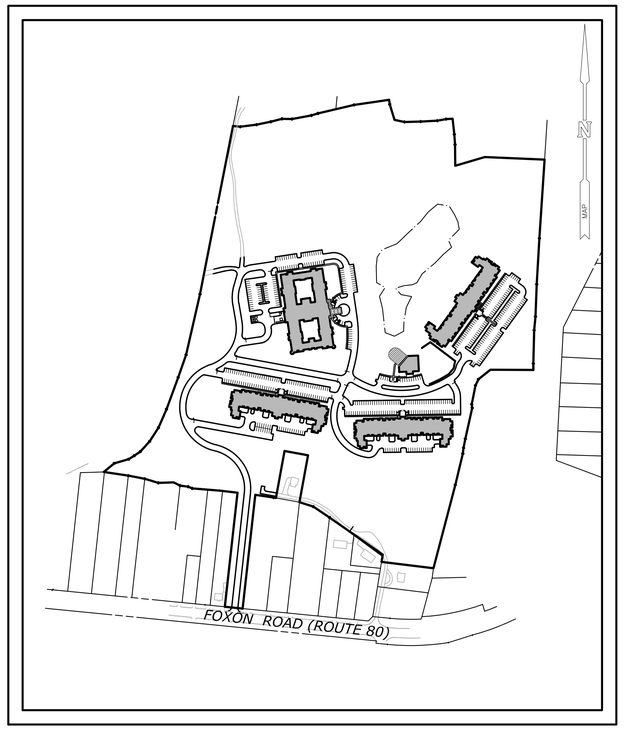
THE BLUFFS
MULTIFAMILY ELDERLY HOUSING

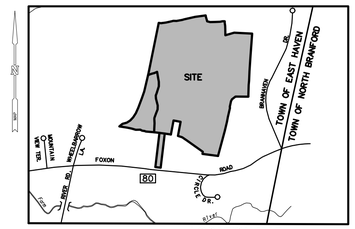
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

MAY 2, 2022
REV. JUNE 29, 2022



PROJECT SITE VICINITY MAP:

0' 150' 300'
0 1/2" 1"
SCALE 1" = 300'



LOCATION MAP
SCALE: 1"=1000'

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED UPON FIELD SURVEY CONDUCTED BY MILONE & MACBROOM, INC. NORTH REFERS TO THE CONNECTICUT COORDINATE SYSTEM (NAD 1983). ELEVATIONS REFER TO THE NAVD88 VERTICAL DATUM. SEE PROPERTY SURVEY SHEET FOR MORE INFORMATION.
2. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION, MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. SLR INTERNATIONAL CORPORATION ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION AND SIZE OF ELECTRIC, TELEPHONE, CABLE TELEVISION AND GAS ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
5. EXISTING EASEMENTS IN FAVOR OF SNET TO BE RELOCATED OR RELEASED TO ACCOMMODATE PROPOSED DEVELOPMENT. THESE CHANGES ARE TO BE COORDINATED WITH SNET OR THE CURRENT EASEMENT OWNER PRIOR TO THE START OF CONSTRUCTION.
6. EXISTING EASEMENTS ALONG SPERRY LANE FOR ACCESS AND OTHER RIGHTS TO 201 AND 245 SPERRY LANE ALONG WITH ANY OTHER PROPERTIES HAVING RIGHTS OVER SPERRY LANE ARE TO BE RELOCATED TO THE NEW PROPOSED ACCESS ROAD ALIGNMENT. OTHER RIGHTS MAY NEED TO BE CONFIRMED AS PART OF THIS PROCESS. ACCESS TO THESE PROPERTIES MUST BE MAINTAINED DURING CONSTRUCTION.
7. RIGHTS OF EMERGENCY ACCESS OVER THE SITE GENERALLY ALONG THE EXISTING SPERRY LANE ARE TO BE RELOCATED TO FOLLOW THE PROPOSED ROAD ACCESS RE-ALIGNMENT FOR THE PROJECT. THE EMERGENCY ACCESS TO THE EAST HAVEN HIGH SCHOOL PROPERTY IS TO BE MAINTAINED DURING CONSTRUCTION.
8. RIGHTS TO CONNECT STORM DRAINAGE PIPING FROM THE SITE TO EAST HAVEN HIGH SCHOOL PROPERTY ARE TO BE ACQUIRED AS PART OF THE PROJECT.
9. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
10. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
11. ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR35 UNLESS OTHERWISE INDICATED. PROPOSED CONNECTIONS TO EXISTING SANITARY STRUCTURES SHALL BE IN ACCORDANCE WITH GNHWPCA STANDARDS. ANY SANITARY PIPE WITHIN CITY ROW SHALL BE EITHER DUCTILE IRON OR CAST IRON PER GNHWPCA STANDARDS.
12. THE PROPOSED BUILDINGS ARE TO BE SERVED BY PUBLIC WATER AND SANITARY SEWER.
13. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
14. THE PROPERTY IS DESIGNATED AS ZONE X ON THE FEMA FLOOD INSURANCE RATE MAP, NEW HAVEN COUNTY, CONNECTICUT (ALL JURISDICTIONS), PANEL 454 OF 635, MAP NUMBER 09009C0454H, EFFECTIVE DATE: DECEMBER 17, 2010.
15. PLANS PREPARED FOR REGULATORY APPROVAL ONLY.

EROSION CONTROL NOTES
CONTRACTOR RESPONSIBILITIES

1. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.
2. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AND THE TOWN'S DESIGNATED REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS
3. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERIOD OF THREE MONTHS AFTER COMPLETION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
4. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
5. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
6. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.
7. ALL CATCH BASIN SUMPS SHOULD BE INSPECTED AFTER CONSTRUCTION COMPLETION AND SEDIMENT REMOVED. THE SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED LOCATION.
8. SEDIMENT AND EROSION CONTROL INSPECTIONS BY ENGINEER OR CPESC EVERY 2 WEEKS. REPORTS TO BE SUBMITTED TO THE TOWN OF FARMINGTON.
9. TEMPORARY SEDIMENT TRAPS SHALL BE DESIGNED PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig. www.cbyd.com

PREPARED FOR:

THE BLUFFS, LLC
218 FOXON ROAD
EAST HAVEN, CT 06512

STATE OF CONNECTICUT — DANIEL J. CASEY — No. 19804 — LICENSED PROFESSIONAL ENGINEER

PREPARED BY:

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

PROJECT DATA:

AREA:	50.957 ACRES
EXISTING ZONE:	PEFD
PROPOSED USE:	AFFORDABLE HOUSING DEVELOPMENT

ZONING DATA:

	REQUIRED	PROPOSED
MIN LOT AREA	19.21 ACRES	50.957 ACRES
MIN FRONTAGE	50'	60'
FRONT SETBACK	49' (30'+1' OF BUILDING HEIGHT OVER 30')	>49'
REAR SETBACK	49' (30'+1' OF BUILDING HEIGHT OVER 30')	>49'
SIDE SETBACK	49' (30'+1' OF BUILDING HEIGHT OVER 30')	>49'
MAX LOT COVERAGE	8%	7.5%
MAX BUILDING HEIGHT	3 STORIES OF LIVABLE AREA	3 STORIES OF LIVABLE AREA ABOVE FINISHED GRADE
PARKING SPACES	473*	561

*(90 2-BEDROOM UNITS * 2.5 PARKING SPACES) + (144 1-BEDROOM UNITS * 1.5 PARKING SPACES) + (64 ASSISTED LIVING UNITS * 0.5 PARKING SPACES) = 473 PARKING SPACES

MAX DENSITY (SITES 26 TO 50 ACRES)				
	MINIMUM AREA PER UNIT	NUMBER OF UNITS	REQUIRED AREA	PROVIDED AREA
EFFICIENCY UNITS	2,000 SF	0	0	
ONE BEDROOM UNITS	2,500 SF	144	8.26 ACRES	
TWO BEDROOM UNITS	3,000 SF	90	6.20 ACRES	
		TOTAL	14.46 ACRES	50.957 ACRES

MAX DENSITY (ASSISTED LIVING UNITS)				
	MINIMUM AREA PER UNIT	NUMBER OF UNITS	REQUIRED AREA	PROVIDED AREA
EFFICIENCY UNITS	2,500 SF	0	0	
ONE BEDROOM UNITS	3,000 SF	54	3.72 ACRES	
TWO BEDROOM UNITS	4,500 SF	10	1.03 ACRES	
		TOTAL	4.75 ACRES	50.957 ACRES

LIST OF DRAWINGS

DEMOLITION LEGEND

- SAWCUT LIMITS
- REMOVE EXISTING SITE FEATURE
- REMOVE UTILITIES

ALL SITE IMPROVEMENTS WITHIN INDICATED AREA TO BE REMOVED

SNET EASEMENT TO BE RELASED

WATERCOURSE TO BE FILLED AND REPLACED WITH 6" PVC PIPE

EASEMENT TO BE MODIFIED TO MATCH PROPOSED ACCESS

ALL SITE IMPROVEMENTS WITHIN INDICATED AREAS TO BE REMOVED

EXISTING HOUSE, DRIVEWAY, TREES & IMPROVEMENTS WITHIN AREA TO BE REMOVED

EXISTING HOUSE, GARAGE, DRIVEWAY & LOT IMPROVEMENTS TO BE REMOVED

SAWCUT LIMITS

LEGEND

- STREET LINE
- PROPERTY LINE
- EASEMENT
- STONEWALL
- WATERCOURSE
- WETLAND
- TREELINE
- HEDGEROW
- CHAIN LINK FENCE
- OHW — OVERHEAD WIRES
- W — WATER LINE
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- WATER MANHOLE
- MANHOLE
- CATCH BASIN
- YARD DRAIN
- WV — WATER VALVE
- P — POST
- UTILITY POLE
- HYDRANT
- LIGHT POST
- SIGN
- IP — IRON PIPE FOUND
- IPIN — IRON PIN FOUND
- MON — CONCRETE MONUMENT FOUND

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SLRCONSULTING.COM

DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE PLAN - EXISTING CONDITIONS

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EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
---	STN	DLO

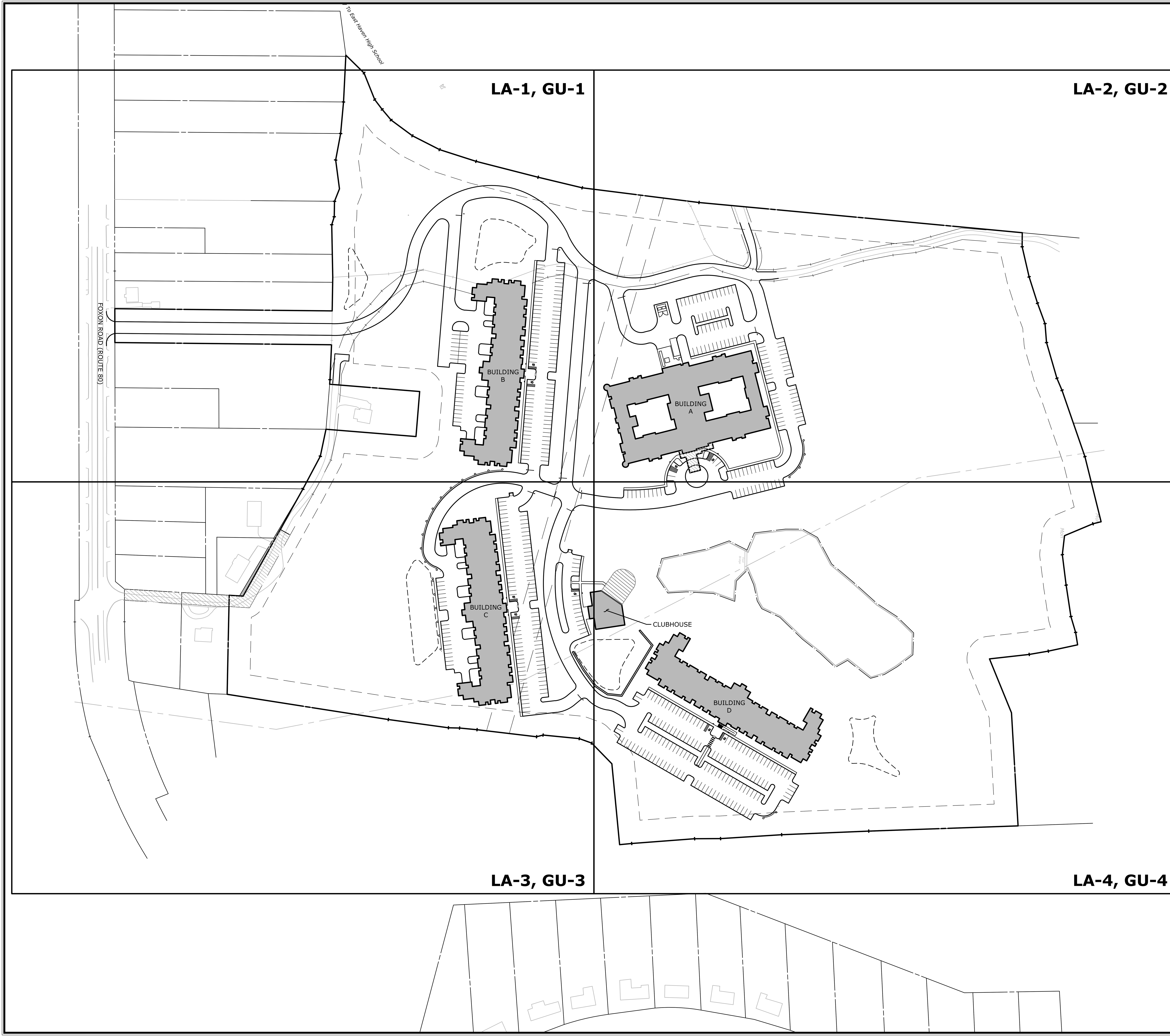
SCALE: 1"=100'

DATE: MAY 2, 2022

PROJECT NO.: 5956-01

SHEET NO.: 02 OF 19

SHEET NAME: EX



LEGEND

EXISTING		PROPOSED
	STREET LINE	
	PROPERTY LINE	
	SETBACK LINE	
70	MAJOR CONTOUR	100
68	MINOR CONTOUR	98
× 70.5	SPOT GRADE	+ 70.5
	TREE LINE	
	TREE/ SHRUB	TG
	STONEWALL	
	SITE LIGHT	
	HYDRANT	
WV	WATER VALVE	WV
GV	GAS VALVE	GV
	CATCH BASIN	
	MANHOLE/YARD DRAIN	
	SANITARY SEWER W/MANHOLE	SAN
	STORM DRAIN	
	WATER MAIN	W
W G	GAS MAIN	G
E	ELECTRIC LINE	E
ETC	ELECTRIC, TELEPHONE, CABLE	ETC
	UTILITY POLE	
	TRAFFIC SIGN	
	IRON PIPE	
	MONUMENT	
	EDGE OF PAVEMENT W/CURB	
	GUARD RAIL	
	CHAIN LINK FENCE	
	WATERCOURSE	
	WETLAND	

0' 50' 100'
0 1/2" 1"

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INDEX AND OVERALL SITE PLAN

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MULTIFAMILY ELDERLY HOUSING

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EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

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DATE: MAY 2, 2022

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SHEET NO.: 03 OF 19

SHEET NAME: IN

LAYOUT NOTES

1. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. FOR DETAILED INFORMATION PERTAINING TO PROPOSED BUILDINGS AND ASSOCIATED ARCHITECTURAL WALLS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
3. IN ALL CASES IN WHICH PROPOSED ROADS, SIDEWALKS AND CURBING WILL BE TIED INTO EXISTING ROAD/SIDEWALK AND/OR CURBS THE CONTRACTOR SHALL MATCH EXISTING LINE AND GRADE.
4. THE CONTRACTOR IS REQUIRED TO PAINT ALL PAVEMENT MARKINGS SHOWN ON PLANS INCLUDING PARKING SPACE LINES, CROSSWALKS, HANDICAPPED SYMBOLS, STOP BARS, AND ALL MARKINGS REQUIRED BY LOCAL TOWN OF EAST HAVEN REGULATIONS.
5. ALL PARKING SPACE LINES TO BE STRIPED WITH 4" WIDE, WHITE, NON-REFLECTIVE PAINT.
6. PROVIDE 12" WIDE WHITE PAINTED STOP BAR AT ALL STOP SIGN LOCATIONS.

