		Drawing List	
Discipline	Sheet Number	Sheet Name	Sheet Issue Date
	A-000	Cover Sheet	08/04/17
	A-000		00/04/17
I-CIVIL			
I -CIVIL	C-1	Civil Site Plan	01/06/2017
			01,00,201,
2-ARCHITECTURAL			
2-ARCHITECTURAL	A-00 I	General Notes & Abreviations	08/04/17
2-ARCHITECTURAL	A-010	Code Review and Egress Calculations	08/04/17
2-ARCHITECTURAL	A-020	Site Plan and Zoning Chart	08/04/17
2-ARCHITECTURAL	A-100	Basement and Foundation Layout Plans	08/04/17
	A-101	I st ¢ 2nd Floor Plans	08/04/17
2-ARCHITECTURAL	A-102	3rd ¢ 4th Floor Plans	08/04/17
2-ARCHITECTURAL	A-103	Roof Plans	08/04/17
2-ARCHITECTURAL	A-200	Reflected Ceiling Plans and Interior Elevations	08/04/17
2-ARCHITECTURAL	A-300	Exterior Elevations	08/04/17
2-ARCHITECTURAL	A-301	Exterior Elevations	08/04/17
2-ARCHITECTURAL	A-400	Building Sections	08/04/17
2-ARCHITECTURAL	A-410	Stair Plans and Sections	08/04/17
2-ARCHITECTURAL	A-411	Details	08/04/17
2-ARCHITECTURAL	A-430	Typical Roof Details	08/04/17
2-ARCHITECTURAL	A-500	Perspective Views	08/04/17
	A-610	Enlarged Kitchen and Bathroom Plans & Elevations	08/04/17
2-ARCHITECTURAL	A-710	Stair and Door Details	08/04/17
	A-800	Partition Types	08/04/17
	A-900	Door & Window Schedules	08/04/17
3-STRUCTURAL	6.000	NOTEC AND OBECC	00/04/0017
2 STRUCTURAL	5-000		08/04/2017
3-STRUCTURAL	5-100		00/04/2017
2 STRUCTURAL	5-101		08/04/2017
2 STRUCTURAL	5-102	SRD AND 4111 LOOK I LANS	08/04/2017
5-STRUCTURAL	5-105	ROUTTLAN	00/04/2017
4-HVAC			
4-HVAC	H-100	Basement & 1 st Floor HVAC Plans	07/25/2017
4-HVAC	H-101	2nd and 3rd Floor HVAC Plans	07/25/2017
4-HVAC	H-102	4th Floor ¢ Roof HVAC Plans	07/25/2017
4-HVAC	H-201	HVAC SCHEDULES NOTES & DETAILS	07/25/2017
4-HVAC	H-202	HVAC DETAILS & NOTES	07/25/2017
	P-100	Basement & Let Floor Plumbing Plans	07/25/2017
	P-101	2nd and 3rd Floor Plumbing Plans	07/25/2017
	P 102	Ath Floor & Roof Plumbing Plans	07/25/2017
	P 200		07/25/2017
	P 201		07/25/2017
	1-201		07/23/2017
6-Electrical			
o-Electrical	E-100	Dasement & 1st Floor Fower Plans	07/26/2017
6-Electrical	E-101	2nd thru 4th Floor Power Plans	07/26/2017
6-Electrical	E-102	Koot Power Plan	07/26/2017
6-tlectrical	E-200	Basement & Ist Floor Lighting Plans	07/26/2017
	E-201	2nd thru 4th Floor Lighting Plans	07/26/2017
6-Electrical	E 0.0 -		107/0017
6-Electrical 6-Electrical	E-300	Electrical Notes & Details	07/26/2017
G-Electrical G-Electrical G-Electrical G-Electrical	E-300 E-301	Electrical Notes & Details Electrical Riser Diagrams & Schedules	07/26/2017
G-Electrical G-Electrical G-Electrical G-Electrical	E-300 E-301	Electrical Notes & Details Electrical Riser Diagrams & Schedules	07/26/2017
G-Electrical G-Electrical G-Electrical 7-Fire Protection 7-Fire Protection	E-300 E-301	Electrical Notes & Details Electrical Riser Diagrams & Schedules Basement & Eirst Floor Sprinkler Plans	07/26/2017
6-Electrical 6-Electrical 6-Electrical 7-Fire Protection 7-Fire Protection 7-Fire Protection	E-300 E-301 FP-100 FP-101	Electrical Notes & Details Electrical Riser Diagrams & Schedules Basement & First Floor Sprinkler Plans Second & Third Floor Sprinkler Plans	07/26/2017





# **PROJECT**: **41 Woodville Street Residences** <u>CD SET: 08.08.2017</u> <u>OWNER</u>

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# MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ENGINEERS ZADE ASSOCIATES LLC 140 BEACH STREET BOSTON, MA 02111 T:(617)-338-4406

PROJECT NAME
Woodville Street
Residences
PROJECT ADDRESS
41 WOOdVIIIe Street Boston MA 02119
CLIENT
Doug Reaudet
ARCHITECT
C 1
E G
Q Z
KUNICN
17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143
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TH OF MAR
Project number 17010
Date         08/08/2017           Drawn by         TC/FRS
Checked by ERS Scale
REVISIONS
No. Description Date
Cover Sheet





of mate	ERIALS		
	EARTH/ COMPACT FILL	E THE CONSTRUCTION	POROUS FILL/ GRAVEL
	CONCRETE		SAND MORTAR
	BRICK		CONCRETE MASONRY UNIT
	RUBBLE		MARBLE
	STEEL/IRON		ALUMINUM
	WOOD SHIM		CONTINUOUS BLOCKING
	PLYWOOD		FINISH
	GLASS		GLASS BLOCK
	BATT/ LOOSE FILL		RIGID
	FIRE SAFING		
	GYPSUM WALL BOARD		ACOUSTICAL TILE

	S STS SUPV SUSP	STEEL STRUCTURE SUPERVISOR SUSPENDED	W W W W/ W/O	WIDTH/WIDE WIDE FLANGE WITH WITHOUT		PROJECT NAME Woodville Street Residences PROJECT ADDRESS
	SW SWD SYM	TOP	WC WD WDW WG WH WHCH WHTR WP WR WS WS	WATER CLOSET WALL COVERING WOOD WINDOW WALL GUARD WALL HYDRANT WHEELCHAIR WATER HEATER WATER HEATER WATERPROOF WASTE RECEPTACLE WEATHERSTRIP WAINSCOT		41 Woodville Street Boston, MA 02119 CLIENT
	TAN TBD TC TCAB TDISP TDR	TANGENT TACKBOARD TIME CLOCK TOWEL CABINET TISSUE DISPENSER TRENCH DRAIN	WSCT WT WT WW WWF	WAINSCOT WINDOW TREATMENT WEIGHT WOOD WINDOW WELDED WIRE FABRIC		Doug Beaudet
OR	TEL TEMP TER TG THRES TPG	TELEPHONE TEMPERATURE TERRAZZO TONGUE & GROOVE THRESHOLD TEMPERED PLATE GLASS				ARCHITECT
	TPH TR TRANSF TS TV TYP U	TOILET PAPER HOLDER TREAD TRANSFORMER TUBE SECTION TELEVISION TYPICAL				OESIGZ
NET DSER	U UC UFD UG UH UNFIN UNO US UTIL	URINAL UNDERCUT UNDER FLOOR DUCT UNDERGROUND UNIT HEATER UNFINISHED UNLESS NOTED OTHERWISE UTILITY SHELF UTILITY				KHALSA
	V VC VENT VERT	VALVE CABINET VENTILATION VERTICAL				17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
	VEST VR VTR	VESTIBULE VAPOR RETARDER VENT THROUGH ROOF				CONSULTANTS:
Contractor RM Drains, G FY Actual In Renching An L BE Report Ained From F Hitectural, MIT Shop Dr Work IS New AGE : The GE LS, Ceilings, STRUCTION T TING ADJACE	R SHALL VERIF GAS AND WATE IVERTS OF SAM ID CONSTRUC TED TO THE AF PROPER AUTHO MECHANICAL, AWINGS TO TH UNLESS OTHO UNLESS OTHO NERAL CONTR FLOORS, FUR TO BE PATCHED NT SURFACES	Y LOCATION AND ACTUAL DEPT R MAINS, ELECTRIC LINES AND NITARY AND STORM LINES BY H TION. ANY DISCREPANCY IN TH RCHITECT. ALL NECESSARY PE ORITIES. ELECTRICAL, ELEVATOR, & SPF HE ARCHITECT FOR APPROVAL ERWISE NOTED. RACTOR IS RESPONSIBLE FOR A RNITURE AND FURNISHINGS. DA D, REPAIRED AND/OR REPLACE AT NO ADDITIONAL COST TO C	TH OF ALL EXIS PIPES. HE IS AND DUG TES HIS PLAN AND A RMITS AND AP RMITS AND AP RINKLER : EAC PRIOR TO FAE NY DAMAGE T AMAGED SURF D AS REQUIRE DWNER.	STING SANITARY PIPING, ALSO ADVISED TO T PITS WELL IN ADVANCE ACTUAL FIELD CONDITIONS PROVALS MUST BE H CONTRACTOR SHALL BRICATION.		COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW
GENERAL CO ED ON THIS JC RUCTION MAI OR TO FINAL A L ACCEPTANO PET AND/OR T	NTRACTOR SH DB WITH NAMES NUALS FOR EG ACCEPTANCE ( CE OF OWNER TILE : CARPET /	HALL PREPARE A BOOKLET CON S, ADDRESSES AND TELEPHON QUIPMENT AND MATERIALS INST OF BUILDING, AND PRESENT BC AND/OR TILE AS SELECTED AS I	itaining : list e numbers. A falled will b ooklet to ow per drawing:	OF SUBCONTRACTORS LL WARRANTIES AND E ISSUED TO THE OWNER NER PRIOR TO S.		No. 600 2 CAMERIDGE MA MA HEALTH OF MASSING
DICAPPED RE HITECTURAL / ERICANS WITH	QUIREMENTS ACCESS BOAR I DISABILITIES	D (AAB) CODE FOR THE STATE ACT) TO ENSURE THAT THIS F	VVILL ACQUAIN OF MASSACHU ACILITY WILL B	I HIMSELF WITH THE JSETTS AND THE ADA JE ACCESSIBLE.		Project number 17010 Date 08/08/2017
NKLER HEAD CODE. SHOP R TO INSTALL	LOCATION : RE DRAWINGS A ATION.	EFER TO N.F.P.A. STANDARDS.	SPRINKLER HE			Drawn byAEChecked byJSKScale1 : 1
JENERAL COI 6, INSERTS, E NTERIOR FINI	NIKACTOR SH BOXES, HANGE SHES AND FUF	IALL COORDINATE THE LOCATIONS FOR CEILINGS, WAL	JN AND SIZE O	F OPENINGS FOR VENTS, S SHALL BE CLASS 1in		No.     Description     Date
I A FLAME SPF /IT SAMPLES	READ RATING	OF 0 TO .25. S AND STAINS FOR APPROVAL F	PRIOR TO APPL	LICATION.		
DRE COMMEN RESENTATIVE STRUCTION M	CING WORK, T TO OUTLINE F IATERIALS ANE	HE GENERAL CONTRACTOR WI PHASING OF CONSTRUCTION AN D/OR EQUIPMENT.	LL MEET WITH ND DISPOSITIO	THE APPOINTED COMPANY N OF EXISTING	/	
WOODS BLOC	KING TO BE PF	RESSURE TREATED, FIRE RETA	RDANT.			General Notes &
						Abreviations
						A-UU'I

#### **BUILDING CODE REVIEW** MASSACHUSETTS STATE BUILDING CODE-8TH EDITION

#### <u>Introduction</u>

This report documents the code compliance review for the proposed Woodville Street Residences (the Building) project, located in Boston, MA. The compliance review is limited to the fire protection, life safety and accessibility of the applicable codes.

### **Project Description**

The proposed construction project resides in Boston, MA and consists of a 4 Story Residential building (R-2) of type 5A construction.

#### Applicable Codes

#### The applicable codes and guidelines for the project include the following: The Massachusetts State Building Code (780 CMR), Eighth Edition Effective

August 1, 2010 (based on ICC International Building Code 2009) with MA Amendments 2. 521 CMR Massachussetts Architectural Access Board

- 3. 248 CMR MA Plumbing Regulations
- 524 CMR MA Elevator Regulations 27 CMR MA Fire Prevention and Electrical Regulations
- 6. International Energy Code 2009
- 7. International Mechanical Code 2009 International Fire Code 2009
- 9. IEBC 2009

#### Occupancy Separation TABLE 508.4:

Fire Resistance Rating Requirements for Fire Separation Assemblies Between Fire Areas (in Hours)					
Occupancy M					
	S	NS			
R-2	1	2			
-	-	-			
-	-	-			

#### Individual Floor Area Review:

Floor 1 (R-2) has a building area of 2,202 square feet which is less than the permitted allowable Unlimited area and thus compliant.

Floor 2 (R-2) has a building area of 2,202 square feet which is less than the permitted allowable Unlimited area and thus compliant.

Floor 3 (R-2) has a building area of 2,202 square feet which is less than the permitted allowable Unlimited area and thus compliant.

#### Floor 4 (R-2) have a building area of 2,202 square feet each which is less than the permitted allowable Unlimited area and thus compliant.

Egress Features - Occupant Load, Exit Number, and Exit Capacity

The occupant loads for each space within the Building are calculated using the maximum floor area

allowances per occupant identified in 780 CMR Table 1004.1.1. Allowed areas are as follows: These calculated occupant loads are then used to determine the minimum required size of the Building's egress

elements, using the egress width per occupant factors identified in section 1005.1:0.2 inches per person for doors and ramps and corridors and 0.3 inches per person for stairways. Table 1021.1 requires two exits for Buildings with occupancy between 1-500 per story.

NUMBER OF EXITS REQUIRED FOR MAXIMUM OCCUPANT LOAD: 1 - 500 = 2EXITS SUPPLIED FROM RESIDENTIAL - 2

(see code 1021.2 for exception below)

**IO21.1 Exits from stories.** All spaces within each *story* shall have access to the minimum number of approved independent exits as specified in Table 1021.1 based on the occupant load of the story. For the purposes of this chapter, occupied roofs shall be provided with exits as required for stories.

#### Exceptions:

I. As modified by Section 403.5.2.

2. As modified by Section 1021.2 3. Exit access stairways and ramps that comply with Exception 3 or 4 of Section 1016.1 shall be permitted to provide the minimum number of *approved* independent *exits* required by Table 1021.1 on each *story*. 4. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic prinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

5. Within a *story*, rooms and spaces complying with Section 1015.1 with *exits* that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.

#### TABLE 1021.1

MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD OCCUPANT LOAD (persons per story) MININALINA NUMBER OF EVITS/100

MINIMUM NUMBER O	F EXILO(per S	torv)
	1	,,
1-500	2	
501-1.000	3	
		4

#### 1015.1 Exits or exit access doorways from spaces. Two exits or *exit access doorways* from any space shall be provided where one of the following conditions exists: Exception: Group I-2 occupancies shall comply with Section

1014.2.2 through 1014.2.7.

I. The occupant load of the space exceeds one of the values

ın Table 1015.1. Exception: In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2

2. The common path of egress travel exceeds one of the limitations of Section 1014.3. 3. Where required by Section 1015.3, 1015.4, 1015.5, 1015.6 or 1015.6.1.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1

Only one exit shall be required from Group R-2 occupancy buildings or from stories of other buildings as indicated in Table 1021.2. Occupancies shall be permitted to have a single exit in buildings otherwise required to have more than one exit if the areas served by the single exit do not exceed the limitations of Table 1021.2. Mixed occupancies shall be permitted to be served by single *exits* provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section

1004.1. Basements with a single *exit* shall not be located more than one *story* below *grade plane*.

GROUP I DWELLING UNITS

In multiple dwellings that are for rent, hire, lease, or sale but are not equipped with an elevator, only units on the ground floor must be constructed as Group 1 Dwelling Units.

	- 		
PRIMARY STRUCTURAL FRAME g (see Section 202)			
BEARING WALLS EXTERIOR f.g INTERIOR	-		
NONBEARING WALLS AND PARTITIONS EXTERIOR	SEE TABLE 602		
NONBEARING WALLS AND PARTITIONS INTERIOR e			
FLOOR CONSTRUCTION AND SECONDARY MEMBERS (see Section 202)			
ROOF CONSTRUCTION			

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPAR							
FIRE SEPARATION DISTANCE (feet)	FOR OCCUPANCY - USE GROUP TYPE - CONSTRUCTION	FOR OCCUPANCY R USE GROUP TYPE VA CONSTRUCTION					
X< 5 (c)	-						
5 <u>&lt;</u> X < 10	-						
10 <u>&lt;</u> X < 30	-	0					

OCCUPANCY	WITH SPRINKLER SYSTEM (FEET)	W/O SPRI
-		
R		

Section 712.3

	Maximum Area of Exterior Wall Openings					js
Degree of Opening			i	=ire Separat	tion Distanc	e (fee
Protection	0-3	>3-5	>5-10	>10-15	>15-20	>20
Unprotected, Nonsprinklered	NP	NP	10%	15%	25%	4
Protected, Sprinklered	NP	15%	25%	45%	75%	١
Protected	NP	15%	25%	45%	75%	1
	-	-				



1/16" = 1'-0"

1/16" = 1'-0"

# **BUILDING CODE REVIEW INTERNATIONAL BUILDING CODE-2009 EDITION**

### TYPE OF CONSTRUCTION

	ALLOWED		INCREASE		TOTAL	PROVIDED		
	AREA	STORIES/	AREA	STORIES	ALLOWED	AREA S.F.	STORIES/ HEIGHT	REMARKS
	S.F.	HEIGHT	S.F.					
BUSTIBLE OTECTED	13,500	2	NOT USED	1	7,000	2130	0 S/8'-9"	SEE NOTE #1,2,3,4,5,6 BELOW FOR INCREASE INFORMATION
BUSTIBLE OTECTED	7,000	2	NOT USED	1	7,000	2202	1 S/10'-0"	SEE NOTE #1,2,3,4,5,6 BELOW FOR INCREASE INFORMATION
BUSTIBLE OTECTED	7,000	2	NOT USED	1	7,000	2202	1 S/10'-0"	SEE NOTE #1,2,3,4,5,6 BELOW FOR INCREASE INFORMATION
BUSTIBLE OTECTED	7,000	2	NOT USED	1	7,000	2202	1 S/10'-0"	SEE NOTE #1,2,3,4,5,6 BELOW FOR INCREASE INFORMATION
BUSTIBLE OTECTED	7,000	2	NOT USED	1	7,000	2202	1 S/10'-0"	SEE NOTE #1,2,3,4,5,6 BELOW FOR INCREASE INFORMATION
						10,938	4 S/40'-0"	

TOTAL BUILDING "A" AREA = 10,938 S.F.

# Fire Resistance Rating Requirements for Fire Separation Assemblies Between

S2	
1	
Ν	

1. ALLOWABLE AREA INCREASE DUE TO AUTOMATIC FIRE SUPPRESSION SYSTEM = 200% (NOT USED)

4. ALLOWABLE HEIGHT INCREASE DUE TO AUTOMATIC SPRINKLES SYSTEM - 1 STORY" - (USED)

5. ALLOWABLE AREA INCREASE DUE TO STREET FRONTAGE- SECTION - 506.2 - (NOT USED)

6. AREA ANALYSIS ALLOWABLE AREA INCREASE (NOT USED) DUE TO COMPLIANCE WITH BASIC REQUIREMENTS OF TABLE 503

# FIRE RESISTANCE OF STRUCTURAL ELEMENTS:

	TYPE OF CONSTRUCTION			
	VA	FIRE RATING FILE #		
	1 HR			
	1 HR 1 HR			
( table 602)	1 HR			
	0 HR			
	1 HR			
	1 HR			

# Fire Resistance Rating Requirements for Exterior Walls

TYPE OF CONSTRUCTION	NOT USED	Occupancy R, S-2 & U Type VA,B
VB		1
VB		1
VB		0
VB		0

Dwelling units must be separated from each other (horizontally and vertically) and the rest of the building by construction that provides at least a one half (1/2) hour FRR (780 CMR Sections 709.3 & 712.3). Corridors in Use Group R-2 are required to provide a 30 minute FRR per Table 1018.1.

