

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN CONFORMANCE TO THE LATEST EDITION OF THE MASSACHUSETTS STATE BUILDING CODE AND ALL OTHER APPLICABLE CODES AND LAWS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THIS PROJECT.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES,SEQUENCING, SCHEDULING AND SAFETY FOR THIS PROJECT.
4. THE CONTRACTOR SHALL VISIT THE SITE AND BE THOROUGHLY AQUATINTED WITH THE PROJECT PRIOR TO SUBMITTING A PRICE. ADDITIONAL MONEY WILL NOT BE GRANTED FOR WORK NOT CLARIFIED PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN DRAWINGS SPECIFICATIONS OR FIELD CONDITIONS TO THE ARCHITECT IMMEDIATELY.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY WORK DAMAGED BY HIS FORCES WHILE PERFORMING THIS CONTRACT.
7. THE CONTRACTOR SHALL GIVE A WARRANTY FOR HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION.

FOUNDATION NOTES:

1. ALL FOUNDATION FOOTINGS SHALL BE CARRIED DOWN TO A MINIMUM OF 4'-0" BELOW FINISH GRADE, OR DEEPER, IF NECESSARY, TO OBTAIN A SAFE SOIL BEARING PRESSURE OF 2 TONS PER SQUARE FOOT, FOUNDATION DESIGN IS BASED ON ASSUMED SOIL BEARING CAPACITY OF 2 TONS PER SQUARE FOOT.
2. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL.; OR, ON ENGINEERED BANK RUN GRAVEL FILL MATERIAL WITH A MINIMUM DRY DENSITY OF 95%.
3. ALL FOOTING SHALL BE POURED IN THE DRY ONLY. WATER SHALL NOT BE ALLOWED TO FLOW THROUGH THE DEPOSITED CONCRETE.
4. NO FOOTING SHALL BE POURED ON FROZEN GROUND. FOUNDATIONS NEED TO BE PROTECTED FROM FREEZING FOR A MIN OF 5 DAYS AFTER THEY WERE POURED.
5. THE MINIMUM REINFORCING FOR ALL FOUNDATION WALLS SHALL BE 2-#6 BARS AT THE TOP AND BOTTOM, CONTINUOUS; OR, AS SHOWN ON DRAWINGS.
6. LAP ALL BARS 40 DIAMETERS AND PROVIDE CORNER BARS.
7. ALL REINFORCEMENT: ASTM A615-60, WWF A185.

CONCRETE NOTES:

1. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF:
- **3000 PSI** FOR BASEMENT SLABS, FOUNDATION WALL, EXTERIOR WALLS AND OTHER VERTICAL CONCRETE SURFACES EXPOSED TO THE WEATHER
 - **3500 PSI** FOR DRIVEWAYS, CURBS, WALKS, PATIOS, PORCHES, CARPORT SLAB, STEPS AND OTHER FLATWORK EXPOSED TO WEATHER AND GARAGE FLOOR SLABS
2. MAXIMUM SLUMP SHALL NOT EXCEED 3"; AND MAXIMUM; COARSE AGGREGATE SIZE SHALL NOT EXCEED 3/4" IN DIAMETER.
3. ALL CONCRETE SLABS ON GRADE SHALL BE POURED IN 900 SQUARE FOOT PANELS, MAXIMUM; OR, PROVIDE CONTROL JOINTS BY SAW CUTTING THE SLAB WHILE THE CONCRETE IS STILL GREEN.

REINFORCING NOTES:

1. ALL REINFORCEMENT, EXCEPT FOR TIES AND STIRRUPS, SHALL CONFORM TO ASTM 615-60.
2. ALL REINFORCEMENT FOR TIES AND STIRRUPS SHALL CONFORM TO ASTM 615-40.
3. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185-70 SPECIFICATIONS.
4. ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT OR HIS ENGINEER PRIOR TO THE PLACEMENT OF ANY CONCRETE.
5. THE CONTRACTOR SHALL SUBMIT FOUR PRINTS OF SHOP DRAWINGS: SHOWING ALL REINFORCING DETAILS, CHAIR BARS, HIGH CHAIRS, SLAB BOLSTERS, ETC. TO THE ARCHITECT FOR HIS APPROVAL. THE CONTRACTOR SHALL RECEIVE WRITTEN APPROVED SHOP DRAWINGS FROM THE ARCHITECT OR HIS ENGINEER PRIOR TO THE FABRICATION OF REINFORCEMENT.
6. CLEARANCES OF MAIN REINFORCING FROM ADJACENT CONCRETE SURFACES SHALL BE AS FOLLOWS:
- A. FOOTINGS 3 INCHES
 - B. SIDES OF FOUNDATIONS WALLS. EXPOSED FACES OF FOUNDATIONS. SIDES OF COLUMNS/PIERS, SLABS ON GRADE FROM TOP SURFACE 2 INCHES
 - C. INTERIOR FACES OF FOUNDATIONS, TOP REINFORCING IN SLABS EXPOSED TO THE WEATHER 1-1/2 INCHES
 - D. TOP STEEL OF INTERIOR SLABS 1 INCHES
7. MAXIMUM DEVIATION FROM THESE REQUIREMENTS SHALL BE 1/4" OF SECTIONS 10" OR LESS, 1/2" FOR SECTIONS GREATER THAN 10".

