# <u>Location</u>:

5 CARLISLE STREET BOSTON, MA 02121

# Prepared by:

CM KIRBY ENGINEERING, PLLC CHRISTOPHER M. KIRBY, PE P.O. BOX 291 NORWOOD, MA 02062 (617) 872-5553

### CODE INFORMATION

BUILDING CODE: MA STATE BUILDING CODE, 9th EDITION 2015 IBC w/ MA AMENDMENTS

USE GROUP: R2 - THREE FAMILY STRUCTURE

CONSTRUCTION TYPE: V-A (PROTECTED WOOD FRAME)

THE BUILDING WILL BE EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM.

FLOOR LOADS:

DESIGN LIVE LOADS AS PER TABLE (R)301.5:

COMMON AREAS (OTHER THAN SLEEPING): 40 PSF SLEEPING AREAS: 30 PSF RESIDENTIAL ATTICS w/ FIXED STAIRS: 30 PSF RESIDENTIAL ATTICS(STORAGE): 20 PSF RESIDENTIAL ATTICS(NO STORAGE): 10 PSF DECKS: 40 PSF

## SNOW LOADING:

GROUND SNOW LOAD PER TABLE (R)301.2(4): GROUND SNOW LOAD, Pg = 40 PSF

WIND LOADING:

WIND LOAD PER TABLE (R)301.2(4):
BASIC WIND SPEED (ULTIMATE), Vult = 129 MPH
BASIC WIND SPEED (ALLOWABLE), Vasd = 100 MPH
(WIND SPEED CONVERSION PER TABLE (R)301.2.1.3)

# <u>Project</u>:

1. CONVERTING AN EXISTING 1 FAMILY INTO A 3 FAMILY. (ALLOWED BY RIGHT)

ZONE 3F-4000.
ASSESSORS PARCEL ID = 1202789000LOT AREA REQ'D = 6.000 SF
LOT AREA PROVIDED = 6,000 SF...OK

F/A/R MAX = 0.8 LIVING AREA PROPOSED = 3,187 SF F/A/R PROVIDED = 3,187 / 6,000 = 0.53...OK

OFF STREET PARKING REQ'D:

1 SPACE / UNIT = 3 SPACES REQ'D

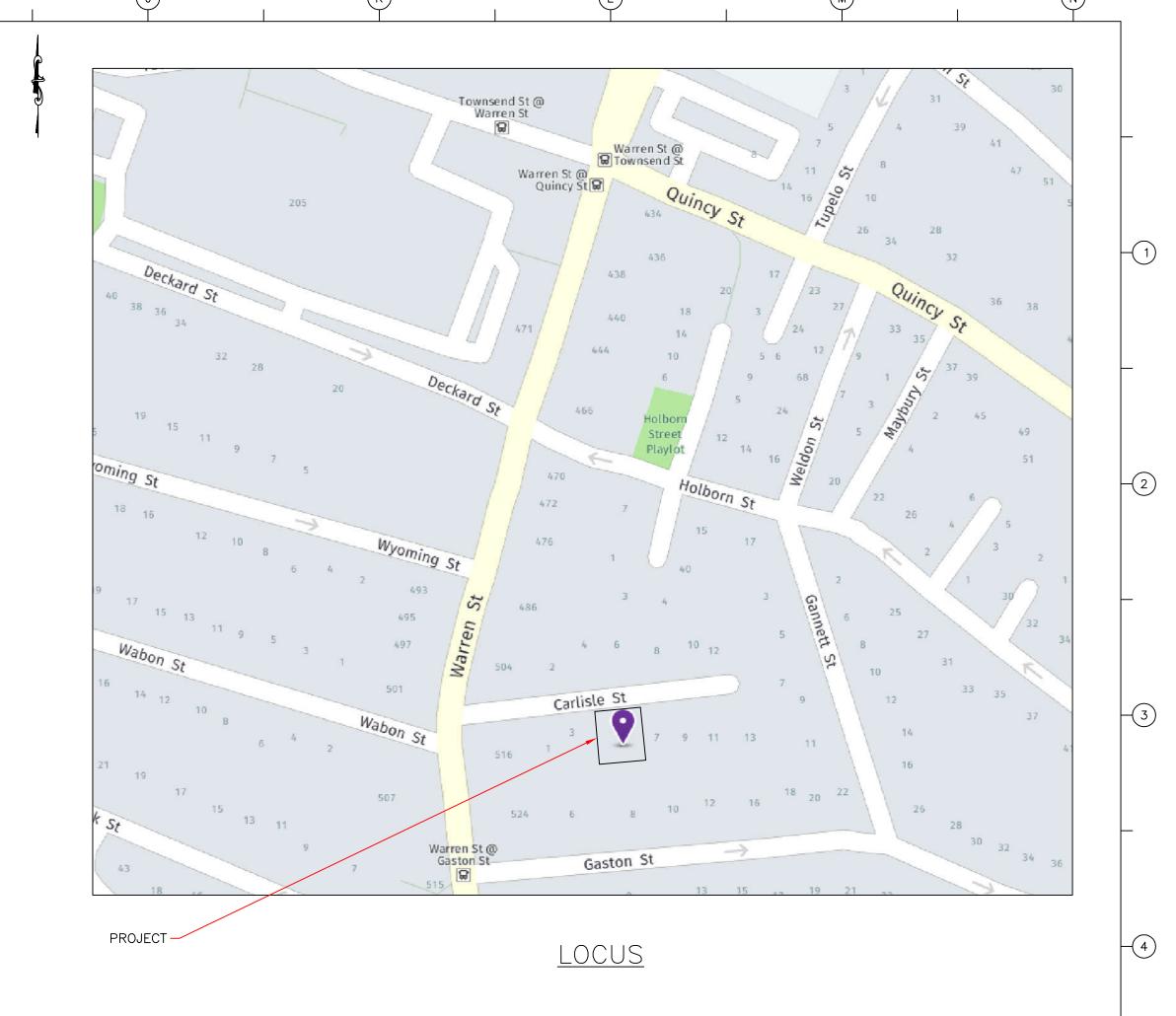
OFF-STREET PARKING PROVIDED = 3 SPACES...OK