PLANTING NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING PLANT PITS.
2. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A 6" MINIMUM DEPTH OF TOPSOIL FOR ALL LAWN AREAS. WATER AS NECESSARY TO ESTABLISH TURF.
3. ALL PLANTING BEDS SHALL HAVE 12" MINIMUM DEPTH OF TOPSOIL.
4. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A 4" MIN. DEPTH OF SHREDDED MULCH OVER ALL PLANTING BEDS AND TREE PLANTINGS. NO DYED MULCH.
5. ALL PLANT MATERIAL IS SUBJECT TO INSPECTION AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO AND AFTER PLANTING.
6. PLANT SPECIES MAY BE ADJUSTED BASED ON AVAILABILITY AT TIME OF PLANTING. ALL PLANT MATERIAL SUBSTITUTIONS ARE SUBJECT TO REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT.
7. ALL PLANT MATERIALS SHALL CARRY A FULL GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, TO INCLUDE PROMPT TREATMENT OR REMOVAL AND REPLACEMENT OF ANY PLANTS FOUND TO BE IN AN UNHEALTHY CONDITION BY THE LANDSCAPE ARCHITECT. ALL REPLACEMENTS SHALL BE OF THE SAME KIND AND SIZE OF PLANTS SPECIFIED IN THE PLANT LIST.
8. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL ACCEPTANCE BY THE LANDSCAPE ARCHITECT. MAINTENANCE SHALL INCLUDE WATERING, MULCHING, TIGHTENING & REPLACING OF GUYS, REPLACEMENT OF SICK OR DEAD PLANTS, RESETTING PLANTS TO PROPER GRADE OR UPRIGHT (PLUMB) POSITION, RESTORATION OF SAUCERS, AND ALL OTHER CARE NEEDED FOR PROPER GROWTH OF THE PLANTS.
9. WHERE A SIZE RANGE IS SPECIFIED AT LEAST 50% OF PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.
10. CONTRACTOR TO REMOVE TREE STAKES AFTER ONE GROWING SEASON.
11. QUANTITY AND PLACEMENT OF PLANTS ARE APPROXIMATE AND ARE SUBJECT TO FINAL PLACEMENT IN THE FIELD BY THE OWNER.

PROPOSED FOUNDATION PLANT PALETTE

FOUNDATION PLANTINGS:

SHADE PALETTE	BOTANICAL NAME	COMMON NAME	PLANTED HEIGHT	MATURE HT
MIX 'A'				
CR	Clethra alnifolia `Ruby Spice`	Ruby Spice Clethra	30-36"	5'
SS	Schizachyrium scoparium `The Blues`	Little Bluestem	18-24"	2-3'
VA	Vaccinium angustifolium	Lowbush Blueberry	6"	6-8"
CS	Carex pensylvanica	Pennsylvania Sedge	8"	12"
MIX 'B'				
IS	Ilex glabra `Shamrock`	Inkberry	24-30"	4-5'
DP	Dennstaedtia punctilobula	Hay-scented Fern	12"	24-30"
GP	Gaultheria procumbens	Wintergreen	6"	6"
LB	Liriope spicata `Big Blue`	Creeping Lily Turf	8"	12-15"

SUN PALETTE	BOTANICAL NAME	COMMON NAME	PLANTED HEIGHT	MATURE HT
MIX 'A'				
BG	Buxus x `Green Mountain`	Boxwood	24-30"	4-5'
SS	Schizachyrium scoparium `The Blues`	Little Bluestem	18-24"	2-3'
RP	Rosa x `Pink Knockout`	Pink Knockout Rose	18-24"	3-4'
IL	Itea virginica `Little Henry`	Virginia Sweetspire	12-18"	2-3'
JB	Juniperus horizontalis `Bar Harbor`	Bar Harbor Creeping Juniper	6"	6"
MIX 'B'				
JB2	Juniperus chinensis `Blue Point`	Blue Point Juniper	4-5'	8-10'
PH	Panicum virgatum `Heavy Metal`	Blue Switch Grass	24-30"	4-5'
IR	Ilex verticillata `Red Sprite`	Red Sprite Winterberry	18-24"	2-3'
NR	Nepeta faassenii 'Walkers Low'	Catmint	6-9"	18"
VA	Vaccinium angustifolium	Lowbush Blueberry	6"	6-8"

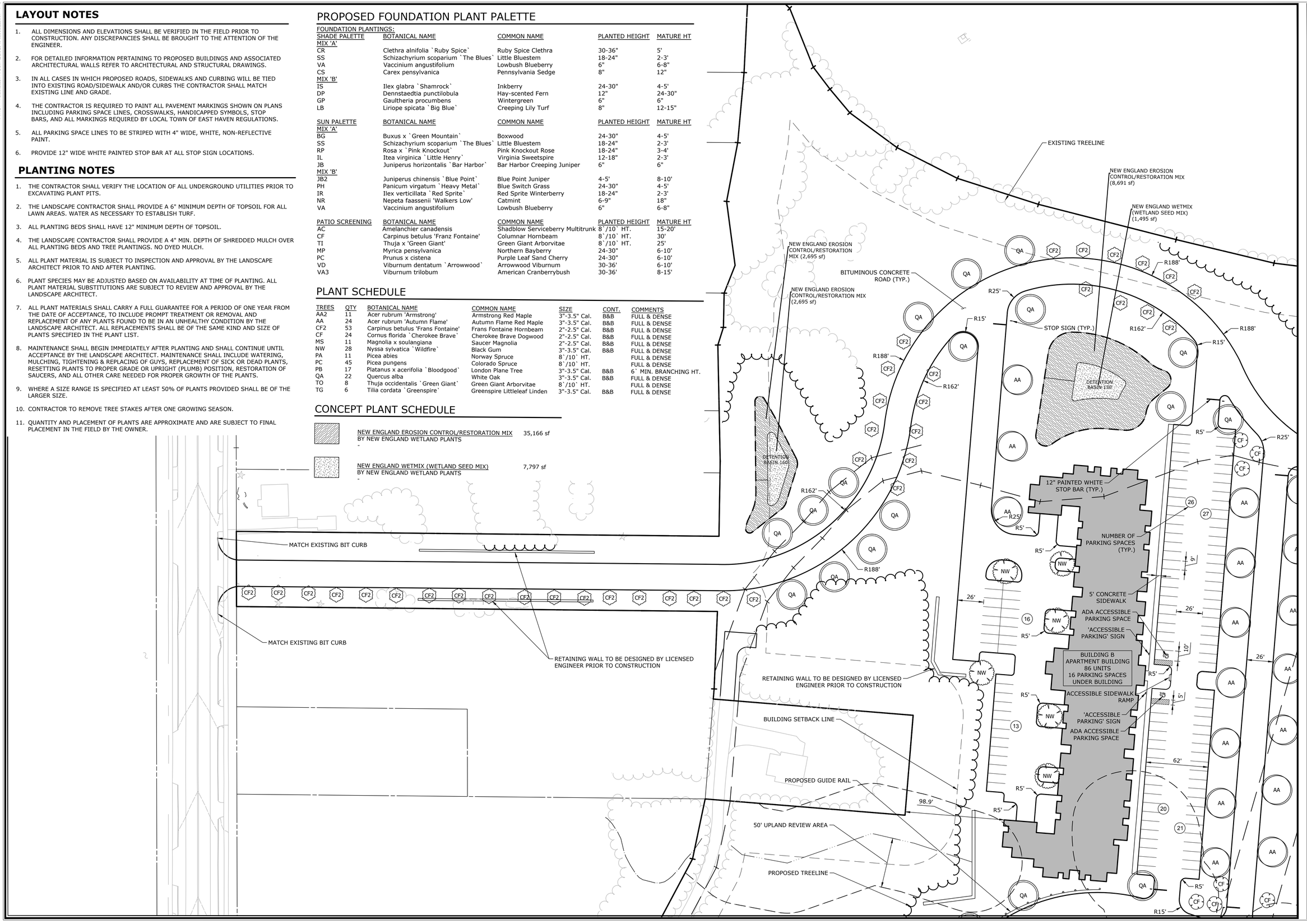
PATIO SCREENING	BOTANICAL NAME	COMMON NAME	PLANTED HEIGHT	MATURE HT
AC	Amelanchier canadensis	Shadblow Serviceberry Multitrunk	8`/10` HT.	15-20'
CF	Carpinus betulus 'Franz Fontaine'	Columnar Hornbeam	8`/10` HT.	30'
TI	Thuja x 'Green Giant'	Green Giant Arborvitae	8`/10` HT.	25'
MP	Myrica pensylvanica	Northern Bayberry	24-30"	6-10'
PC	Prunus x cistena	Purple Leaf Sand Cherry	24-30"	6-10'
VD	Viburnum dentatum `Arrowwood`	Arrowwood Viburnum	30-36'	6-10'
VA3	Viburnum trilobum	American Cranberrybush	30-36'	8-15'

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	COMMENTS
AA2	11	Acer rubrum 'Armstrong'	Armstrong Red Maple	3"-3.5" Cal.	B&B	FULL & DENSE
AA	24	Acer rubrum 'Autumn Flame'	Autumn Flame Red Maple	3"-3.5" Cal.	B&B	FULL & DENSE
CF2	53	Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	2"-2.5" Cal.	B&B	FULL & DENSE
CF	24	Cornus florida `Cherokee Brave`	Cherokee Brave Dogwood	2"-2.5" Cal.	B&B	FULL & DENSE
MS	11	Magnolia x soulangiana	Saucer Magnolia	2"-2.5" Cal.	B&B	FULL & DENSE
NW	28	Nyssa sylvatica `Wildfire`	Black Gum	3"-3.5" Cal.	B&B	FULL & DENSE
PA	11	Picea abies	Norway Spruce	8`/10` HT.		FULL & DENSE
PC	45	Picea pungens	Colorado Spruce	8`/10` HT.		FULL & DENSE
PB	17	Platanus x acerifolia `Bloodgood`	London Plane Tree	3"-3.5" Cal.	B&B	6` MIN. BRANCHING HT.
QA	22	Quercus alba	White Oak	3"-3.5" Cal.	B&B	FULL & DENSE
TO	8	Thuja occidentalis `Green Giant`	Green Giant Arborvitae	8`/10` HT.		FULL & DENSE
TG	6	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	3"-3.5" Cal.	B&B	FULL & DENSE

CONCEPT PLANT SCHEDULE

	NEW ENGLAND EROSION CONTROL/RESTORATION MIX BY NEW ENGLAND WETLAND PLANTS -	35,166 sf
	NEW ENGLAND WETMIX (WETLAND SEED MIX) BY NEW ENGLAND WETLAND PLANTS -	7,797 sf



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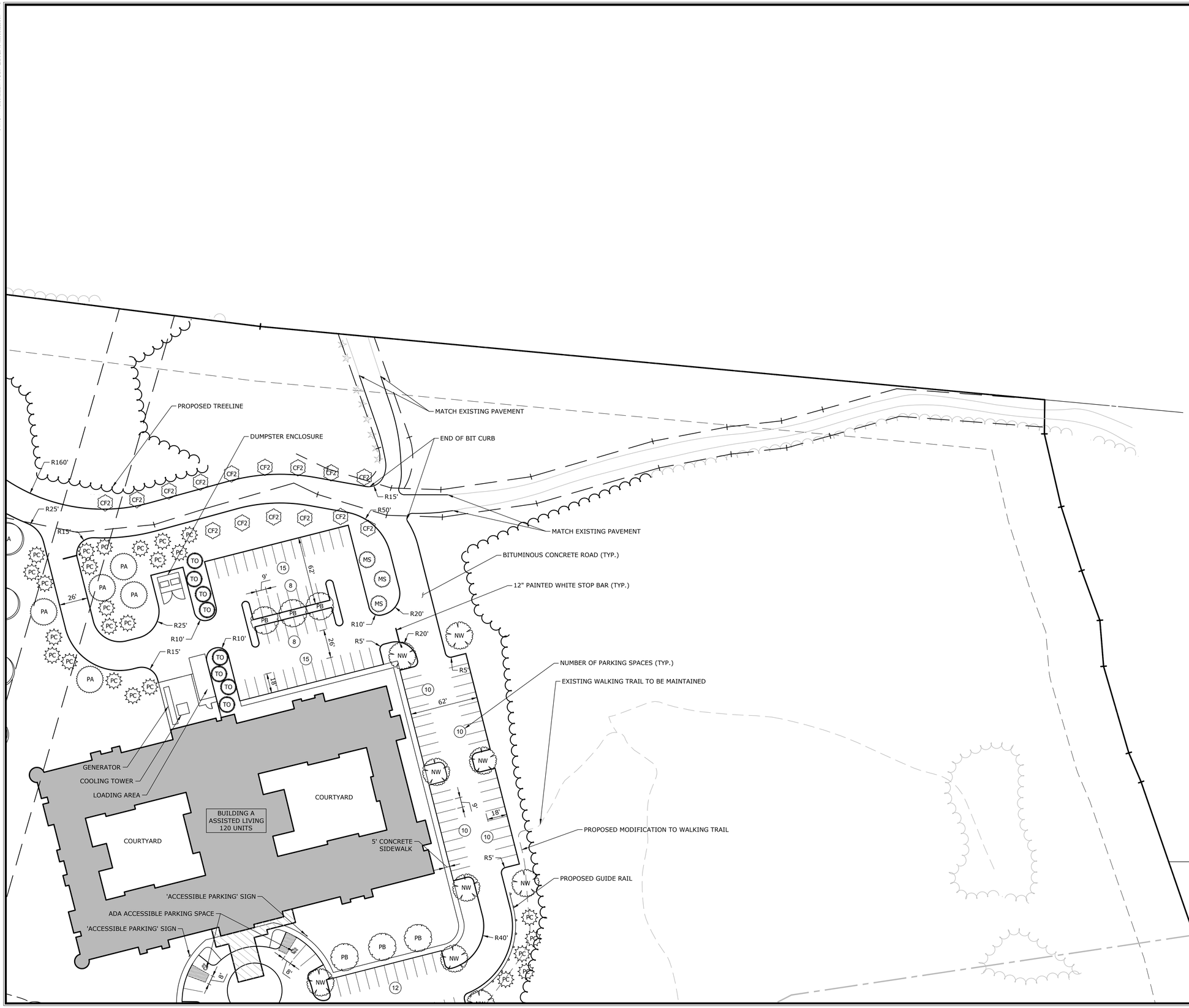
LA-1
SHEET NAME



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

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05 OF 19
SHEET NO.

