



- SITE NOTES:**
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE TOWN, STATE, AND FEDERAL CODES.
 - STRIPE DRIVES AS SHOWN. DOUBLE CENTER LINE SHALL BE PAINTED USING YELLOW TRAFFIC PAINT AND STOP BARS AND CROSSWALKS USING WHITE TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248, TYPE "N".
 - ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS UNLESS OTHERWISE SPECIFIED.
 - STOP BARS SHALL BE TWELVE (12) INCHES WIDE.
 - CROSSWALKS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT THREE (3) FEET O.C. BORDERED BY TWELVE (12) INCH WIDE LINES.
 - CLEAN AND COAT VERTICAL FACE OF PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
 - THE CONTRACTOR SHALL EMPLOY A LICENSED ENGINEER/SURVEYOR TO DETERMINE ALL LINE AND GRADES. THE ENGINEER IS TO PROVIDE COORDINATES FOR BUILDING PAD EXCAVATION, FIELD LAYOUT AND EDGE OF PAVEMENT PCS AND PITS.
 - COORDINATE ALL WORK WITH IN THE PUBLIC RIGHT OF WAYS WITH THE TOWN OF AMESBURY AND MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (ROUTE 150).
 - THE LOCATION OF THE PROPOSED PUBLIC ACCESS TRAIL SHOWN IS APPROXIMATE. THE TRAIL ALIGNMENT MAY SHIFT IN THE FIELD IN ORDER TO PRESERVE TREES AND OTHER NATURAL FEATURES.
 - ALL TRASH WILL BE COLLECTED CURBSIDE BY A PRIVATE DISPOSAL COMPANY CONTRACTED WITH THE CONDOMINIUM HOME OWNERS ASSOCIATION.
 - THE PROPOSED ON-SITE DRIVES SHOWN SHALL BE PRIVATE AND MAINTAINED BY THE CONDO ASSOCIATION AND WILL NOT BE THE RESPONSIBILITY OF THE CITY OF AMESBURY.
 - PROPOSED RETAINING WALLS SHALL BE "LARGE BLOCK" (SHEA BLOCK OR EQUAL). ALL WALLS OVER 2.5' HIGH SHALL HAVE FALL PROTECTION FENCING. THE CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS FOR ALL WALLS GREATER THAN 4' TALL PREPARED AND STAMPED BY A MASSACHUSETTS PROFESSIONAL ENGINEER.

SEAN P. MALONE
CIVIL
No. 48205
MASSACHUSETTS

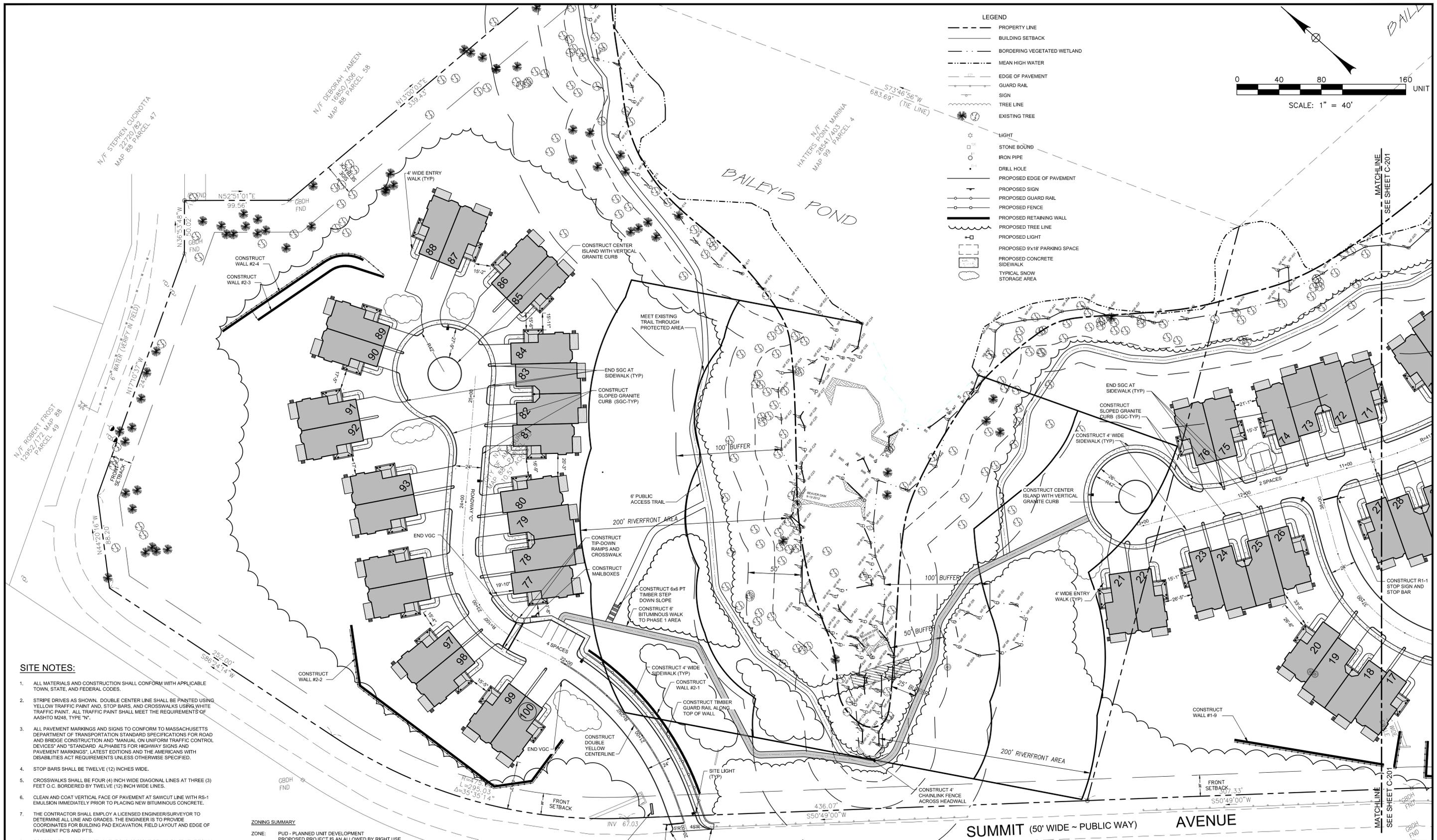
REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM

THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

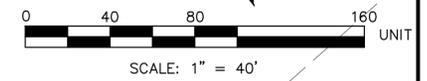
SITE LAYOUT PLAN

OCG Oak Consulting Group
P.O. Box 1123
Newburyport, MA 01950
Ph. 978.312.3120

SCALE: AS NOTED	DESIGN: SPM	SHEET: C-201
DRAWN: SPM	PROJECT: 12013	
CHECKED: PFA	DATE: 10/1/15	



- LEGEND**
- PROPERTY LINE
 - BUILDING SETBACK
 - BORDERING VEGETATED WETLAND
 - MEAN HIGH WATER
 - EDGE OF PAVEMENT
 - GUARD RAIL
 - SIGN
 - TREE LINE
 - EXISTING TREE
 - LIGHT
 - STONE BOUND
 - IRON PIPE
 - DRILL HOLE
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED SIGN
 - PROPOSED GUARD RAIL
 - PROPOSED FENCE
 - PROPOSED RETAINING WALL
 - PROPOSED TREE LINE
 - PROPOSED LIGHT
 - PROPOSED 9x18' PARKING SPACE
 - PROPOSED CONCRETE SIDEWALK
 - TYPICAL SNOW STORAGE AREA



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 - COORDINATE ALL WORK WITH IN THE PUBLIC RIGHT OF WAYS WITH THE TOWN OF AMESBURY AND MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (ROUTE 150).
 - THE LOCATION OF THE PROPOSED PUBLIC ACCESS TRAIL SHOWN IS APPROXIMATE. THE TRAIL ALIGNMENT MAY SHIFT IN THE FIELD IN ORDER TO PRESERVE TREES AND OTHER NATURAL FEATURES.
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ZONING SUMMARY

ZONE: PUD - PLANNED UNIT DEVELOPMENT
PROPOSED PROJECT IS AN ALLOWED BY RIGHT USE

MINIMUM LOT AREA	REQUIRED 5 ACRES	PROPOSED ±26 ACRES
MINIMUM LOT FRONTAGE	300 FEET	±890 FEET (RT 150)
MINIMUM YARDS		
FRONT	20 FEET	±33.75 FEET
SIDE	50 FEET	±50.83 FEET
REAR	35 FEET	N/A
MAXIMUM HEIGHT	35 FEET (3 STORIES)	35 FEET (2 1/2 STORIES)
MAXIMUM BUILDING AREA	35%	±12%
MINIMUM OPEN SPACE	50%	±18.5 ACRES (71%)

PARKING SUMMARY

USE	UNITS	REQUIRED RATE	REQUIRED PARKING
RESIDENTIAL	100	1.5 PER UNIT	150 SPACES

PROPOSED: EACH UNIT WILL HAVE TWO SIDE BY SIDE GARAGE SPACES = 100x2 + 21 GUEST/VISITOR SPACE = 221 SPACES PROVIDED.



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THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

SITE LAYOUT PLAN

SCALE: AS NOTED	DESIGN: SPM	SHEET: C-202
DRAWN: SPM	PROJECT: 12013	
CHECKED: PFA	DATE: 10/1/15	

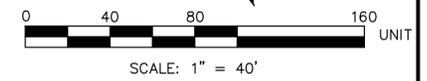


LEGEND

- PROPERTY LINE
- - - - - BORDERING VEGETATED WETLAND
- - - - - RIVER FRONT TOP OF BANK
- 25' BUFFER
- 50' BUFFER
- 100' BUFFER
- 200' RIVER FRONT AREA
- - - - - MEAN HIGH WATER
- - - - - INTERMEDIATE CONTOUR
- - - - - INDEX CONTOUR
- - - - - TREE LINE
- EXISTING RETAINING WALL
- DRAIN
- CATCH BASIN
- DRAIN MANHOLE
- - - - - PROPOSED CONTOUR
- X43.5 SPOT ELEVATION
- PROPOSED DRAIN
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED YARD DRAIN
- SEDIMENTATION BARRIER
- PROPOSED TREE LINE
- PROPOSED RIP-RAP ARRON
- PROPOSED RETAINING WALL

EROSION CONTROL NOTES:

- SEE EROSION CONTROL NOTES & DETAILS FOR ADDITIONAL EROSION CONTROL PROCEDURES AND CONSTRUCTION SEQUENCING.
- PROVIDE INLET PROTECTION BARRIERS FOR ALL PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
- INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE AT ALL CONSTRUCTION ENTRANCE LOCATIONS, SO AS TO MINIMIZE SEDIMENT TRACKING OFFSITE FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR UPKEEP, MAINTENANCE AND REPLACEMENT (IF REQUIRED) OF ALL EROSION CONTROL MEASURES. CONTRACTOR SHALL REPAIR AND/OR REPLACE EROSION CONTROL MEASURES AS NEEDED.
- ALL TEMPORARY LOAM STOCKPILES SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES.



