

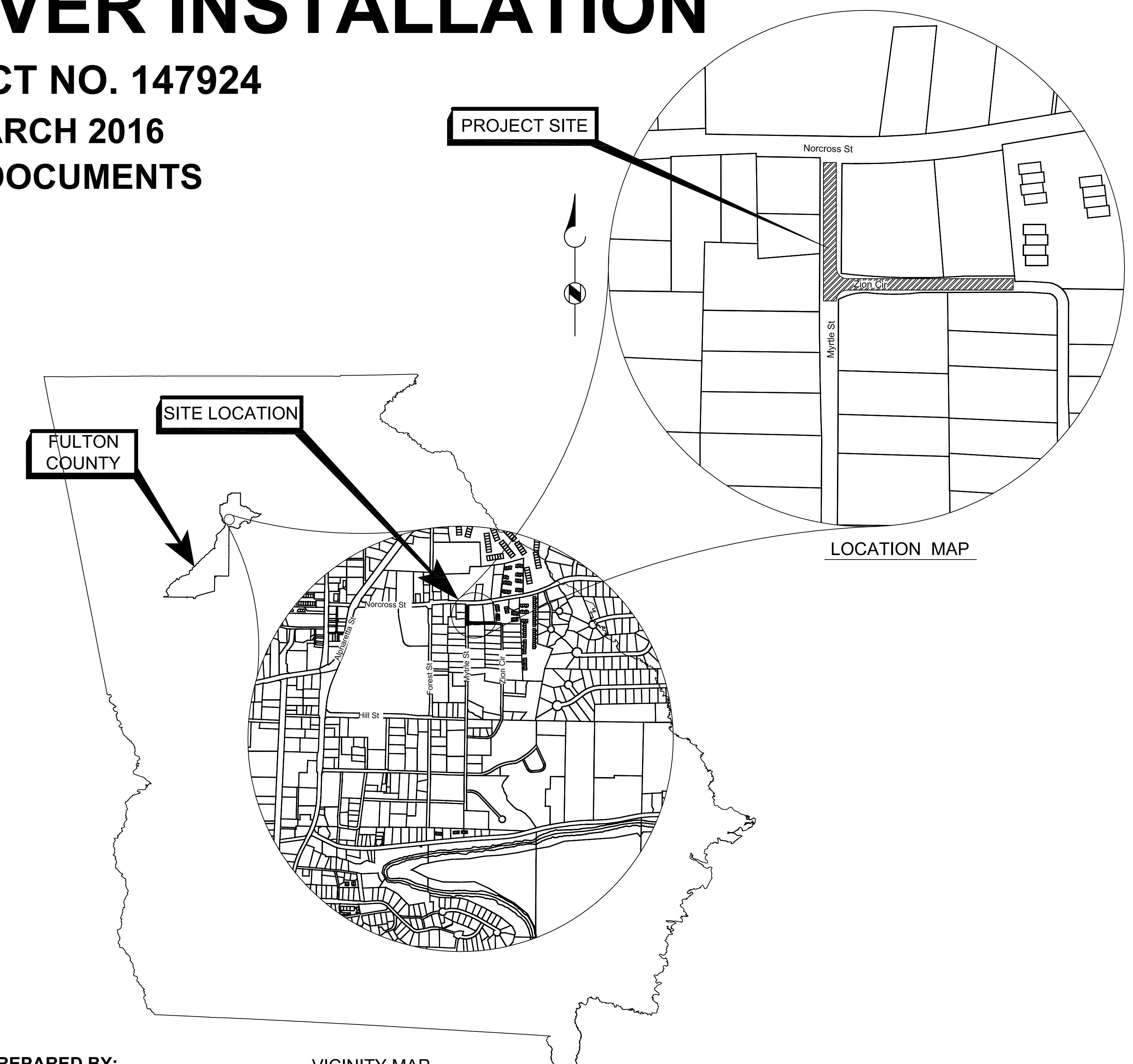
# CONSTRUCTION PLANS FOR: MYRTLE STREET/ZION CIRCLE PERMEABLE PAVER INSTALLATION

PROJECT NO. 147924

MARCH 2016  
BID DOCUMENTS

## CONSTRUCTION PLAN INDEX

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## PREPARED FOR:



CITY OF ROSWELL  
ENVIRONMENTAL/  
PUBLIC WORKS DEPARTMENT  
770-641-3715

## PREPARED BY:

**Brown AND Caldwell**

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BC PROJECT NO. 147924



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## SURVEY SYMBOLS AND ABBREVIATIONS

IPF	= IRON PIN FOUND (○)
IPS	= IRON PIN SET (○)
CMF	= CONCRETE MONUMENT FOUND (□)
CMS	= CONCRETE MONUMENT SET (□)
ROW	= RIGHT OF WAY
STA	= STATION NUMBER
LLL	= LAND LOT LINE
CL	= CENTER LINE
PL	= PROPERTY LINE
BM	= BENCHMARK
PT	= POINT OF TANGENCY
PC	= POINT OF CURVATURE
IE	= INVERT ELEVATION
EL	= ELEVATION (ELEV.)
B/L	= BUILDING LINE
R	= RADIUS
FFE	= FINISHED FLOOR ELEVATION
—	= FLOW
○	= PROPERTY CORNER
—x—	= FENCE
—○—	= POLE
—T—	= TELEPHONE LINE
—TV—	= TELEVISION LINE
—P—	= POWER LINE
-SS-	= SANITARY SEWER LINE
SSE	= SANITARY SEWER EASEMENT
MH	= MANHOLE (○ or □)
-G-	= GAS LINE
-W-	= WATER LINE
— —	= PLUGGED STUB
—X—	= GATE VALVE
F.H.	= EXIST. FIRE HYDRANT (X)
F.H.	= PROP. FIRE HYDRANT (X)
—M—	= WATER METER (○)
-ST-	= STORM SEWER LINE
YI	= YARD INLET
DI	= DROP INLET
CB	= CATCH BASIN
HW	= HEAD WALL (○)
JB	= JUNCTION BOX
DE	= DRAINAGE EASEMENT
FM	= SEWER FORCE MAIN
DS	= DOWN SPOUT
CO	= CLEAN OUT
CMP	= CORRUGATED METAL PIPE
RCP	= REINFORCED CONCRETE PIPE
VCP	= VITRIFIED CLAY PIPE
DIP	= DUCTILE IRON PIPE
PVC	= POLYVINYL CHLORIDE PIPE
C & G	= CURB AND GUTTER
FIRM	= FEDERAL INSURANCE RATE MAP
TPOB	= TRUE POINT OF BEGINNING
POB	= POINT OF BEGINNING
GMD	= GEORGIA MILITIA DISTRICT
~~~~	= TREE LINE
~~~~	= RIPRAP
— —	= BRANCH
---	= EXISTING CONDITIONS (DASHED)
-912-	= PROPOSED CONTOURS (SOLID)
TC	= TOP OF CURB ELEVATION
△	= TRAVERSE POINT
L.P.	= LIGHT POLE (○)
○	= PLANTED TREE
MT	= MARKED TREE
P.B.	= PLAT BOOK
D.B.	= DEED BOOK
PG	= PAGE
NF	= NOW OR FORMALLY
TB	= TOP OF BANK
BB	= BOTTOM OF BANK
EW	= EDGE OF WATER
DPC	= DEEPEST POINT OF CHANNEL
WA	= WETLAND AREA
CPP	= CORRUGATED PLASTIC PIPE

## DESIGN SYMBOLS AND ABBREVIATIONS

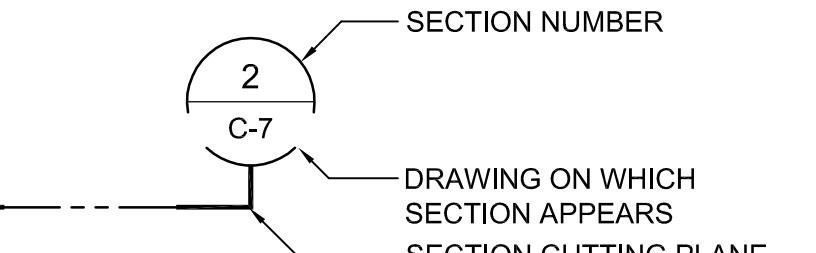
— - -	RIGHT-OF-WAY
— LOD —	LIMITS OF DISTURBANCE
11+00	PROPOSED STREAM STATIONING
—○—	STAKED SILT FENCE
—○—	ORANGE BARRIER FENCE
○	PROPOSED LAYOUT POINT
988.23	SPOT ELEVATION
— —	SOIL SERIES DELINEATION BOUNDARY
●	SOIL INFILTRATION TESTING LOCATION (PERC HOLES)
██████	PERMEABLE PAVER SECTION
x 1049.0	EXISTING GROUND SURFACE SPOT ELEVATION
████████	EXISTING PAVEMENT REMOVAL
██████	EXISTING CURB REMOVAL

