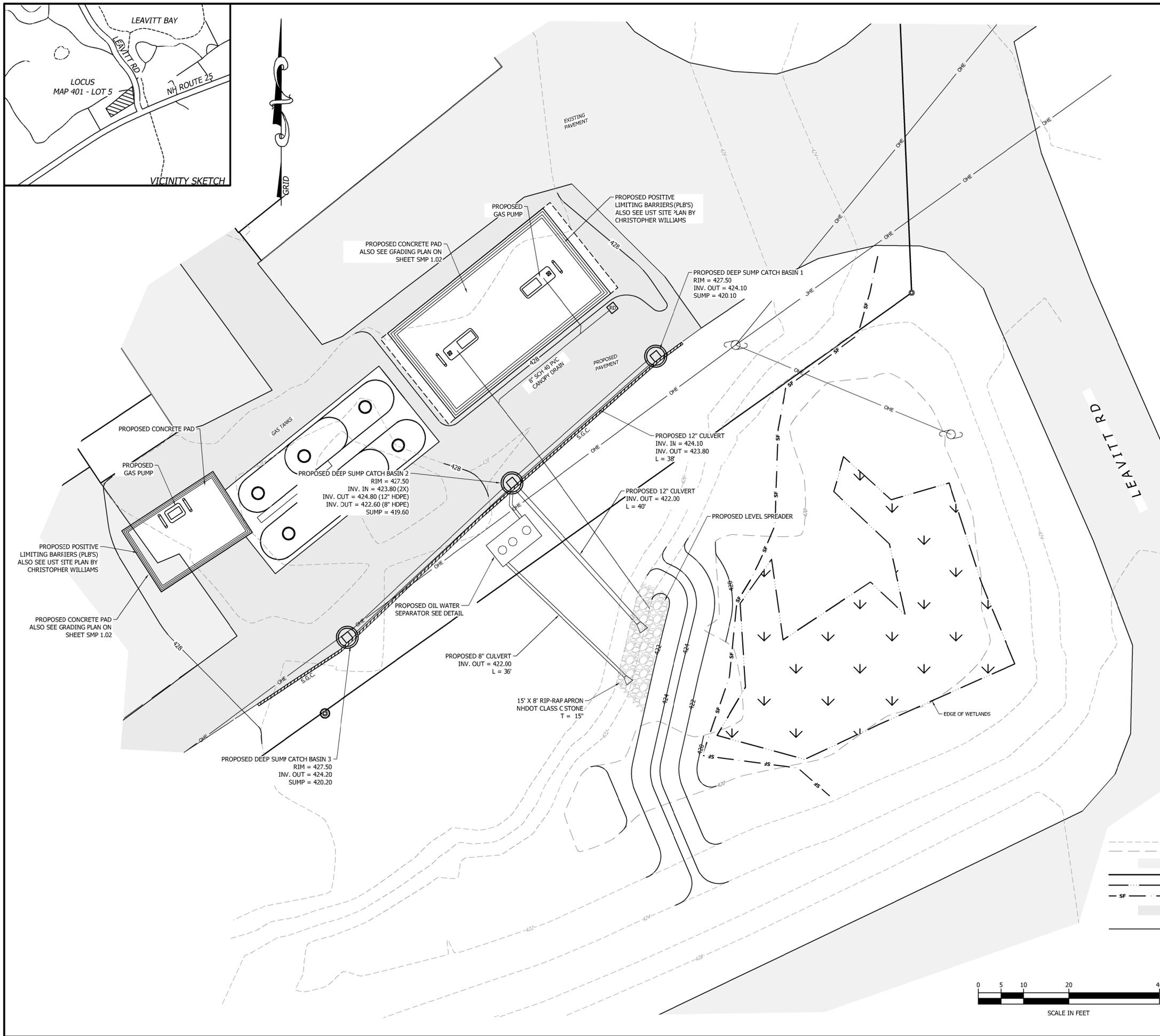


# STORMWATER MANAGEMENT GUIDELINES

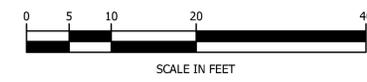
GENERAL EXCEPT WHERE MODIFIED HEREIN, ALL CONDITIONS, MEANS, METHODS AND MATERIALS SHALL COMPLY WITH THE NHDOT'S MOST RECENT EDITIONS OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND AS MAY BE FURTHER SPECIFIED WITHIN THE TOWN'S MOST RECENTLY ADOPTED ROAD OR STREET REGULATIONS.

