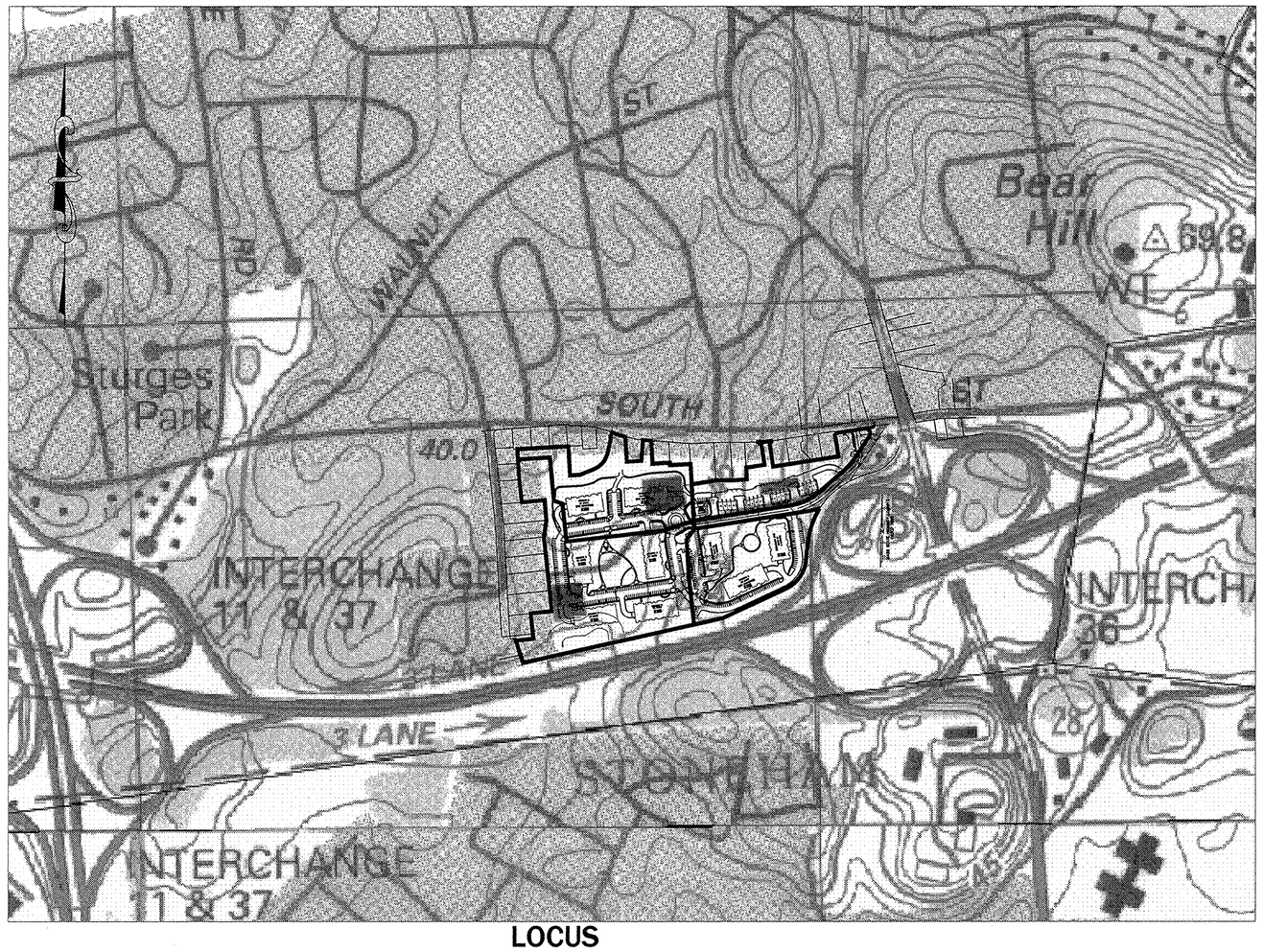
SITE PLANS
FOR
READING WOODS

JACOB WAY
READING, MASSACHUSETTS

APPLICANT:

PULTE HOMES OF NEW ENGLAND, LLC
115 FLANDERS ROAD
WESTBORO, MA 01581



LOCUS
SCALE: 1" = 400'±

ZONING SUMMARY

ZONING DISTRICT: BUSINESS C		
ZONING REG. REQUIREMENT	REQUIRED	PROVIDED (MIN.)
MIN. LOT AREA	N/A	14.8 Ac.
FRONTAGE	N/A	1056 FT
MIN. FRONT YARD	10 FT	14 FT
MIN. SIDE YARD	10 FT	40 FT
MIN. REAR YARD	10 FT	69 FT
MIN. SIDE YARD(ADJ. RES)	100 FT	103 FT
MIN. REAR YARD(ADJ. RES)	100 FT	101 FT
VEGETATED BUFFER(ADJ. RES)	25 FT	30 FT
BUILDING SEPARATION	50 FT	51 FT
MAX. BUILDING HEIGHT	55/95* FT	<55 FT
MAX. STORIES	4	4
MAX. LOT COVERAGE	60%	16%
MIN. PARKING (2 SP./UNIT)	448	516
ZONING OVERLAY: GATEWAY SMART GROWTH		
DISTRICT REQUIREMENT	REQUIRED	PROVIDED (MIN.)
MIN. LOT AREA	N/A	10 Ac.
FRONTAGE	N/A	40.2 FT
MIN. FRONT YARD	10 FT	170 FT
MIN. SIDE YARD	10 FT	102 FT
MIN. REAR YARD	10 FT	55 FT
MIN. SIDE YARD(ADJ. RES)	100 FT	102 FT
MIN. REAR YARD(ADJ. RES)	100 FT	124 FT
VEGETATED BUFFER(ADJ. RES)	30 FT	35 FT
BUILDING SEPARATION	50 FT	85 FT
MAX. BUILDING HEIGHT	55 FT	<55 FT
MAX. STORIES	4	4
MAX. LOT COVERAGE	60%	17%
MIN. PARKING (1.6 SP./UNIT)	320	379

* WITHIN 400 FT OF RTE 128

SITE IS COMPRISED OF THE FOLLOWING PARCELS:
ASSESSOR'S MAP 4 PARCELS 57,69,74,77,84,85,86,87

DENSITY PER DISTRICT:

DISTRICT A (3.75 AC) : 16 TOWNHOUSE UNITS
DISTRICT B (5.6 AC): 86 SENIOR HOUSING UNITS
DISTRICT C (10.0 AC): 200 HOUSING UNITS (20% AFFORDABLE)
DISTRICT D (5.45 AC): 122 SENIOR HOUSING UNITS

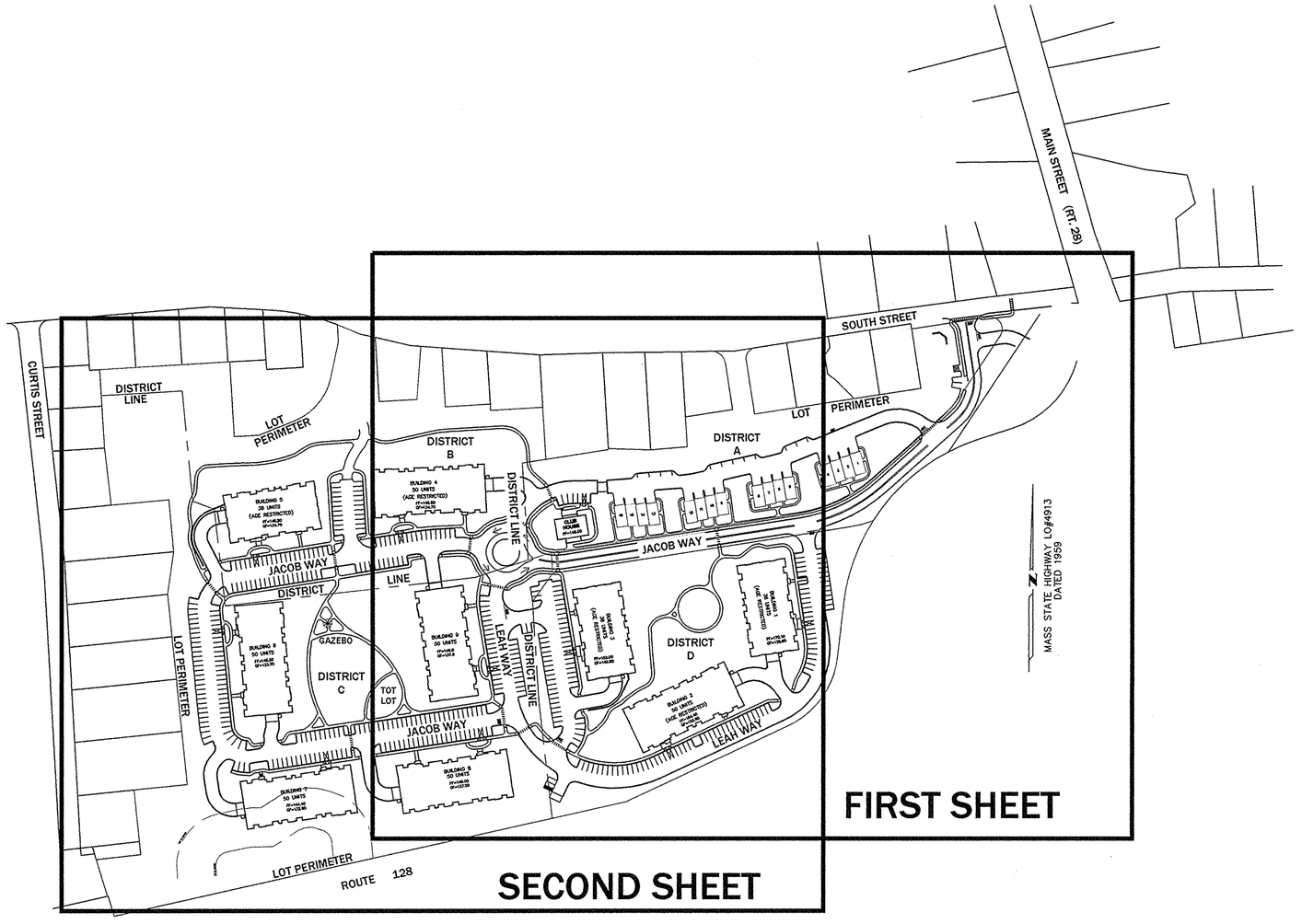
PARKING REQUIREMENTS: BUSINESS "C" – 2 SPACES/UNIT = 448 SPACES REQUIRED
GATEWAY SMART GROWTH – 1.6 SPACES/UNIT = 320 SPACES REQUIRED
TOTAL REQUIRED = 768 SPACES

PARKING PROVIDED =

UNIT PARKING: SURFACE = 422
COVERED = 458
TOTAL = 880

MISCELLANEOUS PARKING: CLUB HOUSE = 6
GUEST(TOWNHOUSE)= 9

SITE TOTAL = 895 SPACES



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SCALE: 1" = 150'

SHEET INDEX

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ADDITIONAL PLANS

HUNTRESS ASSOCIATES LANDSCAPE PLANS

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SUPPLEMENTAL PLANS

MARCHIONDA & ASSOCIATES, L.P.

1–4	STORMWATER POLLUTION PROTECTION PLAN

REGISTRY USE ONLY

APPROVED BY THE TOWN OF READING PLANNING BOARD

DATE

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

DRW.	DSG.	CHK.	DESCRIPTION	DATE
2			CPDC COMMENTS	2/15/11
1			CON. COM. REVISIONS	2/8/11

COVER SHEET

READING WOODS in READING, MA

Prepared For
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WESTBORO, MA 01581

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DATE: 1/4/11
H:\PROJECTS\487-187\PB PLAN SET 2-2011\COVER.DWG
M. & A. NO.: 487-187 | SCALE: AS SHOWN
SHEET 1 OF 33

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LEGEND OF EXISTING CONDITIONS SYMBOLS

- SEWER MANHOLE
- DRAIN MANHOLE
- MISCELLANEOUS MANHOLE
- CATCH BASIN
- CABLE MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- WATER MANHOLE
- GAS SERVICE VALVE
- GG GAS GATE VALVE
- WATER SERVICE VALVE
- WG WATER GATE VALVE
- DS DOWN SPOUT
- HYDRANT
- SH SPRINKLER HEAD
- PIV POST INDICATOR VALVE
- UTILITY POLE
- LP LIGHT POLE
- LP LIGHT POLE
- LIGHT POLE
- EBOX ELECTRIC BOX
- ICV IRRIGATION CONTROL VALVE
- HH HAND HOLE
- TS TRAFFIC SIGNAL
- SIGN
- MB MAIL BOX
- FP FLAG POLE
- MP METAL POLE
- W/UGE WITH UNDERGROUND ELECTRIC
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- S SANITARY SEWER
- D STORM DRAIN
- W WATER LINE
- G GAS LINE
- E ELECTRIC CONDUIT
- T TELEPHONE CONDUIT
- CATV TV CABLE CONDUIT
- OH OVERHEAD WIRE
- UNDETERMINED UTILITY LINE LOCATION
- HANDICAP RAMP
- FENCE LINE
- HEDGE
- WOODS
- PLANTINGS
- 130 CONTOUR
- BUILDING

LEGEND OF PROPOSED SYMBOLS

- FINISH GRADE CONTOUR — 100
- TESTHOLE — TH-A1
- PROPOSED EROSION CONTROL BARRIER
- PROPOSED LANDSCAPE RETAINING WALL
- PROPOSED ENGINEERED RETAINING WALL
- PROPOSED SPOT GRADE — 212x0
- PROPOSED FLARED END STRUCTURE
- PROPOSED RIP RAP SLOPE
- PROPOSED DRAIN LINE — 12"HDPE
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE CATCHBASIN
- PROPOSED DRAINAGE FLOW ARROW
- PROPOSED SEWER MANHOLE AND SEWER LINE — 8"PVC
- PROPOSED SEWER SERVICE — SS
- PROPOSED FIRE HYDRANT W/VALVE
- PROPOSED WATER MAIN W/VALVE — 8"DI
- PROPOSED WATER SERVICE W/ GATE — WS
- PROPOSED TRANSFORMER — E
- TOP OF FOUNDATION ELEVATION — TF=109.00
- PROPOSED TREE LINE
- PROPOSED CENTERLINE — 1+00
- PROPOSED FOOTING DRAIN — FD
- PROPOSED ELECTRIC — PTEC
- PROPOSED GAS MAIN — G
- PROPOSED GAS SERVICE — G
- PROPOSED CHAIN LINK FENCE
- PROP. CEDAR STOCKADE/BOARD FENCE
- PROPOSED SPLIT RAIL FENCE
- ACCESSIBLE PARKING
- LUMINAIRE
- SIGN
- PROPOSED CEMENT CONCRETE
- PROPOSED BLOCK PAVERS
- PROPOSED GRASS PAVERS

LEGEND OF SURVEY SYMBOLS & ABBREVIATIONS

- DRILLHOLE FOUND — DH
- DRILLHOLE SET — DH
- IRON ROD FOUND — IR
- IRON ROD SET — IR
- IRON PIPE FOUND — IP
- IRON PIPE SET — IP
- MASS HIGHWAY BOUND/DRILLHOLE — MHB
- COUNTY BOUND/BACK CENTER — CBBC
- COUNTY BOUND/BRASS PIN LEAD PLUG — CBBPLP
- STONE BOUND/DRILLHOLE — SBDH
- STONE BOUND CENTER — SB
- CONCRETE BOUND/DRILLHOLE — CBDH
- CROSS CUT FND — xFND
- CROSS CUT SET — xSET
- EXISTING DITCH

NOTES:

1) LEGEND MAY INCLUDE SYMBOLS THAT DO NOT APPEAR IN THIS PLAN SET.

GENERAL ABBREVIATIONS

EDGE OF PAVEMENT	EOP
BIT. CONC. SIDEWALK/WALKWAY	BCSW/BCW
BITUMINOUS BERM	BB
SLOPED GRANITE CURB	SGC
VERTICAL GRANITE CURB	VGC
GRANITE CURB INLET	CI
LANDSCAPED AREA	L/S
BROKEN WHITE LANE LINE	BWL
DOUBLE YELLOW LINE	DYL
SINGLE WHITE LINE	SWL
IRRIGATION CONTROL VALVE	ICV
REMOVE & REPLACE/RELOCATE	R&R

UTILITY ABBREVIATIONS

MANHOLE	MH
HANDHOLE	HH
CATCH BASIN	CB
DOUBLE CATCH BASIN	DCB
AREA DRAIN	AD
CLEAN OUT	CO
DRAIN	D
SEWER	S
SEWER FORCE MAIN	FM
WATER	W
ELECTRIC	E
OVERHEAD WIRE	OHW
UTILITY POLE	UP
HEADWALL	HW
FLARED END SECTION	FES
HIGH DENSITY POLYETHYLENE PIPE	HDPE
DUCTILE IRON PIPE	DIP
POLYVINYLCHLORIDE PIPE	PVC
REINFORCED CONCRETE PIPE	RCP
CAST IRON	CIP
CORRUGATED METAL PIPE	CMP
INVERT ELEVATION	I=
RIM ELEVATION	R=
RECHARGE	RCHG
FOUNDATION DRAIN	FD
ROOF DRAIN	RD
OIL & GRIT SEPERATOR	OGS
STORMWATER QUALITY UNIT	WQU

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GENERAL NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIGSAFE (1-888-344-7233) AT LEAST 72 HOURS BEFORE ANY EXCAVATION.
2) HANDICAP ACCESSIBLE ROUTES, HANDICAP PARKING SPACES, CURB CUTS, RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FEDERAL AMERICANS WITH DIABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS WHICHEVER MAY BE MORE STRICT.
3) AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT BEING REPLACED WITH IMPERVIOUS SURFACES SHALL BE REPLACED WITH LOAM AND SEED UNLESS OTHERWISE SPECIFIED.
4) THE APPLICANT SHALL PROVIDE THE NECESSARY EASEMENT OR OWNERSHIP RIGHTS OVER THE NEW PORTION OF JACOB WAY, WHERE NECESSARY.
5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY PERMITS, PAY FEES AND POST BONDS ASSOCIATED WITH THE WORK AS INDICATED ON THE DRAWINGS, SPECIFICATIONS AND IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL APPLICABLE LOCAL, STATE AND FEDERAL CONSTRUCTION REQUIREMENTS. IF THE PLANS ARE CONTRARY TO ANY REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ARRANGING FOR ALL NECESSARY LOCAL AND/OR STATE INSPECTIONS.
6) SPEED SHALL BE POSTED AT 15 M.P.H.. TRAFFIC SIGNAGE AND MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
7) AREAS OUTSIDE OF THE PROPOSED LIMIT OF WORK DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, AT THE CONTRACTOR'S EXPENSE.
8) IN THE EVENT THAT EVIDENCE OF CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA IS ENCOUNTERED, ALL WORK SHALL CEASE IN THE VIGNITY IN ORDER TO PREVENT THE SPREADING OF THE SUSPECTED CONTAMINATION. THE OWNER SHALL BE IMMEDIATELY NOTIFIED SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
9) THE CONTRACTOR SHALL PREVENT DUST, SEDIMENT AND DEBRIS FROM EXITING THE SITE, AND SHALL BE RESPONSIBLE FOR ANY CLEANUP, REPAIR OR CORRECTIVE ACTION NECESSARY.
10) DAMAGE FROM CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
11) CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION.
12) WHERE EROSION CONTROL IS NOT REQUIRED, BRIGHT ORANGE POLYPROPYLENE FENCING SHALL BE INSTALLED AROUND THE TREES TO BE SAVED AND SHALL DENOTE THE LIMIT OF WORK.
13) KEY LOCK BOXES SHALL BE INSTALLED AT THE ENTRANCES AND AT THE GARAGE DOORS OF ALL THE 4 STORY BUILDINGS. THE EXACT LOCATION TO BE APPROVED BY THE READING FIRE DEPARTMENT.
14) A FIRE PROTECTION SIGNALING SYSTEM SHALL BE INSTALLED IN ALL 4 STORY BUILDINGS COMPLIANT WITH 780 CMR 907 AND N.F.P.A. 72. THE FIRE ALARM SYSTEM SHALL BE SUPERVISED BY A CENTRAL STATION SERVICE AND THE BUILDINGS SHALL BE MONITORED BY A FIRE DEPARTMENT MASTER BOX.

EROSION CONTROL NOTES:

1) THIS SITE IS SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND PULTE HOMES. SITE OPERATORS SHALL CONFORM TO MEET THE CRITERIA FOR A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
2) 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.
3) STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100-FOOT WETLAND BUFFER. DIVERSION BERMS AND EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES IN ACCORDANCE WITH THE PLAN AND DETAILS.
4) PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILTATION FENCES, HAY BALES, CRUSHED STONE, RIPRAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
5) AS A MINIMUM, SILTATION FENCES, HAY BALES AND CONSTRUCTION FENCE WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. HAY BALES AND SILT SACS WILL ALSO BE USED TO PROTECT OFFLINE CATCH BASINS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILTATION FENCE AND HAY BALES ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
6) CRUSHED STONE AND/OR RIPRAP WILL BE USED TO CONSTRUCT THE TRACKING PADS, 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 RIPRAP ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
7) 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.
8) 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.
9) 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.
10) SEDIMENTATION BASINS MAY BE USED THROUGH OUT THE SITE TO TREAT RUNOFF AND SHALL BE SIZED IN ACCORDANCE WITH NPDES REQUIREMENTS AND THE RECOMENDATIONS OF THE EROSION CONTROL MONITOR. DIVERSION BERMS MAY BE UTILIZED TO DIVERT UNTREATED STORMWATER 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.
11) 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 ACTIVTY 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.
12) 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 RECOMENDATIONS OF THE EROSION CONTROL MONITOR.
13) 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.
14) CRUSHED STONE TRACKING PADS SHALL BE USED WHERE ANY TEMPORARY CONSTRUCTION ENTRANCE ARE LOCATED ADJACENT TO ANY EXISITNG TRAVELED WAY OR DRIVEWAY.

UTILITY NOTES:

1) GRAVITY SEWER MAIN SHALL BE 8-INCH SDR-35 PVC OR APPROVED EQUAL.
2) SEWER FORCE MAIN SHALL NOT BE NEEDED.
3) WATER MAIN SHALL BE CEMENT LINED DUCTILE IRON (CLDI), CLASS 52 OR APPROVED EQUAL, 8" DIAMETER UNLESS OTHERWISE NOTED.
4) STORM DRAINAGE PIPES SHALL BE 12" HDPE, UNLESS NOTED OTHERWISE. ROOF DRAIN LEADER PIPES SHALL BE 6" HDPE, UNLESS NOTED OTHERWISE. ROOF DRAIN COLLECTION PIPES SHALL BE 12" HDPE, UNLESS NOTED OTHERWISE.
5) LOCATION OF THE EXISTING UTILITIES ARE APPROXIMATE AND ARE SHOWN FOR REPRESENTATIONAL PURPOSES ONLY. EXACT LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE UTILITY INFORMATION DEPICTED DOES NOT GUARANTEE THE LOCATION, SIZE OR SERVICABILITY OF THE EXISTING UTILITIES. IN THE EVENT THAT THE PROPOSED WORK IS IN CONFLICT WITH AN EXISTING UTILITY, OR THAT THE EXISTING CONDITIONS PREVENT THE WORK FROM BEING PERFORMED AS PROPOSED, THE LOCATION, SIZE AND ELEVATION OF THE CONNECTIONS TO THE EXISTING UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR. THE OWNER SHALL BE IMMEDIATELY NOTIFIED OF ANY CHANGES NECESSARY. FAILURE TO NOTIFY THE OWNER OF ANY ADDITIONAL WORK REQUIRED, PRIOR TO PERFORMING SAID WORK, RELEASES THE OWNER OF ANY OBLIGATION FROM ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED FOR RESOLUTION OF THE CONFLICTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL REQUIRED UTILITY PERMIT(S) ARE OBTAINED.
6) UTILITY TRENCHES IN SOUTH STREET SHALL BE TEMPORARILY PATCHED IN ACCORDANCE WITH TOWN STANDARDS.
7) A MINIMUM OF 5 FEET OF COVER SHALL BE MAINTAINED OVER WATER MAIN. **CONTRACTOR SHALL TAKE NOTE THAT THERE ARE SEVERAL AREAS WHERE THE WATER MAIN NEEDS TO BE DEEPER THAN THE MINIMUM OF 5 FEET TO AVOID CONFLICTS WITH OTHER UTILITIES.
8)AN IRRIGATION SYSTEM SHALL BE DESIGNED(BY OTHERS) AND INSTALLED BY THE CONTRACTOR.
9) THIS PROJECT IS SUBJECT TO A SEWER CONNECTION PERMIT ISSUED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION. CONTRACTOR SHALL BE FAMILIAR AND COMPLY WITH ALL CONDITIONS OF THIS PERMIT.
10) SEWERS SHOULD BE KEPT REMOTE FROM PUBLIC WATER SUPPLY WELLS, WATER MAINS OR OTHER POTABLE WATER SUPPLY SOURCES AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN THE WATER MAIN 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.
11) SOLID, GASKETED AND LOCKABLE MANHOLE COVERS SHOULD BE USED IN AREAS DESIGNATED AS A BUFFER ZONE OF ANY WETLANDS.
12) ALL SEWER PIPING AND/OR STRUCTURES SHALL MEET THE REQUIREMENTS OF THE TOWN OF READING. WHERE CONFLICTS EXISTS , THE MOST STRINGENT STANDARD SHALL BE USED.
13) RIM ELEVATIONS, DRAINAGE AND SEWER INVERTS AND ELEVATIONS OF DITCHES SHALL BE SET ACCORDING TO THE UTILITY AND GRADING AND DRAINAGE PLANS.
14) THE RIMS OF ALL STRUCTURES (INCLUDING MANHOLES, PULL BOXES, HAND HOLES, CLEANOUTS, VALVE COVERS ETC.) SHALL BE SET FLUSH WITH THE FINISHED SURFACE OF PAVEMENT, GRAVEL OR CONCRETE SURFACE. RIMS SHOULD BE SET 1" ABOVE THE SURFACE OF ANY LANSCAPE, LOAM, SEED OR OTHER EARTH MATERIALS, WITH THE GROUND TAPERED DOWN FROM THE RIM TO THE SURFACE.
15) THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS OF ANY PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS OF, AND BE APPROVED BY THE RESPECTIVE SERVICE PROVIDER/UTILITY COMPANIES.
16) THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR ANY FEES ASSOCIATED WITH THE REMOVAL AND/OR RELOCATION OF UTILITY POLES, GAS, ELECTRIC, TELEPHONE, CABLE AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY THE CONTRACTOR OR THE UTILITY COMPANY.
17) SITE CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION, INSTALLATION AND BACKFILL OF ELECTRICAL SITEWORK RELATED ITEMS INCLUDING, BUT NOT LIMITED TO: PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES AND CONCRETE PADS. CONCRETE ENCASEMENT OF ANY DUCT BANK SHALL BE PROVIDED, IF REQUIRED BY THE UTILITY COMPANY.
18) SITE CONTRACTOR SHALL COORDINATE WITH THE GAS UTILITY COMPANY. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION, AND BACKFILL OF GAS TRENCHES.
19) ALL DRAINAGE AND SANITARY SEWER STRUCTURE INSIDE DIAMETERS SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATION AS SHOWN ON THE UTILITY AND DRAINAGE PLANS.
20) F.S.= FIRE SERVICE; RD=ROOF DRAIN; FD=FOUNDATION DRAIN.
21) ALL UTILITIES, RECHARGE AREAS AND SERVICES SHALL BE FIELD LOCATED BY MARCHIONDA & ASSOCIATES PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THIS AS-BUILT WORK.
22) FOLLOWING CONSTRUCTION, AS-BUILT PLANS SHOWING THE LOCATION OF ALL UNDERGROUND UTILITIES, IN A FORM ACCEPTABLE TO THE TOWN, SHALL BE PREPARED AND SUBMITTED TO THE ENGINEERING DEPARTMENT.
23) FIRE ALARM SHALL BE IN CONFORMANCE WITH TOWN SPECIFICATIONS.

