

DRAWING LIST

T COVER SHEET		ISSUE DATE	
CIVIL			
EX-1	EXISTING CONDITIONS PLAN	8/3/18	
PROP-1	PROPOSED PLOT PLAN	5/24/19	
ARCHITECTURAL			
A-001	GENERAL NOTES & ABBREVIATIONS	6/18/21	
A-100	PROPOSED FLOOR PLANS	6/18/21	
A-101	PROPOSED FLOOR PLANS	6/18/21	
A-102	PROPOSED FLOOR PLANS	6/18/21	
A-103	PROPOSED ROOF PLAN	6/18/21	
A-200	REFLECTED CEILING PLANS	6/18/21	
A-201	REFLECTED CEILING PLANS	6/18/21	
A-202	REFLECTED CEILING PLANS	6/18/21	
A-300	BUILDING ELEVATIONS	6/18/21	
A-400	SCHEMATIC BUILDING SECTIONS	6/18/21	
A-500	STREET RENDERING	6/18/21	
A-600	TYPICAL ROOF DETAILS	6/18/21	
A-710	TYPICAL STAIR DETAILS	6/18/21	
A-720	TYPICAL STAIR DETAILS	6/18/21	
A-800	DOOR & WINDOW SCHEDULES & DETAILS	6/18/21	
A-801	DOOR DETAILS	6/18/21	
A-900	PARTITION TYPES	6/18/21	
EX-100	EXISTING FLOOR PLANS	6/18/21	
EX-101	EXISTING FLOOR PLANS	6/18/21	
EX-102	EXISTING FLOOR PLANS	6/18/21	
AV-1	PROPOSED SHADOW STUDY	6/18/21	
AV-3	MASSING STUDY	6/18/21	
AV-4	MASSING STUDY	6/18/21	

STRUCTURAL		ISSUE DATE	
S-000	GENERAL NOTES	4/23/21	
S-100	FOUNDATION AND FDN DETAILS	4/23/21	
S-200	FRAMING PLANS	4/23/21	
S-300	FRAMING PLANS	4/23/21	
S-400	FRAMING PLANS	4/23/21	
MECHANICAL			
H-100	HVAC PLANS	9/25/20	
H-101	HVAC PLANS	9/25/20	
H-102	HVAC PLANS	9/25/20	
H-103	HVAC PLANS	9/25/20	
H-200	HVAC NOTES	9/25/20	
H-201	HVAC SCHEDULES	9/25/20	
H-202	HVAC DETAILS	9/25/20	
H-203	HVAC DETAILS	9/25/20	
ELECTRICAL			
E-101	BASEMENT & 1ST FLOOR LIGHTING PLANS	5/3/21	
E-102	SECOND & 3RD FLOOR LIGHTING PLANS	5/3/21	
E-103	4TH FLOOR LIGHTING PLANS	5/3/21	
E-104	BASEMENT & 1ST FLOOR POWER PLANS	5/3/21	
E-105	SECOND & 3RD FLOOR POWER PLANS	5/3/21	
E-106	4TH & ROOF FLOOR POWER PLANS	5/3/21	
E-107	ELECTRICAL DETAILS	5/3/21	
E-101	POWER RISER DIAGRAM & DETAILS	5/3/21	
FIRE PROTECTION			
FA1.0	FIRE ALARM SYSTEM PLANS	2/16/21	
FP 1 of 1	SPRINKLER SYSTEM PLANS	5/20/21	
PLUMBING			
P1.0	BASEMENT & 1ST FLOOR PLUMBING PLANS	3/16/20	
P1.1	SECOND & 3RD FLOOR PLUMBING PLANS	3/16/20	
P1.2	4TH FLOOR & ATTIC PLUMBING PLANS	3/16/20	
P1.3	ROOF PLUMBING PLANS	3/16/20	
P2.0	PLUMBING NOTES	3/16/20	
P2.1	PLUMBING SCHEDULES	3/16/20	
P2.2	PLUMBING DETAILS	3/16/20	
P2.3	PLUMBING RISER DIAGRAMS	3/16/20	

147 - 149 CHARLES STREET BOSTON, MA 02114

OWNER CITY REAL ESTATE DEVELOPMENT
320 WASHINGTON STREET, STE. 3FF
BROOKLINE, MA 02445
T: 617-751-5119

ARCHITECT KHALSA DESIGN INC.
17 WALDO STREET, SUITE 400
SOMERVILLE, MA, 02143
T: 617-591-8682
F: 617-591-2086

STRUCTURAL ENGINEER DAVIDSON ENGINEERING ASSOCIATES, INC.
377 SOMERVILLE AVE.
SOMERVILLE, MA, 02143
T: 617-775-7250

MEP ENGINEER ZADE ASSOCIATES, LLC
140 BEACH STREET
BOSTON, MA, 02111
T: 617-338-4406

CIVIL ENGINEER RJ O'CONNELL & ASSOCIATES, INC.
60 MONTVALE AVE
STONEHAM, MA 02180
T: 781-279-0180

ZONING CHART

DISTRICT	TYPE OF USE	LOT SIZE MINIMUM SQ. FT.	LOT AREA MINIMUM SQ. FT. FOR EA. ADJTL DWELLING UNIT	LOT WIDTH MINIMUM FT.	FLOOR AREA RATIO MAXIMUM (%)	HEIGHT OF BUILDINGS		USABLE OPEN SPACE MINIMUM SQ. FT. PER DWELLING UNIT	FRONT YARD MINIMUM DEPTH FEET (14)	SIDE YARD MINIMUM WIDTH FEET	REAR YARD MINIMUM DEPTH FEET	SETBACK OF PARAPET FROM LOT LINE	REAR YARD MINIMUM % OCCUP. BY ACCESS, BLDGS.
						STORIES	FEET						
19-245	OTHER USE	NONE	NONE	NONE	3,131 x 2.0 = 6,262 SF	NONE	65	NONE	20	(4)	10 + L/10 20	H+L1 6 ALL USES	30
ALLOWED	OTHER USE	NONE	NONE	NONE	3,131 x 2.0 = 6,262 SF	NONE	65	NONE	20	(4)	10 + L/10 20	H+L1 6 ALL USES	30
EXISTING	OTHER USE	N/A (1,111 SF)	N/A	N/A (44 FEET)	7,803 SF (2.49) includes basement	4	44.5	N/A	0	0	0	N/A	N/A
PROPOSED	OTHER USE	N/A (1,111 SF)	N/A	N/A (44 FEET)	10,343 SF (3.30) includes basement	4	44.5	N/A	0	0	0	N/A	N/A

Key:

L = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line.

H = Height of building above the height below which no setback is required.

L' = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line at greatest length above the height below which no setback is required.

Footnotes to Table A

- See Section 15-4 for cases where the maximum floor area ratio may be exceeded.
- No additional lot area for first 30 dwelling units.
- See Section 13-4.
- Ten feet plus one twentieth of the length of the wall parallel (or within 45° of parallel) to the side lot line. See further Section 19-4.
- See Section 19-5.
- See Section 20-4.
- See Section 20-5.
- Deleted.
- See Section 16-7 for regulations for pre-Code structures.
- Twenty feet on east-west streets, none on north-south streets. A bay window, as defined in Section 2-1, may protrude into a front yard, Section 19-1 notwithstanding. See also Sections 18-1 and 19-2.
- See Section 18-4.
- Deleted.
- See Section 19-8 for height limits for buildings within 100 feet of streets that bound Boston Common and the Public Garden. See Section 16-9 for height limit provisions for blocks bounded by Beacon and Essex Streets and Huntington Avenue.
- See also Section 19-2.
- Except in a district designated with two numerical plans, in which case the second number is the maximum height in feet. See Section 3-1A(i).
- See subsections (b) and (c) of Section 21-2.

LOCUS



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA
17 WALDO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-591-8682 FAX 617-591-2086

CONSULTANTS:

COPYRIGHT (C) 2019
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 19061
Date 6/18/2021
Drawn by S.V.
Checked by JSK
Scale N.T.S.

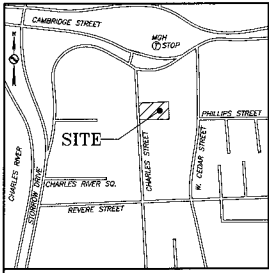
REVISIONS

No.	Description	Date

EXISTING

T

147-149 CHARLES



VICINITY SKETCH
NOT TO SCALE

NOTES

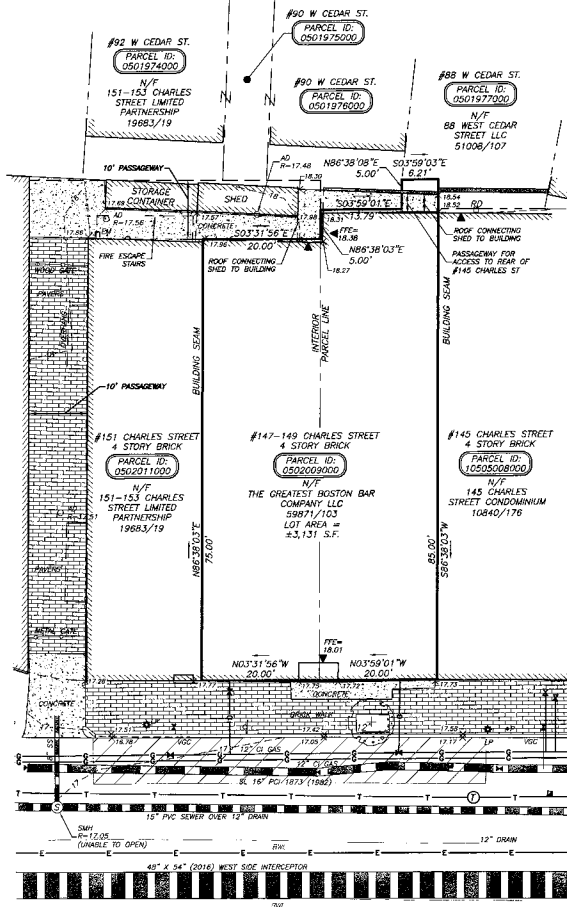
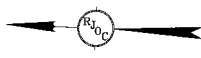
- UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL THE SAFE 811.
- THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 07/06/2018 AND 07/10/2018.
- THE HORIZONTAL DATUM IS MASSACHUSETTS GRID COORDINATE SYSTEM (NAD83). THE VERTICAL DATUM IS BOSTON CITY DASH. DATUM HAS ESTABLISHED USING RTK GPS METHODS.
- THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOSCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
- THE PARCELS SHOWN IS LOCATED IN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON 75000 INSURANCE RATE MAP, SUFFOLK COUNTY, MASSACHUSETTS, PANEL 27 OF 176, MAP NUMBER 25023C00774, EFFECTIVE DATE MARCH 16, 2016.
- CONTOUR INTERVAL IS ONE FOOT (1').

ZONING

ZONE: BOSTON EDGE
SUBDISTRICT: L-2-45 / N-2-45
SUBDISTRICT TYPE: APARTMENT RESIDENTIAL
OVERLAYS: GROUNDWATER CONSERVATION, RESTRICTED PARKING

PLAN REFERENCES

- PLAN BOOK AND PAGES REFERENCE THE SUFFOLK COUNTY REGISTRY OF DEEDS
- LAND COURT CASE 15730-A
 - CITY OF BOSTON PLAN 5487
 - PLAN RECORDED IN BOOK 10840 PAGE 165
 - PLAN RECORDED IN BOOK 3333 PAGE 82



LEGEND

	PROPERTY LINE
	ABUTTING PROPERTY LINE
	1' CONTOUR
	3' CONTOUR
	SEWER LINE/MANHOLE
	DRAIN LINE/MANHOLE
	WATER LINE
	GAS LINE
	OVERHEAD WIRES
	WROUGHT IRON FENCE
	STOCKADE FENCE
	CHAIN LINK FENCE
	UTILITY POLE
	LIGHT POLE
	CABLE TV MANHOLE
	CATCH BASIN
	WATER VALVE
	FIRE HYDRANT
	ROOF DRAIN
	DOOR
	DECIDUOUS TREE
	SHRUB
	OBSERVATION WELL
	BOLLARD
	PARKING METER
	AREA DRAIN
	ADA DETECTABLE WARNING PADS
	VERTICAL GRANITE CURB
	FFE
	DCL
	PVC
	CM
	BK
	OV
	BROKEN WHITE LINE

Record Owner:
THE GREATEST BOSTON
BAR COMPANY LLC
320 WASHINGTON STREET, SUITE 3FF
BROOKLINE, MA 02445
BOOK 59871 PAGE 103

Location:
PARCELS ID: 0502090002
147-149 CHARLES STREET
BOSTON, MA 02114

Drawn by: RJK/SME
Checked by: KJK
Scale: 1"=10'
Date: 08/03/2018
Field Crew: AA/DFB
Field Book: BK 28 PG 17

Prepared for:
**CITY REAL ESTATE
DEVELOPMENT CORP.**

320 WASHINGTON ST
SUITE 3FF
BROOKLINE, MA 02445

Prepared by:
**RJO'CONNELL
& ASSOCIATES, INC.**
CIVIL ENGINEERS, SURVEYORS
& LAND PLANNERS
80 MONTVALE AVE
STONEHAM, MA 02180
781-278-0180
www.rjocomet.com

Project Name:
**147-149 CHARLES STREET
BOSTON, MA**

Drawing Name:
**EXISTING
CONDITIONS
PLAN**

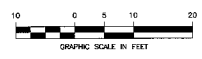
Drawing No.:
EX-1

Project No.:
18081

THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY
PERFORMED ON OR BETWEEN JULY 6, 2018 & JULY 10, 2018.

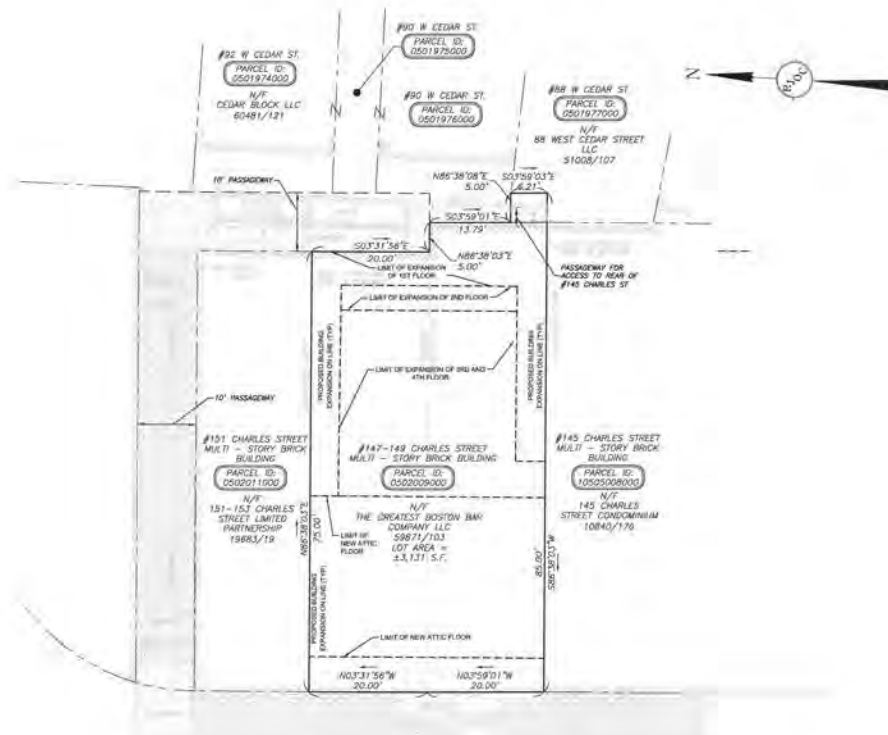
PROFESSIONAL LAND SURVEYOR FOR
RJO'CONNELL & ASSOCIATES, INC. DATE

CHARLES STREET
(PUBLIC - VARIABLE WIDTH)





VICINITY SKETCH
N.T.S.



LEGEND

- PROPERTY LINE
- ADJUTIVE PROPERTY LINE
- CONCRETE WALL
- IRREGULAR FENCE
- CONCRETE/LEAF CURB
- VERTICAL CURB/CHUTE CURB
- UNDEVELOPED EXTENT OF NEW EIGHTH AVENUE RECORD

NOTES

1. THE LOCUS PROPERTY IS LOCATED WITHIN THE BOSTON PROPER ZONING DISTRICT, ZONING SUBDISTRICT: 1-2-65 / 1-2-65 PER THE CURRENT ZONING MAP.
2. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL 780 8111.
3. THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 07/06/2018 AND 07/10/2018.
4. THE HORIZONTAL DATUM IS MASSACHUSETTS GRID COORDINATE SYSTEM (MAGD) DATUM AND ESTABLISHED USING GPS METHODS.
5. THE HORIZONTAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN ALIGNED VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THIS PLAN IS NOT AUTHORIZED.
6. THE PARCEL SHOWN IS LOCATED IN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON FLOOD INSURANCE RATE MAP, SUFFOLK COUNTY, MASSACHUSETTS, PANEL 77 OF 176, MAP NUMBER 200200077L, EFFECTIVE DATE MARCH 14, 2016.

PLAN REFERENCES

- 1. PLAN BOOK AND PAGES REFERENCED THE SUFFOLK COUNTY REGISTRY OF DEEDS
- 1. LAND COUNTY ORD. 19700-4
- 2. CITY OF BOSTON PLAN 5887
- 3. PLAN RECORDED IN BOOK 10840 PAGE 183
- 4. PLAN RECORDED IN BOOK 3333 PAGE 60

CHARLES STREET
(PUBLIC - VARIABLE WIDTH)



DIG SAFE



BEFORE YOU DIG
CALL 811



NO.	DATE	REVISION
1	11/14/2018	ISSUED FOR PERMIT
2	05/24/2019	REVISED

PREPARED BY
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
81 BOSTON AVENUE, SUITE 201 BOSTON, MA 02108
PHONE: 617.267.8788 - RJOCCON@RJOC.COM

PREPARED FOR
CITY REAL ESTATE DEVELOPMENT CORP.

320 WASHINGTON ST
SUITE 3FF
BROOKLINE, MA 02445

PROJECT NAME: **147-149 CHARLES STREET**
BOSTON, MA

THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BETWEEN 07/06/2018 AND 07/10/2018.



PROFESSIONAL LAND SURVEYOR FOR
RJO'CONNELL & ASSOCIATES, INC. 1/7/2019

DESIGNED BY: BWT
DRAWN BY: MMS/CJM
REVIEWED BY: SMJ
SCALE: 1" = 10'
DATE: 05/24/2018
DRAWING NAME:

PROPOSED
PLOT PLAN

DRAWING NUMBER:
PROP-1

PROJECT NUMBER: 18001

Drawing name: E:\City Real Estate Development Corp\Proposals\Boston\Prop147-149 Charles Street\Main\18001_Plot_Plan.dwg
Jan 07, 2020 - 14:55pm

147-149 Charles Street



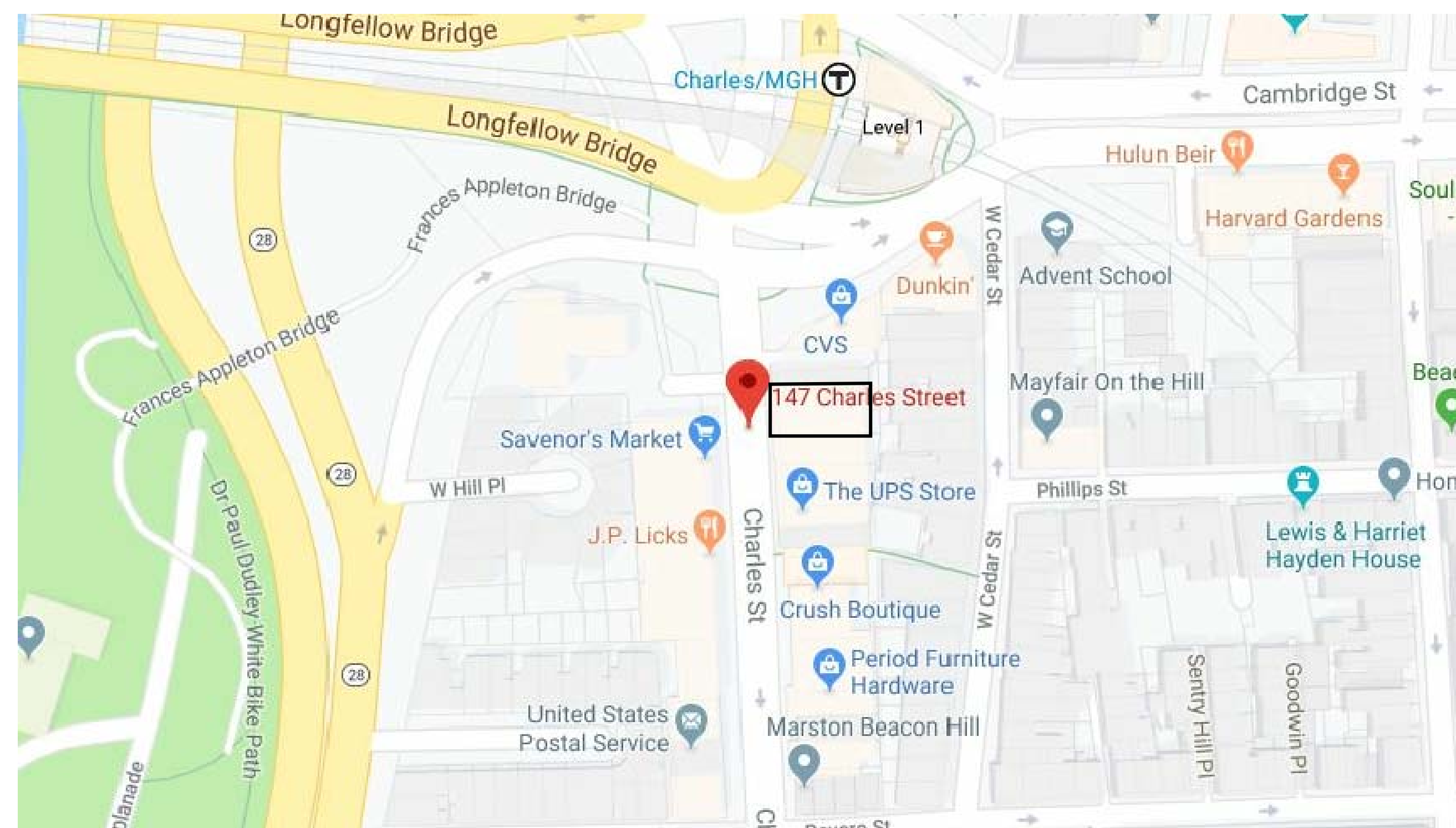
Existing Conditions



147 - 149 CHARLES STREET BOSTON, MA 02114

DRAWING LIST		DATE
T	TITLE SHEET	11/11/2020
EX-1	EXISTING CONDITIONS PLOT PLAN	8/3/18
PROP-1	PROPOSED PLOT PLAN	5/24/19
A-100	PROPOSED FLOOR PLANS	11/11/2020
A-101	PROPOSED FLOOR PLANS	11/11/2020
A-102	PROPOSED FLOOR PLANS	11/11/2020
A-103	PROPOSED ROOF PLAN	11/11/2020
A-300	BUILDING ELEVATIONS	11/11/2020
A-400	SCHEMATIC BUILDING SECTIONS	11/11/2020
A-500	STREET RENDERING	5/21/19
AV-1	PROPOSED SHADOW STUDY	9/16/19
AV-3	MASSING STUDY	9/24/19
AV-4	MASSING STUDY	9/24/19
EX-100	EXISTING FLOOR PLANS	5/21/19
EX-101	EXISTING FLOOR PLANS	5/21/19
EX-102	EXISTING FLOOR PLANS	5/21/19

LOCUS



ZONING CHART

DISTRICT	TYPE OF USE	LOT SIZE MINIMUM SQ. FT.	LOT AREA MINIMUM SQ. FT. FOR EA. ADDTL. DWELLING UNIT	LOT WIDTH MINIMUM FT.	FLOOR AREA RATIO MAXIMUM (1)	HEIGHT OF BUILDINGS		USABLE OPEN SPACE MINIMUM SQ. FT. PER DWELLING UNIT	FRONT YARD MINIMUM DEPTH FEET (14)	SIDE YARD MINIMUM WIDTH FEET	REAR YARD MINIMUM DEPTH FEET	SETBACK OF PARAPET MINIMUM DISTANCE FROM LOT LINE	REAR YARD MAXIMUM OCCUP. BY ACCESS. BLDGS.
						STORIES	FEET						
ALLOWED	OTHER USE	NONE	NONE	NONE	3,131 x 2.0 = 6,262 SF	NONE	65	NONE	20	(4)	$\frac{10 + L}{20}$ (6)	$\frac{H + L1}{6}$ ALL USES	30
EXISTING	OTHER USE	N/A (3,131 SF)	N/A	N/A (40 FEET)	7,803 SF (2.49) excludes basement	4	44.5	N/A	0	0	0	N/A	N/A
PROPOSED	OTHER USE	N/A (3,131 SF)	N/A	N/A (40 FEET)	10,343 SF (3.30) excludes basement	4	44.5	N/A	0	0	0	N/A	N/A

Key:

- L = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line.
 - H = Height of building above the height below which no setback is required.
 - L' = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line at greatest length above the height below which no setback is required.
- Footnotes to Table A
- (1) See Section 15-4 for cases where the maximum floor area ratio may be exceeded.
 - (2) No additional lot area for first 30 dwelling units.
 - (3) See Section 13-4.
 - (4) Ten feet plus one twentieth of the length of the wall parallel (or within 45° of parallel) to the side lot line. See further Section 19-4.
 - (5) See Section 19-5.
 - (6) See Section 20-4.
 - (7) See Section 20-5.
 - (8) Deleted.
 - (9) See Section 16-7 for regulations for pre-Code structures.
 - (10) Twenty feet on east-west streets, none on north-south streets. A bay window, as defined in Section 2-1, may protrude into a front yard, Section 18-1 notwithstanding. See also Sections 18-1 and 18-2.
 - (11) See Section 16-4.
 - (12) Deleted.
 - (13) See Section 16-6 for height limits for buildings within 100 feet of streets that bound Boston Common and the Public Garden. See Section 16-9 for height limit provisions for block bounded by Bladgen and Exeter Streets and Huntington Avenue.
 - (14) See also Section 18-2.
 - (15) Except in a district designated with two numerical parts, in which case the second number is the maximum height in feet. See Section 3-1A(i).
 - (16) See subsections (b) and (c) of Section 21-2.

CHANGES INCLUDED IN THIS SUBMISSION;

- ADDED ENTRY VESTIBULE
- REMOVED CONCIERGE
- REMOVED ELEVATOR AND ELEVATOR MACHINE ROOM
- ADJUSTED REAR WALL SETBACKS ON FLOORS 2 -4
- RECONFIGURED REAR UNITS TO ACCOMODATE SMALLER SIZE
- REMOVED THE FIFTH FLOOR
- REMOVED DORMERS AT STREET SIDE ELEVATION

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

DESIGN

KHALSA

17 IVALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-8682 FAX: 617-991-2086

CONSULTANTS:

CITY OF BOSTON
INSPECTIONAL SERVICES DEPT
BOARD OF APPEALS

PLAN REVIEWED ON THIS DATE
FEBRUARY 2, 2021

APPROVED AS SUBMITTED

Notes:
REMOVAL OF THE OFFICES
FROM THE ADDITIONAL ONE
BEDROOM UNITS

Signature:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale N.T.S.

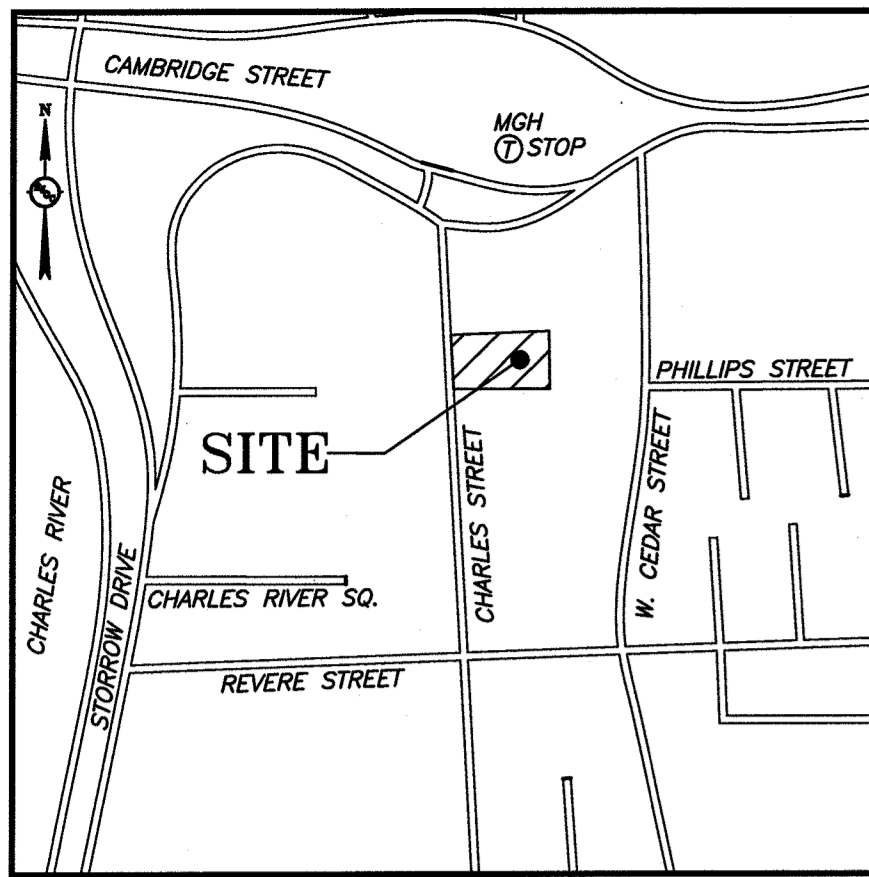
REVISIONS

No.	Description	Date

EXISTING

T

00000_PROJECT NAME



VICINITY SKETCH
NOT TO SCALE

NOTES

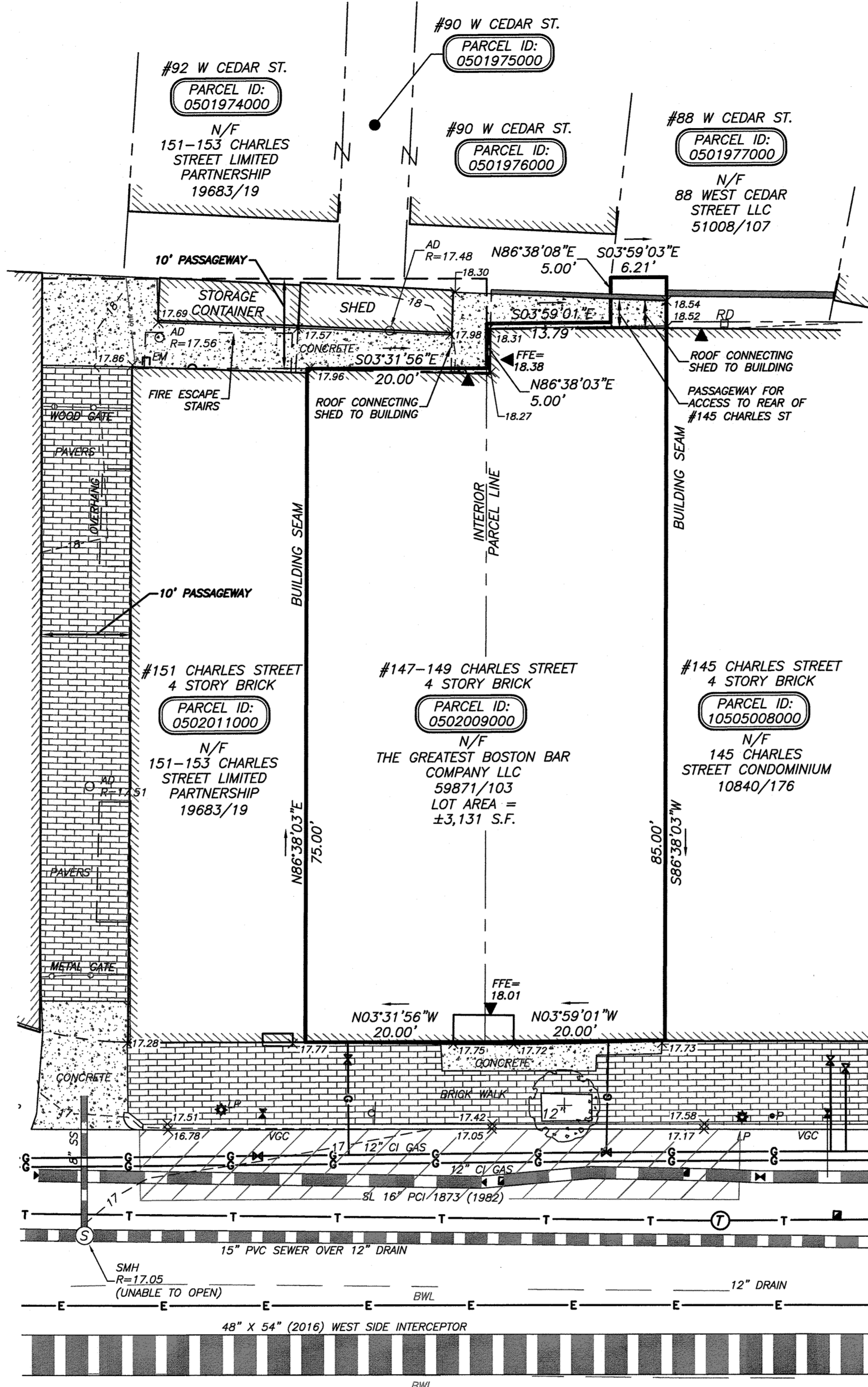
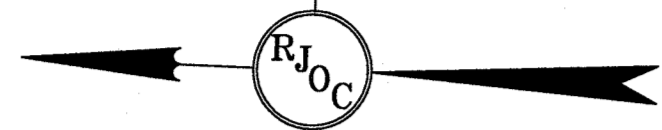
- UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
- THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 07/06/2018 AND 07/10/2018.
- THE HORIZONTAL DATUM IS MASSACHUSETTS GRID COORDINATE SYSTEM (NAD83). THE VERTICAL DATUM IS BOSTON CITY BASE. DATUM WAS ESTABLISHED USING RTK GPS METHODS.
- THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
- THE PARCEL SHOWN IS LOCATED IN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON "FLOOD INSURANCE RATE MAP, SUFFOLK COUNTY, MASSACHUSETTS," PANEL 77 OF 176, MAP NUMBER 2502SC00774, EFFECTIVE DATE MARCH 16, 2016.
- CONTOUR INTERVAL IS ONE FOOT (1').

ZONING

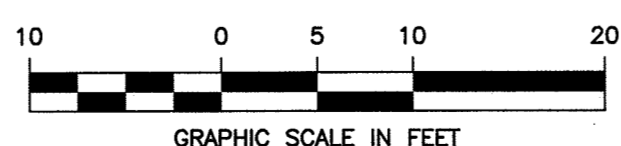
ZONE: BOSTON PROPER
SUBDISTRICT: L-2-65 / H-2-65
SUBDISTRICT TYPE: APARTMENT RESIDENTIAL
OVERLAYS: GROUNDWATER CONSERVATION, RESTRICTED PARKING

PLAN REFERENCES

- PLAN BOOK AND PAGES REFERENCE THE SUFFOLK COUNTY REGISTRY OF DEEDS
- LAND COURT CASE 15730-A
 - CITY OF BOSTON PLAN 5887
 - PLAN RECORDED IN BOOK 10840 PAGE 165
 - PLAN RECORDED IN BOOK 3333 PAGE 82



CHARLES STREET
(PUBLIC - VARIABLE WIDTH)



LEGEND

	PROPERTY LINE
	ABUTTING PROPERTY LINE
	1' CONTOUR
	5' CONTOUR
	SEWER LINE/MANHOLE
	DRAIN LINE/MANHOLE
	GAS LINE
	OVERHEAD WIRES
	WROUGHT IRON FENCE
	STOCKADE FENCE
	CHAIN LINK FENCE
	UTILITY POLE
	LIGHT POLE
	CABLE TV MANHOLE
	CATCH BASIN
	WATER VALVE
	FIRE HYDRANT
	GAS VALVE
	ROOF DRAIN
	DOOR
	DECIDUOUS TREE
	SHRUB
	OBSERVATION WELL
	BOLLARD
	PARKING METER
	AREA DRAIN
	ADA DETECTABLE WARNING PAD
	VERTICAL GRANITE CURB
	FINISHED FLOOR ELEVATION
	DUCTILE IRON CONCRETE LINED
	POLYVINYL CHLORIDE
	BUILDING OVERHANG
	BACK
	OVER
	BROKEN WHITE LINE

Record Owner:
THE GREATEST BOSTON
BAR COMPANY LLC
320 WASHINGTON STREET, SUITE 3FF
BROOKLINE, MA 02445
BOOK 59871 PAGE 103

Location:
PARCEL ID: 0502009000
147-149 CHARLES STREET
BOSTON, MA 02114

Drawn by: RJK/SML
Checked by: KJK
Scale: 1"=10'
Date: 08/03/2018
Field Crew: AA/DPB
Field Book: BK. 28 PG. 17

Prepared for:
CITY REAL ESTATE
DEVELOPMENT CORP.

320 WASHINGTON ST
SUITE 3FF
BROOKLINE, MA 02445

Prepared by:
RJO'CONNELL
& ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS
& LAND PLANNERS
80 MONTVALE AVE
STONEHAM, MA 02180
781-279-0180
www.rjoconnell.com

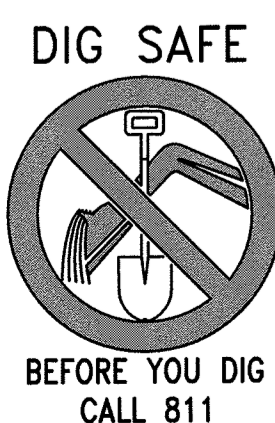
Project Name:
147-149 CHARLES STREET
BOSTON, MA

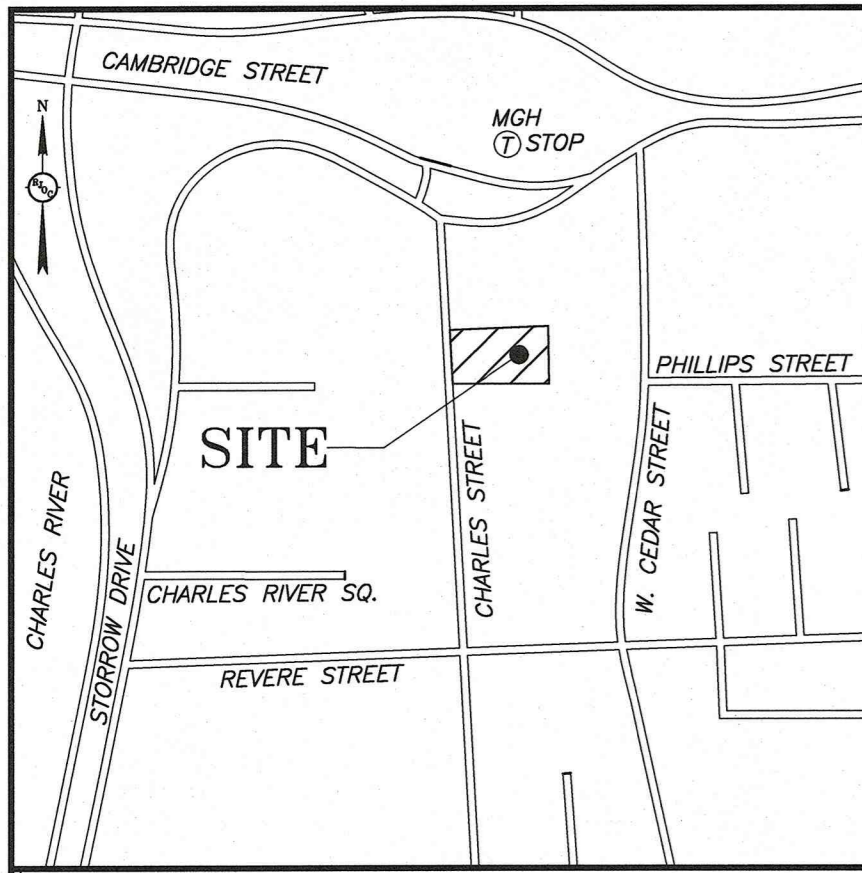
Drawing Name:
EXISTING
CONDITIONS
PLAN

Drawing No.:
EX-1
Project No.: 18081

THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY
PERFORMED ON OR BETWEEN JULY 6, 2018 & JULY 10, 2018.

PROFESSIONAL LAND SURVEYOR FOR
RJO'CONNELL & ASSOCIATES, INC.





VICINITY SKETCH
N.T.S.

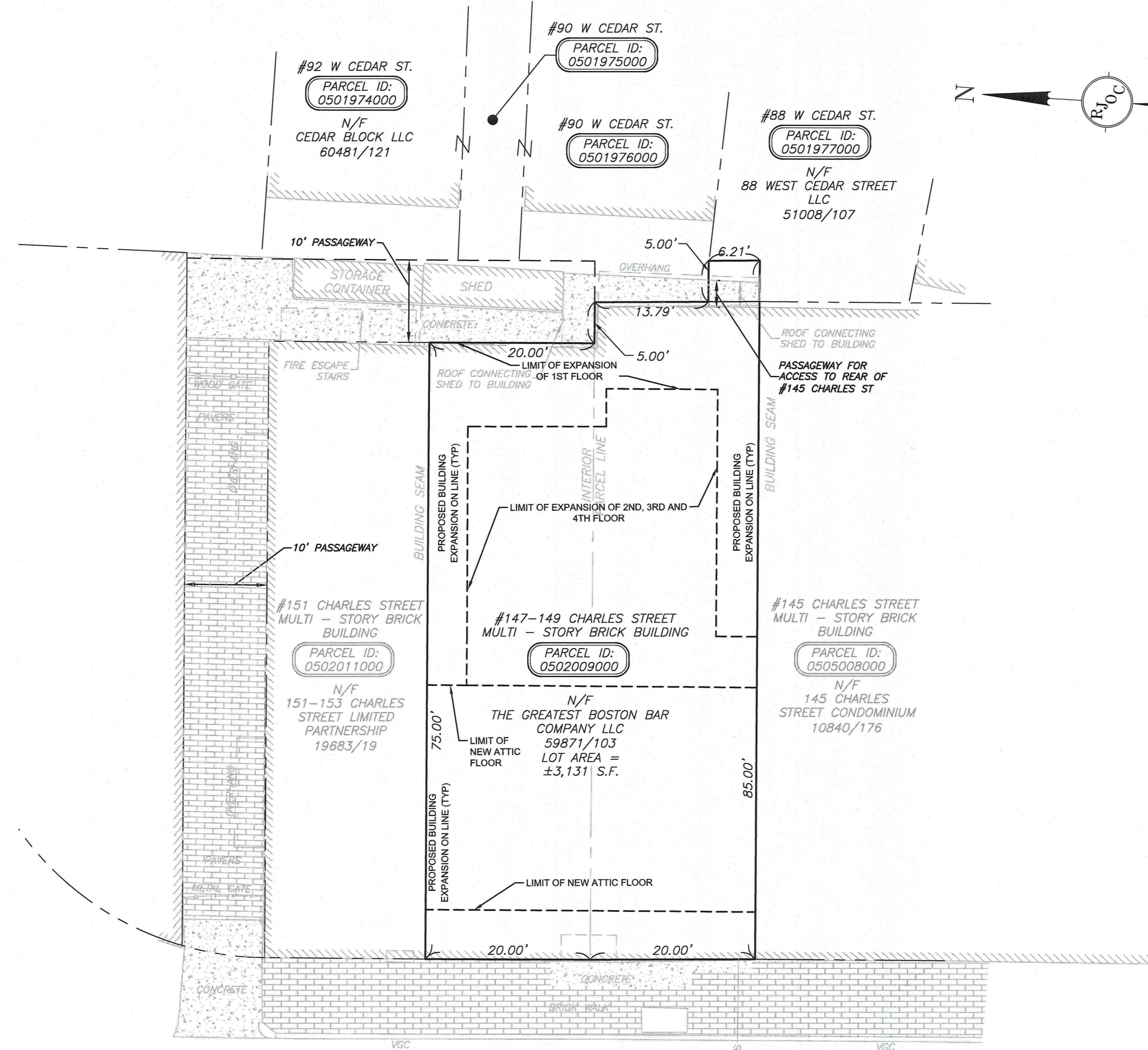
NOTES

1. THE SOLE PURPOSE OF THIS PLAN IS TO DEPICT THE RELATIVE LOCATIONS OF EXISTING AND PROPOSED STRUCTURES ON THIS SITE. MORE SPECIFICALLY THIS PLAN DEPICTS THE LOCATION OF THE EXISTING BUILDING, AND PROPOSED ADDITIONS ABOVE. LOCATION AND DIMENSIONS OF THE PROPOSED ADDITIONS WERE PROVIDED BY KHALSA DESIGN, INC. ON A PLAN SET ENTITLED "147-149 CHARLES STREET" DATED 09/25/2020.
2. THE LOCUS PROPERTY IS LOCATED WITHIN THE BOSTON PROPER ZONING DISTRICT, ZONING SUBDISTRICT: L-2-65 / H-2-65 PER THE CURRENT ZONING MAP.
3. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
4. THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 07/06/2018 AND 07/10/2018.
5. THE HORIZONTAL DATUM IS MASSACHUSETTS GRID COORDINATE SYSTEM (NAD83). DATUM WAS ESTABLISHED USING RTK GPS METHODS.
6. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
7. THE PARCEL SHOWN IS LOCATED IN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON "FLOOD INSURANCE RATE MAP, SUFFOLK COUNTY, MASSACHUSETTS," PANEL 77 OF 176, MAP NUMBER 25025C0077J, EFFECTIVE DATE MARCH 16, 2016.
8. THIS PLAN: A) SHALL NOT BE RECORDED, B) DOES NOT IMPLY OR OTHERWISE CERTIFY ANY FORM OF OWNERSHIP, AND C) SHALL NOT BE USED TO DETERMINE THE LOCATION OF ANY FEATURES (FENCES, DRIVEWAYS ETC.) RELATIVE TO ANY FEATURE OR BOUNDARY UNLESS EXPLICITLY DIMENSIONED ON THIS PLAN.

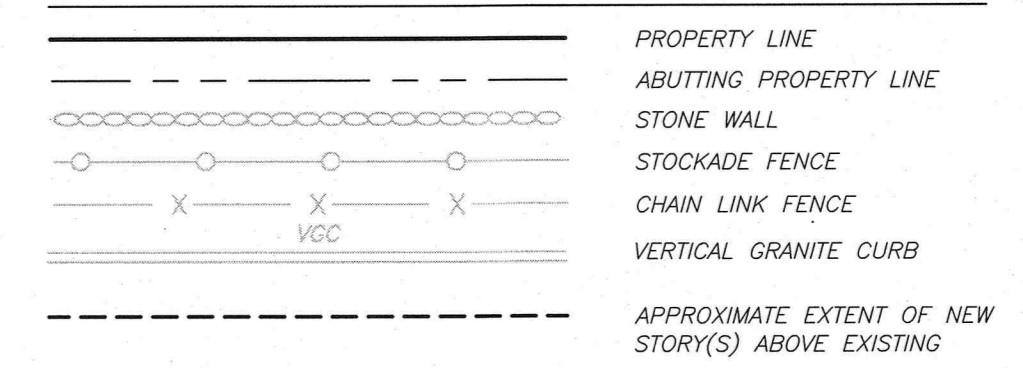
PLAN REFERENCES

PLAN BOOK AND PAGES REFERENCE THE SUFFOLK COUNTY REGISTRY OF DEEDS

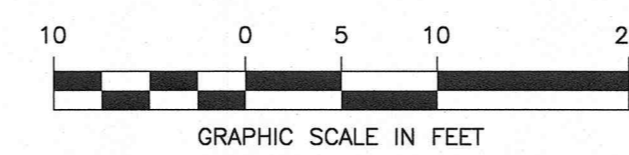
1. LAND COURT CASE 15730-A
2. CITY OF BOSTON PLAN 5887
3. PLAN RECORDED IN BOOK 10840 PAGE 165
4. PLAN RECORDED IN BOOK 3333 PAGE 62



LEGEND



CHARLES STREET
(PUBLIC - VARIABLE WIDTH)



DIG SAFE



BEFORE YOU DIG
CALL 811

RJOC

NO.	REVISION	DATE
3	REVISED LIMITS OF MULTI-FLOOR ADDITIONS	01/15/2021
2	REVISED LIMITS OF MULTI-FLOOR ADDITIONS	01/07/2020
1	LIMITS OF MULTI-FLOOR ADDITIONS	11/19/2019

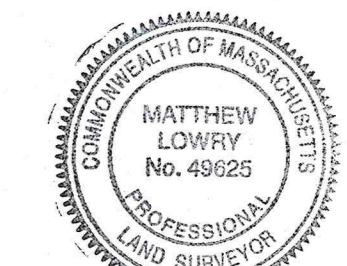
PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJCONNELL.COM

PREPARED FOR:
CITY REAL ESTATE DEVELOPMENT CORP.

320 WASHINGTON ST
SUITE 3FF
BROOKLINE, MA 02445

PROJECT NAME: **147-149 CHARLES STREET**
BOSTON, MA

THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BETWEEN 07/06/2018 AND 07/10/2018.



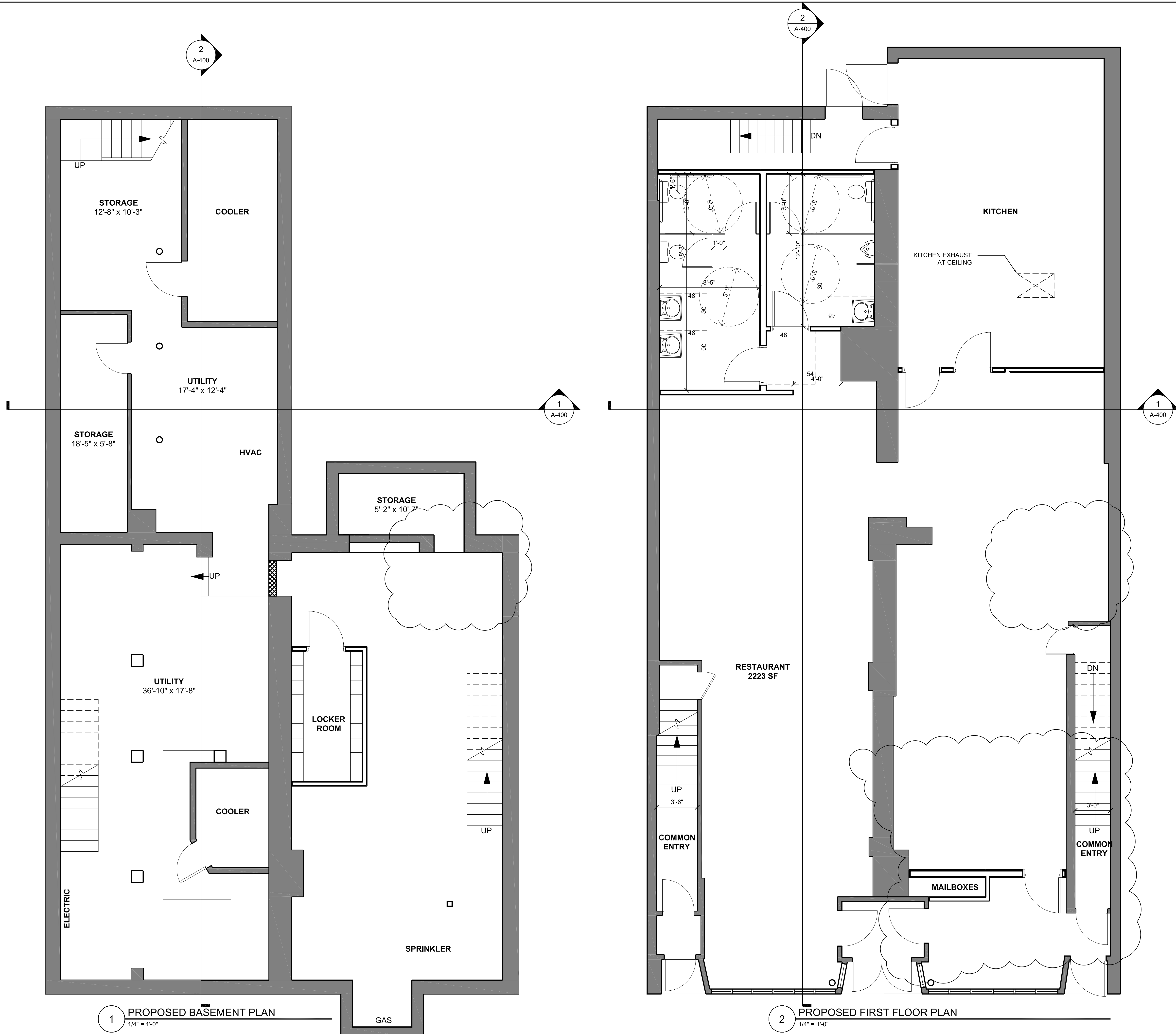
PROFESSIONAL LAND SURVEYOR FOR
RJ O'CONNELL & ASSOCIATES, INC. DATE: 1/14/2021

DESIGNED BY: BWT
DRAWN BY: CMM
REVIEWED BY: ML
SCALE: 1" = 10'
DATE: 05/24/2019
DRAWING NAME:

PROPOSED
PLOT PLAN

DRAWING NUMBER:
PROP-1

PROJECT NUMBER: **18081**



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

2 PROPOSED FIRST FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

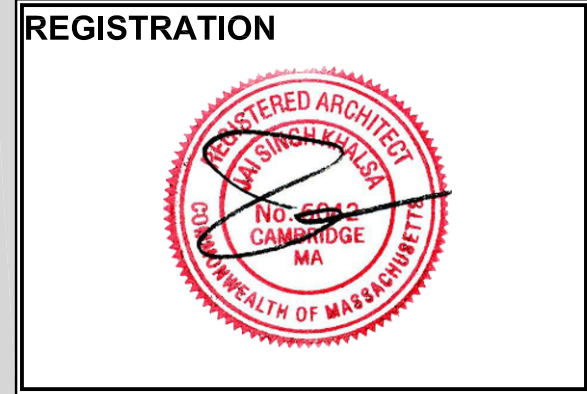
DESIGN

KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

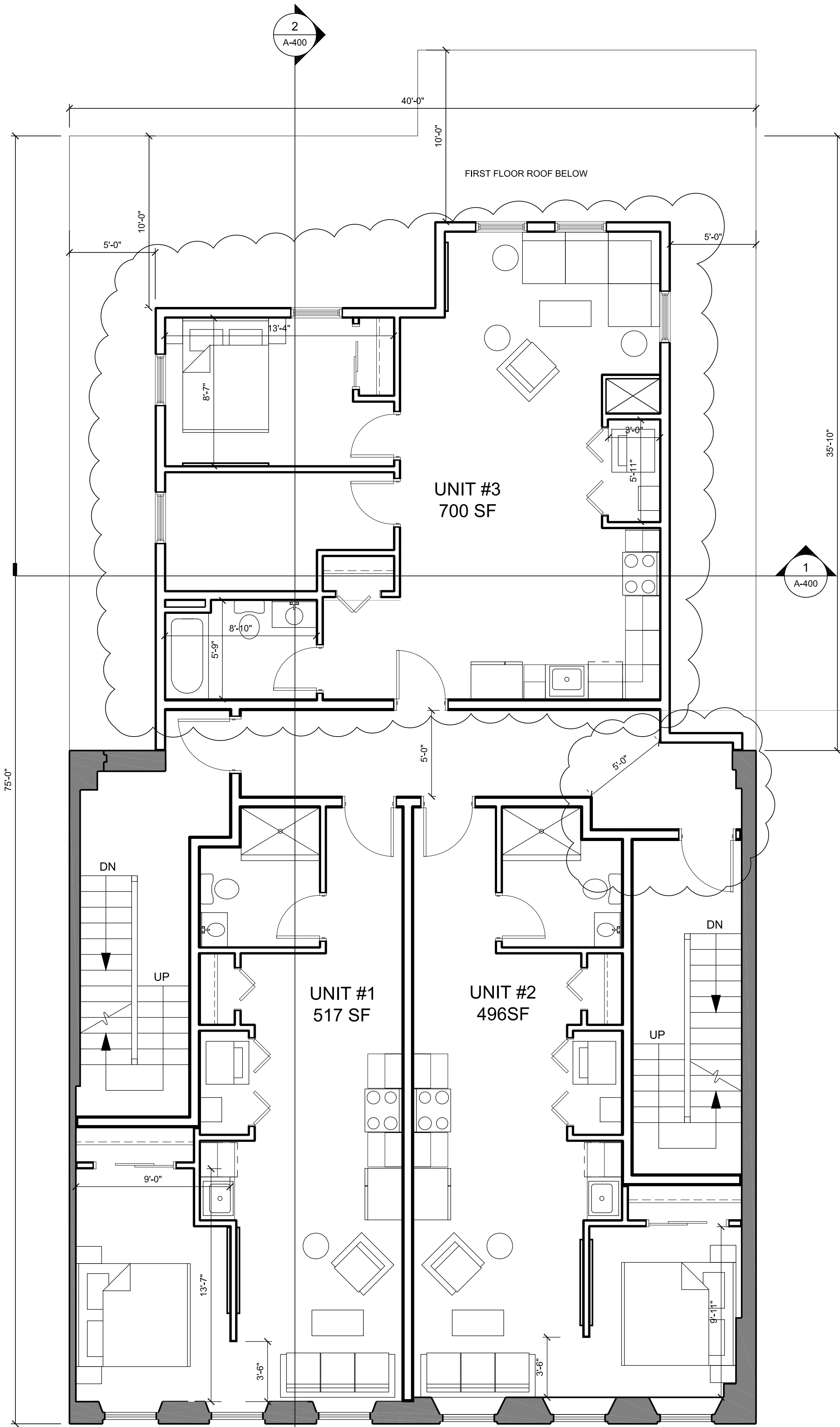
REVISIONS

No.	Description	Date

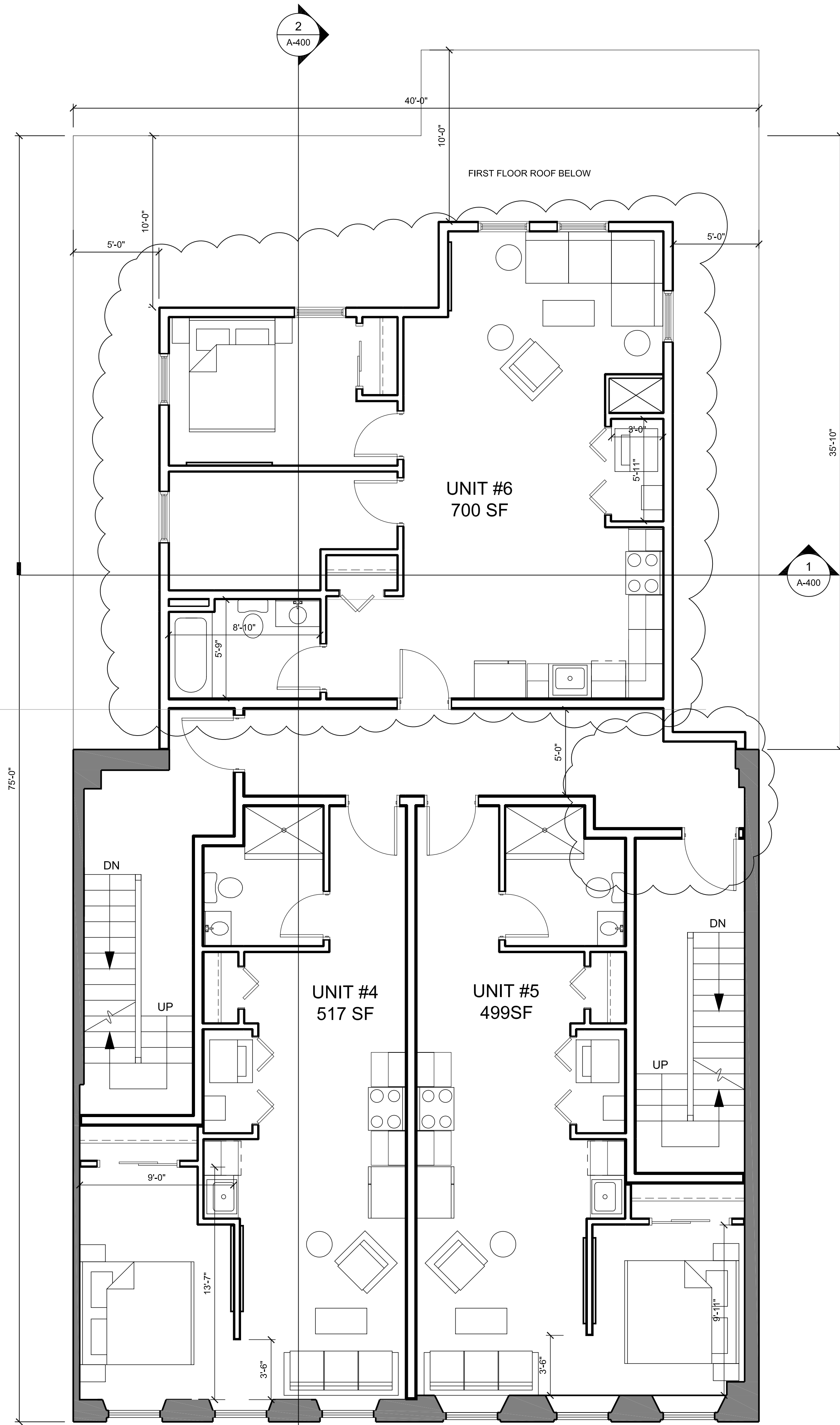
**PROPOSED
FLOOR
PLANS**

A-100

00000_PROJECT NAME



1 PROPOSED SECOND FLOOR PLAN
1/4" = 1'-0"



2 PROPOSED THIRD FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

KHALSA
17 IVALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-8682 FAX: 617-991-2086

CONSULTANTS:

COPYRIGHT KDI © 2019
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

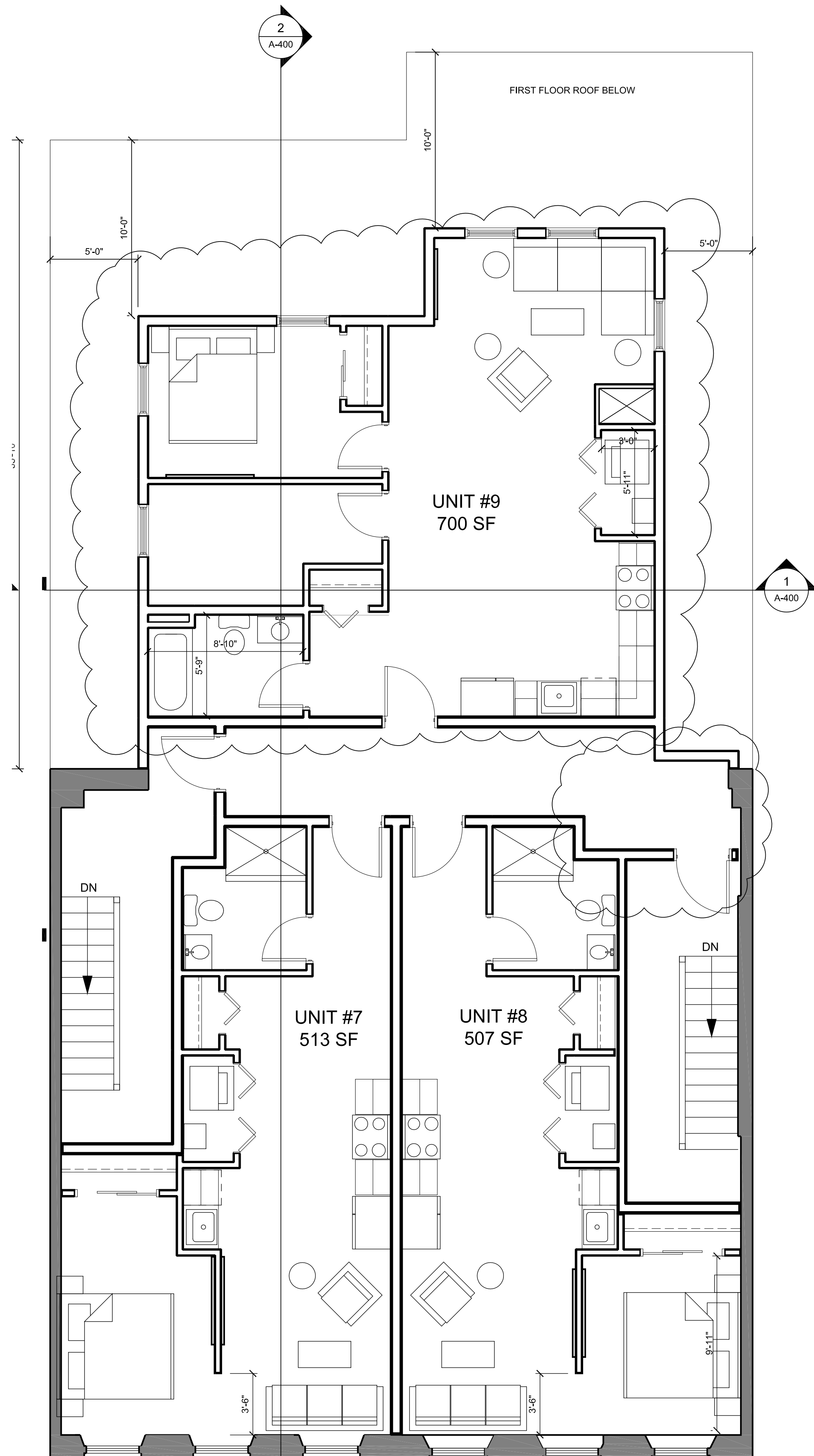
Project number 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS

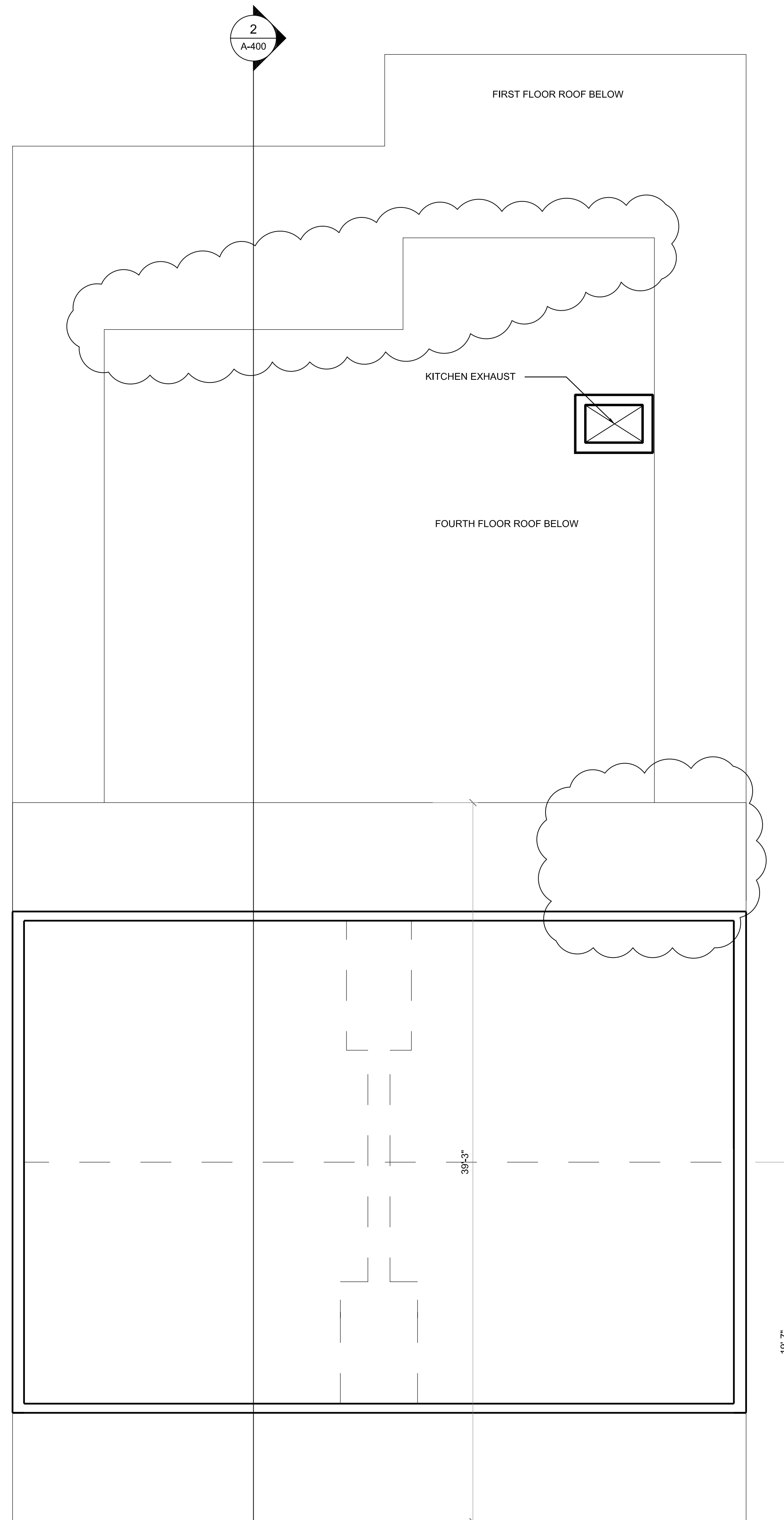
No.	Description	Date

PROPOSED
FLOOR
PLANS

A-101
00000_PROJECT NAME



1 PROPOSED FOURTH FLOOR PLAN
1/4" = 1'-0"



2 PROPOSED ATTIC FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

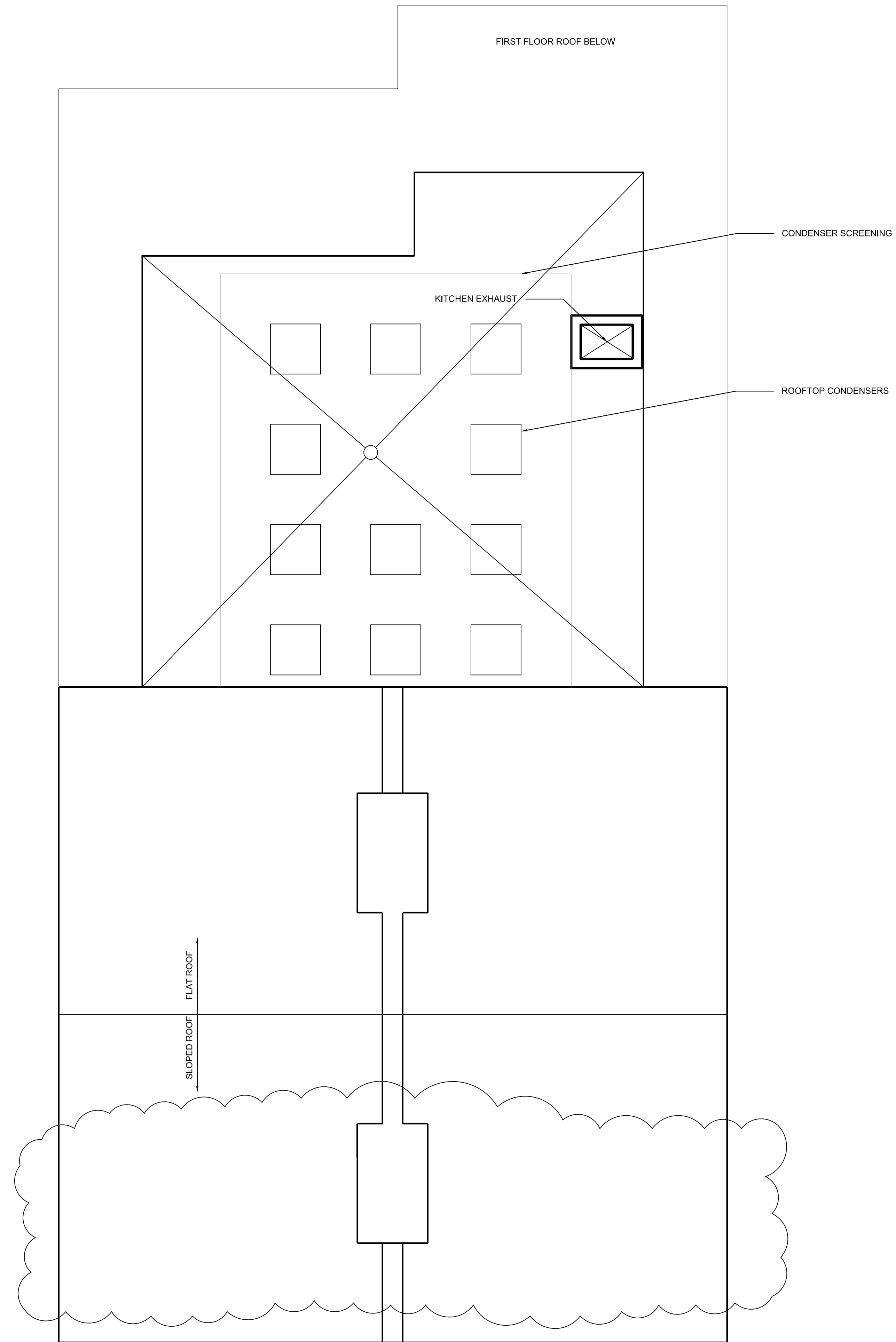
REVISIONS

No.	Description	Date

PROPOSED
FLOOR
PLANS

A-102

00000_PROJECT NAME



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

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

17 IVALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-8682 FAX: 617-991-2086

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

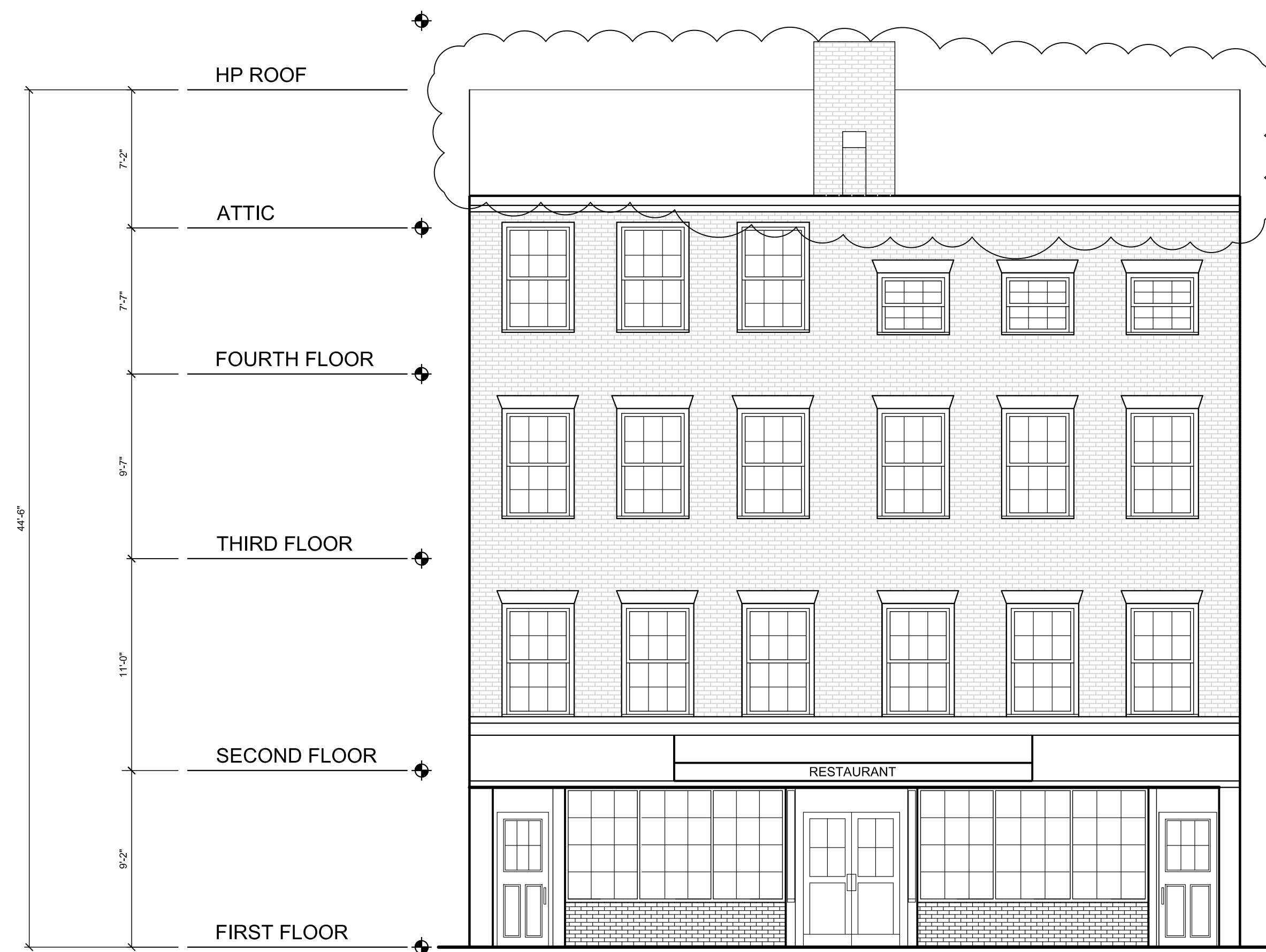
REVISIONS

No.	Description	Date

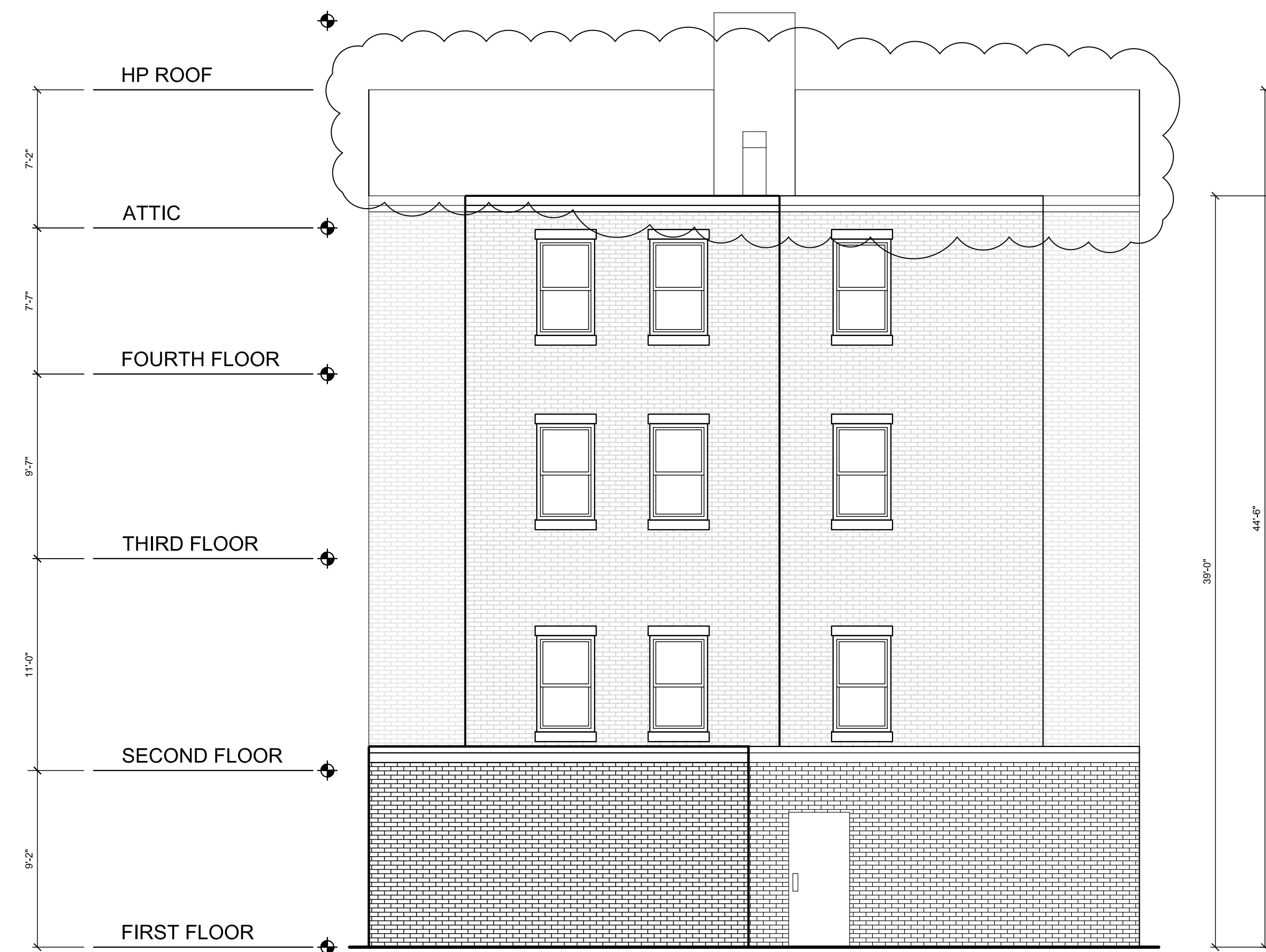
PROPOSED
ROOF
PLAN

A-103

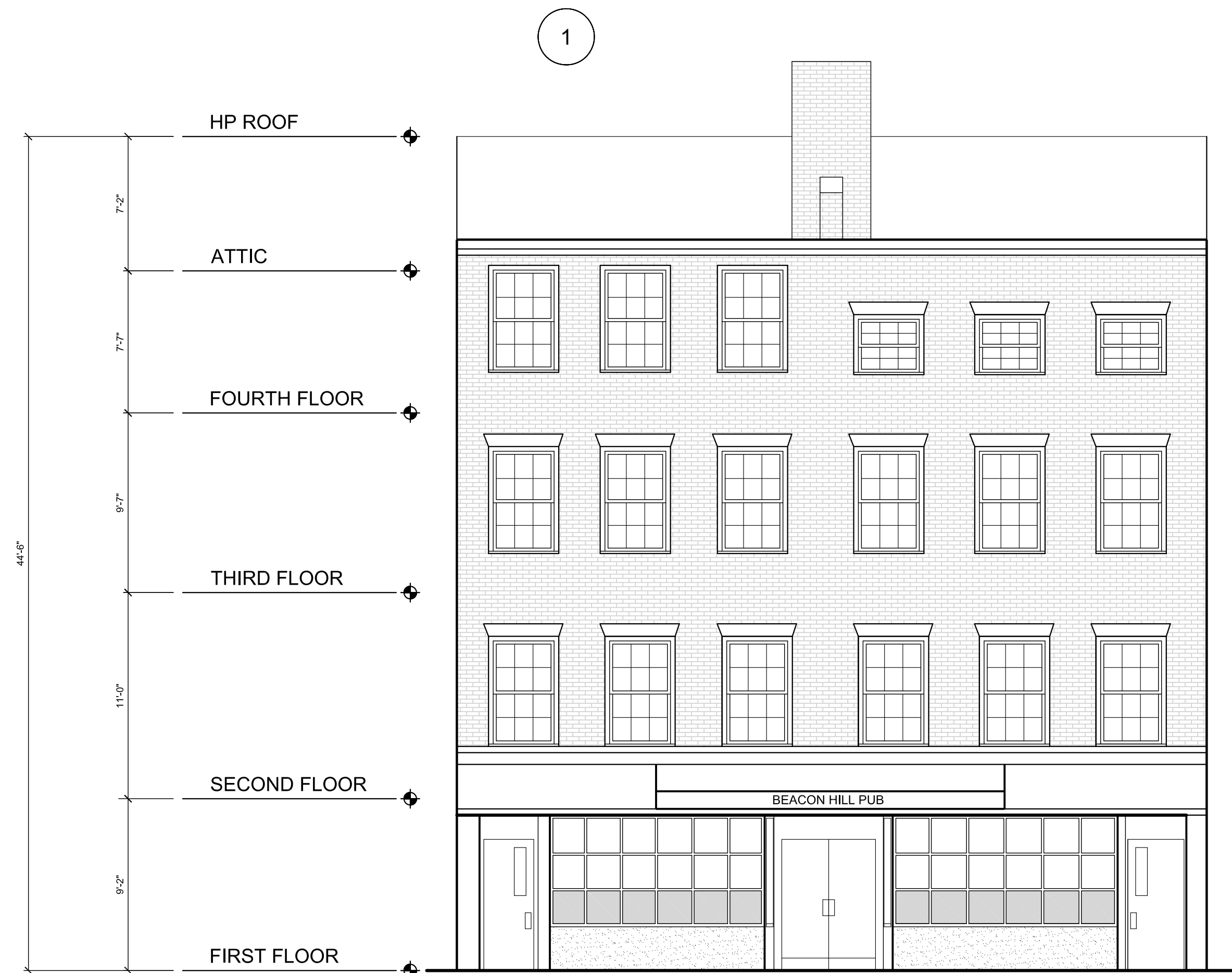
00000_PROJECT NAME



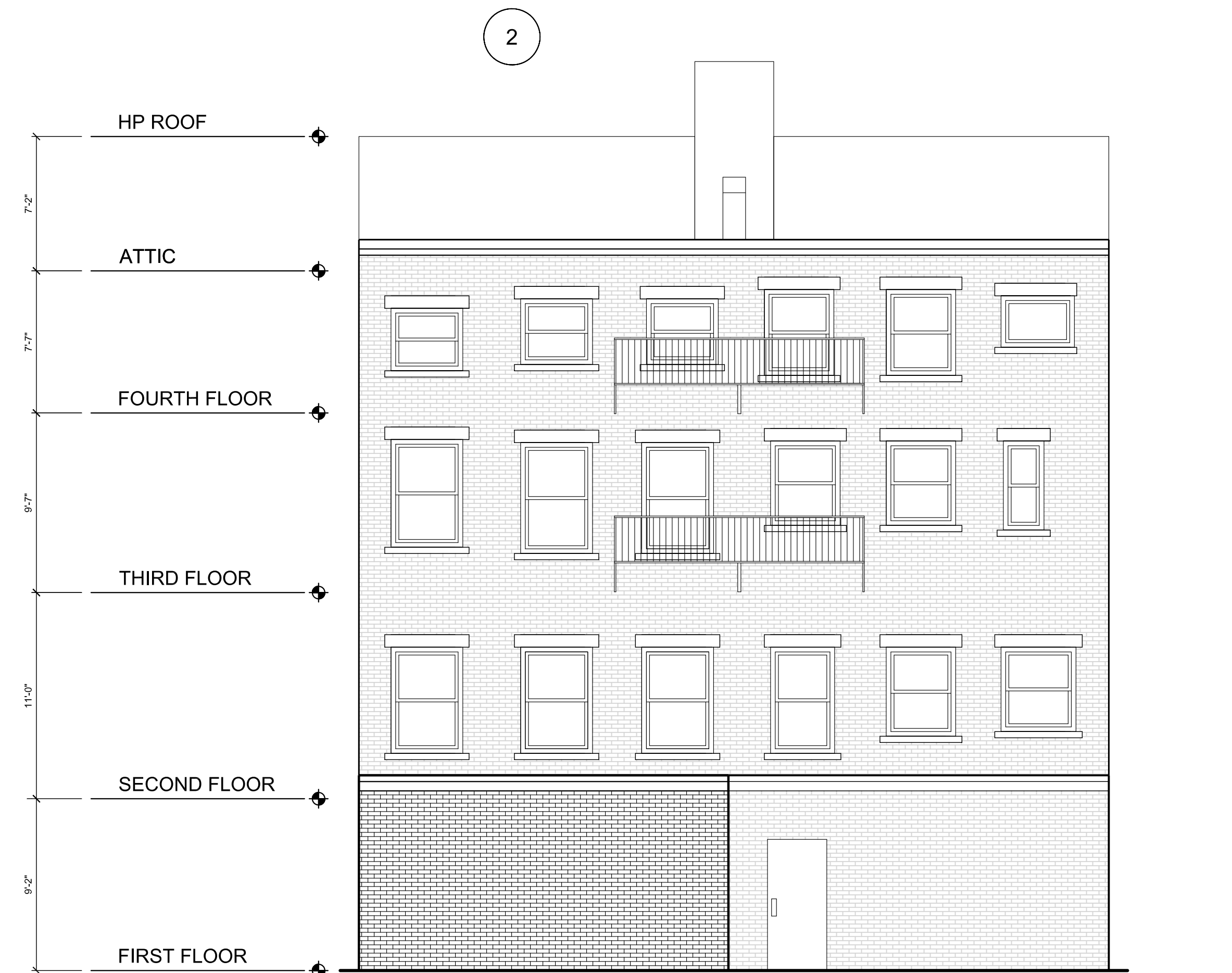
PROPOSED FRONT ELEVATION
3/16" = 1'-0"



PROPOSED REAR ELEVATION
3/16" = 1'-0"



1 EXISTING FRONT ELEVATION
3/16" = 1'-0"



2 EXISTING REAR ELEVATION
3/16" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 3/16" = 1'-0"

REVISIONS

No.	Description	Date

PROGRESS
ELEVATIONS

A-300

00000_PROJECT NAME

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 9/25/2020
Drawn by JLW
Checked by JSK
Scale 3/16" = 1'-0"

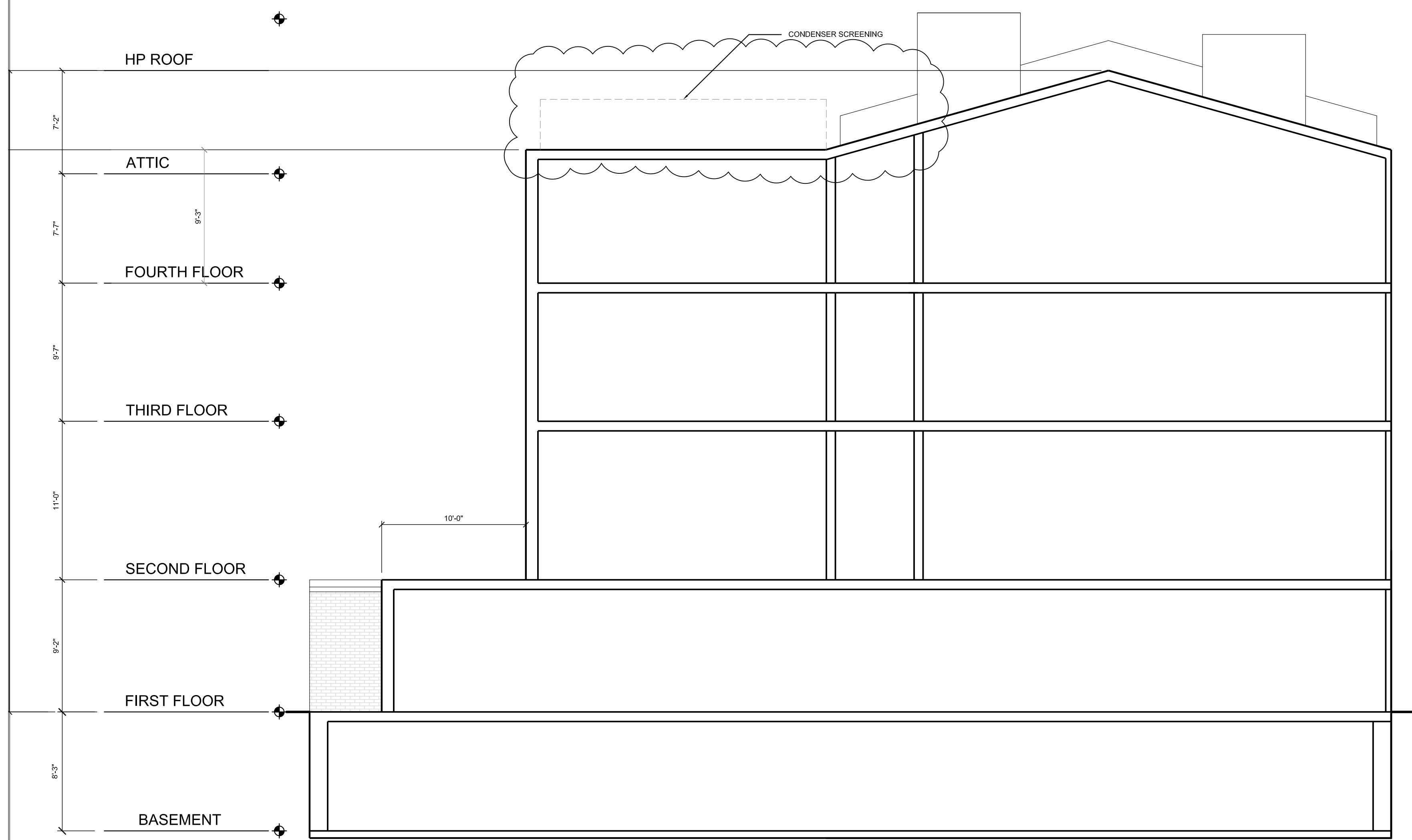
REVISIONS

No.	Description	Date

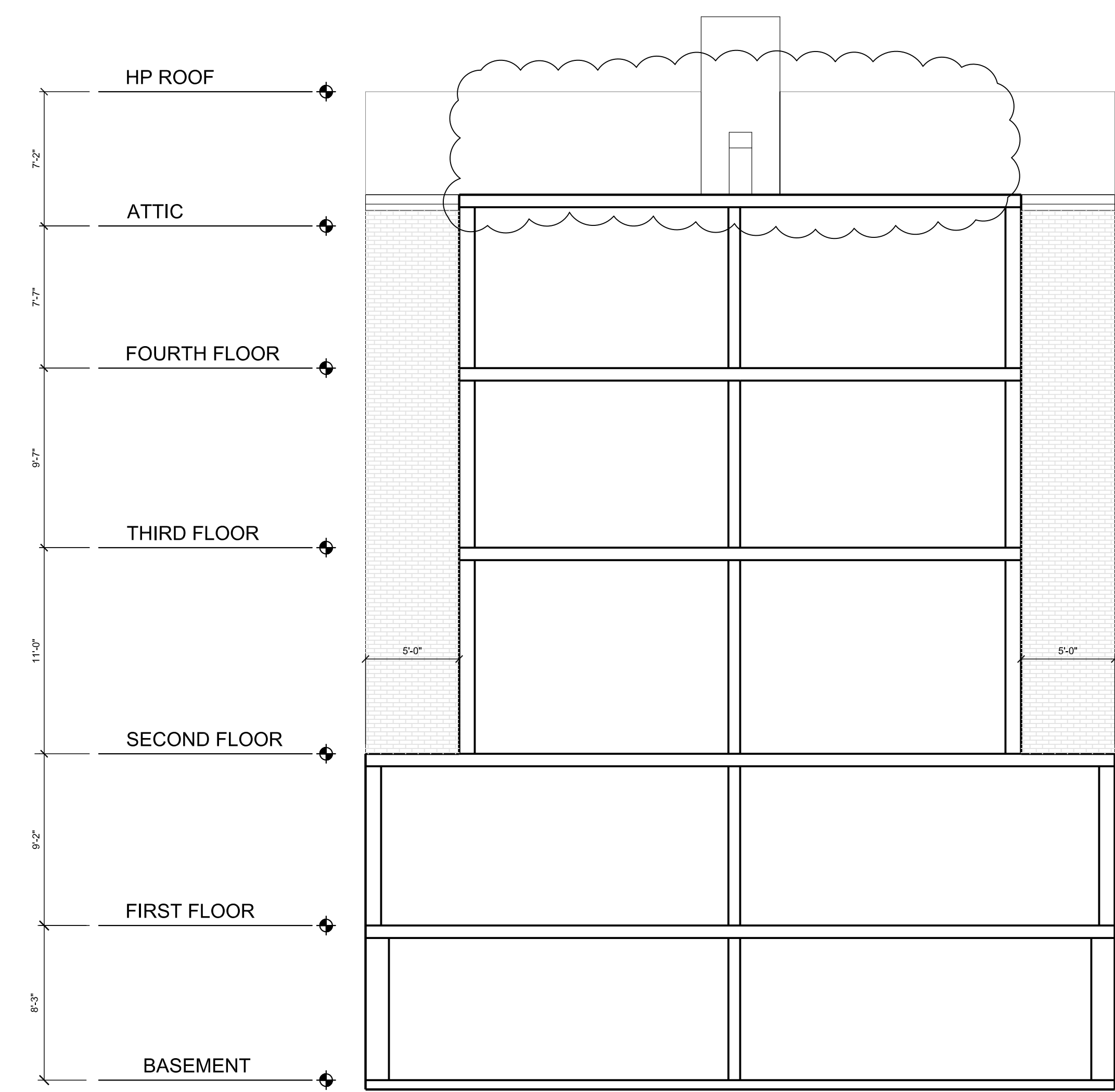
PROGRESS
ELEVATIONS

A-400

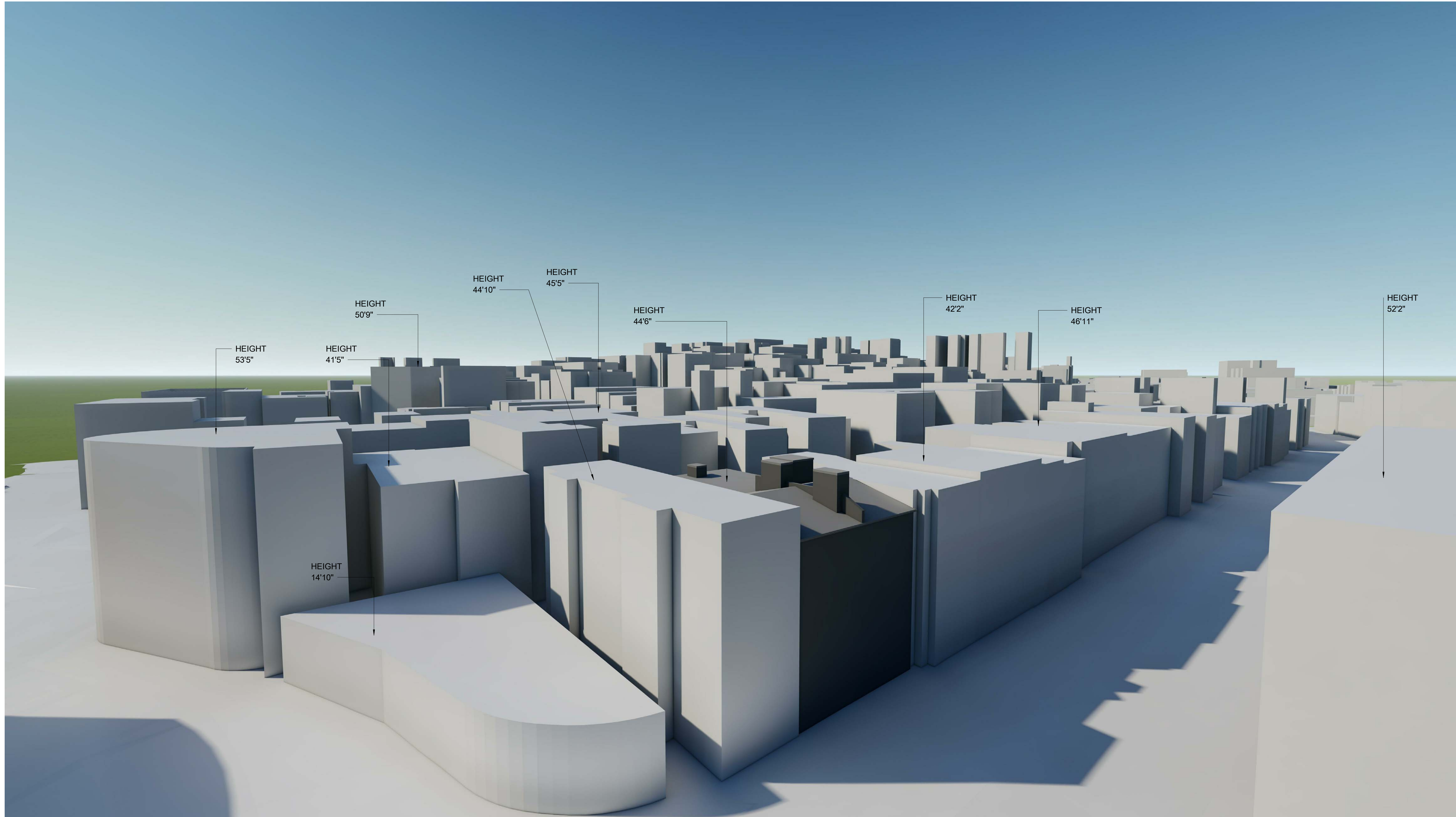
00000_PROJECT NAME



2 PROPOSED SCHEMATIC SECTION
3/16" = 1'-0"



1 EXISTING SCHEMATIC SECTION
3/16" = 1'-0"



PROJECT NAME

147 CHARLES STREET

PROJECT ADDRESS

147 Charles Street,
Boston MA

CLIENT

ENTER CLIENT NAME
HERE

ARCHITECT



17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-9682 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



Project number 19061
Date 11-07-2019
Drawn by RB
Checked by JSK
Scale

REVISIONS

No.	Description	Date

Massing Diagram
1

AV-3

147 CHARLES STREET



PROJECT NAME

147 CHARLES STREET

PROJECT ADDRESS

147 Charles Street,
Boston MA

CLIENT

ENTER CLIENT NAME
HERE

ARCHITECT



17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-9682 FAX: 617-591-2086

CONSULTANTS:

COPYRIGHT KDI © 2018
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 19061
Date 11-07-2019
Drawn by Author
Checked by Checker
Scale

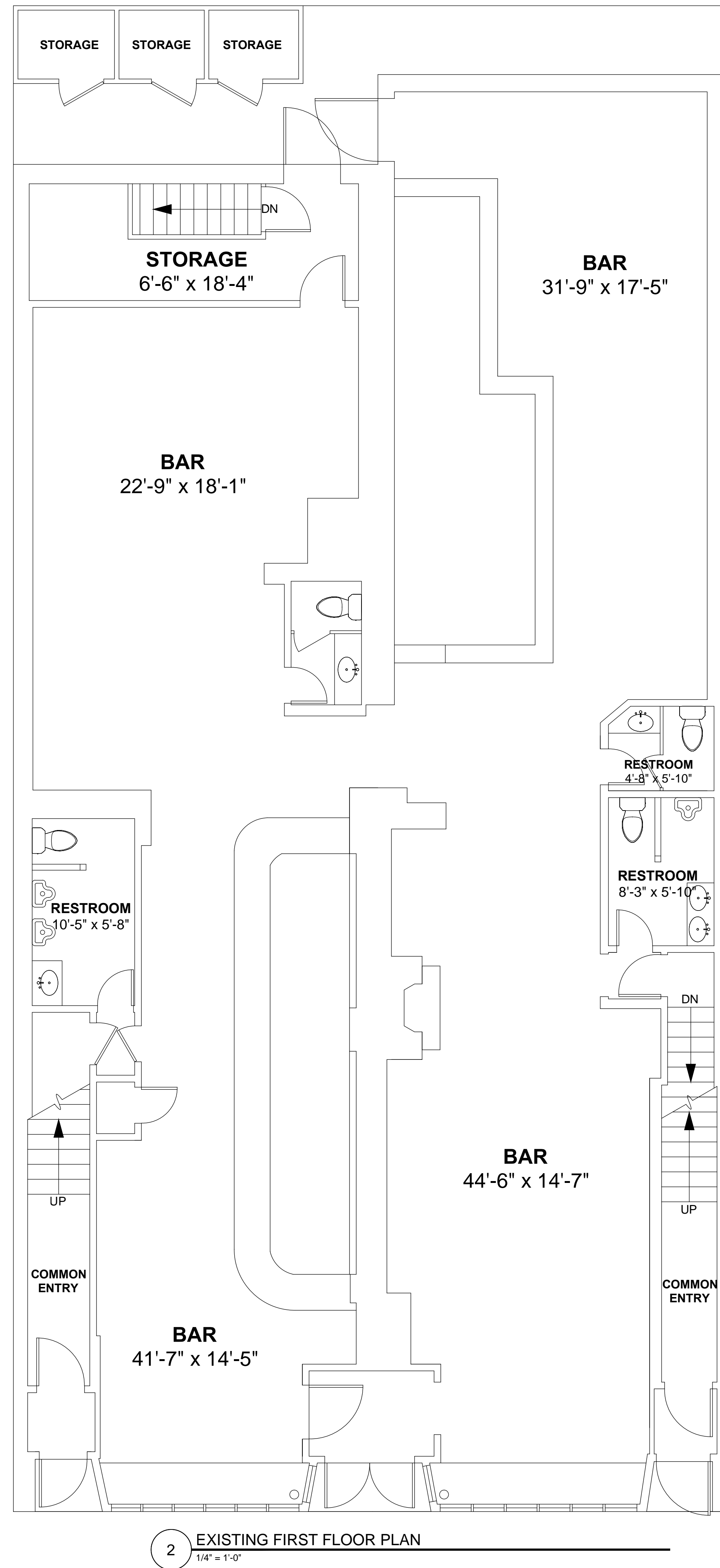
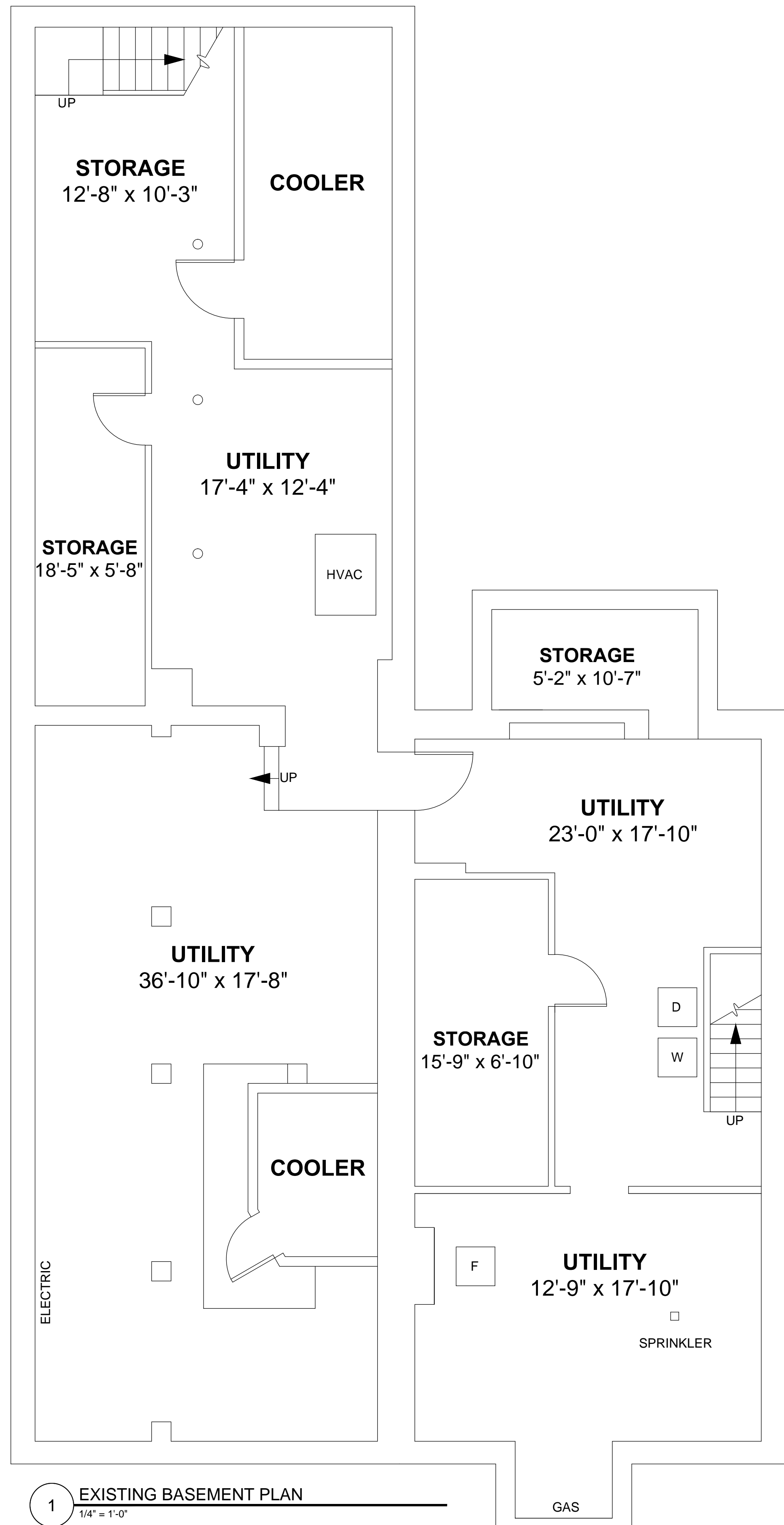
REVISIONS

