The Pointe at Hills Farm

Shrewsbury, Massachusetts

Presentation Agenda

Pursuant to M.G.L. Chapter 40B Comprehensive Permit Process

Project Presentation

I Smart Growth Design, LLC

II Site Plan Design Engineering
Waterman Design Assoc. Inc.

III Architectural Plan Design
Cube3 Design Studio, LLC

IV Traffic Engineering
Tetra Tech, Inc.

VI Completion of Presentation – Public Hearing #4
Smart Growth Design, LLC

X Questions and Answers

Site Designer

Wayne M. Belec, Senior Project Manager
Waterman Design Associates, Inc.

- Response to Peer Review Comments
- Use Waiver Acknowledgement
- ZBA Comments follow-up
- Phase I
  - Horizontal & Vertical Dimensional Waivers Follow-up Presentation
- Phase II
  - Horizontal & Vertical Dimensional Waivers Follow-up Presentation

Requested Dimensional Waivers

Phase I

Number of Dimensional Waivers: 2

Waiver #1

Waiver #2

Waiver #1

Waiver to Zoning Bylaw-
Minimum Landscape Buffer From Road Layout to Parking Area:
Allowed/ Required: 15'
Proposed: 9'
Justification for Waiver:

- **Avoids shifting project farther east toward the residents at Hills Farm**
- **Maintaining the proposed spacing between Buildings 2 and 3 & 3 and 4 will provide for a higher quality Common Green for the residents**

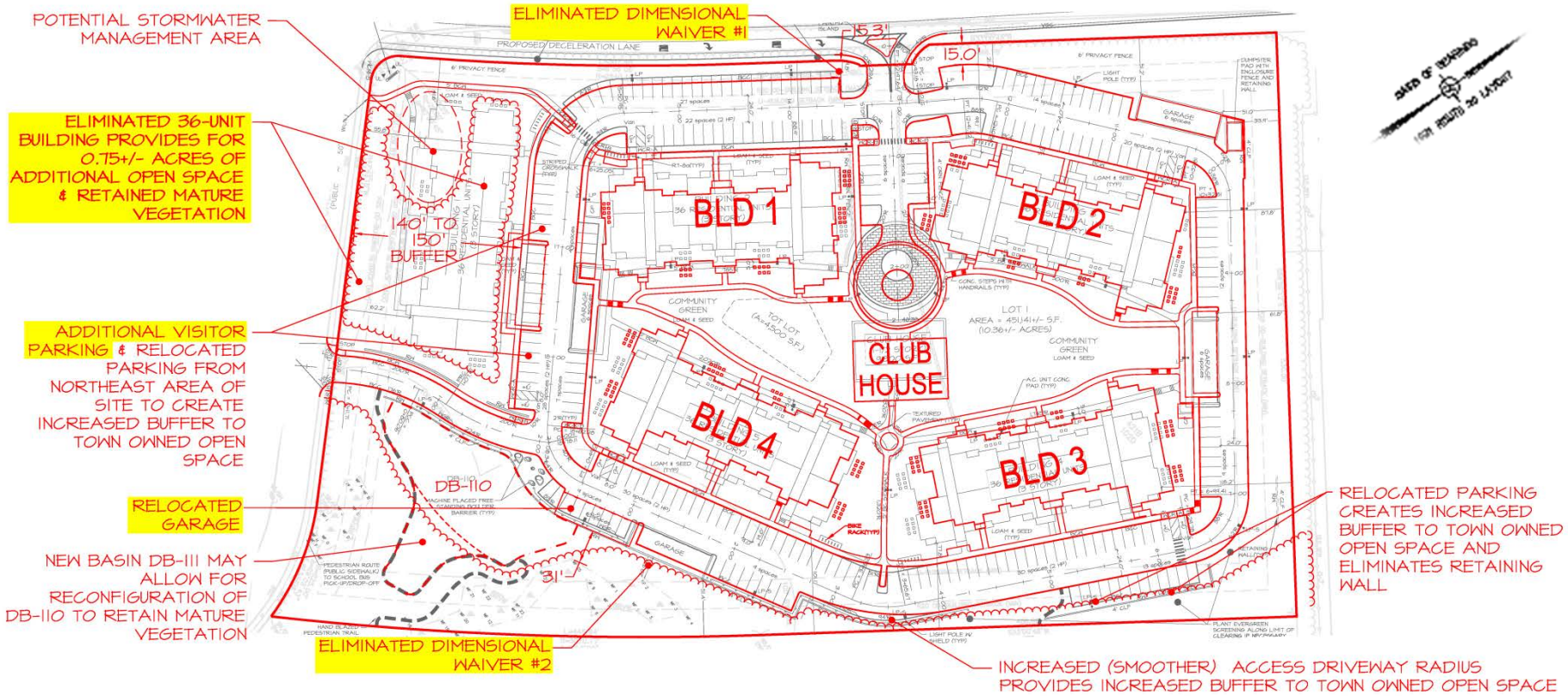
Waiver #2

Waiver to Conservation Commission Policy Requirements-
Minimum Building Setback to a Resource Area (Wetland):
Allowed/ Required: 30'
Proposed: 21'
Justification for Waiver:

- **Garage serves as a Physical Barrier between the development and the closest point of the Resource Area.**
- **Preserves a permanently protected undisturbed natural buffer adjacent to the Wetland.**
- **Existing, mature trees are preserved allowing instant screening along the rear of the garage.**

Phase I

Reduced Density/ No Dimensional Waivers/ Visitor Parking



BUILDOUT SUMMARY:

4 BLDGS @ 39 UNITS EA. = 156 UNITS
(REDUCTION OF 24 UNITS)

PARKING GENERATION, ITE 2010 (4TH EDITION)

PARKING RATIOS FOR LAND USE APARTMENT BUILDINGS: 1.23 VEHICLES PER UNIT*
PARKING RATIOS FOR THE POINTE AT HILLS FARM: 1.50 VEHICLES PER UNIT

*THESE RATIOS ARE BASED ON PARKING SURVEYS CONDUCTED AT NUMEROUS LOCATIONS THROUGHOUT THE UNITED STATES. FOR LAND USE CODE 221 - LOW/MID-RISE APARTMENTS, PARKING DEMAND RATIOS ARE REPORTED FOR BOTH URBAN AND SUBURBAN SETTINGS. THE AVERAGE PARKING RATIO FOR 21 SUBURBAN APARTMENT COMPLEXES (WITH AN AVERAGE OF 311 UNITS) WAS MEASURED AT 1.23 VEHICLES PER UNIT

PARKING SUMMARY TABLE

USE	REQUIRED	PROVIDED
RESIDENTIAL*		
RESIDENTS:	1.5 SPACES / UNIT x 156 = 234 SPACES	234
VISITORS:	234 SPACES + 10% = 24 SPACES	24
TOTAL:		258 (234 SURFACE) (24 GARAGE)

ACCESSIBLE PARKING (HP) SPACES

TOTAL PARKING SPACES	REQUIRED	PROVIDED
201 TO 300	7	10
VAN ACCESSIBLE	1 VAN	5 VAN
1 PER 8 ACCESSIBLE SPACES	6 ACCESSIBLE	

Phase II

Number of Dimensional Waivers: 2

Waiver #1

Waiver to Zoning Bylaw-

Minimum Front Setback From Road Layout to Building:

Allowed/ Required: 50'

Proposed: 41'

Justification for Waiver:

- Avoids impacts to Resource Area (wetlands).
- Allows for reduced footprint of 4-Story portion of Building 2 and concentrates it farther away and less in view of Stoney Hill Road.
- Creates space between the buildings allowing sunlight to be cast upon the Common Greens.
- Provides for a more welcoming Plaza on approach to the buildings.
- Responds to the request of Town Officials to 'break up" a single building into multiple buildings.
- The buildings are located away from the existing residential homes as much as possible within the limits of the site

Waiver #2

Waiver to Zoning Bylaw-

Maximum Building Height:

Allowed/ Required: 50'

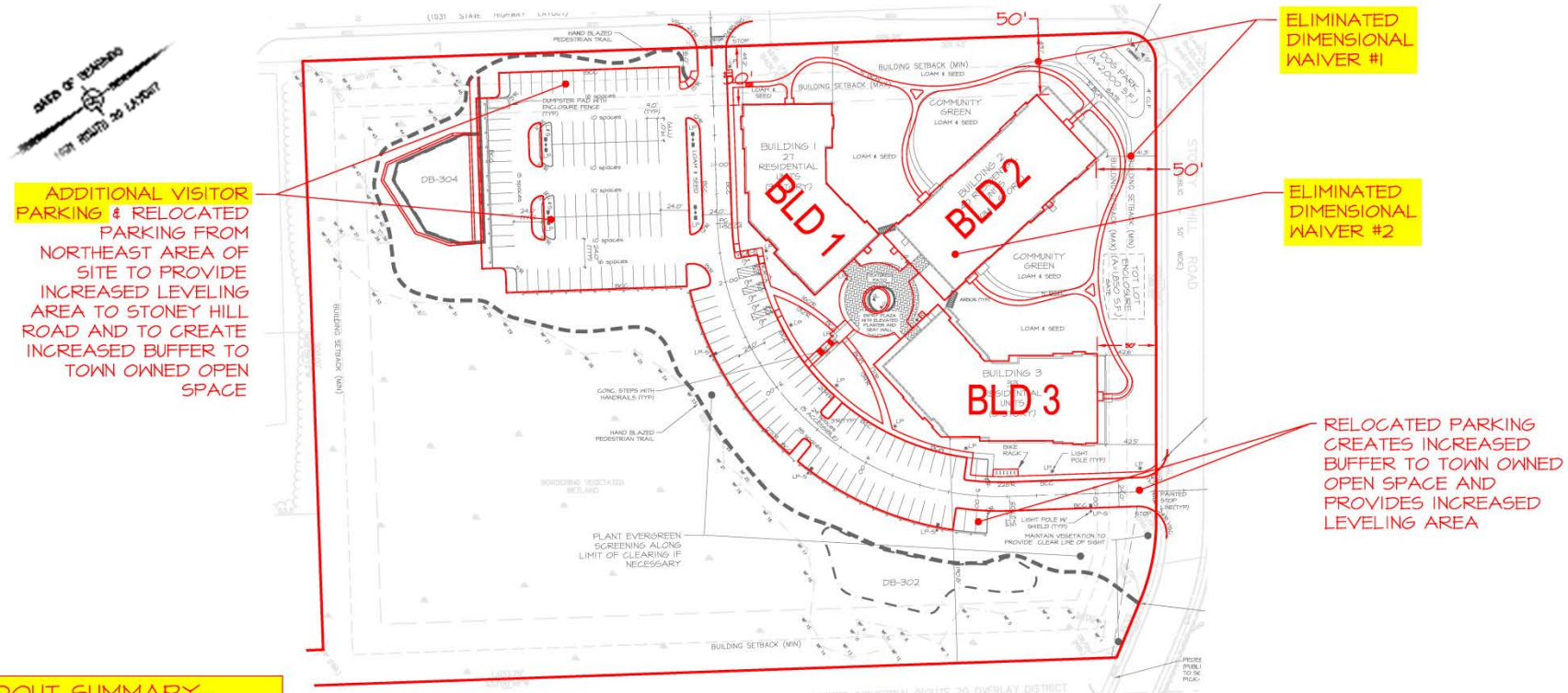
Proposed: 54'

Justification for Waiver:

- Waiver is specific to the south end (4 Story portion) of Building 2 covering only 22% of the building which is located farther away and less in view of Stoney Hill Road.
- The tallest portion of the project is located to be internal to the site as a strategy for lessening impacts along Route 20, Stoney Hiil Rd, and from the abutting properties to the South.
- The roof style and building fenestration are designed to lower the perceived building height. Scale is further reduced through the use of color, texture, and articulation of the building footprint. Only the roof exists above the 50' limit, and this is for the purposes of screening rooftop mechanical equipment

Phase II

Reduced Density/ No Dimensional Waivers/ Visitor Parking



BUILDOUT SUMMARY:

BLDG #1: 27 UNITS
BLDG #2: 32 UNITS
BLDG #3: 33 UNITS

TOTAL: 92 UNITS
(REDUCTION OF 8 UNITS)

PARKING GENERATION, ITE 2010 (4TH EDITION)

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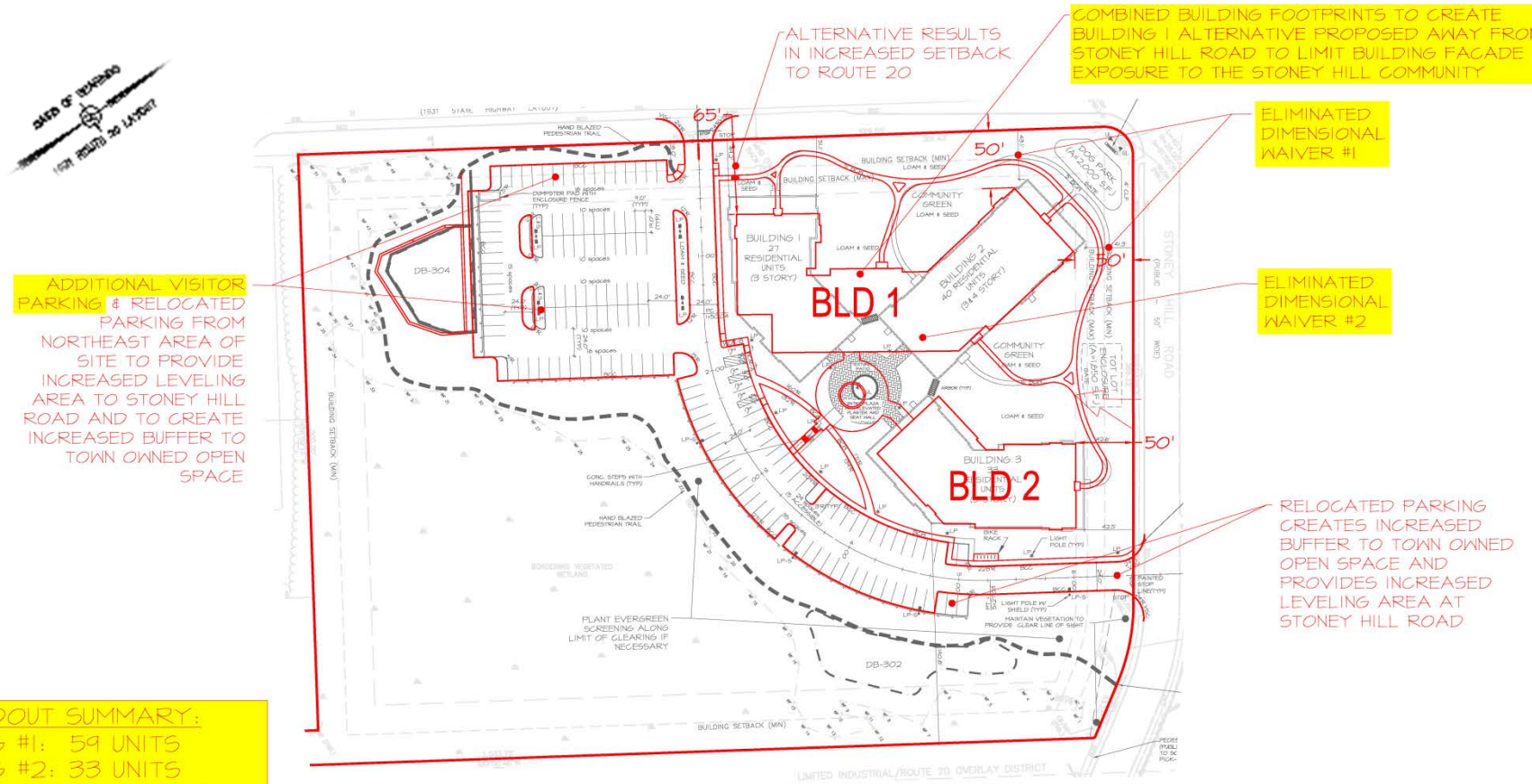
PARKING SUMMARY TABLE

