

**Shields and Atrius Health PET/CT at Dedham, LLC
DON # N/A-24031814-RE**

APPLICANT QUESTIONS 1

Responses should be sent to DoN staff at DPH.DON@mass.gov

While you may submit each answer as available, please

- List question number and question for each answer you provide
- Submit responses as a separate word document, using the above application title and number as a running header and page numbers in the footer
- We accept answers on a rolling basis however, when providing the answer to the final question, submit all questions and answers in order in one final document.
- Submit responses in WORD or EXCEL; only use PDF's if absolutely necessary. **Whenever possible, include a table in data format (NOT pdf or picture) with the response.**

In order for us to review this project in a timely manner, please provide the responses by May 7, 2024.

Proposed Project

1. Page of the Narrative states that, “Currently, those patients seeking diagnostic imaging must travel to disparate locations across Norfolk, Suffolk, and Middlesex counties.” Please provide the average travel times to the imaging services referenced from the proposed Dedham location.

RESPONSE:

The average travel times to the imaging sites referenced from the proposed Dedham location include the following:¹

Provider	Average travel time from Dedham
Beth Israel Deaconess Medical Center- Boston	~30 min
South Shore Hospital	~20 min
Mount Auburn Hospital	~27 min
BIDMC PET/Nuclear Medicine	~33 min
Lahey Hospital & Medical Center – Burlington	~28 min

Factor 1ai: Patient Panel

1. Table 1 (Narrative page 4) provides the top 15 cities/towns where patients reside for 2023, which equals approximately 31% of the total patients served. To better understand Patient Panel need for the Proposed Project, please include the cities/towns where up to 75% of the Applicant’s patients reside from highest to lowest. (If the count is <11 use “Other” and specify which cities/towns are included in that category. You may also condense lower numbers into Counties rather than Cities/Towns.)

RESPONSE:

Patient Origin (Cities/Counties)	2023		
	N	%	% Cum
BOSTON	18,116	4.4%	4.4%
QUINCY	14,409	3.5%	7.8%

¹ Please note that the travel times above are based on the average time – travel time may be longer if traffic and/or other factors are considered.

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CAMBRIDGE	12,250	3.0%	10.8%
PLYMOUTH	11,998	2.9%	13.7%
SOMERVILLE	11,133	2.7%	16.4%
BRAINTREE	8,578	2.1%	18.5%
MEDFORD	8,006	1.9%	20.4%
LOWELL	7,068	1.7%	22.1%
DEDHAM	5,810	1.4%	23.5%
NORWOOD	5,511	1.3%	24.8%
PEABODY	5,503	1.3%	26.2%
ARLINGTON	5,216	1.3%	27.4%
DORCHESTER	4,969	1.2%	28.6%
BROCKTON	4,934	1.2%	29.8%
WATERTOWN	4,702	1.1%	30.9%
RANDOLPH	4,452	1.1%	32.0%
WEST ROXBURY	4,428	1.1%	33.1%
BROOKLINE	4,329	1.0%	34.1%
CHELMSFORD	4,227	1.0%	35.1%
WALTHAM	4,106	1.0%	36.1%
CONCORD	3,936	0.9%	37.1%
HYDE PARK	3,926	0.9%	38.0%
MALDEN	3,835	0.9%	39.0%
CANTON	3,814	0.9%	39.9%
JAMAICA PLAIN	3,811	0.9%	40.8%
DORCHESTER CENTER	3,702	0.9%	41.7%
BEVERLY	3,652	0.9%	42.6%
ROSLINDALE	3,574	0.9%	43.4%
NATICK	3,499	0.8%	44.3%
NEEDHAM	3,387	0.8%	45.1%
BRIGHTON	3,367	0.8%	45.9%
LYNN	3,271	0.8%	46.7%
MILTON	3,233	0.8%	47.5%
BILLERICA	3,211	0.8%	48.3%
WALPOLE	3,204	0.8%	49.0%
STOUGHTON	3,189	0.8%	49.8%
FRAMINGHAM	3,138	0.8%	50.6%

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ACTON	3,138	0.8%	51.3%
WOBURN	3,033	0.7%	52.0%
WESTWOOD	2,998	0.7%	52.8%
SOUTH WEYMOUTH	2,949	0.7%	53.5%
SALEM	2,866	0.7%	54.2%
BURLINGTON	2,832	0.7%	54.9%
SHARON	2,821	0.7%	55.5%
BELMONT	2,784	0.7%	56.2%
WEYMOUTH	2,621	0.6%	56.8%
TAUNTON	2,532	0.6%	57.4%
EAST WEYMOUTH	2,515	0.6%	58.1%
LEXINGTON	2,498	0.6%	58.7%
ABINGTON	2,385	0.6%	59.2%
KINGSTON	2,318	0.6%	59.8%
MELROSE	2,311	0.6%	60.4%
HINGHAM	2,275	0.5%	60.9%
WESTFORD	2,127	0.5%	61.4%
MATTAPAN	2,125	0.5%	61.9%
DANVERS	2,105	0.5%	62.4%
BRIDGEWATER	2,027	0.5%	62.9%
ROCKLAND	2,019	0.5%	63.4%
DRACUT	1,992	0.5%	63.9%
WELLESLEY HILLS	1,983	0.5%	64.4%
BUZZARDS BAY	1,926	0.5%	64.8%
MARSHFIELD	1,866	0.5%	65.3%
TEWKSBURY	1,866	0.5%	65.7%
ROXBURY	1,856	0.4%	66.2%
HOLBROOK	1,847	0.4%	66.6%
NEWTON CENTER	1,811	0.4%	67.1%
SUDBURY	1,801	0.4%	67.5%
WHITMAN	1,794	0.4%	67.9%
MANSFIELD	1,783	0.4%	68.4%
MIDDLEBORO	1,748	0.4%	68.8%
DUXBURY	1,736	0.4%	69.2%
EVERETT	1,723	0.4%	69.6%

