# STREETSCAPE & ROADWAY IMPROVEMENTS FOR DR. MELLICHAMP DRIVE

BLUFFTON, SOUTH CAROLINA

PREPARED FOR:
TOWN OF BLUFFTON

20 BRIDGE STREET
BLUFFTON, SC 29910

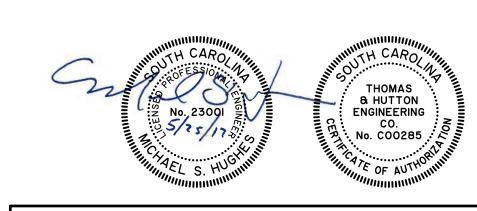
DECEMBER 27, 2016

LAST REVISED: 05/25/17

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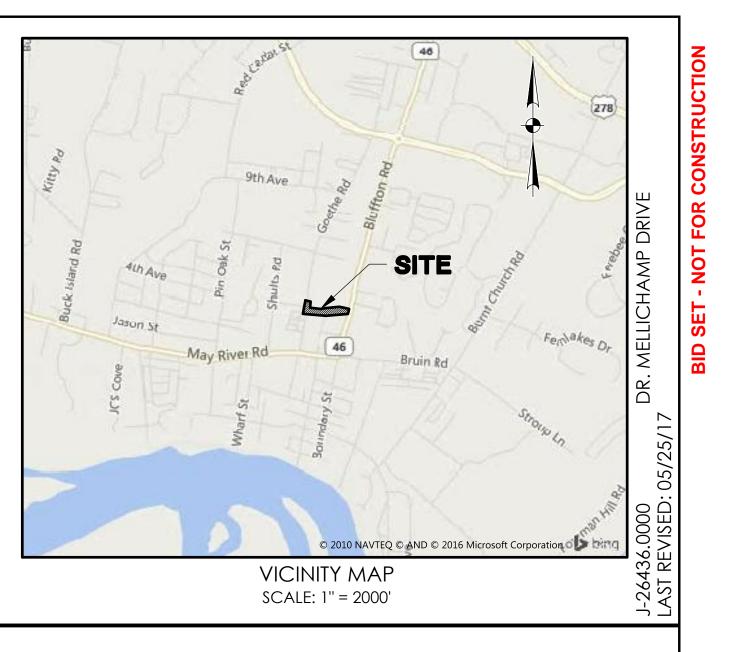
PREPARED BY:





REV. NO.	REVISION	BY	DATE

SUBMITTAL	HISTORY
ISSUED FOR BID	05/26/
OCRM	02/10/
SUBMITTED TO	DATE



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<u>WATER LEGEND</u>					
DESCRIPTION	<b>EXISTING</b>	PROPOSED			
WATER MAIN	10"W	10"W			
SINGLE SERVICE LATERAL					
OOUBLE SERVICE LATERAL	<u>&gt;</u>	>			
/ALVE AND BOX	$\otimes$	•			
FIRE HYDRANT W/VALVE & BOX	$\otimes$ - $\leftarrow$ -	ۥ			
POST HYDRANT	))-I				
REDUCER		•			
ACKFLOW PREVENTOR					
CROSS	1_1	1_1			
TEE	<u> </u>	1-1			
90° BEND - HORIZONTAL		一			
45° BEND - HORIZONTAL	/	/1			
22-½° BEND - HORIZONTAL	/	/			
-4° BEND - HORIZONTAL	/	1 1			
BEND - VERTICAL		11			
CAP					

	<u> 4</u>	<b>ABBI</b>	<u>REVIATIONS</u>		
HDPE	HIGH DENSITY POLYETHYLENE	JB	JUNCTION BOX	SDMH	STORM DRAINAGE MANHOLE
вот	воттом	LF	LINEAR FEET	SF	SQUARE FEET
CI	CURB INLET	MAX	MAXIMUM	ss	SANITARY SEWER
СРР	CORRUGATED PLASTIC PIPE	MIN	MINIMUM	тс	TOP OF CURB
DIP	DUCTILE IRON PIPE	МН	MANHOLE	TG	TOP OF GUTTER
EL	ELEVATION	ос	ON CENTER	TP	TOP OF PAVEMENT
FG	FINISH GRADE	PC	POINT OF CURVE	TW	TOP OF WALK
FH	FIRE HYDRANT	PH	POST HYDRANT	TYP	TYPICAL
FM	FORCE MAIN (SANITARY SEWER)	PT	POINT OF TANGENT	w	WATER
FP	FINISH PAD	PVC	POLYVINYL CHLORIDE	W/	WITH
FR	FRAME	RCP	REINFORCED CONCRETE PIPE	wv	WATER VALVE
GI	GRATE INLET	RJP	RESTRAINED JOINT PIPE	YI	YARD INLET
GV	GATE VALVE	R/W	RIGHT-OF-WAY		
INV	INVERT ELEVATION	SD	STORM DRAINAGE		

	SEWER LEGEND						
DESCRIPTION	EXISTING	PROPOSED					
GRAVITY PIPE	ss						
SINGLE SERVICE LATERAL							
DOUBLE SERVICE LATERAL		<del></del>					
MANHOLE	0	•					
CLEANOUT	O <sub>1</sub>	•					
FORCEMAIN — —	10"FM 10"FM	IO"FM IO"FM -					
VALVE AND BOX	$\otimes$	$oldsymbol{\Theta}$					
FLUSH HYDRANT	)	<b>)</b>					
REDUCER		4					
BACKFLOW PREVENTOR							
CROSS	<u> </u>	1_1					
TEE	_ 						
90° BEND - HORIZONTAL		٦					
45° BEND - HORIZONTAL	/	/					
22-½° BEND - HORIZONTAL	/	/					
II-¼° BEND - HORIZONTAL	1	1					
BEND - VERTICAL							
PLUG \ CAP		<u> </u>					

DRAINAGE LEGEND						
DESCRIPTION	EXISTING	PROPOSED				
PIPE						
DITCH		<b></b>				
CURB INLET	0	•				
GRATE INLET		B				
JUNCTION BOX	0	•				
OUTLET STRUCTURE						

OTHER UT	ILITIES LEGEND
DESCRIPTION	<u>EXISTING</u>
NATURAL GAS	UGG
TELEPHONE	——— ОНТ ——— ОНТ ———
UNDERGROUND TELEPHONE	UTL UTL
ELECTRICITY	——————————————————————————————————————
UNDERGROUND ELECTRICITY	——————————————————————————————————————

#### PREPARED FOR:

# TOWN OF BLUFFTON 20 BRIDGE STREET BLUFFTON, SC 29910



# SCALE: I" = 200'

2. VERIFY CHANGES IN ELEVATIONS IN ROADBEDS RESULTING FROM CONTRACTOR

3. ONE (I) FOOT CONTOUR INTERVALS.

I. ALL ELEVATIONS REFER TO NAVD 88

GENERAL NOTES

4. EXISTING BENCHMARKS ARE SHOWN ON PROJECT MAPS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL COORDINATE ALL WORK WITH THE OWNER AND UTILITY COMPANIES.

6. CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY WITH ANY DISCREPANCIES.

7. CONTRACTOR SHALL VERIFY MANHOLE ELEVATIONS BEFORE STARTING WORK.

8. DRY UTILITIES HAVE NOT BEEN FIELD LOCATED. CONTRACTOR TO VERIFY LOCATION PRIOR

9. ALL PAVEMENT MARKINGS, MARKERS AND TRAFFIC CONTROL SHALL COMPLY WITH SCDOT STANDARD DRAWINGS AND LATEST VERSION OF THE MUTCD. SEE PAVING, GRADING AND DRAINAGE DETAILS.

# OCRM NOTES

- I. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO
- 2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, EXCEPT AS STATED BELOW:

WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.

WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

- 3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS. IF SITE INSPECTIONS IDENTIFY BMP's THAT ARE DAMAGED OR ARE NOT OPERATING EFFECTIVELY, MAINTENANCE MUST BE PERFORMED AS SOON AS PRACTICAL OR AS REASONABLY POSSIBLE AND BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE.
- 4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
- 5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS
- 6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
- 7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN ACCEPTANCE OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET SEQ. AND SCR 100000.
- 8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
- 9. ALL WATERS OF THE STATE (WoS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE AREA TO BE FILLED. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN NOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL Wos. A IO-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WoS.
- IO. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.

II. ALL AREAS CLEARED AND GRUBBED BEYOND THE EDGE OF PAVED AREAS IN THIS DEVELOPMENT WILL BE GRASSED AND MULCHED IMMEDIATELY AFTER GRADING IS COMPLETED. THESE AREAS WILL BE REGRASSED AFTER THE CONSTRUCTION OF ALL UTILITIES IS COMPLETED.

12. OPEN SPACE AND LAGOON BANKS SHALL BE PERMANENTLY GRASSED. LOTS SHALL BE TEMPORARILY

- GRASSED AND MEET ALL OCRM REGULATIONS. 13. CONTRACTOR SHALL NOT ENCROACH ON WETLAND AREAS AND WILL TAKE PRECAUTIONS TO PREVENT
- 14. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE BUILT IN ACCORDANCE WITH OCRM GUIDELINES.
- 15. SILT FENCE TO BE IN PLACE PRIOR TO COMMENCING WORK.
- 16. ALL EROSION AND SEDIMENT DEVICES SHOWN SHALL BE SEDIMENT BARRIERS (S.D.I) CONSTRUCTED OF AN
- 17. VEHICLES LEAVING SITE MUST TRAVERSE CONSTRUCTION EXITS TO REMOVE MUD FROM TIRES.
- 18. ALL STORM PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.

INCLUDE ALL UTILITIES THAT MAY EXIST.

- 19. REFER TO SPECIFICATIONS, SECTION 02902, FOR GRASSING REQUIREMENTS AND SPECIFICATIONS.
- I. ALL ELEVATIONS ARE BASED ON THE TOPOGRAPHIC SURVEYS PROVIDED BY THOMAS AND HUTTON
- ENGINEERING COMPANY. . THE LOCATIONS OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR HIS REPRESENTATIVES. EXISTING UTILITIES SHOWN DO NOT
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL EXISTING UNDERGROUND UTILITIES LOCATED WITHIN THIS SITE AND AROUND THE PERIMETER OF THIS SITE WHERE SUCH UTILITIES MIGHT BE DISTURBED BY ANY ACTIVITY INVOLVED WITH THESE PLANS. ALL UTILITY LOCATION WORK SHALL BE DONE PRIOR TO CONSTRUCTION ACTIVITY. THE CONTRACTOR AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR DUE TO THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE AND UNDERGROUND UTILITIES THAT MAY EXIST, EXISTING UTILITIES SHALL BE REQUIRED TO COMPLETE THE WORK SHOWN IN THESE SITE DEVELOPMENT PLANS. CONTRACTOR TO COORDINATE WITH ALL UTILITY PROVIDERS PRIOR TO DEMOLITION FOR THE RELOCATION OF EXISTING UTILITIES.
- 4. THE CONTRACTOR SHALL VERIFY ALL ITEMS TO BE DEMOLISHED AND REMOVED FROM THE PROJECT SITE. THE VERIFICATION PROCESS SHALL INCLUDE VISITING AND WALKING THE SITE. ALL ITEMS REQUIRING DEMOLITION/REMOVAL, WHETHER SHOWN ON THIS PLAN OR NOT, SHALL BE THE RESPONSIBILITY OF THE
- 5. ALL EXISTING STRUCTURES (IF ENCOUNTERED) AND RELATED FOOTINGS, FOUNDATIONS, STEPS, ETC. ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO APPLICABLE CODES.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REMOVAL AND/OR RELOCATION OF ALL UTILITIES (ABOVE AND BELOW GROUND LEVEL) AS NECESSARY TO FACILITATE CONSTRUCTION.
- TANKS SHALL BE RECORDED AND THE ENGINEER SHALL BE NOTIFIED AT ONCE. . WELLS, IF ENCOUNTERED, SHALL BE ACCURATELY LOCATED BY THE CONTRACTOR, PROTECTED AND

7. EXISTING SEPTIC TANKS, GREASE TRAPS AND/OR UNDERGROUND TANKS, IF ENCOUNTERED, ARE TO BE

REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO APPLICABLE CODES. THE LOCATION OF ANY

- SURROUNDING GRADES MAINTAINED SUCH THAT SURFACE RUNOFF CANNOT ENTER THE WELL OPENING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT ONCE. 9. THE CONTRACTOR SHALL CONSULT THE OWNER REGARDING SALVAGE, ANY ITEMS NOT RETAINED BY THE
- IO. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION AND REMAIN IN

OWNER SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DEMOLISH AND/OR LEGALLY DISPOSE OF.

- PLACE UNTIL FINAL STABILIZATION AND COMPLETION OF CONSTRUCTION. IF ANY HAZARDOUS MATERIAL IS ENCOUNTERED DURING DEMOLITION, THE CONTRACTOR SHALL COORDINATE
- WITH THE OWNER AND APPROPRIATE AGENCIES FOR PROPER REMOVAL AND DISPOSAL.
- 12. DEMOLITION SHALL MEET ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPLICABLE PERMITS.
- 13. ALL ITEMS TO BE RELOCATED SHALL BE RE-INSTALLED AT AN ADJACENT LOCATION JUST OUTSIDE OF THE DEMOLITION LIMITS UNLESS OTHERWISE NOTED. THE TOWN OF BLUFFTON SHALL COORDINATE WITH PROPERTY OWNERS, SCDOT, ETC.
- 14. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND TOWN OF BLUFFTON 72 HOURS PRIOR TO ANY SERVICE DISRUPTION DUE TO RELOCATION AND OR FIELD ADJUSTMENTS OF UTILITIES.
- 15. ANY PAVEMENT, CURB AND GUTTER, SIDEWALKS TO BE REMOVED SHALL BE SAW CUT WITH A CLEAN EDGE AND APPROPRIATE MATERIAL SHALL BE USED BETWEEN NEW AND EXISTING SURFACES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ANY DAMAGE INCURRED ON ANY OF THE SURROUNDING PAVEMENT

- IG. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., TO THE BEST PRACTICES.
- TREE PROTECTION, EROSION, AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES. TREE PROTECTION SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE DEMOLITION WORK OUTLINED BY THIS PLAN TREE PROTECTION THAT NEEDS TO BE REMOVED, MOVED, OR REPLACED SHALL BE COORDINATED WITH OWNER. TREES TO BE REMOVED, THAT ARE WITHIN THE TREE PROTECTION ZONE OF PRESERVED TREES, ARE TO BE REMOVED IN SUCH A MANNER SO AS TO NOT DISTURB THE CANOPY OR ROOT SYSTEM OF PRESERVED TREES.
- ALL WATER VALVE BOXES/MANHOLES, METER AND BACKFLOW PREVENTER BOXES AND ASSOCIATED APPURTENANCES, SANITARY SEWER MANHOLE TOPS AND CLEANOUTS AND SURFACE DRAINAGE STRUCTURE INLETS SHALL BE BROUGHT TO FINISHED GRADE.

## **EXISTING CONDITIONS**

I. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MIGHT OCCUR DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE SAID UTILITIES.

#### EROSION CONTROL

- I. REMOVE ACCUMULATED SEDIMENT FROM EXISTING PAVED SURFACES PROMPTLY WHENEVER AND WHEREVER IT OCCURS. (TYPICAL)
- 2. CONCRETE WASHOUT AND PORTABLE TOILET LOCATIONS SHALL BE COORDINATED THROUGH THE TOWN OF BLUFFTON. THE SWPPP PLAN SHALL BE UPDATED AND AMENDED WITH FUTURE LOCATIONS AS THEY ARE DETERMINED.

#### CONDUIT

- CONTRACTOR TO COORDINATE CONDUIT LOCATIONS WITH SCE&G, HARGRAY, AND THE TOWN OF BLUFFTON PRIOR TO INSTALLATION. REFER TO THE CONDUIT PLANS PREPARED BY SCE&G AND HARGRAY COMMUNICATIONS FOR MORE INFORMATION.
- 2. ALL SCE&G AND HARGRAY CONDUIT TO BE GRAY SCHEDULE 40 ELECTRICAL GRADE PVC.
- 3. ALL CONDUIT TO BE BURIED BETWEEN 36" AND 48" BELOW FINAL GRADE WITH SWEEPING BENDS WHERE NECESSARY.
- 4. CONDUIT ENDS SHOULD BE TURNED UP (SWEEPING 90'S) AND CAPPED OFF.
- 5. STRING MUST BE INSTALLED IN EACH CONDUIT RUN.
- 6. CONDUIT SHOULD HAVE ACCESS PORTS EVERY 500 FEET MINIMUM