**SECTION 1005.1** 

			<u>ST</u> W ST	T <u>AIR WIDTH</u> IDTH IN INCHES TAIRS 0.3/PERSC	DN		
		, [	#	<b>STAID</b>	EGRESS CAPACITY	WIDTH IN INCH	WIDTH PROVDED
	OCCUPANT/			STAIR	0.3 * OCCUPANTS	ALLOWED	
=A/200	FLOOR		1	STAIR #1	16"	44"	44"
			2	STAIR #2	16"	44"	44"
80/ 300	7		EC	GRESS WIDTH (C	THER THAN STAIRS	<u>S)</u>	
2/ 200	11		W 0	IDTH IN INCHES .2/OCCUPANT			
2/ 200	11		#	DOOR	EGRESS CAPACITY	WIDTH IN INCH	WIDTH PROVDED
2/ 200	11		π	CORRIDOR	0.2 * OCCUPANTS	ALLOWED	
2/ 200	11		1	CORRIDOR	5.5" 11"	32" 44"	34" 56
2/ 200	11		2	CORRIDOR	5.5" 11"	32" 44"	34" 56
	51		ΕX	TERIOR EGRES	S DOOR 11"	32"	34"

PROJECT NAME **Woodville Street** Residences **PROJECT ADDRESS** 41 Woodville Street Boston, MA 02119 CLIENT **Doug Beaudet** ARCHITECT KHALSA 17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086 CONSULTANTS: COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW REGISTRATION 17010 Project number 08/08/2017 Date Drawn by Checked by JSK Scale As indicated REVISIONS Description Date Code Review and Egress Calculations Woodville Street Residences

# GENERAL SITE PLAN NOTES:

1. SEE CIVIL PLANS FOR ADDITIONAL NOTES 2. SEE LANDSCAPE PLAN FOR PLANTING LIST AND NOTES

	ZONING CHART								
ZONE - MFR (OTHER)	REQUIRED	EXISTING	PROPOSED	REMARK					
LOT AREA, MIN. S.F. FOR DWELL. UNIT(S)	4,000 SF/ FIRST 3 UNITS + 1,000 SF /EACH ADDT'L UNIT (9,000 SF REQ./8 DU)	10,221 SF	10,221 SF / DU	COMPLIES					
FAR	1.0/ 10,222 S.F.	N/A	0.86 / 8,808 S.F.	COMPLIES					
USEABLE OPEN SPACE	200 S.F. (PER DU) 1,600 S.F. REQ. FOR 8 DU	10,221 SF	3,845 S.F. 480.5 SF / DU	COMPLIES					
LOT WIDTH (MIN.)	40'	~98'	~98'	COMPLIES					
LOT FRONTAGE (MIN.)	40'	~98'	~98'	COMPLIES					
MAX HEIGHT	45'-0" / 4 ST	N/A	42' 9" / 4 ST	COMPLIES					
FRONT SETBACK	20'	N/A	20'-0"	COMPLIES					
LEFT SIDE SETBACK	10' - 0"	N/A	17' 4"	COMPLIES					
RIGHT SIDE SETBACK		N/A	10'-0"	COMPLIES					
REAR SETBACK	20'	N/A	27'-3"	COMPLIES					
REAR YARD MAX. OCC. BY ACCESSORY BUILDING	25% / 2,555 SF	N/A	0 %	COMPLIES					
PARKING	1/ DU = 8 Spaces Required (50% COMPACT ALLOWED)	N/A	8 SPACES (INCL. 4 COMPACT)	COMPLIES					

OVERLAYS: BOULEVARD PLANNING NEIGHBORHOOD DESIGN REVIEW



PROPOSED FOOTPRINT

LANDSCAPE AREA







**GENERAL FOUNDATION PLAN NOTES:** 

1. SEE STRUCTURAL DRAWINGS FOR ALL STRUCTURE. FOUNDATION LAYOUT PLAN IS FOR REFERENCE ONLY.

2. COORDINATE ALL DIMENSIONS WITH FLOOR PLANS PRIOR TO CONSTRUCTION.



# **GENERAL FLOOR PLAN NOTES**

1. FINAL KITCHEN LAYOUT TO BE DETERMINED BY OWNER.

- 2. UNLESS OTHERWISE NOTED ALL NEW EXTERIOR WALLS ARE TYPE "X1"
- 3. ALL INTERIOR FINISHES TO BE DETERMINED BY OWNER.
- 4. UNLESS OTHERWISE NOTED ALL INTERIOR WALL SHALL BE TYPE "1"
- 5. SEE A-800 FOR PARTITION TYPES.
- 6. MOISTURE RESISTANT GWB. BOARD TO BE USED IN ALL BATHROOMS AND KITCHENS
- 7. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES & CLADDING MATERIALS
- 8. SEE A-710 FOR DOOR DETAILS & A-900 FOR WINDOW DETAILS
- 9. ALL INTERIOR DIMENSIONS ARE FROM FACE OF GWB TO FACE GWB
- 10. ALL EXTERIOR DIMENSIONS ARE FROM EXTERIOR FACE OF PLYWOOD SHEATHING, TYP., U.N.O.

- 11. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES
- 12. ELECTRICAL OUTLETS ON OPPOSITE SIDE OF WALL SHOULD BE INSTAL LEAST 2'-0" FROM EACH OTHER.
- 13. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR DEMOLITION & CONSTRUCTION.
- 14. SEE HVAC DRAWINGS FOR ADDITIONAL INFORMATION.
- 15. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
  - 16. BUILDING TO BE FULLY SPRINKLERED.

17. REFER TO ELEVATIONS 5 THROUGH 12 ON SHEET A-200 FOR TYPICAL B INFORMATION. INSTANCES OF BATHROOMS ON SECOND AND THIRD FLOO MAY BE MIRRORED OR ROTATED IMAGES OF REFERENCED ELEVATIONS.

18. REFER TO SHEETS A-430 AND A-431 FOR ROOF DETAILS.

19. ALL WINDOWS IN EXISTING BUILDING ARE NEW, REPLACE IN EXISTING OPENINGS, U.O.N.

	<u>LEGEND</u>	
		NEW WALL
LLED AT		EXISTING WALL TO REMAIN
то	X	WALL TYPE
		FLOOR MOUNTED SUPPLY GRILLE
	0 FD	FLOOR DRAIN
BATHROOM	$\mathbf{I}$	SMOKE DETECTOR
	CO	CO DETECTOR
i	0	POST UP, REFER TO STRUCTURAL DRAWINGS
	8	POST UP, REFER TO STRUCTURAL DRAWINGS





# **GENERAL FLOOR PLAN NOTES**

1. FINAL KITCHEN LAYOUT TO BE DETERMINED BY OWNER.

- 2. UNLESS OTHERWISE NOTED ALL NEW EXTERIOR WALLS ARE TYPE "X1"
- 3. ALL INTERIOR FINISHES TO BE DETERMINED BY OWNER.
- 4. UNLESS OTHERWISE NOTED ALL INTERIOR WALL SHALL BE TYPE "1"
- 5. SEE A-800 FOR PARTITION TYPES.

6. MOISTURE RESISTANT GWB. BOARD TO BE USED IN ALL BATHROOMS AND KITCHENS

7. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES & CLADDING MATERIALS

8. SEE A-710 FOR DOOR DETAILS & A-900 FOR WINDOW DETAILS

9. ALL INTERIOR DIMENSIONS ARE FROM FACE OF GWB TO FACE GWB 10. ALL EXTERIOR DIMENSIONS ARE FROM EXTERIOR FACE OF PLYWOOD SHEATHING, TYP., U.N.O. 11. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES

12. ELECTRICAL OUTLETS ON OPPOSITE SIDE OF WALL SHOULD BE INSTAL LEAST 2'-0" FROM EACH OTHER.

13. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR DEMOLITION & CONSTRUCTION.

- 14. SEE HVAC DRAWINGS FOR ADDITIONAL INFORMATION.
- 15. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

16. BUILDING TO BE FULLY SPRINKLERED.

17. REFER TO ELEVATIONS 5 THROUGH 12 ON SHEET A-200 FOR TYPICAL B INFORMATION. INSTANCES OF BATHROOMS ON SECOND AND THIRD FLOO MAY BE MIRRORED OR ROTATED IMAGES OF REFERENCED ELEVATIONS.

18. REFER TO SHEETS A-430 AND A-431 FOR ROOF DETAILS.

19. ALL WINDOWS IN EXISTING BUILDING ARE NEW, REPLACE IN EXISTING OPENINGS, U.O.N.



2 2nd Floor 1/4" = 1'-0"

	Γ	
	LEGEND	
		NEW WALL
LLED AT		EXISTING WALL TO REMAIN
то	X	WALL TYPE
		FLOOR MOUNTED SUPPLY GRILLE
	0 FD	FLOOR DRAIN
BATHROOM	$\mathbf{I}$	SMOKE DETECTOR
	CO	CO DETECTOR
i	0	POST UP, REFER TO STRUCTURAL DRAWINGS
	M	POST UP, REFER TO STRUCTURAL DRAWINGS
	1	





2 3rd Floor 1/4" = 1'-0"

# **GENERAL FLOOR PLAN NOTES**

- 1. FINAL KITCHEN LAYOUT TO BE DETERMINED BY OWNER.
- 2. UNLESS OTHERWISE NOTED ALL NEW EXTERIOR WALLS ARE TYPE "X1"
- 3. ALL INTERIOR FINISHES TO BE DETERMINED BY OWNER.
- 4. UNLESS OTHERWISE NOTED ALL INTERIOR WALL SHALL BE TYPE "1"
- 5. SEE A-800 FOR PARTITION TYPES.
- 6. MOISTURE RESISTANT GWB. BOARD TO BE USED IN ALL BATHROOMS AND KITCHENS
- 7. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES & CLADDING MATERIALS
- 8. SEE A-710 FOR DOOR DETAILS & A-900 FOR WINDOW DETAILS
- 9. ALL INTERIOR DIMENSIONS ARE FROM FACE OF GWB TO FACE GWB
- 10. ALL EXTERIOR DIMENSIONS ARE FROM EXTERIOR FACE OF PLYWOOD SHEATHING, TYP., U.N.O.

- 11. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL NOTES
- 12. ELECTRICAL OUTLETS ON OPPOSITE SIDE OF WALL SHOULD BE INSTALEAST 2'-0" FROM EACH OTHER.
- 13. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR DEMOLITION & CONSTRUCTION.
- 14. SEE HVAC DRAWINGS FOR ADDITIONAL INFORMATION.
- 15. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 16. BUILDING TO BE FULLY SPRINKLERED.

#### 17. REFER TO ELEVATIONS 5 THROUGH 12 ON SHEET A-200 FOR TYPICAL INFORMATION. INSTANCES OF BATHROOMS ON SECOND AND THIRD FLO MAY BE MIRRORED OR ROTATED IMAGES OF REFERENCED ELEVATIONS

- 18. REFER TO SHEETS A-430 AND A-431 FOR ROOF DETAILS.
- 19. ALL WINDOWS IN EXISTING BUILDING ARE NEW, REPLACE IN EXISTING OPENINGS, U.O.N.



1 4th Floor 1/4" = 1'-0"

# <u>LEGEND</u>

		NEW WALL
FALLED AT		EXISTING WALL TO REMAIN
R TO	X	WALL TYPE
		FLOOR MOUNTED SUPPLY GRILLE
	© FD	FLOOR DRAIN
	$\mathbf{i}$	SMOKE DETECTOR
DOR UNITS S.	CO	CO DETECTOR
G	0	POST UP, REFER TO STRUCTURAL DRAWINGS
	84	POST UP, REFER TO STRUCTURAL DRAWINGS





# ROOF LEGEND

0 RD

0 ERD

NEW WALL OR ROOF AREA

EXISTING WALL OR ROOF AREA TO REMAIN

ROOF DRAIN

EMERGENCY ROOF DRAIN

# **GENERAL ROOF PLAN NOTES**

1. SEE HVAC DRAWINGS FOR ADDITIONAL INFORMATION.

- 2. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 3. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. 4. REFER TO SHEETS A-430 AND A-431 FOR ROOF DETAILS.
- 5. HIGH FLAT ROOF TO BE EPDM MEMBRANE SYSTEM.







3 3rd Floor 1/8" = 1'-0"







4 <u>4th Floor</u> 1/8" = 1'-0"



CONTRACTOR TO REVIEW STRUCTURAL DRAWINGS WITH ARCHITECTURAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT ERRORS TO THE ARCHITECT IMMEDITATELY PRIOR TO COMMENCING WORK. VERIFY AND COORDINATE MECHANICAL AND MAKE FLUSH TO DUCTWORK, ETC. SPOT ELEVATION ON RCP TO BE ADJUSTED A REQUIRED. CONTRACTOR TO REVIEW AND DETERMINE HEIGHT POINT PRIOR TO CONSTRUCTION AND INSTALLATION.

REFLECTED CEILING PLAN LEGEND									
	GWB SUSF TO JOIST A	PENDED CEILING, HEIGHT AS S ABOVE TO MAINTAIN FIRE RATI	PECIFI NG, SE	ED AND G' E BUILDIN	WB CEILING A	TTACHED OR CEILING ASS	EMBL		
	GWB CEILI	NG ATTACHED TO JOIST, SEE	BUILDII	NG/ WALL	SECTIONS FC	OR CEILING ASSE	MBLY		
	GWB SOFFIT, SIZE TBD BY MECH. DUCTWORK ABOVE SOFFIT. GWB CEILING ATTACHED TO JOIST TO MAINTAIN FIRE RATING, SEE BUILDING SECTION FOR CEILING ASSEMBLY								
	PVC SOFFIT BOARD. SEE BUILDING SECTION FOR CEILING ASSEMBLY								
MOKE	CO ALARM	SD SMOKE ALARM	$\odot$	SPRINK	LER				

SMOKE DETECTORS TO BE INTERCONNECTED & HARD WIRED.

REFER TO ELECTRICAL PLANS FOR LIGHTING

SEE BUILDING SECTIONS FOR FLOOR/ CEILING ASSEMBLY; MAINTAIN 1 HR FIRE RATING ABOVE ALL SOFFITS AND SUSPENDED CEILINGS BY PROVIDING 2 LAYER 1/2" TYPE 'X' GWB ON 1/2" RESILIENT CHANNELS (RC-1) ATTACHED TO FLOOR JOISTS.

CONTRACTOR TO COORDINATE ALL INTERIOR ACCESSORIES WITH OWNER AND TO SUPPLY ADEQUATE BLOCKING.

PROJECT NAME Woodville Street Residences
PROJECT ADDRESS 41 Woodville Street Boston, MA 02119
CLIENT
Doug Beaudet
ARCHITECT
KHALSA
17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
CONSULTANTS:
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REGISTRATION
No. CONS. CO
Project number 17010 Date 08/08/2017 Drawn by TC/EPS
Checked by     ERS       Scale     1/8" = 1'-0"
No. Description Date
Reflected Ceiling Plans and Interior Elevations
<b>A-200</b>
Woodville Street Residences

















![](_page_16_Picture_0.jpeg)

![](_page_16_Picture_1.jpeg)

# **GENERAL KITCHEN NOTES FOR**

SPACE FOR PERSONS USING WHEELCHAIRS.

![](_page_17_Figure_16.jpeg)

![](_page_17_Figure_17.jpeg)

![](_page_17_Figure_19.jpeg)

![](_page_17_Figure_26.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_19_Figure_0.jpeg)

![](_page_19_Figure_1.jpeg)

									PROJECT NAME Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 CLIENT
								_	Doug Beaudet
4"		UNDERS	IDE OF ST	RUCTURE					ARCHITECT
		JOINT SE SIDE, FIF WOOL B/	EALER ANI RESTOPPII ACKER AT	D BACKING NG AND MI RATED PA	EACH NERAL RTITIONS	i			17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143
_ _ _ <b>X</b>		CEILING ASSEMB CEILING	RUNNER/I LY AS REQUI	DEFLECTIO	N				TELEPHONE: 617-591-8682 FAX: 617-591-2086
		PAPERLE 1 SIDE @ 2X4" WO 3 1/2" BA BATHRO SCHEDU FLOOR R JOINT SE TOP OF S	S AT BA TYPE 1A OD STUD TT INSULA OMS, KITO LED BASE RUNNER EALER ANI STRUCTUF	THROOMS FRAMING / ATION AT CHENS & B D BACKING RE	AT 16" O.C EDROOMS B EACH SIE	S. DE			
ШЛIM	FILL	FIRE TEST (UL #)	FIRE RESISTANTNCE	STC RATING	IIC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS		
4"	3 1/2" BATT	UL# U305	-	-	-	16'-4"	MR GWB @ BATH AND KITCHEN SIDE		COPYRIGHT KDI© 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY
8"	3 1/2" BATT	UL# U305	-	-	-	6'-4"	DELETE GWB AT INSIDE FACE OF STUD. MR GWB @ BATH AND KITCHEN SIDE. DEFLECTION L/3GO 5/8" GWB TYPE X, STC 50+ AND PT WOOD FRAMING @ CMU WALLS		IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW
1 - II	NTERI	or Wal	_L			I			REGISTRATION
	<ul> <li>JOINT SIDE, WOOL</li> <li>DEFLI</li> <li>CEILIN ASSEI</li> <li>G MIL<sup>1</sup> (TYP. C</li> <li>CONT.</li> <li>1/2" PI</li> </ul>	SEALER A FIRESTOF BACKER ECTION AL NG RUNNE MBLY VAPOR BAR DN ALL EXTE AIR BARRIE	AND BACK PPING AND AT RATED LOWANCE R/DEFLEC RIER ERIOR WALL R (TYP) TEATHING	ING EACH MINERAL PARTITIO E CTION	Per NS Calo Usir -19/ Usir -Ca woo Usir	the Interna culated Fire ng Table 72 32" Plywoo ng Table 72 vities betwo I batts or ro ng Table 72	tional Building Code (IBC); section 721 Resistance: (1.6.2(1)) d = <b>15 min of protection</b> (1.6.2(5)) seen stud framing to be filled with fiber mineral bockwool = <b>15 min of protection</b> (1.6.2(1))		Project number       17010         Date       08/08/2017         Drawn by       ARS
-	REFER - SEE EL - 5/8"GY TYPE "> TAPE A PRIMEI - 2 X G	TO STRUCT EVATION FO PSUM WALL (". PROVIDE ND COMPO R AND TWO WOOD STU	TURAL DWG OR EXTERIO LBOARD E 3 COATS DUND WITH COATS PA DS	'S R SIDING ONE COAT INT	тот	TAL PROTI	ECTION = 1 HOUR		Checked by     KDI       Scale     1 1/2" = 1'-0"       REVISIONS       No.     Description
-	@  6" R-2  F BATT	O.C. IBERGLASS NSULATION	G (TYP.)						
	- SCHE - Floo - Sill S	DULED BA R RUNNEF SEALER, T`	ASE R YP.						
	- Top C - Joint	OF STRUC <sup>-</sup> SEALER /	TURE AND BACK	ING EACH	SIDE				
ШЛИ	ILL	IRE TEST (UL #)	ESISTANTNCE	TC ATING	C ATING	'MITING EIGHT	EQUIREMENTS		Partition Types
> 8"	∟ 5 I/2" BATT	∟ UL# 356	-	U) ⊡∠ -	~	⊥ I  6'-4"	HORIZONTAL LAP SIDING 6" SEE ELEVATION DWG'S.	1	
1 H(	OUR F	IRE RAT	ΓΕΟ	I	I	I			<b>A-800</b>
									Woodville Street Residences

#### DOOR NOTES:

1.) DOORS TO BE BY TRIMLITE OR EQUIVALENT AS SELECTED BY OWNER. 2.) SEE RENDERING FOR EXTERIOR DOOR COLORS & STYLE.

3.) INTERIOR DOOR COLOR AND PANEL STYLE TBD BY OWNER.