2. MAJOR RENOVATION OF ENTIRE STRUCTURE

NEW PLUMBING, ELECTRICAL, MECHANICAL, KITCHENS, INSULATION, DRYWALL, & FINISHES



FRONT ELEVATION



# DRAWING LIST

- 1. COVER PAGE
- 2. SITE PLAN
- 3. GENERAL NOTES
- 4. ELEVATIONS
- 5. FLOOR PLANS EXISTING
- 6. FLOOR PLANS PROPOSED
- 7. STRUCTURAL PLANS
- 8. ROOF FRAMING PLAN, CROSS SECTION & DETAILS

### NOTES:

- 1. NO WORK SHALL COMMENCE UNTIL A BUILDING PERMIT HAS BEEN OBTAINED.
- 2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND APPROVALS REQUIRED BY THE LOCAL ZONING AND BUILDING
- DEPARTMENTS AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
- 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE, 9th EDITION.
  4. DRAWINGS ARE NOT TO BE SCALED. ALL WORK SHALL BE LAID OUT BY DIMENSIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER IMMEDIATELY. ALL DEVIATIONS SHALL BE CORRECTED BY CONTRACTOR BEFORE HE BEGINS HIS
- 5. DRAWINGS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED OR DUPLICATED IN ANY MANNER.
- 6. CONSTRUCTION SHALL BE PERFORMED IN SUCH A MANNER AS TO PROTECT WORKMEN AND GENERAL PUBLIC FROM INJURY &
- ADJACENT PROPERTY FROM DAMAGE.

  7. THE DRAWINGS ARE PREPARED FOR THE PURPOSE OF PERMIT APPLICATION ONLY.
- 8. IT IS THE ERSPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER IN CASE OF ANY OR ALL DEVIATIONS FOR THESE DRAWINGS. THE ENGINEER SHALL BE HELD HARMLESS AS A RESULT OF ANY UNAUTHORIZED CHANGES TO THESE PLANS.

  ADDITIONAL FEES MAY OCCUR FOR "AS—BUILT" DOCUMENTATION DUE TO CIRCUMSTANCES BEYOND THE ENGINEERS CONTROL, OR OWNER / CONTRACTOR CHANGES TO THESE DRAWINGS.

### (22x34 PAPER - ANSI D)

0 3/15/2019 CMK FOR SUBMISSION

REV. NO. DATE CHKD REMARKS

ENGINEER:

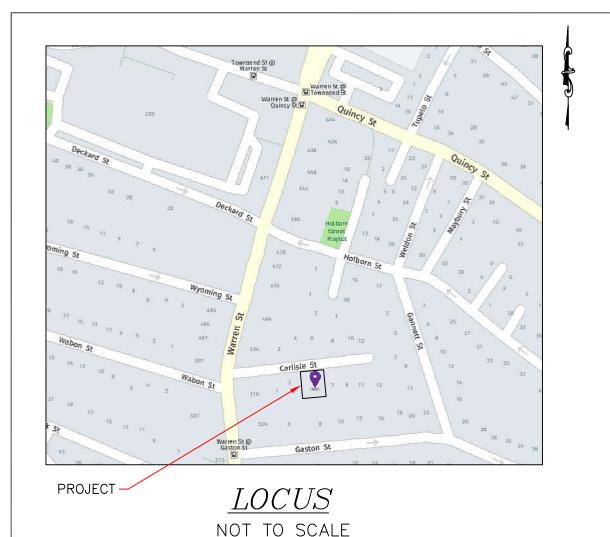
CM KIRBY ENGINEERING, PLLC P.O. BOX 291 NORWOOD, MA 02062 (617) 872-5553 PE LICENSE No. 41662, EXP 6/30/2020 PROJECT LOCATION:

5 CARLISLE STREET BOSTON, MA 02021 DRAWING TITLE:

COVER PAGE

DRAWING NO.

REVISION NO.



NO. 8 GASTON ST

N/F

DOROTHY JONES

6,000 SF

PARCEL ID:

NO. 7 CARLISLE ST

N/F

MARK VICKERS

BK 49205; PG 219

STORMWATER

STONE

INFILTRATION SYSTEM

(7) CULTEC 180HD

CHAMBERS OR EQUAL

OF STORAGE w/ 18"

PROVIDING 305.2± CF

w/ INSPECTION PORTAL

1202789000

BK 22987; PG 11

NO. 5 CARLISLE ST

BOYZELL WASHINGTON

STRFFT

DEED: BK 43999; PG 201

PLAN: BK 1005; PG 163

 $2\frac{1}{2}$  STORY

60.0

CARLISLE STREET

GRANITE CURB

60.0'

UNIT 1

UNIT 2

UNIT 3

DECK

**DRIVEWAY** 

10'-0"

10'-0" 5'-0"

DOWN-

#### PLAN NOTES

THE PROPERTY LINE AND TOPOGRAPHIC INFORMATION IS BASED ON AN ACTUAL INSTRUMENT SURVEY PERFORMED BY BOSTON SURVEY, INC, UNIT 4C-SHIPWAY PLACE, CHARLESTON, MA, IN NOVEMBER OF 2018.

SEE CITY OF BOSTON ASSESSORS PARCEL #1202789000 FOR SITE. SITE IS KNOWN AS #5 CARLISLE STREET IN DEED BOOK.