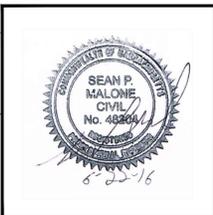
GRADING & DRAINAGE NOTES:

- ALL DISTURBED AREAS NOT OTHERWISE TREATED SHALL RECEIVE 4" SCREENED LOAM, HYDROSEED & FERTILIZER.
- SEE SHEET EXISTING CONDITIONS PLANS FOR BENCHMARK INFORMATION. CONTRACTOR SHALL RELOCATE ALL BENCHMARKS PRIOR TO DISTURBING BENCHMARKS.
- ALL STORM DRAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE UNLESS OTHERWISE NOTED (HANCOR "HIQ", ADS "N-12", OR APPROVED EQUAL).
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE CITY AND STATE CODES.
- ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND DRIVEWAYS.
- ALL CATCHBASINS AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER THE UPSTREAM AREA IS STABILIZED.
- THE LOCATION OF THE PROPOSED PUBLIC ACCESS TRAIL SHOWN IS APPROXIMATE. THE TRAIL ALIGNMENT MAY SHIFT IN THE FIELD IN ORDER TO PRESERVE TREES OR OTHER NATURAL FEATURES.

COMPACTION REQUIREMENTS

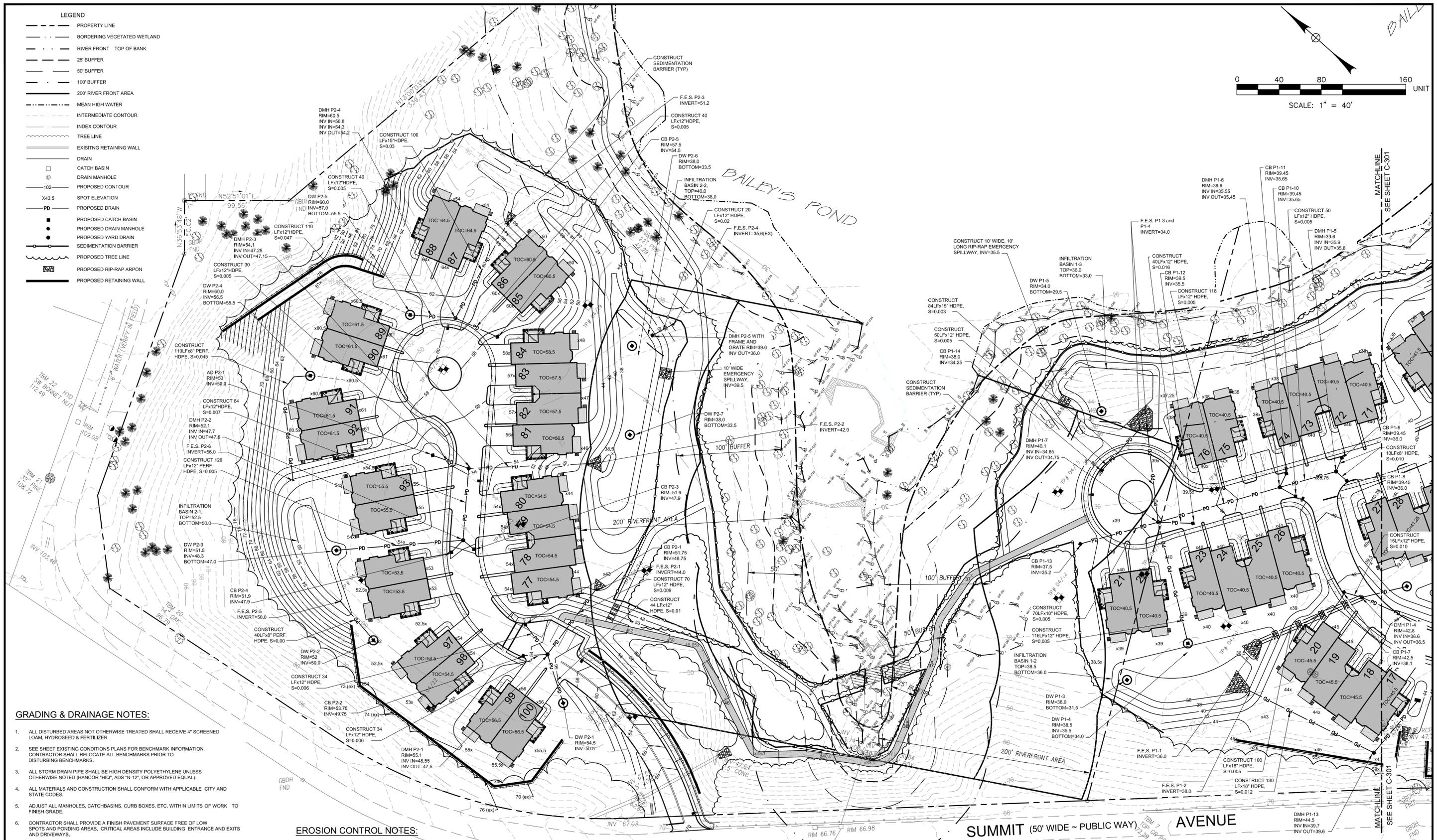
LOCATION	MINIMUM DENSITY*
BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%

* ALL PERCENTAGES SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH AASHTO STANDARD 180, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH AASHTO STANDARD T-191, T-204, OR T-238 AND T-239.



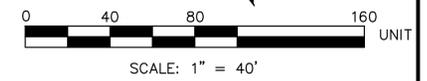
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THE VILLAGE AT BAILEY'S POND Route 150 and Summit Avenue Amesbury, Massachusetts			
GRADING, DRAINAGE & EROSION CONTROL PLAN			
REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM
SCALE: AS NOTED		DESIGN: SPM	SHEET: C-301
DRAWN: SPM		PROJECT: 12013	
CHECKED: PFA		DATE: 10/1/15	



LEGEND

- PROPERTY LINE
- BORDERING VEGETATED WETLAND
- RIVER FRONT TOP OF BANK
- 25' BUFFER
- 50' BUFFER
- 100' BUFFER
- 200' RIVER FRONT AREA
- MEAN HIGH WATER
- INTERMEDIATE CONTOUR
- INDEX CONTOUR
- TREE LINE
- EXISTING RETAINING WALL
- DRAIN
- CATCH BASIN
- DRAIN MANHOLE
- 102 PROPOSED CONTOUR
- 102.5 SPOT ELEVATION
- PD PROPOSED DRAIN
- PD PROPOSED CATCH BASIN
- PD PROPOSED DRAIN MANHOLE
- PD PROPOSED YARD DRAIN
- PD SEDIMENTATION BARRIER
- PD PROPOSED TREE LINE
- PD PROPOSED RIP-RAP ARPON
- PD PROPOSED RETAINING WALL



GRADING & DRAINAGE NOTES:

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2. SEE SHEET EXISTING CONDITIONS PLANS FOR BENCHMARK INFORMATION. CONTRACTOR SHALL RELOCATE ALL BENCHMARKS PRIOR TO DISTURBING BENCHMARKS.
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4. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE CITY AND STATE CODES.
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BELOW LOAM AND SEED AREAS	90%

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EROSION CONTROL NOTES:

1. SEE EROSION CONTROL NOTES & DETAILS FOR ADDITIONAL EROSION CONTROL PROCEDURES AND CONSTRUCTION SEQUENCING.
2. PROVIDE INLET PROTECTION BARRIERS FOR ALL PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
3. INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE AT ALL CONSTRUCTION ENTRANCE LOCATIONS, SO AS TO MINIMIZE SEDIMENT TRACKING OFFSITE FOR THE DURATION OF CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR UPKEEP, MAINTENANCE AND REPLACEMENT (IF REQUIRED) OF ALL EROSION CONTROL MEASURES. CONTRACTOR SHALL REPAIR AND/OR REPLACE EROSION CONTROL MEASURES AS NEEDED.
5. ALL TEMPORARY LOAM STOCKPILES SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES.



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GRADING, DRAINAGE & EROSION CONTROL PLAN

REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM

SCALE: AS NOTED DESIGN: SPM SHEET: C-302
 DRAWN: SPM PROJECT: 12013
 CHECKED: PFA DATE: 10/1/15



- UTILITIES NOTES:**
1. THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON-SITE AT ALL TIMES.
 2. THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
 3. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE CITY AND STATE CODES.
 4. WATER MAINS SHALL BE 8" CLASS 52 CEMENT LINED DUCTILE IRON AND SHALL HAVE A MINIMUM OF 5' COVER.
 5. ALL WATER VALVES TO OPEN LEFT.
 6. FINAL NUMBER, SIZE AND LOCATION OF ELECTRIC AND COMMUNICATIONS CONDUITS TO BE DETERMINED BY UTILITY COMPANY.
 7. SEE EXISTING CONDITIONS PLANS FOR BENCHMARK INFORMATION.
 8. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PROPOSED GRADING, DRAINAGE STRUCTURES, AND EROSION CONTROL MEASURES.
 9. UNDERGROUND ELECTRICAL CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO ELECTRIC COMPANY STANDARDS.
 10. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
 11. CONSTRUCT A MINIMUM OF 6" CRUSHED STONE UNDER ALL CATCHBASINS, MANHOLES, TANKS, ETC.
 12. PROPOSED FIRE HYDRANTS SHALL HAVE A MAXIMUM SPACING OF 400'
 13. PROPOSED BUILDING WATER SERVICES SHALL BE 3/4" HDPE, INDIVIDUALLY METERED WITH EXTERIOR SHUTOFF.
 14. THE CITY OF AMESBURY WATER AND SEWER DEPARTMENTS SHALL BE NOTIFIED PRIOR TO INSTALLATION OF WATER AND SEWER LINES. ALL CONNECTIONS TO CITY UTILITIES SHALL BE COORDINATED WITH THE CITY AND CONSTRUCTED TO THE SATISFACTION OF THE AMESBURY WATER AND SEWER DEPARTMENTS.
 15. CONSTRUCTION OF THE SEWER CROSSING THE EXISTING STREAM SHALL BE COORDINATED WITH THE CITY SEWER AND CONSERVATION DEPARTMENTS. UPON COMPLETION OF THE STREAM CROSSING CONSTRUCTION, THE STREAM SHALL BE RECONSTRUCTED TO ITS ORIGINAL SHAPE AND CONFIGURATION.
 16. ALL BUILDINGS SHALL HAVE SPRINKLER SYSTEMS.

GENERAL NOTE:

1. ALL UTILITIES ON SITE ARE PRIVATE (INCLUDING THE SEWER PUMP STATION) AND SHALL BE OPERATED AND MAINTAINED BY THE HOMEOWNERS/CONDOMINIUM ASSOCIATION AND WILL NOT BE THE RESPONSIBILITY OF THE CITY OF AMESBURY.