# GENERAL INFORMATION

COUNTY: BEAUFORT TOWN: BLUFFTON

ZONING: ROAD RIGHT-OF-WAY

**ENGINEER:** THOMAS & HUTTON 50 PARK OF COMMERCE WAY SAVANNAH, GA 31405 (912) 234-5300

TOWN OF BLUFFTON 20 BRIDGE STREET BLUFFTON, SC 29910 (843) 706-4500

SEA ISLAND LAND SURVEY, LLC. 4D MATHEWS COURT HILTON HEAD ISLAND, SC 29926 (843) 681-3248



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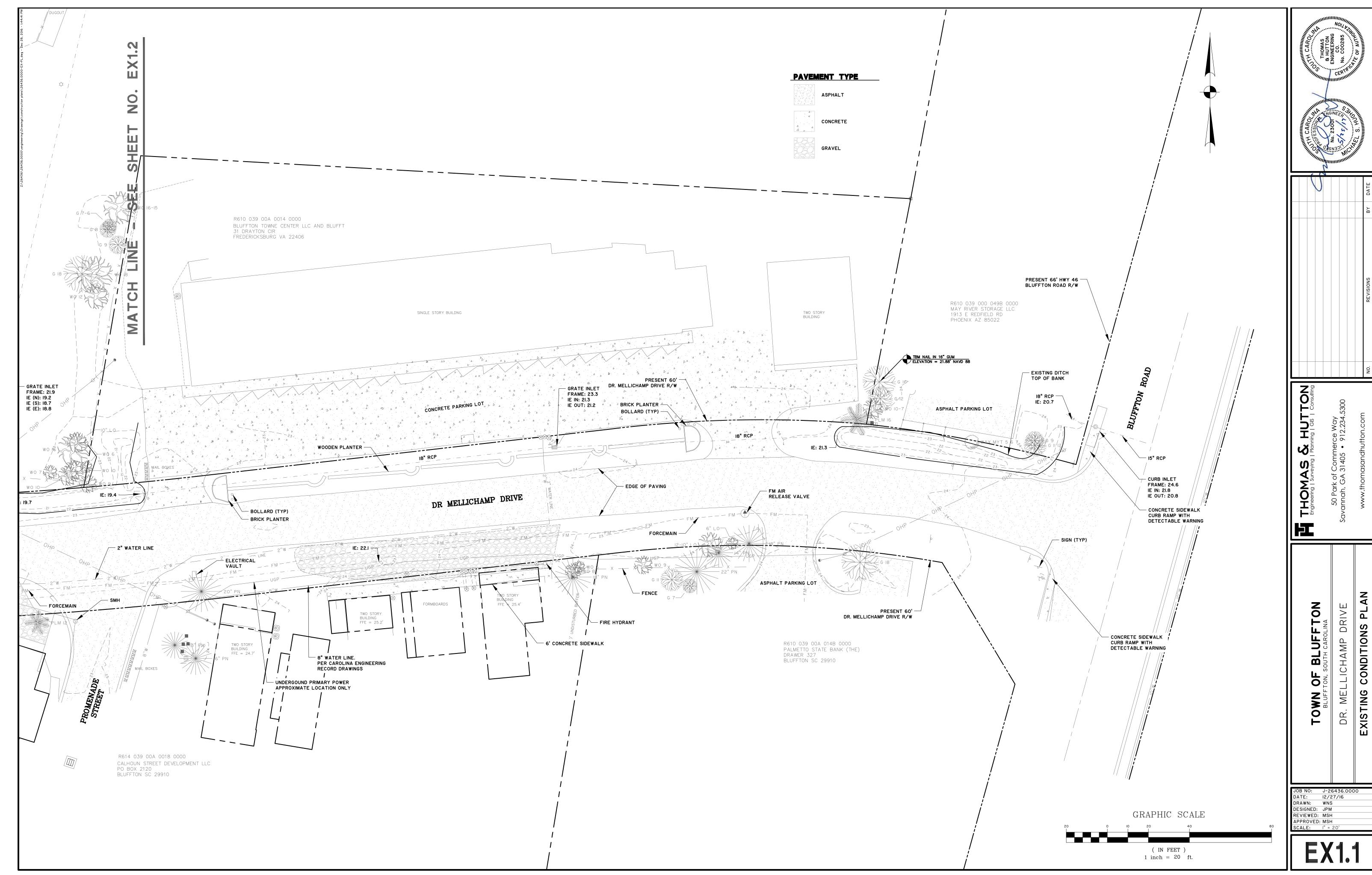
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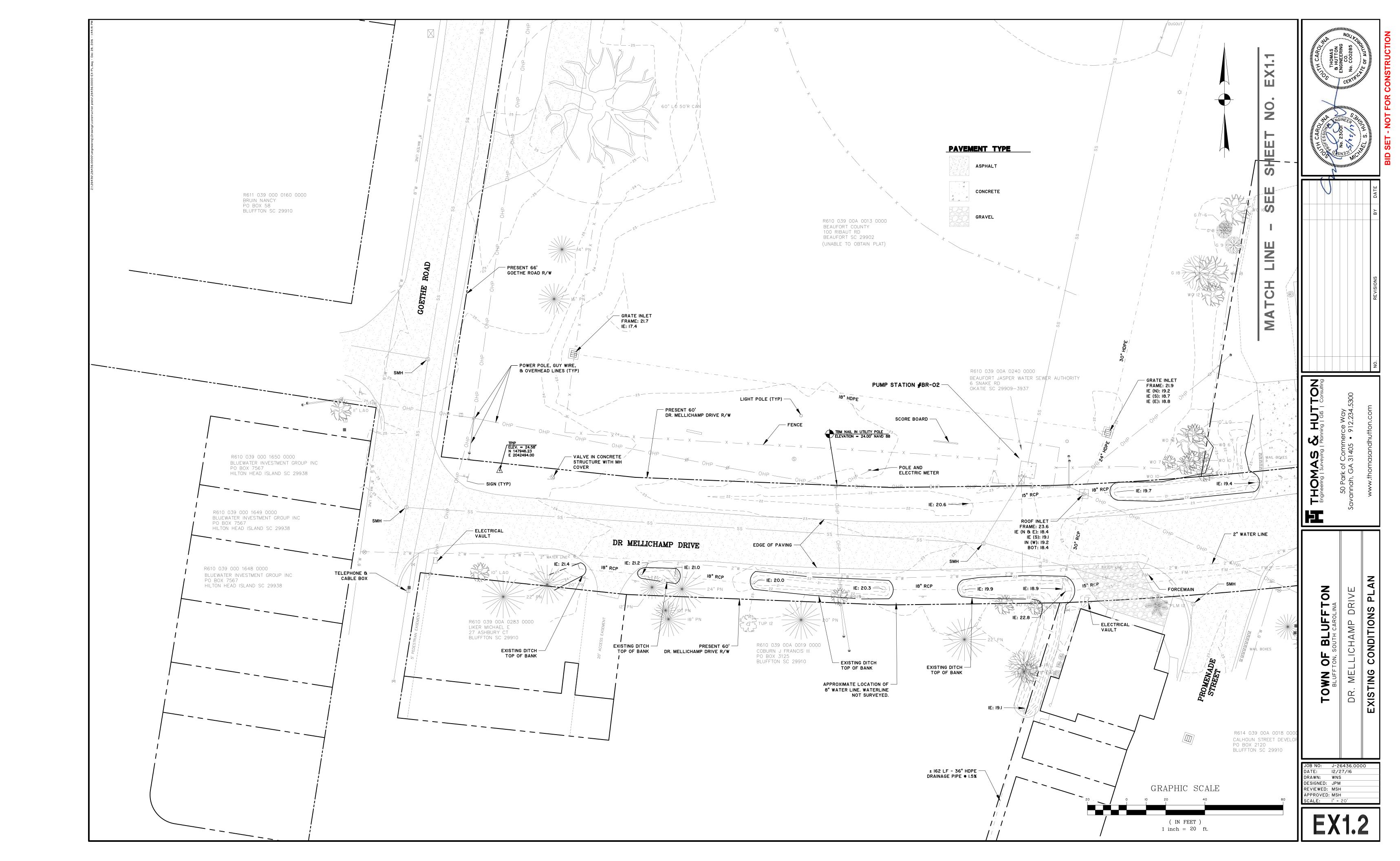
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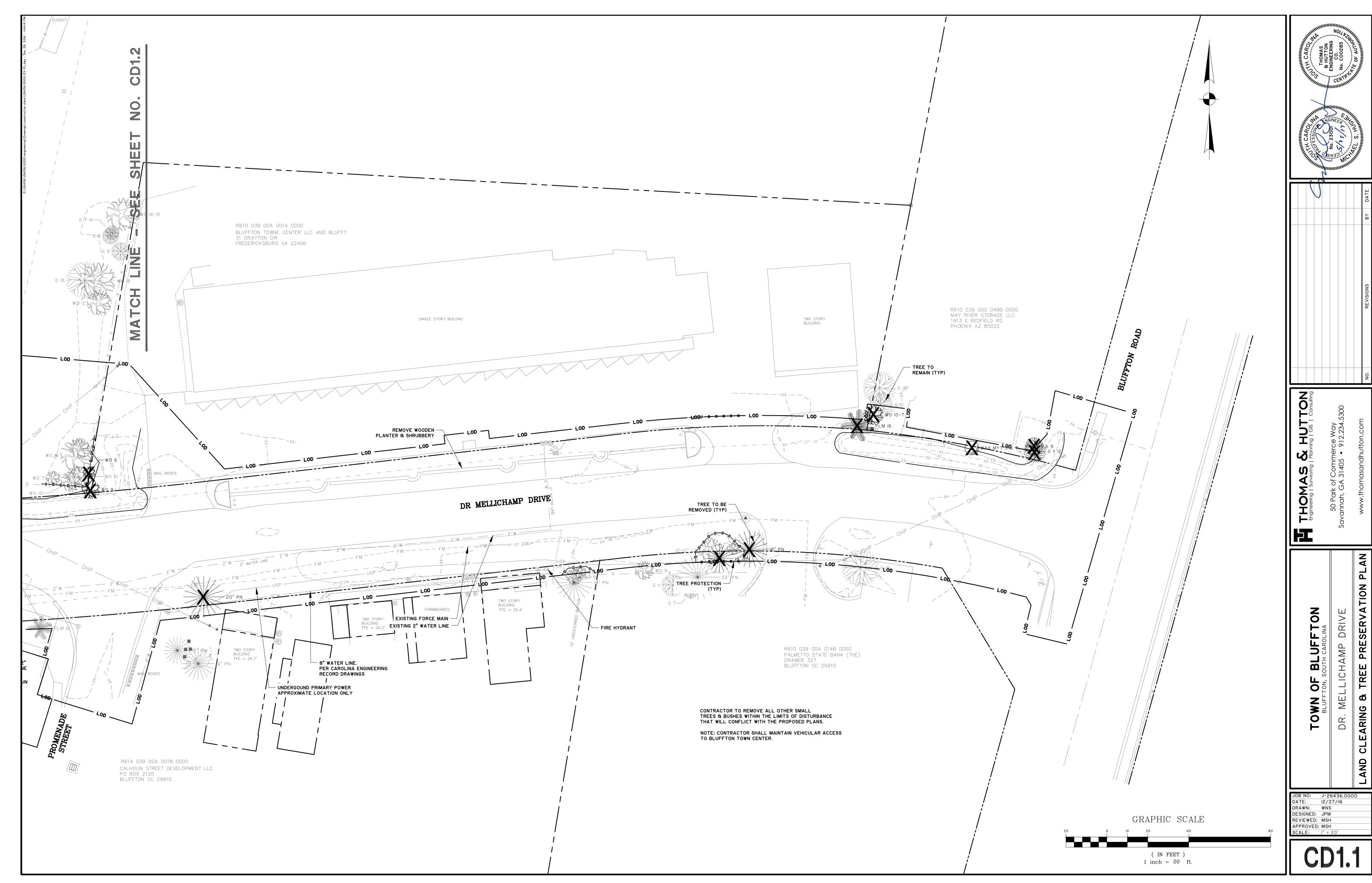
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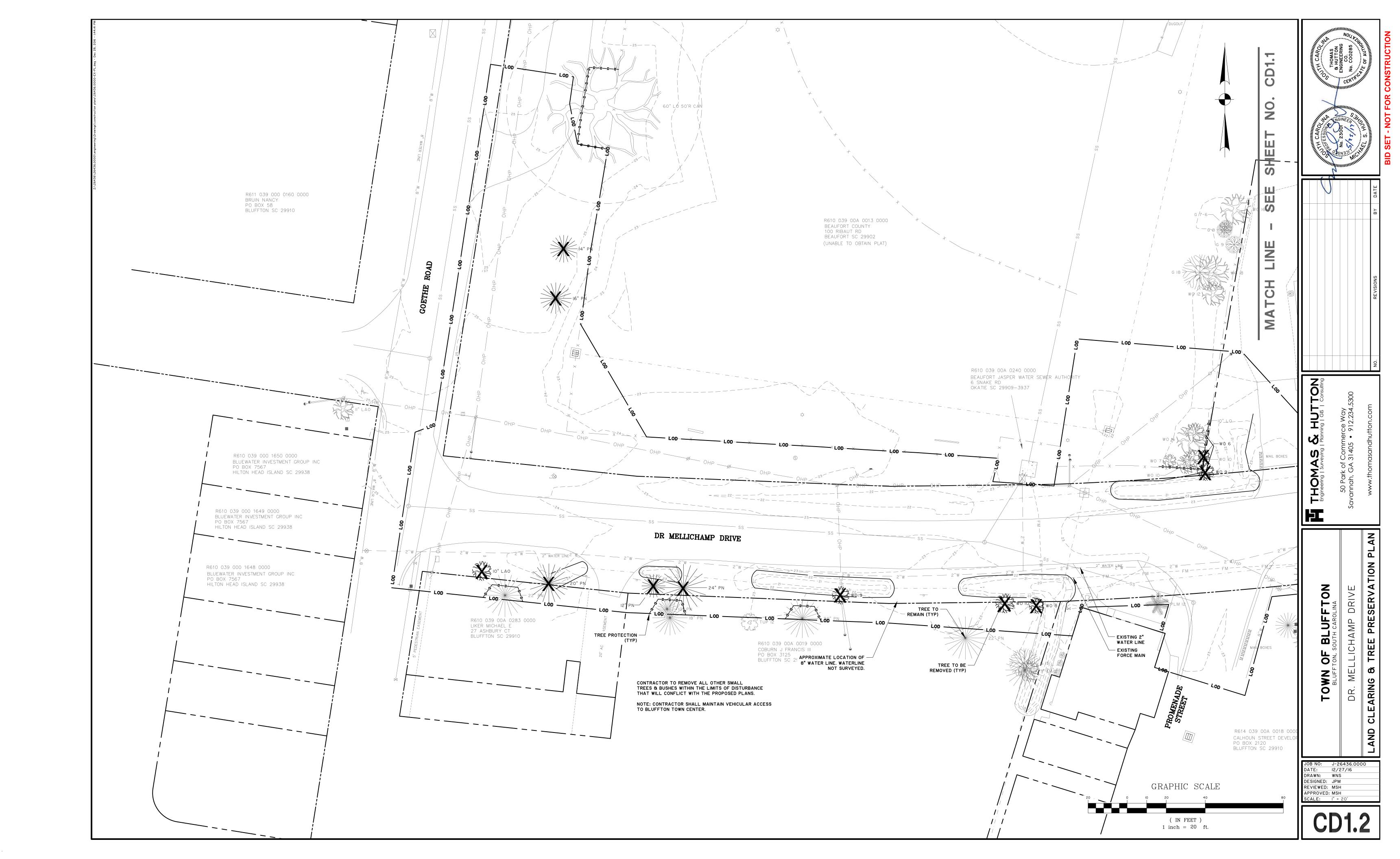
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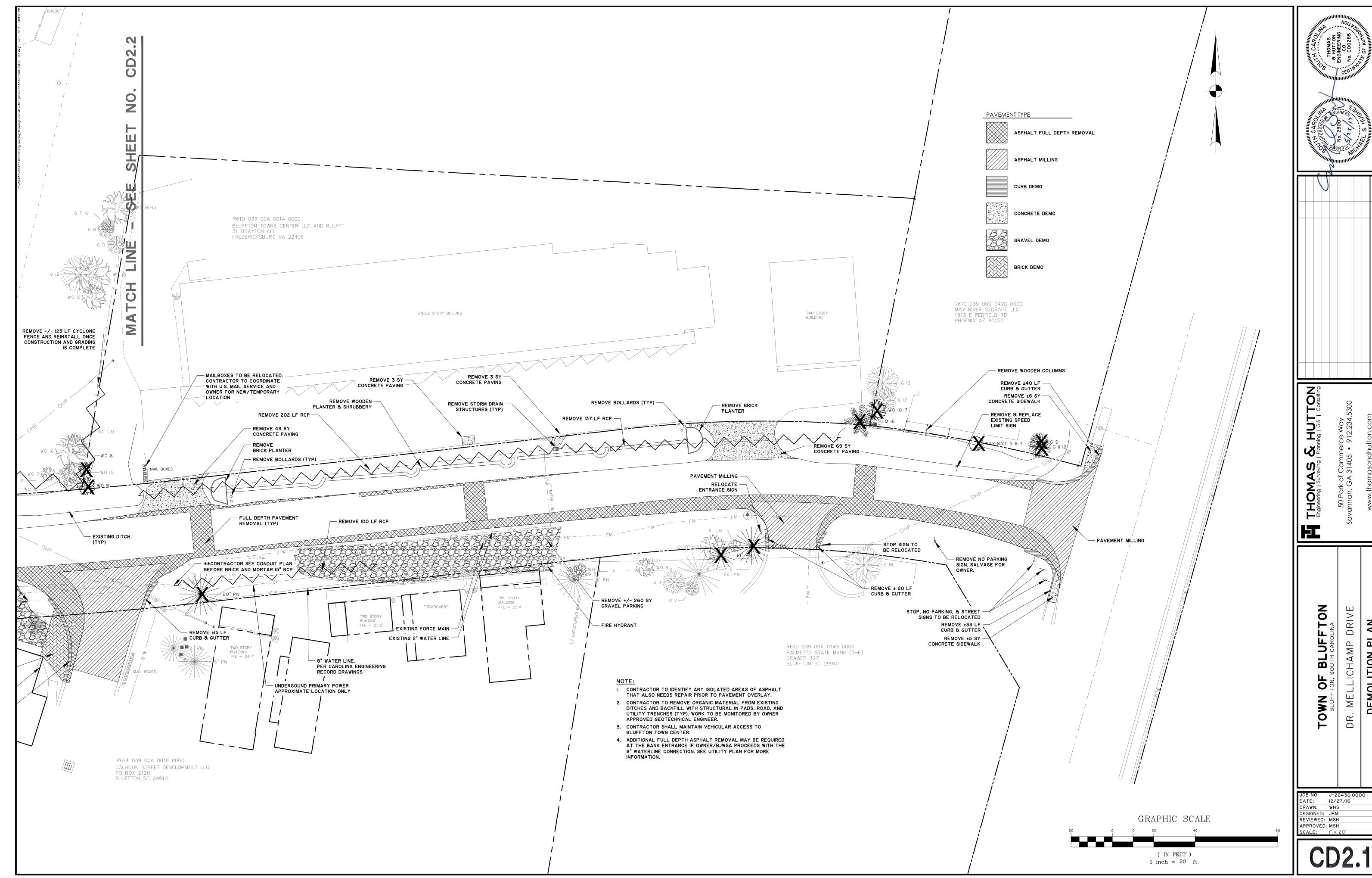
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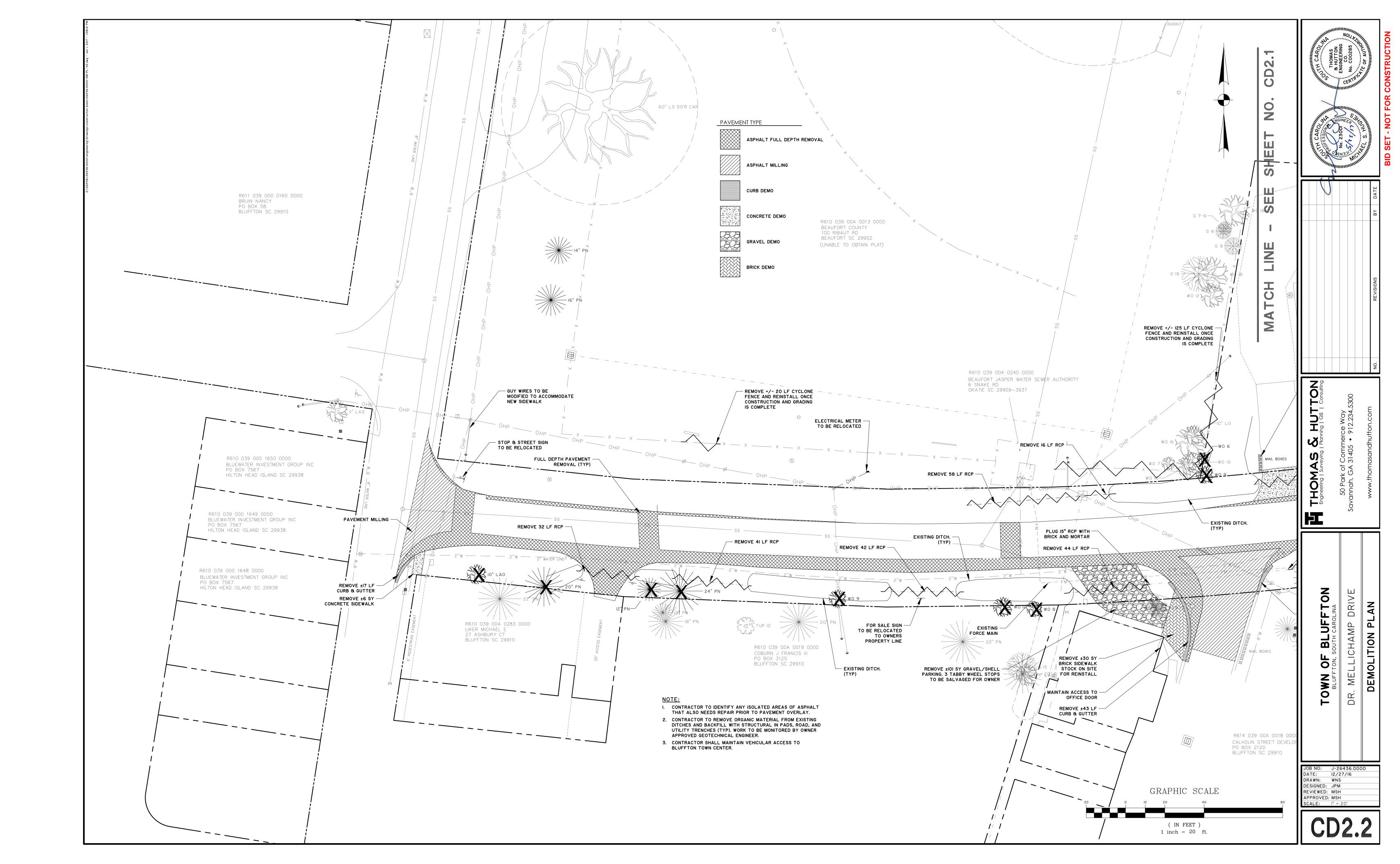