# DOOR LEGEND

![](_page_20_Figure_4.jpeg)

Door Schedule												
								Details			Head	
Door Number	Description	Width	Height	Frame Type	Door	Fire Rating	Head	Jamb	Sill	Sill Height	Height	Comments
1	SINGLE 36" X 84"	3' - 0"	7' - 0"	WD	FIR WD DOOR					0' - 0"	7' - 0"	
2	SINGLE 36" X 80"	3' - 0"	6' - 8"	CLAD/GLASS	WD GLASS					0' - 0"	6' - 8"	
2A	FIXED 34" X 80"	2' - 10"	6' - 8"	CLAD/GLASS	WD GLASS					0' - 0"	6' - 8"	
3	SINGLE 36" X 84"	3' - 0"	6' - 8"	CLAD/GLASS	WD GLASS					0' - 0"	6' - 8"	
4	SINGLE 32" X 80"	2' - 8"	6' - 8"	CLAD/GLASS	INSUL. FIBERGLASS					0' - 0"	6' - 8"	
U1	SINGLE 36" X 80"	3' - 0"	6' - 8"	НМ	HM	90 MINUTES	13/A-710	12/A-710	11/A-710	0' - 0"	6' - 8"	
U2	SINGLE 34" X 80"	2' - 10"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	OFFSET HINGES TO BE ADDED IN GROUP 1 UNITS IN FUTURE IF NECESSARY
U3	SINGLE 32" X 80"	2' - 8"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	
U4	SINGLE 30" X 80"	2' - 6"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	MARBLE THRESHOLDS AT BATHROOMS
U5	BIFOLD 60" X 84"	5' - 0"	7' - 0"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	7' - 0"	
U6	DOUBLE 36" X 80"	3' - 0"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	
U7	DOUBLE 42" X 80"	3' - 6"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	
U8	DOUBLE 32" X 80"	2' - 8"	6' - 8"	WD	S.C. WOOD		9/A-710	8/A-710	7/A-710	0' - 0"	6' - 8"	

#### WINDOW NOTES:

1.) WINDOW TO BE ALSIDE VINYL WINDOWS OR EQUIVELENT AS SELECTED BY OWNER.

2.) EXTERIOR FINISH TO BE WHITE, INTERIOR FINISH AS SELECTED BY OWNER. 3.) SIMULATED DIVIDED LIGHT PATTERN AS SHOWN.

![](_page_20_Figure_9.jpeg)

	ROUG	H OPENING					DETAILS		
Type Mark	Width	Height	Description	Material	Finish	Head	Jamb	Sill	Comments
А	3' - 0"	6' - 0"	DOUBLE HUNG	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
В	5' - 8"	6' - 0"	DOUBLE HUNG	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
С	2' - 6"	4' - 0"	SINGLE HUNG	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
D	2' - 6"	2' - 6"	AWNING	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
E	2' - 8"	1' - 4"	FIXED	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
F	5' - 6"	1' - 3"	FIXED	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
G	2' - 10"	1' - 0"	FIXED	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
Н	2' - 8"	1' - 3"	HOPPER	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
I	3' - 0"	1' - 4"	FIXED	VINYL	WHITE	1/A-900	2/A-900	3/A-900	
J	2' - 10"	1' - 4"	FIXED	VINYL	WHITE	1/A-900	2/A-900	3/A-900	

![](_page_20_Figure_11.jpeg)

![](_page_20_Figure_12.jpeg)

![](_page_20_Figure_13.jpeg)

![](_page_20_Figure_14.jpeg)

![](_page_20_Figure_15.jpeg)

FRAME (TYP.)

TYP

DRIP EDGE

EXPOSURE ∉ JAMB, TYP.

![](_page_20_Figure_23.jpeg)

### <u>GENERAL CONDITIONS</u>

- ALL STRUCTURAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADDITION OF THE MASSACHUSETTS STATE BUILDING CODE AND THE INTERNATIONAL BUILDING CODE.CONTRACTOR MUST BUILD EXACTLY WHAT IS SHOWN ON STRUCTURAL DRAWINGS. ANY PROPOSED DEPARTURES FROM WHAT IS INDICATED MUST BE REVIEWED AND APPROVED WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL UNAUTHORIZED CHANGES TO THE APPROVED DRAWINGS MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE
- CONTRACTOR SHALL REVIEW ALL THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS FOR THIS PROJECT AND IS ENTIRELY RESPONSIBLE FOR: COORDINATING THE WORK OF ALL TRADES, VERIFYINGALL THE PROPOSED AND EXISTING BUILDING AND SITE CONDITIONS, CONFIRMING ALL NEW AND EXISTINGBUILDING DIMENSIONS, ELEVATIONS, AND MEASUREMENTS, FRAMING CONDITIONS, MEASUREMENTS AND ALL OTHER
- RELATED PROPOSED AND EXISTING BUILDING CONDITIONS. ENGINEER'S DESIGN IS DERIVED FROM ASSUMED FIELD CONDITIONS. ANY DISCREPANCIES BETWEEN MUST IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR SHALL CAREFULLY VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS PRIOR TO COMMENCEMENT OF THE WORK, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ENGINEERING AND ARCHITECTURAL DOCUMENTS. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE STRUCTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND SHALL VERIFY SIZE AND
- LOCATION OF ALL OPENINGS WITH THE MECHANICAL CONTRACTOR. PROVIDING ALL OPENINGS REQUIRED BY THE MECHANICAL, ELECTRICAL, OR PLUMBING TRADES SHALL BE A PART OF THE GENERAL CONTRACT, WHETHER OR NOT SHOWN IN THE STRUCTURAL DRAWINGS. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR REVIEW.
- TYPICAL DETAILS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE STRUCTURAL WORK UNLESS SPECIFICALLY NOTED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF TEMPORARY SHORING, BRACING, OR OTHERWISE PROTECTING ANY
- PORTION OF THE STRUCTURE, SITE AND UTILITIES FROM DAMAGE DURING CONSTRUCTION. THE ENGINEER IS SPECIFYING THE FINISHED CONDITION ONLY, WITHOUT ASSUMING KNOWLEDGE NOR RESPONSIBILITY FOR HOW THE CONTRACTOR WILL ACHIEVE THIS RESULT. FOR EXACT LOCATIONS OF FLOOR AND ROOF OPENINGS, POSTS, ETC., SEE ARCHITECTURAL DRAWINGS.

### <u>CONCRETE</u>

ALL CONCRETE WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE LATEST EDITION OF ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ALL CONCRETE SHALL BE CONTROLLED CONCRETE, MIXED AND PLACED UNDER THE SUPERVISION OF A CONCRETE TESTING AGENCY APPROVED BY THE OWNER.CONCRETE SHALL BE NORMAL WEIGHT OR LIGHT WEIGHT CONCRETE, AS INDICATED, WITH A SAND AND GRAVEL AGGREGATE , TYPE I

FOOTINGS 4000 PSI (NORMAL WT.) BASEMENT WALLS & PIERS 3000 PSI (NORMAL WT.) NTERIOR SLABS 4000 PSI (NORMAL WT.) EXTERIOR SLABS EXPOSED TO WEATHER 4000 PSI (NORMAL WT.)

- CONCRETE NOT OTHERWISE SPECIFIED 3000 PSI (NORMAL WT.) MAXIMUM DENSITY OF NORMAL WEIGHT CONCRETE SHALL BE 150 POUNDS PER CUBIC FOOT. MAXIMUM DENSITY OF LIGHT WEIGHT CONCRETE SHALL BE 110 POUNDS PER CUBIC FOOT REINFORCING STEEL: TYPICAL - ASTM A615, GRADE 60. FIELD BENT - ASTM A615, GRADE 40 WELDED WIRE FABRIC - ASTM A185.
- REINFORCING STEEL SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL. THESE DRAWINGS SHALL SHOW COMPLETE AND ACCURATE BAR LAYOUT, SIZES, OPENINGS, ACCESSORIES, AND ALL OTHER INFORMATION NECESSARY FOR COMPLETE AND ACCURATE FABRICATION AND PLACEMENT OF REINFORCING STEEL. THE CONTRACTOR SHALL SUBMIT A CONCRETE MIX DESIGN TO THE OWNER FOR APPROVAL AT LEAST TWO WEEKS PRIOR TO THE FIRST PLACEMENT.
- CONTRACTOR SHALL PROVIDE A CONCRETE POURING SEQUENCE TO THE ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL 7 DAYS PRIOR TO CONCRETE PLACEMENT. INSPECTION AND TESTING OF CAST-IN-PLACE CONCRETE WORK WILL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY, UNDER A SEPARATE
- CONTRACT WITH THE OWNER. IF CONCRETE FAILS, CONTRACTOR SHALL PROMPTLY REPLACE CONCRETE MATERIALS OR REDO WORK WHICH HAS BEEN REJECTED BY ARCHITECT AND/OR TESTING AGENCY, AT NO EXPENSE TO THE OWNER. INSPECTION AND APPROVAL BY THE OWNER OR THEIR REPRESENTATIVE SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO PROVIDE QUALITY CONTROL, MATERIALS, AND WORKMANSHIP
- FULLY INSURING THAT THIS WORK WILL CONFORM TO THE CONTRACT REQUIREMENTS. SAMPLING AND TESTING FOR QUALITY ASSURANCE DURING THE PLACEMENT OF CONCRETE MAY INCLUDE THE FOLLOWING, AS DIRECTED BY THE ARCHITECT. SAMPLES WILL BE MADE AT THE POINT OF DISCHARGE FROM THE READY-MIX TRUCK. SLUMP TEST, COMPLYING WITH ASTM CI43; ONE TEST FOR EACH SET OF COMPRESSION STRENGTH TEST SPECIMENS. SLUMP AT THE POINT OF
- DISCHARGE FROM THE READY-MIX TRUCK SHALL BE 3-5". COMPRESSION TEST SPECIMENS, COMPLYING WITH ASTM C3I; ONE SET OF 4 STANDARD CYLINDERS FOR EACH COMPRESSION STRENGTH TEST. ONE SET OF CYLINDERS SHALL BE TAKEN FROM THE FIRST FOOTING POUR, AND TWO SETS SHALL BE TAKEN DURING FOUNDATION WALL POURS, AT AN
- NTERVAL CHOSEN BY THE ARCHITECT. COMPRESSION STRENGTH TESTS SHALL COMPLY WITH ASTM C39; ONE SPECIMEN TESTED AT 7 DAYS, 2 SPECIMENS TESTED AT 28 DAYS, AND I SPECIMEN RETAINED IN RESERVE FOR LATER TESTING IF REQUIRED.
- ALL CONCRETE EXPOSED TO THE WEATHER OR POSSIBLE FREEZE/THAW ACTION SHALL CONTAIN AN AIR ENTRAINMENT ADMIXTURE. CONCRETE FLOOR SLABS ON METAL DECK SHALL HAVE LIGHT-WEIGHT COARSE AGGREGATE, SAND FINE AGGREGATE AND TYPE I OR II PORTLAND 14. CEMENT. SEE NOTE 3 ABOVE
- /5. ALL CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS, EXCEPT WHERE SPECIFICALLY NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN SHORED CONCRETE WORK SHALL BE MADE AT MIDSPAN. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH VERTICAL CONSTRUCTION JOINTS.
- GROUT UNDER COLUMN BASE PLATES AND UNDER OTHER BEARING PLATES SHALL BE NON-SHRINK, NONMETALLIC GROUT WITH A MINIMUM 16. COMPRESSIVE STRENGTH OF 5000 PSI AT 3 DAYS.NON-SHRINK GROUT SHALL BE "EMBECO 153" BY MASTER BUILDERS, SONOGROUT" BY SONNEBORN BUILDING PRODUCTS , "FIVE STAR GROUT" BY U.S. GROUT CORPORATION, OR EQUAL AS APPROVED BY THE ARHCRECT AND ENGINEER. ALL KEYS SHALL BE 2X4 (NOMINAL) UNLESS OTHERWISE SHOWN ON THE DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES.WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301-18.
- SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. 19. SEE ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, WASHES, REGLETS, CONCRETE FINISHES, MASONANCHORS, AND FOR MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
- THE PLACEMENT OF SLEEVES, OUTLET BOXES, BOX-OUTS, ANCHORS, ETC.,FOR THE MECHANICAL, ELECTRICAL, AND PLUMBINGTRADES IS THE RESPONSIBILITY OF THE TRADE INVOLVED. HOWEVER, ANY BOX-OUTS NOT COVERED BY TYPICAL DETAILS IN THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED FOR APPROVAL. UNLESS OTHERWISE NOTE, COVER TO REINFORCING BARS SHALL AS INDICATED BELOW.
- CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH ... CONCRETE IN CONTACT WITH EARTH OR WEATHER . CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH, FOR SLABS, WALLS & BEAMS ...

### ROUGH CARPENTRY

8.

OR TYPE II PORTLAND CEMENT AND HAVING A MINIMUM CONPRESSIVE STRENGTH (F'C) IN 28 DAYS AS FOLLOWS UNLESS INDICATED ON PLANS

ALL ROUGH CARPENTRY WORK SHALL BE EXECUTED IN CONFORMANCE WITH THE 8TH EDITION OF THE MASSACHUSETTS BUILDING CODE FOR ONE AND TWO FAMILY DWELLINGS (MBC 18.2) AND THE INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS (IRC 182). REFER TO THE MBC 182 AND IRC 182 FOR FRAMING COMPONENTS NOT SPECIFIED IN PLANS AND SECTIONS. NOTIFY THE ENGINEER OF ANY COMPONENT NOT DEFINED IN EITHER THE MBC 18.2 AND IRC 18.2 OR IN THESE DRAWINGS

REFER TO THE IRC 1&2 FASTENER SCHEDULE FOR STRUCTURAL MEMBERS TABLE 602.3 FOR CONNECTION FASTENING NOT IDENTIFIED IN THESE PLANS OR DETAILS. WHEN NOT OTHERWISE IDENTIFIED, ALL WOOD BEAMS, JOISTS, RAFTERS, HEADERS, STRINGERS, PLATES, AND SILLS SHALL BE SPRUCE PINE FIR #2 OR BETTER, WITH A MINIMUM FB = 875 PSI (SINGLE USE) AND FB = 1000 PSI (REPETITIVE USE), AND E SHALL BE 1,4000,000 PSI OR BETTER. WOOD STUDS MAY BE EASTERN HEMLOCK, EASTERN SPRUCE, OR HEM-FIR, GRADED "STUD" GRADE, #2 OR BETTER. LVL BEAMS, AS NOTED ON PLANS, SHALL HAVE A MINIMUM FB = 3100 PSI, E = 2,000,000 PSI, AND FV = 285 PSI. LVL BEAMS SHALL BE "VERSALAM" BY BOISE CASCADE. NO SUBSTITUTIONS WILL BE ACCEPTED, UNLESS THE ENGINEER SPECIFICALLY APPROVES ANOTHER PRODUCT SUBMITTED BY THE CONTRACTOR.

WOOD "I" BEAMS SHALL BE BY BOISE CASCADE. NO SUBSTITUTIONS WILL BE ACCEPTED, UNLESS THE ENGINEER SPECIFICALLY APPROVES ANOTHER PRODUCT SUBMITTED BY THE CONTRACTOR. MANUFACTURER'S RECOMMENDATIONS FOR BEARING, REINFORCING, CUTS, CANTILEVERS, FASTENING, ETC., SHALL BE STRICTLY ADHERED TO. PLYWOOD WALL SHEATHING, ROOF SHEATHING, AND SUBFLOORING SHALL BE APA GRADE, TRADEMARKED C-D INTERIOR WITH EXTERIOR GLUE. SUBFLOORING SHALL BE 3/4" THICK TONGUE AND GROOVE, AND SHALL BE GLUED TO FLOOR JOISTS WITH AN APPROVED ADHESIVE PRIOR TO NAILING. ROOF SHEATHING SHALL BE 1/2"

THICK AND WALL SHEATHING SHALL BE 1/2" THICK. ALL WOOD HAVING DIRECT CONTACT WITH CONCRETE OR MASONRY, AND WHEREVER WOOD IS WITHIN 8" OF FINISHED GRADE OR PART OF OPEN DECK CONSTRUCTION, SHALL BE PRESSURE TREATED. ALL METAL CONNECTORS INCLUDING JOIST AND BEAM HANGERS AND COLUMN CAP AND BASES SHALL BE BY SIMPSON STRONG-TIE CORP. THE CONTRACTOR SHALL STRICTLY ADHERE TO MANUFACTURER'S FASTENING REQUIREMENTS. CONTRACTOR TO VERIFY ALL CONNECTOR SIZES TO FRAMING ELEMENTS BEFORE ORDERING. UNLESS DETAILED OR SPECIFIED OTHERWISE ON THE PLANS, HEADERS AND BEAMS SHALL BE SUPPORTED BY AT

LEAST ONE JACK STUD AND ONE KING STUD. FOR WOOD JOIST SPANS UP TO 14 FEET, PROVIDE A SINGLE ROW OF FULL DEPTH BLOCKING BETWEEN JOISTS AT MIDSPAN. FOR SPANS EXCEEDING 14 FEET, PROVIDE TWO ROWS OF FULL DEPTH BLOCKING BETWEEN JOISTS AT THIRD POINTS OF THE SPAN. MEMBERS WITHIN BUILT-UP BEAMS, WHETHER MADE OF SAWN OR ENGINEERED LUMBER, SHALL ONLY BE SPLICED

OVER SUPPORTS. IPROVIDE SIMPSON H8 HURRICANE TIES BETWEEN EACH RAFTER BOTTOM AND ITS BEARING POINT. CONTRACTOR SHALL CAREFULLY COORDINATE THE WORK OF ALL TRADES TO MINIMIZE THE NEED FOR CUT, BORED OR NOTCHED IN FRAMING LUMBER. STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN THE BUILDING CODE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER. AT WOOD POSTS LANDING ON FLOOR DECK, PROVIDE SOLID VERTICAL WOOD BLOCKING WITHIN DECK SANDWICH

TO LINK UPPER POST WITH LOWER SUPPORT. BLOCKING TO MATCH UPPER POST SIZE. SET LVL BEAMS THAT FRAME FLUSH WITH DIMENSIONED LUMBER JOISTS 3/8" BELOW THE TOP OF JOISTS TO ALLOW FOR JOIST SHRINKAGE. WHERE BEARING WALLS OR POSTS LAND ON THESE BEAMS, INFILL GAP WITH 3/8" PLYWOOD FOR SOLID BEARING. BEAMS COMPRISED OF 3 LVLS OR MORE SHALL BE BOLTED TOGETHER WITH A MINIMUM OF 2-1/2" BOLTS AT 16" ON CENTER OR 3-1/4"• DIAMETER SELF TAPPING LAG SCREWS AT 16" ON CENTER, ALTERNATING INSERTION SIDES, FOLLOW MANUF. SPECS, UNLESS NOTED OTHERWISE ON DRAWING. IN ADDITION TO THE FLOOR JOIST SHOWN IN THE PLANS, CONTRACTOR SHALL INSTALL DOUBLE JOISTS UNDER

ALL PARTITIONS WALLS RUNNING PARALLEL TO THE DIRECTION OF FRAMING. 20. MINIMUM BEAM BEARING TO BE 3 INCHES UNLESS NOTED OTHERWISE ON PLAN.

### FOUNDATIONS

18.

I. WHERE FOUNDATIONS ARE EXISTING, DESIGN HAS BEEN COMPLETED ASSUMING FOUNDATIONS ARE SUITABLE TO SUPPORT PROPOSED RENOVATION. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT THE EXISTING FOUNDATION CONFORMS TO BUILDING CODE REQUIREMENTS AND REPORT FOOTING CONDITIONS TO ENGINEER FOR VERIFICATION. 2. EXCAVATE TO LINES AND GRADES REQUIRED TO PROPERLY INSTALL THE FOUNDATIONS ON INORGANIC, UNDISTURBED SOIL OR CONTROLLED STRUCTURAL BACKFILL AS REQUIRED BY THE ARCHITECT. ALL EXCAVATIONS SHALL BE DRY BEFORE PLACING ANY CONCRETE. 3. EXTERIOR FOOTINGS SHALL BE PLACED ON APPROVED SOIL AT A MINIMUM DEPTH OF 4 FEET, OR S MODIFIED BY THE STRUCTURAL ENGINEER, BELOW THE LOWEST ADJACENT GROUND EXPOSED O FREEZING. ANY ADJUSTMENT OF FOOTING ELEVATIONS DUE TO FIELD CONDITIONS MUST HAVE THE APPROVAL OF THE ARCHITECT.

4. SOIL BEARING CAPACITY: FOOTINGS MUST BE PLACED ON SOIL WITH A MINIMUM BEARING CAPACITY OF 4000 POUNDS PER SQUARE FOOT. BACKFILL BELOW FOOTINGS AND SLABS SHALL BE MADE WITH APPROVED GRANULAR MATERIALS PLACED IN 6" LAYERS. LAYERS SHALL BE COMPACTED TO 96% DENSITY AT OPTIMUM MOISTURE CONTENT, AS DEFINED BY ASTM DI557.

