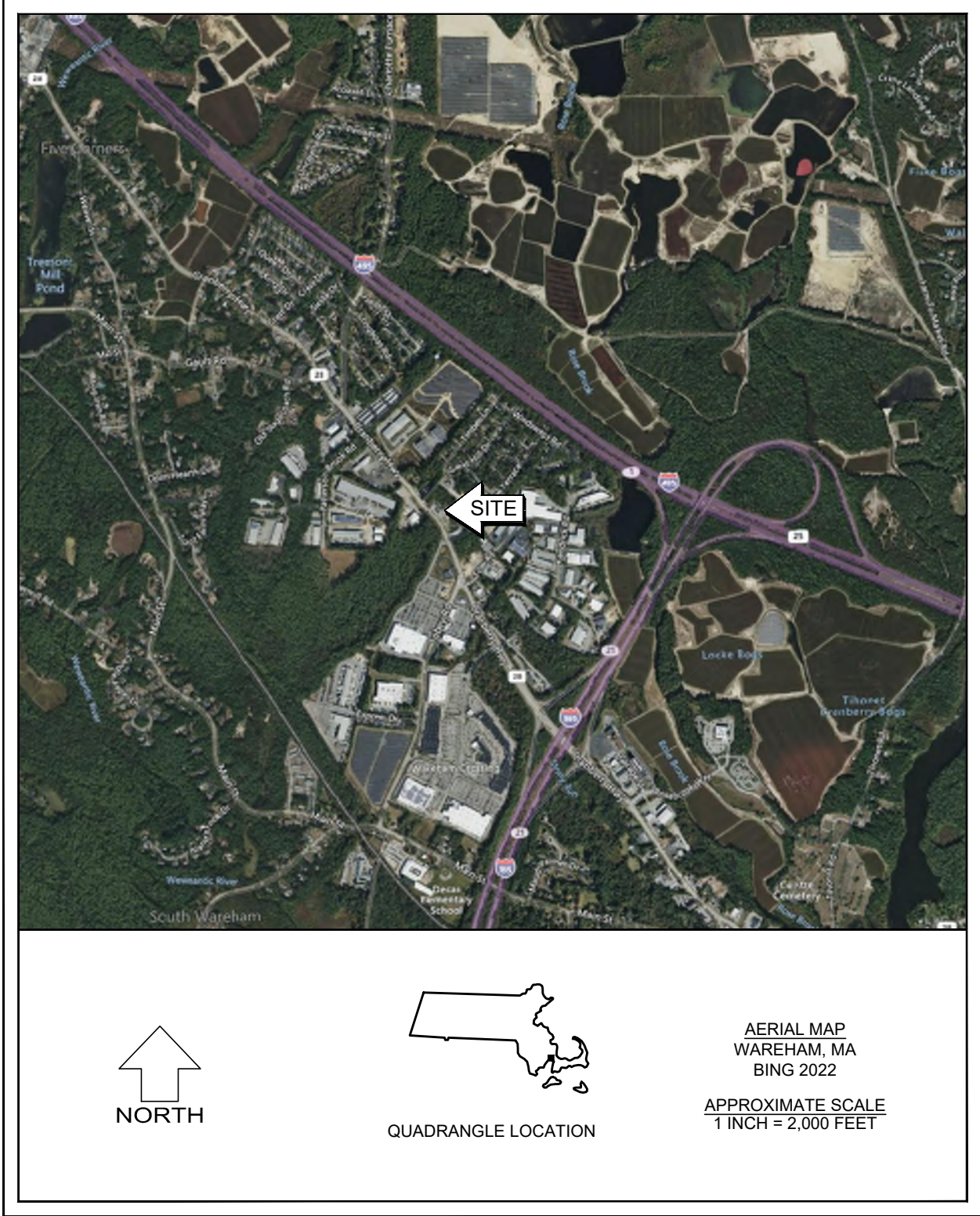


# TRUE STORAGE FACILITY

2400 & 2402 CRANBERRY HIGHWAY  
WAREHAM, MASSACHUSETTS

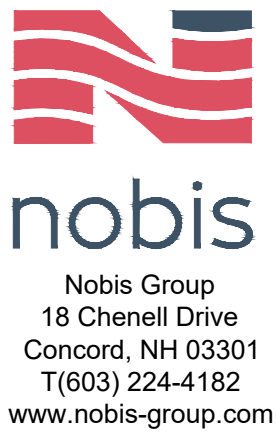
SITE ENGINEER  
NOBIS GROUP - LOWELL, MA  
ARCHITECT  
BRADY SULLIVAN PROPERTIES - MANCHESTER, NH  
SURVEYOR  
CONTROL POINT ASSOCIATES, INC. - SOUTHBOROUGH, MA  
SEPTIC DESIGNER  
PROVENCHER ENGINEERING, LLC - MERRIMACK, NH



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APRIL 2022  
LATEST REVISION MARCH 20, 2023





## LEGEND

EXISTING	PROPOSED	
		SUBJECT PROPERTY LINE
		OTHER PROPERTY LINE
		SETBACKS
		EASEMENT
		STONE WALL
		RETAINING WALL
		EDGE OF WETLAND
		STREAM / RIVER
		TREE LINE
		CHAIN LINK FENCE
		STOCKADE FENCE
		GUARDRAIL (STEEL)
		GUARDRAIL (WOOD)
		CENTERLINE
		EDGE OF GRAVEL
		EDGE OF PAVEMENT
		VERTICAL GRANITE CURB
		TIP DOWN
		MAJOR CONTOUR
		MINOR CONTOUR
		DRAIN LINE
		ROOF DRAIN
		FOUNDATION DRAIN
		SWALE FLOW DIRECTION
		SILT FENCE / WATTLE
		OVERHEAD UTILITY WIRE
		UNDERGROUND ELECTRIC
		UNDERGROUND TELECOM
		SANITARY SEWER LINE
		WATER LINE
		WATER SERVICE
		GAS LINE
		ZONING BOUNDARY LINE
		FLOOD ZONE LINE

EXISTING	PROPOSED	
		DRAIN MANHOLE
		CATCH BASIN
		UTILITY POLE
		PAD MOUNTED TRANSFORMER
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEAN-OUT
		HYDRANT
		WATER VALVE
		WATER SHUT OFF
		WATER SUPPLY WELL
		GAS SHUT OFF
		GAS METER
		SPOT GRADE
		CURB SPOT GRADE
		SIGN POST
		LIGHT POLE
		TREE
		CONCRETE
		GRAVEL
		RIP RAP
		FLOW DIRECTION
		INLET PROTECTION
		SLOPE & DIRECTION
		TEST PIT LOCATION
		BORING LOCATION
		MONITORING WELL LOCATION
		PERC. TEST LOCATION
		PHOTO LOCATION / DIRECTION
		STEEP SLOPE
		TP
		B
		MW
		PT
		1
		STEEP SLOPE

### GENERAL NOTES:

- THESE DRAWINGS SHOULD BE REVIEWED IN CONJUNCTION WITH THE ACCOMPANYING DESIGN REPORT TITLED "STORMWATER MANAGEMENT REPORT FOR TRUE STORAGE FACILITY, 2400 & 2402 CRANBERRY HIGHWAY, WAREHAM, MA," DATED MARCH 2023 PREPARED BY NOBIS GROUP.
- EXISTING CONDITIONS, TOPOGRAPHICAL INFORMATION, NORTH ORIENTATION, NORTH ARROW, AND COORDINATE VALUES DEPICTED ON THESE DRAWINGS ARE BASED ON PLANS TITLED "BOUNDARY & LOCATION SURVEY, 2400, 2402, & 2408 CRANBERRY HIGHWAY," DATED JULY 12, 2022, PROVIDED TO NOBIS GROUP BY CONTROL POINT ASSOCIATES, INC.
- THESE DRAWINGS AND ACCOMPANYING TEXT HAVE BEEN PREPARED FOR BRADY SULLIVAN PROPERTIES, FOR REVIEW BY THE TOWN OF WAREHAM VARIOUS DEPARTMENTS AND THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT).
- THE CONTRACTOR SHALL OBTAIN COVERAGE UNDER EPA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FOR CONSTRUCTION ACTIVITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND IMPLEMENTING AN ENVIRONMENTAL PROTECTION AGENCY (EPA) STORM WATER POLLUTION PREVENTION PLAN PRIOR TO THE START OF CONSTRUCTION AND DURING CONSTRUCTION ON-SITE IN ACCORDANCE WITH THE EPA REGULATIONS UNDER THE CLEAN WATER ACT.

### EROSION CONTROL NOTES:

CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER CATCH BASINS DURING EXCAVATION FOR PIPE TRENCHES, DITCHES AND SWALES. THE CONTRACTOR SHOULD PLACE NON-WOVEN GEOTEXTILE FABRIC FOR INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE, WHICH ARE SUBJECT TO SEDIMENT CONTAMINATION.

PLACE INLET PROTECTION DEVICES, IN CATCH BASINS AND MAINTAIN UNTIL ALL CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SURROUNDING AREAS ARE WELL VEGETATED.

ALL SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF INTO THEM.

**SCHEDULE OF WORK**  
THIS WORK IS ANTICIPATED TO BEGIN IN THE SUMMER/FALL 2023 WITH A FINAL COMPLETION DATE IN SUMMER/FALL 2024. NO WINTER EARTH DISTURBANCE IS EXPECTED FOR THIS PROJECT. SHOULD WINTER WORK BE REQUIRED, THIS PLAN AND THE ACCOMPANYING STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MODIFIED ACCORDINGLY.

ADEQUATE MEASURES SHOULD BE TAKEN TO MINIMIZE AIR BORNE DUST PARTICLES ARISING FROM SOIL DISTURBANCE AND CONSTRUCTION.

- \* DISTURBANCE OF AREAS SHOULD BE MINIMIZED AND NOT EXCEED 100,000 SQUARE FEET IN AREA AT ANY ONE TIME.
- \* NO DISTURBED AREA SHOULD BE LEFT UNSTABILIZED FOR LONGER THAN TWO WEEKS DURING THE GROWING SEASON.
- \* PERMANENT EROSION CONTROL FEATURES SHOULD BE INCORPORATED INTO THE PROJECT AT THE EARLIEST PRACTICABLE TIME, AS SPECIFIED ON THE CONTRACT PLANS.
- \* WITHIN 14 DAYS OF COMPLETING WORK IN AN AREA, AND PRIOR TO ANTICIPATED RAIN EVENTS, APPLY HAY/STRAW MULCH AND TACKIFIER ON ALL DISTURBED SOIL AREAS. APPLICATION RATES OF 2 TONS OF STRAW OR HAY PER ACRE SHOULD BE USED TO PREVENT EROSION UNTIL VEGETATIVE COVER CAN BE ESTABLISHED. ALTERNATIVELY, APPLY WOOD CHIPS OR GROUND BARK MULCH 2 TO 6 INCHES DEEP AT A RATE OF 10 TO 20 TONS PER ACRE.
- \* WHEN EROSION IS LIKELY TO BE A PROBLEM, GRUBBING OPERATION SHOULD BE SCHEDULED AND PERFORMED SUCH THAT GRADING OPERATION AND PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER.
- \* AS WORK PROGRESSES, PATCH SEEDING AND MULCHING SHOULD BE DONE AS REQUIRED ON AREAS PREVIOUSLY TREATED TO MAINTAIN OR ESTABLISH PROTECTIVE COVER.
- \* REMOVE ACCUMULATED SEDIMENTS AND DEBRIS WHEN SEDIMENT CONTAINMENT DEVICES REACH 33% CAPACITY.

**EROSION CONTROL IMPLEMENTATION SCHEDULE**  
THE FOLLOWING GENERAL SCHEDULE IDENTIFIES THE PROPOSED SOIL EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT MEASURES THAT ARE TO BE IMPLEMENTED PRIOR TO AND DURING CONSTRUCTION:

- \* PERFORM LIMITED GRUBBING, STRIPPING AND SITE GRADING ONLY AS NEEDED TO COMPLETE IMMEDIATE WORK GOALS.
- \* BLOCK STORM WATER FLOW AS NECESSARY TO INSTALL ALL STORM WATER STRUCTURES IN THE DRY.
- \* INSTALL PERMANENT STORM DRAIN SYSTEM.
- \* INSTALL TEMPORARY SOIL STABILIZATION MEASURE INCLUDING SEED, MULCH, FERTILIZER, MATTING, ETC.
- \* REDIRECT FLOWS INTO FINISHED STRUCTURES PRIOR TO FILL OPERATIONS.
- \* PLACE HUMUS AND CONDUCT PERMANENT SEEDING AND MULCHING OF ALL DISTURBED GROUND.

**TEMPORARY STABILIZATION**  
EROSION CONTROL MEASURES SHALL BE IMPLEMENTED, AS WRITTEN HEREIN AND AS DEPICTED ON THE ACCOMPANYING PLAN, FROM THE COMMENCEMENT OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS COMPLETE.

**TEMPORARY GRADING**: TEMPORARY GRADING DURING CONSTRUCTION SHOULD BE PERFORMED IN SUCH A MANNER TO FACILITATE MAXIMUM INFILTRATION OF STORMWATER AND MINIMIZE OR ELIMINATE STORMWATER RUNOFF FROM THE SITE.

**MULCH**: MULCHING WITH LOOSE HAY OR STRAW, AT A RATE OF 2 TONS PER ACRE, SHALL BE DONE IMMEDIATELY AFTER EACH AREA HAS BEEN FINAL GRADED. WHEN SEED FOR EROSION CONTROL IS SOWN PRIOR TO PLACING THE MULCH, THE MULCH SHOULD BE PLACED ON THE SEEDING AREAS WITHIN 48 HOURS AFTER SEEDING.

**TACKIFIER**: PLACEMENT OF SOIL TACKIFIER HAS PROVEN TO BE AN EFFECTIVE METHOD OF PREVENTING SOIL AND ADHERING MULCH IN PLACE. THE PLACEMENT OF A SOIL TACKIFIER SHOULD BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND SHOULD BE REAPPLIED AS NECESSARY TO CONTROL AIR BORN DUST AND SOIL, AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

**ROAD CLEANING**: THE CONTRACTOR SHALL SWEEP ROADS DAILY, OR AS NEEDED TO MAINTAIN CLEAN PAVED SURFACES AT ALL CONSTRUCTION ACCESS/EGRESS POINTS.

**DUST CONTROL**: THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS NEEDED TO PREVENT AIRBORNE DUST PARTICLES FROM LEAVING THE SITE. DUST CONTROL MEASURES SHALL CONSIST OF USE OF A WATER TRUCK EQUIPPED WITH A SPRAY-BAR THAT DISSIPATES THE WATER EVENLY OVER THE SURFACE.

**PERMANENT STABILIZATION**: GRASS, TREES, SHRUBS AND MULCHED PLANTING BEDS WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE DRAWINGS TO STABILIZE AREAS NOT WITHIN THE PARKING LOT/BUILDING FOOTPRINT. THE CONTRACTOR WILL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER COMPLETION.

- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
1. BASE COARSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED;
  4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ALL ROADWAYS/PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

**EXCAVATION DEWATERING**:  
SHOULD EXCAVATION DEWATERING BE REQUIRED, THE CONTRACTOR MUST INSURE THAT ANY EXCAVATION DEWATERING DISCHARGES ARE NOT CONTAMINATED. NOTE: THE WATER IS CONSIDERED UNCONTAMINATED IF THERE IS NO GROUNDWATER CONTAMINATION WITHIN 1,000 FEET OF THE DISCHARGE.

THE CONTRACTOR MUST TREAT ANY UNCONTAMINATED EXCAVATION DEWATERING AS NECESSARY TO REMOVE SUSPENDED SOLIDS AND TURBIDITY DURING CONSTRUCTION. THE DISCHARGES MUST BE SAMPLED AT A LOCATION PRIOR TO MIXING WITH STORM WATER OR STREAM FLOW AT LEAST ONCE PER WEEK DURING WEEKS WHEN DISCHARGES OCCUR. THE SAMPLES MUST BE ANALYZED FOR TOTAL SUSPENDED SOLIDS (TSS) AND MUST MEET MONTHLY AVERAGE AND MAXIMUM DAILY TSS LIMITATIONS OF 50 MILLIGRAMS PER LITER (MGL), RESPECTIVELY.

**STORMWATER POLLUTION PREVENTION PLAN**:  
THE PROJECT IS SUBJECT TO THE REQUIREMENTS OF THE USEPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION PERMIT, WHICH INCLUDES A WRITTEN STORM WATER POLLUTION PREVENTION (SWPPP) PLAN FOR CONSTRUCTION. THE SWPPP PLAN SHALL OUTLINE DETAILED SPECIFICATIONS FOR IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF ALL EROSION CONTROL MEASURES. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN, SHALL BE RESPONSIBLE FOR AMENDING THE SWPPP ACCORDINGLY, AND SHALL BE RESPONSIBLE FOR ANY PENALTIES RESULTING FROM LACK OF COMPLIANCE.

### SPECIFICATIONS FOR TEMPORARY AND PERMANENT SEEDING:

GRASS SEED MIXES SHALL CONSIST OF THE MIXTURES AS DETAILED IN THE FOLLOWING TABLES, WITH 98% PURITY:

EROSION CONTROL SEED MIX		
SEED	BY % MASS	% GERMINATION (MIN.)
WINTER RYE 80 (MIN.)	80 (MIN.)	85
RED FESCUE (CREEPING)	4 (MIN.)	80
PERENNIAL RYE GRASS	3 (MIN.)	90
RED CLOVER	3 (MIN.)	90
OTHER CROP GRASS	0.5 (MAX.)	
NOXIOUS WEED SEED	0.5 (MAX.)	
INERT MATTER	1.0 (MAX.)	

PERMANENT SEED MIX		
SEED	BY % MASS	% GERMINATION (MIN.)
RED FESCUE (CREEPING)	50	85
KENTUCKY BLUE	25	85
PERENNIAL RYE GRASS	10	90
RED TOP	10	85
LANDINO CLOVER	5	85

### WINTER CONSTRUCTION NOTES:

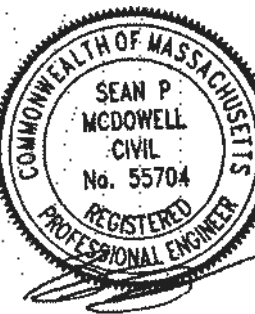
ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE ELSEWHERE. MULCH REMAINING IN THE SPRING SHALL BE REMOVED AND REPLACED AT RATE OF 2 TONS PER ACRE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND TACKIFIER SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND.

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

AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.



**nobis**  
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NOT ISSUED  
FOR  
CONSTRUCTION

**TRUE STORAGE  
FACILITY**  
  
2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS

NO.	DATE	DESCRIPTION
	03/20/23	RESPONSE TO TOWN COMMENTS
	11/09/22	RESPONSE TO MASSDOT COMMENTS
	10/26/22	RESPONSE TO MASSDOT COMMENTS
	07/18/22	RESPONSE TO MASSDOT COMMENTS

### REVISIONS

**SCALE:  
AS NOTED**

DATE:	APRIL 2022
NOBIS PROJECT NO.	95561.15
DRAWN BY:	SM
CHECKED BY:	CK
CAD DRAWING FILE:	95561.15-C-005-NOTES & LEGEND.dwg

SHEET TITLE

**GENERAL  
NOTES AND  
LEGEND**

SHEET

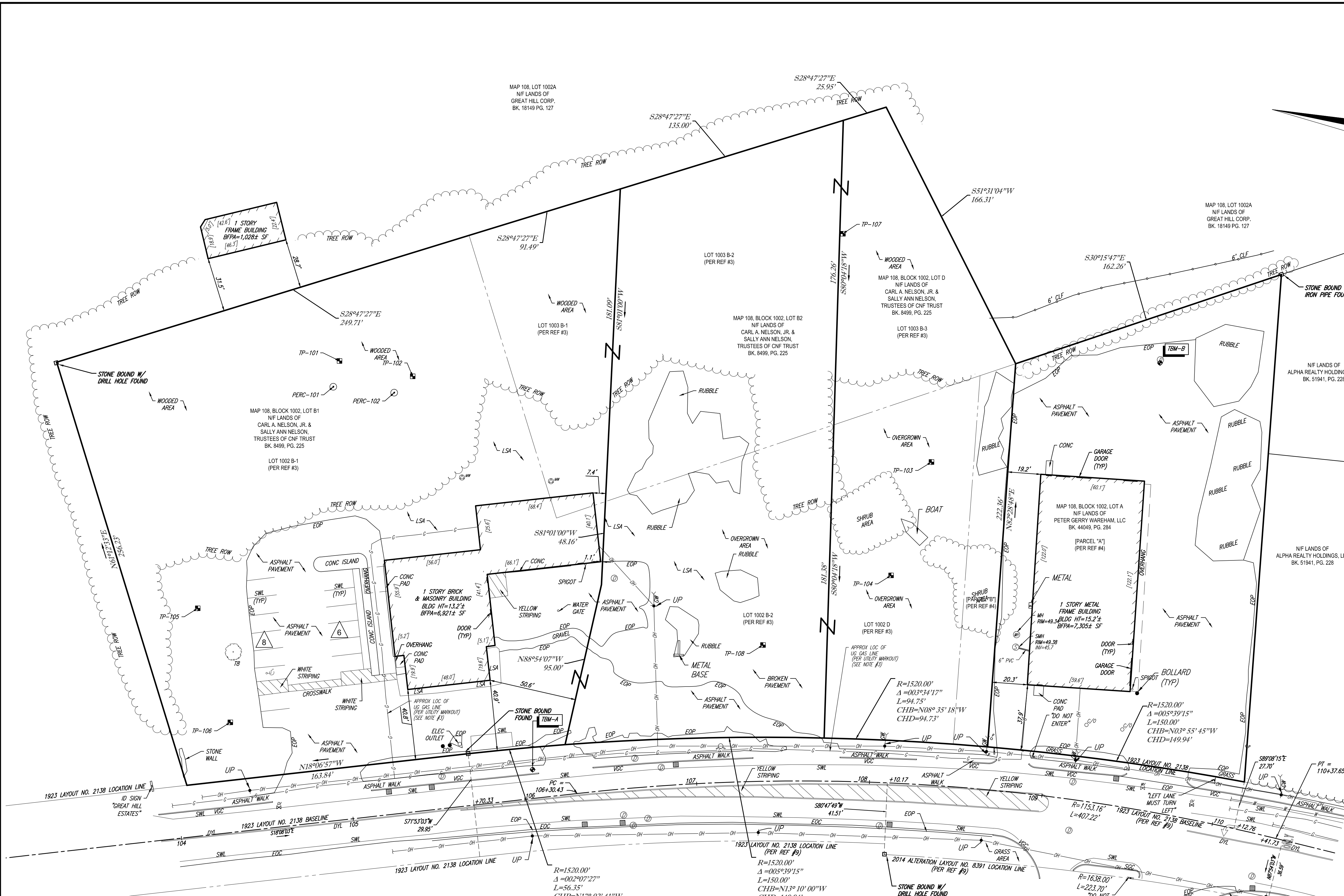
**G-1**



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THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.



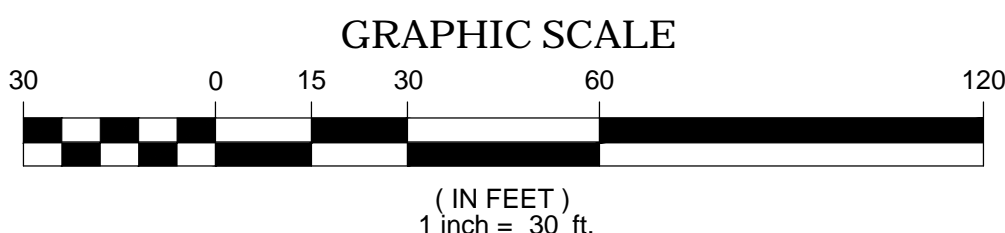
- NOTES:
- PROPERTY KNOWN AS LOTS A, B1, B2 & D AS SHOWN ON THE TOWN OF WAREHAM, PLYMOUTH COUNTY, COMMONWEALTH OF MASSACHUSETTS MAP NO. 108.
  - AREA: LOT A = 38,487 SQUARE FEET OR 0.883 ACRES  
LOT B-1 = 80,363 SQUARE FEET OR 1.845 ACRES  
LOT B-2 = 44,797 SQUARE FEET OR 1.028 ACRES  
LOT D = 31,219 SQUARE FEET OR 0.717 ACRES  
TOTAL = 194,865 SQUARE FEET OR 4.466
  - LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
  - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
  - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
  - BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X-UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
  - THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
  - LOCUS PROPERTIES ARE LOCATED WHOLLY WITHIN THE INDUSTRIAL ZONING DISTRICT.
  - SUBJECT PROPERTIES WERE CHECKED FOR THE PRESENCE OF WETLANDS ON JANUARY 12, 2021 BY GODDARD CONSULTING, LLC, CERTIFIED WETLAND SCIENTISTS. NO WETLANDS WERE FOUND ON THE PROPERTIES.
  - PROPERTY LINES BETWEEN LOTS A, B-1, B-2 & D TO BE ELIMINATED AT FUTURE DATE.