## GENERAL CONSTRUCTION NOTES

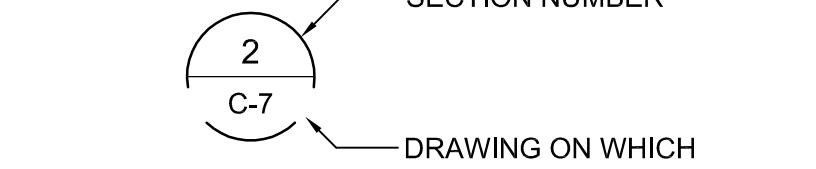
- THE OWNER IS THE CITY OF ROSWELL. ALL PRESENT WORK IS WITHIN THE LIMITS OF CITY OF ROSWELL OWNED PROPERTY. NO ACCESS OR WORK IS PERMITTED OUTSIDE OF THE LIMITS OF DISTURBANCE SHOWN ON THESE PLANS.
- TREES OUTSIDE OF THE CLEARING LINE SHALL BE PROTECTED FROM DAMAGE BY APPROPRIATE MARKINGS. SUPPLEMENTAL VEGETATION SHALL BE ESTABLISHED.
- NO MATERIAL SHALL BE PLACED IN ANY WETLAND AREA OR IN ANY LOCATION OR MANNER SO AS TO IMPAIR SURFACE WATER FLOW UNLESS SHOWN ON THE DRAWINGS.
- ALL TEMPORARY FILLS SHALL BE REMOVED IN THEIR ENTIRETY.
- NO BURY PITS ARE ALLOWED.
- SITE TOPOGRAPHY WAS COMPILED FROM GROUND SURVEYS BY COLUMBIA ENGINEERING ON 12/18/15. VERTICAL DATUM IS NAVD 88 AND HORIZONTAL DATUM IS NAD83. THE HORIZONTAL COORDINATE SYSTEM IS GA WEST STATE PLANE, NAD 83, US SURVEY FEET.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES SHOWN ARE APPROXIMATE; ACCURACY IN LOCATION, ELEVATION, DIMENSION AND COMPLETENESS IS NOT GUARANTEED. THE UTILITIES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE PREPARATION OF THESE CONTRACT DOCUMENTS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE A REVIEW OF THE SITE TO DETERMINE EXISTING CONDITIONS. ANYTHING NOT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER IMMEDIATELY AND SHALL NOT CONSTITUTE GROUNDS FOR AN EXTRA, UNLESS APPROVED BY THE OWNER.
- ANY AND ALL AREAS NOT SPECIFIED FOR CONSTRUCTION WHICH ARE DISTURBED AND OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THE STANDARDS OF THE CONTRACT DOCUMENTS TO THE EXISTING LOCATION, ELEVATION, AND DIMENSION AND TO THE SATISFACTION OF THE OWNER AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY IF ANY CONFLICTS ARE FOUND IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR'S CONSTRUCTION MEANS AND METHODS SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL CONSTRUCTION AND SAFETY CODES. WHERE APPLICABLE THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LICENSES AND PERMITS AT ITS OWN EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
- THE CONTRACTOR SHALL DIVERT AND CONVEY STORMWATER AROUND THE WORK AREA AND SHALL NOT INCREASE WATER STAGES OR FLOW RATES UPSTREAM OR DOWNSTREAM OF THE PROJECT. THE CONTRACTOR SHALL ALSO STABILIZE THE SITE AT THE END OF EACH DAY WORK, SO ALL WORK AREAS WILL BE STABLE IN THE EVENT OF A 10-YEAR STORM.
- CONTRACTOR SHALL USE PUMPS WHICH MINIMIZE AMBIENT NOISE.
- CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING NECESSARY TO PROTECT ADJACENT STRUCTURES, UTILITIES, EXISTING PAVEMENT, OR TO MINIMIZE TRENCH WIDTH.
- ALL MATERIAL SHALL BE NEW, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO THE SITE AT ALL TIMES. THE PRIMARY ACCESS TO THE SITE WILL BE FROM ADJOINING NORTHERN PARCEL VIA NORCROSS STREET.
- INFORMATION REGARDING UNDERGROUND UTILITIES ON THESE PLANS IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL REQUEST A FIELD LOCATION THROUGH THE UTILITIES PROTECTION CENTER AND ANY UTILITY OWNERS THOUGHT TO HAVE FACILITIES IN THE AREA. THE CONTRACTOR SHALL PROMPTLY COMPARE THESE FIELD-MARKED LOCATIONS WITH THE PROJECT PLANS AND THEN NOTIFY THE ENGINEER OF ANY ANTICIPATED PROBLEMS OR NEED FOR DESIGN CHANGES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE OR CAUSE THE UTILITY OWNER TO EXCAVATE FOR THE PURPOSE OF DETERMINING EXACT ELEVATIONS OR LOCATIONS AT UTILITY CROSSINGS AND OTHER CRITICAL LOCATIONS WELL IN ADVANCE OF THE WORK UNDER THIS CONTRACT. DAMAGE TO EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE, AND MATERIAL OF ANY EXISTING WATER OR SANITARY SEWER FACILITY PROPOSED FOR CONNECTION OR USE BY THIS PROJECT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROSWELL PERMITS AND REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT CONDITIONS.
- FINISHED GRADE SHOWN ON THE DRAWINGS REFERS TO THE FINAL GRADE AFTER THE INSTALLATION OF FINAL EROSION CONTROL MEASURES AND GROUND TREATMENT. GRADING AND GROUND TREATMENT SHALL BE BELOW ANY SIDEWALK, CURB, OR PAVEMENT SO WATER DOES NOT POND AND WILL DRAIN.
- THE CONTRACTOR SHALL PROTECT THE EXISTING SANITARY SEWER SYSTEM AND ALL OTHER UTILITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED MAINTENANCE OF TRAFFIC AS NEEDED FOR PROJECT CONSTRUCTION.
- ALL WORK AREAS SHOWN ON THE DRAWINGS ARE TO BE CLEARLY IDENTIFIED WITH ORANGE BARRIER FENCE PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- NOTIFY CITY OF ROSWELL INSPECTIONS 24 HOURS PRIOR TO BEGINNING EVERY PHASE OF CONSTRUCTION, 770-641-3715.
- THE PLAN PREPARERS HAVE VISITED THE SITE PRIOR TO THE CREATION OF THE PLANS.
- THIS WORK IS BEING PERFORMED IN CLOSE PROXIMITY TO MANY INDIVIDUAL PROPERTY LOTS. THE CONTRACTOR SHALL NOT CROSS ONTO OR PERFORM ANY WORK ON PRIVATE LOTS WITHOUT PRIOR APPROVAL OF THE OWNER.
- OTHER CONTRACTORS MAY BE CONSTRUCTING OTHER IMPROVEMENTS WITHIN THE PROJECT LIMITS DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR WILL COORDINATE WITH ANY OTHER CONTRACTORS WORKING WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY PROPOSED WORK IS LIKELY TO AFFECT THE SURVIVAL OF EXISTING TREES. THE OWNER MAY REQUEST EXISTING WORK TO BE MODIFIED TO PROTECT EXISTING TREES OR MAY REQUEST REMOVAL OF THREATENED TREES.
- THE PROPOSED PERMEABLE PAVER SECTION MAY NEED TO BE MODIFIED TO ACCOMMODATE EXISTING UTILITIES. THE CONTRACTOR SHALL PERFORM MODIFICATIONS AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. EXAMPLES OF MODIFICATIONS INCLUDE REDUCING THE DEPTH OF THE GRAVEL RESERVOIR AND CHANGING THE DEPTH OF INDIVIDUAL LAYERS OF MATERIAL WITHOUT INCREASING THE TOTAL DEPTH OF THE SYSTEM.

## SECTION AND DETAIL NUMBERING SYSTEM

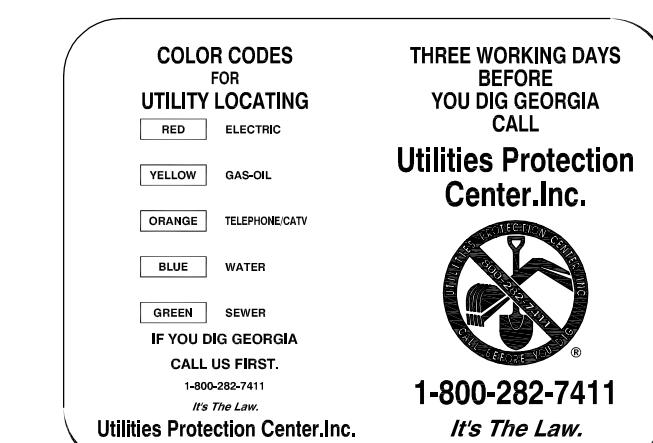
(1) SECTION CUT ON DRAWING C-7



(2) ON DRAWING C-12 THIS SECTION IDENTIFIED



(3) DETAILS ARE CROSS-REFERENCED IN A SIMILAR MANNER.