6. BACKFILLING AGAINST WALLS OR PIERS MAY ONLY BE DONE AFTER WALLS OR PIERS ARE BRACED TO PREVENT MOVEMENT. FOR WOOD FRAMED RESIDENTIAL CONSTRUCTION, NO BACKFILLING OF WALLS MAY TAKE PLACE UNTIL THE FIRST FLOOR DECK HAS BEEN FRAMED AND SHEATHED. UNLESS WRITTEN APPROVAL IS GIVEN BY THE ARCHITECT OR ENGINEER. 7. PROVIDE FOUNDATION DRAINAGE. WATERPROOFING/DAMP-PROOFING, AND FOUNDATION WALL INSULATION AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

DESIGN LOADS PER MASSACHUSETTS STATE BUILDING CODE <u>LIVE LOADS</u>

![](_page_21_Picture_49.jpeg)

CORRIDORS ABOVE THE IST FLOOR RESIDENTIAL AREAS EXTERIOR DECKS (SERVING A SINGLE UNIT)

#### WIND LOADS

MASSACHUSETTS STATE BUILDING CODE <u>DEAD LOAD</u>

WEIGHT OF MATERIALS AND CONSTRUCTION

EARTHQUAKE LOAD - PER 2009 IBC WITH MASSACHUSETTS STATE BUILDIN

SEISMIC SITE CLASS: D
SEISMIC DESIGN CATEGORY: B
SEISMIC RESISTING SYSTEM:
LIGHT-FRAME (WOOD) WALL SHEA
R = 6.5
CD =3
CD =4
ANALYSIS PROCEDURE FOUNDALENT LATE

PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE SEISMIC COEFFICIENT: Ss=0.29 SI=0.068

### <u>LATERAL FRAMING NOTES:</u>

- THE STRUCTURAL DESIGN OF THIS RESIDENCE WAS PERFORMEN RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS. DO NOT APPLY PER SECTIONS 301.1.3 ALTERNATIVE PROVISION
- FRAMING COMPONENTS AND FASTENERS AS IDENTIFIED IN THE 2. THE LATERAL LOAD REQUIREMENTS AS DEFINED BY THE INTER FAMILY DWELLINGS.
- ALL EXTERIOR WALLS TO FOLLOW SHEARWALL CRITERIA FOR S PROCEEDEDING PAGES
- ALL PLYWOOD SEAMS IN A SHEARWALL SHALL BE BLOCKED WIT THE WALL STUDS.
- REFER TO PLANS AND SECTIONS FOR STUD SIZES, STUDS SHAL UNLESS NOTED OTHERWISE ON PLAN.
- CARE SHOULD BE TAKEN TO ADJUST NAIL GUN PRESSURE SO A NAIL HEADS SHOULD BE FLUSH WITH PLYWOOD FACE. OVER DI
- EFFECTIVENESS OF THE SHEARWALL.

FOR FRAMING SIZES REFER TO FRAMING PLANS.

	670 MAIN STREET READING, MA 01867 (781-779-1330)	Woodville Street
		Residences
		41 Woodville Street, Boston MA 02119
		CLIENT
DING CODE		
40 PSF 100 PSF 100PSF 80PSF		Doug Beaudet
40 PSF 1T) 40 PSF		ARCHITECT
IOO MPH, EXPOSURE B		QESIGZ
HUSETTS STATE BUILDING CODE AMENDMENTS		
ARHING WITH WOOD STRUCTURAL PANELS		
ERAL FORCE PROCEDURE		KHALSA
SIDENCE WAS PERFORMED IN COMPLIANCE WITH THE INTERNATIONAL O FAMILY DWELLINGS. THE PRESCRIPTIVE REQUIREMENTS OF THIS CODE ALTERNATIVE PROVISIONS AND 301.1.3 ENGINEERED DESIGN.		17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
RS AS IDENTIFIED IN THESE DRAWINGS AND NOTES ADEQUATELY RESIST IS DEFINED BY THE INTERNATIONAL RESIDENTIAL CODE FOR ONE AITWO		CONSULTANTS:
EARWALL CRITERIA FOR SHEAR WALL I SET FORTH IN TABLES IN L SHALL BE BLOCKED WITH DIMENSIONAL LUMBER OF THE SAME SIZE AS		
STUD SIZES, STUDS SHALL BE SPACED AT 16 INCHES ON CENTER		
IAIL GUN PRESSURE SO AS TO NOT OVER DRIVE NAILS INTO PLYWOOD. PLYWOOD FACE. OVER DRIVING NAILS GREATLY REDUCES THE		
NG PLANS.		
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		PROSECUTION UNDER LAW
		REGISTRATION DANIEL W. WEBB STRUCTURAL 0.0752 ATCS 08/03/2017
		Project number 17212
		Project number         17213           Date         08/04/17           Drawn by         MD
		Checked by     DW       Scale     1/4" = 1'-0"
		REVISIONS
		NOTES AND SPECS
		<b>S-000</b>

WEBB STRUCTURAL SERVICES, INC.

![](_page_22_Figure_0.jpeg)

![](_page_23_Figure_0.jpeg)

1/4'' = 1'-0''

![](_page_23_Figure_3.jpeg)

![](_page_23_Picture_4.jpeg)

![](_page_24_Figure_0.jpeg)

![](_page_24_Figure_1.jpeg)

![](_page_25_Figure_0.jpeg)

![](_page_25_Figure_1.jpeg)

![](_page_26_Figure_0.jpeg)

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

2 1st Floor Level 1/4" = 1'-0"

PROJECT NAME Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 Doug Beaudet 5 1 G

CLIENT

# ARCHITECT

![](_page_26_Picture_8.jpeg)

17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086

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REGISTRATION

![](_page_26_Picture_13.jpeg)

17010 Project number 07/25/2017 Date Drawn by М Checked by Scale M 1/4" = 1'-0" REVISIONS Date Description No. Basement &1st Floor **HVAC** Plans **H-100** 

![](_page_27_Figure_0.jpeg)

1 2nd Floor Level 1/4" = 1'-0"

2 3rd Floor Level 1/4" = 1'-0"

![](_page_27_Figure_4.jpeg)

Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 CLIENT Doug Beaudet ARCHITECT S 1 G KHALSA 17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086 CONSULTANTS: COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW REGISTRATION No. 2723 17010 Project number 07/25/2017 Date Drawn by М Checked by Scale 1/4" = 1'-0" REVISIONS Description Date No. 2nd and 3rd Floor **HVAC** Plans

PROJECT NAME

**H-101** 

![](_page_28_Figure_0.jpeg)

![](_page_29_Figure_0.jpeg)

SPLIT	SPLIT SYSTEM GAS FIRED HVAC UNIT SCHEDULE (VFD INDOOR-TWO STAGE COMP)											TWO		96%	FURNACE							
INDOOR SECTION (VFD)											CONDE	INSING	SECTIO	NC								
TAG	NOM. CAP. TON	· CFM	ESP IN	Fan HP	tot. MBH	SENS. MBH	GAS IN	FURN(N	MBH) F   AFUE	FLUE	V/ø	FLA	МСА	MOCP	V/ø	EER	SEER	STRETCH SEER	DB	MODEL (BASED ON GOODMAN)	INDOOR	OUTDOOR
HVAC-2	2	700	.5	1/5	22	16	60	57.6	5 96	70 FT	115/1	11.5	14	20	208/1	14	19	15.0–YES	72	GCVM96060 W/DSXC16-24 AND MATCHING COIL	18"WX28"DX34"H+12" COIL-200 LBS	30"WX30"DX38"H-200 LBS
-																						TATAT

WITH EACH INDOOR UNIT PROVIDE -HONEYWELL T-7300 THERMOSTAT, ACID NEUTRALIZER, AIR FILTER, COMBUSTION AIR INTAKE AND EXHAUST FLUE PIPES, CONDENSATE DRAINS SHALL BE TYPE "L" COPPER WITH 1 1/3" FIBERGLASS INSULATION RUN TO INDIRECT WASTE ABOVE BATHROOM CEILING. PROVIDE ZONE CONTROL AS REQUIRED TO MATCH NUMBER OF MOTORIZED DAMPERS

WHEN RUN IN UNCONDITIONED SPACES PROVIDE MINIMUM 1" INSULATION FOR THE FLUE/VENT PIPES TO MATCH MAXIMUM LENGHTS ON FLUE LENGHT (INCLUDES 6 ELBOWS) PROVIDE REFRIGERANT LINES BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONAS. PROVIDE 3/4" ARMORFLEX INSULATION ON REFRIGERANT LINES PROVIDE MERV 6 FILTER

CEI	LING	MOUN	ITED	EXH	AUS	r fai	N					
TAG	LOCATION	TYPE	DRIVE	CFM	V/ø	LAMP	SP	NOISE SONES	DIMENSIONS	PANASONIC MODEL	ESTAR	CONTROLS
EF-1	BATHROOM	CEILING	DIRECT	110	120/1	(2)PL18	0.1"	0.3	14.5"X17"X11.5"H-16LBS-6" DUCT	FV-05-11VKSL1	YES	HIGH/LOW FAN REQUIRES TWO WALL SWITCHES (HAS LIGHT)

PROVIDE PANASONIC FIRE DAMPER ENCLOSURE FOR ALL CEILING BATHROOM FANS.

![](_page_29_Figure_6.jpeg)

RAL NOTES
BIGUITY, ERROR, INCONSISTENCY, OMISSION OR BETWEEN ANY OF CONTRACT DOCUMENTS THE TTING THE FINAL BID AND SIGNING THE IFY THE ARCHITECT AND REQUEST A WRITTEN S OR MATERIALS WILL BE REQUIRED. IN THE NTS OF STANDARDS, DRAWINGS AND SHALL COMPLY WITH THE MORE STRINGENT THE FINAL BID AND THE SIGNING THE THE CONTRACTOR SHALL OBTAIN A WRITTEN ECT, IN NO CASE SHALL THE CONTRACTOR K UNTIL ADVISED BY THE ARCHITECT. E A REQUEST FOR INTERPRETATION OR ACCEPTED FOR FAILURE TO CARRY OUT THE AS INTERPRETED BY THE ARCHITECT. THIS E HIGHEST QUALITY MATERIAL, MOST ORK AND PROVIDING COMPLETE FUNCTIONING
NTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED ACT DOCUMENTS OF THIS PROJECT, INCLUDING HANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE
VIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE CTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR

COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS

![](_page_29_Figure_10.jpeg)

TAG	MODEL BROAN	SIZE	DIMENSIONS	MODEL (BASED ON
WC-A	885BL	4"	6.5"X6.5" SQR, 2.75" EXTENTION	WALL CAP FOR DR
WC-B	843BL	6"	9"X9" SQR, 5.5" EXTENTION	WALL CAP FOR BA
WC-C	643	8"	12.5"X12.5" SQR, 6" EXTENTION	WALL CAP FOR KI
WC-D	641FA	6"	9"X9" SQR, 5.5" EXTENTION	WALL CAP FOR FR

![](_page_29_Figure_14.jpeg)

![](_page_29_Figure_15.jpeg)

EBB-4

EBB-6

UH-5

1.5

120/1

120/1

208/1

2#12

2#12 | Q'MARK#QMK-2514W-W/T'STAT

2#10 Q'MARK#MUH-35-W/T'STAT

Q'MARK#QMK-2516W-W/T'STAT

Woodville Street Residences

HVAC

SCHEDULES

NOTES & DETAILS

H-201

![](_page_30_Figure_0.jpeg)

![](_page_30_Figure_1.jpeg)

![](_page_30_Figure_2.jpeg)

PROJECT NAME

# Woodville Street Residences

### PROJECT ADDRESS

41 Woodville Street Boston, MA 02119

CLIENT

![](_page_30_Picture_8.jpeg)

### ARCHITECT

![](_page_30_Picture_10.jpeg)

17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086

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#### REGISTRATION

![](_page_30_Picture_15.jpeg)

Project	number	17010
Date	C	7/25/2017
Drawn	by	MM
Checke	ed by	MZ
Scale	1	/4" = 1'-0"
REVIS	SIONS	
No.	Description	Date
	HVAU	
	TAILS & NC	TES
	н_ул	
	11-20	
N	/oodville Street Resid	ences

# <u>GENERAL NOTES</u>-

1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO EXECUTE THE WORK SHOWN AND DESCRIBED. INSTALLATION OF MATERIALS SHALL MEET ALL APPLICABLE STATE, FEDERAL AND MUNICIPAL REQUIREMENTS.

2. OBTAIN PERMITS AND PAY ALL FEES FOR WORK AND REQUIRED INSPECTIONS.

3. MAINTAIN LIABILITY INSURANCE TO PROTECT OWNER AND THE CONTRACTOR FROM ANY AND ALL CLAIMS UNDER THE WORKER'S COMPENSATION ACT.

4. THE DRAWINGS SHALL CONSIDERED DIAGRAMMATIC ONLY. ALL MEASUREMENTS SHALL BE TAKEN FROM BUILDING SITE AND ARCHITECT'S DRAWINGS.

5. PROVIDE TEMPORARY MATERIAL STORAGE AS REQUIRED AND BE RESPONSIBLE FOR ANY LOSS OR DAMAGE THERETO.

6. SUBMIT 7 COPIES OF SHOP DRAWINGS FOR REVIEW COVERING MAJOR MANUFACTURED ITEMS, IE. AIR HANDLING UNITS, REGISTERS & DIFFUSERS, WIRING DIAGRAMS, ETC.

7. KEEP ACCURATE RECORD OF "AS-BUILT" DRAWINGS AND SUBMIT THESE BEFORE FINAL CERTIFICATE OF COMPLETION.

8. ON COMPLETION OF THE WORK, REMOVE FROM THE PREMISES ALL TOOLS, DEBRIS, SURPLUS AND WASTE MATERIALS RESULTING FROM OPERATIONS UNDER THIS SECTION. CLEAN ALL EQUIPMENT AND LEAVE ALL ITEMS IN PERFECT ORDER READY FOR OPERATION.

9. AFTER ACCEPTANCE, INSTRUCT OWNER IN EQUIPMENT OPERATION AND PROVIDE HIM WITH OPERATING AND MAINTENANCE MANUALS STANDARDS AND EXTENDED WARRANTY DOCUMENTS, INSPECTION CERTIFICATES AND COPIES OF SHOP DRAWINGS OF INSTALLED EQUIPMENT.

10. THE CONTRACTOR SHALL, BEFORE FINAL PAYMENT IS MADE, GUARANTEE ALL MATERIALS AND WORKMANSHIP SUPPLIED BY HIM IN THE PERFORMANCE OF THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND SHALL, WHEN CALLED UPON, MAKE GOOD WITHOUT FURTHER COST TO THE OWNER SUCH DEFECTS AS MAY APPEAR WITHIN THIS PERIOD.

11. SUPPLY AND INSTALL DUCTWORK AS INDICATED ON DRAWING. DUCTWORK SHALL BE FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH LATEST ASHRAE & SMACNA STANDARDS AND SHALL BE MANUFACTURED OF GALVANIZED STEEL UNLESS SPECIFICALLY NOTED OTHERWISE.

12. ADJUST ALL FAN SPEEDS TO DELIVER SHOWN AIR QUANTITIES. BALANCE ALL AIR SYSTEMS AND SUPPLY WRITTEN AIR BALANCING REPORTS IN TRIPLICATE. INCLUDE NECESSARY SPARE BELTS AND PULLEYS FOR FIELD ADJUSTMENT.

- 13. ALL CONCEALED SUPPLY AND RETURN DUCTWORK LOCATED WITHIN THE BUILDING SHALL BE EXTERNALLY INSULATED WITH 1 1/2" THICK INSULATION WITH A MINIMUM "R-6" VALUE. THERMAL INSULATION SHALL BE PROVIDED WITH VAPOR BARRIER. ALL SUPPLY AND RETURN DUCTWORK LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL BE FURNISHED WITH 3" THICK INSULATION WITH A MINIMUM "R-8" VALUE. THERMAL INSULATION LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL BE PROVIDED WITH WEATHER-PROOF JACKET.
- 14. ALL DUCTWORK SHALL BE: <u>24 GAUGE</u> UP TO 36 INCHES WIDE, <u>22 GAUGE</u> 31
  INCHES WIDE TO 60 INCHES WIDE, ROUND DUCT SHALL BE <u>24 GAUGE</u> UO TO 10 INCHES
  DIAMETER, <u>22 GAUGE</u> 11 TO 20 INCHES DIAMETER, <u>20 GAUGE</u> ABOVE 20 INCHJES
  DIAMETER; ALL GALVINIZED SHEETMETAL. SEAL ALL JOINTS AND SLIPS WITH EC 800 OR OTHER
  SUITABLE SEALANT. ALL LONGITUDINAL SEAMS SHALL BE PITTSBURG LOCKING TAPE. ALL SLIPS
  SHALL BE REINFORCED BAR TYPE. FABRICATE AND INSTALL ALL DUCTS IN COMPLIANCE WITH
  SMACNA STANDARDS FOR LOW PRESURE DUCT CONSTRUCTION.
- 15. ALL DUCT CONNECTIONS TO FAN DRIVEN UNITS SHALL BE MADE WITH A FIREPROOF FLEXIBLE DUCT CONNECTOR. BEFORE THE H.V.A.C. SYSTEM IS OPERATED, ALL DUCTS SHALL BE BLOWN OUT & THOUGHLY CLEANED. SYSTEM SHALL BE TEST AT FULL PRESSURE & ALL LEAKS & FAULTS CORRECTED.

INSTALL ALL PIPING AND VALVES AS HIGH AS POSSIBLE.

18.

- HOT WATER SUPPLY AND RETURN PIPE SHALL BE TYPE L COPPER
- 19. PIPE INSULATION HOT WATER SUPPLY AND RETURN PIPE 2" THICK FIBERGLASS INSULATION.
- 20. BALANCE THE AIR SYSTEM AS PER ASSOCIATED AIR BALANCING COUNCILS LATEST STANDARDS. SUBMIT BALANCING REPORT FOR ARCHITECTS APPROVAL.
- 21. THESE DRAWINGS ARE DIAGRAMMATIC. FIELD CONDITIONS SHALL DETERMINE ACTUAL LOCATION OF ALL NEW PIPING AND DUCTWORK.
- 22. ALL VALVES AND FITTINGS SHALL BE SUITABLE FOR THIS PARTICULAR PIPING APPLICATION AND MINIMUM 150LBS PRESSURE RATING.