#### **SEWAGE FLOW DISCHARGE CAPACITIES:**

NO. 530 WARREN ST

N/F

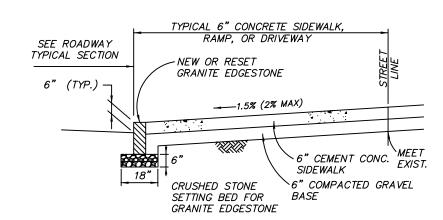
530 WARREN ST LLC

BK 38149; PG 193

THE HOUSE IS A THREE FAMILY HOUSE w/ 7 BEDROOMS

ESTIMATED SEWAGE FLOW IS 770 GALLONS / DAY (110/BEDROOM)

THERE ARE NO FIXTURES IN THE BASEMENT



PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION - DETAIL NO. S1 CONCRETE SIDEWALK AND DRIVEWAYS NOT TO SCALE

Prive Plastic Drainage Set 4

NO. 3 CARLISLE ST

HENRY WORKMAN, JR

BK 15635; PG 150

STANDARTPARK 4" TRENCH

DRAIN, D400 (OR EQUAL)

5'-0"

TRENCH DRAIN DETAIL

4 OZ. NON-WOVEN FILTER FABRIC-MANDATORY ON TOP OF SYSTEM

STANDARTPARK 4" (D400)

TRENCH DRAIN (OR EQUAL)

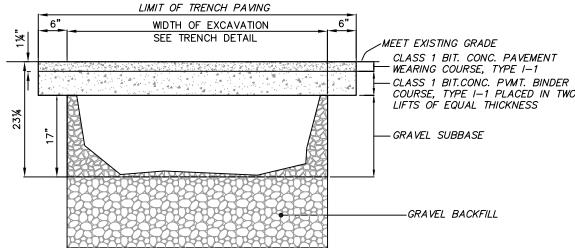
## STORMWATER INFILTRATION NOTES

THE EXISTING LOT IS GRASS COVERED AND HAS NO EXISTING IMPERVIOUS AREA. THE IMPERVIOUS AREA FOR THE PROPOSED IMPROVEMENTS TO THE SITE. DRIVEWAY, WALKS, AND DWELLING IS 3,291 SQUARE FEET. THE COMMISSION REQUIRES THAT THE PROPERTY HAS AN INFILTRATION SYSTEM CAPABLE OF STORING AT LEAST 1-INCH OF STORMWATER PER SQUARE FOOT OF POST-CONSTRUCTION IMPERVIOUS AREA ON THE SITE. THE PROPOSED INFILTRATION SYSTEMS MUST HAVE A COMBINED MINIMUM STORAGE CAPACITY OF 275 CUBIC FEET (2,057 GAL) (3,291 SF x  $\frac{1}{12}$  FT =274.25 CF) TO COMPLY WITH

THERE WILL BE (1) INFILTRATION SYSTEMS ON SITE, THE SYSTEM WILL HAVE (7) CULTEC RECHARGER 180HD CHAMBERS. THE SYSTEMS WILL COLLECT STORMWATER FROM THE DRIVEWAY AND ROOF OF THE PROPOSED STRUCTURE.

THE SYSTEM HAS A STORMWATER STORAGE CAPACITY OF 305.2 CF (275 CF REQUIRED) OR 2,283 GALLONS (2,057 GALLONS REQUIRED). THE SYSTEMS WILL PROVIDE 1.11 INCHES OF STORAGE PER SF OF PROPOSED IMPERVIOUS AREA. SEE DETAILS OF THE PROPOSED INFILTRATION SYSTEM.

PAVEMENT TO BE SAW CUT OR BY OTHER APPROVED METHOD. JOINT TO BE PROPERLY SEALED TO PREVENT UNRAVELING.



PERMANENT TRENCH REPAIR NOT TO SCALE (BWSC DETAIL)

**ELEVATION** 

/-NATURALLY COMPACTED

-1-2 INCH [25-50 mm] DIA.

12.0" [305 mm] MIN.

4.0' [1.22 m] MAX.

Drive Plastic Drainage Set 4'

NP-PCM 080434

### **GENERAL NOTES**

LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. AND ARE NOT WARRANTED TO BE CORRECT. UNDERGROUND UTILITIES ARE SHOWN BASED ON RECORD DATA PROVIDED BY THE OPERATING AUTHORITIES, AND HAVE BEEN FIELD INSPECTED WHERE POSSIBLE. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT INDICATED ON THESE PLANS. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATIONS, ETC. PRIOR TO NEW CONNECTIONS TO OR RELOCATION OF SAME. CONTRACTOR MUST NOTIFY DIG-SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION. NOTIFY THIS FIRM IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING ANY WORK. THE BOSTON WATER AND SEWER COMMISSION IS NOT PART OF DIG SAFE THEREFORE, FIELD LOCATIONS OF WATER AND SEWER LINES MUST BE MARKED BY THE COMMISSION. CALL 1-617-330-9400 FORTY EIGHT HOURS IN ADVANCE OF ANY EXCAVATION.

THE EXISTING WATER, SEWER, GAS AND ELECTRIC SERVICE CONNECTIONS WILL BE UTILIZED TO SERVICE THE PROJECT.

THIS PLAN HAS BEEN PREPARED FOR APPROVAL OF THE WATER, SEWER AND DRAIN CONNECTIONS TO BWSC FACILITIES. IT IS UNDERSTOOD THAT THE RESPONSIBILITY OF OWNERSHIP AND MAINTENANCE OF

IT IS RECOMMENDED THAT DIGGING WITHIN ONE FOOT OF THE MAIN BE DONE WITH HAND TOOLS

IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE FIELD NOTES WITH TIES TO THE LOCATION AND ELEVATIONS OF ALL UTILITIES INSTALLED WHEN SURVEYORS ARE NOT AVAILABLE TO RECORD THIS INFORMATION. THE CONTRACTOR SHALL PROVIDE THE FIELD NOTES TO THE PROJECT ENGINEER OR LAND SURVEYOR TO BE USED FOR THE PREPARATION OF ANY REQUIRED AS-BUILT PLANS.

THE CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION AND SEDIMENTATION CONTROL MEASURES AT ALL TIMES TO PREVENT IMPACT ON WATER BODIES, BORDERING VEGETATED WETLANDS, CITY DRAINAGE SYSTEMS AND ABUTTING PROPERTIES.

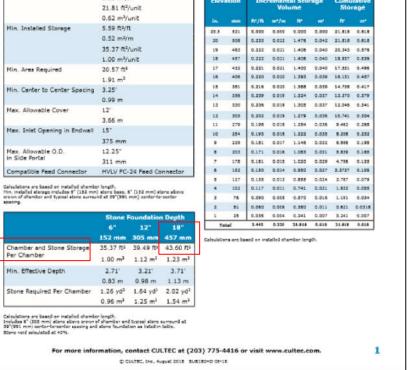
ALL NEW CONSTRUCTION WILL REQUIRE A ROUGH CONSTRUCTION SIGN OFF DOCUMENT FROM THE CITY OF BOSTON INSPECTIONAL SERVICES DEPARTMENT BEFORE FILING FOR A GENERAL SERVICE

THERE ARE NO PLUMBING FIXTURES IN THE BASEMENT.