- REFERENCES:
- THE TAX ASSESSOR'S MAP OF WAREHAM, PLYMOUTH COUNTY, MAP #108.
  - MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, PLYMOUTH COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANEL 486 OF 650," MAP NUMBER 25023CD0486J, MAP EFFECTIVE DATE: JULY 17, 2012.
  - MAP ENTITLED "DIVISION OF LAND PREPARED FOR M. EDWIN STRAWN, CRANBERRY HIGHWAY, WAREHAM, MASS," PREPARED BY CHARLES ROWLEY & ASSOCIATES, DATED OCTOBER 19, 1977. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 19, PLAN 971.
  - MAP ENTITLED "PLAN OF LAND TO BE CONVEYED BY ALFRED H. HERMANSON & JOHN W. HERMANSON, CRANBERRY HIGHWAY, WAREHAM, MASS.," PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED MAY 7, 1968. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3444, PLAN 537.
  - MAP ENTITLED "PLAN OF LAND TO BE CONVEYED BY GREAT HILL MOBILEHOMES, INC., & ELMER MERRITT STRAWN, CRANBERRY HIGHWAY, WAREHAM, MASS.," PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED DECEMBER 17, 1971. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3802, PLAN 606.
  - MAP ENTITLED "PLAN OF LAND SURVEYED FOR ELMER MERRITT STRAWN, GREAT HILL, WAREHAM, MASS.," PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED NOVEMBER 24, 1969. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3584, PLAN 696.
  - MAP ENTITLED "APPROVAL NOT REQUIRED PLAN DRAWN FOR: NANCY S. ANGUS, TRUSTEE OF CRAN-WAY REALTY TRUST, 2416 CRANBERRY HIGHWAY, LLC, 2404, 2416, 2414 CRANBERRY HIGHWAY & TOW ROAD, LOTS 1, 2, 3 & 4, MAP 108, TOWN OF WAREHAM, PLYMOUTH COUNTY, COMMONWEALTH OF MASSACHUSETTS," PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED JANUARY 30, 2019. LAST REVISED MARCH 20, 2019. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 63, PLAN 1009.
  - MAP ENTITLED "PLAN OF ROAD IN THE TOWN OF WAREHAM, PLYMOUTH COUNTY, LAID OUT AS A STATE HIGHWAY BY THE DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS," PREPARED BY THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS, DATED NOVEMBER 6, 1923. LAYOUT NO. 2138, SHEET 10 OF 16.
  - MAP ENTITLED "PLAN OF ROAD IN THE TOWN OF WAREHAM, PLYMOUTH COUNTY, ALTERED AND LAID OUT AS A STATE HIGHWAY BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION," PREPARED BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, DATED JUNE 12, 2014. LAYOUT NO. 8391, SHEET 1 OF 5.
  - MAP ENTITLED "APPROVAL NOT REQUIRED PLAN, DRAWN FOR DONALD ANGUS IN WEST WAREHAM, MASSACHUSETTS, PREPARED FOR: CRAN-WAY REALTY TRUST," PREPARED BY EASTBOUND LAND SURVEY, INC., DATED FEBRUARY 3, 2006. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 52, PLAN 105.

- LEGEND
- |  |                                   |       |                          |
|--|-----------------------------------|-------|--------------------------|
|  | HYDRANT                           | (TYP) | TYPICAL                  |
|  | WATER VALVE                       |       | DRAINAGE/STORM MANHOLE   |
|  | GAS VALVE                         |       | SANITARY/SEWER MANHOLE   |
|  | OVERHEAD WIRES                    |       | UNKNOWN MANHOLE          |
|  | APPROX. LOC. UNDERGROUND GAS LINE |       | CATCH BASIN OR INLET     |
|  | UTILITY POLE                      |       | TREE & TRUNK SIZE        |
|  | GUY WIRE                          |       | PARKING SPACE COUNT      |
|  | CLEAN OUT                         |       | DEPRESSED CURB           |
|  | SIGN                              |       | SOLID WHITE LINE         |
|  | BOLLARD                           |       | SOLID YELLOW LINE        |
|  | POST                              |       | DOUBLE YELLOW LINE       |
|  | CHAIN LINK FENCE                  |       | HEIGHT                   |
|  | EDGE OF CONCRETE                  |       | BUILDING                 |
|  | EDGE OF PAVEMENT                  |       | BUILDING FOOTPRINT AREA  |
|  | LANDSCAPED AREA                   |       | STONE BOUND W/DRILL HOLE |

## CRANBERRY HIGHWAY

(PUBLIC-VARIABLE WIDTH)  
TWO WAY TRAFFIC  
(ASPHALT ROADWAY)



THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL



GERRY L. HOLDRIGHT, PLS  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

7-12-2022  
DATE

2	UPDATED PER MA DOT COMMENTS	-	R.J.K.	G.L.H.	7-12-2022
1	REVISED TO ADD BORING LOCATIONS	C.W.	M.D.	G.L.H.	11-12-21
No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE

FIELD DATE	01-12-2021
FIELD BOOK NO.	20-17 MA
FIELD BOOK PGS.	80-82
FIELD CREW	C.W.
DRAWN	R.J.K.
REVIEWED	G.L.H.

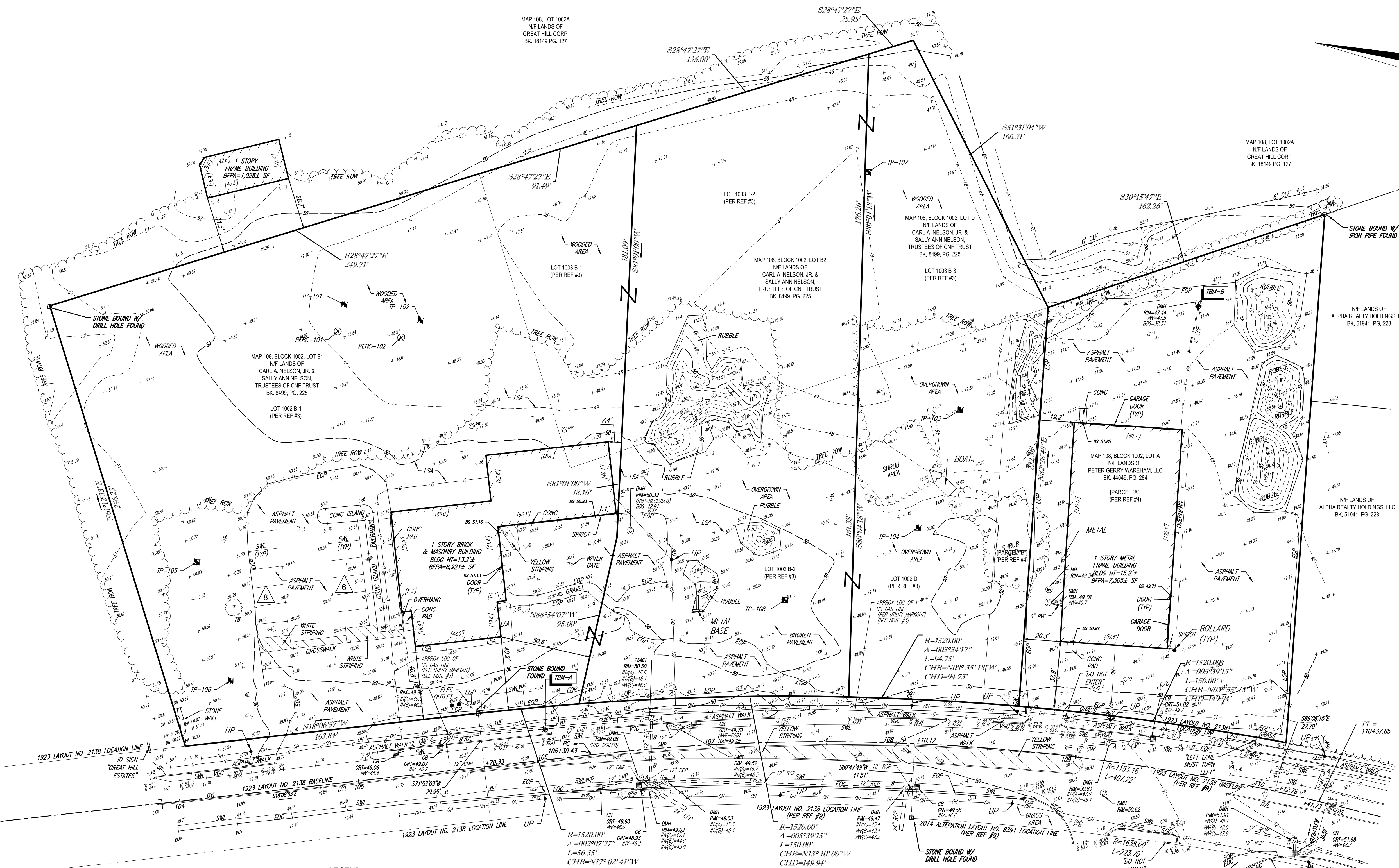
**BOUNDARY & LOCATION SURVEY**  
**NOBIS ENGINEERING**  
2400, 2402 & 2406 CRANBERRY HIGHWAY  
LOTS A, B1, B2 & D, BLOCK 1002, MAP 108  
TOWN OF WAREHAM, PLYMOUTH COUNTY  
COMMONWEALTH OF MASSACHUSETTS

	<b>CONTROL POINT ASSOCIATES, INC.</b>			ALBANY, NY 518-217-5010		
	352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772 508.948.3000 • 508.948.3003 FAX WWW.CPASURVEY.COM			CHALFONT, PA 215-712-9800 HAUPPAUGE, NY 631-580-2845 MANHATTAN, NY 646-780-0411 MT LAUREL, NJ 609-857-2020 WARREN, NJ 908-668-0009		
APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.		
G.L.H.	01-25-2021	1"=30'	03-200378	1 OF 1		



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THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

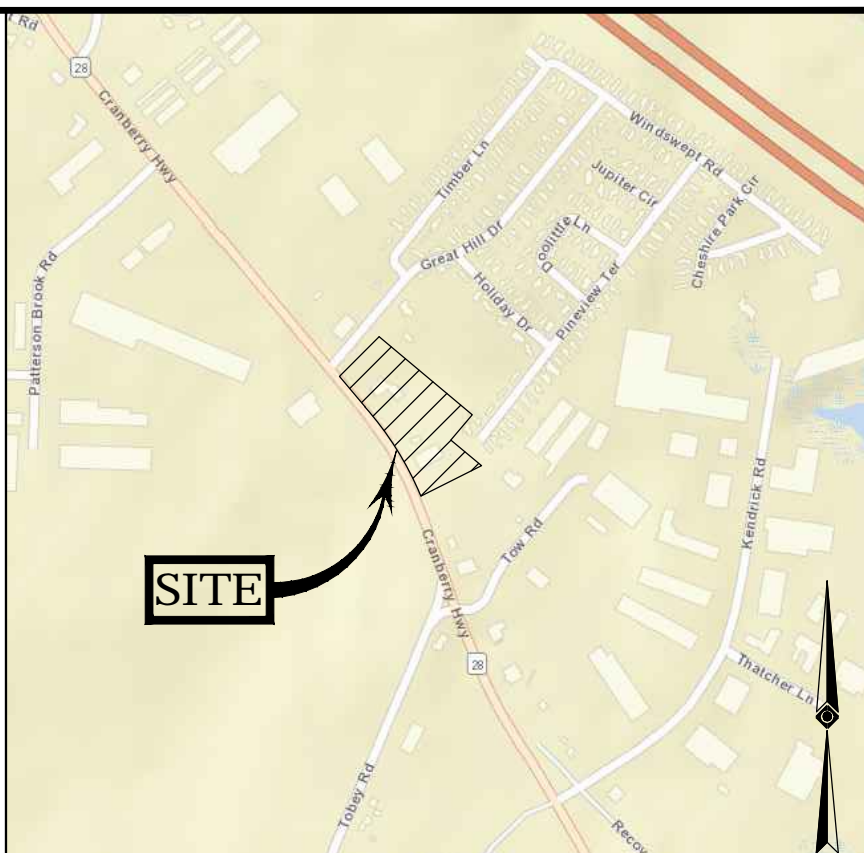
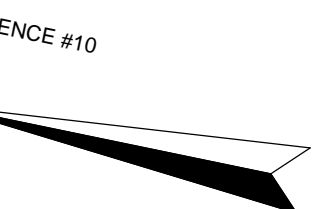
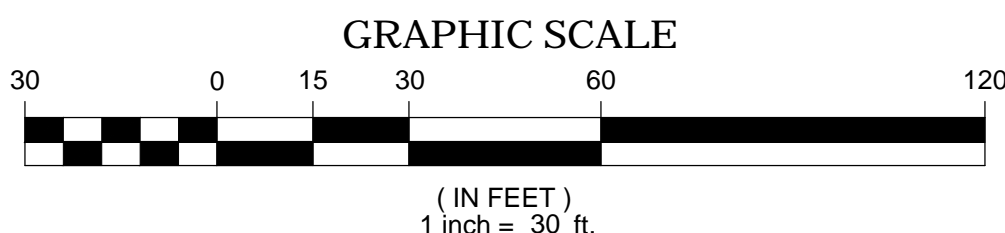


LEGEND	
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING TOP OF CURB ELEVATION
	EXISTING GUTTER ELEVATION
	EXISTING TOP OF WALL ELEVATION
	EXISTING BOTTOM OF WALL ELEVATION
	EXISTING DOOR SILL ELEVATION
	HYDRANT
	WATER VALVE
	GAS VALVE
	OVERHEAD WIRES
	APPROX. LOC. UNDERGROUND GAS LINE
	UTILITY POLE
	GUY WIRE
	CLEAN OUT
	SIGN
	BOLLARD
	POST
	CHAIN LINK FENCE
	EDGE OF CONCRETE
	EDGE OF PAVEMENT
	LANDSCAPED AREA
	TYPICAL
	DRAINAGE/STORM MANHOLE
	SANITARY/SEWER MANHOLE
	UNKNOWN MANHOLE
	CATCH BASIN OR INLET
	TREE & TRUNK SIZE
	PARKING SPACE COUNT
	DEPRESSED CURB
	SOLID WHITE LINE
	SOLID YELLOW LINE
	DOUBLE YELLOW LINE
	HEIGHT
	BUILDING
	BUILDING FOOTPRINT AREA
	STONE BOUND W/DRILL HOLE

## CRANBERRY HIGHWAY

(PUBLIC-VARIABLE WIDTH)

TWO WAY TRAFFIC (ASPHALT ROADWAY)



LOCUS MAP  
© 2013 ESRI WORLD STREET MAPS  
NOT TO SCALE

- NOTES:
- PROPERTY KNOWN AS LOTS A, B1, B2 & D AS SHOWN ON THE TOWN OF WAREHAM, PLYMOUTH COUNTY, COMMONWEALTH OF MASSACHUSETTS MAP NO. 108.
  - AREA: LOT A = 38,487 SQUARE FEET OR 0.883 ACRES  
LOT B-1 = 80,353 SQUARE FEET OR 1.845 ACRES  
LOT B-2 = 44,797 SQUARE FEET OR 1.028 ACRES  
LOT D = 31,219 SQUARE FEET OR 0.717 ACRES  
TOTAL = 194,855 SQUARE FEET OR 4.466 ACRES
  - LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
  - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
  - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
  - BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X-UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
  - ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS) TAKEN AT THE TIME OF THE FIELD SURVEY.
- TEMPORARY BENCH MARKS SET:
- TBM-A: MAG NAIL SET IN ASPHALT WALK ON EASTERLY SIDE OF CRANBERRY HIGHWAY. ELEVATION = 49.77'
- TBM-B: MAG NAIL SET IN ASPHALT PAVEMENT. ELEVATION = 47.47'
- PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
- THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
  - LOCUS PROPERTIES ARE LOCATED WHOLLY WITHIN THE INDUSTRIAL ZONING DISTRICT.
  - SUBJECT PROPERTIES WERE CHECKED FOR THE PRESENCE OF WETLANDS ON JANUARY 12, 2021 BY GODDARD CONSULTING, LLC, CERTIFIED WETLAND SCIENTISTS. NO WETLANDS WERE FOUND ON THE PROPERTIES.
  - PROPERTY LINES BETWEEN LOTS A, B-1, B-2 & D TO BE ELIMINATED AT FUTURE DATE.

- REFERENCES:
- THE TAX ASSESSOR'S MAP OF WAREHAM, PLYMOUTH COUNTY, MAP #108.
  - MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, PLYMOUTH COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANEL 486 OF 650," MAP NUMBER 25023C0486J, MAP EFFECTIVE DATE: JULY 17, 2012.
  - MAP ENTITLED "DIVISION OF LAND PREPARED FOR R. EDWIN STRAWN, CRANBERRY HIGHWAY, WAREHAM, MASS., PREPARED BY CHARLES. ROWLEY & ASSOCIATES, DATED OCTOBER 19, 1977. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 19, PLAN 971.
  - MAP ENTITLED "PLAN OF LAND TO BE CONVEYED BY ALFRED D. HERMANSON & JOHN W. HERMANSON, CRANBERRY HIGHWAY, WAREHAM, MASS., PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED MAY 7, 1968. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3444, PLAN 537.
  - MAP ENTITLED "PLAN OF LAND TO BE CONVEYED BY GREAT HILL MOBILEHOMES, INC. & ELMER MERRITT STRAWN, CRANBERRY HIGHWAY, WAREHAM, MASS., PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED DECEMBER 17, 1971. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3802, PLAN 606.
  - MAP ENTITLED "PLAN OF LAND SURVEYED FOR ELMER MERRITT STRAWN, GREAT HILL, WAREHAM, MASS.," PREPARED BY WALTER E. ROWLEY & ASSOCIATES, DATED NOVEMBER 24, 1969. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 3584, PLAN 695.
  - MAP ENTITLED "APPROVAL NOT REQUIRED PLAN DRAWN FOR: NANCY S. ANGUS, TRUSTEE OF CRAN-WAY REALTY TRUST, 2416 CRANBERRY HIGHWAY, LLC, 2404, 2415, 2414 CRANBERRY HIGHWAY & TOW ROAD, LOTS 1, 2, 3, 4, MAP 108, TOWN OF WAREHAM, PLYMOUTH COUNTY, COMMONWEALTH OF MASSACHUSETTS," PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED JANUARY 30, 2019. LAST REVISED MARCH 20, 2019. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 63, PLAN 1009.
  - MAP ENTITLED "PLAN OF ROAD IN THE TOWN OF WAREHAM, PLYMOUTH COUNTY, LAID OUT AS A STATE HIGHWAY BY THE DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS," PREPARED BY THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS, DATED NOVEMBER 6, 1923. LAYOUT NO. 2138, SHEET 10 OF 16.
  - MAP ENTITLED "PLAN OF ROAD IN THE TOWN OF WAREHAM, PLYMOUTH COUNTY, ALTERED AND LAID OUT AS A STATE HIGHWAY BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION," PREPARED BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, DATED JUNE 12, 2014. LAYOUT NO. 8391, SHEET 1 OF 5.
  - MAP ENTITLED "APPROVAL NOT REQUIRED PLAN, DRAWN FOR DONALD ANGUS IN WEST WAREHAM, MASSACHUSETTS, PREPARED FOR: CRAN-WAY REALTY TRUST," PREPARED BY EASTBOUND LAND SURVEY, INC., DATED FEBRUARY 3, 2006. RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BOOK 52, PLAN 105.

2	UPDATED PER MA DOT COMMENTS	-	R.J.K.	G.L.H.	7-12-2022
1	REVISED TO ADD BORING LOCATIONS	-	C.W.	M.D.	11-12-21

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
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FIELD DATE: 01-12-2021  
FIELD BOOK NO: 20-17 MA  
FIELD BOOK PGS: 80-82

FIELD CREW: C.W.  
DRAWN: R.J.K.  
REVIEWED: R.J.K.

DATE: 7-12-2022

**BOUNDARY, TOPOGRAPHIC & UTILITY SURVEY**  
**NOBIS ENGINEERING**  
2400, 2402 & 2406 CRANBERRY HIGHWAY  
LOTS A, B1, B2 & D, BLOCK 1002, MAP 108  
TOWN OF WAREHAM, PLYMOUTH COUNTY  
COMMONWEALTH OF MASSACHUSETTS

**CONTROL POINT ASSOCIATES, INC.**  
ALBANY, NY 518-217-5010  
CHALFONT, PA 215-712-9800  
HAUPPAUGE, NY 631-580-7845  
MANHATTAN, NY 646-780-0411  
MT LAUREL, NJ 609-857-2099  
WARREN, NJ 908-668-0099



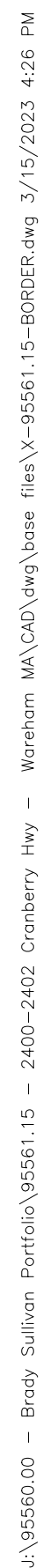
THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

GERRY L. HOLDRIGHT, PLS  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

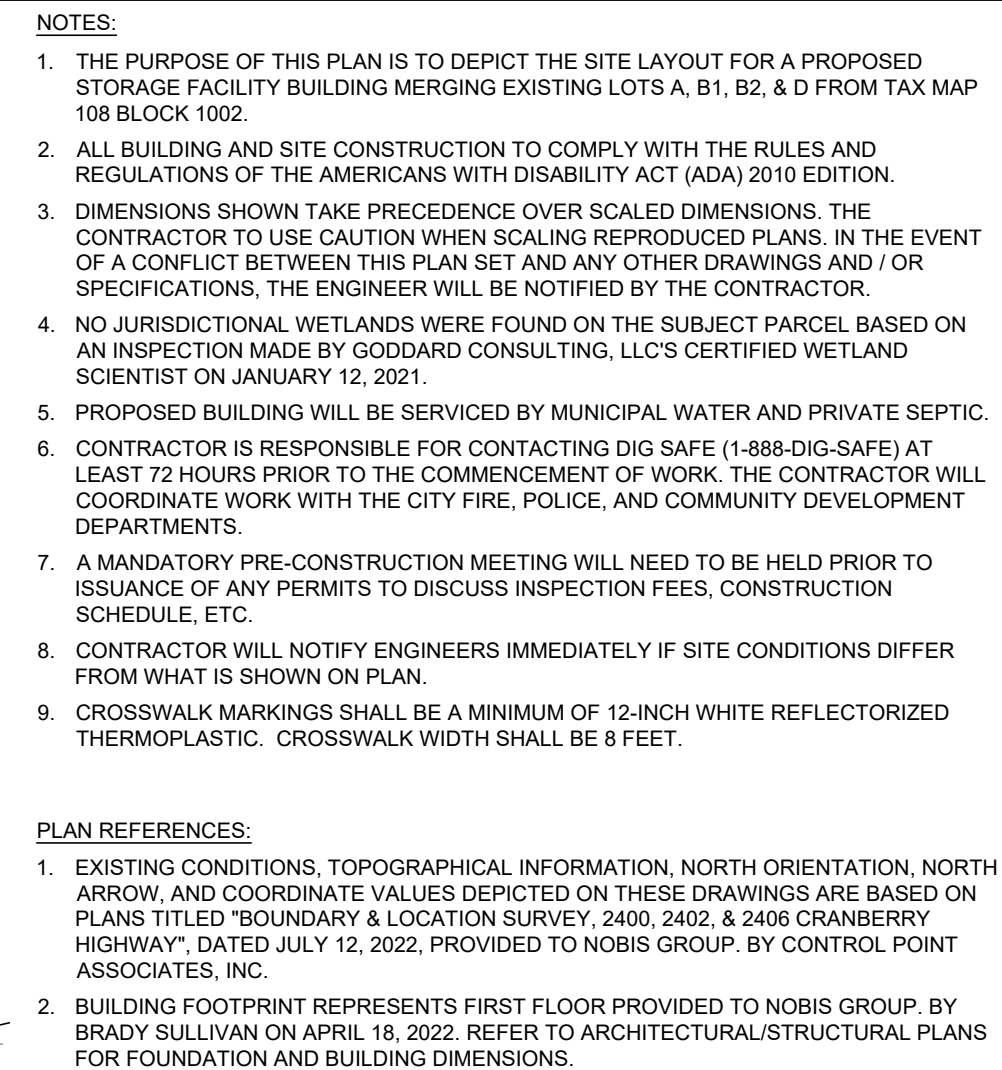
APPROVED: G.L.H.	DATE: 01-25-2021	SCALE: 1"=30'	FILE NO: 03-200378	DWG. NO: 1 OF 1
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SHEET  
C-1





TAX MAP/BLOCK/LOT	MAP 108 / BLOCK 1002 / LOTS A, B1, B2, & D	
ADDRESS:	2400, 2402, & 2406 CRANBERRY HIGHWAY (MA ROUTE 28) WAREHAM, MASSACHUSETTS	
ZONING DISTRICT:	INDUSTRIAL	
<u>MINIMUM LOT AREA</u>	<u>PROVIDED</u>	
30,000 SF	194,855 SF OR 4.466 ACRES	
<u>MINIMUM LOT FRONTAGE</u>	<u>PROVIDED</u>	
150'	614.94'	
<u>MAXIMUM BUILDING COVERAGE</u>	<u>PROVIDED</u>	
50%	17%	
<u>MAXIMUM LOT COVERAGE</u>	<u>PROVIDED</u>	
70% OR 60,000 SF	37% OR 71,500 SF	
<u>MAXIMUM BUILDING HEIGHT</u>	<u>PROVIDED</u>	
50'	34'	
<u>BUILDING SETBACKS REQUIRED</u>	<u>REQUIRED</u>	
FRONT YARD	20' (50' ALONG MA ROUTE 28)	
SIDE YARD	20'	
REAR YARD	20'	
<u>LANDSCAPE BUFFER REQUIRED</u>	<u>REQUIRED</u>	
<u>ADJACENT TO COMMERCIAL USE</u>	<u>REQUIRED</u>	
RESIDENTIAL	10'	
COMMERCIAL/OFFICE	20'	
INDUSTRIAL	20'	

A circular professional engineer seal for the Commonwealth of Massachusetts. The outer ring contains the text "COMMONWEALTH OF MASSACHUSETTS" at the top and "REGISTERED PROFESSIONAL ENGINEER" at the bottom. The center of the seal contains the name "SEAN P. MCDOWELL", the title "CIVIL", and the license number "No. 55704". A signature is written across the bottom of the seal.