LAYOUT AND MATERIALS NOTES:

1) REFER TO DETAIL SHEETS FOR TYPICAL ROAD SECTION TYPES.
2) PAVEMENT MARKINGS SHALL CONFORM TO PART 3 (MARKINGS) OF THE MOST RECENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
3) ALL WALLS GREATER THAN 4' IN HEIGHT SHALL BE DESIGNED BY A REGISTERED STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
4) THE SITE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTIONS OF ALL STRUCTURAL RETAINING WALLS (>4') DURING CONSTRUCTION SO THAT THE CONTRACTOR CAN OBTAIN A CERTIFICATION FROM A STRUCTURAL ENGINEER THAT THE WALLS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE STAMPED STRUCTURAL DESIGN PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THIS CERTIFICATION TO THE OWNER.
5) GUARD RAILS SHALL BE PROVIDED ALONG THE SHOULDER OF ALL DRIVES WHERE A DOWNWARD SLOPE IN EXCESS OF 4:1 IS PROPOSED ADJACTENT TO THE DRIVEWAY.
6) SLOPED GRANITE CURB SHALL BE USED ALONG THE EXISTING PORTION OF JACOB WAY TO THE CIRCLE. BIT CONC. CAPE COD BERM SHALL BE USED ELSWHERE THROUGHOUT THE SITE, EXCEPT AT THE TRANSITIONS TO ACCESSIBLE CURB RAMPS AND CURB INLETS WHICH SHALL BE A VERTICAL GRANITE TRANSITION OR AS OTHERWISE SPECIFIED. WHEREVER FEASIBLE, REUSE THE EXISTING GRANITE CURBING THAT IS ON-SITE TO ACHIEVE THESE TRANSITIONS.
7) ALL ISLANDS SHALL HAVE A 3 FT MIN RADIUS CURB RETURN.
8) SLOPES OR GRADES WITHIN HANDICAPPED SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.
9) BUILDING ENTRANCES AND STAIRS ARE SHOWN PICTORIALLY ON THESE PLANS. ACTUAL SIZES MAY VARY. REFER TO ARCHITECTURAL PLANS FOR ACTUAL SIZES.
10) DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL OR CENTERLINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
11) THE PROPOSED DETAIL PERTAINING TO THE BUILDINGS SHOWN HEREON IS TO USED AS A GUIDE ONLY. SEE ARCHITECTURAL PLANS AND INDIVIDUAL BUILDING PLOT PLANS FOR EXACT BUILDING DIMENSIONS, ELEVATIONS AND DETAILS CONTIGUOUS TO THE BUILDINGS, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, WALKWAYS, UTILITY PENETRATIONS, FOUNDATION ELEVATIONS, SEWER LATERAL INVERTS, RETAINING WALLS AND GRADING AROUND UNITS.

LIGHTING NOTES:

1) LUMINAIRES SHALL BE AMERLUX EXTERIOR MODEL D721HR5/100MH-MT/MED/BLK WITH APPROPRIATE VOLTAGE, SMOOTH SATIN BLACK, 100W METAL HALIDE LIGHT SOURCE AND TYPE III REFRACTOR OR APPROVED EQUAL. POLES SHALL BE 12' ALUMINUM DIRECT BURY, MODEL D53-12/FDBE/BLK OR APPROVED EQUAL.
2) LUMINAIRES SHALL ACHIEVE IES CUTOFF CLASSIFICATION.

DEMOLITION NOTES:

1) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING, BUT NOT LIMITED TO: ALL BUILDINGS, PAVEMENT, CONCRETE, SLABS, CURBING, FENCES, POLES, FOUNDATIONS, EXISTING UTILITIES, SIGNS ETC., UNLESS OTHERWISE INDICATED ON THE PLANS.
2) ALL UNSUITABLE MATERIAL WITHIN THE BUILDING FOOTPRINTS AND A SUITABLE DISTANCE BEYOND SHALL BE REMOVED AND DISPOSED OF PROPERLY.
3) EXISTING UTILITES SHALL BE TERMINATED, UNLESS OTHERWISE INDICATED, IN CONFORMANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY OR OF THE INDIVIDUAL PRIVATE UTILITY COMPANIES. THE CONTRACTOR SHALL COORDINATE THE SERVICE DISCONNECTIONS WITH THE MUNICIPALITY, OR THE PRIVATE UTILITY COMPANIES.
4) CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION DEBRIS ACCORDING TO ANY APPLICABLE FEDERAL, STATE OR LOCAL STATUTES, REGULATIONS OR ORDINANCES.
5) PAVEMENT REMOVAL MAY BE DONE COINCIDENTALY WITH ANTICIPATED CONSTRUCTION SEQUENCE OR PHASE.

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

DRW:	DSG:	CHK:		DATE
			2 CPDC COMMENTS	2/15/11
			1 CON. COM. REVISIONS	2/8/11
			NO. DESCRIPTION	DATE

LEGEND & NOTES

READING WOODS in READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
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DATE: 1/4/11

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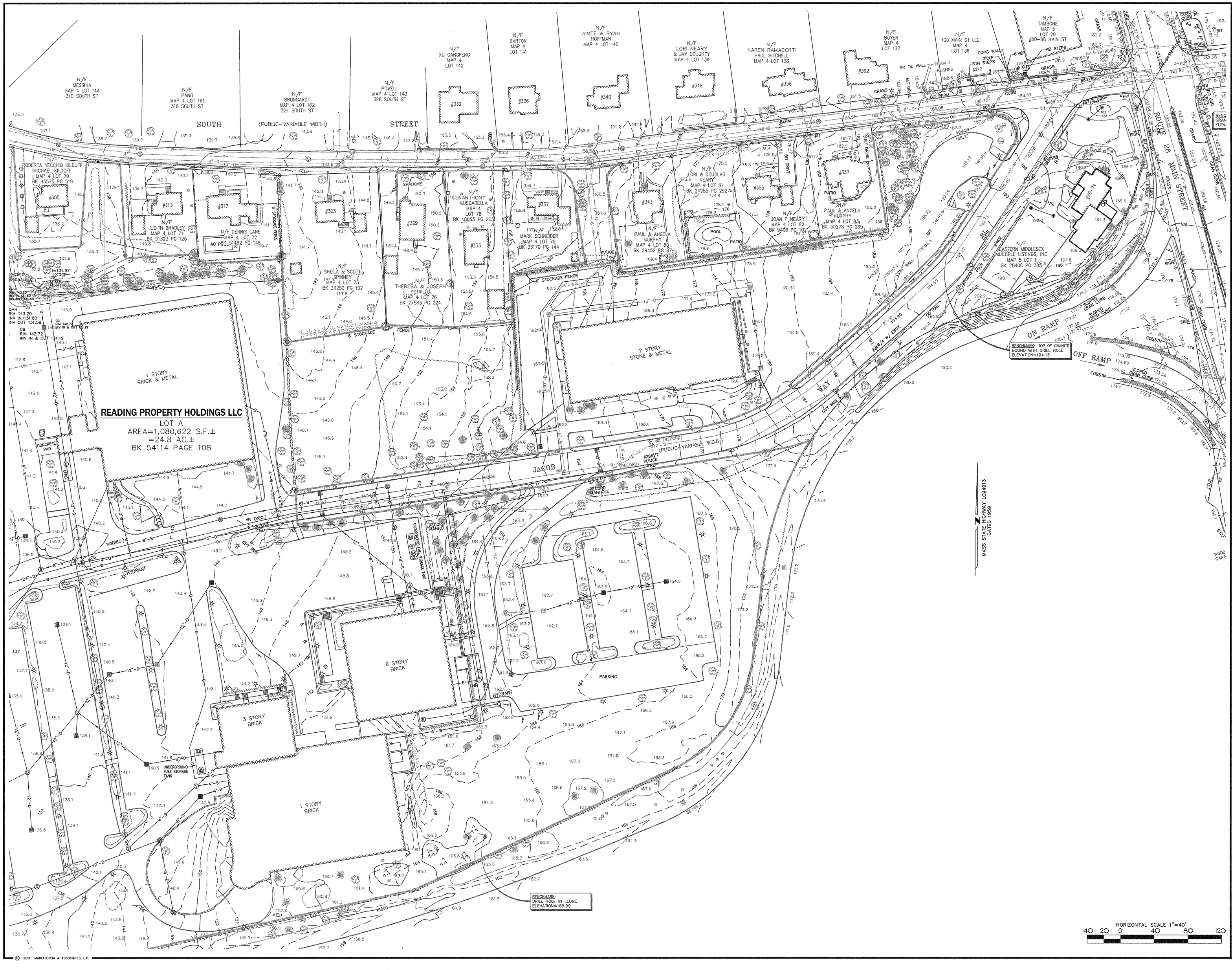
M. & A. NO.: 487-187 | SCALE: NOT TO SCALE



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

REV.	DESCRIPTION	DATE
2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

DRW: DSG: CHK:

EXISTING CONDITIONS

READING WOODS
in
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Prepared For
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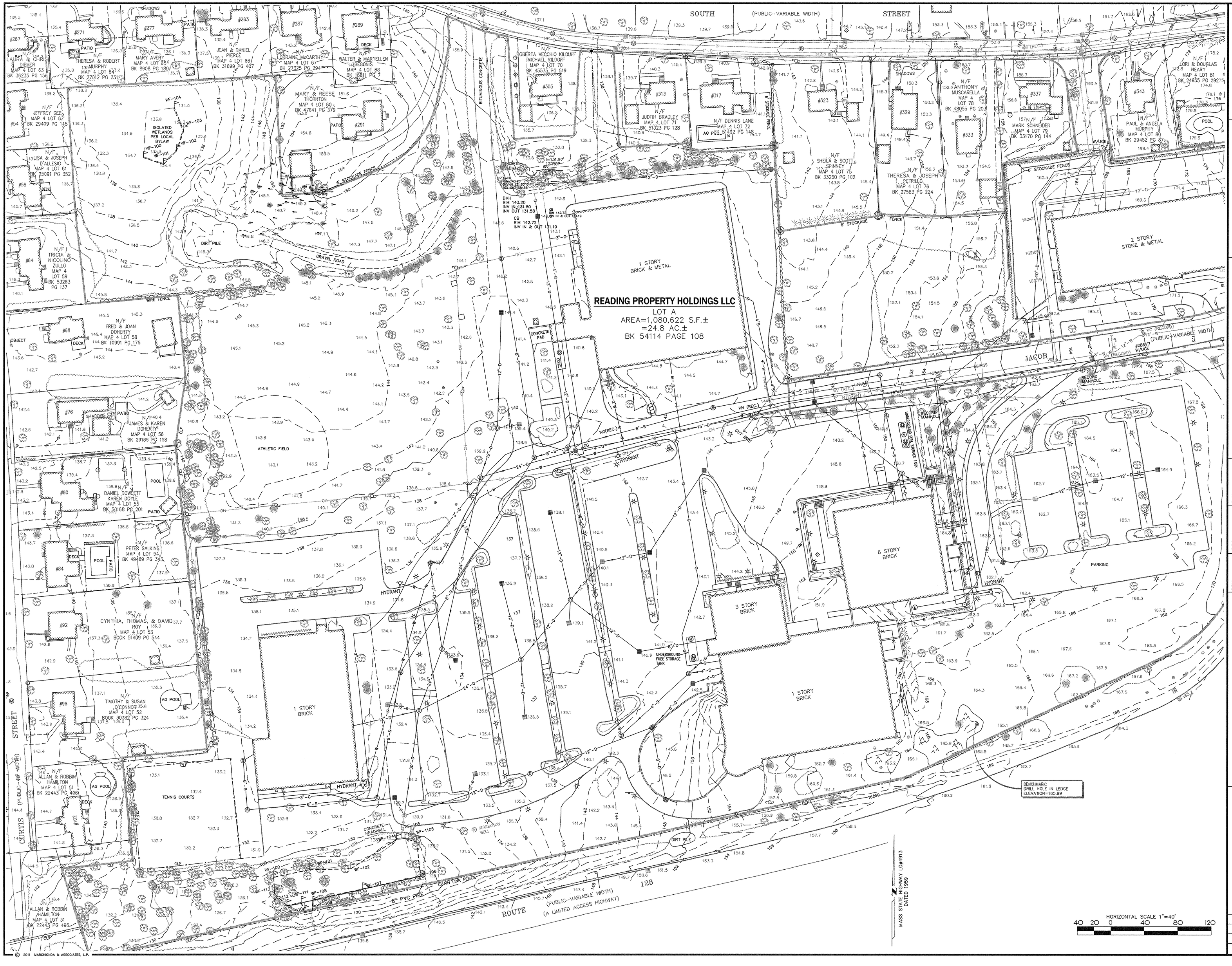

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PAUL A. MARCHONDA CIVIL No. 20015 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

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			2	CPDC COMMENTS	2/15/11
			1	CON. COM. REVISIONS	3/8/11

EXISTING CONDITIONS

READING WOODS
in
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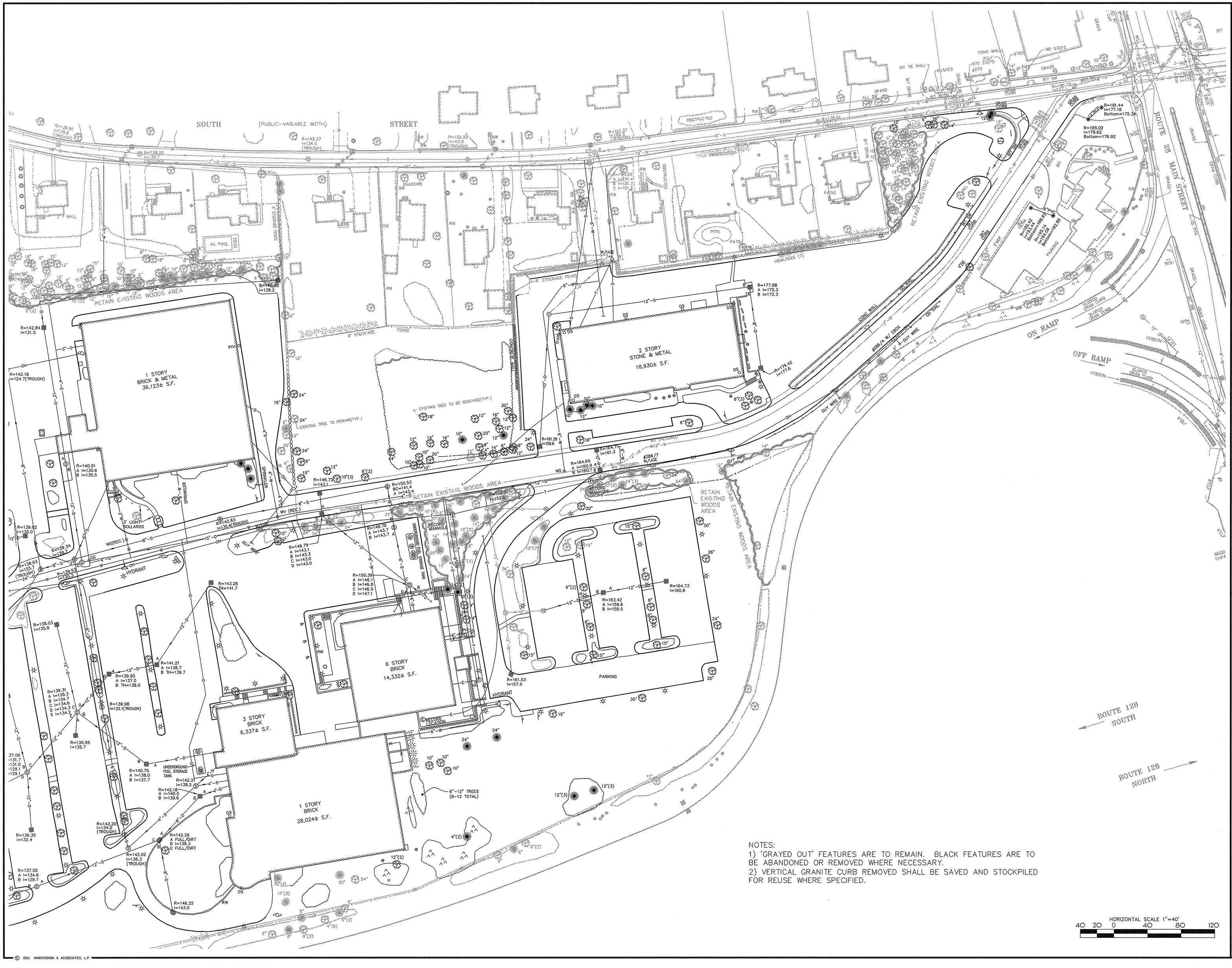

NOTES:
1) 'GRAYED OUT' FEATURES ARE TO REMAIN. BLACK FEATURES ARE TO BE ABANDONED OR REMOVED WHERE NECESSARY.
2) VERTICAL GRANITE CURB REMOVED SHALL BE SAVED AND STOCKPILED FOR REUSE WHERE SPECIFIED.

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

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COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
CIVIL
No. 30615
REGISTERED PROFESSIONAL ENGINEER

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			2	CPDC COMMENTS	2/15/11
			1	CON. COM. REVISIONS	2/8/11

DEMOLITION PLAN

READING WOODS
in
READING, MA

Prepared For

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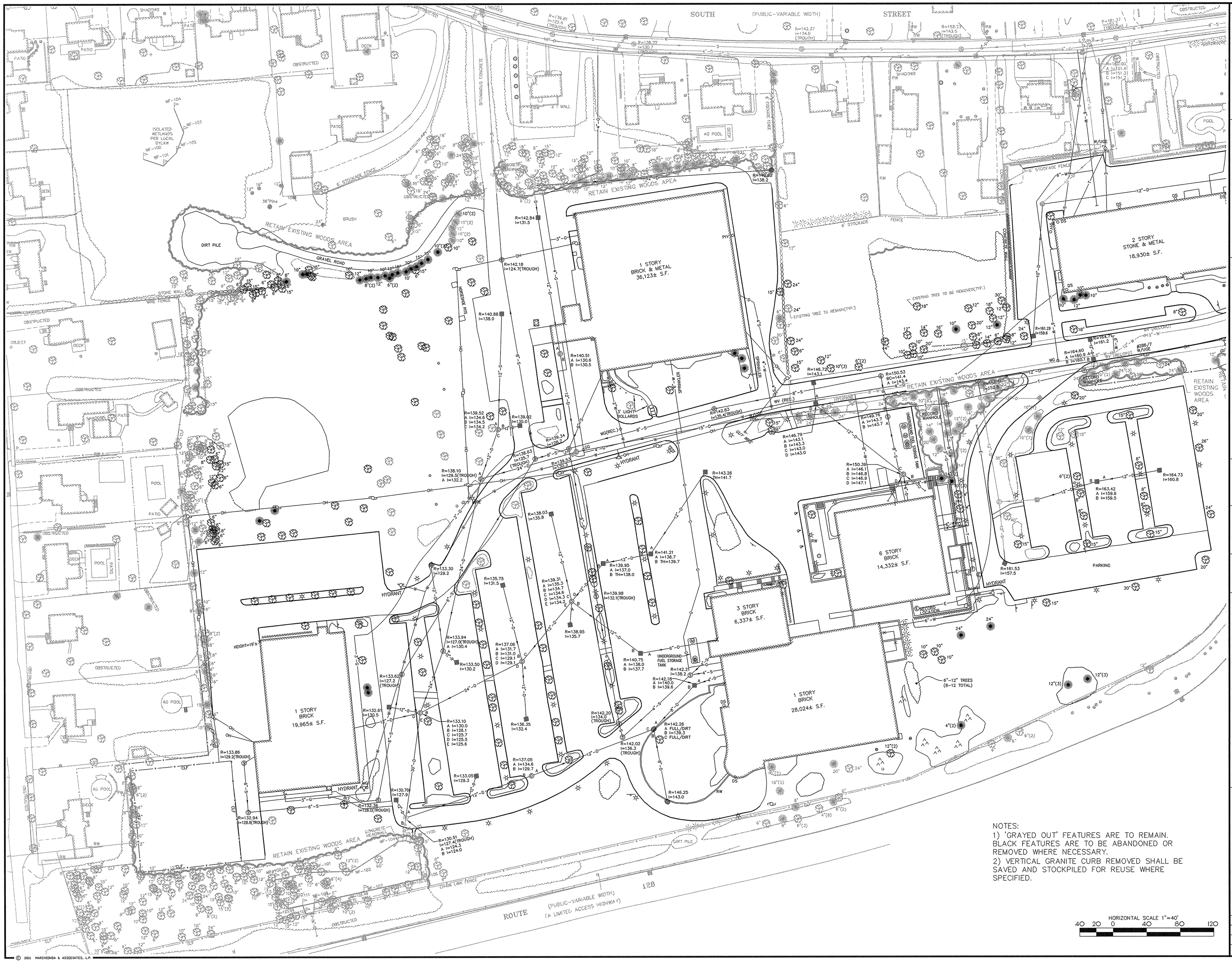

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COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
CIVIL
No. 30015
REGISTERED PROFESSIONAL ENGINEER

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1	CON. COM. REVISIONS	2/8/11

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DEMOLITION PLAN

READING WOODS
in
READING, MA

Prepared For

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SHEET 6 OF 33

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NOTES:

1) RADIUS OF ALL BIT. CONC. BERM RETURNS IS 3' UNLESS OTHERWSE NOTED.
2) WALKWAYS TO BE 5' WIDE, EXCEPT AROUND TOWNHOUSE UNITS WHICH ARE TO BE 3' WIDE.
3) SEE DETAIL SHEET FOR TYPICAL ACCESSIBLE RAMP LAYOUT.
4) STANDARD PARKING SPACES TO BE 9'X18'. ACCESSIBLE PARKING SPACES AND LOADING AREAS TO BE 8'X18'.

