

SITE DATA

LOT AREA: 15.17± AC. (660,575 SF)
WATER SUPPLY: MUNICIPAL
APPROXIMATE WATER USE: 3,720 GPD
SEWAGE DISPOSAL: ONSITE SEWAGE DISPOSAL SYSTEM
APPROXIMATE SEWAGE FLOW: 3,720 GPD [SEE SHEET C3.1]
ZONING DISTRICT: RESIDENTIAL
OVERLAY DISTRICT: AQUIFER & WATER RESOURCE

ASSESSORS REFERENCE

ASSESSORS PARCEL MAP U19, PARCEL 38
RECORD OWNER: CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI
338 KING ST. LITTLETON, MA 01460
ASSESSORS PARCEL MAP U19, PARCEL 38-1
RECORD OWNER: CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI,
TRUSTEES OF PAINLESS REALTY TRUST
338 KING ST. LITTLETON, MA 01460

SENIOR RESIDENTIAL DEVELOPMENT

PARAMETER	FORMULA	VARIABLE	REQUIRED	PROVIDED
Two-Family Dwelling Units	4 Units/Acre	6 Units	1.5 AC.	
Townhouse Dwelling Units	8 Units/Acre	3 Units	0.38 AC.	
Independent Living Units	20 Units/Acre	24 Units	0.75 AC.	
Total Site Area			2.63 AC.	15.17 AC.
Minimum Open Space	30% Parcel Area	660,575± SF	198,173± SF	608,537± SF
Contiguous Upland Area	80% Min. Open Space Area	198,173± SF	158,535± SF	168,545± SF

PARKING COMPUTATIONS

USE	FORMULA	VARIABLE	REQUIRED SPACES	PROVIDED SPACES
Town House & Cottage Dwellings	2 Spaces per Unit	9 Units	18	
Independent Living Units	1 Space per Unit	15 Units	15	
Guest Parking	1 Space per 3 Units	24 Units	8	

Total Parking Spaces 41 42

NOTES: 1. See Zoning Bylaw section 173-148(F).

COVERAGE COMPUTATIONS

PARAMETER	AREA (AC)	AREA (SF)	% OF TOTAL LOT AREA
EXISTING CONDITION			
Lot Area	15.17±	660,575±	100%
Buildings & Decks	0.17±	7,251±	1.1%
Pavement, Walks, and Misc. Impervious	0.42±	18,495±	2.8%
Pond	0.26±	11,183±	1.7%
TOTAL IMPERVIOUS AREA	0.85±	36,929±	5.6%
PROPOSED CONDITION			
Lot Area	15.17±	660,575±	100%
Buildings & Decks	0.64±	27,790±	4.2%
Pavement, Walks, and Misc. Impervious	0.50±	21,977±	3.3%
Pond	0.26±	11,183±	1.7%
TOTAL IMPERVIOUS AREA	1.38±	60,275±	9.1%

PLAN REFERENCES

- "ORDER OF RESOURCE AREA DELINEATION" PREPARED FOR MASSACHUSETTS COHOUSING LLC. BY THE LITTLETON CONSERVATION COMMISSION. DATED MARCH 23, 2020. RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS BK: 74331 PG: 23.
- "SEWAGE DISPOSAL SYSTEM-338 KING STREET LITTLETON, MA" DESIGNED FOR CRAIG & HEIDI GRUSKOWSKI BY DAVID E. ROSS ASSOCIATES, INC. DATED JULY 1997.
- "SUBSURFACE SEWAGE DISPOSAL SYSTEM-336 KING STREET LITTLETON, MA" DESIGNED FOR RONALD COOPER BY WHITMAN & BINGHAM ASSOCIATES, INC. DATED MAY 31, 1993.
- "LEACHING SYSTEM REPAIR-CONGREGATIONAL CHURCH OF LITTLETON-308 KING STREET LITTLETON, MA" DESIGNED FOR CONGREGATIONAL CHURCH OF LITTLETON BY WARREN W. TERRELL, P.E. DATED AUGUST 1990. REVISED THROUGH 4/20/91.
- "SUBSURFACE SEWAGE DISPOSAL SYSTEM-NEW CONSTRUCTION-HAGER HOMESTEAD-336-338 KING STREET LITTLETON, MA" PREPARED FOR MASSACHUSETTS COHOUSING, LLC. BY GOLDSMITH, PREST & RINGWALL, INC. DATED TBD.

EXISTING CONDITION NOTES:

- EXISTING CONDITION INFORMATION SHOWN IS BASED ON AN INSTRUMENT SURVEY PERFORMED BY GOLDSMITH, PREST & RINGWALL, INC. DURING OCTOBER 2019.
- THE EDGE OF WETLAND AND RIVER HAS BEEN DELINEATED BY OXBOW ASSOCIATES, INC. OCTOBER 2019 THROUGH NOVEMBER 2019, AND APPROVED BY THE LITTLETON CONSERVATION COMMISSION MARCH 23, 2020 [SEE PLAN REFERENCE #1].
- DELINEATION OF EXISTING POND AND TRENCHES WITHIN THE WETLANDS ARE APPROXIMATE AND ARE BASED ON ARIEL IMAGES FROM GOOGLE EARTH.