NOTE: THERE HAS BEEN NO SOIL TESTING PROVIDED TO THIS OFFICE FOR THIS PROJECT. THE DESIGNING ARCHITECT OR STRUCTURAL ENGINEER ACCEPTS NO RESPONSIBILITY FOR EXISTING SOIL CONDITIONS. ANY SOIL BEARING CAPACITY OF THIS FOUNDATION SYSTEM IS DESIGNED BASED ON A 2 TON MINIMUM SOIL BEARING CAPACITY. IT SHALL BE THE CONTRACTORS OR OWNERS' RESPONSIBILITY TO DETERMINE SUITABLE SOIL CONDITIONS AND VERIFY THE BEARING PRESSURE. IF A SUITABLE SOIL THAT CAN WITHSTAND A 2 TON BEARING CAPACITY IS NOT AVAILABLE, THIS OFFICE SHOULD BE CONTACTED BY THE CONTRACTOR OR OWNER FOR A FOUNDATION REDESIGN.

STEEL NOTES:

1. ALL COLUMNS: A36, STEEL PIPE, A46 STEEL TUBE.
2. BOLTS: A325, ANCHOR BOLTS: A307.

STRUCTURAL STEEL NOTES:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 SPECIFICATIONS, EXCEPT SQUARE STEEL TUBE COLUMNS.
2. ALL SQUARE STEEL TUBE COLUMNS SHALL CONFORM TO ASTM A500, WITH A MINIMUM YIELD STRESS OF 46,000 PSI.
3. ALL SHOP CONNECTIONS SHALL BE WELDED.
4. FIELD CONNECTION SHALL BE MADE WITH HIGH STRENGTH FRICTION BOLTS MEETING A325-X SPECIFICATIONS.
5. ALL BOLTS SHALL BE 3/4" IN DIAMETER, OR AS NOTED ON DRAWINGS. HOLES SHALL BE 1/16" LARGER.
6. ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PAINT; SUCH AS TNEMEC-99, OR RUST INHIBITOR BY "MAINLINE". OR, PAINT, AS NOTED IN THE SPECIFICATIONS.
7. AFTER STRUCTURAL STEEL ERECTION IS IN PLACE, ALL EXPOSED AREAS SHALL BE TOUCHED UP. SEE SPECIFICATIONS ON PAINTING FOR ADDITIONAL REQUIREMENTS.
8. PROVIDE 3/4: GROUT, 3,000 PSI, AND 1/4" THICK LEVELING PLATES UNDER ALL COLUMN BASE PLATES, WITH FOUR (4) 3/4" DIAMETER x 16" LONG ANCHOR BOLTS; OR AS NOTED.
9. PROVIDE A MINIMUM OF 8" BEARING ON EACH SIDE OF LINTELS AND HEADERS OVER DOORS, WINDOWS, LOUVERS, AND OPENINGS, ETC.
10. THE CONTRACTOR SHALL SUBMIT A REPRODUCIBLE SEPIA AND FOUR PRINTS OF SHOP DRAWINGS; SHOWING ALL STRUCTURAL STEEL SIZES, CONNECTIONS AND DETAILS, TO THE ARCHITECT FOR HIS APPROVAL. FABRICATION OF STRUCTURAL STEEL MEMBERS SHALL NOT BEGIN WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT OR HIS ENGINEER.
11. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE LATEST COMMONWEALTH OF MASSACHUSETTS BUILDING CODE AND THE STRUCTURAL STEEL INSTITUTE SPECIFICATIONS FOR BUILDINGS AND BRIDGES.

WOOD NOTES:

1. ALL LUMBER SHALL HAVE A MOISTURE CONTENT OF NOT MORE THAN 19%.
2. ALL FRAMING LUMBER SHALL BE #2 HEM-FIR, OR BETTER, HAVING A MINIMUM: FB=1,200 PSI, FV=70 PSI, E=1,300,000 PSI.
3. ALL L.V.L. LUMBER DENOTED ON PLANS SHALL HAVE A MINIMUM: - FB=2,650 PSI, FV=285 PSI, E=1,900,000 PSI - FOR STUDS COLUMNS - FB=3100 PSI, FV=285 PSI, E=2,000,000 PSI - FOR BEAMS
4. ALL JOIST SPANS SHALL HAVE ONE ROW OF 1" X 3: CROSS BRIDGING AT MID SPAN AND NOT MORE THAN 8'-0" O.C.
5. ALL STUD BEARING WALLS SHALL HAVE ONE ROW OF 2X HORIZONTAL BLOCKING AT 1/2 STUD HEIGHT, AND NOT MORE THAN 6'-0" O.C. MAXIMUM.
6. PROVIDE AND INSTALL ALL NECESSARY TIMBER CONNECTORS WITH ADEQUATE STRENGTH.
7. PROVIDE DOUBLE JOIST BELOW PARTITIONS PARALLEL TO JOIST FRAMING.
8. PROVIDE SOLID BRIDGING BELOW PARTITIONS PERPENDICULAR TO JOIST FRAMING.
9. PROVIDE SOLID BRIDGING BETWEEN JOIST FRAMING MEMBERS WHEN BEARING ON STUD PARTITIONS OR BEAMS.
10. PROVIDE A CONTINUOUS BAND JOIST AT EXTERIOR STUD WALLS.
11. PROVIDE DIAGONAL METAL STRAP BRACING AT ALL CORNERS AND WALL INTERSECTIONS, AT THE INSIDE FACE OF STUDS, FROM TOP PLATE TO FLOOR PLATE AT A 45 DEGREE ANGLE WITH A SIMPSON TYPE "RCWB" STRAP, OR EQUAL.
12. ALL BUILT-UP BEAMS SHALL BE BOLTED WITH 1/2" □ THRU BOLTS, MEETING A307 STANDARDS, OR, AS NOTED ON DRAWINGS.

