DEPARTMENT OF MILITARY & VETERANS AFFAIRS

5-Year Capital Outlay Budget Plan
FY 2023-2027
October 29, 2021

I. Michigan National Guard

A. Mission Statement

As the National Guard, we strive to be fully manned, trained, and equipped to accomplish domain convergence during any assigned State or Federal mission. Critical to our overall readiness remains the construction of new modern facilities. Our ability to improve Readiness Centers (RC) by means of Sustainment, Restoration & Modernization and improve and construct Readiness Centers by military construction (MILCON) are integral to mission accomplishment, our ability define the nation, and protecting the lives and property of the State of Michigan's citizens.

B. Programming Changes

Because of anticipated competition for federal and state funds, CFMO has been proactive in contracting master plans for our two training sites, our airfield, our readiness centers and our facility maintenance shops. With these initiatives, CFMO is developing short, mid and long term goals that are aligned with the DMVA Strategic Plan. This will include upgrading and right-sizing readiness centers and facility maintenance shops statewide, and where practical, purchasing of buildings that meet our requirements and location needs. At Camp Grayling, we will be focusing on achieving the classification of an ARNG "Director's Pick" training location. This title recognizes the installation as a key ARNG readiness building location, increasing the potential for MILCON projects needed to achieve key outcomes within the DMVA Strategic Plan. This will enable it to provide training for regional states' National Guard units, United States Army Reserve units and the Active Component. As this occurs, we will focus on developing Fort Custer's capacity for increased numbers of squad level missions and overflow from Camp Grayling.

C. Facility Assessment

a. Overview. MIARNG operates and maintains 39 readiness centers, 9 maintenance facilities, 4 aviation facilities, and training installations at Camp Grayling and Fort Custer.

b. Facility Age. MIARNG readiness centers range in age from 67 to less than 7 years old. The functional life-span of a readiness center is 50 years. The chart below provides a breakdown of the range of age of active readiness centers.

Over 50 years old	12
26-50 years old	16
10-25 years old	7
Less than 10 years old	4

c. Property size. MIARNG readiness centers are situated on parcels that range in size from 2 acres to more than 58 acres. The National Guard Bureau standard for acreage for readiness centers is no less than 15 acres with 20 acres being desirable. The chart below provides a breakdown on the range of size of our active state-owned readiness center acreage:

2-14 acres	26
15-20 acres	2
More than 20 acres	11

d. Utilization Rates. National Guard Bureau Pamphlet 415-12, Army National Guard Facilities Allowances, prescribes size and utilization of space in readiness center. In all but the most recently constructed readiness centers, the number and size of classrooms, offices, locker rooms, food preparation and storage areas are significantly below the standard, resulting in grossly inadequate facilities.

e. Functionality. Due to changing political climate and war on terror, the military unit force structure has also increased. Since many of the MIARNG's readiness centers have reached their life-span, they need to be extensively upgraded to meet current codes, technological infrastructure, accessibility standards and logistical mission requirements to match the increases in operations tempo. Most of the readiness centers are not large enough to provide the classroom, storage, locker room, office, administrative space and fire protection required to meet these standards. Changes in training technologies have placed additional emphasis on simulators and other computer-aided training requiring increased electrical and data infrastructure. The building shell at these readiness centers continues to be of serious concern. The roofs, boiler systems, windows, doors, and other internal infrastructure continue to age and degrade requiring more and more repairs to keep them in service. Additionally, over 38% of the readiness centers were built prior to 1972; the first year women were permitted to enlist into the Army National Guard, and were not designed to accommodate both genders. In 2015, the Secretary of the Army issued Army Directive 2015-43 which requires Commanders to designate a private space, other than a restroom, with locking capabilities for a Soldier to breastfeed or express milk. This space must include a place to sit, a flat surface (other than a floor) to place the pump on, an electrical outlet, and access to a safe water source within reasonable distance from the lactation space. Only one readiness centers meets this directive, so included within our readiness center modification plan is to provide lactation space.

f. Replacement Value. The current plant replacement value for our readiness centers is $521,639,259. However, the replacement value of the existing infrastructure must take into consideration the changes in military force structure and unit composition mentioned in Para C(e) above. Therefore, replacement readiness centers will be larger and have additional required features and capabilities. The estimated replacement cost of all active state and federally-owned readiness centers is provided in the following chart (chart does not include the JFRC Headquarters Readiness Center).

Type of Readiness Center	Number	Cost Per Readiness Center	Total Cost
Single Unit Readiness Centers	22	$14 million	$308 million
Multiple Unit Readiness Centers	16	$20 million	$320 million
Total	38		$628 million

g. Facilities Utilities Systems. In most instances, utilities (electric, gas, water/sewer, and telephone) for each complex are provided by private or public utility companies. These companies are responsible for upgrade and maintenance of systems to the point of delivery. Upgrade and maintenance of the internal utility infrastructure (heating, ventilating, and air conditioning systems, water pipes, electrical lines, etc.) are the responsibilities of the MIARNG. Because of the age of many of the readiness centers, there are continuous repair and maintenance requirements for internal utility systems to include work to meet code requirements. Unless the older readiness centers are replaced, extensive repairs are anticipated to electrical, heating and plumbing systems. Repair and maintenance cost estimates for the next five years can be found in Para D(b).

In a continued effort to effect energy efficiency, we utilize numerous energy reduction measures when designing new or remodeled facilities. These measures also help in meeting the energy reduction goals that are set forth by the federal government requirements. They include such actions as installing lighting fixtures with occupancy sensors, LED lights in facilities, motion sensors in parking lots, double pane windows, high efficiency boilers, increasing the roof and wall insulation R factors, installing demand control ventilation systems, micro grid, and low-flow flush valves on bathroom fixtures. We continue to install advanced meters in our facilities, as federal funding is received, to more accurately measure utility consumption. During FY20, we hired a Sustainability Manager and awarded another phase of our energy audit contract.

Energy resiliency and independence is also a focus for our facilities. Within the next 5 years, we will focus on identifying the highest risks to critical operations and identify cost-effective measures to reduce risks based on the Army "Net Zero Strategy". We will determine focus areas and goals related to endangered species restoration, migratory birds, invasive species, contaminants cleanup, and wetland restoration on our training installation. We will reduced energy intensity (energy consumed per gross square foot) by 25% and reduce reliance on consumption of petroleum fuels for ground fleet by 30% and we will document compliance on Integrated Natural Resources Management Plan for at least five years.

h. Condition of Facility Infrastructure. The primary supporting infrastructure surrounding each readiness center is parking surfaces. These include paved and unpaved, Government Owned Vehicle (GOV) and Privately Owned Vehicle (POV) areas. At 31 of our readiness centers, the GOV and POV parking areas do not meet National Guard Bureau criteria. In

inclement weather, movement of heavy vehicles on these surfaces cause substantial damage and requires subsequent repair of the parking areas as several are in general degradation status and all 31 are rated poorly. As units are modernized and become more mobile, additional parking requirements for organizational equipment is generated. The required fenced, secure parking areas with security lighting is inadequate. At older locations with minimal acreage, there is insufficient space for GOV and POV parking.

i. Adequacy of utilities and infrastructure. As outlined in Paras C(g) and C(h) above, several readiness centers require repair and preventive maintenance, including replacement of infrastructure (utilities, roofs, boilers, windows, doors, flooring), in order to prevent failure of the structural component.

j. Capacity for future development on existing land. In some instances, adequate acreage exists to replace readiness centers at the same locations. However, for many of the readiness centers exceeding their useful life-span, there is no available space for replacement or future development. Most of these readiness centers are in the built-up areas of the communities.