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COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
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1	CON. COM. REVISIONS	2/8/11

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LAYOUT AND MATERIALS PLAN

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
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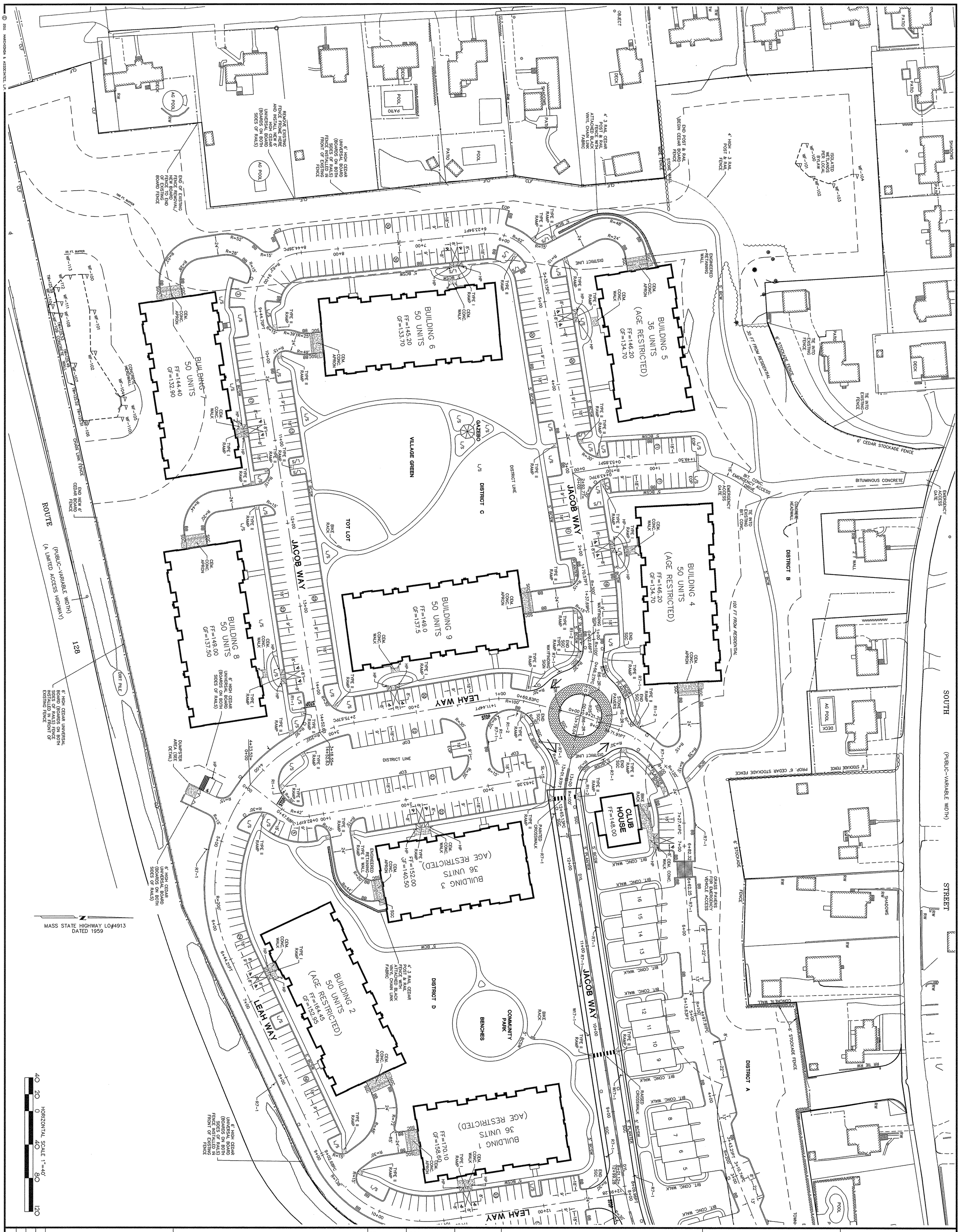

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LAYOUT AND MATERIALS PLAN

READING WOODS
in
READING, MA

Prepared For

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115 FLANDERS ROAD
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2.	CPDC COMMENTS	2/15/11
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PAUL A. MARCHIONDA CIVIL No. 30015 COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER REGISTERED

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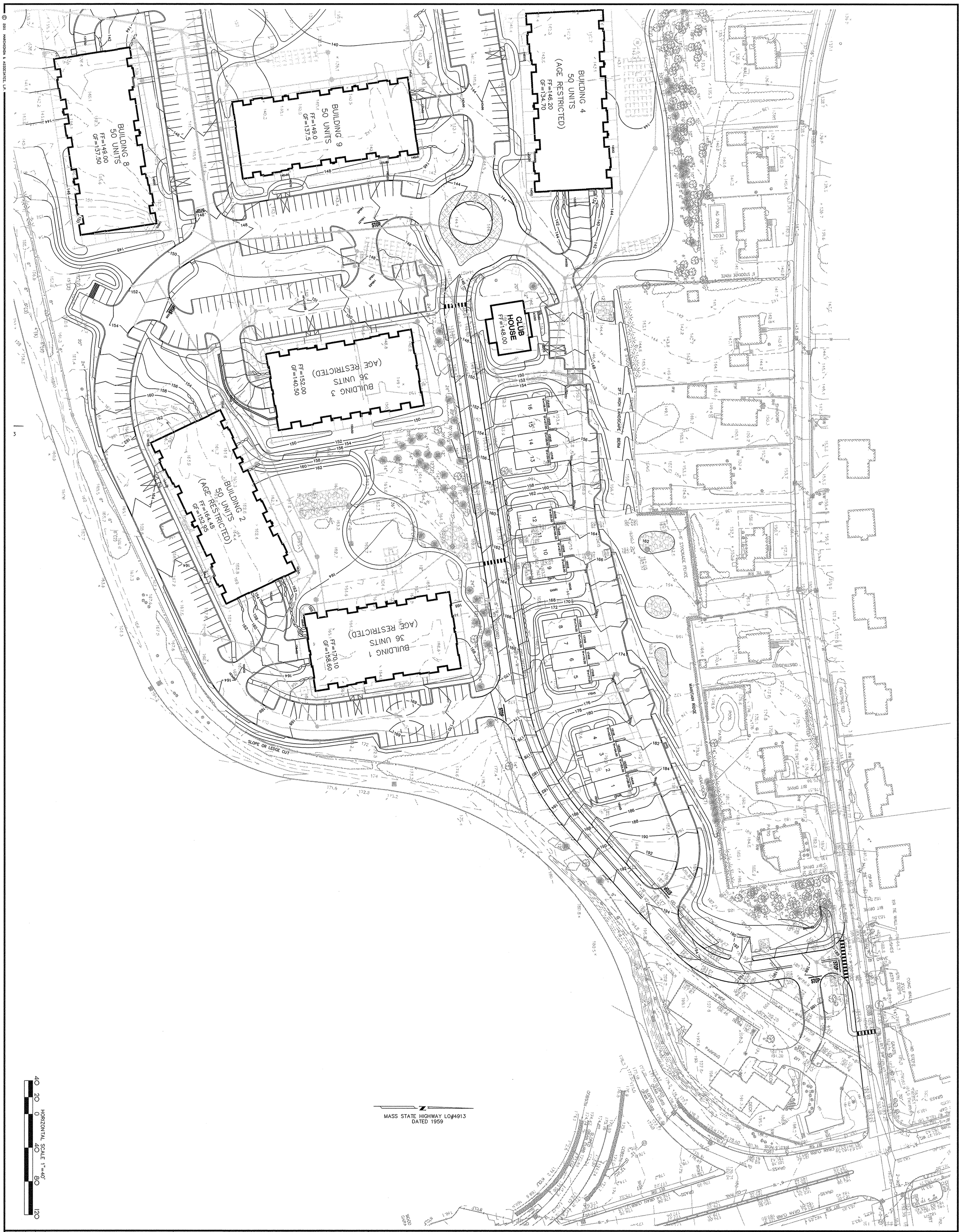

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M. & A. NO.: 487-187 | SCALE: 1"=40'

SHEET 9 OF 33

GRADING PLAN

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

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2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

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

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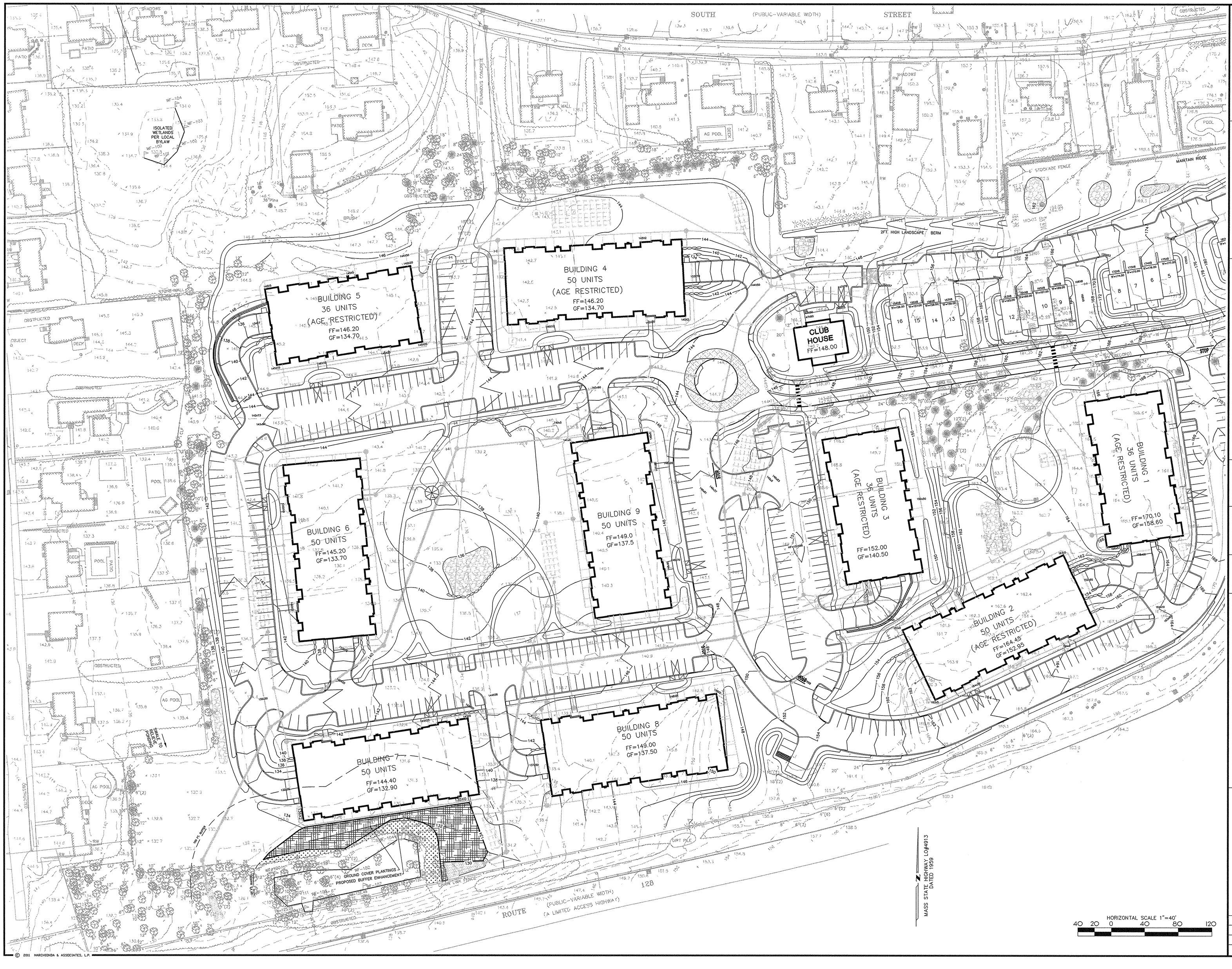

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GRADING PLAN

READING WOODS in READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
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M. & A. NO.: 487-187 | SCALE: 1"=40'

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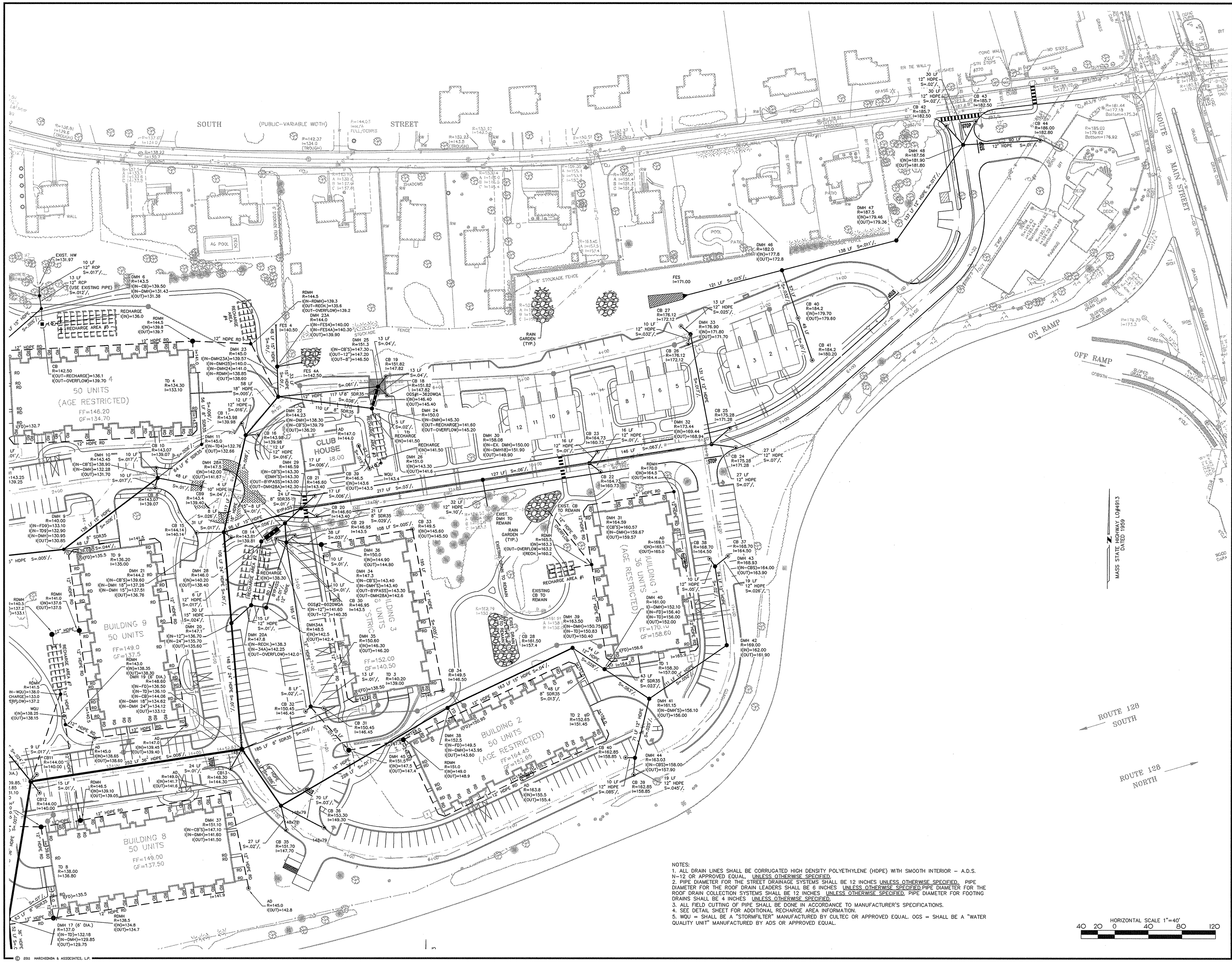

NOTES:
1. ALL DRAIN LINES SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) WITH SMOOTH INTERIOR – A.D.S. N-12 OR APPROVED EQUAL. UNLESS OTHERWISE SPECIFIED.
2. PIPE DIAMETER FOR THE STREET DRAINAGE SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED. PIPE DIAMETER FOR THE ROOF DRAIN LEADERS SHALL BE 6 INCHES UNLESS OTHERWISE SPECIFIED PIPE DIAMETER FOR THE ROOF DRAIN COLLECTION SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED, PIPE DIAMETER FOR FOOTING DRAINS SHALL BE 4 INCHES UNLESS OTHERWISE SPECIFIED.
3. ALL FIELD CUTTING OF PIPE SHALL BE DONE IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
4. SEE DETAIL SHEET FOR ADDITIONAL RECHARGE AREA INFORMATION.
5. WQU = SHALL BE A "STORMFILTER" MANUFACTURED BY CULTEC OR APPROVED EQUAL. OGS = SHALL BE A "WATER QUALITY UNIT" MANUFACTURED BY ADS OR APPROVED EQUAL.

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DRAINAGE PLAN

READING WOODS in READING, MA

Prepared For

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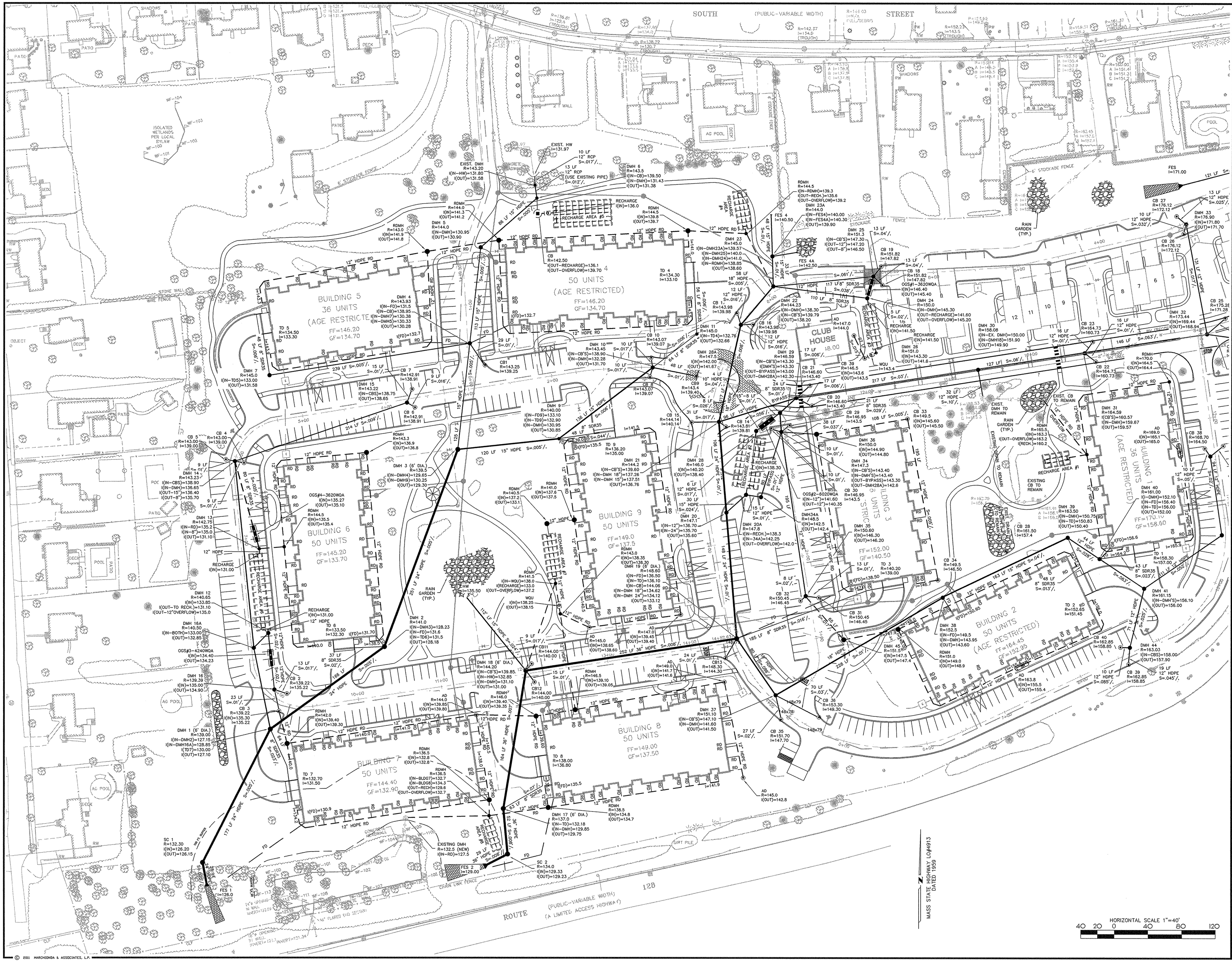

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HORIZONTAL SCALE 1"=40'
40 20 0 40 80 120

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DRAINAGE PLAN

READING WOODS
in
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Prepared For
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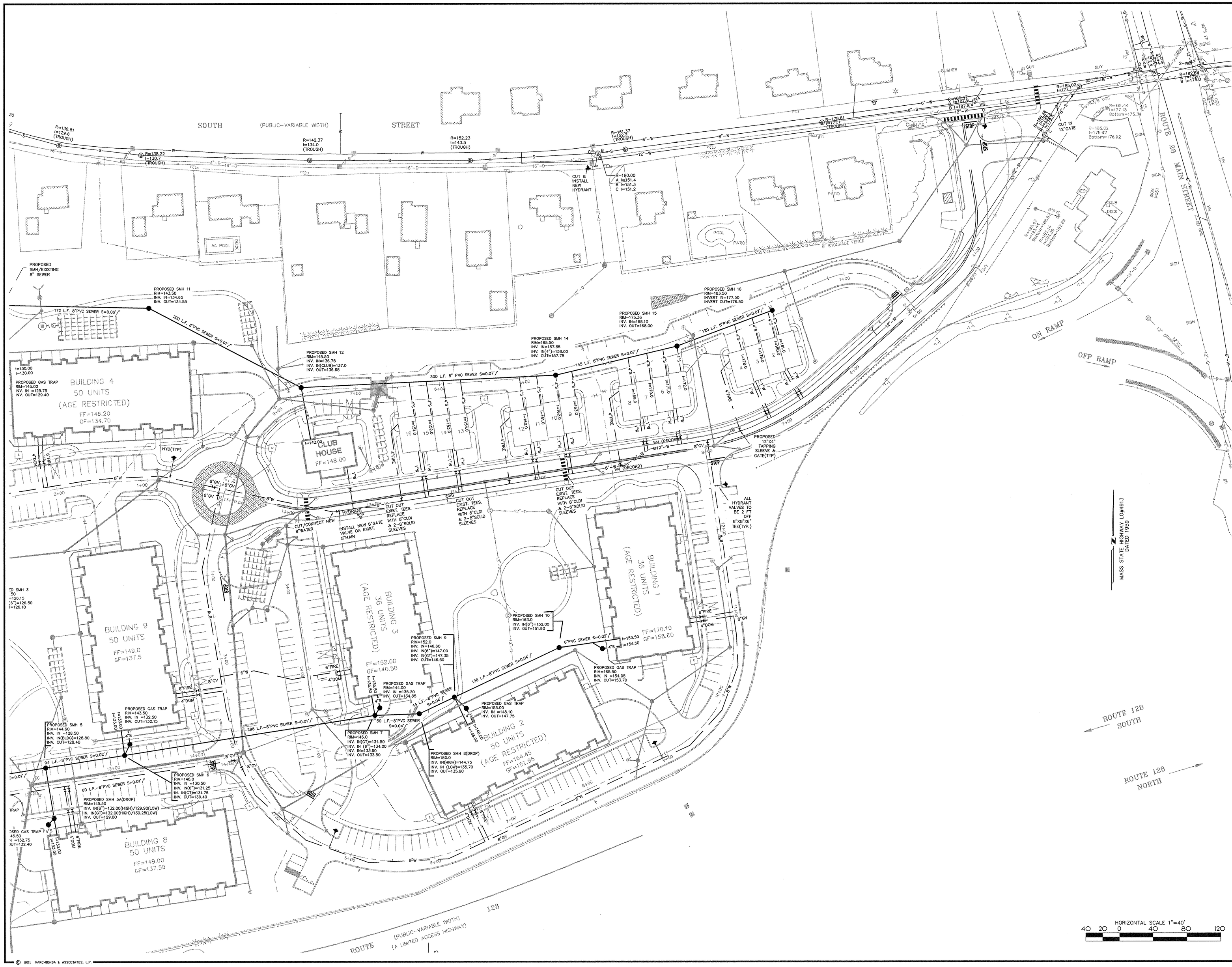

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COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
CIVIL
No. 30015
Registered Professional Engineer

DRW:	DSG:	CHK:	DATE	DESCRIPTION
			2/15/11	CPDC COMMENTS
			2/8/11	CON. COM. REVISIONS

SEWER + WATER PLAN

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
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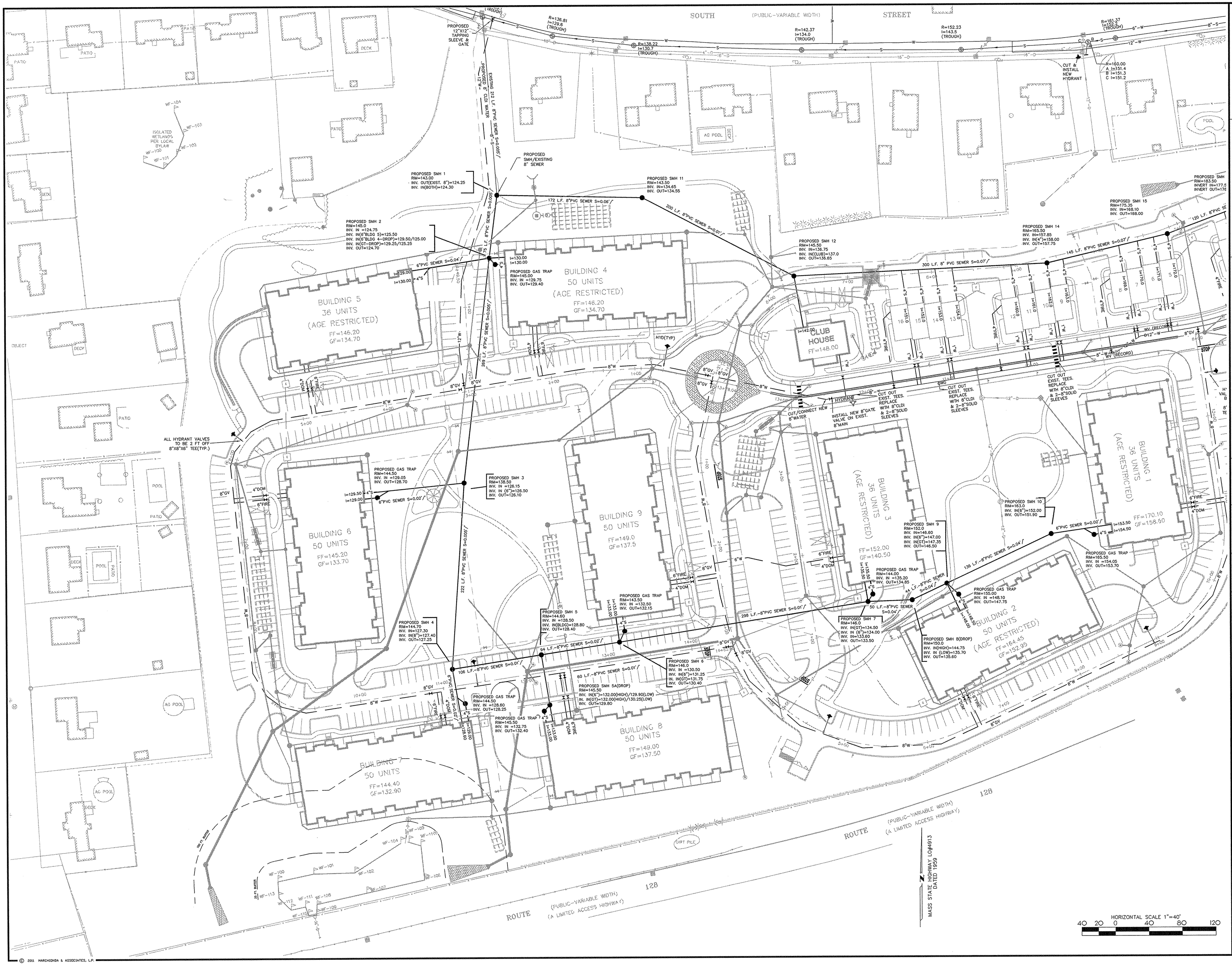
M. & A. NO.: 487-187 | SCALE: 1"=40'