No.	Description	Date

Street view

AV-5

147 CHARLES STREET



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 5/21/19
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

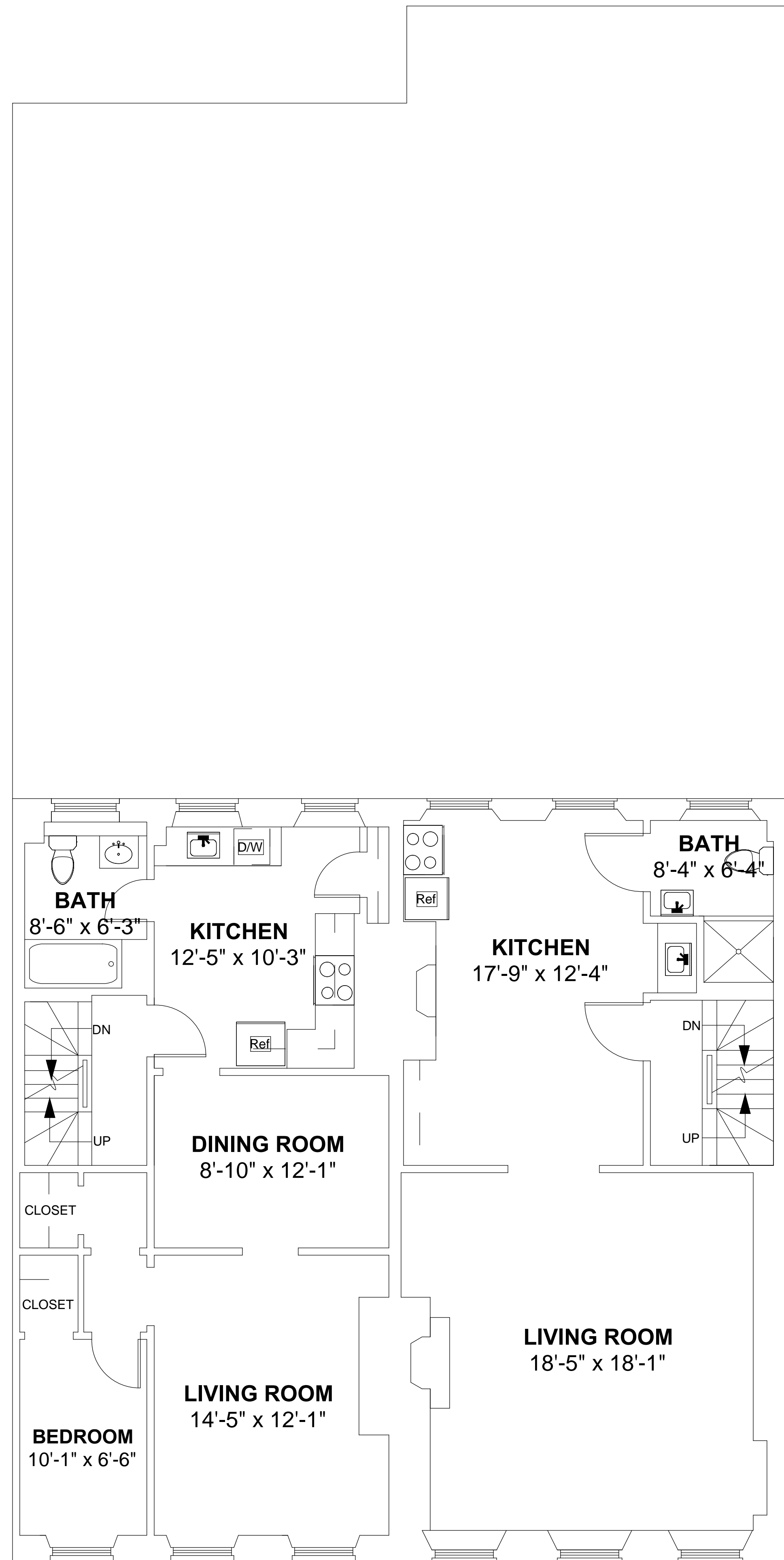
REVISIONS

No.	Description	Date

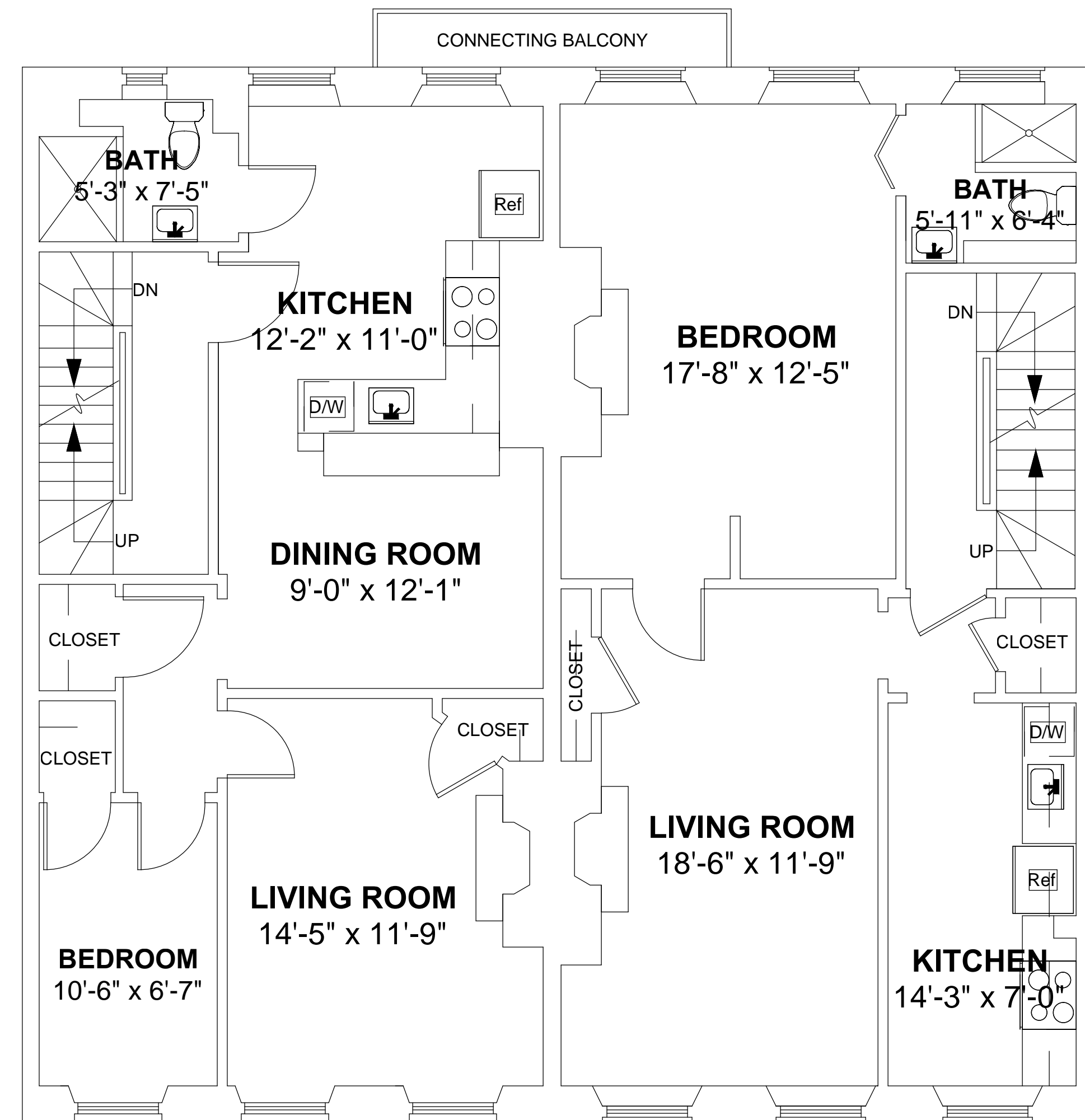
EXISTING
FLOOR
PLANS

EX-100

00000_PROJECT NAME



1 EXISTING SECOND FLOOR PLAN
1/4" = 1'-0"



2 EXISTING THIRD FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 5/21/19
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS

No.	Description	Date

EXISTING
FLOOR
PLANS

EX-101

00000_PROJECT NAME

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 5/21/19
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

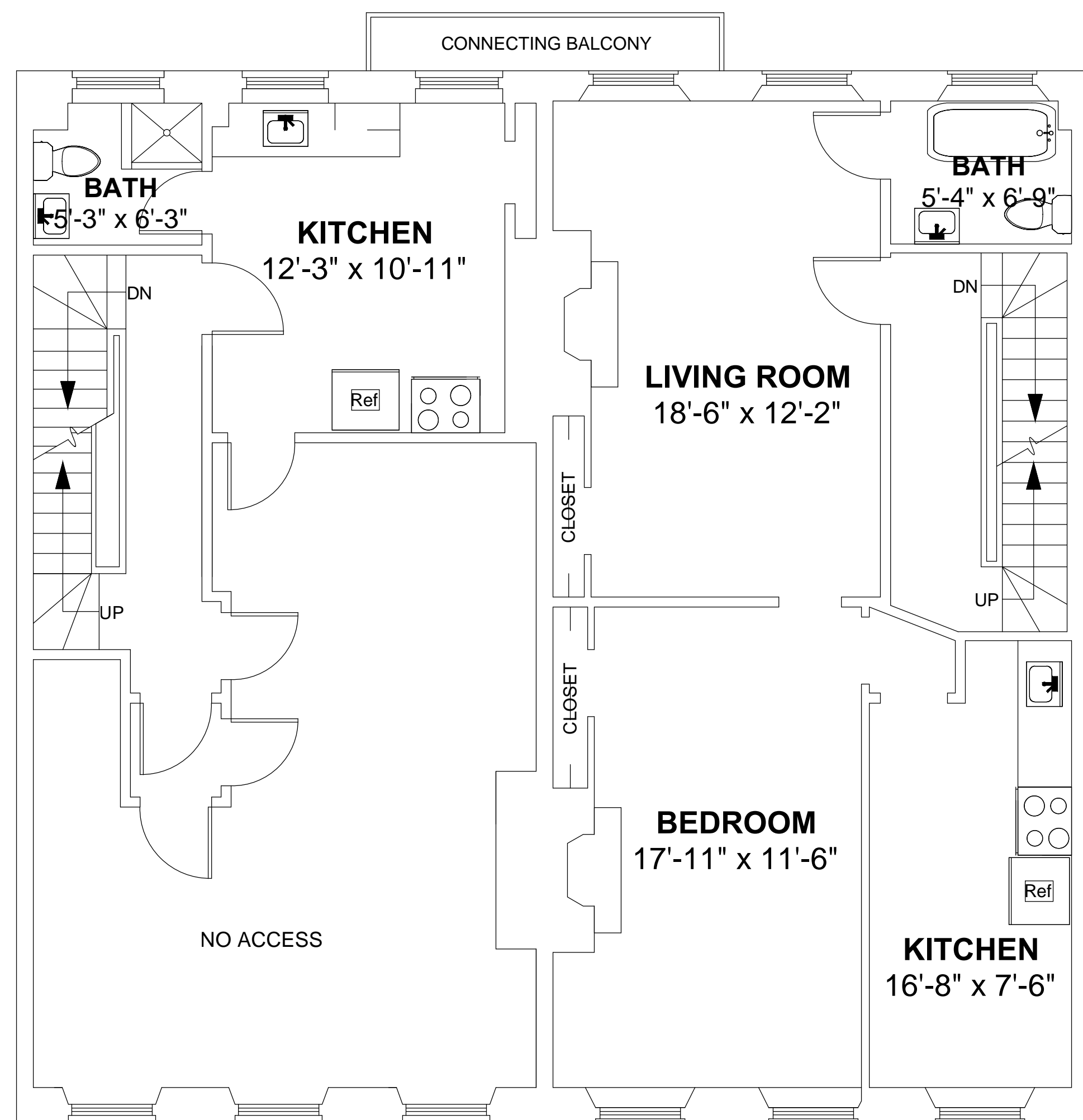
REVISIONS

No.	Description	Date

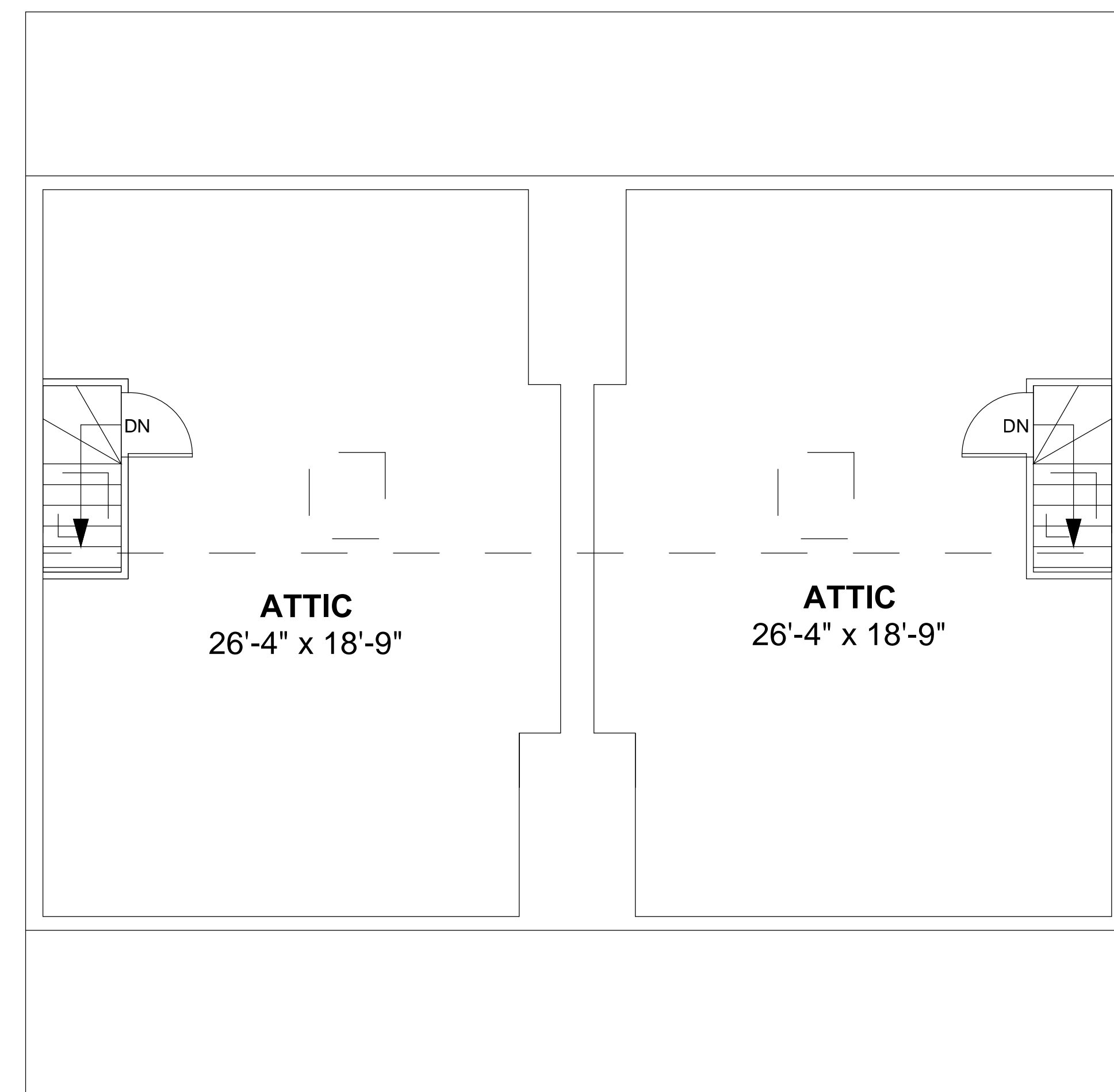
EXISTING
FLOOR
PLANS

EX-102

00000_PROJECT NAME



1 EXISTING FOURTH FLOOR PLAN
1/4" = 1'-0"



2 EXISTING FIFTH FLOOR PLAN
1/4" = 1'-0"

ARCHITECTURAL ABBREVIATIONS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
AB ANCHOR BOLT	BA BUILDING ACCESSORY	CD COMBINATION DOOR	D DEPTH OR DEEP	EA EXHAUST AIR	FR FRAMING	GA GAUGE	HB HIDE	IC INTERCOM	JAN JANITOR	JA JOINT	OC ON CENTER	MA MIDDLE	NA NOT NOTICABLE	OR OR	OC ON CENTER	RA RADIUS	RS REVISION	ST STEEL	T TOP	U UPRAL	V VALVE CABINET	W WIDTH/WIDE
AC ACCIDENTAL	BC BUMPER GUARD	CE CONCRETE	DIS DEPRESSION	EA EXHAUST AIR	FL FLOOR	GALV GALVANIZED	HOC HAND OVER COILER	ID INSIDE DIAMETER	JOB JOINT BOX	KO KNOCK OUT	OD OUTSIDE DIAMETER	MAN MANUAL	NDC NOT IN CONTRACT	RE REFERENCE	OP OPERABLE PARTITION	RO ROOF	SD SCHEDULE	SS SUPERVISOR	TAN TANGENT	UC UNDERCUT	VE VENT	WF WIDE FLANGE
AD AREA DRAIN	BD BOARD	CM COMBINATION MASONRY UNIT	DF DETAIL	EX EXHAUST HOOD	FS FLOOR FINISH	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IN IN	JC JOINT CUT	LAV LAVATORY	OP OPERATOR	ND NON DIMENSIONAL	RAD RADIUS	RM ROOM	OF OFF	RD RADIUS	SUP SUPERVISOR	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING
ADL ADJUSTABLE	BE BEARING	CO CO	DF DETAIL	EX EXHAUST HOOD	FUR FURNISHING	GSE GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEG BEARING EDGE	CU CONCRETE	DF DETAIL	EX EXHAUST HOOD	GR GRASS	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DC DRAINAGE CHANNEL	DF DETAIL	EX EXHAUST HOOD	HT HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DE DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DI DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DI DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DI DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DI DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	
ADL ADJUSTABLE	BEL BUILDING ELEVATION	DI DOWN	DF DETAIL	EX EXHAUST HOOD	HW HARDWOOD	GEN GENERAL CONTRACTOR	HC HAND CARRIER	IS INSULATION	JOINT JOINT	LA LAVATORY	OP OPERATOR	NOM NOMINAL	ROOF ROOF	OF OFF	RD RADIUS	ST STEEL	TAN TANGENT	WC WALL CLOSET	WH WOOD HANGING	WT WASTE	WV WALL COVERING	

SYMBOLS

	LEVEL LINE, CONTROL OR DATUM ELEVATION		DETAIL REFERENCE DRAWING NUMBER
	REVISION NUMBER		EXTERIOR ELEVATION NUMBER
	PARTITION TYPE		INTERIOR ELEVATION KEY
	CASWORK TYPE		ROOM/SPACE NUMBER
	INTERIOR WINDOW TYPE		DOOR NUMBER
	WINDOW TYPE		SEALANT AND BACKER ROD JOINT
	COLUMN REFERENCE GRID		DASH AND DOT CENTER LINE
	BUILDING SECTION REFERENCE DRAWING NUMBER		DASH AND DOUBLE DOT LINES
	WALL SECTION REFERENCE DRAWING NUMBER		PROPERTY LINES, BOUNDARY LINES
	SECTION DETAIL REFERENCE DRAWING NUMBER		
	DIMENSION LINE		
	BREAK LINE TO BREAK OFF PARTS OF A DRAWING		
	MEMBER ON CONSTRUCTION ABOVE/BELow		

INDICATION OF MATERIALS

Symbol for Earth	EARTH	Symbol for Porous Gavel/Gravel	POROUS GAVEL/ GRAVEL
Symbol for Concrete	CONCRETE	Symbol for Sand/Gravel	SAND GRAVEL
Symbol for Brick	BRICK	Symbol for Concrete Masonry Unit	CONCRETE MASONRY UNIT
Symbol for Rubble	RUBBLE	Symbol for Marble	MARBLE
Symbol for Steel/iron	STEEL/IRON	Symbol for Aluminum	ALUMINUM
Symbol for Wood Shim	WOOD SHIM	Symbol for Continuous Blocking	CONTINUOUS BLOCKING
Symbol for Plywood	PLYWOOD	Symbol for Fiberglass	FIBERGLASS
Symbol for Glass	GLASS	Symbol for Glass Block	GLASS BLOCK
Symbol for Batt/wool fill	BATT/WOOL FILL	Symbol for Fiberglass	FIBERGLASS
Symbol for Insulation	INSULATION	Symbol for Metal Pan Ceiling	METAL PAN CEILING
Symbol for Fire Sailing	FIRE SAILING	Symbol for Miscellaneous Wood	MISCELLANEOUS WOOD
Symbol for Tiles	TILES	Symbol for Miscellaneous Wood	MISCELLANEOUS WOOD
Symbol for Accidental Tile	ACCIDENTAL TILE		

GENERAL NOTES

- GENERAL CONDITIONS - THE GENERAL CONDITIONS FOR THIS CONTRACT SHALL BE AIA DOCUMENT 1917 (1997 EDITION) EXCEPT AS HEREIN AMENDED.
- SCOPE OF WORK TO INCLUDE SUBMITTALS AND CONSTRUCTION AS SPECIFIED ON THE DRAWINGS NECESSARY FOR A COMPLETE INSTALLATION. EACH CONTRACTOR SHALL RESPECT THE WORK OF OTHER CONTRACTORS AND ARE RESPONSIBLE FOR AND LIABLE TO REPAIR OR REPLACE ANY DAMAGE CAUSED BY THEIR WORK.
- CODES - ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH LOCAL AND STATE CODES AND REGULATIONS HAVING JURISDICTION. THE CONTRACTOR SHALL PROTECT AND INDENTIFY THE OWNER AND ARCHITECT AGAINST ANY CLAIM OR LIABILITY ARISING FROM ANY SUCH CODE OR REGULATION.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTIONS AND APPROVALS.
- QUALITY - WORKMANSHIP SHALL BE OF THE HIGHEST TYPE, AND MATERIALS USED OR SPECIFIED OF THE BEST QUALITY THAT THE MARKET OFFERS. ALL INSTALLATIONS AND APPLICATIONS SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
- COORDINATION OF THE WORK - THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK CONTRACT FROM THE CONTRACTOR OR THE OWNER. THE CONTRACTOR'S INSTRUCTIONS SHALL BE FOLLOWED BY ALL TRADES.
- MECHANICAL TRADES - THE MECHANICAL AND ELECTRICAL TRADES SHALL INSTALL THEIR WORK AS SHOWN ON THE DRAWINGS AND SHALL COMPLETE THEIR WORK BY THE TIME THE OTHER TRADES HAVE FINISHED.
- EXAMINATION OF THE BIDS AND DOCUMENTS - THE CONTRACTOR, BEFORE SUBMITTING HIS PROPOSAL SHALL VERIFY THE BIDS AND EXAMINE FOR MISCELLANEOUS CONDITIONS WHICH EFFECT THE CONTRACT. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS, TILES AND SUBMITTALS IN THESE DOCUMENTS ARE FOR CONVENIENCE, AND NO REAL OR ALLEGED ERRORS OR MISSTATEMENTS OF MATERIAL SHALL BE REASON FOR OBJECTION OR DISCREPANCY BY ANY CONTRACTOR.
- SEPARATE CONTRACTS - THE OWNER RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONNECTION WITH THE WORK. THE GENERAL CONTRACTOR SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE EXECUTION OF THEIR WORK AND SHALL PROPERLY COORDINATE AND COORDINATE THEIR WORK WITH THEIRS.
- GUARANTEE - ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE UNLESS SPECIFIED OTHERWISE FOR A LONGER PERIOD OF TIME ON CERTAIN ITEMS.
- TRASH REMOVAL - PRIOR TO STARTING WORK, THE GENERAL CONTRACTOR SHALL PROVIDE A CONSTRUCTION DUMPSTER AND PICKUP SERVICE FOR ALL CONSTRUCTION DEBRIS AT THE SPECIFIED LOCATION TO BE COORDINATED WITH THE OWNER. AT THE END OF EACH DAY, THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE AND OR WITHIN THE BUILDING. IF TRASH AND DEBRIS ARE NOT REMOVED, THE OWNER MAY (AT HIS OPTION) PAY FOR THE REMOVAL AND BACK CHARGE THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- ALL SECTIONS, DETAILS, MATERIALS, METHODS, ETC. SHOWN AND/OR NOTED ON ANY PLAN OR SECTION SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS OTHERWISE NOTED.
- THE GENERAL CONTRACTOR SHALL SAFELY SHORE, BRACE, OR SUPPORT ALL WORK AS REQUIRED. THE WORK SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR AND NO ACT, OMISSION, OR DELAY OF ANY SYSTEM OR METHOD BY THE ARCHITECT SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY.
- IF IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW NOR INDICATE ANY OR ALL FASTENING OR FRAMING TECHNIQUES / DEVICES, NOR BE ABLE TO SHOW ALL CONDITIONS PRESENT.
- ALL WORK IS NEW UNLESS OTHERWISE NOTED.
- ALL WALLS AND CEILING TO BE SHIP THE CODE OR 1/2" GYPSUM BOARD, WITH MOISTURE RESISTANT TYPE OR SHIP-GUM BOARD. FIRE AND / OR INHIBITING SHALL BE SELECTED BY OWNER. WATER MANUFACTURED BY U.S. GYPSUM OR EQUAL (FIBER CEMENT ACCESSORIES AND TAPE OR SHIP COAT). ALL JOINTS AND HOLE EDGES READY FOR PAINT. THE WOOD SHALL HAVE OR PAINTING.
- TRASH - THE CONTRACTOR SHALL PROVIDE ON-SITE WEATHER PROTECTED STORAGE SPACE (E.G. TRAILER). STORAGE OF CONSTRUCTION MATERIALS IN THE BUILDING WILL NOT BE PERMITTED.
- PROTECTION - THE CONTRACTOR SHALL PROTECT ALL PUBLIC AND ADJACENT AREAS FROM DAMAGE DURING CONSTRUCTION.
- TEMPORARY SERVICES - THE CONTRACTOR WILL PAY FOR BIDDING SERVICES (WATER, TELEPHONE AND ELECTRICITY) AND WILL TURN OVER THESE SERVICES TO THE OWNER UPON FINAL ACCEPTANCE OF THE PROJECT.
- THE CONTRACTOR SHALL VERIFY LOCATION AND ACTUAL DEPTH OF ALL EXISTING SANITARY PIPING, STORM DRAIN, GAS AND WATER MAINS, ELECTRICAL LINES AND PIPES. HE IS ALSO ADVISED TO VERIFY ACTUAL DEPTHS OF SANITARY AND STORM LINES BY HAND DUG TEST PIT WELL IN ADVANCE OF TRENCHING AND CONSTRUCTION. ANY DISCREPANCY BETWEEN THE PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT. ALL NECESSARY PERMITS AND APPROVALS MUST BE OBTAINED FROM PROPER AUTHORITIES.
- ARCHITECTURAL, MECHANICAL, ELECTRICAL, ELEVATOR & SPRINKLER - EACH CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
- ALL WORK IS NEW UNLESS OTHERWISE NOTED.
- DAMAGE - THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING BUILDING, WALLS, CEILING, FLOORS, FURNITURE AND FINISHINGS. DAMAGED SURFACES DUE TO CONSTRUCTION TO BE PATCHED, REPAIRED AND/OR REPLACED AS REQUIRED AND BLEND TO MATCH EXISTING ADJACENT SURFACES AT NO ADDITIONAL COST TO OWNER.
- THE GENERAL CONTRACTOR SHALL PREPARE A BOOKLET CONTAINING: LIST OF SUBCONTRACTORS USED ON THE JOB WITH NAMES, ADDRESSES AND TELEPHONE NUMBERS; ALL WARRANTIES AND INSTRUCTION MANUALS FOR EQUIPMENT AND MATERIALS INSTALLED; BE ISSUED TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF BUILDING, AND PRESENT BOOKLET TO OWNER PRIOR TO FINAL ACCEPTANCE OF OWNER.
- CARPET AND/ OR TILE - CARPET AND/ OR TILE AS SELECTED AS PER DRAWINGS.
- HANDICAPPED REQUIREMENTS - THE GENERAL CONTRACTOR WILL ACCOMMODATE HIMSELF WITH THE ARCHITECTURAL ACCESS BOARD (AAB) CODE FOR THE STATE OF MASSACHUSETTS AND THE ADA (AMERICANS WITH DISABILITIES ACT) TO ENSURE THAT THE FACILITY WILL BE ACCESSIBLE.
- SPRINKLER HEAD LOCATOR - REFER TO I.P.P.A. STANDARDS. SPRINKLER HEADS TO BE LOCATED PER CODE. SHOP DRAWINGS ARE REQUIRED TO BE SUBMITTED TO THE CONTRACTOR FOR APPROVAL PRIOR TO INSTALLATION.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION AND SIZE OF OPENINGS FOR VENTS, PIPES, INSERTS, BOXES, HANGERS, ETC.
- ALL INTERIOR FINISHES AND FINISHINGS FOR CEILING, WALL AND FLOORS SHALL CLASS I.V. WITH A FLECK AND RAINING OF 10 TO 35.
- SUBMIT SAMPLES OF ALL FINISHES AND STAIN FOR APPROVAL PRIOR TO APPLICATION.
- BEFORE COMMENCING WORK, THE GENERAL CONTRACTOR WILL MEET WITH THE APPOINTED COMPANY REPRESENTATIVE TO OBTAIN FINISHING OF CONSTRUCTION AND DEPOSITION OF EXISTING CONSTRUCTION MATERIALS AND/OR EQUIPMENT.
- ALL WOODS BLOCKING TO BE PRESSURE TREATED, RET. RETARDANT.

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT
KHALSA



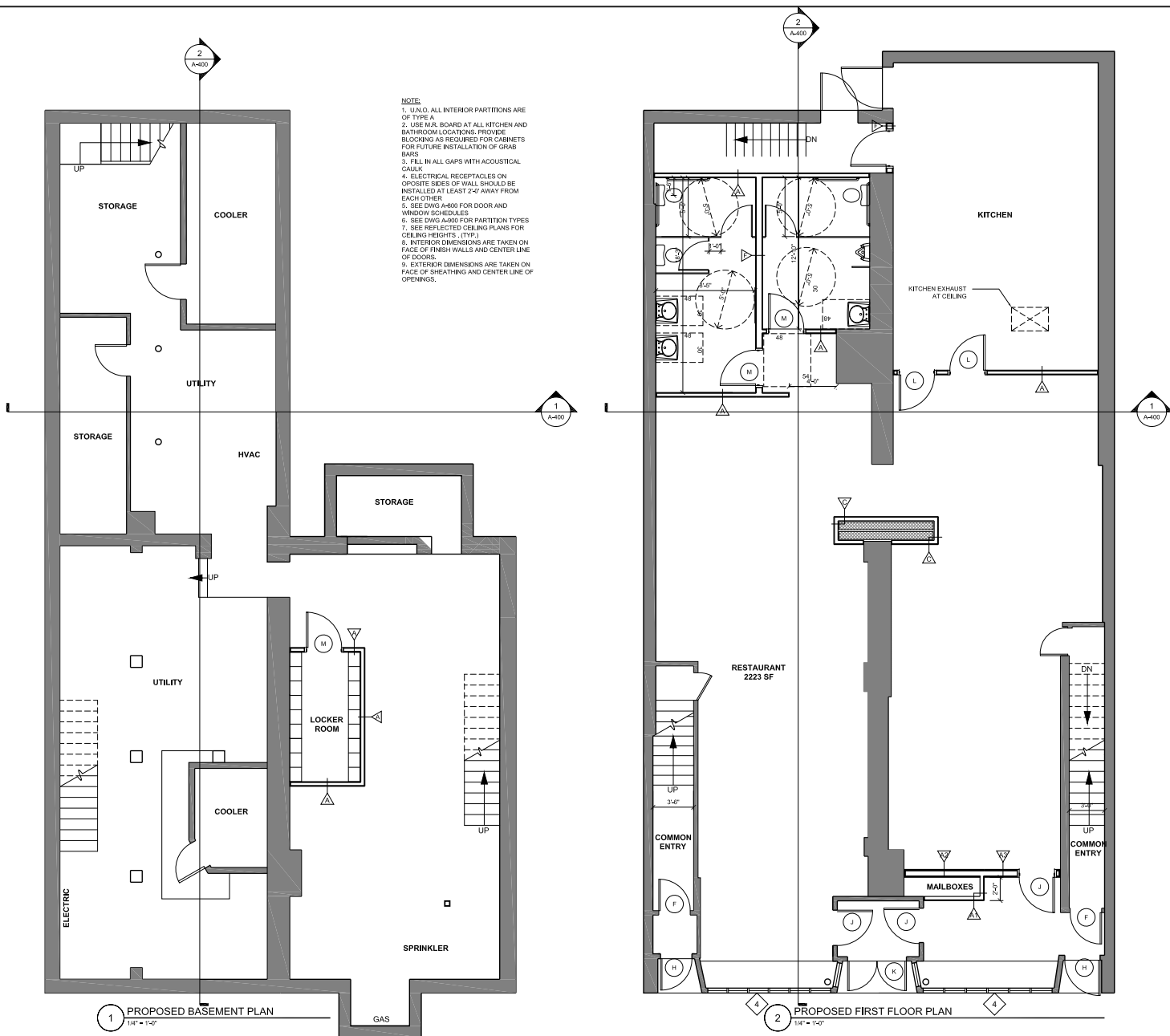
CONSULTANTS:

REGISTRATION

Project number		19061
Date	5/10/2023	
Drawn by	SVJ	
Checked by	JSK	
Scale	N.T.S.	
REVISIONS		
No.	Description	Date

SYMBOLS AND ABBREVIATIONS

A-001
147-149 CHARLES



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

2 PROPOSED FIRST FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

KHALSA
17 VALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-89-9822 FAX 617-891-2086

CONSULTANTS:

COPYRIGHT (C) © 2019
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 19061
Date 6/18/2020
Drawn by S.V.
Checked by JSK
Scale 1/4" = 1'-0"

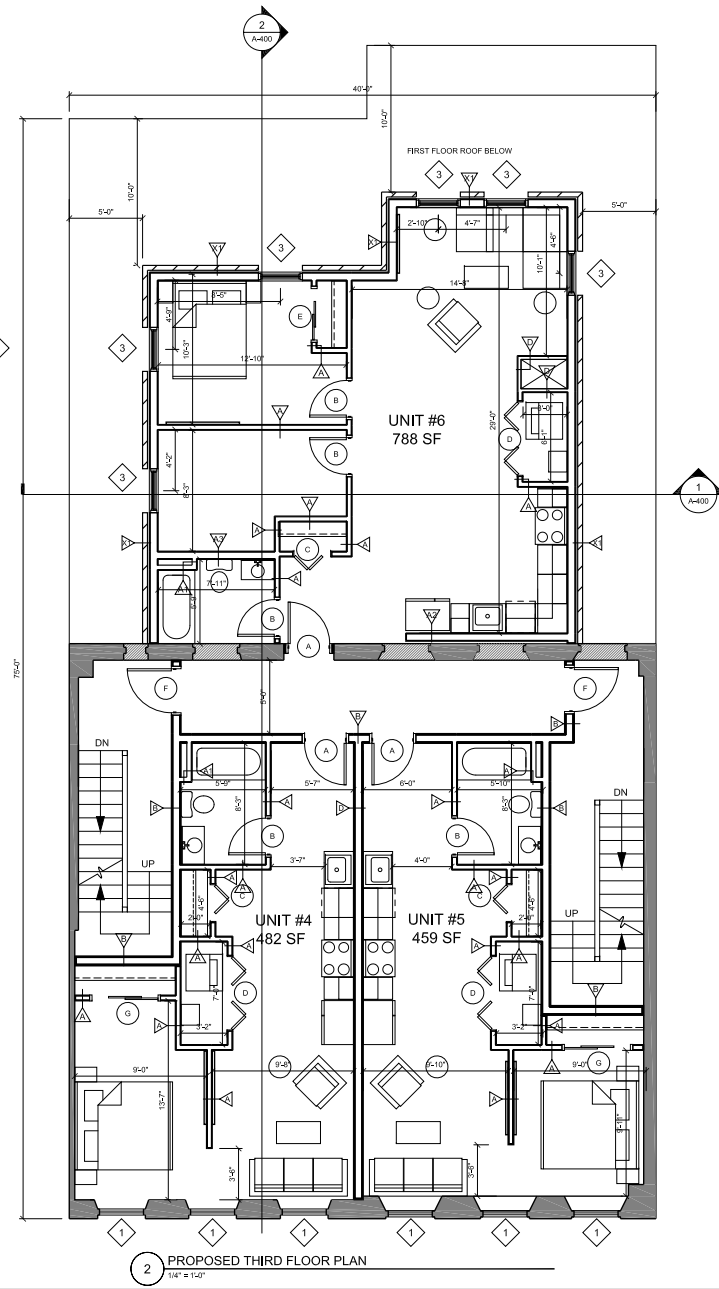
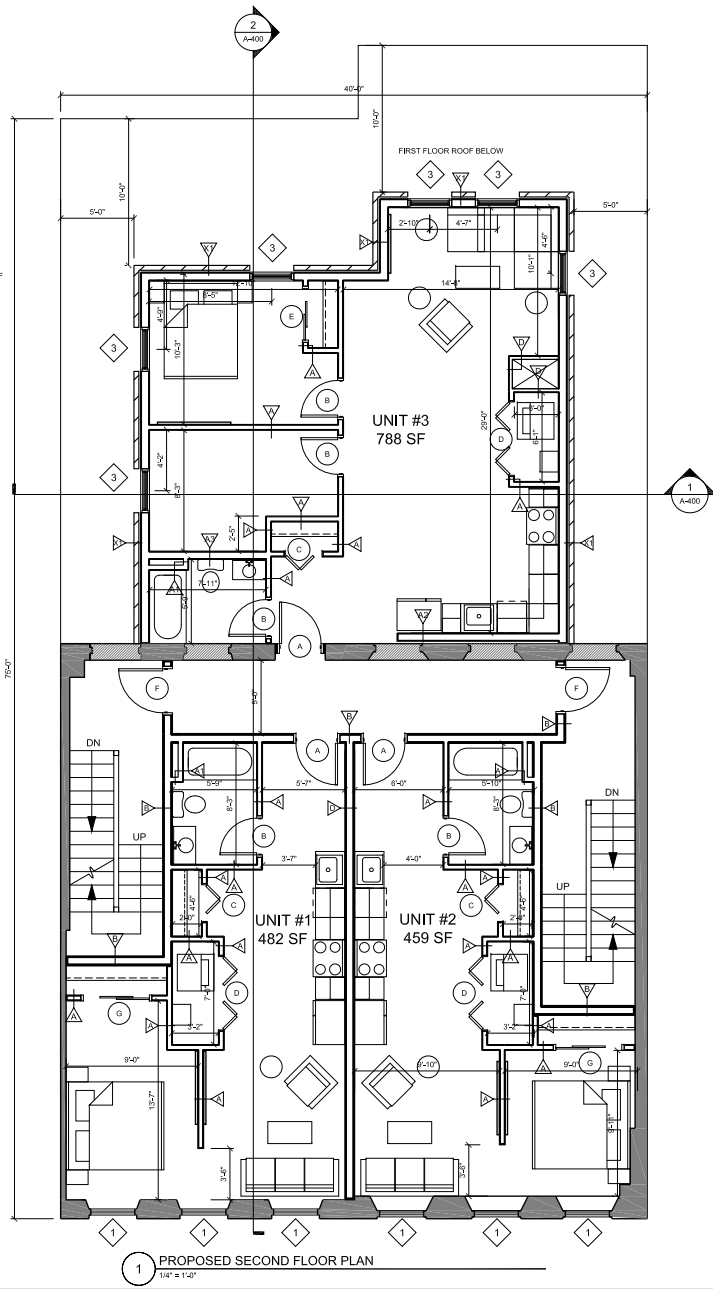
REVISIONS

No.	Description	Date

PROPOSED
FLOOR
PLANS

A-100
147-149 CHARLES

- NOTE:**
1. U.N.O. ALL INTERIOR PARTITIONS ARE OF TYPE A
 2. USE M.R. BOARD AT ALL KITCHEN AND BATHROOM LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR CABINETS FOR FUTURE INSTALLATION OF GRAB BARS
 3. FILL IN ALL GAPS WITH ACOUSTICAL CAULK
 4. ELECTRICAL RECEPTACLES ON OPPOSITE SIDES OF WALL SHOULD BE INSTALLED AT LEAST 2'-0" AWAY FROM EACH OTHER
 5. SEE DWS A-500 FOR DOOR AND WINDOW SCHEDULES
 6. SEE DWS A-800 FOR PARTITION TYPES
 7. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS (TYP.)
 8. INTERIOR DIMENSIONS ARE TAKEN ON FACE OF FINISH WALLS AND CENTER LINE OF DOORS.
 9. EXTERIOR DIMENSIONS ARE TAKEN ON FACE OF SHEATHING AND CENTER LINE OF OPENINGS.



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA
17 WALDO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-891-9822 FAX 617-891-2088

CONSULTANTS:

COPYRIGHT (C) 2019
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.



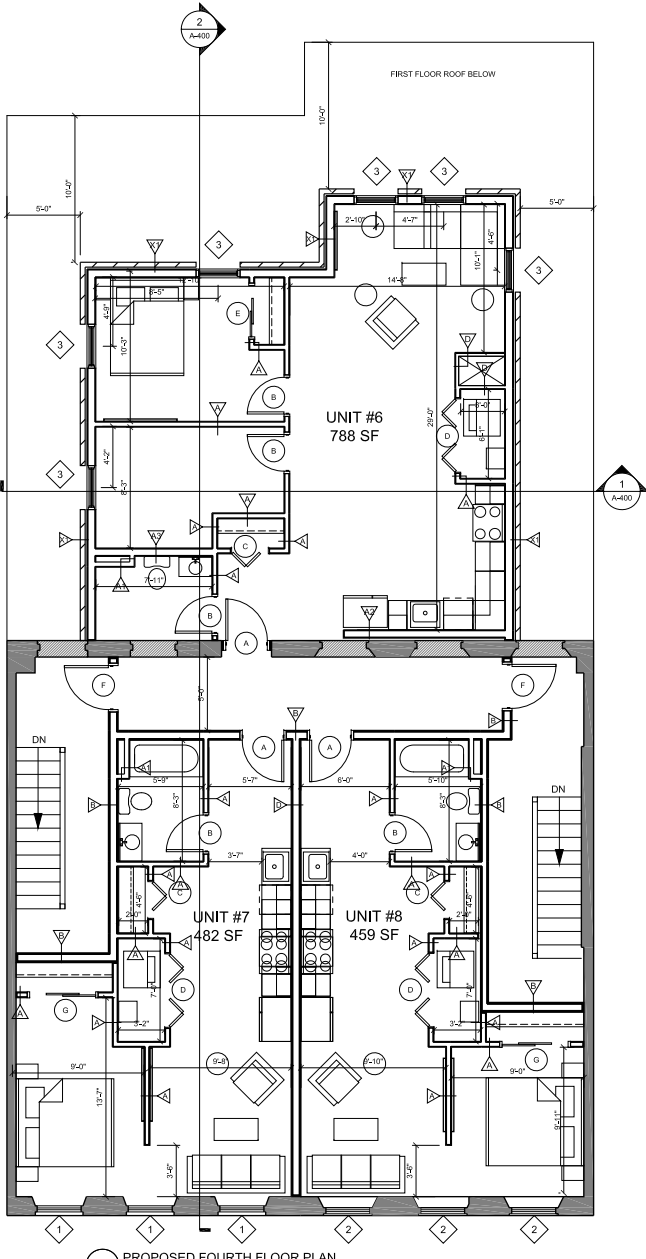
Project number	19061
Date	6/18/2020
Drawn by	JSK
Checked by	JSK
Scale	1/4" = 1'-0"

REVISIONS

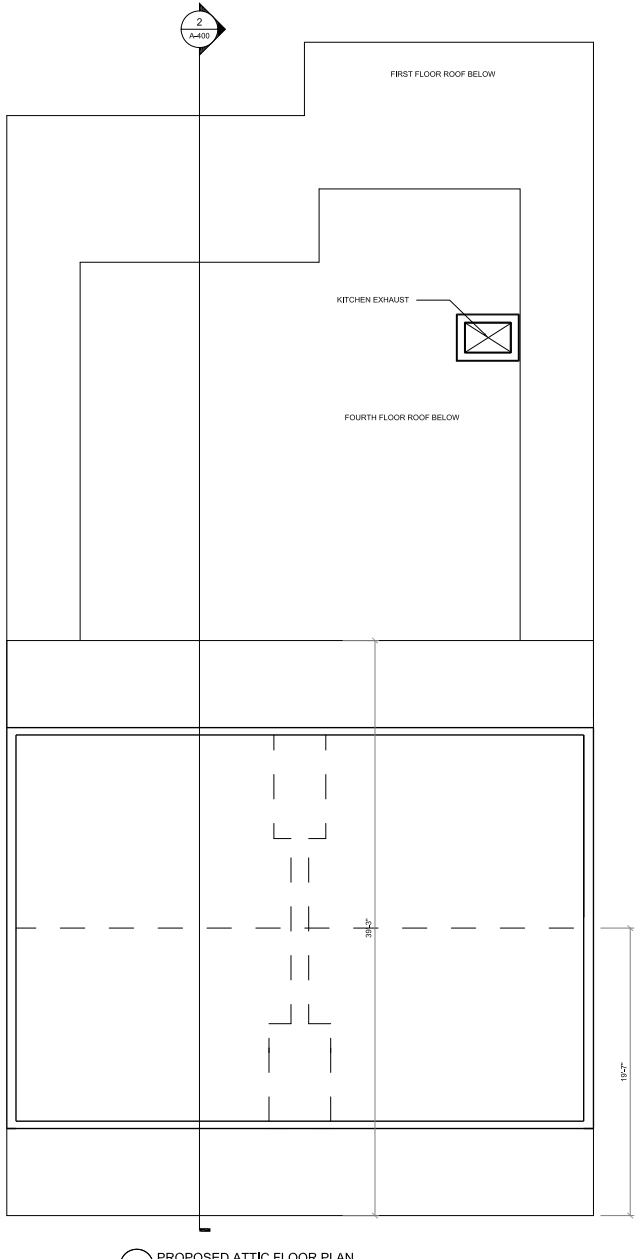
No.	Description	Date

PROPOSED
FLOOR
PLANS

A-101
147-149 CHARLES



1 PROPOSED FOURTH FLOOR PLAN



2 PROPOSED ATTIC FLOOR PLAN

- NOTE:**
1. U.A.O. ALL INTERIOR PARTITIONS ARE OF TYPE A
 2. USE M.B. BOARD AT ALL KITCHEN AND BATHROOM LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR CABINETS FOR FUTURE INSTALLATION OF GRAB BARS
 3. FILL IN ALL GAPS WITH ACCUSTICAL CAULK
 4. ELECTRICAL RECEPTACLES ON OPPOSITE SIDES OF WALL SHOULD BE INSTALLED AT LEAST 2'-0" AWAY FROM EACH OTHER.
 5. SEE DWG A-600 FOR DOOR AND WINDOW SCHEDULES
 6. SEE DWG A-200 FOR PARTITION TYPES
 7. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS. (TYP.)
 8. INTERIOR DIMENSIONS ARE TAKEN ON FACE OF FINISH WALLS AND CENTER LINE OF DOORS.
 9. EXTERIOR DIMENSIONS ARE TAKEN ON FACE OF SHEATHING AND CENTER LINE OF OPENINGS.

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

17 WALDO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-89-9822 FAX 617-89-1288

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2020
Drawn by JSK
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS

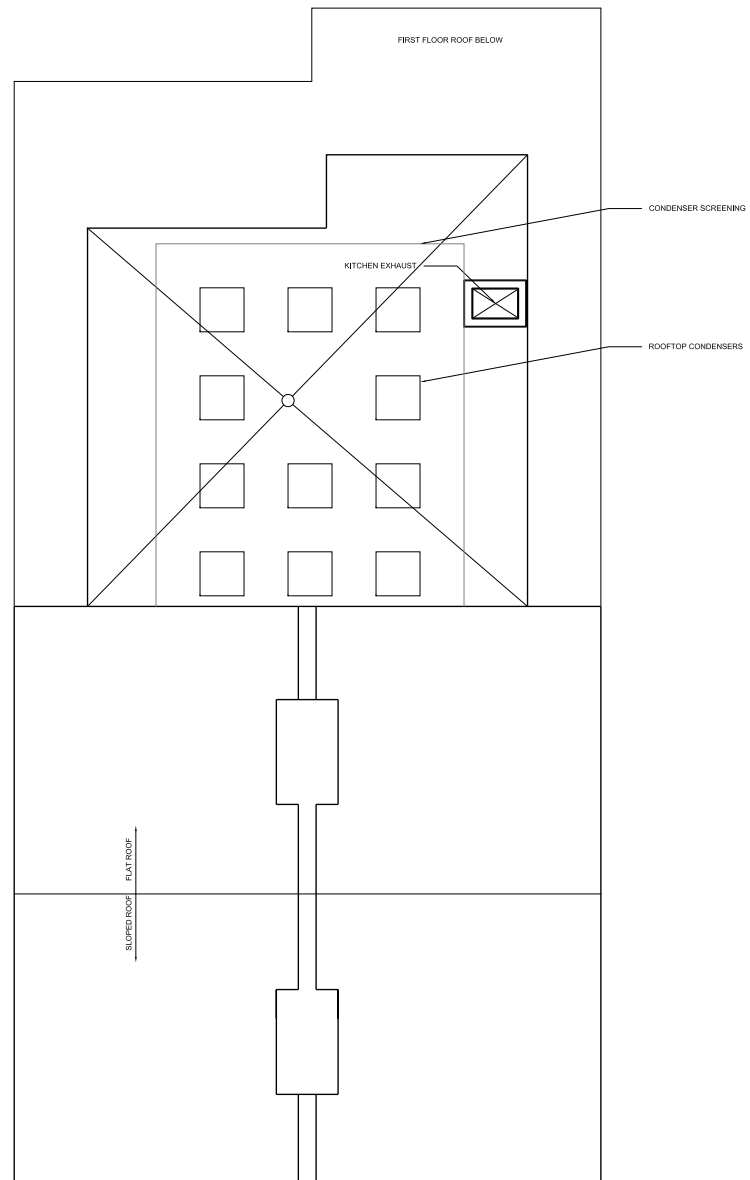
No.	Description	Date

PROPOSED FLOOR PLANS

A-102

147-149 CHARLES

- NOTES:**
1. UNLO. ALL INTERIOR PARTITIONS ARE OF TYPE A.
 2. USE MAR. BOARD AT ALL KITCHEN AND BATHROOM LOCATIONS, PROVIDE BLOCKING AS REQUIRED FOR CABINETS FOR FUTURE INSTALLATION OF GRID BARS.
 3. FILL IN ALL GAPS WITH ACOUSTICAL CAULK.
 4. ELECTRICAL RECEPTACLES ON OPPOSITE SIDES OF WALL SHOULD BE INSTALLED AT LEAST 2'-0" AWAY FROM EACH OTHER.
 5. SEE DWG A-800 FOR DOOR AND WINDOW SCHEDULES.
 6. SEE DWG A-900 FOR PARTITION TYPES.
 7. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS, (TYP.).
 8. INTERIOR DIMENSIONS ARE TAKEN ON FACE OF FINISH WALLS AND CENTER LINE OF DOORS.
 9. EXTERIOR DIMENSIONS ARE TAKEN ON FACE OF SHEATHING AND CENTER LINE OF OPENINGS.



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

KHALSA
17 WALDOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-9822 FAX 617-991-2888

CONSULTANTS:

COPYRIGHT (C) 2019
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 19061
Date 8/18/2021
Drawn by S.V.
Checked by JSK
Scale 1/4" = 1'-0"

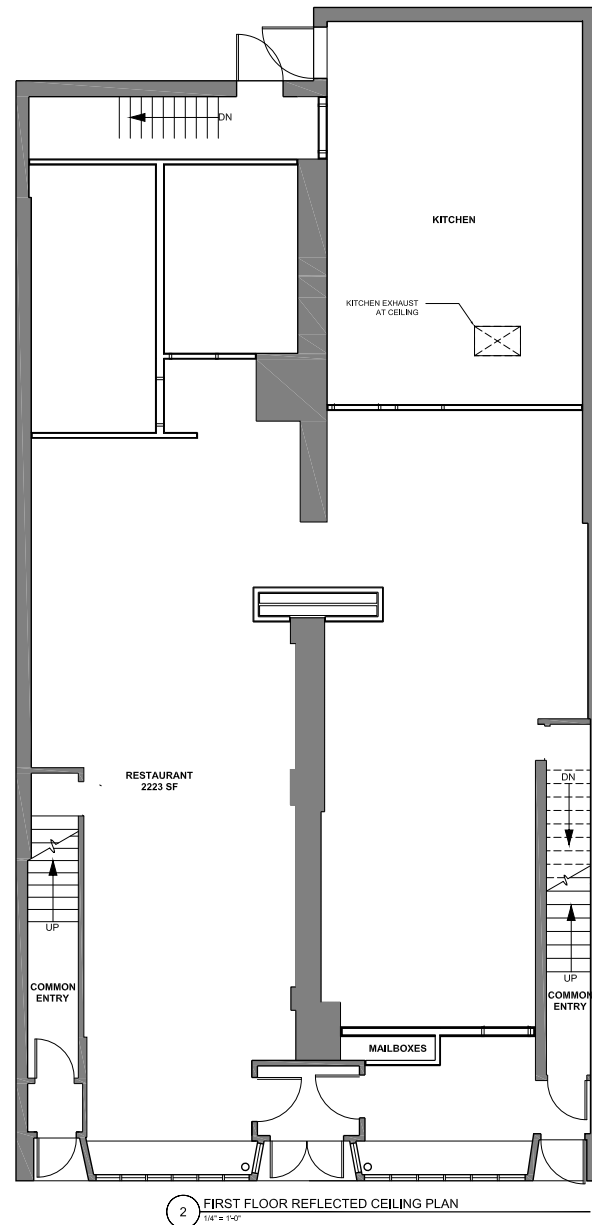
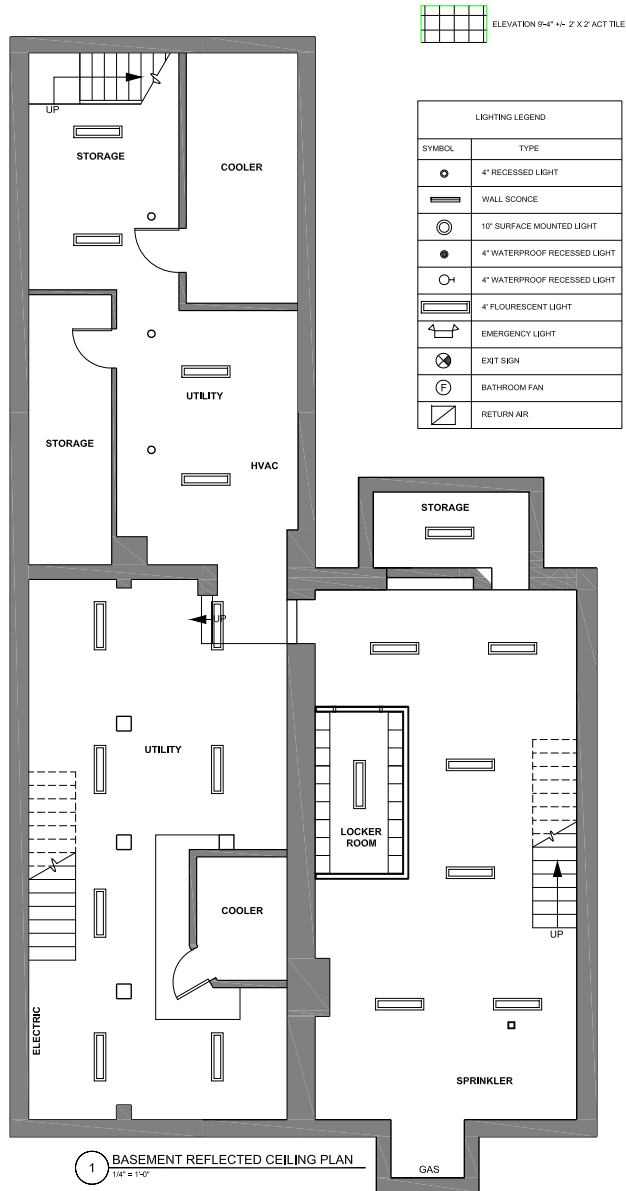
REVISIONS

No.	Description	Date

**PROPOSED
ROOF
PLAN**

A-103
147-149 CHARLES

2 **PROPOSED ROOF PLAN**
1/4" = 1'-0"



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



CONSULTANTS:

COPYRIGHT (C) 2019
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.

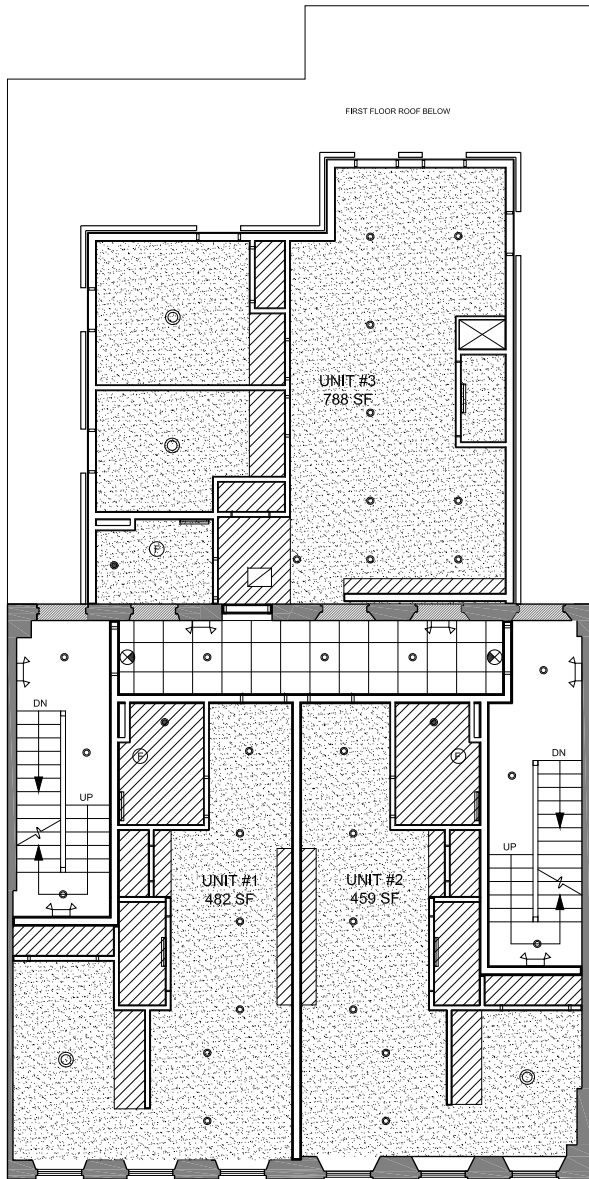


Project number 19061
Date 6/18/2021
Drawn by SVJ
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS		
No.	Description	Date

REFLECTED
CEILING
PLANS

A-200
147-149 CHARLES



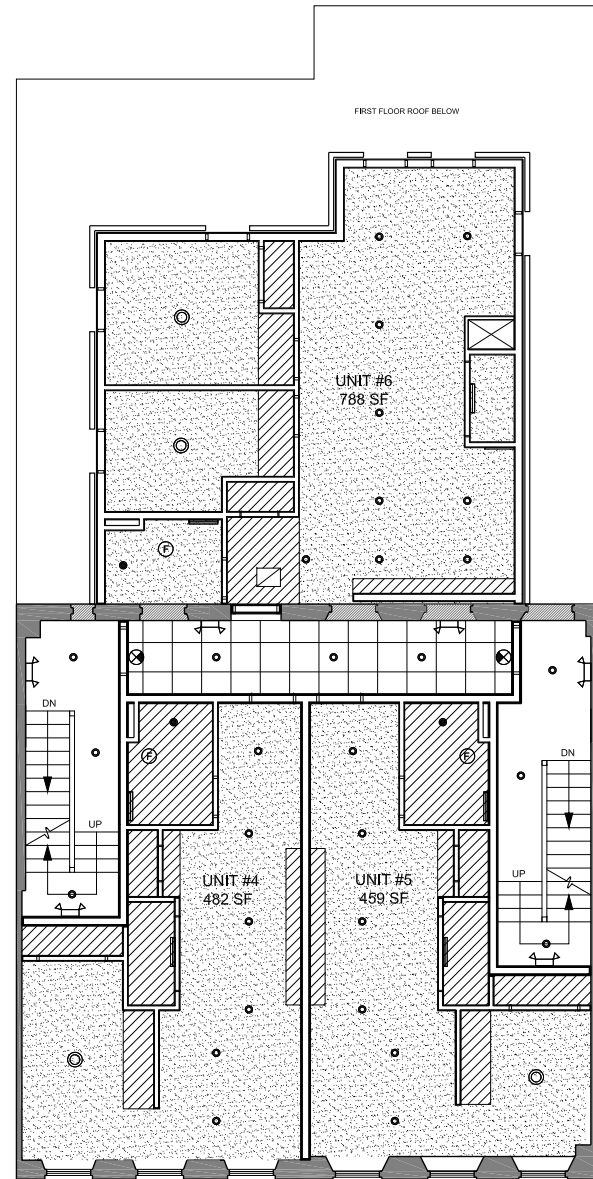
1 SECOND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

SECOND FLOOR CEILING LEGEND

	ELEVATION 10'-4" ±- GWB
	ELEVATION 9'-4" ±- GWB
	ELEVATION 9'-4" ±- 2' X 2' ACT TILE

LIGHTING LEGEND

SYMBOL	TYPE
	4" RECESSED LIGHT
	WALL SCONCE
	10" SURFACE MOUNTED LIGHT
	4" WATERPROOF RECESSED LIGHT
	4" WATERPROOF RECESSED LIGHT
	4" FLOU/RESCENT LIGHT
	EMERGENCY LIGHT
	EXIT SIGN
	BATHROOM FAN
	RETURN AIR



2 THIRD FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

THIRD FLOOR CEILING LEGEND

	ELEVATION 8'-11" ±- GWB
	ELEVATION 7'-11" ±- GWB
	ELEVATION 7'-11" ±- 2' X 2' ACT TILE

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

KHALSA
17 VALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-89-0882 FAX 617-891-2088

CONSULTANTS:

COPYRIGHT KDI © 2019
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.



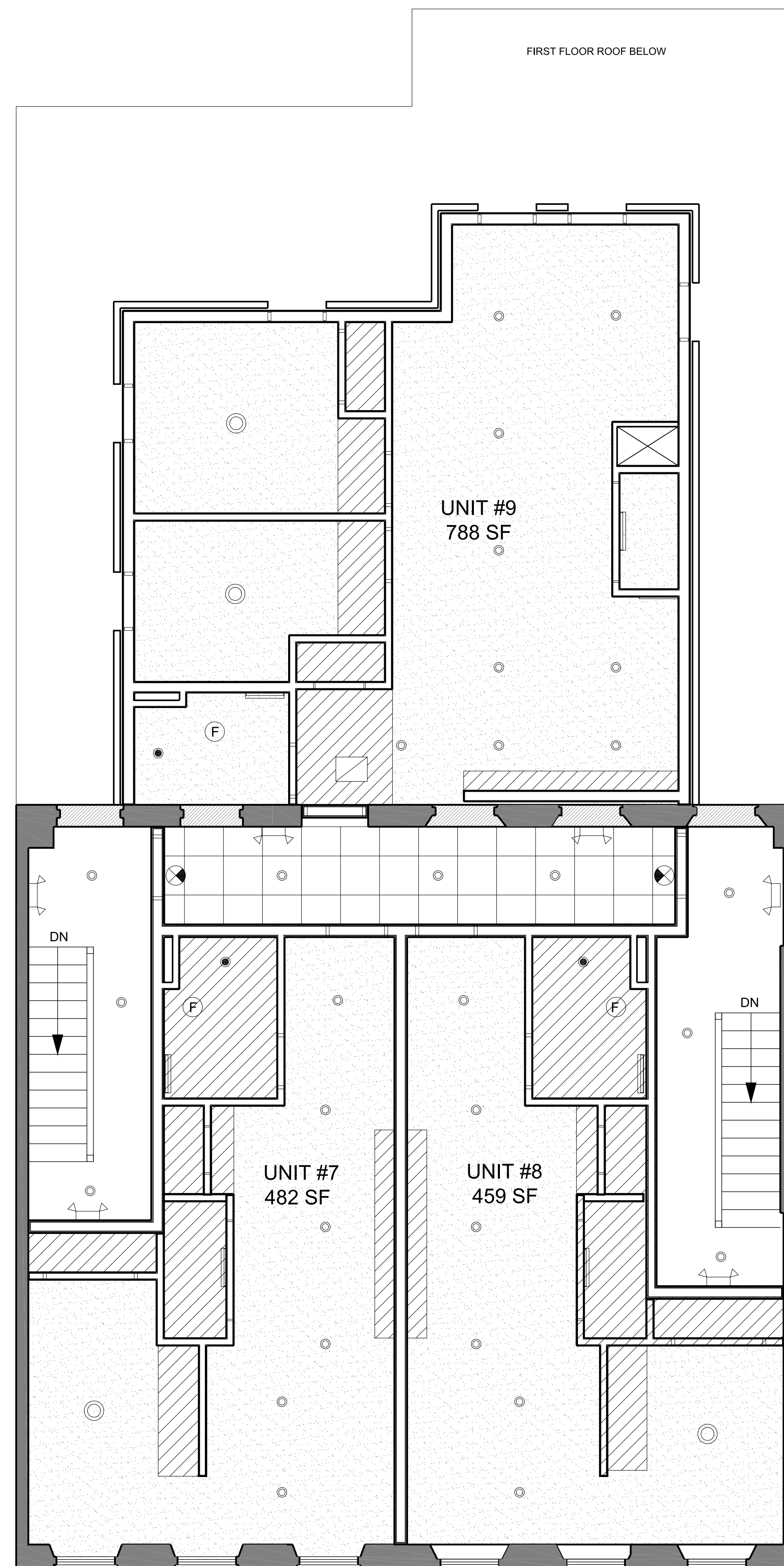
Project number	19061
Date	6/18/2020
Drawn by	SK
Checked by	JSK
Scale	1/4" = 1'-0"

REVISIONS

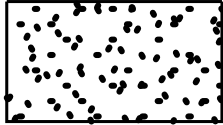
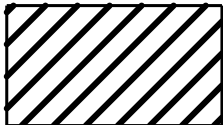
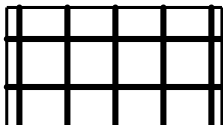
No.	Description	Date

REFLECTED
CEILING
PLANS











A-201
147-149 CHARLES



FOURTH FLOOR CEILING LEGEND

-  ELEVATION 8'-7" +/- GWB
-  ELEVATION 7'-7" +/- GWB
-  ELEVATION 7'-7" +/- 2' X 2' ACT TILE

LIGHTING LEGEND

SYMBOL	TYPE
	4" RECESSED LIGHT
	WALL SCONCE
	10" SURFACE MOUNTED LIGHT
	4" WATERPROOF RECESSED LIGHT
	4" WATERPROOF RECESSED LIGHT
	4' FLOURESCENT LIGHT
	EMERGENCY LIGHT
	EXIT SIGN
	BATHROOM FAN
	RETURN AIR

1 FOURTH FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS

No.	Description	Date

REFLECTED
CEILING
PLANS

A-202

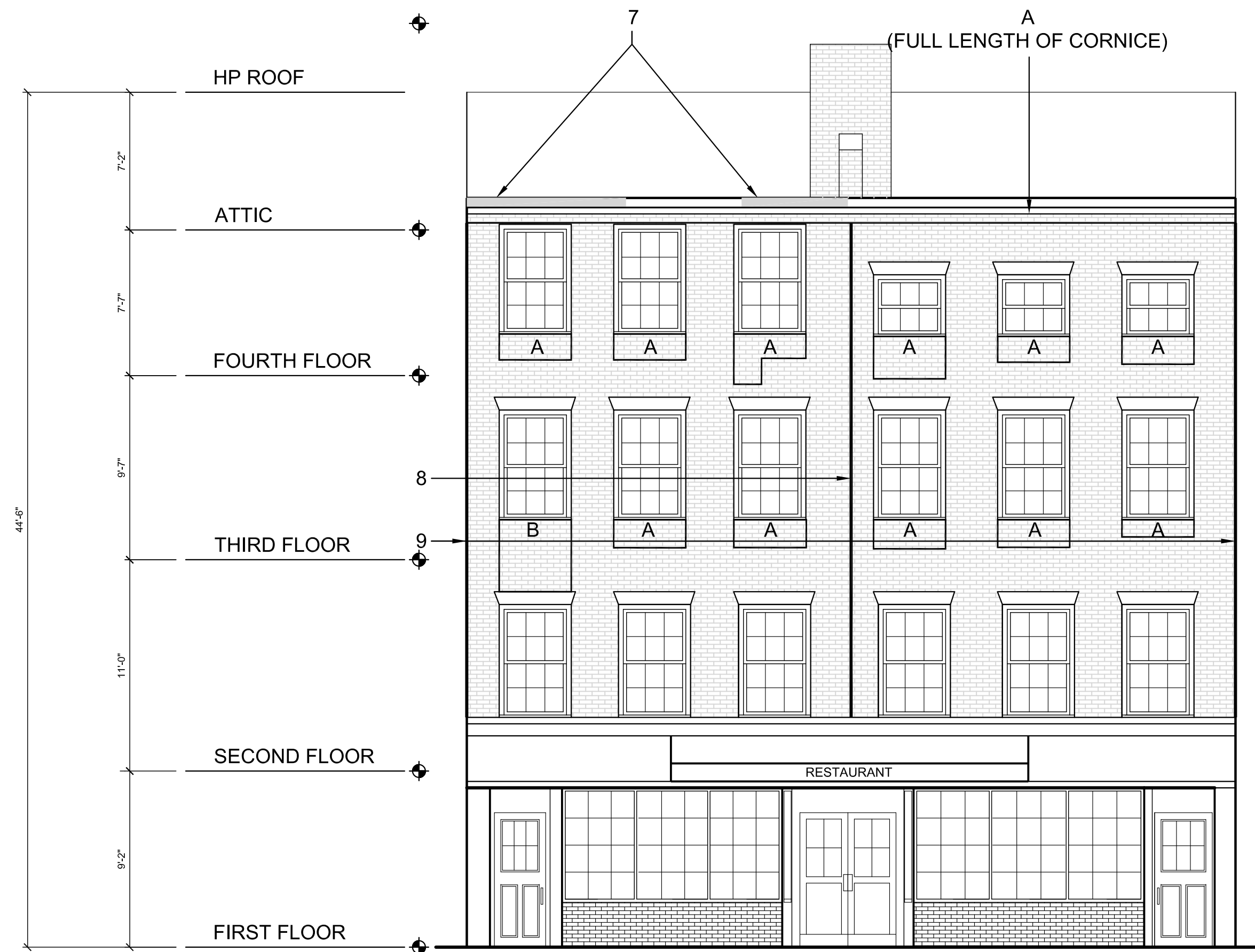
147-149 CHARLES

FRONT FACADE REPAIR NOTES

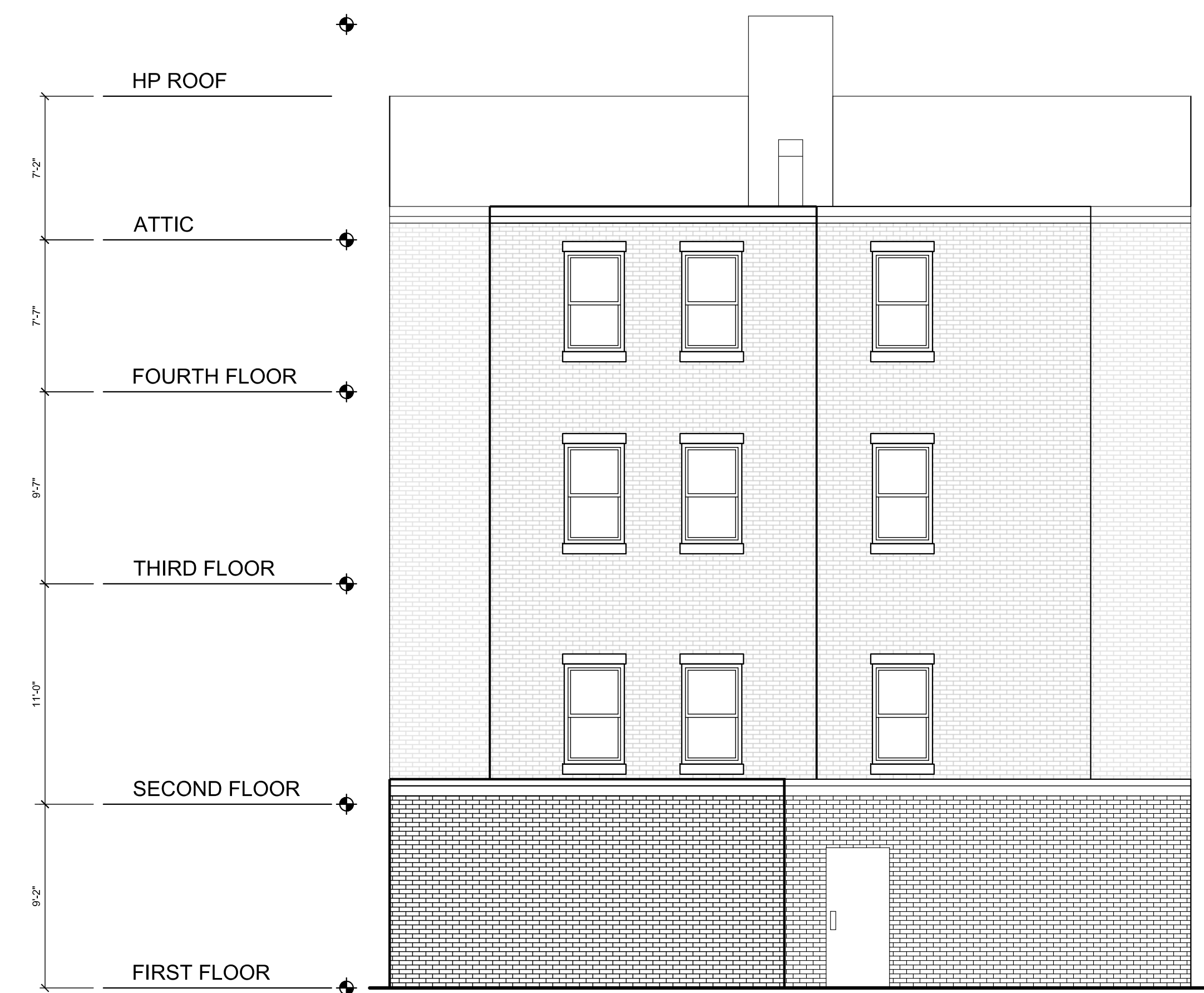
1. PROVIDE NE "BROWNSTONE" CAST STONE WINDOW LINTELS, MATCH EXISTING SIZE AND DETAIL OF UNDAMAGED UNITS - 15 LOCATIONS
2. PROVIDE NEW "BROWNSTONE" CAST STONE WINDOW SILLS - 18 LOCATIONS SILLS SHALL BE 8" LONGER THAN EXISTING OPENING, 6" DEEP AND 4" HIGH WITH DRIP EDGE.
3. REMOVE ALL MORTAR SMEAR FROM FACADE, IF BRICK FACE CANNOT BE CLEANED, USE BACK OF BRICK IF OF ACCEPTABLE APPEARANCE OR PROVIDE MATCHING BRICK.
4. REMOVE AND REBUILD FACE BRICK IN AREA MARKED "B". REPAIR ALL DETERIORATED BACK-UP, PROVIDE FULL MASONRY BOND; IF NOT POSSIBLE PROVIDE GALVANIZED TIES.
5. CUT OUT AND REPOINT ALL MORTAR JOINTS, PROVIDE TYPE O (1:2:8) MORTAR WITH VERY SMALL AMOUNT OF BUFF COLORANT. PROVIDE SAMPLES FOR COLOR AND TOOLING FOR APPROVAL.
6. IN AREAS MARKED "A" ANY BRICKS DETERMINED TO BE LOOSE AFTER CUTTING OUT JOINTS, SHALL BE REMOVED AND RESET IN A FULL MORTAR BED.
7. PROVIDE NEW FULL WOOD CORNICE WHERE MARKED, REPLACE ALL FASCIA, REPAIR DETERIORATED FRAMING BEHIND FASCIA, BACK PRIME NEW WOOD, PRIME AND 2 COAT PAINT CORNICE.
8. CLEAN ALL PAINT/MORTAR STAIN BEHIND EXISTING RAINLEADER.
9. PROVIDE BACKER ROD AND SEALANT AT JOINTS TO ADJOINING BUILDINGS.

REAR ELEVATION REPAIR NOTES (NOT SHOWN)

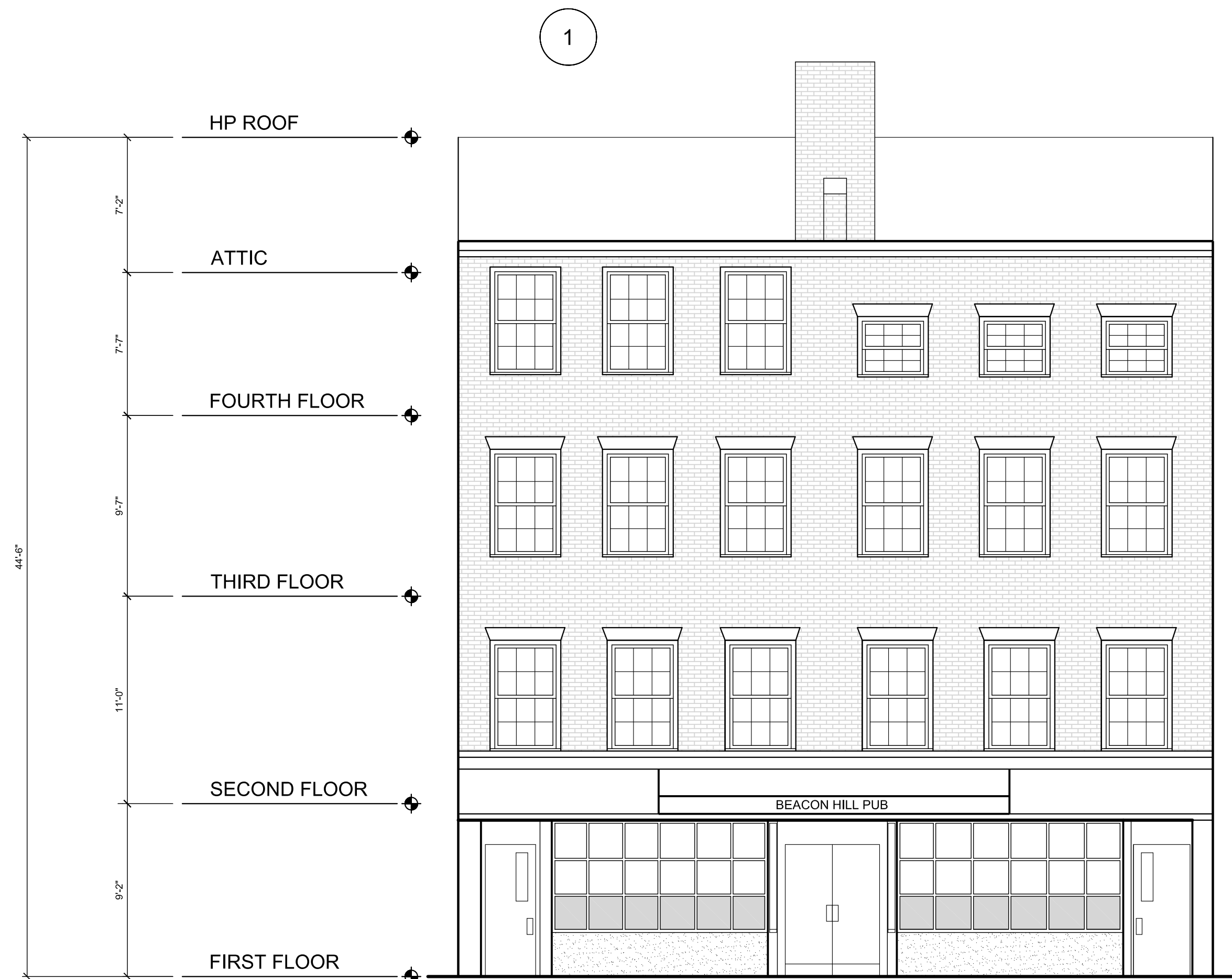
1. CUT OUT AND REPOINT ALL BRICK NOT COVERED BY THE NEW ADDITION.



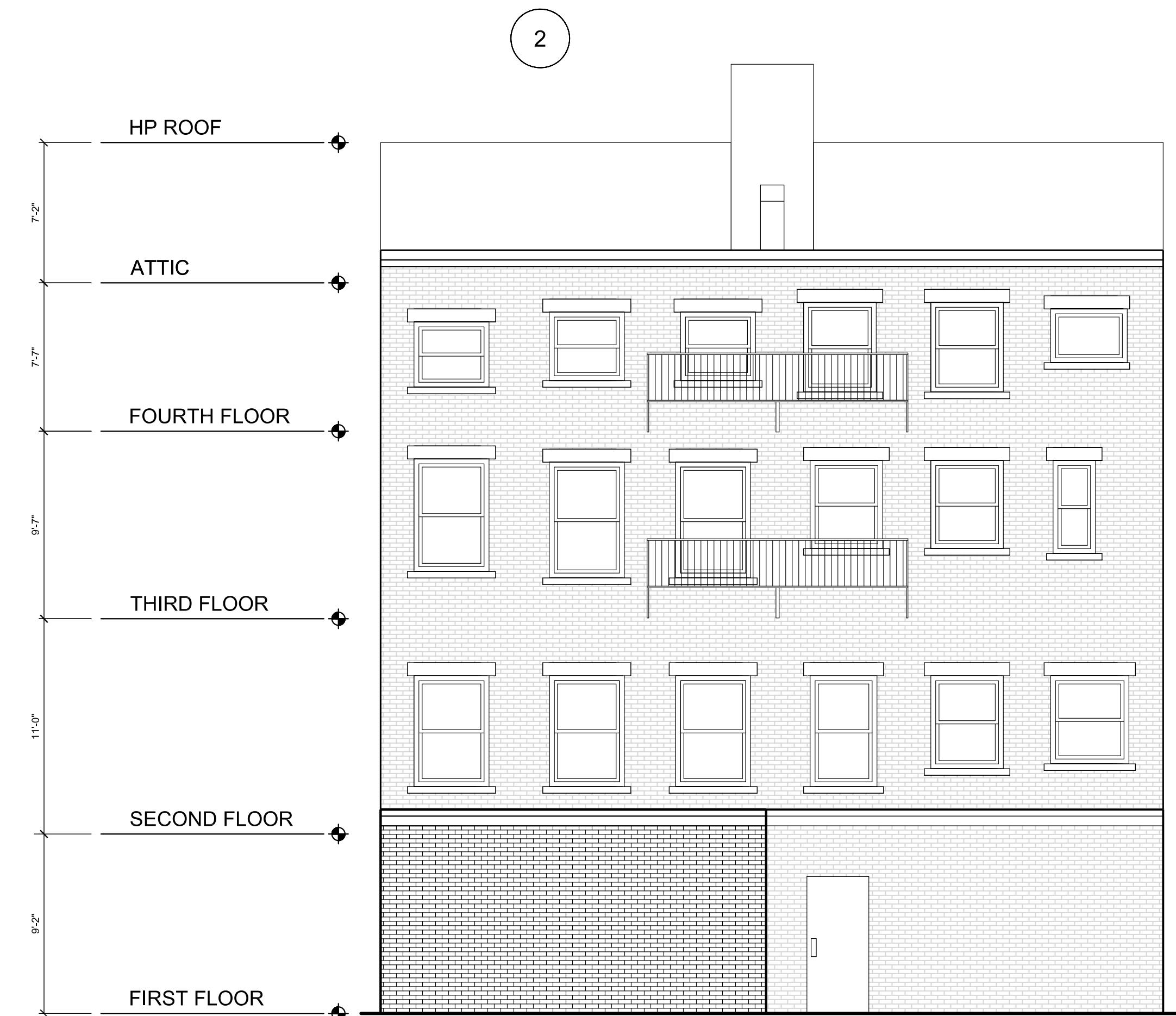
PROPOSED FRONT ELEVATION
3/16" = 1'-0"



PROPOSED REAR ELEVATION
3/16" = 1'-0"



1 EXISTING FRONT ELEVATION
3/16" = 1'-0"



2 EXISTING REAR ELEVATION
3/16" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 3/16" = 1'-0"

REVISIONS

No.	Description	Date

**PROGRESS
ELEVATIONS**

A-300

147-149 CHARLES

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 3/16" = 1'-0"

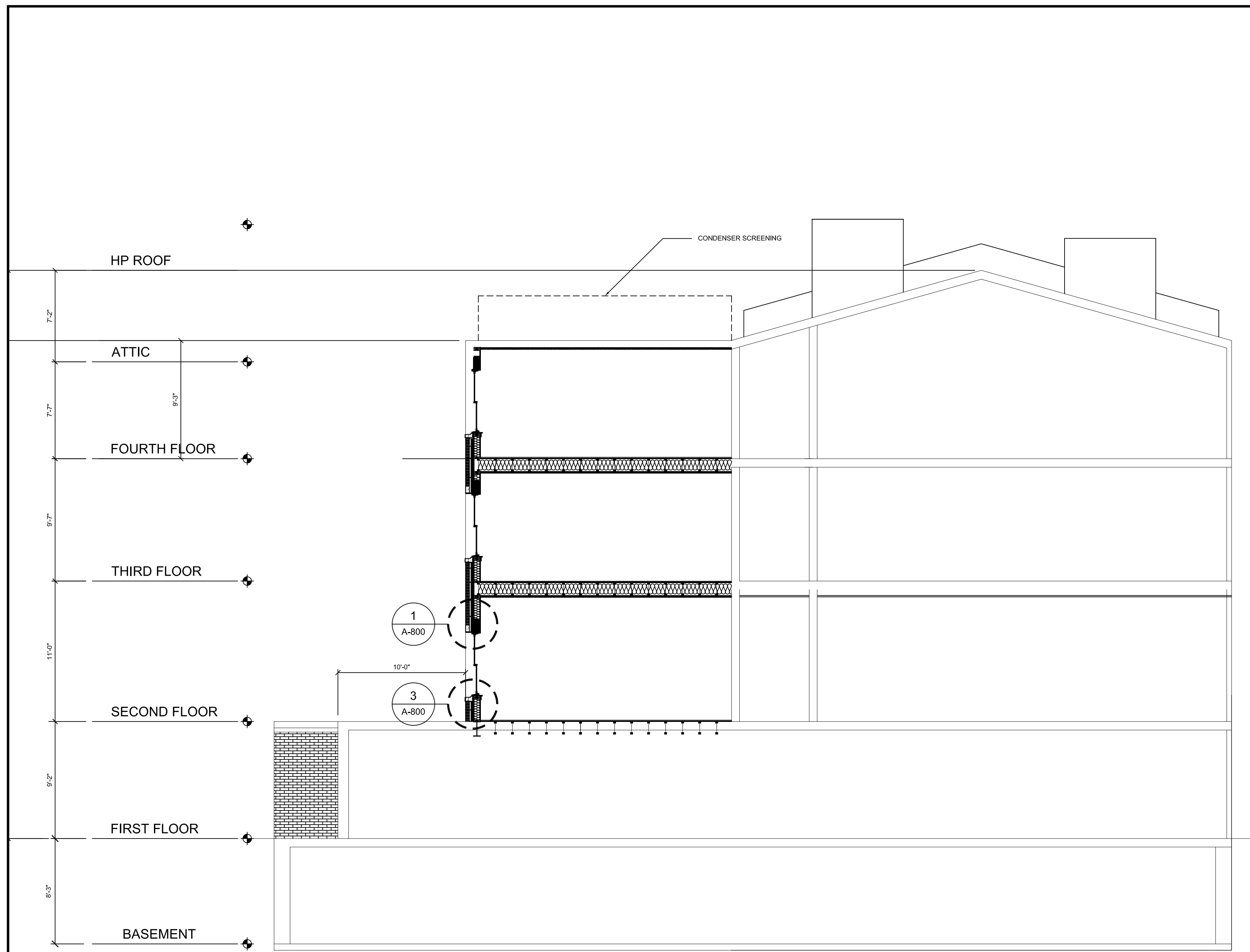
REVISIONS

No.	Description	Date

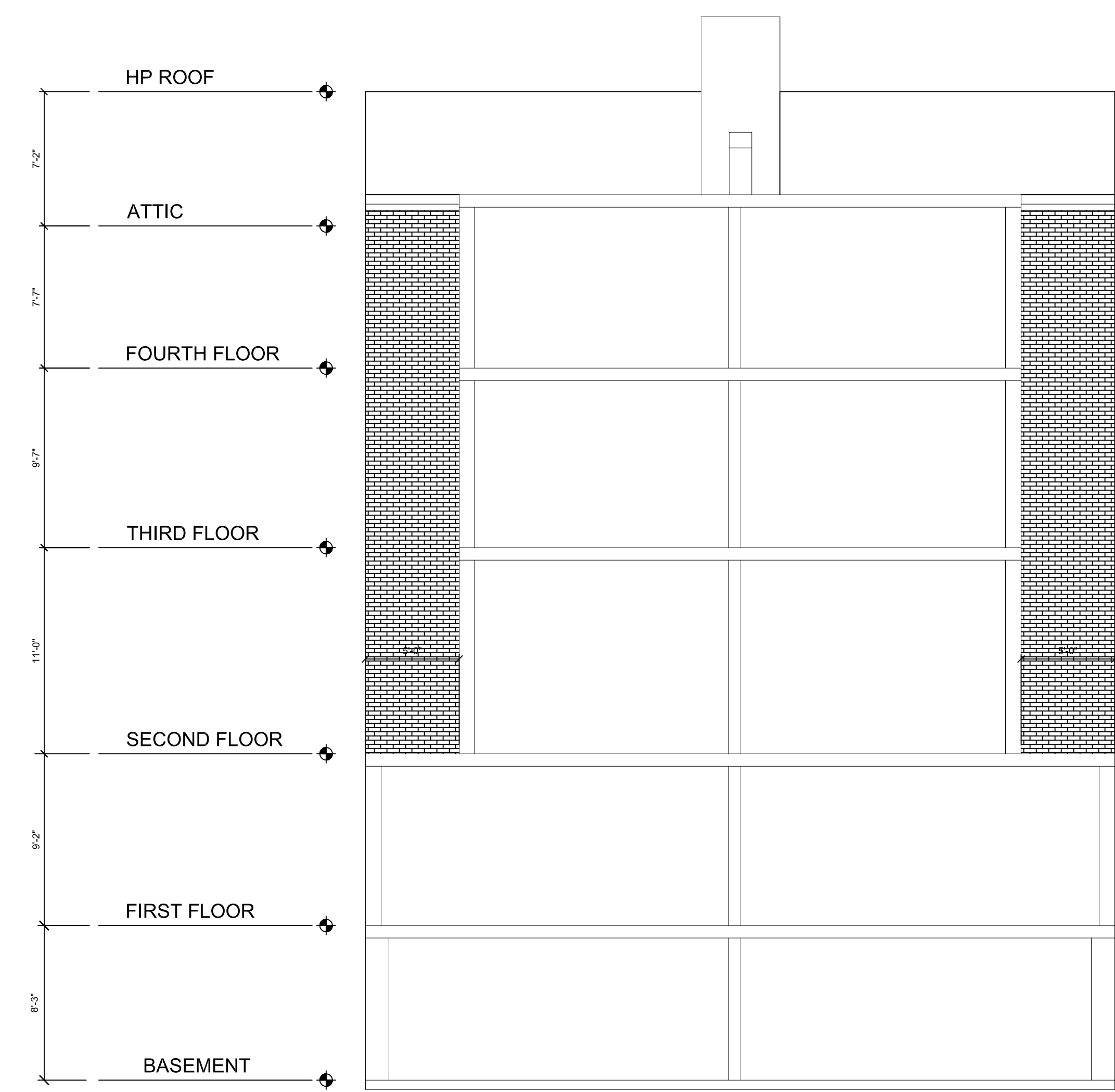
PROGRESS
ELEVATIONS

A-400

147-149 CHARLES



2 PROPOSED SCHEMATIC SECTION
3/16" = 1'-0"



1 EXISTING SCHEMATIC SECTION
3/16" = 1'-0"



1 STREET RENDERING
N.T.S.

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale N.T.S.

