PRO	JECT INFORMATION
ENGINEERED PRODUCT MANAGER:	PEGGY GRAHAM 720-982-6303 PEGGY.GRAHAM@ADS-PIPE.COM
ADS SALES REP:	PETER NICHOLS 505-301-5604 PETER.NICHOLS@ADS-PIPE.COM
PROJECT NO:	82394 REV3





AMERICAN TOYOTA

ALBUQUERQUE, NM

STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500 OR APPROVED EQUAL.
- 2. CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- 3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- 4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- 5. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 7. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- 8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

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

- STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTITIVE HAS COMPLETED A
 PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- 2. STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- 3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS.

STORMTECH RECOMMENDS 3 BACKFILL METHODS:

- STONESHOOTER LOCATED OFF THE CHAMBER BED.
- BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
- BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- 4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- 5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- 6. MAINTAIN MINIMUM 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- 7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- 8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm) MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- 9. STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- 10. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- 11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

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

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

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

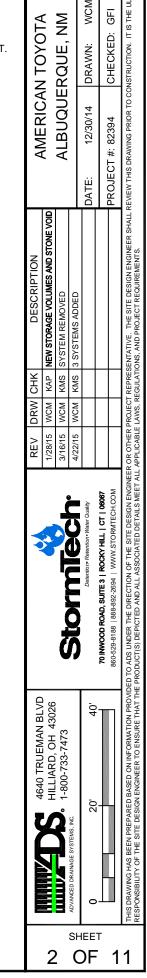
PROPOSED LAYOUT (SYSTEM #1)

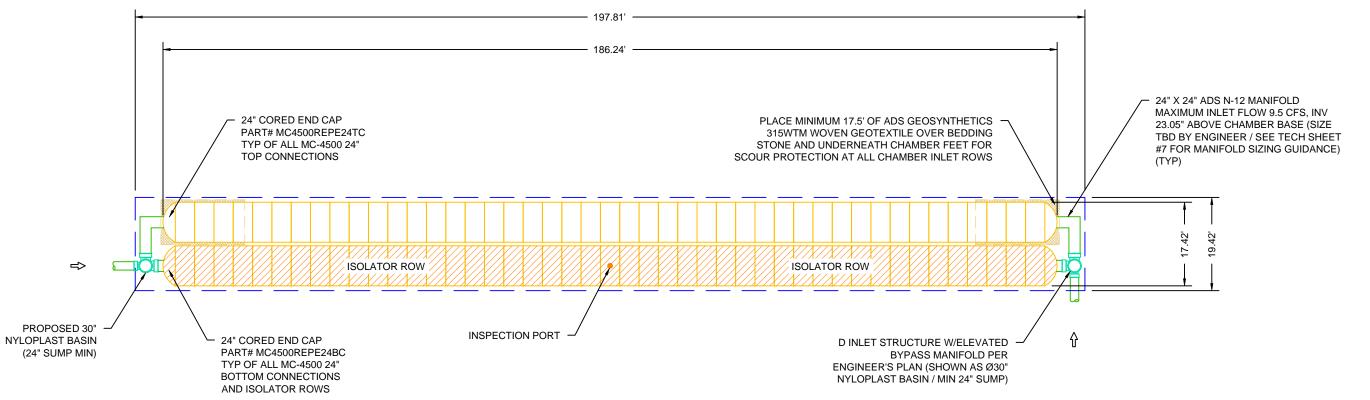
(90) STORMTECH MC-4500 CHAMBERS
(4) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 14,587 CF
AREA OF SYSTEM: 3,841 FT²
PERIMETER OF SYSTEM: 434 FT

PROPOSED ELEVATIONS (SYSTEM #1)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED): 5229.00 MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC): 5224.50 MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT): 5224.00 MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT): 5224.00 TOP OF STONE: 5223.00 TOP OF CHAMBER 5222.00 24" TOP MANIFOLD INVERT: 5218.92 24" ISOLATOR ROW INVERT: 5217.19 BOTTOM OF CHAMBER: 5217.00 BOTTOM OF STONE: 5216.25

- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.





