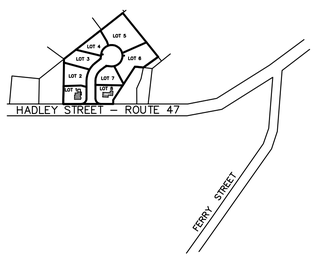
"ETHAN CIRCLE"

DEFINITIVE SUBDIVISION
SOUTH HADLEY, MASSACHUSETTS



LOCUS PLAN – 1"=400'

SURVEYOR

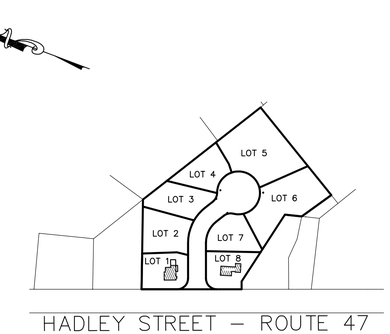
HAROLD L. EATON AND ASSOCIATES, INC.
235 RUSSELL STREET – P.O. BOX 198
HADLEY, MA 01035 413–584–7599
RANDALL E. IZER P.L.S. #35032

ENGINEER

SHAWN K. KIMBERLEY, P.E.
S.K. KIMBERLEY ENGINEERING
309 THOMPSON ROAD
COLRAIN, MA 01340 413–624–9621

ENVIRONMENTAL CONSULTANT

CHARLES H. DAUCHY
24 OLD LONG PLAIN ROAD
LEVERETT, MA 01054 413–548–8005



KEY PLAN – 1"=200'

ZONING DISTRICT RESIDENCE A–2

RECORD PROPERTY OWNERS

DIANE BAGG
BOOK 2102, PAGE 37
BOOK 3951, PAGE 33

ETHAN L. BAGG
BOOK 8929, PAGE 269

APPLICANT

ETHAN L. BAGG
57 HADLEY STREET
SOUTH HADLEY, MASSACHUSETTS

INDEX

SHEET 1 – COVER SHEET
SHEET 2 – LOT LAYOUT PLAN
SHEET 3 – ROAD PLAN AND PROFILE
SHEET 4 – CONSTRUCTION DETAILS
SHEET 5 – EROSION CONTROL DETAILS
SHEET 6 – WATER SUPPLY DETAILS

APPROVAL UNDER THE SUBDIVISION
CONTROL LAW NOT REQUIRED
PLANNING BOARD
SOUTH HADLEY, MASSACHUSETTS

_____

_____

_____

_____

_____

_____

_____

DATE: _____

"PLANNING BOARD ENDORSEMENT UNDER THE SUBDIVISION CONTROL LAW SHOULD NOT BE CONSTRUED AS EITHER AN ENDORSEMENT OR AN APPROVAL OF ZONING REQUIREMENTS"

I CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK: _____

DATE: _____

RECORD PROPERTY OWNERS

DIANE BAGG
BOOK 2102, PAGE 37
BOOK 3951, PAGE 33

ETHAN L. BAGG
BOOK 8929, PAGE 269

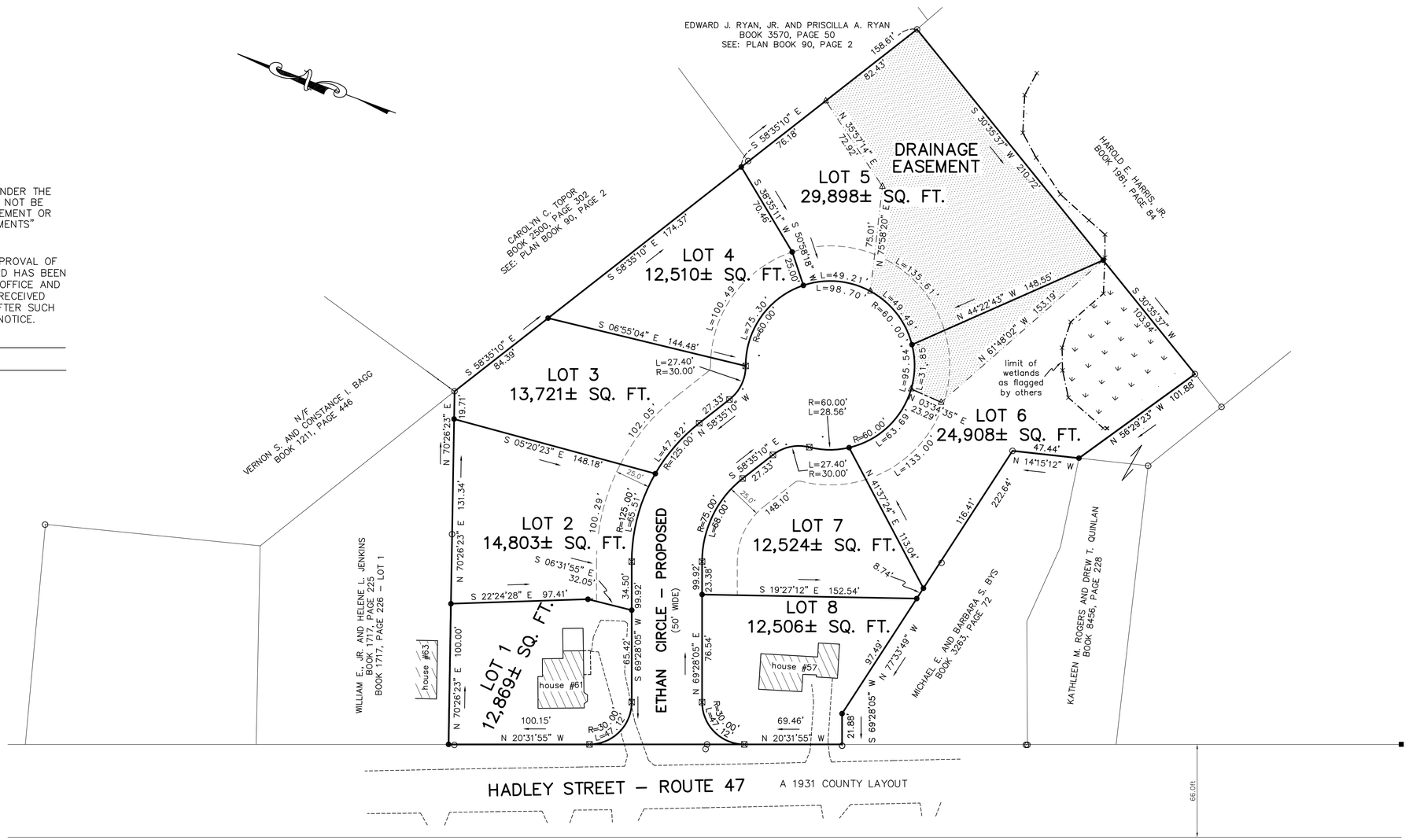
APPLICANT

ETHAN L. BAGG
57 HADLEY STREET
SOUTH HADLEY, MASSACHUSETTS

ZONING DISTRICT

RESIDENCE A–2

ASSESSORS MAP #47
PARCELS 6,9,10,11 AND 12



LEGEND

- ○ FOUND IRON PIN
- △ UNMARKED POINT
- ● REBAR TO BE SET
- ⊠ CONCRETE BOUND TO BE SET
- ■ STONE BOUND FOUND

I REPORT THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE 1976 RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

Randall E. Izer

RANDALL E. IZER #35032

DEFINITIVE SUBDIVISION PLAN
"ETHAN CIRCLE"

PLAN OF LAND IN
SOUTH HADLEY, MASSACHUSETTS
PREPARED FOR
ETHAN L. BAGG

COMMONWEALTH OF MASSACHUSETTS
RANDALL E. IZER
#35032
LICENSED PROFESSIONAL LAND SURVEYOR

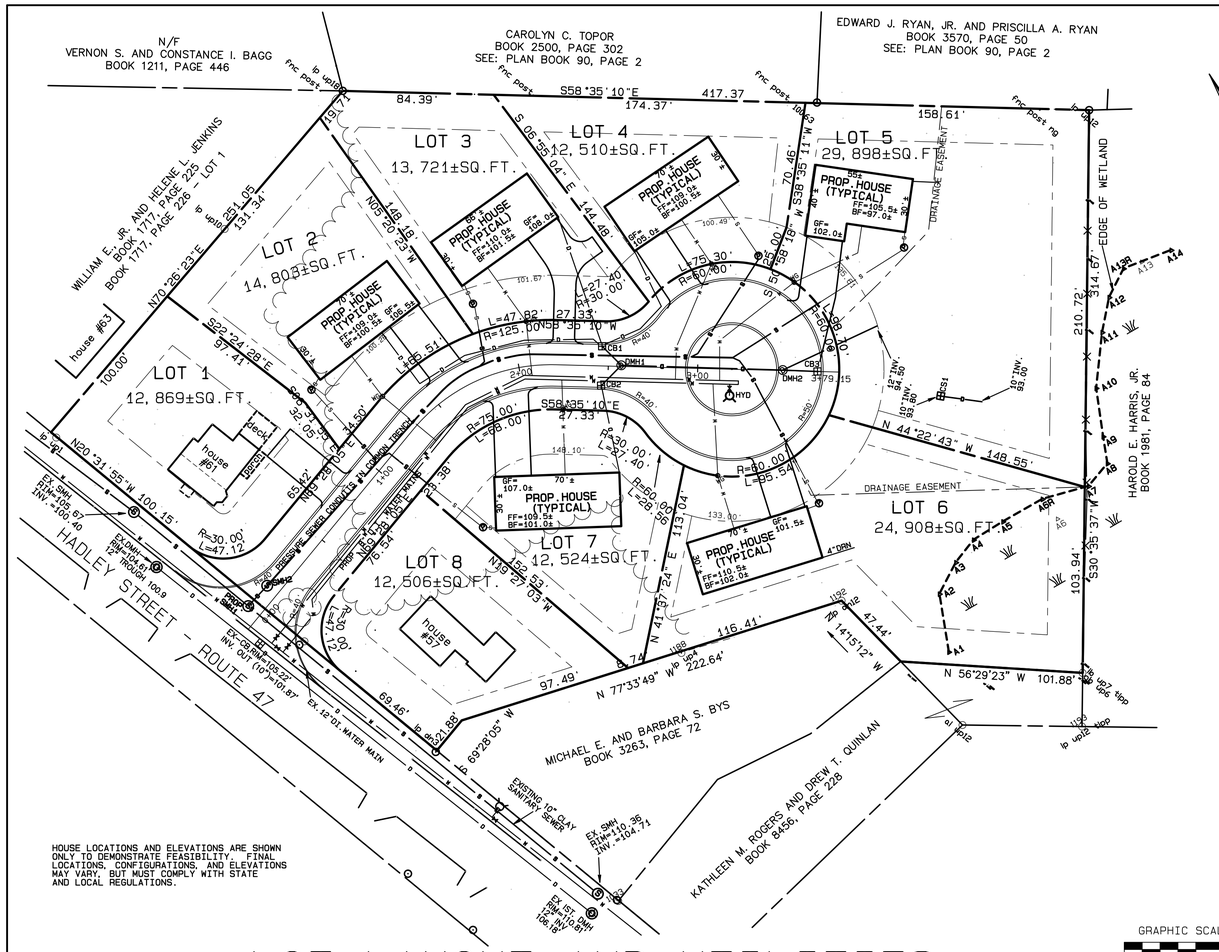
Randall E. Izer

SCALE: 1"=40' MARCH 14, 2014

HAROLD L. EATON AND ASSOCIATES, INC.
REGISTERED PROFESSIONAL LAND SURVEYORS
235 RUSSELL STREET – HADLEY – MASSACHUSETTS
413–584–7599 413–585–5976 (fax)
email – hleaton@aol.com