REVISIONS

No.	Description	Date

STREET
RENDERING

A-500

147-149 CHARLES

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

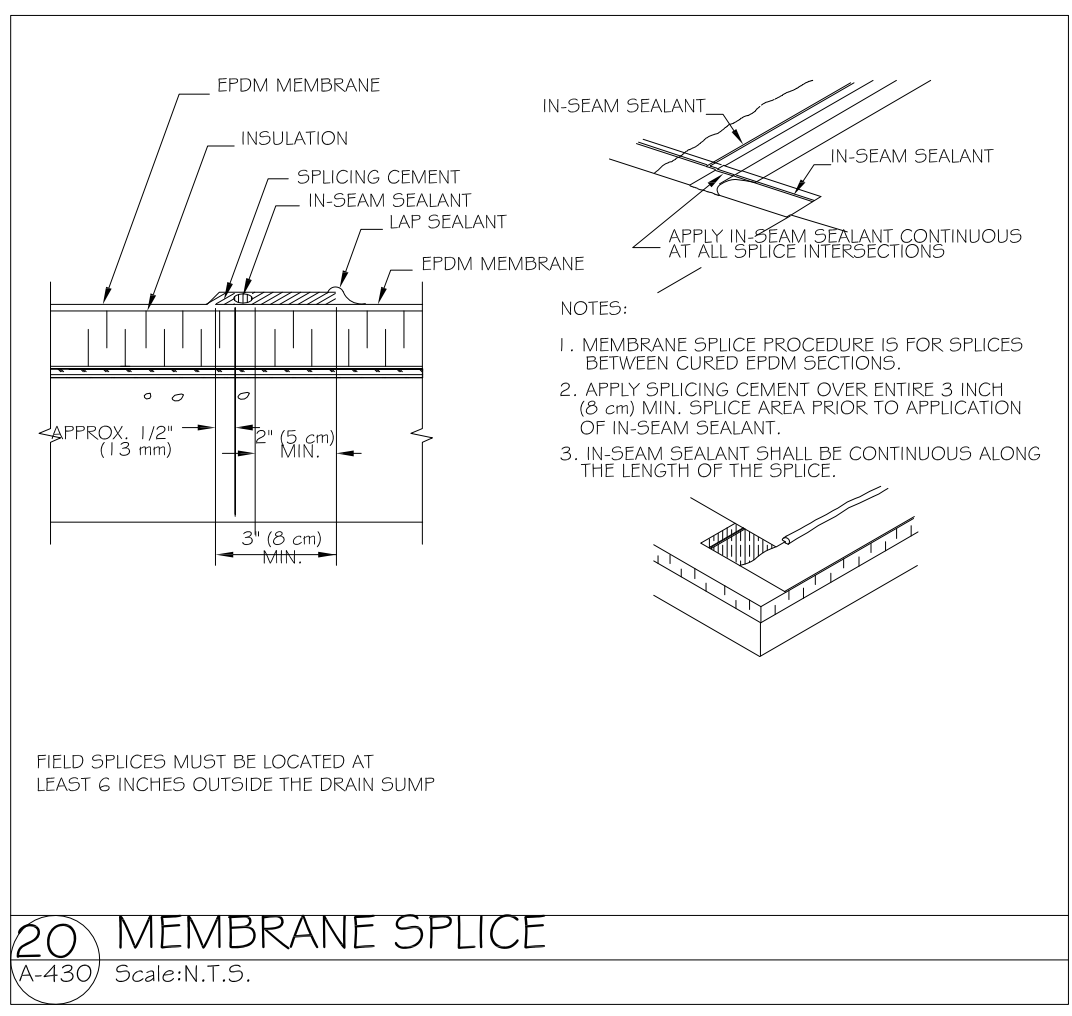
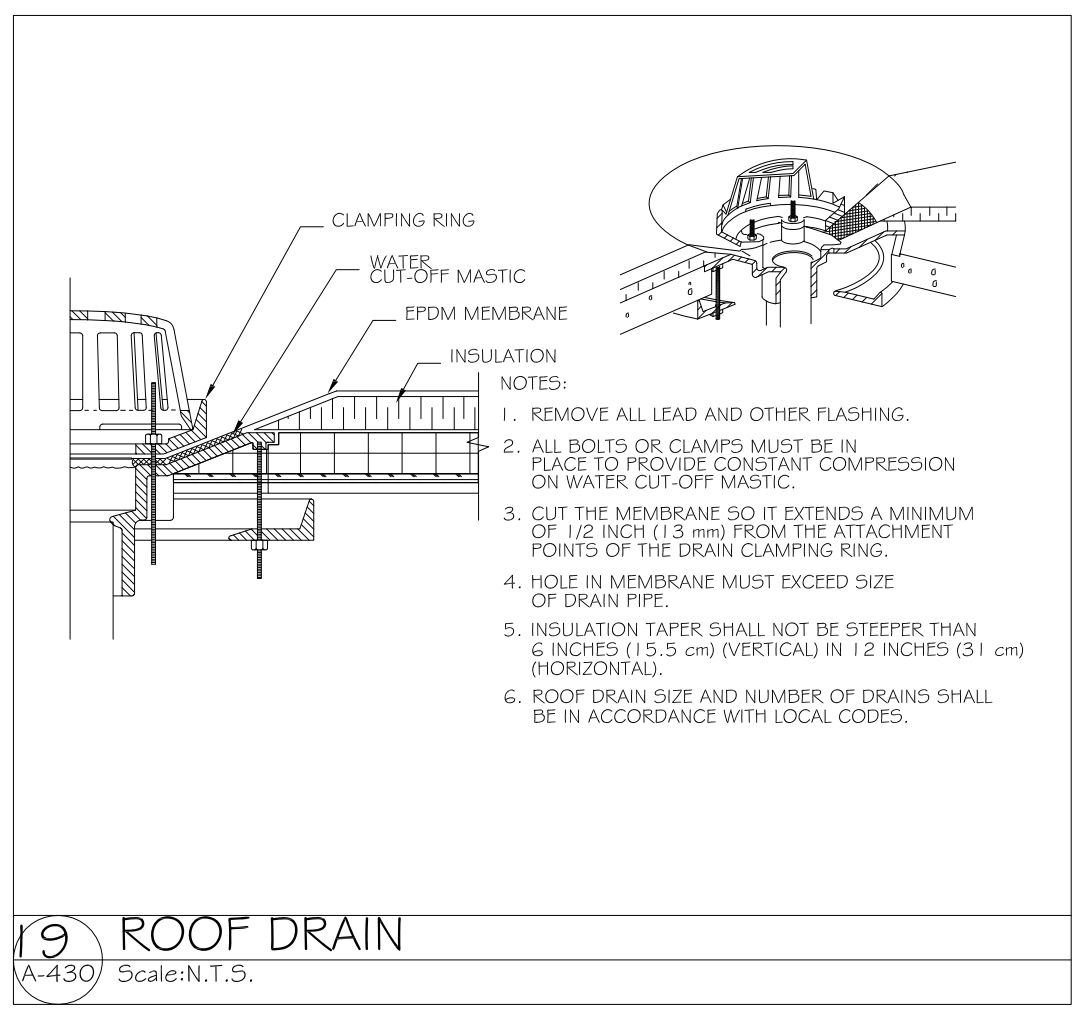
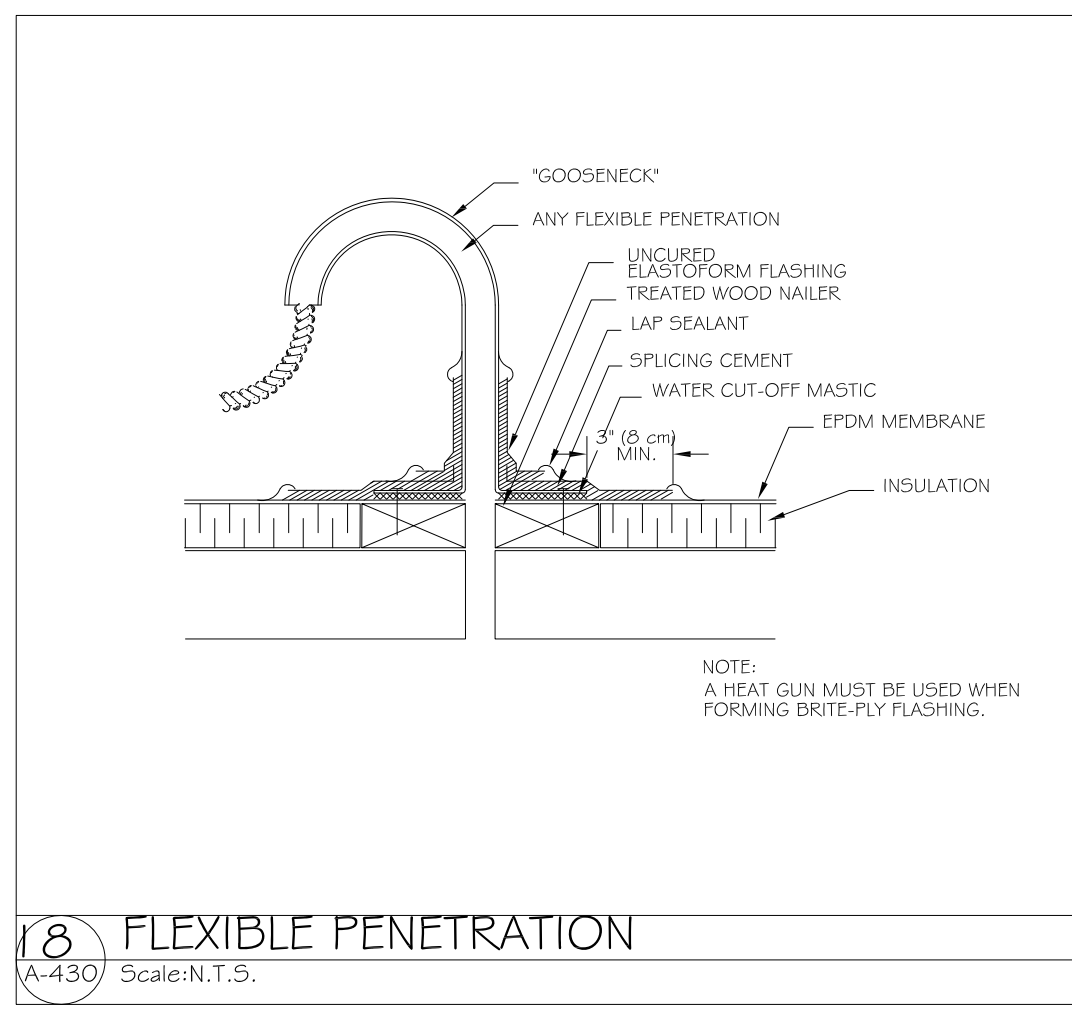
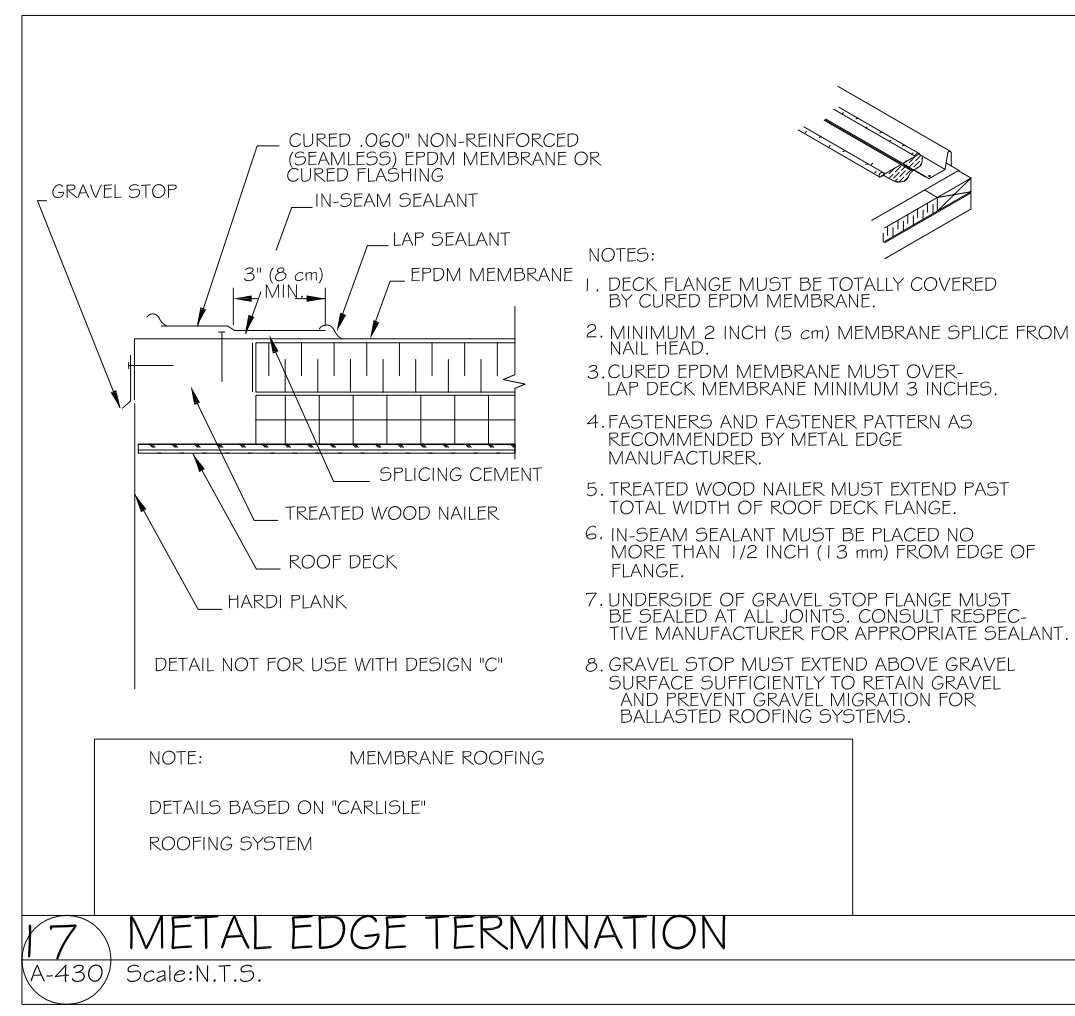
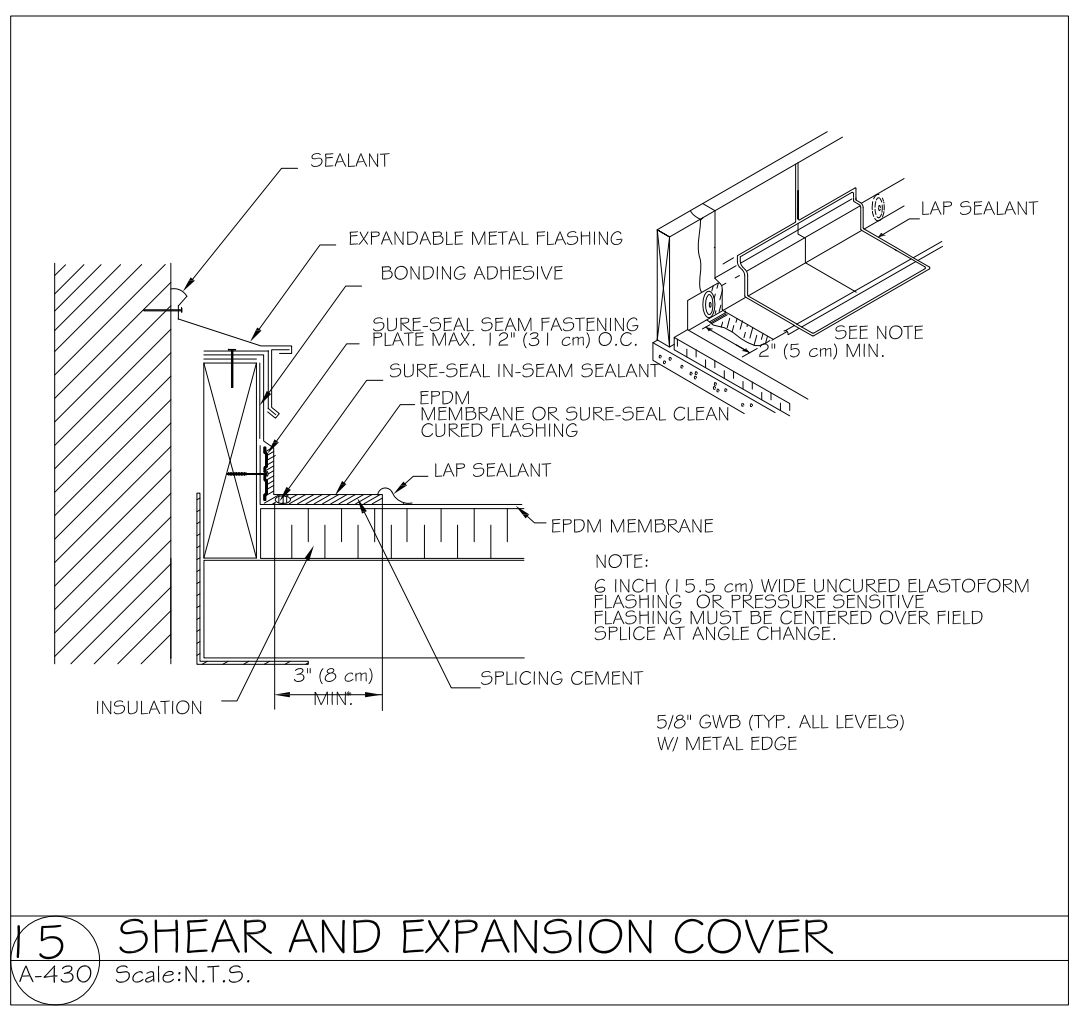
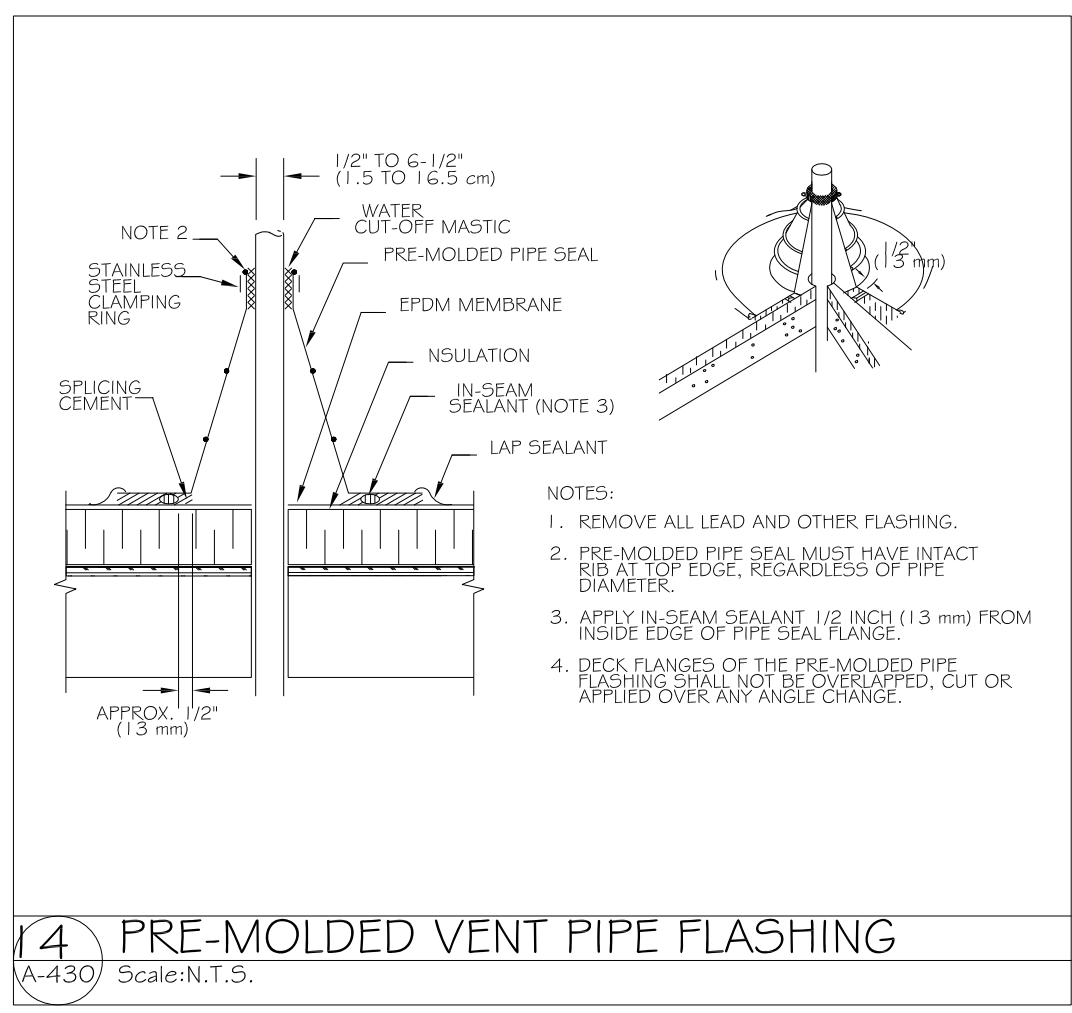
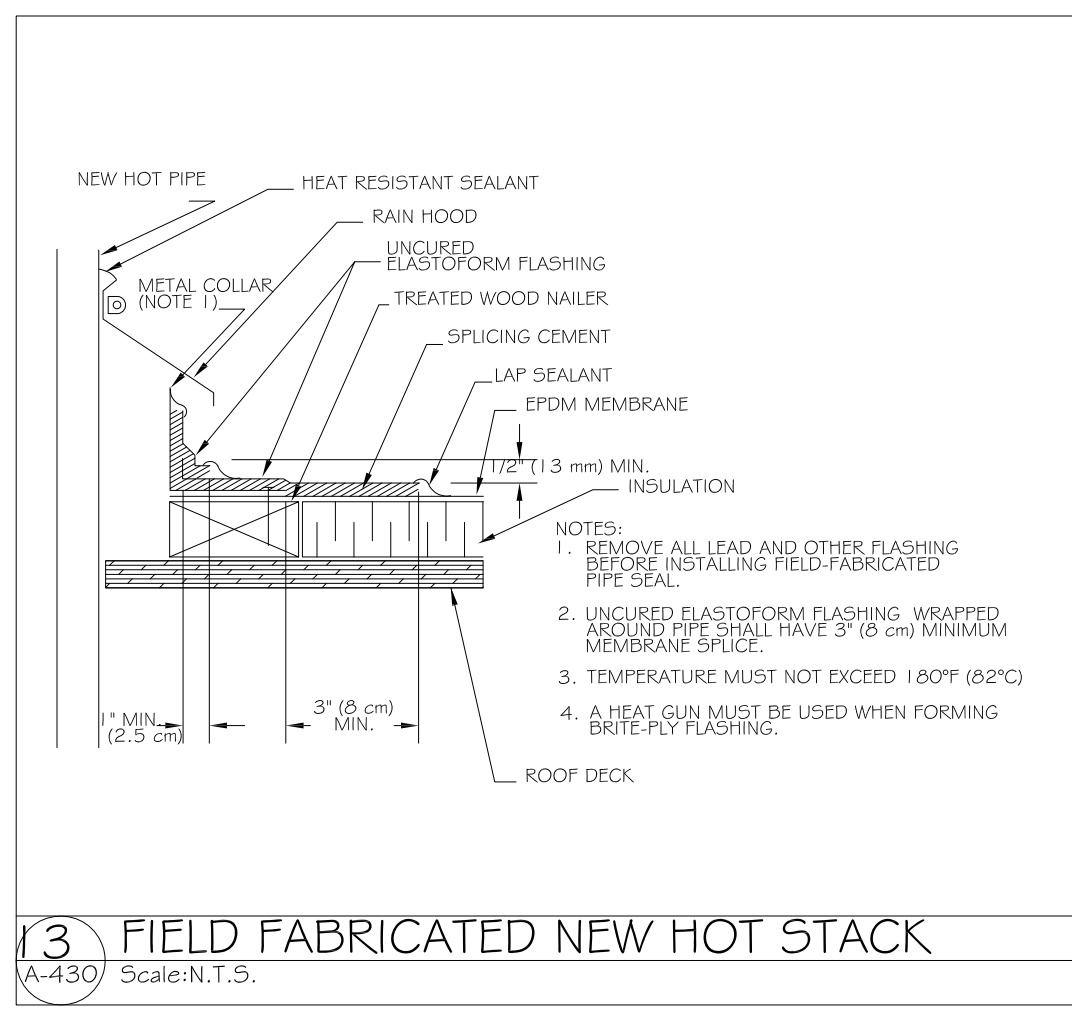
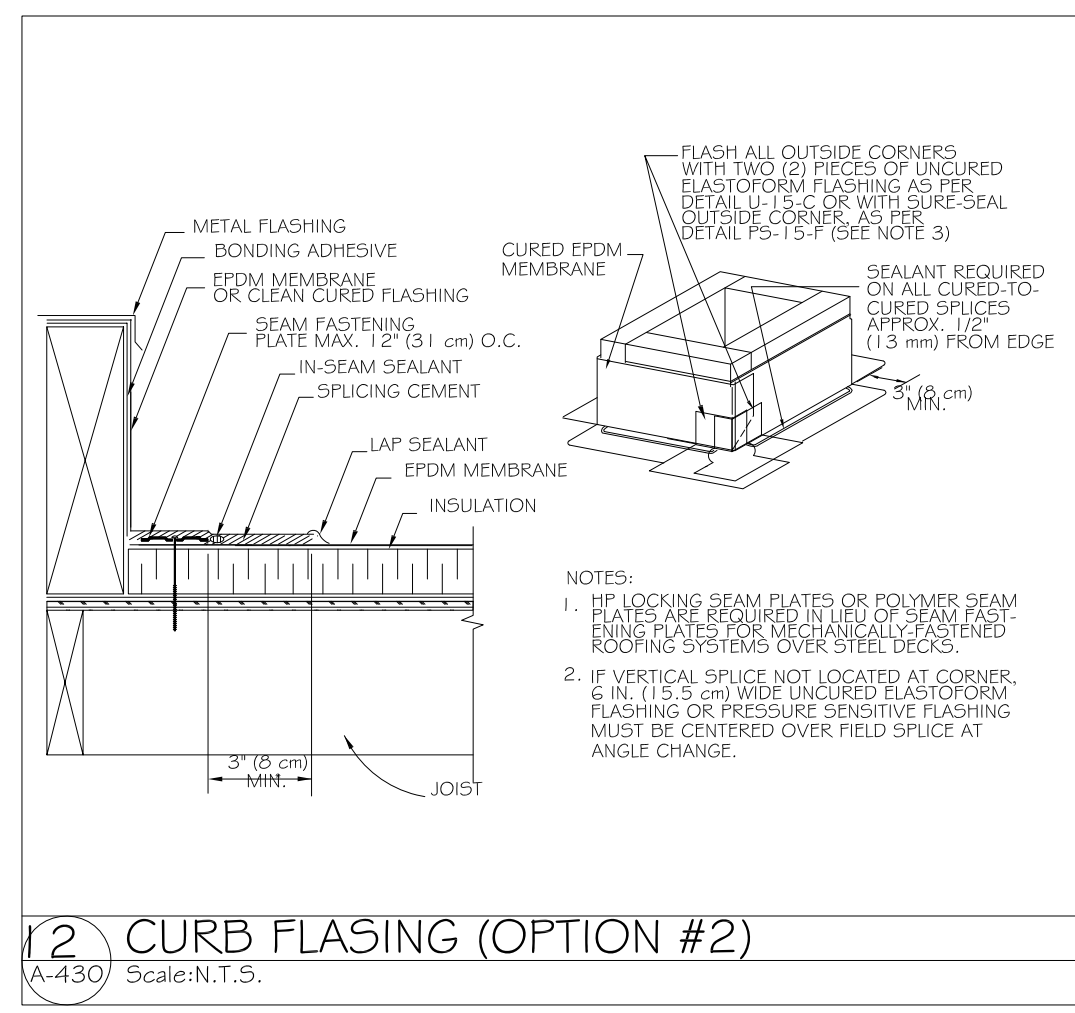
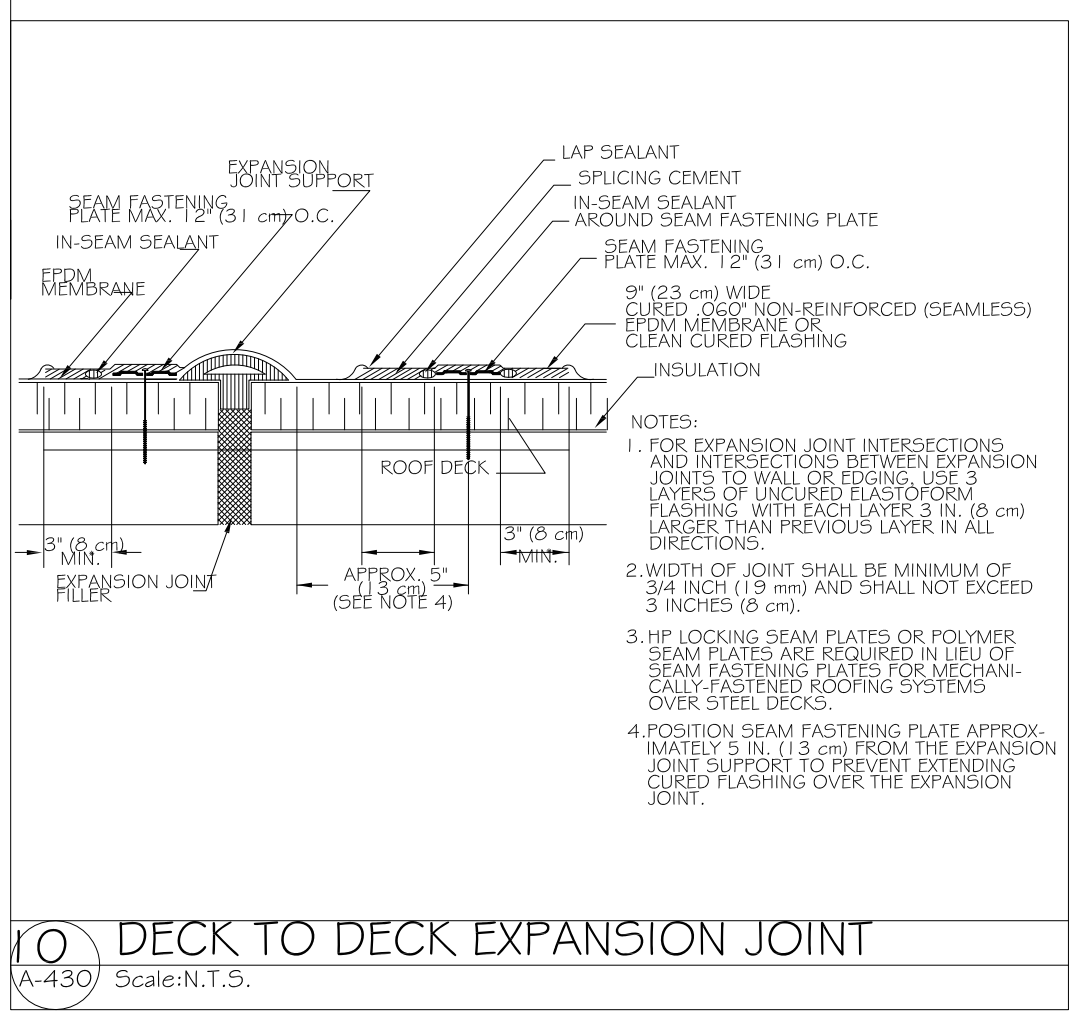
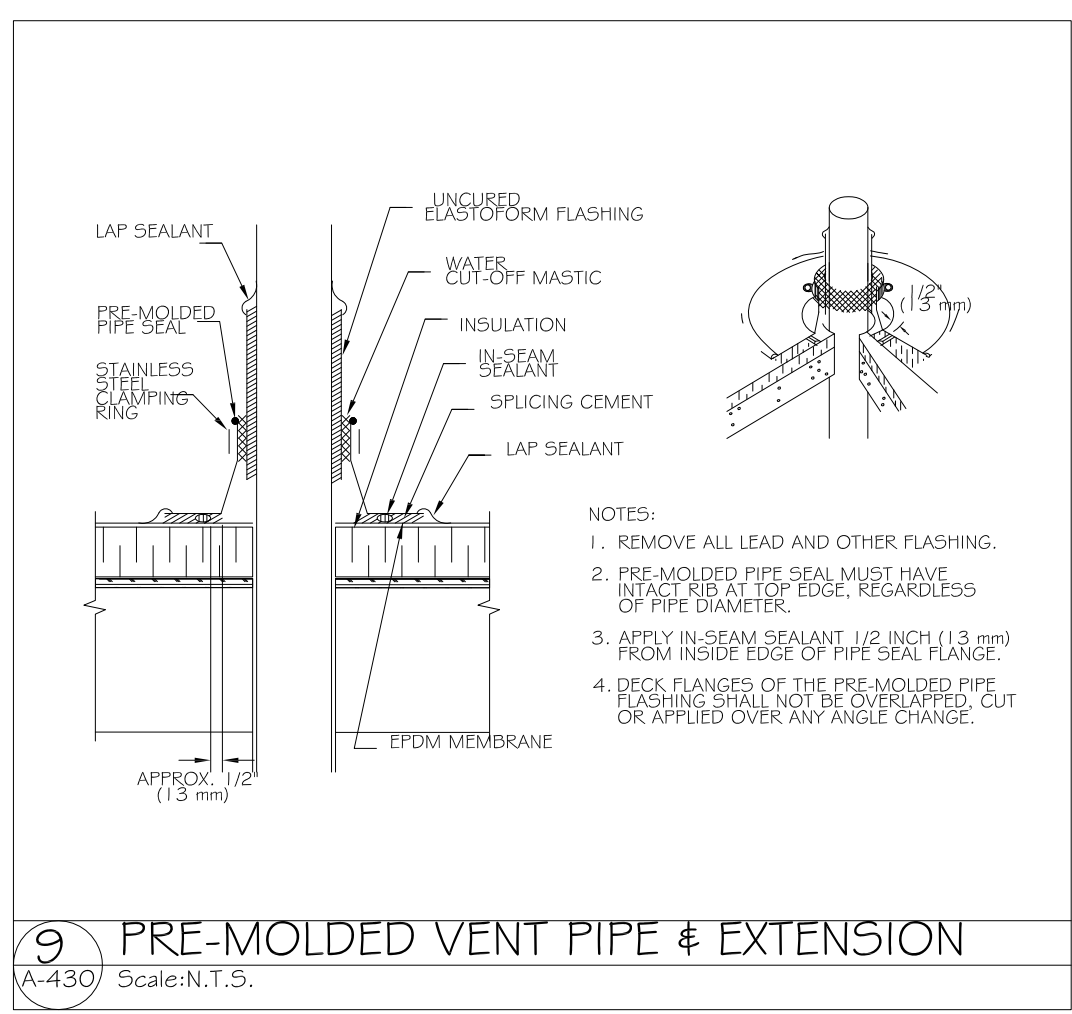
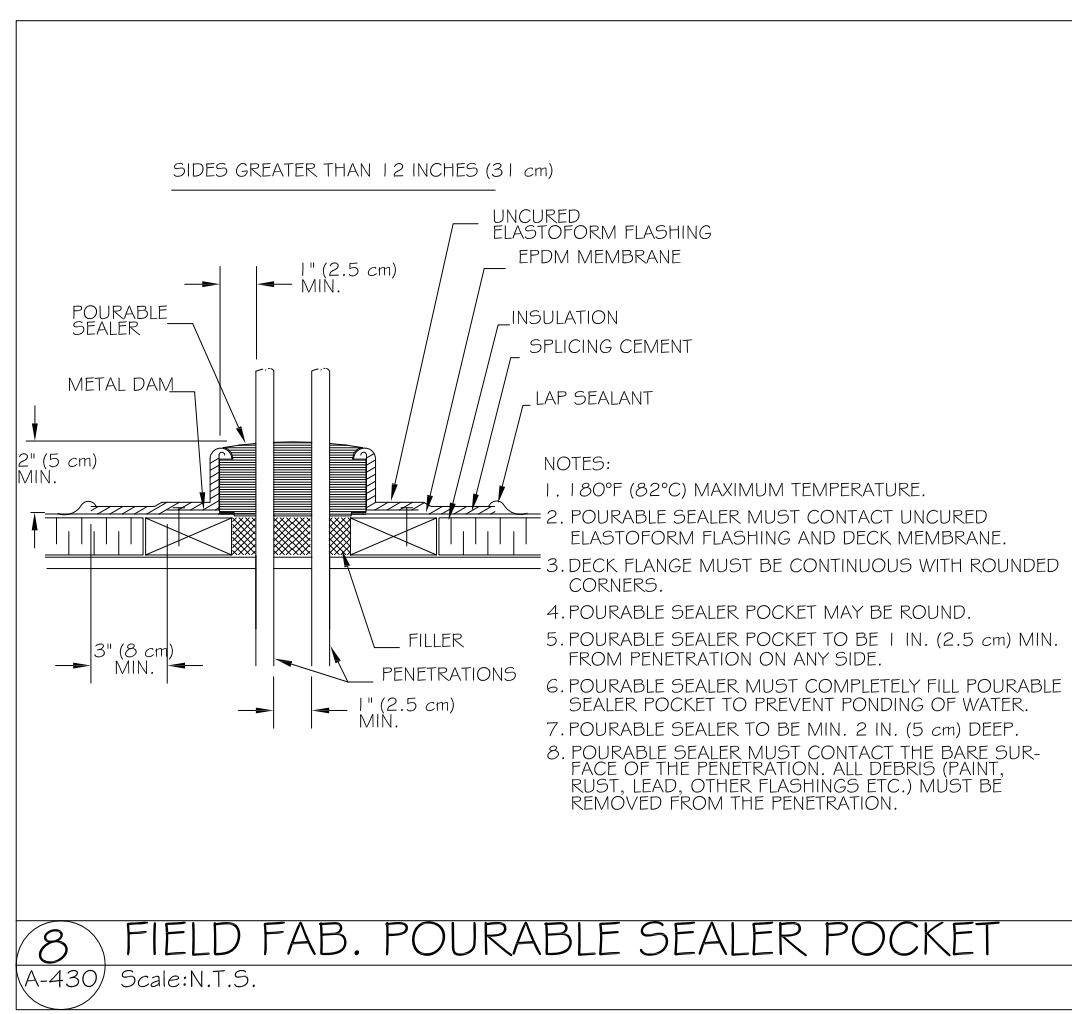
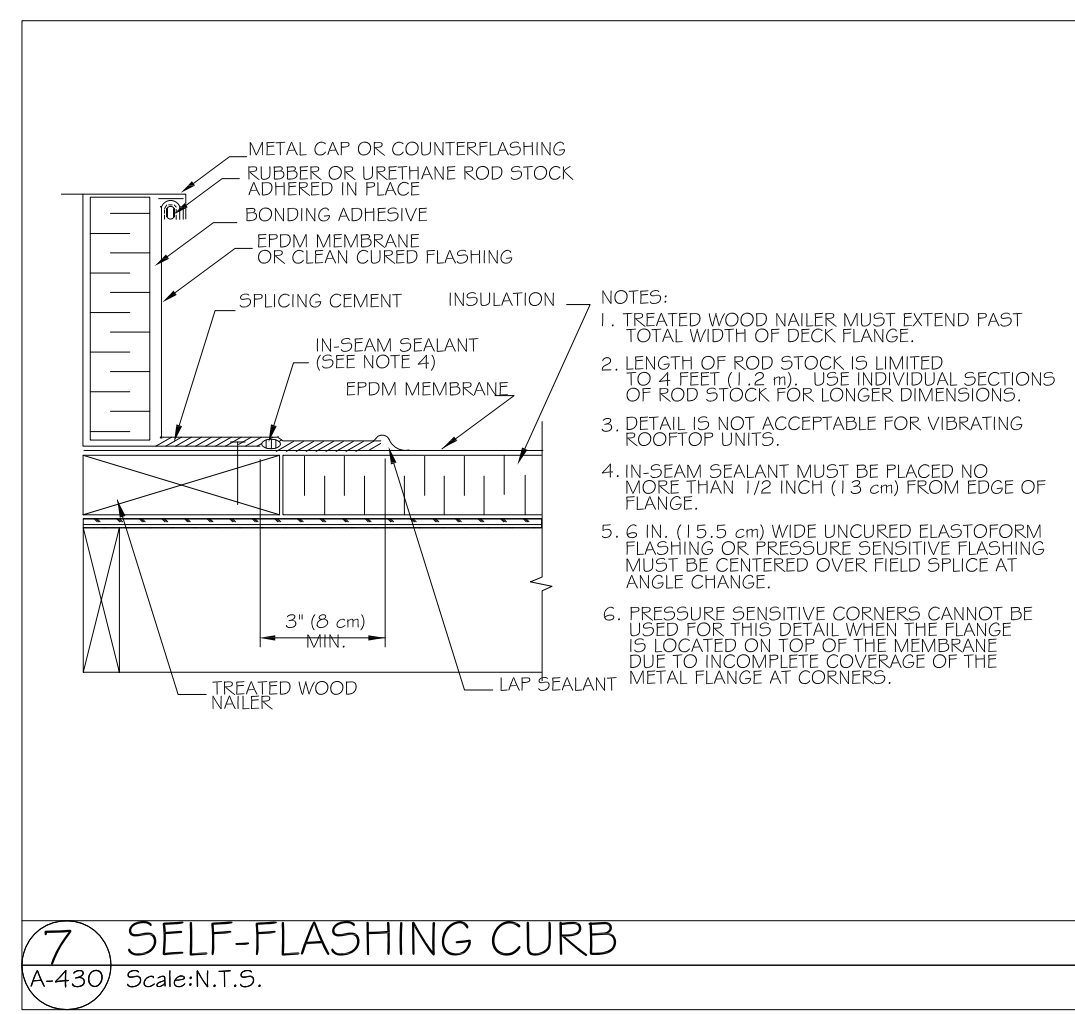
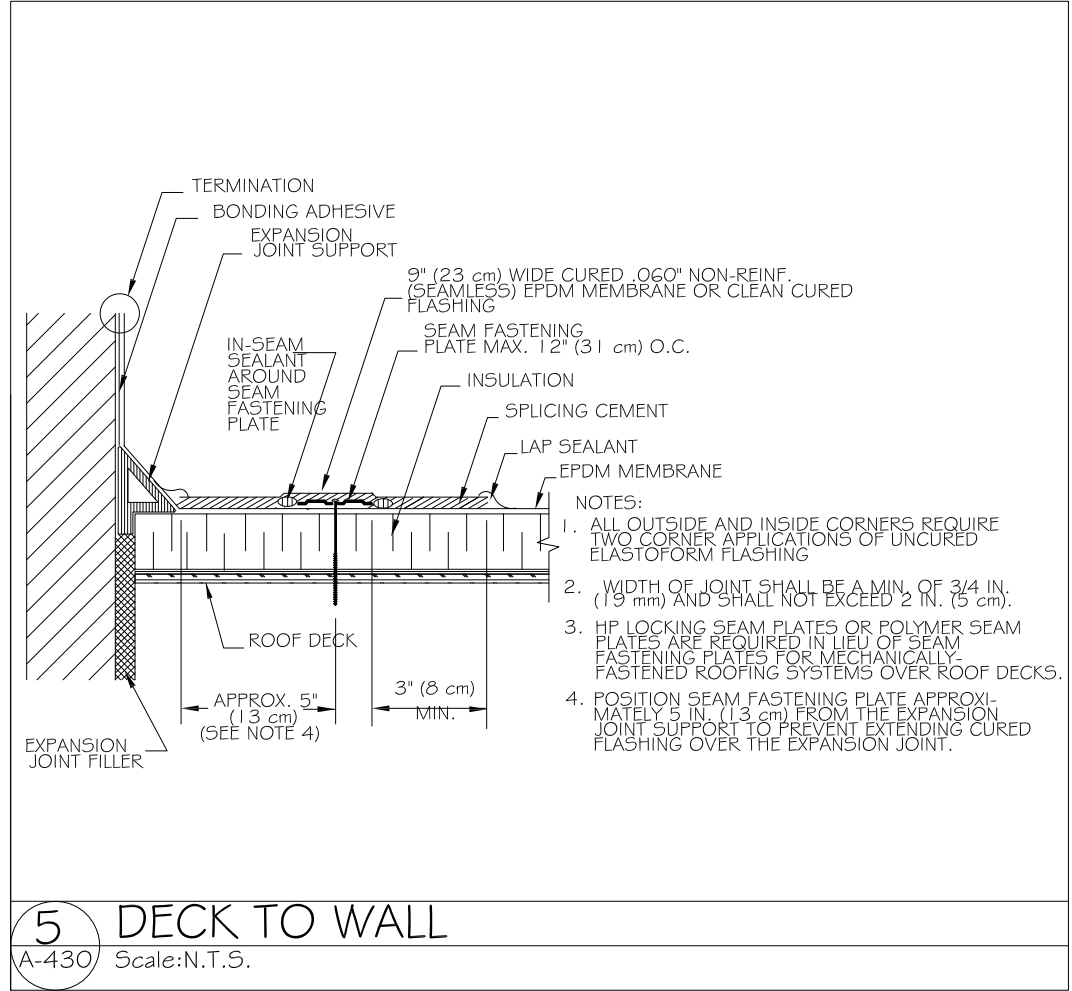
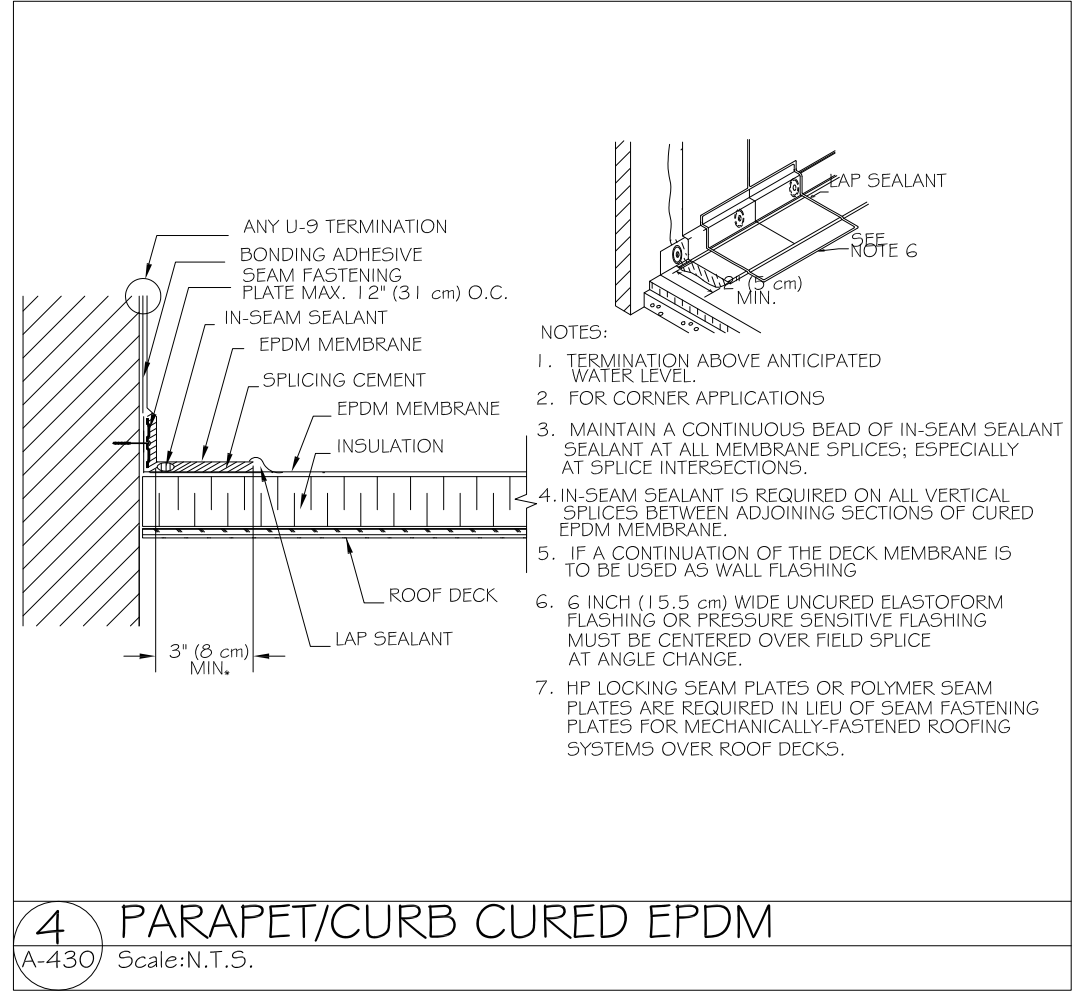
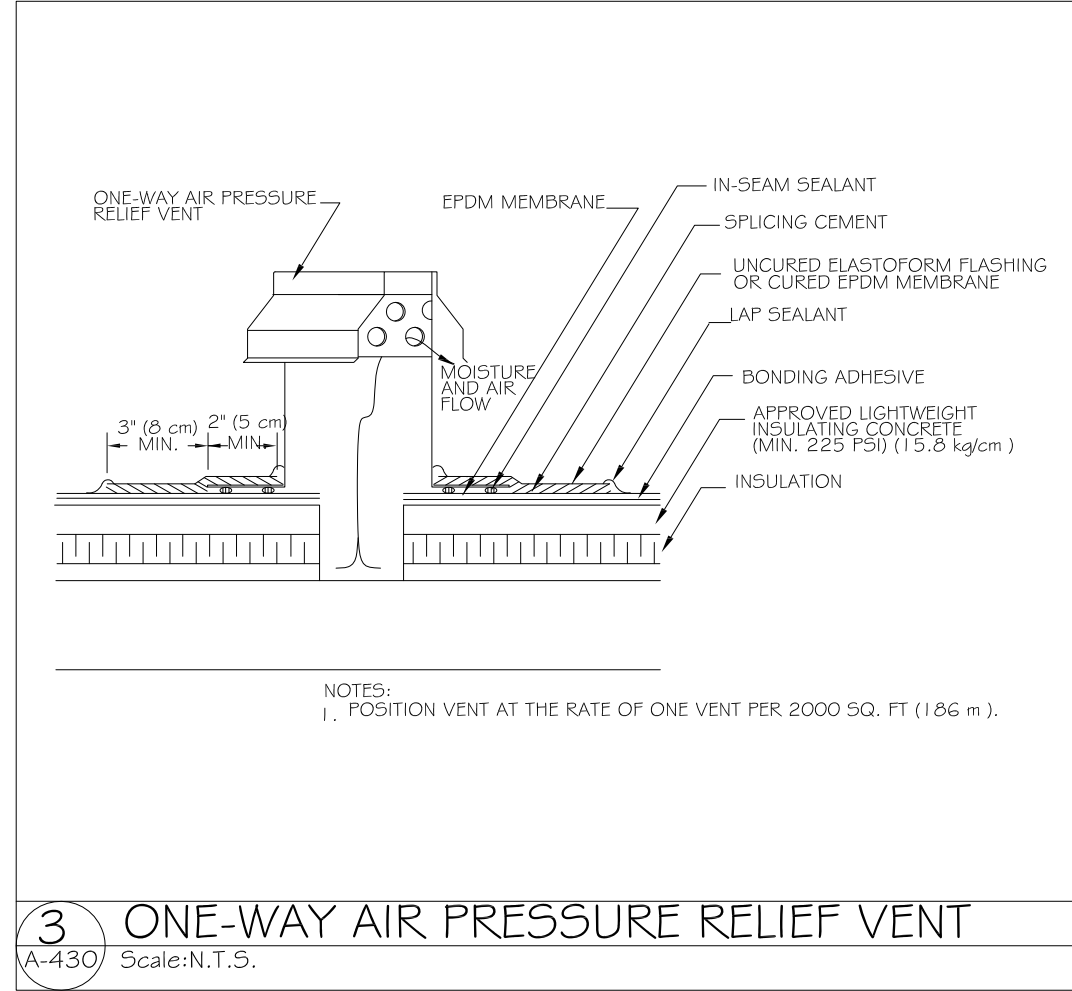
ARCHITECT



KHALSA

17 WALDO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-8682 FAX: 617-991-2086

CONSULTANTS:



COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale N.T.S.

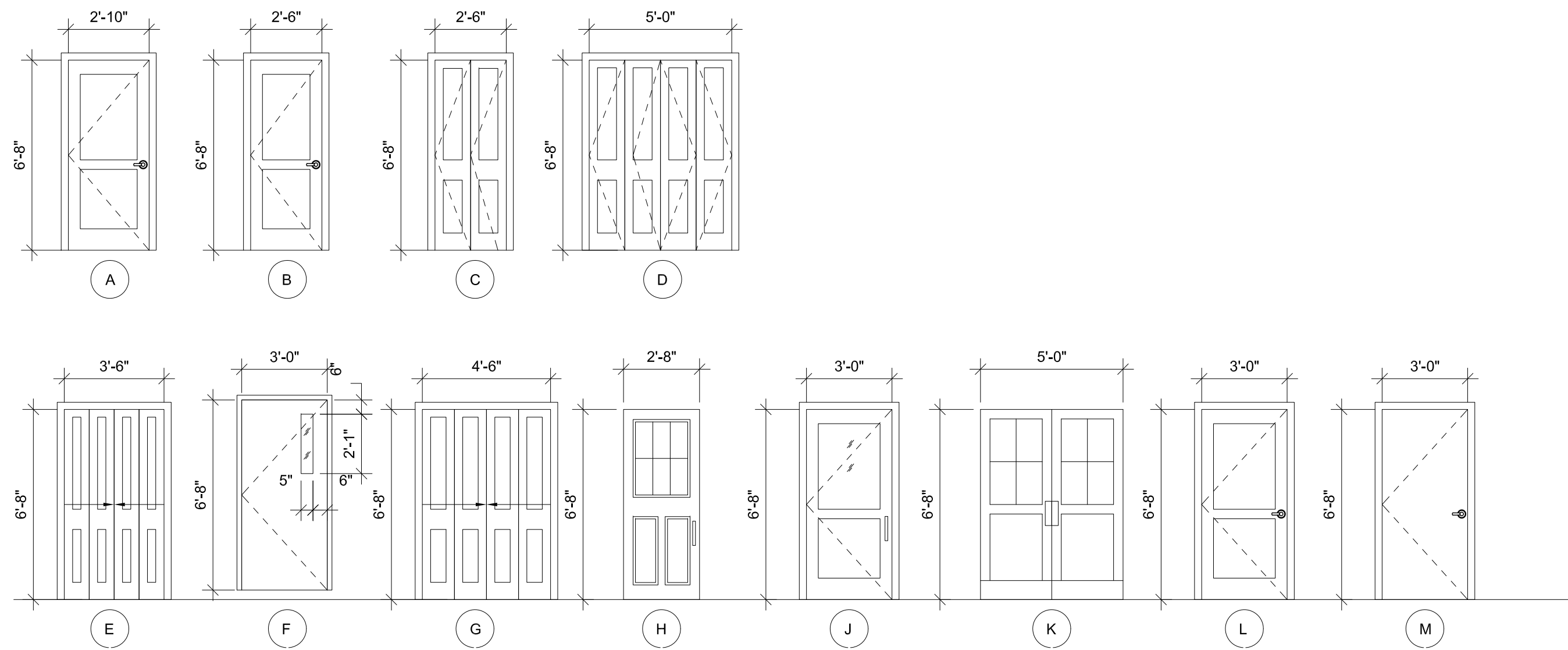
REVISIONS

No.	Description	Date

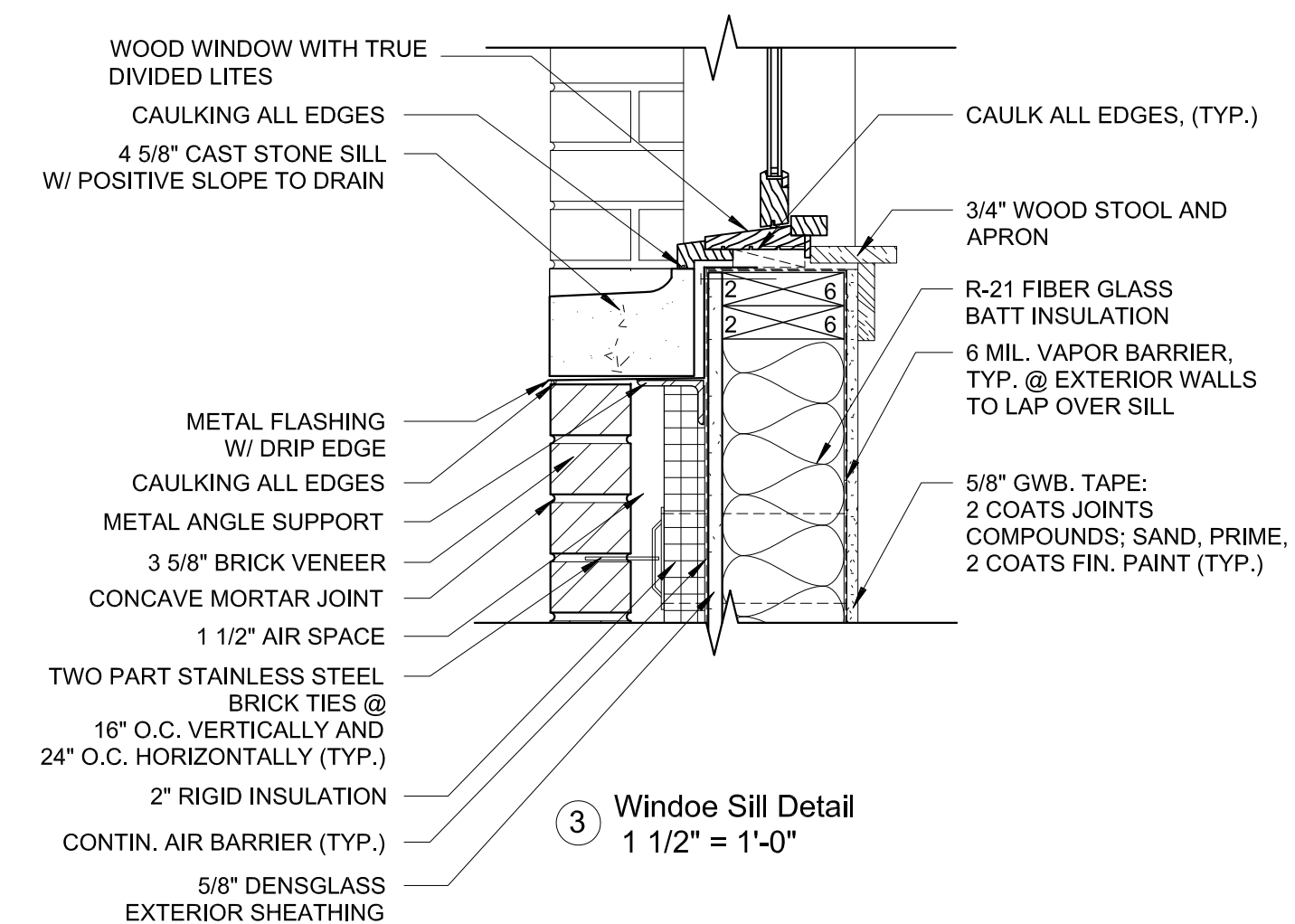
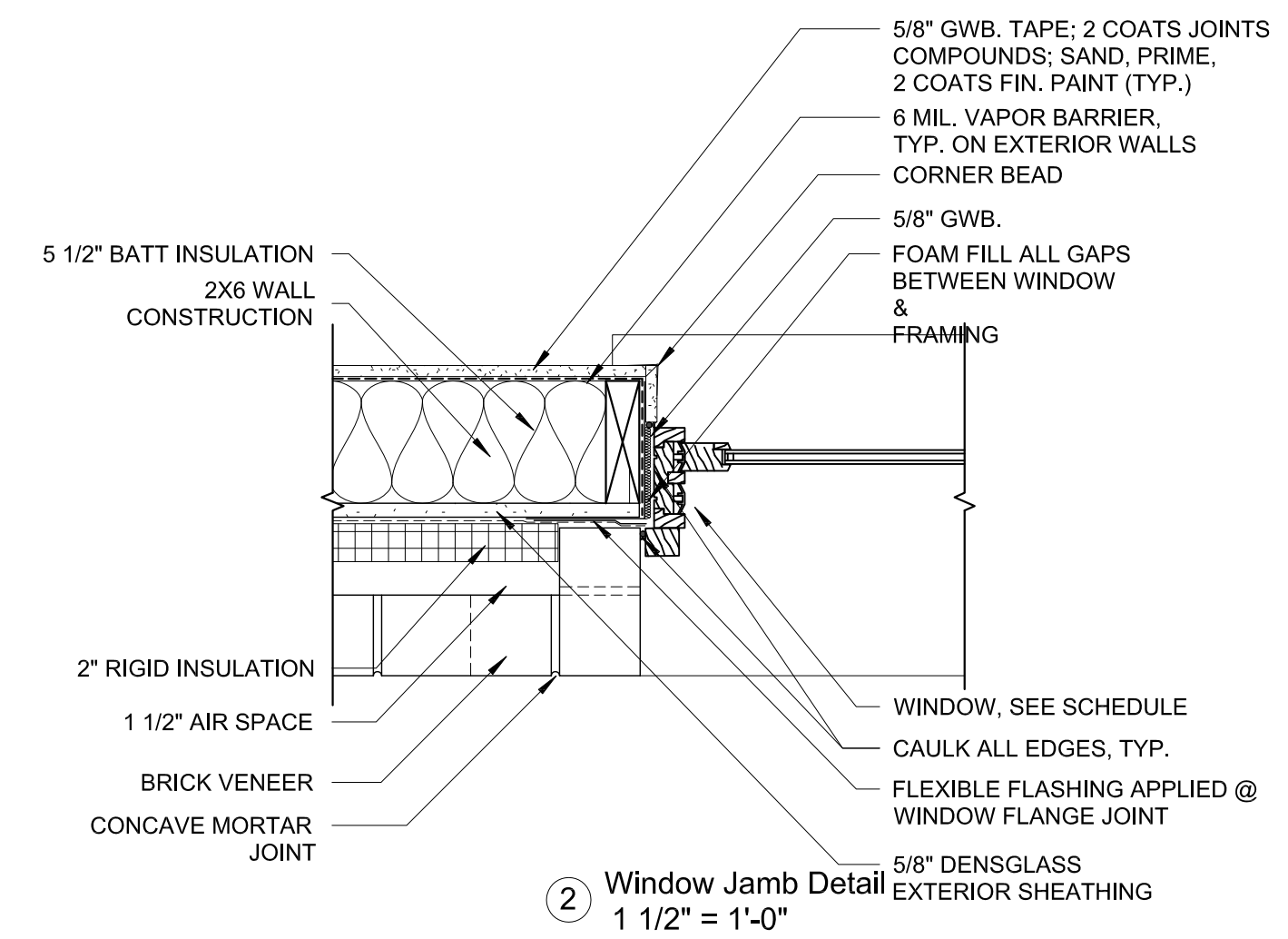
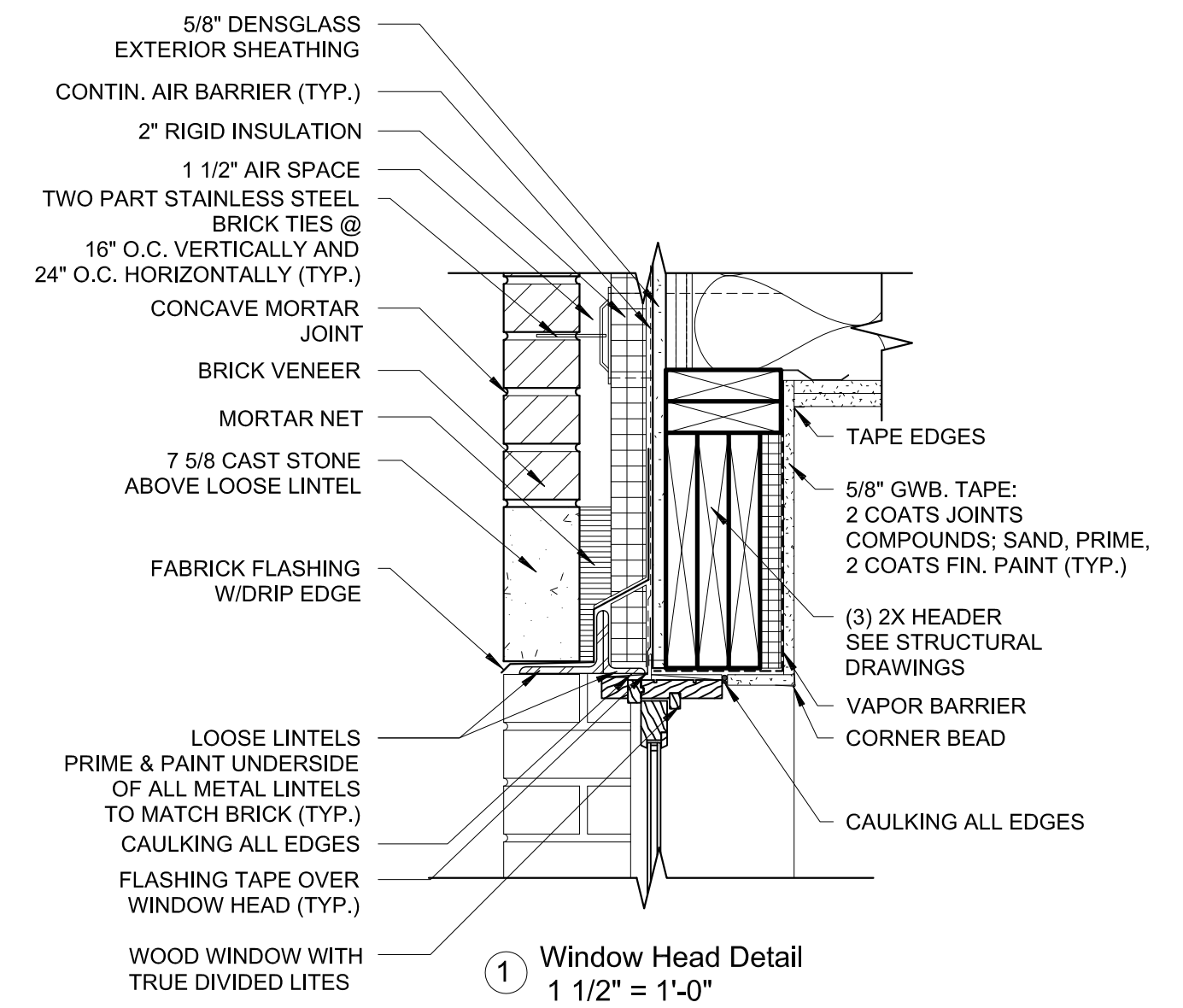
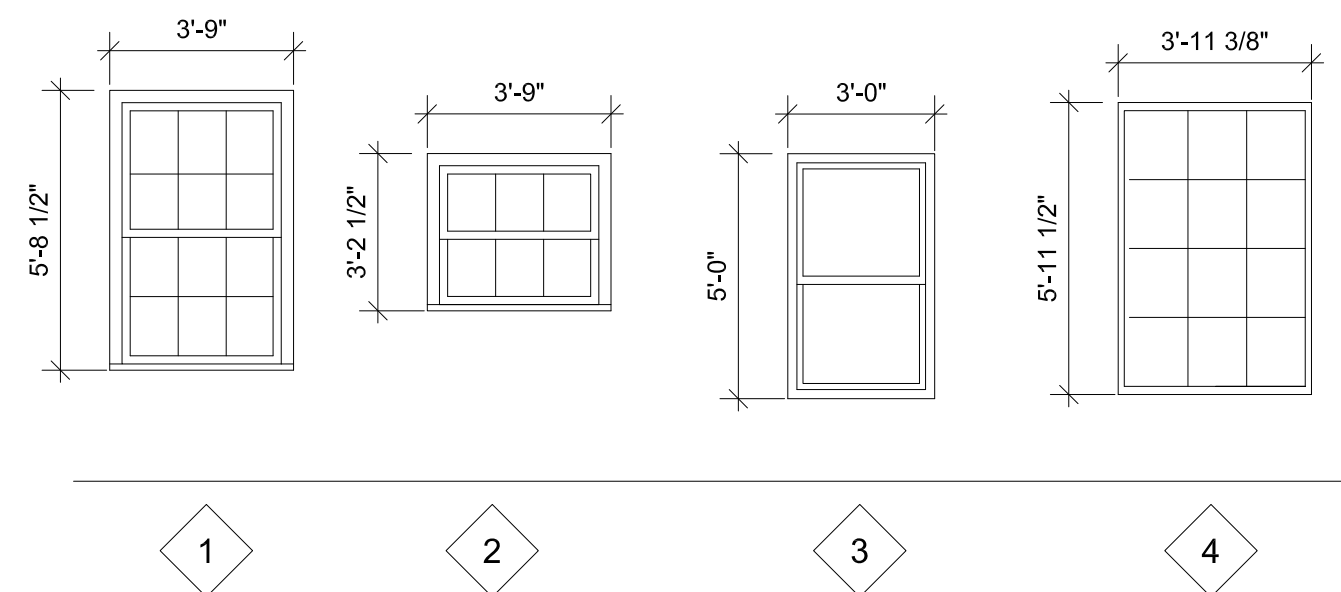
TYPICAL ROOF DETAILS

A-600
147-149 CHARLES

DOOR SCHEDULE									
DOOR TYPE	NOMINAL WIDTH	NOMINAL HEIGHT	Door Finish	STYLE	THICKNESS	FIRE RATING	Frame Material	HARDWARE	Comments
A	2'-10"	6'-8"	METAL - PAINTED	SINGLE HINGED	0' - 1 1/2"	20 Min	METAL	CLOSER	UNIT ENTRY
B	2'-6"	6'-8"	WOOD - PAINTED	SINGLE HINGED	0' - 1 3/4"	none	WOOD	PRIVACY	INTERIOR DOOR
C	2'-6"	6'-8"	WOOD - PAINTED	BIFOLD-SINGLE	0' - 1 1/2"	none	WOOD	PULL KNOB	INTERIOR DOOR
D	5'-0"	6'-8"	WOOD - PAINTED	BIFOLD-SINGLE	0' - 1 1/2"	none	WOOD	PULL KNOB	INTERIOR DOOR
E	3'-6"	6'-8"	WOOD - PAINTED	SLIDING	0' - 2"	none	WOOD	FINGER SLOT	INTERIOR DOOR
F	3'-0"	6'-8"	METAL - PAINTED	SINGLE HINGED	0' - 1 3/4"	90 Min	METAL	CLOSER	STAIR DOOR
G	4'-6"	6'-8"	WOOD - PAINTED	SLIDING	0' - 1 1/2"	none	WOOD	FINGER SLOT	INTERIOR DOOR
H	2'-8"	6'-8"	WOOD - PAINTED	SINGLE HINGED	0' - 1 1/2"	none	WOOD	CLOSER	EXTERIOR DOOR TRUE DIVIDED LITE
J	3'-0"	6'-8"	WOOD - PAINTED	SINGLE HINGED	0' - 1 1/2"	none	WOOD	CLOSER	VESTIBULE HALF LITE
K	5'-0"	6'-8"	WOOD - PAINTED	SINGLE HINGED	0' - 1 1/2"	none	WOOD	CLOSER	EXTERIOR DOOR TRUE DIVIDED LITE
L	3'-0"	6'-8"	STAINLESS STEEL	SWINGING	0' - 1 1/2"	none	WOOD	CLOSER	KITCHEN UTILITY
M	3'-0"	6'-8"	METAL - PAINTED	SINGLE HINGED	0' - 1 1/2"	none	WOOD	CLOSER	UTILITY



Window Schedule							
Type Mark	Rough Opening		Type	Detail			Comments
	Width	Height		Head	Jamb	Sill	
1	3' - 9"	5' - 8 1/2"	DOUBLE HUNG	1/A-700	2/A-700	3/A-700	6 OVER 6 WOOD TRUE DIVIDED LIGHT
2	3' - 9"	3' - 2 1/2"	DOUBLE HUNG	1/A-700	2/A-700	3/A-700	3 OVER 3 WOOD TRUE DIVIDED LIGHT
3	3' - 0"	5' - 0"	DOUBLE HUNG	1/A-700	2/A-700	3/A-700	
4	3' - 11 3/8"	5' - 11 1/2"	PICTURE				WOOD 12 PANE TRUE DIVIDED LIGHT



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT
DESIGN

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

CONSULTANTS:

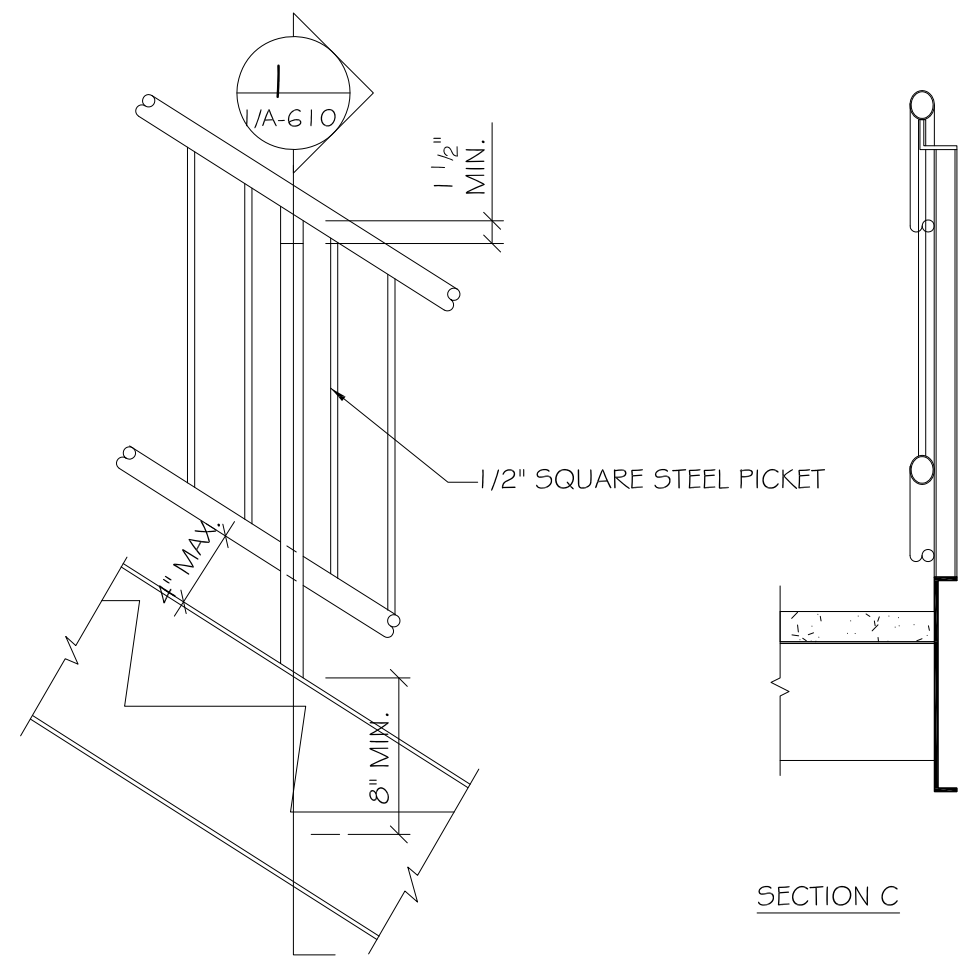
COPYRIGHT KDI © 2019
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR ANY
FORM OF REPRODUCTION OF THIS DESIGN
IN WHOLE OR IN PART WITHOUT EXPRESS
WRITTEN CONSENT IS PROHIBITED AND
SHALL RESULT IN THE FULLEST EXTENT OF
PROSECUTION UNDER LAW

REGISTRATION

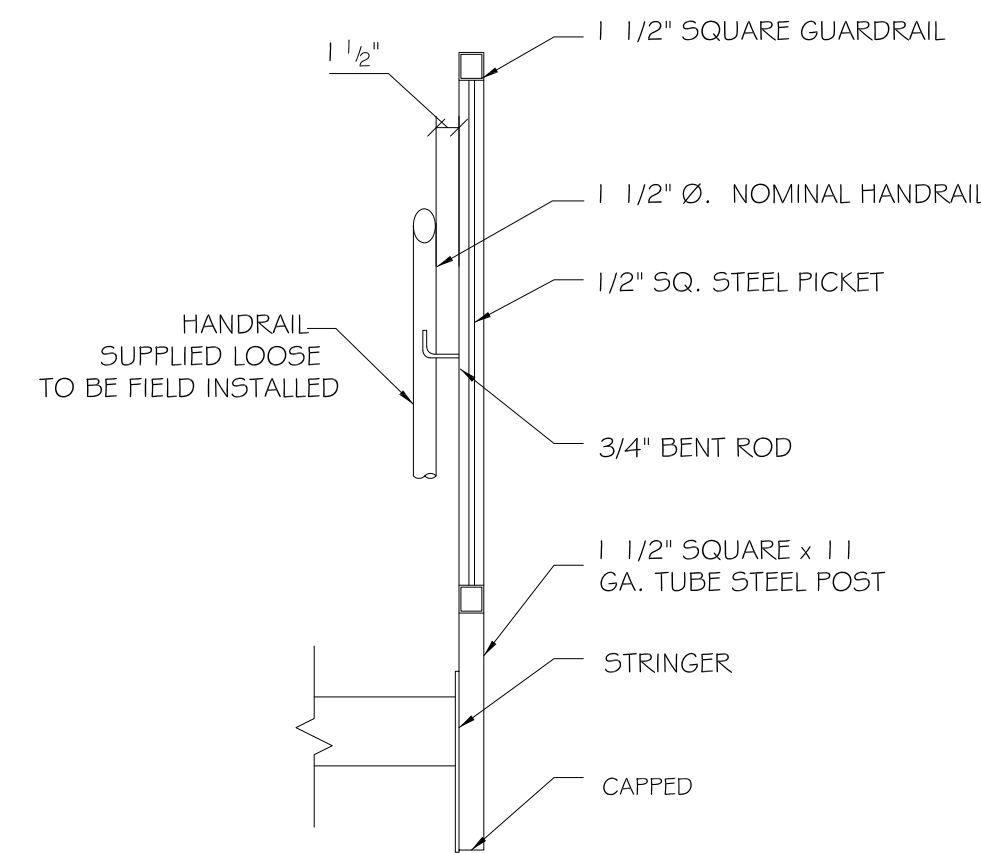
Project number 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale AS SHOWN

REVISIONS		
No.	Description	Date

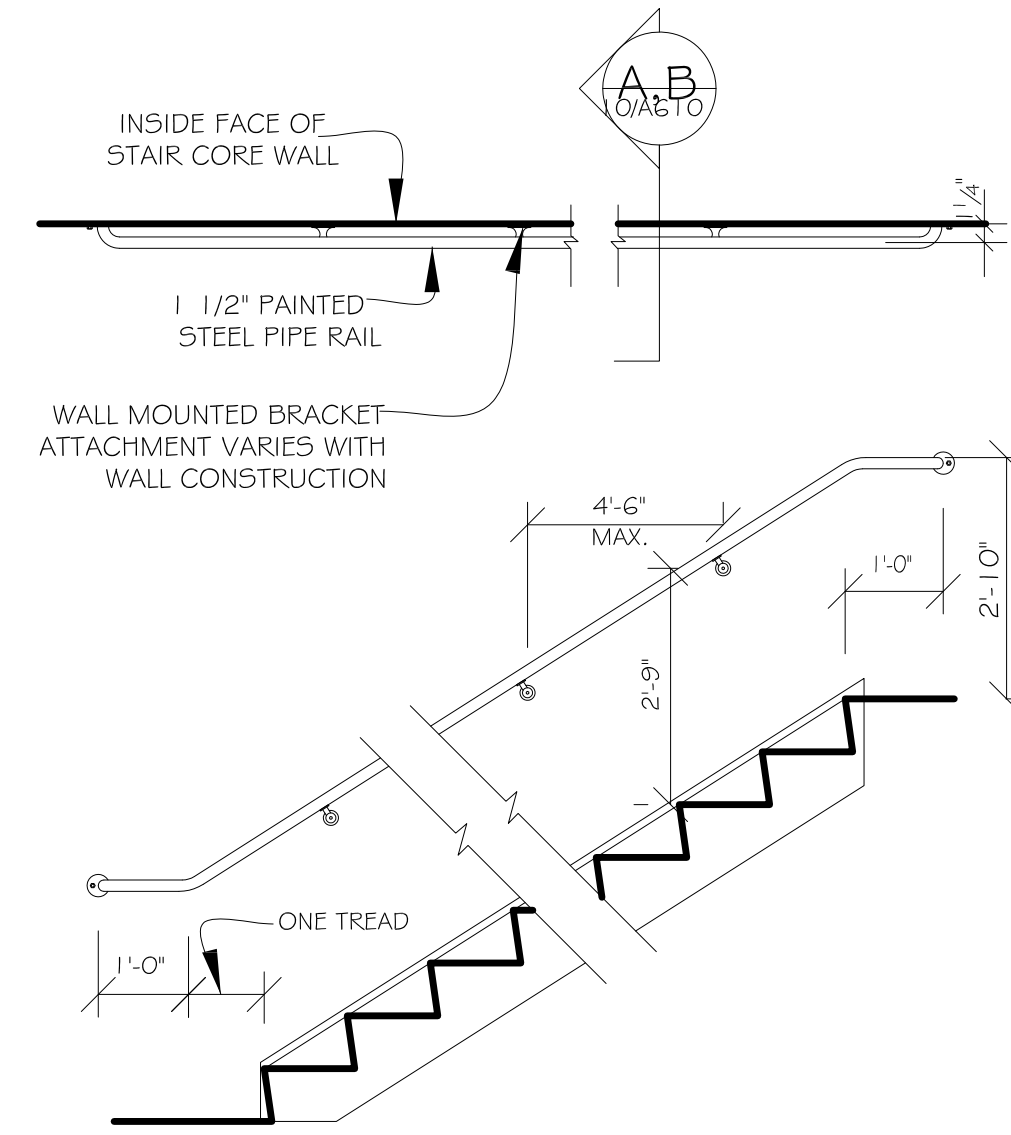
DOOR &
WINDOW
SCHEDULES &
DETAILS
A-700
147-149 CHARLES



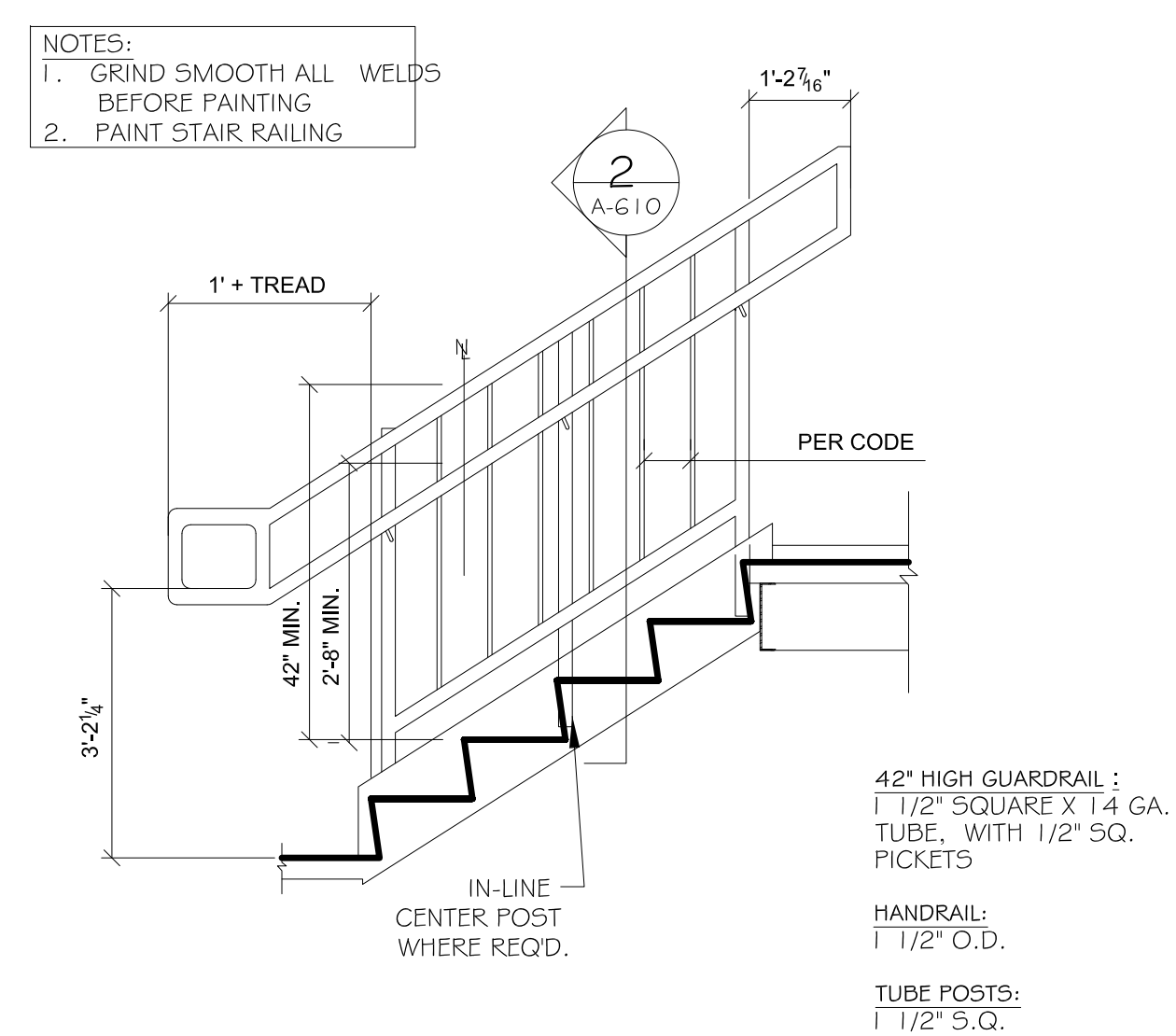
1 TYP. POST CONDITION
A-610 SCALE: 1" = 1'-0"



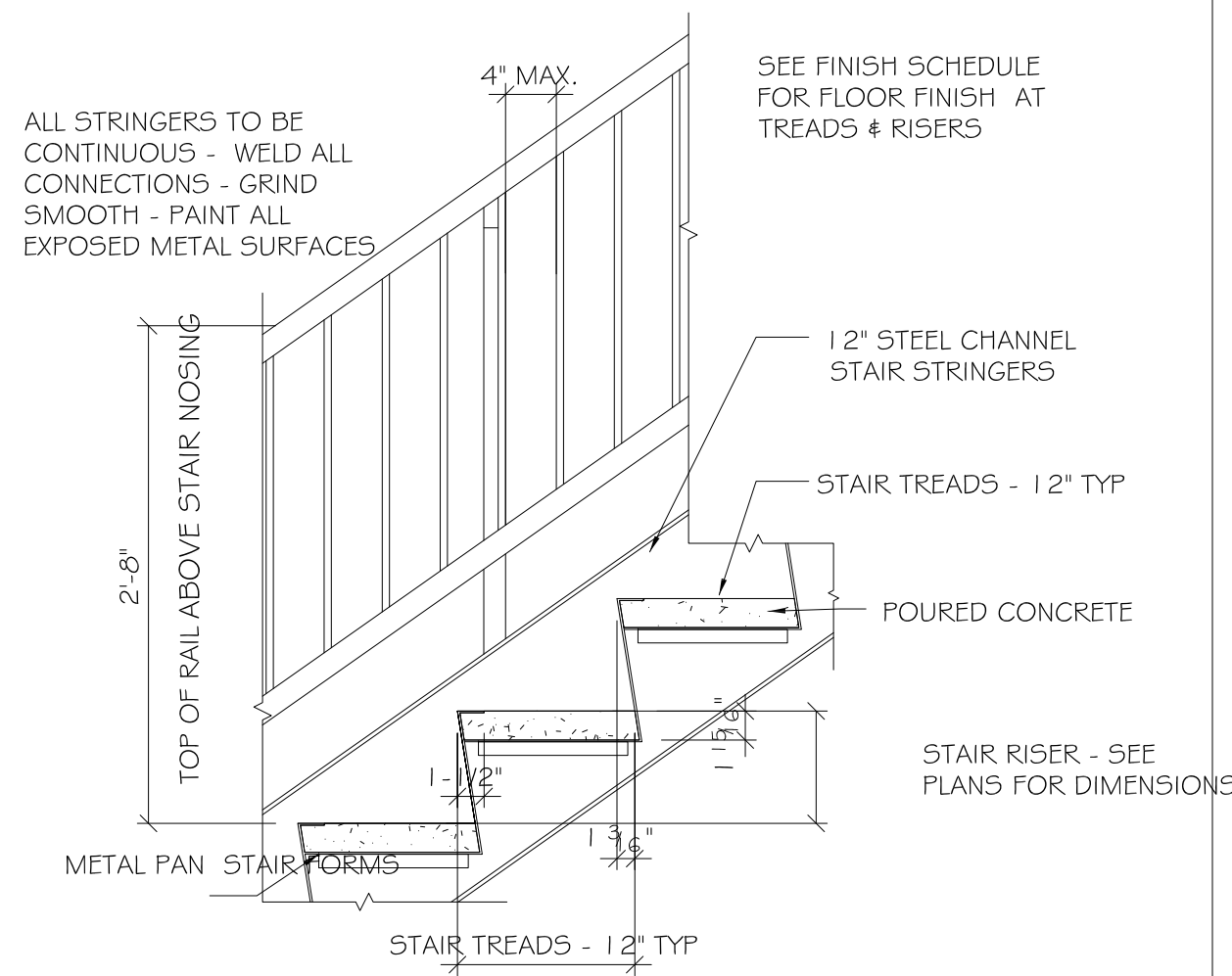
2 TYP. RAILING SECTION
A-610 SCALE: 1" = 1'-0"



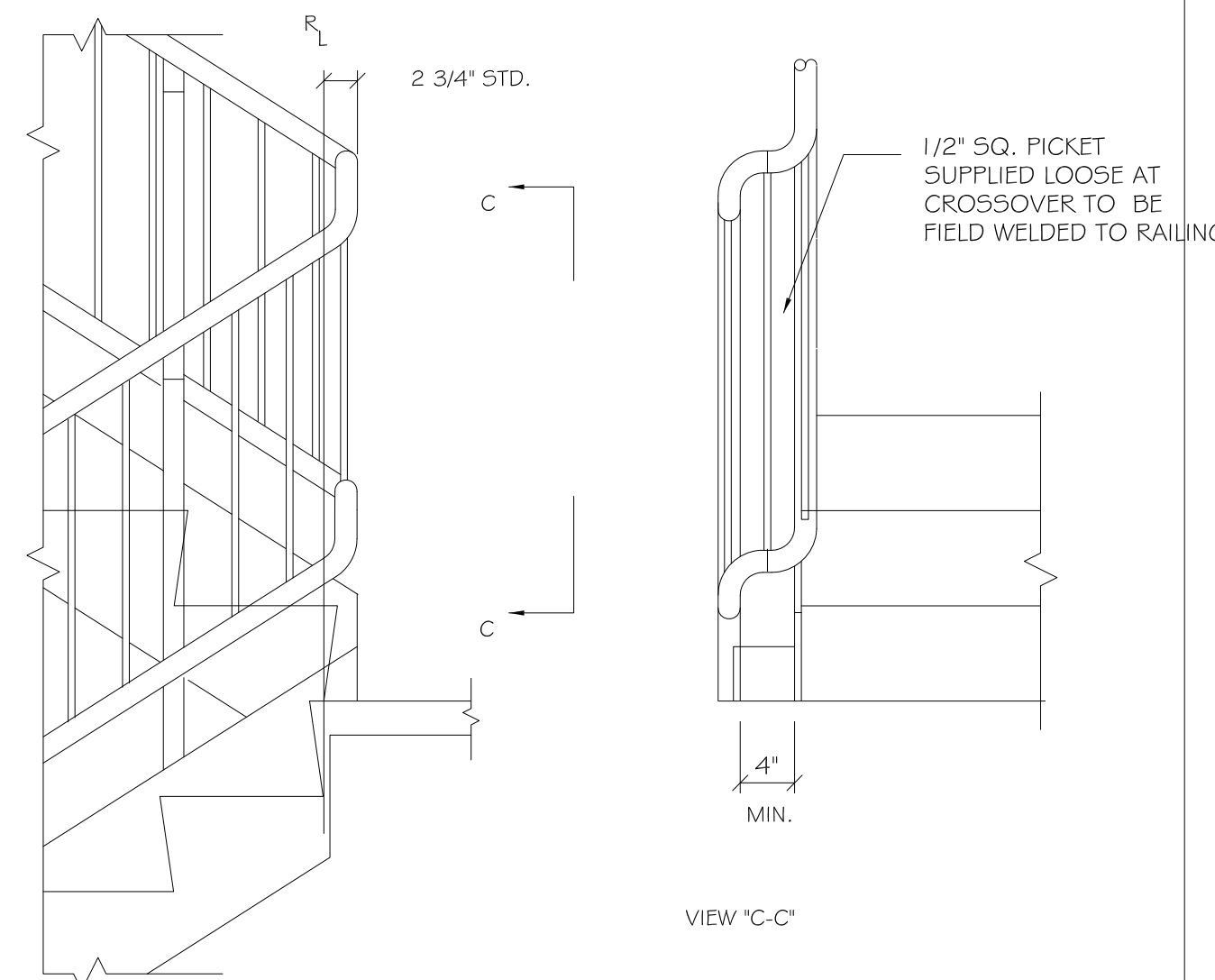
3 TYP. WALL RAIL DETAILS
A-610 SCALE: 1/2" = 1'-0"



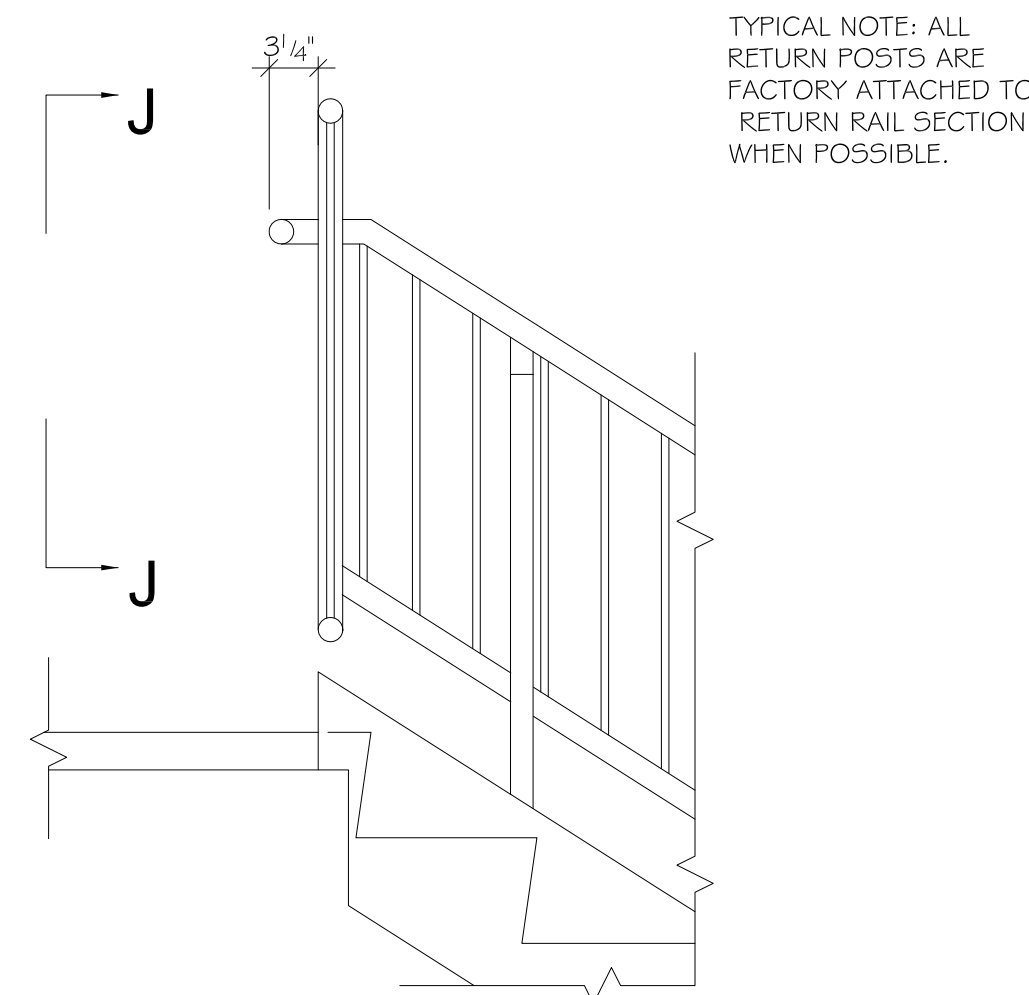
4 TYP. STAIR RAILING
A-610 SCALE: 1/2" = 1'-0"



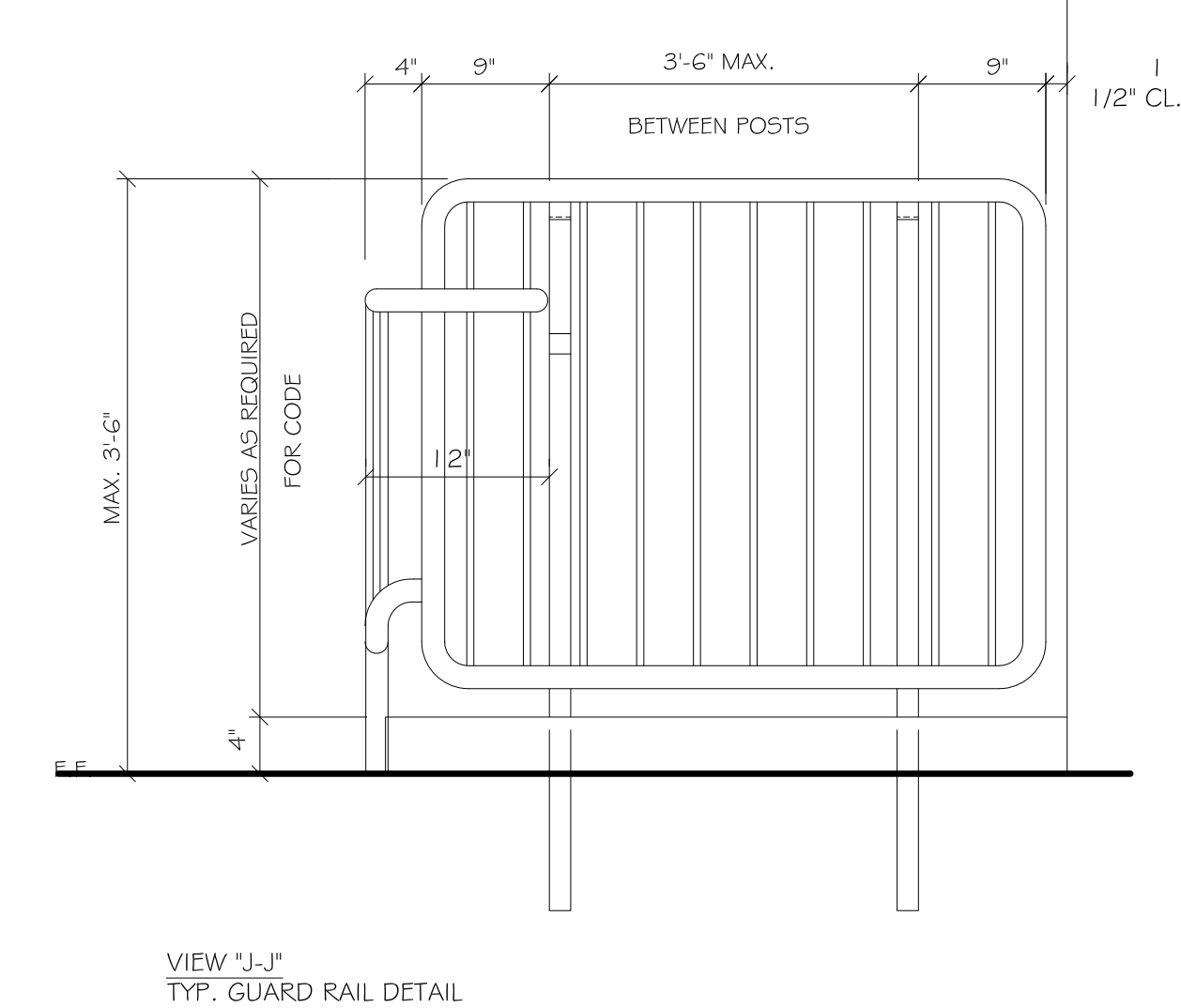
5 TYP. CONC. FILLED METAL PAN STAIR
A-610 SCALE: N.T.S.



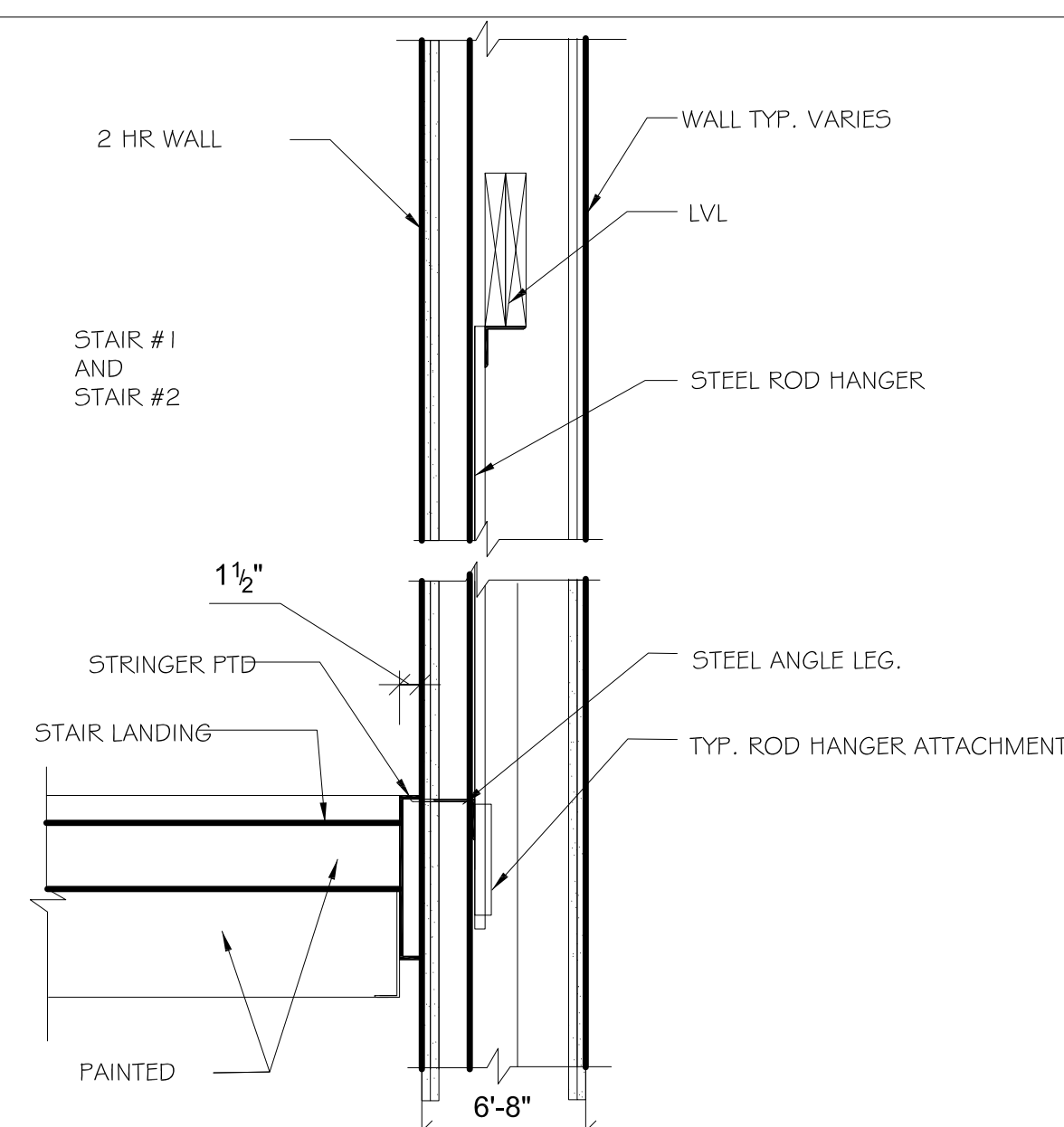
6 TYP. CROSSOVER CONDITION
A-610 SCALE: 1" = 1'-0"



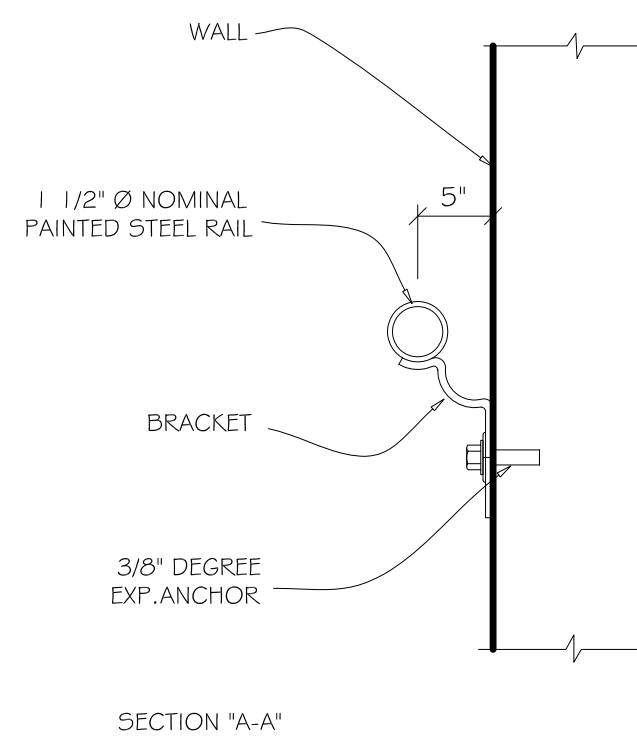
7 TYP. RETURN RAIL CONDITION
A-610 SCALE: 1" = 1'-0"



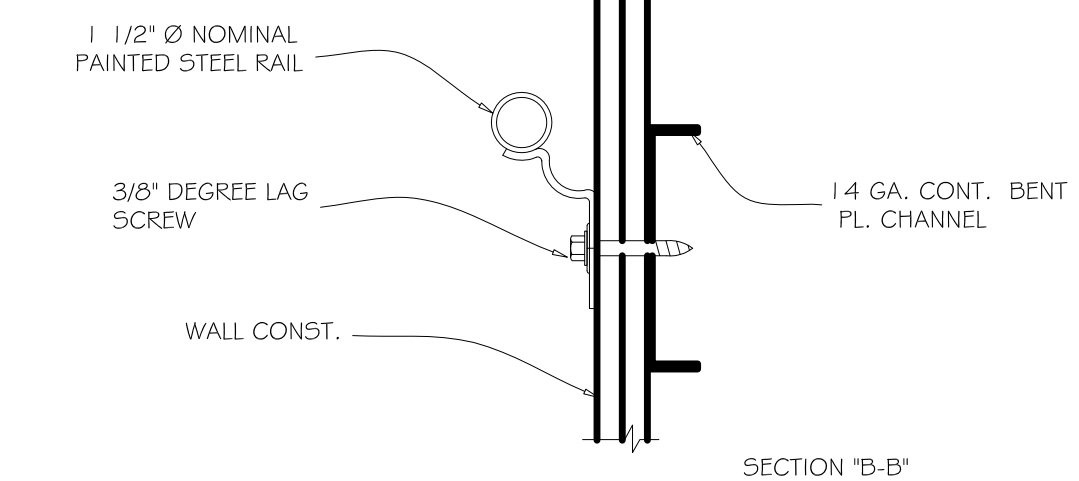
VIEW "J-J"
TYP. GUARD RAIL DETAIL



9 TYP. STL. HANGER FOR STAIR STRINGER
A-610 SCALE: 3/4" = 1'-0"



10 TYP. SECTIONS THROUGH RAILING
A-610 SCALE: 1 1/2" = 1'-0"



SECTION "B-B"

8 NOT USED
A-610 SCALE: 1" = 1'-0"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA
17 IVALOO STREET, SUITE 400
SOMERVILLE, MA 02143
TELEPHONE 617-991-8682 FAX: 617-991-2086

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale N.T.S.