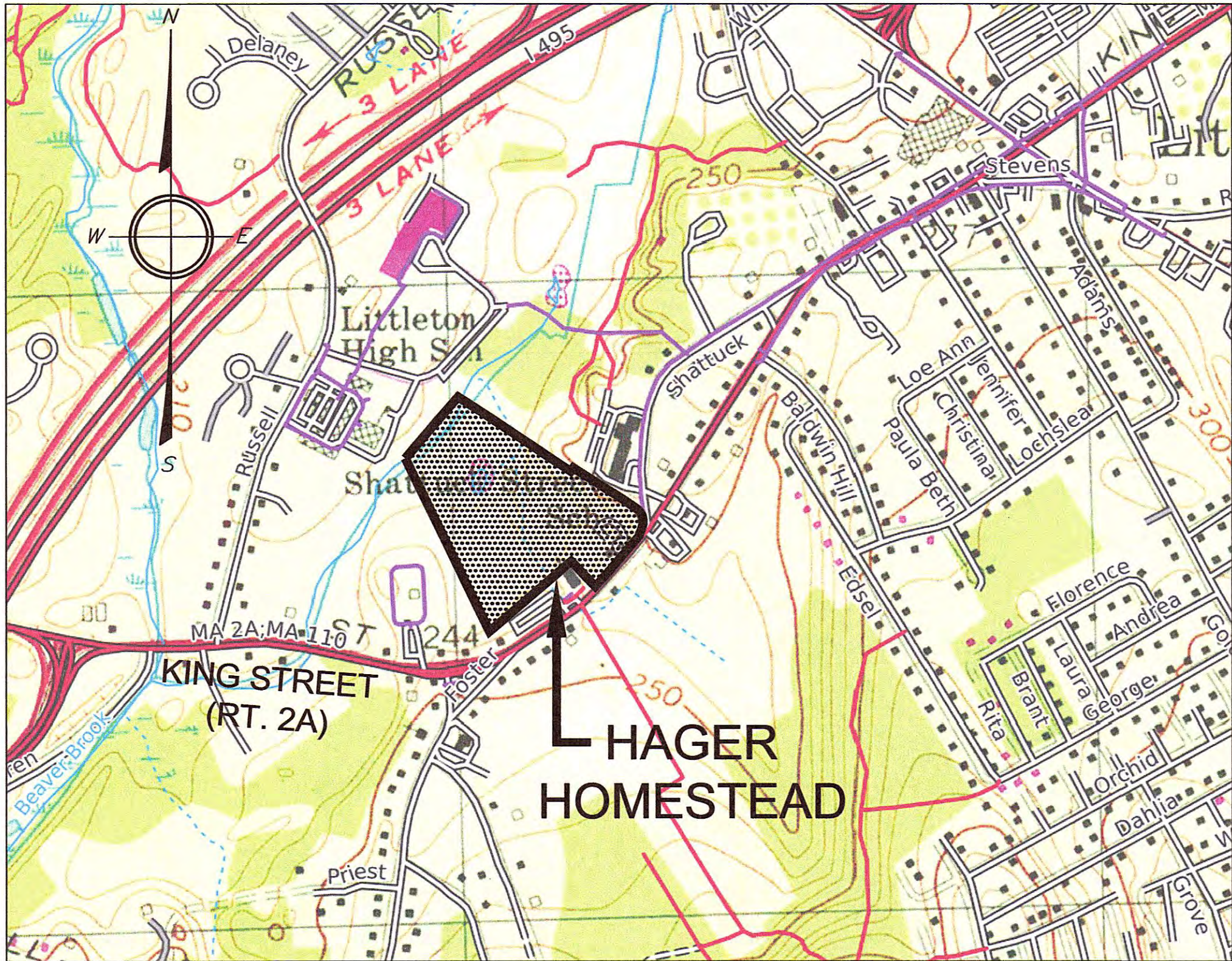
GENERAL NOTES

- LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
- UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
- BURIED UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE COMPANY SPECIFICATIONS.
- CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR. LOCATIONS OF EXISTING FEATURES OR OBSTRUCTIONS DERIVED BY SCALING DRAWINGS MAY NOT BE ACCURATE. PROPERTY LINES SHOWN HEREON ARE APPROXIMATE. SEE PLAN REFERENCE HEREON.
- SAFETY MEASURES, CONSTRUCTION METHODS, AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING UTILITY OR STRUCTURE DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON. DAMAGED UTILITY OR STRUCTURE SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
- ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
- CONTRACTOR SHALL NOTIFY ENGINEER UPON COMMENCEMENT OF CONSTRUCTION IN ORDER TO ENSURE THAT REQUIRED INSPECTIONS ARE PERFORMED IN A TIMELY AND EFFICIENT MANNER.
- CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER UPON DISCOVERY OF ANY UNFORESEEN SURFACE OR SUBSURFACE CONDITIONS THAT MAY IMPACT SITE CONSTRUCTION.
- FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
- EROSION CONTROL MEASURES, SUCH AS SILT FENCE OR STRAW BALES AS MAY BE SHOWN HEREON, SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS WITHIN BUFFER ZONE, AND SHALL SERVE AS THE LIMIT OF WORK.
- WHERE THE WORD "INSTALL" IS USED HEREIN, IT IS INTENDED TO DIRECT CONTRACTOR TO "FURNISH, INSTALL, AND PLACE IN OPERATION" THE COMPONENT REFERRED TO.
- LIMITS OF WORK SHALL BE STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL STORM DRAIN PIPE TO BE SMOOTH INTERIOR HDPE PIPE, 2.0 PSI GASKETED JOINT, UNLESS OTHERWISE NOTED.
- WHERE SHOWN, CONSTRUCTION NOTES ARE INTENDED TO SUMMARIZE AND CLARIFY MAJOR ITEMS OF WORK. THESE NOTES SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE LISTING OF ALL WORK REQUIRED. CONTRACTOR SHOULD CONTACT ENGINEER WHEN FURTHER CLARIFICATION OR DEPICTED WORK IS DESIRED.
- CONSTRUCTION OF FIRE AND DOMESTIC WATER SUPPLY IMPROVEMENTS SHALL CONFORM TO TOWN OF LITTLETON REQUIREMENTS.
- WHERE DIMENSIONS INVOLVE CURB, DIMENSIONS ARE TO FACE OF CURB. WHERE SLOPED GRANITE CURB OR CAPE COD BERM SPECIFIED, FACE OF CURB IS EDGE OF FINISH PAVEMENT AT TOE OF CURB.
- NO DEBRIS, JUNK, RUBBISH OR OTHER NON-BIODEGRADABLE MATERIALS, FILL CONTAINING HAZARDOUS MATERIALS OR WASTES, OR STUMPS SHALL BE BURIED ON ANY LAND ON THIS SITE, OR LEFT ON ANY LOT OR ON THE STREET RIGHT OF WAY.

REGULATORY NOTES

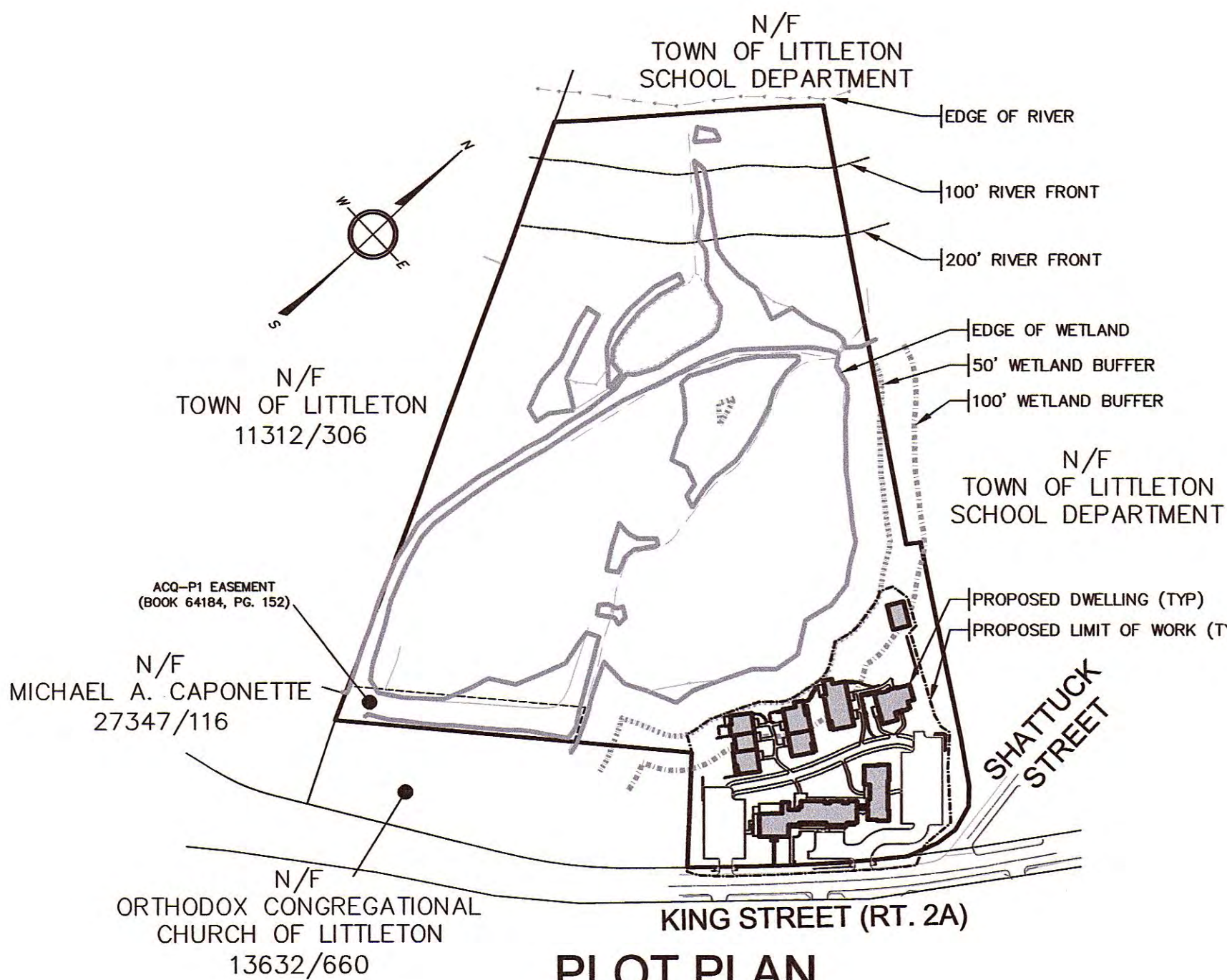
- CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 888.344.7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL GIVE TWENTY-FOUR (24)-HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD.
- CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
- CONTRACTOR SHALL BE AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK.
- ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATION SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.
- GENERAL COMPLIANCE WITH 28 CFR PART 36 - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 521 CMR PART C, EXTERIOR OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS IS INTENDED. CONTRACTOR SHALL VERIFY COMPLIANCE DURING CONSTRUCTION AND SHALL NOTIFY THE OWNER OF ANY NON-COMPLIANCE ISSUES AS SOON AS DISCOVERED.

