DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
An Open Space Residential Design
IN
BEVERLY, MA

APPLICANT:

R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

LAND USE CALCULATIONS:

TOTAL TRACT AREA
58-1B = 172,881 SF = 3.97 AC.
58-2 = 100,346 SF = 2.30 AC.
TOTAL = 273,227 SF = 6.27 AC.

UNDISTURBED AREA RATIO
UNDISTURBED AREA = 144,500 SF = 3.32 AC.
TRACT AREA = 273,227 SF = 6.27 AC.
% UNDISTURBED = 53%

OPEN SPACE CALCULATIONS

BUILDABLE AREA

TOTAL TRACT AREA = 273,227 SF = 6.27 AC.
AREA WITHIN 25' WETLAND BUFFER = 14,390 SF = 0.33 AC.
AREA WITH SLOPE > 20% = 57,448 SF = 1.32 AC.
BUILDABLE AREA = 201,389 SF = 4.62 AC.

REQUIRED OPEN SPACE
201,389 X 0.5 = 100,695 SF = 2.31 AC

PROVIDED OPEN SPACE
163,580 SF = 3.76 AC.

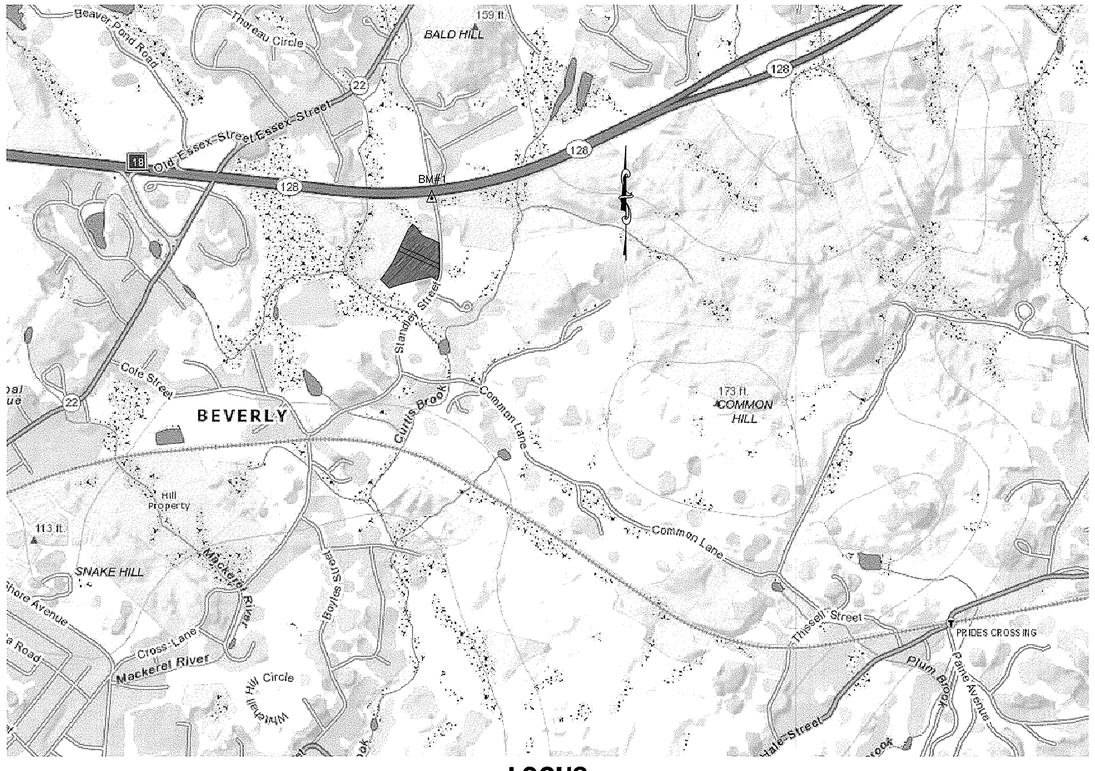
ASSESSOR'S INFORMATION:
LOCUS CONSISTS OF ASSESSOR'S PARCELS 58-1B AND 58-2

ZONING:
ZONING DISTRICT: R-22 ONE FAMILY DISTRICT

DIMENSIONAL REQUIREMENTS
(CONVENTIONAL ZONING):
MIN. LOT AREA: 22,000 S.F.
MAX. BUILDING HEIGHT: 35'
MIN. LOT FRONTAGE: 150'
MIN. FRONT YARD SETBACK: 30'
MIN. SIDE YARD SETBACK: 15'
MIN. REAR YARD SETBACK: 25'

(OPEN SPACE RESIDENTIAL DESIGN):
MIN. LOT AREA: 6,000 S.F.
MAX. BUILDING HEIGHT: 35'
MIN. LOT FRONTAGE: N/A
MIN. FRONT YARD SETBACK: 20'
MIN. SIDE YARD SETBACK: 10'*
MIN. REAR YARD SETBACK: 25'

* ONE SIDE LOT LINE MAY HAVE A ZERO (0) FT SIDE YARD SETBACK PROVIDED THAT ONLY A LOT LINE CREATED BY THE PROPOSED OSRD MAY HAVE SUCH A ZERO (0) FT SIDE YARD SETBACK.



LOCUS
SCALE: 1" = 800'±

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DATE: _____

I, _____, CLERK OF THE CITY OF BEVERLY, DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

_____
CITY CLERK

PAUL A. MARCHIONDA CIVIL No. 30015 COMMONWEALTH OF MASSACHUSETTS
11/24/15

NOTE:

1. ASSESSOR'S PARCELS 58-1B CURRENTLY OWNED BY PAUL J. & DONNA SWEENEY AND 58-2 CURRNETLY OWNED BY PAUL J. SWEENEY ARE TO BE COMBINED UNDER COMMON OWNERSHIP.

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REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:	DSG:	CHK:	
1.	NOI SUBMISSION		10/16/15
2.	REV PER CITY ENGINEER		11/5/15
3.	FINAL REVISIONS		11/23/15

REV	DESCRIPTION	DATE

COVER SHEET

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA
PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
Engineering and Planning Consultants
62 Montvale Avenue
Suite I
Stoneham, MA 02180
TEL: (781) 438-6121
FAX: (781) 438-9654
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15
H:\PROJECTS\857-01\DEFINITIVE\REV4\COVER.DWG
M. & A. NO.: 857-01 | SCALE: NTS

LEGEND - EXISTING CONDITIONS

BENCHMARK
COUNTOURS–EXISTING
DRAIN–CATCH BASIN
DRAIN MANHOLE
DRAIN–FLARED END SECTION
FENCE–CHAIN LINK
FENCE–WOOD OR VINYL
FENCE–GUARD RAIL
MANHOLE – UNKNOWN TYPE
SIGN
SEWER–MANHOLE/CLEANOUT
STONE WALL
TEC–LIGHT POLE
TEC–UTILITY POLE
TEST PIT
TREES/SHRUBS
TREE LINE
WATER–CURB STOP
WATER–FIRE HYDRANT
WATER–VALVE
WETLAND–EDGE OF BVW
WETLAND–25' BUFFER
WETLAND–50' BUFFER
WETLAND–100' BUFFER

LEGEND - PROPOSED

CONTOUR–PROPOSED
DRAIN–CATCHBASIN
DRAIN–MANHOLE
DRAIN–FLARED END SECTION
SEWER–MANHOLE
SIGN
STREET TREE
TREE LINE–PROPOSED
WATER–CURB STOP
WATER–FIRE HYDRANT
WATER–REDUCER
WATER–VALVE
TEC–UTILITY CLUSTER
TEC–STREET LIGHT
GRANITE CURB

ABBREVIATIONS

BB	BITUMINOUS BERM
BM	BENCHMARK
BVW	BORDERING VEGETATED WETLAND
BCSW	BITUMINOUS CONCRETE SIDEWALK
BZ	BUFFER ZONE
CB	CATCH BASIN
CI	CURB INLET
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
D	DRAIN
DIP	DUCTILE IRON PIPE
DMH	DRAIN MAN HOLE
EP	EDGE OF PAVEMENT
FES	FLARED END SECTION
FM	SEWER FORCE MAIN
G	GAS
GCS	GAS CURB STOP
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HW	HEADWALL
HYD	FIRE HYDRANT
I=	INVERT ELEVATION
LP	LIGHT POLE
MB	MAIL BOX
MH	MAN HOLE
ND	NO DISTURB ZONE
OBW	OBSERVATION WELL
OHW	OVERHEAD WIRES
PVC	POLYVINYLCHLORIDE PIPE
R=	RIM ELEVATION
RA	RIVERFRONT AREA
RCP	REINFORCED CONCRETE PIPE
SCO	SEWER CLEANOUT
SGC	SLOPED GRANITE CURB
SMH	SEWER MAN HOLE
SS	SEWER SERVICE
SW	STONE WALL
TEC	TELEPHONE/ELECTRIC/CABLE
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
W	WATER
WCS	WATER CURB STOP
WV	WATER VALVE

PROJECT BENCHMARKS (NAVD88):
BM#1
MAGS BENCHMARK DISK FOUND IN THE NORTHEAST END OF THE STANDLEY STREET BRIDGE OVER ROUTE 128.
ELEVATION=84.32
BM#2
DRILL HOLE IN HEADWALL AT WETLANDS LOCATED AT THE NORTHERLY END OF PARCEL 58–2.
ELEVATION=58.32
BM#3
NAIL IN UTILITY POLE 1843\22 LOCATED ON STANDLEY STREET AT PARCEL 58–2.
ELEVATION=62.87

GENERAL NOTES:
1. CONTRACTOR SHALL ALLOW ENGINEER TO FIELD LOCATE ALL UNDERGROUND UTILITIES PRIOR TO BACK FILL OR FURNISH DESIGN ENGINEER WITH AS–BUILT INFORMATION ON ANY UNDERGROUND UTILITIES INSTALLED, INCLUDING BUT NOT LIMITED TO DRAIN, WATER, SEWER, GAS, ELECTRIC AND TELECOMMUNICATIONS. AS–BUILT INFORMATION PROVIDED SHALL INCLUDE TYPE OF MATERIAL, LOCATION AND ELEVATION. THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO BACKFILL OF THE UNDERGROUND INFILTRATION AND RECHARGE CHAMBER SYSTEMS TO ALLOW ACCESS TO SYSTEMS IN ORDER TO PERFORM AN AS–BUILT SURVEY OF THE UNDERGROUND CHAMBERS, BEDS AND MANIFOLDS.
2. AS–BUILT DRAWINGS ARE TO BE SUPPLIED IN AN ACCEPTABLE FORMAT TO THE CITY ENGINEERING DEPARTMENT UPON COMPLETION OF BUILDING AND UTILITY WORK AND PRIOR TO THE INSTALLATION OF WATER METERS.
3. ALL CONSTRUCTION ACTIVITIES, STANDARDS AND MATERIALS ARE TO BE COMPLETED IN ACCORDANCE WITH MASSDOT GUIDELINES, DOCUMENTS, REGULATIONS AND SPECIFICATIONS AND IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. WHERE THERE IS A DISCREPANCY IN THE APPROVED PLANS AND THE APPLICABLE SPECIFICATIONS, THE DESIGN ENGINEER AND THE CITY'S ENGINEERING DEPARTMENT SHALL BE NOTIFIED PRIOR TO CONSTRUCTION.

EXISTING CONDITIONS NOTES:
1. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
2. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC., AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.
3. EXISTING CONDITIONS AND PROPERTY LINES ARE BASED ON A FIELD SURVEY CONDUCTED BY MARCHIONDA & ASSOCIATES, LP IN SEPTEMBER OF 2014.

UTILITY NOTES:
1. ALL UTILITIES INCLUDING ELECTRIC AND TELECOMMUNICATIONS SHALL BE PLACED UNDERGROUND.
2. FIRE ALARM SYSTEM TO BE INSTALLED AS RECOMMENDED BY THE NATIONAL FIRE PROTECTION ASSOCIATION PUBLICATION #73.
3. GAS COMPANY SHALL BE CONTACTED TO EXPLORE THE FEASIBILITY OF EXTENDING NATURAL GAS SERVICE TO THE SITE.
4. ELECTRIC AND TELECOMMUNICATION LINES SHALL BE INSTALLED IN CONFORMANCE WITH UTILITY PROVIDER AND CITY ELECTRICIAN SPECIFICATIONS.
5. SEE DETAIL SHEETS FOR SPECIFIC NOTES REGARDING DRAINAGE, WATER AND SEWER MATERIALS, SPECIFICATIONS AND INSTALLATION DIRECTIVES.

PLANNING BOARD APPROVALS:
1. SEE THE PLANNING BOARD'S APPROVAL OF OSRD SITE PLAN #5–14 AND DEFINITIVE PLAN GRANTED ON SEPTEMBER 15, 2015. SEE ALSO THE PLANNING BOARD;S CORRECTED DECISION LETTER ISSUED ON NOVEMBER 18, 2015 AND THE CONDITIONS THEREON.

ROADWAY AND EARTHWORK NOTES
1. ALL CURBING TO BE VERTICAL GRANITE CURB (TYPE VA–4) AND SHALL MEET MASSACHUSETTS DPW HANDBOOK SPECIFICATIONS (M9.04.1).
2. PAVEMENT WITHIN THE ROADWAY SHALL BE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I–1 PAVED IN TWO COURSES WITH 3" OF BINDER AND 1–½" FINISH PAVEMENT.
3. ROADWAY SHALL BE PREPARED AND GRADED IN ACCORDANCE WITH THE CITY OF BEVERLY SUBDIVISION RULES AND REGULATIONS SECTION V.B.
4. GRANITE MONUMENTS TO BE CERTIFIED BY A REGISTERED PROFESSIONAL LAND SURVEYOR AS TO PLACEMENT AND ACCURATE LOCATION. MONUMENTS AS SET SHALL BE SHOWN ON THE STREET ACCEPTANCE PLAN.
5. PRIOR TO THE INTRODUCTION OF ANY OFF SITE SOIL OR SOLID FILL, A VALID SITE ASSIGNMENT MUST BE OBTAINED FROM THE BEVERLY BOARD OF HEALTH.
6. CUT EMBANKMENTS MUST BE PLANTED WITH A LOW GROWING SHRUB AND WOOD CHIPPED TO A MINIMUM DEPTH OF 6", OR SEEDED WITH A DEEP ROOTED PERENNIAL GRASS.
7. STREET TREES TO BE PLANTED MIN. 5'/MAX. 10' OFF THE RIGHT OF WAY LINE AT APPROXIMATELY 50' INTERVALS.
8. ALL STREET TREES TO BE OF SPECIES APPROVED BY THE PLANNING BOARD.
9. STREET TREES TO BE 12' (MIN.) HIGH, 2" (MIN.) CALIPER MEASURED AT 4' ABOVE GRADE AND SHALL BE PLANTED IN ½ CUBIC YARD (MIN.) OF TOP SOIL.
10. DECIDUOUS STREET TREES SHALL BE CLEAR OF ALL BRANCHES TO A HEIGHT OF 7' ABOVE GRADE.
11. DEVELOPER SHALL BE LIABLE FOR ALL TREES PLANTED FOR A PERIOD OF 18 MONTHS AFTER STREET ACCEPTANCE.
12. SHOULD THE RODENT POPULATION BE DISPLACED BECAUSE OF LAND DEVELOPMENT, THEN THE DEVELOPER MUST BEAR THE RESPONSIBILITY OF RETAINING THE SERVICES OF A PROFESSIONAL EXTERMINATING COMPANY TO ABATE THE RODENT MIGRATION PROBLEM. THIS SERVICE MUST ADEQUATELY SOLVE THE PROBLEM AND MUST BE COMPLETED AT THE EXPENSE OF THE DEVELOPER.
13. A REFLECTIVE STREET SIGN IS TO BE PLACED AT THE INTERSECTION OF THE PROPOSED ROAD AND STANDLEY STREET UPON COMPLETION OF THE FIRST HOUSE. SIGN TO CONFORM TO CITY DPS SPECIFICATIONS AS TO LOCATION AND SIZE REQUIREMENTS..
14. STREET NAMES TO BE APPROVED BY THE CITY COUNCIL, POLICE AND FIRE DEPARTMENTS.
15. ALL EXISTING FOUNDATIONS SHALL BE FULLY AND COMPLETELY REMOVED FROM THE SITE. THEY ARE NOT TO BE LEFT IN PLACE OR BURIED.
16. ROADWAY CONSTRUCTION IS TO BE PERFORMED UNDER THE SUPERVISION AND INSPECTION OF THE DESIGN ENGINEER OR OTHER QUALIFIED PROFESSIONAL, AS APPROVED BY THE CITY'S ENGINEERING DEPARTMENT. CONSTRUCTION ACTIVITIES ARE TO BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER AS COMPLETED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AND APPLICABLE STANDARDS AND SPECIFICATIONS.
17. THE FINAL LOCATION OF THE STREET LIGHT ADJACENT TO THE GRAVEL ACCESS PATH SHALL BE DETERMINED WITH THE PLANNING DEPARTMENT AND/OR OTHER CITY STAFF.
18. THE PLANTINGS WITHIN THE CUL–DE–SAC ISLAND SHALL BE DETERMINED WITH THE PLANNING DEPARTMENT AND/OR OTHER CITY STAFF.