![](_page_31_Figure_0.jpeg)

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

![](_page_31_Figure_2.jpeg)

2 1st Floor Level 1/4" = 1'-0"

PROJECT NAME	
Woodvillo S	troot
	lreel
Residenc	es
PROJECT ADDRESS	
41 Woodville S	Street
Boston. MA 02	2119
CLIENT	
Doug Beau	det
ARCHITECT	
51	
F	
0	2
KHALS	AII
an baarda (Brindin Alimentalia) (Brindina)	
SOMERVILLE, MA	)2143
TELEPHONE: 617-591-8682 FAX	: 617-591-2086
CONSIII ΤΔΝΤ <u></u>	
ZADE ASSOCIATE	S LLC
CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, M	A 02111
TEL. (617) 338-4406 FAX. (617) 451-2540	
E-MAIL Zade Zade Engineering.c	om
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COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW A REMAIN THE SOLE PROPERTY DESIGN INC. USE OF THESE PL FORM OF REPRODUCTION OF IN WHOLE OR IN PART WITHOU WRITTEN CONSENT IS PROHIB SHALL RESULT IN THE FULLES PROSECUTION UNDER LAW	ND DO OF KHALSA ANS OR ANY THIS DESIGN IT EXPRESS ITED AND T EXTENT OF
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![](_page_32_Figure_0.jpeg)

1 2nd &3rd Floor Level 1/4" = 1'-0"

![](_page_32_Figure_2.jpeg)

2 4th Floor Level 1/4" = 1'-0"

PROJECT NAME Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 CLIENT Doug Beaudet ARCHITECT 5 1 G KHALSA 17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086 CONSULTANTS: ZADE ASSOCIATES LLO CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW MUZAFFE MUCTEHITZAD ELECTRICAL Michigade Project number 17010 07/26/2017 Date Drawn by M Checked by Scale MZ As Noted REVISIONS Date No. Description 2nd thru 4th Floor Power Plans **E-101** 

![](_page_33_Figure_0.jpeg)

1 Roof Level 1/4" = 1'-0" NEW PVC
 CORNICE, TYP.
 ALL AROUND

# PROJECT NAME

# Woodville Street Residences

PROJECT ADDRESS

41 Woodville Street Boston, MA 02119

CLIENT

# Doug Beaudet

# ARCHITECT

![](_page_33_Picture_10.jpeg)

17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

ZADE ASSOCIATES LLC CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com

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![](_page_33_Picture_15.jpeg)

Project	number	17010
Date		07/26/2017
Drawn	by	MM
Checke	ed by	MZ
Scale		As Noted
REVIS	SIONS	
No.	Description	Date
	Roof	
	Power Pla	an
	<b>E-10</b>	2

![](_page_34_Figure_0.jpeg)

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

![](_page_34_Figure_2.jpeg)

PROJECT NAME
Woodville Street
Residences
PROJECT ADDRESS
41 Woodville Street
Boston, MA 02119
GLIENT
Doug Beaudet
ARCHITECT
C I
E G
0 2
KHALSA
NO 200000 NO. DA 200000 NO. DA
17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086
CONSULTANTS:
ZADE ASSOCIATES LLC
CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111
TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com
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COPYRIGHT KDI © 2015         THESE DRAWINGS ARE NOW AND DO         REMAIN THE SOLE PROPERTY OF KHALSA         DESIGN INC. USE OF THESE PLANS OR ANY         FORM OF REPRODUCTION OF THIS DESIGN         IN WHOLE OR IN PART WITHOUT EXPRESS         WRITTEN CONSENT IS PROHIBITED AND         SHALL RESULT IN THE FULLEST EXTENT OF         PROSECUTION UNDER LAW         Project number       17010         Date       07/26/2017         Drawn by       MM         Checked by       MZ         Scale       As Noted
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![](_page_35_Figure_0.jpeg)

1 2nd &3rd Floor Level 1/4" = 1'-0"

![](_page_35_Figure_2.jpeg)

![](_page_35_Figure_3.jpeg)

Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 CLIENT Doug Beaudet ARCHITECT 5 1 G E KHALSA 17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086 CONSULTANTS: ZADE ASSOCIATES LLC CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW MUZAFFER MUCTEHITZAD ELECTRICAL Michigade Project number 17010 07/26/2017 Date Drawn by M Checked by Scale MZ As Noted REVISIONS No. Date Description 2nd thru 4th Floor Lighting Plans **E-201** 

Woodville Street Residences

PROJECT NAME

# SYMBOL LIST

00	CEILING MOUNTED LIGHT FIXTURE. WALL MOUNTED LIGHT FIXTURE.
Ý	1'x4' FLUORESCENT WALL/CEILING MOUNTED LIGHT FIXTURE
	2'x2' FLUORESCENT CEILING MOUNTED LIGHT FIXTURE
S Sz	THREE-WAY LIGHT SWITCHES
S₄	FOUR-WAY LIGHT SWITCHES
S <sub>D</sub>	DIMMER SWITCH MINIMUM 1000W OR AS REQUIRED PER CIRCUIT
S <sub>3D</sub>	THREE-WAY DIMMER SWITCHES
S <sub>4D</sub>	FOUR-WAY DIMMER SWITCHES
JT	IMER SWITCH
φ	DUPLEX RECEPTACLE, 120V,18" AFF.
$\bigoplus^{GFI}$	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER 8" ABOVE COUNTER TO CL
$\mathbf{\Phi}$	DUPLEX RECEPTACLE, 120V,18" AFF., ONE OUTLET SWITCHED
$\oplus$	120V DOUBLE DUPLEX CONVENIENCE RECEPTACLE
P	DUPLEX RECEPTACLE ABOVE COUNTER, 8" ABOVE COUNTER TO CL
₽	208V/1P/30A RECEPTACLE
₽ <sup>usb</sup>	DUPLEX RECEPTACLE WITH USB PORT
Ŷ	208V/1P/50A RANGE OUTLET
▼ <sup>w</sup> ▼	TELEPHONE JACK COMPLETE W/JACK AND COVER, ('W' WALL MOUNTED $@$ 4'-0" A.F.F) TEL/CATV COMBINATION OUTLET, COMPLETE W/JACK AND COVER, HEIGHT @18" TO C AFF.
$\mathcal{O}_{\mathbf{r}}$	MOTOR
$\square$	FUSED DISCONNECT SWITCH, (3R RAIN-PROOF).
J	HOMERUN TO PANEL WITH CONDUCTOR.(HOT, NEUTRAL, GROUND) JUNCTION BOX
	LIGHTING & POWER PANEL
LC	APARTMENT LOAD CENTER, RECESSED
EXXX LV	LOW VOLIAGE BOX
	RACEWAY CONCEALED IN CEILING, PLENOM OR WALLS
ТС	TIME SWITCH
T	DRY TYPE TRANSFORMER
×	UNIVERSAL MOUNTING EXIT SIGN (DOUBLE FACED), ARROWS AS INDICATED
	EMERGENCY BATTERY UNIT WITH MOUNTING BRACKET AND VOLTMETER.
<sup>S</sup> О мз	OCCUPANCY SENSOR SWITCH OCCUPANCY SENSOR
AORC	AREA OF REFUGE CENTRAL BASE UNIT
AOR	AREA OF REFUGE FLOOR ELEVATOR LOBBY UNIT.
	INTERCOM

ALL WIRING IN FINISHED ROOMS SHALL BE CONCEALED BEHIND THE FINISH.

WIRING IN ALL EXPOSED AREAS SHALL BE IN METALLIC RACEWAYS AS WIREMOLD OR EQUAL. RACEWAYS SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. SURFACE RACEWAYS SHALL CLOSELY FOLLOW THE SURFACE AND WRAP AROUND THE BEAMS AS REQUIRED. PRIOR TO ANY INSTALLATION, SUBMIT LAYOUT SKETCH INDICATING PROPOSED ROUTING FOR APPROVAL. ARCHITECT HAS THE RIGHT TO MODIFY OR CHANGE LAYOUT AS NEEDED. ANY CHANGES PRIOR TO ANY INSTALLATION SHALL BE AT NO CHANGE TO CONTRACT PRICE.

PER NEW DEFINITION OF THE READILY ACCESSIBLE, ALL APPLIANCE CONNECTION POINT WILL BE LOCATED IN THE NEXT BAY OF THE KITCHEN COUNTER OR SIMILAR SO THAT PLUGGING/UNPLUGGING OF THE APPLIANCES WILL NOT REQUIRE REMOVAL OR PULLING OUT OR TAKING PANELS OF THE FRONT FACE OF THE APPLIANCE. (TYPICAL FOR ALL UNITS)

CONSTRUCTION NOTES
-LOCAL SMOKE DETECTORS SHALL BE WIRED FROM ARC-FAULT CIRCUITS, VERIFY WITH ELECTRICAL INSPECTOR.
-BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS, IF NECESSARY, USE FIRE RATED OUTLET BOXES.
-ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS.
-RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILINGS SHALL HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.
-ALL WIRING WITHIN UNITS SHALL BE ROMEX. WIRING OUTSIDE UNITS SHALL BE METAL CLAD.
GENERAL POWER DISTRIBUTION NOTES
-BEFORE ORDERING ANY EQUIPMENT AND/OR START ANY CONSTRUCTION OR EXCAVATION ELECTRICAL CONTRACTOR AND/OR GENERAL CONTRACTOR SHALL CONTACT ELECTRIC/TELEPHONE/CATV COMPANIES FOR SERVICE POINT AND ROUTING, SERVICE AVAILABILITY. THIS ENGINEER HAS MADE APPLICATION TO UTILITY COMPANY BUT YET NO CONFIRMATION HAS BEEN MADE BY THE UTILITY COMPANY. CONTRACTOR SHA NOT PROCEED WITHOUT SUCH CONFIRMATION.
-FEEDERS ARE SIZED BASED ON %3 VD. CONTRACTOR SHALL FOLLOW THE FOLLOWING CRITERIA.
50A, UP TO 100FT #6, INCREASE BY ONE SIZE FOR EVERY 30FT. 100A, UP TO 100FT #3, INCREASE BY ONE SIZE FOR EVERY 30FT. 200A, UP TO 150FT #3/0, INCREASE BY ONE SIZE FOR EVERY 50 FT. 400A, UP TO 200FT #500, INCREASE BY ONE SIZE FOR EVERY 50FT.
GENERAL POWER DISTRIBUTION NOTES
-FOR SWITCHGEAR SHORT CIRCUIT RATINGS, SEE NOTES UNDER PANEL SCHEDULES.
-PRIOR TO ORDERING ANY SWITCHGEAR ELECTRICAL CONTRACTOR SHALL CONFIRM CIRCUIT BREAKER SIZES WITH HVAC AND OTHER MECHANICAL EQUIPMENT SHOP DRAWINGS. DUE TO SUBMITTAL TIMING FROM VARIOUS CONTRACTORS, ENGINEERS APPROVAL IS GIVEN FOR QUALITY ONLY.
-CONTRACTOR SHALL COORDINATE WITH OTHER TRADES SO THAT NO OTHER TRADE SHALL PASS THROUGH ELECTRIC ROOM OR ABOVE DEDICATES SPACES. INFORM ARCHITECT/ENGINEER ABOUT ANY INFRINGEMENTS PRIOR SUCH INSTALLATIONS OCCUR.
-ELECTRIC ROOM DIMENSIONS ARE BASED ON CERTAIN MANUFACTURER EQUIPMENT DIMENSIONS, CONTRACTOR SHALL CONFIRM ROOM DIMENSIONS PRIOR TO ORDERING EQUIPMENT
SWITCHGEAR AND PANELBOARDS SHALL BE MANUFACTURED BY SQUARE D, SIEMENS OR GENERAL ELECTRIC
PANELBOARDS MAY BE SERIES RATED OR FULLY RATED FOR AVAILABLE SHORT CIRCUIT RATINGS. IF SERIES RATINGS ARE APPLIED SUPPLIER SHALL BE RESPONSIBLE FOR PROVIDING PROPER SERIES RATED EQUIPMENT AS REQUIRED. AVAILABLE SHORT CIRCUIT CURRENT FOR THE MAIN SERICE IS 100KA. DOWNSTREAM PANELS SHALL BE SERIES RATED ACCORDINGLY. SEE RISER DIAGRAM FOR CONNECTION DIAGRAM OF THE PANELS. NO LINE IMPEDANCES ARE TO BE CONSIDERED IN SERIES RATING APPLICATIONS.
FOR ALL RESIDENTIAL LOAD CENTERS, 15A AND 20A CIRCUITS SERVING THE UNIT (EXCEPT BATHROOMS CIRCUITS) SHALL BE ARC FAULT INTERRUPTER TYPE AS REQUIRED PER NEC 210–12(B)

OUTLETS AT FOLLOWING LOCATIONS SHALL BE GFI TYPE REGARDLESS HOW THEY ARE SHOWN.

-RESIDENTIAL BATHROOMS, 210.8(A)(1) -RESIDENTIAL KITCHENS, 210.8(A)

-LAUNDRY, 210.8(A)(10)

-DISHWASHERS, 210.8(D) (THROUGH GFI BREAKER) -DRINKING FOUNTAIN, 422.52

-VENDING MACHINES, 422.51 -ROOF TOPS, 210.8(B)(2)(WP ALSO)

-BALCONY/EXTERIOR OUTLETS (WP ALSO)

-ELEVATOR MACHINE ROOMS AND PITS (WP ALSO) --GARAGES

-UNFINISHED BASEMENT OUTLETS

- ALL PENETRATIONS OF ASSEMBLIES EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE SEALED WITH FOAM SEALANT OR EQUIVALENT SEALER TO PROVIDE ZERO AIR INFILTRATION. COORDINATE WITH FIRE STOPPING REQUIREMENTS.

LOCATION OF ALL MECHANICAL EQUIPMENTS AND ELECTRICAL CHARACTERISTICS SHALL BE COORDINATED WITH MECHANICAL CONTRACTOR PRIOR TO ANY WORK DONE. ALL EQUIPMENT RELATING TO MECHANICAL COMPONENTS SHALL BE ORDERED ONLY AFTER THE APPROVAL OF MECHANICAL EQUIPMENT SHOP DRAWINGS

![](_page_36_Figure_16.jpeg)

![](_page_36_Figure_17.jpeg)

	ELECTRIC HEATER SCHEDULE							
TYP	E	кw	VOLT/PH	WIRE	MODEL NUMBER			
RWH	-4	4	208/1	2#10	Q'MARK#AWH-4408-2			
RWH	-2	2	208/1	2#12	Q'MARK#AWH-4208-2			
SWH	-4	4	208/1	2#10	Q'MARK#AWH-4408-2 W/AWH-SM			
EBB-	-2	0.5	120/1	2 <b>#</b> 12	Q'MARK#QMK-2512W W/T'STAT			
EBB-	-3	0.75	120/1	2#12	Q'MARK#QMK-2513W W/T'STAT			
EBB-	-4	1	120/1	2#12	Q'MARK#QMK-2514W W/T'STAT			
EBB-	-6	1.5	120/1	2#12	Q'MARK#QMK-2516W W/T'STAT			
EBB-	-8	2.0	208/1	2#12	Q <sup>°</sup> MARK#QMK-2508W W/T°STAT			

CONDUIT. NO EXPOSED WIRING IS ALLOWED.

406.11.

UNITS SHALL BE MC. ALL SURFACE WIRING SHALL BE IN EMT.

RECEPTACLE.

IS SHOWN.

### ELECTRICAL NOTES

#### 1.1 General

A. The General Conditions and Drawings issued for this Project shall be considered as part of the Electrical Specifications. B. The term "This Contractor" as used under this Section and wherever used on the Drawings shall mean the Electrical Contractor.

#### 1.2 Scope of Work

A. The work under this Specification includes the furnishing of all labor and material as specified herein and as shown on the Drawings necessary to install a complete and ready for operation. Manufacturer's catalogue numbers are shown for reference purposes only. They are meant to provide a general description of the design and guality of materials required. Equivalent products by other manufacturers will be considered.

#### 1.3 Codes and Specifications

A. The work shall be conducted in accordance with the latest rules and regulations of the State of MASSACHUSETTS and the local codes as most recently issued, OSHA codes, National Electrical Codes and NFPA.

B. All exposed wiring shall be in electric metallic tubing. All concealed wiring shall be in accordance with local codes. C. All branch circuit conductors shall be copper, minimum #12 AWG size THHN or THWH

as required, 600V rated. D. All feeder conductors shall be copper, AWG size as noted XHHW insulation, 600V.

#### 1.4 Coordination of Work

A. The Contractor shall schedule and coordinate his work with all trades involved to insure proper installation and operation. B. The Contract Drawings are diagrammatic only and indicate the extent, general locations and arrangement of the piping and wiring of equipment. The exact locations shall be coordinated with Architectural Drawings and Documents of

other trades. C. This Contractor shall verify fixture mounting and location against plans, elevations and detail drawings. Exact location of all fixtures shall be confirmed with owner's representative prior to rough—in.

D. Submit Shop Drawings and product data within thirty (30) days after award of the Contract. Check, stamp and mark with project name submittals before transmitting to Architect. Indicate deviations from Contract Documents.

E. This Contractor shall give notices, file plans, obtain permits and licenses, pay fees and back charges, and obtain the necessary approvals from authorities that have jurisdiction.

F. Material and equipment shall be UL, ASME and AGA approved for intended service. G. Guarantee work in writing for one year from date of final acceptance. Repair or replace defective materials or installation at no cost to Owner. Correct damage caused in making necessary repairs and replacements under guarantee

at no cost to the Owner. H. Submit guarantee to Architect before final payment.

### FOR TYPICAL UNITS OUTLET LOCATION NOTES

-ALL ELECTRICAL OUTLETS AND CONTROL SWITCHES SHALL BE MINIMUM 18" AWAY FROM AN INTERIOR CORNER REGARDLESS HOW I

- ALL ELECTRICAL OUTLETS HEIGHTS TO BE A MINIMUM 15" TO CENTER LINE OF THE LOWEST RECEPTACLE AND A MAXIMUM OF 48" TO CENTER LINE OF THE HIGHEST RECEPTACLE.

-ALL ELECTRICAL OUTLETS LOCATED OVER COUNTERTOPS SHALL BE NO HIGHER THAN 44" TO THE CENTER LINE OF THE HIGHEST

- ALL CIRCUIT BREAKER PANELS MUST BE CENTERED ON A 30" BY 48" CLEAR FLOOR SPACE AND IF A PARALLEL APPROACH IS USED, THE HIGHEST CONTROL CAN BE NO HIGHER THAN 54" A.F.F. IF A FRONT APPROACH IS USED THE HIGHEST CONTROL CAN BE NO HIGHER THAN 48" A.F.F.

-REFER TO FA SERIES DRAWINGS FOR FIRE ALARM REQUIREMENTS.

UNLESS NOTED OTHERWISE ALL WIRING SHALL BE #12AWG, Cu, AND FED FROM HOUSE PANEL HP VIA 20A/1P C.B. CIRCUITS LONGER THAN 100FT SHALL BE #10 CU

ALL WIRING WITHIN THE UNITS SHALL BE "ROMEX", OUTSIDE OF THE

ALL WIRING IN BLOCKS AND MECHANICAL ROOMS SHALL BE IN

#### ALL 120V RECEPTACLES INSTALLED WITHIN A RESIDENTIAL UNIT SHALL BE SHALL BE SAFETY TYPE AS MANUFACTURED BY LEVITON "5262-SG" OR APPROVED EQUAL.

WITHIN EACH RESIDENTIAL DWELLING UNIT, ALL 120V RECEPTACLES SHALL BE TAMPER RESISTANT TYPE AS PER NEC

CTRI	C He	EATER	SCHEDULE

# PROJECT NAME

# Woodville Street Residences

PROJECT ADDRESS

41 Woodville Street Boston, MA 02119

CLIENT

## **Doug Beaudet**

### ARCHITECT

![](_page_36_Picture_64.jpeg)

17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086

### CONSULTANTS:

ZADE ASSOCIATES LL CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com

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PROSECUTION UNDER LAW

![](_page_36_Picture_69.jpeg)

Project number						
Date						
Drawn by						
d by	MZ					
	As Noted					
IONS						
Description	Date					
Electrical Notes & Details						
	Number					

![](_page_36_Picture_71.jpeg)

![](_page_37_Figure_0.jpeg)

PANEL				SC	HE	JU	JLE	
ITEM	VOLT/PHASE/WIRE	MLO	МСВ	CIRC	F:Flush S:Surf.	P:Plug B:Bolt	BRANCH BREAKERS	SPR=SPARE SPC=SPACE
PANEL HP	120-240/1/3	100	_	42	s	В	(2)30/2, (20)20/1	
PANEL LC	120-240/1/3	125	-	24	F	Р	(1)30/2, (1)20/2, (1)20/1 AFCI, ( (1)20/1 GFI, (3)15/1, (4)15/1 AFI	6)20/1 AFCI/GFI, , (5)20/1 SPC/SPR

SWITCHGEAR AND PANELBOARDS SHALL BE MANUFACTURED BY SQUARE D, SIEMENS OR GENERAL ELECTRIC

MAIN SWITCH AND MAIN DISTRIBUTION PANEL AND ALL CONSECUTIVE PANELS UP TO LAST TWO PANELS IN THE DISTRIBUTION GRID SHALL BE FULLY RATED AND LAST TO PANELS MAY BE SERIES RATED FOR AVAILABLE SHORT CIRCUIT RATINGS. IF SERIES RATINGS ARE APPLIED SUPPLIER SHALL BE RESPONSIBLE FOR PROVIDING PROPER SERIES RATED EQUIPMENT AS REQUIRED. AVAILABLE SHORT CIRCUIT CURRENT FOR THE MAIN SERVICE IS 100KA.

SEE RISER DIAGRAM FOR CONNECTION DIAGRAM OF THE PANELS. NO LINE IMPEDANCES ARE TO BE CONSIDERED IN SERIES RATING APPLICATIONS. FOR ALL RESIDENTIAL LOAD CENTERS, 15A AND 20A CIRCUITS SERVING THE UNIT EXCEPT BATHROOMS CIRCUITS SHALL BE ARC FAULT INTERRUPTER TYPE AS REQUIRED PER NEC 210-12(B)

SCHEDULE							
	CIRC.BRK.	WIRE (CU)					
	15A/1P ARC FAULT	14/2 RX					
	20A/1P ARC FAULT	12/2 RX					
	20A/1P	12/2 RX					
	50A/2P	6/3 SER					
	50A/2P	6/3 SER					
	30A/2P	10/2 RX					

BASED ON 125A SERVICE, %3 VOLTAGE DROP AND 20 KW LOAD DEMAND:
LOAD CENTERS WITHIN 150FT OF THE METER BANK USE #2 CU
LOAD CENTERS WITHIN 225FT OF THE METER BANK USE #1 CU
LOAD CENTERS WITHIN 275FT OF THE METER BANK USE #1/0 CU
LOAD CENTERS WITHIN 350FT OF THE METER BANK USE #2/0 CU
OR
LOAD CENTERS WITHIN 150FT OF THE METER BANK USE $\#1/0$ AL
LOAD CENTERS WITHIN 200FT OF THE METER BANK USE $\#2/0$ AL
LOAD CENTERS WITHIN 250FT OF THE METER BANK USE #3/0 AL
LOAD CENTERS WITHIN 300FT OF THE METER BANK USE #4/0 AL
75 F CABLE AND CONNECTIONS.