0' 40' 80' 120'

SHEET 2

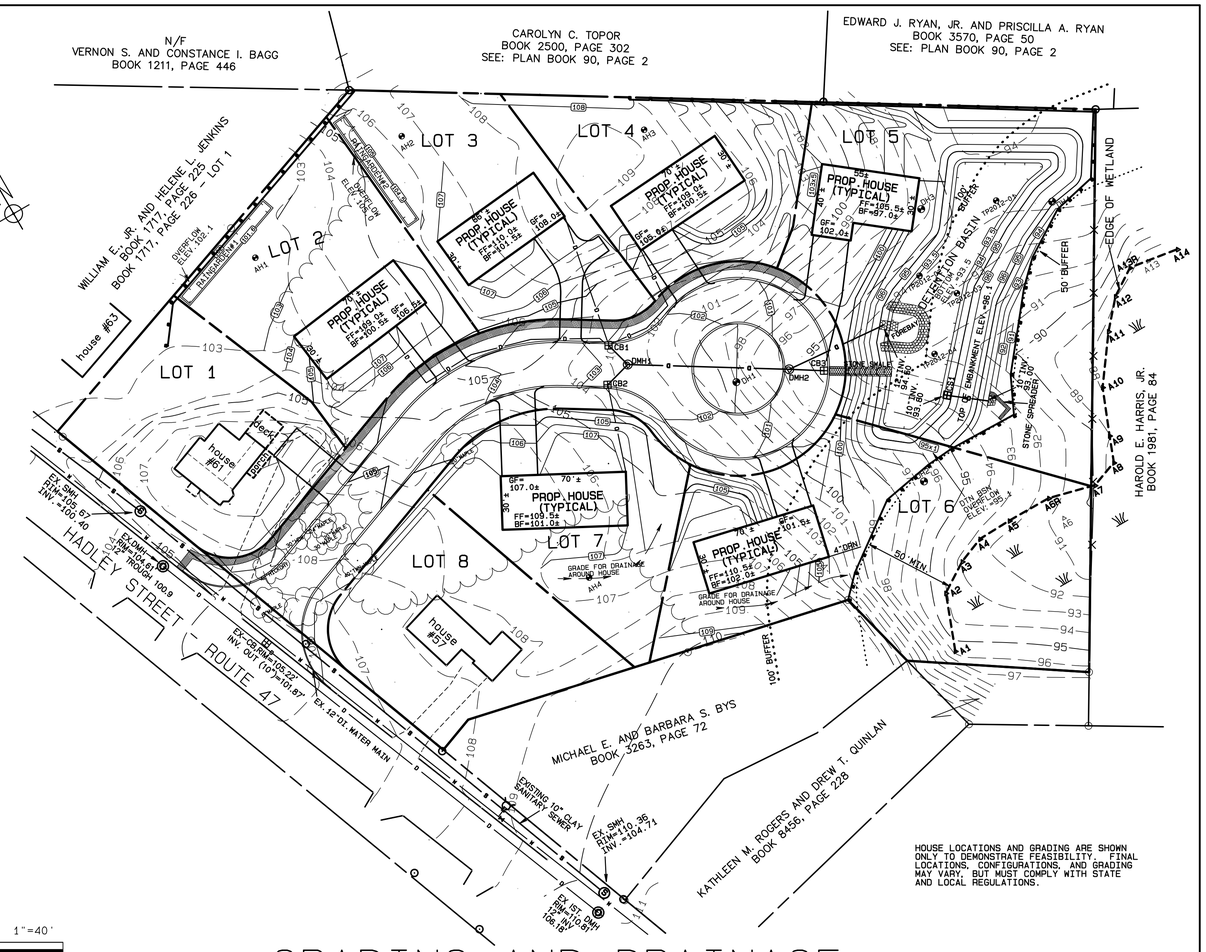


HOUSE LOCATIONS AND ELEVATIONS ARE SHOWN ONLY TO DEMONSTRATE FEASIBILITY. FINAL LOCATIONS, CONFIGURATIONS, AND ELEVATIONS MAY VARY, BUT MUST COMPLY WITH STATE AND LOCAL REGULATIONS.

LOT LAYOUT AND UTILITIES

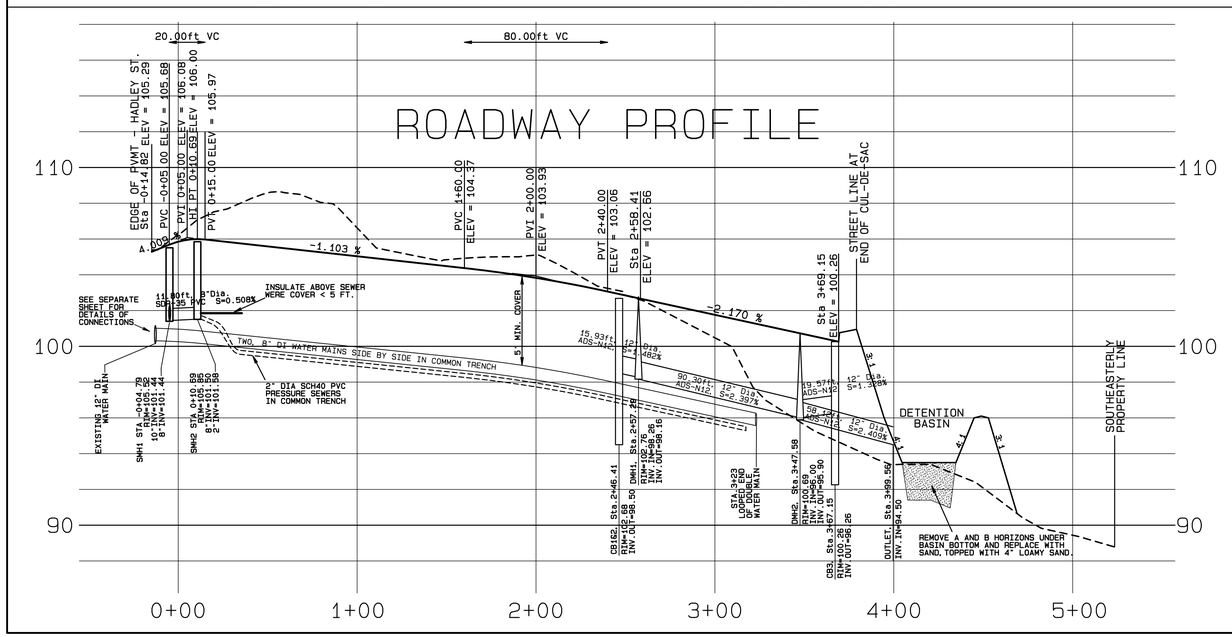
GRAPHIC SCALE 1"=40'