REVISIONS

No.	Description	Date

TYPICAL
STAIR
DETAILS

A-710

147-149 CHARLES

12 NOT USED
A-711 SCALE: 1" = 1'-0"

9 NOT USED
A-711 SCALE: 1" = 1'-0"

6 WALL HANDRAIL BRACKET MOUNTING
A-711 SCALE: 3" = 1'-0"

3 TYPICAL WALL HANDRAIL AT RESIDENTIAL UNIT
A-711 SCALE: 3/4" = 1'-0"

11 NOT USED
A-711 SCALE: 1" = 1'-0"

8 NOT USED
A-711 SCALE: 3" = 1'-0"

5 TYPICAL WOOD STAIR SECTION AT RESIDENTIAL UNIT
A-711 SCALE: 1" = 1'-0"

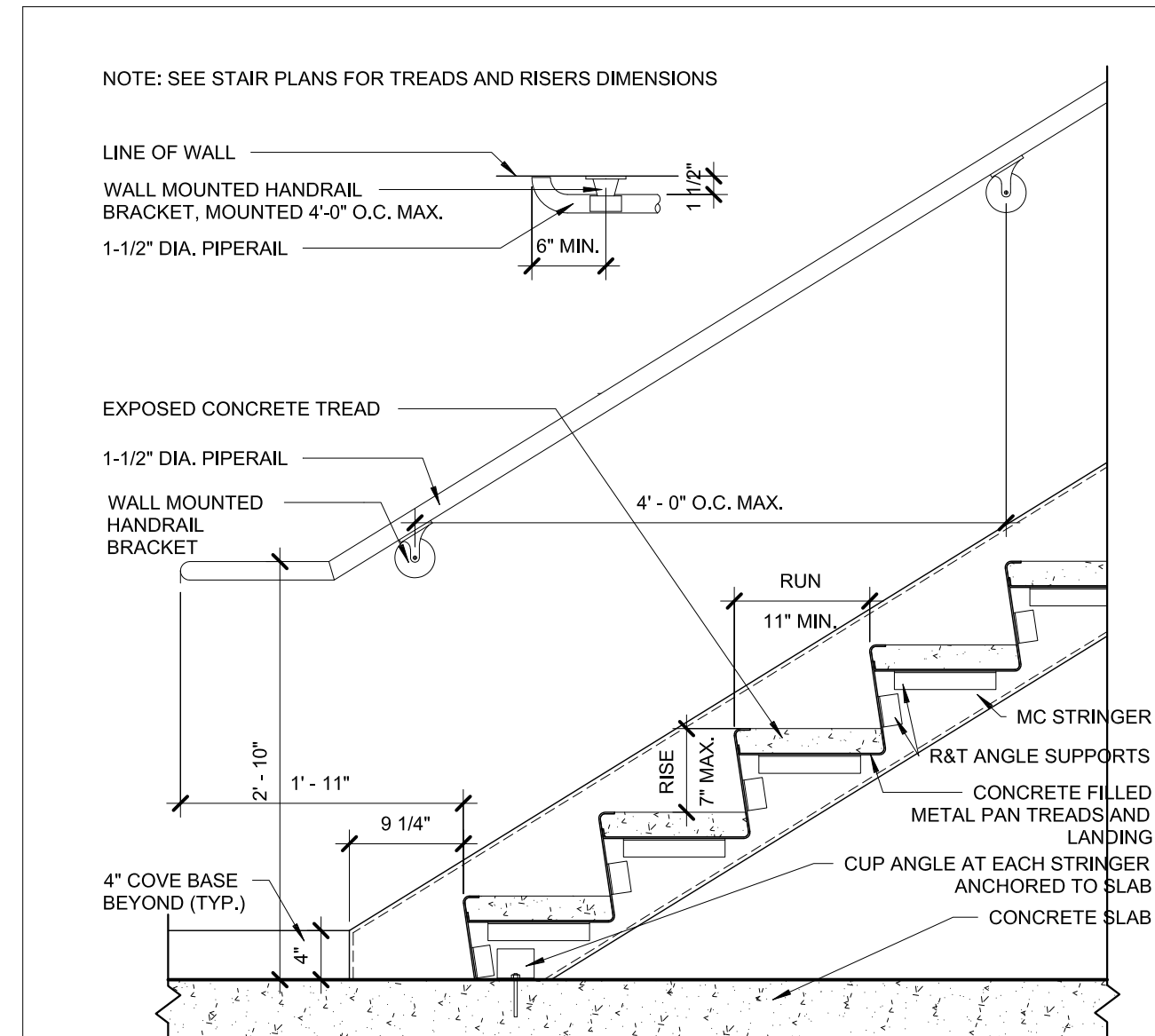
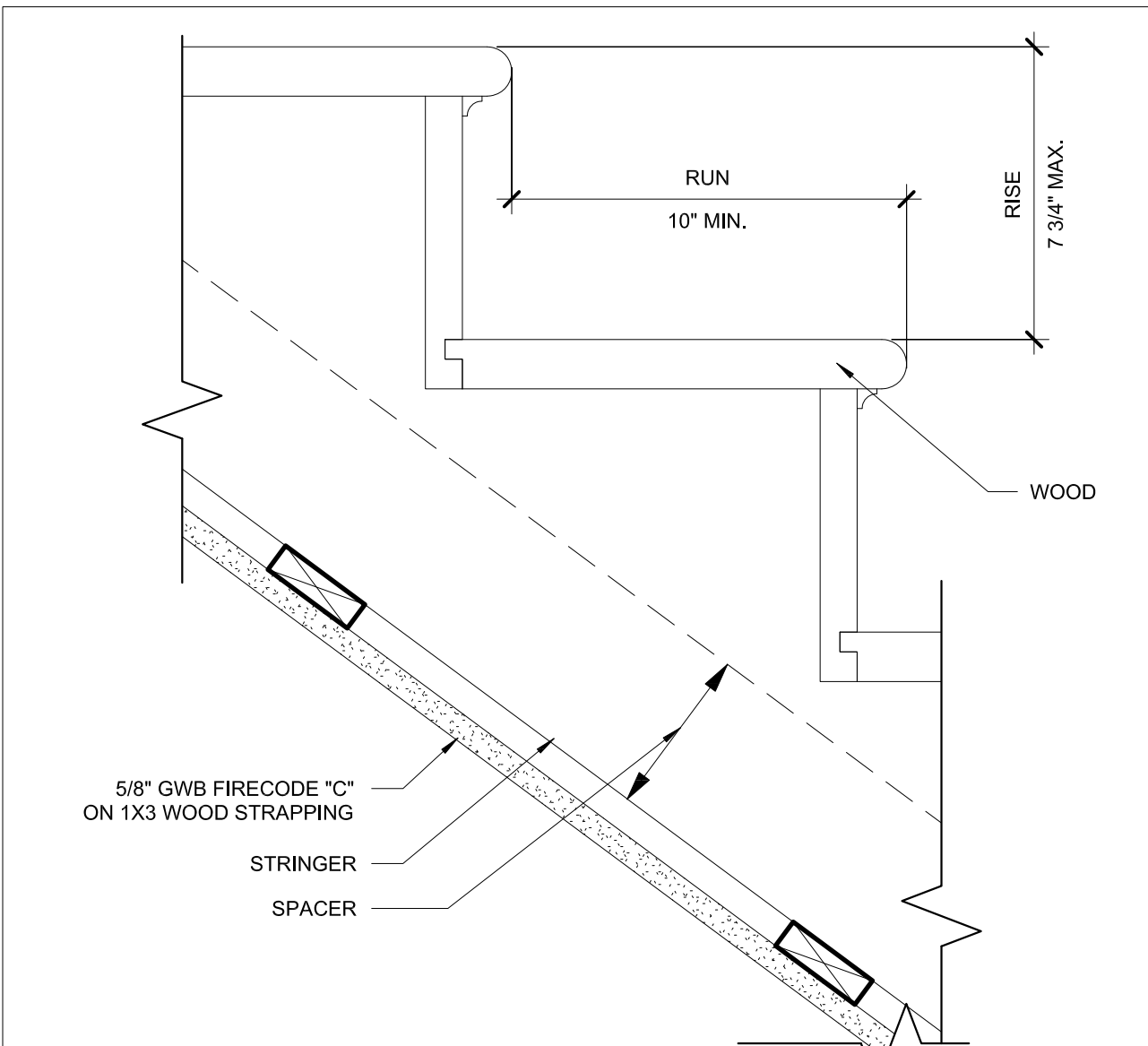
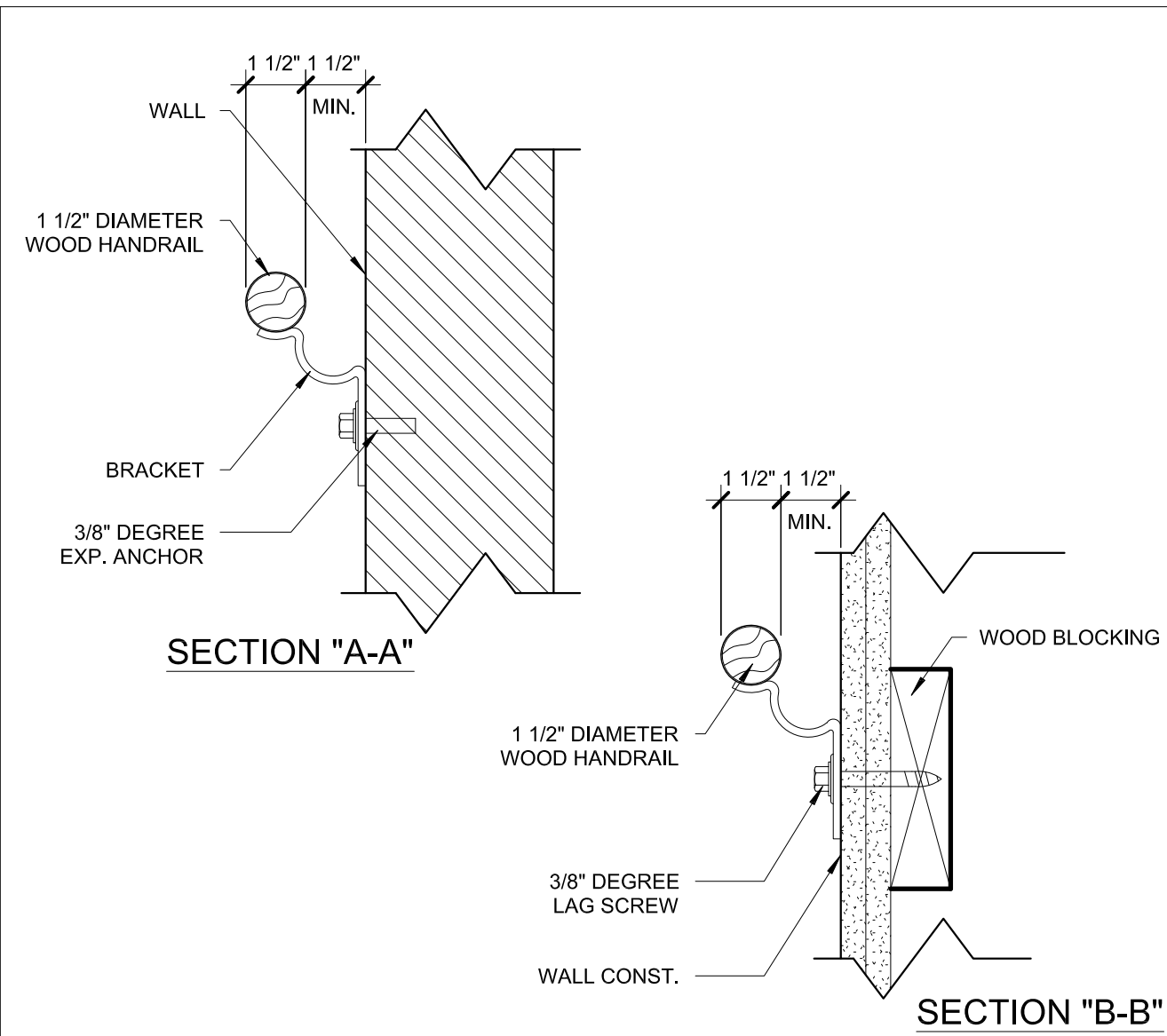
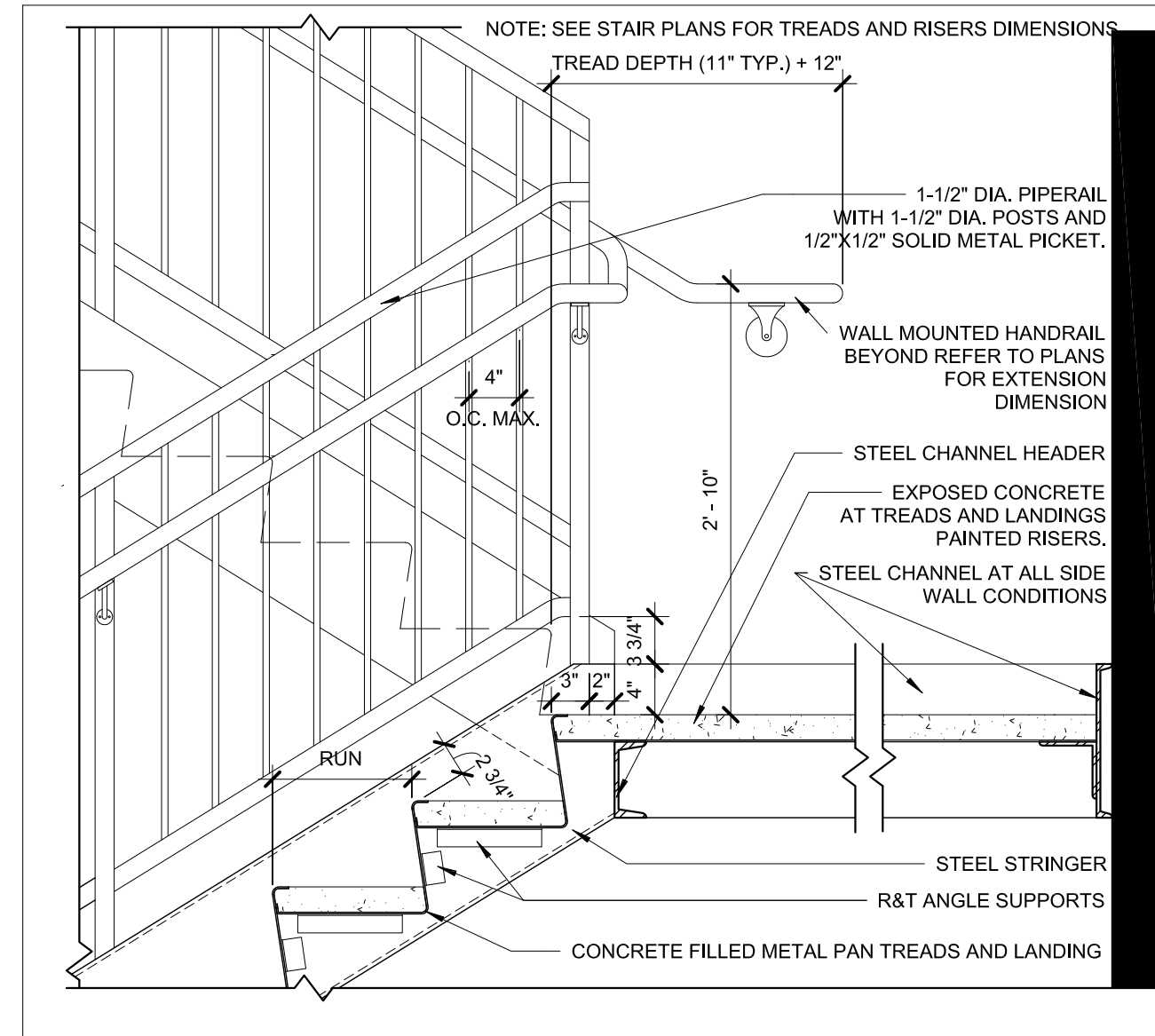
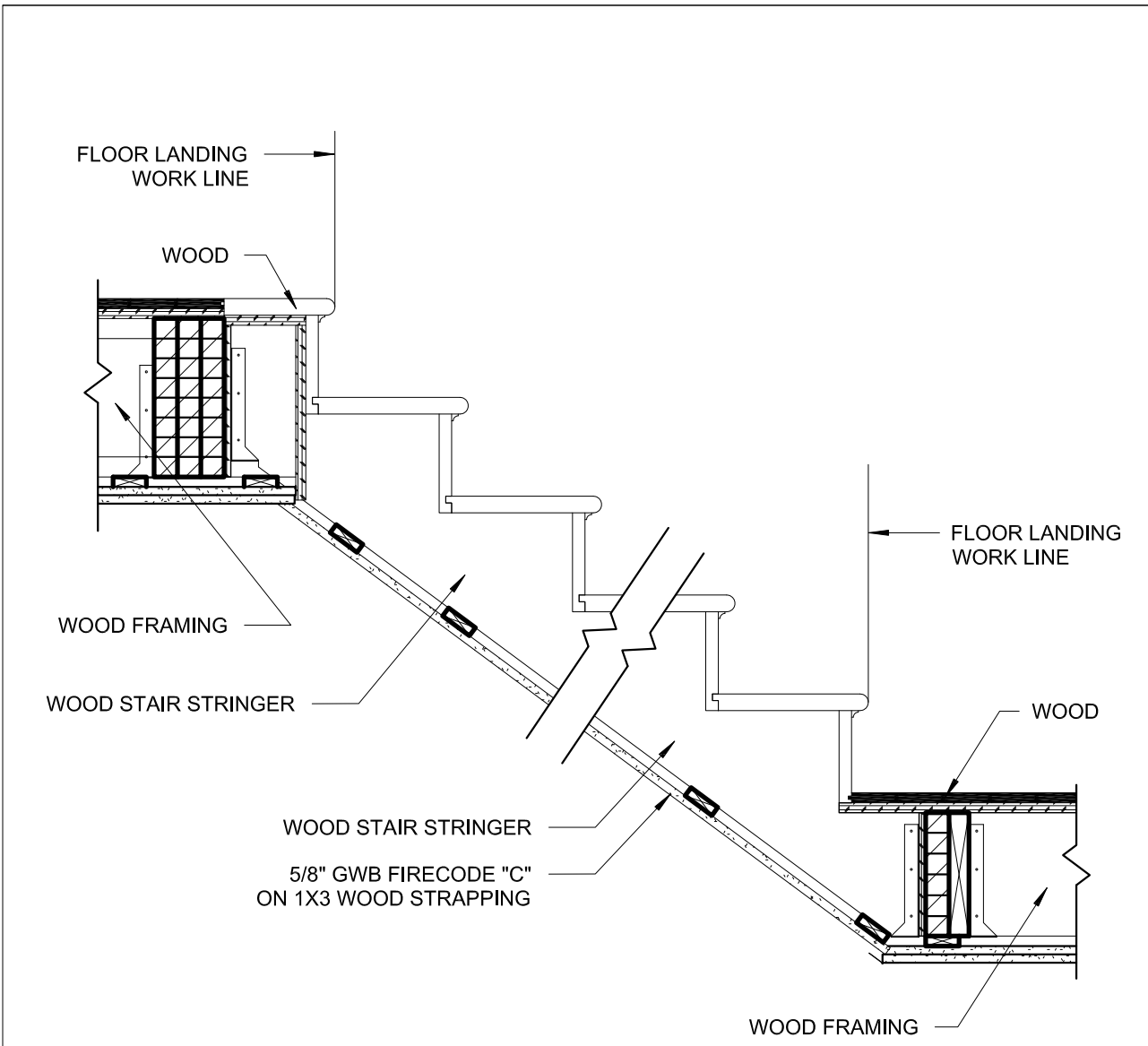
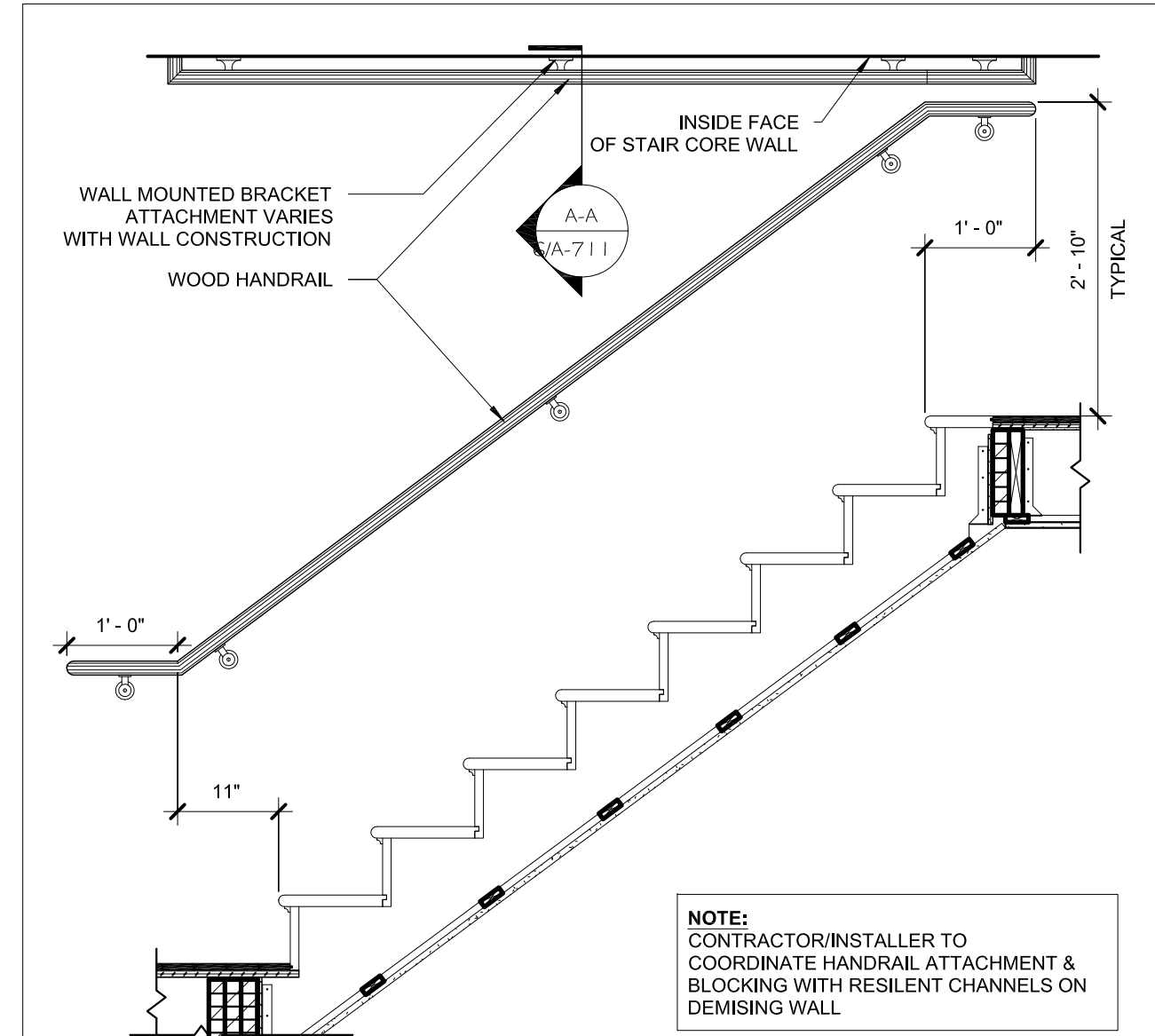
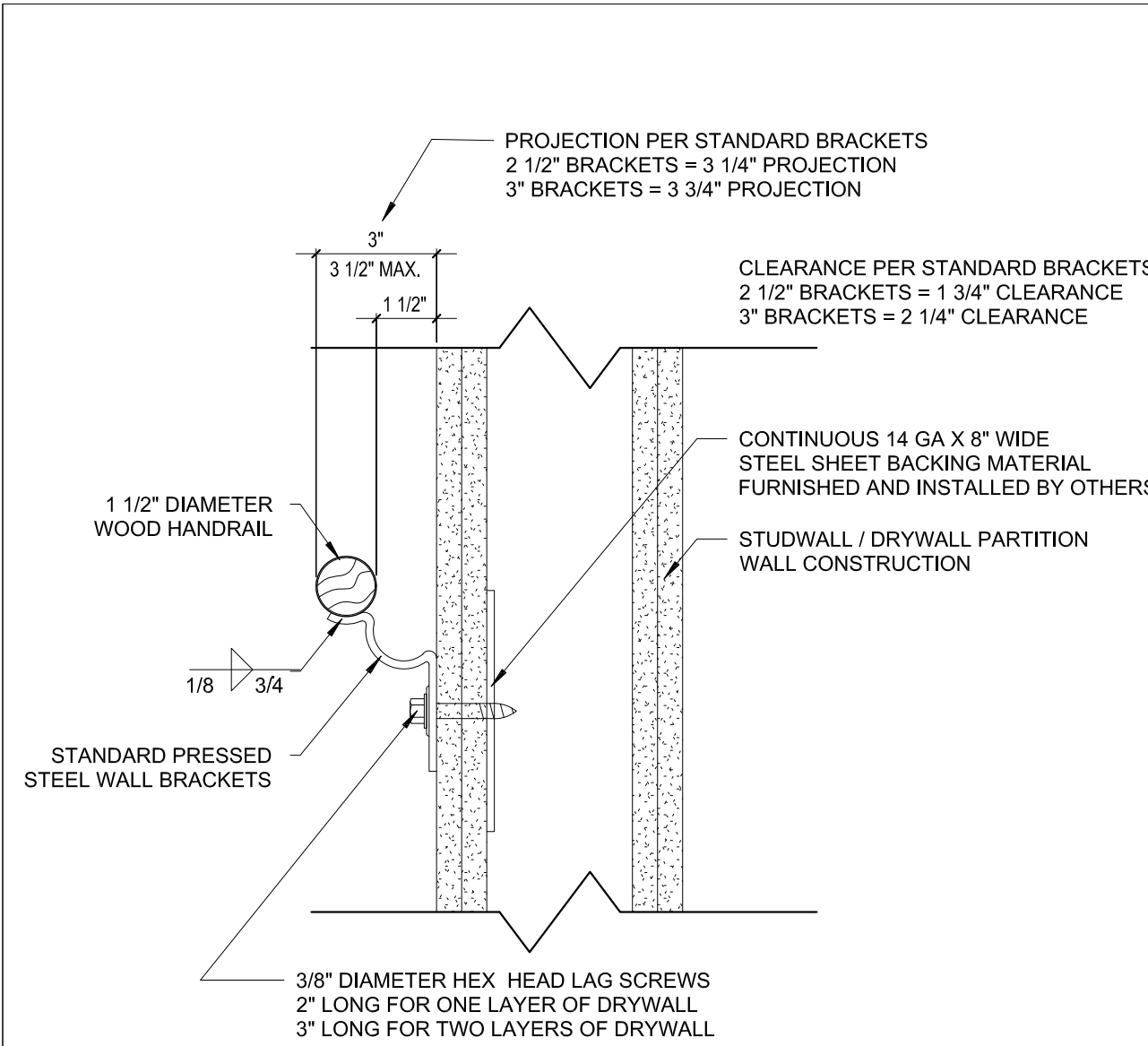
2 STAIR DETAIL @ LANDING AT STAIR #1, #2
A-711 SCALE: 1" = 1'-0"

10 NOT USED
A-711 SCALE: 1" = 1'-0"

7 WALL HANDRAIL BRACKET MOUNTING DETAILS
A-711 SCALE: 3" = 1'-0"

4 WOOD STAIR DETAIL AT RESIDENTIAL UNIT
A-711 SCALE: 3" = 1'-0"

1 STAIR DETAIL AT STAIR #1, #2
A-711 SCALE: 1" = 1'-0"



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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



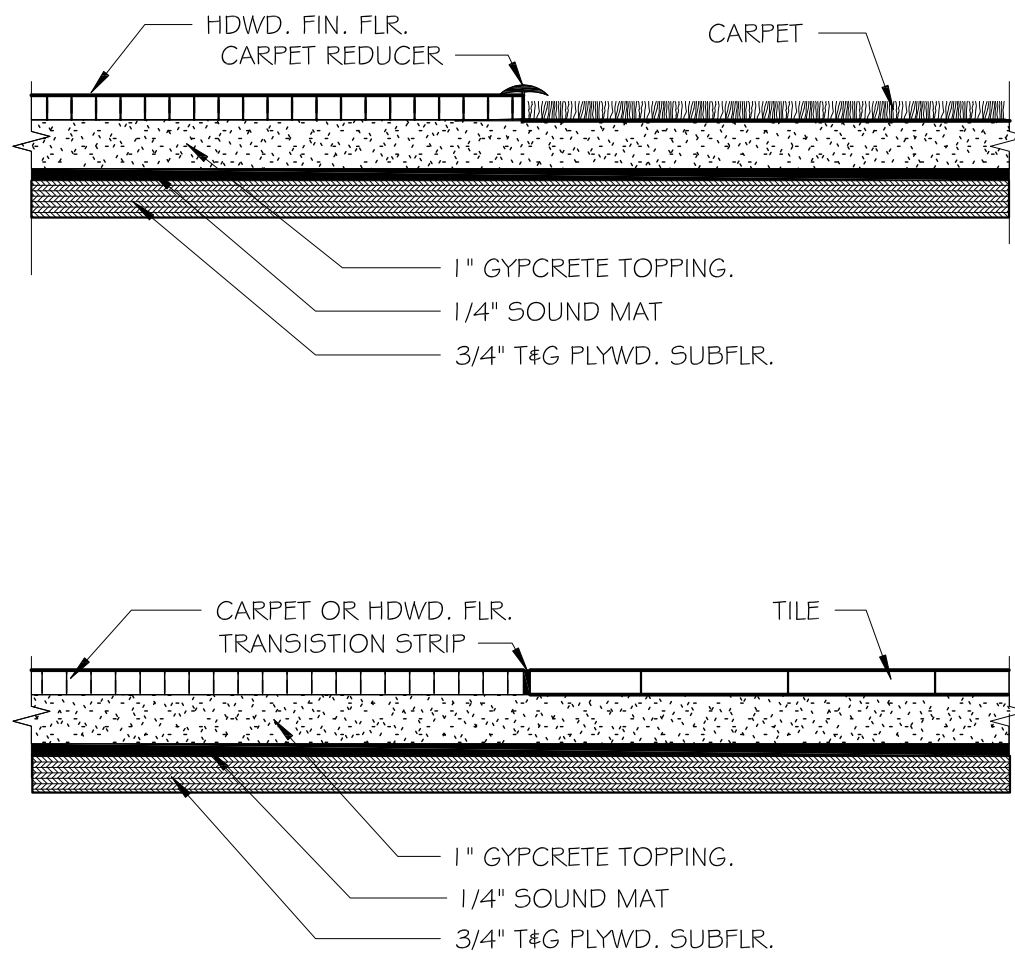
Project number 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale N.T.S.

REVISIONS

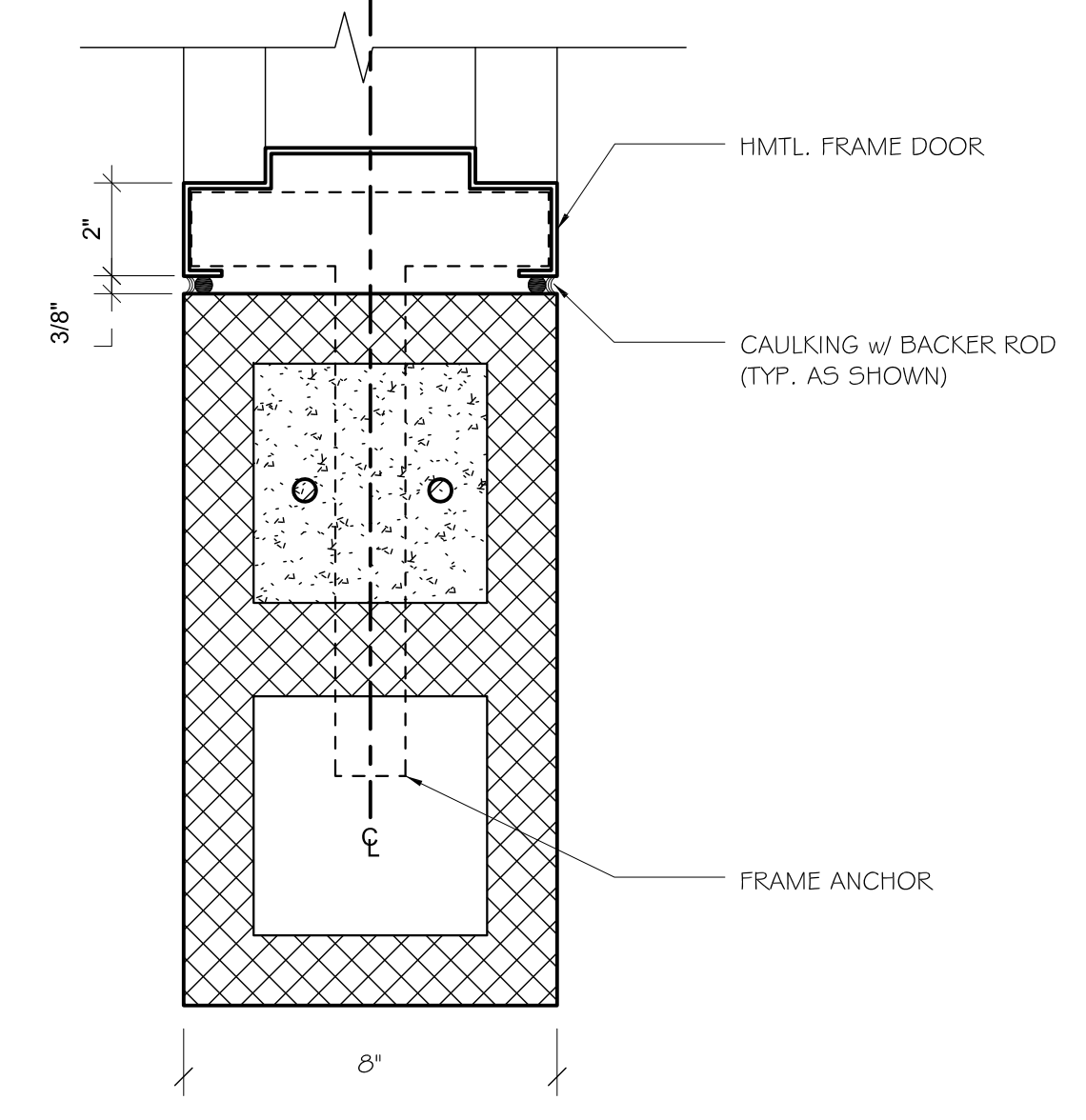
No.	Description	Date

TYPICAL
STAIR
DETAILS

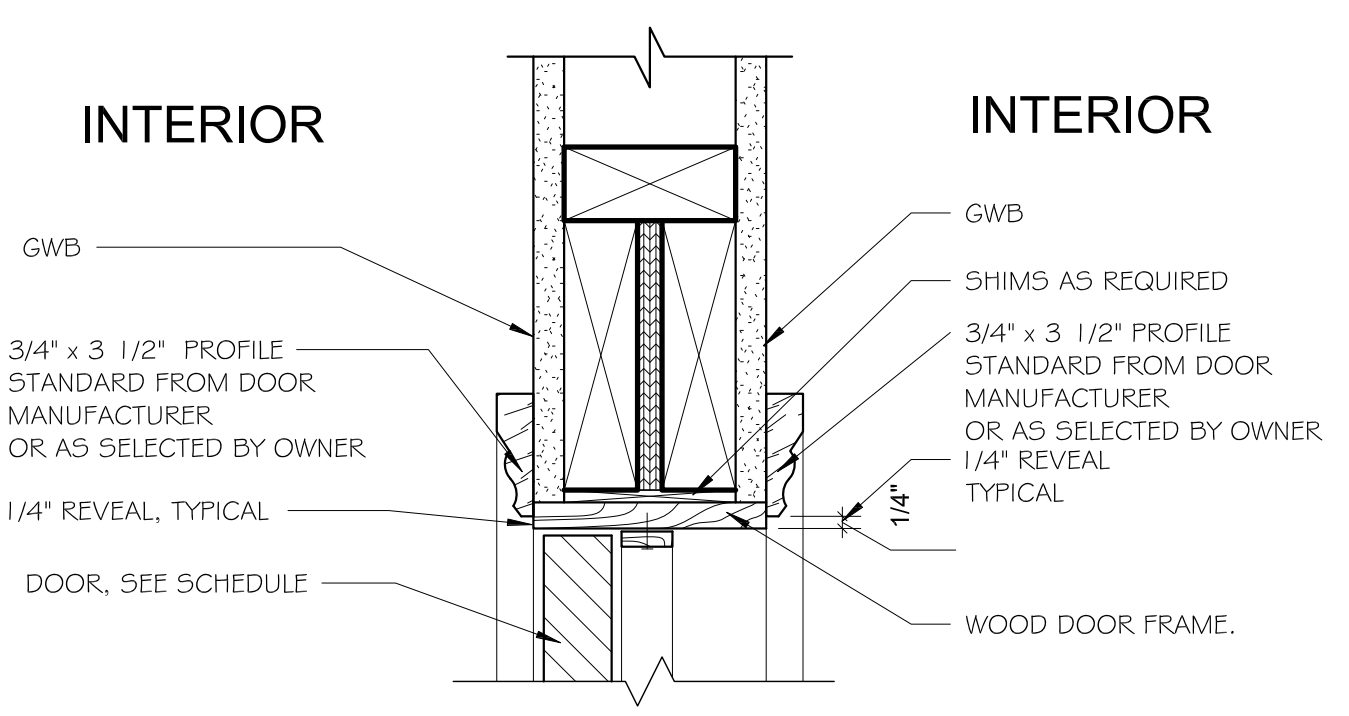
A-711
147-149 CHARLES



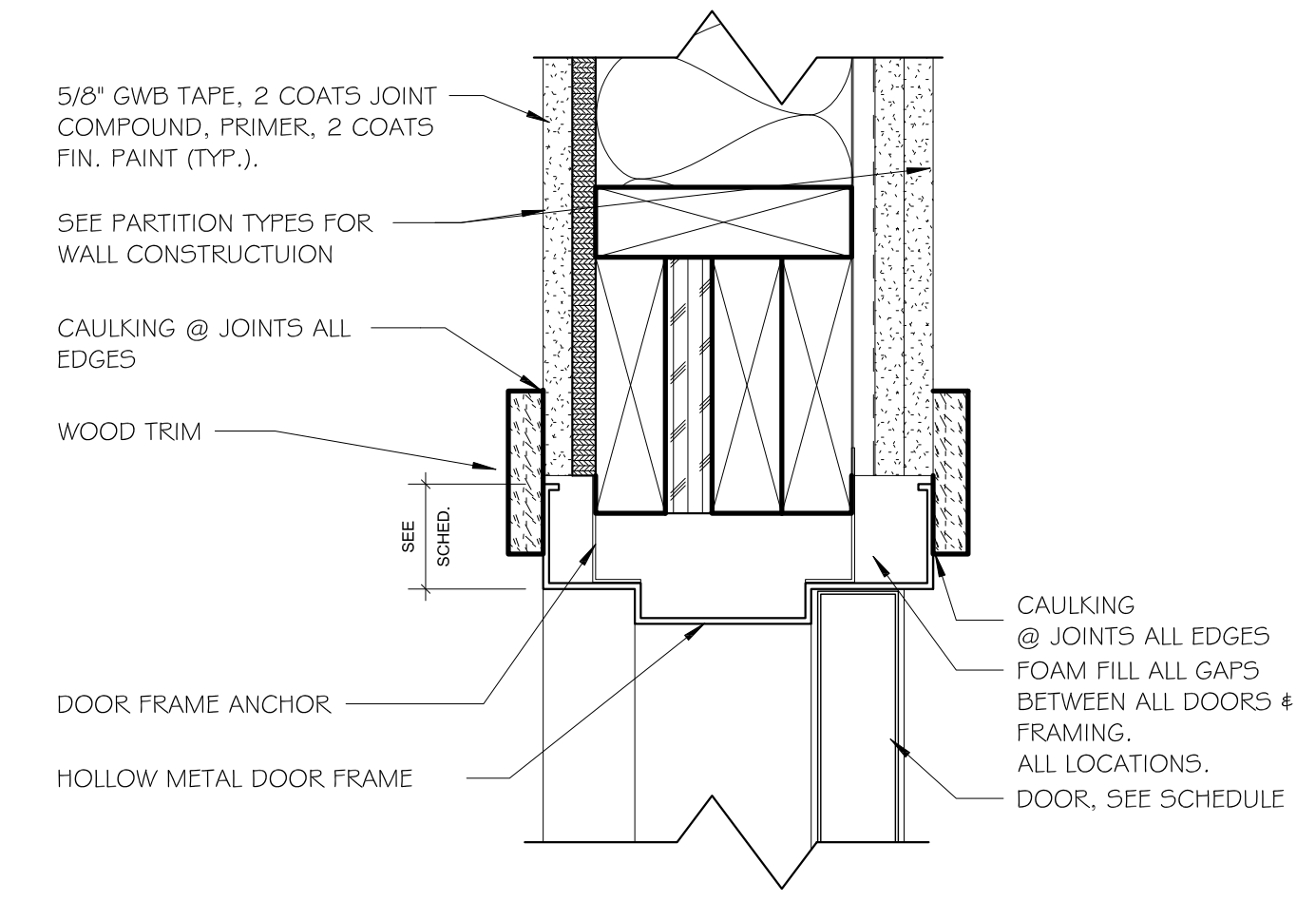
10 FINISH FLOOR DETAILS
 (A-80) Scale: 3"=1'-0"



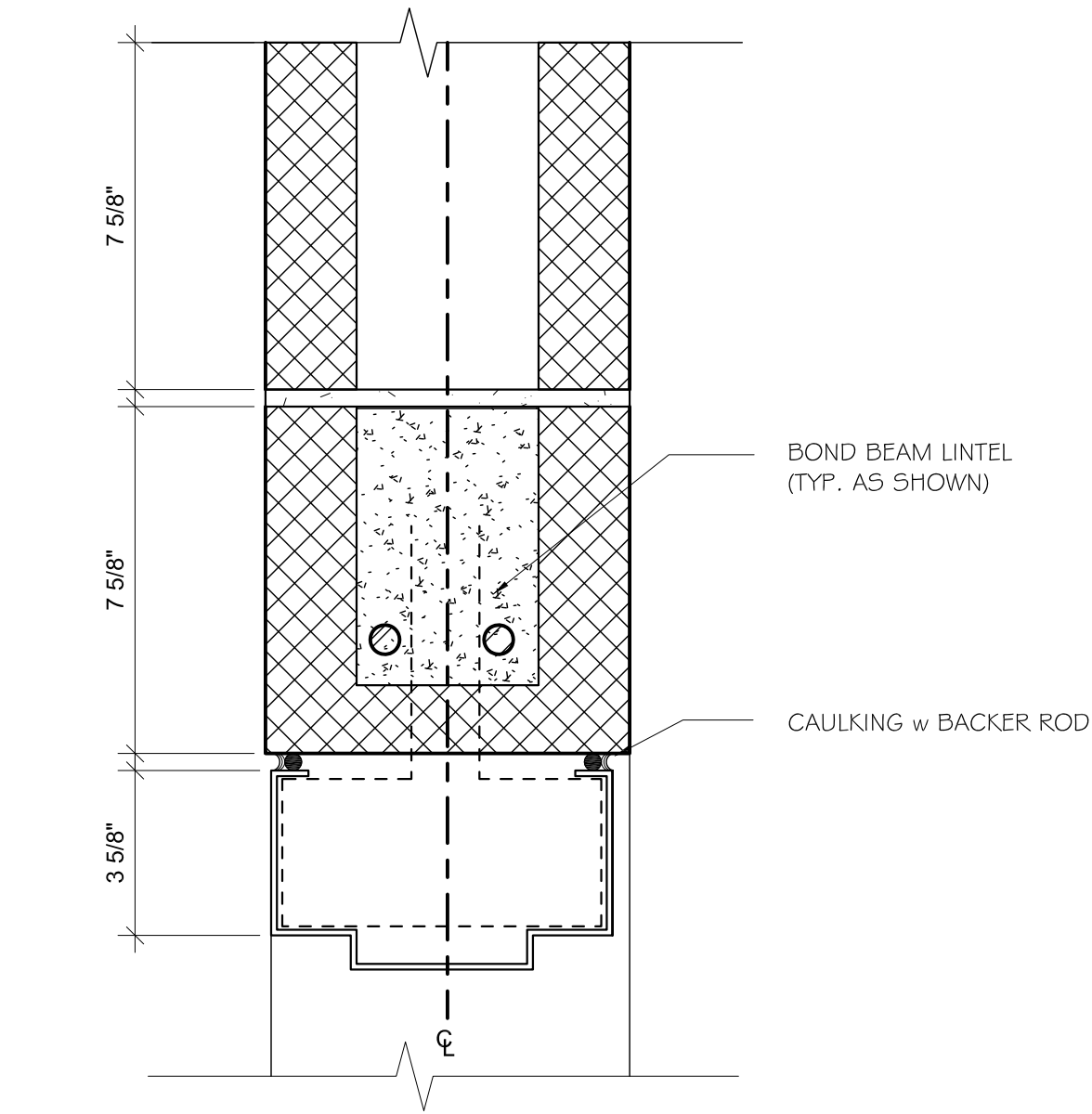
7 DOOR JAMB DETAIL @ CMU
 (A-80) Scale: 3"=1'-0"



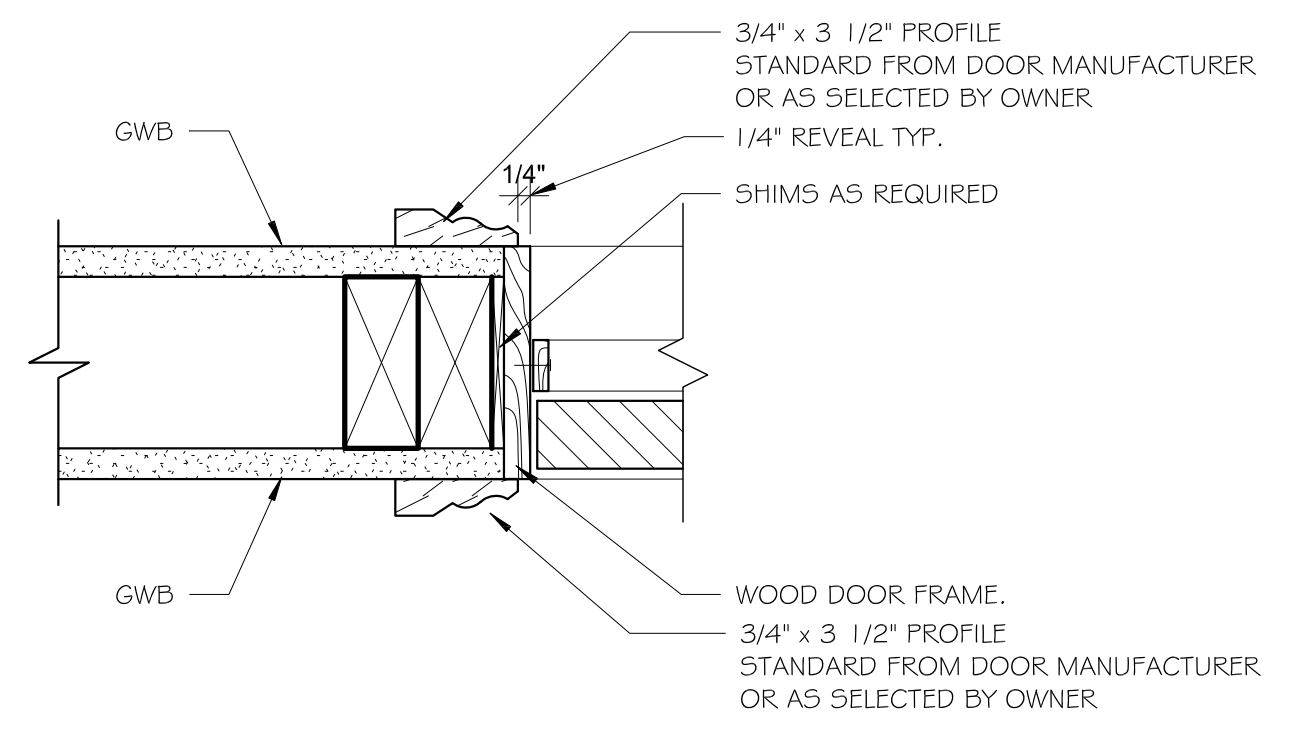
4 INTERIOR WOOD FRAME- DOOR HEAD DETAIL
 (A-80) Scale: 3"=1'-0"



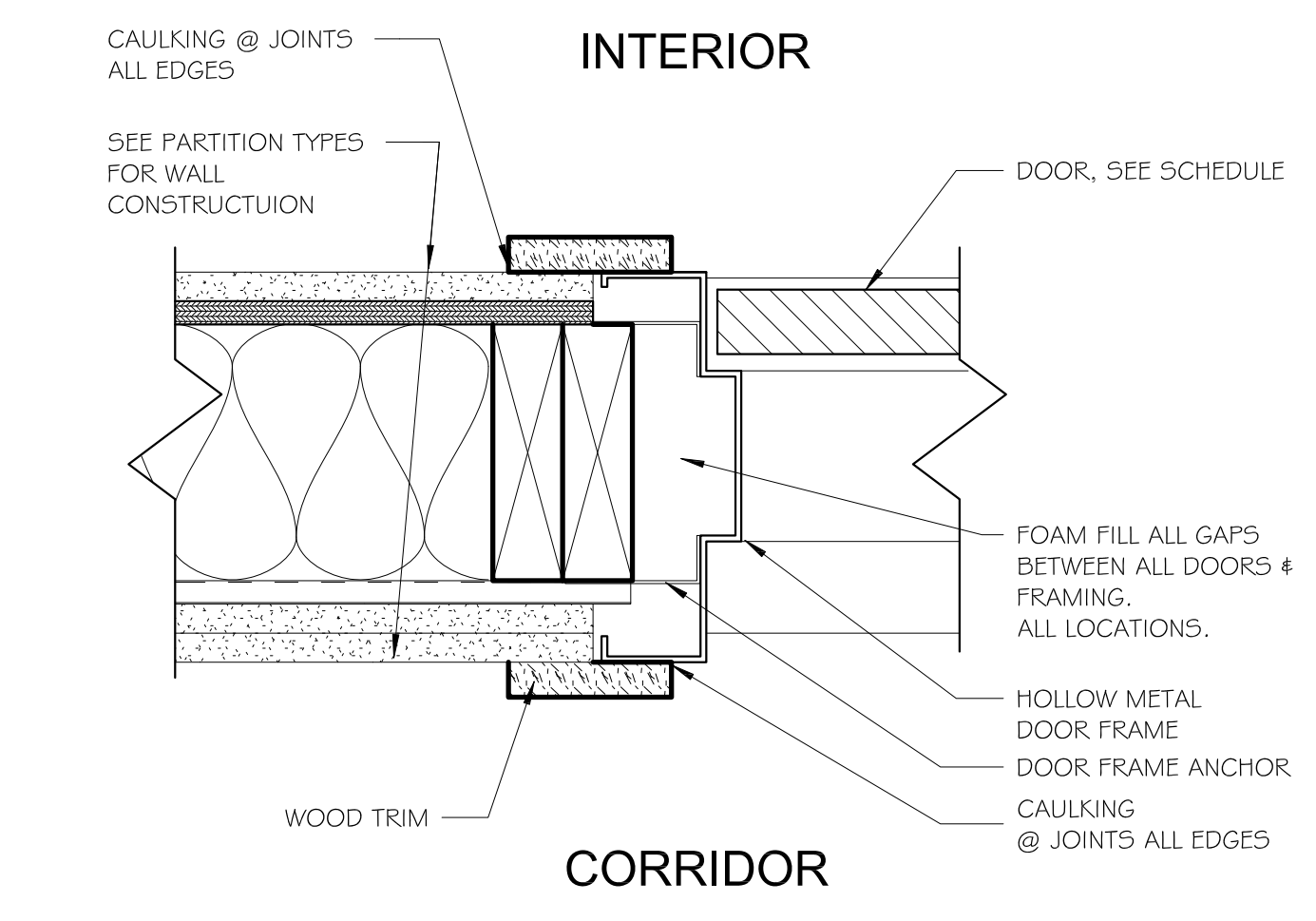
1 INTERIOR METAL FRAME- DOOR HEAD DETAIL
 (A-80) Scale: 3"=1'-0"



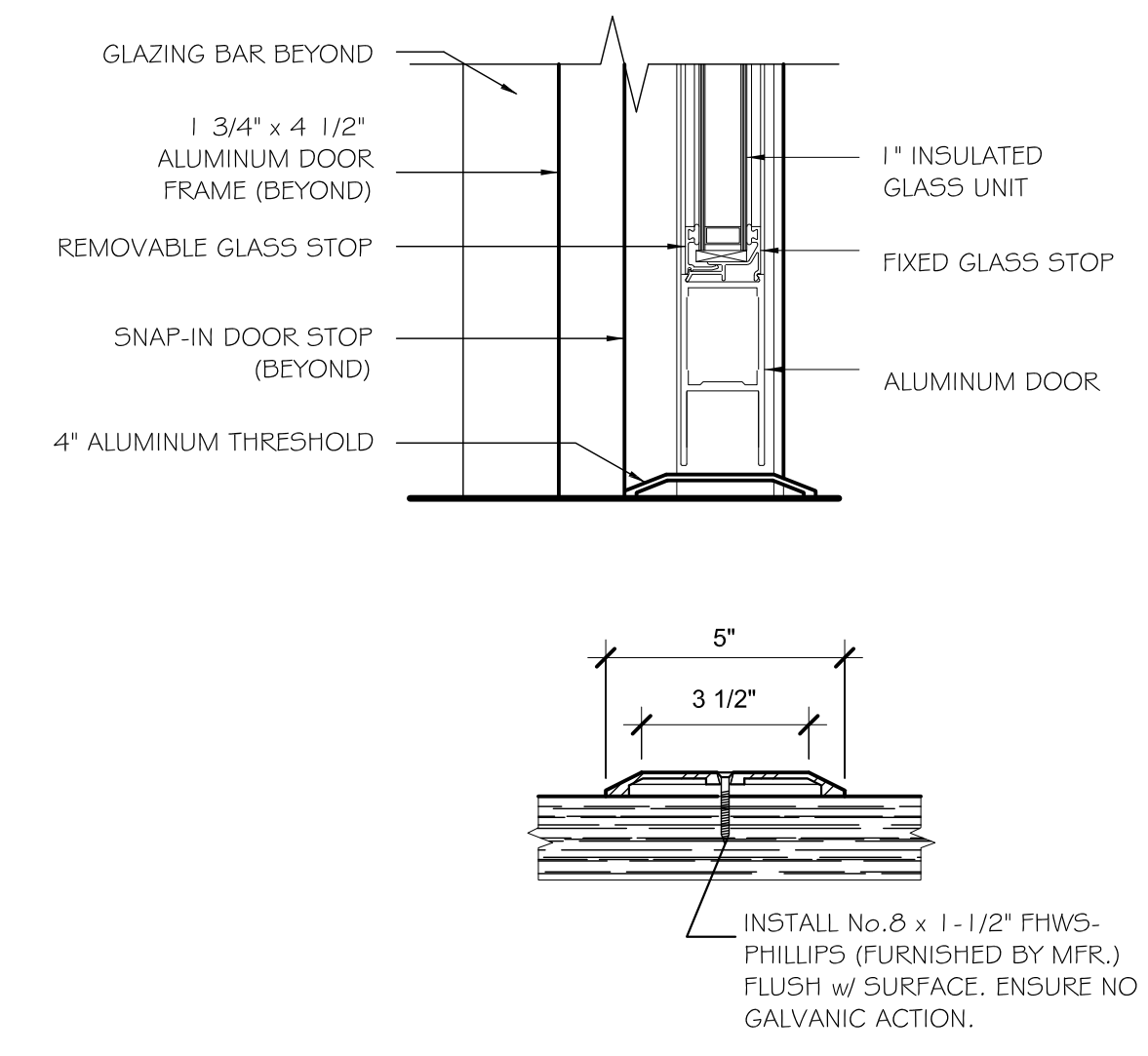
8 DOOR HEAD DETAIL @ CMU
 (A-80) Scale: 3"=1'-0"



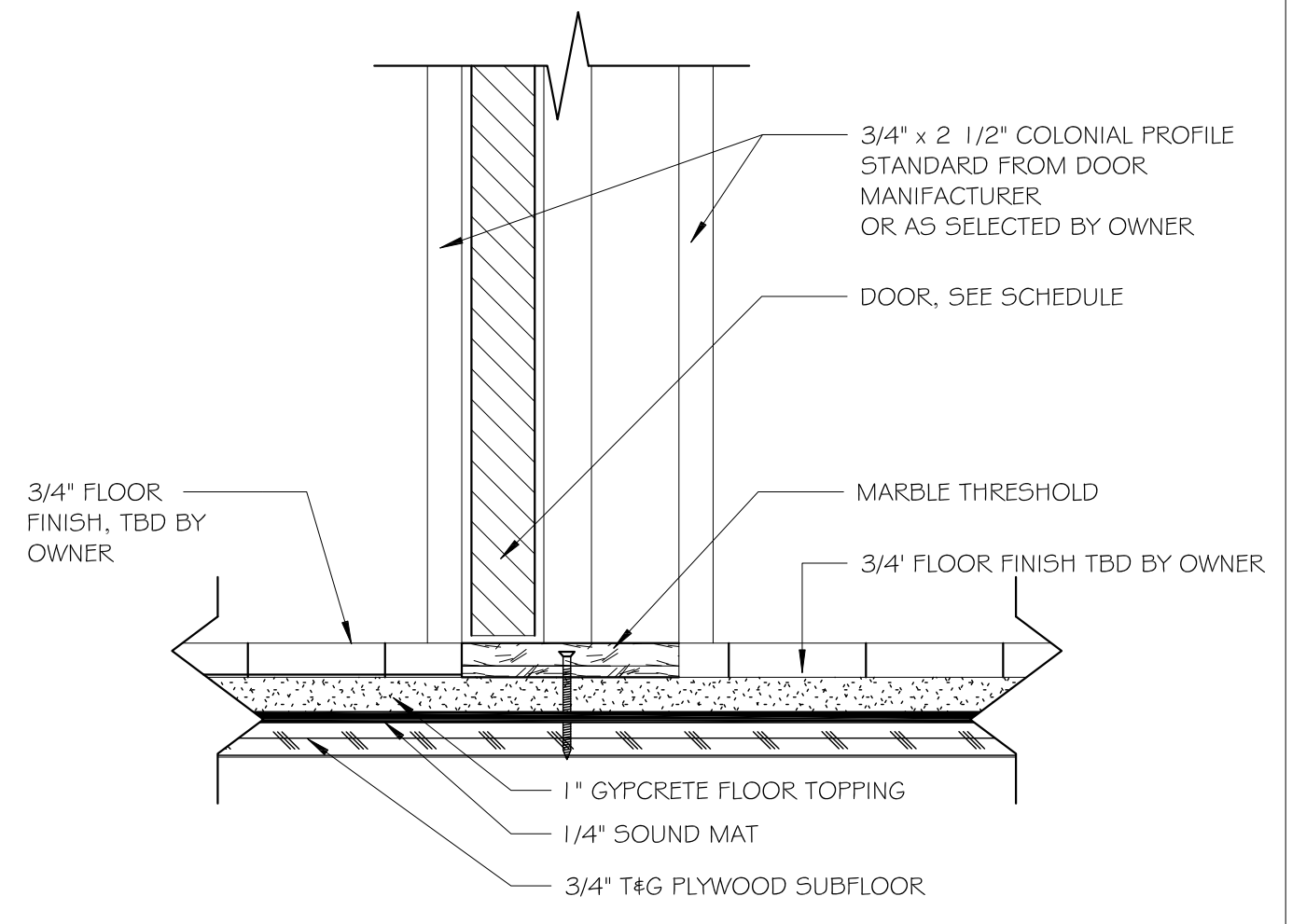
5 INTERIOR WOOD FRAME- DOOR JAMB DETAIL
 (A-80) Scale: 3"=1'-0"



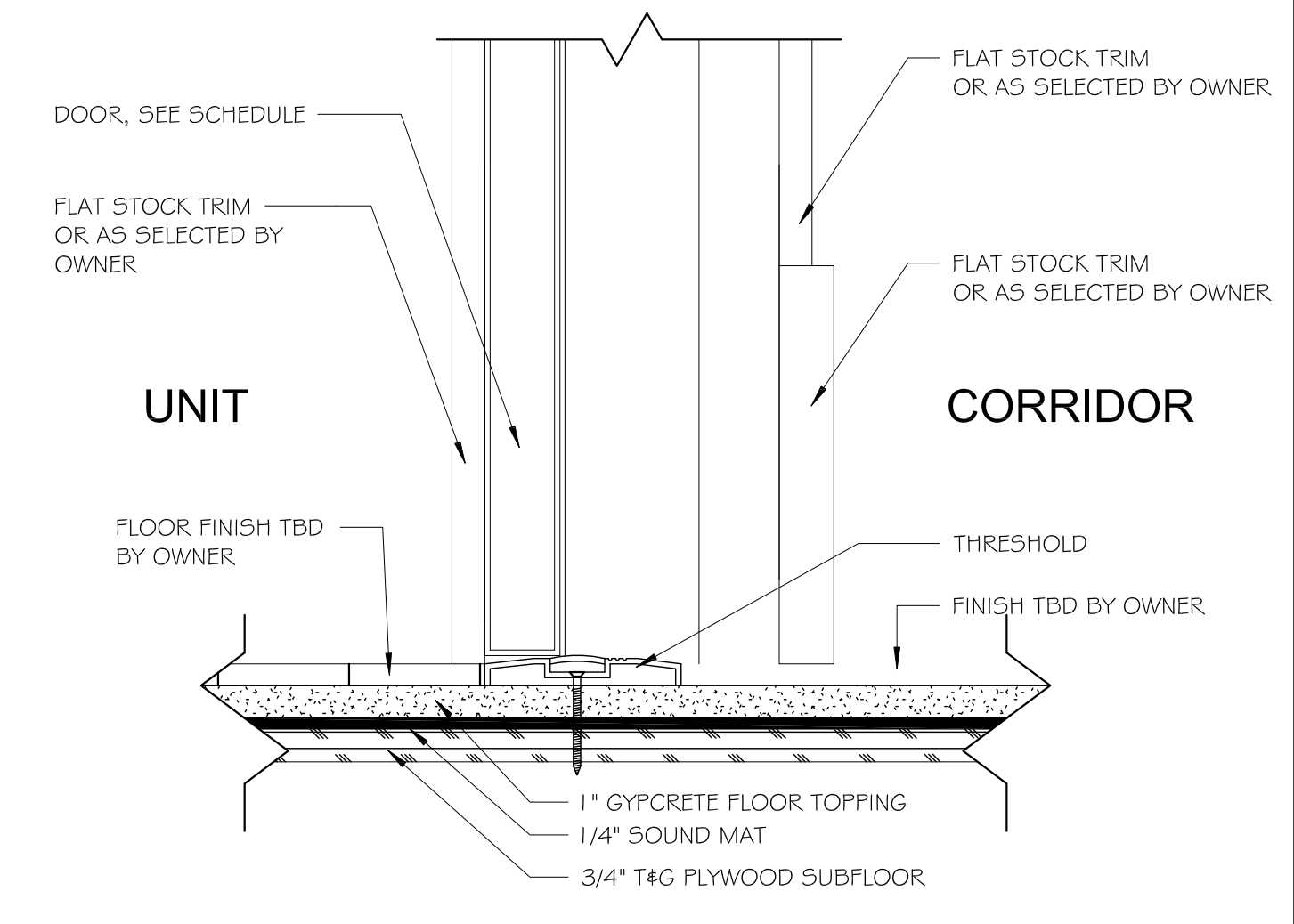
2 INTERIOR METAL FRAME- DOOR JAMB DETAIL
 (A-80) Scale: 3"=1'-0"



9 THRESHOLD DETAILS
 (A-80) Scale: 3"=1'-0"



6 INTERIOR WOOD FRAME- DOOR THRESHOLD DETAIL
 (A-710) Scale: 3"=1'-0"



3 INTERIOR METAL FRAME- DOOR THRESHOLD DETAIL
 (A-80) Scale: 3"=1'-0"

PROJECT NAME
 147-149 CHARLES ST

PROJECT ADDRESS
 147-149 CHARLES STREET
 BOSTON, MA

CLIENT
 CRM

ARCHITECT



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

CONSULTANTS:

COPYRIGHT KDI © 2019
 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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale AS SHOWN

REVISIONS

No.	Description	Date

**DOOR
 DETAILS**

A-801
 147-149 CHARLES

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

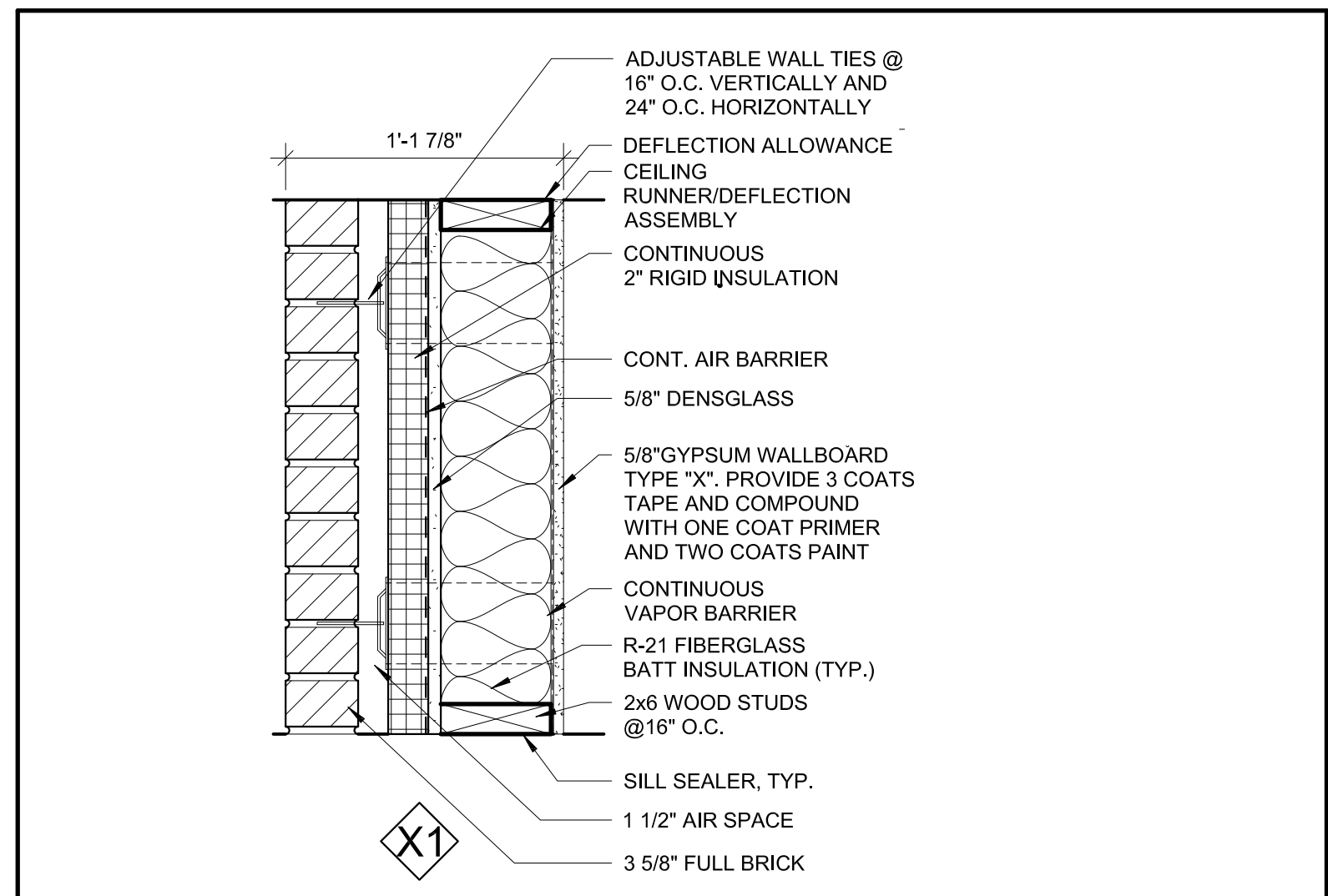
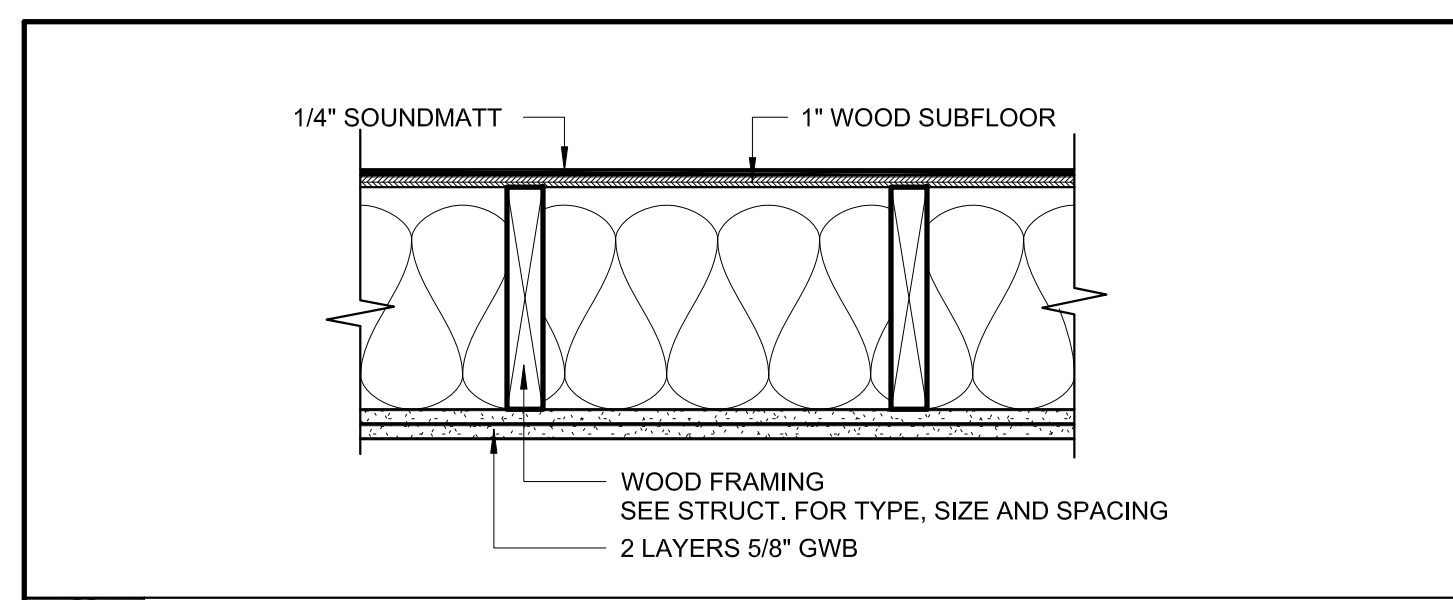
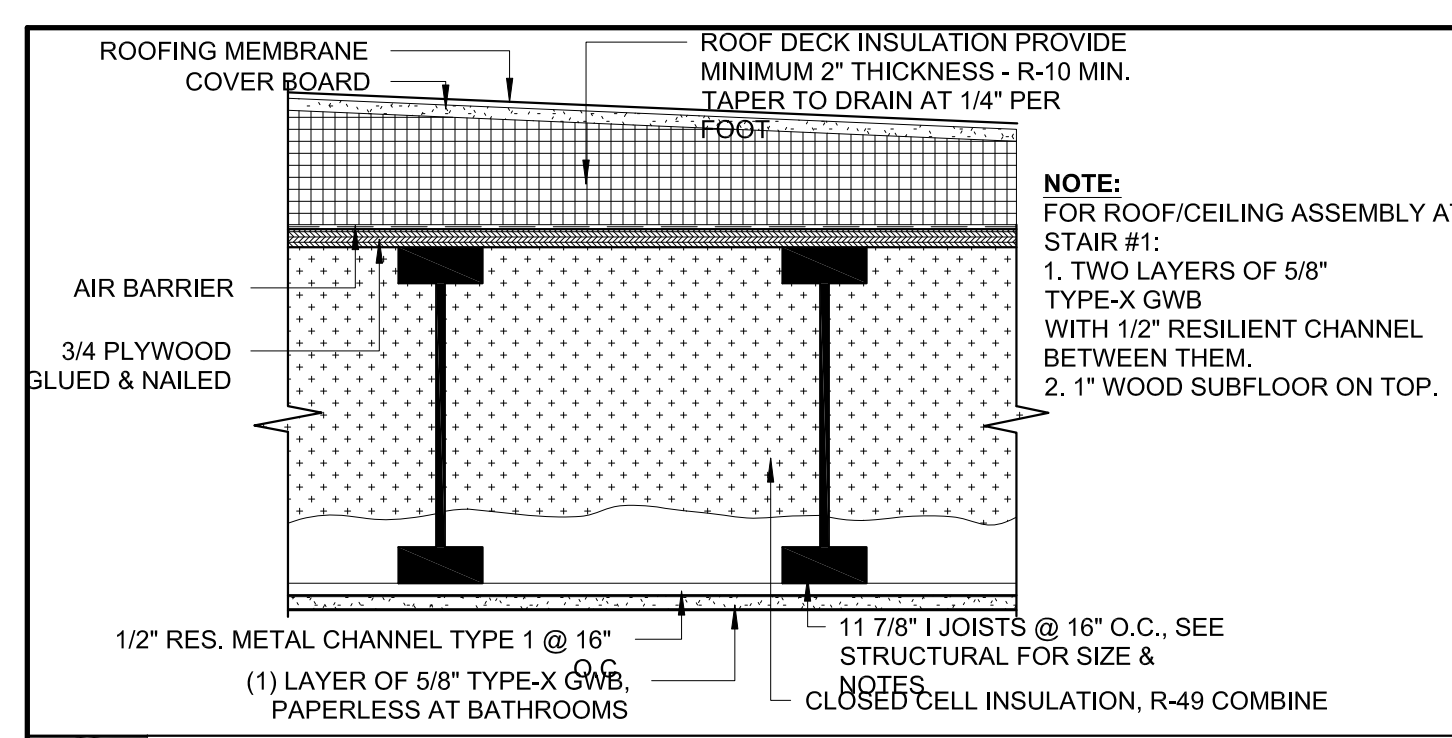
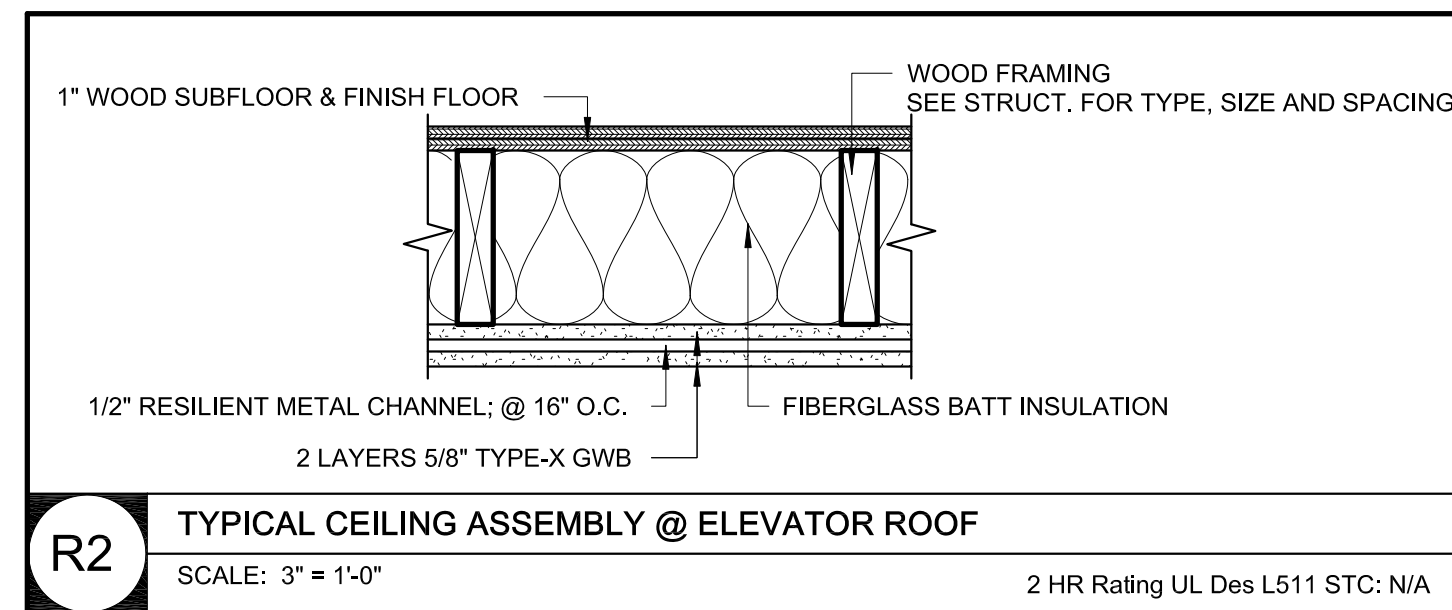
ARCHITECT



KHALSA

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

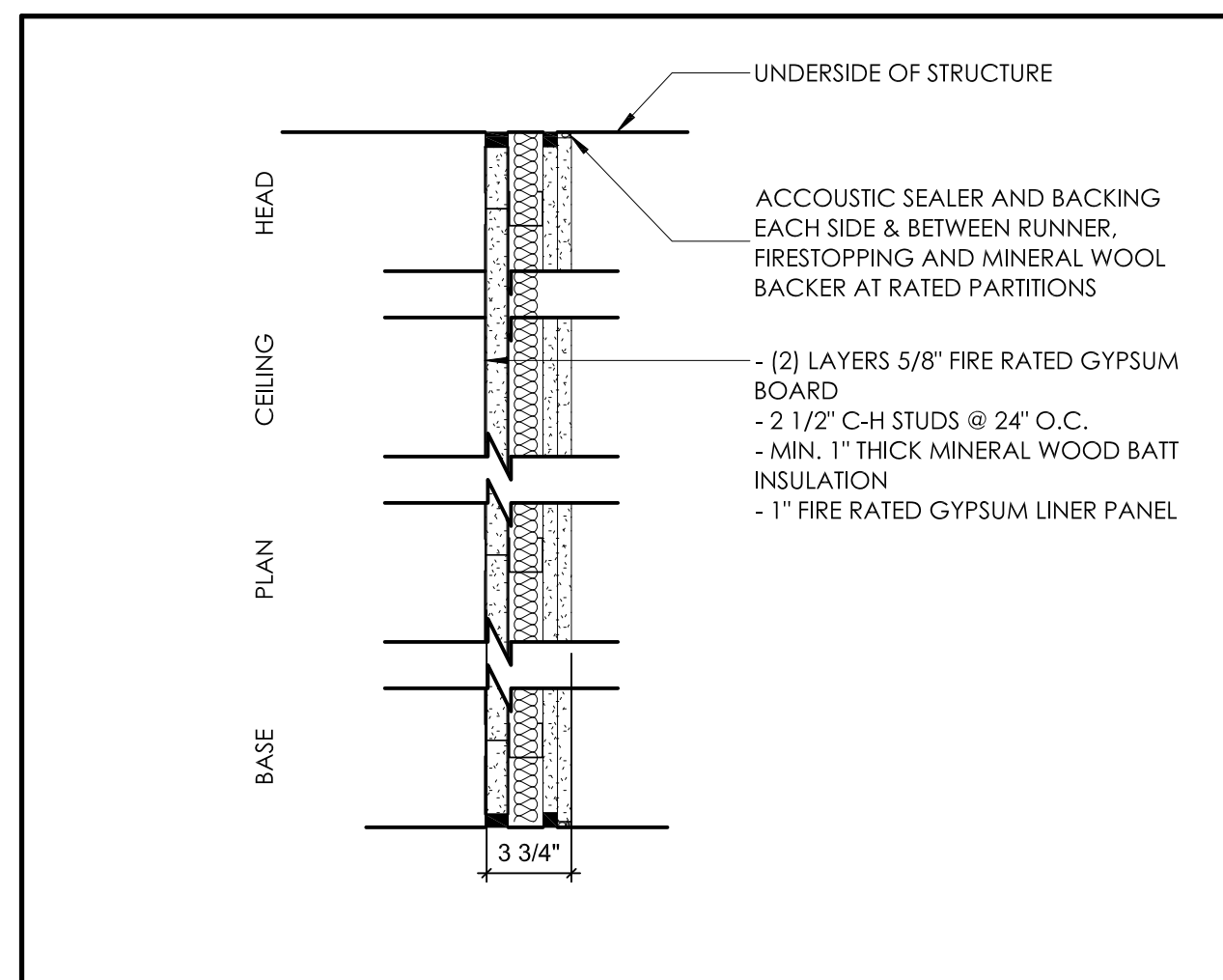
CONSULTANTS:



R2 TYPICAL CEILING ASSEMBLY @ ELEVATOR ROOF
SCALE: 3" = 1'-0" 2 HR Rating UL Des L511 STC: N/A

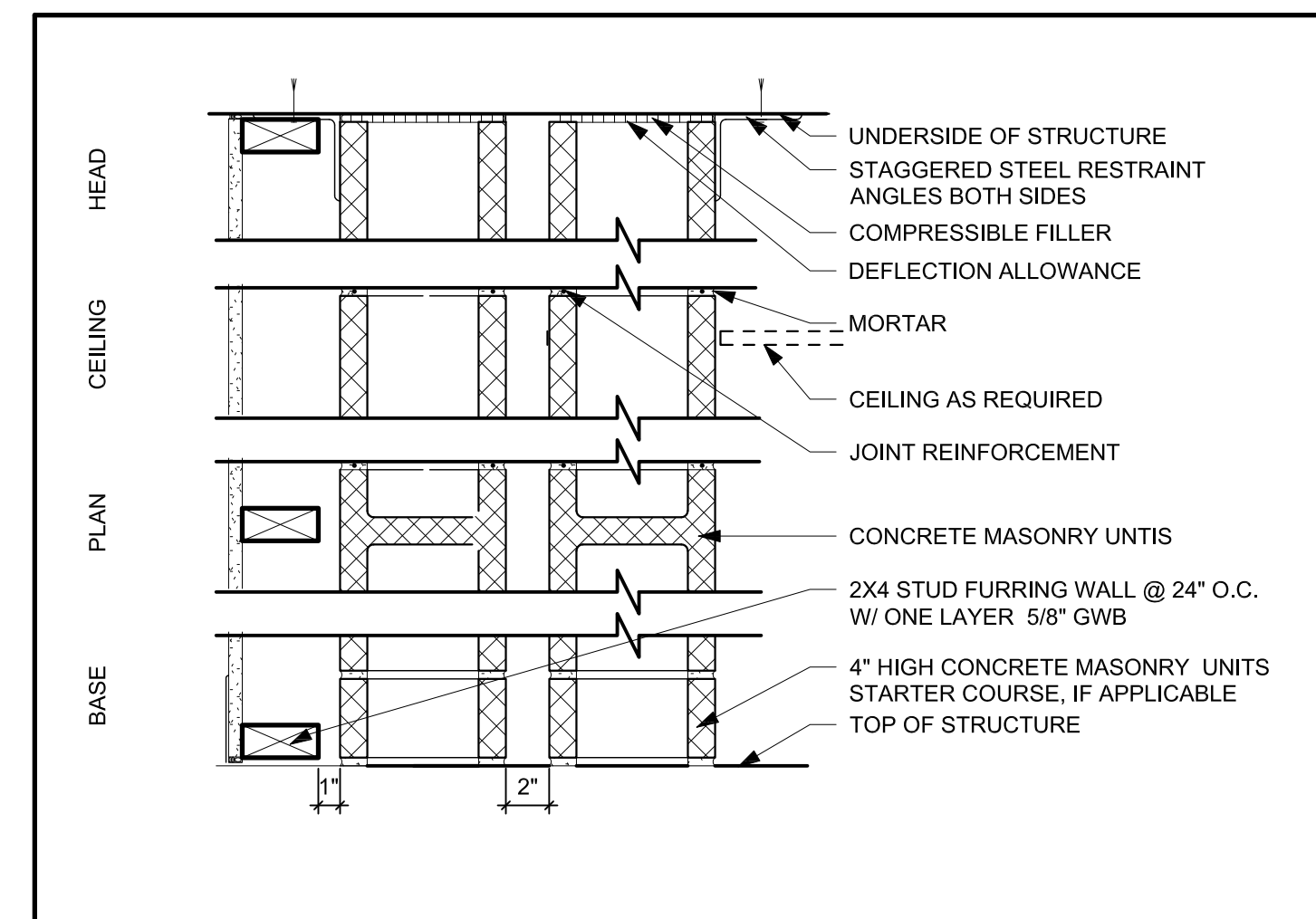
F1 TYPICAL FLOOR/CEILING ASSEMBLY (INTERIOR CORRIDOR FLOOR)
SCALE: 1 1/2" = 1'-0" 1 HOUR-RATED (SA-FC-5406) STC: N/A

PARTITION TYPE	STUD TYPE	SHEATHING TYPE	ACTUAL WIDTH	FILL	FIRE TEST (UL #)	FIRE RESISTANT (E)	STC RATING	IC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
X1	2X6	5/8" TYPE "X" GWB	1'-1 7/8"	5 1/2" BATT		1 HR	-	-	16'-4"	RED, YELLOW BRICK COLOR (SEE ELEVATIONS)



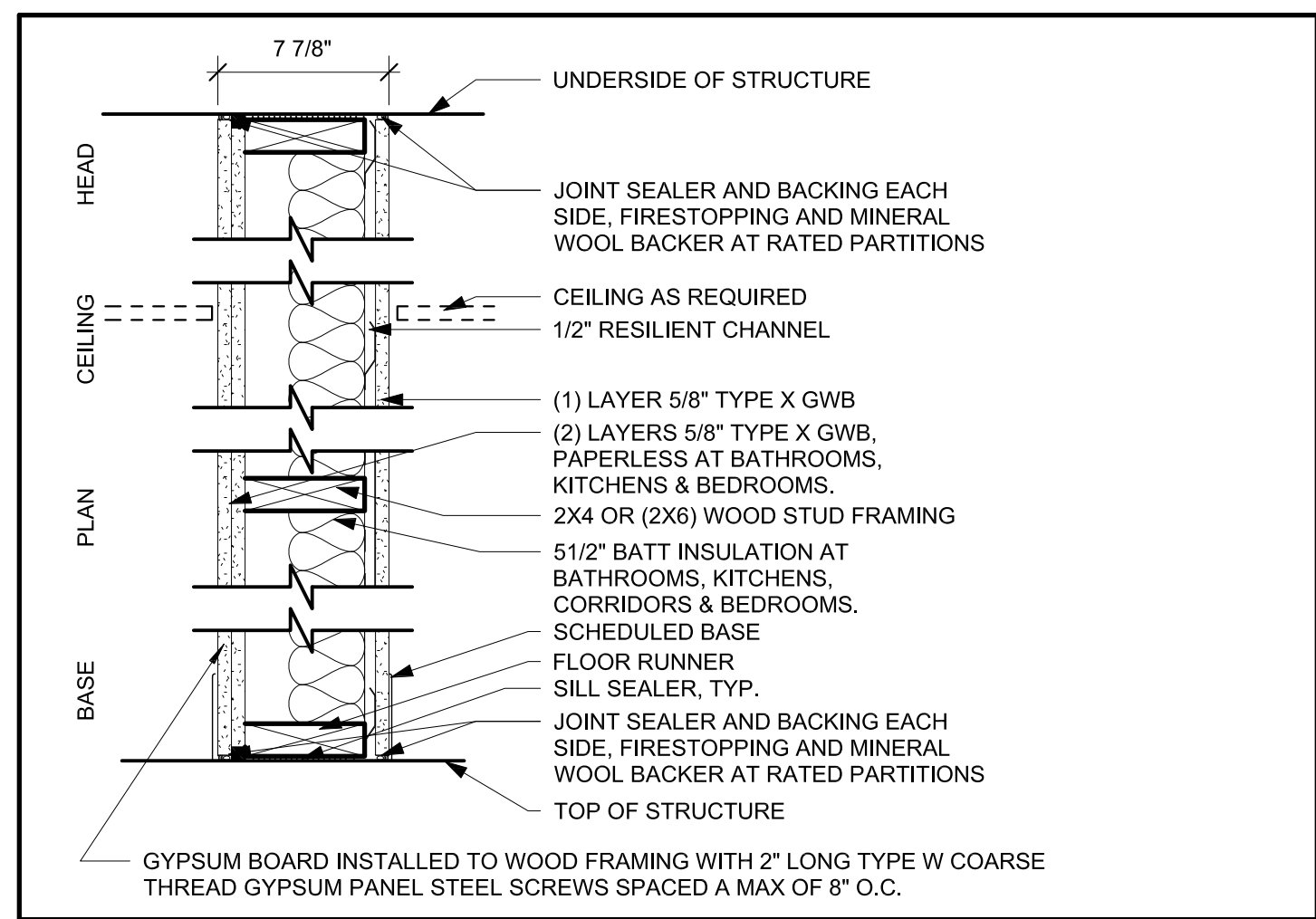
PARTITION TYPE	STUD TYPE	SHEATHING TYPE	ACTUAL WIDTH	FILL	FIRE TEST (UL #)	FIRE RESISTANT (E)	STC RATING	IC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
D	2 1/2" CH STUD	GWB	3 3/4"	-	UL# W415 SYS. B	2 HR	STC 48	-	-	WALL RUNS CONTINUOUS

D SHAFT WALL
SCALE: 1 1/2" = 1'-0"



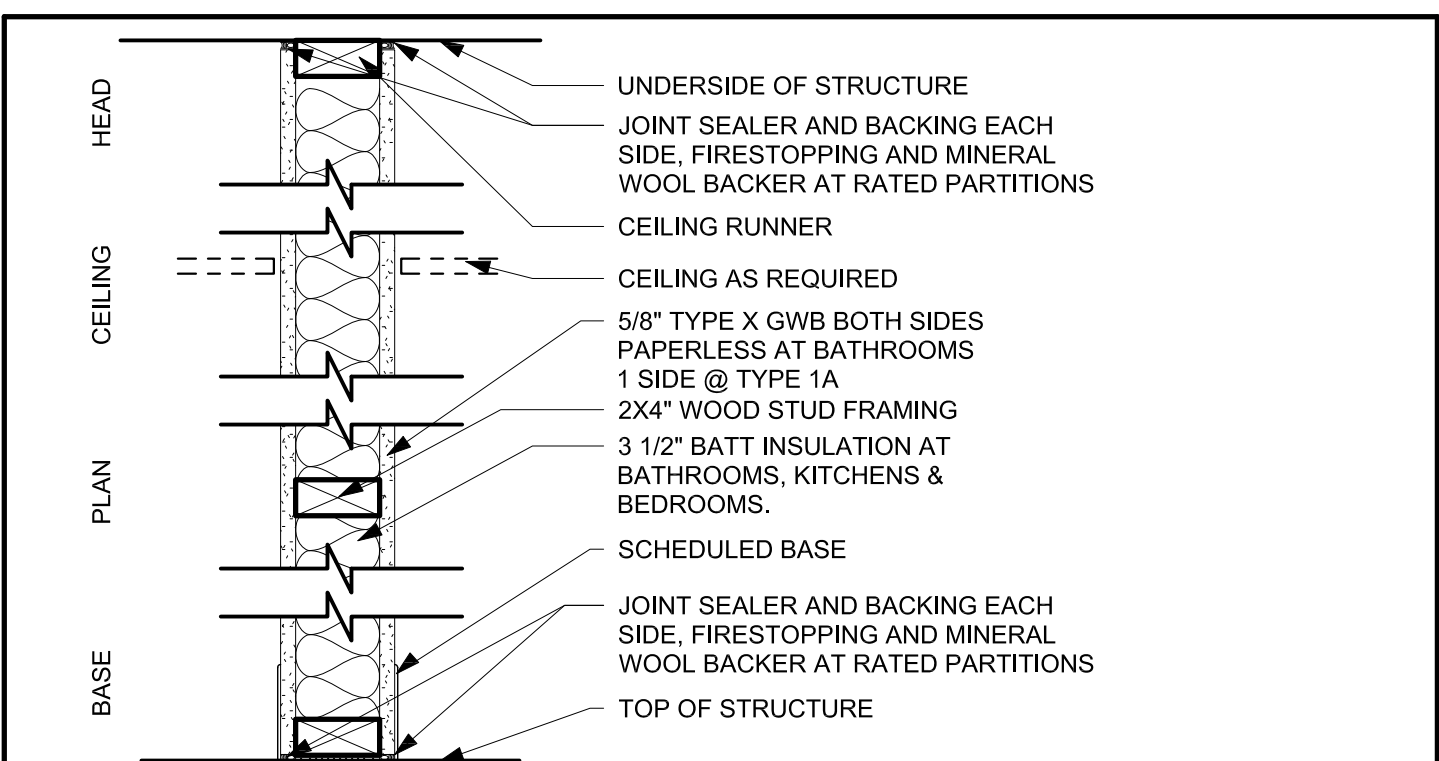
PARTITION TYPE	STUD TYPE	SHEATHING TYPE	ACTUAL WIDTH	FILL	FIRE TEST (UL #)	FIRE RESISTANT (E)	STC RATING	IC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
C	8" CMU	-	7 5/8"	-	UL# 905	2 HR	STC 48	-	-	HOLLOW STC 48 GROUT FILLED STC 55

C CMU SHEAR WALL
SCALE: 1 1/2" = 1'-0"



PARTITION TYPE	STUD TYPE	SHEATHING TYPE	ACTUAL WIDTH	FILL	FIRE TEST (UL #)	FIRE RESISTANT (E)	STC RATING	IC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
B	2X6	5/8" TYPE "X" GWB	7 7/8"	3 1/2" BATT	UL# U311 SIM.	1 HR	STC 50-54	-	16'-4"	MR GWB @ BATH AND KITCHEN SIDE

B PARTITION TYPE 4 - CORRIDOR / DEMISING WALL
SCALE: 1 1/2" = 1'-0"



PARTITION TYPE	STUD TYPE	SHEATHING TYPE	ACTUAL WIDTH	FILL	FIRE TEST (UL #)	FIRE RESISTANT (E)	STC RATING	IC RATING	LIMITING HEIGHT	OTHER REQUIREMENTS
A	2X4	5/8" GWB	4 3/4"	3 1/2" BATT	UL# U305	-	-	-	16'-4"	MR GWB @ BATH AND KITCHEN SIDE
A1	2X4	5/8" GWB	4 1/8"	3 1/2" BATT	UL# U305	-	-	-	16'-4"	DELETE GWB AT INSIDE FACE OF STUD, MR GWB @ BATH AND KITCHEN SIDE.
A2	2X6	5/8" GWB	6 3/4"	3 1/2" BATT	UL# U305	-	-	-	16'-4"	MR GWB @ BATH AND KITCHEN SIDE DELETE GWB AT INSIDE FACE OF STUD, MR GWB @ BATH AND KITCHEN SIDE.
A3	2X6	5/8" GWB	6 1/8"	3 1/2" BATT	UL# U305	-	-	-	16'-4"	

A PARTITION TYPE 1 - INTERIOR WALL
SCALE: 1 1/2" = 1'-0"

REGISTRATION



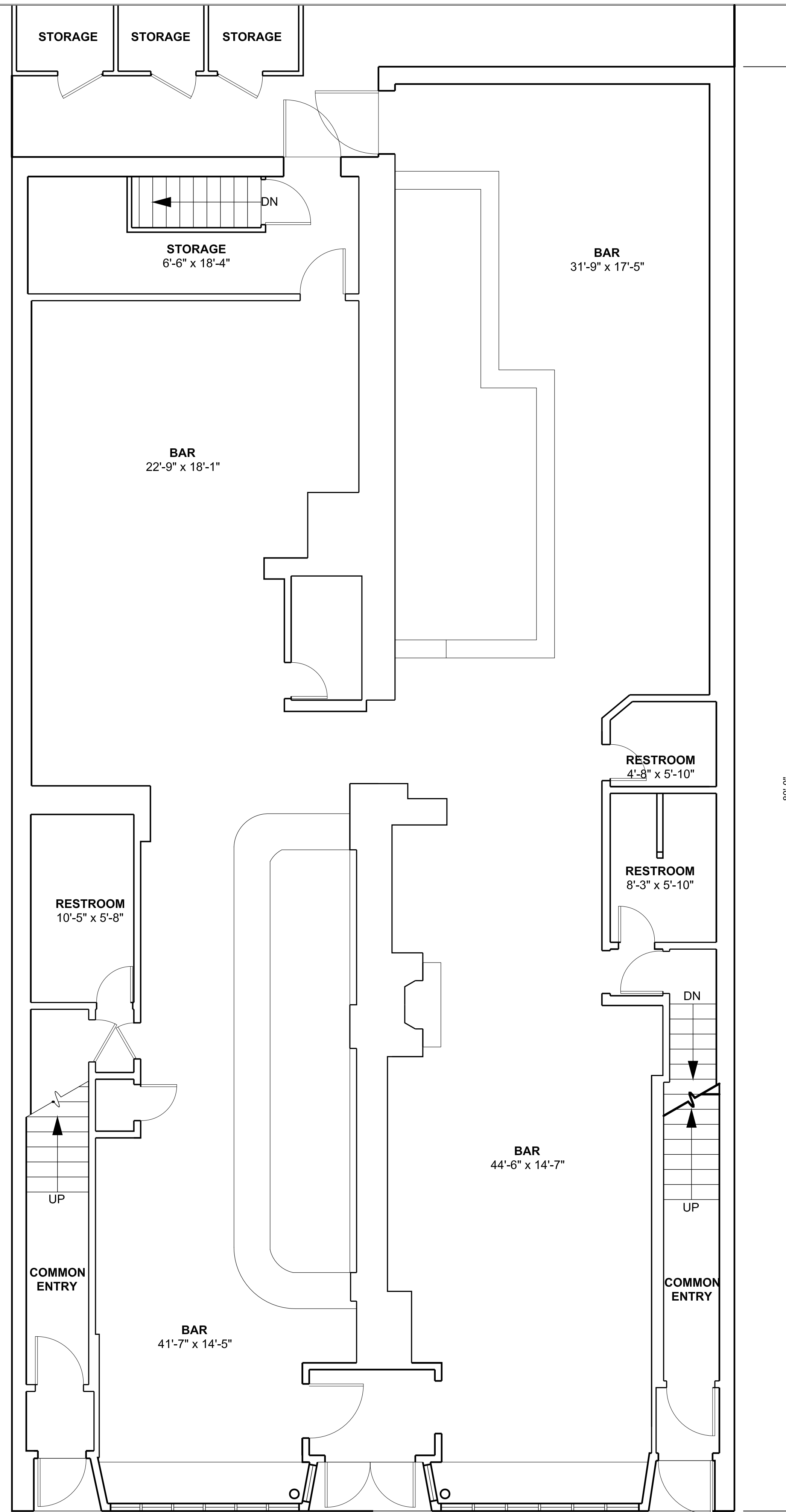
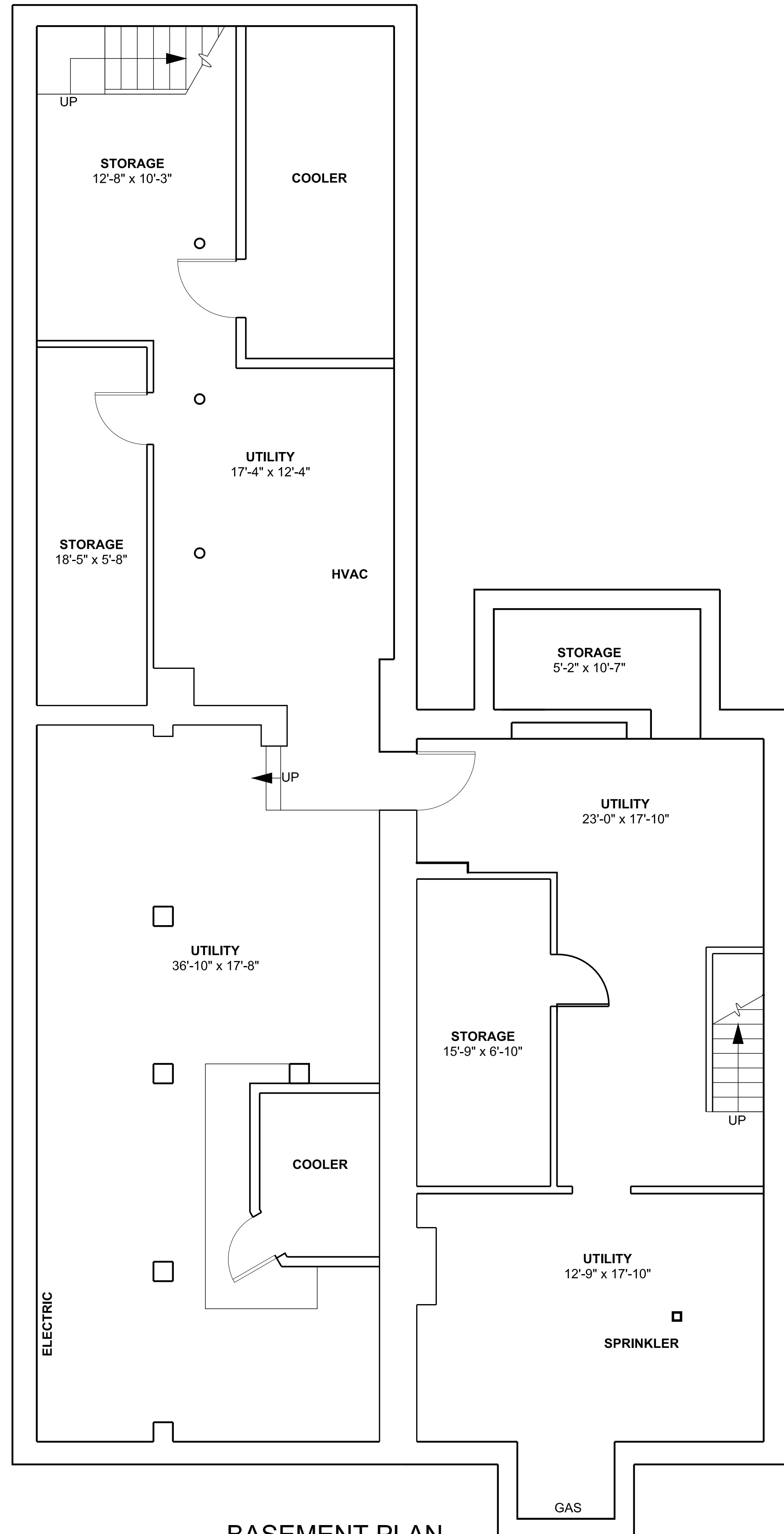
Project number 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 1 1/2" = 1'-0"

REVISIONS

No.	Description	Date

PARTITION TYPES

A-900
147-149 CHARLES



PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT

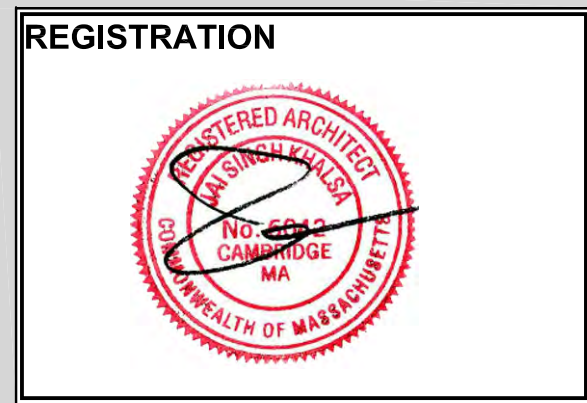


KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

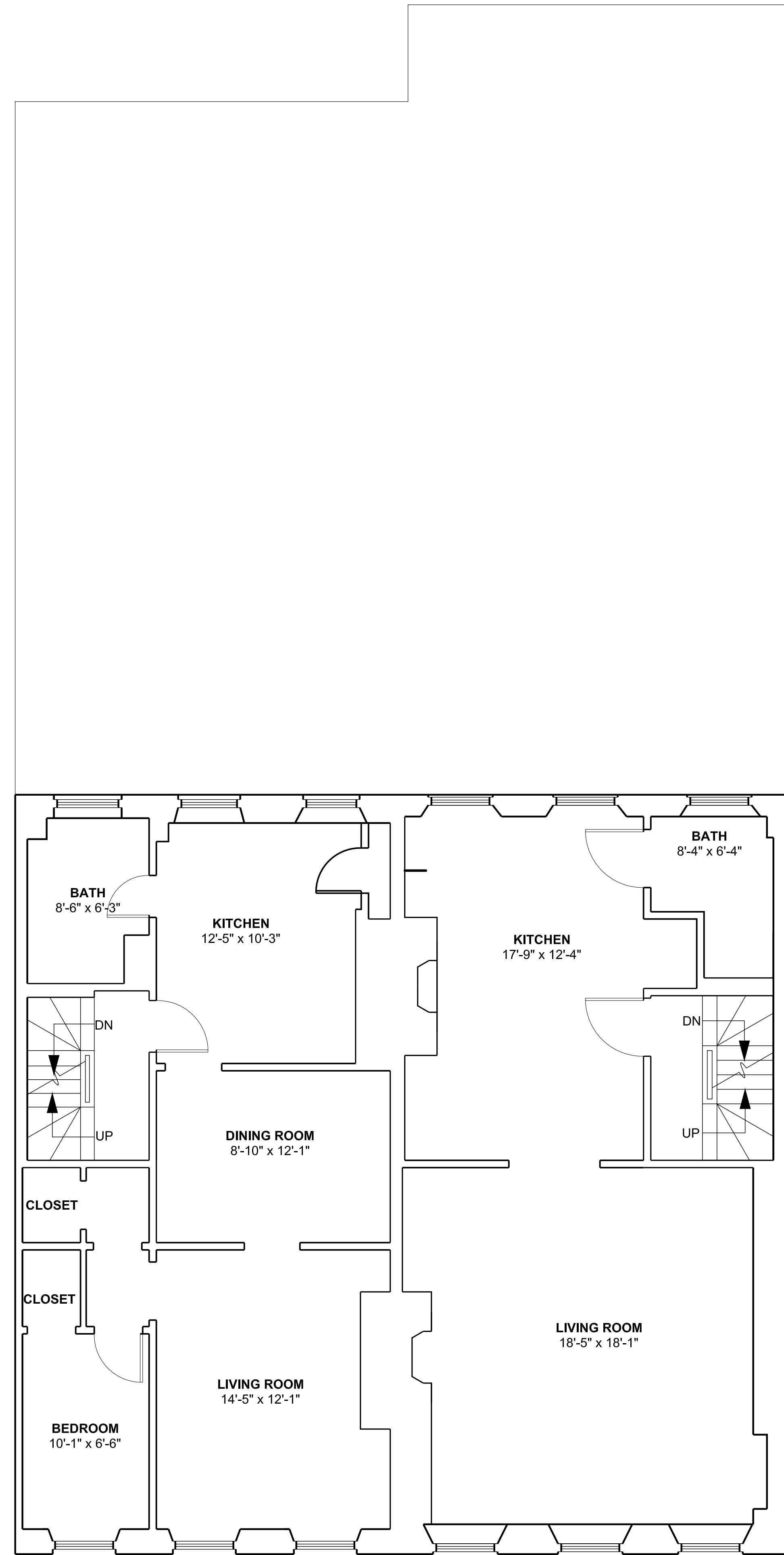
REVISIONS

No.	Description	Date

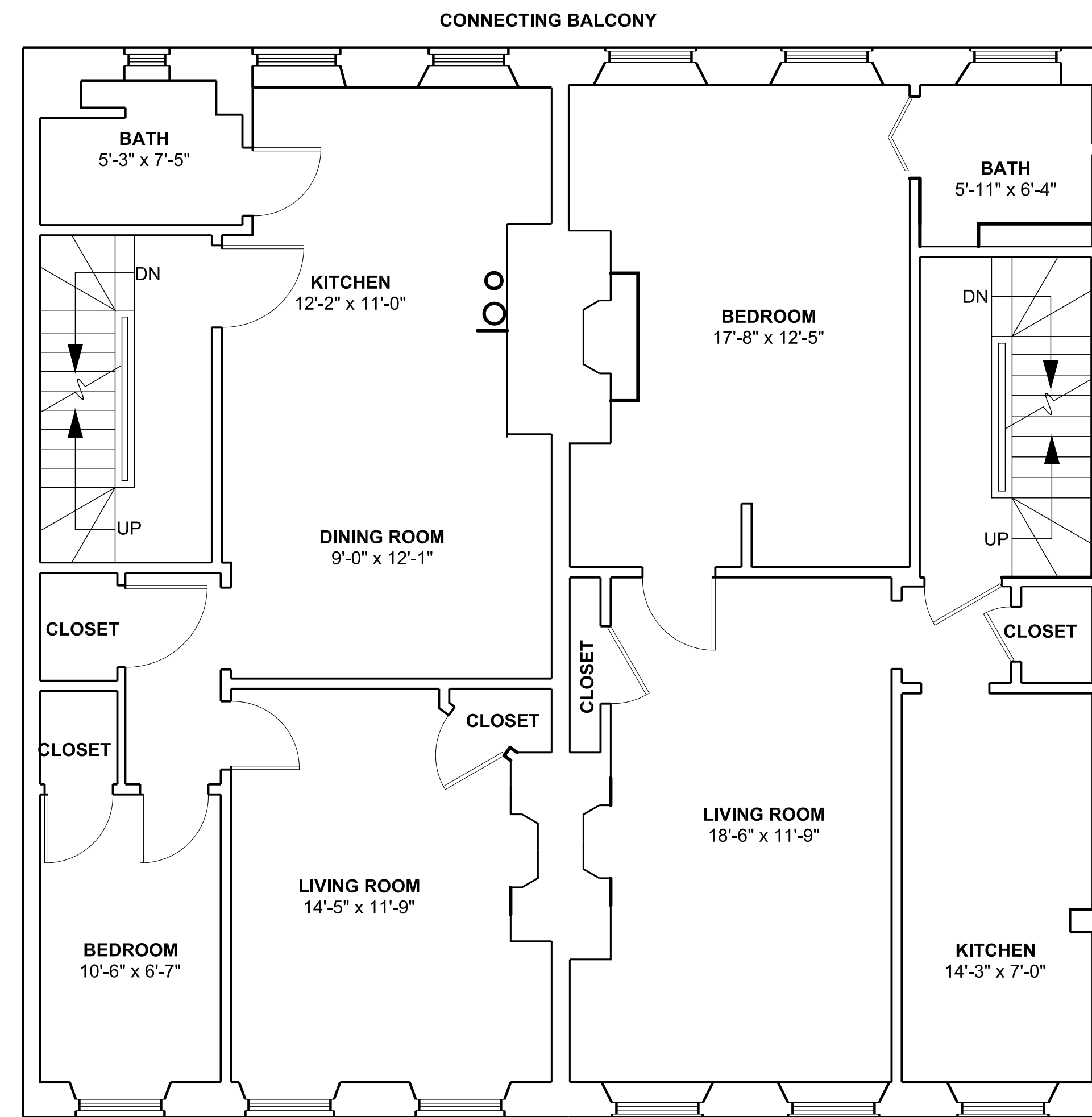
EXISTING
FLOOR
PLANS

EX-100

147-149 CHARLES



SECOND FLOOR PLAN
Ceiling Height = 10'-4"



THIRD FLOOR PLAN
Ceiling Height = 8'-11"

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

ARCHITECT



KHALSA

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

CONSULTANTS:

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

REVISIONS

No.	Description	Date

**EXISTING
FLOOR
PLANS**

EX-101

147-149 CHARLES

PROJECT NAME
147-149 CHARLES ST

PROJECT ADDRESS
147-149 CHARLES STREET
BOSTON, MA

CLIENT
CRM

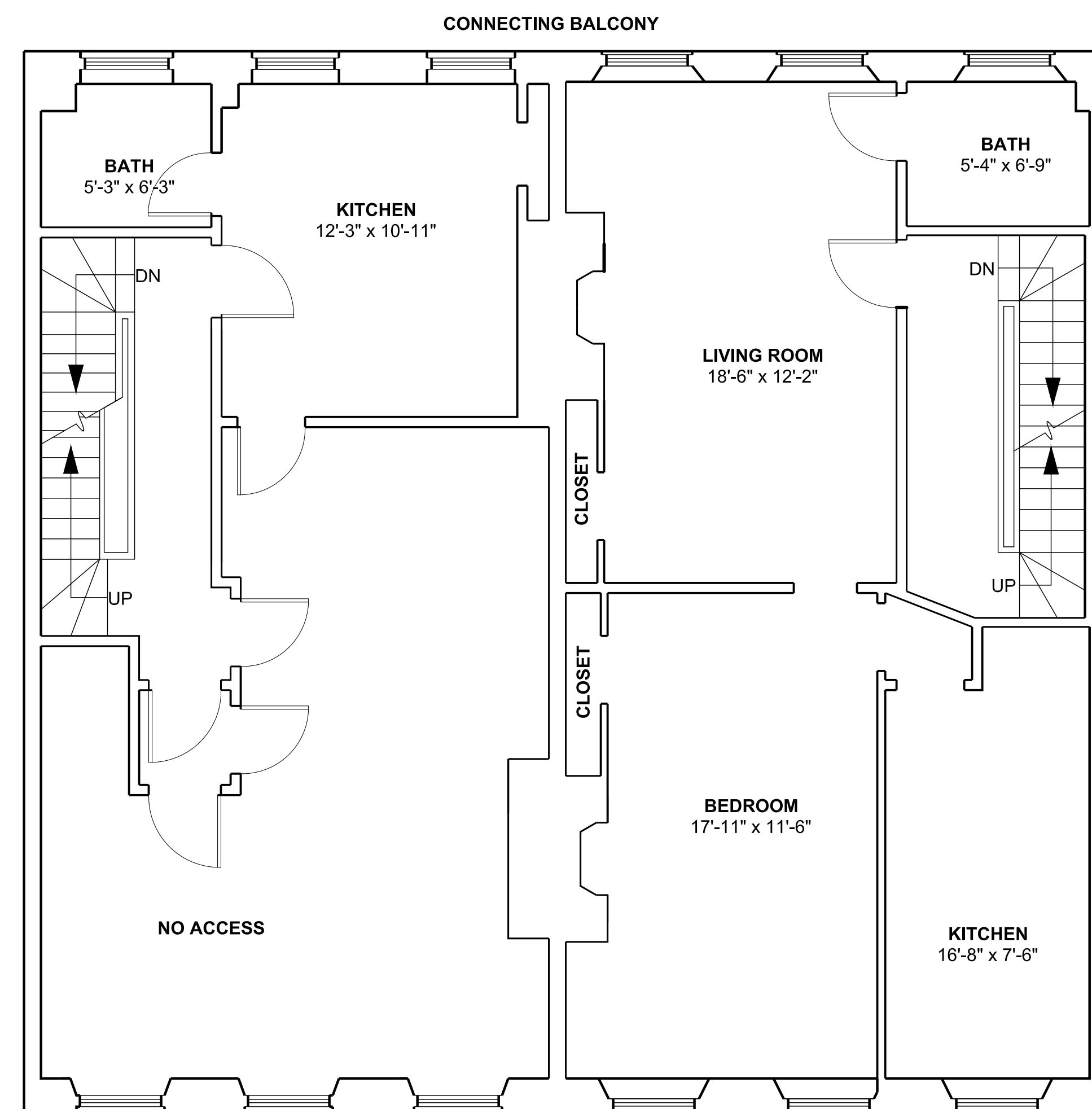
ARCHITECT



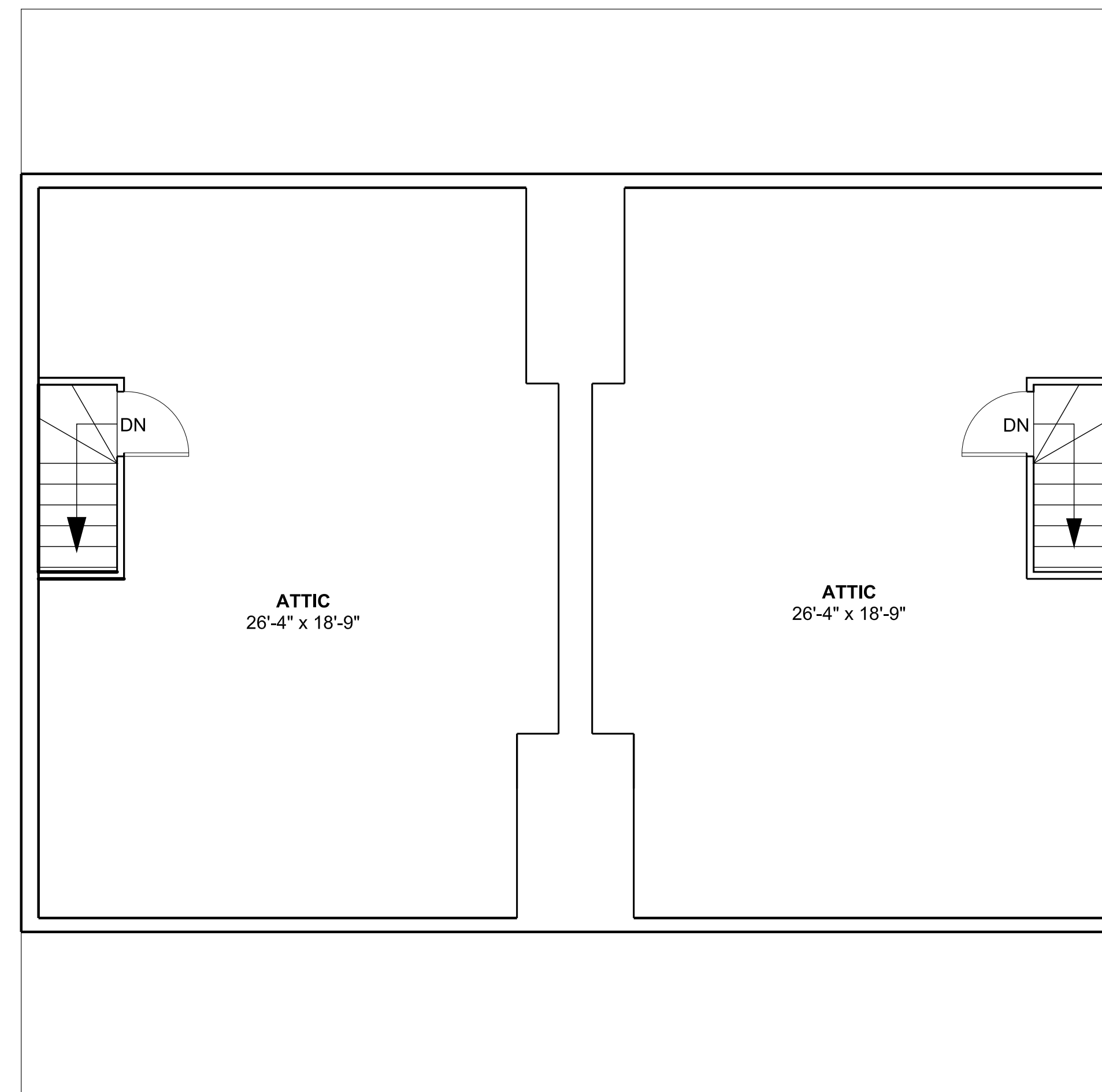
KHALSA

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

CONSULTANTS:



FOURTH FLOOR PLAN
Ceiling Height = 6'-11"



ATTIC PLAN
Ceiling Height = 6'-6"

COPYRIGHT KDI © 2019
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 19061
Date 6/18/2021
Drawn by JLW
Checked by JSK
Scale 1/4" = 1'-0"

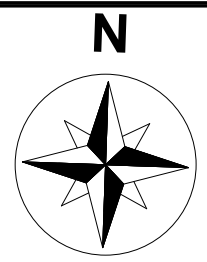
REVISIONS

No.	Description	Date

EXISTING
FLOOR
PLANS

EX-102

147-149 CHARLES



MORNING (9 AM - 10 AM)

NOON (12 PM - 1 PM)

AFTERNOON (3PM - 4 PM)

SUMMER SOLSTICE



FALL / SPRING EQUINOX



WINTER SOLSTICE



PROJECT NAME
147 CHARLES STREET

PROJECT ADDRESS
147 Charles Street,
Boston MA

CLIENT
**ENTER CLIENT NAME
HERE**

ARCHITECT

KHALSA

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-9682 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



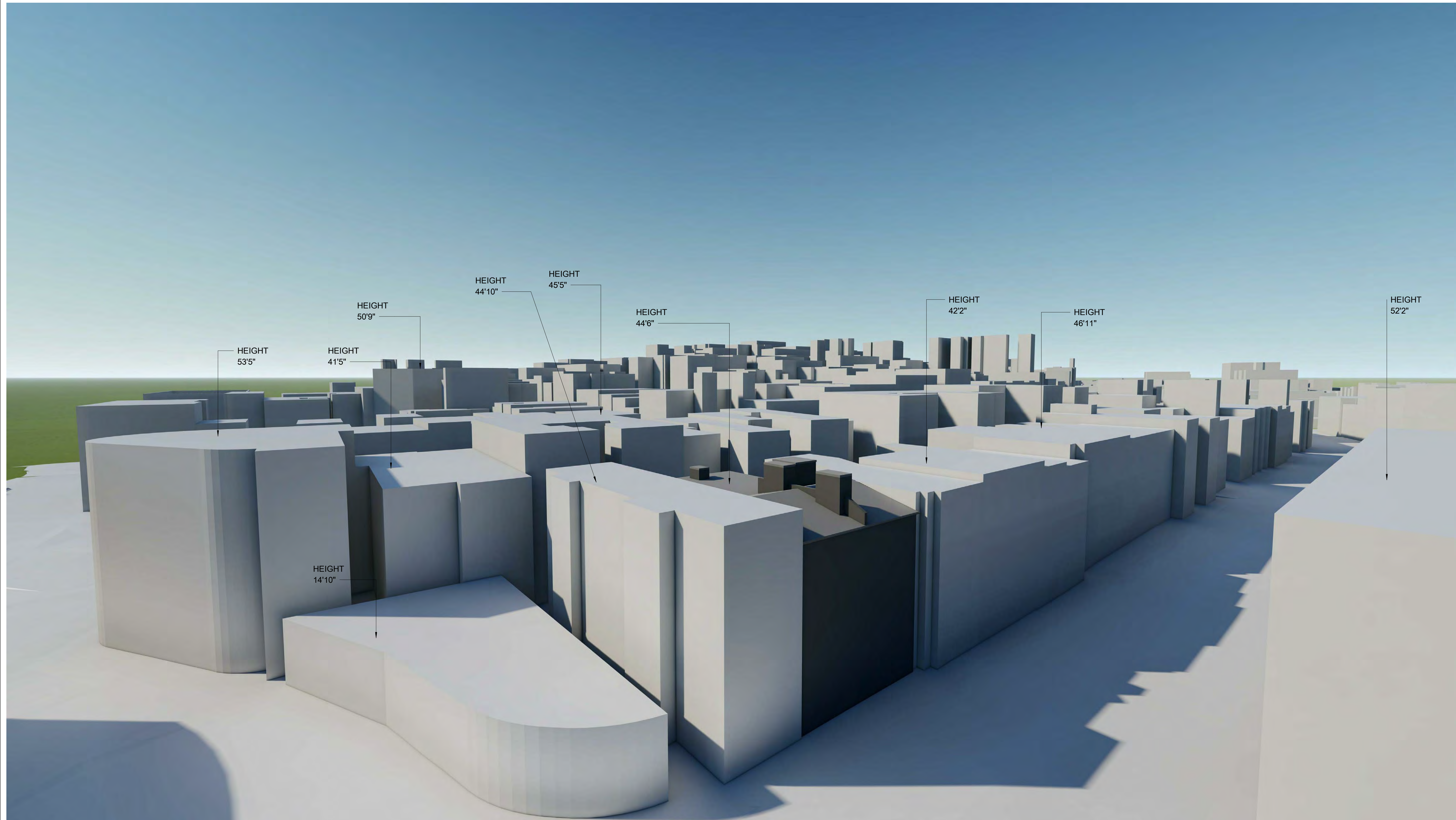
Project number 19061
Date 11-07-2019
Drawn by RB
Checked by JSK
Scale 1" = 40'-0"

No.	Description	Date

Proposed Shadow
Study

AV-1

147 CHARLES STREET



PROJECT NAME

147 CHARLES STREET

PROJECT ADDRESS

147 Charles Street,
Boston MA

CLIENT

ENTER CLIENT NAME
HERE

ARCHITECT



17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-9682 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



Project number 19061
Date 11-07-2019
Drawn by RB
Checked by JSK
Scale

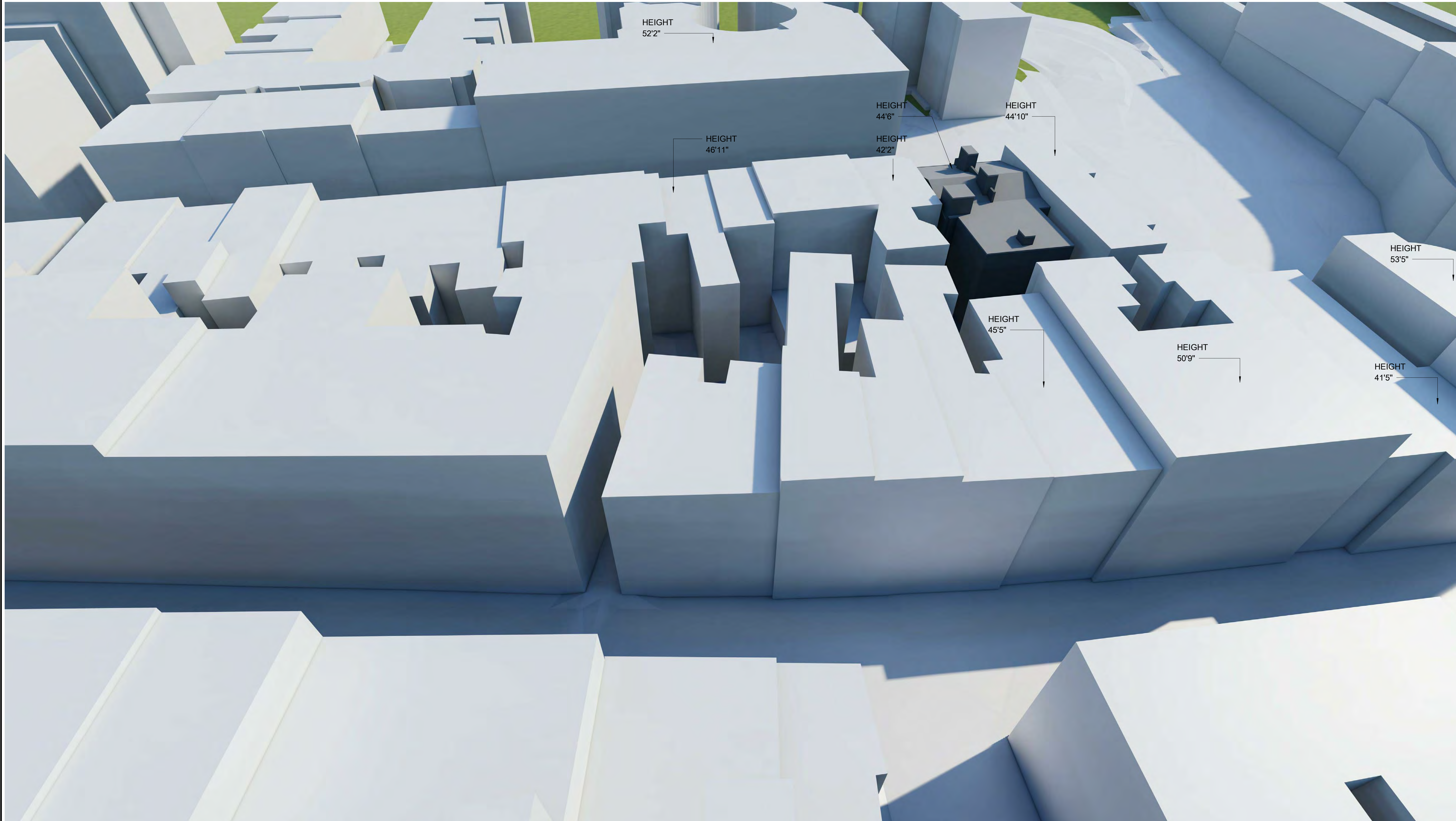
REVISIONS

No.	Description	Date

Massing Diagram
1

AV-3

147 CHARLES STREET



PROJECT NAME
147 CHARLES STREET

PROJECT ADDRESS
 147 Charles Street,
 Boston MA

CLIENT
ENTER CLIENT NAME HERE

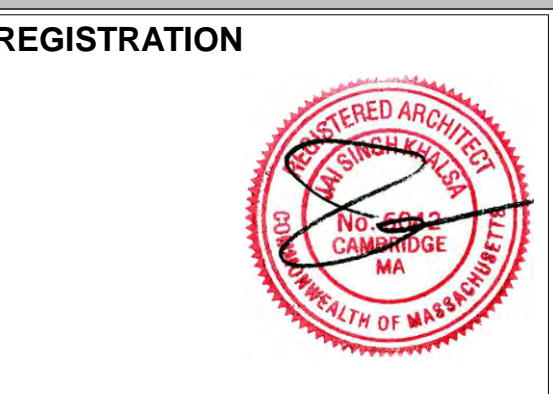
ARCHITECT



**17 IVALOO STREET SUITE 400
 SOMERVILLE, MA 02143
 TELEPHONE: 617-591-9682 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

Project number 19061
 Date 11-07-2019
 Drawn by RB
 Checked by JSK
 Scale

REVISIONS

No.	Description	Date

Massing Diagram
2

AV-4
 147 CHARLES STREET



GENERAL CONDITIONS

- G. C. MUST BUILD EXACTLY WHAT IS SHOWN ON STRUCTURAL DRAWINGS. ANY PROPOSED DEPARTURES FROM WHAT IS INDICATED MUST BE REVIEWED WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL UNAUTHORIZED CHANGES TO THE APPROVED DRAWINGS MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 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.
- 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 RENOVATION WORK STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. IF CONTRACTOR FINDS EXISTING CONDITIONS NOT AS ASSUMED CONTACT ENGINEER IMMEDIATELY. REVISIONS TO THE STRUCTURAL FRAMING MAY BE REQUIRED. FOR EXACT LOCATIONS OF FLOOR AND ROOF OPENINGS, POSTS, ETC., SEE ARCHITECTURAL DRAWINGS.

FOUNDATIONS

- 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.
- 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.
- EXTERIOR FOOTINGS SHALL BE PLACED ON APPROVED SOIL AT A MINIMUM DEPTH OF 4 FEET, OR AS MODIFIED BY THE STRUCTURAL ENGINEER, BELOW THE LOWEST ADJACENT GROUND EXPOSED TO FREEZING. ANY ADJUSTMENT OF FOOTING ELEVATIONS DUE TO FIELD CONDITIONS MUST HAVE THE APPROVAL OF THE ARCHITECT.
- 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 D1557.
- 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.
- PROVIDE FOUNDATION DRAINAGE, WATERPROOFING/DAMP-PROOFING, AND FOUNDATION WALL INSULATION AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

CONCRETE

- ALL CONCRETE WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE LATEST EDITION OF ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- CONCRETE SHALL ACHIEVE A MINIMUM 28 DAY DESIGN STRENGTH AS FOLLOWS: FOOTINGS, WALLS, INTERIOR SLABS-ON-GRADE, AND OTHER CONCRETE NOT OTHERWISE SPECIFIED - 3000 PSI. EXTERIOR SLABS EXPOSED TO WEATHER - 4000 PSI.
- SLUMP AT THE POINT OF DISCHARGE FROM THE READY-MIX TRUCK SHALL BE 3-5".
- REINFORCING STEEL: TYPICAL - ASTM A615, GRADE 60. FIELD BENT - ASTM A615, GRADE 40 WELDED WIRE FABRIC - ASTM A185.

ROUGH CARPENTRY

- ALL ROUGH CARPENTRY WORK SHALL BE EXECUTED IN CONFORMANCE WITH THE LATEST EDITION OF THE MASSACHUSETTS BUILDING CODE (MBC) AND THE INTERNATIONAL BUILDING CODE (IBC).
- REFER THE MBC AND IBC FOR FRAMING COMPONENTS NOT SPECIFIED IN PLANS AND SECTIONS. NOTIFY THE ENGINEER OF ANY COMPONENT NOT DEFINED IN EITHER THE MBC AND IBC OR IN THESE DRAWINGS.
- REFER TO IBC FASTENER SCHEDULE FOR STRUCTURAL MEMBERS TABLE 2304.9.1 FOR CONNECTION FASTENING NOT IDENTIFIED IN THESE PLANS OR DETAILS.
- ENGINEER MAKES NO CLAIMS TOWARDS EXISTING CONDITIONS.
- 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 Fv = 1000 PSI (REPETITIVE USE), AND E SHALL BE 1,400,000 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.
- ENGINEERED WOOD POSTS (VERSA COLUMNS), AS NOTED ON PLANS, SHALL BE VERSA-LAM 1.7 2650.
- 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.
- GABLE-END WALL STUDS IN CATHEDRAL, PARTIAL CATHEDRAL, OR HIGH CEILING SPACES SHALL SPAN UNINTERRUPTED FROM THE FLOOR PLATE TO THE UNDERSIDE OF THE ROOF RAFTERS. THEY SHOULD NOT BE INTERRUPTED BY ANY HORIZONTAL PLATES OR BEAMS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- MEMBERS WITHIN BUILT-UP BEAMS, WHETHER MADE OF SAWN OR ENGINEERED LUMBER, SHALL ONLY BE SPLICED OVER SUPPORTS.
- PROVIDE SIMPSON H1 OR H2.5 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.
- MINIMUM BEAM BEARING TO BE 3 INCHES UNLESS NOTED OTHERWISE ON PLAN.
- BEARING WALL SCHEDULE
-ALL EXTERIOR WALLS:
2x6@16"OC WITH 2 ROWS OF HORIZONTAL BLOCKING AT 1/2 POINTS
-1ST FLOOR INTERIOR BEARING WALLS:
2x6@16"OC WITH 2 ROWS OF HORIZONTAL BLOCKING AT 1/2 POINTS
-2ND & 3RD FLOOR INTERIOR BEARING WALLS:
2x6@16"OC WITH 1 ROW OF HORIZONTAL BLOCKING AT MID-HEIGHT OF WALL

DESIGN LOADS PER MASSACHUSETTS STATE BUILDING CODE

LIVE LOADS

GROUND SNOW LOAD:	40 PSF
UNINHABITABLE ATTICS WITHOUT STORAGE:	10 PSF
UNINHABITABLE ATTICS WITH LIMITED STORAGE:	20 PSF
HABITABLE ATTICS AND SLEEPING AREAS:	30 PSF
ALL OTHER AREAS EXCEPT DECKS AND BALCONIES:	40 PSF
EXTERIOR BALCONIES AND DECKS:	60 PSF

WIND LOADS

MASSACHUSETTS STATE BUILDING CODE 128 MPH, EXPOSURE B

DEAD LOAD

WEIGHTS OF MATERIALS AND CONSTRUCTION

STRUCTURAL STEEL

- STRUCTURAL STEEL WORK SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
- STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992, WITH A MINIMUM YIELD STRENGTH OF 50 KSI. PLATES, ANGLES, CHANNELS, AND MISC. FABRICATED HARDWARE SHALL CONFORM TO ASTM A36, WITH A MINIMUM YIELD STRENGTH OF 36 KSI. RECTANGULAR STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B, WITH A MINIMUM YIELD STRENGTH OF 46 KSI.
- ALL STEEL TO STEEL FIELD CONNECTIONS SHALL BE MADE BY HIGH STRENGTH BOLTING WITH ASTM A325 BOLTS OR WELDING WITH E70 XX ELECTRODES. STEEL TO CONCRETE AND STEEL TO WOOD FIELD CONNECTIONS MAY BE MADE WITH ASTM A 307 BOLTS.
- STEEL SHALL BE SHOP-PAINTED WITH A MODIFIED ALKYD PRIMER UNLESS OTHERWISE NOTED.
- NO CUTTING OF OR OPENINGS THROUGH STEEL WILL BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- CONTRACTOR TO SUBMIT SHOP DRAWING TO ARCHITECT AND ENGINEER FOR APPROVAL.

ABBREVIATIONS:

ADD'L - ADDITIONAL	HORIZ - HORIZONTAL
BLKG - BLOCKING	HDR - HEADER
BM - BEAM	JST - JOIST
BTM - BOTTOM	LVL - LAMINATED VENEER LUMBER
BRG - BEARING	LW - LONG WAY
BTWN - BETWEEN	MAX - MAXIMUM
BW - BEARING WALL	MIN - MINIMUM
CLG - CEILING	MFR - MANUFACTURER
COL - COLUMN	NLS - NOT TO SCALE
CONC - CONCRETE	OC - ON CENTER
CONN - CONNECTION	PL - PLATE
CONT - CONTINUOUS	PT - PRESSURE TREATED
DIAG - DIAGONAL	REQ - REQUIRED
DN - DOWN	SPEC - SPECIFICATION
EQSP - EQUAL SPACES	SW - SHORT WAY
ES - EACH SIDE	TYP - TYPICAL
EW - EACH WAY	UN - UNLESS OTHERWISE NOTED
FDN - FOUNDATION	VERT - VERTICAL
FIN - FINISH	W/- WITH
FLG - FLANGE	
FTG - FOOTING	

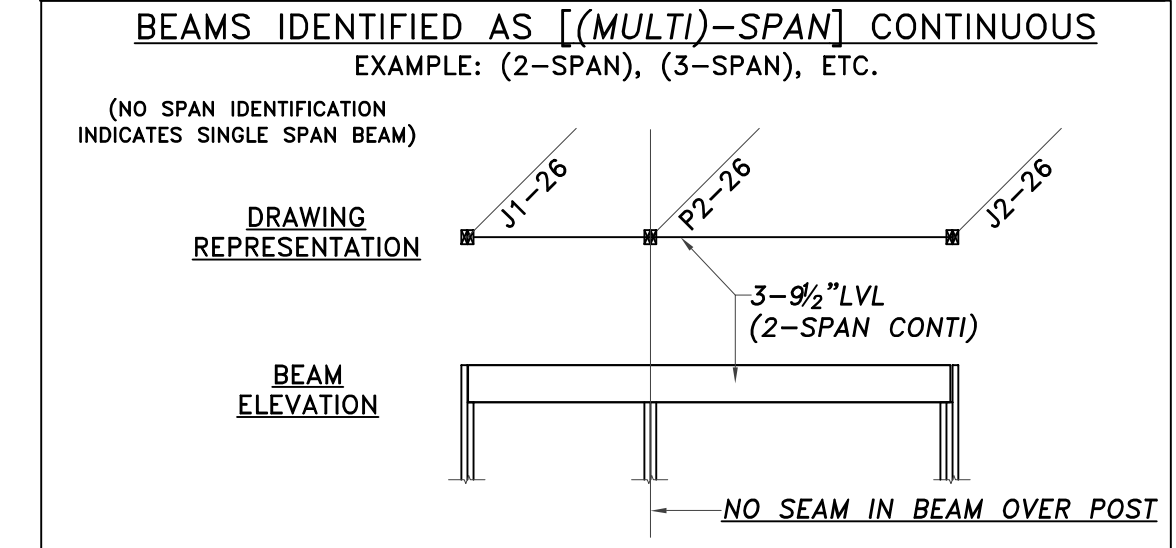
HELICAL PIER NOTES:

- HELICAL PIER DESIGN SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE MASSACHUSETTS BUILDING CODE AND APPLICABLE REQUIREMENTS OF OTHER REFERENCED DOCUMENTS.
ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
ASTM A36/A 36M - "STRUCTURAL STEEL"
ASTM A53 - "PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED WELDED AND SEAMLESS"
ASTM A153 - "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE"
ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
- DESIGN HELICAL PILE SYSTEM TO SUPPORT LOADS AS INDICATED ON DRAWINGS AND OUTLINE IN THIS SECTION. SUBMIT FOR APPROVAL BY THE ENGINEER THE HELICAL PILE DESIGN CALCULATIONS AND OTHER PERTINENT DATA BEFORE COMMENCING PILE INSTALLATION. APPROVAL OF SUBMITTALS DOES NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE PILE INSTALLATION IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- INSTALLER SHALL BE CERTIFIED BY HELICAL PILE MANUFACTURER, WITH A MINIMUM 5 YEARS EXPERIENCE IN TYPE OF DESIGN AND CONSTRUCTION SPECIFIED IN THIS SECTION AND ABLE TO DEMONSTRATE SUFFICIENT COMPETENT PERSONNEL TO COMPLETE SPECIFIED CONSTRUCTION. CAPABLE OF PROVIDING JOB SUPERINTENDENT OR FOREMAN WITH AT LEAST 5 YEARS CONSTRUCTION EXPERIENCE IN CONSTRUCTION SPECIFIED IN THIS SECTION AND ENSURING SUCH SUPERVISION WILL BE PRESENT AT SITE DURING PILE CONSTRUCTION.
- PILE DESIGN CAPACITIES TO BE DETERMINED USING A GEOTECHNICAL REPORT PREPARED AND STAMPED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS.
- PRE-INSTALLATION SUBMITTALS TO BE SUPPLIED NOT LESS THAN 14 DAYS PRIOR TO COMMENCING PILE INSTALLATION AND SHOULD INCLUDE AT A MINIMUM:
SUBMIT CERTIFICATION THAT MANUFACTURED COMPONENTS COMPLY WITH ICBO REPORT ER-5110 OR PFC-5551.
WRITTEN CERTIFICATION OF INSTALLER OR SIMILAR DOCUMENTATION SIGNED BY APPLICABLE SUBCONTRACTOR, PRIME CONTRACTOR AND MANUFACTURER INDICATING COMPLIANCE WITH QUALIFICATIONS.
CALCULATIONS FOR PILE DESIGN CAPACITIES
SHOP DRAWINGS SHOWING PILE SHAFT DIAMETERS, HELICAL PLATE DATA, LENGTH, AND OTHER PERTINENT DATA.
DETAILS OF INSTALLATION SEQUENCE AND EQUIPMENT TO BE USED IN PILE CONSTRUCTION
SAMPLE COPIES OF DAILY PILE REPORTS/FIELD REPORTS TO BE USED
SEALED BY PROFESSIONAL ENGINEER REGISTERED IN MASSACHUSETTS
- INSTALLER TO CONFIRM THAT SITE CONDITIONS ARE ACCEPTABLE TO ENSURE PROPER AND TIMELY INSTALLATION AND TO ENSURE REQUIREMENTS FOR APPLICABLE WARRANTY OR GUARANTEE CAN BE SATISFIED. SUBMIT TO ARCHITECT WRITTEN CONFIRMATION FROM APPLICABLE INSTALLER. FAILURE TO SUBMIT WRITTEN CONFIRMATION AND SUBSEQUENT INSTALLATION WILL BE ASSUMED TO INDICATE CONDITIONS ARE ACCEPTABLE TO INSTALLER.
- ACCURATELY LOCATE EACH PILE PER DESIGN DOCUMENTS BY MEANS OF SURVEY. DO NOT EXCEED 4 INCHES LATERAL DEVIATION FROM CENTER OF PILE DESIGN LOCATION.
- PILES IMPROPERLY INSTALLED BECAUSE OF MISLOCATION, MISALIGNMENT, OR FAILURE TO MEET OTHER SPECIFIED DESIGN/INSTALLATION CRITERIA ARE NOT ACCEPTABLE. ABANDON REJECTED PILES AND INSTALL ADDITIONAL PILES AS REQUIRED.
- PILE INSTALLER RECORDS - MAINTAIN DAILY RECORD OF ALL DATA PERTINENT TO INSTALLATION OF PILES, INCLUDING THE FOLLOWING: PILE NUMBER, DATE OF INSTALLATION, HELICAL PLATE DIAMETER, PIER SHAFT SIZE, PILE LENGTH, TORQUE READINGS DURING INSTALLATION, DESCRIPTION OF ANY UNUSUAL OCCURRENCES DURING PILE CONSTRUCTION
- INSTALLATION TO BE MONITORED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS; WITH THE INTENT TO CERTIFY THE INSTALLATION OF THE PIERS SATISFY THE DESIGN DOCUMENTS WITH APPROVED FIELD MODIFICATIONS. AN AFFIDAVIT TO BE SUBMITTED TO THE OWNER, GENERAL CONTRACTOR, ARCHITECT AND ENGINEER.
- INSTALLATION CONTRACTOR TO PRODUCE AS-BUILT DRAWING AFTER COMPLETION OF PILE INSTALLATION IDENTIFYING ACTUAL LOCATIONS OF HELICAL PIERS, PIER DIAMETER, AND PIER LENGTH AND DEVIATION FORM INDICATED LOCATIONS.

MEMBER	1	2	3
2X8	LUS28	LUS28-2	LUS28-3
2X10	LUS210	LUS210-2	LUS210-3
2X12	LUS210	LUS210-2	LUS210-3
9/2"LVL	HHUS	HHUS	HHUS
1 1/2"LVL	HHUS	HHUS	HHUS
1.4"LVL	HHUS	HHUS	HHUS
2 3/4"FLG I-JOIST	IUS 2.37		
2 1/2"FLG I-JOIST	IUS 2.56		
3 1/2"FLG I-JOIST	IUS 3.56		

- NOTE:
1. USE HANGERS ABOVE FOR PROPOSED STRUCTURE UNLESS OTHERWISE NOTED ON FRAMING PLANS.
2. INSTALL ALL HANGERS WITH MAXIMUM NUMBER OF FASTENERS.

MULTIPLE SPAN BEAM LEGEND



THIS PROJECT IS CONTROLLED CONSTRUCTION. CONTRACTOR TO CONTACT ENGINEER AT COMMENCEMENT OF WORK TO DISCUSS CONSTRUCTION MONITORING.

Rev: Date:

FOR PERMIT

Date : 23 APRIL, 2021

DRAWING SCALES SHOWN ARE BASED ON AN 24x36 SIZE DRAWING

GENERAL NOTES

LEGEND	
BW = BEARING WALL	
FVP = FLAT VALLEY PLATE	
(E) = EXISTING	
(N) = NEW	
TBR = TO BE REMOVED	
POST LOCATION	POST UP (ABOVE LINE)
	POST DOWN (BELOW LINE)
DIM. LUMBER POST	
	NUMBER OF STUDS
P3-26	SIZE OF STUD
	TYPE OF POST: P-POST, J-JACK,
ENGINEERED POST	
LC 3 1/2"	SIZE
	TYPE OF POST: VC-VERSA COLUMN, LC-LALLY COLUMN, HSS-TUBE STEEL

S-000



147-149 Charles St
 Boston, MA

Rev: _____ Date: _____

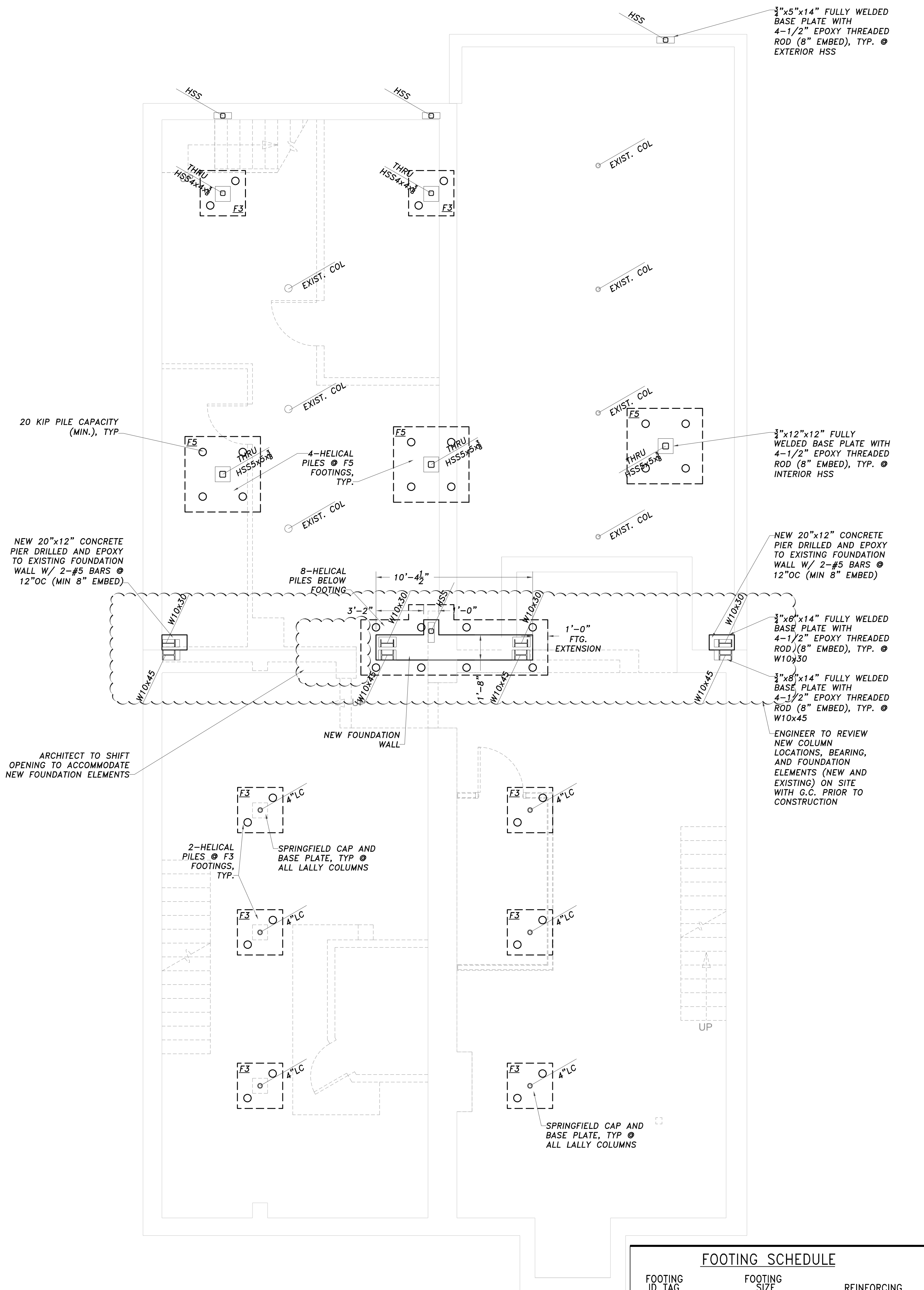
FOR PERMIT

Date: 23 APRIL, 2021

DRAWING SCALES SHOWN ARE BASED ON AN 24x36 SIZE DRAWING

FOUNDATION AND FDN DETAILS

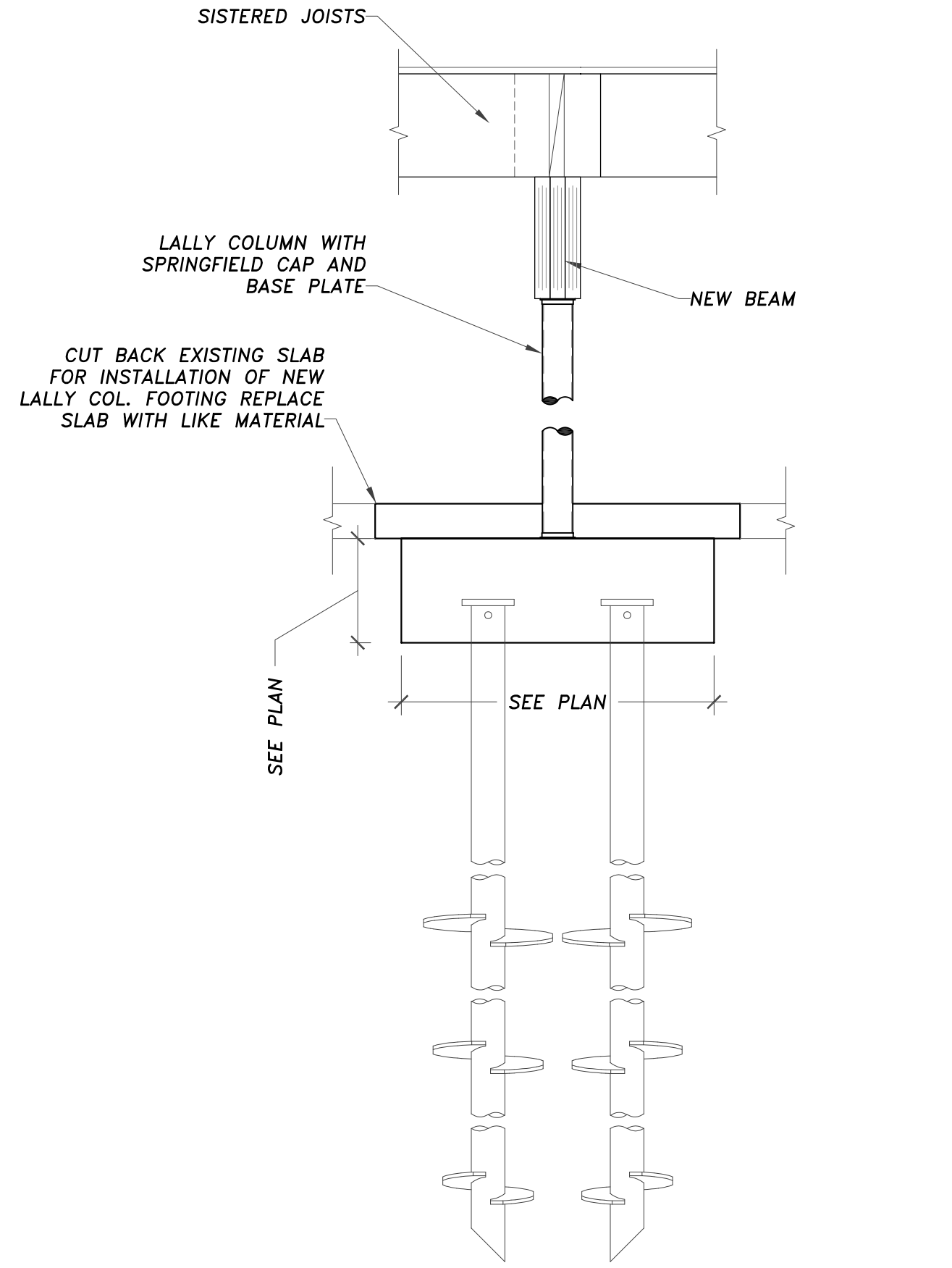
S-100



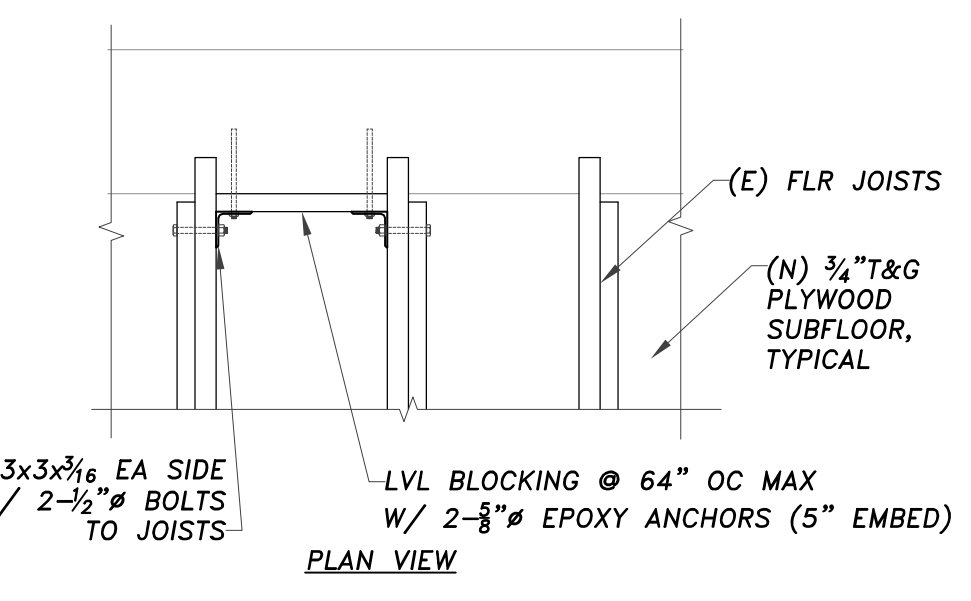
STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. ENGINEER TO BE CONTACTED FOLLOWING DEMO FOR A FIELD VISIT. ADDITIONAL STRUCTURAL ELEMENTS MAY BE REQUIRED.

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

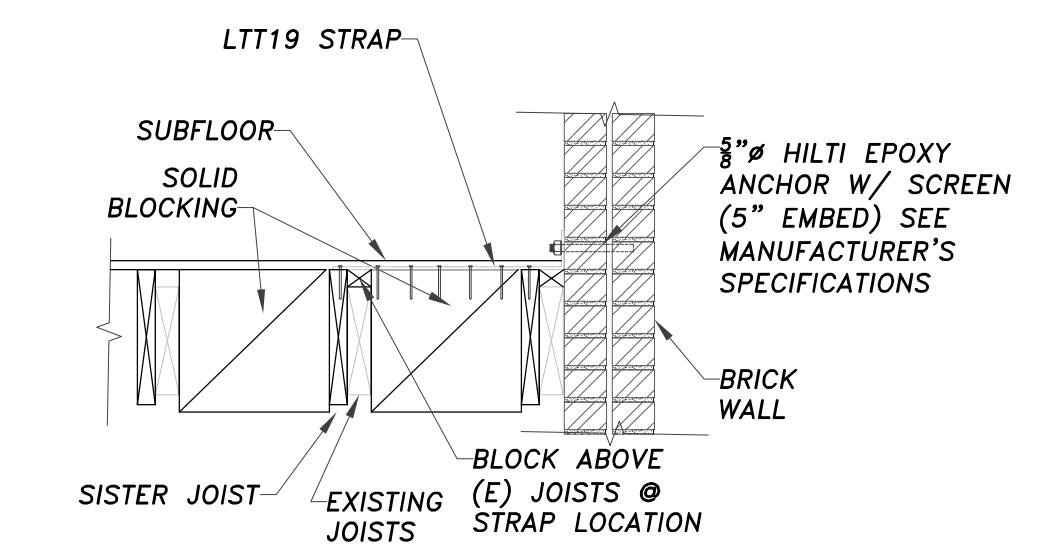
FOOTING ID TAG	FOOTING SIZE	REINFORCING
F3	3'-0"x3'-0"x12" THICK	(4) #5 E.W. BOT.
F5	5'-0"x5'-0"x14" THICK	(6) #5 E.W. BOT.



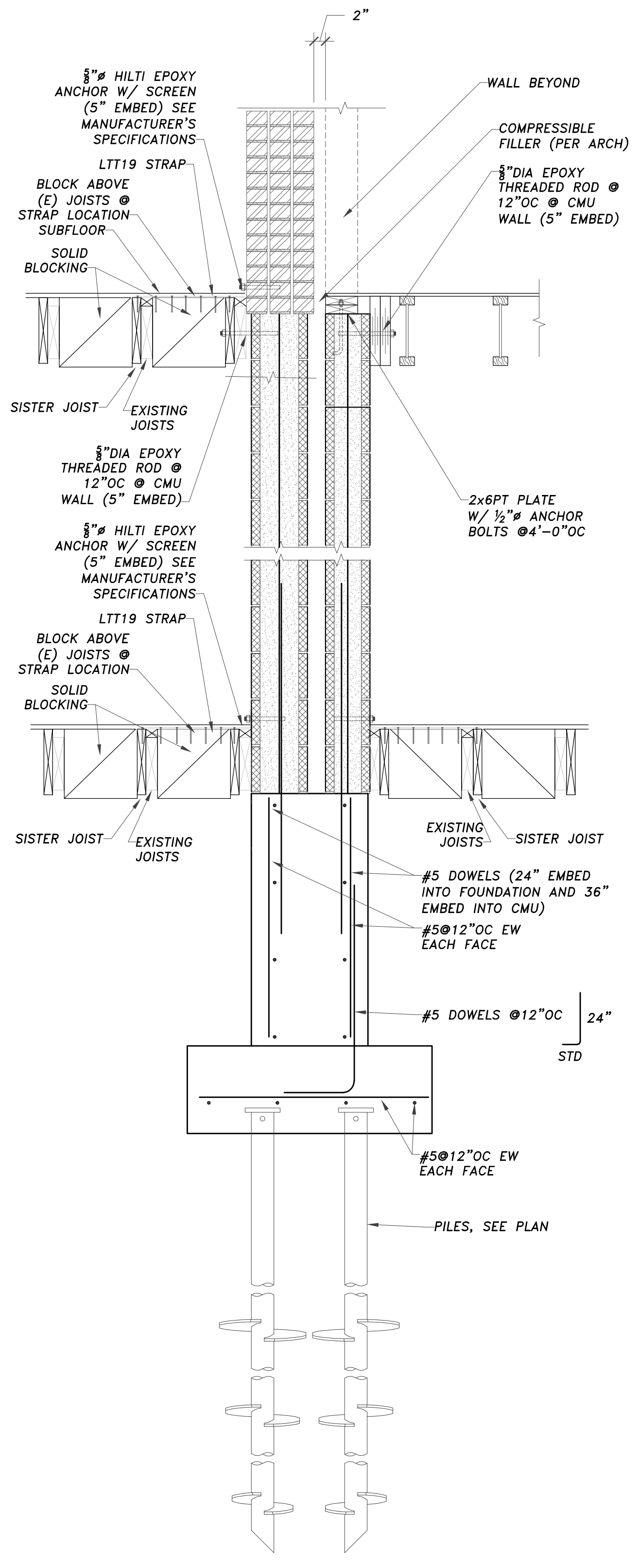
1 LALLY COL. DETAIL
 Scale: 3/4" = 1'-0"



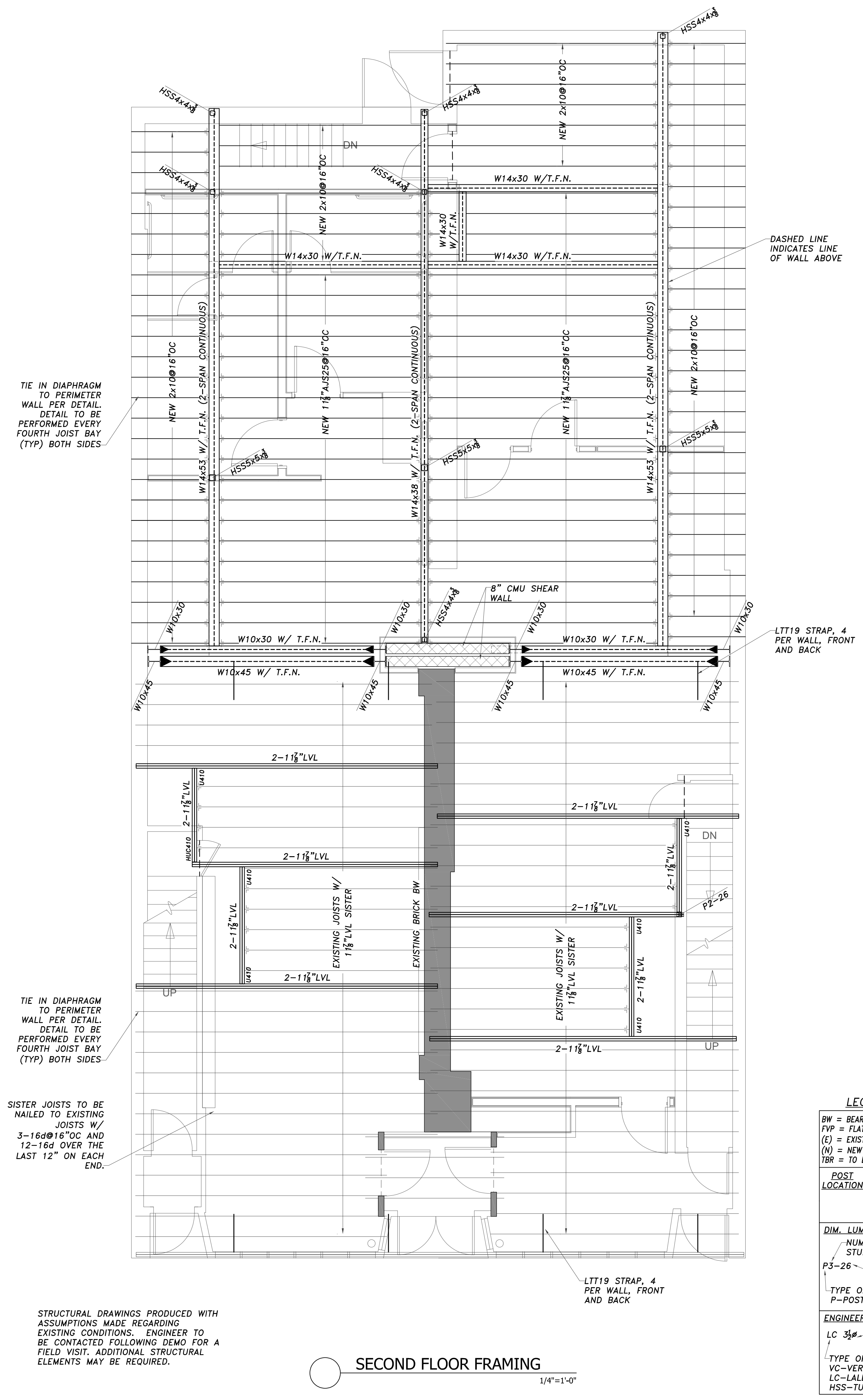
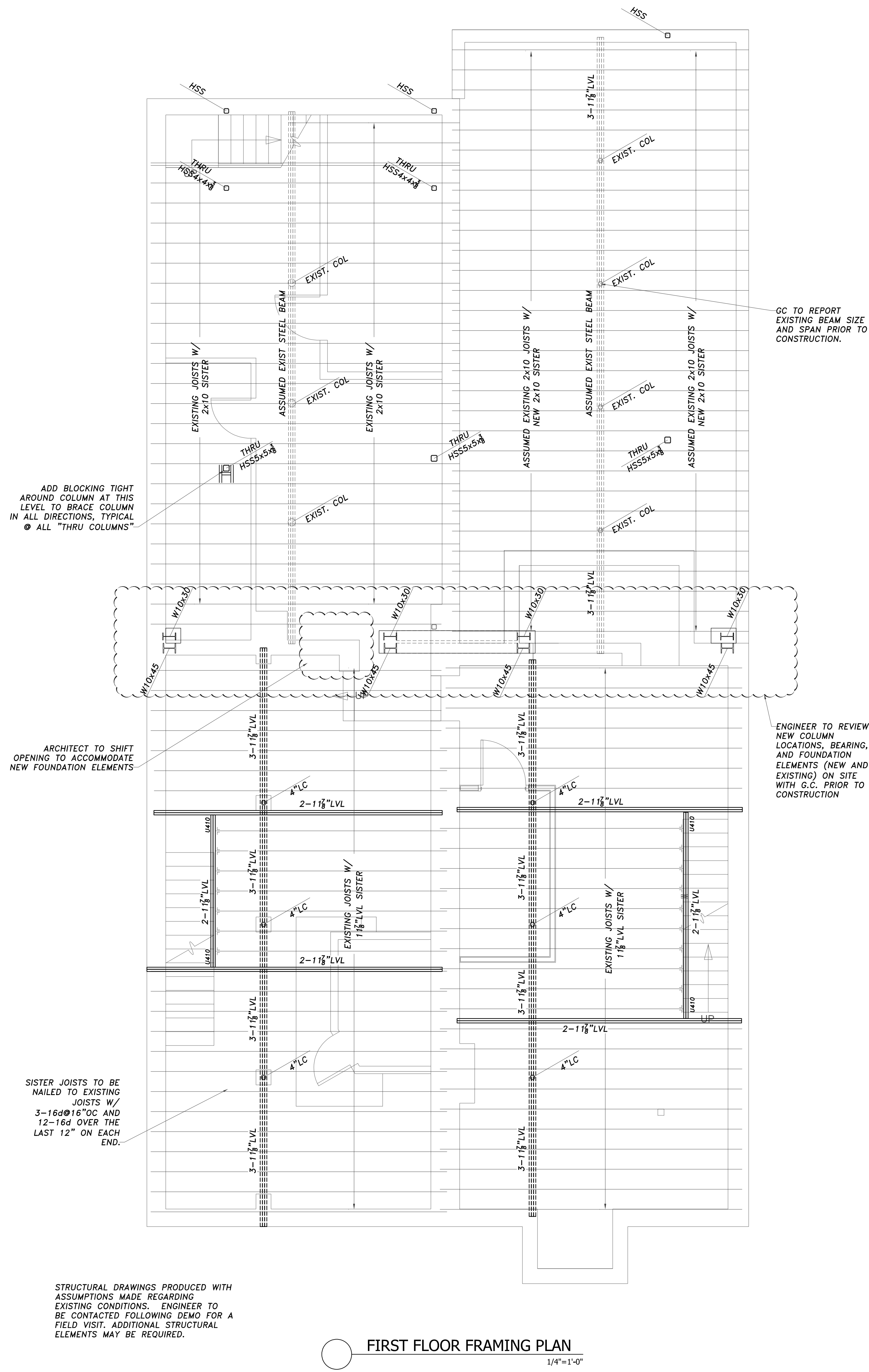
2 SIDE WALL TYING
 Scale: 3/4" = 1'-0"



3 FRONT/REAR WALL TYING
 Scale: 3/4" = 1'-0"



4 SECTION THROUGH CMU SHEAR WALL
 Scale: 3/4" = 1'-0"



LEGEND

BW = BEARING WALL
FVP = FLAT VALLEY PLATE
(E) = EXISTING
(N) = NEW
TBR = TO BE REMOVED

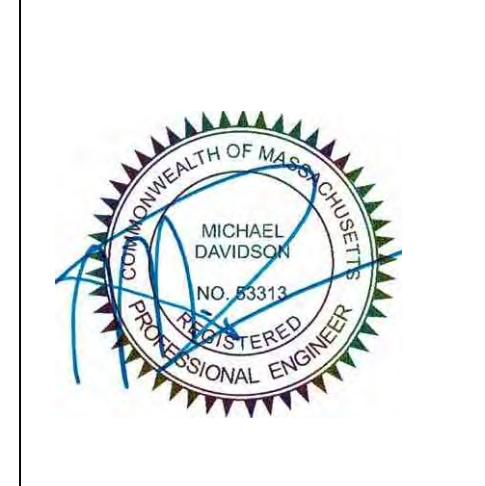
POST LOCATION: POST UP (ABOVE LINE), POST DOWN (BELOW LINE)

DIM. LUMBER POST: NUMBER OF STUDS, P3-26 - SIZE OF STUD

TYPE OF POST: P-POST, J-JACK, ENGINEERED POST

LC 3/8" - SIZE

TYPE OF POST: VC-VERSA COLUMN, LC-LALLY COLUMN, HSS-TUBE STEEL



147-149 Charles St
Boston, MA

Rev: Date:

FOR PERMIT
Date: 23 APRIL, 2021
DRAWING SCALES SHOWN ARE BASED ON AN 24x36 SIZE DRAWING

FRAMING PLANS

S-200



147-149 Charles St
 Boston, MA

Rev: Date:

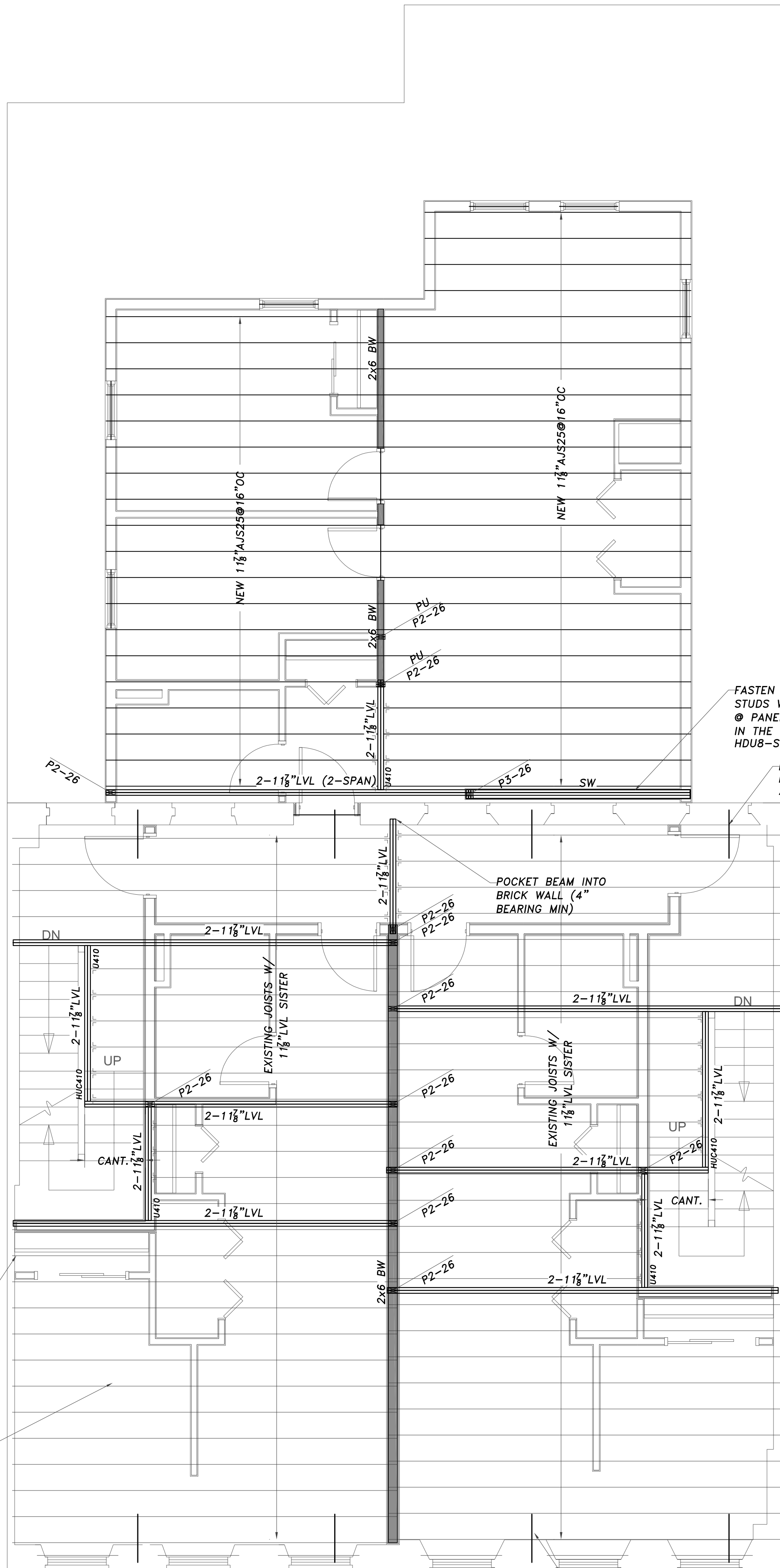
FOR PERMIT

Date: 23 APRIL, 2021

DRAWING SCALES SHOWN ARE BASED ON AN 24x36 SIZE DRAWING

FRAMING PLANS

S-300



FASTEN PLYWOOD TO WALL STUDS W/ 8d NAILS @ 3\"/>

LTT19 STRAP, 4 PER WALL, FRONT AND BACK

POCKET BEAM INTO BRICK WALL (4\"/>

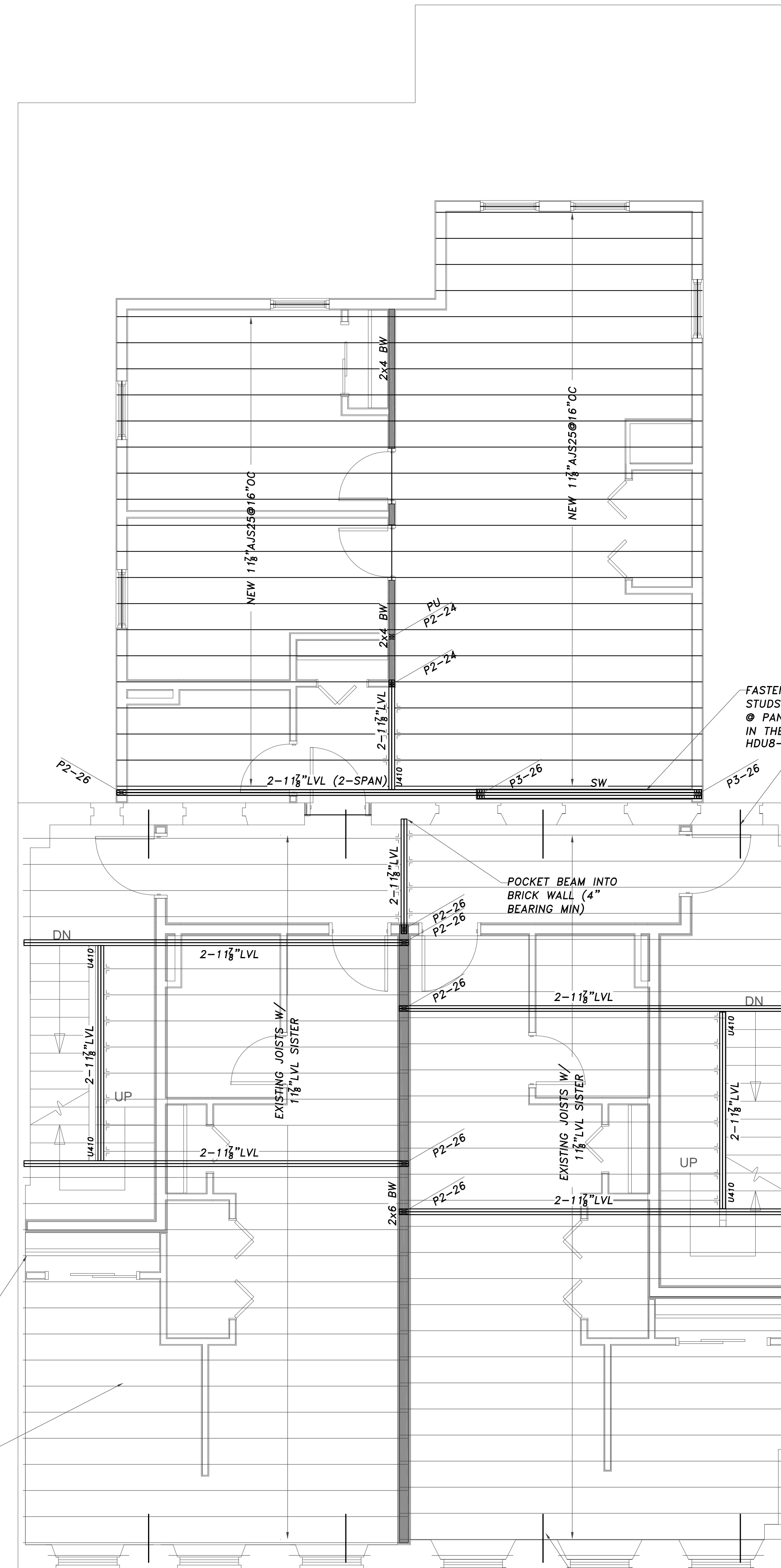
TIE IN DIAPHRAGM TO PERIMETER WALL PER DETAIL. DETAIL TO BE PERFORMED EVERY FOURTH JOIST BAY (TYP) BOTH SIDES

SISTER JOISTS TO BE NAILED TO EXISTING JOISTS W/ 3-16d@16\"/>

STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. ENGINEER TO BE CONTACTED FOLLOWING DEMO FOR A FIELD VISIT. ADDITIONAL STRUCTURAL ELEMENTS MAY BE REQUIRED.

THIRD FLOOR FRAMING

1/4\"/>



FASTEN PLYWOOD TO WALL STUDS W/ 8d NAILS @ 3\"/>

LTT19 STRAP, 4 PER WALL, FRONT AND BACK

POCKET BEAM INTO BRICK WALL (4\"/>

TIE IN DIAPHRAGM TO PERIMETER WALL PER DETAIL. DETAIL TO BE PERFORMED EVERY FOURTH JOIST BAY (TYP) BOTH SIDES

SISTER JOISTS TO BE NAILED TO EXISTING JOISTS W/ 3-16d@16\"/>

STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. ENGINEER TO BE CONTACTED FOLLOWING DEMO FOR A FIELD VISIT. ADDITIONAL STRUCTURAL ELEMENTS MAY BE REQUIRED.

FOURTH FLOOR FRAMING

1/4\"/>

LEGEND

- BW = BEARING WALL
- FVP = FLAT VALLEY PLATE
- (E) = EXISTING
- (N) = NEW
- TBR = TO BE REMOVED
- POST LOCATION: POST UP (ABOVE LINE), POST DOWN (BELOW LINE)
- DIM. LUMBER POST: NUMBER OF STUDS
- P3-26 ~ SIZE OF STUD
- TYPE OF POST: P-POST, J-JACK, ENGINEERED POST
- LC 3 1/2\"/>



147-149 Charles St
 Boston, MA

Rev: Date:

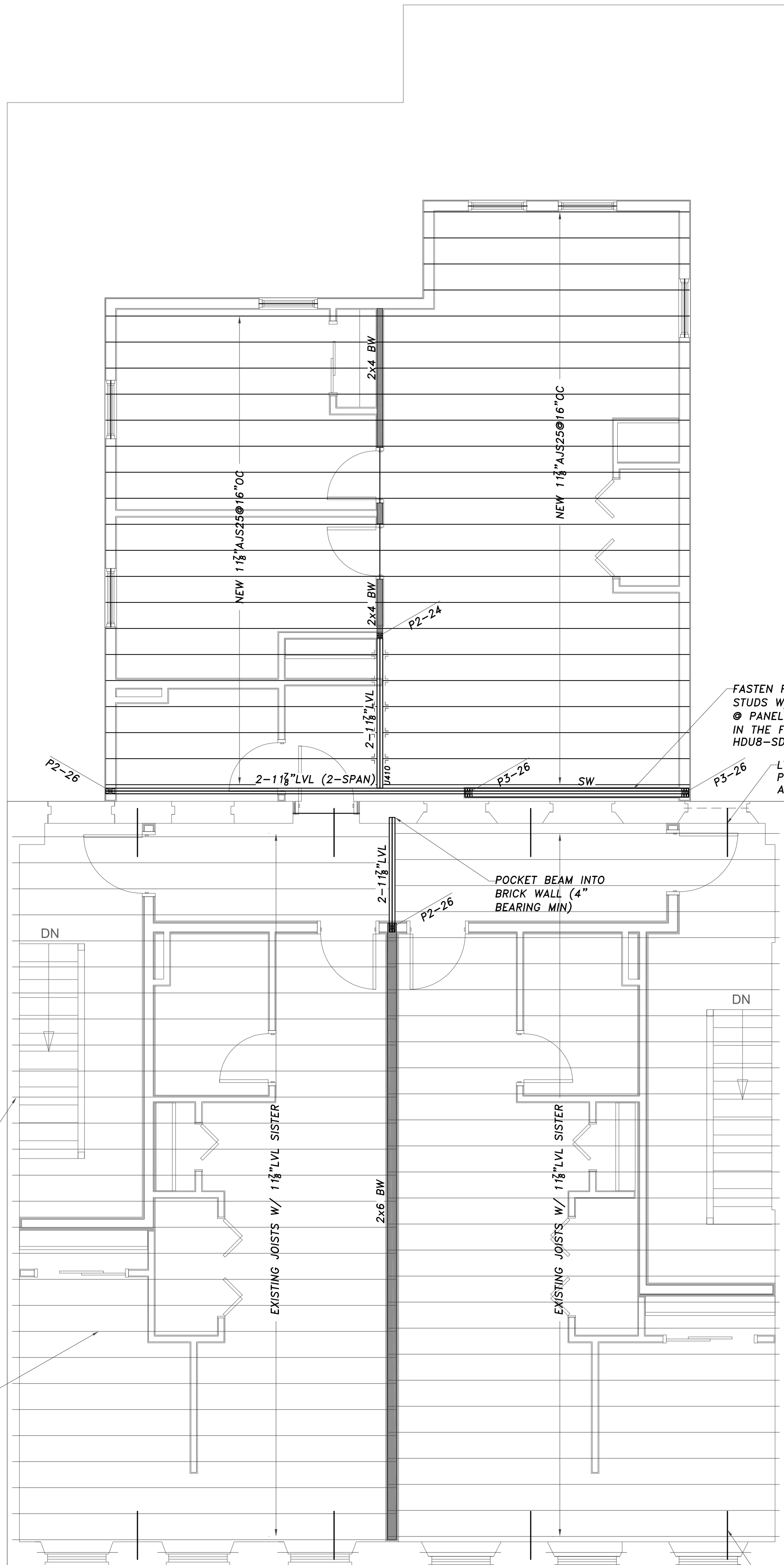
FOR PERMIT

Date : 23 APRIL, 2021

DRAWING SCALES SHOWN ARE BASED ON AN 24x36 SIZE DRAWING

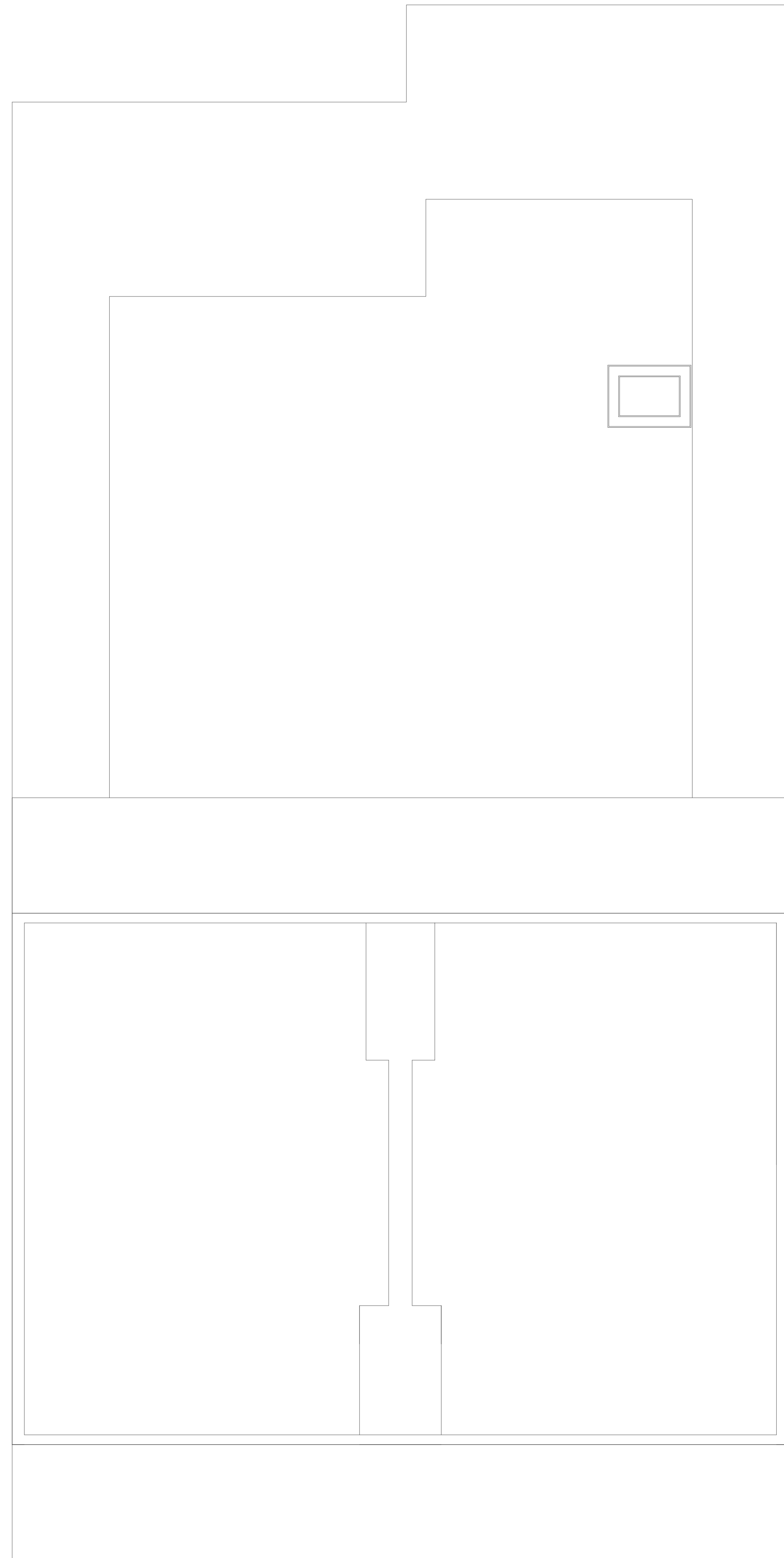
FRAMING PLANS

S-400



STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. ENGINEER TO BE CONTACTED FOLLOWING DEMO FOR A FIELD VISIT. ADDITIONAL STRUCTURAL ELEMENTS MAY BE REQUIRED.

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



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

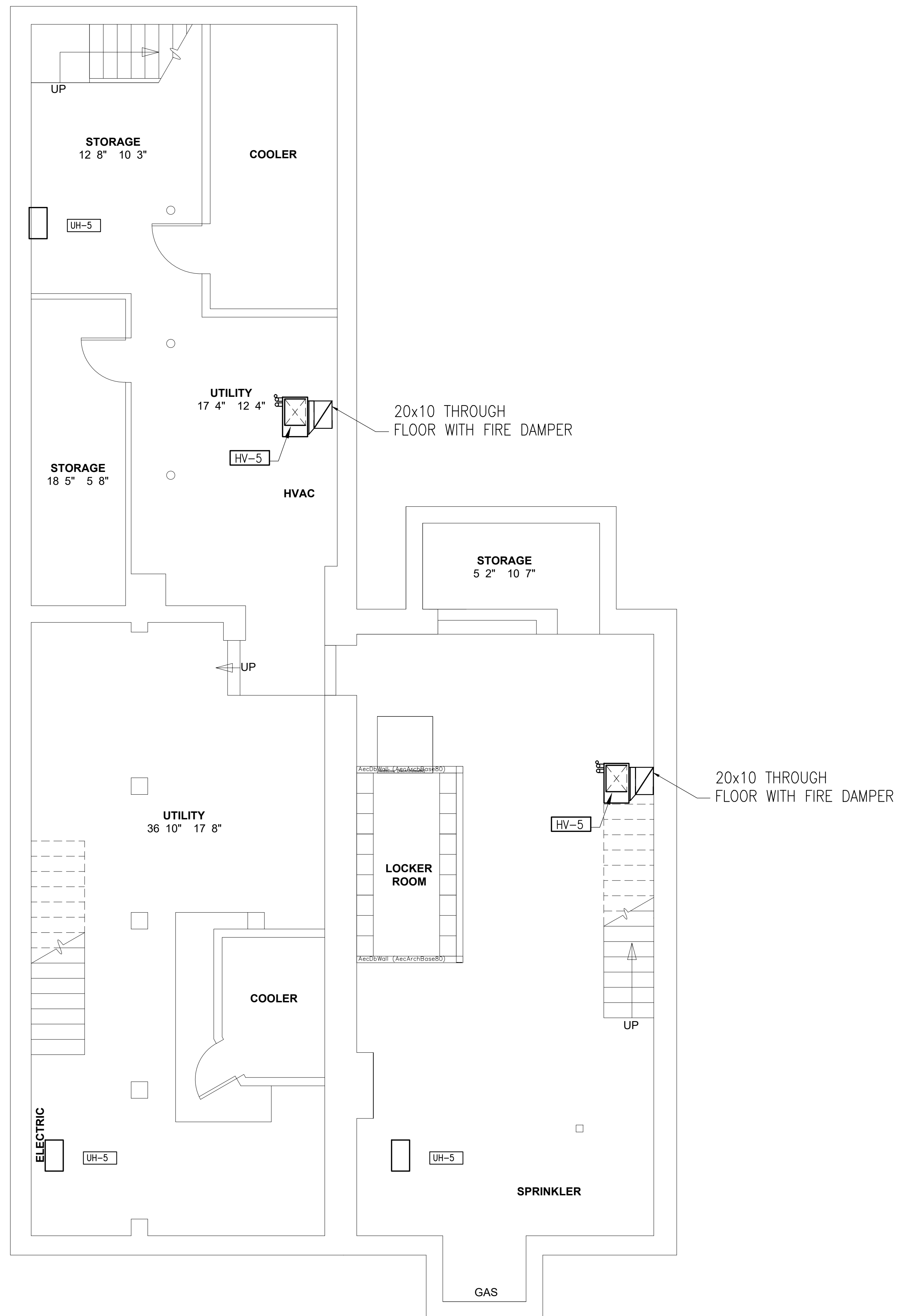
LEGEND

BW = BEARING WALL
 FVP = FLAT VALLEY PLATE
 (E) = EXISTING
 (N) = NEW
 TBR = TO BE REMOVED

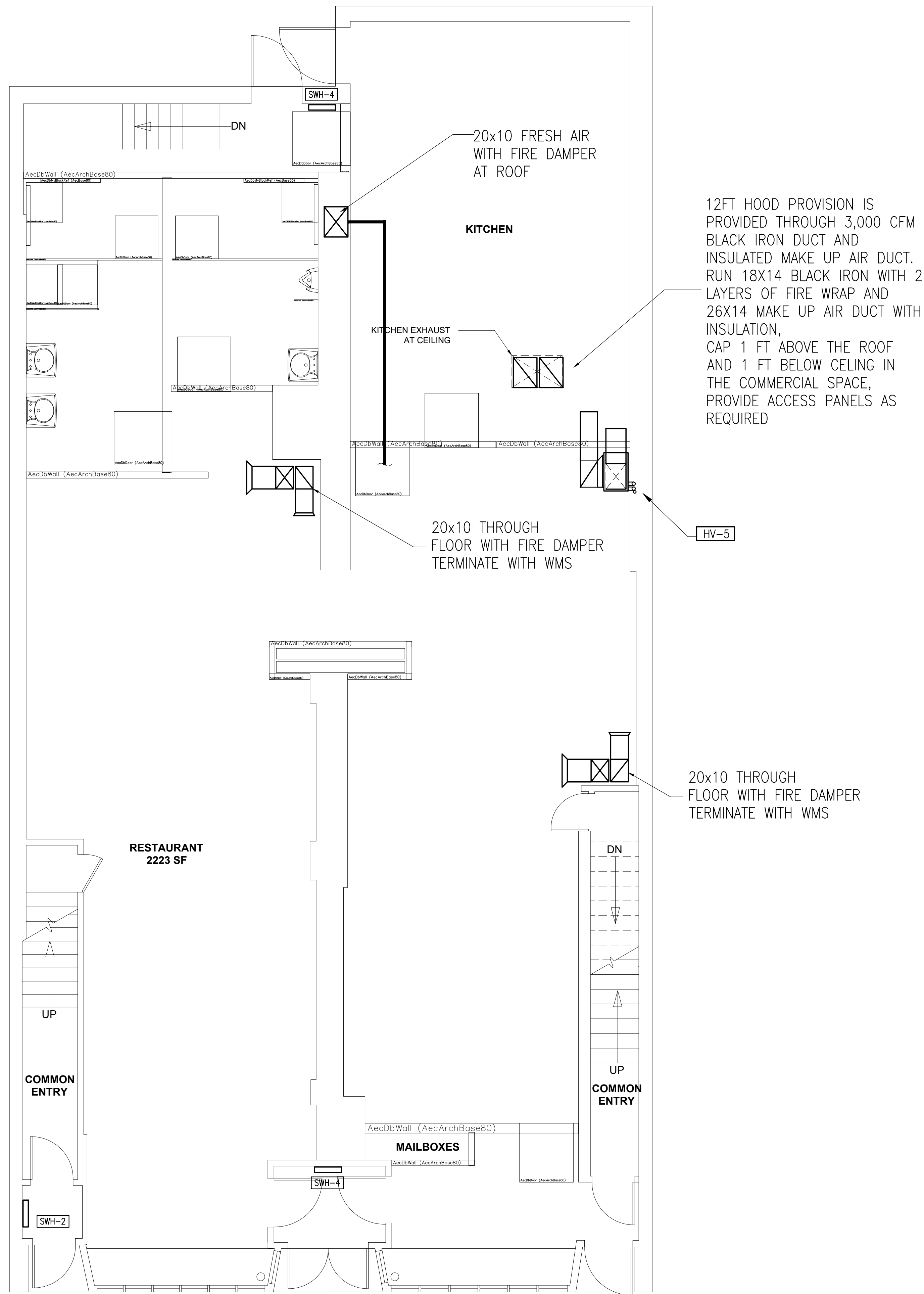
POST LOCATION
 POST UP (ABOVE LINE)
 POST DOWN (BELOW LINE)

DIM. LUMBER POST
 NUMBER OF STUDS
 P3-26 SIZE OF STUD
 TYPE OF POST:
 P-POST, J-JACK,

ENGINEERED POST
 LC 3# SIZE
 TYPE OF POST:
 VC-VERSA COLUMN,
 LC-LALLY COLUMN,
 HSS-TUBE STEEL



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

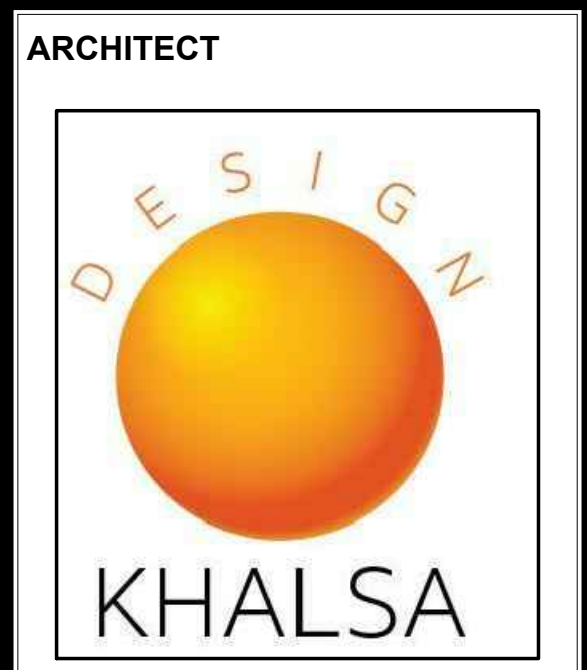


2 PROPOSED FIRST FLOOR PLAN
1/4" = 1'-0"

PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM



171 ALOO STREET SUITE 400
SOMER ILLE 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 © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr	r	19061
D		9 25 2020
Dr		RC
C	d	M
S		A d

REVISIONS

No.	Description	Date

H AC PLANS

H-100
00000 PRO ECT NAME



Pr	r	19061
D	D	9 25 2020
Dr		RC
C	d	A d M d
S		A d M d

REVISIONS

No.	Description	Date

H AC PLANS

ALL DRYERS MORE THAN 15FT EXHAUST DUCT SHALL HAVE BOOSTER FANS LOCATED IN DRYER ROOM AND INTERLOCKED WITH DRYER OPERATION. ALL DRYERS SHALL HAVE DRYER ELL AT CEILING TURNS, SEE DETAIL. ALL TAPES FOR DRYER EXHAUST SHALL BE RATED FOR DRYER DUCT USE.

ALL CEILING DIFFUSERS SHALL HAVE RADIATION DAMPERS, ALL CEILING RETURNS AND TRANSFER RETURNS SHALL HAVE RADIATION DAMPERS.

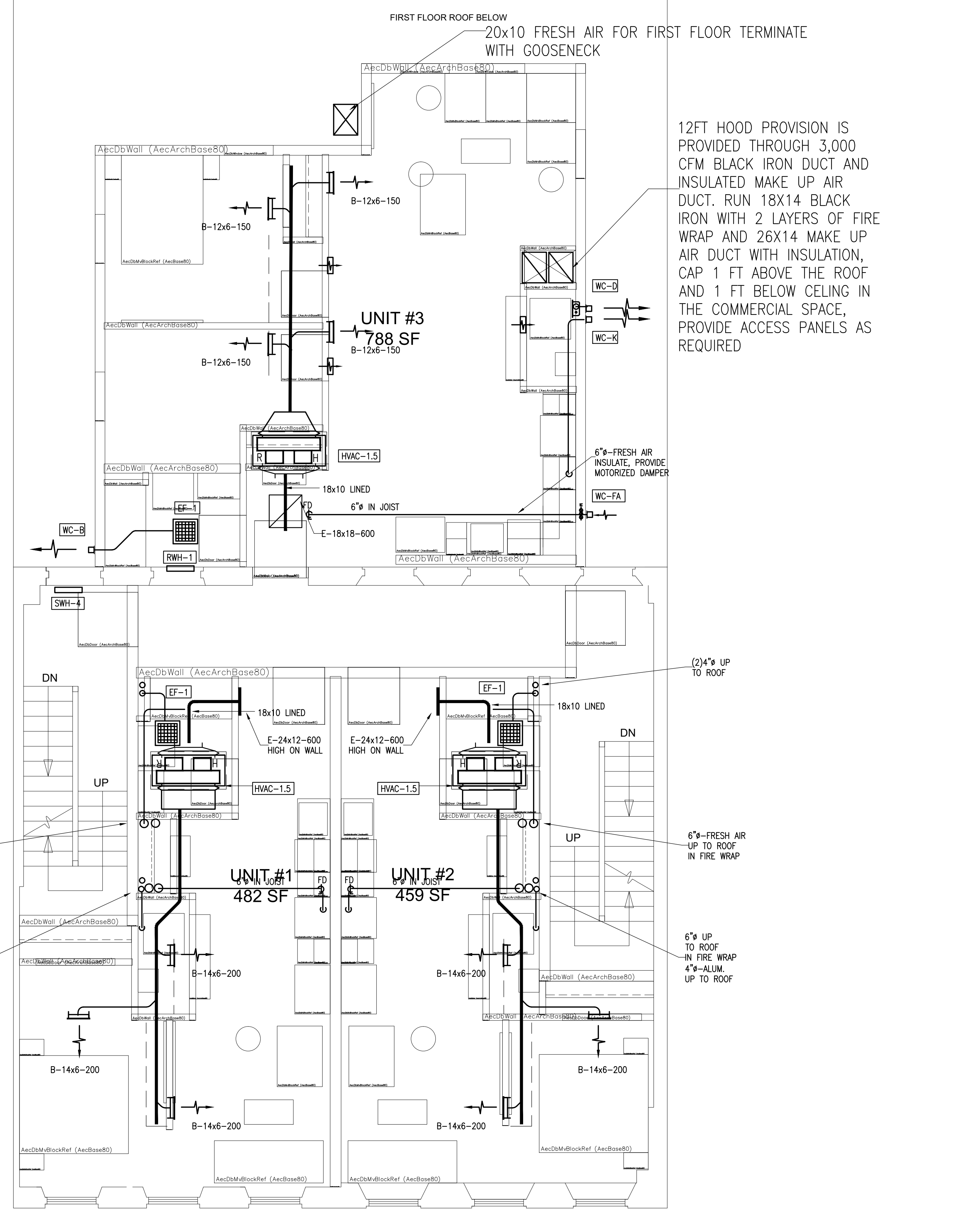
PROVIDE FRESH AIR TO EACH UNIT CONSISTING OF: FRESH AIR INTAKE WALL CAP, MOTORIZED DAMPER, FAMCO ADC524 (24V) INTERLOCKED WITH THE UNIT, 6" INSULATED DUCT AND VOLUME DAMPER. PROVIDE PANASONIC FV-15NFLS1 ADJUSTABLE SUPPLY FAN WITH EACH FRESH AIR DUCT.

OFFSET DUCTWORK AT UNIT DISCHARGE TO GO INTO CEILING SPACE AND INTO JOIST SPACE. PROVIDE FIRE DAMPER AT CEILING PENETRATION.

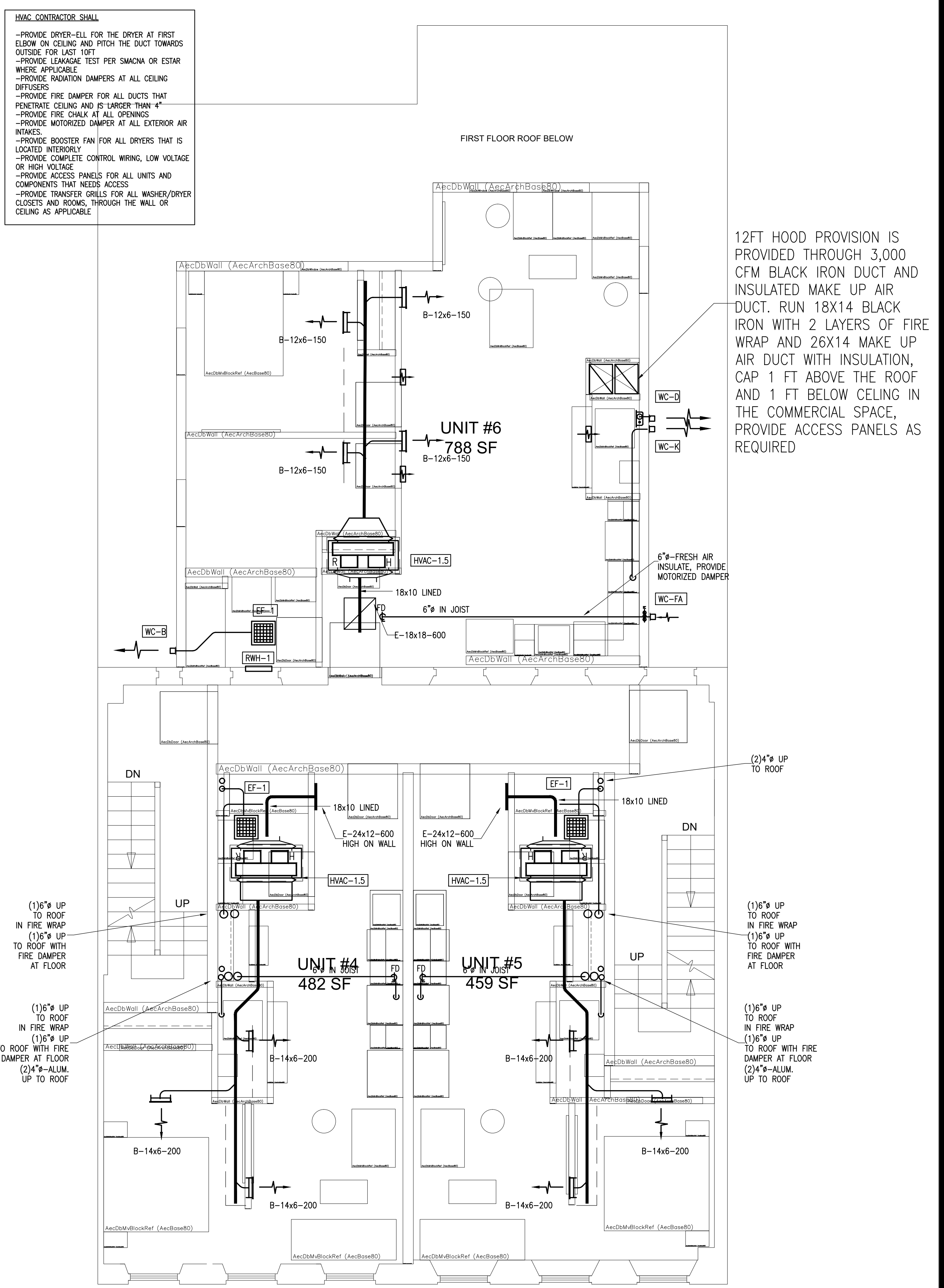
FOR BRANCH DUCT SIZING SEE DUCT SCHEDULE
100 CFM #6"
150 CFM #7"
200 CFM #8"

INDICATES JOIST DIRECTION
12" DEEP TJI, 16" ON CENTER

HVAC CONTRACTOR SHALL
-PROVIDE DRYER-ELL FOR THE DRYER AT FIRST ELBOW ON CEILING AND PITCH THE DUCT TOWARDS OUTSIDE FOR LAST 10FT
-PROVIDE LEAKAGE TEST PER SMACNA OR ESTAR WHERE APPLICABLE
-PROVIDE RADIATION DAMPERS AT ALL CEILING DIFFUSERS
-PROVIDE FIRE DAMPER FOR ALL DUCTS THAT PENETRATE CEILING AND IS LARGER THAN 4"
-PROVIDE FIRE CHALK AT ALL OPENINGS
-PROVIDE MOTORIZED DAMPER AT ALL EXTERIOR AIR INTAKES.
-PROVIDE BOOSTER FAN FOR ALL DRYERS THAT IS LOCATED INTERIORLY
-PROVIDE COMPLETE CONTROL WIRING, LOW VOLTAGE OR HIGH VOLTAGE
-PROVIDE ACCESS PANELS FOR ALL UNITS AND COMPONENTS THAT NEEDS ACCESS
-PROVIDE TRANSFER GRILLS FOR ALL WASHER/DRYER CLOSETS AND ROOMS, THROUGH THE WALL OR CEILING AS APPLICABLE



1 PROPOSED SECOND FLOOR PLAN
1/4" = 1' 0"



2 PROPOSED THIRD FLOOR PLAN
1/4" = 1' 0"

PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8682 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL. (617) 538-4406
FAX. (617) 451-2540
E-MAIL Zade@ZadeEngineering.com

COPYRIGHT KDJ © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

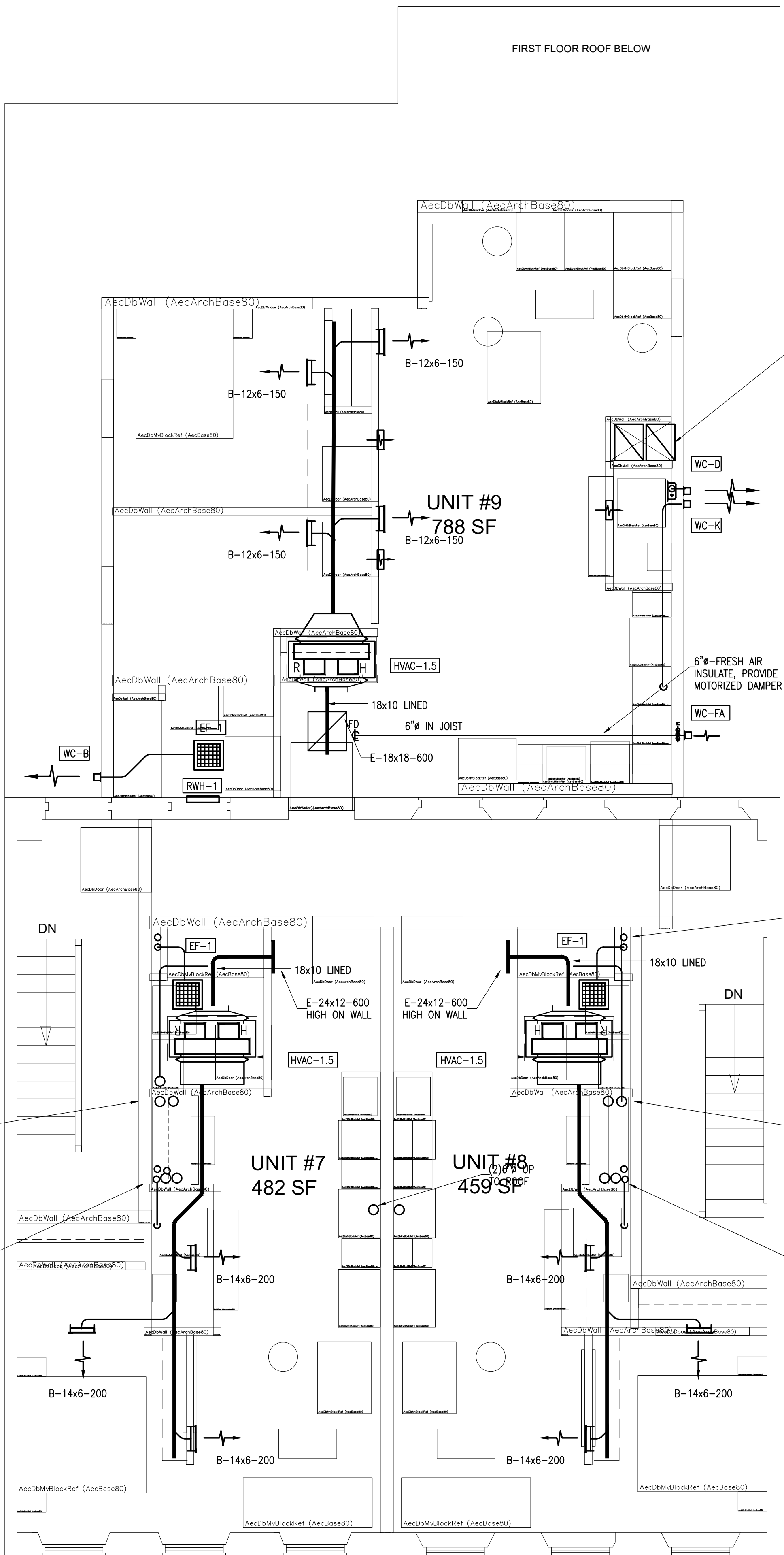
Pr	r	19061
D		9 25 2020
Dr		RC
C	d	M
S		A d

REVISIONS

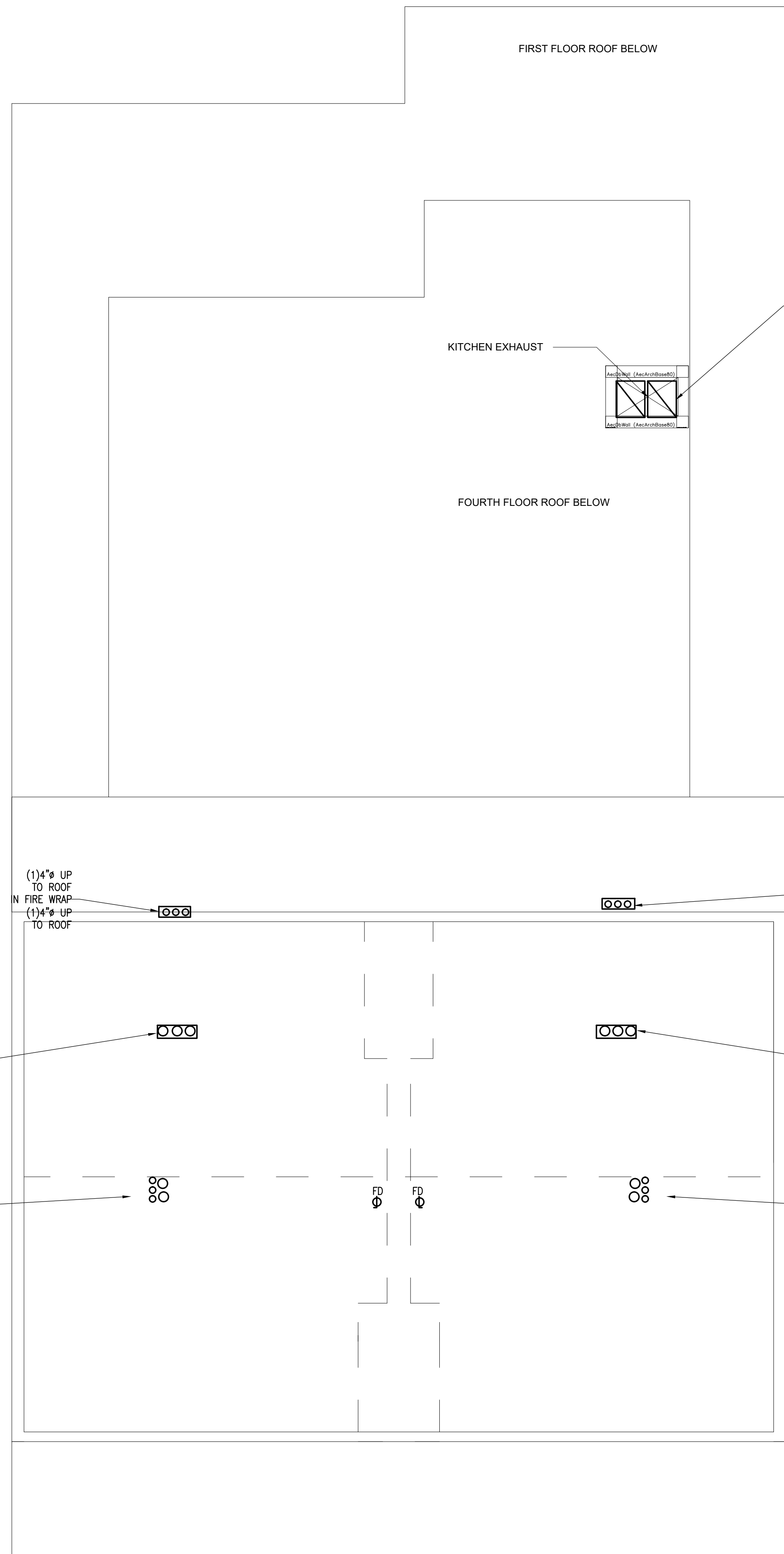
No.	Description	Date

H AC PLANS

H-102
00000 PRO ECT NAME



12FT HOOD PROVISION IS PROVIDED THROUGH 3,000 CFM BLACK IRON DUCT AND INSULATED MAKE UP AIR DUCT. RUN 18X14 BLACK IRON WITH 2 LAYERS OF FIRE WRAP AND 26X14 MAKE UP AIR DUCT WITH INSULATION, CAP 1 FT ABOVE THE ROOF AND 1 FT BELOW CEILING IN THE COMMERCIAL SPACE, PROVIDE ACCESS PANELS AS REQUIRED



12FT HOOD PROVISION IS PROVIDED THROUGH 3,000 CFM BLACK IRON DUCT AND INSULATED MAKE UP AIR DUCT. RUN 18X14 BLACK IRON WITH 2 LAYERS OF FIRE WRAP AND 26X14 MAKE UP AIR DUCT WITH INSULATION, CAP 1 FT ABOVE THE ROOF AND 1 FT BELOW CEILING IN THE COMMERCIAL SPACE, PROVIDE ACCESS PANELS AS REQUIRED

1 PROPOSED FOURTH FLOOR PLAN
1/4" = 1' 0"

2 PROPOSED ATTIC FLOOR PLAN
1/4" = 1' 0"

PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE 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 KDJ © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

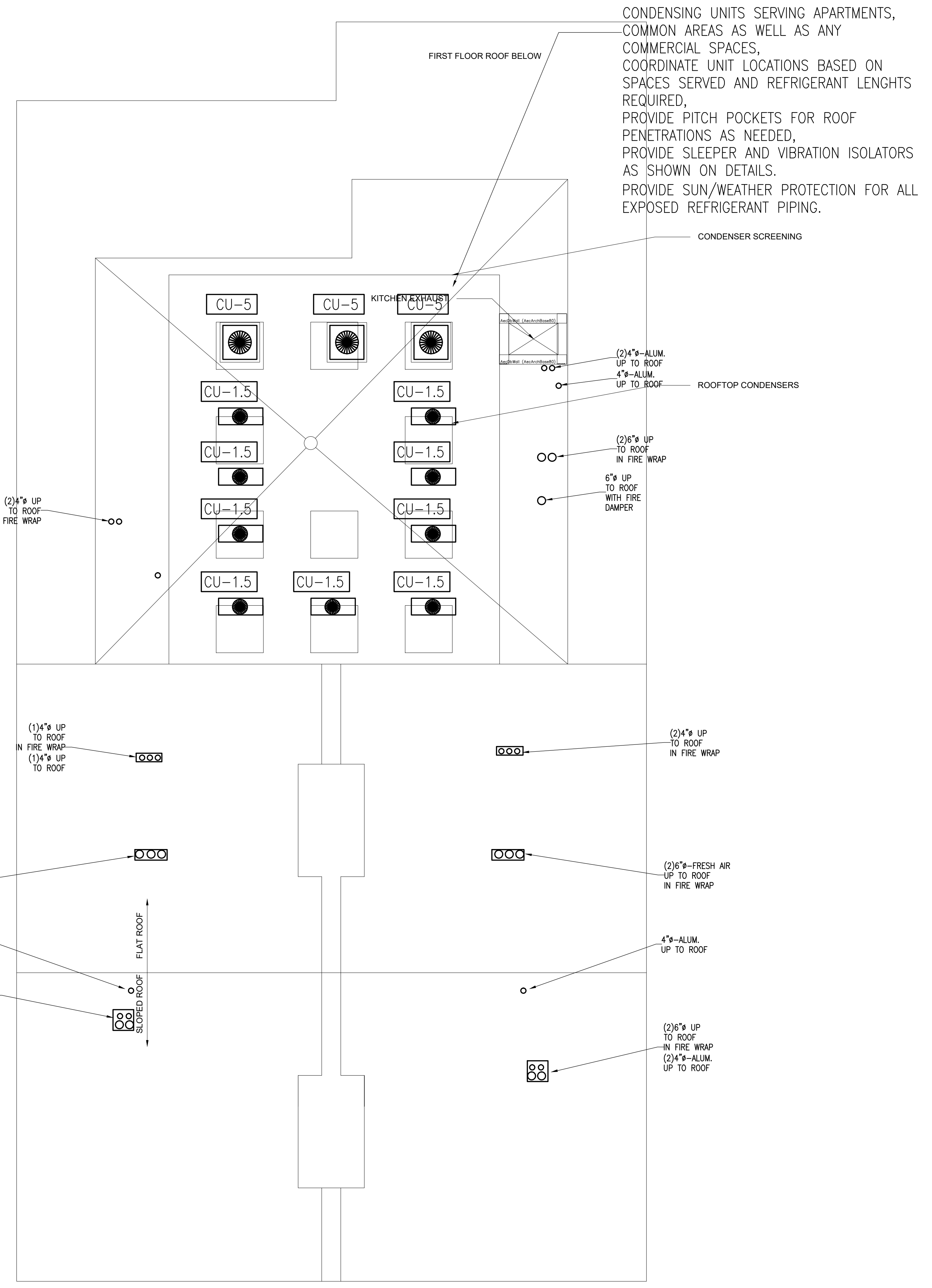
Pr r 19061
D 9 25 2020
Dr RC
C d M
S A d

REVISIONS

No.	Description	Date

H AC PLANS

H-103
00000 PROJECT NAME



CONDENSING UNITS SERVING APARTMENTS,
COMMON AREAS AS WELL AS ANY
COMMERCIAL SPACES,
COORDINATE UNIT LOCATIONS BASED ON
SPACES SERVED AND REFRIGERANT LENGTHS
REQUIRED,
PROVIDE PITCH POCKETS FOR ROOF
PENETRATIONS AS NEEDED,
PROVIDE SLEEPER AND VIBRATION ISOLATORS
AS SHOWN ON DETAILS.
PROVIDE SUN/WEATHER PROTECTION FOR ALL
EXPOSED REFRIGERANT PIPING.