WOOD LINTEL SCHEDULE:

Lintels over openings in bearing walls shall be as follows;or as noted on drawings.

Span of opening:	Size: 2x6 studs	Size: 2x4 studs
less than 4'-0"	3 - 2x4	2 - 2x4
up to 6'-0"	3 - 2x6	2 - 2x6
up to 8'-0"	3 - 2x8	2 - 2x8
up to 10'-0"	3 - 2x10	2 - 2x10

DESIGN CRITERIA:

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE SEVENTH EDITION OF THE MASSACHUSETTS BUILDING CODE.

DESIGN LIVE LOAD =40 POUNDS PER SQUARE FOOT FLOORS
= 100 POUNDS PER SQUARE FOOT - DECK AND STAIRS
DESIGN SNOW LOAD = 45 POUNDS PER SQUARE FOOT + 40 POUNDS PER SQUARE FOOT DRIFT WHERE APPLICABLE.
WIND LOAD = 105 MILES PER HOUR
SEISMIC: Ss = 0.29
S1 = 0.068

STRUCTURAL STEEL COLUMNS SHALL HAVE A MINIMUM YIELD STRESS OF 36,000 POUNDS PER SQUARE INCH.

ALL LUMBER SHALL BE NO. 2 HEM FIR, Fy= 1200 PSI, Fv=120 PSI.

Gross Area	
Level	Area
1ST FLOOR	1440 SF
2ND FLOOR	1531 SF
3RD FLOOR	1536 SF
Total	4507 SF

ALLOWABLE FAR = SITE(5625) X 0.8 = 4500 SF

ZONING SUMMARY

	MIN. LOT SIZE	F.A.R.	MIN. LOT AREA PER ADD. UNIT	OVERALL LOT AREA	MAX. HEIGHT	SETBACK FRONT	SETBACK EA. SIDE	SETBACK REAR	MIN. OPEN SPACE PER UNIT	MIN. PARKING SPACES PER UNIT
3F-4,000										
REQUIRED	2000 FOR 1 UNIT	0.8	2000	4000	35'	20'	10'	EX'G SHALLOW LOT REDUCTION 17'-6"	650 SQ. FT. PER UNIT	1.0
PROPOSED	2000 FOR 1 UNIT	0.8	2000	5625	34'-10"	20'	10' AND 22'	19'-6"	1019 SQ. FT. PER UNIT	1.0

PROPOSED 2 NEW TOWNHOUSES

6 BURTON AVENUE
ROXBURY, MA, 02119



1 BURTON STREET VIEW

CODE SUMMARY

NEW TYPE 5A CONSTRUCTION
TYPE R3
TWO FAMILY RESIDENCE
3 STORIES

LEGEND

- CO CARBON MONOXIDE DETECTOR
- SD SMOKE DETECTOR
- 1 1 HR FIRE RATED WALL
- 2S 2 HR FIRE RATED WALL (SEPERATION)
- 1E 1 HR FIRE RATED WALL (EXTERIOR)
- BATHROOM FAN
- A WINDOW TYPE
- 1 1 HR FIRE RATED CEILING ASSEMBLY

Location

PROPOSED TWO FAMILY
6 BURTON AVENUE
ROXBURY, MA, 02119

Choo
&Company, Inc.