IT IS REQUIRED THAT A DYE TEST WILL BE PERFORMED BY THE BOSTON WATER AND SEWER COMMISSION INSPECTOR BEFORE THE STRUCTURE IS OCCUPIED.

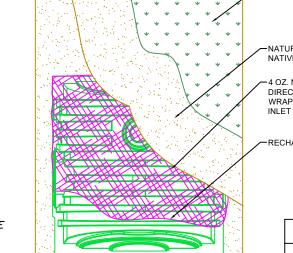
THE CONTRACTOR SHALL PROVIDE SAFETY MEASURES TO PROTECT WORKERS. THE PUBLIC AND ALL PROPERTIES DURING CONSTRUCTION. ALL WORK SHALL BE IN ACCORDANCE WITH THE US DEPARTMENT

**CULTEC Recharger® 180HD Stormwater Chamber** he Recharger® 180HD is a 20.5" (521 mm) tall, mid-size chamber and is typically used for installa-tions with depth restrictions or when a larger infiltra-tive area is required. The Recharger® 180HD has the side portal internal manifold feature. HVVP FC-24 Feed Connectors are inserted into the side portals to create the internal manifold. Size (LxWxH) 7,33' x 36' x 20.5 stalled Length 21.81 ft³/unit 0.62 m³/unit 35.37 ft<sup>2</sup>/unit 19 483 0.222 0.021 1.408 0.040 20,343 0.578 18 487 0.222 0.021 1.408 0.040 18,937 0.538 17 432 0.321 0.031 1.400 0.040 17.331 0.498 16 406 0.229 0.030 1.393 0.039 16.151 0.487 Area Required 20.57 ft<sup>2</sup> 8 581 0.216 0.020 1.588 0.020 14.758 0.41 4 350 0.209 0.019 1.324 0.057 12.370 0.37 Min. Center to Center Specing 3.25' 330 0.206 0.019 1.305 0.057 12.046 0.34 x. Allowable Cover



STORAGE CAPACITY CALCULATIONS FOR INFILTRATION SYSTEM: SYSTEM CAPACITY = 43.6 FT^3 PER CHAMBER w/ 18" STONE (7) CHAMBERS =  $7 * 43.6 FT^3 = 305.2 FT^3 OF STORAGE CAPACITY$ 275 CF OF STORAGE REQUIRED (1) SYSTEM WITH (7) CHAMBERS PROVIDED:

-FINISHED GRADE NATURALLY COMPACTED--RECHARGER 180HD CHAMBER NATIVE FILL -4 OZ. NON-WOVEN FILTER FABRIC MANDATORY ON TOP OF SYSTEM 12.0" [305 mm] MIN. 4.0' [1.22 m] MAX. 20.5" [520 mm]



?' RADIUS GRANITE "D" STONE GUTTER LINE 6" GRANITE-PLAN VIEW NOT TO SCALE **EDGESTONE** 1 1/2" BIT. CONC. PROPOSED CONCRETE SIDEWALK PROPOSED ROADWAY

> CONCRETE DRIVEWAY SECTION A-A NOT TO SCALE

> > SITE PLAN FOR A NEW CURB CUT 5 CARLISLE STREET

(ROXBURY NEIGHBORHOOD - 02121)

PWD USE ONLY

APPROVING THE RELATIONSHIP GRADEWISE OF THE PROPOSED

ANY BUILDING PROJECTIONS OVER THE PUBLIC WAY, NOTED OR

CONDITIONS OF THE CURB CUT PERMIT

THE PERMITEE AGREE TO SAVE AND HOLD HARMLESS THE CITY

THIS PERMIT IS CONDITIONAL AND ONLY BECOMES VALID UPON

THE ISSUANCE OF A USE OF PREMISE PERMIT BY THE CITY OF

SUBMITTED WITH THIS PERMIT. THIS PERMIT IS NOT VALID IF THE PLANS ASSOCIATED WITH THE USE OF PREMISES PERMIT HAS

UNLESS OTHERWISE NOTED, THIS PERMIT AUTOMATICALLY EXPIRES

EXTENDED IN WRITING BY THE CHIEF ENGINEER OF THE PUBLIC

WORKS DEPARTMENT. AN EXTENSION MAY BE GRANTED AFTER A

REQUEST IS MADE IN WRITING AND THE APPROPRIATE FEES ARE

THE PROPOSED SIDEWALK SHALL CONFORM TO THE RULES AND

REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS

WRITTEN REQUIREMENTS OF DIRECTIONS WHICH MAY BE ISSUED

BY THE COMMISSIONER OF PUBLIC WORKS RELATING TO THE

PERMIT ARE VIOLATED, THIS PERMIT MAY BE REVOKED BY THE

THE WORK, MATERIALS, PLANS AND SPECIFICATIONS SHALL BE

AVAILABLE AT ALL TIMES FOR INSPECTION BY DULY AUTHORIZED

PRIOR TO THE ISSUANCE OF ANY PERMIT FOR THE CONSTRUCTION

OF A DRIVEWAY, A PERMIT FROM THE CITY OF BOSTON PARKS &

RECREATION IS REQUIRED FOR THE REMOVAL, AND/OR PLANTING

OF ANY TREES ON OR ALONG A PUBLIC WAY. THE OPENING FOR

THE DRIVEWAY MUST BE AT LEAST FIVE FEET AWAY FROM ANY

CONTACT (617) 635-4500 TO BE DIRECTED TO THE PARKS

THE RELOCATION AND/OR ADJUSTMENT OF ANY PUBLIC OR

PRIOR TO ANY CONSTRUCTION AUTHORIZED BY THIS PERMIT.

PARKING METERS OR SIGNALIZATION DEVICE WITH THE

TREE, POLE, STREET LIGHT, OR OTHER EXISTING APPURTENANCES.

