XREFS: tm-200106.dwg

INDEX OF SHEETS	
SHEET	DESCRIPTION
1	COVER SHEET / LOCATION MAP / KEY MAP
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4	LAYOUT AND DIMENSIONING PLAN
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6	SOIL EROSION & SEDIMENT CONTROL PLAN
7	LIGHTING PLAN
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PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)

ZONE: A-1 (MULTI-FAMILY LOW RISE)

TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

OWNER/APPLICANT:
CAM GAR AT VERONA, LLC
16 MICROLAB ROAD
LIVINGSTON, NJ 07039

APPROVALS:

I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT COMPLIES WITH ALL APPROVALS GRANTED BY THE APPROVING AUTHORITY.

TOWNSHIP ENGINEER _____ DATE _____

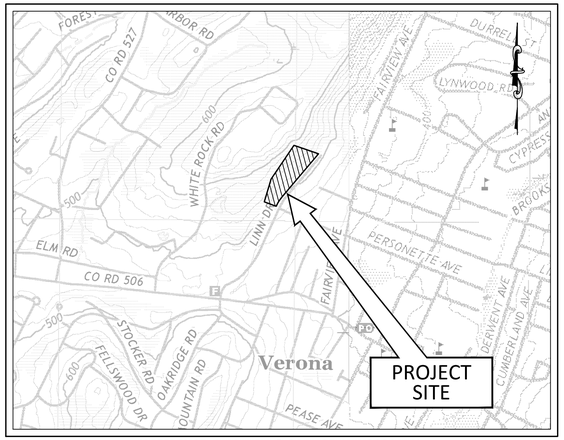
APPROVED BY THE TOWNSHIP OF VERONA BOARD OF ADJUSTMENT.

CHAIRMAN _____ DATE _____

SECRETARY _____ DATE _____

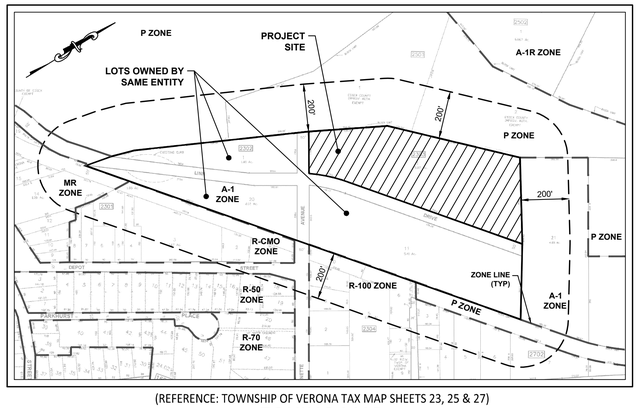
GENERAL NOTES

1. BOUNDARY INFORMATION SHOWN HEREON ON SHEET 2 TAKEN FROM PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY, MAP OF PROPERTY SITUATED AT 34 LINN DRIVE, TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, BLOCK 128/125 LOTS 25, 26, 27/1" PREPARED BY GEORGE J. ANDERSON, LLC. PROFESSIONAL LAND SURVEYORS DATED APRIL 10, 2008. TOPOGRAPHIC INFORMATION SHOWN HEREON ON PLAN SHEETS 3 - 7 TAKEN FROM A MAP ENTITLED "EXISTING CONDITIONS PLAN, PART OF TAX LOT 1 - BLOCK 2303 TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY" PREPARED BY LAKELAND SURVEYING DATED APRIL 20, 2021. VERTICAL DATUM NAVD88.
2. REFER TO PLANS PREPARED BY FOX ARCHITECTURAL DESIGN PC FOR INFORMATION ON THE PROPOSED APARTMENT BUILDING AND PLANS PREPARED BY BOWMAN CONSULTING GROUP - LANDSCAPE ARCHITECTS FOR INFORMATION ON THE PROPOSED AMENITY AREA.
3. THE SUBJECT PROPERTY IS IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) BASED ON THE FLOOD INSURANCE RATE MAP WITH AN EFFECTIVE DATE OF JUNE 4, 2007.
4. ENGINEER SIGNING THIS PLAN IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE PRESENCE OR ABSENCE OF WETLANDS. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED BY THE FACT THAT NO EVIDENCE OF WETLANDS OR WETLAND TRANSITION AREAS (BUFFERS) ARE SHOWN ON THIS PLAN.
5. CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS REGARDING SUBSURFACE CONDITIONS, INCLUDING BUT NOT LIMITED TO SOIL CHARACTERISTICS, AS WELL AS DEPTH TO ROCK AND GROUNDWATER. THE DESIGN ENGINEER WAS NOT CONTRACTED TO MAKE ANY SUCH DETERMINATIONS.
6. THE ENGINEER SIGNING THIS PLAN IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE PRESENCE OR ABSENCE OF CONTAMINATION OR OTHER ENVIRONMENTAL CONDITIONS ON THE SITE. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED BY THE FACT THAT NO EVIDENCE OF CONTAMINATION OR OTHER ENVIRONMENTAL CONDITIONS IS SHOWN ON THIS PLAN.
7. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND BASED SOLELY UPON ABOVE GROUND OBSERVATIONS, MARK-OUTS AND/OR PLANS PROVIDED BY UTILITY COMPANIES. THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN REGARDING UNDERGROUND UTILITIES IS NOT GUARANTEED BY THE ENGINEER. CONNECTIONS BETWEEN STRUCTURES, IF AND WHERE SHOWN, MAY NOT REPRESENT ACTUAL BELOW GROUND CONDITIONS. CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR ORDERING MARK-OUTS, COORDINATION WITH THE VARIOUS UTILITY COMPANIES AND FOR MAKING THEIR OWN DETERMINATION AS TO THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION TO ASSURE DISTURBANCE AND/OR DISRUPTION OF EXISTING UTILITIES IS AVOIDED WHERE POSSIBLE AND MINIMIZED IN ALL CASES. AS THE EXACT ELEVATION OF EXISTING UTILITIES MAY BE UNKNOWN TO ENGINEER, CONTRACTOR IS ADVISED THAT THE POTENTIAL FOR CONFLICTS WITH PROPOSED WORK MAY EXIST. EXPLORATORY EXCAVATIONS, CONTRACT CONTINGENCIES OR EXCLUSIONS WITH OWNER SHOULD BE MADE TO ACCOMMODATE SUCH AN EVENT. IN THE EVENT THE CONTRACTOR IDENTIFIES A CONFLICT BETWEEN THE PROPOSED WORK AND EXISTING UTILITIES, THE CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER AND THE OWNER PRIOR TO ANY WORK BEING PERFORMED.
   a. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF THE EXISTING UTILITY TO WHICH CONNECTION IS BEING MADE BEFORE LAYING ANY PIPE, CONDUIT, ETC. DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER.
   b. ANY TEMPORARY INTERRUPTION OF SERVICE TO THE SITE AND/OR ADJACENT PROPERTIES SHALL BE PRE-APPROVED IN WRITING (EMAIL) BY THE RESPECTIVE UTILITY.
   c. ELECTRIC, TELEPHONE, CABLE TELEVISION AND ALL OTHER UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND AT LOCATIONS DETERMINED BY EACH RESPECTIVE UTILITY ENTITY, SUBJECT TO ANY REQUIRED MUNICIPAL APPROVAL, REGARDLESS OF WHETHER OR NOT THE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF ALL UTILITY MAINS AND SERVICES WITH EACH UTILITY ENTITY AND PROVIDE WHATEVER CONSTRUCTION SUPPORT IS REQUIRED FOR ACHIEVING UTILITY SERVICE. THE CONTRACTOR IS ADVISED TO CONTACT EACH RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION TO IDENTIFY AND COORDINATE ANY SCHEDULING REQUIREMENTS.
   d. SHOULD IT BE REQUIRED TO EXCAVATE ONE OR MORE TRENCHES IN EXISTING ROADWAYS, BACKFILLING AND PAVEMENT REPLACEMENT/REPAIR SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MUNICIPALITY OR COUNTY, AS APPLICABLE. VERIFICATION OF BACKFILL REQUIREMENTS SHALL BE MADE PRIOR TO BID.
8. THE OWNER SHALL PROVIDE A COPY OF ALL PERMITS AND APPROVALS ISSUED FOR THE PROJECT TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND COMPLYING WITH THE TERMS AND CONDITIONS OF ALL PERMITS, APPROVALS AND AUTHORIZATIONS ISSUED BY THE VARIOUS REGULATORY AUTHORITIES FOR THE PROJECT. THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONFIRMING WITH THE ENGINEER THAT THE PERMITS AND APPROVALS PROVIDED BY THE OWNER IS COMPLETE. RESPONSIBILITY FOR ANY ADDITIONAL PERMITS REQUIRED AS CONSTRUCTION PROGRESSES, SUCH AS BUILDING PERMITS (INCLUDING BUILDING PERMITS FOR RETAINING WALLS) AND ROAD OPENING PERMITS SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND OWNER.
9. PRIOR TO ANY CONSTRUCTION OR SITE PREPARATION ACTIVITY, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING:
   - VERIFY THE PLANS CONTAIN THE RAISED SEAL OF THE ENGINEER AND DISPLAY THE LATEST REVISION AS "ISSUED FOR CONSTRUCTION." THE USE OF ANY OTHER PLANS IS AT THE CONTRACTOR'S RISK.
   - VERIFY THE INFORMATION SHOWN ON THESE PLANS IS CONSISTENT WITH THE INFORMATION SHOWN ON ALL OTHER PLANS (ARCHITECTURAL, LANDSCAPING, ETC.) BEING USED FOR CONSTRUCTION OF THE PROJECT. ALSO, VERIFY THE PLANS ARE CONSISTENT WITH ALL CONDITIONS AND REQUIREMENTS SET FORTH IN THE PERMITS. REPORT ANY DISCREPANCIES/INCONSISTENCIES TO THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY CONSTRUCTION.
   - DETERMINE ALL APPLICABLE SPECIFICATIONS, AS WELL AS ALL REQUIREMENTS FOR SHOP DRAWINGS, INSPECTIONS AND TESTING APPLICABLE TO PROJECT BY CONTACTING THE LOCAL BUILDING OFFICIAL, MUNICIPAL ENGINEER AND EACH AFFECTED UTILITY COMPANY (OR AGENCY). IN THE EVENT OF A CONFLICT BETWEEN ANY SPECIFICATIONS AND THE INFORMATION SHOWN ON THESE PLANS, THE DESIGN ENGINEER AND THE OWNER SHALL BE NOTIFIED IN ORDER TO RESOLVE THE CONFLICT PRIOR TO ANY CONSTRUCTION.
   - CONTACT THE LOCAL POLICE DEPARTMENT RELEVANT TO ANY WORK TO BE PERFORMED IN OR NEAR PUBLIC STREETS, AS WELL AS INGRESS AND EGRESS REQUIREMENTS DURING CONSTRUCTION. TRAFFIC CONTROL REQUIREMENTS SHALL BE ESTABLISHED BETWEEN THE CONTRACTOR AND POLICE DEPARTMENT AT THIS TIME.
10. RELEVANT DOCUMENTATION PERTAINING TO ANY PRODUCT PROPOSED BY THE CONTRACTOR ON THE BASIS OF AN "APPROVED EQUAL" SHALL BE SUBMITTED TO THE MUNICIPAL ENGINEER AND THE DESIGN ENGINEER AT LEAST TWO WEEKS IN ADVANCE OF ORDERING PRODUCT. THE PRODUCT MUST BE APPROVED FOR INCORPORATION INTO THE PROJECT BY BOTH THE MUNICIPAL ENGINEER AND THE DESIGN ENGINEER.
11. ALL CONFIRMATIONS/VERIFICATIONS BETWEEN THE CONTRACTOR, OWNER AND/OR ENGINEER SHALL BE VIA EMAIL OR OTHER WRITTEN FORM(S) OF COMMUNICATION.
12. CONTRACTOR TO CALL THE NEW JERSEY ONE CALL SYSTEM (800-272-1000) TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO ANY SITE DISTURBANCE.
13. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE DESIGN ENGINEER WITH A LIST OF ALL SHOP DRAWINGS, INSPECTIONS, TESTING, CERTIFICATIONS, AS-BUILT PLANS AND SIMILAR POST-CONSTRUCTION APPROVAL REQUIREMENTS PERTAINING TO THE PROJECT. THE LIST SHALL ALSO IDENTIFY THE SPECIFIC INDIVIDUAL RESPONSIBLE FOR PERFORMING EACH TEST AND/OR PROVIDING EACH CERTIFICATION AND/OR AS-BUILT MAP. IN PARTICULAR, SHOULD NJDEP PERMITS APPLY TO ANY UTILITY CONSTRUCTION AND SHOULD THE PERMIT REQUIRE A CERTIFICATION OF THE WORK UPON COMPLETION, THE CONTRACTOR SHALL DETERMINE THE INDIVIDUAL RESPONSIBLE FOR PROVIDING THE CERTIFICATION. THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR COORDINATING WITH EACH INDIVIDUAL IDENTIFIED ON THE LIST AND SCHEDULING HIS WORK TO ASSURE EACH INDIVIDUAL HAS SUFFICIENT OPPORTUNITY TO CONDUCT THE REQUIRED TESTS, OBTAIN REQUIRED MEASUREMENTS AND/OR PERFORM ANY SERVICES OR WORK REQUIRED TO PREPARE THE REQUIRED POST-CONSTRUCTION APPROVAL DOCUMENTS.
14. CONTRACTOR TO COORDINATE ALL WORK WITH ALL UTILITY COMPANIES AND/OR PUBLIC AGENCIES PROVIDING UTILITY SERVICE, AS APPLICABLE, AND ABIDE BY ALL OF THEIR REQUIREMENTS RELEVANT TO THE PERFORMANCE AND INSPECTION OF ALL WORK AFFECTING THEIR UTILITIES, INCLUDING COMPLYING WITH ANY AND ALL TESTING REQUIREMENTS. IN THE EVENT REQUIREMENTS OR SPECIFICATIONS OF THE UTILITY COMPANY OR PUBLIC AUTHORITY CONFLICT WITH THE PLANS, THE MUNICIPAL REQUIREMENTS SHALL GOVERN. IN SUCH CASE, THE CONTRACTOR SHALL ADVISE THE OWNER AND ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
15. PRIOR TO ANY CONSTRUCTION, THE HORIZONTAL LIMITS OF THE WORK (LIMITS OF DISTURBANCE - LOD) SHALL BE ESTABLISHED AND SILT FENCE IS BE INSTALLED. DISTURBANCE BEYOND THESE PERMITTED LIMITS EXPOSES THE CONTRACTOR TO FINES AND PENALTIES BY REGULATORY AGENCIES.
16. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH THE LOCAL SOIL CONSERVATION DISTRICT'S REQUIREMENTS. AS NOTED ON THE PLAN, THE LIMIT OF DISTURBANCE IS OVER 5,000 SQUARE FEET THEREFORE SESC CERTIFICATION IS REQUIRED. CONTRACTOR TO NOTIFY THE APPLICABLE SOIL CONSERVATION DISTRICT IN WRITING AT LEAST 72 HOURS PRIOR TO ANY SITE PREPARATION OR CONSTRUCTION ACTIVITIES.
17. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION, SHOULD THERE BE ANY SUSPECTED DISCREPANCIES WITH THE TOPOGRAPHY DEPICTED ON THE PLANS AND ACTUAL PHYSICAL CONDITIONS. ANY CONFIRMED DISCREPANCY IDENTIFIED BY THE CONTRACTOR'S VERIFICATION SHALL BE REPORTED TO THE ENGINEER FOR RESOLUTION PRIOR TO ANY SITE DISTURBANCE. ONCE ANY SITE DISTURBANCE OCCURS, THE CONTRACTOR SHALL HAVE NO CLAIM FOR EXTRA WORK BASED UPON SUSPECTED OR CONFIRMED TOPOGRAPHIC DISCREPANCIES.
18. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY AND FOR DETERMINING THE MEANS AND METHODS FOR ALL CONSTRUCTION ACTIVITIES. ALL SAFETY PRECAUTIONS MUST BE UNDERTAKEN AND MAINTAINED AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES.
19. CONTRACTOR TO COMPLY WITH THE TRAFFIC CONTROL PLAN, IF PROVIDED. IF A TRAFFIC CONTROL PLAN IS NOT PROVIDED, THE CONTRACTOR SHALL DETERMINE AND COMPLY WITH ANY AND ALL TRAFFIC CONTROL REQUIREMENTS OF THE LOCAL POLICE DEPARTMENT AND ANY PUBLIC AGENCY HAVING JURISDICTION RELEVANT TO ANY CONSTRUCTION IN OR NEAR PUBLIC STREETS AS WELL AS FOR INGRESS AND EGRESS DURING CONSTRUCTION.
20. THE CONTRACTOR SHALL PROVIDE NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL MEASURES AS MAY BE NECESSARY WITHIN THE PROJECT FOR THE PROTECTION AND SAFETY OF THE PUBLIC. ALL SUCH TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN SATISFACTORY CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
21. ALL HDPE TO BE N-12 DOUBLE WALLED, (SOIL TIGHT, WATER TIGHT) CORRUGATED PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, OR APPROVED EQUAL. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE TO APPLICABLE MANUFACTURERS' SPECIFICATIONS.
22. THE PROPOSED IMPROVEMENTS HAVE BEEN DESIGNED WITH THE INTENT TO COMPLY WITH ALL APPLICABLE REQUIREMENTS FOR BARRIER FREE ACCESS, INCLUDING THE SATISFYING OF ALL REQUIREMENTS OF THE NEW JERSEY INTERNATIONAL BUILDING CODE, CHAPTER 11, AS WELL AS THE AMERICANS WITH DISABILITIES ACT (ADA). IN GENERAL, BARRIER FREE ACCESS FOR SITE CONSTRUCTION IS TO BE PROVIDED (BETWEEN ALL PARKING SPACES DESIGNATED AS ADA AND THE FRONT DOOR OF ADJACENT BUILDINGS). HOWEVER, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE ROUTES REQUIRED TO BE BARRIER FREE WITH THE LOCAL BUILDING CODE OFFICIAL. SHOULD ANY IDENTIFIED ROUTES CONFLICT WITH THE GRADING SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR RESOLUTION PRIOR TO ANY CONSTRUCTION.
23. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETED CONSTRUCTION ALONG BARRIER FREE ROUTES COMPLYING WITH ALL APPLICABLE REQUIREMENTS OF NJIBC CHAP 11, WHETHER SPECIFICALLY STATED ON THE PLANS OR NOT. IN PARTICULAR, THE FOLLOWING REQUIREMENTS ARE NOTED:
   A. SLOPES WITHIN ACCESSIBLE PARKING SPACES AND ADJACENT ACCESS AISLES SHALL NOT EXCEED TWO PERCENT (2.0%) IN ANY DIRECTION.
   B. SLOPES FOR CURB RAMPS SHALL NOT EXCEED 1:12 (8.3%)
   C. THE EXTERIOR SIDE OF ALL DOORWAYS AND BOTH SIDES OF ACCESSIBLE GATES SHALL HAVE A LANDING SLOPED FOR POSITIVE DRAINAGE AT TWO PERCENT (2.0%) MAX. FOR DOORS & GATES WITH A STRAIGHT APPROACH SIDEWALK, THE LANDING SHALL BE A MINIMUM OF 5' LONG BEFORE BREAKING GRADE TO A SLOPED SIDEWALK. THE WIDTH SHALL BE AS SHOWN ON THE PLANS. IF THERE IS A DISCREPANCY BETWEEN ARCHITECTURAL PLANS AND SITE PLANS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR RESOLUTION OF THE DISCREPANCY PRIOR TO ANY CONSTRUCTION FOR THE LANDING OR ASSOCIATED WALKWAY. NOTE THAT THE WIDTH IS NOT NECESSARILY CENTERED ON THE DOOR OR GATE, AS MINIMUM CLEARANCES ARE REQUIRED ON THE HANDLE SIDE (OPPOSITE THE HINGE SIDE). EACH BARRIER FREE ROUTE SHALL PROVIDE FOR A MINIMUM FOUR FOOT UNOBSTRUCTED (CAR OVERHANGS AT CURBS MUST BE CONSIDERED) WIDTH WITH A LONGITUDINAL (DIRECTION OF ROUTE) SLOPE NO GREATER THAN 1:20 (5%). CROSS SLOPE SHALL NOT EXCEED TWO PERCENT (2.0%). IN TURNING AREAS, CROSS SLOPE MUST BE LESS THAN 2.0 % IN ALL DIRECTIONS. WHERE SHOWN ON THE PLANS AND/OR WHERE THE GRADING ALONG THE PATH OF TRAVEL EXCEEDS 5%, A RAMP WITH A MAXIMUM SLOPE OF 1:12 (8.3%) SHALL BE CONSTRUCTED, HAVING A MAXIMUM RISE OF 30 INCHES. HAND RAILS COMPLYING WITH NJIBC CHAP 11 REQUIREMENTS SHALL BE INSTALLED FOR ALL SUCH RAMPS, EXCEPT CURB RAMPS AT PAVEMENT EDGES.
   D. REFER TO THE DETAIL SHEETS FOR LANDINGS AT CURB RAMPS. ALL OTHER RAMPS SHALL BE PROVIDED WITH LANDINGS AT EACH END AND EACH LANDING SHALL BE AT LEAST FIVE FEET LONG WITH A WIDTH MATCHING THE WIDTH OF THE RAMP. LANDINGS SHALL SLOPE NO MORE THAN TWO PERCENT (2.0%) IN ANY DIRECTION.
24. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING ALL CONSTRUCTION ALONG BARRIER FREE ROUTES COMPLIES WITH ALL REQUIREMENTS.PRIOR TO THE ACTUAL POURING OF CONCRETE ALONG BARRIER FREE ROUTES, THE CONTRACTOR SHALL CHECK ALL FORMWORK TO VERIFY COMPLIANCE WITH THE APPLICABLE BARRIER FREE REQUIREMENTS AND REQUEST CONFIRMATION OF SAME BY THE INSPECTING AUTHORITY.
25. THE DETAILS SHOWN ON THESE PLANS FOR RETAINING WALLS AND HAVE BEEN PREPARED FOR THE PURPOSE OF SITE PLAN REVIEW AND APPROVAL AND ARE NOT FOR CONSTRUCTION. STRUCTURAL DESIGNS FOR ALL WALLS MUST BE PROCURED BY THE CONTRACTOR (OR OWNER) AND PREPARED BY AN ENGINEER LICENSED IN NEW JERSEY.
26. A BUILDING PERMIT IS REQUIRED FOR ALL WALLS FOUR OR MORE FEET IN HEIGHT. CONTRACTOR (OR OWNER) IS RESPONSIBLE FOR SECURING SAID PERMIT(S).
27. BOTTOM OF WALL ELEVATIONS (BW) SHOWN ON THE PLANS INDICATE GROUND ELEVATION AT TOE OF WALL UPON COMPLETION OF CONSTRUCTION. FOOTING ELEVATIONS TO BE TAKEN FROM THE STRUCTURAL PLANS PROCURED BY THE CONTRACTOR (OR OWNER).
28. IT IS NOT THE INTENT OF THESE PLANS TO PROVIDE STRUCTURAL DESIGN FOR ANY PRE-CAST OR CAST IN PLACE CONCRETE STRUCTURE. ALL STRUCTURAL DESIGN OF PRE-CAST AND/OR CAST-IN-PLACE CONCRETE STRUCTURES SHALL BE PREPARED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR.
29. POST-CONSTRUCTION CERTIFICATION AS TO THE CONSTRUCTION OF A RETAINING WALL OR OTHER STRUCTURAL COMPONENTS TO BE PROVIDED BY A PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR (OR OWNER)



(REFERENCE: CALDWELL & ORANGE, NJ USGS MAP)

LOCATION MAP
SCALE: 1"= 1,000'



(REFERENCE: TOWNSHIP OF VERONA TAX MAP SHEETS 23, 25 & 27)

ZONING MAP
SCALE: 1"= 300'

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28389800
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

