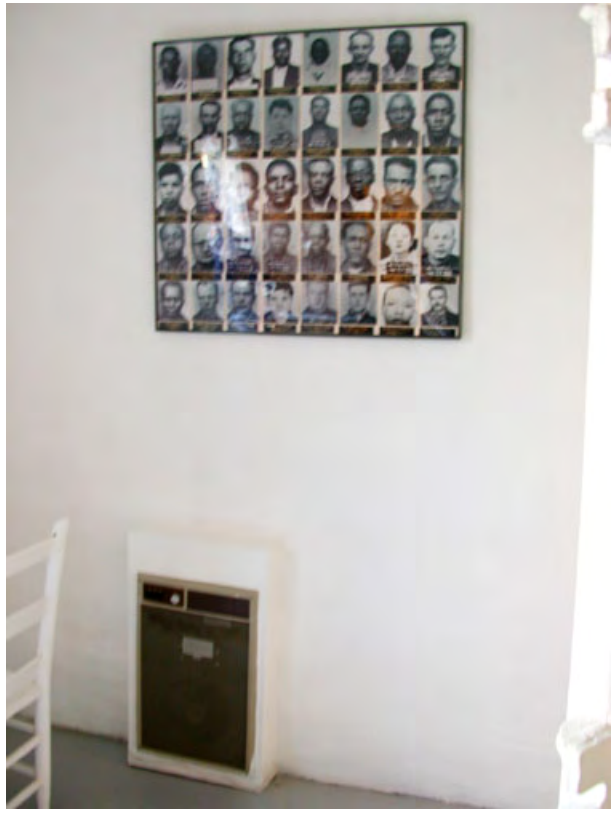
Building Systems

Gas Chamber

Existing Conditions
The gas chamber is a stand-alone structure. It is electrically heated with recessed unit heaters by the doors. Minimal plumbing and electrical systems are provided.

Propose Actions
We understand that the building is to be preserved in its current condition, as an historical artifact.

Gas Chamber Door



Wall Mounted Unit Heater

Building Systems

Furniture Factory

Condensate Pump

Existing Conditions

The Furniture Factory provides furniture for State facilities. We understand that almost all of the furniture equipment infrastructure will be relocated to the new prison. The building is serviced with steam heat from the central plant from overhead lines. Pressure is reduced inside the building to 15 lbs. The building is heated with large unit heater style equipment. There is no central ventilation system. The building is fully sprinklered.

Electrically the building is served from an 800 amp/440 volt, 3 phase panel. The building has adequate power for machine shop activities.

Proposed Actions

The building remains viable for light machining applications. A new ventilation system and spot cooling would likely be required for a commercial setting.

Building Systems

Metal Working Plant

Existing Conditions
The Metal Working Plant provides license plates for motor vehicles throughout the state. We understand that almost all of the equipment and infrastructure will be relocated to the new prison. The building is serviced with steam heat from the central plant from overhead lines. Pressure is reduced inside the building to 15 lbs. A summer steam boiler (1380 lbs./hour) is contained in the building. It is currently not utilized. The boiler should be capable of providing minimal heating to a 30,000 sq. ft. structure.

The building is heated with large unit heater style equipment. There is no central ventilation system. Exhaust is only provided in the finishing area. The building is fully sprinklered.

Electrically the building is served from a two 600 amp/440 volt, 3 phase panel. The building has adequate power for machine shop activities. Lighting is a mixture of incandescent and fluorescent

Proposed Actions
The building remains viable for light machining applications. A new ventilation system and spot cooling would likely be required for a commercial setting. In general, the systems could continue to be serviceable in an industrial setting.

Auxiliary Boiler

Building Systems

Shoe Factory

Existing Conditions
The Shoe Factory has been renovated over the years to be a manufacturing facility of "finer" quality goods which require detailed tasks. In general, lighting has been improved and minimal power distributed for sewing machines and presses. The building is heated with steam unit heaters from distribution piping in the basement. No ventilation is currently provided.

Proposed Actions
If the Shoe Factory is to be renovated into a commercial center, then all new mechanical/electrical infrastructure will be required. Existing electrical service is likely not adequate to service commercial requirements.

Basement Storage Room – Steam Pipe

Building Systems

Boiler House

Existing Conditions
The Boiler House contains the original boiler plant from the 1930's and supplemented in 1979. The equipment is virtually useless with spare parts being stripped for other facilities.

The building currently serves two functions:

1) as a transition between the new steam plant distribution system and the original steam distribution system.
2) To provide space for new condensate pumps were recently installed to return condensate to the new Boiler House.

Condensate Pump System

Proposed Actions
The building is no longer a necessary part of the campus infrastructure except for the two minimal space requirement functions noted above. Gutted, abated and cleaned the building could be functional space adapted to many uses.

Old Boiler Plant and Overhead Piping

Interior View

Building Systems

Housing Unit #1

Existing Conditions
Housing Unit #1 is provided with minimal mechanical and electrical systems. Steam unit heaters provide space heating; ceiling fans provide circulation. No central ventilation system is provided. The building is fully sprinklered.

The building is equipped with a 225 amp/440 volt service. Lighting and distributed power are minimal but meet current space requirements.

Proposed Actions
Any adaptive retrofit would require a wholesale gut rehab of the mechanical/electrical systems in the facility.

Building Systems

Housing Unit #2

Existing Conditions
Housing Unit #2 is provided with minimal mechanical and electrical systems. An abandoned heating/ventilating system is provided at the rooftop level. Steam unit heaters provide space heating; ceiling fans provide circulation. No central ventilation system is provided. The building is fully sprinklered.

The building is equipped with a 500 amp/440 volt service. Lighting and distributed power are minimal but meet current space requirements.

Proposed Actions
Any adaptive retrofit would require a wholesale gut rehab of the mechanical/electrical systems in the facility.

Building Systems

Housing Unit #3

Existing Conditions
Housing Unit #3 is provided with minimal mechanical and electrical systems. Heating and ventilating units (100 percent outdoor air) were installed in a basement mechanical room in the 1980's. These units appear to be in good condition. The building is fully sprinklered.

The building is equipped with a 400 amp/440 volt service. Lighting and distributed power are minimal but meet current space requirements.

Proposed Actions
Any adaptive retrofit would require a wholesale gut rehab of the mechanical/electrical systems in the facility.

Basement Heating and Ventilating Units

Building Systems

Housing Unit #4

Existing Conditions
Housing Unit #4 is provided with minimal mechanical and electrical systems. Steam unit heaters provide space heating; ceiling fans provide circulation. No central ventilation system is provided. The building is fully sprinklered.

The building is equipped with a 440 volt service. (Amperage could not be determined.) Lighting and distributed power are minimal but meets current space requirements.

Proposed Actions
Any adaptive retrofit would require a wholesale gut rehab of the mechanical/electrical systems in the facility. However, we understand the current master plan may include reutilizing this facility as a history museum. If that is the case it will be important to introduce modern MEPF systems into the building in a manner that consistent with the period nature of the museum. In addition, a fully conditioned space may be difficult to achieve without substantial intrusion due to the construction of the cell units. Only partial environmental control of the cell blocks may be provided (in addition to being historically accurate), while the central core is a more conditioned space.

Typical Cell Converted to Office

Views of Main Corridor with Unit Heaters

Building Systems

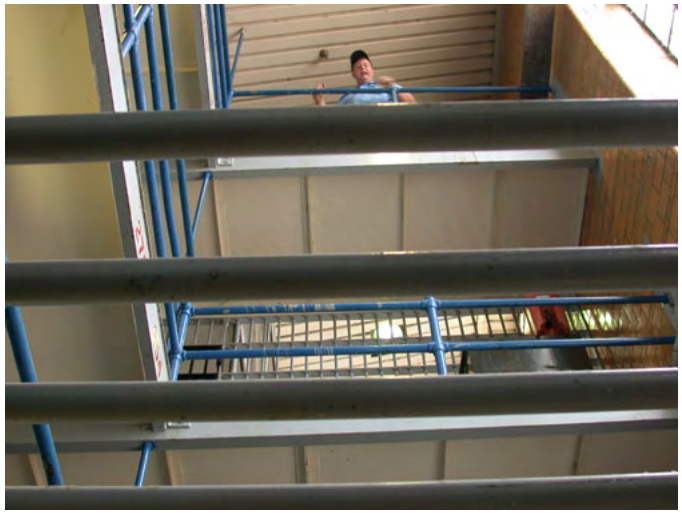
Housing Unit #5

Existing Conditions
Housing Unit #5 is provided with minimal mechanical and electrical systems. Rooftop heating and ventilating units were abandoned in the 1980's and are in poor condition. Steam unit heaters provide space heating; ceiling fans provide circulation. No central ventilation system is provided. The building is fully sprinklered.

The building is equipped with a 225-amp/440 volt service from Building 5C. Lighting and distributed power are minimal but meets current space requirements.

Proposed Actions
Any adaptive retrofit would require a wholesale gut rehab of the mechanical/electrical systems in the facility.

Interior – Unit Heaters and Ceiling Fans



Interior Stairwell Core

Ice Plant Equipment

[redacted]

Environmental Summary

M S P

PARSONS in association with
Development Strategies . Trivers Associates . TSi Engineering . William Tao & Associates . George Dickie Associates

Environmental Summary

Introduction

A Phase I Environmental Site Assessment (ESA) was performed in November, 2001 for the property known as the Jefferson City Correctional Facility (MSP) located in Jefferson City, Cole County, Missouri. The Phase I ESA was conducted for the purpose of identifying potential recognized environmental conditions (RECs) associated with the property. In addition, a Phase I Environmental Site Assessment (ESA) was performed in June 2001, for the property known as The State Agency for Surplus Property. Together these two documents are referenced one to the other and presented in Appendix A.

Location

The subject property occupies approximately 150 acres in Cole County, Missouri. The main prison is bounded by; East State Street, Lafayette Street, and East Capitol Avenue to the east; Dulle and Hampton Towers to the north; Union Pacific and Missouri River to the west; and the Missouri Department of Surplus Properties to the south. The subject property consists primarily of grass and tree covered lots, asphalt and concrete lots, and limestone and brick buildings with concrete basements. Concrete sidewalk, streets, alleys, yards, and several underground utilities surround the subject property. The State Agency for Surplus Properties is located on the Jefferson City Correctional Facility property.

Jefferson City Correctional Facility Administration Building Facing North

Environmental Summary

Summary of Findings

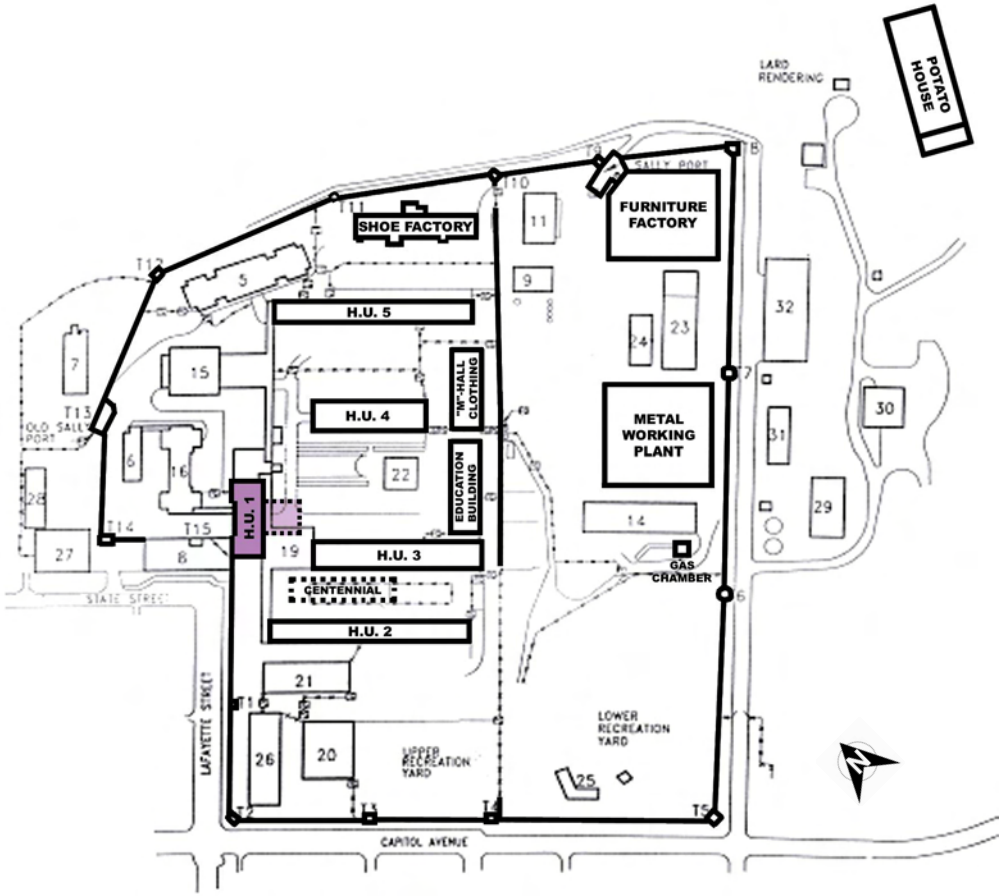
The Environmental Data Resources (EDR) database search identified 33 facilities within their respective American Society for Testing Materials (ASTM) defined search distances from the subject property.

Twelve UST (Underground Storage Tank) sites were located within the ¼-mile radius search of the subject property. These sites were

- Jefferson City Correctional Center,
- SIPI's 66,
- Former Medical Arts Building,
- Buescher Memorial Home,
- Hocker Oil Company,
- Jefferson City Station,
- Phillip's 66/Pump Handle Snack Shop,
- Turner's Conoco,
- Central Maintenance Garage,
- Al's Tire Service,
- State of Missouri Surplus Property, and
- Cole County Courthouse.

Ten LUST (leaking underground storage tank) sites were located within ½-mile of the subject property. These sites were

- Former Medical Arts Building,



Environmental Summary

- Hocker Oil Company,
- Jefferson City Station,
- Central Maintenance Garage,
- Al's Tire Service,
- State of Missouri Surplus Property,
- Sprint,
- Jefferson State Office Building,
- Central Education Facility,
- Fill and Wash and Clark and Elm.

Seven Resource Conservation and Recovery Act Small Quantity Generator (RCRA SQG) sites were located within ¼-mile of the subject property. These sites were

- Jefferson City Correctional Center,
- Jefferson City Central Maintenance Center (820 East Miller Street),
- Jefferson City Central Maintenance Center (210 Monroe Street),
- Al's Tire Service,
- Missouri Bar Print,
- City of Jefferson City, and
- Firestone Tire and Rubber Company.

One FINDS (Facility Index System) site was located as part of the search. This site was Jefferson City Correctional Center, the target property.

One FTTS [FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) /TSCA (Toxic Substance Control Act) Tracking System] site was located. This site was also the Jefferson City Correctional Center.

Three orphan sites were indicated by the EDR report. An orphan site is defined as a site unmappable with the information available. One site was Delong's, located on East Capitol Avenue in Jefferson City, Missouri 65101. This site was classified as a UST. A second site was

Environmental Summary

SS 5634, located at 507 McCarty Street in Jefferson City, Missouri 65101. This site was also classified as a UST. A third site was the MO Highway and Transportation Dept., located on East McCarty Street in Jefferson City, Missouri 65101. This site was classified as an LUST. Information on the address location and activities on these sites was not provided.

The following RECs have been identified for the subject property as a result of the Phase I ESA:

- Potential asbestos-containing building materials (ACBM);
- Potential lead-based paint (LBP);
- Potential soil and groundwater impact from UST and LUST tank removal sites at topographically equal or lower elevations to the property located at the old boiler house, Surplus Properties, the garage facility, behind the Soap factory, and the new boiler house;
- Potential soil and groundwater impact from current and historical industrial sites located in two places within the prison. The current site is located in the west section in a topographically low area of the prison. The historical industrial site is located in the east section in a topographically high area of the prison where the current upper playing fields are located. Former chemical storage vaults located on the southeast side of the prison between the new boiler house and Surplus Properties would also be a target;
- Potential soil impact from unknown sources of backfill materials located in five locations in and around the prison. The first location is the current Administration Building and Garage Facility. The second location is outside the southeast prison wall along East Capital Drive. The third location is the terrace slope where the new boiler house is located. The fourth location is along the bluffs next to the former Lard house and Potato House. The fifth location is a soil hill trending northwest/southeast between the upper and lower playing fields.
- Recognized environmental conditions relate to possible environmental impacts associated with historic land use and practices, and potential sources of environmental impacts associated with the existing building and/or current site practices.

Asbestos and lead-based paint inspections of existing structures must be performed by Missouri licensed inspectors. These inspections are required by federal, state and local regulations prior to disturbance of these structures. Environmental soil borings may be necessary for the subject property in the areas topographically lower or equal to former UST and AST sites; current and former industrial site locations within the prison; the former chemical storage vaults outside the prison; and the five backfill locations in and around the prison to determine if any environmental impact exists.

Environmental Summary

Purpose

The purpose of the environmental site assessment is to address potential environmental concerns of the subject property by reviewing past usages of the subject property and adjacent properties, identifying recognized environmental conditions (RECs), and assessing the environmental impact of the RECs on the subject property. RECs are defined in ASTM E 1527-00 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." An additional purpose of this ESA is to address the relevance of the identified RECs to the subject property's future development.

The environmental site assessment was conducted in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM E 1527-00. The Phase I ESA activities consist of:

- Records Review
- Site Reconnaissance
- Interviews
- Documentation

The conclusions included in the report were prepared with the understanding that the sites may be redeveloped in the near future.

See Appendices A for the full details of the Phase I Environmental Site Assessment (ESA) for JCCC (MSP) and Surplus Property.

[redacted]

Framework Plan

The MSP Redevelopment Project

Appendices A, B, C, & D

M S P

Bob Holden, Governor

[redacted]

"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty."

Daniel Burnham - 1907

Framework Plan

The MSP Redevelopment Project

Appendices A, B, C, & D

M S P

October 2003

PARSONS 400 Woods Mill Road South, Suite 330 . St. Louis, Missouri 63017-3427 . (314) 434-2900
Development Strategies . Trivers Associates . TSi Engineering . William Tao & Associates . George Dickie Associates

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Appendix A

M S P

[redacted]

PHASE I ENVIRONMENTAL ASSESSMENT

JEFFERSON CITY CORRECTIONAL FACILITY
631 EAST STATE STREET
JEFFERSON CITY, MISSOURI 65101

Prepared for:
Parson HBA
400 Woods Mill Road South, Suite 300
St. Louis, Missouri 63017

TSi engineering, inc.
59th and Arsenal
Building C
Two Campbell Plaza
St. Louis, Missouri 63139

June 3, 2002

[redacted]

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Figures

1 Topographic and Site Plan

Appendices

A State Agency for Surplus Property – Phase I Environmental Assessment (June 29, 2001), by reference only.
B Site Reconnaissance Photographs
C Site Survey Summary Form
D Material Safety Data Sheet Summary
E Ameren UE Correspondence

[redacted]

Executive Summary

TSi Engineering, Inc. (TSi) performed a Phase I Environmental Site Assessment (ESA) in November, 2001 for the property known as the Jefferson City Correctional Facility located in Jefferson City, Cole County, Missouri. This Phase I ESA was conducted for Parson HBA, Inc. for the purpose of identifying potential recognized environmental conditions (RECs) associated with the property.

The subject property occupies approximately 150 acres in Cole County, Missouri. The main prison is bounded by; East State Street, Lafayette Street, and East Capitol Avenue to the east; Dulle and Hampton Towers to the north; Union Pacific and Missouri River to the west; and the Missouri Department of Surplus Properties to the south. The subject property consists primarily of grass and tree covered lots, asphalt and concrete lots, and limestone and brick buildings with concrete basements. Concrete sidewalk, streets, alleys, yards, and several underground utilities surround the subject property. The Missouri Department of Surplus Properties is located on the Jefferson City Correctional Facility property. TSi performed a Phase I ESA of this property and the adjoining undeveloped forested area to the southeast, to the extent accessible, in June of 2001. That Phase I ESA is presented in this report as appendix A.

The Environmental Data Resources (EDR) database search identified 33 facilities within their respective American Society for Testing Materials (ASTM) defined search distances from the subject property. Twelve UST (Underground Storage Tank) sites were located within the ¼-mile radius search of the subject property. These sites were Jefferson City Correctional Center, SIPI's 66, Former Medical Arts Building, Buescher Memorial Hone, Hocker Oil Company, Jefferson City Station, Phillip's 66/Pump Handle Snack Shop, Turner's Conoco, Central Maintenance Garage, Al's Tire Service, State of Missouri Surplus Property, and Cole County Courthouse. Ten LUST (leaking underground storage tank) sites were located within ½-mile of the subject property. These sites were Former Medical Arts Building, Hocker Oil Company, Jefferson City Station, Central Maintenance Garage, Al's Tire Service, State of Missouri Surplus Property, Sprint, Jefferson State Office Building, Central Education Facility, Fill and Wash and Clark and Elm. Seven Resource Conservation and Recovery Act Small Quantity Generator (RCRA SQG) sites were located within ¼-mile of the subject property. These sites were Jefferson City Correctional Center, Jefferson City Central Maintenance Center (820 East Miller Street), Jefferson City Central Maintenance Center (210 Monroe Street), Al's Tire Service, Missouri Bar Print, City of Jefferson City, and Firestone Tire and Rubber Company. One FINDS (Facility Index System) site was located as part of the search. This site was Jefferson City Correctional Center, the target property. One FTTS [FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) /TSCA (Toxic Substance Control Act) Tracking System] site was located. This site was also the Jefferson City Correctional Center. Three orphan sites were indicated by the EDR report. An orphan site is defined as a site unmappable with the information available. One site was Delong's, located on East Capitol Avenue in Jefferson City, Missouri 65101. This site was classified as a UST. A second site was SS 5634, located at 507 McCarty Street in Jefferson City, Missouri

[redacted]

65101. This site was also classified as a UST. A third site was the MO Highway and Transportation Dept., located on East McCarty Street in Jefferson City, Missouri 65101. This site was classified as an LUST. Information on the address location and activities on these sites was not provided.

In our opinion, the following RECs have been identified for the subject property as a result of this Phase I ESA:

- Potential asbestos-containing building materials (ACBM);
- Potential lead-based paint (LBP);
- Potential soil and groundwater impact from UST and LUST tank removal sites at topographically equal or lower elevations to the property located at the old boiler house, Surplus Properties, the garage facility, behind the Soap factory, and the new boiler house;
- Potential soil and groundwater impact from current and historical industrial sites located in two places within the prison. The current site is located in the west section in a topographically low area of the prison. The historical industrial site is located in the east section in a topographically high area of the prison where the current upper playing fields are located. Former chemical storage vaults located on the southeast side of the prison between the new boiler house and Surplus Properties would also be a target;
- Potential soil impact from unknown sources of backfill materials located in five locations in and around the prison. The first location is the current Administration Building and Garage Facility. The second location is outside the southeast prison wall along East Capital Drive. The third location is the terrace slope where the new boiler house is located. The fourth location is along the bluffs next to the former Lard house and Potato House. The fifth location is a soil hill trending northwest/southeast between the upper and lower playing fields.

Recognized environmental conditions relate to possible environmental impacts associated with historic land use and practices, and potential sources of environmental impacts associated with the existing building and/or current site practices.

Asbestos and lead-based paint inspections of existing structures must be performed by Missouri licensed inspectors. These inspections are required by federal, state and local regulations prior to disturbance of these structures. Environmental soil borings may be necessary for the subject property in the areas topographically lower or equal to former UST and AST sites; current and former industrial site locations within the prison; the former chemical storage vaults outside the prison; and the five backfill locations in and around the prison to determine if any environmental impact exists.

[redacted]

1.0 Introduction

1.1 Purpose

The purpose of this environmental site assessment is to address potential environmental concerns of the subject property by reviewing past usages of the subject property and adjacent properties, identifying recognized environmental conditions (RECs), and assessing the environmental impact of the RECs on the subject property. RECs are defined in ASTM E 1527-00 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." An additional purpose of this ESA is to address the relevance of the identified RECs to the subject property's future development.

1.2 Methodology

This environmental site assessment was conducted in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM E 1527-00. The Phase I ESA activities consist of:

- Records Review
- Site Reconnaissance
- Interviews
- Documentation

The conclusions included in this report were prepared with the understanding that the sites may be redeveloped in the near future.

[redacted]

2.0 Site Description

2.1 Location and Legal Description

The subject properties occupy approximately 150+ acres in Cole County, Missouri. The main prison is bounded by; East State Street, Lafayette Street, and East Capitol Avenue to the east; Dulle and Hampton Towers to the north; Union Pacific and Missouri River to the west; and the Missouri Department of Surplus Properties to the south. The Missouri Department of Surplus Properties is located on the Jefferson City Correctional Facility property and a Phase I Environmental Site Assessment (ESA) was performed by TSi Engineering June of 2001. The Missouri Department of Surplus Properties Phase I ESA report is presented in this report as Appendix A. The subject property consist primarily of grass and tree covered lots, asphalt and concrete lots, and limestone and brick buildings with concrete basements. Concrete sidewalk, streets, alleys, yards, and several underground utilities surround the subject property. The location of the subject property is shown in Figure 1, Topographic and Site Plan.

2.2 Site and Vicinity

The subject property is a prison facility with associated housing units, factories, and administrative buildings surrounded by several residential neighborhoods and light commercial businesses. The site is located on a bluff, over looking the Missouri River. The bluff slopes towards the river to the northeast with inter-tonguing ravines between summits.

2.3 Site Improvements

Due to the age of the facility, many changes in buildings and area of the prison have occurred. There have been several expansions to the prison site most notably expansions to the north and to the south. These expansions include demolition or pre-existing structures and construction of new buildings. Currently, the site consists of asphalt and concrete sidewalks and parking lots, paved streets, multistory brick and concrete buildings and underground utilities.

2.4 Current Uses of Property

The subject property is primarily a prison and prison support facilities.

2.5 Past Uses of the Property

The subject property has been used as a prison since the 1830's.

[redacted]

2.6 Current and Past Uses of Adjoining Property

2.6.1 Current Uses of Adjoining Property

The current uses of adjoining property consist of a mix of residential and commercial. There are also designated wetland areas along the Missouri River northeast of the prison between the riverbank and the Union Pacific Railroad.

2.6.2 Past Uses of Adjoining Property

According to the historical research, there has been little change in the uses of the adjoining property. The area has remained primarily residential and commercial. The International Shoe Factory was previously in operation south of the prison.

2.7 Site Physical Setting

2.7.1 Topography

The subject property is located on bluffs overlooking the Missouri River approximately 540 to 660 feet above sea level. A site topographic map is presented in Figure 1, Topographic and Site Plan.

2.7.2 Soil and Geology

Soil characteristics of the area are variable. The predominant soil type at the subject property is a silty clay to clay soil. The subject property is located on dolomite of the Paleozoic Era, Ordovician System, Canadian Series. These formations gently dip toward the north-northeast.

2.7.3 Groundwater and Surface water

Surface runoff is controlled primarily by the storm sewer system. Groundwater levels and flow vary due to influences of surface water flow and soil/rock type. The subject property is located on the high bluff area between two intermittent creeks flowing south to north on the northeast side of the property and on the southwest side of the property respectively. The Missouri River flows west to east on the northeast side of the prison. There are water supply wells located on prison property southeast of the prison.

[redacted]

3.0 Records Review

3.1 Environmental Record Sources

Environmental Data Resources, Inc. (EDR) was subcontracted to search available environmental record databases. The results of the environmental record database search are presented in a report titled The EDR – Radius Map with GeoCheck®, Jefferson City Correctional Facility, 631 East State Street, Jefferson City, MO 65101, Inquiry No: 708648.5s, prepared for TSi Engineering, Inc. and dated November 29, 2001. The distances used for searching the environmental record databases are in accordance with American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments, ASTM E 1527-00.

3.1.1 EDR Environmental Database Search

The following federal and state agency databases were searched and reviewed for evidence of any potential environmental contamination issues, such as incidents or facilities that may have affected the environmental integrity of the subject property:

- National Priority List (NPL) – 1 mile search radius
- State Hazardous Waste Sites – 1 mile search radius
- Resource Conservation and Recovery Act (RCRA) Corrective Action Activity (CORRACTS) – 1 mile search radius
- Superfund (CERCLA) Consent Decrees (CONSENT) – 1 mile search radius
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – ½ mile search radius
- State Landfill – ½ mile search radius
- Resource Conservation and Recovery Act Transportation, Storage and Disposal (RCRA-TSD) – ½ mile search radius
- Leaking Underground Storage Tank (LUST) – ½ mile search radius
- Underground Storage Tank (UST) – ¼ mile search radius
- RCRIS Small Quantity Generator (RCRIS-SQG) – ¼ mile search radius
- RCRIS Large Quantity Generator (RCRIS-LQG) – ¼ mile search radius
- Delisted NPL Sites – Target Property
- CERCLA No Further Remedial Action Planned (CERC-NFRAP) – Target Property
- Above-ground Petroleum Storage Tanks (AST) – Target Property

[redacted]

- RCRA Administrative Action Tracking System (RAATS) – Target Property
- Hazardous Materials Information Reporting System (HMRIS) – Target Property
- PCB Activity Database System (PADS) – Target Property
- Emergency Response Notification System (ERNS) – Target Property
- Facility Index System (FINDS) – Target Property
- Toxic Chemical Release Inventory System (TRIS) – Target Property
- NPL Liens (NPL Lien) – Target Property
- Toxic Substance Control Act (TSCA) – Target Property
- FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) /TSCA (Toxic Substance Control Act) Tracking System (FTTS) – Target Property
- Material Licensing Tracking System (MLTS) – Target Property
- Certified Hazardous Waste Resources Recovery Facilities (MO RRC) – Target Property

3.1.2 Summary of EDR Environmental Database Search Results

The subject property was identified in the EDR Environmental Database search. Several surrounding property were identified within the ASTM specified search distances from the subject property. A listing of database search findings is presented below.

Database Searched	Search Distance (Miles)	Facilities Located
UST	¼	12
LUST	½	10
RCRIS-SQG	¼	7
FINDS	Target Property	1
FTTS	Target Property	1
Orphan Site	¼	3

[redacted]

Discrepancies between the information provided by government agencies and EDR may exist due to incomplete or non-updated databases of either resource. In addition, facilities may be listed in more than one category on the environmental screening report. A summary of the EDR sites identified within the above listed search distances follows.

UST (12 sites)

- Jefferson City Correctional Center, 631 State Street, Jefferson City, Missouri 65101. This site is the subject property. Three tanks have been removed. The subject property is not listed as a LUST property.
- SIPI's 66, 801 East High Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile south-southwest of the subject property. Two tanks are currently in use.
- Former Medical Arts Building, 515 East High Street, Jefferson City, Missouri 65101. This property is located 0 to ¼ mile west of the subject property. One tank has been removed.
- Buescher Memorial Hone, 429 East Capitol Avenue, Jefferson City, Missouri 65101. This property is located 0 to ¼ mile west-northwest of the subject property. One tank has been removed.
- Hocker Oil Company, 501 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile west-southwest of the subject property. Three tanks are currently in use and four tanks have been permanently closed in place.
- Jefferson City Station, 301 State Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile northwest of the subject property. Two tanks have been removed.
- Phillip's 66/Pump Handle Snack Shop, 510 Cherry Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile south-southwest of the subject property. Two tanks have been removed.

[redacted]

- Turner's Conoco, 401 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile west of the subject property. Three tanks have been removed.

- Central Maintenance Garage, 830 East Miller Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile south-southwest of the subject property. Four tanks are currently in use and one tank has been removed.

- Al's Tire Service, 1015 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile south of the subject property. Four tanks are reported removed.

- Cole County Courthouse, 301 East High Street, Jefferson City, Missouri 63101. This site is located 0 to ¼ mile west-northwest of the subject property. One tank is currently in use.

- State of Missouri Surplus Property, 117 Riverside Drive, Jefferson City, Missouri 63102. This site is located 0 to ¼ mile east-southeast of the subject property. Two tanks have been removed.

[redacted]

LUST (10 sites)

- Former Medical Arts Building, 515 East High Street, Jefferson City, Missouri 65101. This property is located 0 to ½ mile west of the subject property. There was a release reported at this facility on 8/25/92. Remedial technique was reported as excavation. Spill cleanup began on 8/25/92 and ended on 10/12/95.

- Hocker Oil Company, 501 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ½ mile west-southwest of the subject property. There was a release reported on 4/8/92. The remedial technique was reported as excavation. Soil was listed as the contaminated media. Spill cleanup started on 4/8/92 and ended on 5/27/99.

- Jefferson City Station, 301 State Street, Jefferson City, Missouri 65101. This property is located 0 to ½ mile northwest of the subject property. There was a release reported on 10/23/96. Excavation, tank closure, and monitoring were the remedial techniques listed. Soil and groundwater were listed as the contaminated media. Spill cleanup began on 10/23/96 and ended on 11/03/96.

- Central Maintenance Garage, 830 East Miller Street, Jefferson City, Missouri 65101. This site is located 0 to ½ mile south-southwest of the subject property. There was a release reported on 12/13/94. Excavation was the remedial technique listed. Soil was listed as the contaminated media. Spill cleanup began on 12/13/94 and ended on 5/22/95.

- Al's Tire Service, 1015 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ½ mile south of the subject property. There was a release reported on 1/01/88. Excavation, tank closure, and landfill were the remedial techniques listed. Soil was listed as the contaminated media. Spill cleanup and completion dates were not provided.

- State of Missouri Surplus Property, 117 Riverside Drive, Jefferson City, Missouri 63102. This site is located 0 to ½ mile east-southeast of the subject property. There was a release reported on 7/2/93. Excavation was listed as the remedial technique. Spill cleanup began on 7/2/93 and ended on 12/15/93.

- Sprint, 319 Madison Street, Jefferson City, Missouri 65101. This site is located 0 to ½ mile west-northwest of the subject property. There was a release reported on 6/13/94. Excavation was listed as the remedial technique. Spill cleanup began on 7/27/94 and ended on 11/3/94.