**TRUE STORAGE  
FACILITY**

**2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS**

4	03/20/23	RESPONSE TO TOWN COMMENTS
3	11/09/22	RESPONSE TO MASSDOT COMMENTS
2	10/26/22	RESPONSE TO MASSDOT COMMENTS
1	07/18/22	RESPONSE TO MASSDOT COMMENTS
NO.	DATE	DESCRIPTION

0 30' 60'

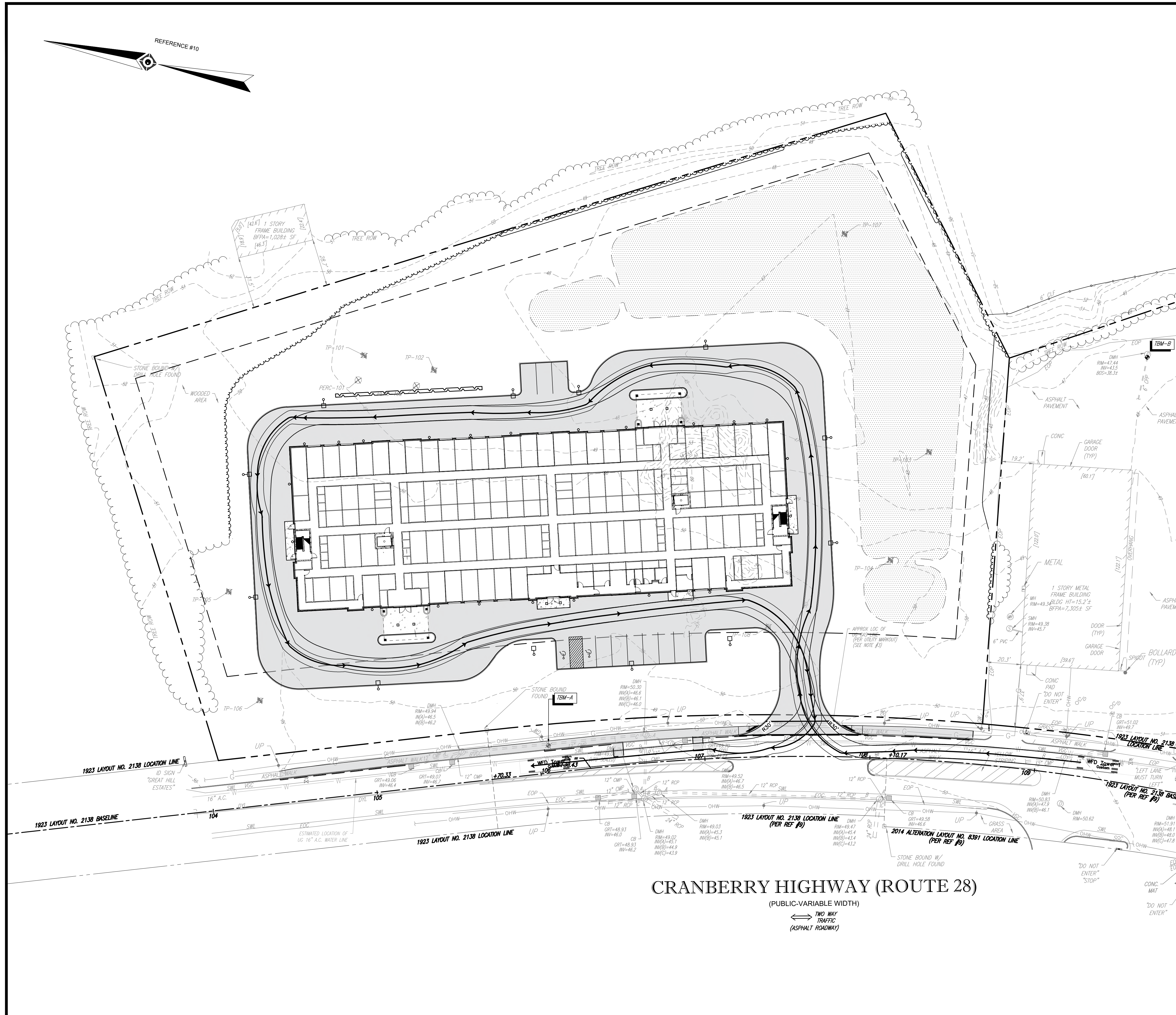
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NOBIS PROJECT NO.	95561.15
DRAWN BY:	SM
CHECKED BY:	CK
CAD DRAWING FILE:	
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SHEET TITLE	

SHEET  
C-2

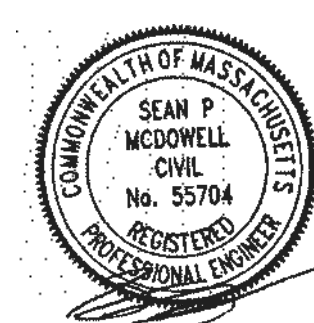


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TRUE STORAGE  
FACILITY  
  
2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS

NO.	DATE	DESCRIPTION
1	03/20/23	RESPONSE TO TOWN COMMENTS
2	11/09/22	RESPONSE TO MASSDOT COMMENTS
3	10/26/22	RESPONSE TO MASSDOT COMMENTS
4	07/18/22	RESPONSE TO MASSDOT COMMENTS

REVISIONS	
0	30' 60'
GRAPHIC SCALE	

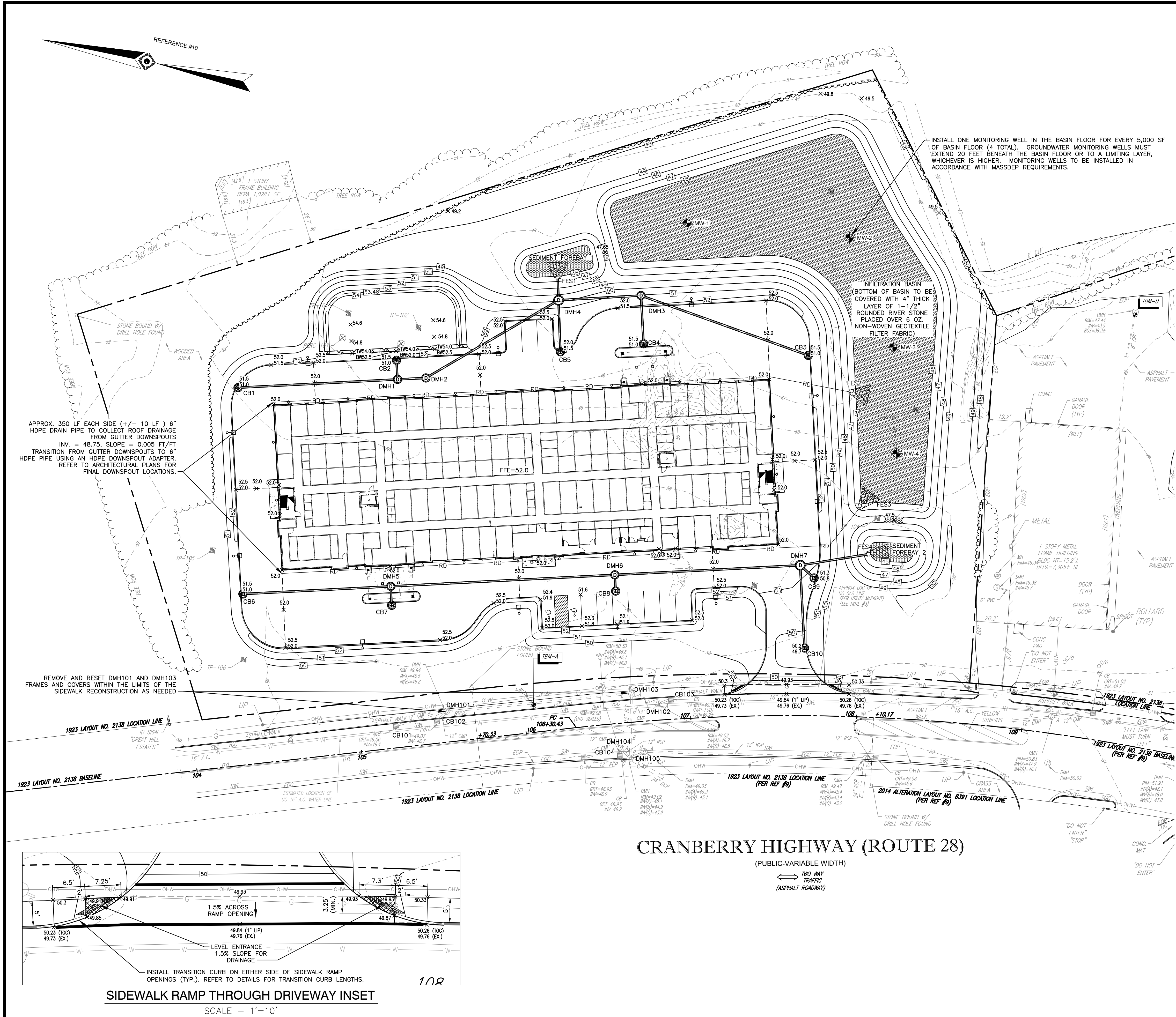
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CHECKED BY:	CK
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FIRE APPARATUS  
SWEEP PATH PLAN

SHEET  
C-2A



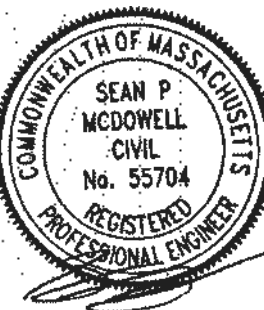
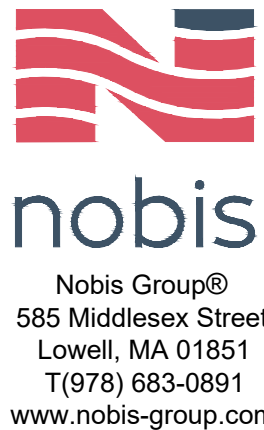
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- NOTES:
1. REFER TO SURVEYOR'S PLAN FOR BASE PLAN REFERENCES AND ADDITIONAL NOTES.
  2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE SURVEY PLAN AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
  3. CONTRACTOR WILL NOTIFY OWNER & ENGINEER IMMEDIATELY IF SITE CONDITIONS DIFFER FROM WHAT IS SHOWN ON PLAN.
  4. SPOT ELEVATIONS SHOWN AT BUILDING CORNERS ARE PROPOSED GROUND ELEVATIONS.
  5. FINISH WALK AND CURB ELEVATIONS WILL BE 6" ABOVE FINISH PAVEMENT.
  6. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUND BREAK.
  7. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORDS FROM THE UTILITY COMPANIES AND FIELD MEASUREMENTS OF VISIBLE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL NOTIFY ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS.
  8. ALL WORK ON SITE, ALL UTILITY WORK AND ALL WORK WITHIN THE STATE HIGHWAY LAYOUT (SHLO) WILL BE PERFORMED IN ACCORDANCE WITH THE MASSDOT STANDARD SPECIFICATIONS, LATEST EDITION.
  9. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE (1-888-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR WILL COORDINATE WORK WITH THE CITY FIRE, POLICE, AND COMMUNITY DEVELOPMENT DEPARTMENTS.
  10. ALL STORM DRAIN PIPING WITH LESS THAN 3.0 FEET OF COVER WILL BE OVERLAID WITH 2" THICK RIGID INSULATION FOR THE FULL WIDTH OF PIPE TRENCH.
  11. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.

#### DRAINAGE SCHEDULE

CB1 RIM = 51.0 INV. OUT = 48.0 L = 93 LF 12" HDPE (TO DMH1) S = 0.0054 FT/FT	CB6 RIM = 51.0 INV. OUT = 48.0 L = 86 LF 12" HDPE (TO DMH5) S = 0.0058 FT/FT
CB2 RIM = 51.0 INV. OUT = 47.6 L = 8 LF 12" HDPE (TO DMH1) S = 0.0125 FT/FT	CB7 RIM = 51.0 INV. OUT = 47.6 L = 8 LF 12" HDPE (TO DMH5) S = 0.0125 FT/FT
DMH1 RIM = 51.5 INV. IN = 47.5 INV. IN = 47.5 INV. OUT = 47.4 L = 13 LF 12" HDPE (TO DMH2) S = 0.0077 FT/FT	DMH5 RIM = 52.0 INV. IN = 47.5 INV. IN = 47.5 INV. OUT = 47.4 L = 132 LF 12" HDPE (TO DMH6) S = 0.0053 FT/FT
DMH2 RIM = 51.5 INV. IN = 47.3 INV. OUT = 47.2 L = 89 LF 12" HDPE (TO DMH4) S = 0.0045 FT/FT	CB8 RIM = 51.2 INV. OUT = 46.8 L = 6 LF 12" HDPE (TO DMH6) S = 0.0167 FT/FT
CB3 RIM = 51.0 INV. OUT = 47.8 L = 104 LF 12" HDPE (TO DMH3) S = 0.0058 FT/FT	DMH6 RIM = 51.5 INV. IN = 46.7 INV. IN = 46.7 INV. OUT = 46.6 L = 108 LF 12" HDPE (TO DMH7) S = 0.0056 FT/FT
CB4 RIM = 51.0 INV. OUT = 47.4 L = 25 LF 12" HDPE (TO DMH3) S = 0.008 FT/FT	CB9 RIM = 50.8 INV. IN = 46.1 L = 7 LF 12" HDPE (TO DMH7) S = 0.0143 FT/FT
DMH3 RIM = 51.0 INV. IN = 47.2 INV. IN = 47.2 INV. OUT = 47.1 L = 46 LF 12" HDPE (TO DMH4) S = 0.0065 FT/FT	CB10 RIM = 49.7 INV. OUT = 46.3 L = 46 LF 12" HDPE (TO DMH7) S = 0.0065 FT/FT
CB5 RIM = 51.5 INV. OUT = 47.0 L = 27 LF 12" HDPE (TO DMH4) S = 0.0074 FT/FT	DMH7 (6' ID) RIM = 51.2 INV. IN = 46.0 INV. IN = 46.0 INV. OUT = 45.9 L = 38 LF 12" HDPE (TO FES4) S = 0.0053 FT/FT
DMH4 (5' ID) RIM = 50.5 INV. IN = 46.8 INV. IN = 46.8 INV. OUT = 46.7 L = 11 LF 12" HDPE (TO FES1) S = 0.0091 FT/FT	FES4 INV. OUT = 45.7
FES1 INV. OUT = 46.6	
FES2 INV. OUT = 47.0	
FES3 INV. OUT = 47.0	

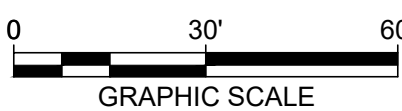


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2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS

NO.	DATE	DESCRIPTION
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2	11/09/22	RESPONSE TO MASSDOT COMMENTS
3	10/26/22	RESPONSE TO MASSDOT COMMENTS
4	07/18/22	RESPONSE TO MASSDOT COMMENTS

#### REVISIONS



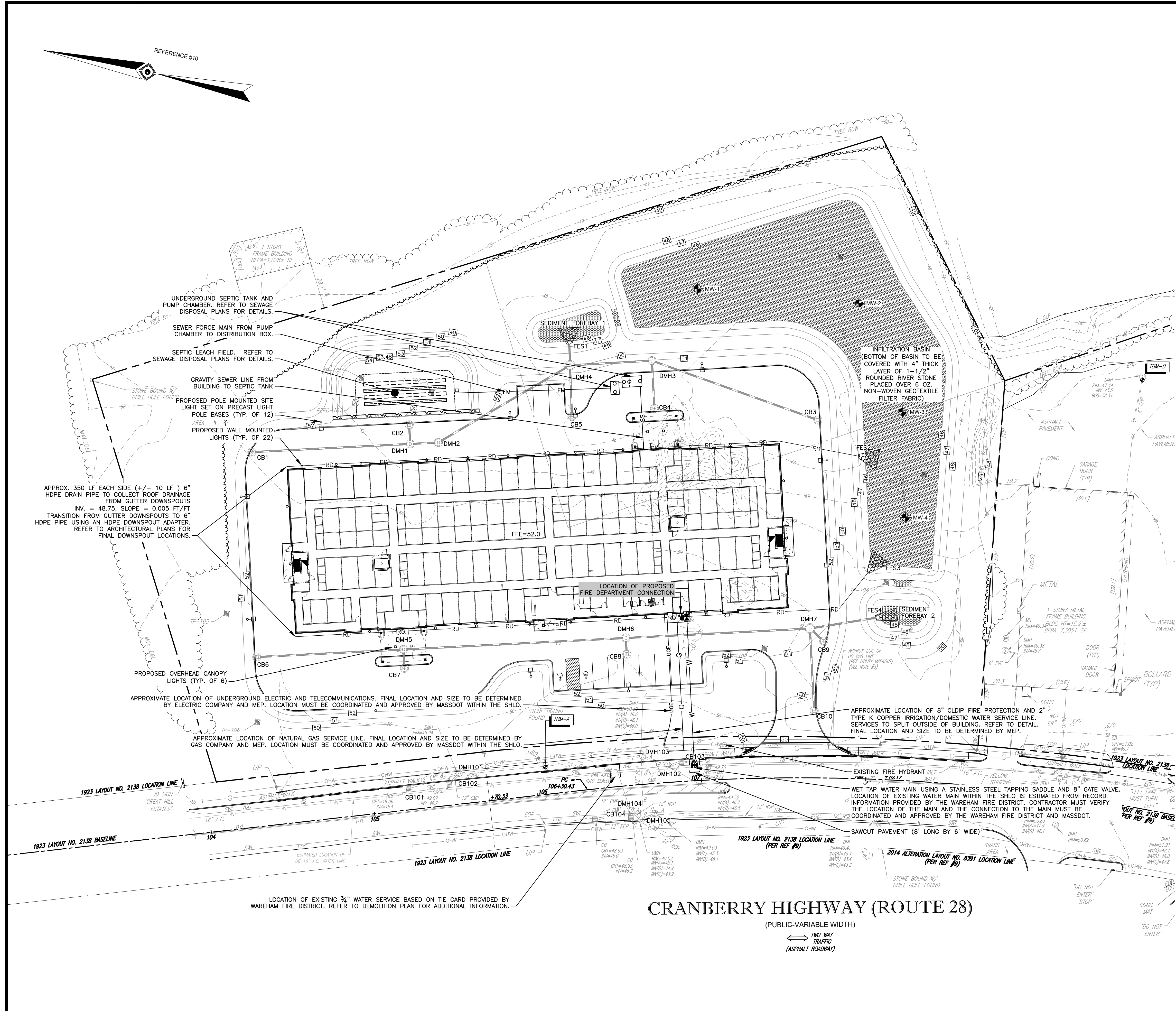
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CHECKED BY:	CK
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SHEET TITLE	

GRADING &  
DRAINAGE PLAN

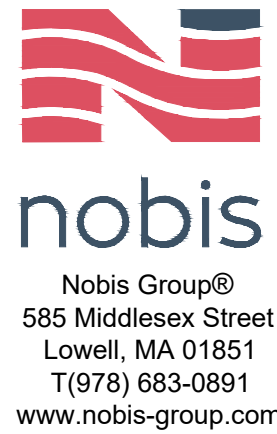
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C-3



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- NOTES:
- REFER TO SURVEYOR'S PLAN, FOR BASE PLAN REFERENCES AND ADDITIONAL NOTES.
  - ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE SURVEY PLAN AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
  - THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
  - LOCATIONS AND ELEVATIONS OF UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORDS FROM THE UTILITY COMPANIES AND FIELD MEASUREMENTS OF VISIBLE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL NOTIFY ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS.
  - THE CONTRACTOR WILL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
  - THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES WILL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
  - ALL CONSTRUCTION WILL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, UNLESS OTHERWISE SPECIFIED. ALL CONSTRUCTION ACTIVITIES WILL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
  - THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
  - AS-BUILT PLANS WILL BE SUBMITTED TO TOWN OF WAREHAM AND MASSDOT.
  - CONTRACTOR WILL PLACE 2" WIDE METAL WIRE IMPREGNATED GREEN PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
  - PROPOSED RIM ELEVATIONS OF SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE.
  - DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
  - SEWER AND WATER INFRASTRUCTURE ON PRIVATE PROPERTY IS TO REMAIN PRIVATE. HOWEVER, THE TOWN RESERVES THE RIGHT TO ENTER THE PROPERTY IN ORDER TO INSPECT, REPAIR AND/OR TERMINATE INDIVIDUAL SEWER OR WATER SERVICES (AT OWNERS EXPENSE).
  - CONTRACTOR WILL SET RIMS OF NEW SANITARY SEWER MANHOLES TO EXISTING FINISHED GRADE FOR THE WINTER SEASON. RIMS WILL BE RAISED IN THE SPRING PRIOR TO PLACEMENT OF 1" BITUMINOUS OVERLAY.
  - SERVICE LATERAL LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BASED ON INPUT FROM TOWN INSPECTOR AND/OR PROJECT CLERK OF THE WORKS.
  - REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.

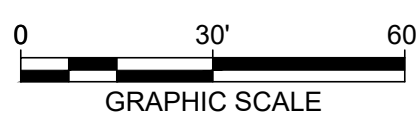


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FOR  
CONSTRUCTION

TRUE STORAGE  
FACILITY  
  
2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS

NO.	DATE	DESCRIPTION
1	03/20/23	RESPONSE TO TOWN COMMENTS
2	11/09/22	RESPONSE TO MASSDOT COMMENTS
3	10/26/22	RESPONSE TO MASSDOT COMMENTS
4	07/18/22	RESPONSE TO MASSDOT COMMENTS

REVISIONS



DATE:	APRIL 2022
NOBIS PROJECT NO.	95561.15
DRAWN BY:	SM
CHECKED BY:	CK
CAD DRAWING FILE:	95561.15-C-400-UTILITY.dwg
SHEET TITLE	

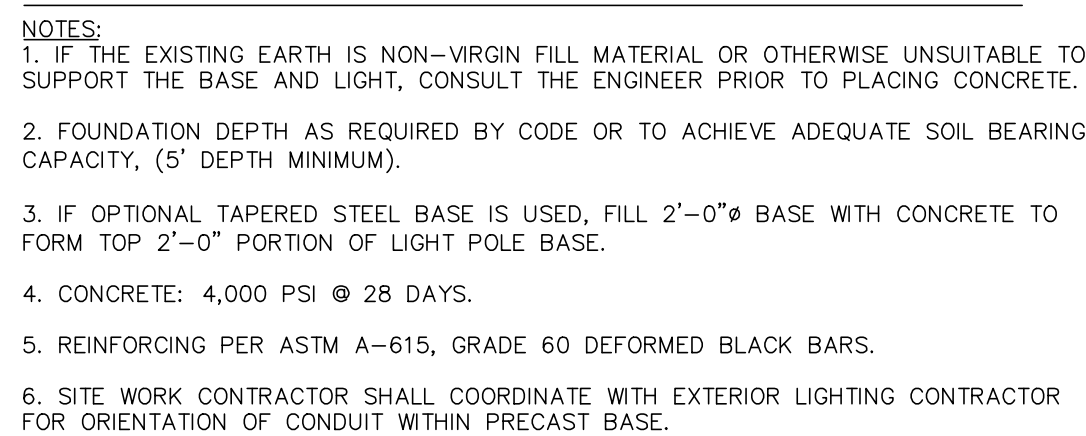
UTILITY PLAN

SHEET  
C-4









NOT TO SCALE

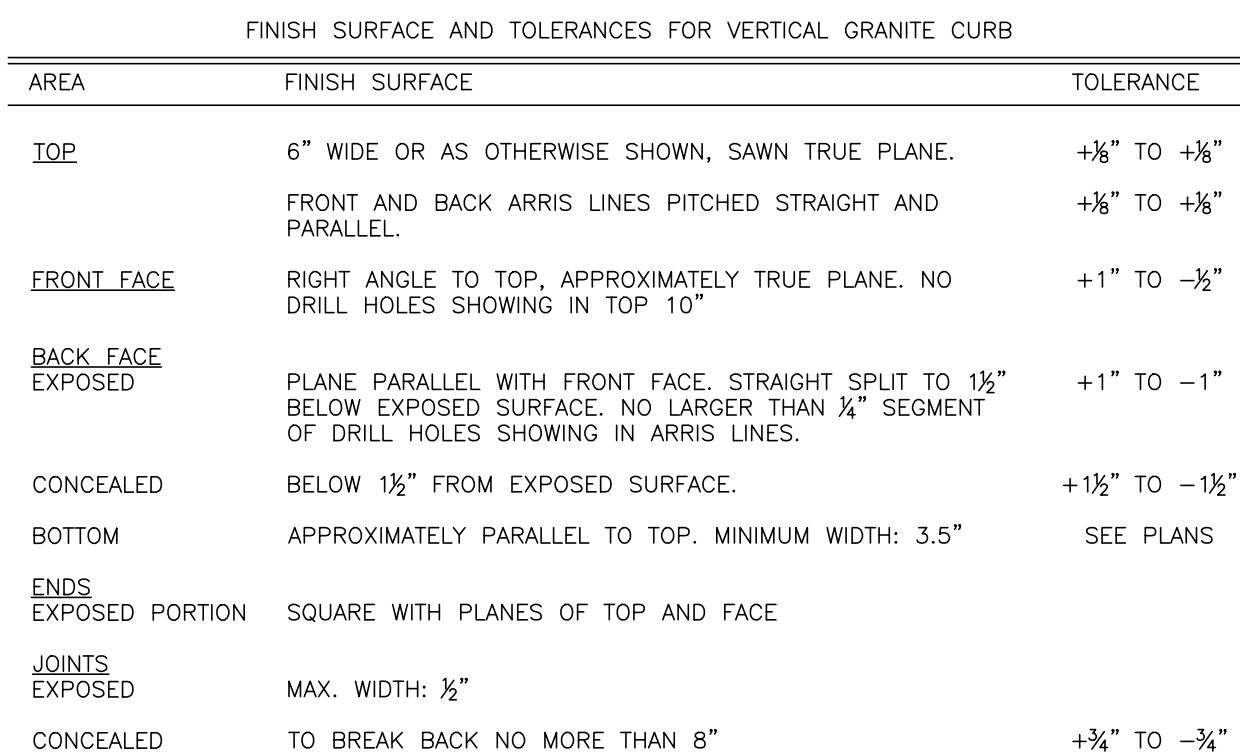


NOT TO SCALE



1. MONITORING WELL TO BE INSTALLED PER MASSDEP RULES AND REGULATIONS.
2. MONITORING WELLS TO BE INSTALLED EVERY 5,000 SF OF INFILTRATION BASIN FLOOR.
3. MONITORING WELLS MUST EXTEND 20 FEET BENEATH THE INFILTRATION BASIN FLOOR OR TO A LIMITING LAYER, WHICHEVER IS HIGHER.