PROPOSED LAYOUT (SYSTEM #2) (56) STORMTECH MC-4500 CHAMBERS

(56) STORMTECH MC-4500 CHAMBERS
(4) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 9,297 CF
AREA OF SYSTEM: 2,480 FT²

INSPECTION PORT

PERIMETER OF SYSTEM: 385 FT

PROPOSED ELEVATIONS (SYSTEM #2)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	5230.00
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	5225.50
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	5225.00
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	5225.00
TOP OF STONE:	5224.00
TOP OF CHAMBER:	5223.00
24" TOP MANIFOLD INVERT:	5219.92
24" ISOLATOR ROW INVERT:	5218.19
BOTTOM OF CHAMBER:	5218.00
BOTTOM OF STONE:	5217.25

NOTES

172.90'

PLACE MINIMUM 17.5' OF ADS GEOSYNTHETICS

STONE AND UNDERNEATH CHAMBER FEET FOR

SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

315WTM WOVEN GEOTEXTILE OVER BEDDING

ISOLATOR ROW

24" CORED END CAP

PART# MC4500REPE24BC

TYP OF ALL MC-4500 24"

BOTTOM CONNECTIONS

AND ISOLATOR ROWS

166.12'

ISOLATOR ROW

- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

24" CORED END CAP PART# MC4500REPE24TC TYP OF ALL MC-4500 24" TOP CONNECTIONS

24" X 24" ADS N-12 MANIFOLD

MAXIMUM INLET FLOW 9.5 CFS, INV

23.05" ABOVE CHAMBER BASE (SIZE

9.

C INLET STRUCTURE W/ELEVATED

ENGINEER'S PLAN (SHOWN AS Ø30"

NYLOPLAST BASIN / MIN 24" SUMP)

BYPASS MANIFOLD PER

TBD BY ENGINEER / SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE)



PROPOSED LAYOUT (SYSTEM #3) (38) STORMTECH MC-4500 CHAMBERS

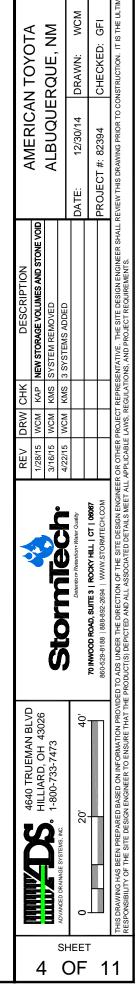
(38) STORMTECH MC-4500 CHAMBERS
(2) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 6,232 CF
AREA OF SYSTEM: 1,654 FT²
PERIMETER OF SYSTEM: 341 FT

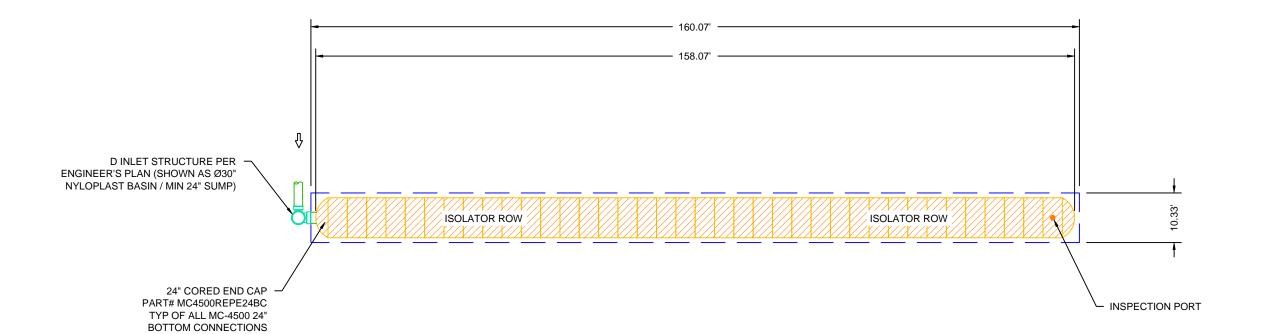
PROPOSED ELEVATIONS (SYSTEM #3)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED): 5230.00 MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC): 5225.50 MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT): 5225.00 MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT): 5225.00 TOP OF STONE: 5224.00 TOP OF CHAMBER: 5223.00 24" ISOLATOR ROW INVERT: 5218.19 BOTTOM OF CHAMBER: 5218.00 5217.25 BOTTOM OF STONE:

AND ISOLATOR ROWS

- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.