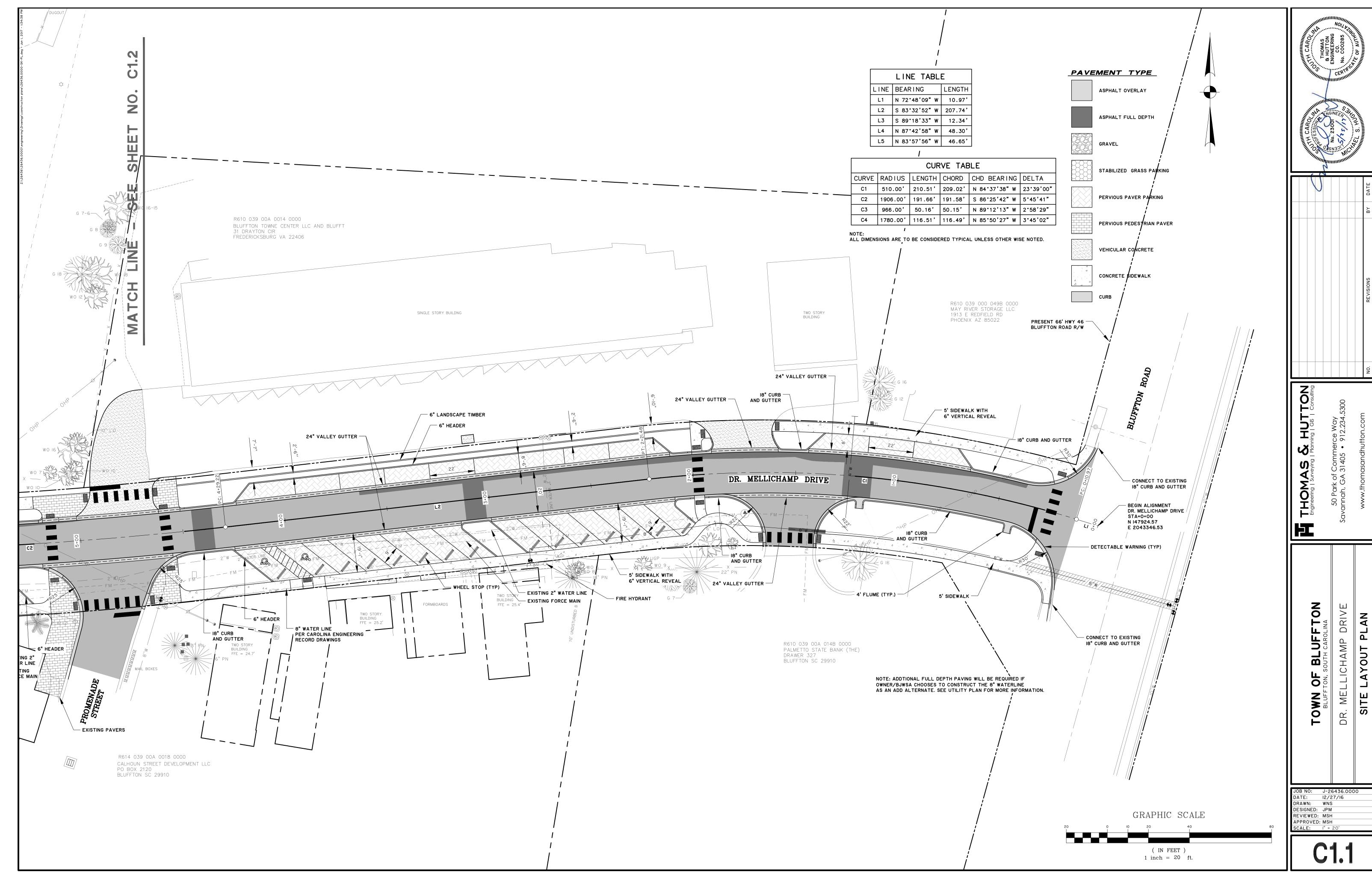


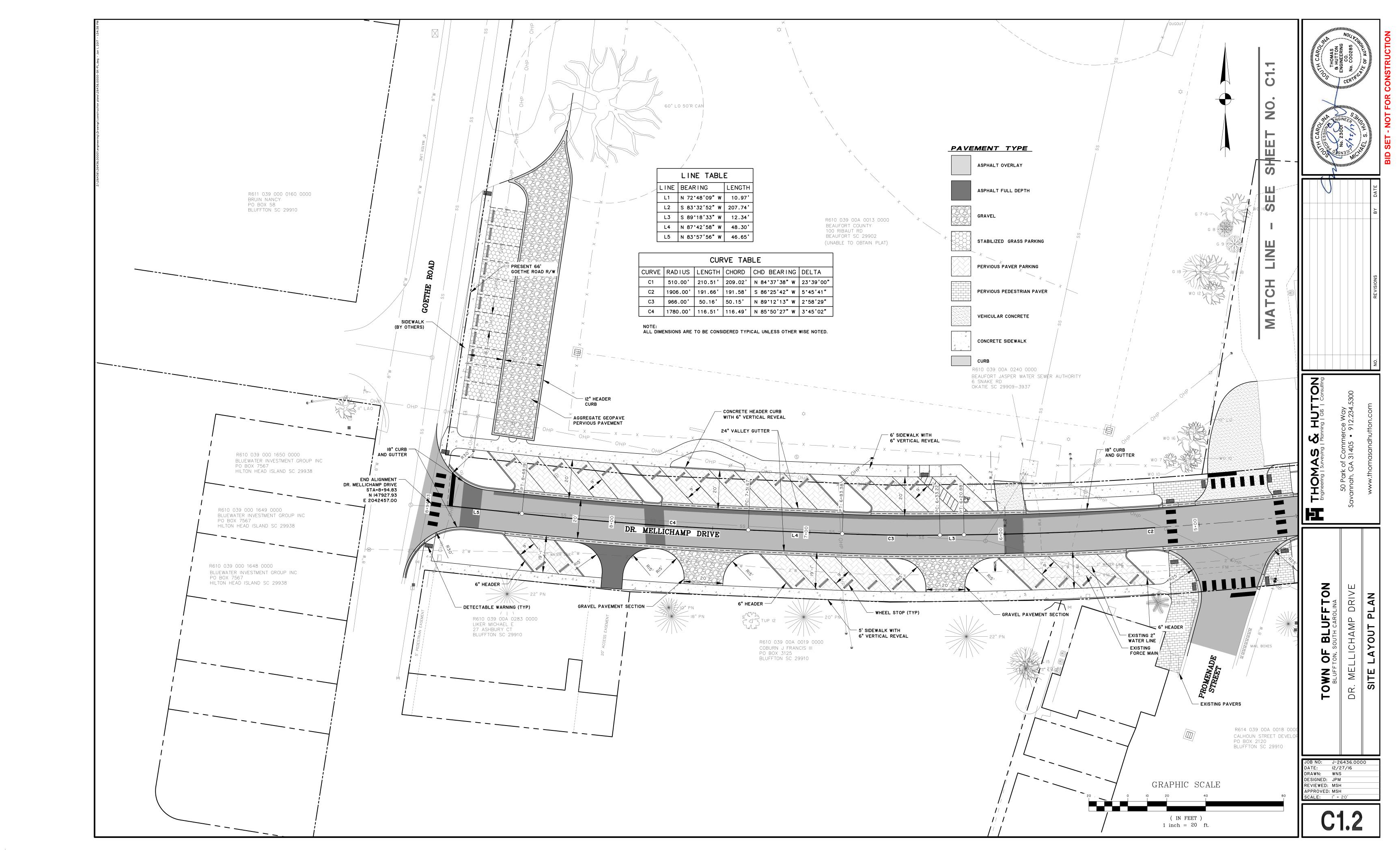


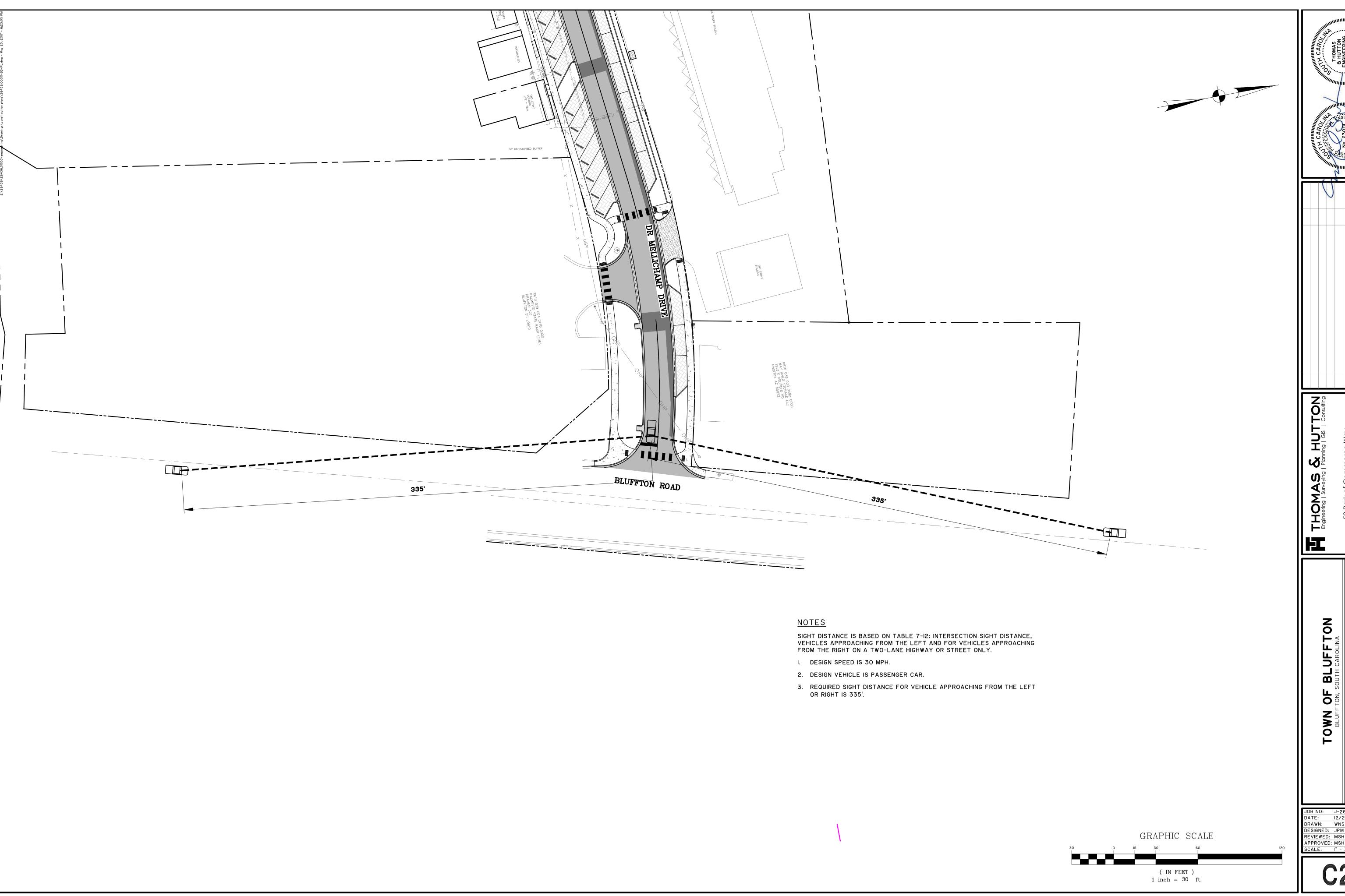


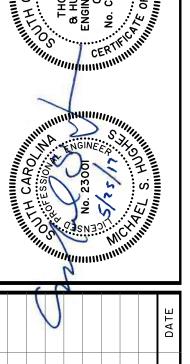








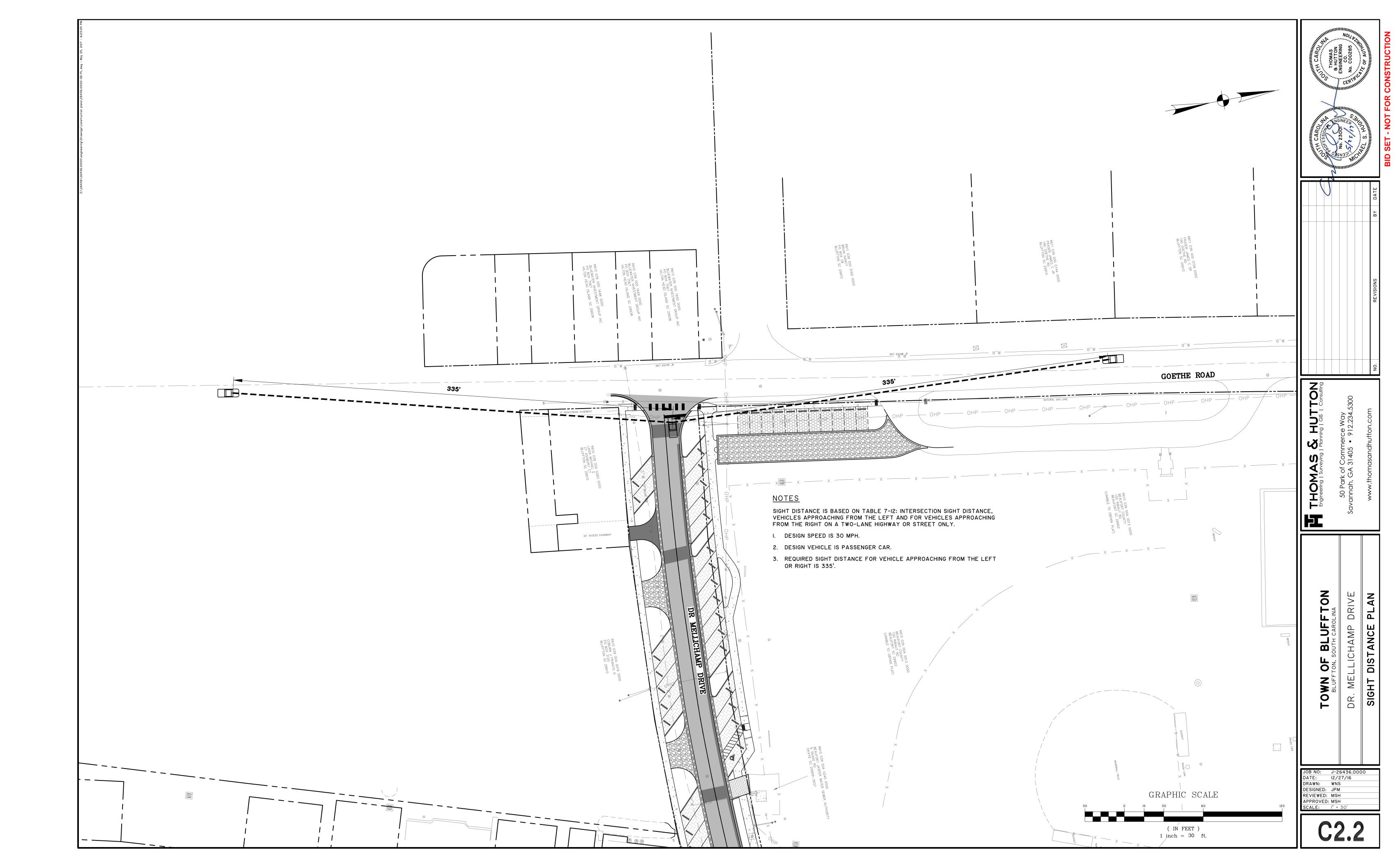


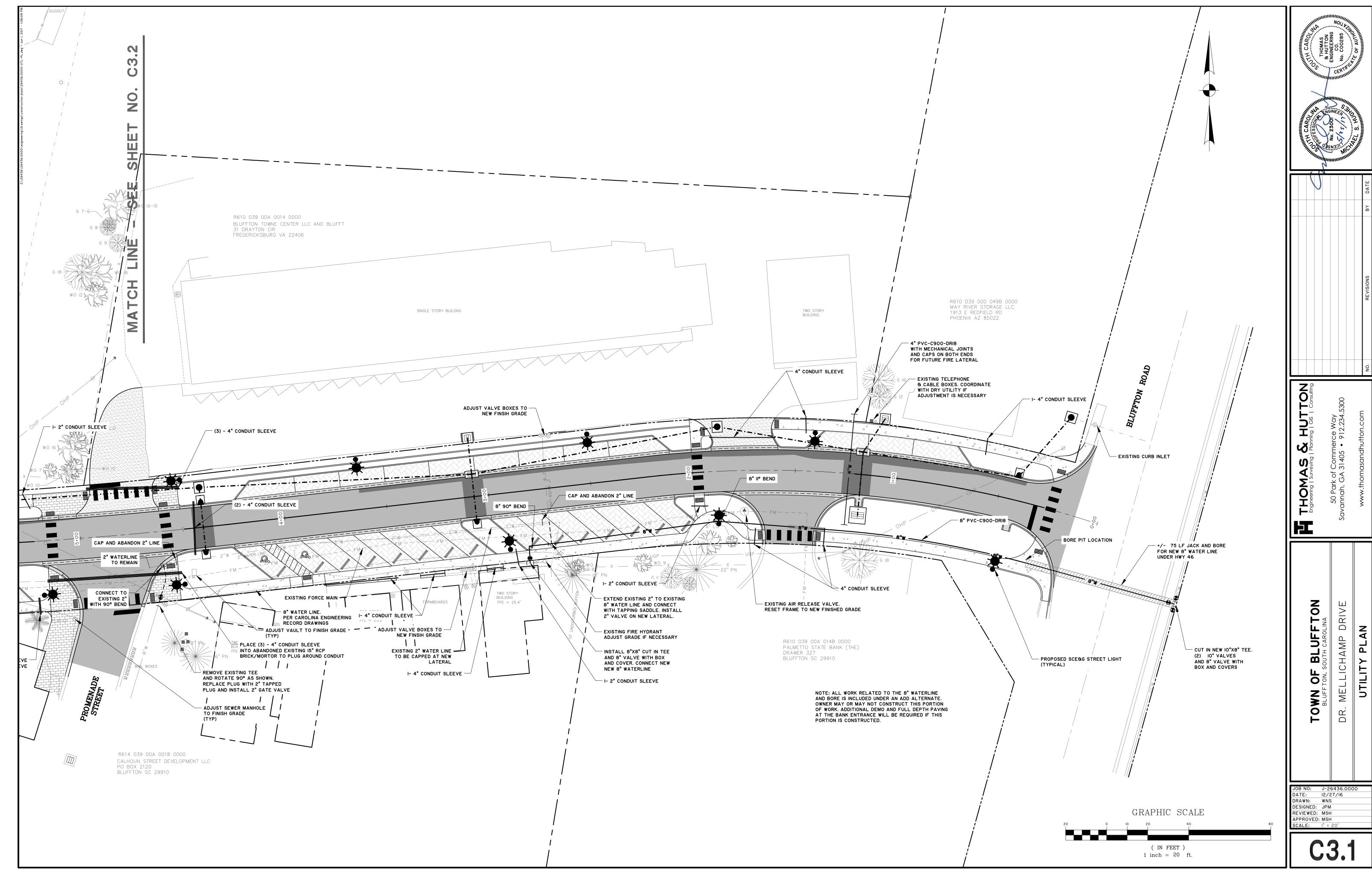


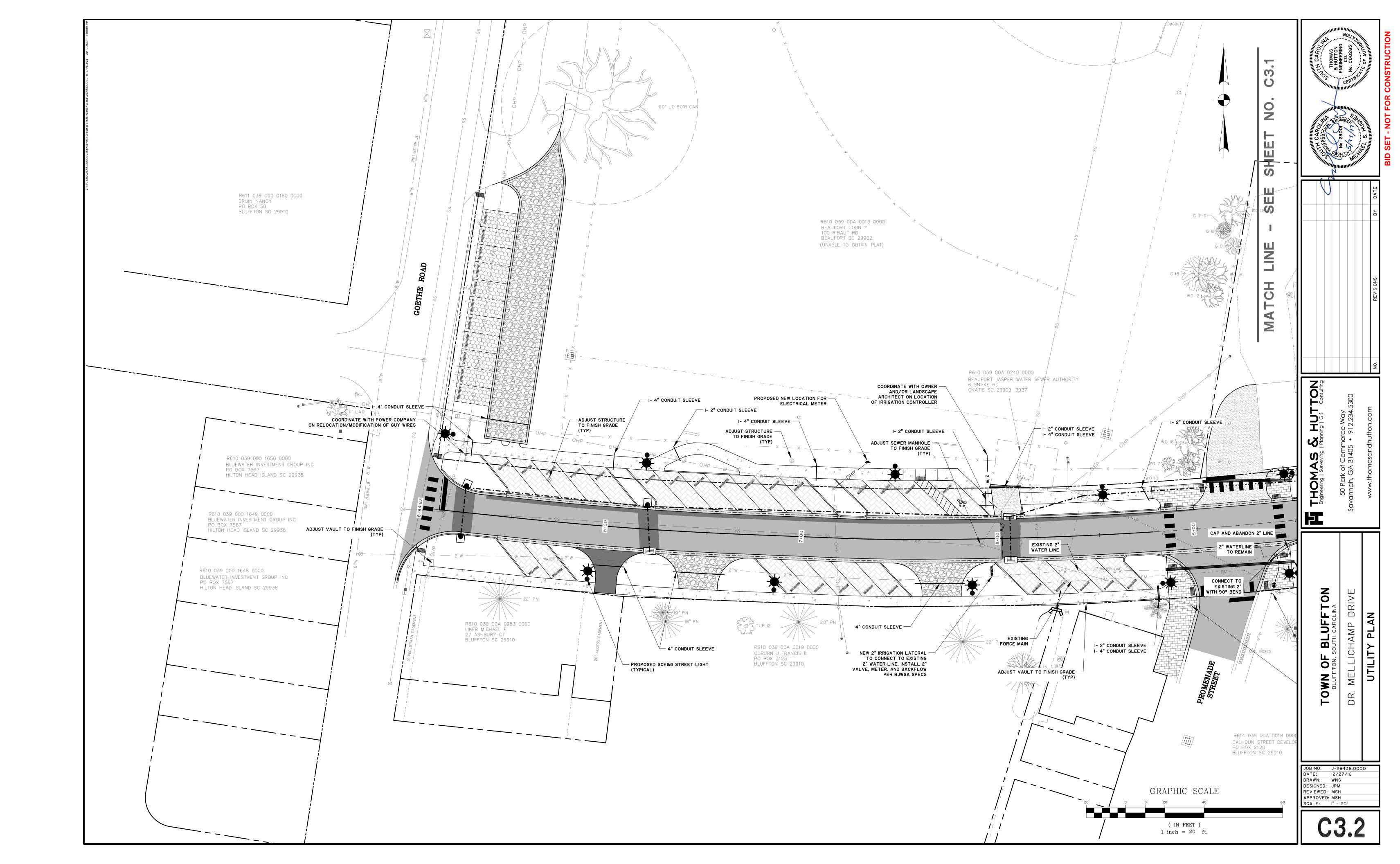
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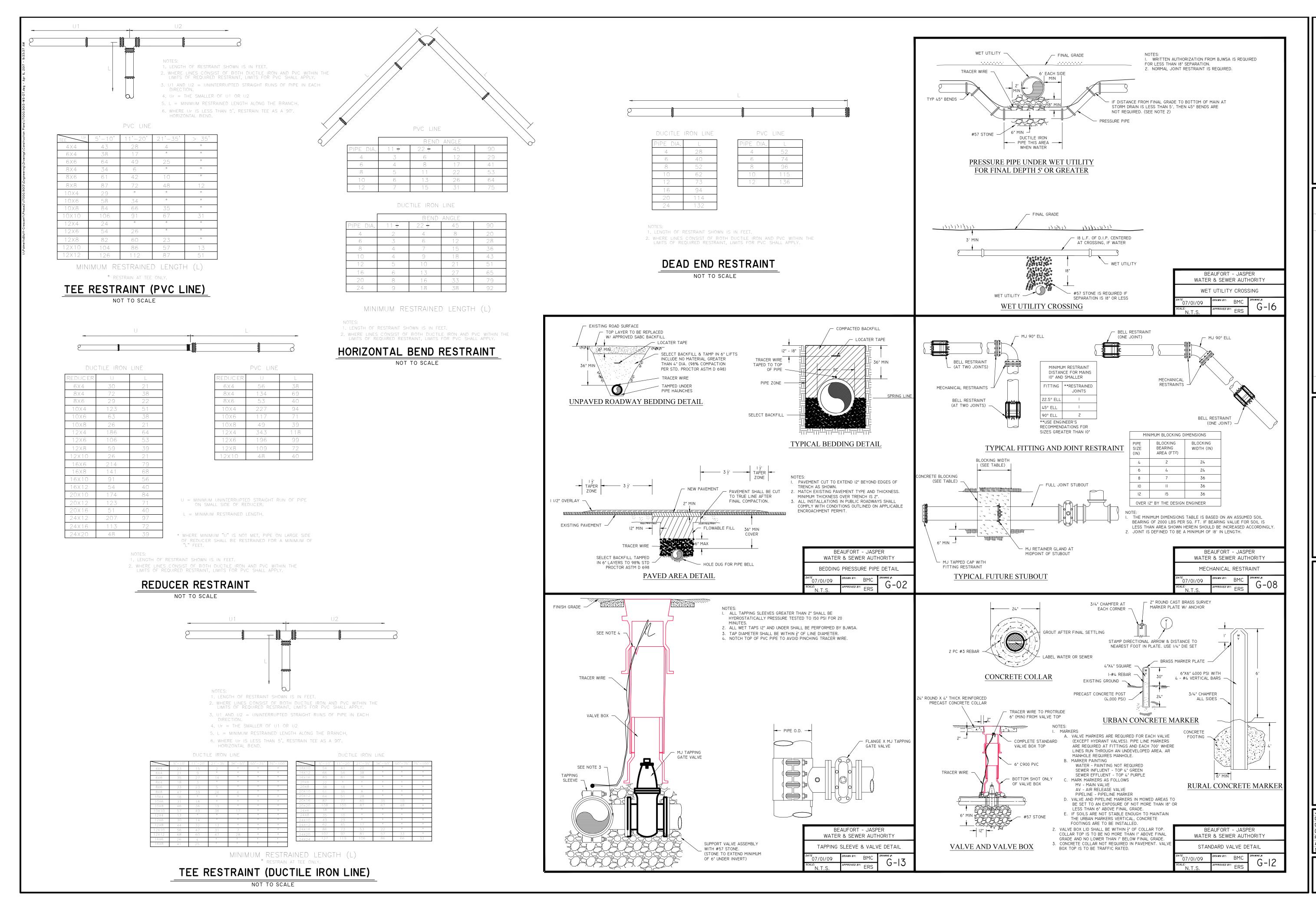
DR. MELLICHAMP [
SIGHT DISTANCE F

JOB NO: J-26436.0000
DATE: I2/27/I6
DRAWN: WNS
DESIGNED: JPM
REVIEWED: MSH
APPROVED: MSH
SCALE: I" = 30'









BID SET - NOT FOR CONSTRUCTION

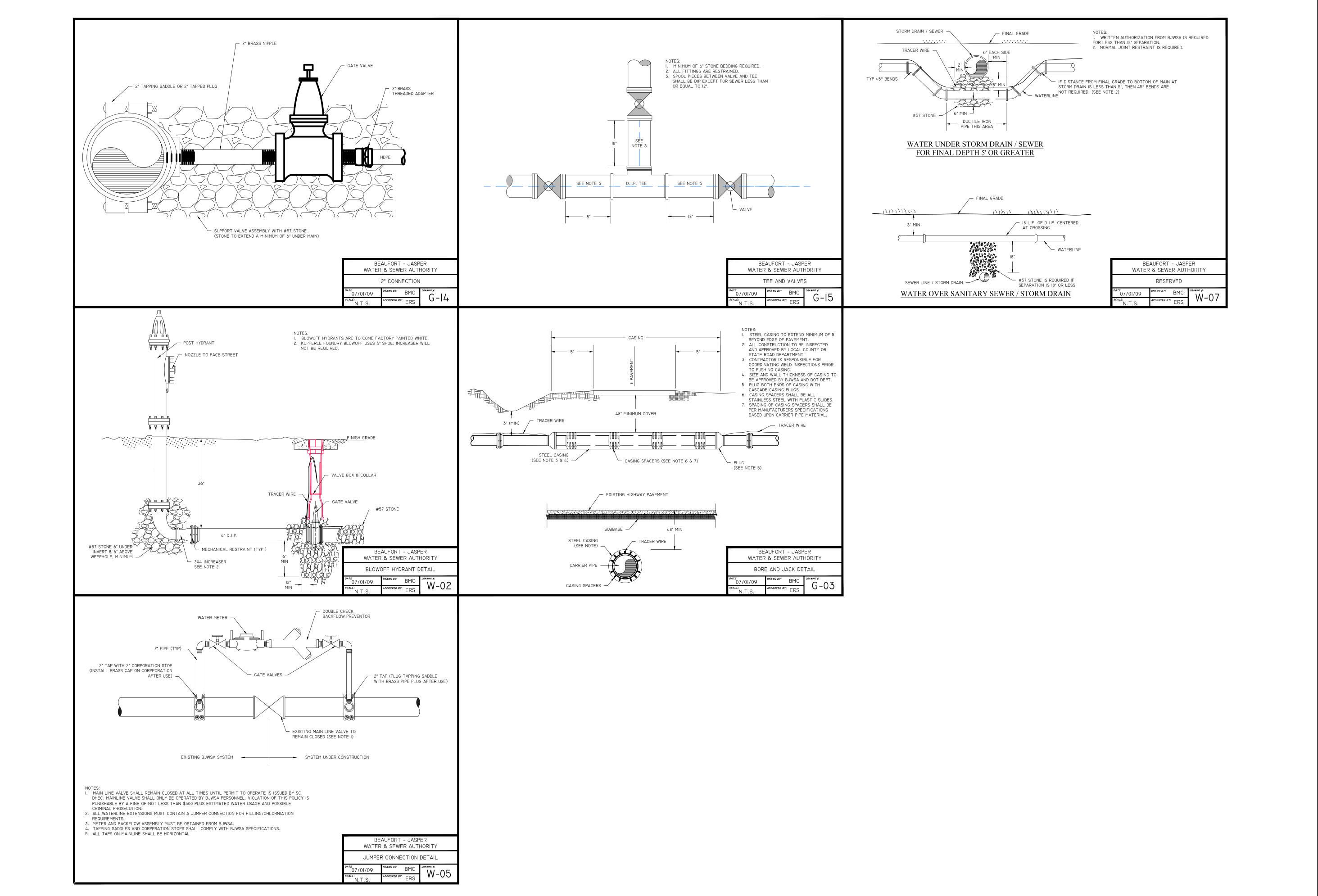
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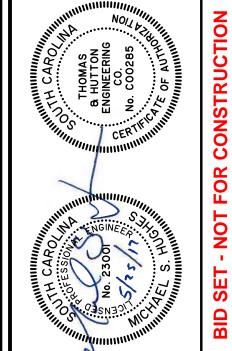
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TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DR. MELLICHAMP DRIVE
WATER DETAILS

JOB NO: J-26436.0000
DATE: 4/2/15
DRAWN: WNS
DESIGNED: JPM
REVIEWED: MSH
APPROVED: MSH
SCALE: AS NOTED

C3.3





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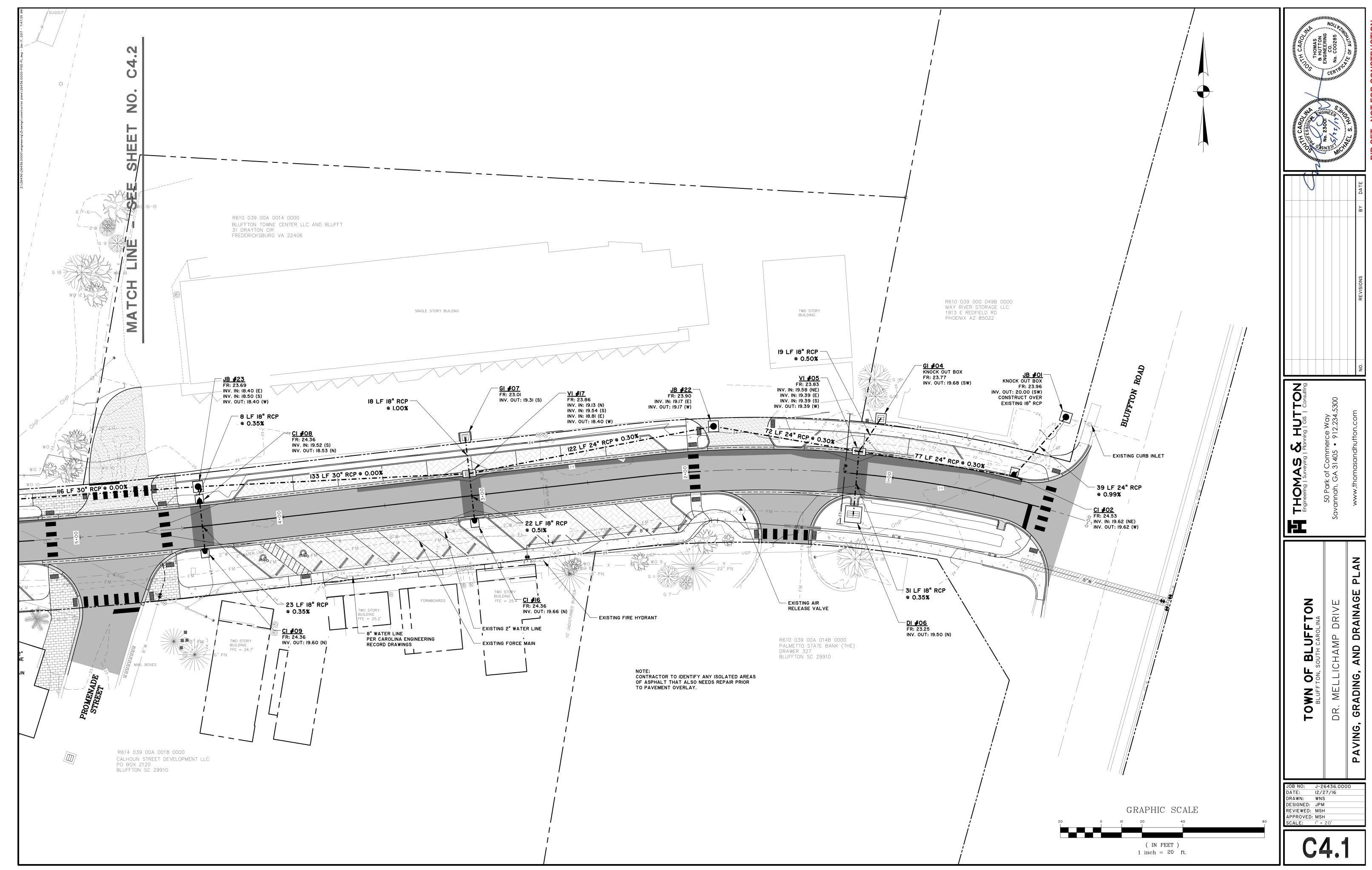
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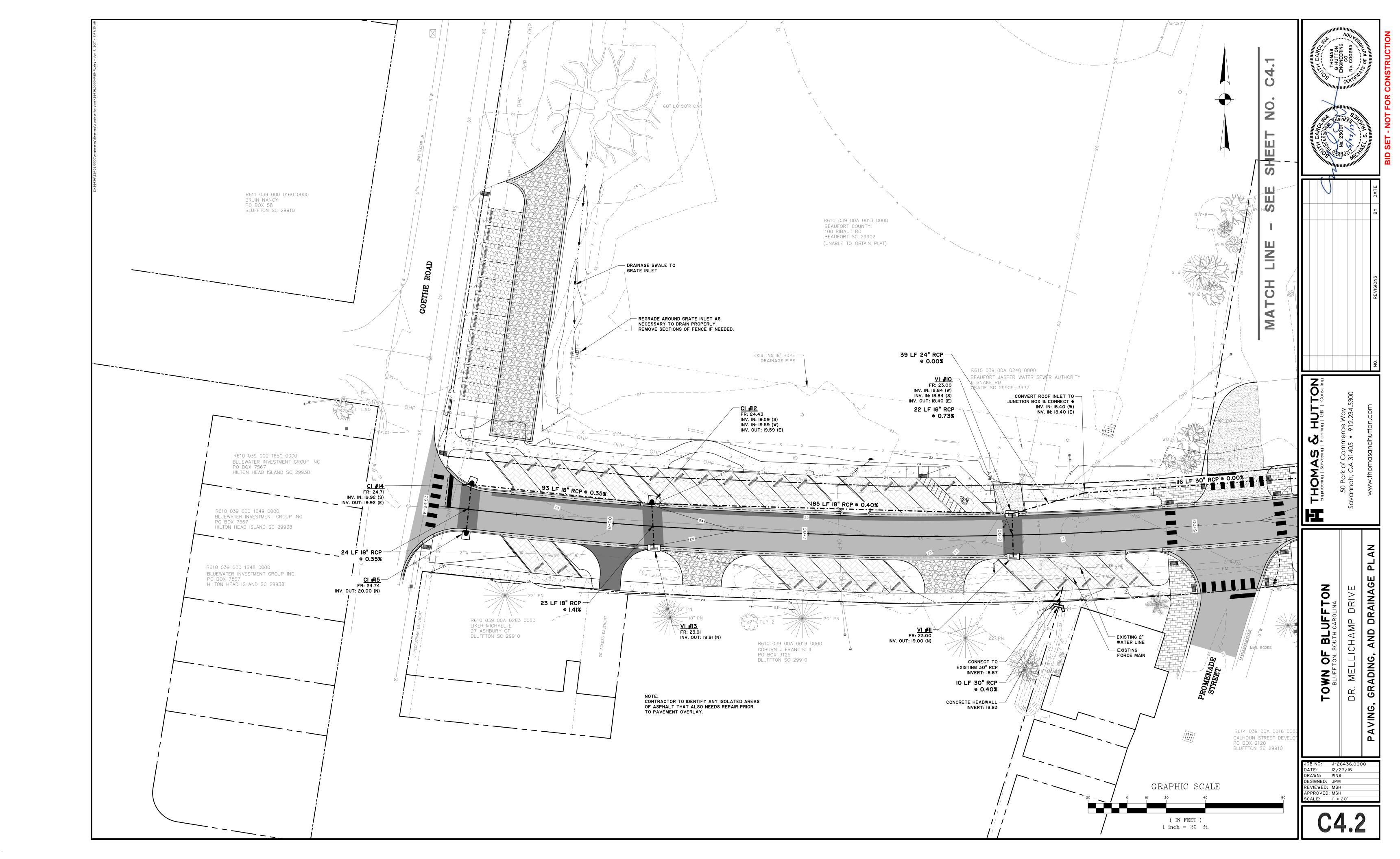
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DR. MELLICHAMP DRIVE
WATER DETAILS