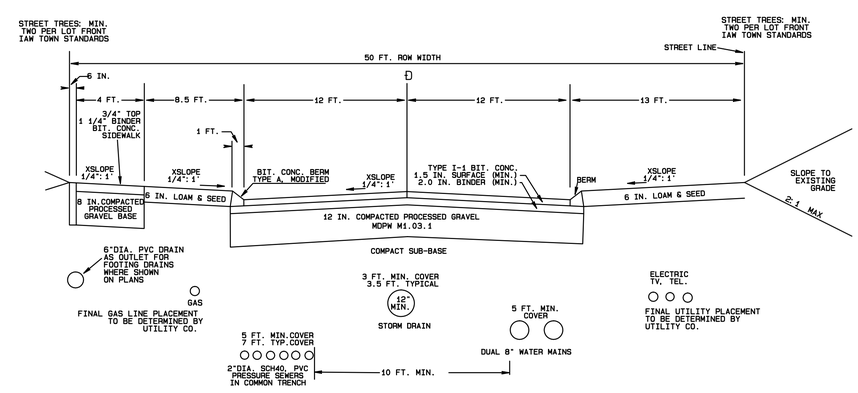
40 0 40 80



HOUSE LOCATIONS AND GRADING ARE SHOWN ONLY TO DEMONSTRATE FEASIBILITY. FINAL LOCATIONS, CONFIGURATIONS, AND GRADING MAY VARY, BUT MUST COMPLY WITH STATE AND LOCAL REGULATIONS.

GRADING AND DRAINAGE





TYPICAL STREET CROSS SECTION

NOT TO SCALE

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- WETLAND EDGE
- 100 FT. BUFFER ZONE
- PROPERTY/LOT LINE
- SEDIMENT BARRIER/WORK LIMIT
- PROP. DRAIN LINE
- PROP. SEWER LINES
- PROP. WATER LINE
- ZONING SETBACK LINE

DATE: 12/24/13 SCALE: AS NOTED

NO.	DATE	REVISIONS

PLAN/PROFILE DEFINITIVE SUBDIVISION ETHAN CIRCLE SOUTH HADLEY, MA

prepared for

ETHAN BAGG

COMMONWEALTH OF MASSACHUSETTS
SHAWN K. KIMBERLEY
CIVIL
NO. 45053
REGISTERED PROFESSIONAL ENGINEER

HAROLD L. EATON & ASSOC. INC.
REGISTERED PROFESSIONAL LAND SURVEYORS
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HADLEY, MASSACHUSETTS
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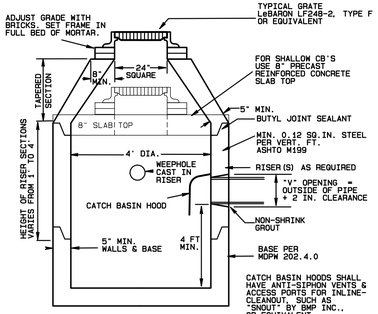
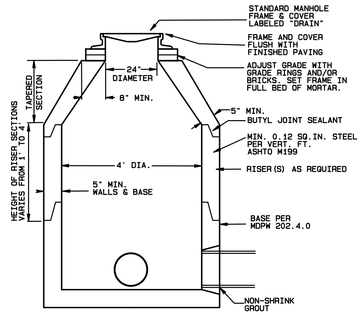


PRECAST CONCRETE CATCH BASIN

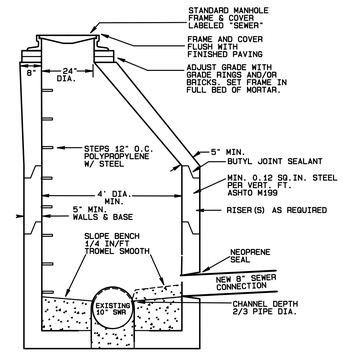
N.T.S.



PRECAST CONCRETE DRAIN MANHOLE

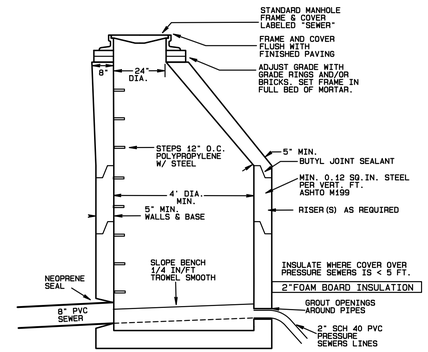
9 FT. OR LESS DEPTH

N.T.S.



SMH#1 - PRECAST CONCRETE OVERCAST SANITARY MANHOLE ON EXISTING SEWER

N.T.S.

