

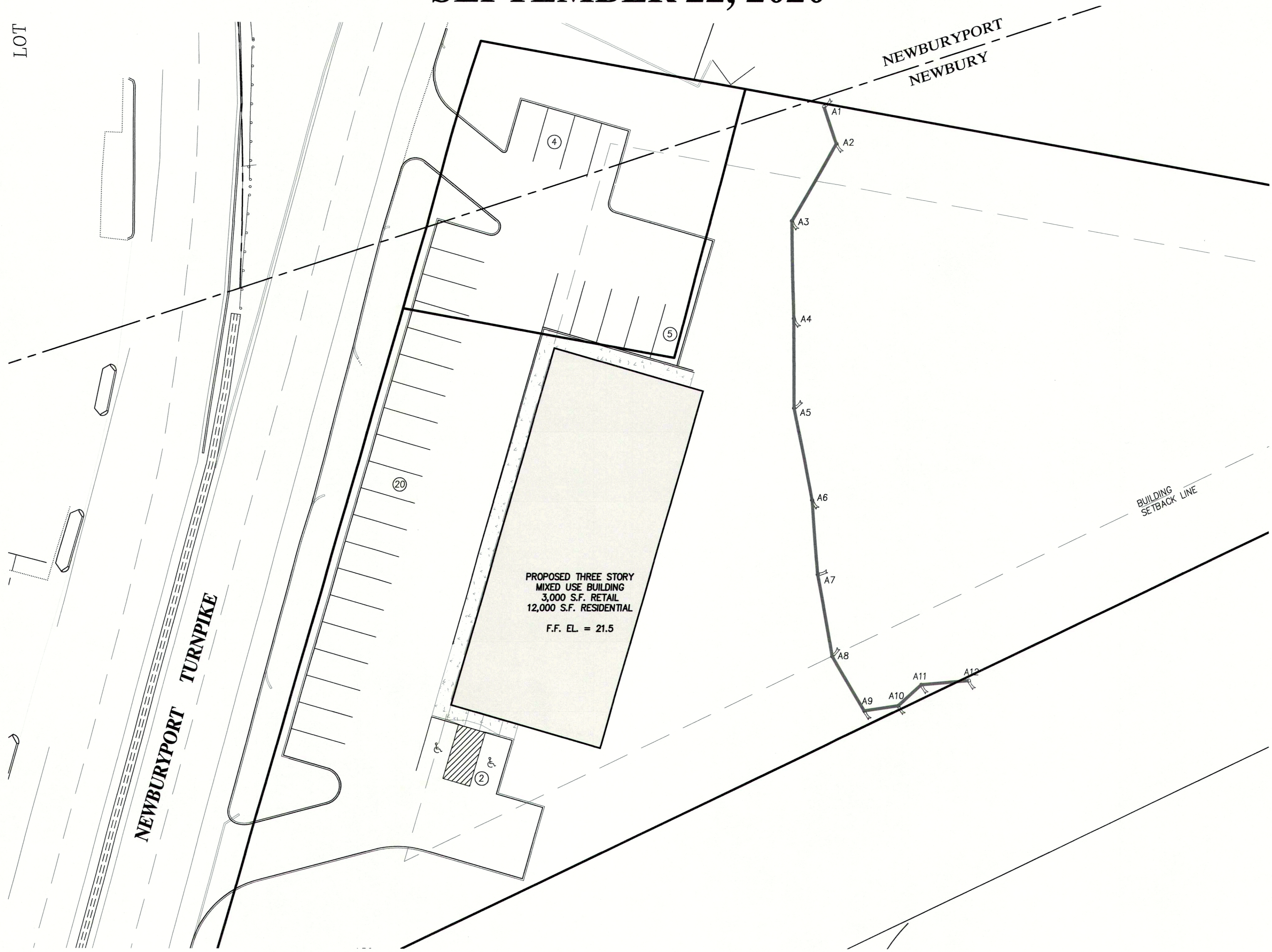
LOCUS MAP
N.T.S.

PROPOSED SITE PLAN FOR 177 STATE STREET IN NEWBURYPORT, MA

NEWBURYPORT PLANNING BOARD APPROVAL

DATE

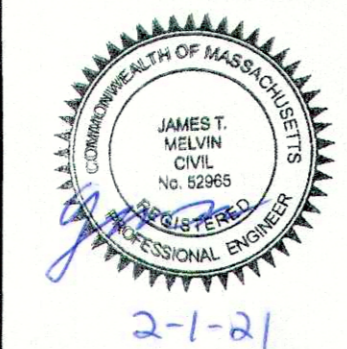
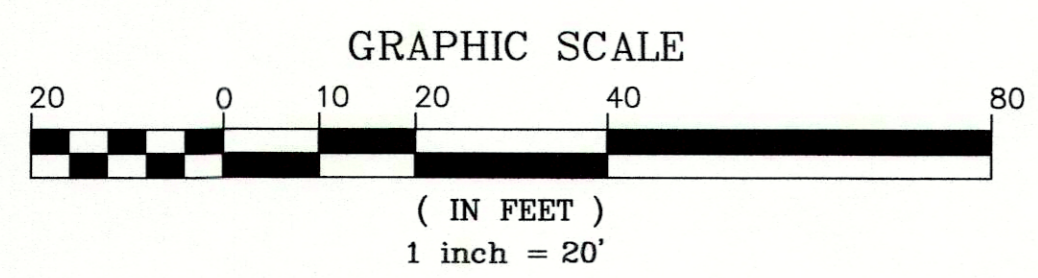
SEPTEMBER 22, 2020



OWNER OF RECORD
BAVARO FAMILY REALTY TRUST, LLC
BK. 37234 PG. 197
#3 NEWBURYPORT TURNPIKE

PLAN INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	GRADING PLAN
5	UTILITIES PLAN
6-8	CONSTRUCTION DETAILS
E-1	LIGHTING PLAN
L-1	LANDSCAPE PLAN



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
18 GRAF ROAD UNIT #31
NEWBURYPORT, MA

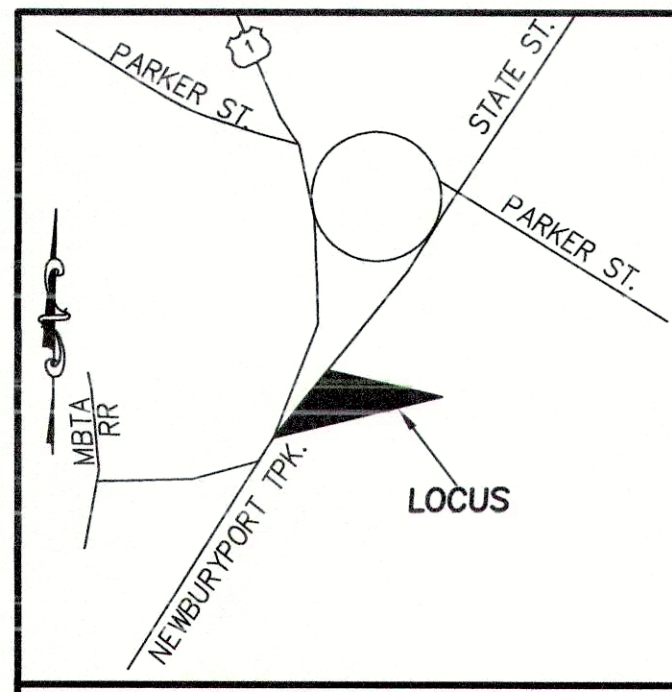
NO.	DATE	DESCRIPTION	BY
2	2/1/21	RESPONSE TO TOWN COMMENTS	J.T.M.
1	12/2/20	RESPONSE TO TOWN COMMENTS	J.T.M.

MEI **MILLENNIUM ENGINEERING, INC.**
ENGINEERING AND LAND SURVEYING
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SCALE: 1"=20'
DATE: SEP. 22, 2020
DESC. BY: J.T.M.
CHKD. BY: E.W.B.
PROJECT: M193668

SITE PLAN
IN
NEWBURYPORT, MA
SHOWING
PROPOSED SITE IMPROVEMENTS
AT
177 STATE STREET

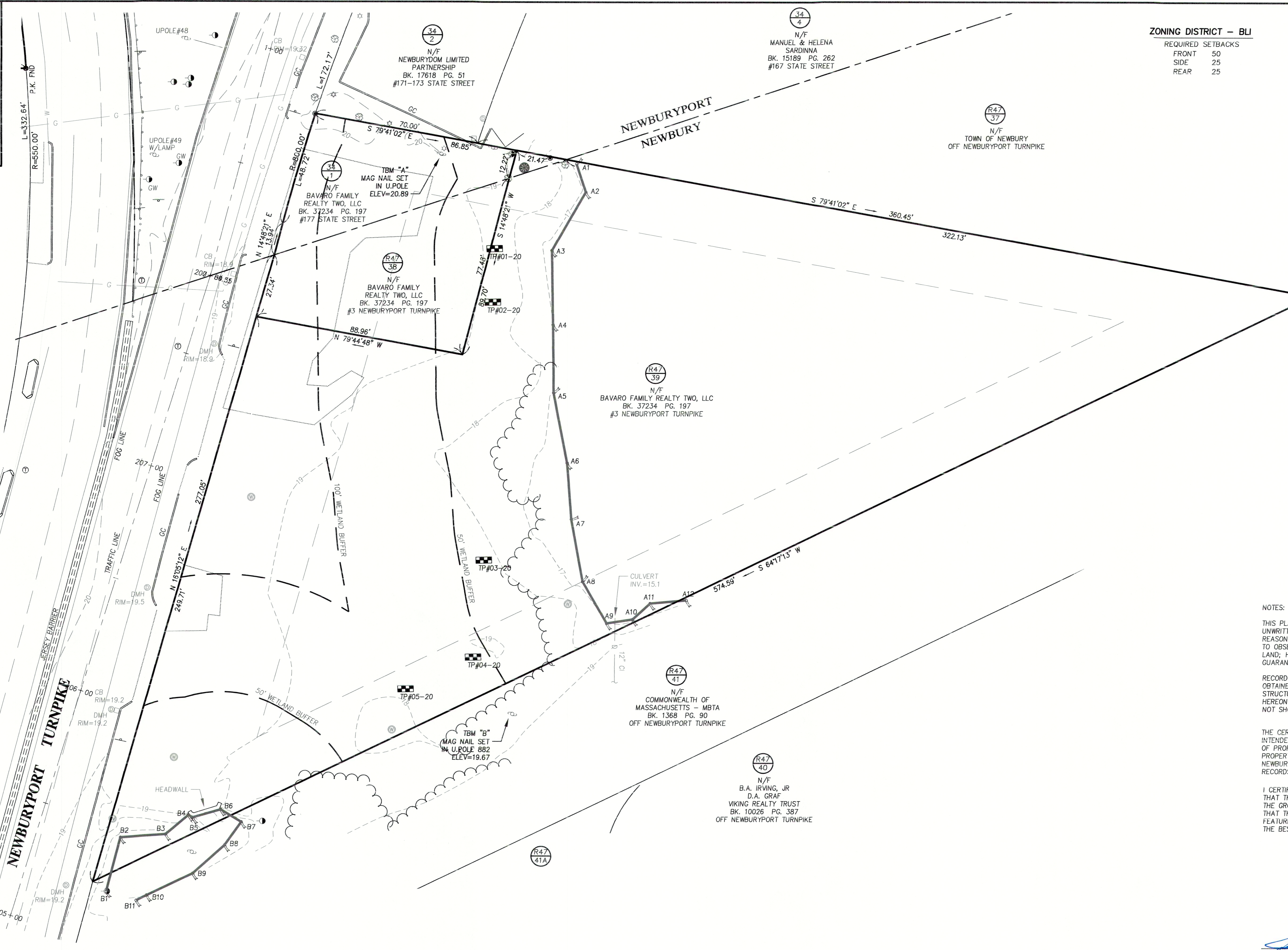
COVER SHEET
SHEET: 1 OF 8



LOCUS MAP
N.T.S.



- LEGEND**
- C.B. CONCRETE BOUND
 - S.B. STONE BOUND
 - D.H. DRILL HOLE
 - PK MASONRY NAIL
 - I.P. IRON PIPE
 - I ROD IRON ROD
 - FND. FOUND
 - N/F NOW OR FORMERLY
 - BK. PG. BOOK PAGE
 - ASSESSORS MAP#
 - PARCEL#



ZONING DISTRICT - B1
 REQUIRED SETBACKS
 FRONT 50
 SIDE 25
 REAR 25

BASIS OF BEARINGS
 PLAN BK. 110 PLAN 22
OWNER OF RECORD
 BAVARO FAMILY REALTY TWO, LLC
 BOOK 37234 - PAGE 197

PLAN REFERENCES
 LOCUS: PLAN BK. 110 PLAN 22

NEWBURY LAYOUTS
 NEWBURY - JAN. 10, 1923
 LAYOUT NO. 1994
 SHT. 1 OF 3
 SHT. 3 OF 3

NEWBURY - JAN. 10, 1923
 LAYOUT NO. 3095
 DOCUMENT AND ORDER OF TAKING

NEWBURY - FEB. 11, 1936
 LAYOUT NO. 3181
 SHTS. 1 & 2 OF 2

NEWBURY - FEB. 11, 1936
 LAYOUT NO. 3182
 ONE SHEET

NEWBURY - 1970
 ALTERATION
 LAYOUT NO. 5823
 SHT. 2 OF 2

NEWBURY - 1993
 ALTERATION
 LAYOUT NO. 7130
 SHTS. 1 & 2 OF 2

NEWBURYPORT LAYOUTS

NEWBURYPORT - JULY 16, 1918
 LAYOUT NO. 1795
 SHT. 1 OF 2

NEWBURYPORT - MARCH 13, 1934
 LAYOUT NO. 3091
 SHT. 1 OF 4

NEWBURYPORT - MARCH 13, 1934
 LAYOUT NO. 3093
 ONE SHEET

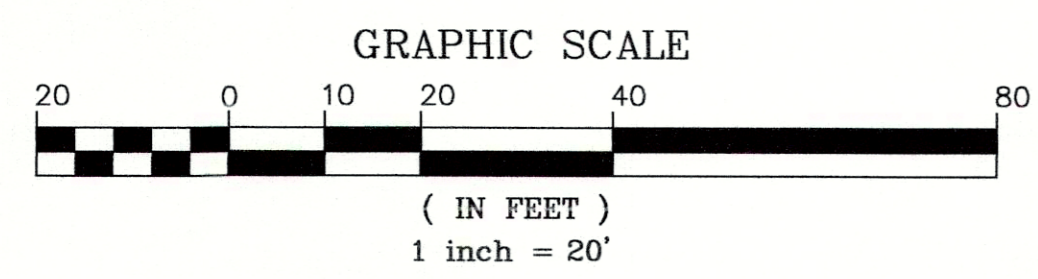
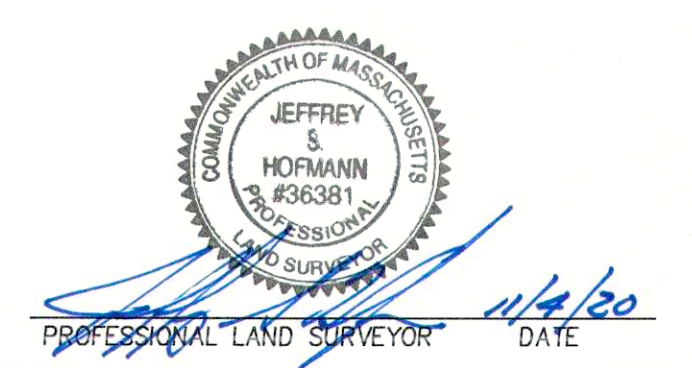
PLAN NO. 222 OF 1943
 PLAN NO. 244 OF 1945

NOTES:
 THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT, VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.

RECORD UTILITY INFORMATION HAS NOT BEEN OBTAINED FOR LOCUS. VISIBLE SURFACE STRUCTURES HAVE BEEN LOCATED AND ARE SHOWN HEREON HOWEVER, SUBSURFACE UTILITY LINES ARE NOT SHOWN.

THE CERTIFICATIONS SHOWN HEREON ARE NOT INTENDED AS CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT CITY OF NEWBURYPORT AND TOWN OF NEWBURY ASSESSORS RECORDS.

I CERTIFY:
 THAT THIS ACTUAL SURVEY WAS MADE ON THE GROUND DECEMBER 19, 2019, AND THAT THE STRUCTURES AND PHYSICAL FEATURES ARE LOCATED AS SHOWN TO THE BEST OF MY ABILITY AND BELIEF.