NOT TO SCALE



NOT TO SCALE



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO L.W.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 4.5' AND MAXIMUM DEPTH OF 6' FROM TOP OF PIPE TO FINISH GRADE.
  3. THE TAPS ON THE WATER MAIN SHALL BE MADE THROUGH A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE.
  4. 12 GAUGE TRACER WIRE OR THICKER AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT
  5. SIZE OF CUSTOMER SERVICE LINE TO BE DETERMINED BASED ON DISTANCE FROM STOP TO END, PRESSURE AND WATER DEMANDS WITHIN THE HOUSE.
  6. TAPS SHALL BE A MINIMUM OF 2' AWAY FROM THE NEXT CLOSEST TAP.

NOT TO SCALE



# TRUE STORAGE FACILITY

2400 & 2402  
CRANBERRY HWY  
WAREHAM, MASSACHUSETTS

4	03/20/23	RESPONSE TO TOWN COMMENTS
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2	10/26/22	RESPONSE TO MASSDOT COMMENTS
1	07/18/22	RESPONSE TO MASSDOT COMMENTS
NO.	DATE	DESCRIPTION

## REVISIONS

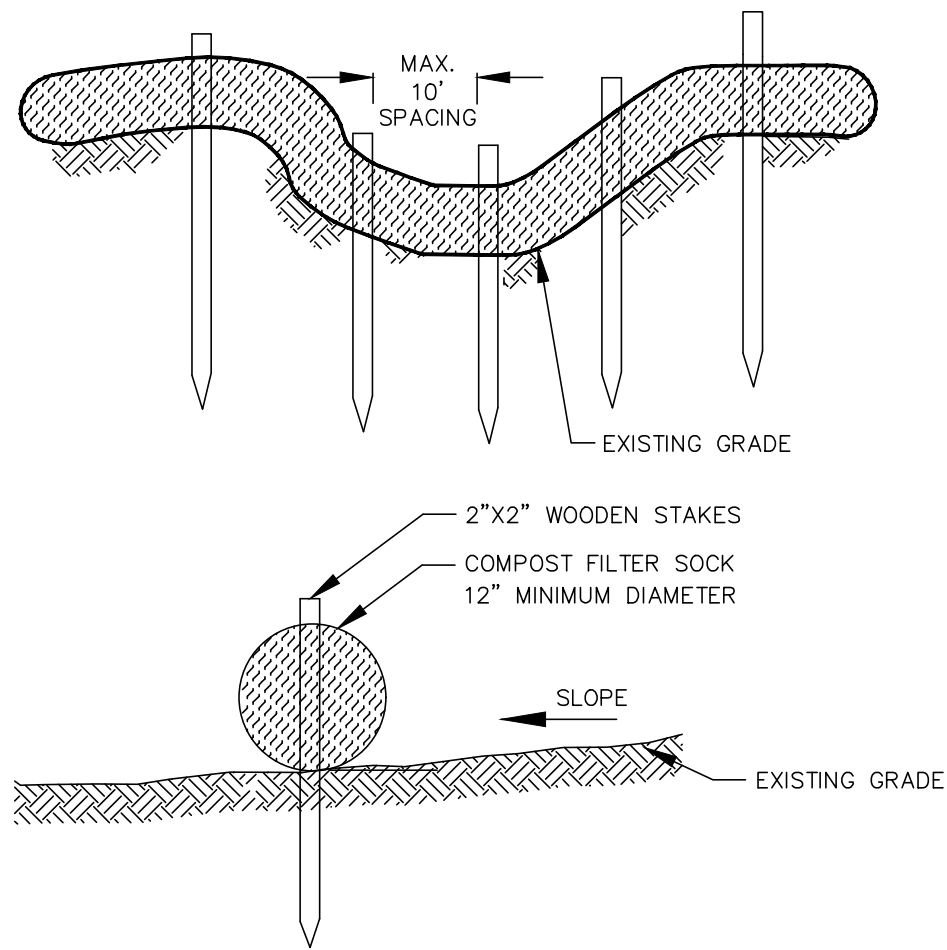
SCALE:  
AS NOTED

DATE:	APRIL 2022
NOBIS PROJECT NO.	95561.15
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CAD DRAWING FILE:	95561.15-C-700-DETAILS.dwg

## CONSTRUCTION DETAILS

SHEET  
C-6

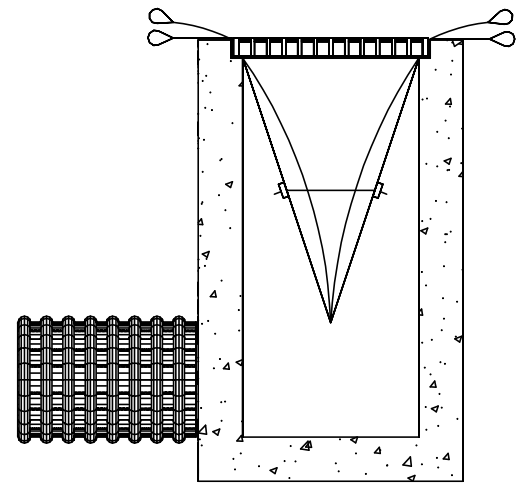




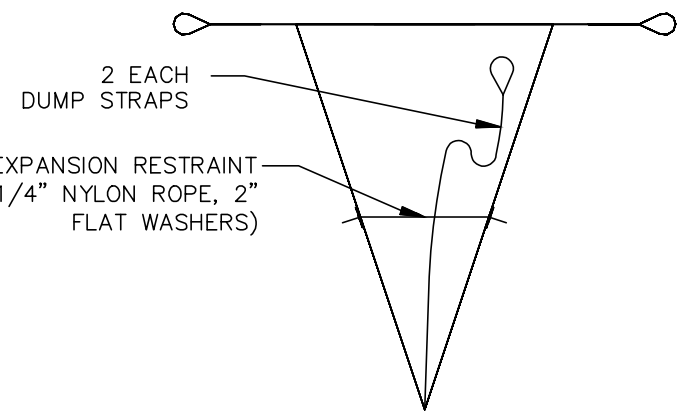
NOTES:

1. TEMPORARY COMPOST FILTER SOCK SHOULD BE LOCATED AS SHOWN ON PLANS, DOWNSTREAM OF THE CONSTRUCTION AREA, ABUTTING WETLAND AREA & OPEN WATER AND ACROSS ANY DRAINAGE SWALE DOWNSTREAM FROM THE CONSTRUCTION AREA.
2. STAKE SHOULD BE INSTALLED THROUGH THE MIDDLE OF THE PERIMETER CONTROL AND PLACED A MINIMUM OF 12" INTO GROUND.
3. FILTER SOCKS OVERLAPPING SECTION TO BE A MINIMUM OF 18". STAKES SHOULD BE INSTALLED WITHIN THE OVERLAPPING SECTION.
4. PROVIDE PERIODIC REMOVAL OF ACCUMULATED DEBRIS AND SEDIMENTS DURING CONSTRUCTION AND PRIOR TO DISMANTLING.

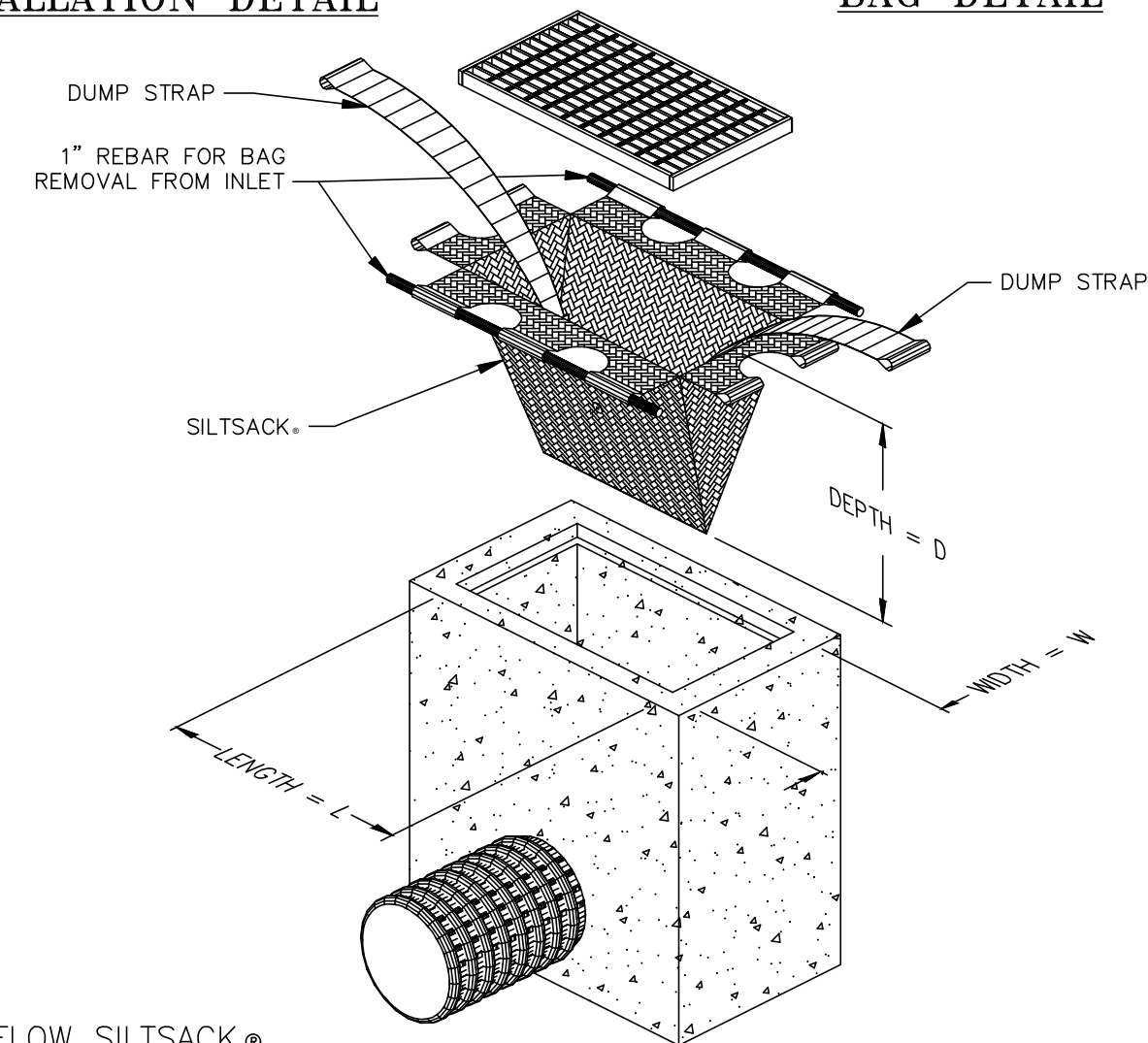
12" DIA. COMPOST FILTER SOCK  
NOT TO SCALE



INSTALLATION DETAIL



BAG DETAIL

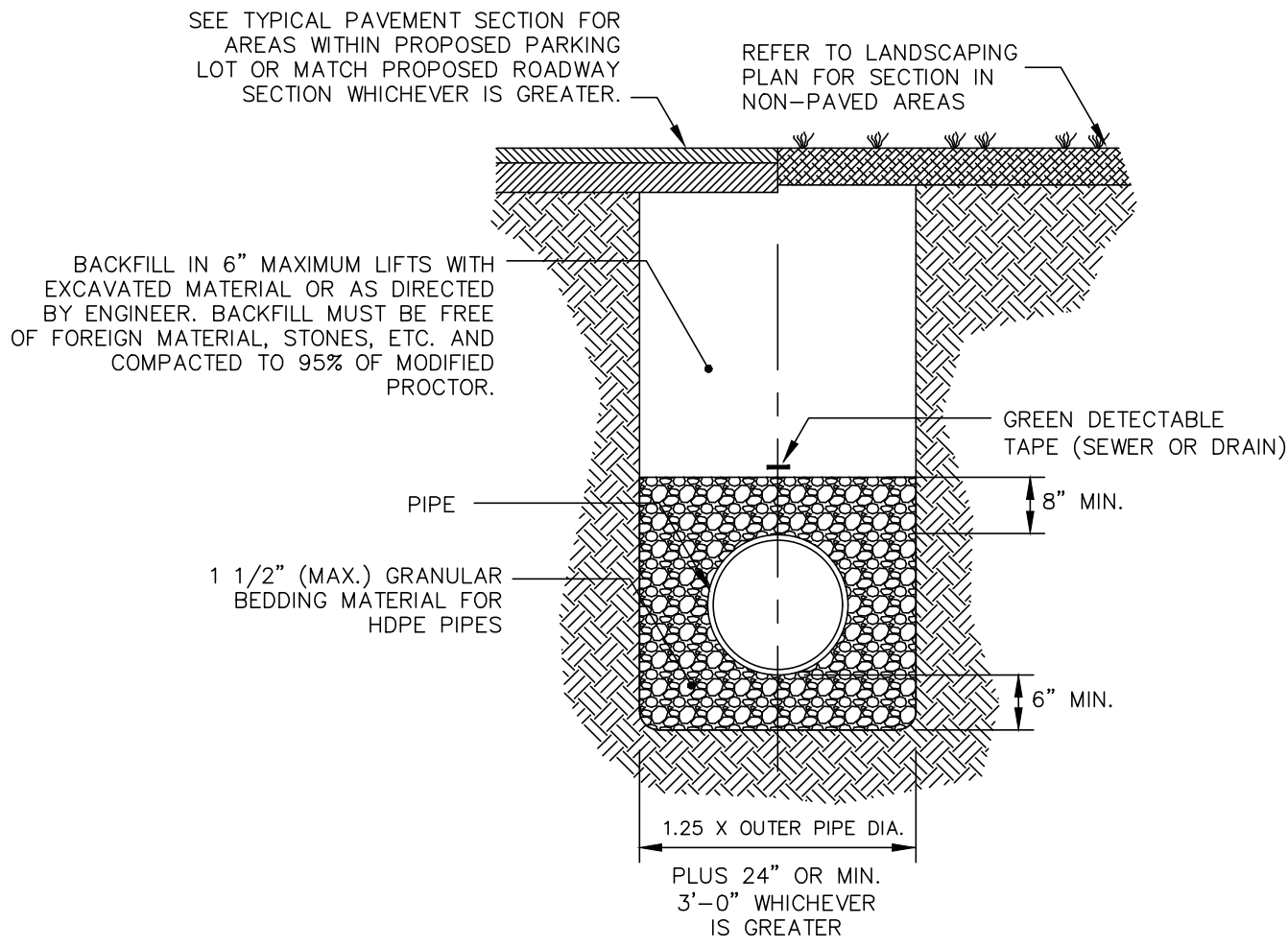


HI-FLOW SILTSACK®  
SPECIFICATIONS\*

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4633	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4761	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

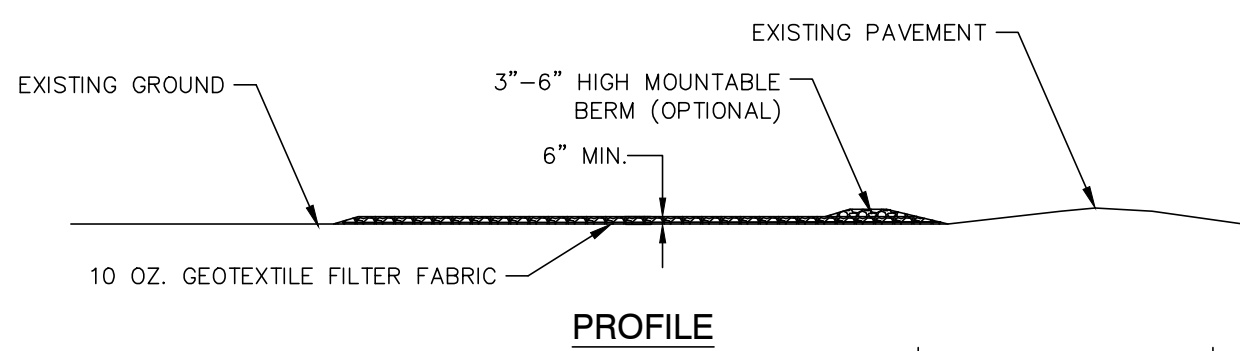
\*NOTE: HIGH-FLOW SILTSACK TO BE INSTALLED ONLY AFTER PAVEMENT IS INSTALLED. PRIOR TO PAVING, COVER INLET WITH AN IMPERMEABLE WATER TIGHT BARRIER TO KEEP STORMWATER AND SEDIMENT FROM ENTERING BASIN.

HI-FLOW SILTSACK DETAIL  
NOT TO SCALE

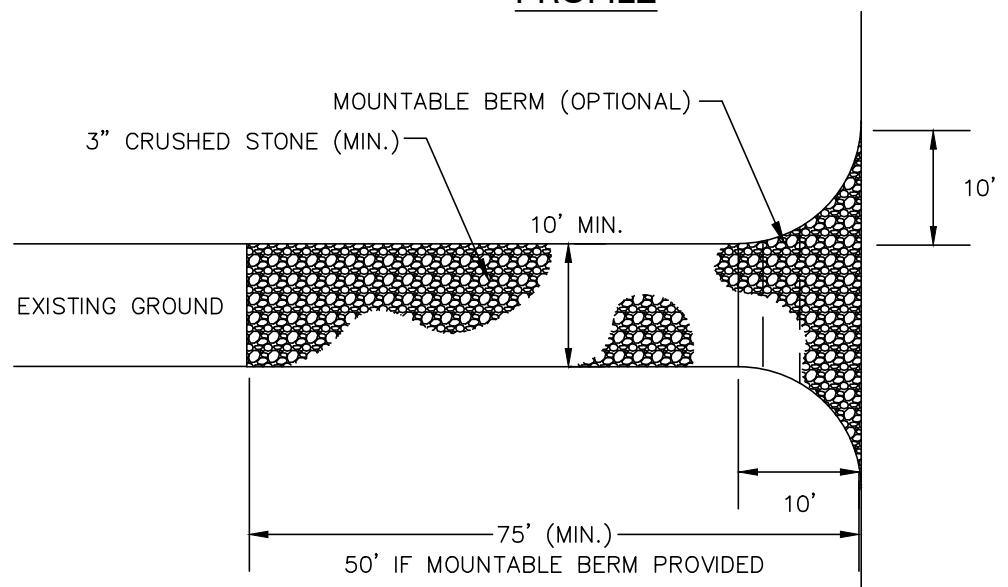


TYPICAL SANITARY SEWER & STORM DRAIN  
TRENCH DETAIL

NOT TO SCALE



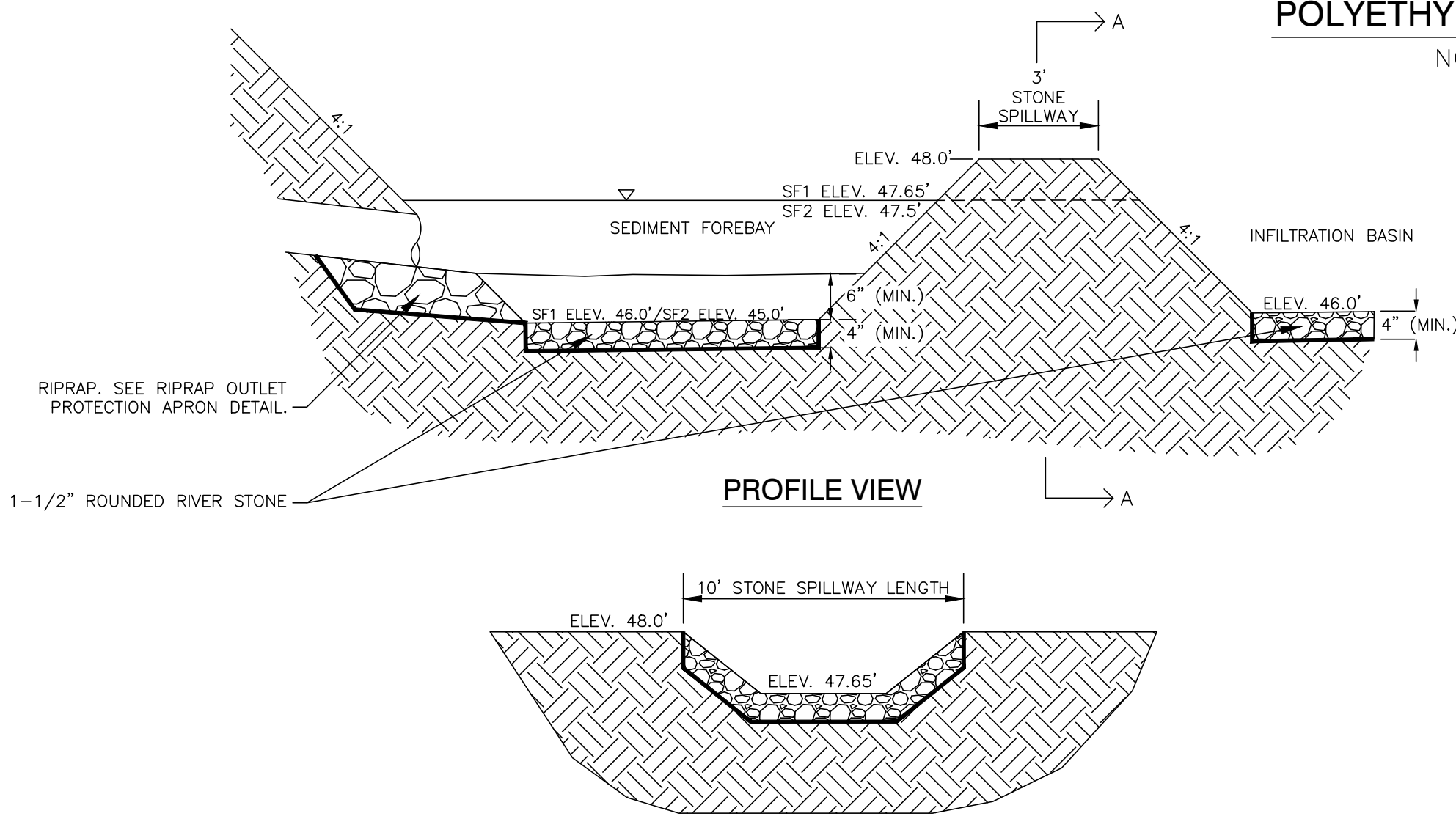
PROFILE



PLAN

TRACKING PAD DETAIL

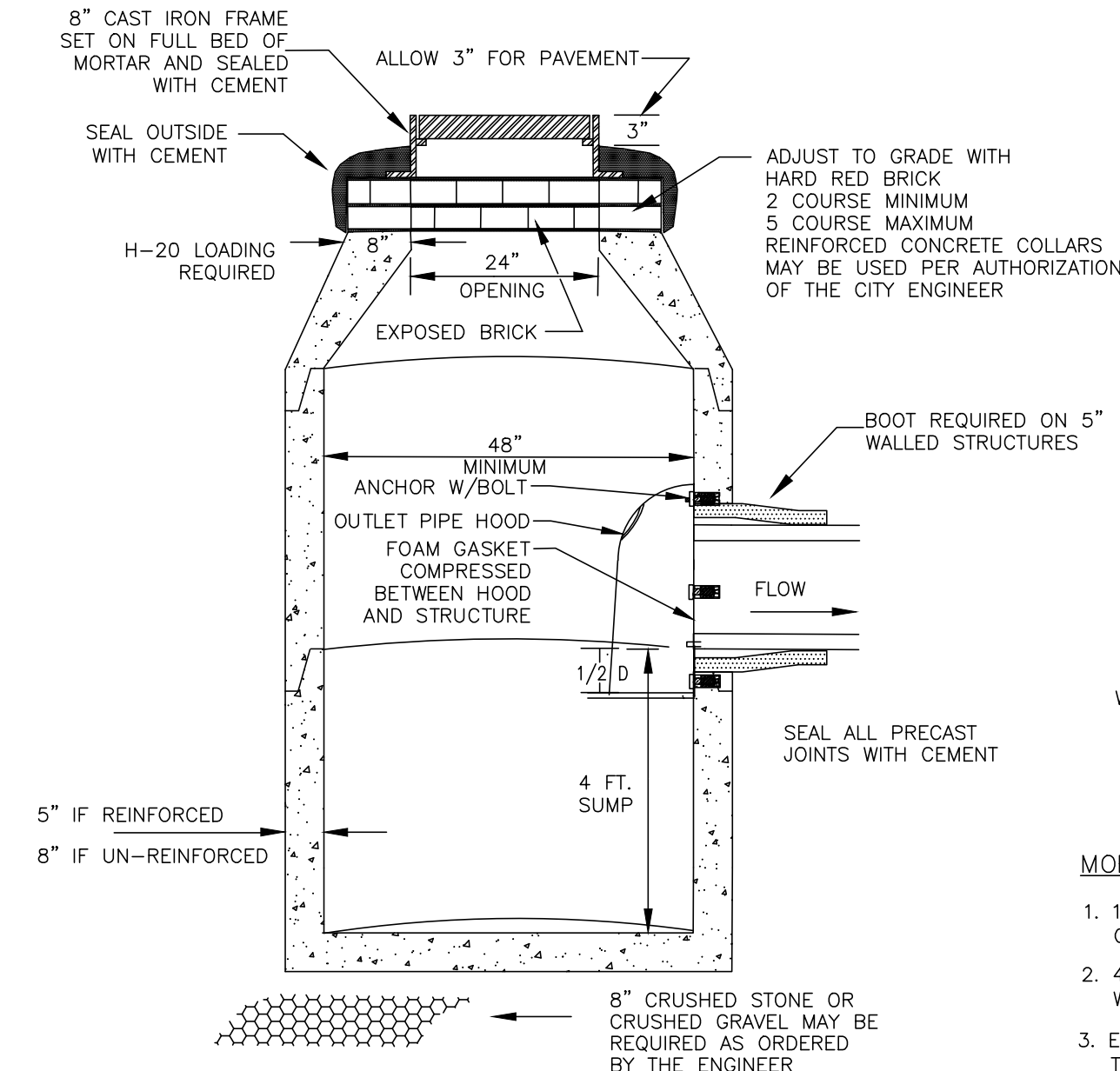
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PROFILE VIEW

