

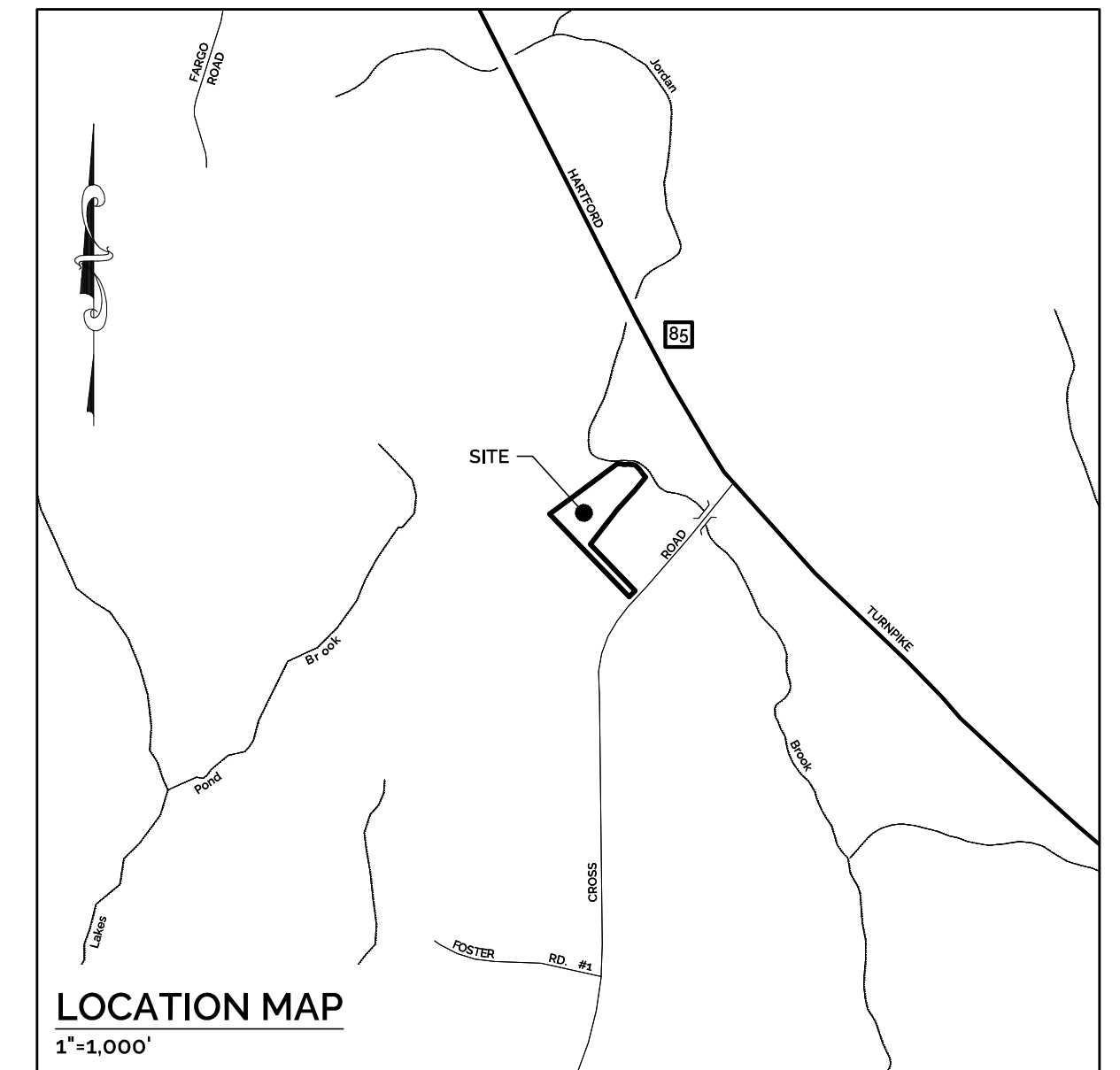
SITE DEVELOPMENT PLANS

PARKING LOT EXPANSION

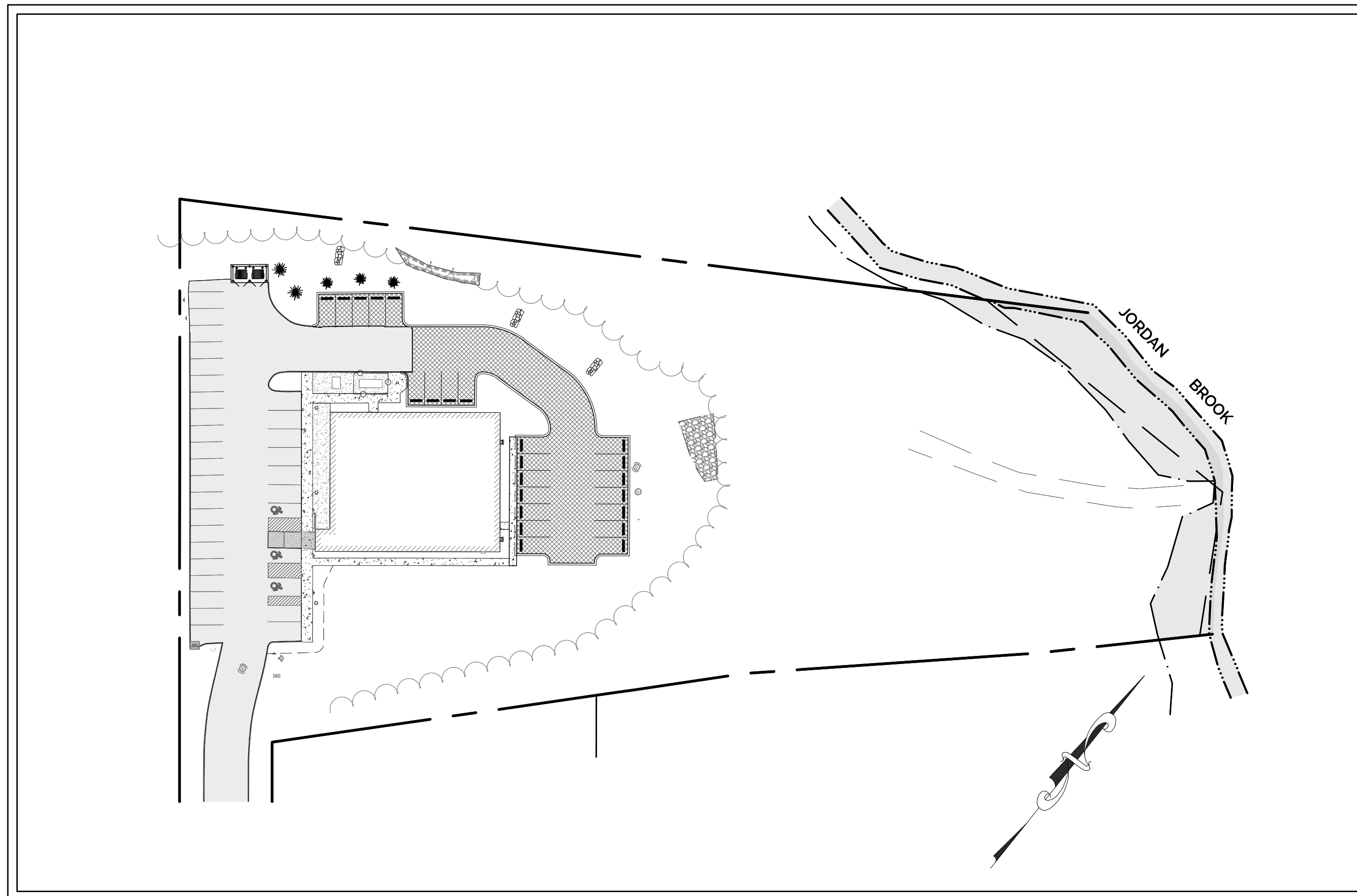
174 CROSS ROAD, WATERFORD, CT 06385

PREPARED FOR:
ENGR GROUP LLC

DATE: MARCH 20, 2024
REVISED: MARCH 27, 2024
REVISED: JUNE 5, 2024



LEGEND	
PROPERTY LINE	---
ADJOINER PROPERTY LINE	---
EASEMENT	---
WATERCOURSE	---
WETLAND	---
100' INLAND WETLAND UPLAND REVIEW AREA	---
TREELINE	---
EX. SWALE	---
EX. INDEX CONTOUR	---
EX. INT. CONTOUR	---
EX. SPOT GRADE	---
PR. INDEX CONTOUR	---
PR. INT. CONTOUR	---
PR. SPOT GRADE	---
UNDERGROUND ELECTRIC	---
EXISTING STORM PIPE	---
SILT FENCE	---
