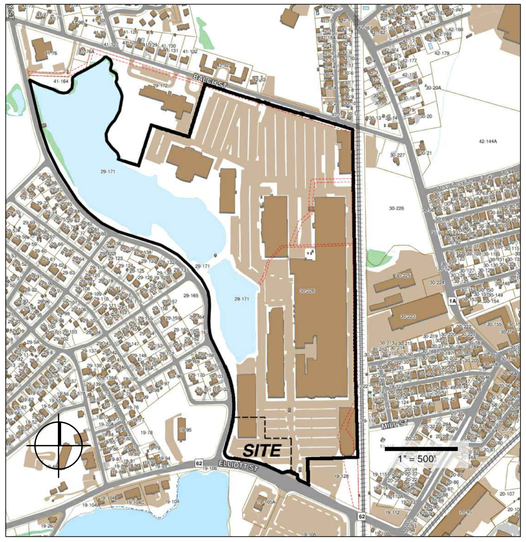
# 201 Elliott Street
# Beverly, Massachusetts

LOCUS PLAN




RENDERING

## PROJECT TEAM


OWNER/APPLICANT:

BEVERLY COMMERCE PARK, LLP
c/o CUMMINGS PROPERTIES, LLC
200 WEST CUMMINGS PARK
WOBURN, MA 01801
(781) 935-8000

CIVIL ENGINEER:

MARK SLEGER - MA REG. 34407
ALAN ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444

ARCHITECT:

MICHAEL A. AVENI - MA REG. 31349
ATLANTIC BOSTON CONSTRUCTION, INC.
200 WEST CUMMINGS PARK
WOBURN, MA 01801
(781) 935-8000


SPECIAL PERMIT

APPROVED BY THE CITY OF
BEVERLY PLANNING BOARD

_____ CHAIRMAN

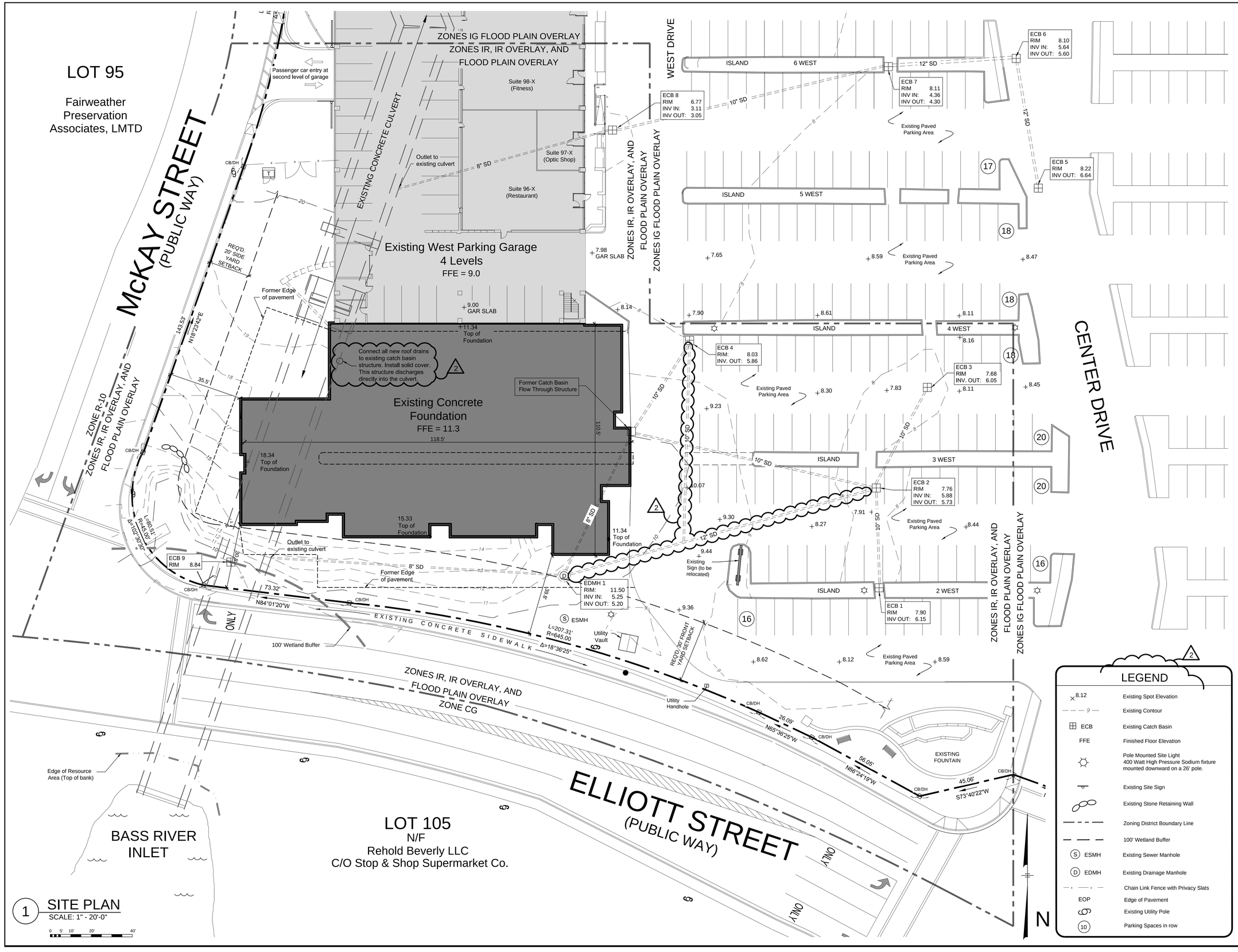
# Issued for Special Permit and Site Plan Review

## January 30, 2015

Revised May 15, 2015

## LIST OF DRAWINGS

| SHEET NO. | TITLE | DATE ISSUED | REVISION DATE |
|---|---|---|---|
| ---- | TITLE SHEET | 01/30/15 | 05/15/15 |
| C-0 | EXISTING CONDITIONS PLAN | 01/30/15 | 05/15/15 |
| C-1 | SCHEMATIC SITE PLAN | 01/30/15 | 05/15/15 |
| C-2 | GRADING AND DRAINAGE PLAN | 01/30/15 | 05/15/15 |
| C-3 | UTILITY PLAN | 01/30/15 | 05/15/15 |
| C-4 | LANDSCAPE PLAN | 01/30/15 | 05/15/15 |
| C-5 | SCHEMATIC SITE LIGHTING PLAN | 04/10/15 | 05/15/15 |
| C-6 | BUILDING HEIGHT STUDY | 04/10/15 | |
| C-7 | CONSTRUCTION DETAILS | 05/15/15 | |
| A-1 | SCHEMATIC PLAN | 01/30/15 | 04/10/15 |
| A-2 | SCHEMATIC ELEVATIONS | 01/30/15 | 04/10/15 |




1 SITE PLAN
SCALE: 1" - 20'-0"

0 5' 10' 20' 40'

## LEGEND

| | |
|---|---|
| 8.12 | Existing Spot Elevation |
| 9 | Existing Contour |
| ECB | Existing Catch Basin |
| FFE | Finished Floor Elevation |
| | Pole Mounted Site Light 400 Watt High Pressure Sodium fixture mounted downward on a 26' pole. |
| | Existing Site Sign |
| | Existing Stone Retaining Wall |
| | Zoning District Boundary Line |
| | 100' Wetland Buffer |
| S ESMH | Existing Sewer Manhole |
| D EDMH | Existing Drainage Manhole |
| | Chain Link Fence with Privacy Slats |
| EOP | Edge of Pavement |
| | Existing Utility Pole |
| 10 | Parking Spaces in row |

Notes:

1. Property line and setback information shown hereon is based on a plan titled *Plan of Land Located In Beverly Massachusetts (Essex County)* by Meridian Associates dated November 5, 2013.
2. Spot grade, catch basin and drainage information and additional contour information derrived from Alan Engineering site survey on March 19, 2015. Elevations shown are based on North American Vertical Datum (NAVD) of 1988.
3. A portion of the site lies in the Special Flood Hazard Zone AE with a base flood elevation of 10 (NAVD 1988). See FEMA Flood Insurance Rate Map (FIRM) number 25009C0417G, effective date July 16, 2014.

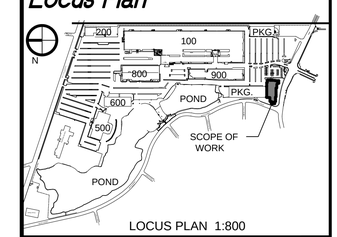
PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

PREPARED BY:

ALAN
ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444
alan.eng@verizon.net

Locus Plan




LOCUS PLAN 1:800

| NO. | BY | APP | DATE | DESCRIPTION |
|---|---|---|---|---|
| 2 | BFC | | 05/15/15 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS |
| 1 | BFC | | 04/10/15 | SITE PLAN REVIEW RESUBMITTAL |

| | | | |
|---|---|---|---|
| DATE: | 01/30/15 | DRAWN BY: | BFC |
| SCALE: | 1"=20'-0" | CHECK BY: | MAS |

PROJECT:

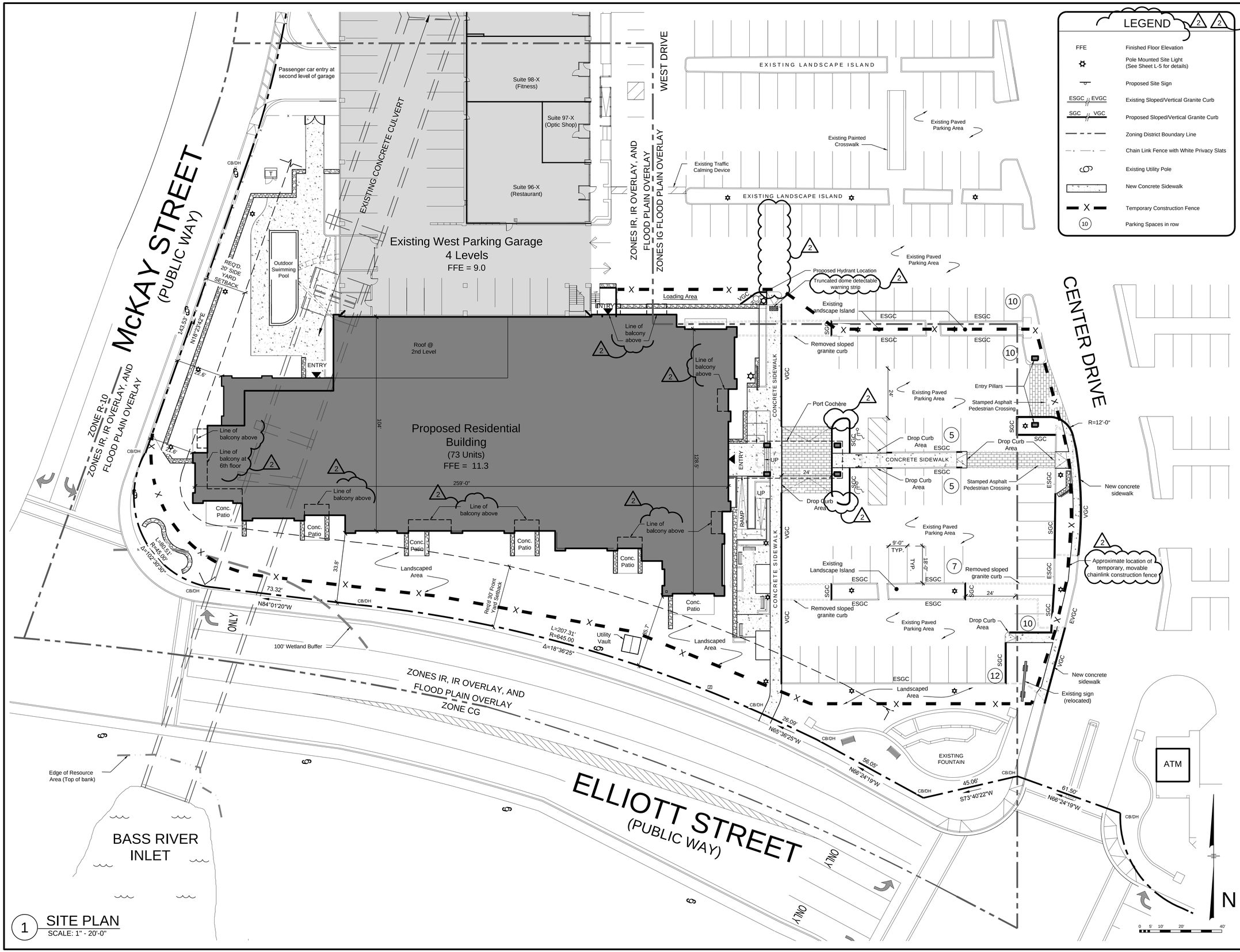
Site Plan Review
201 Elliott Street
Residential Developement
Beverly, Massachusetts

# Existing Conditions Site Plan

PROJECT NO.:

SHEET: C-0

a:\CPM_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg




1 SITE PLAN
SCALE: 1" - 20'-0"

## LEGEND

| | |
|---|---|
| FFE | Finished Floor Elevation |
| | Pole Mounted Site Light (See Sheet L-5 for details) |
| | Proposed Site Sign |
| ESGC EVGC | Existing Sloped/Vertical Granite Curb |
| SGC VGC | Proposed Sloped/Vertical Granite Curb |
| | Zoning District Boundary Line |
| | Chain Link Fence with White Privacy Slats |
| | Existing Utility Pole |
| | New Concrete Sidewalk |
| X | Temporary Construction Fence |
| 10 | Parking Spaces in row |

## BEVERLY ZONING ORDINANCES AMENDED THROUGH SEPTEMBER 2014

**ZONING DISTRICT - RESTRICTED INDUSTRIAL, RESEARCH AND OFFICE (IR OVERLAY)**

| | EXISTING | REQUIRED/ ALLOWED | PROPOSED |
|---|---|---|---|
| LOT AREA (MIN) | 71.61 ACRES | 2 ACRES | 71.61 ACRES |
| | (3,119,331 S.F.±) | (87,120 S.F.) | (3,119,331 S.F.±) |
| LOT FRONTAGE (ELLIOTT STREET) | 574.61' | 225' | 574.61' |
| FRONT YARD SETBACK | 134.1'± | 30' | 30.8'± (201 Elliott) |
| SIDE YARD SETBACK | 20.5'± (W. Garage) | 20' | 20.5'± (201 Elliott) |
| REAR YARD SETBACK | 26'± (N.W. Garage) | 25' | 26'± (N.W. Garage) |
| MAXIMUM LOT COVERAGE | | | |
| BUILDINGS | 25.9 % | 40 % | 26.7 % |
| BUILDINGS & PARKING | 58.0 % | 60 % | 58.0 % |
| BUILDING HEIGHT (MAX) | 75'± ★ | 60' | 60' |

**PARKING**

| | | | |
|---|---|---|---|
| SURFACE SPACES | 2699 | — | 2586 |
| STRUCTURED SPACES | 1772 | — | 1772 |
| HANDICAP SPACES **** | 81 | 55 | 83 |
| TOTAL | 4472 | 3268 ** 3414 *** | 4423 |

★ @ 100 Cummings Center
** Pre Construction: See March 31, 2008 letter from CPL to Building Commissioner Steve Fredrickson, also see June 18, 2008 letter from Building Commissioner Steve Fredrickson to CPL.
*** Post Construction
**** Per 521 CMR section 23.2.1

Notes:
1. Property line and setback information shown hereon is based on a plan titled *Plan of Land Located In Beverly Massachusetts (Essex County)* by Meridian Associates dated November 5, 2013.

PREPARED FOR:
Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

PREPARED BY:
ALAN ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444
alan.eng@verizon.net

| NO. | BY | APP | DATE | DESCRIPTION |
|---|---|---|---|---|
| 2 | BFC | | 05/15/15 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS |
| 1 | BFC | | 04/10/15 | SITE PLAN REVIEW RESUBMITTAL |

| | | | |
|---|---|---|---|
| DATE: | 01/30/15 | DRAWN BY: | BFC |
| SCALE: | 1"=20'-0" | CHECK BY: | MAS |

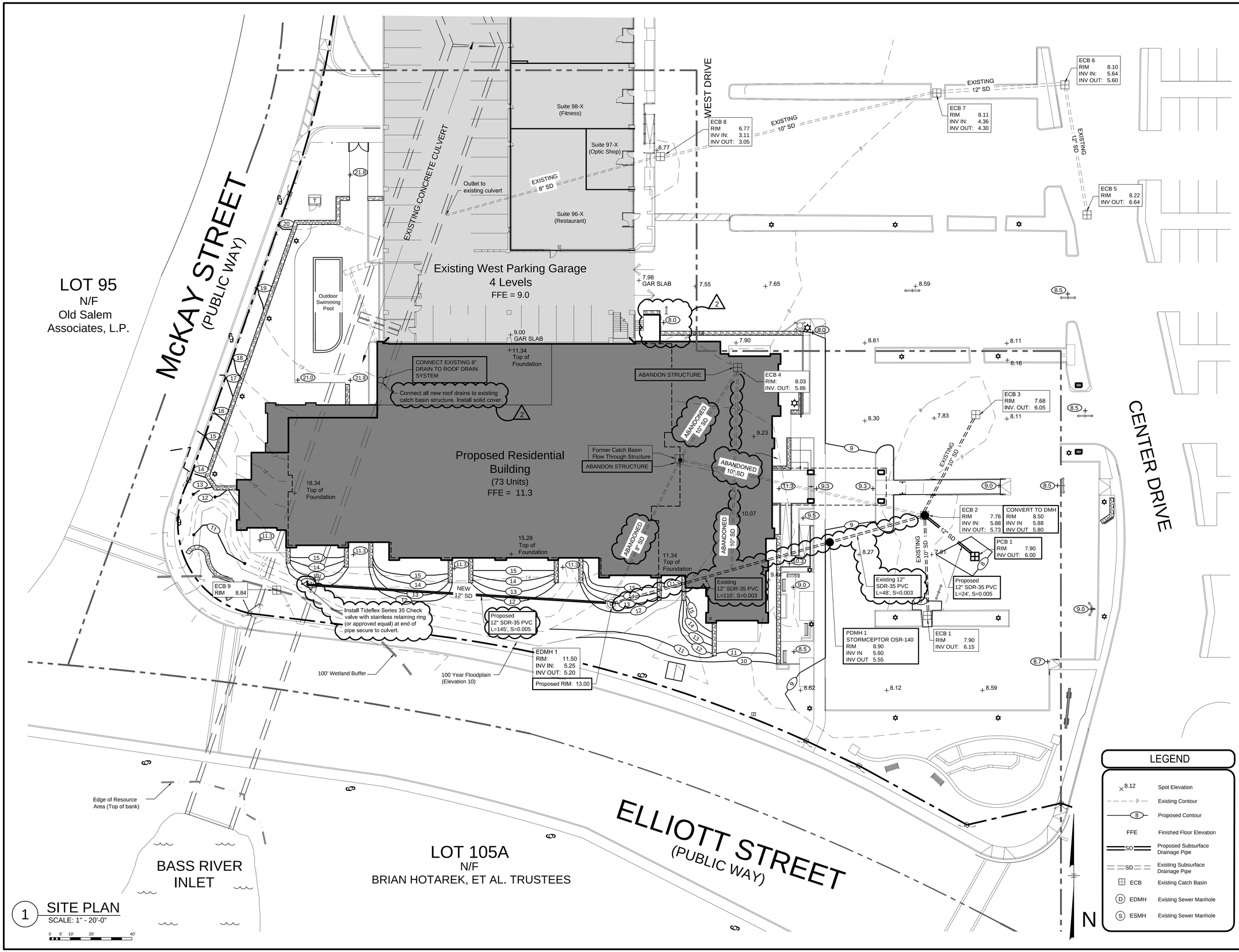
PROJECT:
Site Plan Review
201 Elliott Street
Residential Developement
Beverly, Massachusetts

# Schematic Site Plan

PROJECT NO.:

SHEET: C-1

J:\CPM_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg



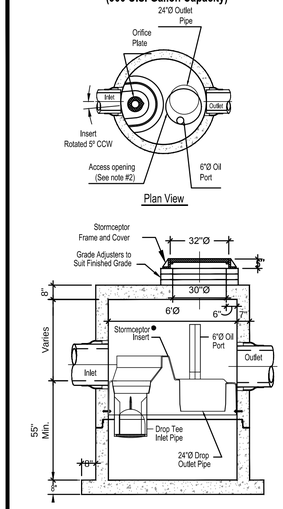

1 SITE PLAN
SCALE: 1" - 20'-0"

0 5' 10' 20' 40'

## LEGEND

| | |
|---|---|
| 8.12 | Spot Elevation |
| 9 | Existing Contour |
| 8 | Proposed Contour |
| FFE | Finished Floor Elevation |
| SD | Proposed Subsurface Drainage Pipe |
| SD | Existing Subsurface Drainage Pipe |
| ECB | Existing Catch Basin |
| D EDMH | Existing Sewer Manhole |
| S ESMH | Existing Sewer Manhole |

**OSR 140 Precast Concrete Stormceptor®**
**(900 U.S. Gallon Capacity)**




Notes:
1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148 #5498331, #5725760, #5753115, #5849181, #6066765, #6371690, OSR Patent Pending.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

PREPARED BY:

ALAN
ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444
alan.eng@verizon.net

| NO. | BY | APP | DATE | DESCRIPTION |
|---|---|---|---|---|
| 2 | BFC | | 05/15/15 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS |
| 1 | BFC | | 04/10/15 | SITE PLAN REVIEW RESUBMITTAL |

| | | | |
|---|---|---|---|
| DATE: | 01/30/15 | DRAWN BY: | BFC |
| SCALE: | 1"=20'-0" | CHECK BY: | MAS |

PROJECT:

Site Plan Review

201 Elliott Street
Residential Developement
Beverly, Massachusetts

# Grading and Drainage Plan

PROJECT NO.:

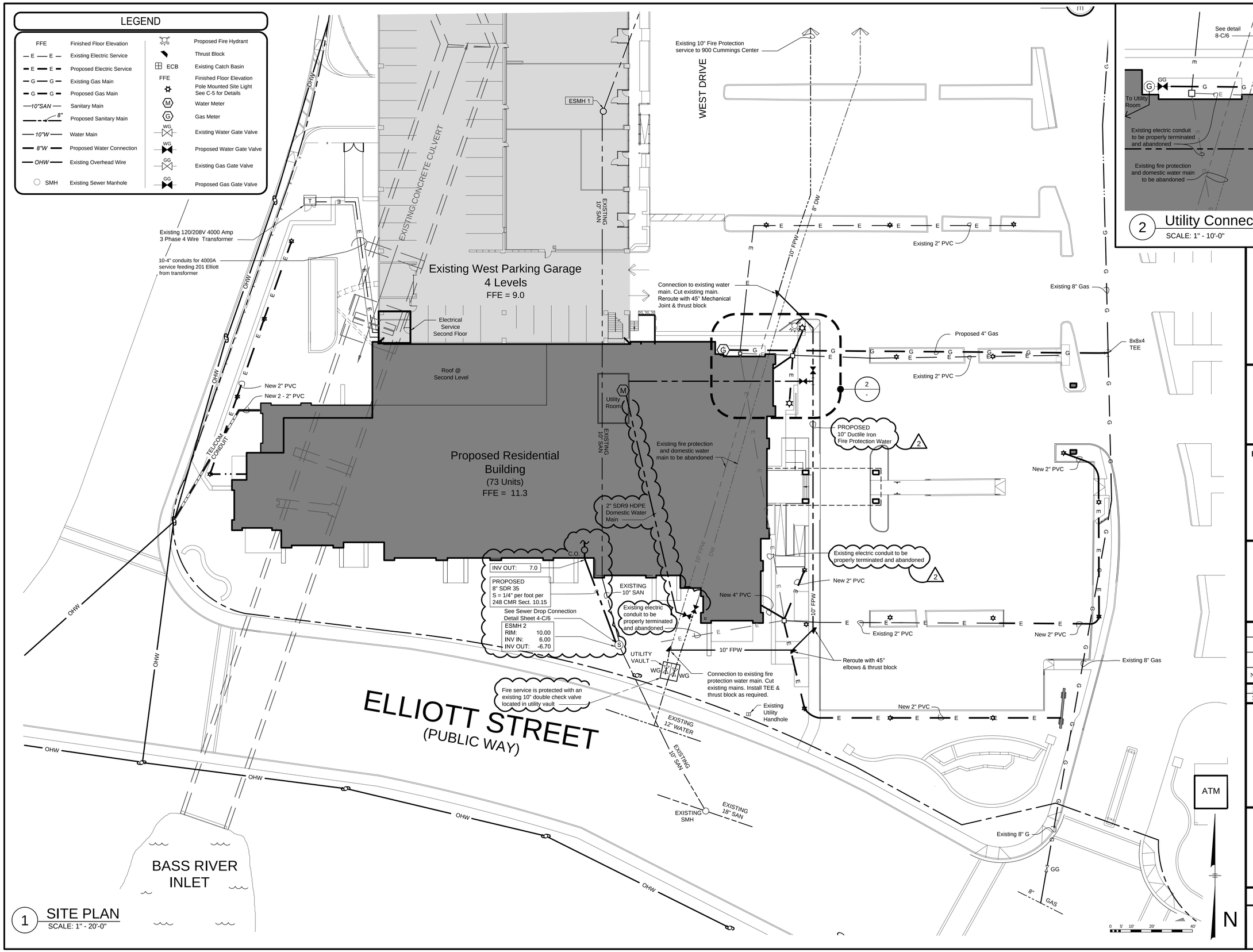
SHEET:

C-2

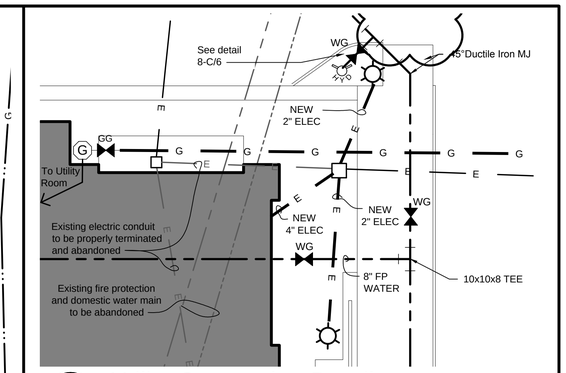
J:\CPMI_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg

## LEGEND

| | |
|---|---|
| FFE | Finished Floor Elevation |
| — E — E — | Existing Electric Service |
| — E — E — | Proposed Electric Service |
| — G — G — | Existing Gas Main |
| — G — G — | Proposed Gas Main |
| —10"SAN— | Sanitary Main |
| —8"— | Proposed Sanitary Main |
| —10"W— | Water Main |
| —8"W— | Proposed Water Connection |
| —OHW— | Existing Overhead Wire |
| SMH | Existing Sewer Manhole |
| | Proposed Fire Hydrant |
| | Thrust Block |
| ECB | Existing Catch Basin |
| FFE | Finished Floor Elevation |
| | Pole Mounted Site Light See C-5 for Details |
| M | Water Meter |
| G | Gas Meter |
| WG | Existing Water Gate Valve |
| WG | Proposed Water Gate Valve |
| GG | Existing Gas Gate Valve |
| GG | Proposed Gas Gate Valve |




1 SITE PLAN
SCALE: 1" - 20'-0"




2 Utility Connection Detail
SCALE: 1" - 10'-0"

Note: Final locations of water meter and sprinkler rooms to be determined.

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

PREPARED BY:


ALAN
ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444
alan.eng@verizon.net


| NO. | BY | APP | DATE | DESCRIPTION |
|---|---|---|---|---|
| 2 | BFC | | 05/15/15 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS |
| 1 | BFC | | 04/10/15 | SITE PLAN REVIEW RESUBMITTAL |

| | | | |
|---|---|---|---|
| DATE: | 01/30/15 | DRAWN BY: | BFC |
| SCALE: | 1"=20'-0" | CHECK BY: | MAS |

PROJECT:

Site Plan Review
201 Elliott Street
Residential Developement
Beverly, Massachusetts

# Utility Plan

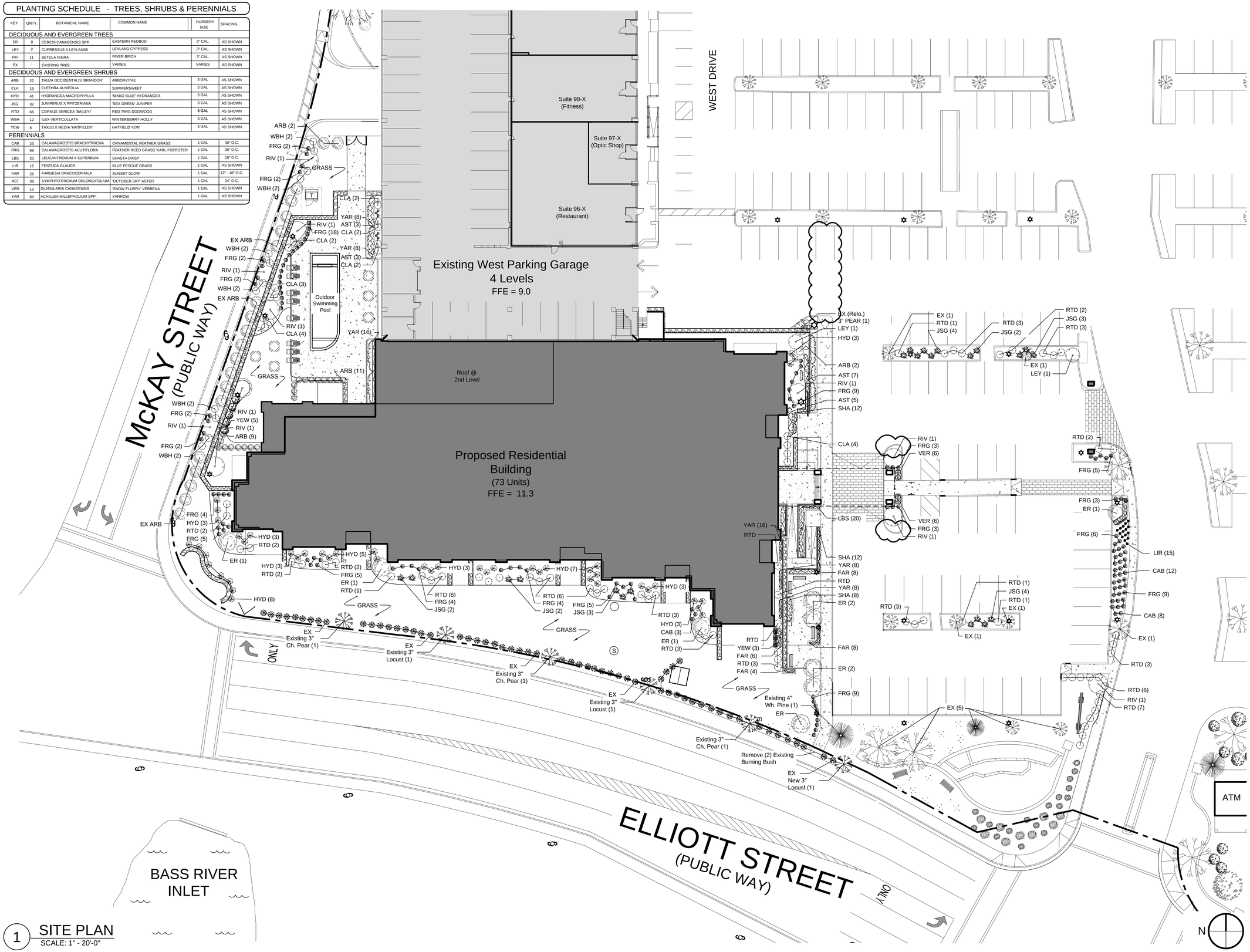
PROJECT NO.:

SHEET:
C-3

J:\DPM_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg

## PLANTING SCHEDULE - TREES, SHRUBS & PERENNIALS

| KEY | QNTY. | BOTANICAL NAME | COMMON NAME | NURSERY SIZE | SPACING |
|---|---|---|---|---|---|
| DECIDUOUS AND EVERGREEN TREES | | | | | |
| ER | 8 | CERCIS CANADENSIS SPP. | EASTERN REDBUD | 3" CAL. | AS SHOWN |
| LEY | 2 | CUPRESSUS X LEYLANDII | LEYLAND CYPRESS | 3" CAL. | AS SHOWN |
| RIV | 11 | BETULA NIGRA | RIVER BIRCH | 3" CAL. | AS SHOWN |
| EX | | EXISTING TREE | VARIES | VARIES | AS SHOWN |
| DECIDUOUS AND EVERGREEN SHRUBS | | | | | |
| ARB | 22 | THUJA OCCIDENTALIS 'BRANDON' | ARBORVITAE | 3 GAL | AS SHOWN |
| CLA | 19 | CLETHRA ALNIFOLIA | SUMMERSWEET | 3 GAL | AS SHOWN |
| HYD | 41 | HYDRANGEA MACROPHYLLA | 'NIKKO BLUE' HYDRANGEA | 3 GAL | AS SHOWN |
| JSG | 32 | JUNIPERUS X PFITZERIANA | 'SEA GREEN' JUNIPER | 3 GAL | AS SHOWN |
| RTD | 66 | CORNUS SERICEA 'BAILEYI' | RED TWIG DOGWOOD | **3 GAL** | AS SHOWN |
| WBH | 12 | ILEX VERTICILLATA | WINTERBERRY HOLLY | 3 GAL | AS SHOWN |
| YEW | 8 | TAXUS X MEDIA 'HATFIELDII' | HATFIELD YEW | 3 GAL | AS SHOWN |
| PERENNIALS | | | | | |
| CAB | 23 | CALAMAGROSTIS BRACHYTRICHA | ORNAMENTAL FEATHER GRASS | 1 GAL | 30" O.C. |
| FRG | 99 | CALAMAGROSTIS ACUTIFLORA | FEATHER REED GRASS 'KARL FOERSTER' | 1 GAL | 30" O.C. |
| LBS | 20 | LEUCANTHEMUM X SUPERBUM | SHASTA DAISY | 1 GAL | 18" O.C. |
| LIR | 15 | FESTUCA GLAUCA | BLUE FESCUE GRASS | 1 GAL | AS SHOWN |
| FAR | 26 | FARGESIA DRACOCEPHALA | SUNSET GLOW | 1 GAL | 12" - 16" O.C. |
| AST | 38 | SYMPHYOTRICHUM OBLONGIFOLIUM | 'OCTOBER SKY' ASTER | 1 GAL | 24" O.C. |
| VER | 12 | GLADULARIA CANADENSIS | 'SNOW FLURRY' VERBENA | 1 GAL | AS SHOWN |
| YAR | 64 | ACHILLEA MILLEPHOLIUM SPP. | YARROW | 1 GAL | AS SHOWN |




1 SITE PLAN
SCALE: 1" - 20'-0"

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

| REV. # | DESCRIPTION | DATE |
|---|---|---|
| 2 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS | 05/15/15 |
| 1 | SITE PLAN REVIEW RESUBMITTAL | 04/10/15 |

Cummings Properties
200 West Cummings Park, Woburn, MA 01801 (781) 935-8000

STAMP:

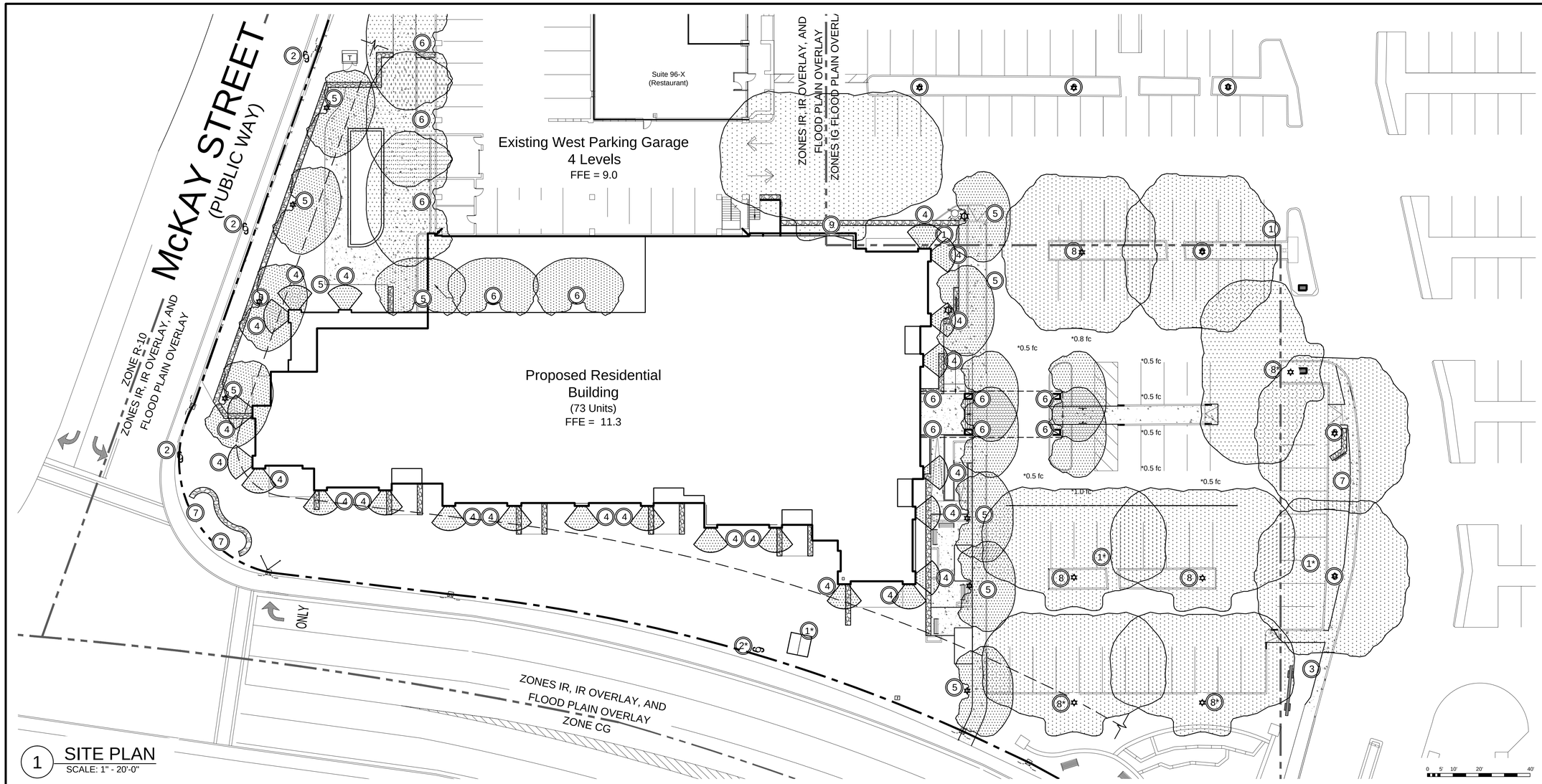
ARCHITECT:
Michael A. Aveni
Atlantic Boston Construction, Inc
200 West Cummings Park
Woburn, MA 01801

SCALE: As Noted
DRAWN: BFC
CHK'D:
DATE: JANUARY 30, 2015

PROJECT:
Site Plan Review
201 Elliott Street
Mixed-Use Residential Building
Beverly, Massachusetts

DRAWING TITLE:
LANDSCAPE
PLAN

DRAWING #:
C-4

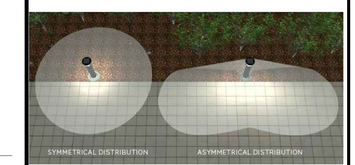



1 SITE PLAN
SCALE: 1" - 20'-0"

Notes:

1. Lighting fixtures shown are indicative of style only. Specific fixtures subject to change at discression of architect.
2. Photometry shown on plan represents an approximate 1 footcandle light distribution on the ground based on fixture mounting height and manufacturer specifications. See below for symmetrical and asymmetrical distribution diagram.

Type V Distribution — Type III Distribution



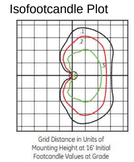

- Distribution Diagram
SCALE: NTS

1 400 W High Pressure Sodium
Existing 40' Pole with Downlight (To be Removed)

1* 400 W High Pressure Sodium
Existing 26' Pole with Spotlight (To Be Removed)

3 Flourescent
(2) Relocated Horizontal Sign Lighting

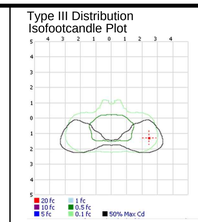
Isofootcandle Plot




5 36W - 40W LED Bulb (Type III Asymtrical Lens Dispersion)
Pole Mounted Pathway Area Lights on 12' Post

7 75W Halogen **or** 10W LED
Outdoor Display Luminaire

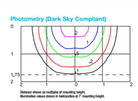
Type III Distribution
Isofootcandle Plot



9 40W LED
Outdoor LED Wall Pack

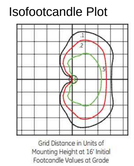
2 Existing Municipal Cobrahead Streetlight

2* Existing Municipal Cobrahead Streetlight



4 (2) 15W LED Bulb (1 bulb up, 1 bulb down)
Exterior Wall Sconce - Mounted at 2nd Story

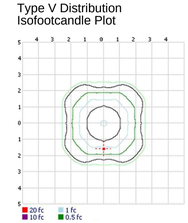
Isofootcandle Plot



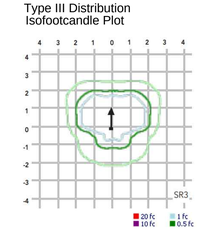

6 36W - 40W LED Bulb (Type III Asymtrical Lens Dispersion)
Wall Mounted Entryway Lights

8 110W LED (Type V Dispersion)
LED Post Top Area Light on 20' Post
8* (Type III Asymetrical Lens Dispersion)

Type V Distribution
Isofootcandle Plot




Type III Distribution
Isofootcandle Plot




PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

| REV. # | DESCRIPTION | DATE |
|---|---|---|
| 1 | REVISIONS PER ENGINEERING DEPARTMENT COMMENTS | 05/15/15 |

Cummings Properties
200 West Cummings Park, Woburn, MA 01801 (781) 935-8000

STAMP:

ARCHITECT:
Michael A. Aveni
Atlantic Boston Construction, Inc
200 West Cummings Park
Woburn, MA 01801

SCALE: As Noted
DRAWN: BFC
CHK'D:
DATE: APRIL 10, 2015

PROJECT:

Site Plan Review

201 Elliott Street
Mixed-Use Residential Building
Beverly, Massachusetts

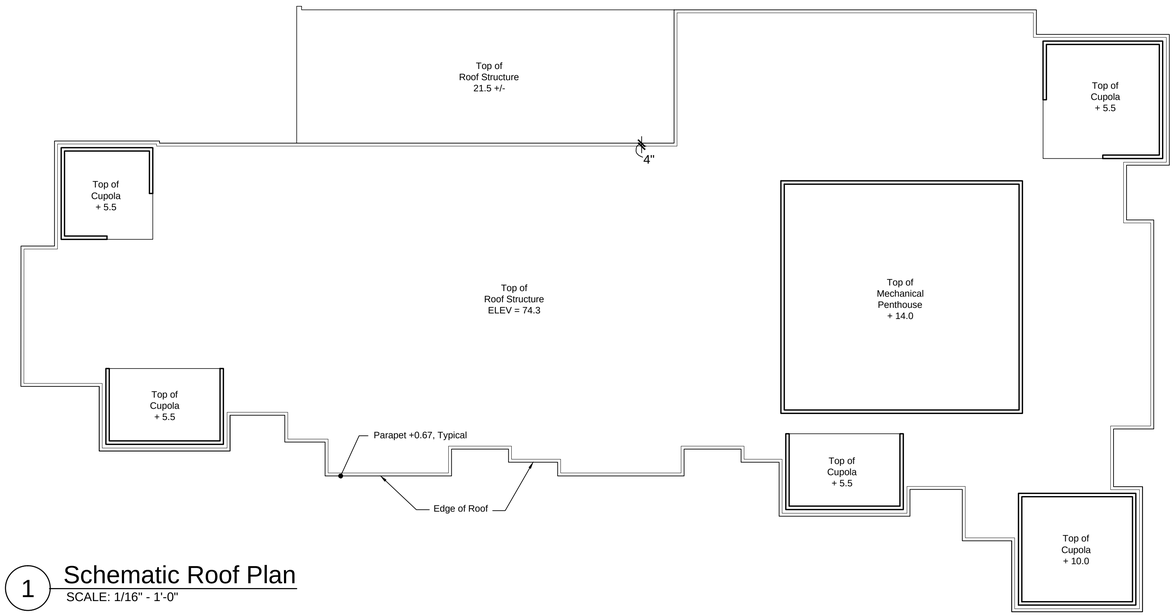
DRAWING TITLE:

SCHEMATIC SITE LIGHTING PLAN

DRAWING #:

C-5

J:\CPMI_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg

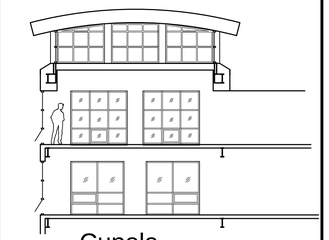



1 Schematic Roof Plan
SCALE: 1/16" - 1'-0"

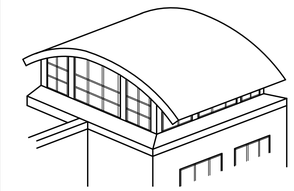
2 Partial South Elevation
SCALE: 1/16" - 1'-0"



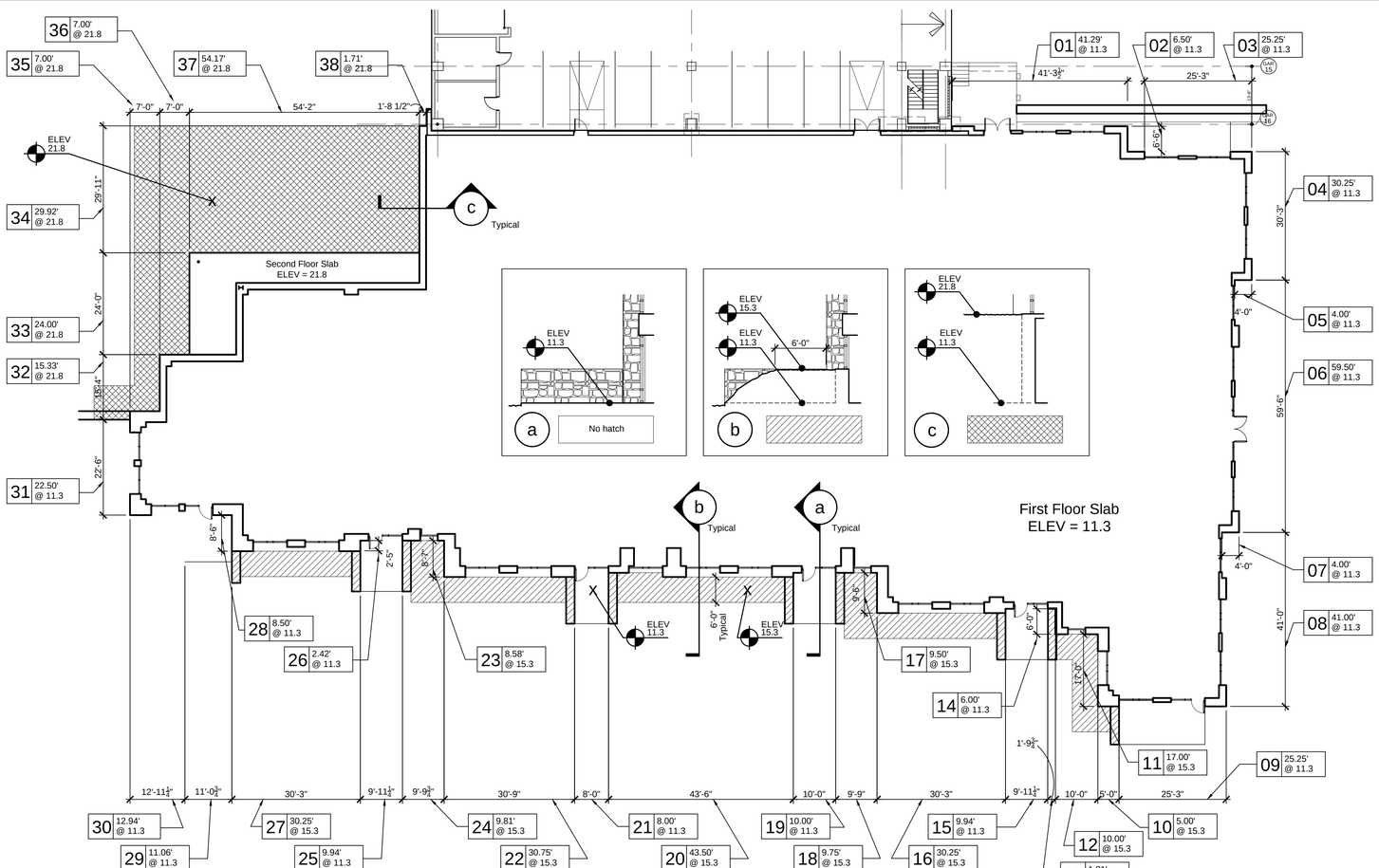

3 Partial East Elevation
SCALE: 1/16" = 1'-0"



4 Cupola Section
SCALE: 1/16" = 1'-0"



5 Cupola Isometric Sketch
SCALE: NTS




6 Perimeter Grade Plan
SCALE: 1/16" - 1'-0"

## Notes:

1. Building height is calculated in compliance with "HEIGHT" definition in Beverly Zoning Ordinance Section 38-2. Average grade calculations (see below), are also in compliance with this section.
2. All grades indicated are measured six feet from the building, consistent with 2009 International Building Code Section 502.1 ("GRADE PLANE" definition).
3. Mechanical penthouse, parapets, and cupolas are consistent with "Height Exceptions" provided in Beverly Zoning Ordinance Section 38-5.E.2.

1. First floor elevation 11.3 taken from actual field survey. See 'Site Plan Review' submission dated April 10, 2015 for additional information.

## Average Grade Calculations:

### Average grade at FOOTPRINT:

| a # ELEV 11.3 Grade | | b # ELEV 15.3 Grade | | c # ELEV 21.8 Grade | |
|---|---|---|---|---|---|
| 01 | 41.29 | 10 | 5.00 | 32 | 15.33 |
| 02 | 6.5 | 11 | 17.00 | 33 | 24.00 |
| 03 | 25.25 | 12 | 10.00 | 34 | 29.92 |
| 04 | 30.25 | 13 | 1.81 | 35 | 7.00 |
| 05 | 4.00 | 16 | 30.25 | 36 | 7.00 |
| 06 | 59.5 | 17 | 9.50 | 37 | 54.17 |
| 07 | 4.00 | 18 | 9.75 | 38 | 1.71 |
| 08 | 41.00 | 20 | 43.50 | | |
| 09 | 25.25 | 22 | 30.75 | | |
| 14 | 6.00 | 23 | 8.58 | | |
| 15 | 9.94 | 24 | 9.81 | | |
| 19 | 10.00 | 27 | 30.25 | | |
| 21 | 8.00 | | | | |
| 25 | 9.94 | | | | |
| 26 | 2.42 | | | | |
| 28 | 8.5 | | | | |
| 29 | 11.06 | | | | |
| 30 | 12.94 | | | | |
| 31 | 22.5 | | | | |
| | 338.34 | | 206.20 | | 139.13 = 683.67 |
| | 338.34 x 11.3 =3,823.24 | | 206.20 x 15.3 =3,154.86 | | 139.13 x 21.8 =3,033.03 |
| | 3,823.24 | + | 3,154.86 | + | 3,033.03 = 10,011.13 / 683.67 |

### Average grade at FRONT:

| a # ELEV 11.3 Grade | | b # ELEV 15.3' Grade | |
|---|---|---|---|
| 09 | 25.25 | 10 | 5.00 |
| 14 | 6.00 | 11 | 17.00 |
| 15 | 9.94 | 12 | 10.00 |
| 19 | 10.00 | 13 | 1.81 |
| 21 | 8.00 | 16 | 30.25 |
| 25 | 9.94 | 17 | 9.50 |
| 26 | 2.42 | 18 | 9.75 |
| 28 | 8.50 | 20 | 43.50 |
| 29 | 11.06 | 22 | 30.75 |
| 30 | 12.94 | 23 | 8.58 |
| | | 24 | 9.81 |
| | | 27 | 30.25 |
| | = 104.04 | | = 206.20 = 310.24 |
| | 104.04 x 11.3 =1,175.65 | | 206.20 x 15.3 =3,154.86 |
| | 1,175.65 | + | 3,154.86 = 4330.51 / 310.24 |

Average grade at FOOTPRINT:
= ELEV 14.64
MOST RESTRICTIVE, therefore; average grade is 3.34 above first floor slab.

Average grade at FRONT:
= ELEV 13.96
LEAST RESTRICTIVE, use footprint calculations.