COVER SHEET / LOCATION MAP / KEY MAP

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

PROJECT NO.: 201006

SHEET NO.:
1 OF 10

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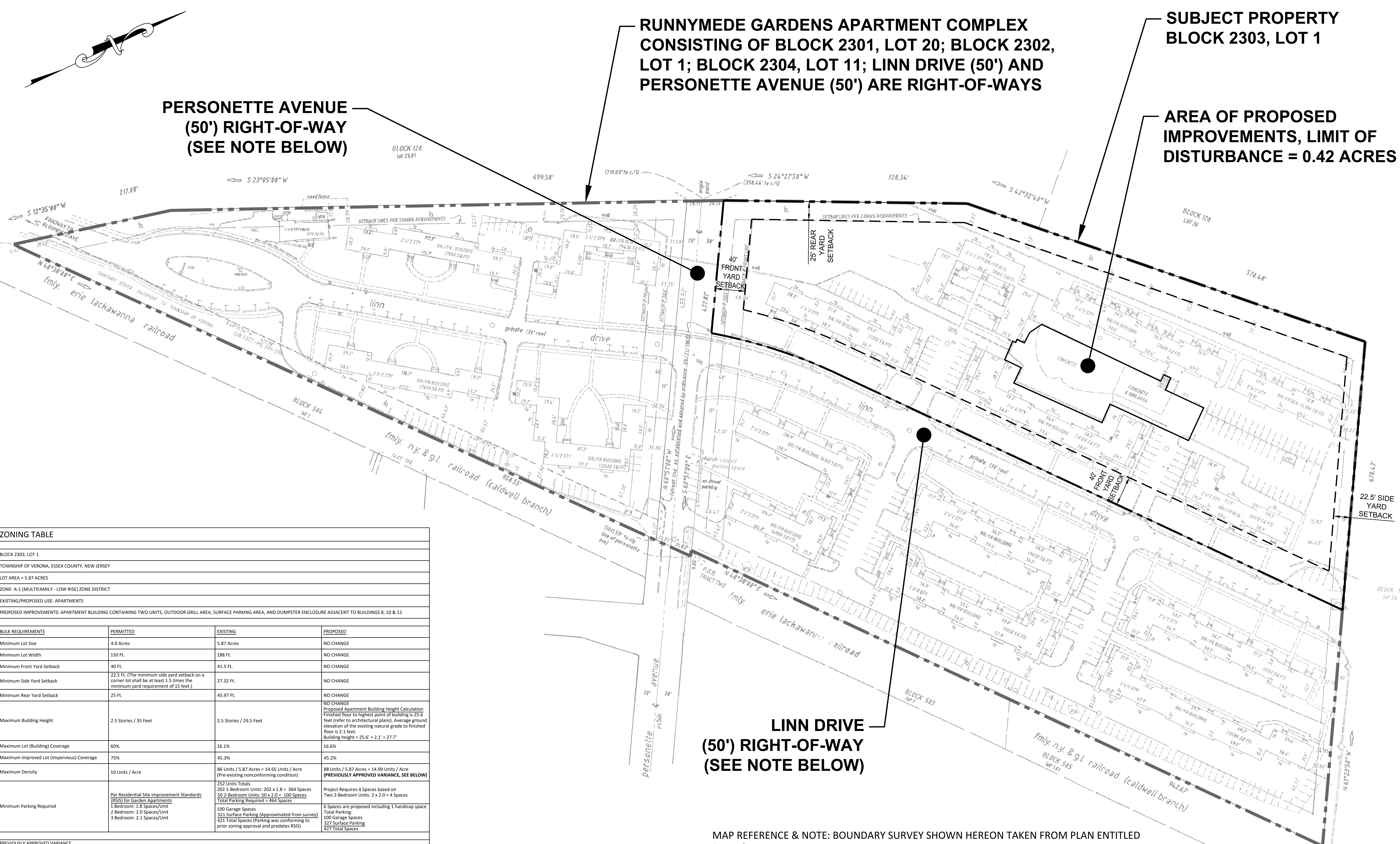
Runnymede Gardens Verona Site Lighting Design 2-17-21 V4.dwg



ZONING TABLE			
BLOCK 2303, LOT 1			
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY			
LOT AREA = 5.87 ACRES			
ZONE: A-1 (MULTIFAMILY - LOW RISE) ZONE DISTRICT			
EXISTING/PROPOSED USE: APARTMENTS			
PROPOSED IMPROVEMENTS: APARTMENT BUILDING CONTAINING TWO UNITS, OUTDOOR GRILL AREA, SURFACE PARKING AREA, AND DUMPSTER ENCLOSURE ADJACENT TO BUILDINGS 8, 10 & 12			
BULK REQUIREMENTS	PERMITTED	EXISTING	PROPOSED
Minimum Lot Size	4.0 Acres	5.87 Acres	NO CHANGE
Minimum Lot Width	150 Ft.	188 Ft.	NO CHANGE
Minimum Front Yard Setback	40 Ft.	41.5 Ft.	NO CHANGE
Minimum Side Yard Setback	22.5 Ft. (The minimum side yard setback on a corner lot shall be at least 1.5 times the minimum yard requirement of 15 feet.)	27.32 Ft.	NO CHANGE
Minimum Rear Yard Setback	25 Ft.	45.97 Ft.	NO CHANGE
Maximum Building Height	2.5 Stories / 35 Feet	2.5 Stories / 29.5 Feet	NO CHANGE Proposed Apartment Building Height Calculation Finished floor to highest point of building is 25.6 feet (refer to architectural plans). Average ground elevation of the existing natural grade to finished floor is 2.1 feet. Building height = 25.6' + 2.1' = 27.7'
Maximum Lot (Building) Coverage	60%	16.1%	16.6%
Maximum Improved Lot (Impervious) Coverage	75%	45.3%	45.2%
Maximum Density	10 Units / Acre	86 Units / 5.87 Acres = 14.65 Units / Acre (Pre-existing nonconforming condition)	88 Units / 5.87 Acres = 14.99 Units / Acre **(PREVIOUSLY APPROVED VARIANCE, SEE BELOW)**
Minimum Parking Required	Per Residential Site Improvement Standards (RSIS) for Garden Apartments 1 Bedroom: 1.8 Spaces/Unit 2 Bedroom: 2.0 Spaces/Unit 3 Bedroom: 2.1 Spaces/Unit	252 Units Totals 202 1-Bedroom Units: 202 x 1.8 = 364 Spaces 50 2-Bedroom Units: 50 x 2.0 = 100 Spaces Total Parking Required = 464 Spaces 100 Garage Spaces 321 Surface Parking (Approximated from survey) 421 Total Spaces (Parking was conforming to prior zoning approval and predates RSIS)	Project Requires 4 Spaces based on Two 2-Bedroom Units: 2 x 2.0 = 4 Spaces 6 Spaces are proposed including 1 handicap space Total Parking: 100 Garage Spaces 327 Surface Parking 427 Total Spaces
PREVIOUSLY APPROVED VARIANCE			
Maximum Density - Apartment House (Township Ordinance Chapter 150 - 17.7D9) **D(5) VARIANCE (DENSITY) N.J.S.A. 40:55D-70D(5)**	The maximum density for apartments houses is 10 dwelling units/acre where 14.65 units/acre is a pre-existing nonconforming condition and 14.99 units/acre is proposed and was previously approved per Resolution memorialized on January 8, 2015.		

EXISTING AND PROPOSED COVERAGES

TOTAL LOT AREA (SF)	5.87 Acres				
Existing Coverages			**Proposed Coverages**		
Description	Area (SF)	Percentage	Description	Area (SF)	Percentage
Existing Apartment Buildings	41,281		Existing Apartment Buildings	41,281	
			Proposed Apartment Building	1,279	
Total Lot (Building) Coverage	41,281	16.1%	**Total Lot (Building) Coverage**	42,560	16.6%
			Increase in Lot (Building) Coverage	1,279	
Driveways and Parking Lots	41,492		Driveways and Parking Lots	41,492	
Walkways, Stairs & Landings	24,959		Walkway, Stairs & Landings	24,959	
Concrete Area (Refuse and Former Pool)	8,175		New Patio, Sidewalk & Pavement (Grill Area, Parking & Dumpster)	6,492	
Total Improved Lot (Impervious) Coverage	115,907	45.3%	**Total Improved Lot (Impervious) Coverage**	115,503	45.2%
			Decrease in Improved Lot (Impervious) Coverage	404	

Building Height		
FF to Highest Point (Refer to Arch. Plans)		**25.6**
Existing natural grade at corners (Refer to Grading Plan)		
	1	527.6
	2	527.3
	3	526.5
	4	526.5
	5	526.5
Average Grade		**526.9**
FF		**529.0**
FF - Average Grade		**2.1**
Proposed Height		**27.7**

MAP REFERENCE & NOTE: BOUNDARY SURVEY SHOWN HEREON TAKEN FROM PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY, MAP OF PROPERTY SITUATED AT 34 LINN DRIVE, TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, BLOCK 128/125 LOTS 25, 26, 27/1" PREPARED BY GEORGE J. ANDERSON, LLC. PROFESSIONAL LAND SURVEYORS DATED APRIL 10, 2008. THIS MAP IS SHOWN TO ILLUSTRATE THE ENTIRE RUNNYMEDE GARDENS APARTMENT COMPLEX AND DOES NOT REFLECT THE CURRENT LOT CONFIGURATION. THE LINN DRIVE AND PERSONETTE AVENUE RIGHT-OF-WAYS ARE REFLECTED IN THE BOUNDARY DEED AND WAS SEPARATE FROM WHEN THIS SURVEY WAS PREPARED. THE SUBJECT PROPERTY IS BLOCK 2303, LOT 1 AS SHOWN ON CURRENT TOWNSHIP TAX MAP #23.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28309800
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

OVERALL MAP / ZONING TABLE

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

PROJECT NO.: 201006

SHEET NO.:

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BRICK BUILDING #12

BRICK BUILDING #8

BRICK BUILDING #10

STAIRS TO BE REMOVED

FENCE TO BE REMOVED

TREE TO BE REMOVED (TYP)

CONCRETE AREA TO BE REMOVED. DUMPSTERS AND CLOTHES COLLECTION BOX TO BE RELOCATED PER OWNER DIRECTION

EXISTING CONCRETE RETAINING WALL TO REMAIN

REMOVE EXISTING VEGETATION

PIPE TO BE RECONSTRUCTED TO PROVIDE ADEQUATE COVER OVER PROPOSED IMPROVEMENTS

PORTION OF EXISTING RETAINING WALL TO BE REMOVED

PORTION OF EXISTING RETAINING WALL TO BE REMOVED

CONCRETE AND DIRT MIX AREA TO BE REMOVED

FENCE TO BE REMOVED

REMOVE AND DISPOSE ALL DEBRIS FROM THE SITE

FENCE TO BE REMOVED

EXISTING TIMBER RETAINING WALL TO BE REMOVED

WALL TO BE RECONSTRUCTED FOR RESETTING OF STORM PIPE

EXISTING RETAINING WALL TO REMAIN

TREE REMOVAL CHART

Number	Size	Species	To Be Removed
1	6"	Tulip	X
2	6"	Ash	X
3	6"	Ash	X
4	12"	Ash	X
5	12"	Maple	X
6	12"	Maple	X
7	12"	Cedar	X
8	8"	Cedar	X
9	8"	Cedar	X
10	8"	Cedar	X
11	8"	Cedar	X
12	8"	Cedar	X
13	8"	Cedar	X
14	8"	Cedar	X
15	8"	Cedar	X
16	8"	Cedar	X
17	12"	Elm	X
18	8"	Damaged Cedar	X
19	10"	Tulip	X
20	8"	Honey locust	X
21	12"	Damaged Cedar	X
22	6"	Elm	X
23	8"	Damaged Cedar	X
24	8"	Damaged Cedar	X
25	8"	Damaged Cedar	X
26	8"	Damaged Cedar	X
27	8"	Damaged Cedar	X
28	12"	Damaged Cedar	X
29	12"	Damaged Cedar	X
30	12"	Damaged Cedar	X
31	12"	Damaged Cedar	X
32	12"	Damaged Cedar	X
33	6"	Cherry	X
34	12"	Ash	X
TOTAL REMOVED			34

SCALE: 1"=10'

0 10 20 40 ft.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28309800
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

SITE PREPARATION PLAN

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

PROJECT NO.: 201006

SHEET NO.: 3 OF 10

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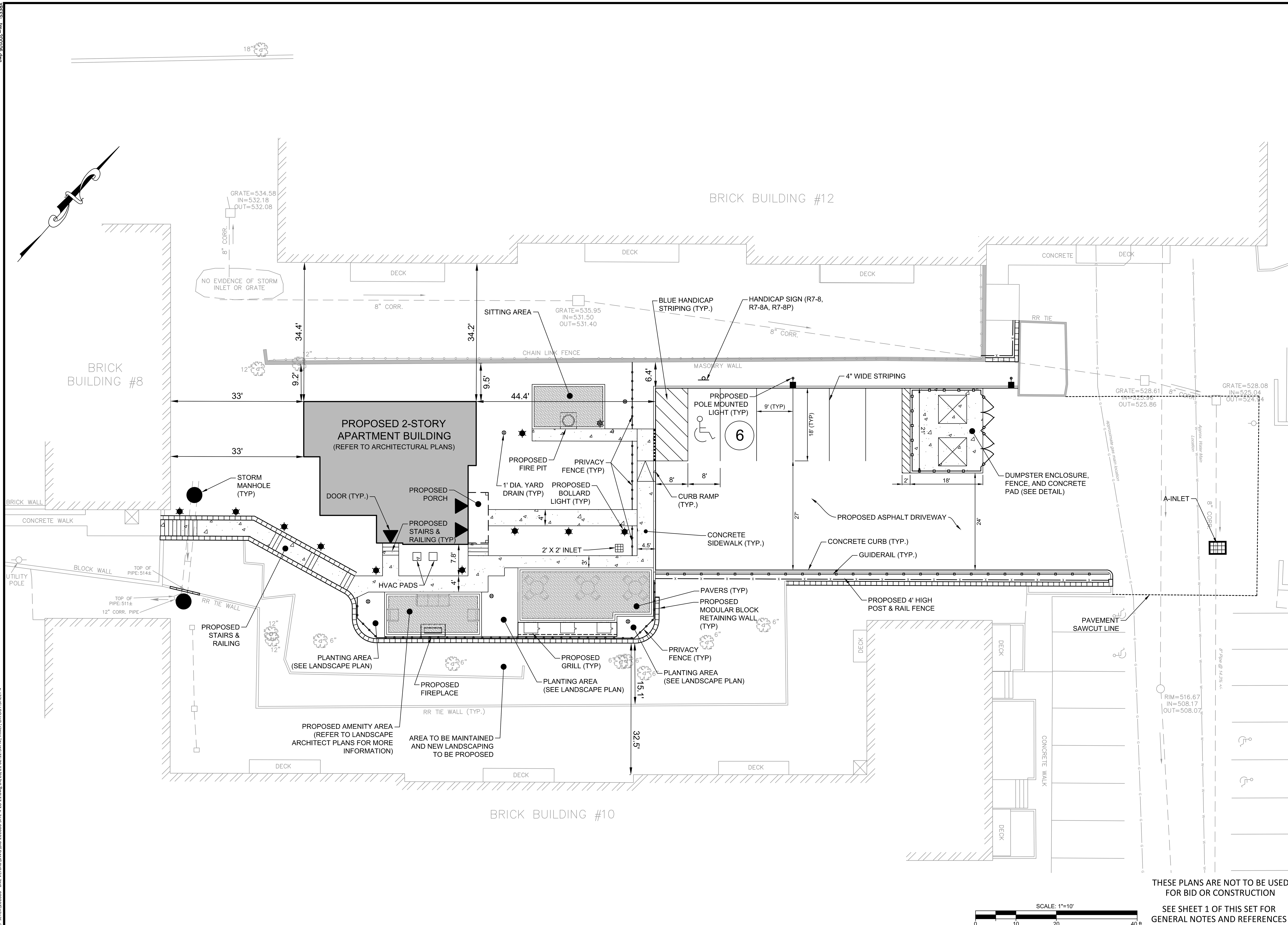
BRICK BUILDING #12
BRICK BUILDING #8
BRICK BUILDING #10
PROPOSED 2-STORY APARTMENT BUILDING
(REFER TO ARCHITECTURAL PLANS)
GRATE=534.58
IN=532.18
OUT=532.08
NO EVIDENCE OF STORM INLET OR GRATE
8" CORR.
GRATE=535.95
IN=531.50
OUT=531.40
CHAIN LINK FENCE
MASONRY WALL
DECK
CONCRETE
RR TIE
SITTING AREA
BLUE HANDICAP STRIPING (TYP.)
HANDICAP SIGN (R7-8, R7-8A, R7-8P)
4" WIDE STRIPING
PROPOSED POLE MOUNTED LIGHT (TYP)
9' (TYP)
18' (TYP)
6
GRATE=528.61
IN=525.96
OUT=525.86
GRATE=528.08
IN=525.04
OUT=524.94
34.4'
34.2'
9.2'
9.5'
6.4'
33'
44.4'
PROPOSED FIRE PIT
PRIVACY FENCE (TYP)
1' DIA. YARD DRAIN (TYP)
PROPOSED BOLLARD LIGHT (TYP)
CURB RAMP (TYP.)
PROPOSED ASPHALT DRIVEWAY
DUMPSTER ENCLOSURE, FENCE, AND CONCRETE PAD (SEE DETAIL)
A-INLET
STORM MANHOLE (TYP)
DOOR (TYP.)
PROPOSED PORCH
PROPOSED STAIRS & RAILING (TYP)
2' X 2' INLET
CONCRETE SIDEWALK (TYP.)
CONCRETE CURB (TYP.)
GUIDERAIL (TYP.)
BRICK WALL
CONCRETE WALK
BLOCK WALL
UTILITY POLE
TOP OF PIPE: 514±
TOP OF PIPE: 511±
12" CORR. PIPE
RR TIE WALL
HVAC PADS
PAVERS (TYP)
PROPOSED MODULAR BLOCK RETAINING WALL (TYP)
PROPOSED 4' HIGH POST & RAIL FENCE
PAVEMENT SAWCUT LINE
PROPOSED STAIRS & RAILING
PLANTING AREA (SEE LANDSCAPE PLAN)
PROPOSED FIREPLACE
PROPOSED GRILL (TYP)
PRIVACY FENCE (TYP)
RIM=516.67
IN=508.17
OUT=508.07
RR TIE WALL (TYP.)
PROPOSED AMENITY AREA (REFER TO LANDSCAPE ARCHITECT PLANS FOR MORE INFORMATION)
AREA TO BE MAINTAINED AND NEW LANDSCAPING TO BE PROPOSED
15.1'
32.5'
SCALE: 1"=10'
0
10
20
40 ft.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

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PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

LAYOUT AND DIMENSIONING PLAN

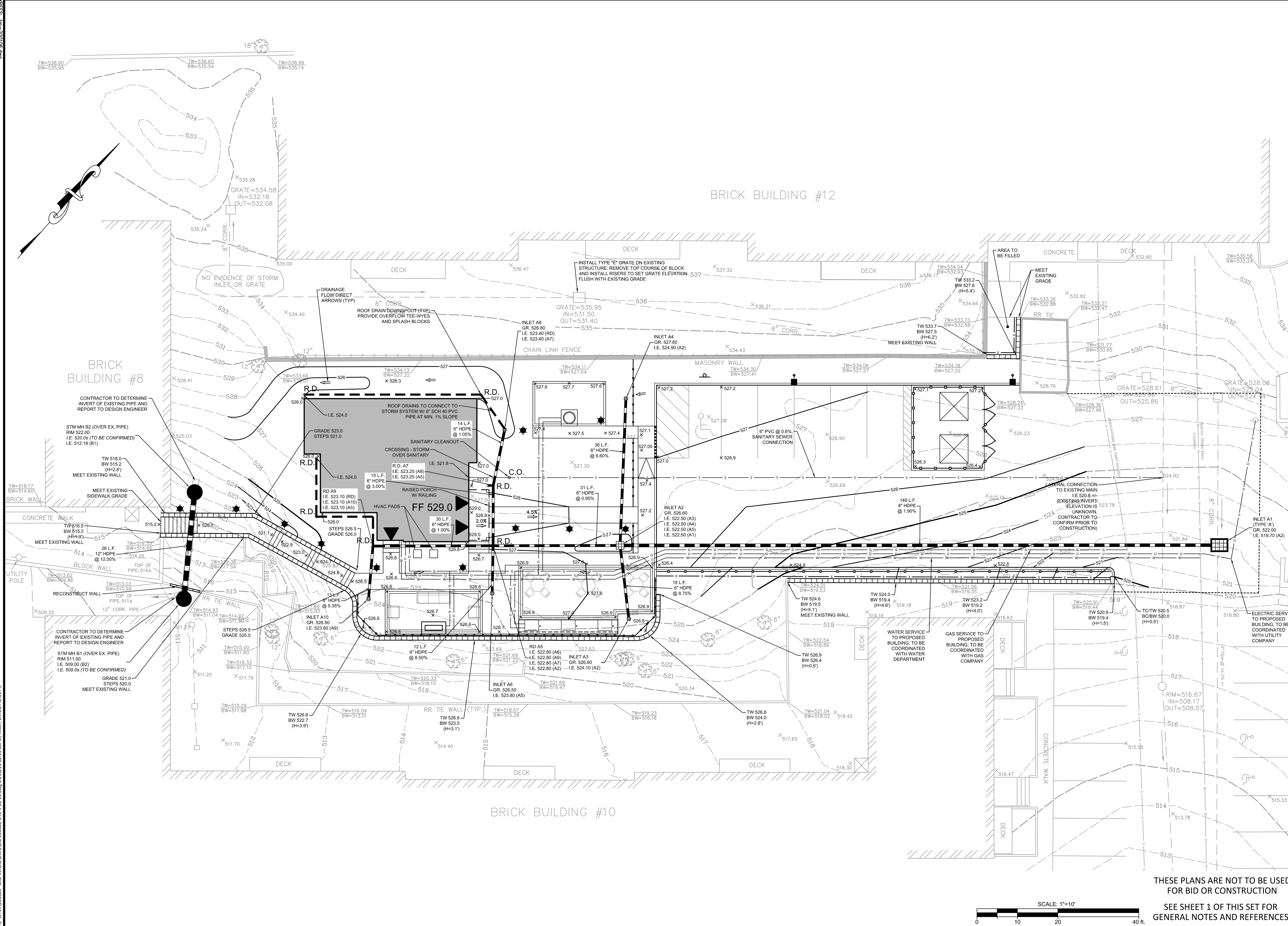
BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

PROJECT NO.: 201006

SHEET NO.:

XREFS: tm-200106.dwg



BRICK BUILDING #12
BRICK BUILDING #8
BRICK BUILDING #10
NO EVIDENCE OF STORM INLET OR GRATE
GRATE=534.58 IN=532.18 OUT=532.08
GRATE=535.95 IN=531.50 OUT=531.40
INSTALL TYPE "E" GRATE ON EXISTING STRUCTURE; REMOVE TOP COURSE OF BLOCK AND INSTALL RISERS TO SET GRATE ELEVATION FLUSH WITH EXISTING GRADE
DRAINAGE FLOW DIRECT ARROWS (TYP)
ROOF DRAIN DOWNSPOUT (TYP) PROVIDE OVERFLOW TEE-WYES AND SPLASH BLOCKS
INLET A8 GR. 526.80 I.E. 523.40 (RD) I.E. 523.40 (A7)
INLET A4 GR. 527.60 I.E. 524.90 (A2)
CHAIN LINK FENCE
MASONRY WALL
AREA TO BE FILLED
MEET EXISTING GRADE
TW 533.2 BW 527.8 (H=5.4')
TW 533.7 BW 527.5 (H=6.2') MEET EXISTING WALL
RR TIE
CONCRETE
DECK
GRATE=528.61 IN=525.96 OUT=525.86
GRATE=528.08 IN=525.04 OUT=524.94
CONTRACTOR TO DETERMINE INVERT OF EXISTING PIPE AND REPORT TO DESIGN ENGINEER
STM MH B2 (OVER EX. PIPE) RIM 522.00 I.E. 520.0± (TO BE CONFIRMED) I.E. 512.18 (B1)
TW 518.0 BW 515.2 (H=2.8') MEET EXISTING WALL
MEET EXISTING SIDEWALK GRADE
BRICK WALL
CONCRETE WALK
TW 516.5 BW 515.2 (H=1.3') MEET EXISTING WALL
26 L.F. 12" HDPE @ 12.00%
UTILITY POLE
BLOCK WALL
TOP OF PIPE: 514±
RECONSTRUCT WALL
TOP OF PIPE: 511±
12" CORR. PIPE
CONTRACTOR TO DETERMINE INVERT OF EXISTING PIPE AND REPORT TO DESIGN ENGINEER
STM MH B1 (OVER EX. PIPE) RIM 511.00 I.E. 509.00 (B2) I.E. 509.0± (TO BE CONFIRMED)
GRADE 521.0 STEPS 520.0 MEET EXISTING WALL
ROOF DRAINS TO CONNECT TO STORM SYSTEM W/ 6" SCH 40 PVC PIPE AT MIN. 1% SLOPE
14 L.F. 6" HDPE @ 1.05%
GRADE 523.0 STEPS 521.0
SANITARY CLEANOUT
CROSSING - STORM OVER SANITARY
R.D. A7 I.E. 523.25 (A8) I.E. 523.25 (A5)
I.E. 521.8
15 L.F. 6" HDPE @ 3.00%
RD A9 I.E. 523.10 (RD) I.E. 523.10 (A10) I.E. 523.10 (A5)
RAISED PORCH W/ RAILING
HVAC PADS
FF 529.0
30 L.F. 6" HDPE @ 1.00%
STEPS 526.5 GRADE 526.0
R.D.
C.O.
36 L.F. 6" HDPE @ 6.60%
31 L.F. 6" HDPE @ 0.95%
4.5%
2.0%
6" PVC @ 0.6%, SANITARY SEWER CONNECTION
INLET A2 GR. 526.60 I.E. 522.50 (A3) I.E. 522.50 (A4) I.E. 522.50 (A5) I.E. 522.50 (A1)
148 L.F. 8" HDPE @ 1.90%
LATERAL CONNECTION TO EXISTING MAIN I.E 520.8 +/- (EXISTING INVERT ELEVATION IS UNKNOWN, CONTRACTOR TO CONFIRM PRIOR TO CONSTRUCTION)
approximate gas main location
Approx. Water Main Location
8" CORR.
INLET A1 (TYPE 'A') GR. 522.00 I.E. 519.70 (A2)
13 L.F. 6" HDPE @ 5.35%
INLET A10 GR. 526.50 I.E. 523.80 (A9)
STEPS 526.5 GRADE 525.5
12 L.F. 6" HDPE @ 8.50%
RD A5 I.E. 522.80 (A6) I.E. 522.80 (A9) I.E. 522.80 (A7) I.E. 522.80 (A2)
INLET A3 GR. 526.60 I.E. 524.10 (A2)
INLET A6 GR. 526.50 I.E. 523.80 (A5)
18 L.F. 6" HDPE @ 8.75%
TW 524.6 BW 519.5 (H=5.1') MEET EXISTING WALL
TW 524.0 BW 519.4 (H=4.6')
TW 523.2 BW 519.2 (H=4.0')
TW 520.9 BW 519.4 (H=1.5')
TC/TW 520.5 BC/BW 520.0 (H=0.5')
ELECTRIC SERVICE TO PROPOSED BUILDING, TO BE COORDINATED WITH UTILITY COMPANY
WATER SERVICE TO PROPOSED BUILDING, TO BE COORDINATED WITH WATER DEPARTMENT
GAS SERVICE TO PROPOSED BUILDING, TO BE COORDINATED WITH GAS COMPANY
TW 526.9 BW 526.4 (H=0.5')
TW 526.8 BW 524.0 (H=2.8')
TW 526.6 BW 522.7 (H=3.9')
TW 526.6 BW 523.5 (H=3.1')
RR TIE WALL (TYP.)
RIM=516.67 IN=508.17 OUT=508.07
8" Pipe @ 14.3% +/-
CONCRETE WALK
SCALE: 1"=10'
0 10 20 40 ft.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

MICHAEL J. ROTH

[illegible]

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING

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PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

GRADING AND UTILITY PLAN

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

PROJECT NO.: 201006

SHEET NO.:

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SOIL EROSION AND SEDIMENT CONTROL NOTE:
PROJECT IS EXEMPT FROM SOIL DE-COMPACTION TESTING.

SOIL MANAGEMENT NOTE:
THIS PROJECT IS EXEMPT FROM THE SOIL RESTORATION REQUIREMENTS OF "THE STANDARD FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY" ("THE STANDARDS"), SPECIFICALLY - SECTION 19 - LAND GRADING. THE PROJECT SITE IS LOCATED IN AN URBAN LAND USE AREA WITHIN A METROPOLITAN PLANNING AREA 1 (PA-1) AND THE SITE HAS PREVIOUSLY BEEN DISTURBED. IN ACCORDANCE WITH THE STANDARDS, SPECIFICALLY, SOIL MANAGEMENT AND PREPARATION POINT 6 ON PAGE 19-2, URBAN REDEVELOPMENT AREAS ARE EXEMPT FROM COMPACT REMEDIATION.

BRICK BUILDING #12

BRICK BUILDING #8

BRICK BUILDING #10

NO EVIDENCE OF STORM INLET OR GRATE

GRATE=534.58
IN=532.18
OUT=532.08

GRATE=535.95
IN=531.50
OUT=531.40

GRATE=528.61
IN=525.61
OUT=525.86

GRATE=528.08
IN=525.04
OUT=524.04

RIM=516.67
IN=508.17
OUT=508.07

CHAIN LINK FENCE

RR TIE WALL

RR TIE WALL (TYP.)

CONCRETE WALK

BRICK WALL

BLOCK WALL

UTILITY POLE

DECK

CONCRETE

TOPSOIL STOCKPILE

INLET FILTER (TYP.)

R.D.

C.O.

SILT FENCE (TYP.)

EXISTING PAVEMENT TO SERVE AS STABILIZED CONSTRUCTION ENTRANCE, ON-SITE TRACKING PAD TO BE PROVIDED AS REQUIRED

LIMIT OF DISTURBANCE = 0.42 AC.

SCALE: 1"=10'
0 10 20 40 ft.

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

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PRELIMINARY AND FINAL SITE PLANS FOR
IMPROVEMENTS TO RUNNYMEDE GARDENS

SOIL EROSION & SEDIMENT CONTROL PLAN

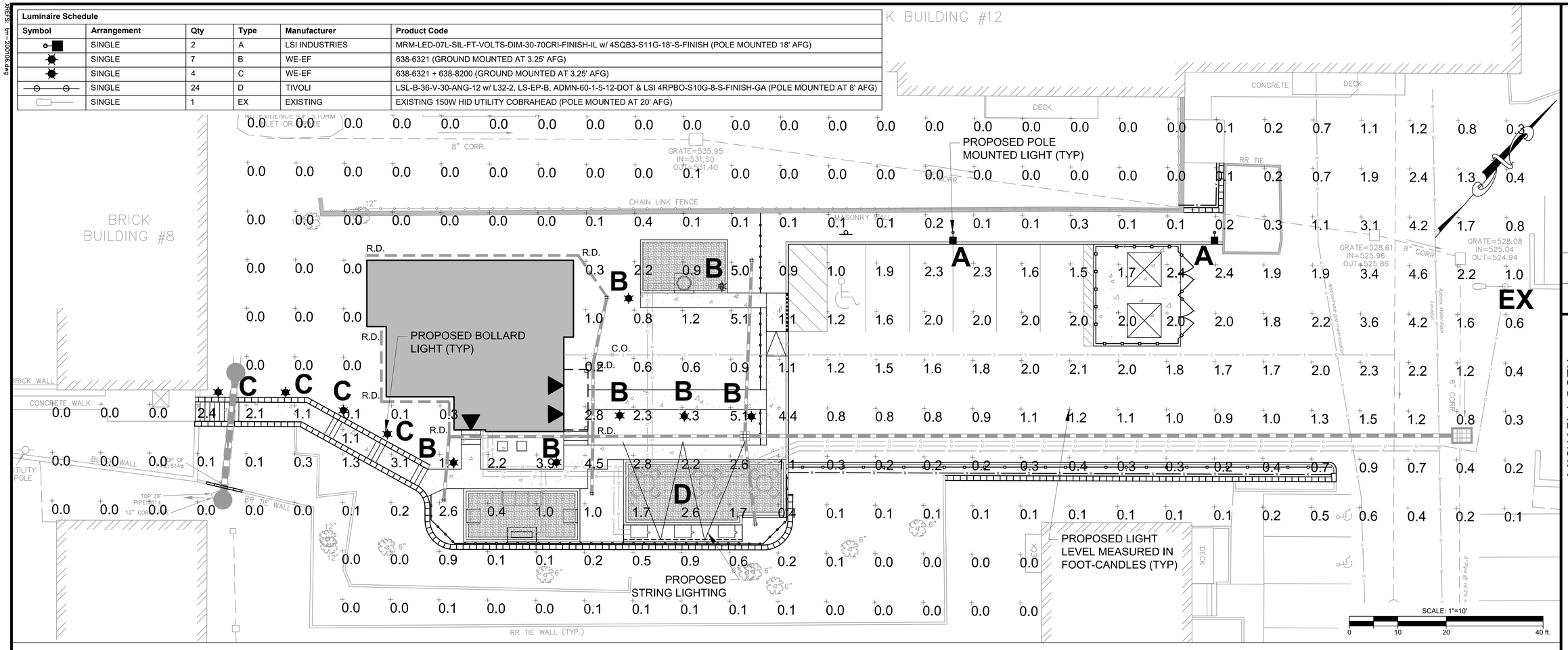
BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21
PROJECT NO.: 201006

SHEET NO.:
6 OF 10

XREFS: tm-200106.dwg

Luminaire Schedule					
Symbol	**Arrangement**	**Qty**	**Type**	**Manufacturer**	**Product Code**
	SINGLE	2	A	LSI INDUSTRIES	MRM-LED-07L-SIL-FT-VOLTS-DIM-30-70CRI-FINISH-IL w/ 4SQB3-S11G-18'-S-FINISH (POLE MOUNTED 18' AFG)
	SINGLE	7	B	WE-EF	638-6321 (GROUND MOUNTED AT 3.25' AFG)
	SINGLE	4	C	WE-EF	638-6321 + 638-8200 (GROUND MOUNTED AT 3.25' AFG)
	SINGLE	24	D	TIVOLI	LSL-B-36-V-30-ANG-12 w/ L32-2, LS-EP-B, ADMN-60-1-5-12-DOT & LSI 4RPBO-S10G-8-S-FINISH-GA (POLE MOUNTED AT 8' AFG)
	SINGLE	1	EX	EXISTING	EXISTING 150W HID UTILITY COBRAHEAD (POLE MOUNTED AT 20' AFG)



LIGHTING NOTES:

1. **ELECTRICAL CONTRACTOR TO COORDINATE CONNECTION OF PROPOSED LIGHTING TO EXISTING SERVICE AND ANY UTILITY CROSSINGS.**
2. **ELECTRICAL CONTRACTOR TO COORDINATE LIGHTING CONTROLS WITH OWNER AND IN ACCORDANCE WITH TOWN APPROVAL/STANDARDS.**

LIGHTING CONTACT INFORMATION

DIVERSIFIED NEW JERSEY
55 LANE ROAD
FAIRFIELD, NJ 07004

CONTACT: MATTHEW STERNER
(908) 907-8462
MSTERNER@DIVNJ.COM

Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: _____

Mirada Medium (MRM)

Outdoor LED Area Light

OVERVIEW	
Lumen Package	7,000 - 48,000
Wattage Range	53 - 401
Efficacy Range (LPW)	93 - 148
Weight lbs(kg)	30 (13.6)

QUICK LINKS: Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory-prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, SW, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical
- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor: > 90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 9 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 9 for more details.

Installation
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

Warranty
- LSI LED Fixtures carry a 5-year warranty.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.

LIGHT FIXTURE DETAIL 'A'

N.T.S.

ZFY230 LED II

638-6321

1/3

we-ef

Description
IP66, Class I, IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Silicone CCS® Controlled Compression Gasket. Polycarbonate main lens. Integral EC electronic converter in thermally-separated compartment. CAD-optimised indirect optics for superior illumination and glare control. Factory installed LED circuit board. Pre-wired post complete with cable connecting box and fuse for mains connection.

Beam Type	asymmetric, forward-throw, one-sided (TYPE 'C')
Beam Type	symmetric distribution (C60) (TYPE 'B')
Light Source	LED-FT-17W (3000K)
CRI	80
Gear Type	electronic gear
Nominal Luminous Flux (lm)	
LED Lumens	3070 lm
LEDs	1
Total Lumens	3070 lm
Tj	25 °C
Delivered Lumens Flux (lm)	
LED Lumens	1136.2 lm
Total Lumens	1136.2 lm
Ta	25 °C
Rated Input Power	20 W

LIGHT FIXTURE DETAIL 'B & C'

N.T.S.

tivoli

SPEC | Litesphere Adapt

Project: _____
Type: _____ Length: _____
Notes:

Product	Wire	Spacing	LED Type	CCT	Globe	Voltage
LSA -	B Black W White	12 12" OC 18 18" OC 24 24" OC 36 36" OC 48 48" OC CS Custom Spacing	V Very High Output	19 1900K 27 2700K 30 3000K 35 3500K 40 4000K 50 5000K AM Amber*** RD Red*** RB Royal Blue*** GN Green*** YL Yellow***	ANA Clear Glass Globe Style: Ana VIC** Clear Glass Globe Style: Victoria GAB Opal Glass Globe Style: Gaby BRE Bronze Glass Vintage Style: Brenda LAU** Opal Glass Vintage Style: Laura GIN Scratched Glass Globe Style: Gina ANG Striped Glass Globe Style: Angela KAT Frosted Glass Globe Style: Katie SUS** Clear Glass Globe Style: Susan TON** Frosted Glass Globe Style: Toni LUC** Clear Glass Globe Style: Lucia CG* Varied Globes	- 12 12V DC

***Available in VHO LED only

Tivoli manufactures Litesphere to your specified lengths.
Individual lengths and runs must be specified at time of ordering.
(see chart on page 6 for ordering details)

*Varied Globes - Use individual ADAPT globe part numbers with quantity to match total ordered socket count. All ADAPT globes come uninstalled.
(see page 6 for ordering details)

Additional Globes ordered above socket count will be processed as replacement globes.

****Consult Factory for MOQ and Lead Time.**

LIGHT FIXTURE DETAIL 'D'

N.T.S.

Catalog # : _____ Project : _____
Prepared By : _____ Date : _____

Steel Poles

Square Straight

QUICK LINKS: Ordering Guide | Configurations | Dimensions | EPA

FEATURES & SPECIFICATIONS

Pole Shaft
- Straight poles are 4", 5", or 6" square.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
- On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length.

Hand-Hole
- Standard hand-hole location is 12" above pole base.
- Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

Base
- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional.

Anchor Bolts
- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.

Ground Lug
- Ground lug is standard.

Duplex Receptacle
- Weatherproof duplex receptacle is optional.

Ground Fault Circuit Interrupter
- Self-testing Ground fault circuit interrupter is optional.

Finishes
- Every pole is provided with the DuraGrip® Protection System and a 5-year limited warranty.
- When the top-of-the line DuraGrip® Plus Protection System is selected, in addition to the DuraGrip® Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior, sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

Determining The Luminaire/Pole Combination For Your Application:
- Select luminaire from luminaire ordering information
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select pole height
- Select MPH to match wind speed in the application area (See windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA
- Consult factory for special wind load requirements and banner brackets

Pole Vibration Damper
- A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.
- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

Listings
- UL Listed
- BAA/TAA Compliant

LIGHT POLE DETAIL

N.T.S.

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ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
PHONE: 973-715-7427
EMAIL: MIKE@ROTHENGINEERS.COM

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

PRELIMINARY AND FINAL SITE PLANS FOR
IMPROVEMENTS TO RUNNYMEDE GARDENS

LIGHTING PLAN

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21

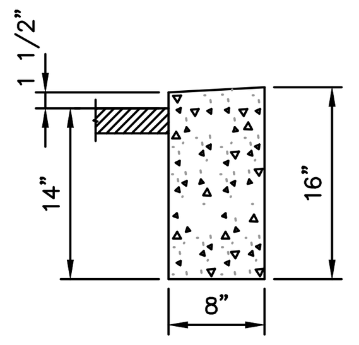
PROJECT NO.: 201006

SHEET NO.: 7 OF 10

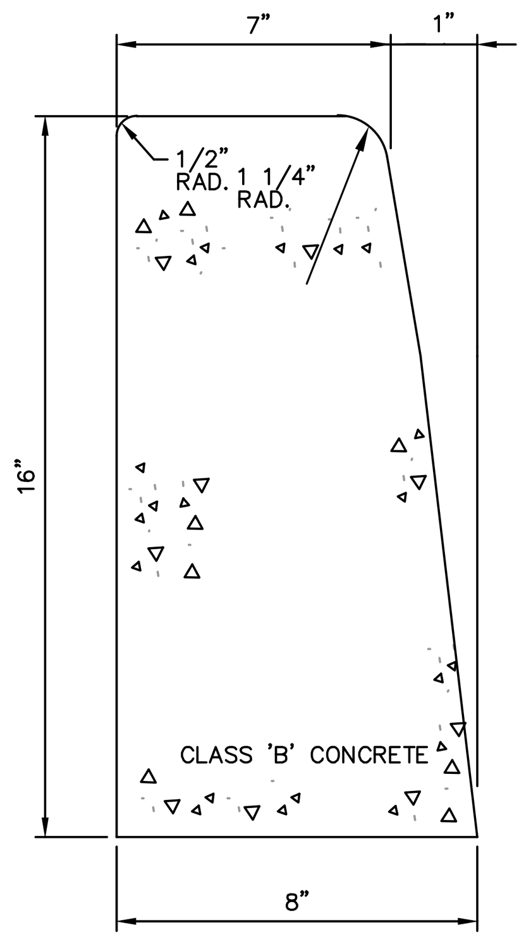
THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

Z:\P-JETER\201006 - 8NE Verona\DWG\old-201006-SITE-4-28-21.dwg 04/28/21 02:14:07PM, mlker, LAYOUT-SHEET 7

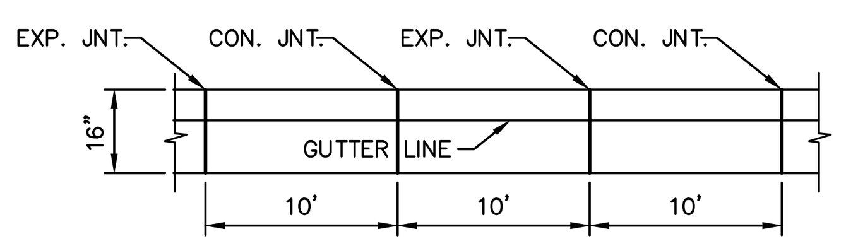


SECTION A-A



CURB SECTION DETAIL

NOT TO SCALE

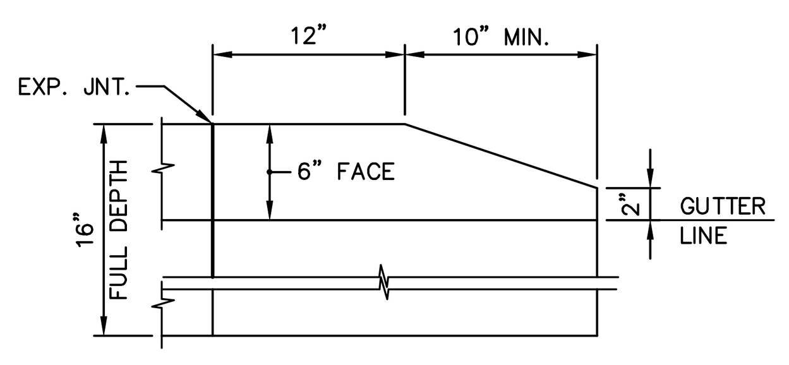


CURB JOINT DETAIL

NOT TO SCALE

NOTES:

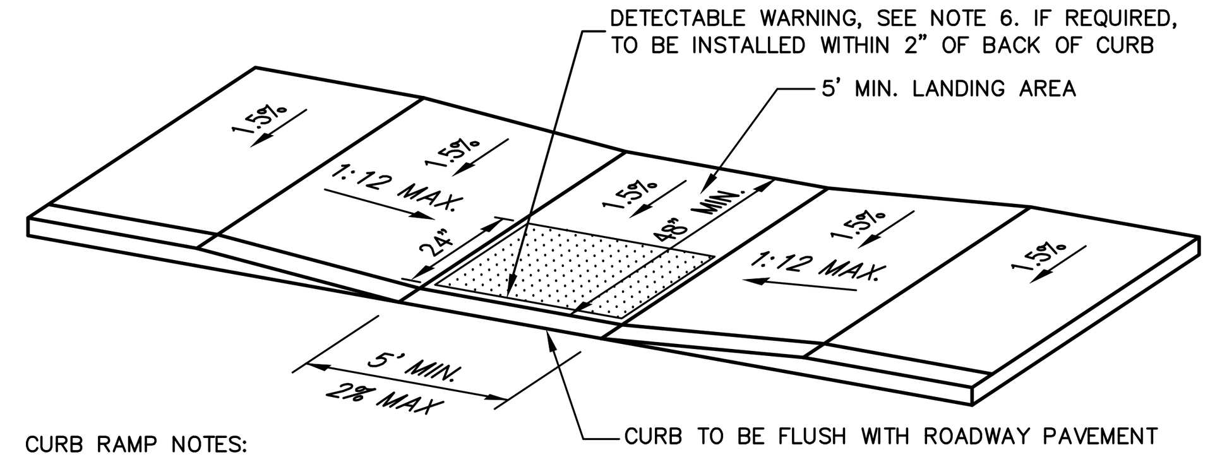
1. EXPANSION JOINTS SHALL BE FILLED WITH PREFORMED, BITUMINOUS IMPREGNATED FIBER JOINT FILLER; RECESSED 1/4" FROM FACE AND TOP OF CURB.
2. EXPANSION JOINTS SHALL BE INSTALLED BETWEEN CURB AND INLET HEADS.
3. EXPANSION JOINTS SHALL ALTERNATE WITH CONSTRUCTION JOINTS EVERY 10' (SEE DETAIL ABOVE)
4. ALL JOINTS SHALL EXTEND FULL 16" DEPTH OF CURB.
5. EXPANSION JOINTS THROUGH AND ADJACENT TO THE CURB SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CURB.