USE	REQUIRED	PROVIDED
RESIDENTIAL*		
RESIDENTS:	1.5 SPACES / UNIT x 92 = 138 SPACES	138
VISITORS:	138 SPACES + 10% = 14 SPACES	14
TOTAL:		152

ACCESSIBLE PARKING (HP) SPACES		
TOTAL PARKING SPACES	REQUIRED	PROVIDED
201 TO 300	5	5
VAN ACCESSIBLE		
1 PER 8 ACCESSIBLE SPACES	1	2

Phase II- Alternative

Reduced Density/ No Dimensional Waivers/ Visitor Parking



BUILDOUT SUMMARY:

BLDG #1: 59 UNITS
BLDG #2: 33 UNITS

TOTAL: 92 UNITS
(REDUCTION OF 8 UNITS)

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201 TO 300	5	5
VAN ACCESSIBLE		
1 PER 8 ACCESSIBLE SPACES	1	2

Architect

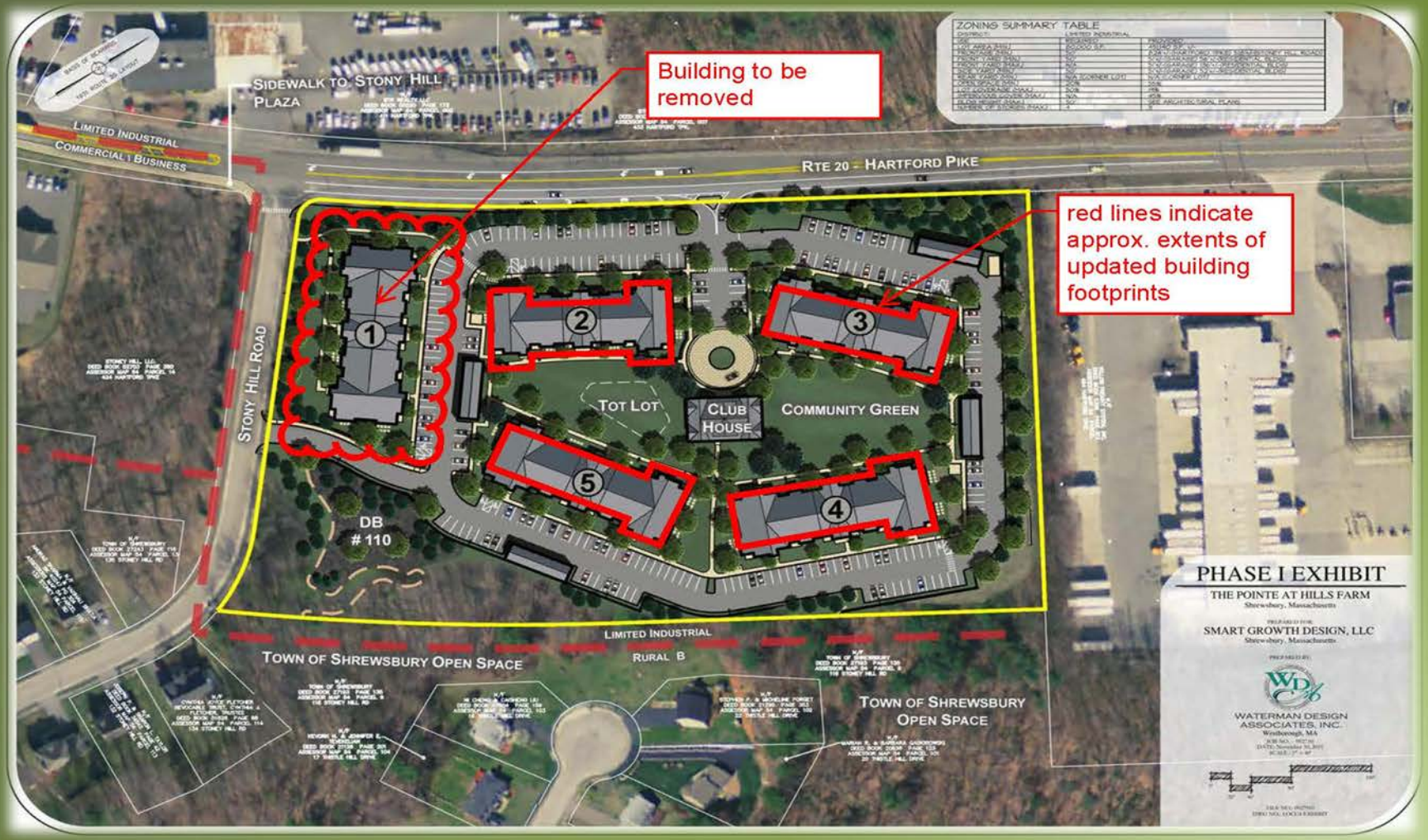
Doug Carr, AIA, Principal

Cube 3 Studio, LLC

- Phase I
  - Dimensional Waivers Follow-up Presentation
- Phase II
  - Dimensional Waivers Follow-up Presentation
  - Alternative Building Layout
- Revised Unit Mix
  - Phase I
  - Phase II

Phase I Plan

No Dimensional Waiver



East Elevation Building 2

East Elevation Building 2

No Dimensional Waiver

Smart Growth Design, LLC. - 526 Hartford Turnpike - Shrewsbury, MA

Conceptual Elevation - 3 (Building 2)