PRIVATE UTILITY SHALL BE THE RESPONSIBILITY OF THE PERMITEE

COORDINATE THE RELOCATION OF ANY TRAFFIC CONTROL SIGNS,

TRANSPORTATION DEPARTMENT. CONTACT (617) 635-4500 FOR

CONSTRUCTION MATERIALS AND EQUIPMENT MUST NOT BE STORED

OR PARKED ON THE PUBLIC RIGHT OF WAY, UNLESS OTHERWISE

(RESTORATION OF RIGHT OF WAY) SHALL BE MADE OF ANY AND

ALL DAMAGES DONE TO THE EXISTING IMPROVEMENTS IN THE

PUBLIC RIGHT OF WAY CAUSED BY CONSTRUCTION OPERATIONS

ON THIS SITE. ALL DISTURBED AREAS SHALL BE FINE GRADED

THE PROPOSED WORK SHALL BE PERFORMED IN ACCORDANCE

WITH THE CONDITIONS OF THIS PERMIT. SUBJECT TO THE

PROVISIONS OF THE MASSACHUSETTS GENERAL LAWS, THE

ORDNANCES OF THE CITY OF BOSTON, AND ALL APPLICABLE

PUBLIC WORKS, INSPECTIONAL SERVICES DEPARTMENT, AND

REGULATIONS, STANDARDS, SPECIFICATIONS, AND INSPECTION AND CONTROL OF THE COMMISSIONERS OF THE DEPARTMENT OF

EXISTING ROADWAYS FREE OF MUD, DEBRIS, AND OTHER

AND SODDED. PROPER PRECAUTIONS MUST BE TAKEN TO KEEP

PRIOR TO THE RELEASE OF THIS PERMIT, COMPLETE REPAIR

PARTICULAR PROJECT. IF ANY OF THE CONDITIONS OF THIS

ALL WORK DONE UNDER THIS PERMIT SHALL COMPLY WITH

BOSTON INSPECTIONAL SERVICES ("ISD") FOR THE SAME PLAN

BEEN ALTERED IN ANY WAY FROM THE PLAN SUBMITTED WITH

18 MONTHS FROM THE DATE OF THE ISSUANCE UNLESS

PAID PRIOR TO THE EXPIRATION DATE OF THE PERMIT.

OF BOSTON FROM ALL LIABILITY ARISING FROM THE

CONSTRUCTION ASSOCIATED WITH THIS PERMIT.

THIS PERMIT IS NON-TRANSFERABLE.

THIS PERMIT.

BOARD (CMR521).

DEPARTMENT.

OBSTRUCTIONS.

COMMISSIONER OF PUBLIC WORKS.

OFFICIALS OF THE CITY OF BOSTON.

THE TRANSPORTATION DEPARTMENT.

NOTED AS A CONDITION OF THIS PERMIT.

THE APPROVAL OF NEW/MODIFIED CURB CUTS.

OTHERWISE, REQUIRE ADDITIONAL PERMITTING.

TODD M. LIMING, P.E.,

PRINCIPAL CIVIL ENGINEER

CITY OF BOSTON PUBLIC WORKS DEPARTMENT

APPROVAL OF SITE UTILITY/GRADING PLAN

BUILDING TO THE ABUTTING PUBLIC WAY(S) AND DOES NOT CONSIDER

APPARENT BUILDING PROJECTIONS OVER THE PUBLIC WAY? YES NO

DATE

SCALE: 1"=10'

TRANSPORTATION DEPARTMENT.

MARCH 15, 2019

CM KIRBY ENGINEERING, PLLC CIVIL ENGINEERING & LAND PLANNING PO BOX 291, NORWOOD, MA 02062

EMAIL CKIRBY83@GMAIL.COM PHONE: 617-872-5553

(22x34 PAPER) 30 5'

SHEET No. 2

THE SEWER AND DRAIN CONNECTIONS ON PRIVATE PROPERTY AND/OR PRIVATE AND PUBLIC WAYS SHALL BE THE RESPONSIBILITY OF THE OWNER. IT IS ALSO UNDERSTOOD THAT THE WATER CONNECTION ON PRIVATE PROPERTY INCLUDING PRIVATE WAYS IS ALSO THE RESPONSIBILITY OF THE

OF LABOR AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.

6" (MIN) CEMENT CONCRETE ON 6" (MIN) COMPACTED GRAVEL BASE FROM JOINT TO JOINT A \_\_\_ EXPANSION JOINT WITH ₹" PREFORMED FILLER

> WEARING SURFACE SURFACE > 6" CONCRET 1 1/2" BIT. CONC. BINDER COURSE -8" COMPACTED GRAVEL BASE

NATURALLY COMPACTED NATIVE FILL -4 OZ. NON-WOVEN FILTER FABRIC TO BE PLACED DIRECTLY OVER CHAMBER. FILTER FABRIC TO BI WRAPPED AT LEAST 2 FEET [0.62 m] BENEATH -RECHARGER 180HD CHAMBER

**INVERT** 18" [457 mm] BOTTOM OF STONE

1-2 INCH [25-50 mm] DIA.-WASHED, CRUSHED STONE WASHED, CRUSHED STONE, —— 36.0" [914 mm] ——

: 305.2 CF OF STORAGE PROVIDED > 275 CF...OK

20.5" [520 mm] INVFR: 18" [45<sup>†</sup>7 mm] BOTTOM OF STONE

- 48.0" [1220 mm] —

6.0" [152 mm] MIN. SIDE PORTAL TO BE CUT IN FIELD TO ALLOW FOR HVLV FC-24 FEED CONNECTOR AS NEEDED. CUT SHALL BE WITHIN 1/4" I6 mm1 TOLERANCE OF SIDE PORTAL TRIM GUIDELINE