[redacted]

- Jefferson State Office Building, 205 Jefferson, Jefferson City, Missouri 65102. This site is located 0 to ½ mile west-northwest of the subject property. There was a release reported on 8/24/98. Excavation and tank closure were the remedial techniques listed. Soil and groundwater were listed as the contaminated media. Spill cleanup began on 10/1/98 and no completion date was provided.

- Central Education Facility, 214 East Miller Street, Jefferson City, Missouri 65102. This site is located 0 to ½ mile west of the subject property. There was a release reported on 2/1/94. Excavation was the remedial technique listed. Spill cleanup began on 2/15/94 and ended on 5/6/94.

- Fill and Wash, Clark and Elm, Jefferson City, Missouri 65101. This site is located 0 to ½ mile south of the subject property. There was a release reported on 5/18/94. Site characterization was listed as the remedial technique. Groundwater was listed as the contaminated media. Spill cleanup began on 4/30/97 and ended 4/5/2000.

RCRIS-SQG (7 sites)

- Jefferson City Correctional Center, 631 State Street, Jefferson City, Missouri 65101. This site is the subject property. Two violations were reported on 2/9/90.

- Jefferson City Central Maintenance Center, 820 East Miller Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile south-southwest of the subject property. No violations were reported.

- News Tribune Company, 210 Monroe Street, Jefferson City, Missouri 65102. This site is located 0 to ¼ mile west-northwest of the subject property. No violations were reported.

- Al's Tire Service, 1015 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ south of the subject property. No violations were reported.

- Missouri Bar Print, 326 Monroe, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile west-northwest of the subject property. No violations were reported.

[redacted]

- City of Jefferson City, 320 East McCarty Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile west of the subject property. One violation was reported on 6/24/88.

- Firestone Tire and Rubber Company, 406 Monroe Street, Jefferson City, Missouri 65101. This site is located 0 to ¼ mile west of the subject property. No violations were reported.

FINDS (1 site)

- Jefferson City Correctional Center, 631 State Street, Jefferson City, Missouri 65101. This site is the subject property. This report identified pertinent environmental activity at the site with Facility Registry System, National Compliance Database, Resource Conservation and Recovery Act Information System, and Section Seven Tracking System. Details of any information found on the site were not provided.

FTTS (1 site)

- Jefferson City Correctional Center, 631 State Street, Jefferson City, Missouri 65101. This site is the subject property. This report indicated proposed penalties and a close out date of 6/3/91. Violations were listed as PCB storage and disposal.

Orphan site (3 sites)

- Delong's, East Capitol Avenue, Jefferson City, Missouri 65101. This site was classified as a UST. Information on the address location and activities on the site was not provided.

- SS 5634, 507 McCarty Street, Jefferson City, Missouri 65101. This site was classified as a UST. Information on activities on the site was not provided.

- Mo Highway and Transportation Dept., East McCarty Street, Jefferson City, Missouri 65101. This site was classified as a LUST. Information on the address location and activities on the site was not provided

[redacted]

Based on the findings of the database review, REC's were noted for the subject property in the form of lists previously located on site and violations associated with PCB's storage and disposal. Additionally, the prior LUST listing for the adjoining and up gradient State of Missouri Surplus Property is a REC. None of the other database listings appear to be a REC based on distance, groundwater gradient, and/or closure status.

3.1.3 Environmental Assessment Reports

The property owner indicated that no previous Phase I ESA was performed on the subject property. There were two sites which received five violations from the Missouri Department of Natural Resources (MDNR) in February of 1990 for EPA regulations. One site was located near to the northwest area of the Gas Chamber. Violations in this area were associated with waste disposal of Potassium Cyanide and Sulfuric Acid after executions. Analytical results of soil borings in the area revealed little to no impact from the storage of these chemicals. The other site was located at the old dumpsite on the bluffs near to the Potato House. Violations were associated with hazardous chemical drums, which were found. Analytical results of soil borings in the area indicated little to no impact from the chemicals.

3.2 Aerial Photographs

Aerial photographs were obtained and reviewed for the subject property and surrounding areas for the years 1961, 1965, 1970, 1980, 1989, and 1995.

3.2.1 1961Aerial Photograph Review

The subject property appeared to be consistent with present day structures inside the prison with the exception of the Chapel and the Maximum Security Building. The interior wall (former exterior prison wall) of the prison is present. The property adjoining to the northwest is tree and grass covered with part of the area used for parking. Three residential structures are present to the northwest. The area to the southeast near the water tower is tree and grass covered and may have been used for farming. Southwest of the prison wall is primarily residential homes. There are three AST tanks located northeast of the Diesel Plant and four silo structures south of the Old Boiler Plant.

3.2.2 1965 Aerial Photograph Review

The area near to the water tower appears to be developed with buildings and parking lots. There appears to be debris in and around the Slaughter House and the Incinerator.

[redacted]

3.2.3 1970 Aerial Photograph Review

The interior wall of the prison is gone. An additional structure has been added to the north of the garage facility. Additional buildings have been added to the development to the southeast near the water tower. There appears to be debris along the bluff northeast of the Potato House.

3.2.4 1980 Aerial Photograph Review

The Chapel appears for the first time in the prison. Additional buildings have been added to the development to the southeast near the water tower. The Dulle & Hampton Towers appear on the property to the northwest.

3.2.5 1989 Aerial Photograph Review

The Maximum Security Building appears for the first time. The New Boiler Plant is present outside the southeast wall with two AST tanks associated with the building. The three residential houses near the prison property are no longer present and the area is now a parking lot

3.2.6 1995 Aerial Photograph Review

There were no significant changes observed in this photograph.

3.3 Local Directories

Polk and Haines directories are in the process of being reviewed. A summary of the review will be presented in Table 1 as this information is made available.

3.4 Local Zoning/Land-Use Records

The city zoning office was contacted for current zoning/land use of the subject property. The subject property is zoned RS-1 which represents residential single.

3.5 Sanborn Maps

Sanborn maps were obtained and reviewed for the subject property and surrounding areas for the years 1885, 1892, 1898, 1908, 1916, 1923, 1939, 1943, 1968, and 1984.

The Sanborn map of 1885 shows the prison with approximately 20 structures. Lafayette Street goes to the river and East State Street is named East Water Street. The map shows a deep ravine approximately 50 feet north of East Water Street and approximately 100 feet west

[redacted]

of Lafayette Street. A quarry outline is shown inside the prison on the southeast side. Warehouses and stables are present near Lafayette Street. The surrounding area appears to have small residential structures.

The Sanborn map of 1892 shows several structures (the print shop, machine shop, clothing department, and laundry) removed from the center section of the prison. There appears to be expansion of the prison to East Main Street (now East Capitol Avenue) towards the southwest with two additional boot and shoe factory structures.

The Sanborn map of 1898 shows two additional structures in the northeast section of the prison and the addition of a cell house in the middle of the prison. The Slaughter House is shown outside the east prison wall near Chestnut Street along the river. The surrounding area is being developed as residential.

The Sanborn map of 1908 shows a boiler plant outside the prison wall on the northeast side. The female department structures have been reconstructed and an additional factory was built in the southeast section. The shoe factory south of the prison appears for the first time.

The Sanborn map of 1916 shows little change from 1908. The residential properties surrounding the prison are developing. Capitol City Water Company appears along the river north of the prison.

The Sanborn map of 1923 shows the construction of an auditorium outside the southeast prison wall. The Centennial Building and one of the factories are no longer present and three smaller buildings are shown. A T.B. Hospital is indicated near the area where the quarry was previously located. Two tanks located on the north side of the boiler plant are labeled for crude oil. The shoe factory south of the prison has expanded to the rear.

The 1939 Sanborn map shows major changes in the prison site. The prison has been expanded to the northwest and southwest with approximately 14 structures including the prison wall. The structures in the northwest expansion include the Hospital, T.B. Ward, Kitchen and Dining Hall, Administration Building, dormitory outside the wall and the Garage Facility. This expansion went over the existing Lafayette Street and over a pre-existing deep ravine. The expansion to the southeast includes the Twine Factory, “I” Housing Unit, Shoe Factory, General Storage Building, Print and Tin Shop, Dry Cleaning, and ‘Death House’. The Slaughter House remains outside the east prison wall. The Female Dormitory located southeast of the prison is shown and is near to the water tower.

The Sanborn Map of 1943 shows little change from the 1939 map.

The Sanborn Map of 1968 shows major changes in prison buildings. The Auditorium, all but one building in the south upper industrial area, and the south side of the boiler plant are no longer present. Two new recreational buildings are located in the south upper industrial area. The new Chapel is located in the courtyard area between housing units 3 and 4. Four oil tanks are located on the south side of the

[redacted]

boiler plant. The General Storage Building is now the Soap Factory with caustic pits located on the northwest side of the building. The Twine Factory is now the License Plate Factory. The Slaughter House on Chestnut Street has been removed. A new building (potentially the isolation cell house) located on the north side of the prison is indicated but no name is provided. The residential area to the southeast has undergone further development. The Female Dormitory on the hill near the water tower is now the Officer Training Center. The northeast portion of the building has been demolished along with several support buildings nearby. The property just south of the Officer Training Center is developed for the State Agency for Surplus Property. The map shows a new oil fueled power plant located outside the southeast prison wall. Southeast of the Power Plant are three buildings identified as the Paint and Chem Vault.

The Sanborn Map for 1984 shows little change from 1968.

The Sanborn map review indicates REC's in the form of historical industrial usage, bulk fuel storage, and chemical storage on the subject property.

3.6 Historical Topography Maps

Historical topography maps were obtained and reviewed for the subject property and surrounding areas for the years 1942, 1967, and 1974.

The historical topography map of 1942 shows a quarry located southeast of the prison wall along the hillside near the Potato House.

The historical topography map of 1967 shows the quarry located southeast of the prison wall near the Potato House has been removed and possibly backfilled. The interior prison wall has a berm of soil were the wall was removed.

The historical topography map of 1974 shows little change.

3.7 Audit Check Facility Report

An EDR AuditCheck facility report was obtained and reviewed for the subject property. This report indicated that the Jefferson City Correctional Facility is listed as a hazardous waste generator (RCRIS) and has had violations reported. It also indicated the facility manages registered Underground Storage Tanks (UST). The facility is a producer of pesticides and has notified the EPA under section 7 of FIFRA (SSTS). Disinfectants produced in the Soap Factory fall under this regulation. The report indicated that the facility is listed in the EPA's index system (FINDS). It also indicates the facility has inspections under FIFRA, TSCA, or EPCRA.

Based on a review of the Audit Check facility report, the prior manufacture and usage of FIFRA regulated disinfectants is a REC.

[redacted]

4.0 Site Reconnaissance

4.1 Site Survey Process

A site reconnaissance of the subject property was conducted by TSi Engineering, Inc. on November 14, 2001. Photographs of the subject property are presented in Appendix B. The site survey summary is presented in Appendix C.

4.2 Hazardous Materials and Petroleum Products

Due to the age of the buildings identified, suspect asbestos containing building materials and lead-based paint may be present. The Partition Factory uses paint, adhesives, and solvents for the partitions manufactured. The Metal Working Factory uses hydraulic fluids for machinery and cutting of metal. They also use paints and coatings. The Furniture Factory uses varnish and paint for furniture manufacturing. The Soap Factory uses dry cleaning fluid and caustics in their facility. The basement of the Shoe Factory is used for bulk storage of chemicals. The graphics arts department located on the second floor uses inks, solvents, and dyes. The Garage Facility uses a variety of products for the maintenance of vehicles. The New Boiler Plant uses a variety of products to maintain the boilers. Warehouse facilities store products manufactured at the prison as well as products used in manufacturing. A summary of Material Safety and Data Sheets is presented in Appendix D. The storage and usage of the above listed chemicals and petroleum products are REC's.

4.3 Storage Tanks

The Soap Factory has underground storage tanks used for storing potassium hydroxide and sodium hydroxide. These tanks are currently not in use. The Garage facility has two ASTs used for fuel. The New Boiler Plant has several ASTs used to store chemicals for the boiler plant. The Warehouse Facility located on Chestnut Street has one AST for diesel fuel. The chemical and fuel tanks listed on the subject property are REC's.

4.4 Drums

The Partition Factory stores paints and associated chemicals throughout the plant in 55 gallon drums. The Metal Working Factory stores oils and hydraulic fluids in designated areas throughout the plant in 55 gallon drums. The drums were undamaged and not leaking. The Furniture Factory stores paints and varnishes in 5 to 10 gallon containers primarily in the paint booth. Several flammable liquid cabinets are located throughout the plant. The containers were undamaged and not leaking. The Soap Factory stores dry cleaning fluid and caustics in 55-gallon drums throughout the plant. None of the containers or drums were damaged or leaking. The Shoe Factory has bulk storage in

[redacted]

plastic, metal and paper drums. These were in good condition. The Garage had drums and containers of lubricants and antifreeze, none of which were leaking. The New Boiler Plant had a storage room of lubricants, solvents, and cleaners used in maintenance of the plant. These were in good condition. Warehouse facilities stored soap products made in the prison. Pallets of goods were stored in undamaged condition.

4.5 Hazardous Waste

The Partition Factory, the Metal Working Factory, the Furniture Factory, the Soap Factory, the Shoe Factory, the Garage, the New Boiler Plant, and the Warehouse facilities all use and have chemicals stored in each of the facilities. Material Safety and Data Sheets summary are presented in Appendix D. The storage and usage of the above listed chemicals and petroleum products are REC's.

4.6 Solid Waste

The Jefferson City Correctional facilities all use, have chemicals stored, and generate solid waste in each of the facilities. The prison maintains and secures all solid waste activities at the site. Material Safety and Data Sheets summary are presented in Appendix D. The storage and usage of the above listed chemicals and petroleum products are REC's.

4.7 Wastewater

The Jefferson City Correctional facilities all use and have chemicals stored in each of the facilities. Records indicate that a discharge permit was issued to the prison and a pre-treatment facility is on the site. It is not clear whether the permit is still active and or to what extent the pre-treatment facility is being utilized. Material Safety and Data Sheets summary are presented in Appendix D. The storage and usage of the above listed chemicals and petroleum products are REC's.

4.8 Drains and Sumps

The Partition Factory, the Metal Working Factory, the Furniture Factory, the Soap Factory, the Shoe Factory, the Garage, the New Boiler Plant, and Warehouse facilities had floor drains that did not have stains other than normal water stains.

4.9 Stains and Pools of Liquid (Interior)

The Partition Factory, the Metal Working Factory, the Furniture Factory, the Soap Factory, the Shoe Factory, the Garage, the New Boiler Plant, and Warehouse facilities were kept clean. Any spills that occurred were attended to immediately.

4.10 Pits, Ponds, Lagoons

[redacted]

Evidence of pits, ponds or lagoons was not observed during the site visit.

4.11 Stained Soil or Pavement and Stressed Vegetation

Evidence of stained soils and stressed vegetation was not observed during the site visit.

4.12 Potential PCB-Containing Electrical or Hydraulic Equipment

The Metal Working Factory has oils and hydraulic fluids. Waste oils were drummed and labeled. The Garage uses lubricants and hydraulic equipment in the maintenance of Correctional Facility vehicles. Electrical transformers were located throughout the prison and are maintained by the prison. PCB information for electrical transformers maintained by Ameren UE at or near the subject property is presented in Appendix E.

[redacted]

5.0 Interviews and Questionnaire

5.1 Owner/Tenant Questionnaire

The purpose of the questionnaire is to obtain historical background information for the site. TSi Engineering, Inc. has forwarded this questionnaire to the appropriate persons and shall submit the response as part of the final report or an addendum to the report.

5.2 Local Fire Department

The Jefferson City Fire Department was contacted on December 3, 2001 to assess whether the local fire department had responded to any environmental emergencies at the property. According the Administrative Secretary, the Jefferson City Fire Department has not responded to any environmental emergencies at the subject property.

5.3 Local Utility Company

Ameren UE was contacted by TSi Engineering, Inc. regarding the polychlorinated biphenyls (PCB) status of electrical transformers at the site and surrounding areas. The Ameren UE search indicated 32 transformers in the vicinity of the Jefferson City Correctional Facility that are filled with mineral oil and are considered PCB contaminated until tested. A copy of the letter received from Ameren UE is presented in Appendix E.

[redacted]

6.0 Findings and Conclusions

Based on the information readily available to TSi Engineering, Inc., the following conclusions are pertinent to the subject property.

The buildings on the subject property are over 50 years old. Due to the age of the buildings and observed building materials, asbestos-containing building (ACBM) materials and lead-based paint may be present.

In our professional opinion, the following RECs have been identified for the subject property during this assessment:

- Potential asbestos-containing building materials (ACBM);
- Potential lead-based paint (LBP);
- Potential soil and groundwater impact from UST and LUST tank removal sites at topographically equal or lower elevations to the property located at the old boiler house, Surplus Properties, the garage facility, behind the Soap factory, and the new boiler house;
- Potential soil and groundwater impact from current and historical industrial sites located in two places within the prison. The current site is located in the west section in a topographically low area of the prison. The historical industrial site is located in the east section in a topographically high area of the prison where the current upper playing fields are located. Former chemical storage vaults located on the southeast side of the prison between the new boiler house and Surplus Properties would also be a target;
- Potential soil impact from unknown sources of backfill materials located in five places in and around the prison. The first location is the current Administration Building and Garage Facility. The second location is outside the southeast prison wall along East Capital Drive. The third location is the terrace slope where the new boiler house is located. The fourth location is along the bluffs next to the former Lard house and Potato House. The fifth location is a soil hill trending northwest/southeast between the upper and lower playing fields.

Recognized environmental conditions relate to possible environmental impacts associated with historic land use and practices, and potential sources of environmental impacts associated with the existing building and/or current site practices.

- Asbestos and lead-based paint inspections of existing structures must be performed by Missouri licensed inspectors. These inspections are required by federal, state and local regulations prior to disturbance of these structures. Environmental soil borings may be necessary for the subject property in the areas topographically lower or equal to former UST's and AST's; current and former industrial site locations within the prison; the former chemical storage vaults outside the prison; and the five backfill locations in and around the prison to determine if any environmental impact exists.

[redacted]

7.0 Signatures of Environmental Professionals

This Phase I Environmental Site Assessment was conducted by the following environmental professionals in accordance with ASTM E 1527-00.

_____ _____

Rick Whitney
Staff Geologist

Date

_____ _____

Sylvester Douglas
Manager, Environmental Services

Date

[redacted]

8.0 Qualifications of Environmental Professionals

Rick Whitney
Staff Geologist

Professional Summary:

As a geologist, Mr. Whitney has over 15 years of experience within the geological and environmental field. His project experience includes: Phase I/II environmental assessments; preparation of work plans; asbestos investigations; feasibility studies; soil sampling; UST/AST storage tank management; and groundwater, air quality, and well placement monitoring. These services have been performed for commercial, industrial, and residential property.

Areas of Expertise:

Subsurface Investigations
Soil Classifications
Groundwater Monitoring
Asbestos and Lead Sampling
Phase I, II and III ESA

Education:

B.S. in Geology, University of Missouri – Columbia, 1982

Sylvester Douglas
Environmental Group Manager

Professional Summary:

Mr. Douglas has over 14 years of experience in every facet of asbestos management including conducting AHERA inspections, identifying asbestos-containing materials, collecting bulk samples, preparing technical specifications and architectural drawings for asbestos abatement plans, performing air monitoring, determining and enacting engineering control methods to reduce potential hazards to abatement workers and the public, and preparing final reports. His background also includes management of a phase contrast microscopy (PCM) laboratory, including development of quality control programs, design of all reporting and recordkeeping systems, and management of air monitoring technicians and field personnel.

Areas of Expertise:

Phase I, II and III ESA
Asbestos and Lead Surveys
Regulatory Reviews
Environmental Audits
Process Safety Management Studies
EPA Risk Assessments

[redacted]

Rick Whitney
Staff Geologist (continued)

Registrations/Certifications:

ACI Certified Technician, American Concrete Institute
Certified Lead Inspector
Certified Asbestos Inspector
Certified Air Monitoring Technician
OSHA 40-Hour Health and Safety Training Certification

Professional Affiliations:

Geological Society of America

Sylvester Douglas
Environmental Group Manager (continued)

Education:

B.S. in Engineering and Public Policy, Washington University, 1988

Registrations/Certifications:

MoDNR Certified Air Sampling Professional
AHERA Inspector, MO
AHERA Management Planner, MO
AHERA Abatement Worker, MO
AHERA Project Designer
NIOSH 582 Sampling and Evaluating Airborne Asbestos Dust (Method 7400)
Lead Inspector, KUVII43000-4

[redacted]

9.0 Limitations of Report

This report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in an environmental assessment of the site. This report and the findings contained herein were prepared for Parsons HBA, Inc. expressly for their intended use of the property.

This site assessment was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area and TSi Engineering, Inc. observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the environmental site assessment. No other warranty, express or implied, is made. Specifically, TSi Engineering, Inc. does not and cannot represent that the site contains no hazardous waste or material, oil (including petroleum products), or other latent condition beyond that observed by TSi Engineering, Inc. during their site assessments.

The observations described in this Report were made under the conditions stated herein. The conclusions presented in the Report were based solely upon the services described therein and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. Furthermore, such conclusions are based solely on site conditions and rules and regulations that were in effect, at the time of the study. The work described in this Report was carried out in accordance with the terms of contract language associated with TSi Engineering, Inc.'s contract agreement with Parsons HBA, Inc.

In preparing this report, TSi Engineering, Inc. has relied on certain information provided by state and local officials and other parties referenced herein and on information contained in the files of state and/or local agencies available to TSi Engineering, Inc. at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, and attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not made.

Observations were made of the site and of structures on the site as indicated within the Report. Where access to portions of the site or to structures on the site was unavailable or limited, TSi Engineering, Inc. renders no opinion as to the presence of hazardous waste or material, oil or other petroleum products, or to the presence of indirect evidence relating to hazardous waste or material, oil or other petroleum products in that portion of the site or structure. In addition, TSi Engineering, Inc. renders no opinion as to the presence of hazardous waste or material, oil or other petroleum products or to the presence of indirect evidence relating to hazardous material, oil or

[redacted]

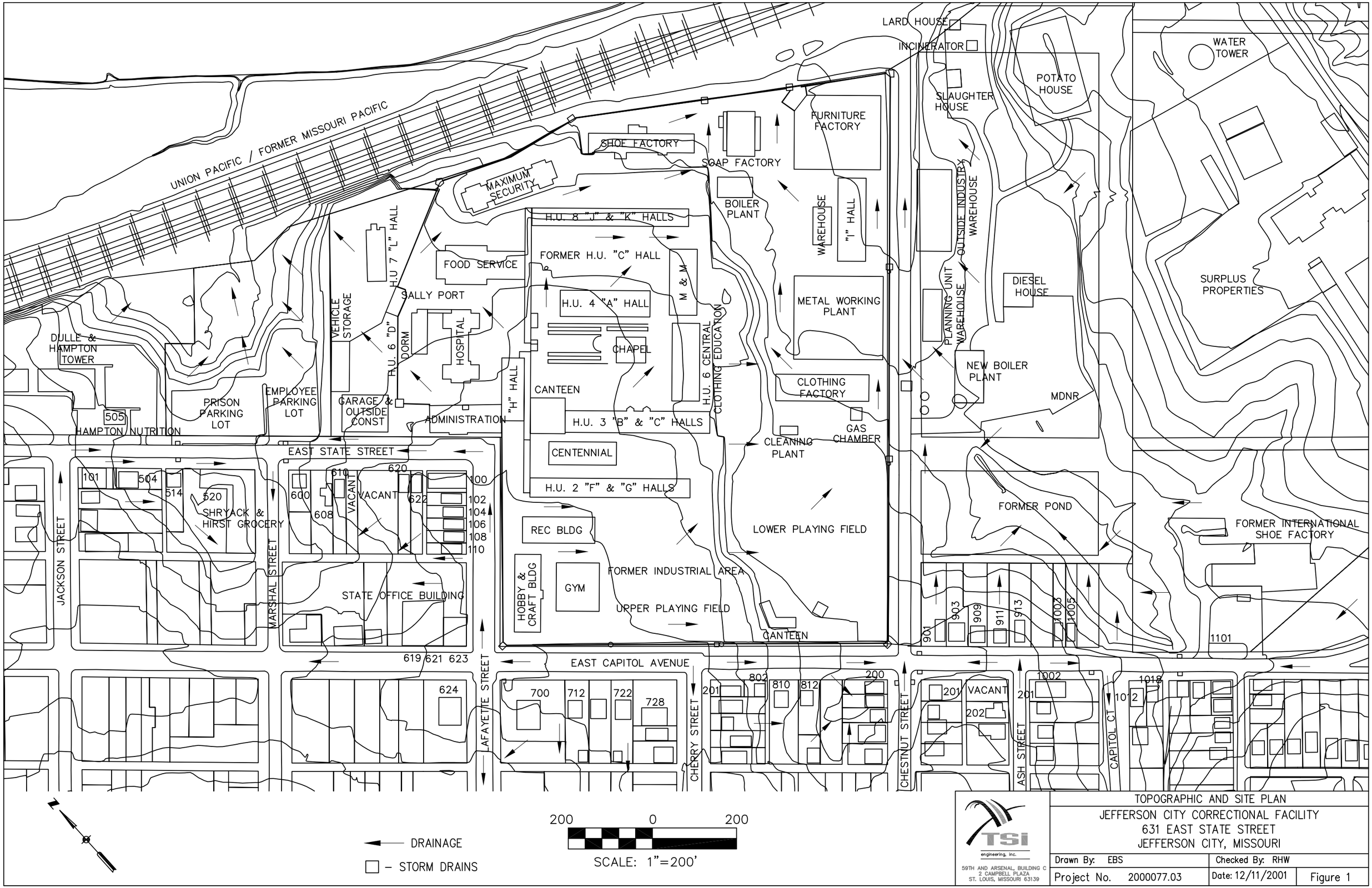
other petroleum products where direct observation of the interior walls, floor, roof or ceiling of a structure in a site was obstructed by objects or coverings on or over theses surfaces. Unless otherwise specified in the Report, TSi Engineering, Inc. did not perform testing or analyses to determine the presence or concentrations of asbestos, radon, formaldehyde, lead-based paint, lead-in-drinking water, electromagnetic fields (EMFs), methane gas or polychlorinated biphenyls (PCBs) at the site or in the environment at the site.

The purpose of this Report was to present the results of a Phase I Environmental Site Assessment performed in substantial conformance with ASTM E1527-00 and included assessing the physical characteristics of the subject site with respect to the presence in the environment of hazardous waste or material, oil, or petroleum products, as defined in 40 CFR Parts 261, 280-281, 302, 355 and 49 CFR Part 172. No specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

It is recommended that TSi Engineering, Inc. be retained to provide further engineering services during construction and/or implementation of any remedial measures recommended in this Report. This is to allow the TSi Engineering, Inc. to observe compliance with the concepts and recommendations contained herein and to allow the development of design changes in the event that subsurface conditions differ from those anticipated.

[redacted]

Figures



TSi engineering, inc.
59TH AND ARSENAL, BUILDING C
2 CAMPBELL PLAZA
ST. LOUIS, MISSOURI 63139

TOPOGRAPHIC AND SITE PLAN

JEFFERSON CITY CORRECTIONAL FACILITY
631 EAST STATE STREET
JEFFERSON CITY, MISSOURI

Drawn By: EBS	Checked By: RHW	
Project No. 2000077.03	Date: 12/11/2001	Figure 1

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[redacted]

Appendix A

State Agency for Surplus Property – Phase I Environmental Assessment (June 29, 2001), by reference only.

[redacted]

Appendix B

Site Reconnaissance Photographs

[redacted]

Truck gate northeast wall facing northwest

[redacted]

Area below incinerator and slaughterhouse facing south

[redacted]

Wastewater treatment plant facing south

[redacted]

Northeast wall and Union Pacific Railroad facing northwest

[redacted]

Abandoned incinerator facing north

[redacted]

Lard house facing northeast

[redacted]

Storage shed facing north

[redacted]

Abandoned slaughterhouse facing southwest

[redacted]

Abandoned slaughterhouse facing west

[redacted]

Abandoned slaughterhouse facing east

[redacted]

Rear of diesel plant facing southwest

[redacted]

Jefferson City Correctional Facility Administration Building Facing North

[redacted]

Fill soil bank between Upper and Lower Recreation yard Facing West

[redacted]

Lower Recreational yard Facing South

[redacted]

Lower Recreational yard Facing SouthEast

[redacted]

Drainage culvert along Lower recreation yard

[redacted]

Soil bank between partition factory and school facing North

[redacted]

Drainage South side of partition factory

[redacted]

Soil bank between lower recreation yard and partition factory facing East

[redacted]

Walkway to gas chamber facing East

[redacted]

Inside gas chamber

[redacted]

Gas chamber vent system

[redacted]

Front of gas chamber facing East

[redacted]

Steam lines between partition factory and metal plant facing North

[redacted]

Empty drum storage behind partition factory facing West

[redacted]

Steam lines between partition factory and metal plant facing West

[redacted]

Partition Factory construction plaque facing South

[redacted]

Area between metal Factory and East wall facing North

[redacted]

Pipe insulation Metal Factory

[redacted]

Pipe insulation Metal Factory

[redacted]

Duct Wrap on vents Metal Factory

[redacted]

Drum storage Metal Factory

[redacted]

Drum storage Metal Factory

[redacted]

Drum storage Metal Factory

[redacted]

Metal Factory floor and plate storage

[redacted]

Metal Factory floor and Box and pallet storage

[redacted]

Metal Factory water discharge between Metal Factory and I-Hall facing SouthWest

[redacted]

I-Hall (abandoned) facing North

[redacted]

Industry Warehouse facing North

[redacted]

Steam lines between M&M and warehouse facing West

[redacted]

Steam lines going into old boiler house facing NorthWest

[redacted]

Empty drum storage behind warehouse facing East

[redacted]

Steam lines over top of furniture factory facing North

[redacted]

Furniture Factory

[redacted]

Furniture Factory piping

[redacted]

Furniture Factory transformer on South side of building

[redacted]

Furniture Factory water discharge on South side of building

[redacted]

Furniture Factory

[redacted]

Furniture Factory Paint Booth

[redacted]

Furniture Factory Paint Storage

[redacted]

Furniture Factory Paint Booth

[redacted]

Furniture Factory Equipment

[redacted]

Furniture Factory Storage

[redacted]

Furniture Factory Pump

[redacted]

Loading bin and utility lines West side of Furniture Factory

[redacted]

Soap Factory equipment

[redacted]

Soap Factory piping and insulation

[redacted]

Soap Factory drum storage-dry cleaning area

[redacted]

Soap Factory dry clean area

[redacted]

Soap Factory 2nd floor

[redacted]

Soap Factory equipment

[redacted]

Soap Factory mixing vat

[redacted]

Soap Factory mixing vat

[redacted]

Soap Factory drum storage

[redacted]

Soap Factory drum storage

[redacted]

Soap Factory lab

[redacted]

Soap Factory lab

[redacted]

Soap Factory lab

[redacted]

Soap Factory lab

[redacted]

Soap Factory lab

[redacted]

Area between Soap Factory and boiler house facing west

[redacted]

Soil along North side old boiler house facing South west

[redacted]

Inside old boiler house

[redacted]

Inside old boiler house

[redacted]

Inside old boiler house

[redacted]

Inside old boiler house

[redacted]

Inside old boiler house

[redacted]

Covers over water main valve

[redacted]

Area behind Soap Factory facing North

[redacted]

Underground storage for NaOH and POH behind Soap Factory not in use

[redacted]

Area between Shoe Factory and North wall

[redacted]

Water main piping in tunnel

[redacted]

Inside Shoe Factory-Garment Manufacturing

[redacted]

Inside Shoe Factory-Garment Manufacturing

[redacted]

Basement storage Shoe Factory

[redacted]

Basement storage Shoe Factory

[redacted]

Basement storage Shoe Factory

[redacted]

Basement storage Shoe Factory

[redacted]

Basement storage Shoe Factory

[redacted]

Basement piping Shoe Factory

[redacted]

3rd floor Shoe Factory graphic arts storage

[redacted]

3rd floor Shoe Factory graphic arts storage

[redacted]

Area between Shoe Factory and H.U.5C facing North

[redacted]

Chapel and H.U.4 facing East

[redacted]

Area between H.U.4 and H.U.5C facing East

[redacted]

Tunnel next to H.U.3 piping

[redacted]

Tunnel next to H.U.3 piping insulation

[redacted]

Tunnel next to M&M piping insulation

[redacted]

Tunnel next to M&M piping insulation

[redacted]

Tunnel next to H.U.1 piping insulation

[redacted]

Tunnel next to H.U.1 piping insulation

[redacted]

Upper recreation yard facing South

[redacted]

Upper recreation yard facing South

[redacted]

Upper recreation yard facing East

[redacted]

AST at Garage facing West

[redacted]

AST at Garage lower area facing North

[redacted]