CURBING END SECTION

NOT TO SCALE

8"x 16" CONCRETE VERTICAL CURB



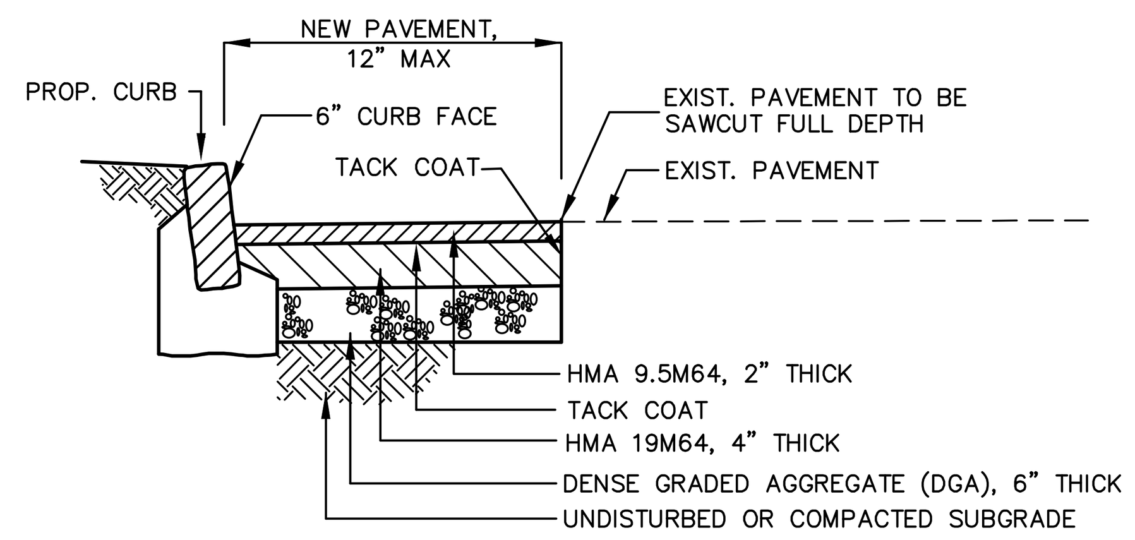
CURB RAMP NOTES:

1. LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
2. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 5' AT PARALLEL CURB RAMPS.
3. IF CURB IS GRANITE BLOCK, OMIT THE BLOCK WITHIN THE FLUSH AREA AND FORM WITH CONCRETE ONLY. RAMP MAY BE POURED MONOLITHICALLY WITH THE CURB
4. RAMP LENGTH IS AS REQUIRED TO NOT EXCEED MAX SLOPE, AND SHALL BE VERIFIED IN FIELD. RAMPS DRAWN IN PLAN VIEW MAY BE SCHEMATIC TO INDICATE TYPE OF RAMP AND MAY NOT INDICATE ACTUAL LENGTH
5. RUNNING SLOPE SHALL BE CONSISTENT FOR THE ENTIRE LENGTH OF THE RAMP.
6. FOR RAMPS IN THE PUBLIC ROW OR WHERE INDICATED ON THE PLAN, SHADED AREA SHALL HAVE DETECTABLE WARNING THE FULL WIDTH OF THE FLUSH CURB. DETECTABLE WARNINGS SHALL BE 24" MIN MEASURED PERPENDICULAR TO CURB. ALL DETECTABLE WARNING SURFACES SHALL BE EMBEDDED IN THE CONCRETE. A 2" BORDER OF CONCRETE IS ALLOWED TO FACILITATE EMBEDMENT.

CURB RAMP (PARALLEL)

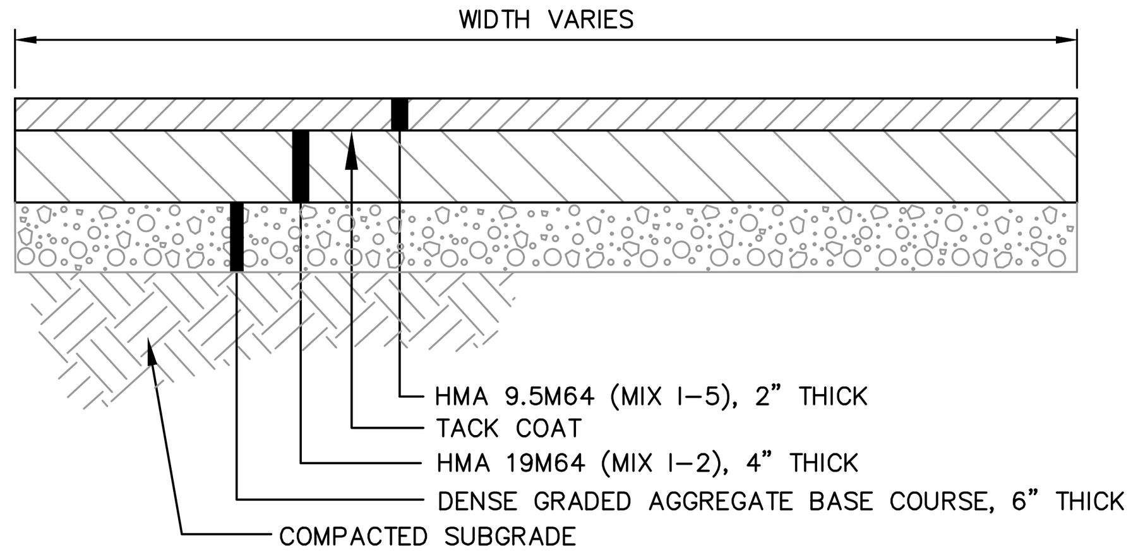
SIDEWALK ADJACENT TO CURB

N.T.S.



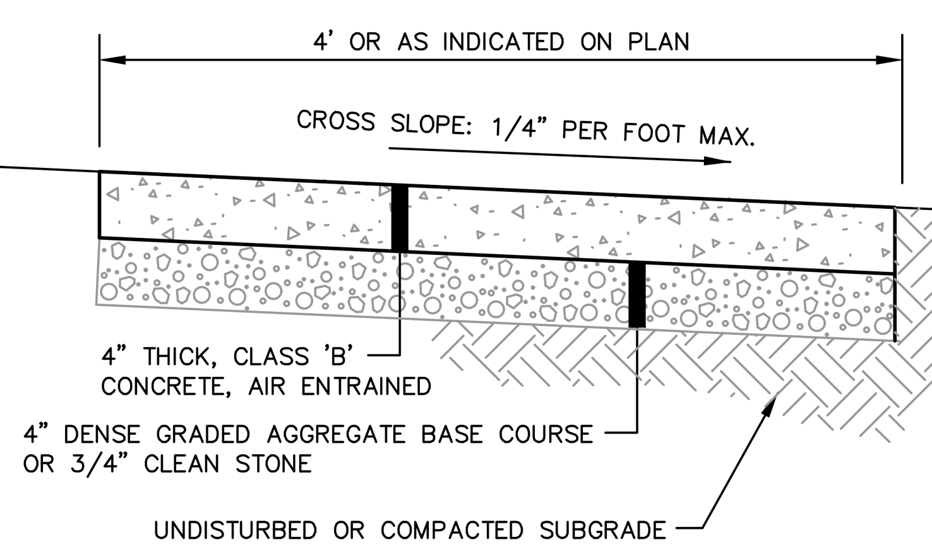
TYPICAL PAVEMENT REPAIR STRIP

N.T.S.



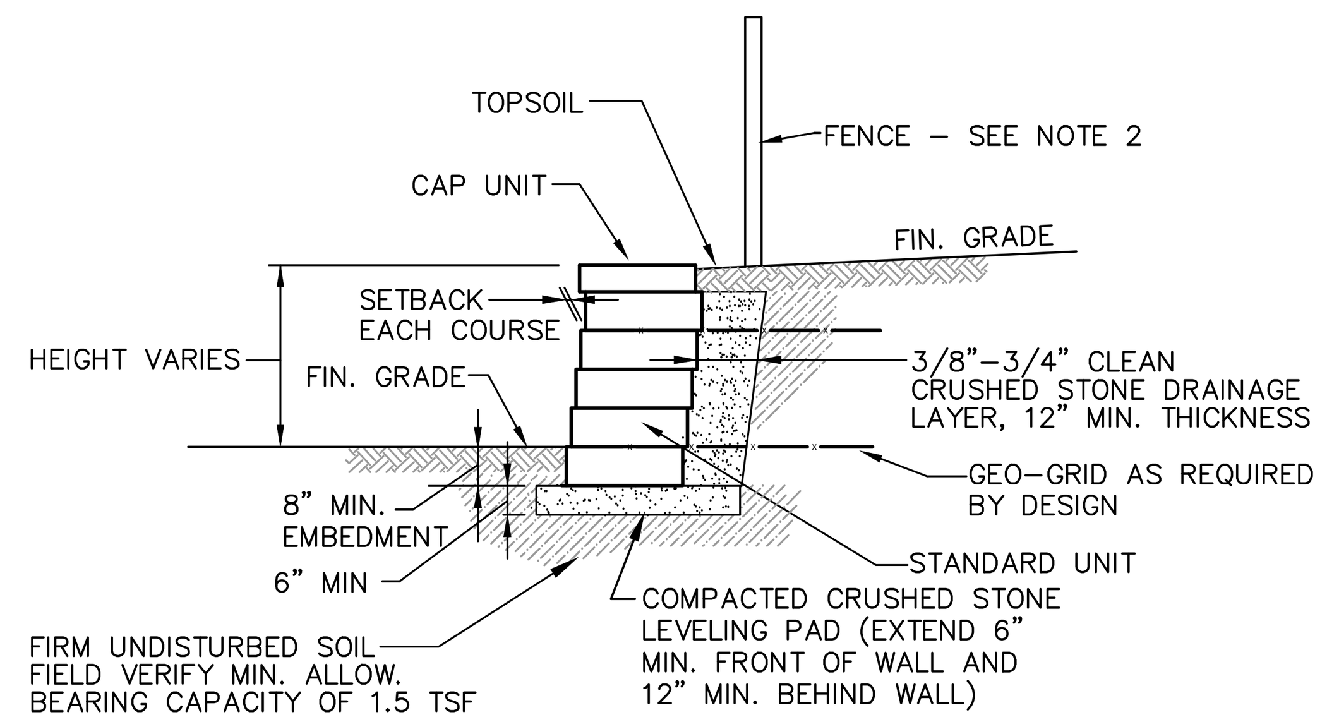
TYPICAL SECTION HOT MIX ASPHALT

N.T.S.



CONCRETE SIDEWALK

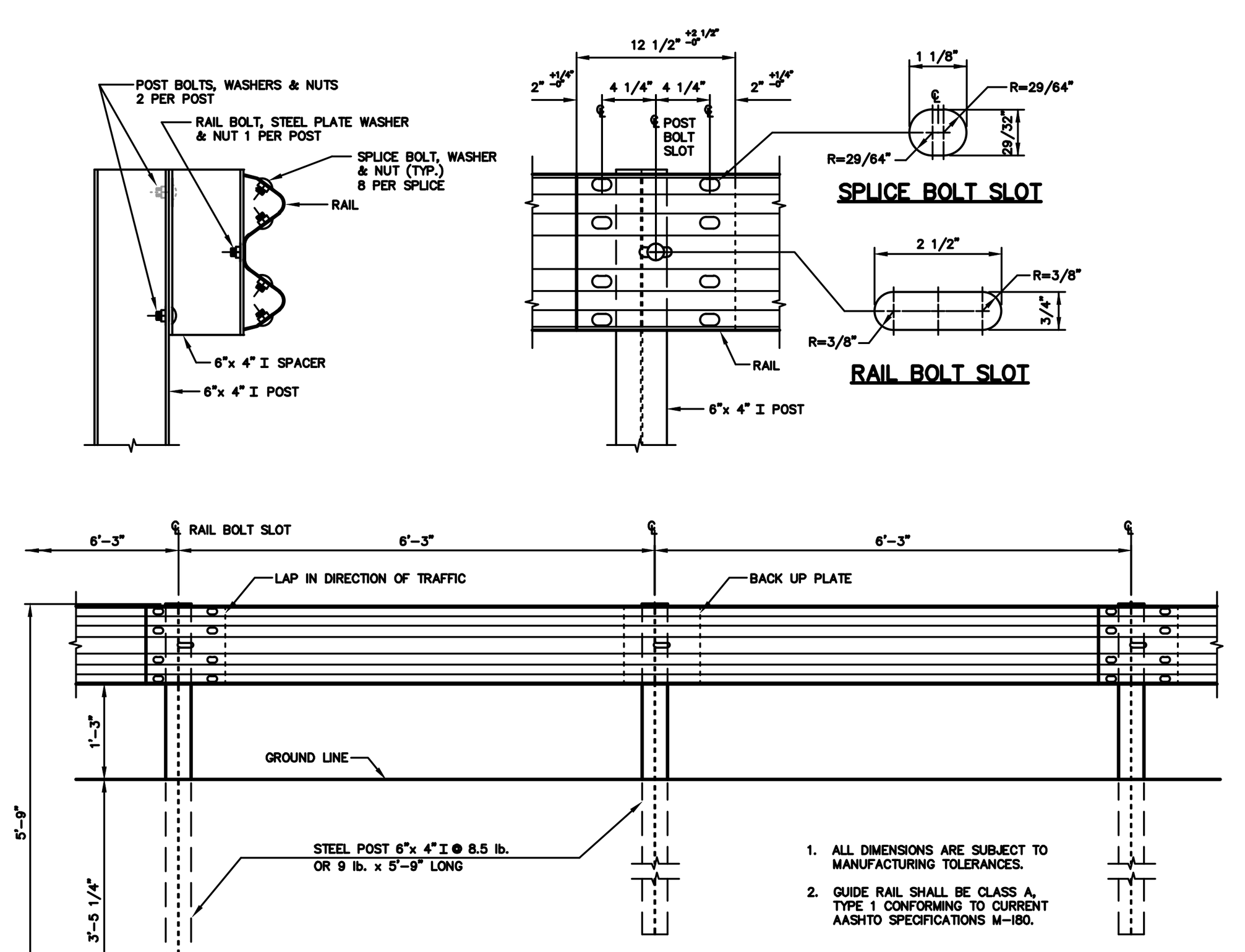
N.T.S.



NOTES:

1. THIS DETAIL IS SCHEMATIC AND NOT FOR CONSTRUCTION. STABILITY CALCULATIONS PREPARED BY A P.E. TO BE PROVIDED TO THE MUNICIPAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. FOR WALLS 30" OR HIGHER PROVIDE GUARD PER IBC 1015. STRUCTURAL ENGINEERED DRAWINGS TO BE PREPARED PRIOR TO CONSTRUCTION TO DETERMINE REQUIRED FENCING DEPTH BASED ON WALL DESIGN.
3. CONTRACTOR SHALL VERIFY THAT SELECTED WALL MANUFACTURER'S BATTER WILL NOT IMPACT DESIGN OF IMPROVEMENTS AT TOP OF WALL.

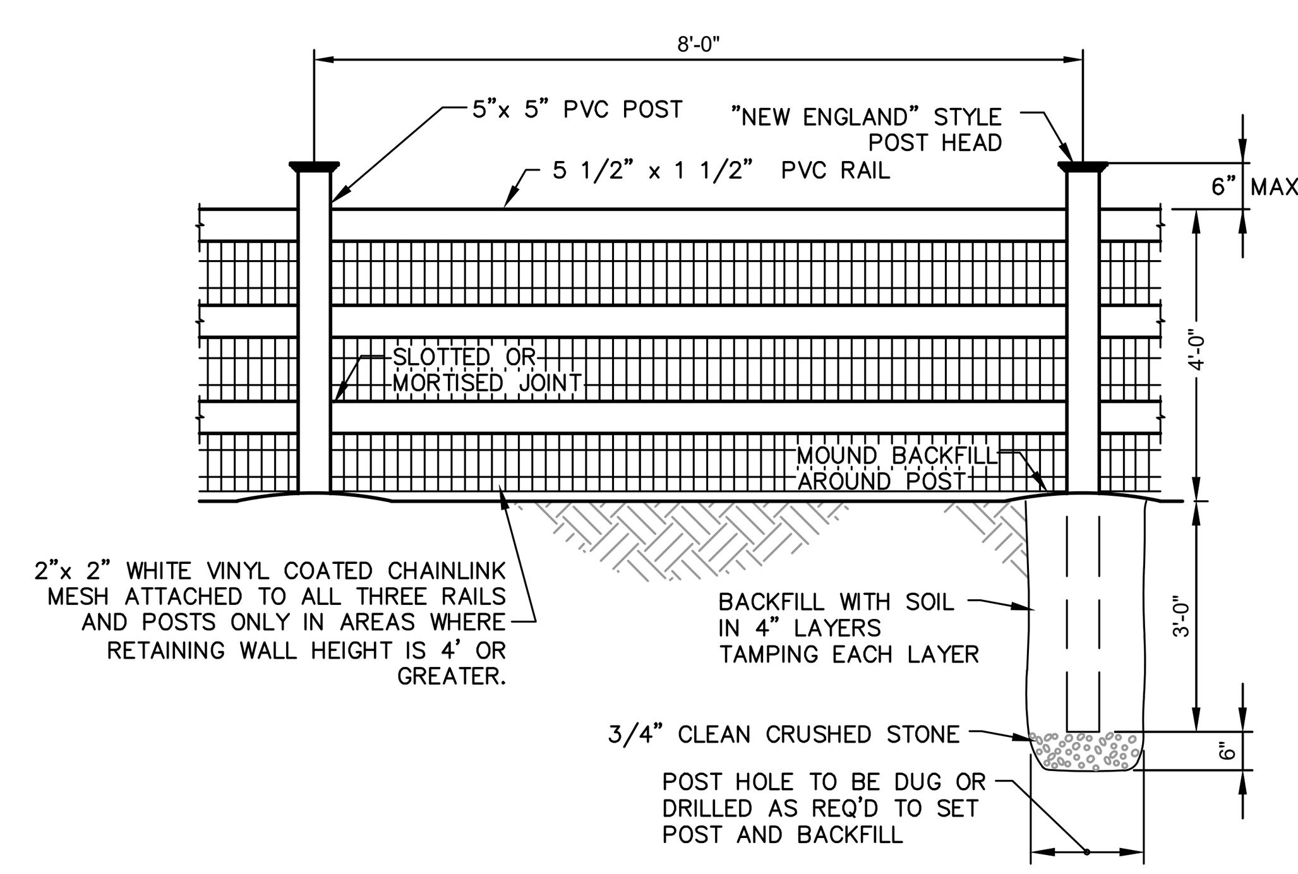
MODULAR RETAINING WALL DETAIL



1. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. GUIDE RAIL SHALL BE CLASS A, TYPE 1 CONFORMING TO CURRENT AASHTO SPECIFICATIONS M-180.

BEAM GUIDE RAIL

N.T.S.

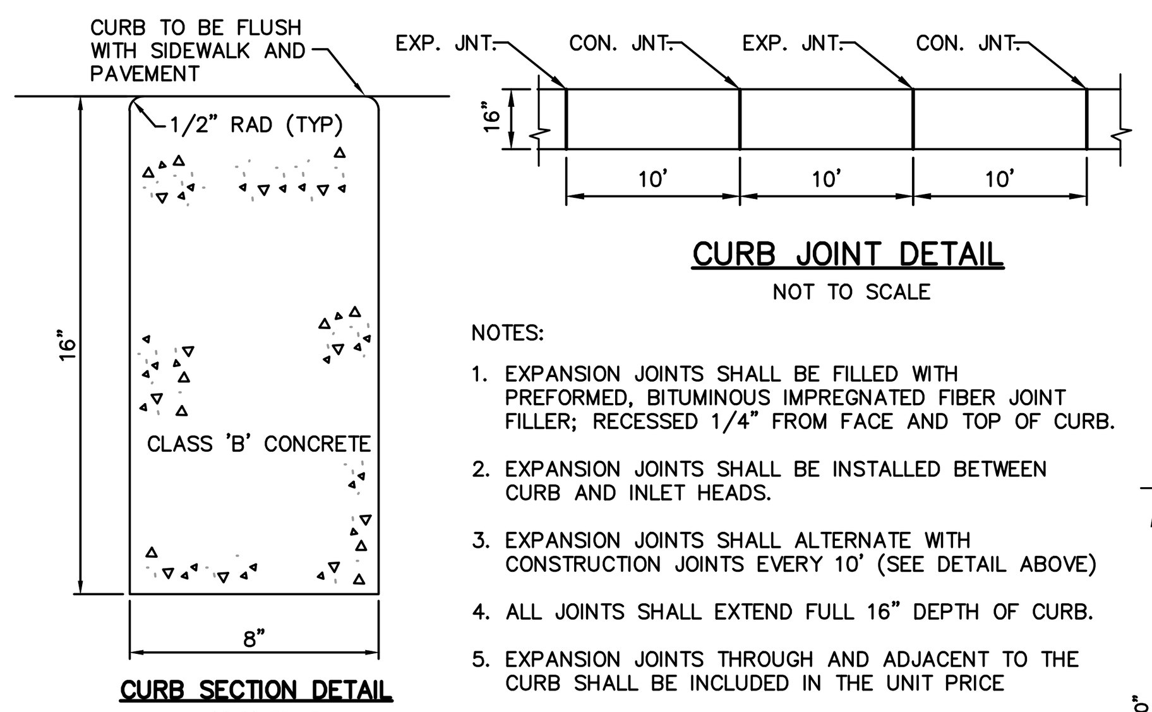


NOTE: AS MANUFACTURED BY ULTRAGUARD OR EQUAL (WHITE)

PVC POST AND RAIL

(TO BE PLACED ABOVE RETAINING WALLS)

N.T.S.



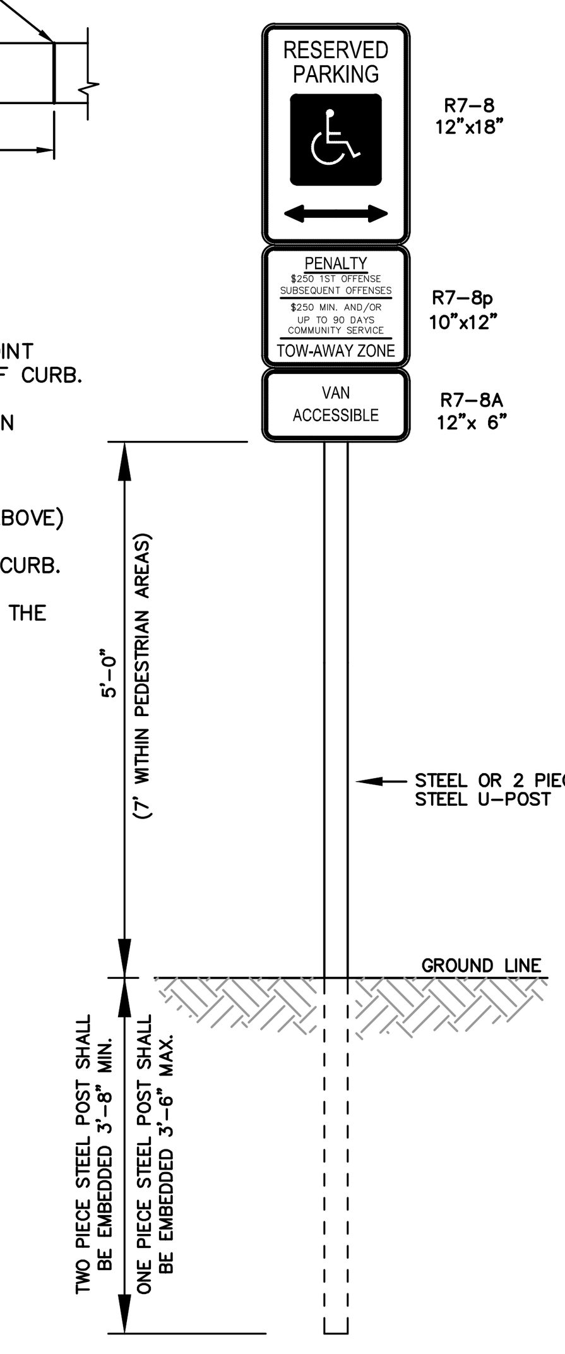
CURB JOINT DETAIL

NOT TO SCALE

NOTES:

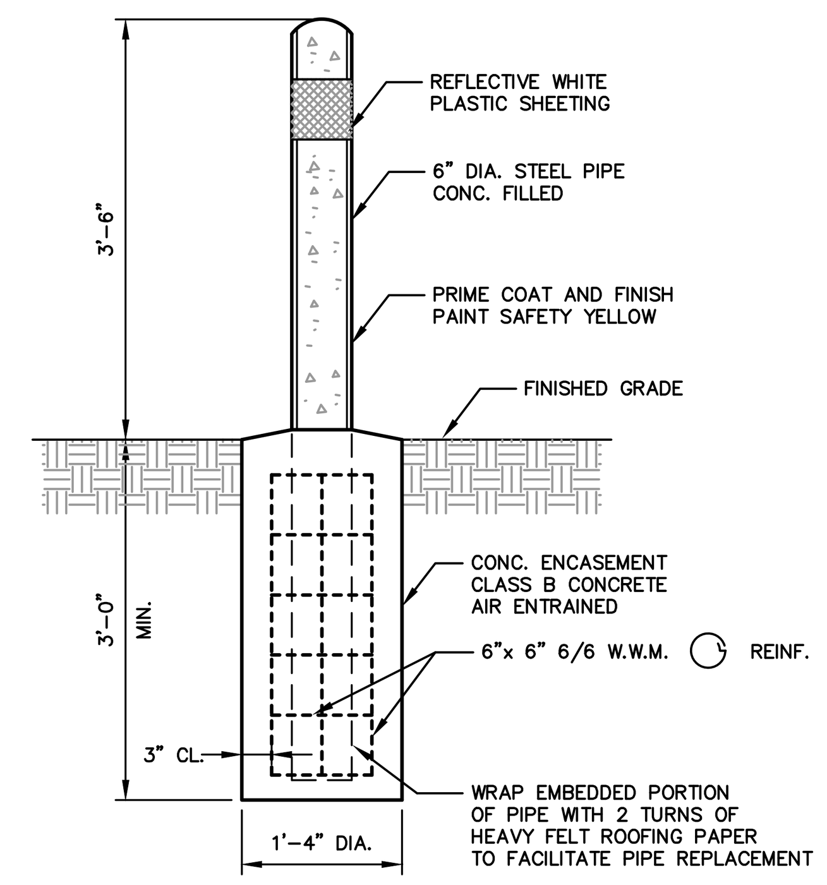
1. EXPANSION JOINTS SHALL BE FILLED WITH PREFORMED, BITUMINOUS IMPREGNATED FIBER JOINT FILLER; RECESSED 1/4" FROM FACE AND TOP OF CURB.
2. EXPANSION JOINTS SHALL BE INSTALLED BETWEEN CURB AND INLET HEADS.
3. EXPANSION JOINTS SHALL ALTERNATE WITH CONSTRUCTION JOINTS EVERY 10' (SEE DETAIL ABOVE)
4. ALL JOINTS SHALL EXTEND FULL 16" DEPTH OF CURB.
5. EXPANSION JOINTS THROUGH AND ADJACENT TO THE CURB SHALL BE INCLUDED IN THE UNIT PRICE

8"x 16" CONCRETE FLUSH CURB



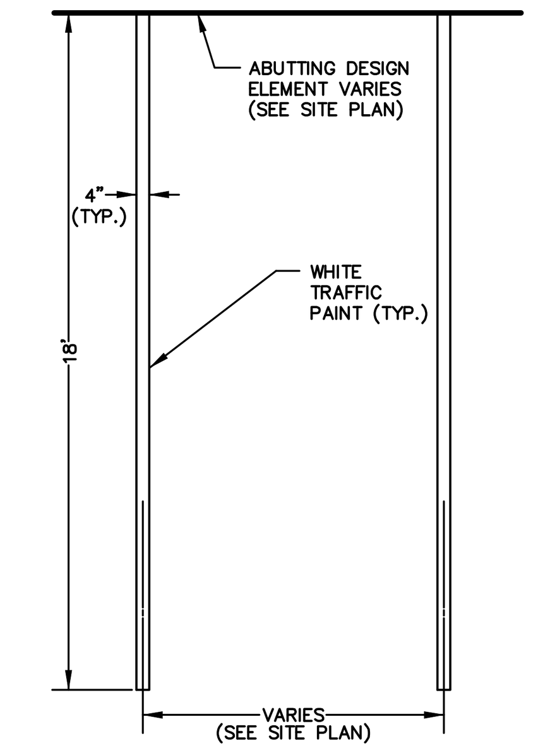
HANDICAPPED PARKING SIGNS

N.T.S.