SENIOR RESIDENTIAL DEVELOPMENT
HAGER HOMESTEAD
LITTLETON, MA



VICINITY MAP

SCALE: 1" = 600'



PLOT PLAN

SCALE: 1" = 200'

SHEET INDEX

CIVIL DRAWINGS

- C1.1 TITLE SHEET
- C2.1 EXISTING CONDITIONS PLAN
- C2.2 DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN
- C2.3 EROSION AND SEDIMENT CONTROL DETAILS
- C3.1 SITE LAYOUT AND UTILITIES PLAN
- C3.2 SITE LAYOUT AND ACCESS PLAN
- C4.1 GRADING, DRAINAGE AND PAVING PLAN
- C5.1 CONSTRUCTION DETAILS
- C5.2 CONSTRUCTION DETAILS
- C5.3 CONSTRUCTION DETAILS

LANDSCAPE DRAWINGS

BY: COPLEY WOLFF DESIGN GROUP

L300 PLANTING AND LIGHTING PLAN

ARCHITECTURAL DRAWINGS (REVISED 06/24/20*)

BY: SHELDON PENNOYER ARCHITECTS

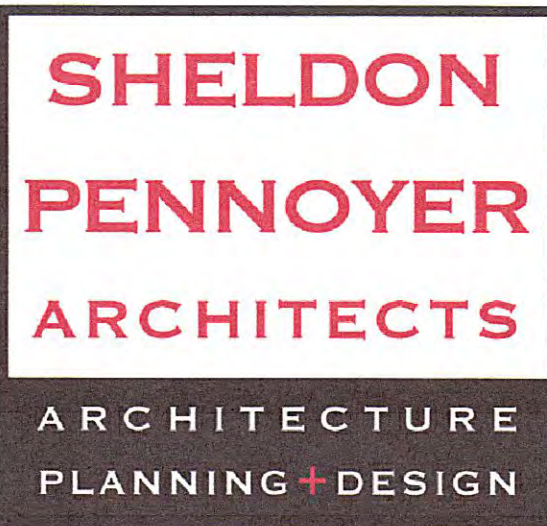
- A0.1 RENDERED SITE EXTERIOR ELEVATIONS
- A1.1 CH BASEMENT-MS GARDEN LEVEL FLOOR PLAN*
- A1.2 CH MAIN-MS FIRST LEVEL FLOOR PLAN*
- A1.3 CH SECOND-MS SECOND LEVEL FLOOR PLAN*
- A1.4 CH THIRD-MS ROOF PLAN*
- A1.5 C1, C2, C3 FLOOR PLANS
- A1.6 RU PLANS
- A1.7 SITE ROOF PLAN W/ MECHANICAL AREAS
- A1.8 EXTERIOR BUILDING LIGHTING
- A2.1 CH-MS EXTERIOR ELEVATIONS & COMMUNITY SIGN*
- A2.2 CH-MS EXTERIOR ELEVATIONS*
- A2.3 C1 & C2 EXTERIOR ELEVATIONS
- A2.4 C3 EXTERIOR ELEVATIONS
- A2.5 RU EXTERIOR ELEVATIONS
- A3.1 CARPORT 1 PLANS & ELEVATIONS
- A3.2 CARPORT 2 PLANS & ELEVATIONS

* FOR REVISED MS BUILDING FOOTPRINT SEE SHEET A1.1

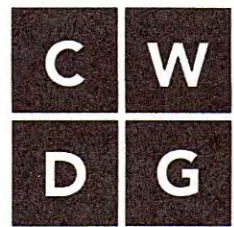
APPROVED BY THE
LITTLETON PLANNING BOARD

CHAIR
APPLICATION FILED
HEARING DATE
PLAN APPROVED

PROJECT TEAM:



64 NORTH MAIN STREET, SUITE 1, CONCORD, NH 03301



Copley Wolff Design Group
Landscape Architects & Planners

10 POST OFFICE SQUARE, SUITE 1315, BOSTON, MA 02109



110 PULPIT HILL ROAD AMHERST, MA 01002

DRAWING ISSUED FOR:

- ☐ CONCEPT
- ☐ CONSTRUCTION
- ☒ PERMIT
- ☐ CONSTRUCTION RECORD

THIS DRAWING MAY NOT SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, AND MAY NOT IDENTIFY ALL CONSTRUCTION WORK ITEMS/AREAS OF CONTRACTOR JURISDICTION.

PER 250 CMR 5.03(13), THE FOLLOWING ARE EXCLUDED FROM THE PROFESSIONAL ENGINEER'S RESPONSIBILITY: ALL BOUNDARY INFORMATION; LOCATION OF EXISTING STRUCTURES, TREES, UTILITIES, TOPOGRAPHY OR SIMILAR FEATURES; DESIGN OF RETAINING WALLS, PROPRIETARY EQUIPMENT. SEE EXISTING CONDITION NOTES.

1	06/23/20	MCL	NMP		PEER REVIEW COMMENTS
NO.	DATE	BY	APP.		REVISION DESCRIPTION



Engineering Solutions
for Land & Structures

GOLDSMITH, PREST & RINGWALL, INC.

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SPECIAL PERMIT
SENIOR RESIDENTIAL DEVELOPMENT

TITLE SHEET

HAGER HOMESTEAD
336 KING STREET
LITTLETON, MA

PREPARED FOR:
MASSACHUSETTS COHOUSING, LLC.
200 SUMMIT DRIVE, SUITE 210
BURLINGTON, MA 01803

DES. BY: MCL/LT
CHK. BY: NMP
DATE: APRIL 2020
JOB 191096
C1.1

N/F
TOWN OF LITTLETON
SCHOOL DEPARTMENT
MAP U19 -PARCEL 21

LEGEND

EXISTING	ELEVATION CONTOUR
	SPOT GRADE
	PROPERTY LINE
	WETLAND DELINEATION
	TREE LINE / EDGE OF VEGETATION
	EDGE OF PAVEMENT
	CAPE COD BERM CURBING
	GRANITE CURBING
	GRAVEL/DIRT ROAD
	STONE WALL
	WATER MAIN
	WATER SERVICE
	FIRE SERVICE
	WATER VALVE
	FIRE HYDRANT
	GAS LINE
	GAS SERVICE
	GAS VALVE
	BURIED POWER LINE
	OVERHEAD POWER LINE
	UTILITY POLE
	GUY WIRE
	ELECTRIC BOX
	CATCH BASIN
	DRAIN MANHOLE
	SIGN
	STONE BOUND
	DRILL HOLE
	IRON ROD

ABBREVIATIONS

EL	ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT	PVC	POLYVINYL CHLORIDE
SF	SQUARE FEET	RCP	REINFORCED CONCRETE PIPE
AC	ACRES	N/F	NOW OR FORMERLY
FT	FEET	VP	VERNAL POOL
R	RADIUS	WF	WETLAND FLAG
BIT	BITUMINOUS	TW	TOP OF WALL
CONC	CONCRETE	BF	BOTTOM OF WALL
L	LENGTH	FG	FINISH GRADE
		BSMT	BASEMENT
		FF	FINISH FLOOR

ELEVATION DATUM

DATUM: NAVD 1988

B.M. NO.1

ASSESSORS REFERENCE:

ASSESSORS PARCEL MAP U19, PARCEL 38
RECORD OWNER: CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI
338 KING ST. LITTLETON, MA 01460

ASSESSORS PARCEL MAP U19, PARCEL 38-1
RECORD OWNER: CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI,
TRUSTEES OF PAINLESS REALTY TRUST
338 KING ST. LITTLETON, MA 01460

DEED REFERENCE:

- "THE PAINLESS REALTY TRUST" CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI, TRUSTEES. BOOK 43979 PAGE 197.
- CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI BOOK 56305 PAGE 245.
- CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI BOOK 56305 PAGE 247.
- CRAIG C. GRUSKOWSKI & HEIDI PLATT GRUSKOWSKI BOOK 29945 PAGE 603.

