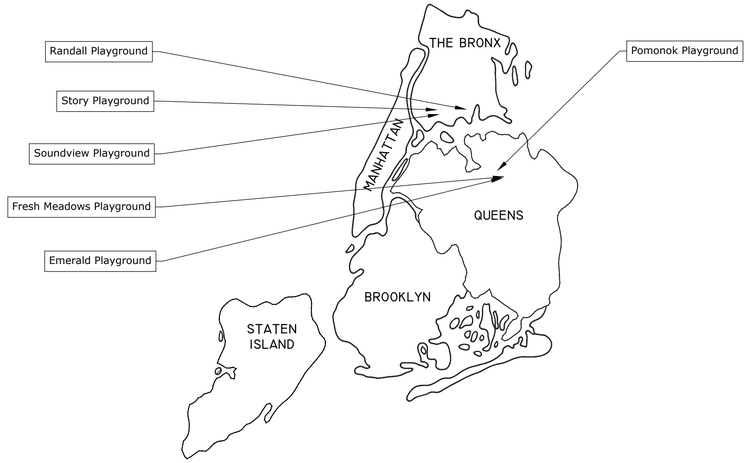
Environmental Protection

NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS

NYC Parks

ON-SITE GREEN INFRASTRUCTURE
DEP CAPITAL CONTRACT NO. GI-CONS-4
VOLUME 2 - BID SETS
NOVEMBER 2026



Park Name	Park ID	Block	Lot	Address
Emerald Playground	Q344	6789	1	164 St. bet. Jewel Ave. and 71 Ave.
Fresh Meadows Playground	Q314	6927	22	173 St. bet. 67 Ave. and 69 Ave.
Pomonok Playground	Q329	6792	99	Kissena Blvd. bet. 65 Ave. and Melbourne Ave.
Randall Playground	X203	3570	100	Randall Ave. bet. Olmstead Ave. and Castle Hill Ave.
Soundview Park	X118	3627	150	Metcalf Ave. and Morrison Ave. bet. Story Ave. and Seward Ave.
Story Playground	X204	3641	1	Story Ave. bet. Taylor Ave. and Thieriot Ave.

John McLaughlin
Digitally signed by John McLaughlin
Date: 2026.11.02 10:11:13 -05'00'

JOHN MCLAUGHLIN
MANAGING DIRECTOR
OFFICE OF ECOSYSTEM SERVICES, GREEN INFRASTRUCTURE AND RESEARCH
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS, NYCDEP

Lisa F. Garcia
Digitally signed by Lisa F. Garcia
Date: 2026.10.30 13:19:23 -04'00'

LISA F. GARCIA
COMMISSIONER
NYCDEP

File = C:\pwworkgroup\77\347978\EEP GP - Construction Bid Package #4 - 05.29.2026 Saved Date = 7/6/2026 9:06 AM
PLOT DATE: 7/6/2026 9:29 AM BY: MMROHJA

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NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL

BLOCK

LOT

PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
TABLE OF CONTENTS

DESIGNED BY	DRAWN BY	CHECKED BY
B. BARNES	A. BAKHSHAEE	M. BRAUN

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	----	O-2	GI-CONS-4
	DATE JUNE 2026		SHEET No. 2 OF 119 SHEETS

Park Name	Consultant	NYC Parks Site (7AM-5PM)	Jointly Operated Playground (9AM-6PM)	Restricted Months for Construction within Jointly Operated Playgrounds		
				April-June (Public Elementary Schools)	March-June (Public Junior High Schools)	January, March-June, August (Public High Schools)
Emerald Playground	HDR		X	X	X	
Fresh Meadows Playground	HDR		X	X		
Pomonok Playground	HDR		X	X		
Randall Playground	HDR	X				
Soundview Park	HDR	X				
Story Playground	HDR		X	X		

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PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
WORK RESTRICTIONS TABLE

DESIGNED BY: B. BARNES
DRAWN BY: A. BAKHSHAEE
CHECKED BY: M. BRAUN
B-SCAN
SCALE: ----
DRAWING NO.: O-3
DATE: JUNE 2026
CONTRACT NO.: GI-CONS-4
SHEET No. 3 OF 119 SHEETS

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL SITE CONDITIONS, BOTH ABOVE AND BELOW THE SURFACE, PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN INFORMATION SHOWN ON THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING, PRIOR TO THE COMMENCEMENT OF WORK.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS.
3. WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL SAFETY AND OCCUPATIONAL HEALTH LAWS AND REGULATIONS. WHERE THE REQUIREMENTS OF THE SPECIFICATIONS, APPLICABLE LAWS, CRITERIA, ORDINANCES, REGULATIONS, AND REFERENCED DOCUMENTS VARY, THE OWNER SHALL BE CONTACTED AND WILL PROVIDE AN INTERPRETATION FOR THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THEIR WORK AND NEWLY INSTALLED WORK, AND PROVIDE APPROPRIATE BARRIERS AND SAFETY GUARD RAILS, AS REQUIRED.
5. ALL STREETS, ROADWAYS, AND ACCESS AREAS SHALL REMAIN UNOBSTRUCTED DURING CONSTRUCTION. THE NEED TO TEMPORARILY BLOCK OR CLOSE OFF THESE AREAS SHALL BE COORDINATED WITH THE ENGINEER AND NYC DEP. ADDITIONAL COORDINATION AND PERMITTING WITH NYC DOT AND/OR NYPD MAY BE REQUIRED AND IS THE RESPONSIBILITY OF THE CONTRACTOR, PER GENERAL NOTE 9.
6. ALL AREAS OF THE SITE IMPACTED BY TEMPORARY FACILITIES SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, BY THE CONTRACTOR, AS DETERMINED BY THE ENGINEER.
7. THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, ONE SET OF FULL-SIZE CONTRACT DRAWINGS MARKED TO SHOW ANY DEVIATIONS THAT HAVE BEEN MADE FROM THE CONTRACT DRAWINGS, INCLUDING BURIED OR CONCEALED CONSTRUCTION AND UTILITY FEATURES REVEALED DURING THE COURSE OF CONSTRUCTION. THESE DRAWINGS SHALL BE AVAILABLE FOR REVIEW BY THE ENGINEER AT ALL TIMES. UPON COMPLETION OF THE INSTALLATION OF NEW WORK THE CONTRACTOR SHALL TURN OVER TO OWNER AND ENGINEER ONE (1) SET OF REPRODUCIBLE AS-BUILT DRAWINGS AND ONE (1) SET OF PRINTS OF AS-BUILT DRAWINGS INCLUDING ALL APPROVED FIELD CHANGES AND DESIGN DEVIATIONS PRIOR TO REQUEST FOR FINAL PAYMENT.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE NYC DPR DETAILS BEING USED FOR CONSTRUCTION ARE IN THE MOST RECENT VERSION ISSUED.
9. THE CONTRACTOR SHALL FILE PLANS WITH GOVERNING LOCAL AND STATE AUTHORITIES HAVING JURISDICTION AND SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR INSTALLATION OF THEIR WORK, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY SPECIAL INSPECTIONS REQUIRED, INCLUDING ANY ASSOCIATED COSTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES PRIOR TO COMMENCING WORK.
10. THE CONTRACTOR SHALL INDEMNIFY NYC DEP, THEIR REPRESENTATIVES, AND THE ENGINEER FROM ANY CLAIMS OR SUITS RESULTING FROM NEGLIGENCE ON THE PART OF THE CONTRACTOR FOR FAILING TO EXECUTE THEIR WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
11. WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND WORKERS EXPERIENCED IN THE TRADE HAVING JURISDICTION. WORK SHALL BE SUPERVISED AT ALL TIMES.
12. ANY DEVIATION OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER. WORK INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER OR NYC DEP OR FOUND TO BE DEFECTIVE OR OF POOR QUALITY SHALL BE REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
13. ALL CONSTRUCTION WORK SHALL BE CONFINED TO THE CONTRACT LIMIT LINE INDICATED ON THE DRAWINGS.
14. NORMAL WORKING HOURS VARY BASED ON SITE DESIGNATION. ALL WORK SHALL BE PERFORMED DURING NORMAL SITE WORKING REFER TO TABLE ON DWG. O-4 FOR APPLICABLE WORK HOURS.
15. STATE TESTING OCCURS AT SITES WITHIN THIS CONTRACT. REFER TO TABLE ON DWG. O-4 FOR RESTRICTIONS. NO WORK SHALL OCCUR DURING STATE TESTING UNLESS AUTHORIZED BY A SCHOOL REPRESENTATIVE A MINIMUM OF TWO WEEKS IN ADVANCE.
16. WORK AREA SHALL BE LEFT BROOM CLEAN AT THE END OF EACH DAY. DISCARDED AND DEMOLISHED MATERIAL AND RUBBISH SHALL BE REMOVED FROM PREMISES DAILY AND DISPOSED IN A LEGAL AND APPROVED MANNER.
17. ALL WORK SHOWN ON ALL DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
18. THE CONTRACTOR SHALL COORDINATE WITH NYC DEP THE SUPPLY OF TEMPORARY POWER, POTABLE WATER, AND LIGHTING, AS REQUIRED TO PERFORM THE WORK. OBTAINING AND PAYING FOR SUCH TEMPORARY UTILITIES ARE THE CONTRACTOR'S RESPONSIBILITY.
19. STAGING AREA TO BE DESIGNATED PRIOR TO MOBILIZATION AND TO BE APPROVED BY THE ENGINEER AND NYC DEP.
20. CONTRACTOR SHALL COORDINATE AND SCHEDULE CONSTRUCTION ACTIVITIES WITH SITE ACTIVITIES, AS TO NOT INTERFERE WITH NORMAL SITE OPERATION, AND AS REQUIRED TO NOT IMPEDE THE PROGRESS OF RELATED PROJECT WORK.
21. COORDINATION OF ALL WORK UNDER THIS CONTRACT SHALL BE MAINTAINED TO ENSURE THE QUALITY AND TIMELY COMPLETION OF THE WORK.
22. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHEETING AND BRACING IN ALL TRENCHES OR EXCAVATIONS FOR STRUCTURES, WHERE NECESSARY FOR THE PROPER PROTECTION OF PERSONS OR PROPERTY. WHERE THE DEPTH OF EXCAVATION EXCEEDS FIVE (5) FEET, SHEETING AND NECESSARY BRACING MUST BE INSTALLED. BENCHED EXCAVATION MAY BE USED TO REDUCE THE AMOUNT OF SHEETING REQUIRED. ALL SHORING WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF LABOR, INDUSTRIAL CODE RULE 23 AND TITLE 29 CODE OF FEDERAL REGULATIONS PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA). THE TYPE OF SHEETING AND BRACING SHALL BE SATISFACTORY TO THE ENGINEER AND SUBJECT TO THEIR APPROVAL, BUT THE APPROVAL OF THE ENGINEER OF A METHOD TO BE USED DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR PROTECTION AND SAFETY. THE COST OF SHEETING AND SHORING, REGARDLESS OF DEPTH OF EXCAVATION, SHALL BE INCLUDED IN THE PRICE BID FOR EXCAVATION, UNDER SPECIFICATION 31 00 00 EARTHWORK. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF THE WORK.
23. ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS PROJECT MAY BE FOUND THROUGHOUT THE CONTRACT DRAWINGS.

REMOVAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL SITE CONDITIONS, BOTH ABOVE AND BELOW THE SURFACE, PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN INFORMATION SHOWN ON THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING, PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS GOVERNING THIS WORK. THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH APPLICABLE AGENCIES, UTILITY COMPANIES, AND/OR SUB-CONTRACTORS.
3. IT IS MANDATORY, AS PER NYS INDUSTRIAL CODE RULE 53, FOR THE CONTRACTOR TO NOTIFY NEW YORK 811, 60 KNICKERBOCKER AVENUE, BOHEMIA NY 11716, TEL. 800.272.4480 PRIOR TO THE START OF WORK. THE ONE-CALL CENTER IS ALWAYS OPEN. THE ONE-CALL CENTER WILL THEN NOTIFY MEMBER FIRMS WITH OPERATIONS IN THE SITE AREA OF THE CONTRACTOR'S PENDING EXCAVATION OPERATIONS. THE CONTRACTOR WILL RECEIVE A NOTIFICATION TICKET FROM THE ONE-CALL CENTER WHICH SHOULD BE PRESENTED TO THE ENGINEER AS PROOF OF THE CALL. THERE IS NO CHARGE FOR THIS SERVICE. THIS PROCESS ENSURES THAT UTILITY SERVICE LINES ARE PROPERLY MARKED PRIOR TO EXCAVATION TO MINIMIZE FACILITY DAMAGE, ON THE JOB INJURIES, AND CONTRACTOR'S LIABILITY. IN ADDITION, ALL UNDERGROUND FACILITY OPERATORS IN THE AREA WHO ARE NOT ONE-CALL MEMBERS SHALL BE NOTIFIED NOT LESS THAN TWO (2) FULL BUSINESS DAYS AND NOT MORE THAN TEN (10) FULL BUSINESS DAYS BEFORE COMMENCING EXCAVATION.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE AND/OR RESTORE ANY INTERRUPTION TO ANY UTILITY SERVICE THAT MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OR EQUIPMENT, AT THE CONTRACTOR'S EXPENSE, WITH NO ADDITIONAL EXPENSE TO THE CITY OF NEW YORK OR UTILITY COMPANY.
5. THE CONTRACTOR IS TO USE CARE DURING CONSTRUCTION TO AVOID DISTURBING OR DAMAGING ADJACENT ABOVE-GRADE OR SUBGRADE STRUCTURES, FACILITIES, CURBS, PAVEMENTS, AND PERIMETER FENCING. ANY DAMAGE RESULTING FROM THIS WORK WILL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
6. WHERE NEW CONSTRUCTION ABUTS EXISTING PAVEMENTS, CURBS, OR WALLS, THE EXISTING MATERIALS SHALL BE CLEANLY SAWCUT TO PROVIDE A CLEAN, NEAT MATCH AND A SMOOTH, FLUSH TRANSITION, AS DIRECTED BY THE ENGINEER. ALL SAWCUTTING SHALL BE DONE TO NEAT, STRAIGHT, AND ACCURATE LINES. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS (TIE ROD AND/OR SLIP JOINT) WHERE OLD AND NEW CURBS MEET.
7. THE CONTRACTOR SHALL DISPOSE OF ALL ITEMS AND MATERIALS REMOVED AND NOT SALVAGED, INCLUDING ALL EXCAVATED MATERIAL, OFF-SITE AND IN A LEGAL MANNER. THE CONTRACTOR SHALL REMOVE, EXCAVATE, AND DISPOSE OF ALL MATERIALS ACCORDING TO CONTRACT SPECIFICATIONS.
8. ALL EXISTING PIPING TO BE MAINTAINED EXCEPT FOR WITHIN 3 FEET OF PROPOSED DRAINAGE STRUCTURES AND AS SHOWN. IF EXISTING PIPING BEYOND 3 FEET FROM THE PROPOSED STRUCTURES IS OBSERVED TO BE DAMAGED AT NO FAULT OF THE CONTRACTOR, THE ENGINEER SHALL PROVIDE DIRECTION AS TO EXTENTS OF REPLACEMENT.
9. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. BULK MATERIAL, EQUIPMENT, OR VEHICLES SHALL NOT BE STOCKPILED OR PARKED WITHIN THE TREE PROTECTION ZONE.

