WEST SIDE ELEMENTARY SCHOOL
GROTON PUBLIC SCHOOLS

250 Brandagee Ave
Groton, CT 06340

State Project No. 059-0189 N

Role	Firm	Address
Owner:	**City of Groton**	Town Hall Annex 134 Groton Long Point Road Groton, CT 06340 860.572.2100
Construction Manager:	**O & G Industries**	112 Wall Street Torrington, CT 06790 860.489.9261
Owner's Representative:	**Arcadis**	207 Main Street, Suite 200 Hartford, CT 06106 860.906.1577
Civil / Site:	**Milone & MacBroom**	99 Realty Drive Chesire, CT 06410 203.271.1773
Landscape:	**Richter & Cegan**	Avon Park North P.O. Box 567, 8B Canal Court, Avon, CT 06001 860.678.0669
Structural:	**BVH Integrated Services**	206 West Newberry Road Bloomfield, CT 06002 860.286.9171
Mechanical, Electrical, Plumbing & Fire Protection:	**Diversified Technology Consultants**	2321 Whitney Avenue, Suite 301 Hamden, CT 06518 203.239.4200
Technology and Security:	**D'Agostino & Associates**	1266 E. Main Street Stamford, CT 06902 203.539.6164
Food Service:	**Foodservice Facilities International**	137 Elm Place New Canaan, CT 06840 203.972.1605
Acoustical Consultant:	**Acentech**	33 Moulton Street Cambridge, MA 02138 617.499.8000
Sustainability Consultant:	**Atelier Ten**	798 Chapel Street New Haven, CT 06510 203.777.1400

DRAWING SCHEDULE

COVER
C-101 SITE PLAN - SEDIMENT AND EROSION CONTROL PLAN
C-102 SITE PLAN UTILITIES
SPM - OFF SITE SIGNING AND PAVEMENT MARKERS
C-103 SITE PLAN - ON-SITE SIGN AND PAVEMENT MARKERS
C-201 SEDIMENT AND EROSION CONTROL DETAILS
C-204 CIVIL DETAILS
VH MOVEMENT PLANS (5 SHEETS)
L-101 LANDSCAPE PREPARATION PLAN
L-102 LANDSCAPE MATERIALS LAYOUT PLAN
L-103 LANDSCAPE GRADING PLAN
L-104 LANDSCAPE PLANTING PLAN
L-105 LANDSCAPE PLAYGROUND EQUIPMENT
L-502 SITE DETAILS
L-503 SITE DETAILS
L-505 SITE DETAILS
ES-100 ELECTRICAL SITE PLAN
ES-101 ELECTRICAL PHOTOMETRICS PART A
ES-101 ELECTRICAL PHOTOMETRICS PART B

STATE OF CONNECTICUT
JOSEPH G. C
NO. 4357
REGISTERED ARCHITECT

Effective December 1, 2016

Section 3.4
RESIDENCE ZONES
Dimensional Standards

3.4.D R-5.2 District

	R-5.2 District
Minimum Lot Area	5,000 square feet per dwelling unit
Maximum Number Of Lots In A Subdivision	Developable Land / 5,000 SF
Minimum Lot Width	50 feet
Minimum Front Yard Setback	25 feet Or Average setback line observed by buildings on same side of street between two intersecting streets, whichever is lesser
Minimum Side Yard Setback	4 feet
Minimum Rear Yard Setback	25 feet Or 25% of lot depth, whichever is lesser
Maximum Building Coverage	25%
Maximum Building Height	35 feet

Notes - 1. Section 8.3 of the Regulations may provide flexibility related to some of these dimensional standards.
2. See Section 6.2 for requirements related to rear lots

3-9

City of Groton, CT
Department of Planning & Economic Development
Form A - Zoning Table

NOTE: Attach this form to the end of Form A Application and provide upon submitted site plan.

Item	Required	Proposed
Lot Area	5,000/DU	40 acres
Lot Width	50 ft	915 ft
Front Yard Setback (Min)	25 ft	62 ft
Front Yard Setback (Max)	N/A	62 ft
Side Yard Setback N/S	4 ft	68 ft, 554 ft
Side Yard Setback E/W	4 ft	N/A
Rear Yard Setback	25 ft	645 ft
Building Coverage	25%	3%
Building Height	35 ft	52'-1" from adjacent grade -- see ZBA variance
Building Width	N/A	N/A
Total Impervious Coverage	N/A	235,591 sq ft
Existing Impervious Coverage	N/A	176,607 sq ft
Parking Provided (mixed uses complete below)	N/A	118
Use 1:		
Use 2:		
Use 3:		

Parking quantity is based upon the requirements of Section 7.1.B8.g Mixed Use, per June 25, 2019 correspondence to Mr. Joe Costa, Principal.

PERKINS — EASTMAN
677 Washington Blvd, Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

SITE PLAN SUBMISSION - REVISIONS

PROJECT No. 74451
SEPTEMBER 12, 2019

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

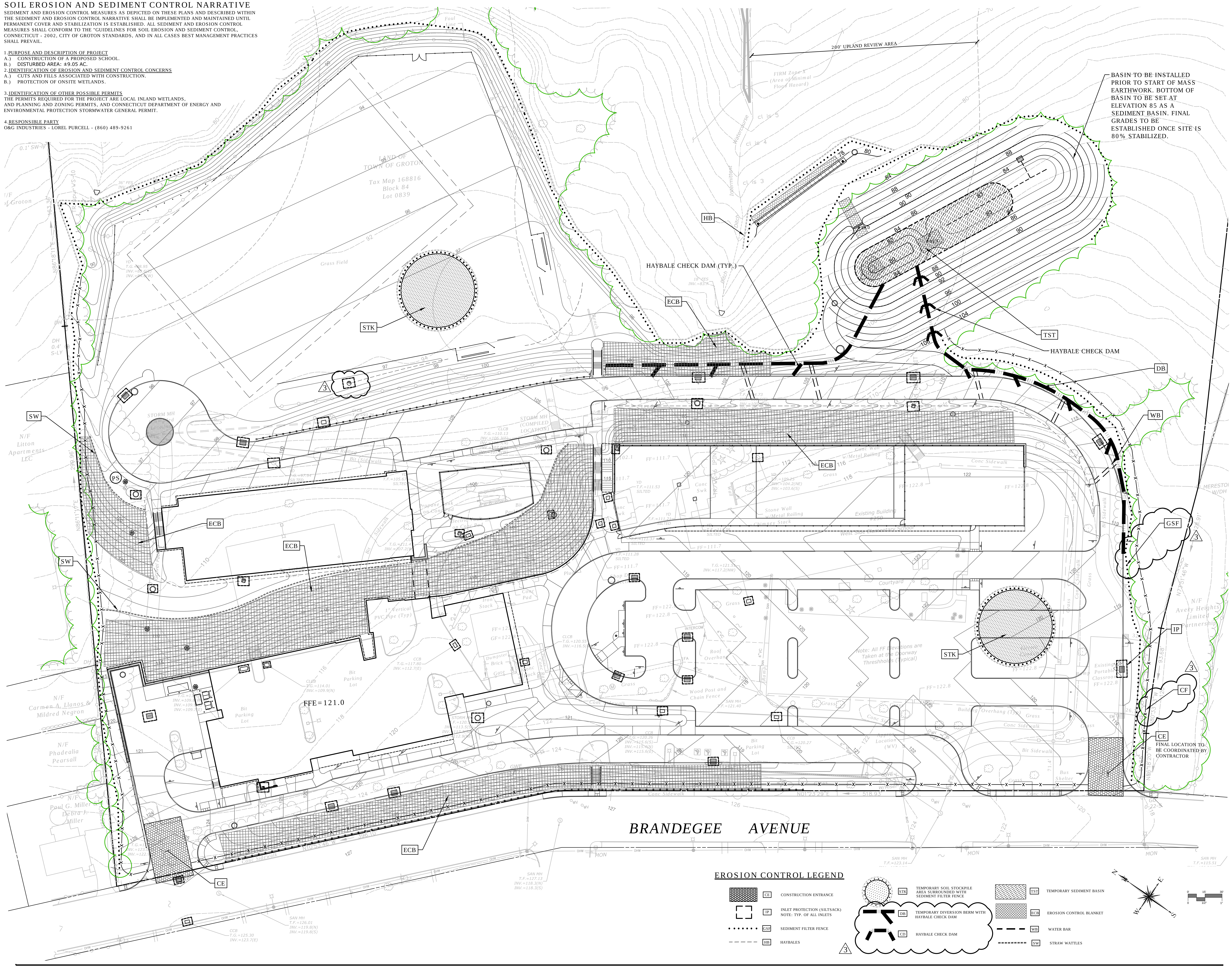
SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, CITY OF GROTON STANDARDS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

1. PURPOSE AND DESCRIPTION OF PROJECT
A.) CONSTRUCTION OF A PROPOSED SCHOOL.
B.) DISTURBED AREA: ±9.05 AC.

2. IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
A.) CUTS AND FILLS ASSOCIATED WITH CONSTRUCTION.
B.) PROTECTION OF ONSITE WETLANDS.

3. IDENTIFICATION OF OTHER POSSIBLE PERMITS
THE PERMITS REQUIRED FOR THE PROJECT ARE LOCAL INLAND WETLANDS, AND PLANNING AND ZONING PERMITS, AND CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION STORMWATER GENERAL PERMIT.

4. RESPONSIBLE PARTY
O&G INDUSTRIES - LOREL PURCELL - (860) 489-9261


200' UPLAND REVIEW AREA
FIRM Zone X (Area of Minimal Flood Hazard)
LAND OF TOWN OF GROTON
Tax Map 168816
Block 84
Lot 0839
Grass Field
HB
HAYBALE CHECK DAM (TYP.)
ECB
STK
TST
HAYBALE CHECK DAM
DB
WB
GSF
IP
CF
CE
SW
STORM MH
PS
FFE=121.0
Courtyard
Note: All FF Elevations are Taken at the Doorway Thresholds (Typical)
Existing Building
FINAL LOCATION TO BE COORDINATED BY CONTRACTOR
N/F Litton Apartments LLC
N/F Carmen A. Llanos & Mildred Negron
N/F Phadealia Pearsall
N/F Paul G. Miller Debra J. Miller
N/F Avery Heights Limited Partnership
BRANDEGEE AVENUE
3
N
E
S
W
0'
15'
30'
0
1/2"
1"

BASIN TO BE INSTALLED PRIOR TO START OF MASS EARTHWORK. BOTTOM OF BASIN TO BE SET AT ELEVATION 85 AS A SEDIMENT BASIN. FINAL GRADES TO BE ESTABLISHED ONCE SITE IS 80% STABILIZED.

EROSION CONTROL LEGEND

▩	CE	CONSTRUCTION ENTRANCE
⌜ ⌝	IP	INLET PROTECTION (SILTSACK) NOTE: TYP. OF ALL INLETS
• • • • • • •	GSF	SEDIMENT FILTER FENCE
- - - -	HB	HAYBALES
●	STK	TEMPORARY SOIL STOCKPILE AREA SURROUNDED WITH SEDIMENT FILTER FENCE
	DB	TEMPORARY DIVERSION BERM WITH HAYBALE CHECK DAM
	CD	HAYBALE CHECK DAM
▨	TST	TEMPORARY SEDIMENT BASIN
▩	ECB	EROSION CONTROL BLANKET
— — —	WB	WATER BAR
▪▪▪▪▪▪	SW	STRAW WATTLES

3

NO.	DATE	ISSUE
1	7/22/2019	WETLANDS RESUBMISSION
2	7/26/2019	PNZ SUBMISSION
3	9/10/2019	CITY COMMENTS

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

THOMAS J. DALY
#19509
SEAL

KEY PLAN

PERKINS — EASTMAN
422 Summer Street
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Owner:

Construction Manager:

Owner's Representative:

Civil / Site:

Landscape:

Structural:

Mechanical, Electrical, Plumbing & Fire Protection:

Technology and Security

Food Service:

Acoustical Consultant:

Sustainability Consultant:

PROJECT TITLE:
WESTSIDE
ELEMENTARY
SCHOOL

250 Brandegee Avenue
Groton, CT 06340

PROJECT No: 74450

DRAWING TITLE:
SITE PLAN - SEDIMENT & EROSION CONTROL PLAN

SCALE: 1" = 30'

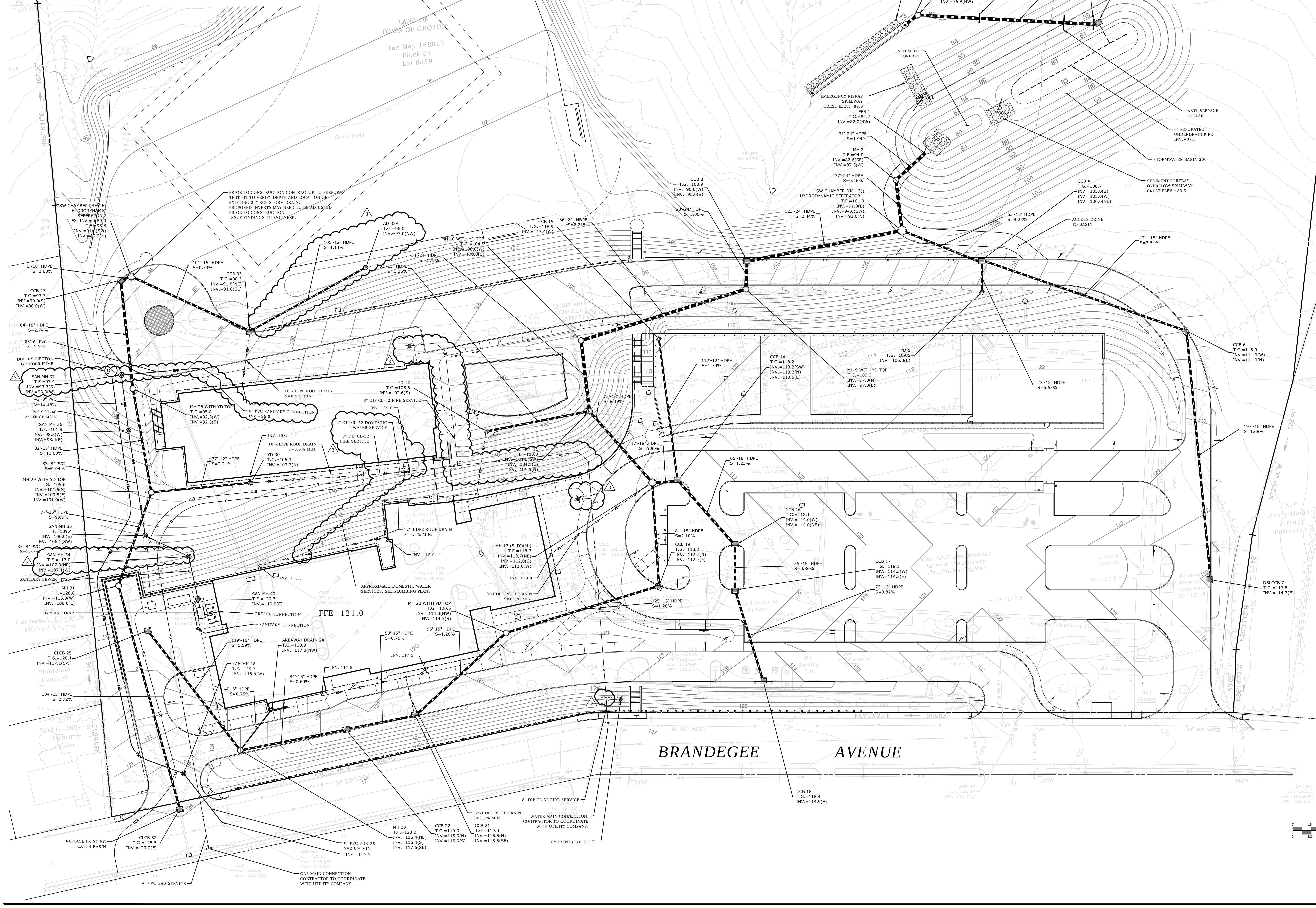
C-101

PLANNING AND ZONING SUBMISSION

JUNE 18, 2019

UTILITIES NOTES

1. ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO THE CITY OF GROTON, DEPARTMENT OF UTILITIES, WATER MAIN AND SERVICE CONSTRUCTION SPECIFICATIONS, WITH MOST CURRENT REVISIONS.
2. MINIMUM COVER ON WATER MAIN AND SERVICES SHALL BE NO LESS THAN 4'-6" FROM FINISHED GRADE.
3. THE MINIMUM HORIZONTAL PIPE SEPARATION DISTANCES ARE AS FOLLOWS:
   3.1. 10' MINIMUM BETWEEN WATER AND SANITARY SEWER
   3.2. 10' MINIMUM BETWEEN WATER AND BUILDINGS
   3.3. 5' MINIMUM BETWEEN WATER AND CATCH BASINS OR DRAIN PIPES
4. WATER METER LOCATION INSIDE BUILDING. REFER TO PLUMBING ENLARGEMENTS.
5. COORDINATE WITH GROTON UTILITIES REGARDING PLACEMENT OF REMOTE WATER METER READING DEVICE
6. ALL PROPOSED DRAINAGE PIPE LENGTHS HAVE BEEN MEASURED FROM OUTER WALL-TO-OUTER WALL OF STRUCTURE.
7. SEE GRADING PLAN FOR DETAILED GRADING OF DETENTION BASINS
8. SITE LIGHTING, ELECTRICAL, TELECOM, AND GAS SERVICES SHOWN FOR GRAPHICAL PURPOSES. REFER TO MEP SITE UTILITY PLANS FOR DETAIL.
9. CONNECT FOOTING/FOUNDATION DRAINS TO NEAREST FEASIBLE DRAINAGE STRUCTURE


200' UPLAND REVIEW AREA
FIRM Zone X (Area of Minimal Flood Hazard)
LAND OF TOWN OF GROTON
Tax Map 168816 Block 84 Lot 0839
Grass Field
LEVEL SPREADER - SEE DETAIL
23 UNITS - 4'x4'x4' UNITED CONCRETE LEACHING CAMBERS OR APPROVED EQUAL
TOP OF GALLERIES ELEV.=79.0
OVERFLOW ELEV.=78.0
KNOCKOUT WEIR ELEV.=76.0
INVERT IN ELEV.=76.0
BOTTOM OF GALLERIES ELEV.=75.0
PIPE TO BE BEDDED ON EMBANKMENT FILL AS NOTED ON THE EMBANKMENT SPECIFICATIONS FOR STORMWATER BASINS ON THE SITE DETAILS. NO CRUSHED STONE IS TO BE USED IN THE TRENCH.
OUTLET CONTROL STRUCTURE T.G.=89.17 INV. OUT=81.0 - SEE DETAIL
9'-24" HDPE S=8.89%
MH 200 T.F.=79.0 INV.=76.8(S) INV.=76.8(NW)
142'-24" HDPE S=2.96%
SEDIMENT FOREBAY
EMERGENCY RIPRAP SPILLWAY CREST ELEV.=89.0
ANTI-SEEPAGE COLLAR
6" PEFORATED UNDERDRAIN PIPE INV.=82.0
STORMWATER BASIN 200
SEDIMENT FOREBAY OVERFLOW SPILLWAY CREST ELEV.=83.5
FES 1 T.G.=84.2 INV.=82.0(NW)
31'-24" HDPE S=1.94%
MH 2 T.F.=94.0 INV.=82.6(SE) INV.=87.5(W)
37'-24" HDPE S=9.46%
SW CHAMBER ((MH 3)) HYDRODYNAMIC SEPERATOR 1 T.F.=101.0 INV.=91.0(E) INV.=94.0(SW) INV.=92.0(N)
CCB 8 T.G.=100.9 INV.=96.0(W) INV.=95.0(S)
20'-24" HDPE S=5.00%
123'-24" HDPE S=2.44%
CCB 4 T.G.=108.7 INV.=105.0(S) INV.=105.0(W) INV.=100.0(NE)
65'-15" HDPE S=9.23%
ACCESS DRIVE TO BASIN
171'-15" HDPE S=3.51%
CCB 6 T.G.=116.0 INV.=111.0(W) INV.=111.0(N)
197'-15" HDPE S=1.68%
DBLCCB 7 T.G.=117.8 INV.=114.3(E)
N/F Avery Heights Limited Partnership
PRIOR TO CONSTRUCTION CONTRACTOR TO PERFORM TEST PIT TO VERIFY DEPTH AND LOCATION OF EXISTING 24" RCP STORM DRAIN. PROPOSED INVERTS MAY NEED TO BE ADJUSTED PRIOR TO CONSTRUCTION. ISSUE FINDINGS TO ENGINEER.
SW CHAMBER (MH 26) HYDRODYNAMIC SEPERATOR 2 EX. INV.= ±89.9 T.F.=93.8 INV.=91.0(SW) INV.=89.9(N)
AD 33A T.G.=96.0 INV.=93.0(NW)
105'-12" HDPE S=1.14%
5'-18" HDPE S=2.00%
101'-15" HDPE S=0.79%
CCB 33 T.G.=98.3 INV.=91.8(NE) INV.=91.8(SE)
CCB 27 T.G.=93.7 INV.=90.0(S) INV.=90.0(W)
84'-18" HDPE S=2.74%
88'-6" PVC S=3.07%
DUPLEX EJECTOR GRINDER PUMP
SAN MH 37 T.F.=97.4 INV.=93.3(S) INV.=93.3(W)
42'-8" PVC S=12.14%
PVC SCH-40 2" FORCE MAIN
SAN MH 36 T.F.=101.9 INV.=98.5(W) INV.=98.4(E)
82'-15" HDPE S=10.00%
83'-8" PVC S=9.04%
MH 29 WITH YD TOP T.G.=105.6 INV.=101.6(S) INV.=100.5(E) INV.=101.0(W)
77'-15" HDPE S=9.09%
SAN MH 35 T.F.=109.4 INV.=106.0(E) INV.=106.1(SW)
35'-8" PVC S=2.57%
SAN MH 34 T.F.=113.0 INV.=107.0(NE) INV.=107.1(W)
SANITARY SEWER (TYP.)
MH 31 T.F.=120.8 INV.=115.0(W) INV.=108.0(E)
GREASE TRAP
CLCB 25 T.G.=120.1 INV.=117.1(SW)
184'-15" HDPE S=2.72%
REPLACE EXISTING CATCH BASIN
CLCB 32 T.G.=125.5 INV.=120.0(E)
4" PVC GAS SERVICE
GAS MAIN CONNECTION. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY.
8" PVC SDR-35 S=2.0% MIN.
INV.=119.9
MH 28 WITH YD TOP T.G.=95.8 INV.=92.3(W) INV.=92.3(E)
10"-HDPE ROOF DRAIN S=0.5% MIN.
6" PVC SANITARY CONNECTION INV.=96.0
INV. 95.0
77'-12" HDPE S=2.21%
INV. 103.4
YD 30 T.G.=106.3 INV.=103.3(N)
4" DIP CL-52 DOMESTIC WATER SERVICE
8" DIP CL-52 FIRE SERVICE
INV. 105.0
YD 12 T.G.=105.6 INV.=102.6(S)
MH 10 WITH YD TOP T.G.=104.5 INV.=100.0(W) INV.=100.0(S)
CCB 15 T.G.=118.9 INV.=115.4(W)
136'-24" HDPE S=2.21%
54'-24" HDPE S=2.78%
81'-15" HDPE S=1.36%
MH 11 T.F.=108.0 INV.=104.5(SW) INV.=101.5(E) INV.=101.5(N)
73'-18" HDPE S=8.49%
17'-18" HDPE S=7.06%
12"-HDPE ROOF DRAIN S=0.5% MIN.
INV. 115.0
INV. 115.5
APPROXIMATE DOMESTIC WATER SERVICES. SEE PLUMBING PLANS
SAN MH 40 T.F.=120.7 INV.=110.0(E)
GREASE CONNECTION
SANITARY CONNECTION
FFE=121.0
119'-15" HDPE S=0.59%
AREAWAY DRAIN 24 T.G.=120.9 INV.=117.8(NW)
SAN MH 38 T.F.=125.2 INV.=118.9(W)
40'-6" HDPE S=0.75%
84'-15" HDPE S=0.60%
INV. 117.5
53'-15" HDPE S=0.75%
95'-15" HDPE S=1.26%
MH 20 WITH YD TOP T.G.=120.5 INV.=114.3(NW) INV.=114.3(S)
MH 13 (5' DIAM.) T.F.=118.7 INV.=110.7(NE) INV.=112.0(S) INV.=111.0(W)
INV. 118.0
8"-HDPE ROOF DRAIN S=0.5% MIN.
MH 23 T.F.=123.0 INV.=116.4(NE) INV.=116.4(S) INV.=117.5(SE)
CCB 22 T.G.=119.3 INV.=115.9(N) INV.=115.9(S)
CCB 21 T.G.=119.0 INV.=115.5(N) INV.=115.5(SE)
8" DIP CL-52 FIRE SERVICE
WATER MAIN CONNECTION. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY.
HYDRANT (TYP. OF 3)
112'-12" HDPE S=1.70%
CCB 14 T.G.=118.2 INV.=113.2(SW) INV.=113.2(N) INV.=113.5(E)
MH 9 WITH YD TOP T.G.=102.2 INV.=97.0(N) INV.=97.0(E)
YD 5 T.G.=109.5 INV.=106.3(E)
23'-12" HDPE S=5.65%
65'-18" HDPE S=1.23%
CCB 16 T.G.=118.1 INV.=114.0(W) INV.=114.0(NE)
81'-15" HDPE S=2.10%
CCB 19 T.G.=118.2 INV.=112.7(N) INV.=112.7(E)
35'-15" HDPE S=0.86%
CCB 17 T.G.=118.1 INV.=114.3(W) INV.=114.3(E)
73'-15" HDPE S=0.82%
125'-15" HDPE S=1.28%
CCB 18 T.G.=118.4 INV.=114.9(E)
Existing Building #250
West Side Elementary School
Courtyard
Note: All FF Elevations are Taken at the Doorway Threshholds (Typical)
N/F Carmen A. Llanos & Mildred Negron
N/F Phadealia Pearsall
N/F Paul G. Miller & Debra J. Miller
BRANDEGEE AVENUE
20" RCP WATER
N10°53'46"W 396.10'
3

NO.	DATE	ISSUE
1	7/22/2019	WETLANDS RESUBMISSION
2	7/26/2019	PNZ SUBMISSION
3	9/10/2019	CITY COMMENTS

MILONE & MACBROOM
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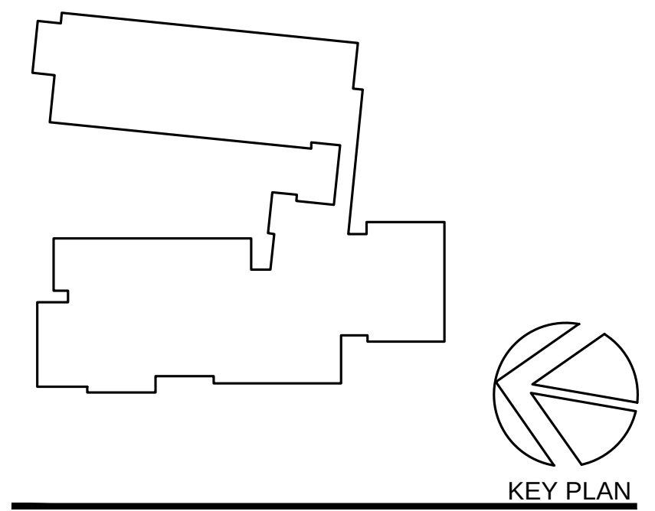
THOMAS J. DALY

SEAL



KEY PLAN

PERKINS — EASTMAN
422 Summer Street
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:
WESTSIDE ELEMENTARY SCHOOL

250 Brandegee Avenue
Groton, CT 06340

PROJECT No: 74450

DRAWING TITLE:
SITE PLAN - UTILITIES

SCALE: **1" = 30'**

C-102

PLANNING AND ZONING SUBMISSION

JUNE 18, 2019

SEDIMENT AND EROSION CONTROL SPECIFICATIONS

GENERAL:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT. IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

LAND GRADING

GENERAL:

1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
   a. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
   b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
   c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).
   d. PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
   e. EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.
   f. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATERBODIES.
   g. PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

TOPSOILING

GENERAL:

1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
2. UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.
3. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.

MATERIAL: SEE SPECIFICATIONS

APPLICATION:

1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST FOUR INCHES (4"), OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.

TEMPORARY VEGETATIVE COVER

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

GENERAL:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
3. APPLY SOIL AMENDMENTS AS FOLLOWS:
   LIME: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE.
   ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE
4. UNLESS HYDROSEEDED, WORK IN LIME TO A DEPTH OF 4 INCHES WITH A DISK OR ANY SUITABLE EQUIPMENT. DO NOT WORK FINISHED COMPOST INTO THE SOIL - APPLY IT EVENLY TO SOIL SURFACE AS A SEED BED.
5. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

SITE PREPARATION:

1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING)
2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
3. UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL USING SUITABLE EQUIPMENT.
4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW AND ANCHOR TO SLOPES GREATER THAN 3%%% OR WHERE NEEDED.

PERMANENT VEGETATIVE COVER

GENERAL:

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
5. APPLY SOIL AMENDMENTS AS FOLLOWS:
   LIME: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE.
   ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE
6. UNLESS HYDROSEEDED, WORK IN LIME TO A DEPTH OF 4 INCHES WITH A DISK OR ANY SUITABLE EQUIPMENT. DO NOT WORK FINISHED COMPOST

VEGETATED COVER SELECTION AND MULCHING

TEMPORARY VEGETATIVE COVER:

PERENNIAL RYEGRASS 5 LBS./1,000 SQ.FT. (LOLIUM PERENNE)
DUTCH WHITE CLOVER (TRIFOLIUM REPENS) 1/4 LBS PER 1000 SF. OR 6LBS/AC.

* PERMANENT VEGETATIVE COVER:

DUTCH WHITE CLOVER 30%
BARON KENTUCKY BLUEGRASS 30%
JAMESTOWN II CHEWINGS FESCUE 20%
PALMER PERENNIAL RYEGRASS 20%

NEW ENGLAND EROSION CONTROL/R3ESOTRATION MIX FOR MOIST SITES AT 1/8 LB PER 1000 S.F. FOR 5 LBS/AC.

NEW ENGLAND SHOWY WILD FLOW MIX AT 1/16 LB PER 1000 S.F. OR 2 LBS/AC

* LOFTS - "TRIPLEX GENERAL" MIX OR APPROVED EQUAL. RECOMMENDED RATE/TIME SEEDING.
SPRING SEEDING: 4/1 to 5/31
FALL SEEDING: 8/16 to 10/15

TEMPORARY MULCHING:

STRAY 70-90 LBS./1,000 SQ.FT. (TEMPORARY VEGETATIVE AREAS) WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:
1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW).
3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
6. USE PROPER INOCULAT ON ALL LEGUME SEEDLINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
7. USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

1. TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.

EROSION CHECKS

GENERAL:

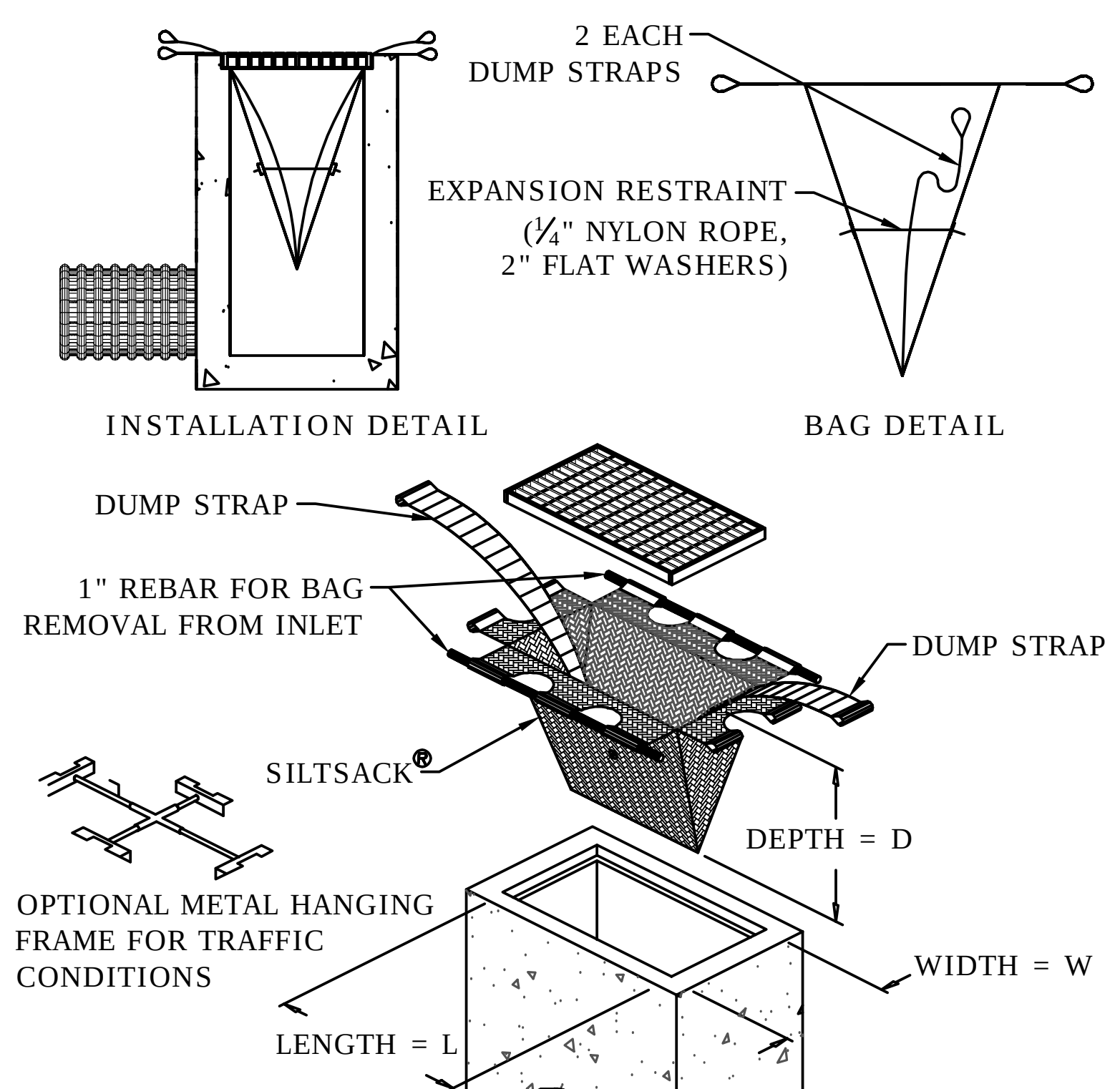
1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

CONSTRUCTION:

1. BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

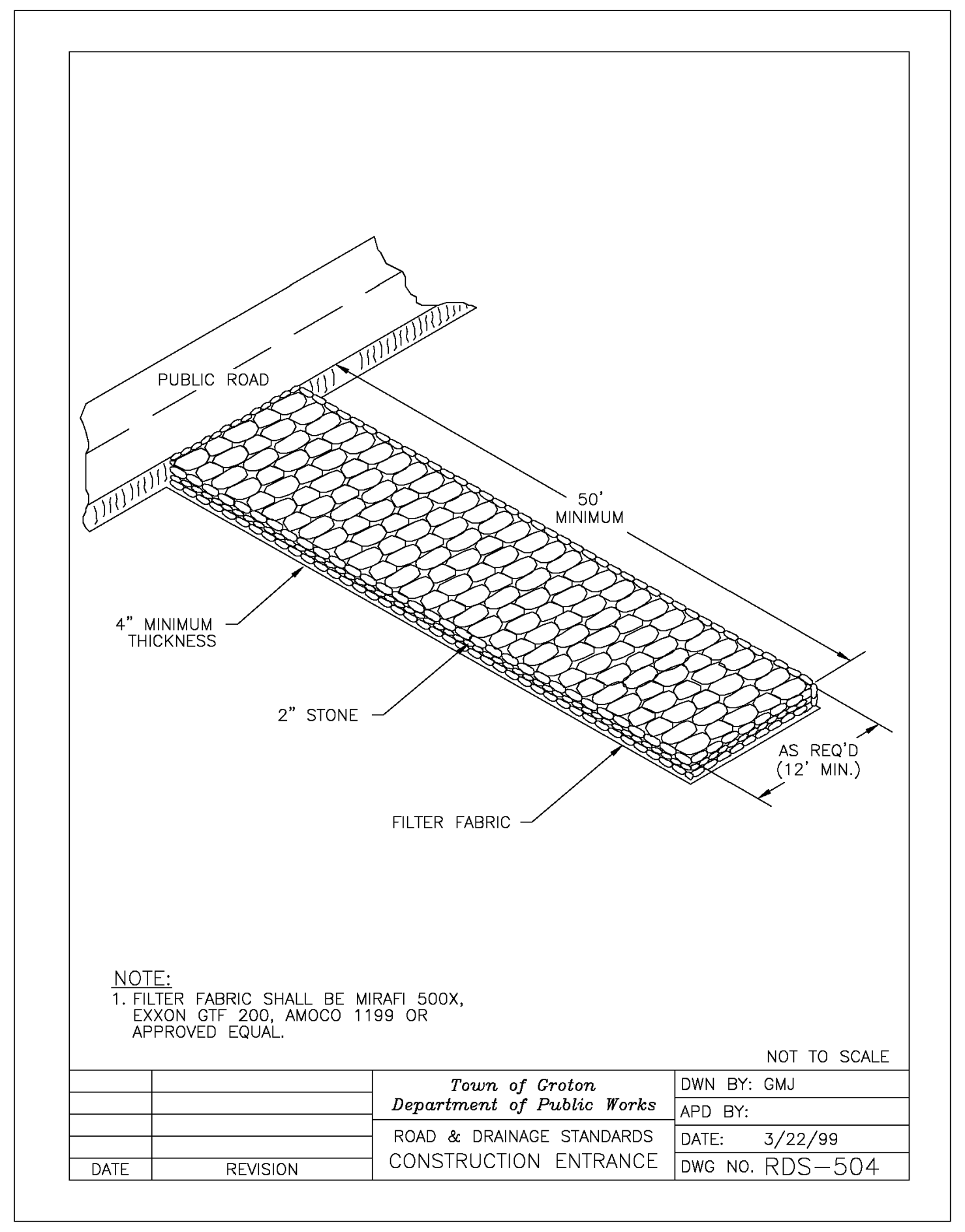
INSTALLATION AND MAINTENANCE:

1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.
2. BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.


2 EACH
DUMP STRAPS
EXPANSION RESTRAINT
(¼" NYLON ROPE,
2" FLAT WASHERS)
INSTALLATION DETAIL
BAG DETAIL
DUMP STRAP
1" REBAR FOR BAG
REMOVAL FROM INLET
DUMP STRAP
SILTSACK®
DEPTH = D
OPTIONAL METAL HANGING
FRAME FOR TRAFFIC
CONDITIONS
WIDTH = W
LENGTH = L

1 INLET PROTECTION

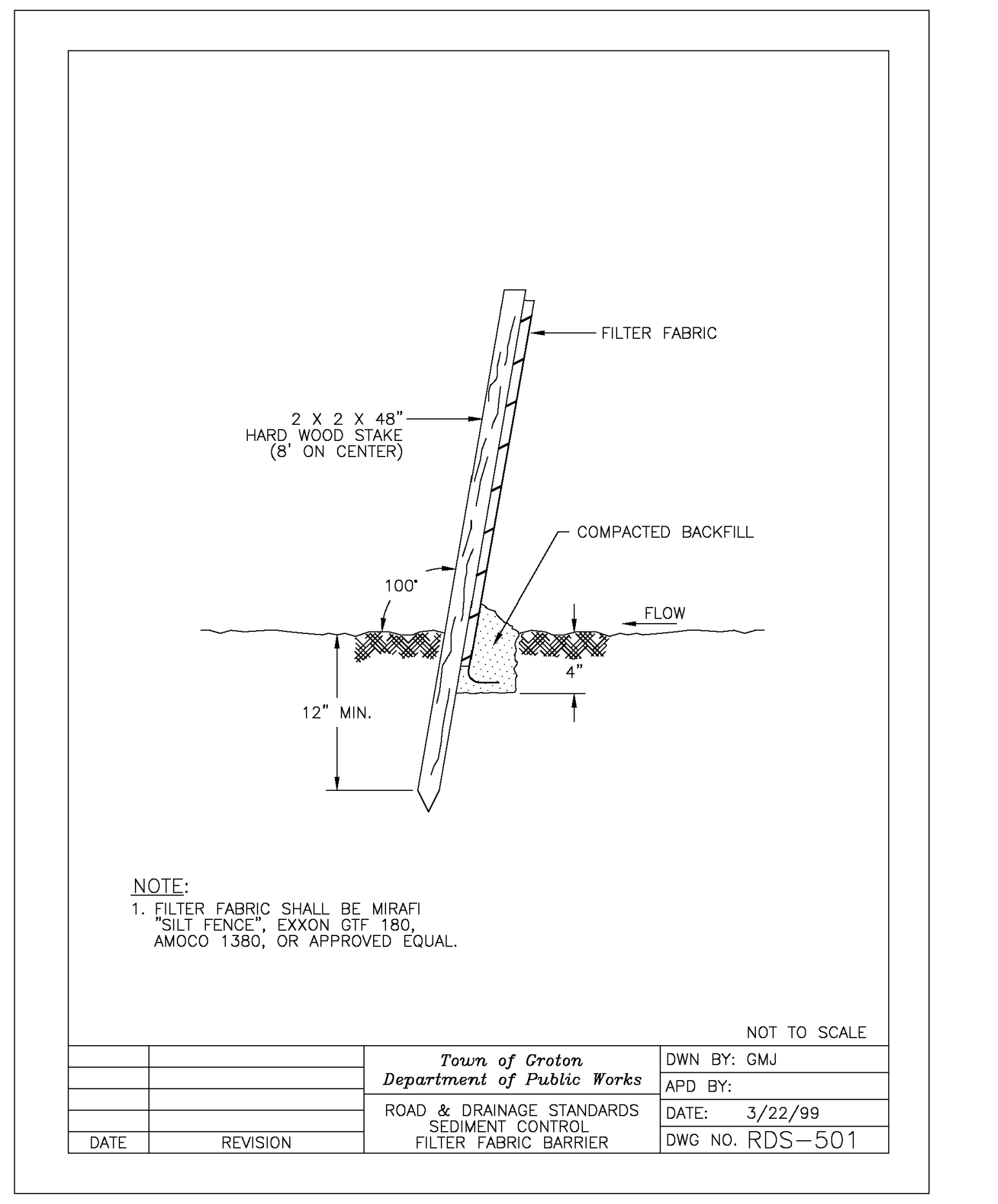
NOT TO SCALE


PUBLIC ROAD
50' MINIMUM
4" MINIMUM THICKNESS
2" STONE
FILTER FABRIC
AS REQ'D (12' MIN.)
NOT TO SCALE
Town of Groton
Department of Public Works
ROAD & DRAINAGE STANDARDS
CONSTRUCTION ENTRANCE
DWN BY: GMJ
APD BY:
DATE: 3/22/99
DWG NO. RDS-504
DATE
REVISION

NOTE:
1. FILTER FABRIC SHALL BE MIRAFI 500X, EXXON GTF 200, AMOCO 1199 OR APPROVED EQUAL.