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			REV.	DESCRIPTION	DATE

SEWER + WATER PLAN

READING WOODS
in
READING, MA

Prepared For

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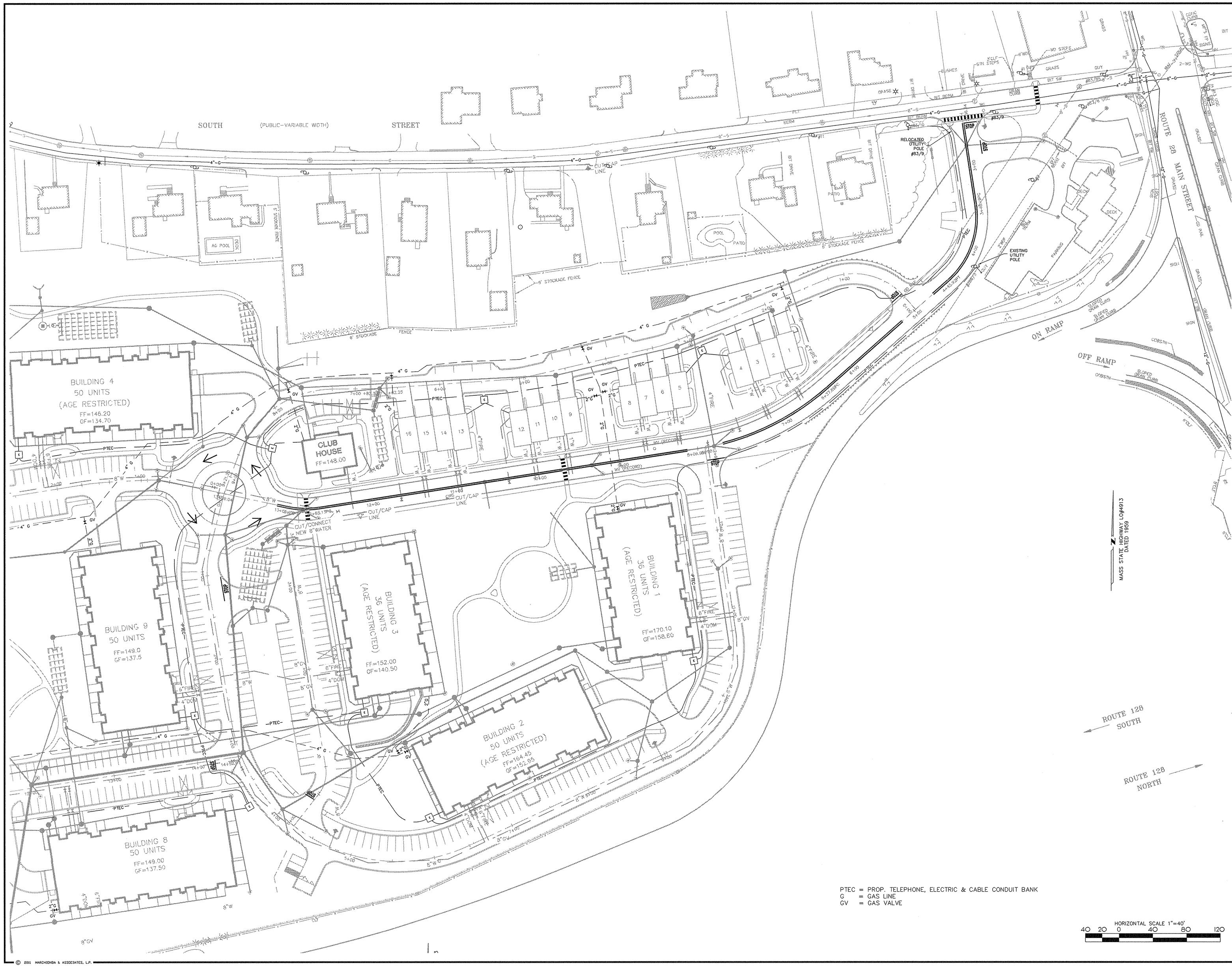
SHEET 14 OF 33



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DRW: DSG: CHK:

MISCELLANEOUS UTILITY PLAN

READING WOODS in READING, MA

Prepared For

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SHEET 15 OF 33

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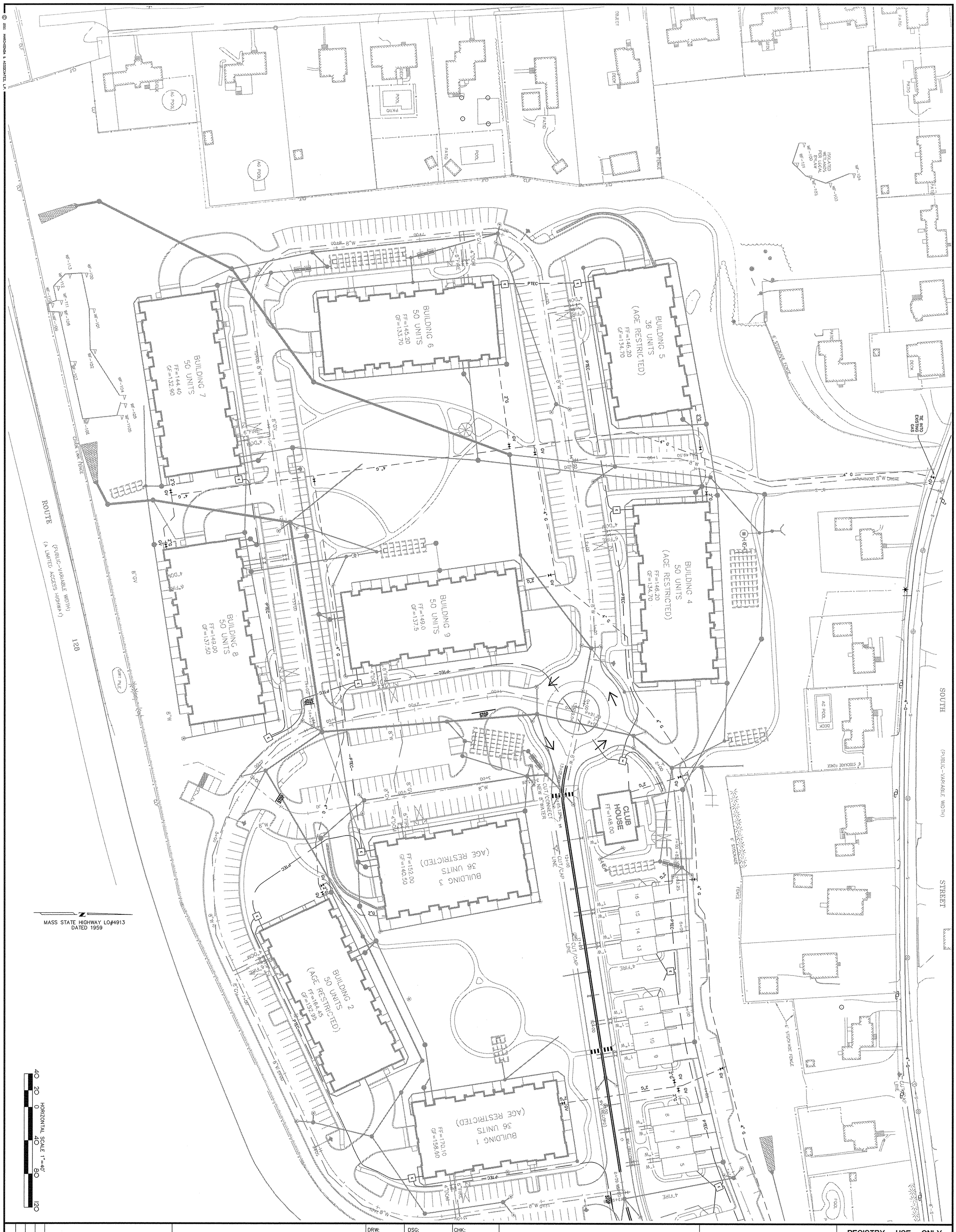

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Email: engineering@marchionda.com
Website: www.marchionda.com

DATE: 1/4/11
H:\PROJECTS\487-187\PB PLAN SET 2-2011\UTIL.DWG
M. & A. NO: 487-187 | SCALE: 1"=40'

SHEET 16 OF 33

MISCELLANEOUS UTILITY PLAN

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

DRW: | DSG: | CHK:

REV.	DESCRIPTION	DATE
2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

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

APPROVED BY THE TOWN OF READING PLANNING BOARD

DATE

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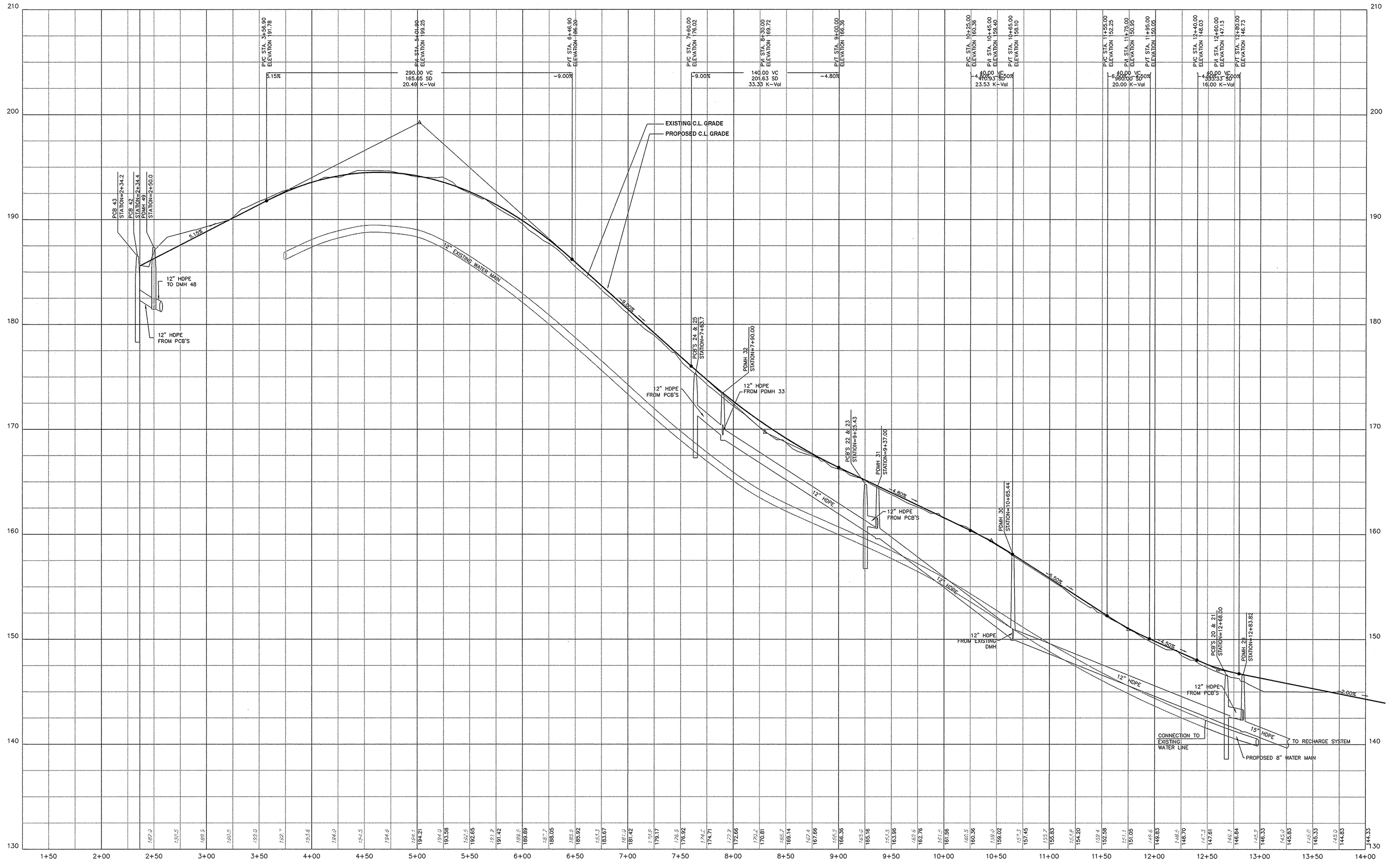

JACOB WAY - SOUTH STREET TO CIRCLE

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

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

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COMMONWEALTH OF MASSACHUSETTS
PAUL A. MARCHIONDA
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DRW:	DSG:	CHK:			
			2	CPDC COMMENTS	2/15/11
			1	CON. COM. REVISIONS	2/8/11
			REV.	DESCRIPTION	DATE

DRIVE WAY PROFILES
JACOB WAY
SOUTH STREET TO CIRCLE

READING WOODS in **READING, MA**

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
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SHEET 17 OF 33

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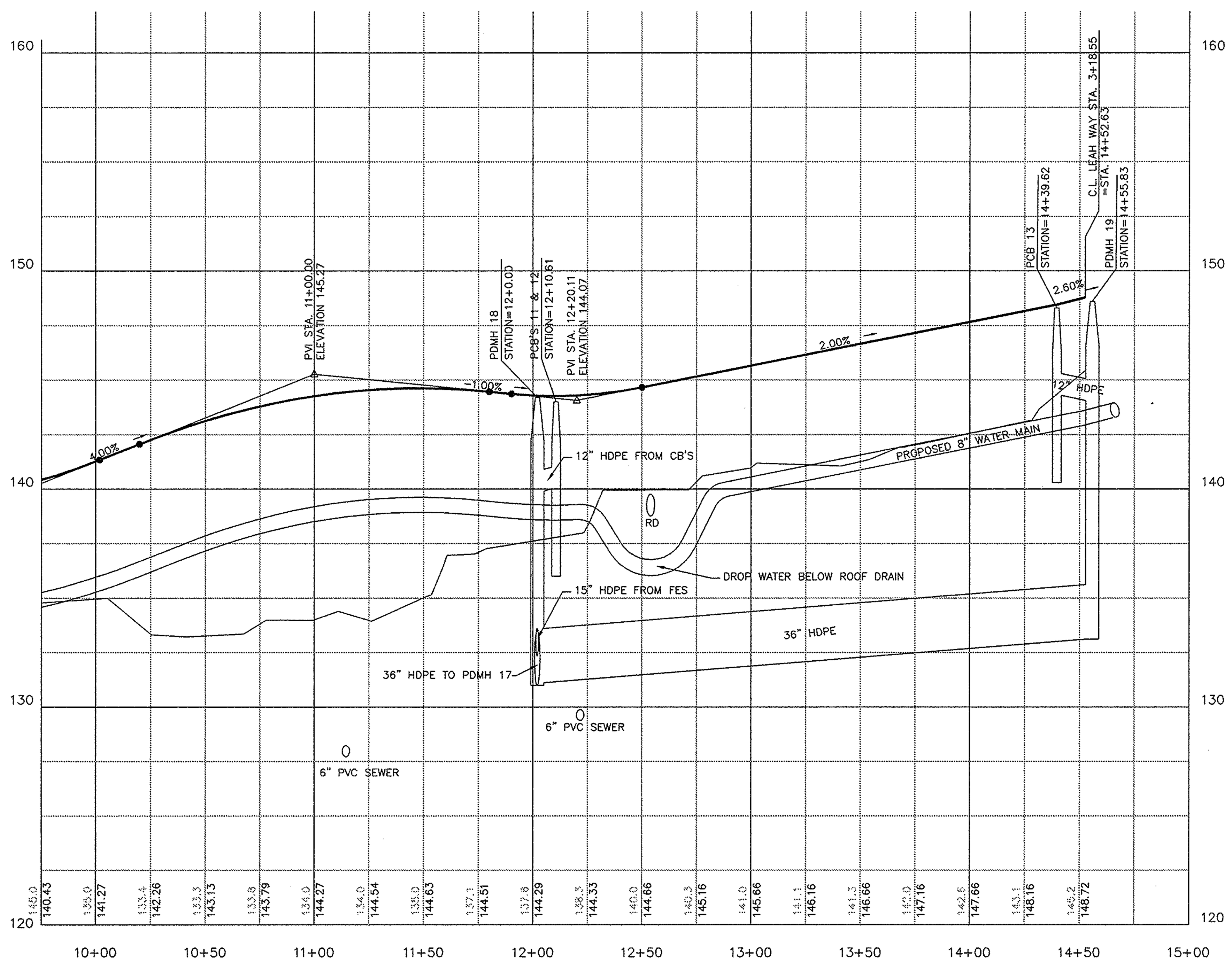
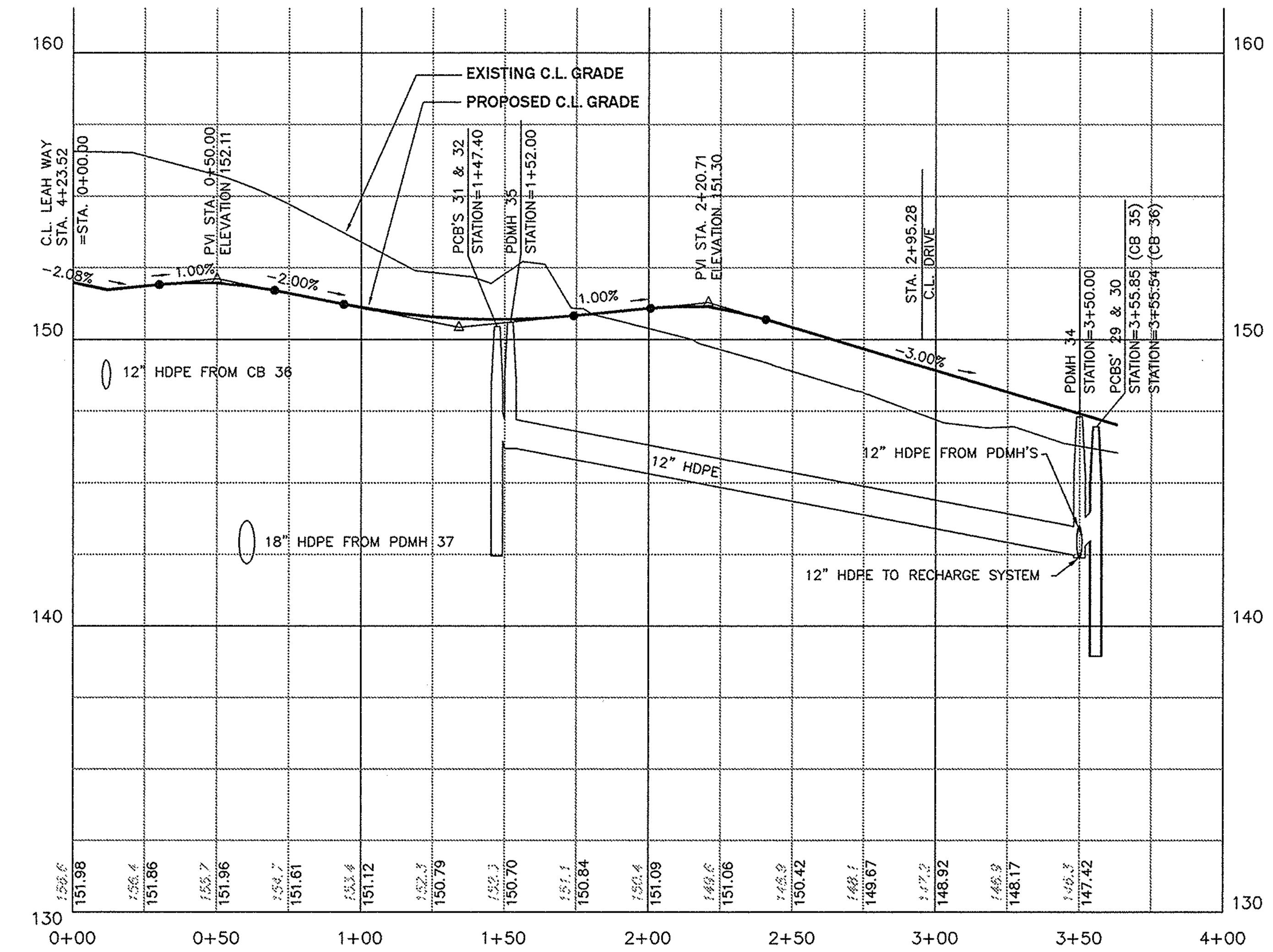


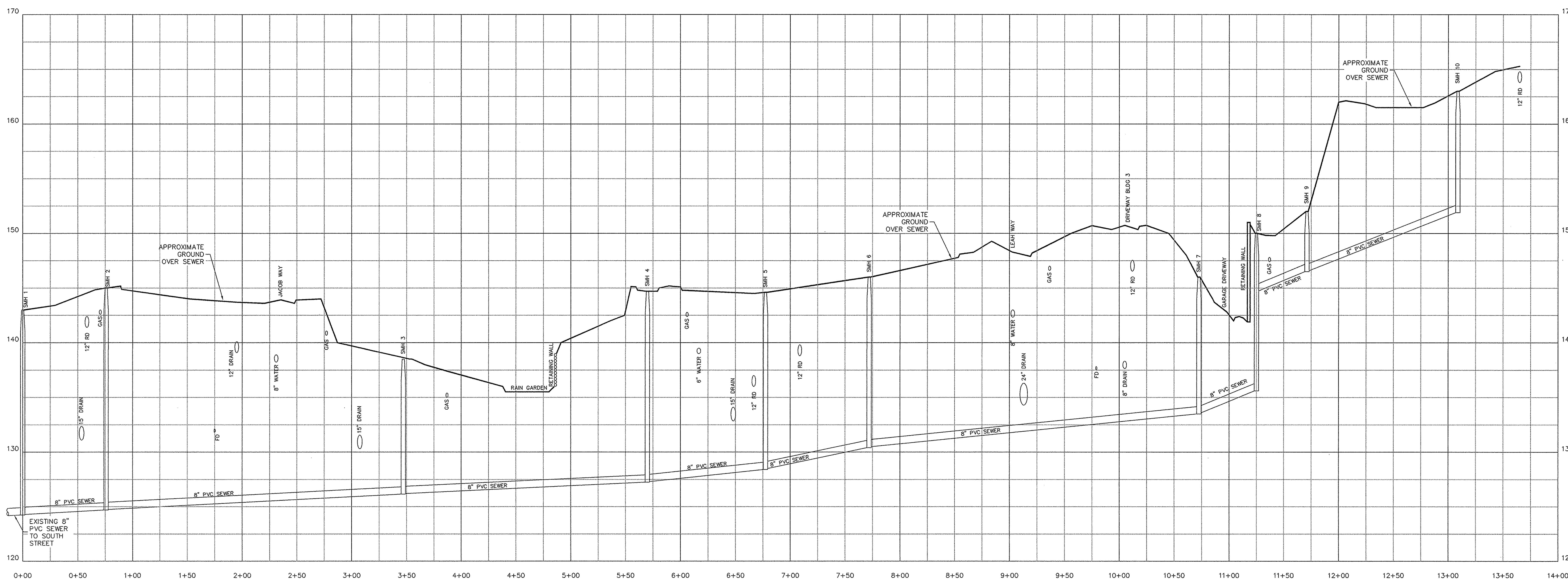
JACOB WAY (CONT.)