D. Implementation Plan

It is the intent of the Adjutant General of Michigan that the Michigan Army National Guard will systematically renovate older facilities with major condition and/or configuration deficiencies with modern and energy efficient facilities. We will strive to enhance existing facilities by bringing them into compliance with current standards, and being more energy efficient. Further, within our existing armories we have positioned our formations throughout the State to best support our Recruiting and Retention missions. However, we must divest some exiting facilities and invest in new facilities to meet Michigan's changing demographics. Obsolete and excess facilities shall be disposed of in accordance with federal and state regulatory requirements and law.

a. Facility Replacement.

1) New Construction. These projects construct National Guard facilities that support individual and collective training, administrative, automation, and communications and logistical requirements for the MIARNG. These projects will achieve the TAG's goals and objectives by constructing new facilities that will consolidate units. These projects address gross deficiencies in quality and mission functionality while providing a safe environment for equipment security and accountability. These projects optimizes the MIARNG's ability to recruit and retain Soldiers, and to train and successfully mobilize units. Funding these projects will eliminate the continued use of inadequate facilities which degrade unit morale and impedes critical training requirements to support the homeland and unit deployments.

a. In support of the DMVA Strategic Plan dated 20210310, the potential MILCON projects are as follows:

i. Priority Number 0001, National Guard Readiness Center, Wayne County, MI. Occupy new addition to existing Readiness Center NLT 1 January 2030. Purchase property NLT 2022 and secure State match funding NLT 2027. The estimated total cost of the project is $36,000,000.00 with the State's contribution equal to 25% of the total cost.

ii. Priority Number 0002, National Guard Readiness Center, Macomb County, MI. Occupy new Readiness Center NLT 1 July 2030. This facility will be built on State land with opportunity for a dual-use campus with MVH (see MVH 5 year plan). Purchase property NLT 2023 and secure State match funding NLT 2027. The estimated total cost of the project is $36,000,000.00 with the State's contribution equal to 25% of the total cost.

iii. Priority Number 0003, National Guard Readiness Center, Kent County, MI. Occupy new Readiness Center NLT 1 July 2030. This facility will be built on State land. Purchase property NLT 2024 and secure State match funding NLT 2027. The estimated total cost of the project is $36,000,000.00 with the State's contribution equal to 25% of the total cost.

iv. Priority Number 0004, National Guard Readiness Center, Genesee County, MI. Occupy new Readiness Center NLT 1 January 2035. This facility will be built on State land with opportunity for a dual-use campus with MVH (see MVH 5 year plan). Purchase property NLT 2028 and secure State match funding NLT 2033. The estimated total cost of the project is $36,000,000.00 with the State's contribution equal to 25% of the total cost.

2) Facilities Sustainment and Modernization. These projects sustain and modernize our existing facilities to implement new or higher standards, to accommodate new functions, or to replace building components that typically last more than 50 years. The federal government/state government cost share is typically 75% / 25% of the total estimated cost. The projects listed below identify those on our 5 year plan to modernize:

SITE	DESCRIPTION	STATE $	FEDERAL $
Battle Creek	Flight facility >*Supports new aircraft*	$2,900,000	$11,300,000
Waterford	Armory modernization >Provide current standard facility	$600,000	$1,800,000
Kalamazoo	Armory modernization >*Provide current standard facility*	$1,262,500	$3,787,500
Washtenaw	Armory modernization >*Provide current standard facility*	$1,100,000	$3,300,000

Battle Creek	Support Facility *>Supports unit movement*	$600,000	$1,800,000
Traverse City	Armory modernization *>Provide current standard facility*	$600,000	$1,800,000
Port Huron	Armory modernization >Provide current standard facility	$750,000	$1,500,000
Lansing	Armory modernization *>Provide current standard facility*	$1,650,000	$4,950,000
	TOTALS:	$9,462,500	$30,237,500

b. Facility Infrastructure Upgrade/Repair/Maintenance. Many of our readiness centers require upgrading to meet ADA, training, and functionality requirements. Other locations require upgrade of readiness center infrastructure in order to reduce resultant repair/maintenance costs. The federal government provides reimbursement to the state, normally 50/50, for maintenance repairs on state owned facilities. As existing facilities continue to age and deteriorate, repair and maintenance requirements will increase. The following repair/maintenance cycle chart provides details for each**:**

Type of Project	**# per year**	**FEDERAL $**	STATE $
Boiler replacement	2	$100,000.00	$100,000
HVAC replacement	2	$100,000.00	$100,000
Roof replacement	2	$150,000.00	$150,000
Door repair/replacement	3	$50,000.00	$50,000
Ventilation Improvements	2	$90,000.00	$90,000
Masonry Repairs	1	$50,000.00	$50,000
Replace Fire Alarms	2	$150,000.00	$150,000
Lighting Repair/Replacement	4	$110,000.00	$110,000
Install Generator	3	$225,000.00	$225,000
Force Protection Improvements	4	$3,000,000.00	$3,000,000
Electrical Upgrades	1	$50,000.00	$50,000
Fuel Tank Replacement	1	$77,500.00	$77,500
Loading Dock	1	$25,000.00	$25,000
Water System Repairs	1	$50,000.00	$50,000
TOTALS		$4,227,500.00	$4,227,500

c. Real Property Acquisitions. National Guard Bureau approval is required for Readiness Center acquisition or new construction since they are authorized by law to be funded 75% federal and 25% state. Real estate may not be considered within the state share; therefore, the State must provide ownership in property in fee.

SITE	**DESCRIPTION**	**STATE $**
Ingham County	Property purchase >Supports new Readiness Center	$3,000,000
Woodland Correctional Facility	Property purchase >Supports new Readiness Center	$3,000,000

Wayne County	Property purchase >Supports new Readiness Center	$3,000,000
Macomb County	Property purchase >Supports new Readiness Center	$5,000,000
Kent County	Property purchase >Supports new Readiness Center	$5,000,000
Genesee County	Property purchase >Supports new Readiness Center	$4,000,000
	TOTAL	$23,000,000

The Michigan National Guard is looking to acquire additional land around the runway at Selfridge ANG Base in Macomb County. MING is competing to bring the KC-46 to Michigan, but as the property stands now, we would not meet the requirement. The KC-46 is an aerial fuel transport. MING would need to acquire 3 pieces of property:

SITE	DESCRIPTION	FED $	STATE $
1A. Chesterfield Towne Center (6.7 acres)	Property purchase >Shift runway to the North	$0	$2,000,000
1B. Land Conservancy (6.2 acres)	Property purchase >Shift runway to the North	$0	$100,000
2. Brigantine Estates (27.1 acres)	Property purchase >Prevent further encroachment	$2,000,000	$2,000,000

d. Impact of addressing infrastructure repairs and upgrades over time. With an adequate long range Capital Outlay Plan, the MIARNG can program the replacement of aging and deteriorating readiness centers, thus deferring or rescheduling infrastructure repair, maintenance, and upgrade projects. However, some of the repairs accomplished each year are of an emergency nature, where deferment would cause further damage or create a safety risk.

1) Addressing infrastructure repairs or upgrades includes maintaining and/or improving the facilities, which are utilized not only by National Guard members during training assemblies, but for emergency use for domestic operations. Properly maintained facilities reflect positively on the image of the Michigan Army National Guard and the Michigan Department of Military and Veterans Affairs. Unsafe environments are reduced, thereby creating a better environment for our soldiers, families, and community. By completing the program repairs, it positively affects the ability of assigned units to conduct required training and increase their readiness.