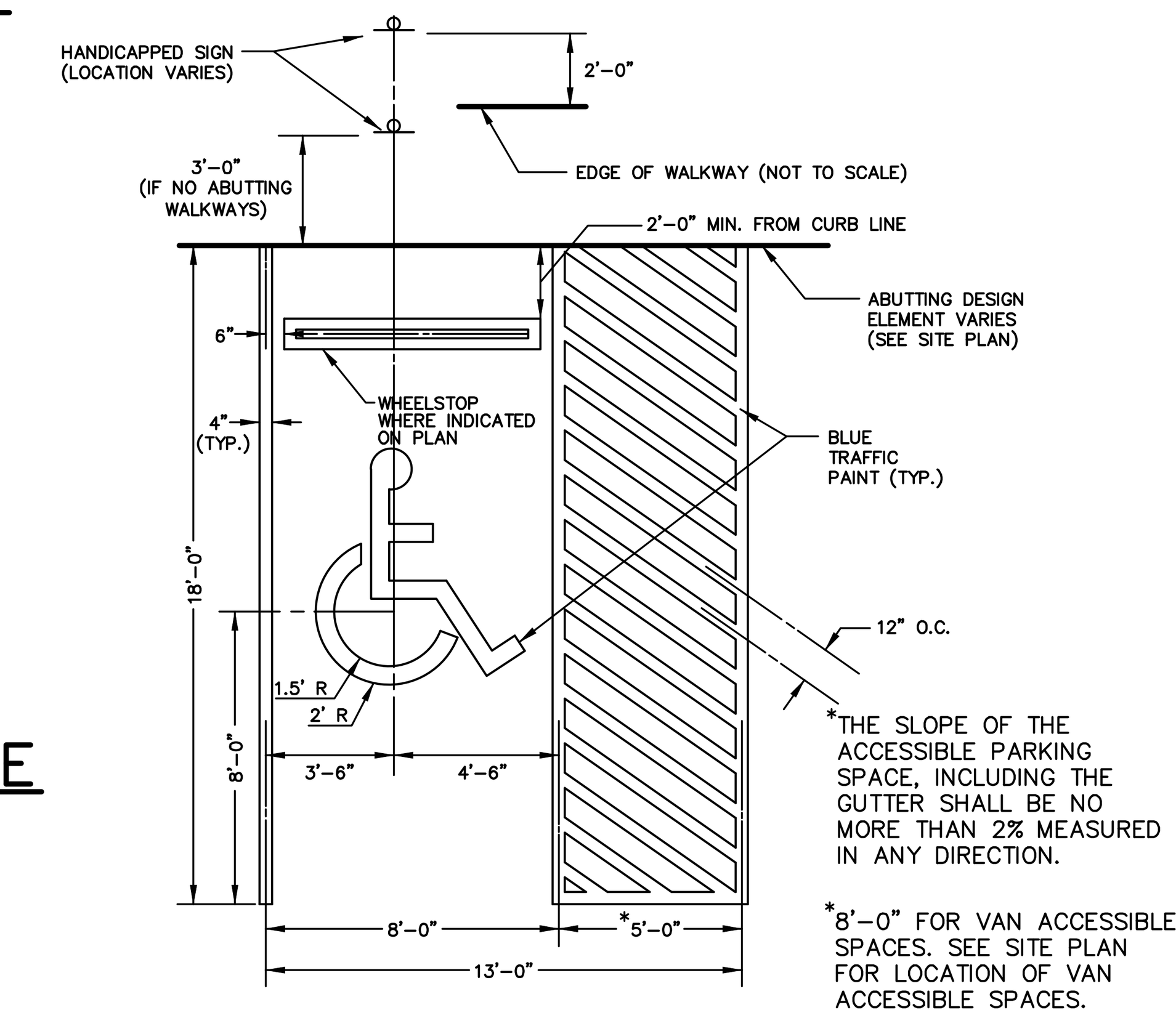
BOLLARD DETAIL

SCALE: 3/4" = 1'-0"



PARKING SPACE STRIPING

N.T.S.



THE SLOPE OF THE ACCESSIBLE PARKING SPACE, INCLUDING THE GUTTER SHALL BE NO MORE THAN 2% MEASURED IN ANY DIRECTION.

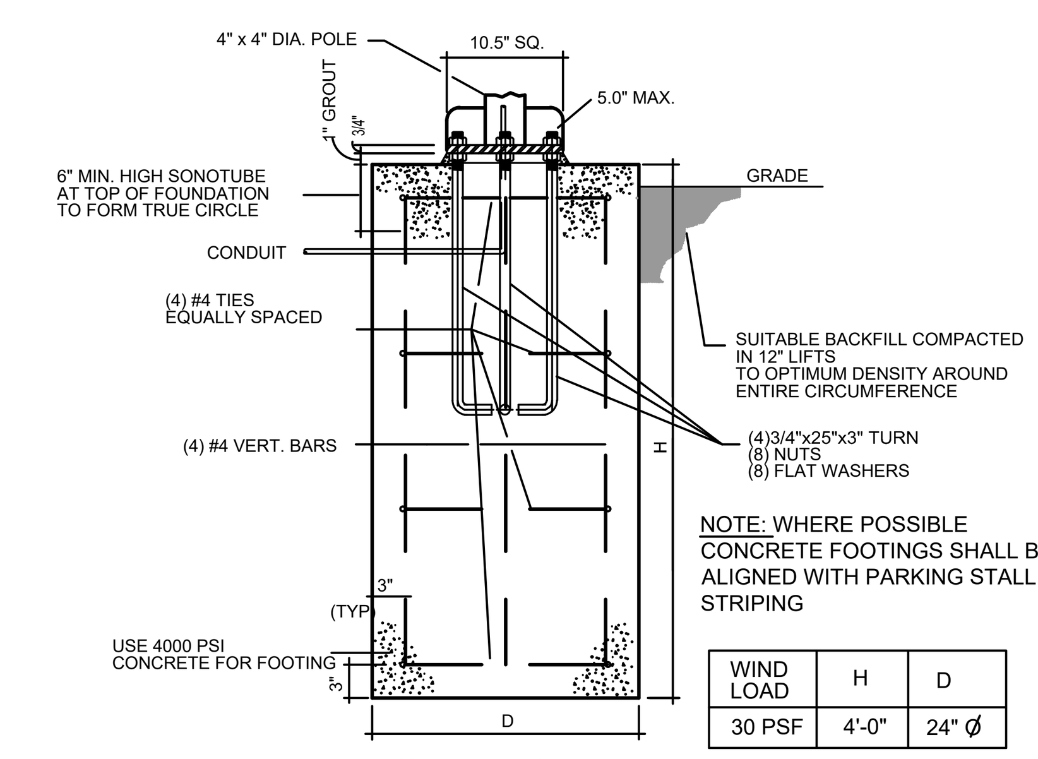
*8'-0" FOR VAN ACCESSIBLE SPACES. SEE SITE PLAN FOR LOCATION OF VAN ACCESSIBLE SPACES.

HANDICAPPED PARKING SPACE

N.T.S.

NOTES:

1. DEPTH OF FOOTING TO EXTEND BELOW FROST LINE (TYP).
2. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60 AND SHALL BE FIELD WIRED IN PLACE.
3. IF POLE IS WITHIN PARKING LOT OR WITHIN 2'-9" OF CURB, CONC. BASE FOUNDATION TO EXCEED 30" ABOVE GRADE, WITH RESULTING ADJUSTMENTS TO POLE HEIGHT.
4. THE COLOR OF THE POSTS AND HOUSING SHALL BE AS APPROVED BY OWNER AND IN CONFORMANCE WITH TOWNSHIP REGULATIONS.
5. THE HOUSING SHALL BE ONE PIECE DIE-FORMED ALUMINUM AND THE POST SHALL BE RECTANGULAR ALUMINUM TUBING.

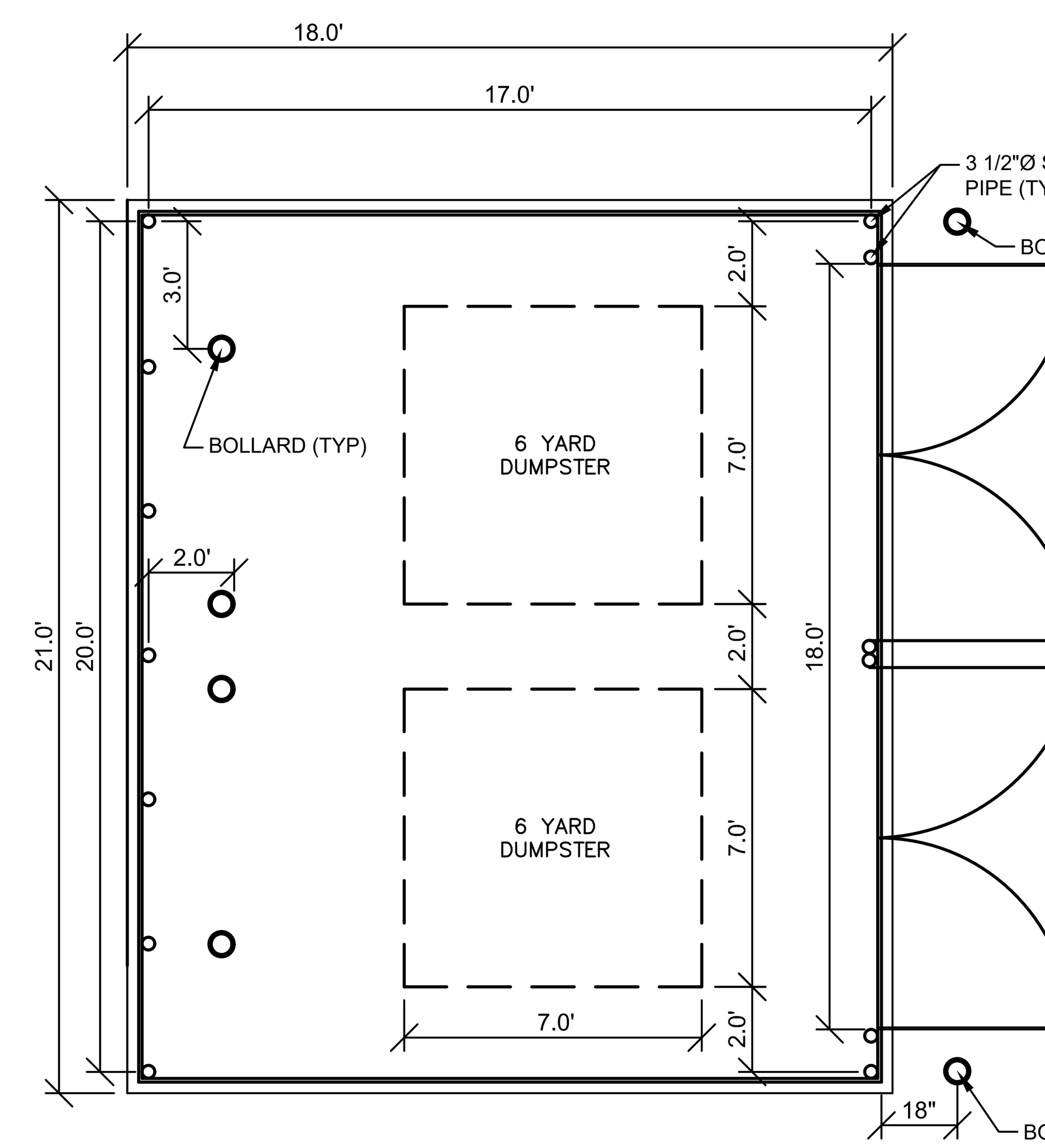


NOTE: WHERE POSSIBLE CONCRETE FOOTINGS SHALL BE ALIGNED WITH PARKING STALL STRIPING

WIND LOAD	H	D
30 PSF	4'-0"	24" Ø

DETAIL A

CONCRETE FOOTING



DUMPSTER ENCLOSURE PLAN

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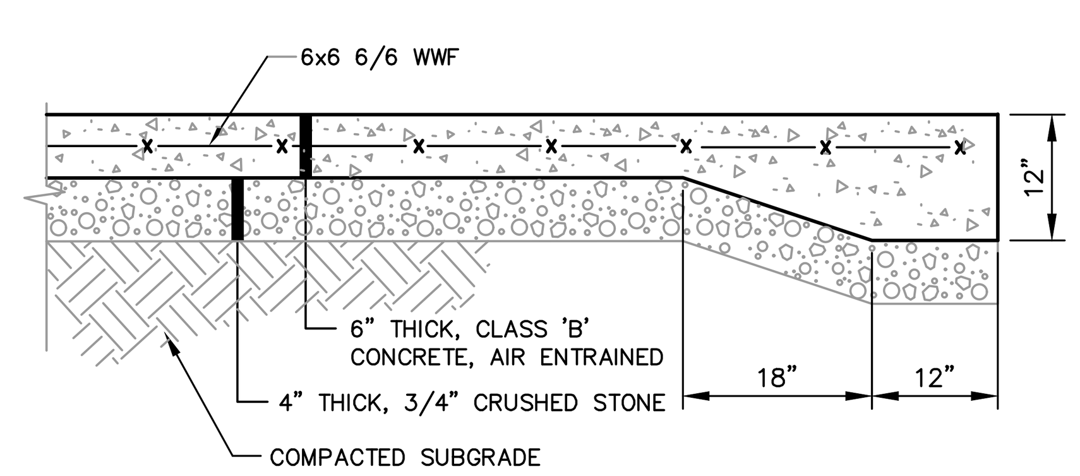
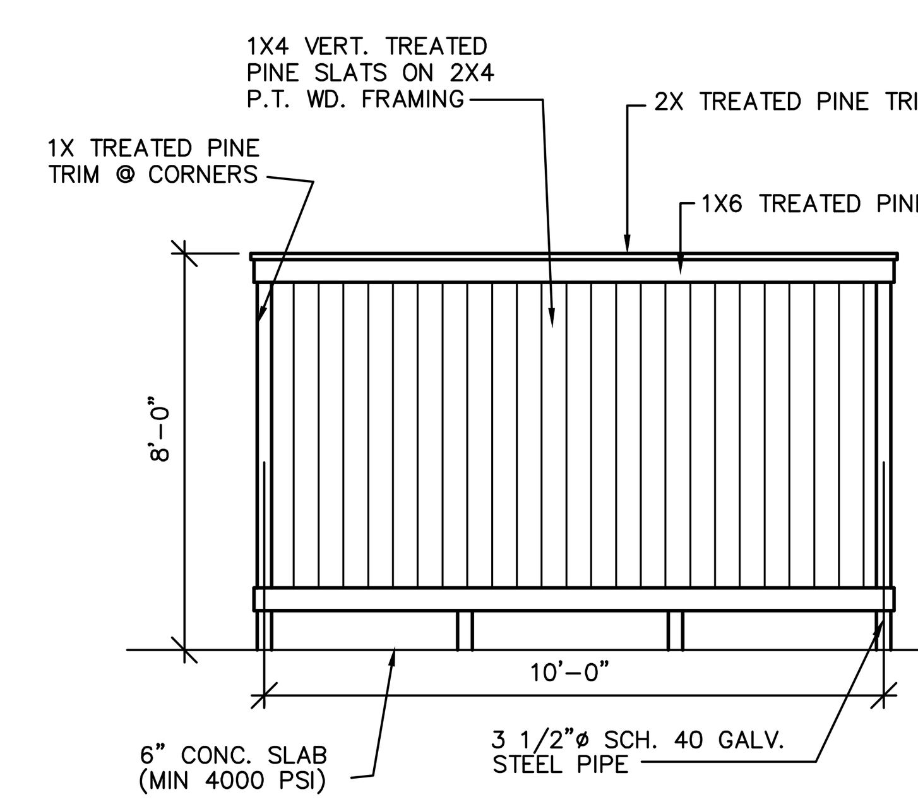


DUMPSTER PAD DETAIL

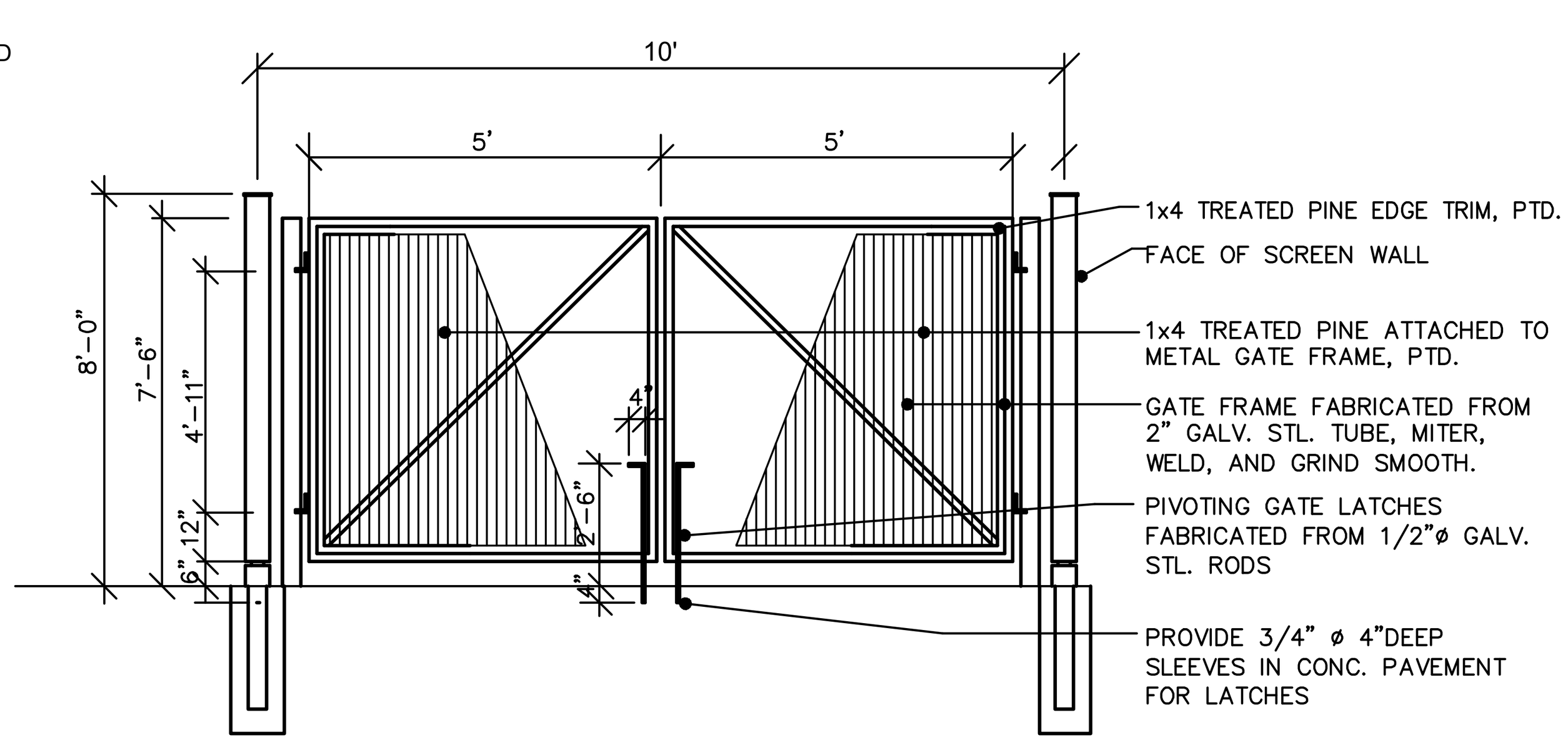
N.T.S.



NOTE: PAINT ALL TRIM AND WOOD FRAMING TO MATCH BUILDING

TYP. ENCLOSURE ELEVATION

N.T.S.



ENCLOSURE GATE ELEVATION

N.T.S.