LA-2
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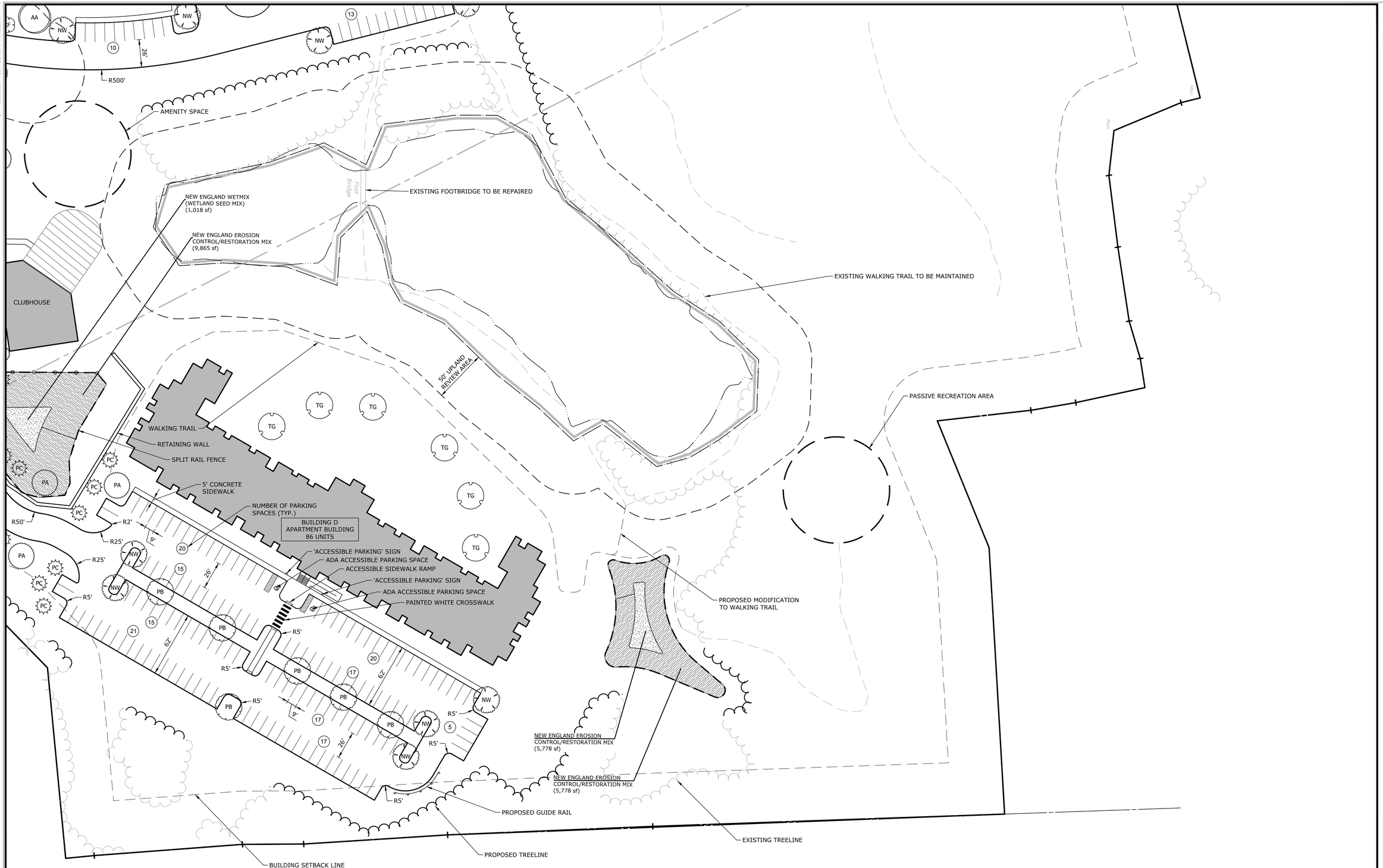
SHEET NO.: 06 OF 19

SHEET NAME: **LA-3**



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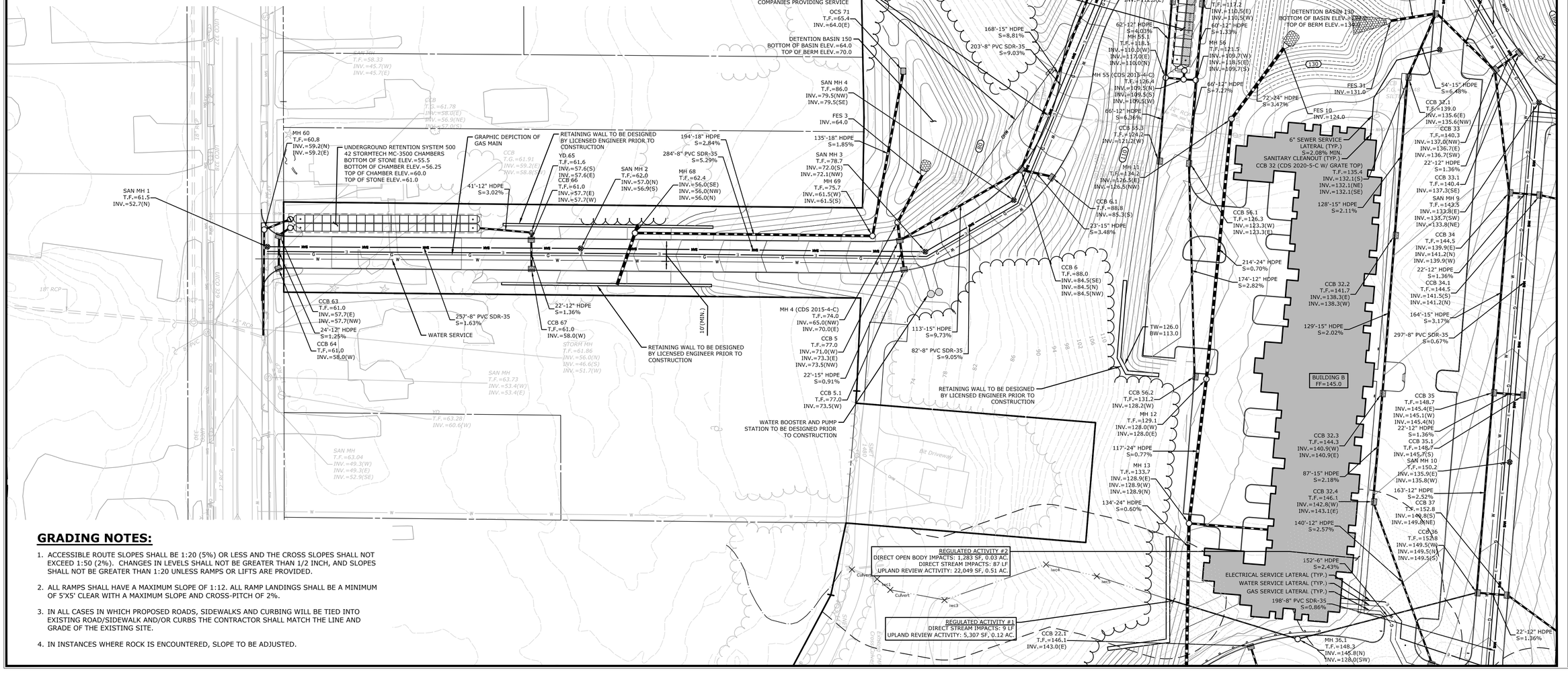
SHEET NO.	07 OF 19
SHEET NAME	LA-4



Drawing: W:\CADDESIGN\5956-01-DE\CAD\TB-GRADING & UTILITIES.DWG Layout Tab:GU-1
Plotted by: JHAMEL On this date: Wed, 2022 June 29 - 9:57am

STORMWATER MAINTENANCE PROGRAM

UPON SITE DEVELOPMENT, THERE WILL BE A NEED TO PERIODICALLY MAINTAIN STORMWATER SYSTEMS ON THE PROPERTY TO ENSURE OPTIMAL PERFORMANCE OF THE SYSTEM. THE PROPERTY OWNER WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THIS PROGRAM. A LOG OF ALL INSPECTIONS, CLEANING AND REPAIRS SHALL BE MAINTAINED BY THE PROPERTY OWNER AND BE AVAILABLE FOR REVIEW. THE FOLLOWING STORMWATER MAINTENANCE PROGRAM SHOULD BE FOLLOWED:

A. CATCH BASINS/YARD DRAINS

CATCH BASINS ARE DESIGNED WITH 2-FOOT MINIMUM DEPTH SUMPS FOR THE PURPOSE OF COLLECTING COARSE SEDIMENT. ALL CATCH BASINS SHOULD BE INSPECTED TWO TIMES PER YEAR, TYPICALLY WHEN THE SITE IS SWEPT IN THE SPRING AFTER WINTER SANDING AND IN THE FALL AFTER ALL THE LEAVES HAVE FALLEN. SITE SWEEPING SHALL BE PROVIDED BETWEEN APRIL 15 AND MAY 15 EACH SPRING.

SEDIMENT SHOULD BE REMOVED WHEN IT EXTENDS TO WITHIN 6 INCHES OF THE OUTLET PIPE INVERT OR NOT LESS THAN ONCE PER YEAR. CLEANOUT WITH A VACUUM TRUCK IS GENERALLY THE BEST AND MOST CONVENIENT METHOD. THE SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED OFF-SITE LOCATION IN ACCORDANCE WITH TOWN AND STATE REQUIREMENTS.

B. PAVEMENT SWEEPING

THE PARKING AREA AND ROADWAY SHALL BE SWEPT ANNUALLY. SWEEPING SHOULD OCCUR IN THE SPRING AFTER WINTER SANDING, BETWEEN APRIL 15 AND MAY 15. SALT ALTERNATIVES SHALL BE USED DURING WINTER MONTHS FOR DEICING.

C. STORMWATER BASINS

MOWING: THE UPPER STAGE, SIDE SLOPES, AND EMBANKMENT OF STORMWATER PONDS MUST BE MOWED AT LEAST ONCE PER YEAR TO DISCOURAGE WOODY GROWTH AND CONTROL WEEDS.

INSPECTIONS: BASINS SHOULD BE INSPECTED TWICE PER YEAR (SPRING AND FALL) TO ENSURE THAT THE STRUCTURE OPERATES IN THE MANNER ORIGINALLY INTENDED. WHEN POSSIBLE, INSPECTIONS SHOULD BE CONDUCTED DURING WET WEATHER TO DETERMINE IF THE BASIN IS MEETING THE TARGETED DETENTION TIMES PER APPROVED DESIGN. IN PARTICULAR, THE OUTLET CONTROL DEVICE SHOULD BE REGULARLY INSPECTED FOR EVIDENCE OF CLOGGING OR, CONVERSELY, FOR TOO RAPID A RELEASE, AND THE FLOW PATH SHOULD BE CHECKED FOR EROSION PROBLEMS. OTHER PROBLEMS THAT SHOULD BE CHECKED FOR INCLUDE SUBSIDENCE, OUTLET WATER TURBIDITY, BANK/BED/OUTLET EROSION, CRACKING, OR TREE GROWTH ON THE EMBANKMENT; THE ACCUMULATION OF SEDIMENT AROUND THE OUTLET; THE ADEQUACY OF UPSTREAM/DOWNSTREAM CHANNEL EROSION CONTROL MEASURES; AND MODIFICATIONS TO THE BASIN OR ITS CONTRIBUTING WATERSHED THAT MAY INFLUENCE BASIN PERFORMANCE. INSPECTIONS SHOULD BE CARRIED OUT WITH DESIGN PLANS IN HAND.

DEBRIS AND LITTER REMOVAL: DEBRIS AND LITTER WILL ACCUMULATE NEAR THE OUTLET CONTROL DEVICE AND SHOULD BE REMOVED DURING REGULAR INSPECTION AND/OR MOWING OPERATIONS. PARTICULAR ATTENTION SHOULD BE PAID TO FLOATABLE DEBRIS THAT COULD EVENTUALLY CLOG THE CONTROL DEVICE OR RISER.