- (1) CURBING  
ALL PROPOSED GRANITE CURBING SHALL BE SLOPED OR VERTICAL FACE CURBING MEETING NEW HAMPSHIRE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, HIGHWAY DESIGN MANUAL, STANDARD CR-1 PLATES 1 THROUGH 4. "BACKFILL MATERIAL" DEPICTED ON PLATE 1 SHALL BE CLASS B CONCRETE PLACED ON VEHICLE SIDE OF CURB.
- (2) PRECAST CONCRETE DRAINAGE STRUCTURES  
ALL PROPOSED DRAINAGE STRUCTURES SHALL MEET NEW HAMPSHIRE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DIVISION 600, SECTION 604.
- (3) CULVERTS AND STORM DRAINS  
ALL PROPOSED PIPING SHALL BE AS INDICATED IN PLAN VIEW:  
A. CORRUGATED EXTERIOR, SMOOTH WALL INTERIOR HDPE PIPE COMPLYING WITH AASHTO M294, TYPE S.  
B. FLARED STEEL END SECTIONS SHALL BE GALVANIZED COMPLYING WITH AASHTO M 309/M 36 AND SHALL BE INSTALLED WHERE STONE RIPRAP OUTLET PROTECTION IS NOT USED.  
C. ALL STREET CROSS CULVERTS SHALL HAVE PRECAST CONCRETE, CAST IN PLACE CONCRETE OR MORTARED RUBBLE MASONRY HEADWALLS AT BOTH ENDS OF THE CULVERTS.
- (4) LOAMING AND LOAM AMENDMENTS  
A. ALL REMAINING DISTURBED AREAS SHALL HAVE FOUR INCHES OF LOAM INSTALLED. LOAM SHALL BE FRIABLE, FREE OF STUMPS, ROOTS AND OTHER UNSUITABLE MATERIAL AND SHALL NOT BE SPREAD WHEN WET.  
B. ALL LOAMED AREAS SHALL BE FERTILIZED AND SEEDED BY HAND, BROADCAST OR HYDROSEED, AS FOLLOWS:  
NO FERTILIZER SHALL BE APPLIED TO VEGETATION OR SOILS WITHIN 25 FEET OF THE REFERENCE LINE OF ANY PUBLIC WATER FERTILIZER  
C. BETWEEN 25 FEET AND 100 FEET FROM ANY RIVER, STREAM, POND OR LAKE, ONLY LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER MAY BE USED. LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER THAT IS GUARANTEED, AS INDICATED ON THE PACKAGE LABEL, TO CONTAIN:  
1. NOT MORE THAN 2% PHOSPHOROUS; AND  
2. A NITROGEN COMPONENT WHICH IS AT LEAST 50% SLOW RELEASE NITROGEN COMPONENTS.  
D. BEYOND 100 FEET FROM ANY RIVER, STREAM, POND OR LAKE, THE FOLLOWING MAY BE USED:  
PERMANENT SEED MIXES:  
LIMESTONE AT 100 LBS PER 1000 SF      10-20-20 AT 12 LBS PER 1,000 SF  
AREAS WITHIN ROAD ROW AND DITCHES AND SWALES: NHDOT SLOPE SEED TYPE 44 AT 80 LBS PER ACRE  
AREAS OUTSIDE OF THE ROAD WORK: NHDOT PARK SEED TYPE 15 AT 120 LBS PER ACRE  
TEMPORARY SEED MIX  
SPRING PLANTING (BEFORE MAY 15): OATS AT 34 LBS PER ACRE OR ANNUAL RYEGRASS AT 16 LBS. PER ACRE  
FALL PLANTING (AFTER AUGUST 15): WINTER RYE AT 45 LBS. PER ACRE OR ANNUAL RYEGRASS AT 16 LBS. PER ACRE  
E. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING UNLESS HYDROSEEDING IS USED THAT INCLUDES A MULCH AND TACKIFIER. HYDROSEEDING NOTWITHSTANDING, MULCH SHALL CONSIST OF DRY STRAW OR SEEDLESS HAY SPREAD BY HAND OR MACHINE AND SHALL EITHER CONTAIN A TACKIFIER OR HAVE A TACKIFIER APPLIED.  
F. DRAINAGE BASINS AND CUT/FILL SLOPES STEEPER THAN 3:1 SHALL BE TREATED WITH EROSION CONTROL BLANKET PER MANUFACTURER'S SPECIFICATIONS FOLLOWING THE LOAMING AND LOAM AMENDMENTS' APPLICATION. EROSION CONTROL BLANKET SHALL BE EQUIVALENT TO GEOCOIR DEKOWE 400. THESE AREAS NEED NOT BE MULCHED.  
G. SLOPES SHOWN STEEPER THAN 2:1, IF NOT PROTECTED BY STONE RIPRAPING, SHALL BE PROTECTED WITH JUTE EROSION CONTROL BLANKET INSTALLED PER MANUFACTURER'S SPECIFICATIONS FOLLOWING THE LOAMING AND LOAM AMENDMENTS' APPLICATION. JUTE EROSION CONTROL BLANKET SHALL BE EQUIVALENT TO GEOCOIR DEKOWE 700. THESE AREAS NEED NOT BE MULCHED.  
H. DITCHES AND SWALES' SIDESLOPES AND INVERTS, IF NOT PROTECTED BY STONE RIPRAPING, SHALL BE PROTECTED WITH JUTE EROSION CONTROL BLANKET INSTALLED PER MANUFACTURER'S SPECIFICATIONS FOLLOWING THE LOAMING AND LOAM AMENDMENTS' APPLICATION. JUTE EROSION CONTROL BLANKET SHALL BE EQUIVALENT TO GEOCOIR DEKOWE 900. THESE AREAS NEED NOT BE MULCHED.
- (5) ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.