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SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

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PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

CONSTRUCTION DETAILS

BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)

TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

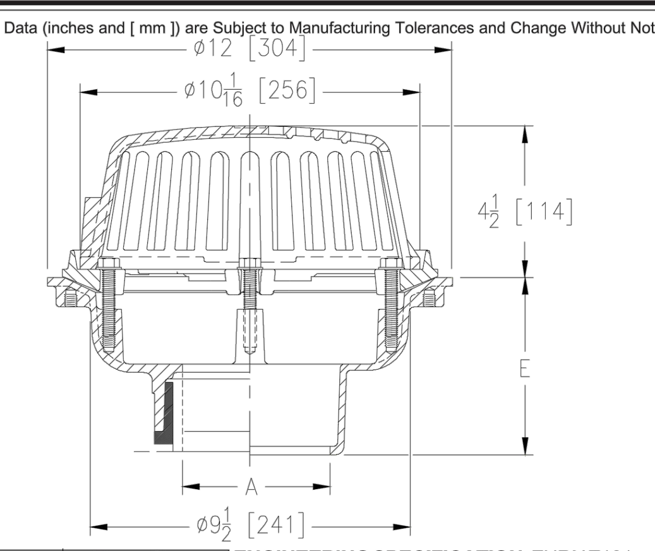
DATE: 04/28/21

PROJECT NO.: 201006

ZURN Z121
12 [305] DIAMETER ROOF DRAIN
LOW SILHOUETTE DOME

SPECIFICATION SHEET
TAG ______

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A Pipe Size In.[mm]	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm²]
2,3,4,6 [51,76,102,152]	22 [10]	78 [503]

ENGINEERING SPECIFICATION: ZURN Z121
12" [305mm] Diameter roof drain. Dura-Coated cast iron body with combination membrane flashing clamp/gravel guard and low silhouette Poly-Dome.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET		E BODY HT. DIM.
2, 3, 4, 6 [51, 76, 102, 152]	_____	IC	Inside Caulk	5-1/4 [133]
2, 3, 4, 6 [51, 76, 102, 152]	_____	IP	Threaded	3-3/4 [95]
2, 3, 4, 6 [51, 76, 102, 152]	_____	NH	No-Hub	5-1/4 [133]
2, 3, 4 [51, 76, 102]	_____	NL	Neo-Loc	4-5/8 [117]

PREFIXES
___ Z D.C.C.I. Body with Poly-Dome (4-1/4 [108] Dome Height)*
___ ZA D.C.C.I. Body with Aluminum Dome (6-9/16 [167] Dome Height)
___ ZC D.C.C.I. Body with Low Silhouette Cast Iron Dome

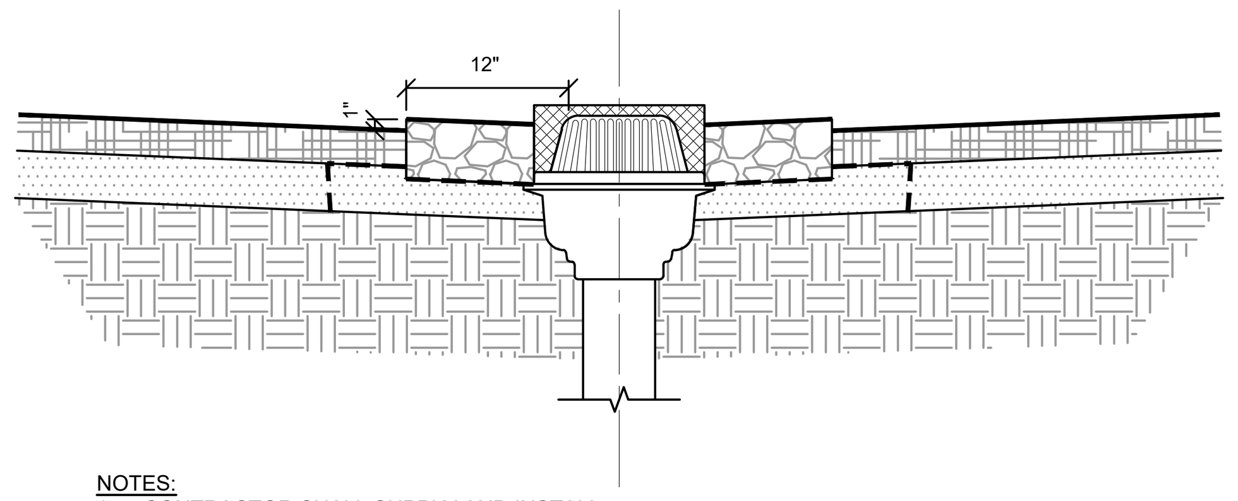
SUFFIXES
___ -AR Acid Resistant Epoxy Coated Finish
___ -C Underdeck Clamp
___ -DB Deep Sump Body (IC Only)
___ -DP Top-Set® Roof Deck Plate (Replaces both the -C and -R)
___ -E 2 [51] High Static Extension (Specify Height)
___ -EB Top-Set® Adjustable Extension Assembly
___ -FG Flush Grate
___ -G Galvanized Cast Iron
___ -R Roof Sump Receiver
___ -SC Secondary Clamping Collar
___ -SS Stainless Steel Mesh Screen Over Dome
___ -TC Neo-Loc Test Cap Gasket (2, 3, 4 [51, 76, 102] NL Bottom Outlet Only)
___ -VP Vandal-Proof Secured Top
___ -XJ Vertical Expansion Joint (See Z190)
___ -84 Stainless Steel Perforated Gravel Guard
___ -85 Stainless Steel Perforated Extension
___ -89 2 [51] High External Water Dam
___ -90 90º Threaded Side Outlet Body (2, 3, 4 [51, 76, 102]) (Previously Z124)

* Regularly furnished unless otherwise specified.

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 · Ph. 855-663-9876, Fax 814-454-7929
In Canada | **Zurn Industries Limited**
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 · Ph. 905-405-8272, Fax 905-405-1292
www.zurn.com

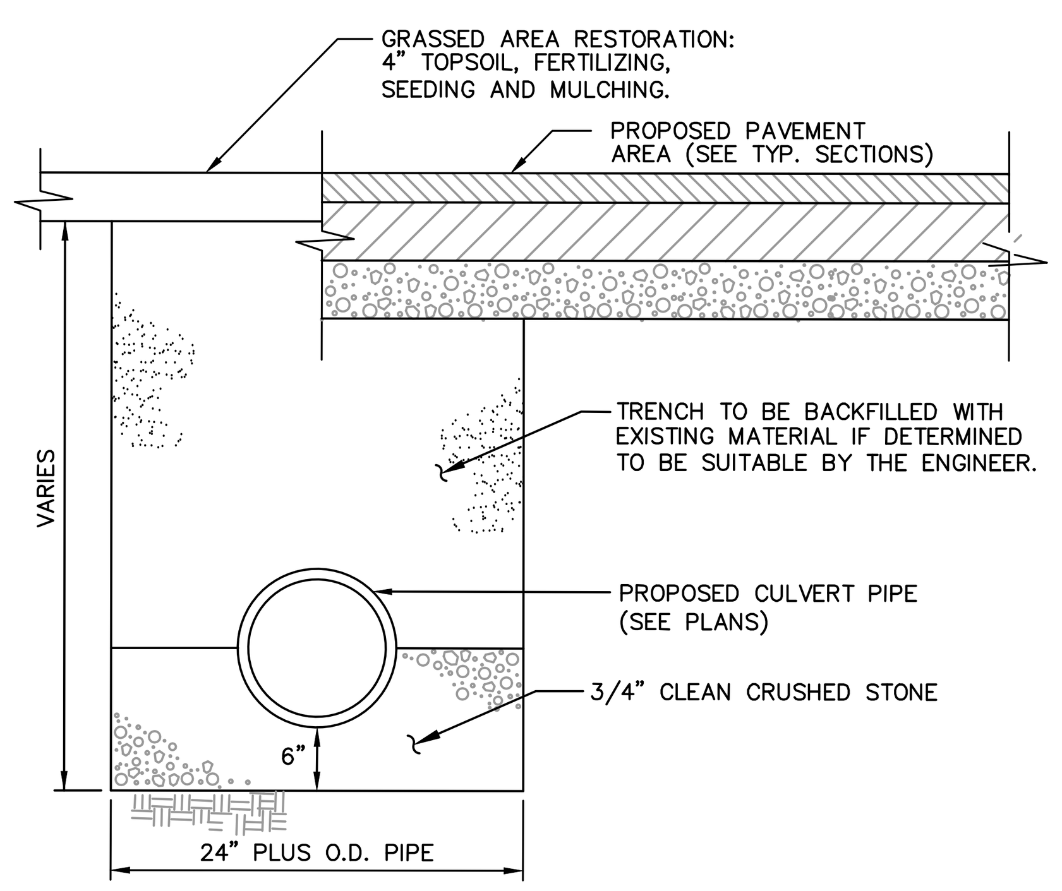
Rev. P
Date: 09/25/2017
C.N. No. 137798
Prod. | Dwg. No. Z121

AREA DRAIN CUTSHEET DETAIL



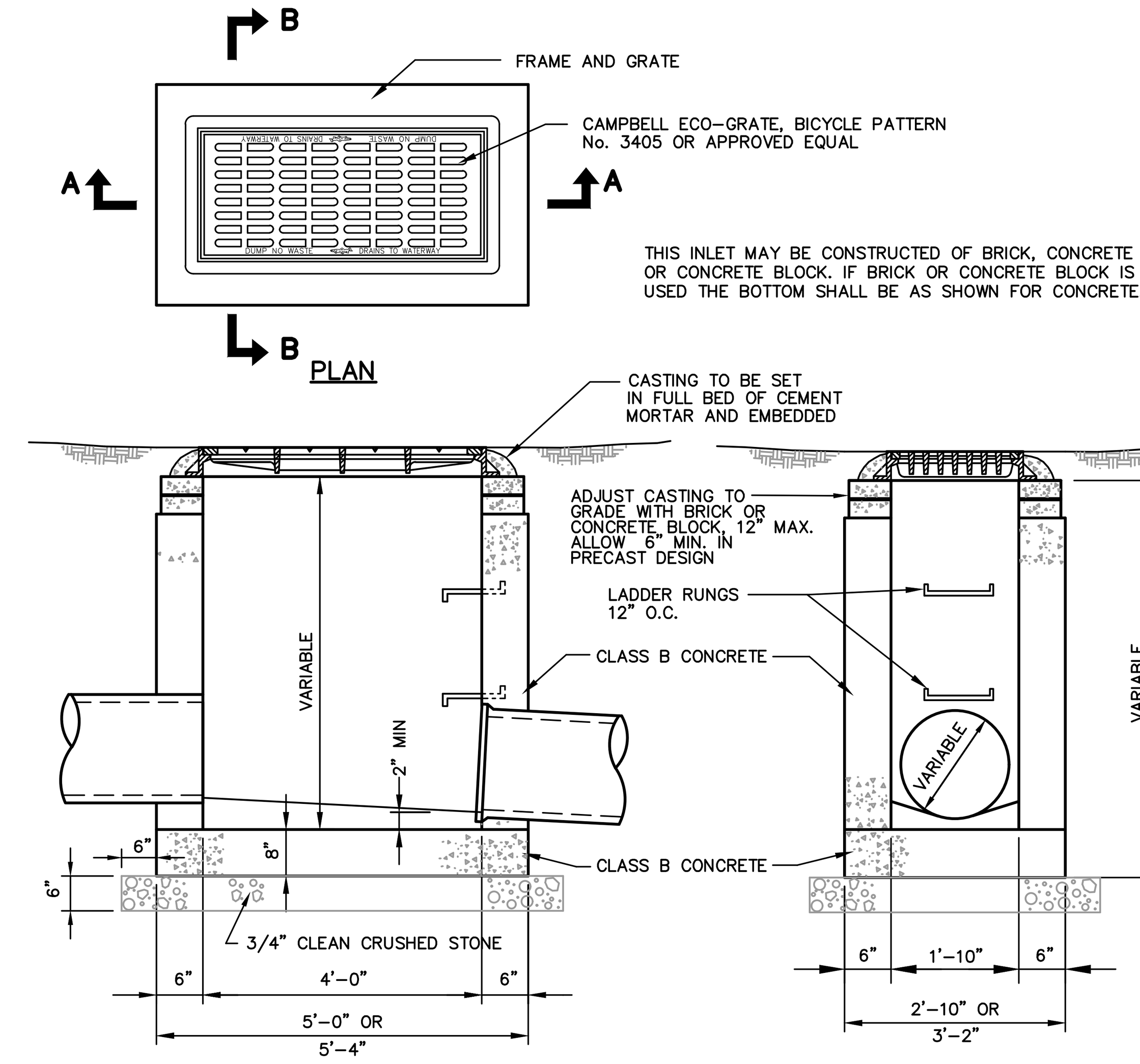
NOTES:
1. CONTRACTOR SHALL SUPPLY AND INSTALL: AREA DRAIN MODEL No. Z121-SS 12" DIAMETER DRAIN w/ STAINLESS STEEL MESH SCREEN OVER DOME, AS MANUFACTURED BY "ZURN" www.ZURN.com 1-855-663-9876 (OR APPROVED EQUAL).
2. FOR DRAINS WITH INVERT ELEVATIONS SHOWN 12" DEEP OR GREATER, CONTRACTOR SHALL ORDER DRAIN w/ THE "NO HUB" OPTION AND INSTALL WITH FERNCO COUPLERS AND STANDARD SCH 40 PVC FITTINGS.
3. FOR TERMINAL DRAINS INVERTS WITH SHALLOW DEPTH INVERTS, (LESS THAN 12" DEEP AS INDICATED), CONTRACTOR SHALL PURCHASE THE "THREADED" VERSION AND ALSO A 6" 90° CAST IRON THREADED ELBOW MODEL No. Z1042 ALSO AS MANUFACTURED BY ZURN (OR APPROVED EQUAL). ELBOW SHALL THEN CONNECT TO 6" SCH PVC PIPE WITH A FERNOC COUPLER.

AREA DRAIN WITH STONE COLLAR DETAIL



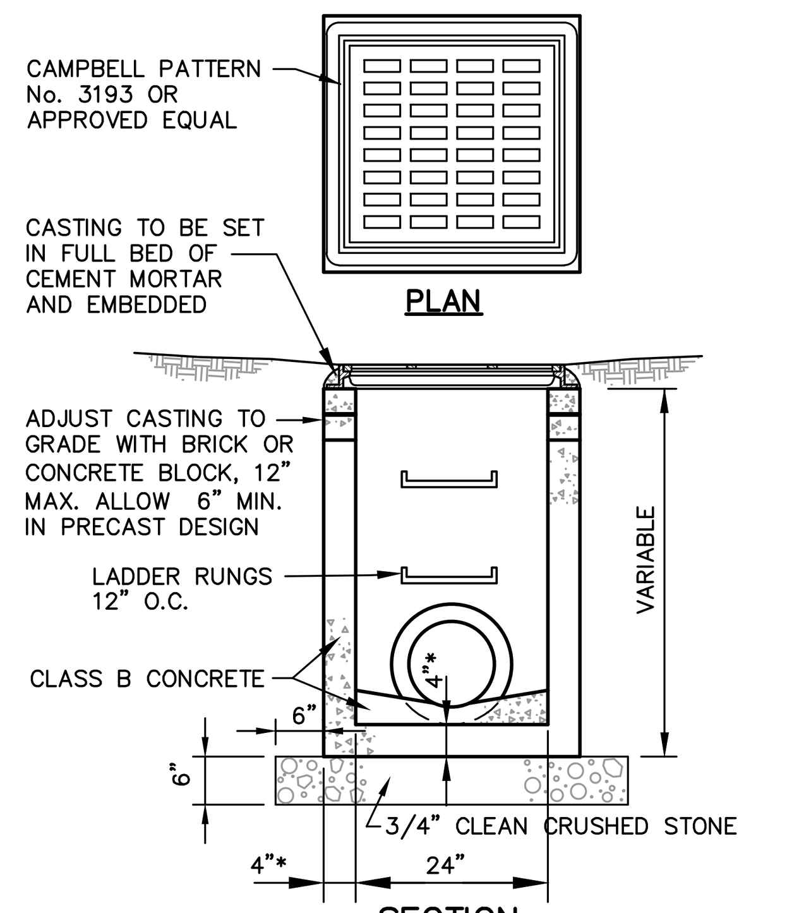
TYPICAL TRENCH DETAIL

N.T.S.



INLET TYPE "A"

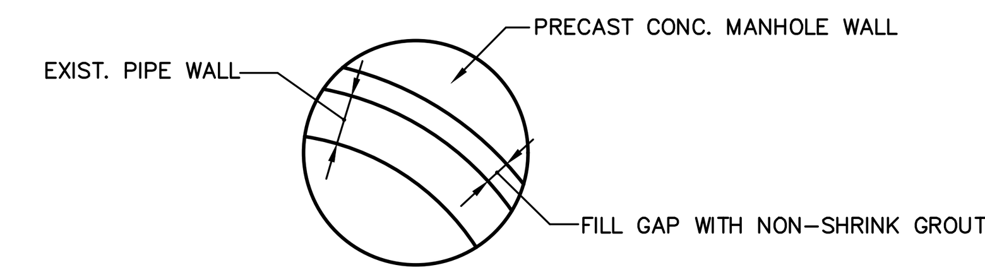
SCALE: N.T.S.



1. THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE.
2. *WALLS SHAL BE 4" MIN. IF PRECAST AND 6" MIN. IF BLOCK.

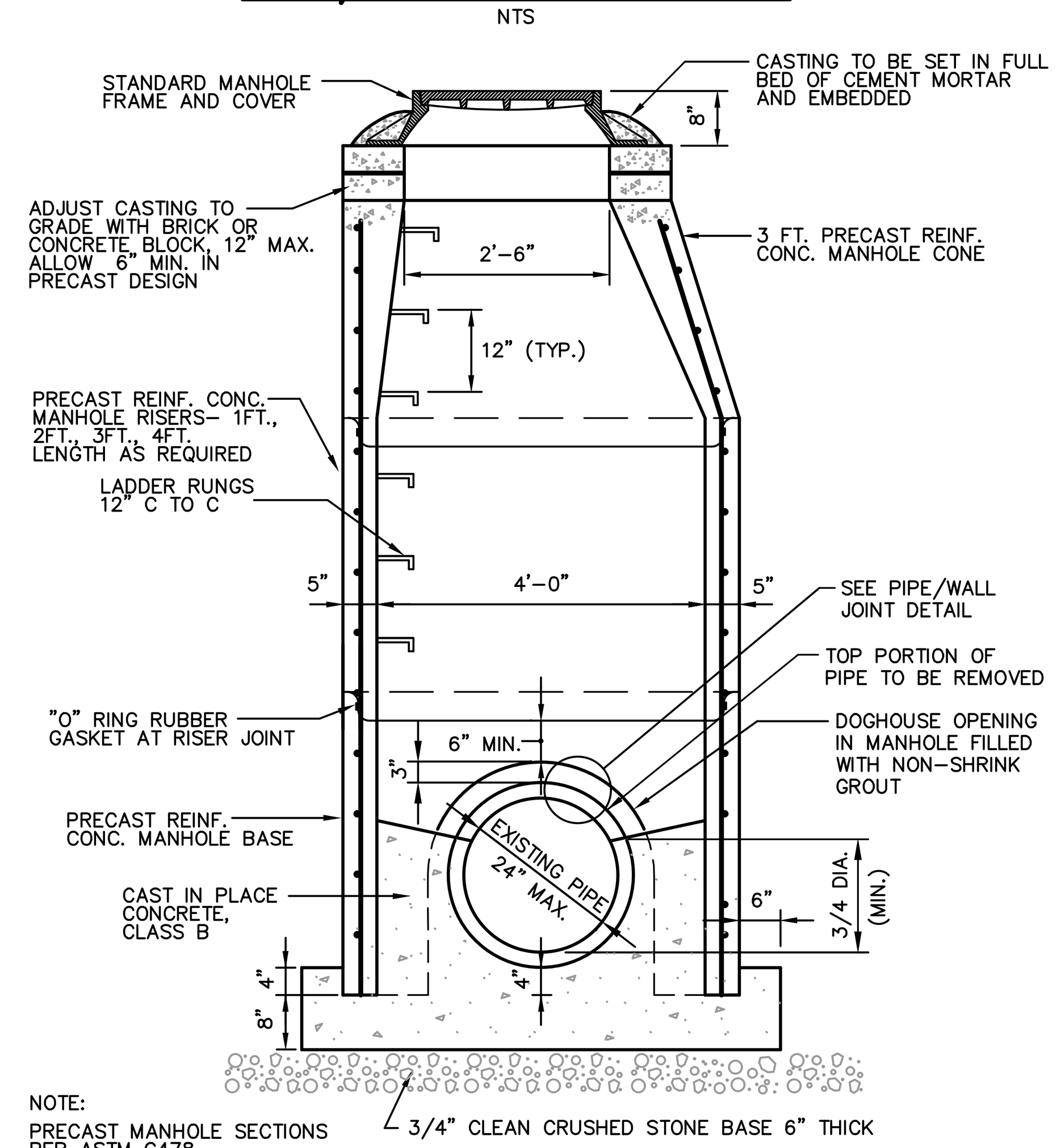
2' X 2' CONCRETE YARD INLET

N.T.S.



PIPE/WALL JOINT DETAIL

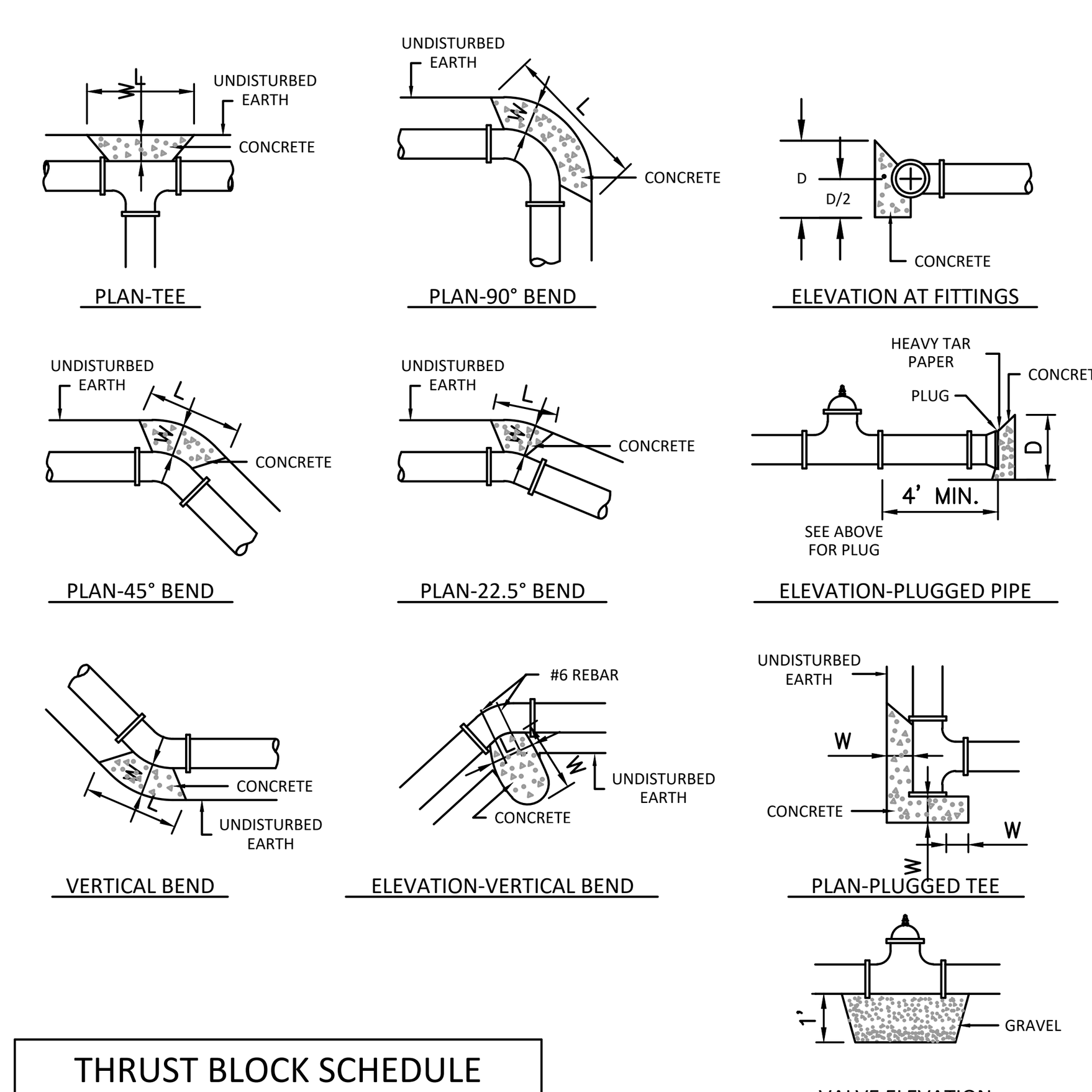
NTS



NOTE:
PRECAST MANHOLE SECTIONS PER ASTM C478

STORM MANHOLE, PRECAST (DOGHOUSE)

(STORM MANHOLE ON EXIST. PIPE)
SCALE: NTS



THRUST BLOCK SCHEDULE

PIPE SIZE	TEE		22.5° BEND		45° BEND		90° BEND		
	L	D	L	D	L	D	L	D	W
6"	1'-3"	1'-3"	1'-6"	1'-0"	1'-6"	1'-0"	1'-6"	1'-3"	1'-9"
8"	2'-0"	1'-6"	1'-6"	1'-0"	1'-6"	1'-0"	2'-0"	1'-6"	2'-0"
10"	2'-6"	1'-9"	1'-9"	1'-0"	1'-9"	1'-0"	2'-6"	1'-9"	2'-2"
12"	3'-0"	2'-0"	2'-0"	1'-0"	2'-0"	1'-0"	3'-0"	2'-0"	2'-4"
16"	4'-0"	2'-6"	2'-0"	1'-0"	2'-4"	1'-6"	4'-0"	2'-6"	2'-7"
20"	5'-3"	3'-0"	2'-0"	1'-6"	3'-0"	2'-0"	5'-3"	3'-0"	2'-9"

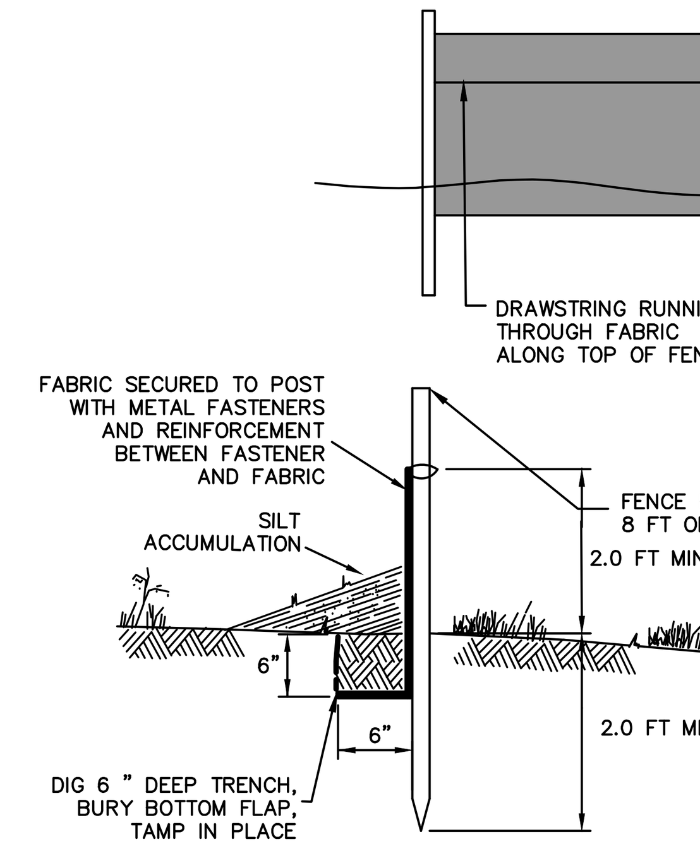
BASIS:
2,000 LB/SQ.FT. SOIL RESISTANCE
250 PSI WATER PRESSURE
CORRECTION FACTORS FOR OTHER SOILS:

SOFT CLAY	4
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

NOTE:
IF SOFT MATERIALS ARE ENCOUNTERED, THE THRUST BLOCK SIZES SHALL BE ADJUSTED ACCORDINGLY.
ALL THRUST BLOCK SHALL BE POURED IN FULL CONTACT WITH UNDISTURBED SOIL.