LAYOUT & MATERIAL NOTES

1. NO CHANGES SHALL BE MADE TO THE DESIGN OR LAYOUT WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. LAYOUT THE WORK AS DIMENSIONED ON THE PLANS. WRITTEN DIMENSIONS SHALL GOVERN. DO NOT SCALE DISTANCES.
2. CONTRACTOR SHALL STAKE LOCATION OF ALL GREEN INFRASTRUCTURE PRACTICES FOR APPROVAL BY THE ENGINEER PRIOR TO EXCAVATION WORK.
3. CONTRACTOR SHALL LAYOUT IN THE FIELD THE ALIGNMENT AT ALL PATHS, PAVEMENTS, CURBLINES FOR REVIEW BY THE ENGINEER PRIOR TO THE START OF WORK. ADJUSTMENTS MAY BE MADE ONLY AS DIRECTED BY THE ENGINEER. CONTRACTOR MAY NOT PROCEED WITH CONSTRUCTION OF IMPROVEMENTS UNTIL THEY HAVE RECEIVED THE FINAL APPROVAL OF THE LAYOUT FROM THE ENGINEER.
4. ALL NEW PAVEMENTS AND CURBS AND EXISTING PAVEMENTS AND CURBS TO REMAIN SHALL MEET IN SMOOTH FLUSH CONDITION UNLESS NOTED OTHERWISE.
5. NEW CURBS, WALLS, AND PAVEMENTS SHALL BE BUILT TO A SMOOTH EVEN FINISH WITH A CONSISTENT TOP AND PROFILE WITHOUT WAVES OR IRREGULARITIES. ANY WORK NOT MEETING THIS QUALITY STANDARD SHALL BE RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL EXERCISE CARE DURING EXCAVATION OPERATIONS TO AVOID DISTURBING ADJACENT FACILITIES, SUB GRADE STRUCTURES AND TREES. ALL DAMAGE RESULTING FROM THE CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REPAIRED AT NO EXPENSE TO THE CITY AND THE AGENCY. ALL REPAIR WORK SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
7. IN AREAS WHERE NEW PAVEMENTS FALL WITHIN THE TREE PROTECTION ZONE OF EXISTING TREES, THE CONTRACTOR SHALL MINIMIZE EXCAVATIONS AT TREE ROOTS BY REDUCING THE AMOUNT OF FOUNDATION MATERIAL AS DIRECTED BY THE ENGINEER.
8. CONTRACTOR SHALL REFER TO NYC DEP'S NYC GREEN INFRASTRUCTURE ON-SITE DESIGN MANUAL (JULY 2021) FOR THE CONSTRUCTION OF ALL GREEN INFRASTRUCTURE PRACTICES.

TREE PROTECTION NOTES

1. NO LAND DISTURBANCE, DEMOLITION, OR CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL ALL TREE PROTECTION MEASURES HAVE BEEN INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS.
2. CONSTRUCTION ACCESS ROUTE IS DIAGRAMMATIC. FINAL ROUTE SHALL BE ESTABLISHED ON SITE AND APPROVED BY THE RESIDENT ENGINEER, IN CONSULTATION WITH THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF ALL EXISTING TREES NOT LISTED FOR REMOVAL THAT ARE LOCATED COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE.
4. THE CONTRACTOR SHALL NOTIFY THE BOROUGH FORESTER A MINIMUM OF 48 HOURS IN ADVANCE OF ANY WORK ON OR IMPACTING EXISTING TREES, INCLUDING BUT NOT LIMITED TO TREE PROTECTION, PRUNING, TREE REMOVAL, EXCAVATION WITHIN TREE PROTECTION ZONES, DECOMPACTION, TOPSOIL, AND PLANTING WORK.
5. THE TREE PROTECTION ZONE (TPZ) SHALL CONSIST OF THE CRITICAL ROOT ZONE AND/OR THE CANOPY DRIPLINE; WHICHEVER EXTENT IS GREATER.
6. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. MATERIAL, EQUIPMENT, OR VEHICLES SHALL NOT BE STOCKPILED OR PARKED WITHIN THE TPZ OF ANY TREE COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE TO MINIMIZE SURFACE AND SUBSURFACE ROOT AND SOIL COMPACTION. IF STOCKPILING OCCURS WITHIN THE TPZ, A STOP WORK ORDER SHALL BE ISSUED IMMEDIATELY, AND WORK SHALL NOT RE-COMMENCE UNTIL ALL STOCKPILED MATERIAL IS REMOVED FROM THE TPZ AND MITIGATION MEASURES ARE PERFORMED TO THE SATISFACTION OF THE RESIDENT ENGINEER IN CONSULTATION WITH THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
7. IF DIRECTED, THE TPZ SHALL BE COVERED WITH WOOD CHIPS TO A DEPTH OF AT LEAST SIX (6) INCHES, WITH PLYWOOD OR GROUND PROTECTION MATS, OR A COMBINATION THEREOF. SUCH COVERING SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT AND IS NOT TO BE REMOVED UNTIL DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE. REMOVAL SHALL BE BY HAND OR AS SPECIFIED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE (ITEM "PROTECT EXIST. TREE ROOTS W/ WOOD CHIPS 6" DEPTH" AND "PROTECT EXIST. TREE ROOTS W/ PLYWOOD").
8. TEMPORARY WOODEN TREE GUARDS WITH WRAP FOR INDIVIDUAL TREES, TEMPORARY WOODEN TREE GUARD FOR GROVES, AND TEMPORARY SNOW FENCE BOUNDARY SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT AND ARE NOT TO BE REMOVED UNTIL DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
9. ALL TREES COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE ARE TO RECEIVE AT LEAST ONE (1) INCH (THE EQUIVALENT OF 750 GALLONS OF WATER PER 1,000 SQUARE FEET OF TREE PROTECTION ZONE) OF WATER PER WEEK BETWEEN THE MONTHS OF MARCH AND OCTOBER. IF RAINWATER IN ANY GIVEN WEEK IS BELOW THIS QUANTITY, THE CONTRACTOR MUST SUPPLEMENT THE AMOUNT RECEIVED BY A METHOD APPROVED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
10. ALL TREE PRUNING AND TREE REMOVAL IS TO BE PERFORMED IN ACCORDANCE WITH ANSI A300 STANDARDS BY AN ARBORIST HOLDING CERTIFICATION FROM THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) OR EQUIVALENT EDUCATION AND EXPERIENCE. ANSI PRUNING TYPES SPECIFIED ON TREE PROTECTION SCHEDULE AND TREE DIAMETERS AT BREAST HEIGHT ARE TO BE CONFIRMED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE BEFORE PRUNING WORK IS PERFORMED.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN REMOVING CONCRETE OR ASPHALT WITHIN THE DRIPLINE OF EXISTING TREES - LIFTING RATHER THAN DRAGGING PIECES OF PAVING. TOOLS FOR THIS ACTIVITY SHALL BE APPROVED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE PRIOR TO THE START OF EXCAVATION.
12. ALL EXCAVATION AND PLANT INSTALLATION WITHIN THE TPZ SHALL BE PERFORMED BY HAND OR PNEUMATICALLY, WITH MINIMAL SOIL DISTURBANCE, AND UNDER THE SUPERVISION OF THE BOROUGH FORESTER OR THEIR REPRESENTATIVE. PLANTS SHALL NOT BE PLACED WITHIN THREE (3) FEET OF THE TREE TRUNK UNLESS APPROVED.
13. NO ROOTS SHALL BE CUT WITHOUT THE WRITTEN AUTHORIZATION OF THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
14. EXCAVATED AREAS WITHIN THE TPZ SHALL BE BACKFILLED IMMEDIATELY OR ROOTS SHALL BE KEPT CONSTANTLY MOIST WITH BURLAP COVERED WITH WHITE PLASTIC AND CHECKED A MINIMUM OF TWO (2) TIMES A DAY, ONCE IN THE MORNING AND ONCE IN THE AFTERNOON, FOR A MAXIMUM OF FORTY-EIGHT (48) HOURS, UNTIL BACKFILL IS COMPLETE. IF DIRECTED, SOAKER HOSES SHALL BE INSTALLED TO FACILITATE PROPERLY MOIST CONDITIONS. NO POOLING OF OR CONTINUOUS RUNNING WATER SHALL OCCUR WITHIN THE TPZ OTHER THAN THAT DURING THE IRRIGATION PROCESS. IF ROOTS ARE TO BE EXPOSED FOR A PERIOD GREATER THAN 48-HOURS, THE EXPOSED AREA SHALL BE COVERED WITH AT LEAST 6-INCHES OF MULCH AND MAINTAINED DURING THE COURSE OF CONSTRUCTION UNTIL THE AREA CAN BE PROPERLY BACKFILLED.
15. WHEN A TREE PROTECTION DEFICIENCY, AS DETERMINED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE, IS IDENTIFIED, IT MUST BE REMEDIED WITHIN 24-HOURS OF NOTIFICATION BY THE AGENCY. FAILURE TO CORRECT THE DEFICIENCY WITHIN THIS TIMEFRAME WILL RESULT IN A STOP WORK ORDER, LIQUIDATED DAMAGES, OR BOTH.
16. ANY DAMAGE TO EXISTING TREES DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL MITIGATE SUCH DAMAGE AS DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
17. THE CONTRACTOR SHALL BE ASSESSED RESTITUTION, AS SOLELY DETERMINED BY THE DEPARTMENT OF PARKS AND RECREATION (NYCDPR), FOR TREES THAT ARE INJURED, IRREPARABLY DAMAGED, DESTROYED, OR REMOVED WITHOUT AUTHORIZATION.