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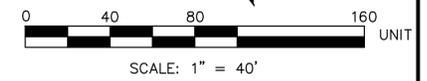
THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

SITE UTILITIES PLAN

SCALE: AS NOTED DESIGN: SPM SHEET: **C-401**
DRAWN: SPM PROJECT: 12013
CHECKED: PFA DATE: 10/1/15



- LEGEND**
- PROPERTY LINE
 - - - DRAIN
 - - - SEWER
 - - - WATER
 - - - OVERHEAD WIRE
 - CATCH BASIN
 - ⊙ DRAIN MANHOLE
 - ⊙ SEWER MANHOLE
 - ⊙ ELECTRIC MANHOLE
 - ⊙ FIRE HYDRANT
 - ⊙ GATE VALVE
 - ⊙ LIGHT
 - ⊙ UTILITY POLE
 - ⊙ GUY WIRE
 - PD - PROPOSED DRAIN
 - PS - PROPOSED SEWER
 - FM - PROPOSED SEWER FORCEMAIN
 - PW - PROPOSED WATER
 - PE&C - PROPOSED UNDERGROUND ELECTRIC & COMMUNICATIONS
 - ⊙ PROPOSED CATCH BASIN
 - ⊙ PROPOSED DRAIN MANHOLE
 - ⊙ PROPOSED YARD DRAIN
 - ⊙ PROPOSED SEWER MANHOLE
 - ⊙ PROPOSED LIGHT
 - ⊙ PROPOSED FIRE HYDRANT
 - ⊙ PROPOSED GATE VALVE



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 15. CONSTRUCTION OF THE SEWER CROSSING THE EXISTING STREAM SHALL BE COORDINATED WITH THE CITY SEWER AND CONSERVATION DEPARTMENTS. UPON COMPLETION OF THE STREAM CROSSING CONSTRUCTION, THE STREAM SHALL BE RECONSTRUCTED TO ITS ORIGINAL SHAPE AND CONFIGURATION.
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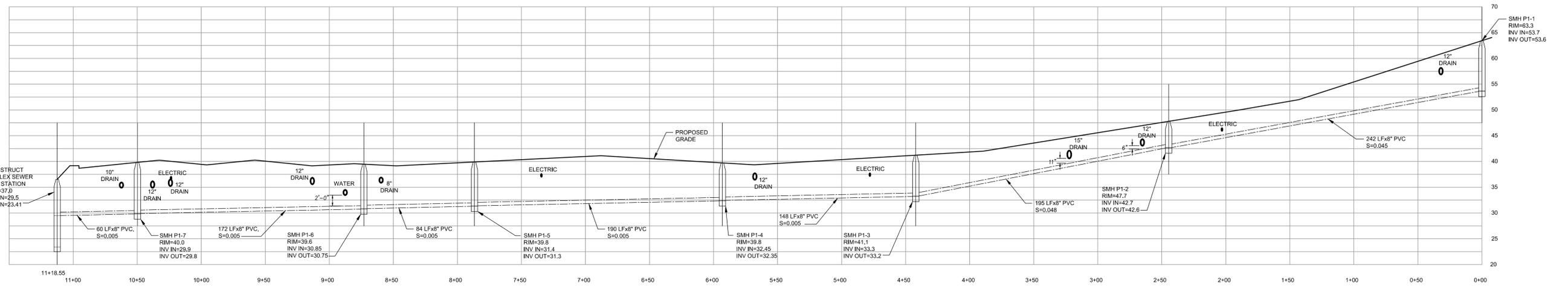
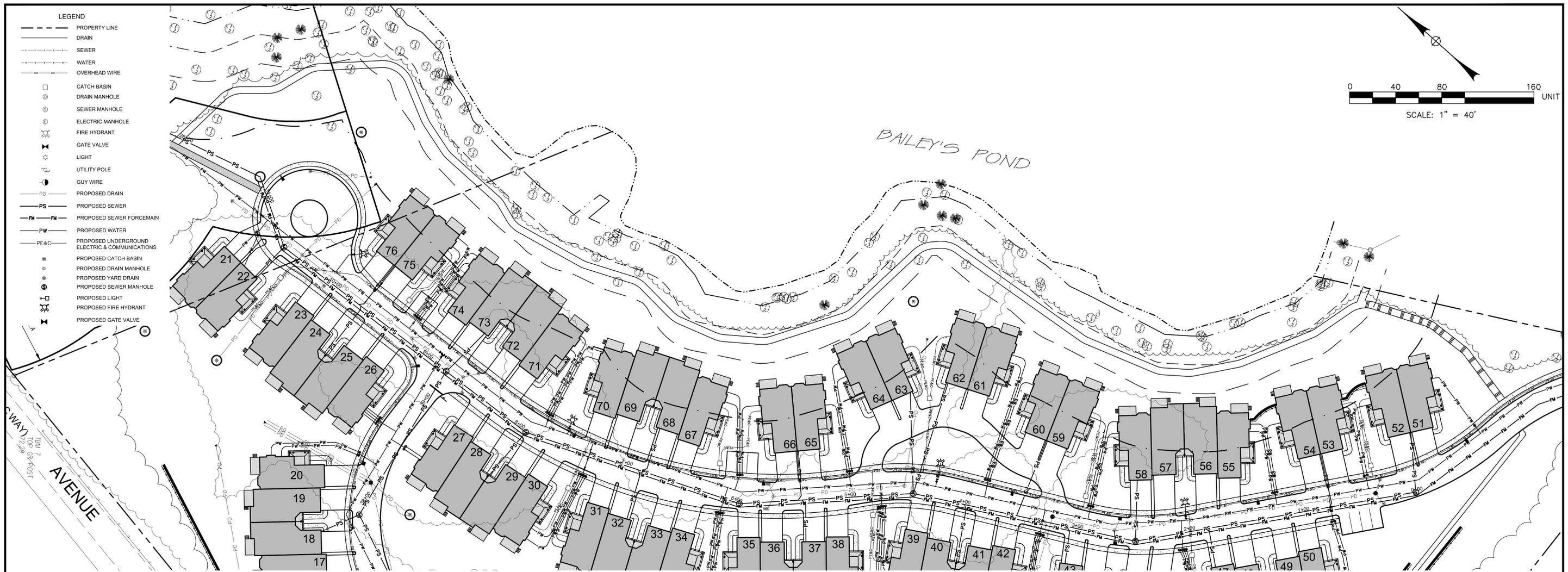
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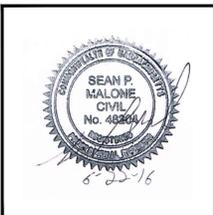
SITE UTILITIES PLAN

SCALE: AS NOTED	DESIGN: SPM	SHEET: C-402
DRAWN: SPM	PROJECT: 12013	
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NOTE:
ASSUMPTION OF VERTICAL DEPTH OF NON-GRAVITY UTILITIES IS BASED ON THE FOLLOWING STANDARDS:
WATER - 5' COVER
GAS - 3' COVER
ELECTRIC - 3' COVER

SEWER PLAN / PROFILE
1"=40' HORIZONTAL
1"=10' VERTICAL



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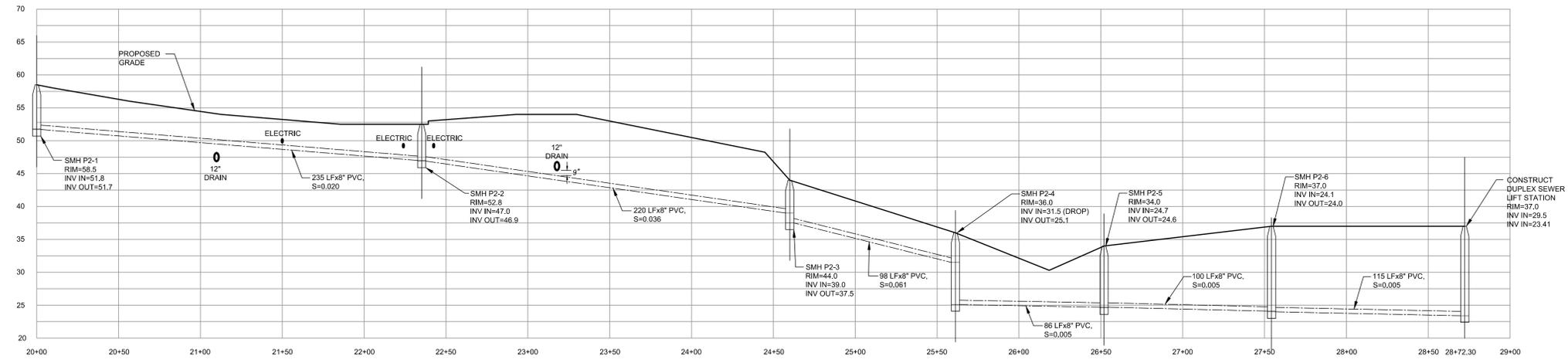
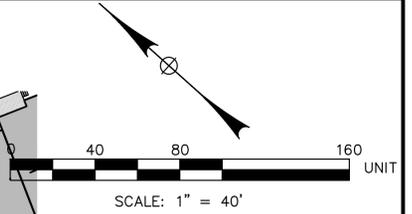
OCG Oak Consulting Group
P.O. Box 1123
Newburyport, MA 01950
Ph. 978.312.3120

THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

SEWER PROFILE
STA. 0+00 TO 11+50

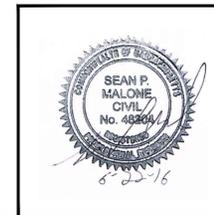
SCALE: AS NOTED	DESIGN: SPM	SHEET: C-403
DRAWN: SPM	PROJECT: 12013	
CHECKED: PFA	DATE: 10/1/15	

- LEGEND**
- PROPERTY LINE
 - DRAIN
 - SEWER
 - WATER
 - OVERHEAD WIRE
 - CATCH BASIN
 - DRAIN MANHOLE
 - SEWER MANHOLE
 - ELECTRIC MANHOLE
 - FIRE HYDRANT
 - GATE VALVE
 - LIGHT
 - UTILITY POLE
 - GUY WIRE
 - PD PROPOSED DRAIN
 - PS PROPOSED SEWER
 - FM PROPOSED SEWER FORCEMAIN
 - PW PROPOSED WATER
 - PE&C PROPOSED UNDERGROUND ELECTRIC & COMMUNICATIONS
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE
 - PROPOSED YARD DRAIN
 - PROPOSED SEWER MANHOLE
 - PROPOSED LIGHT
 - PROPOSED FIRE HYDRANT
 - PROPOSED GATE VALVE



NOTE:
ASSUMPTION OF VERTICAL DEPTH OF NON-GRAVITY UTILITIES IS BASED ON THE FOLLOWING STANDARDS:
WATER - 6' COVER
GAS - 3' COVER
ELECTRIC - 3' COVER

SEWER PLAN / PROFILE
1"=40' HORIZONTAL
1"=10' VERTICAL



REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM

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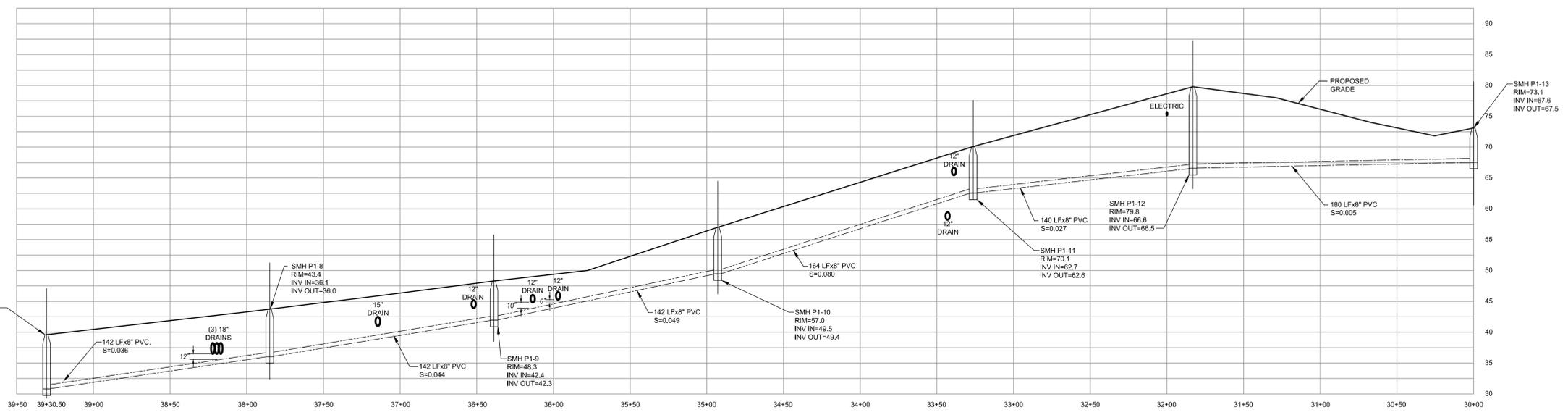
THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