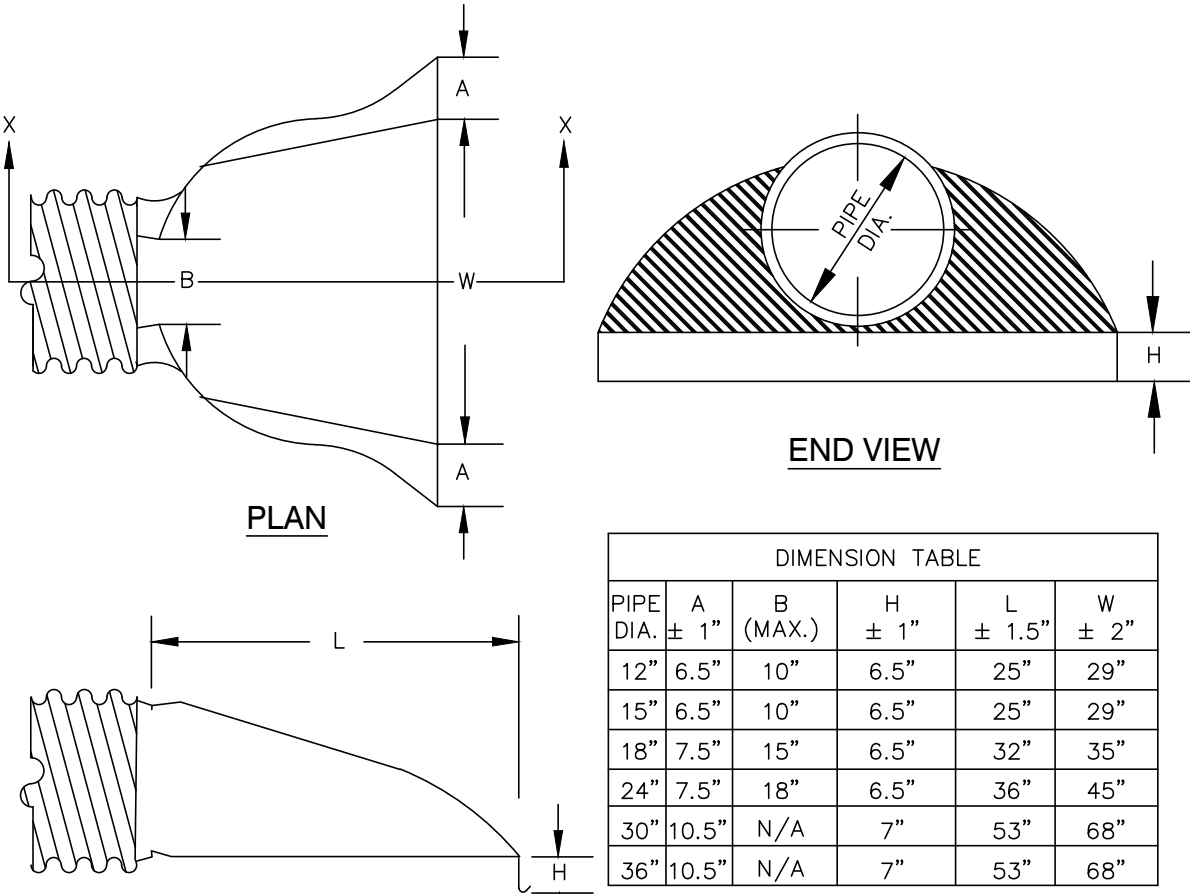
STONE WEIR CROSS SECTION  
A-A

SEDIMENT FOREBAY WITH STONE WEIR DETAIL  
NOT TO SCALE



CATCH BASIN

NOT TO SCALE

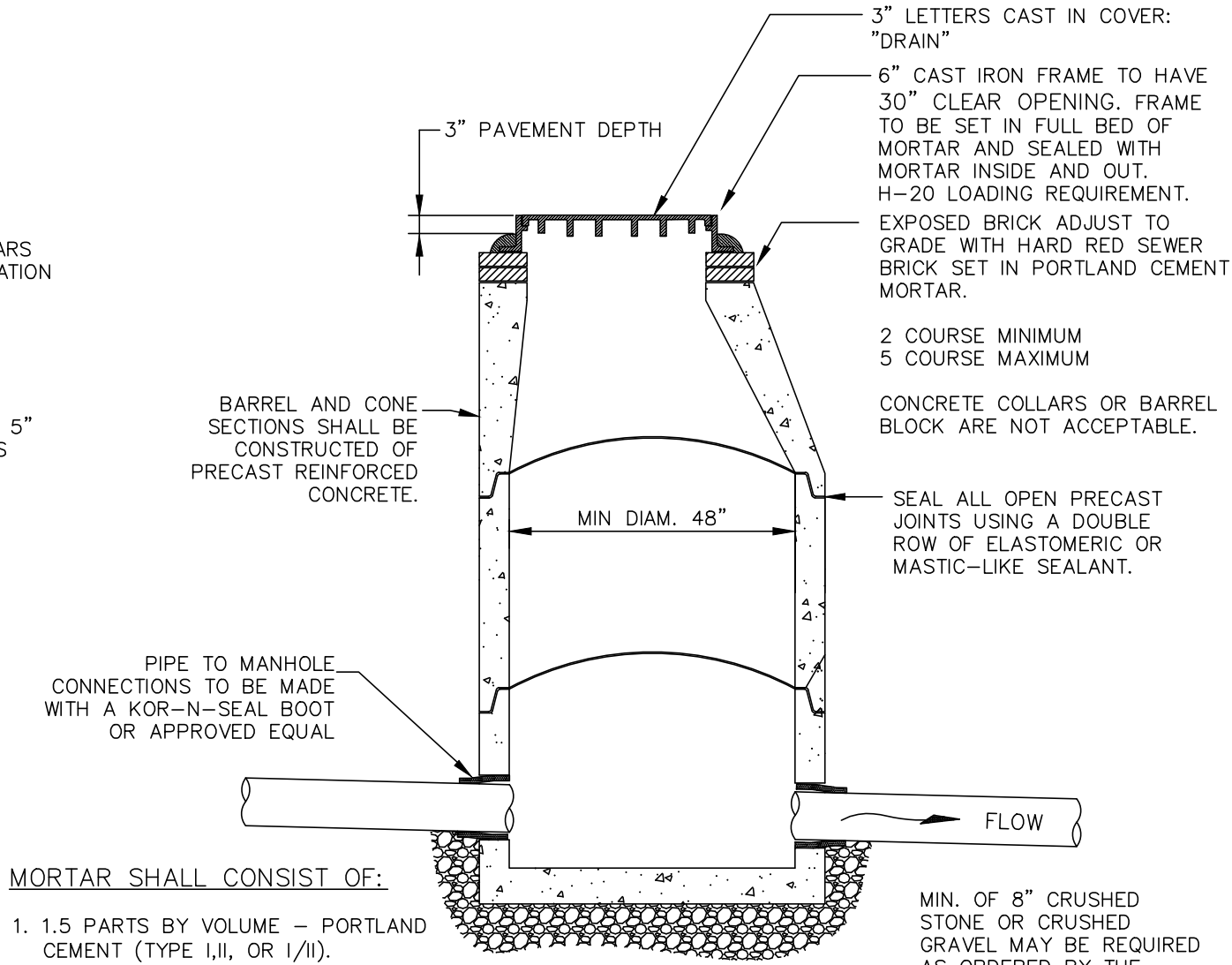


SECTION X-X

POLYETHYLENE END SECTION

NOT TO SCALE

DIMENSION TABLE					
PIPE DIA.	A	B (MAX.)	H	L	W
12"	6.5"	10"	6.5"	25"	29"
15"	6.5"	10"	6.5"	25"	29"
18"	7.5"	15"	6.5"	32"	35"
24"	7.5"	18"	6.5"	36"	45"
30"	10.5"	N/A	7"	53"	68"
36"	10.5"	N/A	7"	53"	68"

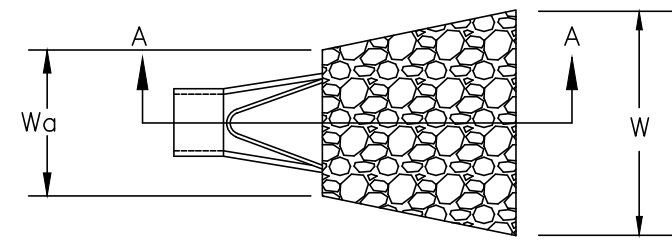


STORM MANHOLE

NOT TO SCALE

MORTAR SHALL CONSIST OF:

1. 1.5 PARTS BY VOLUME - PORTLAND CEMENT (TYPE I/J, OR 1/10).
2. 4.5 PARTS BY VOLUME - DAMP WASHED COURSE MORTAR SAND.
3. ENOUGH CLEAR DRINKABLE WATER TO PRODUCE THE CONSISTENCY OF A STIFF PASTE.



SECTION A-A

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

STRUCTURE	Wg	W	L	RIP RAP SIZE D50 (INCHES)	THICKNESS OF RIPRAP
FES1	3	13	10	4	9
FES2	2	13	12	7	16
FES3	2	13	12	7	16
FES4	3	8	13	4	9

TABLE - RECOMMENDED RIPRAP GRADATION RANGES		
THICKNESS OF RIPRAP = (2.25xd50) FEET		
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	(1.5xd50)	(2.0xd50)
85%	(1.3xd50)	(1.8xd50)
50%	(1.0xd50)	(1.5xd50)
15%	(0.3xd50)	(0.5xd50)

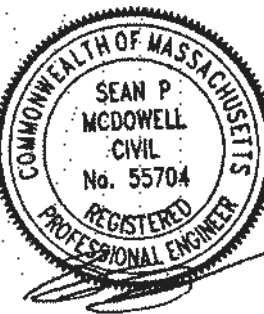
NOTES:

1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIPRAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
6. MAINTENANCE: THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

RIP RAP OUTLET PROTECTION APRON  
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REVISIONS

SCALE:  
AS NOTED

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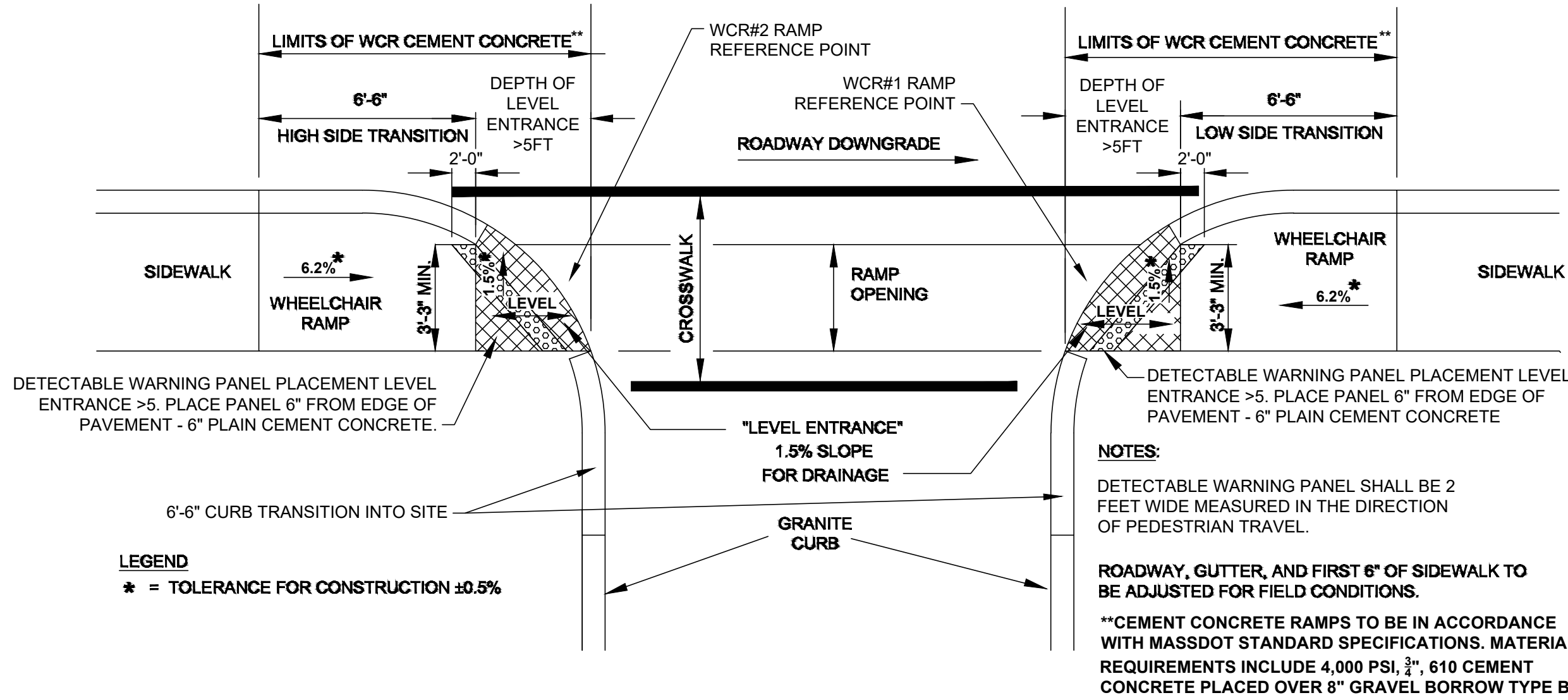
SHEET TITLE

CONSTRUCTION  
DETAILS

SHEET  
C-7

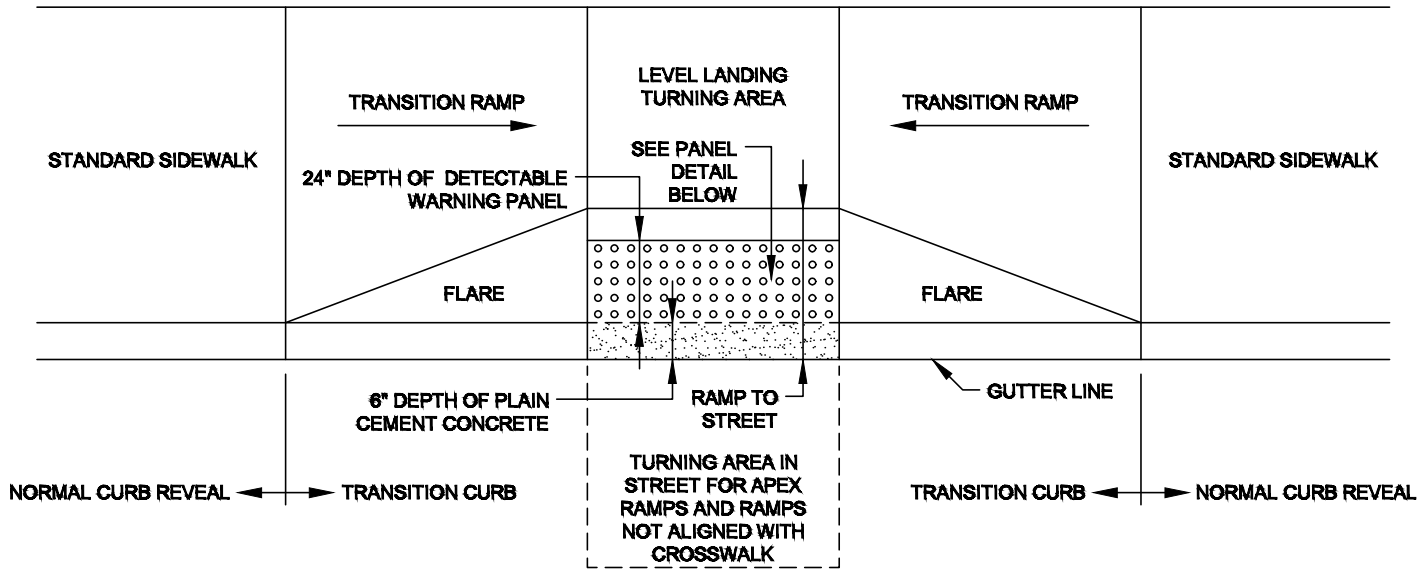


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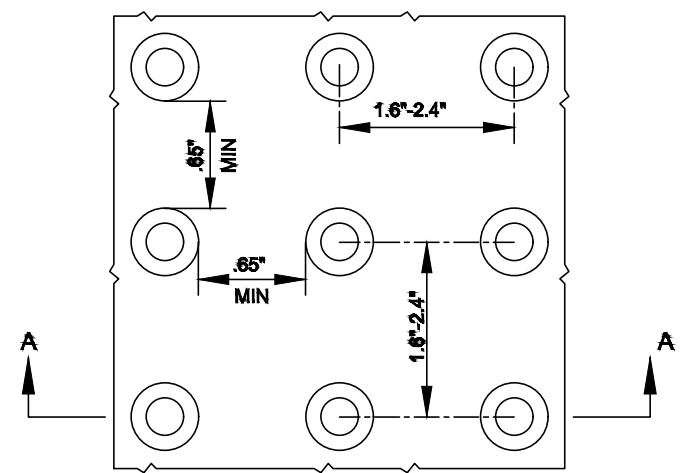


WCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP ENTRANCE 3'-3" (MIN.)	CLEAR PATH OF TRAVEL 3'-3" (MIN.)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH
	STATION	OFFSET					
1	107+31.1	16.8' LT	5'-0"	3'-3"	3'-3"	0.83%	6.5'
2	107+84.8	17.0' LT	5'-0"	3'-3"	3'-3"	0%	6.5'

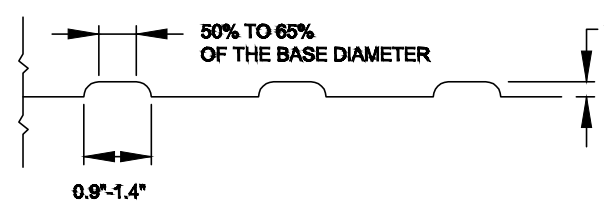
E 107.6.0 - SIDEWALK RAMP THROUGH DRIVEWAY  
DETAIL WHERE LEVEL ENTRANCE EXCEEDS 5'  
NOT TO SCALE



TYPICAL INSTALLATION



DETAIL OF DETECTABLE WARNING PANEL

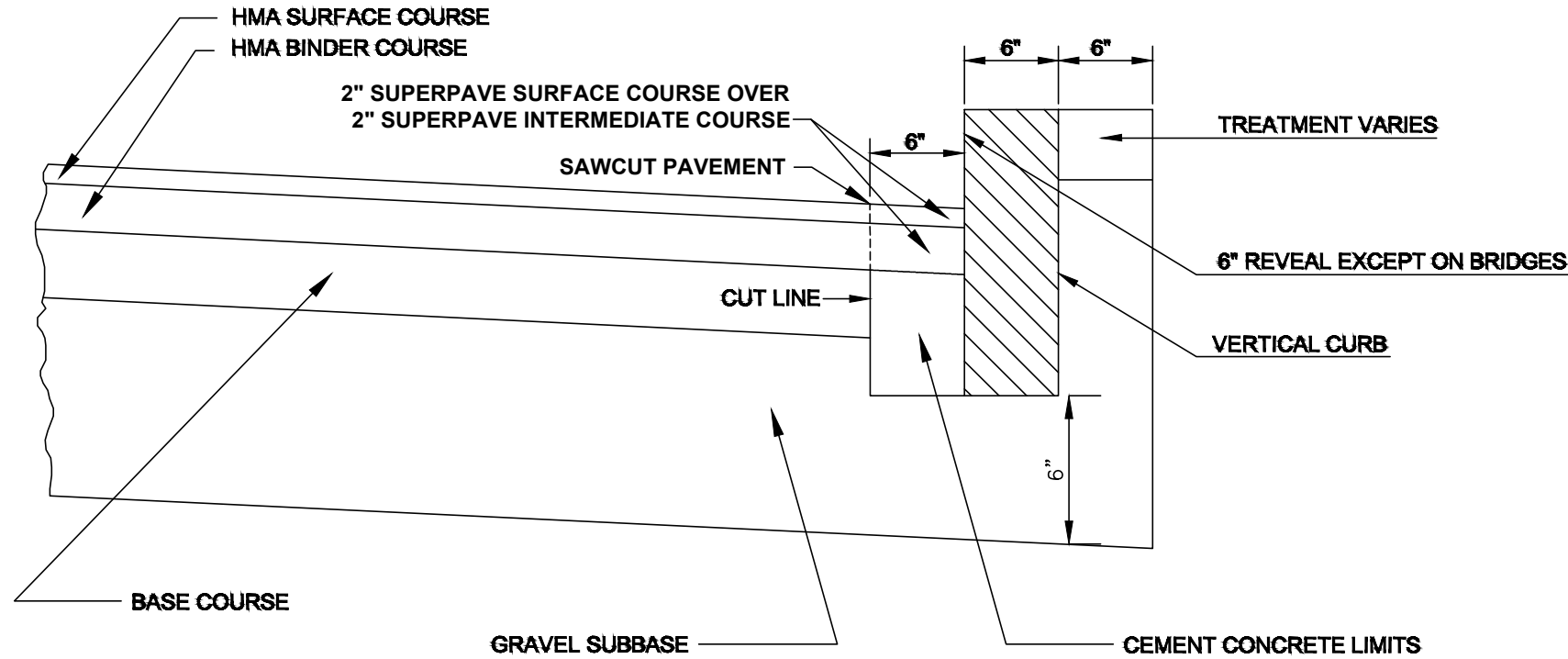


SECTION A-A

NOTE:

PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

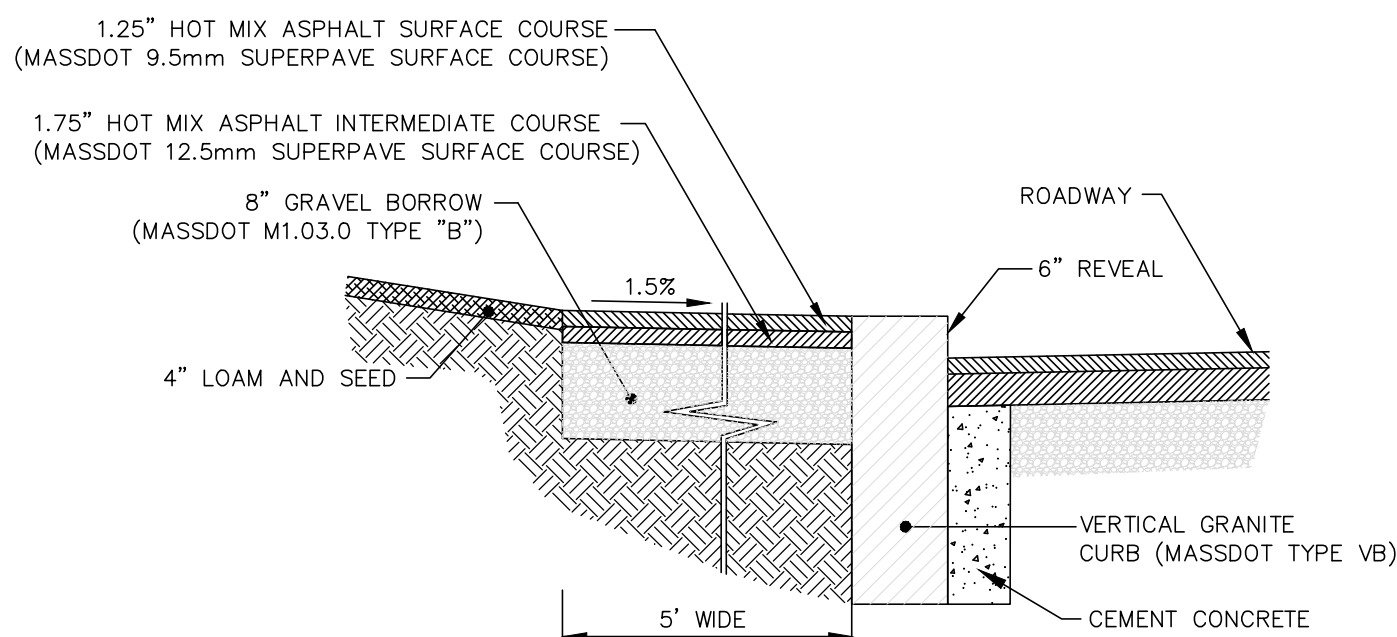
E 107.6.5 - DETECTABLE WARNING PANEL  
FOR WHEELCHAIR RAMPS AND STANDARD  
RAMP TERMINOLOGY DETAILS  
NOT TO SCALE



NOTES:

1. THIS PROCEDURE IS APPLICABLE ONLY IF CURB IS TO BE SET AFTER BASE COURSE IS IN PLACE PRIOR TO BINDER AND TOP PLACEMENT.
2. CUT NEAT LINE 6" FROM CURB LINE AND REMOVE BASE AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED; ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT TO BE USED AS A SUBSTITUTE.