Front of Salley Port facing North

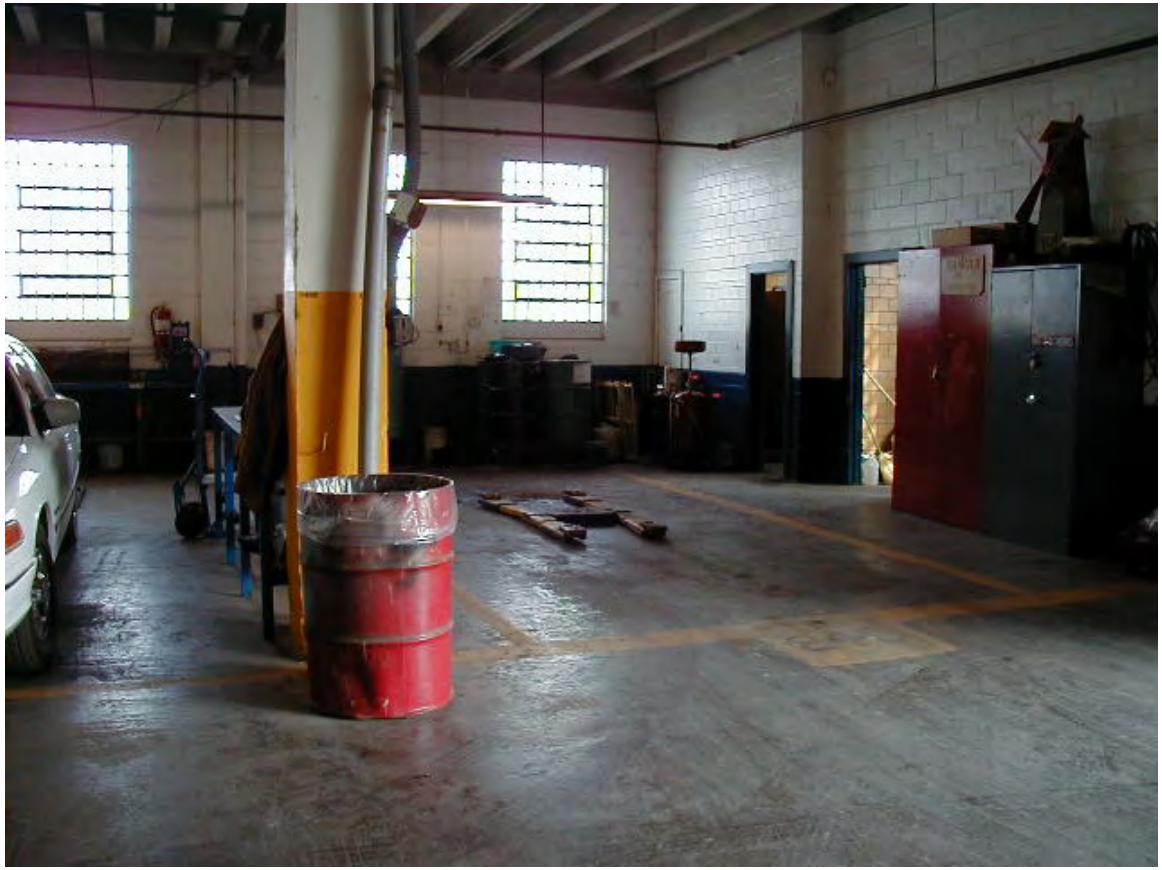
[redacted]

Rear of Garage facing West

[redacted]

Inside Garage

[redacted]



Inside Garage

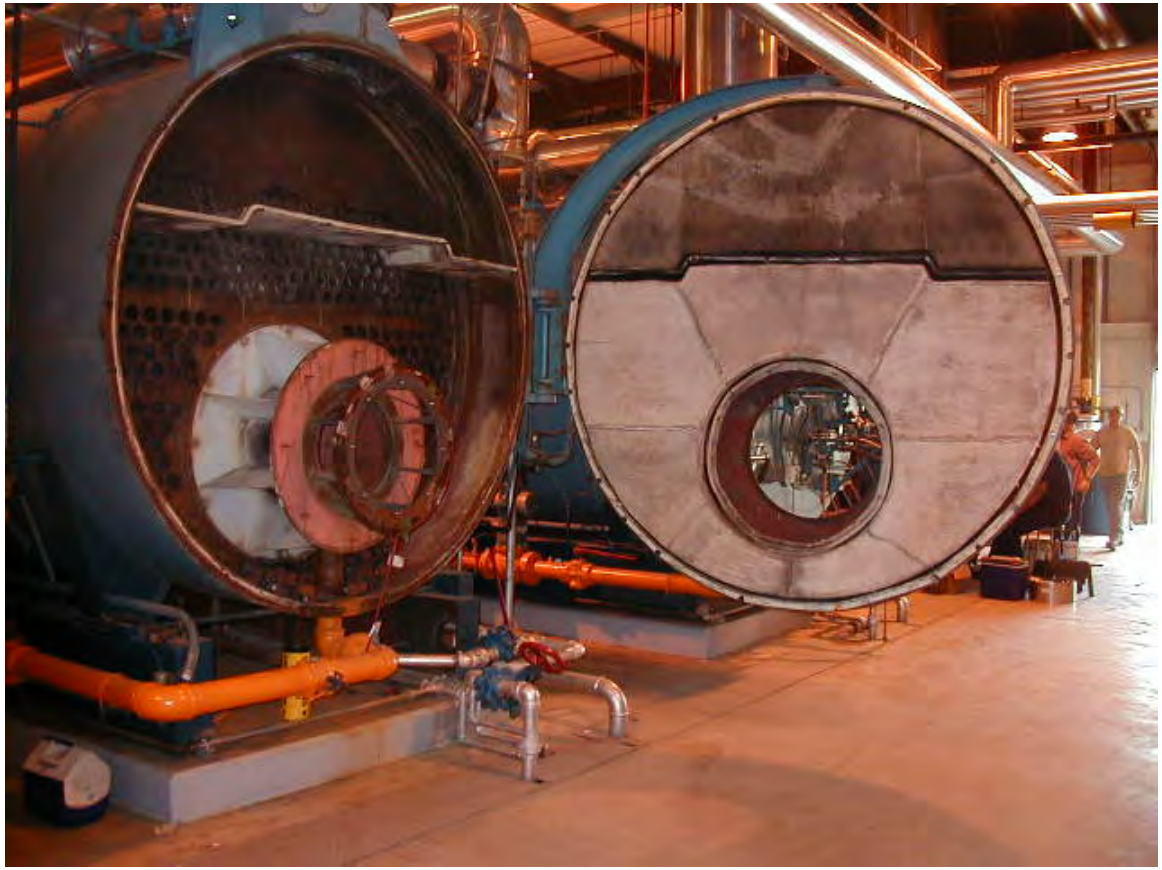
[redacted]

Inside Garage

[redacted]

Inside new Boiler Plant

[redacted]



Inside new Boiler Plant

[redacted]

Inside new Boiler Plant Storage Area

[redacted]

Inside new Boiler Plant Lab

[redacted]

Inside new Boiler Plant

[redacted]

Inside new Boiler Plant

[redacted]

Inside new Boiler Plant Machine Shop

[redacted]

Rear new Boiler Plant facing North

[redacted]

AST Tanks next to New Boiler Plant facing North

[redacted]

Manhole water discharge (unknown source) East of New Boiler Plant

[redacted]

AST nest to Industries warehouse facing East

[redacted]

Inside Industries warehouse

[redacted]

Inside Industries warehouse

[redacted]

Inside Industries warehouse

[redacted]

Steam lines, fill soil, and manhole behind new Boiler Plant facing East

[redacted]

Dulle and Hamilton Tower facing North

[redacted]

505 East State Street-Hamilton Nutritional Center facing North

[redacted]

520 East State Street-Shryack-Hirst Grocery Co. facing SouthWest

[redacted]

520 East State Street-Shryack-Hirst Grocery Co. facing SouthWest

[redacted]

Prison parking lot facing East

[redacted]

Drainage area behind Prison parking lot facing North

[redacted]

Side of 100 Lafayette and 620-622 East State Street facing West

[redacted]

100 Lafayette Street facing West

[redacted]

102-110 Lafayette Street facing North

[redacted]

636 East Capitol Avenue (vacant) facing north

[redacted]

621 and 619 East Capital – State Tax Division and Division of Administration Support respectively, facing northwest

[redacted]

624 East Capitol facing southwest

[redacted]

700 East Capitol facing south-Capitol Center Law Office

[redacted]

700 East Capitol facing southwest-Capitol Center Law Office

[redacted]

712-722 East Capitol facing west

[redacted]

West Prison wall on Lafayette facing North

[redacted]

South Prison wall on East Capital facing East

[redacted]

728 East Capitol Street facing SouthWest

[redacted]

201 Cherry Street at corner of Cherry and East Capitol facing South

[redacted]

South Prison wall on East Capitol Street facing East

[redacted]

802, 810, 812 East Capitol Street facing West

[redacted]

Low area behind 200 Chestnut Street facing West

[redacted]

East Prison wall facing North

[redacted]

901 East Capitol Street facing East

[redacted]

201 Chestnut Street facing SouthEast

[redacted]

200 Chestnut Street facing SouthWest

[redacted]

Rear lots of 901-913 East Capitol Street facing SouthEast

[redacted]

Drainage area East side Chestnut behind 901-913 East Capitol facing East

[redacted]

911 and 913 East Capitol facing North

[redacted]

Vacant lot 200 Ash Street facing West

[redacted]

201 Ash Street Apartments facing South

[redacted]

1002 East Capitol Street Apartments facing SouthWest (same building as 201)

[redacted]

Parking lot behind Apartment building facing South

[redacted]

Drainage area West of former International Shoe Factory facing NorthEast

[redacted]

1003 and 1005 East Capitol Street facing NorthEast

[redacted]

Drainage area behind 1003 and 1005 East Capitol facing East

[redacted]

Drainage area behind 1003 and 1005 East Capitol facing NorthEast

[redacted]

Drainage area behind 1003 and 1005 East Capitol facing North

[redacted]

1101 East Capital former International Shoe Factory facing NorthEast

[redacted]

MDNR Compost behind new Boiler House facing SouthEast

[redacted]

Appendix C

Site Survey Summary Form

Site Survey Summary

Address: 631 East State Street
Jefferson City Correctional Facility

Description of Site: State Prison Site since ~1835. Manufacturing of Soap, Furniture, Metal license plates, Partitions, Graphic arts Printing, and Garments. Houses maximum security State prisoners.

1. Is the Property or any adjoining property used for an industrial, commercial or manufacturing use?

	Land Use	Photograph?
Property:	Prison	✓
Adjoining Properties North:	Union Pacific RR	
Adjoining Properties South:	Residential + light Commercial	✓
Adjoining Properties East:	Suplus Properties + Residential	✓
Adjoining Properties West:	Residential + light Commercial	✓

2. Has the Property or any adjoining property been used for an industrial, commercial or manufacturing use in the past?

	Owner	Use	Dates
Previous Use of Property	Prison	Manufacturing Upper Rec area	before 1954
Previous Use of Properties to North			
Previous Use of Properties to South			
Previous Use of Properties to East			
Previous Use of Properties to West			

3. Is there evidence that there are currently, or have been previously, any pesticides, automotive or industrial batteries, paints, or other chemicals stored on or used at the Property or at the facility other than undamaged containers of consumer products of under five gallons in total volume?

Finding: 55 gallon Drums of paint, Lubricants, Hydraulic fluid, Cleaning Supplies (Dry Cleaning fluid)

Source: Site Visit

4. Is there evidence that there are currently, or have been previously, any industrial drums (typically 55-gallon) or sacks of chemicals located on the Property or at the facility?

Finding: 55 gallon Drums + Sacks of supply chemicals are stored in and around Manufacturing area

Source: Site Visit

5. Is there evidence that fill dirt has been brought onto the site which originated from a contaminated site or of an unknown origin?

Finding: Fill Dirt along removed Prison wall, Fill Dirt around New Boiler house area, Fill Dirt along East Capitol Street out Side of wall

Source:

6. Is there evidence that there are currently, or have been previously, any pits, ponds or lagoons located on the Property in connection with waste treatment or waste disposal?

Finding: Ponded storm water in area South of New Boiler house was being Pumped

Source:

7. Is there evidence that there is currently, or has been previously, any stained soil or stressed vegetation on the Property?

Finding: No evidence

Source:

8. Is there evidence that there are currently, or have been previously, any registered or unregistered storage tanks (above or underground) located on the Property?

Finding: There are 2 AST's by garage facility, 4 AsT's around New Boiler house. UST's removed from garage area. USTs removed from New Boiler house

Source:

9. Is there evidence that there are currently, or have been previously, any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the Property or adjacent to any structure located on the Property?

Finding: No evidence

Source:

10. Is there evidence that there are currently, or have been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?

Finding: Paint Booth in Furniture Shop

Source:

11. Is there evidence that the Property is served by a private well or non-public water system, and if so, has the well or system been designated as contaminated by any governmental environmental/health agency?

Finding: Water Tower has previously served as private water for prison.

Source:

12. Does the owner of the Property or operator of the facility have any knowledge of environmental liens or governmental notification relating to past or current violations of environmental laws with respect to the Property or any facility located on the Property?

Finding: N/A

Source:

13. Has the owner of the Property or operator of any facility at the Property been informed of any past or current existence of hazardous substances or environmental violations with respect to the Property or any facility located on the Property?

Finding: None To The knowledge of The staff

Source:

14. Does the Property owner or facility operator have any knowledge of any environmental assessment of the Property or facility that indicated the presence of hazardous substances on the site or recommended further assessment of the Property?

Finding: No knowledge from staff

Source:

15. Does the owner of the Property or any operator of a facility at the Property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance involving the Property by any owner or tenant of the Property?

Finding: N/A

Source:

16. Is there evidence that the Property discharges wastewater, other than storm water, directly to a ditch, stream, septic system, or sump on or adjacent to the Property?

Finding: No evidence

Source:

17. Is there evidence that any construction debris, substances identified as hazardous, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials, trash, debris or refuse been dumped above grade, buried and/or burned on the site?

Finding: Old Boiler house has asbestos + Lead Paint. No evidence of debris, trash or open burning

Source:

18. Is there evidence of any electrical or hydraulic equipment (such as compressors, transformers and large capacitors), now on the site or that have been on the site in the past, known to contain PCBs? If so, describe the equipment, identify its location, approximate dates of use of the equipment, and whether it has been registered as PCB containing material, and actual knowledge of leaks.

Finding: Possible Building debris from the 1954 Prison riot may be in Fill areas and may contain electrical/hydraulic equipment no surface evidence of material

Source:

19. Is there evidence that equipment containing PCBs has been removed? If so, obtain the approximate dates of removal, location removed from, and name of the removal contractor.

Finding: No evidence

Source:

20. Is there evidence that there have been any fires on the Property involving PCBs? If so, describe and provide the dates(s) of the occurrence and remediation methods.

Finding: No knowledge of fires involving PCB's or Electrical/ hydraulic equipment

Source:

This Site Survey Summary Was Completed By:

Name: Rick Whitney Title: Staff Geologist

Firm: TSI Date: 11/14/01

Address: _____ Phone Number: _____

Preparer represents that to the best of the Preparer's knowledge the above statements and facts are true and correct and that to the best of the Preparer's knowledge no material facts have been suppressed or misstated.

Signed: _____ Date: 11/14/01

[redacted]

Appendix D

Material Safety Data Sheet Summary

JCCC Raw Materials MSDS

FD & C yellow #5
Eastman DE-HG Solvent
TBEP (Tributoxyethyl phophate)
Ammonia Hydroxide
Blankophor (Stilbene optical brightner)
Meto pentabead 20
Acusol 445ND polymer
Sodium Perborate
Methyl Salicylate
10% Antifoam emulsion
Pylaklor acid blue LX-9738
Pylaklor sea green S-432
Pylaklor brilliant blue S-566
TEXANOL ester alcohol
FC-120 Fluorad brand fluorchemical surfactant
Zonyl FSJ fluorosurfactant
RHOPLEX B-60A emulsion
RHOPLEX B-85 emulsion
Duraplus 2 emulsion
Glycol ester DESG
Concentrated Deodorant fragrance
Rosin ester solution
Dowper solvent (perchloroethylene)
Primfix resin
BTC 1010
Stepan SXS
Tergitol NP-9 Surfactant
BTC 2125M P40
Arosurf TA-100
SO/SAN 30M
Shellflex ® 1210
Carboxymethyl Cellulose
Sokalan ® PA 30
Cedephos FA-800
Sodium Silicofluoride
Sodium Silicate
Ban Soap
Caustic Potash – liquid
Versene 100 chelating agent
Caustic Soda
Poly emulsion 43 N 40
Ploy emulsion 371N35
Michem emulsion 80540
Antapox BL-225 surfactant
IGEPAL DM 970 Flakes
Makon NF-5

Kathon CG/ICP preservative
Rhodamine 6GDN Extra
Isopropanol
Bio-Soft S-100
Bio-terge 804
Stepanol ABHS-15C
Bio-Soft LD-95
Sodium Orthosilicate
Ethylene Glycol
Sulfochem B-209
ACL 56
Valfor ® zeolite
Monosoduim Phosphate
Sodium Bicarbonate
Metso beads 2048 sodium Metasilicate
Sipernat 22S
Sodium Tripolyphosphate
Tetrapotassium pyrophosphate
Ninol 40-CO
Mercol
Diethanolamine
Soda ash
Morpholine
Triethanolamine
Lemon fragrance
Sodium Sulfate
Urea
FB Sodium Percabonate
Sun ripened raspberry fragrance
Nacconol 40G
T DET N 14
Butyl cellosolve solvent
Pantene type fragrance
Tide w/ bleach
Pine oil disinfectant

All purpose cleaner
Neutral floor cleaner
Window and mirror cleaner
High speed burnishable floor finish
Floor finish
Floor sealer
Heavy duty floor cleaner
Polymer floor stripper
Dust mop treatment
Pine oil disinfectant
Special deodorant
Disinfectant and sanitizer 205M 7.5%
Machine dishwashing compound
Hand dishwashing compound
Rinse aid
Pot and Pan degreaser
Machine dishwashing detergent
Laundry soap compound
Non-phosphate laundry detergent
Automatic laundry detergent
Break laundry detergent
Bleach, X-tra bright chloral
Laundry detergent with bleach
Non-phosphate chloral bleach
Automatic laundry detergent heavy duty
Built soap compound tallow base
Laundry sour
Blue laundry sour
Oxygen safe dry bleach
Household fabric softener and sanitizer
Powered fabric softener and sanitizer
Toilet bar soap
Liquid hand soap
Liquid shampoo
Liquid dishwashing soap
Antibacterial hand soap

Con-bond 330
Titebond wood glue
Dark oak stain
Pre-cat Laquer topcoat
Pre-cat 35 sheen
#2 dark oak stain
Resistovar Topcoat
#1048 Catalyst
Oak stain
Sanding sealer
Regalite (sandpaper)
Catalyst
Lacquer reducers (thinner)
Ball heavy hitter cleaner
Bates Boothcoating/Glue release
330 green neoprene contact cement
#1 dark oak stain
Wood-tex face grade synthetic wood/all

Scotchlite dip tank thinners
Kester Solder
Bingham roller and blanket wash
Scotchlite roll coating clear 260
Scotchlite transparent printing ink 200
Scotchlite roll coating thinner 270
Toluene
Scotchlite roll coat thinner 4905
Scotchlite roll coat color 4806V blue
Acetylene
Oxygen
Oak cool (coolant)
Scotchlite roll coat color 4805V black
Carbon Dioxide
Byk-catalyst (p-toluene sulfonic acid)
Kleer kote #6004
Premium contact cleaner
GVYL (Gloss vinyl)
Scotchlite roll coat color 4815V purple
Scotchlite clear coat thinner 746
Reflecto-lite brand 754 clear
Xylene

Polybac #1183
5018 dual purpose sulfite indicator powder
5015,5016 potassium iodide-iodate
5007 phenolpthalein indicator
5000, 5001 hardness titrating solution
5004,5005 sulfuric acid
5002 hardness buffer solution
5003 hardness indicator solution
6057 neutralizing solution
5031 5032 bromcresol green-methyl red
4770 cooling water treatment
453 steamline treatment
Caustic soda liquid
595 oxygen scavenger
1659 boiler compound
1147 alkaline boil out
Weather seal siloxane WB
Propane
Acetylene
Carbon dioxide
Helium
DPD free chlorine reagent
Fluorescent marking paint
Paintstik
Foaminator
Dem-Kote metallic finish
HP cleaner
Leak detector low temp
Blowout
Brite Alum
Foaming cooling coil
No Sweat
Argon
Nitrogen
Plus
Scale remover
TT-P-1511 Semi-gloss paint
Spray adhesive
Stargold C-25 shielding gas
Argon Carbon Dioxide Helium mixture
Oxygen
Upper limits
Buckeye floor sealer
Rough tough scrubs in a bucket
Gojo natural orange hand cleaner
Hydrochloric acid

Qwik traffic stripe aersol (white, yellow, blue)
Lime-a-way
Carbon steel electrode
Flo-glaze cleaner
DAP kwik foam
Rayovac batteries
Kester solder
Valve action paint marker
Coated abrasive product (sandpaper)
"44" rosin flux solder
CRC Contact cleaner
Mercury (quicksilver)
Halstead contact adhesive
W/R Epoxy pastel base
Silicon Carbide abrasive (sandpaper)
Aluminum Oxide grinding wheel
Aluminum Grease
LPS heavy duty Silicone lubricant
Makon NF-5
LPS themaplex hi-temp grease
LPS 2 industrial strength lubricant
Silicone aerosol
Beat the nails (adhesive)
Plumber pipe dope
Poly temp VSP (TFE Valve Stem Pack)

PRODUCT	AREA STORED IN
. WHITE LICENSE PLATE INK	TAG PLANT
2. TOULENE	TAG PLANT
3. AROMATIC A-150	TAG PLANT
4. SCOTCHLITE THINNER	TAG PLANT
5. BLUE INK	TAG PLANT
6. THINNER	TAG PLANT
7. CLEANING SOLVENT	TAG PLANT
8. OAK KOOL	TAG PLANT
9. WELDING WIRE	TAG PLANT
10. 453 STEAMLINE TREATMENT	POWER PLANT
11. CAUSTIC SODA LIQUID	POWER PLANT
12. 595 OXYGEN SCAVENGER	POWER PLANT
13. 1659 BOILRER COMPOUND	POWER PLANT
14. BLANKET CLEANING SOLVENT	GRAPHIC ARTS
15. 320 CLEANER	GRAPHIC ARTS
16. CON-BOND 330	PANEL FACTORY
17. PRESSET	PANEL FACTORY
8. WOOD GLUE	PANEL FACTORY
19. LACQUER THINNER	PANEL FACTORY
20. SEALER	PANEL FACTORY
21. SUPER SPRAY ADHESIVE	PANEL FACTORY
22. WD-40	PANEL FACTORY
23. MOLYLUBE GREASE	PANEL FACTORY
24. SHELL ALVANIA GREASE	PANEL FACTORY
25. CHAIN LIFE	PANEL FACTORY
26. TOP-COTE	PANEL FACTORY
27. DRY COTE	PANEL FACTORY
28. SWEEPING COMPOUND	PANEL FACTORY
29. PARTICLE BOARD	PANEL FACTORY
30. TOUCH-UP PAINT	PANEL FACTORY
31. ACETONE	HOBBIE CRAFT
32. CEMENT THINNER	HOBBIE CRAFT
33. CEMENT, CONTACT, SPRAY	HOBBIE CRAFT
34. CEMENT, RUBBER	HOBBIE CRAFT
35. CLEANER, CHOKE, SPRAY	HOBBIE CRAFT
3. CLEANER, ELECTRIC, SPRAY	HOBBIE CRAFT
37. CONDITIONER, LEATHER	HOBBIE CRAFT

38. DYE SOLVENT	HOBBIE CRAFT
39. DYE, OIL	HOBBIE CRAFT
'0. DYE, SPIRIT	HOBBIE CRAFT
41. DYE, SPRAY	HOBBIE CRAFT
42. DYE, THINNER	HOBBIE CRAFT
43. FILLER, WOOD	HOBBIE CRAFT
44. FINISH, LIQUID	HOBBIE CRAFT
45. FINISH, SPRAY	HOBBIE CRAFT
46. GLUE, LIQUID	HOBBIE CRAFT
47. GLUE, SPRAY	HOBBIE CRAFT
48. LACQUER THINNER	HOBBIE CRAFT
49. LACQUER, LIQUID	HOBBIE CRAFT
50. LACQUER, SPRAY	HOBBIE CRAFT
51. MINERAL SPIRITS	HOBBIE CRAFT
52. PAINT, LIQUID	HOBBIE CRAFT
53. PAINT, SPRAY	HOBBIE CRAFT
54. POLISH, WOOD, SPRAY	HOBBIE CRAFT
55. PRIMER	HOBBIE CRAFT
56. RETARDER, PAINT	HOBBIE CRAFT
57. SEALER, WATER	HOBBIE CRAFT
58. SEALER, SANDING WOOD	HOBBIE CRAFT
59. SEALER, SANDING, SPRAY	HOBBIE CRAFT
60. SILICONE SPRAY	HOBBIE CRAFT
61. STAIN, WOOD	HOBBIE CRAFT
62. THINNER, PAINT	HOBBIE CRAFT
63. TULONAL	HOBBIE CRAFT
64. URETHANE, LIQUID	HOBBIE CRAFT
65. URETHANE, SPRAY	HOBBIE CRAFT
66. VARNISH, LIQUID	HOBBIE CRAFT
67. VARNISH, SPRAY	HOBBIE CRAFT
68. WAX, LEATHER	HOBBIE CRAFT
69. WAX, WOOD	HOBBIE CRAFT
70. WD-40	HOBBIE CRAFT
71. CARBITOL SOLVENT	CHEMICAL PRODUCTS
72. TRIBUTOXYETHYL PHOSPHATE	CHEMICAL PRODUCTS
73. AMONIUM HYDROXIDE	CHEMICAL PRODUCTS
74. FLOURESCENT BRIGHTNER	CHEMICAL PRODUCTS
75. HEXYLENE GLYCOL	CHEMICAL PRODUCTS
76. METHYL SALICYLATE	CHEMICAL PRODUCTS

77. ANTI FG-10 EMULSION	CHEMICAL PRODUCTS
78. TEXANOL	CHEMICAL PRODUCTS
79. FC-120 FLUORAD	CHEMICAL PRODUCTS
80. RHOPLEX B-60A EMULSION	CHEMICAL PRODUCTS
81. RHOPLEX B-85 EMULSION	CHEMICAL PRODUCTS
82. DURAPLUS 2 EMULSION	CHEMICAL PRODUCTS
83. DOWANOL	CHEMICAL PRODUCTS
84. FRESH LEMON #1356-MB, OS	CHEMICAL PRODUCTS
85. TIDE/W BLEACH	CHEMICAL PRODUCTS
86. PYLAKLOR BRILLAIANT BLUE	CHEMICAL PRODUCTS
87. FD&C YELLOW #5	CHEMICAL PRODUCTS
88. RHODAMINE 6GDN EXTRA	CHEMICAL PRODUCTS
89. PYLAKLOR ACID BLUE LX-9738	CHEMICAL PRODUCTS
90. PYLAKLOR ACID BLUE LX 7257B	CHEMICAL PRODUCTS
91. PYLAKLOR ACID SEA GREEN S-432	CHEMICAL PRODUCTS
92. DOWPER* SOLVENT	CHEMICAL PRODUCTS
93. PINE OIL DISINFECTANT CONCENTRATE PF	CHEMICAL PRODUCTS
94. BTC 1010	CHEMICAL PRODUCTS
95. STEPANATE SXS	CHEMICAL PRODUCTS
96. TERGITOL NP-9 SURFACTANT	CHEMICAL PRODUCTS
97. GLYCOL ETHER	CHEMICAL PRODUCTS
98. AROSURF TA-100	CHEMICAL PRODUCTS
99. MINERAL SEAL OIL	CHEMICAL PRODUCTS
100.CARBOXYMETHEL CELLULOSE, SODIUM (CMC)	CHEMICAL PRODUCTS
101.RHODAFAC RA-600	CHEMICAL PRODUCTS
102.SODIUM SILICOFLUORIDE (SSF)	CHEMICAL PRODUCTS
103.HIGH TITER SOAP	CHEMICAL PRODUCTS
104.CAUSTIC POTASH, LIQUID	CHEMICAL PRODUCTS
105.VERSENE* 100 CHELATING AGENT	CHEMICAL PRODUCTS
106.CAUSTIC SODA BEADS	CHEMICAL PRODUCTS
107.POLY EMULSION 43 N 40	CHEMICAL PRODUCTS
108.MICHEM EMULSION 80540	CHEMICAL PRODUCTS
109.ANTAROX BL-225	CHEMICAL PRODUCTS
110.IGEPAL DM 970 FLAKE	CHEMICAL PRODUCTS
111.KATHON CG/ICP	CHEMICAL PRODUCTS
112.ISOPROPANOL 99%	CHEMICAL PRODUCTS
113.D.D.B.S.A.	CHEMICAL PRODUCT
114.BIOTERGE 804	CHEM/SHOE FACTORY
115.STEPHANOL ABHS-15C	CHEM/SHOE FACTORY

116.BIOSOFT LD-95	CHEM/SHOE FACTORY
117.SODIUM ORTHOSILICATE	OUTSIDE WAREHOUSE
8.LIQUID CAUSTIC SODA	CHEMICAL PRODUCTS
119.ETHYLENE GLYCOL	CHEM/SHOE FACTORY
120.SODIUM DICHLORISOCYANURATE	CHEM/SHOE FACTORY
121.VALFOR 100	CHEM/SHOE FACTORY
122.MONOSODIUM PROSPHATE	CHEM/SHOE FACTORY
123.SODIUM BICARBONATE	CHEM/SHOE FACTORY
124.SODIUM METASILICATE	CHEM/SHOE FACTORY
125.SIPERNAT 22 S	CHEM/SHOE FACTORY
126.SODIUM TRIPOLYPHOSPHATE	CHEM/SHOE FACTORY
127.TETRAPOTASSIUM PYROPHOSPHATE	CHEM/SHOE FACTORY
128.NINOL 40-CO	CHEM/SHOE FACTORY
129.MERCOL 30	CHEM/SHOE FACTORY
130.DIETHANOLAMINE	CHEM/SHOE FACTORY
131.MONETHANOLAMINE	CHEMICAL PRODUCTS
132.SODIUM CARBONATE	CHEM/SHOE FACTORY
133.MORPHOLINE	CHEM/SHOE FACTORY
134.TRITHANOLAMINE 99%	CHEM/SHOE FACTORY
135.LEMON PERFUME	CHEMICAL PRODUCTS
,6.SODIUM SULFATE	CHEM/SHOE FACTORY
137.UREA INDUSTRIAL GRADE	CHEM/SHOE FACTORY
138.SODIUM PERCARBONATE	CHEM/SHOE FACTORY
139.T-DET-N-14	CHEM/SHOE FACTORY
140.BUTYL CELLOSOLVE	CHEM/SHOE FACTORY
141.TIDE W/ BLEACH FRAGRANCE	CHEMICAL PRODUCTS
142.SUPREME SALT FINES	CHEMICAL PRODUCTS
143.PINE OIL	CHEM/SHOE FACTORY
144.GILDCO PF PINE OIL DISINFECTANE CONCENTRATE	CHEM/SHOE FACTORY
145.BTC-1010	CHEM/SHOE FACTORY
146.SODIUM XYLENE SULFONATE	CHEM/SHOE FACTORY
147.NONIONIC SURFACANT	CHEM/SHOE FACTORY
148.STEPAN BTC 2125M P-40	CHEM/SHOE FACTORY
149.AEROSURF TA-100	CHEM/SHOE FACTORY
150.STEPAN SO/SAN 30M	CHEM/SHOE FACTORY
151.SHELLFLEX 2210	CHEM/SHOE FACTORY
152.SODIUM CARBOXYMETHYL	CHEM/SHOE FACTORY
53.SOKALAN PA-30 CL 45% SOLUTION	CHEM/SHOE FACTORY
154.CEDEPHOS FA 600	CHEM/SHOE FACTORY

155.SODIUM SILICOFLUORIDE	CHEM/SHOE FACTORY
156.H.T. SOAP POWDER	CHEM/SHOE FACTORY
57.LT. DRYER FLAKES	CHEM/SHOE FACTORY
158.POTASSIUM HYDROXIDE	CHEM/SHOE FACTORY
159.E.D.T.A.	CHEM/SHOE FACTORY
160.SODIUM HYDROXIDE BEADS	CHEM/SHOE FACTORY
161.EPOLENE E-43N 40%	CHEM/SHOE FACTORY
162.POLYEMULSION 371N35	CHEM/SHOE FACTORY
163.AC 325N 35%	CHEM/SHOE FACTORY
164.ANTOROX BL-225	CHEM/SHOE FACTORY
165.IGEPAL DM-790	CHEM/SHOE FACTORY
166.MAKON NF-5	CHEM/SHOE FACTORY
167.KATHON CG ICP	CHEMICAL PRODUCTS
168.ISOPROPANOL	OUTSIDE WAREHOUSE
169.CARBITOL SOLVENT	CHEM/SHOE FACTORY
170.KP-140 PLASTICIZER T-BEP	CHEM/SHOE FACTORY
171.AQUA AMMONIA	CHEM/SHOE FACTORY
172.BLAKOPHOR DML OPTICAL BRIGHTNER	CHEM/SHOE FACTORY
173.HEXELENE GLYCOL	CHEM/SHOE FACTORY
174.METHYL SALICYLATE	CHEMICAL PRODUCTS
75.ANTIFOAM	CHEMICAL PRODUCTS
176.TEXANOL	CHEM/SHOE FACTORY
177.FC-120	CHEMICAL PRODUCTS
178.RHOPLEX B-60A	CHEM/SHOE FACTORY
179.RHOPLEX B-85	CHEM/SHOE FACTORY
180.DURAPLUS 2	CHEM/SHOE FACTORY
181.DIPROPYLENE GLYCOL METHYL ETHER	CHEM/SHOE FACTORY
182.SPECIAL DEODORANT CONCENTRATE	CHEMICAL PRODUCTS
183.RESINALL 802 25%	CHEM/SHOE FACTORY
184.PERCHLOROETHYLENE	CHEM/SHOE FACTORY

[redacted]

Appendix E

Ameren UE Correspondence

AmerenUE
Capital District Office

1310 Industrial Drive
PO Box 1558
Jefferson City, MO 65102-1558
800.552.7583

February 8, 2002

Mr. Rick Whitney
TSI Engineering, Inc.
59th & Arsenal
Building C, 2 Campbell Plaza
St. Louis, MO 63139

Re: Transformer Information – Jefferson City Correctional Facility, 631 East State St, Jefferson City, MO

Dear Mr. Whitney:

This is in response to your request for information regarding the status of transformers located at or near 631 E. State St. in Jefferson City, Missouri.

Our records indicate AmerenUE owns 32 transformers in the vicinity of the adjoining addresses listed in your letter dated November 30, 2001.