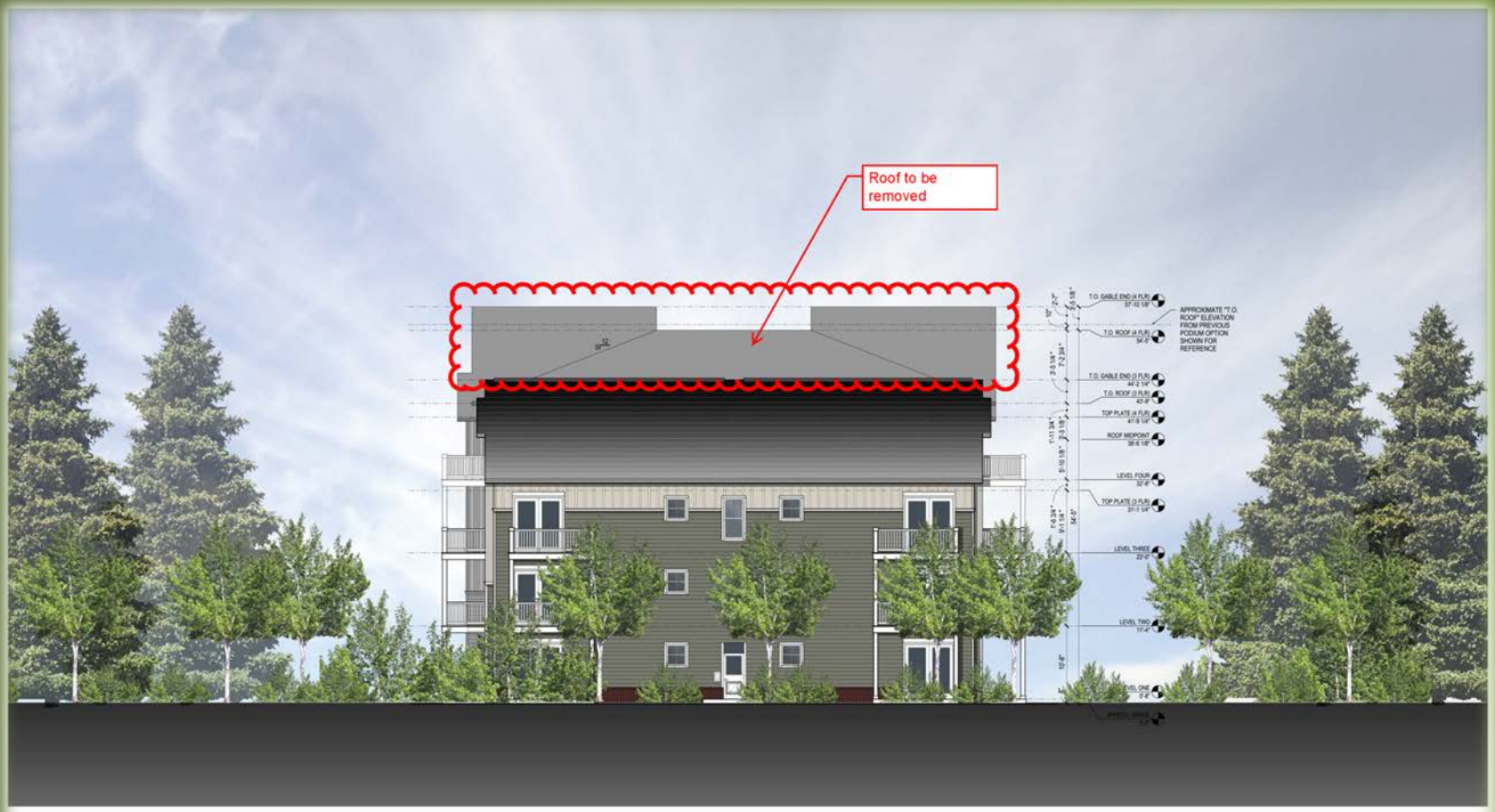
10 September 2015

CUBE3 STUDIO

End Elevation Building 2

End Elevation Building 2

No Dimensional Waiver



Smart Growth Design, LLC. - 526 Hartford Turnpike - Shrewsbury, MA

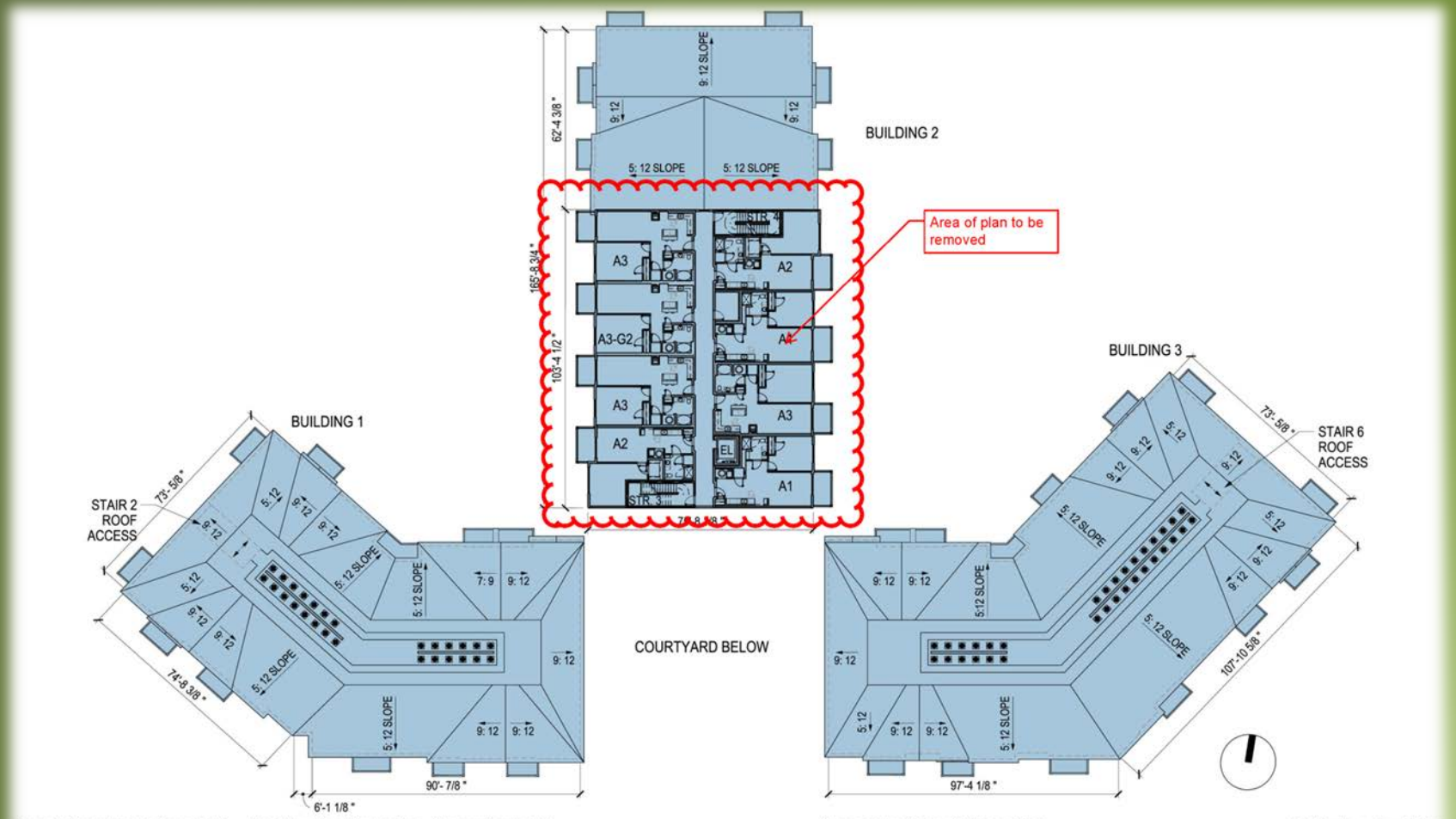
Conceptual Elevation - 4 (Building 2)