CULTEC DRY WELL SYSTEM RECHARGER 180HD CHAMBER NOT TO SCALE

**REVISIONS** 

#### GENERAL CONSTRUCTION NOTES

- 1. ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF INTERIOR STUD WALLS UNLESS OTHERWISE NOTED. STUD WALLS NOT DIMENSIONED ARE TYPICALLY  $2 \times 6$  (5 1/2") FOR BOTH INTERIOR AND EXTERIOR WALLS.
- 2. THE PROJECT IS A NEW STRUCTURE. EXACT DIMENSIONS, ELEVATIONS, TIE-IN POINTS, ROOF SLOPES, BEARING POINT LOCATIONS ARE REPRESENTED AS ACCURATE AS KNOWN AT THE TIME OF THE DRAWING SET CREATION. FIELD VERIFICATION OF ALL ELEMENTS IS REQUIRED BY THE CONTRACTOR AND IF INCONSISTENCIES OCCUR, NOTIFY THE ENGINEER FOR DIRECTION. THE ENGINEER IS NOT RESPONSIBLE FOR CHANGES TO THE PLANS WITHOUT DIRECTION
- 3. WINDOWS APPEARING ON THE FLOOR PLANS AND EXTERIOR ELEVATIONS ARE TO BE CONFIRMED BY THE OWNER.
- 4. THE WINDOW FINAL SILL HEIGHT AT THE FIRST FLOOR IS 24" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.
- 5. GENERAL CONTRACTOR TO REVIEW ALL BUILT IN REQUIREMENTS WITH THE OWNER INCLUDING SHELVING, CLOSETS, PANTRY, ETC., IF APPLICABLE.
- 6. ALL REQUIREMENTS FOR SECURITY SYSTEMS, CENTRAL VACUUM, AND ANY AUDIO, COMPUTER OR CABLE TELEVISION SYSTEMS TO BE COORDINATED WITH OWNER.
- 7. ALL PERMITS AND VARIANCES, IF NECESSARY, ARE THE RESPONSIBILITY OF THE OWNER AND GENERAL CONTRACTOR PRIOR TO START OF CONST.
- 8. ALL FINISH COLORS TO BE THE RESPONSIBILITY OF THE OWNER.

#### GENERAL FLOOR PLAN NOTES

- 1. DO NOT SCALE DRAWINGS. FOLLOW DRAWING DIMENSIONS ONLY. DIMENSION IS NOT CALLED OUT, VERIFY DIMENSIONS WITH ENGINEER.
- 2. ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF INTERIOR STUD WALLS (UNO). STUD WALLS NOT DIMENSIONED ARE TYPICALLY 2x6 FOR EXTERIOR WALLS AND 2x4 FOR INTERIOR WALLS (UNO).
- 3. ALL INTERIOR WALLS ARE TO BE COVERED WITH 1/2" GYPSUM BOARD, METAL CORNER REINFORCING, TAPE SEAMS AND PLASTER SKIMCOAT.
- 4. ALL WALLS IN THE GARAGE TO HAVE A LAYRER OF 5/8", TYPE "X" FIRE RATED GYPSUM BOARD (UNO).
- 5. ALL BATH AND TOILET AREA WALLS AND CEILINGS ADJACENT TO WET AREAS TO HAVE WATER RESISTANT GYPSUM BOARD.
- 6. BEDROOM WINDOWS TO HAVE A MINIMUM NET CLEAR OPENING OF 3.38 SQFT., A MINIMUM NET CLEAR OPENING OF 20" WIDE x 24" HIGH IN EITHER DIRECTION, AND HAVE A MAXIMUM FINISHED SILL HEIGHT OF 44" FROM FINISHED FLOOR.
- 7. ALL GLASS LOCATED WITHIN 18" OF FLOOR OR 24" OF A DOOR SWING MUST BE TEMPERED
- 8. BATHROOMS AND UTILITY ROOMS TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF 50 CFM FAN. RANGE HOODS TO BE VENTED TO THE OUTSIDE.
- 9. SUBCONTRACTOR TO FIELD VERIFY ALL CABINET DIMENSIONS BEFORE FABRICATION.

## GENERAL ELEVATION NOTES

- 1. ICE & WATER SHIELD TO BE INSTALLED CORRECTLY AT ALL CONNECTIONS BETWEEN ROOFS, WALLS, CHIMNEYS, PROJECTIONS, AND PENETRATIONS AND UNDER FIRST 36" OF PERIMETER
- 2. ICE & WATER SHIELD TO BE PLACE OVER ENTIRE ROOF SURFACE WHEN ROOF SLOPE IS BELOW A 4/12 PITCH.
- 3. ADEQUATE ATTIC VENTILATION AND ROOF VENTS ARE TO BE PROVIDED AS SHOWN ON
- 4. ALL PLUMBING AND MECHANICAL VENTS TO BE LOCATED CLOSE TOGETHER WITHIN THE ATTIC SPACE WHEN POSSIBLE TO MINIMIZE THE NUMBER OF ROOF PENETRATIONS. ALL PLUMBING AND MECHANICAL VENTS WHICH APPEAR ABOVE THE ROOF TO BE LOCATED AWAY FROM ANY PROMINENT VIEW. NO VENT TO BE ALLOWED ON THE FRONT ROOF. ALL METAL AND PVC VENTS AND PENETRATIONS TO BE PRIMED AND PAINTED TO CLOSELY MATCH ROOF COLOR
- 5. GUTTERS AND DOWN SPOUTS ARE NOT LOCATED ON ELEVATION DRAWINGS. LOCATIONS OF DOWN SPOUTS ARE TO BE DETERMINED ON-SITE DUE TO TOPOGRAPHICAL CONDITIONS TO ALLOW POSITIVE DRAINAGE AWAY FROM THE HOUSE. DOWN SPOUTS NOT TO BE LOCATED IN PROMINENT LOCATIONS, GUTTERS AND DOWN SPOUTS ARE TO CLOSELY MATCH TRIM COLOR
- 6. ALL FLASHING TO BE OF THE SAME MATERIAL. DISSIMILAR METALS NOT ALLOWED.
- 7. OWNER RESPONSIBLE FOR SELECTING ROOF COLOR.

