# 2.1 Provide a brief description of the scope of the project.

SPEC requests approval for a significant amendment to the previously issued Notice of Determination of Need (Project No-4-1523) (“Emergency DoN”). The requested change is to increase the approved estimated maximum capital expenditure (“MCE”) of the Emergency DoN from $2,750,000 (April 2010 dollars) to $7,037,407.03 (March 2023 dollars) to account for unforeseen costs that it stands to incur in the installation of a waste water treatment plant (“WWTP”) to service its 92-bed long-term care facility located at 642 Boston Post Road, Sudbury (the “Nursing Facility”).

By way of background, the Emergency DoN covered substantial renovations of the Nursing Facility to repair severe damage that the Nursing Facility and its surrounding property suffered as a result of the excessive flooding in the spring of 2010 (the “Project”). The Project included remediation work to return the Nursing Facility’s lower level to a habitable space and make the building and the surrounding property compliant with regulatory requirements, including adding a WWTP to service the Nursing Facility.

The Applicant has made substantial and continuing progress toward implementing the Project; however, the Applicant has encountered numerous delays in installing the WWTP due to conflicting local and state requirements, competing state and local politics, COVID-19 interruptions and supply chain disruptions.  All the while, SPEC has held together its existing, flood-damaged septic fields that receive over 10,000 gallons a day through a series of ongoing short-term fixes that have been expensive, adding to the growing project costs, and serving as band-aids to the long-term solution, the WWTP.

# 10.5.a Describe the proposed change.

This amendment requests an increase in the approved capital expenditure of the Emergency DoN. The increase in the capital expenditure relates to the increase in costs associated with the WWTP that have been identified after the Emergency DoN was approved. While the Project scope remains the same; SPEC identified during the design phase of the WWTP the following additional work are needed to support the WWTP: (i) interior work; (ii) electrical system upgrades and the moving of gas lines, (iii) a water-well addition for irrigation and laundry, and (iv) significant site work and landscaping required by to accommodate the WWTP which would including cutting down a number of trees and stump removal to make room for among other things - new septic fields, staging areas for the WWTP, areas for the dirt fill re-location. These changes are further described in Section 10.5d.

# 10.5.b Describe the associated cost implications to the Holder.

As noted in the Project Description, the Applicant requests an increase of the approved MCE from $2,750,000 (April 2010 dollars) to $7,037,407.03 (March 2023 dollars).

| Approved MCE (April 2010) | $2,750,000.00 |
| --- | --- |
| Approved MCE (March 2023) | $3,087,407.03[[1]](#footnote-1)  |
| Additional WWTP Costs | $3,230,000.00 |
| **Requested MCE** | **$7,037,407.03** |

The approved MCE when adjusted for inflation is a 38.45%. The additional increase in the MCE of $3,230,000 is solely related to the unforeseen costs associated with installing the WWTP as well as current supply chain delays and shortages as described in 10.5.d.

# 10.5.c Describe the associated cost implications to the Holder's existing Patient Panel.

There should be minimal to no cost implications for the Applicant’s existing Patient Panel. Any patient paid amounts are preset amounts not impacted by the Applicant's costs. Private pay rates may experience limited increases; however, the Applicant averages only about six percent (6%) of its residents who pay privately.

# 10.5.d Provide a detailed narrative, comparing the approved project to the proposed Significant Change, and the rationale for such change.

## Background

SPEC operates a 92-bed Nursing Facility that cares for complex patients, including many homeless individuals, and individuals that came from psychiatric hospitals and prison. The Nursing Facility has a significant long-term population with long lengths of stay, and an average census that is approximately 85% Medicaid. In particular, it has a 34-bed locked and secure unit that provides care to patients with behavioral health diagnoses such as bi-polar disorder, schizophrenia, and psychosis. The remainder of the 58-beds are in a long-term care unit where most residents also have behavioral diagnoses but not elopement risks. SPEC has a proven history of maintaining the health and wellbeing of its patients.