10 September 2015

CUBE3 STUDIO

Plan View Building 2

No Dimensional Waiver



Smart Growth Design, LLC. - 526 Hartford Turnpike - Shrewsbury, MA

Conceptual Fourth Floor Plan

10 September 2015

CUBE3 STUDIO

Revised Unit Mix

Phase I

Phase I - 440 HARTFORD TURNPIKE - SHREWSBURY, MA
BUILDING SUMMARY & UNIT MIX
25-Feb-2016

CUBE3 STUDIO

UNIT TYPE	DESCRIPTION	BEDS / UNIT	UNIT NRSF	BUILDING 1 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	BUILDING 2 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	BUILDING 3 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	BUILDING 4 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	PROJECT TOTALS TOTAL UNITS	TOTAL BEDS	TOTAL NRSF	UNIT MIX
S1	Studio	1	592	0	0	0	0	0	0	0	0	0	0	1	2	2	5	2,960	2	2	2	6	3,552	11	11	6,512	7.1%
S1	Group 2 - Studio	1	592	0	0	0	0	0	0	0	0	0	0	1	0	0	1	592	0	0	0	0	0	1	1	592	0.6%
		Average SF	592	0	0	0	0	0	0	0	0	0	0	2	2	2	6	3,552	2	2	2	6	3,552	12	12	7,104	7.69%
A1	One Bed/One Bath	1	772	1	2	2	5	3,860	1	2	2	5	3,860	0	0	0	0	0	0	0	0	0	0	10	10	7,720	6.4%
A1-G2	Group 2 - One Bed/One Bath	1	772	1	0	0	1	772	1	0	0	1	772	0	0	0	0	0	0	0	0	0	0	2	2	1,544	1.3%
A1A	One Bed/One Bath	1	824	2	2	2	6	4,944	2	2	2	6	4,944	2	2	2	6	4,944	2	2	2	6	4,944	24	24	19,776	15.4%
A1B	One Bed/One Bath		775	0	0	0	0	0	1	1	1	3	2,325	1	1	1	3	2,325	1	1	1	3	2,325	9	9	6,975	5.8%
A1A-G2	Group 2 - One Bed/One Bath	1	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
A2	One Bed/One Bath	1	988	1	2	2	5	4,940	1	2	2	5	4,940	0	0	0	0	0	0	0	0	0	0	10	10	9,880	6.4%
A2-G2	Group 2 - One Bed/One Bath	1	988	1	0	0	1	988	1	0	0	1	988	0	0	0	0	0	0	0	0	0	0	2	2	1,976	1.3%
A2A	One Bed/One Bath	1	989	1	1	1	3	2,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2,967	1.9%
		Average SF	847	7	7	7	21	17,837	7	7	7	21	17,837	3	3	3	9	7,272	3	3	3	9	7,272	60	51	50,847	38.46%
B1	Two Bed/Two Bath	3	1,182	1	3	3	8	9,456	0	2	2	4	4,728	1	3	3	7	8,274	1	4	4	9	10,638	28	56	33,096	17.9%
B1-G2	Group 2 - Two Bed/Two Bath	1	1,182	1	0	0	1	1,182	1	0	0	1	1,182	1	0	0	1	1,182	1	0	0	1	1,182	4	8	4,728	2.6%
B2	Two Bed/Two Bath	2	1,255	2	2	2	6	7,530	2	2	2	6	7,530	4	4	4	12	15,180	4	4	4	12	15,180	36	72	45,540	23.2%
		Average SF	1,226	5	5	5	15	18,228	3	4	4	11	13,500	6	7	7	20	24,636	6	8	8	22	27,000	68	136	83,364	43.59%
C1	Three Bed/Two Bath	3	1,341	1	1	1	3	4,023	2	2	2	6	8,046	1	1	1	3	4,023	2	0	0	2	2,682	16	48	20,115	9.0%
C1-G2	Group 2 - Three Bed/Two Bath	3	1,341	0	0	0	0	0	1	0	0	1	1,341	0	0	0	0	0	0	0	0	0	0	1	3	1,341	0.6%
		Average SF	1,257	1	1	1	3	4,023	2	2	2	7	8,046	2	1	1	4	5,364	2	0	0	2	2,682	16	65	20,115	10.2%
Totals				13	13	13	39	40,722	12	13	13	39	39,378	13	13	13	39	40,824	13	13	13	39	40,506	156	244	163,430	100%

PARKING	
TOTAL PARKING SPACES	316
PARKING RATIO (SPACES / UNIT)	2.02

BUILDING 1 SUMMARY	CALCS
GROUND FLOOR	16,057
FLOOR 2	16,057
FLOOR 3	16,057
TOTAL RESIDENTIAL NRSF	40,722
TOTAL RESIDENTIAL GSF	48,203
BUILDING EFFICIENCY	84%

BUILDING 2 SUMMARY	CALCS
GROUND FLOOR	15,960
FLOOR 2	15,709
FLOOR 3	15,709
TOTAL RESIDENTIAL NRSF	39,378
TOTAL RESIDENTIAL GSF	47,163
BUILDING EFFICIENCY	83%

BUILDING 3 SUMMARY	CALCS
GROUND FLOOR	16,145
FLOOR 2	16,145
FLOOR 3	16,145
TOTAL RESIDENTIAL NRSF	40,824
TOTAL RESIDENTIAL GSF	48,490
BUILDING EFFICIENCY	84%

BUILDING 4 SUMMARY	CALCS
GROUND FLOOR	15,940
FLOOR 2	15,935
FLOOR 3	15,935
TOTAL RESIDENTIAL NRSF	40,506
TOTAL RESIDENTIAL GSF	47,770
BUILDING EFFICIENCY	85%

PROJECT SUMMARY	CALCS
TOTAL GROUP 2 UNITS	8
TOTAL UNITS	156
MIX	5%
TOTAL RESIDENTIAL NRSF	163,430
TOTAL RESIDENTIAL GSF	191,786
PROJECT EFFICIENCY	84%