SEDIMENT REMOVAL: WHEN PROPERLY DESIGNED, DETENTION/WATER QUALITY BASINS WILL ACCUMULATE SEDIMENT OVER TIME. HOWEVER, MOST OF THE SEDIMENT WILL BE TRAPPED IN THE SEDIMENT CHAMBERS AND CATCH BASIN SUMP UNITS BEFORE REACHING THE BASIN. THE REMAINDER WILL ACCUMULATE IN THE STORMWATER POND. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE BASIN EVERY 5 YEARS AFTER ONE HALF(12"±) OF THE SEDIMENT STORAGE CAPACITY IN THE FOREBAY HAS BEEN FILLED, AFTER 4 INCHES OF SEDIMENT HAS ACCUMULATED IN THE MAIN PORTION OF THE BASIN, OR WHEN SIGNIFICANT ALGAL GROWTH IS OBSERVED. A PERMANENT MEASURING DEVICE SHALL BE INSTALLED IN THE MIDDLE OF EACH FOREBAY AND IN THE MAIN PORTION OF THE BASIN. THE MARKER SHALL DELINEATE INCHES UP FROM THE BOTTOM OF THE BASIN SO THE DEPTH OF SEDIMENT CAN EASILY BE MEASURED. MORE FREQUENT SPOT CLEANOUTS MAY BE NEEDED AROUND THE OUTLET CONTROL DEVICE OR THE SEDIMENT FOREBAY. SEDIMENT REMOVAL OPERATIONS ARE RELATIVELY SIMPLE. FRONT-END LOADERS, BACKHOES, OR VACUUM TRUCKS CAN BE USED TO REMOVE THE ACCUMULATED SEDIMENT FOLLOWED BY MANUAL REMOVAL OF SEDIMENT DEPOSITED AROUND THE OUTLET CONTROL DEVICE. THE SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED OFF-SITE LOCATION IN ACCORDANCE WITH TOWN AND STATE REQUIREMENTS. THE DISTURBED AREA SHOULD BE IMMEDIATELY SEEDED WITH APPROPRIATE GRASS SEED AND MULCHED WITH HAY AFTER REMOVAL OPERATIONS ARE COMPLETED TO PREVENT THE OUTLET CONTROL DEVICE FROM CLOGGING.

D. UNDERGROUND DETENTION SYSTEMS

UNDERGROUND DETENTION SYSTEMS SHALL BE INSPECTED QUARTERLY AND SEDIMENT SHALL BE REMOVED AS NEEDED TO ENSURE PROPER FUNCTIONING OF STRUCTURES. AREAS OF DISTURBANCE THAT MAY BE AS A RESULT OF CLEANING SHALL BE SEEDED AND PLANTED IN ACCORDANCE WITH THE ORIGINAL PLANTING PLAN. THESE STRUCTURES WILL BE MAINTAINED YEARLY, OR MORE FREQUENTLY AS REQUIRED. WASTE MATERIAL WILL BE PROPERLY DISPOSED OF OFF-SITE.

ISOLATOR ROW

THE ISOLATOR ROWS INTEGRATED TO THE STORMWATER CHAMBERS SYSTEMS SHOULD BE MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. A COPY OF THE STORMTECH "ISOLATOR ROW O&M MANUAL" IS INCLUDED IN THE ENGINEERING REPORT. AT A MINIMUM, THE MAINTENANCE SCHEDULE SHOULD INCLUDE THE FOLLOWING:

1) THE ISOLATOR ROW UNIT SHALL BE COMPLETELY CLEANED OF ACCUMULATED DEBRIS AND SEDIMENTS AT THE COMPLETION OF CONSTRUCTION.
2) THE ISOLATOR ROW SHALL BE INSPECTED EVERY 6 MONTHS FOR THE FIRST YEAR OF OPERATION.
3) FOR SUBSEQUENT YEARS, THE INSPECTION SHOULD BE ADJUSTED BASED UPON PREVIOUS OBSERVATION OF SEDIMENT DEPOSITION. AT A MINIMUM, THE ISOLATOR ROW SHALL BE INSPECTED ANNUALLY.
4) IF UPON VISUAL INSPECTION THE SEDIMENT DEPOSIT ALONG THE LENGTH OF THE ISOLATOR ROW EXCEEDS 3 INCHES, CLEANOUT SHALL BE PERFORMED.
5) MAINTENANCE IS ACCOMPLISHED WITH THE JETVAC PROCESS.

E. LAWN AND VEGETATED AREAS

VEGETATED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION. USE IF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCESSES.

F. ROOF GUTTERS

REMOVE ACCUMULATED DEBRIS AND INSPECT FOR CLOGGING AND/OR DAMAGE AT LEAST ONCE A YEAR, TYPICALLY IN THE FALL AFTER THE LEAVES HAVE FALLEN. ANY DAMAGE SHOULD BE REPAIRED AS REQUIRED.

REGULATED ACTIVITY #2
DIRECT OPEN BODY IMPACTS: 1,283 SF, 0.03 AC.
DIRECT STREAM IMPACTS: 87 LF
UPLAND REVIEW ACTIVITY: 22,049 SF, 0.51 AC.

REGULATED ACTIVITY #1
DIRECT STREAM IMPACTS: 9 LF
UPLAND REVIEW ACTIVITY: 5,307 SF, 0.12 AC.

GRADING NOTES:

1. ACCESSIBLE ROUTE SLOPES SHALL BE 1:20 (5%) OR LESS AND THE CROSS SLOPES SHALL NOT EXCEED 1:50 (2%). CHANGES IN LEVELS SHALL NOT BE GREATER THAN 1/2 INCH, AND SLOPES SHALL NOT BE GREATER THAN 1:20 UNLESS RAMPS OR LIFTS ARE PROVIDED.
2. ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. ALL RAMP LANDINGS SHALL BE A MINIMUM OF 5'X5' CLEAR WITH A MAXIMUM SLOPE AND CROSS-PITCH OF 2%.
3. IN ALL CASES IN WHICH PROPOSED ROADS, SIDEWALKS AND CURBING WILL BE TIED INTO EXISTING ROAD/SIDEWALK AND/OR CURBS THE CONTRACTOR SHALL MATCH THE LINE AND GRADE OF THE EXISTING SITE.
4. IN INSTANCES WHERE ROCK IS ENCOUNTERED, SLOPE TO BE ADJUSTED.

N
S
E
W
0' 20' 40'
0 1/2" 1"

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DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE PLAN - GRADING AND UTILITIES

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING

31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

JRH	JRH	DLO
DESIGNED	DRAWN	CHECKED

SCALE: 1"=40'
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 08 OF 19
SHEET NAME: GU-1

EXISTING RESERVOIR 200
BOTTOM OF BASIN ELEV.=133.0
TOP OF BERM ELEV.=145.0

FES 72
INV.=140.0

96'-18" HDPE
S=1.04%

FES 75
INV.=139.0

35'-15" HDPE
S=2.86%

CCB 76
T.F.=155.5
INV.=149.9(E)
INV.=140.0(W)

DETENTION BASIN 210
BOTTOM OF BASIN ELEV.=144.0
TOP OF BASIN ELEV.=150.0

CCB 26.5
T.F.=151.3
INV.=147.5(E)

CCB 26.4
T.F.=151.1
INV.=148.1(W)
INV.=148.1(SE)

22'-12" HDPE
S=2.73%

22'-15" HDPE
S=10.91%

42'-12" HDPE
S=2.62%

YD 73
T.F.=148.5
INV.=141.0(E)
INV.=141.0(S)

75'-15" HDPE
S=2.67%

YD 74
T.F.=145.9
INV.=143.0(W)

CCB 80
T.F.=158.2
INV.=155.5(S)

22'-12" HDPE
S=1.36%

CCB 50.2
T.F.=160.2
INV.=158.0(E)

CCB 77
T.F.=155.6
INV.=152.2(NE)
INV.=152.3(W)

CCB 78
T.F.=157.4
INV.=153.8(SW)
INV.=154.1(NE)

57'-15" HDPE
S=2.81%

CCB 26.3
T.F.=152.0
INV.=148.7(S)
INV.=148.7(NW)

ELECTRICAL SERVICE
LATERAL (TYP.)

30'-12" HDPE
S=0.67%

CCB 79
T.F.=158.2
INV.=155.2(SW)
INV.=155.2(N)

CCB 47.5
T.F.=159.4
INV.=157.2(S)

147'-12" HDPE
S=0.54%

CCB 26.2
T.F.=152.0
INV.=149.0(N)
INV.=147.0(S)

22'-12" HDPE
S=1.36%

WATER SERVICE
LATERAL (TYP.)

172'-12" HDPE
S=0.52%

CLCB 47.3
T.F.=159.4
INV.=156.4(N)
INV.=156.4(SE)
INV.=156.4(W)

CCB 47.4
T.F.=158.7
INV.=156.6(E)

105'-12" HDPE
S=0.57%

CCB 50.1
T.F.=162.4
INV.=156.9(E)
INV.=156.9(SE)
INV.=157.4(W)

6" SEWER SERVICE LATERAL (TYP.)
S=2.08% MIN.

SANITARY CLEANOUT (TYP.)

GENERATOR

COOLING TOWER

GAS SERVICE LATERAL (TYP.)

AD 50.6
T.F.=164.8
INV.=161.8(E)

AD 48.4
T.F.=164.8
INV.=162.0(E)

AD 50.4
T.F.=164.8
INV.=161.2(E)

56'-12" HDPE
S=4.82%

MH 47.2
T.F.=160.0
INV.=155.5(NW)
INV.=155.5(E)

AD 48.2
T.F.=164.8
INV.=161.2(E)

55'-12" HDPE
S=0.55%

60'-18" HDPE
S=1.83%

BUILDING A
FF=165.0

56'-8" HDPE
S=0.54%

AD 50.3
T.F.=164.8
INV.=158.5(W)
INV.=158.0(NW)
INV.=158.5(S)

AD 50.5
T.F.=164.8
INV.=161.5(W)
INV.=161.2(N)

55'-12" HDPE
S=4.91%

MH 50
T.F.=164.9
INV.=156.0(W)
INV.=156.0(S)

168'-18" HDPE
S=0.54%

54'-18" HDPE
S=1.30%

64'-18" HDPE
S=1.09%

CLCB 49
T.F.=163.2
INV.=155.6(S)
INV.=155.6(N)

AD 48.3
T.F.=164.8
INV.=161.7(W)
INV.=161.2(S)

AD 48.1
T.F.=164.8
INV.=160.0(E)
INV.=160.5(N)
INV.=160.5(W)

242'-12" HDPE
S=0.54%

166'-24" HDPE
S=3.43%

138'-12" HDPE
S=0.87%

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DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE PLAN - GRADING AND UTILITIES

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

SCALE: 1"=40'

DATE: MAY 2, 2022

PROJECT NO.: 5956-01

SHEET NO.: 09 OF 19

SHEET NAME: GU-2

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DESCRIPTION	DATE	BY
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SITE PLAN - GRADING AND UTILITIES

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING

31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

JRH	JRH	DLO
DESIGNED	DRAWN	CHECKED

SCALE 1"=40'

DATE MAY 2, 2022

PROJECT NO. 5956-01

SHEET NO. 10 OF 19

GU-3
SHEET NAME

MH 38
T.F.=161.9
INV.=151.0(E)
INV.=151.0(SW)

242'-18" HDPE
S=0.54%

CCB 48
T.F.=163.2
INV.=153.8(S)
INV.=154.3(W)
INV.=154.3(N)

132'-12" HDPE
S=0.76%

wa1 outlet pipe

REGULATED ACTIVITY #3
DIRECT STREAM IMPACTS: 66 LF
UPLAND REVIEW ACTIVITY: 14,175 SF, 0.33 AC.

REGULATED ACTIVITY #4
DIRECT WETLAND IMPACTS: 0 SF, 0.0 AC.
UPLAND REVIEW ACTIVITY: 5,751 SF, 0.13 AC.

Foot Bridge

wa5 bridge

wa26 bridge

wa32 end

EXISTING POND 100
WATER SURFACE ELEV.=154.7
TOP OF BERM ELEV.=160.0

CLUBHOUSE
FF=163.0

FES 40
INV.=150.0

RETAINING WALL
TW=186.0
BW=162.0

WETLAND FLAG (TYP.)

WATER QUALITY BASIN 102
BOTTOM OF BASIN ELEV.=191.0
TOP OF BERM ELEV.=160.0

CCB 42.4
T.F.=174.8
INV.=171.8(E)

22'-12" HDPE
S=0.91%

CCB 42.3
T.F.=175.4
INV.=171.1(SW)
INV.=171.1(N)
INV.=171.6(E)
INV.=171.6(W)

107'-8" PVC SDR-35
S=6.89%

SAN MH 15
T.F.=183.1
INV.=177.2(NE)
INV.=177.1(S)

98'-18" HDPE
S=8.67%

79'-12" HDPE
S=8.73%

107'-8" PVC SDR-35
S=3.58%

CCB 42.5
T.F.=183.1
INV.=180.1(NE)
INV.=179.6(S)
INV.=180.1(NW)

BUILDING D
FF=190.5

SANITARY CLEANOUT (TYP.)

6" SEWER SERVICE LATERAL (TYP.)
S=2.08% MIN.

ELECTRICAL SERVICE LATERAL (TYP.)

GAS SERVICE LATERAL (TYP.)

WATER SERVICE LATERAL (TYP.)

157'-8" PVC SDR-35
S=0.57%

SAN MH 17
T.F.=184.7
INV.=182.0(SW)

77'-12" HDPE
S=8.05%

CCB 42.7
T.F.=180.8
INV.=177.8(W)
INV.=179.8(NE)

80'-8" HDPE
S=2.13%

CCB 42.8
T.F.=182.5
INV.=178.1(SW)

WATER QUALITY BASIN 101
BOTTOM OF BASIN ELEV.=158.0
TOP OF BERM ELEV.=164.0

+165.0

+165.0

+165.0

FES 51
INV.=161.0

CCB 54
T.F.=184.2
INV.=181.2(NE)

SAN MH 16
T.F.=185.3
INV.=181.1(NE)
INV.=181.1(SW)
CCB 42.6
T.F.=184.4
INV.=181.4(SW)

70'-12" HDPE
S=2.14%

62'-12" HDPE
S=2.10%

232'-15" HDPE
S=7.37%

CCB 53
T.F.=182.7
INV.=179.7(E)
INV.=179.7(SW)

CCB 52
T.F.=181.4
INV.=177.8(S)
INV.=177.8(W)
INV.=178.1(NW)

55'-12" HDPE
S=3.45%

CCB 52.2
T.F.=182.7
INV.=179.7(NE)

70'-12" HDPE
S=2.14%

32'-12" HDPE
S=1.25%

CCB 52.1
T.F.=181.2
INV.=178.2(SW)
INV.=178.2(N)

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DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE PLAN - GRADING AND UTILITIES

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

SCALE: 1"=40'

DATE: MAY 2, 2022

PROJECT NO.: 5956-01

SHEET NO.: 11 OF 19

SHEET NAME: GU-4

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, TOWN OF EAST HAVEN REQUIREMENTS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

1.PURPOSE AND DESCRIPTION OF PROJECT
A.) CONSTRUCTION OF A ROADWAY AND ASSOCIATED UTILITIES.
B.) DISTURBED AREA: ±25.8 AC.