LOOP EVERY 8 EXTERIOR BUILDING MOUNTED LIGHT FIXTURE ON ONE CIRCUIT AND FEED FROM TC-S VIA 20A/1PCB. WIRE SHALL RUN INSIDE BUILDING

SHADED AND HALF SHADED FIXTURE INDICATES LIGHT FIXTURE ON NIGHT LIGHT CIRCUIT, LOOP UP TO 1200W/120V ON ONE CIRCUIT AND FEED FROM RESPECTIVE PANEL

CONNECT ALL EXIT SIGNS AND EMERGENCY LIGHTS/BATTERIES TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY CONTROLS TYPICAL FOR ALL AREAS

NOTE CEILING IS FIRE RATED, ALL RECESSED FIXTURES AND EXHAUST FANS SHALL BE INSTALLED WITH FIRE RATED ENCLOSURES 3" MINIMUM LARGER THAN FIXTURES TO MAINTAIN INTEGRITY OF CEILING FIRE RATING AND COOLING OF THE FIXTURES.

EXACT LOCATION AND TYPES OF ALL LIGHTING FIXTURES, MOUNTING HEIGHTS AND MOUNTING DETAILS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ANY CONFLICTS SHALL BE BROUGHT TO ARCHITECT'S ATTENTION PRIOR TO ANY WORK DONE. OBTAIN LATEST COPY OF THE CEILING PLAN FROM ARCHITECT PRIOR TO ANY WORK DONE. IN AREAS WHERE FIXTURES ARE MOUNTED INTO INSULATED CEILINGS, THIS CONTRACTOR SHALL PROVIDE HOODS, 3" LARGER THAN FIXTURES TO KEEP INSULATION AWAY FROM THE FIXTURES AND TO MAINTAIN INSULATION INTEGRITY OF THE CEILING, SEE ARCHITECTURAL DRAWINGS FOR AREAS WHERE THESE HOODS MAY BE REQUIRED.

	FIXTURE SCHEDULE-COMMON AREA								
TYPE	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP	DESCRIPTION				
C1	TBD	CARRY \$200	120	12W	CORR. CLG., COMMON RM., ELEV. LOBBY, VEST.				
C2	TBD	CARRY \$200	120	(1)F32–T8	MECH. ROOM				
С3	TBD	CARRY \$200	120	(1)100W	ELEV. PIT LIGHT				
SL-1	TBD	CARRY \$250	120	25W LED	WALL MTD EXTERIOR LIGHT				
Ø	TBD	CARRY \$200	120	LED AS REQUIRED	EXIT SIGN W/BATTERY UNIT				
4_4	TBD	CARRY \$200	120	(2)5W LED	INTERIOR EMERGENCY LIGHT W/ BATTERY				
4WPA	TBD	CARRY \$200	120	(2)5W LED	WP EXTERIOR EMERGENCY LIGHT				
	FI>	KTURE SCHED	DULE	-APARTMENTS	5				
U1	TBD	CARRY \$150	120	13W LED	ENTRY, HALL				
U2	TBD	CARRY \$150	120	13.5W LED	KITCHEN CEILING LIGHT				
U3	TBD	CARRY \$150	120	26W LED	KITCHEN ISLAND LIGHT				
U4	TBD	CARRY \$150	120	(2)26W	LIVING/DINING ROOM LIGHT				
U5	TBD	CARRY \$150	120	(1)26W	BEDROOM LIGHT				
U6	TBD	CARRY \$150	120	(1)13W	BATHROOM VANITY LIGHT				
EF	SEE HVAC		120	(2)13W	BATHROOM FAN/LIGHT COMBO				

ROOF

KEEP INSULATION AWAY

![](_page_37_Figure_14.jpeg)

ALL LIGHT FIXTURES MODEL, FINISH COLOR SHALL BE APPROVED BY ARCHITECT/OWNER. ALL FLUORESCENT BULBS SHALL BE ENERGY STAR RATED. PROVIDE MASTER/SLAVE BALLAST AND WIRING AS REQUIRED TO MEET ENERGY CODES REGARDLESS SHOWN OR NOT LAMPS AND BALLASTS SHALL BE IN COMPLIANCE WITH LOCAL UTILITY COMPANY REBATE PROGRAMS, SPECIFICATIONS ABOVE FOR THE FIXTURE TYPE ONLY FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS THD LESS THAN %15 FIXTURES MOUNTED IN INSULATED CEILINGS, EC SHALL PROVIDE HOODS TO

![](_page_37_Figure_16.jpeg)

![](_page_37_Picture_17.jpeg)

![](_page_38_Figure_0.jpeg)

PROJECT NAME
<b>Woodville Street</b>
Residences
41 Woodville Street
DOSION, MA 02119
CLIENT
<b>–</b> – – – /
Doug Beaudet
ARCHITECT
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PROSECUTION UNDER LAW
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S No. 2723
CONSTERNAL TO CONSTERNAL
Weren wood lang
Drojaat number 470.40
Project number         1/010           Date         07/25/2017
Drawn by MM Checked by MZ
Scale 1/4" = 1'-0"
REVISIONS
No. Description Date
Basement

Dasement &1st Floor Plumbing Plans **P-100** 

![](_page_39_Figure_0.jpeg)

![](_page_40_Figure_0.jpeg)

BASIC PLUMBING REQUIREMENTS

PART 1. – GENERAL

1.1 RELATED DOCUMENTS

L APPLICABLE REQUIREMENTS OF OTHER PORTIONS OF THE CONTRACT DOCUMENTS APPLY TO THE WORK OF THIS SECTION NCLUDING, BUT NOT LIMITED TO, ALL DRAWINGS, ALL SPECIFICATIONS, GENERAL CONDITIONS, AND GENERAL REQUIREMENTS NCLUDING SUBMITTALS.

2 APPLICABLE CODES AND STANDARDS

PPLICABLE CODES: ALL LOCAL AND STATE BUILDING CODES, INCLUDING THE INTERNATIONAL PLUMBING CODE

MASSACHUSETTS STATE PLUMBING CODE AND THE MASSACHUSETTS STATE BUILDING CODE. VPLICABILITY OF STANDARDS: EXCEPT WHERE THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, PPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF BOUND OR COPIED DIRECTLY NTO THE CONTRACT DOCUMENTS. SUCH STANDARDS ARE MADE A PART OF THE CONTRACT DOCUMENTS BY REFERENCE.

CONFLICTING REQUIREMENTS: WHERE COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED, AND THE STANDARDS STABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, REFER REQUIREMENTS 'HAT ARE DIFFERENT, BUT APPARENTLY EQUAL, AND UNCERTAINTIES TO THE ARCHITECT FOR A DECISION BEFORE PROCEEDING

PUBLICATION DATES: WHERE THE DATE OF ISSUE OF A REFERENCED STANDARD IS NOT SPECIFIED, COMPLY WITH THE TANDARD IN EFFECT AS OF DATE OF CONTRACT DOCUMENTS.

BBREVIATIONS AND NAMES: TRADE ASSOCIATION NAMES AND TITLES OF GENERAL STANDARDS ARE FREQUENTLY ABBREVIATED. HE FOLLOWING ACRONYMS OR ABBREVIATIONS AS REFERENCED IN CONTRACT DOCUMENTS ARE DEFINED TO MEAN THE ISSOCIATED NAMES. NAMES AND ADDRESSES ARE SUBJECT TO CHANGE AND ARE BELIEVED TO BE BUT ARE NOT ASSURED TO E ACCURATE AND UP TO DATE AS OF DATE OF CONTRACT DOCUMENTS.

AGA – AMERICAN GAS ASSOCIATION

NSI – AMERICAN NATIONAL STANDARDS INSTITUTE RI – AIR CONDITIONING AND REFRIGERATION INSTITUTE SHRAE – AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR

CONDITIONING ENGINEERS SME – AMERICAN SOCIETY OF MECHANICAL ENGINEERS

SSE – AMERICAN SOCIETY OF SANITARY ENGINEERING

STM – AMERICAN SOCIETY FOR TESTING AND MATERIALS

WS - AMERICAN WELDING SOCIETY WWA – AMERICAN WATER WORKS ASSOCIATION

CISPI – CAST IRON SOIL PIPE INSTITUTE

IEC - NATIONAL ELECTRIC CODE IFPA – NATIONAL FIRE PROTECTION ASSOCIATION

ISF – NATIONAL SANITATION FOUNDATION

PDI – PLUMBING AND DRAINAGE INSTITUTE

- UNDERWRITERS LABORATORIES DEPARTMENT OF TRANSPORTATION

PA – ENVIRONMENTAL PROTECTION AGENCY

SHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

.3 SUBMITTALS

PRIOR TO THE PERFORMANCE OF ANY WORK OR INSTALLATION OF ANY MATERIALS, OBTAIN APPROVAL FROM THE ARCHITECT BY SUBMITTING SHOP DRAWINGS AND DATA SHEETS.

SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES WILL BE ACCEPTED ONLY WHEN SUBMITTED BY THE GENERAL CONTRACTOR. DATA SUBMITTED FROM SUBCONTRACTORS AND MATERIAL SUPPLIERS DIRECTLY TO THE ARCHITECT WILL NOT BE PROCESSED. CERTIFIED DRAWINGS AND CATALOG DATA SHEETS SHALL SHOW: . SPECIFICALLY WHAT ITEMS AND FEATURES ARE TO BE PROVIDED.

APPLICABLE SPECIFICATION SECTION NUMBER AND EQUIPMENT TAG NUMBER.

PRINCIPAL DIMENSIONS AND DETAILS OF CONSTRUCTION.

WEIGHTS: INFORMATION REQUIRED FOR THE DESIGN OF SUPPORTS AND FOUNDATIONS.

. SIZES AND LOCATIONS OF PIPING AND CONNECTIONS.

PERFORMANCE DATA CERTIFIED BY THE MANUFACTURER. SUBMIT SCHEDULE OF PROPOSED PIPING, VALVES, SPECIALTIES, ETC.

. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE SEPERATLY

IDENTIFIED.

PLUMBING SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS: . PIPING AND FITTING MATERIALS.

PLUMBING VALVES AND SPECIALTIES.

. PIPING HANGER AND ATTACHMENT ASSEMBLIES.

. PIPING INSULATION. . ALL SCHEDULED PLUMBING FIXTURES, DRAINS, AND CLEANOUTS.

. UTILITY CONNECTION DETAILS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

APPROVAL OF SHOP DRAWINGS DOES NOT RELEASE RESPONSIBILITY OF COORDINATING HIS WORK AT JOBSITE AND TAKING IELD MEASUREMENTS. IN CASES WHERE INTERFERENCES BECOME APPARENT, NOTIFY ARCHITECT SO THAT SUCH NTERFERENCES MAY BE RESOLVED PRIOR TO PROCEEDING WITH SHOP WORK. NO CLAIM WILL BE ALLOWED FOR WORK THAT AUGHT HAVE TO BE MOVED OR REPLACED BASED ON A CLAIM THAT WORK WAS PLACED IN ACCORDANCE WITH DIMENSIONS NDICATED ON AN APPROVED SHOP DRAWING.

.4 COORDINATION

#### COORDINATE WITH THE BUILDING TRADES:

. STRUCTURAL MEMBERS, PADS, AND BUILDING OPENINGS FOR FIXTURES, EQUIPMENT, PIPING, ETC., FOR USE BY THIS NDICATED ON THE ARCHITECTURAL AND STRUCTURAL PLANS ARE THE COORDINATION RESPONSIBILITY OF THIS INSTALLER. PAY OR ANY CHANGES IN THE ABOVE REQUIREMENTS AFTER LETTING AND ACCEPTING THE CONTRACT. . THE DRAWINGS SHOW THE GENERAL ARRANGEMENT, DIRECTIONS AND SIZES OF EQUIPMENT, PIPING, ETC. IT IS NOT

NTENDED TO SHOW EVERY OFFSET AND FITTING OF EVERY SITE DIFFICULTY THAT MAY BE ENCOUNTERED. PROVIDE ALL

MATERIALS AND PERFORM ALL LABOR NECESSARY TO MAKE COMPLETE WORKING SYSTEMS, READY FOR USE, WITHOUT EXTRA

CHARGE. ALL MEASUREMENTS MUST BE VERIFIED ON THE JOBSITE. 3. EXAMINE THE SITE AND ALL DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO THAT ALL WORK WILL BE INSTALLED IN PROPER RELATIONSHIP. COORDINATE PRECISE LOCATION OF PARTS WITH OTHER WORK. ALL SYSTEMS SHALL BE INSTALLED TO PROVIDE MAXIMUM HEADROOM, EXCEPT WHERE DIMENSIONED OTHERWISE ON THE DRAWINGS.

#### 1.5 RECORD DOCUMENTS

RECORD DRAWINGS: MAINTAIN A CLEAN, UNDAMAGED SET OF PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICHEVER DRAWING IS MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY; WHERE SHOP DRAWINGS ARE USED. RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD LATER. 1. MARK INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS

2. ORGANIZE RECORD DRAWING SHEETS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET. 3. MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS. ETC.).

4. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM AT LEAST TWO PROMINENT BUILDING LINES. 5. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

6. INCLUDE ALL "CORRECTED FOR RECORD" SHOP DRAWINGS TO REFLECT APPROVALS RECEIVED.

1.6 MAINTENANCE MANUALS

OF INFORMATION:

1. COPIES OF WARRANTIES.

2. WIRING DIAGRAMS.

3. INSPECTION PROCEDURES 4. APPROVED SHOP DRAWINGS AND PRODUCT DATA.

WINTER OPERATING INSTRUCTIONS. 7. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS. 8. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

1.7 REGULATIONS AND PERMITS PROVIDE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES HAVING JURISDICTION. PAY FOR AND OBTAIN ALL REQUIRED PERMITS & SCHEDULE INSPECTIONS IN A TIMELY MANNER AS TO NOT DELAY THE

PROJECT. OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO ENTERING MANHOLES, USE OF WATER FROM LOW PRESSURE HYDRANTS, DEMOLITION AND NEW WORK, ETC. PRIOR TO COMMENCE OF WORK.

PART 2. – PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

ALL EQUIPMENT AND MATERIALS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE NEW, OF CURRENT PRODUCTION, FIRST QUALITY AND OF THE BEST OF EACH CLASS SPECIFIED. MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE DELIVERED TO JOBSITE WITH FACTORY PACKAGING BEARING MANUFACTURER'S NAME OR LABEL, AND UNION LABEL WHENEVER PRACTICAL.

PART 3. – EXECUTION

3.1 PLUMBING INSTALLATIONS GENERAL: SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF PLUMBING SYSTEMS, MATERIALS, AND EQUIPMENT. COMPLY WITH THE FOLLOWING REQUIREMENTS: 1. COORDINATE SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. 2. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS. 3. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS. 4. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED. 5. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING

SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES. 6. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.

7. PROVIDE ACCESS PANELS OR DOORS WHERE UNITS ARE CONCEALED BEHIND FINISHED SURFACES. 8. COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. TO THE EXTENT THAT THOSE INSTRUCTIONS AND RECOMMENDATIONS ARE MORE EXPLICIT OR STRINGENT THAN REQUIREMENTS CONTAINED IN CONTRACT DOCUMENTS. 9. INSPECT MATERIALS OR EQUIPMENT IMMEDIATELY UPON DELIVERY AND AGAIN PRIOR TO INSTALLATION. REJECT DAMAGED AND

DEFECTIVE ITEMS. 3.2 FINAL INSPECTION

PRIOR TO FINAL ACCEPTANCE, ALL SYSTEMS SHALL BE OPERATED TO TEST PERFORMANCE TO THE SATISFACTION OF THE ARCHITECT

1. WATER SHALL CIRCULATE THROUGHOUT SYSTEMS WITHOUT NOISE, WATER HAMMER, LEAKS, TRAPPING, OR AIR-BINDING. 2. MOTORS AND OTHER EQUIPMENT SHALL OPERATE WITHOUT EXCESSIVE NOISE OR VIBRATION. DRAINS SHALL FLOW FREELY, WITHOUT EXCESSIVE NOISE, LEAKS OR STOPPAGES.

CORRECT DEFECTS DEMONSTRATED BY INSPECTIONS AND TESTS TO THE SATISFACTION OF THE ARCHITECT.

3.3 CLEANING OF SYSTEMS AND PREMISES

ALL EQUIPMENT AND FIXTURES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS AT THE COMPLETION OF THE PROJECT AND PRIOR TO ACCEPTANCE BY THE OWNER. 3.4 PROTECTION

GUARDS, BARRICADES, LIGHTS, SERVICES, ETC., NECESSARY FOR THE PROTECTION OF PERSONS AND PROPERTY SHALL BE FURNISHED AND MAINTAINED.

ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 2-INCH, 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES

> REGARDLESS HOW THE DETAILS ARE SHOWN, CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS. CONTRACTOR SHALL PAY ATTENTION TO GAS FIRED EQUIPMENT DISCHARGE LOCATIONS RELATIVE TO AIR INTAKES BEFORE ANY INSTAL

5. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING

OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND

DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.

6. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, AND ROUTINE AND NORMAL

ALL HORIZONTAL STORM DRAINS SHALL BE INSULATED. INSULATE 3 FT PIPING ABOVE AND BELOW THE OFFSET. INSULATE ROOF DRAIN B

2-HOT WATER PIPING IN SYSTEMS WITHOUT RECIRCULATION SHALL BE FULLY INSULATED TO MAINTAIN TEMPERATURE (IECC 2014) 3-ALL TRAPS SHALL HAVE CLEAN OUTS

**GENERAL NOTES** 

4-ALL COMMON AREA FAUCETS SHALL HAVE POINT OF USE MIXING VALVES, ZURN LEAD FREE SERIES LFUSG-B OR EQUAL

NOTE FOLLOWING LINE ITEMS ARE LISTED FOR QUALITY PURPOSES AND APPLICABLE WHERE COMPONENTS PRESENT IN THE PROJECT.

1-ALL HOT WATER PIPING IN RECIRCULATION TYPE SYSTEMS SHALL BE INSULATED, INCLUDING TAKE OFFS FROM RE-CIRCULATION LINE.

5-ALL ADA SINKS AND LAVATORIES SHALL HAVE LAVGUARD PROTECTION COVERS, COMPLETE

ALL HORIZONTAL COLD WATER MAINS OR BRANCH LINES ABOVE CEILINGS SHALL BE INSULATED.

6-ALL FIXTURES SHALL HAVE MULTI TURN LEAD FREE WATER STOPS AS MANUFACTURED BY ZURN LF SERIES.

7-ALL PREFABRICATED SHOWERS AND TUB SURROUNDS SHALL HAVE BUILT IN GRAB BAR RE-INFORCEMENTS, OR

8-WALLS BEHIND THE WATER CLOSETS, TUBS, SHOWERS SHALL BE RE-INFORCED FOR FUTURE GRAB BAR INSTALLATION 9-ALL KITCHEN SINKS SHALL HAVE 30" CLEAR KNEE SPACE UNDER

10-IN ALL ELEVATOR BUILDINGS OR GROUP 2 UNITS, SINKS SHALL BE NO DEEPER THAN 6 1/2"

11-WATER CLOSET CONTROLS FOR ADA UNITS SHALL BE ON THE ACCESSIBLE SIDE

12-GROUP 2 TUBS SHALL BE 60" LONG WITH RIM 16-18" AFF.

13-FOR GROUP 2 APARTMENTS, ALL TUBS AND SHOWERS SHALL HAVE HOT/COLD WATER PIPING CAPPED BEHIND TO LONGER DIMENSION 14-A HAND HELD SHOWER HEAD WITH FLOW REGULATOR ATTACHED TO 60" LONG FLEXIBLE HOSE AND AN ADJUSTABLE MOUNTING BAR S 15-ALL VENT THROUGH THE ROOF LOCATIONS SHALL BE FIELD COORDINATED WITH HVAC EQUIPMENT INTAKES AND IF NECESSARY SHALL 16-ALL FLOOR DRAINS SHALL HAVE TRAP PRIMERS.