REFERENCES

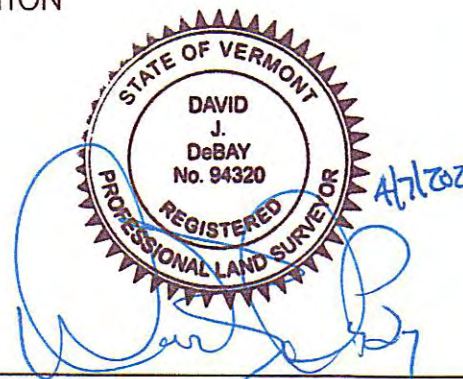
- PLAN RECORDED AS PLAN #1034 OF 1997, MIDDLESEX SOUTH REGISTRY OF DEEDS.
- PLAN RECORDED AS PLAN #34 OF 2011, MIDDLESEX SOUTH REGISTRY OF DEEDS.
- "ORDER OF RESOURCE AREA DELINEATION" PREPARED FOR MASSACHUSETTS COHOUSING, LLC. DATED MARCH 23, 2020. RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS BOOK 74331-PAGE 23.

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- DELINEATION OF EXISTING POND AND TRENCHES AREA SHOWN AS APPROXIMATE AND ARE BASED ON AERIAL IMAGES.

DRAWING ISSUED FOR:

- ☐ CONCEPT ☐ CONSTRUCTION
☒ PERMIT ☐ CONSTRUCTION RECORD



1	06/23/20	MCL	NMP	NO REVISIONS TO THIS SHEET
NO.	DATE	BY	APP.	REVISION DESCRIPTION

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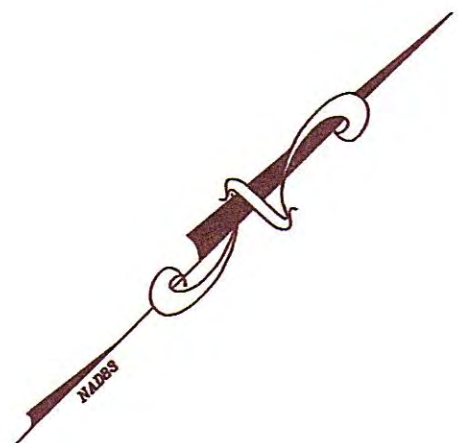
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SPECIAL PERMIT
SENIOR RESIDENTIAL DEVELOPMENT
EXISTING CONDITIONS PLAN

HAGER HOMESTEAD
336-338 KING STREET
LITTLETON, MA

PREPARED FOR:
MASSACHUSETTS COHOUSING, LLC.
200 SUMMIT DRIVE, SUITE 210
BURLINGTON, MA 01803

DRAFT: MCL	DATE: APRIL 2020	JOB 191096	C2.1
CHK. BY: DSB			



N/F
TOWN OF LITTLETON
MAP U19 -PARCEL 32
11312/306

N/F
MICHAEL A. CAPONETTE
MAP U19 -PARCEL 36
27347/116

ASSESSOR
MAP-U19
PARCEL ID: 38

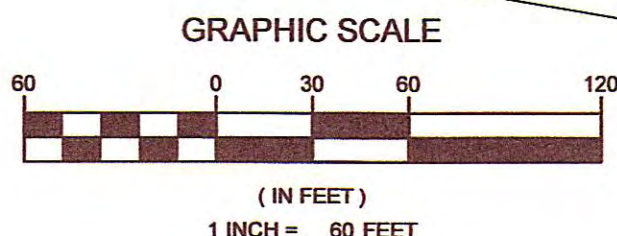
N/F
ORTHODOX CONGREGATIONAL
CHURCH OF LITTLETON
MAP U19 -PARCEL 37
13632/660

ASSESSOR
MAP-U19
PARCEL ID: 38-1

N/F
TOWN OF LITTLETON
SCHOOL DEPARTMENT
MAP U19 -PARCEL 21

B.M. NO. 4
MAG-NAIL (VERT.) IN 16" PINE
EL. 233.09

B.M. NO. 1
MAG-NAIL IN UP
EL. 243.13



KING STREET
(AKA ROUTES 2A & 110 - (PUBLIC - 1941 STATE LAYOUT))

SHATTUCK STREET

DEMOLITION NOTES

1. CONTRACTORS (IN ACCORDANCE WITH MASS. G.L. CHAPT. 82 SECT. 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING. ALSO CALL "DIG-SAFE" AT 811 OR 1-888-344-7233.
2. EXISTING SEPTIC AND WATER SERVICES SHOWN HEREON ARE BASED ON AVAILABLE RECORD DATA FROM THE TOWN OF LITTLETON AND LAND OWNER RECORDS, RESPECTIVELY, AND ARE TO BE CONSIDERED APPROXIMATE. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO DEMOLITION.
3. PROPERLY DISPOSE OF NON-SALVAGEABLE MATERIAL/DEBRIS INCLUDING TREE STUMPS AND OTHER UNSUITABLE FILL MATERIAL OFF SITE.
4. CONTRACTOR SHALL TAKE MEASURES TO CONTROL DUST DURING EARTH REMOVAL AND CONTAIN DIRT ON SITE. STREET SWEEPING AND SWEEPING OF EXISTING PAVEMENT MAY BE REQUIRED DURING CONSTRUCTION.
5. COORDINATE WITH OWNER REGARDING DISPOSITION OF SALVAGEABLE MATERIALS.
6. WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
7. ALL TREES AND LANDSCAPING SHOWN HEREON ARE INTENDED TO BE REMOVED, UNLESS OTHERWISE NOTED. SEE SHEET L300.
8. ALL EXISTING BITUMINOUS CONCRETE PAVEMENT AND CURBING ONSITE TO BE REMOVED.