**LEGEND**

---	852	EXISTING 2 FOOT CONTOURS
---	850	EXISTING 10 FOOT CONTOURS
---		EXISTING PAVEMENT
---		PROPERTY LINE
---		WETLAND LINE
- SF -		PROPOSED SEDIMENT FENCE
---		PROPOSED PAVEMENT
---	420	PROPOSED CONTOUR



DATE OF PRINT  
**JUNE 23 2022**  
HORIZONS ENGINEERING

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**MEENA LLC**

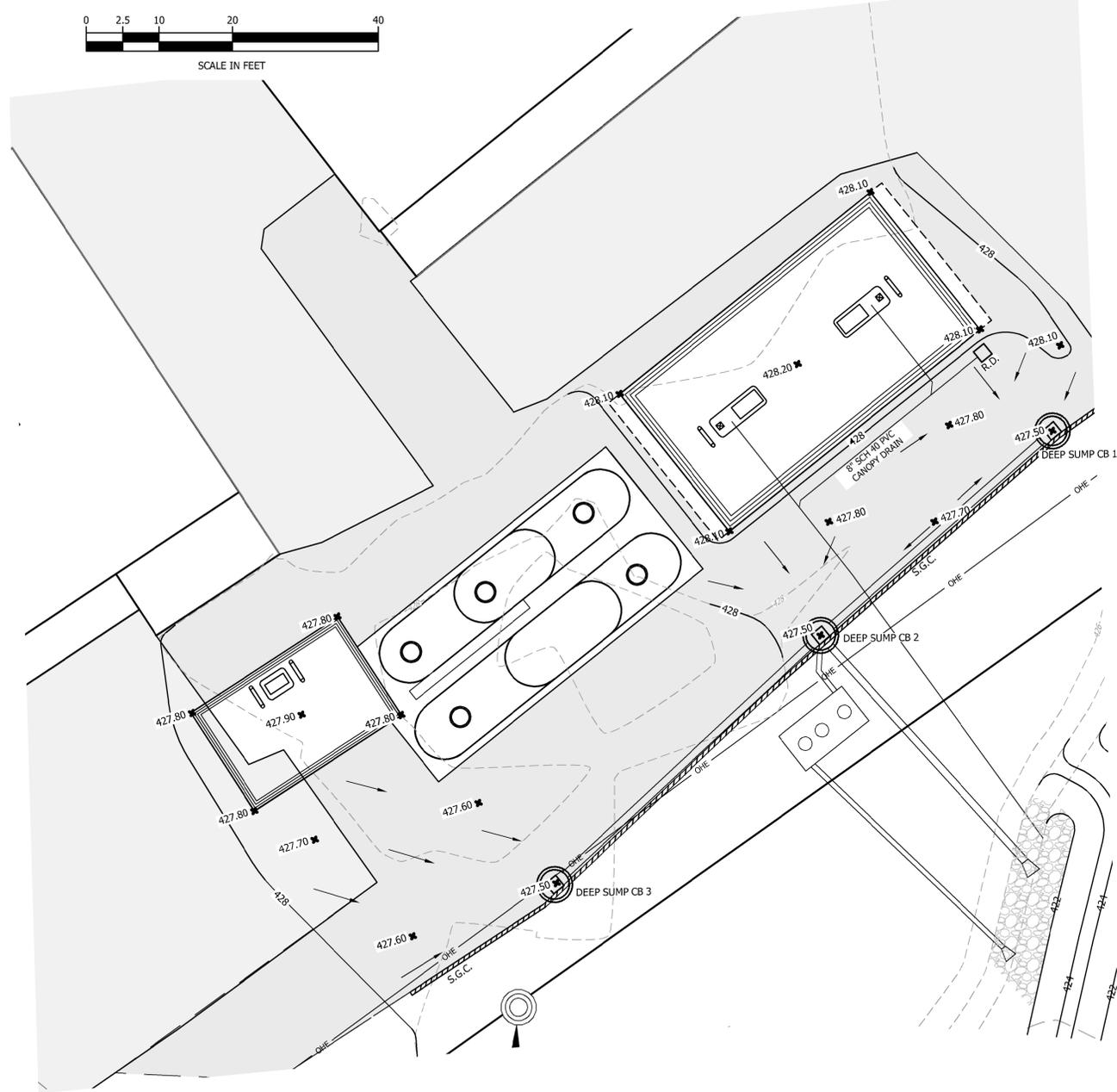
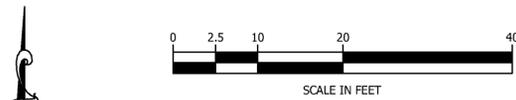
43 NH ROUTE 25  
EFFINGHAM, NEW HAMPSHIRE