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



DRIVE BLDG. 3

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



SEWER PROFILE SMH 1 TO SMH 10

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

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

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DRW: DSG: CHK:

DRIVE WAY PROFILES
JACOB WAY - DRIVEWAY BUILDING 3
SEWER PROFILE SMH 1 - SMH 10

READING WOODS

in

READING, MA

Prepared For

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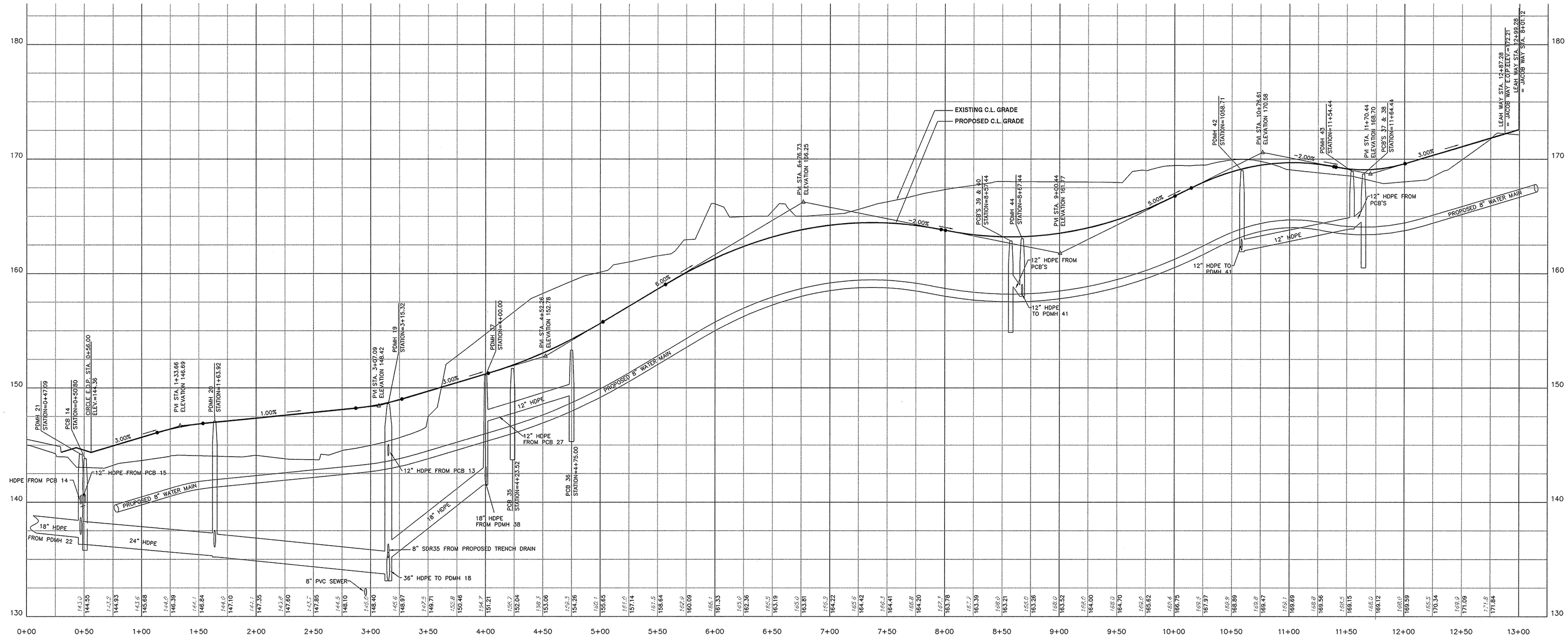
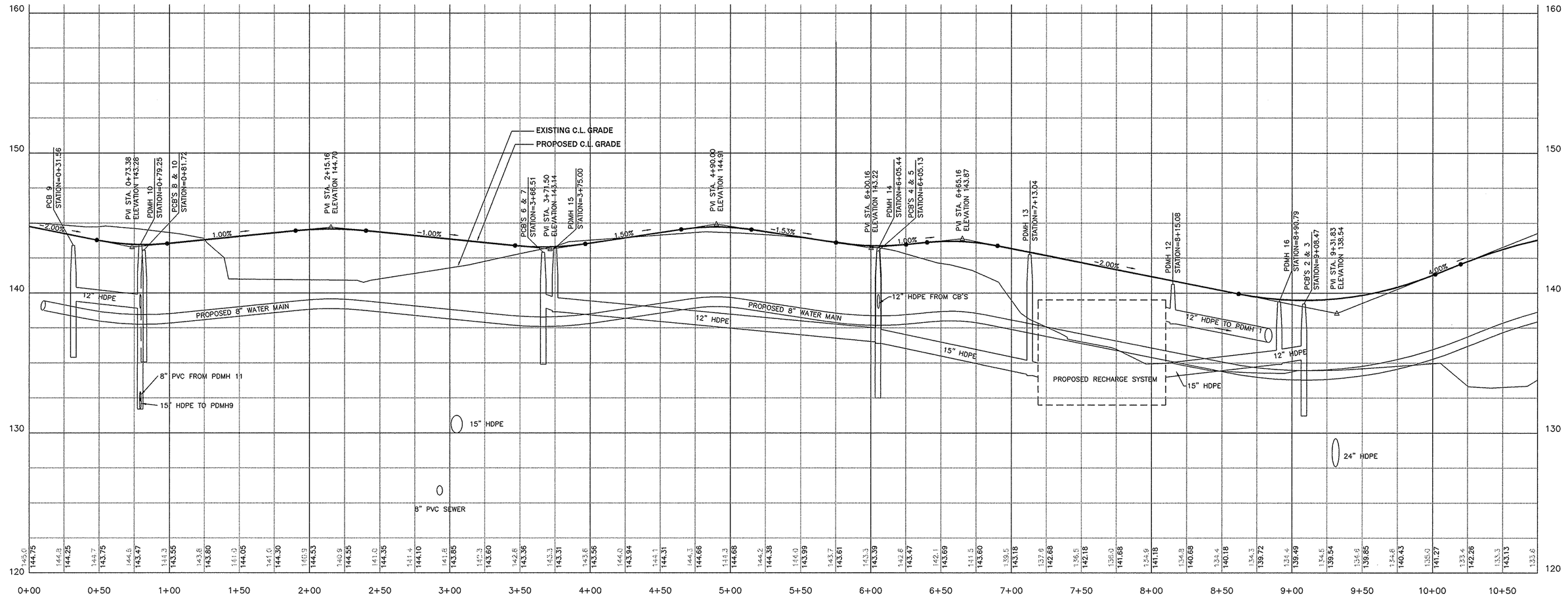


LEAH WAY

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



JACOB WAY - CIRCLE TO LEAH WAY

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

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

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2.	CPDC COMMENTS		2/15/11	
1.	CON. COM. REVISIONS		2/8/11	
REV	DESCRIPTION		DATE	

DRIVE WAY PROFILES
LEAH WAY
JACOB WAY - CIRCLE TO LEAH WAY

READING WOODS
in
READING, MA

Prepared For

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M. & A. NO.: 487-187 | SCALE: AS SHOWN

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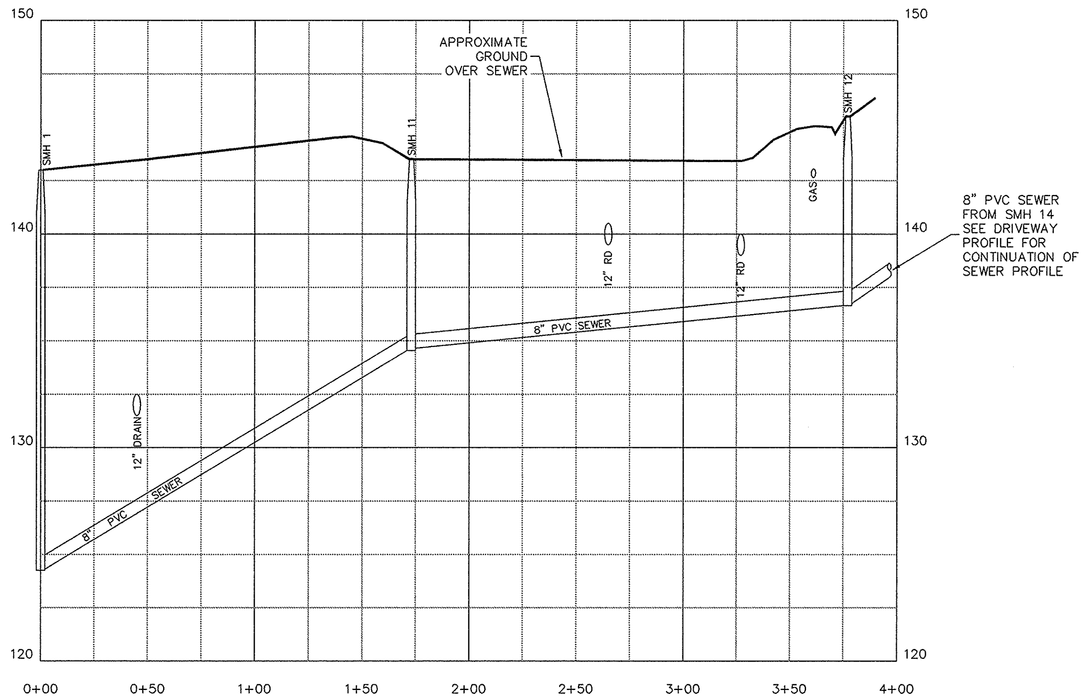
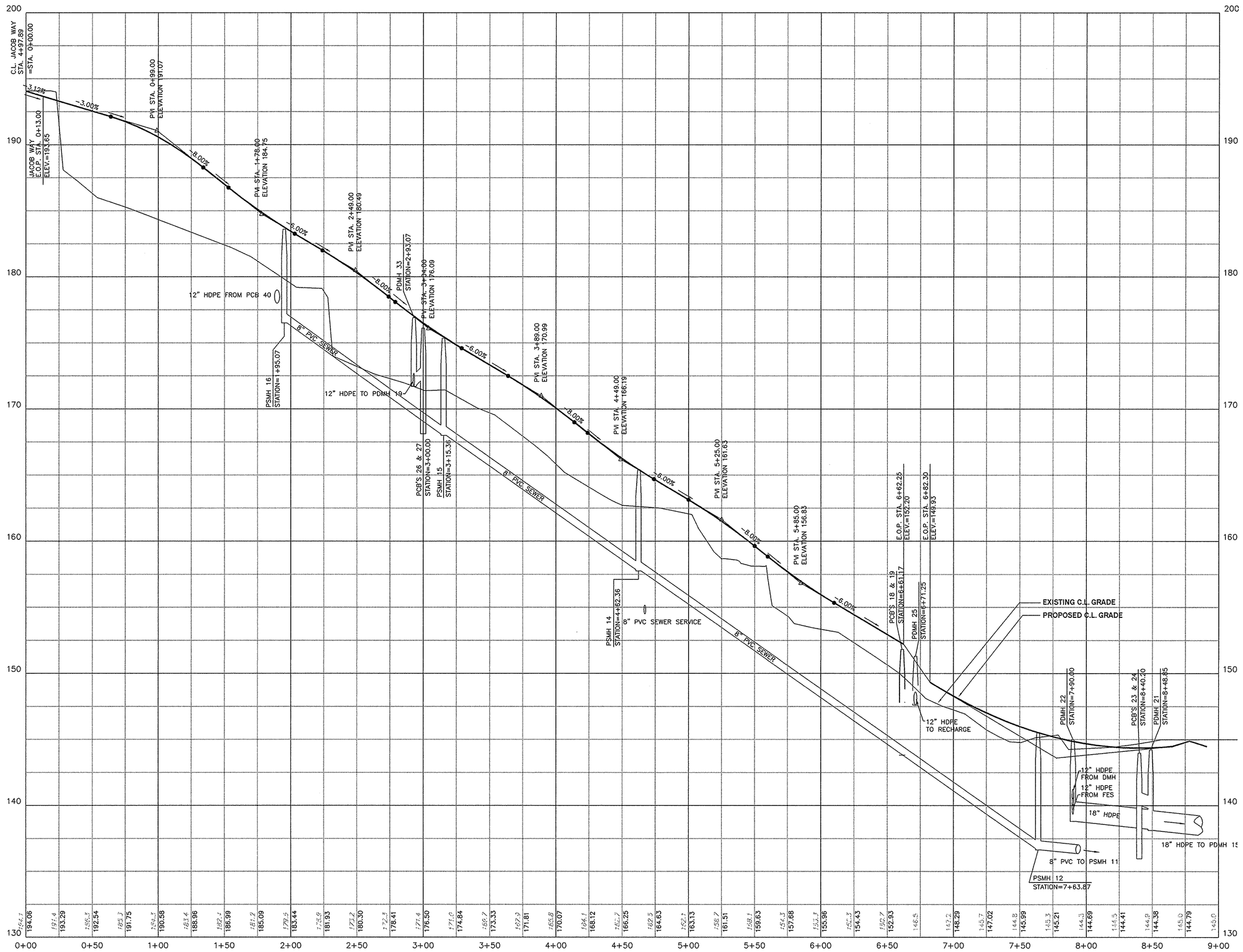


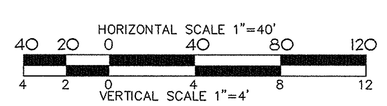
SEWER PROFILE SMH 1 TO SMH 12

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



TOWNHOUSE DRIVEWAY + CLUBHOUSE DRIVEWAY

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



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REV.	DESCRIPTION	DATE
2	CPDC COMMENTS	2/15/11
1	CON. COM. REVISIONS	2/8/11

DRW: DSG: CHK:

DRIVE WAY PROFILES
TOWNHOUSE + CLUBHOUSE DRIVEWAY
SEWER PROFILE SMH 1 - SMH 12

READING WOODS

in

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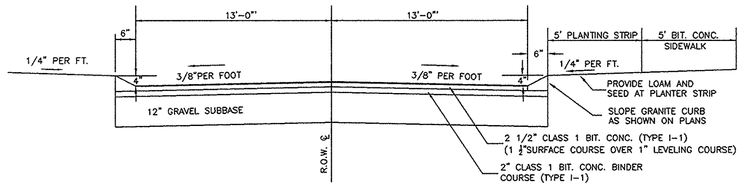
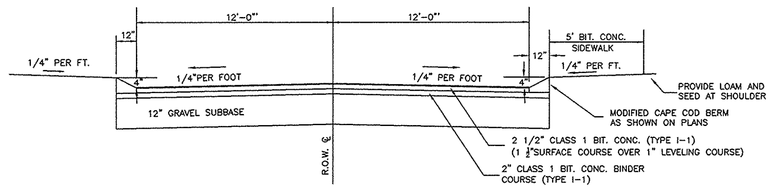
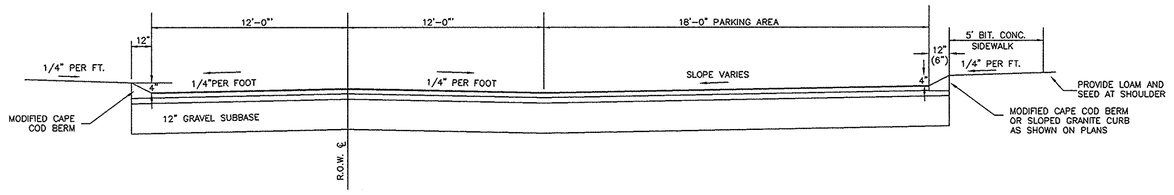


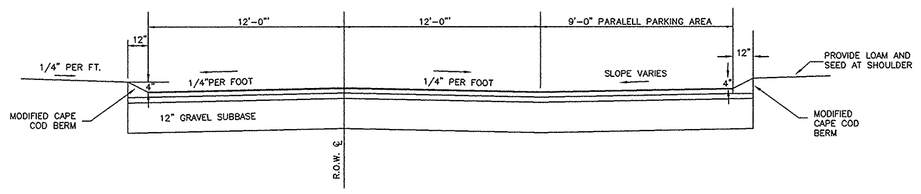
TYPICAL DRIVEWAY CROSS SECTION -JACOB WAY
N.T.S.



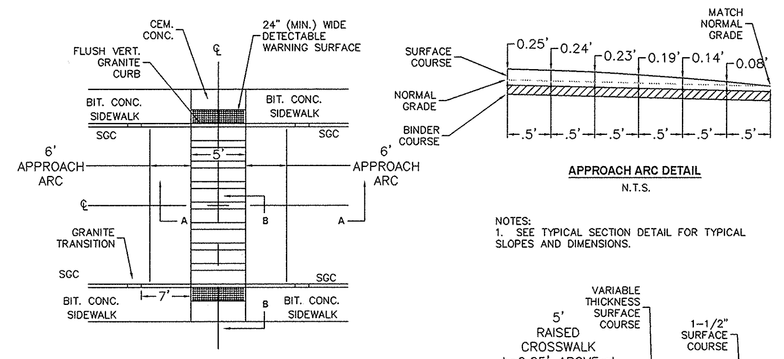
TYPICAL DRIVEWAY CROSS SECTION
N.T.S.



TYPICAL DRIVEWAY CROSS SECTION - WITH PARKING AREA
N.T.S.



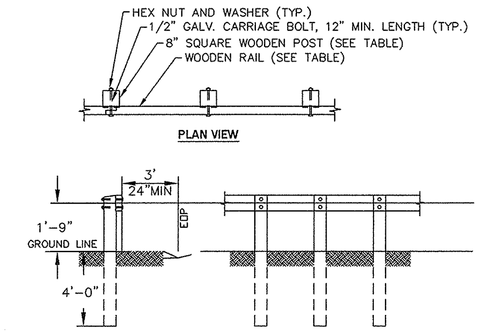
TYPICAL DRIVEWAY CROSS SECTION - WITH PARALELL PARKING AREA
N.T.S.



RAISED CROSSWALK DETAIL
N.T.S.

RAIL SIZE/POST SPACING REQUIREMENTS

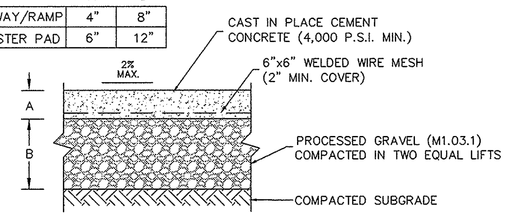
RAIL MATERIAL	MAXIMUM POST SPACING (FT)
4"x10" GRADE DENSE NO. 1	2.7'
6"x10" GRADE NO. 1	5.3'
6"x10" GRADE DENSE NO. 1	6.1'
6"x8" GRADE NO. 1	8.4'
6"x8" GRADE DENSE NO. 1	9.7'



NOTES:
1. POSTS SHALL BE 8" SQUARE PRESSURE TREATED DOUGLAS FIR, OR APPROVED EQUAL.
2. RAILS SHALL BE PRESSURE DOUGLAS FIR OR APPROVED EQUAL, JOINTED AT POSTS.

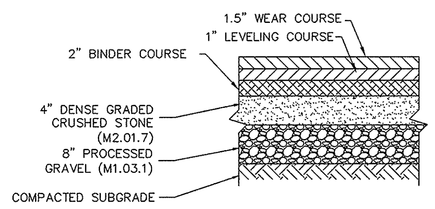
WOODEN GUARD RAIL DETAIL
N.T.S.

	A	B
WALKWAY/RAMP	4"	8"
DUMPSTER PAD	6"	12"

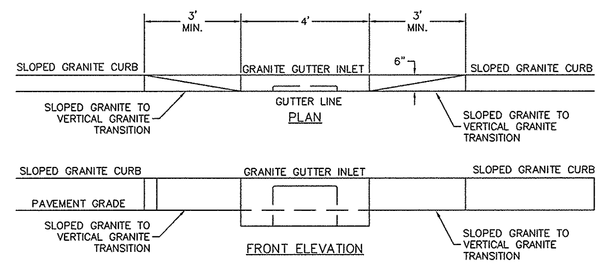


NOTES:
1. CEMENT CONCRETE PAVEMENT TO BE USED FOR LEAD WALKS TO GARDEN BUILDINGS, ACCESSIBLE RAMPS AND DUMPSTER PAD.
2. PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO PEDESTRIAN/TRAFFIC FLOW.
3. PROVIDE 1/2" EXPANSION JOINT WITH PRE-MOULDED FILLER RECESSED 1/2". EXPANSION JOINTS TO BE PROVIDED 8' O.C. MAX. AND WHERE PAVEMENT ABUTS STRUCTURES OR OTHER VERTICAL SURFACES. PROVIDE 2" SMOOTH STRIP ON EACH SIDE OF EXPANSION JOINT.
4. THICKNESSES INDICATE THICKNESS AFTER COMPACTION.
5. CEMENT CONCRETE WALKS TO BE 5' WIDE.

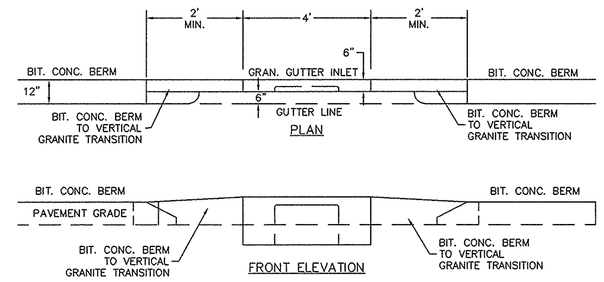
CEMENT CONCRETE PAVEMENT SECTION
N.T.S.



TYPICAL PAVEMENT SECTION - ACCESS DRIVES
N.T.S.

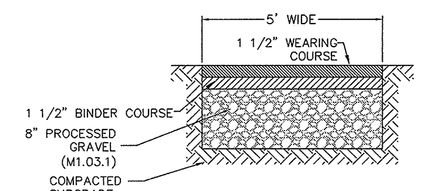


TYPICAL TRANSITION SLOPED GRANITE CURB TO VERTICAL GRANITE GUTTER INLETS
N.T.S.

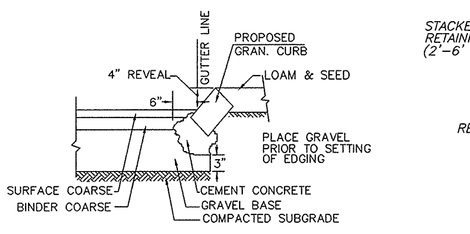


TYPICAL TRANSITION BIT. CONC. BERM TO VERTICAL GRANITE GUTTER INLETS
N.T.S.

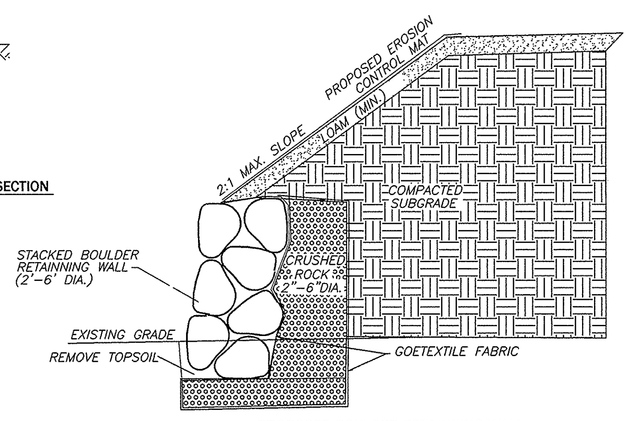
NOTE: TRANSITIONS NOT LOCATED AT GUTTER INLETS ARE TO BE MADE IN A SIMILAR FASHION, WITH THE VERTCAL GRANITE TO BE SET BACK 6".



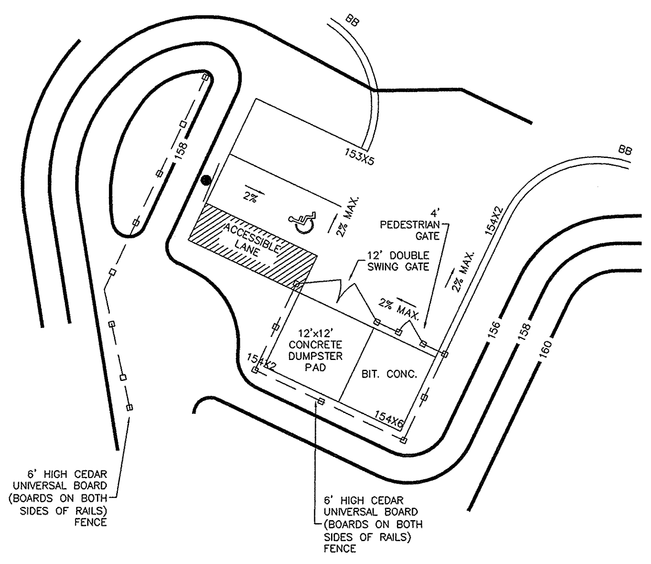
TYPICAL BITUMINOUS CONCRETE SIDEWALK SECTION
N.T.S.



SLOPED GRANITE CURB (SGC) DETAIL
NOT TO SCALE

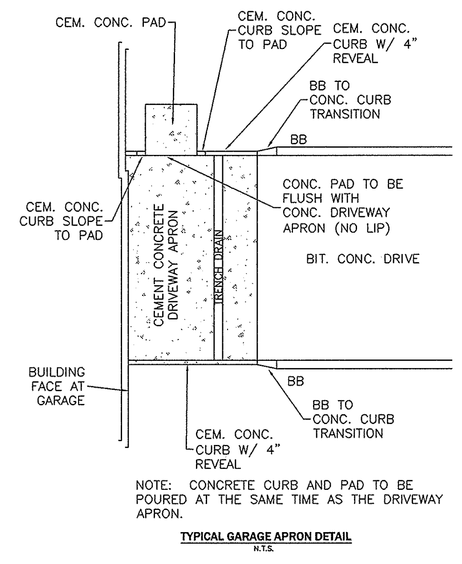


PROPOSED BOULDER RETAINING WALL
(OPTIONAL FOR NON-STRUCTURAL WALLS)
SCALE: N.T.S.



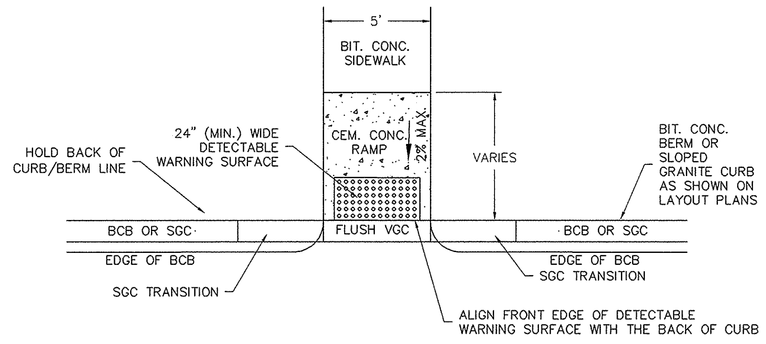
NOTES:
1) SEE CEMENT CONCRETE PAVEMENT DETAIL FOR INFORMATION ON CONCRETE SLAB. THE TRANSITION BETWEEN THE BITUMINOUS PAVEMENT AND CONCRETE SLAB SHALL BE MADE FLUSH SO AS TO CREATE A SMOOTH TRANSITION BETWEEN ADJOINING SURFACES (i.e. NO LIP).
2) WASTE RECEPTACLE AREA TO BE HANDICAPPED ACCESSIBLE (NO CROSS SLOPE >2% AND NO RUNNING SLOPE >8.3%).

DUMPSTER AREA DETAIL
N.T.S.

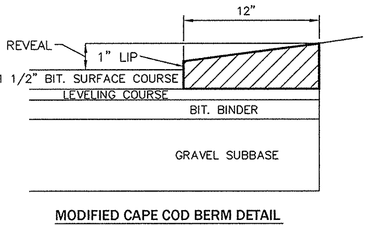


NOTE: CONCRETE CURB AND PAD TO BE POURED AT THE SAME TIME AS THE DRIVEWAY APRON.

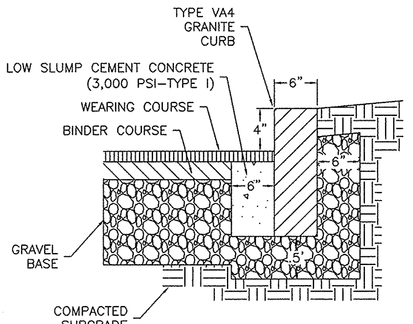
TYPICAL GARAGE APRON DETAIL
N.T.S.