LEGEND

EXISTING		PROPOSED
100.0	ELEVATION CONTOUR	100.0
100.0	SPOT GRADE	100.0
---	PROPERTY LINE	---
---	WETLAND DELINEATION	---
---	WETLAND BUFFER ZONE	---
---	SHORELINE	---
---	100-YEAR FLOODPLAIN LIMIT	---
---	TREE LINE / EDGE OF VEGETATION	---
---	EDGE OF PAVEMENT	---
---	CAPE COD BERM CURBING	---
---	GRANITE CURBING	---
---	GRAVEL/DIRT ROAD	---
---	STOCKADE FENCE	---
---	STONE WALL	---
---	WATER MAIN	---
---	WATER SERVICE	---
---	FIRE SERVICE	---
---	WATER VALVE	---
---	FIRE HYDRANT	---
---	FORCE MAIN	---
---	GRAVITY SEWER LINE	---
---	SEWER MANHOLE	---
---	GAS LINE	---
---	GAS SERVICE	---
---	GAS VALVE	---
---	BURIED POWER LINE	---
---	OVERHEAD POWER LINE	---
---	UTILITY POLE	---
---	GUY WIRE	---
---	ELECTRIC BOX	---
---	STORM DRAIN	---
---	UNDERDRAIN	---
---	ROOF DRAIN	---
---	FOUNDATION DRAIN	---
---	CATCH BASIN	---
---	DRAIN MANHOLE	---
---	SILT FENCE BARRIER	---
---	STRAW WATTLES	---
---	DEEP SOIL OBSERVATION HOLE	---
---	SITE LUMINAIRE	---
---	SIGN	---
---	SURFACE RUNOFF DIRECTION	---
---	STONE BOUND	---
---	DRILL HOLE	---
---	IRON ROD	---

ABBREVIATIONS

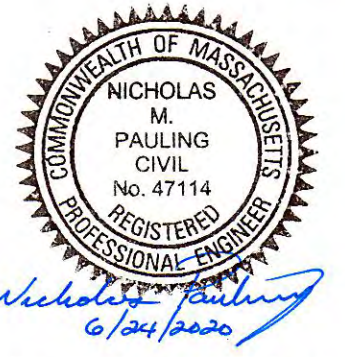
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INV	INVERT	PVC	POLYVINYL CHLORIDE
SF	SQUARE FEET	RCP	REINFORCED CONCRETE PIPE
AC	ACRES	N/F	NOW OR FORMERLY
FT	FEET	VP	VERNAL POOL
R	RADIUS	WF	WETLAND FLAG
DIA	DIAMETER	TW	TOP OF WALL
BIT	BITUMINOUS	BW	BOTTOM OF WALL
CONC	CONCRETE	FG	FINISH GRADE
L	LENGTH	BSMT	BASEMENT
S	SLOPE	FF	FINISH FLOOR

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1	06/23/20	MCL	NMP	PEER REVIEW COMMENTS

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GOLDSMITH, PREST & RINGWALL, INC.

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SPECIAL PERMIT
SENIOR RESIDENTIAL DEVELOPMENT
DEMOLITION AND EROSION & SEDIMENT CONTROL PLAN

HAGER HOMESTEAD
336 KING STREET
LITTLETON, MA

PREPARED FOR:
MASSACHUSETTS COHOUSING, LLC.
200 SUMMIT DRIVE, SUITE 210
BURLINGTON, MA 01803

DES. BY: MCL/LT	DATE: APRIL 2020	JOB 191096	C2.2
CHK. BY: NMP			

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HAGER HOMESTEAD SEWER COLLECTION SYSTEM RIM AND INVERT SCHEDULE

FROM			TO		Pipe Size (in)	Pipe Type	Length (ft)	Slope (%)	
Structure	Rim El.	Lowest Slab El.	Invert (out)	To					Invert (in)
BLDG. CH	—	237.00	235.08	GREASE TRAP	234.48	6	SDR 35	29.90	2.0%
GREASE TRAP	—	—	234.23	CO 1	234.13	8	SDR 35	5.00	2.0%
BLDG. C1	—	237.00	234.97	CO 2	234.87	6	SDR 35	5.00	2.0%
CO 1	—	—	234.13	CO 3	234.00	8	SDR 35	6.58	2.0%
CO 2	—	—	234.87	CO 3	234.00	6	SDR 35	42.73	2.0%
CO 3	—	—	234.00	SMH 1	233.39	8	SDR 35	30.67	2.0%
BLDG. MS	—	241.00	236.37	CO 4	236.17	6	SDR 35	10.25	2.0%
CO 4	—	—	236.17	SMH 1	235.59/233.39*	6	SDR 35	28.37	2.0%
SMH 1	240.20	—	233.22	CO 6	231.76	8	SDR 35	72.93	2.0%
BLDG. C2	—	237.00	232.42	CO 5	232.32	6	SDR 35	5.00	2.0%
CO 5	—	—	232.32	CO 6	231.76	6	SDR 35	28.24	2.0%
CO 6	—	—	231.76	SMH 2	231.70	8	SDR 35	2.91	2.0%
SMH 2	239.30	—	231.54	CO 8	231.13	8	SDR 35	20.17	2.0%
BLDG. C3	—	237.50	231.42	CO 7	231.32	6	SDR 35	5.00	2.0%
CO 7	—	—	231.32	CO 8	231.13	6	SDR 35	9.39	2.0%
CO 8	—	—	231.13	SMH 3	230.78	8	SDR 35	18.31	2.0%
SMH 3	239.20	—	230.60	CO 10	229.90	8	SDR 35	34.51	2.0%
BLDG. RU	—	236.00	230.33	CO 9	230.23	6	SDR 35	5.00	2.0%
CO 9	—	—	230.23	CO 10	229.90	6	SDR 35	16.24	2.0%
CO 10	—	—	229.90	SMH 4	229.80	8	SDR 35	5.00	2.0%
SMH 4	242.50	—	229.63	SEPTIC TANK	229.06	8	SDR 35	28.42	2.0%

** ECCENTRIC DROP SEWER MANHOLE CONNECTION

SEPTIC FLOW CALCULATION:

PARAMETER	FORMULA	VARIABLE	SEPTIC FLOW
2-BDR Units	150 GPD/Unit	12 Units	1,800 GPD
1-BDR Units	110 GPD/Unit	12 Units	1,320 GPD
Common House	15 GPD/Seat	40 Seats	600 GPD
Total Septic Flow			3,720 GPD

LEGEND

EXISTING	PROPOSED
100.0	100.0
X100.0	100.0
PROPOSED	PROPOSED
ELEVATION CONTOUR	ELEVATION CONTOUR
SPOT GRADE	SPOT GRADE
PROPERTY LINE	PROPERTY LINE
WETLAND DELINEATION	WETLAND DELINEATION
WETLAND BUFFER ZONE	WETLAND BUFFER ZONE
SHORELINE	SHORELINE
100-YEAR FLOODPLAIN LIMIT	100-YEAR FLOODPLAIN LIMIT
TREE LINE / EDGE OF VEGETATION	TREE LINE / EDGE OF VEGETATION
EDGE OF PAVEMENT	EDGE OF PAVEMENT
CAPE COD BERM CURBING	CAPE COD BERM CURBING
GRANITE CURBING	GRANITE CURBING
GRAVEL/DIRT ROAD	GRAVEL/DIRT ROAD
STOCKADE FENCE	STOCKADE FENCE
STONE WALL	STONE WALL
WATER MAIN	WATER MAIN
WATER SERVICE	WATER SERVICE
FIRE SERVICE	FIRE SERVICE
WATER VALVE	WATER VALVE
FIRE HYDRANT	FIRE HYDRANT
FORCE MAIN	FORCE MAIN
GRAVITY SEWER LINE	GRAVITY SEWER LINE
SEWER MANHOLE	SEWER MANHOLE
GAS LINE	GAS LINE
GAS VALVE	GAS VALVE
BURIED POWER LINE	BURIED POWER LINE
OVERHEAD POWER LINE	OVERHEAD POWER LINE
UTILITY POLE	UTILITY POLE
GUY WIRE	GUY WIRE
ELECTRIC BOX	ELECTRIC BOX
VERNAL POOL	VERNAL POOL
STORM DRAIN	STORM DRAIN
UNDERDRAIN	UNDERDRAIN
ROOF DRAIN	ROOF DRAIN
FOUNDATION DRAIN	FOUNDATION DRAIN
CATCH BASIN	CATCH BASIN
DRAIN MANHOLE	DRAIN MANHOLE
SILT FENCE BARRIER	SILT FENCE BARRIER
DEEP SOIL OBSERVATION HOLE	DEEP SOIL OBSERVATION HOLE
SITE LUMINAIRE	SITE LUMINAIRE
SGN	SGN
SURFACE RUNOFF DIRECTION	SURFACE RUNOFF DIRECTION
STONE BOUND	STONE BOUND
DRILL HOLE	DRILL HOLE
IRON ROD	IRON ROD