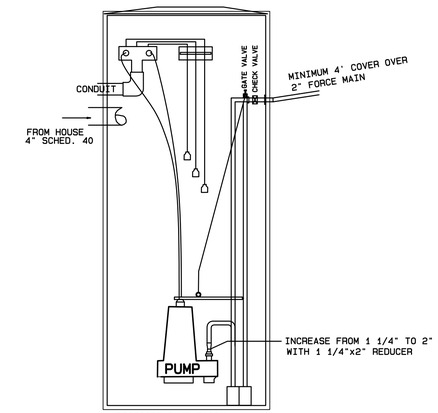


SMH#2 - PRECAST CONCRETE SANITARY MANHOLE

N.T.S.

TYPICAL GRINDER PUMP INSTALLATION - ON LOT.

NO SCALE

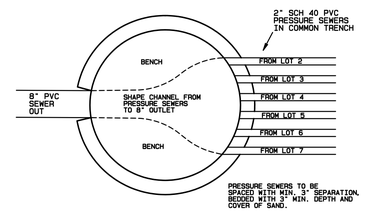


PROPOSED PUMP BASIN (24"DIA. FIBERGLASS BASIN) (WITH ANTI-FLOAT BASE)

HOMA TURNKEY SYSTEM

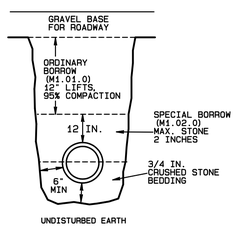
1) HOMA BARRACUDA GRP 12/1, 2 HP GRINDER PUMP
2) RAIL ASSEMBLY - YOKES SHALL MATE OVER GUIDE RAILS OF 1" MINIMUM STAINLESS STEEL PIPE.
3) 2" CHECK VALVE
4) 24"DIA. FIBERGLASS BASIN WITH ANTI-FLOAT BASE
5) SHUT OFF VALVE, PVC TRUE UNION BALL TYPE SHUT OFF.
6) SIMPLEX CONTROL PANEL
BELL & LIGHT, 3 LEVEL SWITCH
JUNCTION BOX

GRINDER PUMPS TO BE INSTALLED BY BUILDER WHEN INDIVIDUAL LOT IS DEVELOPED. INSTALLATION SHOWN IS TYPICAL ONLY. CHOICE OF PUMPING SYSTEM IS UP TO LOT OWNER AND BUILDER.



TYPICAL TRENCH SECTION GRAVITY SEWER & STORM DRAIN

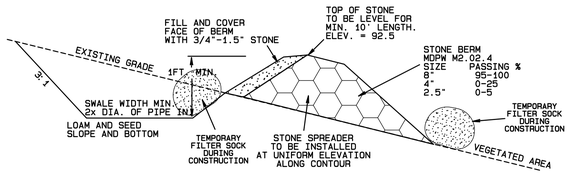
NO SCALE



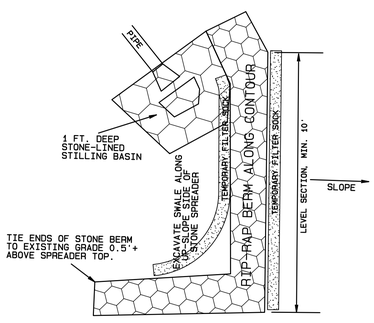
STONE SPREADER

NO SCALE

TYPICAL CROSS-SECTION

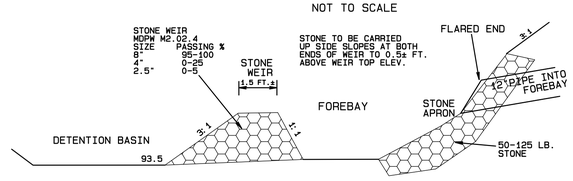


PLAN VIEW



FOREBAY TYPICAL SECTION

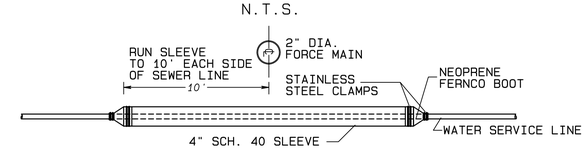
NOT TO SCALE



PIPE IN INVERT ELEV.	94.5
FOREBAY BOTTOM ELEV:	93.5
STONE WEIR TOP ELEV.	94.5
FOREBAY BOTTOM AREA:	299±SF

SEWER-WATERLINE CROSSING SLEEVE DETAIL

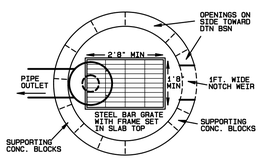
N.T.S.

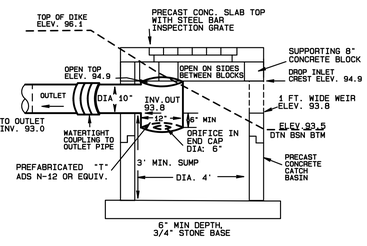


SLEEVE TO BE INSTALLED ON WATER SERVICE IF PRESSURE SEWER IS ABOVE OR WITHIN 18" BELOW WATER SERVICE LINE.

OUTLET CONTROL STRUCTURE FOR DETENTION BASIN

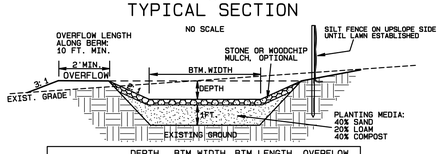
NO SCALE





RAIN GARDEN TYPICAL SECTION

NO SCALE

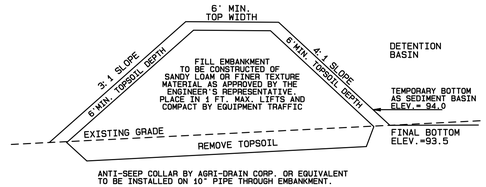


	DEPTH	BTM.WIDTH	BTM.LENGTH	OVERFLOW
RAINGARDEN#1	0.5 FT	6 FT.	70 FT.	102.1
RAINGARDEN#2	0.5 FT.	6 FT.	70 FT.	105.0

PLANT OR SEED NON-INVASIVE SPECIES TOLERANT OF UP TO 3 DAYS INUNDATION DURING THE GROWING SEASON. SPACING TO DEPEND ON SPECIES CHOSEN AND AESTHETIC PREFERENCE. COMPLETE VEGETATIVE COVER IS NOT REQUIRED FOR WATER RETENTION.