Brown AND  
Caldwell

ATLANTA, GA


**ROSWELL**  
 GEORGIA  
 SINCE 1854

**MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION**

## REVISIONS

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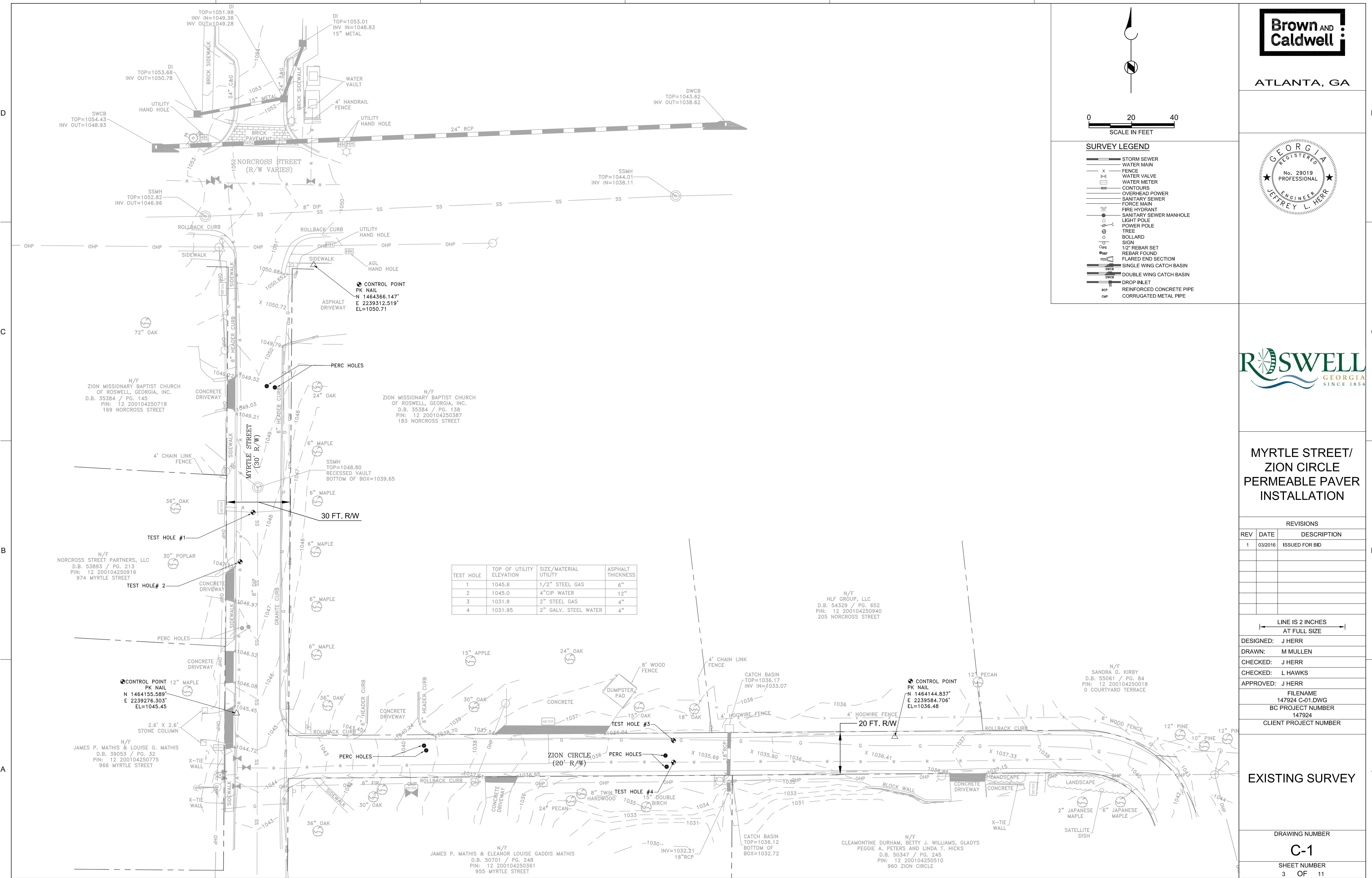
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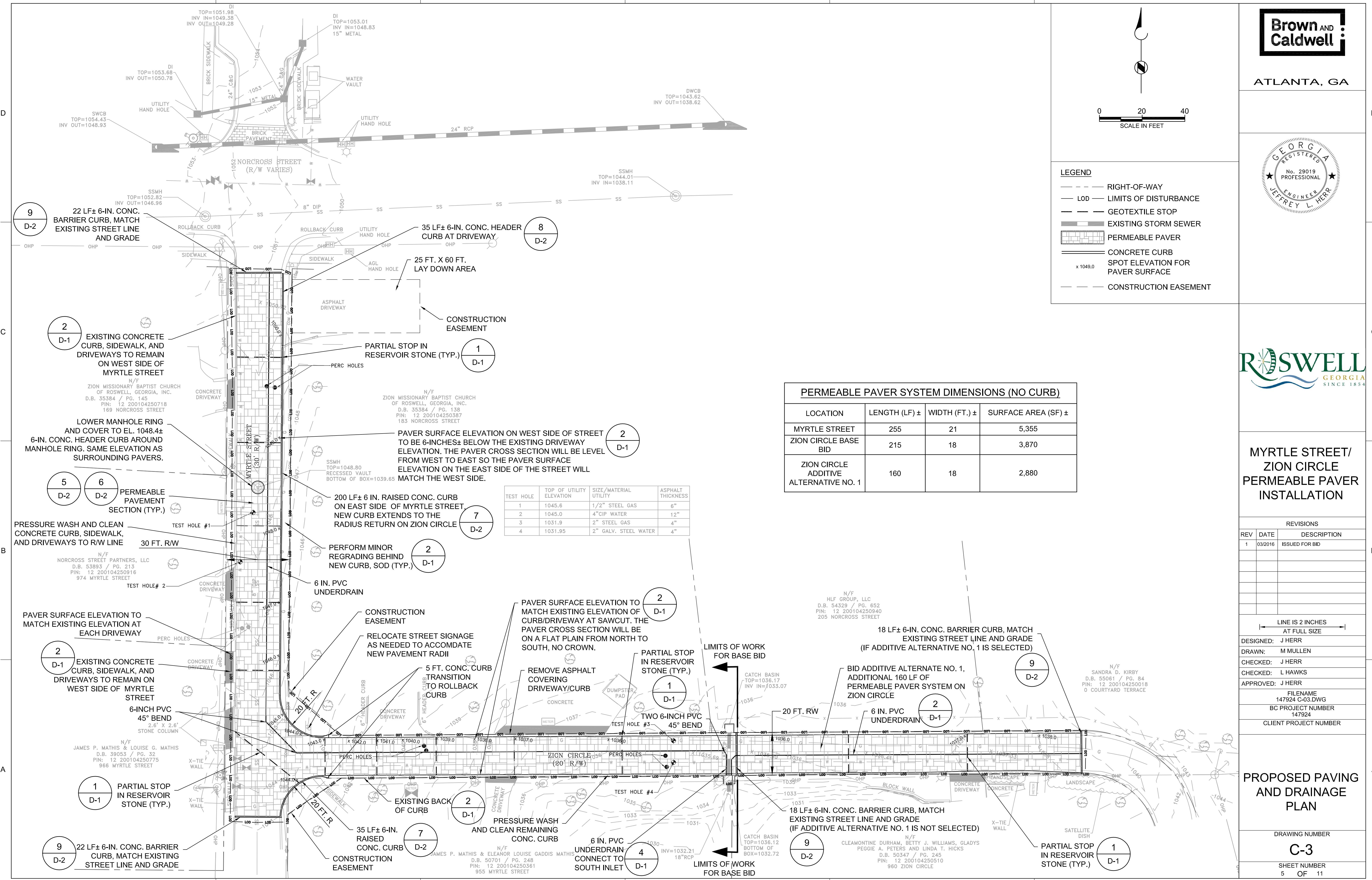
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03/2016

ISSUED FOR BID







# GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

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Brown AND  
Caldwell

ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION

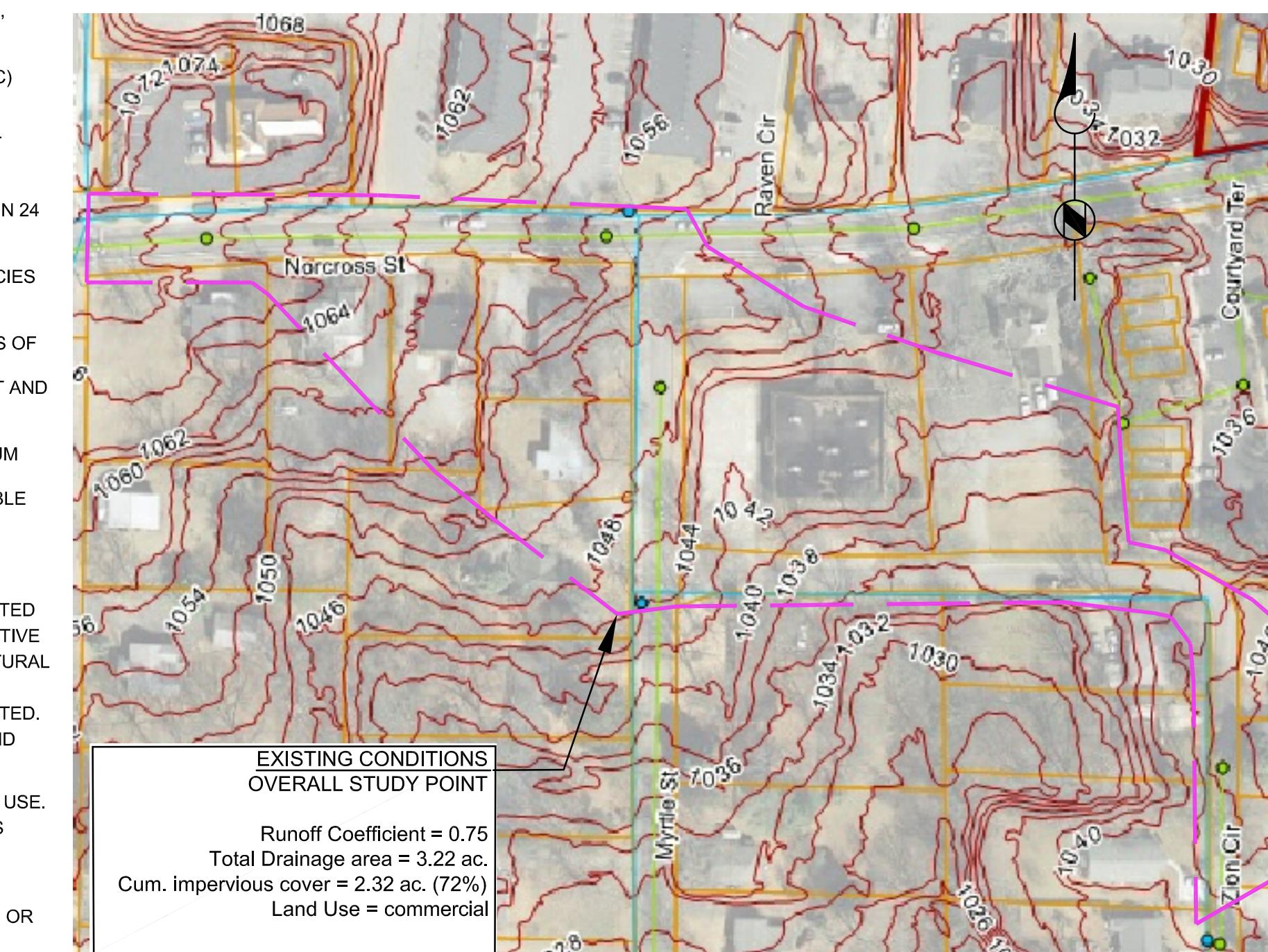
Arvind Narayanan: GSWCC Cert. #44909 Exp. 08/18/2016

ROSWELL  
GEORGIA  
SINCE 1854

## MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

### REVISIONS

REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID



Areas Drawing to Project	
To Myrtle Street	Area
Norcross Street	17,000 SF
Parcel to West	33,000 SF
Myrtle Street	7,500 SF
<b>Total Drainage Area (Myrtle)</b>	<b>57,500 SF</b>
To Zion Circle	Area
Parcels to north of Zion Circle	63,000 SF
Zion Circle	11,000 SF
Area along east end	9,000 SF
<b>Total Drainage Area (Zion)</b>	<b>83,000 SF</b>
<b>Total Drainage Area</b>	<b>140,500 SF</b>

### DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS

0 50 100  
SCALE IN FEET

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: A NARAYANAN

DRAWN: M MULLEN

CHECKED: J HERR

CHECKED: A NARAYANAN

APPROVED: J HERR

FILENAME  
147924 C-04.DWG  
BC PROJECT NUMBER  
147924

CLIENT PROJECT NUMBER

## EROSION, SEDIMENTATION AND POLLUTION CONTROL - LEGEND AND STANDARD NOTES

### DRAWING NUMBER

C-4

### SHEET NUMBER

6 OF 11

FILENAME: 147924 C-04.DWG CAD USER: MICHAEL MULLEN PLOT DATE: 1:04 PM

**ES&PC REQUIREMENTS**

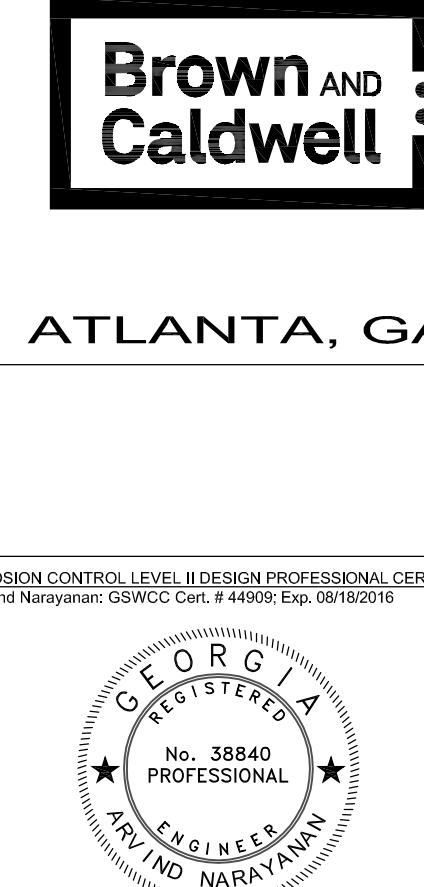
1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR THIS PROJECT IS PERMITTED.
2. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
3. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
4. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND-DISTURBING ACTIVITIES.
5. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
6. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING (OR MORE FREQUENTLY IF SPECIFIED ON SHEET C-5).
7. ALL DISTURBED AREAS MAY NEED TO BE STABILIZED WITH MULCH OR TEMPORARY SEEDING MORE FREQUENTLY IF SPECIFIED SO ON THE PROJECT-SPECIFIC NOTES SHEET. TEMPORARY EROSION CONTROL MEASURES MUST REMAIN IN PLACE UNTIL ACCEPTANCE OF FINAL STABILIZATION.
8. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITIES. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
9. SEDIMENT CONTROL STRUCTURES SHALL BE CLEANED OUT IN ACCORDANCE WITH THE DRAWING DETAILS AND APPLICABLE LAWS.
10. PERIMETER ES&PC BMPs MUST BE INSTALLED PRIOR TO ANY OTHER SITE DISTURBANCE OR CONSTRUCTION ACTIVITY. THESE BMPs INCLUDE STABILIZED CONSTRUCTION ENTRANCES AND SEDIMENT BARRIERS.