2.IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
A.) CUTS AND FILLS ASSOCIATED WITH CONSTRUCTION.
B.) PROTECTION OF DRAINAGE SYSTEMS.
C.) PROTECTION OF ON SITE WETLANDS.

3.IDENTIFICATION OF OTHER POSSIBLE PERMITS
THE POSSIBLE PERMITS REQUIRED FOR THE PROJECT ARE LOCAL INLAND WETLANDS, PLANNING AND ZONING PERMITS, DEEP ACTIVITY REPORTING FORM, AND FINAL WPCA PERMIT.

EROSION CONTROL LEGEND

- CE — CONSTRUCTION ENTRANCE (50 L.F. MIN.)
- GSF — SEDIMENT FILTER FENCE
- IP — INLET PROTECTION
- HB — STACKED HAYBALES
- STK — SOIL STOCKPILE AREA
- TST — TEMPORARY SEDIMENT TRAP
- DB — DIVERSION BERM
- SCD — STONE CHECK DAM
- ECB — EROSION CONTROL BLANKET

TEMPORARY SEDIMENT TRAP SIZING SUMMARY

TRAP NO.	CONTRIBUTING DISTURBED AREA (ACRES)	STORAGE VOLUME REQUIRED* (CY)	STORAGE DEPTH REQUIRED (FT)	LENGTH (FT) X WIDTH (FT)	VOLUME PROVIDED** (CY)
1	3.3	443	5	100 X 30	555.6
2	7.1	952	5	90 X 70	1166.7

*134 CY STORAGE VOLUME REQUIRED PER ACRE CONTRIBUTING AREA TO TST
**ONE HALF WET-STORAGE, ONE HALF DRY-STORAGE

TST #1
TST #2
TST #3
CE
IP
SCD
STK
ECB
GSF
HB
SOIL TYPE (TYP.)
78E
77C
63B
30B
FOXON ROAD (ROUTE 80)

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SEDIMENT AND EROSION CONTROL PLAN

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
STN	STN	DLO

SCALE: 1"=50'
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 12 OF 19

SE-1
SHEET NAME

EROSION CONTROL LEGEND

	CE — CONSTRUCTION ENTRANCE (50 L.F. MIN.)		TST — TEMPORARY SEDIMENT TRAP
	GSF — SEDIMENT FILTER FENCE		DB — DIVERSION BERM
	IP — INLET PROTECTION		SCD — STONE CHECK DAM
	HB — STACKED HAYBALES		ECB — EROSION CONTROL BLANKET
	STK — SOIL STOCKPILE AREA		

TEMPORARY SEDIMENT TRAP SIZING SUMMARY

TRAP NO.	CONTRIBUTING DISTURBED AREA (ACRES)	STORAGE VOLUME REQUIRED* (CY)	STORAGE DEPTH REQUIRED (FT)	LENGTH (FT) X WIDTH (FT)	VOLUME PROVIDED** (CY)
3	2.9	389	3	60 X 60	400
4	3.3	443	2.5	160 X 30	445
5	3.2	429	2.5	75 X 75	521
6	2.3	309	3	70 X 40	311

*134 CY STORAGE VOLUME REQUIRED PER ACRE CONTRIBUTING AREA TO TST
**ONE HALF WET-STORAGE, ONE HALF DRY-STORAGE

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DESCRIPTION	DATE	BY
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SEDIMENT AND EROSION CONTROL PLAN

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING

31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
STN	STN	DLO

SCALE: 1"=50'
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 13 OF 19

SE-2
SHEET NAME

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.
4. APPLY SOIL AMENDMENTS AS FOLLOWS:
   LIME: ACCORDING TO SOIL TEST OR AT THE RATE OF 2 TONS PER ACRE.
   ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 2 TONS PER ACRE

MATERIAL:

1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF LARGE STONES , LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.
5. SOLUBLE SALT CONTENT OF LESS THAN 400 PPM IS REQUIRED.
6. THE TOPSOIL SHALL BE WARRANTED BY SELLER TO BE FREE OF DETECTABLE RESIDUES OF CHEMICAL PESTICIDES, HERBICIDES, PETROLEUM PRODUCTS, OR OTHER UNSUITABLE TOXINS.

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:

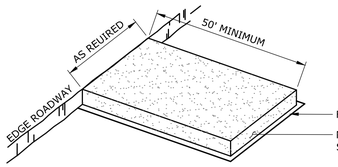
1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

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.

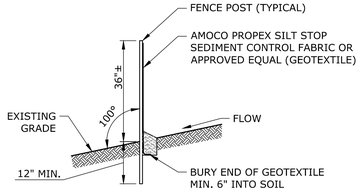


NOTES:

1. CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

CONSTRUCTION ENTRANCE PAD

NOT TO SCALE



SEDIMENT FILTER FENCE

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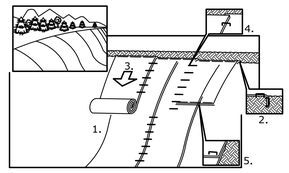


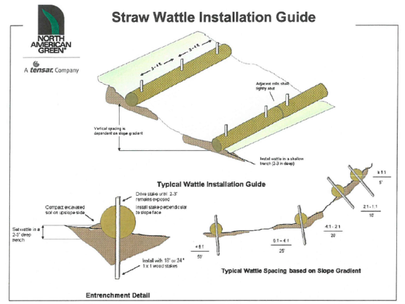
NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING SCC225, DO NOT SEED PREPARED AREA. SCC225 MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.

REFER TO GENERAL STAPLE PATTERN GUIDE IN NORTH AMERICAN GREEN CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

APPLICATION OF EROSION CONTROL BLANKET ON SLOPES

NOT TO SCALE



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" (457-61 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 3-3" (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 toe/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 toe/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.

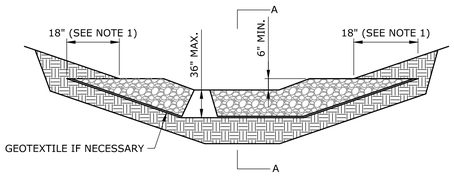
Straw Wattles are a temporary sediment control device and are not intended to replace rolled erosion control products (RECPs) or hydraulic erosion control products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RECPs or HECPs be used to provide effective 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

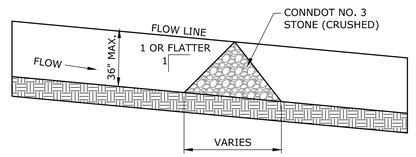
14649 Highway 41 North, Evansville, Indiana 47725
1-800-772-2040 www.nagreen.com Rev. 1/2008

STRAW WATTLE (SW)

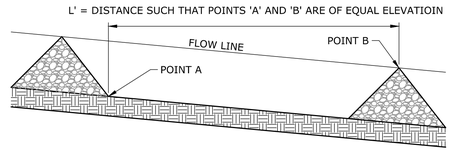
N.T.S.



STONE CHECK DAM UPSTREAM



SECTION A-A



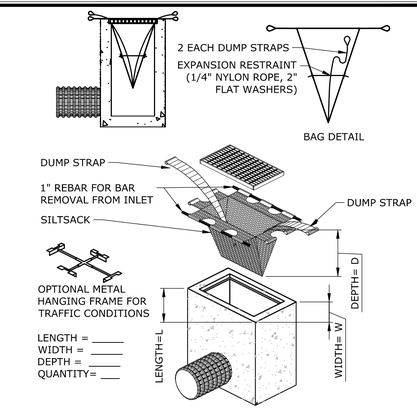
SPACING BETWEEN CHECK DAMS

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.

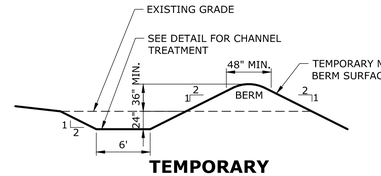
STONE CHECK DAM

NOT TO SCALE



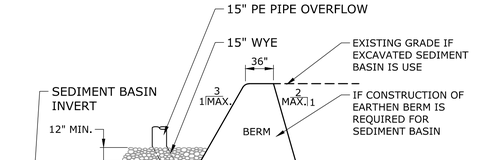
INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE



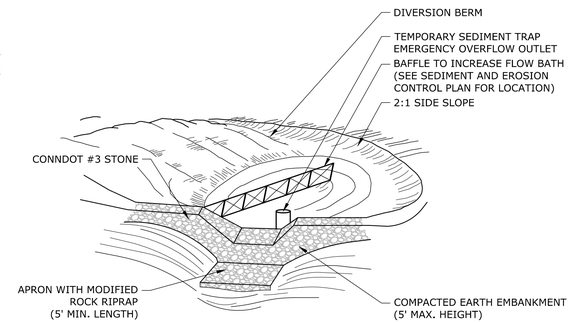
TEMPORARY DIVERSION BERM AND SWALE

NOT TO SCALE



TEMPORARY SEDIMENT BASIN OUTLET

NOT TO SCALE



NOTES:

1. REFER TO SEDIMENT & EROSION CONTROL PLAN FOR APPROXIMATE DIMENSIONS AND REQUIRED VOLUME.

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.

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

DESCRIPTION: REVISIONS
DATE: 2022-06-29
BY: JRH

SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
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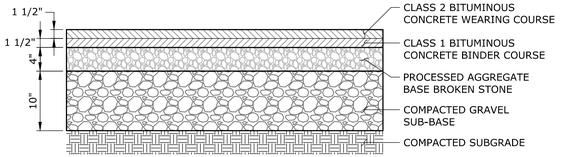
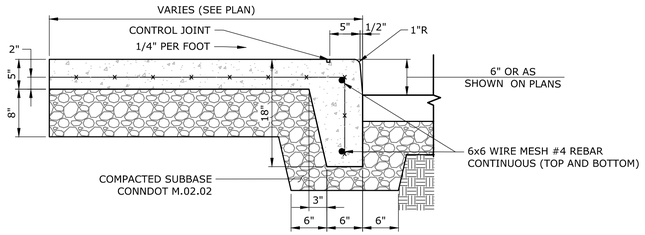
SCALE: X"=X'
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 14 OF 19

SHEET NAME: SE-3



BITUMINOUS CONCRETE

NOT TO SCALE

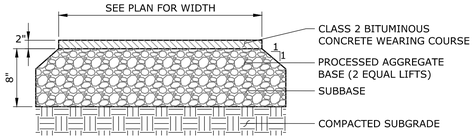


NOTES:

1. CONCRETE TO BE 4,000 PSI AT 28 DAYS. 1/2" EXPANSION JOINT AT INTERVALS NOT TO EXCEED 20'. EXPANSION JOINT TO RUN TO THE FACE OF CURB.
2. TO BE USED IN ALL LOCATIONS WHERE PROPOSED CONCRETE WALKS ABUT PROPOSED CONCRETE CURB.

INTEGRAL CONCRETE SIDEWALK CURB

NOT TO SCALE



BITUMINOUS CONCRETE WALKS

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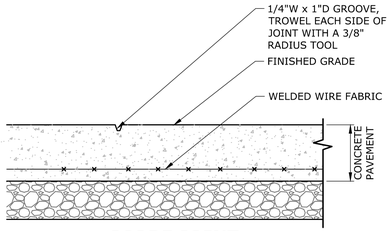

SCORE JOINT

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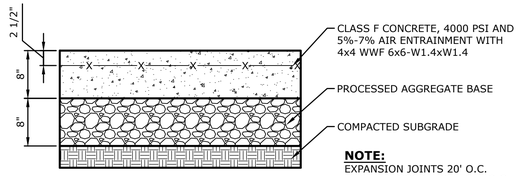
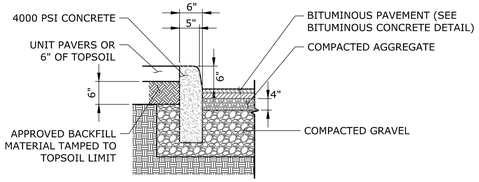


NOTE:
EXPANSION JOINTS 20' O.C.
MAXIMUM SCORE JOINTS 5' O.C.
TYPICAL (SEE JOINT DETAILS)

CONCRETE DUMPSTER PAD

NOT TO SCALE



NOTES:

1. CONCRETE IS TO BE AIR ENTRAINED 3%-6%
2. CONCRETE CURB MAY BE PRECAST UNITS. SUBMIT SHOP DRAWINGS.

CONCRETE CURB

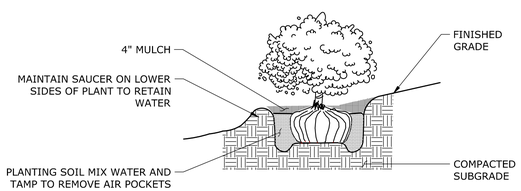
NOT TO SCALE

NOTES:

1. PROVIDE PREFORMED EXPANSION JOINT AT ALL CONSTRUCTION JOINT, SAWCUT, AND OTHER LOCATIONS WHERE CONCRETE ABUTTS EXISTING CONCRETE.

EXPANSION JOINT

NOT TO SCALE

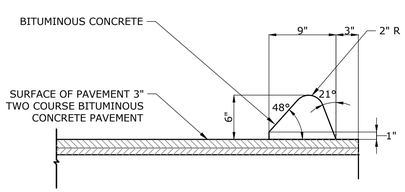


NOTES:

1. UNLESS OTHERWISE DIRECTED SHREDDED MULCH SHALL BE PLACED TO A LIMIT OF ONE FOOT BEYOND THE CENTER OF THE OUTERMOST SHRUBS IN SHRUB BED.