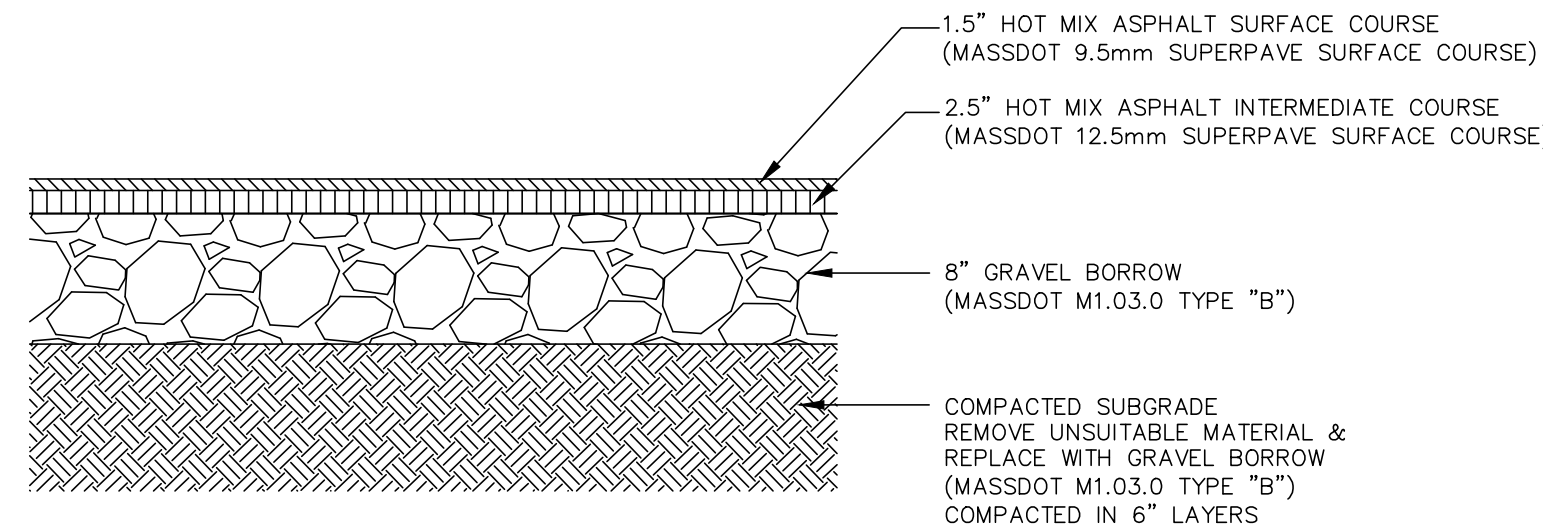
E 106.3.0 - METHOD OF SETTING VERTICAL CURB  
NOT TO SCALE



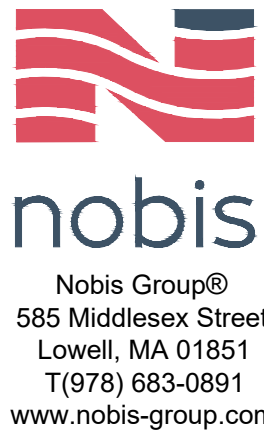
NOTES:

1. BITUMINOUS SIDEWALK AND VERTICAL GRANITE CURB INSTALLATION TO MEET MASSDOT STANDARD SPECIFICATIONS WITHIN THE MASSDOT SHLO.
2. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER MASSDOT SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HMA SHALL NOT BE USED AS A SUBSTITUTE.

BITUMINOUS SIDEWALK &  
VERTICAL GRANITE CURB  
NOT TO SCALE



HMA DRIVEWAY PAVEMENT SECTION WITHIN SHLO  
NOT TO SCALE



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REVISIONS

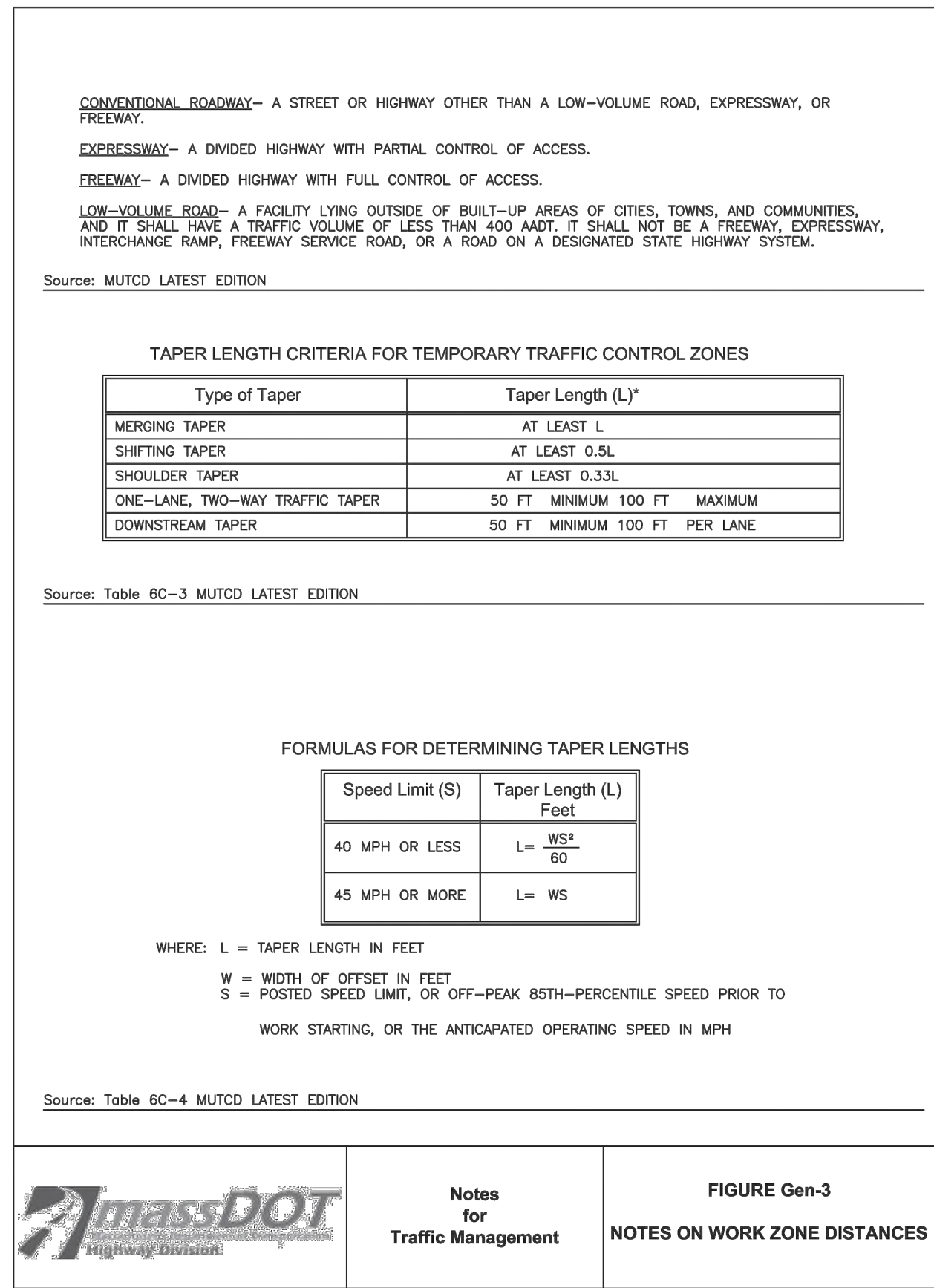
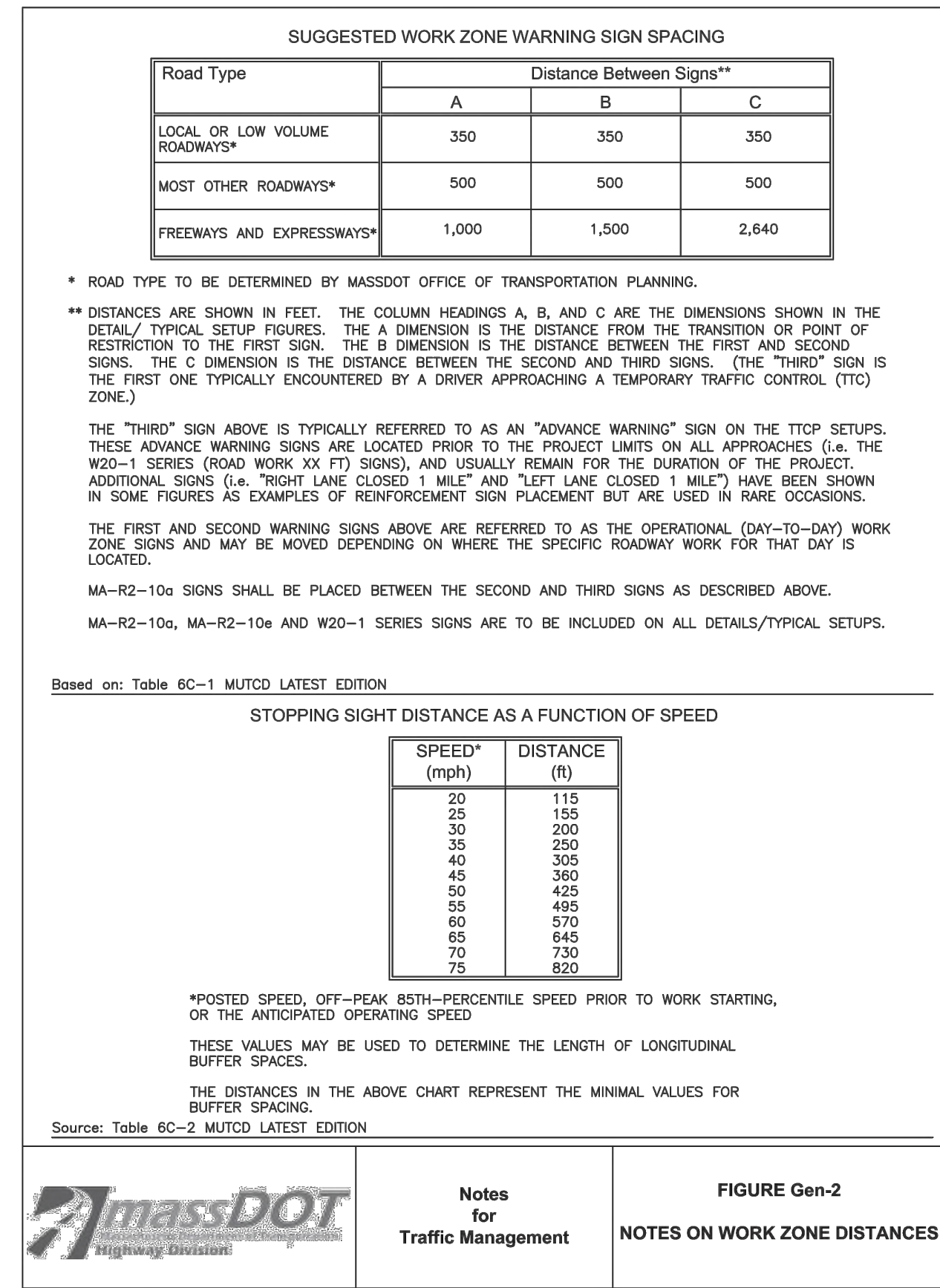
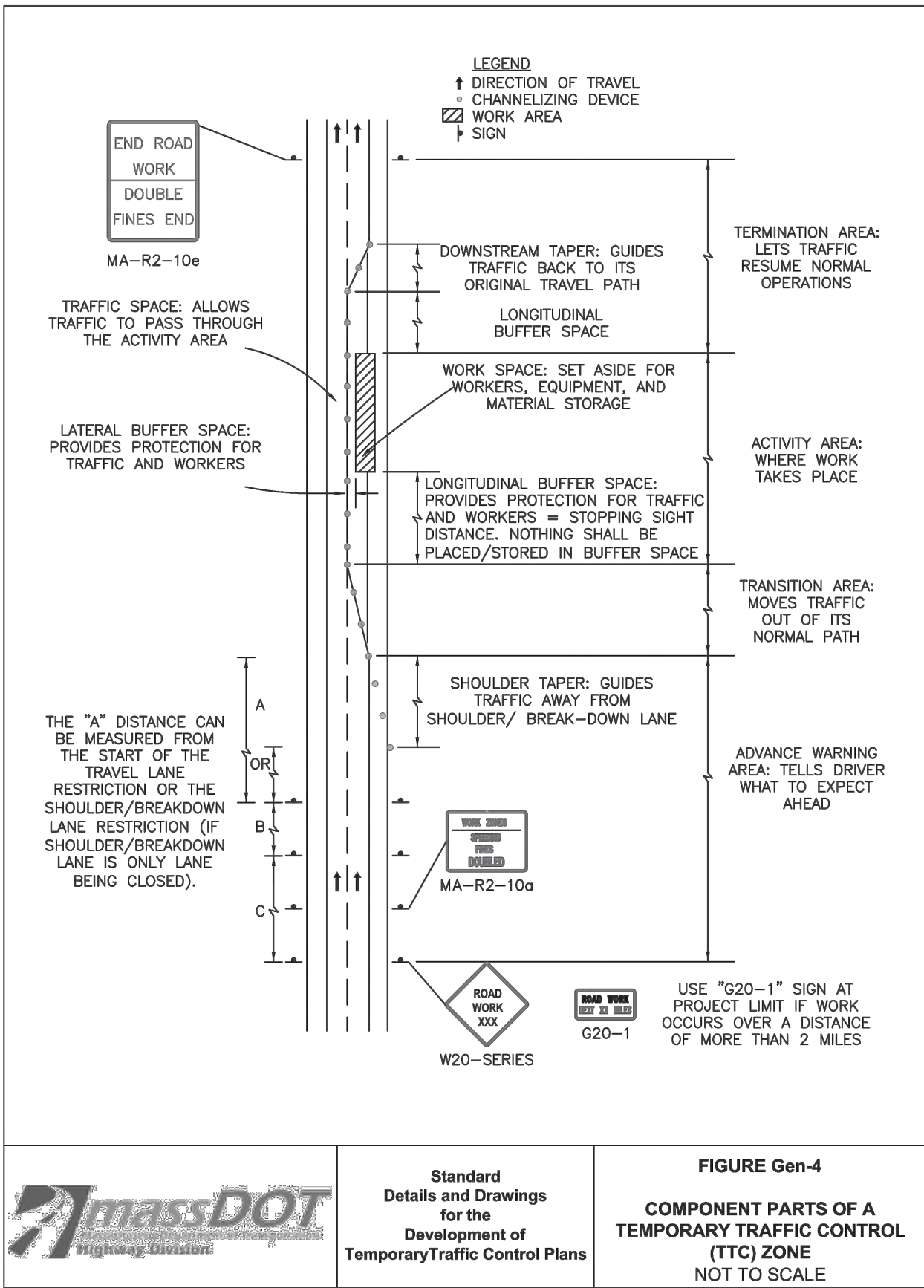
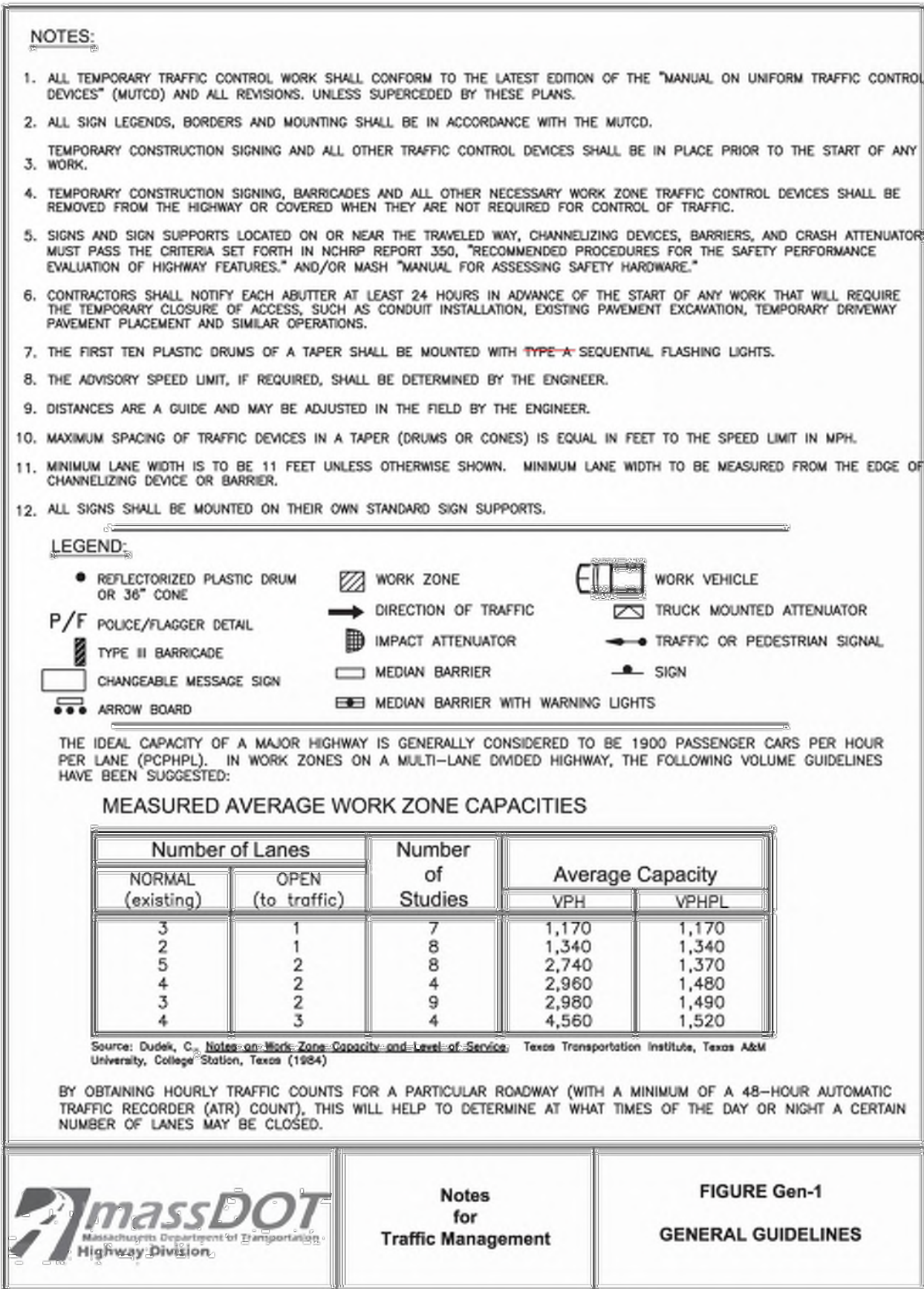
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SHEET TITLE  
CONSTRUCTION  
DETAILS WITHIN  
STATE HIGHWAY  
LAYOUT (SHLO)

SHEET  
C-8





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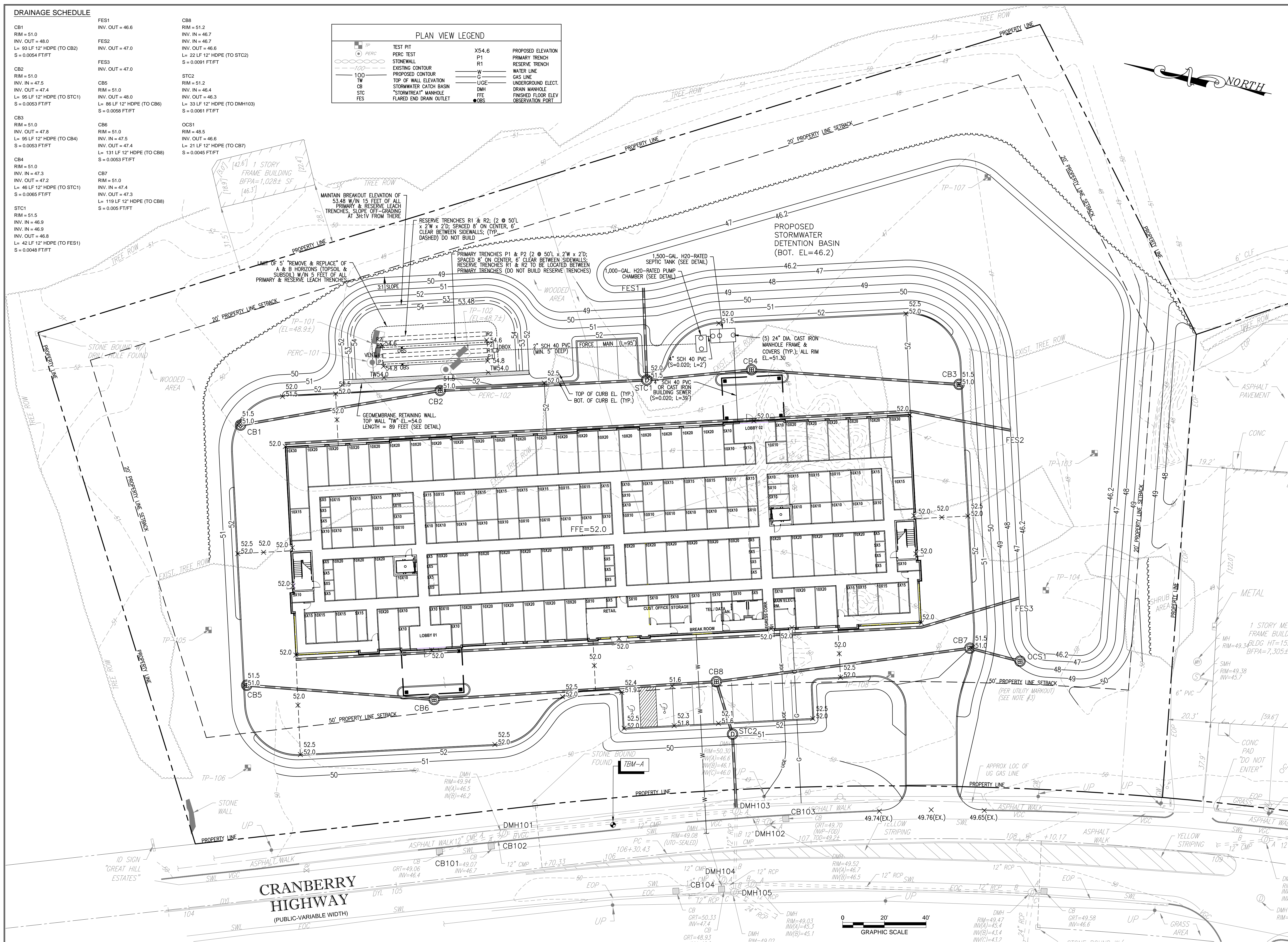
**TRAFFIC  
MANAGEMENT  
PLAN DETAILS**