Phase II

Phase II - 526 HARTFORD TURNPIKE - SHREWSBURY, MA
BUILDING SUMMARY & UNIT MIX
29-Feb-2016

CUBE3 STUDIO

UNIT TYPE	DESCRIPTION	BEDS / UNIT	UNIT NRSF	BUILDING 1 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	BUILDING 2 P1	P2	P3	P4	TOTAL UNITS	TOTAL NRSF	BUILDING 3 P1	P2	P3	TOTAL UNITS	TOTAL NRSF	PROJECT TOTALS TOTAL UNITS	TOTAL BEDS	TOTAL NRSF	UNIT MIX
S2	Studio	1	638	0	0	0	0	0	2	2	2	0	6	3,828	0	1	1	2	1,276	8	8	5,104	9%
S2	Group 2 - Studio	1	638	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	638	1	1	638	1%
		Average SF	638	0	0	0	0	0	2	2	2	0	6	3,828	1	1	1	3	1,914	9	9	5,742	10%
A5	One Bed/One Bath	1	754	0	0	0	0	0	1	1	1	0	3	2,262	0	0	0	0	0	3	3	2,262	3%
A6	One Bed/One Bath	1	792	0	1	1	2	1,584	1	2	2	0	5	3,960	1	1	1	3	2,376	10	10	7,920	11%
A6-G2	Group 2 - One Bed/One Bath	1	822	1	0	0	1	822	0	0	0	0	0	0	0	0	0	0	0	1	1	822	1%
A5	One Bed/One Bath	1	822	2	2	2	6	4,932	0	1	1	0	2	1,644	1	1	1	3	2,466	11	11	9,042	12%
A5A	One Bed/One Bath	1	822	0	0	0	0	0	0	1	1	0	2	1,644	0	0	0	0	0	2	2	1,644	3%
A5B	One Bed/One Bath	1	822	0	0	0	0	0	0	1	1	0	2	1,644	0	0	0	0	0	2	2	1,644	3%
A6	One Bed/One Bath - Den	1	1,000	0	0	0	0	0	1	0	0	0	1	1,000	0	0	0	0	0	1	1	1,000	1%
		Average SF	806	3	3	3	9	7,254	3	6	6	0	15	12,054	2	2	2	6	4,716	30	30	24,024	33%
B3	Two Bed/Two Bath	2	1,120	1	1	1	3	3,360	0	1	1	0	2	2,240	1	1	1	3	3,360	5	10	8,960	5%
B4	Two Bed/Two Bath	2	1,180	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	3,540	3	6	3,540	3%
B5	Two Bed/Two Bath	2	1,224	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	3,672	3	6	3,672	3%
B5A	Two Bed/Two Bath	2	1,224	0	1	1	2	2,448	1	0	1	0	2	2,448	0	0	0	0	0	9	18	11,016	10%
B5A-G2	Group 2 - Two Bed/Two Bath	2	1,224	1	0	0	1	1,224	0	1	0	0	1	1,224	1	0	0	1	1,224	3	6	3,672	3%
B6	Two Bed/Two Bath	2	1,238	2	2	2	6	7,428	0	0	0	0	0	0	2	2	2	6	7,428	12	24	14,856	13%
B7	Two Bed/Two Bath	2	1,250	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	3,750	3	6	3,750	3%
B8	Two Bed/Two Bath	2	1,260	1	1	1	3	3,780	0	0	0	0	0	0	0	0	0	0	0	3	6	3,780	3%
		Average SF	1,210	5	5	5	15	18,240	1	2	2	0	5	5,912	8	8	8	24	29,094	44	88	53,246	48%
C2	Three Bed/Two Bath	3	1,424	1	1	1	3	4,272	0	0	0	0	0	0	0	0	0	0	0	3	9	4,272	3%
C3	Three Bed/Two Bath + Den	3	1,475	0	0	0	0	0	1	2	2	0	5	7,375	0	0	0	0	0	5	15	7,375	5%
C3-G2	Group 2 - Three Bed/Two Bath	3	1,475	0	0	0	0	0	1	0	0	0	1	1,475	0	0	0	0	0	1	3	1,475	1%
		Average SF	1,458	1	1	1	3	4,272	2	2	2	0	6	8,850	0	0	0	0	0	9	27	13,122	10%
Totals				9	9	9	27	29,766	8	12	12	0	32	30,644	11	11	11	33	35,724	92	154	96,134	100%

PARKING	
TOTAL SURFACE PARKING SPACES	132
PARKING RATIO (SPACES / UNIT)	1.43

BUILDING 1 SUMMARY	CALCS
GROUND FLOOR	11,346
TYPICAL FLOOR (2-3)	22,692
TOTAL RESIDENTIAL NRSF	29,766
TOTAL RESIDENTIAL GSF	34,038
BUILDING EFFICIENCY	87%

BUILDING 2 SUMMARY	CALCS
GROUNDFLOOR	9,814
GROUND FLOOR	9,709
TYPICAL FLOOR (2-3)	26,048
TOTAL RESIDENTIAL NRSF	30,644
TOTAL RESIDENTIAL GSF	39,063
BUILDING EFFICIENCY	78%

BUILDING 3 SUMMARY	CALCS
GROUND FLOOR	11,541
TYPICAL FLOOR (2-3)	22,097
TOTAL RESIDENTIAL NRSF	35,724
TOTAL RESIDENTIAL GSF	40,623
BUILDING EFFICIENCY	88%

PROJECT SUMMARY	CALCS
TOTAL GROUP 2 UNITS	6
TOTAL UNITS	92
MIX	7%
TOTAL RESIDENTIAL NRSF	96,134
TOTAL RESIDENTIAL GSF	113,790
PROJECT EFFICIENCY	85%

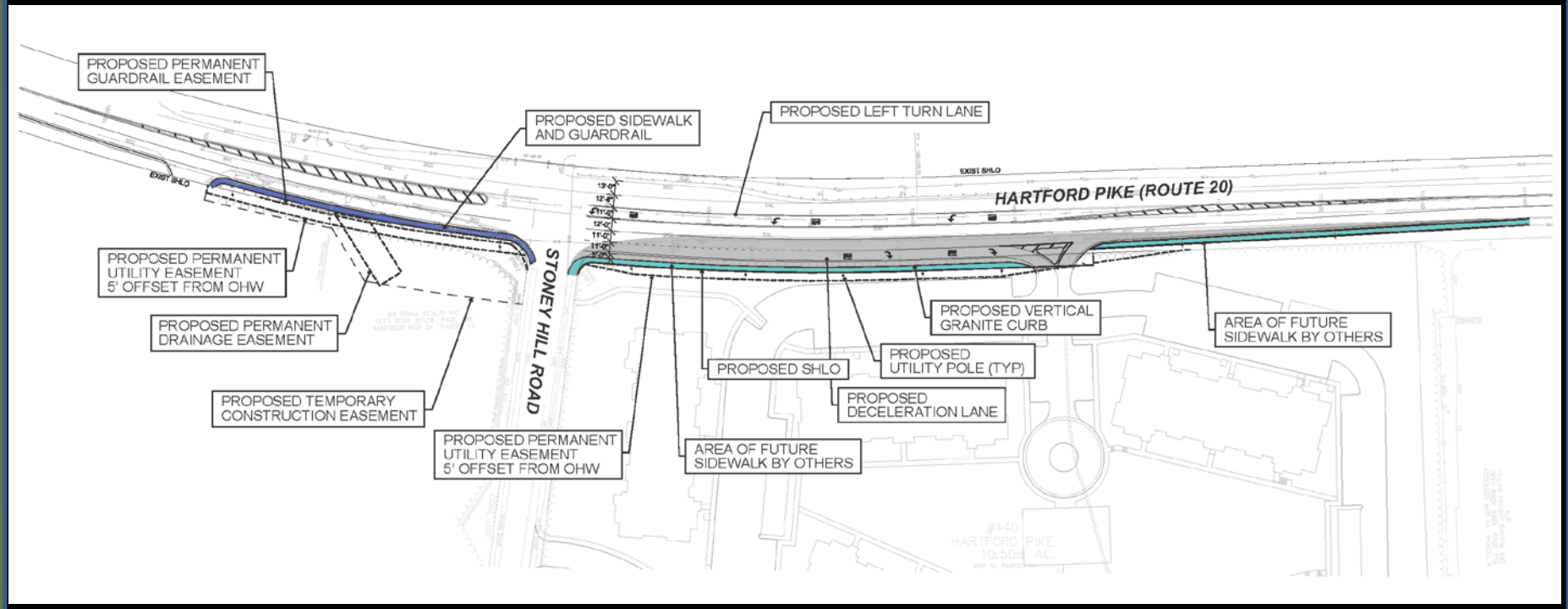
Traffic Engineer

Courtney E. Jones, PE, Project Engineer

Tetra Tech, Inc.