2 CONSTRUCTION ENTRANCE PAD

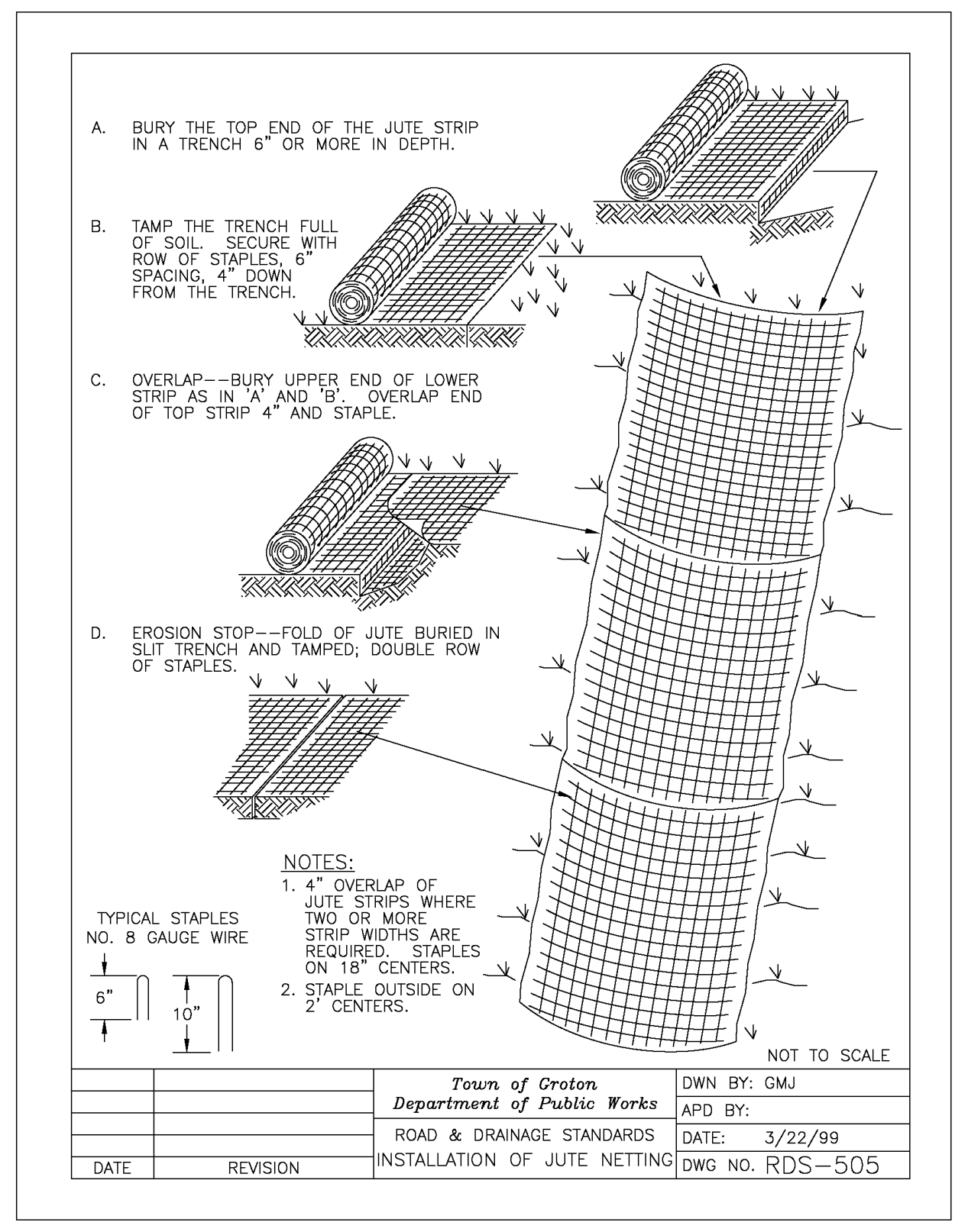
NOT TO SCALE


FILTER FABRIC
2 X 2 X 48" HARD WOOD STAKE (8' ON CENTER)
COMPACTED BACKFILL
100°
FLOW
4"
12" MIN.
NOT TO SCALE
Town of Groton
Department of Public Works
ROAD & DRAINAGE STANDARDS
SEDIMENT CONTROL
FILTER FABRIC BARRIER
DWN BY: GMJ
APD BY:
DATE: 3/22/99
DWG NO. RDS-501
DATE
REVISION

NOTE:
1. FILTER FABRIC SHALL BE MIRAFI "SILT FENCE", EXXON GTF 180, AMOCO 1380, OR APPROVED EQUAL.

3 SEDIMENT FILTER FENCE

NOT TO SCALE


TYPICAL STAPLES
NO. 8 GAUGE WIRE
6"
10"
NOT TO SCALE
Town of Groton
Department of Public Works
ROAD & DRAINAGE STANDARDS
INSTALLATION OF JUTE NETTING
DWN BY: GMJ
APD BY:
DATE: 3/22/99
DWG NO. RDS-505
DATE
REVISION

A. BURY THE TOP END OF THE JUTE STRIP IN A TRENCH 6" OR MORE IN DEPTH.

B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 6" SPACING, 4" DOWN FROM THE TRENCH.

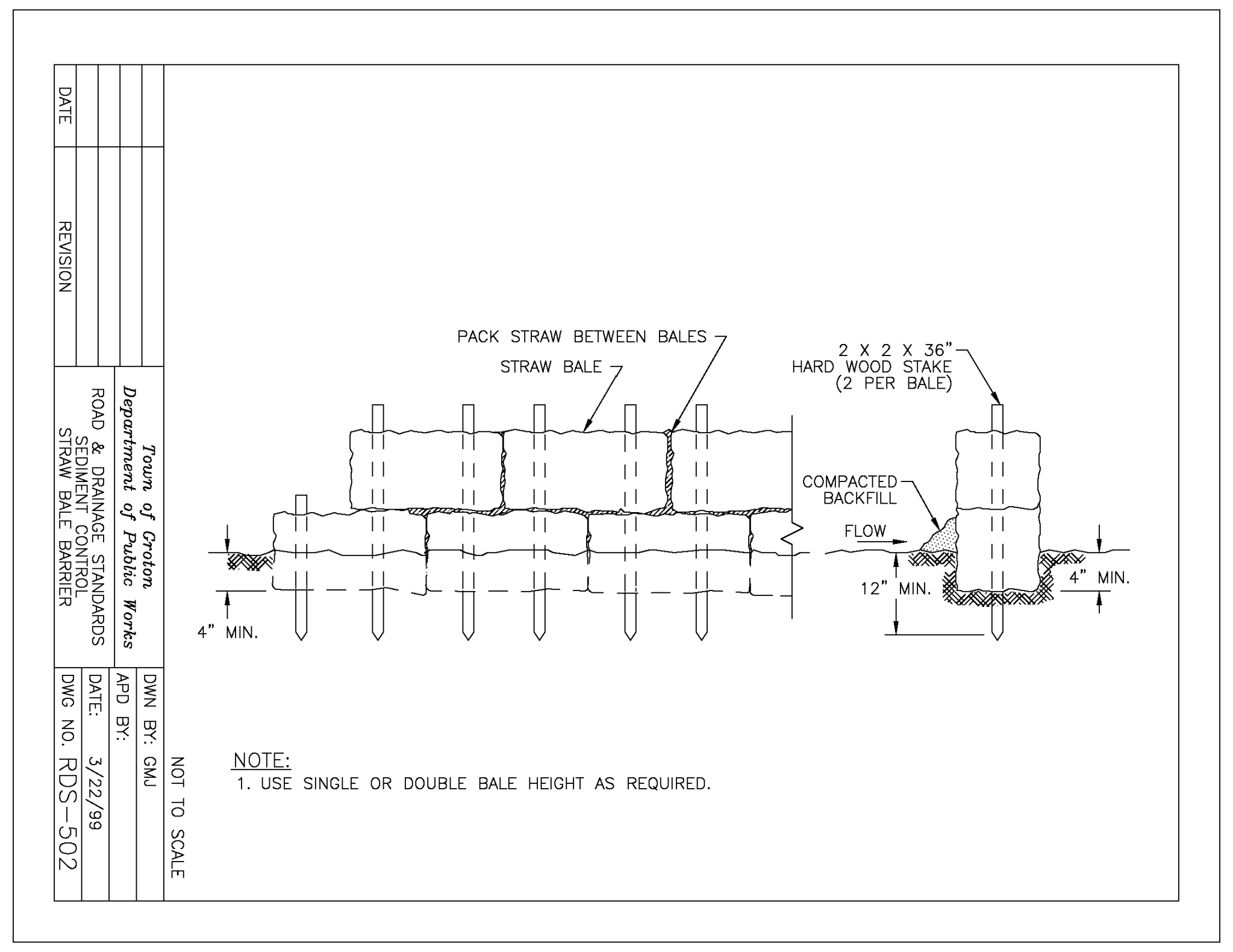
C. OVERLAP--BURY UPPER END OF LOWER STRIP AS IN 'A' AND 'B'. OVERLAP END OF TOP STRIP 4" AND STAPLE.

D. EROSION STOP--FOLD OF JUTE BURIED IN SLIT TRENCH AND TAMPED; DOUBLE ROW OF STAPLES.

NOTES:
1. 4" OVERLAP OF JUTE STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE REQUIRED. STAPLES ON 18" CENTERS.
2. STAPLE OUTSIDE ON 2' CENTERS.

6 EROSION CONTROL BLANKET

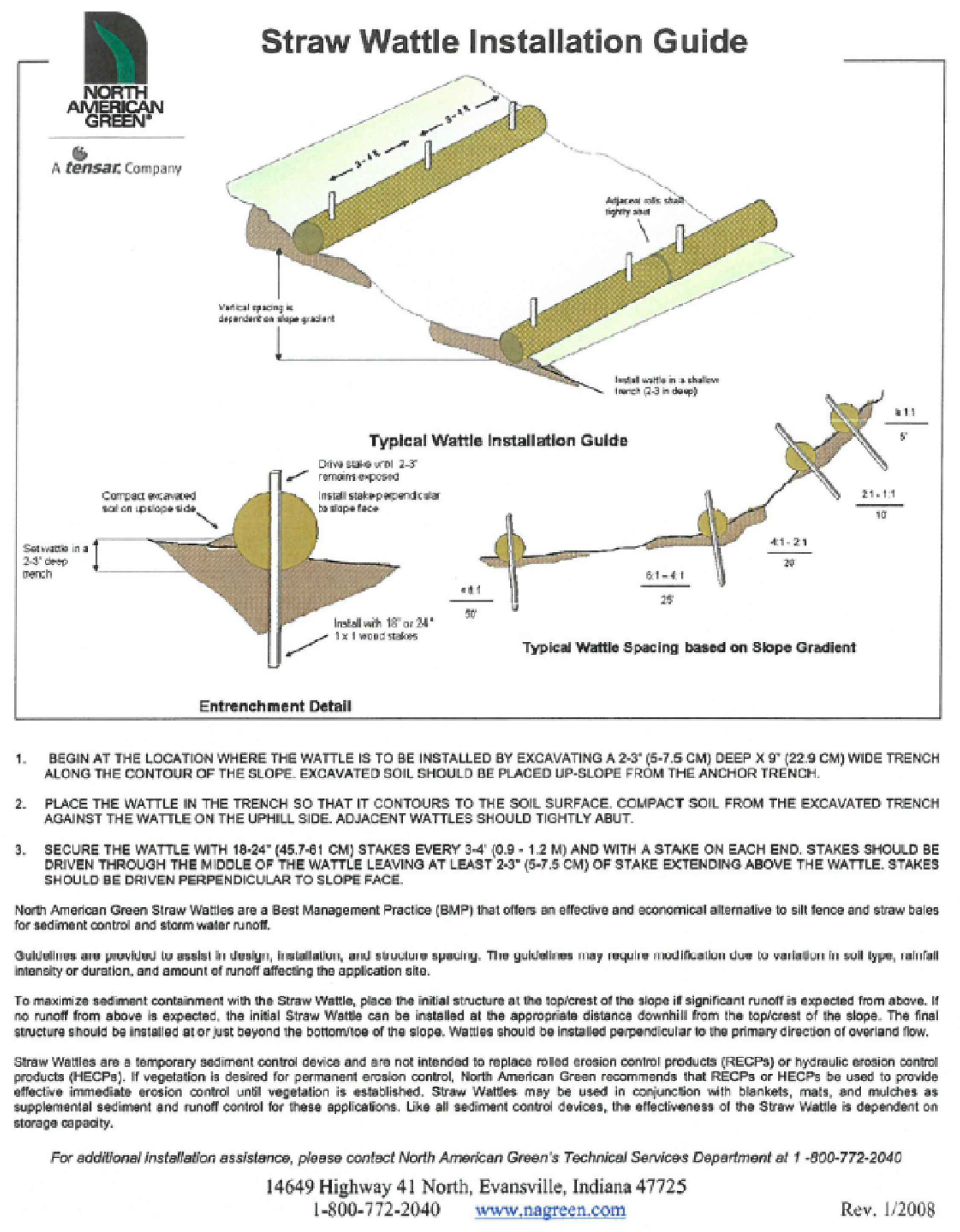
NOT TO SCALE


PACK STRAW BETWEEN BALES
STRAW BALE
2 X 2 X 36"
HARD WOOD STAKE
(2 PER BALE)
COMPACTED
BACKFILL
FLOW
12" MIN.
4" MIN.
4" MIN.
NOT TO SCALE
Town of Groton
Department of Public Works
ROAD & DRAINAGE STANDARDS
SEDIMENT CONTROL
STRAW BALE BARRIER
DWN BY: GMJ
APD BY:
DATE: 3/22/99
DWG NO. RDS-502
DATE
REVISION

NOTE:
1. USE SINGLE OR DOUBLE BALE HEIGHT AS REQUIRED.

7 HAYBALE BARRIER

NOT TO SCALE


NORTH AMERICAN GREEN®
A tensar. Company
3'-4 ft
3'-4 ft
Adjacent rolls shall tightly abut
Vertical spacing is dependent on slope gradient
Install wattle in a shallow trench (2-3 in deep)
Compact excavated soil on upslope side
Drive stake until 2-3" remains exposed
Install stake perpendicular to slope face
Set wattle in a 2-3" deep trench
Install with 18" or 24" 1 x 1 wood stakes
≤4:1
50'
6:1 - 4:1
25'
4:1 - 2:1
20'
2:1 - 1:1
10'
≥1:1
5'

Straw Wattle Installation Guide

Typical Wattle Installation Guide

Typical Wattle Spacing based on Slope Gradient

Entrenchment Detail

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 - 1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

North American Green Straw Wattles are a Best Management Practice (BMP) that offers an effective and economical alternative to silt fence and straw bales for sediment control and storm water runoff.

Guidelines are provided to assist in design, installation, and structure spacing. The guidelines may require modification due to variation in soil type, rainfall intensity or duration, and amount of runoff affecting the application site.

To maximize sediment containment with the Straw Wattle, place the initial structure at the top/crest of the slope if significant runoff is expected from above. If no runoff from above is expected, the initial Straw Wattle can be installed at the appropriate distance downhill from the top/crest of the slope. The final structure should be installed at or just beyond the bottom/toe of the slope. Wattles should be installed perpendicular to the primary direction of overland flow.

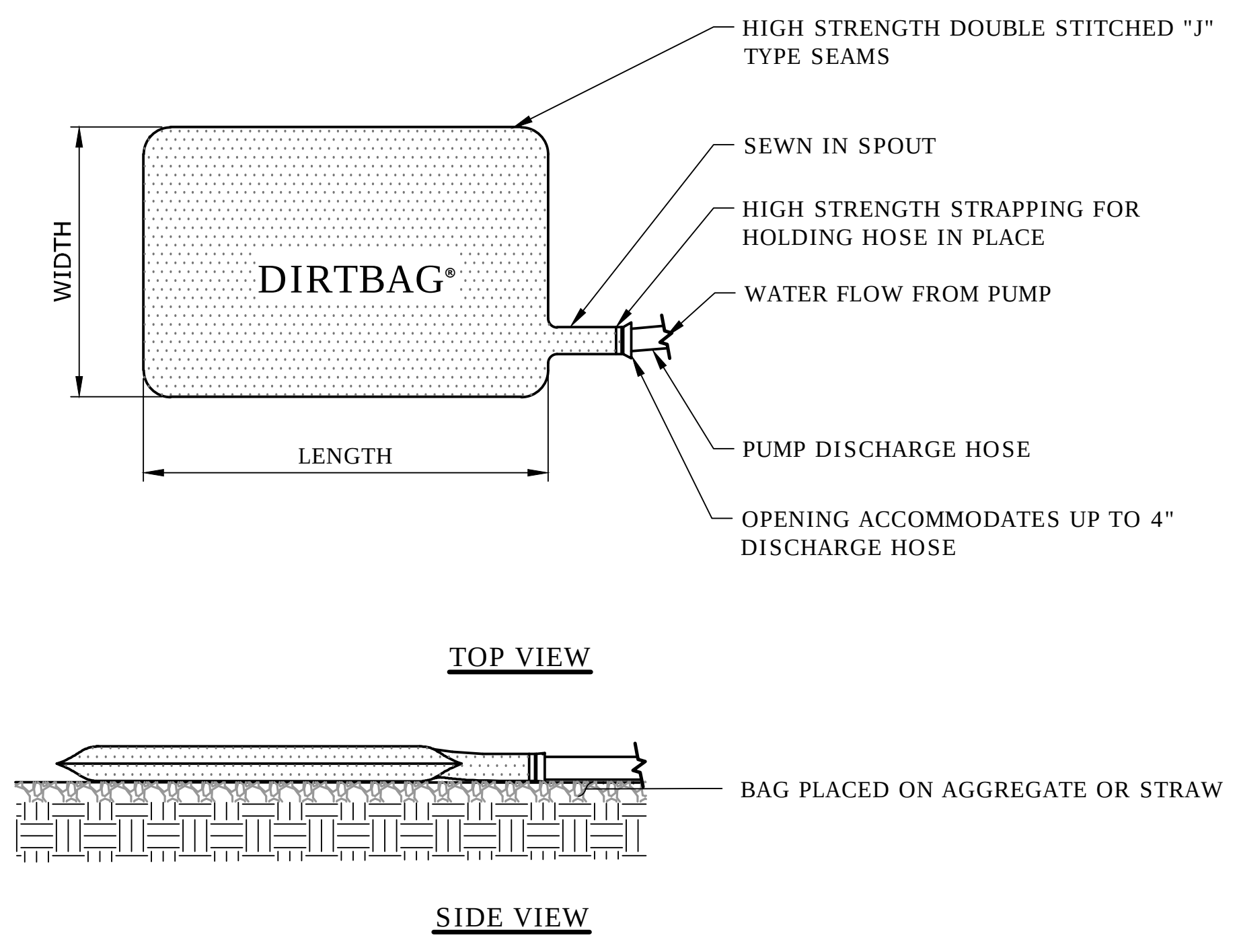
Straw Wattles are a temporary sediment control device and are not intended to replace rolled erosion control products (RECPs) or hydraulic erosion control products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RECPs or HECPs be used to provide effective immediate erosion control until vegetation is established. Straw Wattles may be used in conjunction with blankets, mats, and mulches as supplemental sediment and runoff control for these applications. Like all sediment control devices, the effectiveness of the Straw Wattle is dependent on storage capacity.

For additional installation assistance, please contact North American Green's Technical Services Department at 1-800-772-2040

14649 Highway 41 North, Evansville, Indiana 47725
1-800-772-2040 www.nagreen.com Rev. 1/2008

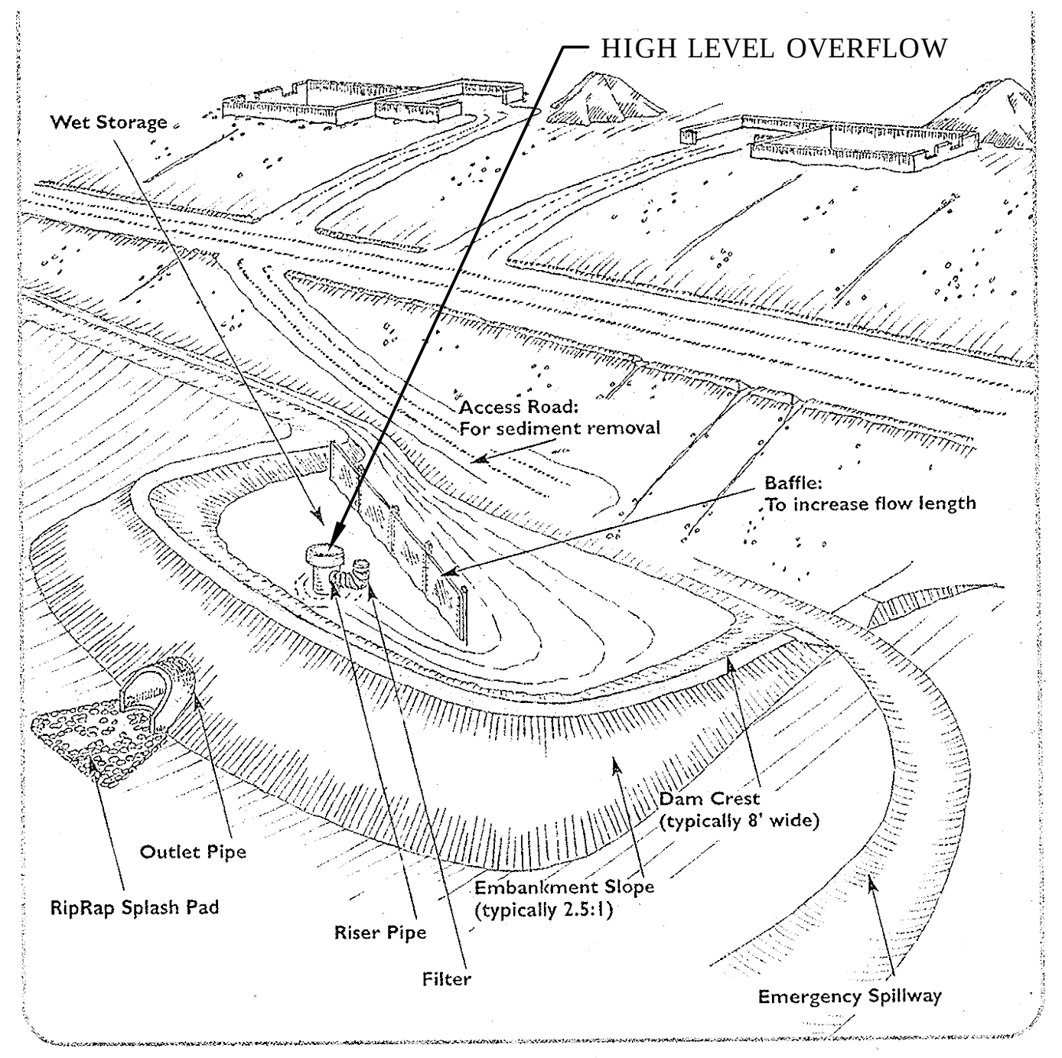
8 STRAW WATTLE

NOT TO SCALE


HIGH STRENGTH DOUBLE STITCHED "J" TYPE SEAMS
SEWN IN SPOUT
HIGH STRENGTH STRAPPING FOR HOLDING HOSE IN PLACE
WATER FLOW FROM PUMP
DIRTBAG®
WIDTH
LENGTH
PUMP DISCHARGE HOSE
OPENING ACCOMMODATES UP TO 4" DISCHARGE HOSE
TOP VIEW
BAG PLACED ON AGGREGATE OR STRAW
SIDE VIEW

4 DIRTBAG PUMPED SILT CONTROL SYSTEM

NOT TO SCALE

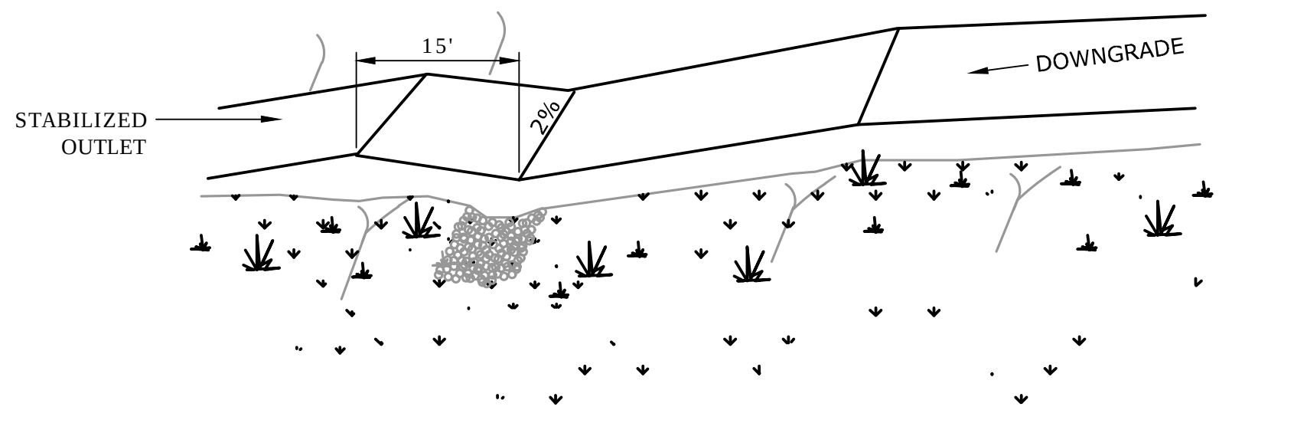

HIGH LEVEL OVERFLOW
Wet Storage
Access Road For sediment removal
Baffle: To increase flow length
Outlet Pipe
RipRap Splash Pad
Riser Pipe
Filter
Dam Crest (typically 6' wide)
Embankment Slope (typically 1.5:1)
Emergency Spillway

5 TEMPORARY SEDIMENT TRAP

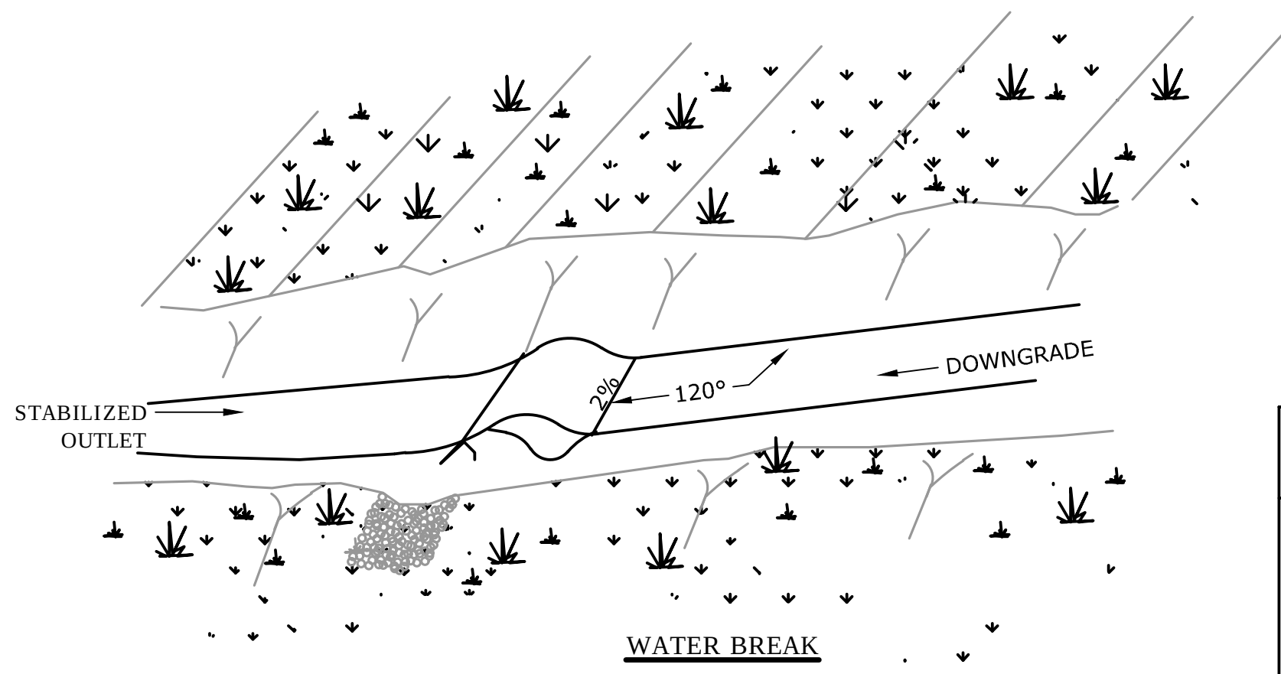
NOT TO SCALE

EROSION CONTROL MAINTENANCE INTERVALS

EROSION CONTROL MEASURE	CONTROL OBJECTIVE	INSPECTION/MAINTENANCE	FAILURE INDICATORS	REMOVAL
SILT FENCE (SF) (RELATED: IP, STK)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS. - DECREASE VELOCITY OF SHEET FLOW. - PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE ITS DEPTH IS EQUAL TO ½ THE TRENCH HEIGHT. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	SILT FENCE MAY BE REMOVED AFTER UPHILL AND SENSITIVE AREAS HAVE BEEN PERMANENTLY STABILIZED.
CONSTRUCTION ENTRANCE (CE)	- REDUCE THE TRACKING OF SEDIMENT OFF-SITE ONTO PAVED SURFACES.	INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC ADDITION OF STONE, OR LENGTHENING OF ENTRANCE MAY BE REQUIRED AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES AS A RESULT OF INEFFICIENCY OF CONSTRUCTION ENTRANCE SHALL BE IMMEDIATELY REMOVED.	- SEDIMENT IN ROADWAY ADJACENT TO SITE	CONSTRUCTION ENTRANCE MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL OTHER SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
INLET PROTECTION (IP)	- PROHIBIT SILT IN CONSTRUCTION-RELATED RUNOFF FROM ENTERING STORM DRAINAGE SYSTEM.	INSPECT AFTER ANY RAIN EVENT. IF FILTER BAG INSIDE CATCH BASIN CONTAINS MORE THAN 6" OF SEDIMENT, REMOVE SEDIMENT FROM BAG. CHECK SURROUNDING SILT FENCE AND HAY BALES PER NOTED ABOVE.	- RIPPED BAG - FAILED HAY BALES / SILT FENCE - SIGNIFICANT SILT PRESENCE IN STORM DRAINAGE SYSTEM OUTFLOW.	INLET PROTECTION MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
STOCKPILE PROTECTION (STK)	- RETAIN SOIL STOCKPILE IN LOCATIONS SPECIFIED, AND REDUCE WATER-TRANSPORT.	INSPECT SILT FENCE AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC REINFORCEMENT OF SILT FENCE, OR ADDITION OF HAY BALES MAY BE NECESSARY.	- EVIDENCE OF STOCK PILE DIMINISHING DUE TO RAIN EVENTS - FAILURE OF SILT FENCE	STOCKPILE PROTECTION MAY BE REMOVED ONCE THE STOCKPILE IS USED OR REMOVED.
TEMPORARY SEDIMENT TRAP (TST)	- DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW A MAJORITY OF THE SEDIMENT TO SETTLE OUT.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. STONE OUTLET SHOULD BE AT LEAST 1 FOOT BELOW CREST OF EMBANKMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATION REACHES ½ OF THE REQUIRED WET STORAGE.	- TURBID WATER - EXCESSIVE SEDIMENT ACCUMULATION - OVERTOPPING EVIDENCE	TST MAY BE REMOVED ONCE THE CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED.
TEMPORARY DIVERSION BERM/SWALE (DB)	- MINIMIZE VELOCITY AND CONCENTRATION OF SHEET FLOW ACROSS CONSTRUCTION SITE TO A SEDIMENT TRAPPING FACILITY. - DIVERT WATER ORIGINATING FROM UNDISTURBED AREA AWAY FROM CONSTRUCTION.	WHEN LOCATED WITHIN CLOSE PROXIMITY TO ONGOING CONSTRUCTION ACTIVITIES, INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. OTHERWISE INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. REPAIR THE TEMPORARY MEASURE AND ANY OTHER ASSOCIATED MEASURES WITHIN 24 HOURS.	- PHYSICAL DAMAGE - EXCESSIVE SCOURING/EROSION - REPETITIVE FAILURE	TEMPORARY DIVERSIONS MAY BE REMOVED ONCE CONSTRUCTION HAS CEASED AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.


STABILIZED
OUTLET
15'
2%
DOWNGRADE

ROLLING DIP


STABILIZED
OUTLET
2%
120°
DOWNGRADE

WATER BREAK

ROAD GRADE	SPACING BETWEEN WATER BREAKS (AVERAGE SOIL)	SPACING BETWEEN WATER BREAKS (HIGH ERODIBLE)
0-1%	400'	200'
1-2%	245'	125'
2-5%	125'	100'
5-10%	100'	75'
10-20%	75'	50'
20-35%	50'	25'
+35%	25'	25'

NOTES:

1. INSTALL WATER BREAKS/ ROLLING DIPS (DIVERSIONS) AS SOON AS THE RIGHT-OF-WAY HAS BEEN CLEARED AND GRADED

2. ROLLING DIPS ARE TO BE INSTALLED IF THE ROAD IS INTENDED FOR WINTER USE OR USED BY VEHICLES WITH LOW CLEARING THE HEIGHT FROM CHANNEL BOTTOM TO THE TOP OF THE SETTLED RIDGE SHALL BE 18" AND THE SIDE SLOPE S OF THE RIDGE SHALL BE 2.1 OR FLATTER.

3. THE OVERFLOW END OF THE DIVERSIONS SHOULD HAVE A NATURAL OR CONSTRUCTED STABLE OUTLET TO CLEAN THE SEDIMENT OUT OF THE WATER AND PREVENT EROSION. NEVER OUTLET DIVERSIONS ONTO UNPROTECTED FILL SLOPES.

4. SPACING BETWEEN DIVERSIONS MAY NEED TO BE ADJUSTED TO FIELD CONDITIONS SO AS TO USE THE MOST SUITABLE AREAS FOR WATER DISPOSAL. THESE CHANGES SHALL BE APPROVED PRIOR TO THEIR INSTALLATION BY THE DESIGN ENGINEER.

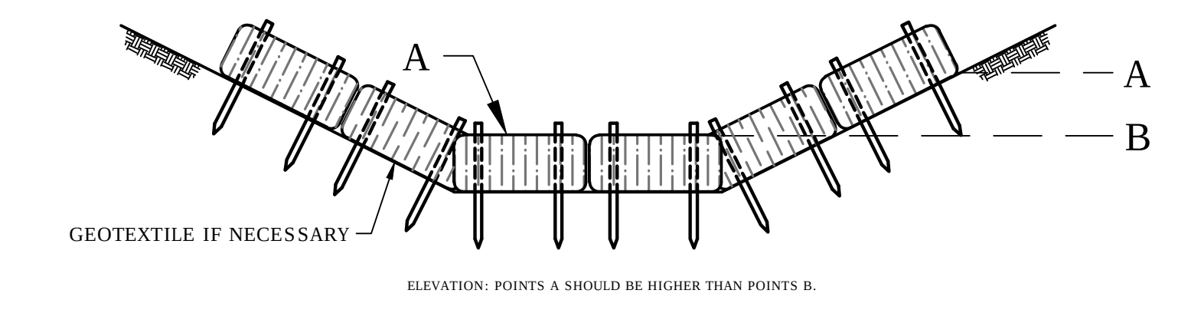
5. USE GRAVEL TO STABILIZE THE DIVERSIONS WHERE THE SIGNIFICANT VEHICULAR TRAFFIC IS ANTICIPATED.

6. DIVERSION SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY HEAVY RAIN STORM FOR EROSION DAMAGE. REMOVE SEDIMENT IMMEDIATELY FROM THE FLOW AREA AND MAKE TIMELY REPAIRS AS NEEDED.

9 WATER BAR DETAIL

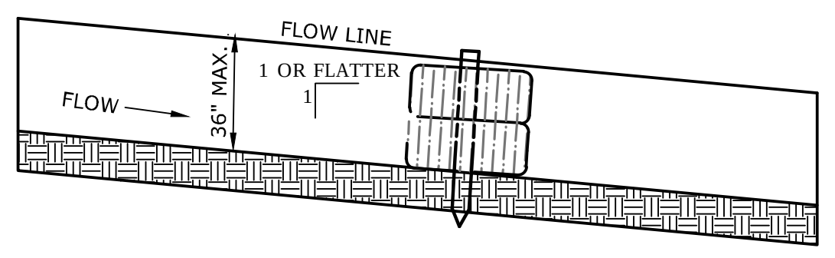
NOT TO SCALE

3


A
A
B
GEOTEXTILE IF NECESSARY

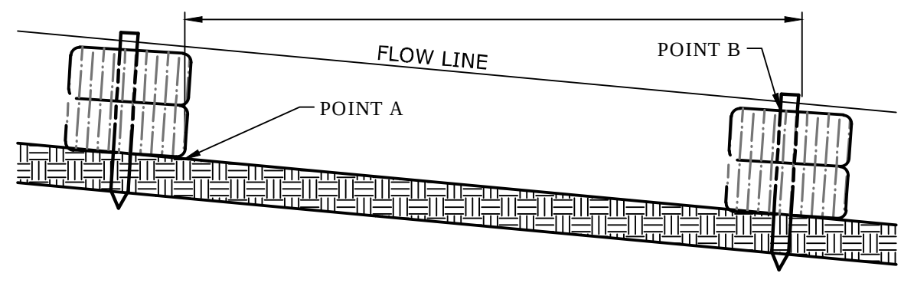
ELEVATION: POINTS A SHOULD BE HIGHER THAN POINTS B.

HAYBALE CHECK DAM UPSTREAM


FLOW LINE
1 OR FLATTER
1
FLOW
36" MAX.

SECTION A-A

L' = DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATIOIN


FLOW LINE
POINT B
POINT A

SPACING BETWEEN CHECK DAMS

NOTES:

1. KEY STONE INTO THE DITCH BANKS AND EXTEND INTO THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW FROM FLANKING THE CHECK DAM.
2. THE MINIMUM DESIGN CAPACITY SHALL CONVEY A 2 YEAR-24 HOUR PEAK FLOW.

10 HAYBALE CHECK DAM

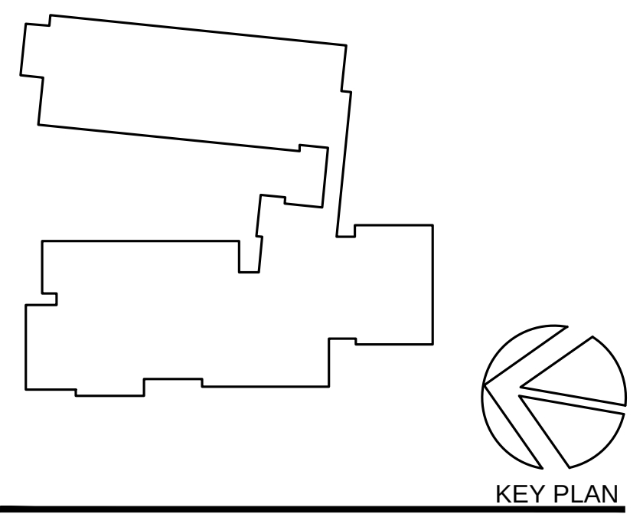
NOT TO SCALE

NO.	DATE	ISSUE
1	7/22/2019	WETLANDS RESUBMISSION
2	7/26/2019	PNZ SUBMISSION
3	9/10/2019	CITY COMMENTS

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

THOMAS J. DALY

SEAL



KEY PLAN

PERKINS EASTMAN
422 Summer Street
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

WESTSIDE
ELEMENTARY
SCHOOL

250 Brandegee Avenue
Groton, CT 06340

PROJECT No: 74450

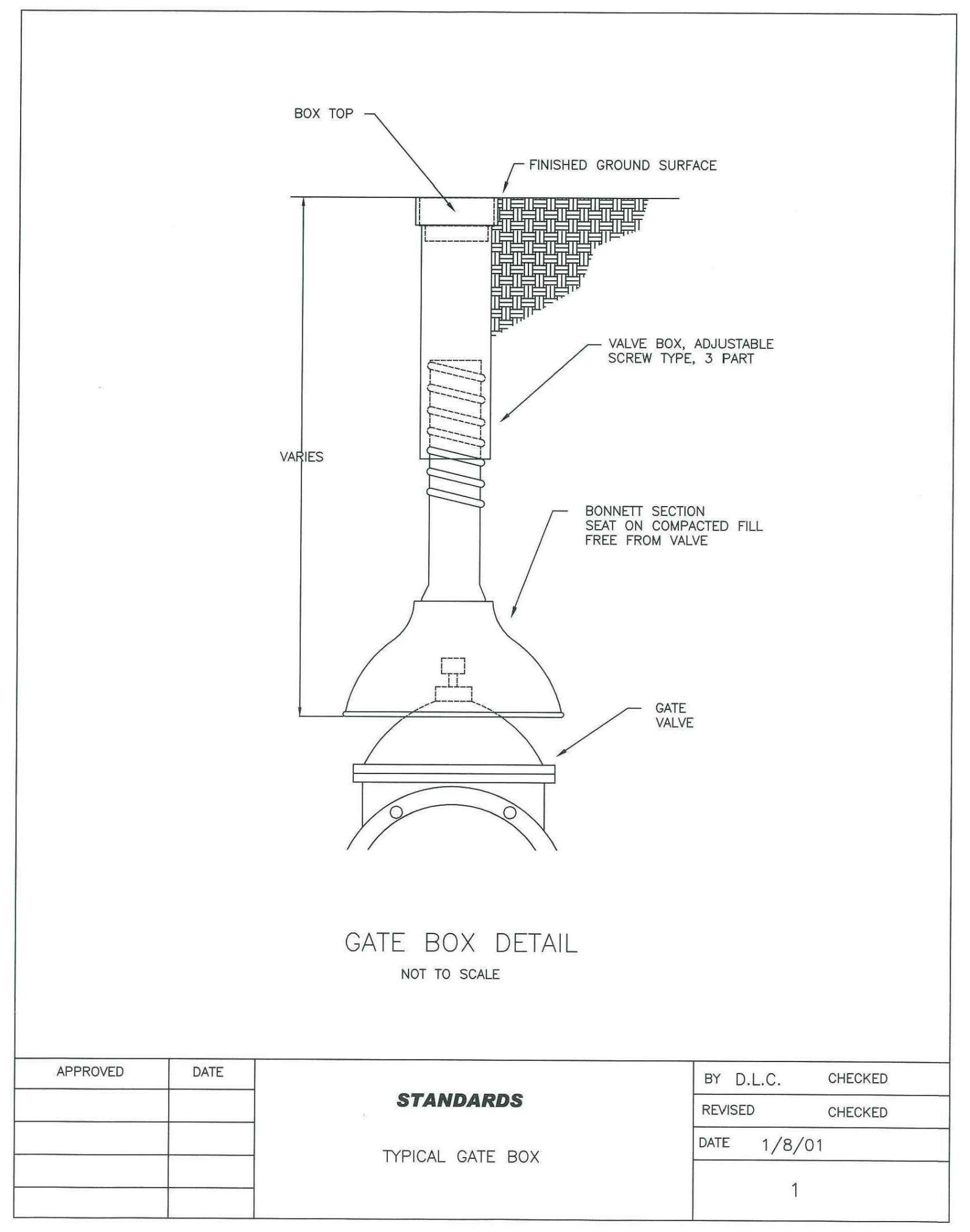
DRAWING TITLE:
SEDIMENT AND EROSION
CONTROL DETAILS

SCALE: **AS NOTED**

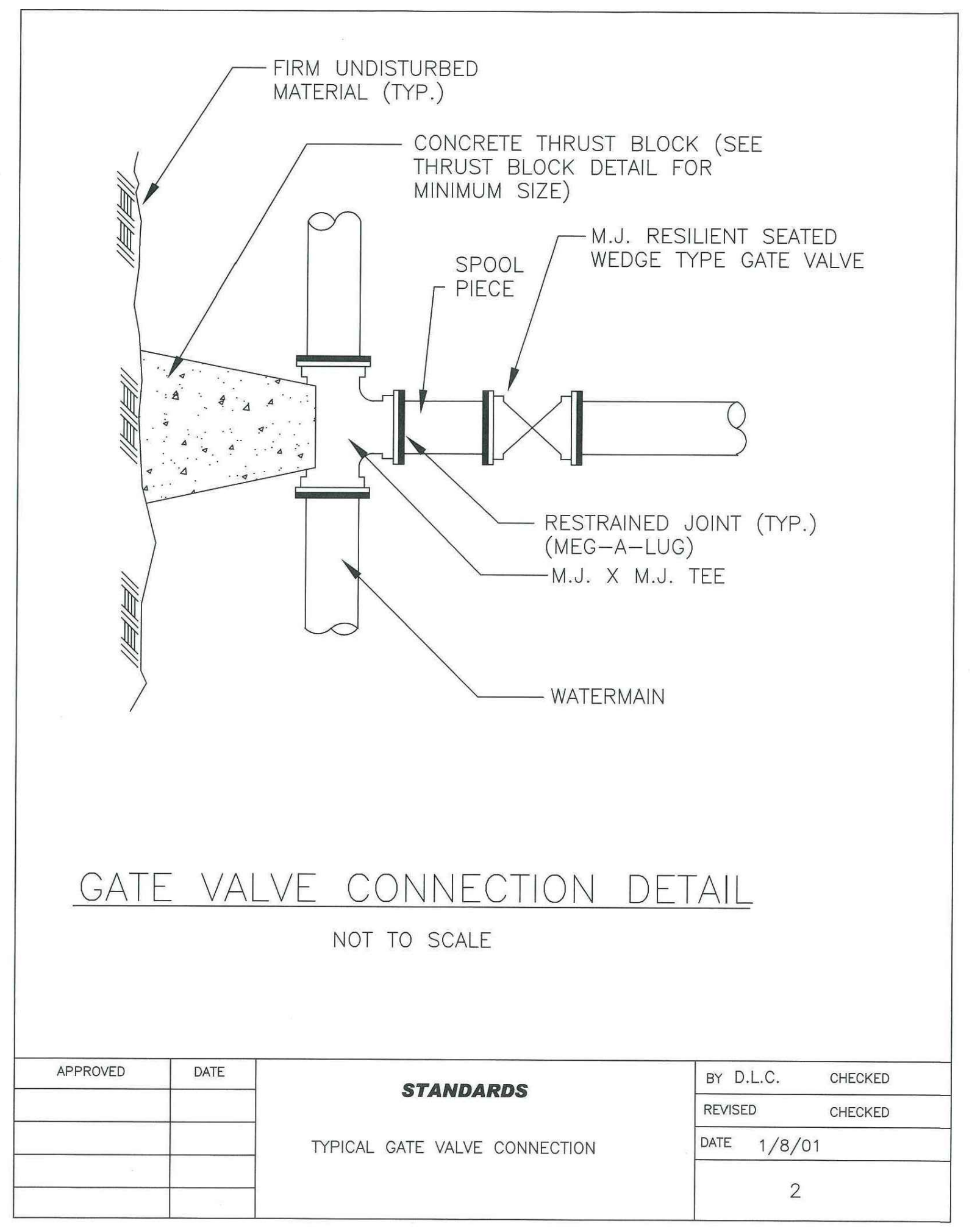
C-201

PLANNING AND ZONING SUBMISSION

JUNE 18, 2019


BOX TOP
FINISHED GROUND SURFACE
VARIES
VALVE BOX, ADJUSTABLE SCREW TYPE, 3 PART
BONNETT SECTION SEAT ON COMPACTED FILL FREE FROM VALVE
GATE VALVE
GATE BOX DETAIL
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL GATE BOX
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
1