DRAINAGE NOTES
1. ALL DRAIN LINES WITHIN THE ROAD SHALL BE TYPE III REINFORCED CONCRETE PIPE (RCP).
2. PIPE DIAMETER FOR THE STREET DRAINAGE SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED.
3. ALL FIELD CUTTING OF PIPE SHALL BE DONE IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
4. ALL CATCH BASINS AND WATER QUALITY UNITS WITH GRATES IN THE PAVED ROADWAY TO HAVE 6' GRANITE CURB INLETS AND DEBRIS TRAPS AS SHOWN ON DETAIL SHEETS.
5. ALL MANHOLE AND CATCH BASIN FRAMES SHALL BE MASSACHUSETTS STANDARD COVERS. FRAMES SHALL BE 2' DIAMETER OR 2' SQUARE.
6. ALL MANHOLE AND CATCH BASIN FRAMES TO HAVE 2 COURSES OF BRICK AND MORTAR UNDERNEATH UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
CIVIL
No. 30016
REGISTERED PROFESSIONAL ENGINEER
11/24/15

WATER NOTES
1. PIPE, FITTINGS, VALVES, JOINTS/PACKING AND FIRE HYDRANTS SHALL CONFORM TO CITY OF BEVERLY DPS SPECIFICATIONS. ALL HYDRANTS AND WATER GATE VALVES SHALL OPEN RIGHT. HYDRANTS TO MEET THE REQUIREMENTS OF THE CITY OF BEVERLY FIRE DEPARTMENT.
2. WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON (CLDI), CLASS 150 OR APPROVED EQUAL, 8" DIAMETER UNLESS OTHERWISE NOTED (GASKETED PUSH–ON OR MECHANICAL JOINTS). WATER SERVICE LINES TO BE OF SIZE AND TYPE APPROVED BY THE CITY OF BEVERLY DPS.
3. INSTALLATION OF PIPE AND FITTINGS SHALL CONFORM TO THE STRICTER OF CITY OF BEVERLY DPS STANDARDS, AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. ALL WATER MAIN CONSTRUCTION SHALL BE DONE UNDER THE SUPERVISION OF THE DEPARTMENT OF PUBLIC SERVICES WATER DIVISION.
4. A MINIMUM OF 5 FEET OF COVER SHALL BE MAINTAINED OVER WATER MAIN.
5. THE INSTALLED WATER MAINS SHALL BE PRESSURE TESTED AND LEAK TESTED IN ACCORDANCE WITH AWWA STANDARDS AND ANY MUNICIPAL REQUIREMENTS.
6. THE INSTALLED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS.
7. THE PROJECT SHALL COMPLY WITH APPLICABLE CROSS–CONNECTION REQUIREMENTS OF THE CITY OF BEVERLY AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.
8. HYDRANTS SHALL BE OF A STYLE APPROVED BY THE CITY OF BEVERLY WATER & FIRE DEPARTMENTS. ALL HYDRANTS SHALL BE SITED WITHIN 3' OF THE CURB. HYDRANTS SHALL BE SERVED FROM THE WATER MAIN THROUGH A 6" LATERAL CONNECTION AND SHALL BE GATED WITH A VALVE BOX WITH A 6" VALVE. HYDRANTS TO HAVE (2) 2–½" HOSE OUTLETS AND (1) 4–½" HOSE OUTLET. THE 4–½" OUTLET SHALL BE 18" FROM THE FINISH GRADE.
9. FIRE FLOW RATE SHALL BE A MINIMUM OF 1,000 GAL./MINUTE AT A RESIDUAL OF 20 PSI OR AS REQUIRED BY THE CITY OF BEVERLY FIRE CHIEF.
10. WATER WILL BE SUPPLIED TO THE PROJECT VIA THE MUNICIPAL 6" CLDI WATER MAIN ALONG STANDLEY STREET. THE PROPOSED WATER MAIN SHALL BE 8" CLDI.
11. THE TIE IN AT STANDLEY STREET SHALL BE CONSTRUCTED BY CUTTING OUT A SECTION OF THE EXISTING 6" CLDI WATER MAIN IN STANDLEY STREET AND INSTALLING A PRE–ASSEMBLED TEE/VALVE ASSEMBLY CONNECTING TO THE EXISTING PIPE WITH HYMAX 2000 LONG BODY TYPE COUPLINGS BY KRAUSZ OR APPROVED EQUAL. THE PRE–ASSEMBLED CONFIGURATION SHALL INCLUDE AN 8"x8" TEE, 8" SPOOL PIECES ON BOTH SIDES, 8"x6" REDUCER ON BOTH SIDES, AND 6" SPOOL PIECES WITH COUPLINGS TO MATE TO THE EXISTING MAIN. THE TEE BRANCH SHALL INCLUDE AN 8" RESILIENT SEATED GATE VALVE FOR THE 8" LATERAL EXTENSION INTO THE PROPOSED PROJECT. A THRUSTBLOCK (SEE DETAIL) SHALL BE INSTALLED AT THE TEE.
12. AT THE TIME OF INSTALLATION OF THE PRE–ASSEMBLED CONNECTION, THE CONTRACTOR SHALL BE PREPARED WITH PUMPS AND APPROPRIATE EROSION CONTROL MEASURES FOR DEWATERING OF THE TRENCH. THE EXISTING MAIN SHALL BE GRADUALLY CUT FROM THE TOP DOWN TO ALLOW DEWATERING. PRECAUTIONS SHALL BE MADE TO ENSURE THAT NO WATER FROM THE TRENCH ENTERS THE EXISTING MAIN OR CONNECTION ASSEMBLY. THE ENTIRE CONNECTION ASSEMBLY IS TO BE PRE–SWABBED WITH A CHLORINE SOLUTION BEFORE INSTALLATION. IF THE SITUATION ARISES WHERE FLOWABLE FILL MUST BE USED, THE WATER MAIN AND CONNECTIONS SHALL BE WRAPPED IN POLYETHYLNE.

SEWER NOTES
1. GRAVITY SEWER MAIN SHALL BE 8–INCH SDR–35 PVC OR APPROVED EQUAL. HOUSE LATERALS SHALL BE 6–INCH SDR–35 PVC OR APPROVED EQUAL INSTALLED TO WITHIN 10' OF THE FOUNDATION, THEN 4" SCH. 40 PVC INTO THE BUILDING.
2. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN OR SERVICE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN/SERVICE THE WATER MAIN/SERVICE SHOULD BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER PLACED AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN. WHEREVER SEWER MUST CROSS UNDER WATER MAINS, THE SEWER SHOULD BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
3. ALL MANHOLE COVERS SHALL BE CITY OF BEVERLY DPS SPECIFIED COVERS.
4. SEWER MAINS TO BE PRESSURE TESTED PER CITY OF BEVERLY ENGINEERING DEPARTMENT SPECIFICATIONS.

EROSION CONTROL NOTES:
1. THIS PROJECT WILL BE SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). ALL REQUIREMENTS OF A NPDES CONSTRUCTION GENERAL PERMIT MUST BE MET FOR STORMWATER DISCHARGE DURING CONSTRUCTION ACTIVITIES.
2. AN EROSION CONTROL MONITOR SHALL BE APPOINTED TO ENSURE COMPLIANCE WITH THE FOLLOWING REGULATIONS AND TO PROVIDE GUIDANCE ON ANY NECESSARY REPAIRS OR MODIFICATIONS TO THE EROSION CONTROL MEASURES.
3. EROSION CONTROL BARRIER (WHERE SHOWN) REPRESENTS THE LIMIT OF WORK. WHERE NO EROSION CONTROL BARRIER IS REQUIRED (SUCH AS UPSLOPE AREAS), A LIMIT OF WORK LINE HAS BEEN SHOWN.
4. STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100–FOOT WETLAND BUFFER. EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWN GRADIENT OF STOCKPILES IN ACCORDANCE WITH THE PLAN AND DETAILS.
5. PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILTATION FENCES, STRAW BALES, CRUSHED STONE, RIP RAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
6. AS A MINIMUM, SILTATION FENCES AND STRAW BALES WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. STRAW BALES AND SILT SACKS WILL ALSO BE USED TO PROTECT OFF LINE CATCH BASINS, GRATE/CURB INLETS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILTATION FENCE AND STRAW BALES ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
7. TRACKING PADS SHALL BE USED WHERE ANY TEMPORARY CONSTRUCTION ENTRANCE IS LOCATED ADJACENT TO ANY EXISTING TRAVELED WAY OR DRIVEWAY.
8. CRUSHED STONE AND/OR RIP RAP WILL BE USED TO CONSTRUCT THE TRACKING PAD, CUT SLOPE TREATMENT AREAS, CHECK DAMS, SEDIMENTATION BASIN OUTLET PROTECTION, AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF CRUSHED STONE AND RIP RAP ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
9. LOAMING AND SEEDING WILL BE USED AS A PERMANENT STABILIZATION MEASURE FOR ALL REVEGETATED AREAS OF THE SITE. HYDROSEEDING MAY BE USED IN CERTAIN AREAS IN LIEU OF STANDARD SEEDING METHODS SHOULD CONDITIONS WARRANT.
10. EROSION CONTROL MATTING WILL BE USED TO REINFORCE SLOPES GREATER THAN 3H:1V AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF EROSION CONTROL MATTING ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
11. MULCHING MAY BE USED TO REINFORCE SEEDED AREAS WHERE EROSION CONTROL MATTING IS NOT REQUIRED OR WARRANTED, BUT WHERE SOME PROTECTION IS WARRANTED. MULCHING MAY ALSO BE USED TO STABILIZE AREAS WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS.
12. SEDIMENTATION BASINS MAY BE USED THROUGH OUT THE SITE TO TREAT RUNOFF AND SHALL BE SIZED IN ACCORDANCE WITH NPDES REQUIREMENTS AND THE RECOMMENDATIONS OF THE EROSION CONTROL MONITOR. DIVERSION BERMS MAY BE UTILIZED TO DIVERT UNTREATED STORM WATER TO THE SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS WILL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT THE CONSTRUCTION PROCESS, AS NECESSARY.
13. STABILIZATION MEASURES WILL BE REQUIRED TO BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS IN WHICH CASE STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
14. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE INSPECTED EITHER ONCE EVERY SEVEN CALENDAR DAYS, OR ONCE EVERY FOURTEEN CALENDAR DAYS AND WITHIN TWENTY–FOUR HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, IN ACCORDANCE WITH NPDES REQUIREMENTS, BY AN EROSION CONTROL MONITOR. COPIES OF THE NPDES INSPECTION REPORTS SHALL BE KEPT ON SITE. THE SITE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE EROSION CONTROL MONITOR.
15. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENSURE THAT THEY FUNCTION AS INTENDED. DEFICIENCIES WILL BE CORRECTED BY CLEANING, REPAIRING, OR REPLACING THE AFFECTED CONTROL(S) OR PORTION(S) THEREOF TO REESTABLISH PROPER FUNCTIONING AS QUICKLY AS POSSIBLE. SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE CLEANED OR REPLACED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 50 PERCENT OF THE DESIGN CAPACITY OF THE CONTROL. ANY OFF–SITE ACCUMULATIONS OF SEDIMENT WILL BE REQUIRED TO BE REMOVED AS QUICKLY AS POSSIBLE IN A MANNER THAT MINIMIZES ADDITIONAL DISTURBANCE. THIS INCLUDES STREET SWEEPING OF SURROUNDING STREETS AS NECESSARY.
16. TEMPORARY SEDIMENTATION BASINS OR DIRT BAGS SHALL BE USED TO TREAT WASTE WATER GENERATED FROM ANY DEWATERING ACTIVITY AS CONDITIONS WARRANT. A TEMPORARY SEDIMENTATION BASIN SHALL BE USED TO TREAT WASTE WATER FROM ANY CONCRETE WASHOUT ACTIVITIES.
17. DURING CONSTRUCTION ACTIVITIES, AFTER PLACEMENT OF PAVEMENT THE INTERIOR ROADWAY SHALL BE SWEPT AS NECESSARY TO PREVENT THE CONTAMINATION OF STORMWATER RUNOFF. ANY SEDIMENT DEPOSITED ON STANDLEY STREET AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE SWEPT AS SOON AS POSSIBLE.
18. DURING DRY AND WINDY CONDITIONS DUST CONTROL MEASURES SHALL BE IMPLENTED AS NECESSARY TO PREVENT AIRBORNE SEDIMENT TRANSPORT FROM THE SITE. THESE MEASURES SHALL INCLUDE WETTING OF EXPOSED SOIL AND STREET SWEEPING AS OUTLINED ABOVE. ENOUGH WATER SHALL BE APPLIED TO WET THE TOP ½" OF EXPOSED SOIL. WATER SHALL ALSO BE APPLIED TO PAVED AREAS THAT HAVE NOT YET BEEN SWEPT CLEAN. A WATER TRUCK SHALL BE MADE AVAILABLE AS NECESSARY TO FACILITATE THIS PRACTICE.
19. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE CONSTRUCTION PERIOD EROSION AND SEDIMENTATION CONTROL MEASURES AND FOR ENSURING COMPLIANCE ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO THE PREVENTION OF STORMWATER RUNOFF CONTAMINATION.

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APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:		DSG:	CHK:	
1.	NOI SUBMISSION			10/16/15
2.	REV PER CITY ENGINEER			11/5/15
3.	FINAL REVISIONS			11/23/15

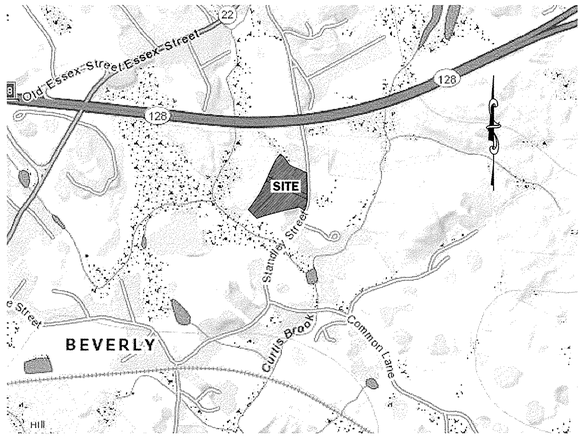
REV	DESCRIPTION	DATE

LEGEND & NOTES

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA
PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda
& Associates, L.P.
Engineering and Planning Consultants
62 Montvale Avenue
Suite I
Stoneham, MA 02180
TEL: (781) 438–6121
FAX: (781) 438–9654
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15
H:\PROJECTS\857–01\DEFINITIVE\REV4\COVER.DWG
M. & A. NO.: 857–01 | SCALE: NTS



LOCUS
1" = 800'±

DATE: _____

I, _____, CLERK OF THE CITY OF BEVERLY, DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

_____
CITY CLERK

"I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS."

DAVID L. FARRAR, PLS #50879 — DATE: 11/24/15

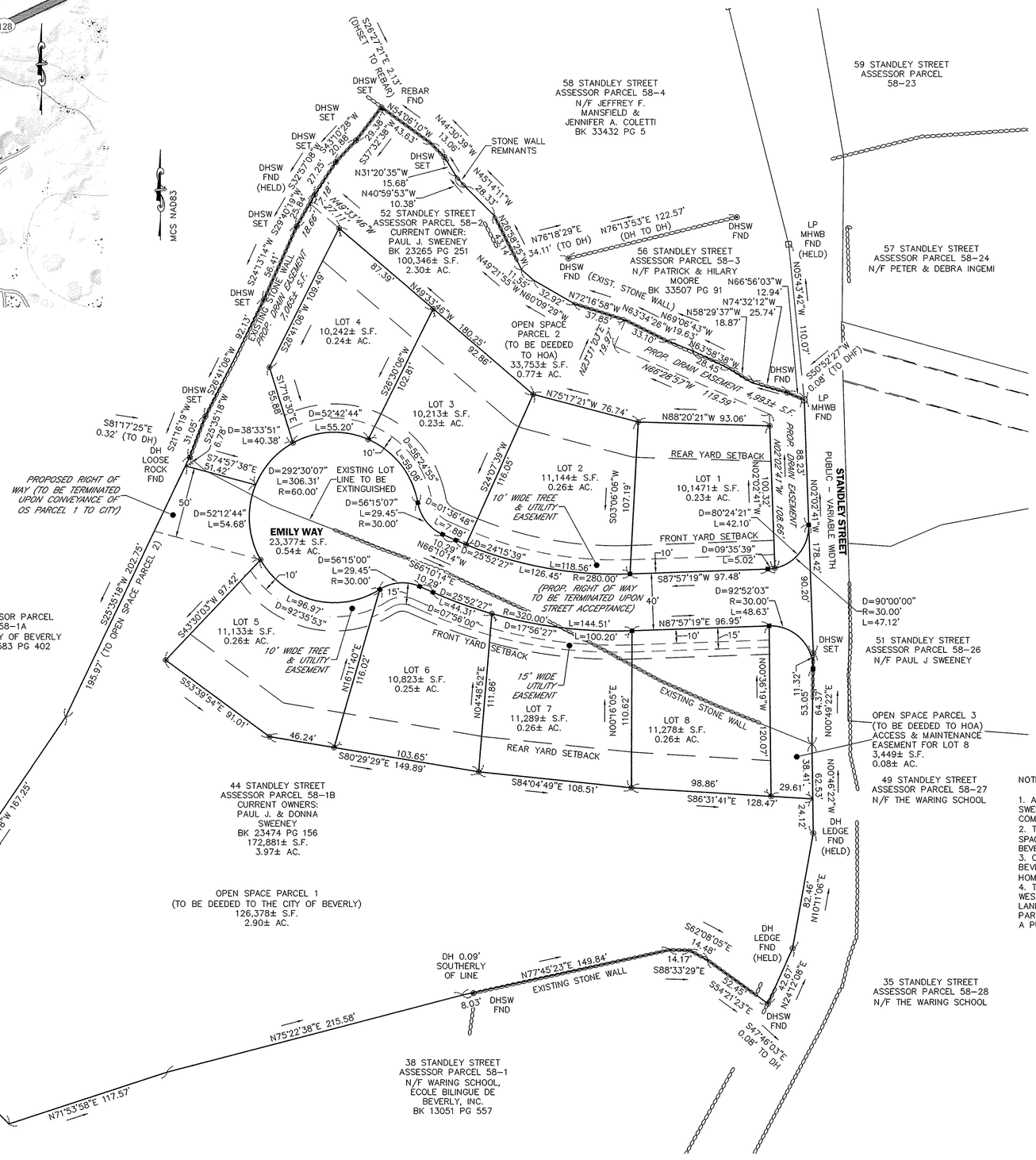
COMMONWEALTH OF MASSACHUSETTS — DAVID L. FARRAR #50879 — REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND - SURVEY

- LOT LINE–PROPOSED
- LOT LINE TO BE EXTINGUISHED
- EASEMENT LINE–PROPOSED
- EASEMENT/R.O.W. LINE–EXISTING
- YARD SETBACK LINE
- STONE WALL
- BOUND FOUND
- DRILL HOLE FOUND
- REBAR/IRON ROD FOUND
- STONE BOUND TO BE SET
- IRON PIPE TO BE SET

ABBREVIATIONS-SURVEY

AC	ACRES
DH	DRILL HOLE
FND	FOUND
LP	LEAD PLUG
MAHWB	MASS. HIGHWAY DEPT. BOUND
SF	SQUARE FEET
SW	STONE WALL



DEED REFERENCES:
ESSEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS
BK 4121 PG 278
BK 5583 PG 402
BK 23265 PG 251
BK 23474 PG 156

PLAN REFERENCES:
ESSEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS
PLBK 82 PL 71
PLBK 113 PL 33
PLBK 136 PL 96
PLBK 266 PL 70

ASSESSOR'S INFORMATION:
LOCUS CONSISTS OF ASSESSOR'S PARCELS 58–1B AND 58–2

ZONING:
ZONING DISTRICT: R–22 ONE FAMILY DISTRICT

DIMENSIONAL REQUIREMENTS
(CONVENTIONAL ZONING):
MIN. LOT AREA: 22,000 S.F.
MAX. BUILDING HEIGHT: 35'
MIN. LOT FRONTAGE: 150'
MIN. FRONT YARD SETBACK: 30'
MIN. SIDE YARD SETBACK: 15'
MIN. REAR YARD SETBACK: 25'

(OPEN SPACE RESIDENTIAL DESIGN):
MIN. LOT AREA: 6,000 S.F.
MAX. BUILDING HEIGHT: 35'
MIN. LOT FRONTAGE: N/A
MIN. FRONT YARD SETBACK: 20'
MIN. SIDE YARD SETBACK: 10'*
MIN. REAR YARD SETBACK: 25'

* ONE SIDE LOT LINE MAY HAVE A ZERO (0) FT SIDE YARD SETBACK PROVIDED THAT ONLY A LOT LINE CREATED BY THE PROPOSED OSRD MAY HAVE SUCH A ZERO (0) FT SIDE YARD SETBACK.

NOTE:

1. ASSESSOR'S PARCELS 58–1B CURRENTLY OWNED BY PAUL J. & DONNA SWEENEY AND 58–2 CURRENTLY OWNED BY PAUL J. SWEENEY ARE TO BE COMBINED UNDER COMMON OWNERSHIP.
2. THIS IS A SUBDIVISION PLAN OF LAND PURSUANT TO §38–24.B "OPEN SPACE RESIDENTIAL DESIGN (OSRD) SITE PLAN ORDINANCE" OF THE CITY OF BEVERLY ZONING ORDINANCE.
3. OPEN SPACE PARCELS 1 & 3 ARE TO BE DEEDED TO THE CITY OF BEVERLY. OPEN SPACE PARCEL 2 IS TO BE DEEDED TO THE HOMEOWNER'S ASSOCIATION.
4. THE PROPOSED RIGHT OF WAY EXTENDING FROM STANDLEY STREET WESTERLY THROUGH PARCELS 58–1B & 58–2 TO THE CITY OF BEVERLY LAND IS TO BE TERMINATED UPON CONVEYANCE OF THE OPEN SPACE PARCEL 1 TO THE CITY OF BEVERLY AND ACCEPTANCE OF EMILY WAY AS A PUBLIC WAY.

