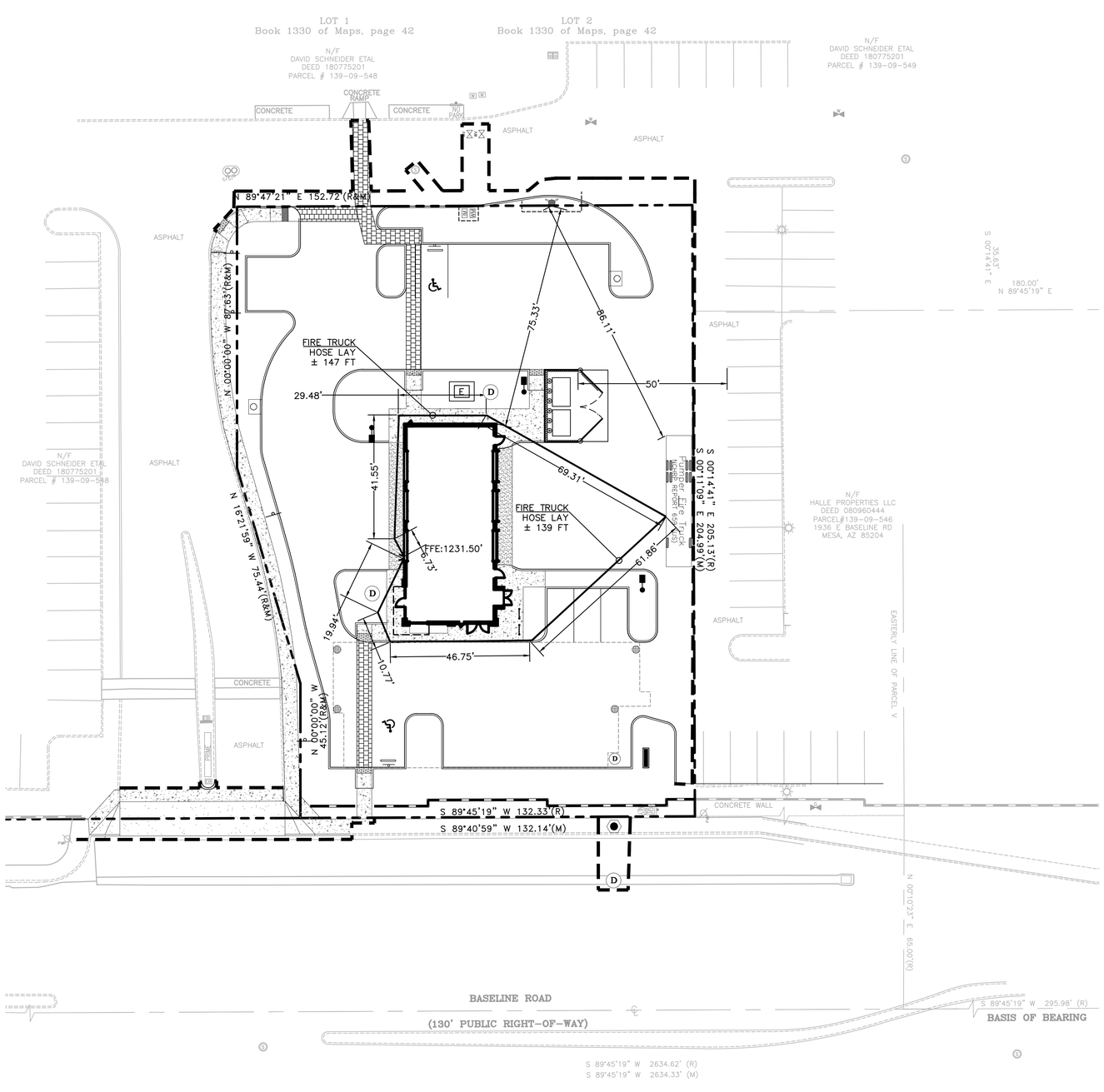

Know what's **below.**
Call before you dig.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

EXISTING LEGEND:

- MONUMENT FOUND
- MONUMENT SET
- MAG NAIL FOUND
- MAG NAIL SET
- SET X MARK
- (R) RECORD DATA
- (M) MEASURED DATA
- (C) CALCULATED DATA
- R/W RIGHT OF WAY
- BSL BACK SET LINE
- RCP REINFORCED CONC PIPE
- CMP CORRUGATED METAL PIPE
- PVC PLASTIC PIPE
- C — CABLE TELEVISION
- POWERPOLE
- GUY WIRE
- LIGHT POLE
- STREET LIGHT POLE
- ELEC. TRANSFORMER
- AIR CONDITIONER
- O/HE OVERHEAD ELECTRIC
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC BOX
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- WATER VALVE
- WATER METER
- HYDRANT
- SS — SAN. SEWER LINE
- SEWER MANHOLE
- GREASE TRAP
- CLEAN OUT
- SD — STORM DRAIN LINE
- STORM DRAIN MANHOLE
- STORM INLET
- CATCH BASIN
- CURB INLET
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- TELEPHONE POLE
- T — TELEPHONE LINE
- O/HT OVERHEAD TELEPHONE
- AGL ABOVE GROUND LEVEL
- F.P. FOOTPRINT
- DECIDUOUS TREE
- L/S LANDSCAPING
- UNKNOWN MANHOLE
- STOP SIGN
- SIGN
- GAS PEDESTAL
- GAS MANHOLE
- G — GAS LINE
- GAS VALVE
- GAS METER
- UNDERGROUND GAS MARKER

PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- SAWCUT LINE
- PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
- PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)

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No.	Revisions/Submissions	Date
	ENTITLEMENT RESUBMITTAL #2	4/24/20
	ENGINEERING RESUBMITTAL	4/13/20
	ENTITLEMENT RESUBMITTAL	4/06/20
	100% SUBMISSION	3/04/20

Valvoline Instant Oil Change

VALVOLINE INSTANT OIL CHANGE
1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Registered Professional Engineer (Civil)
CERTIFICATE NO. 68113
STEPHEN POWERS
ARIZONA U.S.A.
EXPIRES: 12/31/22

Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

FIRE PLAN

Drawing No.