One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

No.	Description	Date

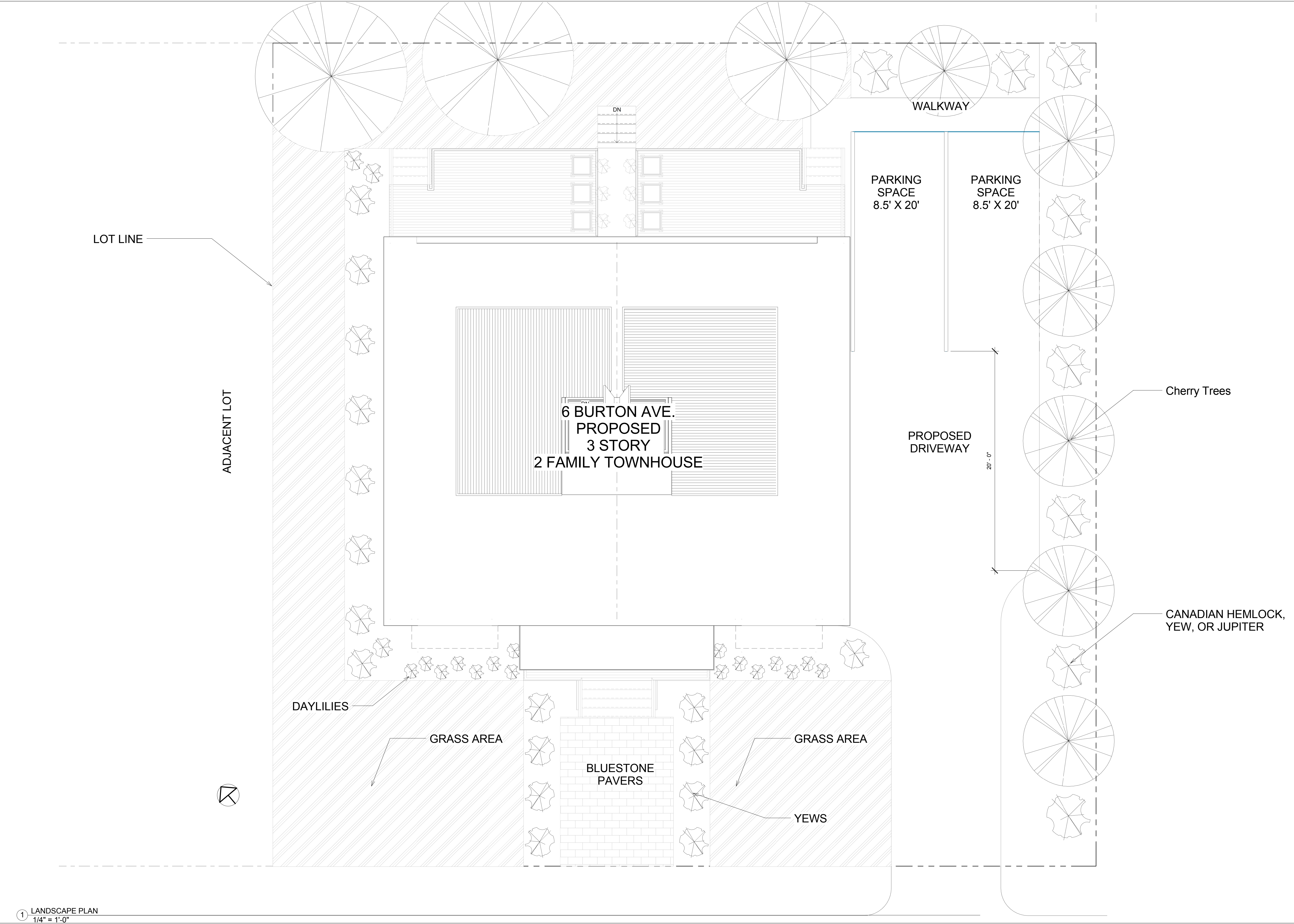
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Date: 07-26-2016
Drawn By: MS

Drawing Name

COVER SHEET

Sheet No.

A-0



① LANDSCAPE PLAN
1/4" = 1'-0"