HANDICAP CURB CUT TYPE II
N.T.S.

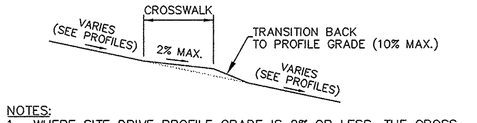


MODIFIED CAPE COD BERM DETAIL
N.T.S.



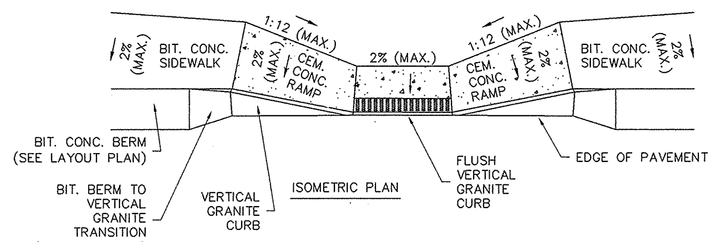
NOTE:
1) REUSE EXISTING ONSITE GRANITE CURB WHEREVER POSSIBLE.

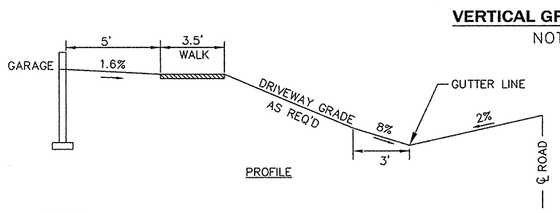
VERTICAL GRANITE CURB DETAIL
NOT TO SCALE



NOTES:
1. WHERE SITE DRIVE PROFILE GRADE IS 2% OR LESS, THE CROSS SLOPE OF THE CROSSWALK SHALL MATCH THE ROAD GRADE (I.E. NO ADJUSTMENT NECESSARY).
2. THIS DETAIL APPLIES TO ALL CROSSWALKS WITHIN THE PROPOSED DEVELOPMENT.

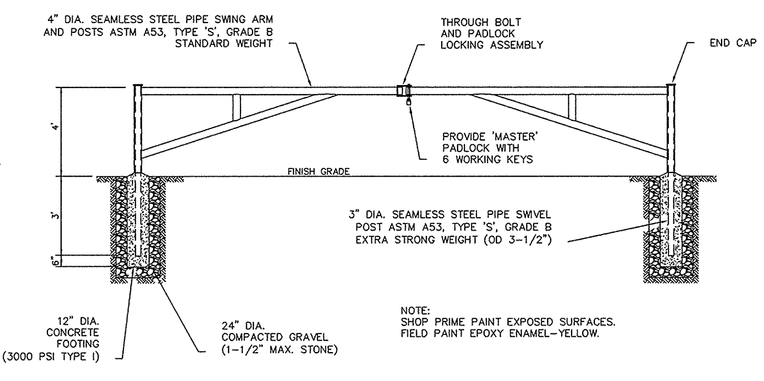
TYPICAL CROSSWALK SECTION
N.T.S.





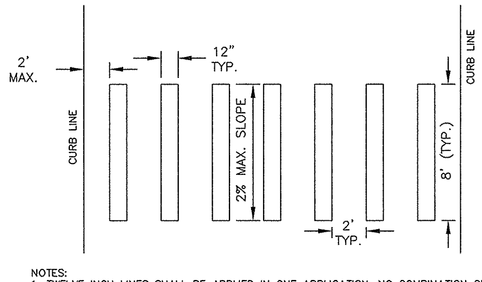
NOTES:
1. DRIVEWAYS SHALL CONSIST OF AT LEAST 2" BITUMINOUS CONCRETE OVER AT LEAST 12" COMPACTED GRAVEL.

TYPICAL DRIVEWAY DETAIL AT TOWNHOUSE UNITS
N.T.S.



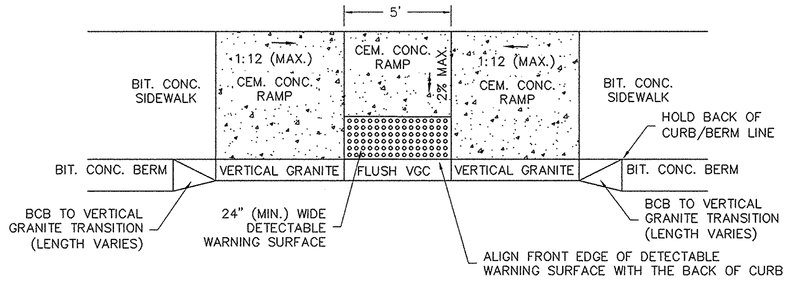
NOTE:
SHOP PRIME PAINT EXPOSED SURFACES. FIELD PAINT EPOXY ENAMEL-YELLOW.

EMERGENCY ACCESS GATE
N.T.S.



NOTES:
1. TWELVE INCH LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (IE. TWO - SIX INCH LINES) WILL BE ACCEPTED.
2. CROSSWALK LINES TO BE PARALLEL TO THE CURBLINE AND TO BE THE UNIFORMLY SPACED AND ALIGNED.
3. CROSSWALK SIDESLOPE NOT TO EXCEED 2%

CROSSWALK
N.T.S.



NOTES:
1. REPRESENTATION OF CURB CUT TRANSITIONS ON THE PLANS INCLUDING DIMENSIONS AND SPOT GRADING IS APPROXIMATE. ACTUAL DIMENSIONS AND GRADING OF CURB CUT TRANSITIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD ON A CASE BY CASE BASIS IN ORDER TO COMPLY WITH THIS DETAIL.
2. RAMP TO COMPLY WITH ADA REGULATIONS AND GUIDELINES.

HANDICAP CURB CUT TYPE I
N.T.S.

REGISTRY USE ONLY

APPROVED BY THE TOWN OF READING PLANNING BOARD — DATE

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

DRW:	DSG:	CHK:	REV.	DESCRIPTION	DATE
			2	CPDC COMMENTS	2/15/11
			1	CON. COM. REVISIONS	2/8/11

DETAIL SHEET

READING WOODS in READING, MA
Prepared For
PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

Marchionda & Associates, L.P.
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DATE: 1/4/11
H:\PROJECTS\487-187\PB PLAN SET 2-2011\DETAILS.DWG
M. & A. NO.: 487-187 | SCALE: NOT TO SCALE

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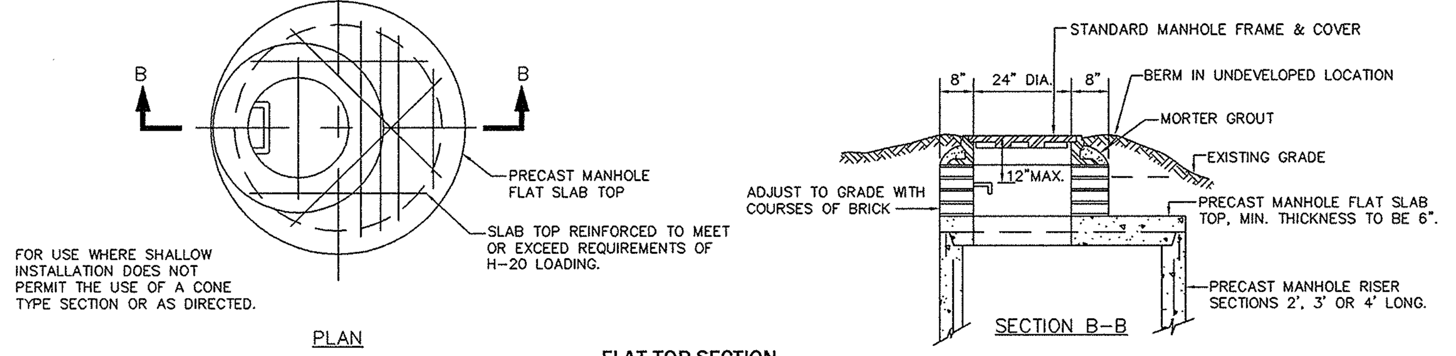
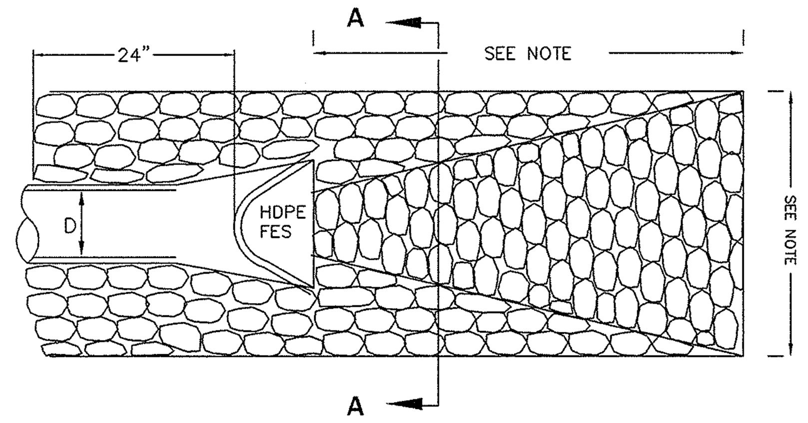
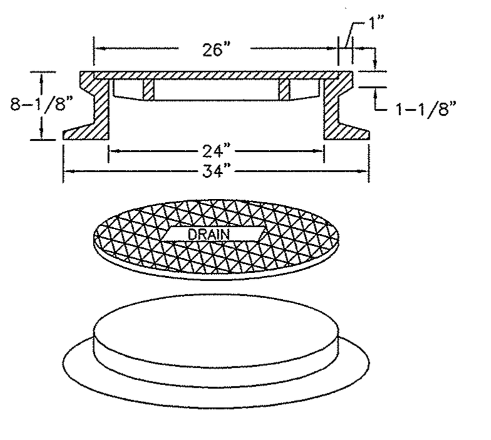
GENERAL DRAINAGE NOTES
1. ALL DRAIN LINES SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) WITH SMOOTH INTERIOR – A.D.S. N-12 OR APPROVED EQUAL.
2. PIPE DIAMETER FOR THE STREET DRAINAGE SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED. PIPE DIAMETER FOR THE ROOF DRAIN COLLECTION SYSTEMS SHALL BE 12 INCHES UNLESS OTHERWISE SPECIFIED. PIPE DIAMETER FOR THE ROOF DRAIN LEADERS SHALL BE 6 INCHES UNLESS OTHERWISE SPECIFIED. PIPE DIAMETER FOR FOOTING DRAINS SHALL BE 4 INCHES UNLESS OTHERWISE SPECIFIED.
3. ALL FIELD CUTTING OF PIPE SHALL BE DONE IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.



FLAT TOP SECTION
N.T.S.



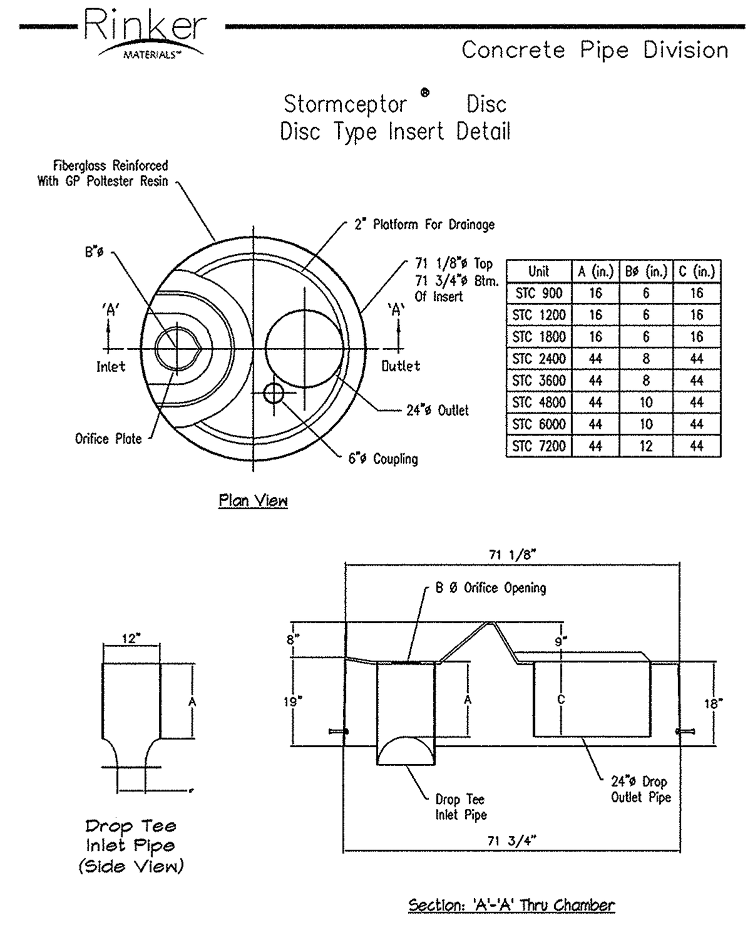
W/FLARED END SECTION



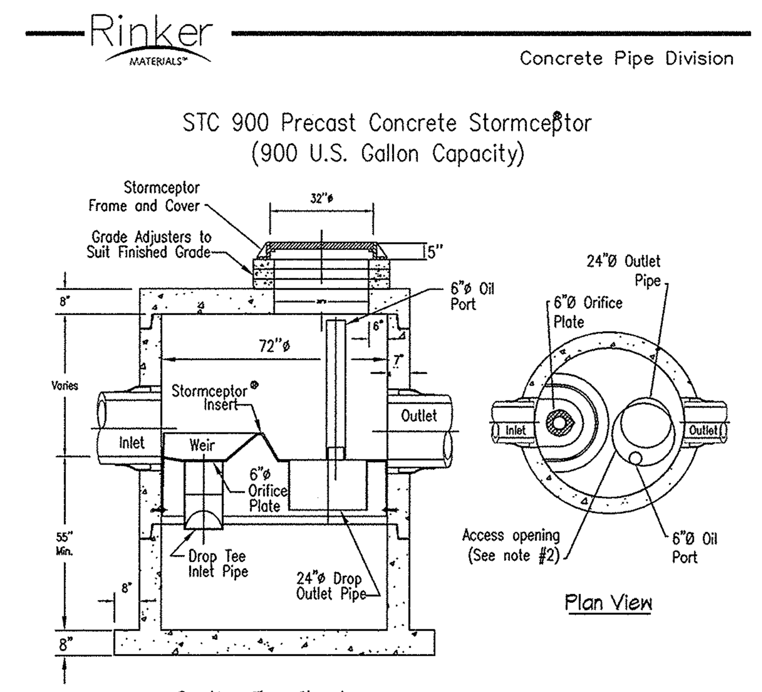
FRAME & COVER LE BARON FOUNDRY CAT. NO. LB268-3-000 OR APPROVED EQUAL

TOTAL WEIGHT: 475 LBS. (MIN.) COVER MUST HAVE A DIAMOND PATTERN WITH THE WORD "DRAIN" CAST IN 3" HIGH LETTERS

DRAIN MANHOLE FRAME & COVER
N.T.S.

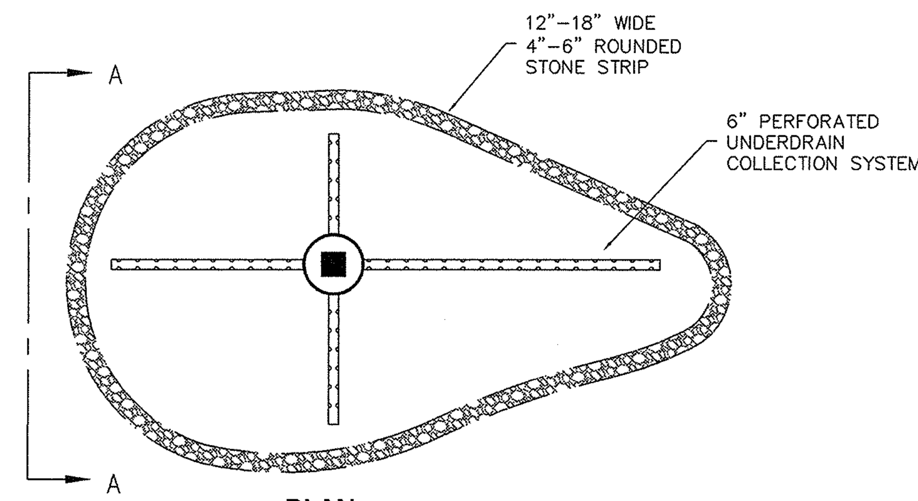


Unit	A (in.)	BØ (in.)	C (in.)
STC 900	16	6	16
STC 1200	16	6	16
STC 1800	16	6	16
STC 2400	44	8	44
STC 3600	44	8	44
STC 4800	44	10	44
STC 6000	44	10	44
STC 7200	44	12	44

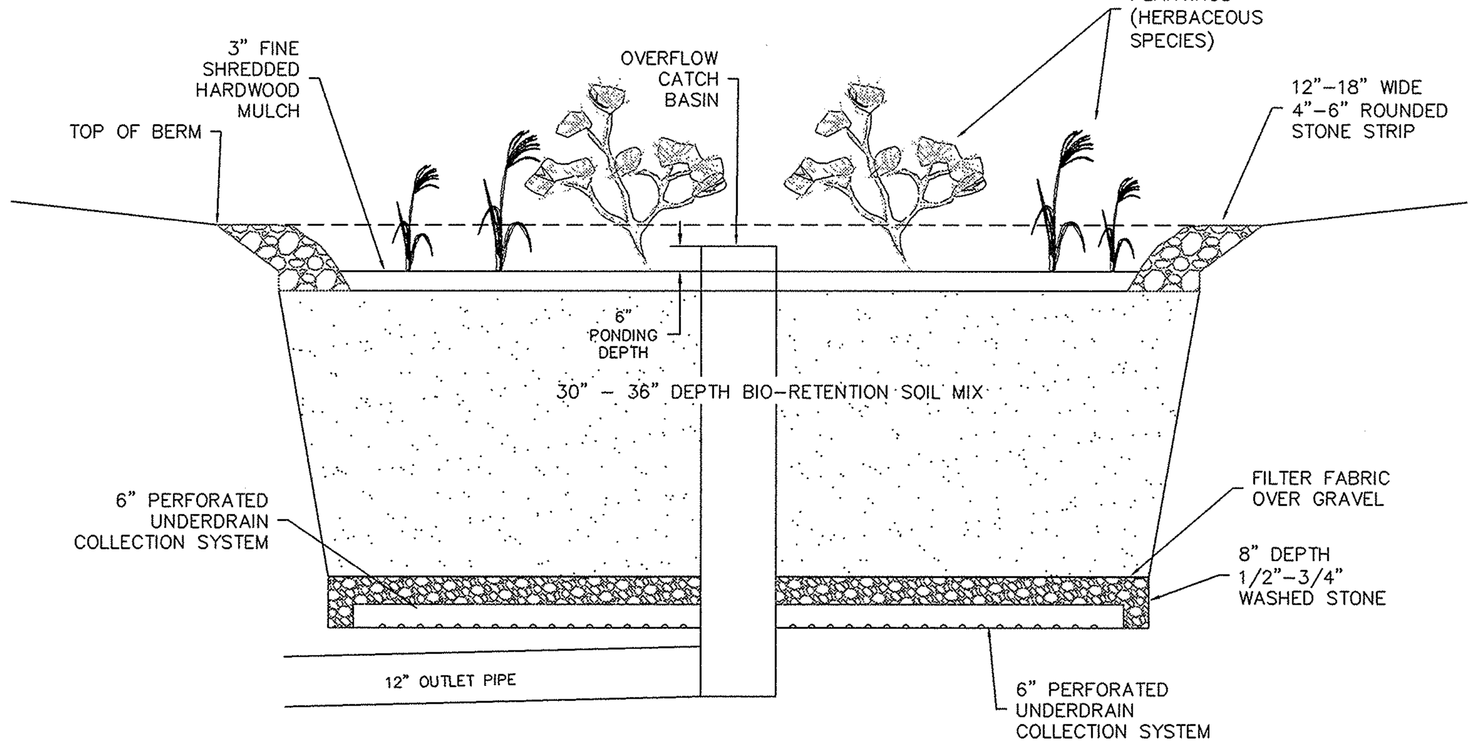


Notes:
1. The Use Of Flexible Connection Is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 028



PLAN
N.T.S.



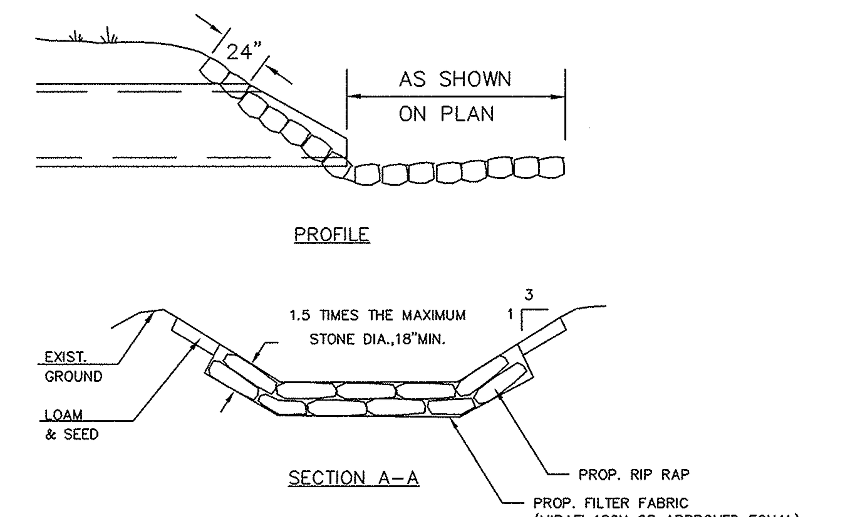
SECTION A-A
N.T.S.

SOIL MIX SAND COMPONENT

SIEVE	% PASSING
#4	100
#50	10-100
#100	0-20
#200	0-5

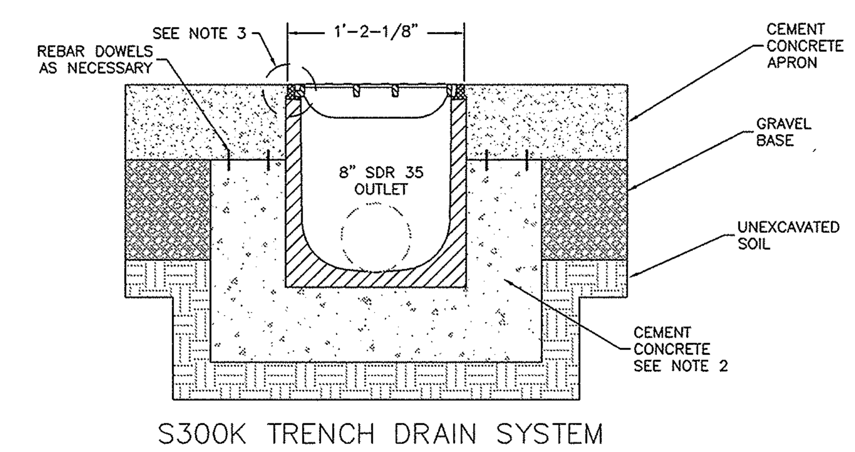
BIORETENTION AREA DESIGN NOTES:
1. THE BIORETENTION HERBACEOUS SPECIES PLANTINGS SHALL BE SELECTED FROM THE RECCOMMENDED SPECIES LISTED IN THE DEP STORMWATER MANUAL AND APPROVED BY THELANDSCAPE ARCHITECT
2. THE BIORETENTION SOIL SHALL CONSIST OF A MEDIA MIX MADE UP OF 85-88% SANDS, 8-12% FINES, AND 3-5% ORGANIC MATTER. THE SOIL SHOULD HAVE A pH BETWEEN 5.5 AND 6.5.
3. ANY UNSUITABLE FILL MATERIALS (SUCH AS ORGANICS, STUMPS, ETC.) THAT EXIST BELOW THE INFILTRATION SYSTEM SHALL BE REMOVED TO EXPOSE THE EXISTING SUBGRADE. THE AREA SHALL THEN BE BUILT UP TO PROPOSED SUBGRADE WITH MATERIAL MEETING THE FOLLOWING SPECIFICATION, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

BIO-RETENTION/RAIN GARDEN DETAIL
N.T.S.



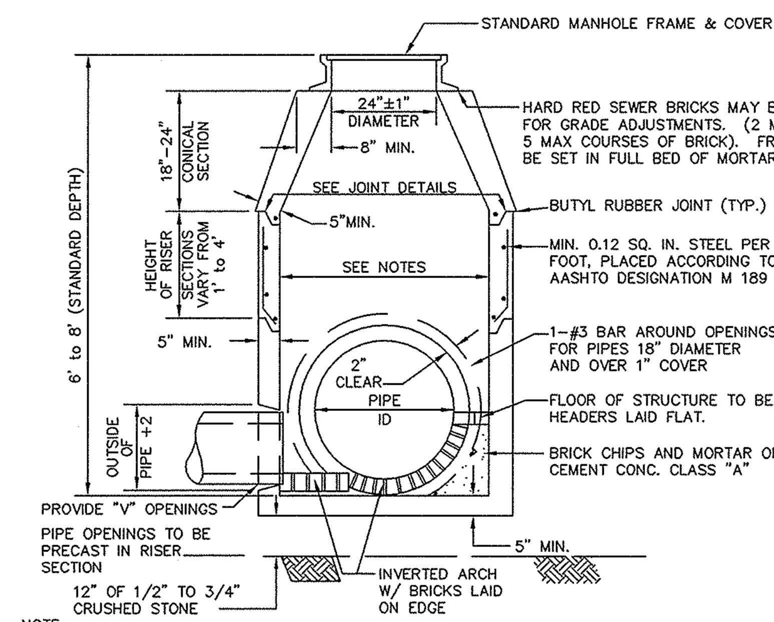
NOTES:
1. REFER TO SITE PLAN FOR ACTUAL APRON LENGTH AND WIDTH (VARIES BY LOCATION).
2. RIPRAP SHALL CONFORM TO MHD M2.02.3 "STONE FOR PIPE ENDS".