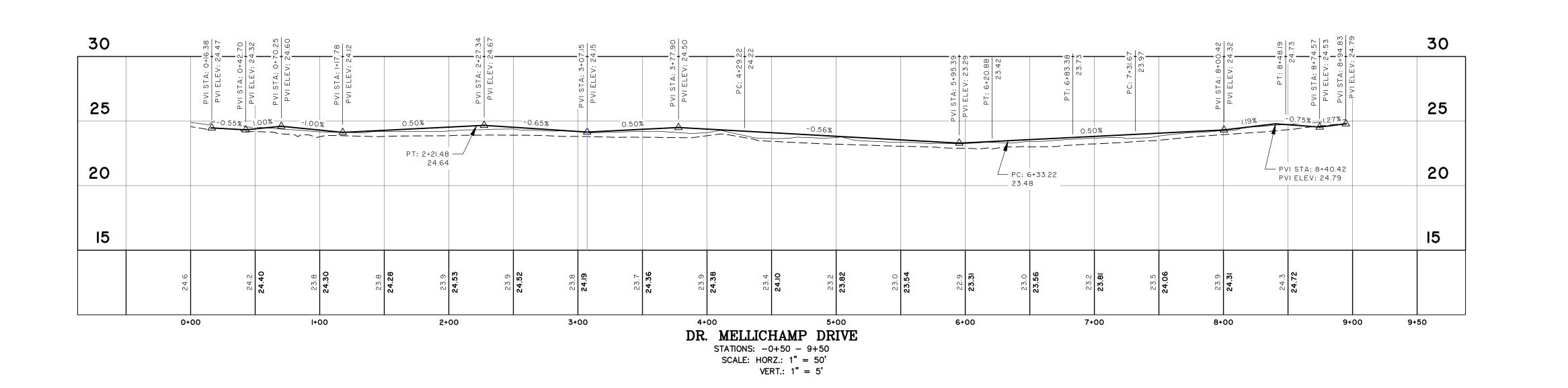
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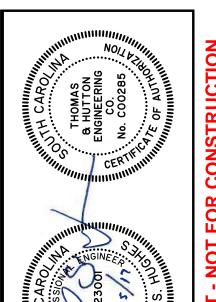
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SCALE: AS NOTED





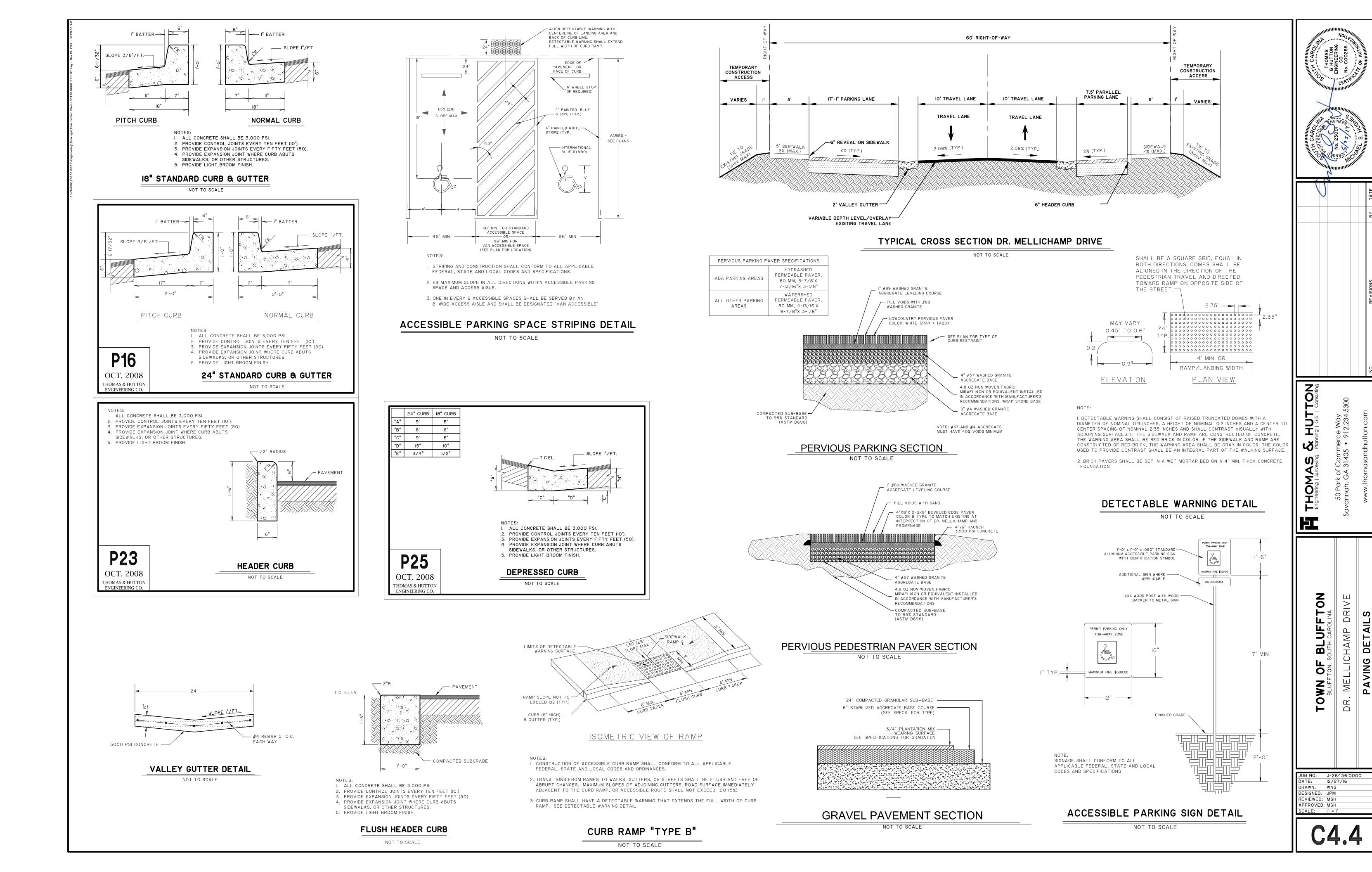


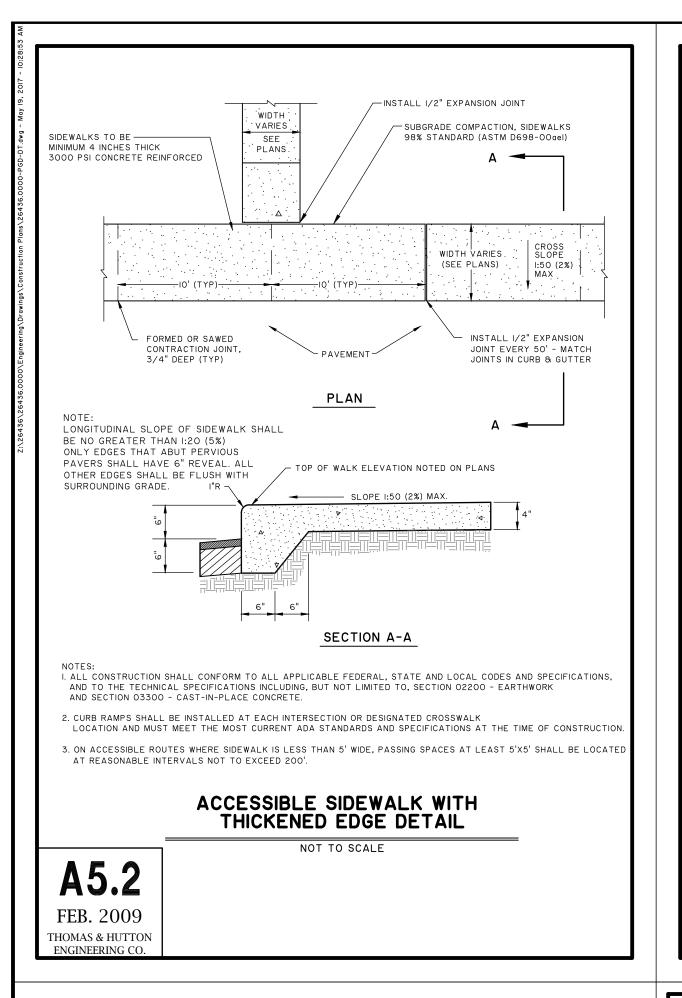


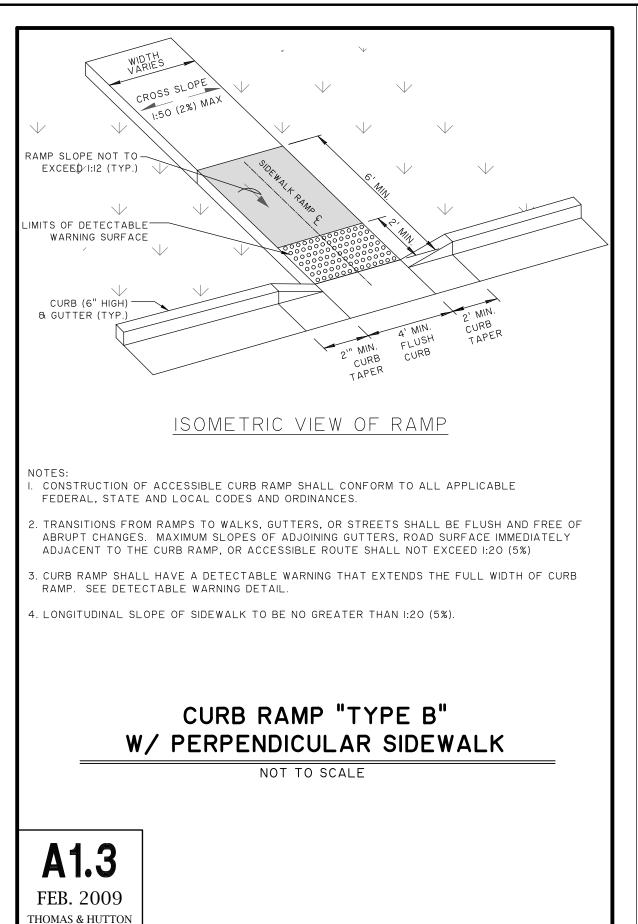
THOMAS & HUTTON Engineering | Surveying | Planning | GIS | Consulting

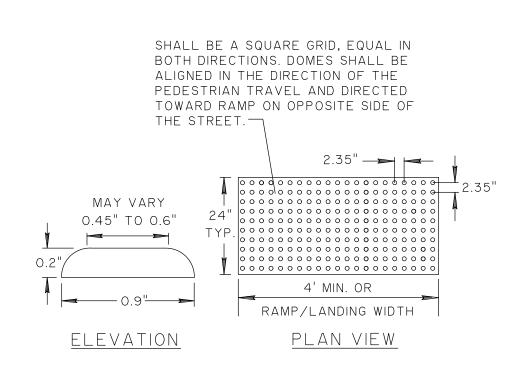
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DR. MELLICHAMP DRIVE
ROAD PROFILES

JOB NO: J-26436.0000
DATE: I2/27/I6
DRAWN: WNS
DESIGNED: JPM
REVIEWED: MSH
APPROVED: MSH
SCALE: I" = 50'









NOTE:

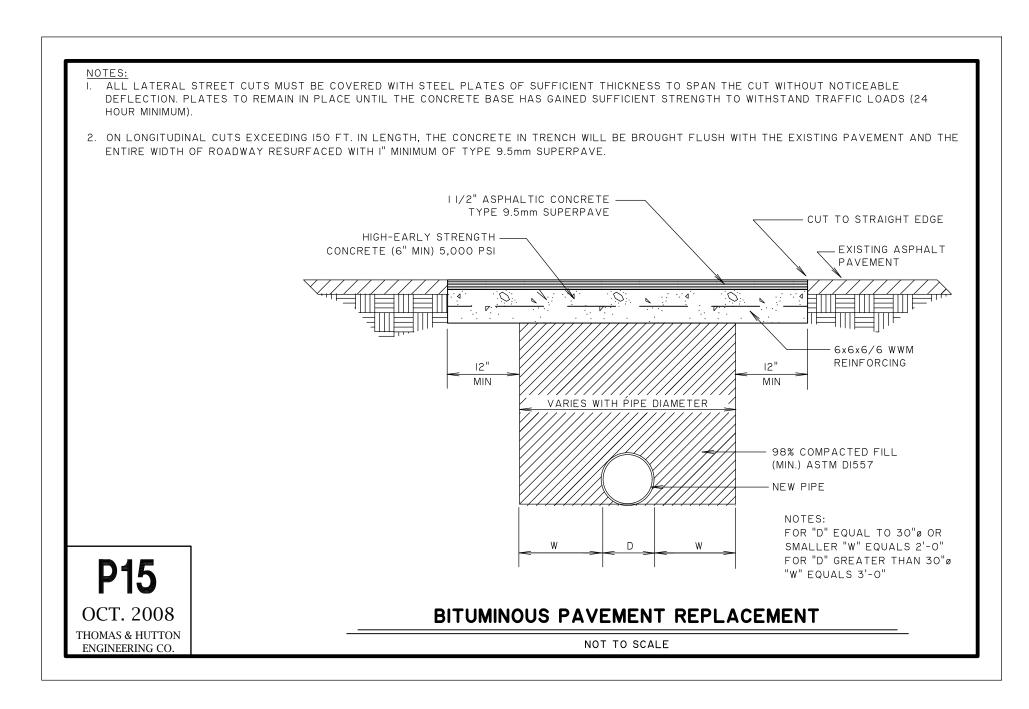
I. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF CONCRETE, THE WARNING AREA SHALL BE RED BRICK IN COLOR. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF RED BRICK, THE WARNING AREA SHALL BE GRAY IN COLOR. THE COLOR USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.

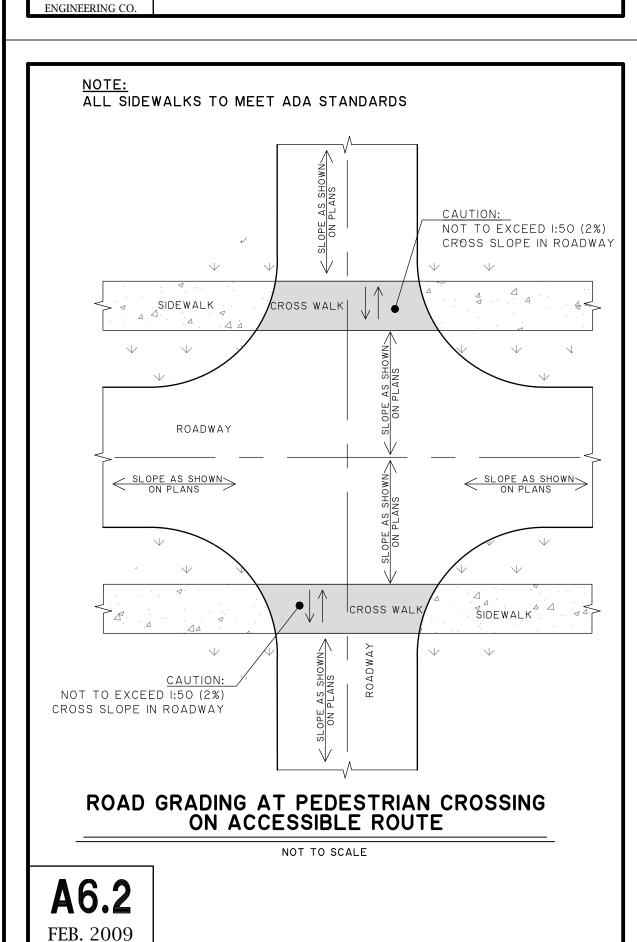
2. BRICK PAVERS SHALL BE SET IN A WET MORTAR BED ON A 4" MIN. THICK CONCRETE FOUNDATION.

## DETECTABLE WARNING DETAIL

NOT TO SCALE

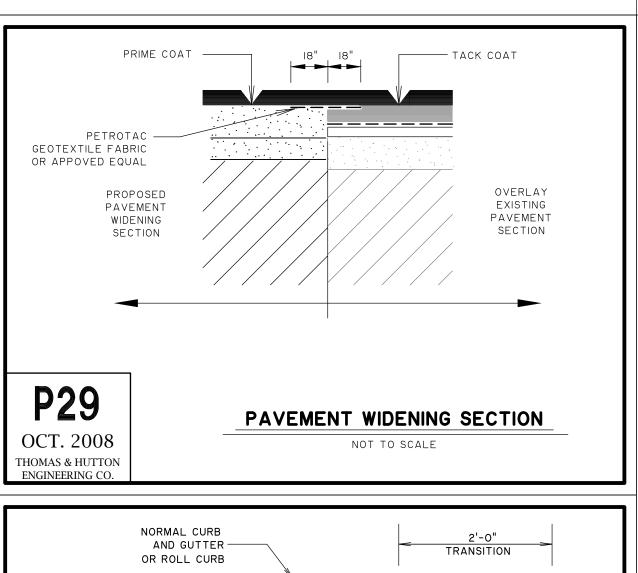
\_6x6 WI.4xWI.4 WWF (TYP)



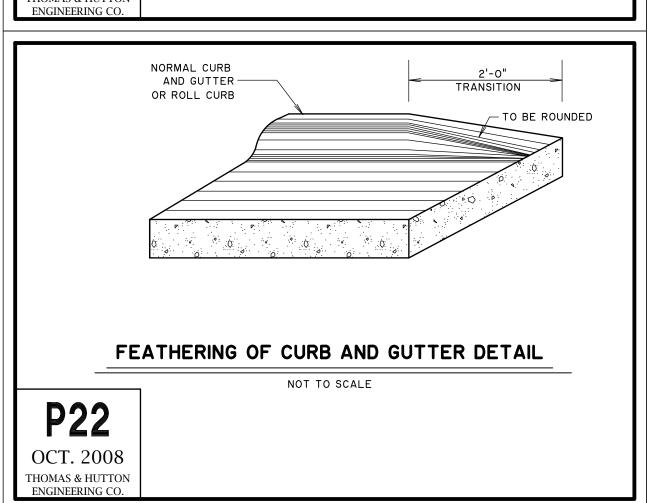


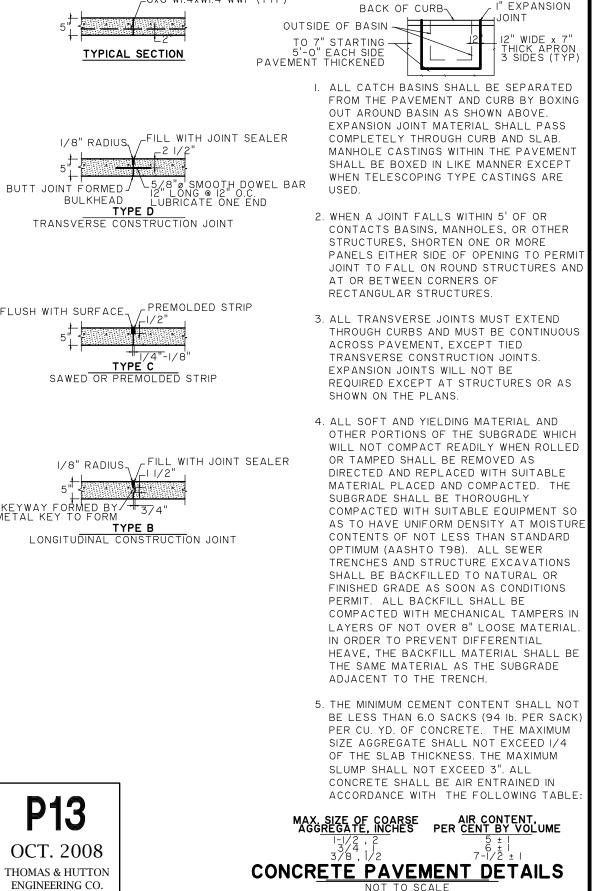
THOMAS & HUTTON

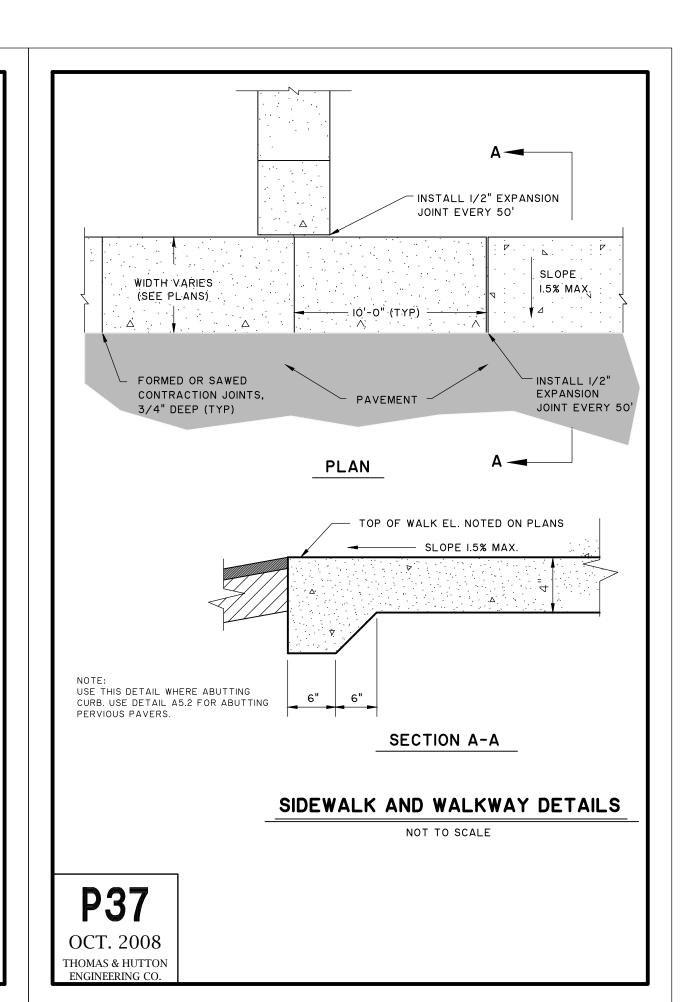
ENGINEERING CO.