**STORMWATER MANAGEMENT PLAN**

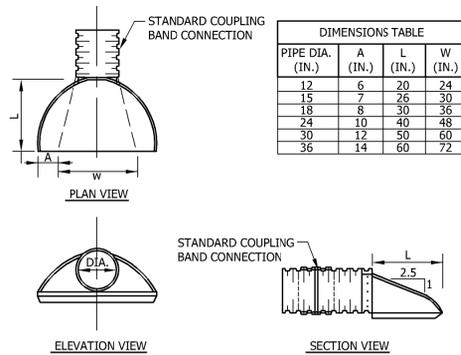
NO.	DATE	REVISION DESCRIPTION	ENG	DWG

DATE:	JUNE 2022	PROJECT #:	220473
ENGIN'D BY:	JFH	DRAWN BY:	JFH
CHECK'D BY:	DEB	ARCHIVE #:	H---

**SMP 1.01**



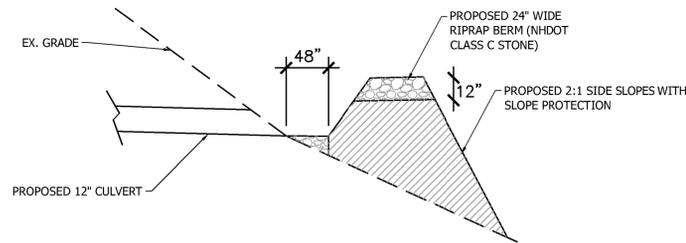
CONCRETE PAD GRADING PLAN



FLARED END SECTION DETAIL

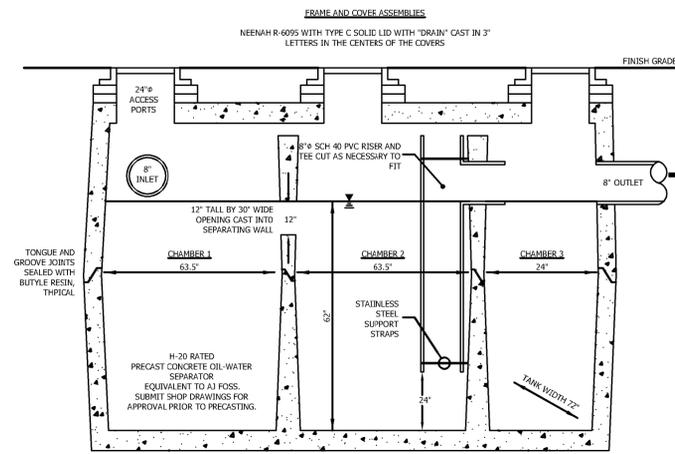
NO SCALE

PIPE DIA. (IN.)	A (IN.)	L (IN.)	W (IN.)
12	6	20	24
15	7	26	30
18	8	30	36
24	10	40	48
30	12	50	60
36	14	60	72



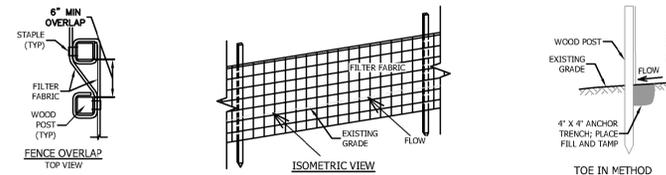
LEVEL SPREADER DETAIL

NOT TO SCALE



OIL/WATER SEPARATOR DETAIL

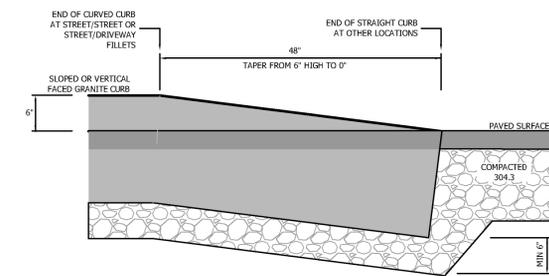
NO SCALE  
TANK DIMENSIONS ARE BASED ON THE A3 F055 X.XXX GALLON H-30 RATED TANK PER NHDES ADMINISTRATIVE RULE Env-Wq 1508.14(C). THE FIRST AND SECOND CHAMBERS SHALL HAVE A MINIMUM STORAGE VOLUME OF 400 CF/ACRE OF CONTRIBUTING IMPERVIOUS AREA. THIS PROPOSAL: 0.40 ACRES. THEREFORE, (0.40 AC \* 400 CF/ACRES) = 160 CF (MINIMUM VOLUME REQUIRED). CHAMBERS 1 AND 2 EACH CONTAIN 50 CF (100 CF TOTAL); CHAMBER 3 CONTAINS 60 CF. UPSTREAM DSCB HAS OUTLETS CONFIGURED TO DIRECT RAIN EVENT "FIRST FLUSH" TO THE O/W SEPARATOR.