C-1.2

Know what's **below.**
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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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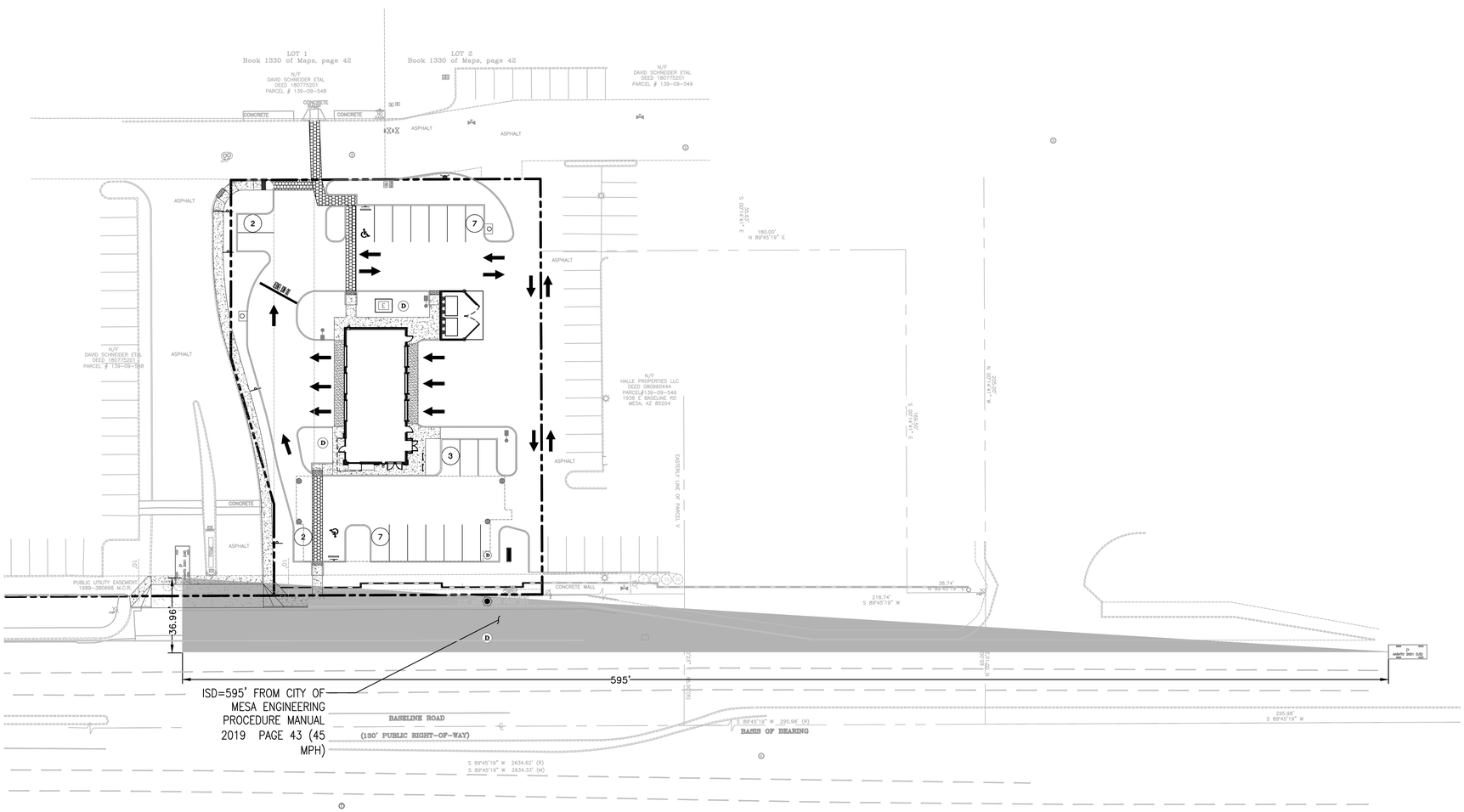

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Project No.	20191354
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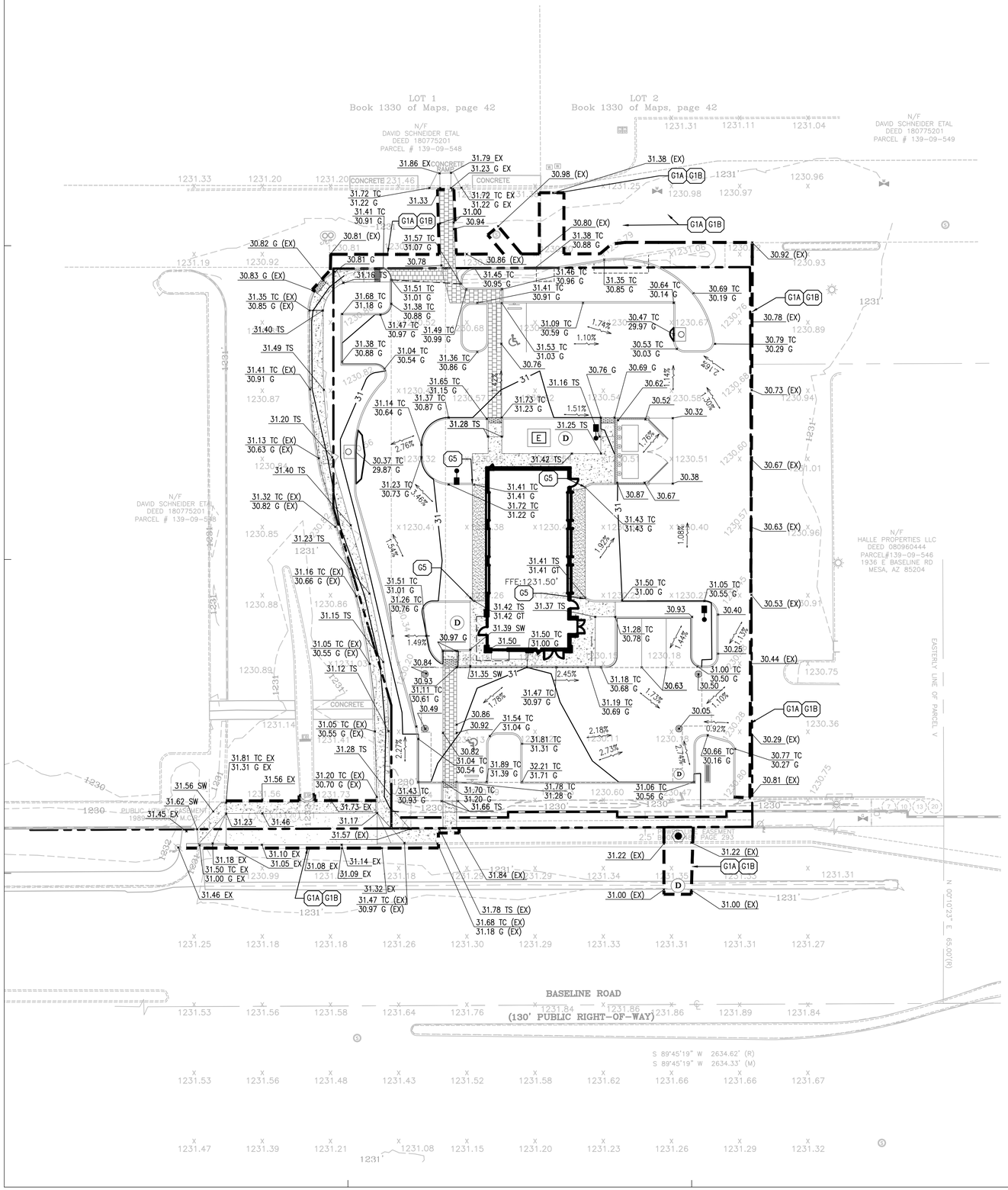
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

SIGHT DISTANCE

Drawing No.

C-1.3



GENERAL GRADING NOTES:

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11. CUT AND FILL SLOPES SHALL HAVE A MAXIMUM SLOPE OF 2:1.
12. ALL EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, CONSTRUCTION FILLS, AND THE FINAL SHAPING AND TRIMMING TO THE THE LINES AND GRADES SHOWN ON THE PLANS.
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28. ALL PROPOSED SPOT ELEVATIONS SHOWN INDICATE FINISHED GRADED ELEVATIONS AT EDGE OF PAVEMENT AND/OR GRADE BREAKS, UNLESS OTHERWISE NOTED.

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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- GAS MANHOLE
- G — GAS LINE
- GAS VALVE
- GAS METER
- UNDERGROUND GAS MARKER

PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- XXXX — PROPOSED CONTOUR
- PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
- DRAINAGE SLOPE AND DIRECTION
- XXXX TS — TOP OF SIDEWALK
- XXXX TC / XXXX G — TOP OF CURB / GUTTER
- XXXX EX — EXISTING SPOT ELEVATION

NOTE: ALL PROPOSED SPOT ELEVATIONS HAVE A BASE ELEVATION OF 1,200 FEET

GRADING KEY NOTES

G1A	MATCH EXISTING PAVEMENT ELEVATION.
G1B	LIMITS OF SAWCUT AND PAVEMENT REMOVAL
G5	0" TO 6" CURB TAPER OVER 10' REFER TO DETAIL SHEET

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Valvoline Instant Oil Change

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1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Registered Professional Engineer (Civil) CERTIFICATE NO. 68113 STEPHEN POWERS ARIZONA U.S.A.