DETENTION BASIN EMBANKMENT TYPICAL SECTION

NO SCALE



ANTI-SEEP COLLAR BY AGRI-DRAIN CORP. OR EQUIVALENT TO BE INSTALLED ON 10" PIPE THROUGH EMBANKMENT.

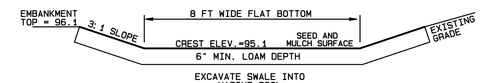
DETENTION BASIN SEED MIXES:

DETENTION BASIN BOTTOM & FOREBAY:
TEMPORARY - WINTER WHEAT@ 100 LBS/AC.
PERMANENT -
NEW ENGLAND WETLAND PLANTS, EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES OR APPROVED EQUIVALENT.

EMBANKMENT AND SLOPES (PERMANENT):
A COMMERCIAL "CONSERVATION MIX" INCLUDING BOTH GRASSES AND LEGUMES - TO BE APPROVED BY THE PROJECT WETLAND SPECIALIST.

TYPICAL CROSS-SECTION DETENTION BASIN OVERFLOW

NO SCALE



OVERFLOW SPILLWAY TO BE LEVEL FOR 10 FT LENGTH

COMMONWEALTH OF MASSACHUSETTS
SHAWN K. KIMBERLEY
CIVIL
NO. 45053
REGISTERED PROFESSIONAL ENGINEER

DATE: 12/24/13 SCALE: AS NOTED

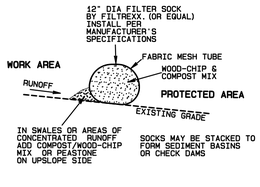
NO.	DATE	REVISIONS

CONSTRUCTION DETAILS
DEFINITIVE SUBDIVISION
ETHAN CIRCLE
SOUTH HADLEY, MA
prepared for
ETHAN BAGG

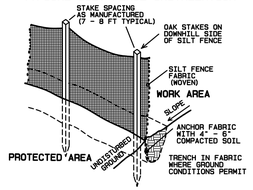
HAROLD L. EATON & ASSOC. INC.
REGISTERED PROFESSIONAL LAND SURVEYORS
235 RUSSELL STREET
HADLEY, MASSACHUSETTS
PHONE (413) 584-7599, FAX 585-5976
email: hleaton@aol.com

SEDIMENT BARRIER ALTERNATIVES
CONTRACTOR'S OPTION

TYPICAL FILTER SOCK INSTALLATION

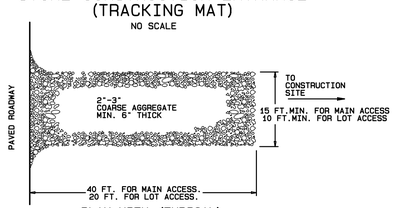


TYPICAL SILT FENCE INSTALLATION



STONE CONSTRUCTION ENTRANCE
(TRACKING MAT)

NO SCALE



PLAN VIEW (TYPICAL)

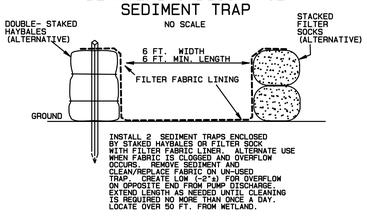
NOTES:

THE ENTRANCE SHALL BE INSTALLED PRIOR TO OTHER GRADING AND EARTH MOVING ON THE SITE AND SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO A PAVED STREET. THIS MAY REQUIRE TOP DRESSING, REPLACEMENT OF STONE, OR WASHING OF STONE WITH DISCHARGE TO A SEDIMENT TRAP.

STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS THE FIRST STEP IN GRUBBING AND GRADING OF THE SITE. ENTRANCE SHALL BE MAINTAINED UNTIL PREPARATION FOR PAVING.

DEWATERING DISCHARGE
SEDIMENT TRAP

NO SCALE

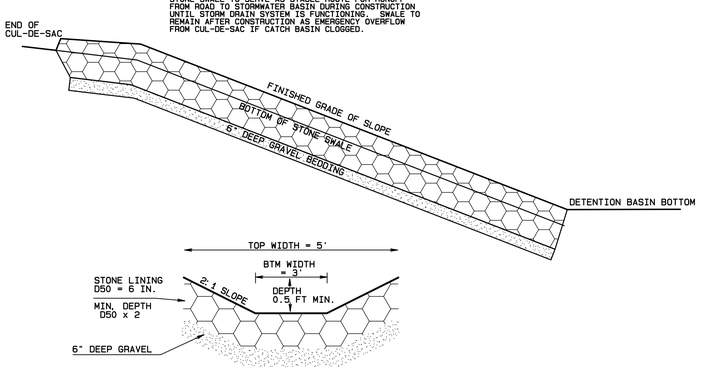


INSTALL 2 SEDIMENT TRAPS ENCLOSED BY STAKED HAYBALES OR FILTER SOCK WITH FILTER FABRIC LINER. ALTERNATE USE WHEN FABRIC IS CLOGGED AND OVERFLOW OCCURS. REMOVE SEDIMENT AND CLEAN/REPLACE FABRIC ON UN-USED TRAP. CREATE LOW (~2'±) FOR OVERFLOW ON OPPOSITE END FROM PUMP DISCHARGE. EXTEND LENGTH AS NEEDED UNTIL CLEANING IS REQUIRED NO MORE THAN ONCE A DAY. LOCATE OVER 50 FT. FROM WETLAND.