Prior to the 100-year flood that took place in the spring of 2010, the Nursing Facility had historically relied on septic fields for its waste water treatment. The Nursing Facility used eight (8) septic fields consisting of the original four (4) septic fields built in 1965 plus four (4) additional septic fields added throughout the 1980s, 1990s and early 2000s.  In the late 1990s switching mechanism were put in place to allow some of the fields to dry for a couple of years while the other fields were online and active. In 2001, the Massachusetts Department of Environmental Protection (DEP) determined that half of the SPEC’s property located at 642 Boston Post Road, Sudbury was in Zone 2 Nitrogen Sensitive Zone.  This is important because part of the Nursing Facility was over the edge of the 2-mile radius of the Zone 2 Nitrogen Sensitive Zone for the Town of Sudbury Water Supply.  While all of the septic fields on the property were in good working order at the time and were grandfathered; this determination would eventually require SPEC to replace the septic fields.

## Emergency DoN

As noted in the Emergency DoN, attached hereto, SPEC experienced historic rainfall off and on for three months from late February through April 2010 resulting in damaging floods that impacted the Nursing Facility and its property, including the septic fields. In particular, the septic fields were severely damaged and all the septic waste overflowed upward into the Nursing Facility, causing sewage overflow in all the toilets, showers and tubs.  SPEC applied for an Emergency DoN pursuant to 105 CMR 100.333-100.334 of the DoN regulations that was in place at the time.  SPEC, in the midst of a crisis, had no way of knowing at the time of the Emergency DoN the current level of damage or the unexpected repair and replacement costs that would accrue. Based on a good faith estimate at the time, while the flood waters were actively flowing into the facility, the Emergency DoN included $1,500,000 for a WWTP to replace the septic fields based on an old quote.  As noted above, the Emergency DoN was approved on June 7, 2010.

## 2010-2014

SPEC spent much of the next four years after the DoN approval focused on the more immediate need of repairing the Nursing Facility’s interior physical plant and mitigating the possibility of future flooding while sill relying on the damaged septic fields.   During this time, SPEC was also engaged in litigation with its insurance company on its flood-related claims, which even though concluded in SPEC’s favor, there were no funds allocated to the WWTP nor damaged septic fields.

During this period and continuing to the present day, SPEC has and continues to engage in expensive and costly repair and maintenance work to the existing septic fields to ensure resident safety while they worked towards implementing the WWTP.  Examples include but are not limited to re-routing failed systems by digging up the parking lot and piping to the Town storm drains, gutting the lower level of the Nursing Facility to install new drains, installing two new septic tanks, manually digging up the entire foundation to install 1500 linear feet of new drains, rerouting sewage to different/new septic fields, significant septic pumping, installing new filters, and weekly manual cleaning by Nursing Facility staff.  SPEC has gone to extraordinary levels to keep the damaged system functioning while it dealt with the political obstacles outlined in this application to get the WWTP.

## 2014 – Present

In 2014, just as SPEC was finishing the Nursing Facility’s interior renovations and ready to turn to the WWTP, the DEP escalated its action to require the WWTP to be built.  This required SPEC to retain legal counsel to navigate the Town and State agency process to get the necessary approvals for the WWTP.  As SPEC went through this process, DEP, the Town of Sudbury, and the State requested continual modifications to the engineering design-work for the WWTP as detailed below.  The Attorney General issued a consent order on behalf of DEP to mandate that the WWTP be designed and engineered to include a Mass Bio-Reactor system. SPEC has worked tirelessly with its engineers and legal counsel over the last 9 years to address every request and/or change order for the WWTP design to comply with the evolution of technology and local, state and federal requirements.  This has resulted in SPEC being in constant negotiations with the DEP and the Town of Sudbury.  To summarize at a high level, SPEC started with the DEP on the re-design of the WWTP and once the DEP signed off, it required the Town of Sudbury’s approval.  When SPEC went to the Town of Sudbury they would then make changes to the design that needed to go back to the DEP.  At the Town level, there was input by a multitude of Town boards, committees and interested parties including but not limited to the zoning board, conversation commission, board of health, planning board, engineering peer review oversight, public works, and the fire department. Each Town party had an independent right to weigh in on the current evolution of the WWTP design to address that parties’ specific needs/focus which often conflicted with other Town parties.  Many of the Town parties hired their own engineering experts and professionals along with surveyors to review the Facility’s work which also resulted in further design modifications.