EXPIRES: 12/31/22

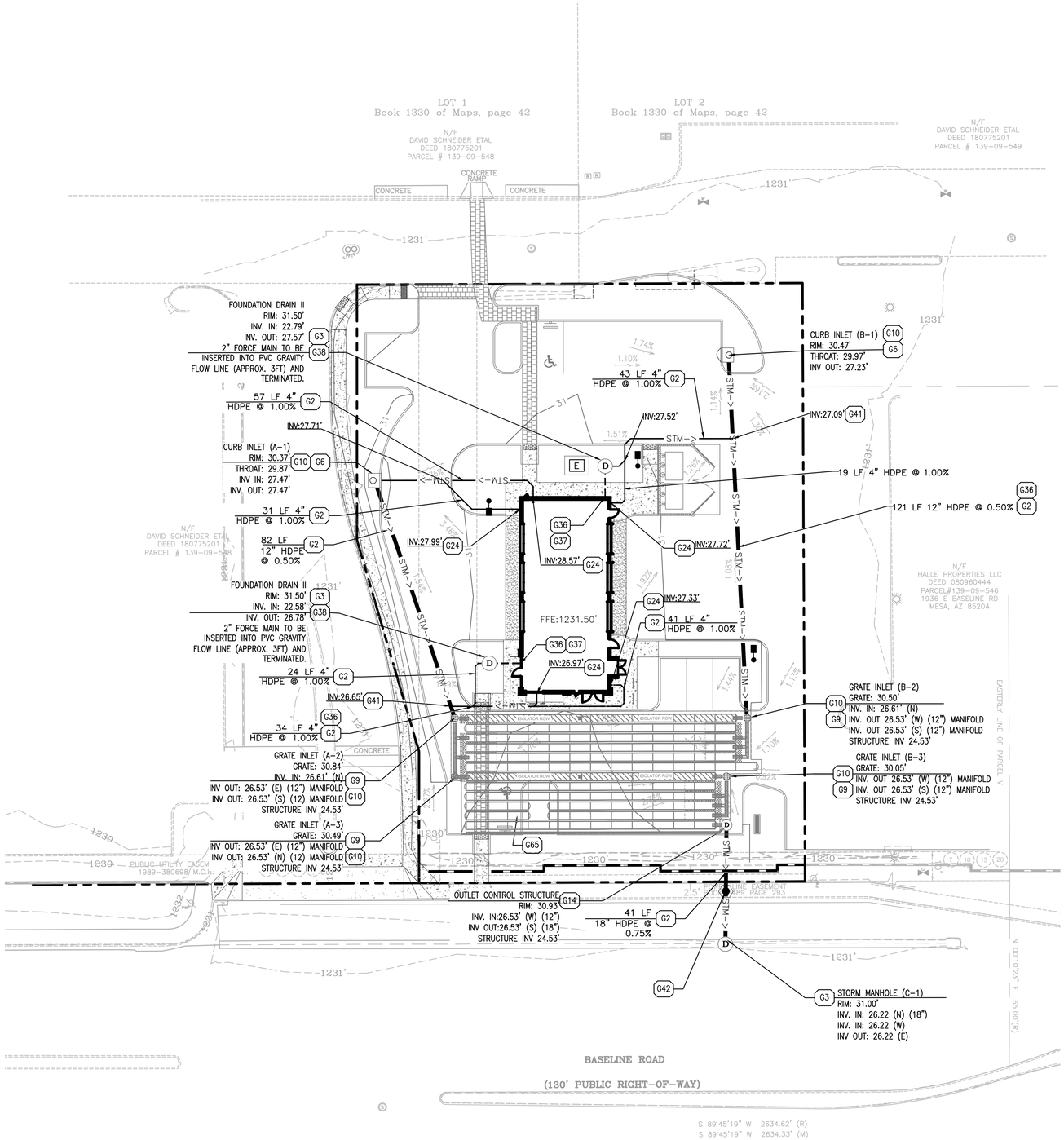
Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

GRADING PLAN

Drawing No.

C-3



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PROPOSED LEGEND:

PROPERTY LINE
PROPOSED CURB
XXXX PROPOSED CONTOUR
STM-> PROPOSED HDPE STORM SEWER PIPE
DRAINAGE SLOPE AND DIRECTION
XXX EXISTING CONTOUR
D PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)

GRADING KEY NOTES

#	
G1A	MATCH EXISTING PAVEMENT ELEVATION.
G1B	LIMITS OF SAWCUT AND PAVEMENT REMOVAL
G2	STORM SEWER (SEE NOTE FOR TYPE, SIZE AND SLOPE)
G3	STORM SEWER MANHOLE PER MAG 420 & 421 STD
G5	0" TO 6" CURB TAPER OVER 10' REFER TO DETAIL SHEET
G6	CURB INLET
G9	GRATE NYLOPLAST DRAIN BASIN, PER ADS STD, REFER TO C-7.5 SHEET
G10	WATERSTOP CONNECTION FOR HDPE TO CONCRETE STRUCTURE
G14	OUTFALL STRUCTURE
G24	CONNECT DOWN SPOUTS UNDERGROUND TO STORM PIPE
G36	HDPE PIPE BEDDING
G37	REFER TO PLUMBING PLAN FOR FOUNDATION DRAIN DESIGN
G38	REFER TO PLUMBING PLAN FOR SUMP PUMP DESIGN
G41	INSERSA TEE CONNECTION
G42	STORM VALVE
G65	UNDERGROUND DETENTION SYSTEM. REFER TO DETAILS ON C-7.5.

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Professional Seal

Registered Professional Engineer (Civil) CERTIFICATE NO. 68113 STEPHEN POWERS Arizona U.S.A.