SEWER PROFILE
STA. 20+00 TO 29+00

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CHECKED: PFA	DATE: 10/1/15	

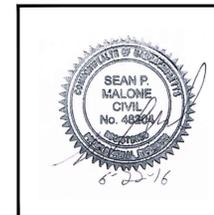


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THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

SEWER PROFILE
STA. 30+00 TO 39+50

SCALE: AS NOTED	DESIGN: SPM	SHEET: C-405
DRAWN: SPM	PROJECT: 12013	
CHECKED: PFA	DATE: 10/1/15	

PROJECT NAME AND LOCATION

VILLAGE AT BAILEY POND
AMESBURY, MASSACHUSETTS

DESCRIPTION

THE PROJECT CONSISTS OF REDEVELOPING AN ABANDONED GRAVEL PIT FOR A RESIDENTIAL CONDOMINIUM. RUNOFF FROM THE SITE FLOWS TO BAILEY POND AND ULTIMATELY TO THE MERRIMACK RIVER.

SOIL CHARACTERISTICS

THE EXISTING SITE IS PRESENTLY PREDOMINANTLY SCRUB BRUSH ON MISCELLANEOUS FILL WITH SOME NATIVE VEGETATION. THE UNDERLYING SOILS CONSIST OF SANDY GRAVEL.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 18 ACRES.

SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL EROSION CONTROLS, CLEAR AND GRUB SITE.
2. CLEARING AND GRUBBING, STRIP AND STOCKPILE TOPSOILS.
3. ROUGH GRADE SITE, CONSTRUCT STORMWATER SYSTEM PROTECT INFILTRATION AREAS FROM SEDIMENTATION.
4. CONSTRUCT MAIN ROADWAYS AND UTILITIES.
5. CONSTRUCT BUILDINGS AND DRIVES WITH BUILDING UTILITIES.
6. CONSTRUCT LANDSCAPING.
7. REMOVE EROSION CONTROLS.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION: AN AREA SHALL BE CONSIDERED STABILIZED ONCE ONE OF THE FOLLOWING HAS OCCURRED:

- A. A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
- B. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED.
- C. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN THIRTY (30) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 60 DAYS OF INITIAL DISTURBANCE. ALL CUT AND FILL SLOPES AND ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING GRADE. STABILIZATION MEASURES TO BE USED INCLUDE:

- A. TEMPORARY SEEDING.
- B. MULCHING.
- C. STONE RIP-RAP.
- D. JUTE MATTING.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH HAY BALE BARRIERS AND/OR SILT FENCES. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. ALL CATCH BASINS WILL BE COVERED WITH A GEOTEXTILE FABRIC PRIOR TO THE BASE PAVEMENT COURSE BEING PLACED.

OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL EGRESSES TO THE SITE AND MAINTAINED FOR THE DURATION OF CONSTRUCTION.

TIMING OF CONTROLS MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES THE AND SILT FENCES SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN THIRTY (30) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND HAY BALE BARRIERS AND ANY EARTH DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

A. GENERAL

INSPECTION

1. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.
2. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
3. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

MAINTENANCE

1. STABILIZATION OF ALL SWALES, DITCHES AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
2. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
3. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE OR HAY BALE BARRIERS WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE FENCE OR BALE.
4. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
5. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.

B. FILTERS

DISTURBED CONTRIBUTING AREA SHOULD NOT EXCEED 0.25 ACRES PER 100 LINEAR FEET OF FILTER BARRIER.

1. STRAWHAY BALES

A. SHEET FLOW APPLICATIONS

1. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
2. ALL BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED SO THAT BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES TO PREVENT DEGRADATION OF THE BINDINGS.
3. THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF FOUR (4) INCHES. AFTER THE BALES ARE STAKED AND CHINKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHALL COME TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO FOUR (4) INCHES AGAINST THE UPHILL SIDE OF THE BARRIER. IDEALLY, BALES SHOULD BE PLACED TEN (10) FEET AWAY FROM THE TOE OF SLOPE.
4. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST SAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES OR REBARS SHALL BE DRIVEN DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES.
5. THE GAPS BETWEEN BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH STRAWHAY TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES.

2. SILT FENCE

- A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:

PHYSICAL PROPERTY	TEST	REQUIREMENTS
FILTERING EFFICIENCY	VTM-51	75% MINIMUM
TENSILE STRENGTH AT 20% MAXIMUM ELONGATION*	VTM-52	EXTRA STRENGTH 50 LB/LIN IN (MIN)
	STANDARD STRENGTH	30 LB/LIN IN (MIN)
FLOW RATE	VTM-51	0.3 GAL/SF/MIN (MIN)
		* REQUIREMENTS REDUCED BY 50 PERCENT AFTER SIX (6) MONTHS OF INSTALLATION.

SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX (6) MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES F TO 120 DEGREES F.

- B. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED THIRTY-SIX (36) INCHES.
- C. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM SIX (6) INCH OVERLAP, AND SECURELY SEALED.
- D. POSTS SHALL BE SPACED A MAXIMUM OF TEN (10) FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 16 INCHES).
- E. A TRENCH SHALL BE EXCAVATED APPROXIMATELY SIX (6) INCHES WIDE AND SIX (6) INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- F. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE (1) INCH LONG, THE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND NO MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACES.
- G. THE "STANDARD STRENGTH" FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND EIGHT (8) INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING

- H. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM (G) APPLYING.

- I. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED UNDER THE FILTER FABRIC.

- J. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

3. SEQUENCE OF INSTALLATION

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

4. MAINTENANCE

- A. STRAWHAY BALE BARRIER AND SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
- B. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

C. MULCHING

1. TIMING

IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS.

- A. APPLY MULCH PRIOR TO ANY STORM EVENT. THIS IS APPLICABLE WHEN WORKING WITHIN 100 FEET OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE IN CONCORD, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
- B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD. THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON A AREA, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL EROSION, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

3. MAINTENANCE

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR HILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.

D. VEGETATIVE PRACTICE

FOR PERMANENT MEASURES AND PLANTINGS FROM EARLY SPRING TO SEPTEMBER 30:

AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE SHALL BE SCARIFIED TO A DEPTH OF FOUR INCHES. THEN FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED FOUR INCH THICKNESS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND ROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY THE SITE SUBCONTRACTOR.

ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER AND OTHER FOREIGN MATERIAL AS WELL AS STONES OVER ONE INCH IN DIAMETER SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE, AND THE LOAM SHALL BE RAKED SMOOTH AND EVEN.

THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS AND GRADING TO ELIMINATE WATER POCKETS AND IRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRREGULARITIES TO LOW POINTS.

SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.

ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEEDED.

LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.

IF REQUIRED, FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER. USE OF FERTILIZER SHOULD BE AVOIDED IN INFILTRATION AREAS.

SOIL CONDITIONS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.

SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.

HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEDED, AND ALL NOXIOUS WEEDS REMOVED.

THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.

UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK.

A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE:

GENERAL COVER	POUNDS PER ACRE	MINIMUM GERMINATION	MINIMUM PURITY
CREeping RED FESCUE	50	85%	96%
KENTUCKY BLUE GRASS	50	85%	97%
		100	

SLOPE SEED (USED ON ALL SLOPES GREATER THAN OR EQUAL TO 3:1)

CREeping RED FESCUE	20	85%	96%
TALL FESCUE	20	85%	96%
RED TOP	2	80%	95%

IN NO CASE SHALL THE WEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS.

FOR TEMPORARY PLANTINGS AFTER SEPTEMBER TO EARLY SPRING AND FOR TEMPORARY PROTECTION OF DISTURBED AREAS:

- o FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS.
- o FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 300 POUNDS PER ACRE.
- o MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

WINTER RYE (FALL SEEDING)	2.5 LBS/1,000 S.F.
OATS (SPRING SEEDING)	2 LBS./1,000S.F.
MULCH	1.5 TONS/ACRE

STABILIZED CONSTRUCTION ENTRANCE

1. SPECIFICATIONS

- A. AGGREGATE SIZE: USE TWO (2) INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- B. AGGREGATE THICKNESS: NOT LESS THAN SIX (6) INCHES.
- C. WIDTH: TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS.
- D. LENGTH: AS REQUIRED, BUT NOT LESS THAN FIFTY (50) FEET.
- E. GEOTEXTILE: TO BE PLACED OVER THE ENTIRE AREA TO BE COVERED WITH AGGREGATE. PIPING OF SURFACE WATER UNDER ENTRANCE SHALL BE PROVIDED AS REQUIRED.

2. MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

WASTE DISPOSAL

A. WASTE MATERIALS

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

B. HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.

C. SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

ADDITIONAL NOTES FOR WINTER CONSTRUCTION

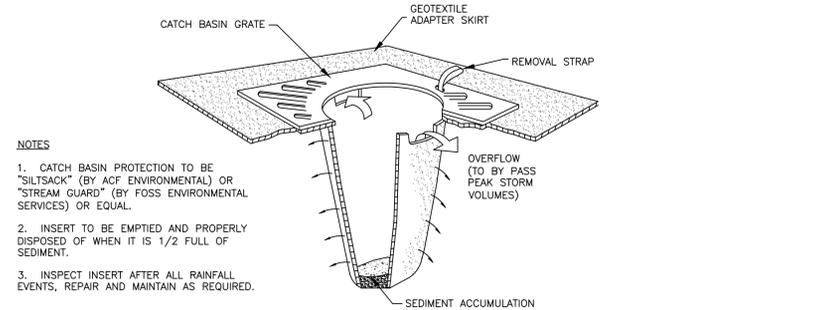
A) ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. ELSEWHERE, THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND.

B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

C) AFTER NOVEMBER 15TH, ALL TRAVEL SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW/FALL AFTER EACH STORM EVENT

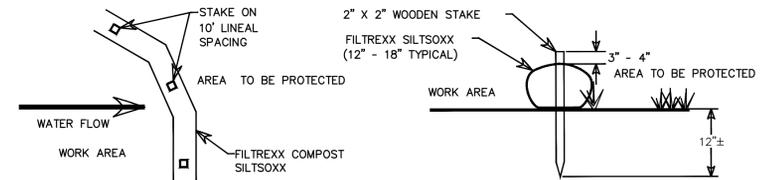
DUST CONTROL

A. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJUTING AREAS.