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

WALL MOUNTED AIR CONDITIONING SYSTEM SCHEDULE (INDOOR)														
UNIT NO.	MITSUBISHI MODEL	RATED CAPACITY (BTU/H)	SEER	POWER SUPPLY	MCA	FAN MOTOR	AIRFLOW (LOW-MEDIUM-HIGH)	SOUND LEVEL (LO-M1-M2-HI)	W	D	H	WEIGHT (LBS)	INTAKE AIR TEMP	
													MAX	MIN
HVAC-1.5	SEZ-KD18NA4R1.TH	18,000	15.3	208/230V 1 PHASE, 60HZ	1.0 A	0.76 F.L.A.	268-328-381 DRY CFM 240-293-342 WET CFM	34-40-45 DB(A)	30-11/16"	8-1/4"	11-3/4"	23	95°FDB 71°FWB	67°FDB 57°FWB

PROVIDE WALL MOUNTED THERMOSTAT, DISCONNECT SWITCH

WALL MOUNTED AIR CONDITIONING SYSTEM SCHEDULE (OUTDOOR)															
UNIT NO.	MITSUBISHI MODEL	RATED CAPACITY (BTU/H)	SEER	POWER SUPPLY	R.L.A.	MCA	SOUND LEVEL	W	D	H	WEIGHT (LBS)	MAX REFRIGERANT PIPE LENGTH (FT)	MAX REFRIGERANT PIPE HEIGHT DIFF (FT)	INTAKE AIR TEMP	
														MAX	MIN
CU-1.5	SUZ-KA18NAHZ	18,000	16	208/1PHASE	DC	14	50 DB(A)	31-1/2"	11-1/4"	21-5/8"	88	65	40	D.B. 115° F	D.B. 14° F

WITH EACH UNIT PROVIDE
 -3R RATED FUSED DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR
 -PROVIDE MOUNTING STAND ABOVE SNOW LINE
 -PROVIDE WIND BAFFLE KIT FOR LOW AMBIENT OPERATION

SPLIT SYSTEM GAS FIRED HVAC UNIT SCHEDULE (VFD INDOOR-TWO STAGE COMP) 97% FURNACE																							
INDOOR SECTION (VFD)										CONDENSING SECTION													
TAG	NOM. CAP. TON	CFM	ESP IN	FAN HP	TOT. MBH	SENS. MBH	GAS FURN(MBH) INPUT	OUTPUT	FLUE	V/ø	TAG	FLA	MCA	MOCP	V/ø	EER	SEER	STRETCH SEER	DB	MODEL (BASED ON CARRIER)	ESTAR	MOTOR	INDOOR
HVAC-5	5	2000	.5	1	57	41	100	97	70 FT	115/1	CU-4	29.6	35	50	208/1	12.50	15.50	15.0-NO	72	59MN7A100V24-22 W/24ANA1-060 AND MATCHING COIL	YES	ECM	18"WX28"Dx40"H+12" COIL

WITH EACH INDOOR UNIT PROVIDE
 -LEARNING TYPE NESTING ENERGY STAR THERMOSTAT, ACID NEUTRALIZER, AIR FILTER, COMBUSTION AIR INTAKE AND EXHAUST FLUE PIPES
 -CONDENSATE DRAINS SHALL BE TYPE "L" COPPER WITH 1/2" FIBERGLASS INSULATION RUN TO INDIRECT WASTE DRAIN RISER
 -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 LENGTHS ON FLUE LENGTH (INCLUDES 6 ELBOWS)
 -WHEN UNIT IS IN UNCONDITIONED SPACES, PROVIDE INSULATED AND HEAT TRACED CONDENSATE DRAINS
 PROVIDE REFRIGERANT LINES BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS.
 PROVIDE 3/4" ARMORFLEX INSULATION ON REFRIGERANT LINES
 PROVIDE MERV 8 FILTER AS STANDARD, FOR LEED PROJECTS, SEE DESIGN CRITERIA, PROVIDE 20X20-4" DEEP MERV 13 FILTER WITH FILTER BOX MANUFACTURED BY AAF PREPLEAT M13, OUTDOOR AIR IF CONNECTED TO THE RETURN SHALL BE CONNECTED AHEAD OF THE FILTER

ELECTRIC HEATER SCHEDULE				
TYPE	KW	VOLT/PH	DIMENSIONS	MODEL NUMBER-COLOR BY ARCH
RWH-1	1	120/1		Q'MARK#CRA 1512-T2
RWH-2	2	120/1	19"Hx16"Wx4"D	Q'MARK# MCCSARWH1802/HTWHS1
RWH-4	4	208/1	19"Hx16"Wx4"D	Q'MARK# MCCSARWH4808/HTWHS1
SWH-4	4	208/1	19"Hx16"Wx4"D	Q'MARK# MCCSARWH4808/HTWHSM
EBB-2	0.4	120/1		Q'MARK#QMK-2512W-W/T'STAT
EBB-3	0.75	120/1		Q'MARK#QMK-2513W-W/T'STAT
EBB-4	1	120/1		Q'MARK#QMK-2514W-W/T'STAT
EBB-6	1.5	120/1		Q'MARK#QMK-2516W-W/T'STAT
UH-5	5	208/1		Q'MARK#MUH-35-W/T'STAT
CCH-4	4	208/1		Q'MARK#CDF548-W/T'STAT

WALL CAP SCHEDULE					
TAG	BRAND	SIZE	DIMENSIONS	LOCATION	DUCT
WC-B	X-VENT THVB	4" VENT	7.5"x7.5"x1.5"	BATHROOM EXHAUST	#4"-NO FLEX
WC-K	X-VENT THVB	6" VENT	10.5"x9.5"	KITCHEN EXHAUST	#6" W/FD AT CEILING PENETRATION
WC-D	X-VENT THVB	4" VENT	7.5"x7.5"x1.5"	DRYER EXHAUST-REMOVE SCREEN	#4" AL WITH HARD ELBOW
WC-FA	X-VENT TEVB	6" VENT	7.5"x7.5"x1.5"	FRESH AIR INTAKE	#6"-INSULATED

VYNIL COLOR TO MATCH SIDING,
 MATCH DUCT SIZE CONNECTED TO UNIT.
 ALL EXHAUST DUCTS SHALL HAVE R-3 INSULATION FIRST 10FT FROM EXTERIOR WALL IN ALL FRESH AIR INTAKE DUCTS SHALL HAVE MOTORIZED DAMPER AT ENVELOPE PENETRATION WITH ACCESS PANEL.
 DAMPER SHALL BE INTERLOCKED WITH HVAC UNIT
 FOR COMBINED BATHROOMS, USE 6" DUCT AFTER COMBINE AND USE WC-K WALL CAP
 COMBINE EXHAUST TO ONE WALL CAP WITH SEPARATE DUCT CONNECTIONS IF LOCATED NEXT TO EACH OTHER COORDINATE WITH ARCHITECT

CEILING MOUNTED EXHAUST FAN												
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"-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.

LEGEND

	SUPPLY AIR DUCT UP		HWR	HOT WATER RETURN PIPE
	SUPPLY AIR DUCT DOWN		HWS	HOT WATER SUPPLY PIPE
	RETURN AIR DUCT UP		D	CONDENSATE DRAIN PIPE
	RETURN AIR DUCT DOWN			PIPE UP
	VOLUME DAMPER			PIPE DOWN
	MOTORIZED DAMPER			BALL VALVE
	FIRE DAMPER			GATE VALVE
	1" LINED DUCTWORK			CHECK VALVE
	SUPPLY AIR REGISTER			STRAINER
	RETURN OR EXHAUST AIR REGISTER			UNION
	SUPPLY AIR DIFFUSER			3-WAY CONTROL VALVE
	CEILING TRANSFER GRILL			2-WAY CONTROL VALVE
	ACCESS DOOR			BALANCING VALVE
	SELF BALANCING AIR VALVE			THERMOMETER
	CEILING FIRE DAMPER			PRESSURE GAUGE
				FLEXIBLE PIPE CONNECTION

EQUIPMENT TAG NUMBERS

	EF-#	EXHAUST FAN
	CU-#	CONDENSING UNIT
	AC-#	SPLIT SYSTEM AC UNIT
	HVAC-#	AIR HANDLER UNIT
	UH-#	UNIT HEATER UNIT

	R	R = CONDENSER WATER RISER
	E	E = EXHAUST RISER
	VS	VS = SUPPLY VENTILATION RISER
	VR	VR = RETURN VENTILATION RISER
	#	# = REFERS TO RISER DIAGRAM

AIR OUTLET + INLET DESIGNATION



NOTE:
 THIS DESIGNATION FORMAT IS TYPICAL FOR ALL DIFFUSERS, GRILLES, AND REGISTERS, LAY-IN OR SURFACE MOUNTED, FOR SUPPLY, RETURN OR EXH.

EQUIPMENT SYMBOLS

	ROOFTOP UNIT
	ROOFTOP UPBLAST EXHAUST FAN
	EXHAUST CONTROL VALVE
	ROOFTOP UPBLAST EXHAUST FAN
	CONSTANT AIRFLOW REGULATOR DEVICE
	FIRE AND SMOKE DAMPER
	VOLUME DAMPERS
	CABINET UNIT HEATER IN CEILING
	HORIZONTAL HVAC UNIT
	VERTICAL HVAC UNIT
	ROOF MOUNTED CONDENSING UNIT

CONTROL SYMBOLS

	WALL MOUNTED THERMOSTAT/SENSOR
	HUMIDISTAT/SENSOR
	LOCAL CONTROL PANEL

PROJECT NAME
 147 149 CHARLES ST

PROJECT ADDRESS
 147 149 CHARLES STREET
 BOSTON MA

CLIENT
 CRM



171 ALOO STREET SUITE 400
 SOMER ILLE MA 02143
 TELEPHONE: 617 591 8682 FAX
 617 591 2086

CONSULTANTS:
ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 508-4406
 FAX: (617) 451-2540
 E-MAIL: Zade@ZadeEngineering.com

COPYRIGHT KDJ © 2018
 THESE DRAWINGS ARE NOW AND DO
 REMAIN THE SOLE PROPERTY OF KHALSA
 DESIGN INC. USE OF THESE PLANS OR AN
 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

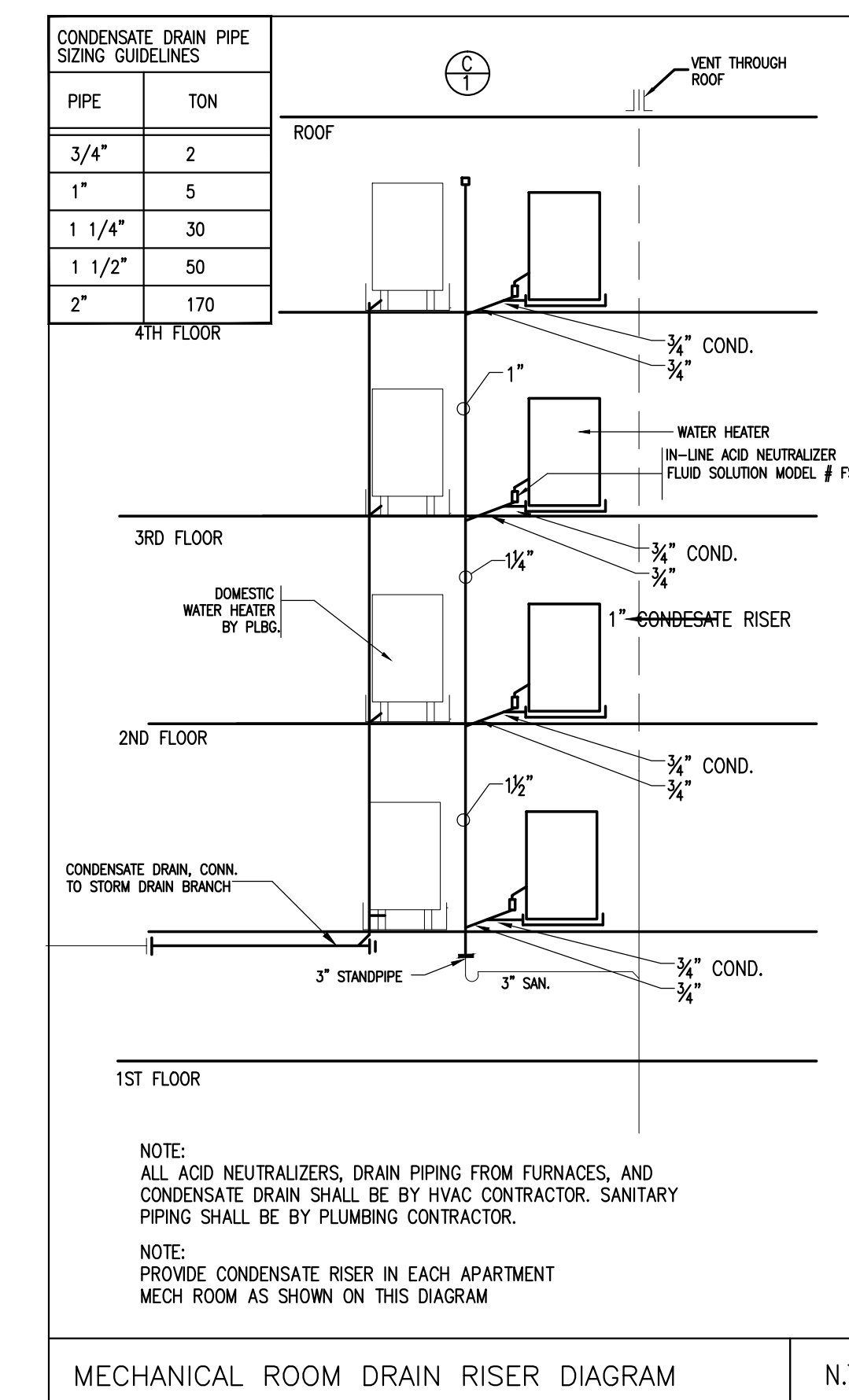
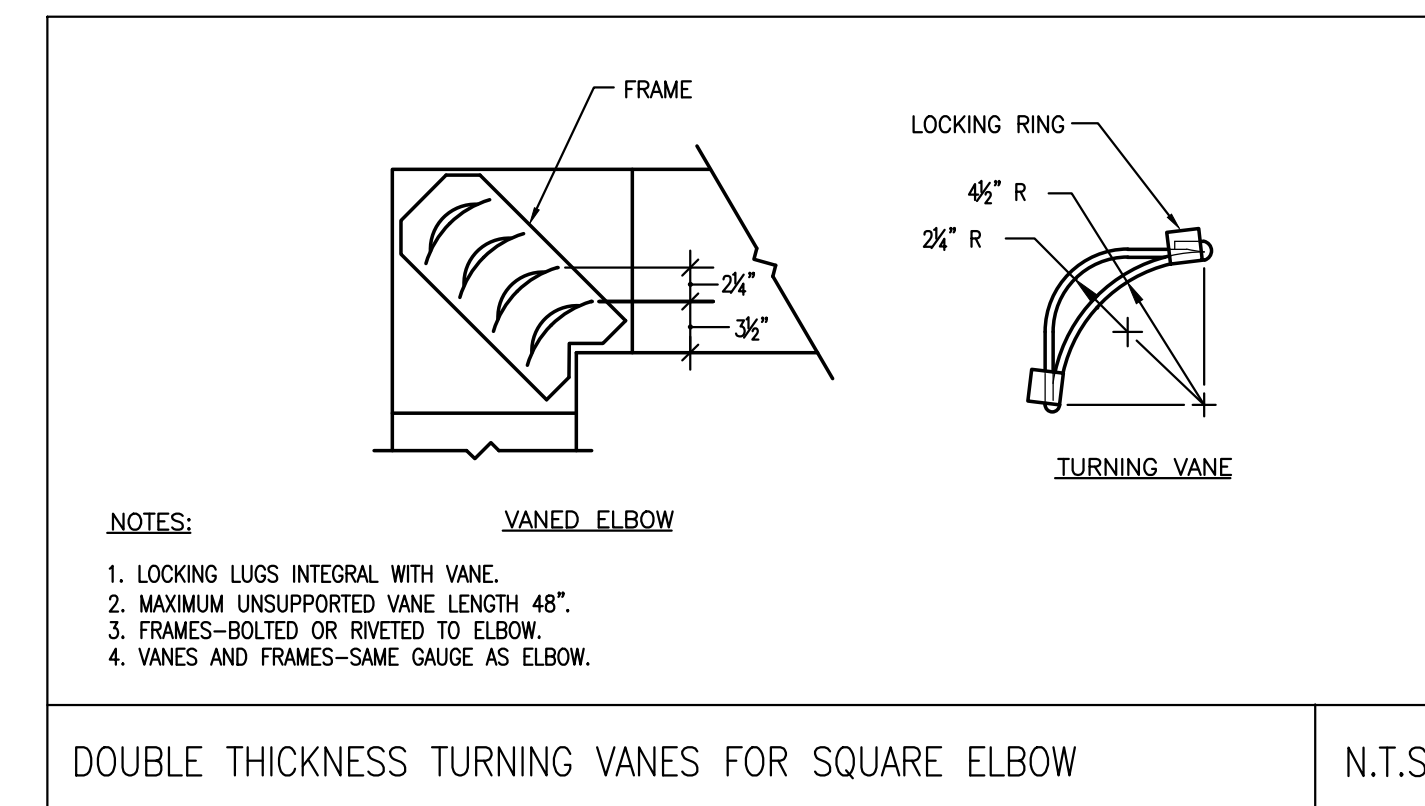
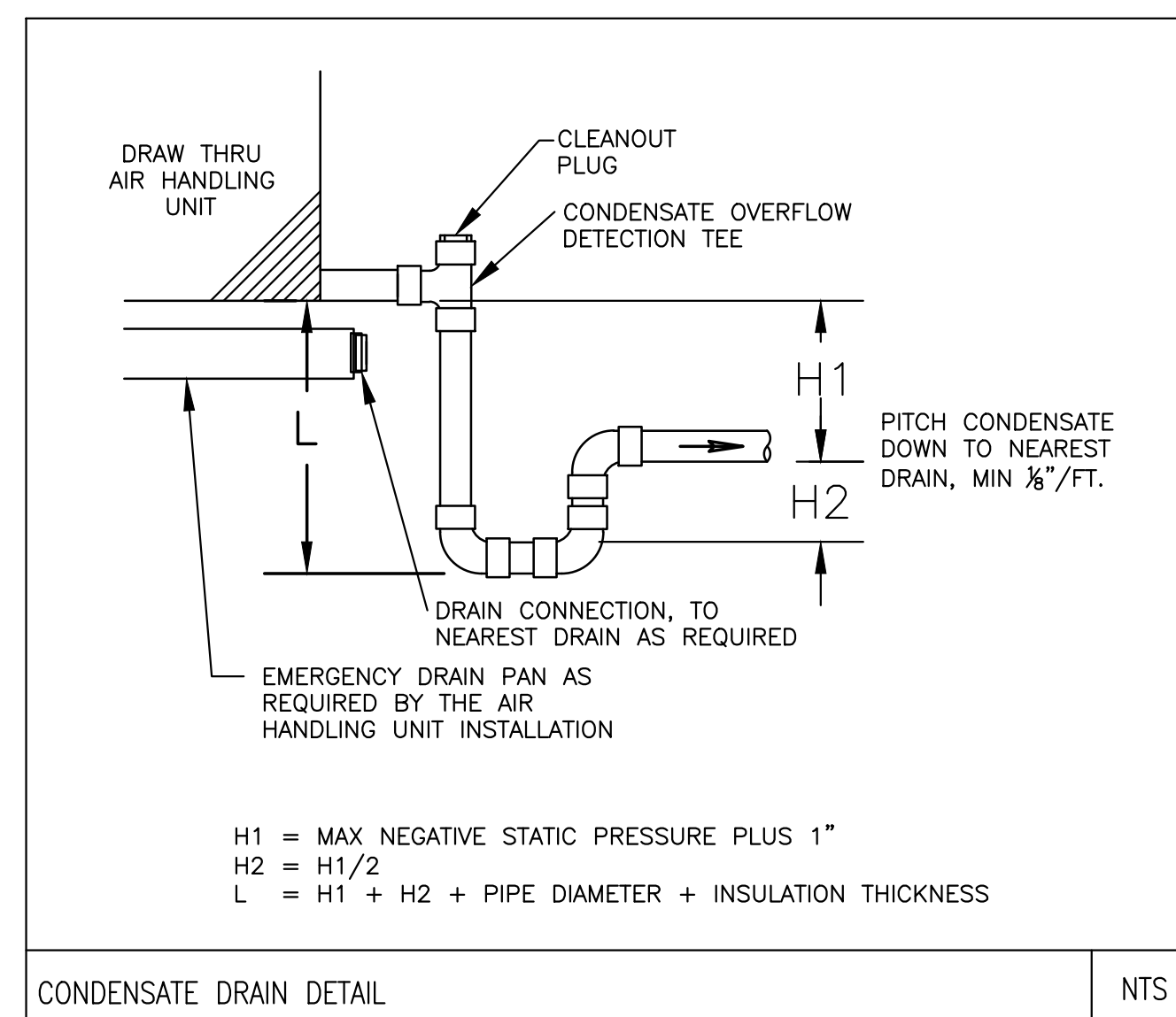
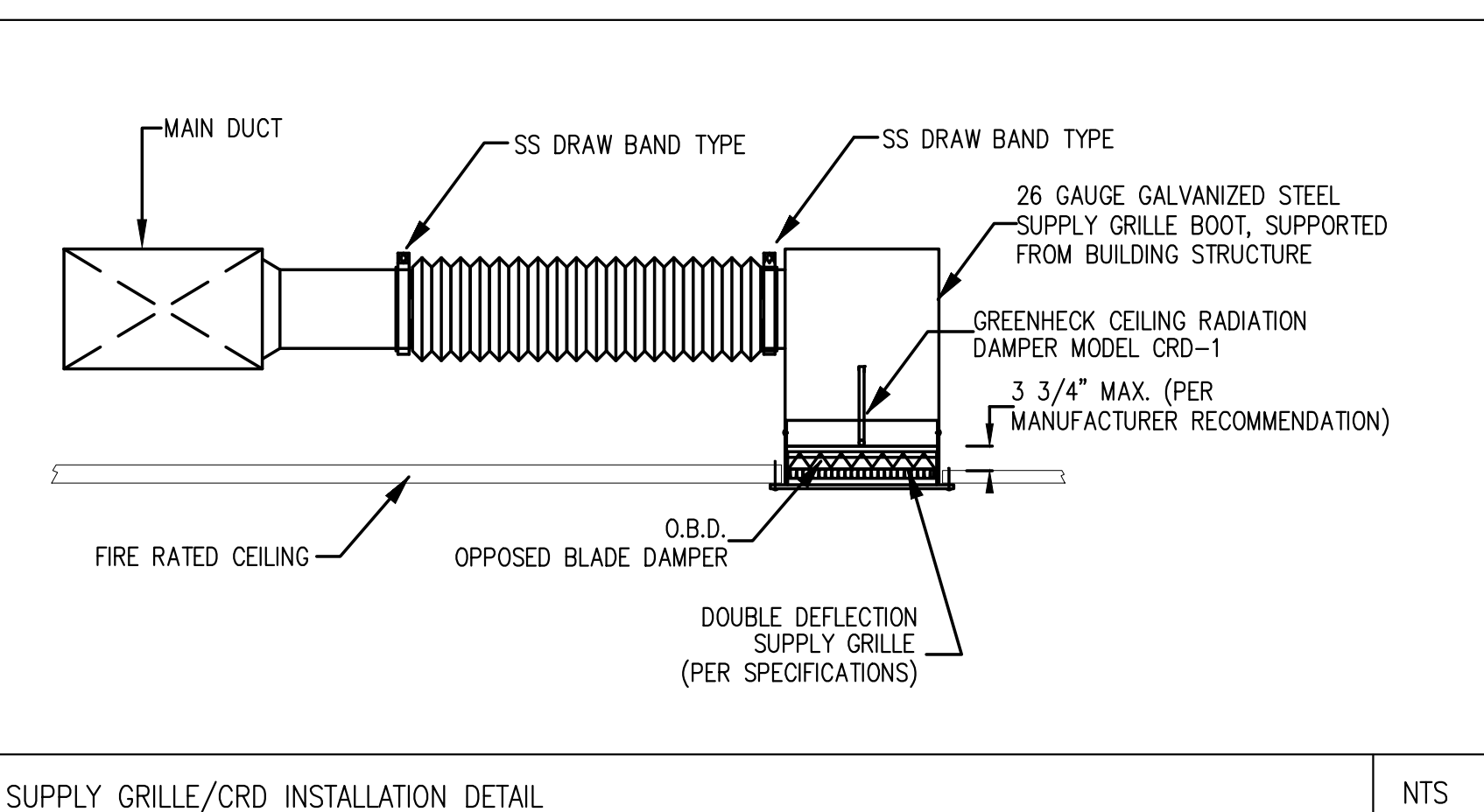
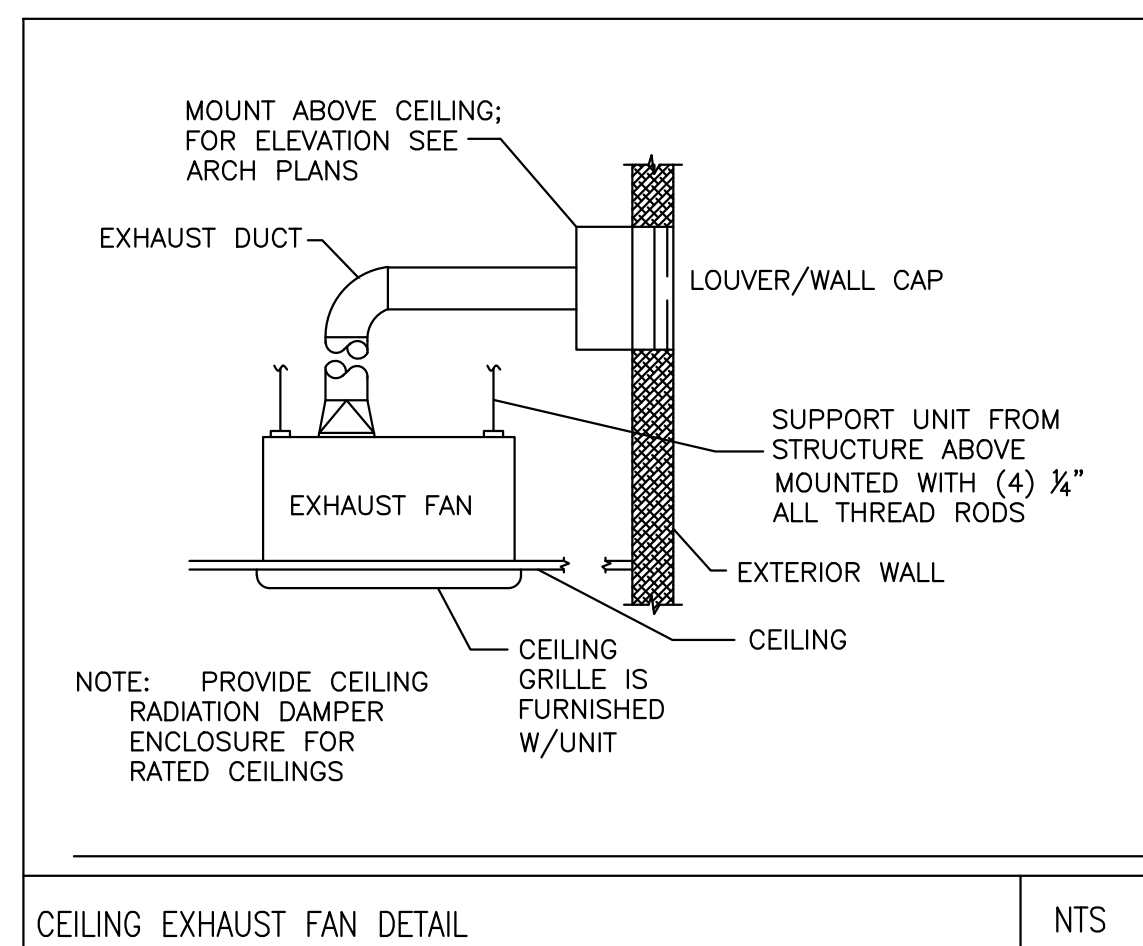
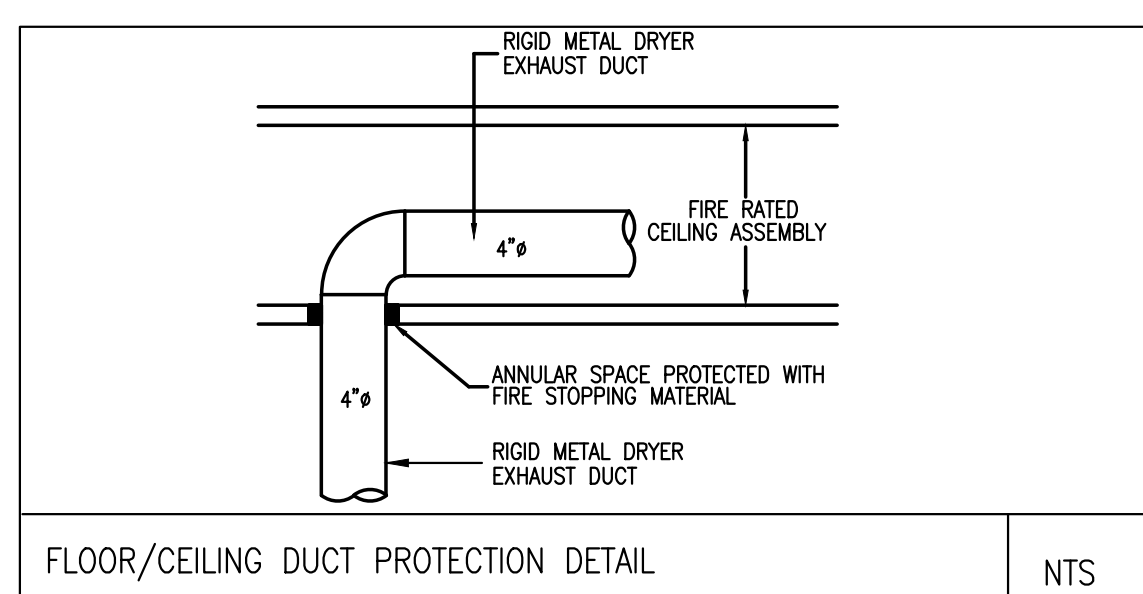
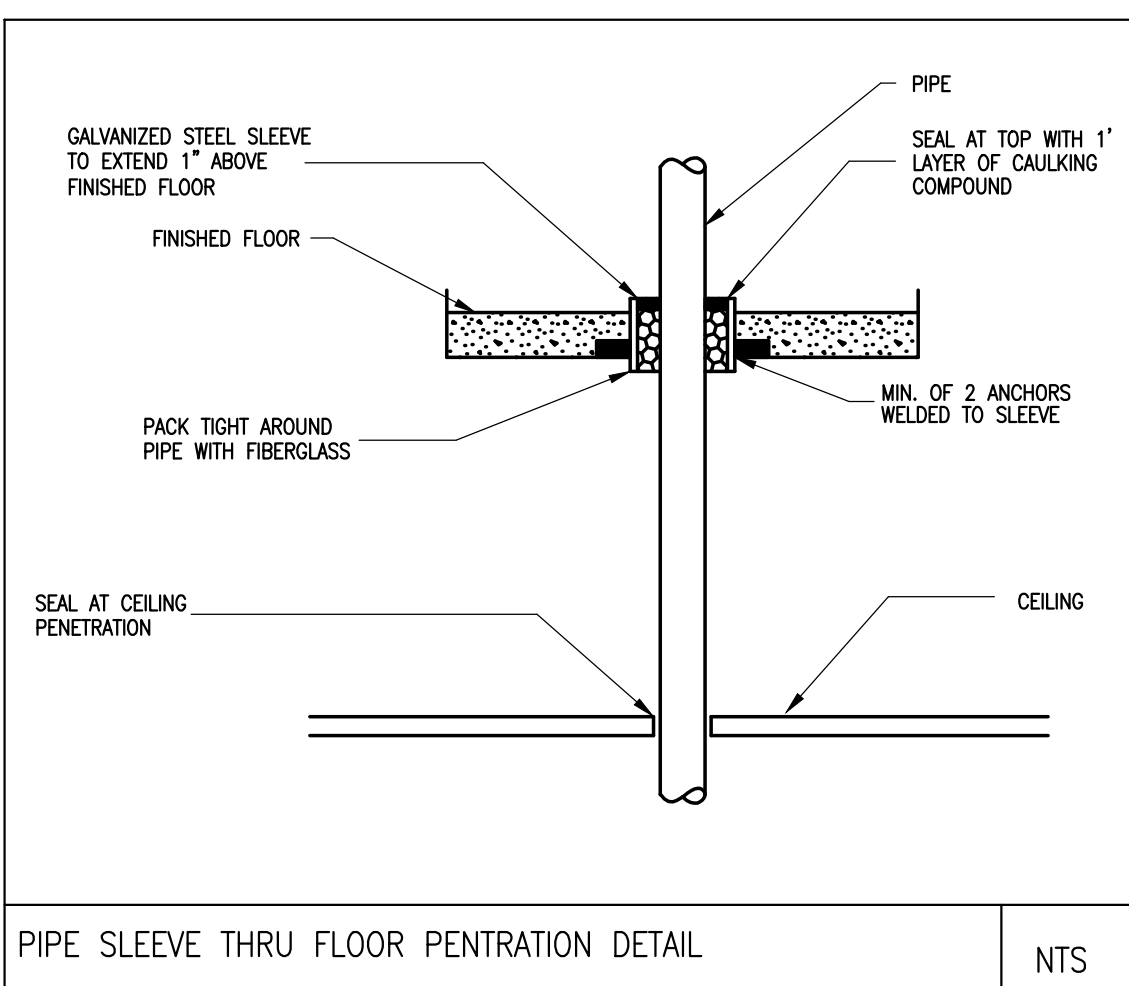
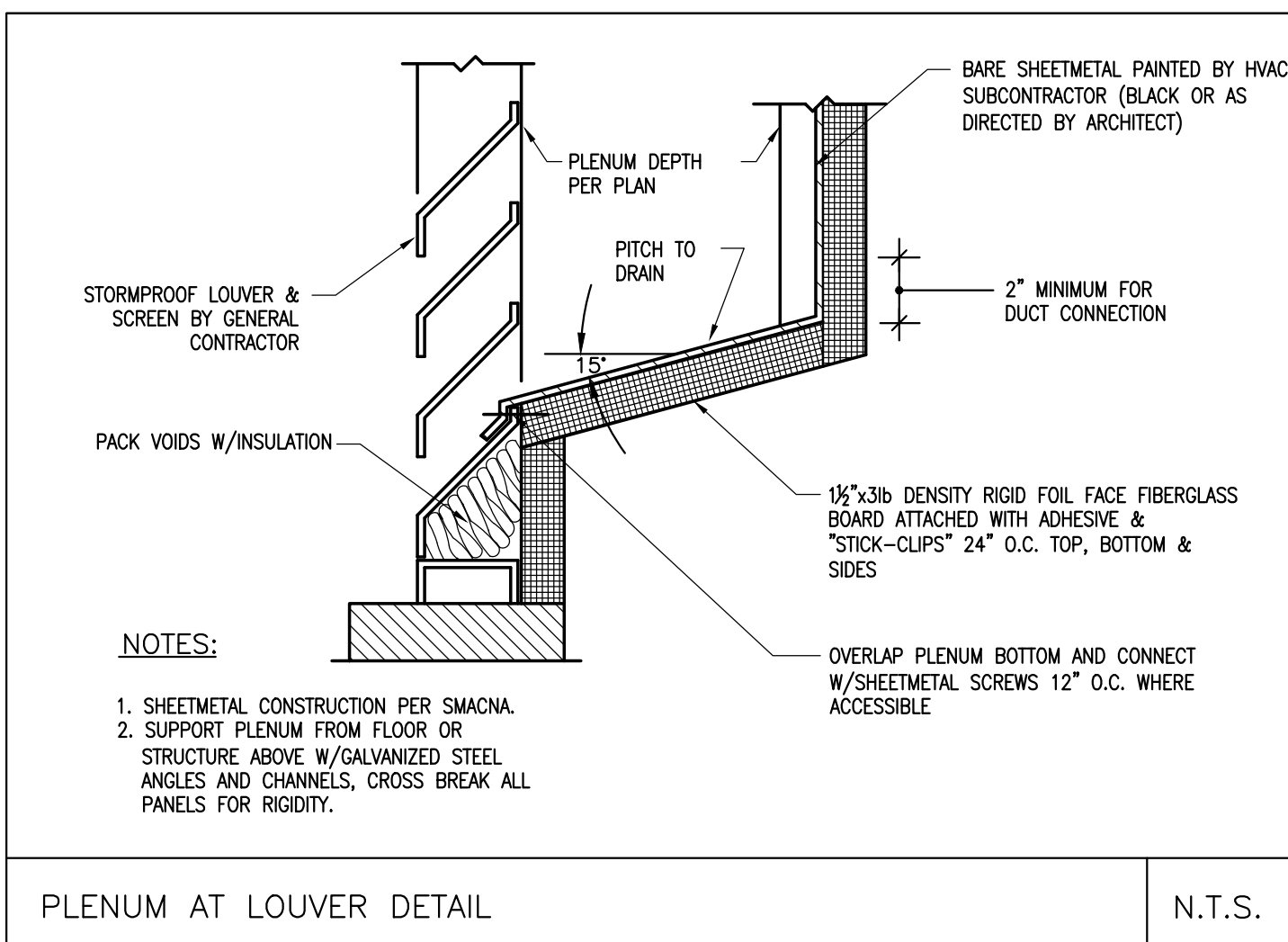
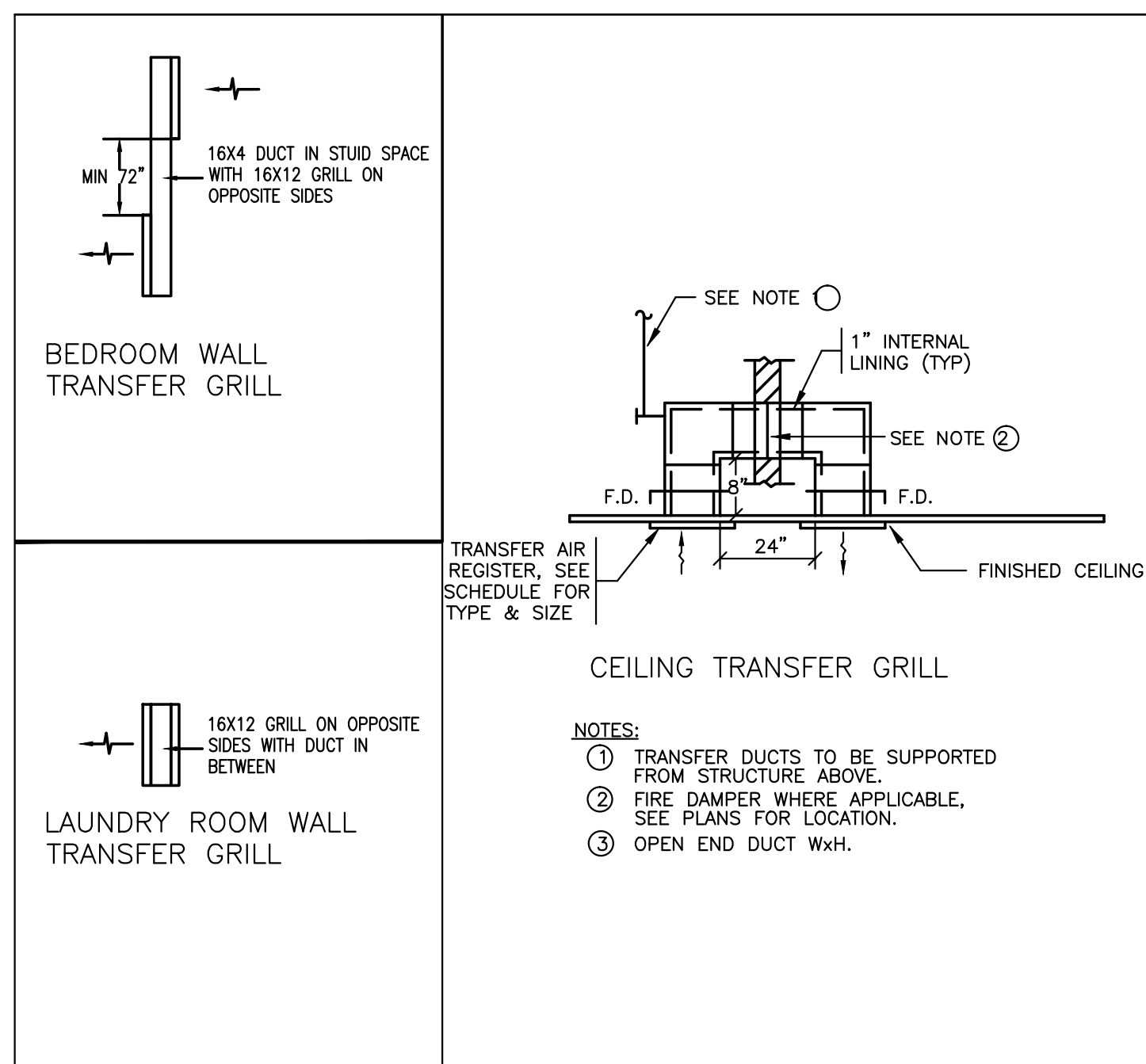
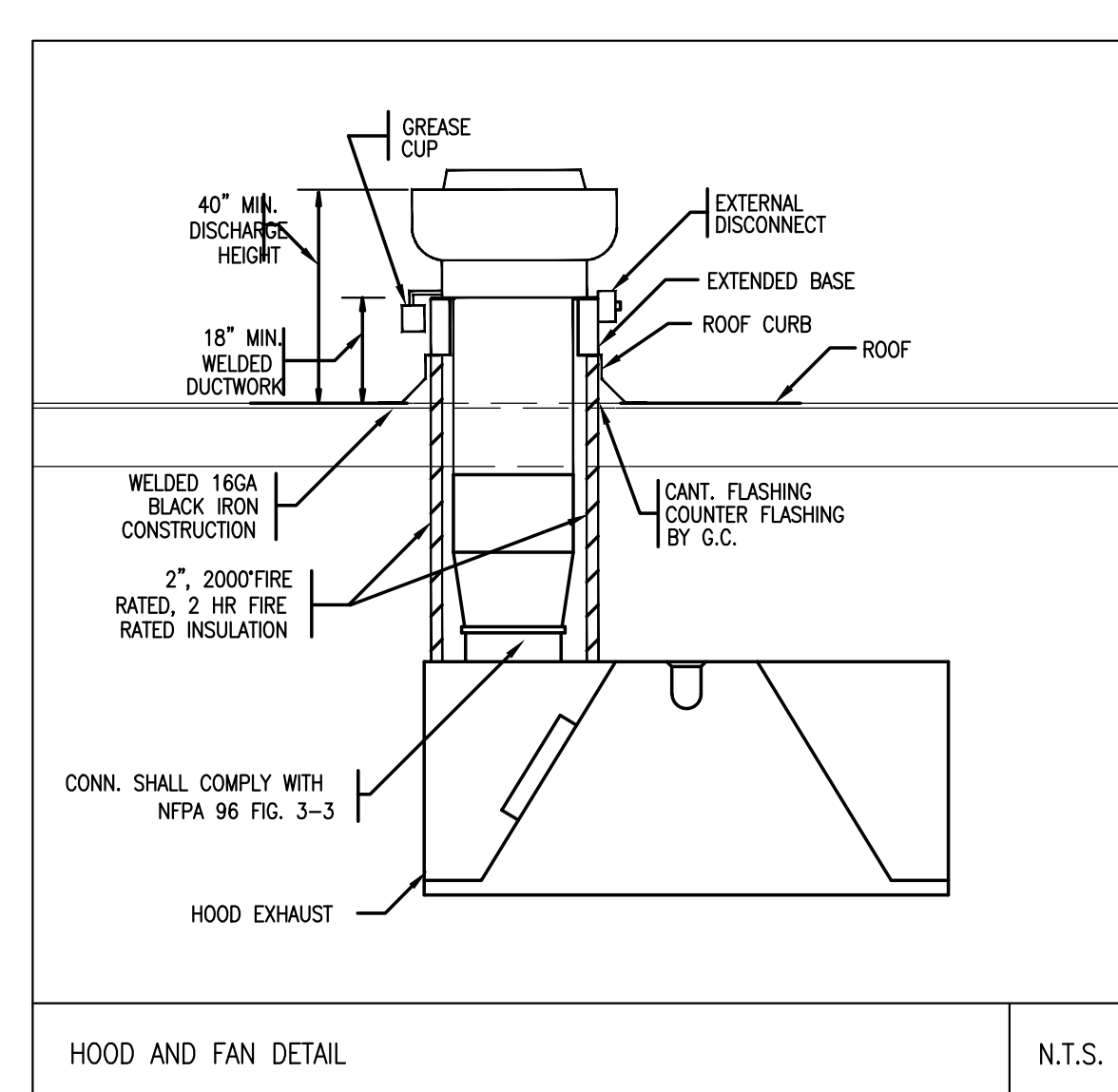
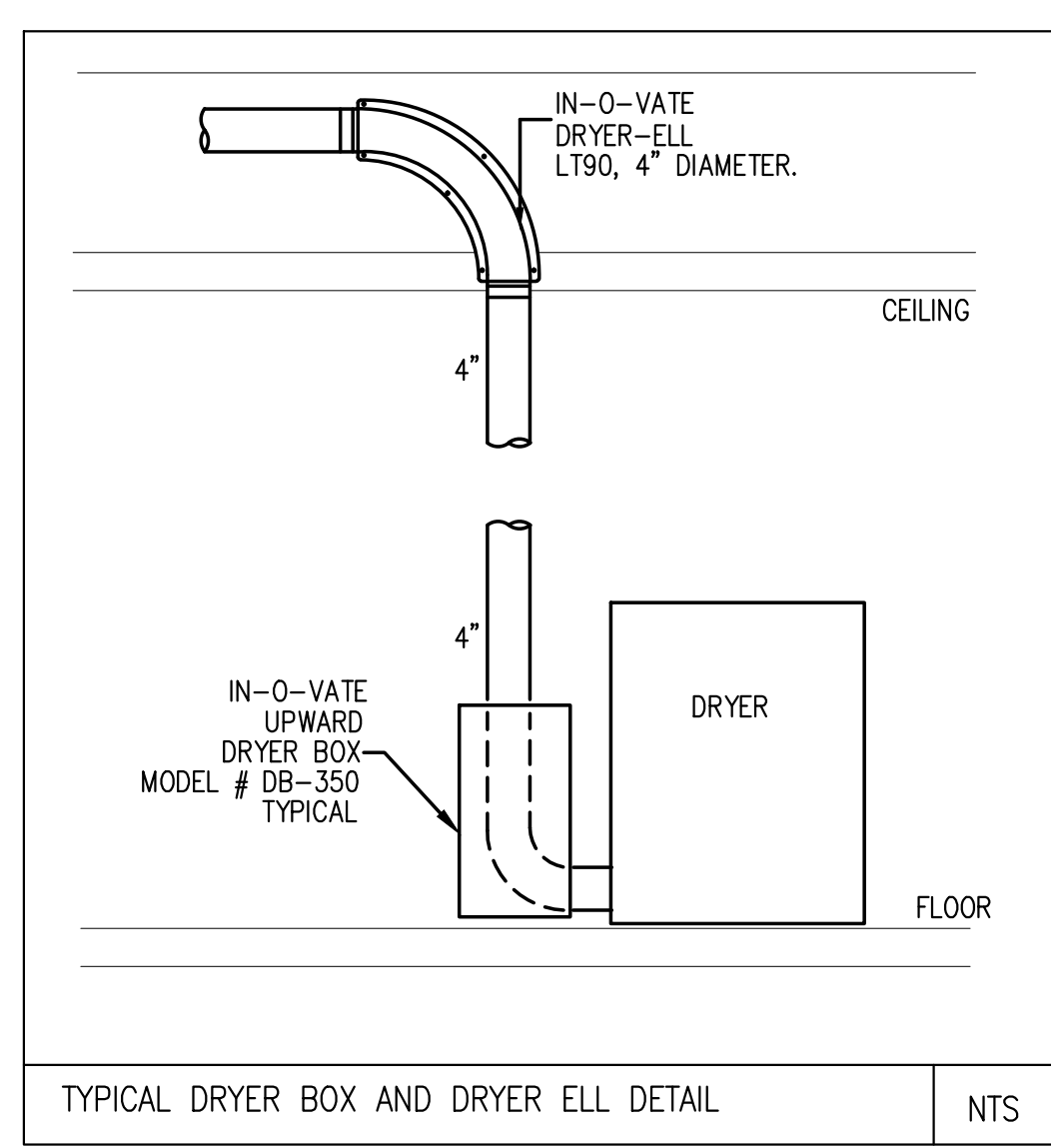
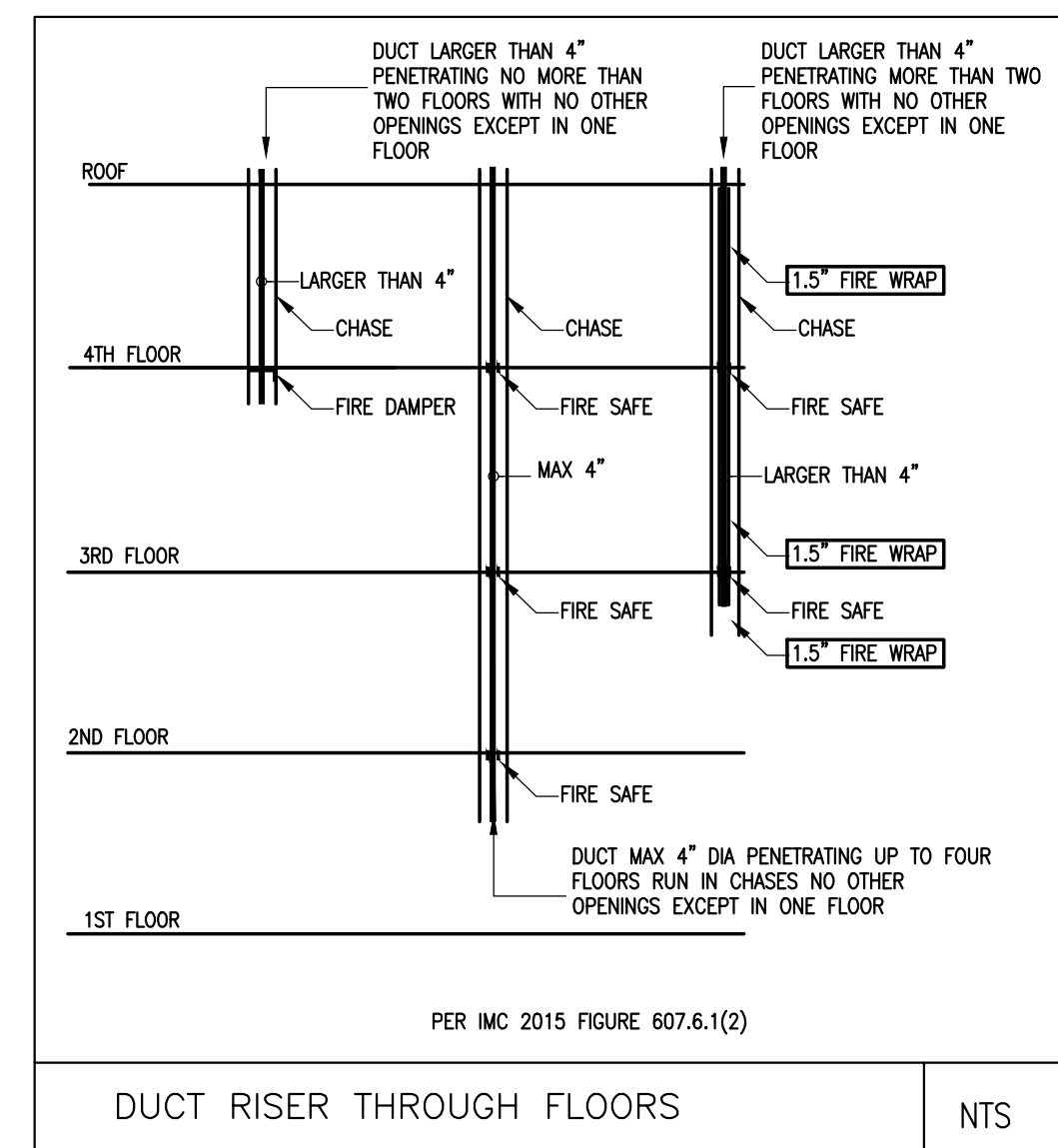
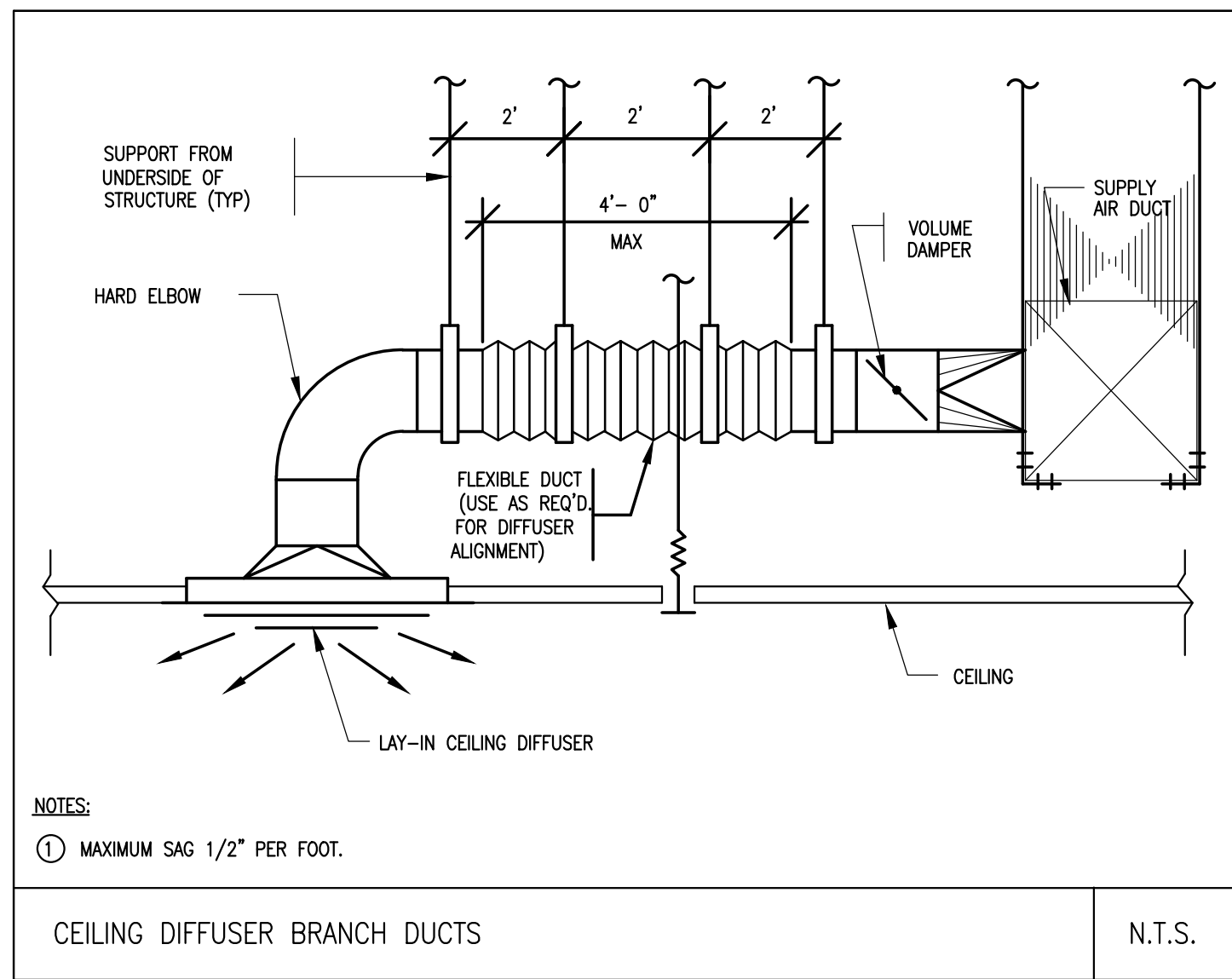
Pr	r	19061
D		9 25 2020
Dr		RC
C	d	M
S	A	d

REVISIONS

No.	Description	Date

H AC
 SCHEDULES

H-201
 00000 PRO ECT NAME



PROJECT NAME
 147 149 CHARLES ST

PROJECT ADDRESS
 147 149 CHARLES STREET
 BOSTON MA

CLIENT
 CRM

ARCHITECT



171 ALOO STREET SUITE 400
 SOMER ILLE 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 © 2018
 THESE DRAWINGS ARE NOW AND DO
 REMAIN THE SOLE PROPERTY OF KHALSA
 DESIGN INC. USE OF THESE PLANS OR AN
 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

Pr	r	19061
D		9 25 2020
Dr		RC
C	d	M
S		A d

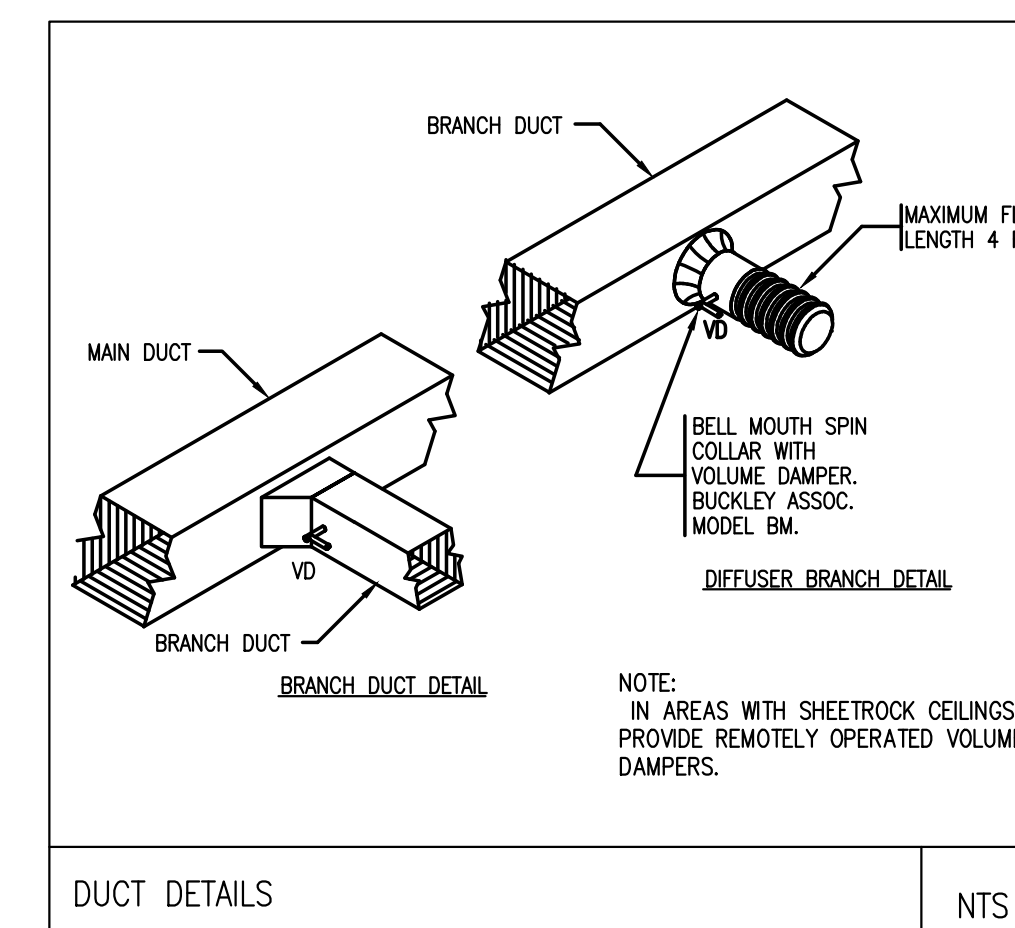
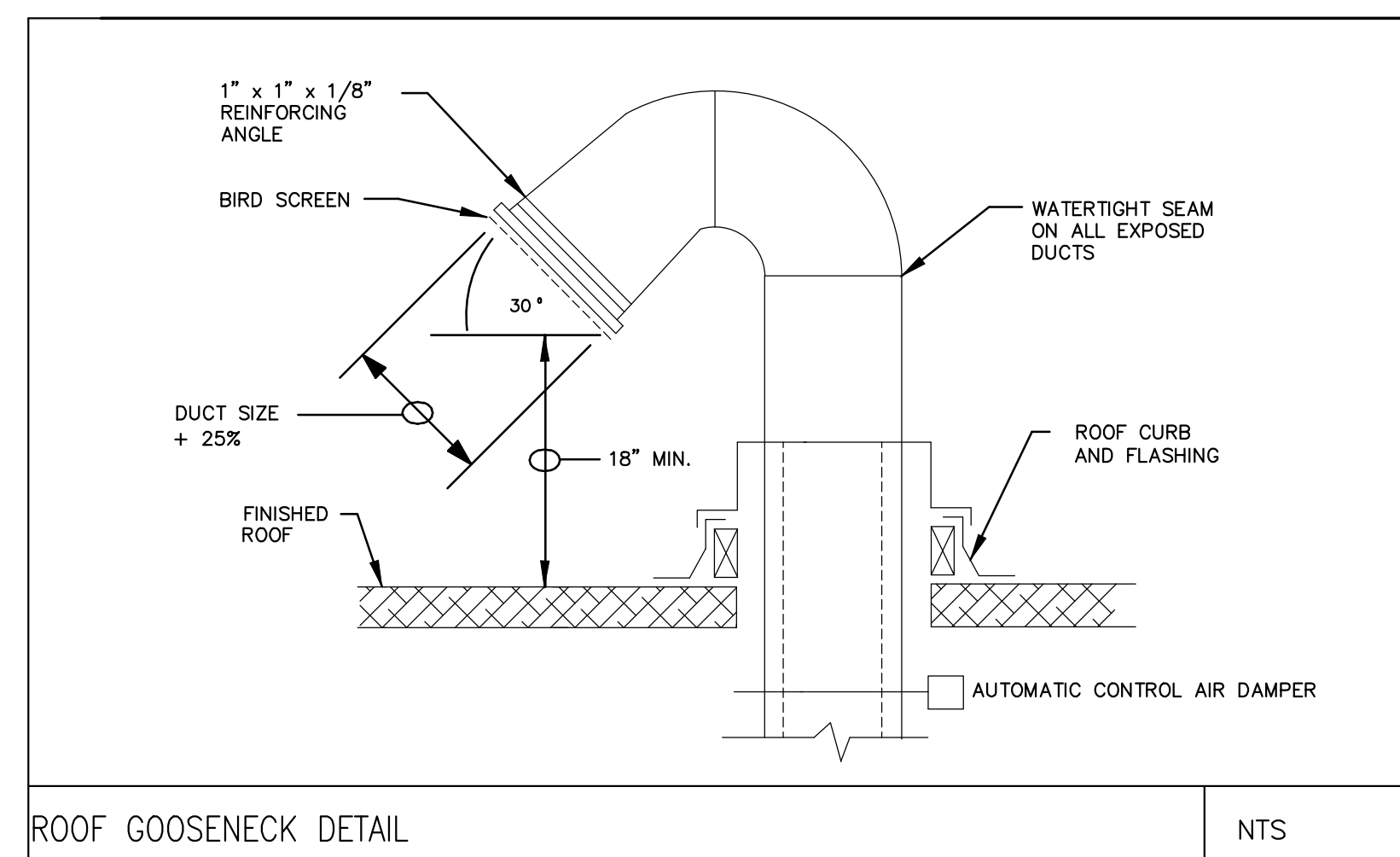
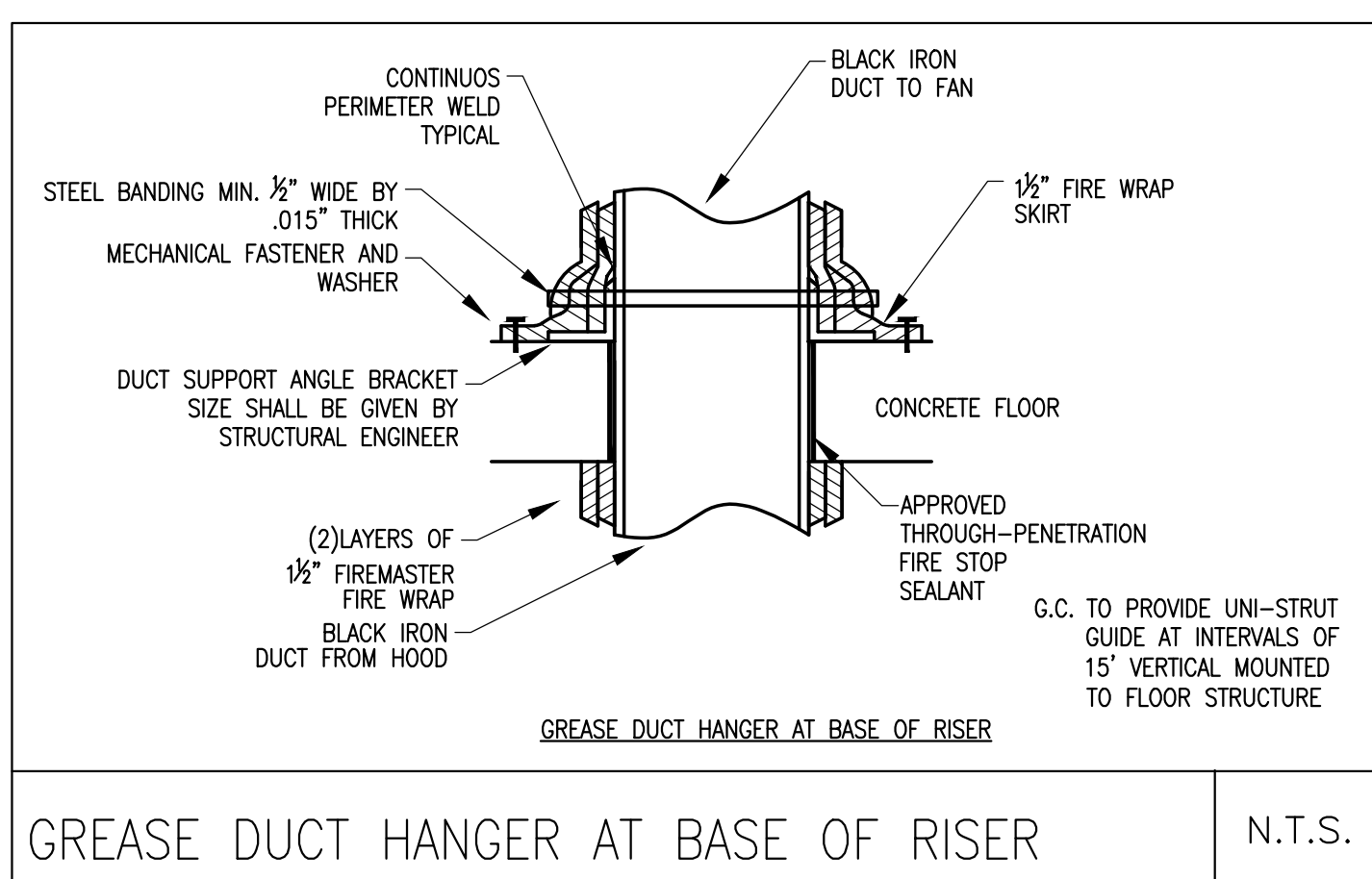
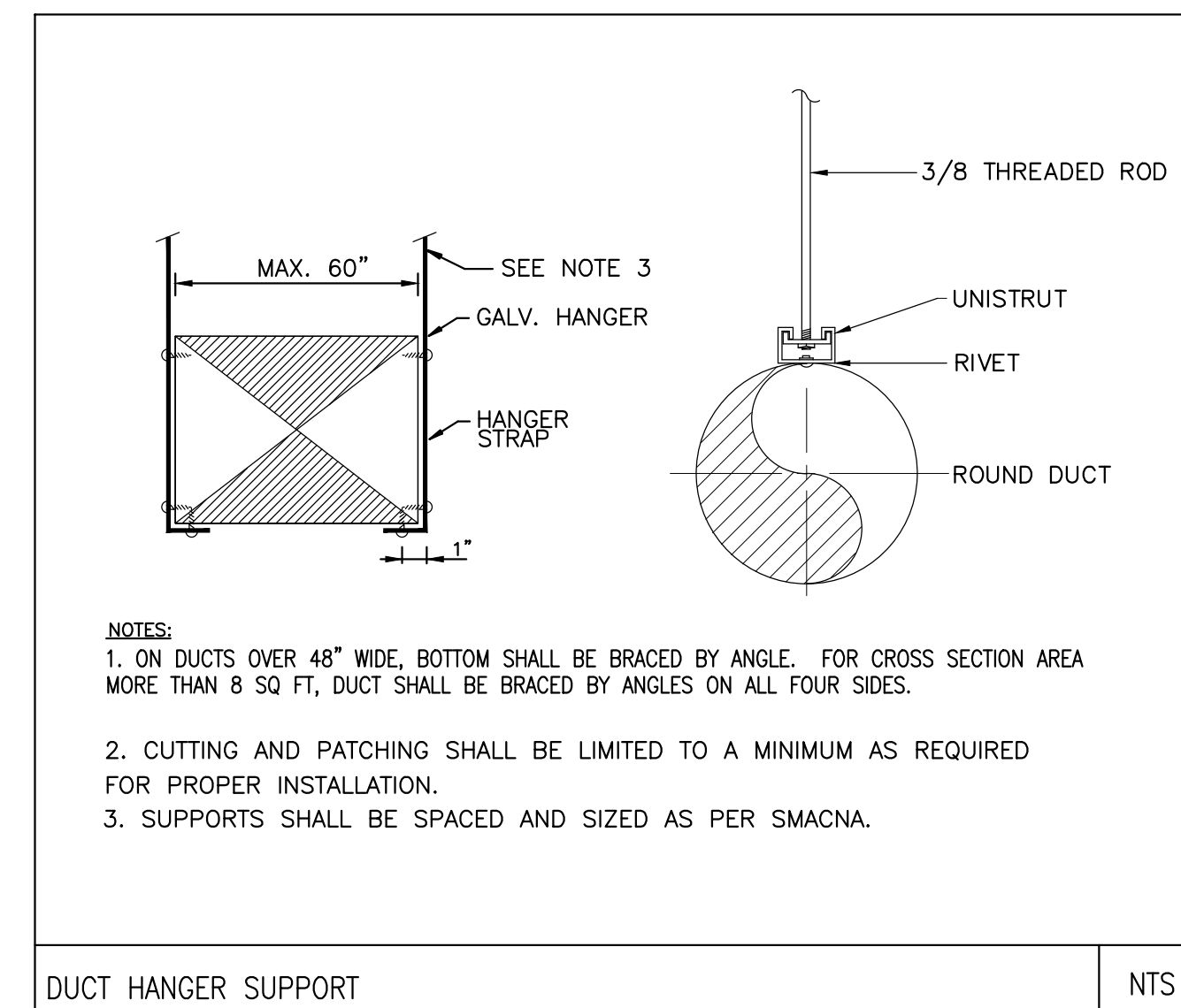
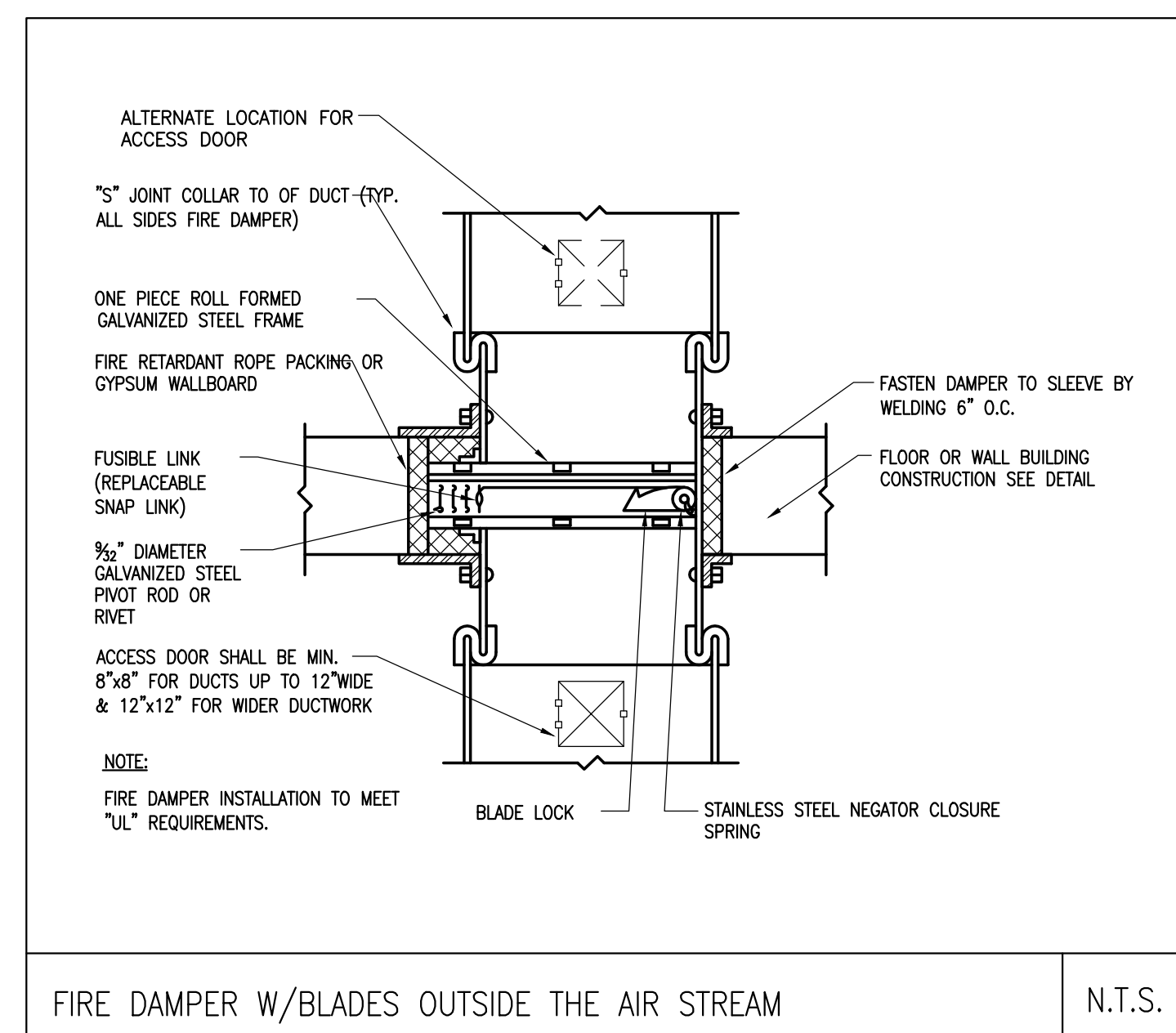
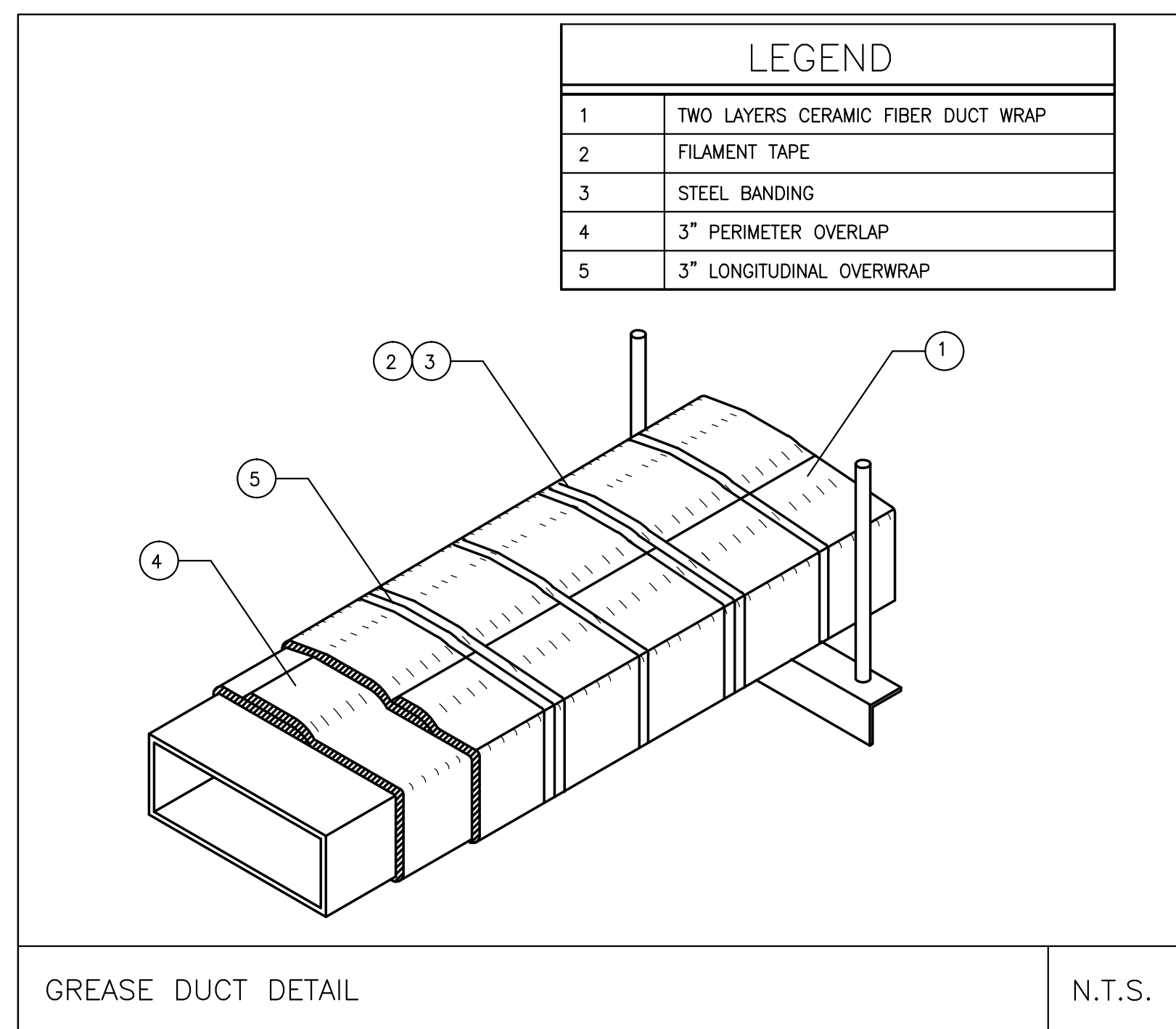
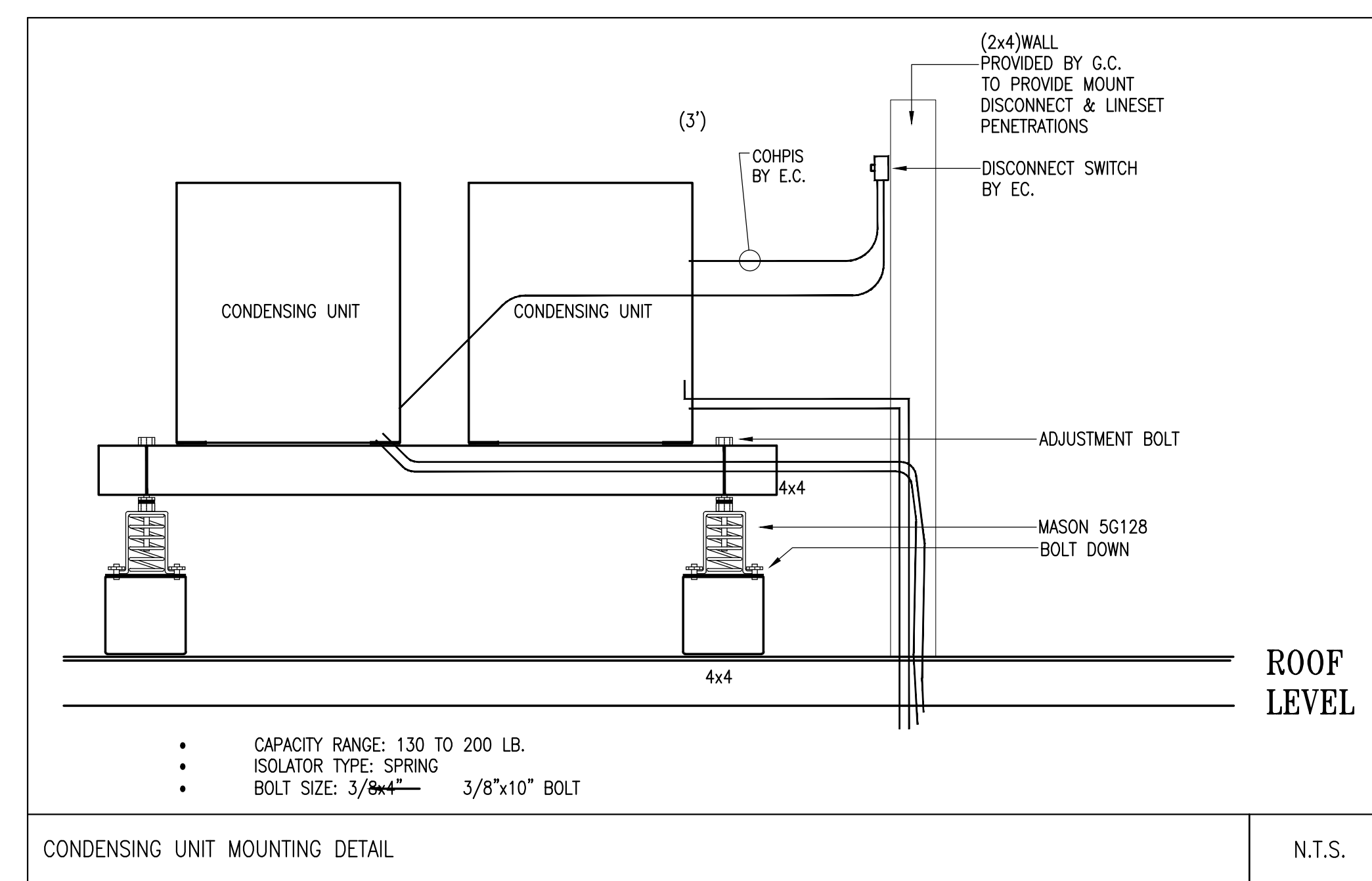
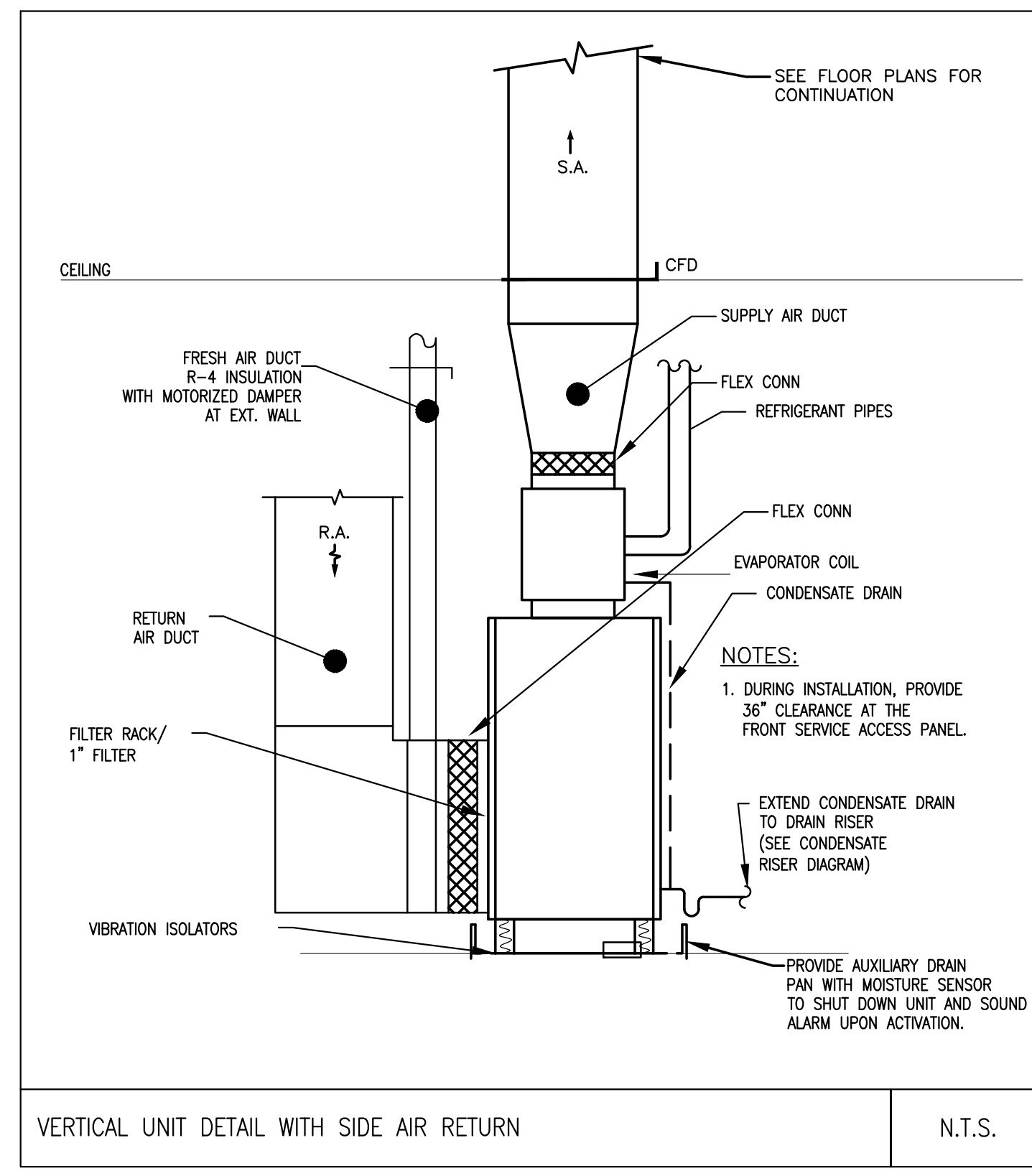
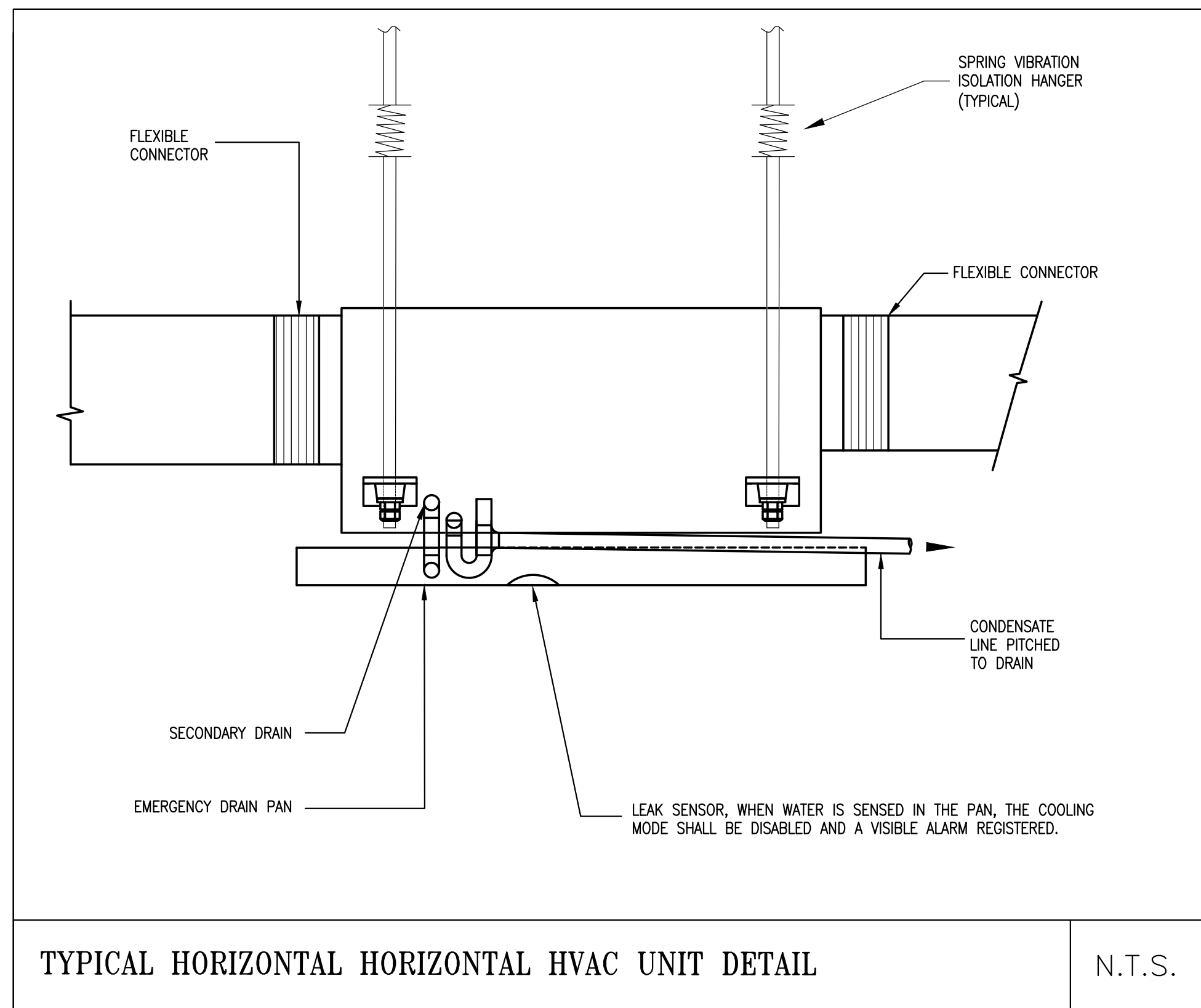
REVISIONS

No.	Description	Date

H AC DETAILS

H-202

00000 PRO ECT NAME

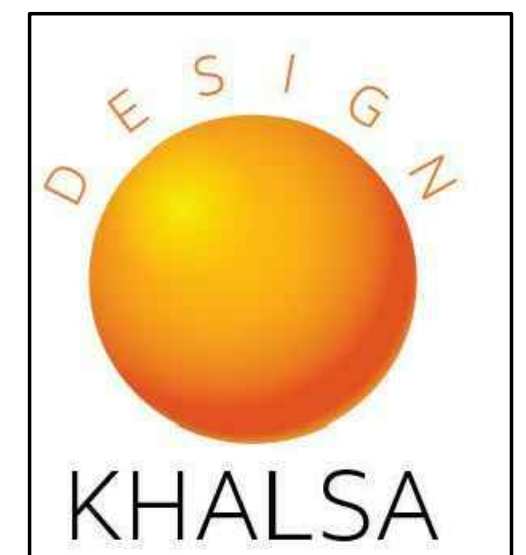


PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8682 FAX 617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL. (617) 538-4406
FAX. (617) 451-2540
E-MAIL Zade@ZadeEngineering.com

COPYRIGHT KDJ © 2018
THESE DRAWINGS ARE NOW AND DO REMAIN THE SOLE PROPERTY OF KHALSA DESIGN INC. USE OF THESE PLANS OR AN 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

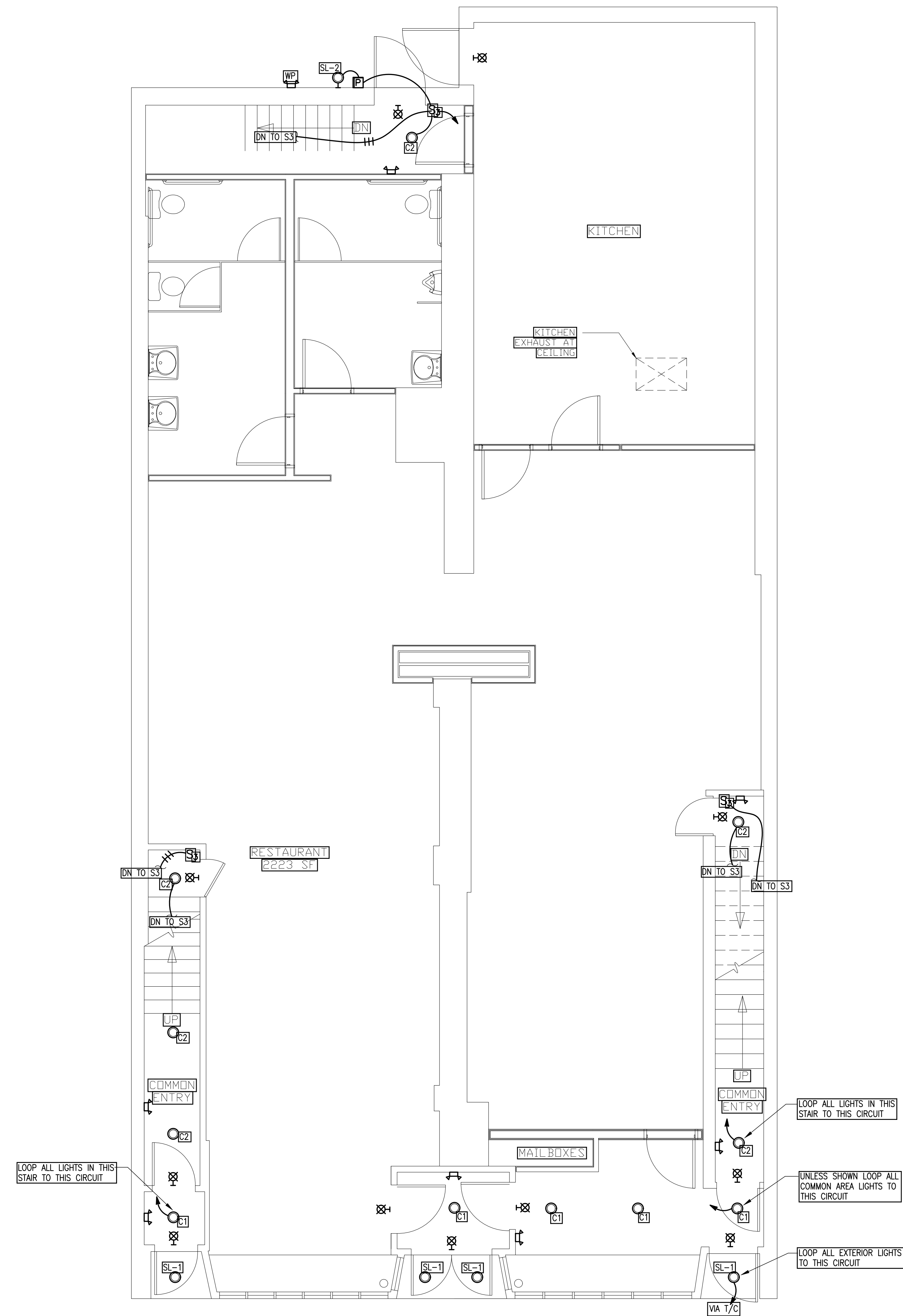
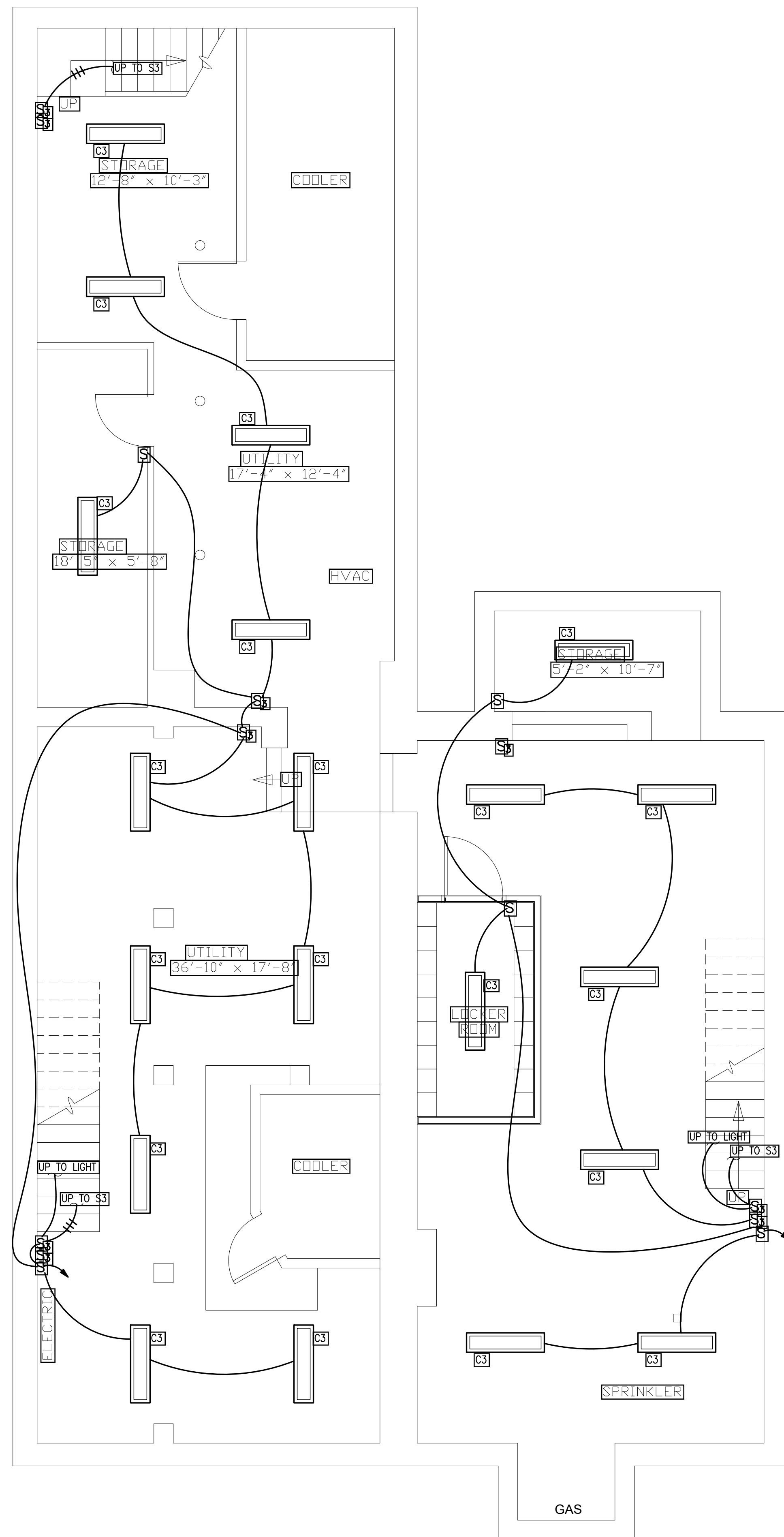
Pr r 19061
D 9 25 2020
Dr RC
C d M
S A d d

REVISIONS

No.	Description	Date

H AC DETAILS

H-203
00000 PRO ECT NAME



PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8882 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BRACH STREET, BOSTON, MA 02111
TEL: (617) 338-4408
FAX: (617) 451-2540
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