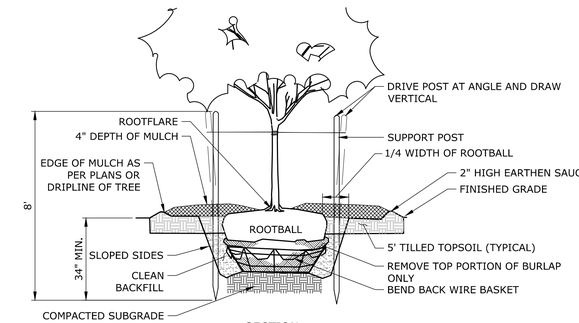
SHRUB PLANTING

NOT TO SCALE

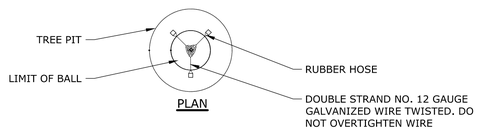


BITUMINOUS CONCRETE CURB

NOT TO SCALE



SECTION



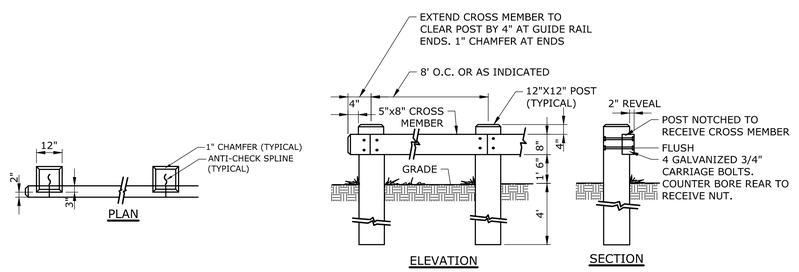
PLAN

NOTE:

1. SUPPORT STAKES SHALL BE REMOVED BY THE CONTRACTOR ONE YEAR AFTER INSTALLATION.

TREE PLANTING

NOT TO SCALE



PLAN ELEVATION SECTION

TIMBER GUIDE RAIL

NOT TO SCALE

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

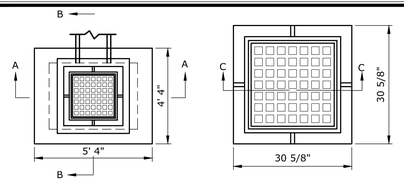
SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

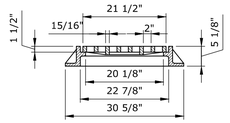
DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

AS NOTED — SCALE
MAY 2, 2022 — DATE
5956-01 — PROJECT NO.
15 OF 19 — SHEET NO.

SD-1 — SHEET NAME



PLAN



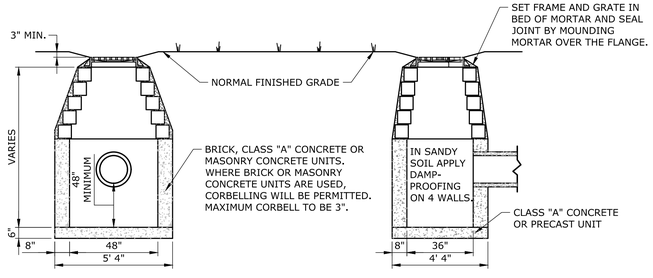
SECTION C-C

NOTES:

1. YARD DRAIN FRAMES & GRATES SHALL BE PATTERN #R-3404 AS MANUFACTURED BY THE "NEENAH FOUNDRY COMPANY" OF NEENAH, WISCONSIN, OR APPROVED EQUAL.

YARD DRAIN FRAME & GRATE

NOT TO SCALE



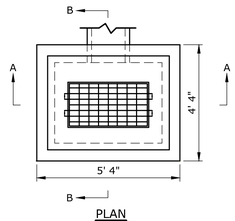
SECTION A-A **SECTION B-B**

NOTES:

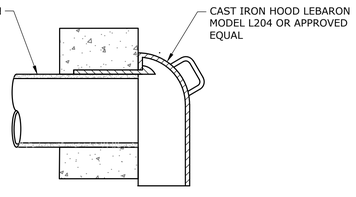
1. WHERE PRECAST CONCRETE UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN.

YARD DRAIN

NOT TO SCALE

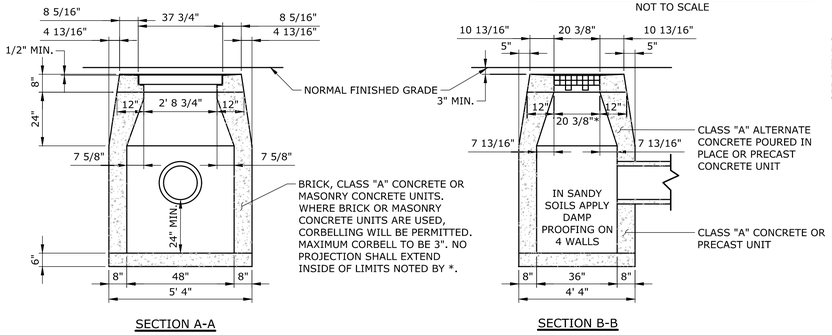


PLAN



HOODED CATCH BASIN TRAP

NOT TO SCALE



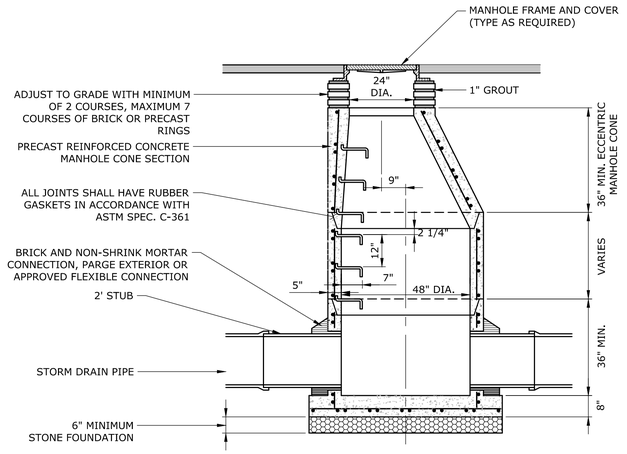
SECTION A-A SECTION B-B

NOTES:

1. WHERE PRECAST CONCRETE UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN.

TYPE "C-L" CATCH BASIN

NOT TO SCALE



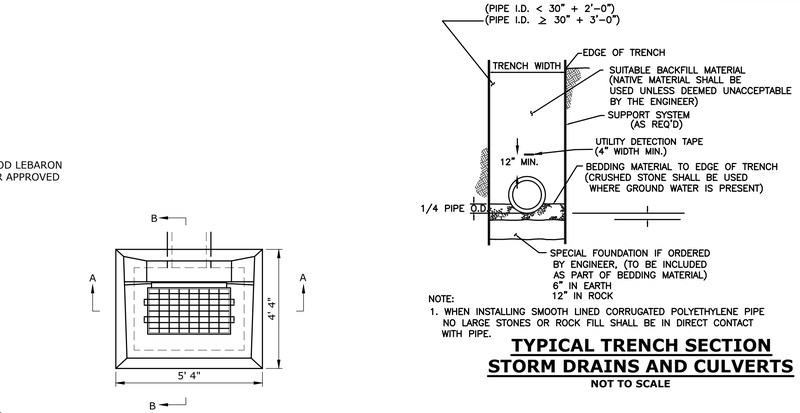
NOTES:

1. 5' OR 6' DIAMETER PRECAST BASES MAY BE REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5' OR 6' BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS TO INCREASE BY 1" FOR EACH 1'-0" OF INSIDE DIAMETER.

PRECAST CONCRETE STORM DRAINAGE MANHOLE

NOT TO SCALE

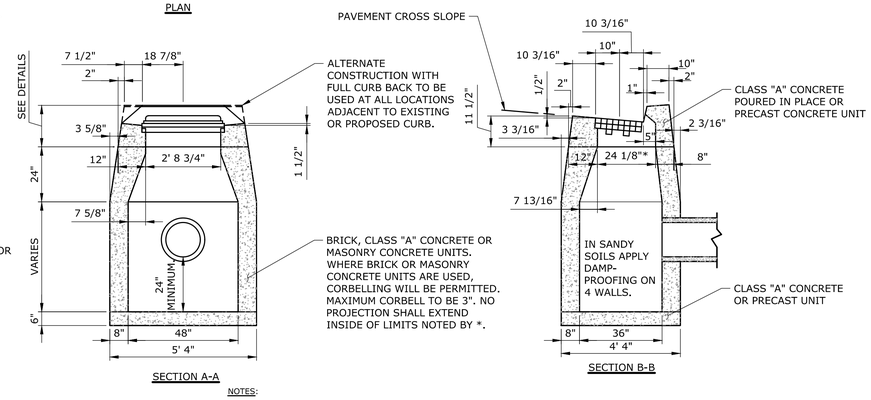
PLAN



NOTE:
1. WHEN INSTALLING SMOOTH LINED CORRUGATED POLYETHYLENE PIPE NO LARGE STONES OR ROCK FILL SHALL BE IN DIRECT CONTACT WITH PIPE.

TYPICAL TRENCH SECTION STORM DRAINS AND CULVERTS

NOT TO SCALE



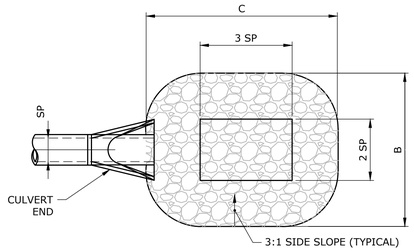
SECTION A-A SECTION B-B

NOTES:

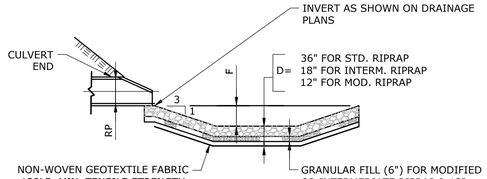
1. WHEN CATCH BASIN IS SET IN CONCRETE PAVEMENT. THE 1/2" SLOPE ON THE TOP SURFACE SHALL BE CHANGED TO MATCH ADJOINING PAVEMENT.
2. WHERE PRECAST CONCRETE UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLET FROM THE CATCH BASIN.

TYPE "C" CATCH BASIN

NOT TO SCALE



PLAN



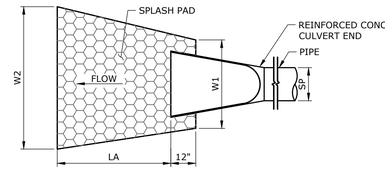
ELEVATION

OUTLET PROTECTION ID	TYPE	SP (FT)	RP (FT)	C (FT)	B (FT)	F (FT)	D (IN)
FES 3	MODIFIED	1.5	1.5	9	8	0.75	12
FES 10	MODIFIED	2.0	2.0	12	10	1.0	12
FES 18	MODIFIED	1.5	1.5	9	8	0.75	12
FES 40	MODIFIED	2.5	2.5	15	13	1.25	12

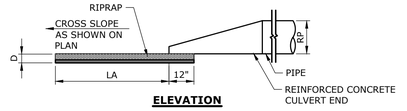
PREFORMED SCOUR HOLE

OUTLET PROTECTION

NOT TO SCALE



PLAN

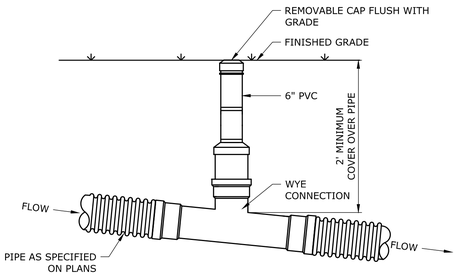


ELEVATION

FES 31	INTERMEDIATE TYPE B	1.5	1.5	28.0	5.0	16.0	18
FES 51	MODIFIED TYPE B	1.25	1.25	10.0	4.0	8.0	12
FES 72	MODIFIED TYPE B	1.5	1.5	16.0	5.0	11.0	12
FES 75	MODIFIED TYPE B	1.25	1.25	10.0	4.0	8.0	12

FLARED END WITH RIP RAP SPLASH PAD

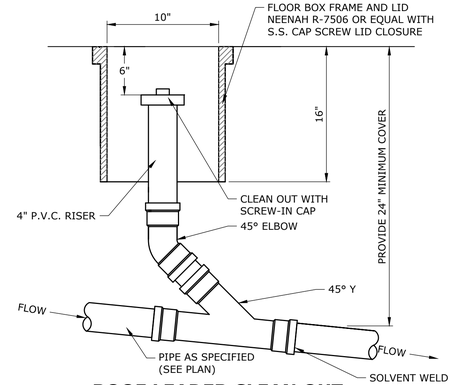
NOT TO SCALE



NOTE:
CLEANOUT TO BE INSTALLED OVER ROOF LEADER WYE CONNECTIONS AND BENDS

ROOF LEADER CLEANOUT

NOT TO SCALE



ROOF LEADER CLEAN OUT FOR PAVED SURFACES

NOT TO SCALE

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DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

SCALE: AS NOTED
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 16 OF 19

SD-2

SHEET NAME

FORMATION OF EMBANKMENT FOR STORMWATER BASINS

MATERIALS

ALL FILL MATERIALS SHALL BE OBTAINED FROM REQUIRED EXCAVATIONS OR DESIGNATED BORROW AREAS. FILL MATERIAL SHALL CONTAIN NO FROZEN MATERIAL, SOD, BRUSH, ROOTS, OR OTHER ORGANIC MATERIAL. EARTH EMBANKMENTS SHALL CONTAIN NO STONES OR ROCK PARTICLES OVER THREE INCHES IN DIAMETER.

THE MATERIAL USED IN THE CENTER PORTION OF THE EMBANKMENT SHALL BE THE MOST IMPERVIOUS MATERIAL OBTAINED FROM THE BORROW AREAS IF REQUIRED. THE MORE PERVIOUS MATERIALS SHALL BE USED IN THE OUTER PORTION OF THE EMBANKMENT AS SHOWN ON THE PLANS.

1. IMPERVIOUS FILL MATERIALS

IMPERVIOUS FILL SHALL BE A GLACIAL TILL, AND TO BE PROVIDED FROM AN OFFSITE SOURCE IN THE QUANTITIES REQUIRED FOR COMPLETION. FILL TO BE APPROVED BY THE ENGINEER. GLACIAL TILL SHALL CONSIST OF HARD AND DURABLE PARTICLES OR FRAGMENTS AND SHALL BE FREE FROM ORGANIC MATTER AND OTHER OBJECTIONABLE MATERIALS. GLACIAL TILL SHALL GENERALLY CONFORM TO THE FOLLOWING GRADATION LIMITS:

U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
3 INCH	100
NO. 4	60-95
NO. 10	50-95
NO. 40	30-75
NO. 100	20-65
NO. 200	10-40

2. EMBANKMENT FOUNDATION PREPARATION

AREAS WHERE EMBANKMENTS ARE TO BE FORMED SHALL BE CLEARED AND GRUBBED OF ALL TOPSOIL AND OTHER ORGANIC MATERIALS TO A DEPTH OF AT LEAST 24 INCHES. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, FOUNDATION AREAS SHALL BE SCARIFIED TO A DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF FILL MATERIAL.