TOP OF CURB	---
BOTTOM OF CURB	---
UTILITY POLE	---
IRON PIPE/IRON ROD	---
DRILLHOLE	---
TEST HOLE	---
"TO BE REMOVED"	(TBR)
"TO BE RELOCATED"	(TBRL)
"TO REMAIN"	(TR)



SHEET INDEX

DWG NO.	TITLE	SHEET NO.
XD-1	EXISTING CONDITIONS & DEMOLITION PLAN	1
SIP-1	SITE IMPROVEMENT PLAN	2
PH-1	PHOTOMETRIC PLAN	3
DT-1	CONSTRUCTION DETAILS	4

APPLICANT/OWNER:

ENGR GROUP LLC
174 CROSS ROAD
WATERFORD, CT 06385

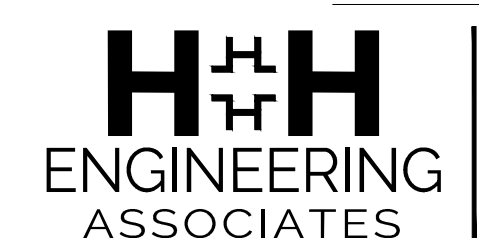
CIVIL ENGINEER:

H+H ENGINEERING ASSOCIATES, LLC
SEAMUS MORAN, P.E.
232 GREENMANVILLE AVENUE, SUITE 201
MYSTIC, CT 06355

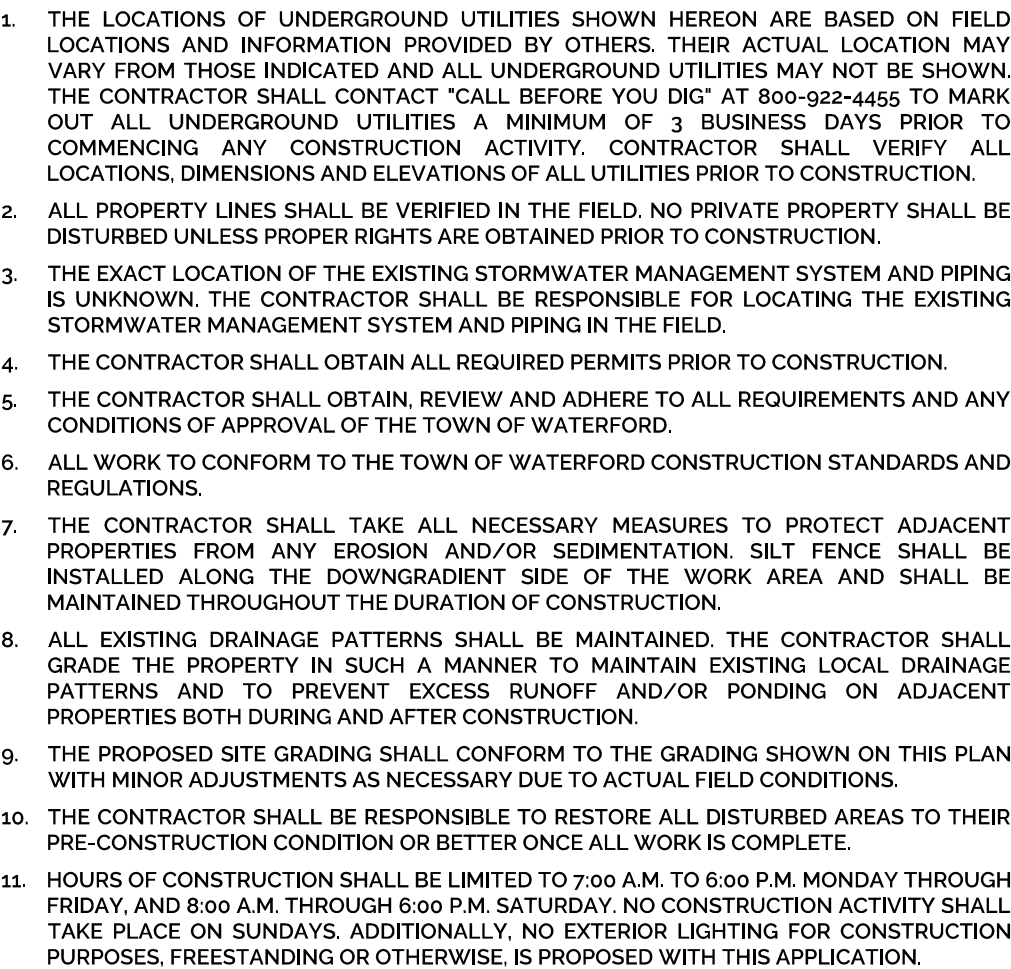
LAND SURVEYOR:

GERWICK-MEREEN, LLC
191 BOSTON POST ROAD
EAST LYME, CT 06333

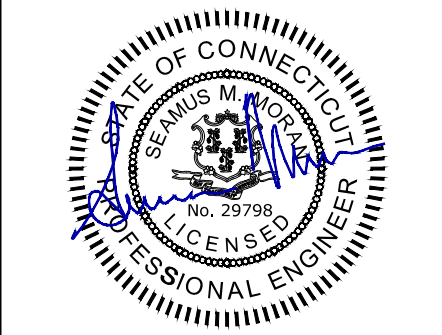
PREPARED BY:



232 Greenmanville Ave.
Suite 201
Mystic, CT 06355
860-980-8008
www.hh-engineers.com



PARKING LOT EXPANSION
PROPERTY ADDRESS:
174 CROSS ROAD, WATERFORD, CT 06385
PREPARED FOR:
ENGR GROUP LLC
174 CROSS ROAD, WATERFORD, CT 06385



GENERAL NOTES:

- THIS PLAN WAS COMPILED USING THE FOLLOWING REFERENCE INFORMATION:
 - A SURVEY MAP ENTITLED, "PLAN SHOWING EXISTING CONDITIONS PROPERTY OF ENGR GROUP LLC, 174 CROSS ROAD, WATERFORD, CONNECTICUT," SCALE: 1"=20', DATED: JANUARY 29, 2024, PREPARED BY GERWICK-MEREEEN, LLC.
 - A PLAN ENTITLED, "PROPERTY SURVEY AND EXISTING CONDITIONS PLAN, PREPARED FOR HARDAWAY ASSOCIATES FOR PROFESSIONAL MEDICAL OFFICES LOCATED AT 174 CROSS ROAD, WATERFORD, CONNECTICUT," SCALE: 1"=40', DATED: MARCH 18, 2013, PREPARED BY GERWICK-MEREEEN, LLC.
- THE APPLICANT AND PROPERTY OWNER IS ENGR GROUP LLC OF 174 CROSS ROAD, WATERFORD, CT 06385.
- THE SUBJECT PARCEL IS IDENTIFIED AS LOT 3329 ON THE TOWN OF WATERFORD TAX ASSESSOR'S MAP 81. THE DEED REFERENCE OF THE PROPERTY IS VOLUME 1550 PAGE 183.
- THE PARCEL IS DEVELOPED WITH A SINGLE-STORY COMMERCIAL BUILDING WITH 35 PAVED PARKING SPACES AND 3 ADDITIONAL UNSTRIPED GRAVEL PARKING SPACES. THE APPLICANT IS PROPOSING TO REMOVE THE 3 UNSTRIPED GRAVEL PARKING SPACES AND CONSTRUCT A TURFSTONE PAVEMENT PARKING AREA WITH 23 PARKING SPACES, BRINGING THE TOTAL ON-SITE PARKING SPACES TO 58 PARKING SPACES.
- THE PURPOSE OF THIS PLAN IS FOR REVIEW BY THE TOWN OF WATERFORD PLANNING & ZONING COMMISSION FOR A SITE PLAN APPLICATION.
- THIS PROPERTY IS SERVED BY PUBLIC WATER AND PUBLIC SEWER.

STORMWATER NARRATIVE:

THE EXISTING IMPROVEMENTS ARE ROUTED TO A SUBSURFACE STORMWATER MANAGEMENT SYSTEM LOCATED TO THE EAST OF THE EXISTING BUILDING. THE PROPOSED PARKING AREA WILL BE CONSTRUCTED OF A PERMEABLE TURFSTONE PAVEMENT TO ALLOW INFILTRATION OF STORMWATER INTO THE UNDERLYING SOIL. THE EXISTING FILL LAYER ATOP THE EXISTING NATURAL SAND LAYER WILL BE REPLACED WITH ASTM-C33 SAND TO ALLOW FOR STORMWATER TO INFILTRATE INTO UNDERLYING SAND.

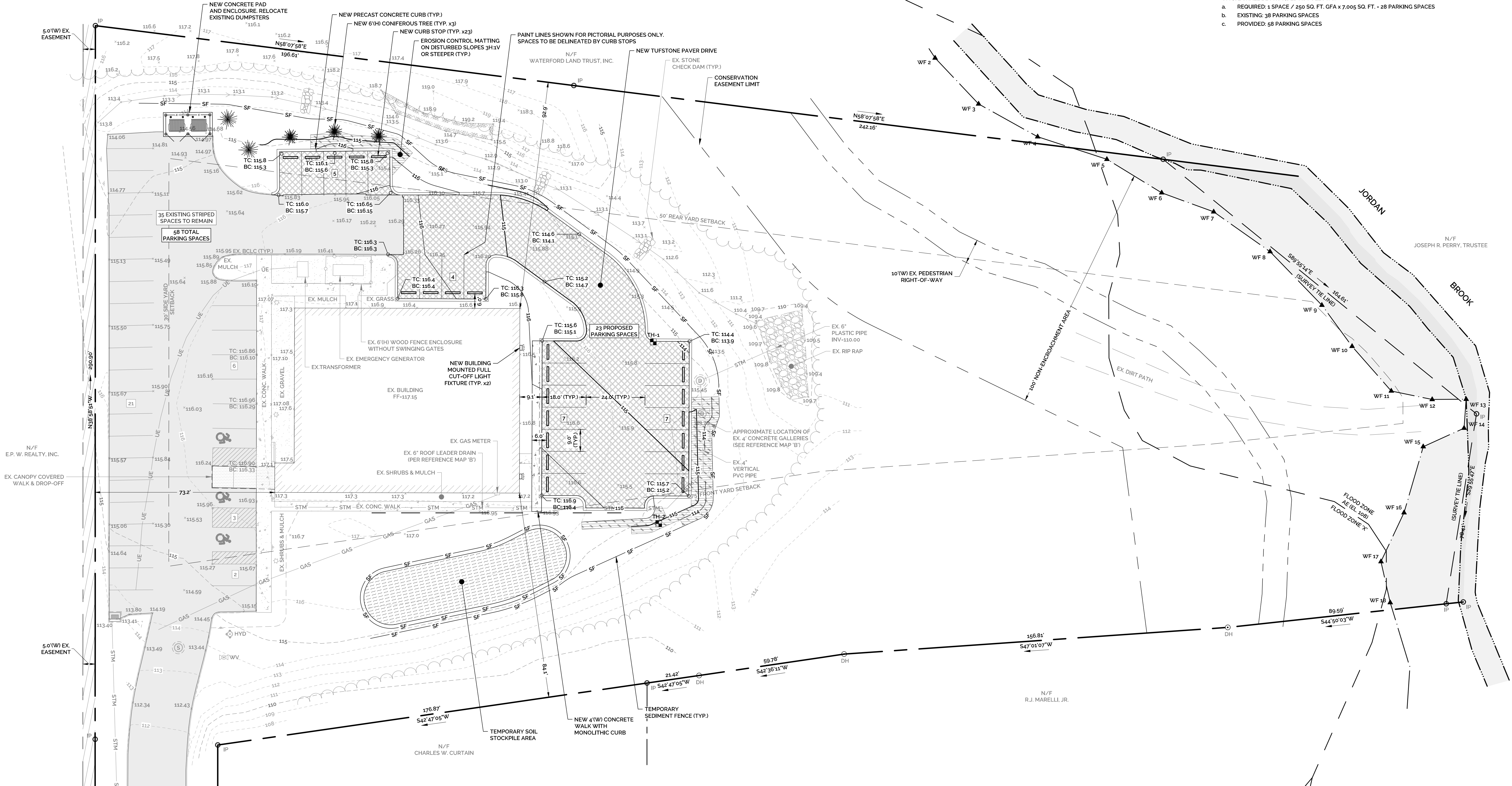
CONSTRUCTION NOTES:

- THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATIONS AND INFORMATION PROVIDED BY OTHERS. THEIR ACTUAL LOCATION MAY VARY FROM THOSE INDICATED AND ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 800-922-4455 TO MARK OUT ALL UNDERGROUND UTILITIES A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL PROPERTY LINES SHALL BE VERIFIED IN THE FIELD. NO PRIVATE PROPERTY SHALL BE DISTURBED UNLESS PROPER RIGHTS ARE OBTAINED PRIOR TO CONSTRUCTION.
- THE EXACT LOCATION OF THE EXISTING STORMWATER MANAGEMENT SYSTEM AND PIPING IS UNKNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXISTING STORMWATER MANAGEMENT SYSTEM AND PIPING IN THE FIELD.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, REVIEW AND ADHERE TO ALL REQUIREMENTS AND ANY CONDITIONS OF APPROVAL OF THE TOWN OF WATERFORD.
- ALL WORK TO CONFORM TO THE TOWN OF WATERFORD CONSTRUCTION STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES FROM ANY EROSION AND/OR SEDIMENTATION. SILT FENCE SHALL BE INSTALLED ALONG THE DOWNGRADE SIDE OF THE WORK AREA AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
- ALL EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED. THE CONTRACTOR SHALL GRADE THE PROPERTY IN SUCH A MANNER TO MAINTAIN EXISTING LOCAL DRAINAGE PATTERNS AND TO PREVENT EXCESS RUNOFF AND/OR PONDING ON ADJACENT PROPERTIES BOTH DURING AND AFTER CONSTRUCTION.
- THE PROPOSED SITE GRADING SHALL CONFORM TO THE GRADING SHOWN ON THIS PLAN WITH MINOR ADJUSTMENTS AS NECESSARY DUE TO ACTUAL FIELD CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE ALL DISTURBED AREAS TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER ONCE ALL WORK IS COMPLETE.
- HOURS OF CONSTRUCTION SHALL BE LIMITED TO 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY, AND 8:00 A.M. THROUGH 6:00 P.M. SATURDAY. NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE ON SUNDAYS. ADDITIONALLY, NO EXTERIOR LIGHTING FOR CONSTRUCTION PURPOSES, FREESTANDING OR OTHERWISE, IS PROPOSED WITH THIS APPLICATION.

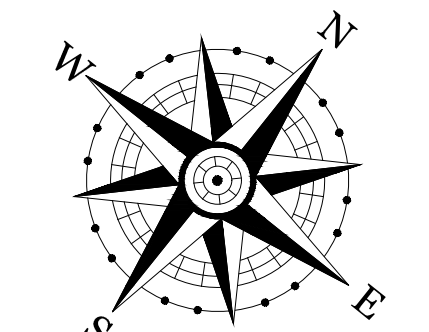
ZONING DATA TABLE			
GENERAL INDUSTRIAL 'I-G' ZONING DISTRICT			
ITEM	REQUIRED	EXISTING	PROVIDED
MINIMUM LOT AREA	40,000 SQ. FT.	144,504 SQ. FT.	144,504 SQ. FT. (NO CHANGE)
MINIMUM LOT FRONTAGE	125 FT. (I-G ZONE) 50 FT. (VARIANCE #53-32)	50 FT.	50 FT. (NO CHANGE)
MINIMUM FRONT YARD SETBACK	75 FT.	84.1 FT.	84.1 FT. (NO CHANGE)
MINIMUM SIDE YARD SETBACK (WEST)	30 FT.	73.2 FT.	73.2 FT. (NO CHANGE)
MINIMUM SIDE YARD SETBACK (EAST)	30 FT.	321.9 FT.	321.9 FT. (NO CHANGE)
MINIMUM REAR YARD SETBACK	50 FT.	92.9 FT.	92.9 FT. (NO CHANGE)
MAXIMUM BUILDING HEIGHT	40 FT.	22.5 FT.	22.5 FT. (NO CHANGE)
MAXIMUM BUILDING COVERAGE	40% (57,802 SQ. FT.)	5.0% (7,239 SQ. FT.)	5.0% (7,239 SQ. FT.) (NO CHANGE)
MINIMUM PARKING (SEE ZONING NOTE #1)	28 PARKING SPACES	38 PARKING SPACES	58 PARKING SPACES (+20 SPACES)
WATER SUPPLY	PUBLIC WATER		
SANITARY DISPOSAL	PUBLIC SANITARY SEWER		

ZONING NOTES:

- PARKING CALCULATION:
 - PER SECTION 20.3.c OF THE TOWN OF WATERFORD ZONING REGULATIONS, PARKING FOR A PROFESSIONAL OFFICE SHALL BE PROVIDED AS FOLLOWS:
 - REQUIRED: 1 SPACE / 250 SQ. FT. GFA x 7,005 SQ. FT. = 28 PARKING SPACES
 - EXISTING: 38 PARKING SPACES
 - PROVIDED: 58 PARKING SPACES



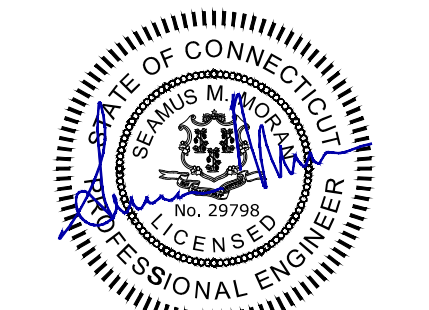
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20 10 0 20
SCALE IN FEET