SHEET  
**C-9**



CB1	INV. OUT = 46.6	RIM = 51.2
RIM = 51.0	INV. IN = 46.7	INV. IN = 46.7
INV. OUT = 48.0	FES2	INV. IN = 46.7
L = 93 LF 12" HDPE (TO CB2)	INV. OUT = 47.0	INV. OUT = 46.6
S = 0.0054 FT/FT		L = 22 LF 12" HDPE (TO STC2)
	FES3	S = 0.0091 FT/FT
	INV. OUT = 47.0	
CB2		STC2
RIM = 51.0	CB5	RIM = 51.2
INV. IN = 47.5	RIM = 51.0	INV. IN = 46.4
INV. OUT = 47.4	INV. OUT = 48.0	INV. OUT = 46.3
L = 95 LF 12" HDPE (TO STC1)	L = 86 LF 12" HDPE (TO CB6)	L = 33 LF 12" HDPE (TO DMH103)
S = 0.0053 FT/FT	S = 0.0058 FT/FT	S = 0.0061 FT/FT
CB3	CB6	OCS1
RIM = 51.0	RIM = 51.0	RIM = 48.5
INV. IN = 47.8	INV. IN = 47.5	INV. OUT = 46.6
L = 95 LF 12" HDPE (TO CB4)	INV. OUT = 47.4	L = 21 LF 12" HDPE (TO CB7)
S = 0.0053 FT/FT	L = 131 LF 12" HDPE (TO CB8)	S = 0.0045 FT/FT
	S = 0.0053 FT/FT	
CB4	CB7	
RIM = 51.0	RIM = 51.0	
INV. IN = 47.3	INV. IN = 47.4	
INV. OUT = 47.2	INV. OUT = 47.3	
L = 46 LF 12" HDPE (TO STC1)	L = 119 LF 12" HDPE (TO CB8)	
S = 0.0065 FT/FT	S = 0.005 FT/FT	
STC1		
RIM = 51.5		
INV. IN = 46.9		
INV. IN = 46.9		
INV. OUT = 46.8		
L = 42 LF 12" HDPE (TO FES1)		
S = 0.0048 FT/FT		

PLAN VIEW LEGEND			
	TEST PIT	X54.6	PROPOSED ELEVATION
	PERC TEST	P1	PRIMARY TRENCH
	STONEWALL	R1	RESERVE TRENCH
	EXISTING CONTOUR	-W	WATER LINE
	PROPOSED CONTOUR	-C	GAS LINE
	TOP OF WALL ELEVATION	-UGE	UNDERGROUND ELECT.
	STORMWATER CATCH BASIN	DMH	DRAIN MANHOLE
	"STORMTREAT" MANHOLE	FES	FINISHED FLOOR ELEVATION
	FLARED END DRAIN OUTLET	RES	RESERVATION FLOOR



SHEET NO: 1 OF 2

1

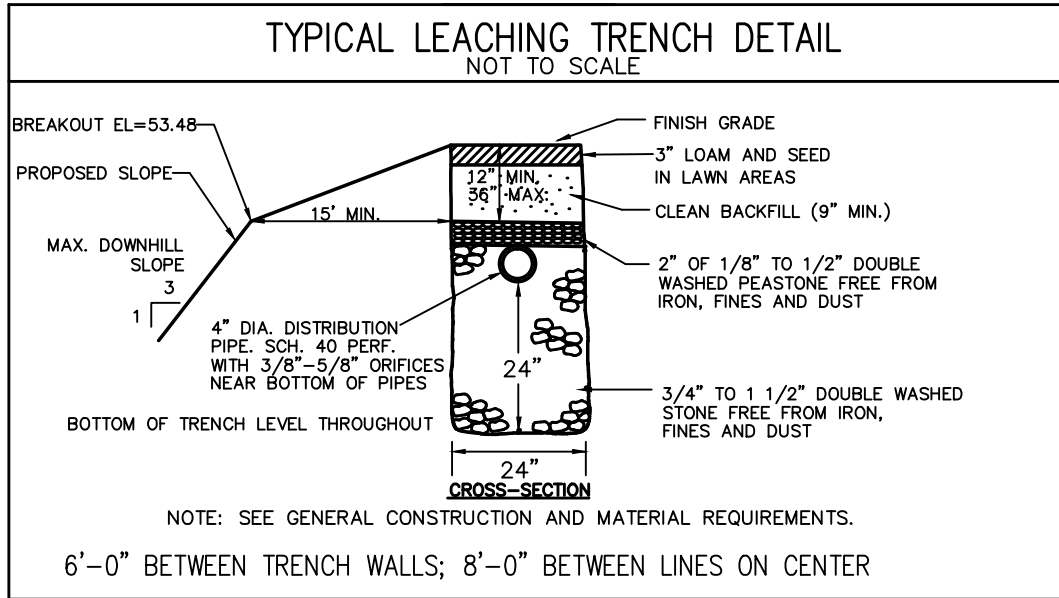
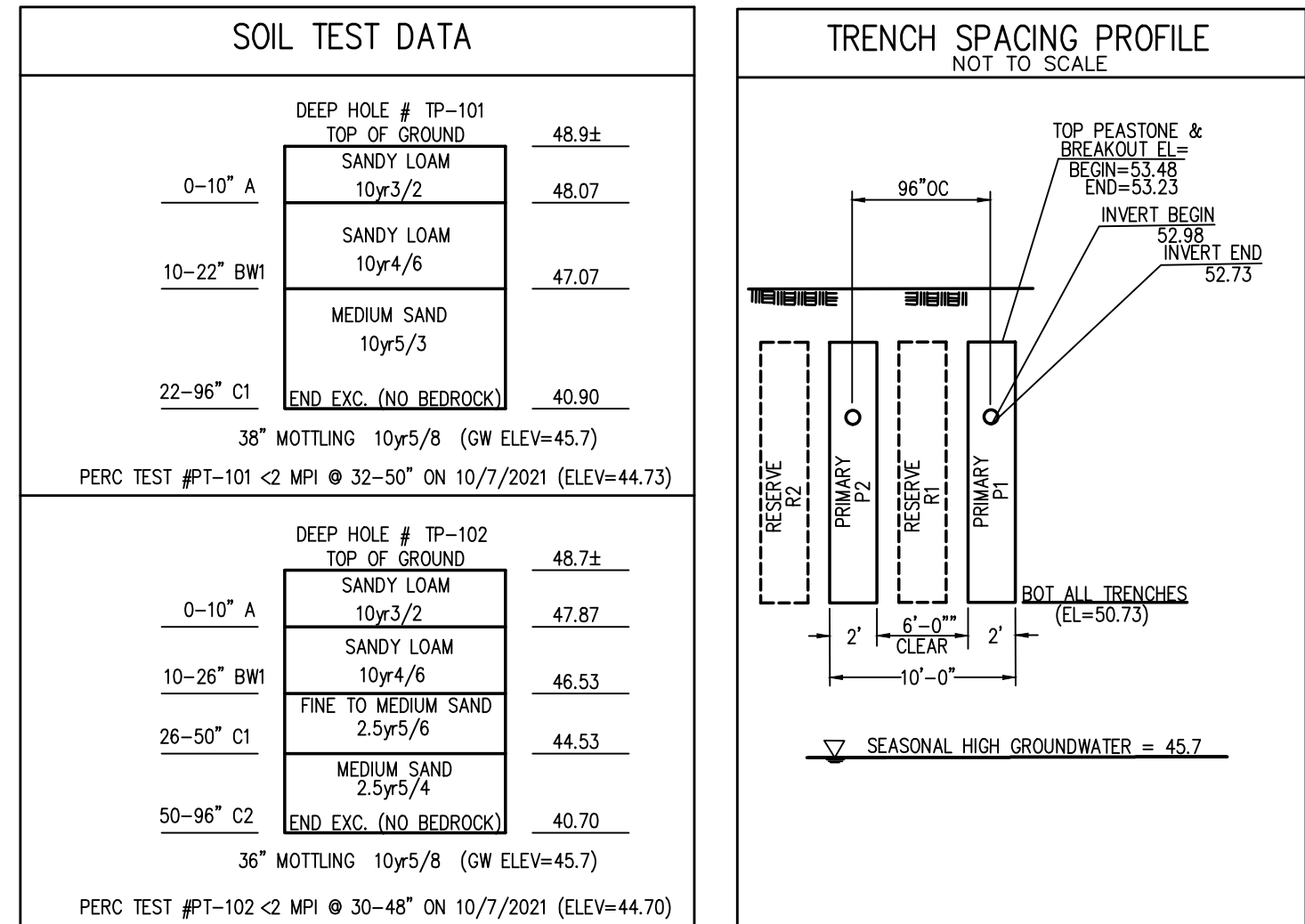
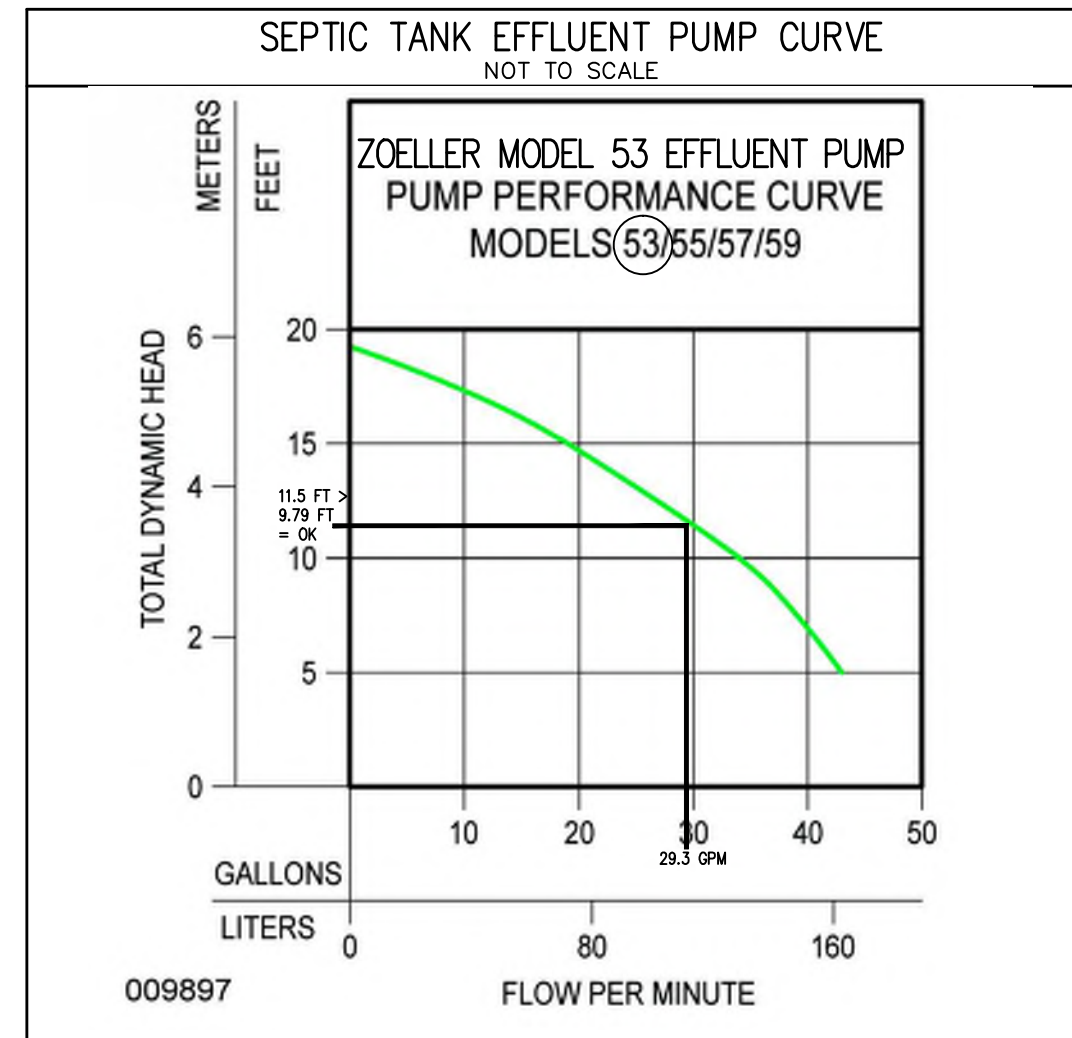
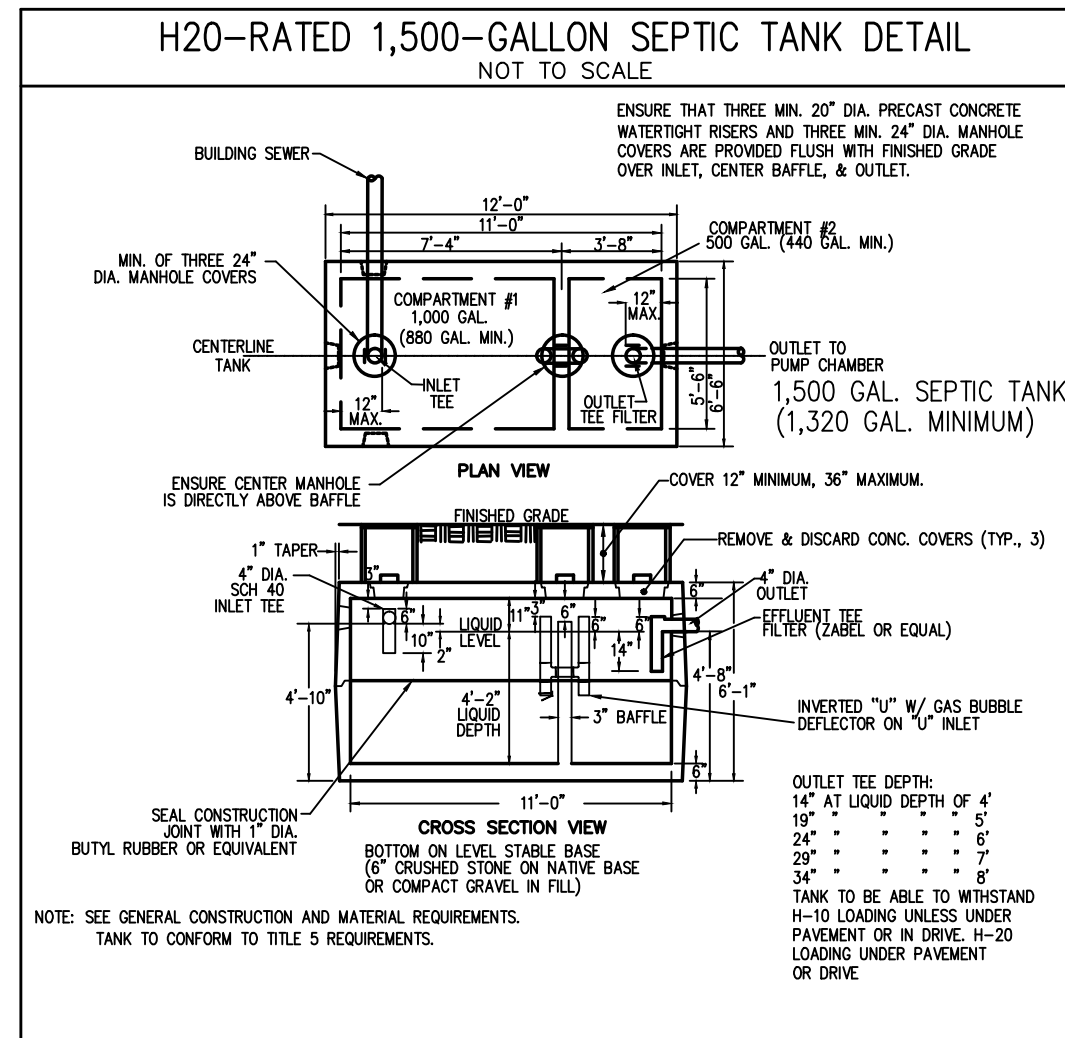
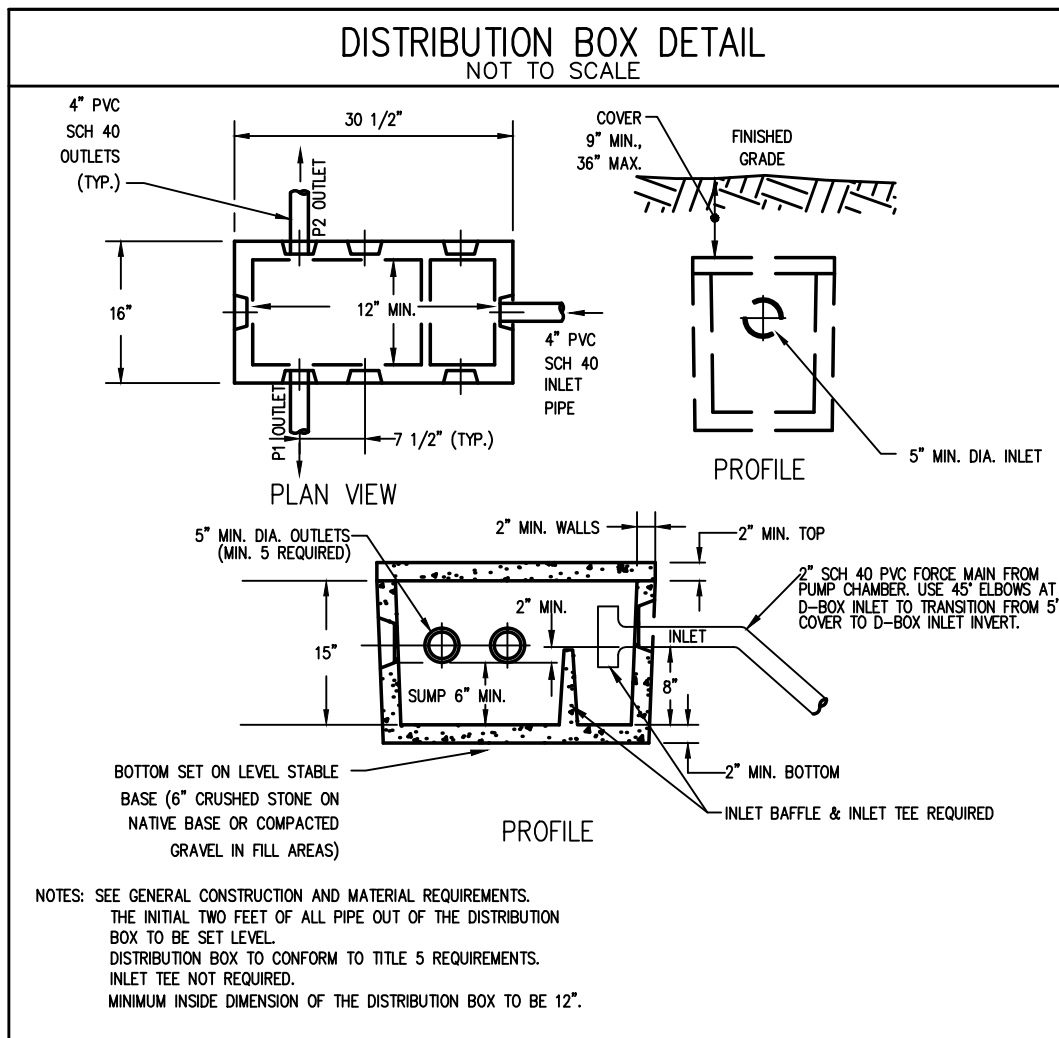
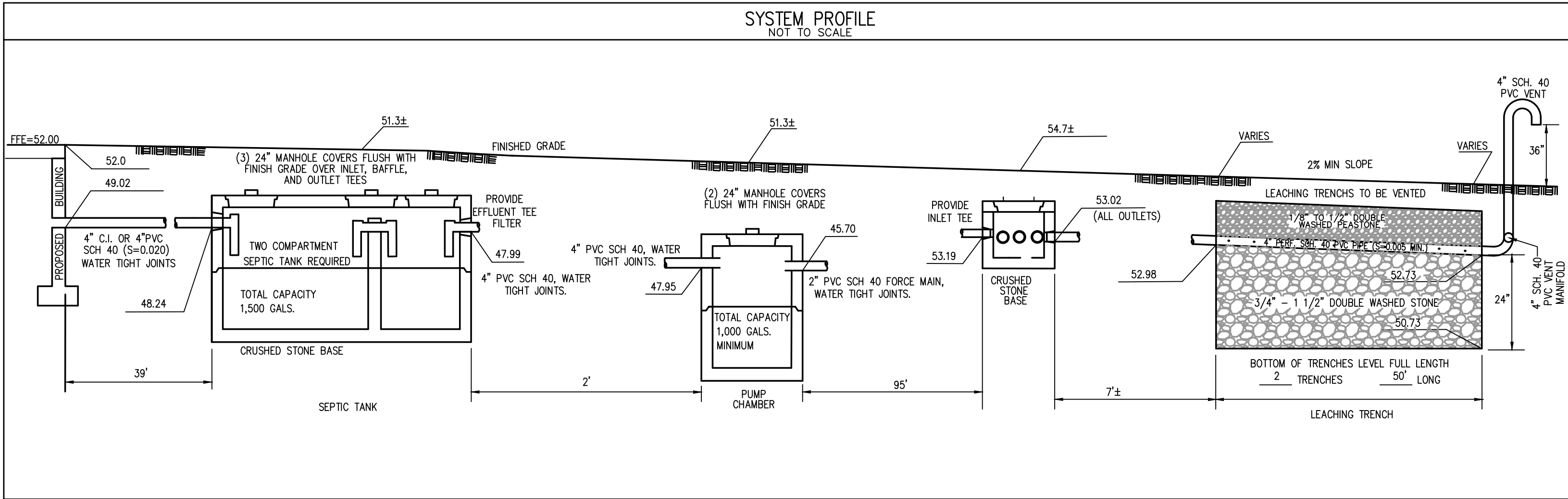


NOTES & REFERENCES:

- THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED BY THE OWNER AND THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE RELEVANT TOWN DEPARTMENTS AND ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.
- IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE DETAILS AS NECESSARY.
- THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR. MEASURES SHALL INCLUDE HAY BALE DICES ALONG THE PERIMETER OF CUTS AND FILLS, MULCHING, AND PLANTING OF DISTURBED AREAS AS SOON AS PRACTICABLE.
- AT THE END OF CONSTRUCTION THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED.
- AT THE END OF CONSTRUCTION, AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE CONTRACTOR SHALL CLEAN THE SUMPS OF ALL CATCH BASINS AND THE INVERTS OF ALL DRAIN CONDUITS IF THESE STRUCTURES HAVE BEEN IMPACTED BY SILT.
- THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR THE SITE ENGINEER. NO MUNICIPAL DEPARTMENTS, NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR IS TO CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4044.
- THE CONTRACTOR IS TO VERIFY THE LOCATION, SIZE, AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE PROPOSED WORK POSSES A CONFLICT WITH THE EXISTING UTILITIES, THE ENGINEER IS TO BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
- ALL DISTURBED AREAS ARE TO BE LOAMED AND SEEDED WITH A MINIMUM OF 4" OF TOP SOIL SPREAD EVENLY THROUGHOUT. PROMOTE EROSION CONTROL MEASURES AS NECESSARY TO PROVIDE SLOPE STABILITY UNTIL VEGETATION IS ESTABLISHED.
- ALL STUMPS, "A" HORIZONS (TOP SOIL), "B" HORIZONS (SUB SOIL), AND OTHER DELICTERIOUS MATERIALS ARE TO BE REMOVED FROM THE PROPOSED SEPTIC SYSTEM AREA, AND FOR A DISTANCE OF 5 FEET IN ALL DIRECTIONS THEREFROM AS SHOWN ON THE PLAN.
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO MASS. DEP TITLE 5 REGULATIONS, AND TO BOARD OF HEALTH REGULATIONS.
- TIGHT JOINT PIPING TO CONSIST OF POLYVINYL CHLORIDE (PVC) SCHEDULE 40, UNLESS OTHERWISE NOTED.
- EXISTING CONDITIONS SITE DETAIL, TOPOGRAPHY, WETLANDS BOUNDARY, AND PROPERTY LINE OBTAINED FROM NORBS ENGINEERING, INC., DBA NORBS GROUP.
- ANY ALTERATIONS TO THE DESIGN FROM THAT SHOWN ON THE PLAN MUST BE APPROVED BY PROVENCHER ENGINEERING AND BY THE BOARD OF HEALTH.
- THE BOARD OF HEALTH SHALL REQUIRE AN AS-BUILT PLAN OF ALL CONSTRUCTION BY THE DESIGN ENGINEER, AND REQUIRE SUCH PERSON TO CERTIFY IN WRITING THAT ALL WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE TERMS OF THE PERMIT AND THE APPROVED PLANS.
- PROVISIONS FOR A GARBAGE GRINDER HAVE NOT BEEN INCLUDED IN THE DESIGN OF THE LEACHING FIELD. GARBAGE GRINDERS ARE PROHIBITED.
- THERE ARE NO ACTIVE POTABLE WELLS WITHIN 200' OF THE LEACHING FACILITY SHOWN ON THIS PLAN.
- EXISTING SITE CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR AND DISCREPANCIES MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- CERTIFICATION OF THE SYSTEM BY THE INSTALLER MAY BE REQUIRED. THE INSTALLER MUST CONFIRM WITH THE BOARD OF HEALTH IF AN INSTALLERS PERMIT AND LICENSE IS REQUIRED WITH THE TOWN PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- VEHICULAR TRAFFIC, PARKING OF VEHICLES, STOCKPILING OF MATERIALS AND STORAGE OF EQUIPMENT OVER THE LEACHING FIELD IS PROHIBITED AT ALL TIMES.
- SYSTEM COMPONENTS ARE NOT TO BE BACKFILLED OR CONCEALED WITHOUT INSPECTION BY AND PERMISSION OF THE BOARD OF HEALTH AND DESIGN ENGINEER.
- THERE ARE NO INLAND BARRIERS, WETLANDS, BORDERING SURFACE WATER SUPPLIES OR THEIR TRIBUTARIES, OPEN SURFACE OR SUBSURFACE DRAINS INTERCEPTING HIGH GROUNDWATER, VERNAL POOLS, LEACHING CATCH BASINS, DRYWELLS, OTHER OPEN SURFACE OR SUBSURFACE DRAINS, REPLETISHED FLOODWAYS, OR 100-YEAR FLOOD BOUNDARIES WITHIN 100 FEET OF THE LEACHING AREA OTHER THAN THOSE SHOWN ON THE PLAN.
- THERE ARE NO SURFACE WATERS WITHIN 500 FEET OF THE LEACHING AREA SHOWN ON THIS PLAN.
- SUBMITTALS SHALL BE PROVIDED TO THE DESIGN ENGINEER BY THE CONTRACTOR, INCLUDING PROPOSED PIPE, VALVES, DBOX, SEPTIC TANK, PUMP CHAMBER, EFFLUENT PUMPS, CONTROL PANEL, ALARM SYSTEM, FLOAT / LEVEL CONTROLS, FLOAT RACKS, SLIDE RAILS, QUICK DISCONNECTS, PULL CHAIN, MANHOLE, FRAME AND COVERS, ACCESS RISERS, GEOMEMBRANE, RETAINING WALL BLOCK UNITS, EFFLUENT TEE FILTER, TITLE 5 FILL GRAIN SIZE DISTRIBUTION ANALYSIS FOR THE TITLE 5 FILL PROPOSED TO BE USED, AND OTHER EQUIPMENT AND MATERIAL ASSOCIATED WITH THE SEPTIC SYSTEM CONSTRUCTION.
- IF ANY EQUIPMENT OR MATERIAL IS USED W/O APPROVAL OF SUBMITTALS FOR THAT EQUIPMENT OR MATERIAL, THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL OF THAT EQUIPMENT OR MATERIAL IF IT IS SUBSEQUENTLY FOUND TO NOT BE COMPLIANT WITH THE DESIGN PLAN OR TITLE 5 REGULATIONS.