THRUST BLOCK DETAIL

N.T.S.



SILT FENCE DETAIL

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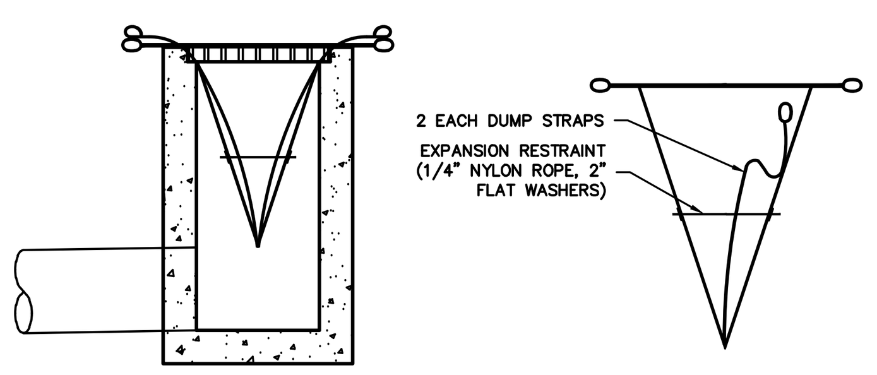
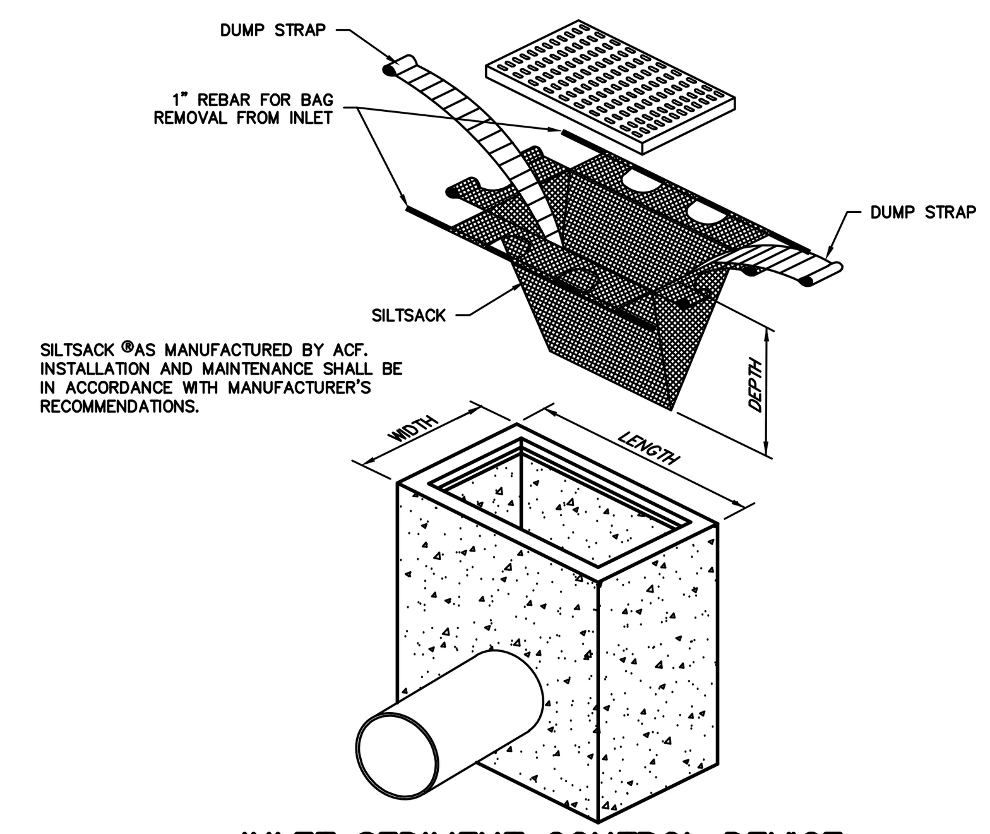
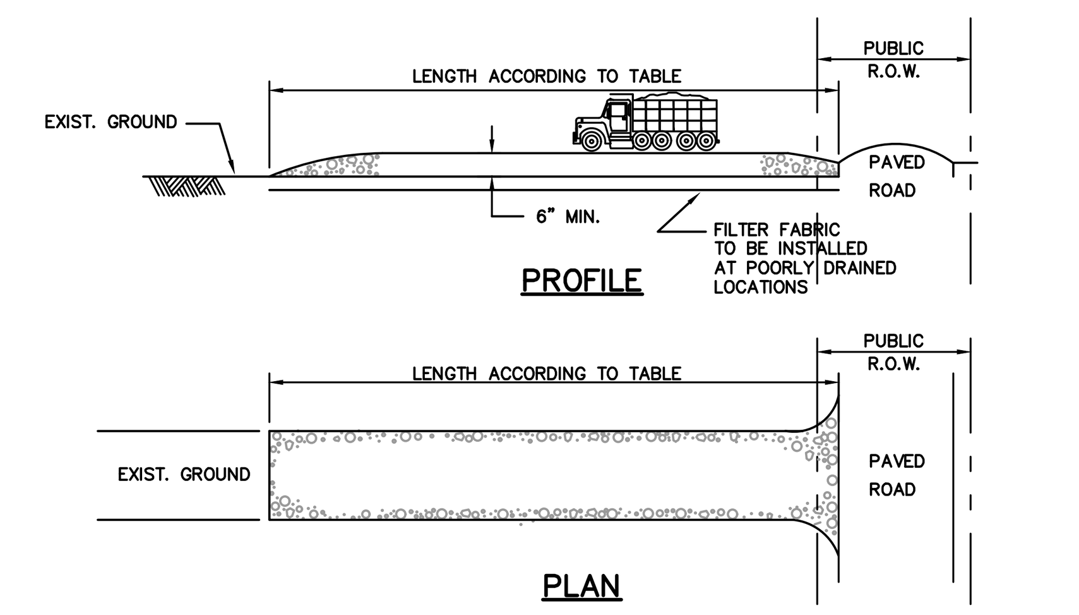




INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE



NOTES

STONE SIZE 1 1/2" – 2 1/2" CRUSHED STONE

WIDTH NOT LESS THAN FULL WIDTH AT POINTS OF EGRESS AND INGRESS.

WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC R.O.W.. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC R.O.W.. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRAPPED ONTO PUBLIC R.O.W. MUST BE REMOVED IMMEDIATELY.

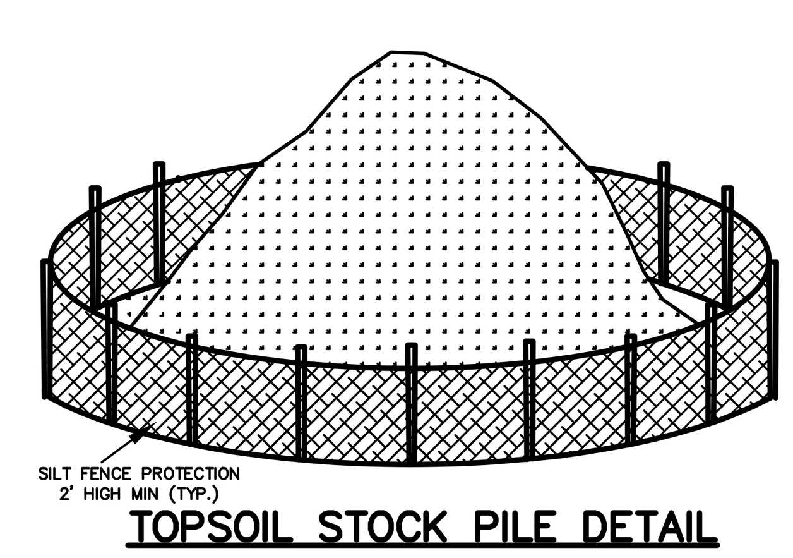
WHEN THE CONSTRUCTION ACCESS EXITS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN THE MAJOR ROADWAY AND THE STONED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE.

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 ft.	100ft.
2 TO 5%	100ft.	200ft.
>5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE MIX I-2[1]	

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY

STABILIZED CONSTRUCTION ENTRANCE (AS REQUIRED)

N.T.S



TOPSOIL STOCK PILE DETAIL

REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY – 8-1

SOIL EROSION AND SEDIMENT CONTROL NOTES

(To be included on the signed erosion control plan sheet)

1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the **"New Jersey Standards for Soil Erosion and Sediment Control"** 7th Edition **last revised July 2017, effective December 2017.** These measures will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent protection is established.

2. Soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, may be required to be temporarily mulched, and seeded or otherwise provided with vegetative cover as per Appendix A3. This temporary cover shall be maintained until such time whereby permanent restabilization is established.

3. *Seeding Dates:* The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring - 3/1-5/15 and Fall – 8/15 – 10/1

4. Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established

5. All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.

6. Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.

7. All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.

8. The Hudson-Essex-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax - (862) 333-4507 OR email – INFORMATION@HEPSCD.ORG

9. **The applicant must obtain a District issued Report-of-Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - DCA or any other controlling agency.** Contact the District at 862-333-4505 to request a Final Inspection, giving advanced notice upon completion of the restabilization measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seed.

10. Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.

11. All surfaces having lawn or landscaping as final cover are to be provided topsoil prior to re-seeding, sodding or planting. A depth of 5.0 inches, firmed in place, is **required**, as per the Standards for Topsoiling and Land Grading, effective December 2017.

12. All plan revisions must be submitted to the District for proper review and approval.

13. A crushed stone wheel cleaning tracking-pad is to be installed at all site exits using 2 ½ -1" crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.

14. Steep slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.

15. **The Hudson-Essex-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the project or for the sale of individual lots. New owners' information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.**

http://hepsoilnj.org
HEPSCD251SESCNOTES_7THEDREV2017.DOC

STANDARD FOR DUST CONTROL (Per Standards... Dust Control 16–1, May 2012)

DEFINITION–The control of dust on construction sites and roads.

PURPOSE– To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off–site damage and health hazards, and improve traffic safety.

CONDITION WHERE PRACTICE APPLIES– This practice is applicable to areas subject to dust blowing and movement where on– and off–site damage is likely without treatment. Consult with local municipal ordinances on any restrictions.

WATER QUALITY ENHANCEMENT–Sediments deposited as "dust" are often fine colloidal material which is extremely difficult to remove from water once it becomes suspended. Use of this standard will help to control the generation of dust from construction sites and subsequent blowing and deposition into local surface water resources.

PLANNING CRITERIA– The following methods should be considered for controlling dust:

Mulches–See Standards for Stabilization with mulches Only (p. 5–1)

Vegetative Cover–See Standards for Temporary Vegetative Cover (p. 7–1), Permanent Vegetative Cover for Soil Stabilization (p. 4–1) and Permanent Stabilization with Sod (p. 6–1)

Spray–on Adhesives–On mineral soils (not effective on muck soils). Keep traffic off these areas.

Table 16–1: Dust Control Materials:

	Water Dilution	Type of Nozzle	Gal./Acre
Anionic asphalt emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4:1	Fine Spray	300
Polyacrylamide (PAM) – spray on Polyacrylamide (PAM) – dry spray	Apply according to manufacturer's instructions. May also be used as an additive to sediment basins to flocculate and precipitate suspended colloids. See Sediment Basin standard (pg 26–1).		
Acidulated Soy Bean Soap Stick	None	Coarse Spray	1,200

Tillage: To roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel–type plows spaced about 12 inches apart, and spring–toothed harrows are examples of equipment which may produce the desired effect.

Sprinkling: Site is sprinkled until the surface is wet.

Barriers: Solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar material can be used to control air currents and soil blowing.

Calcium Chloride: Shall be in the form of loose, dry granules of flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes, then use other practices to prevent washing into streams or accumulation around plants.

Stone: Cover surface with crushed stone or coarse gravel.

CONSTRUCTION SEQUENCE

1.	INSTALL SOIL EROSION AND SEDIMENT CONTROL DEVICES	1 DAY
2.	DEMOLISH EXISTING SITE FEATURES FOR NEW IMPROVEMENTS	1 MONTH
3.	ROUGH GRADE SITE	1 WEEK
4.	BEGIN BUILDING CONSTRUCTION	8 MONTHS
5.	INSTALL STORM SEWER SYSTEM AND UTILITIES	1 MONTH
6.	CONSTRUCT DRIVEWAY AND OTHER SITE FEATURES	1 MONTH
7.	FINE GRADE ALL AREAS TO SPECIFIED GRADES	1 WEEK
8.	PERMANENT SEED AND STABILIZED ALL AREAS	1 DAY
9.	REMOVE SOIL EROSION CONTROL DEVICES WHEN SITE IS STABILIZED	1 DAY
	APPROX. PROJECT DURATION	12 MONTHS

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

SEE SHEET 1 OF THIS SET FOR GENERAL NOTES AND REFERENCES

REV #	DATE	REVISION

MICHAEL J. ROTH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 24GE05262600

ROTH ENGINEERING
ROTH ENGINEERING, LLC
52 QUAIL RUN, LONG VALLEY, NJ 07853
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EMAIL: MIKE@ROTHENGINEERS.COM

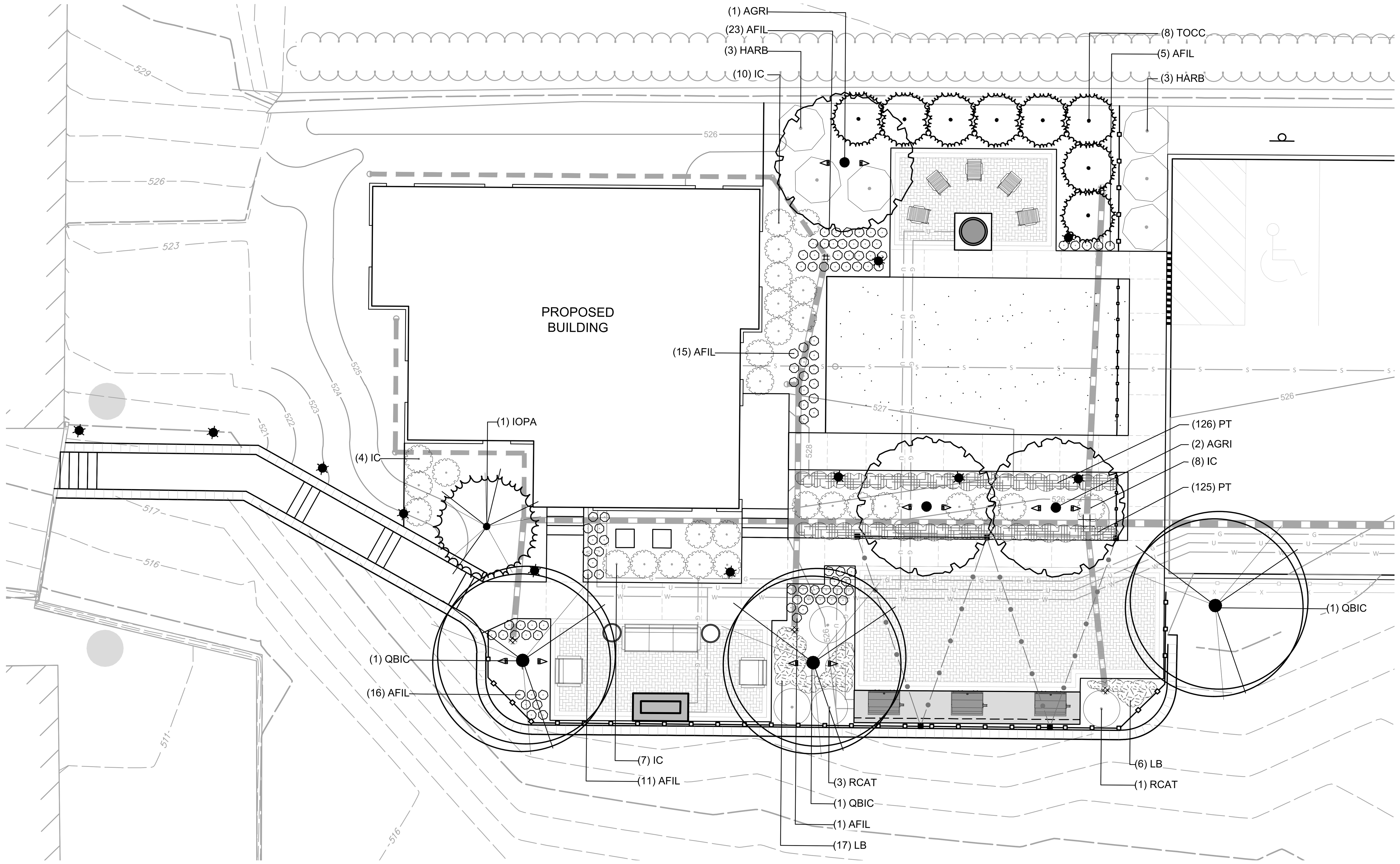
PRELIMINARY AND FINAL SITE PLANS FOR IMPROVEMENTS TO RUNNYMEDE GARDENS

CONSTRUCTION DETAILS

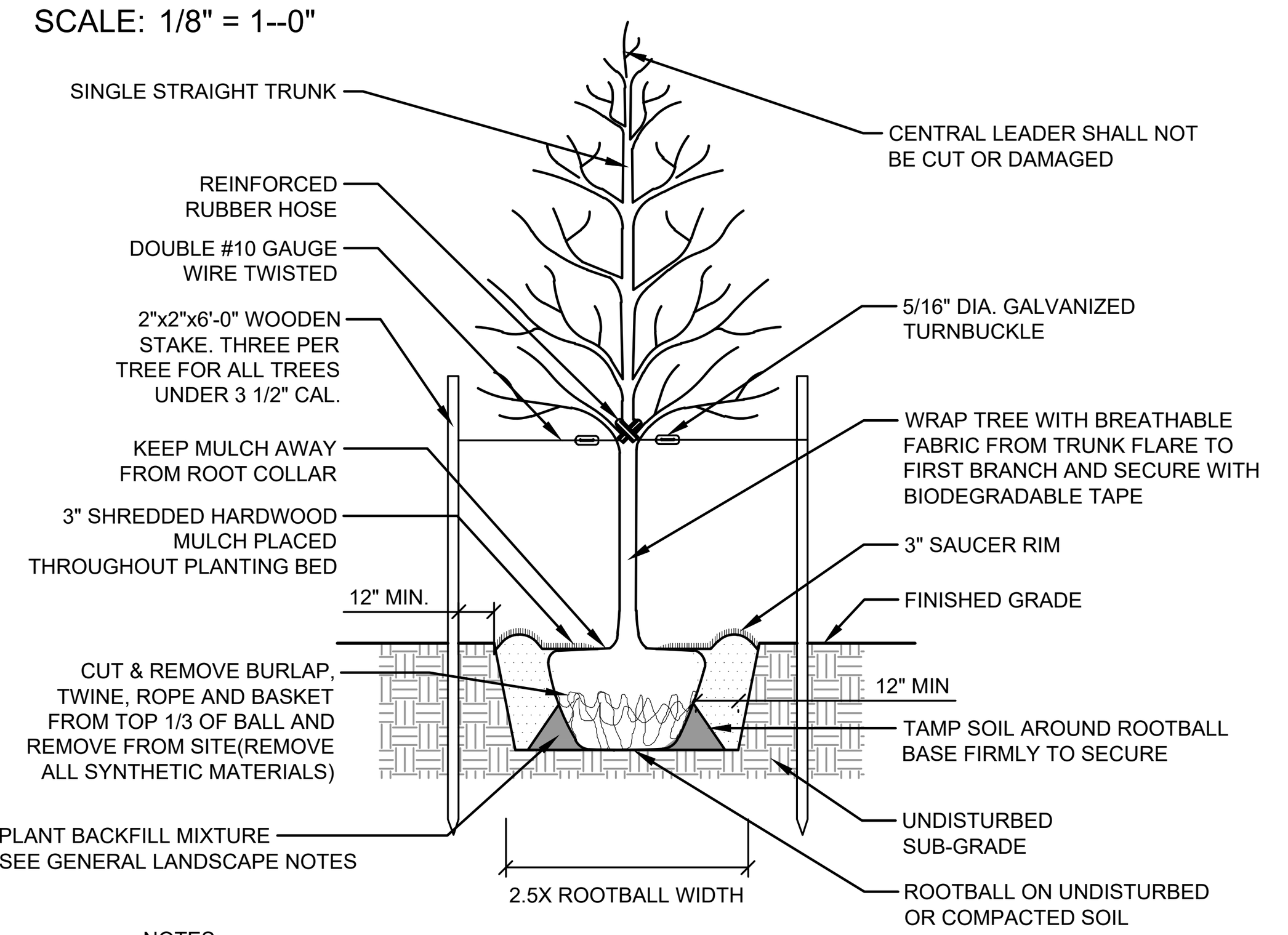
BLOCK 2303, LOT 1 (REMAINING PORTIONS OF PROPERTY INCLUDE BLOCK 2301, LOT 20; BLOCK 2302, LOT 1; & BLOCK 2304, LOT 11)
TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