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
 18 GRAF ROAD - UNIT 31
 NEWBURYPORT, MA 01950

MEI MILLENNIUM ENGINEERING, INC.
 ENGINEERING AND LAND SURVEYING
 62 ELM ST. SALISBURY, MA 01952 (978) 463-8980
 13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

PLAN OF LAND
 IN
NEWBURYPORT, MA
 SHOWING
EXISTING CONDITIONS
 AT
177 STATE STREET
 EXISTING CONDITIONS

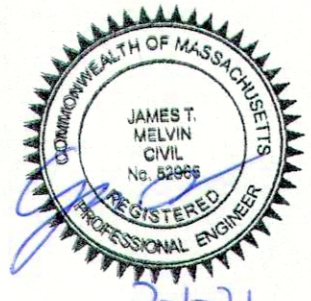
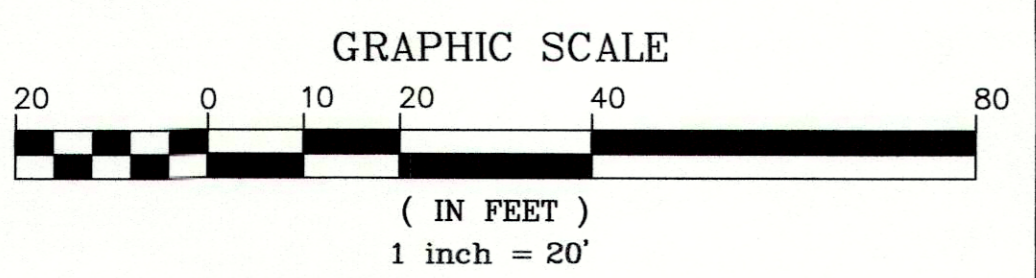
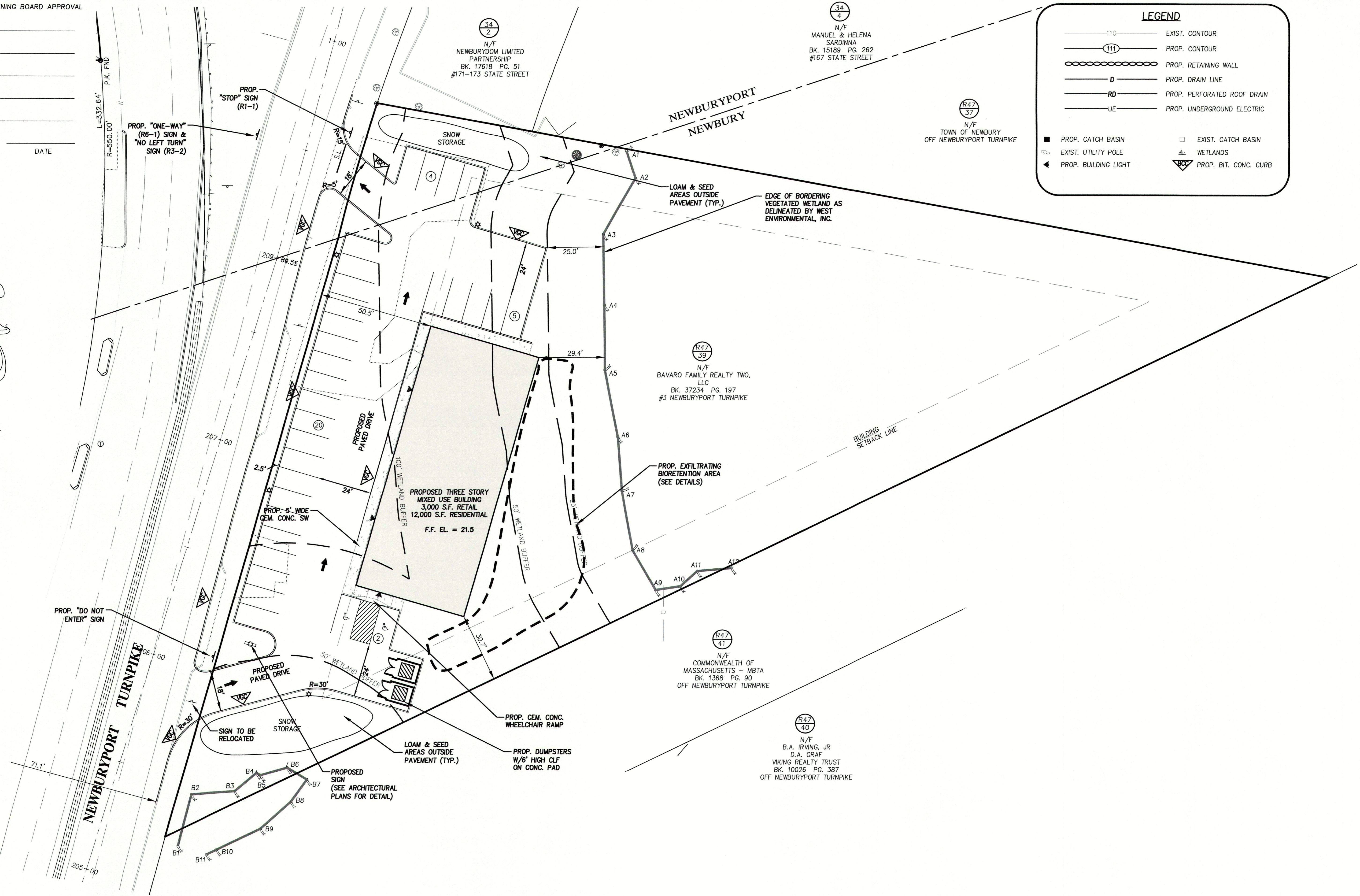
NO.	DATE	DESCRIPTION	BY	SCALE: 1"=20'	DATE: SEPT. 22, 2020	CALC. BY: P.D.B.	CHKD. BY: J.S.H.	PROJECT: M193668
1	11/4/20	RESPONSE TO TOWN COMMENTS	J.T.M.					

DATE _____



LEGEND

- 110 --- EXIST. CONTOUR
- 111 --- PROP. CONTOUR
- --- PROP. RETAINING WALL
- D --- PROP. DRAIN LINE
- RD --- PROP. PERFORATED ROOF DRAIN
- UE --- PROP. UNDERGROUND ELECTRIC
- PROP. CATCH BASIN
- EXIST. CATCH BASIN
- EXIST. UTILITY POLE
- WETLANDS
- ◀ PROP. BUILDING LIGHT
- ▽ PROP. BIT. CONC. CURB



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
18 GRAF ROAD UNIT #31
NEWBURYPORT, MA

NO.	DATE	DESCRIPTION	BY
2	2/1/21	RESPONSE TO TOWN COMMENTS	J.T.M.
1	12/2/20	RESPONSE TO TOWN COMMENTS	J.T.M.

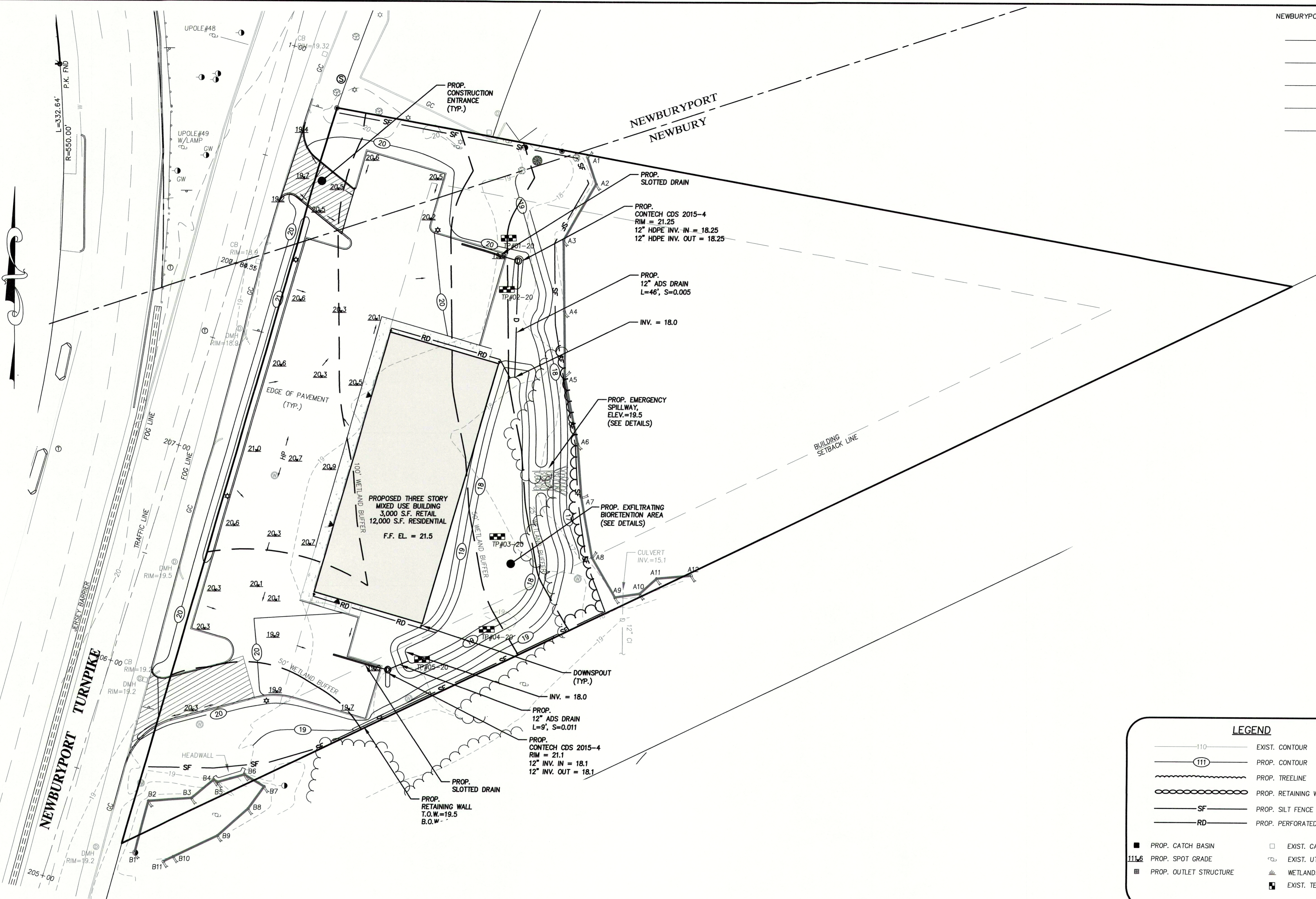
MEI **MILLENNIUM ENGINEERING, INC.**
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13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SCALE: 1"=20'
DATE: SEP. 22, 2020
DESIGNER: J.T.M.
CHECKER: E.W.B.
PROJECT: M193668

SITE PLAN
IN
NEWBURYPORT, MA
SHOWING
PROPOSED SITE IMPROVEMENTS
AT
177 STATE STREET

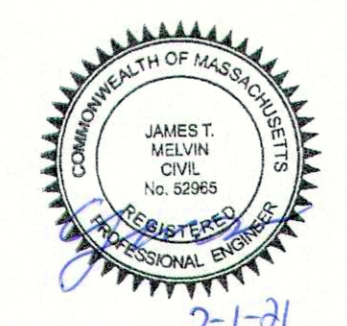
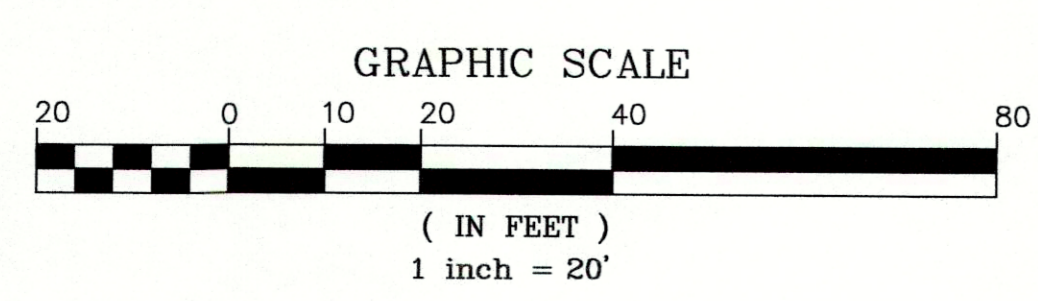
SITE PLAN

DATE



LEGEND

- 110 — EXIST. CONTOUR
- (11) — PROP. CONTOUR
- (wavy line) — PROP. TREELINE
- (chain link) — PROP. RETAINING WALL
- SF — PROP. SILT FENCE
- RD — PROP. PERFORATED ROOF DRAIN
- PROP. CATCH BASIN
- EXIST. CATCH BASIN
- 111.6 PROP. SPOT GRADE
- EXIST. UTILITY POLE
- PROP. OUTLET STRUCTURE
- WETLANDS
- EXIST. TEST PIT



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
 18 GRAF ROAD UNIT #31
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1	12/2/20	RESPONSE TO TOWN COMMENTS	J.T.M.

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SITE PLAN
 IN
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 SHOWING
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 AT
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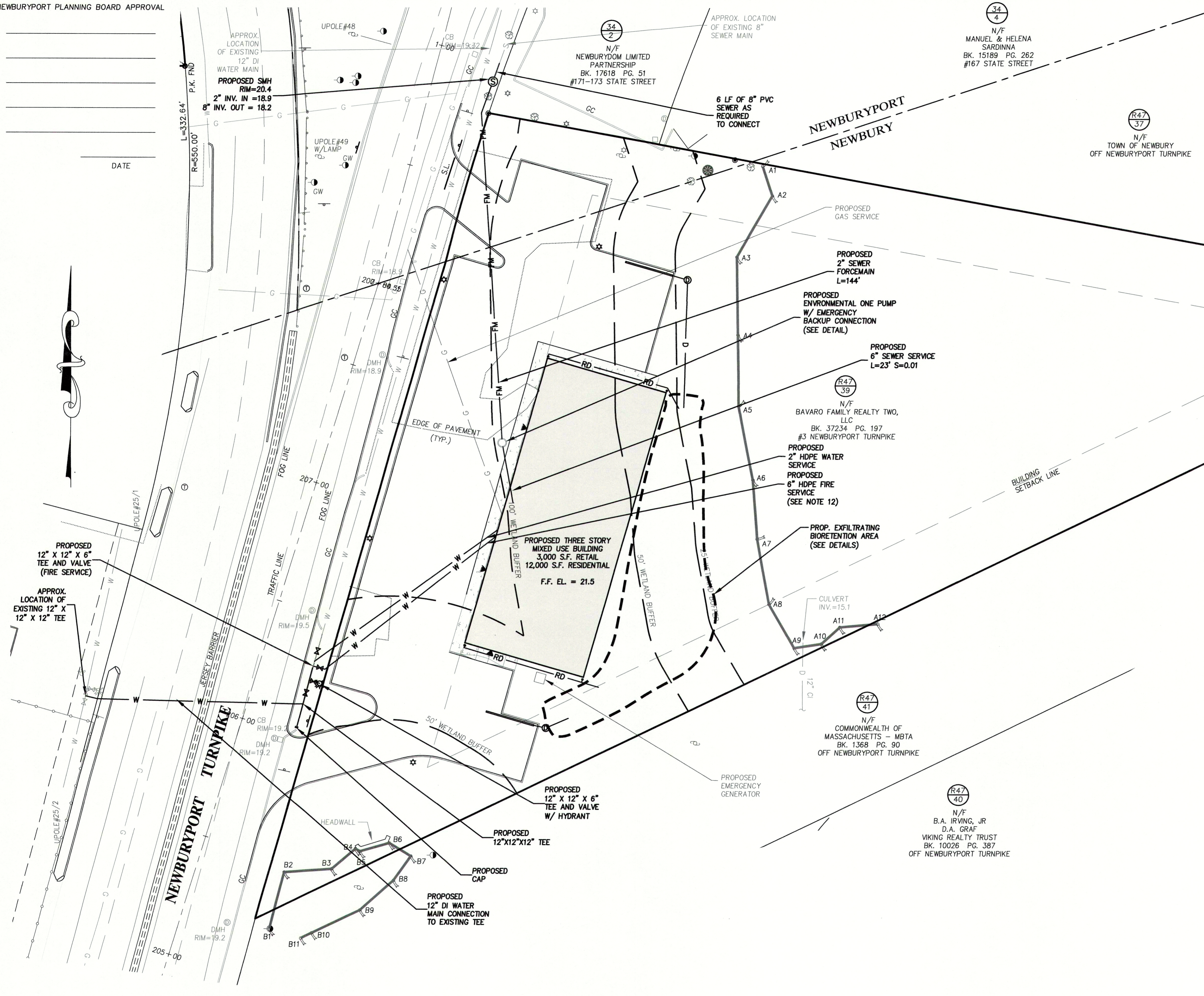
GRADING PLAN

SHEET: 4 OF 8

DATE _____

LEGEND

- 110— EXIST. CONTOUR
- (111)— PROP. CONTOUR
- ⊖ PROP. RETAINING WALL
- D— PROP. DRAIN LINE
- RD— PROP. PERFORATED ROOF DRAIN
- UE— PROP. UNDERGROUND ELECTRIC
- PROP. CATCH BASIN
- EXIST. CATCH BASIN
- ⊕ EXIST. UTILITY POLE
- ⊖ WETLANDS
- ◀ PROP. BUILDING LIGHT
- ▽ PROP. BIT. CONC. CURB

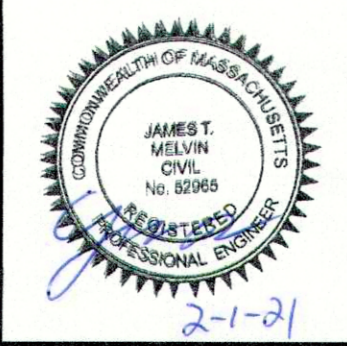
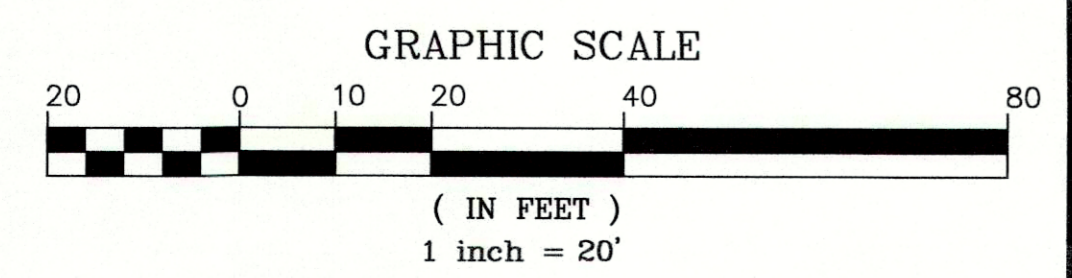


WATER INSTALLATION NOTES

1. FIRE HYDRANT SHALL BE WATEROUS WB67(NON-DRAINING) WITH RESTRAINED JOINTS WITH STAINLESS RODS.
2. PIPING SHALL BE DOUBLE CEMENT LINED WITH ASPHALT COATING IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL INCLUDING TAPPING SLEEVES, RESTRAINED JOINTS, AND COUPLINGS.
4. ALL VALVES SHALL BE EPOXY COATED.
5. ALL TRENCHES FOR WATER SERVICES SHALL BE LINED WITH FILTER FABRIC AND BACKFILLED WITH CLEAN MATERIAL.
6. ALL HYDRANT AND GATE VALVES SHALL BE "OPEN RIGHT".