During the design phase, SPEC has learned that in order to support the WWTP, it needs to (i) do additional interior work; (ii) upgrade the Nursing Facility’s electrical system and move gas lines, (iii) add a water-well for irrigation and laundry, and (iv) undergo significant landscaping to accommodate the WWTP including cutting down/removing a number of trees for among other things - new septic fields, staging areas for the WWTP, areas for the dirt fill re-location.

## COVID-19

More recently, the disruption caused by COVID-19 Pandemic has resulted in this WWTP project being pushed out an additional three years as SPEC has been addressing the immediate needs of the Nursing Facility’s residents. In addition, the Town boards and committees that needed to approve the WWTP could not get quorum and often canceled meetings and/or did not maintain a regular meeting schedule. This impacted the Nursing Facility’s ability to get the necessary permits and approvals for the Project, and will also likely require SPEC to obtain extensions for its issued permits.

The initial good faith cost estimate of the WWTP that was approved in the Emergency DoN has covered the WWTP design, site preparation, and legal and applications costs. The additional unforeseen costs of $3,230,000 associated with installing the WWTP fall into five broad categories: (i) WWTP equipment and construction costs; (i) interior work, (ii) electrical and gas work; (iii) a water-well addition, (iv) landscaping, and (v) permitting and ancillary costs, which are detailed below.

## WWTP Equipment and Construction Costs

The cost for the WWTP equipment and related construction costs has increased significantly since 2010. SPEC has had to hire multiple engineers to comply with the regulatory requirements for the equipment and installation. The cost of this component of the Project is $1,800,000.

## Interior Work

SPEC will have to perform work to the interior of the Nursing Facility to accommodate the WWTP this includes but not limited to, adding grease traps which will require that the Nursing Facility’s kitchen and hallways are dug up. The cost of this component is $70,000.

## Electrical and Gas

During the design phase of the Project, SPEC learned that its current electrical system would not support the WWTP. To add more capacity, SPEC will be adding solar panels to the Nursing Facility’s roof that will produce sufficient energy to not only manage the Nursing Facility’s existing electrical demands but also to meet the needs of the WWTP. In the current design, the solar size is 225-236 Kwh and involves more than 500 panels with a cost of $500,000, plus related electrical work with a cost of $200,000 given the age of the Nursing Facility (built in 1963-1965), consolidation of electric lines, new panels, connection to the generators and all the related short term fixes that have been put in place since 2010. The Nursing Facility must also install a pad mounted 500 kvh transformer that costs $70,000.

In addition to the solar, in order to support the WWTP, SPEC will need to move the gas lines which includes repaving the driveway has a cost of $100,000

## Water Well

One aspect of the WWTP design is that SPEC must install a water well to accommodate the Nursing Facility’s laundry and to irrigate the property given the new landscaping required by the Town of Sudbury. The cost for this is $40,000.

## Landscaping

In order to install the WWTP and comply with the Town of Sudbury requirements, SPEC will have to undergo significant site work and landscaping including but not limited to cutting down trees, stump removal, adding new septic fields, pumping stations, and creating a staging area for the WWTP and then returning the property to its original state. The cost for this work is $350,000.

## Permit and Ancillary Costs

As discussed in Section 2.1 and Section 10.5 the delays to the Project caused by COVID-19 related disruptions has further impacted the Facility’s ability to move timely on the work and get necessary permits and approvals. The additional permitting process along with other ancillary costs for the Project including pre- and post-filing costs and financing costs that will be $100,000.

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1. Based on the Department of U.S. Labor Statistics CPI Inflation Calculator based on the Consumer Price Index for All Urban Consumers (CPI-U) US city average services for all items, not seasonally adjusted. [↑](#footnote-ref-1)