INLET PROTECTION BARRIER

NOT TO SCALE

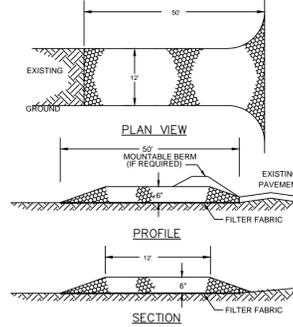


NOTES:

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS
2. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. SILTSOXX SHALL BE INSTALLED PERPENDICULAR TO THE SLOPE AND PER MANUFACTURER'S RECOMMENDATIONS
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

SEDIMENTATION BARRIER

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

STONE SIZE - SEE GRADATION TABLE

LENGTH - 50 FOOT MINIMUM.

THICKNESS - SIX (6) INCHES (MINIMUM).

WIDTH - 12' MINIMUM

FILTER FABRIC - MIRAFI 600X OR APPROVED EQUAL.

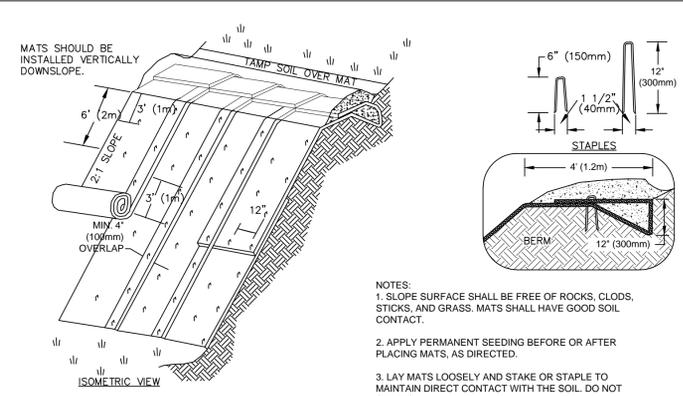
INSTALLATION - THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. A ROAD STABILIZATION FILTER CLOTH CAN BE PLACED ON THE SUBGRADE PRIOR TO THE GRAVEL PLACEMENT TO PREVENT PUMPING. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

SIETVE SIZE	% PASSING BY WEIGHT
2 inches	100
1 1/2 inches	90-100
1 inch	20-85
3/4 inch	0-15
3/8 inch	0-5

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



EROSION CONTROL MATTING

NOT TO SCALE

THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

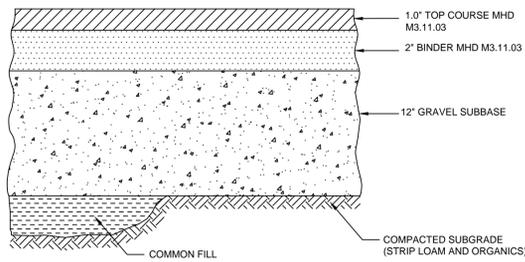
**EROSION CONTROL NOTES
AND DETAILS PLAN**

REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM

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Ph. 978.312.3120

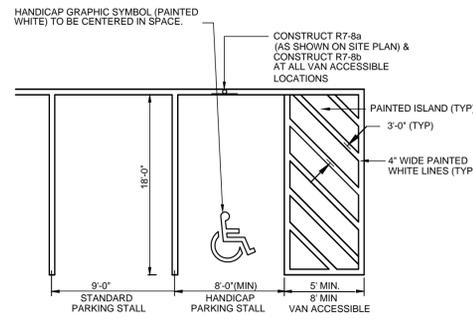
SCALE:	AS NOTED	DESIGN:	SPM	SHEET:
DRAWN:	SPM	PROJECT:	12013	C-601
CHECKED:	PFA	DATE:	10/11/15	



- NOTE:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.

TYPICAL PAVEMENT SECTION

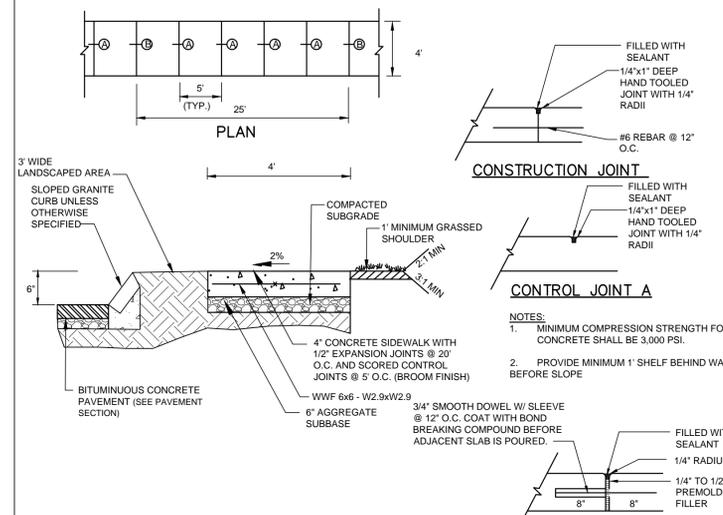
NOT TO SCALE



- NOTE:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE N. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT.
 3. SEE SITE PLAN FOR LOCATIONS OF ALL PARKING STALLS.

PARKING STALL STRIPING

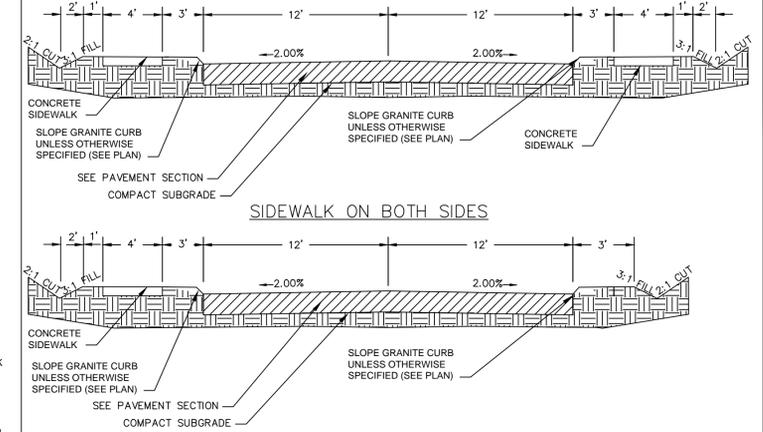
NOT TO SCALE



- NOTES:
1. MINIMUM COMPRESSION STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
 2. PROVIDE MINIMUM 1\"/>

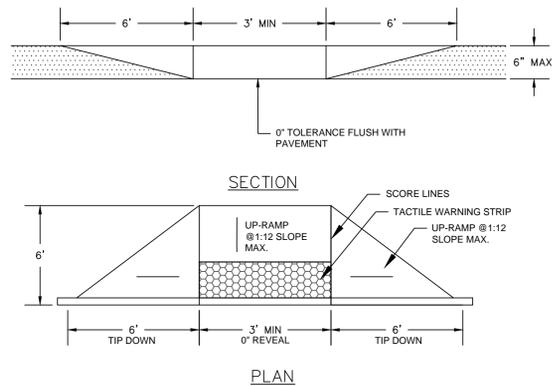
CONCRETE SIDEWALK

NOT TO SCALE



TYPICAL ROADWAY SECTION

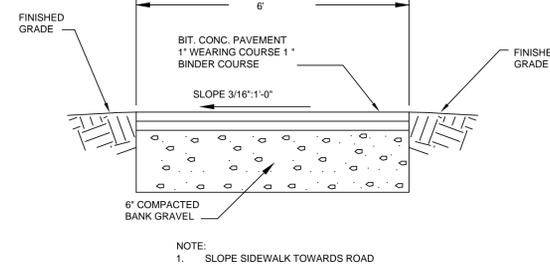
NOT TO SCALE



- NOTES:
1. HANDICAP RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA).
 2. REFER TO SITE DRAWINGS FOR RAMP LOCATIONS AND WIDTHS.

HANDICAP RAMP

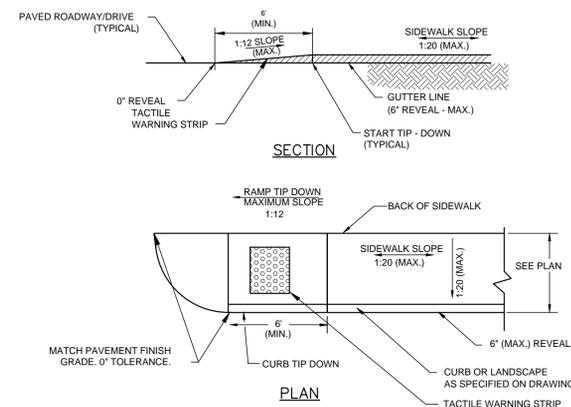
NOT TO SCALE



- NOTE:
1. SLOPE SIDEWALK TOWARDS ROAD

BITUMINOUS SIDEWALK SECTION

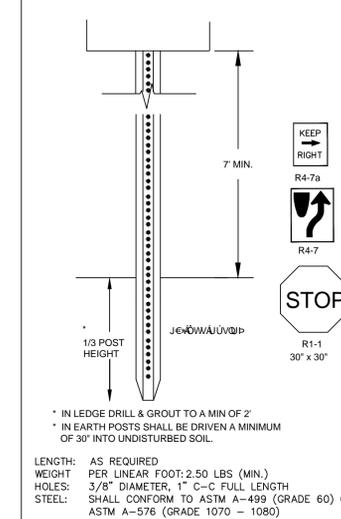
NOT TO SCALE



- NOTES:
1. SEE SITE PLAN FOR TIP DOWN RAMP AND SIDEWALK WIDTHS AND LOCATIONS.
 2. SEE GRADING, DRAINAGE, AND EROSION CONTROL PLANS FOR SIDEWALK SLOPES AND GRADES.

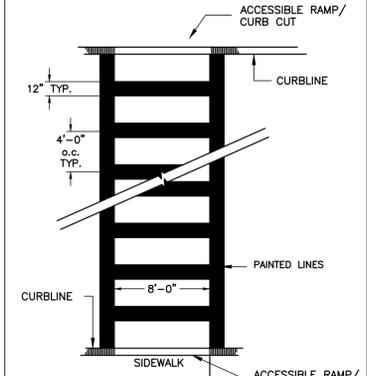
SIDEWALK TIP DOWN RAMP

NOT TO SCALE



SIGN POST AND LEGEND

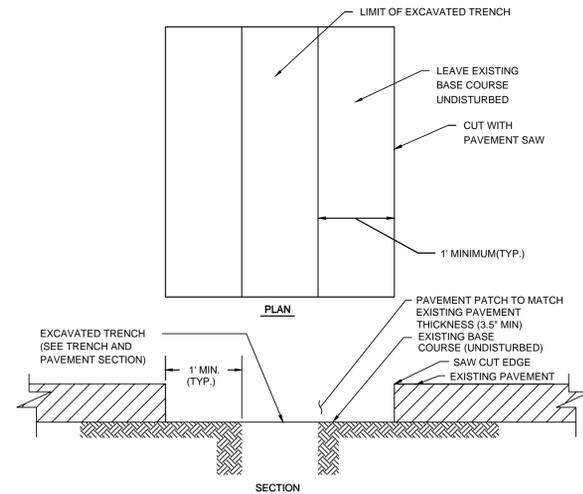
NOT TO SCALE



- NOTES:
1. SEE SITE PLAN FOR LOCATIONS.
 2. ALL PAINT USED SHALL BE WHITE TRAFFIC PAINT.