1 **TYPICAL GATE BOX DETAIL**
NOT TO SCALE


FIRM UNDISTURBED MATERIAL (TYP.)
CONCRETE THRUST BLOCK (SEE THRUST BLOCK DETAIL FOR MINIMUM SIZE)
SPOOL PIECE
M.J. RESILIENT SEATED WEDGE TYPE GATE VALVE
RESTRAINED JOINT (TYP.) (MEG–A–LUG)
M.J. X M.J. TEE
WATERMAIN
GATE VALVE CONNECTION DETAIL
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL GATE VALVE CONNECTION
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
2

2 **GATE VALVE CONNECTION DETAIL**
NOT TO SCALE

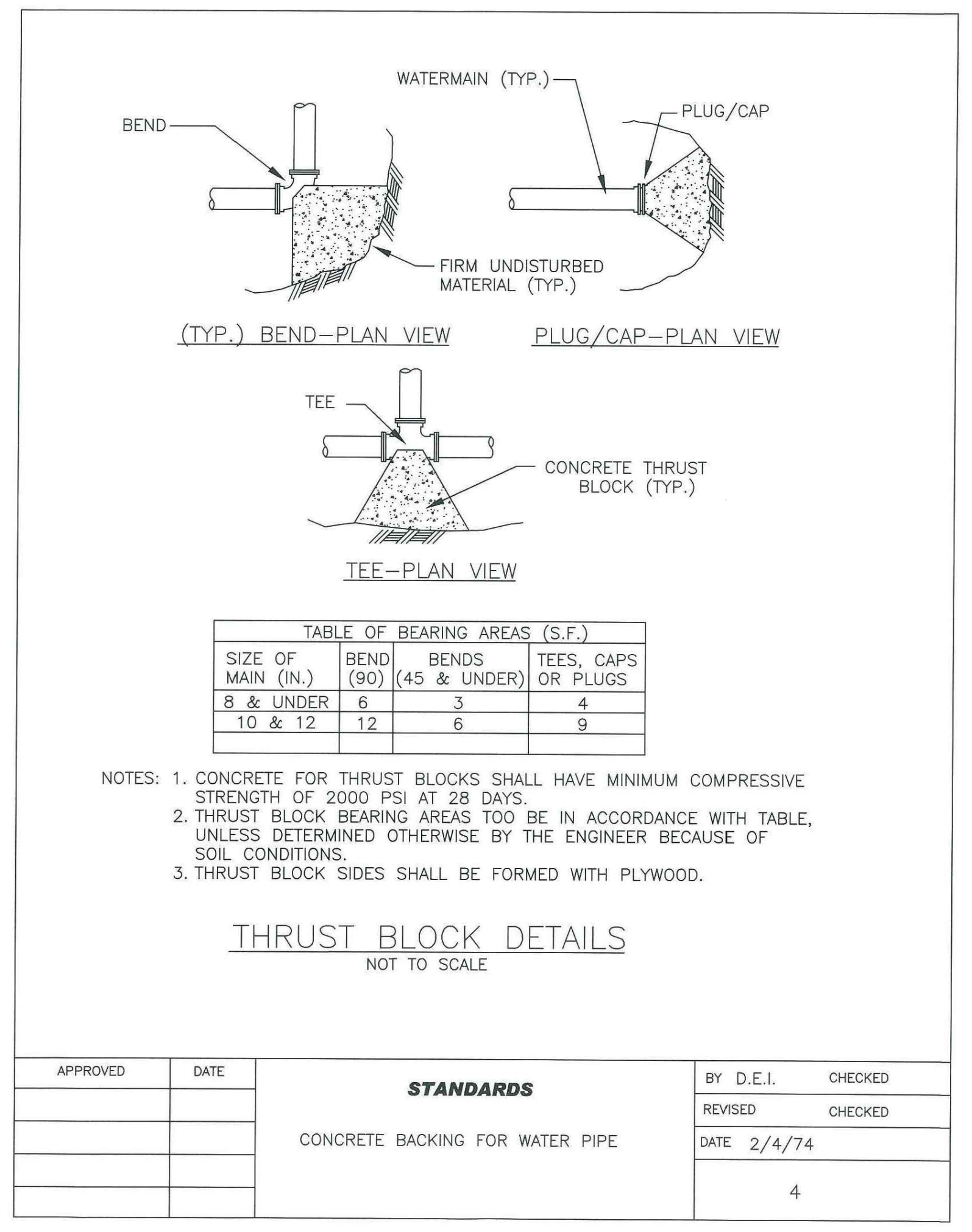
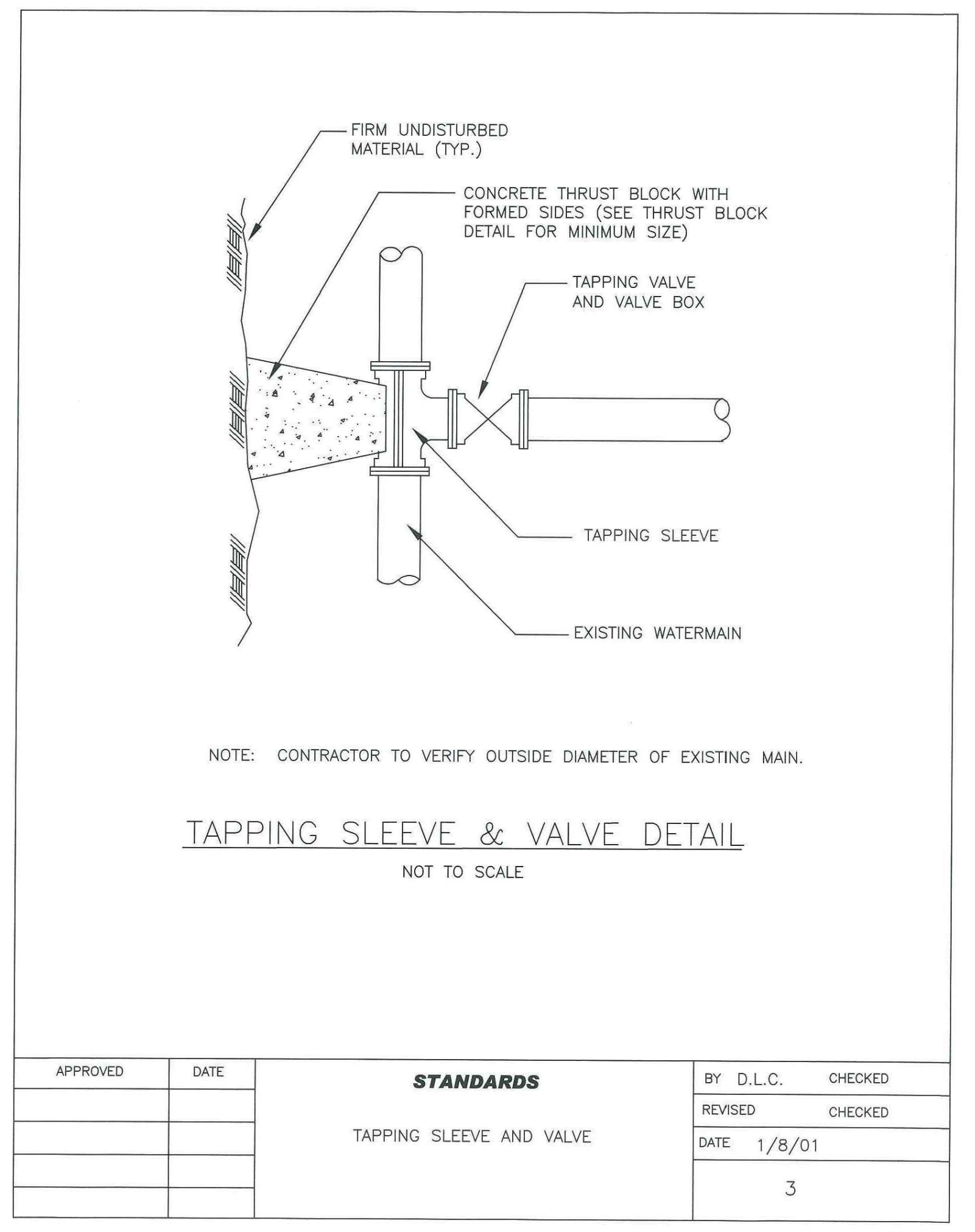

BEND
WATERMAIN (TYP.)
PLUG/CAP
FIRM UNDISTURBED MATERIAL (TYP.)
(TYP.) BEND–PLAN VIEW
PLUG/CAP–PLAN VIEW
TEE
CONCRETE THRUST BLOCK (TYP.)
TEE–PLAN VIEW
THRUST BLOCK DETAILS
NOT TO SCALE
APPROVED
DATE
STANDARDS
CONCRETE BACKING FOR WATER PIPE
BY D.E.I.
CHECKED
REVISED
CHECKED
DATE 2/4/74
4

TABLE OF BEARING AREAS (S.F.)

SIZE OF MAIN (IN.)	BEND (90)	BENDS (45 & UNDER)	TEES, CAPS OR PLUGS
8 & UNDER	6	3	4
10 & 12	12	6	9

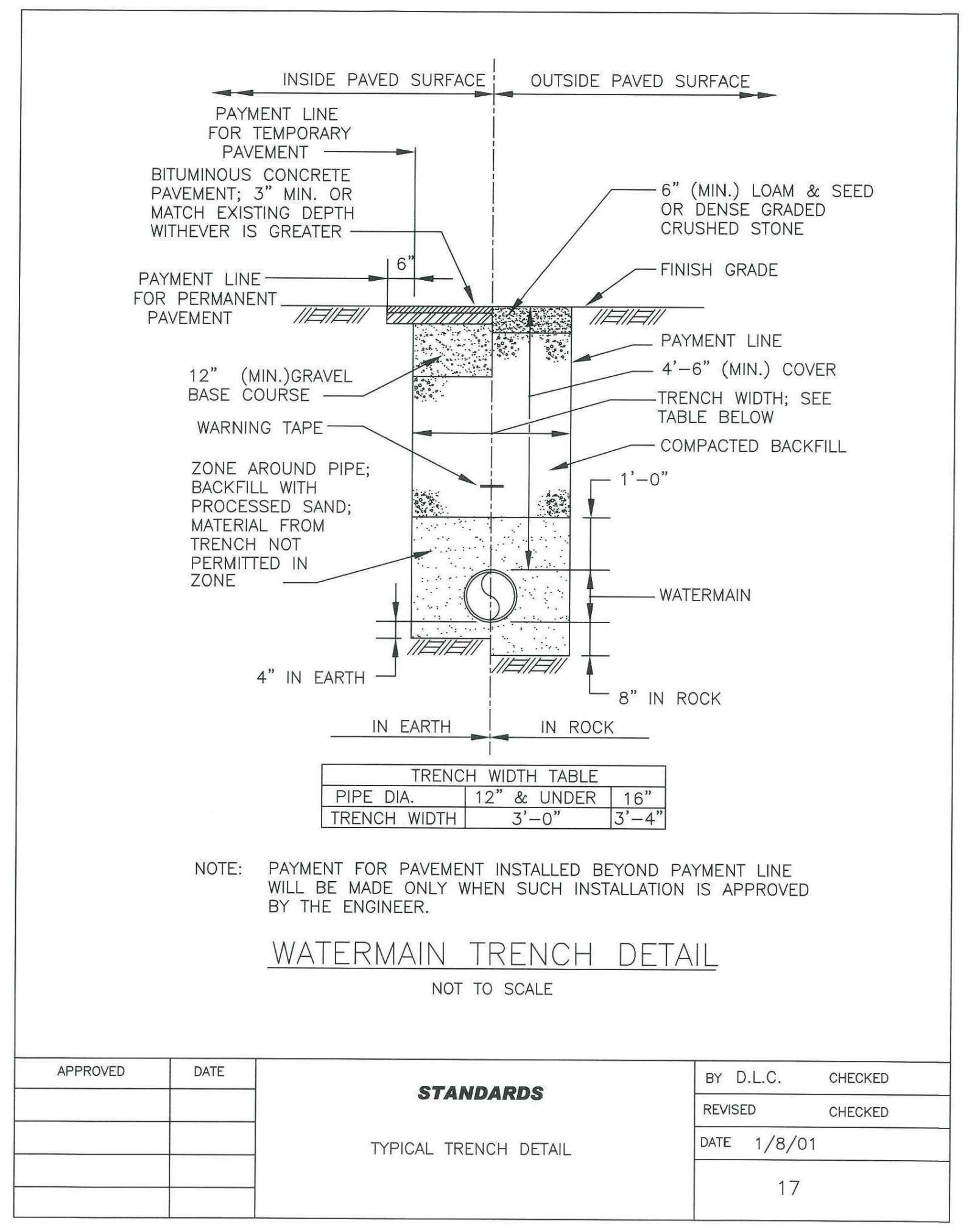
NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
2. THRUST BLOCK BEARING AREAS TOO BE IN ACCORDANCE WITH TABLE, UNLESS DETERMINED OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS.
3. THRUST BLOCK SIDES SHALL BE FORMED WITH PLYWOOD.

3 **THRUST BLOCK DETAILS**
NOT TO SCALE


FIRM UNDISTURBED MATERIAL (TYP.)
CONCRETE THRUST BLOCK WITH FORMED SIDES (SEE THRUST BLOCK DETAIL FOR MINIMUM SIZE)
TAPPING VALVE AND VALVE BOX
TAPPING SLEEVE
EXISTING WATERMAIN
TAPPING SLEEVE & VALVE DETAIL
NOT TO SCALE
APPROVED
DATE
STANDARDS
TAPPING SLEEVE AND VALVE
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
3

NOTE: CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING MAIN.

4 **TAPPING SLEEVE & VALVE DETAIL**
NOT TO SCALE

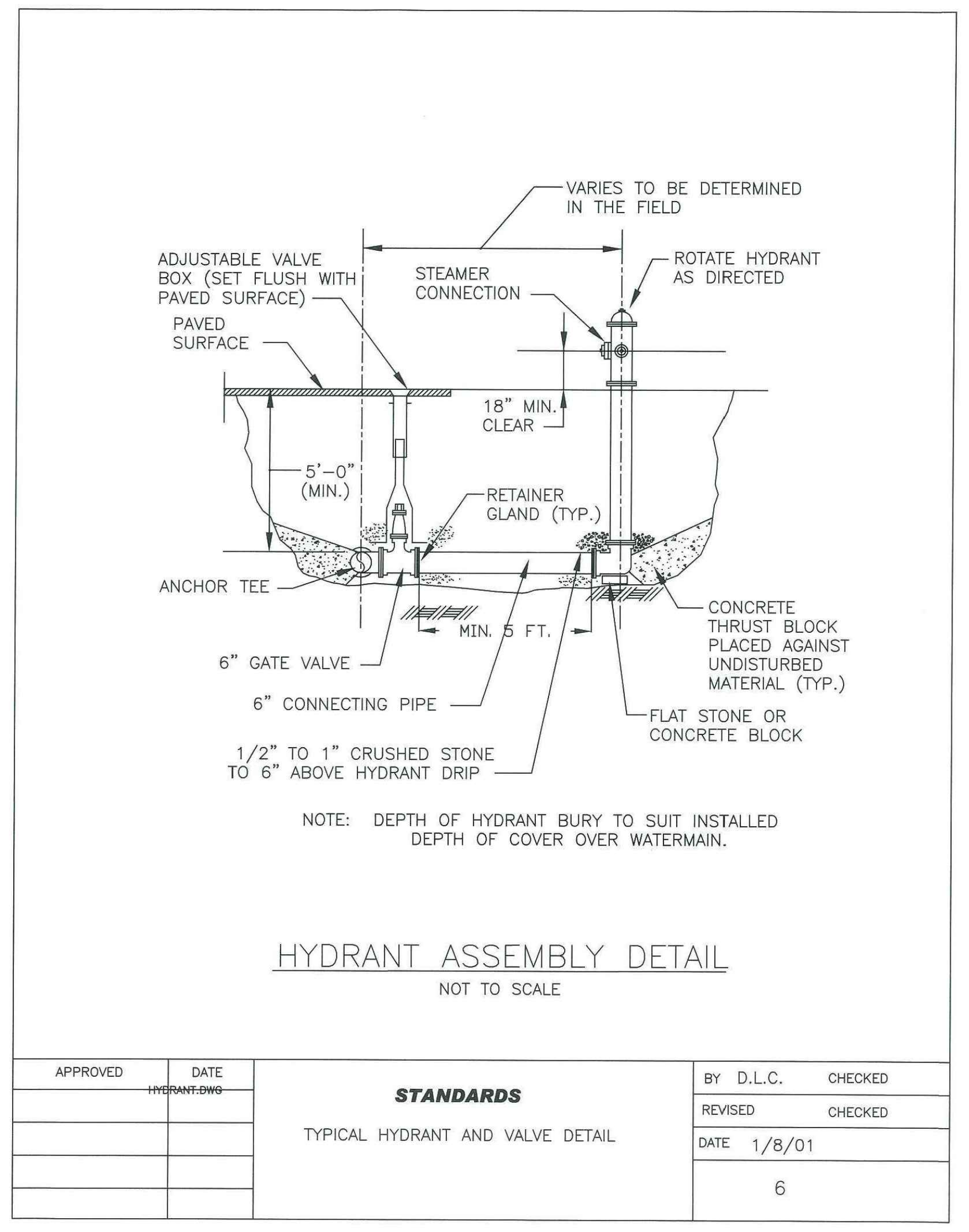

INSIDE PAVED SURFACE
OUTSIDE PAVED SURFACE
PAYMENT LINE FOR TEMPORARY PAVEMENT
BITUMINOUS CONCRETE PAVEMENT; 3" MIN. OR MATCH EXISTING DEPTH WITHEVER IS GREATER
6" (MIN.) LOAM & SEED OR DENSE GRADED CRUSHED STONE
6"
PAYMENT LINE FOR PERMANENT PAVEMENT
FINISH GRADE
PAYMENT LINE
4'–6" (MIN.) COVER
12" (MIN.)GRAVEL BASE COURSE
TRENCH WIDTH; SEE TABLE BELOW
WARNING TAPE
COMPACTED BACKFILL
ZONE AROUND PIPE; BACKFILL WITH PROCESSED SAND; MATERIAL FROM TRENCH NOT PERMITTED IN ZONE
1'–0"
WATERMAIN
4" IN EARTH
8" IN ROCK
IN EARTH
IN ROCK
WATERMAIN TRENCH DETAIL
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL TRENCH DETAIL
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
17

TRENCH WIDTH TABLE

PIPE DIA.	12" & UNDER	16"
TRENCH WIDTH	3'–0"	3'–4"

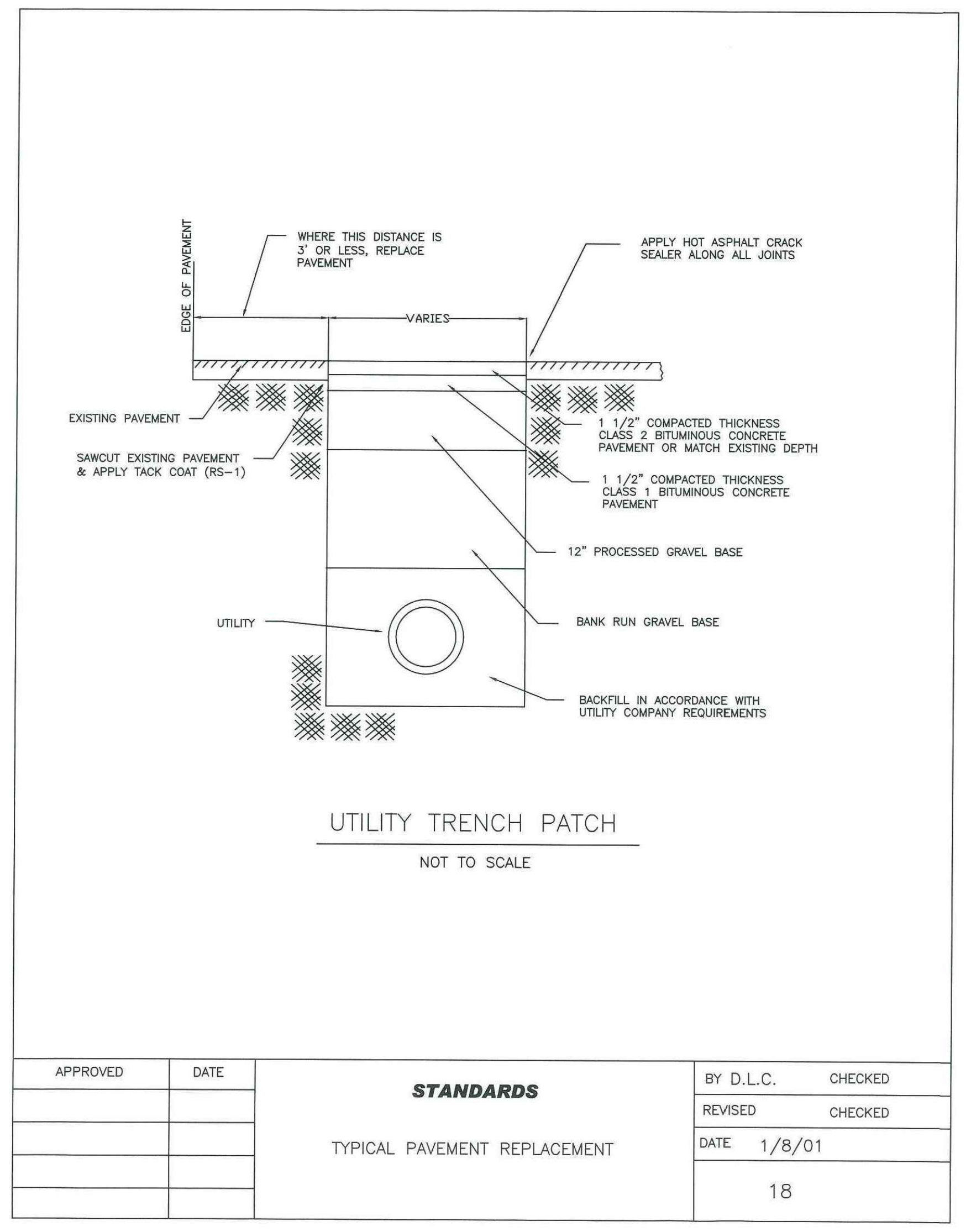
NOTE: PAYMENT FOR PAVEMENT INSTALLED BEYOND PAYMENT LINE WILL BE MADE ONLY WHEN SUCH INSTALLATION IS APPROVED BY THE ENGINEER.

5 **TYPICAL TRENCH DETAIL**
NOT TO SCALE

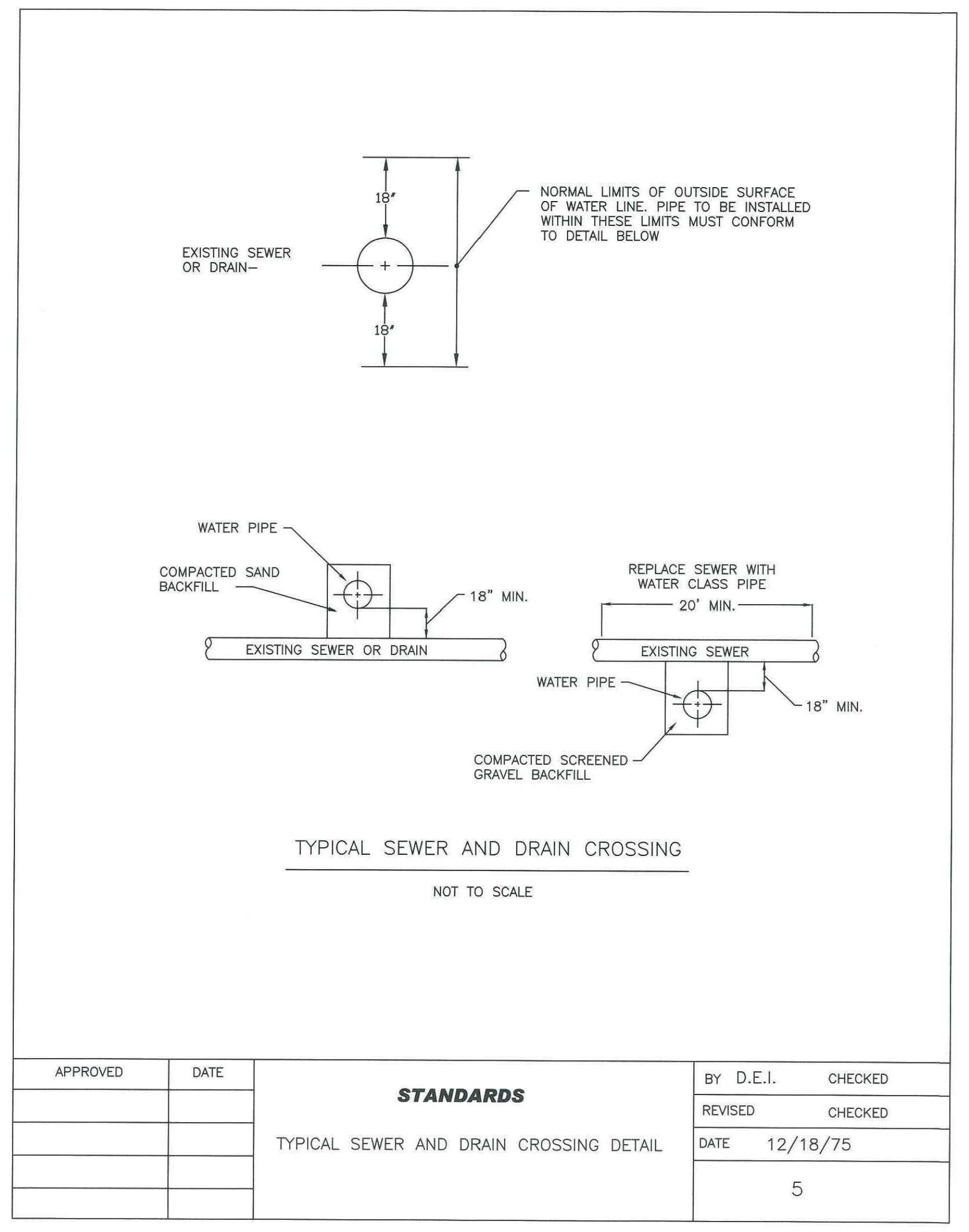

VARIES TO BE DETERMINED IN THE FIELD
ADJUSTABLE VALVE BOX (SET FLUSH WITH PAVED SURFACE)
STEAMER CONNECTION
ROTATE HYDRANT AS DIRECTED
PAVED SURFACE
18" MIN. CLEAR
5'–0" (MIN.)
RETAINER GLAND (TYP.)
ANCHOR TEE
MIN. 5 FT.
CONCRETE THRUST BLOCK PLACED AGAINST UNDISTURBED MATERIAL (TYP.)
6" GATE VALVE
6" CONNECTING PIPE
FLAT STONE OR CONCRETE BLOCK
1/2" TO 1" CRUSHED STONE TO 6" ABOVE HYDRANT DRIP
HYDRANT ASSEMBLY DETAIL
NOT TO SCALE
APPROVED
DATE
HYDRANT.DWG
STANDARDS
TYPICAL HYDRANT AND VALVE DETAIL
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
6

NOTE: DEPTH OF HYDRANT BURY TO SUIT INSTALLED DEPTH OF COVER OVER WATERMAIN.

6 **TYPICAL HYDRANT AND VALVE DETAIL**
NOT TO SCALE

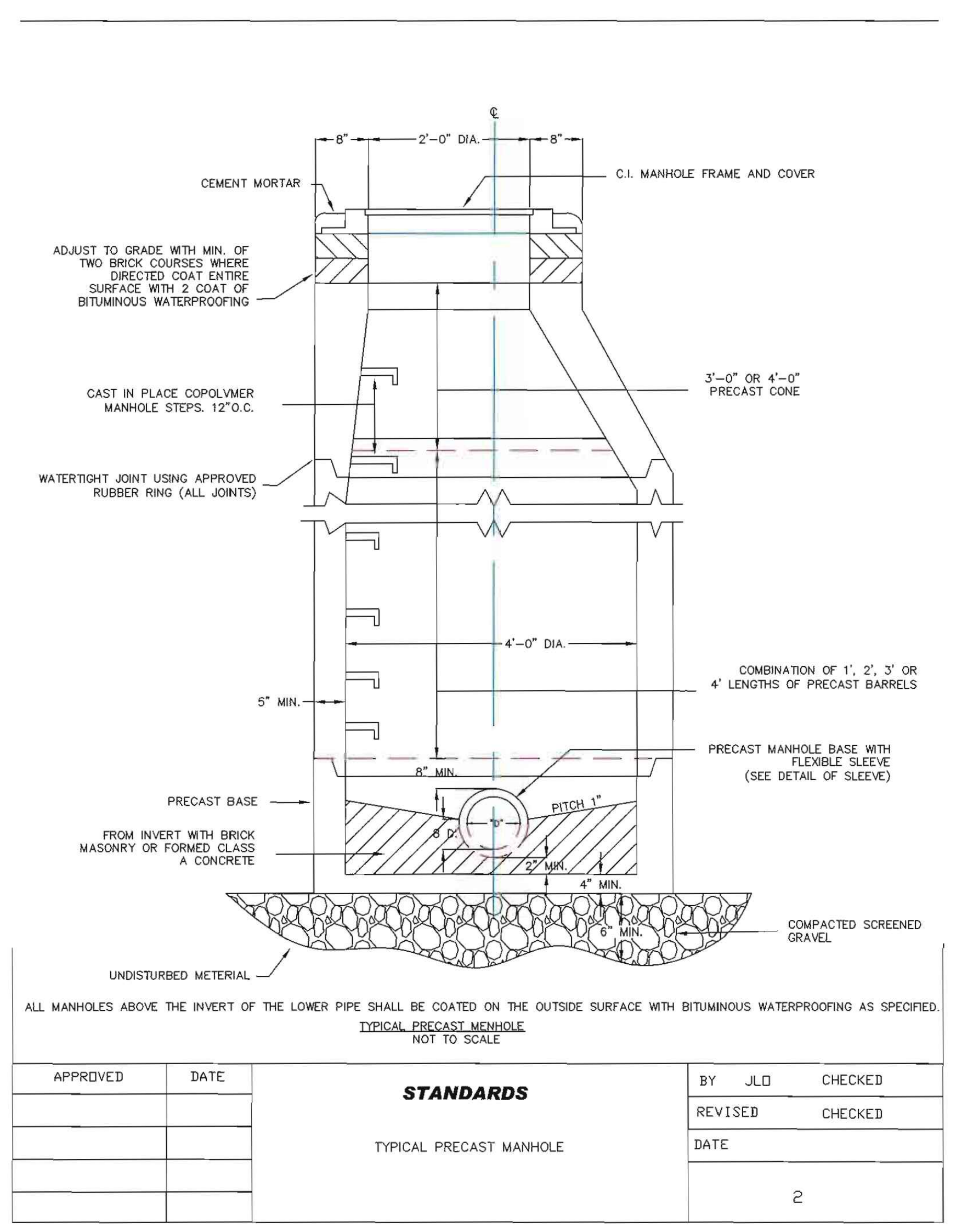

EDGE OF PAVEMENT
WHERE THIS DISTANCE IS 3' OR LESS, REPLACE PAVEMENT
APPLY HOT ASPHALT CRACK SEALER ALONG ALL JOINTS
VARIES
EXISTING PAVEMENT
SAWCUT EXISTING PAVEMENT & APPLY TACK COAT (RS–1)
1 1/2" COMPACTED THICKNESS CLASS 2 BITUMINOUS CONCRETE PAVEMENT OR MATCH EXISTING DEPTH
1 1/2" COMPACTED THICKNESS CLASS 1 BITUMINOUS CONCRETE PAVEMENT
12" PROCESSED GRAVEL BASE
BANK RUN GRAVEL BASE
UTILITY
BACKFILL IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS
UTILITY TRENCH PATCH
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL PAVEMENT REPLACEMENT
BY D.L.C.
CHECKED
REVISED
CHECKED
DATE 1/8/01
18

7 **TYPICAL PAVEMENT REPLACEMENT**
NOT TO SCALE


18"
18"
EXISTING SEWER OR DRAIN–
NORMAL LIMITS OF OUTSIDE SURFACE OF WATER LINE. PIPE TO BE INSTALLED WITHIN THESE LIMITS MUST CONFORM TO DETAIL BELOW
WATER PIPE
COMPACTED SAND BACKFILL
18" MIN.
EXISTING SEWER OR DRAIN
REPLACE SEWER WITH WATER CLASS PIPE
20' MIN.
EXISTING SEWER
WATER PIPE
18" MIN.
COMPACTED SCREENED GRAVEL BACKFILL
TYPICAL SEWER AND DRAIN CROSSING
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL SEWER AND DRAIN CROSSING DETAIL
BY D.E.I.
CHECKED
REVISED
CHECKED
DATE 12/18/75
5

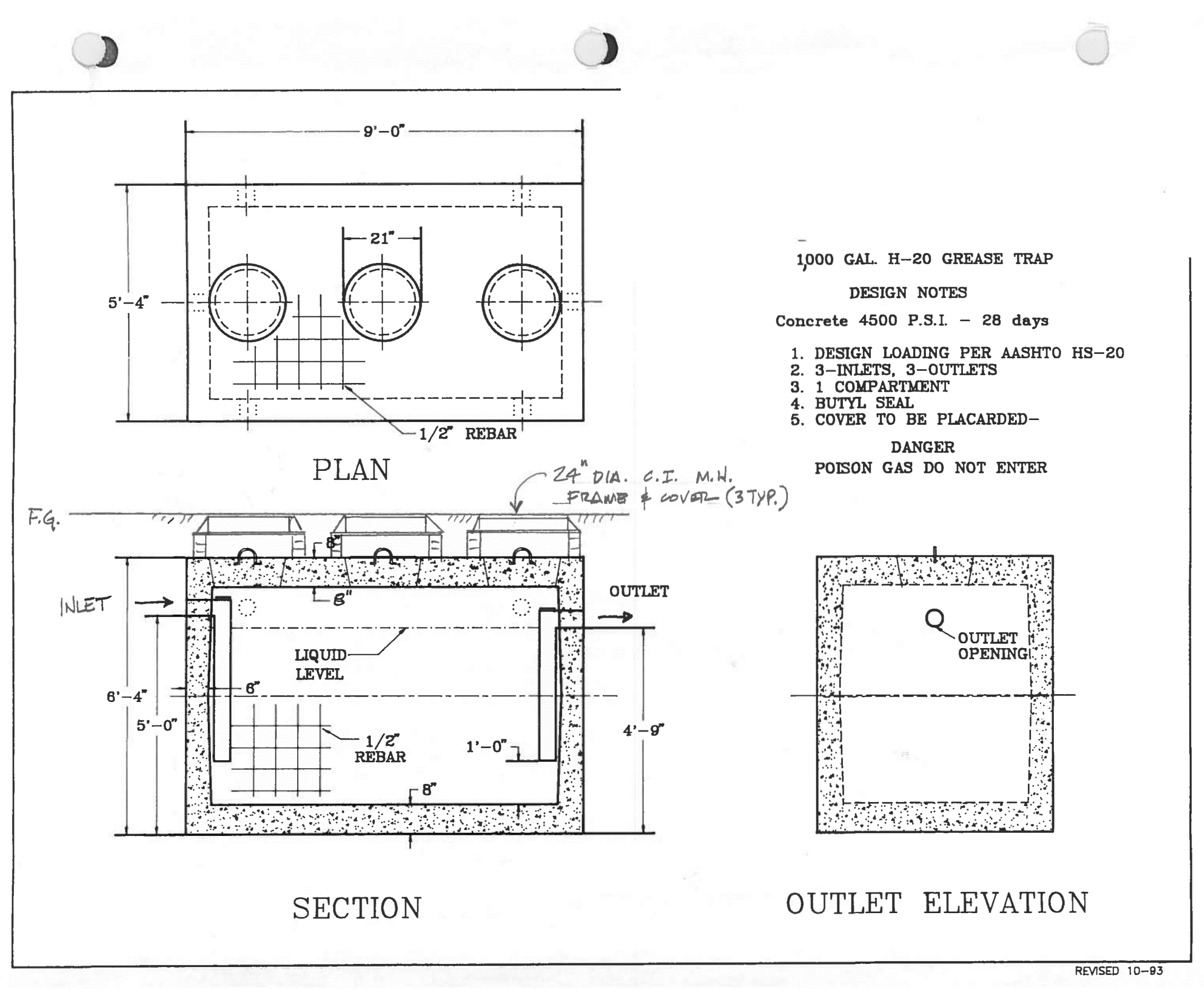
8 **TYPICAL SEWER & DRAIN CROSSING DETAIL**
NOT TO SCALE

3


8"
2'–0" DIA.
8"
CEMENT MORTAR
C.I. MANHOLE FRAME AND COVER
ADJUST TO GRADE WITH MIN. OF TWO BRICK COURSES WHERE DIRECTED COAT ENTIRE SURFACE WITH 2 COAT OF BITUMINOUS WATERPROOFING
3'–0" OR 4'–0" PRECAST CONE
CAST IN PLACE COPOLVMER MANHOLE STEPS. 12"O.C.
WATERTIGHT JOINT USING APPROVED RUBBER RING (ALL JOINTS)
4'–0" DIA.
COMBINATION OF 1', 2', 3' OR 4' LENGTHS OF PRECAST BARRELS
5" MIN.
PRECAST MANHOLE BASE WITH FLEXIBLE SLEEVE (SEE DETAIL OF SLEEVE)
8" MIN.
PRECAST BASE
PITCH 1"
FROM INVERT WITH BRICK MASONRY OR FORMED CLASS A CONCRETE
2" MIN.
4" MIN.
6" MIN.
COMPACTED SCREENED GRAVEL
UNDISTURBED METERIAL
TYPICAL PRECAST MENHOLE
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL PRECAST MANHOLE
BY JLO
CHECKED
REVISED
CHECKED
DATE
2

ALL MANHOLES ABOVE THE INVERT OF THE LOWER PIPE SHALL BE COATED ON THE OUTSIDE SURFACE WITH BITUMINOUS WATERPROOFING AS SPECIFIED.

9 **SEWER MANHOLE**
NOT TO SCALE


9'–0"
21"
5'–4"
1/2" REBAR
PLAN
24" DIA. C.I. M.H. FRAME & COVER (3 TYP.)
F.G.
INLET
OUTLET
8"
8"
LIQUID LEVEL
6"
6'–4"
5'–0"
1/2" REBAR
1'–0"
4'–9"
8"
SECTION
OUTLET OPENING
OUTLET ELEVATION
REVISED 10-93

1,000 GAL. H–20 GREASE TRAP

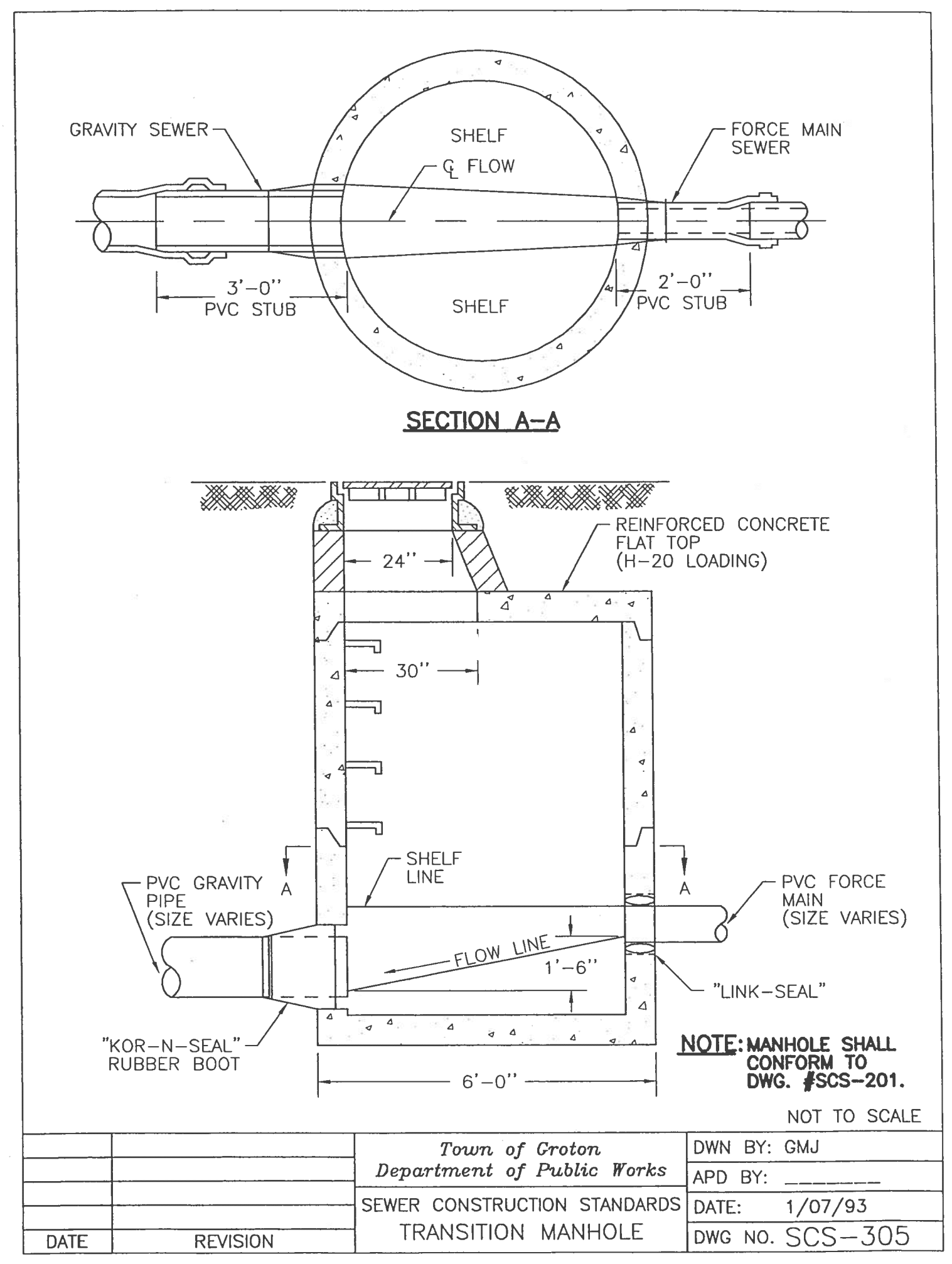
DESIGN NOTES

Concrete 4500 P.S.I. – 28 days

1. DESIGN LOADING PER AASHTO HS–20
2. 3–INLETS, 3–OUTLETS
3. 1 COMPARTMENT
4. BUTYL SEAL
5. COVER TO BE PLACARDED–

DANGER
POISON GAS DO NOT ENTER

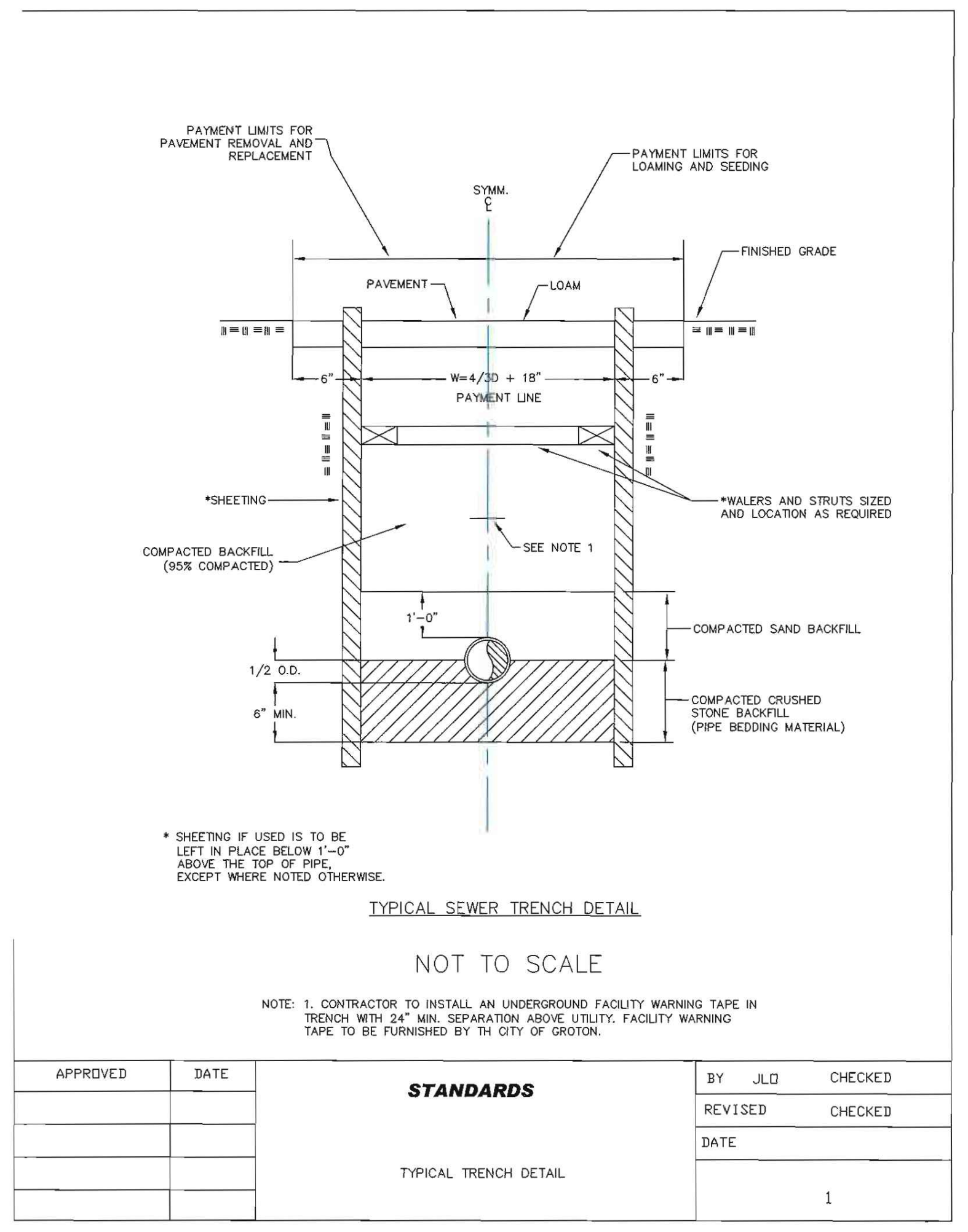
10 **GREASE INTERCEPTOR**
NOT TO SCALE


GRAVITY SEWER
SHELF
℄ FLOW
FORCE MAIN SEWER
3'–0" PVC STUB
SHELF
2'–0" PVC STUB
SECTION A–A
24"
REINFORCED CONCRETE FLAT TOP (H–20 LOADING)
30"
SHELF LINE
PVC GRAVITY PIPE (SIZE VARIES)
A
A
PVC FORCE MAIN (SIZE VARIES)
FLOW LINE
1'–6"
"LINK–SEAL"
"KOR–N–SEAL" RUBBER BOOT
6'–0"
NOT TO SCALE
Town of Groton
Department of Public Works
SEWER CONSTRUCTION STANDARDS
TRANSITION MANHOLE
DWN BY: GMJ
APD BY:
DATE: 1/07/93
DWG NO. SCS–305
DATE
REVISION

NOTE: MANHOLE SHALL CONFORM TO DWG. #SCS–201.