2) Addressing infrastructure repairs and upgrades over time fall in line with the DMVA's personnel model and federal funding amounts, as we do not have the personnel or federal matching resources to address all infrastructure deficiencies immediately. Additionally, if the Department were to request funding and schedule all repair/upgrade requirements immediately, there would be an adverse effect on the ability of units to conduct training if many of our readiness center were undergoing extensive repairs/upgrades.

e. Rate of Return on Expenditures - The Capital Outlay Budget Plan will provide the following operational savings:

1) Unit Readiness - By completing the program repairs, it positively affects the ability of assigned units to conduct required training and increase their readiness. The new construction and property purchases will better align with our demographics to fully resource personnel.

2) Utility Savings - The MIARNG has realized a savings in utility costs because of its ongoing efforts to replace non-energy efficient roofs, windows, doors, and heating systems. The scheduled replacement of these items in selected readiness centers over the next five years will further enhance the savings. It is estimated that the rate of return due to the upgrade of utility components is 18% per year, thus recovering investment costs in just 4 years. As energy audits occur, more detailed information will be available.

3) Readiness Center Replacement - The capital investment of replacing older readiness centers is recouped during the first 20 years of the life of the readiness centers. In many instances, the DMVA has spent many times more than the state's share of new readiness center construction in repairs/maintenance costs.

4) Energy Resiliency and Independence. Will allow for continuing state and federal operations in the event of utility company-provided electrical, water, gas and sewer are disrupted in the result of natural or manmade events.

II. Michigan Challenge Programs

Background
The Michigan Youth Challenge and Job Challenge academies educate, train, and mentor at-risk youth in a quasi-military environment at no cost to participants, giving young people the skills to become productive and responsible citizens. Applying the military model to alternative education, the programs promote competency development through academic opportunities, life skills, and vocational preparation.

Programming Changes
It is the intent of the department to design, construct and furnish a 139,000 square foot Michigan Challenge Program campus to co-locate the Youth Challenge and Job Challenge programs in one facility that supports training, administrative, and logistical requirements for the MIARNG. This facility will be built on federal land at Fort Custer. The total estimated cost is $42 million.

Facility Assessment
Michigan Youth Challenge currently operates out of a building near Fort Custer leased from USDVA; Michigan Job Challenge currently operates out of Fort Custer facilities. Michigan

Youth Challenge used to lease two buildings from USDVA, and USDVA cancelled one of these leases. If the other lease were to be cancelled, the program would have nowhere to operate. It is important that the program remain in the Augusta area because of lasting partnerships with Marshall Public Schools, the Kellogg Community College Regional Technical Training Center, and Zero Day.

The current Michigan Youth Challenge facility has gross deficiencies in housing, training, administrative, logistical, and storage facilities. Its size also limits the programs' anticipated future growth, especially given the added space required for social distancing due to the COVID-19 pandemic.

Implementation Plan
The proposed Michigan Challenge Program campus models the Lincoln Challenge Program campus and is designed to house up to 400 program participants and 100 staff members across three buildings encompassing 139,000 square feet. The campus includes a housing/dining/office building, an academic school building, and a gymnasium/logistics building and includes the following items that are integral to the facility: Backup/Emergency Generator and Organizational Vehicle Parking (Paved). Comprehensive interior design services are requested. This facility will be designed to meet Industry Standards as well as all local, State, and Federal building codes and as per Public Law 90-480. Construction will include all utility services, information systems, fire detection and alarm systems, roads, walks, curbs, gutters, storm drainage, parking areas, and site improvements. Facilities will be designed to a minimum life of 50 years in accordance with DoD's Unified Facilities Code (UFC 1-200-02) including energy efficiencies, building envelope and integrated building systems performance as per ASA(IE&E) Sustainable Design and Development Policy updated 2017. Access for individuals with disabilities will be provided. Antiterrorism measures in accordance with the DoD Minimum Antiterrorism for building standards will be provided.

III. Michigan Veteran Homes (MVH)

Background
The Michigan Veteran Homes provide quality long-term care for veterans and their eligible family members through a federal-state partnership with the United States Department of Veterans Affairs (USDVA). High-quality care for this phase of life is central to the "member for life" concept. The MVH operates homes in Grand Rapids and Marquette, with a third home that opened in Chesterfield Township in 2021.

The State of Michigan's veteran homes have a distinguished tradition of meeting the ever-changing needs of Michigan veterans. Service programs are developed to be efficient, effective, enhance the quality of life, and be accountable to the public purpose that underlies the Homes. The Homes are a symbol of America's promise to her veterans, that in return for their sacrifices and call to duty they would be cared for in time of need.

Market data indicates that, across the country, state veteran homes serve a substantially different population than other long-term care facilities. Veterans and family members seeking care at one

of MVH's facilities are looking for a long-term care setting that strives not only to meet any distinct medical needs they may have, but also to accommodate the expectations they may have for living in a unique veteran-centric community.

To do this, MVH embraces the principles and goals articulated under the long-term care "culture change" philosophy to transition away from an institutional care approach toward a veteran-centric "person-centered" care model. Specifically, culture change refers to the progression from institutional or traditional models of care to more individualized, member-directed practices that embrace choice and autonomy for our members and providers. Culture change is an approach anchored in values and beliefs that return the locus of control to our members and those who work closest with them. Its ultimate vision is to create a culture of aging that is inclusive, life-affirming, satisfying, humane, and meaningful.

Core culture change elements that facilitate meeting the unique needs of our members include:

- Member-direction in care, daily activities and policy development
- Home-like atmosphere
- Close relationships between members, family members, staff, and community at large
- Staff empowerment
- Collaborative decision making
- Quality improvement processes and culture

Our ultimate goal is to provide an environment where our members can continue to live and, most importantly, make their own choices and have control over their daily lives. This kind of care not only enhances quality for our members and staff, but also creates opportunities for MVH to improve in quality of care, efficiency, revenue and stable staffing.

As we proceed in the future and Michigan seeks to transition to a modern "person-centered" care delivery model with facilities that provide a home-like environment for residents, the MVH are working with stakeholders to develop a holistic system-wide plan to modernize the veterans homes' facilities and operational model. Management has begun implementing this plan, which will continue over the next five years.

Recent Programmatic Changes: Creation of Oversight New Board and Centralized Leadership Team. In 2017, the Governor signed legislation creating a Michigan Veterans Facility Authority, an entity that will assume oversight responsibilities of the newly constructed facilities, and eventually the existing Homes. The Michigan Veterans' Facility Authority was created to provide a new direction and focus as we transition from the current operating model to a new, more modern approach. Eight of the nine members serving on the MVFA must have professional knowledge, skill, or experience in long-term care, health care licensure or finance, or medicine; the ninth is the Director of the DMVA or his/her designee from within the Department. One year after the second facility operated by the MVFA is open and housing veterans, the Director of the Department shall then serve as a non-voting member of the board. A new member who is a veteran and who has professional knowledge, skill, or experience in long-term care, health care licensure or finance, or medicine shall be appointed by the Governor with the advice and consent of the Senate.

Additionally, in 2016 the Department created a centralized leadership team to provide consistent operational and strategic oversight across all of Michigan's veteran homes. This includes a consistent strategic

New Home Construction. VA demographic data indicates that Michigan's total veteran population in 2016 was approximately 623,600 veterans, with 323,500 veterans (51.9%) over the age of 65. Of these veterans, an estimated 250,000 are likely to need long-term care in the next 7 years. Although the VA anticipates that the total veteran population in all states will decrease as Vietnam-Era veterans begin to pass away, the VA's most recent population estimates show Michigan will continue to have over 170,000 veterans over the age of 65 in 2040. While the vast majority of those veterans will receive care from family members or other care providers, MVH is expanding the number of homes where we directly serve veterans in order to meet the current and anticipated needs of our veterans.