These transformers are of the type filled with mineral based insulating oil. They are not filled with PCB fluid and are not defined as a PCB transformer under EPA rules. Under these rules, mineral oil transformers that have not been tested are classified as "PCB contaminated transformers." This means that since it is possible that they may have been accidentally contaminated with low levels of PCB's, they are assumed to contain 50 to 499 PPM unless tested. The term 50 PPM means 50 parts per million or 1/200 of 1%, an extremely small amount of contamination.

Although the majority of our transformers are free of PCB's, it is not uncommon to find slight levels of contamination in some, typically 50 PPM or less. We have no plans for routine testing of these transformers because of the cost and service outages that are involved. EPA does not require any special precautions with transformers of this type, and we feel that they do not present any exposure problem from a health or environmental standpoint.

We have no records of any problems with these or any other transformers at or near this site.

If you have questions concerning this matter, please advise.

Sincerely,

David L. Hagan

David L. Hagan, P.E.
Supervising Engineer

[redacted]

PHASE I ENVIRONMENTAL ASSESSMENT

STATE AGENCY FOR SURPLUS PROPERTY
117 NORTH RIVERSIDE DRIVE
JEFFERSON CITY, MISSOURI

Prepared for:
Berkebile Nelson Immenschuh McDowell Architects
106 West 14th Street Suite 200
Kansas City, Missouri 64105

TSi engineering,inc.

59th and Arsenal
Building C
Two Campbell Plaza
St. Louis, Missouri 63139

June 29, 2001

[redacted]

[redacted]

[redacted]

[redacted]

Executive Summary

TSi Engineering, Inc. performed a Phase I Environmental Site Assessment (ESA) in June 2001 for the property known as the State Agency for Surplus Property located at 117 North Riverside Drive, City of Jefferson, Missouri (subject property). This Phase I ESA was conducted for State Agency for Surplus Property for the purpose of identifying potential recognized environmental conditions (RECs) associated with the property.

The subject property occupies approximately 8 acres in the City of Jefferson, Missouri and is bounded: to the north by the Missouri Pacific Railroad and Missouri River; to the east by additional Missouri Correctional Facility properties and Riverside Park; to the west by the Missouri State Penitentiary; and to the south by Renn Residential Neighborhood and International Shoe Factory. The subject property consists primarily of 9 major structures built of sheet metal with steel framing and supports. The Administration Building located on the property is constructed of cinder block walls and steel framing. The lots between the buildings are composed primarily of concrete. Additional gravel lots surround the facility. Tree covered hillsides and grassy areas surround the fenced area of property.

The Environmental Data Resources (EDR) database search identified seven facilities within their respective American Society for Testing Materials (ASTM) defined search distances from the subject property. One UST (Underground Storage Tank) site was located within the ¼ mile radius search of the subject property. This site was the State of Missouri Surplus Property (subject property). Two LUST (leaking underground storage tank) sites were located within ½ mile of the subject property. These two sites were State of Missouri Surplus Property (subject property) and Al's Tire Service. Two orphan sites were listed that could be within ASTM defined search distances, however, insufficient information exists on these site as to their exact location and remediation status. An orphan site by definition is a site which complete records are not available regarding location or remediation status. The two orphan sites listed were Missouri Highway and Transportation Department and Delong's, Inc.

In our opinion, the following RECs have been identified for the subject property as a result of this Phase I ESA:

- Potential asbestos-containing materials (ACM);
- Potential lead-based paint (LBP).
- Potential soil and groundwater impact from LUST tank removal on site.
- Potential soil and groundwater impact from open dumping of chemicals.
- Potential soil and groundwater impact from former firing range.
- Potential soil and groundwater impact from former landfill.

[redacted]

Potential ACM and LBP present at existing structures at the subject property should be inspected by U. S. Environmental Protection Agency (EPA) and State of Missouri certified and licensed inspectors. Asbestos inspections are required by federal, state and local regulations prior to any disturbance of these materials. Environmental subsurface investigations may be necessary for the subject property at locations which are at topographically lower elevations than the former LUST sites. Environmental subsurface investigations may also be necessary to properly characterize subsurface conditions for the former dumping site, the former firing range site and the former landfill site.

Recognized environmental conditions relate to possible environmental impacts associated with historic land use and practices, and potential sources of environmental impacts associated with the existing buildings and/or current site practices.

[redacted]

1.0 Introduction

1.1 Purpose

The purpose of this environmental site assessment is to address potential environmental concerns of the subject property by reviewing past usages of the subject property and adjacent property, identifying recognized environmental conditions (RECs), and assessing the environmental impact of the RECs on the subject property. RECs are defined in ASTM E 1527-00 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." An additional purpose of this ESA is to address the relevance of the identified RECs to the subject property's future development.

1.2 Methodology

This environmental site assessment was conducted in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM E 1527-00. The Phase I ESA activities consist of:

- Records Review
- Site Reconnaissance
- Interviews
- Documentation

The conclusions included in this report were prepared with the understanding that the sites may be redeveloped in the near future.

[redacted]

2.0 Site Description

2.1 Location and Description

The subject property occupies approximately 8 acres in the City of Jefferson, Missouri and is bounded: to the north by the Missouri Pacific Railroad and Missouri River; to the east by additional Missouri Correctional Facility properties and Riverside Park; to the west by the Missouri State Penitentiary; and to the south by Renn Residential Neighborhood and International Shoe Factory. The subject property consists primarily of 9 major structures built of sheet metal with steel framing and supports. The Administration Building located on the property is constructed of cinder block walls and steel framing. The lots between the buildings are primarily paved with concrete. Additional gravel lots surround the facility. Tree covered hillsides and grassy areas surround the fenced area of property.

2.2 Site and Vicinity

The subject property is located on a bluff overlooking the Missouri River. The bluff is relatively level on the top portion and slopes steeply to the west, north, and east. The site consists of the State Agency for Surplus Property (Surplus Property) and the Old Training Academy. The Surplus Property facility is comprised primarily of sheet metal buildings with steel out buildings used for warehouse storage. The Administration Building of Surplus Property is built of cinder block and steel framing. The Old Training Academy is a two-story brick building with concrete block basement walls. The structure was built in 1937 as the Women's Correctional Facility. Storm drains are located throughout the area and service the subject property.

2.3 Site Improvements

The subject property consists primarily of concrete, asphalt, and gravel covered lots. Some areas to the north are grass and tree covered. Minimal change has occurred on the property since the Surplus Property structures were built in the 1960's.

2.4 Current Uses of Property

The subject property is primarily used by Surplus Property as a storage facility for federal and state surplus goods. The Old Training Academy is used as living quarters for the guards at the state penitentiary. There are also offices for guard supervisors. The basement houses dogs used for identifying drugs.

[redacted]

2.5 Past Uses of the Property

The subject property was previously used by the Women's Correctional Facility until approximately 1965. The Surplus Property site was used as a farm and gardens for the women inmates.

2.6 Current and Past Uses of Adjoining Property

2.6.1 Current Uses of Adjoining Property

The adjoining property to the west is the state penitentiary. The adjoining properties to the south are the International Shoe Factory and the Renn Residential Neighborhood. The adjoining property to the east is undeveloped and is owned by the state corrections office. Missouri Pacific railroad tracks and the Missouri River are located to the north of the subject property.

2.6.2 Past Uses of Adjoining Property

According to the historical research, past uses of the adjoining properties are consistent with the current uses.

2.7 Site Physical Setting

2.7.1 Topography

The sites are located on steeply rolling bluffs approximately 640 to 660 feet above sea level. The Missouri River borders to the north and all drainage from the site flows to the river. A site topographic map is presented in Figure 1, Site Location and Topography (USGS).

2.7.2 Soil and Geology

Soil characteristics of the area are predominantly silty clay to clay soil. The subject property is located on dolomite formation of the Paleozoic Era, Lower Ordovician System, Canadian Series. These formations gently dip toward the northeast.

2.7.3 Groundwater and Surface water

Surface runoff is controlled primarily by the storm sewer system located on the site. Groundwater levels and flow vary due to influences of surface water flow and soil/rock type. The subject property is located on the high bluff overlooking the Missouri River and surface water flows away from the property.

[redacted]

3.0 Records Review

3.1 Environmental Record Sources

Environmental Data Resources, Inc. (EDR) was subcontracted to search available environmental record databases. The results of the environmental record database search are presented in a report titled The EDR – Radius Map with GeoCheck®, Surplus Property, 117 North Riverside Drive, Jefferson City, Missouri 65101, Inquiry No: 639486.3s, prepared for TSi Engineering, Inc. and dated June 1, 2001. The distances used for searching the environmental record databases are in accordance with American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments, ASTM E 1527-00.

3.1.1 EDR Environmental Database Search

The following federal and state agency databases were searched and reviewed for evidence of any potential environmental contamination issues, such as incidents or facilities that may have affected the environmental integrity of the subject property:

- National Priority List (NPL) – 1 mile search radius
- State Hazardous Waste Sites – 1 mile search radius
- Resource Conservation and Recovery Act (RCRA) Corrective Action Activity (CORRACTS) – 1 mile search radius
- Superfund (CERCLA) Consent Decrees (CONSENT) – 1 mile search radius
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – ½ mile search radius
- State Landfill – ½ mile search radius
- Resource Conservation and Recovery Act Transportation, Storage and Disposal (RCRA-TSD) – ½ mile search radius
- Leaking Underground Storage Tank (LUST) – ½ mile search radius
- Underground Storage Tank (UST) – ¼ mile search radius
- RCRIS Small Quantity Generator – ¼ mile search radius
- RCRIS Large Quantity Generator – ¼ mile search radius
- Delisted NPL Sites – Target Property
- CERCLA No Further Remedial Action Planned (CERC-NFRAP) – Target Property
- Above-ground Petroleum Storage Tanks (AST) – Target Property
- RCRA Administrative Action Tracking System (RAATS) – Target Property

[redacted]

- Hazardous Materials Information Reporting System (HMRIS) – Target Property
- PCB Activity Database System (PADS) – Target Property
- Emergency Response Notification System (ERNS) – Target Property
- Facility Index System (FINDS) – Target Property
- Toxic Chemical Release Inventory System (TRIS) – Target Property
- NPL Liens (NPL Lien) – Target Property
- Toxic Substance Control Act (TSCA) – Target Property
- Material Licensing Tracking System (MLTS) – Target Property
- Certified Hazardous Waste Resources Recovery Facilities (MO RRC) – Target Property

3.1.2 Summary of EDR Environmental Database Search Results

The subject property was identified in the EDR Environmental Database search as UST and LUST sites. Additional surrounding properties were also identified within the ASTM specified search distances from the subject property. A listing of database search findings is presented below.

Database Searched	Search Distance (Miles)	Facilities Located
UST	¼	1
LUST	½	2

Discrepancies between the information provided by government agencies and EDR may exist due to incomplete or non-updated databases of either resource. In addition, facilities may be listed in more than one category on the environmental screening report. A summary of the EDR sites identified within the above listed search distances follows.

UST (1 site)

- State of Missouri Surplus Property (subject property), 117 North Riverside Drive, Jefferson City, Missouri 65102. Records indicate that 2 tanks were removed.

[redacted]

LUST (2 sites)

- State of Missouri Surplus Property (subject property), 117 North Riverside Drive, Jefferson City, Missouri 65102. There was a release reported at this facility on 7/2/93. Excavation was listed as the remediation technique. Spill cleanup started on 7/2/93 and ended 12/15/93.

- Al's Tire Service, 1015 East McCarty, Jefferson City, Missouri 65101. This site is located 1/4 to 1/2 mile west southwest of the subject property. There was a release reported on 4/13/93. Excavation, tank closure and landfill are listed as the remedial techniques. Soil was listed as the contaminated media. Spill cleanup dates were not given.

Orphan sites (2 sites)

- Missouri Highway and Transportation Department, East McCarty Street, Jefferson City, Missouri. This site is listed as a LUST. There is insufficient information on this site as to its exact location and remediation status.

- Delong's, Inc., East Capitol Street, Jefferson City, Missouri. This site is listed as a UST. There is insufficient information on this site as to its exact location and remediation status.

3.1.3 Environmental Assessment Reports

The property owner indicated that previous Phase I, II and III environmental assessment work was performed at the subject property beginning in January of 1990 by Sverdrup, Inc. A summary of these reports follows:

In a report titled Site Investigation Phase I Environmental Investigation at the State Agency for Surplus Property dated December 1990, Sverdrup Environmental Inc. began an investigation as a result of an anonymous complaint to the U. S. Environmental Protection Agency (EPA) in January 1990 and a site inspection by Missouri Department of Natural Resources (MDNR) on January 26, 1990. The result of the inspection indicated open dumping of chemicals on the site. Interviews with individuals associated with the Surplus Property conducted in February 1990 indicated that open dumping of chemicals on the site took place anywhere from 1 to 14 years ago. From February to August 1990, soil and groundwater samples were taken by Maecorp and Sverdrup at locations of presumed contamination to delineate the extent of environmental impact on and off site. The result of the investigation concluded elevated levels of organic and

[redacted]

inorganic compounds primarily from the surface discharge of hazardous chemicals. Further investigation was recommended.

In October 1993, Sverdrup proposed a work plan for additional sampling to the MDNR. In a report titled Phase II Environmental Investigation Results, State Agency for Surplus Property dated July 1994; Sverdrup continued the soil and groundwater investigation of the site from January to June 1994. The results of the investigation concluded, in general, that migration of the chemical impact off site was minimal while locations on the site would require remedial soil removal.

From July 22, 1996 to August 8, 1996 Sverdrup contracted P.W. Stevens to perform remedial excavations at the subject property under the supervision of Sverdrup. In a report titled Site Remediation Report at the State Agency for Surplus Property, four locations on the site were excavated 1 to 2 feet deep. Confirmation samples were taken to document the cleanup.

From July 1996 to January 1998, groundwater monitoring was performed on a semi-annual basis. The last report dated September 30, 1998 indicated groundwater impact from the site was low. The report also indicated that site closure could be pursued if groundwater results remained low after a 2 year interval. Many of the groundwater wells were recommended for abandonment. This report was the last report filed with the MDNR.

3.2 Aerial Photographs

Aerial photographs were obtained and reviewed for the subject property and surrounding areas for the years 1961, 1965, 1981, and 1990.

3.2.1 1961 Aerial Photograph Review

The subject property appeared to be used for farming. No Surplus Property buildings are present. The Old Training Academy and storage building are present. A water tower and the shoe factory to the south are present.

3.2.2 1965 Aerial Photograph Review

Buildings #1 and #8 are present on the Surplus Property lot. The Old Training Academy and storage building are also present. The water tower and shoe factory to the south remain.

3.2.3 1981 Aerial Photograph Review

All current buildings for the Surplus Property are identifiable. Significant drainage erosion is observed on the hillside east of Lay Down Yard (see Figure 2. Site Location and Topography Detail). The Old Training Academy and storage building are present along with the water tower and the shoe factory to the south.

[redacted]

3.2.4 1991 Aerial Photograph Review

There were no significant changes observed in this photograph.

3.3 Local Directories

Mullin-Kille, Johnson, and Polk directories were reviewed for the years 1938 through the present. A summary is presented below.

Tenants	Date
Division of Purchasing Surplus Property	2000
Mo. State Surplus Property	1990
Mo. State Surplus Property	1986
State Department of Education Agency for Surplus Property	1971
No Listing	1967
No Listing	1961
No Listing	1955
No Listing	1948
No Listing	1943
No Listing	1938

3.4 Local Zoning/Land-Use Records

The city zoning office was contacted for current zoning/land use of the subject property. The subject property is zoned RS-1 which represents residential single family.

3.5 Sanborn Maps

Sanborn Maps of the subject property were obtained for the years 1939, 1943, and 1968. The subject property is vacant in 1939 and in 1943. The surrounding area to the south appears under development for residential use. The International Shoe Factory is present to the

south. In 1968, the property is developed with seven structures shown. There were no Sanborn Maps available for the Old Training Academy to the north.

3.6 Historical Topography Maps

Historical topography maps of the subject property were obtained for the years 1942, 1967, and 1974. The 1942 topography map shows the Old Training Academy/ Women Correctional Facility and the water tower. The International Shoe Factory is present to the south. No other structures are shown. The 1967 topography map shows a change in topography in the northwest portion of the subject property. The change in topography is in the form of a fill area that once was a drainage gully. The Administration Building and Building #8 are present. The 1974 topography map shows no change in topography. Buildings #3, #5, and #6 are shown.

[redacted]

4.0 Site Reconnaissance

4.1 Site Survey Process

A site reconnaissance of the subject property was conducted by TSi Engineering, Inc. on June 4, 2001. Photographs of the subject property are presented in Appendix A. The site survey summary is presented in Appendix B.

4.2 Hazardous Materials and Petroleum Products

Due to the age of the buildings identified, suspect asbestos containing materials and lead-based paint may be present. Suspect asbestos fireproofing was observed on some of the structural steel members of a garage. Suspect asbestos was also noticed on thermal system insulation. Additional materials which may contain asbestos include floor tiles, ceiling tiles, surfacing materials and roofing materials. Potential lead-based paint was found on horizontal and vertical surfaces and mechanical equipment. Lead dust and contaminated soil may also be present at an assumed former firing range. Tires, furniture, and containers of antifreeze, oil and cleaning products were observed in and around the subject property. These items were found in various quantities. Copies of material safety data sheets (MSDS) are presented in Appendix C.

4.3 Storage Tanks

Evidence of former underground storage tanks was observed at the subject property. These tanks were located under the current above ground storage tanks and have been removed according to reviewed records.

4.4 Drums

Evidence of 55-gallon drums was observed at the subject property. These drums were located in the garage area and in the rear of the property. The drums in the garage area were used for lubricants in the maintenance of equipment. These drums were in good condition. The drums located in the rear of the lot were empty.

4.5 Hazardous Waste

Evidence of hazardous waste activities was observed at the subject property. Used car and equipment batteries were stored in a properly contained area of the garage.

[redacted]

4.6 Solid Waste

During interviews of site personal, a possible landfill was discussed located in the northwest corner of the subject property between the Old Training Academy and the Potato House (see Figure 2. Site Location and Topography). The landfill activities occurred prior to the employment of the current staff.

4.7 Wastewater

Storm drains located throughout the area were observed.

4.8 Drains and Sumps

Evidence of stained drains or sumps in the area was not observed.

4.9 Stains and Pools of Liquid (Interior)

Evidence of stains and pools of liquid inside the buildings was not observed.

4.10 Pits, Ponds, Lagoons

Evidence of pits, ponds and lagoons was not observed at the subject property.

4.11 Stained Soil or Pavement and Stressed Vegetation

Evidence of minor stains under some of the vehicles and equipment was observed. Stressed vegetation was not observed.

4.12 Potential PCB-Containing Electrical or Hydraulic Equipment

Evidence of potential PCB-containing electrical or hydraulic equipment was observed. Hydraulic floor lifts and forklifts were located in the Lay Down Yard with no evidence of leakage observed.

[redacted]

5.0 Interviews and Questionnaire

5.1 Owner/Tenant Questionnaire

The purpose of the questionnaire is to obtain historical background information for the site. TSi Engineering, Inc. submitted a questionnaire to Mr. Mark Schreiber of the State of Missouri Corrections. As of the date of this report, Mr. Schreiber has not returned the questionnaire. As soon as this information becomes available, TSi Engineering will submit the responses as an addendum to this report. In an interview on June 4, 2001 with Mr. Schreiber, he was able to impart historical information about the site. The area along the bluffs between the Old Training Academy and the Potato House may have been a landfill utilized by the state correctional facility. He did not see the landfill in use during his tenure which started in the 1960's. Cyanide was stored in the basement of the Old Training Academy during the 1960's but it was never used on the site. The area to the east and down the hill from the Old Academy was used as a firing range. He had no knowledge of any of the activities taking place on the State Agency for Surplus Property facility. Ms. Marilyn Stephen of the State Agency for Surplus Property indicated the locations of the former LUST's and provided MSDS sheets on items currently being used on site. Her knowledge of the activities at the site prior to 1990 was limited.

5.2 Local Fire Department

The Jefferson City Fire Department was contacted on June 5, 2001 to assess whether the local fire department had responded to any environmental emergencies at the subject property. According to Fire Chief Robert Rennick, the City Fire Department has responded to a major fire in the Administration Building #1 on October 31, 1981. The fire started in the typewriter repair section of building, destroying most it. The cause of the fire remains unknown.

5.3 Local Utility Company

Ameren UE was contacted by TSi Engineering, Inc. regarding the polychlorinated biphenyls (PCB) status of electrical transformers at the site and surrounding areas. The response from Ameren UE indicated that there are three-pole mounted transformers, the oldest of which is 1986. These transformers are certified by the manufactures as non-PCB containing. A copy of the Ameren UE correspondence is presented in Appendix D.

[redacted]

6.0 Findings and Conclusions

Based on the information readily available to TSi Engineering, Inc., the following conclusions are pertinent to the subject property.

The buildings on the subject property are over 30 years old. Due to the age of the buildings and observed building materials, asbestos-containing materials (ACM) and lead-based paint may be present at the site. A former LUST was identified along with a former firing range, potential chemical dumping and a former landfill. Past reports support previous subsurface contamination at the subject property.

In our professional opinion, the following RECs have been identified for the subject property during this assessment:

- Potential asbestos-containing building materials (ACBM).
- Potential lead-based paint (LBP).
- Potential soil and groundwater impact from LUST tank removal on site.
- Potential soil and groundwater impact from open dumping of chemicals.
- Potential soil and groundwater impact from former firing range.
- Potential soil and groundwater impact from former landfill.

Potential ACM and LBP present at existing structures at the subject property should be inspected by U. S. Environmental Protection Agency (EPA) and State of Missouri certified and licensed inspectors. Asbestos inspections are required by federal, state and local regulations prior to any disturbance of these materials. Environmental subsurface investigations may be necessary for the subject property at locations which are at topographically lower elevations than the former LUST sites. Environmental subsurface investigations may also be necessary to properly characterize subsurface conditions for the former dumping site, the former firing range site and the former landfill site.

[redacted]

7.0 Signatures of Environmental Professionals

This Phase I Environmental Site Assessment was conducted by the following environmental professionals in accordance with ASTM E 1527-00.

_____ _____

Rick Whitney
Staff Geologist

Date

_____ _____

Sylvester Douglas
Manager, Environmental Services

Date

[redacted]

8.0 Qualifications of Environmental Professionals

Rick Whitney
Staff Geologist

Professional Summary:

As a geologist, Mr. Whitney has over 15 years of experience within the geological and environmental field. His project experience includes: Phase I/II environmental assessments; preparation of work plans; asbestos investigations; feasibility studies; soil sampling; UST/AST storage tank management; and groundwater, air quality, and well placement monitoring. These services have been performed for commercial, industrial, and residential property.

Areas of Expertise:

- Subsurface Investigations
- Soil Classifications
- Groundwater Monitoring
- Asbestos Sampling
- Phase I, II and III ESA

Education:

B.S. in Geology, University of Missouri – Columbia, 1982

Sylvester Douglas
Environmental Group Manager

Professional Summary:

Mr. Douglas has over 11 years of experience in every facet of asbestos management including conducting AHERA inspections, identifying asbestos-containing materials, collecting bulk samples, preparing technical specifications and architectural drawings for asbestos abatement plans, performing air monitoring, determining and enacting engineering control methods to reduce potential hazards to abatement workers and the public, and preparing final reports. His background also includes management of a phase contrast microscopy (PCM) laboratory, including development of quality control programs, design of all reporting and recordkeeping systems, and management of air monitoring technicians and field personnel.

Areas of Expertise:

- Phase I, II and III ESA
- Asbestos and Lead Surveys
- Regulatory Reviews
- Environmental Audits
- Process Safety Management Studies
- EPA Risk Assessments

[redacted]

Rick Whitney
Staff Geologist

Registrations/Certifications:

- ACI Certified Technician, American Concrete Institute
- Certified Asbestos Inspector
- Certified Air Monitoring Technician
- OSHA 40-Hour Health and Safety Training Certification

Professional Affiliations:

- Geological Society of America

Sylvester Douglas
Environmental Group Manager

Education:

B.S. in Engineering and Public Policy, Washington University, 1988

Registrations/Certifications:

- MoDNR Certified Air Sampling Professional
- AHERA Inspector, MO
- AHERA Management Planner, MO
- AHERA Abatement Worker, MO
- AHERA Project Designer
- NIOSH 582 Sampling and Evaluating Airborne Asbestos Dust (Method 7400)
- Lead Inspector, KUVII43000-4

[redacted]

9.0 Limitations of Report

This report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in an environmental assessment of the site. This report and the findings contained herein were prepared for Berkebile, Nelson, Immenschuh and McDowell Architects (BNIM) expressly for their intended use of the property.

This site assessment was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area and TSi Engineering, Inc. observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the environmental site assessment. No other warranty, express or implied, is made. Specifically, TSi Engineering, Inc. does not and cannot represent that the site contains no hazardous waste or material, oil (including petroleum products), or other latent condition beyond that observed by TSi Engineering, Inc. during their site assessments.

The observations described in this Report were made under the conditions stated herein. The conclusions presented in the Report were based solely upon the services described therein and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. Furthermore, such conclusions are based solely on site conditions and rules and regulations that were in effect, at the time of the study. The work described in this Report was carried out in accordance with the terms of contract language associated with TSi Engineering, Inc.'s contract agreement with BNIM.

In preparing this report, TSi Engineering, Inc. has relied on certain information provided by state and local officials and other parties referenced herein and on information contained in the files of state and/or local agencies available to TSi Engineering, Inc. at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, and attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not made.

Observations were made of the site and of structures on the site as indicated within the Report. Where access to portions of the site or to structures on the site was unavailable or limited, TSi Engineering, Inc. renders no opinion as to the presence of hazardous waste or material, oil or other petroleum products, or to the presence of indirect evidence relating to hazardous waste or material, oil or other petroleum products in that portion of the site or structure. In addition, TSi Engineering, Inc. renders no opinion as to the presence of

[redacted]

hazardous waste or material, oil or other petroleum products or to the presence of indirect evidence relating to hazardous material, oil or other petroleum products where direct observation of the interior walls, floor, roof or ceiling of a structure in a site was obstructed by objects or coverings on or over theses surfaces.

Unless otherwise specified in the Report, TSi Engineering, Inc. did not perform testing or analyses to determine the presence or concentrations of asbestos, radon, formaldehyde, lead-based paint, lead-in-drinking water, electromagnetic fields (EMFs), methane gas or polychlorinated biphenyls (PCBs) at the site or in the environment at the site.

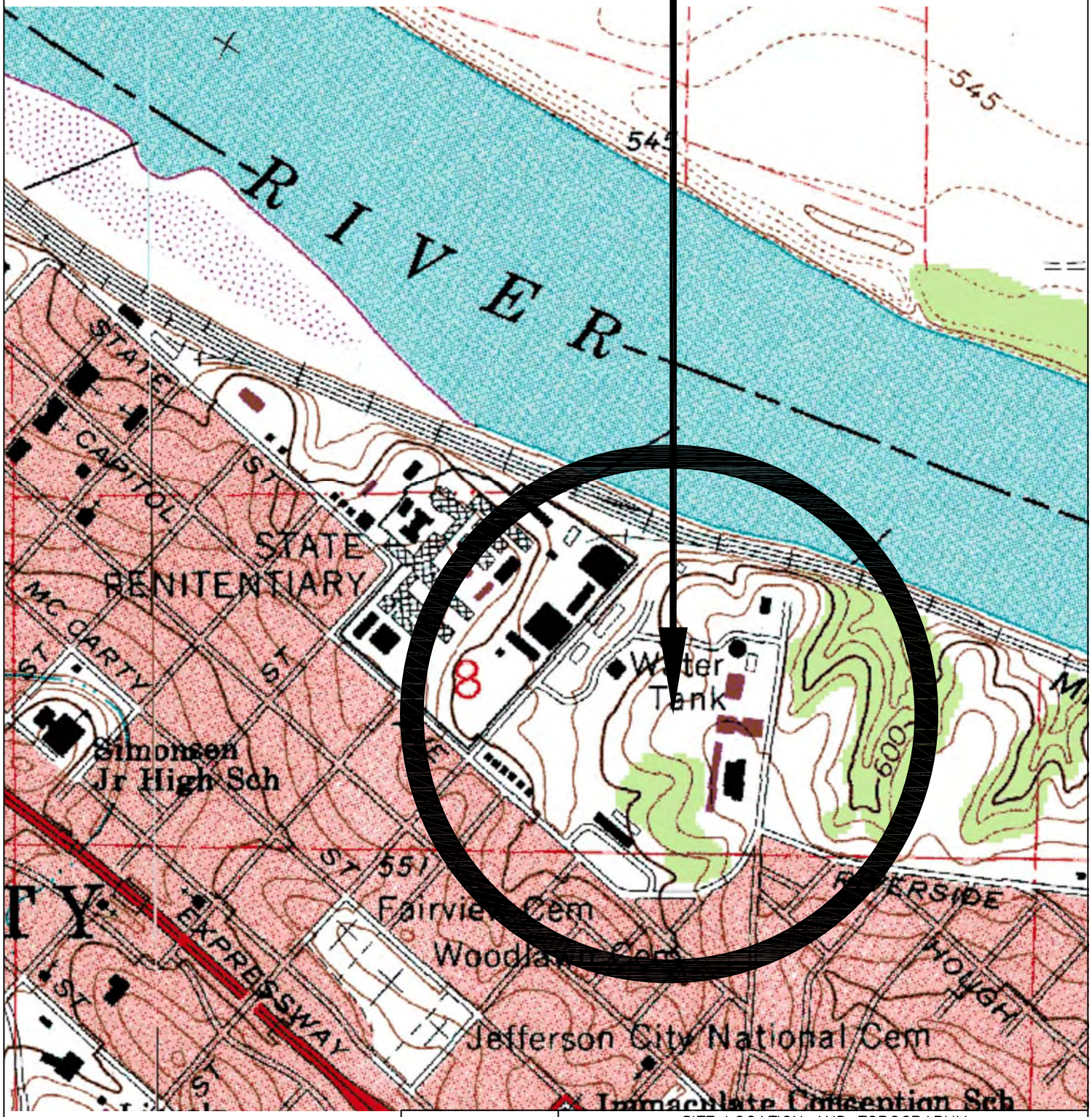
The purpose of this Report was to present the results of a Phase I Environmental Site Assessment performed in substantial conformance with ASTM E1527-00 and included assessing the physical characteristics of the subject site with respect to the presence in the environment of hazardous waste or material, oil, or petroleum products, as defined in 40 CFR Parts 261, 280-281, 302, 355 and 49 CFR Part 172. No specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

It is recommended that TSi Engineering, Inc. be retained to provide further engineering services during construction and/or implementation of any remedial measures recommended in this Report. This is to allow the TSi Engineering, Inc. to observe compliance with the concepts and recommendations contained herein and to allow the development of design changes in the event that subsurface conditions differ from those anticipated.