DATE: 04/28/21
PROJECT NO.: 201006

PLANTING PLAN



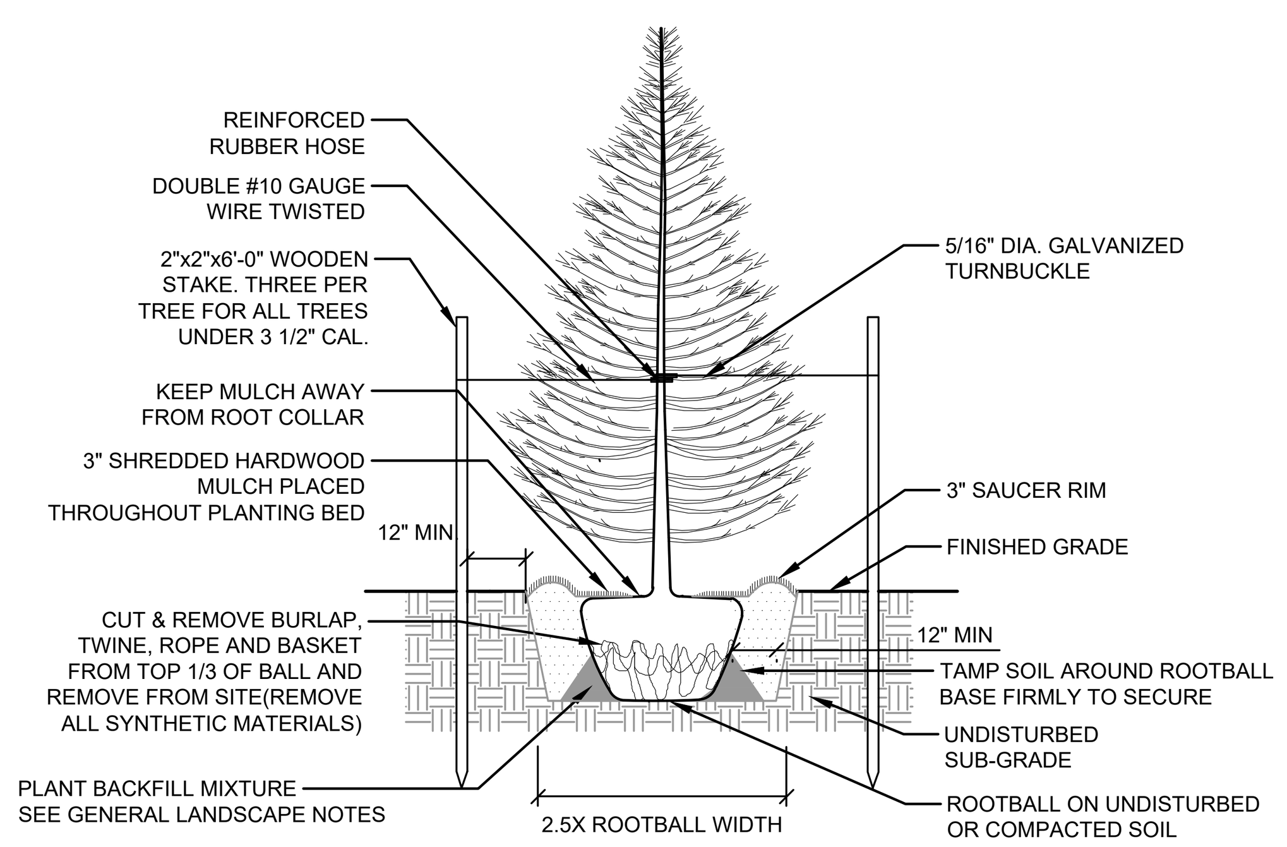
SCALE: 1/8" = 1--0"



NOTES:
1. AT PLANTING, PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADERS, BROKEN OR DEAD BRANCHES WHILE MAINTAINING NORMAL TREE SHAPE.
2. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
3. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.

1 DECIDUOUS TREE PLANTING

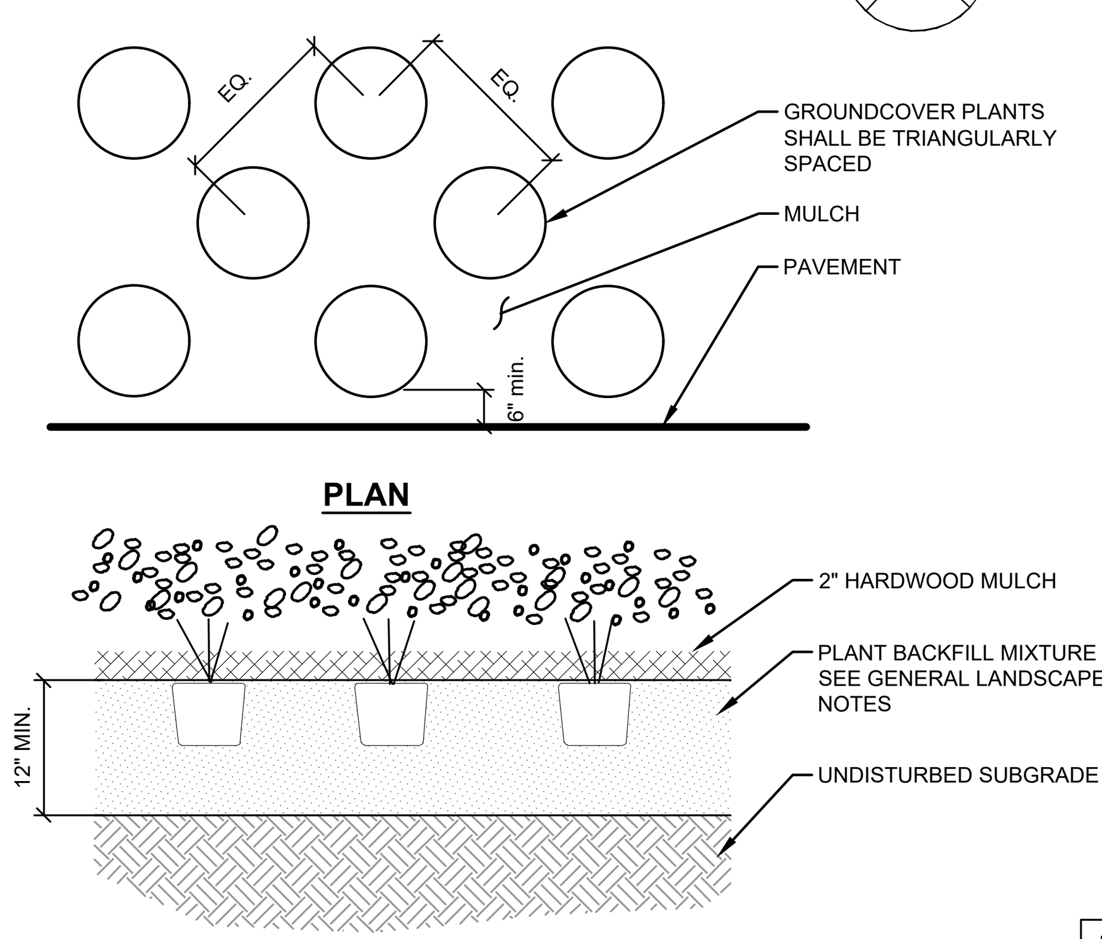
Scale: NTS



NOTES:
1. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
2. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.

2 EVERGREEN TREE PLANTING

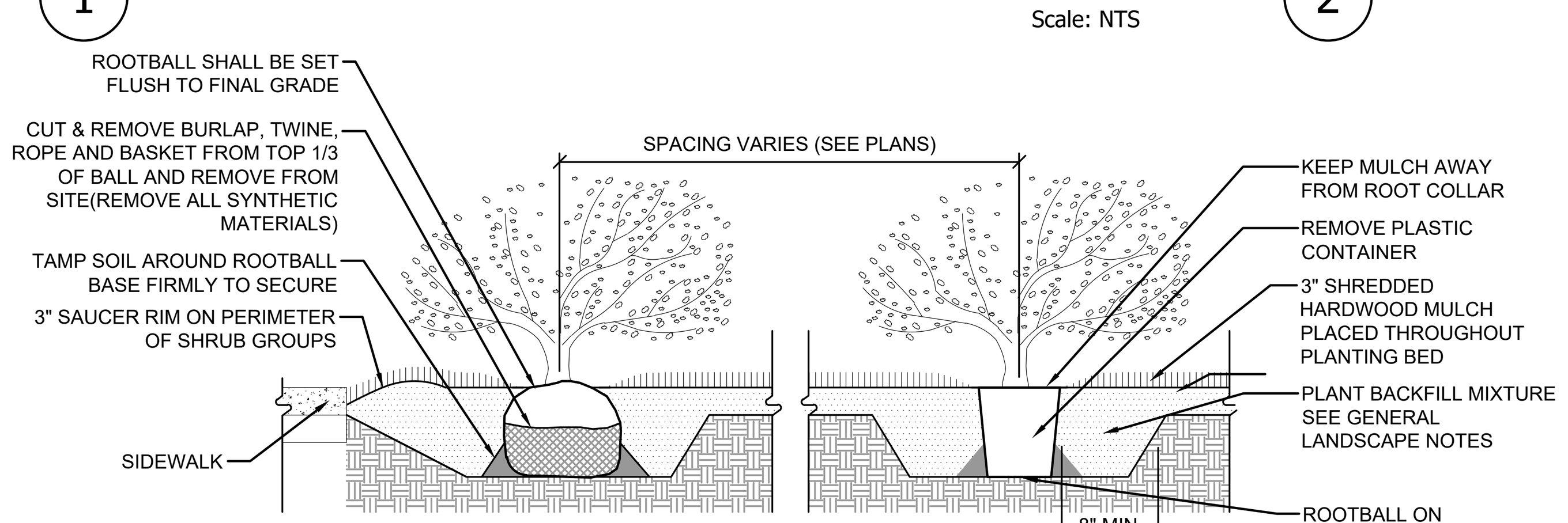
Scale: NTS



NOTE:
1. LAYER OF MULCH SHALL BE PLACED DOWN BEFORE PLANTING.

3 PERENNIAL / GROUNDCOVER PLANTING

Scale: NTS



NOTES:
1. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
2. TOP OF ROOTBALL SHALL BE SET FLUSH TO GRADE. TRUNK FLARE SHALL BE VISIBLE AT TOP OF ROOTBALL. DO NOT COVER TOP OF ROOT BALL WITH SOIL.
3. IF SHRUB IS IN LEAF APPLY WILT-PROOF, OR EQUAL AS PER MANUFACTURERS RECOMMENDATION.

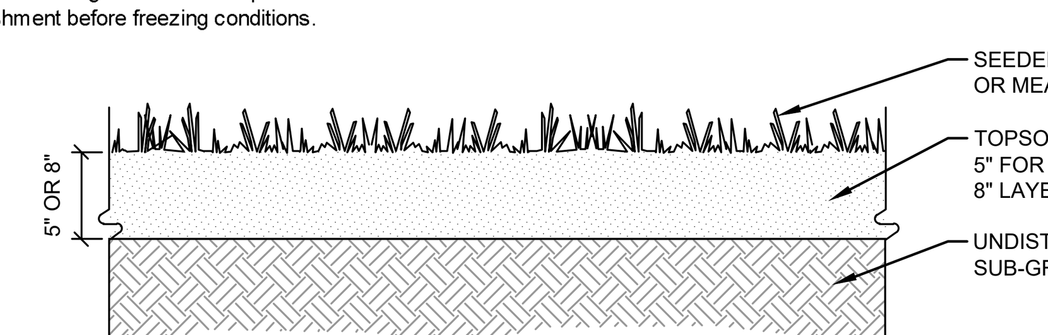
4 SHRUB PLANTING

Scale: NTS

LAWN SEED MIXTURE:

	LBS. PER ACRE	LBS. PER 1,000 SF	OPTIMUM SEED DATE	ACCEPTABLE SEED DATE
HARD FESCUE	130	3	8/15 - 10/15	3/1 - 4/30 *5/1 - 8/14
CHEWINGS FESCUE	45	1		
STRONG CREEPINGS RED FESCUE	45	1		
PERENNIAL RYEGRASS	10	0.25		

*Summer seedings should only be conducted when the site is irrigated. Mixes including white clover require that at least six weeks of growing season remain after seeding to ensure establishment before freezing conditions.



5 LAWN

Scale: NTS

GENERAL PLANTING NOTES

PLANTING:

1. THE PLANTING PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. AND NOTIFY THE LANDSCAPE ARCHITECT IN REFERENCE TO ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
2. THE CONTRACTOR SHALL ENSURE THAT WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.
3. IN THE EVENT OF VARIATION BETWEEN WRITTEN QUANTITIES AND QUANTITIES SHOWN ON THE PLAN, THE PLANS SHALL TAKE PRECEDENCE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOD AND SEED QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST(S).
4. PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR UNLESS OTHERWISE NOTED.
5. ALL PLANT MATERIAL SHALL CONFORM TO CURRENT "AMERICAN STANDARDS FOR NURSERY STOCK" BY AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA). TREES SHALL BE NURSERY-GROWN, FREE OF DISEASE, SUBSTANTIALLY UNIFORM IN SIZE AND SHAPE AND HAVE STRAIGHT TRUNKS.
6. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHERPROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY SPECIES AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
7. ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
8. PLANT SUBSTITUTIONS SHALL BE PERMITTED ONLY WITH WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT RELATIVE TO SIZE, SPECIES AND VARIETY. ALL PLANT MATERIAL SHALL BE TO TRUE SPECIES, VARIETY, AND SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. WRITTEN PROOF OF UNAVAILABLE PLANT MATERIAL MUST BE DOCUMENTED.
9. ALL PROPOSED TREES SHALL BE INSTALLED EITHER ENTIRELY IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE OBSTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BED AND TOP DRESSED WITH A 3 INCH LAYER OF SHREDDED HARDWOOD MULCH. MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST SIX MONTHS.
10. TRANSPLANTING:
    A. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
    B. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
    C. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
    D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
    E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
    F. IF TRANSPLANTS DIE, SHRUBS LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND.
11. BULBS SHALL BE PLANTED IN ACCORDANCE WITH SECTION 11 OF THE ANLA STANDARDS.
12. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF ALL TREES SHALL BE DONE AS INDICATED ON THE DOCUMENTS.
13. ALL TREE STAKES AND WIRES WILL BE REMOVED BY THE APPLICANT AFTER ONE (1) YEAR FROM THE DATE OF INSTALLATION.
14. VEGETATION PROPOSED AMONG EXISTING VEGETATION IS TO BE PLANTED TO AVOID DAMAGE TO THE EXISTING VEGETATION.
15. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7' ABOVE GRADE.
16. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE, UNLESS OTHERWISE NOTED. ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, ENGINEER, OR OWNER.
17. ALL PLANTING BEDS SHALL RECEIVE A 3 INCH LAYER OF SHREDDED HARDWOOD MULCH WITH WEED INHIBITING FABRIC BENEATH.
18. PLANT MATERIALS SHALL NOT BE INSTALLED UNTIL FINISHED GRADING HAS BEEN COMPLETED.
19. UPON COMPLETION OF ALL PLANTING, AN ACCEPTANCE MEETING OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
20. ALL TREES SHALL BE GUARANTEED FOR 24 MONTHS FROM TO DATE OF ACCEPTANCE. ALL SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR 24 MONTHS FROM THE DATE OF ACCEPTANCE. REPLACEMENT PLANTS USED SHALL BE GUARANTEED FOR AN ADDITIONAL 90 DAYS.
21. PLANTING DATES:
    FALL
    AUGUST 15 - DECEMBER 15: EVERGREEN TREES
    OCTOBER 15 - DECEMBER 15: DECIDUOUS TREES
    SPRING
    MARCH 1 - MAY 15: ALL PLANTS

LAWN:

22. ALL DISTURBED AREA OF THE SITE NOT PLANTED WITH SHRUBS OR GROUND COVER SHALL BE FINE GRADED AND SEEDED OR SODDED.
23. ALL SOD SHALL BE OBTAINED FROM AREAS HAVING GROWING CONDITIONS FAMILIAR TO AREAS TO BE COVERED. AREAS TO BE SODDED SHALL BE RAKED FREE OF STONES AND DEBRIS. DEBRIS AND STONES OVER 1 INCH IN DIAMETER SHALL BE REMOVED FROM THE SITE. ALL DAMAGED SOD WILL BE REJECTED. ALL SOD MUST BE PLACED WITH STAGGERED JOINTS, BUTTED WITH NO INEQUALITIES IN GRADE. PLACE ALL SOD IN ROWS AT RIGHT ANGLES TO SLOPES (WHERE APPLICABLE).
24. ALL PLANTING BEDS ADJACENT TO LAWN AREAS (SOD OR SEEDED) SHALL BE SPADE EDGED.

SOILS:

25. THE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL TEST OF TOPSOIL AND EXISTING ON SITE SOILS TO BE USED AS PART OF PLANTING BACKFILL MIXTURE.
26. THE CONTRACTOR SHALL PROVIDE PLANTING BACKFILL MIXTURE TO PROPOSED DEPTHS AS FOLLOWS: TREES (24 INCH MINIMUM OF PLANTING BACKFILL MIXTURE), SHRUBS (18 INCH MINIMUM OF PLANTING BACKFILL MIXTURE), PERENNIALS AND GROUNDCOVER (12 INCH MINIMUM OF PLANTING BACKFILL MIXTURE).
27. IF WET SOIL CONDITIONS EXIST THEN PLANT PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND THE ADDITIONAL AREA FILLED WITH SAND.
28. IMPORTED OR ON-SITE TOPSOIL MAY BE USED TO REFILL THE EXCAVATED AREA. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. CONTRACTOR TO MODIFY THE SOIL AS NEEDED TO MEET REQUIRED PH AND NUTRIENT LEVELS.
29. LAWN/LANDSCAPE RESTORATION AREAS: CONTRACTOR TO COMPLETELY REMOVE ALL UNDERLYING CONSTRUCTION MATERIALS AND SCARIFY/RIP REMAINING SOIL TO A DEPTH OF 24", INCLUDING A MINIMUM OF 6" THICK TOPSOIL.
30. ALL AREAS, WHICH ARE TO BE SEEDED OR SODDED, SHALL RECEIVE 5" OF TOPSOIL PRIOR TO SEEDING. PRIOR TO TOPSOIL PLACEMENT THE EXISTING SOIL SHALL BE RAKED CLEAN OF WEEDS, VEGETATION AND EXTRANEOUS MATERIALS SUCH AS WOOD, STONES, ROCKS, CONSTRUCTION DEBRIS, ETC. LARGER THAN TWO (2) INCHES IN ANY DIMENSION. TOPSOIL SHALL BE SANDY LOAM FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL: CONTAIN 5% ORGANIC MATTER, 6.0 TO 6.5 PH. TOPSOIL SHALL NOT BE WORKED IN MUDDY OR WET CONDITIONS.
31. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL CONSTRUCTION DISTURBANCES AND STORAGE OF EQUIPMENT, WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT. CONTRACTOR TO FIELD VERIFY AREAS OF SEED AND SOD PRIOR TO SUBMITTING A BID.
32. THE CONTRACTOR IS RESPONSIBLE FOR TESTING PROJECT SOILS. THE CONTRACTOR IS TO PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER. THE CONTRACTOR SHALL VERIFY THAT THE SOILS ON SITE ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE CONTRACTOR FIND POOR SOIL CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THE AMENDMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, FERTILIZERS, LIME, AND TOPSOIL. PROPER PLANTING SOILS MUST BE VERIFIED PRIOR TO PLANTING OF MATERIALS.
33. ALL PLANTING AREAS WITHIN EXISTING ASPHALT PAVEMENT AREAS SHALL BE DECOMPACTED A MINIMUM DEPTH OF 24 INCHES. CONTRACTOR TO REMOVE ASPHALT/BASE MATERIALS AND SCARIFY/RIP REMAINING SOIL TO A DEPTH OF 24". TAKE CARE TO NOT RIP SOIL WITHIN THE DRIP LINE OF EXISTING TREES.

COORDINATION:

34. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES/SUBS/CONTRACTOR (WHEN / WHERE APPLICABLE) REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL.
35. THE CONTRACTOR SHALL VERIFY THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE THREE (3) DAYS PRIOR TO ANY EXCAVATION. PRIOR TO ANY DIGGING OPERATIONS, THE EXACT LOCATION OF UTILITIES SHALL BE VERIFIED IN THE FIELD WITH THE GENERAL CONTRACTOR OR OWNER'S REPRESENTATIVE. IN THE EVENT UTILITIES ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER'S REPRESENTATIVE. ANY DAMAGE OF UNREPORTED LINES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
36. IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION. NO CHANGES OF LOCATION SHALL BE MADE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.

INSTALLATION:

37. ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.
38. DURING PLANTING OPERATIONS EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.
39. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT, AND FURNISHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK.

MAINTENANCE:

40. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. MAINTENANCE INCLUDES: WATERING. PRUNING, FERTILIZING, WEEDING, MULCHING, REPLACEMENT OF DISEASED OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF PLANTS.

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CAL/HT	
AGRI	3	ACER GRISEUM	PAPERBARK MAPLE	B & B	10` TO 12` HT	
QBIC	3	QUERCUS BICOLOR	SWAMP WHITE OAK	B & B	2" TO 2-1/2" CAL	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CAL/HT	
IOPA	1	ILEX OPACA	AMERICAN HOLLY	B & B	5` TO 6` HT	
TOCC	8	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	B & B	6` TO 7` HT	
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	HT/SPRD	SPACING
HARB	6	HYDRANGEA ARBORESCENS	WILD HYDRANGEA	CONTAINER	24" TO 30"	60" o.c.
RCAT	4	RHODODENDRON CATAWBIENSE	CATAWBA RHODODENDRON	B & B	24" TO 30"	48" o.c.
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	HT/SPRD	SPACING
IC	29	ILEX CRENATA `COMPACTA`	DWARF JAPANESE HOLLY	CONTAINER	15" TO 18"	36" o.c.
FERNS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	HT/SPRD	SPACING
AFIL	94	ATHYRIUM FILIX-FEMINA	COMMON LADY FERN	CONTAINER	#3	12" o.c.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	SPACING
LB	23	LIRIOPE MUSCARI `BIG BLUE`	BIG BLUE LILYTURF	CONTAINER	#1	18" o.c.
PT	251	PACHYSANDRA TERMINALIS	JAPANESE SPURGE	FLAT		8" o.c.

Bowman

OWNER:

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39 MAIN ST
CHATHAM, NJ 07928

CONSULTANTS:

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973-359-8400

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LEDGEWOOD, NJ 07852
973-970-9355

CIVIL ENGINEER:
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LONG VALLEY, NJ 07853
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PROJECT TITLE

SITE PLAN APPROVAL DRAWINGS FOR

IMPROVEMENTS TO RUNNYMEDE GARDENS

TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

SEAL

A COPY OF THIS DOCUMENT WITHOUT A PROPER APPLICATION OF THE PROFESSIONAL'S EMBOSSED SEAL SHOULD BE ASSUMED TO BE AN UNAUTHORIZED COPY.

WILLIAM H. HAMILTON
NJ Licensed Landscape Architect Lic. No. AS00140
PRINCIPAL IN CHARGE

CC, JM, RL, JN, AP
PROJECT TEAM

JM
CHECKED BY

080156-02-001
PROJECT NUMBER

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NO.	DATE	DESCRIPTION
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SHEET DESCRIPTION

PLANTING PLAN

04/28/2021

SHEET NUMBER

XREFS: 080156_LBASE.dwg 080156_CBASE.dwg 080156_TMSTR.dwg 2021-12-15-080156_LABASE.dwg.dwg
P:\080156 - RunnyMede\080156-02-001 (PLN)\Planning\Engineering\3-Site Plan\080156-SP-10-PP.dwg 05/06/21 07:42:53AM, dholl, LAYOUT:SHT-2436