DRAINAGE NOTES

1. ALL PROPOSED DRAINAGE WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST STANDARDS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (NYCDEP) AND THE LATEST STANDARDS OF THE DEPARTMENT OF PARKS AND RECREATION (NYCDPR). DISCREPANCIES BETWEEN THE STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
2. ALL EXISTING SEWER MANHOLES TO BE RETAINED WITHIN THE CONTRACT LIMIT LINE SHALL BE ADJUSTED AS NECESSARY, SO THAT THEY WILL BE FLUSH WITH THE FINISHED GRADES AFTER COMPLETION OF THE WORK. ANY OF THESE MANHOLES WHICH HAVE DAMAGED, WORN OR NON-STANDARD FRAMES AND COVERS SHALL BE PROVIDED WITH NEW 27" DIA. CASTINGS IN ACCORDANCE WITH THE LATEST STANDARDS OF NYCDPR INCLUDING ANY NECESSARY MODIFICATIONS OF THE MANHOLE MASONRY. ANY DAMAGE TO THE MANHOLES CAUSED BY THIS WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, AND AT NO COST TO THE CITY.
3. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING SEWERS DURING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, AT NO EXTRA COST TO THE CITY.
4. WHERE THE HEIGHT OF AN EXISTING MANHOLE PERMITS MORE THAN ONE BASIN CONNECTION TO BE MADE ON THE SAME WALL, SPECIAL PRECAUTION SHALL BE TAKEN TO PROTECT THE STRUCTURAL INTEGRITY OF THE MANHOLE. THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE WALLS OF ANY TWO BASIN CONNECTIONS OR BETWEEN A BASIN CONNECTION AND A SEWER, VERTICALLY OR HORIZONTALLY, SHALL BE 12 INCHES.
5. THE COST OF RAISING OR LOWERING CITY-OWNED MANHOLES, BASINS AND INLET HEADS TO PROPOSED GRADES WILL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL THE SCHEDULED ITEMS WHEN THE VERTICAL UPWARD MOVEMENT OF ALL HEADS IS TWENTY-FOUR (24) INCHES OR LESS, WHEN THE VERTICAL DOWNWARD MOVEMENT OF MANHOLE HEADS IS SIX (6) INCHES OR LESS AND WHEN THE VERTICAL DOWNWARD MOVEMENT OF BASIN OR INLET HEADS IS THREE (3) INCHES OR LESS, UNLESS OTHERWISE PROVIDED OR DIRECTED, AND WHERE THE ADJUSTMENT IS WITHIN THE BRICK WORK LIMIT. WHEN THE EXISTING STRUCTURE CONSISTS OF A BRICK CHIMNEY OR A CONCRETE ROOF SLAB OR BRICK ON CONCRETE WALLS, THE MAXIMUM ALLOWABLE HEIGHT OF BRICK AFTER ADJUSTMENT SHALL BE TWENTY-FOUR (24) INCHES. ALL OTHER ADJUSTMENTS WILL BE PAID FOR UNDER THE APPROPRIATE MANHOLE, BASIN OR INLET MODIFICATION ITEMS.
6. ALL ABANDONED BASINS, INLETS AND DRAINAGE STRUCTURES AS SHOWN ON THE CONTRACT PLANS ARE TO BE BULK-HEADED AND CUT DOWN TO TWO (2) FEET BELOW THE SUBGRADE AND FILLED WITH COMPACTED CLEAN SAND. BASIN CONNECTIONS NOT REQUIRED SHALL BE PLUGGED AT BOTH ENDS. COST FOR THIS WORK SHALL BE DEEMED INCLUDED IN PRICES BID FOR ALL SCHEDULED ITEMS.
7. CATCH BASINS SHALL NOT, UNDER ANY CIRCUMSTANCES, BE CONNECTED TO SANITARY SEWERS.
8. ALL NEW CATCH BASIN CONNECTIONS SHALL BE CONNECTED TO EXISTING SEWERS AT MANHOLES, WITH DUCTILE IRON PIPE, CLASS 56, WITH INTERNALLY LOCKED "PUSH-ON" JOINTS LAID ON 6" OF BROKEN STONE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR ONE-HALF THE PIPE DIAMETER. THE BROKEN STONE SHALL BE HARD UNWEATHERED STONE UNIFORMLY GRADED FROM 1/4" TO 3/4"IN DIAMETER. IT SHALL CONFORM TO COMMERCIAL 1/4" TO 3/4" STONE. ALL NEW CATCH BASINS SHALL HAVE A HOOD ON THE OUTLET PIPE.
9. SLOPE ON ALL NEW CATCH BASIN CONNECTIONS SHALL BE A MINIMUM OF 1/2% AND A MAXIMUM OF 4% PROVIDED THE TOTAL DROP BETWEEN THE BASIN AND THE BASIN/MANHOLE IS AT LEAST 6 INCHES.
10. CATCH BASINS IN THE PROJECT AREA SHALL BE MAINTAINED OPERABLE AT ALL TIMES. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO AVOID FILLING THE CATCH BASINS WITH DEBRIS WITHIN THE CONTRACT LIMIT LINE DURING THE CONTRACT OPERATIONS. IF, AS A RESULT OF CONSTRUCTION, A FLOODING CONDITION OCCURS, OR IN THE EVENT THE CONTRACTOR'S OPERATIONS DAMAGE OR BLOCK THE DRAINAGE SYSTEM, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE IMMEDIATELY REPAIR OR RESTORE THE DRAINAGE SYSTEM AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE CITY.
11. CONTRACTOR SHALL PROVIDE TEMPORARY MEANS (PIPES, PUMPS, ETC.) TO DRAIN ANY STORMWATER WHICH MAY DEVELOP WITHIN THE CONTRACT LIMIT LINE FOR THE DURATION OF CONSTRUCTION. CONTRACTOR SHALL SUBMIT A DRAINAGE SCHEME WHICH MUST BE APPROVED BY THE ENGINEER PRIOR TO THE START OF EACH CONSTRUCTION STAGE. COST OF THIS WORK WILL BE DEEMED TO HAVE BEEN INCLUDED IN THE PRICE BID FOR ALL SCHEDULED ITEMS.
12. ALL EXISTING SEWERS AND SEWER HOUSE CONNECTIONS SHALL BE CONTINUOUSLY MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. IF ANY SEWER OR SEWER HOUSE CONNECTION IS TO BE DISCONNECTED FOR CONSTRUCTION PURPOSES, FLOW SHALL BE MAINTAINED BY FLUMING OR OTHER SUITABLE MEANS AS DIRECTED BY THE ENGINEER AND IN SUCH A MANNER THAT NO BACK-UPS OCCUR. EXISTING SEWERS, HOUSE CONNECTIONS OR OTHER SEWER APPURTENANCES WHICH ARE TO REMAIN, AND WHICH MIGHT BE DISTURBED FOR CONSTRUCTION PURPOSES, SHALL BE RESTORED TO THEIR PRESENT CONDITION AFTER COMPLETION OF THE WORK, AND ANY DAMAGE DONE AS A RESULT OF THE WORK SHALL BE REPAIRED AT NO EXTRA COST TO THE CITY.

EROSION AND SEDIMENT CONTROL NOTES

1. NO LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING, BUT NOT LIMITED TO, SILT FENCING, INLET PROTECTION, AND TREE PROTECTION HAVE BEEN INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS. IF CLEARING IS REQUIRED FOR INSTALLATION OF A PARTICULAR MEASURE, ALL MEASURES NOT REQUIRING CLEARING SHALL BE INSTALLED FIRST. CLEARING OF THE NECESSARY LAND FOR INSTALLATION OF THE PARTICULAR MEASURE MAY THEN PROCEED.
2. DUE TO THE NATURE OF THE WORK REQUIRED BY THIS CONTRACT, IT IS ANTICIPATED THE LOCATION AND NATURE OF EROSION AND SEDIMENT CONTROL MEASURES WILL BE ADJUSTED AS CONSTRUCTION PROGRESSES TO REFLECT THE CURRENT PHASE OF WORK. THE CONSTRUCTION SCHEDULE ADOPTED BY THE CONTRACTOR WILL IMPACT THE PLACEMENT AND NEED FOR SPECIFIC DEVICES REQUIRED FOR THE CONTROL OF EROSION. THE LOCATION AND EXTENT OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REVISED AT EACH PHASE OF CONSTRUCTION RESULTING IN A CHANGE OF EITHER THE QUANTITY OR DIRECTION OF SURFACE RUNOFF FROM THE CONSTRUCTION AREAS.
3. INLET PROTECTION IS REQUIRED FOR ALL CATCH BASINS AND MANHOLES WITH OPEN GRATES WITHIN THE CONTRACT LIMIT LINE.
4. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE ENGINEER AND REGULATORY AGENCIES FOR DEVIATIONS FROM THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. CLEARING SHALL BE LIMITED AS MUCH AS POSSIBLE TO AREAS REQUIRED FOR CURRENT CONSTRUCTION ACTIVITIES. MASS CLEARING AND GRADING SHALL BE AVOIDED.
6. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE ENGINEER WITHIN 24 HOURS FOLLOWING EVERY RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY SEVEN CALENDAR DAYS.
7. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY AS REQUIRED TO MAINTAIN PERFORMANCE OF MEASURE. MEASURES SHALL BE CLEANED WHEN SEDIMENT VOLUME REACHES ½ OF TOTAL VOLUME OF MEASURE. REMOVED SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER AND LOCATION AS TO INSURE FURTHER SEDIMENT TRANSPORT DOES NOT OCCUR.
8. CONTRACTOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICABLE ON STOCKPILES AND IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. THIS REQUIREMENT DOES NOT APPLY IN THE FOLLOWING INSTANCES:
   a. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE;
   b. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN FOURTEEN (14) DAYS, TEMPORARY STABILIZATION MEASURES NEED NOT BE INITIATED ON THAT PORTION OF THE SITE.
9. ALL DISTURBED AREAS SHALL DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBANCE ACTIVITIES AND UNTIL FINAL STABILIZATION IS ACHIEVED. SEDIMENT-LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING, OR OTHER ACTIVITIES SHALL BE PUMPED INTO A SEDIMENT TRAPPING DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, SWALE, OR CATCH BASIN.
10. SOIL STOCKPILE AND LAYDOWN AREAS SHALL HAVE PERIMETER SEDIMENT CONTROL MEASURES AND TEMPORARY OR PERMANENT STABILIZATION MEASURES INSTALLED AS SOON AS POSSIBLE AND AT COMPLETION OF STOCKPILING AND LAYDOWN ACTIVITIES. STOCKPILE SIDE SLOPES SHALL NOT EXCEED 3H ; 1V UNLESS APPROVED BY ENGINEER. TOP OF STOCKPILE SHALL BE GRADED WITH A MINIMUM 5% SLOPE TO INSURE PROPER DRAINAGE.
11. ALL DISTURBED AREAS, EXCEPT FOR CONCRETE AND PAVED AREAS, SHALL BE FERTILIZED, SEEDED AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE SEEDING SCHEDULE, AND RE-SEEDED AS NECESSARY, TO ESTABLISH AND MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED OFFSITE ROADWAYS. IF MATERIAL IS TRACKED ONTO OFFSITE ROADWAYS, IT SHALL BE REMOVED IMMEDIATELY. DO NOT UTILIZE A WATER HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT CONTROL DEVICE. PROPER PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT MATERIALS DEPOSITED ONTO OFFSITE ROADWAYS ARE REMOVED SO THAT THEY DO NOT ENTER YARD INLETS, CATCH BASINS, SEWERS, WETLANDS, SURFACE WATER BODIES, OR ROADSIDE SWALES.
13. WHERE CONCRETE EQUIPMENT WASHING IS REQUIRED, THIS MUST BE DONE IN AN APPROVED “CONCRETE CONTAINMENT AREA”. CONTRACTOR SHALL NOT DISCHARGE ANY CONCRETE WASHOUT WATER INTO SEWERS, SURFACE WATER BODIES OR ONTO THE GROUND. ALL WASHOUT WATER MUST BE REMOVED FROM THE SITE(S) DAILY.
14. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
15. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE, PERMANENT VEGETATION IS ESTABLISHED ON ALL DISTURBED AREAS, AND THE ENGINEER HAS GIVEN PERMISSION FOR REMOVAL.

NYCDOT STREET LIGHTS

1. EXTREME CARE SHALL BE TAKEN TO INSURE THAT THE EXISTING STREET LIGHTING INSTALLATIONS ARE NOT DISTURBED. ANY DAMAGE BY THE CONTRACTOR TO EXISTING FACILITIES OR EQUIPMENT SHALL BE CORRECTED BY REPLACEMENT TO CURRENT STANDARDS OR RESTORED BY THE CONTRACTOR TO THE ORIGINAL CONDITION, PER THE DIRECTION OF NYC DOT, AT NO EXTRA COST TO THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LIGHTING SYSTEM THAT LOSES POWER, INSIDE AND/OR OUTSIDE OF THE CONTRACT LIMIT, DUE TO THE PROJECT'S CONSTRUCTION; ANY LIGHTING SYSTEM LOST SHALL BE RESTORED AND PUT BACK ON SERVICE TO THE SATISFACTION OF NYC DOT STREET LIGHTING.

NO.	DATE	ISSUED FOR	BY

NYC Environmental Protection

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Bureau of Environmental Planning and Analysis

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PARKS & RECREATION
Forestry, Horticulture and Natural Resources

SEAL	PROJECT TITLE: ON-SITE GREEN INFRASTRUCTURE DESIGN			
	DRAWING TITLE: GENERAL NOTES			
	DESIGNED BY: B. BARNES	DRAWN BY: A. BAKHSHAEE		CHECKED BY: M, BRAUN
HDR	B-SCAN	SCALE: ----	DRAWING NO.: O-4	CONTRACT NO.: GI-CONS-4
BLOCK		DATE: JUNE 2026		SHEET No. 4 OF 119 SHEETS
LOT				

ABBREVIATIONS

AS PER RECORD	(A)
ASPHALT	ASPH.
BOTTOM OF CURB	B.C.
BOTTOM OF WALL	B.W.
CAST IRON	C.I.
CAST IRON PIPE	C.I.P.
CATCH BASIN	C.B.
CEMENT PIPE	CMT. P.
CHAIN LINK FENCE	C.L.F
CLEANOUT	C.O.
COMBINED	COMB.
CONCRETE	CONC.
CONCRETE CURB	C.C.
CONCRETE SIDEWALK	C.S.W.
CONSTRUCTION LIMIT LINE	C.L.L.
COPPER TUBING	C.T.
CRITICAL ROOT ZONE	C.R.Z.
DIAMETER	DIA.
DIAMETER AT BREAST HEIGHT	D.B.H.
DROP CURB	D.C.
DUCTILE IRON PIPE	D.I.P.
ELEVATION	ELEV.
EXISTING	EXIST.
EXTRA HEAVY CAST IRON	X.H.C.I.
EXTRA STRENGTH STEEL PIPE	E.S.S.P.
EXTRA STRENGTH VITRIFIED PIPE	E.S.V.P.
FROM RECORD PLAN	F.R.P.
GRANITE CURB	GRAN C.
HEIGHT	HT.
HIGH DENSITY POLYETHYLENE	H.D.P.E.
HORIZONTAL	HORIZ.
INNER DIAMETER	I.D.
INVERT	INV.
LINED CAST IRON PIPE	L.C.P.
METAL FENCE	M.F.
ON CENTER	O.C.
OUTER DIAMETER	O.D.
OUTLET CONTROL STRUCTURE	O.C.S.
MANHOLE	M.H.
NOT TO SCALE	N.T.S.
PAVERS	PAV.
PIPE RAIL FENCE	P.R.F
POLYVINYL CHLORIDE PIPE	P.V.C.
REINFORCED CONCRETE PIPE	R.C.P.
SANITARY	SAN.
SEWER	SWR.
STEEL FACED CURB	S.F.C.
STEEL WICKET FENCE	S.W.F.
STORM	STM.
TOP OF CURB	T.C.
TOP OF HOOD	T.O.H.
TOP OF WALL	T.W.
TREE PROTECTION ZONE	T.P.Z.
UNKNOWN	UNK.
VERIFY IN FIELD	V.I.F.
VERTICAL	VERT.
VITRIFIED TILE PIPE	V.T.P.
WROUGHT IRON FENCE	W.I.F.