Notably, nearly one third of Michigan's veteran population currently lives in the tri-county metropolitan area of Wayne, Oakland and Macomb counties, surrounding the city of Detroit. Although more than 100,000 veterans aged 65+ live in these three counties, veterans residing in this region currently have to travel approximately three hours (160+ miles) to reach the closest state veterans home in Michigan, located in Grand Rapids.

In order to meet the long-term care needs of veterans across Michigan, MVH will engage in a multi-facility bed replacement effort for the State of Michigan's existing state veterans facilities. The ultimate goal of this multi-phase plan is the gradual replacement of Michigan's existing certified beds (758 in Grand Rapids, 206 in Marquette) in a manner that accomplishes SG3's strategic objectives.

Phase I: In Progress

The first phase in this plan is the construction of two new facilities one in Grand Rapids and a second in southeast Michigan to replace the outdated institutional facility in Grand Rapids. The following progress has been made with respect to the construction of two new facilities, one in Grand Rapids and one in Southeast Michigan.

December 2016	State of Michigan approved funding to construct two new veteran homes: one in Grand Rapids on the current site of the existing Grand Rapids Home for Veterans, and one in southeast Michigan, in or near the Detroit area, to accommodate the significant need and population of veterans in this region.
April 2017	State of Michigan submitted application to UDSVA construction grant program requesting FY18 funding for construction of two new homes.
April 2018	Michigan was selected for USDVA new build grants for Grand Rapids and Southeast Michigan.

August 2018	The USDVA conditionally approved the State of Michigan for FY18 State Home Construction Grant funding for the proposed projects in Grand Rapids and Southeast Michigan, pending submission of final grant documentation no later than March 19, 2019.
April 2019	The USDVA finalized the State of Michigan for FY18 State Home Construction Grant funding for the proposed projects in Grand Rapids and Southeast Michigan
Spring 2019	Construction of new veteran homes began at both Grand Rapids and Southeast Michigan sites begins.
Spring 2021	Fall 2021: Substantial completion of construction in Spring 2021 (for MVH at Chesterfield) and Fall 2021 (MVH at Grand Rapids)
Spring 2022	Scaling up of operations for full occupancy at both facilities scheduled by mid-FY22.

Phase II: Proposed

Subsequent phases will replace the existing beds with additional facilities located near veteran population centers throughout the State, including Marquette. The second phase in this plan is the construction of two new facilities, including (1) a replacement for the DJJHV facility in Marquette and (2) a new facility in either SE Michigan (Detroit Metro) or Flint/Saginaw region. In FY21, MVH moved these projects moved up in priority from previous capital outlay plans. While MVH successfully pursued partial CMS certification of the existing DJJHV facility (Marquette) construction of a replacement facility in Marquette has been moved up on MVH's prioritized list for new construction because of challenges associated with the current facility's age. MVH plans to seek match funding to pursue new construction for a Marquette-region Home, with a goal of being considered for a USDVA state construction grant for the replacement facility in the FY23 federal grant cycle. This requires submission of a certification of state match no later than August 1, 2022.

Proposed Timeline for Phase II Construction Projects

NLT August 1 2022	Certification of state match submitted to USDVA State Home Construction Grant Program (SHCGP), along with 35% design documents
Spring 2022	Identification of site for MVH @ DJ replacement facility
Spring 2023	SHCGP Announcement of FY23 Conditional Grant Recipients
June 2023	Submission of finalized design and budget documents to SHCGP to receive final grant approval (*conditioned on Michigan selection for FY23 cycle)

Construction duration for a new veteran home is typically 24 – 36 months, dependent location, site, and timing of construction commencement. State match funding provided for any other homes (ie: Detroit Metro or Flint/Saginaw) would follow a grant cycle timeline outlined below.

Phase III: Proposed
To meet the demand for services in the state, MVH has proposed construction of three additional veteran homes in Phase III, including: 1.) Detroit Metro or Flint/Saginaw (whichever was not selected as part of Phase II), 2.) I-95 Corridor; 3.) Upper Lower Peninsula.

Grand Rapids Campus: Repurposing of Old Buildings for Alternate Uses. Construction is nearly complete on a new VA and CMS-certified facility in Grand Rapids. Support for this project was provided, in large part, due to the significant investments required to make the physical plant changes necessary for CMS certification of the older buildings currently being used to provide skilled nursing services on the campus (Mann, McLeish). Although the cost of retrofitting the buildings to meet CMS standards was prohibitive, MVH is currently engaged in performing an assessment of the buildings to determine the viability and cost associated with retrofitting the buildings for other use. *Additional information on these efforts is outlined in Section B: Michigan Veteran Homes @ Grand Rapids.*

A. Michigan Veteran Homes @ D.J. Jacobetti

a. Implementation Plan

MVH has proposed the replacement of the existing facility in Marquette and is seeking state match funding to be considered for the USDVA SHCGP funding in the FY23 grant cycle. Based on the Home's needs and priorities, the major projects outlined below are scheduled in priority order; however, the age of the building and the extent of the capital outlay necessary to address major system and mechanical issues likely exceeds that of new construction. Approval of plans for new construction replacement of building NLT FY23 is strongly recommended.

Assuming approval of new construction, only capital outlay expenditures required for critical life safety projects and major system failures are recommended/would be pursued. Absent approval of new construction, addressing critical infrastructure issues as soon as possible is recommended, as all systems identified are currently at end of life cycle. The impacts of not addressing the issues are significant, resulting in either required emergency repair efforts (more costly than proactive replacement of end-of-life-cycle systems) and/or the failure of the Home to meet VA or CMS Life Safety Code (which could result in costly civil monetary penalties associated with system-wide safety citations).

Major Projects in Priority Order/Estimated Costs

*= Project unnecessary if construction of replacement facility approved, would not be pursued.
**= Project unnecessary if construction of replacement facility approved, would not be pursued *except in the event of a major failure while members still live in current facility.* If replacement pursued NLT FY22 or FY23, we anticipate life of systems can be extended construction of replacement, though will require frequent "stop-gap" repairs to keep systems operational.

FY 2023

Item	Description	Cost
Water Heater Replacement with Recirculating lines**	Tie both water mains together with-in building to create redundancy in the event of water loss and replace end of line water heater.	**105,000**
HVAC System Upgrades Minimum Needed Immediately: Replace 1 chiller, 1 air handler ** Needed w/ in 5 years: Entire system upgrade *	Although the HVAC items identified for minimum are of the greatest immediate concern, several additional air handlers and chillers are over 40 years old and reached the end of their useful lives requiring frequent repairs. Many parts have been discontinued requiring customized parts/repairs made and long periods of down time. Because of this, the entire HVAC system should be upgraded for continued use of the building past the next 3 – 5 years (recommendation would be to do	Minimum: **600,000** *Includes Chiller (500,000) and Air handler (100,000)* Full system upgrade: **Unknown** *Estimated projected cost up to $20M*

	this all at one time, rather than replace only those are past life cycle)	
Elevator Replacements**	Existing elevators have been in place likely since 1981 or prior, and parts are almost obsolete. Entire system requires replacement/upgrade. *Note: Partial replacement of lobby elevators is underway and was funded by the federal government through the State Home Construction Grant Program to ensure access to the building's designated COVID unit (~$700k). The estimated cost reflects repairs of remaining elevators close to end of lifecycle.*	**1,000,000**
Replacement of Interior Piping System* *But see description*	All interior piping at life cycle and beginning to fail, which includes leaking pipes and necessity to "chase leaks" on near constant basis. Fully addressing issue requires complete replacement of facility's heat piping, drain piping, water supply. This would require total interior demotion of building and replacement. Pursuit of this approach is strongly discouraged, as cost to state would near that of new construction w/ federal match from SHCGP. Recommendation: Construction of new facility using SHCGP funding, make necessary minor section repairs to hold off total system failure (approx. $20 – 30k each time for replacement of 10-20 ft pipe)	**Unknown** *But requires interior demolition, at a cost which would likely exceed complete demotion and new construction. Estimated projected cost exceeds $20M. Requires partial or full shutdown of facility.*
Electrical System Upgrades*	Upgrade electrical systems to increase capacity to address increased equipment/load.	**Unknown** *Estimated projected cost up to $10M Requires partial shutdown of facility.*
TOTAL	Minimum**: **1,705,000** Required for Continued Use of Building Long-Term*: Up to **$50M+** to cover systems replacements and costs (lost revenue, resident placement costs) associated with required facility closures. *Note: It is recommended that all projects requiring facility closure occur concurrently.*	