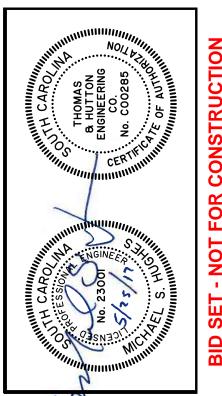


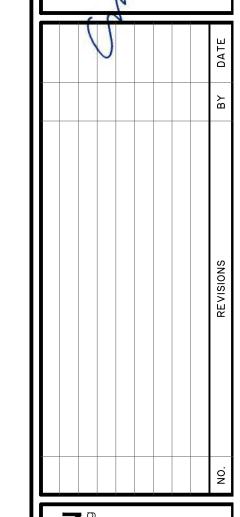
ENGINEERING CO









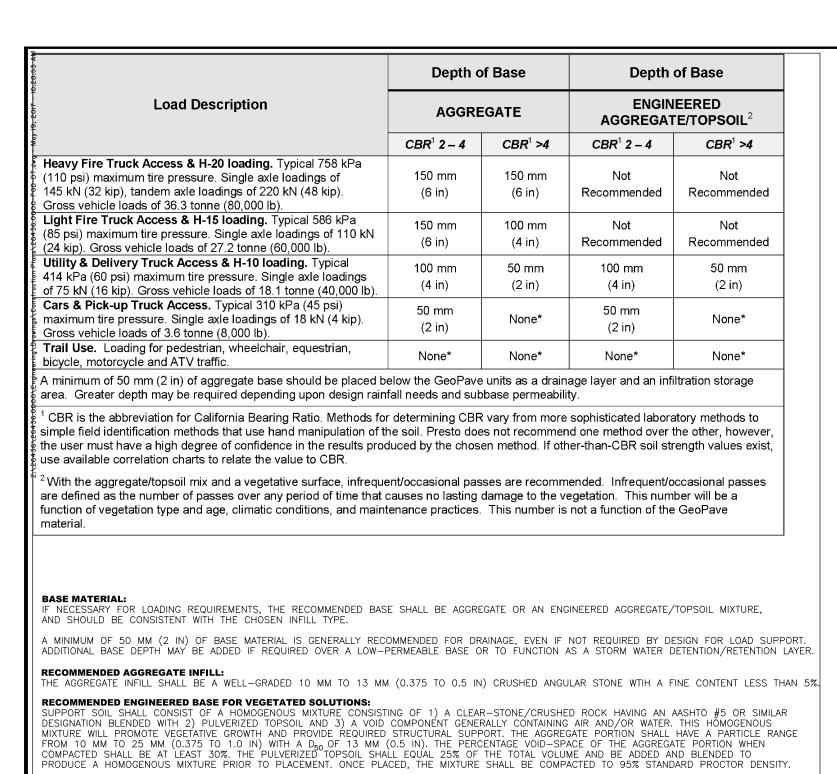


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TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DR. MELLICHAMP DRIVE
PAVING DETAILS

JOB NO: J-26436.0000
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DRAWN: WNS
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APPROVED: MSH
SCALE: I" = I'

C4.5



RECOMMENDED ENGINEERED INFILL FOR VEGETATED SOLUTIONS:

Aggregate or Aggregate/Topsoil Filled Unit Minimum Crush Strength @ 21°C (70°F) ...

Chemical Resistance...

Nominal Unit Depth..

Cell Size (small cell) .

Cell Size (large cell)...

Top Open Area per unit ...

Bottom Mesh Openings ...

Nominal Weight per Unit...

Bottom Open Area per unit .

Cells per Unit ....

Units per Pallet

Nominal Coverage Area..

Carbon Black for Ultraviolet Light Stabilization..

Runoff Coefficient @ 63.5 mm/hr (2.5 in) Rainfall ..

Empty Unit Minimum Crush Strength @ 21°C (70°F) .....

SAME AS ENGINEERED BASE BUT WITH A PARTICLE RANGE FROM 10 MM TO 13 MM (0.375 TO 0.5 IN)

GEOPAVE® SYSTEM USAGE GUIDELINES

. Specifications & Details

.. 1.5% - 2.0%

..50 mm (2 in)

....90.5%

....32.6%

....3.6 kg (8.0 lb)

... (0 - 0.15)

... 0.50 m² (5.38 ft²)

GEOPAVE

MATERIAL

**SPECIFICATIONS** 

...1,202 kPa (175 psi)

....6,869 kPa (1000 psi)

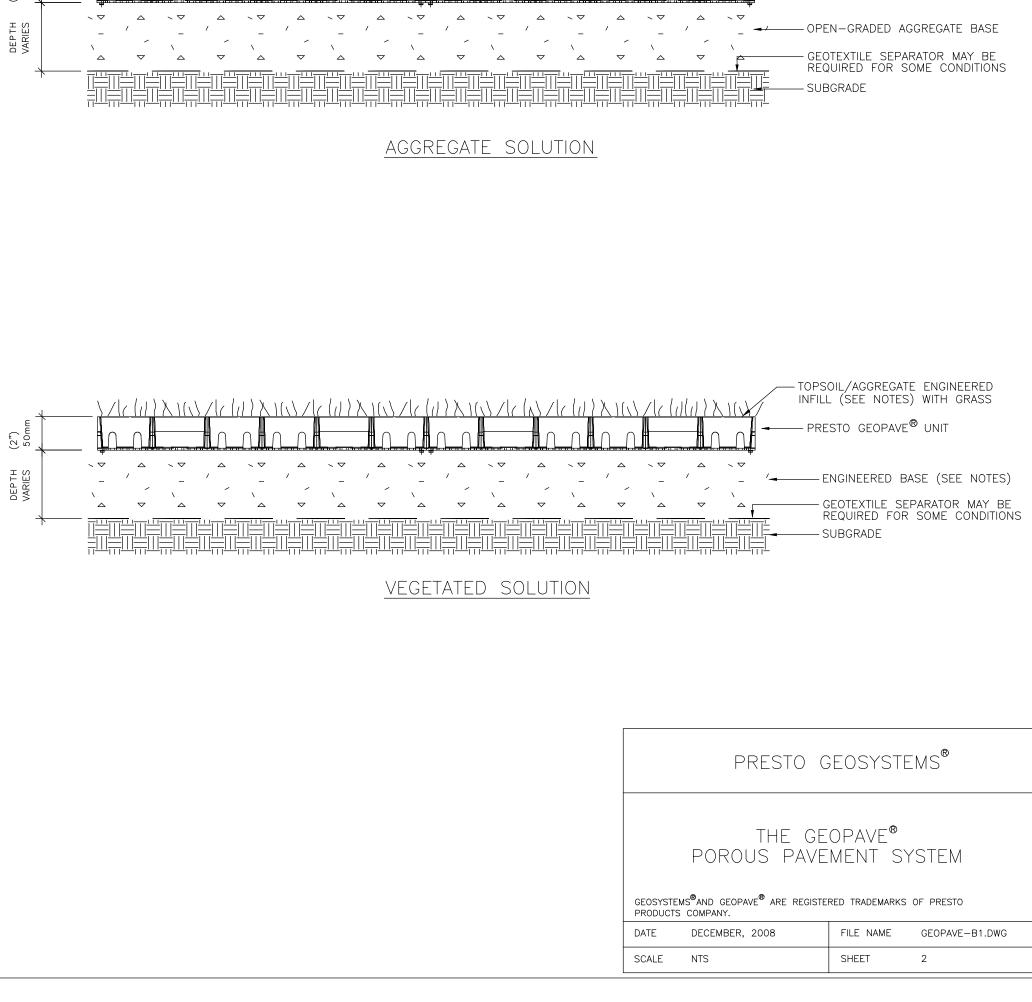
. 0.50 m x 1.00 m (20 in x 40 in)

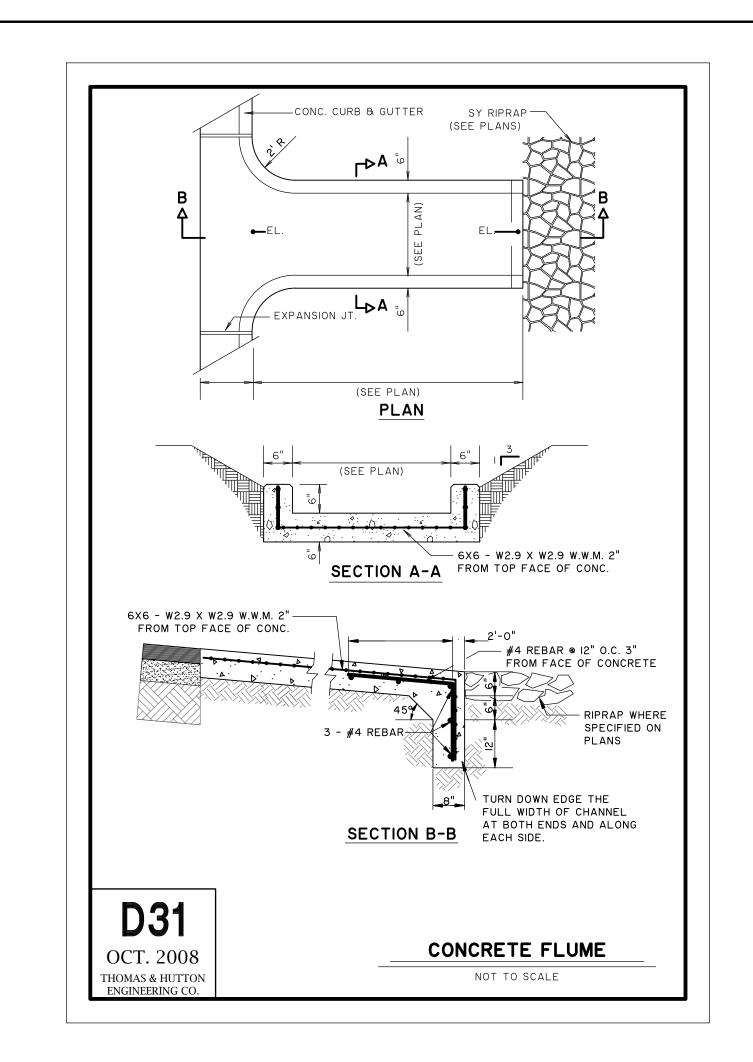
... 83 mm x 83 mm (3.25 in x 3.25 in)

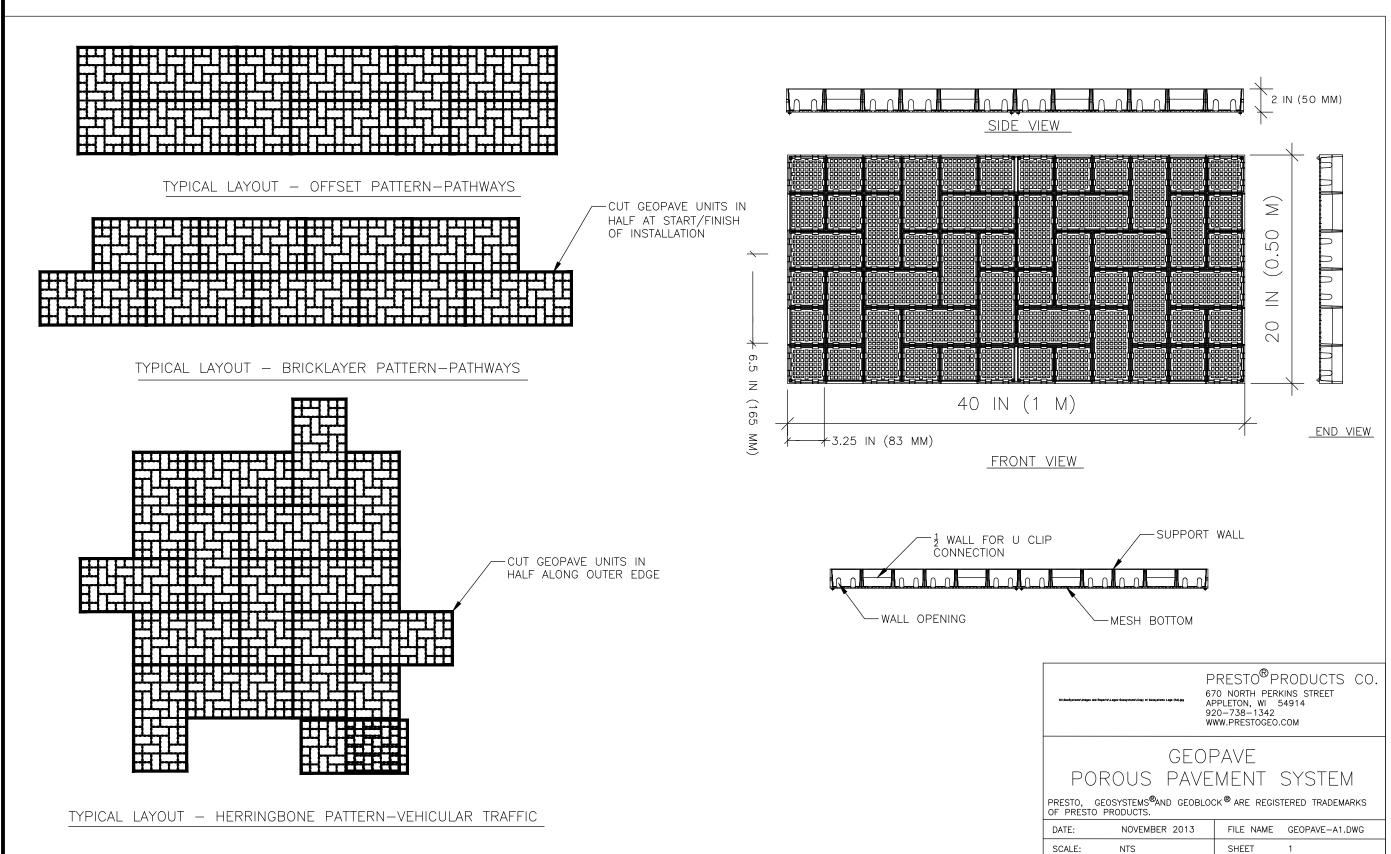
... 83 mm x 165 mm (3.25 in x 6.5 in)

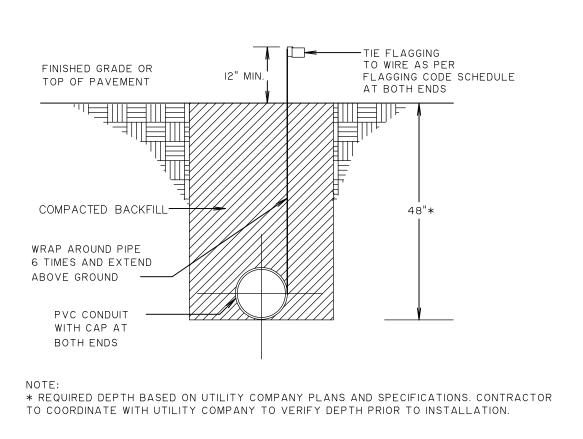
.. 6.35 mm x 6.35 mm (.25 in x .25 in)

.. Up to 97% Recycled Polyethylene\* .. Ranges from dark shades of gray to black





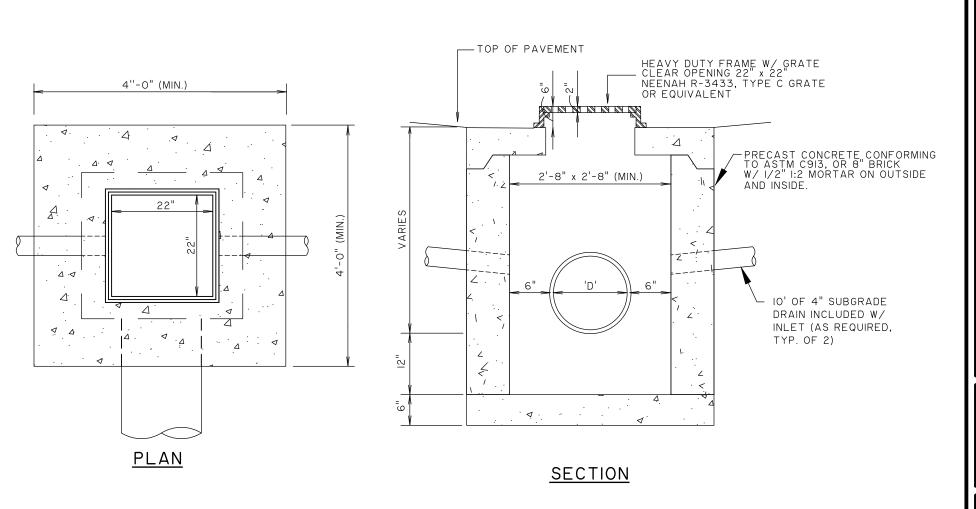




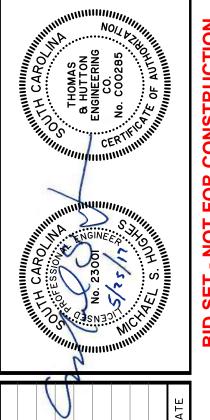
- AGGREGATE INFILL 10 mm-13 mm (0.375-0.5 IN)

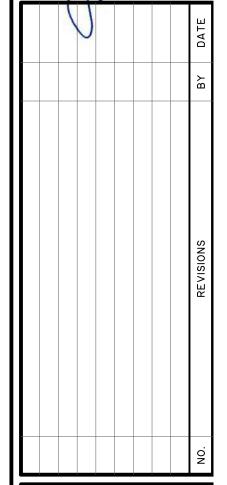
— PRESTO GEOPAVE<sup>®</sup> UNIT

CONDUIT DETAIL NOT TO SCALE



STANDARD INLET - GRATE TYPE NOT TO SCALE

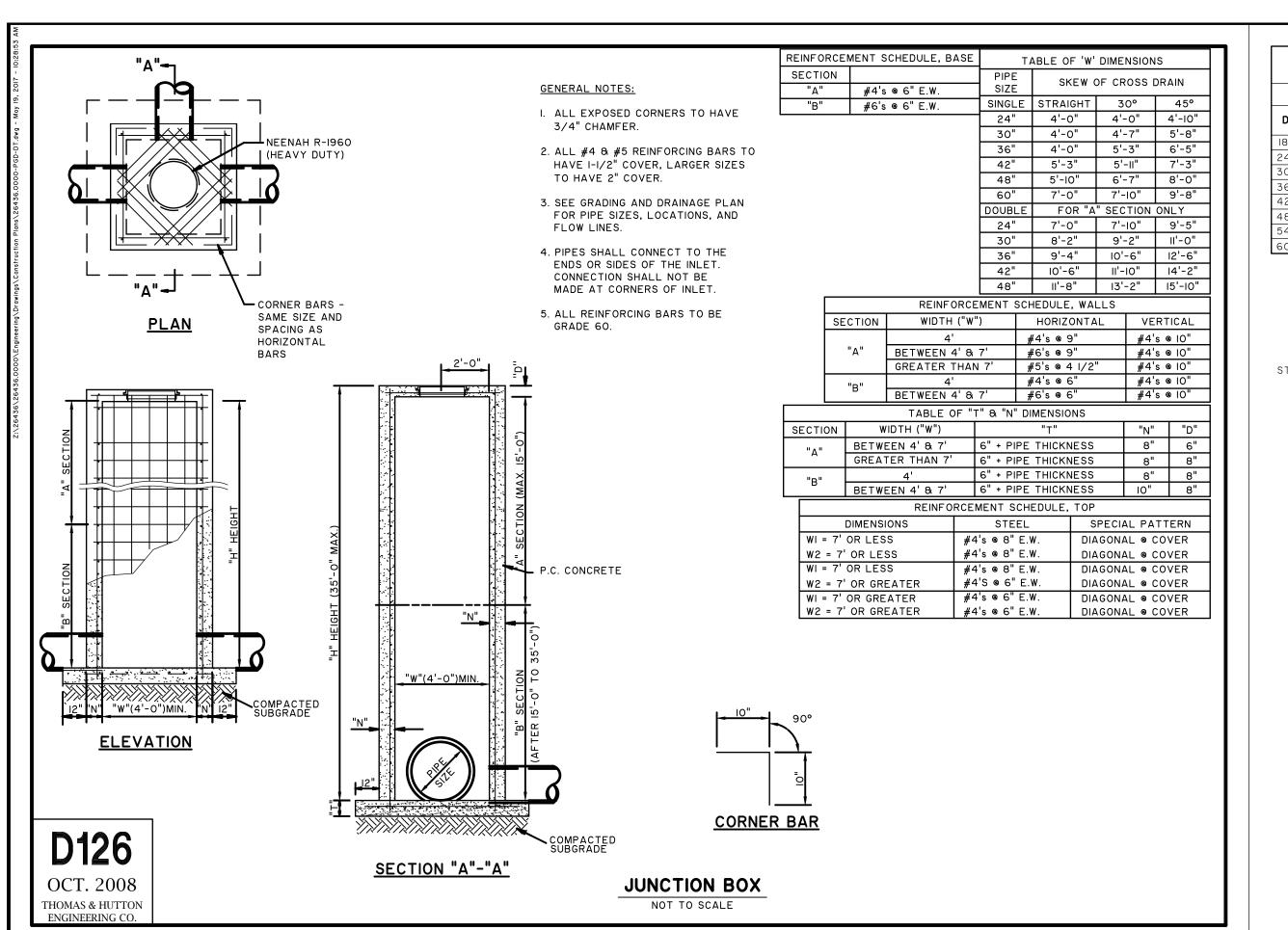


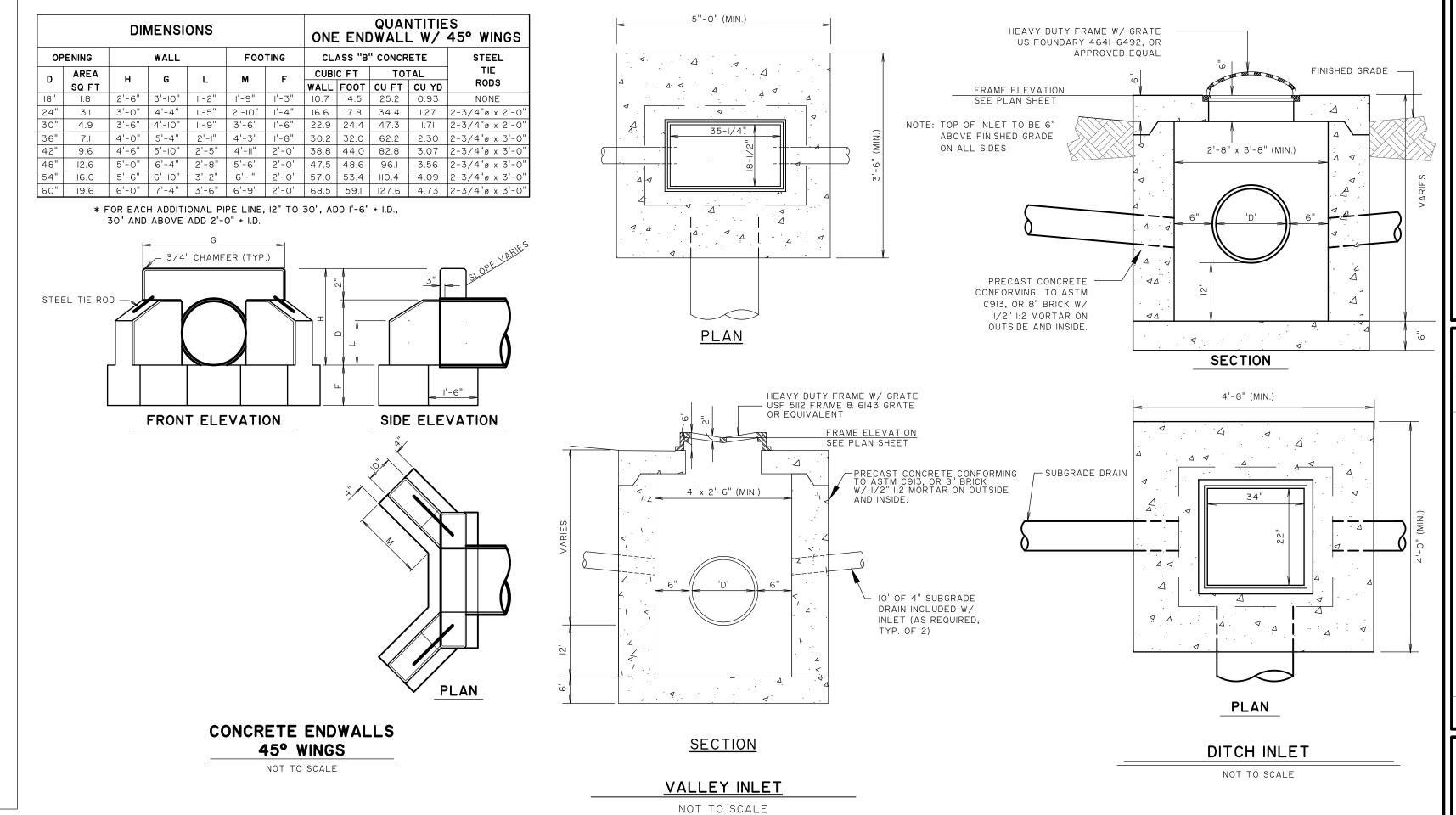


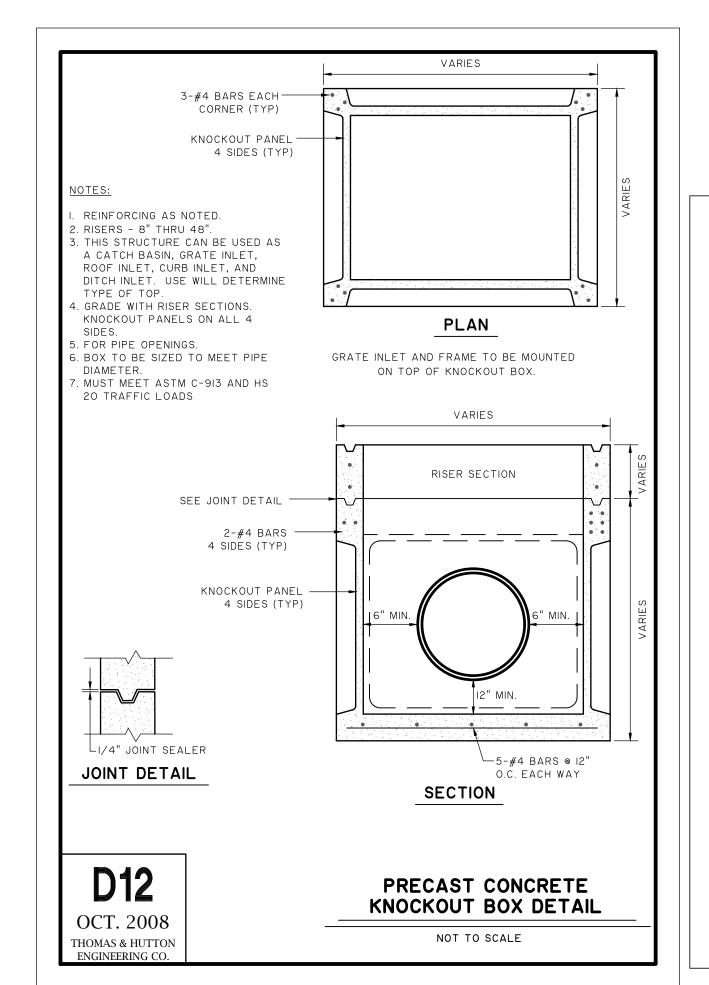
DRIVE MELLICHAMP N M O M N

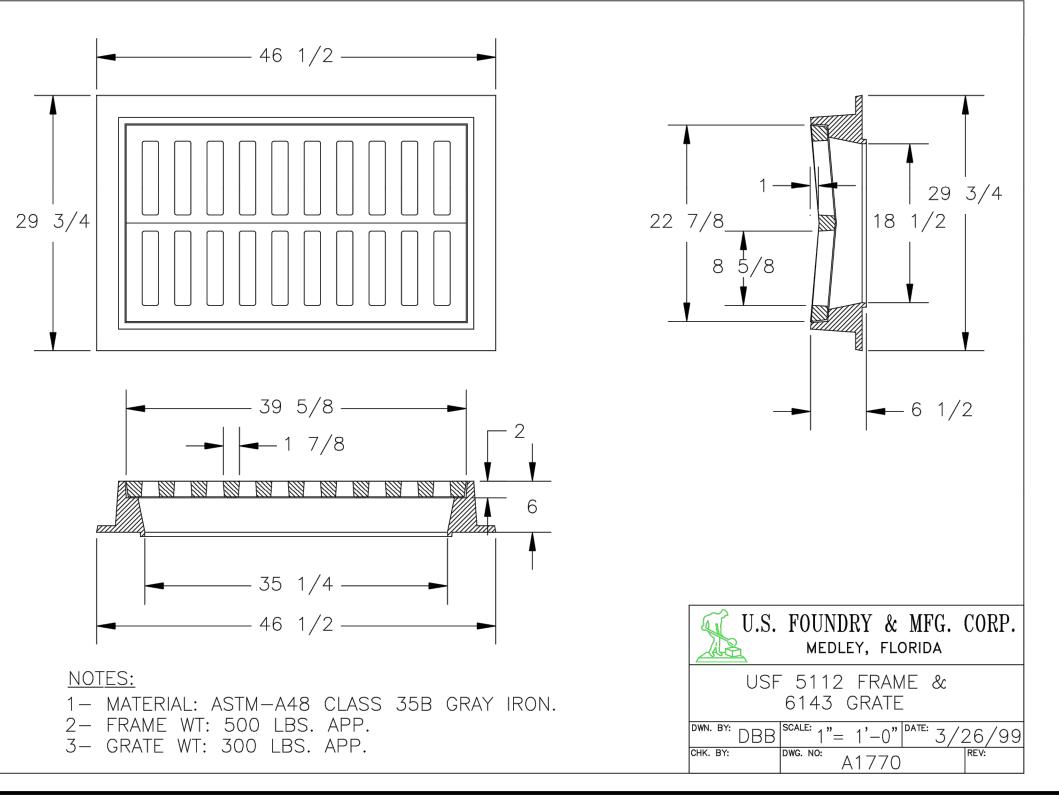
DR.

