

PROJECT INFORMATION	
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PROJECT	67-00-00-01
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AD SALES REP	18-00-00-01
AD SALES REP	HASSAN ELMI
AD SALES REP	18-00-00-01
PROJECT NO.	67-00-00-01
AD SITE	MATTHEW BEGIN
COORDINATOR	67-00-00-01



REACH STREET LANDS UXBRIDGE, ON

MC-4500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL BE CERTIFIED TO CSA B14. "POLYMER SUB-SURFACE STORMWATER MANAGEMENT STRUCTURES" AND MEET THE REQUIREMENTS OF ASTM F2414-16 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60/101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPED FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE ASTM F2414-16 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" AND 2.3 RISK-BASED DESIGN LIVE LOAD, BASED ON THE CSA S4.1-05 TRUCK AND THE ASD TO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND LOCAL VEHICLE PRESSIONS.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALL LOADS (COMBINATIONS DETERMINED IN ACCORDANCE WITH ASTM F2414 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS") LOAD COMBINATIONS SHALL INCLUDE: 1) PERMANENT (1) MINIMUM DESIGN TRUCK LIVE LOAD ON INTERNAL COVER 2) MAXIMUM PERMANENT (15-19) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1) VEHICLE, AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STRAP LINES.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3" (76.2 mm).
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 3.3.2 OF ASTM F2414 SHALL BE GREATER THAN OR EQUAL TO 0.01 LB/IN/IN. AND TO RESET CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES ABOVE 27° C / 81° F, CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR VILCO COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER SHALL BE ALLOWED, UPON REQUEST BY THE SITE DESIGN ENGINEER, TO BE USED AT THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE READ BY REGISTERED PROFESSIONAL ENGINEERS.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.55 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIREMENT AS DEFINED IN SECTION 3.3.2 OF ASTM F2414.
 - LIVE LOAD DESIGN SPECIFICATIONS FOR THERMOPLASTIC PP.
 - THE TEST DERIVED CREEP MODULUS BRIDGE IN ASTM F2414 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 175-MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
 - IMPORTANT - THIS PROJECT REQUIRES COMPACTION OF EMBEDMENT STONE AND REQUIREMENTS FOR STONE HARDNESS AND SHAPE WHICH ARE NOT SPECIFIED IN STORMTECH DOCUMENTS. CONTRACTORS MUST FOLLOW THE SPECIAL PROVISIONS IN THIS PLAN SET.