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO: THE NEWBURY PLANNING BOARD RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND, THE WETLANDS PROTECTION ACT (310 CMR 10.00), THE ORDER OF CONDITIONS ISSUED BY THE NEWBURY CONSERVATION COMMISSION, AND THESE PLANS.
2. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS. ANY PROPOSED REVISIONS TO THE WORK SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND REGULATING MUNICIPAL AND/OR STATE AGENCIES.
3. THE LOCATION OF ALL UTILITIES, AS SHOWN ON THESE PLANS, ARE BASED UPON PLANS AND RECORD INFORMATION PROVIDED BY MUNICIPAL AND PRIVATE UTILITY COMPANIES AND ARE CONSIDERED APPROXIMATE BOTH AS TO SIZE AND LOCATION. NO WARRANTY IS MADE TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL NOT RELY ON THESE PLANS FOR SUCH INFORMATION AND SHALL MAKE EXAMINATIONS IN THE FIELD BY VARIOUS AVAILABLE RECORDS, UTILITY COMPANIES AND INDIVIDUALS, AS TO THE LOCATION OF ALL SUBSURFACE STRUCTURES.
4. THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE NEW WORK. HE/SHE SHALL EXCAVATE TO VERIFY PERTINENT DRAINAGE INVERTS AND POTENTIAL UTILITY CONFLICTS. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY.
5. THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THE PUBLIC, EMPLOYEES, AND ALL OTHER PERSONS ASSOCIATED WITH THE PROJECT. HE/SHE SHALL COORDINATE AND BE RESPONSIBLE FOR ALL SAFETY SIGNING, BARRIERS AND TEMPORARY PAVEMENT MARKINGS NECESSARY TO PROVIDE A SMOOTH AND PROPER TRANSITION FOR TRAFFIC FLOW.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BY CONTACTING "DIG-SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. DIG-SAFE TELEPHONE NUMBER: 1-888-344-7233.
7. 14 DAYS PRIOR TO COMMENCING CONSTRUCTION, THE OWNER/DEVELOPER SHALL PRESENT A CONSTRUCTION SCHEDULE TO THE PLANNING DEPARTMENT.
8. TWO HARD COPIES OF AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL INCLUDE ALL LANDBASE AND UTILITIES INFORMATION.
9. ONSITE BURIAL OF STUMPS OR ANY OTHER DEBRIS IS PROHIBITED.
10. THE PROPERTY DOES NOT LIE WITHIN THE 100-YEAR FLOOD PLAIN ACCORDING TO F.I.R.M. COMMUNITY PANEL NUMBER 25009C0117G.
11. ELEVATIONS ARE BASED UPON AN 1988 NAV DATUM.
12. SIZE AND LOCATION OF THE FIRE SERVICE TO BE DESIGNED BY A FIRE PROTECTION DESIGNER. PIPE SHALL BE DR18 IN 40' LENGTHS WITH FUSED JOINTS.
13. WATER AND SEWER MAINS SHOWN ARE APPROXIMATE. FURTHER INFORMATION IS REQUIRED FROM NEWBURYPORT DPS PRIOR TO CONSTRUCTION TO VERIFY SIZE AND LOCATION OF THESE UTILITIES.



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
 18 GRAF ROAD UNIT #31
 NEWBURYPORT, MA

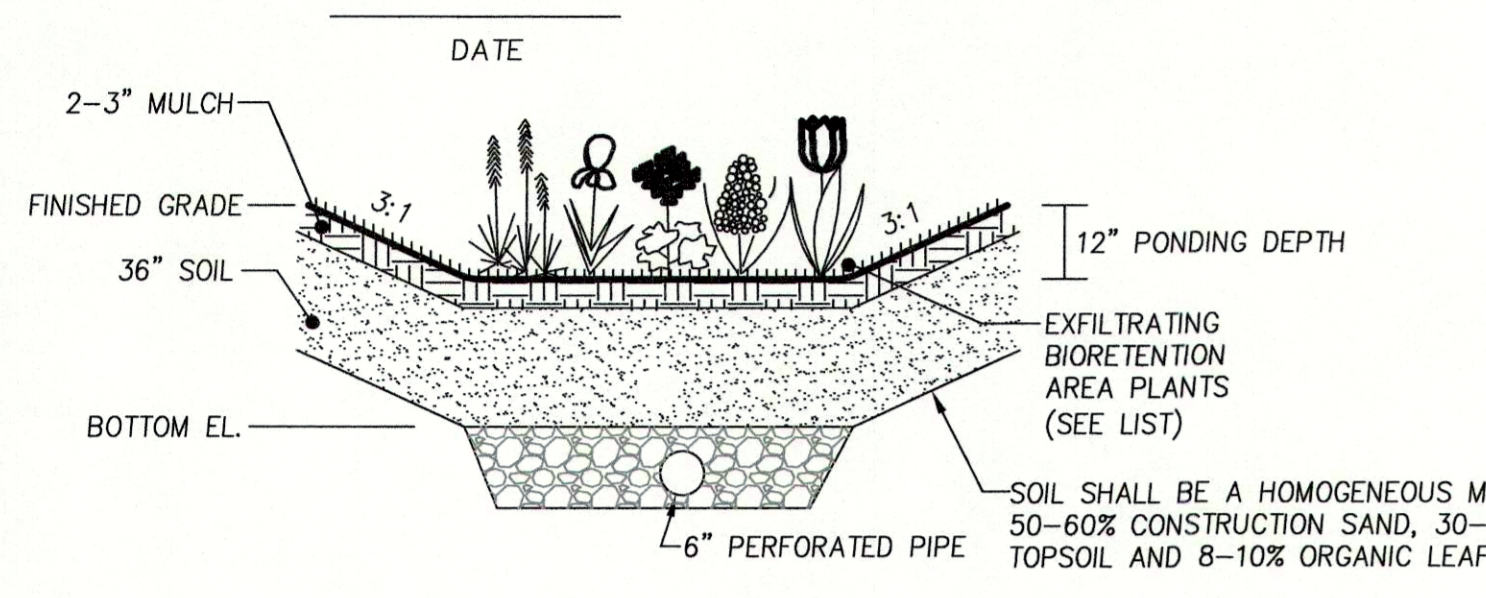
NO.	DATE	DESCRIPTION	BY
2	2/1/21	RESPONSE TO TOWN COMMENTS	J.T.M.
1	12/2/20	RESPONSE TO TOWN COMMENTS	J.T.M.

MEI **MILLENNIUM ENGINEERING, INC.**
 ENGINEERING AND LAND SURVEYING
 62 ELM ST. SALISBURY, MA 01952 (978) 463-8980
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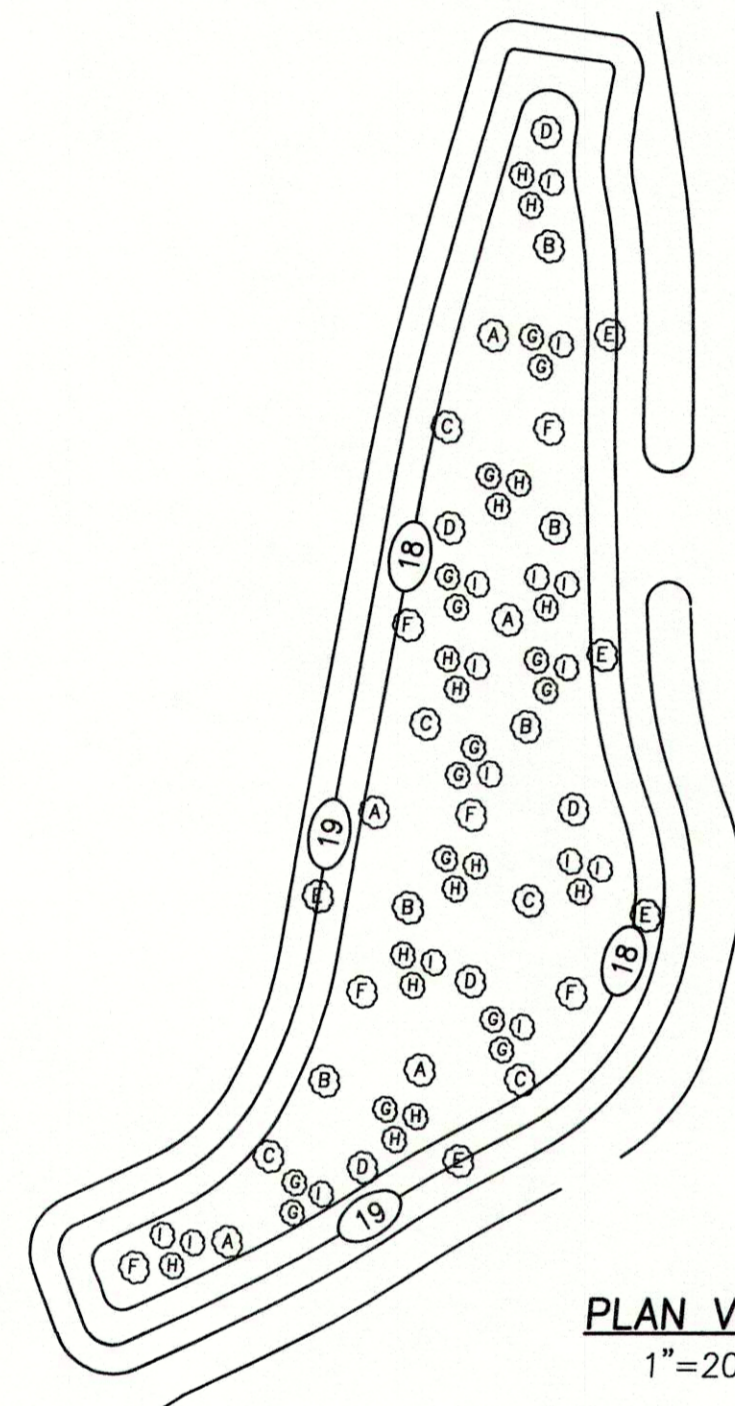
SCALE: 1"=20' DESG. BY: J.T.M. PROJECT: M193668
 DATE: SEP. 22, 2020 CHKD. BY: E.W.B.

SITE PLAN
 IN
NEWBURYPORT, MA
 SHOWING
PROPOSED SITE IMPROVEMENTS
 AT
177 STATE STREET

UTILITIES PLAN
 SHEET: 5 OF 8



PROFILE VIEW



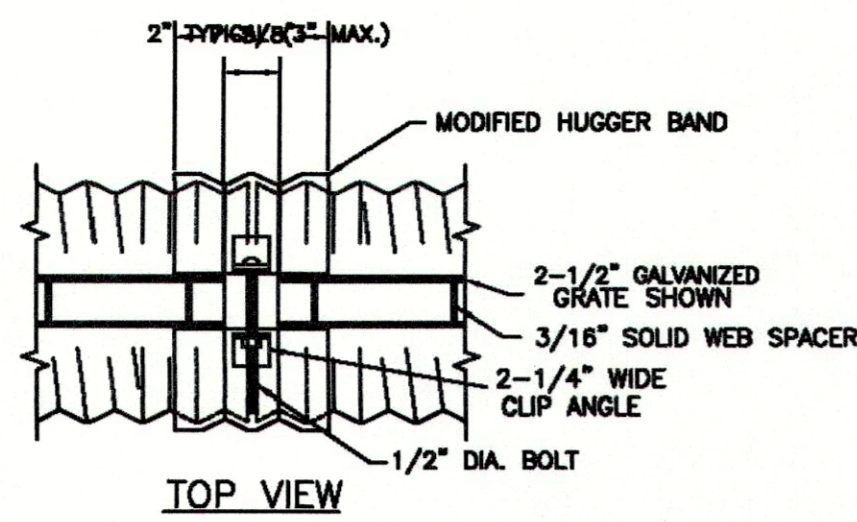
PLAN VIEW
1"=20'

RAIN GARDEN PLANT LIST						
SYMBOL	SPECIES*	COMMON NAME	QUANTITY	HEIGHT	SPACING MINIMUM	WETLAND CODE
A	ILEX VERTICILLATA	WINTERBERRY	5	2-3'	8-10'	FACW
B	CLETHRA ALNIFOLIA	SUMMERSWEET	5	2-3'	8-10'	FAC
C	VIBURNUM DENTATUM	ARROW-WOOD	5	2-3'	8-10'	FAC
D	PHYSOCARPUS OPULIFOLIUS	NINEBARK	5	2-3'	8-10'	FACW
E	HAMAMELIS VIRGINIANA	WITCHHAZEL	5	2-3'	8-10'	FACU
F	CORNUS SERICEA	REDOSEB DOGWOOD	6	2-3'	8-10'	FACW
G	AGROSTIS GIGANTEA	REDTOP	15	1 GAL	3'	FACW
H	PANICUM VIRGATUM	SWITCHGRASS	15	1 GAL	3'	FAC
I	SCHIZACHYRIUM SCOPAIRUM	LITTLE BLUESTEM	15	1 GAL	3'	FACW

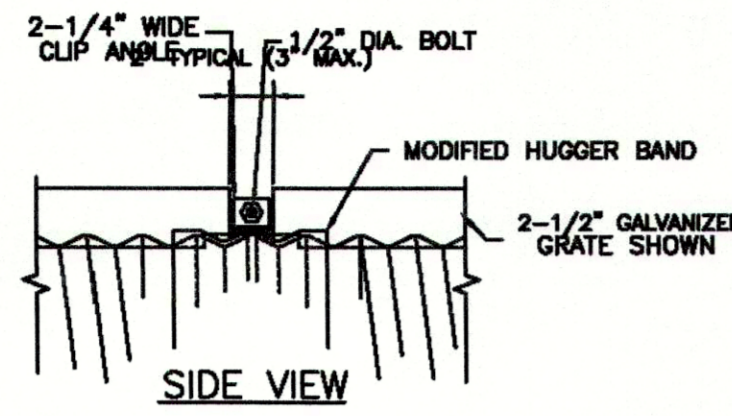
ALL PLANTS LISTED ABOVE ARE NATIVE.
* IF LISTED SPECIES IS NOT AVAILABLE, SIMILAR SPECIES MAY BE SUBSTITUTED AS APPROVED BY WETLAND SCIENTIST

**EXFILTRATING BIORETENTION AREA
DETAIL**

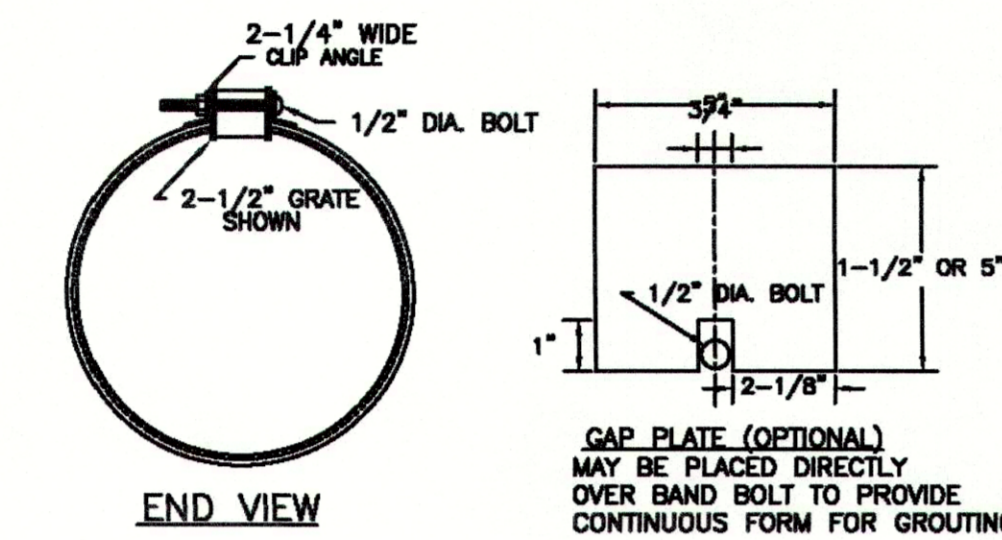
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TOP VIEW