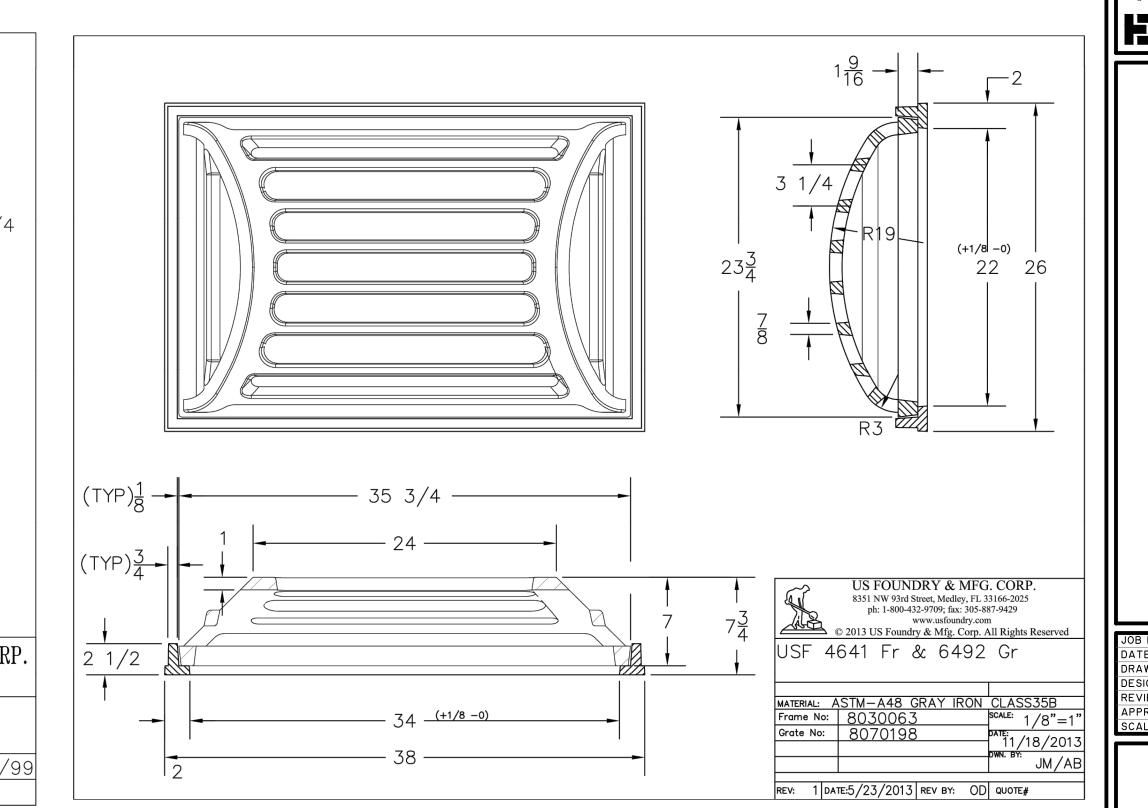
12/27/16 ORAWN: WNS DESIGNED: JPM REVIEWED: MSH APPROVED: MSH SCALE: |" = |

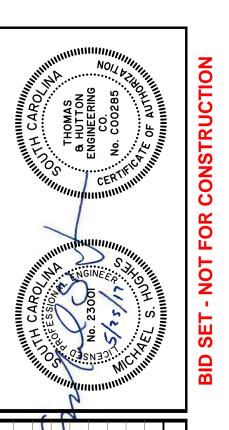


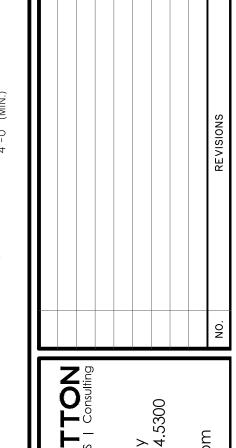










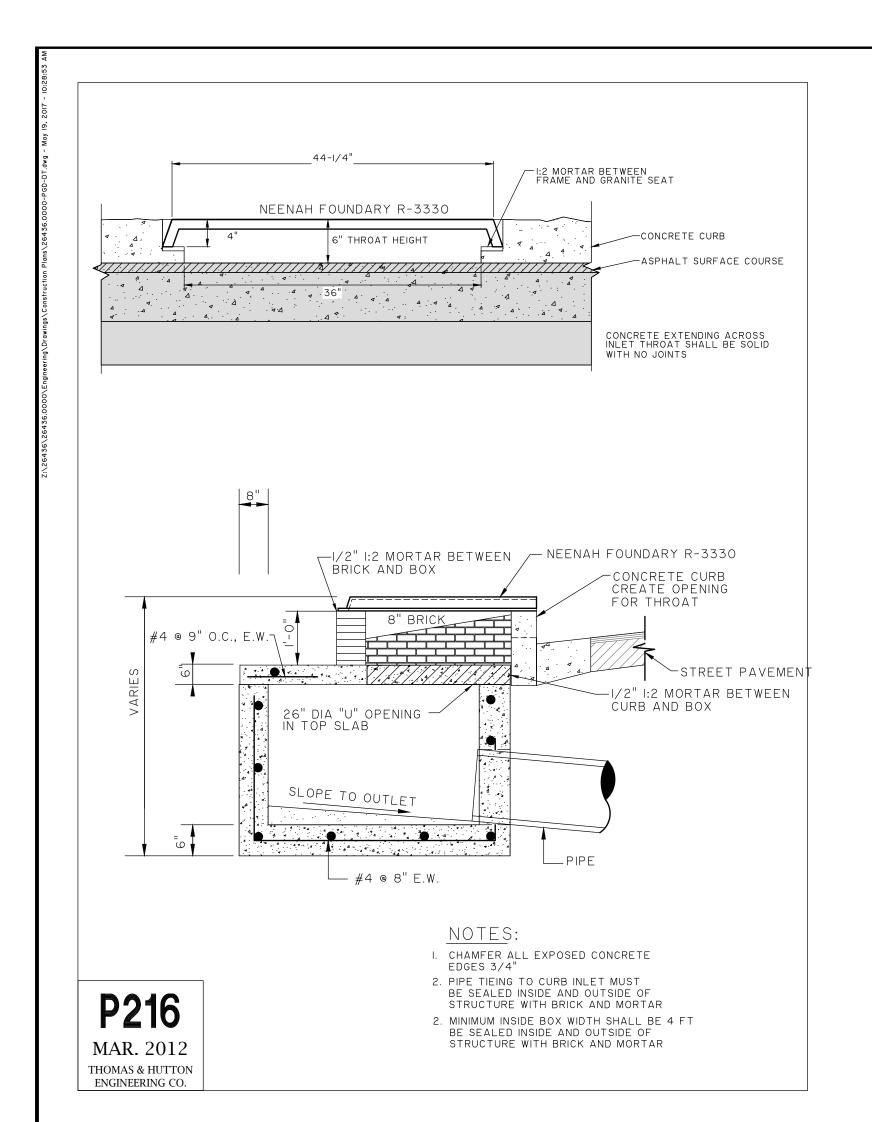


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TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DR. MELLICHAMP DRIVE
VING AND DRAINAGE DETAILS

JOB NO: J-26436.0000
DATE: I2/27/I6
DRAWN: WNS
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REVIEWED: MSH
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C4.7

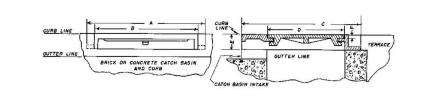


Neenah Foundry Page 1 of 1

NEENAH TE

R-3330 Series

Catch Basin Frame, Lid



Illustrating R-3330

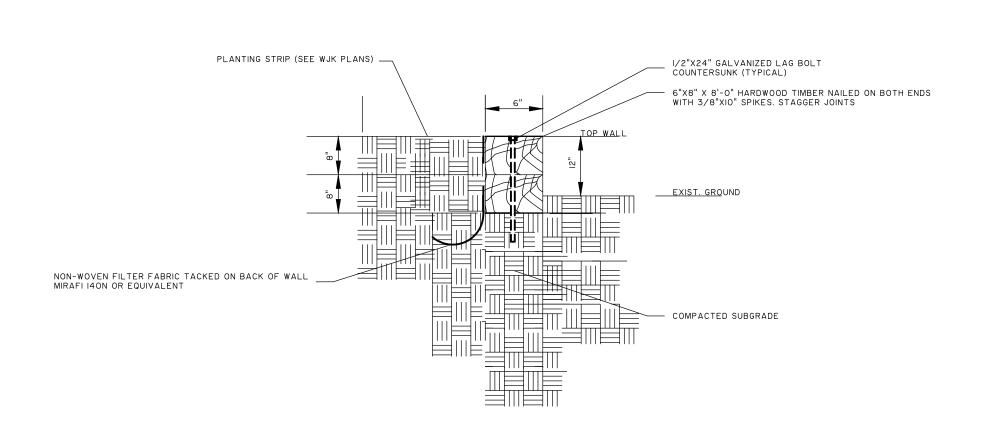
Catalog No.	A	В	С	D	E	F
R-3330	34 1/2	30	34	23 1/2	4	1
R-3331	34	30	31 3/4	22 3/4	4	7/8

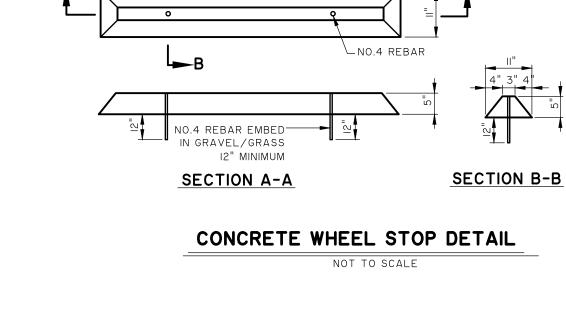
Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

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http://www.nfco.com/municipal/products/print-hshl/

5/8/2015





CROSSTIE RETAINING WALL DETAIL

NOT TO SCALE

TH CAROUTH CAR

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				REVISIONS
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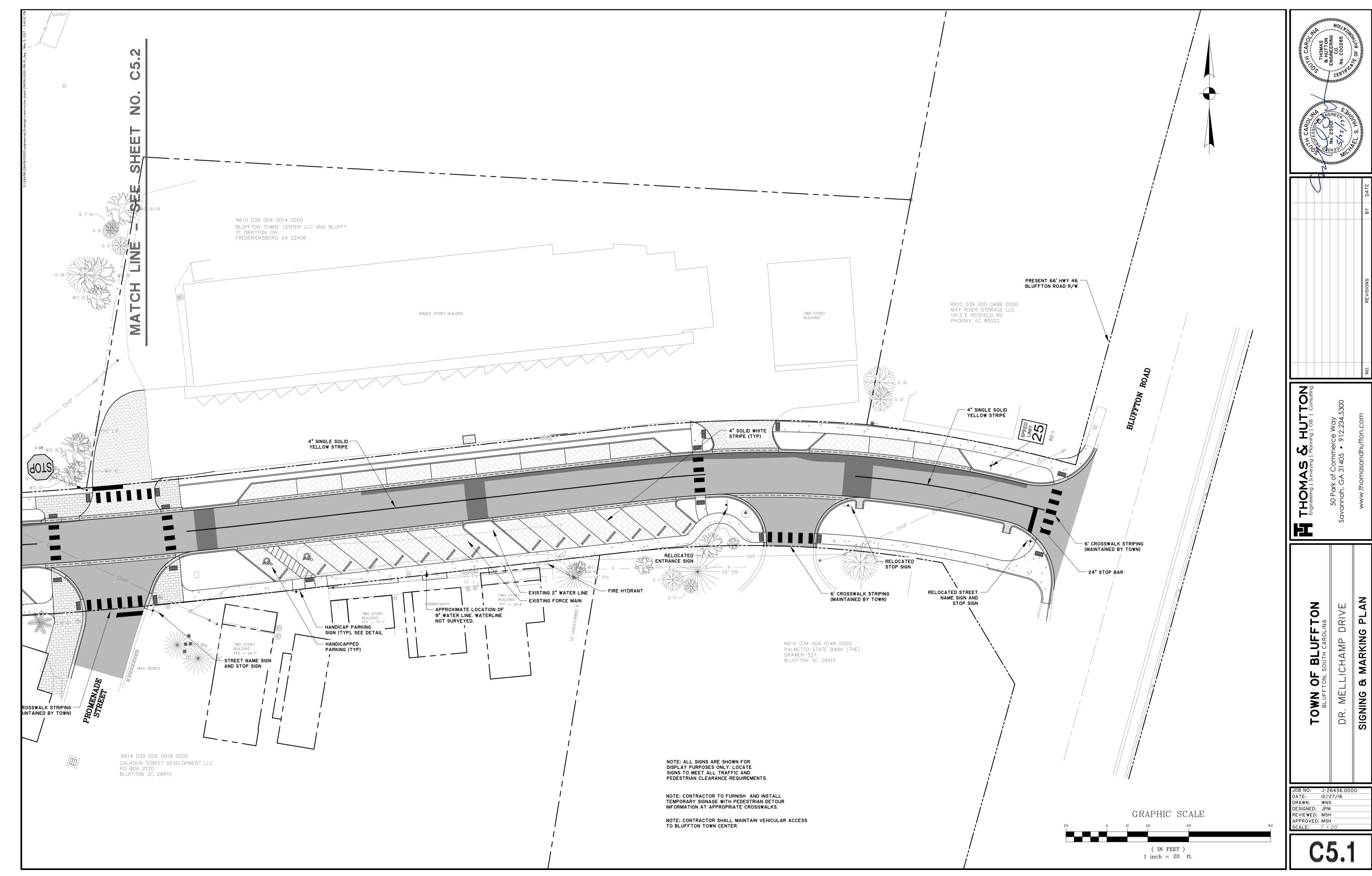
TOWN OF BLUFFTON
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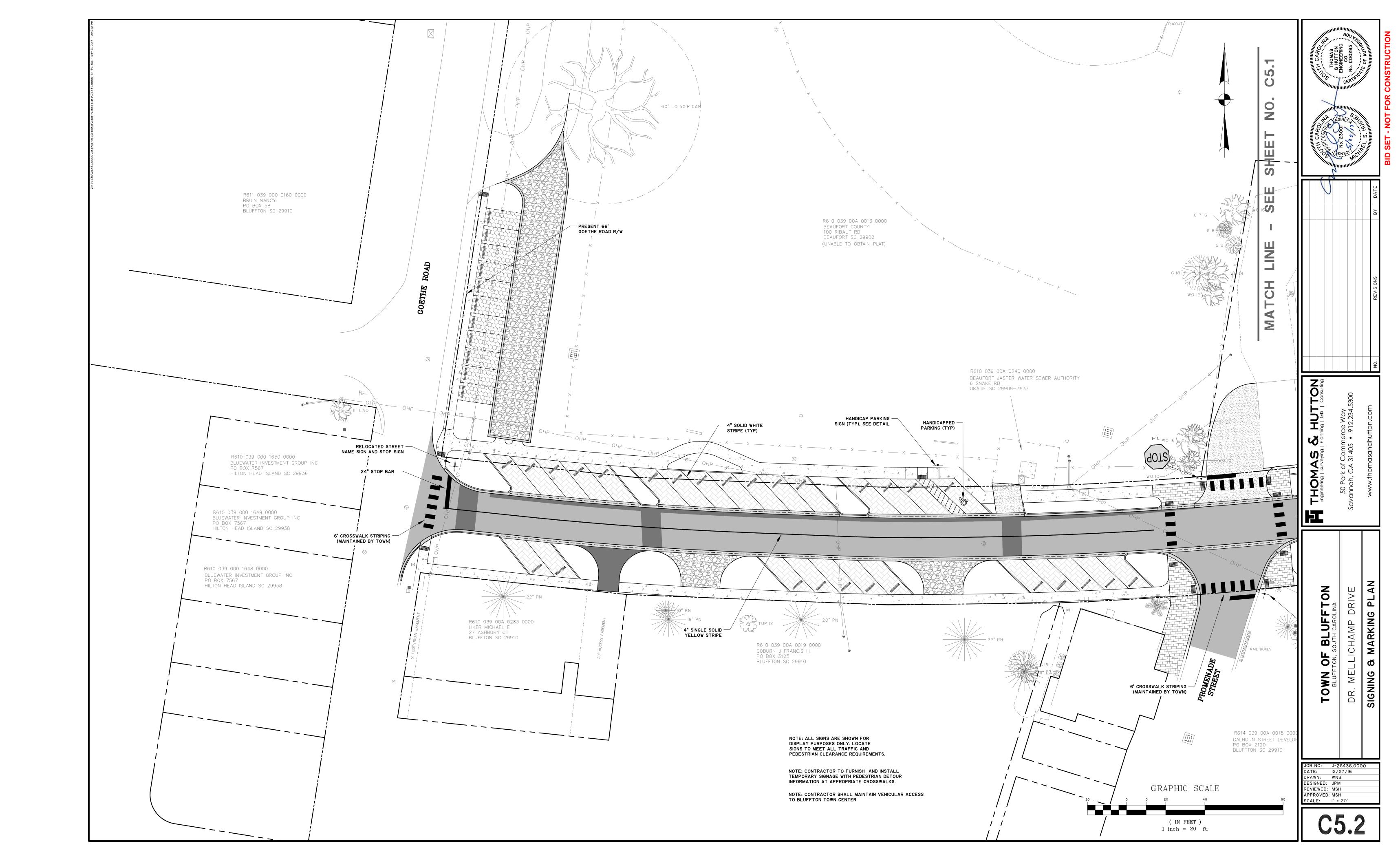
DR. MELLICH

JOB NO: J-26436.000
DATE: I2/27/I6
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REVIEWED: MSH
APPROVED: MSH

SCALE: |" = |

C4.8





54 %

76.2 CN

A.5. PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION A.6. RUNOFF COEFFICIENT AFTER CONSTRUCTION

B. DESCRIPTION OF CONSTRUCTION ACTIVITY WORK CONSISTS OF FULL DEPTH PAVING & OVERLAY OF EXISTING ROADWAY, WITH INSTALLATION OF CURB & GUTTER, STORM SEWER SYSTEM, AND SIDEWALKS ASSOCIATED WITH DEVELOPMENT. C. RUNOFF DATA

C.1. SOIL CLASSIFICATIONS: BARATARI, RIDGELAND, AND SEABROOK **ROAD RIGHT-OF-WAY** C.2. LAND USE(S):

D. RECEIVING WATERS D.1. CLOSEST RECEIVING WATERS: TRIBUTARY TO MAY RIVER D.2. ULTIMATE RECEIVING WATERS: ATLANTIC OCEAN

E.1. FEMA FLOOD ZONE(S): E.2. FEMA FLOOD INSURANCE MAP(S): 4502510001A

# II. CONTROL MEASURES

1. EROSION AND SEDIMENT CONTROLS

PRIOR TO START OF CONSTRUCTION, ALL EXTERIOR SILT FENCE WILL BE INSTALLED AS SHOWN ON THE PLANS

1.1. CLEARING

1.1.1. AS CLEARING IS COMPLETED, ADDITIONAL SILT FENCE WILL BE INSTALLED WHERE NECESSARY, SUCH AS POINTS WHERE FLOWS BECOME CHANNELIZED, AND OTHER POINTS WHERE EXCESSIVE RUNOFF VELOCITIES MAY OCCUR

1.1.2. INSTALL CONSTRUCTION ENTRANCES / EXITS BEFORE BEGINNING CLEARING 1.1.3. CONSTRUCTION DELAYS IN ANY ONE AREA GREATER THAN 14 DAYS PRIOR TO START OF ROUGH GRADING WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF

STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING. 1.1.4. MAINTAIN EXISTING VEGETATION WHENEVER POSSIBLE AND MINIMIZE THE AREA OF DISTURBANCE. RETAIN AND PROTECT TREES TO ENHANCE FUTURE LANDSCAPING EFFORTS

AND REDUCE RAINDROP IMPACT. 1.1.5. INSTALL ALL SEDIMENT CONTROL PRACTICES PRIOR TO ANY UP-SLOPE SOIL DISTURBING

1.1.6. PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE THE AREAS DISTURBED AT ONE TIME. THIS WILL ALSO ALLOW COMPLETED AREAS TO BE STABILIZED AND RE-VEGETATED BEFORE DISTURBING ADJACENT SITES. THE NEED FOR TEMPORARY EROSION CONTROL MEASURES MAY BE AVOIDED BY COMPLETING A PHASE AND INSTALLING PERMANENT EROSION

CONTROL MEASURES WHEN THE FINAL GRADE IS ATTAINED. 1.1.7. MAINTAIN AND PROTECT ALL NATURAL WATERWAYS. RETAIN AT LEAST A 35-FOOT UNDISTURBED BUFFER OF NATURAL VEGETATION ALONG ALL WATERWAYS TO FILTER OUT SEDIMENT AND OTHER POLLUTANTS. MAINTAIN A 45-FOOT UNDISTURBED BUFFER AROUND

SENSITIVE WATERS. 1.1.8. INSTALL SILT FENCE (OR BIO ROLLS/ROCK SOCK PRODUCTS) ON THE DOWN-SLOPE PERIMETER OF ALL DISTURBED AREAS PRIOR TO ANY SOIL DISTURBING ACTIVITIES (INCLUDING CLEARING AND GRUBBING). SILT FENCE CAN TREAT A MAXIMUM OF 100 SQUARE FEET PER LINEAL FOOT OF FENCE. INSTALL SILT FENCE IN SHORTER REACHES ON THE CONTOUR WITH EACH END TURNED UP-SLOPE . SWALES AND SHORELAND AREAS SHOULD ALSO BE PROTECTED WITH SILT FENCE, BIO ROLLS, OR ROCK SOCKS.