17-ALL PUBLIC TOILETS SHALL HAVE HOSE BIBS AND FLOOR DRAINS, FLOOR DRAINS SHALL BE WITHIN 3FT OF THE URINALS.

18-ALL FLOOR PENETRATIONS SHALL BE FIRE RATED WITH FIRE STOP MATERIAL OR INTUMESCENT TYPE COLLARS AS REQUIRED.

19-UNLESS NOTED OTHERWISE PVC MAY BE USED FOR RESIDENTIAL TYPE BUILDINGS UP TO TEN FLOORS FOR DRAINAGE. CPVC MAY BE I PROVIDE SOUND INSULATION ON ALL PVC VERTICAL DRAIN LINES

20-PROVIDE DRAIN PAN FOR ALL STORAGE TYPE WATER HEATERS AND WASHING MACHINES W/DRAINS CONNECTED TO SEWER DRAIN, PR 21-PROVIDE COMPLETE PIPING FOR DISHWASHER AND DISPOSAL CONNECTIONS, OBSERVE CLEARANCE REQUIREMENTS UNDER KITCHEN

22-ALL DRAINS LOCATED BELOW THE STREET GRADE SHALL HAVE LOCAL OR CENTRAL TYPE BACK WATER VALVES. DRAINS FROM UPPER FLOORS WILL CONNECT AT EXIT 23-ALL PLUMBING FIXTURES SHALL BE APPROVED TYPE IN THE STATE OF PROJECT BEING USED, SPECIFICATIONS ARE FOR QUALITY, LOOK AND PERFORMANCE PURPOSES ONLY. IF SPECIFIED EQUIPMENT IS NOT THE APPROVED TYPE. CONTRACTOR SHALL PROVIDE SIMILAR APPROVED FIXTURE.

24-ALL FLOOR DRAINS IN BOILER ROOMS SHALL BE COORDINATED WITH BOILER PLACEMENTS SO THAT CONDENSATE DRAINS WILL BE DRAINED TO FLOOR DRAIN. 25-ALL PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS SHALL BE FIRE SAFED.

USE FIRE PUDDY WITH FIRE WOOL FILLING FOR 2" AND SMALL PIPES, USE INTUMESCENT COLLAR FOR LARGER PIPES.

26-ALL LAUNDRY DRAINS FOR BUILDINGS 4 STORIES AND HIGHER SHALL HAVE DEDICATED DRAIN LINES CONNECTED TO SEWER LINES AT BUILDING DISCHARGE 27-ALL BASEMENT DRAINS WILL HAVE BACK WATER VALVES AND AND UPPER FLOORS WILL BE CONNECTED TO SEWER DISCHARGE SEPERATELY FROM BASEMENT DRAIN 28- PROVIDE BALL TYPE SHUT OFF VALVES FOR ALL RIZERS AND WATER BRANCHES OFF THE MAIN PIPES. RISERS SHALL HAVE DRAIN VALVES WITH CAP AND CHAIN

EXISTING WORK SUCH AS PAVEMENTS, LAWNS, SIDEWALKS, FLOORS, CURBS, AND OTHER STRUCTURES AND UTILITIES WHICH ARE DAMAGED OR DISTURBED DUE TO MAKING CONNECTIONS OR ANY PHASE OF OPERATIONS SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER AND THE GOVERNING AUTHORITIES.

> 1. GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL 11. HOT AND COLD WATER PIPING SHALL BE TYPE L SEAMLESS COPPER TUBING AND FITTINGS WITH 95-5 SOLDER REQUIREMENTS, APPLY TO WORK SPECIFIED ON THESE DRAWINGS. 2. COORDINATE WORK WITH THAT OF OTHER TRADES AFFECTING OR AFFECTED BY WORK OF THIS SECTION AND

COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF THE WORK. 3. ALL WORK AND MATERIALS SHALL COMPLY WITH THE MASSACHUSETTS STATE PLUMBING AND GAS CODES AND THREADED JOINTS. THE CITY OF BOSTON, MA.

4. FURNISH AND INSTALL A COMPLETE, SANITARY DRAINAGE AND VENT SYSTEM THROUGHOUT THE BUILDING FOR CONNECTION TO EVERY FIXTURE OR PIECE OF EQUIPMENT REQUIRING DRAINAGE. THE NEW WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR SANITARY SYSTEM AS INDICATED.

5. FURNISH AND INSTALL A COMPLETE HOT WATER AND COLD WATER SYSTEM THROUGHOUT THE BUILDING. CONNECTING TO ALL FIXTURES AND EQUIPMENT REQUIRING HOT AND/OR COLD WATER. THE COLD WATER SYSTEM FIBERGLASS INSERTS AND FITTED WITH MOULDED PVC COVERS, SECURED WITH GLASS FABRIC TAPE WITH MASTIC. WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR COLD WATER SYSTEM AS INDICATED. THE HOT WATER SYSTEMULATION SHALL BE FIBERGLASS 25 ASJ OR EQUAL, AND SHALL BE INSTALLED PER MANUFACTURER'S WORK SHALL BEGIN AT EACH NEW WATER HEATER WHERE INDICATED.

6. FURNISH AND INSTALL A COMPLETE GAS SYSTEM THROUGHOUT THE BUILDING, CONNECTING TO ALL EQUIPMEN 15. PLUMBING FIXTURES: REQUIRING GAS. THE GAS SYSTEM WORK SHALL EXTEND AND CONNECT TO THE GAS METERS SUPPLIED BY (TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER) GAS COMPANY.

7. FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SUBCONTRACTOR JOINTLY AND ROVIDE EVERY 150', WHERE DIRECTED BY BUILDING OWNER) . FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SUBJORTMOTOR OF SEVERALLY, AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP IN WORK OF THIS SECTION FOR A PERIOD OF 17. WATER HEATERS - FURNISH AND INSTALL WATER HEATERS WHERE INDICATED.

8. SUBMIT SHOP DRAWINGS ON PLUMBING FIXTURES AND VALVES SPECIFIED.

9. FURNISH AND INSTALL ALL PIPE OPENINGS, PIPE HANGERS AND HANGER RODS, AND FIXTURE SUPPORTS. PROPERLY SECURE HANGER RODS TO BUILDING STRUCTURE. SEAL ALL PIPE OPENINGS THROUGH FLOORS AND ROVIDE HEAT TRACE ON ALL TRAPS LOCATED IN GARAGE, COLD WATER PIPING LOCATED IN GARAGE, WATER TIGHT.

10. BURIED STORM, SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS. ABOVE GROUND SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS/PVC SCHED. 40 SOLID. PROVIDE FIRE STOPPING AND SHEET METAL SLEEVES AS REQUIRED BY CODE WHERE ALL PVC PIPING PASSES THROUGH FIRE RATED WALLS AND FLOORS.

GENERAL NOTES

18. TEST ALL NEW PLUMBING WORK IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS.

AND ANY PIPING SUBJECT TO FREEZING.

13. VALVES FOR HOT AND COLD WATER SHALL BE GATE VALVE, BRONZE BODY AND TRIM, NON-RISING STEM, 200 PSIG. SOLDER END, SIMILAR TO JENKINS 1240 OR APPROVED EQUAL. VALVES FOR GAS SHALL BE IRON BODY, PLUG TYPE, WITH SQUARE KEY AND THREADED ENDS.

14. COLD WATER AND HOT WATER PIPING INSULATION SHALL BE 1/2" THICK, WITH FACTORY APPLIED FIBERGLASS CLOTH WITH INTEGRAL VAPOR BARRIER AND SELF-SEALING LAP. FITTINGS AND VALVES SHALL BE COVERERD WITH PRE-CUT RECOMMENDATIONS TO CONFORM TO THE AUL NON-COMBUSTIBLE RATING.

16. WH - WALL HYDRANT - WOODFORD MODEL 25 FREEZE RESISTANT, WITH INTEGRAL VACUUM BREAKER.

(TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)

	PROJECT NAME Woodville Street Residences
	PROJECT ADDRESS
	41 Woodville Street Boston, MA 02119
	CLIENT
LATION AND MAINTAIN CODE REQUIRED OR MANUFACTURER REQUIRED CLERANCES.	Doug Beaudet
ODIES UNDER DECK AND 3 FT PIPING IF NO OFFSET.	ARCHITECT
OF THE STALL	
HALL BE PROVIDED OR BE CAPABLE OF BEING INSTALLED ON THE LONG WALL OF THE TUB	
L BE EXTENDED 3FT ABOVE THE EQUIPMENT WITHIN 10FT OF THE VENT.	17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
	CONSULTANTS:
USED FOR DOMESTIC HOT/COLD WATER IN RESIDENTIAL TYPE BUILDINGS UP TO 60 FT, OR 6 STORY BUILDINGS.	
ROVIDE TRAP PRIMERS	
I SINKS.	

JOINTS, FLOWGUARD PIPING SYSTEM, SEEK APPROVAL FROM ARCHITECT AND BUILDING OWNER REPRESENTATIVE BEFORE SUBMITTING FOR APPROVAL TO ENGINEER. ALL PIPING SHALL BE INSULATED AND MARKED AS HOT WATER (HW) OR COLD WATER (CW)

NTS

Doug Beaudet
ARCHITECT
17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
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THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW
REGISTRATION
Project number         17010           Date         07/25/2017           Drawn by         MM           Checked by         MZ           Scale         1/4" = 1'-0"           REVISIONS         Date           No.         Description         Date           Image: scale         Image: scale         Image: scale
PLUMBING NOTES

**<b>F-ZUU** 

		1						
DECIONATION	FIXTURE SYMBOL	SYMBOL	MANUFACTURER	FIXTURE				
DESIGNATION				MODEL	TYPE	SIZE	М	
REFER TO ARCIT	ECTURAL SI	PECIFICATIO	N FOR PLUMBING FI)	TURES				
TRAP PRIMER	P-6	T.P.	PRECISION PLUMBING PRODUCTS	PR-500	_	_		
PLEASE REFER T	O PLUMBIN	IG SPECIFIC	ATIONS FOR FIXTURE	SELECTION.				

NOTE: ALL WASHER MACHINES TO BE PROVIDED WITH AQUA MANAGERS "FLOODSTOP" (FS 3/4-H) AUTOMATIC FLOOD PROTECTION KIT

	- 1		$\sim$
		FIRE	SA
GENERAL NOTES	Т	YPE	SIZE
OLINEI(AL INOTES	STE	:el/cast Pper/emt	MAX 4
	STE 4"	'EL/CAST EMT/ 2" FLEX	MAX 6" -
	STE COI	el/cast Pper/emt	MAX 4
1) FOR EXACT LOCATION OF PLUMBING FIXTURES SEE ARCHITECTURAL DRAWINGS.	P	EX	MAX 1
2) EXAMINE ALL CONTRACT DRAWINGS, GERNERAL CONDITIONS AND SPECIFICATIONS WHICH MAY AFFECT THE WORK. 3) ALL PLUMBING WORK MUST BE COORDINATED WITH ALL OTHER TRADES BEFORE PROCEEDING WITH INSTALLATION.	Р	VC PIPE	MAX 2
4) CHECK INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL OUTSIDE UTILITIES BEFORE INSTALLING ANY UNDERGROUND. 5) NO CHANGES ARE TO BE MADE IN PLUMBING LAYOUT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.	P	VC PIPE	MAX 4
6) NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS.	P	VC PIPE	MAX 4
7) ALL PLUMBING SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES. 8) ROUGHING DIMENSIONS OF TOILET FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR.	R	EFRIGERANT	_
9) INSTALL ALL HOT AND COLD WATER PIPING AS PER SPECIFICATIONS.	4	"DUCT	MAX 4
10) INSTALL SHUTOFF GATE VALVES ON ALL BRANCH SUPPLY LINES AND AT THE BASE OF HOT AND COLD WATER RISERS. 11) PLUMBING CONTRACT SHALL REQUIRES PANELS TO ACCESS THE CONCEALED PLUMBING CLEANOUTS, DRAINS, DEVICES AND CONTROLS.	INS COI	ulated PPER/Steel	MAX 2
ACCESS PANELS SHALL BE FIRE RATED TO MATCH THE PENETRATING PARTITION OR CEILING TYPE. GENERAL CONTRACTOR SHALL INSTALL THE ACCESS PANELS.	С	ABLES	MAX 2
12) INSTALL ALL FLOOR CLEANOUTS TO CLEAR EQUIPMENT.			
13) PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND CHARGES IN CONNECTION WITH THE WORK.			
I 14) FLUMDING GUNTRAGIUR STALL FRUVIDE WATERTIGHT SLEEVES FUR ALL FIFES FASSING THRU BASEMENT WALLS.			

- 15) INSTALL CLEANOUTS AT THE BASE OF ALL SANITARY STACKS. 16) INSTALL ALL HORIZONTAL RUNS OF PIPING AS HIGH AS POSSIBLE, PITCH ALL WATER PIPING TO DRAIN, DRAW OFFS AT ALL POINTS.
- 17) PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OUTSIDE UTILITIES. 18) FOR PIPE SIZES NOT SHOWN ON PLANS SEE DETAILS & RISER DIAGRAMS

SCHEDULE OF WATER HEATER

DESIGNATION	NAME	LOCATION	DESCRIPTION
WH-1	HOT WATER HEATER	BASEMENT AS SHOWN	STATE GAS FIRED WATER HEATER, MODEL GS6–50–YBPDT, 45 MBH INPUT, 120V/1ø

# GENERAL NOTES:

1. SHOULD ANY CONTRADICTION, AMBIGUITY, ERROR, INCONSISTENCY, OMISSION OR INCOMPLETE SYSTEM APPEAR IN OR BETWEEN ANY OF CONTRACT DOCUMENTS THE CONTRACTOR SHALL, BEFORE SUBMITTING THE FINAL BID AND SIGNING THE CONTRACT FOR CONSTRUCTION, NOTIFY THE ARCHITECT AND REQUEST A WRITTEN RESOLUTION AS TO WHICH METHODS OR MATERIALS WILL BE REQUIRED. IN THE EVENT OF CONFLICTING REQUIREMENTS OF STANDARDS, DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENTS. BEFORE SUBMITTING THE FINAL BID AND THE SIGNING THE CONTRACT FOR THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION FROM THE ARCHITECT. IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE AFFECTED WORK UNTIL ADVISED BY THE ARCHITECT.

OR NOT.

2. ALL PENETRATIONS OF ASSEMBLIES EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE SEALED WITH FOAM SEALANT OR EQUIVALENT SEALER TO PROVIDE ZERO AIR INFILTRATION. COORDINATE WITH FIRE STOPPING REQUIREMENTS.

3. NO COMPONENT OF ANY SYSTEM SHALL RUN THROUGH THE STAIR ENCLOSURE THAT DOES NOT RELATE TO OR SERVE THE STAIR ENCLOSURE.

# PLUMBING NOTES:

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FIRE WALLS. ANY PENETRATION THROUGH FIRE FLOORS SHALL BE <u>FIRE STOPPED</u> . ANY PENETRATION THROUGH FIRE WALL SHALL BE <u>FIRE CAULKED</u>. REFER TO SECTION 7275 FOR PROCEDURE.
- 2. WITHOUT LIMITATION PAY ATTENTION TO THE FOLLOWING ITEMS:
- A. CHASES BEHIND BATHROOM (WALL BETWEEN CORRIDOR AND BATHROOM) AND WALLS BETWEEN UNITS ARE FIRE RATED. FIRE CAULK ALL PENETRATIONS.
- B. TOP AND BOTTOM WALL PLATES AT CEILING AND AT FLOOR IS PART OF FIRE SEPARATION. FIRE STOP ALL PENETRATIONS THROUGH PLATES.

# PLUMBING FIXTURE SPECIFICATION SCHEDULE

	FITTING					
NUF/MODEL#	TYPE	SUPPLY	TRAP		LOCATION	REMARKS
_	_	½" CW SUPPLY	_	_	AS SHOWN	PROVIDE DU-4 FOR MULTIPLE TRAP PRIN

SAFE THROUGH WOOD FLOORS						
SIZE	HILTI	MATERIAL	RATING	воттом	TOP	CHASE WALL
MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
IAX 6"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
MAX 4"	CP-620	FIRE FOAM	1HRS	FIRE STOP	FIRE STOP	REQUIRED
<i>I</i> AX 1"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	both sides	Both sides	NOT REQUIRED
MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
/AX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
MAX 4"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	COLLAR	FIRE STOP	NOT REQUIRED
-	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
MAX 4"	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
MAX 2"	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
MAX 2"	FS-ONE	INTUMESCENT SEALANT -	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED

# PIPING MATERIAL NOTES

SANITARY

AND	VENT:	BELOW	GROUND:	SWCI	WITH	PUSH	ON	JOINTS.

ABOVE GROUND:
-SCH.40 PVC WITH SOLVENT JOINTS FOR ALL
PLUMBING FIXTURES ONLY SERVING RESIDENTIAL
FLOORS, IF SANITARY MAIN CONNECTS TO
COMMERICAL FIXTURES FROM THAT POINT AND
BEYOND SHALL BE CAST IRON. IF ANY
CONNECTION FROM RESIDENTIAL TO COMMERCIAL
FIXTURES HAPPENS ON FIRST LEVEL TRANSITION
TO CAST IRON IN RESIDENTIAL LEVEL.
-SWCI WITH HUSKY 4-BAND CLAMPS FOR ALL PLUMBING IN
CONNECTIONS IN COMMERCIAL AND GARAGE
LEVELS.

WATER PIPING: TYPE "L" COPPER WITH 95-5 SOLDER JOINTS IN COMMERCIAL AND GARAGE LEVEL, CPVC IN RESIDENTIAL LEVELS ONLY.

GAS PIPING: SCHEDULE 40 ER/ERW BLACK STEEL WITH THREADED JOINTS OR WELDED.

IF THE CONTRACTOR FAILS TO MAKE A REQUEST FOR INTERPRETATION OR RESOLUTION NO EXCUSE WILL BE ACCEPTED FOR FAILURE TO CARRY OUT THE WORK IN A SATISFACTORY MANNER, AS INTERPRETED BY THE ARCHITECT. THIS GENERALLY MEANS THE USE OF THE HIGHEST QUALITY MATERIAL, MOST EXPENSIVE WAY OF PERFORMING WORK AND PROVIDING COMPLETE FUNCTIONING SYSTEM FOR PROPER OPERATION.

EACH AND EVERY TRADE OR SUBCONTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED THEMSELVES WITH ALL THE CONTRACT DOCUMENTS OF THIS PROJECT, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE VISITED THE SITE, SO AS TO AVOID ERROR, OMISSIONS AND MISINTERPRETATIONS. RELATED INFORMATION MAY BE PROVIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE ASSOCIATED WITH THE SUBCONTRACTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELATED WORK OF ALL THE CONTRACT DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS REQUIREMENT

# INSULATION NOTES THE FOLLOWING SYSTEMS SHALL BE INSULATED.

DUCT LINER SHALL BE CLOSED CELL TYPE, GERM PROOF
ESTAR REQUIREMENTS:
1. DOMESTIC HOT WATER & RECIRCULATION MAINS AND BRANCHES: PIPING < 1" REQUIRES 1" INSULATION PIPING > 1½" REQUIRES 1½" INSULATION
IECC 2009 REQUIREMENTS:
1. DOMESTIC HOT WATER MAINS AND BRANCHES: PIPING < 1"REQUIRES 1"INSULATION PIPING > 1½"REQUIRES 2"INSULATION GENERAL INSUALTION REQUIREMENTS:
CW PIPING: ½" INSULATION HORIZONTAL STORM: ½" INSULATION
THIS BUILDING WILL SHALL BE QUALIFIED FOR ESTAR, STRETCH CODE, AND LEED SILVER. PROVIDE THE MOST STRINGENT LEVELS OF INSULATION FOR QUALIFICATION

# **GENERAL NOTES**

NOTE FOLLOWING LINE ITEMS ARE LISTED FOR QUALITY PURPOSES AND APPLICABLE WHERE COMPONENTS PRESENT IN THE PROJECT. REGARDLESS HOW THE DETAILS ARE SHOWN, CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS. CONTRACTOR SHALL PAY ATTENTION TO GAS FIRED EQUIPMENT DISCHARGE LOCATIONS RELATIVE TO AIR INTAKES BEFORE ANY INSTALLATION AND MAINTAIN CODE REQUIRED OR MANUFACTION 1-ALL HOT WATER PIPING IN RECIRCULATION TYPE SYSTEMS SHALL BE INSULATED, INCLUDING TAKE OFFS FROM RE-CIRCULATION LINE. ALL HORIZONTAL COLD WATER MAINS OR BRANCH LINES ABOVE CEILINGS SHALL BE INSULATED. ALL HORIZONTAL STORM DRAINS SHALL BE INSULATED. INSULATE 3 FT PIPING ABOVE AND BELOW THE OFFSET. INSULATE ROOF DRAIN BODIES UNDER DECK AND 3 FT PIPING IF NO OFFSET.