STONE-LINED SWALE

NO SCALE

STONE SWALE TO SERVE AS STABLE ROUTE FOR RUNOFF FROM ROAD TO STORMWATER BASIN DURING CONSTRUCTION UNTIL STORM DRAIN SYSTEM IS FUNCTIONING. SWALE TO REMAIN AFTER CONSTRUCTION AS EMERGENCY OVERFLOW FROM CUL-DE-SAC IF CATCH BASIN CLOGGED.



EROSION AND SEDIMENT CONTROL MEASURES:

Preconstruction notifications and meetings: No land disturbance associated with this project shall occur until 7 days after receipt of USEPA form 3510-9 "Notice of Intent" has been confirmed by the USEPA. No work shall be performed within 100 feet of any wetland area until any notification and pre-construction meeting requirements of the Order of Conditions under the Mass. Wetlands Protection Act have been completed.

Perimeter Sediment Barrier and Work Limit: Before installation of the sediment barriers, the location shall be staked in the field for review and approval by the engineer or their representative. To facilitate sediment barrier installation, woody vegetation may then be removed and any required trench may be cut by machine. No excavation, grading, filling, or removal of vegetative ground cover shall be performed within 100 feet of any wetland or stream until perimeter sediment barriers have been installed as shown on plans and have been inspected by the engineer or their representative.

Perimeter sediment barriers located adjacent to wetland areas shall serve as the limit of work for this project. No construction, equipment traffic, stockpiles, removal of vegetation, or other alteration shall be permitted on the wetland side of the sediment barrier/work limit without the approval of the engineer or their representative and the municipal Conservation Commission.

Silt fence: The bottom of the fence shall be trenched into the ground a minimum of 6" and back-filled with compacted soil. Where trenching is not feasible, silt fence skirt shall be covered with 6" of compacted soil. The top of the fabric shall be stretched as tightly as is practical, with intermediate stakes added to correct excessive sags. Stakes shall be driven at least 12" into the ground. Splices between sections shall be made by rolling end stakes together one complete turn and driving into the ground together.

Straw bales: Straw bales may be used as temporary and moveable control measures, temporary check dams, or as reinforcement for silt fence in areas of concentrated runoff or high fills. Bales shall be tightly butted and staked 12" into the ground. Where used without silt fence in front, the bales shall be trenched 4" into the ground, back-filled with compacted soil, and the spaces between bales shall be chinked with loose hay.

Filter Sock ("Filtrex" or equivalent): In areas of expected sheet flow, filter sock may be placed directly on the ground without trenching or stakes. In areas of expected concentrated flow, filter sock shall be staked as required to prevent movement or floatation, and mulch or washed stone shall be placed along the up-slope face to filter underflow.

Stone Construction Entrance: A "Stone construction entrance" or "tracking mat" shall be installed and maintained at any points where construction traffic from an unpaved construction road or site access enters onto the paved public way or a paved portion of the project roadway.

Stockpiles: There shall be a sediment barrier between any soil stockpile any wetland, waterway, swale, gutter, or drain inlet. The base of the stockpile shall be kept at least 10 feet from the barrier. Temporary piles of trench spoil may be closer to the sediment barrier but shall not rest against the barrier. Soil expected to remain stockpiled for over 30 days shall be shaped to stable slopes and seeded or mulched for temporary cover. No stockpile shall be placed within a swale, drainage-way, or other path of concentrated surface runoff.

Temporary runoff controls: As site grading progresses, temporary erosion control measures shall be installed, maintained, and removed as necessary to control erosive accumulations of runoff or sediment discharge until final grade and cover are established. Temporary control measures may include sediment barriers, check dams, diversions, sediment basins, open-top culverts, and stone-lined swales.

Stocking additional materials: A stock of additional erosion control materials shall be maintained available on the site for emergency repairs and temporary measures. Stock shall be replenished when decreased to 50% of the numbers below. Stock shall include:

Straw-bales - 15 (Covered to be kept dry)
Oak stakes - 30
Silt fence - 100 linear feet.
Washed stone - 2 cubic yards, 3/4" to 1" diameter
Filter fabric - 25 linear feet of 12 ft. Wide roll, or equivalent.

Trench protection: Open trenches shall be protected from accumulation of surface water or groundwater that could result in erosion of the trench and discharge of sediment. Where feasible, spoil shall be stockpiled on the up-slope side of the trench to prevent entrance of surface runoff. Backfill shall be crowned to allow for settlement and to avoid concentration of runoff on top of the trench.

Storm drain protection: The storm drain system shall be put into operation as soon as possible in order to control runoff within a non-erodible system. The storm drain system shall be protected against inflow of sediment. Open storm drain structures shall be protected by sediment barriers, filtrex filter socks, stone filter berms, or filter fabric inserts ("tea-bags", "silt-sacks" or equivalents). These measures shall be maintained until the tributary area is stabilized by pavement and vegetative cover.

Roadside slopes: Cut and fill slopes for roadway construction shall be finish graded, loamed, seeded, and mulched as soon as possible during road construction. This stabilization shall not await finish grading of lots.

Erosion control netting, mulch mats or Turf Reinforcement Mats shall be used on steep slopes or in swales where required to protect seeding until establishment. Materials shall be installed per manufacturers' recommendations and anchored by burial of edges, staples, or stakes, as applicable.