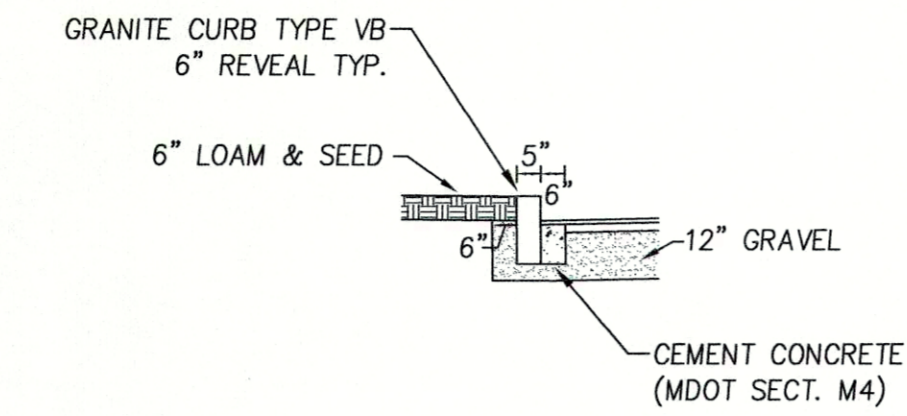
SIDE VIEW



END VIEW

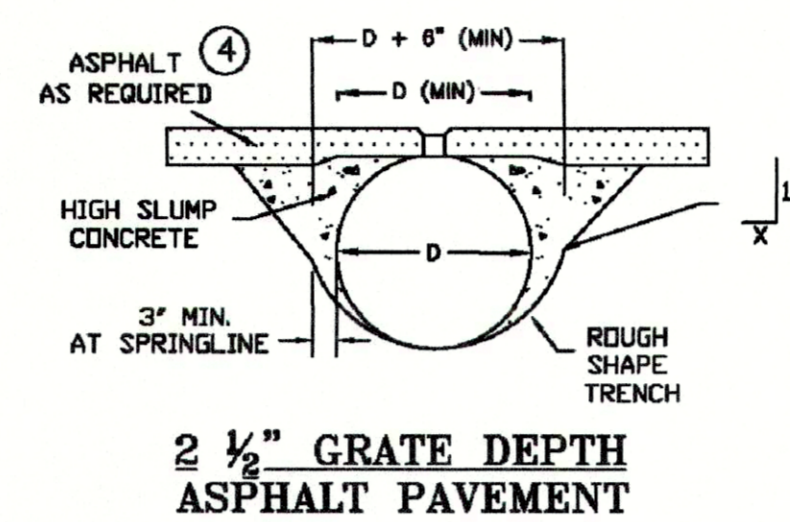
**SLOTTED DRAIN
DETAIL**

N.T.S.

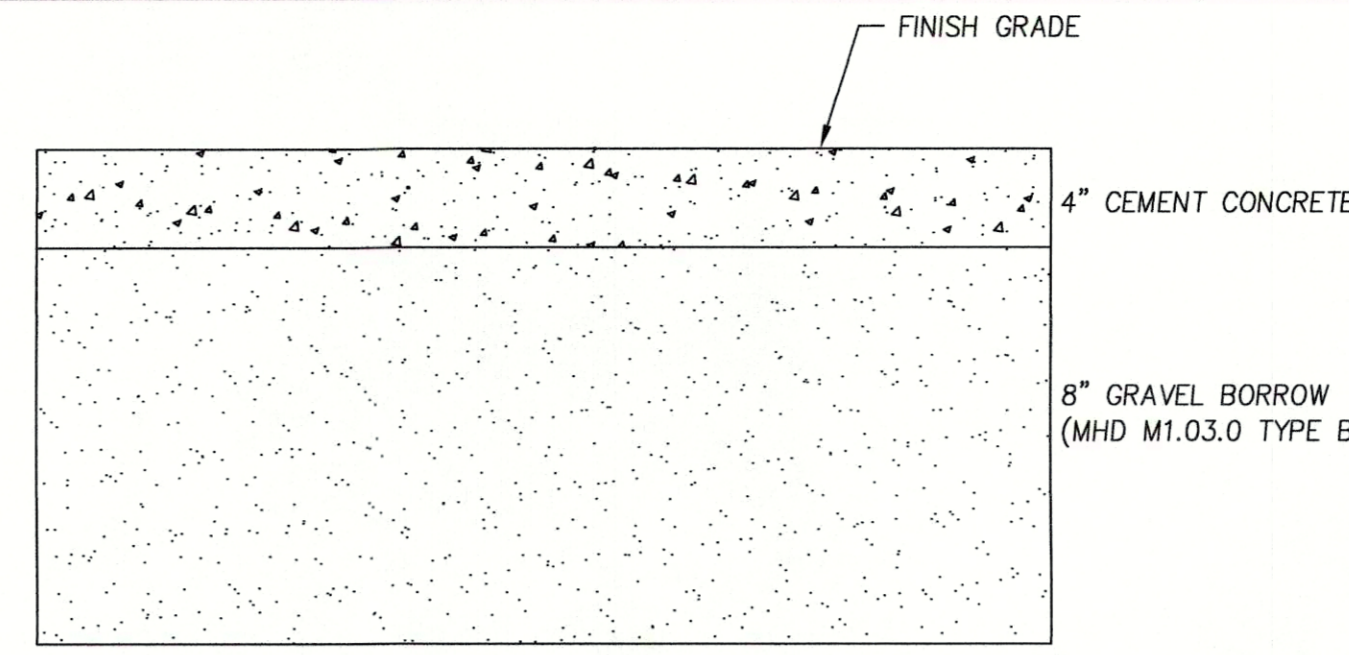


**TYPICAL GRANITE CURBING
INSTALLATION DETAIL**

N.T.S.

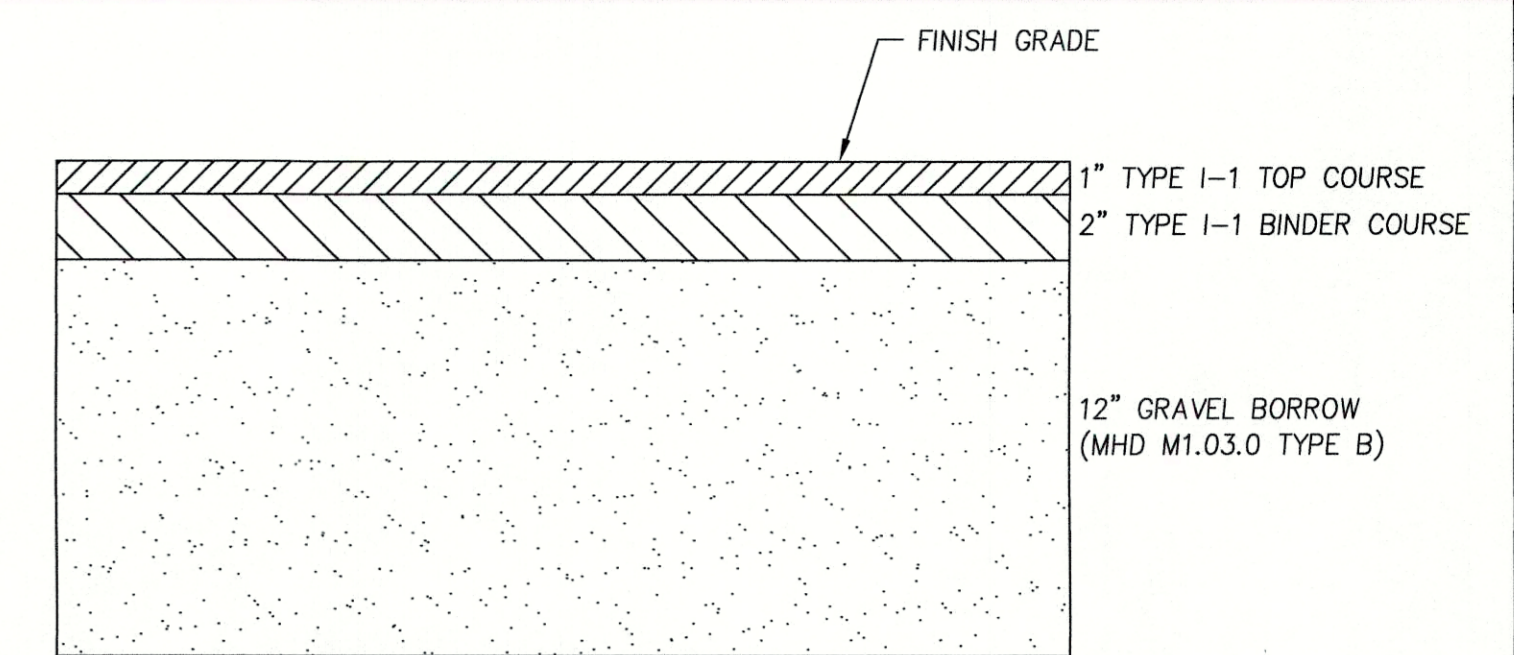


**2 1/2" GRATE DEPTH
ASPHALT PAVEMENT**



**CONCRETE SIDEWALK
DETAIL**

N.T.S.

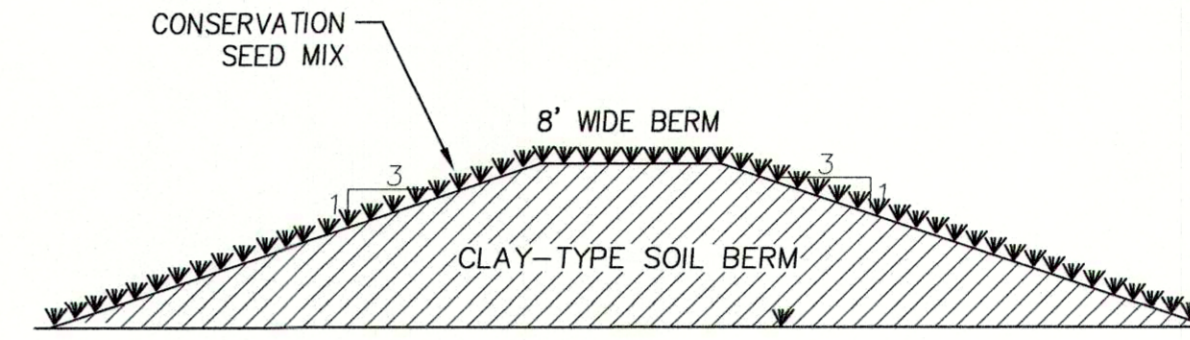


**PAVEMENT
DETAIL**

N.T.S.

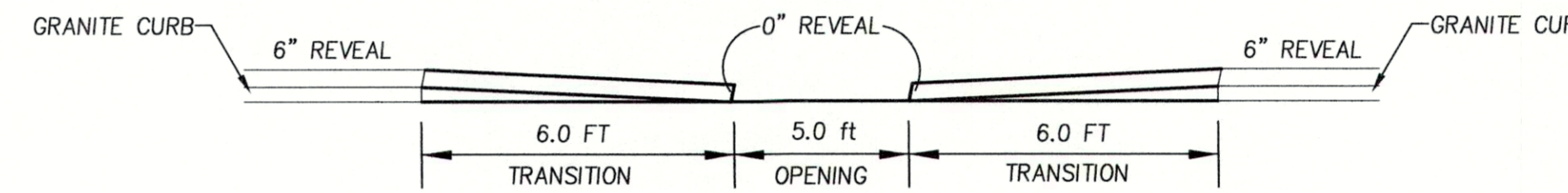
PAVEMENT NOTES

- 1.) ALL STUMPS, ROCKS AND LEDGE WITHIN THE LIMITS OF THE PROPOSED PAVED WAY SHALL BE REMOVED. ALL LEDGE SHALL BE REMOVED TO A MINIMUM DEPTH OF 2' BELOW FINISHED PAVEMENT GRADE.
- 2.) PAVEMENT SHALL NOT BE CONSTRUCTED DURING FREEZING WEATHER OR ON WET OR FROZEN SUBGRADE.
- 3.) GRADING AND ROLLING SHALL BE REQUIRED TO PROVIDE A SMOOTH, EVEN, AND UNIFORM COMPACTED BASE WHICH IS COMPACTED TO A MINIMUM DRY DENSITY OF 95 PERCENT.
- 4.) ALL UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REPLACED WITH SATISFACTORY MATERIAL AND BROUGHT UP TO GRADE WITH GRAVEL BORROW CONTAINING NO STONES GREATER THAN 6" DIAMETER.
- 5.) AT ALL TIMES DURING CONSTRUCTION, THE SUB-GRADE AND ALL DITCHES SHALL BE CONSTRUCTED AND MAINTAINED SO THAT THE TRACK WILL EFFECTIVELY BE DRAINED.
- 6.) THE CONTRACTOR SHALL REFER TO THE NEWBURY PLANNING BOARD RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND, ARTICLES I - VIII.



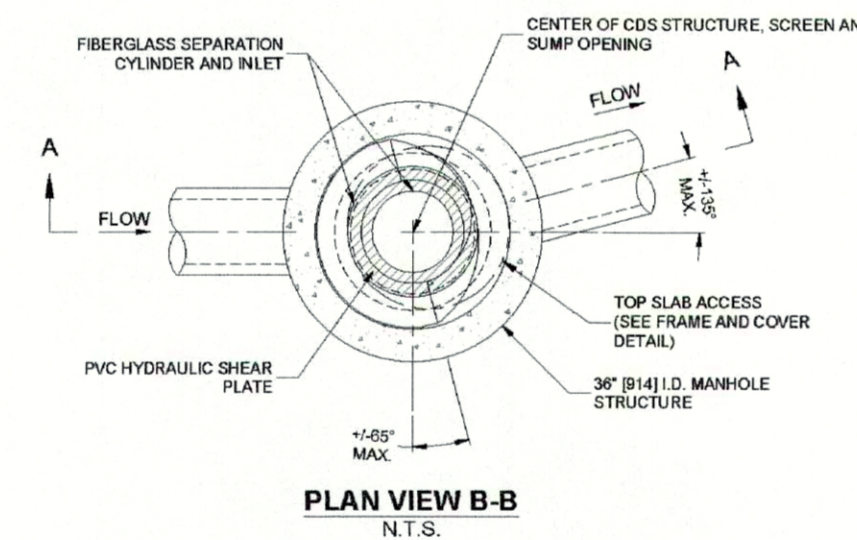
**INFILTRATION BASIN
BERM DETAIL**

N.T.S.

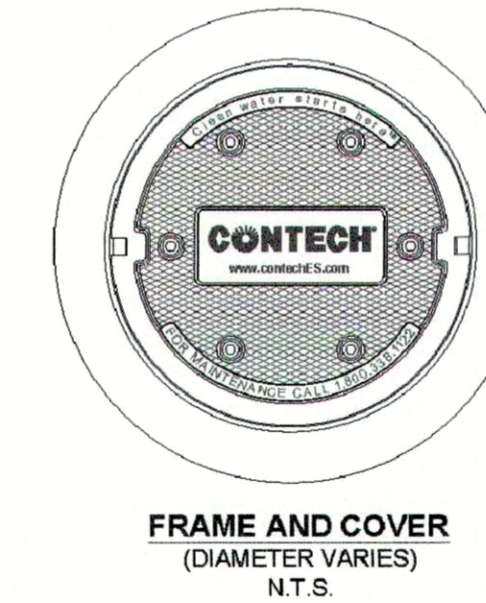


**CURB OPENING
DETAIL**

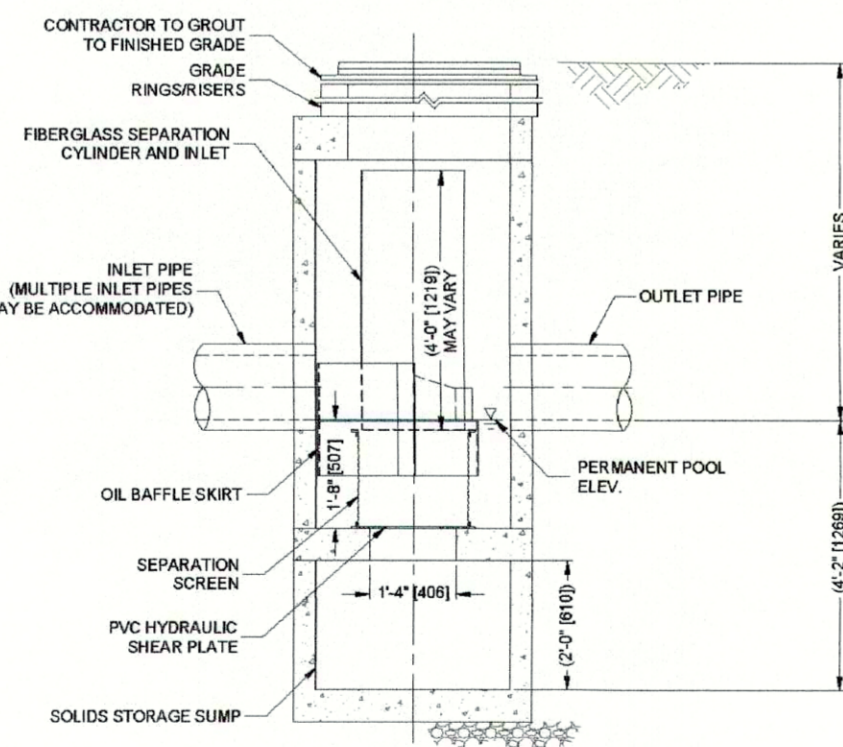
N.T.S.