HORIZONTAL SCALE 1"=40'
40 20 0 40 80 120

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REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

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SUBDIVISION PLAN OF LAND

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

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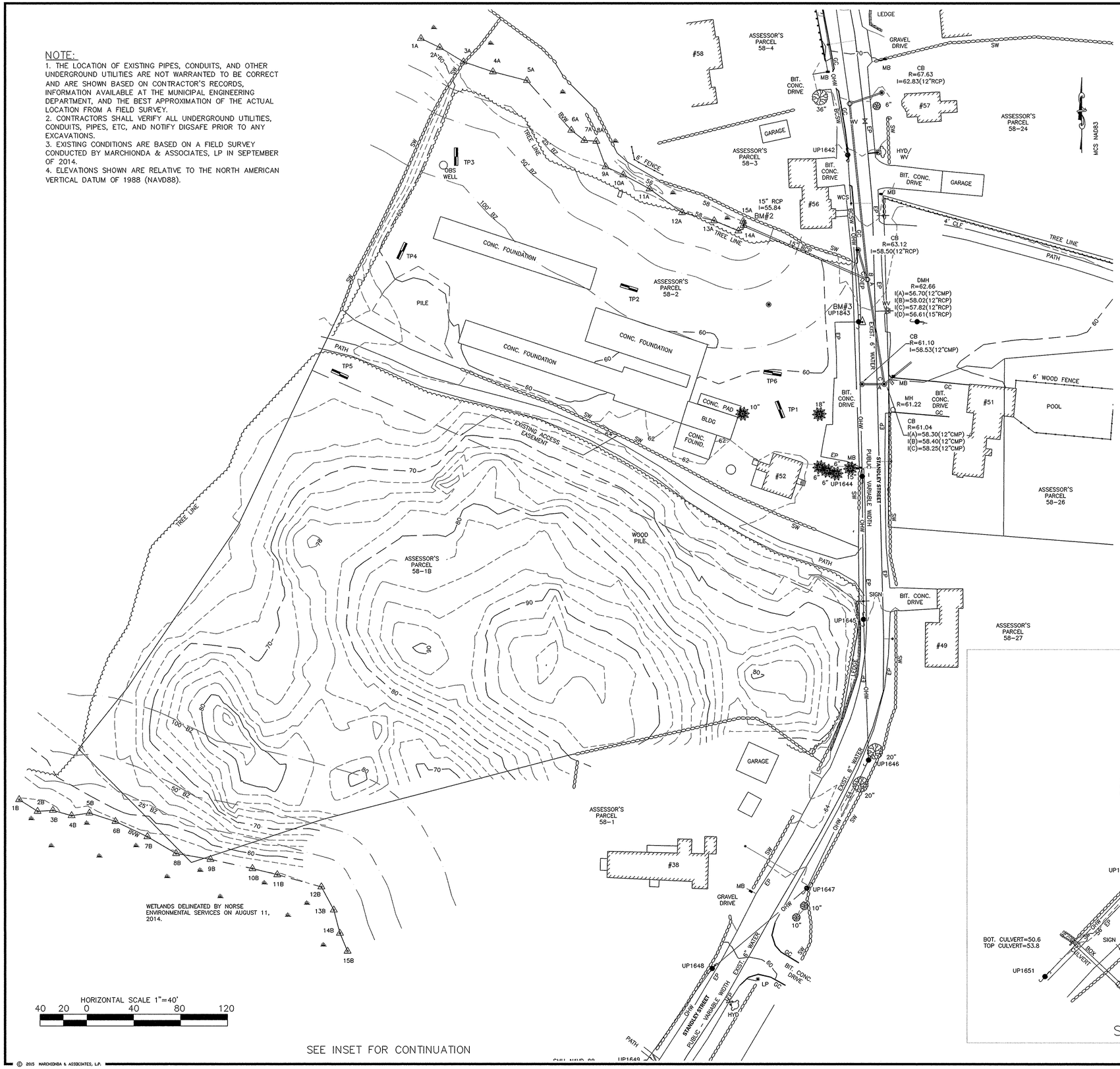
FAX: (781) 438–9654
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15
H:\PROJECTS\857–01\DEFINITIVE\REV4\RECORD PLAN.DWG
M. & A. NO.: 857–01 | SCALE: 1"=40'
SHEET 3 OF 18

NOTE:
1. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
2. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.
3. EXISTING CONDITIONS ARE BASED ON A FIELD SURVEY CONDUCTED BY MARCHIONDA & ASSOCIATES, LP IN SEPTEMBER OF 2014.
4. ELEVATIONS SHOWN ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



COMMONWEALTH OF MASSACHUSETTS
DAVID J. FARRAR #50879 REGISTERED PROFESSIONAL LAND SURVEYOR
David J. Farrar
11/24/15

REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

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REV.	DESCRIPTION	DATE

EXISTING CONDITIONS

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
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TEL: (781) 438-6121
FAX: (781) 438-9654
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15
H:\PROJECTS\857-01\DEFINITIVE\REV4\EX-COND.DWG
M. & A. NO.: 857-01 | SCALE: 1"=40'

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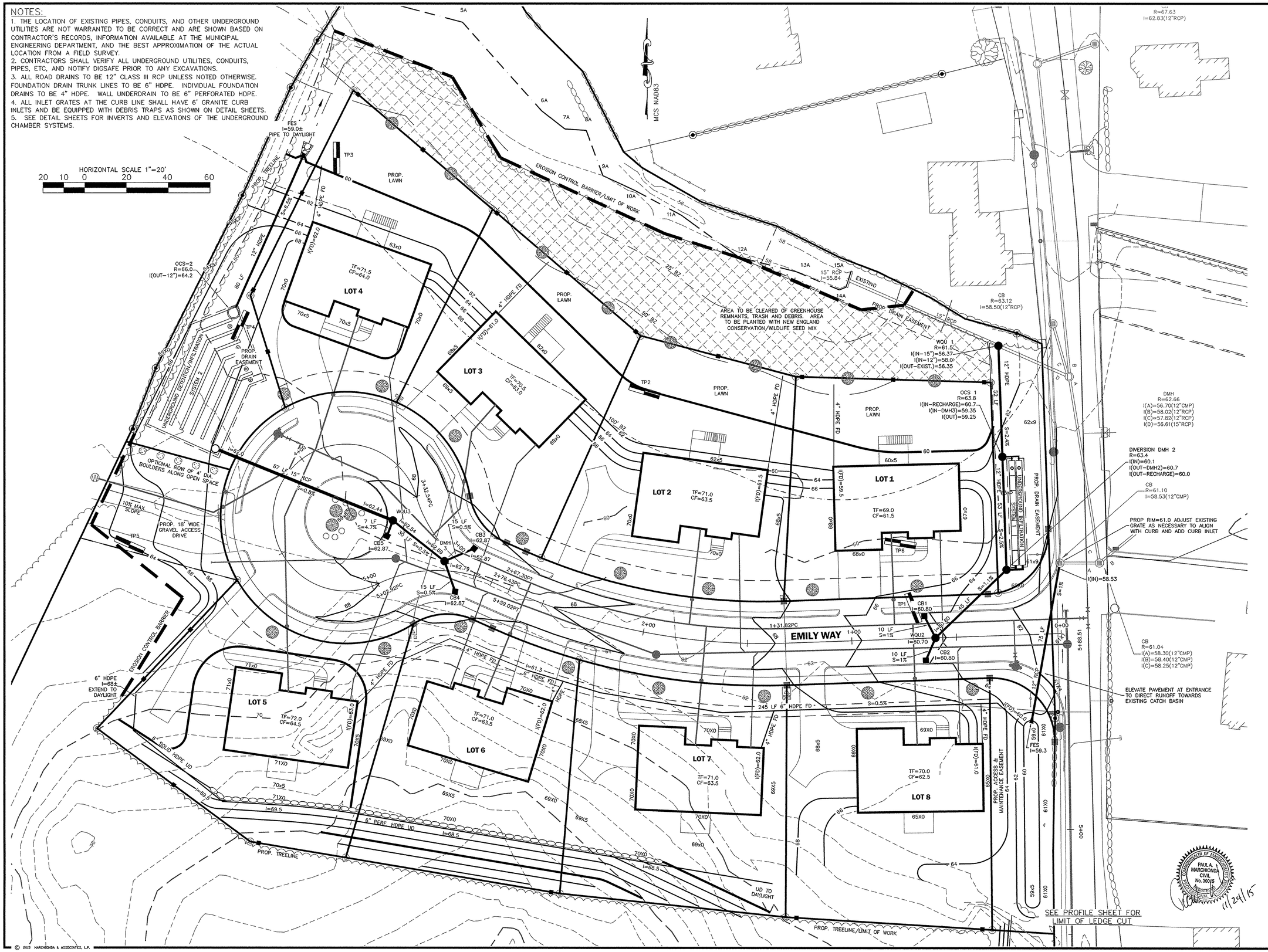
NOTES:

1. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
2. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.
3. ALL ROAD DRAINS TO BE 12" CLASS III RCP UNLESS NOTED OTHERWISE. FOUNDATION DRAIN TRUNK LINES TO BE 6" HDPE. INDIVIDUAL FOUNDATION DRAINS TO BE 4" HDPE. WALL UNDERDRAIN TO BE 6" PERFORATED HDPE.
4. ALL INLET GRATES AT THE CURB LINE SHALL HAVE 6' GRANITE CURB INLETS AND BE EQUIPPED WITH DEBRIS TRAPS AS SHOWN ON DETAIL SHEETS.
5. SEE DETAIL SHEETS FOR INVERTS AND ELEVATIONS OF THE UNDERGROUND CHAMBER SYSTEMS.



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GRADING & DRAINAGE PLAN

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
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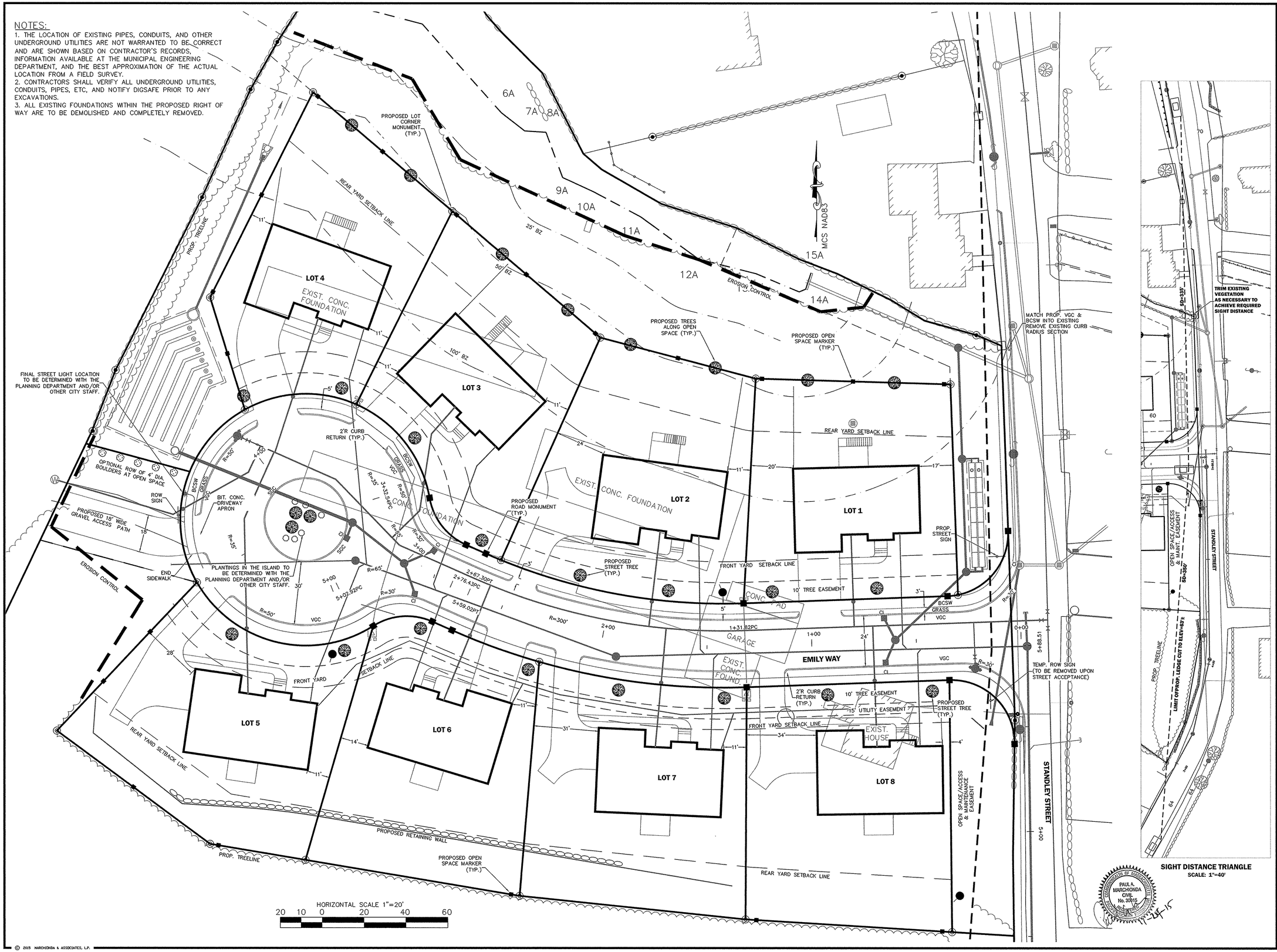
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15

H:\PROJECTS\857-01\DEFINITIVE\REV4\GRD.DWG

M. & A. NO.: 857-01 | SCALE: 1"=20'

NOTES:
1. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
2. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.
3. ALL EXISTING FOUNDATIONS WITHIN THE PROPOSED RIGHT OF WAY ARE TO BE DEMOLISHED AND COMPLETELY REMOVED.



SIGHT DISTANCE TRIANGLE
SCALE: 1"=40'

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LAYOUT AND MATERIALS PLAN

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
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PAUL A. MARCHIONDA CIVIL No. 30915 COMMONWEALTH OF MASSACHUSETTS
11-24-15

DATE: 7/9/15
H:\PROJECTS\857-01\DEFINITIVE\REV4\LM.DWG
M. & A. NO.: 857-01 | SCALE: 1"=20'
SHEET 6 OF 18

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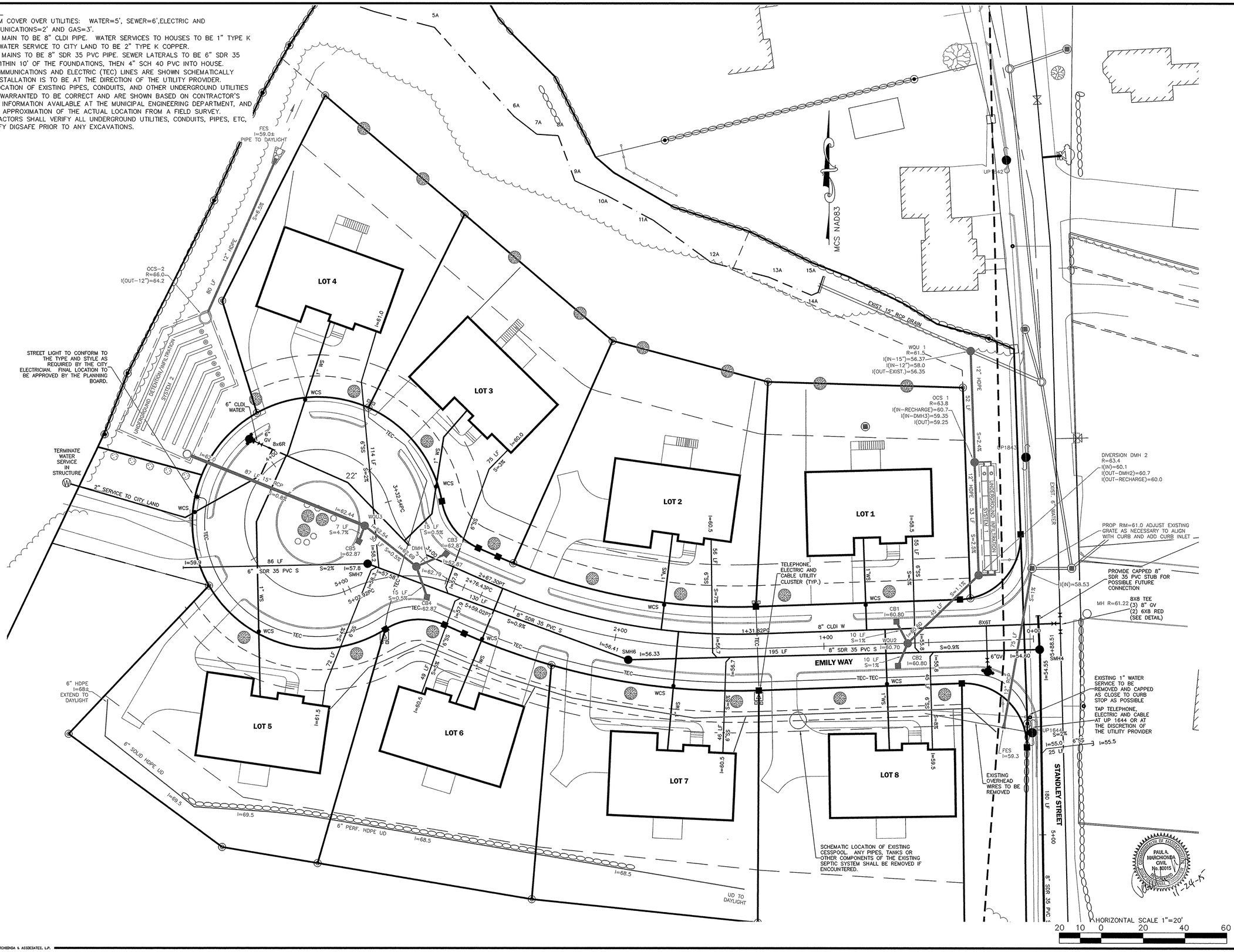
NOTES:

1. MINIMUM COVER OVER UTILITIES: WATER=5', SEWER=6',ELECTRIC AND TELECOMMUNICATIONS=2' AND GAS=3'.
2. WATER MAIN TO BE 8" CLDI PIPE. WATER SERVICES TO HOUSES TO BE 1" TYPE K COPPER. WATER SERVICE TO CITY LAND TO BE 2" TYPE K COPPER.
3. SEWER MAINS TO BE 8" SDR 35 PVC PIPE. SEWER LATERALS TO BE 6" SDR 35 PVC TO WITHIN 10' OF THE FOUNDATIONS, THEN 4" SCH 40 PVC INTO HOUSE.
4. TELECOMMUNICATIONS AND ELECTRIC (TEC) LINES ARE SHOWN SCHEMATICALLY ONLY. INSTALLATION IS TO BE AT THE DIRECTION OF THE UTILITY PROVIDER.
5. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
6. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.