PROJECT NO. 2023-0108	SCALE: 1" = 20'
DRAWN BY: SMM	DATE 3/20/2024
CHECKED BY: SMM	DATE 3/20/2024

DRAWING
SIP-1

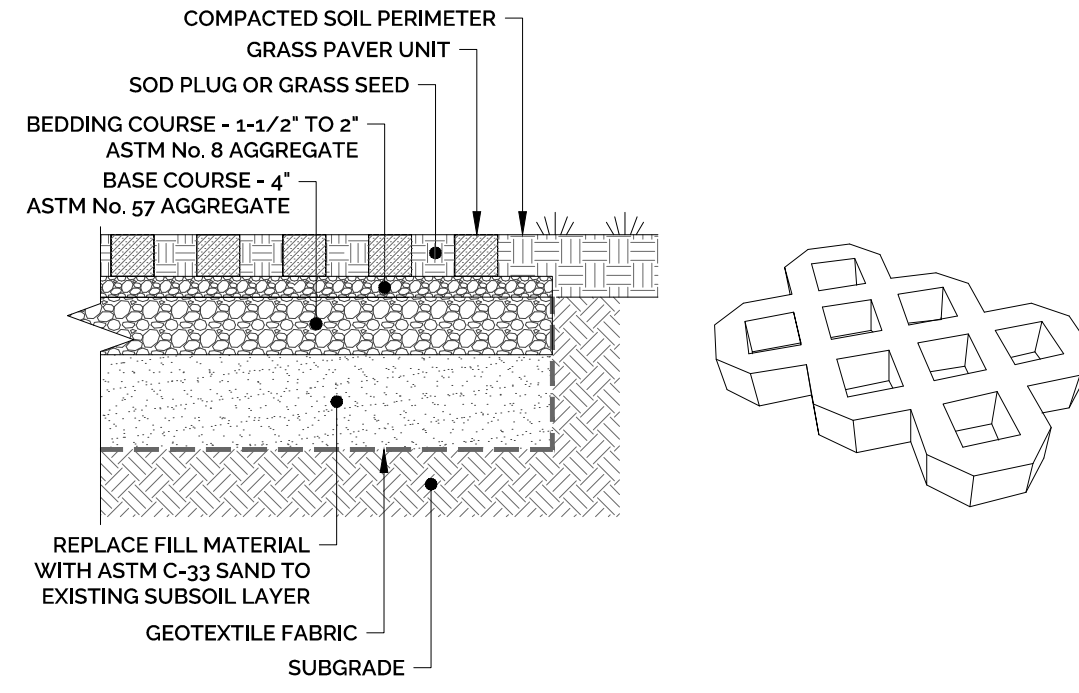
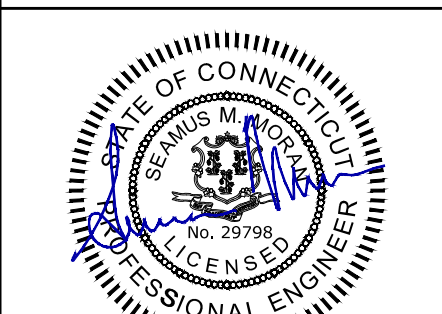


CONSTRUCTION DETAILS

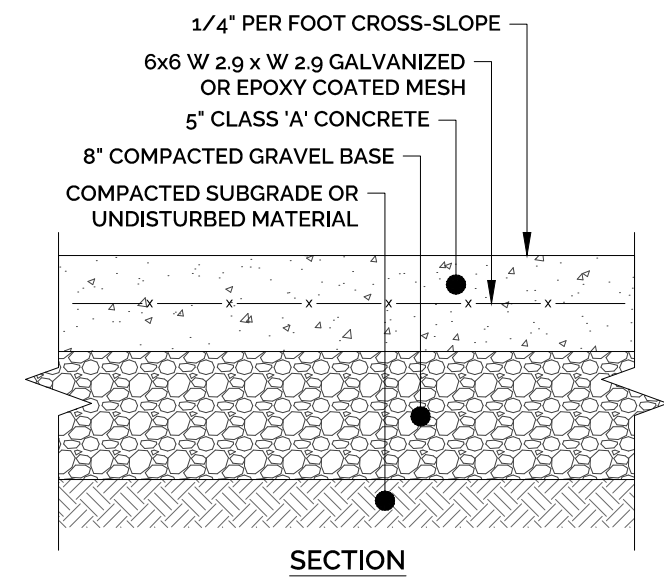
PARKING LOT EXPANSION
PROPERTY ADDRESS:
174 CROSS ROAD, WATERFORD, CT 06385
PREPARED FOR:
ENGR GROUP LLC
174 CROSS ROAD, WATERFORD, CT 06385