PLAN VIEW B-B
N.T.S.



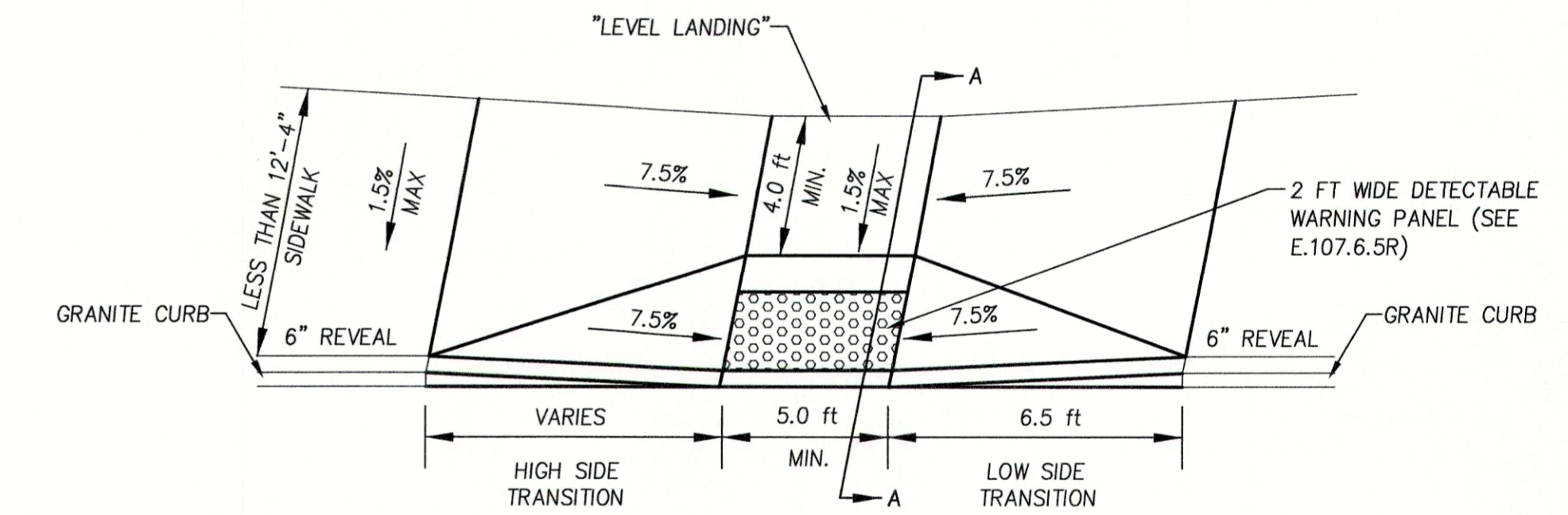
FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



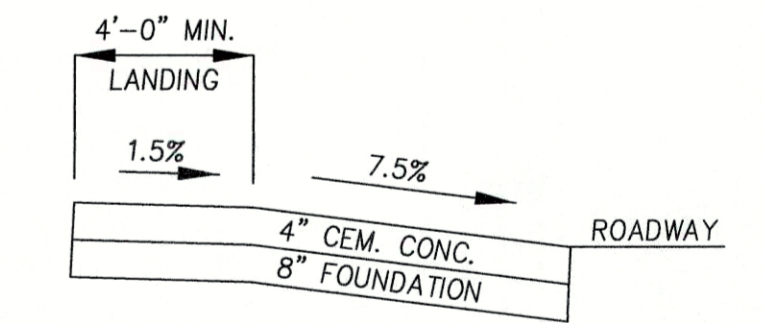
ELEVATION A-A
N.T.S.

- GENERAL NOTES**
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
 3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
 5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

- INSTALLATION NOTES**
- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLY STRUCTURE.
 - D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 - E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



PLAN VIEW



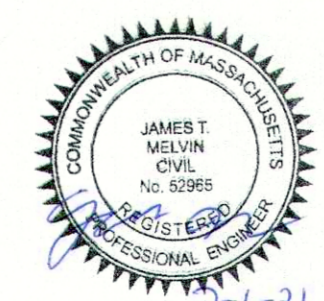
SECTION A-A

NOTES:

- 1.) RAMP CROSS SECTION TO BE SAME AS SIDEWALK; I.E. DEPTH OF SURFACE AND FOUNDATION.
- 2.) BASE OF RAMP SHALL MEET PAVEMENT GUTTER SUCH THAT THERE IS NO DIFFERENCE IN ELEVATION. RAMP SHALL BE CONSTRUCTED SUCH THAT WATER DOES NOT "PUDDLE" AT THE BASE OF THE RAMP.
- 3.) THE PAVEMENT AT THE BASE OF THE RAMP SHALL BE PART OF THE CONTINUOUS TOP COURSE. THE USE OF A "PAVEMENT PATCH" TO COMPLY WITH THE CONDITIONS IN NOTE 2, ABOVE IS PROHIBITED.
- 4.) RAMPS SHALL CONFORM TO MASS DOT WHEELCHAIR RAMP STANDARDS - LATEST REVISIONS.

**CEMENT CONCRETE WHEELCHAIR
RAMP DETAIL**

N.T.S.



PREPARED FOR
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18 GRAF ROAD UNIT #31
NEWBURYPORT, MA

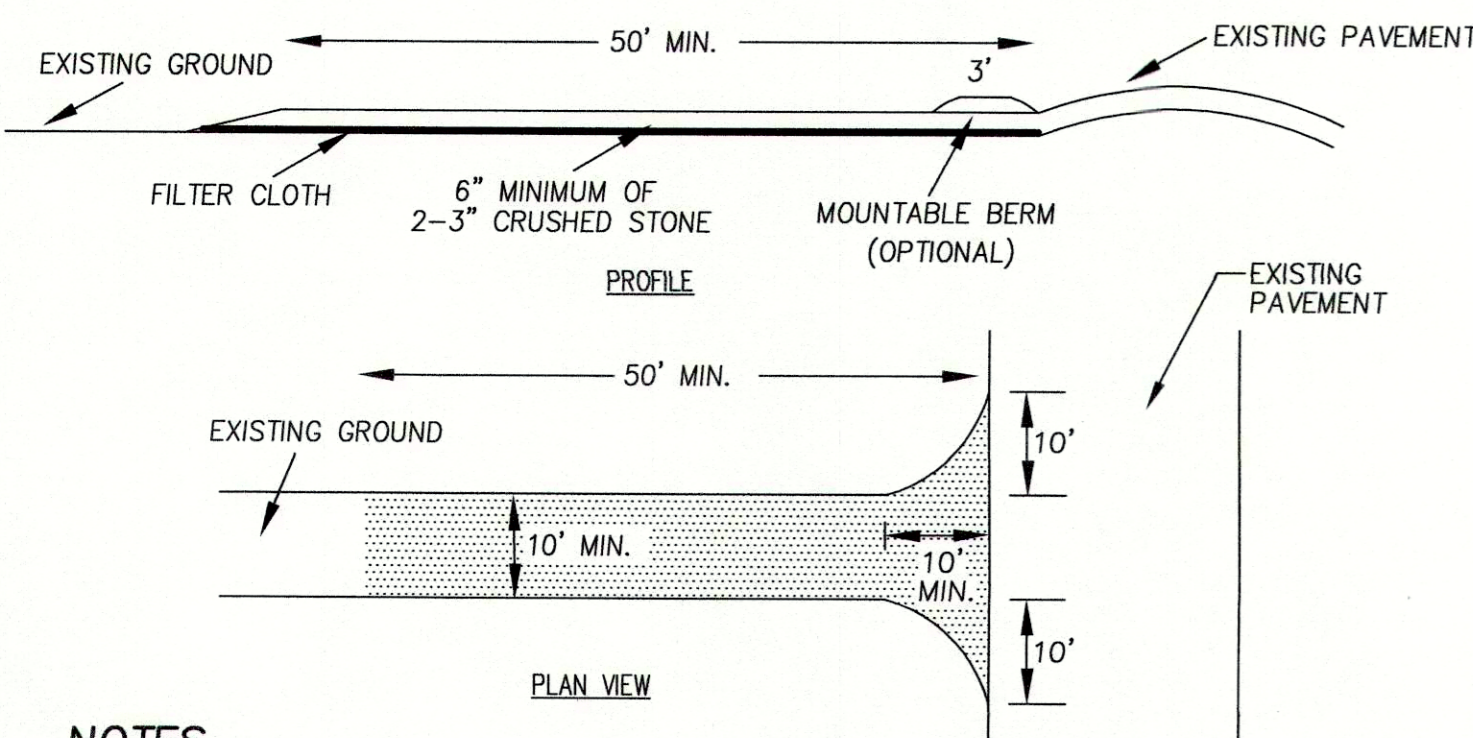
MILLENNIUM ENGINEERING, INC.
ENGINEERING AND LAND SURVEYING
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SITE PLAN
IN
NEWBURYPORT, MA
SHOWING
PROPOSED SITE IMPROVEMENTS
AT
177 STATE STREET

**CONSTRUCTION
DETAILS**

NO.	DATE	DESCRIPTION	BY
2	2/1/21	RESPONSE TO TOWN COMMENTS	J.T.M.
1	12/2/20	RESPONSE TO TOWN COMMENTS	J.T.M.

SCALE: 1"=20'
DATE: SEP. 22, 2020
DESIGNER: J.T.M.
CHECKED: E.W.B.
PROJECT: M193668



NOTES

- STONE SHALL BE 2-3" STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50'.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6".
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP-DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

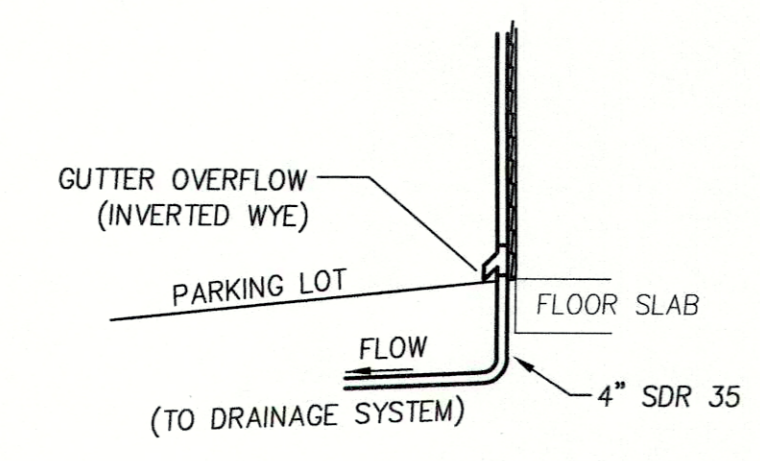
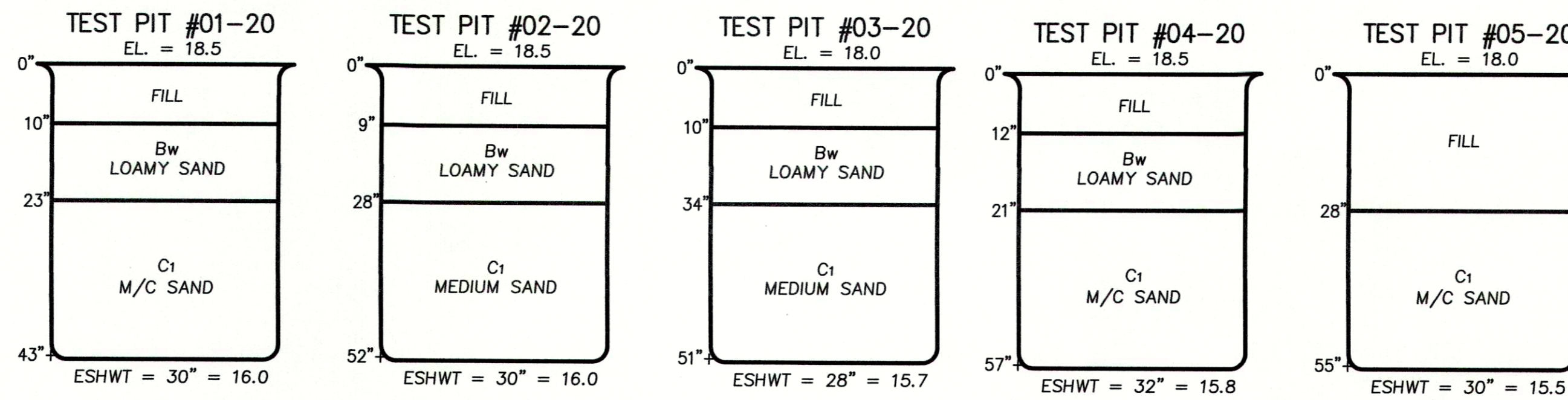
STABILIZED CONSTRUCTION ENTRANCE N.T.S.

GENERAL EROSION CONTROL NOTES

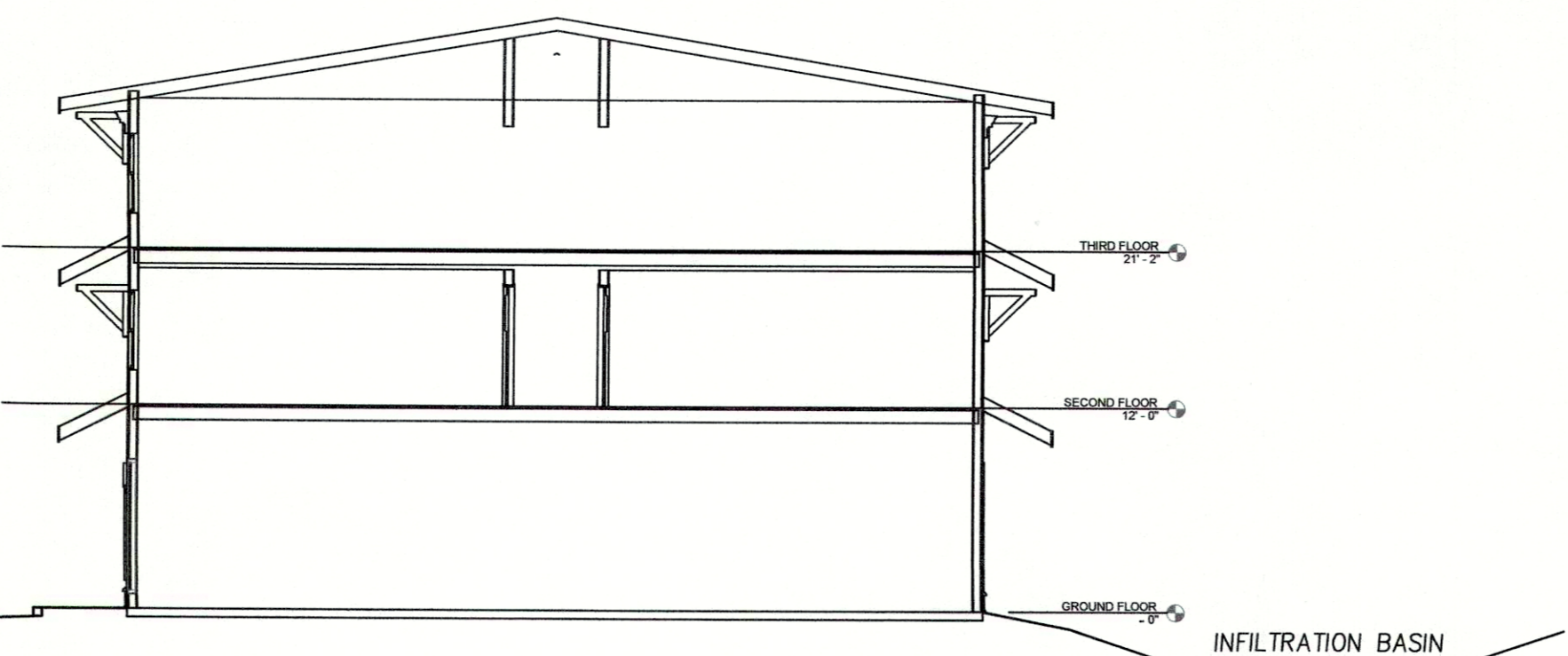
- ALL SILT FENCE SHALL BE INSTALLED BEFORE THE START OF CONSTRUCTION. SILT FENCE SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND STABILIZATION OF ALL SOIL.
- ALL FILL SHALL BE FREE OF STUMPS AND LARGE STONES. LEDGE ENCOUNTERED ONSITE CAN BE GROUND UP TO A MAXIMUM 3" SIZE AND USED FOR FILL.
- ANY STANDING BODIES OF WATER CREATED DURING EXCAVATION SHALL BE ELIMINATED.
- EROSION CONTROL BARRIERS SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OF RAINFALL AND PROMPTLY REPAIRED OR REPLACED AS NECESSARY.
- ACCUMULATED SEDIMENT DEPOSITS UPSTREAM OF BARRIERS SHALL BE PROPERLY DISPOSED OF ON A REGULAR BASIS.
- AREAS OUTSIDE THE LIMITS OF WORK (EROSION CONTROL/SILT FENCE LOCATIONS) DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND/OR SEDIMENT CONTROLS DURING CONSTRUCTION. HE/SHE SHALL INSPECT CONTROLS WEEKLY AND AFTER ALL STORM EVENTS. REPAIRS, IF REQUIRED, SHALL BE MADE IMMEDIATELY.
- TEMPORARY GROUND COVER SHALL BE ESTABLISHED IN AREAS OF CONSTRUCTION WHERE REQUIRED BY THE NEWBURY PLANNING BOARD AND CONSERVATION COMMISSION.
- ANY DISTURBED AREAS OF THE SITE NOT USED FOR ROADWAY OR UTILITY CONSTRUCTION SHALL BE STABILIZED WITH LOAM AND SEED UNTIL FURTHER DISTURBANCE IS REQUIRED FOR BUILDING CONSTRUCTION.
- AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED: BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- THE CONTRACTOR SHALL IDENTIFY TO THE TOWN HIS/HER TOPSOIL STOCKPILING OPERATIONS AND LOCATIONS.
- PROVIDE SILTSACK (OR APPROVED EQUAL) SEDIMENT FILTER AT ALL CATCH BASINS.
- A MINIMUM OF 6" OF LOAM SHALL BE INSTALLED ON ALL DISTURBED UNPAVED SURFACES.
- SEED MIX SHALL BE NO LESS THAN 4 LBS./1000 S.F. OF LAND AREA. SEED SHALL CONSIST OF A MAXIMUM OF 10% RYE GRASS AND A MINIMUM OF 90% PERMANENT BLUEGRASS AND/OR FESCUE. LIME SHALL BE APPLIED AT A RATE OF 2 TONS/ACRE.
- NO MORE THAN 6 ACRES SHALL BE DISTURBED AT ONE TIME. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- WHERE PLACEMENT OF FILL IS REQUIRED FOR THE CONSTRUCTED WETLAND, FILL SHALL BE PLACED IN AN UNFROZEN STATE UPON UNFROZEN GROUND.