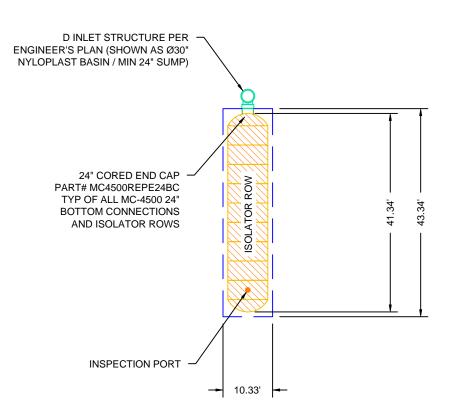


PROPOSED LAYOUT (SYSTEM #4) (9) STORMTECH MC-4500 CHAMBERS

(9) STORMTECH MC-4500 CHAMBERS
(2) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 1,628 CF
AREA OF SYSTEM: 448 FT²
PERIMETER OF SYSTEM: 107 FT

PROPOSED ELEVATIONS (SYSTEM #4)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	5218.25
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	5213.75
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	5213.25
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	5213.25
TOP OF STONE:	5212.25
TOP OF CHAMBER:	5211.25
24" ISOLATOR ROW INVERT:	5206.44
BOTTOM OF CHAMBER:	5206.25
BOTTOM OF STONE:	5205.50
20.10010010	0200.00



- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY
 ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE RETAINING WALL AND CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON THE RETAINING WALL'S INTEGRITY.

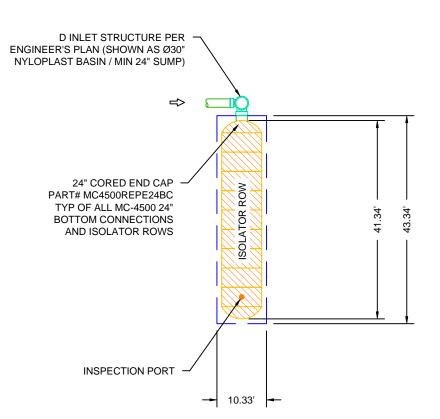
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5	1-800-733-7473		3/16/15 V	VCM K	MS SYST	3/16/15 WCM KMS SYSTEM REMOVED	ALBUQUE	ALBUQUERQUE, NM
S (ADVANCED DRAINAGE SYSTEMS, INC.		4/22/15 V	NO.	MS 3 SV	A/22/15 WCM KMS 3 SYSTEMS ADDED		
						LINO ADDED		
)F	20' 40'	Detention• Retention• Water Quality					DATE: 12/30/14	12/30/14 DRAWN: WCM
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		70 INWOOD ROAD, SUITE 3 ROCKY HILL CT 06067					: : : : : : : : : : : : : : : : : : : :	
1		860-529-8188 888-892-2694 WWW.STORMTECH.COM					PROJECT #: 82394	CHECKED: GFI
1	THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DITE DESIGN ENGINEER OF THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PROP TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.	DED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINE HE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET AI	ER OR OTHER PR L APPLICABLE L/	OJECT RE AWS, REGI	PRESENTAT JLATIONS, A	IVE. THE SITE DESIGN ENGINEER SHALL RI ND PROJECT REQUIREMENTS.	EVIEW THIS DRAWING PRIOR TO CO	NSTRUCTION. IT IS THE ULTIMATE

PROPOSED LAYOUT (SYSTEM #5) (9) STORMTECH MC-4500 CHAMBERS

(9) STORMTECH MC-4500 CHAMBERS
(2) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 1,628 CF
AREA OF SYSTEM: 448 FT²
PERIMETER OF SYSTEM: 107 FT

PROPOSED ELEVATIONS (SYSTEM #5)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	5214.35
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	5209.85
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	5209.35
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	5209.35
TOP OF STONE:	5208.35
TOP OF CHAMBER:	5207.35
24" ISOLATOR ROW INVERT:	5202.54
BOTTOM OF CHAMBER:	5202.35
BOTTOM OF STONE:	5201.60



NOTES

- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY
 ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