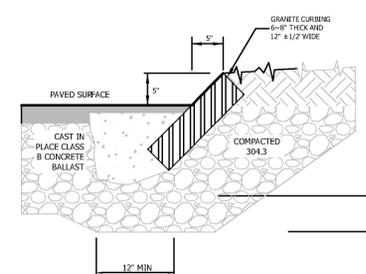
SILT FENCE DETAIL

- NO SCALE  
INSTALL AROUND STOCKPILED MATERIALS AND THROUGHOUT THE SITE USING BEST MANAGEMENT PRACTICES
- A. FILTER FABRIC AND POSTS**
1. FILTER FABRIC SHALL BE A PERMEABLE SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN CERTIFIED TO CONTAIN ULTRAVIOLET RAY INHIBITORS/STABILIZERS WITH A MINIMUM 6 MONTHS USABLE CONSTRUCTION BETWEEN TEMPERATURES OF 0-120° F.
  2. FILTER FABRIC SHALL BE PURCHASED IN A ROLL AND CUT TO THE LENGTH OF THE BARRIER.
  3. POSTS FOR SILT FENCES SHALL BE 1 1/2 INCH SQUARE HARDWOOD STAKES OR 60° LONG 1.33 LBS/FT STEEL POSTS WITH PROJECTIONS FOR FASTENING WIRE.
  4. ALTERNATIVELY, A MANUFACTURED SYSTEM WITH INTEGRAL POSTS SPACED AT 6 FEET MAX MAY BE USED WITH SUPPORT POSTS SIZED AND ANCHORED PER MANUFACTURER'S INSTRUCTIONS.
- B. INSTALLATION**
1. FENCES SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, FLARED UPHILL WITH HOOKS AT THE END.
  2. EXCAVATE A TRENCH A MINIMUM OF 4 INCHES WIDE AND 4 INCHES DEEP UPSLOPE OF POSTS AND BARRIER. EMBED A MINIMUM OF 8 INCHES OF FILTER FABRIC IN TRENCH AND BACKFILL OVER THE FILTER FABRIC. ALTERNATIVELY, INSTALL WITH SPECIFICALLY DESIGNED MECHANICAL EQUIPMENT.
  3. IF UNABLE TO TRENCH, ANCHOR THE BASE OF THE FABRIC WITH 3/4-INCH CRUSHED STONE, MINIMUM 8 INCHES THICK. FILTER FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE EXISTING GRADE.
  4. PLACE POSTS DOWNSLOPE OF THE FABRIC SPACED 6 FEET APART MAX. DO NOT STAPLE OR NAIL TO TREES.
  5. JOIN SECTIONS BY OVERLAPPING FABRIC (MIN 6 INCHES, 24 INCHES PREFERRED), FOLD AND STAPLE TO A SUPPORT POST. FOR METAL POSTS, WIRE-TIE FABRIC DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.
- C. MAINTENANCE**
1. THE USEFUL LIFE OF SILT FENCE IS ONE SEASON. REPLACE PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS ON PROJECTS.
  2. INSPECT AND MAINTAIN IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
  3. AT A MINIMUM, REMOVE SEDIMENT WHEN DEPOSITION ACCUMULATES TO HALF THE HEIGHT OF THE FENCE AND REMOVE TO A LOCATION NOT UPSLOPE OF SILT FENCE.
  4. REPAIR SILT FENCE IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION DOWNSLOPE. REPLACE WITH A TEMPORARY CHECK DAM IF UNDERCUTTING OR IMPOUNDING OF LARGE VOLUMES OF WATER OCCURS.
  5. EXTEND SILT FENCE UPHILL OR REPLACE WITH TEMPORARY DIVERSIONS OR SEDIMENT TRAPS IF THERE IS EVIDENCE OF END FLOW.
  6. REPLACE IMMEDIATELY IF DECOMPOSITION OR INEFFECTIVENESS OCCURS PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND IS STILL REQUIRED.
  7. SEDIMENT DEPOSITS TO REMAIN AFTER REMOVAL SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.
  8. REMOVE SILT FENCE ONCE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