PROJECT NO.
2023-0108
SCALE:
AS NOTED
DRAWN BY:
SMM
DATE:
3/20/2024
CHECKED BY:
SMM
DATE:
3/20/2024

DRAWING
DT-1



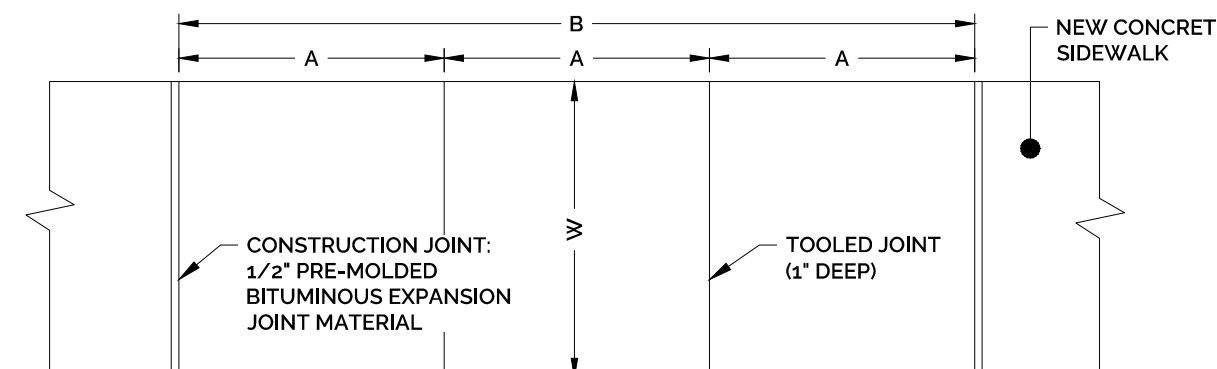
TURFSTONE PAVER DETAIL
NOT TO SCALE



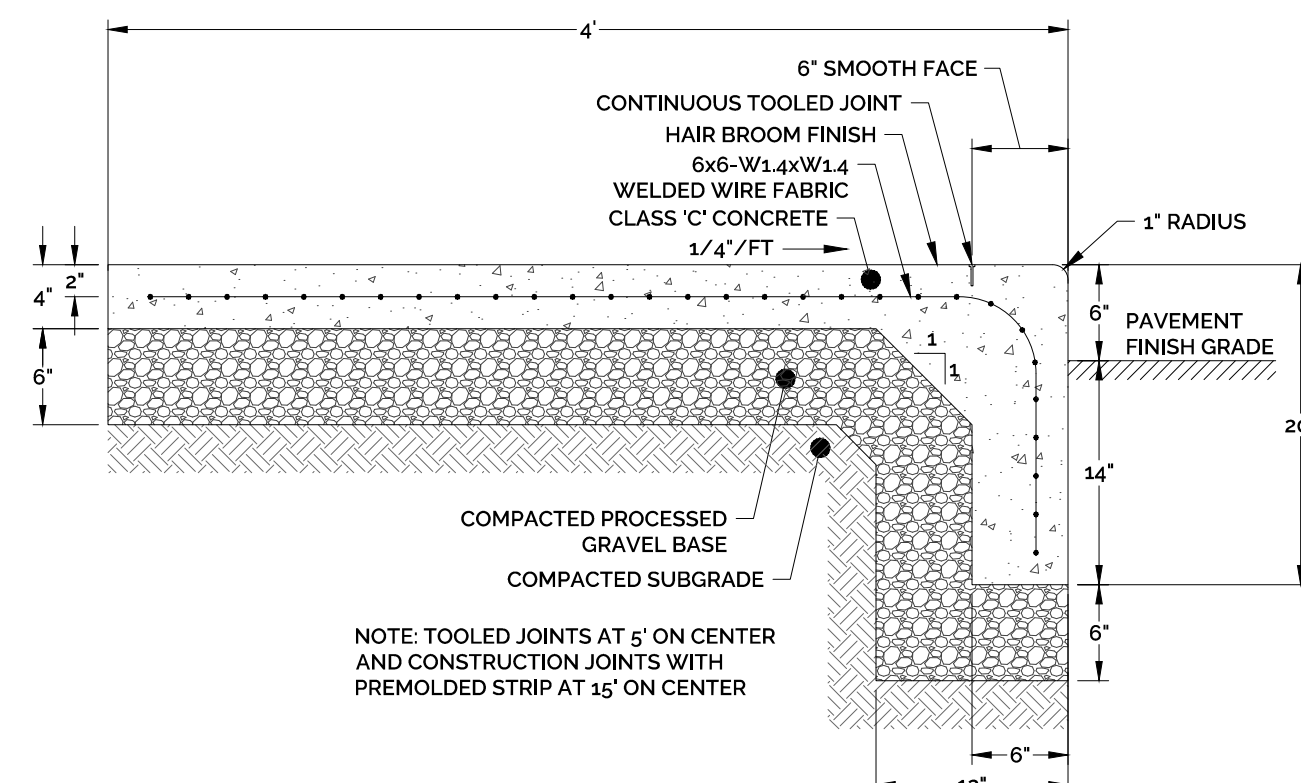
- NOTES:
1. ALL COMPACTION TO BE 95% STANDARD PROCTOR DENSITY
 2. CONCRETE TO BE 3,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS
 3. SEE PLAN FOR LOCATION AND SIZE OF PAD.

CONCRETE DUMPSTER PAD
NOT TO SCALE

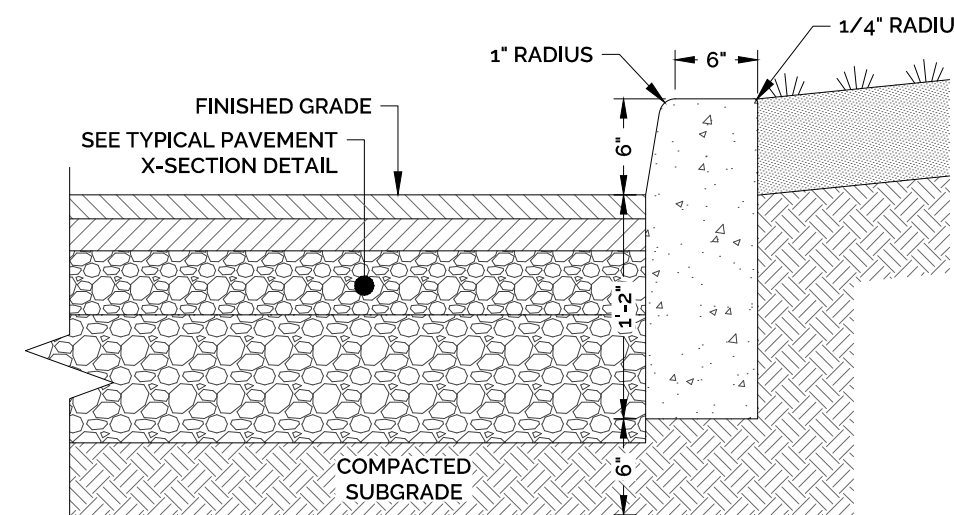
WIDTH (W)	A	B
4'	4'	12'
5'	5'	15'
6'	6'	18'