CONSTRUCTION SEQUENCE

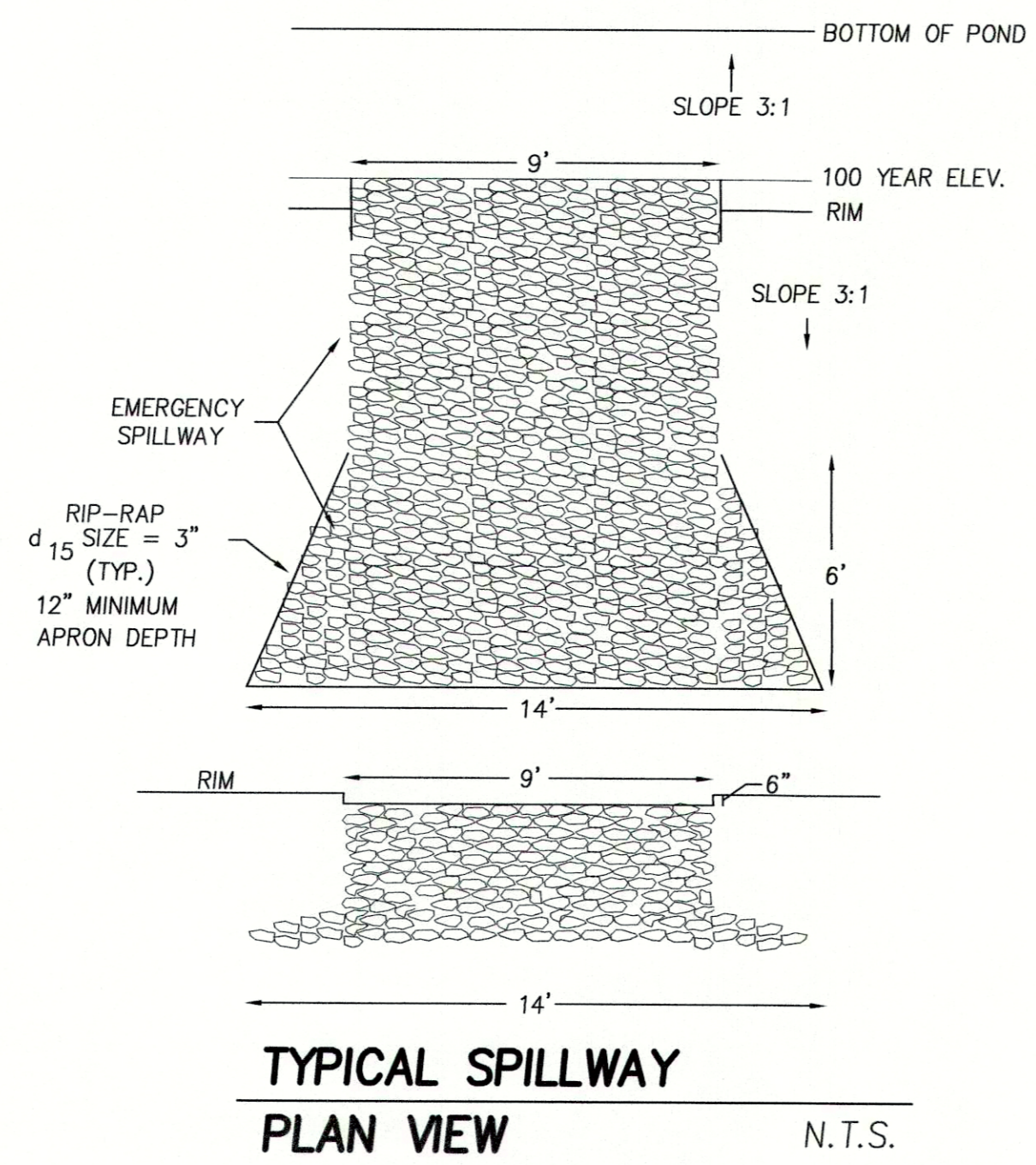
- INSTALL SILT FENCE AT LIMIT OF WORK & STAKE OUT INFILTRATION BASIN.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AS DEPICTED.
- CLEAR AND GRUB DEBRIS TO PHASE LINE AND DISPOSE OF PROPERLY.
- STRIP, SCREEN AND STOCKPILE TOPSOIL. TOPSOIL CAN BE TEMPORARILY STOCKPILED ON SITE PROVIDING THAT THE PERIMETER OF THE STOCKPILES ARE PROPERLY STAKED WITH SILT FENCE AT THE TOE OF SLOPE.
- ROUGH GRADE INFILTRATION BASIN.
- GRADE PAVEMENT TO TOP OF SUBGRADE ELEVATIONS. ALL ROADWAYS MUST BE STABILIZED IMMEDIATELY AFTER GRADING.
- BEGIN BUILDING CONSTRUCTION.
- INSTALL UTILITIES/DRAINAGE STRUCTURES.
- PLACE RIPRAP WHERE SHOWN ON PLANS. LOAM AND HYDROSEED SIDESLOPES AND ALL DISTURBED AREAS WITHIN 72 HOURS.
- SPREAD, SHAPE, AND COMPACT PAVEMENT SUBBASE AS PER TYPICAL PAVEMENT SECTION TO ATTAIN FINAL DESIGN ELEVATIONS.
- PERFORM BINDER COURSE PAVING.
- LOAM AND HYDROSEED ANY DISTURBED SURFACES ALONG EDGES OF PAVEMENT AS REQUIRED.
- PERFORM FINAL PAVING (TOP COURSE).
- REMOVE EROSION CONTROL.



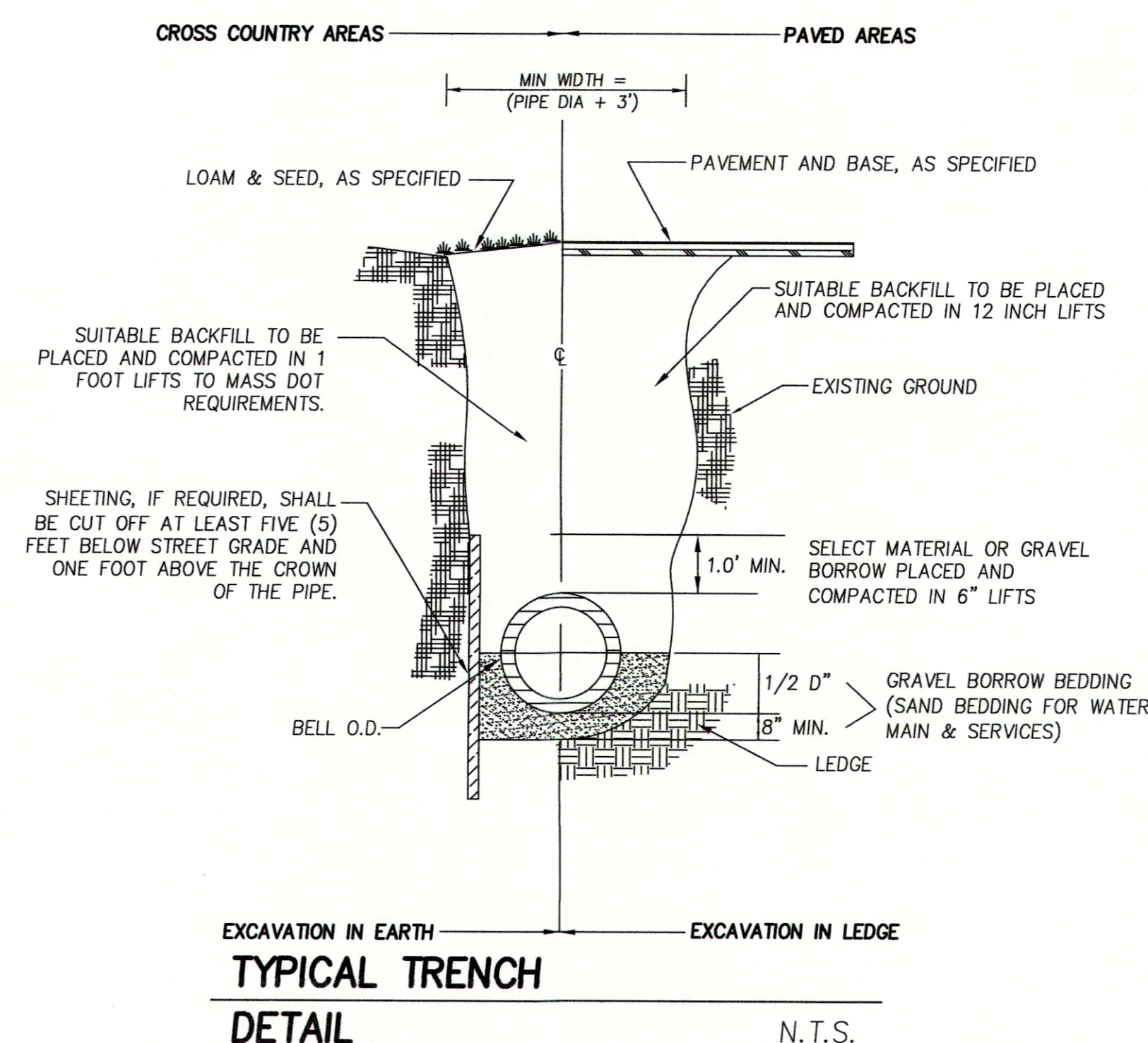
GUTTER DOWN SPOUT DETAIL N.T.S.



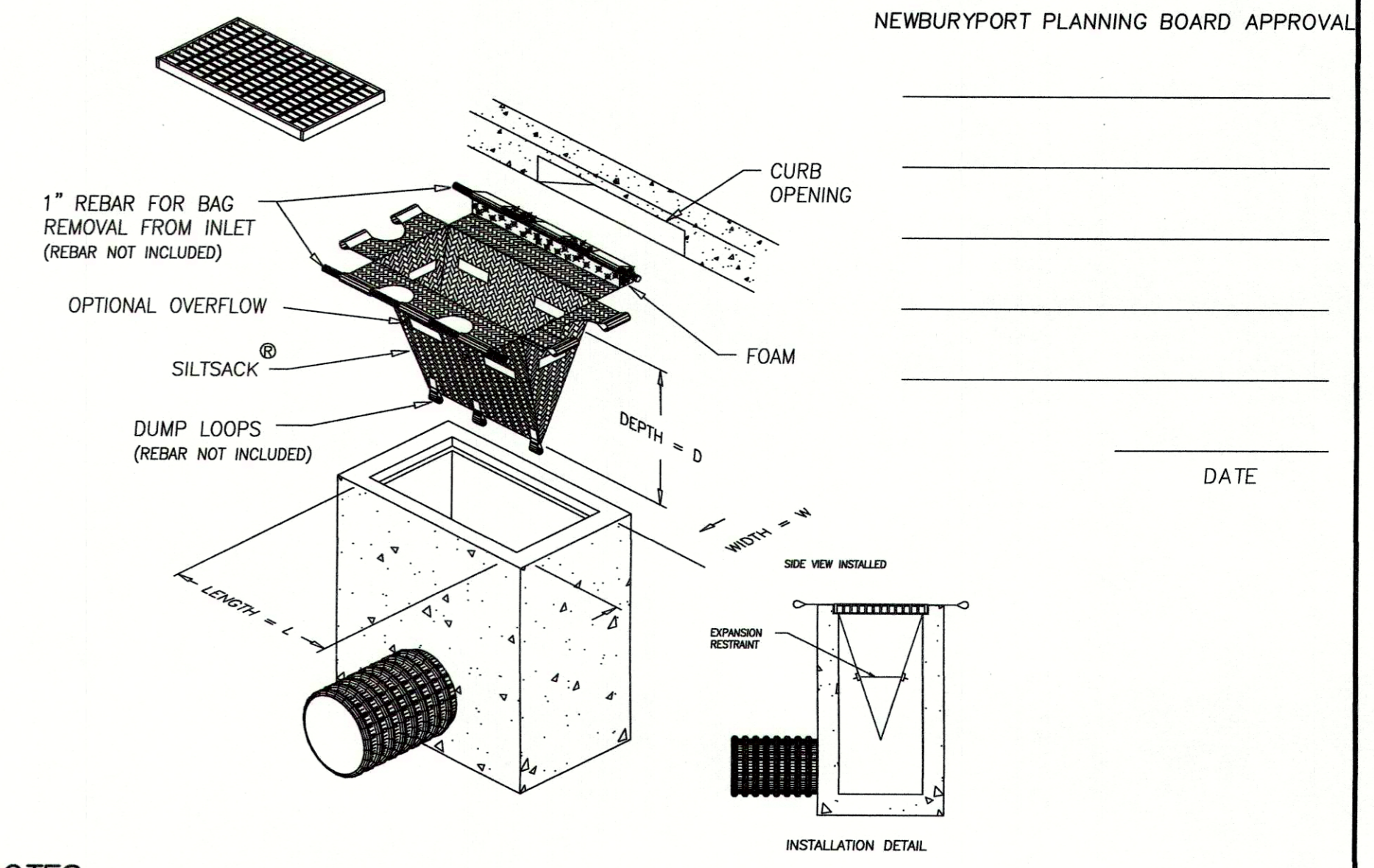
BUILDING CROSS-SECTION 1"=10'



TYPICAL SPILLWAY PLAN VIEW N.T.S.