EXPIRES: 12/31/22

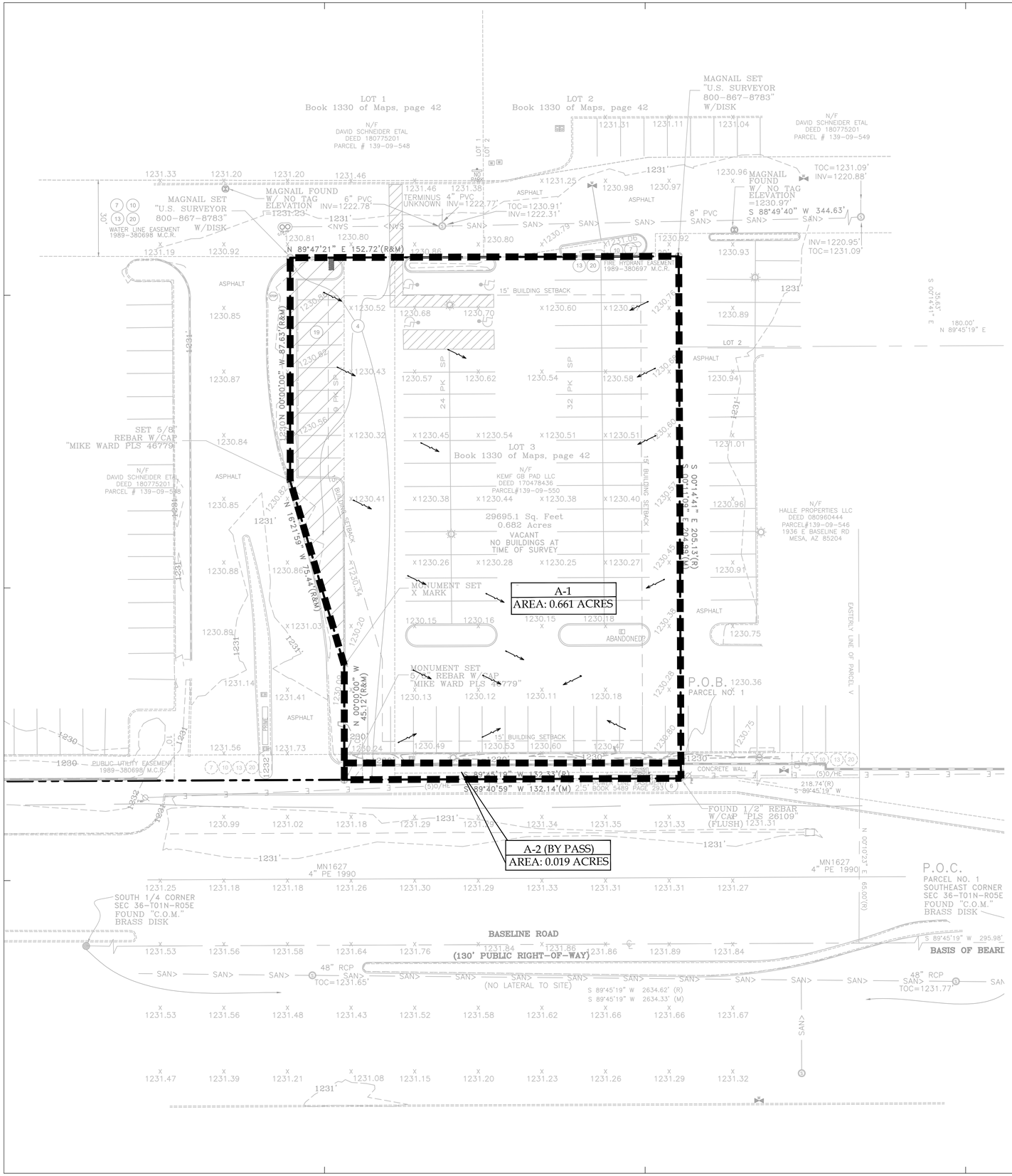
Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

STORM SEWER PLAN

Drawing No.

C-3.1



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- AIR CONDITIONER
- O/HE OVERHEAD ELECTRIC
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC BOX
- —W— WATER LINE
- WATER VALVE
- WATER METER
- HYDRANT
- —SS— SAN. SEWER LINE
- SEWER MANHOLE
- GREASE TRAP
- CLEAN OUT
- —SD— STORM DRAIN LINE
- STORM DRAIN MANHOLE
- STORM INLET
- CATCH BASIN
- CURB INLET
- TELEPHONE MANHOLE
- TELEPHONE POLE
- —T— TELEPHONE LINE
- O/HT OVERHEAD TELEPHONE
- AGL ABOVE GROUND LEVEL
- F.P. FOOTPRINT
- DECIDUOUS TREE
- LANDSCAPING
- UNKNOWN MANHOLE
- STOP SIGN
- SIGN
- GAS PEDESTAL
- GAS MANHOLE
- —G— GAS LINE
- GAS VALVE
- GAS METER
- UNDERGROUND GAS MARKER

PROPOSED LEGEND:

- PROPERTY LINE
- DRAINAGE SLOPE AND DIRECTION
- DRAINAGE BASIN BOUNDARY
- A — DRAINAGE BASIN ID
- X — DRAINAGE BASIN AREA (ACRES)
- XXXX EXISTING CONTOUR

811 Know what's **below.** **Call** before you dig.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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Atlanta, GA 30309
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No.	Revisions/Submissions	Date
	100% SUBMISSION	3/04/20
	ENTITLEMENT RESUBMITTAL	4/06/20
	ENGINEERING RESUBMITTAL	4/13/20
	ENTITLEMENT RESUBMITTAL #2	4/24/20

Valvoline Instant Oil Change

VALVOLINE INSTANT OIL CHANGE
1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Registered Professional Engineer (Civil)
CERTIFICATE NO. 68113
STEPHEN POWERS
ARIZONA U.S.A.
EXPIRES: 12/31/22

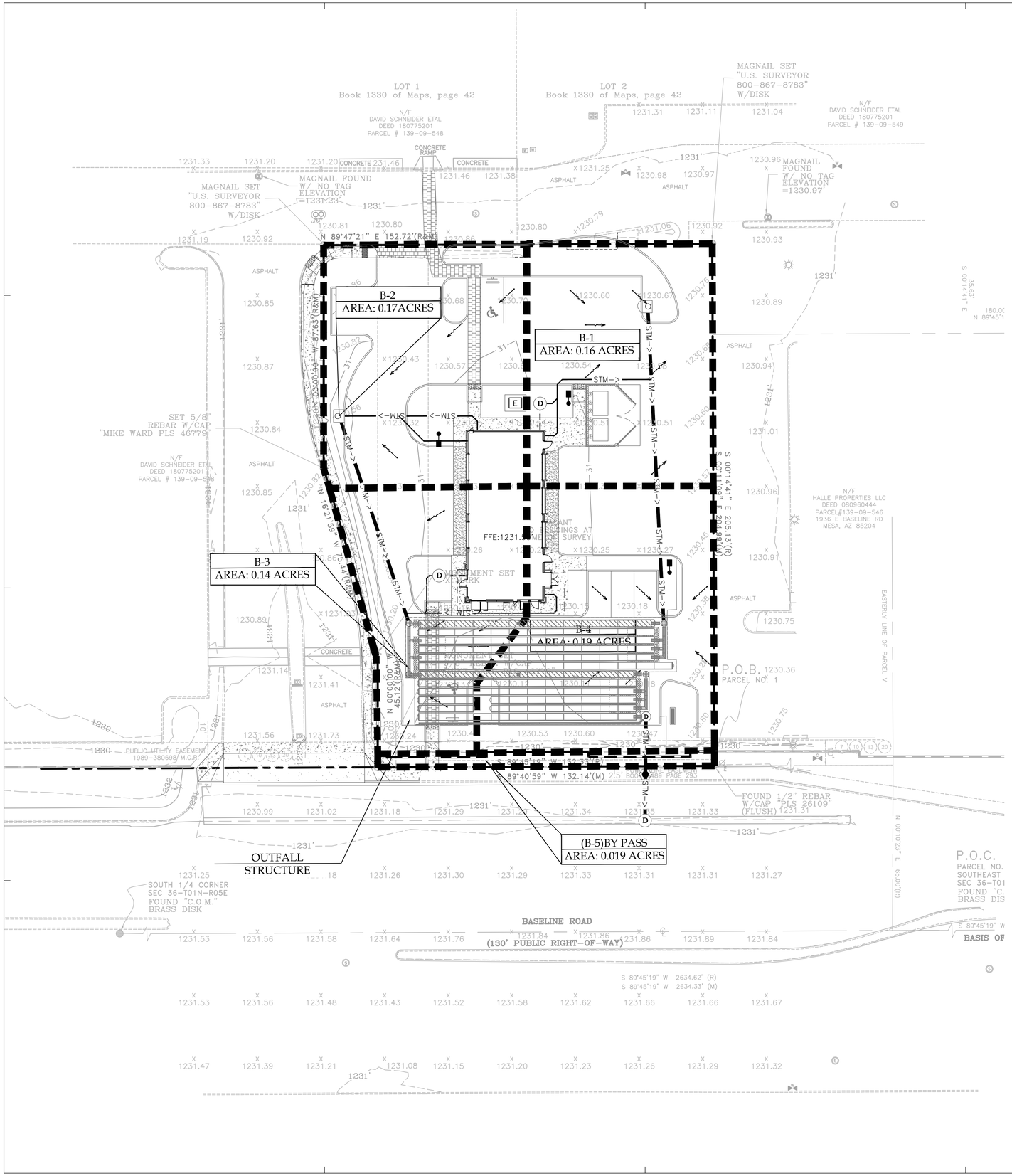
Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

PREDEVELOPED DRAINAGE PLAN

Drawing No.