ABBREVIATIONS

EL	ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT	PVC	POLYVINYL CHLORIDE
SF	SQUARE FEET	RCP	REINFORCED CONCRETE PIPE
AC	ACRES	N/F	NOW OR FORMERLY
FT	FEET	VP	VERNAL POOL
R	RADIUS	WF	WETLAND FLAG
DIA	DIAMETER	TW	TOP OF WALL
BIT	BITUMINOUS	BW	BOTTOM OF WALL
CONC	CONCRETE	FC	FINISH GRADE
L	LENGTH	BSMT	BASEMENT
S	SLOPE	FF	FINISH FLOOR
F	FIRE	BS	BUILDING SEWER

DRAWING ISSUED FOR:

☐ CONCEPT	☐ CONSTRUCTION
☒ PERMIT	☐ CONSTRUCTION RECORD

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NO.	DATE	BY	APP.	REVISION DESCRIPTION

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SITE LAYOUT AND UTILITIES PLAN

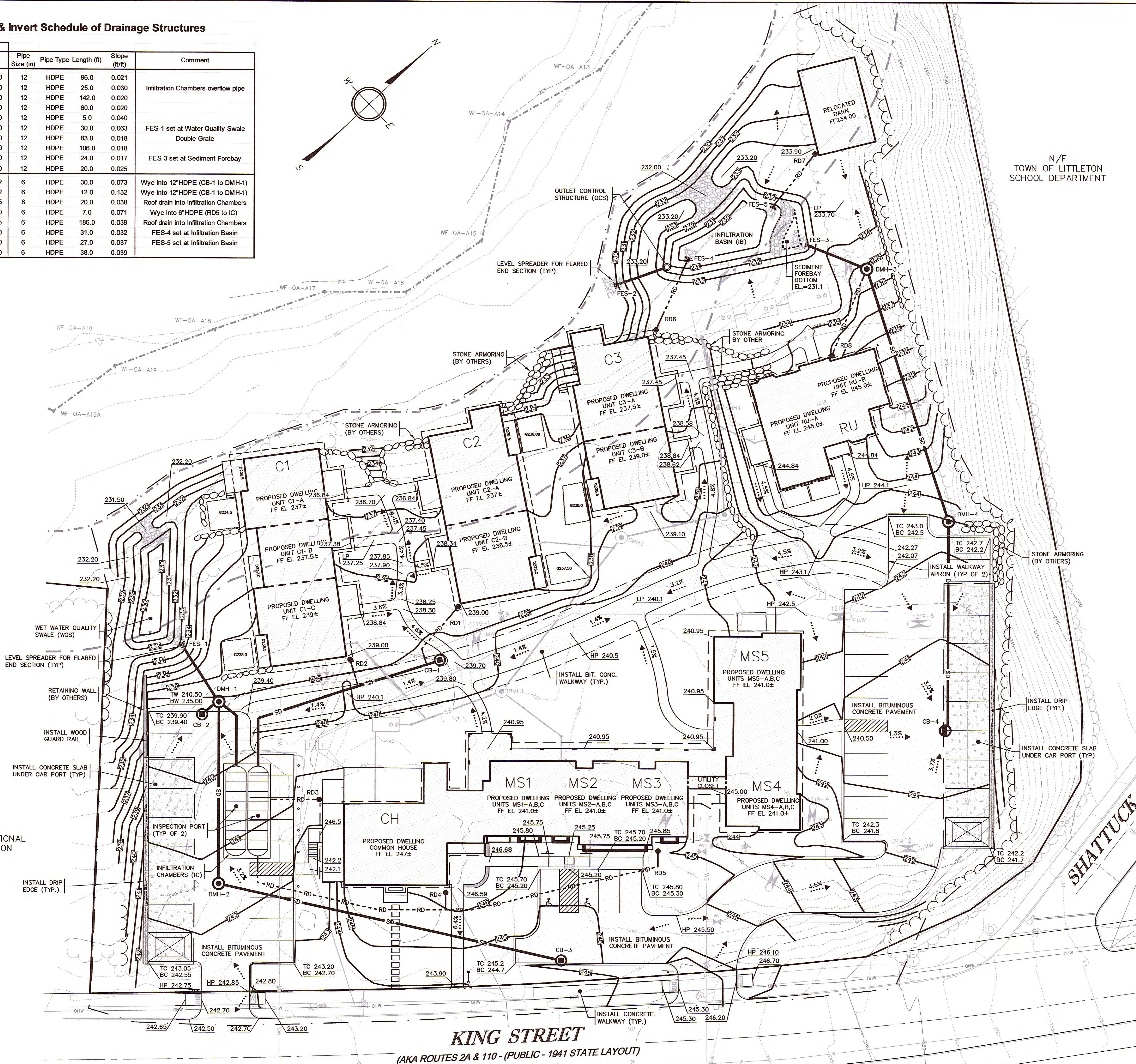
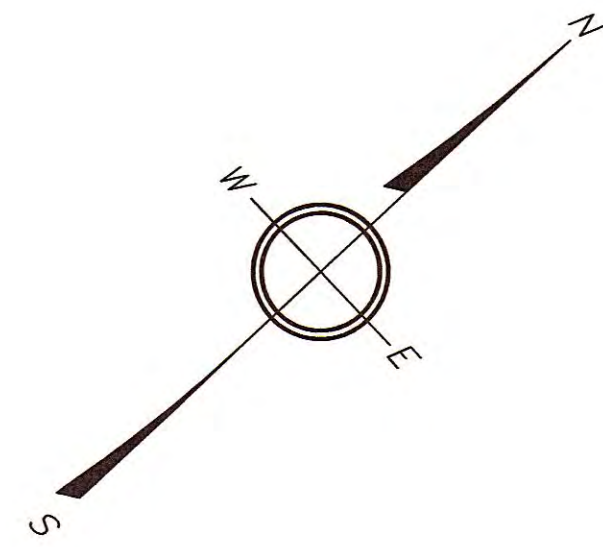
HAGER HOMESTEAD
336 KING STREET
LITTLETON, MA

PREPARED FOR:
MASSACHUSETTS COHOUSING, LLC.
200 SUMMIT DRIVE, SUITE 210
BURLINGTON, MA 01803

DES. BY: MCL/LT	DATE: APRIL 2020	JOB 191096	C3.1
CHK. BY: NMP			

Hager Homestead - Rim & Invert Schedule of Drainage Structures

FROM		TO		Pipe Size (in)	Pipe Type	Length (ft)	Slope (ft/ft)	Comment
Structure	Rim	Structure	Invert					
CB-1	239.50	IC	233.50	12	HDPE	96.0	0.021	Infiltration Chambers overflow pipe
IC	-	DMH-1	236.00	12	HDPE	25.0	0.030	
CB-3	244.40	DMH-2	237.30	12	HDPE	142.0	0.020	
DMH-2	241.40	DMH-1	236.00	12	HDPE	60.0	0.020	FES-1 set at Water Quality Swale Double Grate
CB-2	239.20	DMH-1	236.00	12	HDPE	5.0	0.040	
DMH-1	239.50	FES-1	234.00	12	HDPE	30.0	0.063	
CB-4	240.00	DMH-4	234.50	12	HDPE	83.0	0.018	FES-3 set at Sediment Forebay
DMH-4	243.00	DMH-3	232.50	12	HDPE	106.0	0.018	
DMH-3	235.10	FES-3	232.00	12	HDPE	24.0	0.017	
OCS	232.00	FES-2	230.00	12	HDPE	20.0	0.025	
RD1	-	12"HDPE	234.82	6	HDPE	30.0	0.073	Wye into 12"HDPE (CB-1 to DMH-1)
RD2	-	12"HDPE	235.42	6	HDPE	12.0	0.132	
RD3	-	IC	236.75	8	HDPE	20.0	0.038	Roof drain into Infiltration Chambers
RD4	-	6"HDPE	243.50	6	HDPE	7.0	0.071	
RD5	-	IC	236.75	6	HDPE	186.0	0.039	Roof drain into Infiltration Chambers
RD6	-	FES-4	230.00	6	HDPE	31.0	0.032	
RD7	-	FES-5	231.00	6	HDPE	27.0	0.037	FES-4 set at Infiltration Basin
RD8	-	DMH-3	232.50	6	HDPE	38.0	0.039	