[redacted]

Figures

SITE LOCATION
SURPLUS PROPERTIES



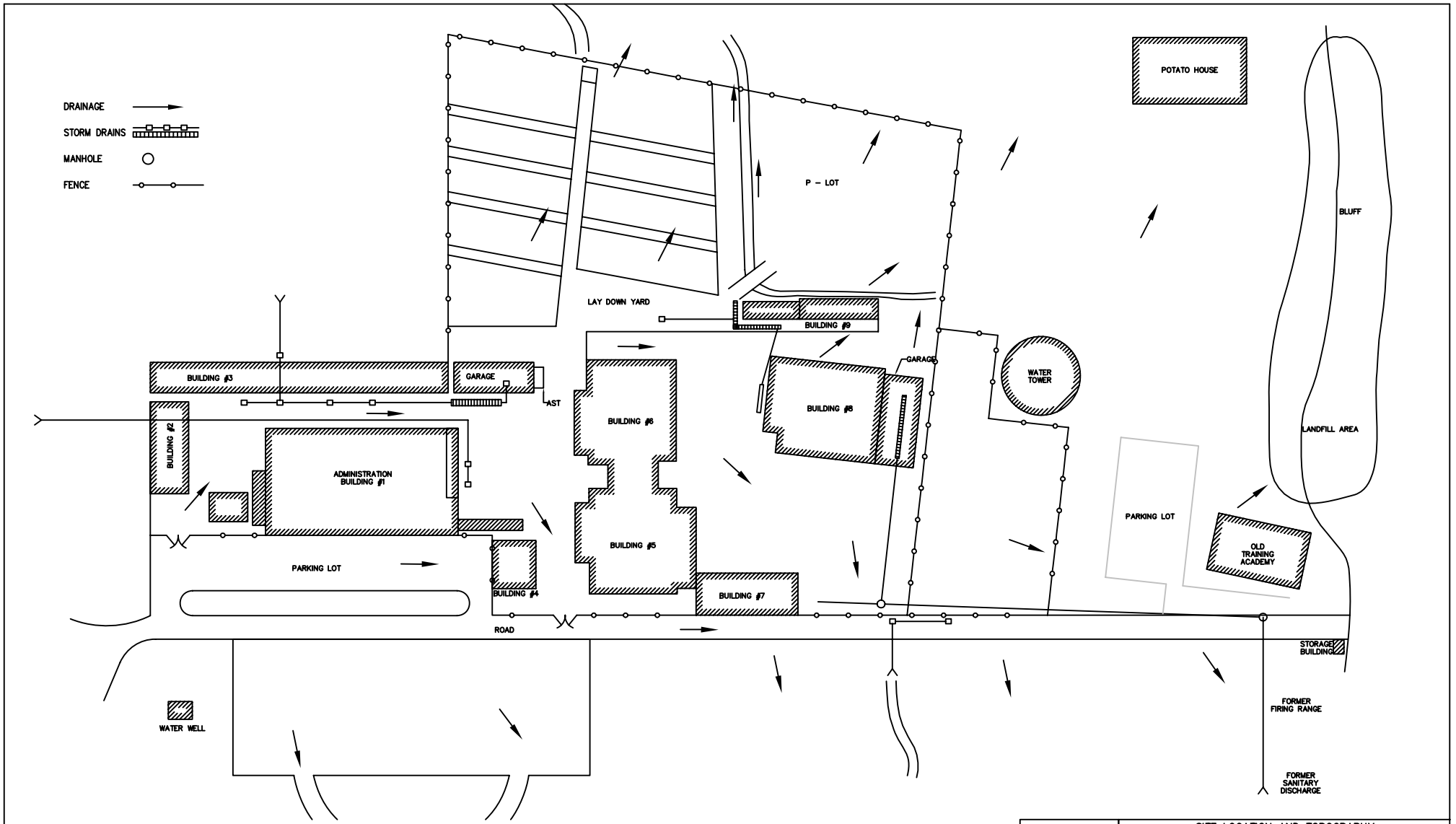
NOT TO SCALE

TSI engineering, inc.
59TH AND ARSENAL, BUILDING C
2 CAMPBELL PLAZA
ST. LOUIS, MISSOURI 63139

SITE LOCATION AND TOPOGRAPHY

SURPLUS PROPERTIES
JEFFERSON CITY, MISSOURI

Drawn By: EBS		Checked By: RW	
Project No. 2001026.00		Date: 06/07/01	Figure 1



TSI engineering, inc.
59TH AND ARSENAL, BUILDING C
2 CAMPBELL PLAZA
ST. LOUIS, MISSOURI 63139

SITE LOCATION AND TOPOGRAPHY

SURPLUS PROPERTIES
JEFFERSON CITY, MISSOURI

Drawn By: EBS	Checked By: RW	
Project No. 2001026.00	Date: 06/07/01	Figure 2

[redacted]

Appendix A

Site Reconnaissance Photographs

[redacted]

P1010001 – Boiler room – Old Training Academy

[redacted]

P1010002 – Basement floor and drains – Old Training Academy

[redacted]

P1010003 – Basement floor – filled floor drains

[redacted]

P1010004 – Inside Potato House

[redacted]

P1010005 – Exterior Potato House

[redacted]

P1010006 – Inside Potato House

[redacted]

P1010007 – Exterior Southside Potato House

[redacted]

P1010008 – Water Tower

[redacted]

P1010009 – East side Old Training Academy

[redacted]

P1010010 – Storage Building

[redacted]

P1010011 – West side Old Training Academy

[redacted]

P1010012 – Southside Old Training Academy

[redacted]

P1010013 – Parking lot East side of Surplus Property

[redacted]

P1010014 – Water Well House

[redacted]

P1010015 – Front Administration Building #1

[redacted]

P1010016 – Front Surplus Property facing North

[redacted]

P1010017 – Overflow parking lot east of Surplus Property

[redacted]

P1010018 – Building #4 storage north shed

[redacted]

P1010019 – Building #4 storage north shed

[redacted]

P1010020 – Building #5 storage south side

[redacted]

P1010021 – Building #5 storage south side

[redacted]

P1010022 – Building #4 south shed

[redacted]

P1010023 – Building #6 and #5 south side

[redacted]

P1010024 – Building #3 storage

[redacted]

P1010025 – AST fuel storage

[redacted]

P1010026 – Drain in front of garage next to building #3

[redacted]

P1010027 – Building #6 storage south side

[redacted]

P1010028 – Rear loading dock Administration Building #1

[redacted]

P1010029 – West side Building #6

[redacted]

P1010030 – Forklift in Lay Down Yard

[redacted]

P1010031 – Hydraulic lifts in Lay Down Yard

[redacted]

P1010032 – Storage in Lay Down Yard

[redacted]

P1010033 – Storage in Lay Down Yard

[redacted]

P1010034 – West end of Lay Down Yard

[redacted]

P1010035 – Empty drums storage west end of Lay Down Yard

[redacted]

P1010036 – Generator Storage Lay Down Yard

[redacted]

P1010037 – Fluorescent light fixtures Lay Down Yard

[redacted]

P1010038 – Empty bins west end Lay Down Yard

[redacted]

P1010039 – Storage west end Lay Down Yard

[redacted]

P1010040 – Pumps in Lay Down Yard

[redacted]

P1010041 – Outboard motors Lay Down Yard

[redacted]

P1010042 – Empty tanks in Lay Down Yard

[redacted]

P1010043 – Empty cylinders in Lay Down Yard

[redacted]

P1010044 – Empty tanks in Lay Down Yard

[redacted]

P1010045 – Generators in Lay Down Yard

[redacted]

P1010046 – Storage on P-Lot

[redacted]

P1010047 – Storage on P-Lot

P1010048 – (skipped)

[redacted]

P1010049 – Cars on Lay Down Lot

[redacted]

P1010050 – Storm drain west of building #6

[redacted]

P1010051 – Area between building #9 and #8

[redacted]

P1010052 – Storage building #9

[redacted]

P1010053 – Surplus refrigerators between building #6 and #8

[redacted]

P1010054 – Storage around building #8

[redacted]

P1010055 – Surplus cars in front of building #7

[redacted]

P1010056 – Area east of building #8 and garage

[redacted]

P1010057 – Empty cylinders east of garage

[redacted]

P1010058 – Large Equipment lot north of garage

[redacted]

P1010059 – Interior of garage

[redacted]

P1010060 – Battery storage

[redacted]

P1010061 – Interior of garage

[redacted]

P1010062 – Interior of garage

[redacted]

P1010063 – Interior of storage area behind garage

[redacted]

P1010064 - Interior of storage area behind garage

[redacted]

P1010065 - Interior of storage area behind garage

[redacted]

P1010066 – West side Building #5

P1010067 – (skipped)

[redacted]

P1010068 – North side building #9 storage

[redacted]

P1010069 - North side building #9 storage

[redacted]

P1010070 – North side building #8 storage

[redacted]

P1010071 – Building #9 (also called C-Barn)

[redacted]

P1010072 – Manhole to Oil/water separator east of building #8

[redacted]

P1010073 – Storage north side building #7

[redacted]

P1010074 – Storage in building #7

[redacted]

P1010075 – Storage in building #7

[redacted]

P1010076 – Storage in building #6

[redacted]

P1010077 – Storage in building #5

[redacted]

P1010078 – Storage area behind Administration Office building #1

[redacted]

P1010079 – South side of Administration Building #1

[redacted]

P1010080 – Computer Storage Building #2

[redacted]

P1010081 – Chair shed south side building #1

P1010082 - ?

[redacted]

P1010083 – Storage area behind Administration building #1

[redacted]

P1010084 – Storage area next to water tower

[redacted]

P1010085 – Storage area next to water tower

[redacted]

P1010086 – Storage area next to water tower

[redacted]

P1010087 – Storage area next to water tower

[redacted]

P1010088 – Storage area next to water tower

[redacted]

P1010089 – Area west of Old Training Academy facing north

[redacted]

P1010090 – Area west of Old Training Academy facing north looking down hill

[redacted]

P1010091 - Area west of Old Training Academy facing north looking down hill

[redacted]

P1010092 – Road along East side of Surplus Properties

[redacted]

P1010093 – Missouri State Agency for Surplus Property

[redacted]

P1010094 – Correction Property East of Surplus Property

P1010095 – (skipped)

[redacted]

P1010096 – Corrections Property east of Surplus Property facing north

[redacted]

P1010097 – Residential dwellings south of surplus property facing south

[redacted]

P1010098 - Residential dwellings south of surplus property facing south

[redacted]

P1010099 - Residential dwellings south of surplus property facing south

[redacted]

P1010100 - State Penitentiary to the west

[redacted]

P1010101 – State Penitentiary to the west

[redacted]

P1010102 – International Shoe Factory to the south

[redacted]

P1010103 - International Shoe Factory to the south

[redacted]

Appendix B

Site Survey Summary Form

- Surplus Property
- Old Training Academy + Storage, Potato House

Site Survey Summary

Address: Surplus Property

Description of Site: Site has 9 major building numbered as such. Admin. #1 is cinder block steel structure on concrete #2 - Sheet metal barrack Type w/ steel structure on concrete 3 as #2 4 as #2+3 #5+6 - Sheet metal warehouse w/ steel structure. #7 as #3 #8 - as #5+6 #9 - as #2 but more shed in structure. The area is mostly pave in concrete + asphalt. Gravel lots are located on the far north Area. Grass, Trees, and weeds surround the fenced site

1. Is the Property or any adjoining property used for an industrial, commercial or manufacturing use?

	Land Use	Photograph?
Property:	Surplus Storage (State+Federal)	✓
Adjoining Properties North:	Old Training Academy	✓
Adjoining Properties South:	Penn Residential / International Shoe	✓
Adjoining Properties East:	State Correctional	✓
Adjoining Properties West:	Riverside Park	

Appx B

2. Has the Property or any adjoining property been used for an industrial, commercial or manufacturing use in the past?

	Owner	Use	Dates
Previous Use of Property	Womens Correctional	Farm	
Previous Use of Properties to North	Missouri River	Waterway	
Previous Use of Properties to South	Renn / International Shoe	Residential / Factory	
Previous Use of Properties to East	State Corrections		
Previous Use of Properties to West	Park		

3. Is there evidence that there are currently, or have been previously, any pesticides, automotive or industrial batteries, paints, or other chemicals stored on or used at the Property or at the facility other than undamaged containers of consumer products of under five gallons in total volume?

Finding: Batteries, Lubricants, Solvents found in Garage Maintenance areas. MSDS Sheets available. These are in small single can Quantities To large 55 gallon Drums. Antifreeze
Source:

4. Is there evidence that there are currently, or have been previously, any industrial drums (typically 55-gallon) or sacks of chemicals located on the Property or at the facility?

Finding: Area 12+13 of laydown yard has empty 55 gallon drums. Various Containers and Storage Tanks, from 5 gallons To 2000 gallons in size are located in The lay Down yard area - All ARE EMPTY.
Source:

APPX B

5. Is there evidence that fill dirt has been brought onto the site which originated from a contaminated site or of an unknown origin?

Finding: P-LOT has Fill Dirt and gravel

Source:

6. Is there evidence that there are currently, or have been previously, any pits, ponds or lagoons located on the Property in connection with waste treatment or waste disposal?

Finding: No Evidence

Source:

7. Is there evidence that there is currently, or has been previously, any stained soil or stressed vegetation on the Property?

Finding: No Evidence of Stressed Vegetation. The area is mostly paved lots

Source:

8. Is there evidence that there are currently, or have been previously, any registered or unregistered storage tanks (above or underground) located on the Property?

Finding: 2 UST Removed ≈ 1992 1-300 gallon Gasoline, 1-300 gallon Diesel. AST set on Top of former UST's. AST are 300 gallons 1-Gasoline 1-Diesel

Source:

9. Is there evidence that there are currently, or have been previously, any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the Property or adjacent to any structure located on the Property?

Finding: No Evidence

Source:

APPX B

10. Is there evidence that there are currently, or have been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?

Finding: No evidence

Source:

11. Is there evidence that the Property is served by a private well or non-public water system, and if so, has the well or system been designated as contaminated by any governmental environmental/health agency?

Finding: Water Tower is ground water - Non Potable

Source:

12. Does the owner of the Property or operator of the facility have any knowledge of environmental liens or governmental notification relating to past or current violations of environmental laws with respect to the Property or any facility located on the Property?

Finding: State Property

Source:

13. Has the owner of the Property or operator of any facility at the Property been informed of any past or current existence of hazardous substances or environmental violations with respect to the Property or any facility located on the Property?

Finding: Environmental violations reported in early 1990 revealed numerous illegal hazardous substances dumping on property

Source:

Appx B

14. Does the Property owner or facility operator have any knowledge of any environmental assessment of the Property or facility that indicated the presence of hazardous substances on the site or recommended further assessment of the Property?

Finding: Phase I, II, + III were preformed from 1990 - 1994 with respect To The illegal activities

Source:

15. Does the owner of the Property or any operator of a facility at the Property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance involving the Property by any owner or tenant of the Property?

Finding:

Source:

16. Is there evidence that the Property discharges wastewater, other than storm water, directly to a ditch, stream, septic system, or sump on or adjacent to the Property?

Finding: No Evidence -

Source:

17. Is there evidence that any construction debris, substances identified as hazardous, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials, trash, debris or refuse been dumped above grade, buried and/or burned on the site?

Finding: As part of The illegal activities, burning pits located West of Lay Down yard were found and Cleaned up

Source:

18. Is there evidence of any electrical or hydraulic equipment (such as compressors, transformers and large capacitors), now on the site or that have been on the site in the past, known to contain PCBs? If so, describe the equipment, identify its location, approximate dates of use of the equipment, and whether it has been registered as PCB containing material, and actual knowledge of leaks.

Finding: Multiple compressor type equipment - Not known to contain PCBs

Source:

19. Is there evidence that equipment containing PCBs has been removed? If so, obtain the approximate dates of removal, location removed from, and name of the removal contractor.

Finding: No Evidence -

Source:

20. Is there evidence that there have been any fires on the Property involving PCBs? If so, describe and provide the dates(s) of the occurrence and remediation methods.

Finding: No Evidence - remediation by removal of soil in drainage and burn pit was conducted in 1996 not exclusively for PCB's

Source:

This Site Survey Summary Was Completed By:

Name: Rick Whitney Title: Staff Geologist

Firm: TSI Engineering Date: 6/4/01

Address: _____ Phone Number: _____

Preparer represents that to the best of the Preparer's knowledge the above statements and facts are true and correct and that to the best of the Preparer's knowledge no material facts have been suppressed or misstated.

Signed: _____ Date: 6/4/01

Appx B

Site Survey Summary

Address: Old Training Academy + Storage, Potato House

Description of Site: 2 Story Brick Bldg w/ Basement; 1 Story Brick storage shed w/ Basement, & Limestone construction Potato House located on the Northern half of the Area

1. Is the Property or any adjoining property used for an industrial, commercial or manufacturing use?

	Land Use	Photograph?
Property:	Correctional	✓
Adjoining Properties North:	Missouri River	
Adjoining Properties South:	Renn's Residential	✓
Adjoining Properties East:	State Correctional	✓
Adjoining Properties West:	State Correctional / Riverside Park	✓

2. Has the Property or any adjoining property been used for an industrial, commercial or manufacturing use in the past?

	Owner	Use	Dates
Previous Use of Property	Womens Correctional	≈ 1960's	
Previous Use of Properties to North	River	Water	
Previous Use of Properties to South	Residential/Farm	Agri.	
Previous Use of Properties to East	State Prison	1824	
Previous Use of Properties to West	State Correctional	Vacant	

3. Is there evidence that there are currently, or have been previously, any pesticides, automotive or industrial batteries, paints, or other chemicals stored on or used at the Property or at the facility other than undamaged containers of consumer products of under five gallons in total volume?

Finding: In the 1960's, CN was stored in Basement. 3/4 gallon Disinfectant Produced @ Prison assorted Cleaning products - Small Quantities

Source: Interview

4. Is there evidence that there are currently, or have been previously, any industrial drums (typically 55-gallon) or sacks of chemicals located on the Property or at the facility?

Finding: No evidence

Source:

5. Is there evidence that fill dirt has been brought onto the site which originated from a contaminated site or of an unknown origin?

Finding: No evidence - Rumored landfill To East of Building

Source: Interview

6. Is there evidence that there are currently, or have been previously, any pits, ponds or lagoons located on the Property in connection with waste treatment or waste disposal?

Finding: No Evidence

Source:

7. Is there evidence that there is currently, or has been previously, any stained soil or stressed vegetation on the Property?

Finding: No Evidence

Source:

8. Is there evidence that there are currently, or have been previously, any registered or unregistered storage tanks (above or underground) located on the Property?

Finding: None

Source:

9. Is there evidence that there are currently, or have been previously, any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the Property or adjacent to any structure located on the Property?

Finding: None

Source:

10. Is there evidence that there are currently, or have been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?

Finding: No Stains around drains – water from rain leak into Basement NE corner

Source:

11. Is there evidence that the Property is served by a private well or non-public water system, and if so, has the well or system been designated as contaminated by any governmental environmental/health agency?

Finding: Water Tower – Groundwater – non potable
IT has been designated " "

Source:

12. Does the owner of the Property or operator of the facility have any knowledge of environmental liens or governmental notification relating to past or current violations of environmental laws with respect to the Property or any facility located on the Property?

Finding: None

Source:

13. Has the owner of the Property or operator of any facility at the Property been informed of any past or current existence of hazardous substances or environmental violations with respect to the Property or any facility located on the Property?

Finding: None

Source:

14. Does the Property owner or facility operator have any knowledge of any environmental assessment of the Property or facility that indicated the presence of hazardous substances on the site or recommended further assessment of the Property?

Finding: None

Source:

15. Does the owner of the Property or any operator of a facility at the Property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance involving the Property by any owner or tenant of the Property?

Finding: None

Source:

16. Is there evidence that the Property discharges wastewater, other than storm water, directly to a ditch, stream, septic system, or sump on or adjacent to the Property?

Finding: No evidence Observed

Source:

17. Is there evidence that any construction debris, substances identified as hazardous, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials, trash, debris or refuse been dumped above grade, buried and/or burned on the site?

Finding: Rumored landfill East of Building / None above grade

Source:

18. Is there evidence of any electrical or hydraulic equipment (such as compressors, transformers and large capacitors), now on the site or that have been on the site in the past, known to contain PCBs? If so, describe the equipment, identify its location, approximate dates of use of the equipment, and whether it has been registered as PCB containing material, and actual knowledge of leaks.

Finding: None

Source:

19. Is there evidence that equipment containing PCBs has been removed? If so, obtain the approximate dates of removal, location removed from, and name of the removal contractor.

Finding: None

Source:

20. Is there evidence that there have been any fires on the Property involving PCBs? If so, describe and provide the dates(s) of the occurrence and remediation methods.

Finding: None

Source:

This Site Survey Summary Was Completed By:

Name: Rick Whitney Title: Staff Geologist

Firm: TSI Engineering Date: 6/4/01

Address: _____ Phone Number: _____

Preparer represents that to the best of the Preparer's knowledge the above statements and facts are true and correct and that to the best of the Preparer's knowledge no material facts have been suppressed or misstated.

Signed: Rick Whitney Date: 6/4/01

Appendix C

MSDS Sheets

MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

P MANUFACTURING COMPANY
...ST IN MAINTENANCE PRODUCTS

ISSUE DATE: 05/12/92 ZEP OVATION
SUPERSEDES: 05/01/92 PRODUCT NUMBER: 1901
Floor Finish

SECTION I - E M E R G E N C Y C O N T A C T S

ZEP MANUFACTURING COMPANY
P O BOX 2015
ATLANTA GEORGIA 30301

TELEPHONE (404)352-1480 BETWEEN 8:00 AM-5:00 PM (EST);
NON-OFFICE HOURS, WEEKENDS, AND HOLIDAYS:AREA CODE 770
437-4200,992-1480,455-8160,552-6836,432-2873,424-3789
LOCAL POISON CONTROL CENTER . . . . . .

TRANSPORTATION EMERGENCY:
(717)592-8923 or

CHEMTREC: TOLL FREE 1-800-424-9300 ALL CALLS RECORDED
DISTRICT OF COLUMBIA (202)483-7616 ALL CALLS RECORDED

SECTION II - H A Z A R D O U S I N G R E D I E N T S

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD
@** DIBUTYL PHTHALATE ** phthalic acid, dibutyl ester; 1,2-benzenedicarboxilic acid, dibutyl ester; DBP; CAS# 84-74-2; RTECS# TI0275000; OSHA PEL- 5 mg/m3	0.44	IRR	5
@** DIETHYLENE GLYCOL MONOMETHYL ETHER ** 2-(2-methoxy)-ethanol; methyl carbitol; CAS# 111-77-3; RTECS# KL6125000	N/D	EIR CBL	5-15

@ IDENTIFIES CHEMICALS LISTED UNDER SARA-SECTION 313 FOR RELEASE REPORTING

SECTION III - H E A L T H H A Z A R D D A T A

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVEREXPOSURE
THIS PRODUCT MAY IRRITATE EYES AND SKIN UPON CONTACT. INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING, AND ITCHING. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING, OR OCCASIONALLY, BLISTERING

MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

ZEP MANUFACTURING COMPANY
ST IN MAINTENANCE PRODUCTS

ISSUE DATE: 11/12/90 ZEP POTPOURRI CONQUER
SUPERSEDES: PRODUCT NUMBER: 1774
Deodorant - Liquid

SECTION I - E M E R G E N C Y C O N T A C T S

ZEP MANUFACTURING COMPANY TELEPHONE: (404)352-1680 BETWEEN 8:00 AM-5:00 PM (ES
P.O BOX 2015 NON-OFFICE HOURS, WEEKENDS, AND HOLIDAYS: AREA CODE
ATLANTA, GEORGIA 30301 437-4200, 424-2048, 459-8160, 552-6836, 432-2873, 424-7
LOCAL POISON CONTROL CENTER .....

TRANSPORTATION EMERGENCY: CHEMTREC: TOLL FREE 1-800-424-9300 ALL CALLS RECORD
(770)922-0923 or DISTRICT OF COLUMBIA (202)483-7616 ALL CALLS RECORD

SECTION II - H A Z A R D O U S I N G R E D I E N T S

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	%
** PROPRIETARY FRAGRANCE ** CAS# PROPRIETARY; RTECS# NONE; OSHA PEL-N/D	N/D	IRR CNS CBL	<
** NONYLPHENOXYPOLY(ETHYLENEOXY)ETHANOL ** npe; poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy; CAS# 9016-45-9; RTECS# MD0905000; OSHA PEL-N/D	N/D	EIR	<

SECTION III - H E A L T H H A Z A R D D A T A

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the contair
Adverse health effects would not be expected under recommended conditions
of use (diluted) so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVEREXPOSURE:
This product, particularly in its concentrated form, may irritate eyes and sl
upon contact. Inflammation of the eye is characterized by redness, watering,
itching. Skin inflammation is characterized by itching, scaling, reddening, c
blistering.
Inhalation may produce upper respiratory irritation characterized by sore thr
or difficulty in breathing.
Existing respiratory disorders or skin diseases may be aggravated by exposure

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

06/18/96
ISSUE DATE: 10/26/95
SUPERSEDES: 01/11/91

ZEP VELVET
PRODUCT NO.: 0958 **Hand Cleaner - Lotionized**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(770) 439-4200
(770) 432-2873
(770) 424-4789
(770) 392-1480
(770) 455-8160
(770) 552-8836
NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(770) 922-0923

CHEMTREC:
1-800-424-9300 **TOLL-FREE - ALL CALLS RECORDED**

DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
* SODIUM LAURYL SULFATE * (sulfuric acid, monododecyl ester, sodium salt); sodium monododecyl sulfate; CAS# 151-21-3; RTECS# WT1050000; OSHA PEL/N/D.	N/D	EIR	30-40

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
This product can be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or itching.

Chronic Effects of Overexposure:
Prolonged skin contact (4-8 hrs.), Without rinsing, may result in irritation characterized by itching or reddening of the skin. No medical conditions are known to be aggravated by exposure to ingredients in this product. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established **Primary Routes of Entry:** N/A

'MIS Codes: HEALTH 0;FLAM. 0;REACT. 0;PERS. PROTECT. N/A;CHRONIC HAZ. NO

IRST AID PROCEDURES:
Skin: This product is formulated for use on the skin, but it should be rinsed off with water.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: This route of exposure is not likely due to product nature.
Ingest: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: No special measures are required.
Eye Protection: No special measures are required.
Respiratory Protection: No special measures are required.
Ventilation: No special measures are required.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	220	**Specific Gravity:**	1.10	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	84	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (WATER = 1):**	1
Solubility in Water:	COMPLETE	**pH (concentrate):**	7.7	**pH (use dilution of APPROX. 5%):**	7.2

Appearance and Odor: WHITE, PEARLIZED LIQUID WITH PLEASANT FRAGRANCE

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): None (N/A)
Flammable Limits: LEL N/A UEL N/A
Extinguishing Media: Carbon dioxide, dry chemical, water.
Special Fire Fighting: None
Unusual Fire Hazards: None

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

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ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
117 N RIVERSIDE DR
JEFFERSON CITY, MO 65101

12/16/97
ISSUE DATE: 05/12/97
SUPERSEDES: 07/26/89
ZEP GREASE MONKEY Aerosol Lubricating Grease
PRODUCT NO.: 0060

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(770) 439-4200
(770) 432-2873
(770) 424-4789
(770) 392-1480
(770) 455-8160
(770) 552-8836
NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(770) 922-0923

CHEMTREC:
1-800-424-9300 TOLL-FREE - ALL CALLS RECORDED

DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
DESIGNATIONS			
@ ** METHYLENE CHLORIDE ** dichloromethane,methylene dichloride; CAS# 75-09-2; RTECS# PA8050000; OSHA PEL - 25 ppm; OSHA STEL (15 MIN. TWA) - 125 ppm	50	CNS IRR CAR	50-60
** PROPRIETARY LUBRICANT BLEND ** CAS# 8052-41-3; RTECS# WJ89225000	500	IRR	20-30

@ Identifies chemicals listed under SARA-Section 313 for release reporting

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Inhalation of vapor can produce central nervous system depression, characterized by dizziness, headache, nausea, cardiac and/or respiratory depression, and stu-por. In ...me cases, unconciousness or death could result in poorly ventilated or confined spaces. Exposure to high concentrations of vapor can be irritating to mucous ...branes, such as eyes and upper respiratory tract. Severe eye exposure to liquid can cause reversible eye damage. Skin contact may cause a burning sensation and reddening of the skin. Introduction of solvent to the lungs, as in aspiration of vomitus fluids, may cause chemical pneumonia. Ex-posure to this product may aggravate existing respiratory or cardiac conditions. Inhalation of aerosol mist may produce chemical pneumonia.

Chronic Effects of Overexposure:
Repeated or prolonged contact by inhalation or skin absorption may produce liver or kidney damage or damage to the central nervous system, characterized by tingling or numbness in the extremities, blurred vision or confusion. Skin, which is defatted by repeated exposure to solvents, is more susceptible to irritation, infection, and dermatitis. Ingredients in this product may aggravate existing skin, eye, or respiratory disorders. One of the ingredients in this product may cause tumors in laboratory animals. The relevance of these studies to humans has not been established.

Primary Routes of Entry: Inh, Skin.

Est'd PEL/TLV: Not established

HMIS Codes: HEALTH 2;FLAM. 3;REACT. 1;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear viton gloves or use gloves with demonstrated resistance to the ingredients in this product.
Eye Protection: Use tight-fitting safety glasses. Contact lenses should not be worn when working with this material.
Respiratory Protection: If ventilation is inadequate, wear a properly fitting MSHA or OSHA-approved respirator.
Ventilation: Ventilation should be equivalent to outdoors. Use exhaust fans and open windows in enclosed spaces.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	104	**Specific Gravity:**	0.820	**Vapor Pressure (mmHg):**	APPROX. 340
Percent Volatile by Volume (%):	85	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (CCL4 = 1):**	2.5
Solubility in Water:	NEG.	**pH (concentrate):**	N/A	**pH (use dilution of):**	N/A

Appearance and Odor: CLEAR, RED SLIGHTLY VISCOUS FLUID WITH A HYDROCARBON ODOR

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): Extremely Flammable (CSMA)
Flammable Limits: LEL 13.0 UEL 22.0
Extinguishing Media: Carbon dioxide, dry chemical and foam.
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: Concentrated vapor may ignite if exposed to spark.

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS
PROPERTY -JANITORIAL
117 NO RIVERSIDE DR
JEFFERSON CITY, MO 65101

08/26/92
ISSUE DATE: 08/07/91
SUPERSEDES: 03/26/90
ZEP M L LUBRICANT
PRODUCT NO.: 0047 **Aerosol Lubricant**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(404) 435-2973 *NON-OFFICE HOURS, WEEKENDS*
(404) 351-2952 *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 432-2873 **LOCAL POISON CONTROL**
TRANSPORTATION EMERGENCY:
(404) 922-0923
CHEMTREC:
1-800-424-9300 **TOLL-FREE - ALL CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
"ASPHALT" CAS #8052-42-4; RTECS# CI9900000; OSHA PEL - 0.2 mg/m3; ACGIH TLV - 5 mg/m3		IRR	40-50
" BLEND OF HYDROTREATED AND DEWAXED RESIDUAL OILS " CAS# 64742-56-0/64742-62-7; RTECS# NONE; OSHA PEL-N/D	N/D	IRR	5-15
@ " 1,1,1-TRICHLOROETHANE " methyl chloroform chlorothene; CAS# 71-55-6; RTECS# KJ2975000; OSHA PEL-350 PPM; ACGIH/OSHA STEL-450 PPM	350	IRR CNS	10-20
" PARAFFIN OIL " blend of heavy and light naphthenic petroleum distillate; CAS# 64742-52-5; and CAS# 64742-53-6; RTECS# NONE; OSHA PEL-N/D; ACGIH OIL MIST LIMIT = 5mg/m3	N/D	IRR	10-20
" BLEND OF [ISOBUTANE; CAS# 75-28-5; RTECS# TZ4300000] & [PROPANE; CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000] OSHA PEL-1000 ppm	800	COR FBL	10-20

@ Identifies chemicals listed under SARA-Section 313 for release reporting

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Inhalation of vapor can produce central nervous system depression, characterized by dizziness, headache, nausea, cardiac and/or respiratory depression, stupor, unconsciousness and death, in extreme cases. Exposure to high concentrations of vapor by direct contact or inhalation can be irritating to mucous membranes, such as eyes and upper respiratory tract. Severe eye exposure to liquid can cause reversible eye damage. Skin contact may cause a burning sensation and reddening of the skin. Introduction of solvent to the lungs, as in aspiration of vomitus fluids, may cause chemical pneumonia. Exposure to this product may aggravate existing respiratory and cardiac conditions. Inhalation of aerosol mist may produce chemical pneumonia.

Chronic Effects of Overexposure:
Repeated or prolonged contact by inhalation or skin absorption may produce liver or kidney damage or damage to the central nervous system, characterized by tingling or numbness in the extremities, blurred vision or confusion. Skin, which is defatted by repeated exposure to solvents, is more susceptible to irritation, infection, and dermatitis. Exposure to some ingredients in this product can aggravate existing liver disease or heart rhythm disorders. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: APPROX. 200 PPM **Primary Routes of Entry:** Inh, Skin.

HMIS Codes: HEALTH 2;FLAM. 1;REACT. 1;PERS. PROTECT. X ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear viton gloves or use gloves with demonstrated resistance to the ingredients in this product.
Eye Protection: Use tight-fitting safety glasses. Contact lenses should not be worn when working with this material.
Respiratory Protection: If ventilation is inadequate, wear a properly fitting MSHA or OSHA-approved respirator.
Ventilation: Ventilation should be equal to outdoors. Use exhaust fans and/or exhaust hood in enclosed spaces.

SECTION V - PHYSICAL DATA

Boiling Point (°F): 105-285F **Specific Gravity:** 1.014 **Vapor Pressure (mmHg):** APPROX. 315
Percent Volatile by Volume (%): ~33 **Vapor Density (air=1):** N/D **Evaporation Rate (CCL4 =1):** 2.5
Solubility in Water: NEGLIGIBLE **pH (concentrate):** N/A **pH (use dilution of N/A):** N/A
Appearance and Odor: A VISCOUS, BLACK OIL WITH A STRONG, SWEET CHLORINATED ODOR

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): FLAMMABLE (CSMA)
Flammable Limits: LEL N/D UEL N/D
Extinguishing Media: Carbon dioxide, dry chemical, water fog, foam.
Special Fire Fighting: Wear self-contained positive pres. Breathing apparatus.
Unusual Fire Hazards: Direct water onto intact containers to prevent bursting.

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
02/01/98

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DN 4530
PRODUCT NAME KA-POW
PRODUCT CLASS CLEANERS

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M^3	PEL PPM	STEL PPM
D-LIMONENE	5989-27-5		ND	ND	ND	ND
EDTA	64-02-8		ND	ND	ND	ND
TETRAPOTASSIUM PYROPHOSPHATE	7320-34-5		ND	ND	ND	ND
SODIUM METASILICATE	6834-92-0		ND	ND	ND	ND

S.A.R.A. TITLE III, SECTION 313:
THIS PRODUCT CONTAINS NO LISTED CHEMICALS SUBJECT TO REPORTING.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): N/A
VAPOR DENSITY: N/A
EVAPORATION RATE: N/A
PERCENT VOLATILE (By Weight): N/A WEIGHT PER GALLON (LBS): N/A

OPTIONAL INFORMATION:
Appearance/Odor: Orange free-flowing granular powder / Citrus scent
Solubility in water: Complete
Specific Gravity: 60 lbs/cu ft

KA-POW
DN 4530

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS N/A

U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: N/A

LEL: N/A

UEL: N/A

METHOD: N/A

EXTINGUISHING MEDIA: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None known. Addition of water generates heat.

SPECIAL FIREFIGHTING PROCEDURE:
Do not use water on material itself. Use media suitable for surrounding fire. If large quantities of combustibles are involved, use water in flooding quantity as spray or fog. Use adequate personnel protection. Avoid breathing dust and fumes from burning material.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:
Carbon dioxide upon acid contact.

CONDITIONS TO AVOID:
Contact with acids, acidic solutions, and soft metals.

INCOMPATIBILITY (MATERIALS TO AVOID):
Acids, soft metals.

D.O.T. EMERGENCY RESPONSE INFORMATION:
*** NOT APPLICABLE ***

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
02/01/98

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DA 6631
PRODUCT NAME CORE
PRODUCT CLASS LUBRICANTS

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M^3	PEL PPM	STEL PPM
HEXANE *	110-54-3	1-10	50	N/D	50	N/D
PROPANE/ISOBUTANE/N-BUTANE	74-98-6	10-20	1000	N/D	1000	N/D
NAPHTHENIC OIL	64742-52-5	40-50	5	N/D	N/D	N/D
RESIDUAL OIL	64742-62-7	40-50	5	N/D	N/D	N/D

*THIS CHEMICAL IS SUBJECT TO
S.A.R.A. TITLE III, SECTION 313
REPORTING.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): 159
VAPOR DENSITY: HEAVIER THAN AIR
EVAPORATION RATE: SLOWER THAN ETHER
PERCENT VOLATILE (By Weight): N/A WEIGHT PER GALLON (LBS): N/A

OPTIONAL INFORMATION:
Appearance and Odor: Black oil, solvent odor.
Specific Gravity: 0.8
Solubility in Water: Nil
Evaporation Rate (Butyl Acetate=1): >1

CORE
DA 6631

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS N/A

U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: < 0°F

LEL: 1.8

UEL: 9.5

METHOD: TAG OPEN CUP

AEROSOL PRODUCT: TREAT AS CYLINDER OF COMPRESSED GAS

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Heated cans may burst.