C-4



EXISTING LEGEND:

- MONUMENT FOUND
- MONUMENT SET
- MAG NAIL FOUND
- MAG NAIL SET
- SET X MARK
- (R) RECORD DATA
- (M) MEASURED DATA
- (C) CALCULATED DATA
- R/W RIGHT OF WAY
- BSL BACK SET LINE
- RCP REINFORCED CONC PIPE
- CMP CORRUGATED METAL PIPE
- PVC PLASTIC PIPE
- —C— CABLE TELEVISION
- POWERPOLE
- GUY WIRE
- LIGHT POLE
- STREET LIGHT POLE
- ELEC. TRANSFORMER
- AIR CONDITIONER
- O/HE OVERHEAD ELECTRIC
- ELECTRIC MANHOLE
- ELECTRIC METER
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- STOP SIGN
- SIGN
- GAS PEDESTAL
- GAS MANHOLE
- —G— GAS LINE
- GAS VALVE
- GAS METER
- UNDERGROUND GAS MARKER

PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- DRAINAGE SLOPE AND DIRECTION
- —STM—> PROPOSED RCP STORM PIPE
- XXXX PROPOSED CONTOUR
- DRAINAGE BASIN BOUNDARY
- A — DRAINAGE BASIN ID
- X — DRAINAGE BASIN AREA (ACRES)
- XXXX EXISTING CONTOUR
- D PROPOSED DRAINAGE STRUCTURES (CURB INLET, GRATE INLET)

Know what's **below.**
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VALVOLINE INSTANT OIL CHANGE
1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Registered Professional Engineer (Civil)
CERTIFICATE NO. 68113
STEPHEN POWERS
ARIZONA U.S.A.
EXPIRES: 12/31/22

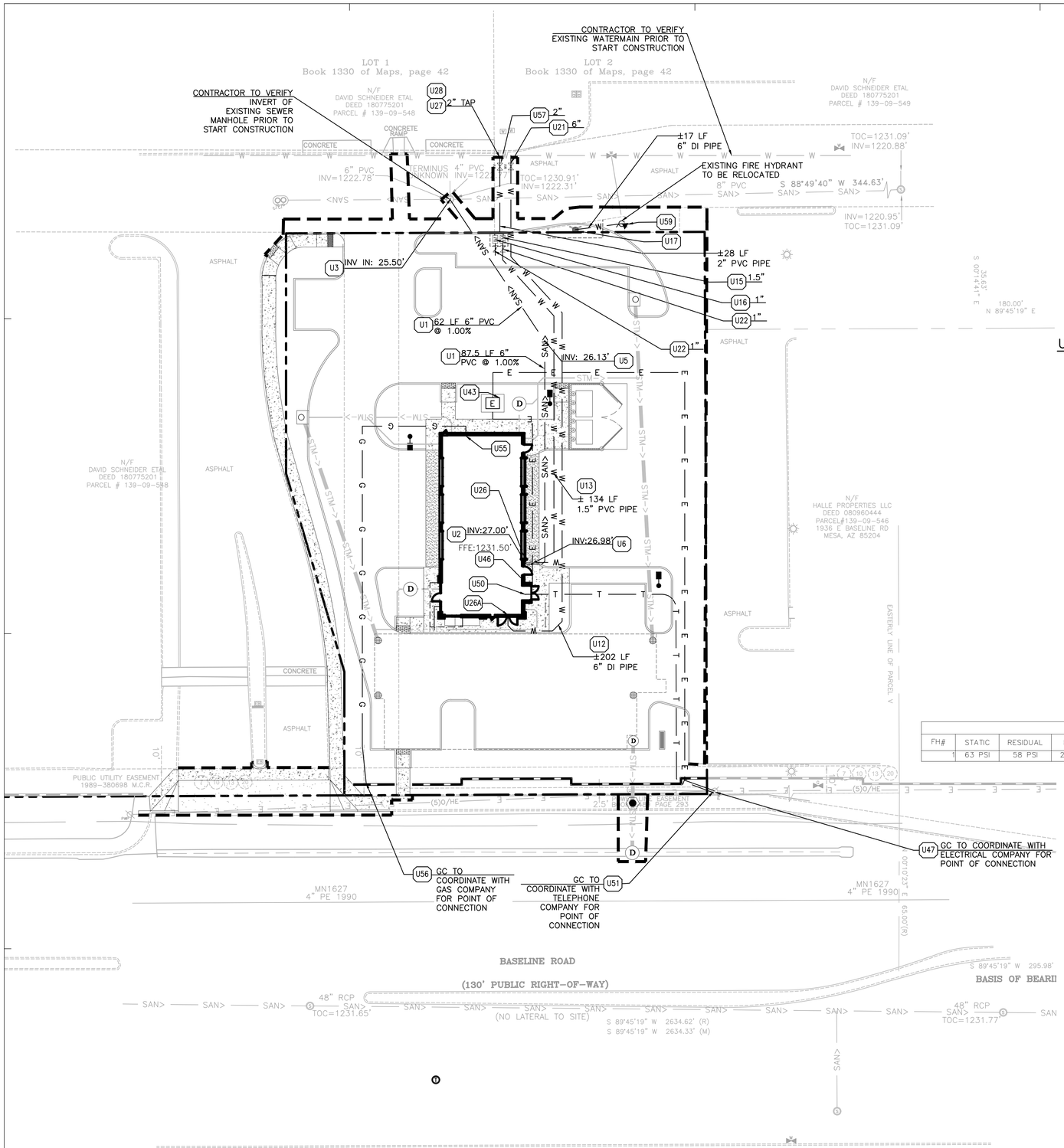
Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

POST DEVELOPED DRAINAGE PLAN

Drawing No.

C-4.1



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- STOP STOP SIGN
- SIGN
- GAS PEDESTAL
- GAS MANHOLE
- G GAS LINE
- GAS VALVE
- GAS METER
- UNDERGROUND GAS MARKER

UTILITY KEY NOTES

#	
U1	SANITARY SEWER (SEE NOTE FOR TYPE, SIZE AND SLOPE)
U2	SANITARY SEWER POINT OF ENTRY (PER MEP PLANS)
U3	SANITARY SEWER POINT OF CONNECTION
U5	SANITARY SEWER CLEAN-OUT
U6	SANITARY SEWER DOUBLE CLEAN-OUT PER DETAIL SHEET C-7.3
U12	FIRE PROTECTION WATER LINE (SEE NOTE FOR TYPE AND SIZE)
U13	DOMESTIC WATER LINE (SEE NOTE FOR TYPE AND SIZE)
U15	DOMESTIC WATER METER PER CITY OF MESA STD DRAWING M-29 PER DETAIL SHEET C-7.2
U16	IRRIGATION WATER METER
U17	RELOCATED FIRE HYDRANT (PER LOCAL CODES)
U21	WATER VALVE (SEE NOTE FOR SIZE)
U22	BACKFLOW PREVENTER PER CITY OF MESA STD DRAWING M-31.03 PER DETAIL SHEET C-7.3
U26	WATER LINE POINT OF ENTRY (PER MEP PLANS)
U26A	FIRE LINE POINT OF ENTRY (PER MEP PLANS)
U27	WATER LINE POINT OF CONNECTION PER CITY OF MESA STD DETAIL NO M-49.01 ON DETAIL SHEET 7.2
U28	CONTRACTOR SHALL COORDINATE WITH WATER DEPARTMENT TO ENSURE THAT SERVICE IS NOT INTERRUPTED AT ANY TIME.
U43	PROPOSED ELECTRIC TRANSFORMER
U46	ELECTRIC SERVICE POINT OF ENTRY (PER MEP PLANS)
U47	ELECTRIC SERVICE POINT OF CONNECTION
U50	TELEPHONE SERVICE POINT OF ENTRY (PER MEP PLANS)
U51	TELEPHONE SERVICE POINT OF CONNECTION (GC TO COORDINATE WITH LOCAL TELEPHONE COMPANY)
U55	GAS LINE POINT OF ENTRY (PER MEP PLANS)
U56	GAS LINE POINT OF CONNECTION
U57	2" WATER VALVE
U59	90° MAG THRUST BLOCK STD 380