11 **TRANSITION MANHOLE**
NOT TO SCALE

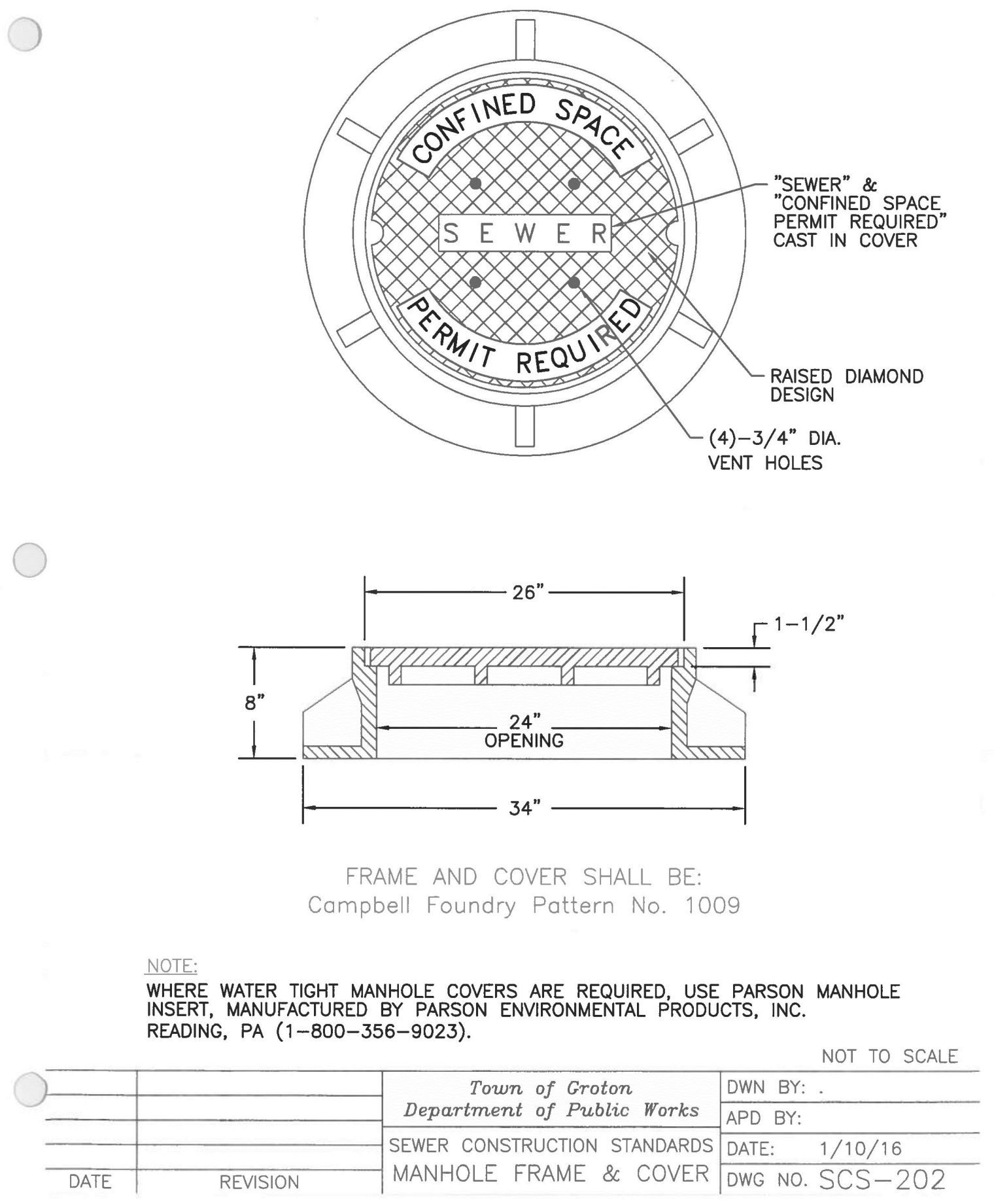
3


PAYMENT LIMITS FOR PAVEMENT REMOVAL AND REPLACEMENT
PAYMENT LIMITS FOR LOAMING AND SEEDING
SYMM. ℄
FINISHED GRADE
PAVEMENT
LOAM
6"
W=4/3D + 18"
6"
PAYMENT LINE
*SHEETING
*WALERS AND STRUTS SIZED AND LOCATION AS REQUIRED
SEE NOTE 1
COMPACTED BACKFILL (95% COMPACTED)
1'–0"
COMPACTED SAND BACKFILL
1/2 O.D.
6" MIN.
COMPACTED CRUSHED STONE BACKFILL (PIPE BEDDING MATERIAL)
TYPICAL SEWER TRENCH DETAIL
NOT TO SCALE
APPROVED
DATE
STANDARDS
TYPICAL TRENCH DETAIL
BY JLO
CHECKED
REVISED
CHECKED
DATE
1

* SHEETING IF USED IS TO BE LEFT IN PLACE BELOW 1'–0" ABOVE THE TOP OF PIPE, EXCEPT WHERE NOTED OTHERWISE.

NOTE: 1. CONTRACTOR TO INSTALL AN UNDERGROUND FACILITY WARNING TAPE IN TRENCH WITH 24" MIN. SEPARATION ABOVE UTILITY. FACILITY WARNING TAPE TO BE FURNISHED BY TH CITY OF GROTON.

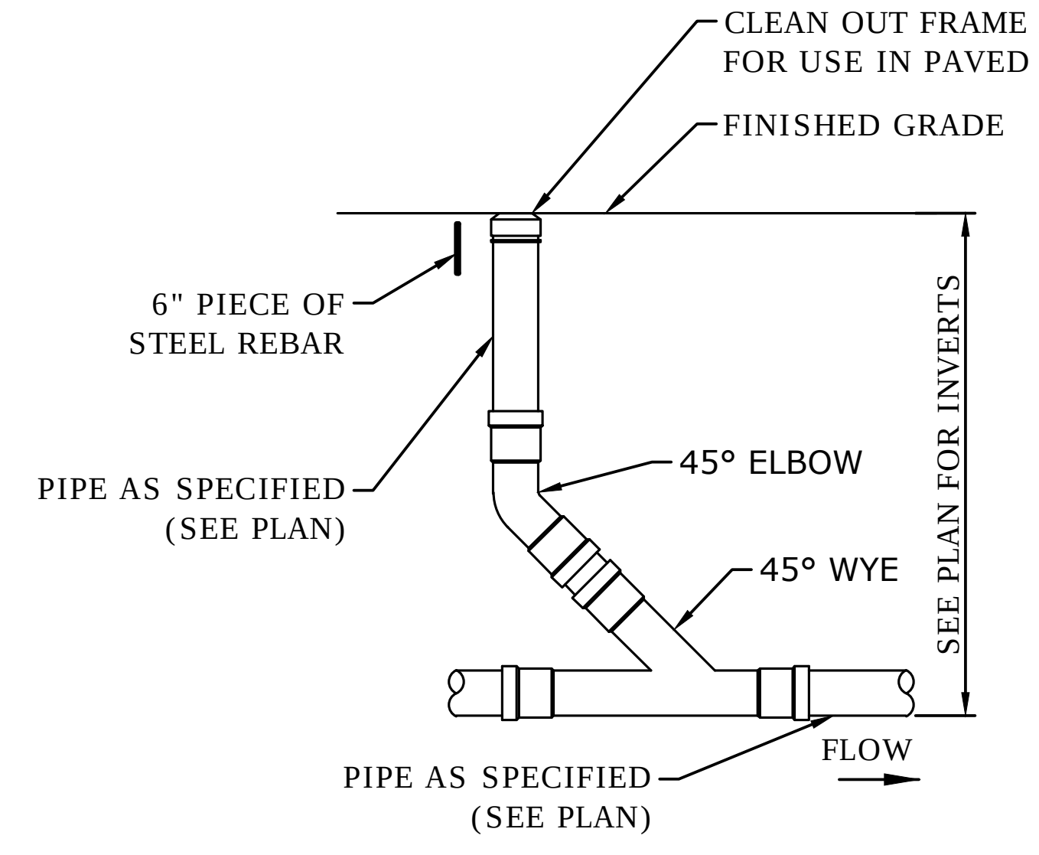
12 **SEWER MAIN TRENCH**
NOT TO SCALE


CONFINED SPACE
SEWER
PERMIT REQUIRED
"SEWER" & "CONFINED SPACE PERMIT REQUIRED" CAST IN COVER
RAISED DIAMOND DESIGN
(4)–3/4" DIA. VENT HOLES
26"
1–1/2"
8"
24" OPENING
34"
NOT TO SCALE
Town of Groton
Department of Public Works
SEWER CONSTRUCTION STANDARDS
MANHOLE FRAME & COVER
DWN BY: .
APD BY:
DATE: 1/10/16
DWG NO. SCS–202
DATE
REVISION

FRAME AND COVER SHALL BE:
Campbell Foundry Pattern No. 1009

NOTE:
WHERE WATER TIGHT MANHOLE COVERS ARE REQUIRED, USE PARSON MANHOLE INSERT, MANUFACTURED BY PARSON ENVIRONMENTAL PRODUCTS, INC. READING, PA (1–800–356–9023).

13 **MANHOLE FRAME & COVER**
NOT TO SCALE


CLEAN OUT FRAME AND COVER FOR USE IN PAVED AREAS
FINISHED GRADE
6" PIECE OF STEEL REBAR
PIPE AS SPECIFIED (SEE PLAN)
45° ELBOW
45° WYE
SEE PLAN FOR INVERTS
PIPE AS SPECIFIED (SEE PLAN)
FLOW

14 **SANITARY CLEANOUT DETAIL**
NOT TO SCALE

NO.	DATE	ISSUE
1	7/22/2019	WETLANDS RESUBMISSION
2	7/26/2019	PNZ SUBMISSION
3	9/10/2019	CITY COMMENTS

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

THOMAS J. DALY
#19509

SEAL

KEY PLAN

PERKINS — EASTMAN
422 Summer Street
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:
WESTSIDE ELEMENTARY SCHOOL

250 Brandegee Avenue
Groton, CT 06340

PROJECT No: 74450

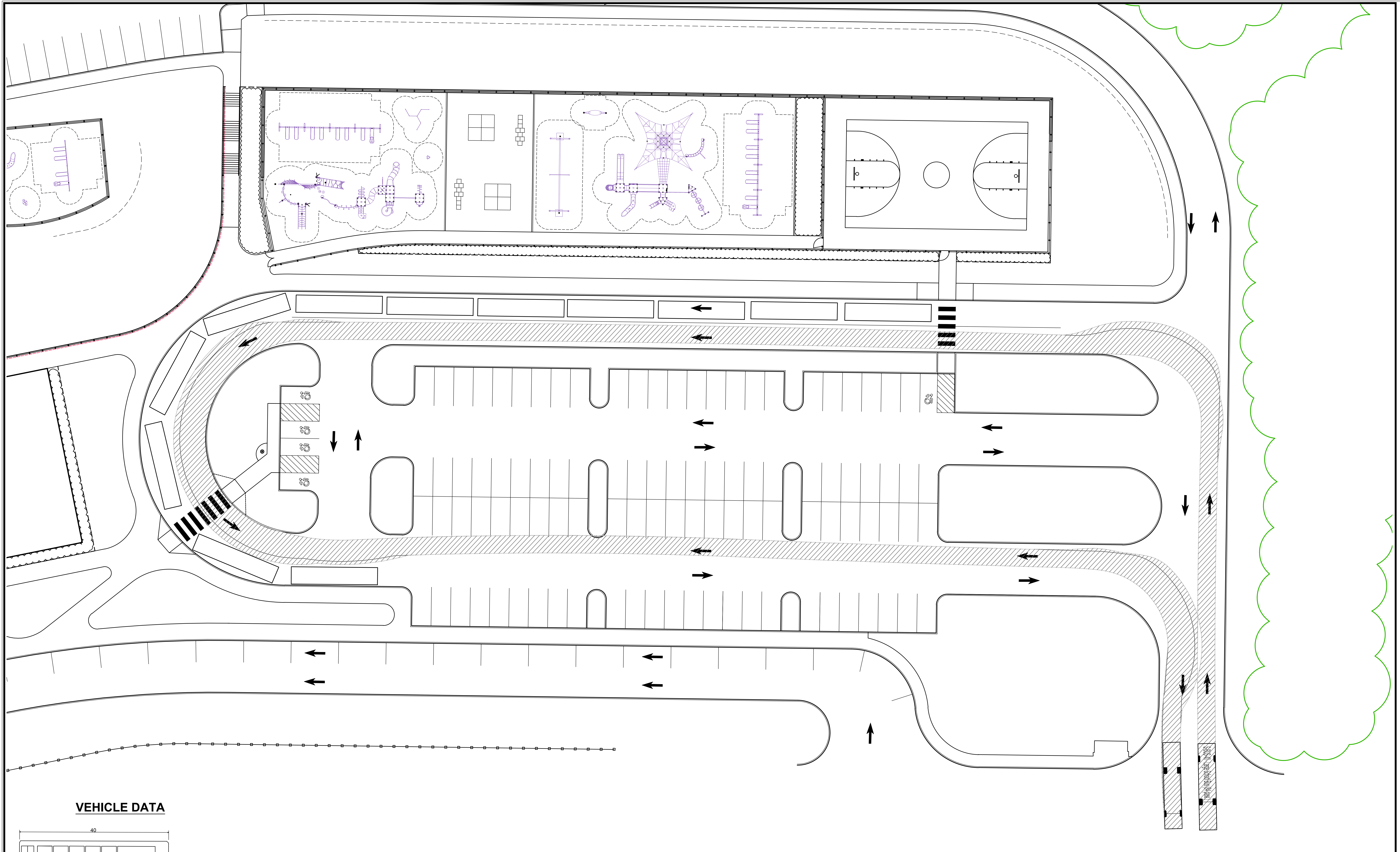
DRAWING TITLE:
CIVIL DETAILS

SCALE: **AS NOTED**

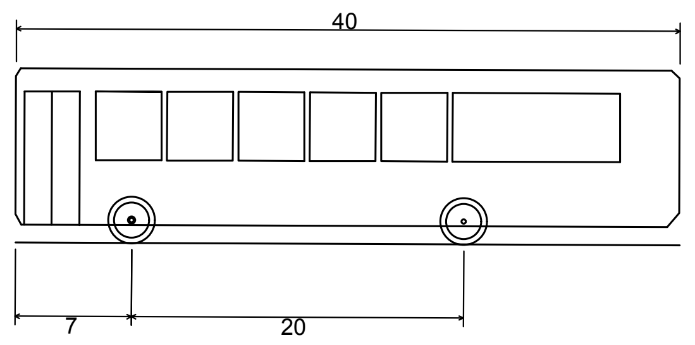
C-204

PLANNING AND ZONING SUBMISSION

JUNE 18, 2019



VEHICLE DATA



S-BUS-40 - Large School Bus (84 pass.)	
Overall Length	40.000ft
Overall Width	8.000ft
Overall Body Height	10.500ft
Min Body Ground Clearance	1.070ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	34.40°

[illegible]
[illegible] 10, 2019. [illegible]

0' 10' 20'
0 1/2" 1"

THOMAS J. DALY
LICENSED PROFESSIONAL ENGINEER

MILONE & MACBROOM

99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

VEHICLE TURNING MOVEMENT - SCHOOL BUS

WESTSIDE ELEMENTARY SCHOOL

250 BRANDEGEE AVENUE
GROTON, CT

DESIGNED	DRAWN	CHECKED
SK	SK	TD

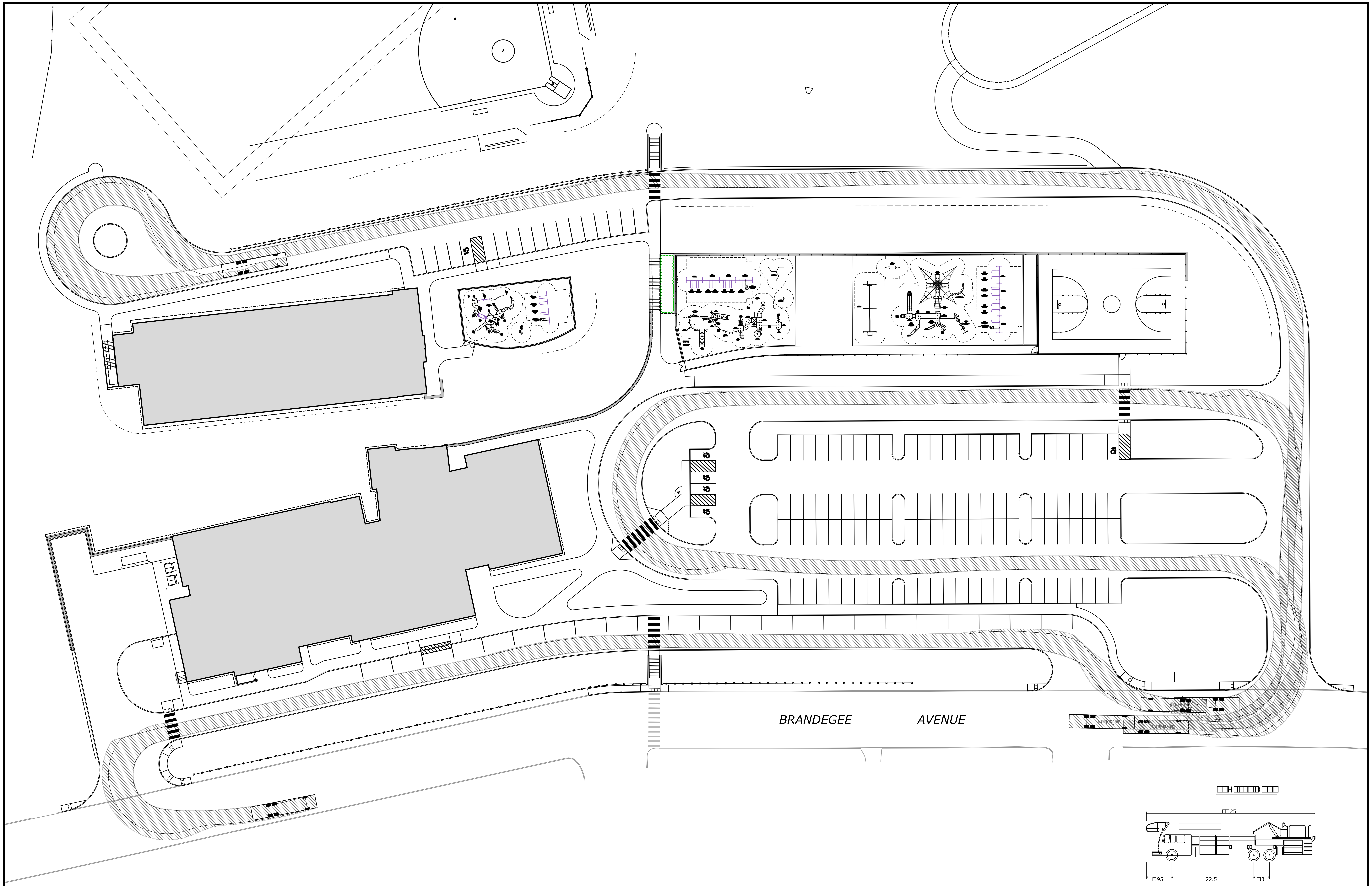
SCALE: 1" = 20'

DATE: SEPTEMBER 10, 2019

PROJECT NO.: 1777-39

SHEET NO.:

SHEET NAME: VH



[illegible]
[illegible] 10, 2019. [illegible]

[illegible]	[illegible].250 [illegible]
[illegible]	9.500 [illegible]
[illegible]	10.[illegible]35 [illegible]
[illegible]	1.0[illegible]5 [illegible]
[illegible]	9.1[illegible]0 [illegible]
[illegible]	[illegible]00 [illegible]
[illegible]	[illegible]1.583 [illegible]

N E S W
0' 15' 30'
0 1/2" 1"

THOMAS J. DALY
LICENSED
PROFESSIONAL ENGINEER
STATE OF CONNECTICUT

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

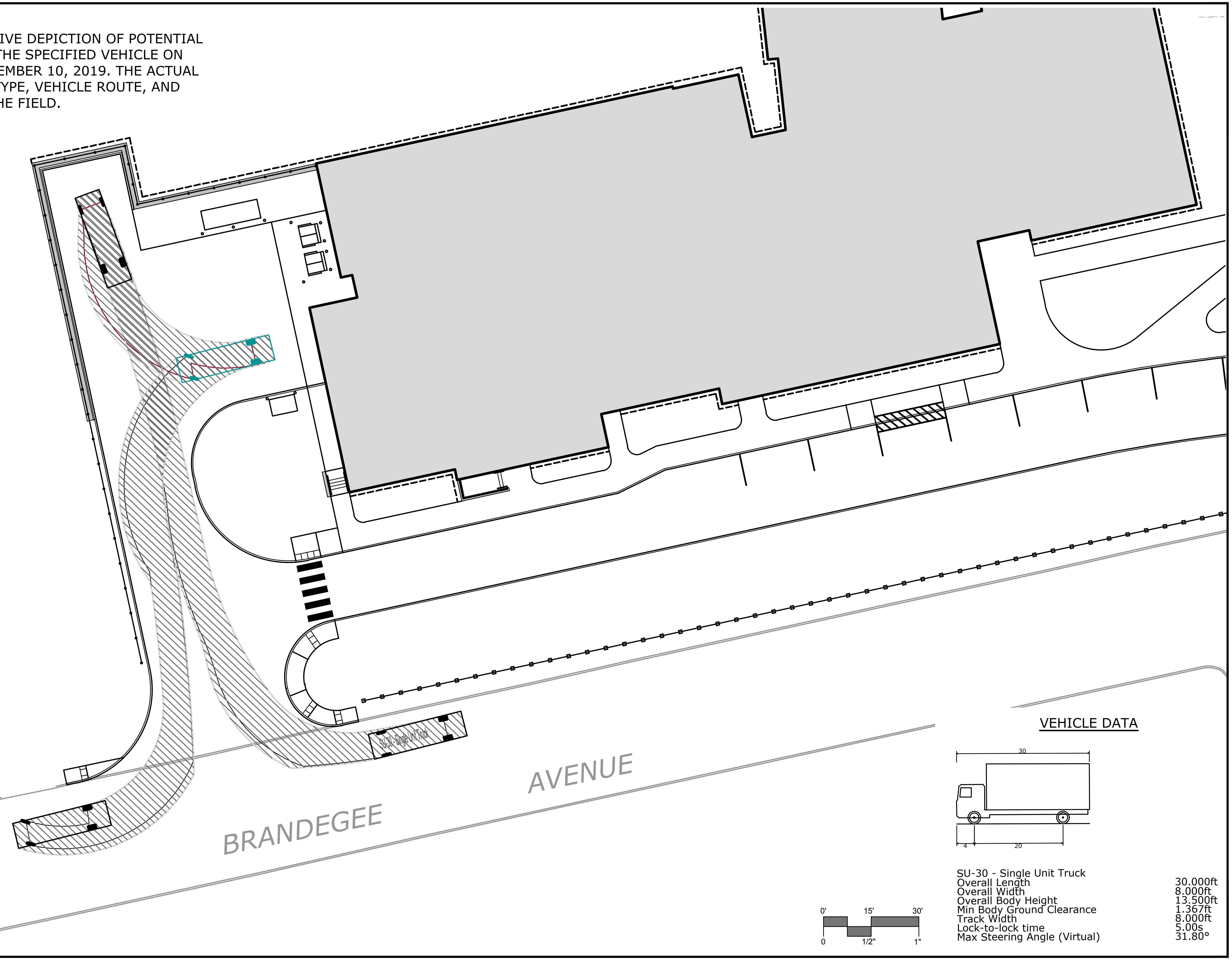
FIRE TRUCK MOVEMENT PLAN
WESTSIDE ELEMENTARY SCHOOL
250 BRANDEGEE AVENUE
GROTON, CONNECTICUT

RYE	SK	TD
DESIGNED	DRAWN	CHECKED

SCALE: 1"=30'
DATE: AUGUST 13, 2019
PROJECT NO.: 1777-39
SHEET NO.
SHEET NAME: VH

Drawing: C:\USERS\SKARAR\APPDATA\LOCAL\TEMP\ACPUBLISH_6088\TRACTOR TRAILER MOVEMENT.DWG Layout Tab:11X17

NOTE:
THIS PLAN IS AN ILLUSTRATIVE DEPICTION OF POTENTIAL TURNING MANEUVERS FOR THE SPECIFIED VEHICLE ON THE SITE PLAN DATED SEPTEMBER 10, 2019. THE ACTUAL CONFIGURATION, VEHICLE TYPE, VEHICLE ROUTE, AND MANEUVERS MAY VARY IN THE FIELD.



VEHICLE DATA

SU-30 - Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

THOMAS J. DALY

Plotted by: SKARAR On this date: Thu, 2019 September 12 – 11:00am

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

REVISIONS

SU-30 ENTER/EXIT MOVEMENT PLAN

WESTSIDE ELEMENTARY SCHOOL

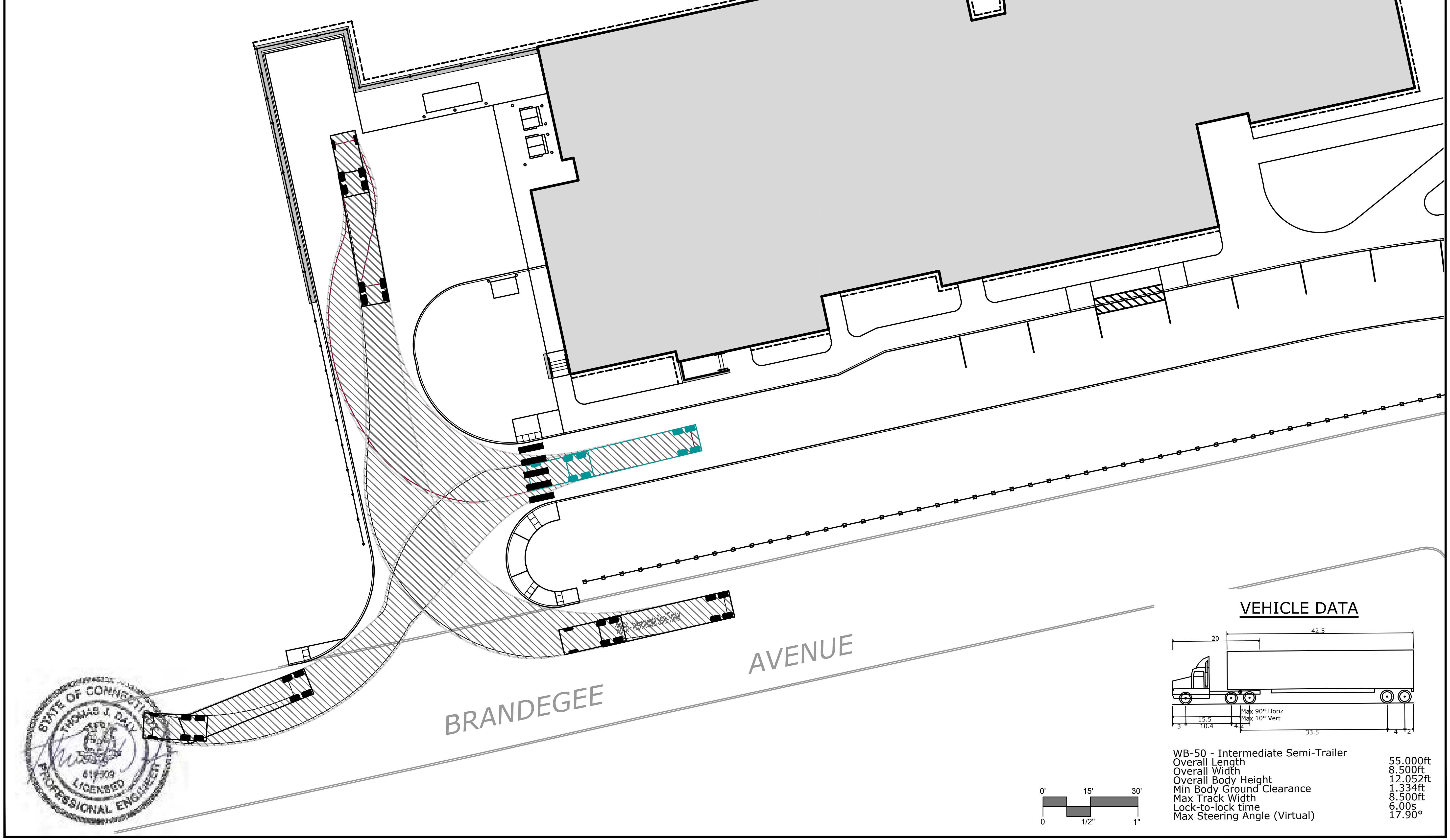
250 BRANDEGEE AVENUE
GROTON, CONNECTICUT

SK DESIGNED	SK DRAWN	TD CHECKED

SCALE 1"=30'
DATE MAY 14, 2019
PROJECT NO. 1777-39
SHEET NO. VH

Drawing: C:\USERS\SKARAR\APPDATA\LOCAL\TEMP\ACPUBLISH_6088\TRACTOR TRAILER MOVEMENT.DWG Layout Tab:11X17 (2)

NOTE:
THIS PLAN IS AN ILLUSTRATIVE DEPICTION OF POTENTIAL TURNING MANEUVERS FOR THE SPECIFIED VEHICLE ON THE SITE PLAN DATED SEPTEMBER 10, 2019. THE ACTUAL CONFIGURATION, VEHICLE TYPE, VEHICLE ROUTE, AND MANEUVERS MAY VARY IN THE FIELD.



WB-50 - Intermediate Semi-Trailer
BRANDEGEE
AVENUE
20
42.5
Max 90° Horiz
Max 10° Vert
15.5
3
10.4
4.2
33.5
4
2
0'
15'
30'
0
1/2"
1"

VEHICLE DATA

WB-50 - Intermediate Semi-Trailer	
Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

THOMAS J. DALY

Plotted by: SKARAR On this date: Thu, 2019 September 12 - 11:00am

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

REVISIONS

WB-50 ENTER/EXIT MOVEMENT PLAN

WESTSIDE ELEMENTARY SCHOOL

250 BRANDEGEE AVENUE
GROTON, CONNECTICUT

SK	SK	TD
DESIGNED	DRAWN	CHECKED

1"=30'
SCALE

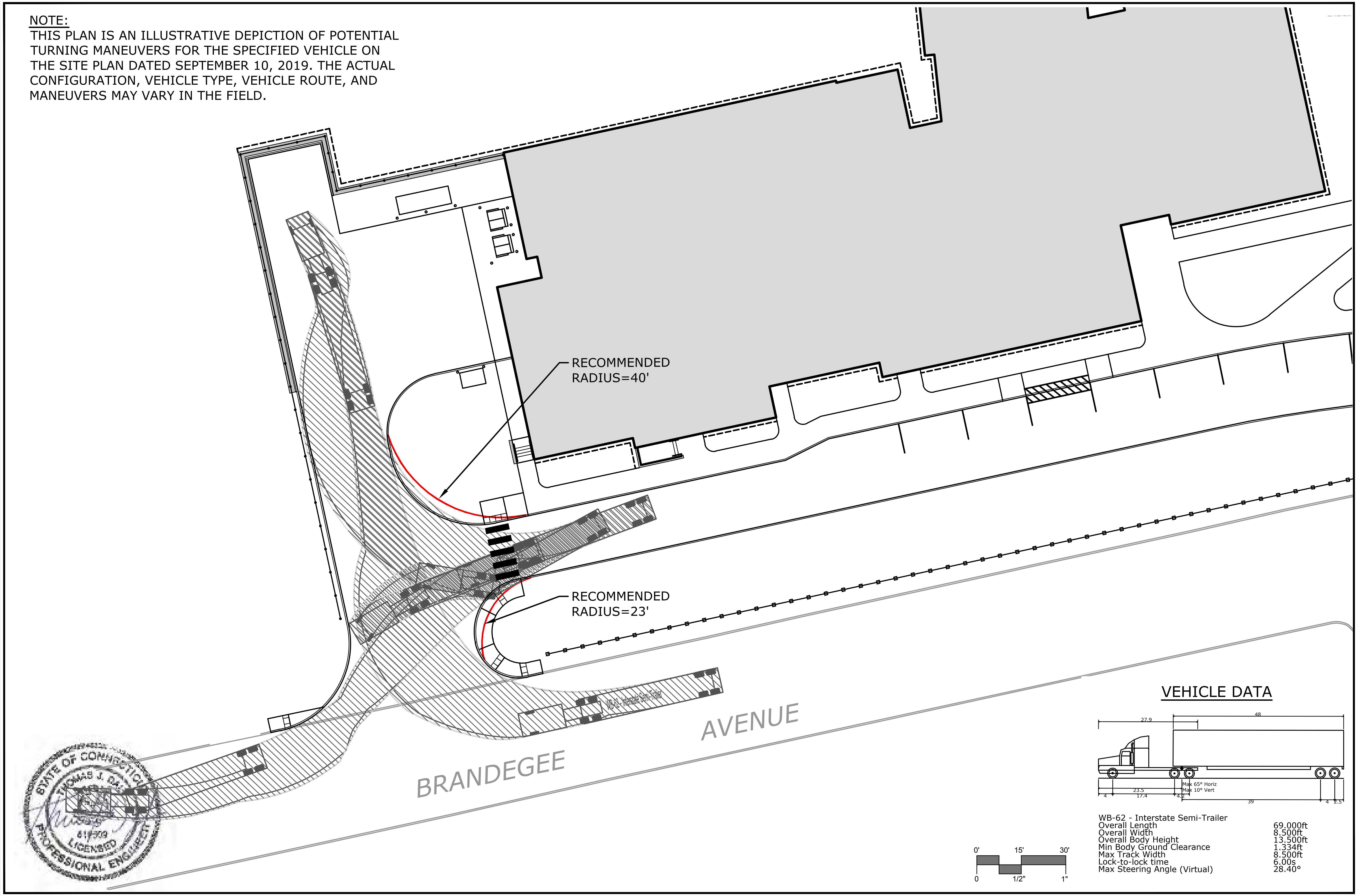
MAY 14, 2019
DATE

1777-39
PROJECT NO.

VH
SHEET NO.

Drawing: C:\USERS\SKARAR\APPDATA\LOCAL\TEMP\ACPUBLISH_6088\TRACTOR TRAILER MOVEMENT.DWG Layout Tab:11X17 (3)

NOTE:
THIS PLAN IS AN ILLUSTRATIVE DEPICTION OF POTENTIAL TURNING MANEUVERS FOR THE SPECIFIED VEHICLE ON THE SITE PLAN DATED SEPTEMBER 10, 2019. THE ACTUAL CONFIGURATION, VEHICLE TYPE, VEHICLE ROUTE, AND MANEUVERS MAY VARY IN THE FIELD.


RECOMMENDED
RADIUS=40'
RECOMMENDED
RADIUS=23'
WB-50 - Interstate Semi-Trailer
BRANDEGEE
AVENUE
27.9
48
23.5
4
17.4
4.2
Max 65° Horiz
Max 10° Vert
39
4
2.5
0'
15'
30'
0
1/2"
1"

STATE OF CONNECTICUT
THOMAS J. DA
LICENSED
PROFESSIONAL ENGINEER

VEHICLE DATA

WB-62 - Interstate Semi-Trailer	
Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

Plotted by: SKARAR On this date: Thu, 2019 September 12 - 11:00am

N E S W

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

REVISIONS

WB-50 ENTER/EXIT MOVEMENT PLAN

WESTSIDE ELEMENTARY SCHOOL

250 BRANDEGEE AVENUE
GROTON, CONNECTICUT

SK	SK	TD
DESIGNED	DRAWN	CHECKED

SCALE 1"=30'

DATE MAY 14, 2019

PROJECT NO. 1777-39

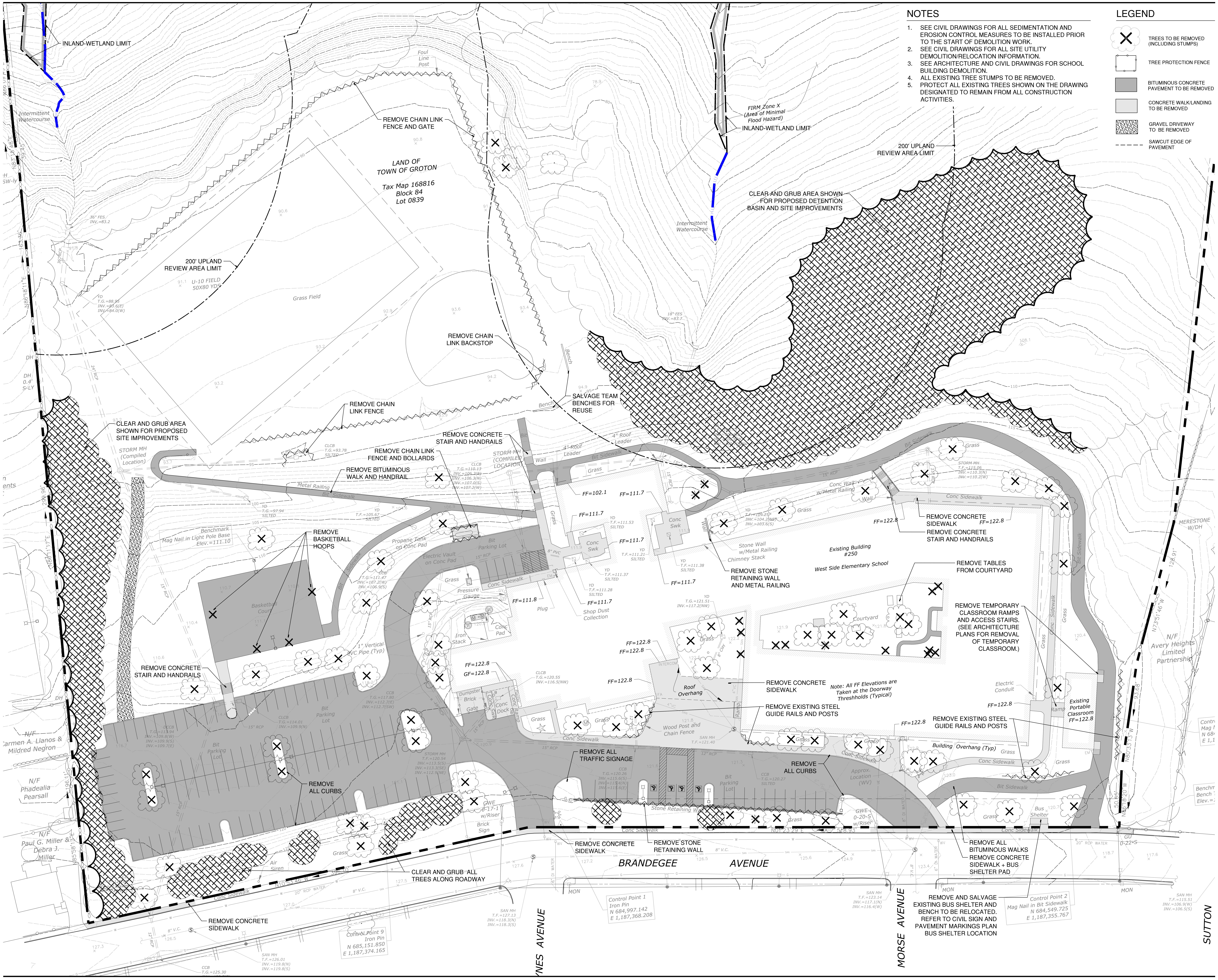
SHEET NO. VH

NOTES

1. SEE CIVIL DRAWINGS FOR ALL SEDIMENTATION AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO THE START OF DEMOLITION WORK.
2. SEE CIVIL DRAWINGS FOR ALL SITE UTILITY DEMOLITION/RELOCATION INFORMATION.
3. SEE ARCHITECTURE AND CIVIL DRAWINGS FOR SCHOOL BUILDING DEMOLITION.
4. ALL EXISTING TREE STUMPS TO BE REMOVED.
5. PROTECT ALL EXISTING TREES SHOWN ON THE DRAWING DESIGNATED TO REMAIN FROM ALL CONSTRUCTION ACTIVITIES.