#### GENERAL STAIRWAY NOTES

- 1. STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND THE PERMITTED HEADROOM HEIGHT. THE MINIMUM WIDTH AT OR BELOW THE HANDRAIL HEIGHT SHALL NOT BE LESS THAN 32" WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 28" WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.
- 2. THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR THE NOSING FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM.
- 3. THE MAXIMUM RISER HEIGHT SHALL BE 8 1/4" AND THE MINIMUM TREAD DEPTH SHALL BE 9". TREAD NOSING SHALL NOT EXTEND MORE THAN 1 1/2" BEYOND THE FACE OF THE RISER
- 4. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR/GRADE SHALL HAVE GUARDRAILS, WHICH SHALL ALSO SERVE AS HANDRAILS, NOT LESS THAN 36" IN HEIGHT.
- 5. REQUIRED GUARDRAILS ON OPEN SIDES OF STAIRWAYS, BALCONIES, PORCHES, DECKS AND RAISED FLOOR AREAS, SHALL HAVE BALUSTERS WHICH PREVENT THE PASSAGE OF AN OBJECT 4" OR MORE IN DIAMETER.

#### GENERAL FOUNDATION NOTES

- 1. ALL CONCRETE WORK SHALL CONFORM WITH THE LATEST REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI).
- 2. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT THE END OF 28 DAYS SHALL BE 4000
- 3. ALL SLABS TO BE PLACED ON A 6 MIL VAPOR BARRIER OVER 6" OF COMPACTED GRAVEL.
- 4. PROVIDE A 1/2" EXPANSION JOINT MATERIAL BETWEEN ALL CONCRETE SLABS ON ABUTTING CONCRETE OR MASONRY WALLS OCCURRING IN EXTERIOR OR UNHEATED AREAS.
- 5. PROVIDE DEEP SCORE CONTROL JOINTS AT MID POINTS OF ALL SLABS, BOTH DIRECTIONS.

#### GENERAL FRAMING NOTES:

LOCATION	LIVE (PSF)	DEAD (PSF)	DEFLECTION	
COMMON AREAS	4	40	15	L / 360
SLEEPING AREAS		30	15	L / 360
ATTIC (STORAGE)	2	20	15	L / 240
ATTIC (NO STORAG	E)	10	15	L / 240
ROOF (SNOW LOAD	)) \	/ARIES	15	L / 240
DECK	4	40	15	L / 360
BALCONY	(	60	15	L / 360

- 1. ALL FRAMING MATERIAL TO BE MINIMUM #2 OR BETTER KD LUMBER,
- 2. ALL WOOD FRAMING IN CONTACT WITH CONCRETE OR MASONRY TO BE PRESSURE
- 3. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL WALLS WHICH RUN PARALLEL TO THE DIRECTION OF THE JOIST SPAN,
- 4. PROVIDE 1"x3" CROSS BRIDGING OR 2"x6" BLOCKING AT THE MIDSPAN OF ALL
- 5. FLOOR CONSTRUCTION: 3/4" TONGUE AND GROOVE SUBFLOOR GLUED AND SCREWED TO FLOOR FRAMING. FINISH FLOORING TO BE EITHER 3/4" HARDWOOD,
- 6. ALL STUD FRAMED WALLS TO BE FRAMED AT 16" ON CENTER, MAXIMUM,
- 7. ALL ANGLED WALLS ARE TO BE FRAMED AT 45 DEGREES (UNO),
- 8. HEADER SIZE OVER WINDOWS TO BE (3)2"x8" (UNO).
- 9. ALL HEADERS TO BE FREE FROM SPLITS AND CHECKS,
- 10. PROVIDE FULL SOLID BEARING OR STUD BEARING UNDER ALL BEAM BEARING POINTS, 11. ALL BEAM AND JOIST INTERSECTIONS TO BE FLUSH FRAMED WITH GALVANIZED JOIST HANGERS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS,
- 12. ALL BEAMS TO HAVE TRIPLE STUD BEARING UNDER EACH END,
- 13. UNLESS OTHERWISE NOTED, PROVIDE DOUBLE HEADER JOIST AND TRIMMERS AT ALL
- 14. STAIR CONSTRUCTION TO CONSIST OF 3-2"x12" STRINGERS, MINIMUM,
- 15. TEMPORARY GUARDRAILS MUST BE INSTALLED AT ALL FLOOR OPENINGS, 16. ALL WALLS OVER 10'-0" HIGH TO BE 2"x6"s AT 16" ON CENTER AND RECEIVE 1
- ROW OF 2"x6" BLOCKING AT MID-HEIGHT,
- 17. 2"x6" EXTERIOR WALLS TO BE SHEATHED WITH 1/2" EXTERIOR GRADE PLYWOOD. SHEATHING TO SPAN OVER ALL PLATES AND HEADERS. INSTALL SHEATHING WITH AN 1/8" GAP BETWEEN PANELS AND BLOCK ALL SEAMS - BOTH VERTICAL AND HORIZONTAL,
- 18. FLOOR FRAMING LAYOUT IS CONSTRUCTED AS TO PROVIDE BEST POSSIBLE ACCESS TO THE HVAC DUCTS AND UNOBSTRUCTED RUNS FOR THE DUCT WORK,
- 19. PROVIDE BLOCKING AT ALL CABINET LOCATIONS,
- 20. PROVIDE 2"x4" RAFTER TIES AT ALL PLATES WHERE JOIST RUN IS PERPENDICULAR
- 21. HIP VALLEY RAFTERS AND RIDGE BOARDS TO BE ONE SIZE LARGER THAN TYPICAL RAFTERS UNLESS OTHERWISE NOTED ON PLANS.
- 22. PROVIDE 1"x6" COLLAR TIES AT UPPER 1/3 OF VERTICAL DISTANCE BETWEEN RIDGE BOARD AND CEILING JOIST AT 48" ON-CENTER,
- 23. PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS,
- 24. REQUIRED GUARDRAILS ON BALCONIES, PORCHES, DECKS, AND RAISED FLOOR AREAS, SHALL HAVE A MINIMUM HEIGHT OF 36" MEASURED VERTICALLY FROM THE FINISHED
- 25. ALL HARDWARE AND FLASHING IN CONTACT WITH ACQ TREATED LUMBER MUST BE HOT DIPPED GALVANIZED OR STAINLESS STEEL,
- 26. IF ON-SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY FOR DIRECTION.