Location

PROPOSED TWO FAMILY
6 BURTON AVENUE
ROXBURY, MA, 02119

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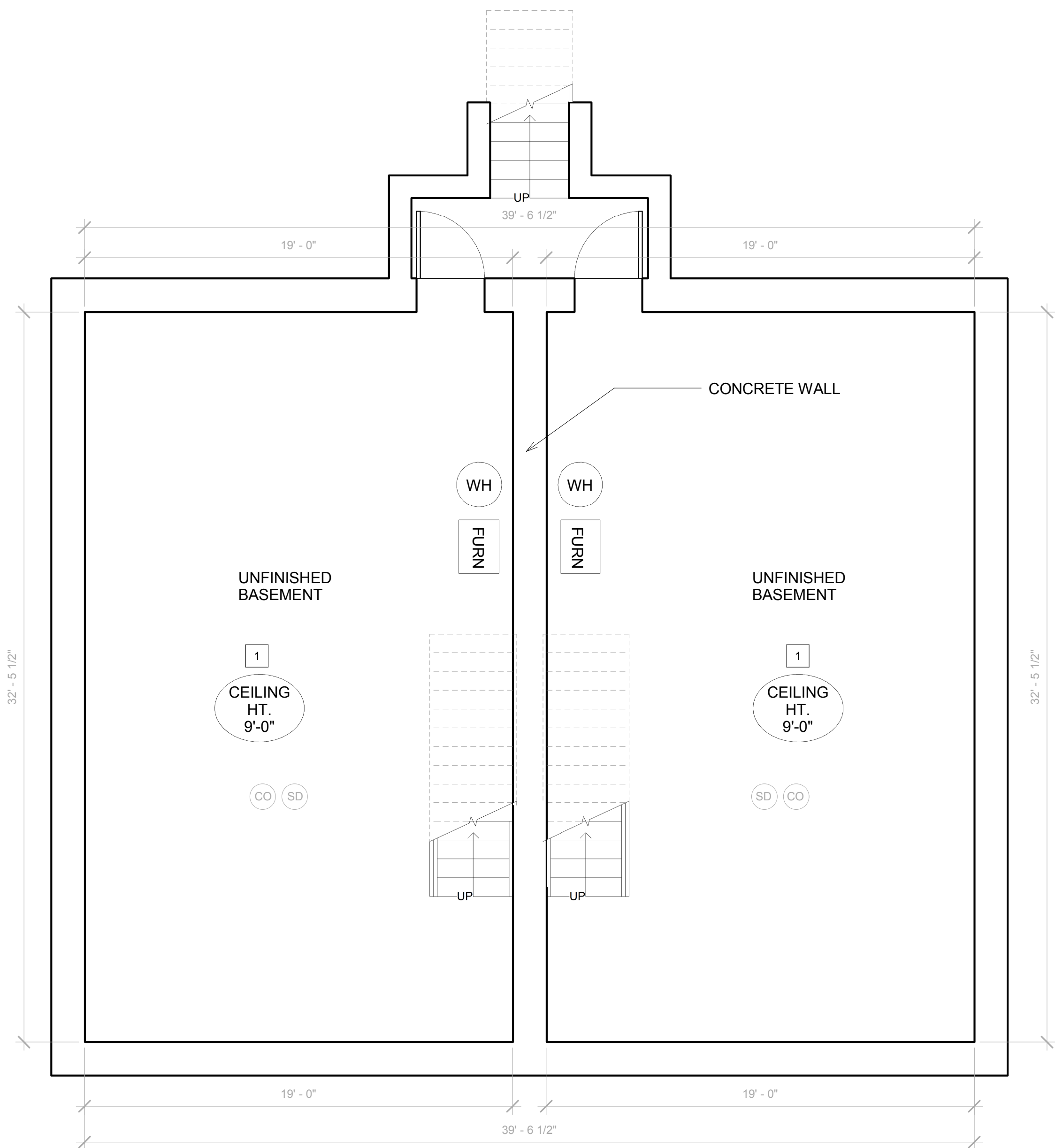
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Date: 07-26-2016
Drawn By: MS

Drawing Name

LANDSCAPE
PLAN

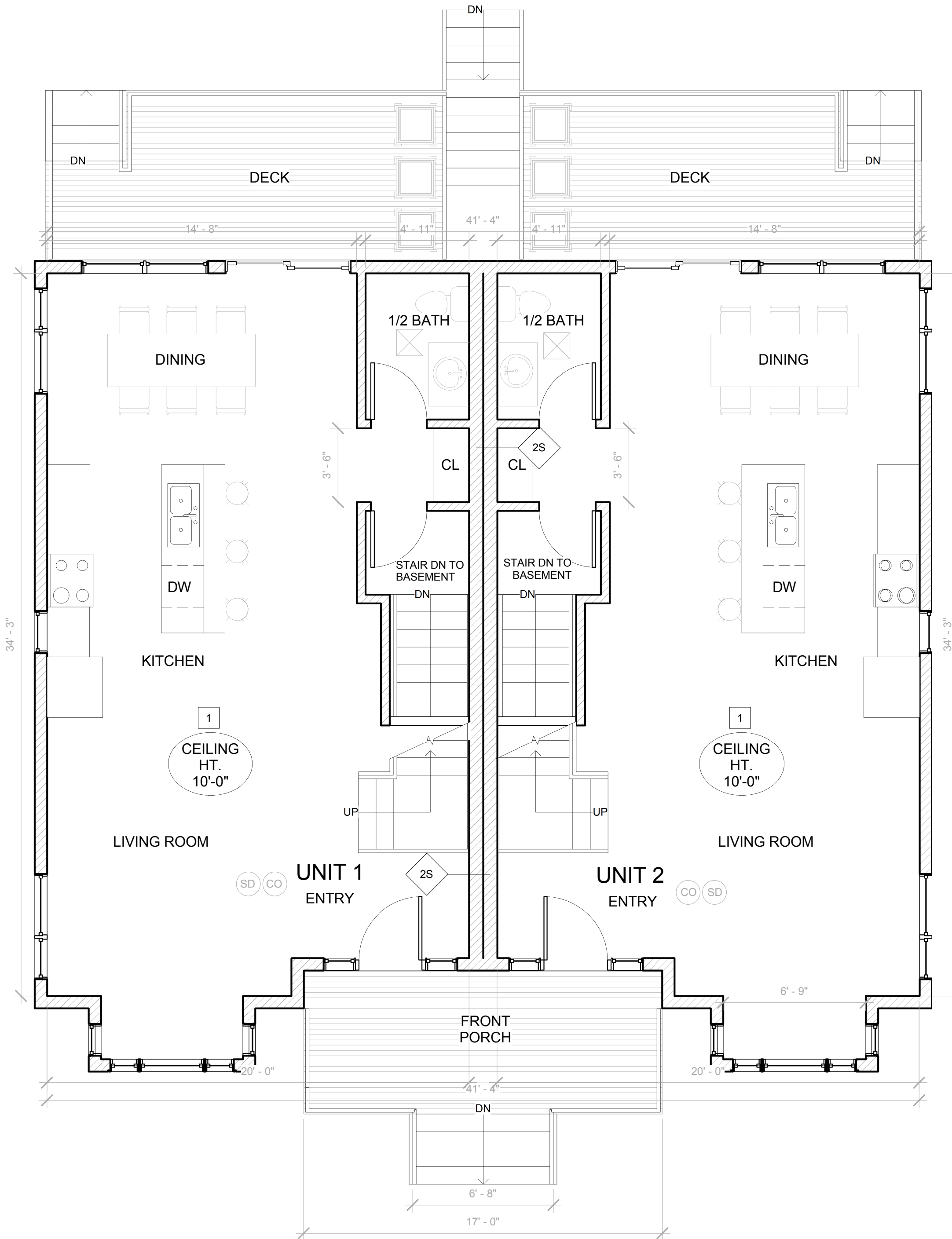
Sheet No.