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

| REV. # | DESCRIPTION | DATE |
|---|---|---|
| 1 | SITE PLAN REVIEW RESUBMITTAL | 04/10/15 |

Cummings Properties
200 West Cummings Park, Woburn, MA 01801 (781) 935-8000

STAMP:

ARCHITECT:
Michael A. Aveni
Atlantic Boston Construction, Inc
200 West Cummings Park
Woburn, MA 01801

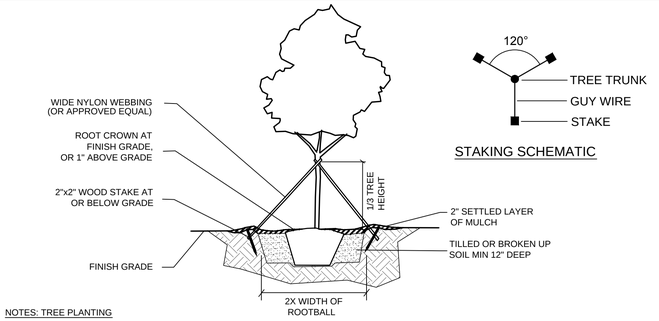
SCALE: As Noted
DRAWN: JYD
CHK'D:
DATE: APRIL 10, 2015

PROJECT:
201 Elliott Street
Mixed-Use Residential Building
Beverly, Massachusetts

DRAWING TITLE:
BUILDING HEIGHT STUDY

DRAWING #:
C-6

J:\CPMI_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_04-10-15_C-6

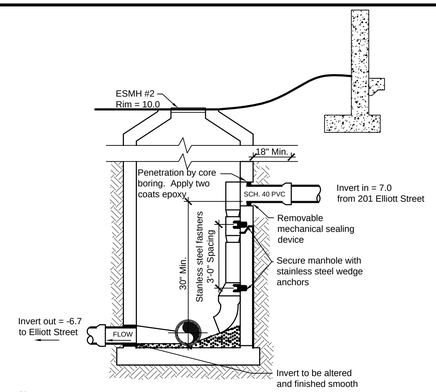



NOTES: TREE PLANTING

1. Dig the planting hole a minimum of 2x width of rootball and Scarify the subgrade and sides of the planting hole when planting in clay soils (more than 15% clay).
2. Lift and set the tree by root ball only. Do not lift using the tree trunk and do not use tree trunk as a lever.
3. Set the top of the root ball level with the soil surface or slightly higher if the soil is prone to settling.
4. After the tree is set in place, remove burlap, wire and straps from the upper 1/3 of the rootball.
5. Backfill with existing soil that has been well-tilled or broken up. Do not add amendments to the backfill soil. amend the surface with mulch.
6. Drive three 2" x 2" wood stakes into undisturbed soil a minimum of 16 inches. Space stakes equally around the tree.
7. Attach 3/4" nylon webbing to connect the tree to stakes. attach webbing at 1/3 the overall tree height.
8. Apply a 2-3" (settled) depth of bark mulch to the planting surface. Leave a 3" space around the trunk for air circulation.
9. Remove any trunk wrap remaining at time of planting. no wraps shall be placed on trunk.

## 1 Tree Planting Detail

Scale: NTS

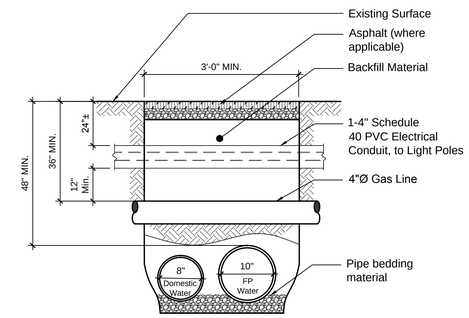



Notes:

1. All piping entering existing structures shall be accomplished by mechanical rotary core boring the manhole riser. After installation of the piping, the annular space between piping and concrete shall be sealed with link-seal, thunderline seals or approved equal.
2. All fittings shall be Schedule 40 PVC as well as drop pipe.

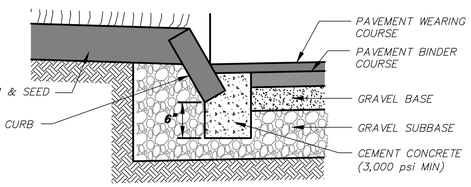
## 2 Drop Sewer Connection Detail

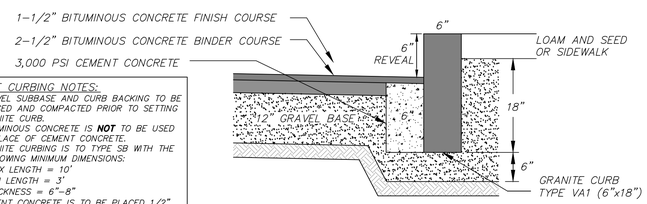
Scale: NTS




## 3 Utility Crossing Detail

Scale: NTS



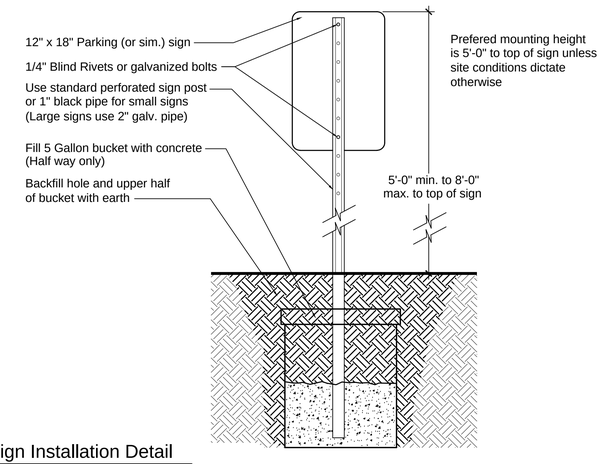




GRANITE CURBING NOTES:

1. GRAVEL SUBBASE AND CURB BACKING TO BE PLACED AND COMPACTED PRIOR TO SETTING GRANITE CURB.
2. BITUMINOUS CONCRETE IS **NOT** TO BE USED IN PLACE OF CEMENT CONCRETE.
3. GRANITE CURBING IS TO TYPE SB WITH THE FOLLOWING MINIMUM DIMENSIONS:
   MAX LENGTH = 10'
   MIN LENGTH = 3'
   THICKNESS = 6"–8"
4. CEMENT CONCRETE IS TO BE PLACED 1/2" BELOW THE LEVEL OF THE BINDER COURSE TO FORM A LIP.

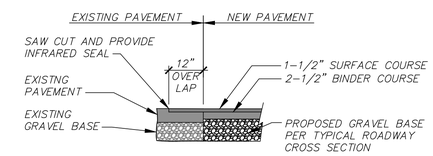
## 4 Vertical and Sloped Granite Curb Details

Scale: NTS



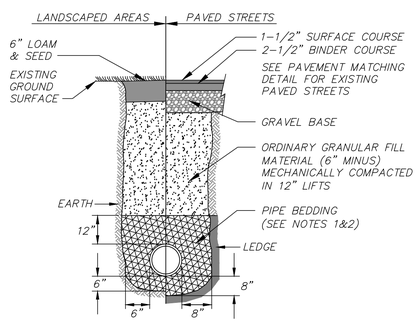

## 5 Sign Installation Detail

Scale: NTS




## 6 Pavement Matching Detail

Scale: NTS

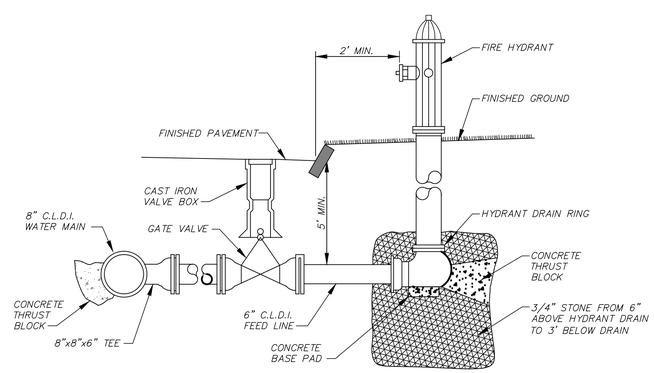



NOTES:

1. PIPE BEDDING MATERIAL TO BE AS FOLLOWS:
   - FOR CLDI WATER MAINS USE SAND
   - FOR PVC AND HDPE PIPING USE 3/4" CRUSHED STONE
   - FOR RCP USE SUITABLE GRANULAR FILL (2" MINUS)
2. FOR ANTI-SEEP COLLAR SUBSTITUTE BEDDING MATERIAL WITH BENTONITE FOR A DISTANCE OF 24 INCHES ALONG THE TRENCH.

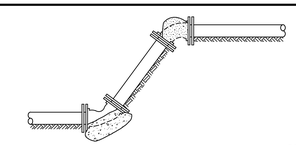
## 7 Typical Trench Section

Scale: NTS



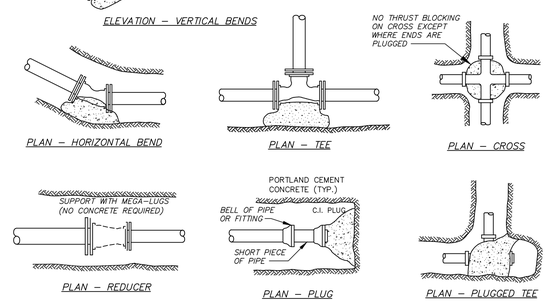

## 8 Schematic Hydrant Connection Detail

Scale: NTS



MINIMUM THRUST BLOCK BEARING AREAS IN SQUARE FEET

| PIPE SIZE | 90° | 45° | 22½° | TEES |
|---|---|---|---|---|
| 6" | 3 | 2 | 2 | 2 |
| 8" | 4 | 3 | 2 | 3 |
| 10" | 6 | 4 | 3 | 4 |
| 12" | 8 | 5 | 3 | 6 |
| 14" | 12 | 7 | 4 | 8 |
| 16" | 16 | 10 | 6 | 12 |




NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE SPCIFICATIONS OF THE BEVERLY WATER DEPARTMENT.
2. CONCRETE SHALL BE 3,000 PSI MINIMUM AT 28 DAYS.
3. THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED EARTH.
4. ALL FITTINGS (EXCEPT AS INDICATED) SHALL BE SUPPORTED AND ANCHORED IN CONCRETE AND WITH "MEGALUG JOINT RESTRAINTS" OR APPROVED EQUAL.
5. FOR FIRE HYDRANT THRUSTING SEE HYDRANT CONNECTION DETAIL.
6. POURED CONCRETE SHALL BE KEPT 6" CLEAR OF MECHANICAL JOINTS TO ALLOW FOR FUTURE REPAIR OR REMOVAL.
7. RETAINER GLANDS REQUIRED ON ALL BENDS.
8. ALL MECHANICAL JOINT GLANDS SHALL BE WEDGE-ACTION LOCKING RESTRAINT TYPE.
9. BELL ENDS OF PUSH-ON PIPE WITHIN 30 FEET OF THE TERMINATION OF THE WATER MAIN OR EITHER SIDE OF A 90-DEGREE BEND SHALL BE MECHANICALLY RESTRAINED. (FIELD-LOC GASKETS, RODS AND RESTRAINT CLAMPS OF SET SCREW PLUG)
10. BRONZE CONDUCTIVITY WEDGES (2) SHALL BE INSTALLED AT EACH BELL JOINT.
11. THE TAPPING SLEEVE SHALL BE ALL STAINLESS STEEL WRAP-AROUND TYPE.