GENERAL CONSTRUCTION AND MATERIAL REQUIREMENTS:

- TITLE 5 FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL, CONSISTING OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND OTHER DELICTERIOUS SUBSTANCES, MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. TITLE 5 FILL SHALL BE GRADED SUCH THAT NO MATERIAL SHALL BE LARGER THAN 2 INCHES AND 45% BY WEIGHT OF THE SAMPLE SHALL BE RETAINED ON THE #4 SIEVE. OF THE FRACTION OF THE SAMPLE PASSING THE #4 SIEVE, 10% TO 100% SHALL PASS THE #10 SIEVE, OR TO 20% SHALL PASS THE #100 SIEVE, AND 0% TO 5% SHALL PASS THE #200 SIEVE.
- A MINIMUM OF ONE REPRESENTATIVE FILL SAMPLE SHALL BE TAKEN PER PIT PER REMOVAL DAY AND TESTED FOR COMPLIANCE WITH THE GRAIN SIZE DISTRIBUTION SPECIFICATION ABOVE.
- WHERE FILL IS REQUIRED TO REPLACE UNSUITABLE OR IMPERMEABLE SOILS, THE EXCAVATION OF THE UNSUITABLE MATERIAL SHALL EXTEND A MINIMUM OF FIVE FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE SOIL ABSORPTION SYSTEM OR TO THE DELINEATED BOUNDARY AS INDICATED ON THE PLANS AS "REMOVE AND REPLACE" TO THE DEPTH OF NATURALLY OCCURRING PERVIOUS MATERIAL AS REQUIRED BY 310 CMR 15.240 (SOIL ABSORPTION SYSTEMS) AND REPLACED WITH FILL MATERIAL MEETING THE SPECIFICATIONS OF 310 CMR 15.255(3).
- PRIOR TO PLACEMENT OF TITLE 5 FILL, WHICH SHALL BE STOCKPILED AT THE EDGE OF THE EXCAVATION AND FILLED IN GRADUALLY, THE BOTTOM SURFACE OF THE EXCAVATION SHALL BE SCARIFIED AND RELATIVELY DRY. FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS. IF PONDED STANDING WATER IS ABOVE THE ELEVATION OF THE BOTTOM OF THE EXCAVATION, THE EXCAVATION SHALL BE DETERMINED AS NECESSARY.
- THE BOTTOM OF EACH LEACHING TRENCH SHALL BE EXCAVATED TO A LEVEL GRADE. IF THE REMOVAL OF STONES OR BOULDERS IS REQUIRED, CREATING LOCALIZED DEPRESSIONS, FILLING TO GRADE WITH THE EXCAVATED SOIL IS ACCEPTABLE.
- THE SOIL PLACED AS BACKFILL OVER THE SYSTEM SHALL BE A MINIMUM OF 12 INCHES, INCLUDING TOPSOIL, PLACED IN LIFTS AND SUFFICIENTLY COMPACTED TO PREVENT DEPRESSIONS DUE TO SETTLING WHICH MAY INTERCEPT OR COLLECT SURFACE WATER RUNOFF ABOVE THE SYSTEM.
- BACKFILL ABOVE THE LEACHING TRENCHES MUST BE CLEAN AND FREE OF STONES AND BOULDERS GREATER THAN SIX INCHES IN SIZE. TAILINGS, CLAY OR SIMILAR MATERIALS ARE PROHIBITED.
- FINAL COVER ABOVE THE SYSTEM SHALL BE GRADED TO REDUCE INFILTRATION OF SURFACE WATER AND MINIMIZE EROSION. FINISH GRADE SHALL HAVE A MINIMUM SLOPE OF 0.02 FEET PER FOOT AND RUNOFF SHALL BE DIRECTED AWAY FROM THE SAS.
- ALL COMPONENTS SHALL BE INSTALLED AT THE ELEVATIONS AND LOCATIONS INDICATED ON THE PLANS. ANY CHANGES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE, THE BOARD OF HEALTH, AND THE DESIGN ENGINEER.
- EXCAVATION FOR CONSTRUCTION OF A SOIL ABSORPTION SYSTEM MAY BE BY MECHANICAL MEANS. PROVIDED CARE IS TAKEN TO ASSURE THAT THE SOIL AT THE BOTTOM OF THE EXCAVATION IS NOT COMPACTED OR SMEARED. THE BOTTOM AND SIDES OF THE EXCAVATION SHALL BE LEVEL AND SCARIFIED.
- VEHICULAR TRAFFIC AND PARKING OF VEHICLES OR EQUIPMENT IN OR ON THE AREA OF THE SOIL ABSORPTION SYSTEM IS STRICTLY PROHIBITED DURING AND AFTER CONSTRUCTION. FROM THE DATE OF THE INSTALLATION OF THE SOIL ABSORPTION SYSTEM UNTIL COMPLETION OF CONSTRUCTION, THE PERIMETER OF THE SOIL ABSORPTION SYSTEM SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF SUCH AREA FOR ALL ACTIVITIES WHICH MIGHT DAMAGE THE SOIL ABSORPTION SYSTEM. SUCH FLAGGING IS NOT INTENDED TO PRECLUDE THE FINAL GRADING AND LANDSCAPING OF THE AREA OF THE SOIL ABSORPTION SYSTEM. STOCKPILING OF MATERIALS WITHIN THE AREA IS PROHIBITED.
- CONSTRUCTION OF THE SOIL ABSORPTION SYSTEM SHALL CONFORM TO TITLE 5 AND TO THE BOARD OF HEALTH REQUIREMENTS. 3/4" TO 1-1/2" STONE AGGREGATE IS REQUIRED FOR THE INSTALLATION OF THIS SOIL ABSORPTION SYSTEM FROM THE CROWN OF THE DISTRIBUTION PIPES TO THE BOTTOM OF THE SOIL ABSORPTION SYSTEM. ALL STONE AGGREGATE MUST BE DOUBLE WASHED AND FREE OF FINES AND DUST.
- 2" OF PEASTONE SHALL BE PLACED ON TOP OF THE CROWN OF THE INLET PIPES ABOVE THE 3/4" TO 1-1/2" CRUSHED STONE. PEASTONE SHALL BE 1/8"-1/2" STONE. EACH LEACHING TRENCH SHALL INCLUDE AN INSPECTION (OBSERVATION) PORT CONSISTING OF A VERTICAL PERFORATED 4-INCH PVC PIPE DOWN THROUGH THE STONE TO THE BOTTOM OF THE TRENCH. THE PORT SHALL BE CAPPED WITH A SCREW-TYPE CAP WITHIN 3 INCHES OF FINISHED GRADE ELEVATION, AND NOTED ON THE FINAL AS-BUILT PLAN.



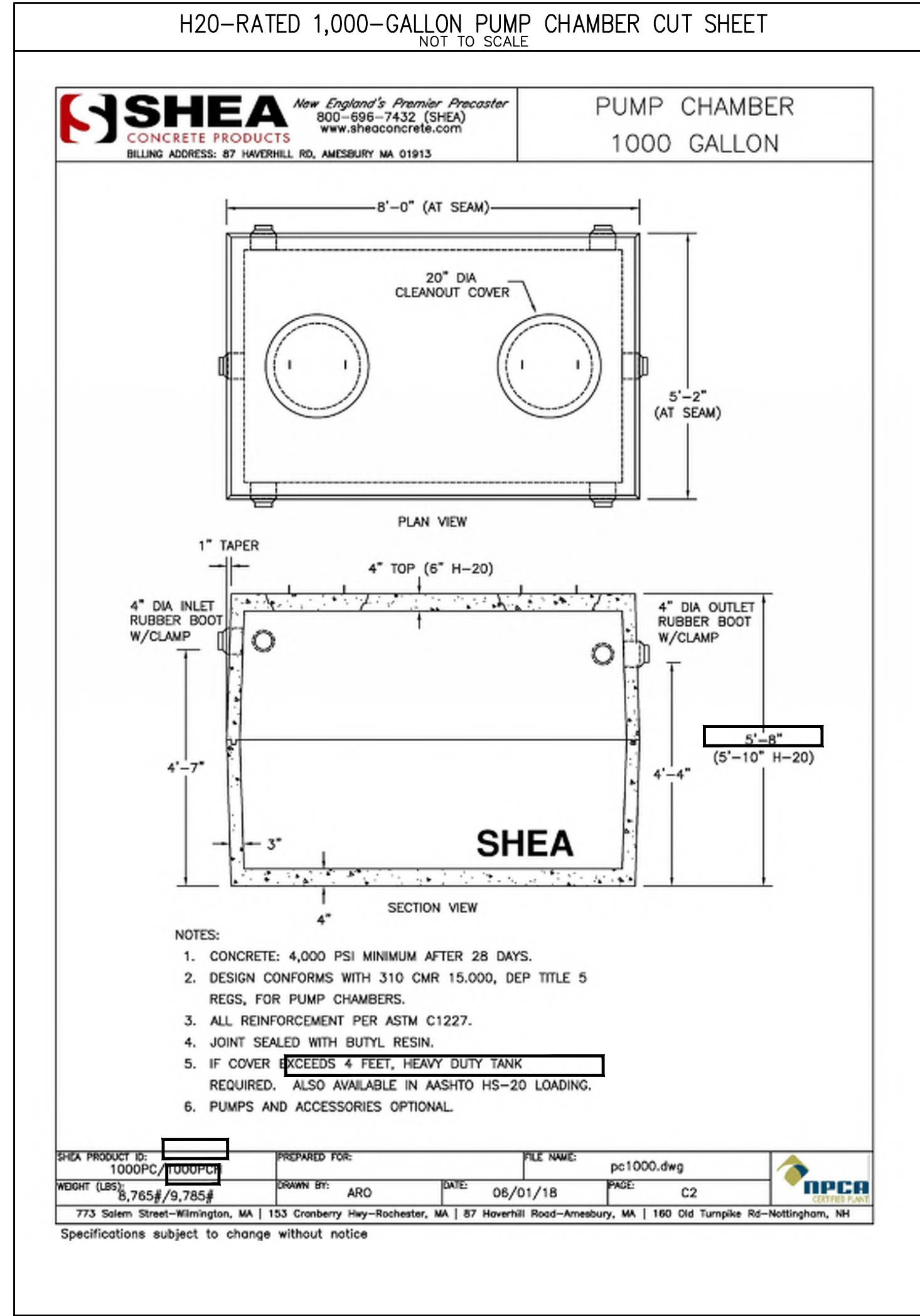
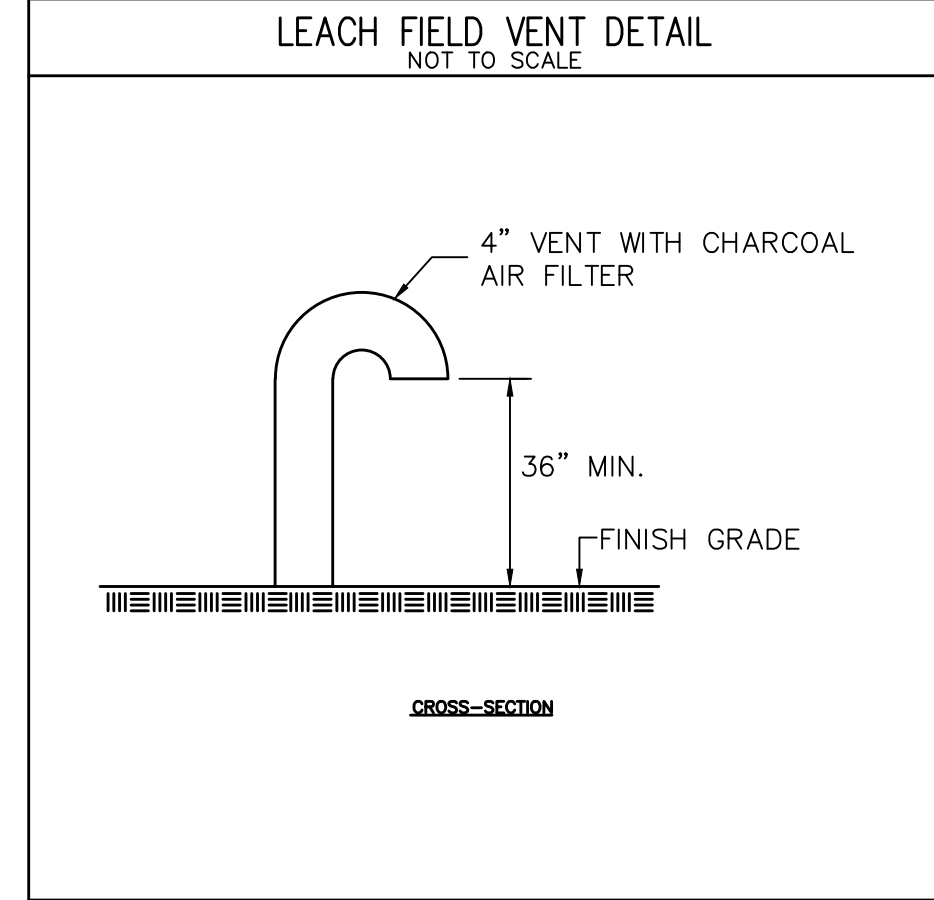
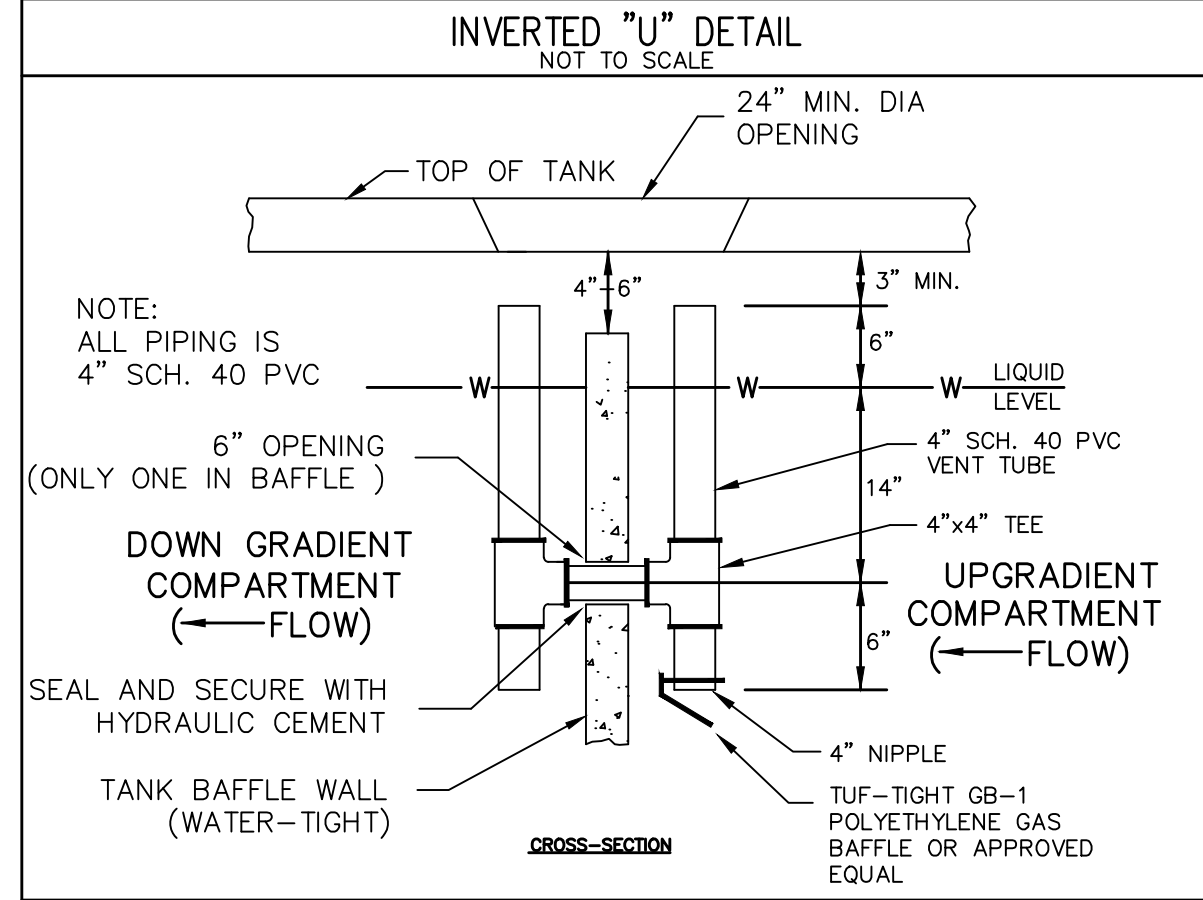
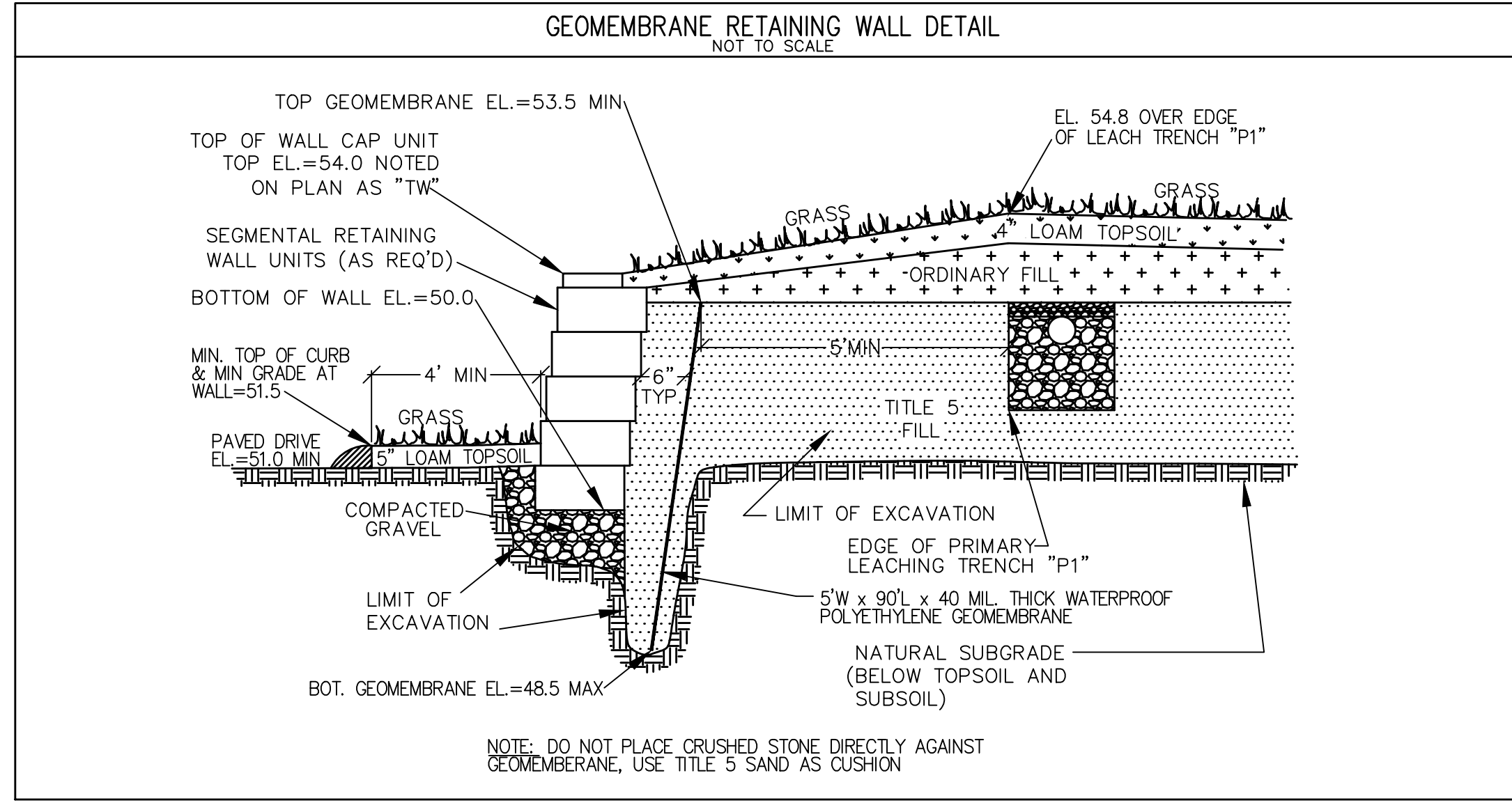
SCHEDULE OF ELEVATIONS

INVERT AT BUILDING	49.02
INVERT INTO SEPTIC TANK	48.24
INVERT OUT OF SEPTIC TANK	47.99
INVERT INTO PUMP CHAMBER	47.95
INVERT OUT OF PUMP CHAMBER	45.70
INVERT INTO DISTRIBUTION BOX	53.19
INVERT OUT OF DISTRIBUTION BOX	53.02
MAXIMUM BREAKOUT ELEVATION	53.48
INVERT AT BEGINNING OF TRENCH	52.98
INVERT AT END OF TRENCH	52.73
BOTTOM OF TRENCH	50.73
SOIL MOTTLING (TP-101 & 102)	45.7
MAX. GROUND ELEVATION AT TEST PIT	54.8

LEACH FIELD DESIGN CALCULATIONS

DRY STORAGE W/O CAFETERIA	(3 STAFF + 10 RENTERS) x 15 gpd/PERSON = 195 gpd
ESTIMATED SEWAGE FLOW	440 GALLONS PER DAY (gpd) PER BOH AGENT
PERCOLATION RATE	2 MM/INCH PERCS-101 & 102
SYSTEM DIMENSIONS	2 TRENCHES @ 24" WIDE x 24" DEEP x 50' LONG
RESERVE SYSTEM DIMENSIONS	2 TRENCHES @ 24" WIDE x 24" DEEP x 50' LONG
LEACHING RATE	0.74 GPD / SF (2 MM/INCH PERC - TITLE 5)

TOTAL LEACHING CAPACITY (2 SIDEWALLS @ 2 FT + 1 BOTTOM @ 2 FT = 6 SF / LF):  
6 SF / LF x 2 TRENCHES x 50 FT x 0.74 GPD / SF = 444 GPD PROVIDED > 440 GPD REQ'D



PREPARED FOR APPLICANT:

**TRUE STORAGE, LLC**  
670 N. COMMERCIAL ST. #212  
MANCHESTER, NH 03101  
C/O: CHRIS LEWIS  
(603) 622-6223

PROJECT SITE INFORMATION:

**TRUE STORAGE FACILITY**  
2400, 2402, & 2406  
CRANBERRY HIGHWAY  
WAREHAM, MASSACHUSETTS

PREPARED BY:

**PROVENCHER ENGINEERING, LLC**  
6 Wasserman Heights  
Merrimack, NH 03054  
Phone/Fax: (603) 883-4444  
Email: Don@Provencher.com  
Web: ProvencherEngineering.com

REVISION BLOCK:

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0	3/3/2022	BOH SEWAGE DISPOSAL CONSTRUCTION PERMIT
NO. REVISION	DATE	REVISION DESCRIPTION

PROJECT:

**PROPOSED TRUE STORAGE FACILITY**  
2400, 2402, & 2406  
CRANBERRY HIGHWAY  
WAREHAM, MASSACHUSETTS  
INITIAL ISSUE DATE: MARCH 3, 2022

PLAN SCALE: AS NOTED

PLAN TITLE:

**PROPOSED SEWAGE DISPOSAL DETAIL PLAN**

PROJECT NO.	PE348.01
CAD FILE NO.	PE348001.DWG
DRAWING NO.	PE348002
SHEET NO.	2 OF 2