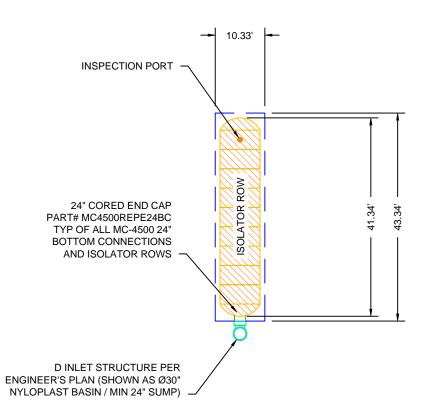
		4640 TBI IEMAN BI VD	**	REV	REV DRW CHK	¥	DESCRIPTION	AMERICAL	AMERICAN TOVOTA	
		HILLIARD OH 43026		1/28/15	WCM	□ NEW	1/28/15 WCM KAP NEW STORAGE VOLUMES AND STONE VOID			
	1-800-733-7473	1-800-733-7473		3/16/15	WCM KN	IS SYS	3/16/15 WCM KMS SYSTEM REMOVED	ALBUQUE	ALBUQUERQUE, NM	
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PROPOSED LAYOUT (SYSTEM #6) (9) STORMTECH MC-4500 CHAMBERS

(9) STORMTECH MC-4500 CHAMBERS
(2) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 30% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 1,628 CF
AREA OF SYSTEM: 448 FT²
PERIMETER OF SYSTEM: 107 FT

PROPOSED ELEVATIONS (SYSTEM #6)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	5215.50
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	5211.00
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	5210.50
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	5210.50
TOP OF STONE:	5209.50
TOP OF CHAMBER:	5208.50
24" ISOLATOR ROW INVERT:	5203.69
BOTTOM OF CHAMBER:	5203.50
BOTTOM OF STONE:	5202.75



- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY
 ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE SLOPE AND CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON THE SLOPE'S INTEGRITY.

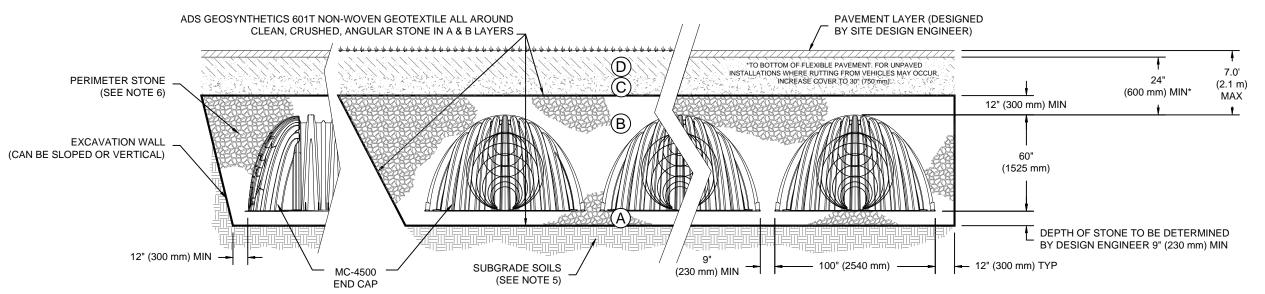
AMERICAN TOYOTA		ALBUQUERQUE, NM		 DATE: 12/30/14 DRAWN: WCM			PROJECT #: 82394 CHECKED: GFI	IEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE
REV DRW CHK DESCRIPTION	1/28/15 WCM KAP NEW STORAGE VOLUMES AND STONE VOID	3/16/15 WCM KMS SYSTEM REMOVED	4/22/15 WCM KMS 3 SYSTEMS ADDED	/Q				HHIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REQUIREMENTY. THE SITE DESIGN ENGINEER THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETALS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.
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4640 TRUEMAN BLVD	HILLIARD, OH 43026	LIMITATION 1-800-733-7473	ADVANCED DRAINAGE SYSTEMS, INC.	0 20' 40').			THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINE HAS BEEN PROJECT REQUIREMENTS. REGULATIONS, AND PROJECT REQUIREMENTS.
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ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ²³

PLEASE NOTE:

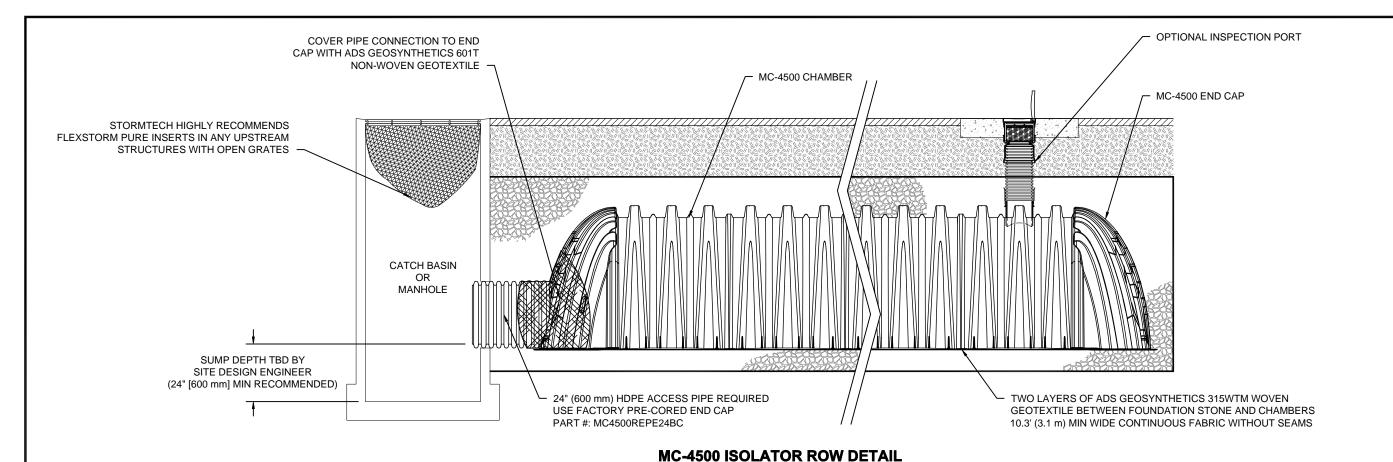
- 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED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



NOTES:

- 1. MC-4500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- 4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
- 5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

		4640 TRUEMAN BLVD	**	REV DRW CHK	DRW	SHK	DESCRIPTION	AMEBICA	AMEDICAN TOVOTA
_		HILLIARD, OH 43026		1/28/15	WCM	KAP	1/28/15 WCM KAP NEW STORAGE VOLUMES AND STONE VOID		
	1-800-733-7473	1-800-733-7473		3/16/15	WCM	KMS 8	3/16/15 WCM KMS SYSTEM REMOVED	ALBUQUE	ALBUQUERQUE, NM
SI	ADVANCED DRAINAGE SYSTEMS, INC.			4/22/15	WCM	KMS	4/22/15 WCM KMS 3 SYSTEMS ADDED		,
Н				0 /1		2	0.00		
EE			Detention• Retention• Water Quality				<u>0</u>	DATE: 12/30/14	12/30/14 DRAWN: WCM
1						ŀ			
			70 INWOOD ROAD, SUITE 3 ROCKY HILL CT 06067						
			860-529-8188 888-892-2694 WWW.STORMTECH.COM				d	PROJECT #: 82394	CHECKED: GFI
	THIS DRAWING HAS BEEN PREPARE	ED BASED ON INFORMATION PROVID	THE DITAIN BRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DITECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTMATE	R OR OTHER F	ROJECT F	REPRESE	INTATIVE. THE SITE DESIGN ENGINEER SHALL REV	VIEW THIS DRAWING PRIOR TO CC	NSTRUCTION. IT IS THE ULTIMATE
	TOTAL THE CONTRACTOR	THE FALL OF CHAPTER AND	CHARLES CHO FOLIO CONTRACTOR CONT	1000	LC 0/414	CITY	OF THE COLUMN CO		



INSPECTION & MAINTENANCE

INSPECT ISOLATOR ROW FOR SEDIMENT

A. INSPECTION PORTS (IF PRESENT)

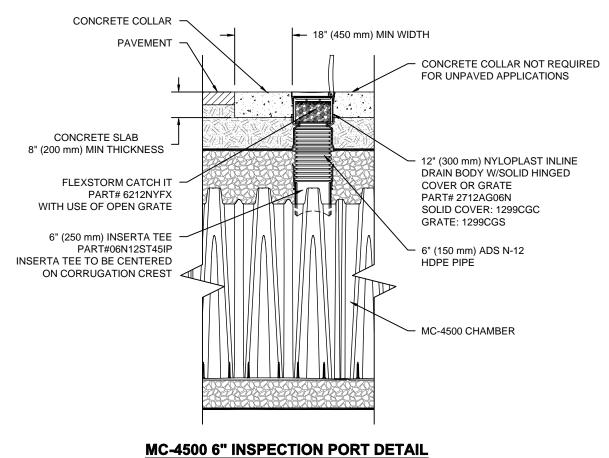
- REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3. A.5.