SPECIAL FIREFIGHTING PROCEDURE:
Aerosol cans may rupture when heated.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:
In fire will decompose to carbon dioxide and water.

CONDITIONS TO AVOID:
Avoid contact with any source of ignition.

INCOMPATIBILITY (MATERIALS TO AVOID):
Strong oxidizing agents, strong acids or bases.

D.O.T. EMERGENCY RESPONSE INFORMATION:
NOT APPLICABLE

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:
INHALATION: Shortness of breath, dizziness, and lightheadedness.
EYE CONTACT: May cause irritation.
SKIN CONTACT: May cause slight irritation, can lead to dermatitis.
INGESTION: May cause chemical pneumonia if aspirated into lungs.

PRIMARY ROUTE(S) OF ENTRY: DERMAL INHALATION INGESTION EYES

MEDICAL CONDITIONS PRONE TO OVEREXPOSURE:
None known.

TARGET ORGANS AFFECTED:
Kidney, Eye, Liver, and Nervous System (in laboratory animals with chronic overexposure).

CARCINOGENICITY:
None of the chemicals in this product are list by NTP, IARC, or OSHA as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush with large amounts of water and seek medical attention.
INGESTION: Do not induce vomiting. Give water and seek medical attention.
SKIN: Remove contaminated clothing and wash with soap and water.
INHALATION: Move to fresh air.
*** If irritation persists, seek medical attention. ***

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Ventilate area. Remove all sources of ignition. Clean up with inert material and place in a container for disposal.

WASTE DISPOSAL METHOD:
Dispose of in accordance with local, state, and federal regulations.

NEW SHOE
DA 6472

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:
None necessary under normal conditions. If the TLV is exceeded, a NIOSH/OSHA approved respirator is recommended.

VENTILATION:
Use ventilation as necessary to control vapor concentrations.

PROTECTIVE GLOVES:
Chemical resistant gloves (polyvinyl alcohol, polyethelene) are recommended.

EYE PROTECTION:
Safety glasses or goggles are recommended.

OTHER PROTECTIVE EQUIPMENT:
None known.

HYGIENIC PRACTICES:
WASH HANDS BEFORE EATING OR USING THE WASHROOM. SMOKE ----
IN SMOKING AREAS O N L Y .

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Do not store in direct sunlight, near open flames, or at temperatures exceeding 120°F. Do not smoke while using this product.

OTHER PRECAUTIONS:
Keep out of reach of children. Read entire label prior to use.

SECTION X - OTHER INFORMATION

-----NFPA INDEX-----
HEALTH 1
FLAMMABILITY 3
REACTIVITY 0

PREPARED BY: Heather Buck
Drummond American Corporation
600 Corporate Woods Parkway
Vernon Hills, Illinois 60061

TLV	Threshold Limit Value
PEL	Permissible Exposure Level
NFPA	National Fire Protection Association
CAS	Chemical Abstract Service
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Admin.
IARC	International Agency for Research on Cancer
STEL	Short Term Exposure Limit, duration is for 15 minutes
ND	No Data
LEL	Lower Explosive Level
NE	Not Established
PPM	Parts Per Million
D.O.T.	Department of Transportation
N/A	Not Applicable
M^3	Approximate milligrams of substance per cubic meter of air

--NFPA HAZARD INDEX--
SEVERE HAZARD 4
SERIOUS HAZARD 3
MODERATE HAZARD 2
SLIGHT HAZARD 1
MINIMAL HAZARD 0

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
02/01/98

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DN 4520
PRODUCT NAME STOP-GAP GRAY
PRODUCT CLASS PATCHING

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M^3	PEL PPM	STEL PPM
CALCIUM CARBONATE	1317-65-3		ND	ND	ND	ND
POLYURETHANE RESIN	N/A		ND	ND	ND	ND
DIISODECYL PHTHALATE	26761-40-0		ND	ND	ND	ND
HYDROGENATED CASTOR WAX	N/A		ND	ND	ND	ND
BUTYL ACETATE*	123-86-4	1-3	150	ND	150	200

* THIS CHEMICAL IS SUBJECT TO
S.A.R.A. TITLE III, SECTION 313
REPORTING.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): N/A
VAPOR DENSITY: Heavier than air
EVAPORATION RATE: = n-Butyl Acetate
PERCENT VOLATILE (By Weight): 2.100 WEIGHT PER GALLON (LBS): 13.50

OPTIONAL INFORMATION:
Appearance/Odor: gray polyurethane paste-like sealant; mild odor.
Volatiles volume %: 1.3
Liquid Density: Heavier than Water
V.O.C: 0.3 lb/gal

STOP-GAP GRAY
DN 4520

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS N/A

U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: 72°F

LEL: 1.4

UEL: 7.5

METHOD: TAG CLOSED CUP

EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL SAND

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None Known.

SPECIAL FIREFIGHTING PROCEDURE:
Self contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:
Thermal decomposition may produce carbon monoxide, carbon dioxide, sulfur dioxide, and nitrogen dioxide.

CONDITIONS TO AVOID:
Extreme heat, sparks, flames.

INCOMPATIBILITY (MATERIALS TO AVOID):
Strong oxidizing agents.

D.O.T. EMERGENCY RESPONSE INFORMATION:
NOT APPLICABLE

MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

MANUFACTURING COMPANY
IN MAINTENANCE PRODUCTS

ISSUE DATE: 04/23/90 ZEP CINNAMON CONQUER
SUPERSEDES: 06/15/88 PRODUCT NUMBER: 1783
Deodorant - Liquid

SECTION I - E M E R G E N C Y C O N T A C T S

ZEP MANUFACTURING COMPANY TELEPHONE: (404)352-1480 BETWEEN 8:00 AM-5:00 PM (EST)
P.O. BOX 2015 NON-OFFICE HOURS, WEEKENDS, AND HOLIDAYS: AREA CODE 770
ATLANTA, GEORGIA 30301 439-4200,392-1480,455-8160,552-8836,432-2873,424-4789
LOCAL POISON CONTROL CENTER .....

TRANSPORTATION EMERGENCY: CHEMTREC: TOLL FREE 1-800-424-9300 ALL CALLS RECORDED
(770)922-0923 or DISTRICT OF COLUMBIA (202)483-7616 ALL CALLS RECORDED

SECTION II - H A Z A R D O U S I N G R E D I E N T S

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** ISOPROPYL ALCOHOL ** ipa; dimethylcarbinol; 2-propanol; CAS# 67-63-0; RTECS# NT8050000; OSHA PEL-400 PPM; OSHA/ACGIH STEL-500 PPM	400	IRR FBL	5-10

SECTION III - H E A L T H H A Z A R D D A T A

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVEREXPOSURE:
Eye irritant. Eye contact may produce stinging, burning, inflammation, and in extreme cases may produce corneal damage. Exposure may be irritating to skin, ar ' upper respiratory tract. Accumulation of harmful quantities of vapor is pre- c. ed by severe irritation which makes overexposure unlikely. Overexposure can result in mild narcotic effects, including flushing, headache, dizziness, and nausea.
Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.

J. T. Baker Chemical Co.
222 Red School Lane Phillipsburg, N.J. 08865
24-Hour Emergency Telephone -- (201) 859-2151
Chemtrec # (800) 424-9300
National Response Center # (800) 424-8802

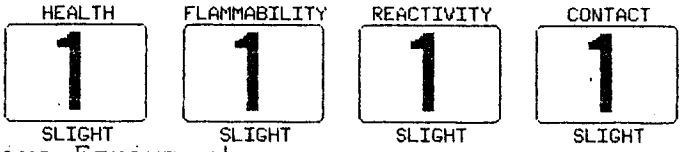
MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Name: Ethylene Glycol
Formula: $HOCH_2CH_2OH$
Formula Wt: 62.07
CAS No.: 00107-21-1
NIOSH/RTECS No.: KW2975000
Common Synonyms: 1,2-Ethanediol; EG; Glycol; 1,2-Dihydroxyethane
Product Codes: 9140,L715,9300,5387

PRECAUTIONARY LABELLING

BAKER SAF-T-DATA™ System



Laboratory Protective Equipment

Precautionary Label Statements

WARNING!
CAUSES IRRITATION
HARMFUL OR FATAL IF SWALLOWED
Avoid contact with eyes, skin, clothing.
Keep in tightly closed container. Wash thoroughly after handling.

SECTION II - HAZARDOUS COMPONENTS

Component	%	CAS No.
Ethylene Glycol	90-100	00107-21-1

SECTION III - PHYSICAL DATA

Boiling Point: 197°C (387°F)
Melting Point: -13°C (9°F)
Vapor Pressure(mmHg): 0.06
Vapor Density(air=1): 2.1

Continued on Page: 2

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

1-877-I-BUY-ZEP (1-877-428-9937)

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

00652

(317)
MISSOURI SURPLUS PROPERTY
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

ISSUE DATE: 05/31/00
SUPERSEDES: 11/29/89
Date printed: 08/05/00
ZEP FORMULA 4358 E
Prod No: **0378** **Car Wash - Powder**

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL*
(770) 424-4789 **LOCAL POISON CONTROL**
(770) 424-2048
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 **TOLL FREE-CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

A25224

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** SODIUM CARBONATE ** soda ash; carbonic acid, disodium salt; CAS# 497-19-8; RTECS# VZ4050000; OSHA/ ACGIH DUST LIMIT= 15mg/m3	N/D	IRR	5-15
** SODIUM DODECYLBENZENE SULFONATE ** linear alkyl aryl sodium sulfonate; CAS# 25155-30-0; RTECS# DB6825000; OSHA PEL N/D	N/D	IRR	< 5

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.
ACUTE EFFECTS OF OVEREXPOSURE:
This product can be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or itching.
CHRONIC EFFECTS OF OVEREXPOSURE:
There are no known effects from chronic exposure to this product.
None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.
PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: N/A

HMIS CODES: HEALTH 0; FLAM. 0; REACT. 0; PERS. PROTECT. A ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Flush contaminated skin with plenty of water. Consult a physician if irritation develops.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: The use of neoprene, nitrile or natural rubber gloves is strongly recommended, especially for prolonged contact.
EYE PROTECTION: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
RESPIRATORY PROTECTION: No special measures are required.
VENTILATION: No special measures are required.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	N/A	SPECIFIC GRAVITY:	
VAPOR PRESSURE(mmHg):	N/A	EVAPORATION RATE (=1):	N/A
VAPOR DENSITY(AIR=1):	N/A	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	12G/100ML MAX.	pH(USE DILUTION OF 1%):	9.4
VOC CONTENT (CONCENTRATE):	N/A		

APPEARANCE AND ODOR: A RED, FREE-FLOWING PLEASANTLY SCENTED POWDER.

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): None (N/A)
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: Noncombustible.
SPECIAL FIRE FIGHTING: None
UNUSUAL FIRE HAZARDS: None

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): None
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: NONE

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety precautions in sections 4 & 9 during clean-up. Sweep up uncontaminated product and place in a container for reuse. Place contaminated materials in a suitable waste container and rinse area well with water.
WASTE DISPOSAL METHOD:
Product is not considered a hazardous waste under RCRA. Unusable material should be drummed and taken to a chemical or industrial landfill, or if permitted put into solution with water and flushed into a sanitary sewer. Neutralization of pH may be a prerequisite for sewer disposal. Consult local, state, and federal agencies for proper method of disposal in your area.
RCRA HAZ. WASTE NOS.: N/A

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Keep product out of eyes.
Do not breathe dust.
Keep out of the reach of children.

SECTION X - REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: INDUSTRIAL CLEANERS, NOI,DRY
NOTE: DOT information applies to larger package sizes of affected products. For some products, DOT may require alternate names and labeling in accordance with packaging group requirements.
DOT HAZARD CLASS: DOT PACKING GROUP:
DOT I.D. NUMBER: DOT LABEL/PLACARD:
EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED

(Continued on Page: 2)

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

10/30/92
ISSUE DATE: 03/03/90
SUPERSEDES: 06/05/89
ZEPLON
PRODUCT NO.: 0278 Aerosol Lubricant

MISSOURI SURPLUS
PROPERTY -JANITORIAL
117 NO RIVERSIDE DR
JEFFERSON CITY, MO 65101

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(404) 435-2973 *NON-OFFICE HOURS, WEEKENDS*
(404) 351-2952 *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 432-2873 LOCAL POISON CONTROL

TRANSPORTATION EMERGENCY:
(404) 922-0923

CHEMTREC:
1-800-424-9300 TOLL-FREE - ALL CALLS RECORDED

DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
@ ™ 1,1,1-TRICHLOROETHANE ™ methyl chloroform chlorothene; CAS# 71-55-6; RTECS# KJ2975000; OSHA PEL-350 PPM; ACGIH/OSHA STEL-450 PPM	350	IRR CNS	70-80
@ ™ 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE ™ fluorocarbon 113; freon 113; freon tf; CAS# 76-13-1, RTECS# KJ4000000; OSHA PEL 1000 PPM	1000	EIR CNS	<5

@ Identifies chemicals listed under SARA-Section 313 for release reporting

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Inhalation of vapor can produce central nervous system depression, characterized by dizziness, headache, nausea, cardiac and/or respiratory depression, stupor, unconsciousness and death, in extreme cases. Exposure to high concentrations of vapor by direct contact or inhalation can be irritating to mucous membranes, such as ...s and upper respiratory tract. Severe eye exposure to liquid can cause reversible eye damage. Skin contact may cause a burning sensation and reddening of the skin. ...duction of solvent to the lungs, as in aspiration of vomitus fluids, may cause chemical pneumonia. Exposure to this product may aggravate existing respiratory and ...ise conditions. Inhalation of aerosol mist may produce chemical pneumonia.

Chronic Effects of Overexposure:
Repeated or prolonged contact by inhalation or skin absorption may produce liver or kidney damage or damage to the central nervous system, characterized by tingling or numbness in the extremities, blurred vision or confusion. Skin, which is defatted by repeated exposure to solvents, is more susceptible to irritation, infection, and dermatitis. Exposure to some ingredients in this product can aggravate existing liver disease or heart rhythm disorders. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: 350 PPM (NIOSH **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 1;REACT. 1;PERS. PROTECT. X ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear viton gloves or use gloves with demonstrated resistance to the ingredients in this product
Eye Protection: Use tight-fitting safety glasses. Contact lenses should not be worn when working with this material.
Respiratory Protection: If ventilation is inadequate, wear a properly fitting MSHA or OSHA-approved respirator.
Ventilation: Ventilation should be equal to outdoors. Use exhaust fans and/or exhaust hood in enclosed spaces.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	165F	**Specific Gravity:**	1.3	**Vapor Pressure (mmHg):**	100
Percent Volatile by Volume (%):	98%	**Vapor Density (air = 1):**	4.6	**Evaporation Rate (BUTYL ACETATE = 1):**	~ 6
Solubility in Water:	NEGLIGIBLE	**pH (concentrate):**	N/A	**pH (use dilution of N/A.):**	N/A

Appearance and Odor: MILKY-THIN LIQUID HAVING A MILD SOLVENT ODOR

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): NOT FLAMMABLE (CSMA)
Flammable Limits: LEL 6% UEL 16.7%
Extinguishing Media: NOT COMBUSTIBLE
Special Fire Fighting: DIRECT STREAM OF WATER ONTO INTACT CONTAINERS
Unusual Fire Hazards: Wear self-contained positive pres. Breathing apparatus.

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

(317)
MISSOURI SURPLUS
PROPERTY-JANITORIAL
JEFFERSON CITY MO 65101

ISSUE DATE: 12/03/96
SUPERSEDES: 06/23/93 Date printed: 09/29/99
ZEP GROOVY
Prod No: **0239** **Aerosol Anti-Seize Agent**

A25224

SECTION I -EMERGENCY CONTACTS

TELEPHONE:	
(404) 352-1680	*BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:	
(770) 439-4200	*NON OFFICE HOURS, WEEKENDS*
(770) 432-2873	*AND HOLIDAYS, PLEASE CALL*
(770) 424-4789	**LOCAL POISON CONTROL**
(770) 424-2048	
(770) 455-8160	
(770) 552-8836	
TRANSPORTATION EMERGENCY:	
(770) 922-0923	
CHEMTREC:	
(800) 424-9300	**TOLL FREE-CALLS RECORDED**
DISTRICT OF COLUMBIA:	
(202) 483-7616	**ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** ISOPARAFFINIC SOLVENT (BOILING RANGE 113-143C) ** isopar E, hydrotreated heavy naphtha (petroleum); CAS# 64742-48-9; RTECS# NONE	400	FBL CNS	< 30
@** COPPER ** copper metal; CAS# 7440-50-8; RTECS# GL5325000; OSHA PEL : TWA (dust,mist)- 1 mg/m3; ACGIH TLV (dust, mist)- 1 mg/m3		TOX	10-20
** ODORLESS ALIPHATIC NAPHTHA ** heavy alkylate petroleum naphtha; odorless mineral spirits; CAS# 64741-65-7; RTECS# NONE; OSHA PEL- 100ppm	100	CBL CNS	< 5
** HYDROCARBON PROPELLANT ** CAS# 64741-65-7; RTECS# NONE; OSHA PEL- 1000 ppm	1000	FBL	< 40

@ IDENTIFIES CHEMICALS LISTED UNDER SARA-SECTION 313 FOR RELEASE REPORTING.

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

POTENTIAL EFFECTS OF OVEREXPOSURE:
The solvents in this product, when inhaled or absorbed through the skin in harmful quantities, may produce central nervous system depression characterized by headache, nausea, dizziness and stupor. Vapors or spray mists may be irritating to nasal and respiratory tract. Product may be irritating to skin and eyes resulting in redness, itching or burning. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and skin diseases may be aggravated by exposure.
CHRONIC EFFECTS OF OVEREXPOSURE:
Skin which is repeatedly defatted by contact with this product may be more susceptible to irritation, infection, or dermatitis.
None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: Skin

HMIS CODES: HEALTH 2; FLAM. 4; REACT. 0; PERS. PROTECT. B ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Wash contaminated skin with soap or a mild detergent. Get medical attention if irritation develops.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
INGEST: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: The use of natural rubber, neoprene, or nitrile gloves is recommended if prolonged skin contact is expected.
EYE PROTECTION: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
RESPIRATORY PROTECTION: Wear a properly fitting MSHA or OSHA-approved respirator when using this product or when working in a use area.
VENTILATION: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

BOILING POINT (F):	102	SPECIFIC GRAVITY:	
VAPOR PRESSURE(mmHg):	N/D	EVAPORATION RATE (N/D=1):	N/D
VAPOR DENSITY(AIR=1):	N/D	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	NEGLIGIBLE	pH(USE DILUTION OF N/A):	N/A
VOC CONTENT (CONCENTRATE):	75.0%		

APPEARANCE AND ODOR: GRAY, VISCOUS LIQUID WITH MILD, SWEETISH ODOR

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(C) (METHOD USED): Extremely Flammable (CSMA)
FLAMMABLE LIMITS: LEL: N/D UEL: N/D
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical and foam.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Direct water onto intact containers to prevent bursting.

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Strong alkalis, oxidizers, and active metals.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Product is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but in most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal agencies for the proper disposal method in your area.
RCRA HAZ. WASTE NOS.: D001

(Continued on Page: 2)

5208

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

11/28/96
ISSUE DATE: 04/07/95
SUPERSEDES: 11/16/93
ZEP IRONCLAD
PRODUCT NO.: 0152 — **Aerosol Corrosion Inhibitor**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 — *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(770) 439-4200
(770) 432-2873
(770) 424-4789
(770) 392-1480
(770) 455-8160
(770) 552-8836
NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(770) 922-0923

CHEMTREC:
1-800-424-9300 — **TOLL-FREE - ALL CALLS RECORDED**

DISTRICT OF COLUMBIA:
(202) 483-7616 — **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** PETROLEUM SPIRITS ** vm&p naphtha; refined solvent naphtha; CAS# 8032-32-4; RTECS# O16180000; OSHA PEL-300 PPM; OSHA STEL-400 PPM	300	FBL CNS IRR	30-40
** BLEND OF [ISOBUTANE; CAS# 75-28-5; RTECS# TZ4300000] & [PROPANE; CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000] OSHA PEL-1000 ppm **	800	COR FBL	25-35

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
The solvents in this product, when inhaled or absorbed in harmful quantities, may produce central nervous system depression characterized by headache, nausea, dizziness and stupor. Vapors or spray mists may be irritating to nasal and respiratory tract. Product may be irritating to skin and eyes resulting in redness, itching or burning. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and skin diseases may be aggravated by exposure. Existing respiratory disorders or skin diseases may be aggravated by exposure.

onic Effects of Overexposure:
) which is repeatedly defatted by contact with this product may be more susceptible to irritation, infection, or dermatitis. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established — **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 3;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. NO

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear nitrile gloves or use gloves with demonstrated resistance to the ingredients in this product.
Eye Protection: Wear splash-proof safety goggles especially if contact lenses are worn.
Respiratory Protection: In the unlikely event that exposure levels exceed the PEL/TLV, use an organic vapor respirator (eg Zep 2211).
Ventilation: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

Boiling Point (°F):	N/D	**Specific Gravity:**	0.845	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	~ 80	**Vapor Density (air=1):**	N/D	**Evaporation Rate (N/D =1):**	N/D
Solubility in Water:	NEGLIGIBLE	**pH (concentrate):**	N/A	**pH (use dilution of N/A):**	N/A

Appearance and Odor: SLIGHTLY VISCOUS, TAN, OPAQUE LIQUID WITH SOLVENT ODOR

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): Extremely Flammable (CSMA)
Flammable Limits: LEL N/D UEL N/D
Extinguishing Media: Carbon dioxide, dry chemical and foam.
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: Direct water onto intact containers to prevent bursting.

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

1-877-I-BUY-ZEP (1-877-428-9937)

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

00820

(317)
MISSOURI SURPLUS PROPERTY
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

ISSUE DATE: 09/28/00
SUPERSEDES: 10/06/95
Date printed: 10/28/00
ZEP 50
Prod No: **0150** **Aerosol Engine Degreaser**

A25224

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL*
(770) 424-4789 **LOCAL POISON CONTROL**
(770) 424-2048
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 **TOLL FREE-CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** MONOETHANOLAMINE ** 2-aminoethanol; MEA; CAS# 141- 43-5; RTECS# KJ5775000; OSHA PEL-3 PPM; OSHA/ACGIH STEL-6 PPM	3	COR CNS CBL	< 5
** D-LIMONENE ** orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-; CAS# 5989-27-5; RTECS# GW6360000; OSHA PEL N/D	N/D	CBL SEN	5-15
** HEAVY AROMATIC NAPHTHA ** solvent naphtha (petroleum), heavy aromatics; CAS# 64742-94-5; RTECS# NONE; Supplier TWA- 100 ppm; OSHA PEL-N/D.	N/D	CNS CBL	5-15
** BLEND OF [ISOBUTANE; CAS# 75-28-5; RTECS# TZ4300000] & [PROPANE; CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000] OSHA PEL-1000 ppm **	800	FBL	< 10

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.
POTENTIAL EFFECTS OF OVEREXPOSURE:
Contact with this product may irritate eyes and skin. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
One of the ingredients in this product has caused sensitization reactions in a small percentage of the general population.
CHRONIC EFFECTS OF OVEREXPOSURE:
Repeated or prolonged exposure by inhalation or skin absorption may produce liver or kidney damage, or damage to the central nervous system.
Skin which is repeatedly defatted by contact with this product may be more susceptible to irritation, infection, or dermatitis.
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: Inh, Skin.

HMIS CODES: HEALTH 1; FLAM. 2; REACT. 0; PERS. PROTECT. B ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
EYE PROTECTION: Wear tight-fitting safety glasses when using or handling this product.
RESPIRATORY PROTECTION: Avoid inhalation of spray mists, and do not direct spray toward people.
VENTILATION: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

BOILING POINT (F):	212	SPECIFIC GRAVITY:	0.996
VAPOR PRESSURE(mmHg):	N/D	EVAPORATION RATE (N/D=1):	N/D
VAPOR DENSITY(AIR=1):	N/D	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	N/D	pH(USE DILUTION OF):	N/A
VOC CONTENT (CONCENTRATE):	27.4%		

APPEARANCE AND ODOR: A THIN, MILKY LIQUID WITH A ORANGE/CITRUS ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): Nonflammable (CSMA)
FLAMMABLE LIMITS: LEL: N/D UEL: N/D
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, water fog, foam.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Direct water onto intact containers to prevent bursting.

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Heat, open flame, spark, and oxidizing agents.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Product is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but in most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal agencies for the proper disposal method in your area.
RCRA HAZ. WASTE NOS.: N/A

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Do not store at temperatures above 120F (39C) or in direct sunlight. Do not puncture or incinerate container.
Keep product away from skin and eyes.

(Continued on Page: 2)

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

1-877-I-BUY-ZEP (1-877-428-9937)

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

01362

(317)
MISSOURI SURPLUS PROPERTY
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

ISSUE DATE: 01/24/01
SUPERSEDES: 04/23/90
Date printed: 03/03/01
ZEP 40
Prod No: **0144** **Aerosol Glass Cleaner**

A25224

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL*
(770) 424-4789 **LOCAL POISON CONTROL**
(770) 424-2048
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 **TOLL FREE-CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** ISOPROPYL ALCOHOL ** ipa; dimethylcarbinol; 2-propanol; CAS# 67-63-0; RTECS# NT8050000; OSHA PEL-400 PPM; OSHA/ACGIH STEL-500 PPM	400	IRR FBL	10-20
@** ETHYLENE GLYCOL MONOBUTYL ETHER ** 2-butoxyethanol; butyl cellosolve; CAS# 111-76-2; RTECS# KJ8575000; OSHA PEL (SKIN)-25 ppm	20	TOX IRR CBL	< 5
** BLEND OF [ISOBUTANE; CAS# 75-28-5; RTECS# TZ4300000] & [PROPANE; CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000] ** OSHA PEL-1000 ppm	800	FBL	5-15

@ IDENTIFIES CHEMICALS LISTED UNDER SARA-SECTION 313 FOR RELEASE REPORTING.

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVEREXPOSURE:
irritant. Eye contact may produce stinging, burning, inflammation, and in extreme cases may produce corneal damage. Exposure may be irritating to , and upper respiratory tract. Accumulation of harmful quantities of vapor is preceded by severe irritation which makes overexposure unlikely.
Overexposure can result in mild narcotic effects, including flushing, headache, dizziness, and nausea.
Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.
CHRONIC EFFECTS OF OVEREXPOSURE:
Repeated or prolonged, skin contact may produce some dryness of skin. Chronic effects from alcohol vapors are rare and would result from severe, prolonged, and repeated contact, which is usually precluded by irritation. In most extreme cases, narcosis, unconsciousness, and death could result. Animal studies indicate a potential for liver, kidney, or red blood cell damage. Relevance of these studies or exposure levels which might produce these effects in humans has not been established.
None of the hazardous ingredients are listed as carcinogens by IARC, NTP, & OSHA
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: Inh, Skin.

HMIS CODES: HEALTH 1; FLAM. 1; REACT. 0; PERS. PROTECT. A ; CHRONIC HAZ. YES

FIRST AID PROCEDURES:
SKIN: Immediately flush contaminated skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If individual is alert, give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: As with all chemical products, prolonged skin contact should be avoided. Implement protective measures under conditions of prolonged use or exposure.
EYE PROTECTION: To prevent accidental eye contact, the use of safety glasses or goggles is recommended when using any aerosol product.
RESPIRATORY PROTECTION: Avoid inhalation of spray mists, and do not direct spray toward people.
VENTILATION: Ventilation should be equal to outdoors. Use exhaust fans and/or exhaust hood in enclosed spaces.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	185-215	SPECIFIC GRAVITY:	1.10
VAPOR PRESSURE(mmHg):	N/D	EVAPORATION RATE (WATER=1):	1.0
VAPOR DENSITY(AIR=1):	N/D	pH(CONCENTRATE):	10.5-11.0
SOLUBILITY IN WATER:	COMPLETE	pH(USE DILUTION OF N/A):	N/A
VOC CONTENT (CONCENTRATE):	27.4%		

APPEARANCE AND ODOR: CLEAR, COLORLESS FOAMY LIQUID HAVING A MILD PLEASANT ODOR

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): Nonflammable (CSMA)
FLAMMABLE LIMITS: LEL: N/D UEL: N/D
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical and foam.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Direct water onto intact containers to prevent bursting.

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Strong oxidizing agents.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Product is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but in most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal agencies for the proper disposal method in your area.
RCRA HAZ. WASTE NOS.: N/A

(Continued on Page: 2)

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

11/28/96
ISSUE DATE: 09/01/95
SUPERSEDES:
TIRELESS SHINE
PRODUCT NO.: 0063 **Aerosol Tire Dressing**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON-OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL YOUR*
(770) 424-4789 **LOCAL POISON CONTROL**
(770) 392-1480
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
1-800-424-9300 **TOLL-FREE - ALL CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
* PROPRIETARY SOLVENT BLEND * CAS# PROPRIETARY; RTECS# NONE; OSHA PEL- 200 ppm (skin); STEL- 250 ppm	200	FBL IRR CNS	70-80

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
The solvents in this product, when inhaled or absorbed in harmful quantities, may produce central nervous system depression characterized by headache, nausea, dizziness and stupor. Vapors or spray mists may be irritating to nasal and respiratory tract. Product may be irritating to skin and eyes resulting in redness, itching or burning. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and skin diseases may be aggravated by exposure.

Chronic Effects of Overexposure:
Skin which is repeatedly defatted by contact with this product may be more susceptible to irritation, infection, or dermatitis. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

.st'd PEL/TLV: Not established **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 4;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
Eye Protection: Wear tight-fitting safety glasses when using or handling this product.
Respiratory Protection: When exposure levels exceed PEL/TLV (likely in confined areas) use an organic vapor respirator (eg Zep 2211).
Ventilation: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

Boiling Point (°F):	290 INITIAL	**Specific Gravity:**	0.733	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	75	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (BUTYL ACETATE = 1):**	> 1
Solubility in Water:	NEGLIGIBLE	**pH (concentrate):**	N/A	**pH (use dilution of N/A):**	N/A

Appearance and Odor: A CLEAR, COLORLESS LIQUID WITH A SOLVENT ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): Extremely Flammable (CSMA)
Flammable Limits: LEL N/D UEL N/D
Extinguishing Media: Carbon dioxide, dry chemical and foam.
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: Direct water onto intact containers to prevent bursting.

MATERIAL SAFETY DATA SHEET

AND SAFE HANDLING AND DISPOSAL INFORMATION

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ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

05/12/93

ISSUE DATE: 11/25/91

SUPERSEDES: 04/21/89

ZEP FORMULA 50

PRODUCT NO. 0859 **General Purpose Cleaner**

MISSOURI SURPLUS
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(404) 435-2973 *NON-OFFICE HOURS, WEEKENDS*
(404) 351-2952 *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 432-2873 **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(404) 922-0923

CHEMTREC:
1-800-424-9300 **TOLL-FREE - ALL CALLS RECORDED**

DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
@ ** ETHYLENE GLYCOL MONOBUTYL ETHER ** 2-butoxyethanol; butyl cellosolve; CAS # 111-76-2; RTECS # KJ8575000; OSHA PEL (SKIN)- 25 ppm	25	TOX IRR CBL	< 5
** SODIUM METASILICATE ** silicic acid (H2-Si-O3) disodium salt; water glass; CAS # 6834-92-0; RTECS # VV9275000; OSHA Dust Limit-2mg/m3 (for powders only).	N/D	COR	< 5
** SODIUM DODECYLBENZENE SULFONATE ** linear alkyl aryl sodium sulfonate; CAS # 25155-30-0; RTECS # DB6825000; OSHA PEL N/D	N/D	IRR	< 5

@ Identifies chemicals listed under SARA-Section 313 for release reporting

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Product is considered non-toxic orally according to 16 CFR 1500.3 (Code of Federal Regulations 16, Federal Hazardous Substances Act Regulations, Part 1500.3). However, no product should be intentionally ingested. Ingestion of an excessive amount of the product may cause complications. Product in concentrated form is a severe eye irritant. Overexposure may lead to eye tissue damage which can be permanent. This product may cause slight skin irritation. Overexposure by inhalation may cause respiratory irritation. Existing eye or respiratory disorders may be aggravated by exposure.

Chronic Effects of Overexposure:
Repeated eye exposure may produce chronic inflammation of the eye or corneal damage. Animal studies indicate a potential for liver, kidney, or red blood cell damage. Relevance of these studies or exposure levels which might produce these effects in humans has not been established. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established **Primary Routes of Entry:** Inh, Skin.

HMIS Codes: HEALTH 2;FLAM. 0;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Flush contaminated skin with plenty of water. Consult a physician if irritation develops.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wearing neoprene or nitrile gloves is recommended when prolonged excessive contact occurs (eg immersing hands)
Eye Protection: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
Respiratory Protection: In the unlikely event that exposure levels exceed the PEL/TLV, use an organic vapor respirator (eg Zep 2211).
Ventilation: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

Boiling Point (°F):	~220	**Specific Gravity:**	1.07	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	85%	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (WATER = 1):**	1.0
Solubility in Water:	COMPLETE	**pH (concentrate):**	12.5-13.0	**pH (use dilution of 1% SOLUTION):**	11.0-11.5

Appearance and Odor: A THIN, DARK BLUE LIQUID WITH SLIGHT "BUTYL" ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): N/D (TCC)
Flammable Limits: LEL N/A UEL N/A
Extinguishing Media: Noncombustible.
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: None

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MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

00046
MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

A25224

ISSUE DATE: 05/06/98
SUPERSEDES: Date printed: 12/08/98
ZEP DIESEL FUEL ADDITIVE
Prod No: **0583** **Diesel Fuel Additive**

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL*
(770) 424-4789 LOCAL POISON CONTROL
(770) 424-2048
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 TOLL FREE-CALLS RECORDED
DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** ALIPHATIC NAPHTHA ** ligroin; CAS# 8052-41-3; RTECS# WJ8952000; OSHA PEL - 100 ppm	100	CNS CBL	50-60
** HEAVY AROMATIC NAPHTHA ** solvent naphtha (petroleum), heavy aromatics; CAS# 64742-94-5; RTECS# NONE; Supplier TWA- 100 ppm; OSHA PEL-N/D.	N/D	IRR CBL	20-30

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.
ACUTE EFFECTS OF OVEREXPOSURE:
Overexposure to the vapors from this product may produce mucous membrane irritation, particularly of the eye and respiratory tract. Overexposure to vapors may also produce mild central nervous system depression characterized by headache, dizziness, nausea, and stupor, leading to unconsciousness in extreme cases. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and lung diseases may be aggravated by inhalation of vapors.
Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.
CHRONIC EFFECTS OF OVEREXPOSURE:
Repeated or prolonged inhalation exposure may produce reversible lung damage. Skin which is repeatedly defatted by contact with solvents may be more susceptible to irritation, infection, and dermatitis.
None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: Inh, Skin.