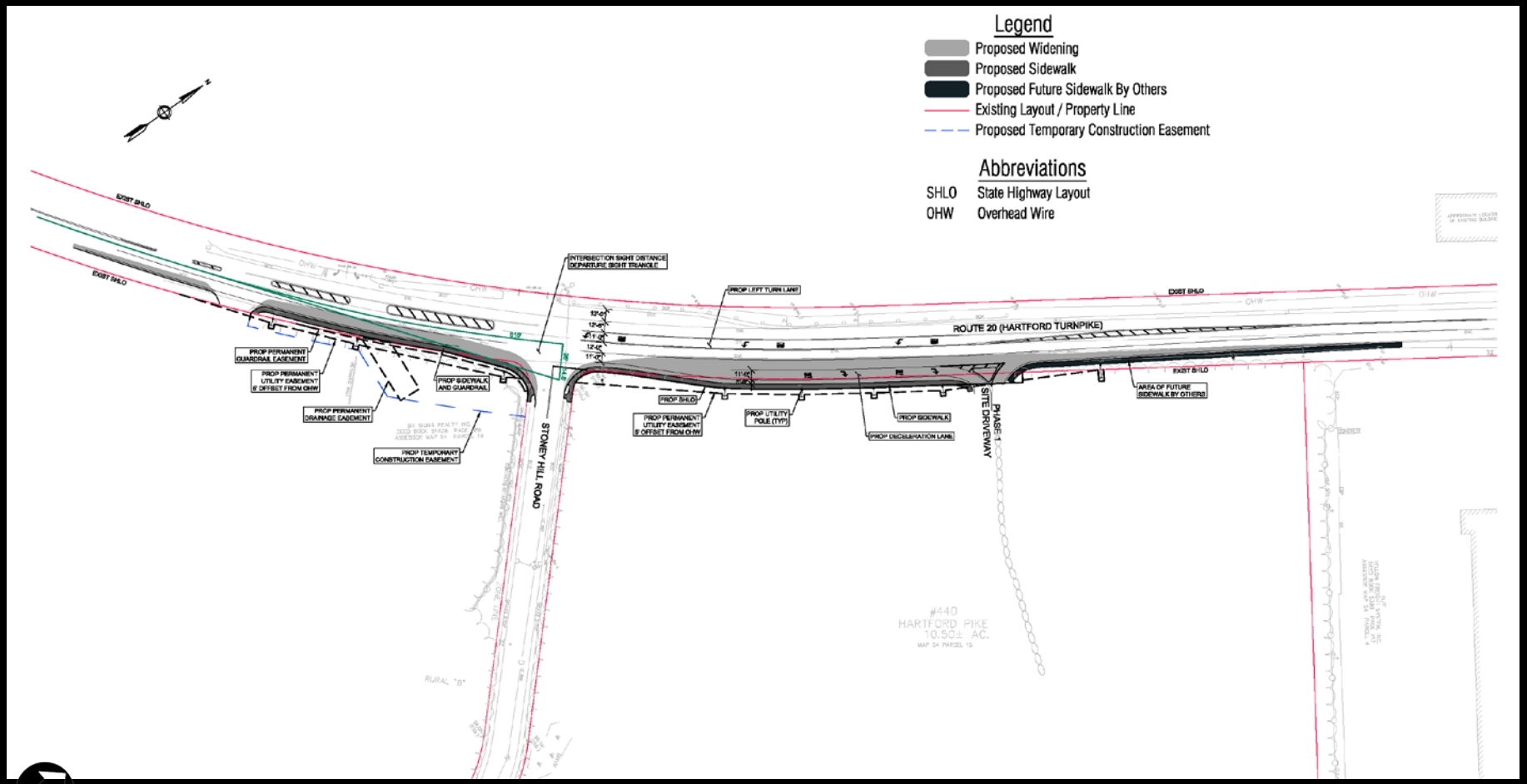
- Response to Peer Review Comments
- Route 20 Conceptual Improvements (As Submitted)
- MassDOT Dialogue
- Route 20 Conceptual Improvements (Alternative)