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ATLANTA GA

SION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATE  
and Narayanan: GSWCC Cert. # 44909; Exp. 08/18/2016



# ROSWELL GEORGIA SINCE 1856

# MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

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REVISION

V	DATE	DESCRIPTION
	03/2016	ISSUED FOR BID

LINE IS 2 INCHES

## AT FULL SIZE

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DRAWN: M MULLEN

CHECKED: J HERR

HECKED: A NARAYANAN

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FILENAME

147924 C-05.DWG  
BC PROJECT NUMBER

147924  
CLIENT PROJECT NUMBER

# EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN

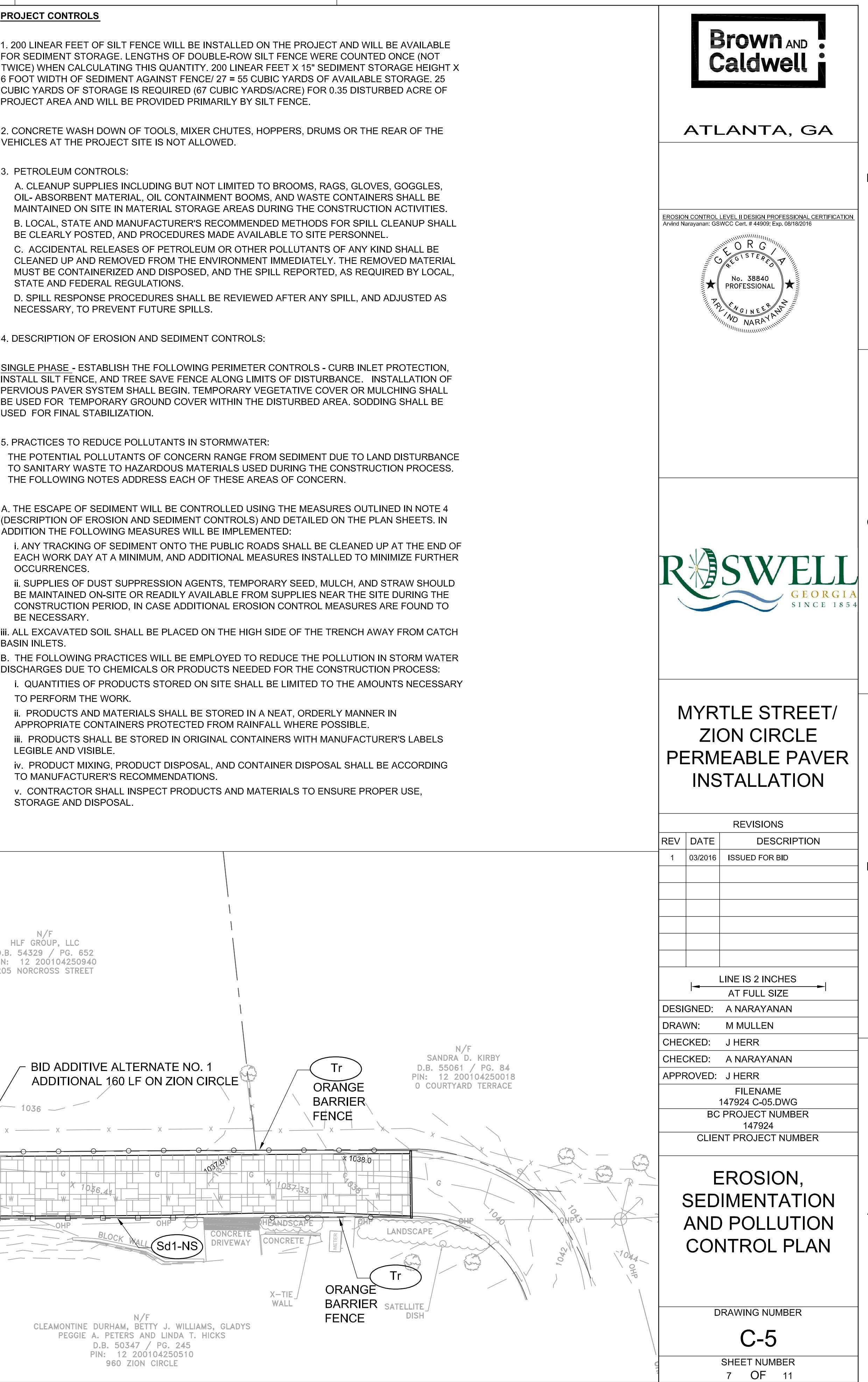
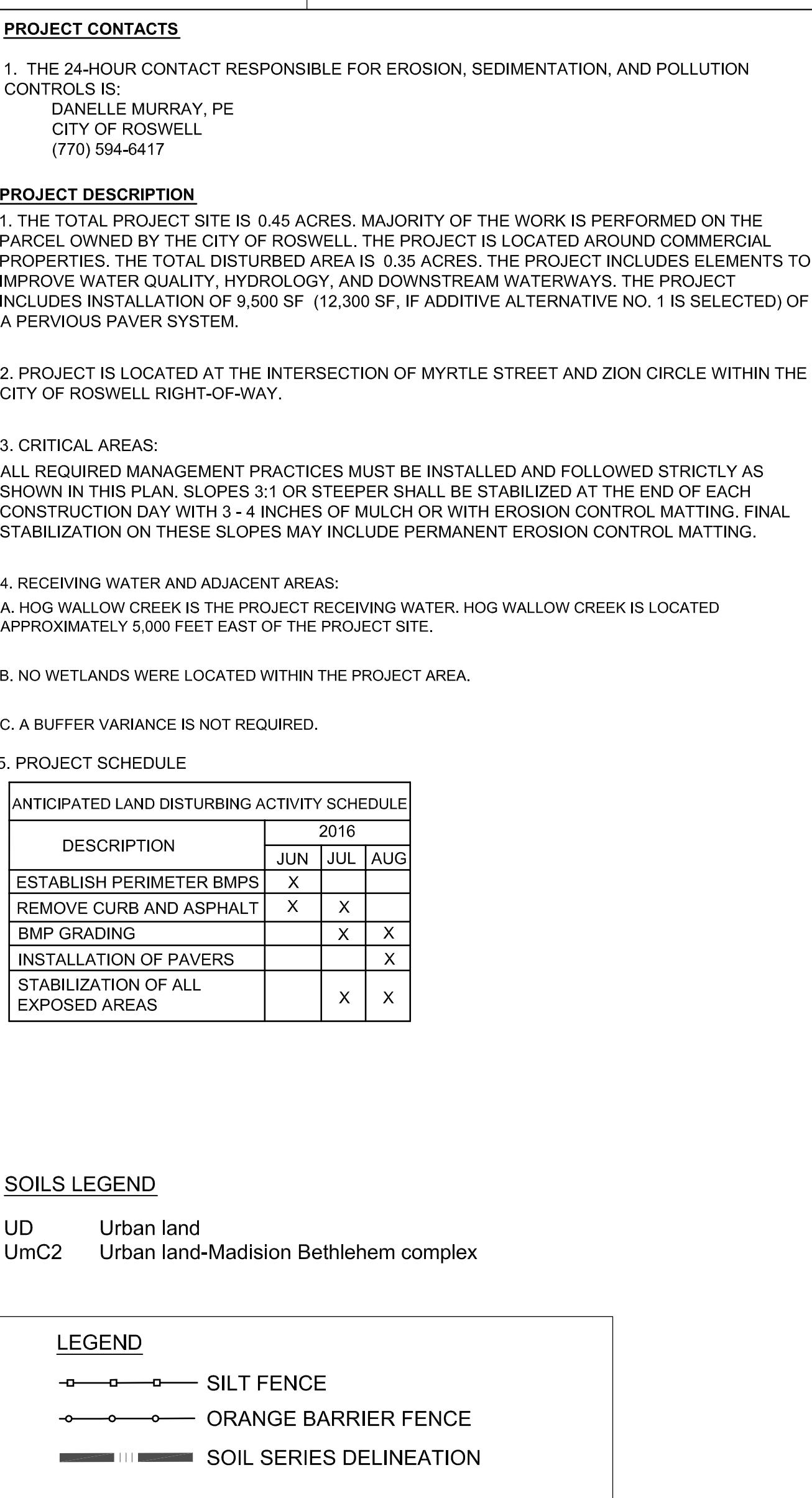
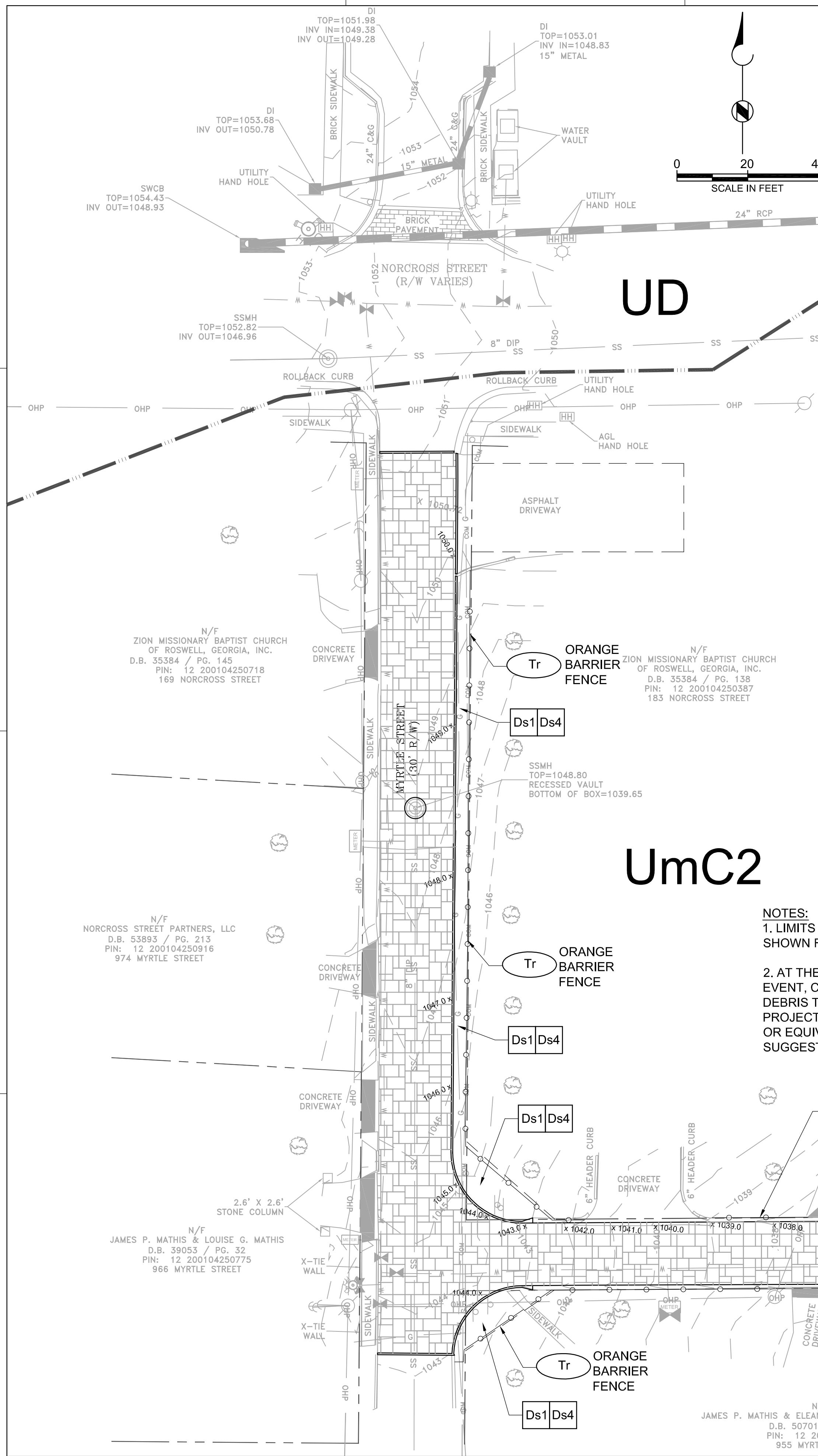
DRAWING NUMBER