HMIS CODES: HEALTH 2; FLAM. 2; REACT. 0; PERS. PROTECT. B ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get medical attention immediately.
INGEST: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
EYE PROTECTION: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
RESPIRATORY PROTECTION: When exposure levels exceed PEL/TLV (likely in confined areas) use an organic vapor respirator (eg Zep 2211).
VENTILATION: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

BOILING POINT (F):	355	SPECIFIC GRAVITY:	0.85
VAPOR PRESSURE(mmHg):	N/D	EVAPORATION RATE (BUTYL ACETATE=1):	< 0.1
VAPOR DENSITY(AIR=1):	> 1.0	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	INSOLUBLE	pH(USE DILUTION OF N/A):	N/A
VOC CONTENT (CONCENTRATE):	82.0%		

APPEARANCE AND ODOR: A CLEAR, AMBER LIQUID WITH A SOLVENT ODOR

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(C) (METHOD USED): 110 (TCC)
FLAMMABLE LIMITS: LEL: 1.0 UEL: 6.0
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, water fog, foam.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Fire exposed drums should be cooled with stream of water.

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Heat, open flame, spark, and oxidizing agents.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Immediately eliminate all flame, ignition and high-heat sources. Absorb spill on inert absorbent material (e.g. Zep-0-Zorb). Pick up and place residue in a clean, D.O.T. specification container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Liquids cannot be sent to landfills unless solidified. Unusable product and collected, spent material may require disposal as a hazardous waste at a permitted treatment/storage/disposal facility. Solvent wastes may require treatment to meet the appropriate standards before disposal in a chemical industrial waste landfill. Consult local, state, and federal agencies for proper disposal method in your area.
RCRA HAZ. WASTE NOS.: D001

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Combustible! Store and use away from heat, sparks, open flame, or any source of ignition
Store tightly closed container in a dry area at temps. between 40-120 degrees F.
Keep product away from skin and eyes.
Do not breathe spray mists or vapors.
Clothing or shoes which become contaminated with substance should be removed promptly and not reworn until thoroughly cleaned.
Vapors are heavier than air and will accumulate at low points. Ventilation should include floor level exhausting.

(Continued on Page: 2)

MATERIAL SAFETY DATA SHEET

1805

AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

01/07/95
ISSUE DATE: 12/03/93
SUPERSEDES:
DIESEL FUEL ADDITIVE W/O DYE
PRODUCT NO.: 0573 — Diesel Fuel Additive

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 — *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(404) 435-2973
(404) 432-2873
(404) 424-4789
(404) 319-6151
(404) 242-3561
NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(404) 922-0923

CHEMTREC:
1-800-424-9300 — TOLL-FREE - ALL CALLS RECORDED

DISTRICT OF COLUMBIA:
(202) 483-7616 — ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** KEROSENE ** techsene; fuel oil # 1; coal oil; CAS # 8008-20-6; RTECS # OA5500000; OSHA PEL-N/D	N/D	IRR CBL	70-80
** 2-ETHYLHEXYL NITRATE ** CAS # 27247-96-7; RTECS # 1 NONE; OSHA PEL-N/D; MANUFACTURER'S TWA-10 PPM	N/D	TOX FBL	15-25

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Overexposure to the vapors from this product may produce mucous membrane irritation, particularly of the eye and respiratory tract. Overexposure to vapors may also produce mild central nervous system depression characterized by headache, dizziness, nausea, and stupor, leading to unconsciousness in extreme cases. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and lung diseases may be aggravated by inhalation of vapors.

Chronic Effects of Overexposure:
Repeated or prolonged inhalation exposure may produce reversible lung damage. Skin which is repeatedly defatted by contact with solvents may be more susceptible to ·ation, infection, and dermatitis. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

·'d **PEL/TLV:** Not established — **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 2;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
Eye Protection: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
Respiratory Protection: When exposure levels exceed PEL/TLV (likely in confined areas) use an organic vapor respirator (eg Zep 2211).
Ventilation: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

Boiling Point (°F):	350-500	**Specific Gravity:**	0.84	**Vapor Pressure (mmHg):**	0.4 mmHg
Percent Volatile by Volume (%):	95	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (BUTYL ACETATE = 1):**	< 0.1
Solubility in Water:	EMULSIFIES	**pH (concentrate):**	N/A	**pH (use dilution of N/A):**	N/A

Appearance and Odor: A CLEAR, THIN AMBER LIQUID WITH A STRONG "SOLVENT" ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): 126F (TCC)
Flammable Limits: LEL 1.0 UEL 8.0
Extinguishing Media: Carbon dioxide, dry chemical and foam.
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: Concentrated vapor may ignite if exposed to spark.

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

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ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

02/02/96
ISSUE DATE: 10/20/94
SUPERSEDES:
ZEP DYNAMITE
PRODUCT NO.: 0566 **Truck and Trailer Wash**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 435-4200 *NON-OFFICE HOURS, WEEKENDS*
(404) 432-2873 *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 424-4789 **LOCAL POISON CONTROL**
(404) 392-1480
(404) 455-8160
(404) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
1-800-424-9300 **TOLL-FREE - ALL CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
@ ** SODIUM LAURYL ETHER SULFATE ** SODIUM LAURETH SULFATE; CAS# 9004-82-4; RTECS# WB7350000; OSHA PEL N/D.	N/D	EIR	< 5
** ALCOHOLS, C9-11, ETHOXYLATED ** linear primary alcohol ethoxylate (6 moles) EO); CAS# 68439-46-3; RTECS# NONE; OSHA PEL N/D	N/D	IRR	< 5
** TETRASODIUM ETHYLENEDIAMINE TETRAACETATE ** ethylenedinitrilo tetraacetic acid, tetrasodium salt; EDTA; CAS# 64-02-8; RTECS# AH4025000; OSHA PEL N/D	N/D	IRR	5-15

@ Identifies chemicals listed under SARA-Section 313 for release reporting

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
This product may irritate eyes and skin upon contact. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by ching, scaling, reddening, or, occasionally, blistering. Overexposure by inhalation may cause respiratory irritation. Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.

Chronic Effects of Overexposure:
Repeated or prolonged skin contact may produce chronic inflammation or dermatitis, characterized by redness, scaling, or itching. Repeated eye exposure may produce chronic inflammation of the eye or corneal damage. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 2;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. NO

FIRST AID PROCEDURES:
Skin: Immediately flush contaminated skin with plenty of water for at least 15 minutes. Get medical attention immediately.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
Eye Protection: Wear splash-proof safety goggles especially if contact lenses are worn.
Respiratory Protection: Keep face away from spray mist and do not breathe vapors.
Ventilation: Provide local exhaust/ventilation as needed to keep concentration of vapors below exposure limits (PEL/TLV).

SECTION V - PHYSICAL DATA

Boiling Point (°F):	~ 220	**Specific Gravity:**	1.053	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	84	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (WATER = 1):**	1.0
Solubility in Water:	COMPLETE	**pH (concentrate):**	12.9	**pH (use dilution of 1 %):**	11.2

Appearance and Odor: A CLEAR, YELLOW-GREEN, THIN LIQUID WITH A DETERGENT ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): 164 (TCC)
Flammable Limits: LEL N/D UEL N/D
Extinguishing Media: Carbon dioxide, dry chemical, water, and foam
Special Fire Fighting: Wear self-contained positive pres. breathing apparatus.
Unusual Fire Hazards: Fire exposed drums should be cooled with stream of water.

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

06/26/93
ISSUE DATE: 02/14/90
SUPERSEDES: 08/16/89
ZEP AUTO GLAZE
PRODUCT NO.: 0458 — **Auto Polishing Compound**

TAGGART GARY
117 N RIVERSIDE
PO DRAWER 1310
JEFFERSON CITY, MO 65102

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 — *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(404) 435-2973
(404) 351-2952
(404) 432-2873
NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(404) 922-0923

CHEMTREC:
1-800-424-9300 — TOLL-FREE - ALL CALLS RECORDED

DISTRICT OF COLUMBIA:
(202) 483-7616 — ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** MINERAL SPIRITS ** ligroin; aliphatic naphtha; CAS # 8052-41-3; RTECS # WJ8952000; OSHA PEL-100 PPM	100	CNS CBL	20-30
** HYDRATED ALUMINUM SILICATE ** kaolin; china clay; CAS # 1332-58-7; RTECS # NONE; OSHA PEL-10 mg/m3 (nuisence dust).	N/D	IRR	5-10

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
Overexposure to the vapors from this product may produce mucous membrane irritation, particularly of the eye and respiratory tract. Overexposure to vapors may also produce mild central nervous system depression characterized by headache, dizziness, nausea, and stupor, leading to unconsciousness in extreme cases. Introduction of solvents, as in aspiration of vomitus fluid, may produce chemical pneumonia. Existing respiratory disorders and lung diseases may be aggravated by inhalation of vapors. Ingredients in this product may aggravate existing skin, eye, or respiratory disorders.

Chronic Effects of Overexposure:
eated or prolonged inhalation exposure may produce reversible lung damage. Skin which is repeatedly defatted by contact with solvents may be more susceptible to ation, infection, and dermatitis. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established — **Primary Routes of Entry:** Inh, Skin.

HMIS Codes: HEALTH 1;FLAM. 3;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If swallowed, do not induce vomiting. If vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear neoprene, nitrile, or natural rubber gloves or gloves with proven resistance to the ingredients listed.
Eye Protection: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
Respiratory Protection: Use NIOSH-approved dust mask if dust is present.
Ventilation: Ventilation should be equivalent to outdoors. Use exhaust fans and open windows in enclosed spaces.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	220 (INITIAL)	**Specific Gravity:**	0.98	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	87	**Vapor Density (air = 1):**	N/D	**Evaporation Rate (WATER = 1):**	>1.0
Solubility in Water:	EMULSIFIES	**pH (concentrate):**	9.0-9.5	**pH (use dilution of):**	N/A

Appearance and Odor: A WHITE, THICK, CREAMY LIQUID WITH SOLVENT ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): 98F (TCC)
Flammable Limits: LEL 1.0% UEL 7.0%
Extinguishing Media: CO2, DRY CHEMICAL, WATER FOG
Special Fire Fighting: Wear self-contained positive pres. Breathing apparatus.
Unusual Fire Hazards: Concentrated vapor may ignite if exposed to spark.

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD™

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

04/07/94
ISSUE DATE: 04/23/90
SUPERSEDES: 07/09/89
ZEP PRO FINISH
PRODUCT NO.: 0428 — **Auto Polishing Compound**

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 — *BETWEEN 8:00 AM - 5:00 PM (EST)*

MEDICAL EMERGENCY:
(404) 435-2973 — *NON-OFFICE HOURS, WEEKENDS*
(404) 351-2952 — *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 432-2873 — **LOCAL POISON CONTROL**

TRANSPORTATION EMERGENCY:
(404) 922-0923

CHEMTREC:
1-800-424-9300 — **TOLL-FREE - ALL CALLS RECORDED**

DISTRICT OF COLUMBIA:
(202) 483-7616 — **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
^ LOW ODOR PARAFFINIC SOLVENT ^ odorless base oil; dispersol; CAS # 64742-47-8, RTECS # NONE; OSHA PEL-500 ppm	500	CNS CBL	5-10
^ MINERAL SEAL OIL ^ (mineral oil); petrolatum; CAS # 64741-44-2; RTECS # PY8030000; ACGIH/OSHA OIL MIST LIMIT = 5mg/M3	N/A	IRR	1-5
^ ISOPROPYL ALCOHOL ^ ipa; dimethylcarbinol; 2-propanol; CAS # 67-63-0; RTECS # NT8050000; OSHA PEL-400 PPM; OSHA/ACGIH STEL-500 PPM	400	IRR FBL	1-5

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
This product may irritate eyes and skin upon contact. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. This product is not sufficiently volatile to constitute a significant inhalation hazard. Severe overexposure to concentrated vapor may produce mild central nervous system depression, characterized by headache and stupor. Introduction of solvents, as in aspiration of vomitus into the lungs, may produce chemical pneumonia.

Chronic Effects of Overexposure:
Contact, especially if prolonged of repeated, may cause redness, itching, or blistering of the skin. Skin which is repeatedly defatted by contact with this product may be more susceptible to irritation, infection, or dermatitis. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established — **Primary Routes of Entry:** Inh.

HMIS Codes: HEALTH 2;FLAM. 2;REACT. 0;PERS. PROTECT. B ;CHRONIC HAZ. YES

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: The use of neoprene, nitrile or natural rubber gloves is strongly recommended, especially for prolonged contact.
Eye Protection: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
Respiratory Protection: If ventilation is inadequate, wear a properly fitting MSHA or OSHA-approved respirator.
Ventilation: If vapors are detected, ventilate work area by opening windows and using exhaust fans.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	N/D	**Specific Gravity:**	0.97	**Vapor Pressure (mmHg):**	N/D
Percent Volatile by Volume (%):	~87	**Vapor Density (air = 1):**	> 1	**Evaporation Rate (ETHYL ETHER = 1):**	> > 1
Solubility in Water:	DISPERSIBLE	**pH (concentrate):**	9.2	**pH (use dilution of N/A):**	N/A

Appearance and Odor: OPAQUE, VISCOUS, YELLOWISH LIQUID WITH SOLVENT ODOR.

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): 185 (TCC)
Flammable Limits: LEL N/D UEL N/D
Extinguishing Media: CO2, DRY CHEMICALS, FOAM
Special Fire Fighting: Direct water onto intact containers to prevent bursting
Unusual Fire Hazards: Wear self-contained positive pres. Breathing apparatus

MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

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ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

MISSOURI SURPLUS
PROPERTY-JANITORIAL
1172 RIVERSIDE
JEFFERSON CITY, MO 65101

12/28/94
ISSUE DATE: 06 20 94
SUPERSEDES: 07 12 89
ZEP BIG ORANGE
PRODUCT NO.: 0415 Industrial Solvent Degreaser

SECTION I - EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(404) 435-2973 *NON-OFFICE HOURS, WEEKENDS*
(404) 432-2873 *AND HOLIDAYS, PLEASE CALL YOUR*
(404) 424-4789 LOCAL POISON CONTROL
(404) 319-6151
(404) 242-3561
TRANSPORTATION EMERGENCY:
(404) 922-0923
CHEMTREC:
1-800-424-9300 TOLL-FREE - ALL CALLS RECORDED
DISTRICT OF COLUMBIA:
(202) 483-7616 ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PROD.
** D-LIMONENE ** orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-CAS # 5989-27-5; RTECS # GW6360000; OSHA PEL N/D	N/D	CBL SEN	> 90
** ALCOHOLS, C11-C15-SECONDARY, ETHOXYLATED ** CAS # 68131-40-8; RTECS # WZ5200000; OSHA PEL N/D	N/D	EIR	< 5
** NONYLPHENOXYPOLY(ETHYLENEOXY)ETHANOL ** poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy; CAS # 9016-45-9; RTECS # MD905000; OSHA PEL-N/D	N/D	EIR	< 5

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:
This product can be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or itching. One of the ingredients in this product has caused sensitization reactions in a small percentage of the general population.

Chronic Effects of Overexposure:
ontact, especially if prolonged of repeated, may cause redness, itching, or blistering of the skin. None of the hazardous ingredients are listed as carcinogens by IARC, P, & OSHA

Est'd PEL/TLV: Not established **Primary Routes of Entry:** N/A

HMIS Codes: HEALTH 1;FLAM. 2;REACT. 0;PERS. PROTECT. A ;CHRONIC HAZ. NO

FIRST AID PROCEDURES:
Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanolin. Get medical attention if irritation persists.
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
Ingest: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Wear nitrile gloves or use gloves with demonstrated resistance to the ingredients in this product.
Eye Protection: Wear tight-fitting splash-proof safety glasses especially if contact lenses are worn.
Respiratory Protection: No special measures are required.
Ventilation: No special measures are required.

SECTION V - PHYSICAL DATA

Boiling Point (°F):	338-375	**Specific Gravity:**	0.853	**Vapor Pressure (mmHg):**	N/A
Percent Volatile b. olume (%):	93.8	**Vapor Density (air = 1):**	N/A	**Evaporation Rate (CCL4 = 1):**	~33
Solubility in Water:	EMULSIFIES	**pH (concentrate):**	N/A	**pH (use dilution of 1:20):**	7.6

Appearance and Odor: ORANGE LIQUID WITH A CITRUS ODOR

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (°F) (method used): 121 (TCC)
Flammable Limits: LEL N/A UEL N/A
Extinguishing Media: Carbon dioxide, dry chemical and foam.
Special Fire Fighting: Fire exposed drums should be cooled with stream of water.
Unusual Fire Hazards: None

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MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

1-877-I-BUY-ZEP (1-877-428-9937)

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

00820

(317)
MISSOURI SURPLUS PROPERTY
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

ISSUE DATE: 10/02/00
SUPERSEDES: 10/04/89 Date printed: 10/28/00
ZEP FAST GASKET BLUE
Prod No: **0413** **Silicone Gasket Compound and Sealant**

A25224

SECTION I -EMERGENCY CONTACTS

TELEPHONE:
(404) 352-1680 *BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:
(770) 439-4200 *NON OFFICE HOURS, WEEKENDS*
(770) 432-2873 *AND HOLIDAYS, PLEASE CALL*
(770) 424-4789 **LOCAL POISON CONTROL**
(770) 424-2048
(770) 455-8160
(770) 552-8836
TRANSPORTATION EMERGENCY:
(770) 922-0923
CHEMTREC:
(800) 424-9300 **TOLL FREE-CALLS RECORDED**
DISTRICT OF COLUMBIA:
(202) 483-7616 **ALL CALLS RECORDED**

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** METHYLTRIACETOXYSILANE ** acetoxy silane; CAS# 4253-34-3; OSHA/ACGIH PEL/TLV 10 PPM (for acetic acid only)	N/D	IRR	< 10
** ETHYLTRIACETOXYSILANE ** acetoxysilane; CAS# 17689-77-9; OSHA/ACGIH/ PEL/TLV 10 PPM (for acetic acid only)	N/D	IRR	< 10
** SILICA,AMORPHOUS ** CAS# 7631-86-9; OSHA PEL: TWA 20 MPPCF; ACGIH TLV 10 mg/m3	N/D	IRR	5-15

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.
ACUTE EFFECTS OF OVEREXPOSURE:
This product can be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or itching.
Overexposure to the vapors from this product may produce mucous membrane irritation, particularly of the eye and respiratory tract.
CHRONIC EFFECTS OF OVEREXPOSURE:
Prolonged skin contact (4-8 hrs.), Without rinsing, may result in irritation characterized by itching or reddening of the skin.
None of the hazardous ingredients are listed as carcinogens by IARC, NTP, & OSHA
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: Inh, Skin.

HMIS CODES: HEALTH 1; FLAM. 1; REACT. 0; PERS. PROTECT. - ; CHRONIC HAZ. NO

FIRST AID PROCEDURES:
SKIN: Wash contaminated skin with soap or a mild detergent. Get medical attention if irritation develops.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: The use of neoprene, nitrile or natural rubber gloves is strongly recommended, especially for prolonged contact.
EYE PROTECTION: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
RESPIRATORY PROTECTION: If ventilation is inadequate, wear a properly fitting MSHA or OSHA-approved respirator.
VENTILATION: Ventilation should be equivalent to outdoors. Use exhaust fans and open windows in enclosed spaces.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	~ 300	SPECIFIC GRAVITY:	1.04
VAPOR PRESSURE(mmHg):	N/D	EVAPORATION RATE (BUTYL ACETATE=1):	<1
VAPOR DENSITY(AIR=1):	N/A	pH(CONCENTRATE):	N/A
SOLUBILITY IN WATER:	<0.1%	pH(USE DILUTION OF N/A):	N/A
VOC CONTENT (CONCENTRATE):	0.0%		

APPEARANCE AND ODOR: BLUE PASTE WITH ACETIC ACID-TYPE ODOR

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F) (METHOD USED): 212 (TCC)
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, and water fog.
SPECIAL FIRE FIGHTING: Wear self-contained positive pres. breathing apparatus.
UNUSUAL FIRE HAZARDS: Direct water onto intact containers to prevent bursting.

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): Strong oxidizing agents.
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: Carbon dioxide and fumes of acetic acid and silicon dioxide.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg Zep-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.
WASTE DISPOSAL METHOD:
Product is consumed in use. Large numbers of small containers may require handling as a hazardous waste, but in most states, total hazardous waste quantities less than 220 lbs. per month may be disposed of in a chemical or industrial waste landfill. Consult local, state and federal agencies for proper disposal method in your area.
RCRA HAZ. WASTE NOS.: N/A

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
Do not store at temperatures above 120F (39C) or in direct sunlight. Do not puncture or incinerate container.
Avoid direct inhalation of vapors.
Clothing or shoes which become contaminated with substance should be removed promptly and not reworn until thoroughly cleaned.
Keep product out of eyes.
Keep out of the reach of children.

(Continued on Page: 2)

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MATERIAL SAFETY DATA SHEET
AND SAFE HANDLING AND DISPOSAL INFORMATION

ZEP MANUFACTURING COMPANY
P.O. BOX 2015
ATLANTA, GEORGIA 30301

SOLD TO:

00046
MISSOURI SURPLUS (317)
PROPERTY-JANITORIAL
117 N RIVERSIDE DR
JEFFERSON CITY MO 65101

ISSUE DATE: 06/15/88
SUPERSEDES: 06/06/88 Date printed: 12/08/98
ZEP-O-SHINE
Prod No: **0382** **Car Wash - Liquid**

A25224

SECTION I -EMERGENCY CONTACTS

TELEPHONE:	
(404) 352-1680	*BETWEEN 8:00 AM - 5:00 PM (EST)*
MEDICAL EMERGENCY:	
(770) 439-4200	*NON OFFICE HOURS, WEEKENDS*
(770) 432-2873	*AND HOLIDAYS, PLEASE CALL*
(770) 424-4789	LOCAL POISON CONTROL
(770) 424-2048	
(770) 455-8160	
(770) 552-8836	
TRANSPORTATION EMERGENCY:	
(770) 922-0923	
CHEMTREC:	
(800) 424-9300	TOLL FREE-CALLS RECORDED
DISTRICT OF COLUMBIA:	
(202) 483-7616	ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	(PPM)	EFFECTS (SEE NOTICE)	% IN PROD.
** NONYLPHENOXYPOLY(ETHYLENEOXY)ETHANOL ** npe; poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega- hydroxy; CAS# 9016-45-9; RTECS# MD0900000; OSHA PEL- N/D	N/D	EIR	20-30

SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.
ACUTE EFFECTS OF OVEREXPOSURE:
This product in concentrated form may be an eye irritant. Inflammation of eye tissue is characterized by redness, watering, and/or itching.
CHRONIC EFFECTS OF OVEREXPOSURE:
There are no known effects from chronic exposure to this product.
None of the hazardous ingredients are listed as carcinogens by IARC, NTP, & OSHA
EST'D PEL/TLV: Not established PRIMARY ROUTES OF ENTRY: N/A

MIS CODES: HEALTH 0; FLAM. 0; REACT. 0; PERS. PROTECT. A ; CHRONIC HAZ. NO

IRST AID PROCEDURES:
SKIN: Flush contaminated skin with plenty of water. Consult a physician if irritation develops.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once.
INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.
INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water to drink. Get medical attention at once.

SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING: No special measures are required.
EYE PROTECTION: Use of tight-fitting safety glasses or goggles is strongly recommended, especially when wearing contact lenses.
RESPIRATORY PROTECTION: No special measures are required.
VENTILATION: No special measures are required.

SECTION V - PHYSICAL DATA

BOILING POINT (F):	215	SPECIFIC GRAVITY:	1.01
VAPOR PRESSURE(mmHg):	N/A	EVAPORATION RATE (WATER=1):	1
VAPOR DENSITY(AIR=1):	N/A	pH(CONCENTRATE):	6.5-7.0
SOLUBILITY IN WATER:	COMPLETE	pH(USE DILUTION OF 1%):	7.0
VOC CONTENT (CONCENTRATE):			

APPEARANCE AND ODOR: A VISCOUS, OPAQUE PINK LIQUID WITH A PLEASANT FRAGRANCE.

SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(C) (METHOD USED): None ( )
FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: Noncombustible.
SPECIAL FIRE FIGHTING: None
UNUSUAL FIRE HAZARDS: None

SECTION VII - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBLILITY(AVOID): None
POLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION: NONE

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Observe safety procedures in section 4 & 9 during clean-up. Absorb spill on inert absorbent material (eg Zep-O-Zorb). Pick up and place residue in a suitable waste container or, if permitted, flush to sewer. Thoroughly rinse spill area with water.
WASTE DISPOSAL METHOD:
Liquid wastes are not permitted in landfills. This product is not considered a hazardous waste under RCRA. Unusable liquid may be absorbed on an inert absorbent material (eg. Zep-O-Zorb), drummed, and taken to a chemical or industrial landfill. In some areas disposal by flushing into a sanitary sewer with plenty of water may be permissible. Consult local, state, and federal agencies for proper disposal method in your area.
RCRA HAZ. WASTE NOS.: N/A

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:
"eep product out of eyes.
ep out of the reach of children.

SECTION X - REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: INDUSTRIAL CLEANERS N.O.I.,LIQUID KEEP FROM FREEZING
NOTE: DOT information applies to larger package sizes of affected products. For some products, DOT may require alternate names and labeling in accordance with packaging group requirements.
DOT HAZARD CLASS: DOT PACKING GROUP:
DOT I.D. NUMBER: DOT LABEL/PLACARD:
EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED
EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER): NONE

(Continued on Page: 2)

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MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
02/01/98

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DA 6151
PRODUCT NAME OPEN & SHUT
PRODUCT CLASS SOLVENTS

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M^3	PEL PPM	STEL PPM
PETROLEUM DISTILLATE	64742-47-8	5-20	500	ND	ND	ND
PETROLEUM OIL	64742-52-5	5-20	ND	5	ND	ND
TRICHLOROETHYLENE *	79-01-6	50-75	50	ND	50	100
CARBON DIOXIDE	124-38-9	1-5	5000	ND	10M	30M

* THIS CHEMICAL IS SUBJECT TO S.A.R.A TITLE III SECTION 313 REPORTING

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): 165
VAPOR DENSITY: Heavier than air
EVAPORATION RATE: > Butyl Acetate
PERCENT VOLATILE (By Weight): N/A WEIGHT PER GALLON (LBS): 10.33

OPTIONAL INFORMATION:
Appearance/ Odor: Clear brown liquid, sweet odor.
Specific Gravity (Water=1): 1.24
Solubility in Water: Negligible
Vapor Pressure (mm Hg): 89
CALIFORNIA PROPOSITION 65 WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

OPEN & SHUT
DA 6151

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS ORM-D

U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: N/A

LEL: 7.0

UEL: 13.0

METHOD: TAG CLOSED CUP

AEROSOL PRODUCT: TREAT AS CYLINDER OF COMPRESSED GAS

EXTINGUISHING MEDIA: WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS:
At elevated temperatures (over 120°F) containers may vent, rupture, or burst.

SPECIAL FIREFIGHTING PROCEDURE:
Keep containers cool. Use shielding to protect personnel against bursting, rupturing or venting containers. Wear a positive pressure self-contained breathing apparatus.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:
Hydrogen chloride, oxides of carbon, and minute traces of phosgene and chlorine may be formed upon combustion or thermal decomposition.

CONDITIONS TO AVOID:
None Known.

INCOMPATIBILITY (MATERIALS TO AVOID):
Strong bases, oxidizing materials, metallic aluminum, and zinc powders.

D.O.T. EMERGENCY RESPONSE INFORMATION:
NOT APPLICABLE

LIVE-WIRE
DA 6030

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
09/01/95

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DA 6030
PRODUCT NAME LIVE-WIRE
PRODUCT CLASS CLEANERS

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M^3	PEL PPM	STEL PPM
2-BUTOXYETHANOL *	111-76-2	1-5	25	N/D	50	N/D
PROPELLANT: C3-C4 ALKANE BLEND	68475-59-2	1-10	N/D	N/D	ND	N/D

* THIS CHEMICAL IS SUBJECT TO S.A.R.A TITLE III SECTION 313 REPORTING. THE REMAINING INGREDIENTS AND THEIR PERCENTAGES ARE PROPRIETARY.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): 212
VAPOR DENSITY: LIGHTER THAN AIR
EVAPORATION RATE: SLOWER THAN ETHER
PERCENT VOLATILE (By Weight): N/A WEIGHT PER GALLON (LBS): N/A

OPTIONAL INFORMATION:
Appearance/Odor: clear, thin liquid with a mild ammonia odor.
Specific Gravity: 1.01 Soluble in water: complete. Vapor Density: <1
Evaporation Rate (Butyl Acetate=1): <1. Vapor Pressure: 18

LIVE-WIRE
DA 6030

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS N/A

U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: N/A

LEL: N/A

UEL: N/A

METHOD: TAG CLOSED CUP

AEROSOL PRODUCT: TREAT AS CYLINDER OF COMPRESSED GAS

EXTINGUISHING MEDIA: WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS:
At elevated temperatures (over 130 degrees Fahrenheit) containers may vent, rupture or burst.

SPECIAL FIREFIGHTING PROCEDURE:
Keep containers cool. Use shielding to protect personnel against bursting, rupturing or venting containers.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:
Thermal decomposition may produce oxides of carbon and nitrogen.

CONDITIONS TO AVOID:
Avoid heating to abnormal temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID):
NONE.

D.O.T. EMERGENCY RESPONSE INFORMATION:
NOT APPLICABLE

[redacted]

Appendix D

Ameren UE Correspondence

AmerenUE

CAPITAL DISTRICT
AMERENUE
P.O. BOX 1558
JEFFERSON CITY, MO 65102-1558

****

DATE: 6-22-01

PLEASE DELIVER TO: RICK WHITNEY

COMPANY: TSI

FACSIMILE NUMBER: 314-644-3135

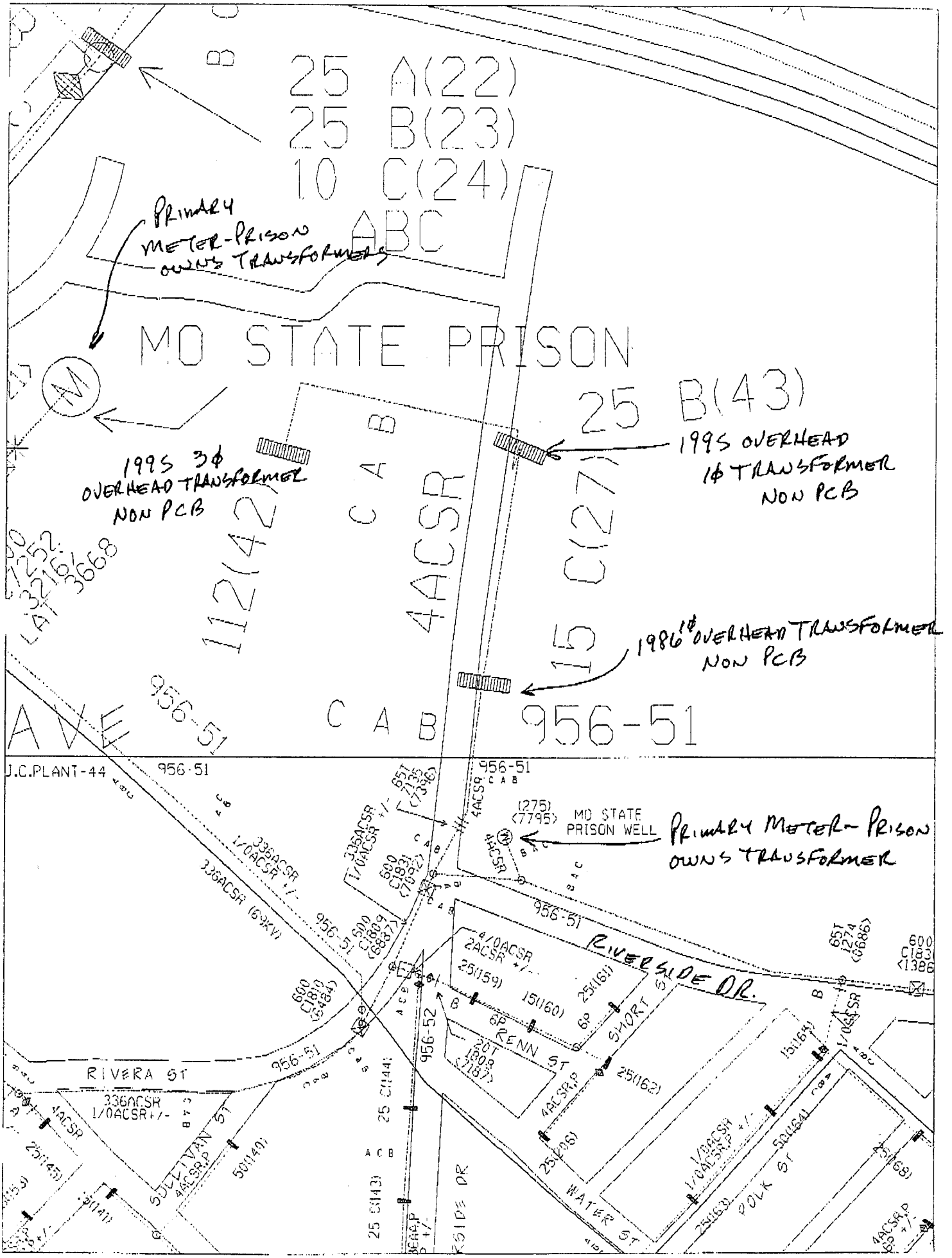
FROM: MARK LUECKENHOFF

FACSIMILE NUMBER: 573-681-7510

TELEPHONE NUMBER: 573-681-7530

PAGES TO FOLLOW: 1

MESSAGE: TRANSFORMER INFO AT SURPLUS PROPERTY 117 N. RIVERSIDE DR, JEFFERSON CITY, MO ALL NON PCB TRANSFORMERS AT THE 3 LOCATIONS WHERE OWNED BY AMEREN UE


25 A(22)
25 B(23)
10 C(24)
ABC
PRIMARY METER-PRISON OWNS TRANSFORMERS
MO STATE PRISON
25 B(43)
1995 OVERHEAD 1Φ TRANSFORMER NON PCB
1995 3Φ OVERHEAD TRANSFORMER NON PCB
1986 1Φ OVERHEAD TRANSFORMER NON PCB
112(42)
4ACSR
C27
956-51
AVE
J.C.PLANT-44
MO STATE PRISON WELL
PRIMARY METER- PRISON OWNS TRANSFORMER
RIVERSIDE DR.
RIVERA ST
SULLIVAN ST
RENN ST
SHORT ST
WATER ST
POLK ST
336ACSR 1/0ACSR +/-
336ACSR (6/1)
4/0ACSR 2ACSR +/-
1/0ACSR +/-
4ACSR
4ACSR,P
956-51
956-52

[redacted]

Appendix B

M S P

OBSERVATION OF THE ENCLOSURE WALLS
MSP
Jefferson City, MO

On the date of April 17, 2002, I visited the site of the Jefferson City Correctional Center in Jefferson City, Missouri. The purpose of the trip was to observe the condition of the enclosure walls on the east and south sides of the facility, which are experiencing some signs of deterioration as well as a partial collapse. The wall is built of locally quarried limestone and is approximately 30-36 inches thick. No testing of the material was done. In visual observation the stone is fairly dense with naturally occurring, thin visible seams in it. The height varies, but is generally in the range of 20-25 feet in height. It is three wythes thick, with the outer two wythes being cut stone and the inner wythe being rough uncoursed stone. At each coursed level of the inner and outer wythe there is a thick mortar layer which bonds the three wythes together. This can be seen as a horizontal white line in photos of the collapsed wall section. The top of the wall on the south has been extended vertically about 68 inches with a reinforced concrete section. There is a stone veneer on the exterior face of the concrete. The wall in this area is said to have been built about 1885; the extension was done at a later date. The wall is capped with a sloped layer of concrete parging, which varies from 0 to 3 inches thick. It is curved on top for drainage. For the purposes of identification, the wythe of stone on the interior of the prison will be referred to as the interior wythe and the wythe on the public side of the wall will be referred to as the exterior wythe.