LEGEND

✕	TREES TO BE REMOVED (INCLUDING STUMPS)
☐	TREE PROTECTION FENCE
▨	BITUMINOUS CONCRETE PAVEMENT TO BE REMOVED
☐	CONCRETE WALK/LANDING TO BE REMOVED
▩	GRAVEL DRIVEWAY TO BE REMOVED
– – – –	SAWCUT EDGE OF PAVEMENT


INLAND-WETLAND LIMIT
Intermittent Watercourse
Foul Line Post
REMOVE CHAIN LINK FENCE AND GATE
LAND OF TOWN OF GROTON
Tax Map 168816
Block 84
Lot 0839
FIRM Zone X (Area of Minimal Flood Hazard)
INLAND-WETLAND LIMIT
200' UPLAND REVIEW AREA LIMIT
CLEAR AND GRUB AREA SHOWN FOR PROPOSED DETENTION BASIN AND SITE IMPROVEMENTS
Intermittent Watercourse
200' UPLAND REVIEW AREA LIMIT
U-10 FIELD 50X80 YDS
Grass Field
REMOVE CHAIN LINK BACKSTOP
SALVAGE TEAM BENCHES FOR REUSE
Bench
REMOVE CHAIN LINK FENCE
CLEAR AND GRUB AREA SHOWN FOR PROPOSED SITE IMPROVEMENTS
REMOVE CONCRETE STAIR AND HANDRAILS
REMOVE CHAIN LINK FENCE AND BOLLARDS
REMOVE BITUMINOUS WALK AND HANDRAIL
STORM MH (Compiled Location)
Metal Railing
Bit Sidewalk
REMOVE BASKETBALL HOOPS
Benchmark Mag Nail in Light Pole Base Elev.=111.10
Propane Tank on Conc Pad
Electric Vault on Conc Pad
Bit Parking Lot
Basketball Court
Pressure Gauge
Iron Stack
Conc Pad
Plug
1" Vertical PVC Pipe (Typ)
Shop Dust Collection
FF=102.1
FF=111.7
FF=111.8
FF=122.8
GF=122.8
Conc Swk
Grass
Stone Wall w/Metal Railing
Chimney Stack
REMOVE STONE RETAINING WALL AND METAL RAILING
Existing Building #250
West Side Elementary School
REMOVE CONCRETE SIDEWALK
REMOVE CONCRETE STAIR AND HANDRAILS
REMOVE TABLES FROM COURTYARD
Courtyard
REMOVE TEMPORARY CLASSROOM RAMPS AND ACCESS STAIRS. (SEE ARCHITECTURE PLANS FOR REMOVAL OF TEMPORARY CLASSROOM.)
REMOVE CONCRETE STAIRS AND HANDRAILS
Note: All FF Elevations are Taken at the Doorway Threshholds (Typical)
REMOVE CONCRETE SIDEWALK
REMOVE EXISTING STEEL GUIDE RAILS AND POSTS
Roof Overhang
Wood Post and Chain Fence
Dumpster Brick Gate
Conc Dock
Electric Conduit
Existing Portable Classroom FF=122.8
Ramp
REMOVE EXISTING STEEL GUIDE RAILS AND POSTS
Building Overhang (Typ)
MERESTONE W/DH
N/F Avery Heights Limited Partnership
REMOVE CONCRETE STAIR AND HANDRAILS
REMOVE ALL TRAFFIC SIGNAGE
REMOVE ALL CURBS
REMOVE ALL CURBS
Bit Parking Lot
Stone Retaining Wall
Approx. Location (WV)
Bus Shelter
N/F Carmen A. Llanos & Mildred Negron
N/F Phadealia Pearsall
N/F Paul G. Miller & Debra J. Miller
Air Siren
Brick Sign
GWE 0-17-1 w/Riser
GWE 0-20-5 w/Riser
CLEAR AND GRUB ALL TREES ALONG ROADWAY
REMOVE CONCRETE SIDEWALK
REMOVE STONE RETAINING WALL
REMOVE ALL BITUMINOUS WALKS
REMOVE CONCRETE SIDEWALK + BUS SHELTER PAD
REMOVE AND SALVAGE EXISTING BUS SHELTER AND BENCH TO BE RELOCATED. REFER TO CIVIL SIGN AND PAVEMENT MARKINGS PLAN BUS SHELTER LOCATION
REMOVE CONCRETE SIDEWALK
BRANDEGEE AVENUE
MORSE AVENUE
SUTTON
Control Point 1 Iron Pin N 684,997.142 E 1,187,368.208
Control Point 2 Mag Nail in Bit Sidewalk N 684,549.725 E 1,187,355.767
Control Point 9 Iron Pin N 685,151.850 E 1,187,374.165
Conc Sidewalk
8" V.C.
20" RCP WATER
MON
0 15 30 60'
SCALE: 1" = 30' - 0"

NO.	DATE	ISSUE
1	9/10/19	STAFF COMMENTS

LANDSCAPE ARCHITECT
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8B CANAL COURT P.O. BOX 567
AVON, CT 06001 PHONE: 860-678-0669

STATE OF CONNECTICUT
MICHAEL A. CEGAN
NO. 483
LICENSED LANDSCAPE ARCHITECT

Michael A. Cegan

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Cambridge, MA 02138 617.499.8000

Sustainability Consultant:
Atelier Ten
798 Chapel Street
New Haven, CT 06510 203.777.1400

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

LANDSCAPE PREPARATION PLAN

L-101

PLANNING & ZONING SUBMISSION

JULY 26, 2019

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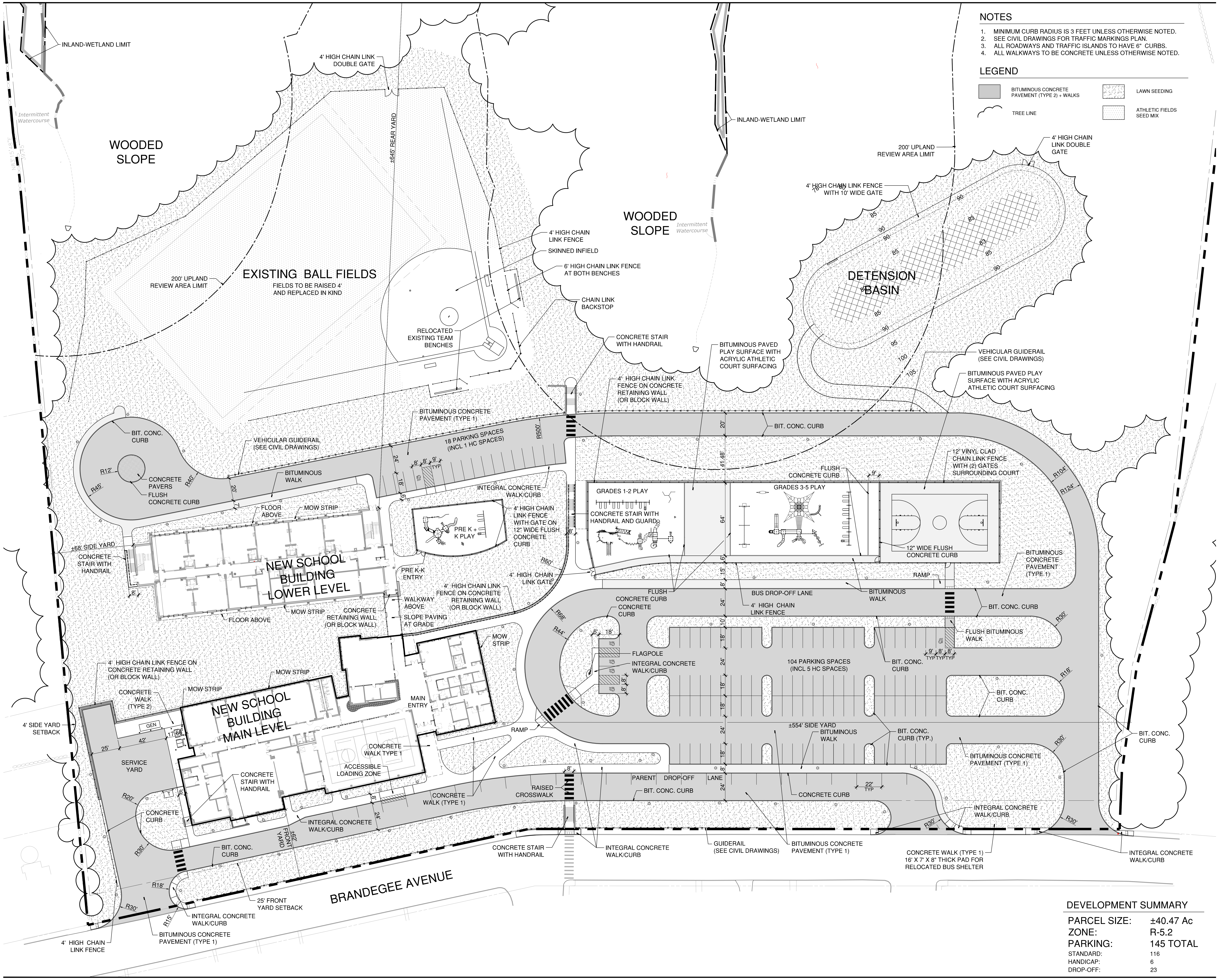
NOTES

1. MINIMUM CURB RADIUS IS 3 FEET UNLESS OTHERWISE NOTED.
2. SEE CIVIL DRAWINGS FOR TRAFFIC MARKINGS PLAN.
3. ALL ROADWAYS AND TRAFFIC ISLANDS TO HAVE 6" CURBS.
4. ALL WALKWAYS TO BE CONCRETE UNLESS OTHERWISE NOTED.

LEGEND

▨	BITUMINOUS CONCRETE PAVEMENT (TYPE 2) + WALKS	▨	LAWN SEEDING
⌒	TREE LINE	▨	ATHLETIC FIELDS SEED MIX



INLAND-WETLAND LIMIT
Intermittent Watercourse
WOODED SLOPE
4' HIGH CHAIN LINK DOUBLE GATE
±645' REAR YARD
4' HIGH CHAIN LINK FENCE
SKINNED INFIELD
6' HIGH CHAIN LINK FENCE AT BOTH BENCHES
CHAIN LINK BACKSTOP
200' UPLAND REVIEW AREA LIMIT
EXISTING BALL FIELDS
FIELDS TO BE RAISED 4' AND REPLACED IN KIND
RELOCATED EXISTING TEAM BENCHES
WOODED SLOPE
Intermittent Watercourse
INLAND-WETLAND LIMIT
200' UPLAND REVIEW AREA LIMIT
4' HIGH CHAIN LINK DOUBLE GATE
4' HIGH CHAIN LINK FENCE WITH 10' WIDE GATE
DETENSION BASIN
85
90
95
100
105
CONCRETE STAIR WITH HANDRAIL
BITUMINOUS PAVED PLAY SURFACE WITH ACRYLIC ATHLETIC COURT SURFACING
VEHICULAR GUIDERAIL (SEE CIVIL DRAWINGS)
BITUMINOUS PAVED PLAY SURFACE WITH ACRYLIC ATHLETIC COURT SURFACING
4' HIGH CHAIN LINK FENCE ON CONCRETE RETAINING WALL (OR BLOCK WALL)
BITUMINOUS CONCRETE PAVEMENT (TYPE 1)
18 PARKING SPACES (INCL 1 HC SPACES)
R500'
BIT. CONC. CURB
VEHICULAR GUIDERAIL (SEE CIVIL DRAWINGS)
BIT. CONC. CURB
R12'
R45'
R40'
CONCRETE PAVERS
FLUSH CONCRETE CURB
BITUMINOUS WALK
24'
18'
8'
9' TYP
20'
±41.48'
INTEGRAL CONCRETE WALK/CURB
4' HIGH CHAIN LINK FENCE WITH GATE ON 12" WIDE FLUSH CONCRETE CURB
PRE K + K PLAY
FLOOR ABOVE
MOW STRIP
±68' SIDE YARD
CONCRETE STAIR WITH HANDRAIL
NEW SCHOOL BUILDING LOWER LEVEL
MOW STRIP
FLOOR ABOVE
PRE K-K ENTRY
R60'
4' HIGH CHAIN LINK GATE
4' HIGH CHAIN LINK FENCE ON CONCRETE RETAINING WALL (OR BLOCK WALL)
WALKWAY ABOVE
CONCRETE RETAINING WALL (OR BLOCK WALL)
SLOPE PAVING AT GRADE
GRADES 1-2 PLAY
CONCRETE STAIR WITH HANDRAIL AND GUARD
FLUSH CONCRETE CURB
GRADES 3-5 PLAY
12' VINYL CLAD CHAIN LINK FENCE WITH (2) GATES SURROUNDING COURT
12" WIDE FLUSH CONCRETE CURB
R104'
R124'
BITUMINOUS CONCRETE PAVEMENT (TYPE 1)
RAMP
64'
FLUSH CONCRETE CURB
CONCRETE CURB
BUS DROP-OFF LANE
4' HIGH CHAIN LINK FENCE
BITUMINOUS WALK
BIT. CONC. CURB
R30'
FLUSH BITUMINOUS WALK
R69'
R44'
6'
18'
FLAGPOLE
INTEGRAL CONCRETE WALK/CURB
104 PARKING SPACES (INCL 5 HC SPACES)
BIT. CONC. CURB
9' TYP
8' TYP
9' TYP
R18'
BIT. CONC. CURB
MOW STRIP
MAIN ENTRY
4' HIGH CHAIN LINK FENCE ON CONCRETE RETAINING WALL (OR BLOCK WALL)
MOW STRIP
CONCRETE WALK (TYPE 2)
MOW STRIP
4' SIDE YARD SETBACK
GEN
17.68'
25'
42'
SERVICE YARD
NEW SCHOOL BUILDING MAIN LEVEL
CONCRETE WALK TYPE 1
ACCESSIBLE LOADING ZONE
CONCRETE STAIR WITH HANDRAIL
RAMP
±554' SIDE YARD
BITUMINOUS WALK
BIT. CONC. CURB (TYP.)
BITUMINOUS CONCRETE PAVEMENT (TYPE 1)
R30'
BIT. CONC. CURB
R20'
CONCRETE CURB
RAISED CROSSWALK
CONCRETE WALK (TYPE 1)
PARENT DROP-OFF LANE
BIT. CONC. CURB
CONCRETE CURB
22' TYP
INTEGRAL CONCRETE WALK/CURB
R30'
R30'
INTEGRAL CONCRETE WALK/CURB
R30'
BIT. CONC. CURB
±62' FRONT YARD
CONCRETE STAIR WITH HANDRAIL
INTEGRAL CONCRETE WALK/CURB
GUIDERAIL (SEE CIVIL DRAWINGS)
BITUMINOUS CONCRETE PAVEMENT (TYPE 1)
CONCRETE WALK (TYPE 1) 16' X 7' X 8" THICK PAD FOR RELOCATED BUS SHELTER
INTEGRAL CONCRETE WALK/CURB
R18'
R30'
R15'
25' FRONT YARD SETBACK
INTEGRAL CONCRETE WALK/CURB
BRANDEGEE AVENUE
BITUMINOUS CONCRETE PAVEMENT (TYPE 1)
4' HIGH CHAIN LINK FENCE

DEVELOPMENT SUMMARY

PARCEL SIZE:	±40.47 Ac
ZONE:	R-5.2
PARKING:	145 TOTAL
STANDARD:	116
HANDICAP:	6
DROP-OFF:	23

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NO.	DATE	ISSUE
1	9/10/19	STAFF COMMENTS

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STATE OF CONNECTICUT
MICHAEL A. CEGAN
NO. 483
LICENSED LANDSCAPE ARCHITECT

SEAL

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SCALE: 1" = 30' - 0"

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

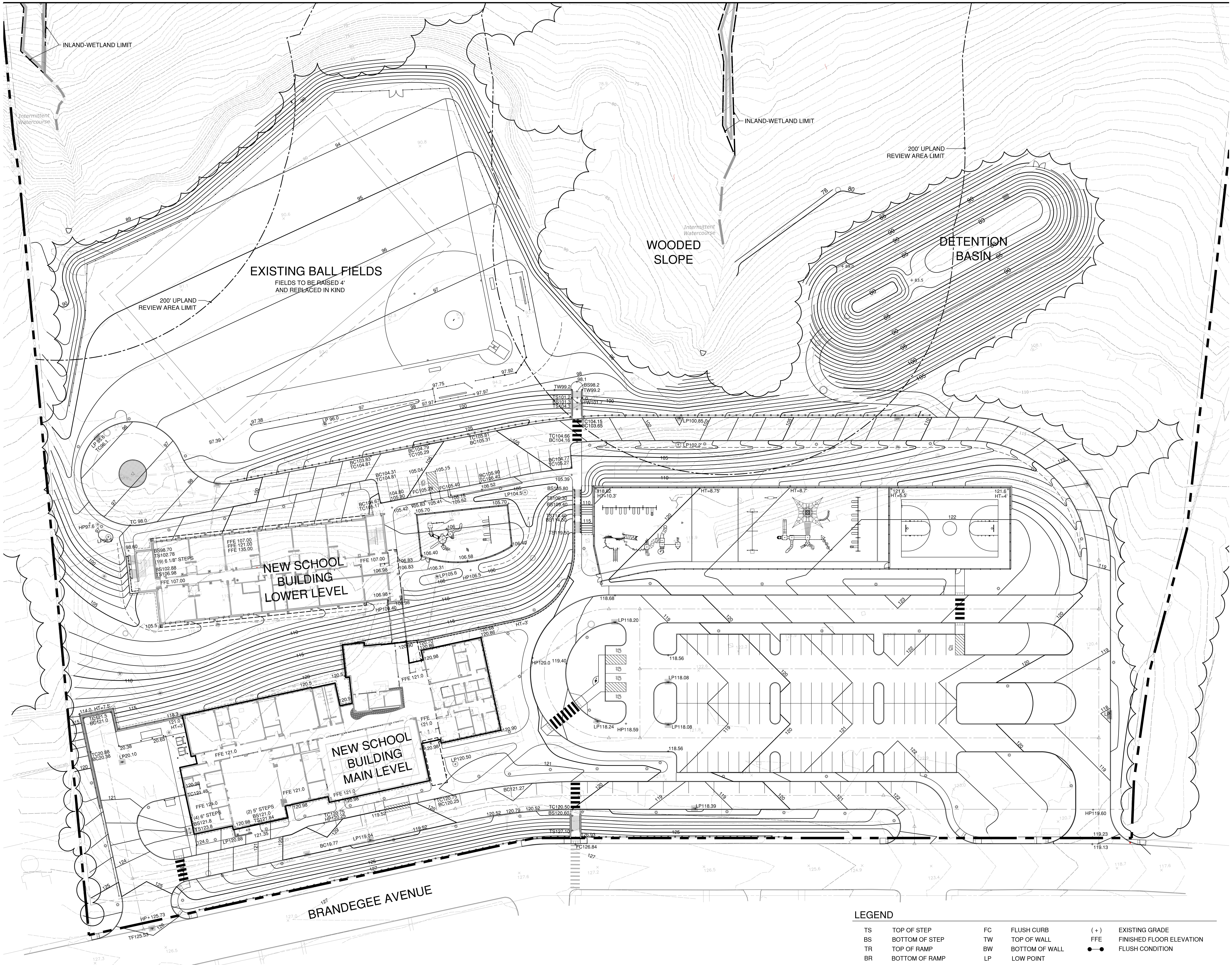
DRAWING TITLE:

LANDSCAPE MATERIALS/ LAYOUT PLAN

L-102

PLANNING & ZONING SUBMISSION

JULY 26, 2019


INLAND-WETLAND LIMIT
Intermittent Watercourse
EXISTING BALL FIELDS
FIELDS TO BE RAISED 4' AND REPLACED IN KIND
200' UPLAND REVIEW AREA LIMIT
WOODED SLOPE
INLAND-WETLAND LIMIT
Intermittent Watercourse
200' UPLAND REVIEW AREA LIMIT
DETENTION BASIN
NEW SCHOOL BUILDING LOWER LEVEL
FFE 107.00
FFE 121.00
FFE 135.00
(19) 6 1/8" STEPS
NEW SCHOOL BUILDING MAIN LEVEL
FFE 121.0
(4) 6" STEPS
(2) 5" STEPS
BRANDEGEE AVENUE

LEGEND

TS	TOP OF STEP	FC	FLUSH CURB	(+)	EXISTING GRADE
BS	BOTTOM OF STEP	TW	TOP OF WALL	FFE	FINISHED FLOOR ELEVATION
TR	TOP OF RAMP	BW	BOTTOM OF WALL	●—●	FLUSH CONDITION
BR	BOTTOM OF RAMP	LP	LOW POINT		
TC	TOP OF CURB	HP	HIGH POINT		
BC	BOTTOM OF CURB	TF	TOP OF FRAME		

NO.	DATE	ISSUE
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SEAL

0 15 30 60'
SCALE: 1" = 30' - 0"

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

LANDSCAPE GRADING PLAN

L-103

PLANNING & ZONING SUBMISSION

JULY 26, 2019

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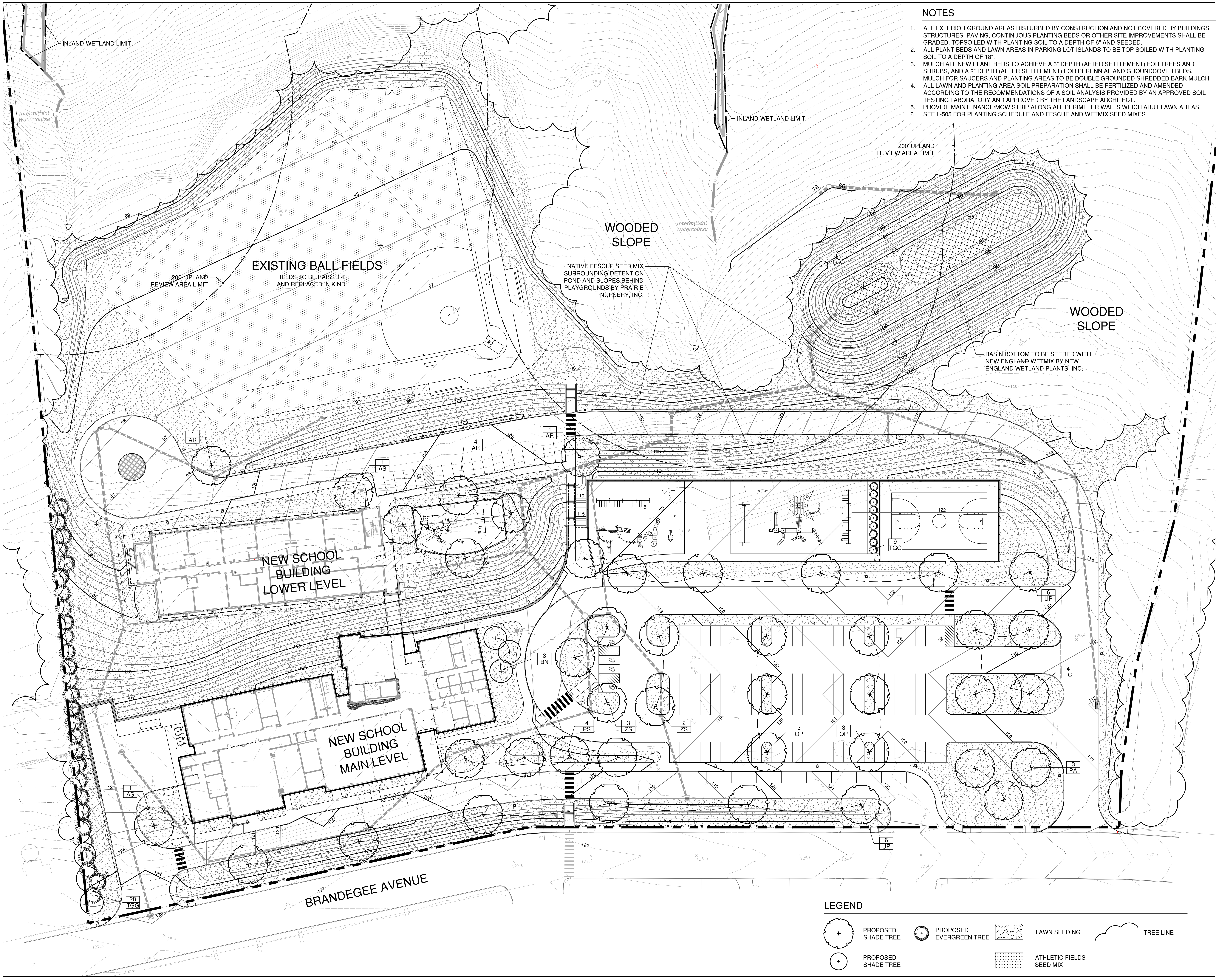
NOTES

1. ALL EXTERIOR GROUND AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY BUILDINGS, STRUCTURES, PAVING, CONTINUOUS PLANTING BEDS OR OTHER SITE IMPROVEMENTS SHALL BE GRADED, TOPSOILED WITH PLANTING SOIL TO A DEPTH OF 6" AND SEEDED.
2. ALL PLANT BEDS AND LAWN AREAS IN PARKING LOT ISLANDS TO BE TOP SOILED WITH PLANTING SOIL TO A DEPTH OF 18".
3. MULCH ALL NEW PLANT BEDS TO ACHIEVE A 3" DEPTH (AFTER SETTLEMENT) FOR TREES AND SHRUBS, AND A 2" DEPTH (AFTER SETTLEMENT) FOR PERENNIAL AND GROUNDCOVER BEDS. MULCH FOR SAUCERS AND PLANTING AREAS TO BE DOUBLE GROUNDED SHREDDED BARK MULCH.
4. ALL LAWN AND PLANTING AREA SOIL PREPARATION SHALL BE FERTILIZED AND AMENDED ACCORDING TO THE RECOMMENDATIONS OF A SOIL ANALYSIS PROVIDED BY AN APPROVED SOIL TESTING LABORATORY AND APPROVED BY THE LANDSCAPE ARCHITECT.
5. PROVIDE MAINTENANCE/MOW STRIP ALONG ALL PERIMETER WALLS WHICH ABUT LAWN AREAS.
6. SEE L-505 FOR PLANTING SCHEDULE AND FESCUE AND WETMIX SEED MIXES.


INLAND-WETLAND LIMIT
Intermittent Watercourse
INLAND-WETLAND LIMIT
200' UPLAND REVIEW AREA LIMIT
EXISTING BALL FIELDS
FIELDS TO BE RAISED 4' AND REPLACED IN KIND
200' UPLAND REVIEW AREA LIMIT
WOODED SLOPE
Intermittent Watercourse
NATIVE FESCUE SEED MIX SURROUNDING DETENTION POND AND SLOPES BEHIND PLAYGROUNDS BY PRAIRIE NURSERY, INC.
WOODED SLOPE
BASIN BOTTOM TO BE SEEDED WITH NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC.
1 AR
4 AR
1 AR
1 AS
NEW SCHOOL BUILDING LOWER LEVEL
9 TGG
6 UP
3 BN
4 TC
NEW SCHOOL BUILDING MAIN LEVEL
4 PS
3 ZS
2 ZS
3 QP
3 QP
3 PA
1 AS
6 UP
28 TGG
LP
BRANDEGEE AVENUE
LEGEND
PROPOSED SHADE TREE
PROPOSED EVERGREEN TREE
LAWN SEEDING
TREE LINE
PROPOSED SHADE TREE
ATHLETIC FIELDS SEED MIX

NO.	DATE	ISSUE
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STATE OF CONNECTICUT
MICHAEL A. CEGAN
NO. 488
LICENSED LANDSCAPE ARCHITECT

SEAL

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

LANDSCAPE PLANTING PLAN

L-104

PLANNING & ZONING SUBMISSION

JULY 26, 2019

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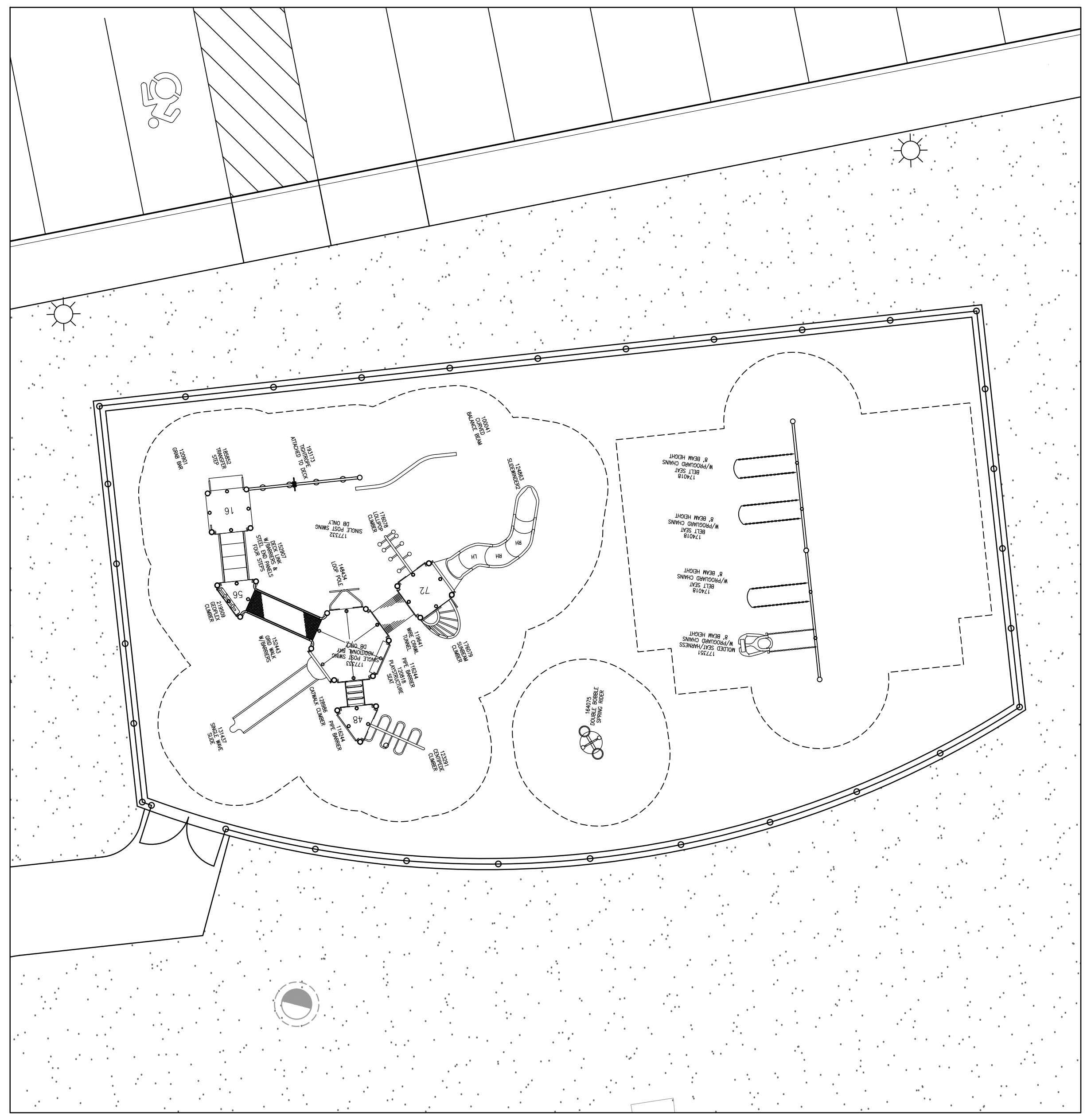
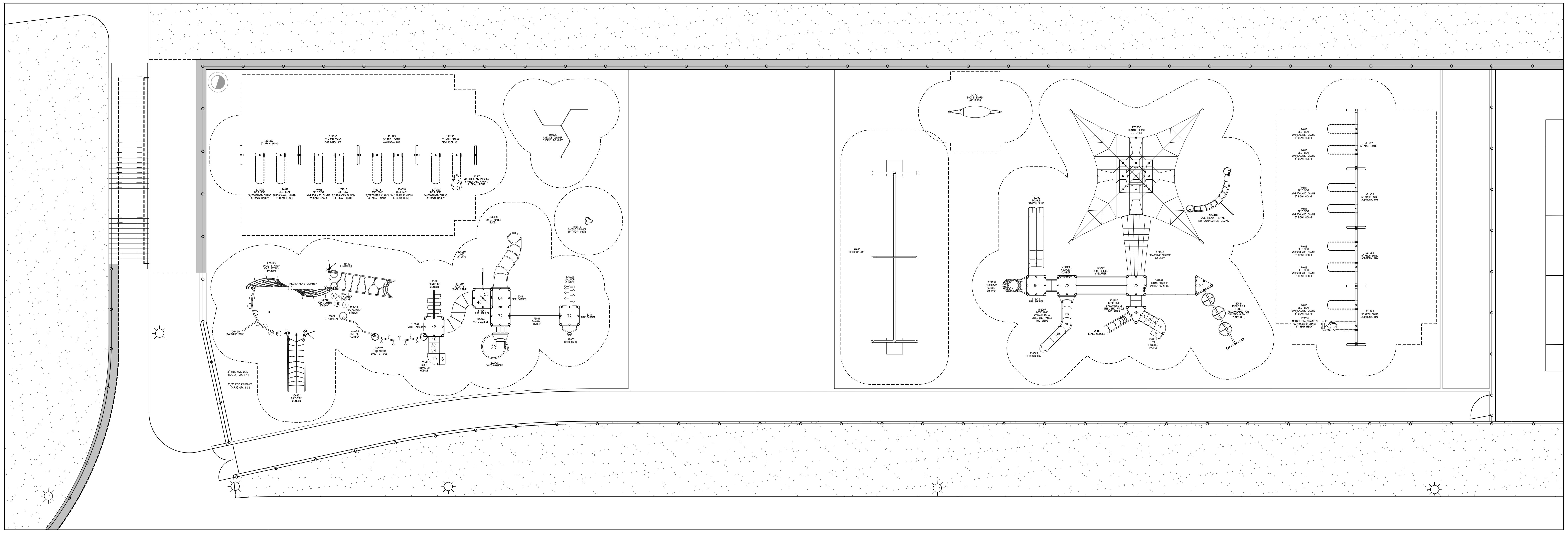


GRADES PRE K-K AREA

TOTAL ELEVATED PLAY COMPONENTS	11		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	9	REQUIRED	6
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	7	REQUIRED	4
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	4	REQUIRED	4



GRADES 1-2 AREA

TOTAL ELEVATED PLAY COMPONENTS	10		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	7	REQUIRED	5
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	20	REQUIRED	3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	5	REQUIRED	5

GRADES 3-5 AREA

TOTAL ELEVATED PLAY COMPONENTS	9		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	7	REQUIRED	5
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	12	REQUIRED	3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	5	REQUIRED	5

NO.	DATE	ISSUE
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LANDSCAPE ARCHITECT

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NO. 483

SEAL

0 5 10 20'
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PERKINS — EASTMAN
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Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Owner:
Town of Groton
Town Hall Annex 134 Groton Long Point Road
Groton, CT 06340 860.572.2100

Construction Manager:
O & G Industries
112 Wall Street
Torrington, CT 06790 860.489.9261

Owner's Representative:
Arcadis
207 Main Street, Suite 200
Hartford, CT 06106 860.906.1577

Civil / Site:
Milone & MacBroom
99 Realty Drive
Chesire, CT 06410 203.271.1773

Landscape:
Richter & Cegan
Avon Park North P.O. Box 567, 8B Canal Court,
Avon, CT 06001 860.678.0669

Structural:
BVH Integrated Services
50 Griffen Road South
Bloomfield, CT 06002 860.286.9171

Mechanical, Electrical, Plumbing & Fire Protection:
Diversified Technology Consultants
2321 Whitney Avenue, Suite 301
Hamden, CT 06518 203.239.4200

Technology and Security
D'Agostino & Associates
1266 E. Main Street
Stamford, CT 06902 203.539.6164

Food Service:
Foodservice Facilities International
137 Elm Place
New Canaan, CT 06840 203.972.1605

Acoustical Consultant:
Acentech
33 Moulton Street
Cambridge, MA 02138 617.499.8000

Sustainability Consultant:
Atelier Ten
798 Chapel Street
New Haven, CT 06510 203.777.1400

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

LANDSCAPE PLAYGROUND EQUIPMENT

L-105

PLANNING & ZONING SUBMISSION

JULY 26, 2019

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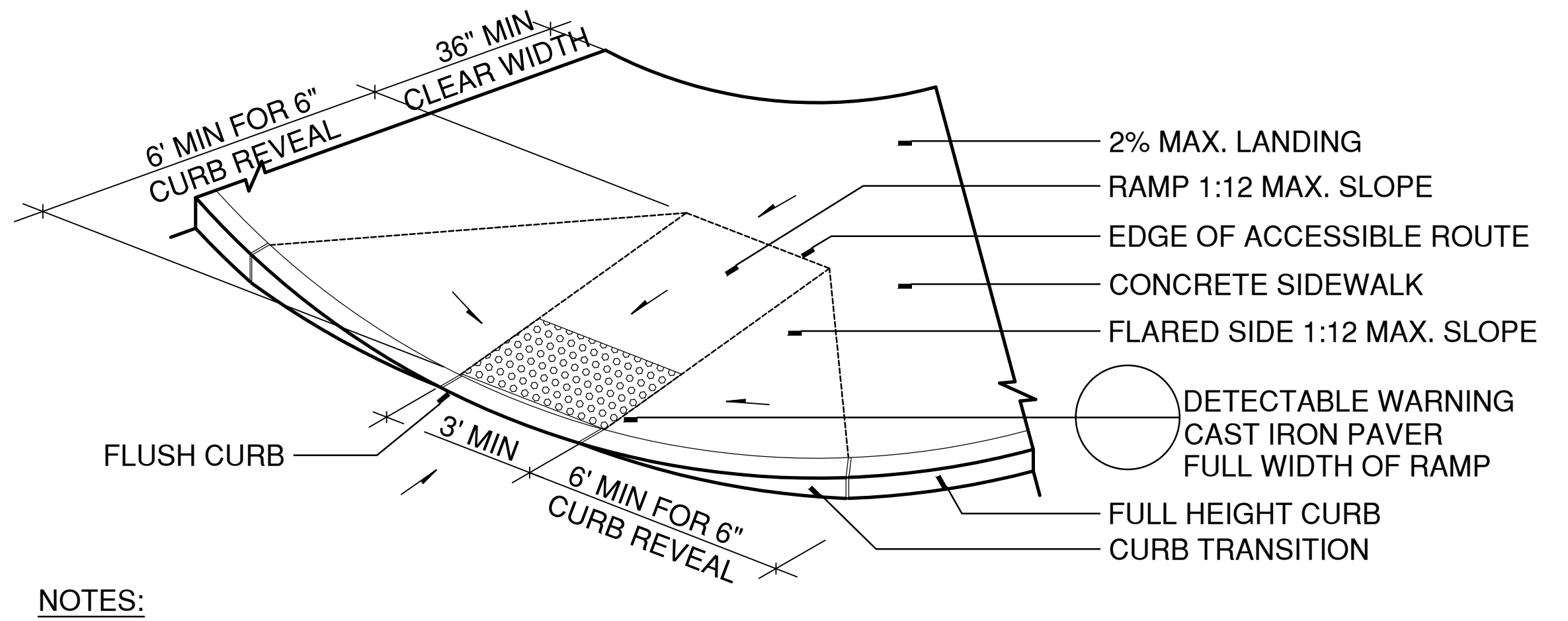
6' MIN FOR 6" CURB REVEAL
36" MIN. CLEAR WIDTH
2% MAX. LANDING
RAMP 1:12 MAX. SLOPE
EDGE OF ACCESSIBLE ROUTE
CONCRETE SIDEWALK
FLARED SIDE 1:12 MAX. SLOPE
DETECTABLE WARNING CAST IRON PAVER FULL WIDTH OF RAMP
FULL HEIGHT CURB
CURB TRANSITION
FLUSH CURB
3' MIN
6' MIN FOR 6" CURB REVEAL

NOTES:
1. MAINTAIN GUTTER FLOW ACROSS CURB RAMP OR FROM HIGH POINT IN CURB RAMP AS REQUIRED.
2. 2% MAX. CROSS SLOPE
3. 5% MAX. COUNTER SLOPE

DIAGONAL DROPPED CURB RAMP

SCALE: 1"=1'

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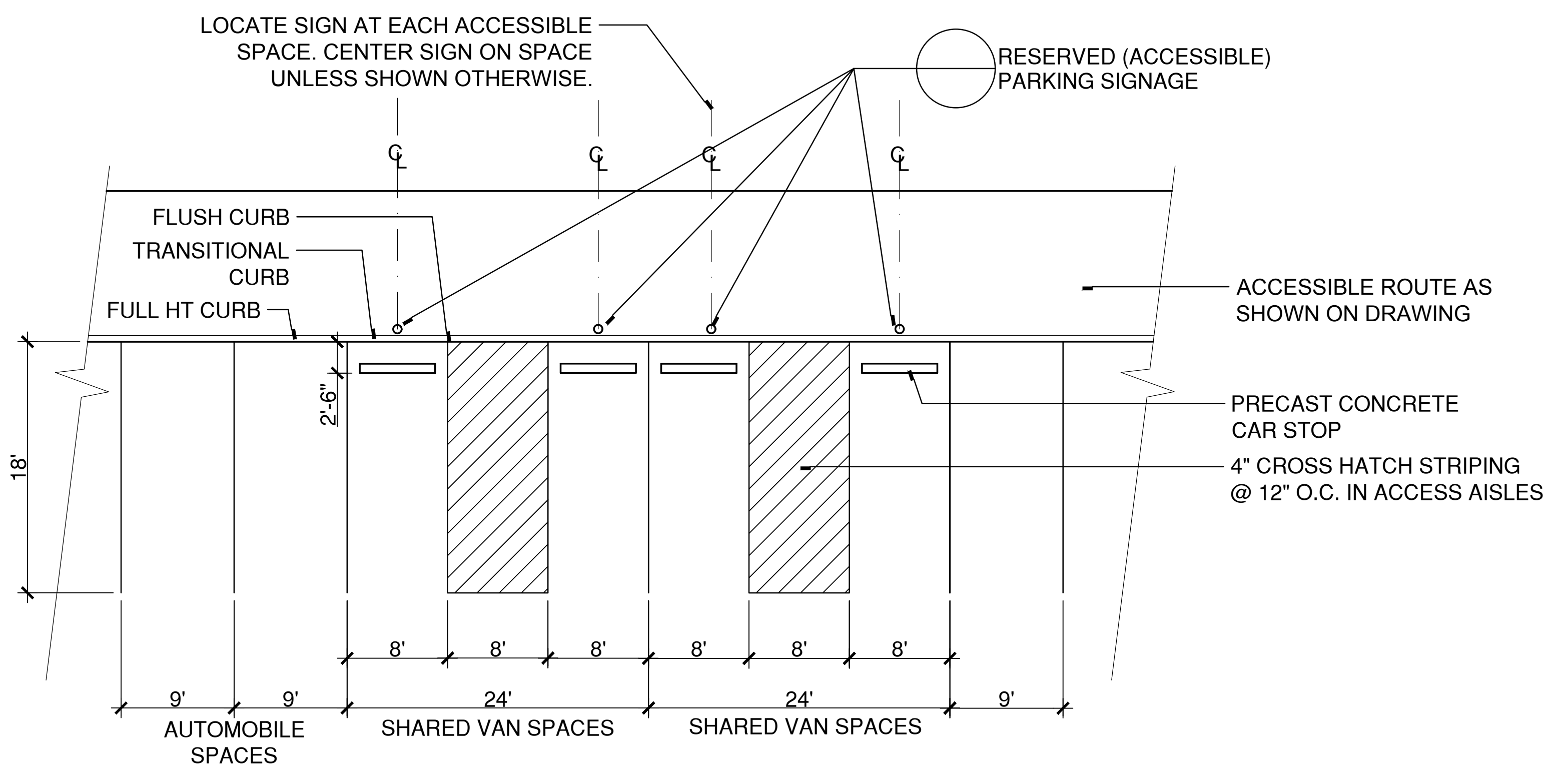
LOCATE SIGN AT EACH ACCESSIBLE SPACE. CENTER SIGN ON SPACE UNLESS SHOWN OTHERWISE.
RESERVED (ACCESSIBLE) PARKING SIGNAGE
℄
℄
℄
℄
FLUSH CURB
TRANSITIONAL CURB
FULL HT CURB
ACCESSIBLE ROUTE AS SHOWN ON DRAWING
PRECAST CONCRETE CAR STOP
4" CROSS HATCH STRIPING @ 12" O.C. IN ACCESS AISLES
2'-6"
18'
8'
8'
8'
8'
8'
8'
9'
9'
24'
24'
9'
AUTOMOBILE SPACES
SHARED VAN SPACES
SHARED VAN SPACES

NOTES:
1. PITCH PAVEMENT NO MORE THAN A 2% SLOPE ANY DIRECTION.
2. COLOR OF STRIPING SHALL BE WHITE.

ACCESSIBLE PARKING SPACES (VANS)

SCALE: 1"=10'

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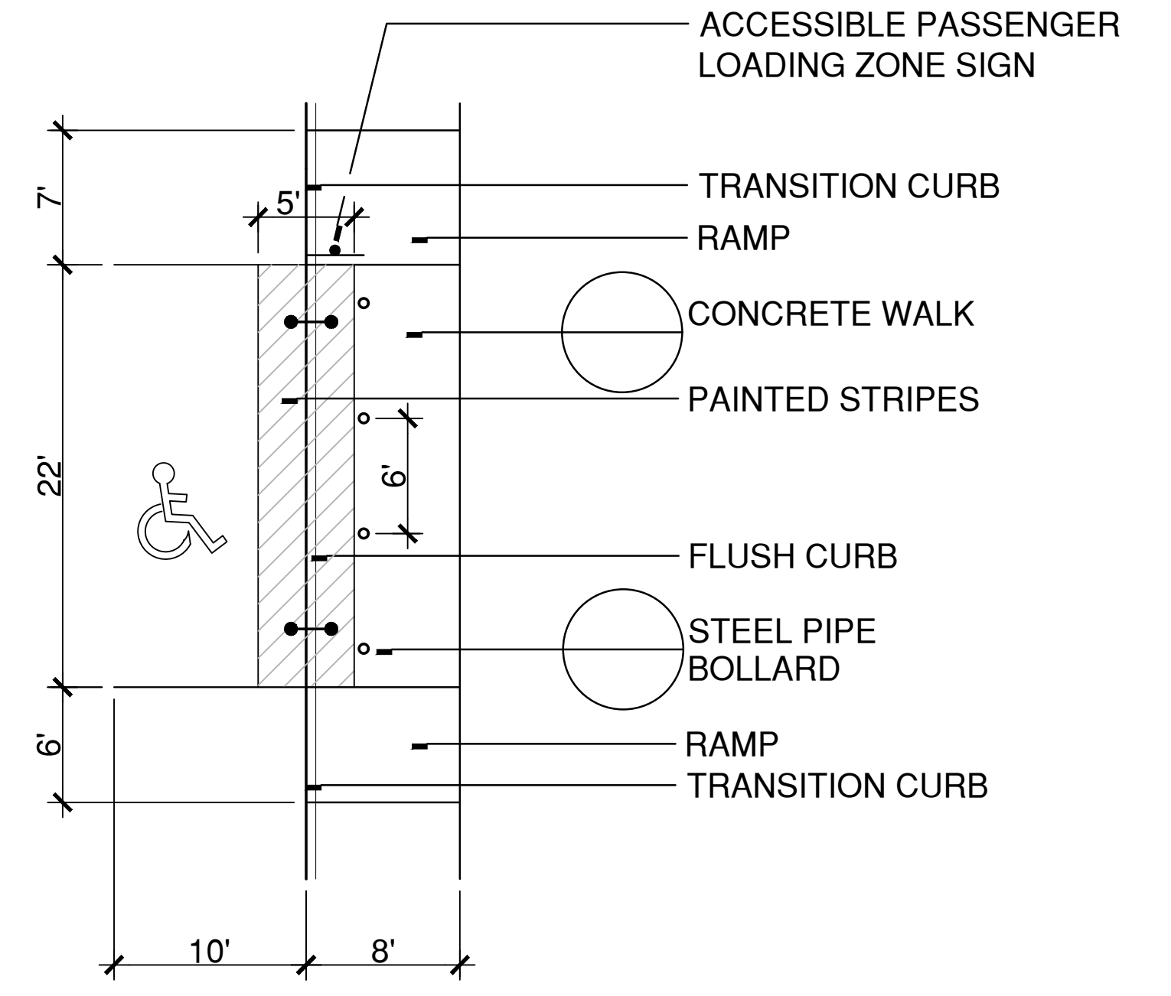
ACCESSIBLE PASSENGER LOADING ZONE SIGN
TRANSITION CURB
RAMP
CONCRETE WALK
PAINTED STRIPES
FLUSH CURB
STEEL PIPE BOLLARD
RAMP
TRANSITION CURB
7'
5'
22'
6'
6'
10'
8'

NOTE:
ACCESSIBLE PASSENGER LOADING SPACE, ACCESS AISLE AND ADJOINING ACCESSIBLE WALKWAYS SHALL HAVE SMOOTH, FLUSH TRANSITIONS BETWEEN THEM AND SHALL NOT SLOPE MORE THAN 2 PERCENT IN ANY DIRECTION.