1.1.9. IN AREAS OF CONCENTRATED FLOW INSTALL STRAW BALE CHECKS, ROCK CHECK DAMS TRIANGULAR DIKES, BIO ROLL BLANKETS, OR ROCK SOCKS TO SLOW RUNOFF AND TRAP

1.1.10. USE TEMPORARY SLOPE DRAINS OR ROCK CHUTES TO MOVE WATER DOWN STEEP SLOPES.

1.1.11. CONSTRUCT SEDIMENT BASINS FOR DRAINAGE AREAS GREATER THAN 10 ACRES

1.2. ROUGH GRADING

1.2.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING ROUGH GRADING, DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING

1.2.2. ALL AREAS NOT SUBJECT TO FURTHER CONSTRUCTION (DRAINAGE, SANITARY SEWER. ROADS, WATER DISTRIBUTION SYSTEMS, OR STORM WATER FACILITIES) SHALL BE GRASSED WITH A PERMANENT COVER.

1.2.3. COVER ANY STOCK PILED TOPSOIL WITH PLASTIC (OR OTHER IMPERVIOUS COVERING) OR USE A TEMPORARY SEED MIX. USE STOCKPILED TOPSOIL AS EARTHEN BERMS TO SERVE AS TEMPORARY SEDIMENT BASINS.

1.3. DRAINAGE

1.3.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING DRAINAGE INSTALLATION. 1.3.2. CONSTRUCTION DRAINAGE WILL BE ROUTED THROUGH LAKES, WHICH WILL ACT AS

SEDIMENT BASINS OR OTHER ACCEPTABLE SEDIMENT BASINS/TRAPS.

1.3.3. STORM DRAIN INLET PROTECTION AS SHOWN ON DETAIL SHEET SHALL BE INSTALLED ON ALL CURB INLETS. STORM DRAIN MANHOLES, JUNCTION BOXES, AND GRATE INLETS. 1.3.4. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF THE NEXT CONSTRUCTION

SEQUENCE WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF

STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING. 1.3.5. ALL STORM LINES NOT IN STREETS OR OTHER PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL.

1.4. WASTE DISTRIBUTION SYSTEM INSTALLATION

1.4.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING INSTALLATION OF THE WATER

1.4.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.

1.5. WASTEWATER COLLECTION SYSTEM INSTALLATION

1.5.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING INSTALLATION OF THE WASTEWATER V. LONG TERM MAINTENANCE OF DRAINAGE AND STORM WATER

1.5.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.

1.6. CONSTRUCTION OF ROADS

1.6.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING ROAD CONSTRUCTION. 1.6.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.

1.7. GRASSING

1.7.1. ALL EXISTING CONTROLS WILL BE MAINTAINED UNTIL GRASSING IS ESTABLISHED 1.7.2. ANY AREAS THAT ERODE OR WHERE GRASS DOES NOT ESTABLISH ITSELF SHALL BE

RE-GRADED AND RE-GRASSED. STORM WATER MANAGEMENT

RUNOFF FROM THIS PROJECT WILL DISCHARGE INTO A STORM WATER MANAGEMENT SYSTEM. TREATMENT WILL OCCUR IN STORM WATER DETENTION PONDS.

3. OTHER CONTROLS

3.1. WASTE DISPOSAL

3.1.1. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO ANY RECEIVING WATERS.

3.1.2. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE

3.1.3. THIS PLAN SHALL COMPLY WITH STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER

OR SEPTIC SYSTEM REGULATIONS. 3.1.4. DUST CONTROL ON DISTURBED AREAS - CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITE AND HAUL ROUTES. THE PURPOSE OF THE MEASURE IS TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES, WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

#### III. MAINTENANCE

MAINTENANCE PROGRAM

1.1. THE SITE SUPERINTENDENT, OR HIS/HER REPRESENTATIVE, SHALL MAKE VISUAL INSPECTIONS OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER HEAVY RAINFALL EVENT TO INSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY

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 SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. ALL DRAINAGE SWALES, POCKETS, DEPRESSION, LOW LINES, AND OUTLET DITCHES SHALL DRAIN EFFECTIVELY AT ALL TIMES. SETTLEMENT OR WASHING THAT MAY OCCUR SHALL BE REPAIRED BY THE CONTRACTOR. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN AN EFFECTIVE BARRIER. MAINTAIN THE CONSTRUCTION EXIT IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TACKED ONTO PUBLIC ROADWAYS, RESEED AND MULCH AREA WHERE SEEDING EMERGENCE IS POOR, OR WHERE EROSION OCCURS. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE. INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR EROSION, DISLOCATION OR FAILURE. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MULCH. FOLLOW THE CONSTRUCTION SEQUENCE THROUGHOUT THE PROJECT DEVELOPMENT. WHEN CHANGES IN CONSTRUCTION ACTIVITIES ARE NEEDED, AMEND THE SEQUENCE SCHEDULE IN ADVANCE TO MAINTAIN MANAGEMENT CONTROL. IF MAJOR CHANGES ARE NECESSARY, SEND A COPY OF THE MODIFIED SCHEDULE TO THE ENGINEER, SEDIMENT AND EROSION CONTROL MEASURES WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE DISTURBED AREAS ARE

SILT FENCES WILL BE MONITORED DURING CONSTRUCTION. ANY SILT FENCE WHICH IS NOT FUNCTIONING PROPERLY WILL BE PROMPTLY REPAIRED. CLEAN OUT THE SILT FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE OR REPLACE WITH FUNCTIONAL SILT FENCE WITHIN 24 HOURS. USE OF HOSES AND WATER TO FLUSH THE SEDIMENT INTO THE STORM INLETS IS UNACCEPTABLE.

SEDIMENTATION BASINS

STABILIZED.

SEDIMENTATION BASINS WHICH ARE AT 50% USED CAPACITY OR APPROACHING SUCH CAPACITY SHALL BE RE-EXCAVATED TO ORIGINAL DIMENSIONS AND THE SILT PROPERLY DISPOSED OF.

SEDIMENT LOGS/ROLLS OR OTHER CONTROL MEASURES WHICH BEGIN TO DISINTEGRATE OR

FUNCTION INEFFECTIVELY SHALL BE PROMPTLY REPLACED. 5. VEGETATION COVER

SHALL IMMEDIATELY BE REPLACED. CONSTRUCTION ENTRANCE

> MAINTAIN ROCK CONSTRUCTION ENTRANCE AND CLEAN ADJACENT ROADS OF ANY MUD TRACKED ONTO THEM.

ANY VEGETATION COVER SERVING TO STABILIZE DISTURBED SOILS WHICH IS ITSELF DISTURBED

QUALIFIED PERSONNEL WILL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. WHERE SITES HAVE BEEN FINALLY STABILIZED SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.

3. A WRITTEN REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES) AND WHETHER ANY DISCHARGES OCCURRED, LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE, LOCATION(S) OF BMP'S THAT NEED MAINTENANCE, LOCATION(S) OF BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, LOCATION(S) WHERE ADDITIONAL BMP'S ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION AND ANY CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO SWPPP NECESSARY AND IMPLEMENTATION DATES.

4. THE REPORT SHALL BE MAINTAINED AT LEAST THREE YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED. THE REPORT MUST BE SIGNED AND SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN AND THE NPDES PERMIT REFERENCED ABOVE. THE CONTRACTOR SHALL MAINTAIN THIS REPORT. THE REPORT SHALL BE SUBMITTED TO THE ENGINEER AND OWNER.

# MANAGEMENT SYSTEM

THE ROADS AND DRAINAGE SYSTEM WILL BE OWNED AND MAINTAINED BY THE TOWN OF BLUFFTON AFTER CONSTRUCTION IS COMPLETE.

#### VI. SC DHEC STANDARD NOTES

IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS. IN ADDITION TO GRASSING / HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED

2.1. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND

CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. 2.2. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF SITE INSPECTIONS IDENTIFY BMP'S THAT ARE DAMAGED OR ARE NOT OPERATING EFFECTIVELY, MAINTENANCE MUST BE PERFORMED AS SOON AS PRACTICAL OR AS REASONABLY POSSIBLE BEFORE THE NEXT STORM EVENT WHENEVER PRACTICAL.

PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL. COVER. AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS

# STORMWATER POLLUTION PREVENTION PLAN

BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.

. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

5. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT AS MAY BE REQUIRED.

7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 AND SCR100000.

8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN NOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND

10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES

11. A COPY OF THE SWPPP, INSPECTION RECORDS AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION FASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.

12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

13. MINIMIZE SOIL COMPACTION IN AREAS NOT UNDER PAVEMENTS AND /OR STRUCTURES AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL

14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUAL OR BETTER TREATMENT PRIOR TO DISCHARGE.

15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).

16. THE FOLLOWING DISCHARGES ARE PROHIBITED:

16.1. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE

16.4. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING

16.2. WASTEWATER FROM WASHOUT AND CLEANOUT OF OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;

16.3. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND

17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF PERMIT SCR100000 AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED THESE PERFORMANCE STANDARDS APPLY TO ALL SITES. AS SOON AS REASONABLY POSSIBLE.

19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE, THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

## VII. EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

THE IMPLEMENTATION OF THESE EROSION SEDIMENT CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

2. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.

3. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS DURING THE CONSTRUCTION PERIOD. THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.

4. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

5. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A MAJOR STORM EVENT.

6. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING AND PRIOR TO FINAL INSPECTION. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN

7. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

8. BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY, THE EXISTING STORM WATER INLET(S) THAT RECEIVING RUNOFF FROM THE PROPOSED WORK AREA SHALL BE PROTECTED. THE TEMPORARY INLET PROTECTION MUST REMAIN IN PLACE UNTIL THE CONSTRUCTION ACTIVITY IS COMPLETED, THE STREET HAS BEEN SWEPT AND ANY EXPOSED SOILS ARE STABILIZED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REMOVING ANY TEMPORARY INLET PROTECTION INSTALLED; AFTER ALL DISTURBED AREAS ARE STABILIZED. TEMPORARY PROTECTION OF THE INLETS MAY BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING:

8.1. USE OF GRAVEL BAGS TO FILTER THE SEDIMENT FROM ANY RUNOFF. TO MAKE A GRAVEL BAG. USE A BAG MADE OF GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH EITHER 3/4 INCH ROCK OR 1/4 INCH PEA GRAVEL

8.2. USE OF SEDIMENT LOGS TO FILTER THE SEDIMENT FROM ANY RUNOFF (AVAILABLE THROUGH LOCAL EROSION CONTROL SUPPLIERS). 8.3. USE OF ABOVE OR UNDER-GRATE FILTER BAGS OR DEVICES TO FILTER THE SEDIMENT FROM

ANY RUNOFF (AVAILABLE THROUGH EROSION CONTROL SUPPLIERS). 9. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION, SEDIMENTATION, OR FLOODING ON THE SITE, ON DOWNSTREAM PROPERTIES, IN THE RECEIVING CHANNELS, OR IN ANY STORM WATER INLET. WHEN SITE DEWATERING, WATER PUMPED FROM THE SITE, INCLUDING

9.1. TEMPORARY SEDIMENTATION BASINS

TRENCHES, SHALL BE TREATED BY ONE OF THE FOLLOWING

WATER INTO THE DOWNSTREAM SYSTEM.

9.2. SEDIMENT FILTERING BAGS

10. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES ARE ALL UTILITIES THAT EXIST ON THE PROJECT IN AN ORIGINAL, RELOCATED OR NEWLY INSTALLED POSITION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGED UNDERGROUND OR OVERHEAD FACILITIES, EVEN IF THE UTILITY IS NOT SHOWN ON THE SITE DEVELOPMENT PLANS. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITIES PROTECTION CENTER TO COORDINATE THE MARKING OF EXISTING UTILITY LINES A MINIMUM OF 96 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.

11. THE CONTRACTOR SHALL FLUSH ALL INLETS AND PIPE AT THE COMPLETION OF CONSTRUCTION TO REMOVE SILT AND DEBRIS. THE CLEANING AND FLUSHING OF INLETS AND PIPE (EXISTING AND PROPOSED) SHALL BE CONSIDERED PART OF THE COST FOR THE PROJECT.

12. EGRESS FROM THE SITE SHALL BE CONTROLLED SUCH THAT VEHICLES LEAVING THE SITE MUST

TRAVERSE CONSTRUCTION EXITS TO REMOVE MUD FROM TIRES.

13. SCHEDULE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXPOSED AREA AND DURATION OF EXPOSURE. IN SCHEDULING, TAKE INTO ACCOUNT THE SEASON AND THE WEATHER FORECAST

14. EROSION CONTROL MEASURES ARE THE MINIMUM REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL MEASURES AS DICTATED BY ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION IN ORDER TO PREVENT FROSION AND CONTROL SEDIMENT. FROSION AND SEDIMENT CONTROL MEASURES WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE ENTIRE PROJECT IS TERMINATED OR SUSPENDED FOR AND INDEFINITE LENGTH OF TIME, ALL DISTURBED AREAS SHALL BE PLANTED WITH PERMANENT VEGETATION.

15. THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS, OR IN ANY WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, IS BASED UPON FIELD INVESTIGATIONS AND IS BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME IS SHOWN AS INFORMATION ONLY, IS NOT GUARANTEED AND DOES NOT BIND THOMAS & HUTTON, OR THE OWNER IN ANY WAY.

16. CONTRACTOR SHALL MAINTAIN SITE ON A DAILY BASIS TO PROVIDE FOR POSITIVE DRAINAGE. CONTRACTOR, AT HIS COST, SHALL GRADE SITE AND PROVIDE NECESSARY TEMPORARY DRAINAGE SWALES TO INSURE STORM WATER DOES NOT POND ON SITE.

17. SITE DRAINAGE SHALL BE ESTABLISHED TO PREVENT ANY PONDED WATER CONDITIONS WITHIN THE CONSTRUCTION AREA AND TO FACILITATE STORM WATER DISCHARGE.

EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH,

LAND DISTURBING ACTIVITIES 19. LIME RATES AND ANALYSIS: 19.1. AGRICULTURAL LIME SHALL BE APPLIED AT THE RATE SHOWN IN THE SEEDING SECTION

18. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF

UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME APPLICATION SHALL BE WITHIN THE SPECIFICATIONS OF THE SOUTH CAROLINA DEPARTMENT OF AGRICULTURE.

MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

20.1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE. DRY HAY SHALL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE.

20.2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING IT SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE X. PERMANENT STABILIZATION APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.

20.3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A

TACKIFIER. SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.

20.4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS 20.5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE

ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR

SEEDED AREAS 20.6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLACK SOD, MULCH IS NOT

REQUIRED 20.7. ON SLOPES GREATER THAN 10 FEET IN LENGTH AND 4:1 OR STEEPER, USE THE FOLLOWING EROSION CONTROL BLANKETS THAT HAVE BEEN PROPERLY ANCHORED TO THE SLOPE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS:

• 2:1 SLOPES OR STEEPER: - STRAW/COCONUT BLANKET OR HIGH VELOCITY WOOD BLANKET • 3:1 SLOPES OR STEEPER: - WOOD OR STRAW BLANKET WITH NET ON BOTH SIDES • 4:1 SLOPES OR FLATTER: - WOOD OR STRAW MULCH BLANKET WITH NET ON ONE SIDE

#### VIII. HOUSEKEEPING

1. PETROLEUM PRODUCTS: INCLUDING OIL, GASOLINE, LUBRICANTS AND ASPHALTIC SUBSTANCES.

1.1. HAVE EQUIPMENT TO CONTAIN AND CLEAN UP PETROLEUM SPILLS IN FUEL STORAGE AREAS OR ON MAINTENANCE AND FUELING VEHICLES 1.2. STORE IN COVERED AREAS PROTECTED WITH DIKES

2. SPILLS: PREVENTION AND RESPONSE.

2.1. STORE AND HANDLE MATERIALS TO PREVENT SPILLS

2.2. TIGHTLY SEALED CONTAINERS, NEAT AND SECURE STACKING. ETC. 2.3. REDUCE STORM WATER CONTACT IF SPILL OCCURS

2 3 1 CLEANUP PROCEDURES SHOULD BE CLEARLY POS 2.3.2. CLEANUP MATERIALS SHOULD BE READILY AVAILABLE 2.3.3. STOP THE SOURCE 2.3.4. CONTAIN THE SPILL

NON-STORM WATER DISCHARGES THE FOLLOWING NON-STORMWATER DISCHARGES MUST BE PROTECTED FROM CAUSING

POLITION OR FROSION:

3.1. DISCHARGES FROM FIRE-FIGHTING ACTIVITIES

3.2 FIRE HYDRANT FLUSHINGS 3.3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED

3.4. WATER USED TO CONTROL DUST 3.5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS 3.6. ROUTINE EXTERNAL BUILDING WASH DOWN THAT DOES NOT USE DETERGENTS 3.7. PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE

DETERGENTS ARE NOT USED 3.8. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE

3.9. UNCONTAMINATED GROUND WATER OR SPRING WATER 3.10. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS

3.12. LANDSCAPE IRRIGATION 3.13. DECHLORINATED SWIMMING POOL DISCHARGES.

3.11. UNCONTAMINATED EXCAVATION DEWATERING

4. CONSTRUCTION WASTES: DEMOLITION RUBBLE, PACKAGING MATERIALS, SCRAP BUILDING

SUPPLIES, ETC.

4.1. SELECT A DESIGNATED WASTE COLLECTION AREA 4.2. PROVIDE LIDS FOR WASTE CONTAINERS 4.3. WHEN POSSIBLE LOCATE CONTAINERS IN COVERED AREA

4.4. MAINTAIN CONSISTENT REMOVAL SCHEDULE FOR WASTE

5. PESTICIDES: REDUCE THE AMOUNT OF PESTICIDES AVAILABLE FOR CONTACT WITH STORM WATER.

5.1. STORE IN A DRY COVERED AREA

5.2. INSTALL CURBS OR DIKES AROUND STORAGE AREA TO PROTECT AGAINST SPILLS 5.3. STRICTLY FOLLOW RECOMMENDED APPLICATION RATES

6.6. APPLY ACCORDING TO SOIL TEST RECOMMENDATIONS PRIOR TO SEEDING.

6. FERTILIZERS AND DETERGENTS: REDUCE THE AMOUNT OF FERTILIZERS AND DETERGENTS AVAILABLE FOR CONTACT WITH STORM WATER.

6.1. LIMIT APPLICATION OF FERTILIZERS TO THE MINIMUM NEEDED 6.2. APPLY MORE FREQUENTLY BUT AT LOWER APPLICATION RATES

6.3. LIMIT USE OF DETERGENTS ON-SITE

6.4. DO NOT DISCHARGE WASH WATER INTO STORM WATER SYSTEM 6.5. MAINTAIN STRUCTURAL AND VEGETATIVE BMP'S

IX. GRASSING NOTES

ALL SOD SHALL BE NURSERY GROWN AS CLASSIFIED IN THE ASPS GSS. MACHINE CUT SOD AT A UNIFORM THICKENS OF 3/4" WITHIN A TOLERANCE OF 1/4". EXCLUDING TOP GROWTH AND THATCH. FACH INDIVIDUAL SOD PIECE SHALL BE STRONG ENOUGH TO SUPPORT ITS OWN WEIGHT WHEN LIFTED BY THE ENDS. BROKEN PODS. IRREGULARLY SHAPED PIECES. AND TORN OR UNEVEN ENDS WILL BE REJECTED. WOOD PEGS AND / OR WIRE STAPLES SHALL REPLACE SOD WITH AN EQUAL SOD COMPOSITION AS THAT WHICH IS EXISTING. IF NO SOD TYPE EXIST. THEN THE FOLLOWING SOI COMPOSITION SHALL BE USED.

SODDING SCHEDULE:

LAY SOD FROM MAY 1 TO SEPTEMBER 15 FOR SPRING PLANTING AND FROM SEPTEMBER 15 TO NOVEMBER 1 FOR FALL PLANTING.

ALL SEED SHALL CONFORM TO ALL STATE LAWS AND TO ALL REQUIREMENTS AND REGULATIONS OF THE SOUTH CAROLINA DEPARTMENT OF AGRICULTURE. THE SEVERAL VARIETIES OF SEED SHALL BE INDIVIDUALLY PACKAGED OR BAGGED, AND TAGGED TO SHOW NAME OF SEED, NET WEIGHT, ORIGIN, GERMINATION, LOT NUMBER, AND OTHER INFORMATION REQUIRED BY THE DEPARTMENT OF AGRICULTURE.

3.1. PENNISETUM GLAUCIUM (BROWNTOP MILLET): TESTING 98 PERCENT PURITY AND 85 PERCENT GERMINATION.

BERMUDA COMMON: TESTING 98 PERCENT PURITY AND 85 PERCENT GERMINATION. 3.3. DOMESTIC ITALIAN RYE: TESTING 98 PERCENT PURITY AND 90 PERCENT GERMINATION.

MISCELLANEOUS:

4.1. PERMANENT SEEDING SHALL COVER ALL DISTURBED AREA NOT TO BE COVERED BY LANDSCAPE PLANTING BEDS, STRUCTURE, OR PAVEMENT.

4.3. ALL PERMANENT GRASS PLANTINGS SHALL BE MULCHED

ROOTS INTO THE APPROVED MULCH MATERIAL.

AREA WITH AN APPROVED MULCH MATERIAL

SEED ALL DISTURBED AREAS WITHIN SEVEN DAYS OF FINAL GRADING AND TEMPORARY SEED/MULCH ALL AREAS THAT WILL BE LEFT INACTIVE FOR MORE THAN FOURTEEN (14) DAYS

4.4. CENTIPEDE SOD CAN BE USED AS PERMANENT COVER ANYTIME EXCEPT JUNE THRU OCTOBER 4.5. IF GRASSING OCCURS DURING A MONTH REQUIRING TEMPORARY COVER. THE CONTRACTOR SHALL APPLY PERMANENT COVER (IN ADDITION TO THE TEMPORARY COVER) AT THE APPROPRIA TIME AT NO NO ADDITIONAL COST. THE CONTRACTOR MUST ACHIEVE A STRAND OF PERMANENT

GRASS WITH AT LEAST 95% COVER. BARE SPOTS CAN NOT BE MORE THAN 1 INCH SQUARE IN ANY

NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC.EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. NECESSARY, AREAS MUST BE RE-WORKED AND RE-STABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY ,OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO THE SITE.

FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

4.1. SEEDED AREAS

4.2. SODDED AREAS FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SO

4.3. PERMANENT MULCH

FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES

STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF AN APPROVED GEOTEXTILE TO

FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED

PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP.

DOWN CUTTING OF THE CHANNEL.

4.5. DITCHES, CHANNELS, AND SWALES FOR OPEN CHANNELS. PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP LINING OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW ELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THEF MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR

# XI. FERTILIZER REQUIREMENTS

TEMPORARY SEEDING FERTILIZER

(70LBS. / 1000 SQ. FT.).

APPLY A MINIMUM OF 500 LBS PER ACRE OF A COMPLETE 10-10-10 FERTILIZER (11.5 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING TEMPORARY SEEDING OF GRASSES UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INT THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW. LIM IS NOT REQUIRED FOR TEMPORARY SEEDING UNLESS A SOIL TEST SHOWS THAT THE SOIL PH IS BELOW 5.0. IT IS DESIRABLE TO APPLY LIME DURING THE TEMPORARY SEEDING OPERATION TO BENEFIT THE LONG-TERM PERMANENT SEEDING. APPLY A MINIMUM OF 1.5 TONS OF LIME / ACRE

# PERMANENT SEEDING FERTILIZER

APPLY A MINIMUM OF 1000 LBS PER ACRE OF A COMPLETE 10-10-10 FERTILIZER (23 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING PERMANENT SEEDING OF GRADES UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW. DO NOT MIX THE LIME AND THE FERTILIZER PRIOR TO THE FIELD APPLICATION. UNLESS A SPECIFIC SOIL TEST INDICATES OTHERWISE, APPLY 1 & 1/2 TONS OF GROUND COARSE TEXTURED AGRICULTURAL LIMESTONE PER ACRE (70 LBS. / 1000 SQ.FT.).

#### XII. SWPP PREPARER CERTIFICATION

I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000.