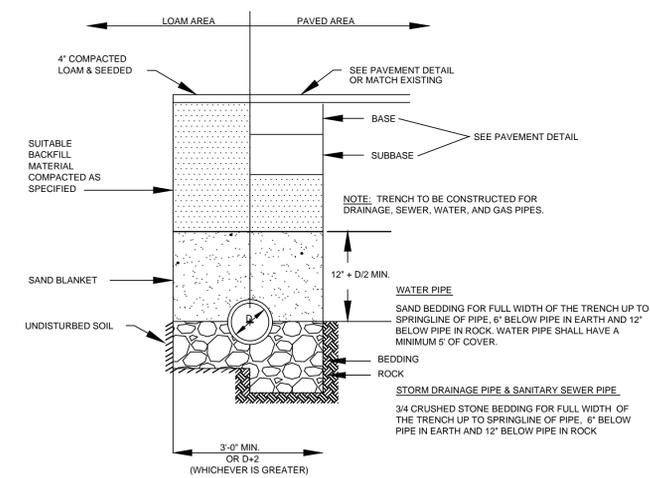
CROSSWALK DETAIL

NOT TO SCALE



TRENCH PATCH

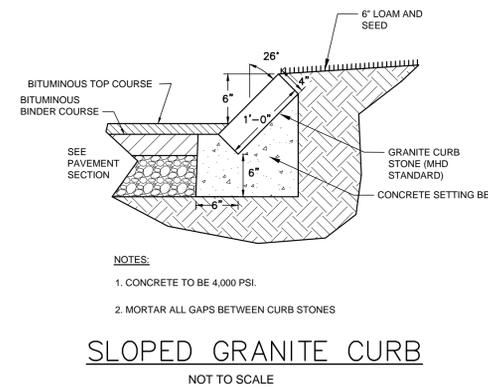
NOT TO SCALE



BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

UTILITY TRENCH

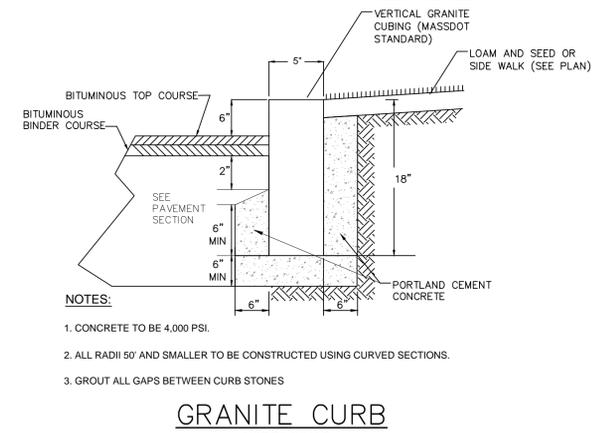
NOT TO SCALE



- NOTES:
1. CONCRETE TO BE 4,000 PSI.
 2. MORTAR ALL GAPS BETWEEN CURB STONES

SLOPED GRANITE CURB

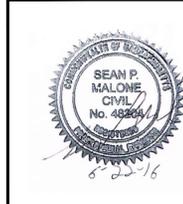
NOT TO SCALE



- NOTES:
1. CONCRETE TO BE 4,000 PSI.
 2. ALL RADII 50\"/>
 - 3. GROUT ALL GAPS BETWEEN CURB STONES

GRANITE CURB

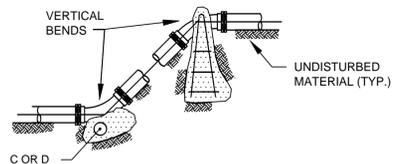
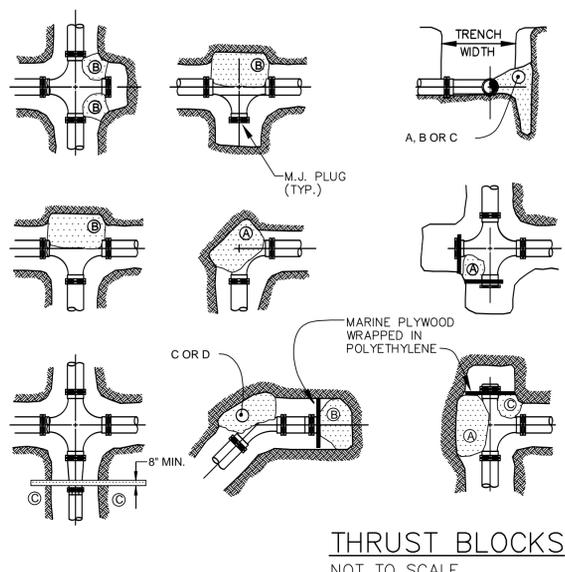
NOT TO SCALE



REV	DATE	DESCRIPTION	BY
2	6/22/16	GENERAL REVISIONS	SPM
1	12/15/15	CHANGES PER BOARD COMMENTS	SPM

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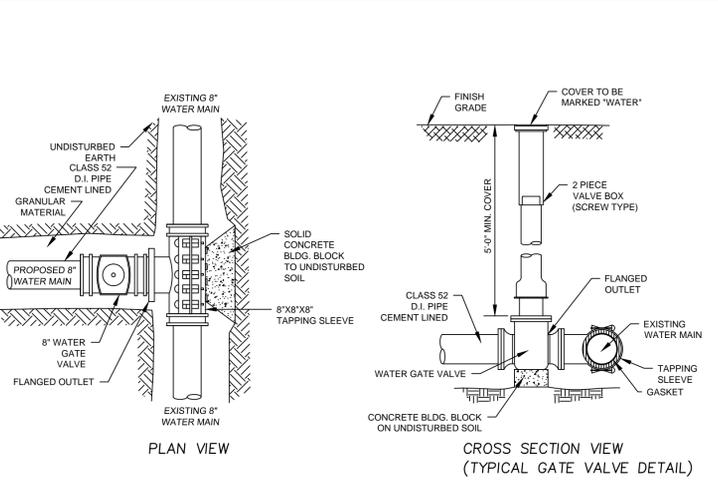
THE VILLAGE AT BAILEY'S POND Route 150 and Summit Avenue Amesbury, Massachusetts			
SITE DETAILS PLAN			
SCALE: AS NOTED	DESIGN: SPM	SHEET: C-602	
DRAWN: SPM	PROJECT: 12013		
CHECKED: PFA	DATE: 10/1/15		



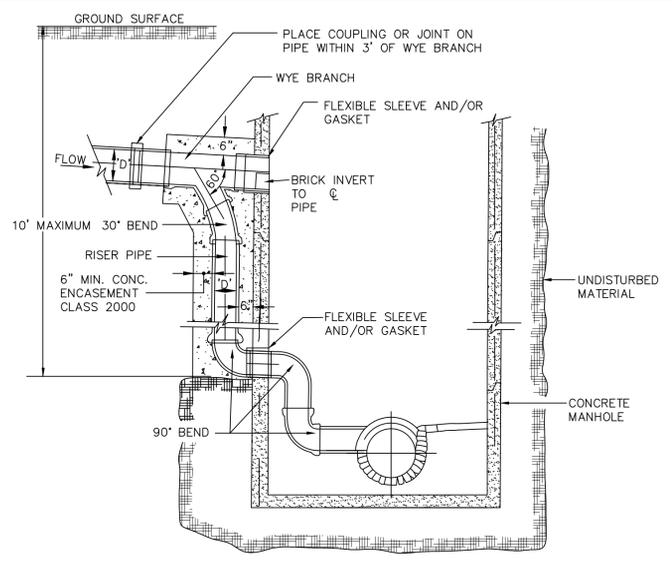
REACTION TYPE	PIPE SIZE				
	4"	6"	8"	10"	12"
CONCRETE	0.89	2.19	3.82	11.14	17.24
M.J. PLUG	0.65	1.55	2.78	8.38	12.00
M.J. PLUG	0.48	1.19	2.12	6.02	9.32
M.J. PLUG	0.25	0.60	1.06	3.08	4.74
M.J. PLUG	0.13	0.30	0.54	1.54	2.38

- NOTES:
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 - PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
 - WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLANDS MUST BE USED, GRIP RING, MEGA-LUG OR STAR GRIP