DRAWING NUMBER  
**85**

**C-5**

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**SHEET NUMBER**  
**7   OF   11**



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**REQUIREMENT FOR REGULATORY COMPLIANCE**  
 MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF DISTURBANCE AND WITHIN 7 DAYS IF LEFT UNDISTURBED. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO DS2 -DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), DS3 - DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING), AND DS4 - DISTURBED AREA STABILIZATION (WITH SODDING).

**SPECIFICATIONS**

**MULCHING WITHOUT SEEDING**

THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

**SITE PREPARATION**

1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

**MULCHING MATERIALS**

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:

1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
3. CUTBACK ASPHALT (SLOW CURING) SHALL BE APPLIED AT 1200 GALLONS PER ACRE (OR 1/4 GALLON PER SQ.YD.).
4. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND REUSED.

**APPLYING MULCH**

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
3. CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF 'TRACKING IN' OR DAMAGE TO SHOES, CLOTHING, ETC.
4. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

**ANCHORING MULCH**

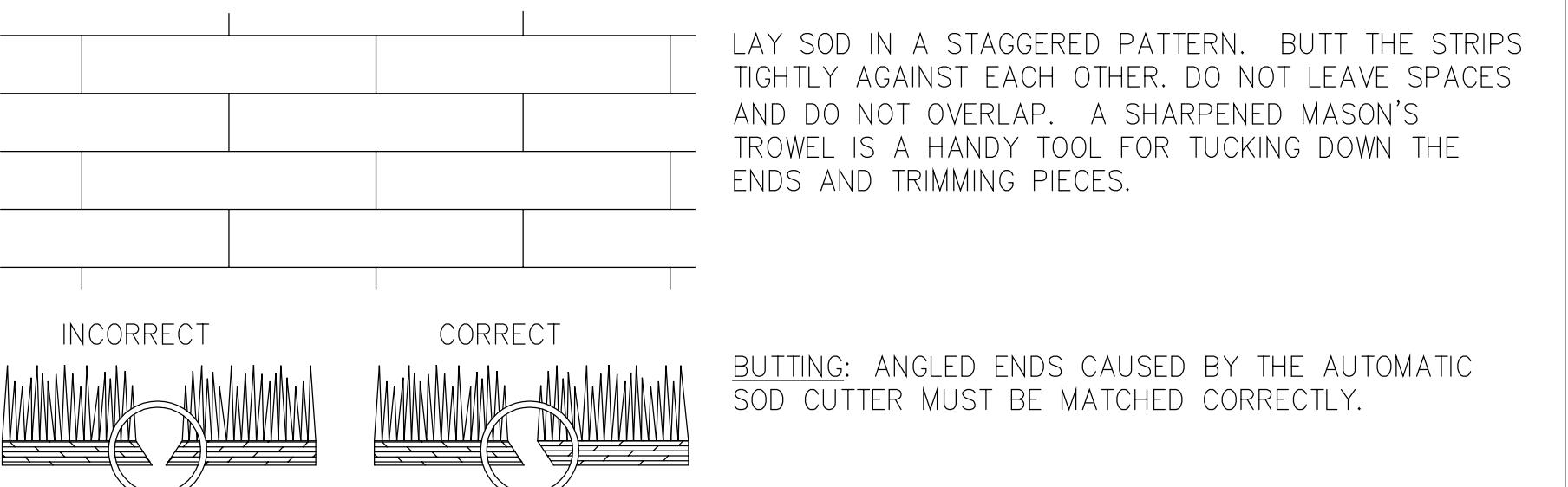
1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TB -TACKIFERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

**DISTURBED AREA STABILIZATION  
(WITH MULCHING ONLY)**

Ds1

## SOD MAINTENANCE AND INSTALLATION

### SOD LAYOUT AND PREPARATION



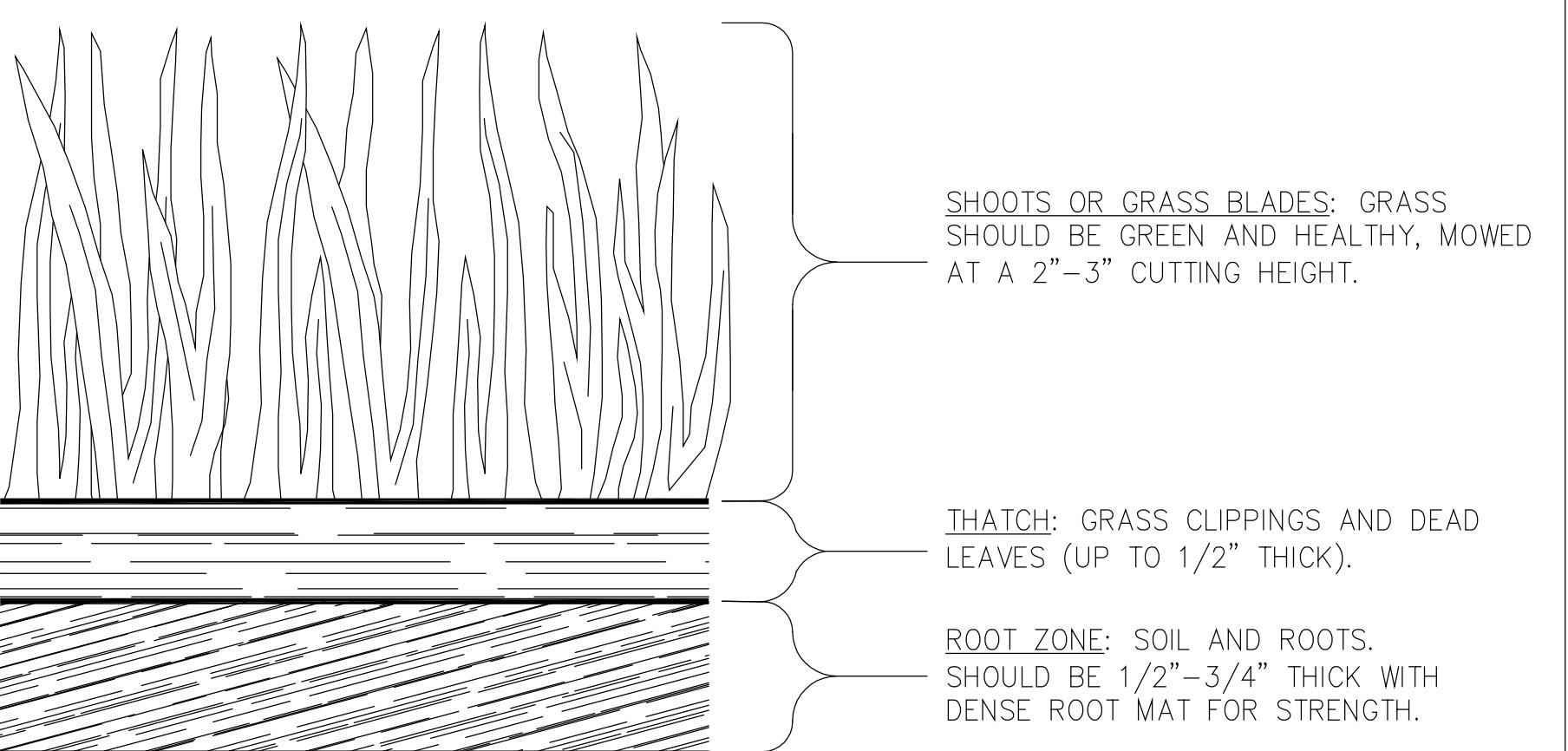
LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

### DIRECTIONS FOR INITIAL MAINTENANCE

- Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL
- Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
- Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