## 9 Water Main Details

Scale: NTS

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000


PREPARED BY:

ALAN ENGINEERING, L.L.C.
288 LITTLETON ROAD, SUITE 31
WESTFORD, MA 01886
(978) 577-6444
alan.eng@verizon.net


| NO. | BY | APP | DATE | DESCRIPTION |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

| | | | |
|---|---|---|---|
| DATE: | 05/15/15 | DRAWN BY: | BFC |
| SCALE: | 1"=20'-0" | CHECK BY: | MAS |

PROJECT:

Site Plan Review

201 Elliott Street
Residential Developement
Beverly, Massachusetts

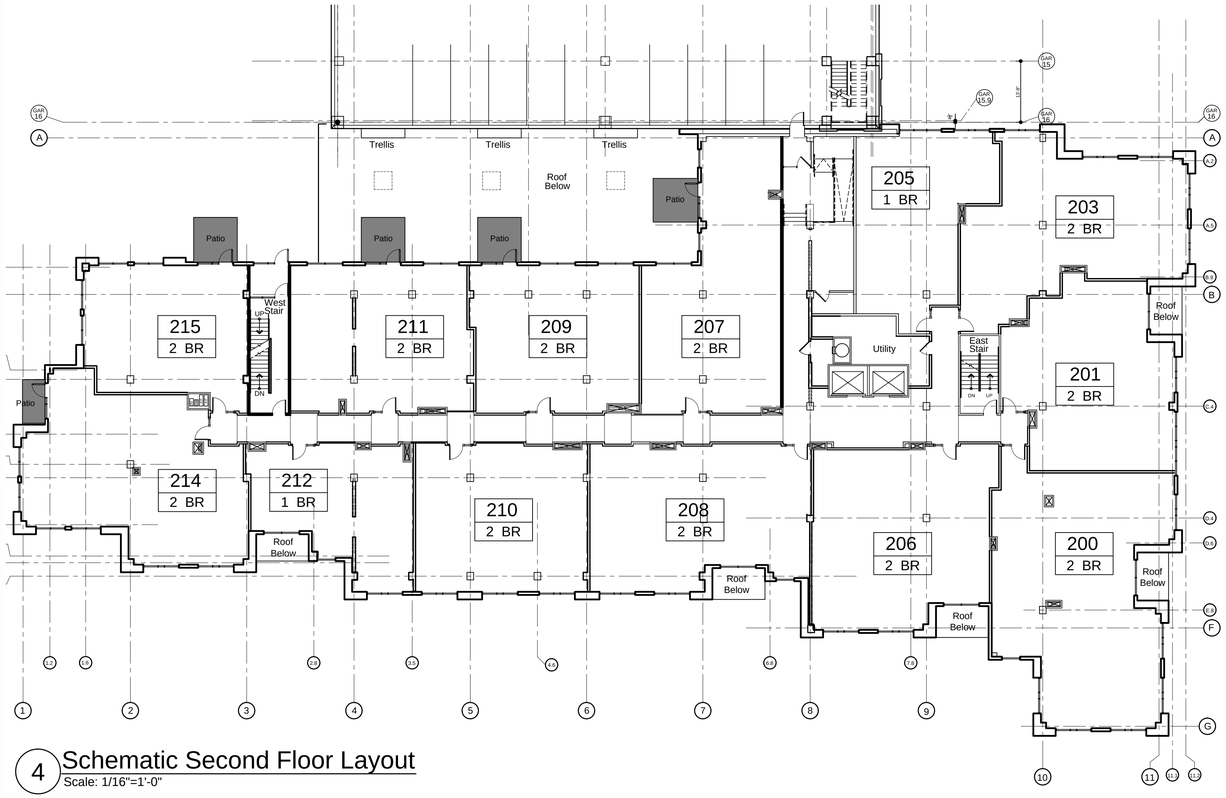
# Construction Details

PROJECT NO.:

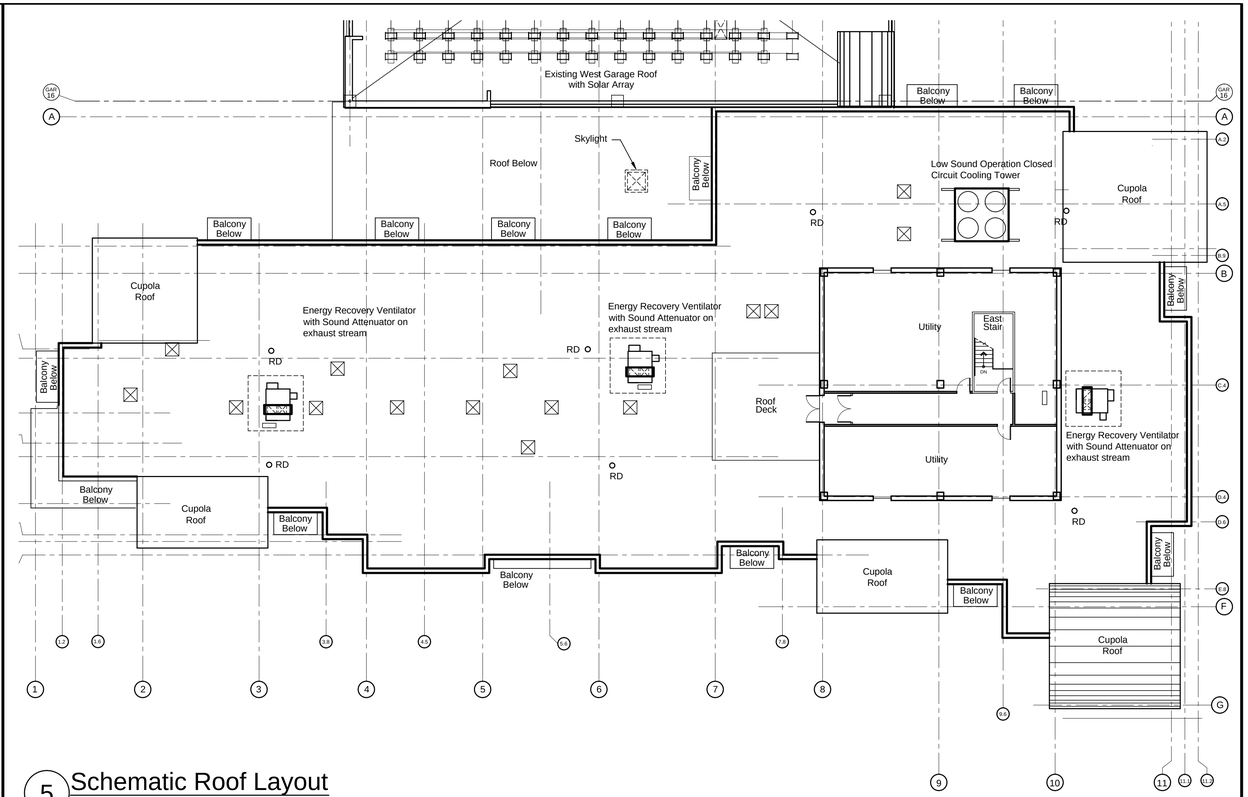
SHEET:

C-7

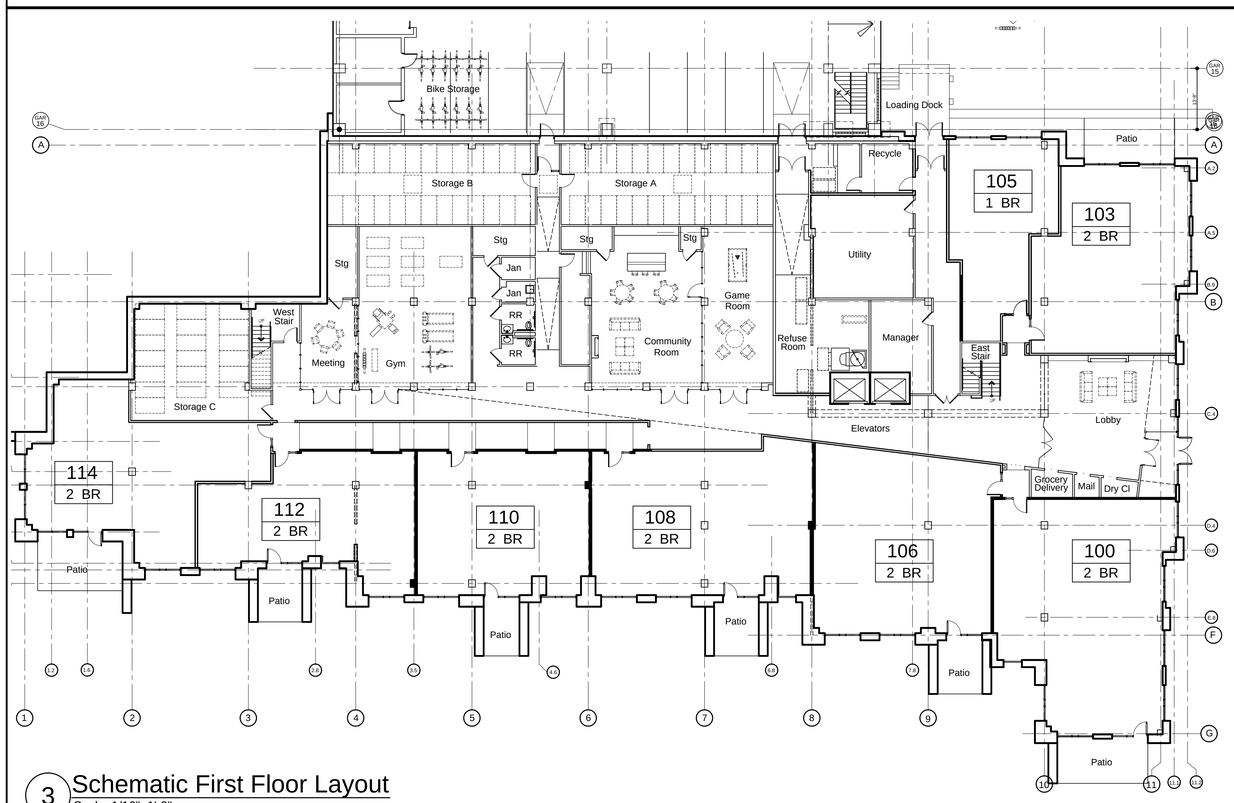
J:\CPML_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV#2-May2015\REV_2_5-15-15\SPR_05-15-15.dwg



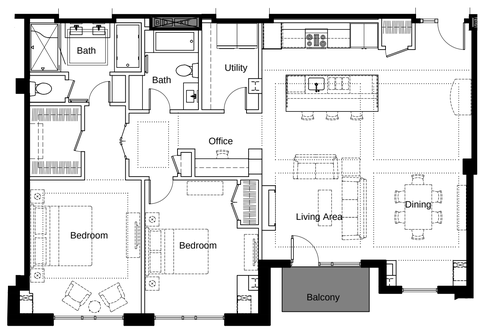

4 Schematic Second Floor Layout
Scale: 1/16"=1'-0"



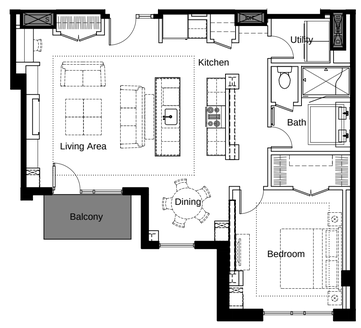

5 Schematic Roof Layout
Scale: 1/16"=1'-0"




3 Schematic First Floor Layout
Scale: 1/16"=1'-0"




2 Sample - 2 Bedroom Unit
Scale: 1/8" = 1'-0"




1 Sample - 1 Bedroom Unit
Scale: 1/8" = 1'-0"

Notes:

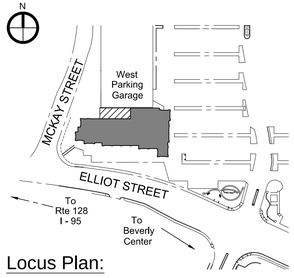
1. This building will contain 73 new dwelling units. Applicant has submitted an *Inclusionary Housing Application* and a *Special Permit Application* requesting to pay a fee to the Beverly Affordable Housing Trust Fund in lieu of including on-site affordable units.