2-HOT WATER PIPING IN SYSTEMS WITHOUT RECIRCULATION SHALL BE FULLY INSULATED TO MAINTAIN TEMPERATURE (IECC 2014) 3-ALL TRAPS SHALL HAVE CLEAN OUTS

4-ALL COMMON AREA FAUCETS SHALL HAVE POINT OF USE MIXING VALVES, ZURN LEAD FREE SERIES LFUSG-B OR EQUAL

5-ALL ADA SINKS AND LAVATORIES SHALL HAVE LAVGUARD PROTECTION COVERS, COMPLETE

6-ALL FIXTURES SHALL HAVE MULTI TURN LEAD FREE WATER STOPS AS MANUFACTURED BY ZURN LF SERIES.

7-ALL PREFABRICATED SHOWERS AND TUB SURROUNDS SHALL HAVE BUILT IN GRAB BAR RE-INFORCEMENTS, OR 8-WALLS BEHIND THE WATER CLOSETS, TUBS, SHOWERS SHALL BE RE-INFORCED FOR FUTURE GRAB BAR INSTALLATION

9-ALL KITCHEN SINKS SHALL HAVE 30" CLEAR KNEE SPACE UNDER

10-IN ALL ELEVATOR BUILDINGS OR GROUP 2 UNITS, SINKS SHALL BE NO DEEPER THAN 6 1/2" 11-WATER CLOSET CONTROLS FOR ADA UNITS SHALL BE ON THE ACCESSIBLE SIDE

12-GROUP 2 TUBS SHALL BE 60" LONG WITH RIM 16-18" AFF.

13-FOR GROUP 2 APARTMENTS, ALL TUBS AND SHOWERS SHALL HAVE HOT/COLD WATER PIPING CAPPED BEHIND TO LONGER DIMENSION OF THE STALL 14-A HAND HELD SHOWER HEAD WITH FLOW REGULATOR ATTACHED TO 60" LONG FLEXIBLE HOSE AND AN ADJUSTABLE MOUNTING BAR SHALL BE PROVIDED OR BE CAPABLE OF BEING INSTALLE 15-ALL VENT THROUGH THE ROOF LOCATIONS SHALL BE FIELD COORDINATED WITH HVAC EQUIPMENT INTAKES AND IF NECESSARY SHALL BE EXTENDED 3FT ABOVE THE EQUIPMENT WITHIN 10F 16-ALL FLOOR DRAINS SHALL HAVE TRAP PRIMERS.

17-ALL PUBLIC TOILETS SHALL HAVE HOSE BIBS AND FLOOR DRAINS, FLOOR DRAINS SHALL BE WITHIN 3FT OF THE URINALS. 18-ALL FLOOR PENETRATIONS SHALL BE FIRE RATED WITH FIRE STOP MATERIAL OR INTUMESCENT TYPE COLLARS AS REQUIRED. 19-UNLESS NOTED OTHERWISE PVC MAY BE USED FOR RESIDENTIAL TYPE BUILDINGS UP TO TEN FLOORS FOR DRAINAGE. CPVC MAY BE USED FOR DOMESTIC HOT/COLD WATER IN RESIDENTIAL PROVIDE SOUND INSULATION ON ALL PVC VERTICAL DRAIN LINES

20-PROVIDE DRAIN PAN FOR ALL STORAGE TYPE WATER HEATERS AND WASHING MACHINES W/DRAINS CONNECTED TO SEWER DRAIN, PROVIDE TRAP PRIMERS. 21-PROVIDE COMPLETE PIPING FOR DISHWASHER AND DISPOSAL CONNECTIONS, OBSERVE CLEARANCE REQUIREMENTS UNDER KITCHEN SINKS. 22-ALL DRAINS LOCATED BELOW THE STREET GRADE SHALL HAVE LOCAL OR CENTRAL TYPE BACK WATER VALVES. DRAINS FROM UPPER FLOORS WILL CONNECT AT EXIT

23-ALL PLUMBING FIXTURES SHALL BE APPROVED TYPE IN THE STATE OF PROJECT BEING USED, SPECIFICATIONS ARE FOR QUALITY, LOOK AND PERFORMANCE PURPOSES ONLY. IF SPECIFIED E SHALL PROVIDE SIMILAR APPROVED FIXTURE. 24-ALL FLOOR DRAINS IN BOILER ROOMS SHALL BE COORDINATED WITH BOILER PLACEMENTS SO THAT CONDENSATE DRAINS WILL BE DRAINED TO FLOOR DRAIN.

25-ALL PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS SHALL BE FIRE SAFED. USE FIRE PUDDY WITH FIRE WOOL FILLING FOR 2" AND SMALL PIPES, USE INTUMESCENT COLLAR FOR LARGER PIPES.

26-ALL LAUNDRY DRAINS FOR BUILDINGS 4 STORIES AND HIGHER SHALL HAVE DEDICATED DRAIN LINES CONNECTED TO SEWER LINES AT BUILDING DISCHARGE. 27-ALL BASEMENT DRAINS WILL HAVE BACK WATER VALVES AND AND UPPER FLOORS WILL BE CONNECTED TO SEWER DISCHARGE SEPERATELY FROM BASEMENT DRAIN 28- PROVIDE BALL TYPE SHUT OFF VALVES FOR ALL RIZERS AND WATER BRANCHES OFF THE MAIN

PIPES. RISERS SHALL HAVE DRAIN VALVES WITH CAP AND CHAIN

	Woodville Street
RY ABOVE FLOOR RY UNDER FLOOR	PROJECT ADDRESS
BURIED WATER ATER ATER CIRCULATION	41 Woodville Street Boston, MA 02119
OFF VALVE VALVE CLEANOUT OUT	CLIENT
CLEANOUT RISER FHRU ROOF	Doug Beaudet
RAIN DRAIN CLEANOUT	ARCHITECT
BIBB DRAIN STACK R BOX CLOSET RY SINK	
R SINK N.T.S.	
	SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086
	CONSULTANTS:
JRER REQUIRED CLERANCES.	
	COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW
	REGISTRATION
ED ON THE LONG WALL OF THE TUB. FT OF THE VENT.	MOHAMMED ZADE No. 27233
	Project number 17010 Date 07/25/2017
L TYPE BUILDINGS UP TO 60 FT, OR 6 STORY BUILDINGS.	Drawn byMMChecked byMZScale1/4" = 1'-0"REVISIONS
EQUIPMENT IS NOT THE APPROVED TYPE. CONTRACTOR	No.     Description     Date
	SCHEDULES &
	<b>P-201</b>
	Woodville Street Residences

PROJECT NAME

SANIT SANE SHUT CHECK FLOOR \_\_\_\_\_ CLEAN WCO WALL VR VENT VTR VENT HD HUB [ FD FLOOR FLOOR FCO UNION ΗB HOSE ROOF RD VENT VS WASHE WB WATER WC LAV LAVATO SHOWE SH KITCHEI KS PLUMBING LEGEND

![](_page_43_Figure_0.jpeg)

![](_page_43_Figure_2.jpeg)

REGISTRATION					
	MORAMMED ZADE No. 27233	Tacle			
Project	number	17010			
Date	0	7/25/2017			
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REVIS	SIONS				
No.	Description	Date			
PLUMBING DETAILS					
	<b>P-202</b>				
N	oodville Street Reside	ences			

![](_page_44_Figure_0.jpeg)

![](_page_44_Figure_1.jpeg)

![](_page_44_Figure_2.jpeg)

![](_page_44_Figure_3.jpeg)

<b>FRUJIEU</b> I	

# Woodville Street Residences

## PROJECT ADDRESS

41 Woodville Street Boston, MA 02119

CLIENT

Doug Beaudet					
ARCHITECT					
17 IVALOO STREET SUITE 40 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-	<b>0</b> 207				
CONSULTANTS:					

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REGISTRATION

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Project	number	<u>    170</u> 10			
Date	0	07/25/2017			
Drawn I	by	MM			
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<b>P-203</b>					
W	/oodville Street Reside	ences			

![](_page_45_Figure_0.jpeg)

![](_page_45_Figure_1.jpeg)

![](_page_45_Figure_2.jpeg)

![](_page_46_Figure_0.jpeg)

# PROJECT NAME Woodville Street Residences PROJECT ADDRESS 41 Woodville Street Boston, MA 02119 CLIENT Doug Beaudet ARCHITECT KHALSA 17 IVALOO STREET SUITE 400 SOMERVILLE, MA 02143 TELEPHONE: 617-591-8682 FAX: 617-591-2086 CONSULTANTS: COPYRIGHT KDI © 2015 THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR ANY FORM OF REPRODUCTION OF THIS DESIGN IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN CONSENT IS PROHIBITED AND SHALL RESULT IN THE FULLEST EXTENT OF PROSECUTION UNDER LAW REGISTRATION Nuraler Muderale 1701 Project number 07/25/2017 Date Drawn by M N/T Checked by Scale 1/4" = 1'-0" REVISIONS No. Date Description Basement & First Floor Sprinkler Plans **FP-100**

![](_page_47_Figure_0.jpeg)

1 2nd Floor Level 1/4" = 1'-0"

![](_page_47_Figure_3.jpeg)

PROJECT NAME

PROJECT ADDRESS

Woodville Street

Residences

4" FP UP/DN 2" FCVA W/ TEST & DRAIN 2 TOVA W/ TEST & DIVAIN 1<sup>1</sup>/<sub>2</sub>" DRAIN UP/DN 2<sup>1</sup>/<sub>2</sub>" ANGLE TYPE HOSE CONNECTION W/ CAP, CHAIN & REDUCER LOCATED AT RECESSE VALVE CABINET (COORDINATE W. 4

![](_page_48_Figure_0.jpeg)

### FIRE PROTECTION SPECIFICATIONS

1. PIPE AND FITTINGS SHALL CONFORM TO THE LATEST ANSI, ASTM, NFPA AND AWWA STANDARDS INCLUDING LATEST AMENDMENTS. 2. SPRINKLER MAINS AND BRANCHES MAY BE LIGHT WALL BLACK STEEL PIPE WITH ROLLED GROOVE TYPE MALLEABLE IRON PIPE COUPLINGS AND FITTINGS WITH GASKETS AND BOLTS AS APPROVED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND THE UNDERWRITERS' LABORATORIES. SCHEDULE 40 BLACK STEEL PIPE WITH STANDARD WEIGHT MALLEABLE IRON FITTINGS AS APPROVED BY NFPA AND UL MAY BE USED WITH, OR IN LIEU OF, THE SYSTEM DESCRIBED ABOVE.

1. HANGERS AND SWAY BRACING WHERE REQUIRED , SHALL BE INSTALLED TO MEET NFPA AND MASSACHUSETS STATE BUILDING CODE (29-292-12E) COMPLIANCE AS TO LOCATION, SPACING, AND MAXIMUM LOADS.

2. HANGER MATERIAL SHALL BE COMPATIBLE WITH PIPING MATERIALS WITH WHICH IT COMES INTO CONTACT. 3. HANGERS SHALL BE INSTALLED, IN ADDITION TO THE ABOVE, AT ALL CHANGES OF DIRECTION (HORIZONTAL AND VERTICAL), VALVES AND EQUIPMENT CONNECTIONS. HANGERS SHALL BE LOCATED SO THAT THEIR REMOVAL IS NOT REQUIRED TO SERVICE, ASSEMBLE OR REMOVE EQUIPMENT.

4. HORIZONTAL RUNS MAY USE BAND HANGERS UP TO 4" SIZE. PIPING LARGER THAN 4" SHALL BE PROVIDED WITH CLEVIS TYPE. 5. ALL RODS, CLAMPS, NUTS, WASHERS, SHIELDS AND HANGERS IN ALL AREAS SHALL BE ELECTRO-GALVANIZED COATED STEEL.

1. SHUTOFF VALVES ON THE ABOVEGROUND FIRE PROTECTION SYSTEM SHALL BE UL, FM BUTTERFLY OR OS&Y GATE VALVES, AS INDICATED, ON SIZES 2-1/2" AND LARGER, VALVES UP TO 2" SHALL BE UL, FM BALL VALVES. ALL ISOLATION / CONTROL VALVES SHALL BE MONITORED.

2. CHECK VALVES SHALL BE 175-POUND CLASS FOR FIRE PROTECTION.

4. VALVES SHALL BE AS MANUFACTURED BY NIBCO, VICTAULIC, RELIABLE, MILWAUKEE OR APPROVED EQUAL. MANUFACTURERS MODEL NUMBERS REFERENCED BELOW ARE USED TO INDICATE A TYPE, MATERIAL AND QUALITY TO BE PROVIDED. 5. ALL VALVES SPECIFIED HEREIN SHALL BE UL/FM APPROVED, 175 PSI MINIMUM WORKING PRESSURE. ALL CONTROL VALVES SHALL BE PROVIDED WITH TAMPER SWITCH.

1. SPRINKLER HEADS: QUICK RESPONSE, BULB TYPE, AND STYLE AS INDICATED OR REQUIRED BY THE APPLICATION. UNLESS

2. IN ALL OPEN AREAS, WHERE ELECTRICAL EQUIPMENT IS LOCATED, AN APPROVED TYPE SHIELD, TO KEEP WATER OFF THE ELECTRICAL EQUIPMENT, SHALL BE PROVIDED.

4. PROVIDE IN THE VALVE ROOM, A FINISHED STEEL CABINET SUITABLE FOR WALL MOUNTING, WITH HINGED COVER AND SPACE FOR 6 SPARE SPRINKLER HEADS PLUS SPRINKLER HEAD WRENCH.

1. WHERE CHANGES ARE MADE FROM THE DESIGN DRAWINGS, THIS CONTRACTOR SHALL PROVIDE HYDRAULICALLY CALCULATED SHOP DRAWINGS, FOR APPROVAL,

1. ALL LABOR, MATERIALS, INSTRUMENTS, DEVICES AND POWER REQUIRED FOR TESTING SHALL BE PROVIDED BY THIS CONTRACTOR. THE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF THE ENGINEER, GENERAL CONTRACTOR AND THE LEOMINISTER FIRE DEPARTMENT AND SUCH OTHER PARTIES, AS MAY HAVE LEGAL JURISDICTION. NO PIPING IN ANY LOCATION

2. WHERE PORTIONS OF PIPING SYSTEMS ARE TO BE COVERED OR CONCEALED BEFORE COMPLETION OF THE PROJECT, THOSE PORTIONS SHALL BE TESTED SEPARATELY IN THE MANNER SPECIFIED HEREIN FOR THE RESPECTIVE ENTIRE SYSTEM. 3. ANY PIPING OR EQUIPMENT THAT HAS BEEN LEFT UNPROTECTED AND SUBJECT TO MECHANICAL OR OTHER INJURY IN THE OPINION OF THE GENERAL CONTRACTOR SHALL BE RE TESTED IN PART OR IN WHOLE AS DIRECTED. 4. THE ENGINEER RETAINS THE RIGHT TO REQUEST A RECHECK OR RESETTING OF ANY PUMP OR INSTRUMENT BY THIS CONTRACTOR DURING THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE CONTRACTOR. 5. REPAIR, OR IF DIRECTED, REPLACE ANY DEFECTIVE WORK WITH NEW WORK WITHOUT EXTRA CHARGE TO THE CONTRACT. REPEAT

6. RESTORE TO ITS FINISHED CONDITION ANY WORK, DAMAGED OR DISTURBED, PROVIDED BY OTHER CONTRACTORS AND ENGAGE THE ORIGINAL CONTRACTOR TO DO THE WORK OF RESTORATION TO THE DAMAGED OR DISTURBED WORK. 7. THIS CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND ANY INSPECTORS HAVING JURISDICTION, A MINIMUM OF 48 HOURS IN ADVANCE OF MAKING ANY REQUIRED TESTS SO THAT ARRANGEMENTS MAY BE MADE FOR THEIR PRESENCE TO WITNESS HIS SCHEDULED TESTS.

TESTS AS DIRECTED, UNTIL THE WORK IS PROVEN TO MEET THE REQUIREMENTS SPECIFIED HEREIN.

8. TESTING SHALL BE IN ACCORDANCE WITH NFPA-13 "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS".

9. EACH SYSTEM SHALL BE TESTED TO A HYDROSTATIC PRESSURE OF 200 PSI FOR TWO HOURS.

10. FLUSHING OF ALL BURIED SUPPLY PIPING SHALL BE PERFORMED AT A MINIMUM RATE OF 880 GPM FOR SYSTEMS WITH A 6" SERVICE.

11. ALL WATER FLOW DETECTING DEVICES AND CIRCUITS SHALL BE FLOW TESTED THROUGH THE INSPECTOR'S TEST CONNECTION

12. ALL FLOW TESTS ON THE FIRE PROTECTION SYSTEMS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

13. SPRINKLER FLOW TEST DISCHARGE AND FLUSHING WATER DISCHARGE SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE LITCHFIELD DEPARTMENT OF PUBLIC WORKS AS TO ACCEPTABLE DISCHARGE POINTS PRIOR TO SCHEDULING OF FLUSHING AND TESTS. THIS CONTRACTOR SHALL PROVIDE ALL HOSE AND EQUIPMENT NECESSARY TO PERFORM THE REQUIRED

1. CONTRACTOR SHALL HAVE, ON HAND, AT TIME OF FINAL INSPECTION BY THE AUTHORITY HAVING JURISDICTION, FOR TEMPORARY / FINAL CERTIFICATE OF OCCUPANCY, ALL COMPLETED CERTIFICATES OF MATERIAL AND TESTING FOR ABOVEGROUND AND UNDERGROUND PIPING AS WELL AS THE AS- BUILT DRAWINGS OF THE FIRE PROTECTION INSTALLATION.

1. CONTRACTOR SHALL OBTAIN RECENT HYDRANT FLOW TEST RESULTS 2. CONTRACTOR SHALL PERFORM HYDRAULIC CALCULATIONS STAMPED BY A REGISTERED ENGINEER IN GOOD STANDING 3. TIER II SHOPS DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO AND APPROVED BY THIS OFFICE PRIOR TO

1. GENERAL: INSTALL FIRE PROTECTION SPECIALTY VALVES, FITTINGS, AND SPECIALTIES IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, NFPA 13 AND 14, AND THE AUTHORITY HAVING JURISDICTION.

4. ALL SPRINKLERS INSTALLED IN ACOUSTICAL CEILING TILES SHALL BE CENTERED IN TILES WHERE APPLICABLE.

# FIRE PROTECTION GENERAL NOTES:

. ALL AUTOMATIC SPRINKLER SYSTEM COMPONENTS SHALL BE DESIGNED AND INSTALLED PER NFPA-13R, NFPA-14 & CMR 780

2. ALL CONTROL VALVES SHALL BE PROVIDED WITH TAMPER SWITCHES. WIRING

TO FIRE ALARM CONTROL PANEL SHALL BY FIRE ALARM CONTRACTOR 3. ALL FIRE PROTECTION WORK SHALL BE IN ACCORDANCE WITH

CONNECTICUT STATE BUILDING CODE, INCLUDING ALL PERTINENT IBC AND NFPA REFERENCED STANDARDS AS ADOPTED.

4. SEISMIC RESTRAINT SHALL BE PROVIDED IN ACCORDANCE WITH NFPA-13-2010 AND MASS. BUILDING CODE CHAPTER 9.

5. MOUNT ALL SPRINKLERS WITH DEFLECTORS 1"-2" BELOW CEILING UNLESS OTHERWISE NOTED. ALL SPRINKLERS SHALL BE LOCATED

PER NFPA-13, 2010 SECTIONS 8.6.4.1.1, & 8.6.5 6. PROVIDE AUXILLIARY DRAINS AS REQUIRED TO COMPLETELY DRAIN

![](_page_48_Figure_50.jpeg)

PROJECT NAME