#### GENERAL ELECTRICAL NOTES

- 1. ELECTRICAL CONTRACTOR TO BE RESPONSIBLE FOR ADHERING TO ALL CODES AND SAFETY REQUIREMENTS.
- 2. GENERAL AND ELECTRICAL CONTRACTOR TO REVIEW THE PLAN(S) AND WALK THROUGH THE JOB TO VERIFY THAT THE DESIGN INTENT IS MAINTAINED.
- 3. ELECTRICAL SERVICE TO BE PROVIDED AS REQUIRED FOR ALL APPLIANCES AND EQUIPMENT SUCH AS REFRIGERATOR, DISH WASHER, DISPOSAL, HVAC EQUIPMENT, ALARM PANEL, LAWN SPRINKLER SYSTEM, ETC. OUTLET TO BE PROVIDED ABOVE THE RANGE FOR
- MICROWAVE OR HOOD VENT IF FINAL KITCHEN LAYOUT REQUIRES. 4. ALL OUTLETS PLACED NEAR ANY WATER CONDITION TO BE G.F.C.I.
- SWITCHES AND OUTLETS TO BE COORDINATED WITH OWNER.
- PROVIDE EXTERIOR WATERPROOF OUTLETS AS REQUIRED BY CODE.
- ALL PHONE OUTLETS, COMPUTER OUTLETS, CABLE TV OUTLETS, AND ELECTRONIC DEVICE OUTLETS TO BE VERIFIED BY OWNER.
- 8. DIMMERS TO BE SIZED FOR THE APPROPRIATE LOAD OF THE FIXTURES AND LAMPS
- 9. VERIFY TRIM SIZE FOR ALL DOORS AND WINDOWS PRIOR TO LOCATING SWITCHES. ALL LOCATIONS SHOULD BE CLOSE TO TRIM AND ALIGNED WITH ONE ANOTHER, IF THERE ARE MULTIPLE.
- 10. BLOCK AND PREWIRE SEPARATE SWITCHES TO EACH LIGHT AND CEILING.
- 11. IF EXTERIOR SECURITY LIGHTING IS DESIRED BY OWNER THE TYPE, LOCATION, AND REQUIRED SWITCHING MUST ALL BE VERIFIED BY OWNER.
- 12. IF AN ALARM IS DESIRED ALL OF THE REQUIREMENTS MUST BE COORDINATED WITH THE
- 13. PANEL BOX TO BE SIZED TO ACCOMMODATE ALL CALCULATED LOADS AND PROVIDE FOR
- A MINIMUM OF EIGHT (8) SPARES. 14. RECESSED FIXTURES LOCATED IN FIRE RATED WALLS (i.e. — GARAGE CEILINGS OR FIRE SEPARATION ASSEMBLIES) SHALL BE RATED FIXTURES, FIRE RATED TO THE LEVEL OF
- FIRE SEPARATION OF THE WALL/CEILING IN WHICH THE FIXTURE IS INSTALLED.
- 15. PROVIDE ENERGY EFFICIENT LIGHTING AS REQUIRED PER THE 2015 IECC.

#### GENERAL PLUMBING/HVAC NOTES

- 1. PLUMBING SUBCONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL APPLICABLE CODES AND SAFETY REQUIREMENTS.
- 2. PROVIDE GAS SERVICE TO ALL WATER HEATERS, APPLIANCES, AND HVAC EQUIPMENT, AS
- REQUIRED. 3. IF WALL PLATES OR JOISTS ARE CUT DURING INSTALLATION OF PLUMBING FIXTURES OR
- EQUIPMENT, PROVIDE BRACING TO TIE FRAMING BACK TOGETHER. 4. ALL GAS WATER HEATERS TO BE VENTED AT TOPOUT.
- 5. ALL PLUMBING AND MECHANICAL VENT STACKS TO BE LOCATED CLOSE TOGETHER IN THE ATTIC. VENT STACKS TO BE LOCATED TO THE REAR OF THE HOUSE AWAY FROM PROMINENT VIEW. ALL VENT STACKS TO BE PRIMED AND PAINTED TO CLOSELY MATCH ROOF COLOR.
- 6. HVAC CONTRACTOR TO PROPERLY SIZE HEATING AND COOLING SYSTEM FOR THE
- 7. IF A NEW KITCHEN EXHAUST FAN OVER 400 CFM IS INSTALLED, AN OUTSIDE MAKE-UP AIR SYSTEM IS REQUIRED.

### **ENERGY EFFICIENCY**

DRAWING TITLE:

- 1. ENERGY EFFICIENCY TO BE THE "PRESCRIPTIVE METHOD" IN ACCORDANCE WITH CHAPTER 4 (RESIDENTIAL ENERGY EFFICIENCY) OF THE THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE (2015 IECC). SEE THIS CHAPTER FOR COMPLETE REQUIREMENTS.
- 2. THE BUILDINGS (NEW PORTION) THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF TABLE R402.1.2. A SHORT VERSION OF TABLE R402.1.2 IS LISTED BELOW AND THE FULL VERSION SHALL BE REVIEWED FOR COMPLETE REQUIREMENTS.
- 3. THE 2015 IECC HAS STRICT REQUIREMENTS FOR ENERGY EFFICIENCY AND CHANGES TO THE CODE INCLUDE; HIGHER WALL R-VALUES, PERMANENT CERTIFICATE OF BUILDING COMPONENTS POSTED, AIR LEAKAGE TEST, BASEMENT INSULATION TO A DEPTH OF 10 FEET BELOW GRADE OR THE BASEMENT FLOOR (WHICHEVER IS LESS), RIM JOIST/WALL SEALING, RECESSED LIGHTING SHALL BE SEALED FIXTURES, JUNCTION BOXES ON EXTERIOR WALLS SHALL BE INSULATED, ATTIC ACCESS SHALL BE SEALED,

TABLE R402.1.2 - PARTIAL LIST (2015 IECC)						
CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	FLOOR R-VALUE	
5	0.30	0.55	49	20	30	

(22x34 PAPER - ANSI D)

0 | 3/15/2019 | CMK | FOR SUBMISSION REV. NO. DATE **REMARKS** 

CM KIRBY ENGINEERING, PLLC P.O. BOX 291 NORWOOD, MA 02062 (617) 872-5553 PE LICENSE No. 41662, EXP 6/30/2020

5 CARLISLE STREET BOSTON, MA 02021

PROJECT LOCATION:

GENERAL NOTES

REVISION NO.

DRAWING NO.