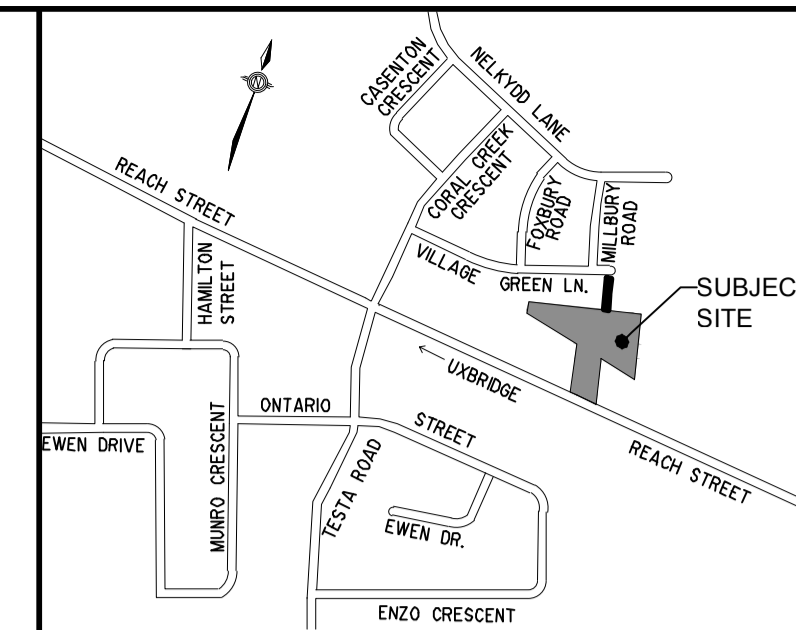
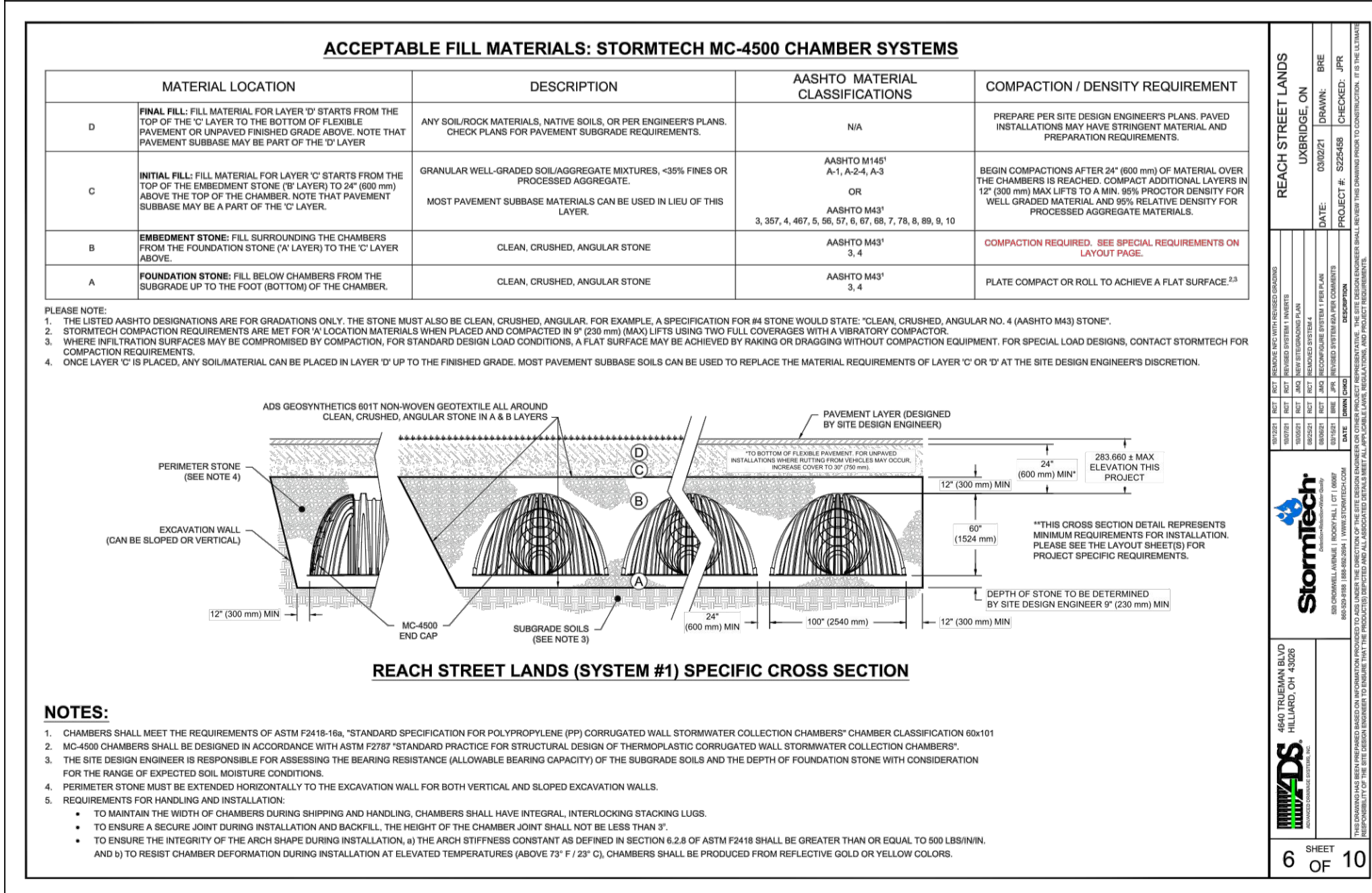
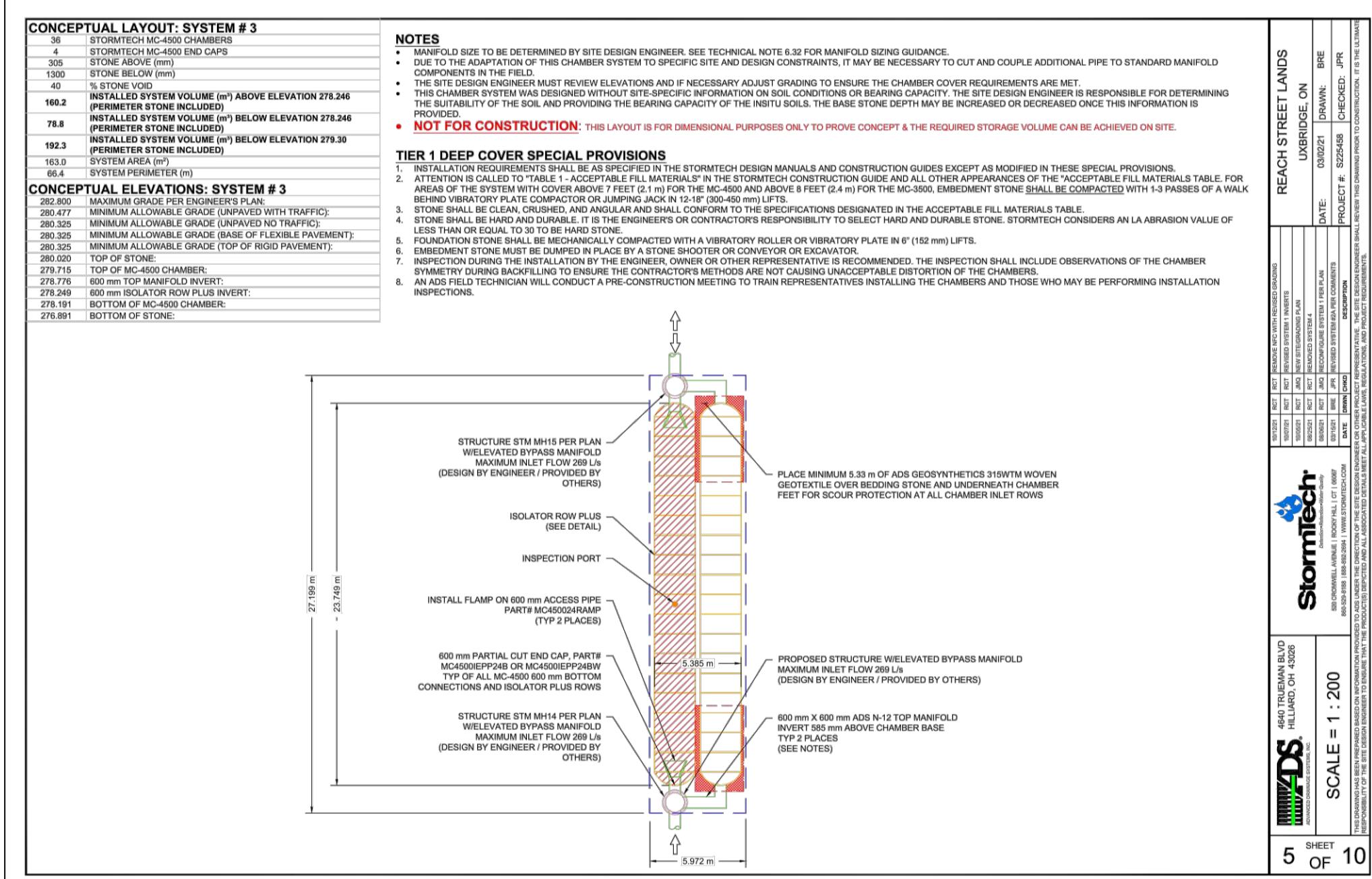