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UTILITIES PLAN

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
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PAUL A. MARCHIONDA CIVIL No. 30015 COMMONWEALTH OF MASSACHUSETTS

11-24-15

DATE: 7/9/15

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M. & A. NO.: 857-01 | SCALE: 1"=20'

SHEET 7 OF 18

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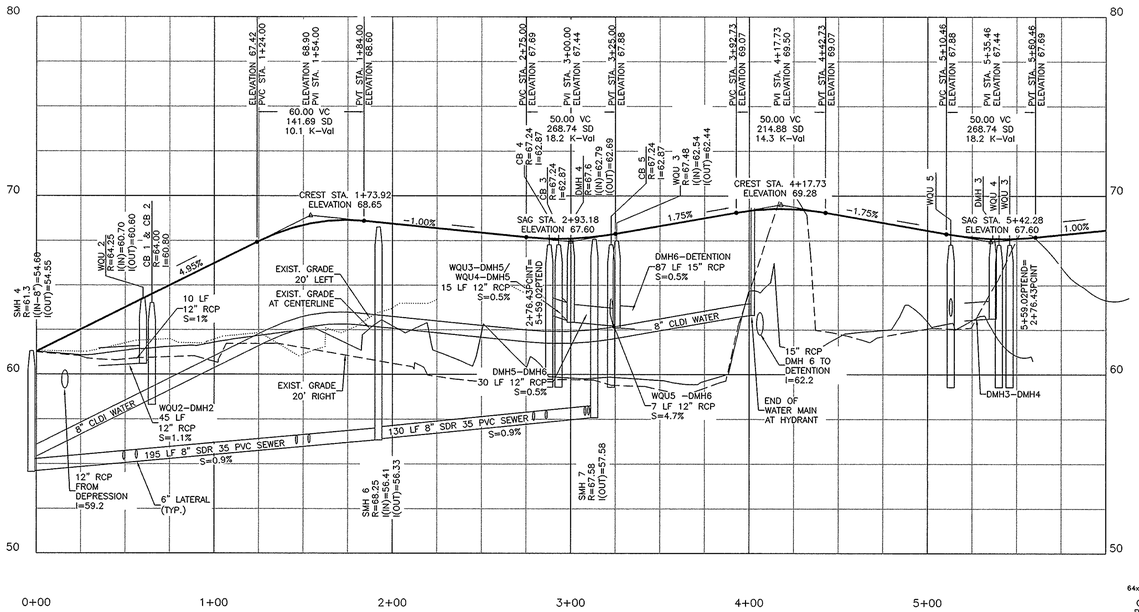

HORIZONTAL SCALE 1"=40'

40 20 0 40 80 120

4 2 0 4 8 12

VERTICAL SCALE 1"=4'

NOTES:

1. MINIMUM COVER OVER UTILITIES: WATER=5', SEWER=6',ELECTRIC AND TELECOMMUNICATIONS=2' AND GAS=3'.
2. WATER MAIN TO BE 8" CLDI PIPE. WATER SERVICES TO HOUSES TO BE 1" TYPE K COPPER. WATER SERVICE TO CITY LAND TO BE 2" TYPE K COPPER.
3. SEWER MAINS TO BE 8" SDR 35 PVC PIPE. SEWER LATERALS TO BE 6" SDR 35 PVC TO WITHIN 10' OF THE FOUNDATIONS, THEN 4" SCH 40 PVC INTO HOUSE.
4. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
5. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.

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PLAN AND PROFILE
EMILY WAY

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS

AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
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DATE: 7/9/15

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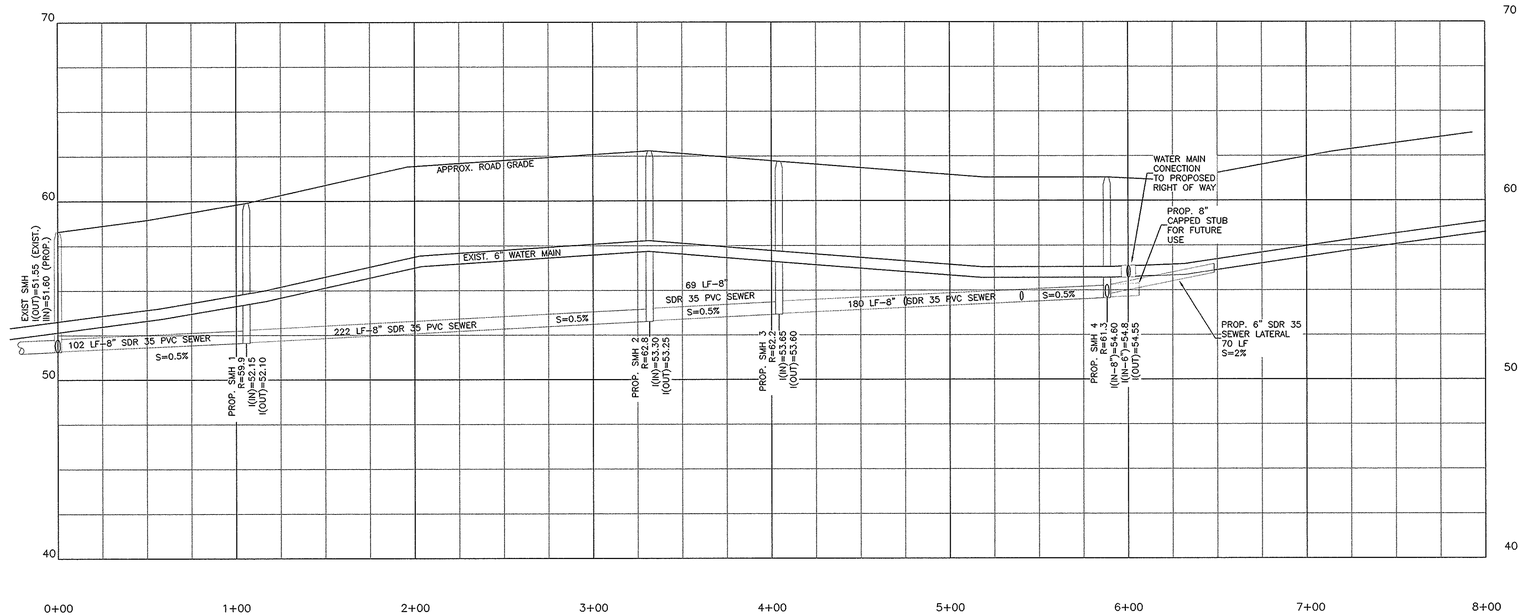
M. & A. NO.: 857-01 | SCALE: 1"=40'

NOTES:

1. MINIMUM COVER OVER UTILITIES: WATER=5', SEWER=6',ELECTRIC AND TELECOMMUNICATIONS=2' AND GAS=3'.
2. WATER MAIN TO BE 8" CLDI PIPE. WATER SERVICES TO HOUSES TO BE 1" TYPE K COPPER. WATER SERVICE TO CITY LAND TO BE 2" TYPE K COPPER.
3. SEWER MAINS TO BE 8" SDR 35 PVC PIPE. SEWER LATERALS TO BE 6" SDR 35 PVC TO WITHIN 10' OF THE FOUNDATIONS, THEN 4" SCH 40 PVC INTO HOUSE.
4. THE LOCATION OF EXISTING PIPES, CONDUITS, AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE CORRECT AND ARE SHOWN BASED ON CONTRACTOR'S RECORDS, INFORMATION AVAILABLE AT THE MUNICIPAL ENGINEERING DEPARTMENT, AND THE BEST APPROXIMATION OF THE ACTUAL LOCATION FROM A FIELD SURVEY.
5. CONTRACTORS SHALL VERIFY ALL UNDERGROUND UTILITIES, CONDUITS, PIPES, ETC, AND NOTIFY DIGSAFE PRIOR TO ANY EXCAVATIONS.



HORIZONTAL SCALE 1"=40'
40 20 0 40 80 120
4 2 0 4 8 12
VERTICAL SCALE 1"=4'

PAUL A. MARCHIONDA CIVIL No. 30915 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS
11-24-15

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PLAN AND PROFILE
STANDLEY STREET SEWER EXTENSION

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS

AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
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M. & A. NO.: 857-01 | SCALE: 1"=40'

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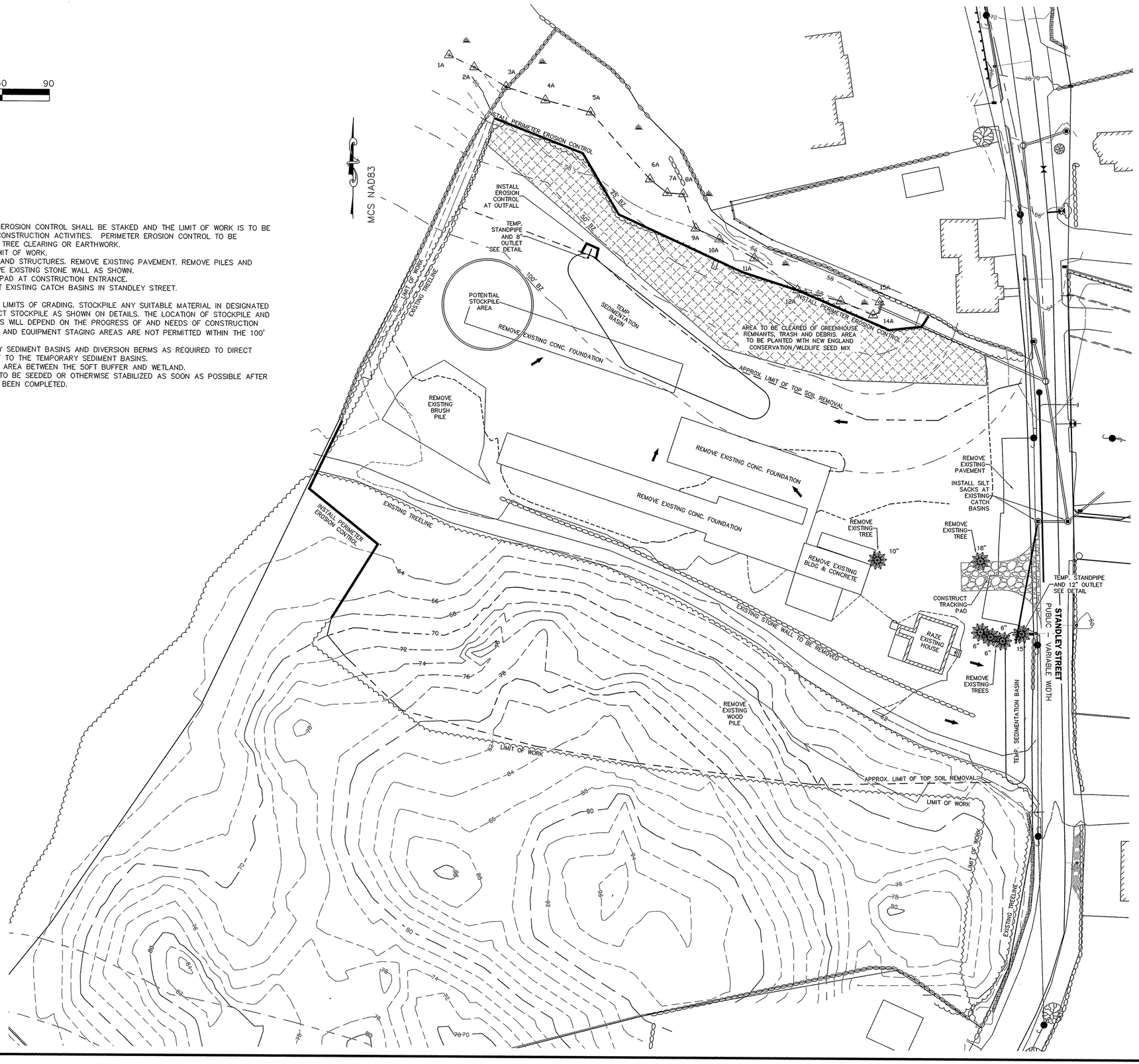
HORIZONTAL SCALE 1"=30'

30 15 0 30 60 90

NOTE:

1. THE LOCATION OF THE EROSION CONTROL SHALL BE STAKED AND THE LIMIT OF WORK IS TO BE FLAGGED PRIOR TO ANY CONSTRUCTION ACTIVITIES. PERIMETER EROSION CONTROL TO BE INSTALLED PRIOR TO ANY TREE CLEARING OR EARTHWORK.
2. TREE CLEAR ENTIRE LIMIT OF WORK.
3. RAZE EXISTING HOUSE AND STRUCTURES. REMOVE EXISTING PAVEMENT. REMOVE PILES AND DEBRIS FROM SITE. REMOVE EXISTING STONE WALL AS SHOWN.
4. CONSTRUCT TRACKING PAD AT CONSTRUCTION ENTRANCE.
5. INSTALL SILT SACKS AT EXISTING CATCH BASINS IN STANDLEY STREET.
5. GRUB CLEARED AREA.
6. STRIP TOP SOIL WITHIN LIMITS OF GRADING. STOCKPILE ANY SUITABLE MATERIAL IN DESIGNATED STOCKPILE AREA. PROTECT STOCKPILE AS SHOWN ON DETAILS. THE LOCATION OF STOCKPILE AND EQUIPMENT STAGING AREAS WILL DEPEND ON THE PROGRESS OF AND NEEDS OF CONSTRUCTION AT THAT TIME. STOCKPILE AND EQUIPMENT STAGING AREAS ARE NOT PERMITTED WITHIN THE 100' BUFFER ZONE.
7. CONSTRUCT TEMPORARY SEDIMENT BASINS AND DIVERSION BERMS AS REQUIRED TO DIRECT ANY STORMWATER RUNOFF TO THE TEMPORARY SEDIMENT BASINS.
8. REPLANT THE CLEARED AREA BETWEEN THE 50FT BUFFER AND WETLAND.
9. ANY EXPOSED SOIL IS TO BE SEEDED OR OTHERWISE STABILIZED AS SOON AS POSSIBLE AFTER WORK IN THAT AREA HAS BEEN COMPLETED.



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EROSION AND SEDIMENTATION CONTROL PLAN SEQUENCE 1

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS

AN OPEN SPACE RESIDENTIAL DESIGN

IN

BEVERLY, MA

PREPARED FOR

R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
Engineering and Planning Consultants
62 Montvale Avenue
Suite I
Stoneham, MA 02180
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COMMONWEALTH OF MASSACHUSETTS PAUL A. MARCHIONDA CIVIL No. 30015 REGISTERED PROFESSIONAL ENGINEER

11-24-15

DATE: 10/16/15

H:\PROJECTS\857-01\DEFINITIVE\REV4\SEQ.DWG

M. & A. NO.: 857-01 SCALE: 1"=30'

SHEET 10 OF 18

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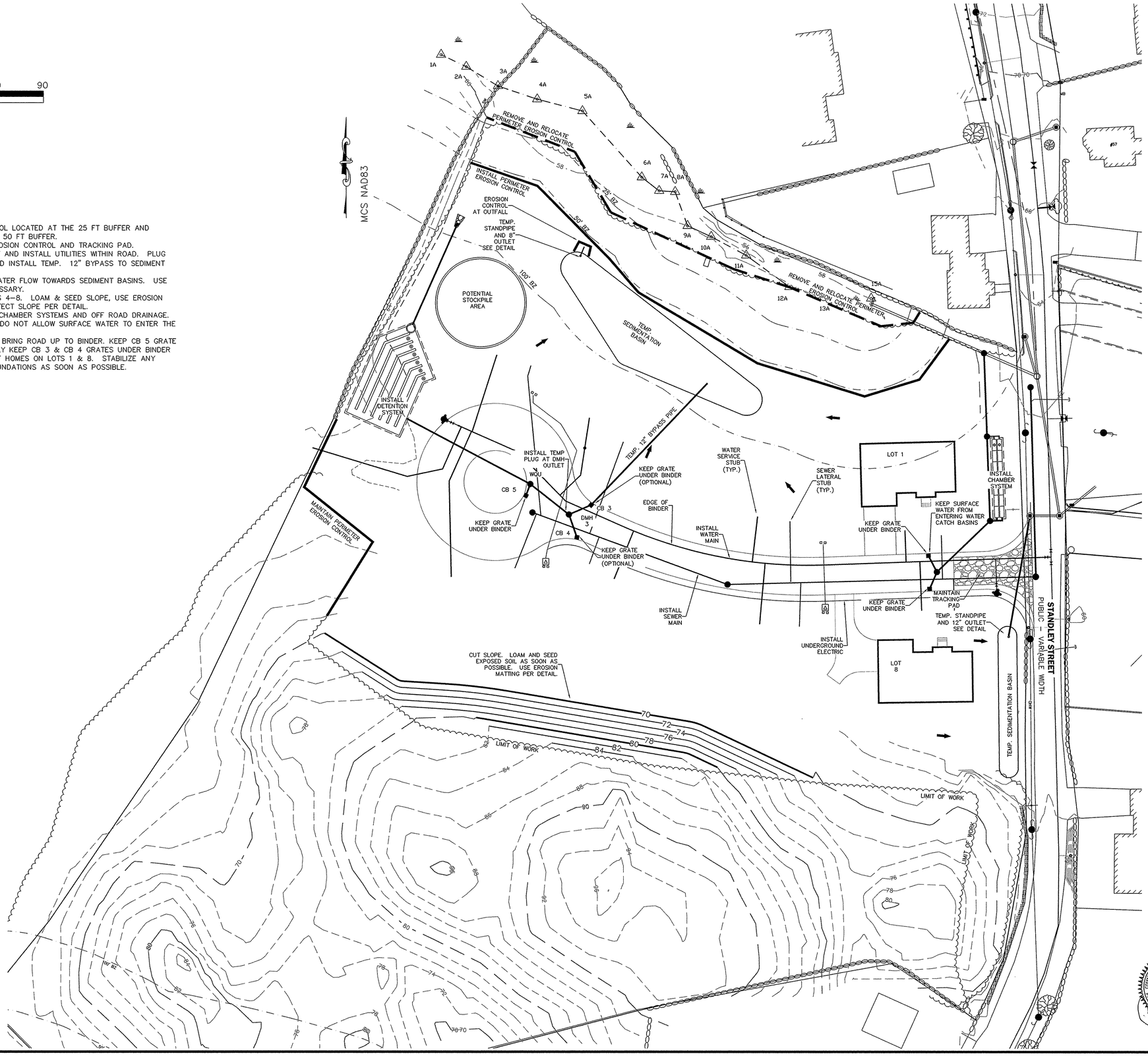
HORIZONTAL SCALE 1"=30'

30 15 0 30 60 90

NOTE:

1. REMOVE EROSION CONTROL LOCATED AT THE 25 FT BUFFER AND RELOCATE OUTSIDE OF THE 50 FT BUFFER.
2. MAINTAIN PERIMETER EROSION CONTROL AND TRACKING PAD.
3. ROUGH GRADE ROADWAY AND INSTALL UTILITIES WITHIN ROAD. PLUG DMH 3 OUTLET TO WQU AND INSTALL TEMP. 12" BYPASS TO SEDIMENT BASIN AT CATCH BASIN 3.
DIRECT OVERLAND STORMWATER FLOW TOWARDS SEDIMENT BASINS. USE DIVERSION BERMS AS NECESSARY.
4. CUT SLOPE BEHIND LOTS 4–8. LOAM & SEED SLOPE, USE EROSION CONTROL MATTING TO PROTECT SLOPE PER DETAIL.
6. INSTALL UNDERGROUND CHAMBER SYSTEMS AND OFF ROAD DRAINAGE. KEEP SYSTEMS OFF LINE. DO NOT ALLOW SURFACE WATER TO ENTER THE WATER QUALITY UNITS.
7. REMOVE TRACKING PAD. BRING ROAD UP TO BINDER. KEEP CB 5 GRATE UNDER BINDER. OPTIONALLY KEEP CB 3 & CB 4 GRATES UNDER BINDER
8. BEGIN CONSTRUCTION OF HOMES ON LOTS 1 & 8. STABILIZE ANY EXPOSED SOIL AROUND FOUNDATIONS AS SOON AS POSSIBLE.



APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:	DSG:	CHK:	
1.	NOI SUBMISSION		10/16/15
2.	REV PER CITY ENGINEER		11/5/15
3.	FINAL REVISIONS		11/23/15

REV	DESCRIPTION	DATE

EROSION AND SEDIMENTATION CONTROL PLAN SEQUENCE 2

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
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PAUL A. MARCHIONDA CIVIL No. 30015 — 11-24-15

DATE: 10/16/15	
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M. & A. NO.: 857-01	SCALE: 1"=30'

SHEET 11 OF 18

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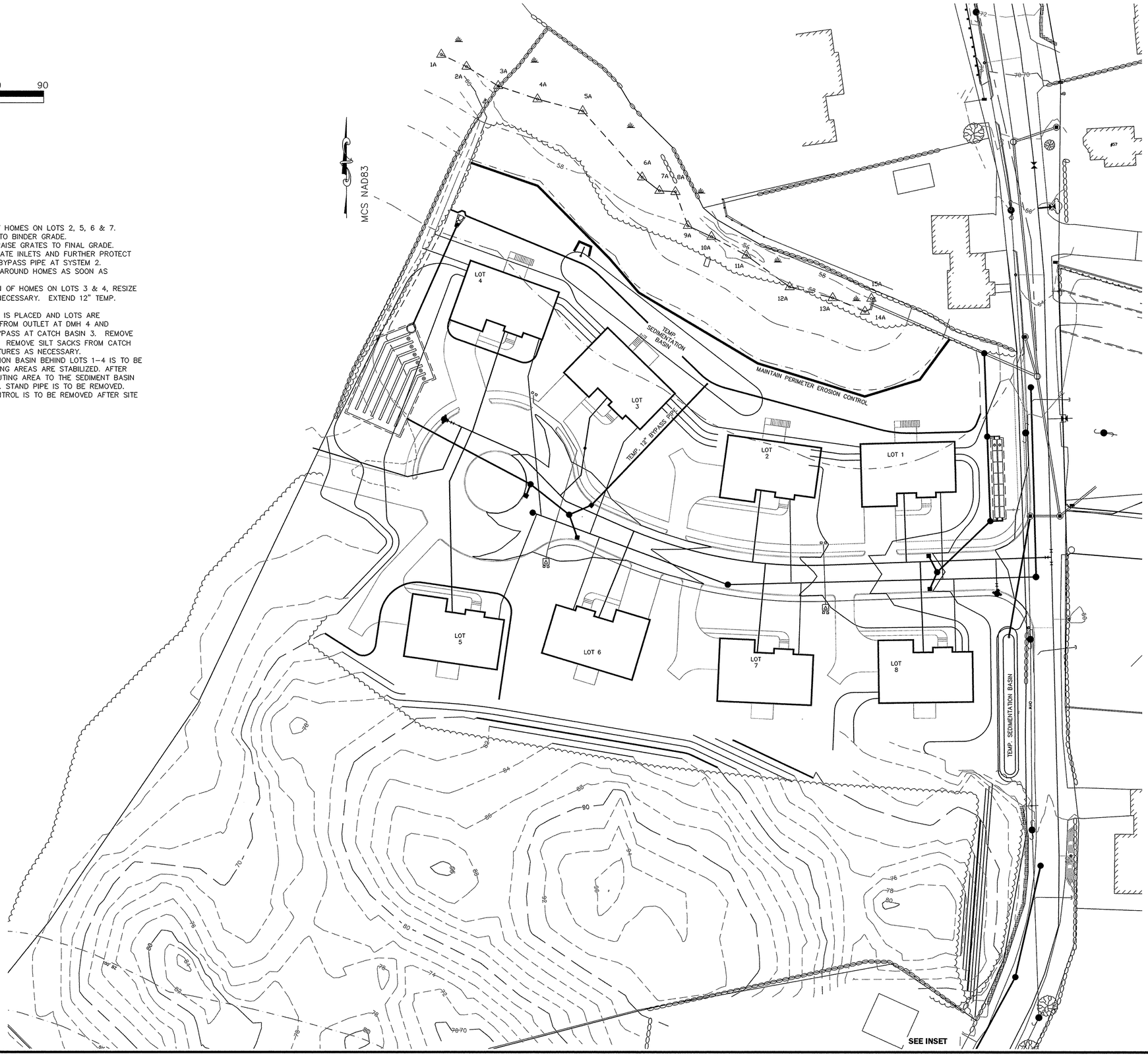
HORIZONTAL SCALE 1"=30'

30 15 0 30 60 90

NOTE:

1. BEGIN CONSTRUCTION OF HOMES ON LOTS 2, 5, 6 & 7.
2. CONSTRUCT SIDEWALKS TO BINDER GRADE.
3. INSTALL CURBING AND RAISE GRATES TO FINAL GRADE. INSTALL SILT SACKS AT GRATE INLETS AND FURTHER PROTECT WITH STRAWBALES. KEEP BYPASS PIPE AT SYSTEM 2.
4. STABILIZE YARD AREAS AROUND HOMES AS SOON AS POSSIBLE.
5. PRIOR TO CONSTRUCTION OF HOMES ON LOTS 3 & 4, RESIZE SEDIMENTATION BASIN AS NECESSARY. EXTEND 12" TEMP. BYPASS AS NECESSARY.
6. AFTER FINISH PAVEMENT IS PLACED AND LOTS ARE STABILIZED, REMOVE PLUG FROM OUTLET AT DMH 4 AND PERMANENTLY PLUG 12" BYPASS AT CATCH BASIN 3. REMOVE 12" PIPE WHERE POSSIBLE. REMOVE SILT SACKS FROM CATCH BASINS AND CLEAN STRUCTURES AS NECESSARY.
7. TEMPORARY SEDIMENTATION BASIN BEHIND LOTS 1–4 IS TO BE REMOVED ONCE CONTRIBUTING AREAS ARE STABILIZED. AFTER STABILIZATION OF CONTRIBUTING AREA TO THE SEDIMENT BASIN ADJACENT TO LOT 8, TEMP. STAND PIPE IS TO BE REMOVED.
8. PERIMETER EROSION CONTROL IS TO BE REMOVED AFTER SITE IS FULLY STABILIZED.



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EROSION AND SEDIMENTATION CONTROL PLAN SEQUENCE 3

DEFINITIVE SUBDIVISION PLAN
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AN OPEN SPACE RESIDENTIAL DESIGN
IN
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PAUL A. MARCHIONDA CIVIL No. 30018 COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER

11-24-15

DATE: 10/16/15

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M. & A. NO.: 857-01 SCALE: 1"=30'

SHEET 12 OF 18

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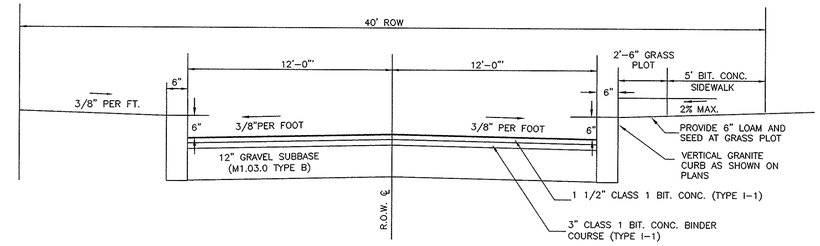
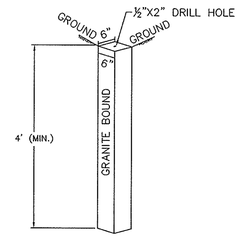
ROADWAY AND EARTHWORK NOTES

1. ALL CURBING TO BE VERTICAL GRANITE CURB (TYPE VA-4) AND SHALL MEET MASSACHUSETTS DPW HANDBOOK SPECIFICATIONS (M9.04.1).
2. PAVEMENT WITHIN THE ROADWAY SHALL BE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1 PAVED IN TWO COURSES WITH 3" OF BINDER AND 1-½" FINISH PAVEMENT.
3. ROADWAY SHALL BE PREPARED AND GRADED IN ACCORDANCE WITH THE CITY OF BEVERLY SUBDIVISION RULES AND REGULATIONS SECTION V.B.
4. GRANITE MONUMENTS TO BE CERTIFIED BY A REGISTERED PROFESSIONAL LAND SURVEYOR AS TO PLACEMENT AND ACCURATE LOCATION. MONUMENTS AS SET SHALL BE SHOWN ON THE STREET ACCEPTANCE PLAN.
5. PRIOR TO THE INTRODUCTION OF ANY OFF SITE SOIL OR SOLID FILL, A VALID SITE ASSIGNMENT MUST BE OBTAINED FROM THE BEVERLY BOARD OF HEALTH.
6. CUT EMBANKMENTS MUST BE PLANTED WITH A LOW GROWING SHRUB AND WOOD CHIPPED TO A MINIMUM DEPTH OF 6", OR SEEDED WITH A DEEP ROOTED PERENNIAL GRASS.
7. STREET TREES TO BE PLANTED MIN. 5'/MAX. 10' OFF THE RIGHT OF WAY LINE AT APPROXIMATELY 50' INTERVALS.
8. ALL STREET TREES TO BE OF SPECIES APPROVED BY THE PLANNING BOARD.
9. STREET TREES TO BE 12' (MIN.) HIGH, 2" (MIN.) CALIPER MEASURED AT 4' ABOVE GRADE AND SHALL BE PLANTED IN ½ CUBIC YARD (MIN.) OF TOP SOIL.
10. DECIDUOUS STREET TREES SHALL BE CLEAR OF ALL BRANCHES TO A HEIGHT OF 7' ABOVE GRADE.
11. DEVELOPER SHALL BE LIABLE FOR ALL TREES PLANTED FOR A PERIOD OF 18 MONTHS AFTER STREET ACCEPTANCE.
12. SHOULD THE RODENT POPULATION BE DISPLACED BECAUSE OF LAND DEVELOPMENT, THEN THE DEVELOPER MUST BEAR THE RESPONSIBILITY OF RETAINING THE SERVICES OF A PROFESSIONAL EXTERMINATING COMPANY TO ABATE THE RODENT MIGRATION PROBLEM. THIS SERVICE MUST ADEQUATELY SOLVE THE PROBLEM AND MUST BE COMPLETED AT THE EXPENSE OF THE DEVELOPER.
13. A REFLECTIVE STREET SIGN IS TO BE PLACED AT THE INTERSECTION OF THE PROPOSED ROAD AND STANDLEY STREET UPON COMPLETION OF THE FIRST HOUSE. SIGN TO CONFORM TO CITY DPS SPECIFICATIONS AS TO LOCATION AND SIZE REQUIREMENTS..
14. STREET NAMES TO BE APPROVED BY THE CITY COUNCIL, POLICE AND FIRE DEPARTMENTS.
15. ALL EXISTING FOUNDATIONS SHALL BE FULLY AND COMPLETELY REMOVED FROM THE SITE. THEY ARE NOT TO BE LEFT IN PLACE OR BURIED.
16. ROADWAY CONSTRUCTION IS TO BE PERFORMED UNDER THE SUPERVISION AND INSPECTION OF THE DESIGN ENGINEER OR OTHER QUALIFIED PROFESSIONAL, AS APPROVED BY THE CITY'S ENGINEERING DEPARTMENT. CONSTRUCTION ACTIVITIES ARE TO BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER AS COMPLETED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AND APPLICABLE STANDARDS AND SPECIFICATIONS.



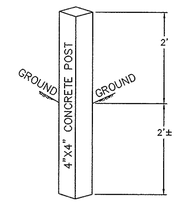
TYPICAL CROSS SECTION EMILY WAY
N.T.S.



GRANITE MONUMENT DETAIL
(N.T.S.)

NOTES:

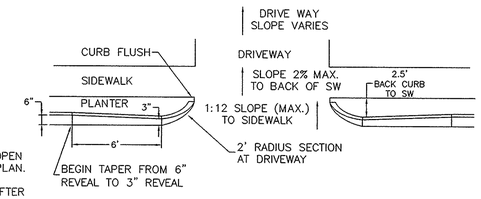
1. GRANITE MONUMENTS ARE TO BE SET AT POINTS OF CURVATURE AND AT ALL ANGLE POINTS OF THE PROPOSED RIGHT OF WAY.
2. TOP OF MONUMENT TO BE SET FLUSH WITH FINAL GRADE.



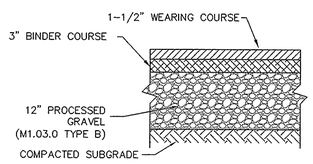
OPEN SPACE MARKER DETAIL
(N.T.S.)

NOTES:

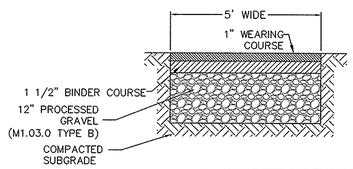
1. OPEN SPACE MARKERS ARE TO BE SET ALONG THE OPEN SPACE BOUNDARY AT LOCATIONS SHOWN ON THE SITE PLAN.
2. MARKERS ARE TO BE SET PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE ADJACENT LOT, AFTER MAJOR GRADING HAS BEEN COMPLETED AND PRIOR TO APPLICATION OF LOAM AND SEED.
3. OPEN SPACE MARKERS TO BE SUPPLIED WITH SIGNAGE APPROVED BY THE PLANNING BOARD.



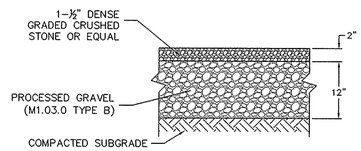
TYPICAL CURB TRANSITION AT DRIVEWAY
N.T.S.



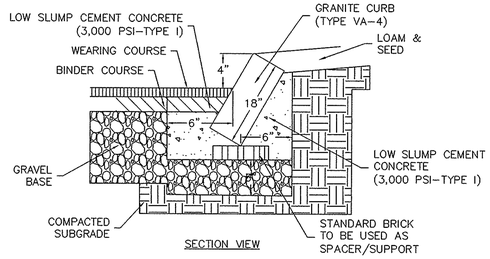
TYPICAL PAVEMENT SECTION - ROAD
N.T.S.



TYPICAL BITUMINOUS CONCRETE SIDEWALK SECTION
N.T.S.

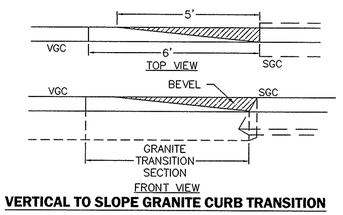


TYPICAL SECTION - GRAVEL ACCESS DRIVE
N.T.S.

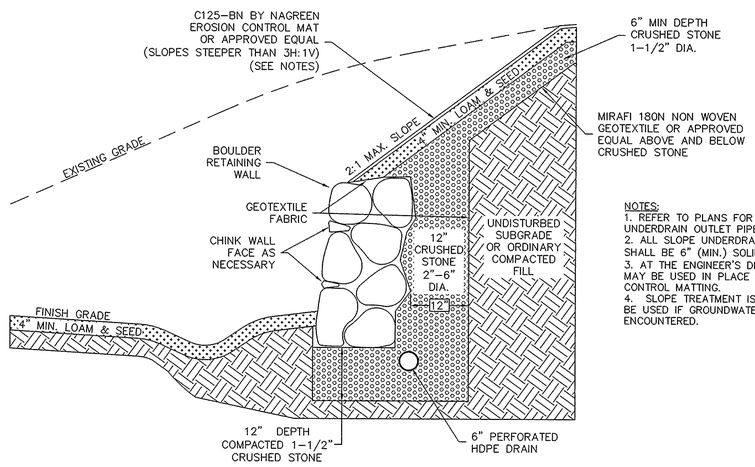


NOTES:
1. SLOPED GRANITE CURBING (SGC) AT CENTER ISLAND OF CUL-DE-SAC.
2. SLOPED GRANITE TO VERTICAL GRANITE CURB TRANSITION PIECES TO BE USED AT CATCH BASIN GRANITE CURB INLETS.

SLOPED GRANITE CURB (SGC) DETAIL
NOT TO SCALE

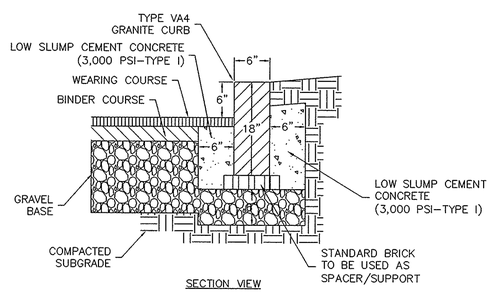


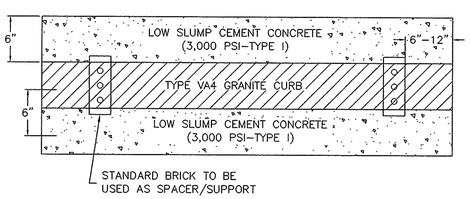
VERTICAL TO SLOPE GRANITE CURB TRANSITION
N.T.S.



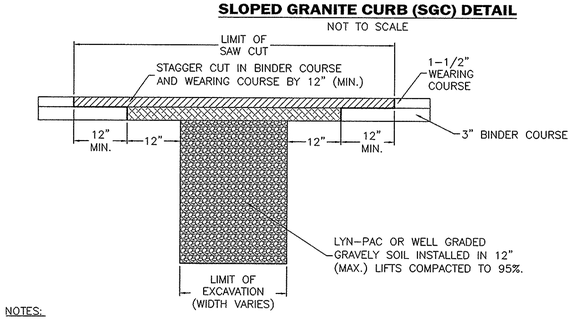
PROPOSED BOULDER RETAINING WALL
N.T.S.

NOTES:
1. REFER TO PLANS FOR SLOPE UNDERDRAIN OUTLET PIPE LOCATIONS.
2. ALL SLOPE UNDERDRAIN OUTLET PIPES SHALL BE 6" (MIN.) SOLID HDPE OR PVC.
3. AT THE ENGINEER'S DISCRETION, SOD MAY BE USED IN PLACE OF EROSION CONTROL MATTING.
4. SLOPE TREATMENT IS OPTIONAL TO BE USED IF GROUNDWATER IS ENCOUNTERED.





VERTICAL GRANITE CURB DETAIL
NOT TO SCALE



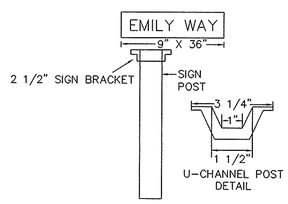
NOTES:

1. EXISTING SURFACE TO BE SAW CUT TO THE FULL DEPTH OF BINDER. THE CUTTING OPERATION SHALL NOT BE PERFORMED WITH ANY TYPE OF DIGGING/RIPPING EQUIPMENT.
2. BACK FILL TO BE COMPACTED TO 95%.
3. AFTER BACKFILL IS COMPLETE AND IMMEDIATELY PRIOR TO PAVING, THE EXCAVATION IS TO BE PROPERLY JETTED OR PUDDLED PER CITY OF BEVERLY ENGINEERING DEPT SPECS.
4. ALL JOINTS MUST BE REPAIRED USING THE INFRA RED HEAT PATCHING TECHNIQUE.
5. IN ADDITION TO THE REQUIRED DIG SAFE NOTIFICATION, ALL UTILITY COMPANIES WHOSE SERVICES ARE LOCATED WITHIN OR ADJACENT TO THE WORK AREA SHALL BE NOTIFIED OF THE PROPOSED WORK AT LEAST 48 HOURS PRIOR TO COMMENCEMENT.

TYPICAL SAW CUT JOINT
N.T.S.

PLEASE ENJOY THIS PUBLIC WAY

RIGHT OF WAY SIGN
(18" x 24")



STANDARD STREET SIGN DETAIL
N.T.S.

NOTES:

FABRIC TO BE HIGH INTENSITY PRISMATIC OR DIAMOND GRADE AND MEET RETROREFELCTIVITY SPECIFICATIONS IN ACCORDANCE WITH SECTIONS 2A.07, 2A.08 AND 2A.10 OF THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

SIGNS TO BE MADE OF EXTRUDED ALUMINUM WITH GREEN FABRIC. LETTERING OF STREET NAME MUST BE 6" WHITE.

TEXT TYPE IS TO BE ARIAL BLACK.

POST SIZE TO BE GALVANIZED U-CHANNEL 10' POST POST 7' FROM GROUND TO BOTTOM OF SIGN.

ALL SIGNS MUST CONFORM TO MASS D.P.W. STANDARDS.

SIZE OF SIGN DEPENDS ON STREET NAME.