ACCESSIBLE PASSENGER LOADING ZONE LAYOUT

SCALE: 1"=10'

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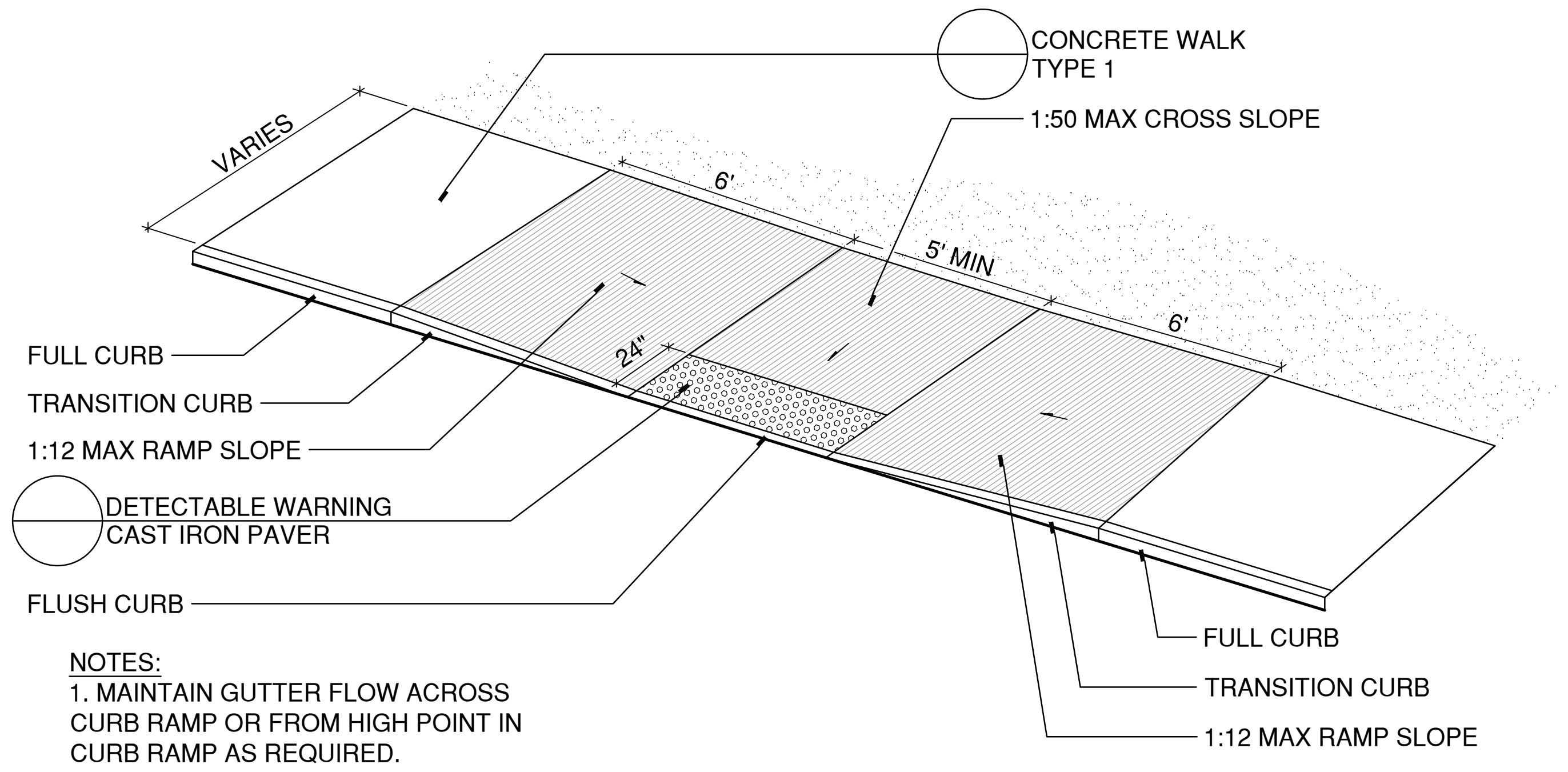
VARIES
CONCRETE WALK TYPE 1
1:50 MAX CROSS SLOPE
6'
5' MIN
6'
24"
FULL CURB
TRANSITION CURB
1:12 MAX RAMP SLOPE
DETECTABLE WARNING CAST IRON PAVER
FLUSH CURB
FULL CURB
TRANSITION CURB
1:12 MAX RAMP SLOPE

NOTES:
1. MAINTAIN GUTTER FLOW ACROSS CURB RAMP OR FROM HIGH POINT IN CURB RAMP AS REQUIRED.
2. 2% MAX. CROSS SLOPE
3. 5% MAX. COUNTER SLOPE

FULL WIDTH CURB RAMP ON TANGENT

SCALE: 1"=1'

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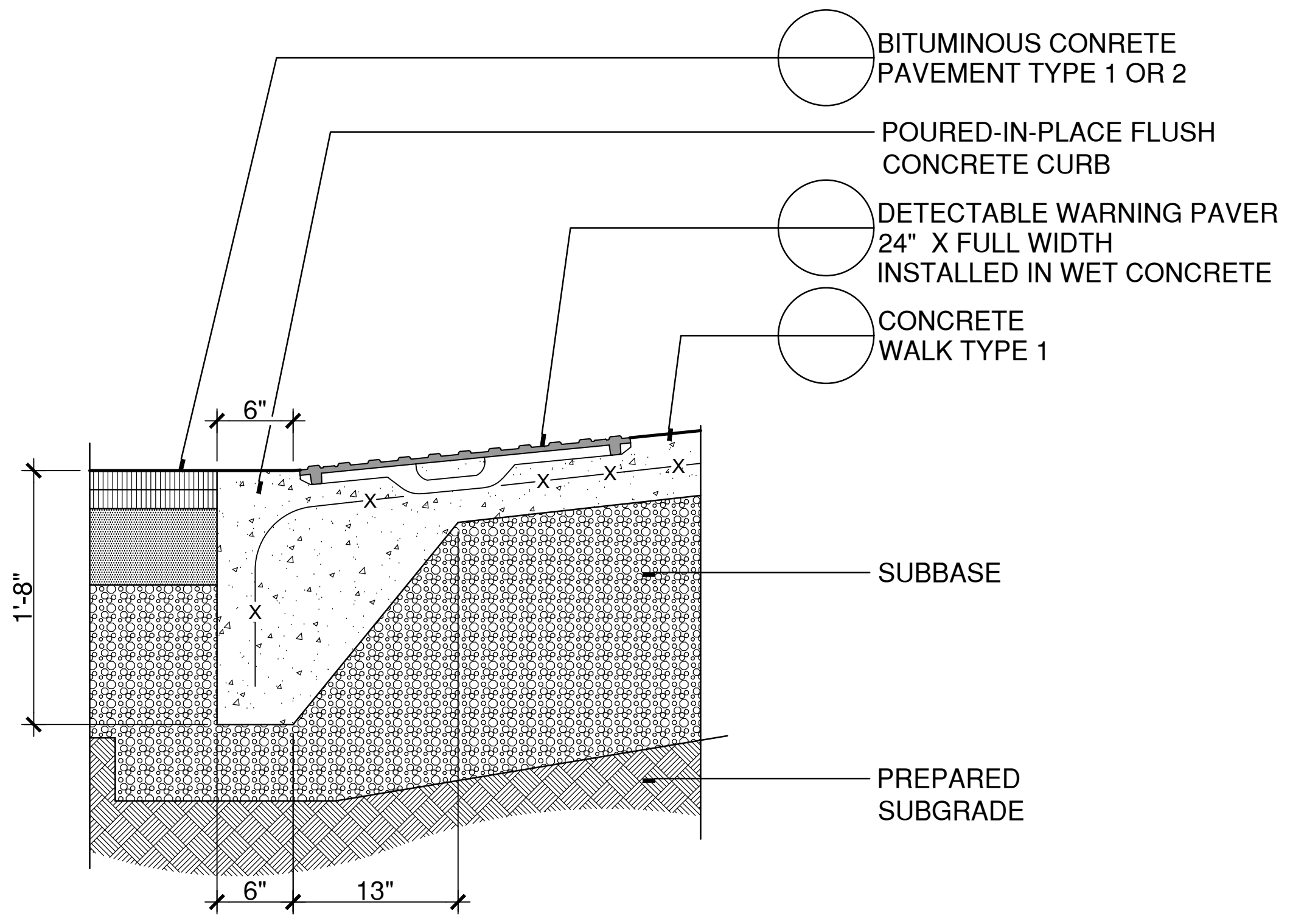
BITUMINOUS CONRETE PAVEMENT TYPE 1 OR 2
POURED-IN-PLACE FLUSH CONCRETE CURB
DETECTABLE WARNING PAVER 24" X FULL WIDTH INSTALLED IN WET CONCRETE
CONCRETE WALK TYPE 1
SUBBASE
PREPARED SUBGRADE
6"
1'-8"
6"
13"

DETECTABLE WARNING PAVER AT CONCRETE CURB RAMP

SCALE: 1"=1'

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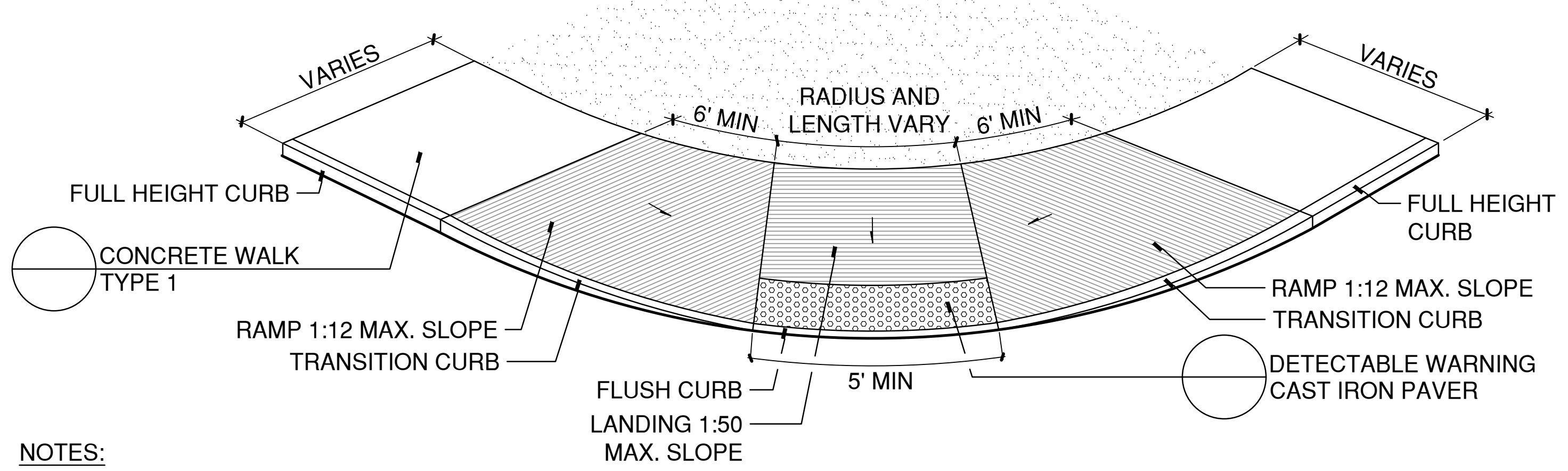
VARIES
VARIES
RADIUS AND LENGTH VARY
6' MIN
6' MIN
FULL HEIGHT CURB
CONCRETE WALK TYPE 1
RAMP 1:12 MAX. SLOPE
TRANSITION CURB
FLUSH CURB
LANDING 1:50 MAX. SLOPE
5' MIN
FULL HEIGHT CURB
RAMP 1:12 MAX. SLOPE
TRANSITION CURB
DETECTABLE WARNING CAST IRON PAVER

NOTES:
1. MAINTAIN GUTTER FLOW ACROSS CURB RAMP OR FROM HIGH POINT IN CURB RAMP AS REQUIRED.
2. 2% MAX. CROSS SLOPE
3. 5% MAX. COUNTER SLOPE

FULL WIDTH CURB RAMP ON RADIUS

SCALE: 1"=1'

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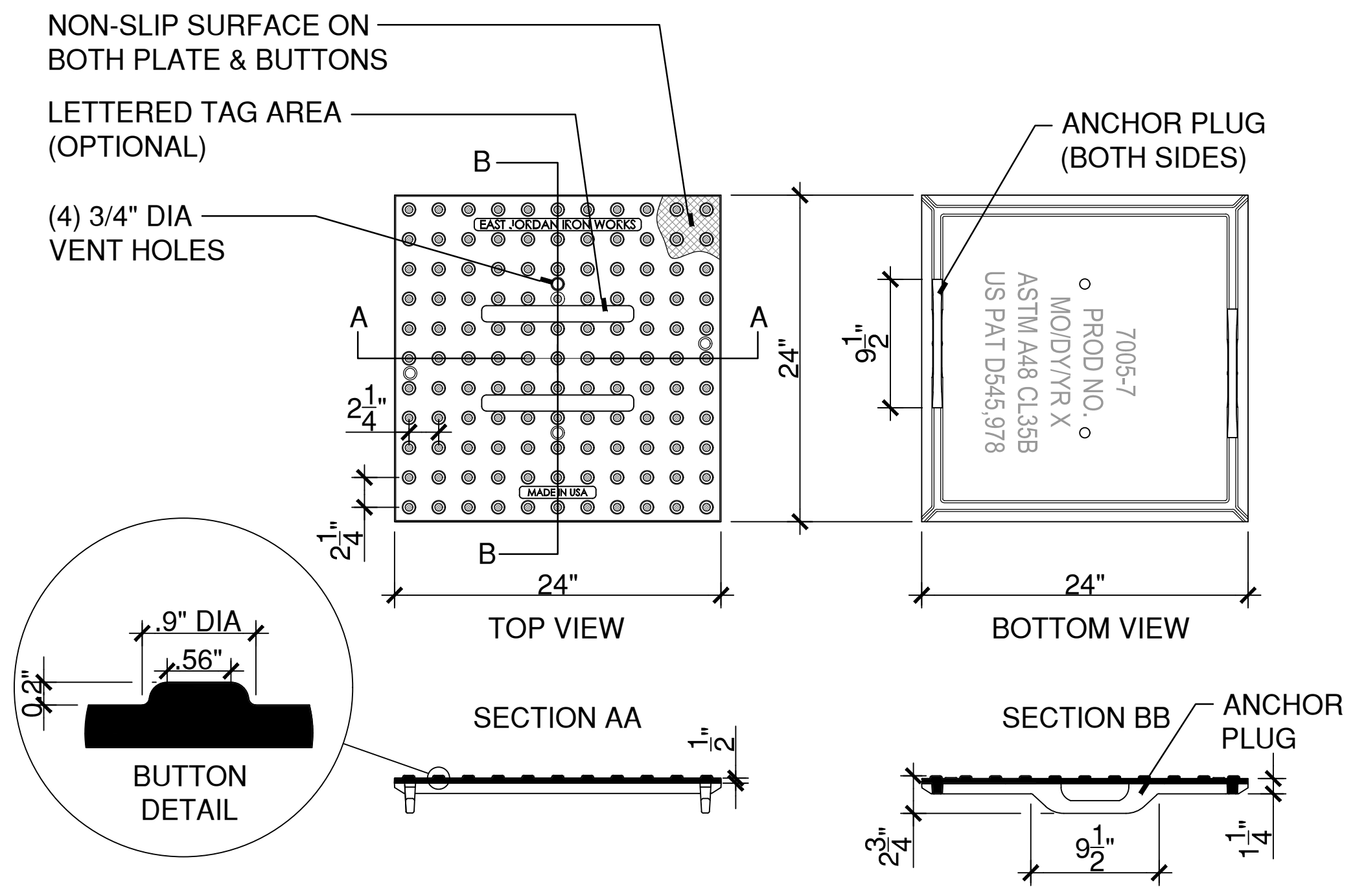
NON-SLIP SURFACE ON BOTH PLATE & BUTTONS
LETTERED TAG AREA (OPTIONAL)
(4) 3/4" DIA VENT HOLES
EAST JORDAN IRON WORKS
MADE IN USA
A
A
B
B
$2\frac{1}{4}$"
$2\frac{1}{4}$"
24"
24"
TOP VIEW
ANCHOR PLUG (BOTH SIDES)
7005-7
PROD NO.
MO/DY/YR X
ASTM A48 CL35B
US PAT D545,978
$9\frac{1}{2}$"
24"
BOTTOM VIEW
.9" DIA
.56"
0.2"
BUTTON DETAIL
SECTION AA
$\frac{1}{2}$"
SECTION BB
ANCHOR PLUG
$2\frac{3}{4}$"
$9\frac{1}{2}$"
$1\frac{1}{4}$"

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. FOR PRODUCT AND COMPANY INFORMATION VISIT www.EJIW.COM (PRODUCT NUMBER 7005-7).
4. 4. EAST JORDON IRON WORKS, INC., 301 SPRING STREET, EAST JORDON, MI 1-800-626-4653.

DETECTABLE WARNING PAVER

SCALE: 1"=1'

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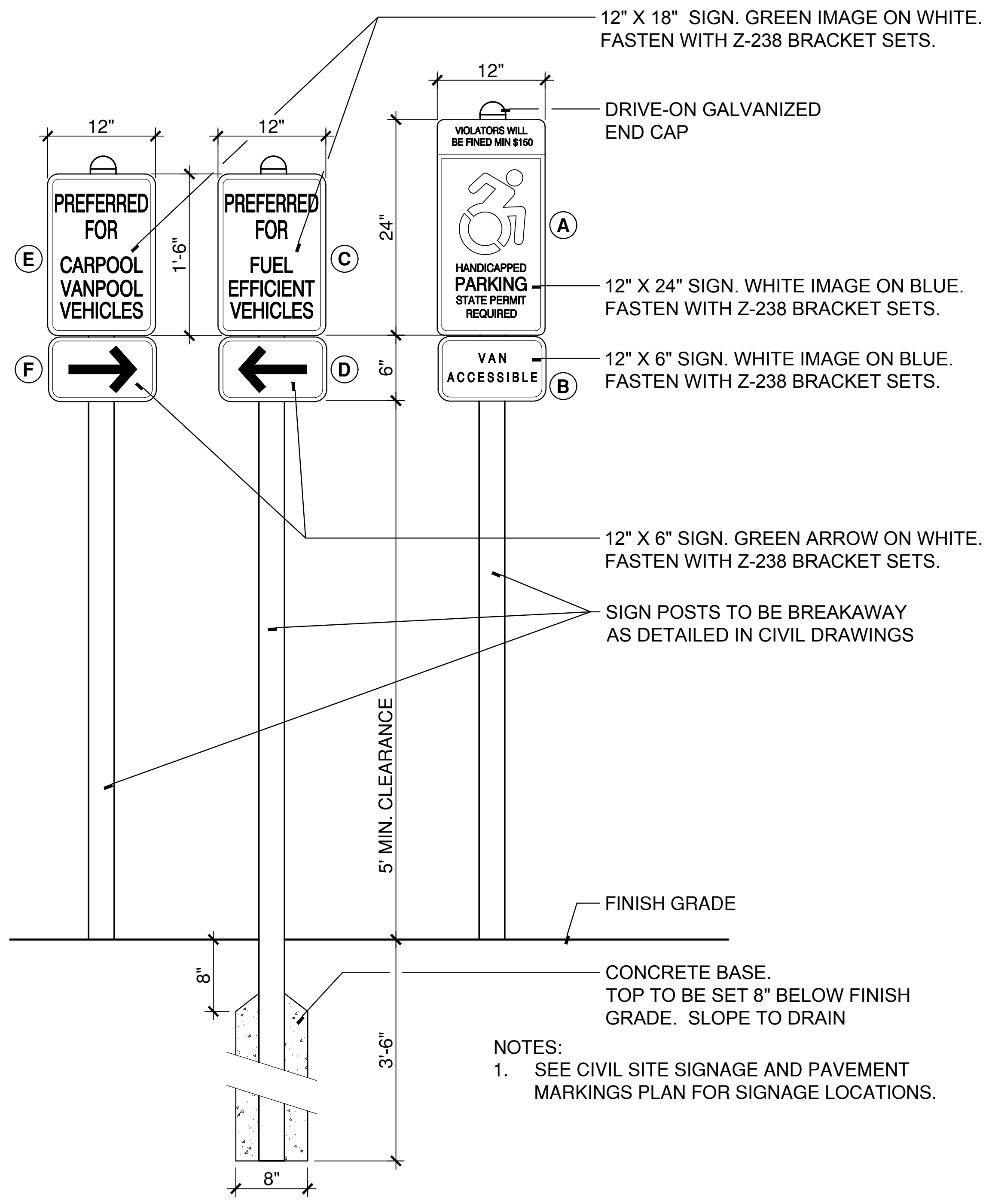
12" X 18" SIGN. GREEN IMAGE ON WHITE. FASTEN WITH Z-238 BRACKET SETS.
12"
12"
12"
DRIVE-ON GALVANIZED END CAP
PREFERRED FOR CARPOOL VANPOOL VEHICLES
PREFERRED FOR FUEL EFFICIENT VEHICLES
VIOLATORS WILL BE FINED MIN $150
HANDICAPPED PARKING STATE PERMIT REQUIRED
VAN ACCESSIBLE
A
B
C
D
E
F
1'-6"
24"
6"
12" X 24" SIGN. WHITE IMAGE ON BLUE. FASTEN WITH Z-238 BRACKET SETS.
12" X 6" SIGN. WHITE IMAGE ON BLUE. FASTEN WITH Z-238 BRACKET SETS.
12" X 6" SIGN. GREEN ARROW ON WHITE. FASTEN WITH Z-238 BRACKET SETS.
SIGN POSTS TO BE BREAKAWAY AS DETAILED IN CIVIL DRAWINGS
5' MIN. CLEARANCE
FINISH GRADE
CONCRETE BASE. TOP TO BE SET 8" BELOW FINISH GRADE. SLOPE TO DRAIN
8"
3'-6"
8"

NOTES:
1. SEE CIVIL SITE SIGNAGE AND PAVEMENT MARKINGS PLAN FOR SIGNAGE LOCATIONS.

ACCESSIBLE AND PREFERRED PARKING SIGNAGE

N.T.S.

X:\CADSTANDARD\DETAILS\101453-A.DWG

NO.	DATE	ISSUE
1	9/10/19	STAFF COMMENTS

LANDSCAPE ARCHITECT
Richter & Cegan Inc.
8B CANAL COURT P.O. BOX 567
AVON, CT 06001 PHONE: 860-678-0669

MICHAEL A. CEGAN
NO. 483

SEAL

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Technology and Security
D'Agostino & Associates
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Acentech
33 Moulton Street
Cambridge, MA 02138 617.499.8000

Sustainability Consultant:
Atelier Ten
798 Chapel Street
New Haven, CT 06510 203.777.1400

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

SITE DETAILS

L-502

PLANNING AND ZONING SUBMISSION

JULY 26, 2019

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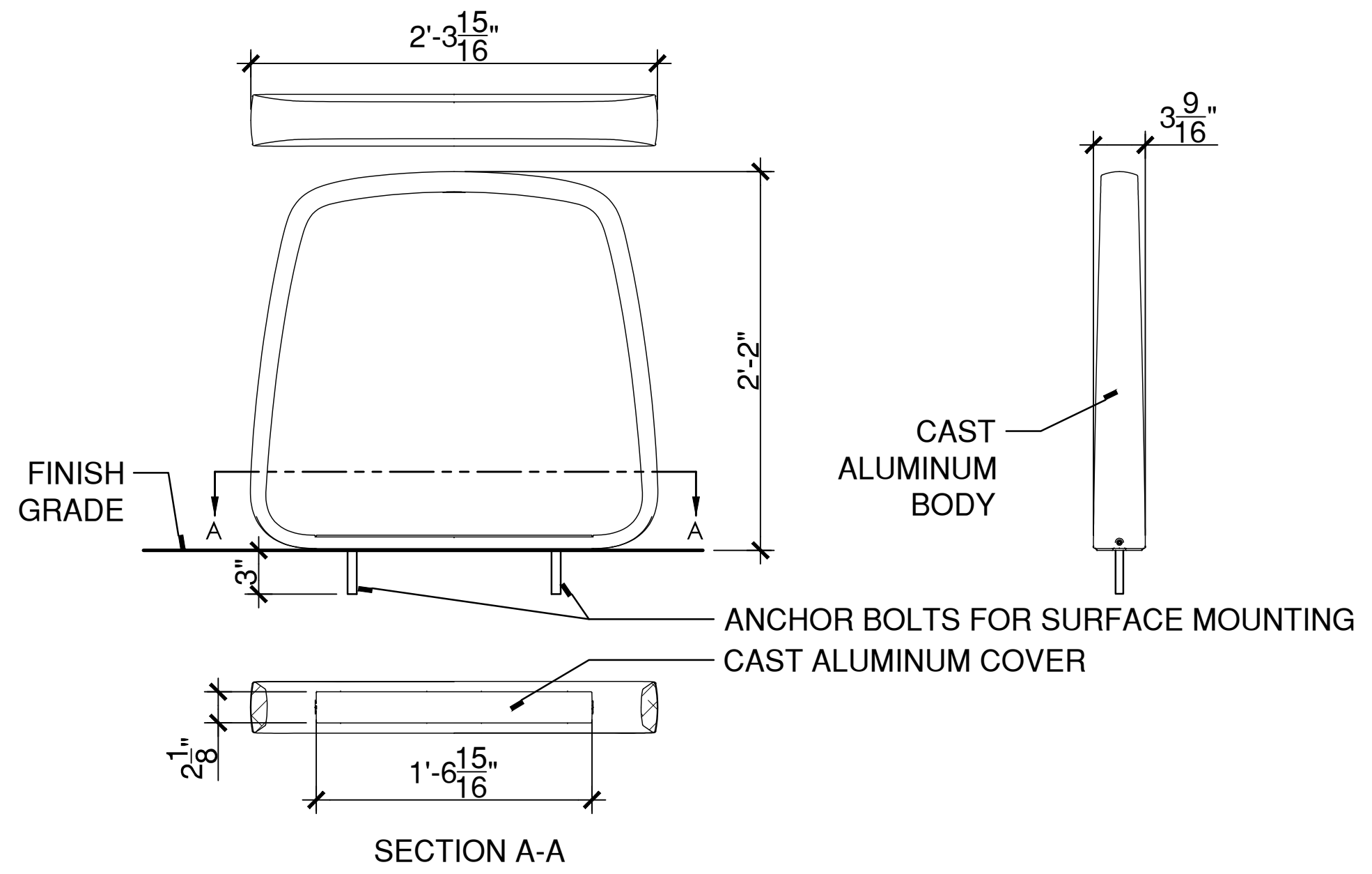
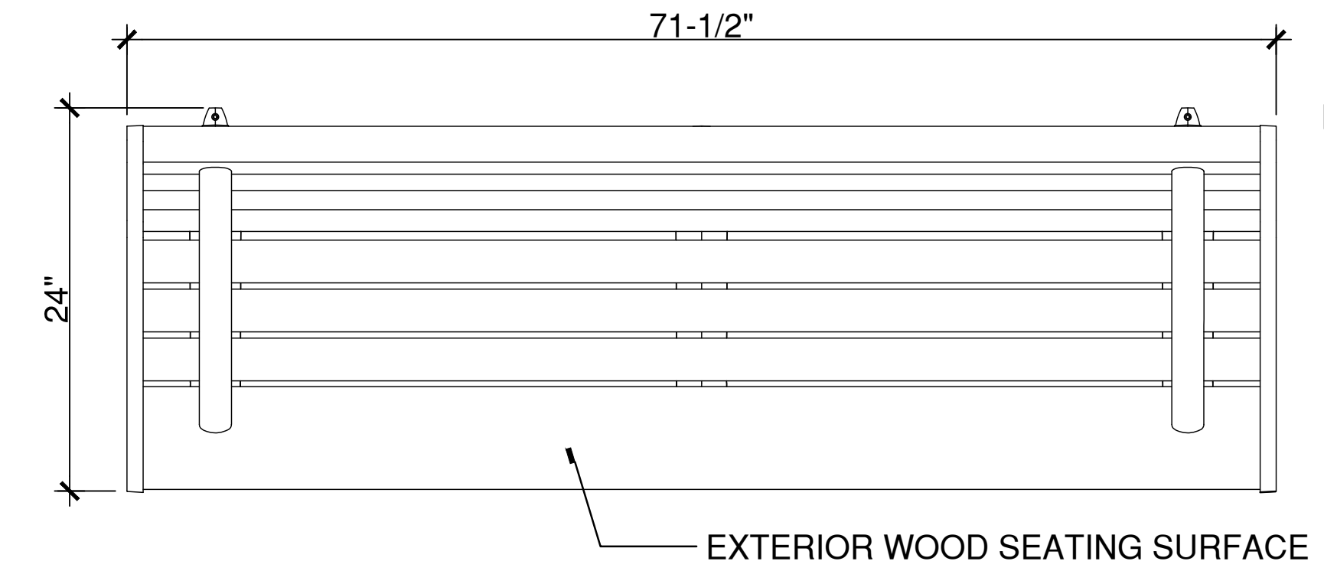
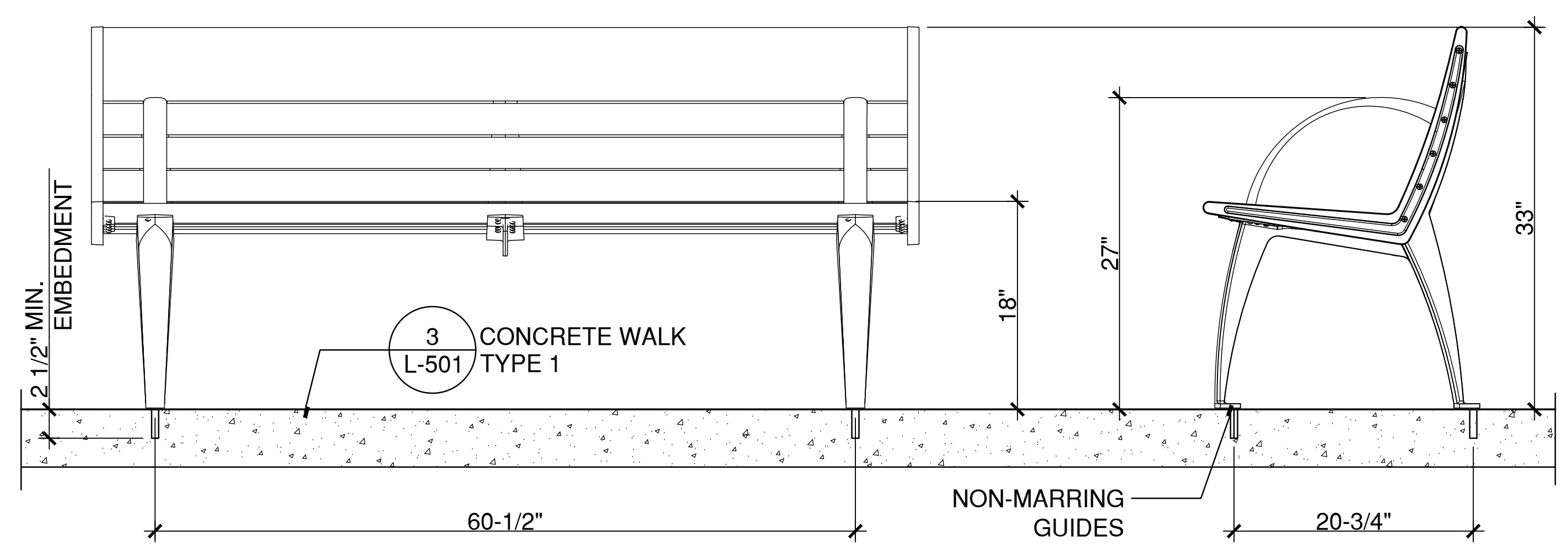

2'-3 15/16"
3 9/16"
2'-2"
FINISH GRADE
A
A
CAST ALUMINUM BODY
3"
ANCHOR BOLTS FOR SURFACE MOUNTING
CAST ALUMINUM COVER
2 1/8"
1'-6 15/16"
SECTION A-A

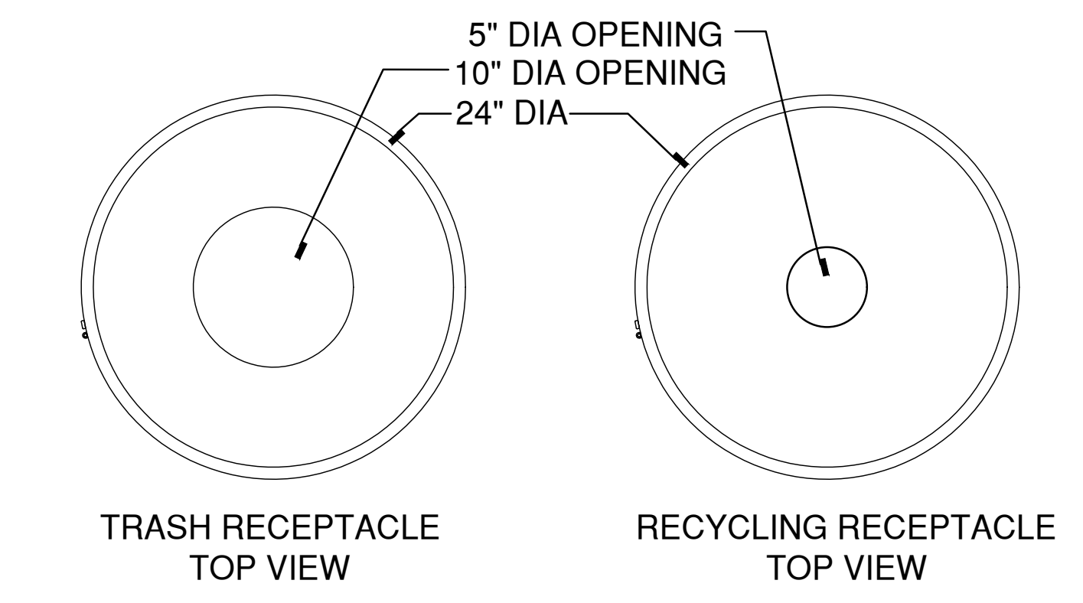
BICYCLE RACK
SCALE: N.T.S.
W:\2015021\2SCHWEM\DETAILS\AE100-02.DWG


71-1/2"
24"
EXTERIOR WOOD SEATING SURFACE

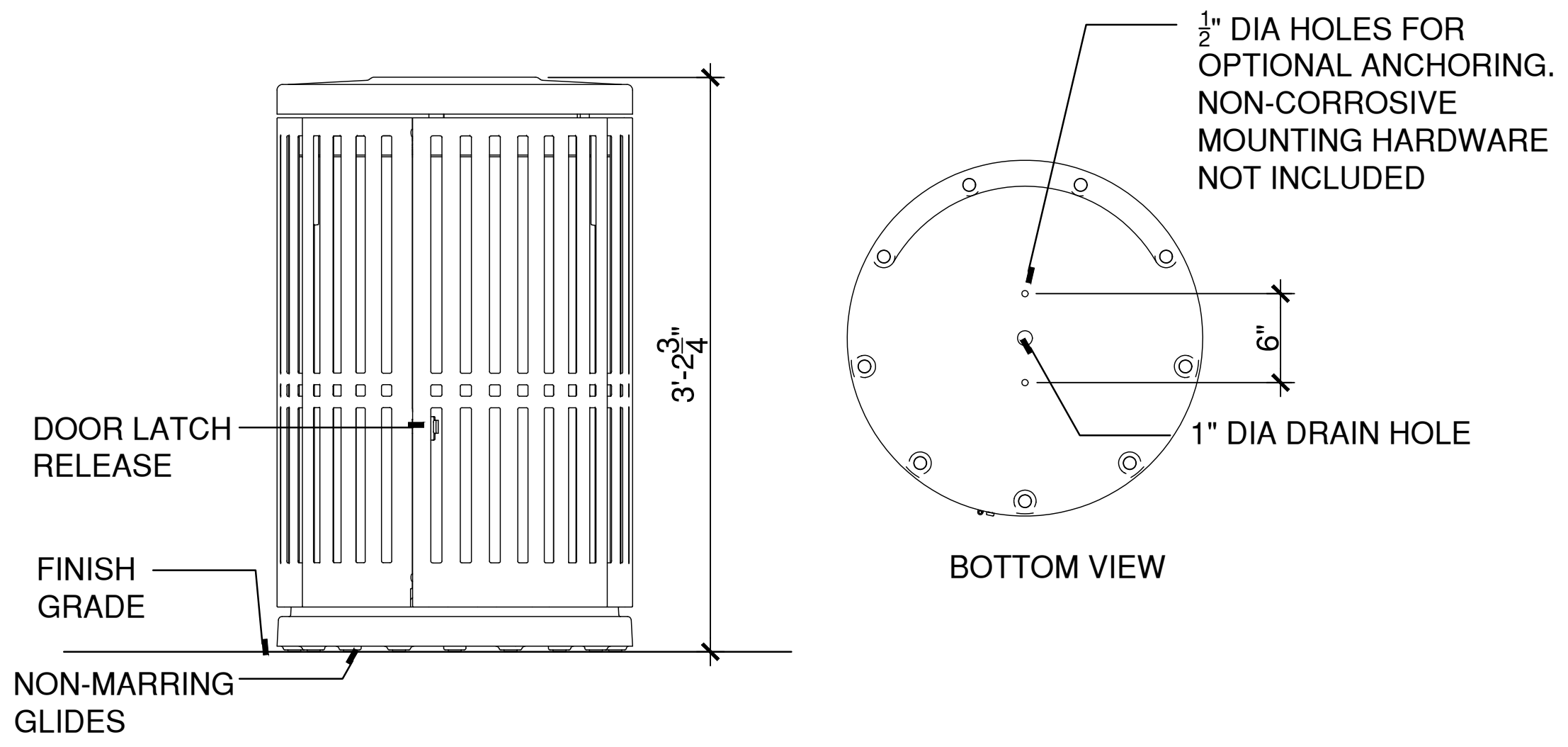
NOTE:
1. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. BENCH: AUSTIN, AS MANUFACTURED BY LANDSCAPE FORMS, 431 LAWNDALE AVENUE, KALAMAZOO, MI 49048, 1-800-521-2546, OR APPROVED EQUAL.
3. STYLE: BACKED, 24"X 33"X 72" FOR EXTERIOR USE.
4. MOUNTING: SURFACE MOUNT.
5. FINISH: SEAT AND BACK PANELS-EXTERIOR QUALITY IPE WITH PANGARD II POLYESTER POWDERCOAT. COLOR TO BE SELECTED BY ARCHITECT.


2 1/2" MIN. EMBEDMENT
3
L-501
CONCRETE WALK TYPE 1
60-1/2"
18"
27"
33"
NON-MARRING GUIDES
20-3/4"

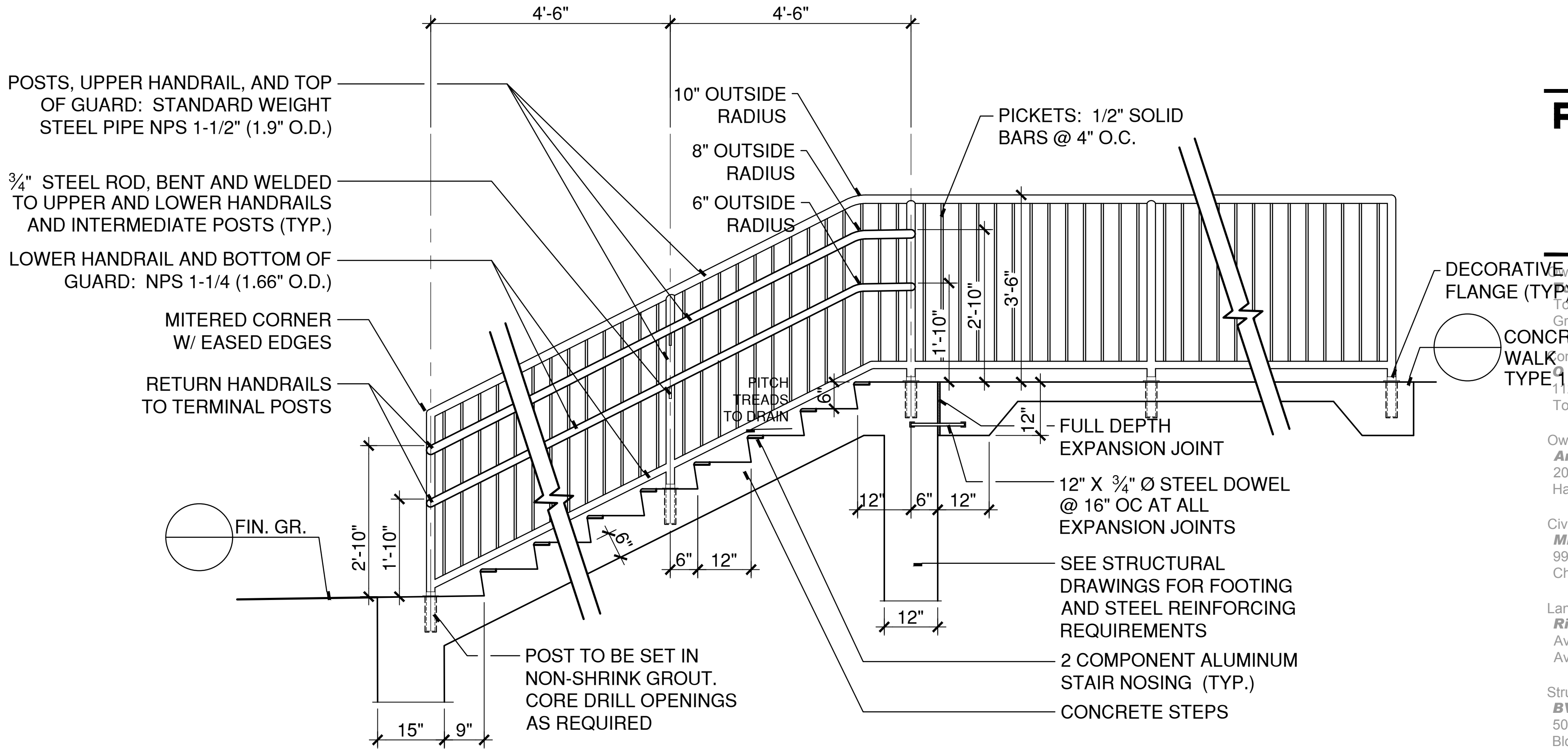
BENCH
SCALE: 1"=1'
Z:\2013031\DETAILS\BENCH_AUSTIN.DWG


5" DIA OPENING
10" DIA OPENING
24" DIA
TRASH RECEPTACLE TOP VIEW
RECYCLING RECEPTACLE TOP VIEW

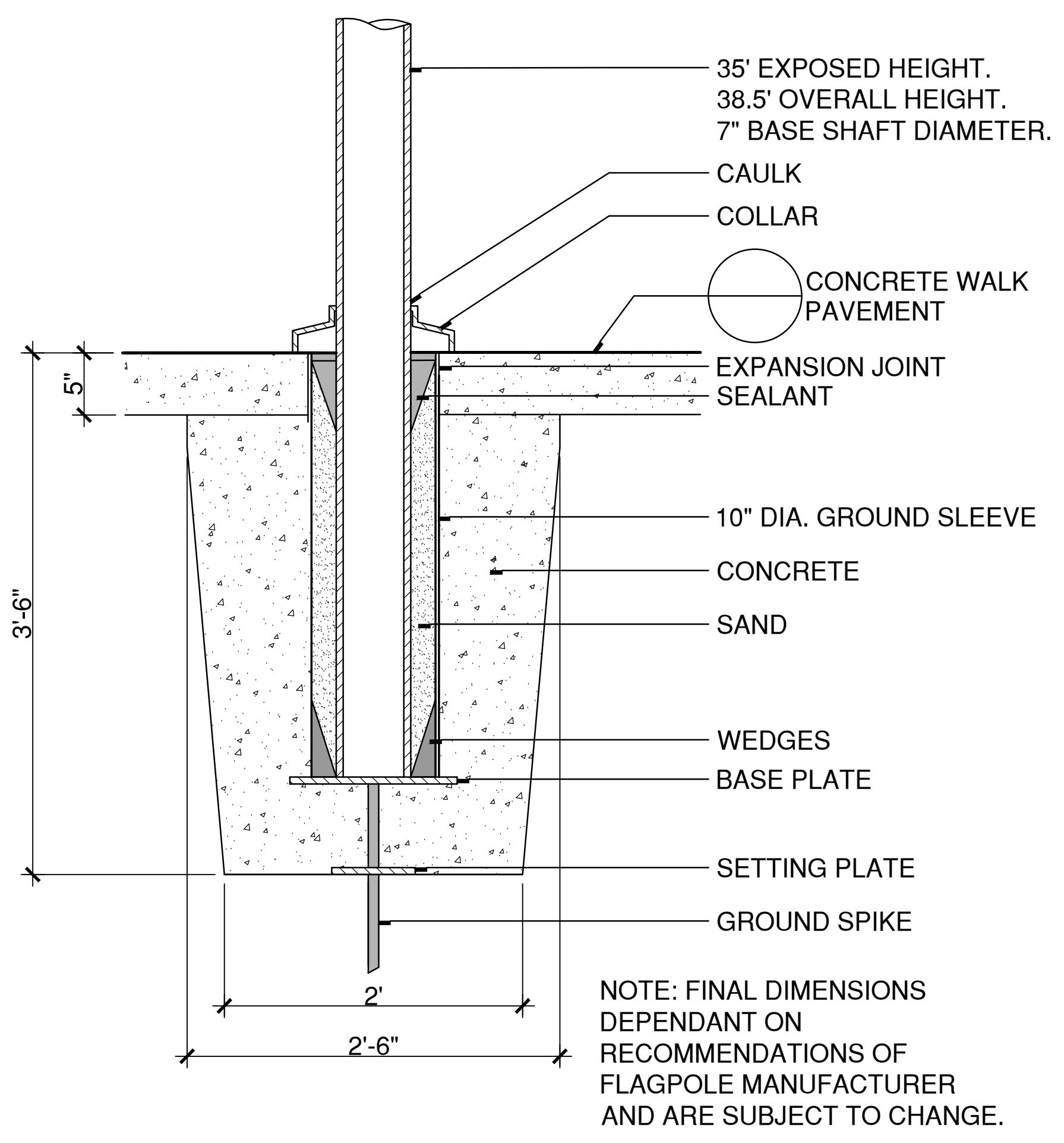
NOTE:
1. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. TRASH RECEPTACLE: CHASE PARK LITTER RECEPTACLE BY LANDSCAPEFORMS, 431 LAWNDALE AVENUE, KALAMAZOO, MI 49048, 1-800-521-2546, OR APPROVED EQUAL.
   A. STYLE: 24" DIA. TOP OPENING, 39"H, 40 GALLON.
   B. MOUNTING: FREE STANDING.
   C. MATERIAL: ALUMINUM
   D. FINISH: LANDSCAPEFORMS INC "PANGARD II".
3. RECYCLING RECEPTACLE: CHASE PARK RECYCLING RECEPTACLE BY LANDSCAPEFORMS, 431 LAWNDALE AVENUE, KALAMAZOO, MI 49048, 1-800-521-2546, OR APPROVED EQUAL.
   A. STYLE: 39"H, 40 GALLON, 5" OPENING.
   B. MOUNTING: SURFACE MOUNTED.
   C. MATERIAL: ALUMINUM
   D. FINISH: LANDSCAPEFORMS INC "PANGARD II".
4. ALL TRASH AND RECYCLING RECEPTACLES TO BE SURFACE MOUNTED WITH 3/8" DIA X 4" SS ANCHOR BOLTS IN ORDER THAT THEY MAY BE REMOVED PRIOR TO FLOODING AS REQUIRED.