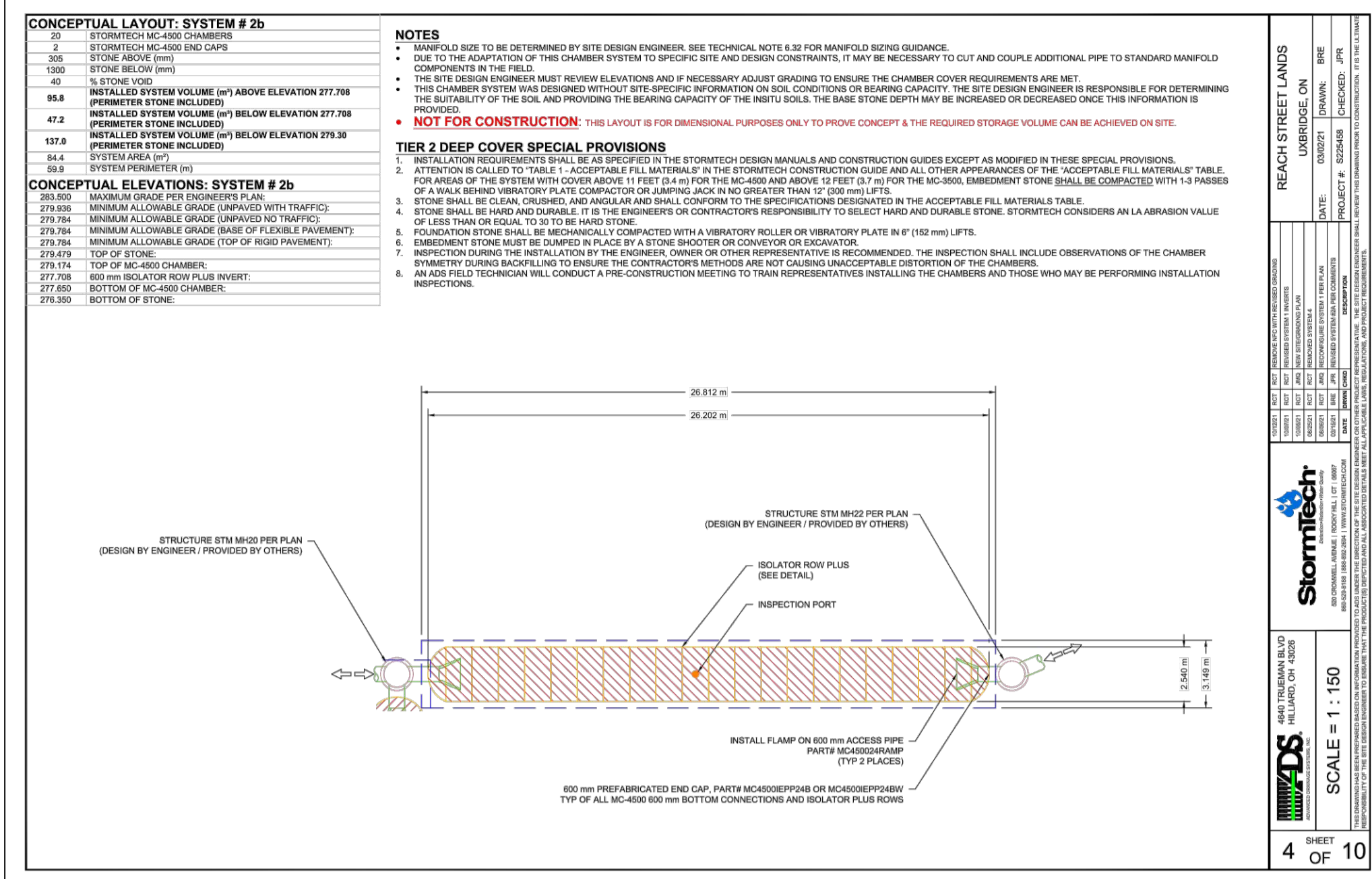
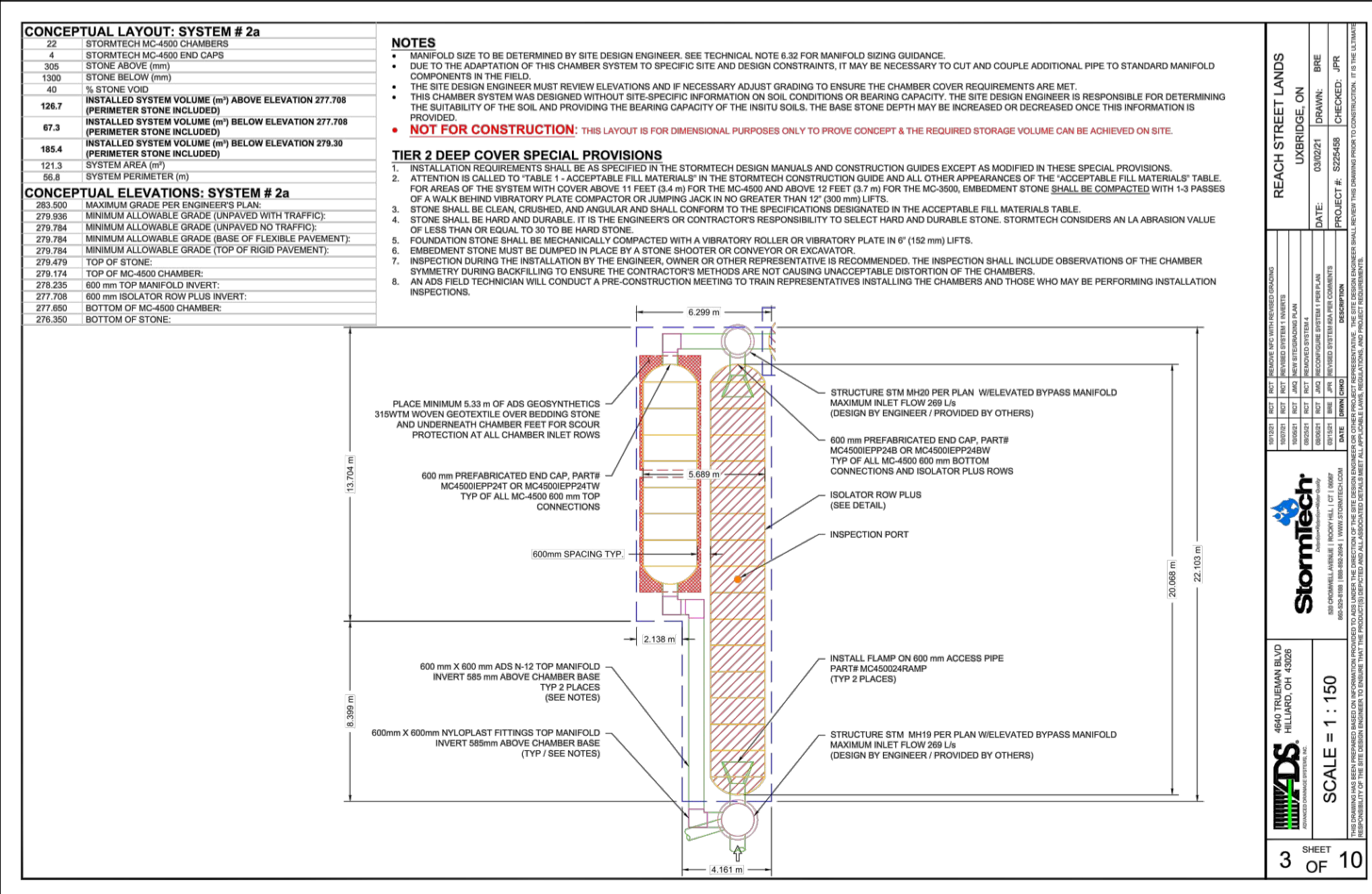