The wall has two areas of concern, water infiltration and horizontal earth pressure. The two types of deterioration can be best exemplified by the damage on the east and south walls. The east wall shows several areas of water infiltration damage. The water infiltration shows up as two distinct types of damage. The stone in several areas have had the faces spalled off. Also, several portions show the entire interior face wythe to be delaminated from the inner wythe. The stone, which is laid with the natural seams running horizontally, shows less distress than those seams laid vertically. This is because the pressure of the wall weight is holding the seams in compression. The water appears to be entering the wall through the cap parging and eroded mortar joints. The water then moves vertically between wythes and is trapped inside and saturates the stone. The water inside the wall will freeze and push the outer wythe away from the inner wythe. Where the stones are spalling, the saturated stone has split at a natural seam where the water has collected and frozen.

Spalled Stone Face

Area of Wall Delamination

Cracked Concrete Cap

Cross Section of Wall Showing Construction

The wall on the south side of the facility has a large area of localized collapse. The collapse is only of the inner wythe of the stone wall. In this area the wall shows both rotation about the axis of the wall footing and a horizontal displacement between the two guard towers in the southwest corner of the facility. The wall is failing in overturning as well as possibly horizontal sliding. The damage appears to have been ongoing for many years. There are cracks associated with this movement which have been tuckpointed several years ago. The wall in this area retains 6 – 8 feet of soil; the grade being higher on the exterior side. There have been several types of utility work on the outside of the wall, which are in the influence zone of the backfill. It is possible that this utility work could have increased horizontal earth pressure on the wall, due to backfill compaction or water entering an open excavation. The wall is currently stable and is being restrained by the reinforced concrete band on the top acting as a tension strut. The portion of the wall,

which fell, appears to have delaminated from the middle and exterior wythes, which are still intact. The delamination would have been a consequence of the water infiltration as discussed in previous portions of this report. After the inner wythe was loose, it became unstable due to the angle of rotation of the entire wall. This wall should have a temporary bracing system installed to prevent overturning and complete collapse.

Collapsed Wall Section with Concrete on Top

Horizontal Displacement of Wall at Grade

Wall Rotation

To conclude, the primary cause of distress in the wall is water infiltration of the wall. The horizontal earth pressure has caused a section of the wall to rotate to the point where the loose wythe of stone collapsed. The portion of the south wall, which has partially collapsed, should be braced with a temporary frame to ensure public safety until a permanent bracing system is installed and repairs can be made. From the standpoint of economy and site logistics a steel frame on the interior side of the wall would seem to be the optimal solution. Care should be taken during the installation of the bracing to ensure the safety of the construction crew. Work should proceed from the guard towers towards the center and the concrete beam at the top should not be disturbed until the shoring is in place.

Hopefully this addresses the concerns of all regarding this structure. If you have any questions please do not hesitate to call.

Sincerely,
Wallace Engineering

Steven Huey, P.E.
Principal

[redacted]

Appendix C

M S P

February 11, 2003

MSP Redevelopment Project

A Presentation To The Citizens of

Jefferson City , Cole County and The State of Missouri

A Review and Discussion of the Framework Plan
For The
MSP Redevelopment Project

Jefferson City, Missouri

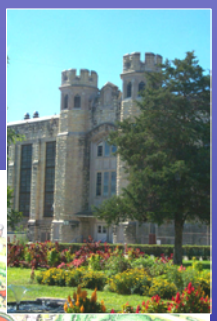
The State of Missouri . Division of Design & Construction

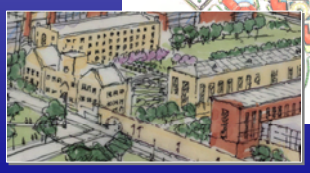
Framework Plan

MSP Redevelopment Project

Review

- The Planning Process
- The Consensus Plan
- Market Analysis
- Architectural Elements
- Engineering Elements
- Environmental Elements
- The Master Plan





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Process Definition Plan

MSP Redevelopment Project

The Preamble

"The Planning Process is On-going"

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Process Definition Plan

MSP Redevelopment Project

Consensus Plan

Task Force Results
Concepts, Values and Priorities

- Part A – Historic Value of the Property
- Part B – Historic Value of the Buildings
- Part C – Planning Values
- Part D – Potential Uses

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Process Definition Plan

MSP Redevelopment Project

Consensus Plan

Review & Input

- Task Force Review & Input
- Public Comment
- Planning Advisory Team


Jefferson City
News Tribune
Online Edition

Thursday, November 16, 2000

Multiple uses seen for seven areas in prison plan

By KRIS HILGEDICK
News Tribune

After 16 months of work by task force members and architectural consultants, a consensus plan has

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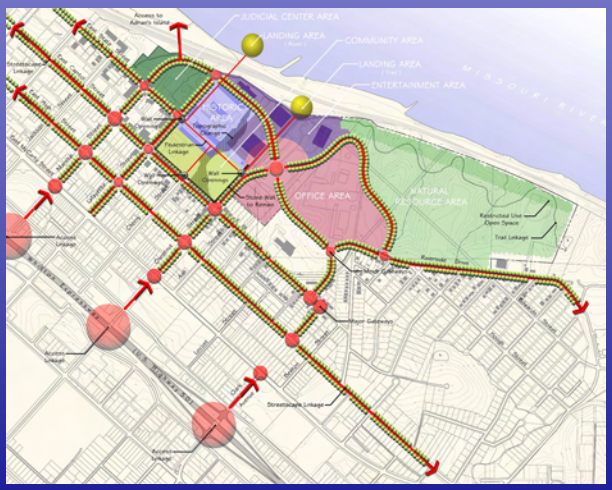
Process Definition Plan

MSP Redevelopment Project

Consensus Plan *Program Statement*

Program Statement

- Historic Area
- Judicial Center Area
- Community Area
- Office Area
- Landing Area
- Entertainment Area
- Natural Resources Area
- Additional Program Items



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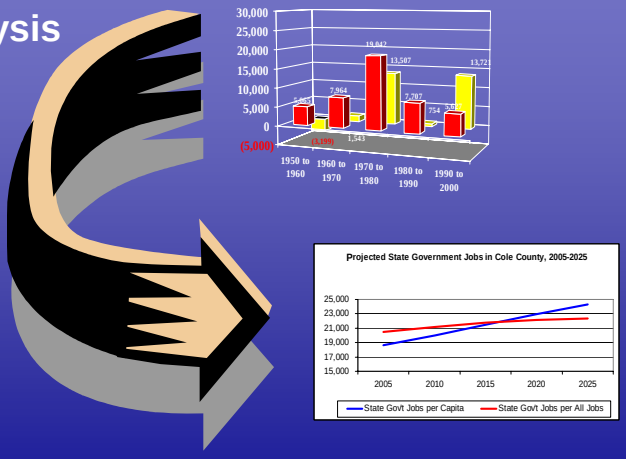
Framework Plan

MSP Redevelopment Project

Market Analysis

Market Analysis



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Framework Plan

MSP Redevelopment Project

Market Analysis

Methodology and Rationale

- Realistic basis for planning and financing
- Projections of market absorption and timing
- Analysis of regional, state & national economic context
- Interviews of public and private officials
- Correlations of past growth with data indicators
- Projections of growth based on indicators
- Conversion of trends to building and land area needs

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Framework Plan

MSP Redevelopment Project

Market Analysis

Cole County Office & Related Projections

- **Mid-Missouri should continue to attract population and job holders.**
  - *~Attraction is key because of low unemployment rate.*
- **Impetus is continued growth of state government employment.**
  - *~Strong multiplier effect creates jobs in other sectors.*
- **State government will grow because state population will grow.**
  - *~More government jobs will be needed to support more residents.*
- **Net state office space growth in Cole County should range from 755,000 to 935,000 square feet by 2025.**
  - *~Total state office space in the county would be around 3.3 million square feet by 2025.*
  - *~Possibly more square feet if historic trends prevail.*
- **Private market would add 600,000 sf of office space.**

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Framework Plan

MSP Redevelopment Project

Market Analysis

Conditions for Success: Public Assembly Facility

- **Center of State Government**
- **Statewide and Mid-America associations growth**
  - ~ **Religious**
  - ~ **Social**
  - ~ **Professional**
  - ~ **Athletic**
  - ~ **Political**
- **Central location, Ease of Access**
- **State economic growth: More reasons to meet**
- **Sufficient and convenient hotel rooms**

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Framework Plan

MSP Redevelopment Project

Market Analysis

Public Assembly Facility

- **Single Open Floor Space to Accommodate up to 2,500 participants**
  - ~ Exhibits
  - ~ Ballroom
  - ~ Large group meetings
- **Separate, Divisible Meeting Areas**
  - ~ 10-15 rooms
  - ~ Combinable
- **Possible performing arts venue**
- **Full service kitchen**
- **Large and well-appointed lobby and pre-event area**
- **Appropriate number of parking spaces**

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Framework Plan

MSP Redevelopment Project

Market Analysis

Conclusions

- **Jefferson City area needs more sites for office development**
  - ~ State government alone could *add* over 750,000 square feet by 2025
  - ~ Private market adds perhaps another 600,000 square feet
  - ~ Plus land for campus settings, parking, road system
- **Public Assembly Facility appears to be a crucial need for accommodating demand & diversifying the local economy**
  - ~ Need to resolve location issues
  - ~ Absolutely need support good quality and walkable hotel rooms
- **MSP site offers solutions to these opportunities**
  - ~ Little else will be ready and available in time
  - ~ Fulfills Governor's order to concentrate state facilities in existing cities (Smart Growth philosophy)

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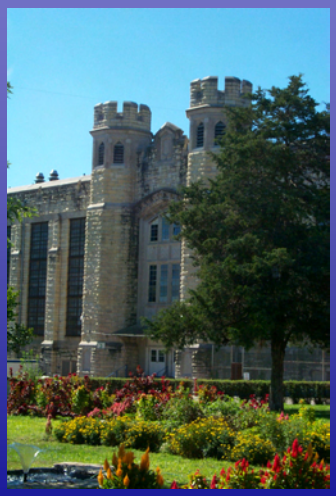
Framework Plan

MSP Redevelopment Project

Architectural Elements

Architectural Elements



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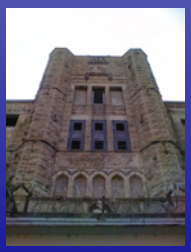
Framework Plan

MSP Redevelopment Project

Architectural Elements

Task Force Evaluation

- Top 10 Buildings with Historical Value
  1. Housing Unit 4
  2. Housing Unit 1
  3. Housing Unit 3A & 3B
  4. The Wall & Towers (Upper Yard)
  5. Gas Chamber
  6. Centennial Cells
  7. I-Hall
  8. The Wall & Towers (Lower Yard)
  9. Shoe Factory
  10. Potato House



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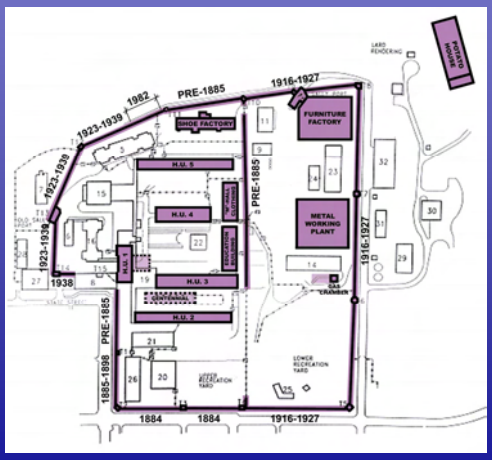
Framework Plan

MSP Redevelopment Project

Architectural Elements

Buildings Analyzed



- Housing Unit 1
- Housing Unit 2
- Housing Unit 3
- Housing Unit 4
- Housing Unit 5
- Shoe Factory
- Furniture Factory
- Metal Working Plant
- Centennial Cells
- Gas Chamber
- Potato House
- Education Building & Maintenance Building
- Stone Walls

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Framework Plan

MSP Redevelopment Project

Architectural Elements

Buildings Re-Use

- 3 APPROACHES TO BUILDING RE-USE
  - ~ Preserve & Restore (HU 4)
  - ~ Combination Restore and Adaptive Re-Use (HU 1)
  - ~ Adaptive Re-Use (HU 2)


(HU 4)


(HU 1)


(HU 2)

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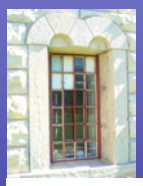
Framework Plan

MSP Redevelopment Project

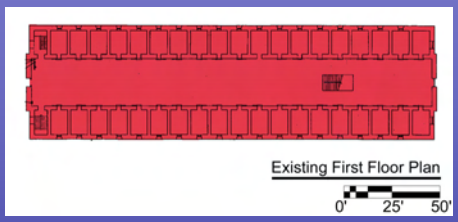
Architectural Elements

Housing Unit 4

Existing Information



View of typical window



Interior View

View from Northwest

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Framework Plan

MSP Redevelopment Project

Architectural Elements

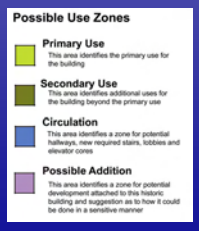
Housing Unit 4 Possible Uses

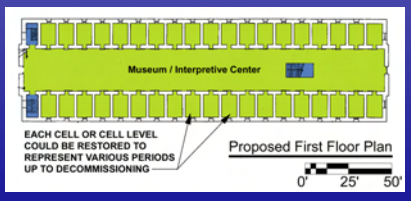
Redevelopment Issues

1. What period should the building be restored? Many modifications have occurred to the building since it's construction.
2. It appears that the roof overhang and soffits were removed exposing brick backup material above the stone walls, these should be restored.
3. Stone restoration will be necessary. There are crushed stones at various locations and missing stone mullions in the window openings that should be restored.
4. Integrating modern mechanical systems could be completely hidden. The extent to which this is done will be dependant on the interpretive philosophy for this building.

Potential Uses

1. Prison Museum / Interpretive Center. Each floor level could be restored and furnished to represent distinct time periods of prison life as shown in the Alternate Section above.





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Framework Plan

MSP Redevelopment Project

Architectural Elements

Architectural Summary

1. Preserving the context of the site from a “public” view and a “user” view

2. Preserving the “Essence of the Prison”

3. Potential Building Uses Based On:
   - Structural Considerations
   - Architectural/Historic Value
   - Consensus Plan Proposed Land Uses

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Framework Plan

MSP Redevelopment Project

Engineering Elements

Engineering Elements

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Framework Plan

MSP Redevelopment Project

Engineering Elements

Findings

- Existing Infrastructure Minimal and Antiquated
- Building Systems (MEPF) are not suitable for commercial development

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Framework Plan

MSP Redevelopment Project

Engineering Elements

Findings

- New Utility Infrastructure required
  - Electric
  - Gas
  - Water
  - Sewer
  - Data/Communications

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Framework Plan

MSP Redevelopment Project

Environmental Elements

Environmental Elements

...Understanding the basics

The Built Environment

The Natural Resources

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Framework Plan

MSP Redevelopment Project

Environmental Elements

Environmental Investigations *...the Built Environment*

- Site Investigations
- Building Investigations
- HazMat Testing
- Records Search
- Interviews
- Phase I Environmental Assessment

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Process Definition Plan

MSP Redevelopment Project

Consensus Plan *Program Statement*

Program Statement

- Historic Area
- Judicial Center Area
- Community Area
- Office Area
- Landing Area
- Entertainment Area
- Natural Resources Area
- Additional Program Items

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Framework Plan

MSP Redevelopment Project

The Master Plan *Updated Program Statement*

Program Statement

- MSP Historic Area
  (Historic Area & Community Area)
- Public Service Campus
  (Judicial Center Area)
- Public Assembly Campus
  (Entertainment Area & Landing Area)
- Office Campus
  (Office Area)
- Natural Resources Area

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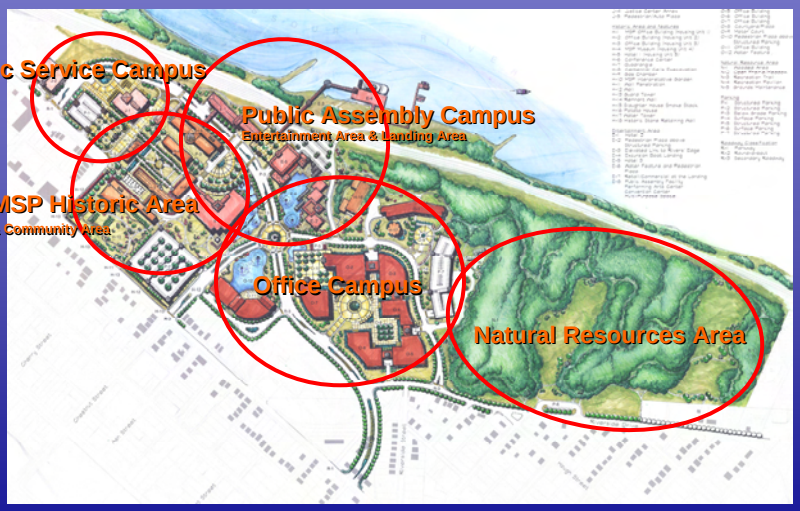
Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*



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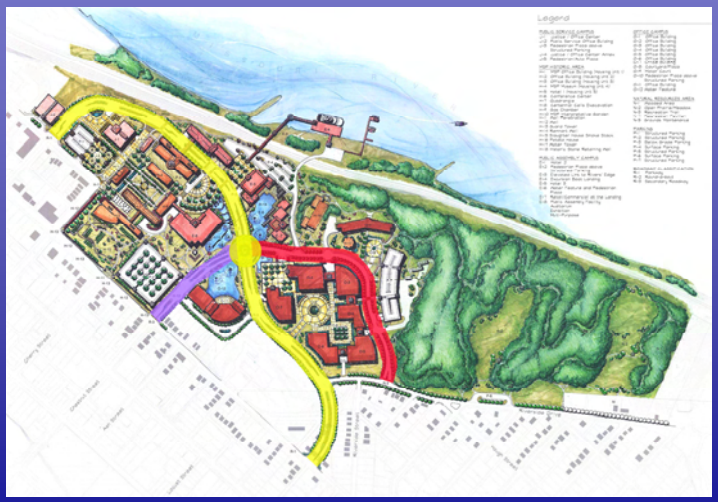
Framework Plan

MSP Redevelopment Project

The Master Plan *Vehicular Circulation*



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Framework Plan

MSP Redevelopment Project

The Master Plan *Parking*

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Framework Plan

MSP Redevelopment Project

The Master Plan

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Framework Plan

MSP Redevelopment Project

The Master Plan *Vehicular Circulation*

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Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*

Program Statement Summary

Master Plan District	Proposed/Reuse Area	Master Plan Parking	
• **MSP Historic Area**	310,048 GFA	600 Structured Spaces	P-2
• **Public Service Campus**	225,000 GFA	485 Structured Spaces	P-1
• **Public Assembly Campus**	605,500 GFA	650 Structured Spaces	P-2
		100 Structured Spaces	P-3
		300 Structured Spaces	P-3
		250 Surface Spaces	P-4
• **Office Campus**	1,000,000 GFA	850 Structured Spaces	P-5
		600 Structured Spaces	P-7
• **Natural Resources Area**	NA	15 Surface Spaces	P-6
Total Master Plan	**2,140,548 GFA**	**3,850 Spaces**	

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MSP Redevelopment Project

The Master Plan *Program Statement*

MSP Historic Area

Administration Building (HU #1)
Museum/Interpretative
MSP Commission Offices
Redevelopment Office
Support Retail / Commercial
Tourist Information Center
Film Site or Studio
Educational

Office Building (HU #2)
Corrections Offices
New Building Addition

Centennial Cells
Historic Display

Office Building (HU #3)
State Offices
Record Storage
Prison Museum (40%)

MSP Museum (HU #4)

Conference Center
Historic Dining Hall (Basement)
Power Plant (Basement)
Dining Rooms & Kitchen
Conference Center

The Wall
Guard Tower Reconstruction
The Old Wall
Pedestrian Openings
Vehicular Openings

The Gas Chamber

Community Area
MSP Interpretative Garden
Pedestrian Linkages
Open Space
Urban Plaza (interpretative plaza)

Total - MSP Historic Area 310,048 GFA 600 Structured Spaces P-2

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Framework Plan
MSP Redevelopment Project
The Master Plan
MSP Historic Area
East State Street
East Capitol Street
East State Street
Lafayette Street
East Capitol Street
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Framework Plan
MSP Redevelopment Project
The Master Plan
MSP Historic Area
H-1
H-4
H-2
H-3
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Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*

Public Service Campus

Justice/Office Center
Court Rooms
Offices
Holding Space

Public Service Office Building
Private Office Space
Support Retail/Commercial
Art Gallery
Science Center

Justice/Office Center Annex
Administrative Offices
Library
Museum

Other
Streetscape
Pedestrian Entry Plaza

Total - Public Service Campus 225,000 GFA 485 Structured Spaces P-1

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Framework Plan

MSP Redevelopment Project

The Master Plan *Public Service Campus*

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Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*

Public Assembly Campus

Hotel #1 (HU #5)
Hotel (250 Rooms)

Hotel #1 Conference Center
Building Addition
Meeting Rooms

Hotel #2
Hotel (275 Rooms)

Hotel #3
Hotel (275 Rooms)

Public Assembly Facility
Auditorium *(25,000 sf)*
Exhibition *(70,000 sf)*
Multi-Purpose Space *(25,000 sf)*
Support *(5,000 sf)*

The Landing
Support Tourism Retail Shops
Restaurants
Excursion / Riverboat Landing
Observation Deck / Tower (Pedestrian Only)
Amtrak Station
Pedestrian Linkages & Access to Adrian's Island

Potato House
Commercial / Retail
Farmers Market
Interpretative Center
Trail Head
Greenway Trail Connection

Other
Streetscape
Public Plaza & Pedestrian Linkages
Open Space, Lakes & Fountains

Total – Public Assembly Campus 605,500 GFA 1300 Spaces

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Framework Plan

MSP Redevelopment Project

The Master Plan *Public Assembly Campus*





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MSP Redevelopment Project

The Master Plan *Public Assembly Campus*

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Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*

Office Campus

State Government Office (750,000 GFA)
General Office Space *(550,000 sf)*
DNR Green Building *(120,000 sf)*
Health Lab *(80,000 sf)*
Support Commercial / Retail
Service Area
Shuttle Access

Private Business Office (250,000 GFA)
General Office Space
Support Commercial / Retail
Service Area
Shuttle Access

Other
Streetscape
Public Plaza
Pedestrian Linkages
Transportation Linkages

Total – Office Campus 1,000,000 GFA 1450 Spaces

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Framework Plan
MSP Redevelopment Project
The Master Plan Office Campus
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Framework Plan
MSP Redevelopment Project
The Master Plan Office Campus
The exterior profile of the green office building helps capture and reflect light into the building significantly reducing the need for interior lighting.
H-16
O-1
H-17
O-9
O-2
O-3
H-18
P-7
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Framework Plan

MSP Redevelopment Project

The Master Plan *Program Statement*

Natural Resources Area

Grounds Maintenance
Riverfront Park
Active and Passive Recreation
Picnic Areas
Public Land Open Space
Greenway Trail Connection
Botanical Gardens
Amphitheater
Reserve Land For Future

Total – Natural Resources Area	NA	15 Surface Spaces	P-6

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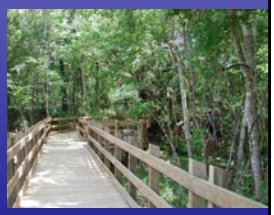
Framework Plan

MSP Redevelopment Project

The Master Plan *Natural Resources Area*



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Framework Plan

MSP Redevelopment Project

The Master Plan

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Framework Plan

MSP Redevelopment Project

The Next Steps

The Next Steps

Planning + Design

Archeological Investigations (I & II)
DNR Site
Lab Site
Remaining Site

Phase II Archeological Investigations
Remaining Site

Natural Resource Analysis
Flora & Fauna
Threatened & Endangered

Historic Designations
Section 106 - Districts, Buildings & The Wall

Environmental Investigation (I & II)
Remaining Site

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Framework Plan

MSP Redevelopment Project

The Next Steps

The Next Steps

Planning + Design

Decommission Existing Facility
Demolition Phasing Plan (timeline / strategies)

Site & Building Demolition Plan
Demolition Material Recycle
Wall Stabilization

New & Existing Infrastructure
New & Existing Infrastructure Implementation Plan

Historic District Heating/Cooling

Site Improvements
On-site Road Plan
Parking Plan
Grading Plan
Landscape Plan

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Framework Plan

MSP Redevelopment Project

The Next Steps

The Next Steps

Planning + Design

Implementation Strategies & Planning
Site & Architectural Design Guidelines
Delivery Systems Guidelines
Design / Build
Lease Purchase
Conventional
Phasing Plan
Facility Interim Use
Public Access
Decision Timeline

Financial Guidelines & Planning
Project Feasibility
Development Fees
Development Incentives
Funding
Revenue Generation

Surplus Property Relocation
Relocation Program
Site Selection

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Framework Plan

MSP Redevelopment Project

Questions & Answers

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Framework Plan

MSP Redevelopment Project

The Master Plan

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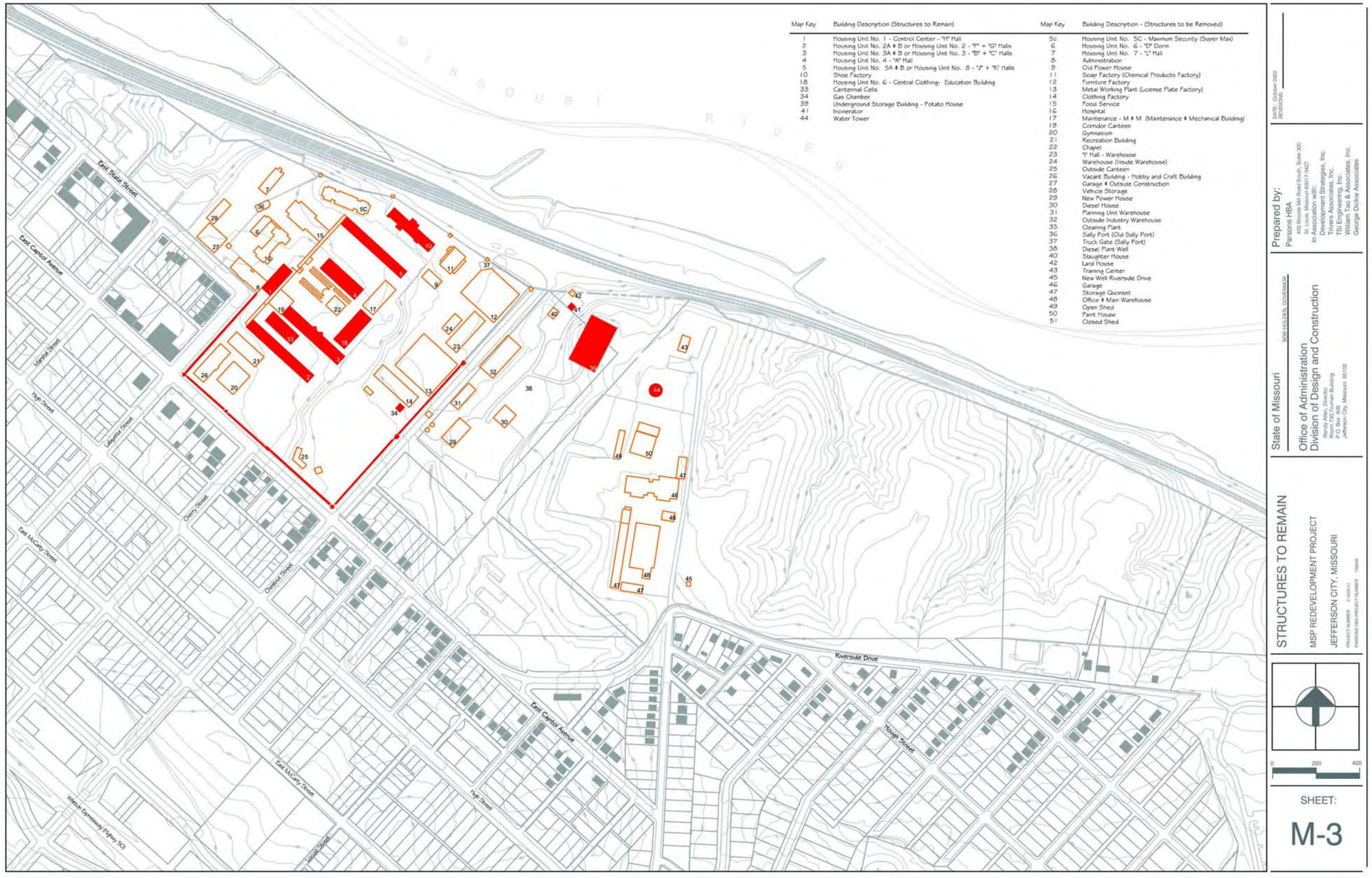
[redacted]

Appendix D

M S P

The Master Plan



Map Key	Building Description (Structures to Remain)
1	Housing Unit No. 1 - Control Center - "H" Hall
2	Housing Unit No. 2A & B or Housing Unit No. 2 - "F" + "G" Halls
3	Housing Unit No. 3A & B or Housing Unit No. 3 - "D" + "C" Halls
4	Housing Unit No. 4 - "A" Hall
5	Housing Unit No. 5A & B or Housing Unit No. 5 - "J" + "K" Halls
10	Shoe Factory
16	Housing Unit No. 6 - Central Clothing- Education Building
33	Centennial Cells
34	Gas Chamber
39	Underground Storage Building - Potato House
41	Incinerator
44	Water Tower

Map Key	Building Description - (Structures to be Removed)
5c	Housing Unit No. 5C - Maximum Security (Super Max)
6	Housing Unit No. 6 - "D" Dorm
7	Housing Unit No. 7 - "L" Hall
8	Administration
9	Old Power House
11	Soap Factory (Chemical Products Factory)
12	Furniture Factory
13	Metal Working Plant (License Plate Factory)
14	Clothing Factory
15	Food Service
16	Hospital
17	Maintenance - M & M (Maintenance & Mechanical Building)
19	Corridor Canteen
20	Gymnasium
21	Recreation Building
22	Chapel
23	"I" Hall - Warehouse
24	Warehouse (Inside Warehouse)
25	Outside Canteen
26	Vacant Building - Hobby and Craft Building
27	Garage & Outside Construction
28	Vehicle Storage
29	New Power House
30	Diesel House
31	Planning Unit Warehouse
32	Outside Industry Warehouse
35	Cleaning Plant
36	Sally Port (Old Sally Port)
37	Truck Gate (Sally Port)
38	Diesel Plant Well
40	Slaughter House
42	Land House
43	Training Center
45	New Well Riverside Drive
46	Garage
47	Storage Quonset
48	Office & Main Warehouse
49	Open Shed
50	Paint House
51	Closed Shed

The Master Plan

The Master Plan

The Master Plan

Proposed Master Plan Looking West