RIP - RAP APRON DETAIL
N.T.S.



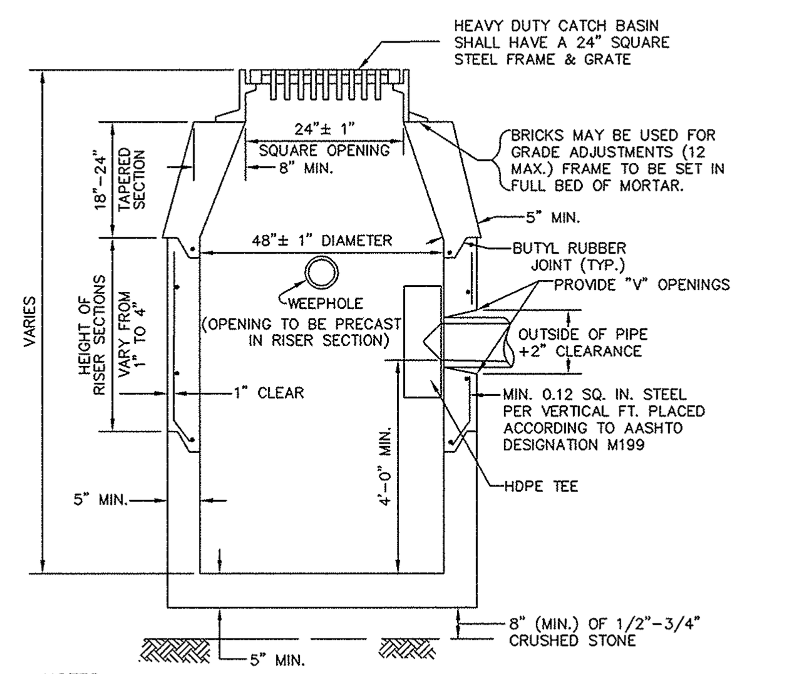
NOTES:
1. FRAME AND GRATE SHALL BE ITEM S300K BY ACO POLYMER PRODUCTS, INC. (WWW.ACOUSA.COM).
2. A MINIMUM CONCRETE STRENGTH OF 3000 PSI IS RECOMMENDED. THE CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" ABOVE THE TOP OF THE CHANNEL EDGE.
4. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR COMPLETE DETAILS.
5. REFER TO ARCHITECTURAL PLANS FOR A DETAIL OF THE CONCRETE TRENCH.
6. FRAME SHALL BE TIED INTO CONCRETE AS RECOMMENDED BY THE MANUFACTURER. GRATE SHALL BE SECURED AS RECOMMENDED BY THE MANUFACTURER.
7. TRENCHES SHALL ACCOMMODATE AN 8" HDPE OUTLET PIPE. TRENCH DIMENSIONS SHOWN ARE CONSIDERED TO BE A MINIMUM.
5. TRENCH DRAINS SHALL BE 24 FEET IN LENGTH (REFER TO PLANS).
6. THE SYSTEM SHALL BE 12" NOMINAL INSIDE WIDTH AND 14" OVERALL WIDTH. THE SYSTEM SHALL BE BUILT WITH A SLOPE OF 0.6%.

TRENCH DRAIN DETAIL
N.T.S.



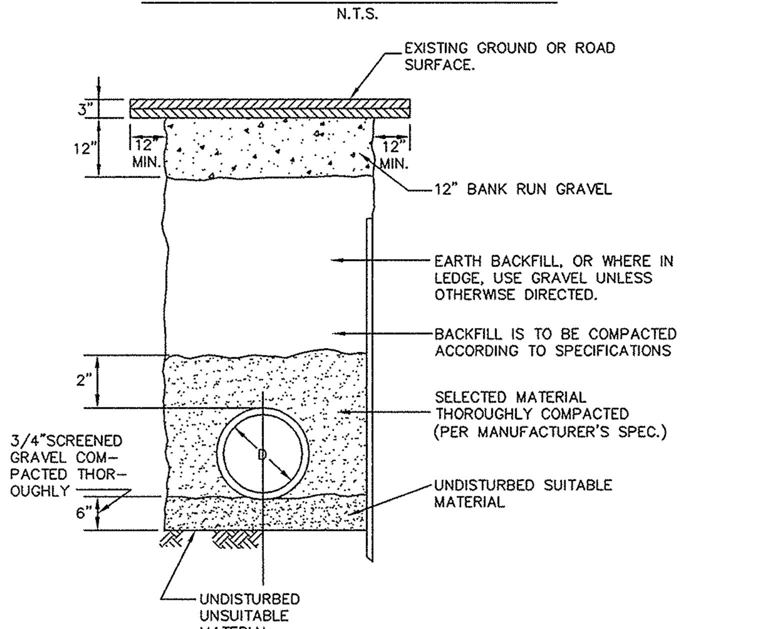
NOTE:
1. MANHOLE TO BE RATED FOR H-20 LOADING.
2. MANHOLES SHALL BE 4-FOOT DIAMETER UNLESS OTHERWISE REQUIRED TO ACCOMODATE THE CONFIGURATION OF OR THE NUMBER OF PIPES ENTERING AND DISCHARGING THE STRUCTURE. MANHOLES SHALL BE 6-FOOT DIAMETER WHERE THE PIPE DIAMETER IS 24" OR GREATER.

PRECAST CONCRETE MANHOLE DETAILS
N.T.S.

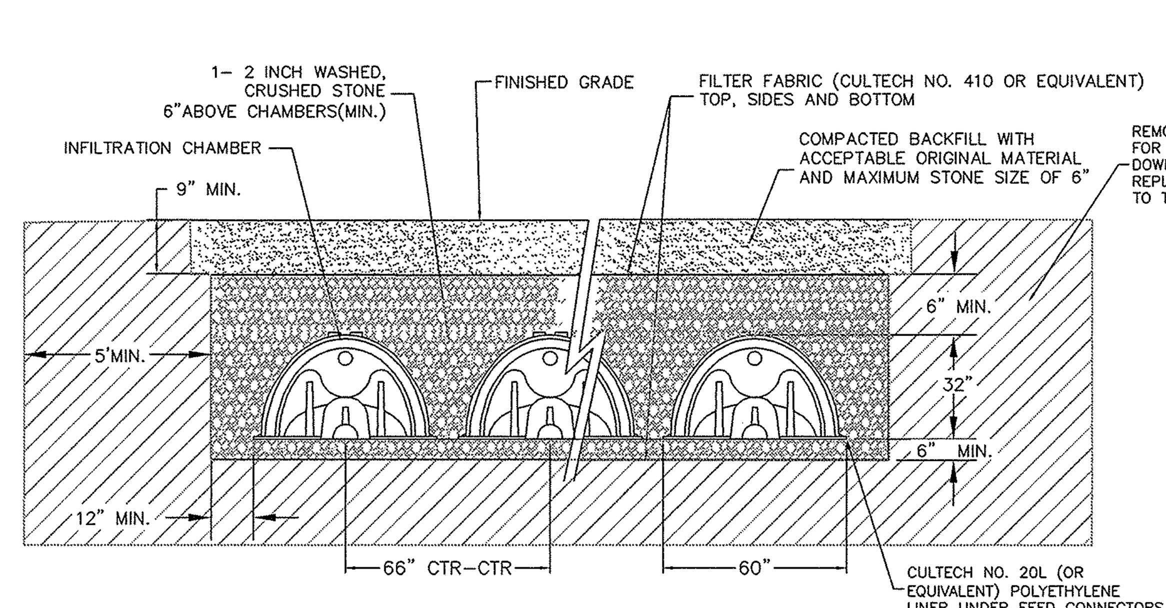


NOTES:
1. CATCH BASINS TO BE RATED FOR H-20 LOADING.
2. NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED.
3. STANDARD GRATE TO BE USED WHEN THE LONGITUDINAL SLOPE OF ROAD IS LESS THAN 6%. CASCADE TYPE GRATE TO BE USED WHEN THE LONGITUDINAL SLOPE OF ROAD EXCEEDS 6%.

PRECAST CONCRETE CATCH BASIN DETAILS
N.T.S.



TYPICAL DRAIN TRENCH DETAIL
N.T.S.

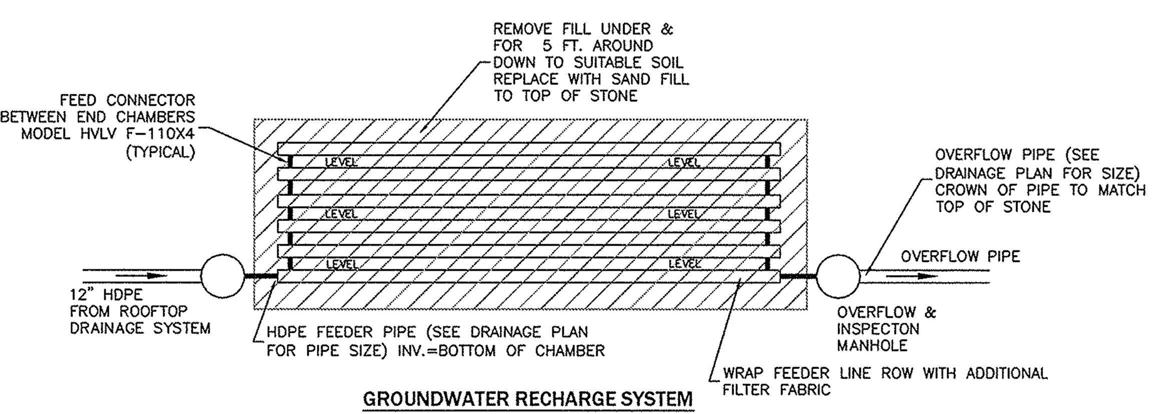


NOTES:
1. INFILTRATION SYSTEM SHALL BE CONSTRUCTED FROM CULTECH RECHARGER V8HD CHAMBERS.

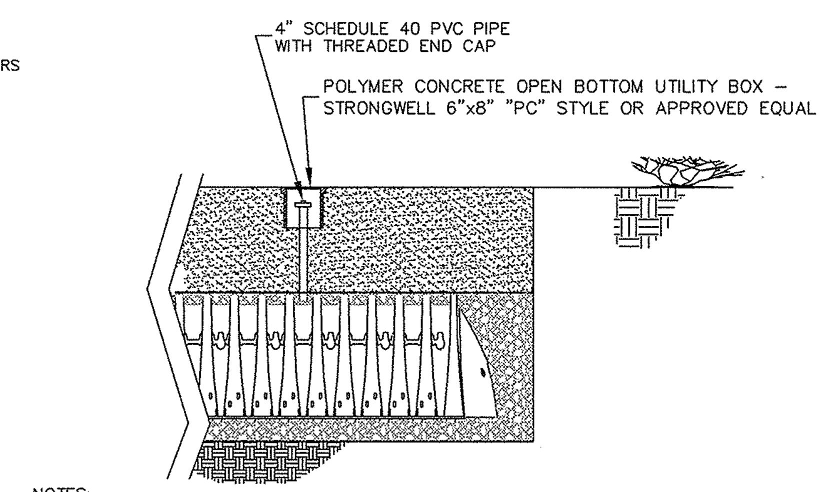
GROUNDWATER RECHARGE SYSTEM CROSS SECTION
N.T.S.

RECHARGE SYSTEM SPECIFICATIONS

SYSTEM #	CONFIGURATION (# ROWS) X (# CHAMBERS/ROW)	TOTAL CHAMBERS	BOTTOM OF STONE	BOTTOM OF CHAMBERS	TOP OF STONE	OVERFLOW INVERT
1	3 X 4	12	159.50	160.00	164.20	163.20
2	6 X 8	48	137.30	138.30	143.0	142.0
3	2 X 7	14	140.50	141.50	146.20	145.20
4	3 X 6	18	134.50	135.50	140.20	139.20
5	6 X 9	54	135.00	136.00	140.70	139.70
6	3 X 12	36	130.30	131.30	136.00	135.00
7	3 X 7	21	132.50	133.50	138.20	137.20
8	2 X 5	10	129.00	129.50	133.70	132.70

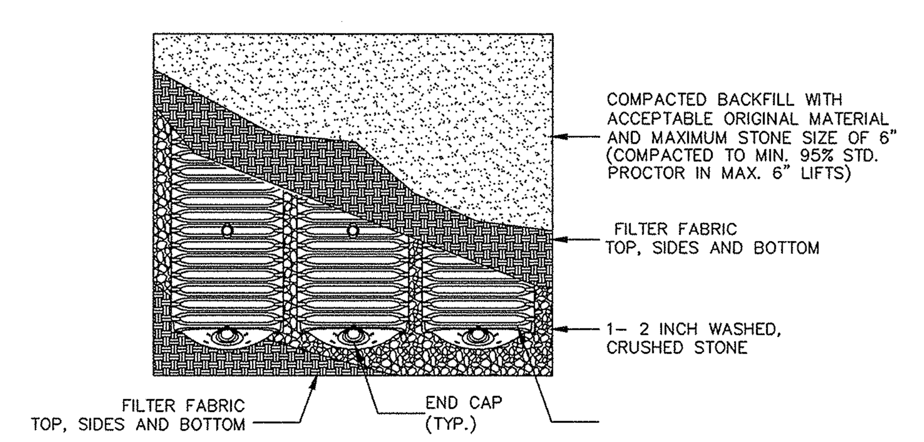


GROUNDWATER RECHARGE SYSTEM SYSTEM SCHEMATIC
N.T.S.



NOTES:
1. PROVIDE 6" (MIN.) BEDDING OF 3/4" CRUSHED STONE FOR UTILITY BOX.
2. PROVIDE ONE INSPECTION PORT IN THE CENTER OF EACH RECHARGE BASIN

GROUNDWATER RECHARGE SYSTEM INSPECTION PORT DETAIL
N.T.S.



GROUNDWATER RECHARGE SYSTEM PLAN VIEW
N.T.S.

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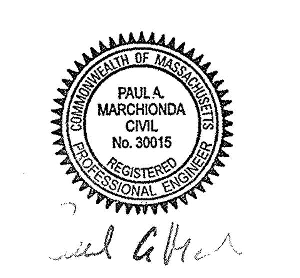
DATE



REV.	DESCRIPTION	DATE
2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

DRW: DSG: CHK:

DETAIL SHEET

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

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DATE: 1/4/11
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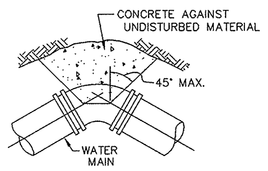
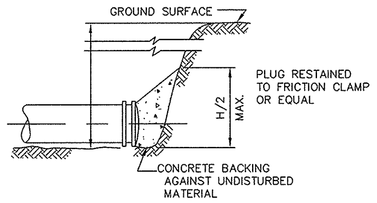
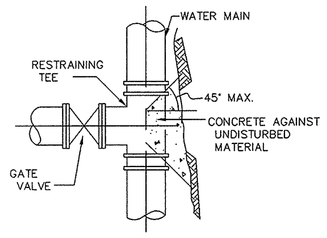
M. & A. NO.: 487-187 | SCALE: NOT TO SCALE



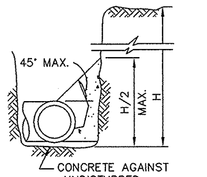
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



TYPICAL SECTION

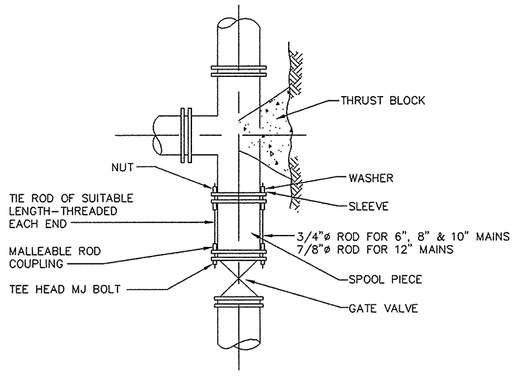
NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

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

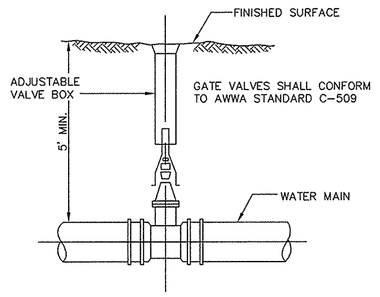
TYPICAL THRUST BLOCK DETAIL

NOT TO SCALE



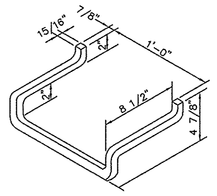
TYPICAL TIED MECHANICAL JOINT VALVE CONNECTION DETAILS

NOT TO SCALE



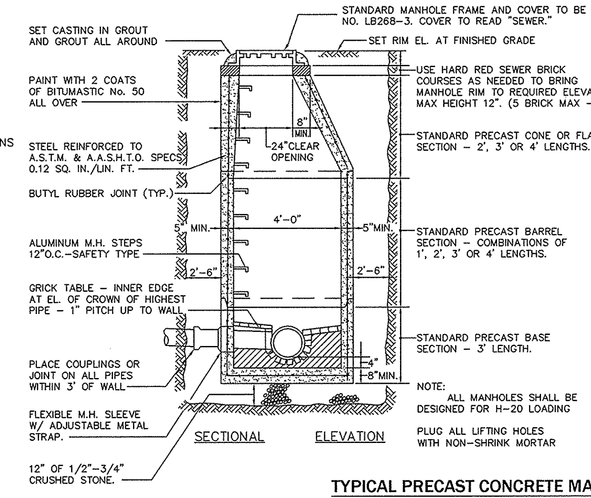
TYPICAL GATE VALVE

NOT TO SCALE



MANHOLE STEP DETAILS

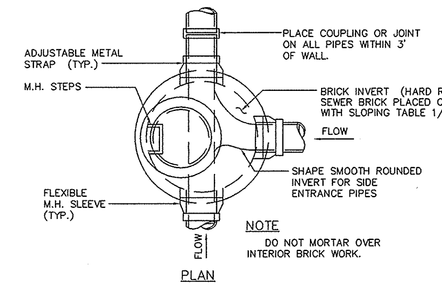
N.T.S.

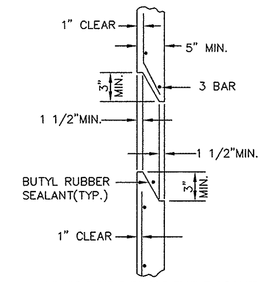


TYPICAL PRECAST CONCRETE MANHOLE DETAILS

N.T.S.

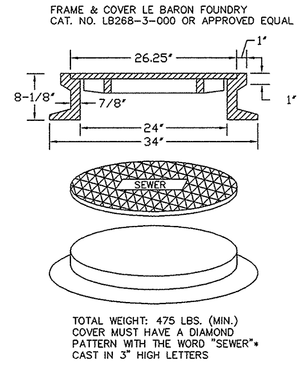
GENERAL SEWER NOTES:
1. GRAVITY SEWER MAIN SHALL BE 8-INCH SDR-35 PVC OR APPROVED EQUAL.
2. SEWERS SHOULD BE KEPT REMOTE FROM PUBLIC WATER SUPPLY WELLS OR OTHER POTABLE WATER SUPPLY SOURCES AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN THE WATER MAIN 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.
3. 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.





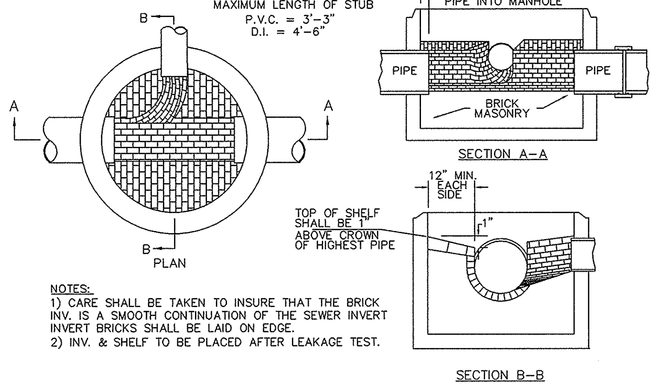
PRECAST STRUCTURE JOINT

N.T.S.



SEWER MANHOLE FRAME & COVER

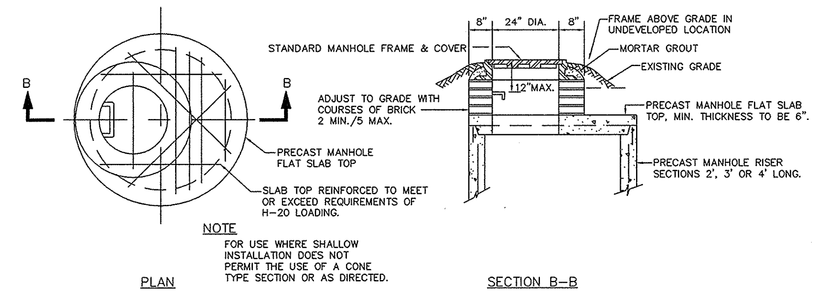
N.T.S.



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

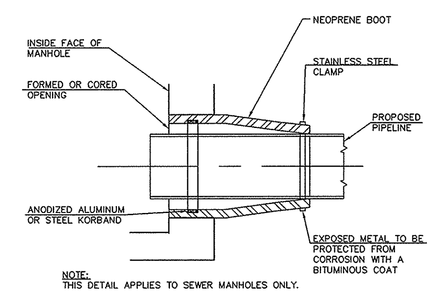
N.T.S.



NOTE
FOR USE WHERE SHALLOW INSTALLATION DOES NOT PERMIT THE USE OF A CONE TYPE SECTION OR AS DIRECTED.

FLAT TOP SECTION

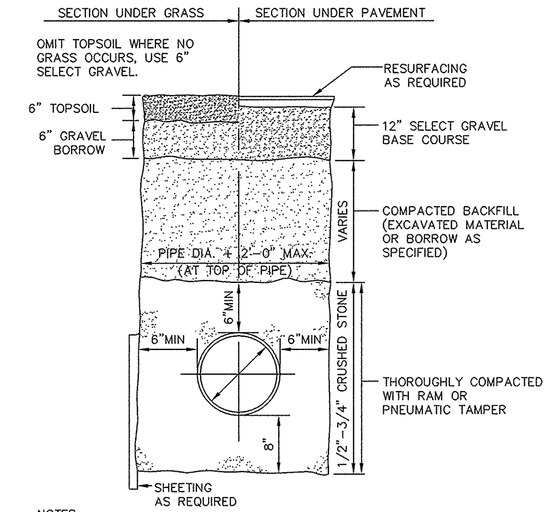
N.T.S.



NOTE:
THIS DETAIL APPLIES TO SEWER MANHOLES ONLY.

PIPE CONNECTION DETAIL

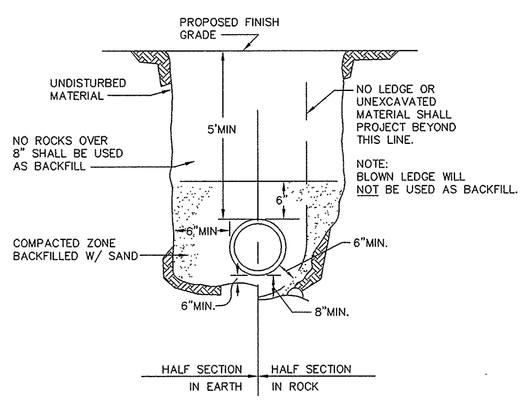
N.T.S.



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

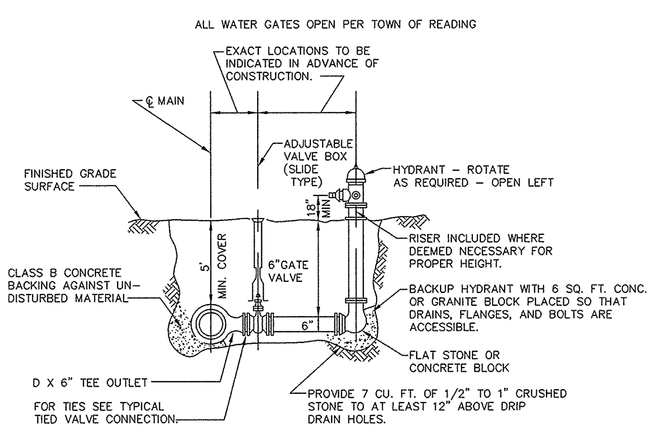
N.T.S.



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.

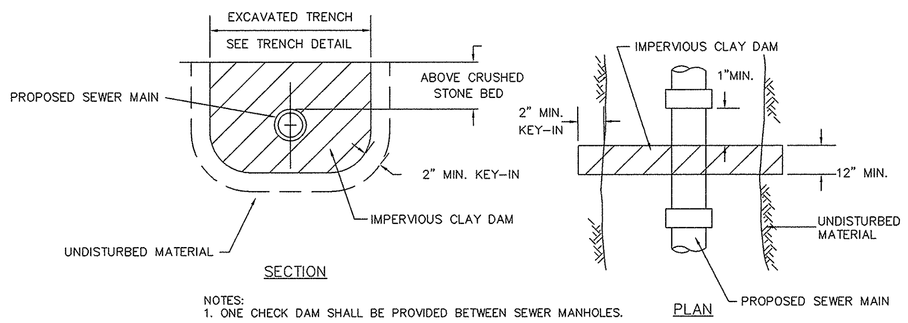
WATER MAIN TRENCH DETAIL

NOT TO SCALE



TYPICAL HYDRANT ASSEMBLY DETAIL

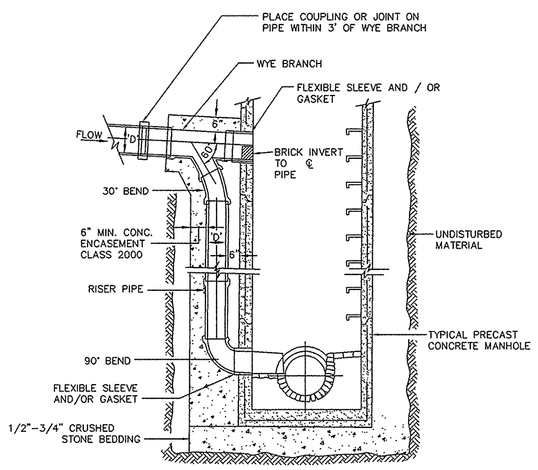
NOT TO SCALE



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

SEWER PIPE TRENCH (CHECK) DAM DETAIL

NOT TO SCALE



NOTE:
DROP MANHOLES INDICATED AS SUCH ON PLANS.