FIRE FLOW TEST

FH#	STATIC	RESIDUAL	FLOW	FLOW AT 20 PSI	DATE	TIME	LOCATION
1	63 PSI	58 PSI	2508 PSI	8015 PSI	2/14/2020	7:45:00 AM	1864 E BASELINE RD

PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- G GAS LINES
- T TELEPHONE LINES
- SAN> SANITARY SEWER LINES
- W WATER LINES
- UE UNDERGROUND ELECTRIC LINES
- DOUBLE CLEAN OUT
- CLEAN OUT
- LIGHT POLES

NOTE: ALL PROPOSED FLOWLINES HAVE A BASE ELEVATION OF 1,200 FEET

GENERAL UTILITY NOTES:

1. CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ENSURE NO CONFLICTS EXIST WITH PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE IF NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.

2. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO THE REMOVAL OF INDICATED UTILITIES ON SITE (SEE DEMOLITION PLAN). CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS REQUIRED FOR DEMOLITION AND HAUL OFF FROM THE APPROPRIATE AUTHORITIES.

3. AUTHORIZATION MUST BE OBTAINED FROM THE CITY OF MESA AUTHORITY TO CONSTRUCT, ALTER OR MODIFY A WATER OR SEWER LINE. CONSTRUCTION OF WATER AND SEWER INFRASTRUCTURE WILL BE AUTHORIZED BY THE WATER SYSTEM UPON:
   - APPROVAL OF SUBMITTED PLANS.
   - NOTIFICATION OF THE WATER SYSTEM AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION.

4. AT THE COMPLETION OF THE WATER AND/OR SEWER CONSTRUCTION AND PRIOR TO RECORDING THE FINAL PLAT, THE CONTRACTOR WILL FURNISH THE WATER SYSTEM INSPECTOR RECORD DRAWINGS OF THE PROJECT.

5. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE GAS COMPANY FOR THE CONSTRUCTION OF THE GAS LINE BETWEEN METER AND MAIN.

6. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE POWER COMPANY FOR THE CONSTRUCTION OF ELECTRICAL CONDUIT TO PROVIDE SERVICE TO THE TRANSFORMER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING, PRIOR TO CONSTRUCTION, ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF SANITARY SEWERS, STORM DRAINAGE, AND WATER MAINS. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORD ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.

8. CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE JURISDICTIONAL AGENCIES.

9. COORDINATE WITH BUILDING PLANS TO ASSURE ACCURACY OF UTILITY CONNECTIONS AND COMPLIANCE WITH LOCAL CODES.

10. ALL SEWERS TO BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES.

11. ALL SURPLUS EXCAVATED MATERIAL FROM THE TRENCH SHALL BE DISPOSED OFF THE SITE BY CONTRACTOR.

12. COORDINATE EXACT TRENCHING, ROUTING, AND POINT OF TERMINATION WITH ALL UTILITY COMPANIES.

13. ALL WATER LINES SHALL HAVE AT LEAST FOUR AND ONE HALF (4.5) FEET ABOVE GROUND COVER FROM THE TOP OF THE PIPE TO THE FINISHED GROUND SURFACE.

14. ALL WATER LINES 2" OR SMALLER SHALL BE TYPE K-COPPER.

15. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING UTILITY LOCATES.

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	ENGINEERING RESUBMITTAL	4/13/20
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	100% SUBMISSION	3/04/20

Valvoline Instant Oil Change

VALVOLINE INSTANT OIL CHANGE
1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Registered Professional Engineer (Civil) CERTIFICATE NO. 68113 STEPHEN POWERS STATE OF ARIZONA

EXPIRES: 12/31/22

Project No.	20191354
Scale	1:20
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

UTILITY PLAN

Drawing No.

C-6

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	BILL DAVIS 602-769-0252 WILLIAM.DAVIS@ADS-PIPE.COM
ADS SALES REP:	DEAN NEAVERTH 480-243-0352 DEAN.NEAVERTH@ADS-PIPE.COM
PROJECT NO:	S171158

ADVANCED DRAINAGE SYSTEMS, INC.

SiteASSIST by StormTech — FOR STORMTECH INSTRUCTIONS, DOWNLOAD THE INSTALLATION APP

VALVOLINE AT 1864 E BASELINE RD

MESA, AZ

SC-310 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-310.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE OR POLYETHYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. 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.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE 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 SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2922 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310 SYSTEM

1. STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. 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 SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY 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.

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PROPOSED LAYOUT

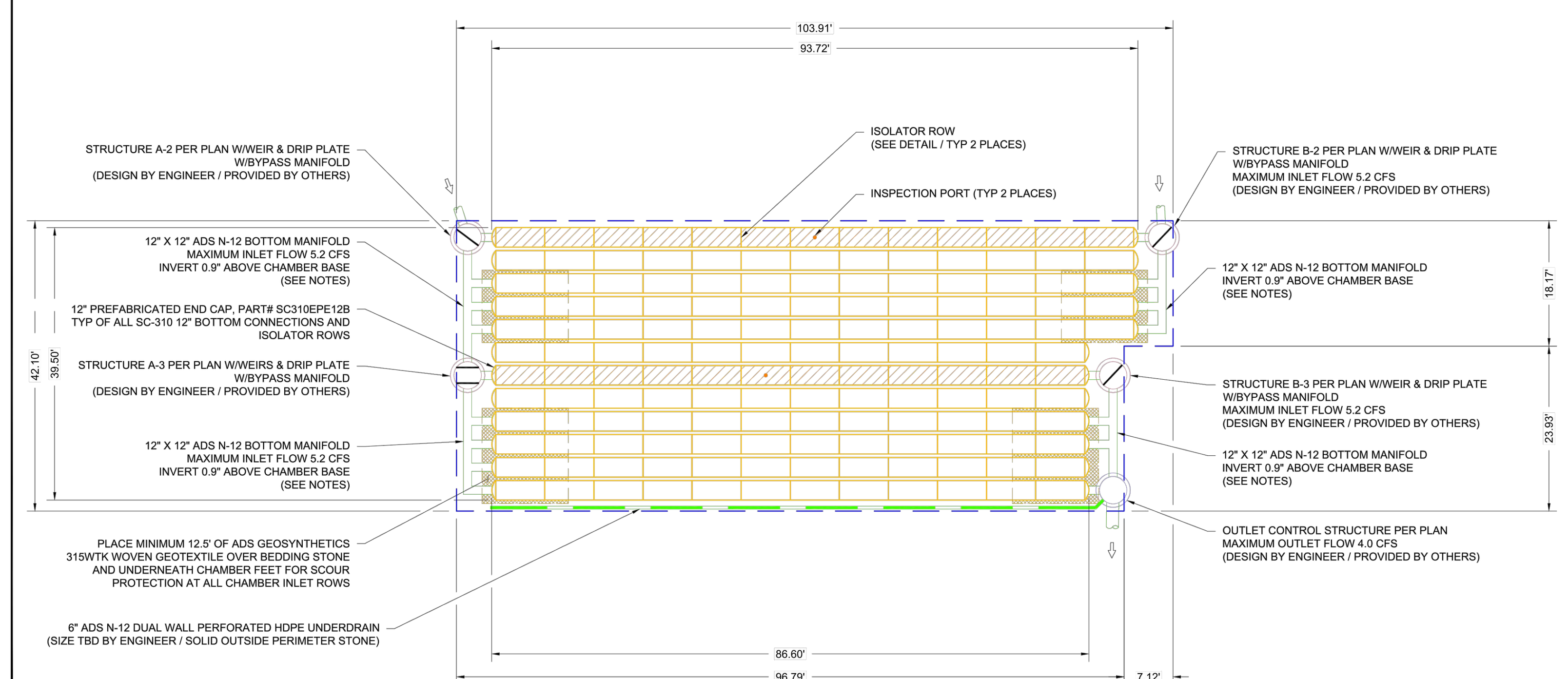
149	STORMTECH SC-310 CHAMBERS
24	STORMTECH SC-310 END CAPS
6	STONE ABOVE (in)
6	STONE BELOW (in)
40	% STONE VOID
4204	SYSTEM AREA (ft²)
292	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