Backup Power System Upgrades**	Two 1000 KW generators should be added to provide adequate backup power (current system lacks capacity to back up the all the HVAC, emergency outlets and fire and life safety equipment.	**Unknown** *Estimated projected cost up to ~$2M*
Parking Lot Restoration*	Replace infrastructure of main parking lots and install new asphalt.	800,000
Expand Rear Parking*	Add additional rear parking for volunteers and staff.	200,000
Renovation of Physical Therapy Area*	As the Home pursues and achieves CMS certification, the rehabilitation operations and structure will change drastically from current operations. Additionally, the current space is outdated and requires upgrade. Necessary to ensure compliance with CMS requirements (person-centered care); ensure quality care for residents consistent with LTC industry standards	225,000
TOTAL	Required for Continued Use of Building Long-Term*: Up to **$3.2M**	

FY 2025

Item	**Description**	**Cost**
Roof Replacement*	Replaced flat rubber roofing system, which currently leaks during heavy rain.	**Unknown** *Estimated projected cost up to $10M.*
On-Unit Dining*	CMS requires person-centered care, and the creation of a home-like environment to the extent possible. The Home is modifying its food service structure to bring on-unit dining to members of the Home. The next stage of this process (following 2 North on-unit dining project) is the creation of on-unit dining on the 1 South unit. Necessary to ensure compliance with CMS requirements (person-centered care); ensure quality care for residents consistent with LTC industry standards.	150,000
Courtyard Construction*	Construction of member centered green space to enhance the lives of the veterans while provide sensory stimulation.	620,000
TOTAL	Required for Continued Use of Building Long Term: Up to **$11M**	

b. Impact of Addressing Structural Repairs vs New Construction

As outlined in the facility assessment (sec. d), the current facility is close to 70 years old and was originally constructed as a hospital. Because of this, it now requires significant (and costly) investment in upgrading its aging major infrastructure systems. Additionally, because it was originally constructed as a hospital, it is not possible to retrofit the entire building to meet current CMS facility standards without a complete internal demolition of the facility.

Construction of a replacement facility would costt (maximum) $100M, with the federal VA funding 65% of the project, meaning the State of Michigan's share of the project would be the same or less than attempting to upgrade and retrofit the existing facility. Additionally replacement would provide a new 160K square-foot state-of-the-art facility equipped with all the desired amenities for 128 member rooms, rather than a retrofitted building that is sub-optimal for the provision of skilled nursing services.

c. Operational Considerations & Savings: Existing vs New Construction

Construction of a new building with a modern and up-to-date physical plant and living environment allows MVH to maximize our nursing census and ability to collect all available federal and restricted revenues, reducing the State portion of the cost of operating the home (likely not possible in existing facility, absent CMS waiver for remaining non-certified beds which is currently unlikely). Additionally, the achievement of CMS certification will place the Home under a financial model (from the potential applicant or resident's perspective) more closely aligned with every other private and not-for-profit nursing Home in existence in the region (Medicare funding, Medicaid funding, etc.).

Moreover, it would provide an environment that significantly improvements overall quality of life for residents, with an inviting and home-like atmosphere (rather than a hospital-like atmosphere), which includes a high-quality physical environment, to attract and retain potential qualified applicants to ensure the continuity of revenue for sustained operations.

d. **Facility Assessment**

1. **<u>Overview</u>**

MVHDJJ was established in 1981, in the former St. Mary's Hospital building which was originally built in 1954 with additions completed in 1964, 1967 and 1988. The current facility is a 4-story building plus a penthouse, totaling 103,192 square feet and is operated as a long-term care facility. Located on one square block in downtown Marquette, the buildings along with the parking lots encompass over 90% of the available land.

The latest construction in 1988 was a 50-bed addition and this wing has an independent heating system and a shared chilled water-cooling system (updated 2012). The Home is constructed of masonry and brick veneer walls with interior plaster finishes. With the exception of the 1988 50-bed addition, ceramic tiles are installed up to 48 inches above finished floors in public areas. The roof has an average of 6 inches of insulation except over the Chapel.

The building houses 184 VA certified skilled care and 22 domiciliary beds. There are 99 two-person and 11 private rooms, including 78-member shared and 11 private bathrooms.

2. **Utilization:** The Home typically maintains a skilled nursing occupancy rate of approximately 95%. This was not true during FY20 and FY21 due to the COVID-19 pandemic and admissions restrictions during active outbreaks.

3. **Mandated Facility Standards for Program Implementation:**

   U.S. Department of Veterans Affairs under Nursing Home Care Standards for State Veterans Homes for all aspects of clinical care, food standards, and life/safety standards.

   Michigan Department of Licensing and Regulation, Bureau of Fire Services for all applicable NFPA standards, Life Safety Code, and OSHA and MIOSHA General Industry Standards.

   Life Safety Codes are enforced by the State Fire Marshall.

   The Home is partially Centers for Medicare & Medicaid Services (CMS) certified and has made changes to be in compliance with the requirements of CMS and the conditions of participation.

4. **Functionality of Existing Structures and Space Allocation**

   Approximately 560 sq. ft. per member.

   The building is close to 70 years old and many of the infrastructure systems close to 50 years old and reached the end of their useful lives. Existing facility requirements including deferred maintenance, deferred renewal, near-term anticipated renewal, infrastructure improvements, and code non-compliance issues. Some of the major systems requiring immediate/short term improvements are outlined in section 8

5. **Estimated Replacement Value of Existing Facilities**: Based on State of Michigan OFM Property Accounting Ledger Report for Fiscal Year ending 9/30/2018: Historic Cost is $12,718,769.20 and the Book Value is $4,802,422.22. Replacement cost of building in order to qualify for SHCGP match funding (and to be in line with current

skilled nursing/LTC standards) anticipated to be $27M in state funding ($80M total project budget, $50M in federal SHCGP support, $27M in grant match funding).

6. **Assessment of Utilities System**:
All resident areas of the Home are air-conditioned. Some staff and utility areas are not air conditioned. The electrical system was updated in 2006 with the installation of a new emergency generator, transfer switch and replacement of many power panels and feeders. In addition, corridor lighting was upgraded to meet NFPA Life Safety Code. An automated fire suppression sprinkler system was installed in 2006, providing coverage to the entire building. Previously, only hazardous areas and a portion of the nursing units were sprinkled.