TYPICAL DROP INLET MANHOLE DETAILS

N.T.S.

GENERAL WATER NOTES
1. PIPE, FITTINGS, VALVES, JOINTS/PACKING AND FIRE HYDRANTS SHALL CONFORM TO THE LATEST STANDARDS ISSUED BY THE AWWA, IF SUCH STANDARDS EXIST.
2. WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON (CLDI), CLASS 52 OR APPROVED EQUAL, 8" DIAMETER UNLESS OTHERWISE NOTED (GASKETED PUSH-ON OR MECHANICAL JOINTS).
3. INSTALLATION OF PIPE AND FITTINGS SHALL CONFORM TO THE STRICTER OF TOWN OF READING STADARDS, AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
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.
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 TOWN OF READING AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.

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

DRW:	DSG:	CHK:	DESCRIPTION	DATE
2			CPDC COMMENTS	2/15/11
1			CON. COM. REVISIONS	2/8/11

DETAIL SHEET

READING WOODS in READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

Marchionda & Associates, L.P.
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DATE: 1/4/11

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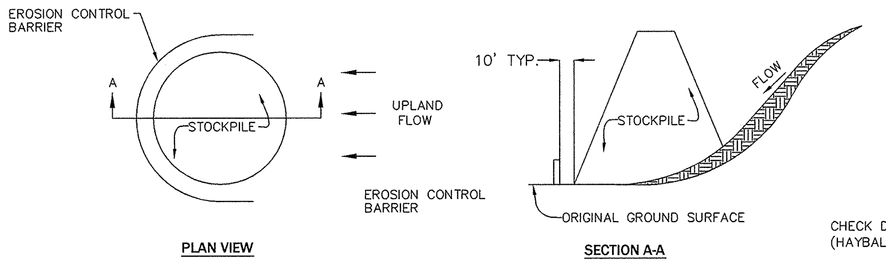
M. & A. NO.: 487-187 | SCALE: NOT TO SCALE



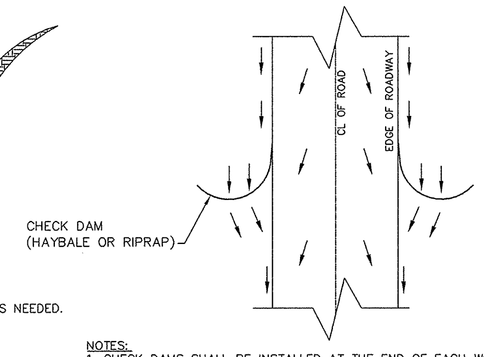
PLAN VIEW

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

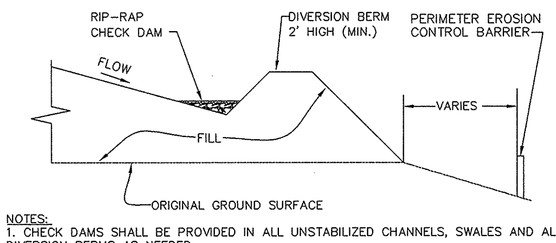
N.T.S.



NOTES:
1. CHECK DAMS SHALL BE INSTALLED AT THE END OF EACH WORKING DAY AND PRIOR TO ANY EXPECTED RAINFALL EVENT.
2. CHECK DAMS SHALL BE PERIODICALLY CLEANED OUT OF ALL DEBRIS AND SILT.
3. CHECK DAMS SHALL BE PROVIDED IN ALL UNPAVED STREET AREAS AS NEEDED.

ROADSIDE CHECK DAM DETAIL

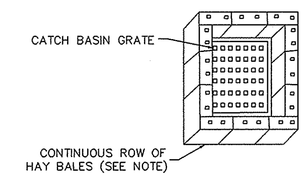
N.T.S.



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.)

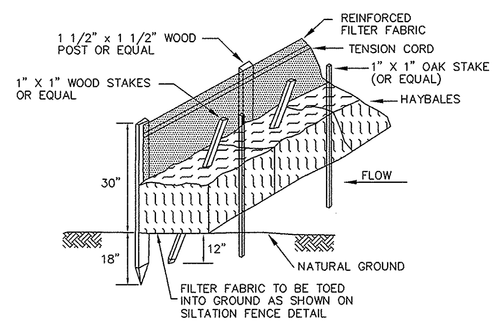
N.T.S.



NOTE:
1. HAY 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.

CATCH BASIN PROTECTION DETAIL

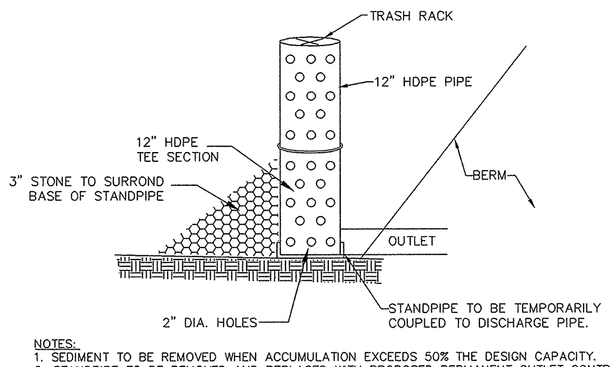
N.T.S.



NOTES:
1. FIRST STAKE ANGLED TOWARDS PREVIOUSLY LAID BALE; SECOND STAKE PERPENDICULAR.
2. WIRE OR NYLON BOUND BALES USUALLY PLACED ON THE CONTOUR.
3. WHERE NECESSARY BALES AND GEOTEXTILE FABRIC WILL BE EMBEDDED 4 INCHES INTO THE GROUND.

EROSION CONTROL BARRIER DETAIL

N.T.S.



NOTES:
1. SEDIMENT TO BE REMOVED WHEN ACCUMULATION EXCEEDS 50% THE DESIGN CAPACITY.
2. STANDPIPE TO BE REMOVED AND REPLACED WITH PROPOSED PERMANENT OUTLET CONTROL STRUCTURE UPON STABILIZATION OF UPSTREAM AREAS.
3. CONTRACTOR SHALL REMOVE ALL SEDIMENT PRIOR TO ESTABLISHING FINAL POND GRADES.
4. STANDPIPE ELEVATION TO BE SET AT LEAST 12" BELOW TOP OF BERM.
5. PERFORATED PORTION OF STANDPIPE TO BE WRAPPED IN FILTER FABRIC.

TEMPORARY STANDPIPE DETAIL

N.T.S.

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DETAIL SHEET

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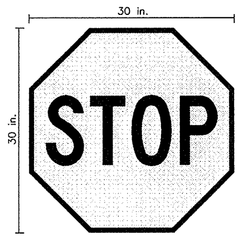
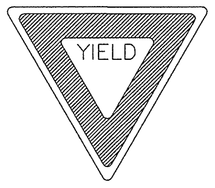


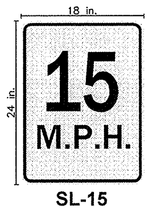
R1-1



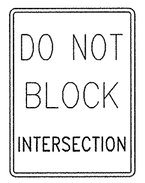
R1-2
(30" x 30")

R3-4
(12" x 12")

R7-1

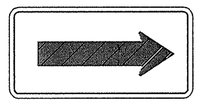


SL-15

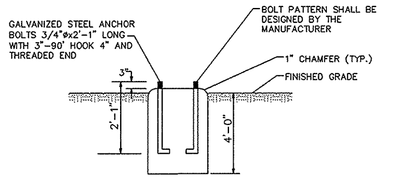


R10-7
(18" x 24")

W17-1



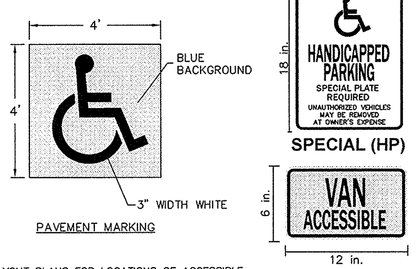
W1-6R
(12" x 24")



ELEVATION

NOTES:
1. DISTANCE FROM CENTERLINE OF FOUNDATION TO FACE OF CURB TO BE 3'-0" (MIN.). SEE LIGHTING PLAN FOR LUMINAIRE LOCATIONS.
2. FOUNDATION AND ANCHOR BOLT SIZING MAY BE VARIED AS RECOMMENDED BY POLE MANUFACTURER.
3. SEE LIGHTING PLAN FOR LUMINAIRE AND POLE SPECIFICATIONS.

LUMINAIRE FOUNDATION DETAILS
N.T.S.



PAVEMENT MARKING

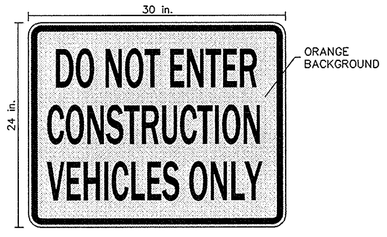
SPECIAL (HP)

R7-8a
SIGNAGE

NOTES:
1. REFER TO LAYOUT PLANS FOR LOCATIONS OF ACCESSIBLE SURFACE PARKING SPACES, AND ARCHITECTURAL PLANS FOR LOCATIONS OF ACCESSIBLE GARAGE SPACES.
2. EACH ACCESSIBLE SPACE SHALL INCLUDE PAVEMENT MARKING AND SIGNAGE.

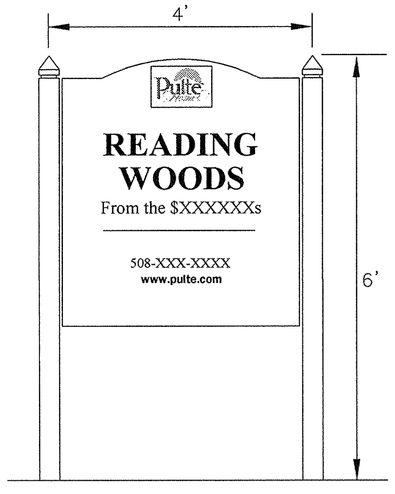
ACCESSIBLE PARKING SPACE DESIGNTATION
N.T.S.

TEMPORARY SIGNS

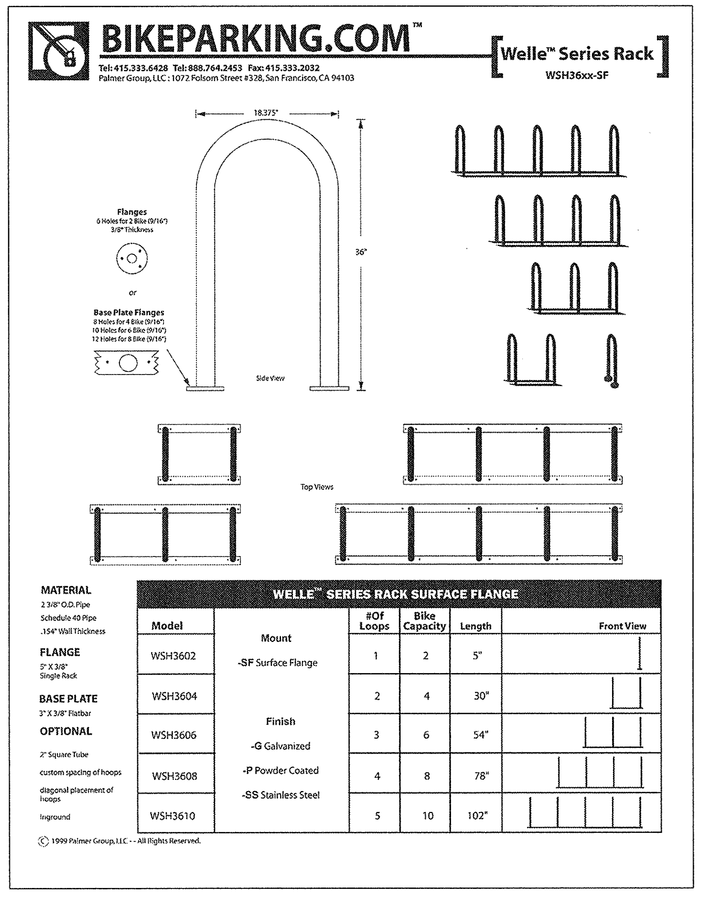


CONSTRUCTION VEHICLES ONLY SIGN (CVO)
N.T.S.

4'x4' HARD HAT SIGN (T-4)
N.T.S.

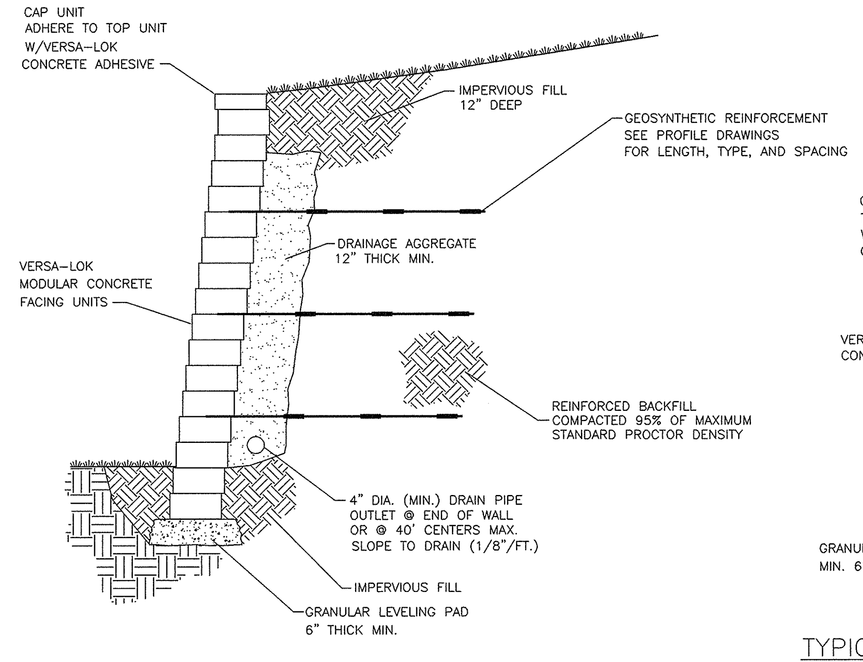


TEMPORARY COMMUNITY SIGN (T-1)
N.T.S.

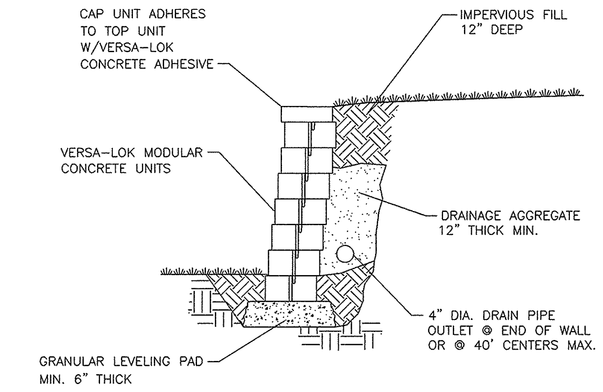


WELLE™ SERIES RACK SURFACE FLANGE

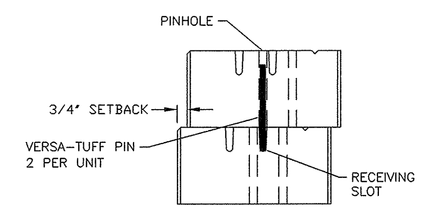
Model	Mount	#Of Loops	Bike Capacity	Length	Front View
WSH3602	-SF Surface Flange	1	2	5"	
WSH3604	Finish	2	4	30"	
WSH3606	-G Galvanized	3	6	54"	
WSH3608	-P Powder Coated	4	8	78"	
WSH3610	-SS Stainless Steel	5	10	102"	



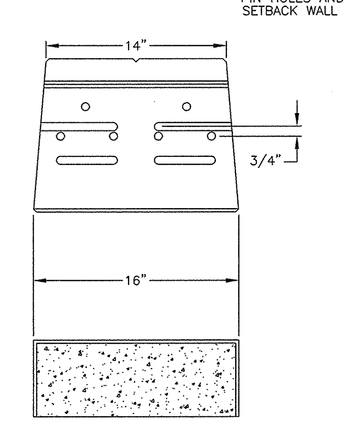
TYPICAL SECTION—REINFORCED RETAINING WALL
MODULAR CONCRETE UNIT
SCALE: NONE

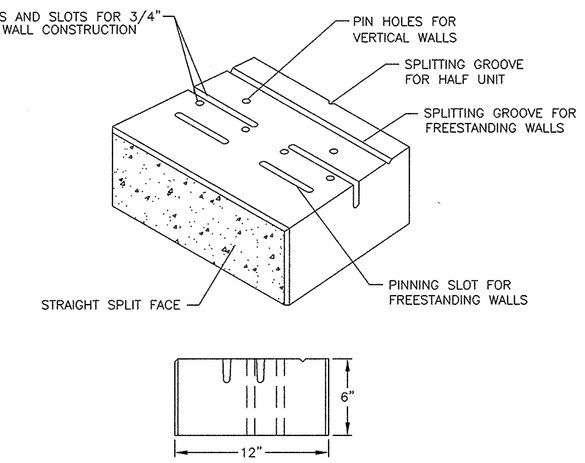


TYPICAL SECTION—UNREINFORCED RETAINING WALL
SCALE: NONE

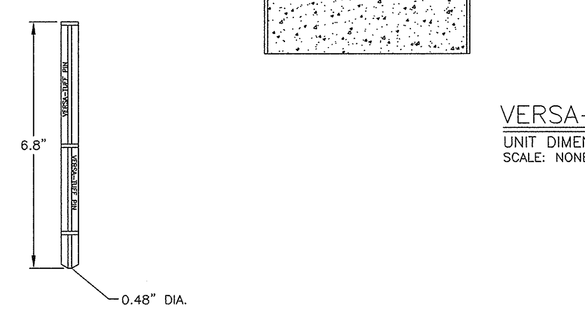


PINNING DETAIL
CROSS SECTION
SCALE: NONE

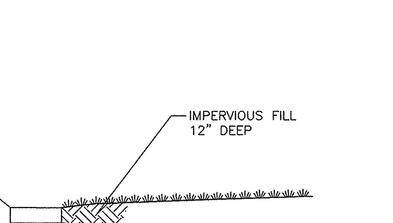




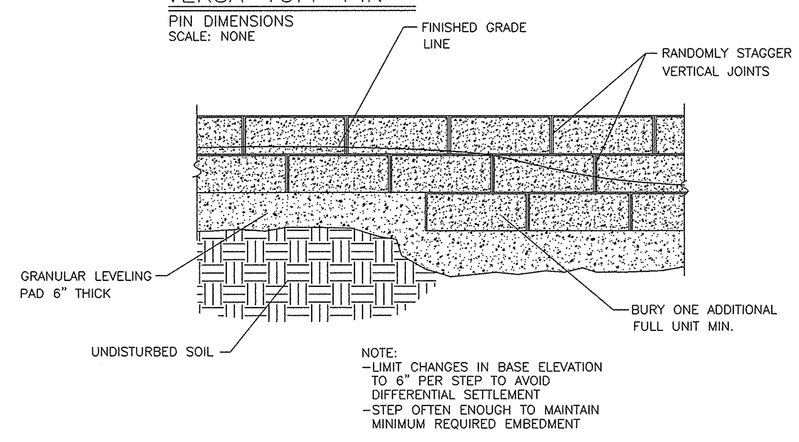
VERSA-LOK UNIT
UNIT DIMENSIONS
SCALE: NONE



VERSA-TUFF PIN
PIN DIMENSIONS
SCALE: NONE

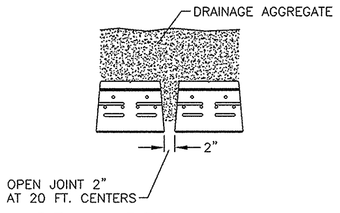


DRAIN DETAIL
WALLS OVER 4'
SCALE: NONE



NOTE:
-LIMIT CHANGES IN BASE ELEVATION TO 6" PER STEP TO AVOID DIFFERENTIAL SETTLEMENT
-STEP OFTEN ENOUGH TO MAINTAIN MINIMUM REQUIRED EMBEDMENT

STEPPING BASE DETAIL
SCALE: NONE



DRAIN DETAIL
WALLS UNDER 4' (IF REQUIRED)
SCALE: NONE

NOTES:

1) WALL TO BE VERSA-LOCK OR APPROVED EQUAL.
2) THIS DETAIL CONTAINS SEVERAL CONSTRUCTION DETAILS WHICH ARE INTENDED AS AN AID. FINAL DETERMINATION OF THE SUITABILITY OF ANY INFORMATION OR MATERIAL FOR THE USE CONTEMPLATED, AND ITS MANNER OF USE, IS THE SOLE RESPONSIBILITY OF THE USER. A FINAL PROJECT SPECIFIC DESIGN SHOULD BE PREPARED BY A QUALIFIED, LICENSED, PROFESSIONAL ENGINEER.

ENGINEERED WALL DETAILS
N.T.S.

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DRW: DSG: CHK: NONE

DETAIL SHEET

READING WOODS
in
READING, MA
Prepared For
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115 FLANDERS ROAD
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SEQUENCE PLAN

SEQUENCE 1

READING WOODS

in

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M. & A. NO.: 487-187 SCALE: 1" = 60'

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SEQUENCE PLAN

SEQUENCE 2

READING WOODS

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REV.	DESCRIPTION	DATE
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1.	CON. COM. REVISIONS	2/8/11

COMMONWEALTH OF MASSACHUSETTS
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DATE: 1/4/11
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M. & A. NO.: 487-187 SCALE: 1" = 60'

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NO.	DESCRIPTION		DATE	

SEQUENCE PLAN
SEQUENCE 3

READING WOODS
in
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M. & A. NO.: 487-187 | SCALE: 1" = 60'

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SEQUENCE PLAN

SEQUENCE 4

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2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

COMMONWEALTH OF MASSACHUSETTS
PAULA MARCHIONDA
CIVIL
No. 30015
REGISTERED PROFESSIONAL ENGINEER

APPROVED BY THE TOWN OF READING PLANNING BOARD

DATE

REGISTRY USE ONLY

DATE: 1/4/11
H:\PROJECTS\487-187\PB PLAN SET 2-2011\PHASING4.DWG
M. & A. NO.: 487-187
SCALE: 1" = 60'

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SEQUENCE PLAN

SEQUENCE 5

READING WOODS

in

READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.

115 FLANDERS ROAD
WESTBORO, MA 01581

DRW:	DSG:	CHK:

REV.	DESCRIPTION	DATE
2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

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

APPROVED BY THE
TOWN OF READING
PLANNING BOARD

DATE

REGISTRY USE ONLY

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: 1/4/11
H:\PROJECTS\487-187\PB PLAN SET 2-2011\PHASING5.DWG
M. & A. NO.: 487-187 | SCALE: 1" = 60'

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SEQUENCE PLAN

SEQUENCE 6

READING WOODS

in

READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.

115 FLANDERS ROAD
WESTBORO, MA 01581

DRW:	DSG:	CHK:

REV.	DESCRIPTION	DATE
2.	CPDC COMMENTS	2/15/11
1.	CON. COM. REVISIONS	2/8/11

COMMONWEALTH OF MASSACHUSETTS
PAULA. MARCHIONDA
CIVIL
No. 30015
REGISTERED PROFESSIONAL ENGINEER

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M. & A. NO: 487-187 | SCALE: 1" = 60'

BUILDING 5
36 UNITS
(AGE RESTRICTED)
FF=146.20
GF=134.70

BUILDING 4
50 UNITS
(AGE RESTRICTED)
FF=146.20
GF=134.70

CLUB HOUSE
FF=148.00

BUILDING 6
50 UNITS
FF=145.20
GF=133.70

BUILDING 9
50 UNITS
FF=149.0
GF=137.5

BUILDING 3
36 UNITS
(AGE RESTRICTED)
FF=152.00
GF=140.50

BUILDING 1
36 UNITS
(AGE RESTRICTED)
FF=170.10
GF=158.60

BUILDING 2
50 UNITS
(AGE RESTRICTED)
FF=164.45
GF=152.95

BUILDING 8
50 UNITS
FF=149.00
GF=137.50

BUILDING 7
50 UNITS
FF=144.40
GF=132.90

ISOLATED WETLANDS PER LOCAL BYLAW

AG POOL

POOL

DIRT PILE

MASS STATE HIGHWAY LOA#913 DATED 1959

= SNOW STORAGE AREA

HORIZONTAL SCALE 1"=50'
50 25 0 50 100 150

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DATE

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

DRW:	DSG:	CHK:		DATE
			2. CPDC COMMENTS	2/15/11
			1. CON. COM. REVISIONS	2/8/11
			NO. DESCRIPTION	DATE

SNOW STORAGE PLAN

READING WOODS
in
READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.
115 FLANDERS ROAD
WESTBORO, MA 01581

Marchionda & Associates, L.P.
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DATE: 1/4/11

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M. & A. NO.: 487-187 | SCALE: 1"=50'

SHEET 32 OF 33

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PAUL A. MARCHIONDA CIVIL No. 30015 REGISTERED PROFESSIONAL ENGINEER

DRW:	DSG:	CHK:			
REV.	DESCRIPTION	DATE			
2.	CPDC COMMENTS	2/15/11			
1.	CON. COM. REVISIONS	2/8/11			

SOIL TESTING PLAN

READING WOODS

in

READING, MA

Prepared For

PULTE HOMES OF NEW ENGLAND, L.L.C.

115 FLANDERS ROAD
WESTBORO, MA 01581

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DATE: 1/4/11

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M. & A. NO.: 487-187 | SCALE: 1" = 40'

SHEET 33 OF 33

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