3/8" DIA HOLES FOR OPTIONAL ANCHORING. NON-CORROSIVE MOUNTING HARDWARE NOT INCLUDED
6"
1" DIA DRAIN HOLE
BOTTOM VIEW
3'-2 3/4"
DOOR LATCH RELEASE
FINISH GRADE
NON-MARRING GLIDES

TRASH/RECYCLING RECEPTACLES
SCALE: 1"=1'
Z:\2015025\DETAILS\LF-CHASE PARK TRASH.DWG

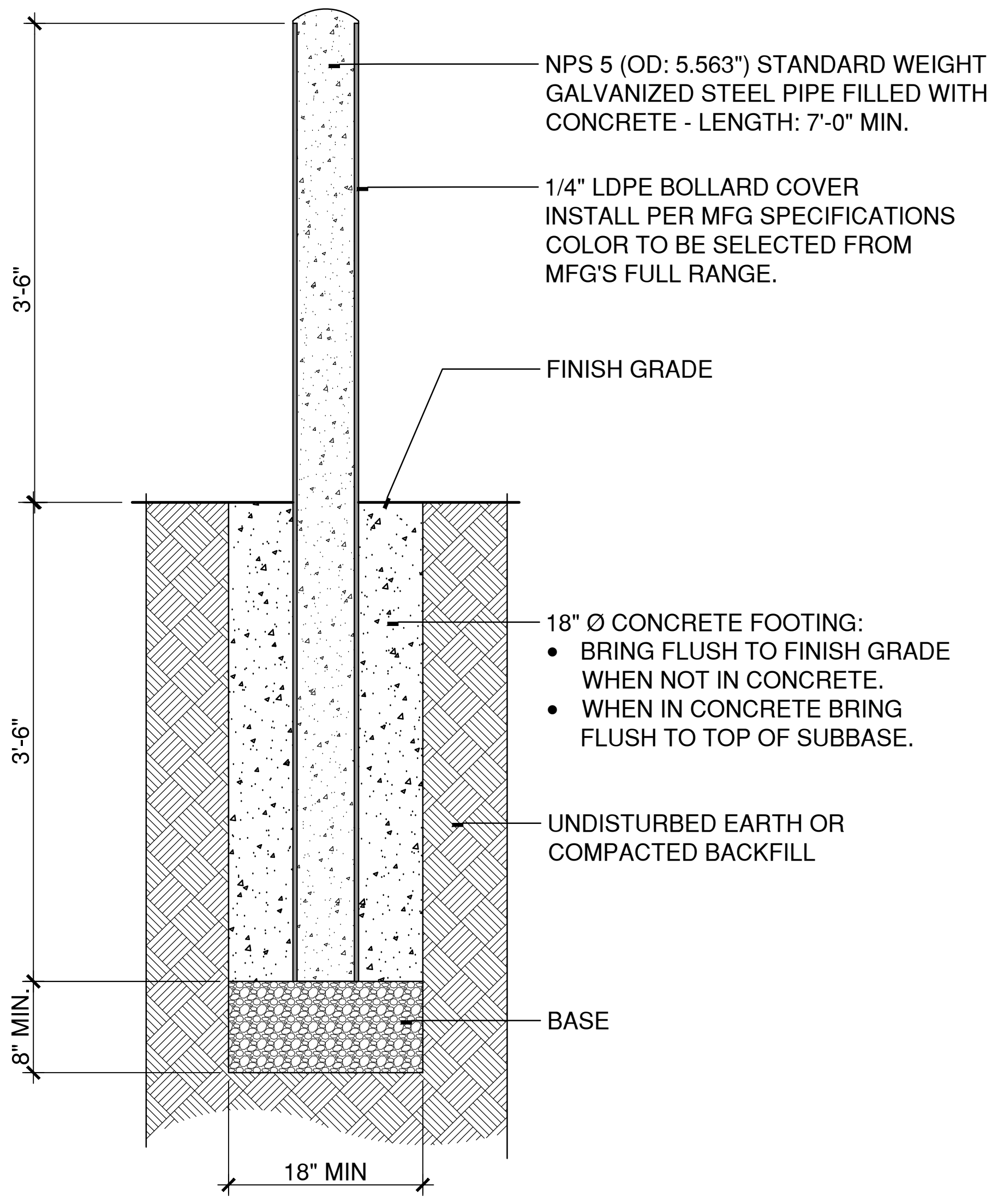

4'-6"
4'-6"
POSTS, UPPER HANDRAIL, AND TOP OF GUARD: STANDARD WEIGHT STEEL PIPE NPS 1-1/2" (1.9" O.D.)
3/4" STEEL ROD, BENT AND WELDED TO UPPER AND LOWER HANDRAILS AND INTERMEDIATE POSTS (TYP.)
LOWER HANDRAIL AND BOTTOM OF GUARD: NPS 1-1/4 (1.66" O.D.)
MITERED CORNER W/ EASED EDGES
RETURN HANDRAILS TO TERMINAL POSTS
10" OUTSIDE RADIUS
8" OUTSIDE RADIUS
6" OUTSIDE RADIUS
PICKETS: 1/2" SOLID BARS @ 4" O.C.
1'-10"
2'-10"
3'-6"
DECORATIVE FLANGE (TYP)
CONCRETE WALK TYPE 1
PITCH TREADS TO DRAIN
6"
12"
FULL DEPTH EXPANSION JOINT
12" X 3/4" Ø STEEL DOWEL @ 16" OC AT ALL EXPANSION JOINTS
12"
6"
12"
FIN. GR.
2'-10"
1'-10"
6"
6"
12"
SEE STRUCTURAL DRAWINGS FOR FOOTING AND STEEL REINFORCING REQUIREMENTS
12"
POST TO BE SET IN NON-SHRINK GROUT. CORE DRILL OPENINGS AS REQUIRED
2 COMPONENT ALUMINUM STAIR NOSING (TYP.)
CONCRETE STEPS
15"
9"

CONCRETE STAIR WITH HANDRAIL AND GUARD
SCALE: 1/2"=1'
Z:\2015025\DETAILS\CONC STAIR-B.DWG

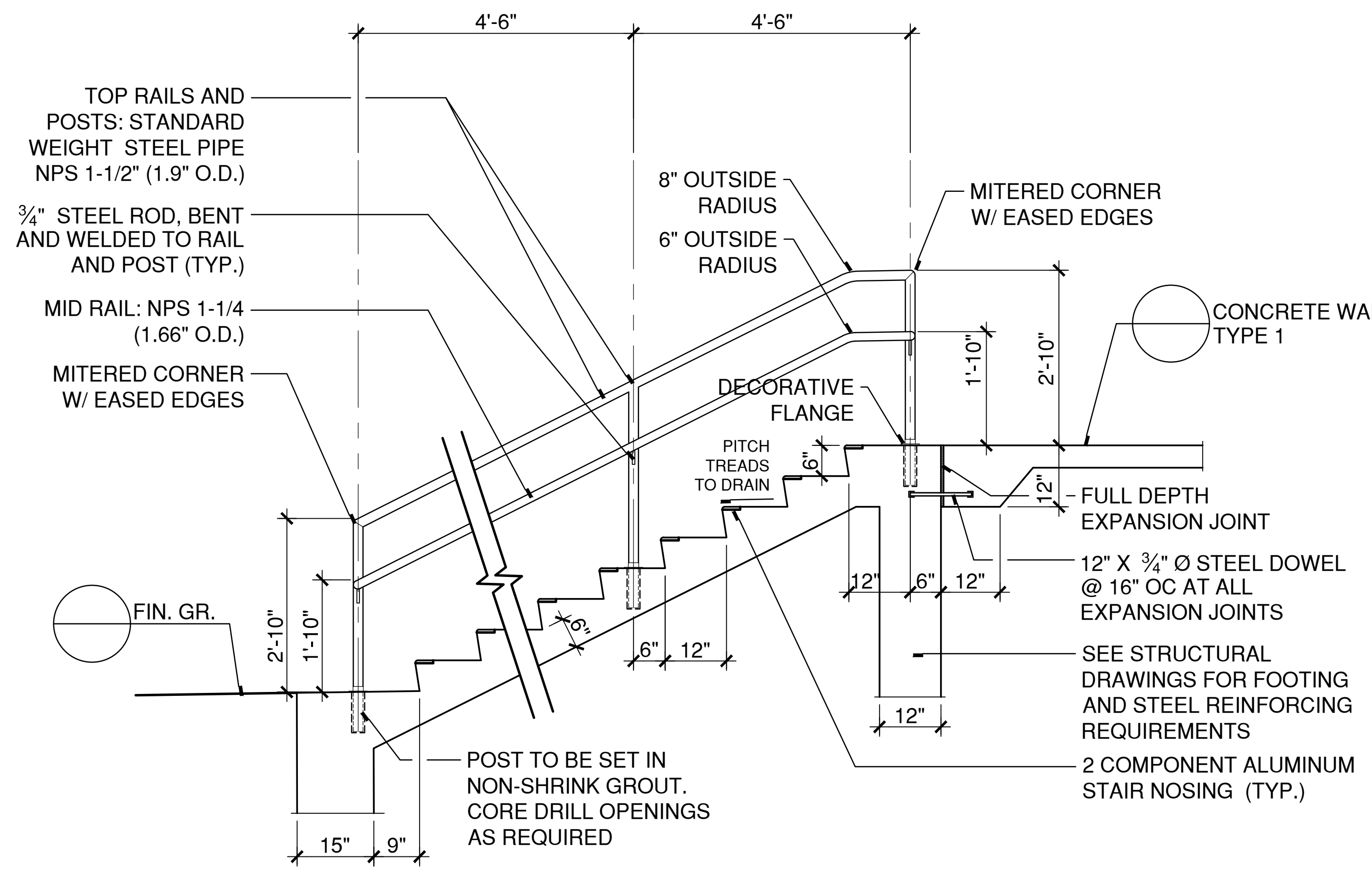

35' EXPOSED HEIGHT. 38.5' OVERALL HEIGHT. 7" BASE SHAFT DIAMETER.
CAULK
COLLAR
CONCRETE WALK PAVEMENT
EXPANSION JOINT SEALANT
5"
10" DIA. GROUND SLEEVE
CONCRETE
SAND
3'-6"
WEDGES
BASE PLATE
SETTING PLATE
GROUND SPIKE
2'
2'-6"

NOTE: FINAL DIMENSIONS DEPENDANT ON RECOMMENDATIONS OF FLAGPOLE MANUFACTURER AND ARE SUBJECT TO CHANGE.

FLAGPOLE FOOTING
SCALE: 1"=1'
X:\CADSTANDARD\DETAILS\107500-A.DWG


NPS 5 (OD: 5.563") STANDARD WEIGHT GALVANIZED STEEL PIPE FILLED WITH CONCRETE - LENGTH: 7'-0" MIN.
1/4" LDPE BOLLARD COVER INSTALL PER MFG SPECIFICATIONS COLOR TO BE SELECTED FROM MFG'S FULL RANGE.
3'-6"
FINISH GRADE
3'-6"
18" Ø CONCRETE FOOTING:
• BRING FLUSH TO FINISH GRADE WHEN NOT IN CONCRETE.
• WHEN IN CONCRETE BRING FLUSH TO TOP OF SUBBASE.
UNDISTURBED EARTH OR COMPACTED BACKFILL
8" MIN.
BASE
18" MIN

STEEL PIPE BOLLARD
SCALE: 1"=1'
Z:\2013031\DETAILS\129300-B.DWG


4'-6"
4'-6"
TOP RAILS AND POSTS: STANDARD WEIGHT STEEL PIPE NPS 1-1/2" (1.9" O.D.)
3/4" STEEL ROD, BENT AND WELDED TO RAIL AND POST (TYP.)
MID RAIL: NPS 1-1/4 (1.66" O.D.)
MITERED CORNER W/ EASED EDGES
8" OUTSIDE RADIUS
6" OUTSIDE RADIUS
MITERED CORNER W/ EASED EDGES
1'-10"
2'-10"
CONCRETE WALK TYPE 1
DECORATIVE FLANGE
PITCH TREADS TO DRAIN
6"
12"
FULL DEPTH EXPANSION JOINT
12" X 3/4" Ø STEEL DOWEL @ 16" OC AT ALL EXPANSION JOINTS
12"
6"
12"
FIN. GR.
2'-10"
1'-10"
6"
6"
12"
SEE STRUCTURAL DRAWINGS FOR FOOTING AND STEEL REINFORCING REQUIREMENTS
12"
POST TO BE SET IN NON-SHRINK GROUT. CORE DRILL OPENINGS AS REQUIRED
2 COMPONENT ALUMINUM STAIR NOSING (TYP.)
15"
9"

CONCRETE STAIR WITH HANDRAIL
SCALE: 1/2"=1'
Z:\2015025\DETAILS\CONC STAIR-B.DWG

NO.	DATE	ISSUE
1	9/10/19	STAFF COMMENTS

LANDSCAPE ARCHITECT
Richter & Cegan Inc.
8B CANAL COURT P.O. BOX 567
AVON, CT 06001 PHONE: 860-678-0669

STATE OF CONNECTICUT
MICHAEL A. CEGAN
NO. 483
LICENSED LANDSCAPE ARCHITECT

SEAL

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:
SITE DETAILS

L-503

PLANNING AND ZONING SUBMISSION

JULY 26, 2019

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PLANT SCHEDULE

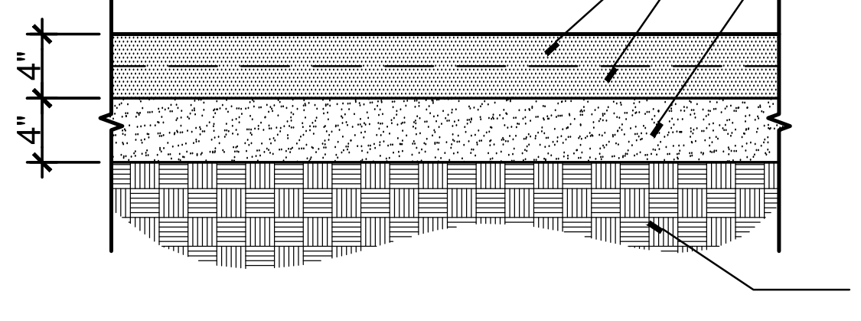
CATEGORY	SYM	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENTS
TREE (DECIDUOUS)	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	6	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	AS	ACER SACHARINUM 'LEGACY'	LEGACY SUGAR MAPLE	2	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	BN	BETULA NIGRA 'DURA HEAT'	RIVER BIRCH	3	14-16' HT. MULTI-STEM	B&B, MIN. 3 TRUNKS, FULL SPECIMEN
	PA	PLATANUS ACERIFOLIA 'BLOODGOOD'	LONDON PLANETREE	3	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	PS	PRUNUS SARGENTII 'PINK FLAIR'	JAPANESE FLOWERING CHERRY	4	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	QP	QUERCUS PALUSTRIS	PIN OAK	6	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	TC	TILIA CORDATA 'GREENSPIRE'	LITTLE LEAF LINDEN	4	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	UP	ULMUS PAVIFOLIA 'ALLEE'	ALLEE CHINESE ELM	12	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
	ZS	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE JAPANESE ZELKOVA	5	3-3 1/2" CAL.	B&B, UNIFORM, HIGH BRANCHED TO 6'
TREE (EVERGREEN)	TGG	THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	37	7-8' HT.	B&B

WETMIX SEED MIX

BOTANICAL NAME	COMMON NAME
CAREX VULPINOIDEA	FOX SEDGE
CAREX SCOPARIA	BLUNT BROOM SEDGE
CAREX LURIDA	LURID SEDGE
CAREX LUPULINA	HOP SEDGE
POA PALUSTRIS	FOWL BLUEGRASS
BIDENS FRONDOSA	BEGGER TICKS
SCRIPUS ATROVIRENS	GREEN BULRUSH
ASCLEPIAS INCARNATA	SWAMP MILKWEED
CAREX CRINITA	FRINGED SEDGE
VERONICA NOVEBORACENSIS	NEW YORK IRONWEED
JUNCUS EFFUSUS	SOFT RUSH
ASTER LATERIFLORUS	CALICO ASTER
IRIS VERSICOLOR	BLUE FLAG
GLYCERIA GRANDIS	AMERICAN MANNAGRASS
MIMULUS RINGENS	SQUARE STEMMED MONKEY FLOWER
EUPATORIUM MACULATUM	SPOTTED JOE PYE WEED

NATIVE FESCUE SEED MIX

BOTANICAL NAME	COMMON NAME
FESTUCA BREVIPILA	HARD FESCUES
FESTUCA OVINA	SHEEP FESCUE
FESTUCA RUBRA SUBS. FALLAX	CHEWINGS FESCUE
FESTUCA RUBRA	RED FESCUE
FESTUCA RUBRA VAR. RUBRA	CREEPING RED FESCUE


COMPACTED INFIELD MIX PLACED IN TWO LIFTS
SAND CUSHION
COMPACTED SAND AND GRAVEL SUBGRADE
4"
4"

SKINNED INFIELD

SCALE: 1"=1'
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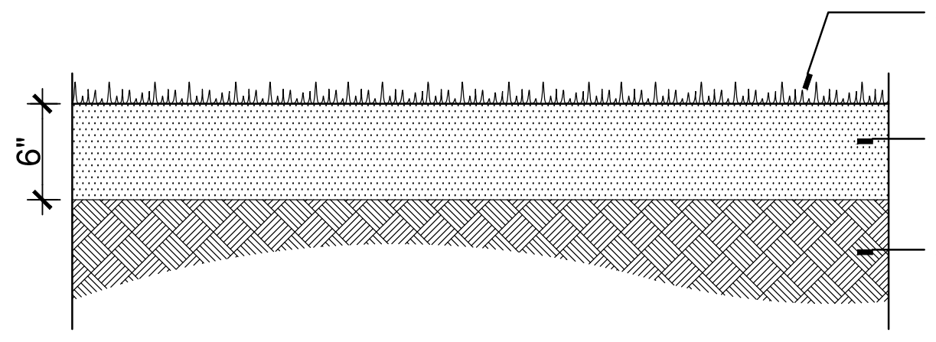
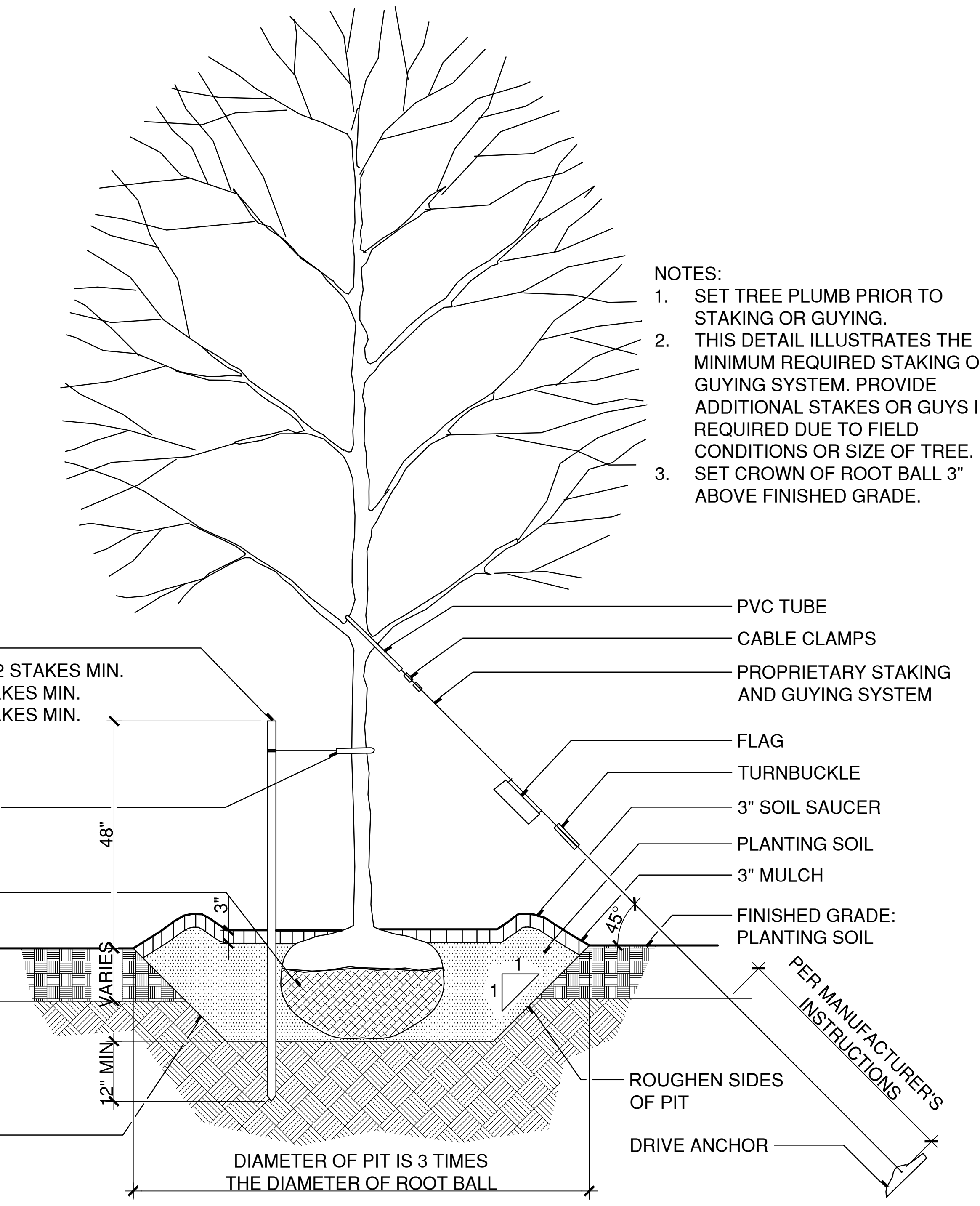

SEEDED LAWN
PLANTING SOIL
SUBGRADE
6"

SEEDED LAWN

SCALE: 1"=1'
X:\CADSTANDARD\DETAILS\329200-C.DWG


PVC TUBE
CABLE CLAMPS
PROPRIETARY STAKING AND GUYING SYSTEM
FLAG
TURNBUCKLE
3" SOIL SAUCER
PLANTING SOIL
3" MULCH
FINISHED GRADE: PLANTING SOIL
PER MANUFACTURER'S INSTRUCTIONS
ROUGHEN SIDES OF PIT
DRIVE ANCHOR
48"
3"
VARIES
12" MIN
45°
1
1

2"X2" UPRIGHT STAKES:
- UP TO 3" CAL. PROVIDE 2 STAKES MIN.
- 3-4" CAL. PROVIDE 3 STAKES MIN.
- 4-5" CAL. PROVIDE 4 STAKES MIN.

TREE TIE WEBBING WITH LOOP 6" TO 8" LARGER THAN TRUNK DIAMETER

CUT BURLAP FROM TOP 1/3 OF ROOT BALL

ROUGHEN SIDES OF PIT

DIAMETER OF PIT IS 3 TIMES THE DIAMETER OF ROOT BALL

NOTES:
1. SET TREE PLUMB PRIOR TO STAKING OR GUYING.
2. THIS DETAIL ILLUSTRATES THE MINIMUM REQUIRED STAKING OR GUYING SYSTEM. PROVIDE ADDITIONAL STAKES OR GUYS IF REQUIRED DUE TO FIELD CONDITIONS OR SIZE OF TREE.
3. SET CROWN OF ROOT BALL 3" ABOVE FINISHED GRADE.

UPRIGHT STAKING AND TYING DETAIL
FOR TREES UP TO 5" CALIPER

STAKING AND GUYING DETAIL
FOR TREES GREATER THAN 5" CALIPER

TREE PLANTING WITH TRUNK STABILIZATION

SCALE: 1/2"=1'
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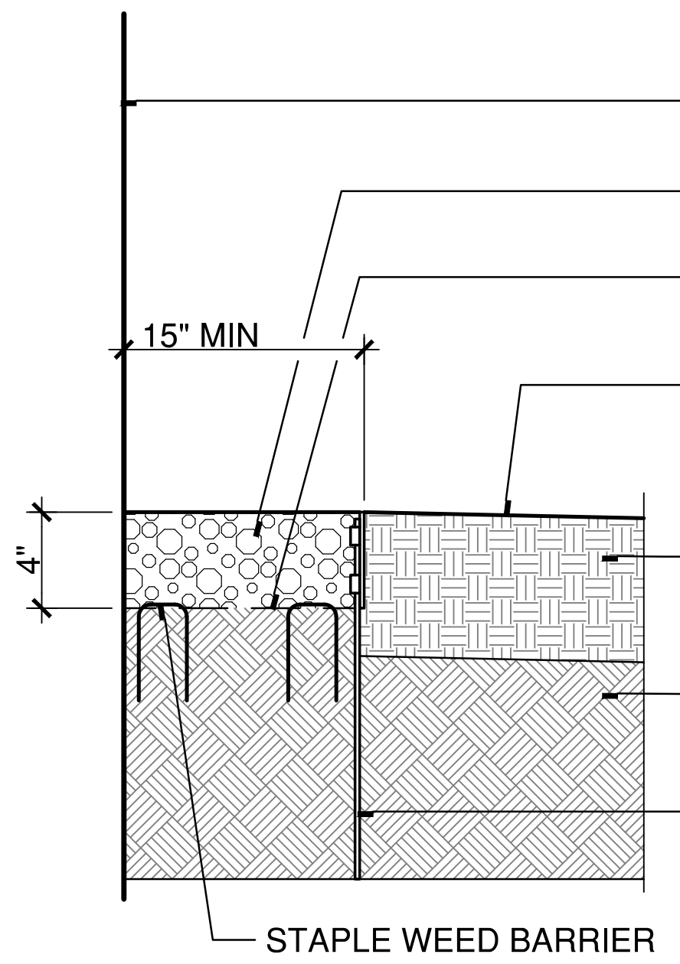
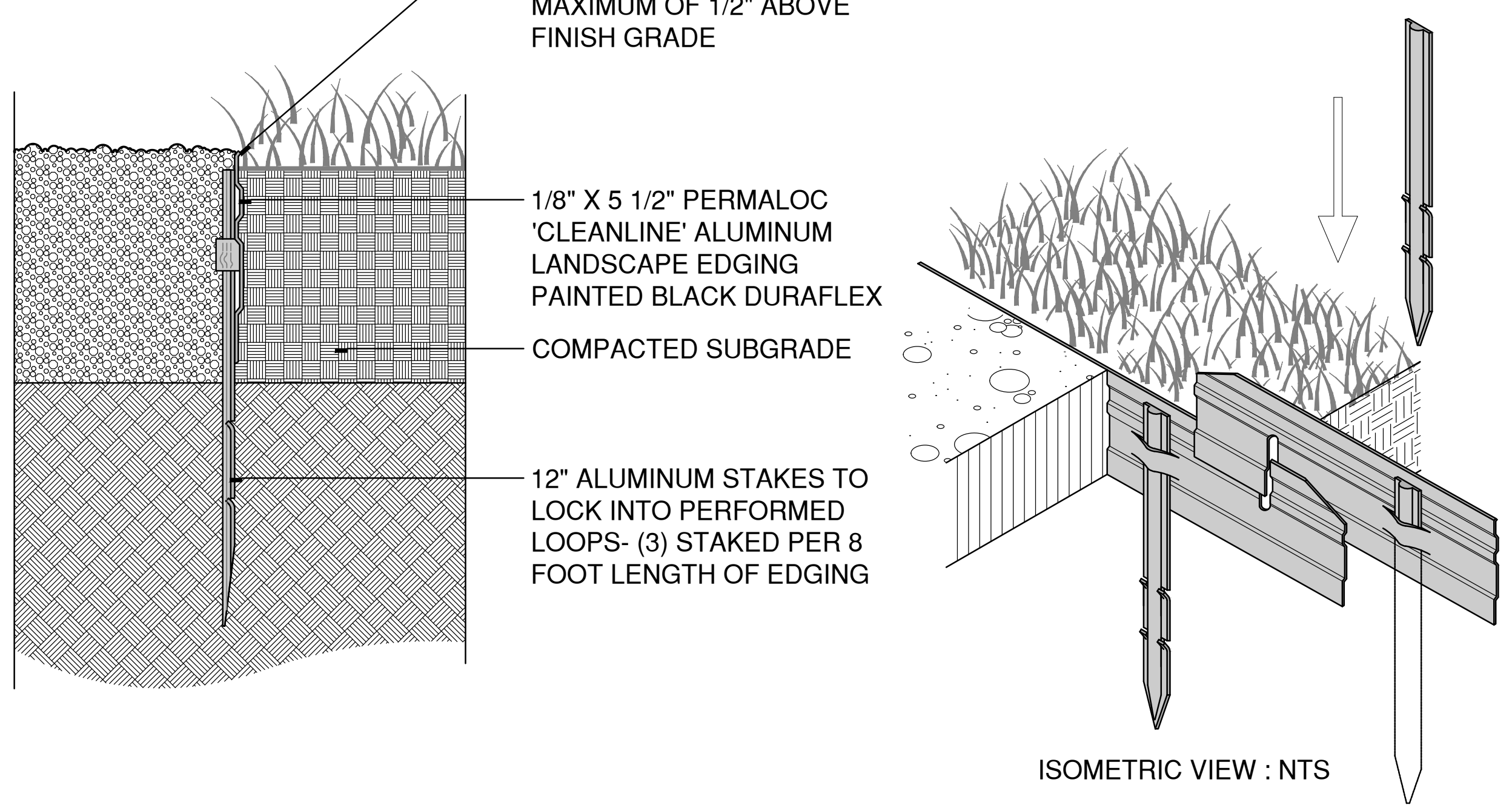

FOUNDATION WALL
3/8" CRUSHED STONE
WEED BARRIER FABRIC
15" MIN
SLOPE FINISH GRADE AWAY FROM BUILDING @ 1/4"/FOOT
4"
TOPSOIL
PREPARED SUBGRADE
LANDSCAPE EDGING
STAPLE WEED BARRIER EDGES AND JOINTS

NOTE: BACKFILL BOTH SIDES OF METAL EDGING SIMULTANEOUSLY.

MOW STRIP

SCALE: 1 1/2"=1'
X:\CADSTANDARD\DETAILS\321500-C.DWG


TOP OF EDGING TO BE A MAXIMUM OF 1/2" ABOVE FINISH GRADE
1/8" X 5 1/2" PERMALOC 'CLEANLINE' ALUMINUM LANDSCAPE EDGING PAINTED BLACK DURAFLEX
COMPACTED SUBGRADE
12" ALUMINUM STAKES TO LOCK INTO PERFORMED LOOPS- (3) STAKED PER 8 FOOT LENGTH OF EDGING
ISOMETRIC VIEW : NTS

NOTES:
1.) 16'-0" SECTIONS TO INCLUDE (6) 12" ALUMINUM STAKES.
2.) COMPACT GRADES ADJACENT TO EDGING TO AVOID SETTLING.
3.) CORNERS - CUT BASE OF MATERIAL TO FORM A CONTINUOUS CORNER.
4.) PERMALOC 'CLEANLINE' ALUMINIM LANDSCAPE EDGING AS MANUFACTURED BY PERMALOC CORPORATION, HOLLAND, MI., 1-800-356-9660.

LANDSCAPE EDGING

SCALE: 3"=1'
X:\CADSTANDARD\DETAILS\055000-A.DWG

NO.	DATE	ISSUE
1	9/10/19	STAFF COMMENTS

LANDSCAPE ARCHITECT
Richter & Cegan Inc.
8B CANAL COURT P.O. BOX 567
AVON, CT 06001 PHONE: 860-678-0669

MICHAEL A. CEGAN
NO. 488

SEAL

PERKINS EASTMAN
677 Washington Blvd, Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Owner:
Town of Groton
Town Hall Annex 134 Groton Long Point Road
Groton, CT 06340 860.572.2100

Construction Manager:
O & G Industries
112 Wall Street
Torrington, CT 06790 860.489.9261

Owner's Representative:
Arcadis
207 Main Street, Suite 200
Hartford, CT 06106 860.906.1577

Civil / Site:
Milone & MacBroom
99 Realty Drive
Chesire, CT 06410 203.271.1773

Landscape:
Richter & Cegan
Avon Park North P.O. Box 567, 8B Canal Court,
Avon, CT 06001 860.678.0669

Structural:
BVH Integrated Services
50 Griffen Road South
Bloomfield, CT 06002 860.286.9171

Mechanical, Electrical, Plumbing & Fire Protection:
Diversified Technology Consultants
2321 Whitney Avenue, Suite 301
Hamden, CT 06518 203.239.4200

Technology and Security
D'Agostino & Associates
1266 E. Main Street
Stamford, CT 06902 203.539.6164

Food Service:
Foodservice Facilities International
137 Elm Place
New Canaan, CT 06840 203.972.1605

Acoustical Consultant:
Acentech
33 Moulton Street
Cambridge, MA 02138 617.499.8000

Sustainability Consultant:
Atelier Ten
798 Chapel Street
New Haven, CT 06510 203.777.1400

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Ave
Groton, CT 06340

PROJECT No:74451

DRAWING TITLE:

SITE DETAILS

L-505

PLANNING AND ZONING SUBMISSION

JULY 26, 2019

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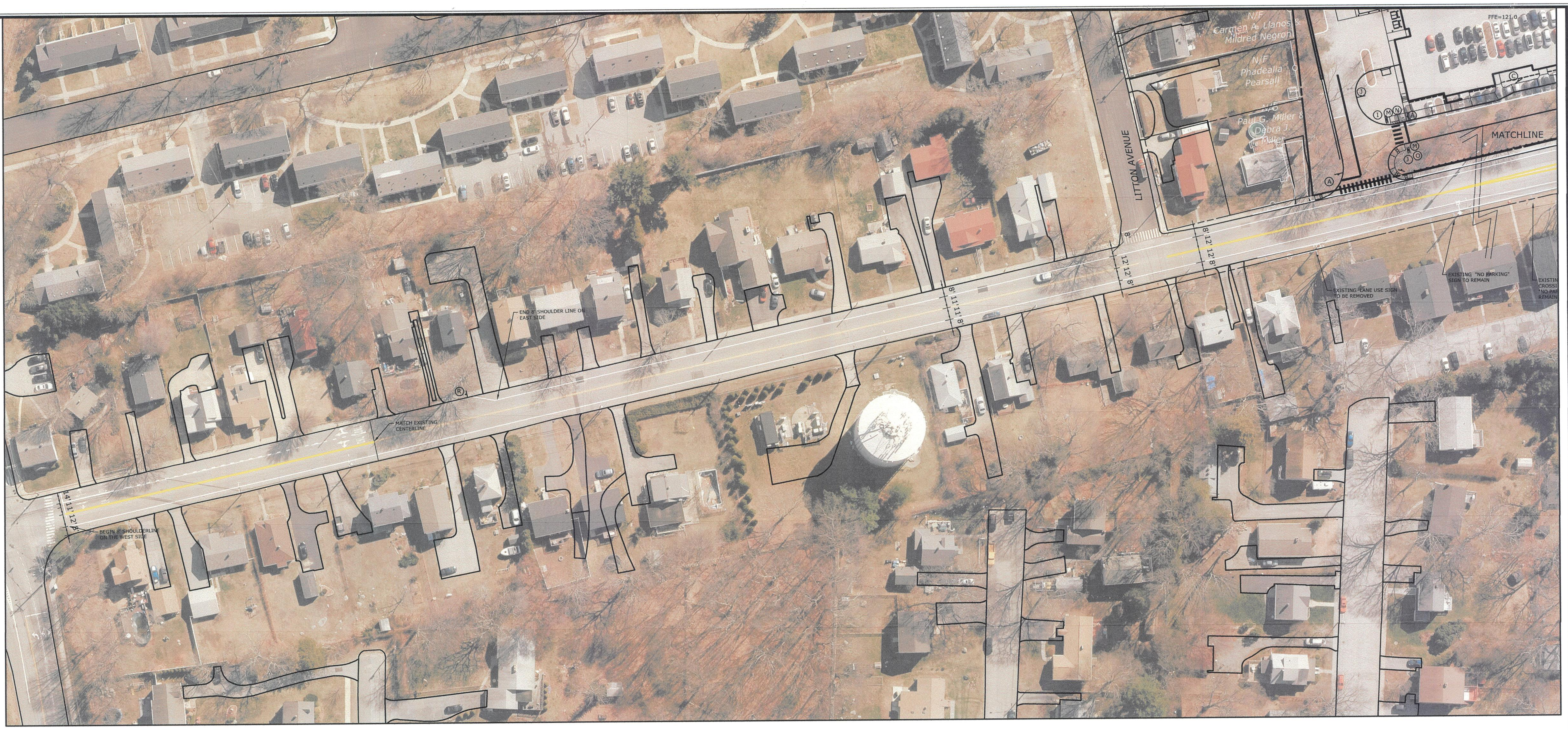
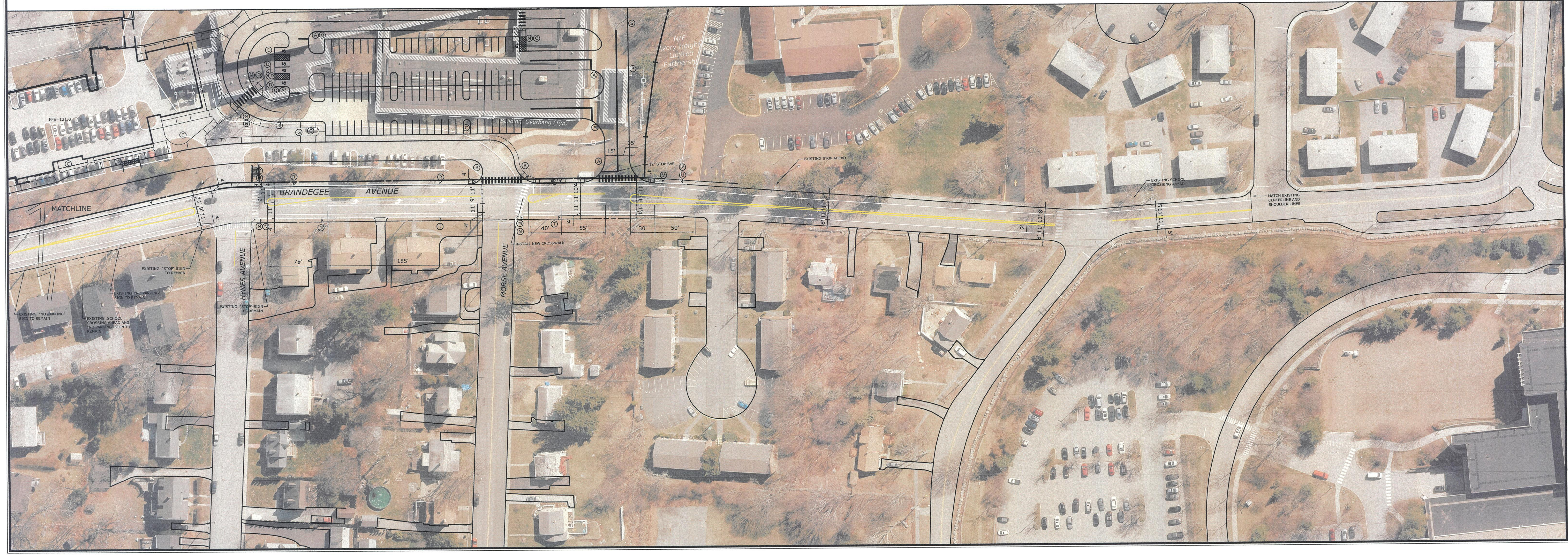
Drawing: V:\DESIGN\1777-39-DE\CAD\WESTSIDE - SPM - EXTENDED.DWG Layout Tab:24X36
Plotted by: RYANO On this date: Wed, 2019 September 11 - 11:05am

SIGN LEGEND

Ⓐ	INSTALL 31-0552	STOP
Ⓑ	INSTALL CUSTOM 12" X 18"	PARENT PICK-UP DROP-OFF ↑
Ⓒ	INSTALL CUSTOM 12" X 18"	PARENT PICK-UP AND DROP-OFF LANE
Ⓓ	INSTALL CUSTOM 12" X 18"	RESERVED PARKING PERMIT REQUIRED
Ⓔ	INSTALL CUSTOM 12" X 18"	VISITORS ↑
Ⓕ	INSTALL CUSTOM 12" X 18"	BUSES ONLY _ TO _ AM _ TO _ PM
Ⓖ	INSTALL 31-1188	← ONE WAY
Ⓗ	INSTALL CUSTOM	K, PRE-K PICK-UP DROP OFF
Ⓘ	INSTALL 31-1119	DO NOT ENTER
Ⓙ	INSTALL CUSTOM 12" X 18"	SERVICE ENTRANCE ONLY
Ⓚ	INSTALL CUSTOM 12" X 18"	K, PRE-K PICK-UP DROP OFF ↑
Ⓛ	INSTALL 31-1526	
Ⓜ	INSTALL 41-2112	
Ⓝ	INSTALL 41-2607	↙
Ⓞ	INSTALL 41-2609	↘
Ⓟ	INSTALL CUSTOM 12" X 18"	VISITORS ←
Ⓠ	INSTALL CUSTOM	
Ⓡ	INSTALL CUSTOM 12" X 18"	NO PARKING ANY TIME
Ⓢ	INSTALL CUSTOM	BUSES ONLY _ TO _ AM _ TO _ PM ←
Ⓣ	INSTALL 31-0222	↰ ONLY ↑
Ⓤ	INSTALL 41-6127	AHEAD
Ⓥ	INSTALL 31-0806	DO NOT BLOCK INTERSECTION