Plumbing System: Although a portion of the plumbing system in the oldest part of the building has been replaced since the building's 1954 construction, the current condition of the plumbing system is of significant concern. Due to system-wide deterioration of cast-iron sewer drains, frequent repairs are necessary on an ongoing basis as waste and vent piping disintegrates, causing frequent sewer leaks. Additionally, elevated levels of lead have been tested in the water, indicating replacement of the water piping should be undertaken before reaching unacceptable levels. Initial estimates indicate, because of the system-wide nature of the plumbing system issues, a project to replace the water and sewer piping would cost approximately $20M+ and require either a total or partial shutdown of the facility for a minimum of a year.

Electrical System: Because of the added equipment/load to operate a modern medical facility (compared to that required 40 years ago when the building was acquired), the electrical system has reached its capacity. The system is in dire need of increased capacity by upgrading to the main switchgear, transformers, and associated panels. Initial estimates indicate a project to upgrade the electrical system would cost up to $10M, and partial shutdown of the facility for a minimum of six months.

Backup Power System: The existing generator is an indoor unit, noisy, and old but in working condition. It lacks the capacity to back up the entire HVAC system, emergency outlets, and fire & life safety equipment. Two 1000 KW generators are required to provide adequate power to the facility. The cost is approximately $2M.

HVAC System: Several Air Handlers and Chillers are over 40 years old and reached the end of their useful lives requiring frequent repairs. Many parts have been discontinued requiring customized parts/repairs made and long periods of down time. A project to Upgrade the HVAC system would cost approximately $25M, and either a total or partial shutdown of the facility for a minimum of a year.

Heating System: The heating system was upgraded in 1998 and is in fair condition. All emergency re-tubing was completed in 2017.

7. **Assessment of Infrastructure**:

   Roofing System: Although some of the roofing has been updated and is in adequate condition (most recent upgrade occurring in 2015 on our Part F wing), much of the current flat rubber roofing system requires frequent repairs for various leaks. The roof leaks during heavy rain and damages ceiling tiles and wall system. A roof replacement project is estimated to cost up to $10M.

   Parking: Available facility parking available is barely adequate at this time to accommodate both staff and volunteers, visitors and families at the Home (when not shut down due to COVID restrictions). Although the Home used to have access to use an adjacent abandoned parking lot (non-State owned) to meet the facility's parking demands, this option is no longer as the building has been renovated for low-cost housing and parking is for residents only.

8. **Adequacy of Utilities and Infrastructure System:**
   The building and many of the infrastructure systems are over 50 years old and reached the end of their useful lives. Existing facility requirements including deferred maintenance, deferred renewal, near-term anticipated renewal, infrastructure improvements, and code non-compliance issues. Although outlined in detail in sections 6 and 7, issues of greatest concern include the plumbing system, electrical system and backup power system, HVAC system, portions of the roofing system, and parking repairs and expansion.

9. **Assessment of Existing Land:**
   Existing land is adequate for current operations, but additional structure, land, or solutions will need to be developed to ensure sufficient parking is available for members, employees, and visitors.

B. Michigan Veteran Homes @ Grand Rapids

a. Implementation Plan

In December 2016, the Legislature approved a capital outlay bill that authorized and provided state match funding for the construction of a new facility in Grand Rapids and a new facility in Southeast Michigan, both of which will be substantially complete by the end of FY21. All skilled nursing residents will be moved to the newly constructed skilled nursing facility on the Grand Rapids campus.

A workgroup was established by the Director of the Michigan Veterans Affairs Agency to study and make recommendations of possible future uses of the campus. The workgroup had representation from both boards, staff, Veterans, and local interested individuals. This workgroup made recommendations to the previous Board of Managers and the current Michigan Veterans Facility Authority Board which included consideration of providing Adult Day Care, Behavioral Health Services, non-profit

support space, low income assisted or independent living, and emergency response support.

Although there are a number of capital investments that would be necessary for continued operations of the existing facilities, the specific investments made depend on the specific use. MVH is currently exploring various options, including potential partnerships in which investments in infrastructure improvements may be made by a third non-state party. Details regarding potential use, associated costs and potential third party investment are being developed for inclusion in the FY23 5-year capital outlay plan.

Capital Outlay Investments

FY 2022 Supplemental Capital Outlay Requests

Item	Description	Cost
Demolition of NCO Club	Proposed demolition of the NCO Club, located by the newly constructed facility. Federal funding cannot be used for demolition, but new construction on that property would be eligible for federal SHCGP funding 1-year post demolition. This is the recommended location for construction of laundry and pharmacy facilities should the old building be taken offline.	250,000

<u>Potential</u> Capital Outlay Projects Contingent on Continued Use of Mann/McLeish Buildings* - Major Projects in Priority Order/Estimated Costs

*In Fall 2021, MVH will be performing a full facility assessment to determine the necessity of various capital projects previously identified. Playing a role in this assessment will be the potential uses for the buildings, and the availability of non-GF/private funding sources and partnerships. This assessment will be incorporated into the FY24 Capital Plan, as additional detail will be available to assess options and determine next steps, including which of the following is/is not necessary.

Item	Description	Cost
Elevator Repairs	There are 7 elevators needing repairs. ***Two of these elevators are currently being replaced during FY20 and FY21 due to major system failures. GRHV is using Special Maintenance funding to complete projects* These repairs must be made to avoid an emergency situation during the years of construction while these buildings will continue to be home to our Veterans. It is likely also these buildings will remain in use for many years for Veteran programming and elevator service will be required.	1,269,000
Hobart Dish Machine	The Hobart Dish Machine is beyond its remaining lifecycle. If it ceases working it will require the use of disposables for all service: trays, mugs, cups, bowls, plates, flatware, etc. This is an extraordinary expense that is not budgeted for. Given the high likelihood that replacement of this item will be necessary prior to the opening of a new facility, it is recommended that it be replaced proactively, rather than waiting until an emergency request is necessary. If possible, a smaller machine will be purchased to reduce cost while meeting the needs of the current population.	120,000

	*If a decision is made to use the buildings for a non-residential purpose, this investment may not be necessary.	
Mann Building HVAC Control System Upgrade	Replace HVAC temperature control system, which is failing and currently controls temperatures in resident rooms and other clinical areas of building.	1,700,000
Large Kitchen Appliance Replacement	A number of the large kitchen appliances at GRHV are currently operating well outside expected life cycle with multiple efforts undertaken to extend life cycle to the extent possible. It is extremely likely that these appliances will fail within the next 12 – 18 months, requiring an emergency replacement request. *If a decision is made to use the buildings for a non-residential purpose, this investment may not be necessary.	135,000
Mann Building Tuck-Point Repair		100,000

b. Impact of Addressing Structural Repairs Immediately vs. Over the Next Five Years
N/A – Additional information on continued use of older buildings for alternate purposes to be included in FY24 Capital Outlay Plan after full facility assessment is complete and potential uses have been identified for consideration.

c. Operational Savings
N/A

d. Facility Assessment

1. **Overview:** The Grand Rapids Home for Veterans has been providing long term nursing care for eligible veterans and their dependents at its current location since 1886. We currently provide nursing care at various levels in two resident nursing care buildings:

   a) Michigan Veteran Homes @ Grand Rapids (new skilled nursing facility) (substantial completion Fall 2021) - ~130,000 sq.ft.

   b) Mann Building (built in 1988) - 121,383 sq. ft.

      McLeish Building (built in 1975) – 164,972 sq. ft.

      They are all block/concrete/steel/column construction with brick exterior and joined end-to-end on the first floor by breezeway. The facility is institutional in design which makes providing a home like setting difficult to achieve.