3. PLACEMENT

NO FILL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION AND EXCAVATIONS IN THE FOUNDATION HAVE BEEN COMPLETED. NO FILL SHALL BE PLACED ON A FROZEN SURFACE NOR SHALL FROZEN MATERIAL BE INCORPORATED.

A. EMBANKMENT MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS. THE THICKNESS OF LAYERS SHALL BE SIX INCHES. DURING CONSTRUCTION, THE SURFACE OF THE FILL SHALL HAVE A CROWN OR CROSS-SLOPE OF NOT LESS THAN TWO PERCENT. EACH LAYER OR LIFT SHALL EXTEND OVER THE ENTIRE AREA OF THE FILL.

THE FILL SHALL BE FREE FROM LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFERING SUBSTANTIALLY IN TEXTURE OR GRADATION FROM THE SURROUNDING MATERIAL. THE MORE PERVIOUS MATERIAL SHALL BE PLACED IN THE OUTSIDE PORTION OF THE EMBANKMENT OR AS INDICATED ON THE DRAWINGS. THE FINISHED FILL SHALL BE SHAPED AND GRADED TO THE LINES AND GRADE SHOWN ON THE DRAWINGS.

B. BACKFILL AT THE PIPE OUTLET BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED THREE INCHES IN THICKNESS AND SHALL BE BROUGHT UP UNIFORMLY AROUND THE OUTLET PIPE AND FLARED END SECTION

4. MOISTURE CONTROL

THE MOISTURE CONTENT OF MATERIALS IN THE EMBANKMENT SHALL BE CONTROLLED TO MEET THE REQUIREMENTS OF SECTION 5, "COMPACTION OF EMBANKMENT." WHEN NECESSARY, MOISTURE SHALL BE ADDED BY USE OF APPROVED SPRINKLING EQUIPMENT. WATER SHALL BE ADDED UNIFORMLY AND EACH LAYER SHALL BE THOROUGHLY DISKED OR HARROWED TO PROVIDE PROPER MIXING. ANY LAYER FOUND TOO WET FOR PROPER COMPACTION SHALL BE ALLOWED TO DRY BEFORE ROLLING. PLACING OR ROLLING OF MATERIAL ON EARTH FILLS WILL NOT BE PERMITTED DURING OR IMMEDIATELY AFTER RAINFALLS WHICH INCREASE THE MOISTURE CONTENT BEYOND THE LIMIT OF SATISFACTORY COMPACTION. THE EARTH FILL SHALL BE BROUGHT UP UNIFORMLY AND ITS TOP SHALL BE KEPT GRADED AND SLOPED SO THAT A MINIMUM OF RAINWATER WILL BE RETAINED THEREON. COMPACTED EARTH FILL DAMAGED BY WASHING SHALL BE ACCEPTABLY REPLACED BY THE CONTRACTOR.

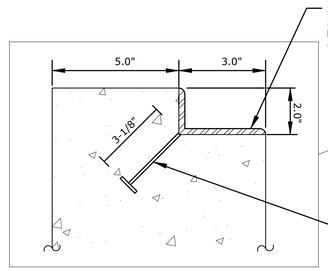
5. COMPACTION

A. EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AND BY THE COMPACTION EQUIPMENT SPECIFIED HEREIN. THE COMPACTION EQUIPMENT SHALL TRAVERSE THE ENTIRE SURFACE OF EACH LAYER OF FILL MATERIAL.

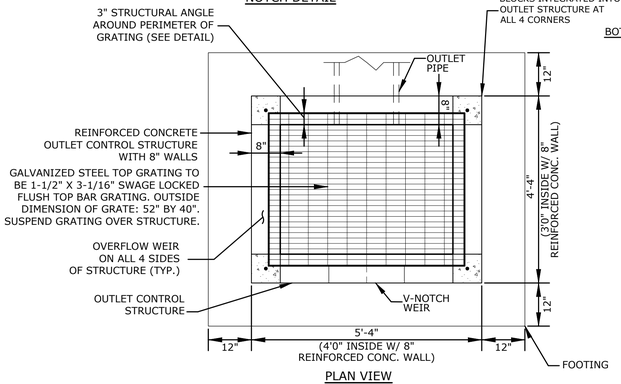
APPROVED TAMPING ROLLERS SHALL BE USED FOR COMPACTING ALL PARTS OF THE EMBANKMENTS WHICH THEY CAN EFFECTIVELY REACH. THE CONTRACTOR SHALL DEMONSTRATE THE EFFECTIVENESS OF THE ROLLER BY ACTUAL SOIL COMPACTION RESULTS OF THE SOIL TO BE USED IN THE EMBANKMENT WITH LABORATORY WORK PERFORMED BY AN APPROVED SOIL TESTING LABORATORY.

B. BACKFILL AT OUTLET CONDUIT BACKFILL SHALL BE COMPACTED BY HAND TAMPING WITH MECHANICAL TAMPERS. HEAVY EQUIPMENT SHALL NOT BE OPERATED WITHIN TWO FEET OF ANY STRUCTURE. EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE OUTLET CONDUITS UNTIL THERE IS 24 INCHES OF FILL OVER THE PIPE CONDUITS.

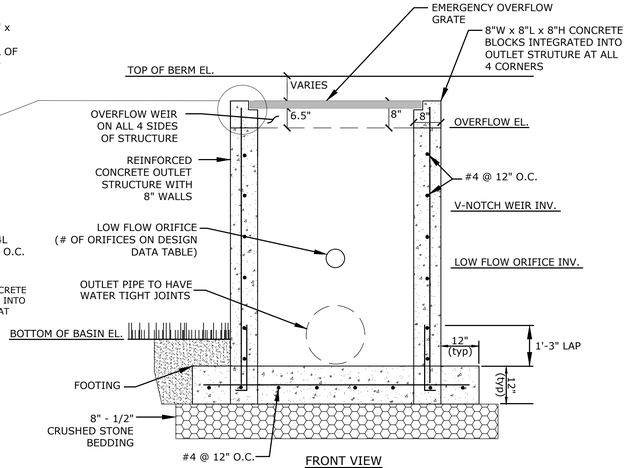
6. FINISHING EMBANKMENTS THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE ELEVATIONS, LINES, GRADES AND CROSS-SECTIONS AS SHOWN ON THE DRAWINGS. THE EMBANKMENTS SHALL BE MAINTAINED IN A MANNER SATISFACTORY TO THE ENGINEER AND SURFACES SHALL BE COMPACT AND ACCURATELY GRADED BEFORE TOPSOIL IS PLACED ON THEM. THE CONTRACTOR SHALL CHECK THE EMBANKMENT SLOPES WITH STRINGLINES TO INSURE THAT THEY CONFORM TO THE SLOPES GIVEN ON THE PLANS AND ARE UNIFORM FOR THE ENTIRE LENGTH OF THE SLOPE.



NOTCH DETAIL



PLAN VIEW

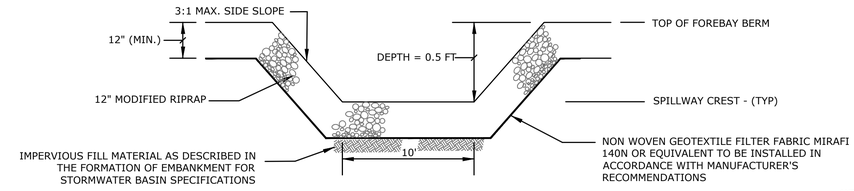


FRONT VIEW

	POND 100	DET 130	DET 150	DET 170
TOP OF BERM ELEVATION	160.0	134.0	70.0	140.0
OVERFLOW ELEVATION	158.5	132.5	68.5	138.5
100-YR STORM ELEVATION	N/A	133.0	147.06	140.91
LOW FLOW ORIFICE DIAMETER (1)	1 - 6" ORIF.	1 - 9" ORIF.	1 - 8" ORIF.	1 - 8" ORIF.
LOW FLOW ORIFICE INVERT (1)	154.7	127.25	65.0	135.3
LOW FLOW ORIFICE DIAMETER (2)	N/A	2 - 8" ORIFS.	1 - 9" ORIF.	1 - 8" ORIF.
LOW FLOW ORIFICE INVERT (2)	N/A	129.0	67.0	137.0
BASIN BOTTOM ELEVATION	154.7	126.0	64.0	134.0
OUTLET PIPE DIAMETER	12"	15"	15"	15"
OUTLET PIPE INVERT	152.0	120.0	64.0	134.0

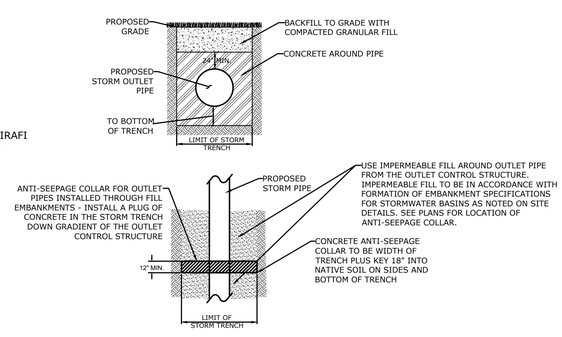
DETENTION BASIN OUTLET CONTROL STRUCTURE DETAIL

NOT TO SCALE



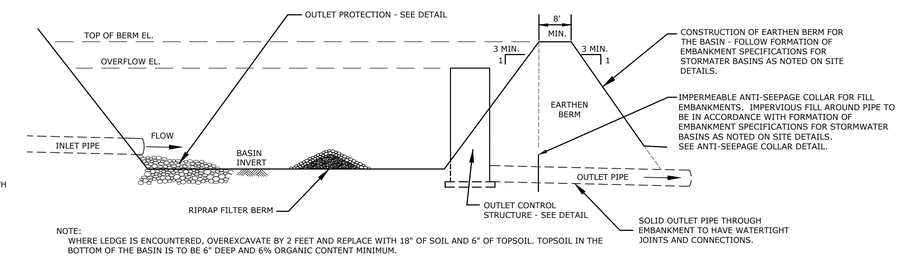
WATER QUALITY BASIN OVERFLOW SPILLWAY

NOT TO SCALE



ANTI-SEEPAGE COLLAR

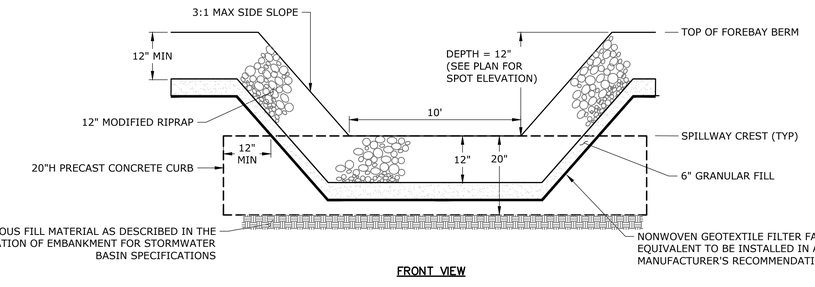
NOT TO SCALE



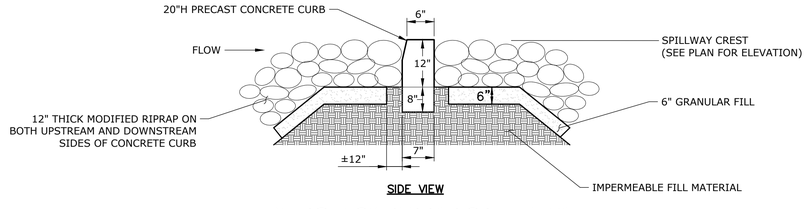
NOTE:
WHERE LEDGE IS ENCOUNTERED, OVEREXCAVATE BY 2 FEET AND REPLACE WITH 18" OF SOIL AND 6" OF TOPSOIL. TOPSOIL IN THE BOTTOM OF THE BASIN IS TO BE 6" DEEP AND 6% ORGANIC CONTENT MINIMUM.

TYPICAL DETENTION BASIN

NOT TO SCALE



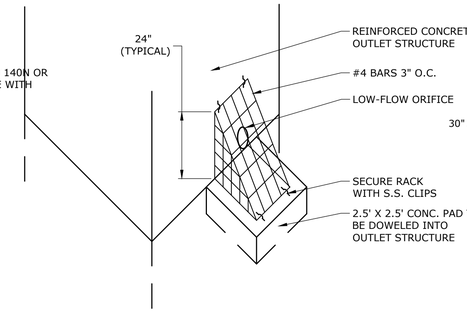
FRONT VIEW



SIDE VIEW

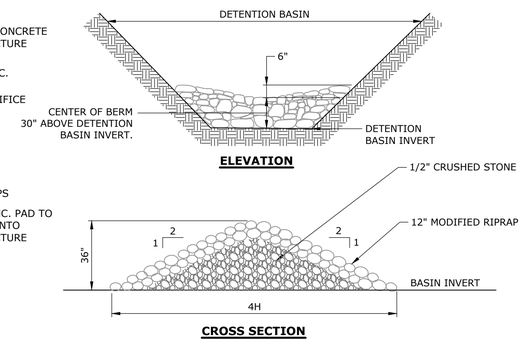
EMERGENCY RIPRAP SPILLWAY

NOT TO SCALE



OUTLET STRUCTURE TRASH GRATE

NOT TO SCALE

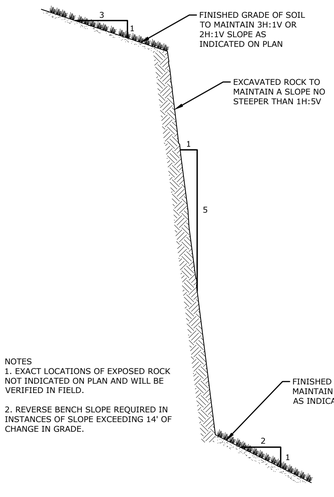


ELEVATION

CROSS SECTION

RIPRAP FILTER BERM

NOT TO SCALE



NOTES
1. EXACT LOCATIONS OF EXPOSED ROCK NOT INDICATED ON PLAN AND WILL BE VERIFIED IN FIELD.

2. REVERSE BENCH SLOPE REQUIRED IN INSTANCES OF SLOPE EXCEEDING 14' OF CHANGE IN GRADE.

ALTERNATIVE ROCK SLOPE

NOT TO SCALE

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

JRH	JRH	DLO
DESIGNED	DRAWN	CHECKED

AS NOTED
SCALE

MAY 2, 2022
DATE

5956-01
PROJECT NO.