B. ALL ISOLATOR ROWS

- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
- USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
 - A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

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



Storm

4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

OF

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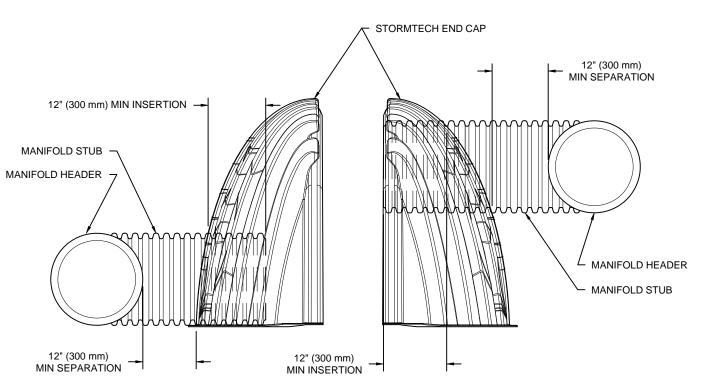
DRAWN:

12/30/14

AMERICAN TOYOTA ALBUQUERQUE, NM

MC-4500 TECHNICAL SPECIFICATION CREST **CREST** STIFFENING RIB - WEB VALLEY UPPER JOINT STIFFENING RIB CORRUGATION 60.0" 59.4" (1524 mm) FOOT (1509 mm) LOWER JOINT CORR. 100.0" (2540 mm) ⇒ BUILD ROW IN THIS DIRECTION 90.2" (2291 mm) 48.3" 52.0" (1227 mm) (1321 mm) INSTALLED 30.7" (781 mm) **INSTALLED**

MC-SERIES END CAP INSERTION DETAIL



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

NOMINAL END CAP SPECIFICATIONS

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)

MINIMUM INSTALLED STORAGE*

CHAMBER STORAGE

SIZE (W X H X INSTALLED LENGTH) END CAP STORAGE MINIMUM INSTALLED STORAGE* WEIGHT

12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

90.2" X 59.4" X 30.7" 35.7 CUBIC FEET 108.7 CUBIC FEET

100.0" X 60.0" X 48.3"

106.5 CUBIC FEET

162.6 CUBIC FEET

130.0 lbs.

(1.01 m³) (3.08 m³) 135.0 lbs.

(61.2 kg) *ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS,

(3.01 m³)

(4.60 m³)

(59.0 kg)

(2540 mm X 1524 mm X 1227 mm)

(2291 mm X 1509 mm X 781 mm)

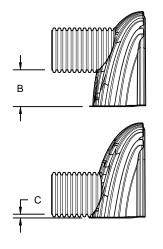
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART#	STUB	В	С
MC4500REPE06T	6" (150 mm)	42.54" (1.081 m)	
MC4500REPE06B	0 (130111111)		0.86" (22 mm)
MC4500REPE08T	8" (200 mm)	40.50" (1.029 m)	
MC4500REPE08B	0 (200 111111)		1.01" (26 mm)
MC4500REPE10T	10" (250 mm)	38.37" (975 mm)	
MC4500REPE10B	10 (230 11111)		1.33" (34 mm)
MC4500REPE12T	12" (300 mm)	35.69" (907 mm)	
MC4500REPE12B	12 (300 11111)		1.55" (39 mm)
MC4500REPE15T	15" (375 mm)	32.72" (831 mm)	
MC4500REPE15B	15 (3/5 11111)		1.70" (43 mm)
MC4500REPE18TC	18" (450 mm)	29.36" (746 mm)	
MC4500REPE18BC	16 (450 11111)		1.97" (50 mm)
MC4500REPE24TC	24" (600 mm)	23.05" (585 mm)	
MC4500REPE24BC	24 (000 111111)		2.26" (57 mm)
MC4500REPE30BC	30" (750 mm)		2.95" (75 mm)
MC4500REPE36BC	36" (900 mm)		3.25" (83 mm)
MC4500REPE42BC	42" (1050 mm)		3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm)

THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHTEST POSSIBLE FOR THE PIPE SIZE.