	EXISTING	PROPOSED
ELECTRIC MANHOLE	E	E
TELEPHONE MANHOLE	T	T
GAS MANHOLE	G	G
WATER MANHOLE	W	W
FIRE DEPT. MANHOLE	F	F
STORM SEWER MANHOLE	S STM	S STM
COMBINED SEWER MANHOLE	S COMB	S COMB
SANITARY SEWER MANHOLE	S SAN	S SAN
UNIDENTIFIED MANHOLE (NO RECORD AVAILABLE)	MH	MH
RECORD MANHOLE	S	S
HARDWARE RIM EL. & INV. EL. (SEWER, ETC.)	S 61.23 INV.47.89	S 61.23 INV.47.89
CATCH BASIN		
INLET		
YARD DRAIN		
LOW PRESSURE HYDRANT		
HIGH PRESSURE HYDRANT		
WOOD UTILITY POLE		
WOOD UTILITY POLE WITH STREET LIGHT		
STREET LIGHT (METAL POLE)		
GAS VALVE	G	G
WATER VALVE	W	W
TREE (SIZE AS LABELED)	12"	7"
SHRUB		
SIGN (GROUND MOUNTED)		
DRINKING FOUNTAIN		
FLAGPOLE		
MAPPED PROPERTY LINE	PL	
WATER SERVICE (WITH SIZE - LESS THAN 5")	1" WATER	1" WATER
8" WATER MAIN	8" WATER	8" WATER
12" WATER MAIN	12" WATER	12" WATER
48" WATER MAIN	48" WATER	48" WATER
72" WATER MAIN	72" WATER	72" WATER
STORM SEWER (WITH SIZE - LESS THAN 24")	15" STM. SEWER	15" STM. SEWER
STORM SEWER (WITH SIZE - 24" OR GREATER)	24" STM. SEWER	24" STM. SEWER
SANITARY SEWER (WITH SIZE - LESS THAN 24")	15" SAN. SEWER	15" SAN. SEWER
SANITARY SEWER (WITH SIZE - 24" OR GREATER)	24" SAN. SEWER	24" SAN. SEWER
COMBINED SEWER (WITH SIZE - LESS THAN 24")	15" COMB. SEWER	15" COMB. SEWER
COMBINED SEWER (WITH SIZE - 24" OR GREATER)	24" COMB. SEWER	24" COMB. SEWER
GAS LINE (WITH SIZE)	4" GAS	4" GAS
ELECTRIC	ELECTRIC	ELECTRIC
TELEPHONE	TELEPHONE	TELEPHONE
CABLE	CABLE	CABLE
FIRE ALARM	FIRE ALARM	FIRE ALARM
OVERHEAD (AERIAL) UTILITY LINE	A/E,T,F	A/E,T,F
CHAIN LINK FENCE (W/ HEIGHT)	6'	6'
IRON PICKET FENCE (W/ HEIGHT)	5'	5'
WIRE FENCE (W/ HEIGHT)	5'	
IRON ON CONCRETE COPING		
WOOD PICKET FENCE (W/ HEIGHT)	4'	4'
GUARD POST	GP	GP
BEAM TYPE MALL BARRIER		
PORTABLE PRECAST CONCRETE BARRIER		
CAST IN PLACE CONCRETE BARRIER		
RETAINING WALL (W/TYPE)	RW (STN.)	RW (STN.)
RAILROAD/TROLLEY TRACK		

LOT & BLOCK NUMBER — 39 BLOCK 2109

ANGLE — 0.00

NYC PARKS STANDARD DETAIL No. — #

NYC PARKS STANDARD DETAIL SHEET No. — #

LEGEND

	EXISTING	PROPOSED
TREE DRIPLINE		
TREE CRITICAL ROOT ZONE		
TREE PROTECTION ZONE		
MAJOR CONTOUR LINE	35	36
MINOR CONTOUR LINE	35	36
CONSTRUCTION ACCESS/ENTRANCE		
STAGING AREA		
STABILIZED CONSTRUCTION ENTRANCE		
TEMPORARY ASPHALT ENTRANCE		
FULL DEPTH PAVEMENT REMOVAL		
MILLING AND PAVING		
FULL EXCAVATION LIMIT		
SAWCUT LIMIT		
PIPE REMOVAL		
POINT OF BEGINNING		
CONSTRUCTION LIMIT LINE		CLL
SILT FENCE		SF SF
TEMPORARY CONSTRUCTION FENCE		CF
STRAW BALE DIKE		
TREE TO BE PROTECTED		## 7"
TREE TO BE TRANSPLANTED		## 7"
TREE TO BE REMOVED		## 7"
BORING LOCATION		B
PERMEABILITY TEST LOCATION		PT
GREEN INFRASTRUCTURE PRACTICE		
CLEANOUT/INSPECTION PORT		
ON-SITE GREEN INFRASTRUCTURE CATCH BASIN / MANHOLE		
OUTLET CONTROL STRUCTURE		
DUAL CATCH BASIN		
MODIFIED CURB INLET		
PROPOSED STORM DRAIN (W/ FLOW DIRECTION)		
DRAINAGE AREA		
FLOW DIRECTION		FLOW
DEP TYPE 1 CATCH BASIN		
GREEN INFRASTRUCTURE CHARACTERISTICS		GI PRACTICE ID: TRIBUTARY AREA / VOLUME OF X.XX" STORM / CAPACITY MANAGED

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PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL

HDR

BLOCK

LOT

PROJECT TITLE: ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE: LEGEND AND ABBREVIATIONS

DESIGNED BY	DRAWN BY	CHECKED BY
B. BARNES	A. BAKHSHAEE	M. BRAUN

B-SCAN

SCALE: ----

DRAWING NO.: O-5

DATE: JUNE 2026

CONTRACT NO.: GI-CONS-4

SHEET No. 5 OF 119 SHEETS

THE FOLLOWING SHEET SET, FROM PAGES 7 TO 88, WERE DEVELOPED BY HDR.
ANY DETAILS WITHIN THIS SHEET SET ARE ONLY APPLICABLE TO THE SITES DESIGNED BY HDR, AS LISTED BELOW:

- EMERALD PLAYGROUND
- FRESH MEADOWS PLAYGROUND
- POMONOK PLAYGROUND
- RANDALL PLAYGROUND
- SOUNDVIEW PARK
- STORY PLAYGROUND

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PARKS & RECREATION
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NO.	DATE	ISSUED FOR	BY

SEAL

BLOCK

LOT

PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
DIVIDER SHEET - HDR

DESIGNED BY	DRAWN BY	CHECKED BY
M. BRAUN	A. BAKHSHAEE	M. BRAUN

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	----	O-6	GI-CONS-4
	DATE JUNE 2026		SHEET No. 6 OF 119 SHEETS

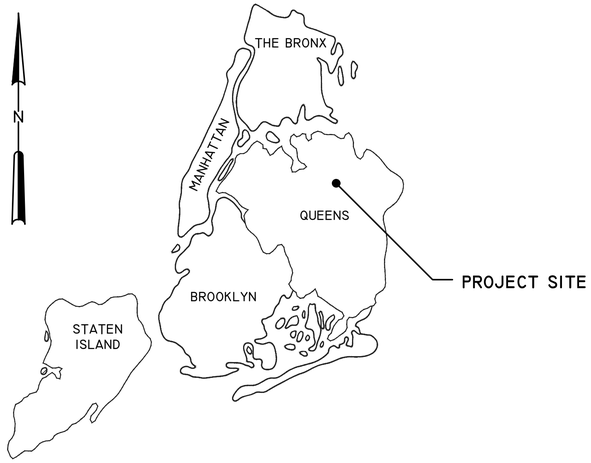
NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS

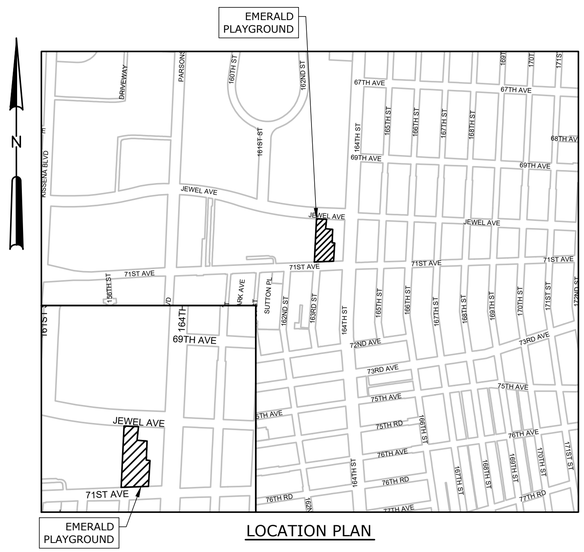
ON-SITE GREEN INFRASTRUCTURE
FLUSHING BAY CSO TRIBUTARY AREA
OUTFALL TI-010
DEP CAPITAL CONTRACT NO. GQ-P-EMER

Q344 - EMERALD PLAYGROUND
BBL 4067890001

QUEENS, NY

BID SUBMISSION
NOVEMBER 2026





LOCATION PLAN

SHEET LIST	
Sheet Number	Sheet Title
G001	COVER SHEET
S001	TOPOGRAPHIC SURVEY PLAN
C100	TREE PROTECTION, STAGING, AND ACCESS PLAN
C101	REMOVAL / DEMOLITION PLAN
C200	PROPOSED GREEN INFRASTRUCTURE LAYOUT PLAN
C201	MATERIALS PLAN
C300	SECTIONS AND PROFILES
C600	SITE DETAILS - 1
C601	SITE DETAILS - 2

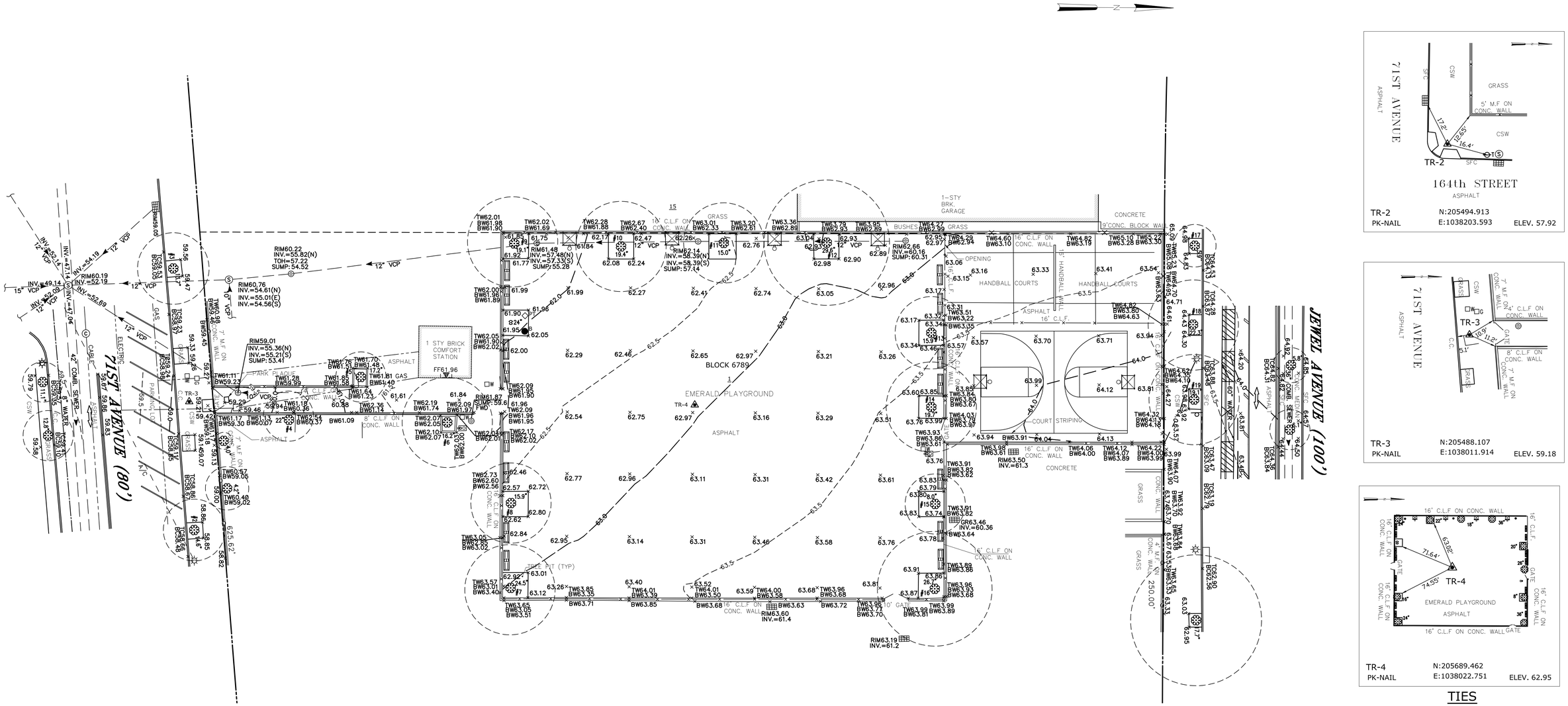
John McLaughlin — Digitally signed by John McLaughlin Date: 2026.11.02 10:11:39 -05'00'

JOHN MCLAUGHLIN
MANAGING DIRECTOR
OFFICE OF ECOSYSTEM SERVICES, GREEN INFRASTRUCTURE AND RESEARCH
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS, NYCDEP

Lisa F. Garcia — Digitally signed by Lisa F. Garcia Date: 2026.10.30 14:26:32 -04'00'

LISA F. GARCIA
COMMISSIONER
NYCDEP

File = C:\pwworkspace\ml1\d0477502\d4_01_G001_Cover Sheet Saved Date = 6/4/2026 4:12 PM
PLOT DATE: 6/7/2026 3:51 PM BY: MBRAUN



TR-2 PK-NAIL N:205494.913 E:1038203.593 ELEV. 57.92

TR-3 PK-NAIL N:205488.107 E:1038011.914 ELEV. 59.18

TR-4 PK-NAIL N:205689.462 E:1038022.751 ELEV. 62.95

TIES
N.T.S.

NOTES:

1. HORIZONTAL CONTROL REFERS TO THE NEW YORK STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 NAD83, ZONE N.Y.L.I. 3104.
2. ALL ELEVATIONS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. THIS MAP WAS PREPARED FROM DATA COLLECTED BY AN ACTUAL FIELD SURVEY CONDUCTED DURING JUNE 2021 BY MUNOZ ENGINEERING & LAND SURVEY D.P.C.
4. NAVD88 IS 1.625 FEET BELOW QUEENS HIGHWAY DATUM
5. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 134 SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW"

"Copies from the original of this survey map not marked with an original of the land surveyor's inked seal or his embossed seal shall not be considered a valid true copy."