2. Plans and elevations represent schematic layouts only. No representation is made as to final interior layout.

Units

| | 1 Bedroom | 2 Bedroom |
|---|---|---|
| Floor 6 | 1 | 12 |
| Floor 5 | 1 | 12 |
| Floor 4 | 2 | 11 |
| Floor 3 | 1 | 12 |
| Floor 2 | 2 | 11 |
| Floor 1 | 1 | 7 |
| | 8 | 65 |

Total: 73 Units




Locus Plan:

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000

| REV. # | DESCRIPTION | DATE |
|---|---|---|
| 1 | SITE PLAN REVIEW RESUBMITTAL | 04/10/15 |

Cummings Properties
200 West Cummings Park, Woburn, MA 01801 (781) 935-8000

STAMP:

ARCHITECT:
Michael A. Aveni
Atlantic Boston Construction, Inc
200 West Cummings Park
Woburn, MA 01801

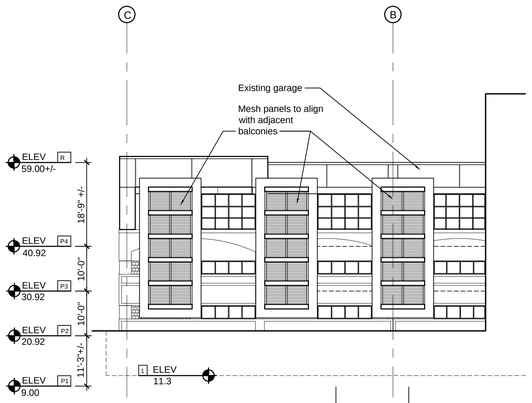
SCALE: As Noted
DRAWN: JYD
CHK'D:
DATE: JANUARY 30, 2015

PROJECT:
201 Elliott Street
Mixed-Use Residential Building
Beverly, Massachusetts

DRAWING TITLE:
SCHEMATIC PLANS

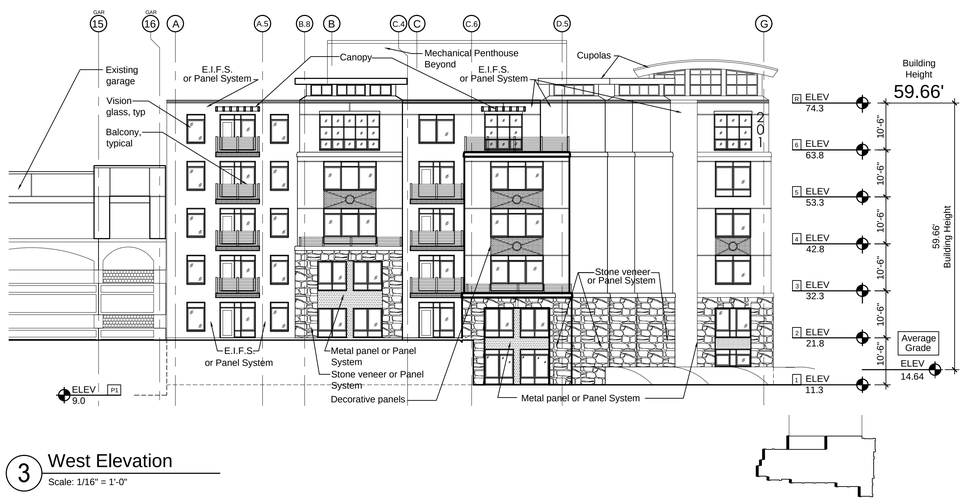
DRAWING #: A-1

J:\CPMI_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_04-10-15_A-1.dwg

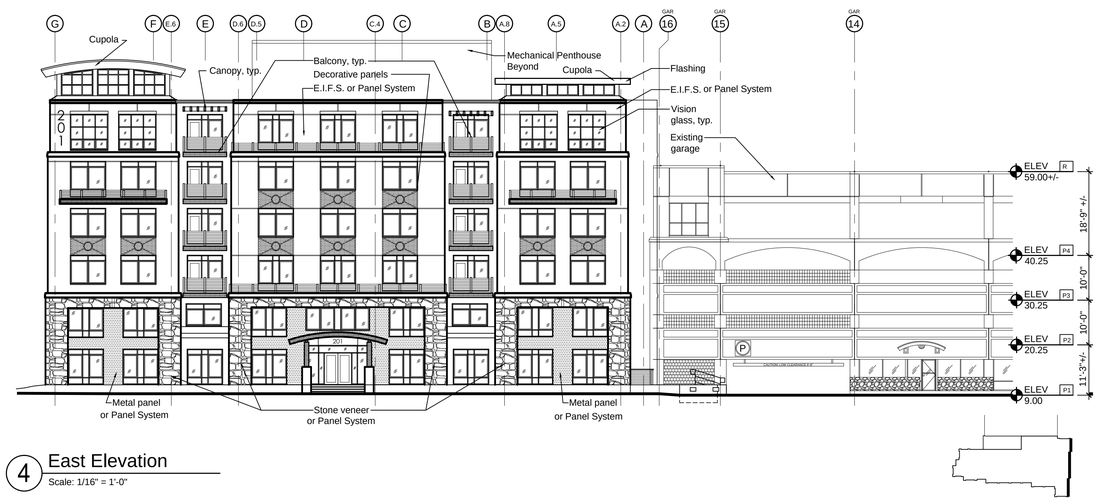



1 South Elevation of Garage
Scale: 1/16" = 1'-0"

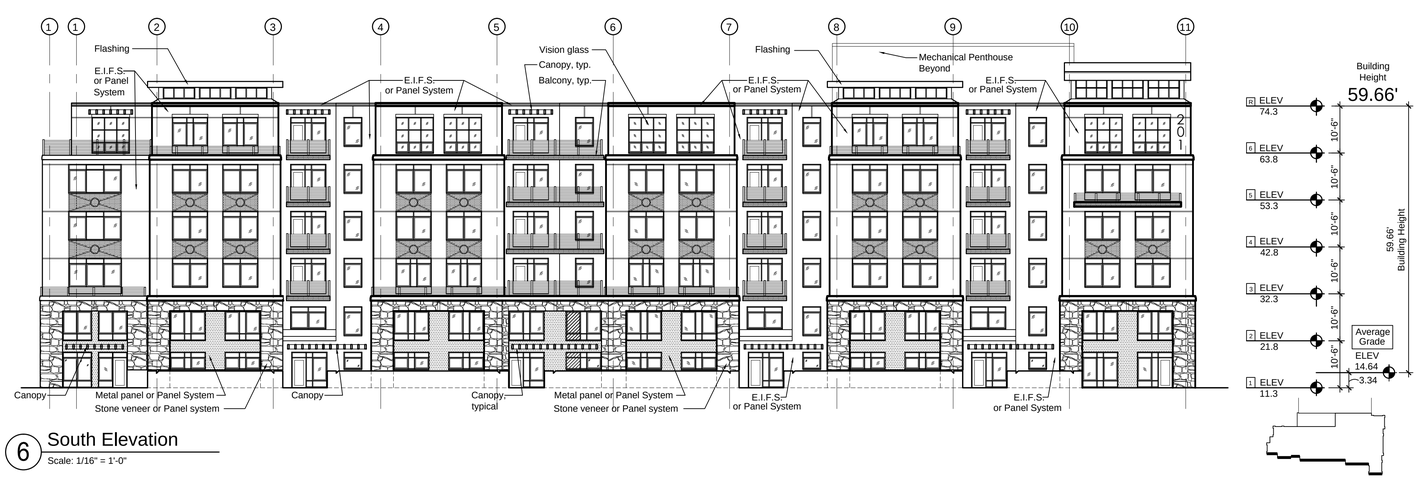
2 North Elevation
Scale: 1/16" = 1'-0"




3 West Elevation
Scale: 1/16" = 1'-0"




4 East Elevation
Scale: 1/16" = 1'-0"




6 South Elevation
Scale: 1/16" = 1'-0"

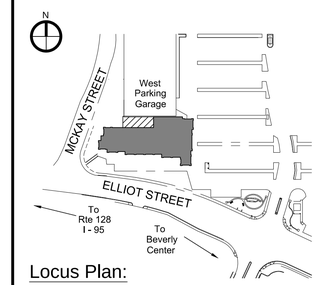
## Materials Key

- Vision Glass
- Spandrel Glass / Panel (Color TBD)
- Metal Panel or Panel System
- Stone Veneer or Panel System
- E.I.F.S. or Panel System
- Brake Metal Flashing

0 10' 20' 40'

PREPARED FOR:

Beverly Commerce Park, LLP
200 West Cummings Park
Woburn, Massachusetts
781 935-8000




Locus Plan:

| REV. # | DESCRIPTION | DATE |
|---|---|---|
| 1 | SITE PLAN REVIEW RESUBMITTAL | 04/10/15 |

Cummings Properties
200 West Cummings Park, Woburn, MA 01801 (781) 935-8000

STAMP:

ARCHITECT:
Michael A. Aveni
Atlantic Boston Construction, Inc
200 West Cummings Park
Woburn, MA 01801

SCALE: As Noted
DRAWN: JYD
CHK'D:
DATE: JANUARY 30, 2015

PROJECT:
201 Elliott Street
Mixed-Use Residential Building
Beverly, Massachusetts

DRAWING TITLE:
SCHEMATIC ELEVATIONS

DRAWING #:
A-2

J:\CPMI_CAD\BEVERLY\201 ELLIOTT\Site_Approvals\SPR_REV1&2-May2015\REV_2_5-15-15\SPR_04-10-15_A-2.