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REVERE	1,711	0.4%	70.0%
WINCHESTER	1,670	0.4%	70.4%
CHESTNUT HILL	1,642	0.4%	70.8%
FOXBORO	1,634	0.4%	71.2%
PEMBROKE	1,619	0.4%	71.6%
CARVER	1,617	0.4%	72.0%
MAYNARD	1,598	0.4%	72.4%
MEDFIELD	1,549	0.4%	72.8%
WAKEFIELD	1,538	0.4%	73.1%
EAST BRIDGEWATER	1,530	0.4%	73.5%
READING	1,521	0.4%	73.9%
FRANKLIN	1,503	0.4%	74.2%
WELLESLEY	1,497	0.4%	74.6%
CHARLESTOWN	1,466	0.4%	75.0%

2. On Table 2 (Narrative Page 5), please provide the Unique Number of Patient Served by Atrius Health for 2018 and 2019 to better understand pre-Covid patient volume.

RESPONSE:

	2018	2019	2020	2021	2022	2023
Unique # Patients Served	470,494	427,618	417,689	381,725	385,507	414,406

Factor 1a.ii. – Patient Panel Need

3. On page 5 of the Narrative, reference #23 cites a Massachusetts Population Projection from September 2018 and on page 8 of the Narrative, reference #31 cites a Donohue Institute publication from March 2015. Given that the pandemic may have affected population projections, is there a post-pandemic data source that could confirm the population projections noted? If so, please provide the cite the source and information.

RESPONSE:

According to a study conducted by the Weldon Cooper Center for Public Service² at the University of Virginia, Massachusetts’ population is projected to expand by 10.9% between 2020 and 2040 – an increase of 760,536 people. If the Cooper Center’s projections bear out,

² Population projections and Methodology are available at the Weldon Cooper Center for Public Service. Cooper Center projections are widely used by many states and federal agencies, including the Congressional Budget Office. The Center’s 2018 projections for 2020 are highly accurate compared to the 2020 actual Census count, and the Census Bureau frequently refers data inquiries to the Cooper Center website. Available online at: <https://www.coopercenter.org/national-population-projections>

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Massachusetts will go from being the 15th most populous state to being the 16th most populous, also taking into account population changes in other states.³

The projected change is in keeping with the trend of the last decade. Between 2010 and 2020, the number of people living in Massachusetts climbed by 6.6%, or 434,463 people.

4. Table 8 on page 8 of the Narrative provides projected Volume Data. Please label the years indicated by “Baseline” and “Years 1-5.”

RESPONSE:

	Baseline 2023	Year 1 2024	Year 2 2025	Year 3 2026	Year 4 2027	Year 5 2028
Total PET/CT Volume	664	764	856	958	1,054	1,160
Shields	364	419	470	525	578	636
Atrius Health	300	345	386	433	476	524

Factor 5: Relative Merit

5. The Narrative (pages 32-33) states that only one alternative option to the Proposed Project was considered.
- a. Please provide information about any alternative options that were not reflected in the Narrative.

RESPONSE:

The Applicant considered deploying its own PET/CT program. This was not a viable option due to the mere expense of such an undertaking. A new generation PET/CT machine can cost between \$1.5 and \$2.1 million,⁴ depending on the level of functionality. Also, purchasing the initial system is just one factor in the total cost of acquiring a PET/CT. Several other factors for consideration include site preparation, installation, and regulatory compliance. For this PET/CT project, the partnership with Shields made better financial and operational sense.

Partnership with Shields also offers state-of-the-art imaging equipment and a proven track record of best practices. This means that Atrius can leverage Shields’ expertise, which is more cost-effective and fiscally responsible.

Shields uses a part-time mobile unit, with costs shared across multiple customers to provide better access in less time and at a lower price. It is also noteworthy that Shields has no fixed site overhead. Further, Shields has a specialized PET/CT team scheduling patients versus a general call center, which may manage a full radiology department. The scheduling efficiency allows more customers to be added to the system, reducing the overall cost.

There are several additional operational efficiencies that Shields is exploring through the optimization of Artificial Intelligence (AI) and software to reduce manual efforts.

³ Available online at: <https://247wallst.com/state/how-massachusetts-population-will-change-in-the-next-20-years/>

⁴ Price Guide available at: <https://directmedparts.com/pet-ct-scan-machine-cost-guide/#:~:text=A%20new%20generation%20PET%2DCT,service%20warranty%2C%20and%20applications%20training.>

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- b. Describe any methods that may have been considered to manage the growing need for PET/CT in the PSA, and why those options were rejected.

RESPONSE:

Please see responses to #5.a and #6.

Atrius Health has been referring patients in need of diagnostic imaging to non-Atrius providers. Please see the response to #1. Instead of sending its patients to non-Atrius providers throughout the region, Atrius considered methods of managing the growing need for PET/CT that would lead to improved access, more care coordination, and lower costs.

6. Are there other facilities within the Atrius health system that could assist with the current PET/CT needs?

RESPONSE:

No, there are no other facilities within the Atrius health system that could assist with the current PET/CT needs.