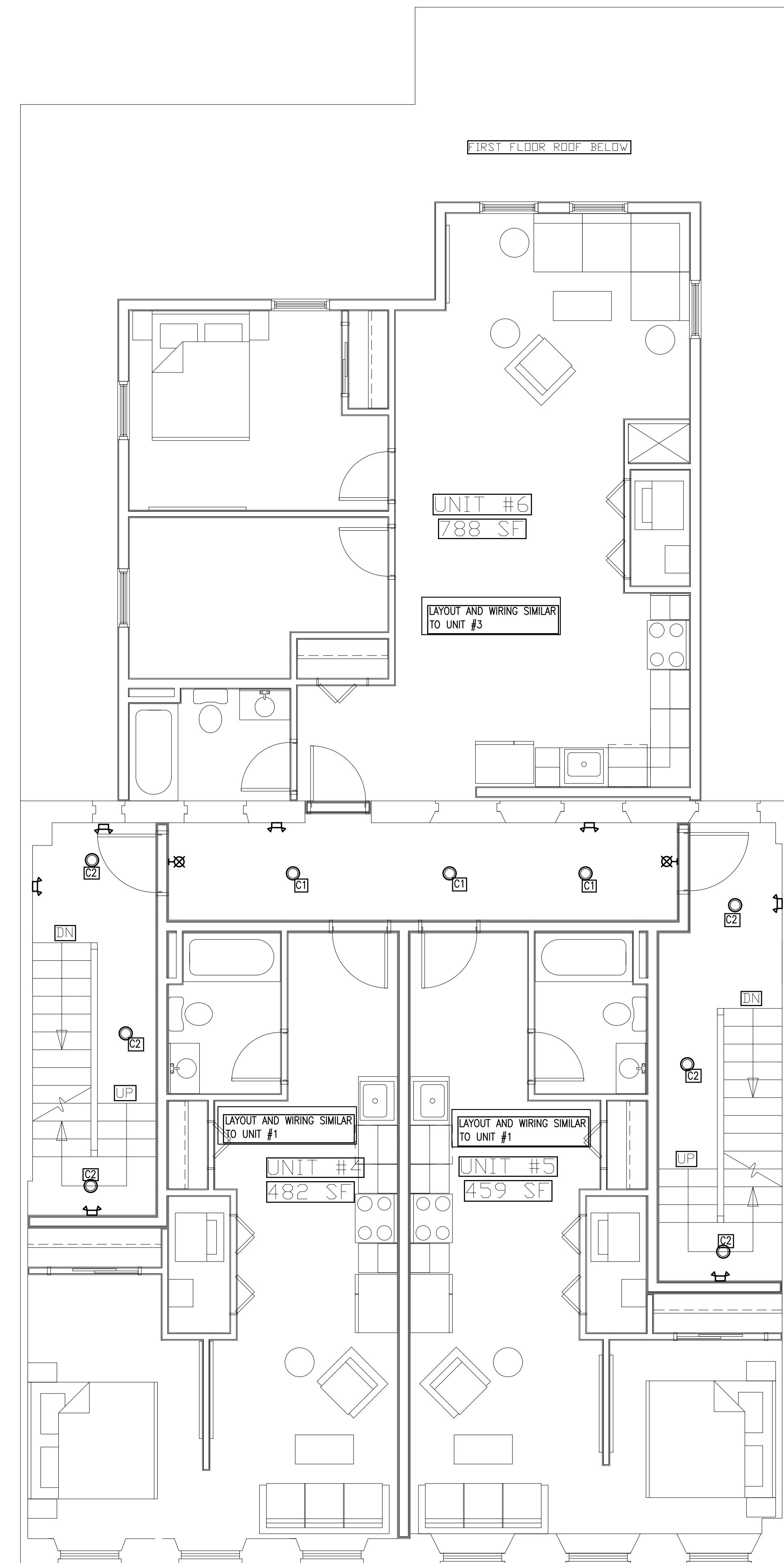
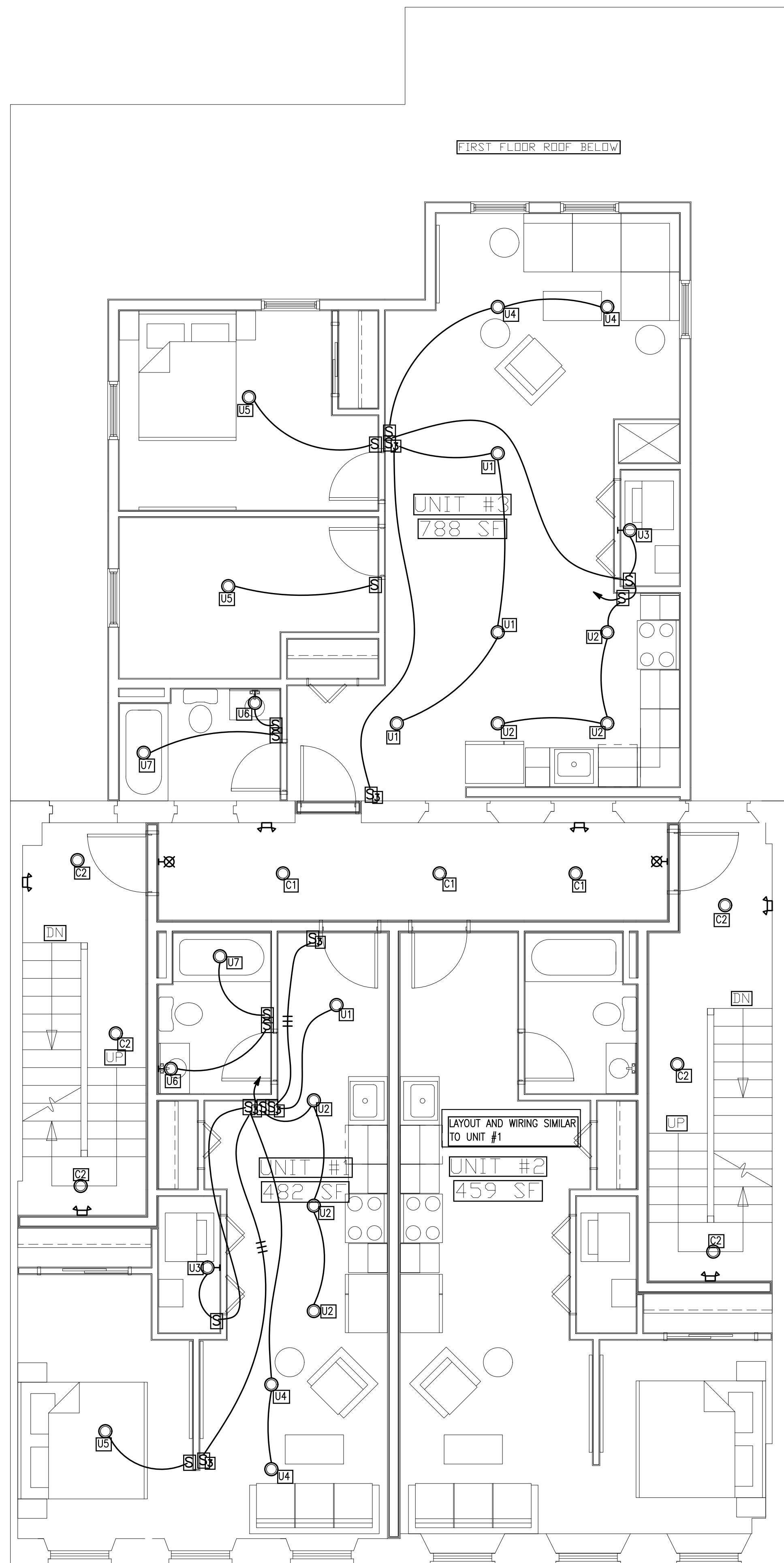
REGISTRATION

Pr	r	19061
D		5 03 2021
Dr	MP	
C	d M	
S		14" 1 0"

REVISIONS

No.	Description	Date

B 1
F rL P
E-101
00000 PRO ECT NAME



PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8882 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 © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr	r	19061
D		5 03 2021
Dr	MP	
C	d M	
S		14" 1 0"

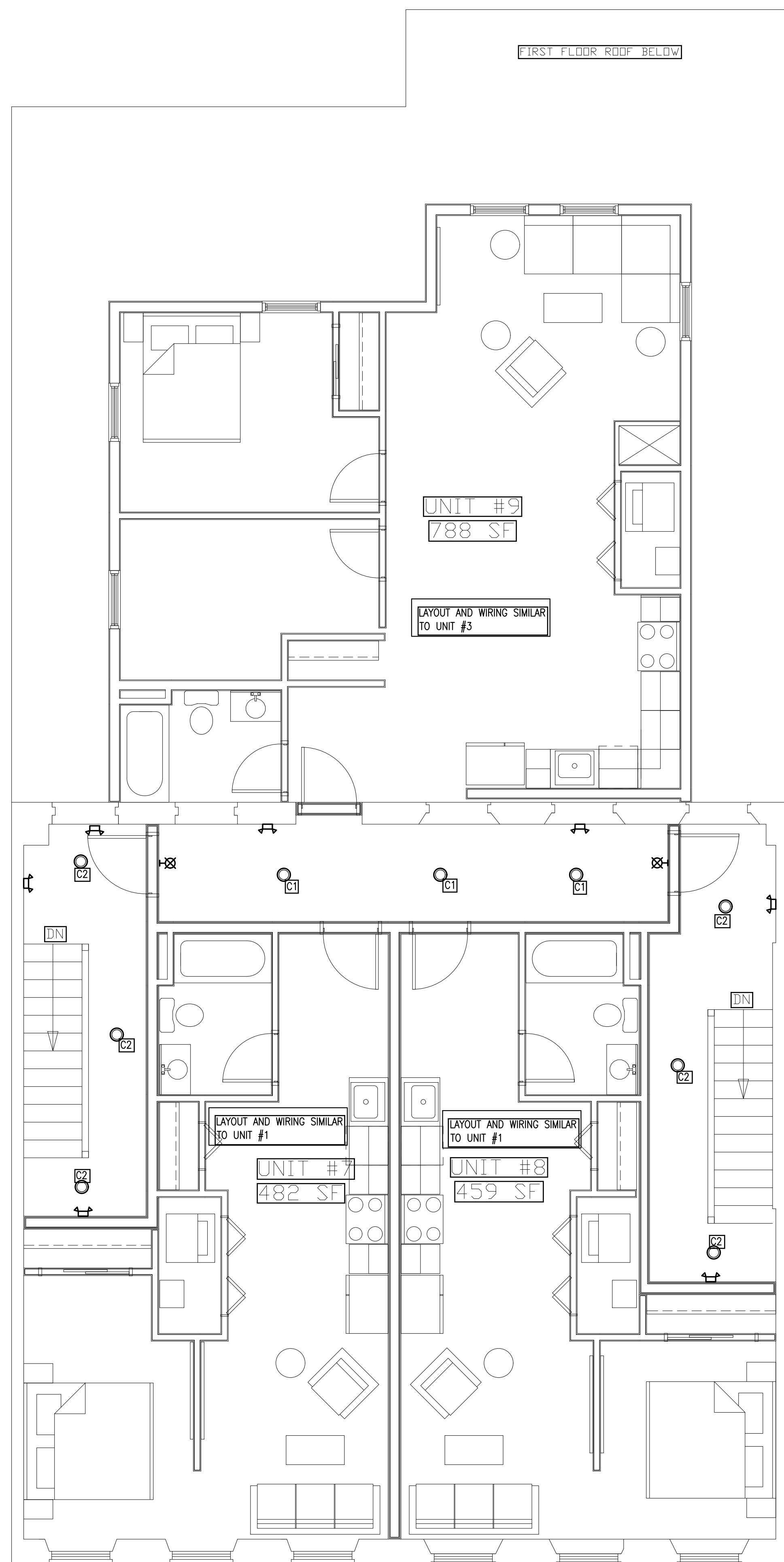
REVISIONS

No.	Description	Date

S d 3rd F r
L P

E-102

00000 PRO ECT NAME



PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8682 FAX 617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BRACH STREET, BOSTON, MA 02111
TEL: (617) 338-4406
FAX: (617) 451-2640
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr	r	19061
D		5 03 2021
Dr	MP	
C	d M	
S		1 4" 1 0"

REVISIONS

No.	Description	Date

4 F rL
P

E-103
00000 PRO ECT NAME

PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8882 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL: (617) 338-4406
FAX: (617) 451-2640
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr	r	19061
D		5 03 2021
Dr	MP	
C	d M	
S		14" 1 0"

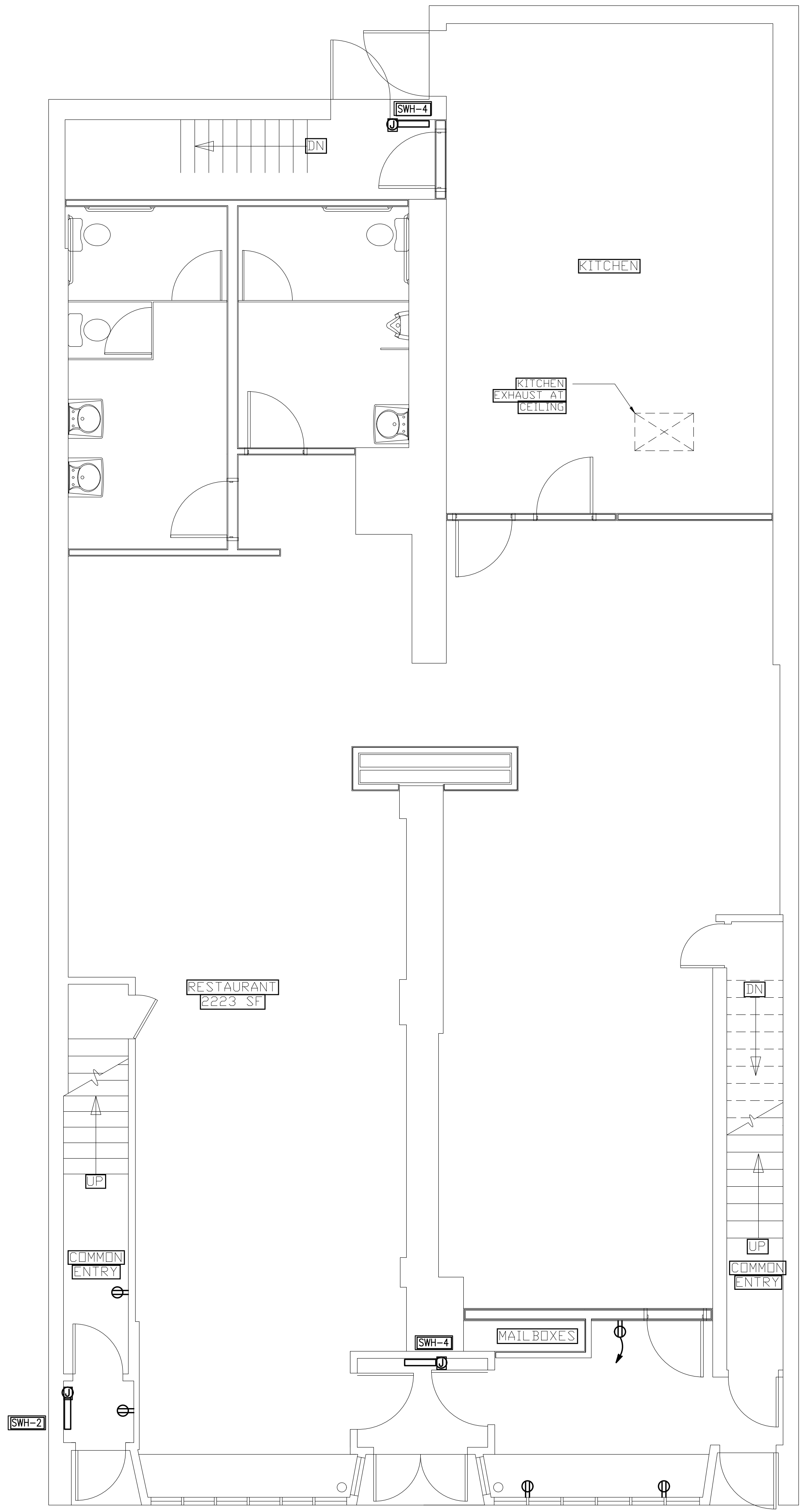
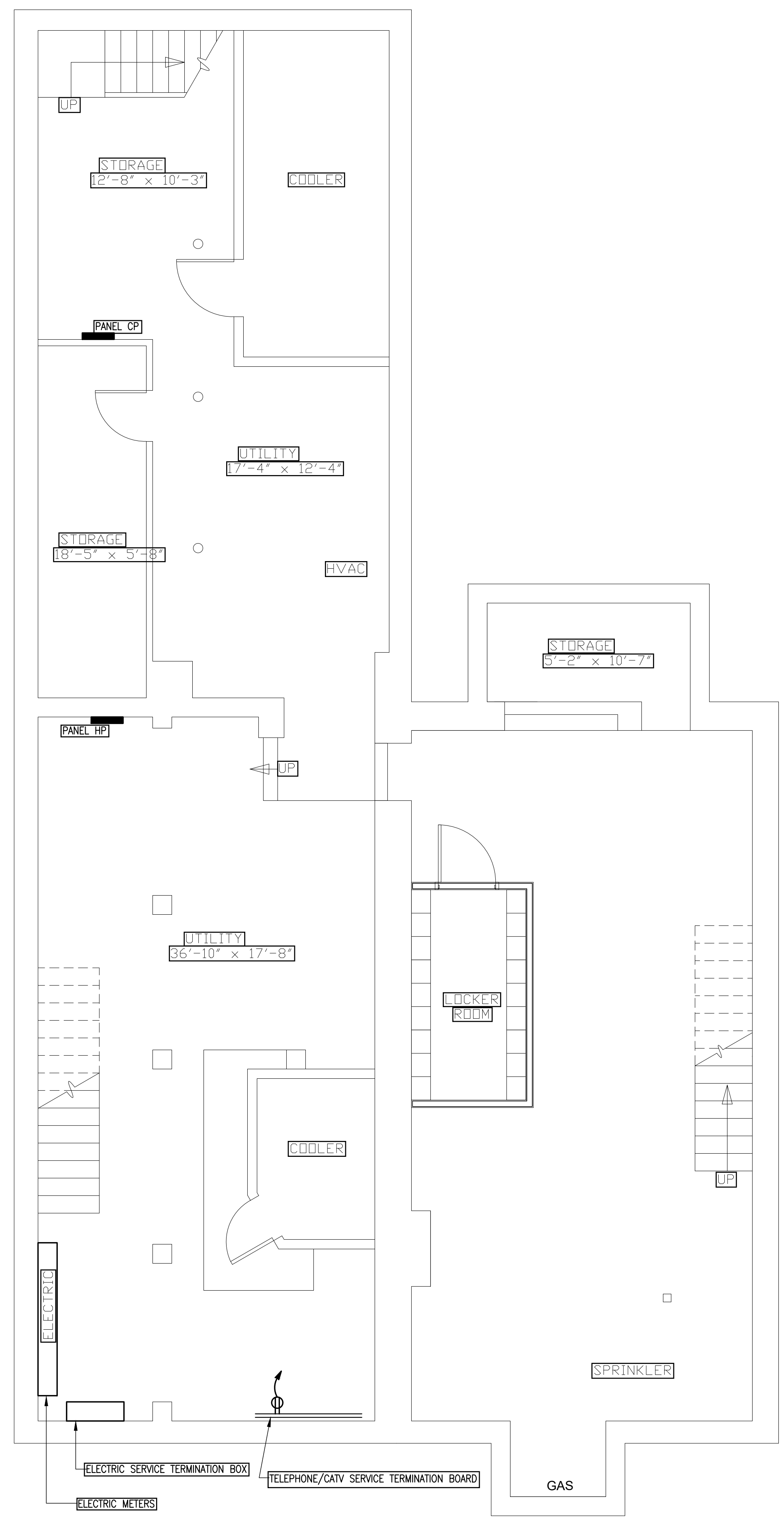
REVISIONS

No.	Description	Date

B 1
F rP rP

E-104

00000 PRO ECT NAME



PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8682 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL: (617) 338-4400
FAX: (617) 451-2640
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr r 19061
D 5 03 2021
Dr MP
C d M
S 14" 1 0"

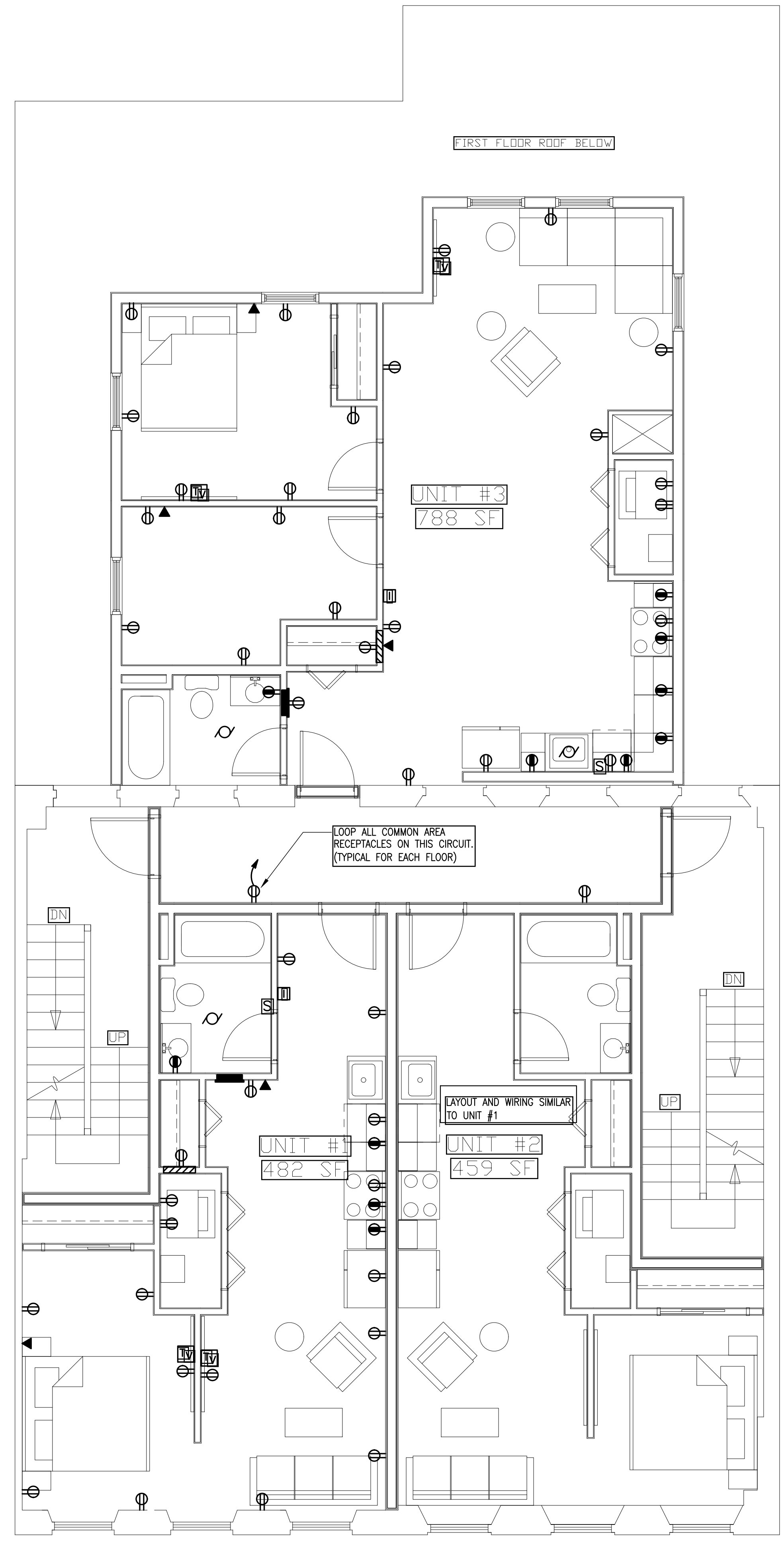
REVISIONS

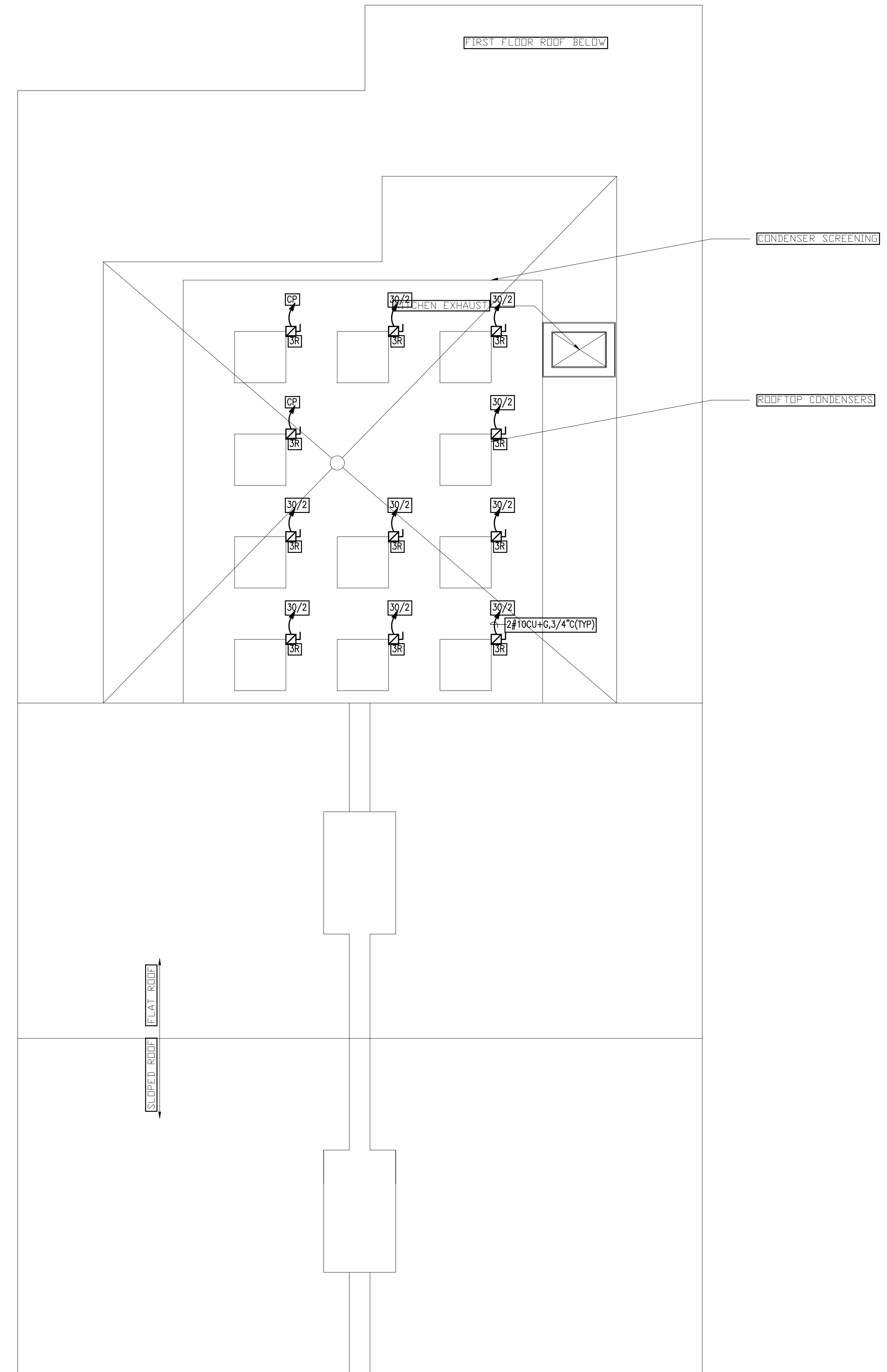
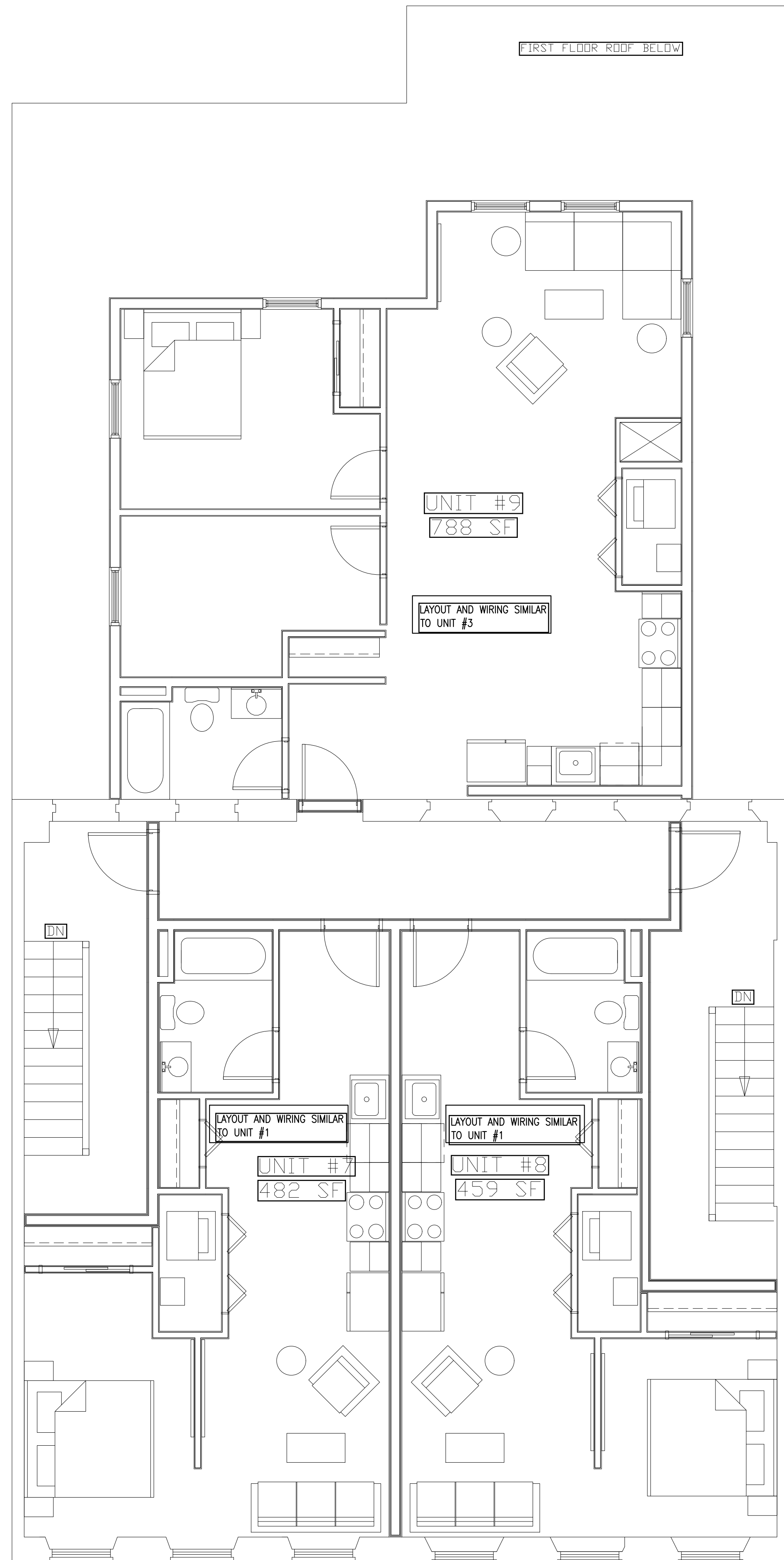
No.	Description	Date

2 d 3rd F r
P r P

E-105

00000 PRO ECT NAME





PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8882 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
140 BRANCH STREET, BOSTON, MA 02111
TEL: (617) 338-4400
FAX: (617) 451-2640
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC. USE OF THESE PLANS OR AN
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

Pr	r	19061
D		5 03 2021
Dr	MP	
C	d M	
S		1 4" 1 0"

REVISIONS

No.	Description	Date

4 R F r
P r P

E-106
00000 PROJECT NAME

PROJECT NAME
147 149 CHARLES ST

PROJECT ADDRESS
147 149 CHARLES STREET
BOSTON MA

CLIENT
CRM

ARCHITECT



171 ALOO STREET SUITE 400
SOMER ILLE MA 02143
TELEPHONE 617 591 8682 FAX
617 591 2086

CONSULTANTS:

ZADE ASSOCIATES LLC
CONSULTING ENGINEERS
110 BRACH STREET, BOSTON, MA 02111
TEL: (617) 538-4400
FAX: (617) 451-2840
E-MAIL: zade@zadeengineering.com

COPYRIGHT KDI © 2018
THESE DRAWINGS ARE NOW AND DO
REMAIN THE SOLE PROPERTY OF KHALSA
DESIGN INC USE OF THESE PLANS OR AN
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

Pr r 19061
D 5 03 2021
Dr MP
C d M
S 14" 1 0"

REVISIONS

No.	Description	Date

E r D

E-107

00000 PRO ECT NAME

TELEPHONE SYSTEM

A. FURNISH AND INSTALL A COMPLETE SYSTEM OF CONDUITS AND BACKBOARDS FOR TELEPHONE INSTRUMENTS AS SHOWN ON THE PLANS.

B. TELEPHONE TERMINAL LOCATIONS AS SHOWN ON THE PLANS SHALL BE 30" X 48" X 3/4" PLYWOOD. GROUND CONNECTIONS SHALL BE MADE BY THE TELEPHONE COMPANY. ELECTRICAL CONTRACTOR SHALL PROVIDE PRIMARY ARRESTER WITH FUSE AND #6CU GROUNDING WIRE AND GROUND BOLT CONNECTED TO SERVICE GROUND.

C. A NYLON FISH WIRE SHALL BE LEFT IN ALL CONDUITS TO FACILITATE PULLING-IN TELEPHONE WIRES. FURNISH AND INSTALL ONE NYLON PULL WIRE FOR PULLING IN TELEPHONE SERVICE IN ALL CONDUITS. SEE SITE PLAN FOR SERVICE ENTRANCE.

D. LOCAL TELEPHONE COMPANY SHALL BE RESPONSIBLE FOR TELEPHONE WIRING FROM THEIR OUTDOOR TERMINATION CABINET TO A NETWORK INTERFACE LOCATED IN THE TELEPHONE ROOM.

F. EACH TELEPHONE OUTLET SHALL BE WIRED TO DATA INTERFACE TERMINATION BOARD WITH PLENUM RATED CAT 6 #20/8 TWISTED DATA WIRE TERMINATED IN TESTED AND CERTIFIED CAT 6 TERMINATION STYLE AT BOTH ENDS AND CLEARLY RINGED AND TAGGED.

CONSTRUCTION AND TEST REQUIREMENTS (NEC REQUIREMENTS)

800.50 PREVENTS LAYING TELEPHONE WIRES ON CEILING TILES.

800.50 REQUIRES PRIMARY PROTECTOR FOR MOST UNDERGROUND AND ALL OVERHEAD SERVICES

800.30 (2) REQUIRES FUSED TYPE PRIMARY PROTECTOR AT SERVICE ENTRANCE

800.50 REQUIRES ALL METAL SHIELDS TO BE GROUNDED

800.50 REQUIRES INSULATED GROUNDING CONDUCTOR TO BE MINIMUM #14, NO LONGER THAN 20FT AND CONNECTED TO BUILDING GROUND SYSTEM. WITH MINIMUM #6 BONDING CABLE.

800.50 REQUIRES TYPE CMP FOR PLENUM, CMR FOR RISER APPLICATIONS.

800.51 REQUIRES MINIMUM 2" BETWEEN POWER LINES AND COMMUNICATION LINES, RECOMMENDED PRACTICE 6" FROM BALLASTS AND 6FT FROM LIGHTNING WIRES. ALSO KEEP DISTANCE FROM HEAT SOURCES.

KEEP MINIMUM 6" FROM 20A/2KW CIRCUITS

KEEP MINIMUM 12" FROM 30A/5KW CIRCUITS

KEEP MINIMUM 24" FROM ANY FEEDER

FOR SHIELDED CABLES THESE VALUES MAY BE TAKEN IN 1/3.

CAT 6 INSTALLATION RECOMMENDATIONS INCLUDE

CAT 6 INSTALLATION REQUIRES MINIMUM 1/2" UNTWIST

MINIMUM 1" BENDING RADIUS FOR FOUR PAIR OR 4X. FOR 25 PAIR 10X DIA.

PROVIDE MINIMUM TWO LINES AT EACH LOCATION ONE FOR TELEPHONE OTHER FOR DATA

WATCH FOR THAT A KINKED CABLE REDUCES 2.5DB; A SINGLE 1" RADIUS BEND REDUCES 2 DB.

-WIRE MAP TEST (TO IDENTIFY INSTALLATION ERRORS)

-LENGTH TEST (TO VERIFY MAXIMUM OPERATIONAL LENGTH IS 300FT)

-ATTENUATION TEST (TO MEASURE MAXIMUM SIGNAL LOSS AT 100MHZ LESS THAN 22)

-NEXT (TO MEASURE SIGNAL COUPLING BETWEEN THE PAIRS AT 100MHZ LESS THAN 32)

-PROPAGATION TEST (TO MEASURE TIME IT TAKES SIGNAL FROM ONE POINT TO OTHER)

CAT INTERNAL UNIT WIRING SPECIFICATIONS

COAXIAL CABLE

ALL COAXIAL CABLE WITHIN THE UNIT, INCLUDING THE DROP CABLES BACK TO THE COMMON DISTRIBUTION ROOM SHOULD MEET OR EXCEED THE FOLLOWING REQUIREMENTS:

RG-6 QUAD SHIELD FOR DROP LENGTHS OF UP TO 150 FEET.

RG-11QUAD SHIELD FOR DROP LENGTHS BETWEEN 151 FEET AND 250 FEET. (DROP LENGTHS SHOULD NOT EXCEED 250 FEET.)

INTERNAL UNIT WIRING

EACH APARTMENT SHALL HAVE IT'S OWN SEPARATE HOME-RUN WIRE. PROVIDE A DUAL CABLE TO BE USED FOR ALL DROP WIRING.

EACH APARTMENT THAT HAS MORE THAN ONE OUTLET MUST HAVE AN INTERFACE ENCLOSURE. THE INTERFACE ENCLOSURE SHALL BE PLACED IN A CENTRAL LOCATION IN THE UNIT, TYPICALLY THE CLOSET. THE ENCLOSURE SHOULD BE LOCATED AS CLOSE AS POSSIBLE TO THE PHONE INTERFACE WITHIN THE UNIT.

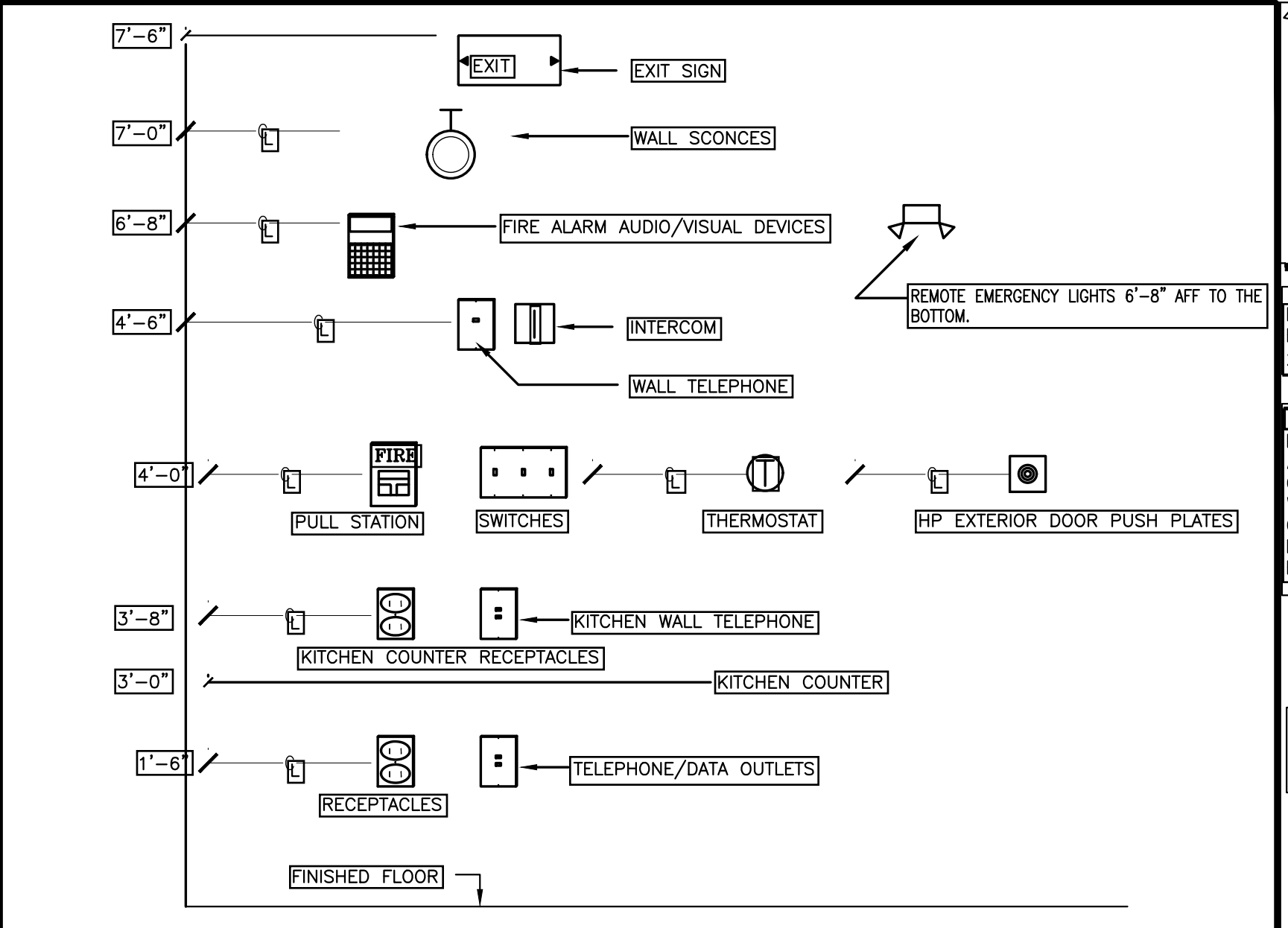
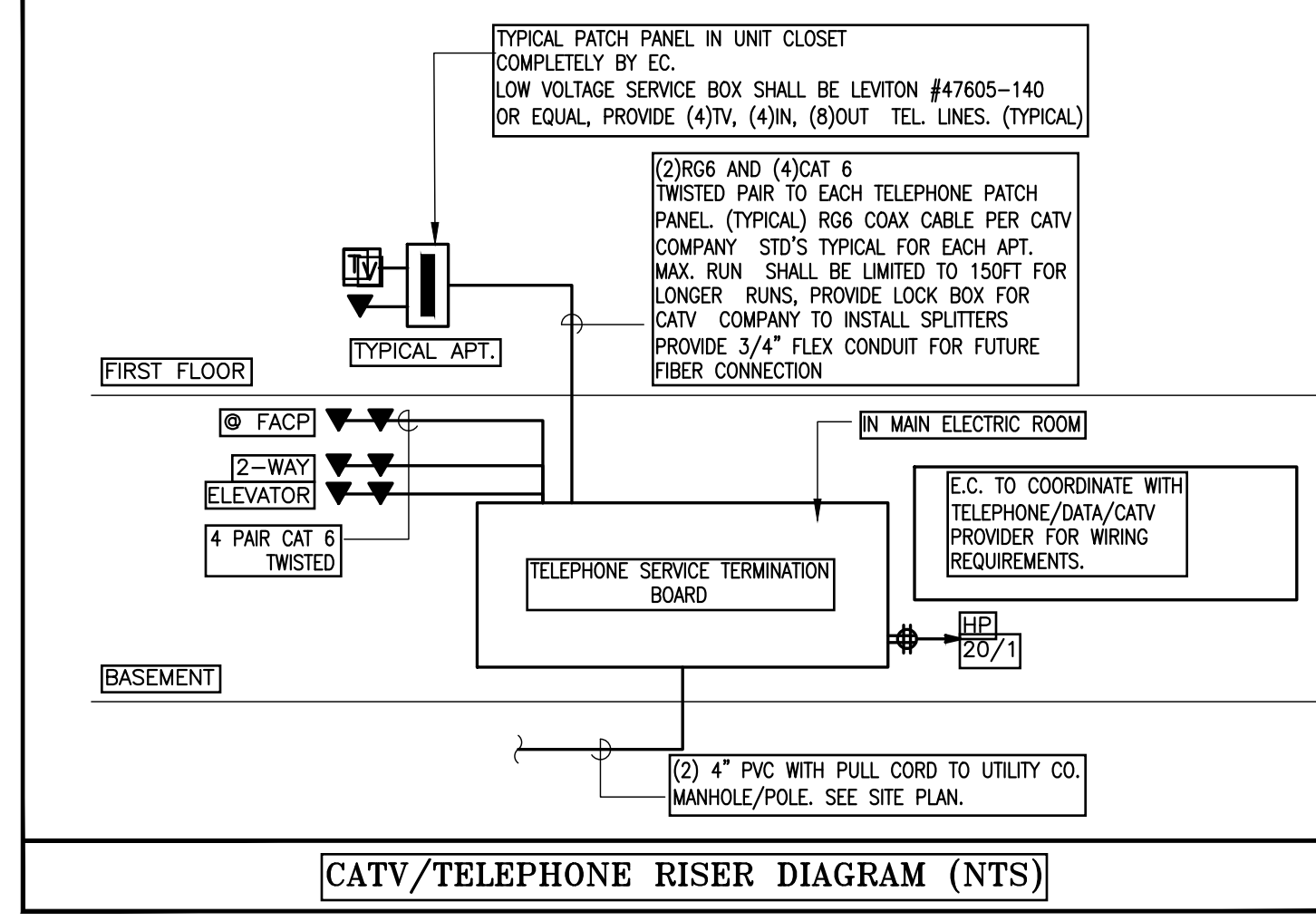
NO OUTLET SHOULD BE LOOP-WIRED (NO DAISY CHAIN WIRING.) EVERY OUTLET IN THE UNIT SHOULD BE WIRED BACK TO AN INTERFACE ENCLOSURE WITHIN THE UNIT.

ALL OUTLET LOCATIONS SHOULD HAVE A MINIMUM OF 12 " OF EXTRA CABLE BEHIND THE WALLPLATE.

MUD RINGS SHOULD BE USED AS OPPOSED TO CLOSED BOXES.

THE COAXIAL HOME RUN AND TWISTED PAIR HOME RUN SHALL BE WIRED TO THE SAME DISTRIBUTION CLOSET ON EACH FLOOR.

DO NOT KINK, FORM TIGHT NINETY-DEGREE ANGLES, PIERCE THE OUTER JACKET, DAMAGE OR MISHANDLE THE COAXIAL CABLE IN ANY WAY. USE APPROVED COAXIAL FASTENERS ONLY. METAL STUDS REQUIRE THAT PLASTIC BUSHINGS BE INSTALLED PRIOR TO PULLING THE CABLE.



- TYPICAL DEVICE MOUNTING HEIGHTS DETAIL**
- NOTES**
- DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
 - IN ACCESSIBLE UNITS ANY PUBLIC AREAS CONTROL SWITCHES MOUNTING HEIGHT NO HIGHER THAN 48" AFF. HOOD CONTROL SWITCHES (LIGHT/FAN) SHALL BE MOUNTED ON WALL AT COUNTER. KITCHEN COUNTER OUTLETS 2" LOWER THAN REGULAR UNITS
 - ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL. UNO IN THESE CONTRACT DOCUMENTS, BY ARCHITECT OR BY OWNER.
 - FIRE ALARM PULL STATION MOUNTING HEIGHT SHALL BE COMPLY WITH NFPA 72. (NOT LESS THAN 42 INCHES AND NOT MORE THAN 48 INCHES ABOVE FINISHED FLOOR.)
 - FIRE ALARM HORN/STROBE OR STROBE ONLY. THE ENTIRE STROBE LENS TO BE LOCATED NOT LESS THAN 80 INCHES ABOVE FINISHED FLOOR AND NOT MORE THAN 96 INCHES ABOVE FINISHED FLOOR AND COMPLY WITH NFPA 72.

CONDENSING UNIT SHALL BE WIRED TO APARTMENT PANEL UNIT IS SERVING. CONTRACTOR SHALL COORDINATE WITH HVAC SUB CONTRACTOR FOR EXACT UNIT, CORRESPONDING APARTMENT AND ELECTRICAL CHARACTERISTICS PRIOR TO ANY WORK DONE WITHIN 25FT OF EACH CONDENSING UNIT PROVIDE WP/GFI OUTLET WIRED TO HOUSE PANEL. LOOP UP TO 8 SUCH ROOF OUTLETS ON ONE CIRCUIT.

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.

PER NEW DEFINITION OF 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. PROVIDE GFI BREAKER FOR DISHWASHER.

IN RESIDENTIAL BUILDINGS ALL EXTERIOR WALL MOUNTED OUTLETS SHALL HAVE DRAFT BARRIERS -ALL OUTLETS MOUNTED ON FIRE RATED WALLS (UNIT SEPERATION WALLS SHALL HAVE) FIRE BLANKETS ON THEM

AIR TIGHT ELECTRICAL BOXES SHALL BE " ALLIED MOULDED PRODUCTS, INC" VAPOR SEAL SINGLE GANG 22.5 CU.IN., PART#1099-NV2 TWO GANG 37.0 CU.IN., PART#2302-HRV2 4" ROUND 22.5 CU.IN., PART#9350-BHV2 KV2 HN 4" ROUND 22.5 CU.IN., PART#9350-

ALL WIRES IN DWELLING ENCLOSURE WALLS SHALL BE FOAM SEALED TO THE BOXES AND THE BOXES SHALL BE FOAM SEALED TO THE DRYWALL.

ALL 120V RECEPTACLES INSTALLED WITHIN A RESIDENTIAL UNIT SHALL BE SAFETY TYPE AS MANUFACTURED BY LEVITON "S262-SG" OR APPROVED EQUAL.

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

NO EXPOSED WIRING IS ALLOWED. ALL CONCEALED WIRING SHALL BE IN "MC". ALL WIRING IN BLOCK WALLS SHALL BE CONCEALED, RUN IN CONDUIT.

INDICATES CATV JACK COMPLETE. EC SHALL HOME RUN EACH CATV OUTLETS WITH RG 6 COAX CABLE AND CONNECT TO CATV SPLITTER WITHIN EACH UNIT CLOSET AND CONNECT UNIT WITH DOUBLE COAX TO CATV ENTRANCE BOX LOCATED IN ELECTRIC ROOM.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE BOXES FOR EACH TYPICAL UNIT FOR OWNER/ARCHITECT REVIEW.

IN RESIDENTIAL BUILDINGS, UNLESS NOTED OTHERWISE -ALL LIGHT FIXTURES WITHIN BEDROOMS SHALL BE WIRED TO BEDROOM CIRCUIT -ALL OPEN AREA LIGHTS SHALL BE WIRED TO A SINGLE LIGHTING CIRCUIT (DINING ROOM, KITCHEN, HALL WAY) -BATHROOM LIGHTS SHALL BE WIRED TO OPEN AREA CIRCUITS.

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 -FINISHED/UNFINISHED BASEMENT OUTLETS

REGARDLESS SHOWN ON PLANS OR NOT PROVIDE CARBON MONOXIDE DETECTORS AT -OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND -IN THE ROOM HOUSING THE GAS APPLIANCE. DETECTORS SHALL BE UL LISTED. DETECTORS SHALL BE HARD WIRED WITH BATTERY BACK-UP. CO DETECTORS SHALL BE AS MANUFACTURED BY BRK CO 5120N

IN RESIDENTIAL BUILDINGS, FOR ALL GAS FIRED VENTILATION/AIR CIRCULATION EQUIPMENT, PROVIDE DUCT MOUNTED CO DETECTOR COMPLETE WITH HOUSING AND SAMPLING TUBE AS MANUFACTURED BY MACROCM 15A OR EQUAL AND CONNECT TO FIRE ALARM PANEL VIA MONITOR MODULE

ALL CO DETECTORS MUST "LATCH" AT THE PANEL; THAT IS TO SAY, THE RESPONDER TO A CO DETECTOR SUPERVISORY ALARM MUST BE LEAD TO MITIGATE THE CO ISSUE AT THE DETECTOR AND THEN CLEAR/RESET THE FIRE ALARM PANEL. THIS WILL MEAN THE CO SUPERVISORY ALARM CANNOT BE MITIGATED AT THE POINT LOCATION, BUT REQUIRES A COMPETENT RESPONDER TO ADDRESS THE PANEL IN THE FIRE COMMAND CENTER.

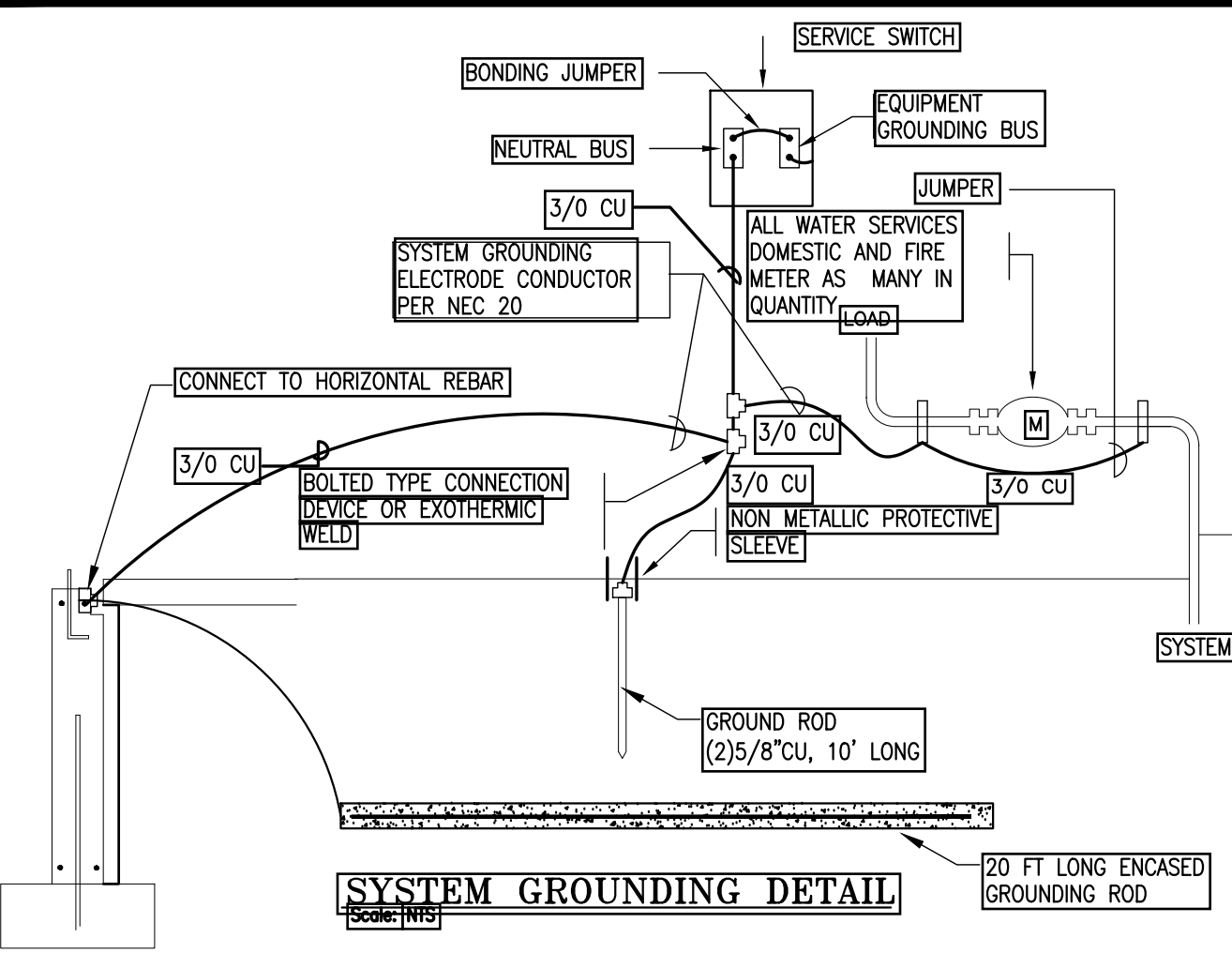
ALARM MONITORING SERVICE RECEIVES A SUPERVISORY CARBON MONOXIDE SIGNAL; THAT IS TO SAY, LITERALLY THE WORDS "CARBON MONOXIDE" MUST BE PRESENT AT ALARM COMPANY, THE LETTERS "CO" ARE NOT ACCEPTABLE.

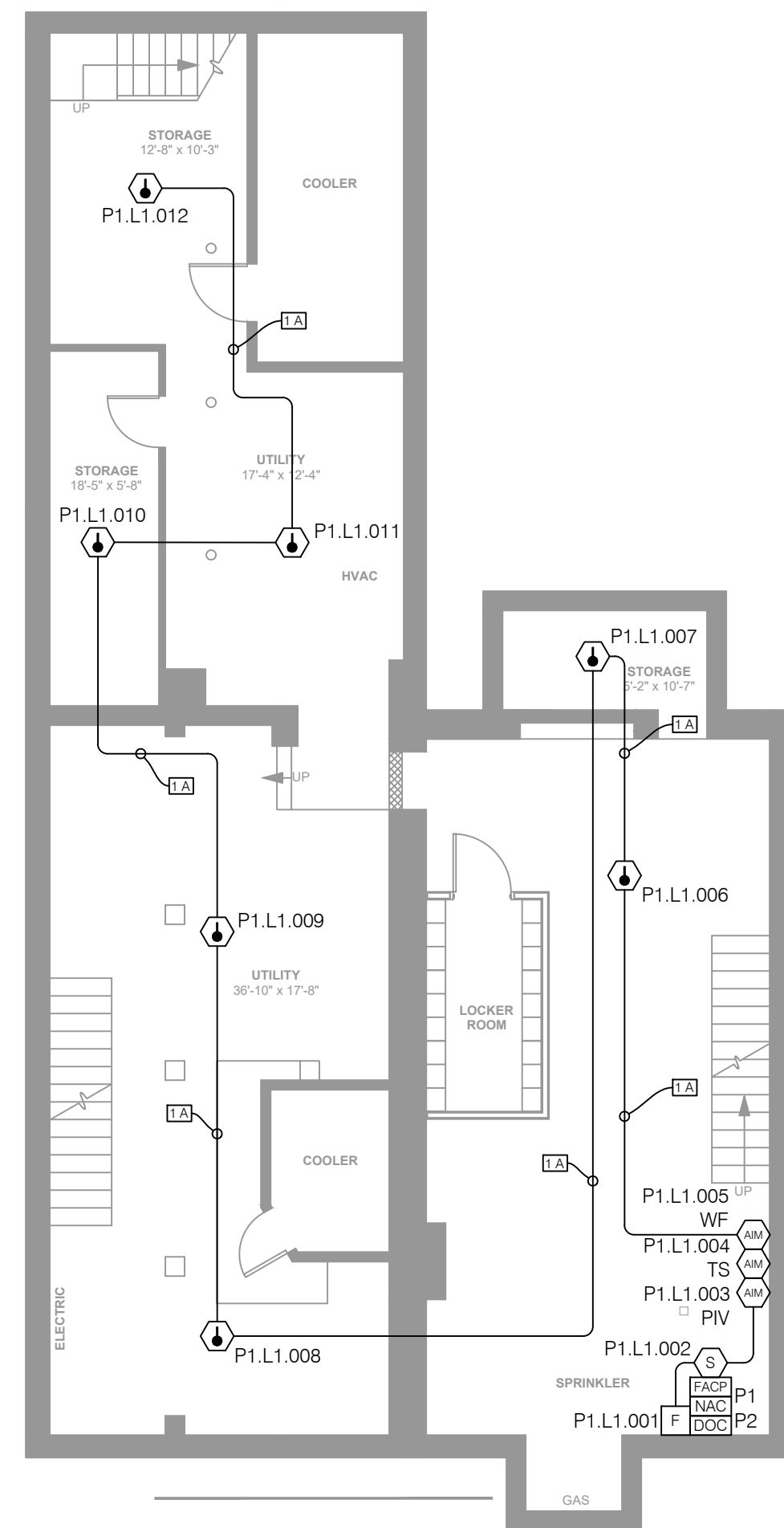
CARBON MONOXIDE DETECTORS IN ALL RESIDENTIAL UNITS PROVIDE CARBON MONOXIDE DETECTORS AT -OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND -ON EVERY HABITABLE LEVEL AT LEAST ONE AND -FOR ALL GAS FIRED UNITS WITH UNIT SHUT DOWN INTERLOCK AND NEAR ALL GAS FIRED FIRE PLACES

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.

INDICATES TEL/DATA COMBINATION OUTLET WITH CAT 6 TEL/DATA JACK. E.C. SHALL WIRE EACH OUTLET HOME RUN 4 PAIR CAT 6 CLP FOR TELEPHONE AND 4 PAIR CAT 6 CLP FOR DATA TO TELEPHONE AND DATA TERMINATION BOARDS RESPECTIVELY. TERMINATE AT TWO SEPARATE PUNCH DOWN BLOCKS. ALL WIRING AND TERMINATION'S SHALL BE PER CAT 6 SPECIFICATIONS. ALL WIRES SHALL BE PROPERLY LABELED AND RINGED OUT. KEEP WIRES MINIMUM 18" FROM POWER FEEDS AND FIXTURE BALLASTS

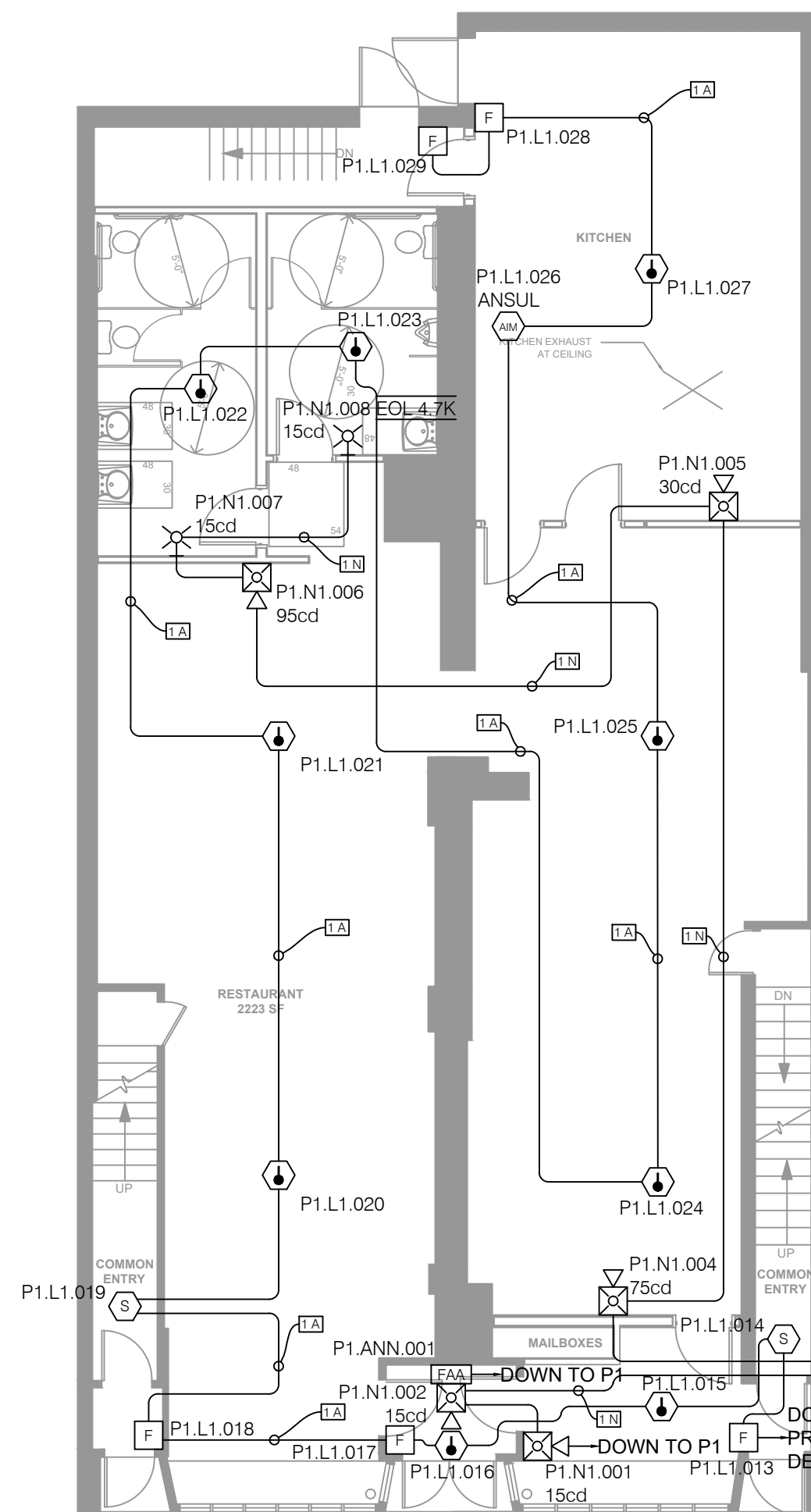
- SYMBOL LIST**
- CEILING MOUNTED LIGHT FIXTURE.
 - WALL MOUNTED LIGHT FIXTURE.
 - 2'X2' OR 2'X4' FLUORESCENT LIGHT FIXTURE.
 - 1'x4' FLUORESCENT WALL/CEILING MOUNTED LIGHT FIXTURE.
 - TRACK LIGHT
 - SINGLE POLE LIGHT SWITCH
 - THREE-WAY LIGHT SWITCHES
 - FOUR-WAY LIGHT SWITCHES
 - DIMMER SWITCH MINIMUM 1000W OR AS REQUIRED PER CIRCUIT
 - THREE-WAY DIMMER SWITCHES
 - FOUR-WAY DIMMER SWITCHES
 - TIMER SWITCH
 - DUPLEX RECEPTACLE, 120V,18" AFF.
 - DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER 8" ABOVE COUNTER TO
 - DUPLEX RECEPTACLE, 120V,18" AFF., ONE OUTLET SWITCHED
 - 120V DOUBLE DUPLEX CONVENIENCE RECEPTACLE
 - DUPLEX RECEPTACLE ABOVE COUNTER, 8" ABOVE COUNTER TO
 - 208V/1P/30A RECEPTACLE
 - DUPLEX RECEPTACLE WITH USB PORT
 - 208V/1P/50A RANGE OUTLET
 - TELEPHONE JACK COMPLETE W/JACK AND COVER. ("W" WALL MOUNTED @ 4'-0" A.F.F.)
 - TEL/DATA COMBINATION OUTLET, COMPLETE W/JACK AND COVER, HEIGHT @18" TO C AFF.
 - MOTOR
 - FUSED DISCONNECT SWITCH, (3R RAIN-PROOF).
 - HOMERUN TO PANEL WITH CONDUCTOR.(HOT, NEUTRAL, GROUND)
 - JUNCTION BOX
 - LIGHTING & POWER PANEL
 - APARTMENT LOAD CENTER, RECESSED
 - LOW VOLTAGE BOX
 - RACEWAY CONCEALED IN CEILING, PLENUM OR WALLS
 - RACEWAY CONCEALED IN SLAB (FLOOR)
 - TIME SWITCH
 - DRY TYPE TRANSFORMER
 - UNIVERSAL MOUNTING EXIT SIGN (DOUBLE FACED), ARROWS AS INDICATED.
 - EMERGENCY BATTERY UNIT WITH MOUNTING BRACKET AND VOLTMETER.
 - OCCUPANCY SENSOR SWITCH
 - OCCUPANCY SENSOR
 - AREA OF REFUGE CENTRAL BASE UNIT
 - AREA OF REFUGE FLOOR ELEVATOR LOBBY UNIT.





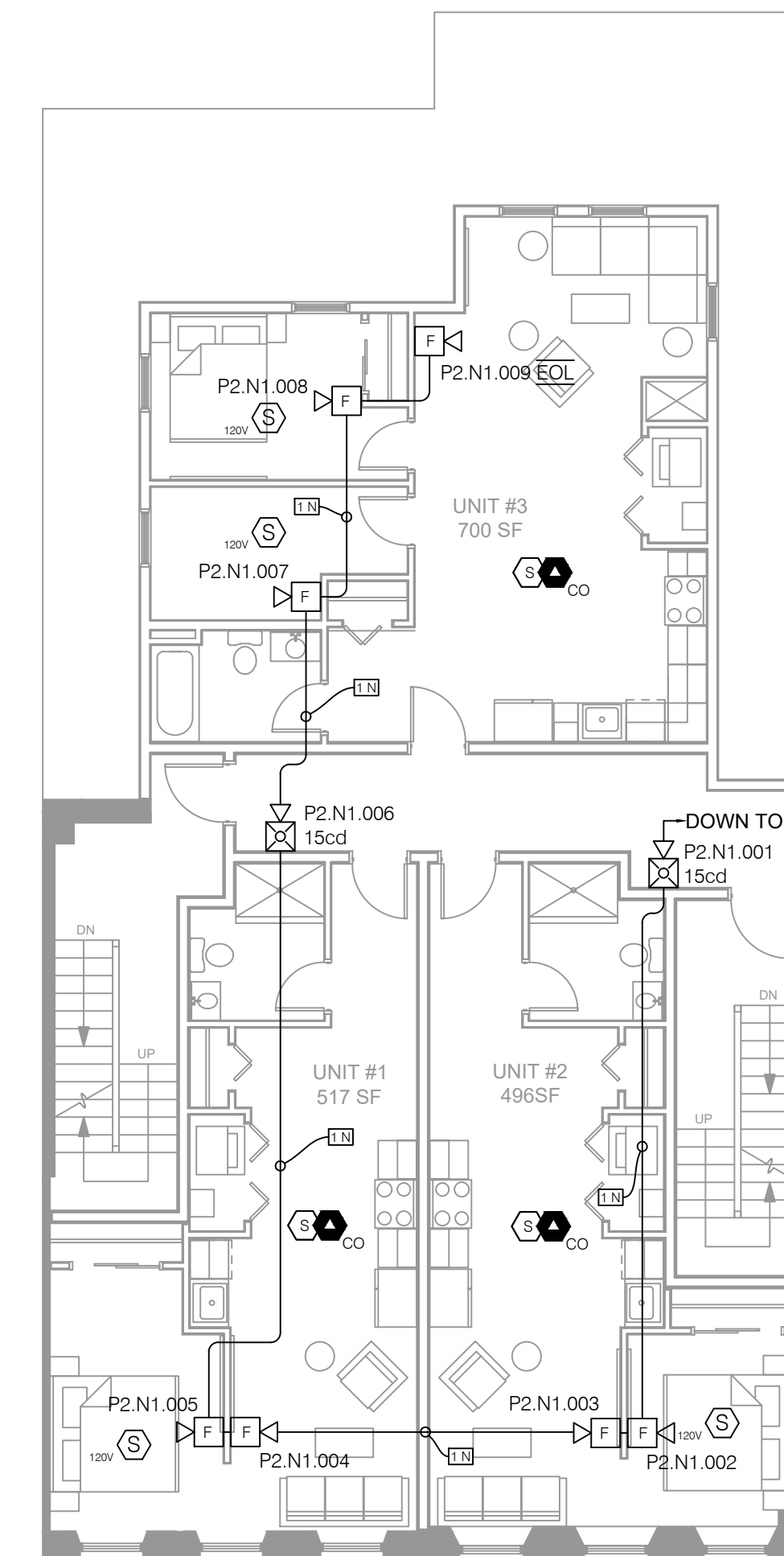
FIRE ALARM SYSTEM BASEMENT FLOOR PLAN

SCALE: 1/8" = 1'



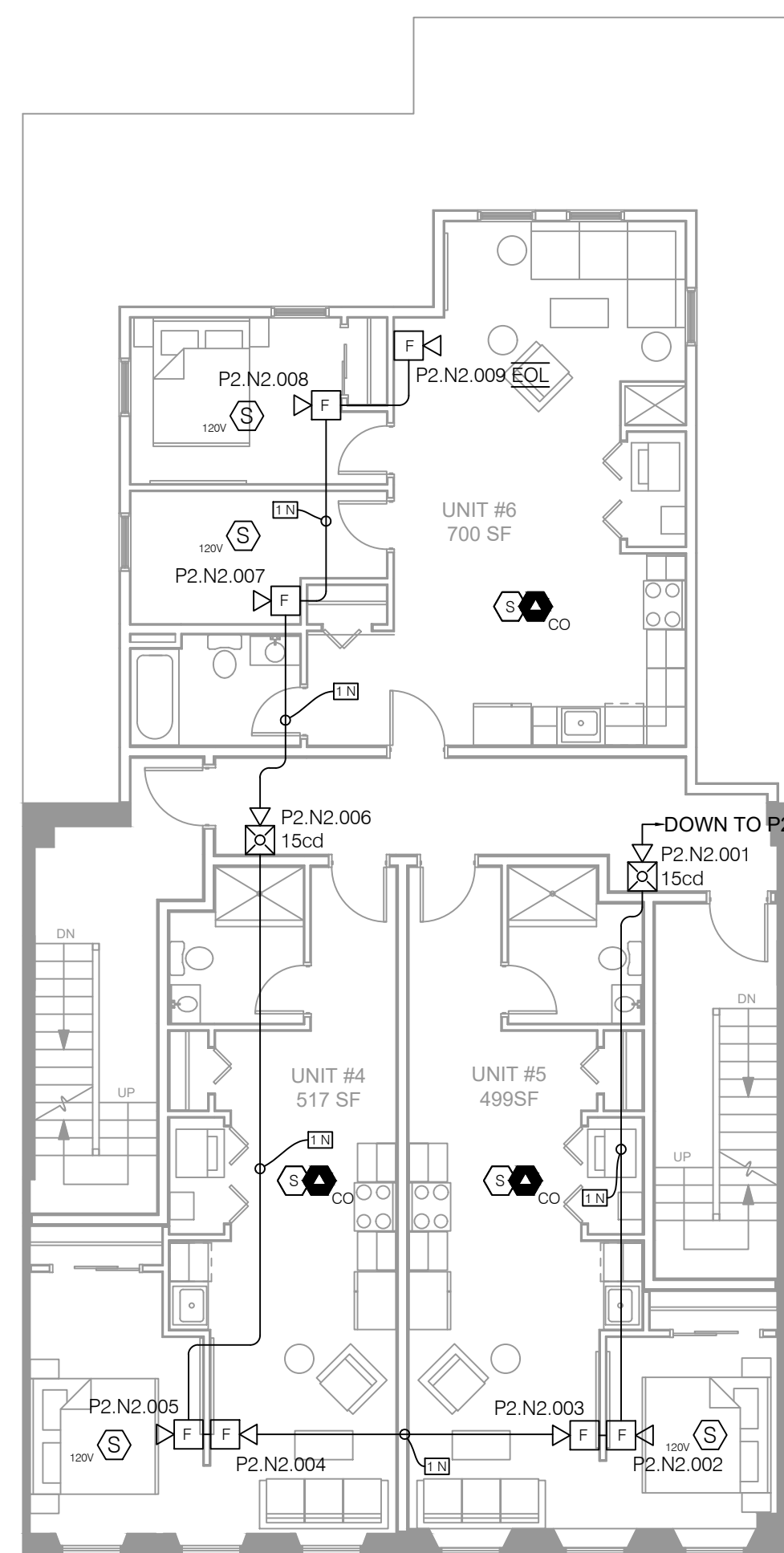
FIRE ALARM SYSTEM FIRST FLOOR PLAN

SCALE: 1/8" = 1'



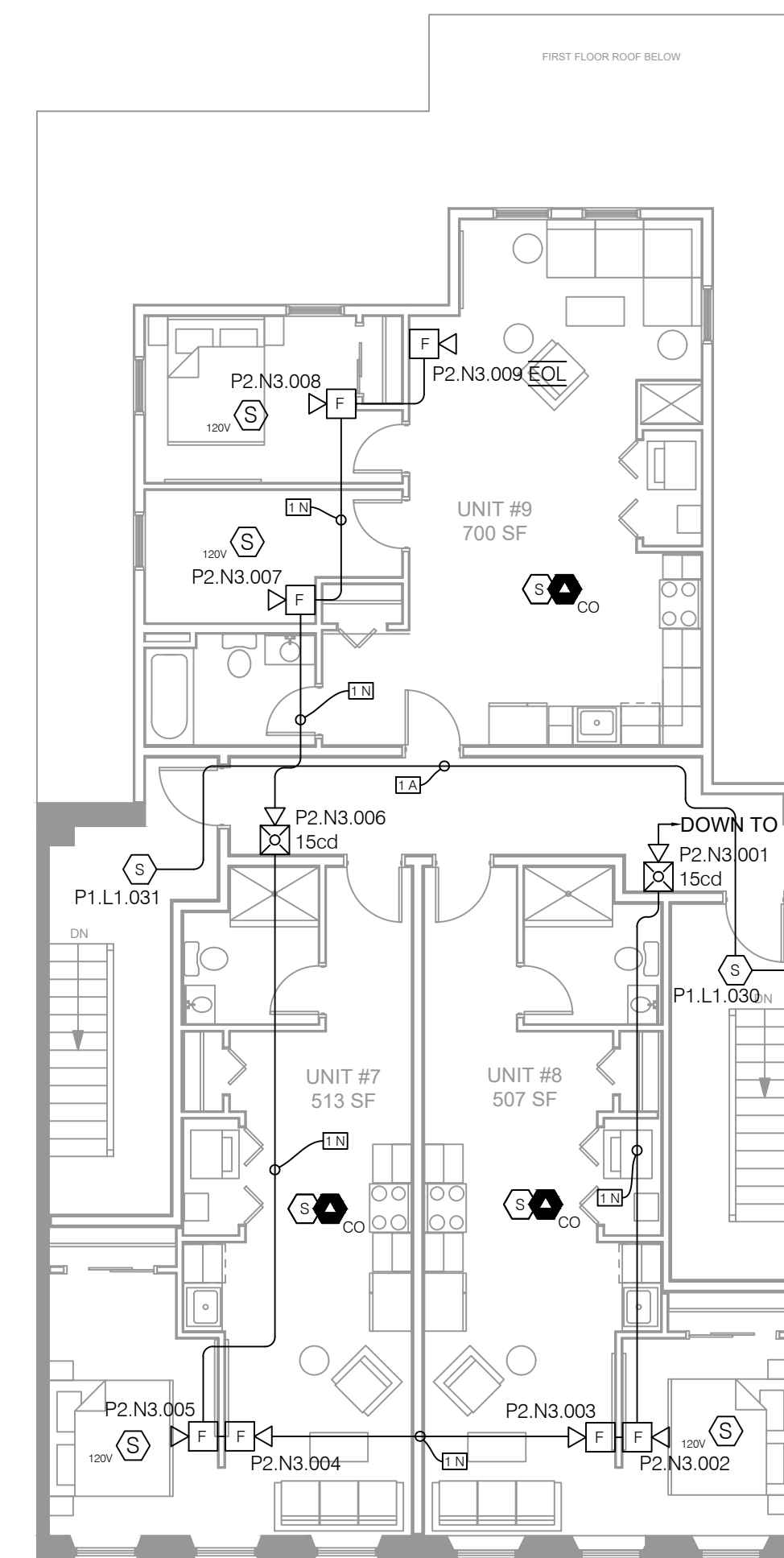
FIRE ALARM SYSTEM SECOND FLOOR PLAN

SCALE: 1/8" = 1'



FIRE ALARM SYSTEM THIRD FLOOR PLAN

SCALE: 1/8" = 1'



FIRE ALARM SYSTEM FOURTH FLOOR PLAN

SCALE: 1/8" = 1'

NOT FOR CONSTRUCTION WITHOUT PRIOR AHJ APPROVAL

147-149 CHARLES ST.
SPRINKLER MONITORING SYSTEM
147-149 CHARLES ST.
BOSTON, MA 02114

REVISIONS	
△	SUBMITTAL 02/16/21
△	
△	
△	

DRAWN BY: T.R.
 CHECKED BY: A.V.
 JOB# 21023.1
 FILE NO.: TBD
 SCALE: AS SHOWN
 DATE: 02-16-21
 DRAWING NO.

FA1.0

Job: RENOVATED MIXED-USE BUILDING
 Address: 147-149 CHARLES ST
 City: BOSTON State: MA Zip/Postal Code: 02114
 Contact: 600-148 Date: 5/20/2021
 Contractor: TO BE DETERMINED Designer: JFP SOLUTIONS, INC.
 Address: DEVELOPER - CITY REALTY State: MA Zip/Postal Code:
 City: BOSTON State: MA Zip/Postal Code:
 Phone: Fac: Email:
 Approving Authority: BOSTON FD
 Design Details: Standard: NFPA 13
 Detail Drop Size: 1
 Detail Drop Material: CPVC
 Detail Drop Elevation: 0

FIRE PROTECTION NOTES:
 THE PURPOSE OF THIS FIRE PROTECTION DRAWING AND THE ASSOCIATED FIRE PROTECTION DESIGN NARRATIVE IS TO INDICATE THE PROPOSED RESIDENTIAL SPRINKLER SYSTEM TO BE INSTALLED WITHIN THE RENOVATED MIXED-USE BUILDING LOCATED AT 147-149 CHARLES STREET IN BOSTON, MASSACHUSETTS.

THIS BUILDING IS COMPRISED OF A BASEMENT LEVEL WITH FOUR LEVELS ABOVE GRADE. THE BASEMENT WILL BE USED FOR UTILITY SPACE AND THE FIRST FLOOR WILL BE USED FOR A FUTURE RESTAURANT AND COMMON ENTRYWAY. THE THREE LEVELS ABOVE WILL CONTAIN RESIDENTIAL DWELLING UNITS AS INDICATED ON THE ARCHITECTURAL DRAWINGS. THE BUILDING IS LESS THAN 50-FT ABOVE FIRE DEPARTMENT VEHICULAR ACCESS AND THEREFORE DOES NOT REQUIRE A STANDPIPE SYSTEM.

THIS RESIDENTIAL SPRINKLER SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 (2013 EDITION) FOR A MIXED-USE BUILDING.

THE SPRINKLER CONTRACTOR SHALL FOLLOW THE LATEST REQUIREMENTS OF NFPA 13 (2013 EDITION), MASSACHUSETTS STATE BUILDING CODE (800 CMR, 2015 EDITION) AND BOSTON FIRE DEPARTMENT REQUIREMENTS.

THIS SYSTEM WILL BE SUPPLIED BY A DEDICATED NEW 4" FIRE SERVICE, TAPPED OFF THE EXISTING WATER MAIN ON CHARLES STREET. THE FIRE SERVICE SHALL BE DESIGNED, INSTALLED, FLUSHED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 24 BY A LICENSED UNDERGROUND CONTRACTOR AND WILL ENTER THE COMMON UTILITY ROOM IN THE BASEMENT LEVEL AS INDICATED ON THIS DRAWING.

SPRINKLER PROTECTION THROUGHOUT THE BUILDING WILL BE A WET-PIPE SYSTEM, ZONED BY FLOOR AS INDICATED. CONTROL VALVE ASSEMBLIES WILL INCLUDE A CHECK VALVE, MONITORED BUTTERFLY VALVE, FLOW SWITCH AND COMBINATION TEST & DRAIN TIED INTO A COMMON DRAIN RISER PIPED TO THE EXTERIOR OF THE BUILDING.
 THE SYSTEM HAS BEEN HYDRAULICALLY CALCULATED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 (2013 EDITION), INCLUDING THE FOUR HYDRAULICALLY MOST DEMANDING HEADS IN A RESIDENTIAL UNIT ON THE FOURTH FLOOR USING THE GREATER OF EITHER A 0.10 GPM/SQ FT DENSITY OVER THE ACTUAL COVERAGE AREA, OR THE MINIMUM SPRINKLER HEAD AND THE SPACING USED IN THIS DESIGN (10X12' REQUIRING A MINIMUM OF 13 GPM @ 7.0 PSI). THE RESTAURANT AND BASEMENT LEVELS HAVE BEEN CALCULATED FOR AN ORDINARY HAZARD GROUP I OCCUPANCY USING A DESIGN DENSITY OF 0.15 GPM/SQ FT OVER THE REMOTE AREA. REMOTE AREAS, DENSITIES AND HOSE STREAM ALLOWANCES ARE INDICATED ON THIS DRAWING ALONG WITH SYSTEM DEMANDS AT CONNECTION TO STREET. CALCULATION RESULTS HAVE BEEN COMPARED TO RECENT HYDRANT FLOW TEST INFORMATION OBTAINED FROM THE BOSTON WATER & SEWER DEPARTMENT. CALCULATIONS HAVE BEEN SUBMITTED WITH THIS DRAWING TO THE BOSTON FIRE DEPARTMENT FOR REVIEW.

INSTALLATION NOTES:
 ALL WORK SHALL BE PERFORMED BY A MASSACHUSETTS LICENSED SPRINKLER CONTRACTOR. THE SPRINKLER CONTRACTOR SHALL FOLLOW THE LATEST REQUIREMENTS OF NFPA 13R (2013 EDITION), MASSACHUSETTS STATE BUILDING CODE (2015 EDITION, CHAPTER 9) AND THE BOSTON FIRE DEPARTMENTS.
 THE ARCHITECTURAL BACKGROUND OF BUILDING MAY DIFFER SLIGHTLY FROM ACTUAL LAYOUT. DRAWINGS ARE NOT INTENDED TO SHOW ALL OFFSETS AND PIPING ELEVATION CHANGES. CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS PRIOR TO FABRICATION.
 CONTRACTOR SHALL HYDROSTATICALLY TEST ALL SPRINKLER PIPING AT 200 PSI FOR 2 HOURS AND IS RESPONSIBLE FOR THE COMPLETION OF ALL ABOVE GROUND TEST CERTIFICATES, SUPPLIED TO THE OWNER.
 ALL PIPING WITHIN THE BASEMENT LEVEL, FIRST FLOOR LEVEL AND INCLUDING THE MAIN RISER UP THE BUILDING WILL BE BLACK STEEL PIPING. PIPING INSTALLED THROUGHOUT THE RESIDENTIAL AREAS OF THE BUILDING SHALL BE UL LISTED CPVC SPRINKLER PIPING. ALL PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 (2013 EDITION) AND ALL MANUFACTURERS INSTALLATION RECOMMENDATIONS. ALL PIPING SHALL BE PITCHED TO DRAIN WITH LOW-POINT DRAINS AT SECTIONS OF PIPING SUBJECT TO WATER TRAPPING. SPRINKLER CONTRACTOR SHALL PROVIDE PROTECTIVE PLATES WHERE CPVC PIPING IS RUN THROUGH STUDS TO PREVENT PUNCTURING OF THE SPRINKLER PIPING DURING DRYWALL INSTALLATION AS REQUIRED BY NFPA STANDARDS.
 ALL SPRINKLER HEADS WITHIN RESIDENTIAL UNITS SHALL BE RESIDENTIAL PENDENT SPRINKLERS. SPRINKLER HEADS THROUGHOUT THE FIRST FLOOR AND BASEMENT LEVEL SHALL BE QUICK-RESPONSE COMMERCIAL UPRIGHT SPRINKLERS. ALL HEADS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND THE REQUIREMENTS OF NFPA 13 (2013 EDITION).
 ALL COMBUSTIBLE CONCEALED SPACES EXCEEDING 6" IN DEPTH SHALL BE EITHER FILLED WITH NON-COMBUSTIBLE INSULATION OR PROVIDED WITH INTERSTITIAL PROTECTION AS REQUIRED BY NFPA 13 (2013 EDITION). SPRINKLER CONTRACTOR TO VERIFY ANY SUCH SPACES IN-FIELD WITH GENERAL CONTRACTOR.
 THESE SPRINKLER DRAWINGS HAVE BEEN DEVELOPED AS PART OF THE BUILDING PERMIT PROCESS. SPRINKLER CONTRACTOR AWARDED THIS INSTALLATION SHALL BE RESPONSIBLE FOR PROVIDING STAMPED SHOP DRAWINGS AND FINAL APPROVALS ASSOCIATED WITH INSTALLATION AND BOSTON FIRE DEPARTMENT PERMIT AND SIGN-OFF PROCESS.
 BUILDING OWNER IS RESPONSIBLE FOR MAINTAINING THIS SPRINKLER SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 25, INCLUDING THE PROVISION OF HEAT IN ALL AREAS CONTAINING SPRINKLER PIPING AND HEADS TO PREVENT PIPE FROM FREEZING. JFP SOLUTIONS, INC. AND THE ENGINEER OF RECORD TAKE NO RESPONSIBILITY FOR ANY DAMAGES CAUSED BY FREEZE UPS.

THE SPRINKLER CONTRACTOR SHALL FOLLOW THE LATEST REQUIREMENTS OF NFPA 13 (2013 EDITION), MASSACHUSETTS STATE BUILDING CODE (800 CMR, 2015 EDITION) AND BOSTON FIRE DEPARTMENT REQUIREMENTS.

THIS SYSTEM WILL BE SUPPLIED BY A DEDICATED NEW 4" FIRE SERVICE, TAPPED OFF THE EXISTING WATER MAIN ON CHARLES STREET. THE FIRE SERVICE SHALL BE DESIGNED, INSTALLED, FLUSHED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 24 BY A LICENSED UNDERGROUND CONTRACTOR AND WILL ENTER THE COMMON UTILITY ROOM IN THE BASEMENT LEVEL AS INDICATED ON THIS DRAWING.

SPRINKLER PROTECTION THROUGHOUT THE BUILDING WILL BE A WET-PIPE SYSTEM, ZONED BY FLOOR AS INDICATED. CONTROL VALVE ASSEMBLIES WILL INCLUDE A CHECK VALVE, MONITORED BUTTERFLY VALVE, FLOW SWITCH AND COMBINATION TEST & DRAIN TIED INTO A COMMON DRAIN RISER PIPED TO THE EXTERIOR OF THE BUILDING.
 THE SYSTEM HAS BEEN HYDRAULICALLY CALCULATED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 (2013 EDITION), INCLUDING THE FOUR HYDRAULICALLY MOST DEMANDING HEADS IN A RESIDENTIAL UNIT ON THE FOURTH FLOOR USING THE GREATER OF EITHER A 0.10 GPM/SQ FT DENSITY OVER THE ACTUAL COVERAGE AREA, OR THE MINIMUM SPRINKLER HEAD AND THE SPACING USED IN THIS DESIGN (10X12' REQUIRING A MINIMUM OF 13 GPM @ 7.0 PSI). THE RESTAURANT AND BASEMENT LEVELS HAVE BEEN CALCULATED FOR AN ORDINARY HAZARD GROUP I OCCUPANCY USING A DESIGN DENSITY OF 0.15 GPM/SQ FT OVER THE REMOTE AREA. REMOTE AREAS, DENSITIES AND HOSE STREAM ALLOWANCES ARE INDICATED ON THIS DRAWING ALONG WITH SYSTEM DEMANDS AT CONNECTION TO STREET. CALCULATION RESULTS HAVE BEEN COMPARED TO RECENT HYDRANT FLOW TEST INFORMATION OBTAINED FROM THE BOSTON WATER & SEWER DEPARTMENT. CALCULATIONS HAVE BEEN SUBMITTED WITH THIS DRAWING TO THE BOSTON FIRE DEPARTMENT FOR REVIEW.

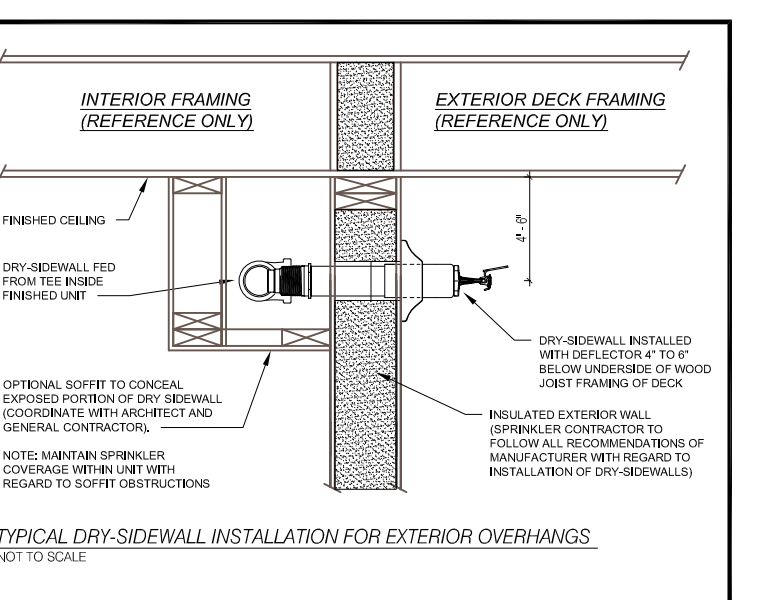
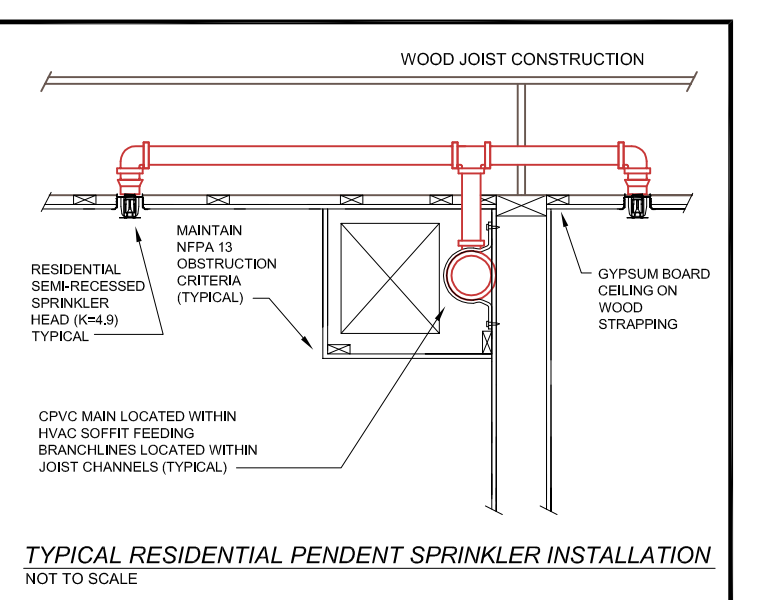
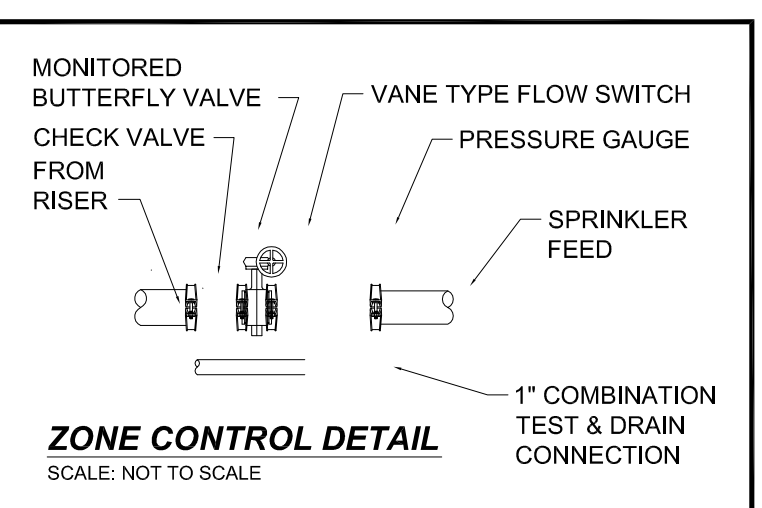
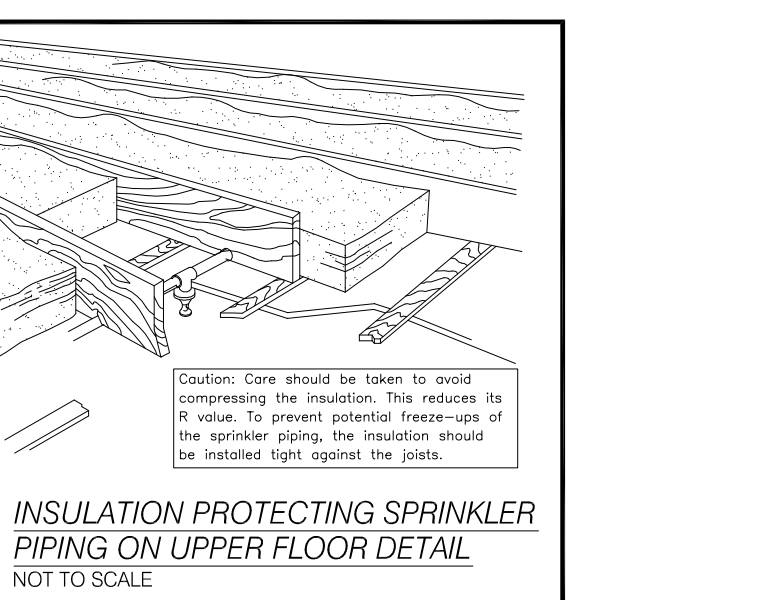


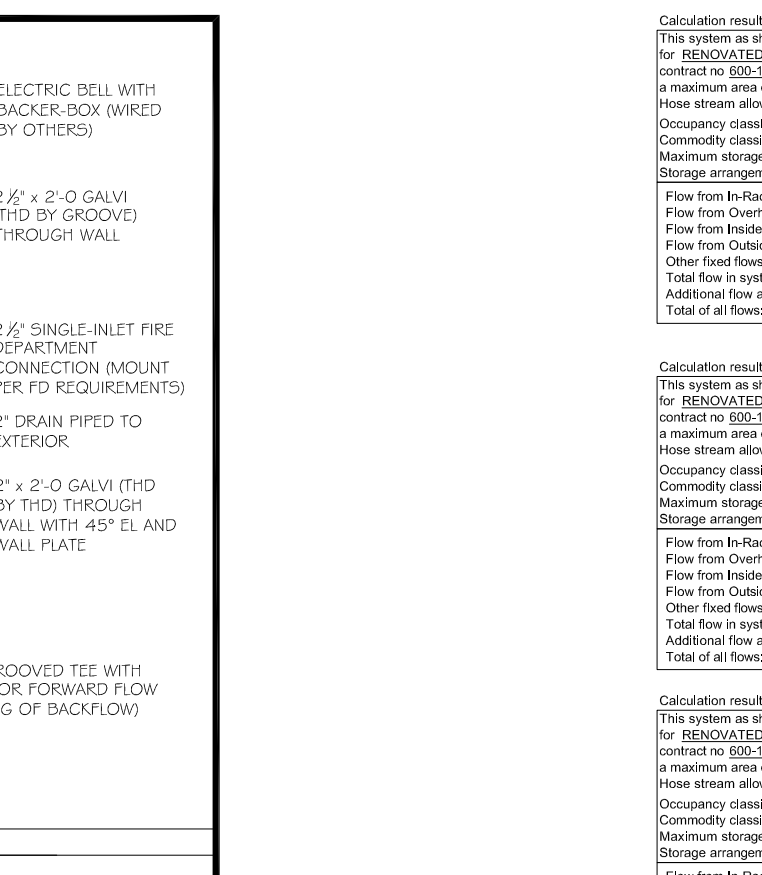
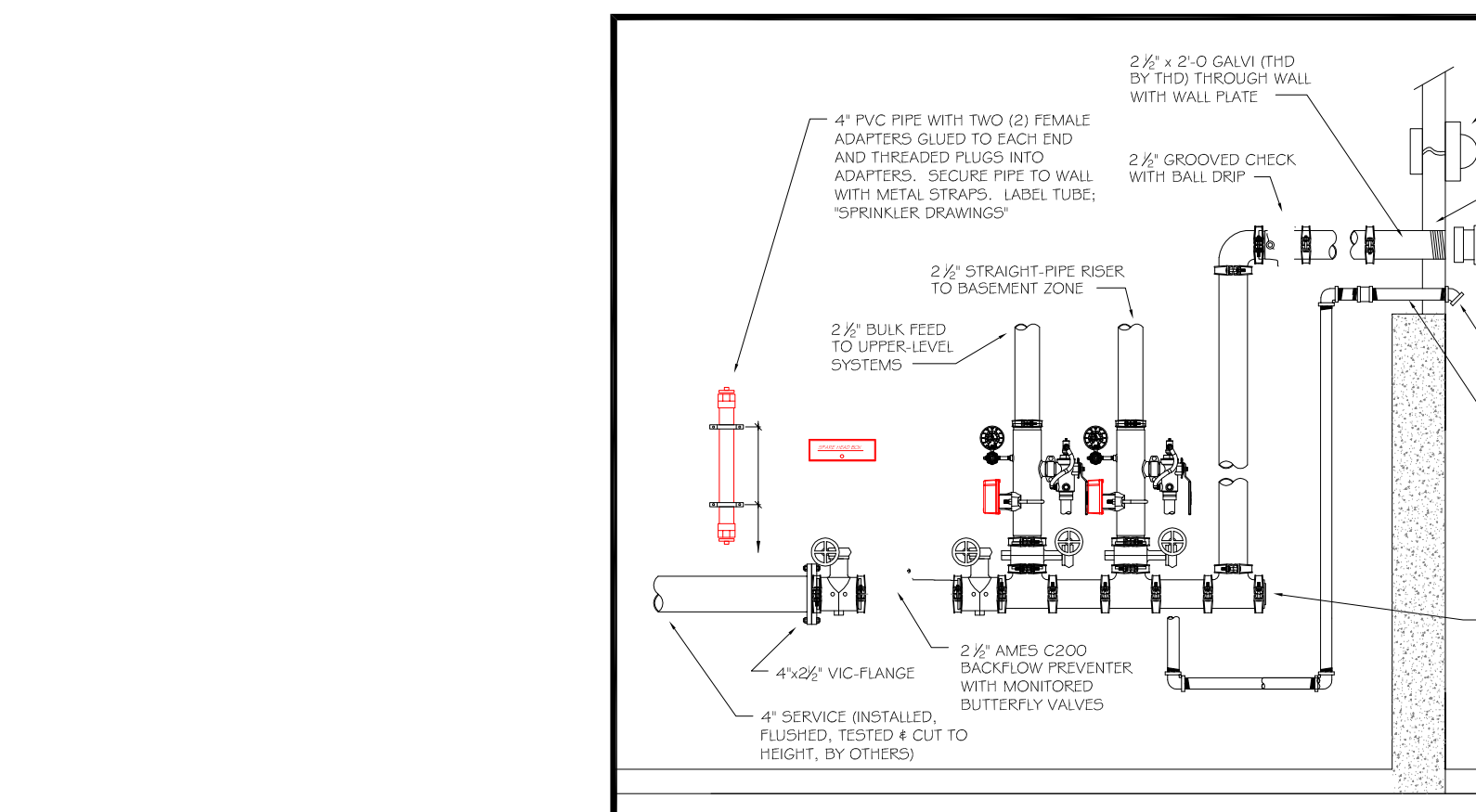
TABLE 8.10.1.2
 POSITIONS OF SPRINKLER TO AVOID OBSTRUCTION (EXEMPTED)

MINIMUM CLEARANCE FROM SPRINKLER TO FACE OF OBSTRUCTION	MINIMUM ALLOWABLE DISTANCE OF OBSTRUCTION (INCHES)
LESS THAN 1 FT	0
1'-0" TO LESS THAN 1'-4"	0'-0"
1'-4" TO LESS THAN 2'-0"	0'-0"
2'-0" TO LESS THAN 2'-4"	0'-0"
2'-4" TO LESS THAN 2'-8"	0'-0"
2'-8" TO LESS THAN 3'-0"	0'-0"
3'-0" TO LESS THAN 3'-4"	0'-0"
3'-4" TO LESS THAN 3'-8"	0'-0"
3'-8" TO LESS THAN 4'-0"	0'-0"
4'-0" TO LESS THAN 4'-4"	0'-0"
4'-4" TO LESS THAN 4'-8"	0'-0"
4'-8" TO LESS THAN 5'-0"	0'-0"
5'-0" TO LESS THAN 5'-4"	0'-0"
5'-4" TO LESS THAN 5'-8"	0'-0"
5'-8" TO LESS THAN 6'-0"	0'-0"
6'-0" AND GREATER	1'-0"

NFPA 13 TABLE 8.10.6.1.2 + FIGURE 8.10.6.1.2(A) RESIDENTIAL PENDENT AND UPRIGHT SPRAY SPRINKLERS



FREEZE PROTECTION
 THE BUILDING OWNER IS RESPONSIBLE FOR PROVIDING HEAT IN ALL AREAS CONTAINING SPRINKLER PIPING AND HEADS TO PREVENT PIPE FROM FREEZING. ANY AREAS THAT RAISE CONCERN WITH REGARD TO FREEZING POTENTIAL SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION. IN WRITING, PRIOR TO INSTALLATION, JFP SOLUTIONS, INC. AND THE ENGINEER OF RECORD TAKE NO RESPONSIBILITY FOR DAMAGES CAUSED BY FREEZE-UPS OF THE SPRINKLER SYSTEM.
 SPRINKLER HEAD LOCATIONS HAVE NOT BEEN COORDINATED WITH CEILING-MOUNTED FIXTURES. INSTALLING SPRINKLER CONTRACTOR SHALL COORDINATE WITH ELECTRICIAN AND LOCATE SPRINKLERS AT LEAST 30" FROM THE CENTER OF ANY CEILING-MOUNTED FIXTURE. IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13R WHILE MAINTAINING THE MAXIMUM DISTANCES FROM WALLS INDICATED ON THIS DESIGN (8-FT). ADDITIONAL SPRINKLERS REQUIRED DUE TO INABILITY TO MEET OBSTRUCTION CRITERIA SHALL BE AT THE OWNERS EXPENSE.
 SPRINKLER CONTRACTOR SHALL TAKE PRECAUTIONS WHEN INSTALLING SPRINKLER PIPING ON TOP FLOOR. GENERAL CONTRACTOR SHALL BE REQUIRED TO INSTALL SUFFICIENT INSULATION TO MAINTAIN 40 DEGREES IN ALL AREAS WHERE SPRINKLER PIPING AND HEADS ARE INSTALLED.
 NOTE: SPRINKLER CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE PROPER LENGTH DRY-SIDEWALL BASED ON MANUFACTURERS RECOMMENDATIONS. GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTING SOFFIT AROUND DRY-SIDEWALL HEADS AFTER INSTALLATION.