17 OF 19
SHEET NO.

SD-3
SHEET NAME

STORMWATER CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION
5. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED
6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
7. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE
   a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM
   b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY
   c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

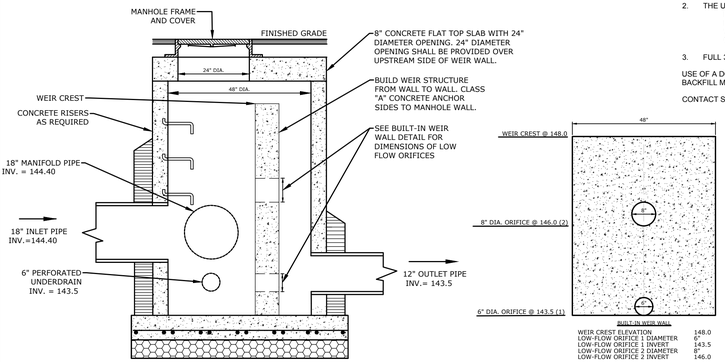
1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
   STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   STONESHOOTER LOCATED OFF THE CHAMBER BED.
   BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm) MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING..
10. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   WEIGHT LIMITS FOR CONSRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

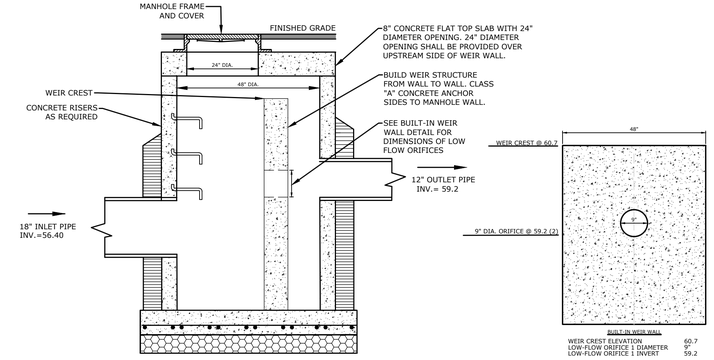
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



NOTES:
THIS DETAIL REPRESENTS A MODIFICATION OF A STANDARD STORM MANHOLE FOR USE IN CONTROLLING THE DISCHARGE FROM THE DETENTION AREA. SEE THE MANHOLE DETAIL FOR STANDARD DIMENSIONS AND NOTES.

OUTLET CONTROL STRUCTURE DETAIL - UNDERGROUND DETENTION SYSTEM 160

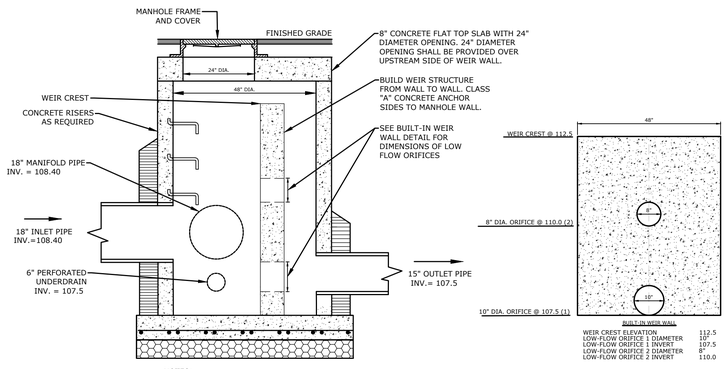
NOT TO SCALE



NOTES:
THIS DETAIL REPRESENTS A MODIFICATION OF A STANDARD STORM MANHOLE FOR USE IN CONTROLLING THE DISCHARGE FROM THE DETENTION AREA. SEE THE MANHOLE DETAIL FOR STANDARD DIMENSIONS AND NOTES.

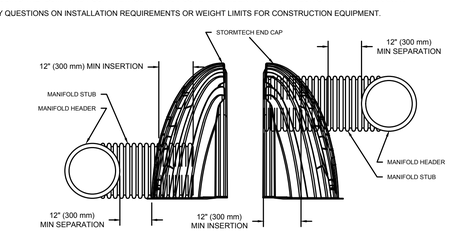
OUTLET CONTROL STRUCTURE DETAIL - UNDERGROUND DETENTION SYSTEM 500

NOT TO SCALE



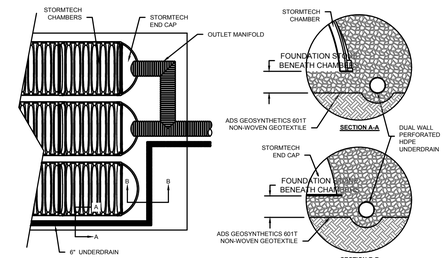
NOTES:
THIS DETAIL REPRESENTS A MODIFICATION OF A STANDARD STORM MANHOLE FOR USE IN CONTROLLING THE DISCHARGE FROM THE DETENTION AREA. SEE THE MANHOLE DETAIL FOR STANDARD DIMENSIONS AND NOTES.

OUTLET CONTROL STRUCTURE FOR UNDERGROUND DETENTION SYSTEM 140

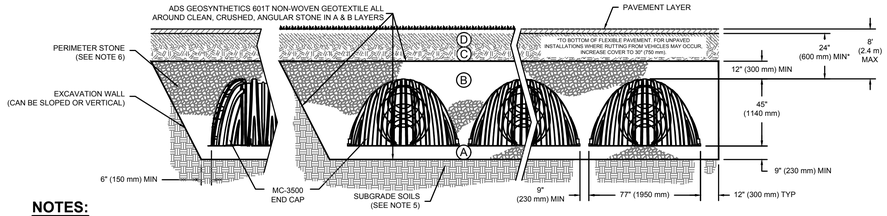


NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

MC-SERIES END CAP INSERTION DETAIL



UNDERDRAIN DETAIL



NOTES:

1. MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[2] A-1, A-2-4, A-3 OR AASHTO M43[3] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 4	
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

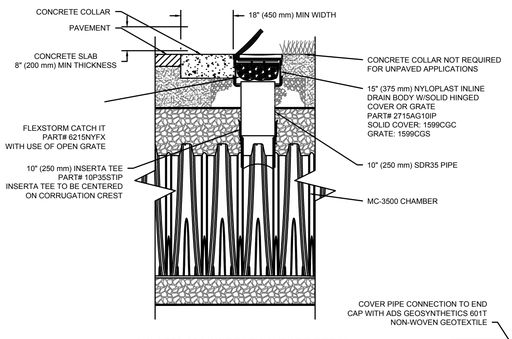
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

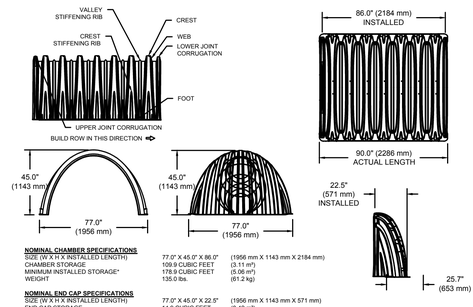
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



MC-3500 10" INSPECTION PORT DETAIL



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	178.9 CUBIC FEET	(5.06 m³)
WEIGHT	135.0 lbs.	(61.2 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 22.5"	(1956 mm X 1143 mm X 571 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	46.0 CUBIC FEET	(1.30 m³)
WEIGHT	50.0 lbs.	(22.7 kg)

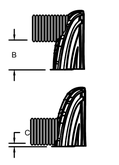
*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

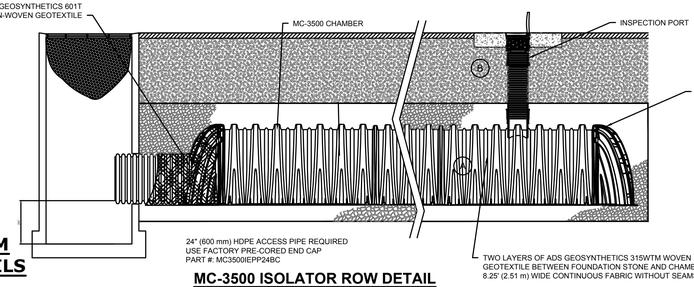
PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	—
MC3500IEPP06B		—	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	—
MC3500IEPP08B		—	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	—
MC3500IEPP10B		—	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	—
MC3500IEPP12B		—	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	—
MC3500IEPP15B		—	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	—
MC3500IEPP18BC		—	1.77" (45 mm)
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	—
MC3500IEPP24BC		—	2.06" (52 mm)
MC3500IEPP30BC	30" (750 mm)	—	—

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS.
CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm).
THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHTEST POSSIBLE FOR THE PIPE SIZE.



MC-3500 TECHNICAL SPECIFICATION



UNDERGROUND DETENTION SYSTEM STORMTECH MC-3500 TYPICAL DETAILS

NOT TO SCALE

MC-3500 ISOLATOR ROW DETAIL

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

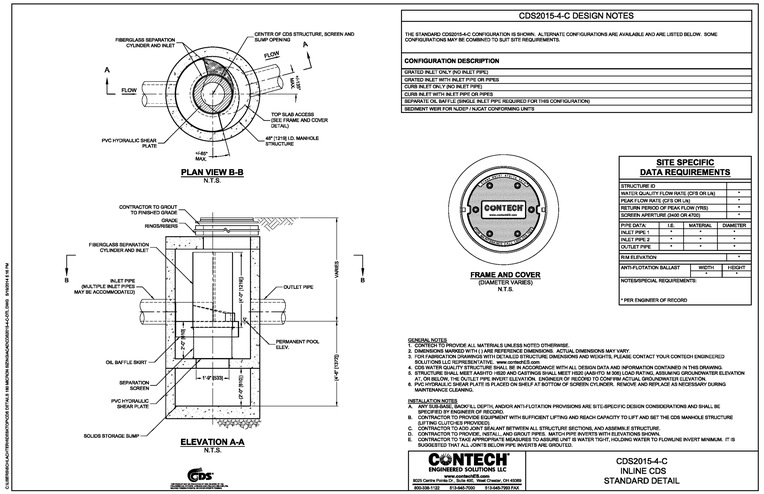
DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

DESIGNED	DRAWN	CHECKED
JRH	JRH	DLO

SCALE: AS NOTED
DATE: MAY 2, 2022
PROJECT NO.: 5956-01
SHEET NO.: 18 OF 19
SHEET NAME: SD-4



CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

- GRATED INLET ONLY (NO INLET PIPE)
- GRATED INLET WITH INLET PIPE OR PIPES
- CURB INLET ONLY (NO INLET PIPE)
- CURB INLET WITH INLET PIPE OR PIPES
- SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
- SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

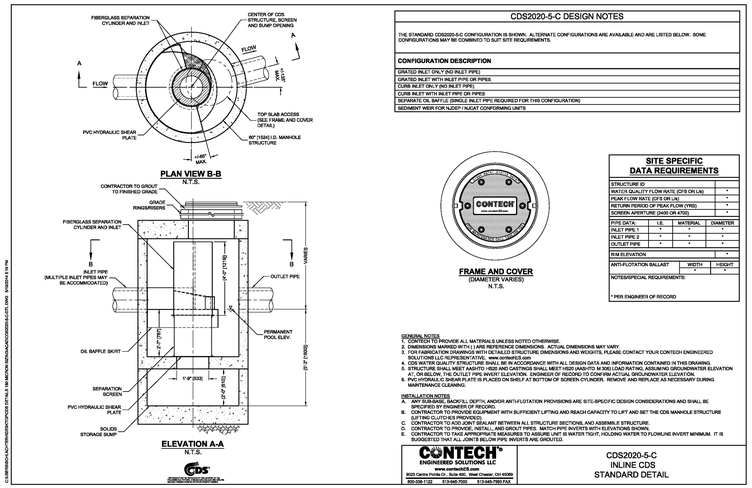
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH (-) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR ADDITIONAL INFORMATION ON CDS STRUCTURE DESIGN, DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE OR VISIT OUR WEBSITE AT WWW.CONTECHES.COM
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

CONTECH CDS 2015-4-C



CDS2020-5-C DESIGN NOTES

THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

- GRATED INLET ONLY (NO INLET PIPE)
- GRATED INLET WITH INLET PIPE OR PIPES
- CURB INLET ONLY (NO INLET PIPE)
- CURB INLET WITH INLET PIPE OR PIPES
- SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
- SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH (-) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR ADDITIONAL INFORMATION ON CDS STRUCTURE DESIGN, DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE OR VISIT OUR WEBSITE AT WWW.CONTECHES.COM
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

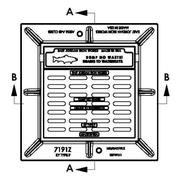
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES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

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

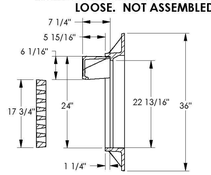
CDS2020-5-C
INLINE CDS
STANDARD DETAIL

CONTECH CDS 2020-5-C

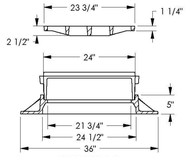
7191Z/7191M/7191T COMBINATION



NOTE: COMPONENTS ARE SHIPPED LOOSE. NOT ASSEMBLED



SECTION A-A



SECTION B-B

Corporate Headquarters
301 Spring Street
PO Box 439
East Jordan, MI
49727-0439
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GROUP

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- We reserve the right to modify specifications without prior notice.
- Uncontrolled distribution

PRODUCT NUMBER
00719131C01

DESIGN FEATURES

MATERIALS
FRAME-GRAY IRON
ASTM A48 CL55B

GRATE-GRAY IRON
ASTM A48 CL55B

HOODGRAY IRON
ASTM A48 CL55B

DESIGN LOAD
HEAVY DUTY

COATING
UNDIPPED

OPEN AREA
133 SQ INCHES

✓ DESIGNATES MACHINE SURFACE

REFERENCE INFORMATION
00719111
00719131
00719161

DRAWING DETAILS
ORIGINAL DRAWING: DEF 2/10/2010
REVISED BY:

CURBED GRATE TOP FOR CONTECH CDS UNITS

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

DESCRIPTION	DATE	BY
REVISIONS	2022-06-29	JRH

SITE DETAILS

THE BLUFFS
MULTIFAMILY ELDERLY HOUSING
31 AND 100 SPERRY LANE AND 161 FOXON ROAD
EAST HAVEN, CONNECTICUT

JRH	JRH	DLO
DESIGNED	DRAWN	CHECKED

AS NOTED
SCALE

MAY 2, 2022
DATE

5956-01
PROJECT NO.

19 OF 19
SHEET NO.

SD-5
SHEET NAME