35.1" (891 mm)

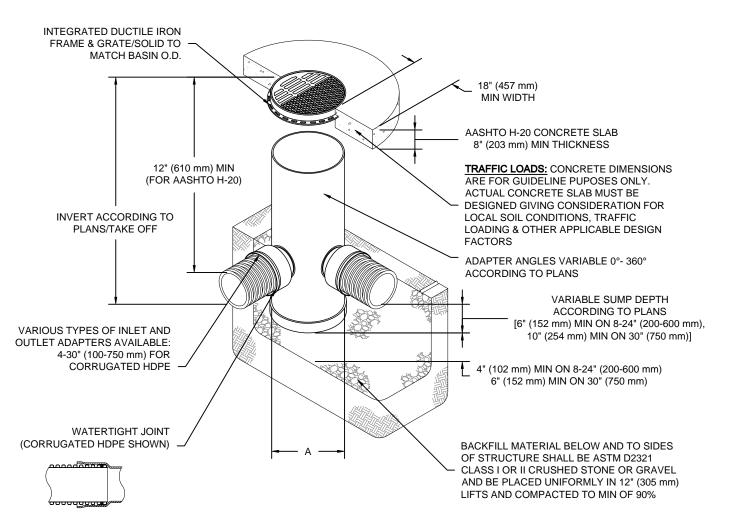
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	A640 TBI IEMAN BI VD	**	REV	REV DRW CHK	CHK	DESCRIPTION	ANERICA	AMERICAN TOVOTA
	HILLIARD OH 43026		1/28/15	WCM	KAP	1/28/15 WCM KAP NEW STORAGE VOLUMES AND STONE VOID		
_	1-800-733-7473		3/16/15	WCM	KMS	3/16/15 WCM KMS SYSTEM REMOVED	ALBUQUE	ALBUQUERQUE, NM
SI	ADVANCED DRAINAGE SYSTEMS, INC.		4/22/15	NO.	K W X	4/22/15 WCM KMS 3 SYSTEMS ADDED		
Н			2 / 7 / 2			0.01.51.07.00.50		
EE		Detention• Retention• Water Quality					DATE: 12/30/14	12/30/14 DRAWN: WCM
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		70 INWOOD ROAD, SUITE 3 ROCKY HILL CT 06067						
_		860-529-8188 888-892-2694 WWW.STORMTECH.COM					PROJECT #: 82394	CHECKED: GFI
4	THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULT RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.	DED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGIN HE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.	R OR OTHER L APPLICABLE	PROJECT LAWS, RE	REPRES	ENTATIVE. THE SITE DESIGN ENGINEER SHALL R ONS, AND PROJECT REQUIREMENTS.	EVIEW THIS DRAWING PRIOR TO C	ONSTRUCTION. IT IS THE UL

10 OF 11

NYLOPLAST DRAIN BASIN

NTS



NOTES

- 1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- 6. TO ORDER CALL: 800-821-6710

Α	PART#	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12"	2812AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(300 mm)		AASHTO H-10	H-20	AASHTO H-20
15"	2815AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(375 mm)		AASHTO H-10	H-20	AASHTO H-20
18"	2818AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(450 mm)		AASHTO H-10	H-20	AASHTO H-20
24"	2824AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(600 mm)		AASHTO H-10	H-20	AASHTO H-20
30"	2830AG	PEDESTRIAN	STANDARD AASHTO	SOLID
(750 mm)		AASHTO H-20	H-20	AASHTO H-20

WCM GFI AMERICAN TOYOTA ALBUQUERQUE, NM CHECKED: DRAWN: 12/30/14 PROJECT #: 82394 o VERONA AVE FORD, GA 30518 N (770) 932-2443 (770) 932-2490 M.nyloplast-us.co 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

SHEET