A-0.1



BURTON AVENUE

1 BASEMENT
1/4" = 1'-0"



BURTON AVENUE

2 1ST FLOOR
1/4" = 1'-0"

Location

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No.	Description	Date

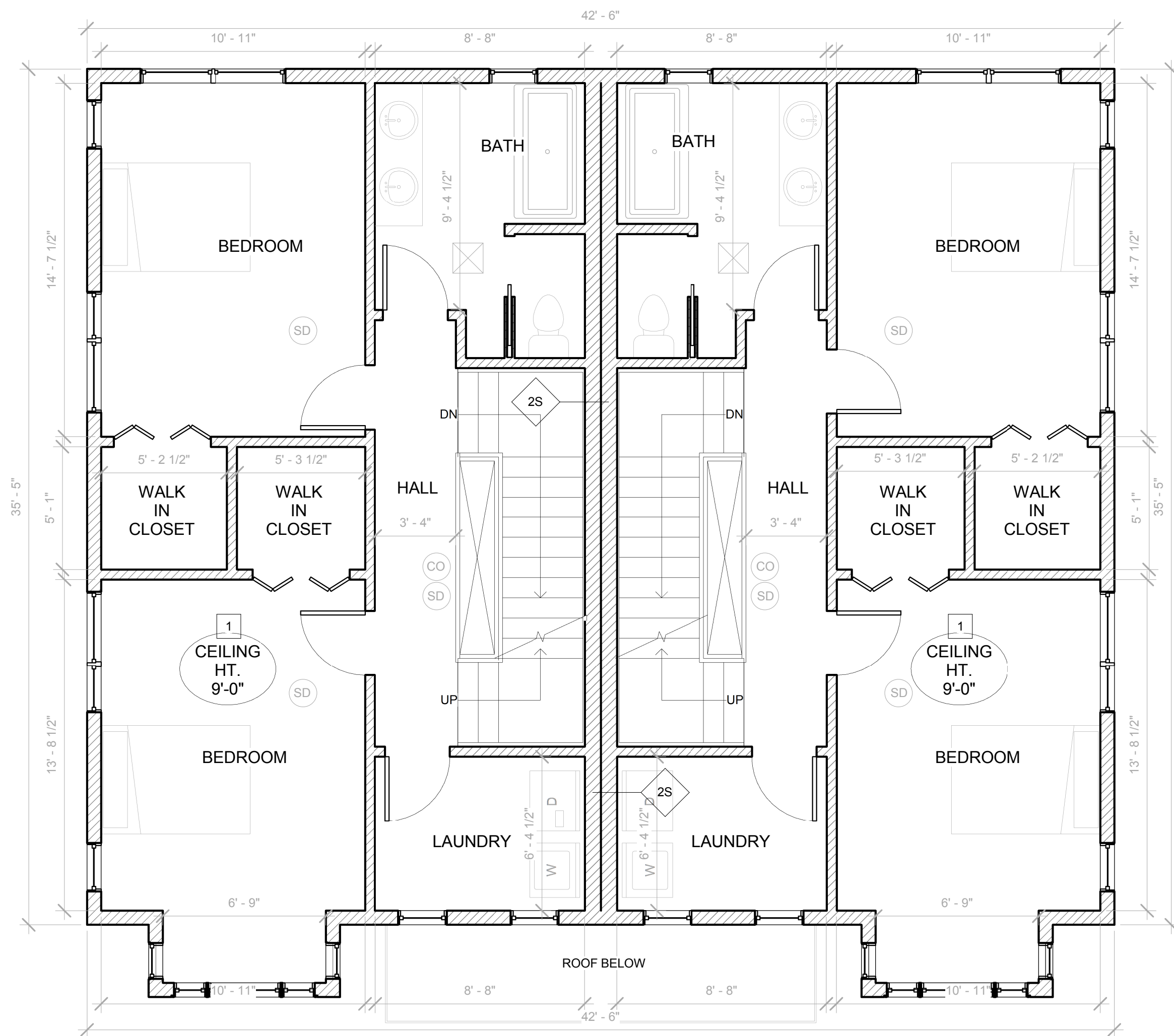
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Drawn By: MS