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REGISTRY USE ONLY

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ROAD DETAILS

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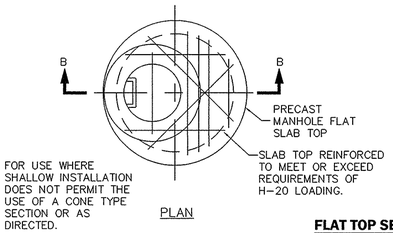
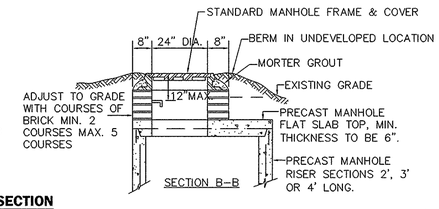
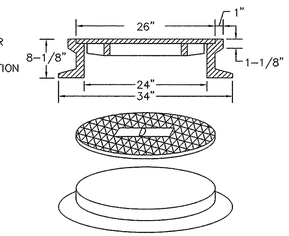




FLAT TOP SECTION

N.T.S.

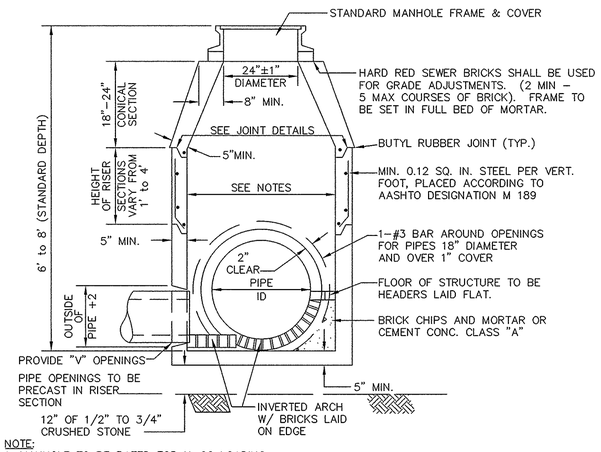


FRAME & COVER LE BARON FOUNDRY CAT. NO. LT101, NEENAH FOUNDRY NO. 1720-A OR APPROVED EQUAL
TOTAL WEIGHT: 475 LBS. (MIN.) COVER MUST HAVE A DIAMOND PATTERN WITH THE LETTER "D" CAST IN 3" HIGH LETTERS
ALL COVERS, GRATES, AND FRAMES TO BE AMERICAN MADE CASTINGS

DRAIN MANHOLE FRAME & COVER

N.T.S.

DRAINAGE NOTES
1. ALL DRAIN LINES WITHIN THE ROAD SHALL BE TYPE III REINFORCED CONCRETE PIPE (RCP).
2. PIPE DIAMETER FOR THE STREET DRAINAGE SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED.
3. ALL FIELD CUTTING OF PIPE SHALL BE DONE IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
4. ALL CATCH BASINS AND WATER QUALITY UNITS WITH GRATES IN THE PAVED ROADWAY TO HAVE 6' GRANITE CURB INLETS AND DEBRIS TRAPS AS SHOWN ON DETAIL SHEETS.
5. ALL MANHOLE AND CATCH BASIN FRAMES SHALL BE MASSACHUSETTS STANDARD COVERS. FRAMES SHALL BE 2' DIAMETER OR 2' SQUARE.
6. ALL MANHOLE AND CATCH BASIN FRAMES TO HAVE 2 COURSES OF BRICK AND MORTAR UNDERNEATH UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.



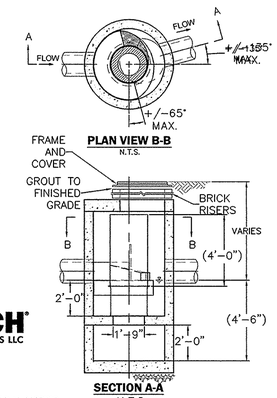
NOTE:
1. MANHOLE TO BE RATED FOR H-20 LOADING.
2. MANHOLES SHALL BE 4-FOOT DIAMETER UNLESS OTHERWISE REQUIRED TO ACCOMODATE THE CONFIGURATION OF OR THE NUMBER OF PIPES ENTERING AND DISCHARGING THE STRUCTURE. MANHOLES SHALL BE 6-FOOT DIAMETER WHERE THE PIPE DIAMETER IS 24" OR GREATER.

PRECAST CONCRETE MANHOLE DETAILS

N.T.S.

FRAME AND COVER

N.T.S.



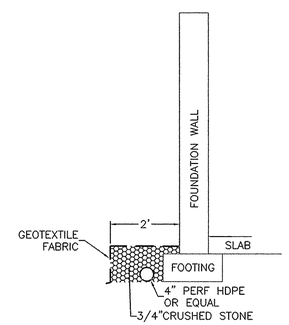
GENERAL NOTES
REFER TO CONTECH'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.

WATER QUALITY UNITS TO BE CONTECH CDS INLINE UNIT MODEL #CDS2015-4.

SEE SITE PLANS FOR SPECIFIC RIM AND INVERT ELEVATIONS. SEE SHOP DRAWINGS FOR DETAILS OF INTERNAL COMPONENTS.

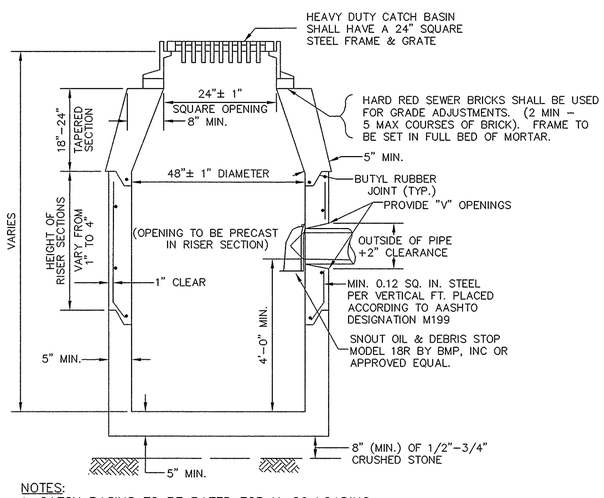
WATER QUALITY UNITS

N.T.S.



TYPICAL FOUNDATION DRAIN

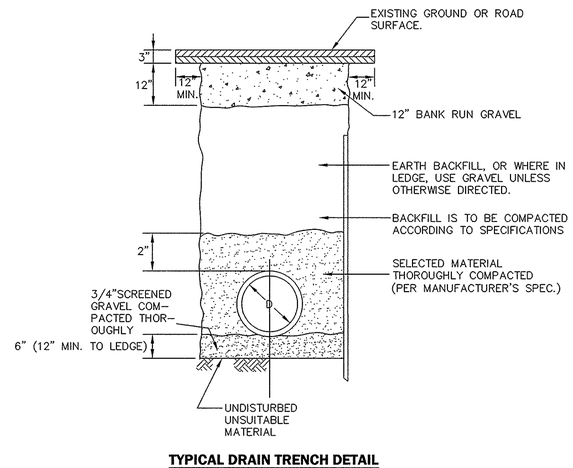
N.T.S.



NOTES:
1. CATCH BASINS TO BE RATED FOR H-20 LOADING.
2. NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED. 3. STANDARD GRATE TO BE USED WHEN THE LONGITUDINAL SLOPE OF ROAD IS LESS THAN 6%. CASCADE TYPE GRATE TO BE USED WHEN THE LONGITUDINAL SLOPE OF ROAD EXCEEDS 6%.

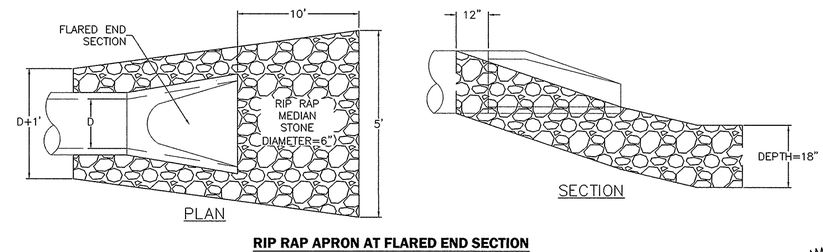
PRECAST CONCRETE CATCH BASIN DETAILS

N.T.S.



TYPICAL DRAIN TRENCH DETAIL

N.T.S.



RIP RAP APRON AT FLARED END SECTION

N.T.S.

PAUL A. MARCHIONDA CIVIL No. 31015 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS
11-24-15

REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:	DSG:	CHK:
1.	NOI SUBMISSION	10/16/15
2.	REV PER CITY ENGINEER	11/5/15
3.	FINAL REVISIONS	11/23/15

REV	DESCRIPTION	DATE

DRAINAGE DETAILS

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA
PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
Engineering and Planning Consultants
62 Montvale Avenue
Suite I
Stoneham, MA 02180
TEL: (781) 438-6121
FAX: (781) 438-9654
Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15
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M. & A. NO.: 857-01 | SCALE: N.T.S.

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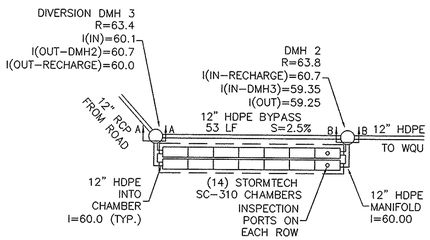
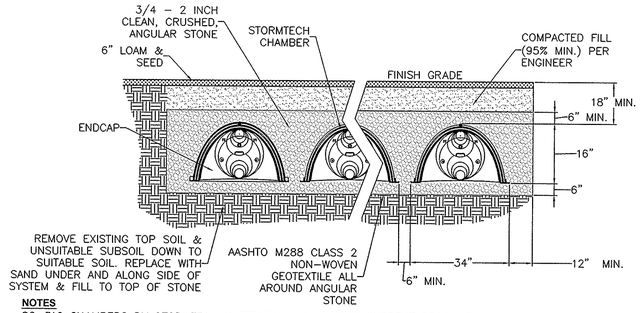
NOTES
1. INSPECTION PORT TO BE SUPPLIED AT ALL ROWS, PER STORMTECH DETAIL.
2. SEE STORMTECH DETAIL FOR RECOMMENDED INSPECTION AND MAINTENANCE SCHEDULE AND PROCEDURES.



SUBSURFACE DETENTION/INFILTRATION SYSTEM #1 SCHEMATIC

N.T.S.

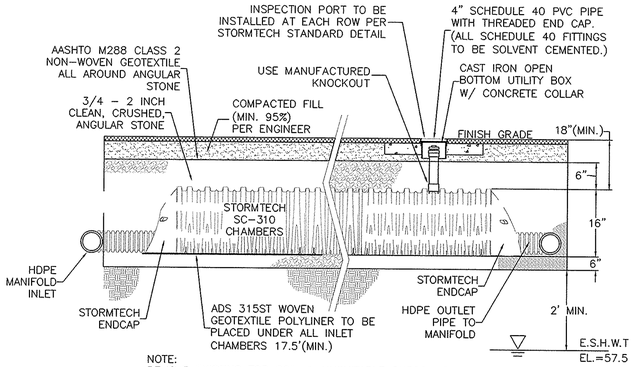


NOTES
SC-310 CHAMBERS BY STORMTECH. REFER TO STORMTECH'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
ALL CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

SUBSURFACE DETENTION/INFILTRATION SYSTEM #1 CROSS SECTION

N.T.S.

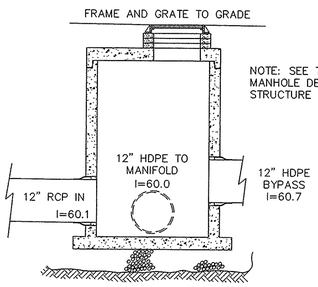
INFILTRATION SYSTEM #1 (SC-310)	
MIN. FINISHED GRADE	63.0
TOP OF STONE	61.83
TOP OF CHAMBER	61.33
E.S.H.W.	57.5±
INVERT IN/MANIFOLD	60.0
INVERT OUT/MANIFOLD	60.0
INV. OVERFLOW	60.7 12" HDPE
BOTTOM OF CHAMBER	60.0
BOTTOM OF STONE	59.5
BED SIZE	423 S.F.
# CHAMBERS	14
# END CAPS	28



NOTE:
REMOVE EXISTING TOP SOIL & UNSUITABLE SUBSOIL DOWN TO SUITABLE SOIL. REPLACE WITH SAND UNDER AND ALONG SIDE OF SYSTEM & FILL TO TOP OF STONE.

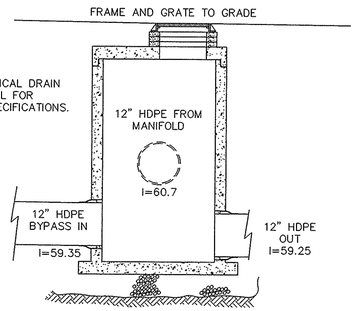
SUBSURFACE DETENTION/INFILTRATION SYSTEM #1 PROFILE VIEW

N.T.S.



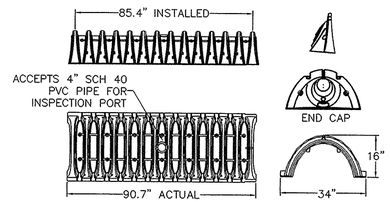
DIVERSION DMH #3 SECTION A-A

N.T.S.



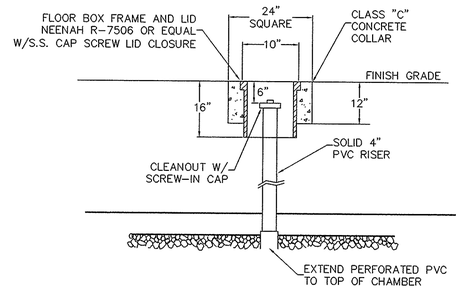
OUTLET CONTROL STRUCTURE SYSTEM 1 SECTION B-B

N.T.S.



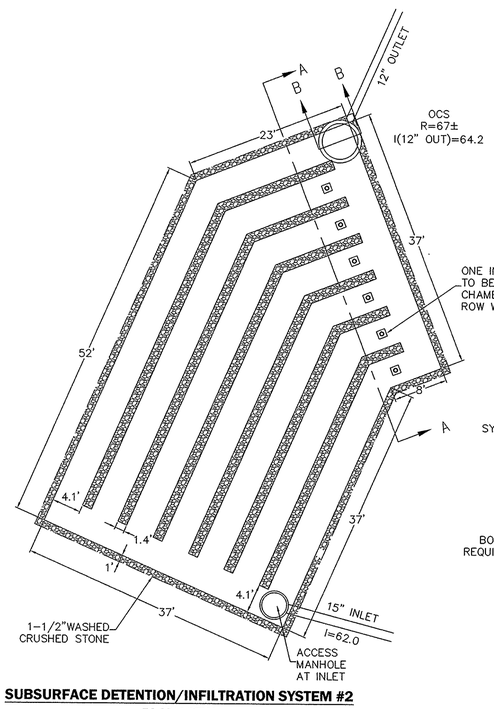
STORMTECH SC-310

N.T.S.



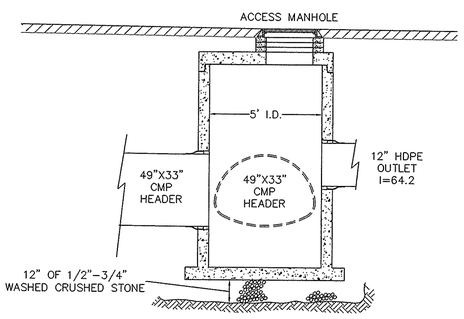
INSPECTION PORT DETAIL

N.T.S.



SUBSURFACE DETENTION/INFILTRATION SYSTEM #2 PLAN VIEW

N.T.S.

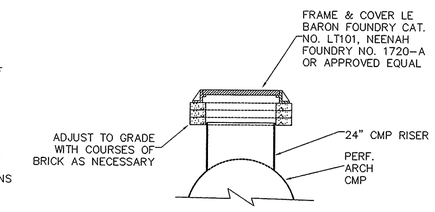


OUTLET CONTROL STRUCTURE SYSTEM 2 SECTION B-B

N.T.S.

SYSTEM 2 NOTES:

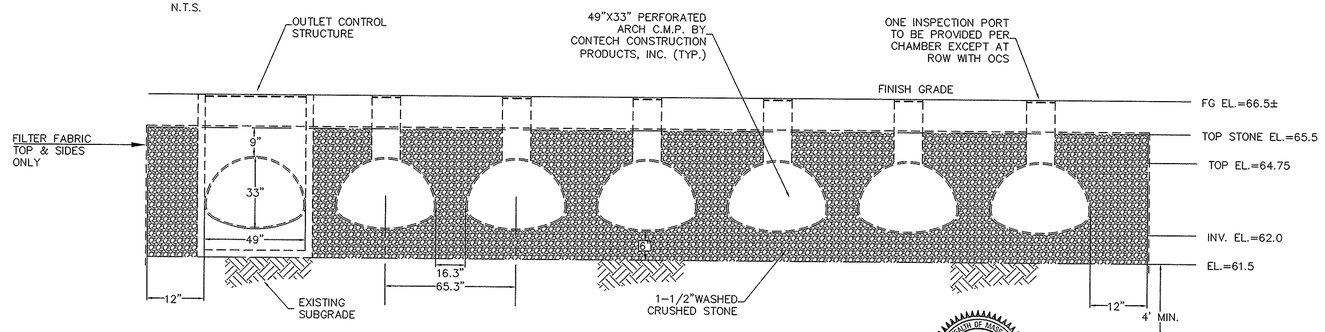
1. THE SITE CONTRACTOR SHOULD MAKE PROVISIONS TO PREVENT CONTAMINATION OF THE EXPOSED SUBGRADE BY CONSTRUCTION SEDIMENT.
2. THE SITE CONTRACTOR SHOULD NOT ALLOW EXCESSIVE COMPACTION OF THE RECHARGE AREAS BY CONSTRUCTION VEHICLES.
3. DISCHARGE OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES INTO THIS FACILITY IS PROHIBITED.
4. DISCHARGE OF STORMWATER INTO THIS FACILITY IS PROHIBITED UNTIL THE CONTRIBUTING AREAS ARE STABILIZED, UNLESS SPECIFIC MEASURES ARE PROVIDED FOR PROTECTING AND RESTORING THE INFILTRATION SURFACE.
5. THE CONTRACTOR SHOULD REFERENCE SHOP DRAWINGS DETAILING THE CONNECTIONS AND FITTINGS OF THE COMPONENTS OF THE SYSTEM.
6. SYSTEM BEDDING AND BACKFILL REQUIREMENTS ARE TO MEET MANUFACTURER'S SPECIFICATIONS.
7. REMOVE EXISTING TOP SOIL & UNSUITABLE SUBSOIL DOWN TO SUITABLE SOIL. REPLACE WITH SAND UNDER AND ALONG SIDE OF SYSTEM & FILL TO TOP OF STONE.
8. MEASURES SHOULD BE TAKEN TO PREVENT VEHICULAR TRAFFIC, BOTH DURING AND AFTER CONSTRUCTION OVER THE CHAMBERS.



ACCESS MANHOLE DETAIL

N.T.S.

NOTE: REFER TO THE SYSTEM'S SHOP DRAWINGS FOR INFORMATION ON THE CONNECTIONS AND FITTINGS FOR THE ACCESS MANHOLE CONNECTIONS.



SECTION A-A

N.T.S.

UNDERGROUND DETENTION SYSTEM #2 DETAIL

N.T.S.