### APPEARANCE OF GOOD SOD



## DISTURBED AREA STABILIZATION Ds4 (SODDING)

**Brown AND Caldwell**

ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION

Arvind Narayanan: GSWCC Cert. #44909 Exp. 08/18/2016



**ROSWELL**  
GEORGIA  
SINCE 1854

### MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

#### REVISIONS

REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

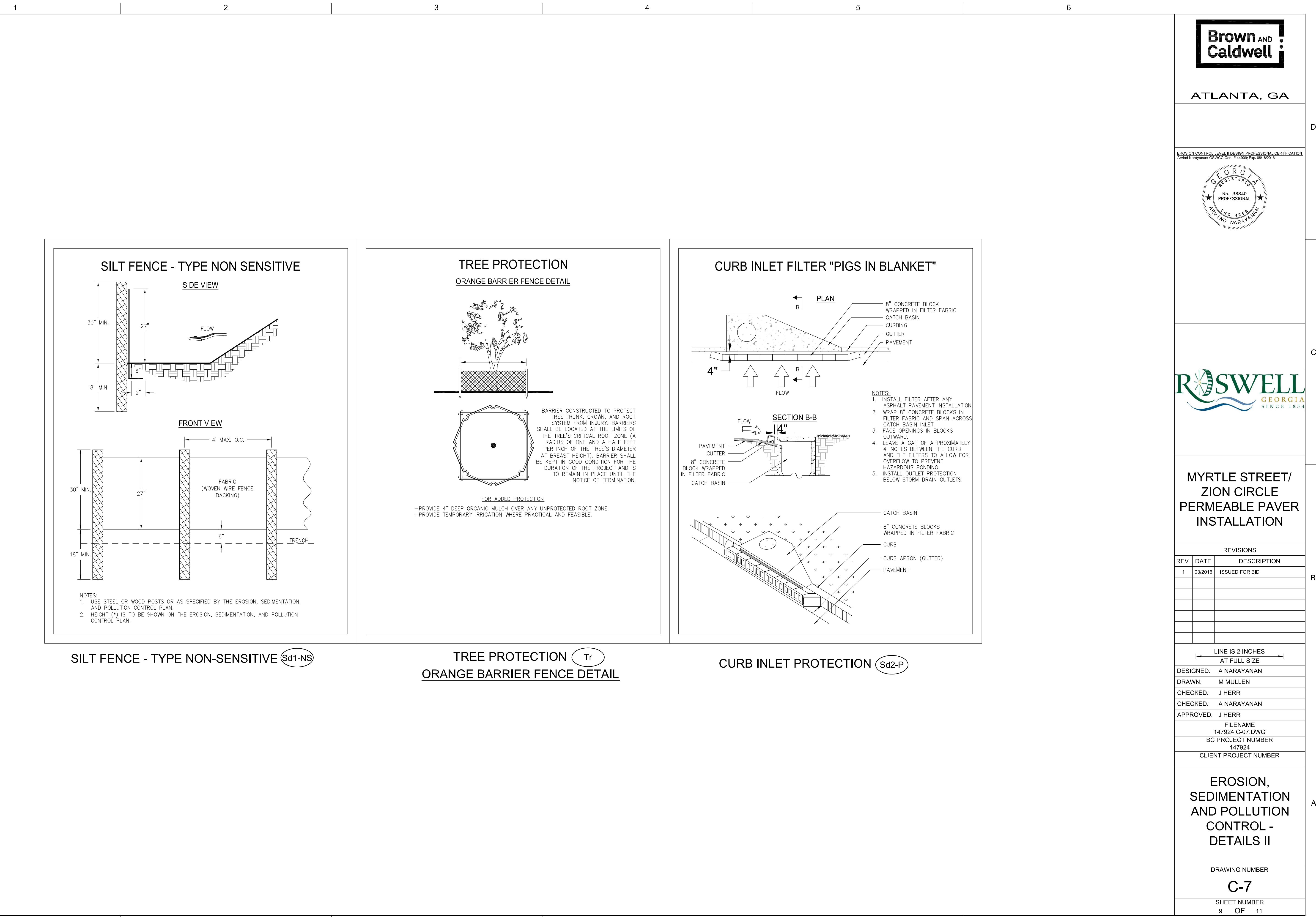
DESIGNED: A NARAYANAN  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: A NARAYANAN  
APPROVED: J HERR  
FILENAME: 147924.C-06.DWG  
BC PROJECT NUMBER: 147924  
CLIENT PROJECT NUMBER:

### EROSION, SEDIMENTATION AND POLLUTION CONTROL - DETAILS I

#### DRAWING NUMBER

**C-6**

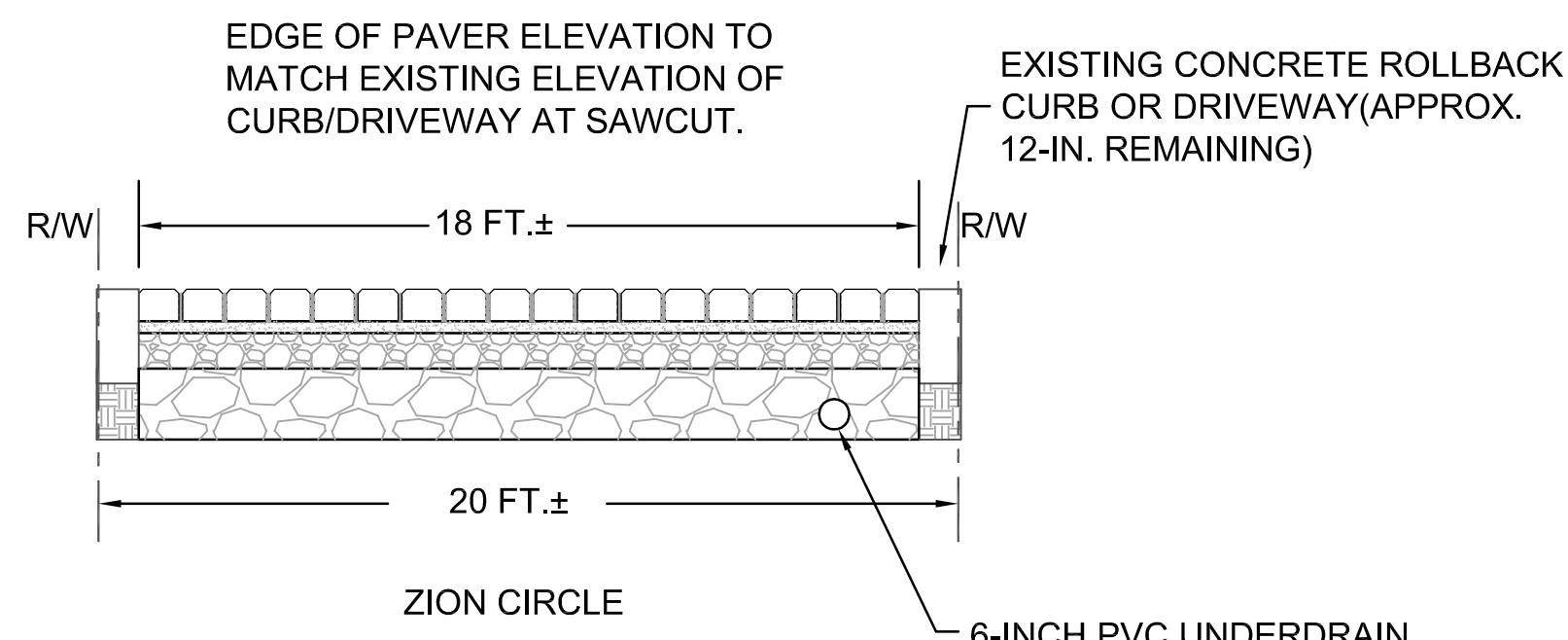
SHEET NUMBER  
8 OF 11



## TYPICAL PERMEABLE PAVER DIMENSIONS

DETAIL 2  
C-2

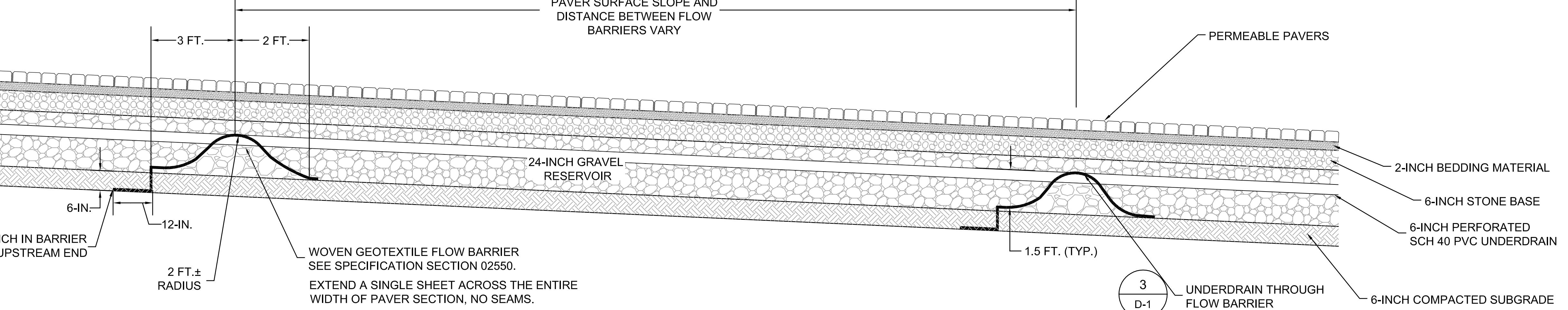
NO SCALE



NOTES:

1. ALL DIMENSIONS ARE TYPICAL AT ALL FLOW BARRIERS.
2. HEIGHT OF FULL DEPTH FLOW BARRIER AT THE INTERSECTION OF MYRTLE STREET AND ZION CIRCLE IS 2.5 FT., THE FULL DEPTH OF THE GRAVEL RESERVOIR.
3. CONTRACTOR TO ADJUST THE LOCATION OF FLOW BARRIERS AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
4. LOCATION OF FLOW BARRIERS SHALL BE SCALED FROM PLAN VIEW.