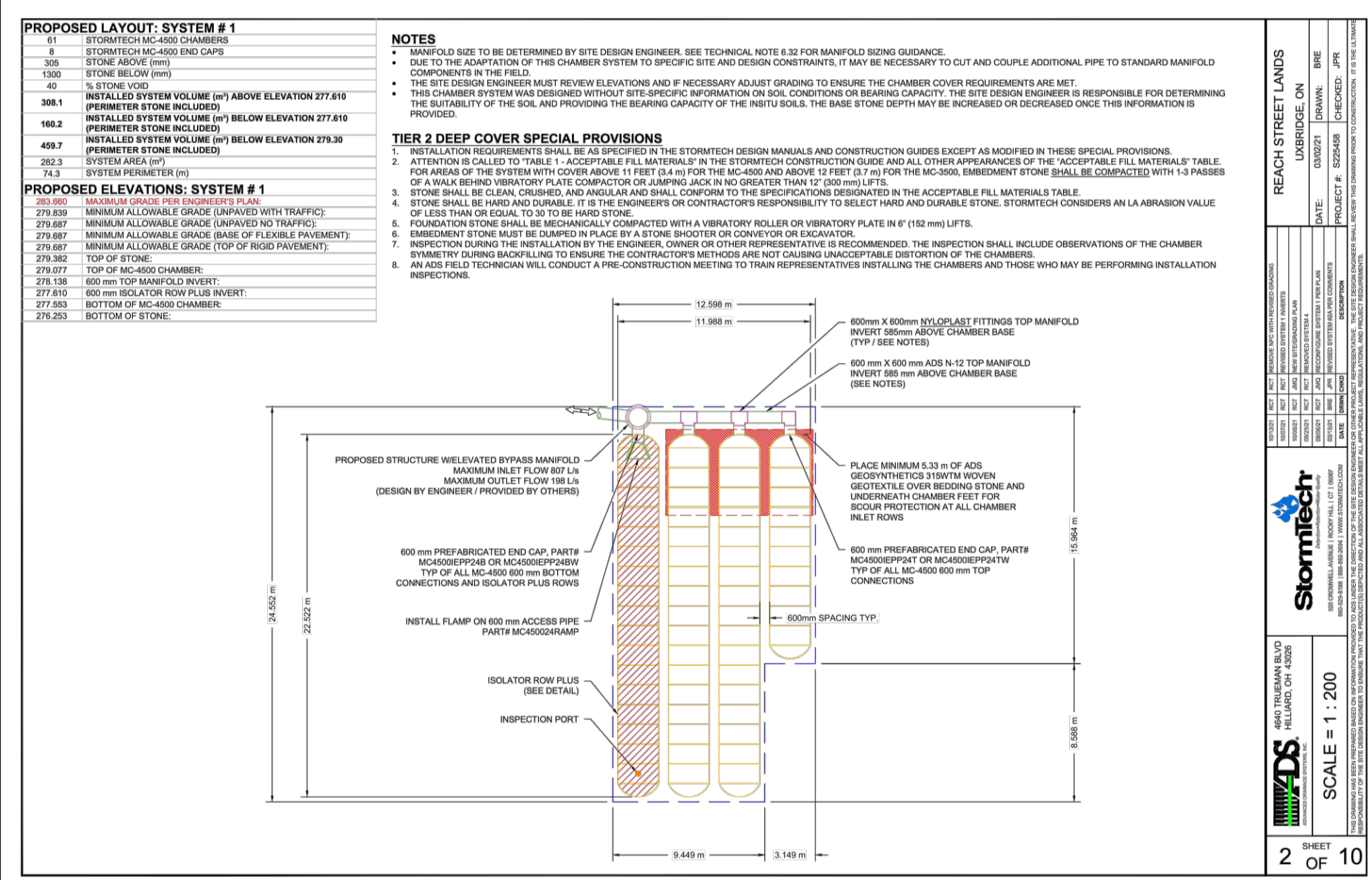
IMPORTANT NOTES FOR THE BIDDING AND INSTALLATION OF MC-4500 CHAMBER SYSTEM

- STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3000/4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DIGGER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - BACKFILL METHOD 1: CHAMBERS TO BE INSTALLED IN PLACE BY A STONE SHOOTER OR CONVEYOR OR EXCAVATOR.
 - BACKFILL METHOD 2: CHAMBERS TO BE INSTALLED IN PLACE BY A STONE SHOOTER OR CONVEYOR OR EXCAVATOR.
 - BACKFILL METHOD 3: CHAMBERS TO BE INSTALLED IN PLACE BY A STONE SHOOTER OR CONVEYOR OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELLED AND PROTECTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS MUST BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 250 mm (10") SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 300 mm (12") INTO CHAMBER END CAPS.
- EMBLEMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE WILL GRAPED BETWEEN 1/2" AND 1/2" (20-60 mm).
- STONE SHALL BE BROUGHT UP FROM BELOW AND NOT TO DISTURB THE CHAMBER SHAPE. STONE DEPTH SHOULD BE 100 mm MORE THAN 300 mm (12") BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXITON CATCH" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3000/4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:
 - NO REVERSE TRENCH DUMP TRUCK OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE STORMTECH MC-3000/4500 CONSTRUCTION GUIDE.
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3000/4500 CONSTRUCTION GUIDE".
- CALL 800-450-2684 FOR OTHER LOADS COVERED UNDER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DIGGER TO PUSH EMBLEMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY QUESTIONS ON THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY. CONTACT STORMTECH AT 1-888-800-2684 WITH ANY QUESTIONS ON THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.