LEGEND

EXISTING	PROPOSED

ABBREVIATIONS

EL	ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT	PVC	POLYVINYL CHLORIDE
SF	SQUARE FEET	RCP	REINFORCED CONCRETE PIPE
AC	ACRES	N/F	NOW OR FORMERLY
FT	FEET	V/P	VERNAL POOL
R	RADIUS	WF	WETLAND FLAG
DIA	DIAMETER	TW	TOP OF WALL
BIT	BITUMINOUS	BW	BOTTOM OF WALL
CONC	CONCRETE	FG	FINISH GRADE
L	LENGTH	BSMT	BASEMENT
S	SLOPE	FF	FINISH FLOOR
TC	TOP OF CURB	HP	HIGH POINT
BC	BOTTOM OF CURB	LP	LOW POINT

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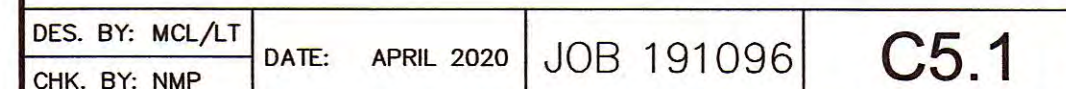
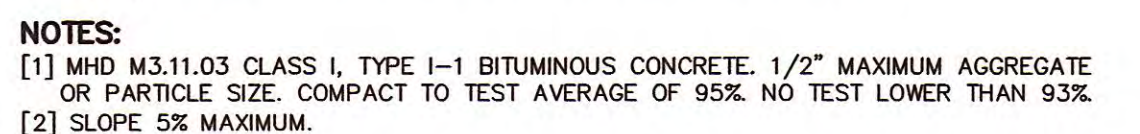
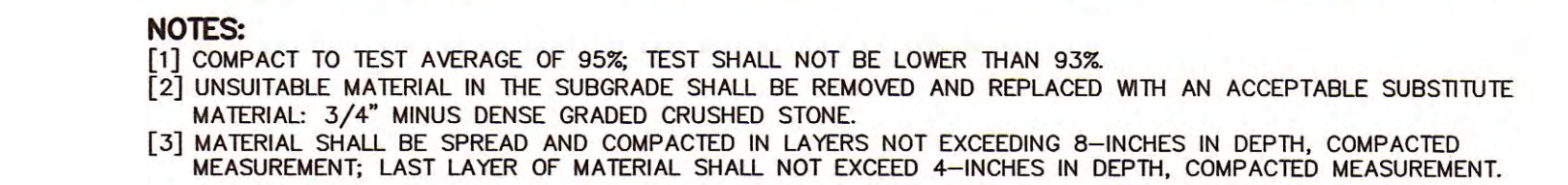
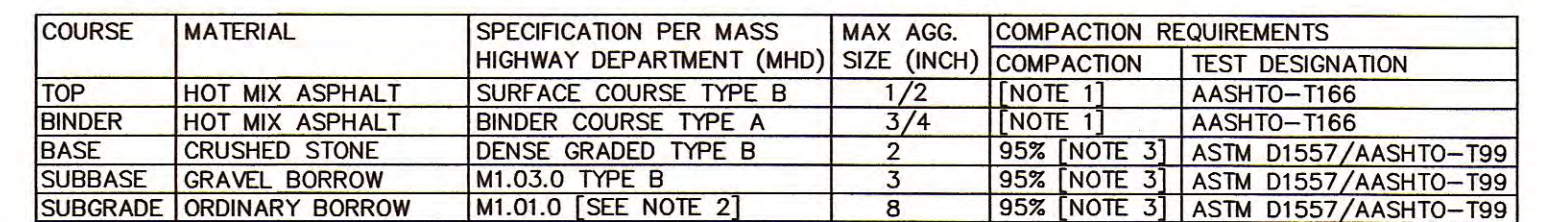
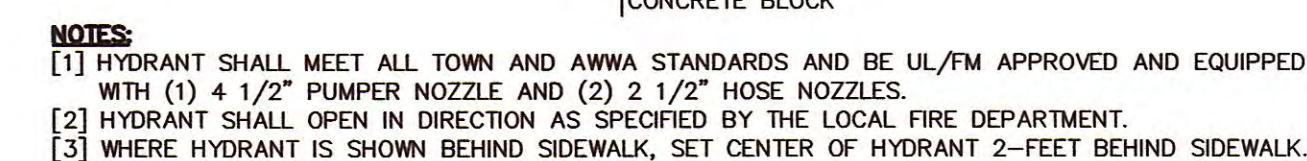
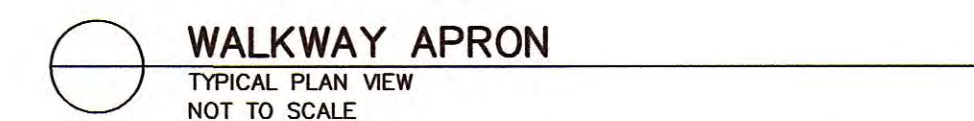
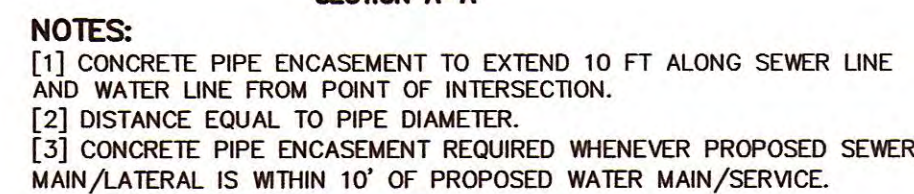
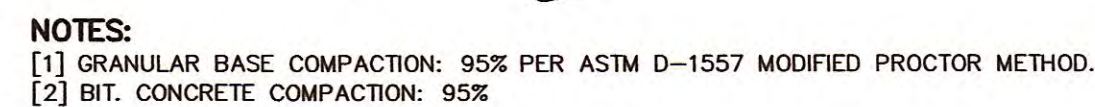
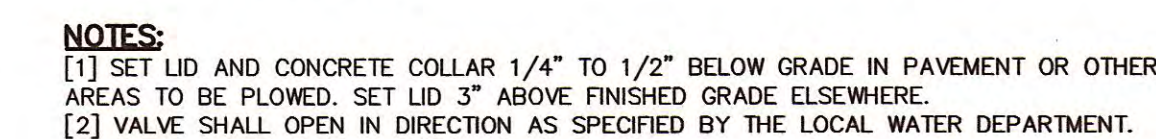
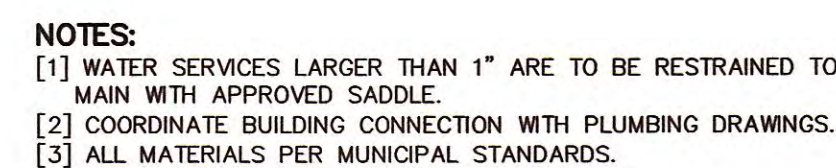
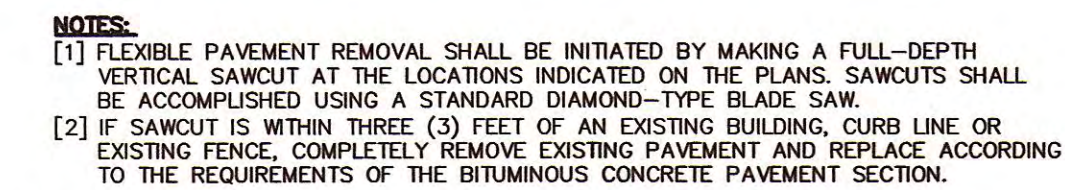
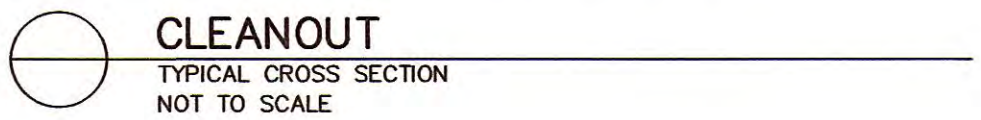
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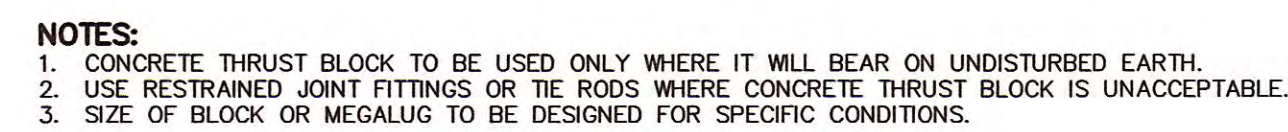
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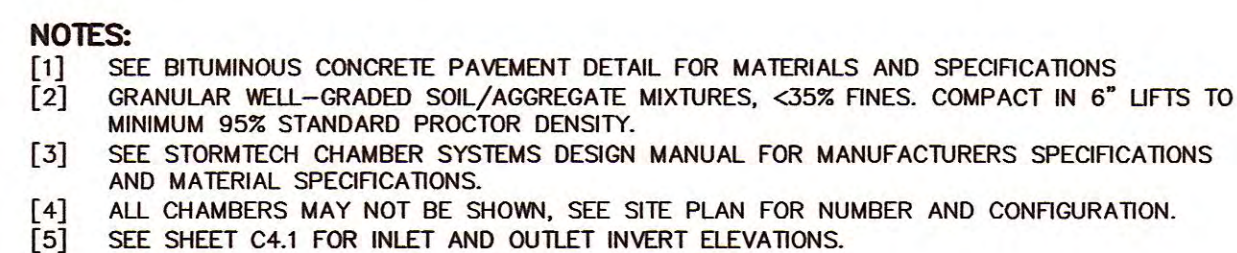
PREPARED FOR:
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200 SUMMIT DRIVE, SUITE 210
BURLINGTON, MA 01803