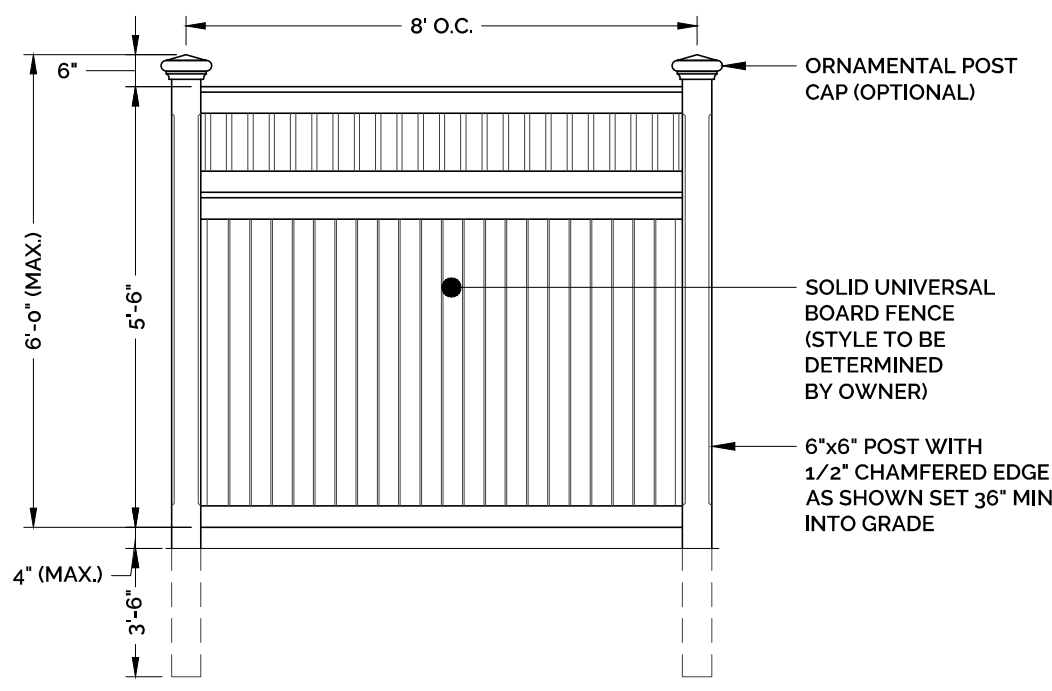
CONCRETE SIDEWALK
NOT TO SCALE



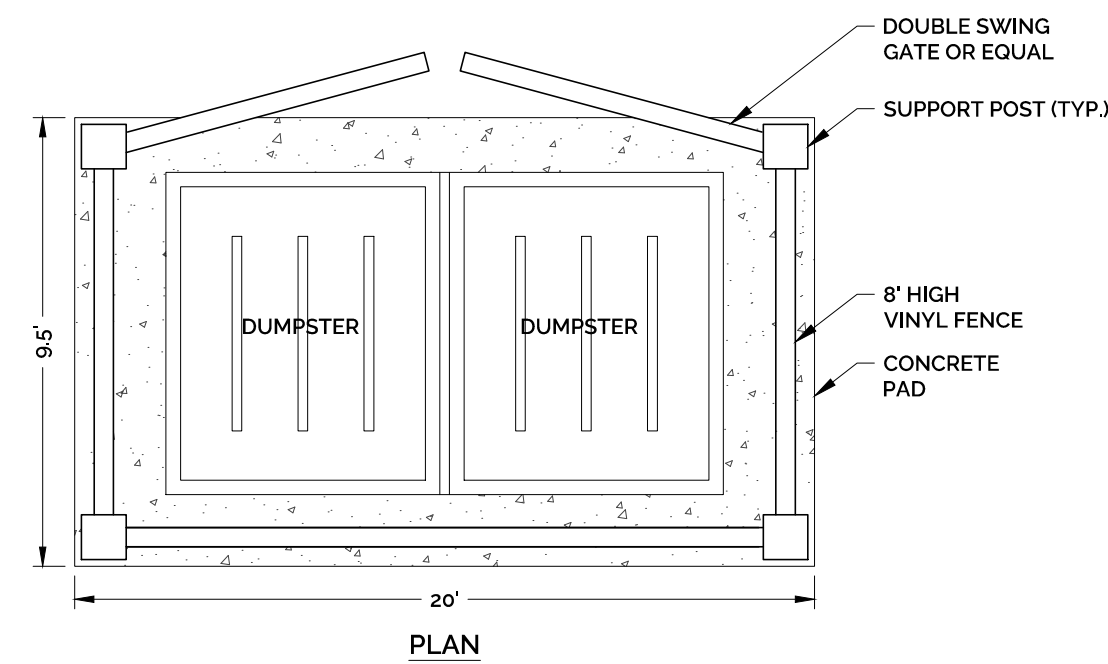
CONCRETE SIDEWALK WITH MONOLITHIC CURB
NOT TO SCALE



NOTE: CURB SHALL BE PRECAST OR CAST IN PLACE
CONCRETE CURB
NOT TO SCALE

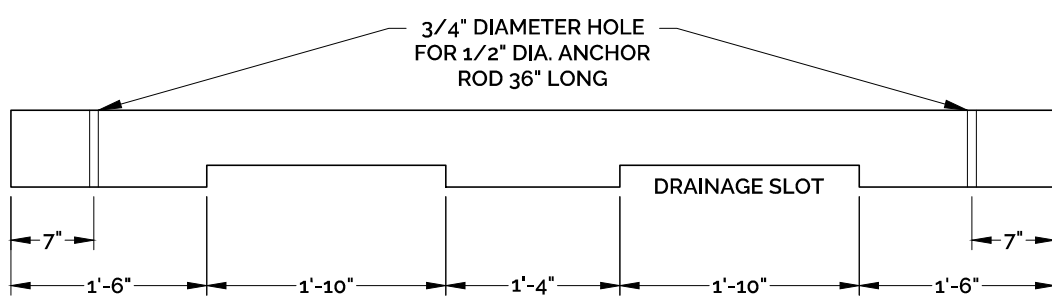


DUMPSTER ENCLOSURE/FENCE ELEVATION
NOT TO SCALE



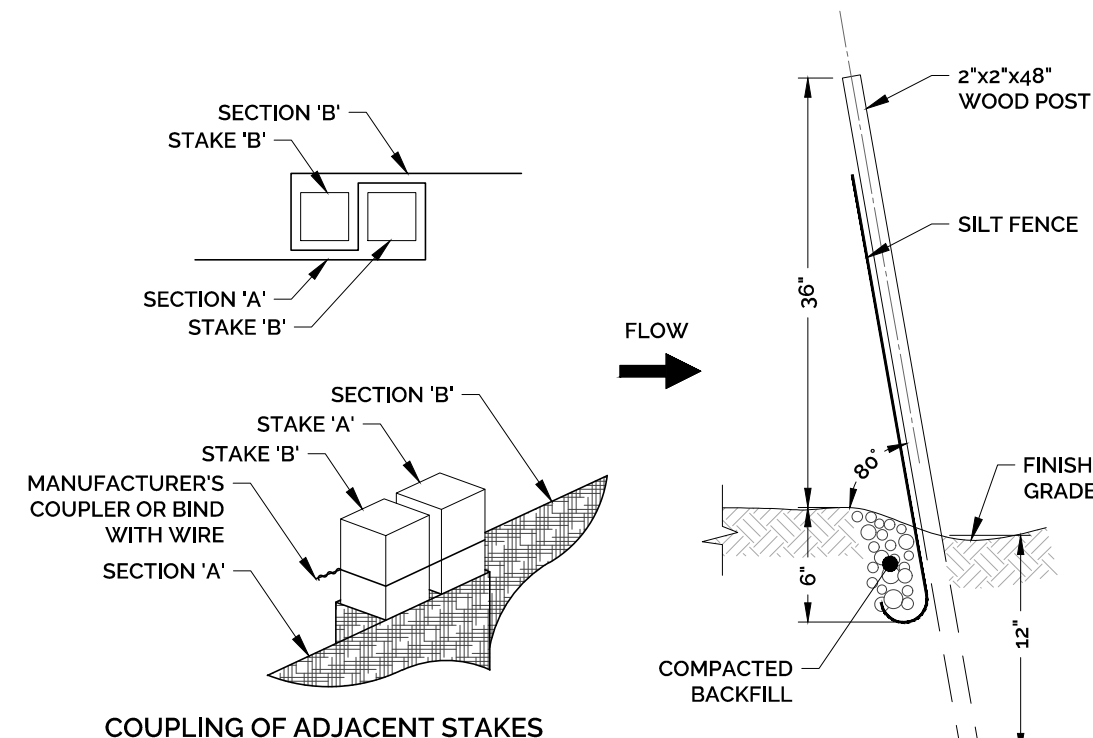
- NOTES:
1. MATERIAL AND COLOR FOR DOUBLE SWING GATES SHALL MATCH FENCING AS SELECTED BY ARCHITECT.
 2. ALL DIMENSIONS ARE APPROXIMATE AND ARE INTENDED TO ACCOMMODATE THE EXISTING DUMPSTERS.
 3. ENCLOSURE STYLE AND COLOR TO BE DETERMINED BY OWNER.