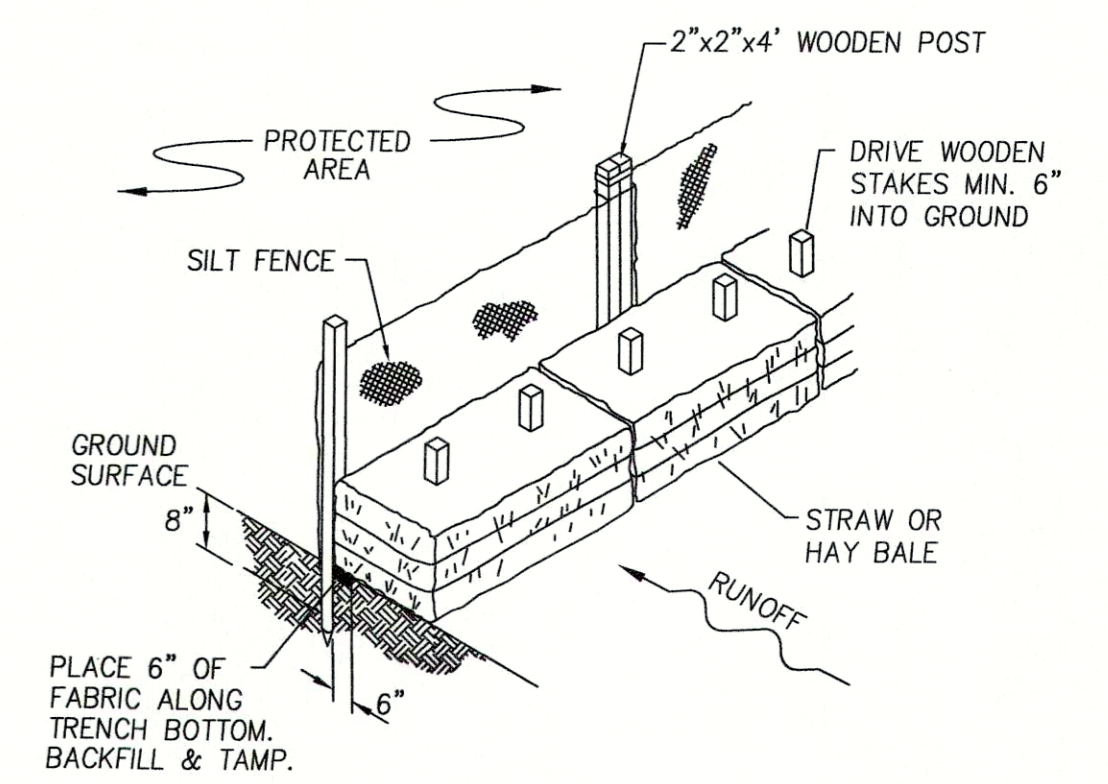
TYPICAL TRENCH DETAIL N.T.S.



NOTES

- TO INSTALL SILTSACK IN THE CATCH BASIN, REMOVE THE GRATE AND PLACE THE SACK IN THE OPENING. HOLD APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME. THIS IS THE AREA OF THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
- WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE, SILTSACK IS FULL AND SHOULD BE EMPTIED.
- TO REMOVE SILTSACK, TAKE TWO PIECES OF 1" DIAMETER REBAR AND PLACE THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE SACK TO FACILITATE THE LIFTING OF SILTSACK.
- TO EMPTY SILTSACK, PLACE UNIT WHERE THE CONTENTS WILL BE COLLECTED. PLACE THE REBAR THROUGH THE LIFT STRAPS (CONNECTED TO THE BOTTOM OF THE SACK) AND LIFT. THIS WILL LIFT SILTSACK FROM THE BOTTOM AND EMPTY THE CONTENTS. CLEAN OUT AND RINSE. RETURN SILTSACK TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE BASIN.
- SILTSACK IS REUSABLE. ONCE THE CONSTRUCTION CYCLE IS COMPLETE, REMOVE SILTSACK FROM THE BASIN AND CLEAN. SILTSACK SHOULD BE STORED OUT OF SUNLIGHT UNTIL NEXT USE.

SILT SACK DETAIL N.T.S.



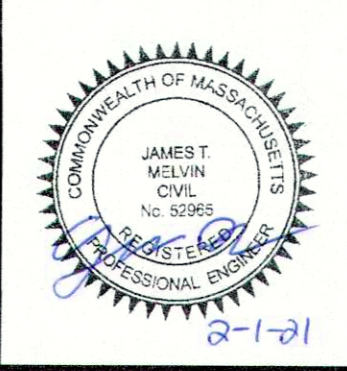
NOTES

- POSTS SHALL BE DOUBLED AND COUPLED AT FILTER CLOTH SEAMS.
- FILTER CLOTH TO BE FASTENED SECURELY TO SUPPORT NETTING WITH TIES SPACED EVERY 24" AT TOP, MID SECTION, AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.

MAINTENANCE

- SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC ON THE SILT FENCE SHALL DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHALL BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

SILT FENCE/HAYBALE INSTALLATION N.T.S.



PREPARED FOR
BAVARO FAMILY REALTY TWO, LLC
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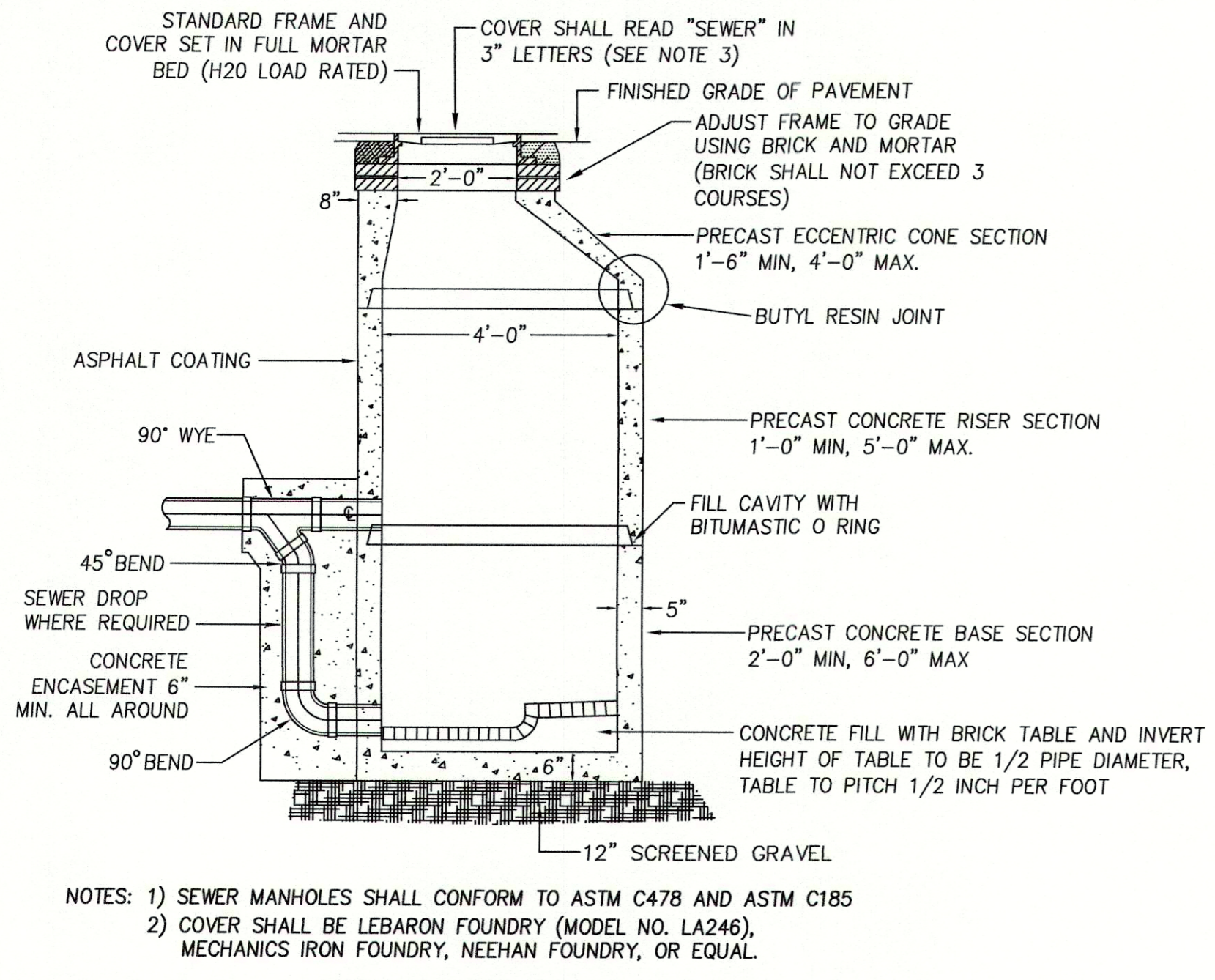
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MEI **MILLENNIUM ENGINEERING, INC.**
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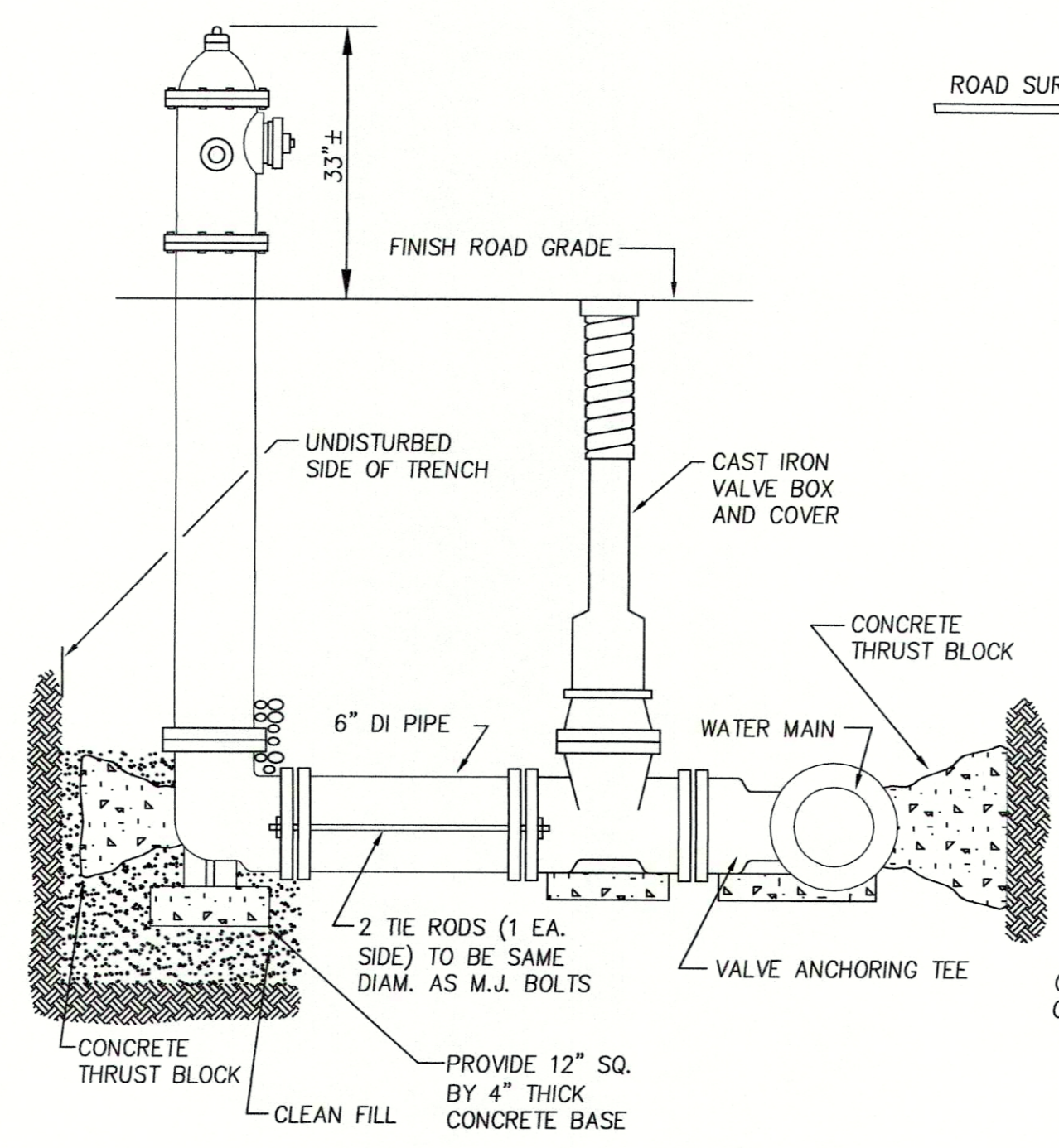
SCALE: 1"=20'
 DATE: SEP. 22, 2020
 DESG. BY: J.T.M.
 CHKD. BY: E.W.B.
 PROJECT: M193668

PLAN OF LAND
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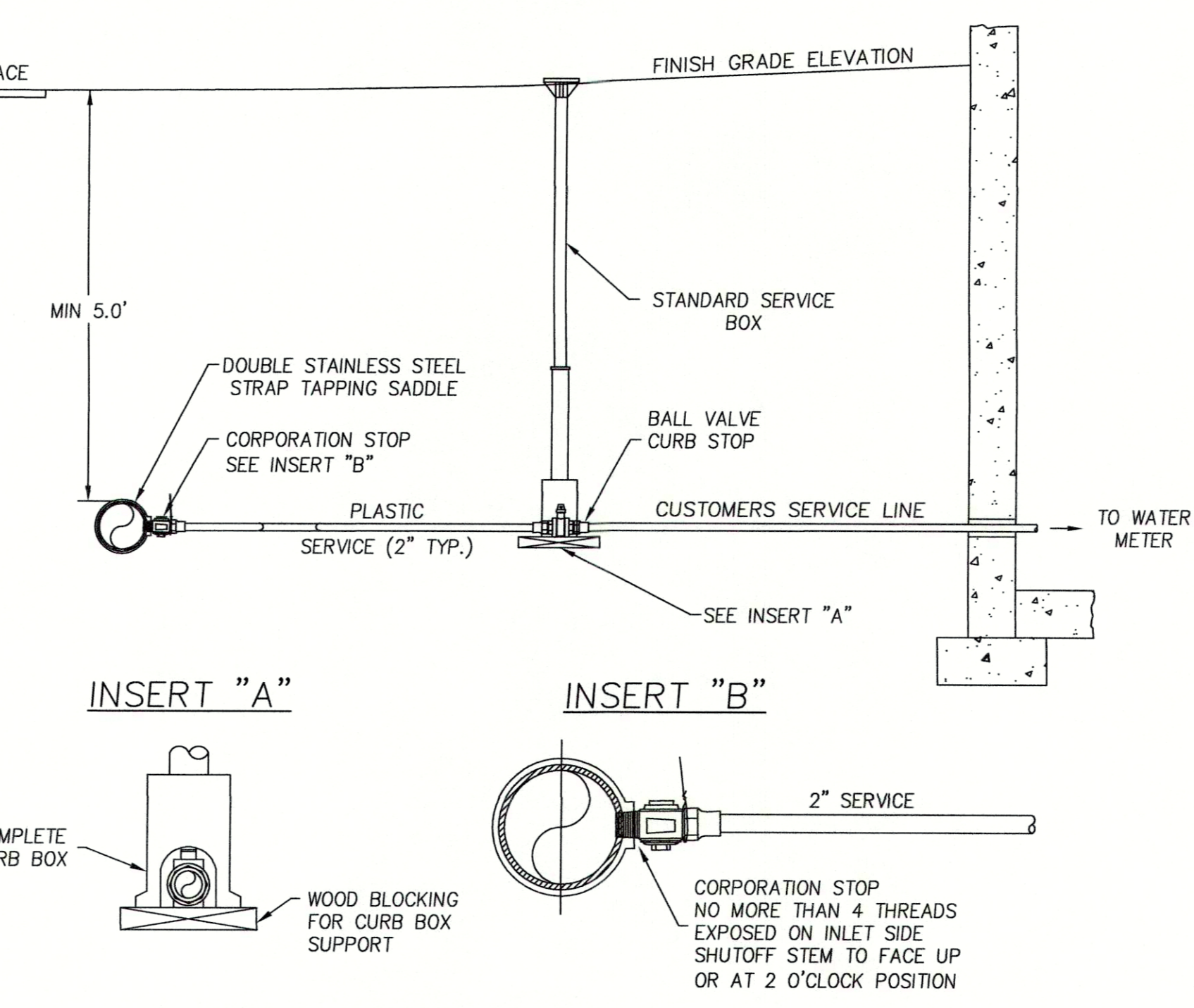
CONSTRUCTION DETAILS
 SHEET: 7 OF 8



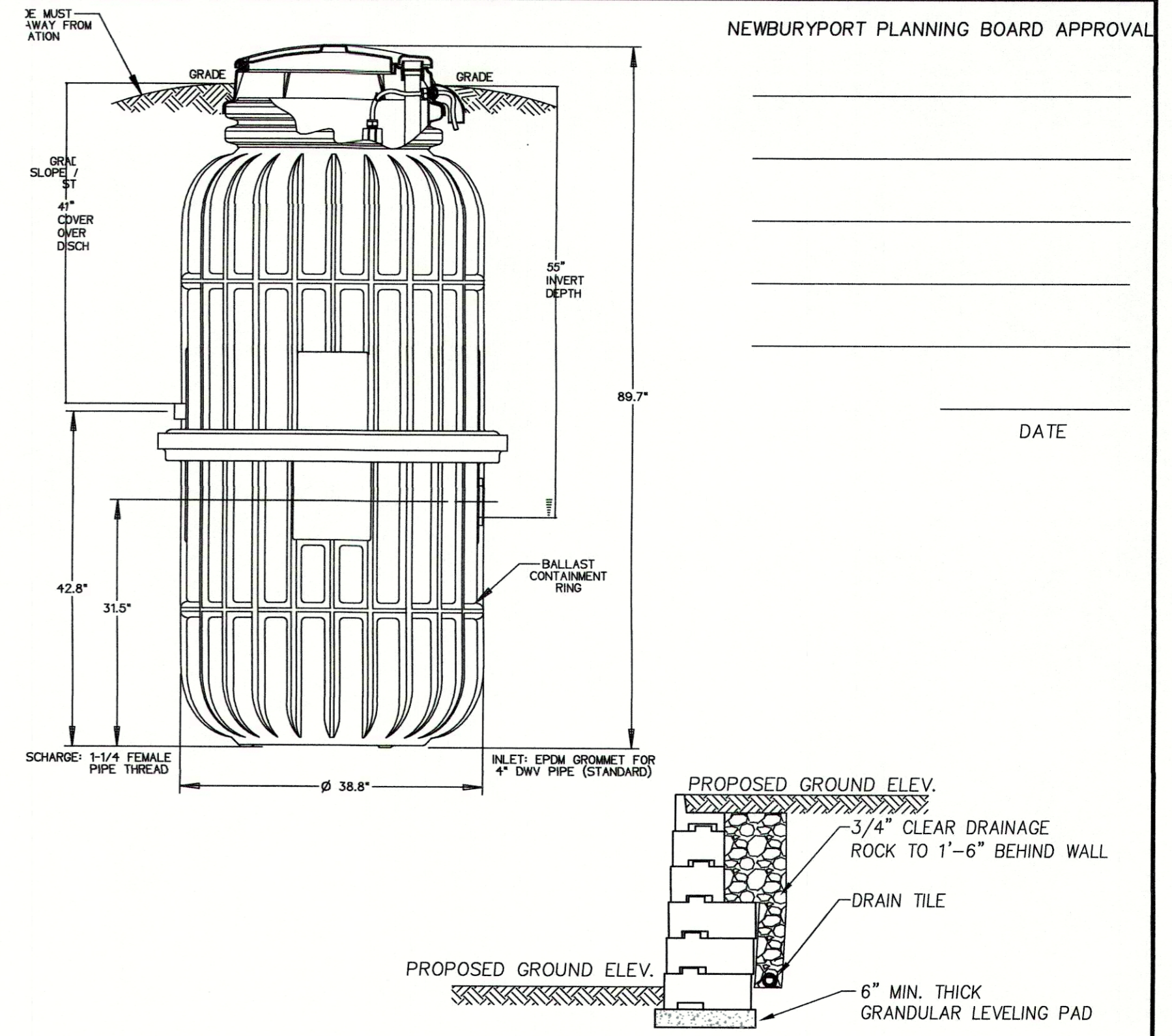
PRECAST SEWER MANHOLE DETAIL N.T.S.