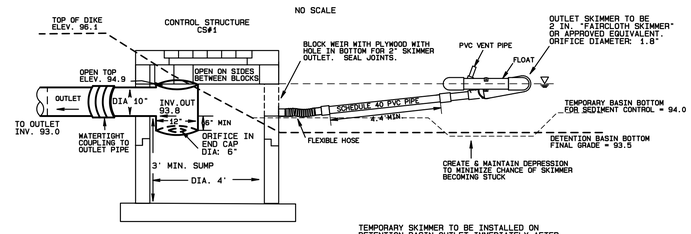
Site Stabilization - Temporary: Where a portion of the site will not be subject to construction activity for over 60 days, measures shall be taken to provide temporary stabilization of that inactive portion of the site, within 14 days of the cessation of construction activity. Stabilization measures may include seeding for temporary cover, mulching, or other measures to protect exposed soil from erosion and prevent sediment movement.

Site Stabilization - Permanent: Within 14 days of completion of loaming and finish grading on any portion of the site, that area shall be seeded or planted for permanent cover in accordance with USDA NRCS guidelines or equivalent, season permitting.

Roadway Sweeping: The entrance to the site and affected portions of the public roadway or paved project roadway shall be swept as needed to control sediment runoff into storm drains or waterways and to control blowing dust.

TEMPORARY "SKIMMER" ON
DETENTION BASIN OUTLET

NO SCALE



TEMPORARY SKIMMER TO BE INSTALLED ON DETENTION BASIN OUTLET IMMEDIATELY AFTER CONSTRUCTION, AND MAINTAINED UNTIL WATERSHED IS STABILIZED AGAINST EROSION AND BASIN IS EXCAVATED TO FINAL GRADE AND RE-VEGETATED.

GENERAL SEQUENCE OF WORK:

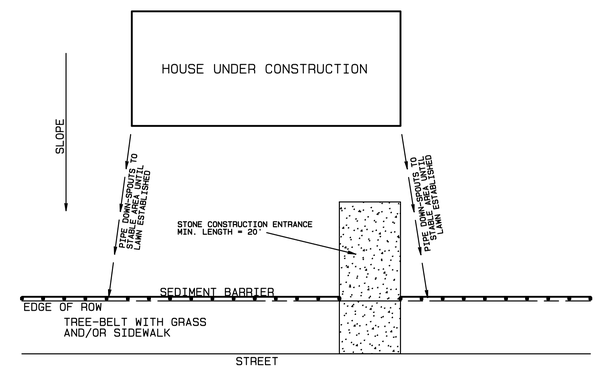
1. Stakeout and review of clearing limits and perimeter sediment barrier locations.
2. Clearing of work areas without stripping or grubbing.
   Installation of perimeter sediment barriers along perimeter work limit.
3. Construction of detention basin to bottom elevation 94.0, installation of outlet and stone spreader with temporary skimmer, permanent seeding of cut slopes and embankment, and temporary seeding of basin bottom.
4. Grubbing and stripping of ROW and grubbing of lots as needed, including loaming and temporary seeding of disturbed areas on lots.
5. Rough grading of roadway & grading/seeding of slope to detention basin, with stone swale.
6. Construction of roadway, drainage, sewer, water, and utilities, with temporary erosion controls and maintenance of erosion control measures, as site conditions require.
7. Permanent seeding and stabilization of ROW.
8. Final grading and seeding of detention basin bottom to elev. 93.5 shall be done after initial temporary and permanent seedings are sufficiently established to prevent erosion. Detention basin outlet skimmer shall remain in place until vegetation is established on detention basin bottom.
9. Site development of individual lots may begin during road construction, with erosion/sediment controls for each lot.

WORK ON INDIVIDUAL LOTS:

Site work on individual lots shall be controlled so as to prevent sediment discharge to the roadway, wetlands, or abutting lots. Typical measures may include:

- Sediment barrier along down-slope edge of graded areas.
- Stone construction entrance on driveway cut.
- Check dams across swales carrying concentrated runoff.
- Temporary diversions to carry runoff around open construction sites.
- Stone-lined swales to carry concentrated runoff.
- Immediate temporary re-vegetation of slopes, prior to finish grading of yard and lawn.
- Curtain drainage or stone blanket to control seepage from cut slopes.
- Temporary piping of down-spout discharges across graded areas until lawn establishment.
- Water-bars or open-topped culverts on unpaved driveways to divert runoff to vegetated areas.

TYPICAL ON-LOT EROSION CONTROL MEASURES



CONSTRUCTION PHASE HOUSE-KEEPING MEASURES:

All vehicles on site will be monitored for leaks and receive regular preventive maintenance.
Petroleum products will be stored in tightly sealed containers which are clearly labeled.
Asphalt substances will be applied according to manufacturer's recommendations.
Sanitary waste will be collected from portable units a minimum of weekly to avoid overfilling.
A covered dumpster or appropriate trash container will be used for all waste materials.
Concrete trucks will not be allowed to wash out chutes within 100 feet of any waterway or wetland. Discharge of surplus concrete or drum wash is not permitted on site.
Vehicle maintenance and fueling will not be allowed within 100 feet of any waterway or wetland.
Fertilizer for lawn establishment and stabilization seeding will be applied in accordance with manufacturers instructions and will be incorporated into the soil or as part of a hydro seeding mulch or "Terraseeding" mix.
Paints, Glues, cleaning solvents, and other construction related chemicals will be used in accordance with manufacturer's instructions. Residue and empty containers will be disposed of in closed containers for appropriate final off-site disposal.

COMMONWEALTH OF MASSACHUSETTS
SHAWN K. KIMBERLEY
CIVIL
NO.45053
REGISTERED PROFESSIONAL ENGINEER

DATE: 12/24/13 SCALE: AS NOTED

NO.	DATE	REVISIONS

EROSION CONTROL DETAILS
DEFINITIVE SUBDIVISION
ETHAN CIRCLE
SOUTH HADLEY, MA
prepared for
ETHAN BAGG

HAROLD L. EATON & ASSOC. INC.
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