0 10' 20' 40' 60'
1" = 20'

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SEAL
STATE OF NEW YORK ANGELO JOHN FIORENTE 049468 LICENSED LAND SURVEYOR

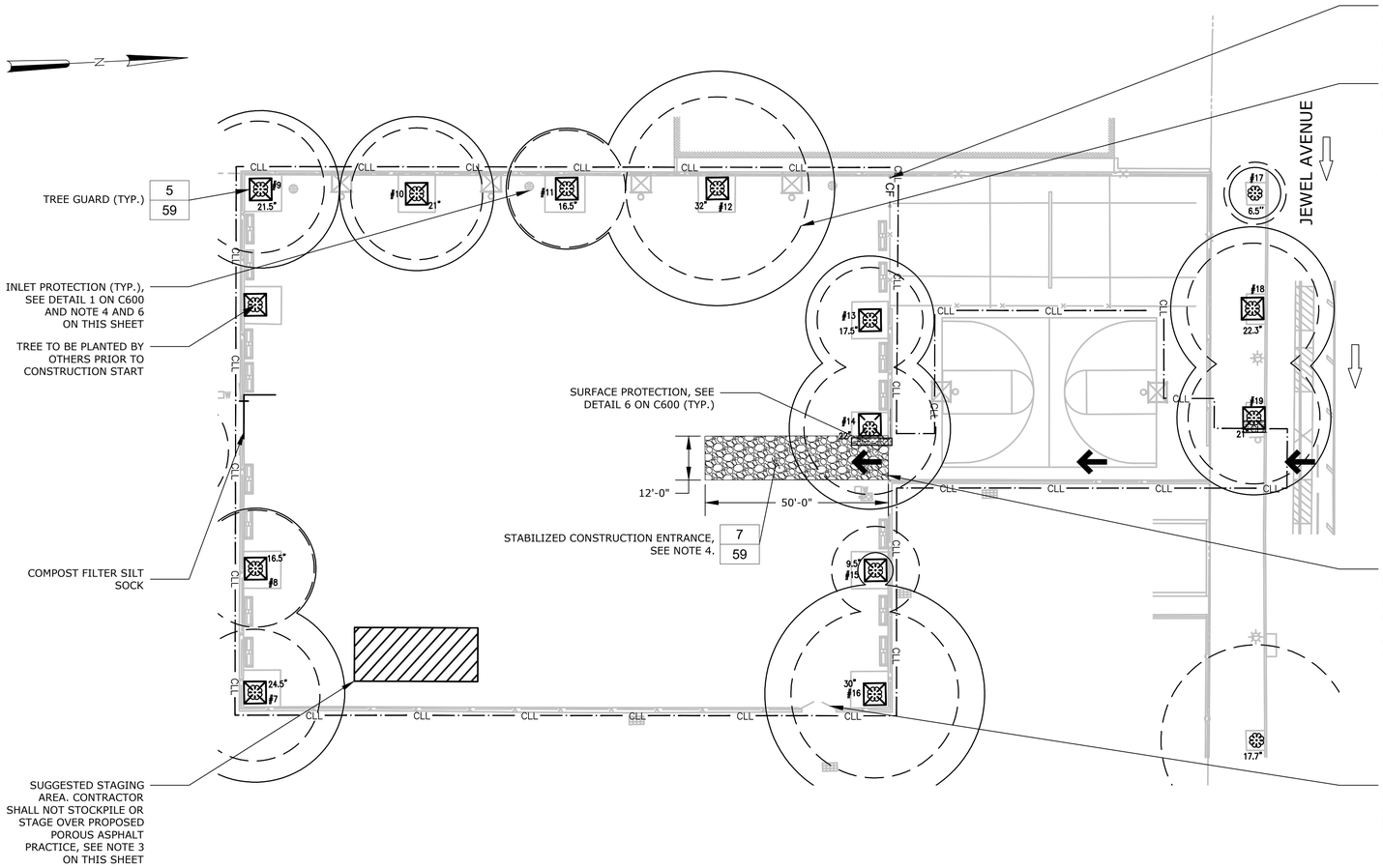
BLOCK 6789
LOT 1

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
TOPOGRAPHIC SURVEY PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
N/A	K.O.	J.J.

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	1"=20'-0"	S001	GI-P-EMER
	DATE JUNE 2021		SHEET No. 2 OF ## SHEETS



TREE #	SPECIES (common name)	DBH (inches)	CTLA CONDITION RATING	ISA CRITICAL ROOTZONE (CRZ) RADIUS (ft.)	TREE REMOVAL	STUMP REMOVAL	TRANSPLANT TREE	PREPARATORY PRUNING ANSI A-300						TREE PROTECTION								DECOMPACT				PREPARATORY FERTILIZE	TREE GROWTH REGULATOR
								Cleaning	Raising	Reducing	Restoring	Structural	Thinning	Limb Tying	Temporary Wooden Tree Guard	Temporary Wooden Tree Guard For Groves	Temporary Fence Boundary	Protect Existing Tree Roots w/ Woodchips	Protect Ex. Tree Roots w/ Plywood or Mats	Air-Tilling 3 Ft Radius	Air-Tilling 5 Ft Radius	Radial Trench	Vertical Mulch				
1																											
2																											
3																											
4																											
5																											
6																											
7	OAK, PIN	25	72%	24.5				X							X												
8	OAK, PIN	17	72%	16.5				X							X												
9	OAK, PIN	22	72%	21.5				X							X												
10	OAK, PIN	21	41%	21.0				X							X												
11	OAK, PIN	17	100%	16.5				X							X												
12	OAK, PIN	32	100%	32.0				X							X												
13	OAK, PIN	18	44%	17.5				X							X												
14	OAK, PIN	22	50%	22.0				X							X												
15	OAK, SHINGLE	10	100%	4.8				X							X												
16	OAK, PIN	30	100%	30.0				X							X												
17	MAPLE, RED	7	75%	4.9				X																			
18	OAK, PIN	22	63%	22.3				X							X												
19	OAK, PIN	21	72%	21.0				X							X												

NOTES

1. SEE GENERAL NOTES FOR TREE PROTECTION NOTES.
2. THE TREE PROTECTION ZONE (T.P.Z.) SHALL CONSIST OF THE CRITICAL ROOT ZONE AND/OR THE CANOPY DRIPLINE; WHICHEVER EXTENT IS GREATER.
3. NO HEAVY EQUIPMENT, MACHINERY, OR STOCKPILING OF MATERIALS IS PERMITTED WITHIN THE T.P.Z. OF ANY EXISTING TREES THROUGHOUT THE COURSE OF THE CONTRACT.
4. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL REMAIN UNTIL ALL EXCAVATED AREAS ARE STABILIZED AND FINAL PAVEMENT HAS BEEN PLACED. A FLAGGER IS REQUIRED AT CONSTRUCTION ENTRANCE(S) LESS THAN 24' WIDE.
5. IF EXISTING CURB AT THE CONSTRUCTION ENTRANCE IS DAMAGED, EXISTING ROADWAY PAVEMENT ENVELOPE (TOP COURSE AND BASE COURSE) SHALL BE SAWCUT, REMOVED AND REPLACED A MINIMUM OF 1'-6" WIDTH WITH NEW PAVEMENT TO MATCH EXISTING PAVEMENT ENVELOPE.
6. INSTALL INLET PROTECTION ON ALL DRAINAGE STRUCTURES WITHIN THE CONTRACT LIMIT LINE.
7. TREE PROTECTION PLAN BASED ON UPDATED TREE INVENTORY PERFORMED IN JULY 2025.
8. TREE PROTECTION SHALL BE CONFIRMED BY NYC PARKS DURING PRE-CONSTRUCTION WALKTHROUGH. CONTRACTOR SHALL NOT INSTALL TREE PROTECTION MEASURES UNTIL APPROVED BY NYC PARKS.

LEGEND

- TREE GUARD
- STAGING AREA
- SILT SOCK
- CONSTRUCTION ACCESS/ENTRANCE
- CLL — CONTRACT LIMIT LINE
- CF — 8'-0" HT. CONSTRUCTION FENCE
- TREE CRITICAL ROOT ZONE
- TREE DRIPLINE
- SURFACE PROTECTION

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. SEE COMPLETE LIST OF SPECIAL STIPULATIONS AND GENERAL NOTES IN THE OCMC FILE NO. CEC-24-335 DATED 9/30/2024.
2. THE CONTRACTOR SHALL HAVE FLAGGERS POSITIONED IN FRONT AND BEHIND CONSTRUCTION VEHICLES WHILE TRAVERSING AREAS ACCESSIBLE BY THE PUBLIC.
3. WORK HOURS ARE 7A.M.-6P.M. MONDAY THROUGH FRIDAY IF SCHOOL IS NOT IN SESSION. WORK HOURS ARE 9A.M.-2P.M. MONDAY THROUGH FRIDAY IF SCHOOL IS IN SESSION. THE CONTRACTOR MUST NOTIFY P.S./M.S. 200 - THE MAGNET SCHOOL OF GLOBAL STUDIES AND LEADERSHIP A MINIMUM OF FOUR (4) WEEKS PRIOR TO MOBILIZING. THIS SITE IS A JOINTLY OWNED PLAYGROUND. WORK HOURS AND DAYS MAY BE ADJUSTED BY NYC PARKS AND DEPARTMENT OF EDUCATION.
4. THE CONTRACTOR MAY OCCUPY 20 L.F. OF PARKING LANE 8'-0" ADJACENT TO SOUTH CURB TO STORE MATERIALS DURING WORK HOURS ONLY. THE CONTRACTOR SHALL RETURN THE FULL WIDTH OF THE ROADWAY AFTER WORK HOURS.
5. THE CONTRACTOR MUST MAINTAIN A 5'-0" WIDE WALKWAY ON THE SIDEWALK DURING WORK HOURS. THE CONTRACTOR SHALL RETURN THE FULL WIDTH OF THE SIDEWALK AFTER WORK HOURS.
6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS OF ALL PROPERTY OWNERS AT ALL TIMES.

SUGGESTED SEQUENCE OF CONSTRUCTION

ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND UPON APPROVAL OF THE ENGINEER. ALL WORK SHALL BE DONE IN A MANNER TO MINIMIZE DISTURBANCE TO THE PLAYGROUND AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. STAKE OUT AND RECEIVE APPROVAL FROM THE ENGINEER FOR THE LIMITS OF WORK BEFORE BEGINNING ANY CLEARING.

1. INLET PROTECTION (SEE DETAIL 1, SHEET C600) SHALL BE USED ON ALL DRAINAGE INLETS ADJACENT TO AND DOWNSTREAM OF CONSTRUCTION AREA.
2. INSTALL PERIMETER EROSION CONTROL MEASURES INCLUDING CONSTRUCTION LIMIT FENCING AROUND THE WORK AREA. INSTALL ALL TREE PROTECTION.
3. PERFORM PAVEMENT AND DEBRIS REMOVAL.
4. EXCAVATION AND INSTALLATION OF POROUS ASPHALT PRACTICE SHALL BE PERFORMED ALONG WITH ALL ASSOCIATED APPURTENANCES.
5. BACKFILL, AS PER CONTRACT SPECIFICATIONS, TO THE FINAL ELEVATIONS SHOWN ON THE CONTRACT DRAWINGS.
6. RESURFACE AND REPAINT MULTIPURPOSE PAVEMENT AREA AS PER THE CONTRACT DRAWINGS.
7. ONCE ALL AREAS HAVE BEEN STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

20 10 0 20'
1"=20'

NO.	DATE	ISSUED FOR	BY

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HDR

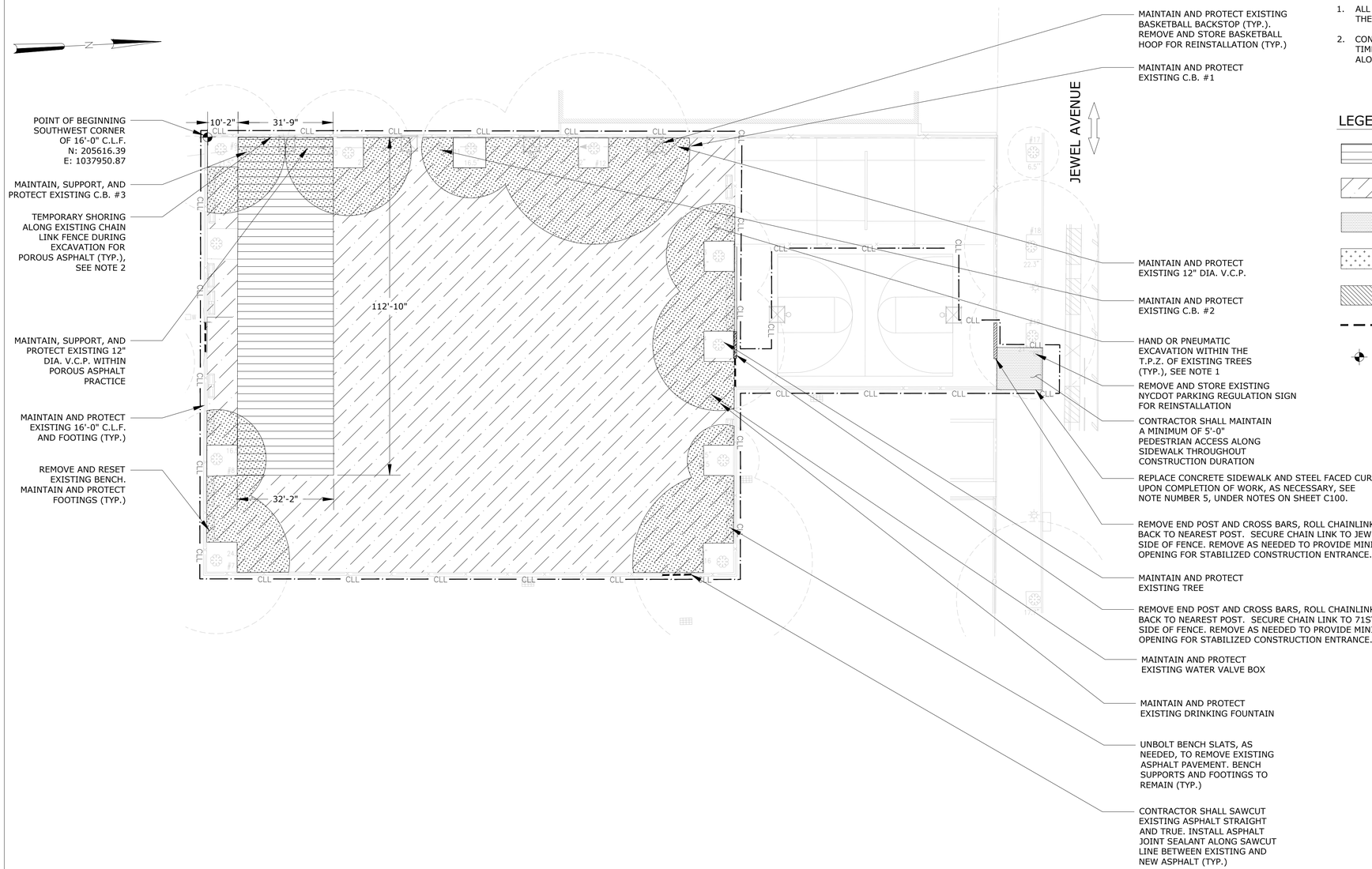
BLOCK 6789
LOT 1

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
TREE PROTECTION, STAGING, AND ACCESS PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
G. GIDICSIN	K. NGUYEN	M. BRAUN

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	1" = 20'	C100	GQ-P-EMER
	DATE JUNE 2026		SHEET No. 3 OF 7 SHEETS



NOTES

1. ALL EXCAVATION WITHIN THE T.P.Z. SHALL BE PERFORMED BY HAND OR PNEUMATICALLY, WITH MINIMUM SOIL DISTURBANCE, AND UNDER THE SUPERVISION OF THE DIRECTOR OF LANDSCAPE CONSTRUCTION OR THEIR AUTHORIZED REPRESENTATIVE.
2. CONTRACTOR SHALL FULLY EXCAVATE AND EXPOSE NO MORE THAN 15 L.F. OF ASPHALT PAVEMENT ALONG THE C.L.F. CURBLINE AT ANY ONE TIME. THE CONTRACTOR SHALL BACKFILL AND COMPACT THE SUBSURFACE COURSES BEFORE PROCEEDING WITH ADDITIONAL EXCAVATION ALONG THE CURBLINE.