KEYMAP
N.T.S.

REVIEWED BY: _____
TOWNSHIP OF UXBRIDGE
DATE: _____
TOWNSHIP ENGINEER FOR THE TOWNSHIP OF UXBRIDGE

APPROVED BY: _____
REGION OF DURHAM
DATE: _____

BENCHMARK:
ELEVATIONS ARE GEODETIC AND REFERRED TO THE MTO MONUMENT NO. 778488, ELEVATION = 267.903 M.

NOTE: ALL DIMENSIONS AND ELEVATIONS IN METRES UNLESS NOTED OTHERWISE. ALL PIPE SIZES IN MILLIMETRES.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT: **VENITIAN GROUP**

MUNICIPALITY: **TOWNSHIP OF UXBRIDGE
REGION OF DURHAM**

PROJECT TITLE: **REACH STREET LANDS**

SHEET TITLE: **ADS STORMTECH CHAMBER DETAIL**



DESIGNED	KLD	DRAWN	RAV	CHECKED	WJL
SCALE	SCALE 1:500	DATE	OCTOBER 2021	PROJECT NUMBER	17:386
		DWG. NUMBER	ADS1		

NOTE: THESE DETAILS ARE SHOWN AS PROVIDED BY ADS CANADA AND HAVE NOT BEEN DESIGNED BY SABOURIN KIMBLE & ASSOCIATES LTD.

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