Route 20/Stoney Hill Rd (West) – Conceptual Improvements

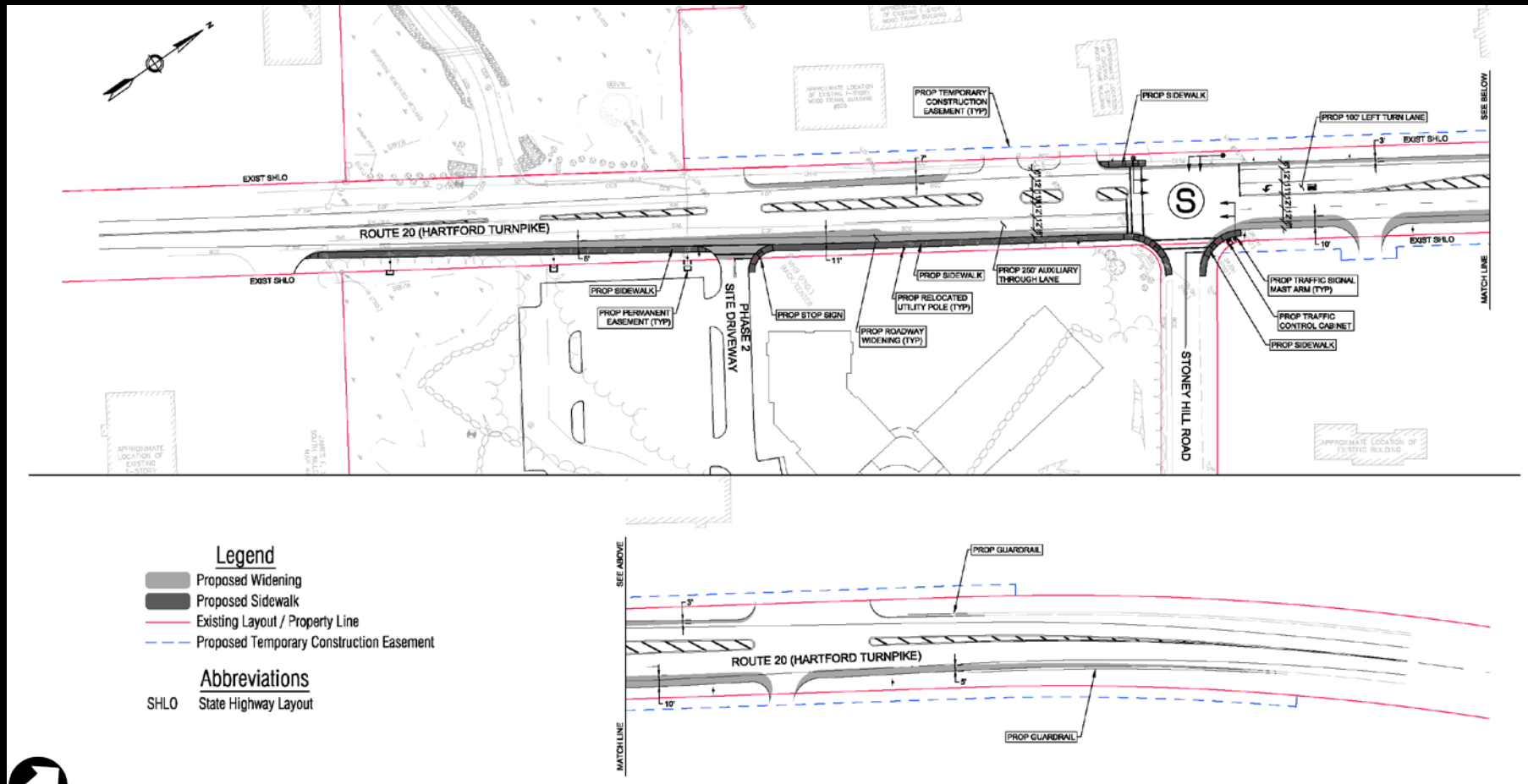


North

Route 20/Stoney Hill Rd (West) – Modified Conceptual Improvements – Option 1



Route 20/Stoney Hill Rd (East) – Modified Conceptual Improvements – Option 2



Route 20/Stoney Hill Rd (West) – Modified Conceptual Improvements – Option 2

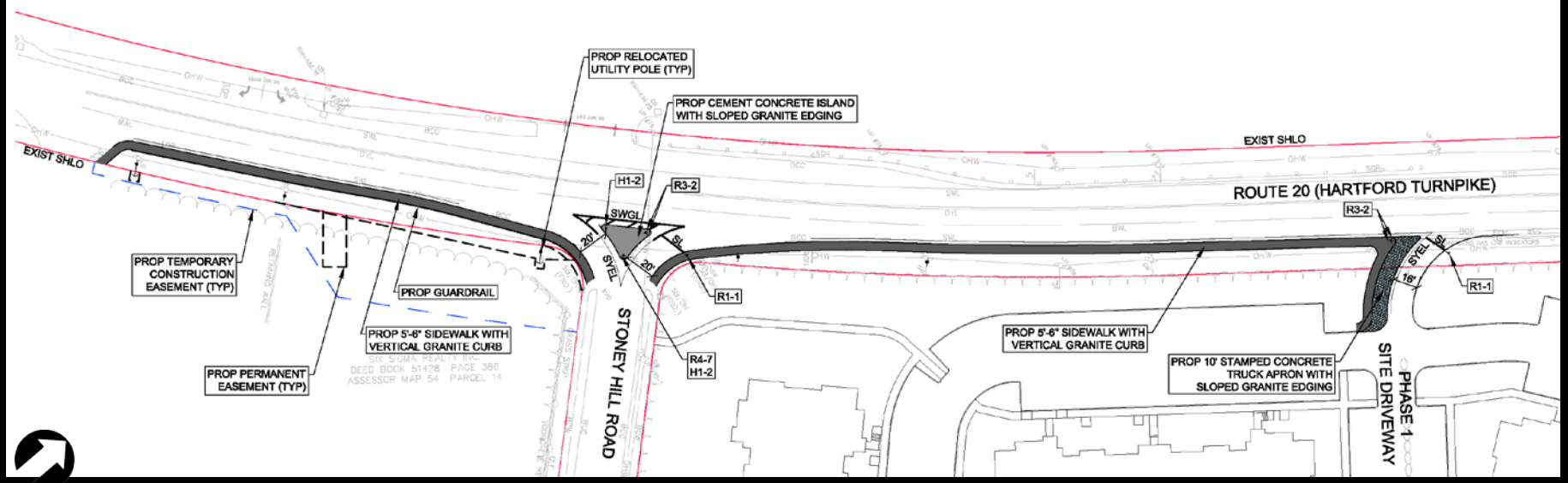
Legend

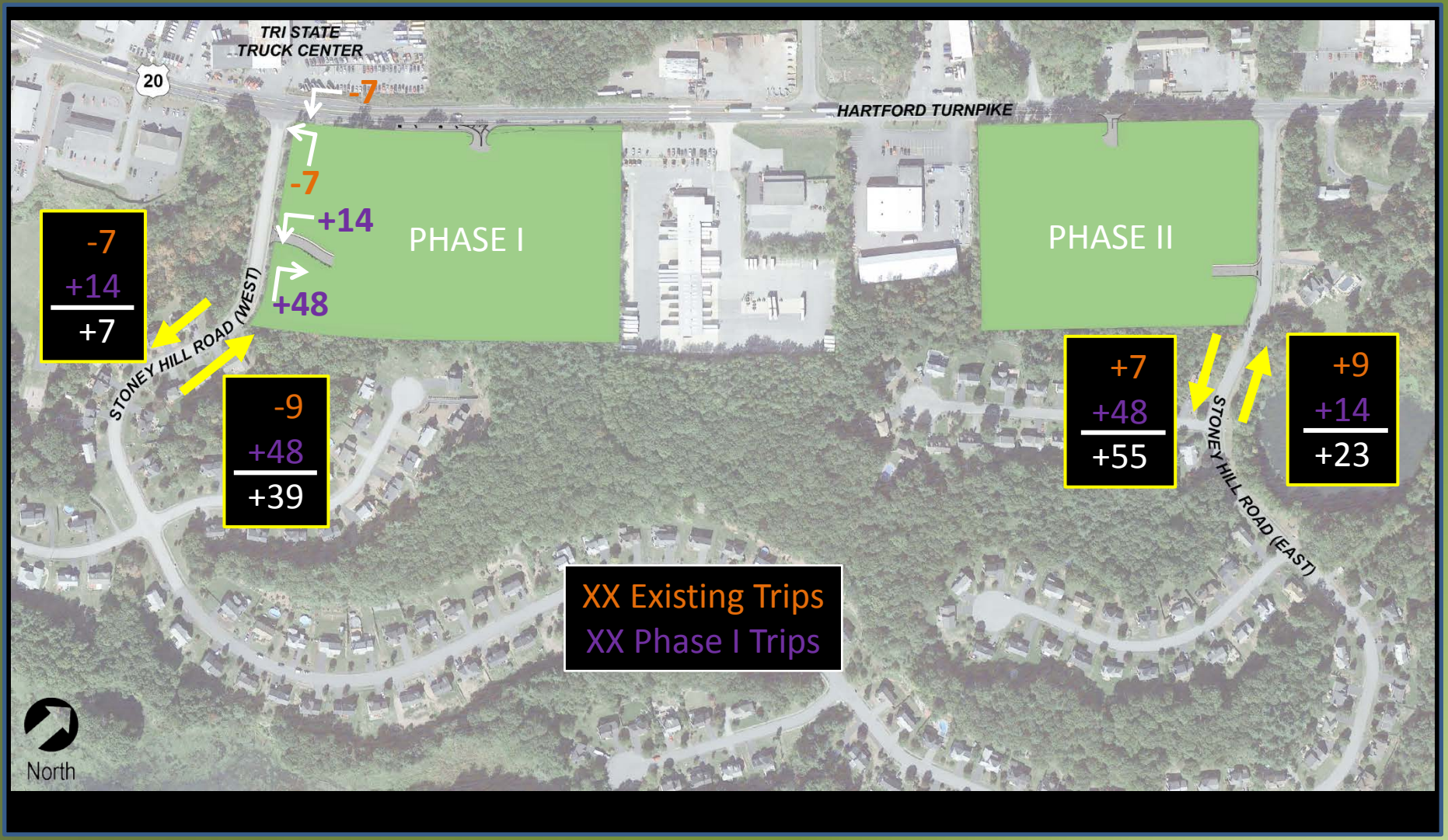
- Proposed Sidewalk
- Proposed Cement Concrete Island
- Proposed Stamped Concrete Truck Apron
- Existing Layout / Property Line
- Proposed Temporary Construction Easement

Abbreviations

SHLO	State Highway Layout
SL	Stop Line
SWGL	Solid White Gore Line
SYEL	Solid Yellow End Line

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES) WIDTH	SIZE OF SIGN (INCHES) HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND (NUMBER REQUIRED)	UNIT AREA (S.F.)	AREA IN SQUARE FEET
H1-2	24	24		SEE MASS DOT STANDARD			-	SEE MASS DOT STANDARD			EACH	EACH	EACH
R1-1	30	30	STOP	SEE 2009 MUTCD			-	SEE 2009 MUTCD			--	6.25	--
R3-2	36	36		SEE 2009 MUTCD			-	SEE 2009 MUTCD			--	9.00	--
R4-7	24	30		SEE 2009 MUTCD			-	SEE 2009 MUTCD			--	5.00	--



AM Peak Hour Shift

PM Peak Hour Shift