N/F
Carmen A. Llanos &
Mildred Negron
N/F
Phadealia
Pearsall
N/F
Paul G. Miller &
Debra J.
Miller
FFE=121.0
LITTON AVENUE
MATCHLINE
EXISTING LANE USE SIGN TO BE REMOVED
EXISTING "NO PARKING" SIGN TO REMAIN
EXISTING CROSSI "NO PAR REMAIN
END 8' SHOULDER LINE ON EAST SIDE
MATCH EXISTING CENTERLINE
BEGIN 8' SHOULDERLINE ON THE WEST SIDE
8' 12' 12' 8'
14' 11' 12' 8'


FFE=121.0
MATCHLINE
BRANDEGEE AVENUE
HYNES AVENUE
MORSE AVENUE
Building Overhang (Typ)
N/F
Avery Heights
Limited
Partnership
12" STOP BAR
INSTALL NEW CROSSWALK
EXISTING "STOP" SIGN TO REMAIN
EXISTING "NO PARKING" SIGN TO REMAIN
EXISTING SCHOOL CROSSING AHEAD AND "NO PARKING" SIGN TO REMAIN
EXISTING STOP AHEAD
EXISTING SCHOOL CROSSING AHEAD
MATCH EXISTING CENTERLINE AND SHOULDER LINES
75'
185'
40'
55'
30'
50'
15'

N E S W

0' 30' 60'
0 1/2" 1"

DAVID G. SULLIVAN #16204

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DESCRIPTION	DATE	BY

OFF-SITE SIGNING AND PAVEMENT MARKINGS

WEST SIDE SCHOOL

250 BRANDEGEE AVENUE
GROTON, CONNECTICUT

DGS	RTO	DGS
DESIGNED	DRAWN	CHECKED

SCALE: 1"=60'

DATE: SEPTEMBER 10, 2019

PROJECT NO.: 1777-39

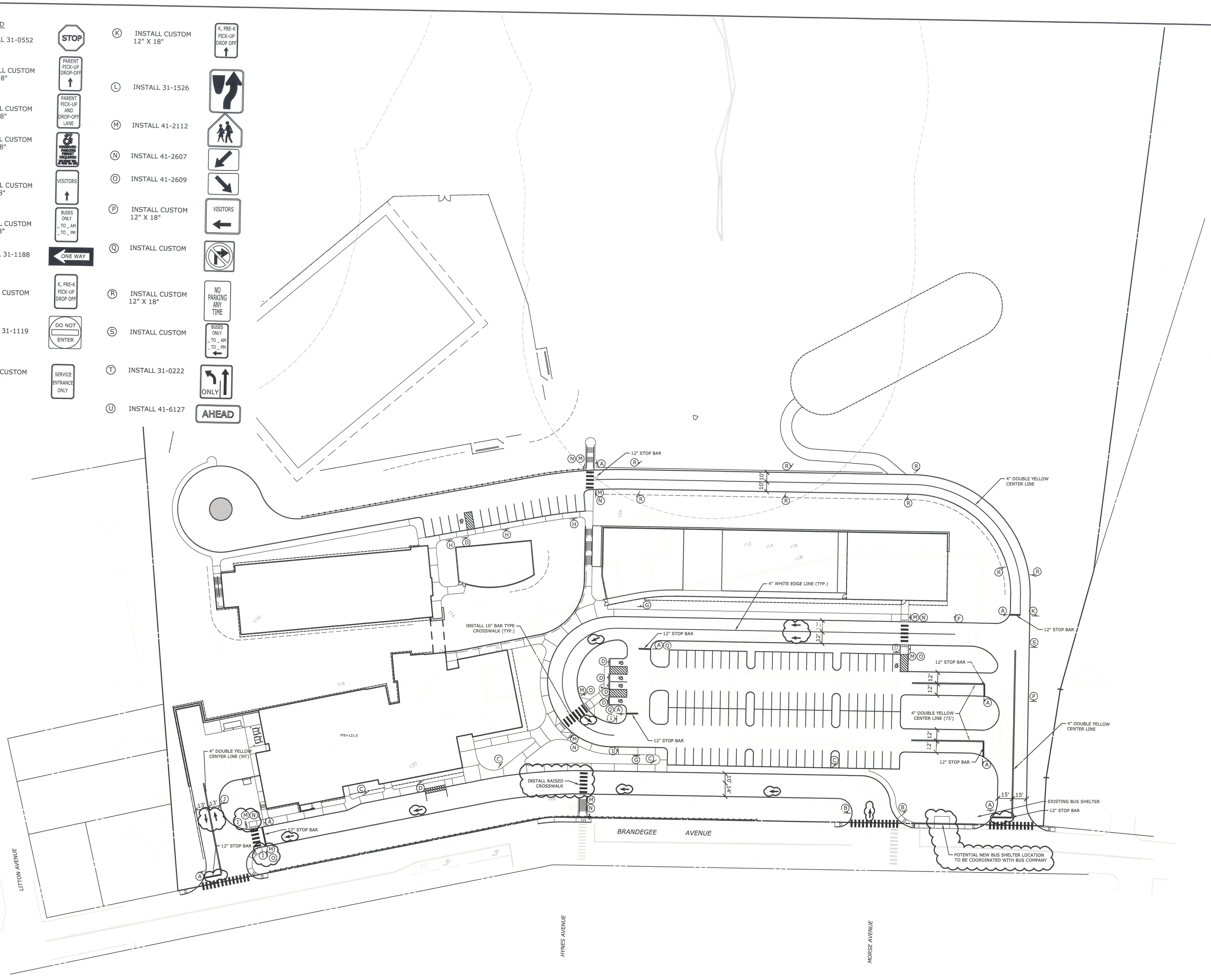
SHEET NO.: 1 OF 1

SHEET NAME: **SPM**

Drawing: V:\DESIGN\1777-39-DE\CAD\WESTSIDE - SPM.DWG Layout Tab:40 SCALE
Plotted by: SKARAR On this date: Thu, 2019 September 12 - 8:50am

SIGN LEGEND

Ⓐ	INSTALL 31-0552	STOP
Ⓑ	INSTALL CUSTOM 12" X 18"	PARENT PICK-UP DROP-OFF ↑
Ⓒ	INSTALL CUSTOM 12" X 18"	PARENT PICK-UP AND DROP-OFF LANE
Ⓓ	INSTALL CUSTOM 12" X 18"	♿ RESERVED PARKING PERMIT REQUIRED
Ⓔ	INSTALL CUSTOM 12" X 18"	VISITORS ↑
Ⓕ	INSTALL CUSTOM 12" X 18"	BUSES ONLY _ TO _ AM _ TO _ PM
Ⓖ	INSTALL 31-1188	← ONE WAY
Ⓗ	INSTALL CUSTOM	K, PRE-K PICK-UP DROP OFF
Ⓘ	INSTALL 31-1119	DO NOT ENTER
Ⓙ	INSTALL CUSTOM 12" X 18"	SERVICE ENTRANCE ONLY
Ⓚ	INSTALL CUSTOM 12" X 18"	K, PRE-K PICK-UP DROP OFF ↑
Ⓛ	INSTALL 31-1526	
Ⓜ	INSTALL 41-2112	
Ⓝ	INSTALL 41-2607	↙
Ⓞ	INSTALL 41-2609	↘
Ⓟ	INSTALL CUSTOM 12" X 18"	VISITORS ←
Ⓠ	INSTALL CUSTOM	
Ⓡ	INSTALL CUSTOM 12" X 18"	NO PARKING ANY TIME
Ⓢ	INSTALL CUSTOM	BUSES ONLY _ TO _ AM _ TO _ PM ←
Ⓣ	INSTALL 31-0222	↰ ↑ ONLY
Ⓤ	INSTALL 41-6127	AHEAD


12" STOP BAR
4" DOUBLE YELLOW CENTER LINE
4" WHITE EDGE LINE (TYP.)
INSTALL 16" BAR TYPE CROSSWALK (TYP.)
12" STOP BAR
12" STOP BAR
4" DOUBLE YELLOW CENTER LINE (75')
12" STOP BAR
4" DOUBLE YELLOW CENTER LINE
12" STOP BAR
4" DOUBLE YELLOW CENTER LINE (90')
FFE=121.0
INSTALL RAISED CROSSWALK
12" STOP BAR
12" STOP BAR
EXISTING BUS SHELTER
12" STOP BAR
POTENTIAL NEW BUS SHELTER LOCATION TO BE COORDINATED WITH BUS COMPANY
BRANDEGEE AVENUE
LITTON AVENUE
HYNES AVENUE
MORSE AVENUE
10' 10'
12' 12'
10' 14'
13' 13'
15' 15'
104
110
112
114
116
118
120
126

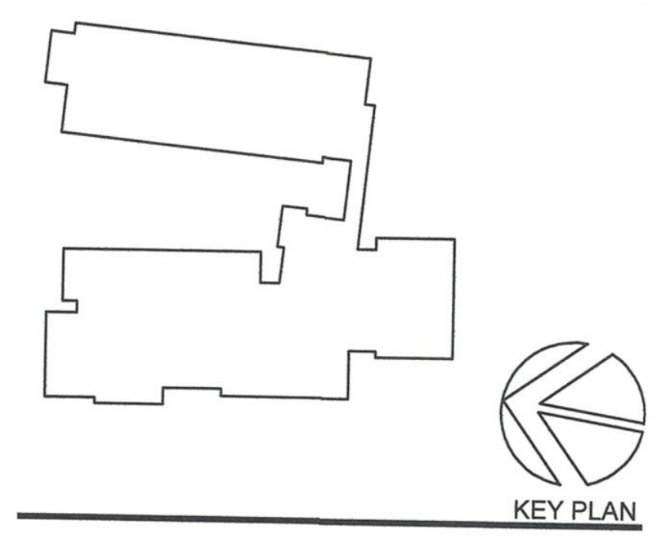
NOTE:
FOR OFF-SITE SIGNAGE AND PAVEMENT MARKINGS, SEE SHEET SPM DATED SEPTEMBER 10, 2019, CREATED BY: MILONE & MACBROOM, INC.

NO.	DATE	ISSUE
1	07/26/2019	PNZ SUBMISSION
2	08/13/2019	PNZ SUBMISSION
3	09/10/2019	CITY COMMMENTS

MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMINC.COM

DAVID G. SULLIVAN
16204

SEAL


KEY PLAN

PERKINS— EASTMAN
422 Summer Street
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandegee Avenue
Groton, CT 06340

PROJECT No: 74450

DRAWING TITLE:

SITE PLAN - ON-SITE SIGN AND PAVEMENT MARKINGS

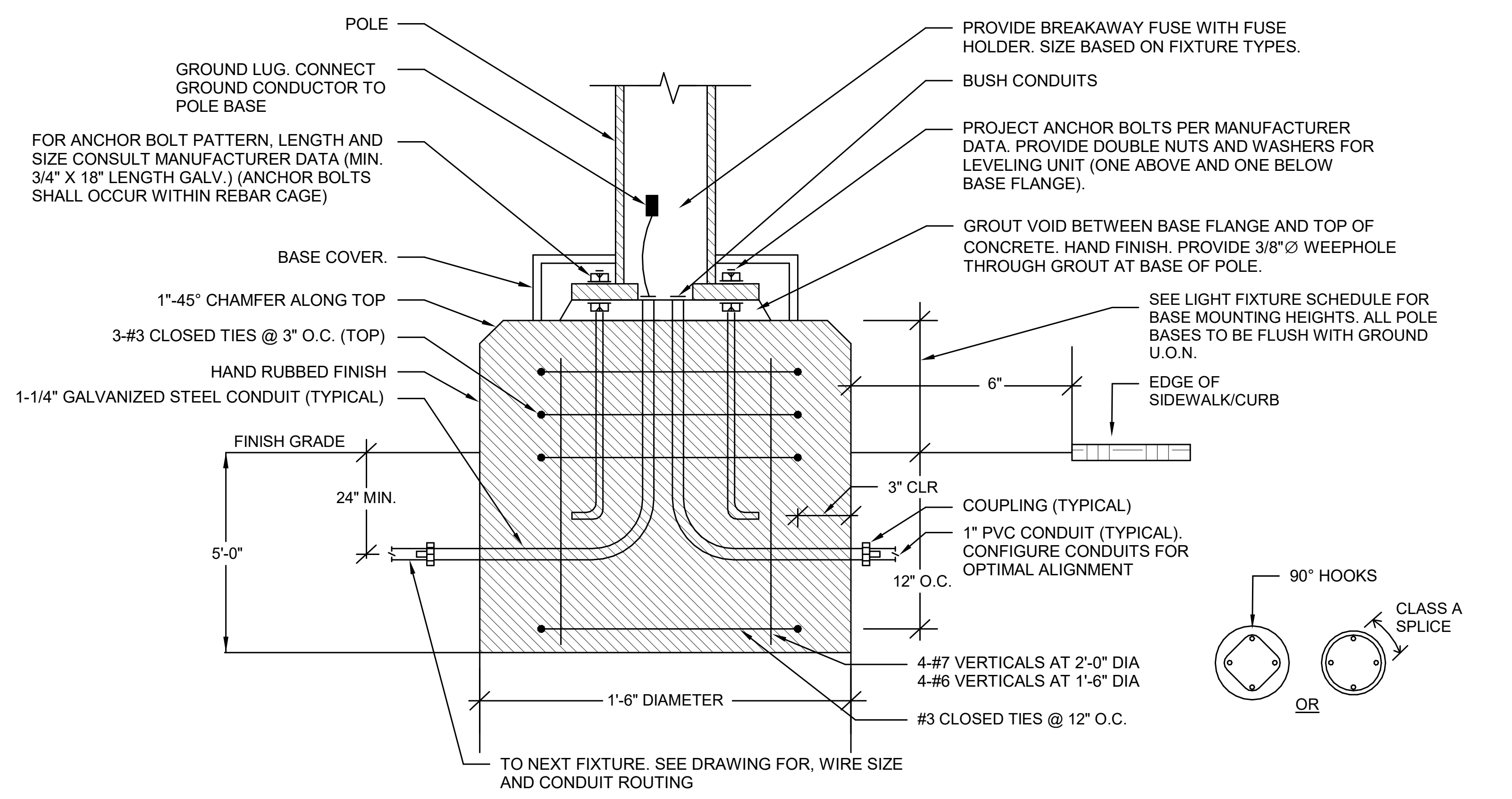
0' 20' 40'
0 1/2" 1"

SCALE: 1" = 40'

C-103

PLANNING AND ZONING SUBMISSION

JUNE 18, 2019


POLE
GROUND LUG. CONNECT GROUND CONDUCTOR TO POLE BASE
FOR ANCHOR BOLT PATTERN, LENGTH AND SIZE CONSULT MANUFACTURER DATA (MIN. 3/4" X 18" LENGTH GALV.) (ANCHOR BOLTS SHALL OCCUR WITHIN REBAR CAGE)
BASE COVER.
1"-45° CHAMFER ALONG TOP
3-#3 CLOSED TIES @ 3" O.C. (TOP)
HAND RUBBED FINISH
1-1/4" GALVANIZED STEEL CONDUIT (TYPICAL)
FINISH GRADE
24" MIN.
5'-0"
PROVIDE BREAKAWAY FUSE WITH FUSE HOLDER. SIZE BASED ON FIXTURE TYPES.
BUSH CONDUITS
PROJECT ANCHOR BOLTS PER MANUFACTURER DATA. PROVIDE DOUBLE NUTS AND WASHERS FOR LEVELING UNIT (ONE ABOVE AND ONE BELOW BASE FLANGE).
GROUT VOID BETWEEN BASE FLANGE AND TOP OF CONCRETE. HAND FINISH. PROVIDE 3/8"Ø WEEPHOLE THROUGH GROUT AT BASE OF POLE.
SEE LIGHT FIXTURE SCHEDULE FOR BASE MOUNTING HEIGHTS. ALL POLE BASES TO BE FLUSH WITH GROUND U.O.N.
6"
EDGE OF SIDEWALK/CURB
3" CLR
COUPLING (TYPICAL)
1" PVC CONDUIT (TYPICAL). CONFIGURE CONDUITS FOR OPTIMAL ALIGNMENT
12" O.C.
90° HOOKS
CLASS A SPLICE
OR
4-#7 VERTICALS AT 2'-0" DIA
4-#6 VERTICALS AT 1'-6" DIA
1'-6" DIAMETER
#3 CLOSED TIES @ 12" O.C.
TO NEXT FIXTURE. SEE DRAWING FOR, WIRE SIZE AND CONDUIT ROUTING

NOTES:

1. COORDINATE ANCHOR BOLT SIZE, QUANITITY AND LOCATION WITH MANUFACTURER. (ANCHOR BOLTS SHALL HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI.)
2. CONCRETE FOR FOOTINGS SHOWN ON THIS SHEET, SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM SPECIFIED 28 DAY COMPRESSIVE STRENGTH OF f'c= 4000psi. REINFORCING SHALL MEET ASTM A615 GR 60 KSI. GROUT SHALL HAVE A MINIMAL SPECIFIED 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI AND SHALL BE NON-METALLIC.
3. FIELD LOCATE ALL BASE LOCATIONS FOR APPROVAL BY ARCHITECT PRIOR TO INSTALLATION. NOTIFY ARCHITECT OF ANY CONFLICTS.
4. PROVIDE HAND-RUBBED FINISH ON ALL EXPOSED SURFACES OF FOOTINGS.
5. FOOTINGS ARE SIZED FOR SPECIFIED POLES AND FIXTURES SHOWN IN LIGHT FIXTURE SCHEDULE (THIS SHEET). IF POLES OR FIXTURES BEING PROVIDED ARE DIFFERENT THAN SPECIFIED, NOTIFY ENGINEER AS FOOTING SIZES MAY NEED TO BE MODIFIED TO COMPLY WITH THE SUBSTITUTED POLES/FIXTURES.

③ LIGHT POLE BASE DETAIL
N.T.S.

SITE LIGHT FIXTURE SCHEDULE

FIXTURE STYLE	TYPE	MANUFACTURER	FIXTURE MODEL NUMBER	POLE MODEL NUMBER	DESCRIPTION	BUG RATING	VOLTAGE	LAMPS	LUMEN	MOUNTING	L70
S	S-B	SELUX	ACL-R2-S1-L900-40-X-277	A-A40-250-11-X-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 11' POLE.	B1-U0-G1	277V	48W	3772	POLE	100K+ HRS
	S2	SELUX	ACL-R2-S1-L350-40-X-277	A-A40-250-14-X-X	SITE LIGHTING FIXTURE ON 14' POLE.	B1-U0-G1	277V	19W	1467	POLE	100K+ HRS
	S3	SELUX	ACL-R2-S1-5GL350-40-X-277	A-A40-250-14-X-X	SITE LIGHTING FIXTURE ON 14' POLE.	B1-U0-G1	277V	24W	2520	POLE	100K+ HRS
	S3HS	SELUX	ACL-R2-S1-5GL350-40-X-277-HS	A-A40-250-14-X-X	SITE LIGHTING FIXTURE ON 14' POLE AND HOUSE SIDE SHIELD.	B0-U0-G1	277V	24W	1695	POLE	100K+ HRS
	S3HS-B	SELUX	ACL-R2-S1-5GL350-40-X-277-HS	A-A40-250-11-X-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 11' POLE AND HOUSE SIDE SHIELD.	B0-U0-G1	277V	24W	1695	POLE	100K+ HRS
SL	SL3	US ARCHITECTURAL	RZR-PLED-III-W-40LED-525MA-NW-277-X	SNTS-184-11-1-X	SITE LIGHTING FIXTURE ON 18' POLE.	B2-U0-G2	277V	65W	8276	POLE	60K+ HRS
	SL3-B	US ARCHITECTURAL	RZR-PLED-III-W-40LED-525MA-NW-277-X	SNTS-154-11-1-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 15' POLE.	B2-U0-G2	277V	65W	8276	POLE	60K+ HRS
	SL3-4-B	US ARCHITECTURAL	RZR-PLED-III-W/IV-FT-40LED-525MA-NW-277-X	SNTS-154-11-1-X (MOUNTED ON 3' POLE BASE)	DOUBLE HEAD SITE LIGHTING FIXTURE ON 15' POLE.	B2-U0-G2	277V	130W	16552	POLE	60K+ HRS
	SL3HS	US ARCHITECTURAL	RZR-PLED-III-W-40LED-525MA-NW-277-X-HS	SNTS-184-11-1-X	SITE LIGHTING FIXTURE ON 18' POLE AND HOUSE SIDE SHIELD.	B0-U0-G2	277V	65W	6344	POLE	60K+ HRS
	SL3HS-B	US ARCHITECTURAL	RZR-PLED-III-W-40LED-525MA-NW-277-X-HS	SNTS-154-11-1-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 15' POLE AND HOUSE SIDE SHIELD.	B0-U0-G2	277V	65W	6344	POLE	60K+ HRS
	SL4	US ARCHITECTURAL	RZR-PLED-IV-FT-40LED-525MA-NW-277-X	SNTS-184-11-1-X	SITE LIGHTING FIXTURE ON 18' POLE.	B2-U0-G3	277V	65W	8059	POLE	60K+ HRS
	SL4-B	US ARCHITECTURAL	RZR-PLED-IV-FT-40LED-525MA-NW-277-X	SNTS-154-11-1-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 15' POLE.	B2-U0-G3	277V	65W	8059	POLE	60K+ HRS
ST	ST4	SELUX	ACL-R4-S1-5GL800-40-X-277	A-A40-250-18-X-X	SITE LIGHTING FIXTURE ON 18' POLE.	B1-U0-G1	277V	54W	5184	POLE	100K+ HRS
	ST4-B	SELUX	ACL-R4-S1-5GL800-40-X-277	A-A40-250-15-X-X (MOUNTED ON 3' POLE BASE)	SITE LIGHTING FIXTURE ON 15' POLE.	B1-U0-G1	277V	54W	5184	POLE	100K+ HRS
	ST4HS	SELUX	ACL-R4-S1-5GL800-40-X-277-HS	A-A40-250-14-X-X	SITE LIGHTING FIXTURE ON 14' POLE AND HOUSE SIDE SHIELD.	B0-U0-G1	277V	54W	3589	POLE	100K+ HRS
	ST4HSB	SELUX	ACL-R4-S1-5GL800-40-X-277-HS	A-A40-250-18-X-X	SITE LIGHTING FIXTURE ON 18' POLE AND HOUSE SIDE SHIELD.	B0-U0-G1	277V	54W	3589	POLE	100K+ HRS
	FP	WE-EF	ETC140-GB LED 611-4027	N/A	GROUND RECESSED FLAG POLE LIGHT	N/A	277V	24W	2188	GROUND	N/A
	SP	PHILIPS GARDCO	941L-21L-NW-C-LV-UNV-X	N/A	STEP LIGHTING FIXTURE RECESSED IN STEPS	N/A	277V	21W	312	STEP	100K+ HRS
	X-A	A-LITE	ACL5-LS-40-U-HE-D-Q	N/A	RECESSED LINEARS	B1-U0-G1	277V	20W	1845	RECESSED	N/A
	X-WP	PHILIPS GARDCO	101L-32L-530-NW-G1-UNV-DCC-X	N/A	WALL SCONCE WITH DUAL BOARD ON NORMAL AND GEN	B1-U0-G2	277V	52W	5316	WALL	100K+ HRS

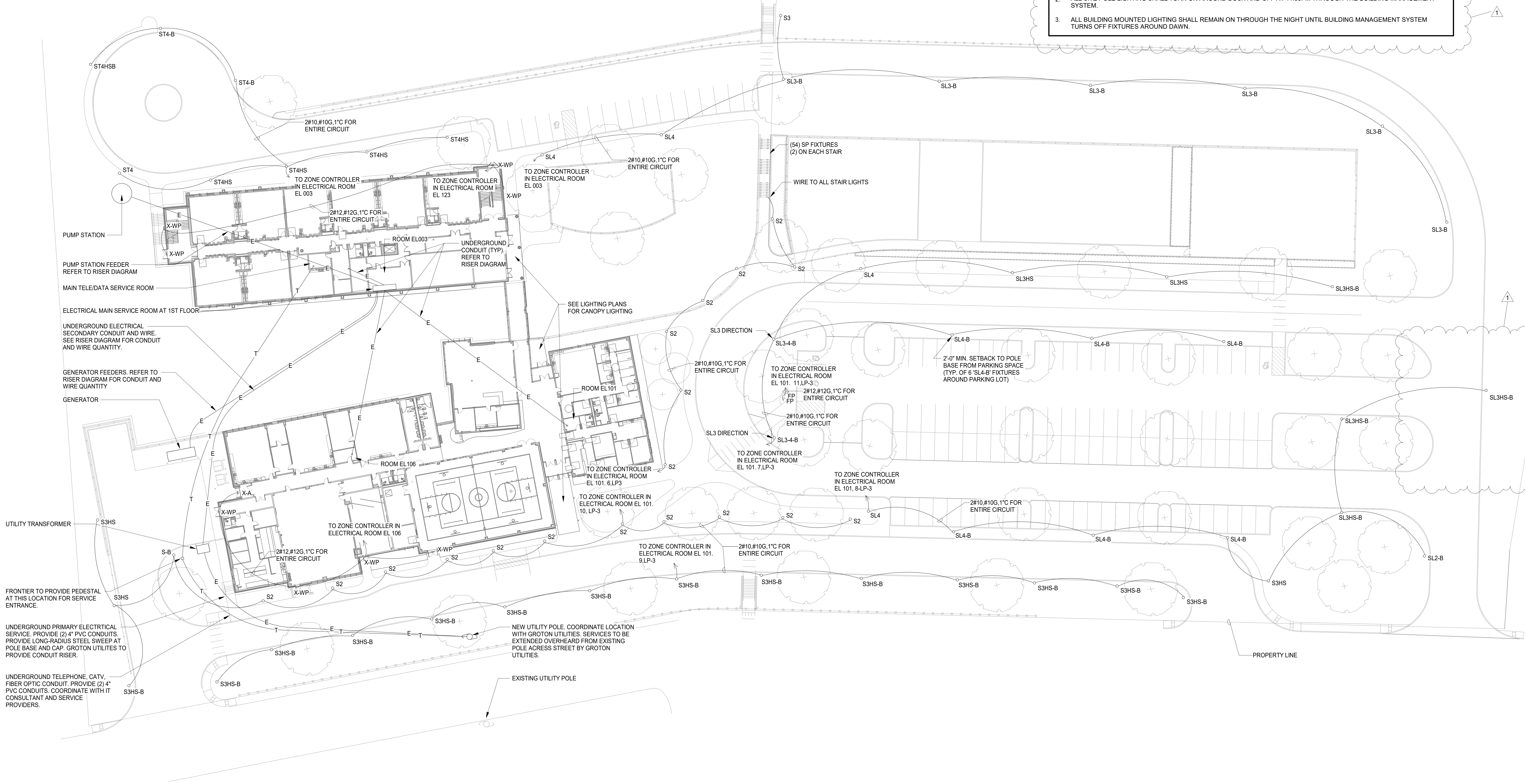
NOTES:
1. ALL NECESSARY MOUNTING HARDWARE SHALL BE PROVIDED.
2. ALL COLORS AND FINISHES SHALL BE VERIFIED BY THE ARCHITECT.
3. DESIGN BASED MODELS AS INDICATED ON SCHEDULE. ALL LIGHT FIXTURES SUBMITTED SHALL REQUIRE SUBMISSION OF POINT-BY-POINT PHOTOMETRIC CALCULATIONS OF BOTH NORMAL AND EMERGENCY EGRESS LIGHT LEVELS.
4. MAX FIXTURE HEIGHT SHALL BE 18'-0" AFF TO BOTTOM OF LUMINARIES. CONTRACTOR RESPONSIBLE FOR MAINTAINING MAX HEIGHT INCLUDING POLE BASE.
5. CONTRACTOR TO COORDINATE STEP LIGHTS MOUNTING AND POWERING WITH CONCRETE POUR OF STAIRS.

1

SITE LIGHTING NOTES

1. ALL FIXTURES SHALL BE INSTALLED SO THE HEAD IS PERPENDICULAR TO THE ROADWAY OR DRIVEWAY IT IS SERVING.
2. ALL SITE POLE LIGHTING SHALL TURN ON AROUND DUSK AND OFF AT 11:30PM THROUGH THE BUILDING MANAGEMENT SYSTEM.
3. ALL BUILDING MOUNTED LIGHTING SHALL REMAIN ON THROUGH THE NIGHT UNTIL BUILDING MANAGEMENT SYSTEM TURNS OFF FIXTURES AROUND DAWN.

1


S3
ST4-B
ST4HSB
ST4-B
2#10,#10G,1"C FOR ENTIRE CIRCUIT
ST4HS
ST4HS
ST4
ST4HS
ST4HS
SL4
SL4
X-WP
X-WP
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 003
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 123
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 003
2#10,#10G,1"C FOR ENTIRE CIRCUIT
2#12,#12G,1"C FOR ENTIRE CIRCUIT
PUMP STATION
PUMP STATION FEEDER REFER TO RISER DIAGRAM
MAIN TELE/DATA SERVICE ROOM
ELECTRICAL MAIN SERVICE ROOM AT 1ST FLOOR
UNDERGROUND ELECTRICAL SECONDARY CONDUIT AND WIRE. SEE RISER DIAGRAM FOR CONDUIT AND WIRE QUANTITY.
GENERATOR FEEDERS. REFER TO RISER DIAGRAM FOR CONDUIT AND WIRE QUANTITY
GENERATOR
ROOM EL003
UNDERGROUND CONDUIT (TYP). REFER TO RISER DIAGRAM
SEE LIGHTING PLANS FOR CANOPY LIGHTING
ROOM EL101
ROOM EL106
X-A
X-WP
UTILITY TRANSFORMER
S3HS
S-B
2#12,#12G,1"C FOR ENTIRE CIRCUIT
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 106
FRONTIER TO PROVIDE PEDESTAL AT THIS LOCATION FOR SERVICE ENTRANCE.
UNDERGROUND PRIMARY ELECTRTICAL SERVICE. PROVIDE (2) 4" PVC CONDUITS. PROVIDE LONG-RADIUS STEEL SWEEP AT POLE BASE AND CAP. GROTON UTILITES TO PROVIDE CONDUIT RISER.
UNDERGROUND TELEPHONE, CATV, FIBER OPTIC CONDUIT. PROVIDE (2) 4" PVC CONDUITS. COORDINATE WITH IT CONSULTANT AND SERVICE PROVIDERS.
S3HS-B
NEW UTILITY POLE. COORDINATE LOCATION WITH GROTON UTILITIES. SERVICES TO BE EXTENDED OVERHEARD FROM EXISTING POLE ACRESS STREET BY GROTON UTILITIES.
EXISTING UTILITY POLE
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101. 6,LP3
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101. 10, LP-3
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101. 9,LP-3
2#10,#10G,1"C FOR ENTIRE CIRCUIT
SL3-B
(54) SP FIXTURES (2) ON EACH STAIR
WIRE TO ALL STAIR LIGHTS
S2
SL3 DIRECTION
SL3-4-B
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101. 11,LP-3
2#12,#12G,1"C FOR ENTIRE CIRCUIT
FP
2#10,#10G,1"C FOR ENTIRE CIRCUIT
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101. 7,LP-3
TO ZONE CONTROLLER IN ELECTRICAL ROOM EL 101, 8-LP-3
SL4-B
2'-0" MIN. SETBACK TO POLE BASE FROM PARKING SPACE (TYP. OF 6 'SL4-B' FIXTURES AROUND PARKING LOT)
SL3HS
SL3HS-B
SL2-B
S3HS
PROPERTY LINE
1
E
T

① SITE PLAN
1" = 30'-0"

30'
15'
0
30'

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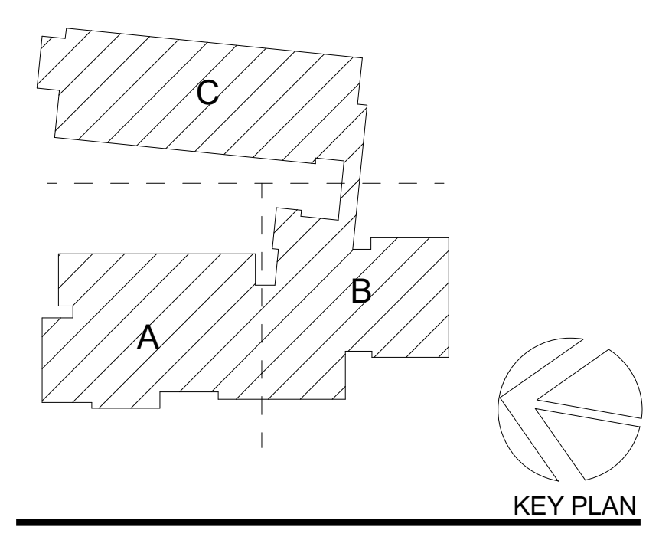
NO.	DATE	ISSUE
1	9/10/2019	SITE PLAN

A. GRAHAM CURTIS
No. 15805

SEAL



KEY PLAN

PERKINS — EASTMAN
677 Washington Blvd, Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Owner:
City of Groton
Town Hall Annex 134 Groton Long Point Road
Groton, CT 06340 860.572.2100

Construction Manager:
O & G Industries
112 Wall Street
Torrington, CT 06790 860.489.9261

Owner's Representative:
Arcadis
207 Main Street, Suite 200
Hartford, CT 06106 860.906.1577

Civil / Site:
Milone & MacBroom
99 Realty Drive
Chesire, CT 06410 203.271.1773

Landscape:
Richter & Cegan
Avon Park North P.O. Box 567, 8B Canal Court,
Avon, CT 06001 860.678.0669

Structural:
BVH Integrated Services
206 West Newberry Road
Bloomfield, CT 06002 860.286.9171

Mechanical, Electrical, Plumbing & Fire Protection:
Diversified Technology Consultants
2321 Whitney Avenue, Suite 301
Hamden, CT 06518 203.239.4200

Technology and Security
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1266 E. Main Street
Stamford, CT 06902 203.539.6164

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137 Elm Place
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Acoustical Consultant:
Acentech
33 Moulton Street
Cambridge, MA 02138 617.499.8000

Sustainability Consultant:
Atelier Ten
798 Chapel Street
New Haven, CT 06510 203.777.1400

PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandagee Ave
Groton, CT 06340

PROJECT No: 74451

DRAWING TITLE:

ELECTRICAL SITE PLAN

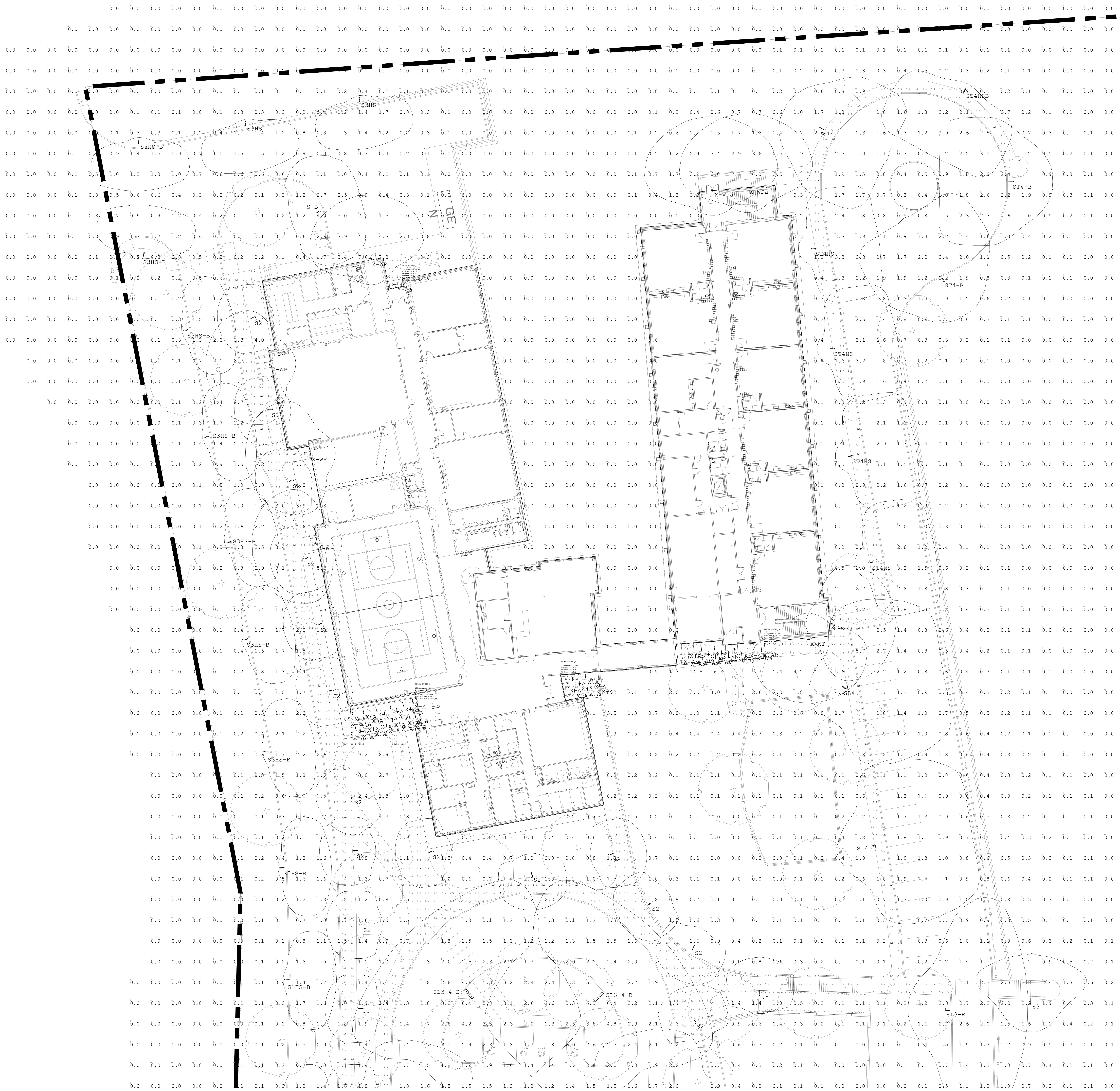
SCALE: As indicated

ES-100

CONSTRUCTION DOCUMENTS PROGRESS

SEPTEMBER 9, 2019

NO.	DATE	ISSUE



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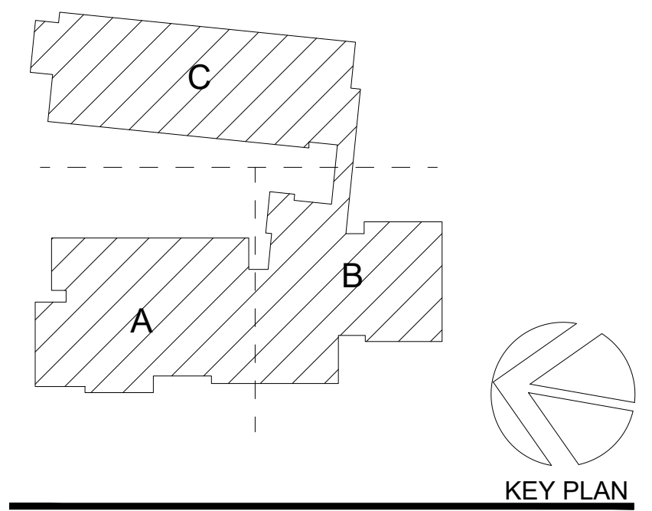

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandagee Ave
Groton, CT 06340

PROJECT No: 74451

DRAWING TITLE:

ELECTRICAL PHOTOMETRICS PART A

SCALE: 1" = 20' - 0"

ES-101

CONSTRUCTION DOCUMENT
PROGRESS

SEPTEMBER 9, 2019

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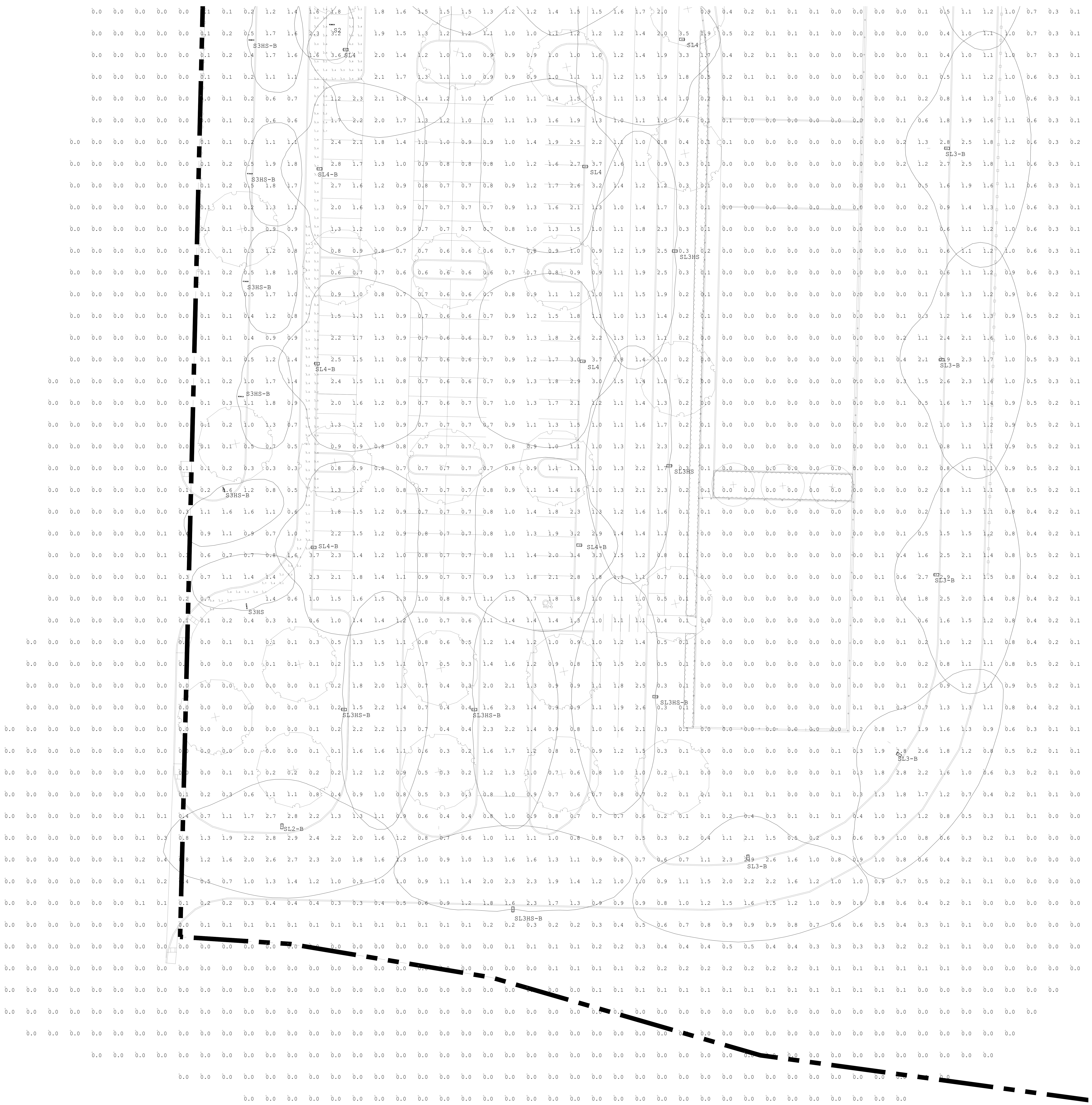

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No. 15805

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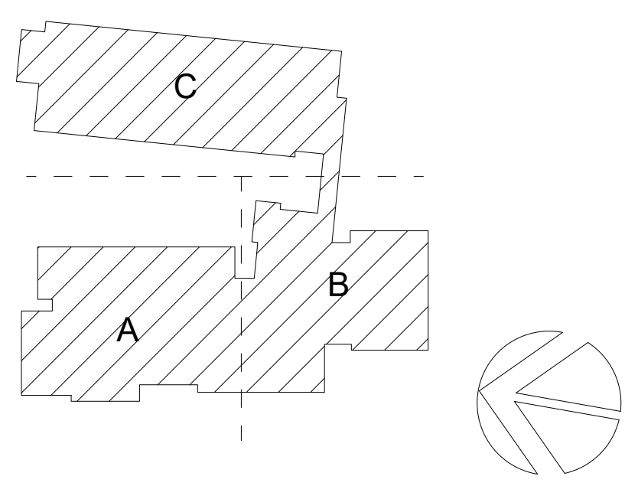

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PROJECT TITLE:

WEST SIDE ELEMENTARY SCHOOL

250 Brandagee Ave
Groton, CT 06340

PROJECT No: 74451

DRAWING TITLE:

ELECTRICAL PHOTOMETRICS PART B

SCALE: 1" = 20' - 0"

ES-102

CONSTRUCTION DOCUMENT
PROGRESS

SEPTEMBER 9, 2019