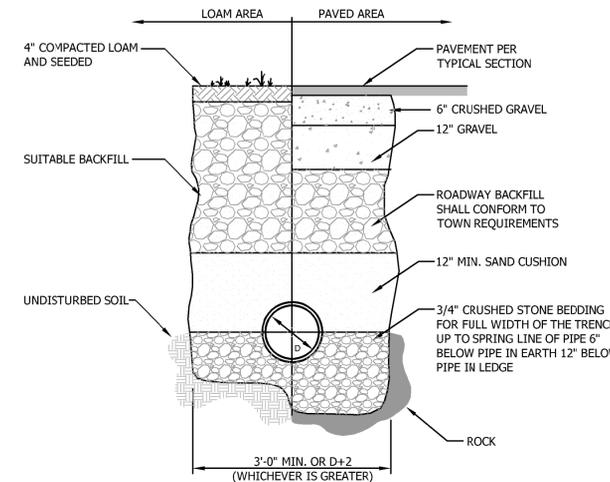
SILT FENCE DETAIL



ELEVATION AT CURB END

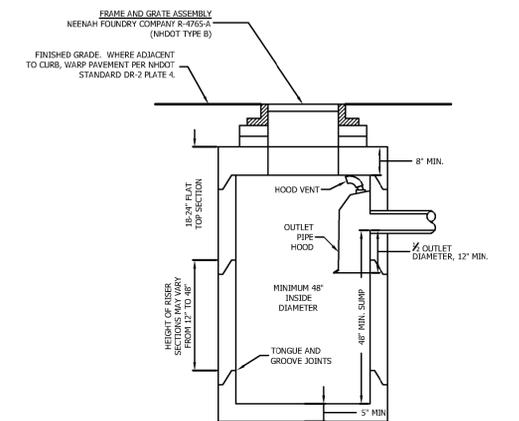


SECTION SLOPED CURB



TYPICAL DRAINAGE TRENCH DETAIL

NOT TO SCALE



DEEP SUMP CATCH BASIN DETAIL

NO SCALE

1. ALL PRECAST SECTIONS SHALL BE CONCRETE CLASS A (4000 PSI) H-30 RATED.
2. CIRCUMFERENTIAL REINFORCING SHALL BE 0.12 SQ. IN. PER LIN. FT. IN ALL SECTIONS, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LIN. FT.
4. RISERS OF 12", 24", 36" AND 48" CAN BE USED TO REACH DESIRED ELEV.
5. WHERE THE DSCB IS PLACED ADJACENT TO CURBING USE ECCENTRIC CONE OF FLAT TOP AND GRADE PAVEMENT PER NHDOT PLATE DI-D-4, D-88D-E.
6. OUTLET HOODS EQUIVALENT TO ADS' ELIMINATOR.