LEGEND

- EXCAVATION - POROUS ASPHALT PRACTICE
- EXCAVATION - FULL DEPTH ASPHALT REMOVAL
- CONCRETE SIDEWALK AND STEEL FACED CURB REMOVAL
- HAND EXCAVATION (VERIFY LIMITS IN FIELD BASED ON CONFIRMED T.P.Z.)
- FENCE REMOVAL
- SAWCUT PAVEMENT
- POINT OF BEGINNING

NO.	DATE	ISSUED FOR	BY

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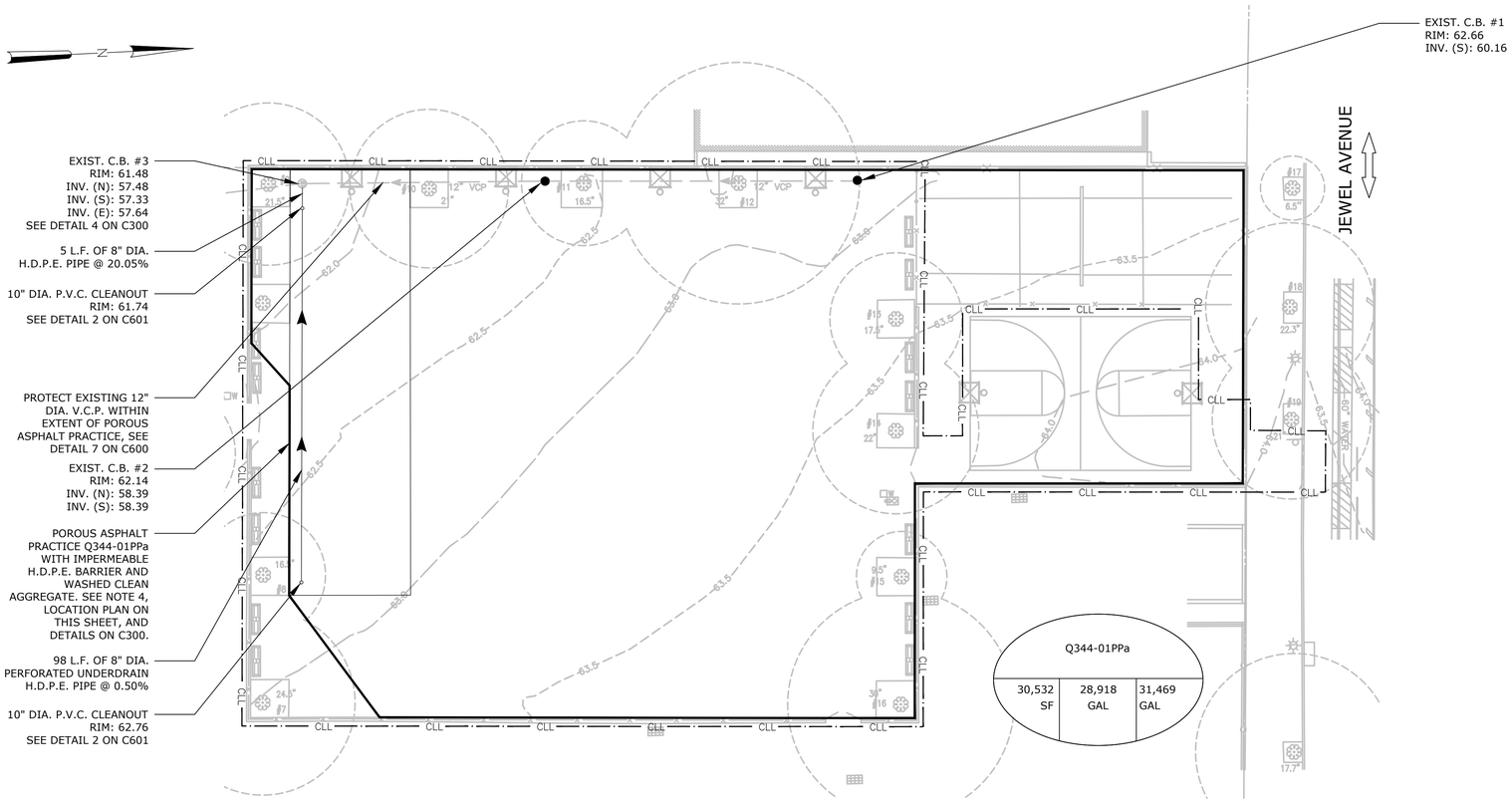
BLOCK 6789
LOT 1

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
REMOVAL / DEMOLITION PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
G. GIDICSIN	G. GIDICSIN	M. BRAUN

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	1" = 20'	C101	GQ-P-EMER
	DATE JUNE 2026		SHEET No. 4 OF 7 SHEETS



NOTES

1. SEE C300 FOR PROFILE OF GREEN INFRASTRUCTURE PRACTICE.
2. CONTRACTOR TO MATCH EXISTING FINISHED GRADE OVER ENTIRE PROJECT AREA UNLESS NOTICEABLE PONDING AREAS ARE ENCOUNTERED.
3. IF PONDING AREAS ARE ENCOUNTERED, CONTRACTOR TO ADJUST GRADING MINIMALLY TO PROVIDE POSITIVE DRAINAGE WHILE MAINTAINING EXISTING ELEVATIONS OF ALL FIXED STRUCTURES AND ELEVATIONS AT PERIMETER FENCELINE.
4. PER SPECIFICATIONS 01 32 10 PROGRESS SCHEDULE AND 33 05 05.33 DOUBLE RING INFILTROMETER TESTING, CONTRACTOR SHALL REPORT THE DOUBLE RING INFILTROMETER TESTING RESULTS TO THE ENGINEER FOR REVIEW. IF THE PERMEABILITY RATES ARE EQUAL TO OR ABOVE 0.5 IN/HR, CONTRACTOR SHALL INSTALL GEOTEXTILE-DRAINAGE IN PLACE OF THE IMPERMEABLE H.D.P.E. BARRIER SURROUNDING THE PRACTICE.

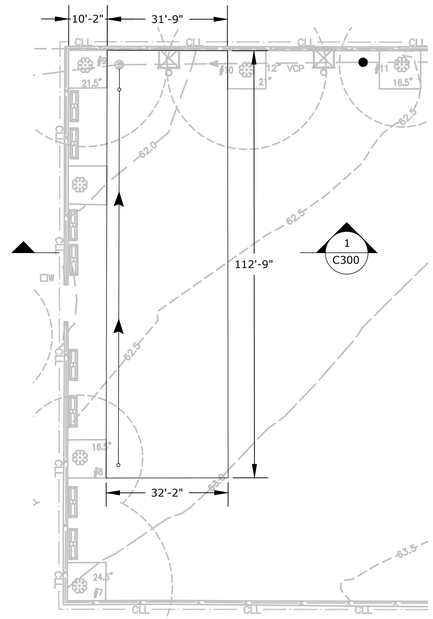
LEGEND

GREEN INFRASTRUCTURE PRACTICE DRAINAGE AREA

CLEANOUT

DRAINAGE PIPE

GREEN INFRASTRUCTURE TYPE		
TRIBUTARY AREA	CAPACITY OF 1.5" EVENT CAPTURE	TOTAL CAPACITY OF GI



ABOVE DIMENSIONS SHOWN FROM EDGE OF PRACTICE TO INSIDE FACE OF EXISTING PERIMETER CURB

GREEN INFRASTRUCTURE LOCATION PLAN

GI ID	GI Asset Data					Stormwater Storage Calculations				Total Stormwater Managed (Infiltration + Storage)				
							Stone Subbase							
	Managed Impervious Tributary Area	Volume 1.5 in. Rainfall on Impervious Area	GI Footprint Surface Area	GI Perimeter	Permeability Coefficient	8 in. Dia. Perforated Underdrain (0.35 CF/LF)	Stone Depth	Stone Voids	Stormwater Captured by Stone Layer*	Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
	sf	cf	sf	ft	in/hr	cf	ft	%	cf	cf	cf	%	cf	gal
Q344-01PPa	30532	3816.5	3610	290	0.00	36.1	2.93	40	4171.0	0.0	4207.1	110%	4207.1	31468.9

20 10 0 20'
1"=20'

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LOT 1

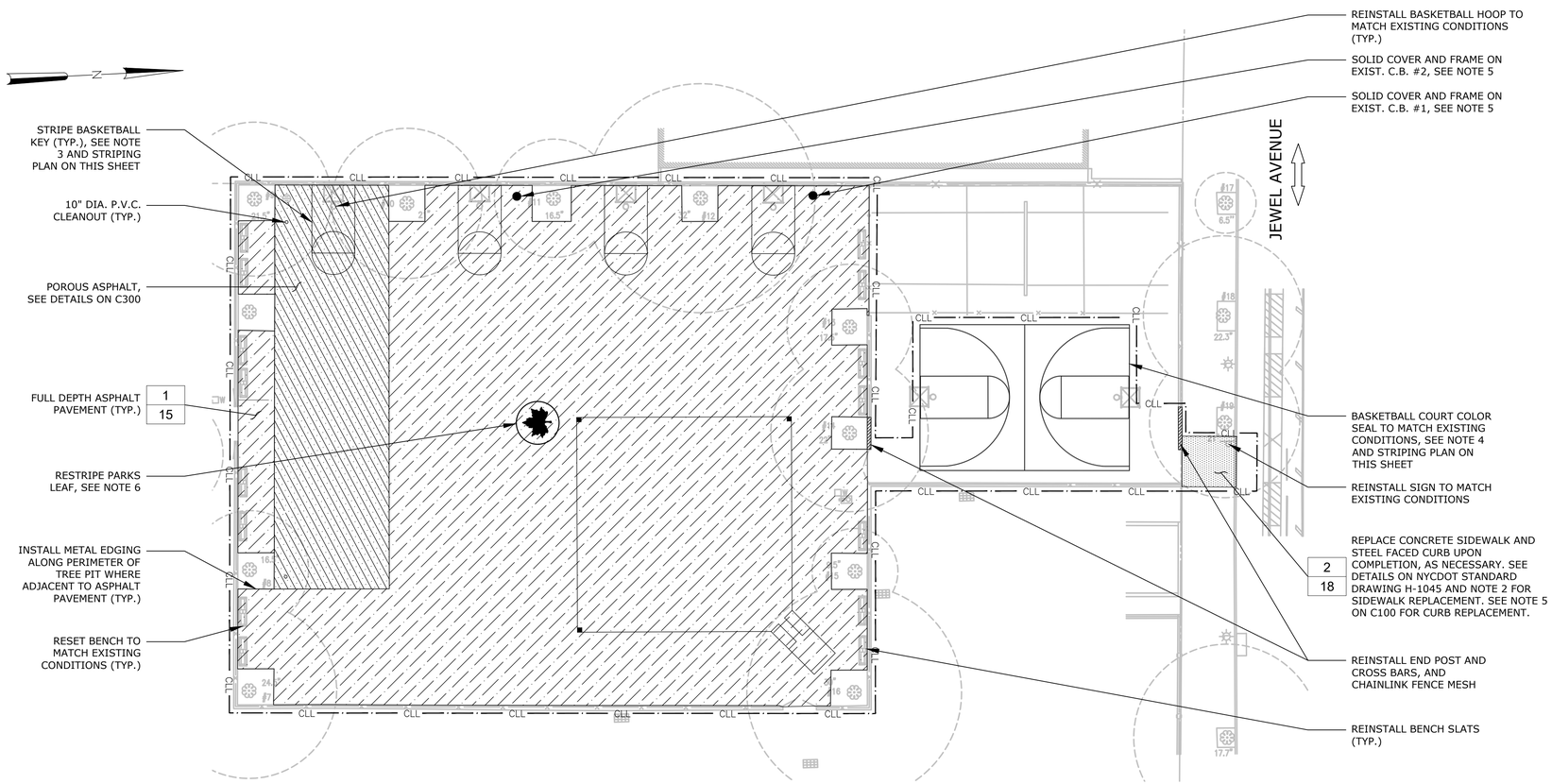
NYC Environmental Protection
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks
CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
PROPOSED GREEN INFRASTRUCTURE LAYOUT PLAN

DESIGNED BY	DRAWN BY		CHECKED BY
G. GIDICSIN	K. NGUYEN		M. BRAUN
B-SCAN	SCALE 1" = 20'	DRAWING NO. C200	CONTRACT NO. GQ-P-EMER
	DATE JUNE 2026		SHEET No. 5 OF 7 SHEETS