   Other buildings and structures on grounds:

   c) NCO Club/Clothing Room building, built in 1906, is wood frame construction with stucco exterior (4,900 sq. ft.). Building has been designated a historic

building and cannot be demolished. The building has been incorporated into the new construction plans. **We propose demolition of this structure in Fall 2021.**

d) Maintenance building, built in 1979, is block construction with brick exterior (10,800 sq. ft.)

e) Power Plant, built in 1956, is block construction with brick exterior (13,941 sq. ft.)

f) Old Ice House building, built in 1885, is poured concrete construction (1,700 sq. ft.)

g) Grounds building, built in 1974, is metal frame with metal sheeting exterior (2,000 sq. ft.)

h) Greenhouse, built in 1967, is aluminum frame with glass construction (2,000 sq. ft.)

i) Cemetery storage building, built in 1885, is block construction (110 sq. ft.)

j) Cooling tower structure, built in 2015, is steel and aluminum construction (110 sq. ft.)

k) Cannon shelter, built in 1982, is wood frame construction (1,000 sq. ft.)

l) Storage building, built in 1998, is metal frame construction with metal sheeting (2,400 sq. ft.)

m) Nature trail gazebo, built in 2000, is wood frame construction (675 sq. ft.)

n) Grotto Park Healing Garden gazebo built in 2008 is wood frame construction (576 sq. ft.)

o) Grotto Park Healing Garden pavilion, built in 2008, is wood frame construction (952 sq. ft.)

p) Potting Shed, built in 2013, is wood frame construction (432 sq. ft.)

The previous total gross square footage of all buildings and structures was 388,070 sq. ft. In Spring 2019, over 60,120 square feet (as noted above) was demolished for the construction of the new Home, and 130,000 sq ft. was added. The updated total gross square footage of all building and structures is now approximately 460,000 sq. ft.

The entire campus occupies a tract of land of approximately 89 acres.

A registered veteran's cemetery occupies approximately 11½ acres on the north end of the grounds. There is approximately 7 wooded acres on the south end of the campus that is the site of a nature trail for member recreation. To the east (rear) of the buildings, we provide parking for 334 employees and members. To the west (front) of the facility, we provide parking for 111 visitors and volunteers. The grounds are cared for by the Grounds Department and accessible to all members.

Power Plant: The Power Plant provides heat, domestic hot water, air conditioning and emergency power for all facilities on the grounds, with exceptions as follows:

a) No air conditioning to the maintenance building (except the offices, conference room and break area, served by stand-alone unit).

b) No air conditioning is provided to the greenhouse.

c) No air conditioning provided to the grounds building.

d) No air conditioning, heat or water provided to the storage building.

e) No air conditioning or water provided to the large tractor garage

f) No air conditioning provided to the poppy room/storage building- air conditioning provided to poppy room with stand-alone unit.

g) No air conditioning provided to the public toilet building.

h) No air conditioning provided to the NCO Club/Clothing Room building (air conditioning provided to NCO Club side by a stand-alone unit).

i) No air conditioning, heat or hot water provided to the cemetery storage building.

2. Utilization: By Spring 2022, all skilled nursing resident will be moved to the new skilled nursing building which will be at 100% occupancy (128 beds). The older buildings will house 18 behavioral health residents and 11 domiciliary residents, as well as campus's pharmacy and laundry support space. Additional services for older buildings TBD.

3. Mandated Facility Standards for Program Implementation:

U.S. Department of Veterans Affairs under Nursing Home Care Standards for State Veterans Homes for all aspects of clinical care, food standards, and life/safety standards.

Michigan Department of Licensing and Regulation, Bureau of Fire Services for all applicable NFPA standards, Life Safety Code, and OSHA and MIOSHA General Industry Standards.

Life Safety Codes are enforced by the State Fire Marshall.

Centers for Medicare & Medicaid Services (CMS) Rules and Regulations

4. **Functionality of Existing Structures and Space Allocation:**

   a) Skilled nursing care – ~140,000 sq. ft.

   b) Domiciliary care – 13,988 sq. ft.

   c) Pharmacy – 1,241 sq. ft.

   d) Medical supplies – 1,838 sq. ft.

   e) Housekeeping/linen services – 6,525 sq. ft.

   f) Plant operations – 44,625 sq. ft.

5. **Estimated Replacement Value of Existing Facilities:** Based on State of Michigan OFM Property Accounting Ledger Report for Fiscal Year ending 9/30/2018: Historic Cost is $41,829,596 and the Book Value is $8,617,083.20.

   The costs of construction for a new modern facility on the current site of GRHV, and a new facility in SE Michigan, have been allocated funding from the state Capital Outlay process, and are under construction, scheduled for substantial completion in March 2021.

6. **Assessment of Utilities System:**

   New Skilled Nursing Building: All utilities systems are new.

   Mann & McLeish Buildings:

   a) A new domestic hot water plate and frame instantaneous hot water system with back up was installed in 2012. This is in new and excellent condition.

   b) There are two chillers serving the Home's cooling system. One 425-ton chiller was installed in 2014 and is in good condition. This chiller replaced a chiller that became inoperable in August 2013. Prior to this chiller failing, both chillers were running 100% at peak months. The second chiller was installed in the summer of 2015. The old cooling tower was dismantled, and two smaller, more efficient

cooling towers were installed in the spring/summer 2015 to assist with the cooling of the facility.

c) There are three boilers that serve the entire facility providing redundancy in service and range in age from 25 years to 8 years. The boilers are high pressure steam boilers. They are serviced annually to manufacturer and equipment code standards. The condition of the boilers is good.

d) Much of the utility infrastructure from the power plant to the resident buildings is housed in an underground tunnel system where it is protected from the elements. Steam piping and hot water piping is all heavily insulated for efficiency. Some of the piping over the years has been repaired due to faulty welds or fittings breaking. Piping is 25 to 40 years old. Some of this infrastructure will be eliminated when the demolition occurs for the new build.

e) The electrical system has had periodic upgrades, is up to current state and federal code. Conduits that take the wiring from the power plant to the buildings are all in underground areas. Much of this is 25 to 40 years old. It is buried and its current true condition is unknown. Four generators serve the Home with stand-by emergency power. Original was installed in 1973 and is a 12- cylinder Caterpillar diesel with 565kw. It currently only supplies code-required emergency power in resident building including exit signage, site lighting, emergency lighting and boiler power. The Home underwent a project that added three generators to the system in 2015. The generators are located adjacent to the structures. 2 of those service the Mann and McLeish buildings. The third powers the power plant cooling system for cooling in all buildings They are powered by diesel fuel supplied in self-contained tanks attached to the generator.

f) **McLeish Building:** The HVAC is a rectangular duct system, low velocity with original fan coil units located in all patient rooms. This is an inefficient system relative to more modern standards. The air handling units are a duct system and are not designed for today's standards of atmospheric comfort. Most of the heating and cooling controls in the building are pneumatic. Heating is hot water radiant, one pipe mono-flow tee system. The water system is galvanized mains and risers with copper supply to all fixtures. The galvanized nature of the water system creates a maintenance issue because they rust out and pieces are replaced as they fail with modern piping. The sewage system throughout the building is cast iron, is aged and susceptible to cracking, rusting and breaking. The electrical system is all copper conductors run in conduit throughout the building. The fire alarm system, including the ceiling smoke detectors, pull stations, door closers and all annunciating equipment is Seimans. Duct detectors are all wired to the alarm system. In 2009, the building became fully suppressed with a new fire sprinkling system.

g) **Mann Building:** The HVAC is divided into two parts. Each side is served by separate supply air, return air and make-up air fans. The duct work system is round, high velocity. The heating system in the building is a hot water radiant, two-pipe system. The water system is galvanized mains and risers with copper supply to all fixtures. The sewage system throughout the building is cast iron. The electrical system is all copper conductors run in conduit throughout the building. The entire building is sprinkled with a charged wet type system. The fire alarm system, including the ceiling smoke detectors, duct smoke detectors, pull stations, door closers and all annunciating equipment is Seimans. It is tied to a central alarm system in the McLeish Building.