**horizons**  
Engineering

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MEENA LLC

43 NH ROUTE 25

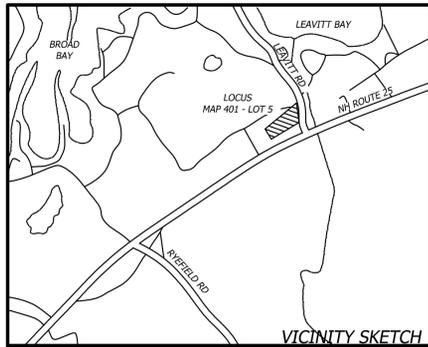
EFFINGHAM, NEW HAMPSHIRE

STORMWATER MANAGEMENT  
DETAILS

NO.	DATE	REVISION DESCRIPTION	ENG	DWG



DATE: MAY 2022 PROJECT #: 220473  
ENGIN'D BY: JFH DRAWN BY: JFH  
CHECK'D BY: DEB ARCHIVE #: H-  
SMP 1.02

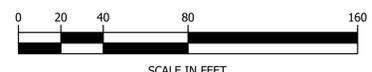
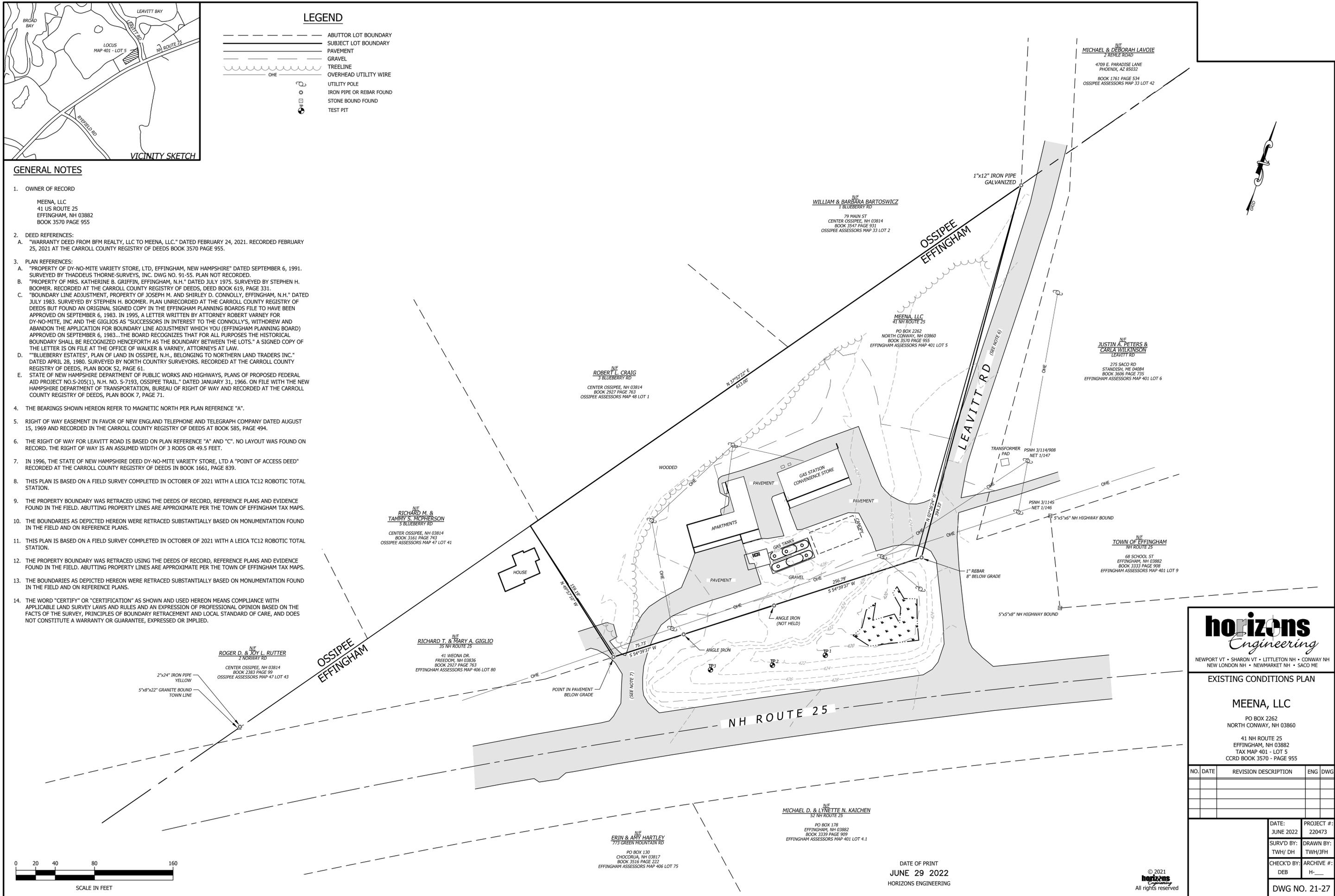


**LEGEND**

- ABUTTOR LOT BOUNDARY
- SUBJECT LOT BOUNDARY
- PAVEMENT
- GRAVEL
- TREELINE
- OHE OVERHEAD UTILITY WIRE
- UTILITY POLE
- IRON PIPE OR REBAR FOUND
- STONE BOUND FOUND
- TEST PIT