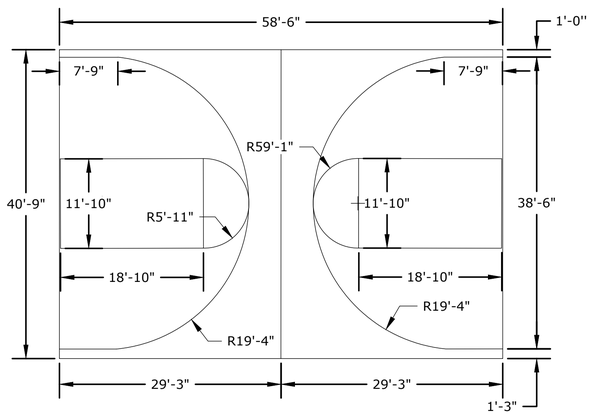


NOTES

1. SEE C200 FOR ELEVATIONS OF DRAINAGE STRUCTURES.
2. THE SIDEWALK TYPE TO BE DETERMINED AFTER EXCAVATION TO VERIFY IT IS REINFORCED (TYPE III) OR UNREINFORCED (TYPE I).
3. BASKETBALL KEYS AND BALLFIELD SHALL BE WHITE STRIPING TO MATCH EXISTING CONDITIONS.
4. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE BASKETBALL COURT CLOSURE WITH P.S./M.S.200 - THE MAGNET SCHOOL OF GLOBAL STUDIES AND LEADERSHIP TO COLOR SEAL THE BASKETBALL COURT. COLOR SEAL SHALL BE BLUE AND BEIGE WITH WHITE STRIPING TO MATCH EXISTING CONDITIONS AND PERFORMED PER COLOR SEAL ITEM WITHIN SECTION 32 12 16.
5. EXISTING ADA COMPLIANT GRATE TO BE RETROFITTED TO SOLID COVER WITH SLIP RESISTANT STEEL PLATE.
6. PARKS LEAF SHALL BE GREEN STRIPING WITH GREEN COLOR SEAL FOR LEAF AND WHITE COLOR SEAL FOR CIRCLE FILL. REFER TO PARKS LEAF IN DETAIL ON STANDARD DRAWING 45A FOR REFERENCE.

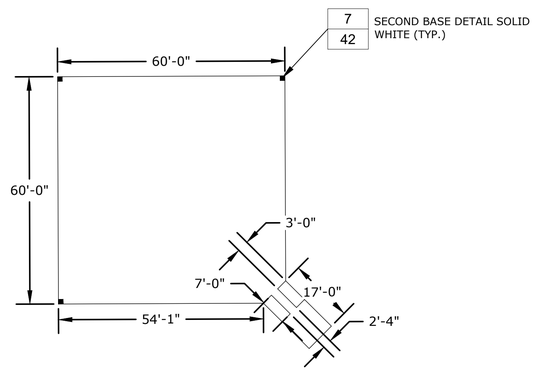
LEGEND

- POROUS ASPHALT
- FULL DEPTH ASPHALT PAVEMENT
- SIDEWALK AND CURB REPLACEMENT
- FENCE REPLACEMENT
- CLEANOUT
- SOLID COVER AND FRAME



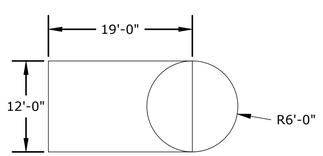
NON-STANDARD BASKETBALL COURT PAVEMENT STRIPING PLAN

NOT TO SCALE



NON-STANDARD BALLFIELD PAVEMENT STRIPING PLAN

NOT TO SCALE



BASKETBALL KEY PAVEMENT STRIPING PLAN

NOT TO SCALE

20 10 0 20'
1"=20'

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LOT 1

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Bureau of Environmental Planning and Analysis

NYC Parks

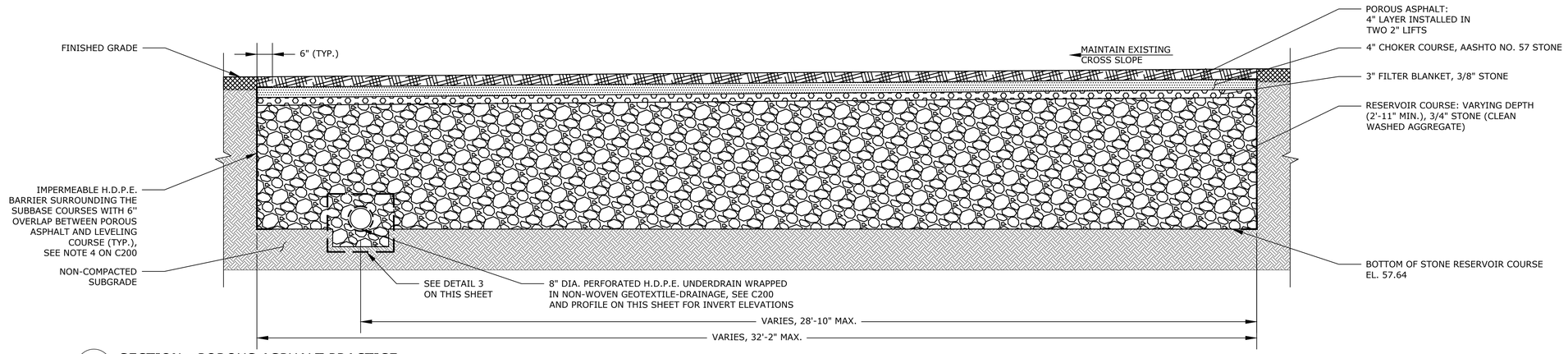
CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
MATERIALS PLAN

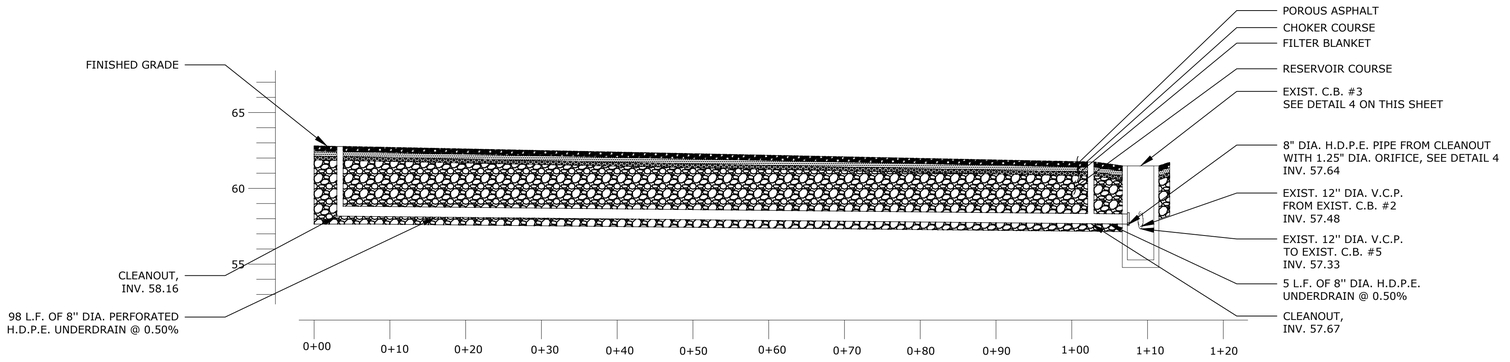
DESIGNED BY	DRAWN BY	CHECKED BY
G. GIDICSIN	G. GIDICSIN	M. BRAUN

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	1" = 20'	C201	GQ-P-EMER
	DATE JUNE 2026		SHEET No. 6 OF 7 SHEETS



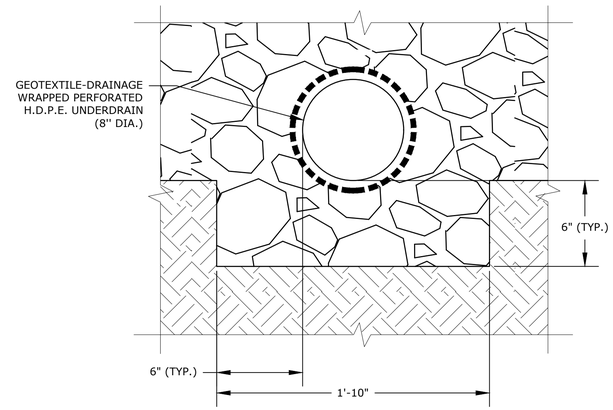
1 SECTION - POROUS ASPHALT PRACTICE

1"=2' 2 1 0 2'



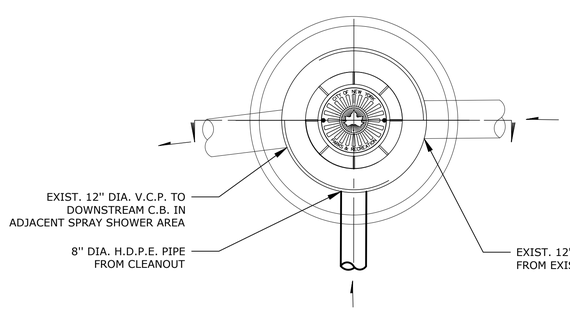
2 DRAINAGE PROFILE - CLEANOUT TO EXIST. C.B. #3

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 10'

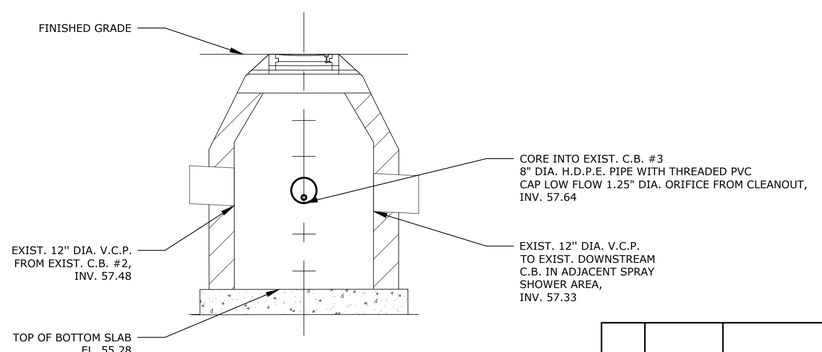


3 DETAIL - POROUS ASPHALT UNDERDRAIN

1"=0.5' 1 0.5 0 0.5'



PLAN



SECTION

NOTES:

1. NYC PARKS STANDARD DETAIL SHEET 2 PROVIDED FOR REFERENCE ONLY.

4 EXISTING CATCH BASIN #3

1"=2' 2 1 0 2'

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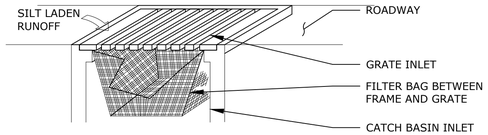
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BLOCK 6789
LOT 1

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF EMERALD PLAYGROUND
FLUSHING BAY CSO TRIBUTARY AREA
164TH STREET BETWEEN JEWEL AVENUE AND 71ST AVENUE

DRAWING TITLE
SECTIONS AND PROFILES

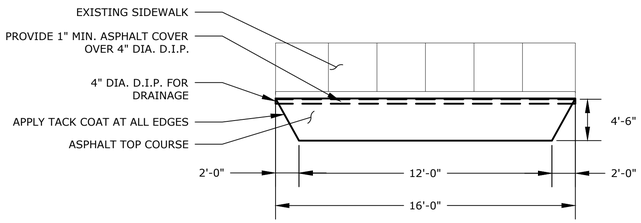
DESIGNED BY	DRAWN BY		CHECKED BY
G. GIDICSIN	G. GIDICSIN		M. BRAUN
B-SCAN	SCALE N.T.S.	DRAWING NO. C300	CONTRACT NO. GQ-P-EMER
	DATE JUNE 2026		SHEET No. 7 OF SHEETS



NOTE:
1. IN PAVED AREAS, USE FILTER BAG FOR INLET PROTECTION (NO MESH, BOX STONE REQUIRED).
2. FILTER BAG SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE GEOTEXTILE AND SEWN BY A DOUBLE NEEDLE MACHINE USING A HIGH STRENGTH NYLON THREAD.
3. BAG SHALL BE SILTSACK® BY ACF ENVIRONMENTAL, OR EQUAL, AS APPROVED BY THE ENGINEER.

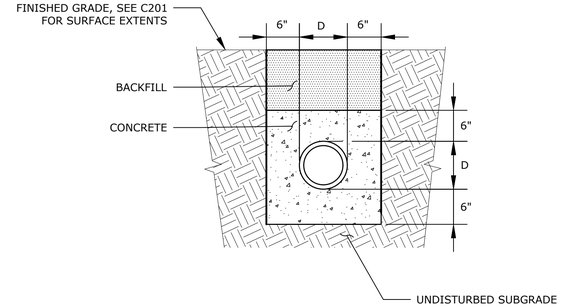
MAINTENANCE REQUIREMENTS:
1. INSPECT GRATE AND BAG ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT PRODUCING ½ INCH OR MORE OR RAIN. ANY DEBRIS OR SEDIMENT VISIBLE SHALL BE REMOVED IMMEDIATELY.
2. DAMAGE TO THE BAG SHALL BE REPAIRED IMMEDIATELY.
3. WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE, THE BAG IS FULL AND SHOULD BE EMPTIED.
4. USE 1" DIAMETER REBAR TO SLIDE THROUGH THE LIFTING LOOPS/POCKETS ON EACH SIDE OF THE BAG TO FACILITATE LIFTING.
5. REMOVE SEDIMENT FROM BAG AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.

1 INLET PROTECTION
NOT TO SCALE



TEMPORARY ASPHALT RAMP NOTE:
1. UPON COMPLETION OF CONSTRUCTION, DAMAGED SIDEWALK FLAGS, CURBS AND/OR ROADWAY SHALL BE REPLACED IN KIND.