7. Assessment of Infrastructure:

a) Roads and parking lots are all asphalt and in good condition. A project to complete restoration and improvement of the onsite parking lots and roads around the facility was completed in early fall 2017.

b) Approximately 14,000 sq. ft. of concrete sidewalk is 20+ years old and in need of replacing. Only spot repairs have been made to take care of sagging and frost heaving sections during this time.

c) The GRHV has two bridges on its property. One connects the cemetery on the north end of the grounds to the rest of the agency grounds. In July 2012 a bridge inspection by Michigan Department of Transportation Bridge Inspection team was conducted. Based on their report, the bridge was in immediate need of replacement. Vehicular traffic was immediately restricted on this bridge. A new bridge was installed in summer/fall of 2016. The second bridge is constructed of wood, concrete and covered with sod. It is located over Lamberton Creek at the lower pond floor gate. The most recent inspection of this structure occurred in July 2000 and revealed what appears to be some deterioration of the wood structure underneath. We have since restricted traffic over this bridge to exclude motor vehicles except grounds care equipment.

d) A new front entrance and canopy was completed in fall 2013. The canopy is a steel and tensile structure and is 5,700 square feet in size. There is 3,500 square feet of heated sidewalk underneath the structure. It is in excellent condition.

e) New windows have been installed in the McLeish building as part of the overall remodeling of the structure. The project replaced 422 windows of varying sizes and configurations. The window installation was completed in October 2014.

8. Adequacy of Existing Utilities and Infrastructure System:

New Skilled Nursing Building: All utilities and infrastructure is new in 2021.

Mann & McLeish Buildings

a) The Direct Digital Control system that controls the heating and cooling in the Mann Building is original to the 1988 structure. Due to its age 80% of the valves have to be manually adjusted to achieve the desired temperatures. Desired temperatures are reached, but to attain this is manual and time consuming. This is a software-based system that contains parts that are no longer available on the market. The pneumatic control heating and cooling system in the McLeish Building is workable, but of old-fashioned design and very manual. The McLeish Building is a one pipe mono-flow tee system as opposed to a two-pipe system, which would have been more efficient in heating the space. The McLeish building was constructed in 1973- 1975 during the energy crisis when there was a perceived benefit to saving money by putting in a one-pipe system.

b) The Home is serviced by substations of the local utility company. If the Home loses its primary electrical source from the utility, within five seconds the utility transfers the Home to the secondary source and the Home is under full power. The overall condition of the underground electric, given its age, is unknown. The boiler system in is good working order. The generator system is up to date with 3 new gensets large enough to carry full 100% of the building loads and also supply cooling from the chiller systems.

9. Energy Audit: A general basic energy assessment was most recently completed in March 2012.

10. Assessment of Existing Land:

a) The current site is approximately 89 acres and appears adequate to support the additional construction of a new facility, while potentially tying in with the current supporting road structures if required, to allow access to existing maintenance buildings, etc. The State Veterans Cemetery occupies 11½ acres of this site and contains around 5,300+ graves. The current projection is that it has approximately six to eight years of space left for burials. It is probable that a columbarium structure will have to be erected in the near future for cremains to extend the active use of the cemetery. The roads in the cemetery are in need of replacement and are in fair to poor condition. The landscaping in the cemetery is old and needs consistent maintenance attention and possibly irrigation.

b) A workgroup established by the MVAA Director researched and looked at possible expansion for the cemetery. Columbarium style buildings was the focus and the group will submit this information to the Homes Board of Managers and Michigan Veterans Facility Authority Board for their review.

C. Michigan Veteran Homes @ Chesterfield Township

a. Implementation Plan

In December 2016, the Legislature approved a capital outlay bill that authorized and provided state match funding for the construction of a new facility in in Southeast Michigan. Construction of the new Michigan Veteran Homes @ Chesterfield Township was substantially complete in Spring 2021, with full occupancy anticipated by Spring 2022

Capital Outlay Investments

FY 2022 Supplemental Capital Outlay Requests

Item	Description	Cost
Construction of Maintenance Building & Warehouse	Construction of maintenance building/warehouse w/ ability for additional capacity added later.	1,200,000

	Basic Warehouse			Warehouse with Office			Warehouse with Administrative and workshop space		
Description	Size	Unit Cost	Subtotal	Size	Unit Cost	Subtotal	Size	Unit Cost	Expanded subtotal
Pre-engineered warehouse	10,000	70	$700,000.00	10,000	70	$700,000.00	10,000	70	$700,000.00
Foundation/Concrete Pad	LS	LS	$280,000.00	LS	LS	$280,000.00	LS	LS	$300,000.00
Basic utilities/roadway/sidewaks	LS	LS	$150,000.00	LS	LS	$150,000.00	LS	LS	$250,000.00
Warehouse Heating and ventellation	LS	LS	$100,000.00	LS	LS	$100,000.00	LS	LS	$100,000.00
Office area/HVAC/One restroom				1,000	75	$70,000.00	1,400	75	$105,000.00
Additional Roadways/Driveway/Dock				LS	LS	$50,000.00	LS	LS	$50,000.00
Basic Tools/Equipment				LS	LS	$150,000.00	LS	LS	$150,000.00
Workshopes/HVAC							5,000	75	$375,000.00
Additional Restroom							LS	LS	$20,000.00
Additional life safety/fire/utilities							LS	LS	$250,000.00
Workshop Equipment							LS	LS	$200,000.00
Subtotal			$1,230,000.00			$1,500,000.00			$2,500,000.00

b. Impact of Addressing Structural Repairs Immediately vs. Over the Next Five Years

N/A

c. Operational Savings

N/A

d. Facility Assessment

1. **Overview:** The facility was newly constructed in 2021, and is a state-of-the-art, single-story 128-bed skilled nursing facility.

2. **Utilization:** By Spring 2022, all skilled nursing residents will be moved to the new skilled nursing building which will be at 100% occupancy (128 beds).

3. **Mandated Facility Standards for Program Implementation**

U.S. Department of Veterans Affairs under Nursing Home Care Standards for State Veterans Homes for all aspects of clinical care, food standards, and life/safety standards.

Michigan Department of Licensing and Regulation, Bureau of Fire Services for all applicable NFPA standards, Life Safety Code, and OSHA and MIOSHA General Industry Standards.

Life Safety Codes are enforced by the State Fire Marshall.

Centers for Medicare & Medicaid Services (CMS) Rules and Regulations

4. **Functionality of Existing Structures and Space Allocation**

   The facility is approximately 140,000 sq feet, consisting of a central community center surrounded by 4 "neighborhoods" consisting of 32 private beds for skilled nursing residents.

5. **Estimated Replacement Value of Existing Facilities**

   The facility was newly constructed in 2021 at a cost of approximately $70M.

6. **Assessment of Utilities System**

   All utilities systems are new as of 2021.

7. **Assessment of Infrastructure**

   All infrastructure is new, as of 2021.

8. **Adequacy of Existing Utilities and Infrastructure System**

   All utilities and infrastructure are new as of 2021. However, dues to budgetary restrictions, the construction project did not include a maintenance building, which will be necessary for storage of maintenance equipment and supplies.

9. **Energy Audit:** The building is newly constructed with energy efficient systems.

10. **Assessment of Existing Land:** MVH@ Chesterfield occupies approximately 30 acres of the 90-acre parcel owed by the SOM and DMVA. DMVA is currently exploring utilization of additional available land for the construction of a new armory.