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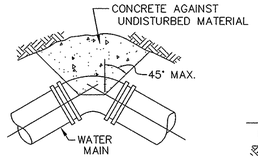
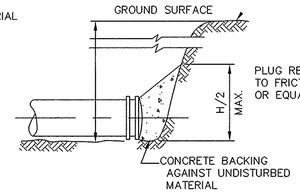
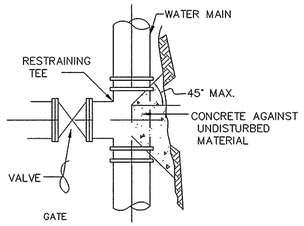


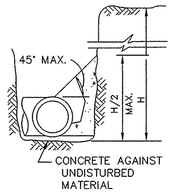
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



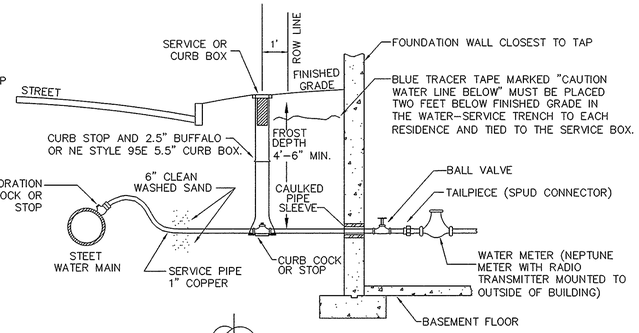
TYPICAL SECTION

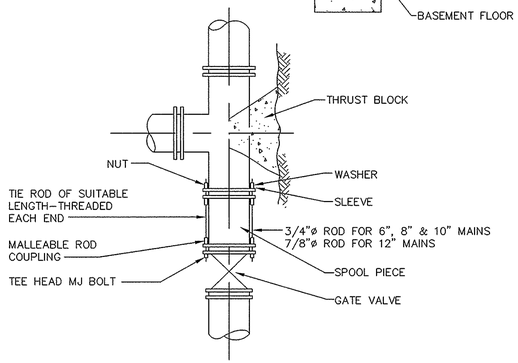
NOTE:
CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)				
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES
6 AND 8	8	8	8	8
10 AND 12	22	13	8	16

TYPICAL THRUST BLOCK DETAIL

NOT TO SCALE



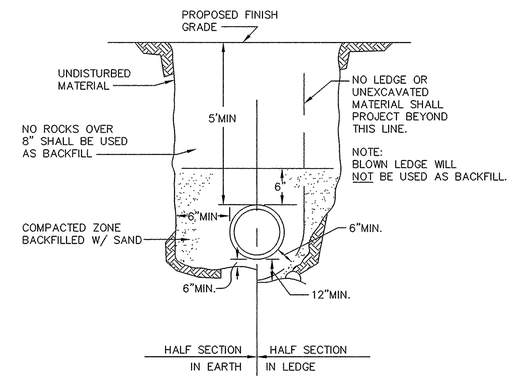


TYPICAL TIED MECHANICAL JOINT VALVE CONNECTION DETAILS

NOT TO SCALE

WATER NOTES

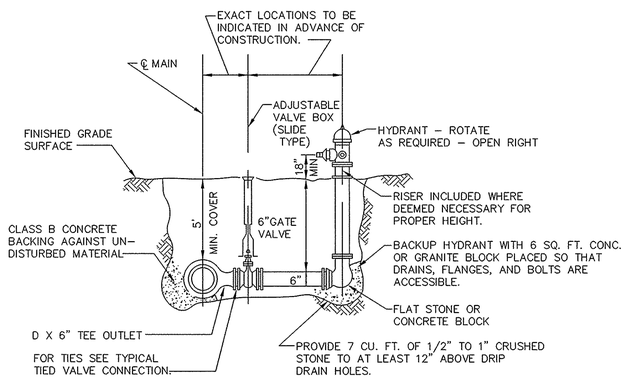
1. PIPE, FITTINGS, VALVES, JOINTS/PACKING AND FIRE HYDRANTS SHALL CONFORM TO CITY OF BEVERLY DPS SPECIFICATIONS. ALL HYDRANTS AND WATER GATE VALVES SHALL OPEN RIGHT. HYDRANTS TO MEET THE REQUIREMENTS OF THE CITY OF BEVERLY FIRE DEPARTMENT.
2. WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON (CLDI), CLASS 150 OR APPROVED EQUAL, 8" DIAMETER UNLESS OTHERWISE NOTED (GASKETED PUSH-ON OR MECHANICAL JOINTS). WATER SERVICE LINES TO BE OF SIZE AND TYPE APPROVED BY THE CITY OF BEVERLY DPS.
3. INSTALLATION OF PIPE AND FITTINGS SHALL CONFORM TO THE STRICTER OF CITY OF BEVERLY DPS STANDARDS, AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. ALL WATER MAIN CONSTRUCTION SHALL BE DONE UNDER THE SUPERVISION OF THE DEPARTMENT OF PUBLIC SERVICES WATER DIVISION.
4. A MINIMUM OF 5 FEET OF COVER SHALL BE MAINTAINED OVER WATER MAIN.
5. THE INSTALLED WATER MAINS SHALL BE PRESSURE TESTED AND LEAK TESTED IN ACCORDANCE WITH AWWA STANDARDS AND ANY MUNICIPAL REQUIREMENTS.
6. THE INSTALLED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS.
7. THE PROJECT SHALL COMPLY WITH APPLICABLE CROSS-CONNECTION REQUIREMENTS OF THE CITY OF BEVERLY AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.
8. HYDRANTS SHALL BE OF A STYLE APPROVED BY THE CITY OF BEVERLY WATER & FIRE DEPARTMENTS. ALL HYDRANTS SHALL BE SITED WITHIN 3' OF THE CURB. HYDRANTS SHALL BE SERVED FROM THE WATER MAIN THROUGH A 6" LATERAL CONNECTION AND SHALL BE GATED WITH A VALVE BOX WITH A 6" VALVE. HYDRANTS TO HAVE (2) 2-½" HOSE OUTLETS AND (1) 4-½" HOSE OUTLET. THE 4-½" OUTLET SHALL BE 18" FROM THE FINISH GRADE.
9. FIRE FLOW RATE SHALL BE A MINIMUM OF 1,000 GAL./MINUTE AT A RESIDUAL OF 20 PSI OR AS REQUIRED BY THE CITY OF BEVERLY FIRE CHIEF.
10. WATER WILL BE SUPPLIED TO THE PROJECT VIA THE MUNICIPAL 6" CLDI WATER MAIN ALONG STANDLEY STREET. THE PROPOSED WATER MAIN SHALL BE 8" CLDI.
11. THE TIE IN AT STANDLEY STREET SHALL BE CONSTRUCTED BY CUTTING OUT A SECTION OF THE EXISTING 6" CLDI WATER MAIN IN STANDLEY STREET AND INSTALLING A PRE-ASSEMBLED TEE/VALVE ASSEMBLY CONNECTING TO THE EXISTING PIPE WITH HYMAX 2000 LONG BODY TYPE COUPLINGS BY KRAUSZ OR APPROVED EQUAL. THE PRE-ASSEMBLED CONFIGURATION SHALL INCLUDE AN 8"x8" TEE, 8" SPOOL PIECES ON BOTH SIDES, 8"x6" REDUCER ON BOTH SIDES, AND 6" SPOOL PIECES WITH COUPLINGS TO MATE TO THE EXISTING MAIN. THE TEE BRANCH SHALL INCLUDE AN 8" RESILIENT SEATED GATE VALVE FOR THE 8" LATERAL EXTENSION INTO THE PROPOSED PROJECT. A THRUSTBLOCK (SEE DETAIL) SHALL BE INSTALLED AT THE TEE.
12. AT THE TIME OF INSTALLATION OF THE PRE-ASSEMBLED CONNECTION, THE CONTRACTOR SHALL BE PREPARED WITH PUMPS AND APPROPRIATE EROSION CONTROL MEASURES FOR DEWATERING OF THE TRENCH. THE EXISTING MAIN SHALL BE GRADUALLY CUT FROM THE TOP DOWN TO ALLOW DEWATERING. PRECAUTIONS SHALL BE MADE TO ENSURE THAT NO WATER FROM THE TRENCH ENTERS THE EXISTING MAIN OR CONNECTION ASSEMBLY. THE ENTIRE CONNECTION ASSEMBLY IS TO BE PRE-SWABBED WITH A CHLORINE SOLUTION BEFORE INSTALLATION. IF THE SITUATION ARISES WHERE FLOWABLE FILL MUST BE USED, THE WATER MAIN AND CONNECTIONS SHALL BE WRAPPED IN POLYETHYLNE.



NOTES:
1. INSTALLATION OF PIPE AND FITTINGS SHALL CONFORM TO THE STRICTER OF EITHER AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
2. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL EVERY 200 FT AND AT ALL JUNCTIONS (ONE ON EACH LEG OF THE JUNCTION) - SEE DETAIL.
3. BEDDING AND BACKFILL SHOWN ON THIS DETAIL REPRESENT MINIMUM REQUIREMENTS AND SHALL BE ADJUSTED IF NECESSARY TO MEET PIPE MANUFACTURER'S REQUIREMENTS.

WATER MAIN TRENCH DETAIL

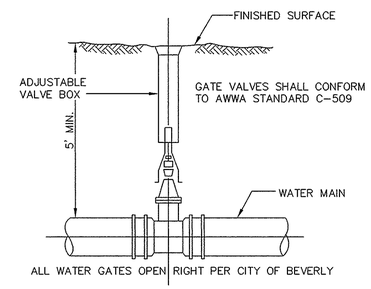
NOT TO SCALE



NOTE: HYDRANTS TO MEET CITY OF BEVERLY FIRE DEPARTMENT SPECIFICATIONS

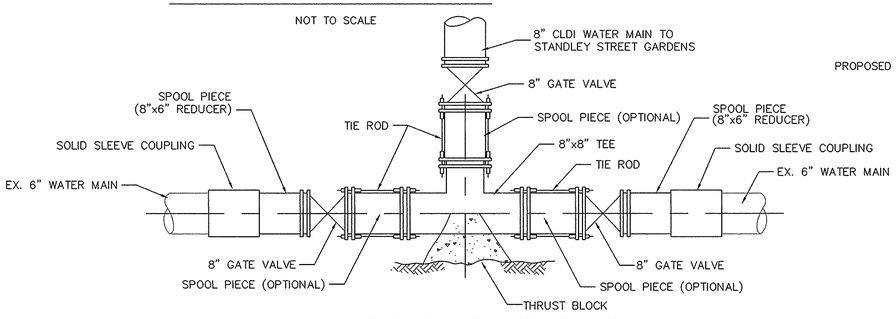
TYPICAL HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



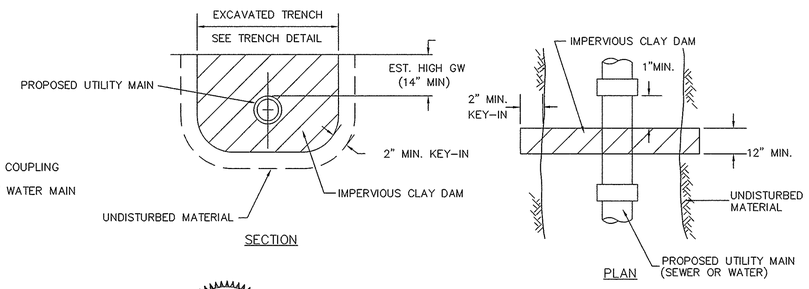
TYPICAL GATE VALVE

NOT TO SCALE



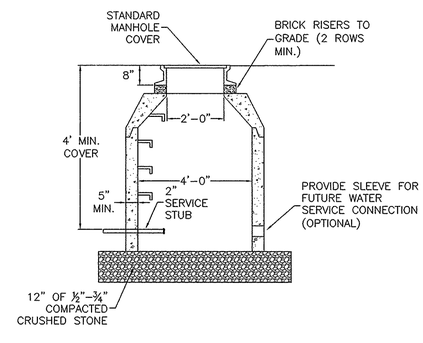
CONNECTION TO EXISTING WATER MAIN

NOT TO SCALE



PIPE TRENCH (CHECK) DAM DETAIL

NOT TO SCALE



OPEN BOTTOM MANHOLE FOR FUTURE WATER SERVICE CONNECTION

NOT TO SCALE

PAUL A. MARCHIONDA CIVIL No. 30015 COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER
11-24-15

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M. & A. NO.: 857-01 | SCALE: N.T.S.

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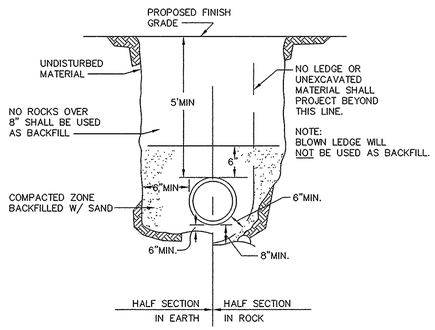
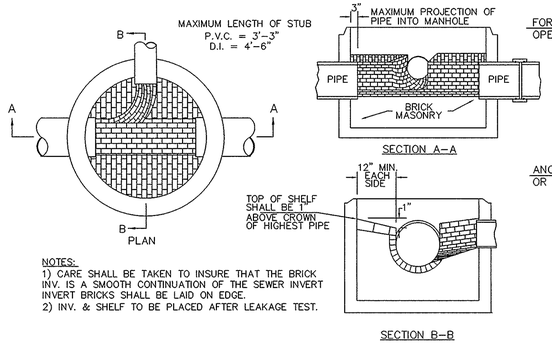
SEWER NOTES
1. GRAVITY SEWER MAIN SHALL BE 8-INCH SDR-35 PVC OR APPROVED EQUAL. HOUSE LATERALS SHALL BE 6-INCH SDR-35 PVC OR APPROVED EQUAL INSTALLED TO WITHIN 10' OF THE FOUNDATION, THEN 4" SCH. 40 PVC INTO THE BUILDING.
2. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN OR SERVICE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN/SERVICE THE WATER MAIN/SERVICE SHOULD BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER PLACED AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN. WHEREVER SEWER MUST CROSS UNDER WATER MAINS, THE SEWER SHOULD BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
3. ALL MANHOLE COVERS SHALL BE CITY OF BEVERLY DPS SPECIFIED COVERS.
4. SEWER MAINS TO BE PRESSURE TESTED PER CITY OF BEVERLY ENGINEERING DEPARTMENT SPECIFICATIONS.



NOTES:
1. INSTALLATION OF PIPE AND FITTINGS SHALL CONFORM TO THE STRICTER OF EITHER AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
2. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL EVERY 200 FT AND AT ALL JUNCTIONS (ONE ON EACH LEG OF THE JUNCTION) - SEE DETAIL.
3. BEDDING AND BACKFILL SHOWN ON THIS DETAIL REPRESENT MINIMUM REQUIREMENTS AND SHALL BE ADJUSTED IF NECESSARY TO MEET PIPE MANUFACTURER'S REQUIREMENTS.

WATER MAIN TRENCH DETAIL

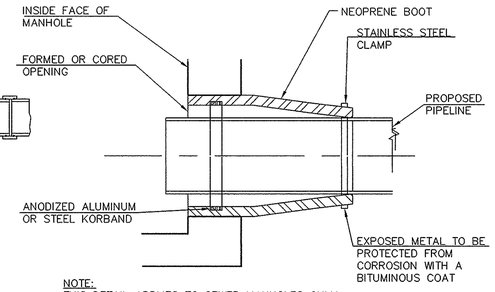
NOT TO SCALE



NOTES:
1) CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INV. IS A SMOOTH CONTINUATION OF THE SEWER INVERT INVERT BRICKS SHALL BE LAID ON EDGE.
2) INV. & SHELF TO BE PLACED AFTER LEAKAGE TEST.

BRICK INVERT AT SEWER MANHOLE

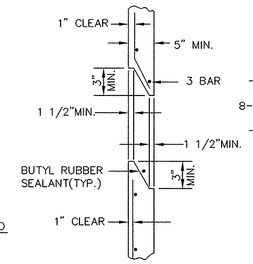
N.T.S.



NOTE:
THIS DETAIL APPLIES TO SEWER MANHOLES ONLY.

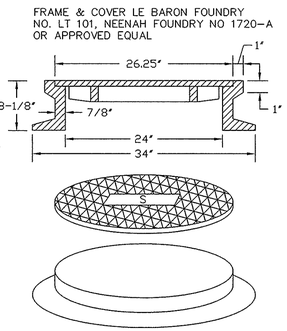
PIPE CONNECTION DETAIL

N.T.S.



PRECAST STRUCTURE JOINT

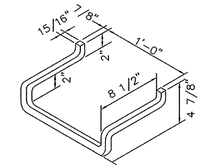
N.T.S.



TOTAL WEIGHT: 475 LBS. (MIN.)
COVER MUST HAVE A DIAMOND PATTERN WITH THE LETTER "S"*
CAST IN 3" HIGH LETTERS
ALL COVERS, GRATES, AND FRAMES TO BE AMERICAN MADE CASTINGS

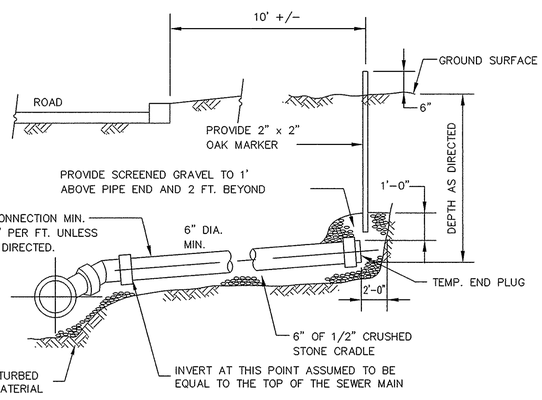
SEWER MANHOLE FRAME & COVER

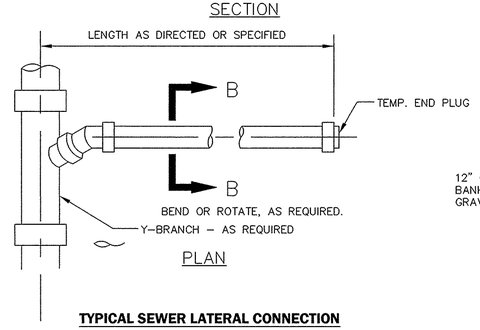
N.T.S.



MANHOLE STEP DETAILS

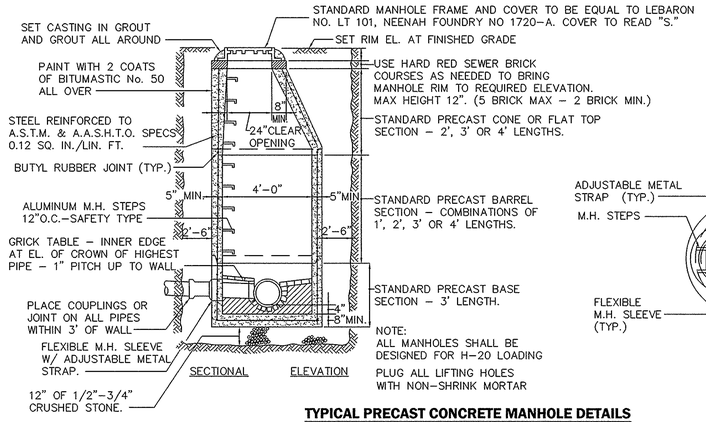
N.T.S.





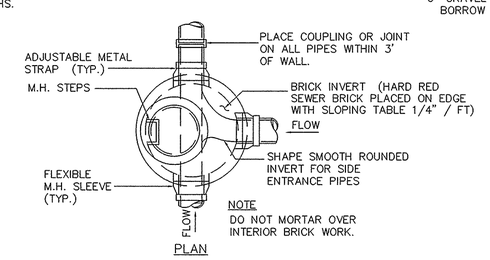
TYPICAL SEWER LATERAL CONNECTION

N.T.S.

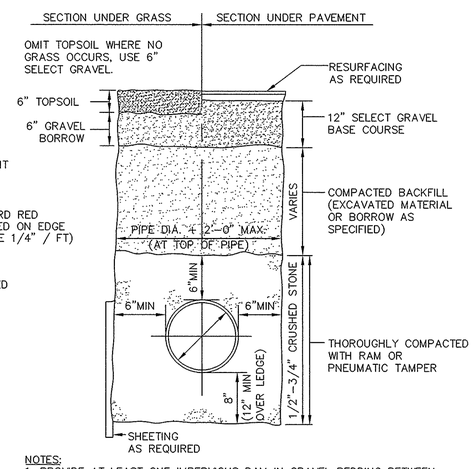


TYPICAL PRECAST CONCRETE MANHOLE DETAILS

N.T.S.