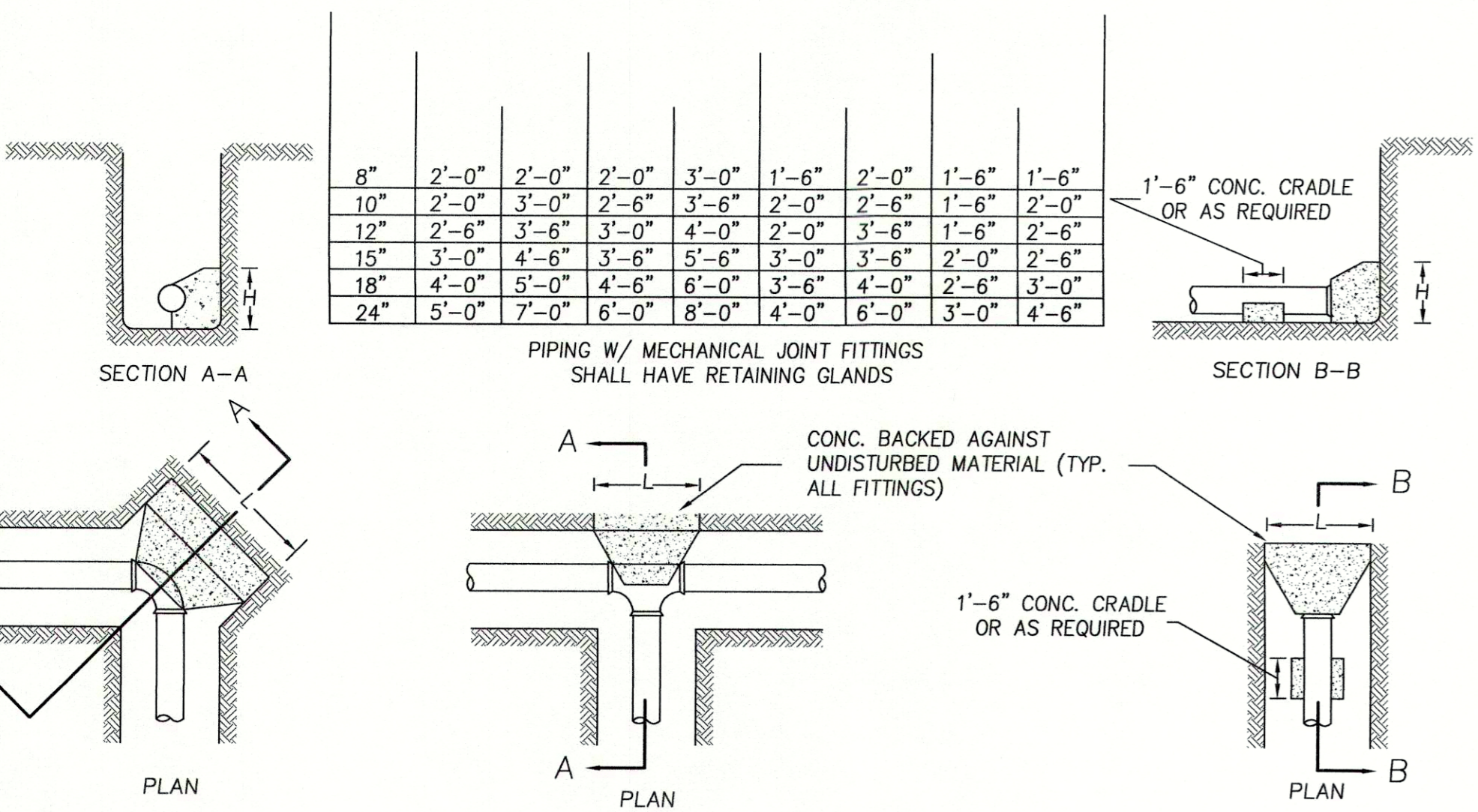
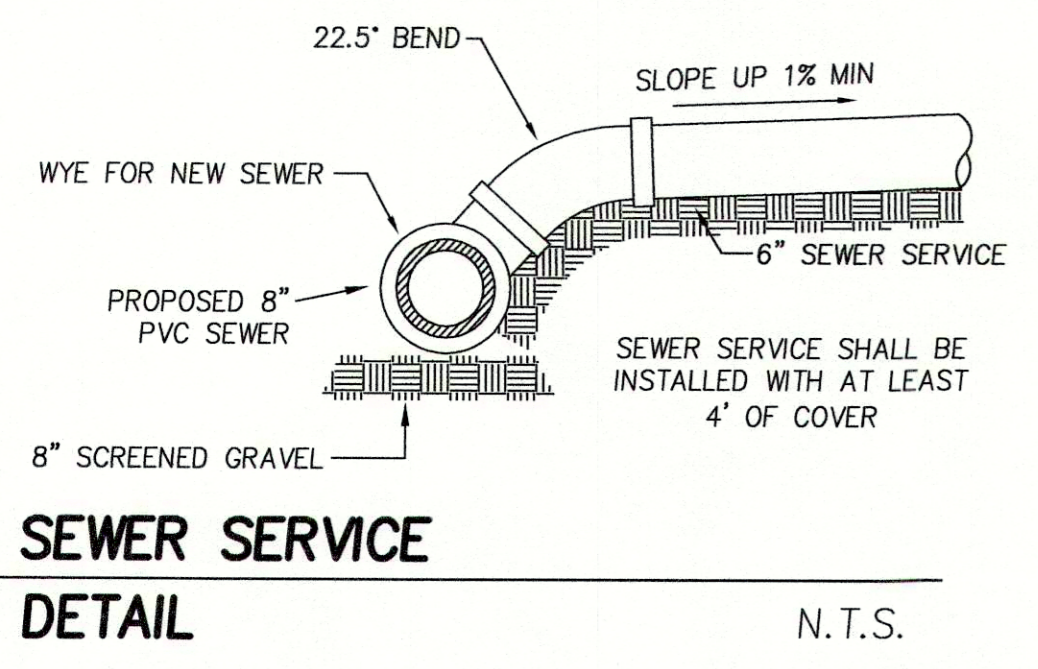
TYPICAL FIRE HYDRANT INSTALLATION N.T.S.



TYPICAL WATER SERVICE CONNECTION N.T.S.



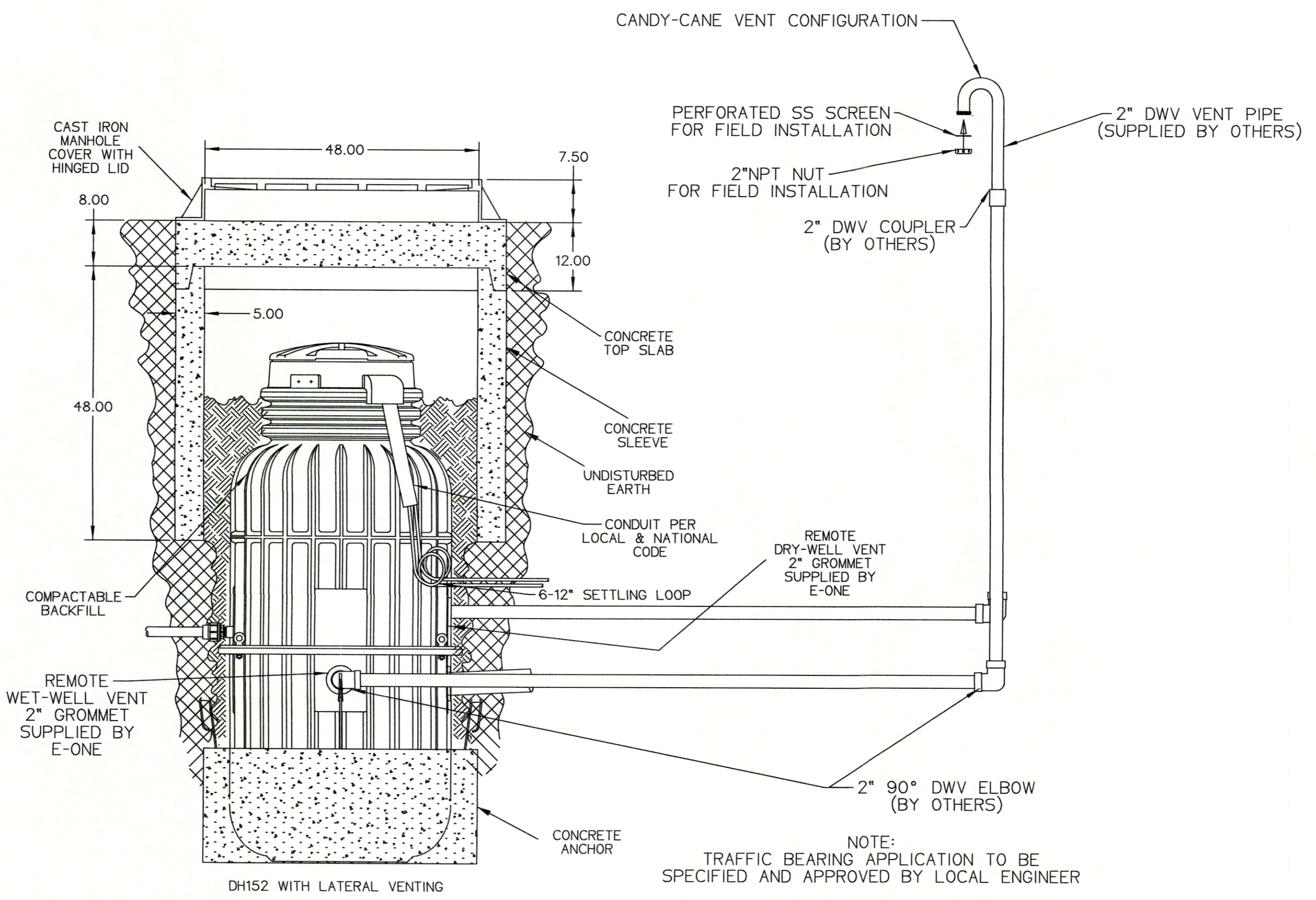
SEGMENTAL BLOCK RETAINING WALL N.T.S.



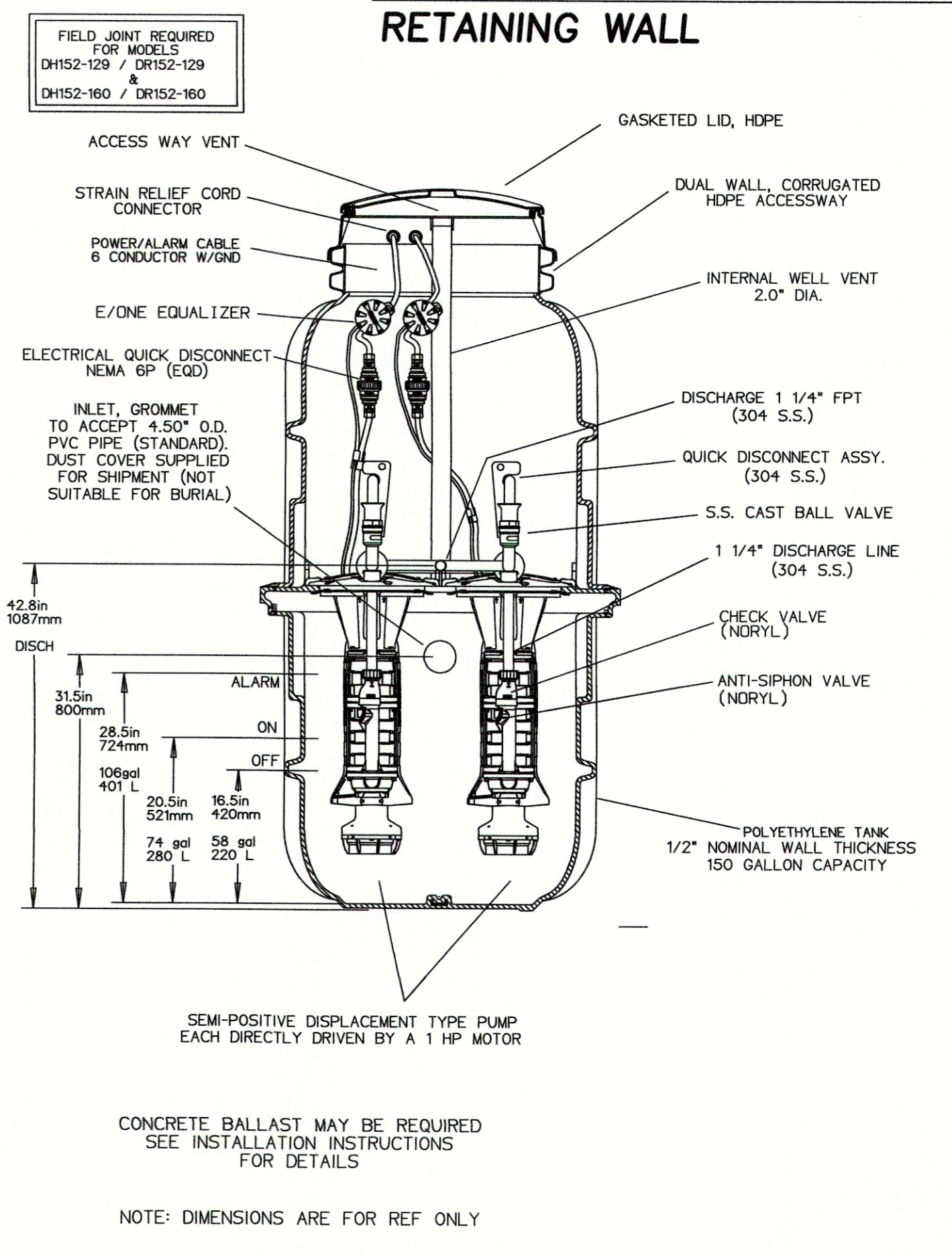
NOTES

- VALUES SHOWN ARE FOR TEST PRESSURE OF 150 PSI WITH A 100 PSI SURGE ALLOWANCE.
- THRUST BLOCKS SHALL NOT BE PLACED AGAINST THE FOLLOWING SOILS: PEAT, ORGANIC SILT AND ORGANIC SOILS, SOFT CLAY, RUBBISH FILL AND OTHER UNSUITABLE ARTIFICIAL FILL, SHATTERED SHALE, INORGANIC SILT AND VERY FINE SANDS.
- POURED CONCRETE THRUST BLOCKS SHALL NOT COVER ANY JOINTS, CLAMPS, NUTS, BOLTS, ETC.

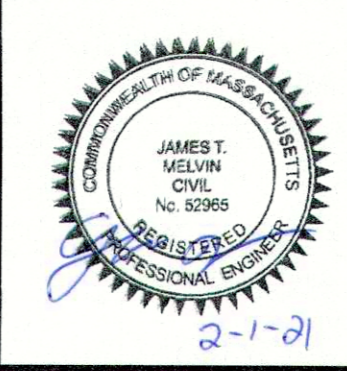
THRUST BLOCK DETAILS N.T.S.



E-ONE DH152 INSTALLATION DETAIL N.T.S.



E-ONE SEWER PUMP MODEL DH152 DETAIL N.T.S.



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SHEET: 8 OF 8