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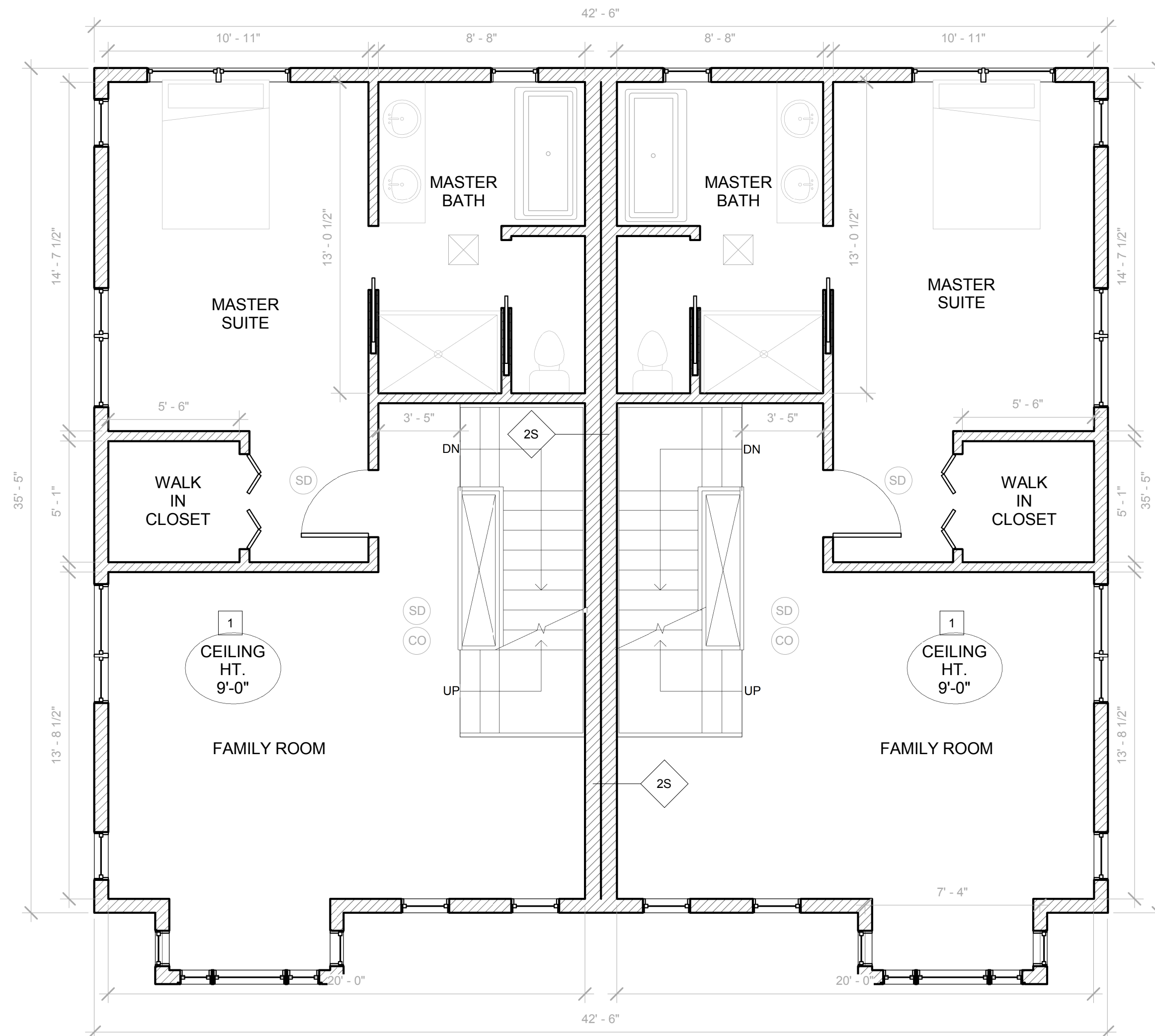
FLOOR PLANS

Sheet No.