**GENERAL NOTES**

1. OWNER OF RECORD  
MEENA, LLC  
41 US ROUTE 25  
EFFINGHAM, NH 03882  
BOOK 3570 PAGE 955
2. DEED REFERENCES:  
A. "WARRANTY DEED FROM BFM REALTY, LLC TO MEENA, LLC." DATED FEBRUARY 24, 2021. RECORDED FEBRUARY 25, 2021 AT THE CARROLL COUNTY REGISTRY OF DEEDS BOOK 3570 PAGE 955.
3. PLAN REFERENCES:  
A. "PROPERTY OF DY-NO-MITE VARIETY STORE, LTD, EFFINGHAM, NEW HAMPSHIRE" DATED SEPTEMBER 6, 1991. SURVEYED BY THADDEUS THORNE-SURVEYS, INC. DWG NO. 91-55. PLAN NOT RECORDED.  
B. "PROPERTY OF MRS. KATHERINE B. GRIFFIN, EFFINGHAM, N.H." DATED JULY 1975. SURVEYED BY STEPHEN H. BOOMER. RECORDED AT THE CARROLL COUNTY REGISTRY OF DEEDS, DEED BOOK 619, PAGE 331.  
C. "BOUNDARY LINE ADJUSTMENT, PROPERTY OF JOSEPH M. AND SHIRLEY D. CONNOLLY, EFFINGHAM, N.H." DATED JULY 1983. SURVEYED BY STEPHEN H. BOOMER. PLAN UNRECORDED AT THE CARROLL COUNTY REGISTRY OF DEEDS BUT FOUND AN ORIGINAL SIGNED COPY IN THE EFFINGHAM PLANNING BOARDS FILE TO HAVE BEEN APPROVED ON SEPTEMBER 6, 1983. IN 1995, A LETTER WRITTEN BY ATTORNEY ROBERT VARNEY FOR DY-NO-MITE, INC AND THE GIGLIOS AS "SUCCESSORS IN INTEREST TO THE CONNOLLYS, WITHDREW AND ABANDON THE APPLICATION FOR BOUNDARY LINE ADJUSTMENT WHICH YOU (EFFINGHAM PLANNING BOARD) APPROVED ON SEPTEMBER 6, 1983...THE BOARD RECOGNIZES THAT FOR ALL PURPOSES THE HISTORICAL BOUNDARY SHALL BE RECOGNIZED HENCEFORTH AS THE BOUNDARY BETWEEN THE LOTS." A SIGNED COPY OF THE LETTER IS ON FILE AT THE OFFICE OF WALKER & VARNEY, ATTORNEYS AT LAW.  
D. "'BLUEBERRY ESTATES', PLAN OF LAND IN OSSISPEE, N.H., BELONGING TO NORTHERN LAND TRADERS INC." DATED APRIL 28, 1980. SURVEYED BY NORTH COUNTRY SURVEYORS. RECORDED AT THE CARROLL COUNTY REGISTRY OF DEEDS, PLAN BOOK 52, PAGE 61.  
E. STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, PLANS OF PROPOSED FEDERAL AID PROJECT NO. S-205(1), N.H. NO. S-7193, OSSISPEE TRAIL." DATED JANUARY 31, 1966. ON FILE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, BUREAU OF RIGHT OF WAY AND RECORDED AT THE CARROLL COUNTY REGISTRY OF DEEDS, PLAN BOOK 7, PAGE 71.
4. THE BEARINGS SHOWN HEREON REFER TO MAGNETIC NORTH PER PLAN REFERENCE "A".
5. RIGHT OF WAY EASEMENT IN FAVOR OF NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY DATED AUGUST 15, 1969 AND RECORDED IN THE CARROLL COUNTY REGISTRY OF DEEDS AT BOOK 585, PAGE 494.
6. THE RIGHT OF WAY FOR LEAVITT ROAD IS BASED ON PLAN REFERENCE "A" AND "C". NO LAYOUT WAS FOUND ON RECORD. THE RIGHT OF WAY IS AN ASSUMED WIDTH OF 3 RODS OR 49.5 FEET.
7. IN 1996, THE STATE OF NEW HAMPSHIRE DEED DY-NO-MITE VARIETY STORE, LTD A "POINT OF ACCESS DEED" RECORDED AT THE CARROLL COUNTY REGISTRY OF DEEDS IN BOOK 1661, PAGE 839.
8. THIS PLAN IS BASED ON A FIELD SURVEY COMPLETED IN OCTOBER OF 2021 WITH A LEICA TC12 ROBOTIC TOTAL STATION.
9. THE PROPERTY BOUNDARY WAS RETRACED USING THE DEEDS OF RECORD, REFERENCE PLANS AND EVIDENCE FOUND IN THE FIELD. ABUTTING PROPERTY LINES ARE APPROXIMATE PER THE TOWN OF EFFINGHAM TAX MAPS.
10. THE BOUNDARIES AS DEPICTED HEREON WERE RETRACED SUBSTANTIALLY BASED ON MONUMENTATION FOUND IN THE FIELD AND ON REFERENCE PLANS.
11. THIS PLAN IS BASED ON A FIELD SURVEY COMPLETED IN OCTOBER OF 2021 WITH A LEICA TC12 ROBOTIC TOTAL STATION.
12. THE PROPERTY BOUNDARY WAS RETRACED USING THE DEEDS OF RECORD, REFERENCE PLANS AND EVIDENCE FOUND IN THE FIELD. ABUTTING PROPERTY LINES ARE APPROXIMATE PER THE TOWN OF EFFINGHAM TAX MAPS.
13. THE BOUNDARIES AS DEPICTED HEREON WERE RETRACED SUBSTANTIALLY BASED ON MONUMENTATION FOUND IN THE FIELD AND ON REFERENCE PLANS.
14. THE WORD "CERTIFY" OR "CERTIFICATION" AS SHOWN AND USED HEREON MEANS COMPLIANCE WITH APPLICABLE LAND SURVEY LAWS AND RULES AND AN EXPRESSION OF PROFESSIONAL OPINION BASED ON THE FACTS OF THE SURVEY, PRINCIPLES OF BOUNDARY RETRACEMENT AND LOCAL STANDARD OF CARE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.



DATE OF PRINT  
**JUNE 29 2022**  
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**EXISTING CONDITIONS PLAN**

**MEENA, LLC**

PO BOX 2262  
 NORTH CONWAY, NH 03860

41 NH ROUTE 25  
 EFFINGHAM, NH 03882  
 TAX MAP 401 - LOT 5  
 CCRD BOOK 3570 - PAGE 955

NO.	DATE	REVISION DESCRIPTION	ENG	DWG

DATE: JUNE 2022	PROJECT #: 220473
SURV'D BY: TWH/DH	DRAWN BY: TWH/JFH
CHECK'D BY: DEB	ARCHIVE #: H-___

DWG NO. 21-27

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