35.78	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
29.78	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
29.28	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
29.28	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
29.28	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
28.28	TOP OF STONE
27.78	TOP OF SC-310 CHAMBER
26.53	12" ISOLATOR ROW CONNECTION INVERT
26.53	12" BOTTOM MANIFOLD INVERT
26.45	BOTTOM OF SC-310 CHAMBER
25.95	UNDERDRAIN INVERT
25.95	BOTTOM OF STONE

NOTES

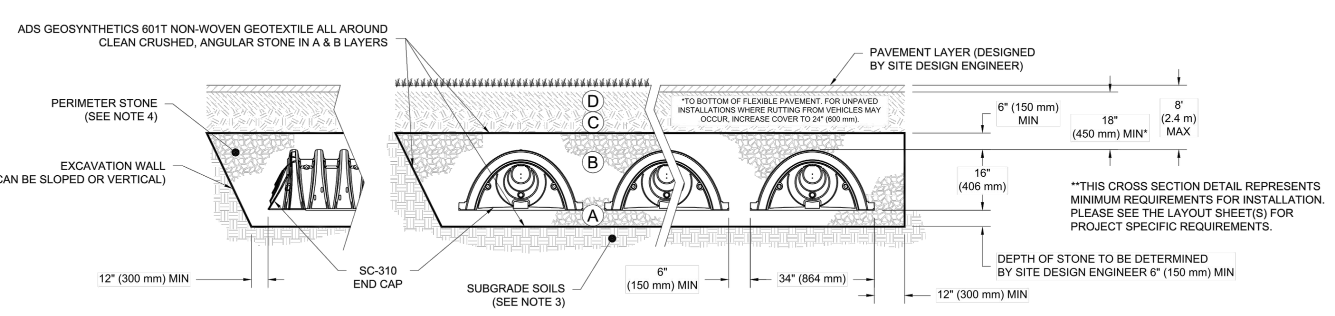
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE BUILDING/STRUCTURE. NO FOUNDATION LOADS SHALL BE TRANSMITTED TO THE CHAMBERS. THE SITE DESIGN ENGINEER MUST CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON BEARING CAPACITY OF SOILS AND SEEPAGE INTO BASEMENTS.



ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

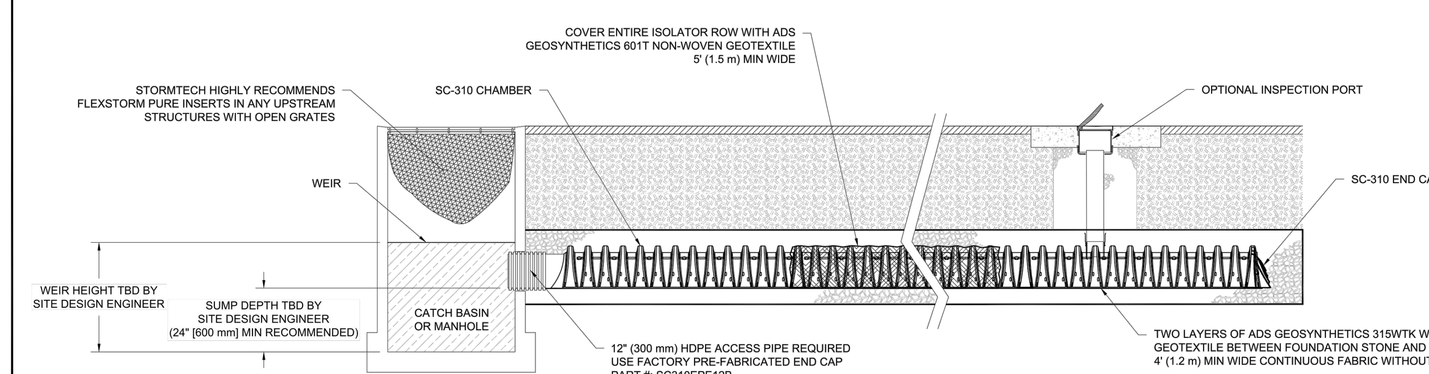
MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 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 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 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.
4. 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.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. 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.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



SC-310 ISOLATOR ROW DETAIL

NTS

INSPECTION & MAINTENANCE

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

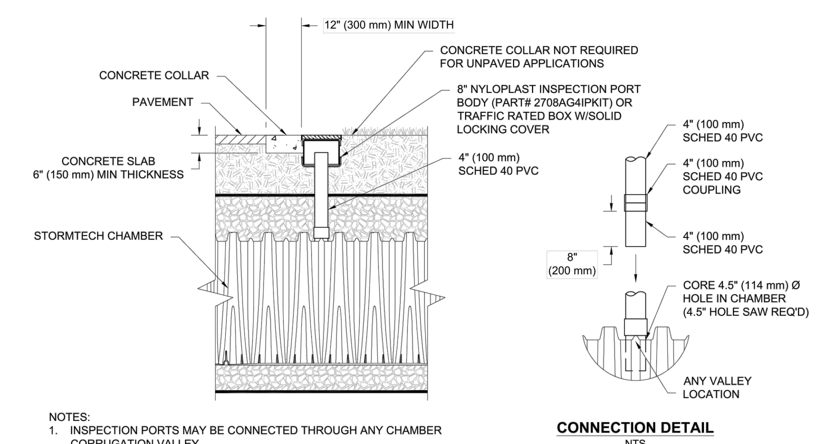
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

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

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

NOTES

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



NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).