A-1.0



1 2ND FLOOR
1/4" = 1'-0"



2 3RD FLOOR
1/4" = 1'-0"

Location

PROPOSED TWO FAMILY 6 BURTON AVENUE ROXBURY, MA, 02119

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617-786-7727 fax 617-786-7715

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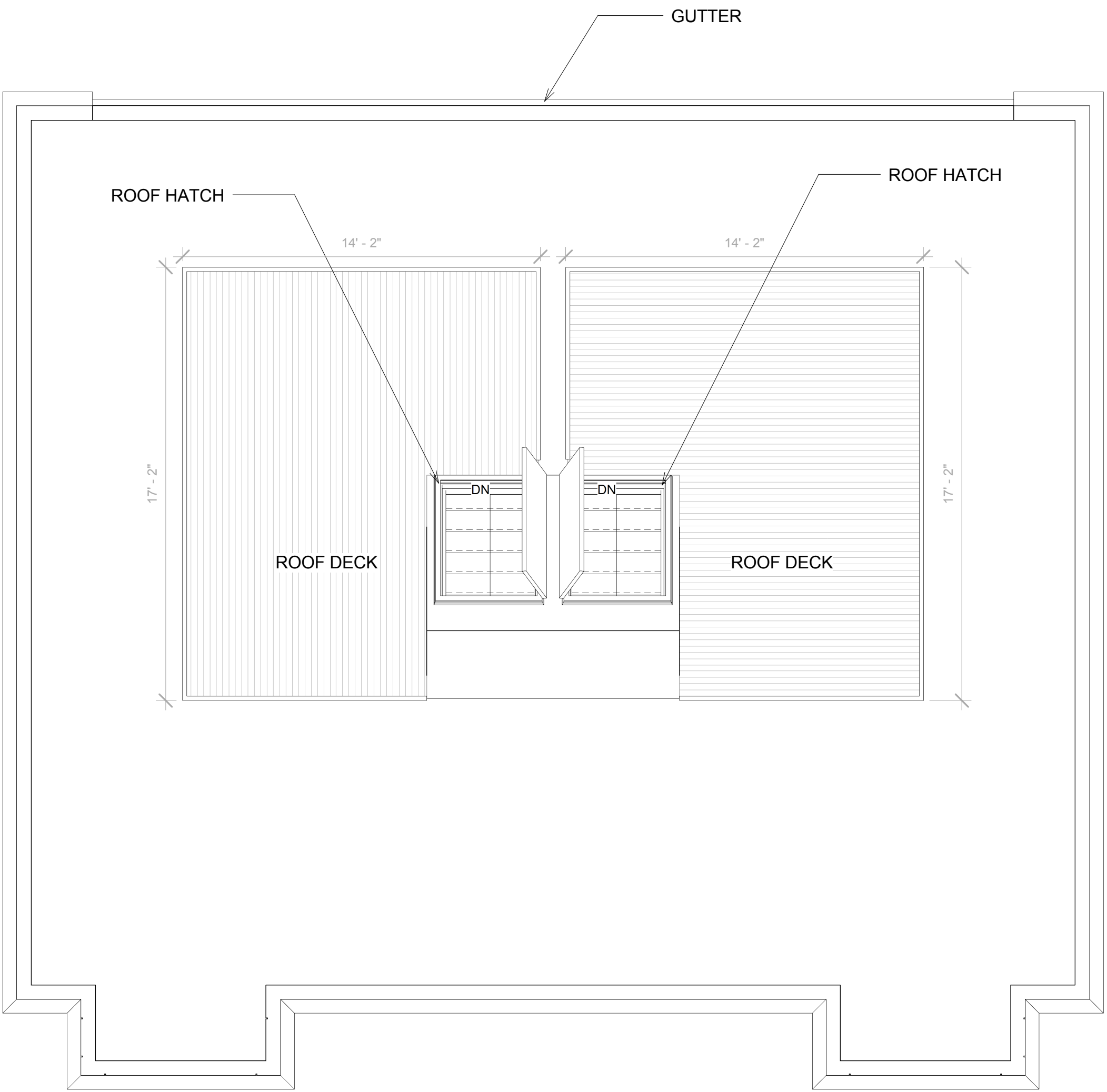
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Scale: 1/4" = 1'-0"
Date: 07-26-2016
Drawn By: MS

Drawing Name

FLOOR PLANS

Sheet No.

A-1.1



BURTON AVENUE

1 ROOF PLAN
1/4" = 1'-0"

Location

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No.	Description	Date

Project No: 16159

Scale: 1/4" = 1'-0"

Date: 07-26-2016

Drawn By: MS

Drawing Name

FLOOR PLANS

Sheet No.

A-1.2



① FRONT / SOUTH ELEVATION
1/4" = 1'-0"

Location

PROPOSED TWO FAMILY
6 BURTON AVENUE
ROXBURY, MA, 02119

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No.	Description	Date

Project No: 16159
Scale: 1/4" = 1'-0"
Date: 07-26-2016
Drawn By: MS

Drawing Name
ELEVATIONS

Sheet No.
A-2.0



① REAR / NORTH ELEVATION
1/4" = 1'-0"

Location

PROPOSED TWO FAMILY
6 BURTON AVENUE
ROXBURY, MA, 02119

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No.	Description	Date

Project No: 16159
Scale: 1/4" = 1'-0"
Date: 07-26-2016
Drawn By: MS

Drawing Name
ELEVATIONS

Sheet No.
A-2.1



① SIDE / EAST ELEVATION
1/4" = 1'-0"

Location

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Drawing Name

ELEVATIONS

Sheet No.

A-2.2



① SIDE / WEST ELEVATION
1/4" = 1'-0"

Location

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Drawing Name

ELEVATIONS

Sheet No.

A-2.3