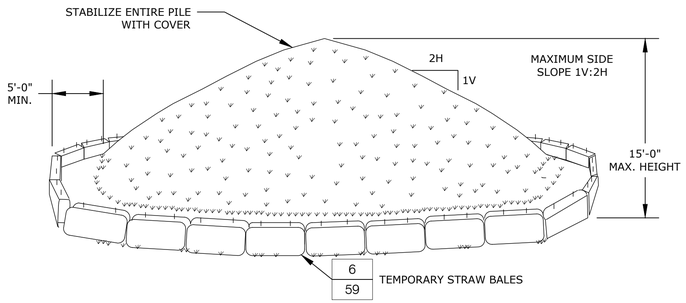
2 TEMPORARY ASPHALT RAMP
NOT TO SCALE



D = OUTSIDE DIAMETER OF PIPE

NOTES:
1. APPLIES TO CATCH BASIN CHUTE CONNECTIONS WITH LESS THAN 4FT COVER FROM FINAL GRADE TO OUTER TOP OF THE PIPE.

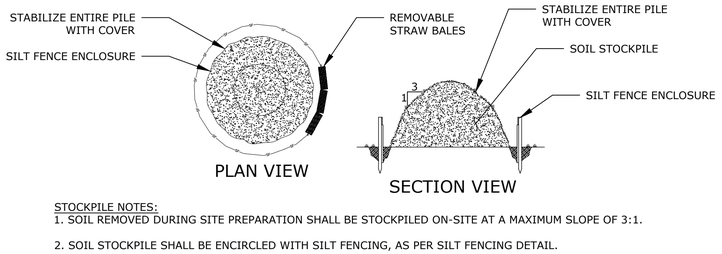
3 CONCRETE ENCASEMENT DETAIL
NOT TO SCALE



STOCKPILE NOTES:
1. THE GROUND SURFACE WHERE SOIL WILL BE STOCKPILED SHALL BE COVERED WITH A MINIMUM OF .25MM OR 2 LAYERS OF .15 MM H.D.P.E. BARRIER, OR AN EQUIVALENT MATERIAL. IN ADDITION, PRIOR TO THE END OF EACH WORK DAY, STOCKPILES SHALL BE COMPLETELY COVERED WITH THE H.D.P.E. BARRIER. STOCKPILE COVERS SHALL BE WEIGHTED OR SECURED BY APPROPRIATE MEANS. ALL SEAMS SHALL BE OVERLAPPED AND SEALED TO PREVENT THE LEACHING OF CONTAMINANTS. DAMAGED COVERS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN 24 HOURS AFTER NOTIFICATION.

2. SEE TREE PROTECTION, STAGING, AND ACCESS PLAN FOR SUGGESTED STAGING AREA.

4 STOCKPILE ON PAVEMENT
NOT TO SCALE



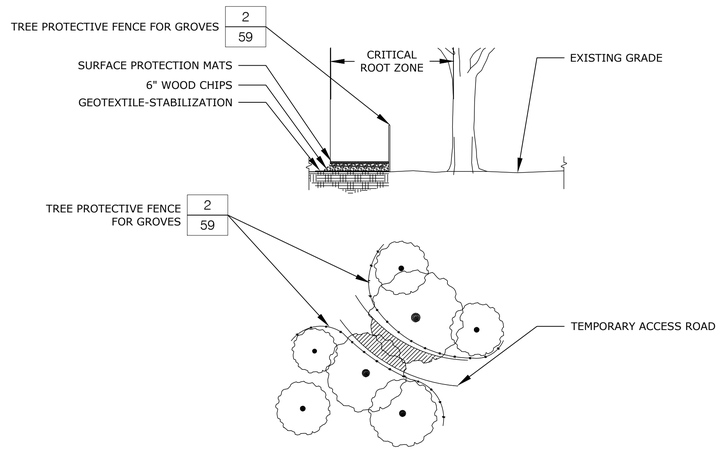
STOCKPILE NOTES:
1. SOIL REMOVED DURING SITE PREPARATION SHALL BE STOCKPILED ON-SITE AT A MAXIMUM SLOPE OF 3:1.

2. SOIL STOCKPILE SHALL BE ENCIRCLED WITH SILT FENCING, AS PER SILT FENCING DETAIL.

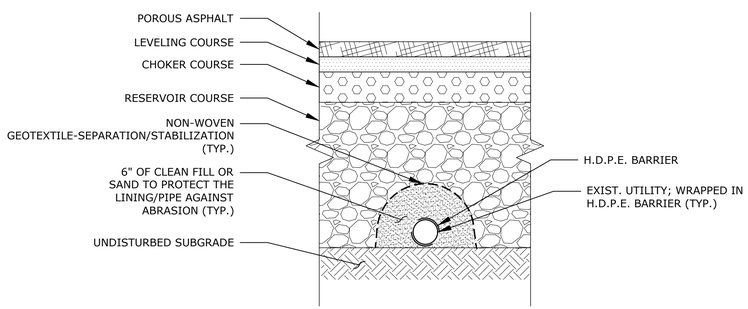
3. THE GROUND SURFACE WHERE SOIL WILL BE STOCKPILE SHALL BE COVERED WITH A MINIMUM OF .25MM OR 2 LAYERS OF .15 MM H.D.P.E. BARRIER, OR AN EQUIVALENT MATERIAL. IN ADDITION, PRIOR TO THE END OF EACH WORK DAY, STOCKPILES SHALL BE COMPLETELY COVERED WITH THE H.D.P.E. BARRIER. STOCKPILE COVERS SHALL BE WEIGHTED OR SECURED BY APPROPRIATE MEANS. ALL SEAM SHALL BE OVERLAPPED AND SEALED TO PREVENT THE LEACHING OF CONTAMINANTS. DAMAGED COVERS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN 24 HOURS AFTER NOTIFICATION.

4. SEE TREE PROTECTION, STAGING, AND ACCESS PLAN FOR SUGGESTED STAGING AREA.

5 STOCKPILE ON GRASS
NOT TO SCALE



6 SURFACE PROTECTION
NOT TO SCALE



7 UTILITY PROTECTION
NOT TO SCALE

Environmental Protection

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STATE OF NEW YORK · MICHAEL DAVID BRAUN · LICENSED PROFESSIONAL ENGINEER · 101288
HDR

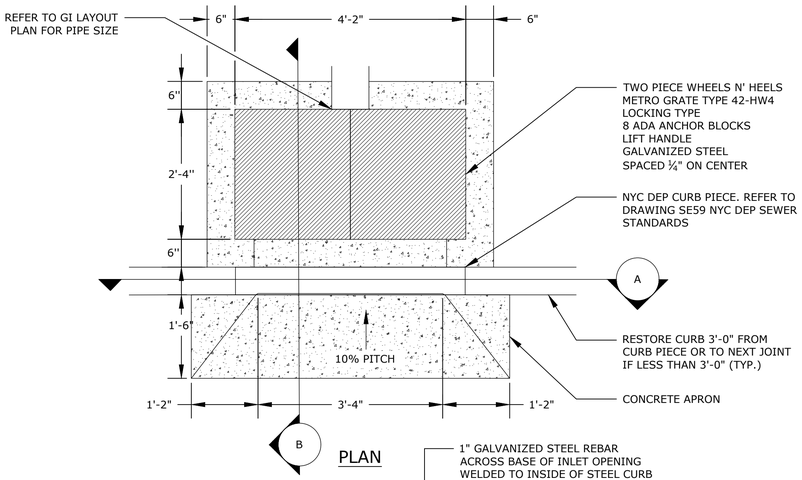
BLOCK
LOT

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF MULTIPLE SITES

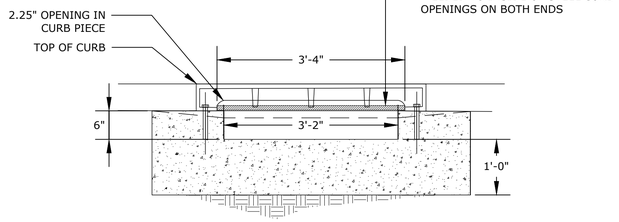
DRAWING TITLE
SITE DETAILS - 1

DESIGNED BY	DRAWN BY	CHECKED BY
S. RANA	S. RANA	M. BRODERICK

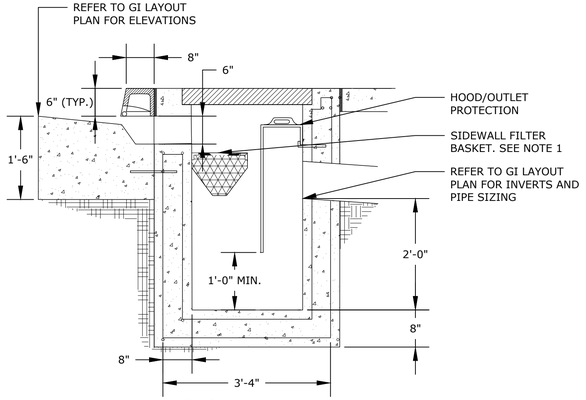
B-SCAN
SCALE: N.T.S.
DATE:
DRAWING NO.: C600
CONTRACT NO.:
SHEET No. 1 OF 3 SHEETS



PLAN



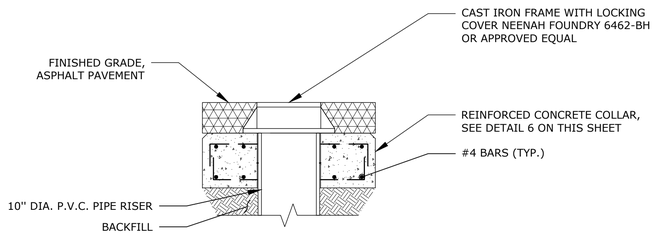
SECTION - A



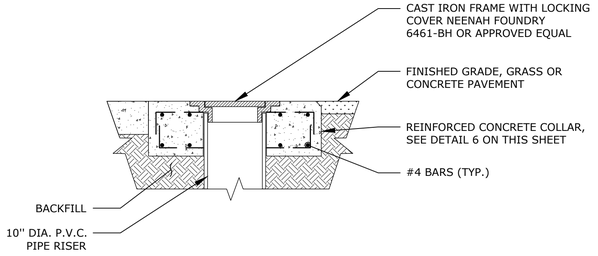
SECTION - B

NOTES:
1. ATTACH SIDEWALL FILTER 2" BELOW OPENING WITH BOLTS, OR PER MANUFACTURER INSTRUCTIONS.

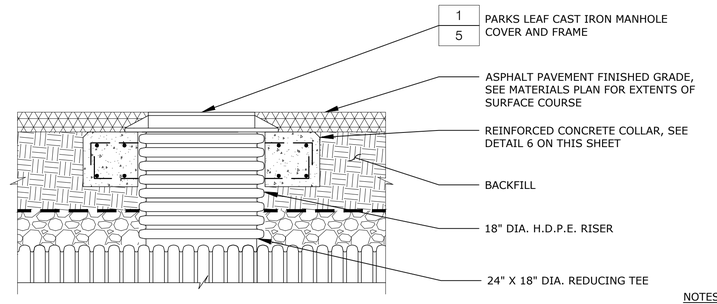
1 MODIFIED CURB INLET TYPE A
NOT TO SCALE



2 10" DIA. P.V.C. CLEANOUT WITH CONCRETE COLLAR BELOW GRADE
NOT TO SCALE

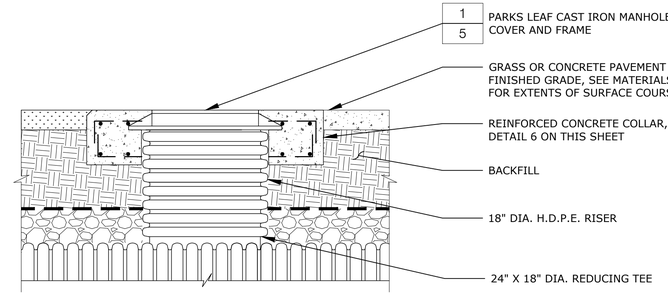


3 10" DIA. P.V.C. CLEANOUT WITH CONCRETE COLLAR AT GRADE
NOT TO SCALE



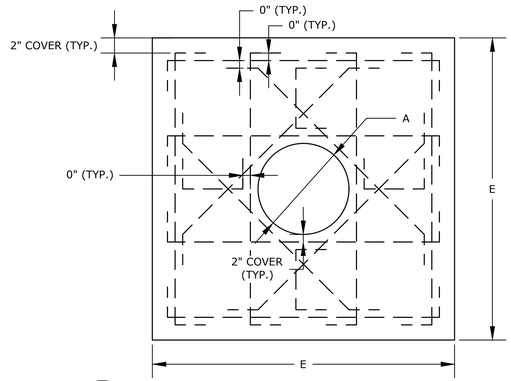
NOTES
CONCRETE COLLAR SHALL BE CONSTRUCTED SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER BASED ON ANTICIPATED LOADING.

4 MAINTENANCE ACCESS RISER WITH CONCRETE COLLAR BELOW GRADE
NOT TO SCALE

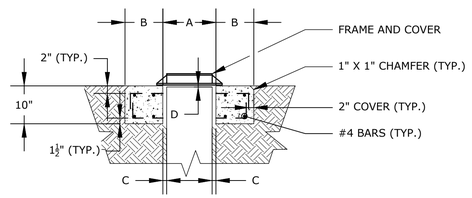


NOTES
CONCRETE COLLAR SHALL BE CONSTRUCTED SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER BASED ON ANTICIPATED LOADING.

5 MAINTENANCE ACCESS RISER WITH CONCRETE COLLAR AT GRADE
NOT TO SCALE



6 CONCRETE COLLAR REINFORCEMENT DETAIL
NOT TO SCALE



	DIMENSION				
CLEANOUT / RISER DIA.	A	B	C	D	E
18"	1'-11"	10"	1"	½"	3'-7"
10"	11"	10"	⅛"	0"	2'-7"

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL
STATE OF NEW YORK
MICHAEL DAVID BRAUN
LICENSED PROFESSIONAL ENGINEER
101288

HDR

BLOCK
LOT

PROJECT TITLE
GREEN INFRASTRUCTURE RETROFIT OF MULTIPLE SITES

DRAWING TITLE
SITE DETAILS - 2

DESIGNED BY	DRAWN BY	CHECKED BY
S. RANA	S. RANA	M. BRODERICK

B-SCAN	SCALE	DRAWING NO.	CONTRACT NO.
	N.T.S.	C601	
	DATE		SHEET No. 2 OF 3 SHEETS