CONNECTION DETAIL

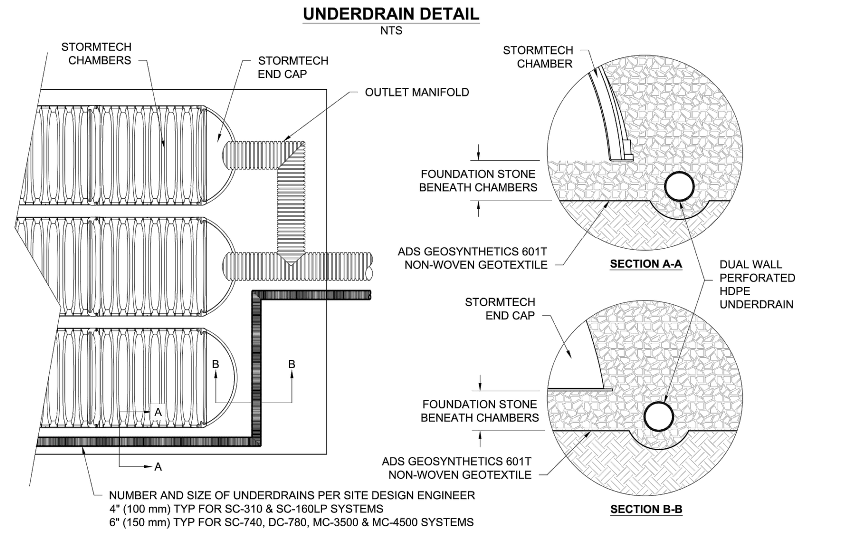
NTS

4" PVC INSPECTION PORT DETAIL

NTS

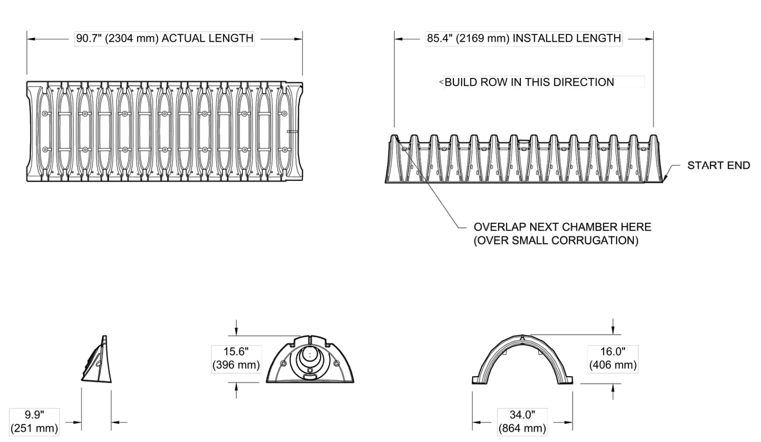
UNDERDRAIN DETAIL

NTS



SC-310 TECHNICAL SPECIFICATION

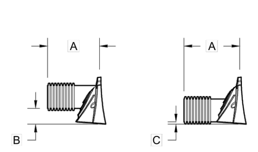
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

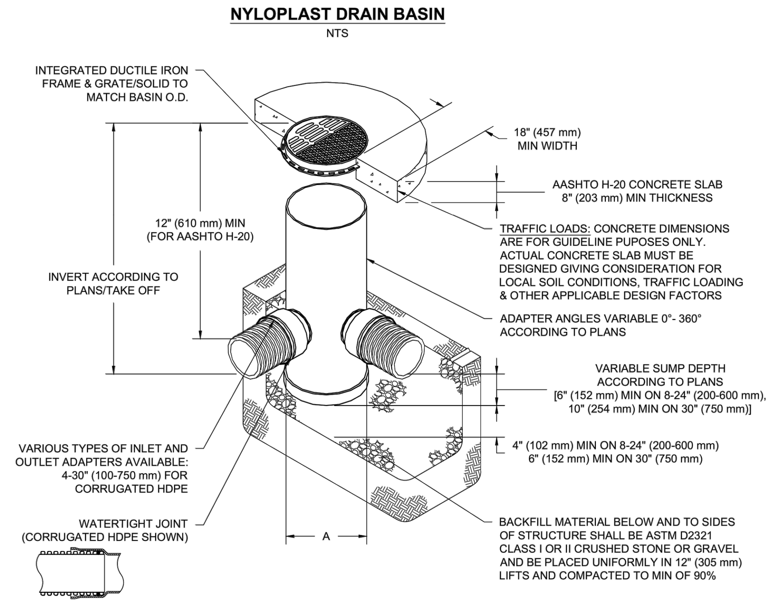
ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

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
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

A	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" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

VALVOLINE AT 1864 E BASELINE RD, MESA, AZ — DATE: 02/26/20 — DRAWN: SDM — PROJECT #: S171158 — CHECKED: CTS

04/17/20 | CJM | WCM | CHANGE TO SC-310 — DATE | DRWN | CHKD | DESCRIPTION

StormTech — Detention • Retention • Water Quality — 520 CROMWELL AVENUE | ROCKY HILL | CT | 06067 — 860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADS — ADVANCED DRAINAGE SYSTEMS, INC. — 4640 TRUEMAN BLVD, HILLIARD, OH 43026

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 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.

SHEET 2 OF 5 — SHEET 3 OF 5 — SHEET 4 OF 5 — SHEET 5 OF 5

VALVOLINE MESA, MESA, AZ — DRAWN: BD — CHECKED: N/A — REV | DRW | CHK | DESCRIPTION

Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518, PHN (770) 932-2443, FAX (770) 932-2490, www.nyloplast-us.com

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

SHEET 6 OF 6

Project: Valvoline - 1864 E. Baseline Rd.

StormTech — Detention • Retention • Water Quality — A division of ADS

Chamber Model -	SC-310	
Units -	Imperial	Click Here for Metric
Number of chambers -	149	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	25.95	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	6	in
Area of system -	4204	sf Min. Area - 3535 sf min. area

☑ Include Perimeter Stone in Calculations

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
28	0.00	0.00	140.13	140.13	5243.29	28.28
27	0.00	0.00	140.13	140.13	5103.15	28.20
26	0.00	0.00	140.13	140.13	4963.02	28.12
25	0.00	0.00	140.13	140.13	4822.89	28.03
24	0.00	0.00	140.13	140.13	4682.75	27.95
23	0.00	0.00	140.13	140.13	4542.62	27.87
22	0.06	8.76	136.63	145.39	4402.49	27.78
21	0.15	23.05	130.91	153.96	4257.10	27.70
20	0.27	39.61	124.29	163.90	4103.13	27.62
19	0.54	81.17	107.66	188.84	3939.23	27.53
18	0.70	104.90	98.17	203.07	3750.39	27.45
17	0.82	122.86	90.99	213.85	3547.32	27.37
16	0.92	137.76	85.03	222.79	3333.47	27.28
15	1.01	151.23	79.64	230.87	3110.68	27.20
14	1.09	163.09	74.90	237.99	2879.81	27.12
13	1.15	171.99	71.34	243.33	2641.82	27.03
12	1.21	181.03	67.72	248.75	2398.50	26.95
11	1.27	189.96	64.15	254.11	2149.75	26.87
10	1.32	197.36	61.19	258.55	1895.64	26.78
9	1.36	203.38	58.78	262.16	1637.09	26.70
8	1.40	209.34	56.40	265.74	1374.93	26.62
7	1.43	213.76	54.63	268.39	1109.19	26.53
6	0.00	0.00	140.13	140.13	840.80	26.45
5	0.00	0.00	140.13	140.13	700.67	26.37
4	0.00	0.00	140.13	140.13	560.53	26.28
3	0.00	0.00	140.13	140.13	420.40	26.20
2	0.00	0.00	140.13	140.13	280.27	26.12
1	0.00	0.00	140.13	140.13	140.13	26.03

GreenbergFarrow
1430 W. Peachtree St. NW
Suite 200
Atlanta, GA 30309
t: 404 601 4000 f: 404 601 3970

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No.	Revisions/Submissions	Date
	ENTITLEMENT RESUBMITTAL #2	4/24/20
	ENGINEERING RESUBMITTAL	4/13/20
	ENTITLEMENT RESUBMITTAL	4/06/20
	100% SUBMISSION	3/04/20

VALVOLINE INSTANT OIL CHANGE
1864 E BASELINE RD
CITY OF MESA, ARIZONA

Professional Seal

Project No.	20191354
Scale	N.T.S
Drawn	VICTOR LU
Checked	RYAN SCOTT
Date	02-28-20

Drawing Title

CONSTRUCTION DETAILS

Drawing No.

C-7.5