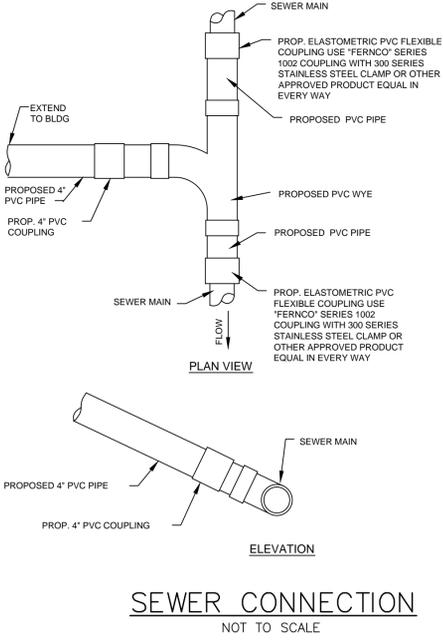
THRUST BLOCKS
NOT TO SCALE



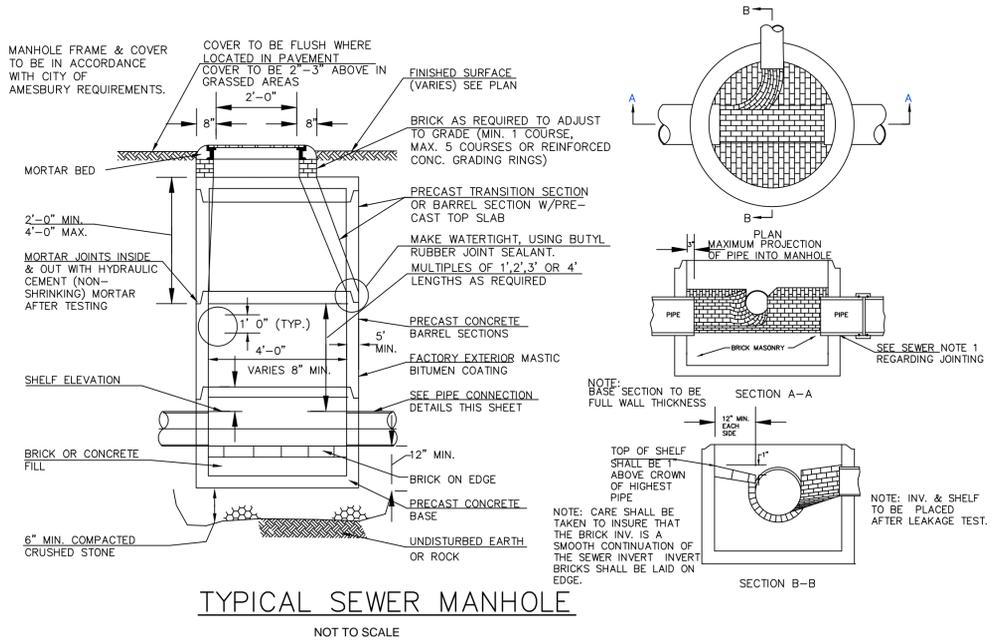
CONNECT TO EXISTING WATER MAIN
NOT TO SCALE



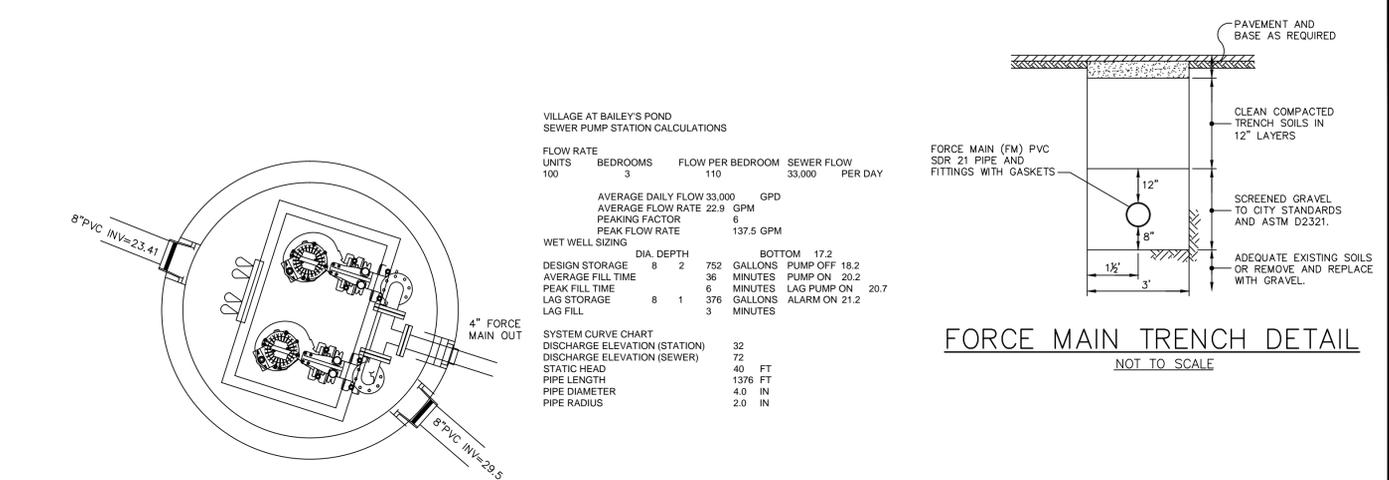
DROP SEWER MANHOLE
NOT TO SCALE



SEWER CONNECTION
NOT TO SCALE



TYPICAL SEWER MANHOLE
NOT TO SCALE



VILLAGE AT BAILEY'S POND
SEWER PUMP STATION CALCULATIONS

FLOW RATE UNITS	BEDROOMS	FLOW PER BEDROOM	SEWER FLOW PER DAY
100	3	110	33,000

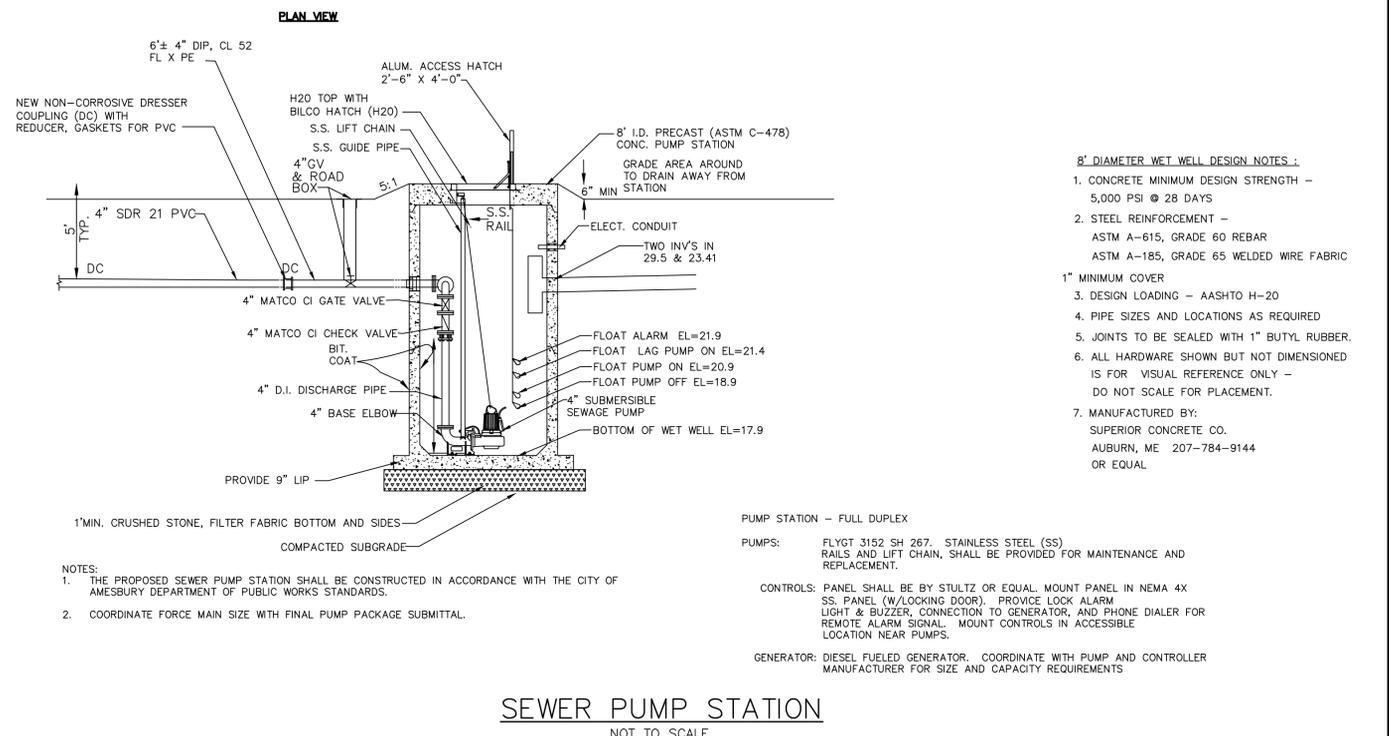
AVERAGE DAILY FLOW 33,000 GPD
 AVERAGE FLOW RATE 22.9 GPM
 PEAKING FACTOR 6
 PEAK FLOW RATE 137.5 GPM

WET WELL SIZING

DESIGN STORAGE	DIA. DEPTH	BOTTOM	PUMP OFF
8 2	752	17.2	18.2
AVERAGE FILL TIME	36	MINUTES	PUMP ON 20.2
PEAK FILL TIME	6	MINUTES	LAG PUMP ON 20.7
LAG STORAGE	8 1	376	GALLONS
LAG FILL	3	MINUTES	ALARM ON 21.2

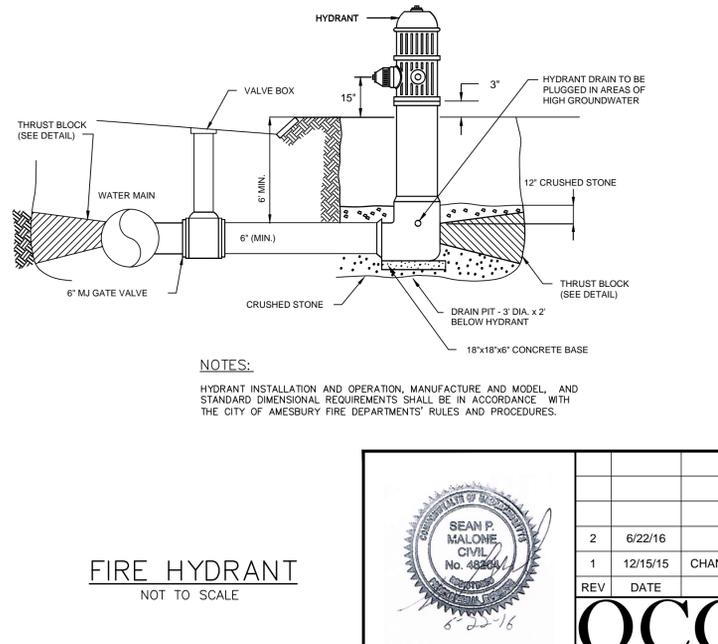
SYSTEM CURVE CHART
 DISCHARGE ELEVATION (STATION) 32
 DISCHARGE ELEVATION (SEWER) 72
 STATIC HEAD 40 FT
 PIPE LENGTH 1376 FT
 PIPE DIAMETER 4.0 IN
 PIPE RADIUS 2.0 IN

FORCE MAIN TRENCH DETAIL
NOT TO SCALE

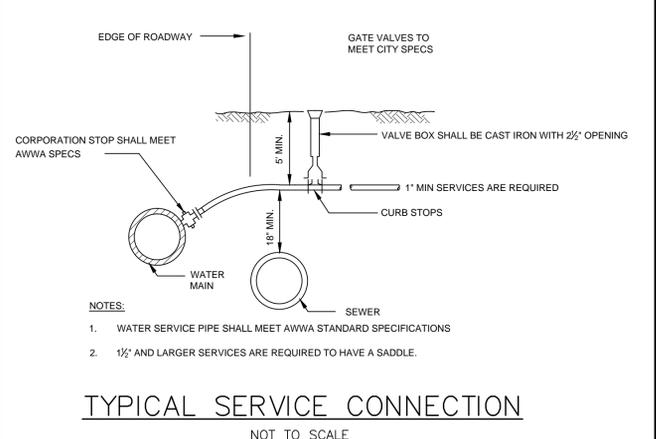


- 8" DIAMETER WET WELL DESIGN NOTES:
- CONCRETE MINIMUM DESIGN STRENGTH - 5,000 PSI @ 28 DAYS
 - STEEL REINFORCEMENT - ASTM A-615, GRADE 60 REBAR
ASTM A-185, GRADE 65 WELDED WIRE FABRIC
 - 1" MINIMUM COVER
 - DESIGN LOADING - AASHTO H-20
 - PIPE SIZES AND LOCATIONS AS REQUIRED
 - JOINTS TO BE SEALED WITH 1" BUTYL RUBBER. IS FOR VISUAL REFERENCE ONLY - DO NOT SCALE FOR PLACEMENT.
 - MANUFACTURED BY: SUPERIOR CONCRETE CO. AUBURN, ME 207-784-9144 OR EQUAL