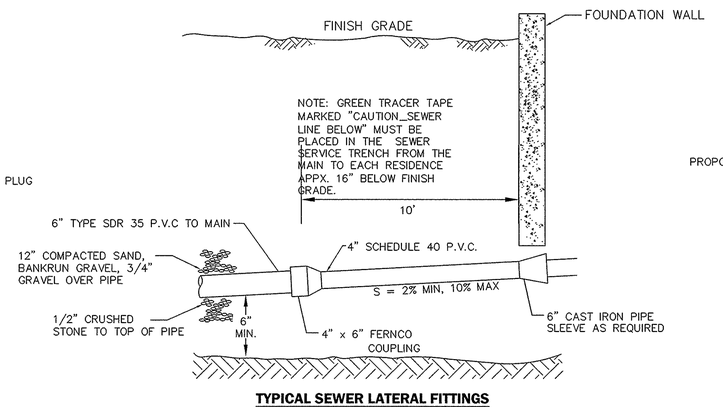
NOTE
DO NOT MORTAR OVER INTERIOR BRICK WORK.



NOTES:
1. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 200 FT, WHICHEVER IS LESS (SEE DETAIL).
2. PROVIDE INSULATION AROUND PIPE WHERE COVER IS LESS THAN 3 FEET.

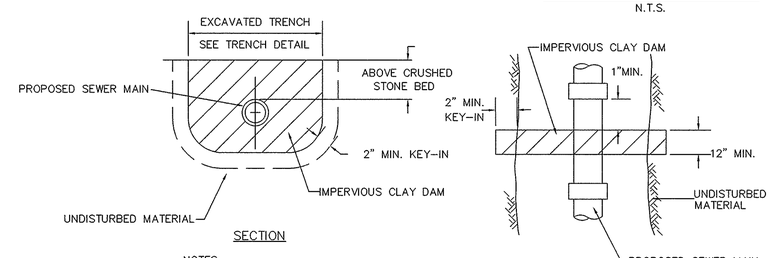
TYPICAL SEWER TRENCH DETAIL

N.T.S.



TYPICAL SEWER LATERAL FITTINGS

N.T.S.



NOTES:
1. ONE CHECK DAM SHALL BE PROVIDED BETWEEN SEWER MANHOLES.

SEWER PIPE TRENCH (CHECK) DAM DETAIL

NOT TO SCALE

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REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:	DSG:	CHK:	
1.	NOI SUBMISSION		10/16/15
2.	REV PER CITY ENGINEER		11/5/15
3.	FINAL REVISIONS		11/23/15

REV	DESCRIPTION	DATE

SEWER DETAILS

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA
PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

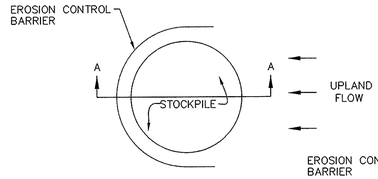
Marchionda
& Associates, L.P.
Engineering and Planning Consultants
62 Montvale Avenue
Suite I
Stoneham, MA 02180
TEL: (781) 438-6121
FAX: (781) 438-9654
Email: engineering@marchionda.com
Website: www.marchionda.com

PAUL A. MARCHIONDA CIVIL No. 30015 COMMONWEALTH OF MASSACHUSETTS
11-24-15

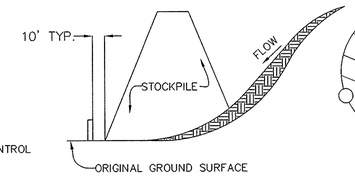
DATE: 7/9/15
H:\PROJECTS\857-01\DEFINITIVE\REV4\DET.DWG
M. & A. NO.: 857-01 | SCALE: N.T.S.

EROSION CONTROL NOTES:

1. THIS PROJECT WILL BE SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). ALL REQUIREMENTS OF A NPDES CONSTRUCTION GENERAL PERMIT MUST BE MET FOR STORMWATER DISCHARGE DURING CONSTRUCTION ACTIVITIES.
2. AN EROSION CONTROL MONITOR SHALL BE APPOINTED TO ENSURE COMPLIANCE WITH THE FOLLOWING REGULATIONS AND TO PROVIDE GUIDANCE ON ANY NECESSARY REPAIRS OR MODIFICATIONS TO THE EROSION CONTROL MEASURES.
3. EROSION CONTROL BARRIER (WHERE SHOWN) REPRESENTS THE LIMIT OF WORK. WHERE NO EROSION CONTROL BARRIER IS REQUIRED (SUCH AS UPSLOPE AREAS), A LIMIT OF WORK LINE HAS BEEN SHOWN.
4. STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100-FOOT WETLAND BUFFER. EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWN GRADIENT OF STOCKPILES IN ACCORDANCE WITH THE PLAN AND DETAILS.
5. PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILTATION FENCES, STRAW BALES, CRUSHED STONE, RIP RAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
6. AS A MINIMUM, SILTATION FENCES AND STRAW BALES WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. STRAW BALES AND SILT SACKS WILL ALSO BE USED TO PROTECT OFF LINE CATCH BASINS, GRATE/CURB INLETS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILTATION FENCE AND STRAW BALES ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
7. TRACKING PADS SHALL BE USED WHERE ANY TEMPORARY CONSTRUCTION ENTRANCE IS LOCATED ADJACENT TO ANY EXISTING TRAVELED WAY OR DRIVEWAY.
8. CRUSHED STONE AND/OR RIP RAP WILL BE USED TO CONSTRUCT THE TRACKING PAD, CUT SLOPE TREATMENT AREAS, CHECK DAMS, SEDIMENTATION BASIN OUTLET PROTECTION, AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF CRUSHED STONE AND RIP RAP ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
9. LOAMING AND SEEDING WILL BE USED AS A PERMANENT STABILIZATION MEASURE FOR ALL REVEGETATED AREAS OF THE SITE. HYDROSEEDING MAY BE USED IN CERTAIN AREAS IN LIEU OF STANDARD SEEDING METHODS SHOULD CONDITIONS WARRANT.
10. EROSION CONTROL MATTING WILL BE USED TO REINFORCE SLOPES GREATER THAN 3H:1V AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF EROSION CONTROL MATTING ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
11. MULCHING MAY BE USED TO REINFORCE SEEDED AREAS WHERE EROSION CONTROL MATTING IS NOT REQUIRED OR WARRANTED, BUT WHERE SOME PROTECTION IS WARRANTED. MULCHING MAY ALSO BE USED TO STABILIZE AREAS WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS.
12. SEDIMENTATION BASINS MAY BE USED THROUGH OUT THE SITE TO TREAT RUNOFF AND SHALL BE SIZED IN ACCORDANCE WITH NPDES REQUIREMENTS AND THE RECOMMENDATIONS OF THE EROSION CONTROL MONITOR. DIVERSION BERMS MAY BE UTILIZED TO DIVERT UNTREATED STORM WATER TO THE SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS WILL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT THE CONSTRUCTION PROCESS, AS NECESSARY.
13. STABILIZATION MEASURES WILL BE REQUIRED TO BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS IN WHICH CASE STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
14. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE INSPECTED EITHER ONCE EVERY SEVEN CALENDAR DAYS, OR ONCE EVERY FOURTEEN CALENDAR DAYS AND WITHIN TWENTY-FOUR HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, IN ACCORDANCE WITH NPDES REQUIREMENTS, BY AN EROSION CONTROL MONITOR. COPIES OF THE NPDES INSPECTION REPORTS SHALL BE KEPT ON SITE. THE SITE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE EROSION CONTROL MONITOR.
15. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENSURE THAT THEY FUNCTION AS INTENDED. DEFICIENCIES WILL BE CORRECTED BY CLEANING, REPAIRING, OR REPLACING THE AFFECTED CONTROL(S) OR PORTION(S) THEREOF TO REESTABLISH PROPER FUNCTIONING AS QUICKLY AS POSSIBLE. SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE CLEANED OR REPLACED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 50 PERCENT OF THE DESIGN CAPACITY OF THE CONTROL. ANY OFF-SITE ACCUMULATIONS OF SEDIMENT WILL BE REQUIRED TO BE REMOVED AS QUICKLY AS POSSIBLE IN A MANNER THAT MINIMIZES ADDITIONAL DISTURBANCE. THIS INCLUDES STREET SWEEPING OF SURROUNDING STREETS AS NECESSARY.
16. TEMPORARY SEDIMENTATION BASINS OR DIRT BAGS SHALL BE USED TO TREAT WASTE WATER GENERATED FROM ANY DEWATERING ACTIVITY AS CONDITIONS WARRANT. A TEMPORARY SEDIMENTATION BASIN SHALL BE USED TO TREAT WASTE WATER FROM ANY CONCRETE WASHOUT ACTIVITIES.
17. DURING CONSTRUCTION ACTIVITIES, AFTER PLACEMENT OF PAVEMENT THE INTERIOR ROADWAY SHALL BE SWEPT AS NECESSARY TO PREVENT THE CONTAMINATION OF STORMWATER RUNOFF. ANY SEDIMENT DEPOSITED ON STANDLEY STREET AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE SWEPT AS SOON AS POSSIBLE.
18. DURING DRY AND WINDY CONDITIONS DUST CONTROL MEASURES SHALL BE IMPLENTED AS NECESSARY TO PREVENT AIRBORNE SEDIMENT TRANSPORT FROM THE SITE. THESE MEASURES SHALL INCLUDE WETTING OF EXPOSED SOIL AND STREET SWEEPING AS OUTLINED ABOVE. ENOUGH WATER SHALL BE APPLIED TO WET THE TOP ½" OF EXPOSED SOIL. WATER SHALL ALSO BE APPLIED TO PAVED AREAS THAT HAVE NOT YET BEEN SWEPT CLEAN. A WATER TRUCK SHALL BE MADE AVAILABLE AS NECESSARY TO FACILITATE THIS PRACTICE.
19. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE CONSTRUCTION PERIOD EROSION AND SEDIMENTATION CONTROL MEASURES AND FOR ENSURING COMPLIANCE ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO THE PREVENTION OF STORMWATER RUNOFF CONTAMINATION.



PLAN VIEW

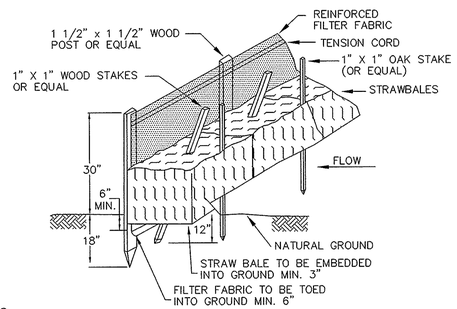


SECTION A-A

NOTES:
1. EROSION CONTROL BARRIER TO EXTEND AROUND DOWNSTREAM PORTION OF STOCKPILE.
2. SEDIMENT TRAPPED BY THE EROSION CONTROL BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF AS NEEDED.
3. EROSION CONTROL BARRIER SHALL BE MAINTAINED IN PLACE UNTIL STOCKPILE HAS BEEN ELIMINATED.

TEMPORARY STOCKPILE DETAIL

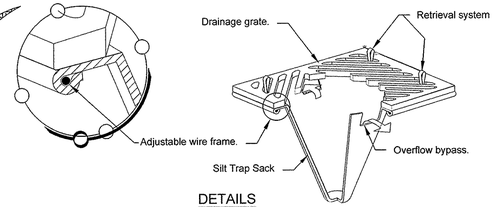
N.T.S.



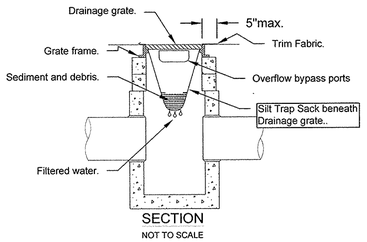
NOTES:
1. FIRST STAKE ANGLED TOWARDS PREVIOUSLY LAID BALE; SECOND STAKE PERPENDICULAR.
2. WIRE OR NYLON BOUND BALES USUALLY PLACED ON THE CONTOUR.
3. GEOTEXTILE FABRIC WILL BE EMBEDDED A MINIMUM OF 6 INCHES INTO THE GROUND.

EROSION CONTROL BARRIER DETAIL

N.T.S.



DETAILS

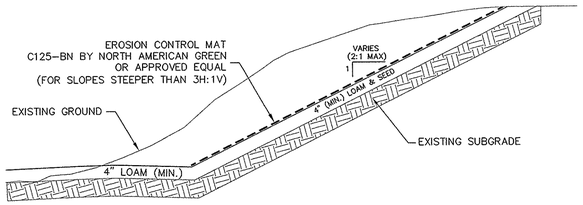


SECTION

NOT TO SCALE

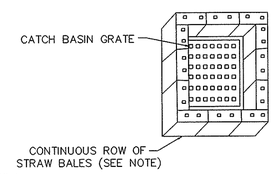
Notes:
1. Size and shape of the silt trap sack to fit the storm structure it will service. (rectangular or round).
2. The silt trap sack shall have a built-in high-flow relief system (overflow bypass).
3. The silt trap sack assembly must allow removal without spilling the collected material.
4. Empty silt trap sack and dispose of sediment and debris before the sack is half-full.
5. Ensure the silt trap sack assembly does not spill or fall into the storm structure. If sediment is spilled into the storm structure, remove the spilled material by suction hose or other approved method.

SILT TRAP SACK



CUT SLOPE TREATMENT DETAIL

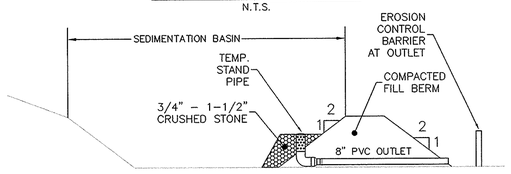
N.T.S.



NOTE:
1. STRAW BALES TO BE UTILIZED AROUND CATCH BASINS UNTIL SUCH TIME THAT THE BINDER IS PLACED. IN LIEU OF THIS METHOD, CATCH BASIN GRATES MAY BE BLOCKED TO PREVENT SEDIMENT FROM ENTERING THE CATCH BASIN UNTIL SUCH TIME THAT THE BINDER IS PLACED.
2. SILT SACKS ARE TO BE INSTALLED IN CATCH BASINS IN ADDITION TO STRAW BALE PROTECTION.

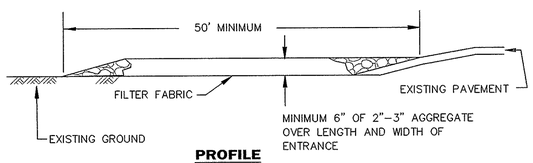
CATCH BASIN PROTECTION DETAIL

N.T.S.

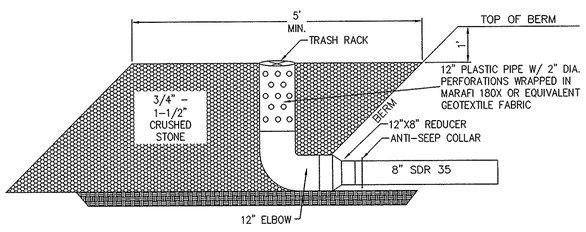


TEMPORARY SEDIMENTATION BASIN

N.T.S.



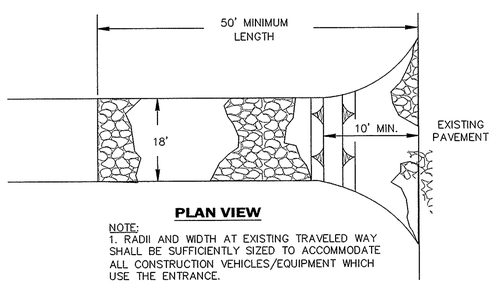
PROFILE



NOTES:
1. SEDIMENT TO BE REMOVED WHEN ACCUMULATION EXCEEDS 50% THE DESIGN CAPACITY.
2. STANDPIPE ELEVATION TO BE SET AT LEAST 12" BELOW TOP OF BERM.
3. PERFORATED PORTION OF STANDPIPE TO BE WRAPPED IN FILTER FABRIC.

TEMPORARY STANDPIPE DETAIL

N.T.S.

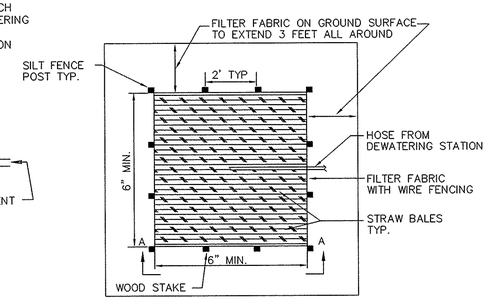


PLAN VIEW

NOTE:
1. RADII AND WIDTH AT EXISTING TRAVELED WAY SHALL BE SUFFICIENTLY SIZED TO ACCOMMODATE ALL CONSTRUCTION VEHICLES/EQUIPMENT WHICH USE THE ENTRANCE.

CONSTRUCTION ENTRANCE/TRACKING PAD

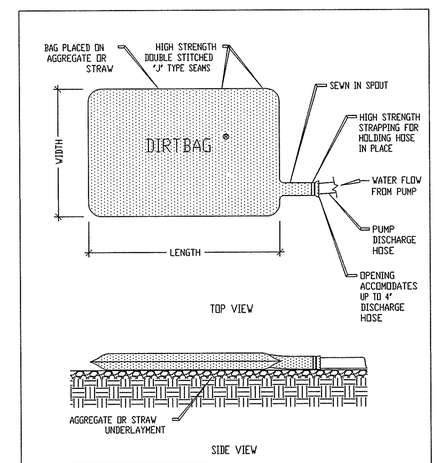
N.T.S.



NOTE:
DIMENSIONS OF SETTLING BASINS MAY VARY DEPENDING ON QUANTITY OF WATER TO BE PUMPED IN EACH AREA.

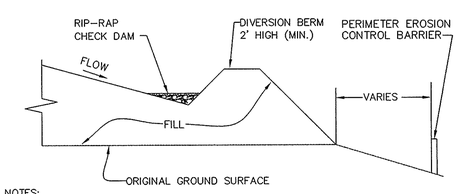
SETTLING BASIN

N.T.S.



DETAIL OF DIRTBAG PUMPED SILT CONTROL SYSTEM

PROJECT:		
CITY:		DR. BY:
STATE:	DATE:	DR. NO:



NOTES:
1. CHECK DAMS SHALL BE PROVIDED IN ALL UNSTABILIZED CHANNELS, SWALES AND ALONG DIVERSION BERMS AS NEEDED.
2. CHECK DAMS SHALL BE CLEANED OUT OF ALL DEBRIS AND SEDIMENT AS NEEDED.
3. ALL SEDIMENTATION BASIN BERMS SHALL BE 4' MIN. IN HEIGHT.

DIVERSION BERM DETAIL (TYP.)

N.T.S.

COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
CIVIL
No. 30015
REGISTERED PROFESSIONAL ENGINEER

11-24-15

REGISTRY USE ONLY

APPROVED BY THE CITY OF BEVERLY PLANNING BOARD

DATE

DRW:	DSG:	CHK:	
1.	NOI SUBMISSION		10/16/15
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3.	FINAL REVISIONS		11/23/15

REV | DESCRIPTION | DATE

EROSION CONTROL DETAILS

DEFINITIVE SUBDIVISION PLAN
STANDLEY STREET GARDENS
AN OPEN SPACE RESIDENTIAL DESIGN
IN
BEVERLY, MA

PREPARED FOR
R.C. REALTY CONSTRUCTION & DEVELOPMENT, LLC
7 NICOLE AVENUE
BEVERLY, MA 01915

Marchionda & Associates, L.P.
Engineering and Planning Consultants
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Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 7/9/15

H:\PROJECTS\857-01\DEFINITIVE\REV4\DET.DWG

M. & A. NO.: 857-01 | SCALE: N.T.S.

SHEET 18 OF 18

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