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



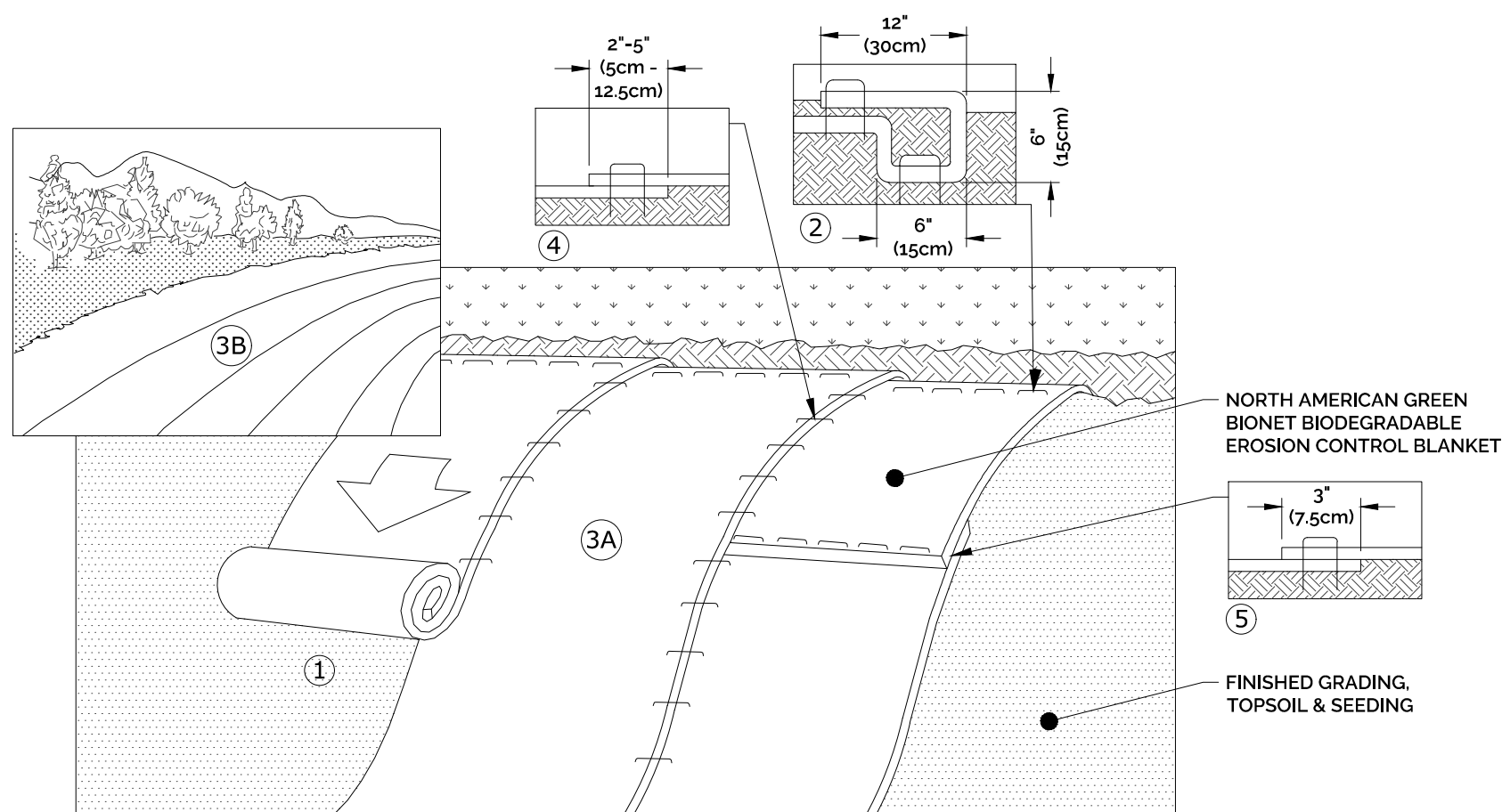
NOTE: DIMENSIONS MAY VARY WITH ENGINEER'S APPROVAL
ELEVATION

PRECAST CONCRETE WHEEL STOP
NOT TO SCALE



- INSTALLATION NOTES FOR SILT FENCE:
1. PLACE SILT FENCE ON CONTOUR AND WITH LAST STAKES UPSLOPE SO THAT THE TOP OF LAST SEVERAL STAKES ARE HIGHER THAN LINE OF SILT FENCE.
 2. EXCAVATE TRENCH 6\"/>

TYPICAL SEDIMENT BARRIER DETAIL
NOT TO SCALE



- NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6\"/>

EROSION CONTROL BLANKET DETAIL
NOT TO SCALE

TEST PIT RESULTS	
DATE: FEBRUARY 19, 2024	
RECORDED BY: SEAMUS MORAN, P.E. (HH ENGINEERING ASSOCIATES, LLC)	
TEST HOLE 1	
0"-17"	FILL
17"-25"	ORANGE-BROWN FINE SANDY LOAM
25"-39"	ORANGE-BROWN LOAMY FINE SAND W/ COBBLES & BOULDERS
39"-70"	GREY FINE-MEDIUM SAND W/ COBBLES & DECOMPOSING ROCK
NO MOTTLING NO GROUNDWATER NO REFUSAL NO ROOTS	

TEST HOLE 2	
0"-31"	FILL
31"-43"	ORIGINAL TOPSOIL
43"-58"	ORANGE-BROWN FINE SANDY LOAM
58"-76"	GREY MEDIUM SAND W/ COBBLES & BOULDERS
NO MOTTLING NO GROUNDWATER REFUSAL @ 76" ROOTS TO 55"	

PERMEABILITY TEST RESULTS		
CONDUCTED BY: RICHARD SNARSKI, SOIL SCIENTIST		
(NEW ENGLAND ENVIRONMENTAL SERVICES)		
TEST HOLE	BOT. OF BOREHOLE DEPTH (INCHES)	PERMEABILITY (FEET/DAY)
1	29	7.2
2	39	12.7
2	71	24.6