SEWER PUMP STATION
NOT TO SCALE



FIRE HYDRANT
NOT TO SCALE



TYPICAL SERVICE CONNECTION
NOT TO SCALE

SEAN P. MALONE
CIVIL
No. 48804
STATE OF MASSACHUSETTS

THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

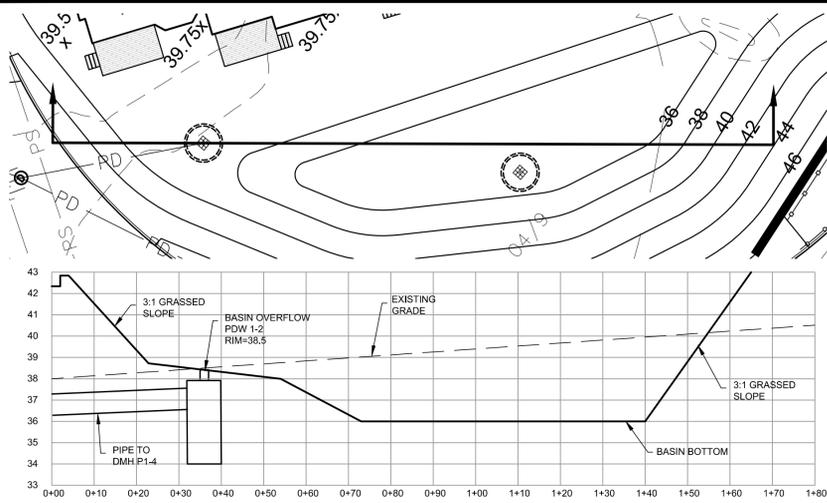
SITE DETAILS PLAN

REV	DATE	DESCRIPTION	BY
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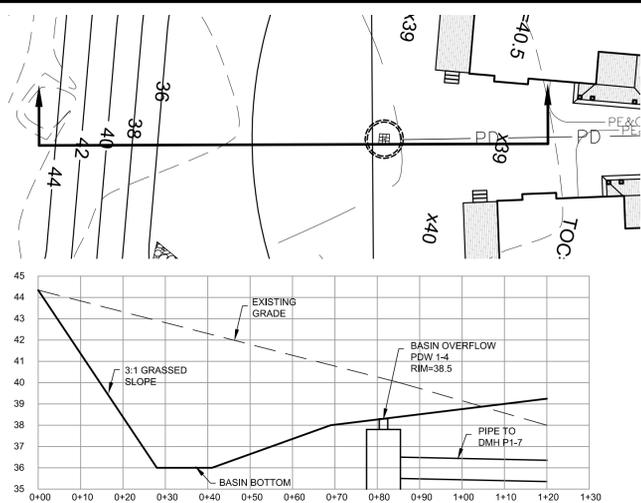
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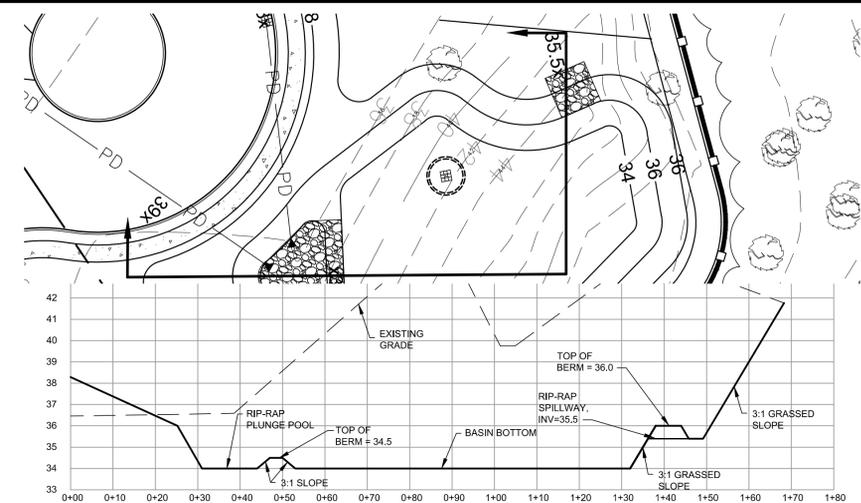
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AS NOTED	SPM	
DRAWN: SPM	PROJECT: 12013	
CHECKED: PFA	DATE: 10/1/15	C-603



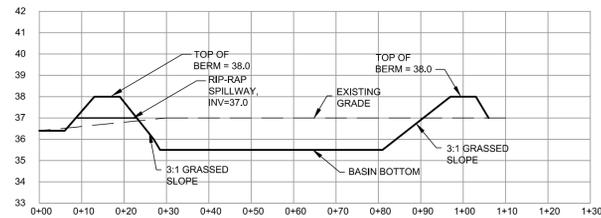
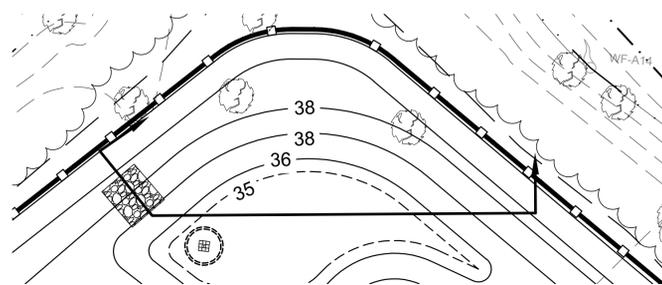
BASIN 1-1 SECTION
1"=20'H; 1"=4'V



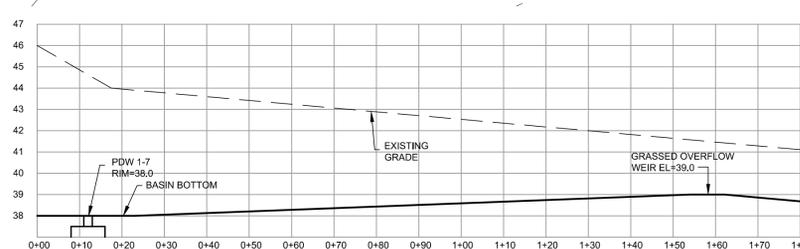
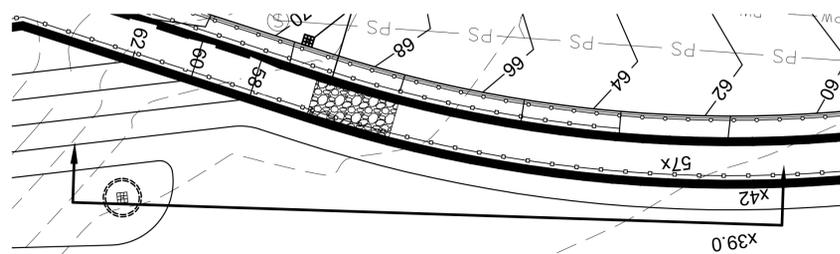
BASIN 1-2 SECTION
1"=20'H; 1"=4'V



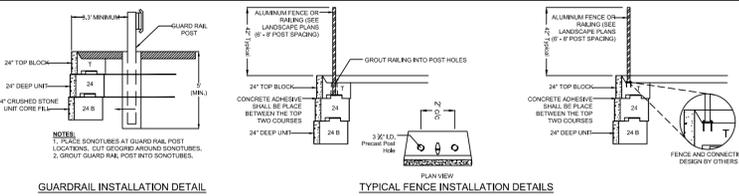
BASIN 1-3 SECTION
1"=20'H; 1"=4'V



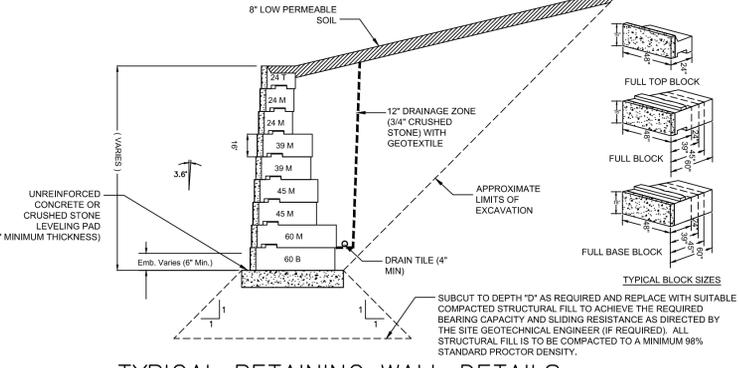
BASIN 1-4 SECTION
1"=20'H; 1"=4'V



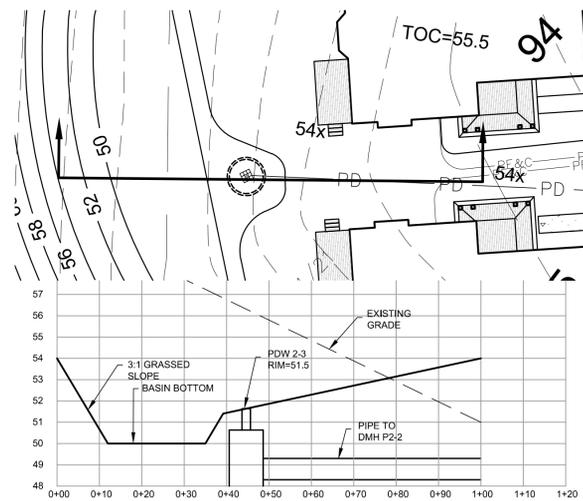
BASIN 1-5 SECTION
1"=20'H; 1"=4'V



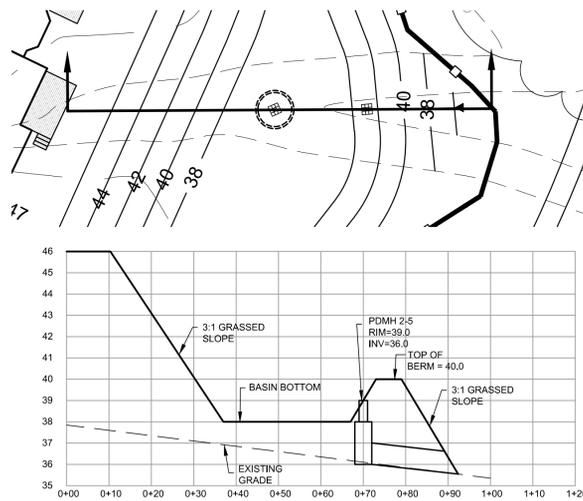
GUARDRAIL INSTALLATION DETAIL
TYPICAL FENCE INSTALLATION DETAILS



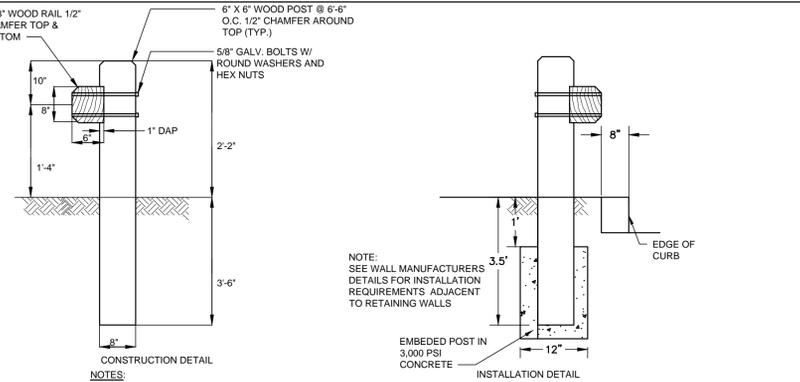
TYPICAL RETAINING WALL DETAILS
NOT TO SCALE



BASIN 2-1 SECTION
1"=20'H; 1"=4'V



BASIN 2-2 SECTION
1"=20'H; 1"=4'V



TYPICAL WOOD BEAM/POST GUARD RAIL DETAIL
NOT TO SCALE



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THE VILLAGE AT BAILEY'S POND Route 150 and Summit Avenue Amesbury, Massachusetts		
SITE DETAILS PLAN		
SCALE: AS NOTED	DESIGN: SPM	SHEET:
DRAWN: SPM	PROJECT: 12013	C-605
CHECKED: PFA	DATE: 10/1/15	