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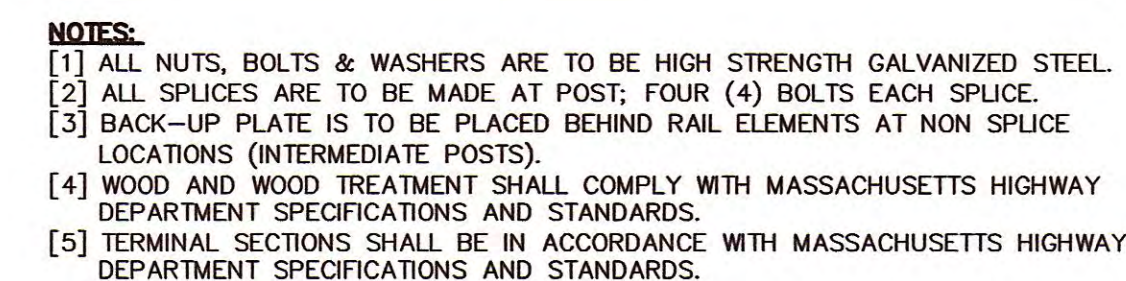




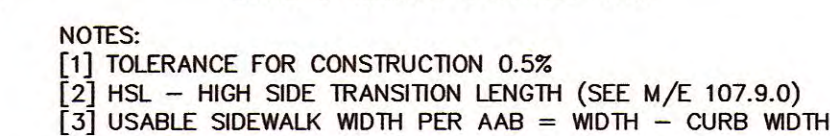
TYPICAL CROSS SECTION
NOT TO SCALE



PROFILE VIEW



TYPICAL CROSS SECTION
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TYPICAL PLAN VIEW
NOT TO SCALE



NOTES:

- [1] CEMENT CONCRETE: 4000 PSI AT 28 DAYS W/ 3/8" MINUS MAXIMUM PARTICLE SIZE (MHD M4.02.00).
- [2] PROVIDE MEDIUM HAIR BROOM FINISH TO ALL EXPOSED SURFACES. USE ROUGH HAIR BROOM ON GRADES OVER 6%.
- [3] WHERE SLAB ABUTS FACE OF BUILDING, AN ISOLATION JOINT SHALL BE USED BETWEEN SLAB AND BUILDING.

NOT TO SCALE



SECTIONAL VIEW

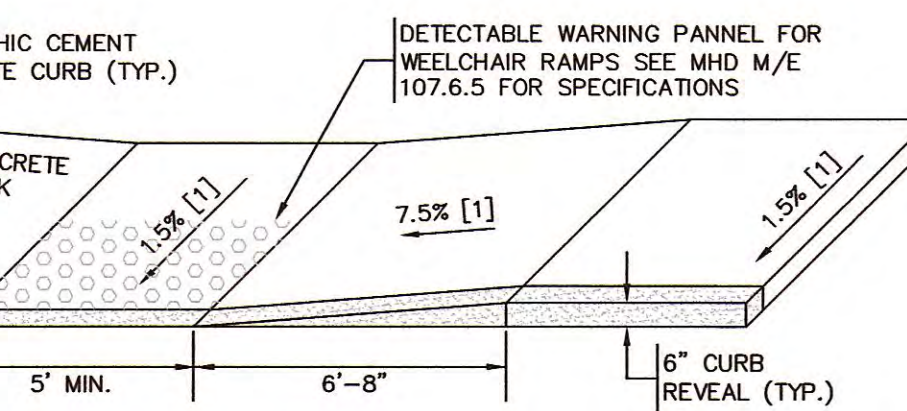
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- [1] CEMENT CONCRETE: 4000 PSI AT 28 DAYS W/ 3/8" MINUS MAXIMUM PARTICLE SIZE (MHD M4.02.00).
- [2] PROVIDE MEDIUM HAIR BROOM FINISH TO ALL EXPOSED SURFACES. USE ROUGH HAIR BROOM ON GRADES OVER 6%.
- [3] A 6-INCH DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAY CROSSINGS AND STREET INTERSECTIONS.
- [4] MAXIMUM CROSS SLOPE UNLESS OTHERWISE SHOWN. MAXIMUM CROSS SLOPE SHALL NOT EXCEED 2% IN AREAS DICTATED BY MAAB AND/OR ADA.
- [5] WHERE SIDEWALK ABUTS FACE OF BUILDING, AN ISOLATION JOINT, SIMILAR TO TRANSVERSE EXPANSION JOINT, SHALL BE USED BETWEEN SIDEWALK AND BUILDING.

NOT TO SCALE



TYPICAL CROSS SECTION
NOT TO SCALE



TYPICAL PLAN VIEW
NOT TO SCALE



TYPICAL CROSS SECTION
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C5.3