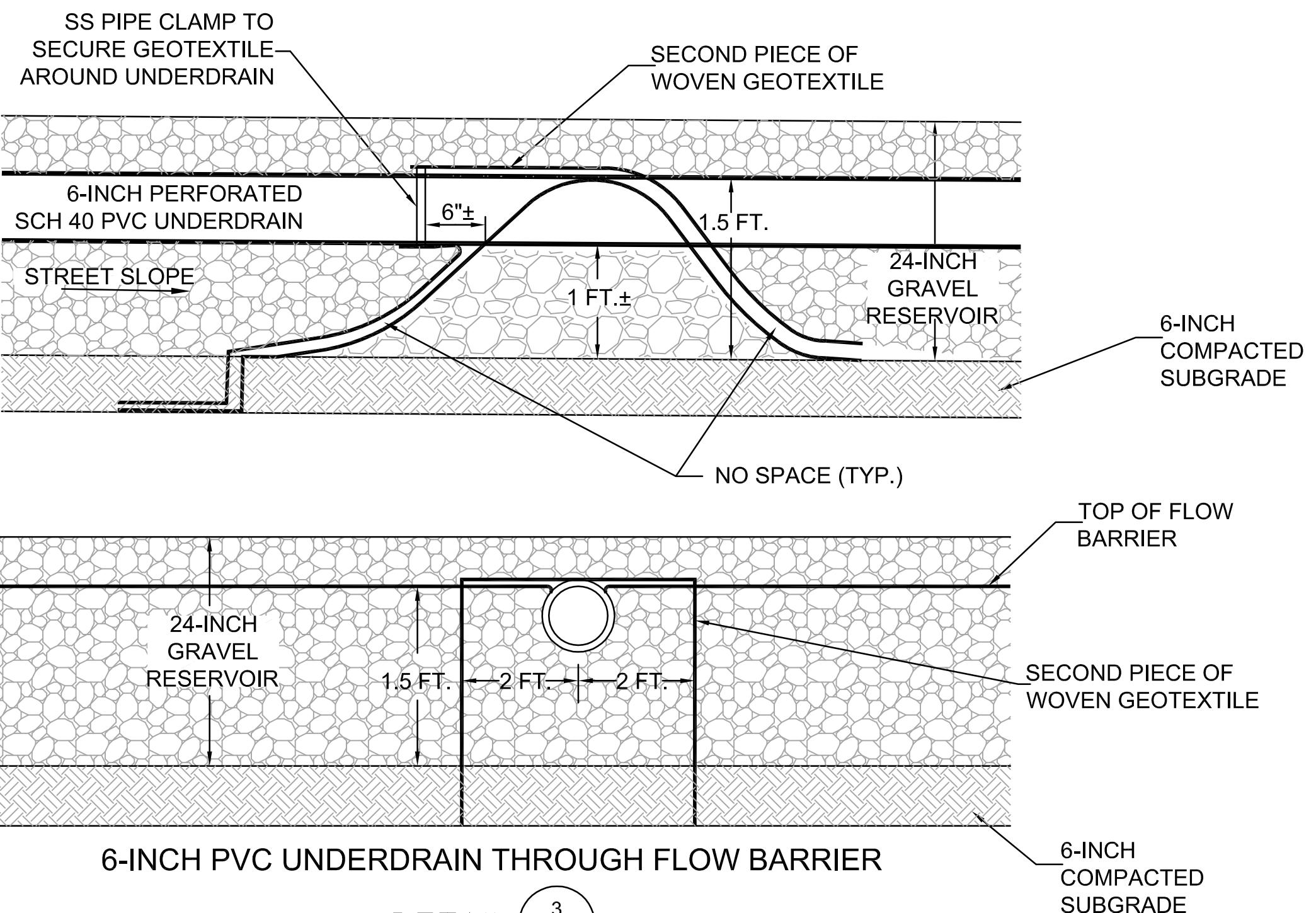
PAVER SURFACE SLOPE AND DISTANCE BETWEEN FLOW BARRIERS VARY



## TYPICAL PERMEABLE PAVER SYSTEM PROFILE

DETAIL 1  
C-3

NO SCALE

MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

## REVISIONS

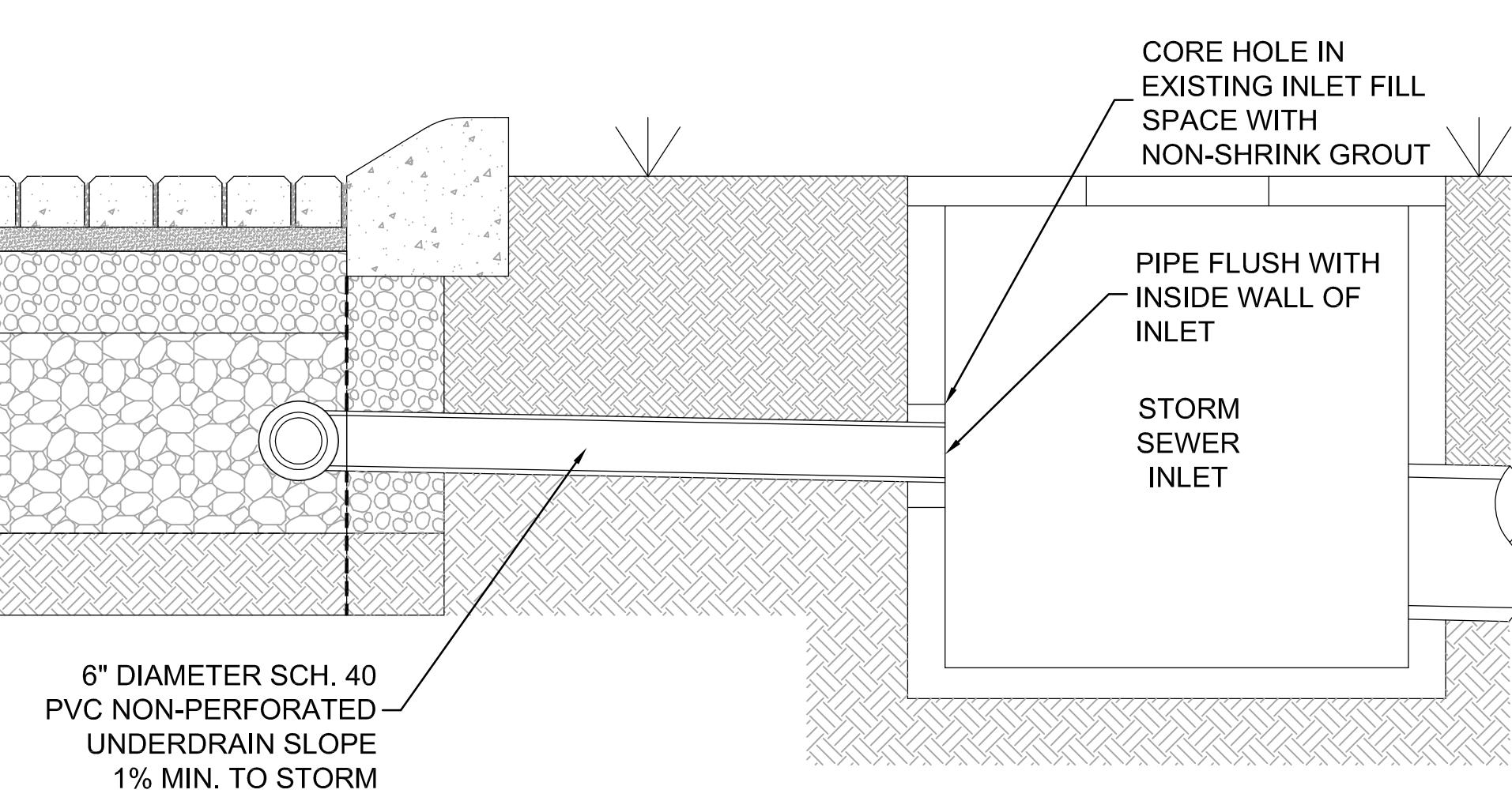
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: L HAWKS  
APPROVED: J HERR  
FILENAME: 147924-D-01.DWG  
BC PROJECT NUMBER: 147924  
CLIENT PROJECT NUMBER:

UNDERDRAIN TO STORM SEWER  
STRUCTURE CONNECTIONDETAIL 4  
C-3

NO SCALE

TYPICAL SECTIONS  
AND DETAILS I

## DRAWING NUMBER

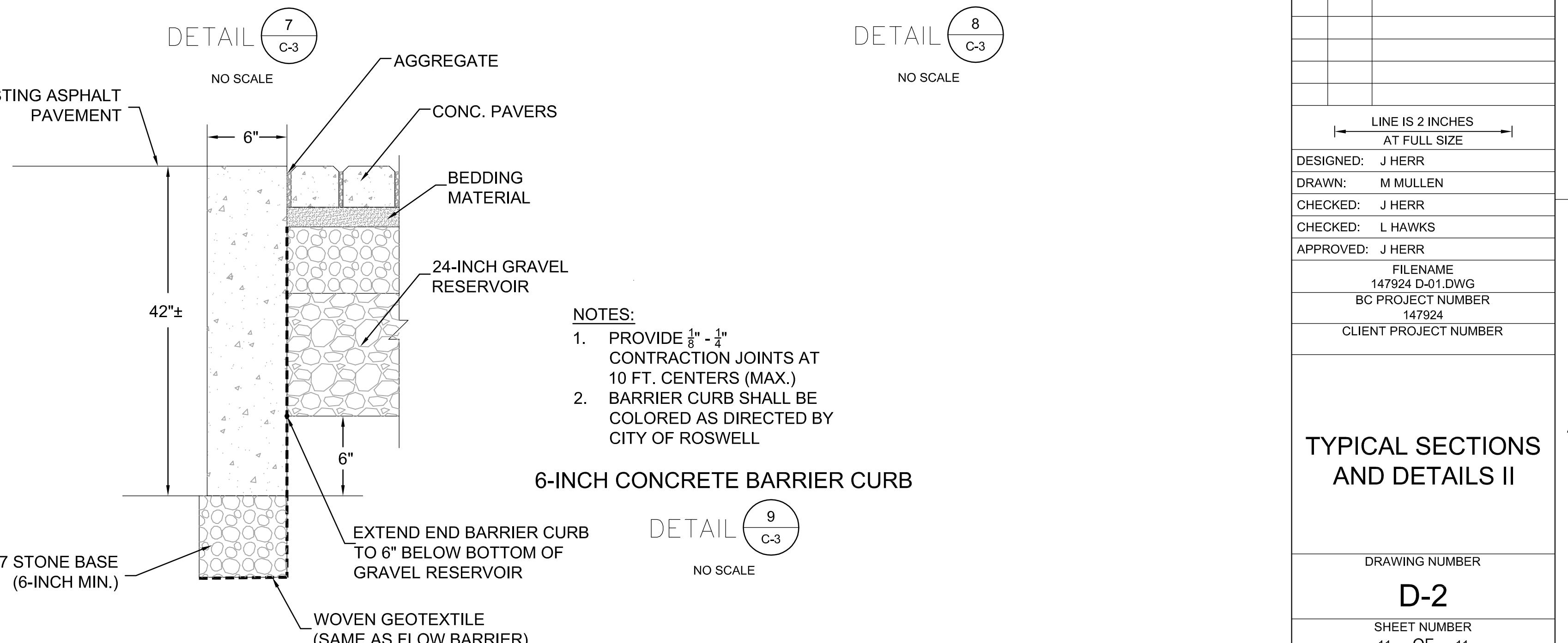
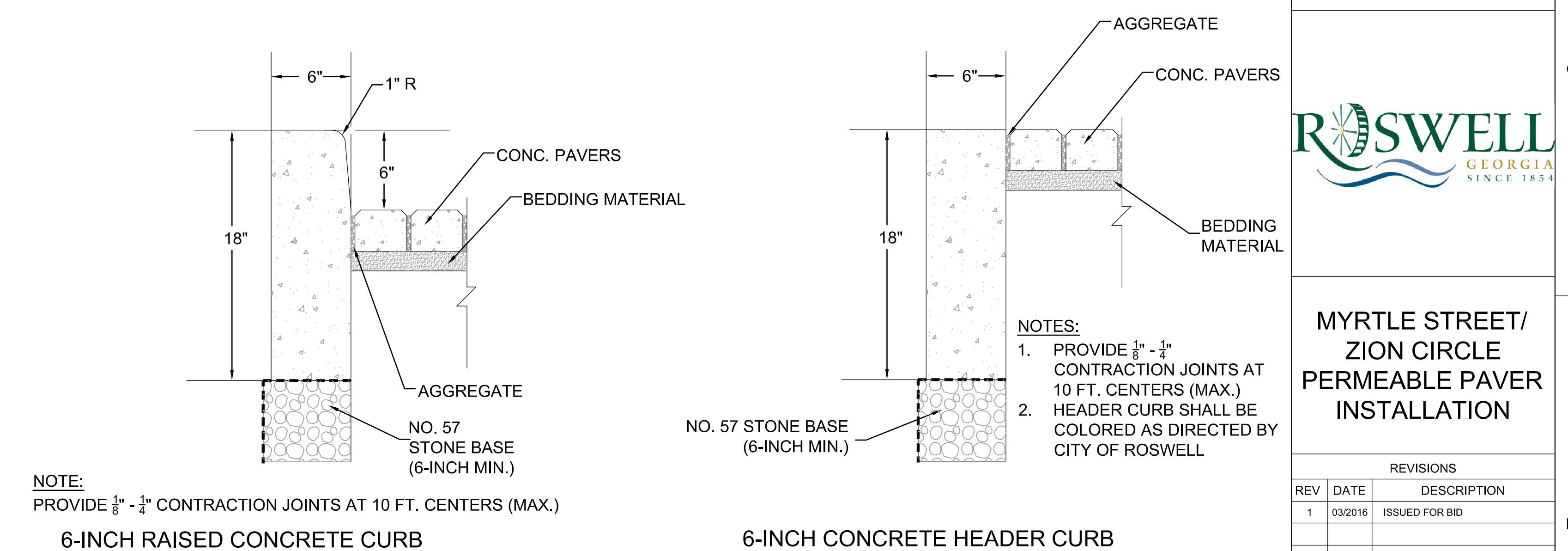
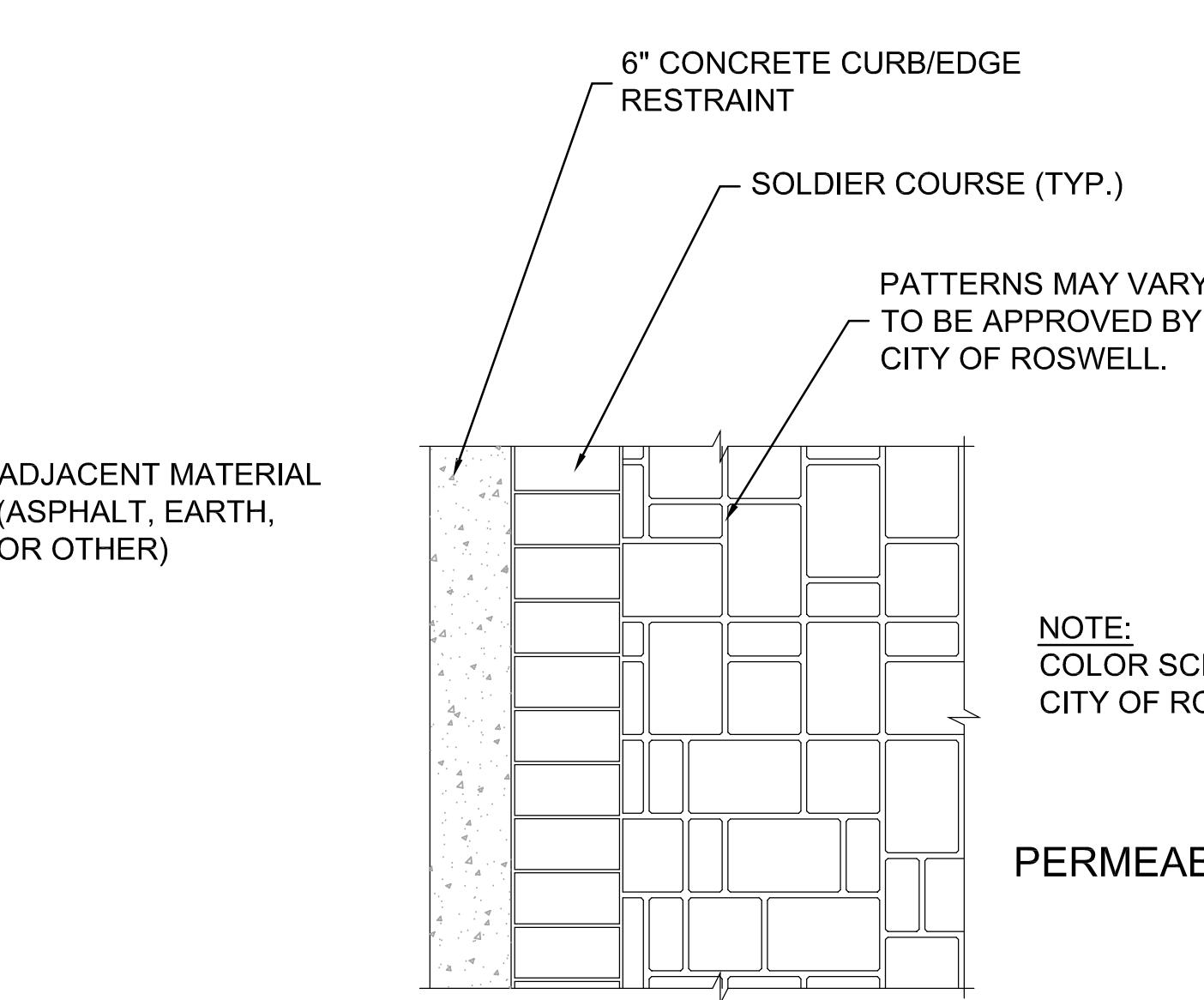
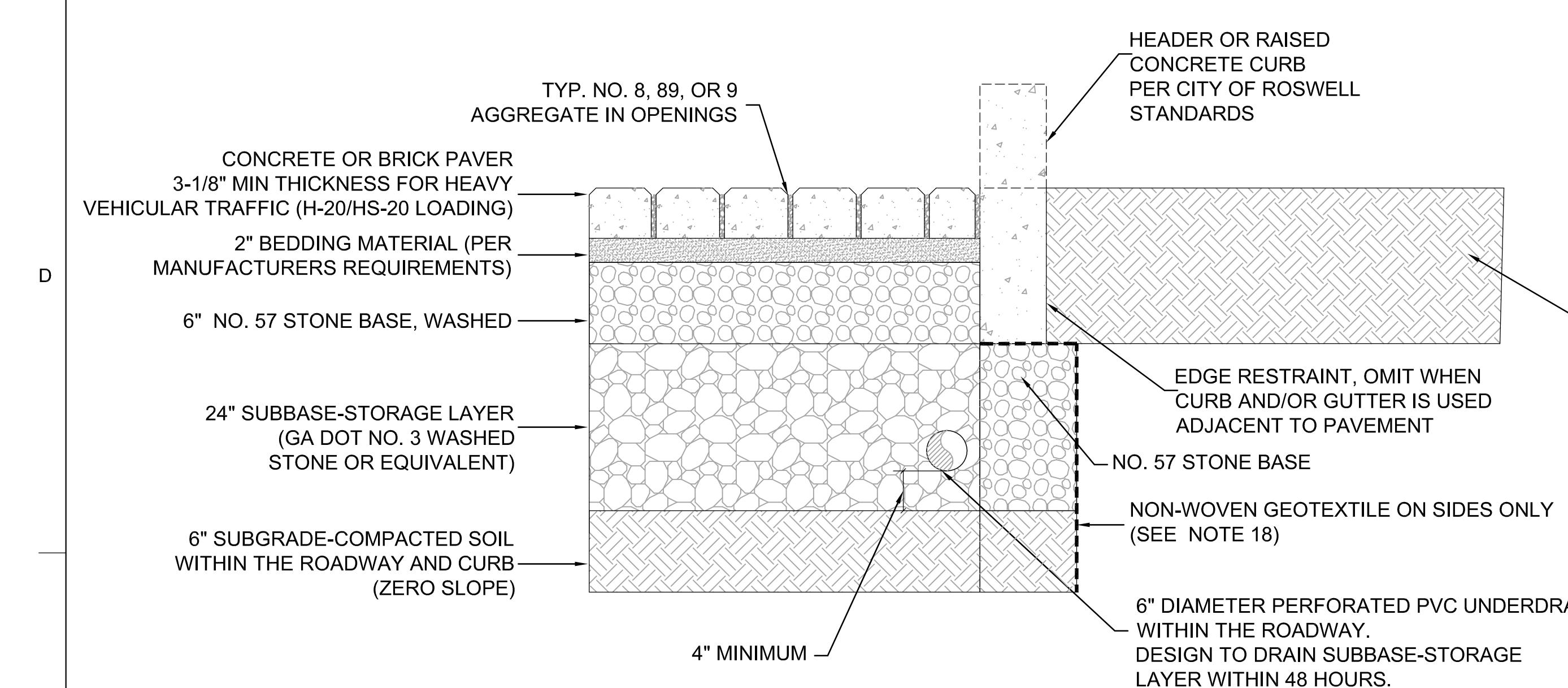
D-1

SHEET NUMBER  
10 OF 11Brown AND  
Caldwell

ATLANTA, GA

ROSWELL  
GEORGIA  
SINCE 1854

1 2 3 4 5 6



Brown AND Caldwell

ATLANTA, GA



ROSWELL  
GEORGIA  
SINCE 1854

MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

REVISIONS

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1	03/2016	ISSUED FOR BID

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