Calculation results for Design Area 1 - THROUGH FLOOR UNIT

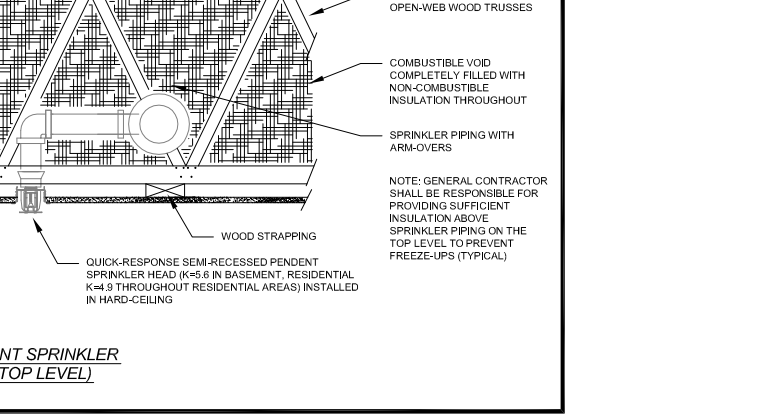
Item	Value	Item	Value
Flow from Bulkhead systems	0.0 gpm	Pressure Required at Source	49.7 psig
Flow from Overhead systems	0.0 gpm	Pressure Available at Source	71.7 psig
Flow from Underhead systems	0.0 gpm	Surplus Pressure at Source	22.0 psig
Flow from Outside House	0.0 gpm	Number of heads flowing	1
Other Head Flow	0.0 gpm	System Type	WET
Total flow in system piping	0.0 gpm	Minimum velocity	3.0 ft/s
Additional flow allowed source	0.0 gpm		
Total of all flow	0.0 gpm		

Calculation results for Design Area 2 - RESTAURANT

Item	Value	Item	Value
Flow from Bulkhead systems	0.0 gpm	Pressure Required at Source	49.7 psig
Flow from Overhead systems	23.8 gpm	Pressure Available at Source	71.7 psig
Flow from Underhead systems	0.0 gpm	Surplus Pressure at Source	22.0 psig
Flow from Outside House	0.0 gpm	Number of heads flowing	12
Other Head Flow	0.0 gpm	System Type	WET
Total flow in system piping	23.8 gpm	Minimum velocity	3.0 ft/s
Additional flow allowed source	0.0 gpm		
Total of all flow	23.8 gpm		

Calculation results for Design Area 3 - BASEMENT UTILITY

Item	Value	Item	Value
Flow from Bulkhead systems	0.0 gpm	Pressure Required at Source	38.2 psig
Flow from Overhead systems	23.8 gpm	Pressure Available at Source	71.7 psig
Flow from Underhead systems	0.0 gpm	Surplus Pressure at Source	33.5 psig
Flow from Outside House	0.0 gpm	Number of heads flowing	3
Other Head Flow	0.0 gpm	System Type	WET
Total flow in system piping	23.8 gpm	Minimum velocity	3.0 ft/s
Additional flow allowed source	0.0 gpm		
Total of all flow	23.8 gpm		

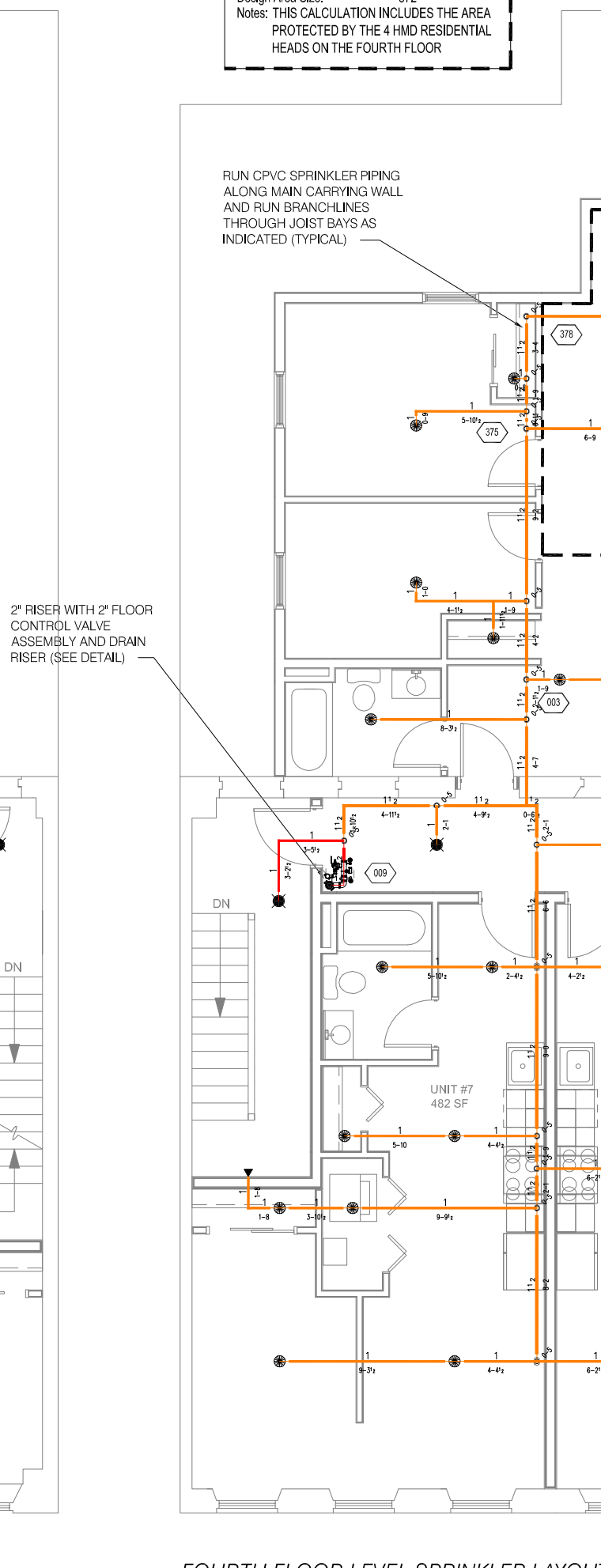
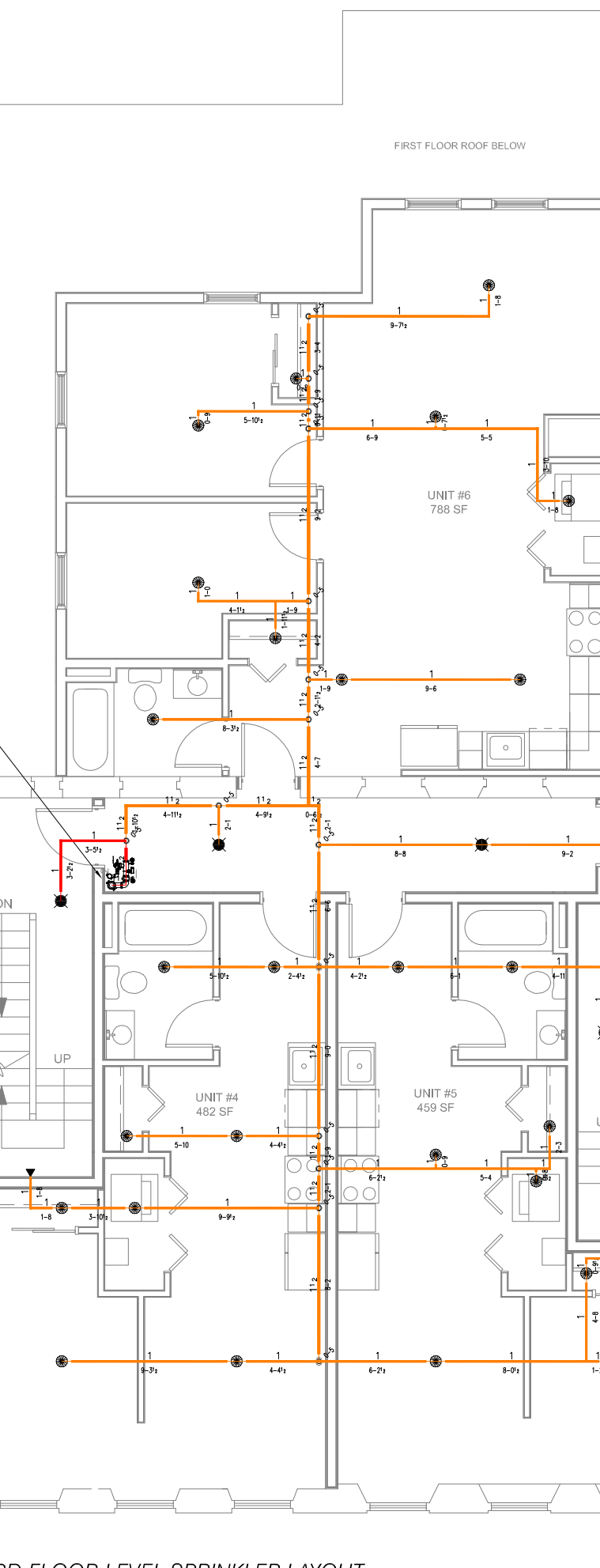
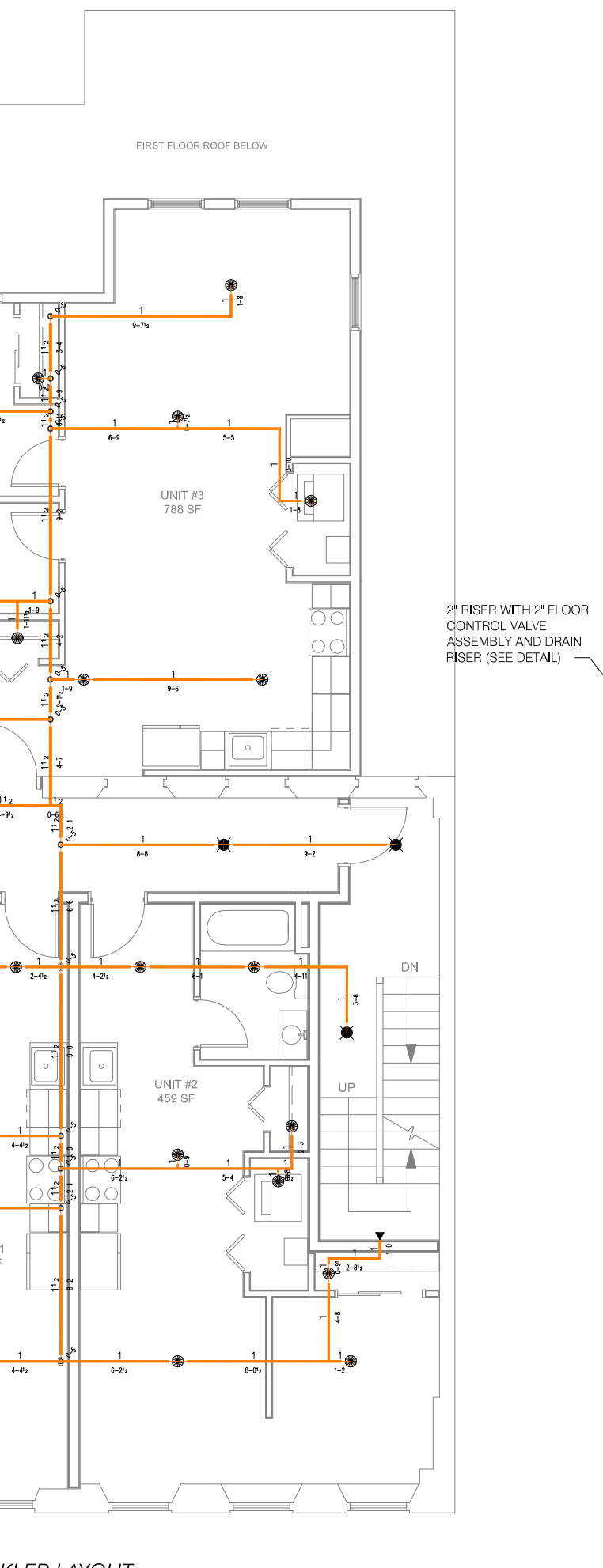
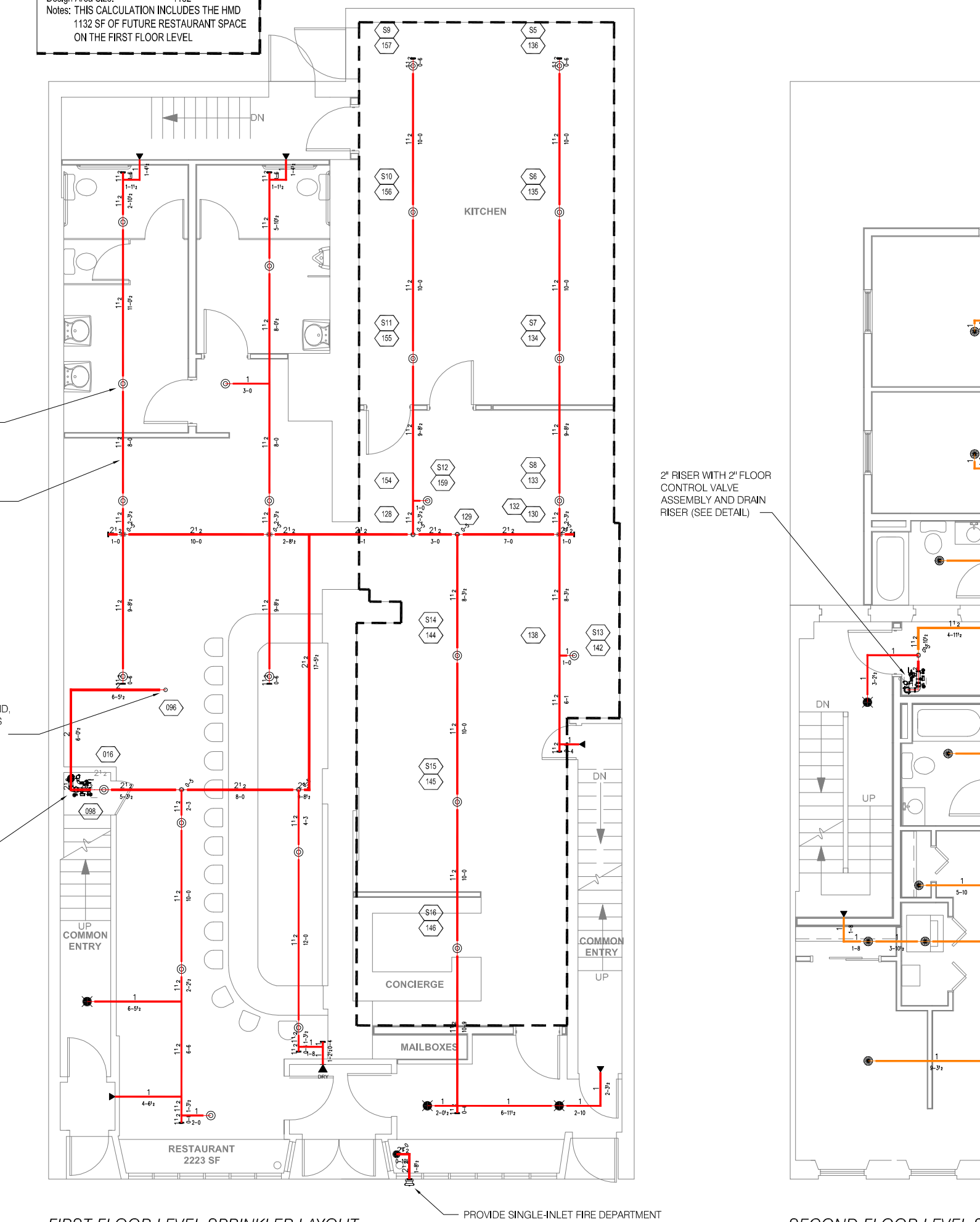
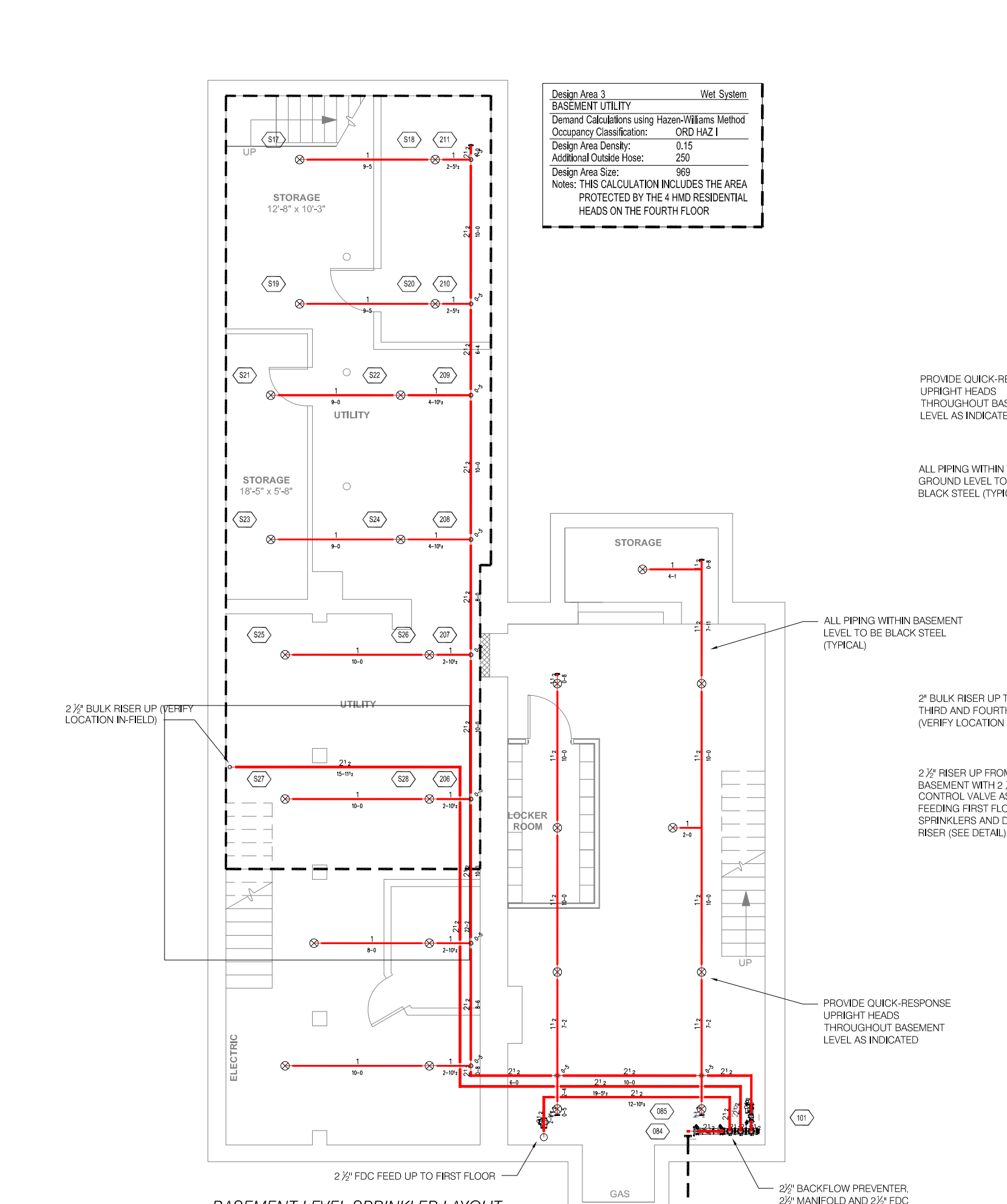
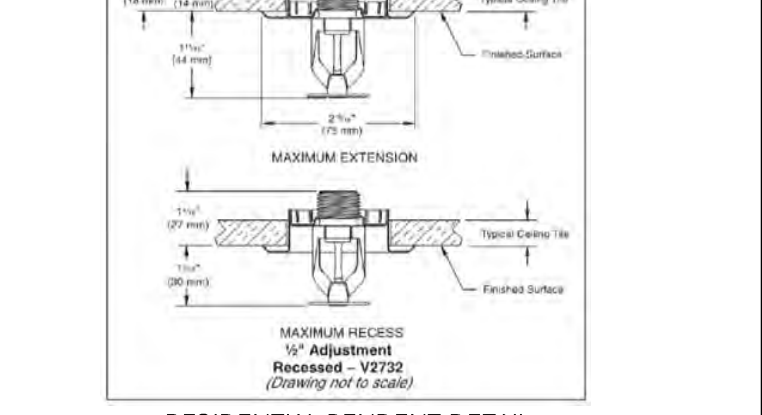


MAX. HANGER SPACING

PIPE TYPE	NOMINAL PIPE SIZE (IN)
1	1/2"
2	3/4"
3	1"
4	1 1/2"
6	2"
8	2 1/2"

UL LISTED CPVC (1/2" - 2") 15'-0" 15'-0" 15'-0" 15'-0" 15'-0" 15'-0"
 UL LISTED STEEL (2" - 8") 15'-0" 15'-0" 15'-0" 15'-0" 15'-0" 15'-0"

2" MAX FOR 1 1/2" DIA. OR LARGER THEN EXTEND HERE
 4" MAX FOR 1 1/2" DIA. OR LARGER
 6" OR LESS, NO 2" MAX HGT FOR 1 1/2" DIA. OR LARGER
 8" OR LESS, NO 2" MAX HGT FOR 1 1/2" DIA. OR LARGER
 10" OR LESS, NO 2" MAX HGT FOR 1 1/2" DIA. OR LARGER
 12" OR LESS, NO 2" MAX HGT FOR 1 1/2" DIA. OR LARGER



DESIGNED BY: JFP SOLUTIONS, INC. FIRE PROTECTION CONSULTING SERVICES
 P.O. Box 1234
 Lynnfield, Massachusetts 01940
 Telephone: (781) 389-7999
 E-Mail: TDJFP1@yahoo.com

DATE	REVISIONS DESCRIPTION	BY

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	MFG.	MODEL#
78	Q/R	RESIDENTIAL PENDENT	WHITE	155	4.90	1/2"	GLOBE	GL4906
11	Q/R	COMMERCIAL SIDEWALL	WHITE	155	4.40	1/2"	GLOBE	GL4406
1		DRY-SIDEWALL	CHROME	200	5.60	1/2"	GLOBE	DRYSW
25	Q/R	COMMERCIAL UPRIGHT	BRASS	155	5.60	1/2"	GLOBE	GL5642
18	Q/R	COMMERCIAL PENDANT	BRASS	155	5.60	1/2"	GLOBE	GL5642
26	Q/R	COMMERCIAL UPRIGHT	BRASS	155	5.60	1/2"	GLOBE	GL5642

UL LISTED CPVC SPRINKLER PIPING
 BLACK STEEL SPRINKLER PIPING

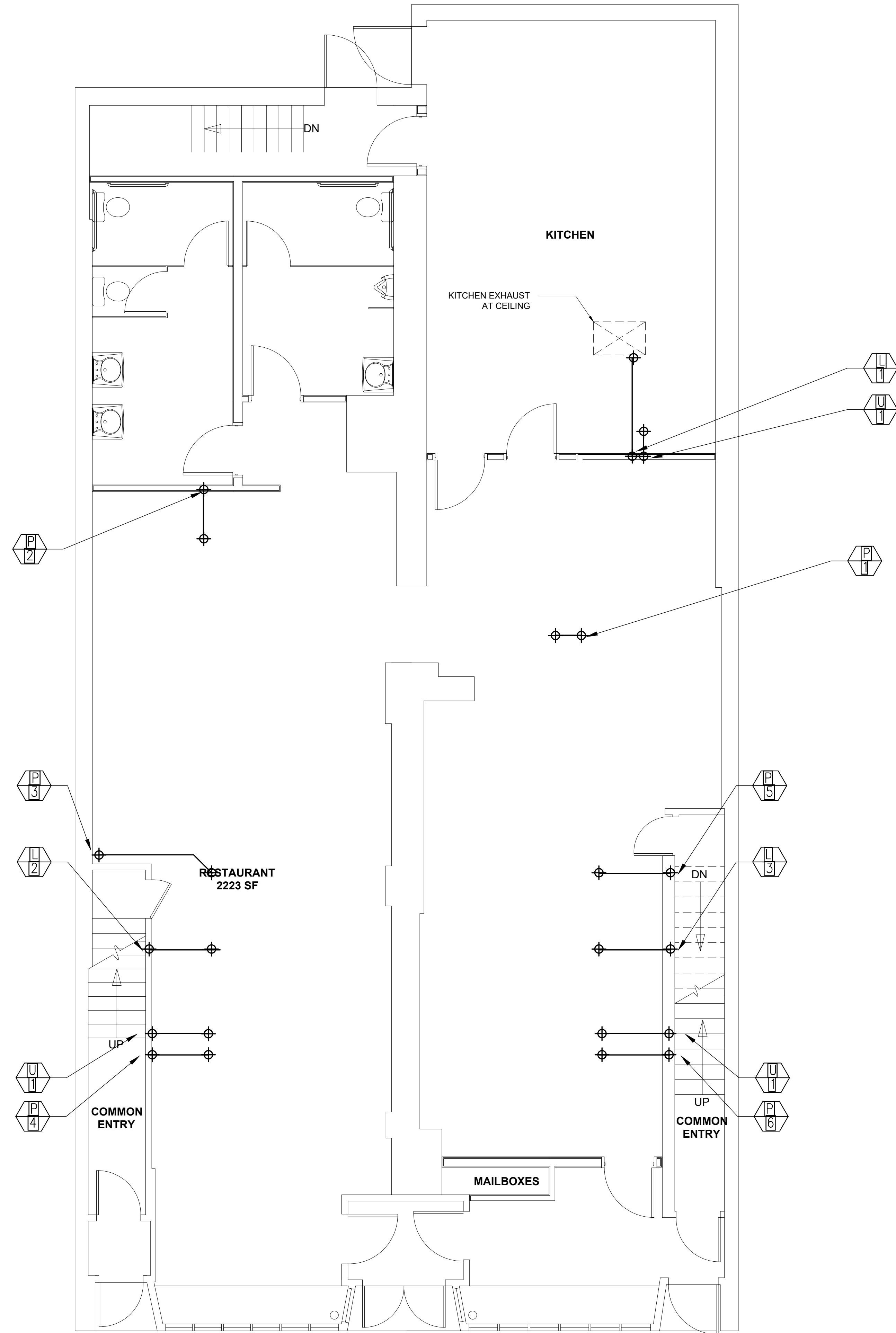
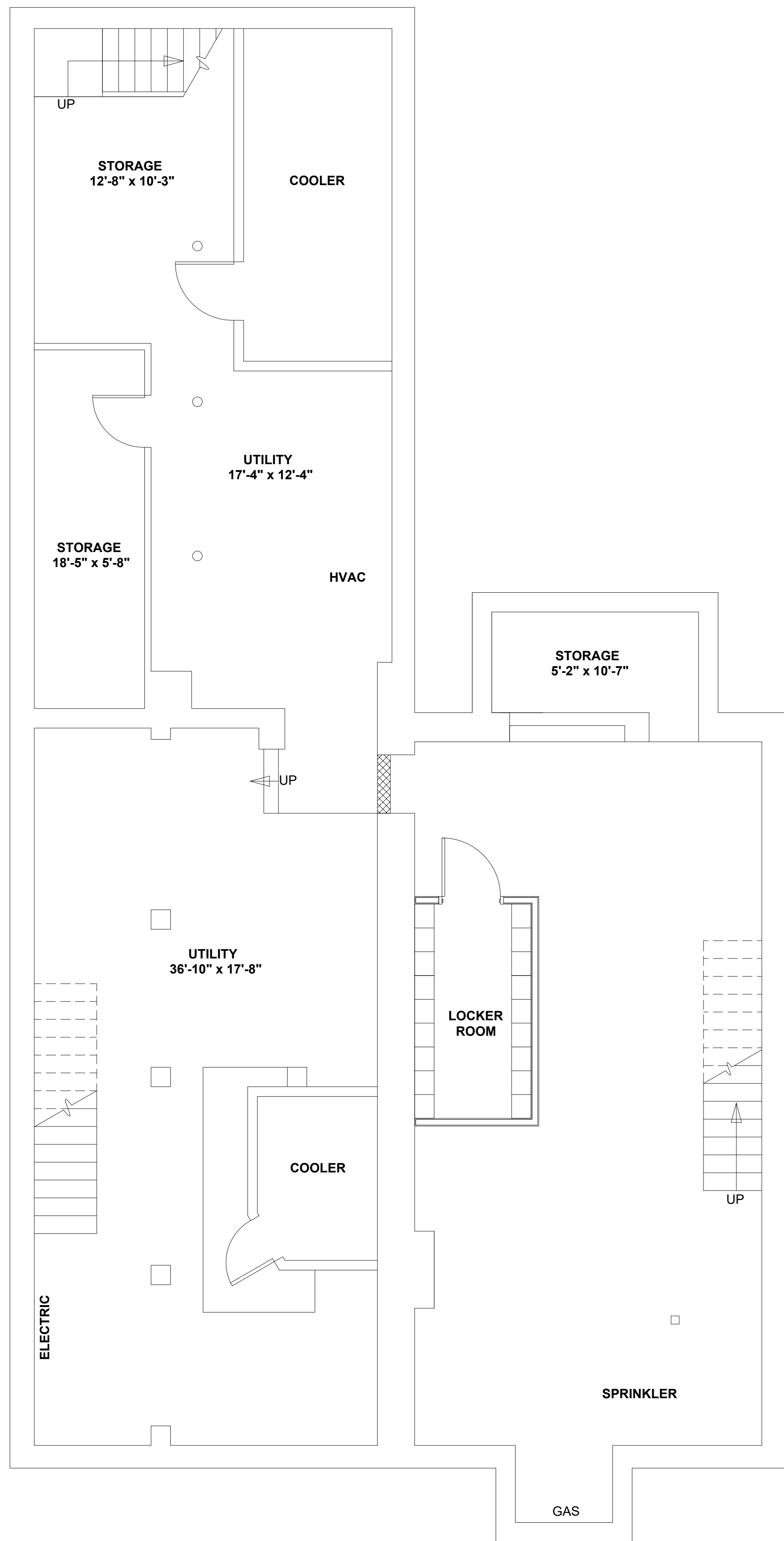
PROJECT DEVELOPER: CITY REALTY
 320 WASHINGTON ST
 BROOKLINE, MA 02445

NEW AUTOMATIC 13 SPRINKLER SYSTEM
 RENOVATED MIXED-USE BUILDING
 147-149 CHARLES ST
 BOSTON, MA 02114

PERMIT NO.	CONTRACT NO.	APPROVAL	DRAWN BY	SCALE	DATE	REVISED	PLOTTED
	600-148	BOSTON FD	T. JENKINS	1/8"=1'-0"	5/20/2021		

SPRINKLER SYSTEM PERMIT SET
 FP 1 of 1

COMMONWEALTH OF MASSACHUSETTS
 JASON CATALFO
 FIRE PROTECTION ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 5-20-2021



ZADE ASSOCIATES LLC

CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 338-2100
 FAX: (617) 351-2540
 E-MAIL: zade@zadeEngineering.com

Project:

147-149 CHARLES STREET
 BOSTON, MA 02114

Title:

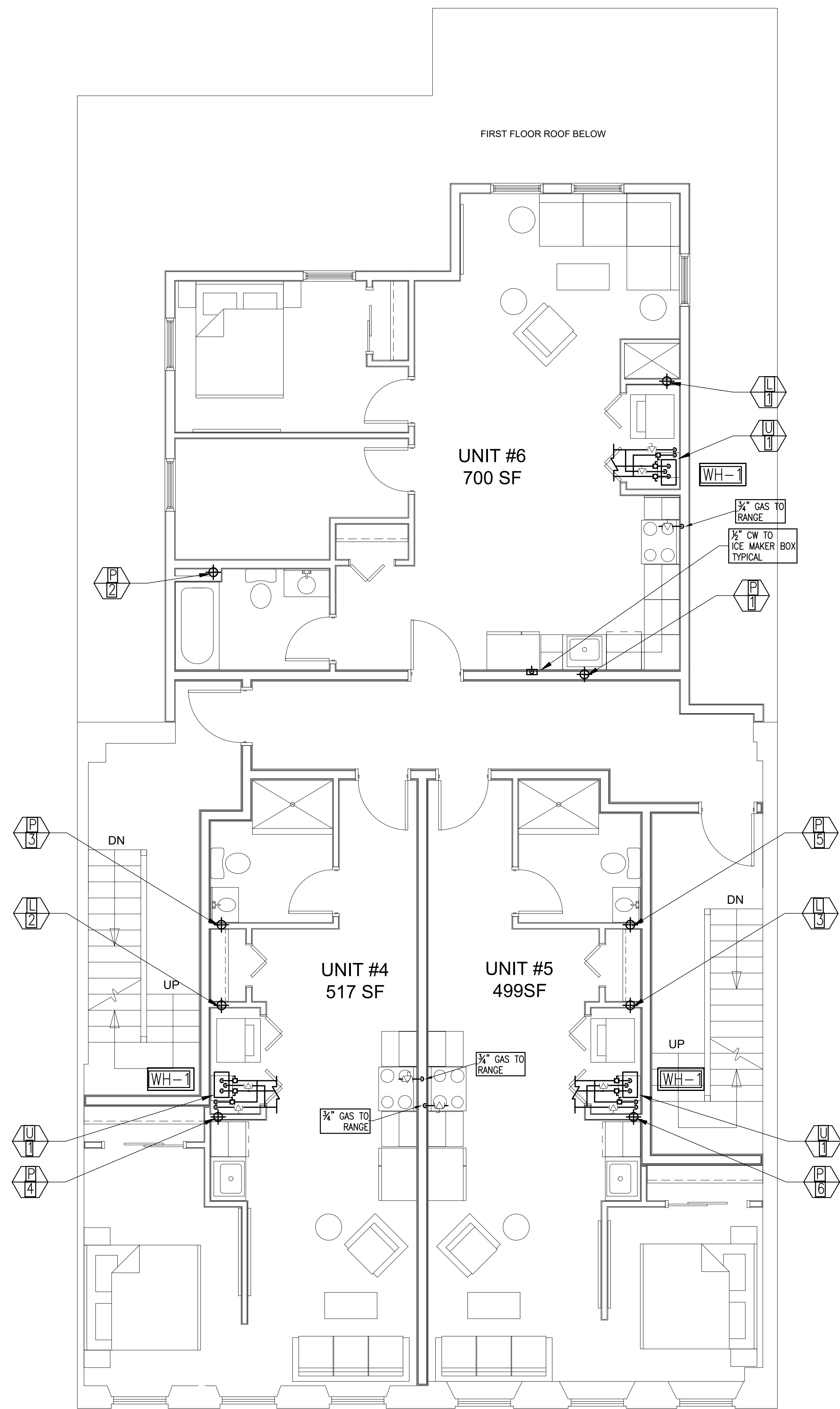
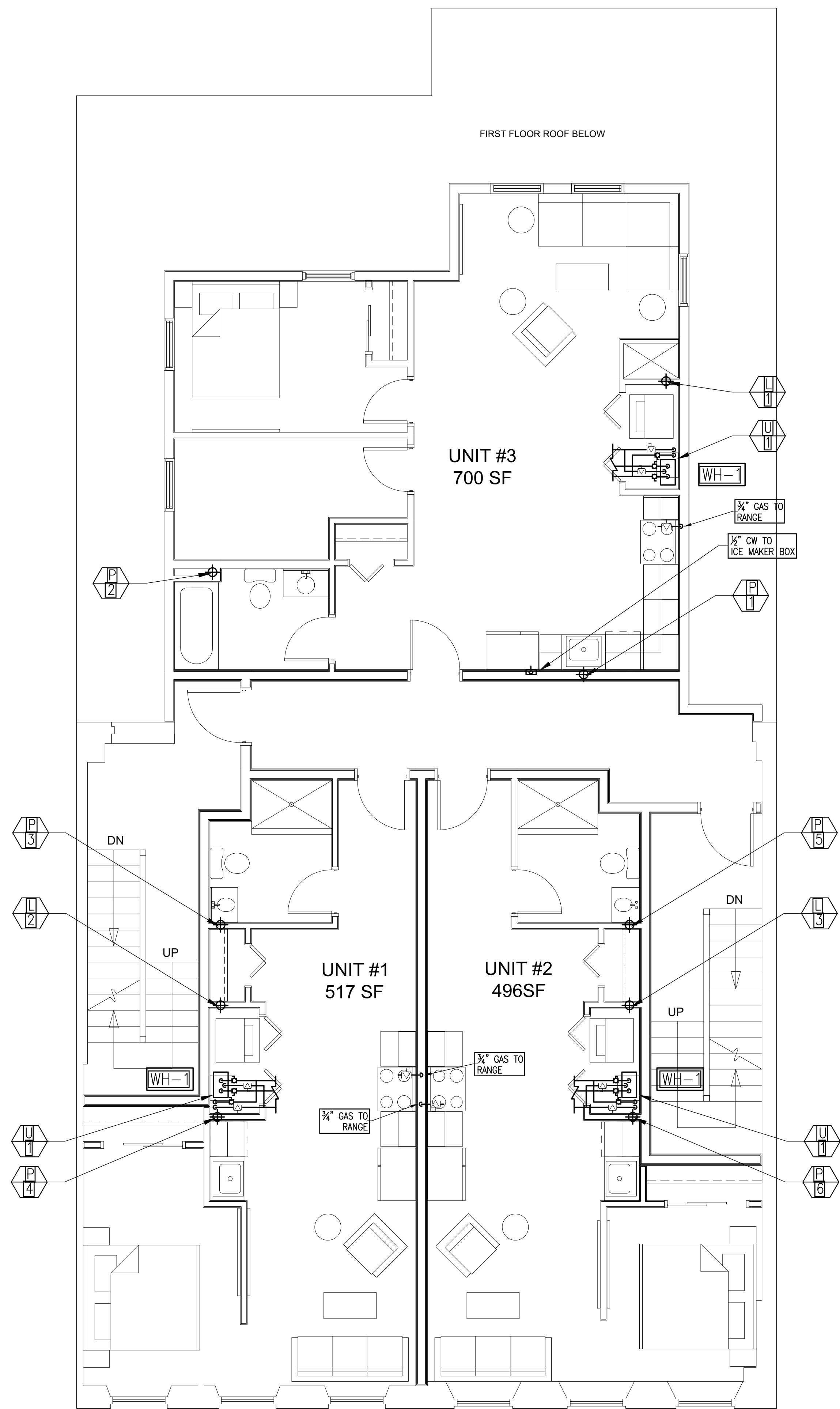
**BASEMENT &
 FIRST FLOOR
 PLUMBING PLAN**

Revisions:

Project No.:	Drawn: OJ
Date: Mar. 16, 2020	Checked: RC
Scale: 1/4" = 1'-0"	Approved: MZ

Sheet:

P1.0



ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 339-2400
 FAX: (617) 351-2540
 E-MAIL: zade@zadeEngineering.com

Project: 147-149 CHARLES STREET, BOSTON, MA 02114

Title: SECOND & THIRD FLOOR PLUMBING PLAN

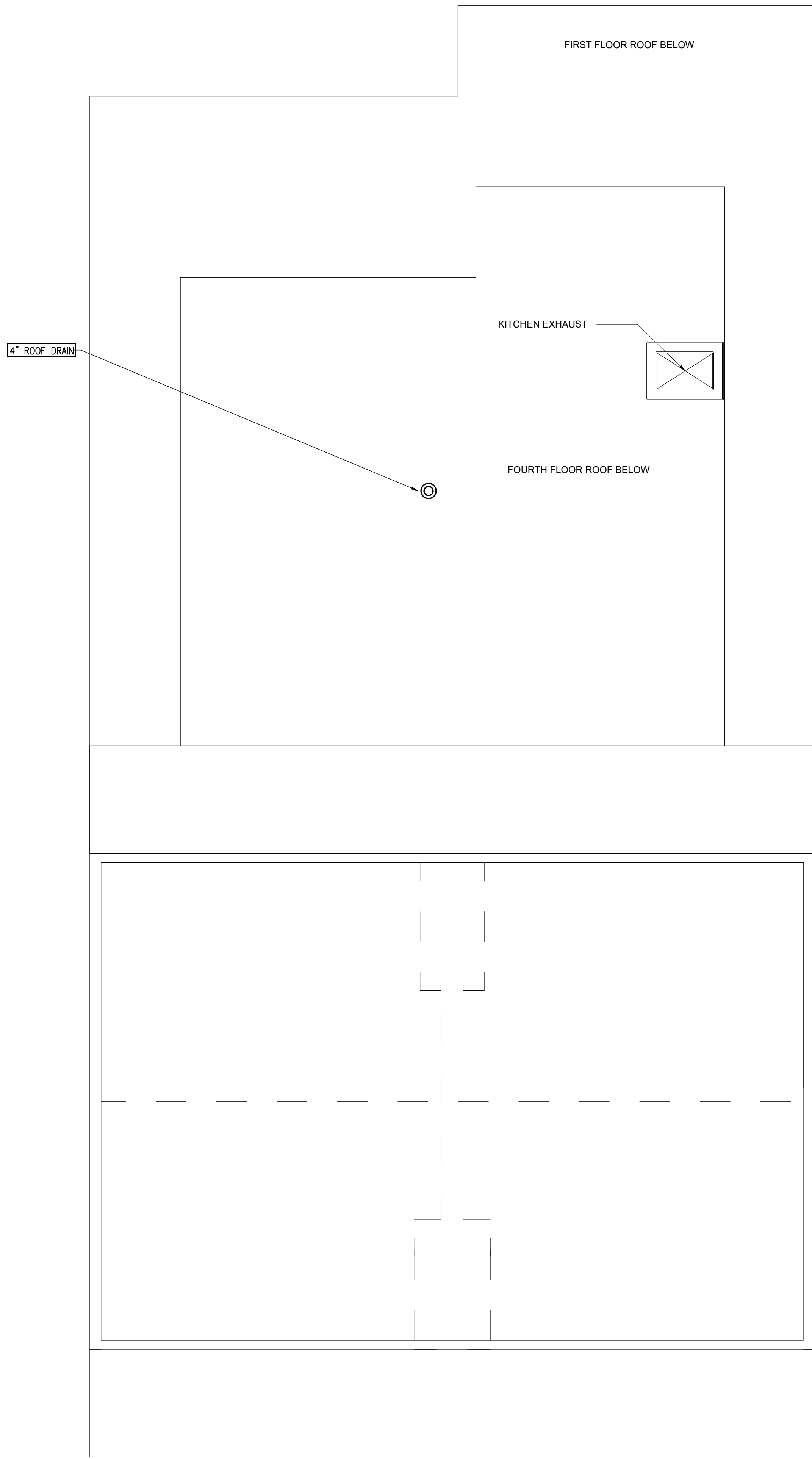
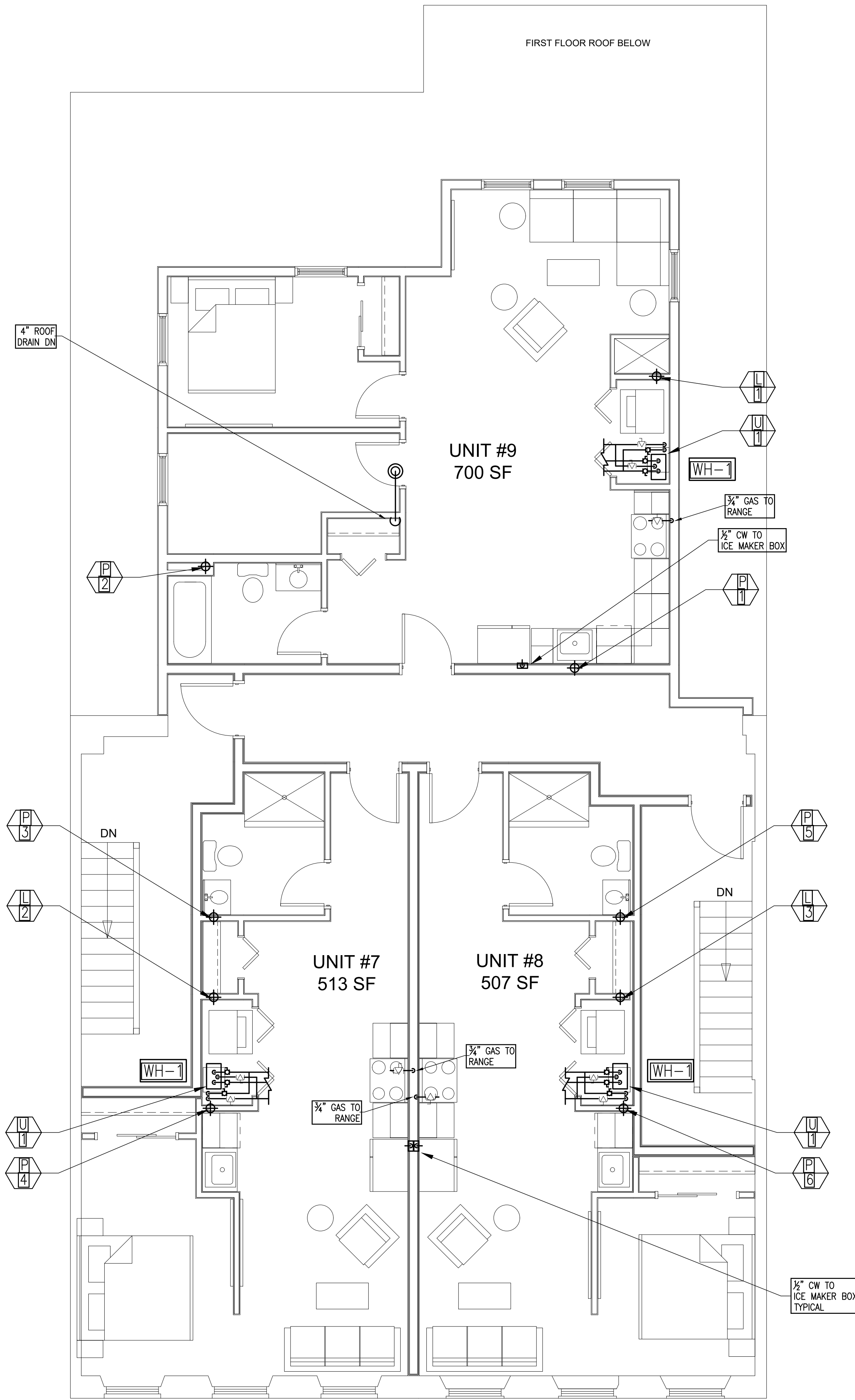
Revisions:

Project No.:	Drawn: OJ
Date: Mar. 16, 2020	Checked: RC
Scale: 1/4" = 1'-0"	Approved: MZ

Sheet: P1.1

No. of: 01

Verify All Dimensions in Field Do Not Scale



ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 339-2100
 FAX: (617) 351-2540
 E-MAIL: zade@zadeEngineering.com

Project:
 147-149 CHARLES STREET
 BOSTON, MA 02114

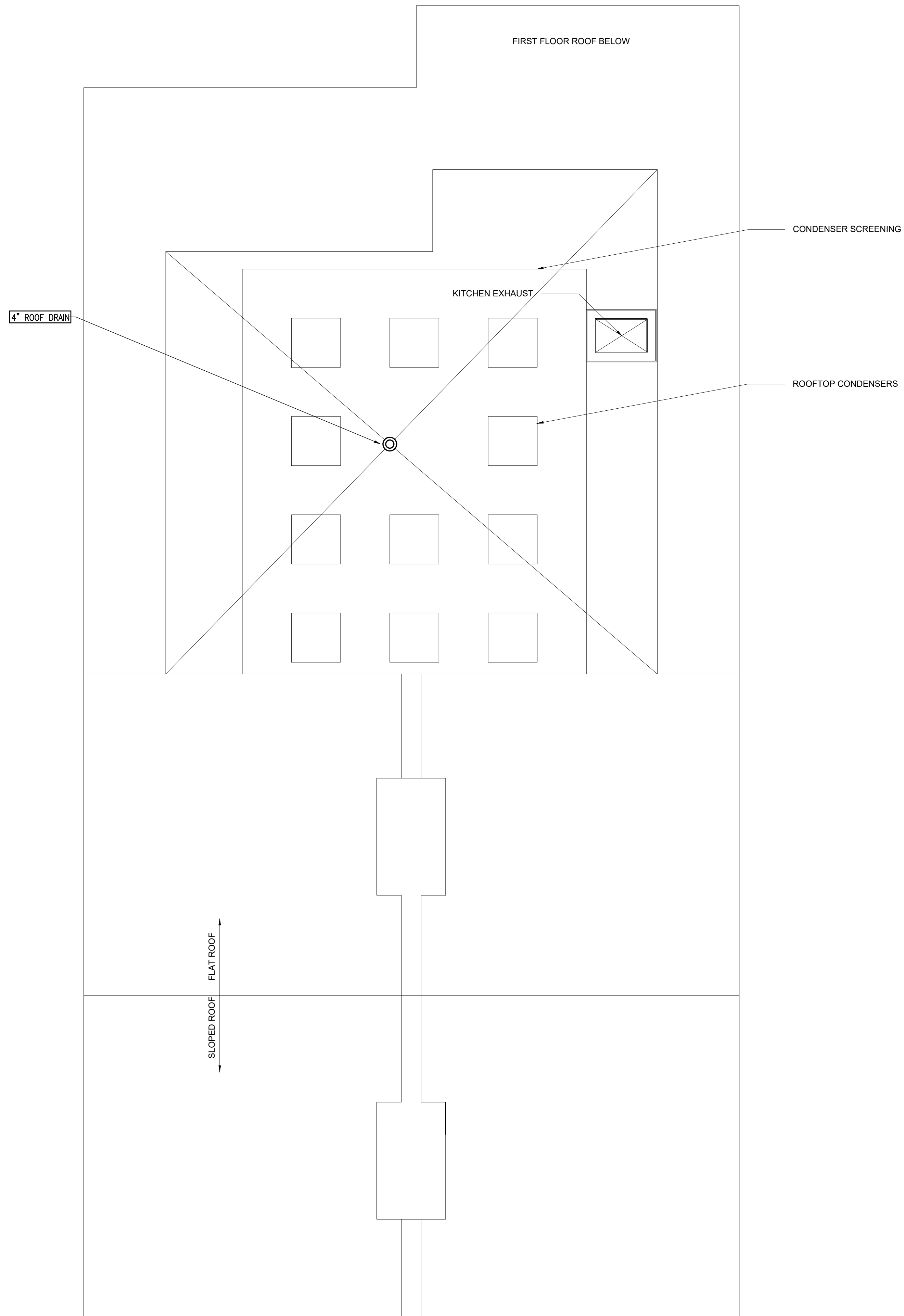
Title:
 FOURTH FLOOR
 & ATTIC
 PLUMBING PLAN

Revisions:

Project No.:	Drawn: OJ
Date: Mar. 16, 2020	Checked: RC
Scale: 1/4" = 1'-0"	Approved: MZ

Sheet:
 P1.2
 No. of

Verify All Dimensions in Field Do Not Scale



ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 339-2100
 FAX: (617) 331-2540
 E-MAIL: zade@zadeEngineering.com

Project:
 147-149 CHARLES STREET
 BOSTON, MA 02114

Title:
 ROOF PLUMBING
 PLAN

Revisions:

Project No.: Drawn: OJ
 Date: Mar. 16, 2020 Checked: RC
 Scale: 1/4" = 1'-0" Approved: MZ

Sheet:
 P1.3
 No. of

Verify All Dimensions in Field Do Not Scale

BASIC PLUMBING REQUIREMENTS

PART 1. - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 APPLICABLE CODES AND STANDARDS

APPLICABLE CODES: ALL LOCAL AND STATE BUILDING CODES, INCLUDING THE INTERNATIONAL PLUMBING CODE MASSACHUSETTS STATE PLUMBING CODE AND THE MASSACHUSETTS STATE BUILDING CODE.
APPLICABILITY OF STANDARDS: EXCEPT WHERE THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, APPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF FOUND OR COPIED DIRECTLY INTO 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 ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR UNKNOWN QUANTITIES OR QUALITY LEVELS, REFER REQUIREMENTS THAT 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 STANDARD IN EFFECT AS OF DATE OF CONTRACT DOCUMENTS.

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

- AGA - AMERICAN GAS ASSOCIATION
- ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
- ARI - AIR CONDITIONING AND REFRIGERATION INSTITUTE
- ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
- ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS
- ASSE - AMERICAN SOCIETY OF SANITARY ENGINEERING
- ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
- AWS - AMERICAN WELDING SOCIETY
- AWWA - AMERICAN WATER WORKS ASSOCIATION
- CISPI - CAST IRON SOIL PIPE INSTITUTE
- NEC - NATIONAL ELECTRIC CODE
- NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
- NSF - NATIONAL SANITATION FOUNDATION
- PDI - PLUMBING AND DRAINAGE INSTITUTE
- UL - UNDERWRITERS LABORATORIES
- DOT - DEPARTMENT OF TRANSPORTATION
- EPA - ENVIRONMENTAL PROTECTION AGENCY
- OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

1.3 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.

SUBMITTALS 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:

1. SPECIFICALLY WHAT ITEMS AND FEATURES ARE TO BE PROVIDED;
2. APPLICABLE SPECIFICATION SECTION NUMBER AND EQUIPMENT TAG NUMBER;
3. PRINCIPAL DIMENSIONS AND DETAILS OF CONSTRUCTION;
4. WEIGHTS; INFORMATION REQUIRED FOR THE DESIGN OF SUPPORTS AND FOUNDATIONS;
5. SIZES AND LOCATIONS OF PIPING AND CONNECTIONS;
6. PERFORMANCE DATA CERTIFIED BY THE MANUFACTURER;
7. SUBMIT SCHEDULE OF PROPOSED PIPING, VALVES, SPECIALTIES, ETC.
8. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE SEPARATELY IDENTIFIED.

PLUMBING SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS:

1. PIPING AND FITTING MATERIALS;
2. PLUMBING VALVES AND SPECIALTIES;
3. PIPING HANGER AND ATTACHMENT ASSEMBLIES;
4. PIPING INSULATION;
5. ALL SCHEDULED PLUMBING FIXTURES, DRAINS, AND CLEANOUTS;
6. UTILITY CONNECTION DETAILS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

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

1.4 COORDINATION

COORDINATE WITH THE BUILDING TRADES:

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

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 OF INFORMATION:

1. COPIES OF WARRANTIES;
2. WIRING DIAGRAMS;
3. INSPECTION PROCEDURES;
4. APPROVED SHOP DRAWINGS AND PRODUCT DATA;
5. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING 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 OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND 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 MAINHOLES, 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:

- 1.1 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 FLOOR 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.
3. 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.

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.

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 MANUFACTURER REQUIRED CLEARANCES.

- 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 INSTALLED ON THE LONG WALL OF THE TUB.
- 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 10FT OF THE VENT.
- 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 TYPE BUILDINGS UP TO 60 FT, OR 6 STORY BUILDINGS. 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 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 PUTTY 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 UPPER FLOORS WILL BE CONNECTED TO SEWER DISCHARGE SEPARATELY 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

- 1] GENERAL PROVISIONS OF CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL 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 STATE PLUMBING AND GAS CODES AND THE LOCAL CODES.
- 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 WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR COLD WATER SYSTEM AS INDICATED. THE HOT WATER SYSTEM WORK SHALL BEGIN AT EACH NEW WATER HEATER WHERE INDICATED.
- 6] FURNISH AND INSTALL A COMPLETE GAS SYSTEM THROUGHOUT THE BUILDING CONNECTING TO ALL EQUIPMENT REQUIRING GAS. THE GAS SYSTEM WORK SHALL EXTEND AND CONNECT TO THE GAS METERS SUPPLIED BY GAS COMPANY.
- 7] FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SUBCONTRACTOR JOINTLY AND SEVERALLY AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP IN WORK OF THIS SECTION FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- 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 ROOF 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 THE STOPPING AND SHEET PILE STOPS AS REQUIRED BY CODE WHERE ALL PVC PIPING PASSES THROUGH FIRE RATED WALLS AND FLOORS.

- 11] HOT AND COLD WATER PIPING SHALL BE TYPE L SEAMLESS COPPER TUBING AND FITTINGS WITH 95-5 SOLDER JOINTS. FLOWGUARD PIPING SYSTEM. SFX 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)
- 12] GAS PIPING SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE IRON FITTINGS AND THREADED JOINTS.
- 13] VALVES FOR HOT AND COLD WATER SHALL BE GATE VALVE, BRONZE BODY AND TRIM, NON-RISING STEM, 200 PSIG, SOLDER END, SHUTTER TO BONNS 1250 BE 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 TAP. FITTINGS AND VALVES SHALL BE COVERED WITH PRE-CUT FIBERGLASS INSERTS AND FITTED WITH MOLDDED PVC COVERS. SECURE WITH GLASS FABRIC TAPE WITH MASTIC INSULATION SHALL BE FIBERGLASS 25 PSI OR EQUAL AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS TO CONFORM TO THE ARI NON-COMBUSTIBLE RATING.
- 15] PLUMBING FIXTURES (TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)
- 16] WH - WALL HYDRANT - WOODBROOK MODEL 75 FREEZE RESISTANT, WITH INTEGRAL VACUUM BREAKER (PROVIDE EVERY 150', WHERE DIRECTED BY BUILDING OWNER)
- 17] WATER HEATERS - FURNISH AND INSTALL WATER HEATERS WHERE INDICATED (TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)
- 18] TEST ALL NEW PLUMBING WORK IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS.
- 19] PROVIDE HEAT TRACE ON ALL TRAPS LOCATED IN GARAGE, COLD WATER PIPING LOCATED IN GARAGE, AND ANY PIPING SUBJECT TO FREEZING.

GENERAL NOTES

NS

ZADE ASSOCIATES LLC

CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL: (617) 338-3100
FAX: (617) 451-2510
E-MAIL: zade@zadeEngineering.com

Project:
147-149 CHARLES STREET
BOSTON, MA 02114

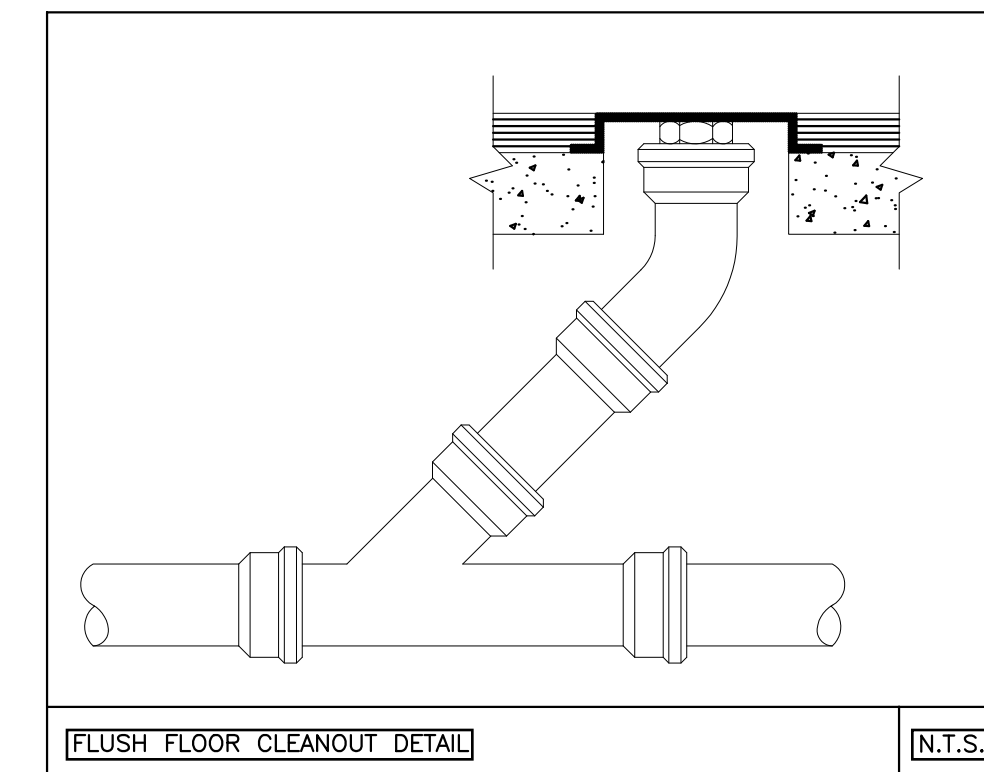
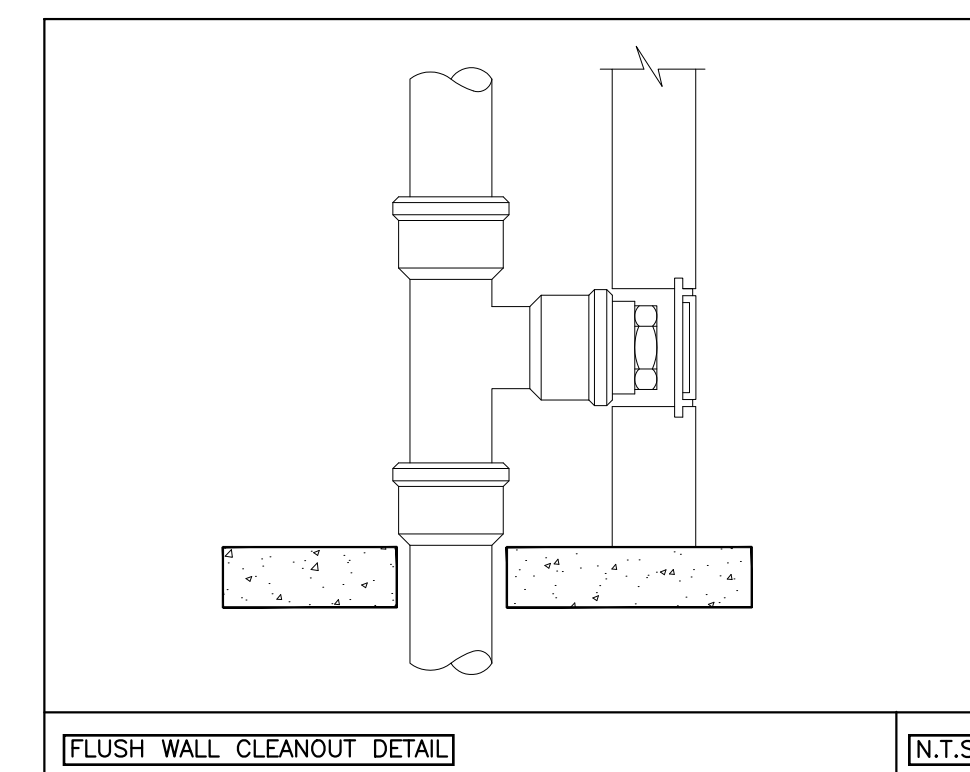
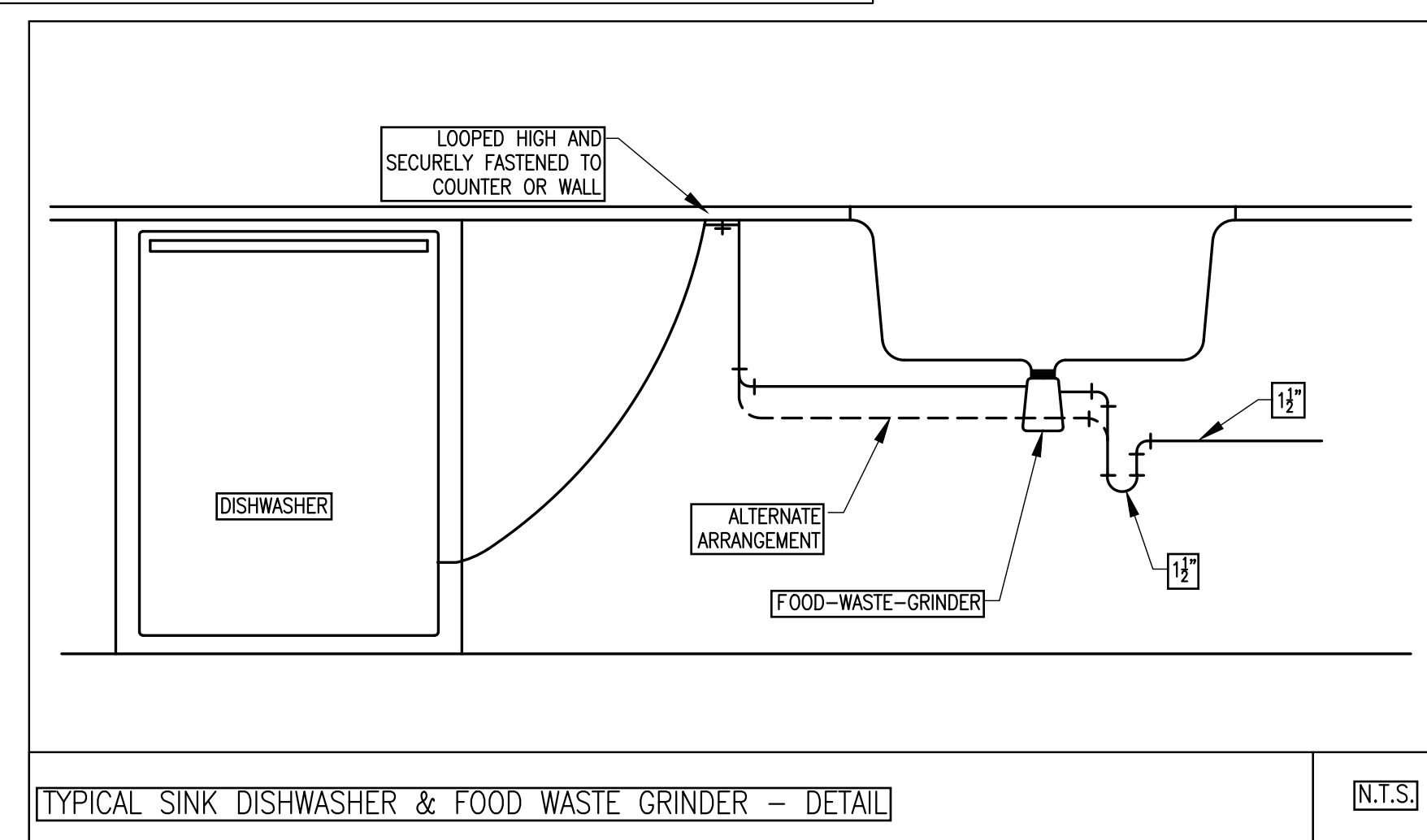
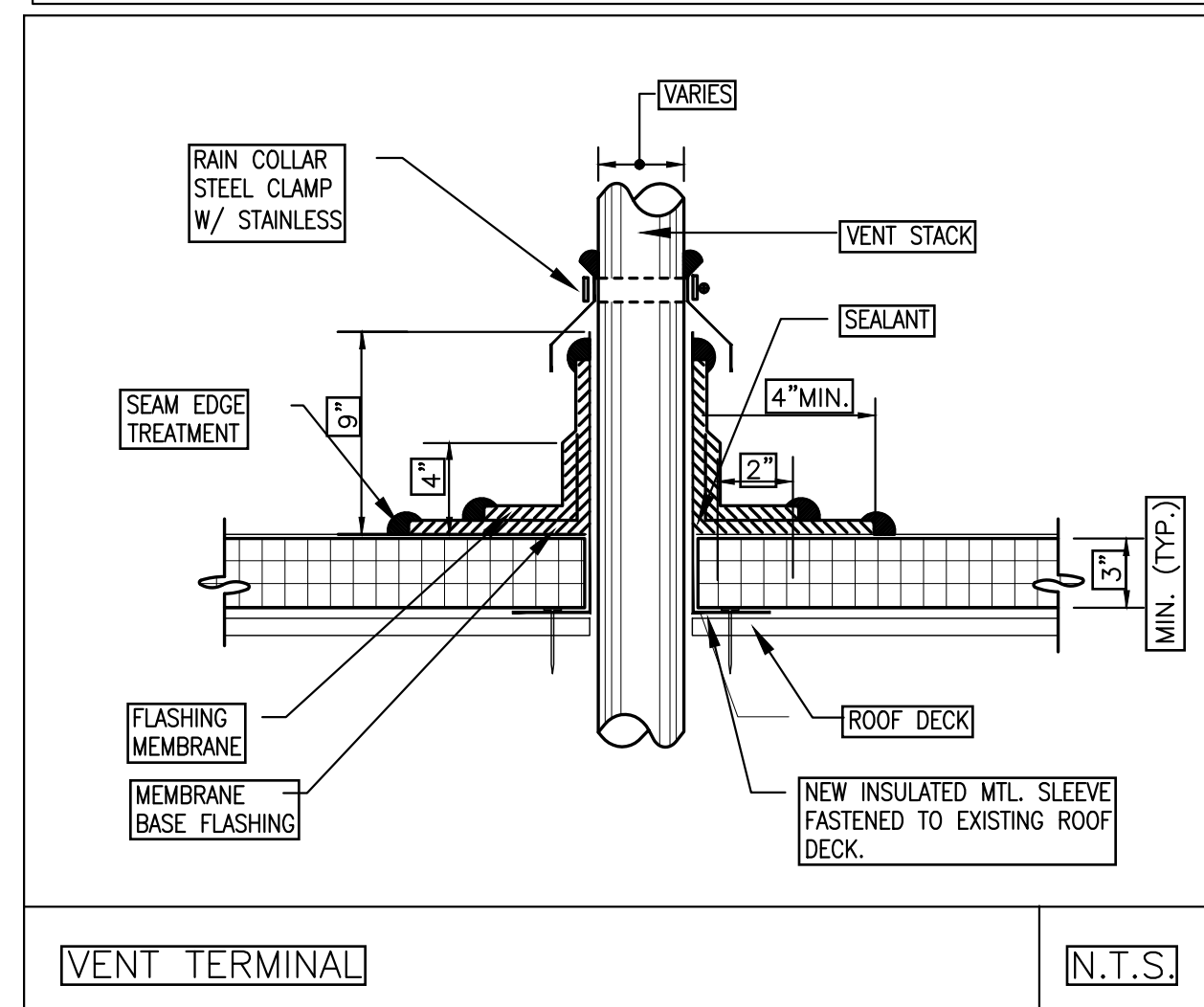
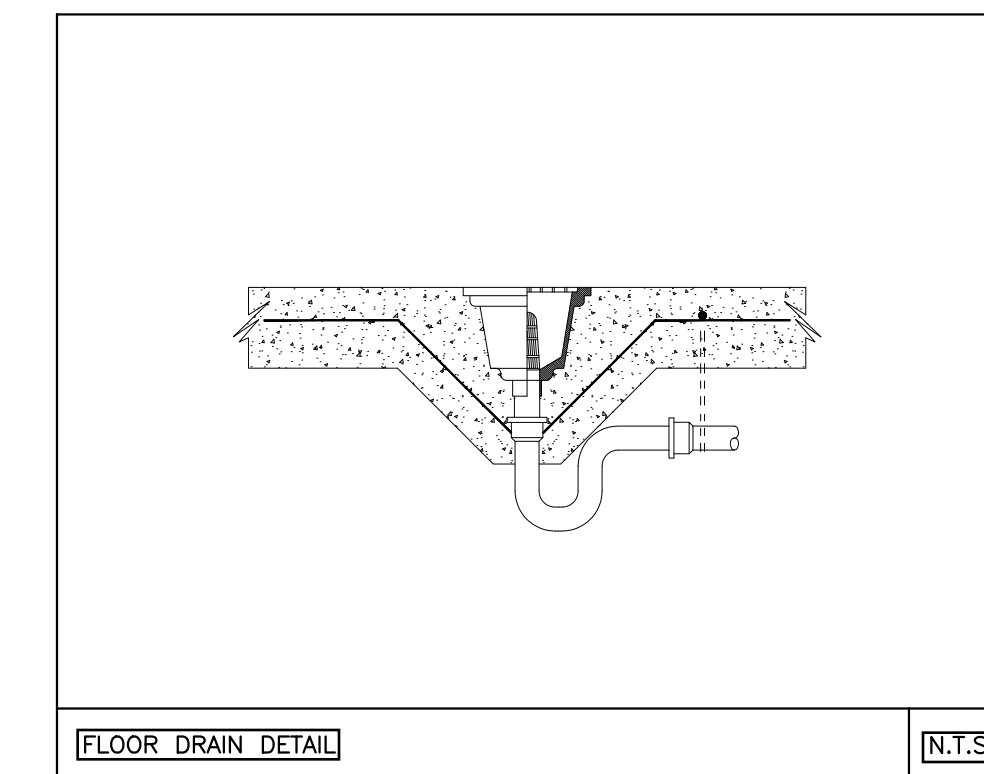
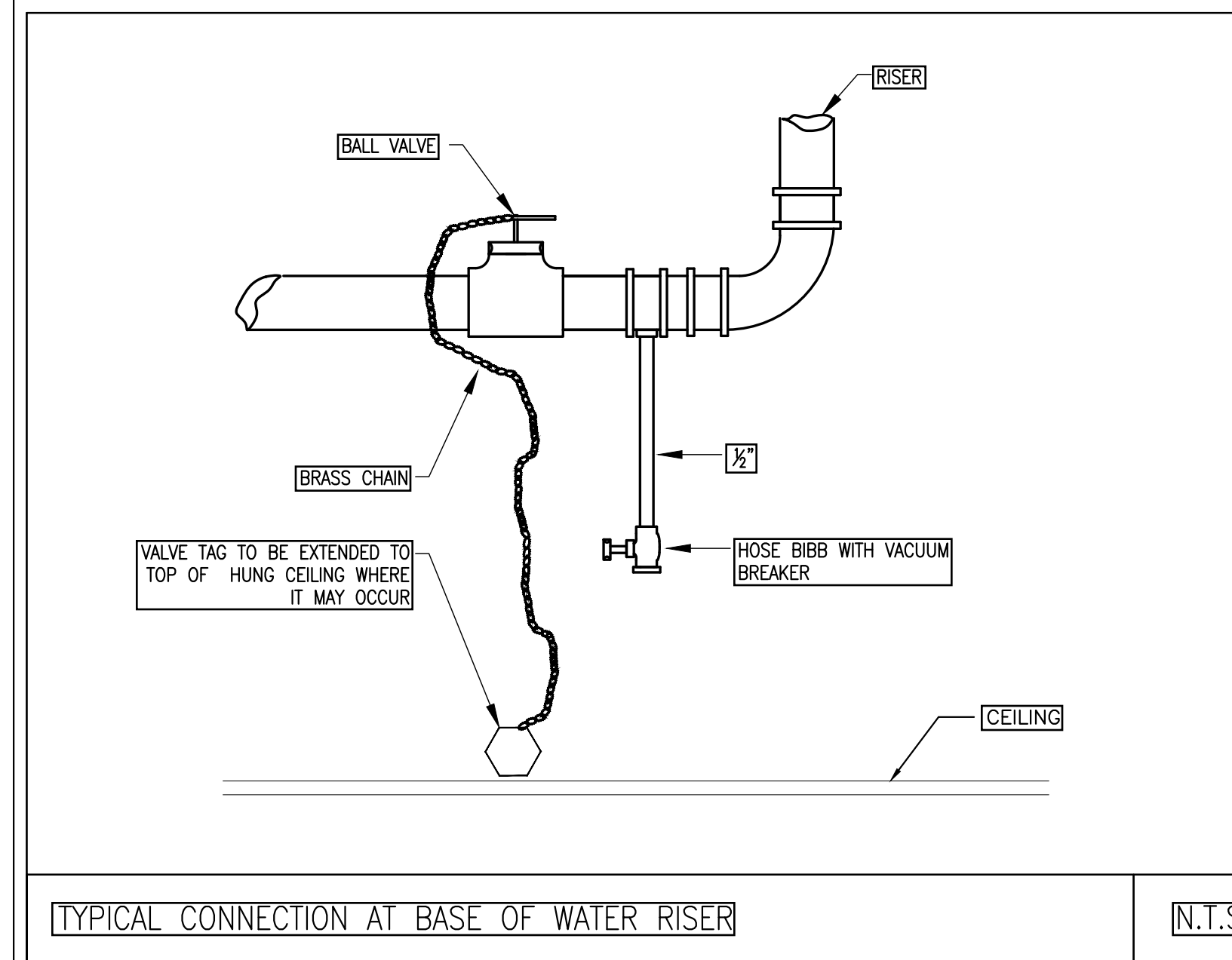
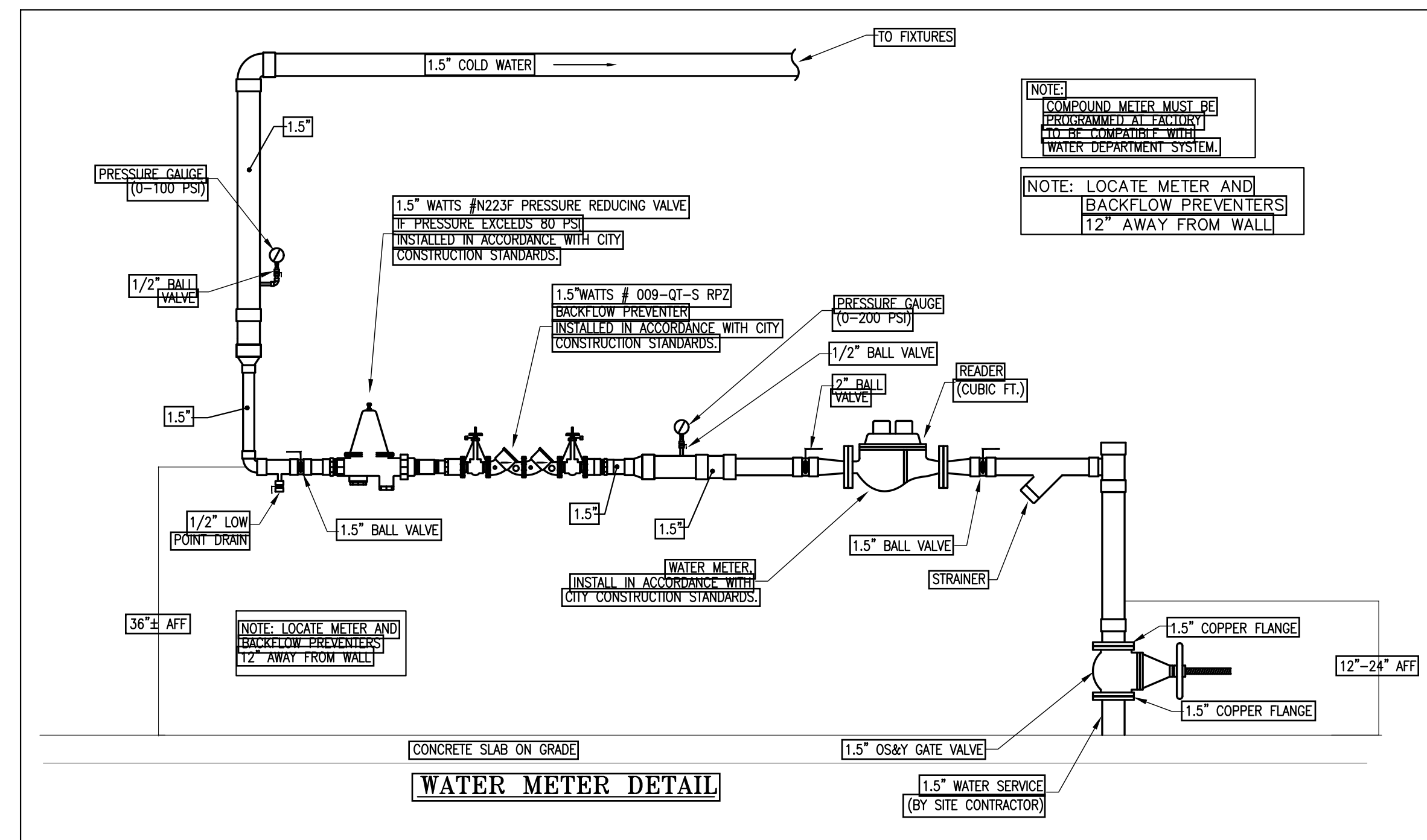
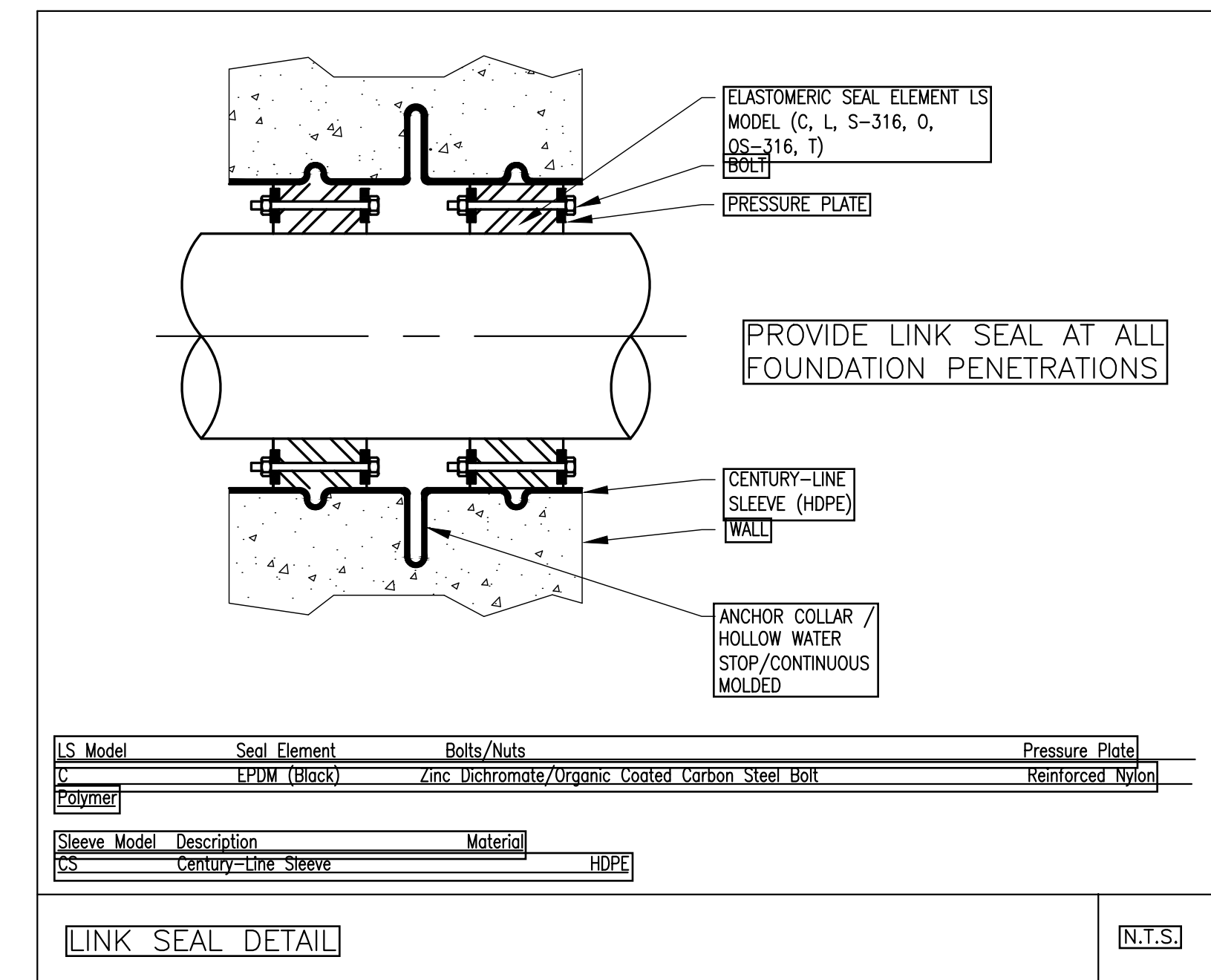
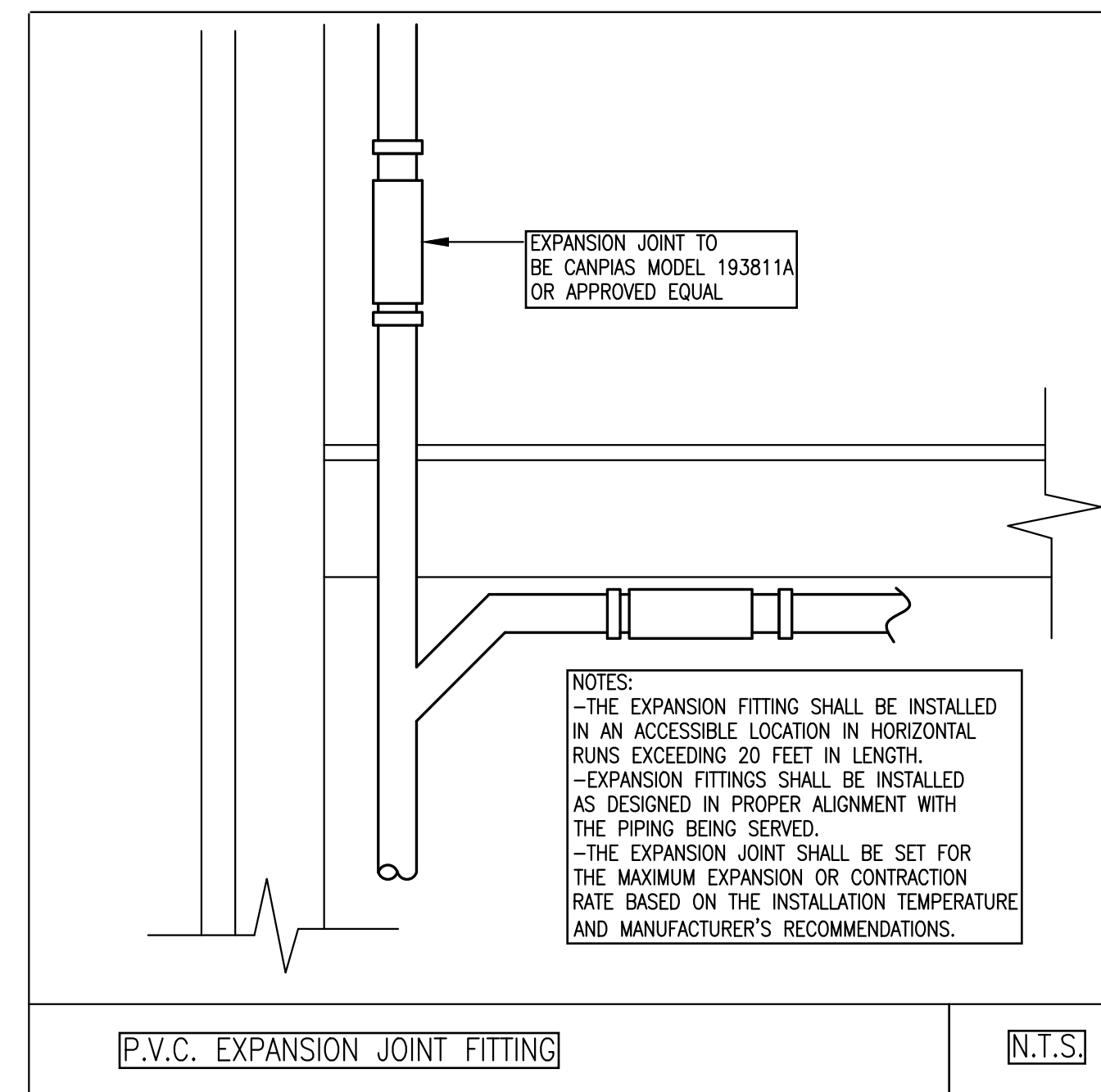
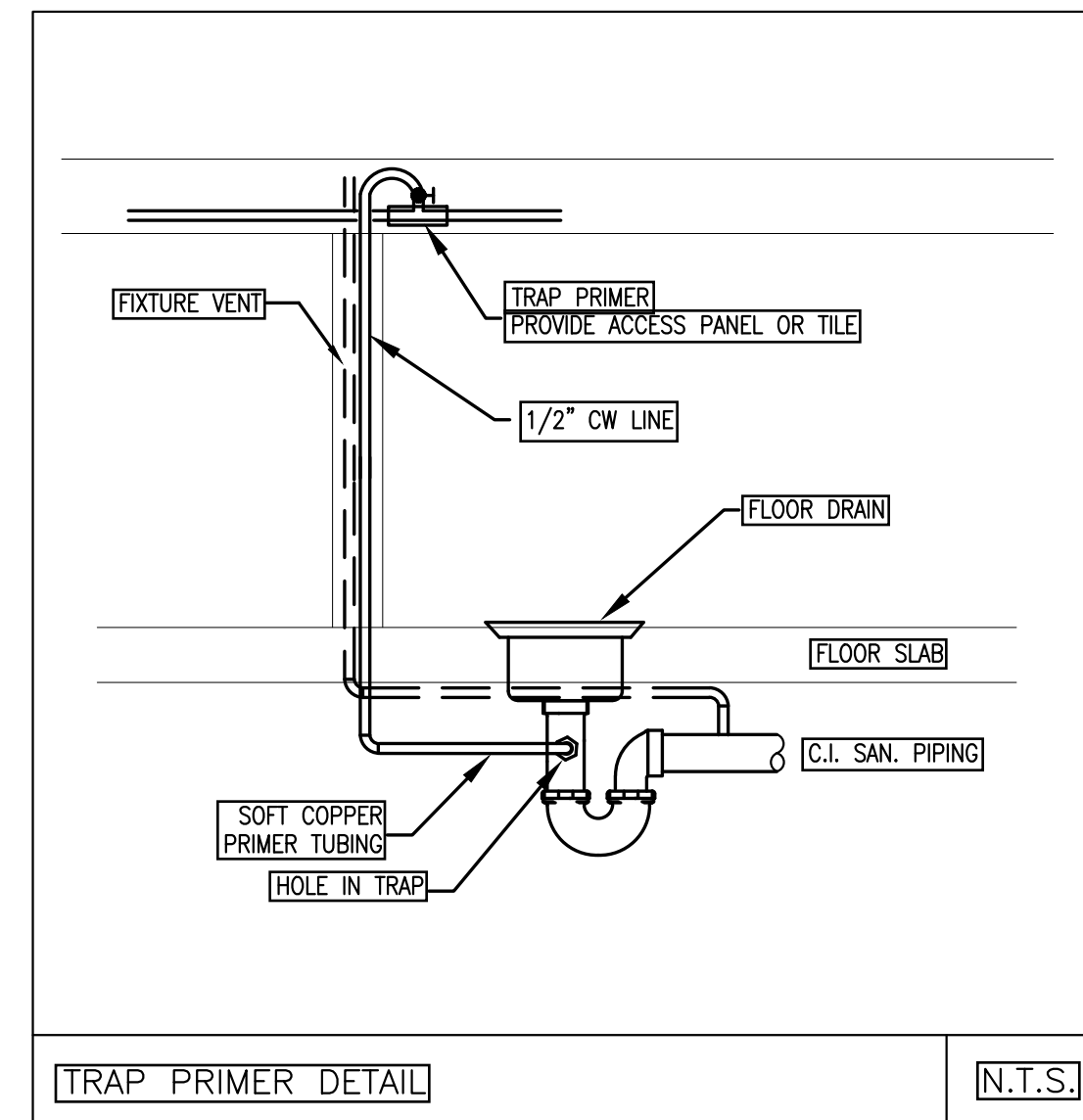
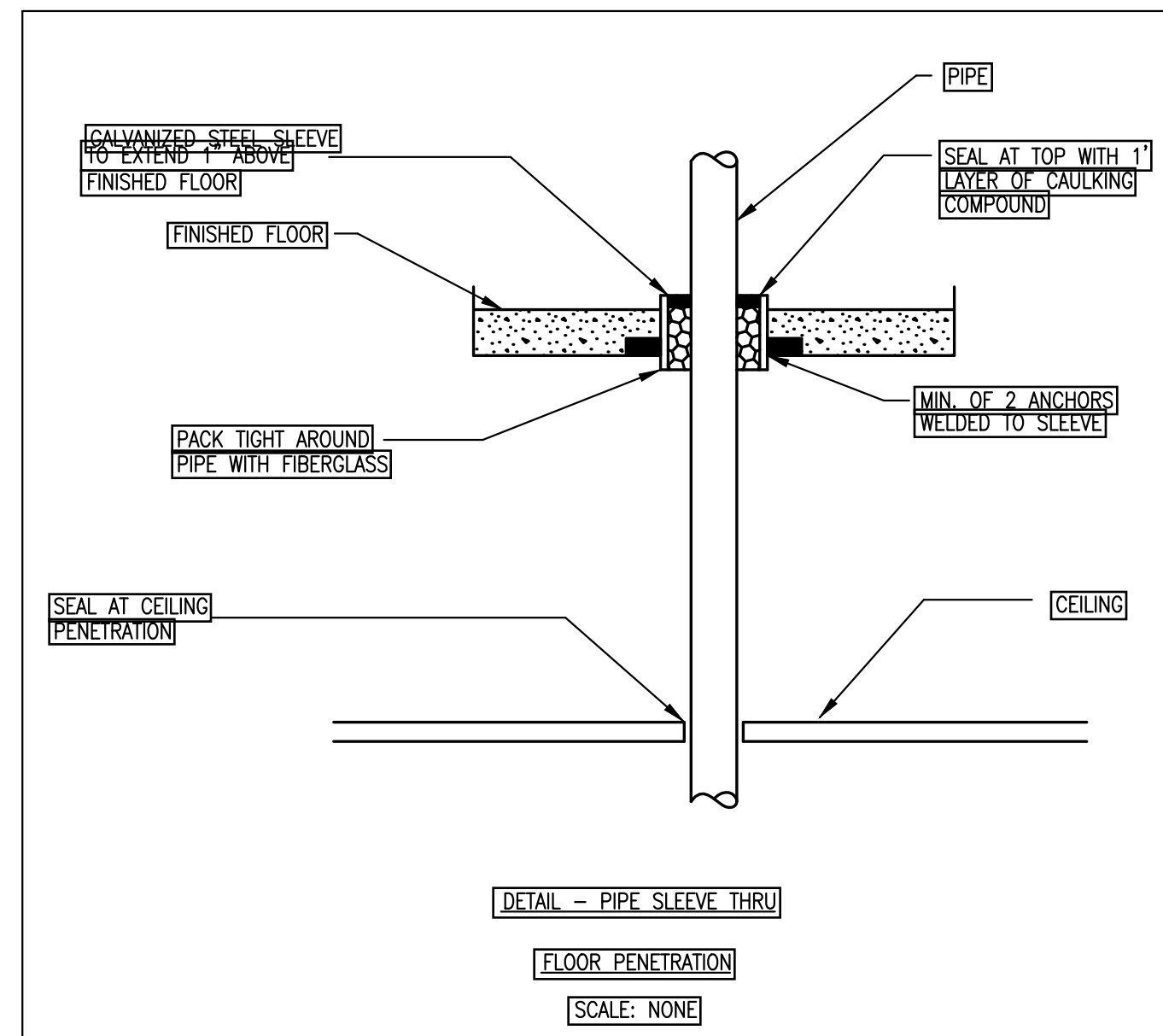
PLUMBING NOTES

Revisions:

Project No.: [] Drawn: [OJ]
Date: Mar. 16, 2020 Checked: [RC]
Scale: 1/4" = 1'-0" Approved: [MZ]

Sheet:
P2.0
No. [] of []

Verify All Dimensions in Field Do Not Scale



ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 339-3100
 FAX: (617) 351-2540
 E-MAIL: zade@zadeEngineering.com

Project: 147-149 CHARLES STREET, BOSTON, MA 02114

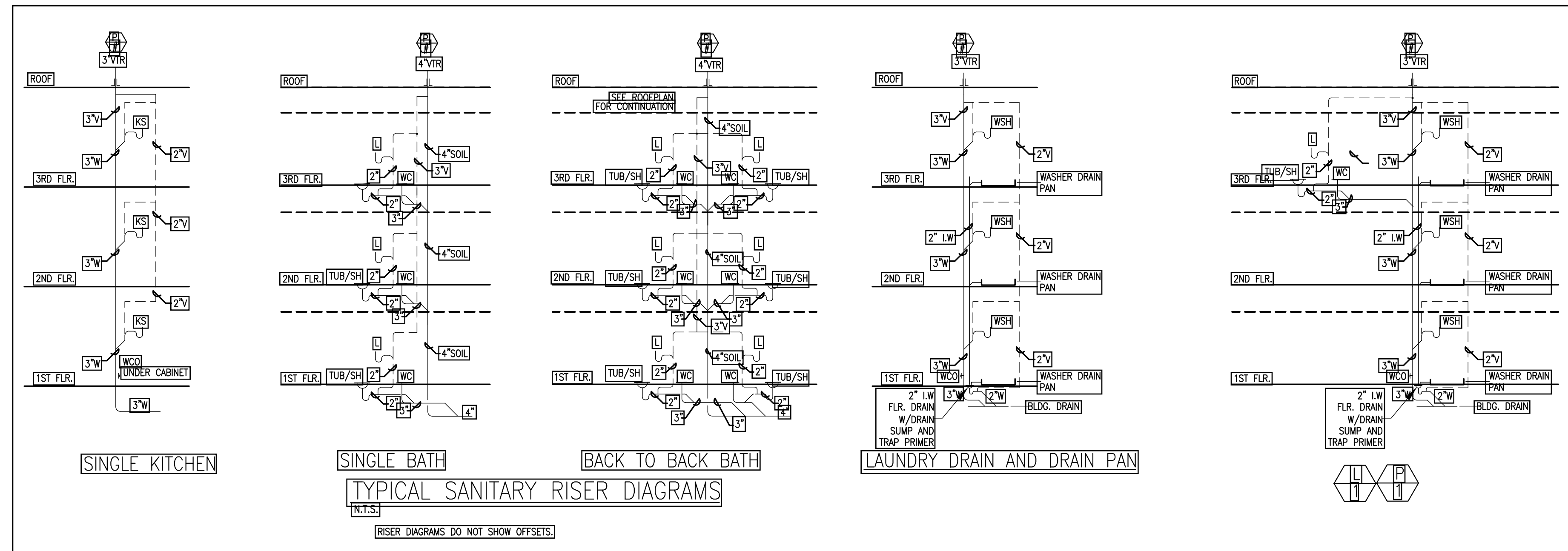
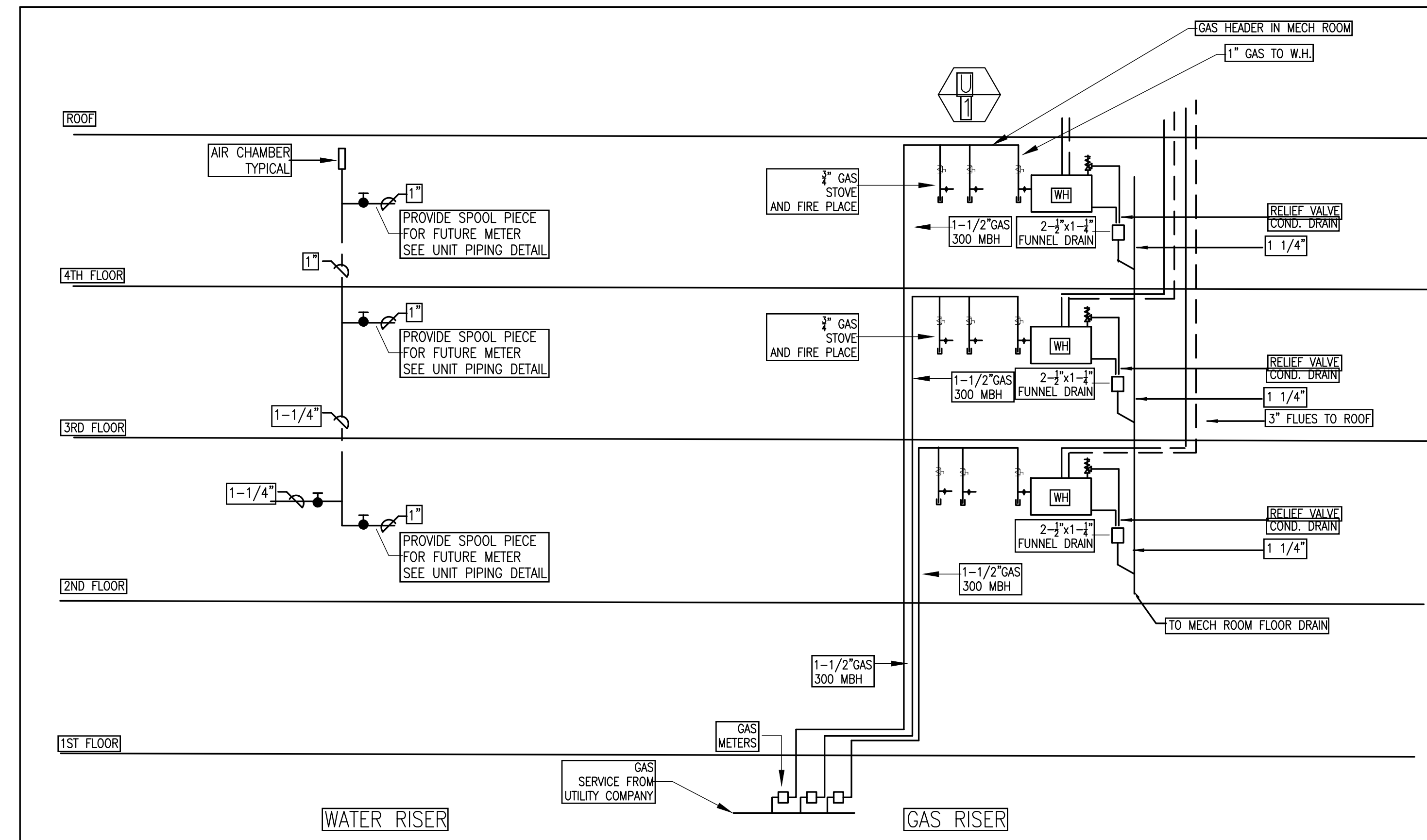
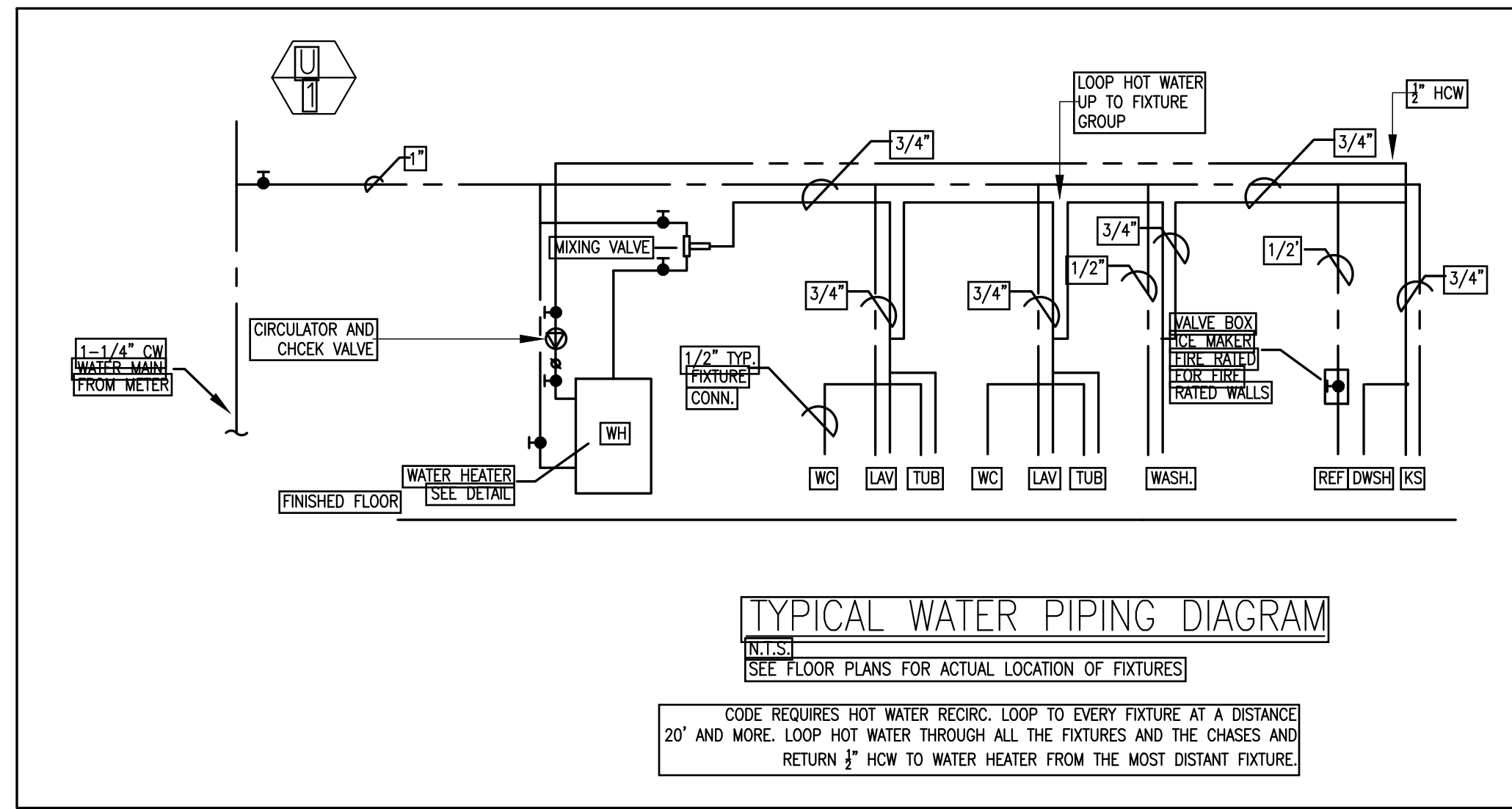
Title: PLUMBING DETAILS

Revisions:

Project No.:	Drawn: OJ
Date: Mar. 16, 2020	Checked: RC
Scale:	Approved: MZ
Sheet:	

No. of: P.2.2

Verify All Dimensions in Field Do Not Scale



ZADE ASSOCIATES LLC
 CONSULTING ENGINEERS
 140 BEACH STREET, BOSTON, MA 02111
 TEL: (617) 338-3100
 FAX: (617) 351-2540
 E-MAIL: zade@zadeEngineering.com

Project: 147-149 CHARLES STREET, BOSTON, MA 02114

Title: **PLUMBING RISER DIAGRAMS**

Revisions:

Project No.:	Drawn: OJ
Date: Mar. 16, 2020	Checked: RC
Scale:	Approved: MZ

Sheet: P2.3 of 01

Verify All Dimensions in Field Do Not Scale