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МР  $\simeq$ 

12/27/16 DRAWN: WNS DESIGNED: JPM REVIEWED: MSH APPROVED: MSH

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CALE: N/A

# STORMWATER POLLUTION PREVENTION PLAN

				TEN	//PORARY	SEEDING	- COASTA	L					
SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
	•				SANDY, D	ROUGHT	Y SITES	•		•		•	•
BROWNTOP MILLET	40												
RYE, GRAIN	56												
RYEGRASS	50												
	·			WELL	DRAINED,	CLAYEY/L	OAMEY SI	TES			·	·	•
BROWNTOP MILLET	40												
JAPANESE MILLET	40												
RYE, GRAIN	56			_									
OATS	75												
RYEGRASS	50												

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
		l			SANDY, D	ROUGHT	Y SITES				<u> </u>		
BROWNTOP MILLET	10												
BAHIAGRASS	40												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
ATLANTIC COASTAL	15												
PANICGRASS	PLS												
BROWNTOP MILLET	10												
SWITCHGRASS	8												
(ALAMO)	PLS												
LITTLE BLUESTEM	4												
SERICEA LESPEDEZA	20												
BROWNTOP MILLET	10							_					
WEEPING LOVEGRASS	8												
	1			WELL	DRAINED,	CLAYEY/L	OAMEY S	ITES	I				I
BROWNTOP MILLET	10												
BAHIAGRASS	40												
RYE, GRAIN	10												
BAHIAGRASS	40												
CLOVER, CRIMSON (ANNUAL)	5												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	10												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	12												
KOBE LESPEDEZA (ANNUAL)	10												
BROWNTOP MILLET	10												
BAHIAGRASS	20			_									
BERMUDA, COMMON	6												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
SWITCHGRASS	8			_									
LITTLE BLUESTEM	PLS												
INDIANGRASS	3												

# FROSION CONTROL I FGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
CLEARING LIMITS	—— CL ——— CL ——
DIVERSION DIKE	<b>→</b> DD <b>→</b>
DIVERSION BERM	⇒DB⇒
TEMPORARY DIVERSION	⇒TD⇒
PERMANENT DIVERSION	—► PD—►
SUBSURFACE DRAIN	( <u>-</u> ssd( <u>-</u>
VEGETATED CHANNEL	<u>м-чин мин- и</u>
RIP RAP LINED CHANNEL	
ECB OR TRM LINED CHANNEL	
PAVED CHANNEL	PC 📥
TREE PROTECTION	
SURFACE ROUGHENING	or LG
TOP SOILING	
TEMPORARY SEEDING	TS
PERMANENT SEEDING	PS
MULCHING	M

# FROSION CONTROL LEGEND

EROSION CONT	ROL LEGEND
DESCRIPTION	PLAN SYMBOL
EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT	
FLEXIBLE GROWTH MATRIX	FGM
BONDED FIBER MATRIX	BFM
SODDING	so
SLOPED SODDING	
STAKED SOD	
STAKED SOD AROUND INLET	OR X
RIPRAP	
OUTLET PROTECTION - RIP RAP	
OUTLET PROTECTION - ECB OR TRM	
DUST CONTROL	DC
POLYACRYLAMIDE (PAM)	PAM
SEDIMENT BASIN	
SEDIMENT BASIN WITH SKIMMER	
SEDIMENT TRAP	
ROCK SEDIMENT DIKE	
CEDIMENT TURE	

SEDIMENT TUBE

LIST OF ACRONYMS FOR SEDIMENT AND EROSION CONTROL AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

DEPARTMENT OF HEATH AND ENVIRONMENTAL CONTROL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY EROSION PREVENTION AND SEDIMENTATION CONTROL UNITED STATES FOOD AND DRUG ADMINISTRATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER POLLUTION PREVENTION PROGRAM

MUNICIPAL SEPARATE STORM SEWER SYSTEM

ACRYLAMIDE POLYMER BONDED FIBER MATRIX

CUBIC FEET PER SECOND CORRUGATED METAL PIPE

EROSION CONTROL BLANKET

FLEXIBLE GROWTH MATRIX HIGH DENSITY POLYETHYLENE

MATERIAL SAFETY DATA SHEETS

POLYACRYLAMIDE OR POLYMER

REINFORCED CONCRETE PIPE

SOIL CONSERVATION SERVICE

TURF REINFORCEMENT MAT

VEGETATED FILTER STRIP

BEST MANAGEMENT PRACTICE(S)

BFM

CMP

ECB

MS4

# EDOCION CONTROL LECEND

<u>END</u>	EROSION CONT	ROL	LEG	<u>EN</u>	<u>D</u>
<u>DL</u>	DESCRIPTION	<u> </u>	_AN SYMB	<u>OL</u>	
	ROCK CHECK DAM		OR		
	POROUS BAFFLES				
	STABILIZED CONSTRUCTION ENTRANCE				
	CONCRETE WASHOUT				
	STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC		A		
	STORM DRAIN INLET PROTECTION - TYPE A SEDIMENT TUBE		A		
Š*	STORM DRAIN INLET PROTECTION - TYPE B HARDWARE FABRIC AND STONE		B		
	STORM DRAIN INLET PROTECTION - TYPE C BLOCK AND GRAVEL				
	STORM DRAIN INLET PROTECTION - TYPE D RIGID INLET FILTER				
	STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER		E		
	STORM DRAIN INLET PROTECTION - TYPE F INLET TUBE		F		
	STORM DRAIN INLET PROTECTION - TYPE G IMPERVIOUS AREA		G		
	STORM DRAIN INLET PROTECTION - CATCH BASIN INSERT		I		
	PIPE SLOPE DRAINS	(		<b>-</b>	
	TEMPORARY STREAM CROSSING				
	LEVEL SPREADER				

# CONSTRUCTION SEQUENCE

	CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1	OBTAIN COPIES OF ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	CONTRACTOR TO HAVE ONSITE AT ALL TIMES DURING CONSTRUCTION.
2	FLAG THE WORK LIMITS AND BARRICADE TREES AND MARK BUFFER AREAS FOR PROTECTION.	HAVE LOCAL REGULATORY AGENCY INSPECT TREE BARRICADES.
3	HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.	REVIEW TREE PROTECTION (BARRICADE) WITH OWNER AND LOCAL REGULATORY AGENCY. TAKE PICTURES OF ALL PROTECTED TREES AND LOCATIONS WHERE SITE WORK TIES INTO EXISTING TO DOCUMENT PREDEVELOPMENT PROCEDURES.
4	INSTALL CONSTRUCTION ACCESS AND LAY DOWN AREAS	STABILIZE BARE AREAS IMMEDIATELY AND INSTALL CONSTRUCTION EXITS / ENTRANCES.
5	CONSTRUCT SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION.	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING.
6	ESTABLISH RUNOFF CONTROL - DIVERSIONS, PERIMETER DIKES, WATER BARS, AND OUTLET PROTECTION.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
7	LAND CLEARING AND GRADING-SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES ARE INSTALLED. CLEAR BORROW AND DISPOSAL AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES. MARK TREES AND BUFFER AREAS FOR PRESERVATION.
8	RUNOFF CONVEYANCE SYSTEM- INSTALL STORM DRAINS, STABILIZE BANKS, CHANNELS, INSTALL INLET AND OUTLET PROTECTION, SLOPE DRAINS.	WHERE NECESSARY, STABILIZE BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF- CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING.
9	INSTALL WASTEWATER COLLECTION, WATER DISTRIBUTION, AND STORM DRAINAGE SYSTEMS	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
10	SURFACE STABILIZATION-TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
11	BUILDING CONSTRUCTION- BUILDINGS UTILITIES,	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL

12 LANDSCAPING AND FINAL STABILIZATION -

SEEDING, MULCHING, SODDING, RIP RAP.

TOPSOILING, TREES AND SHRUBS, PERMANENT

PRACTICES AS WORK TAKES PLACE.

LAST CONSTRUCTION PHASE--STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND

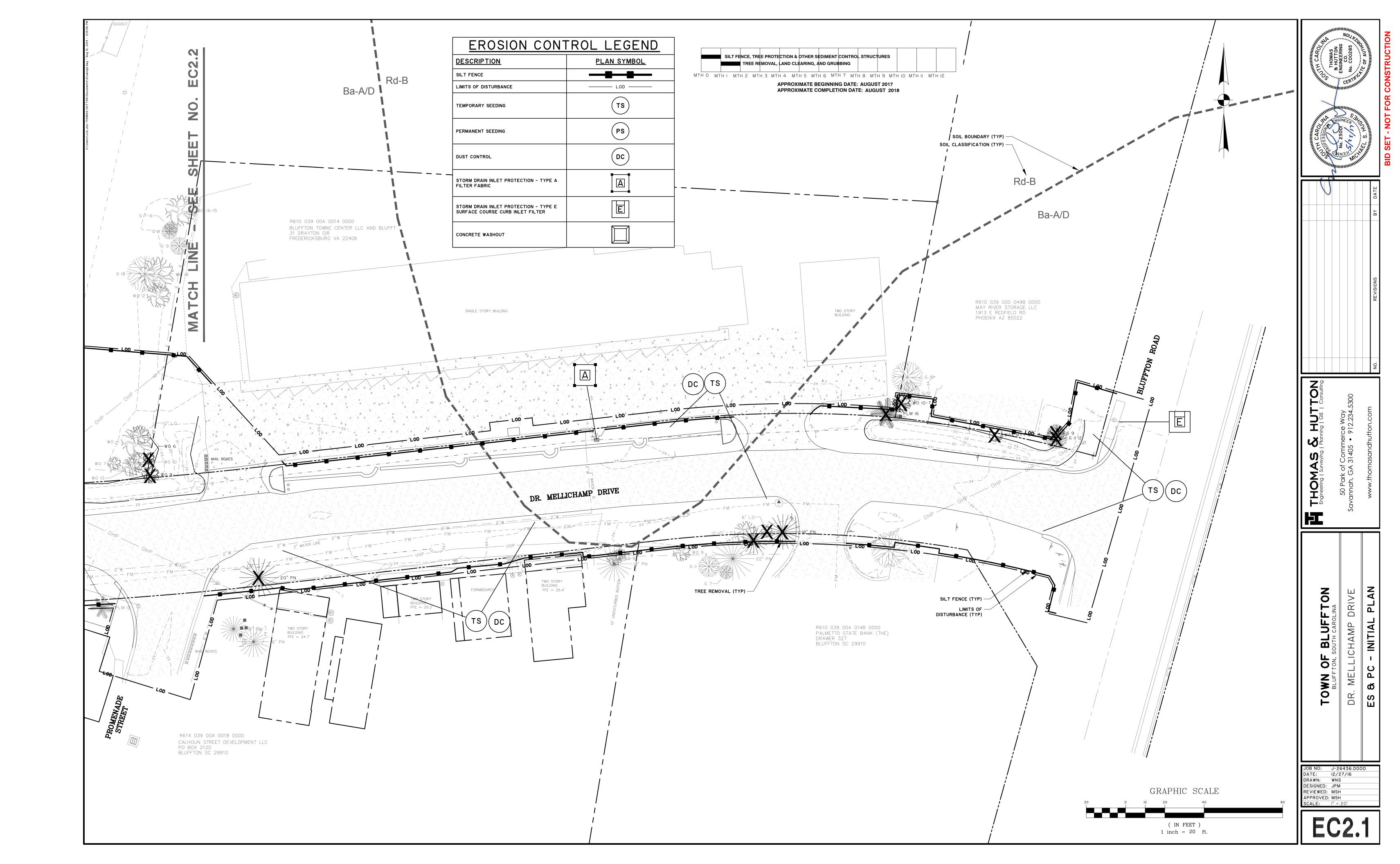
STABILIZE ALL TEMPORARY CONTROL MEASURES.

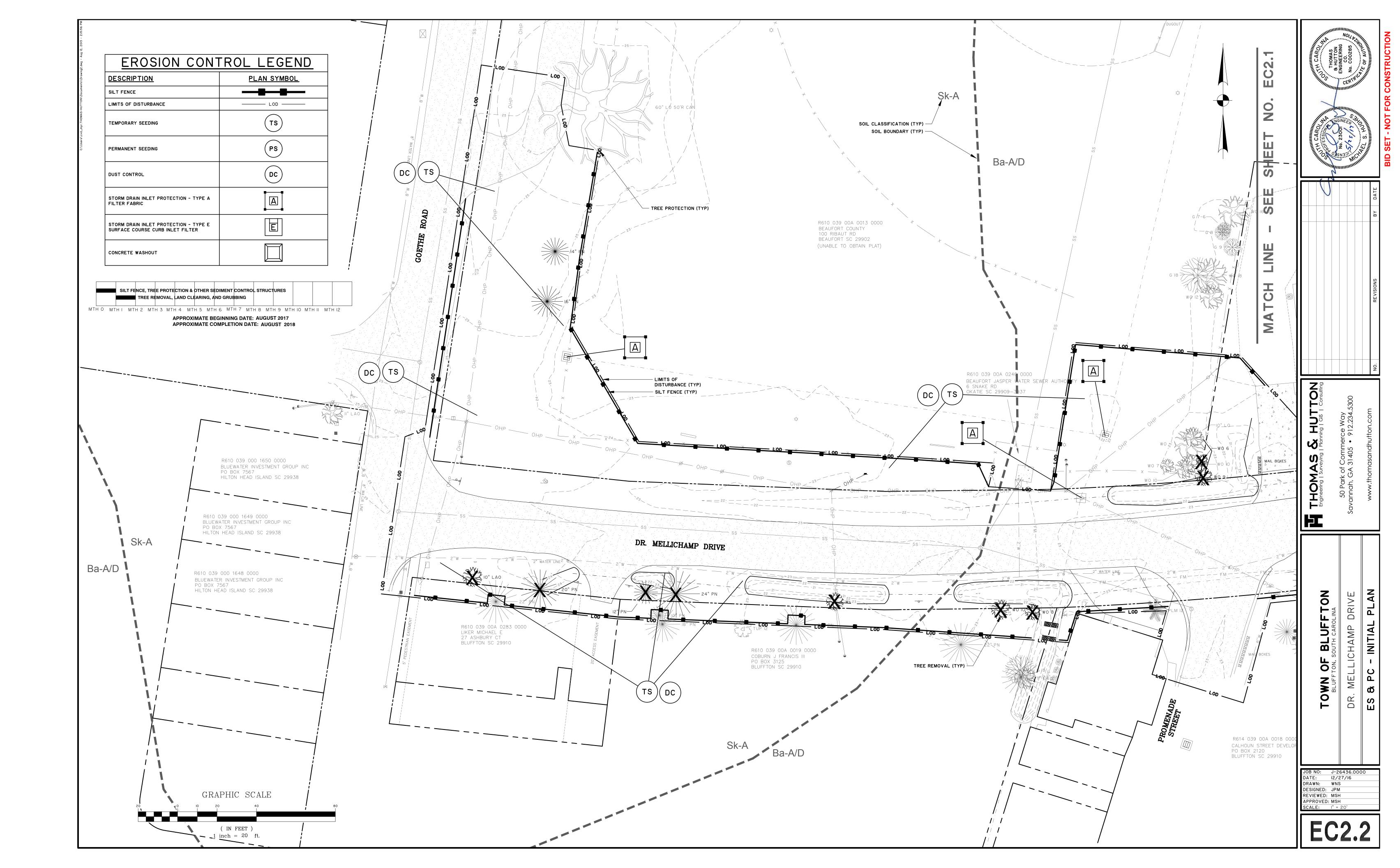
MELLICHAMP DRIVE ES & PC - CHARTS NWO. DR.

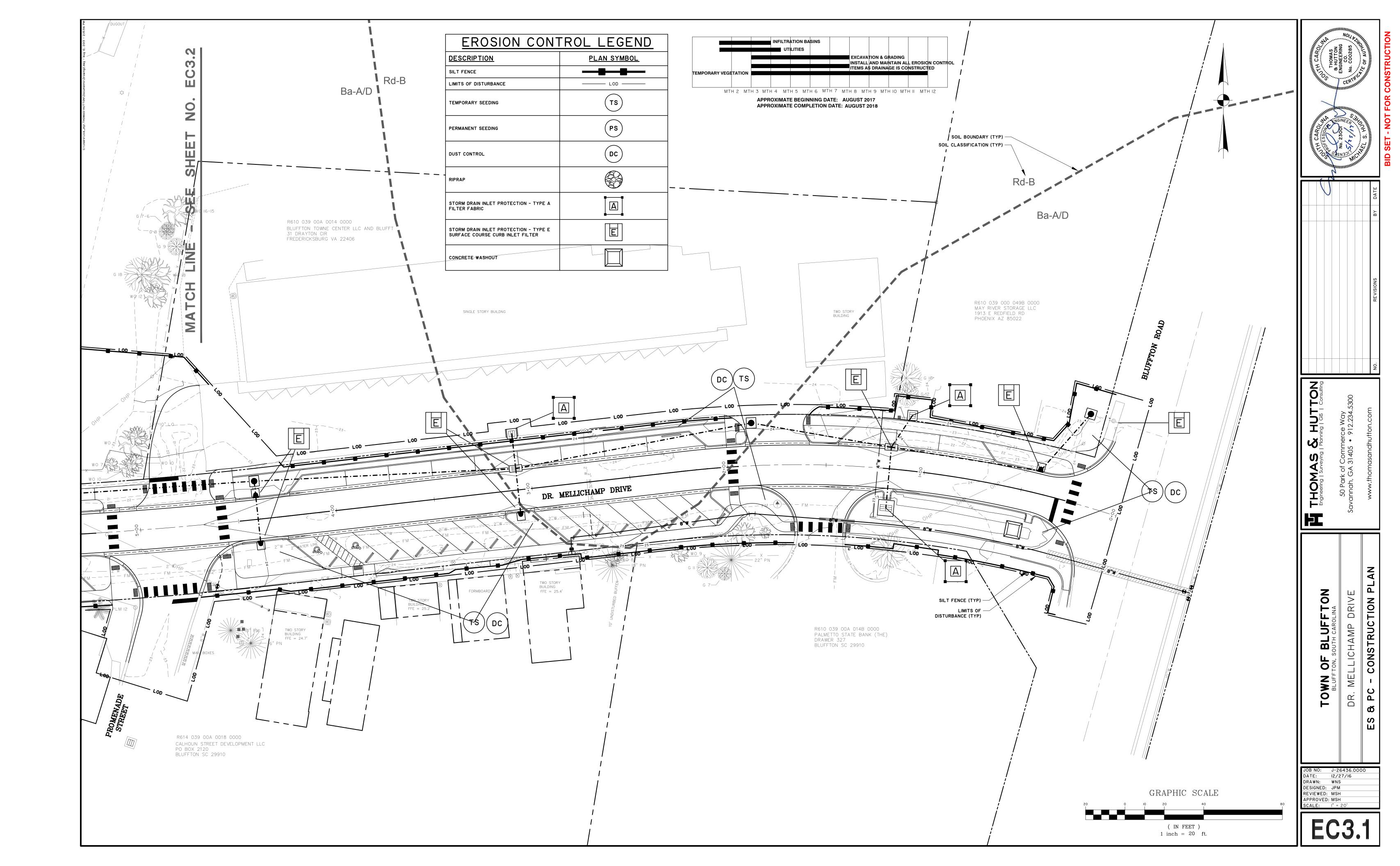
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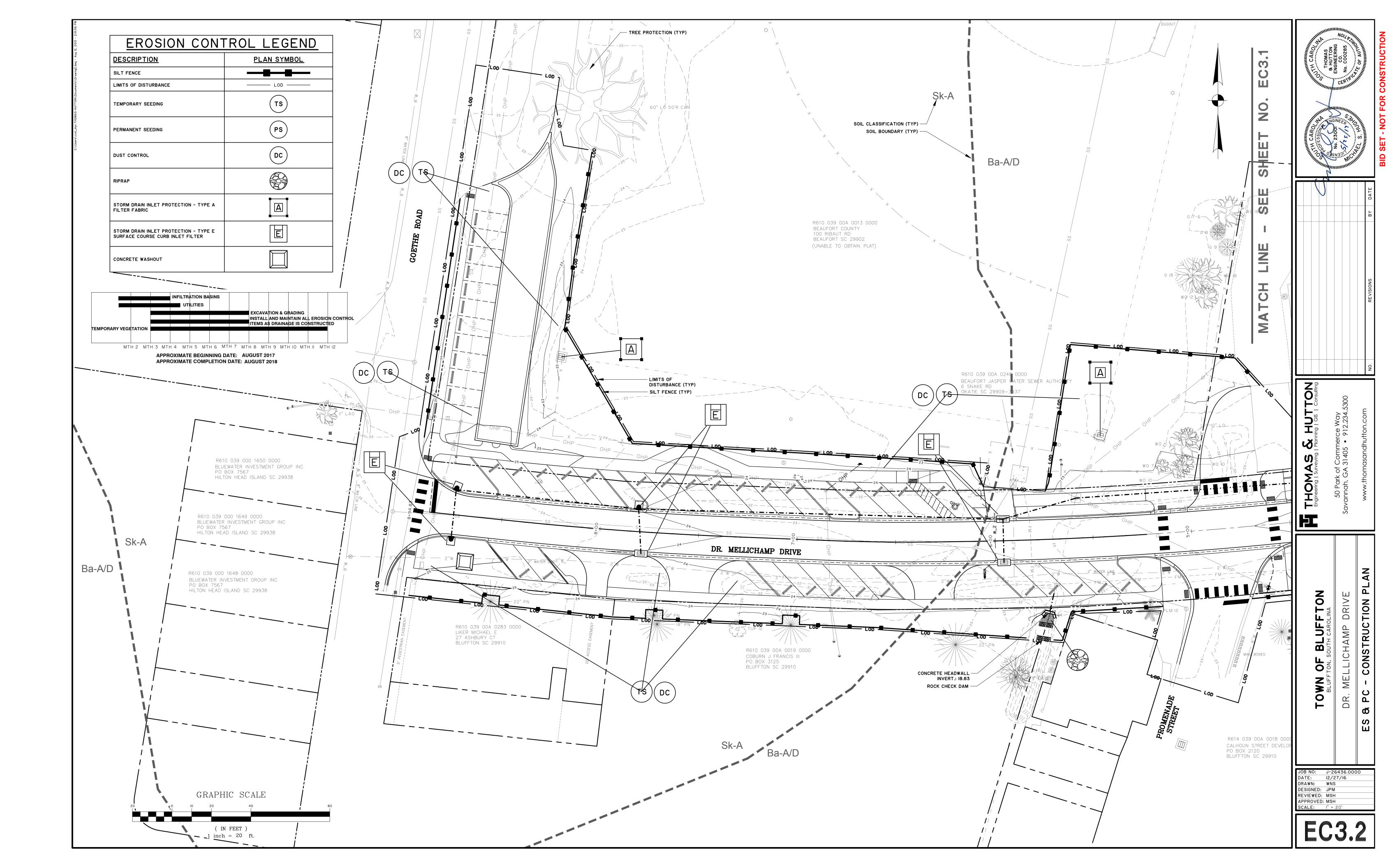
REVIEWED: MSH APPROVED: MSH

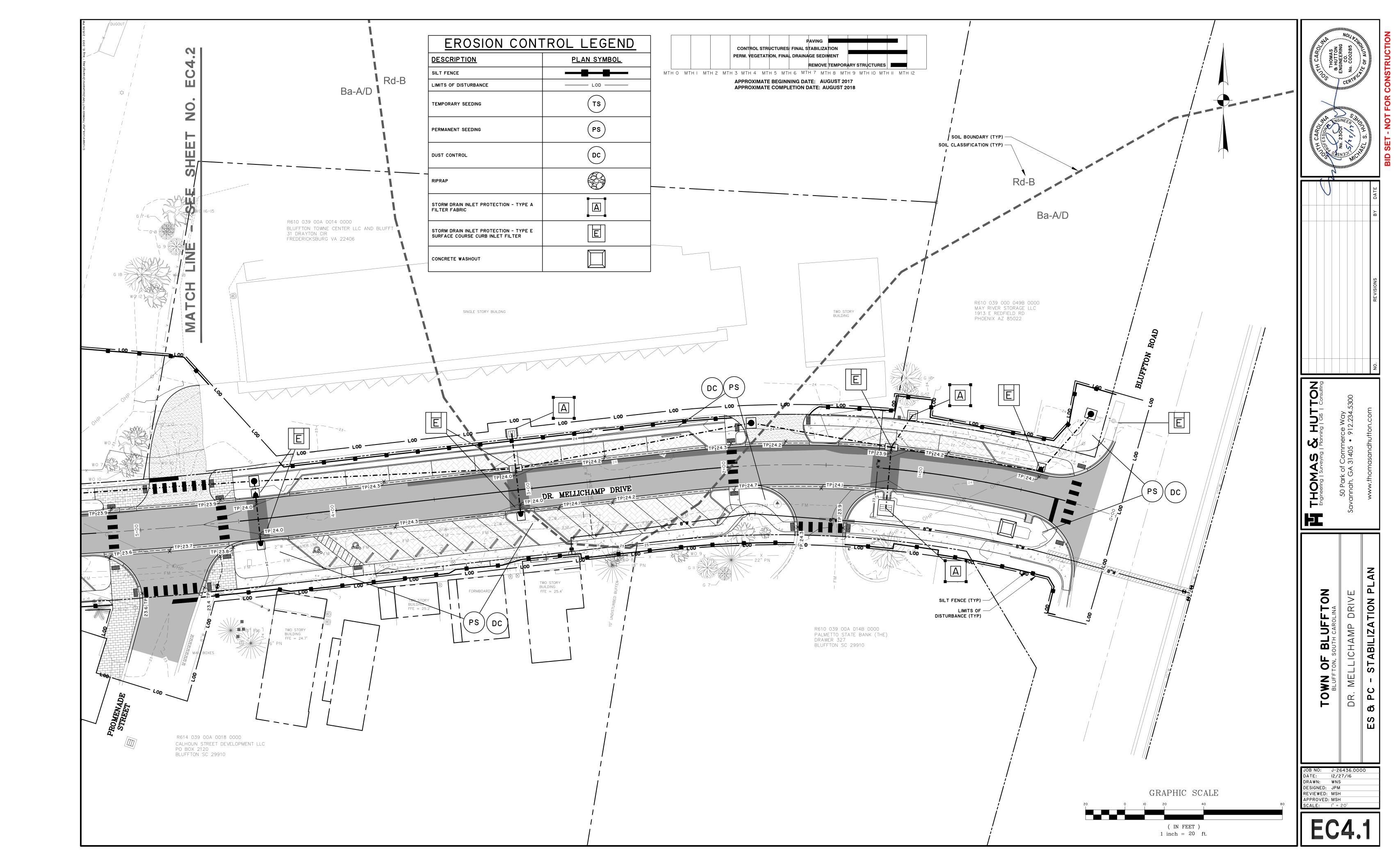
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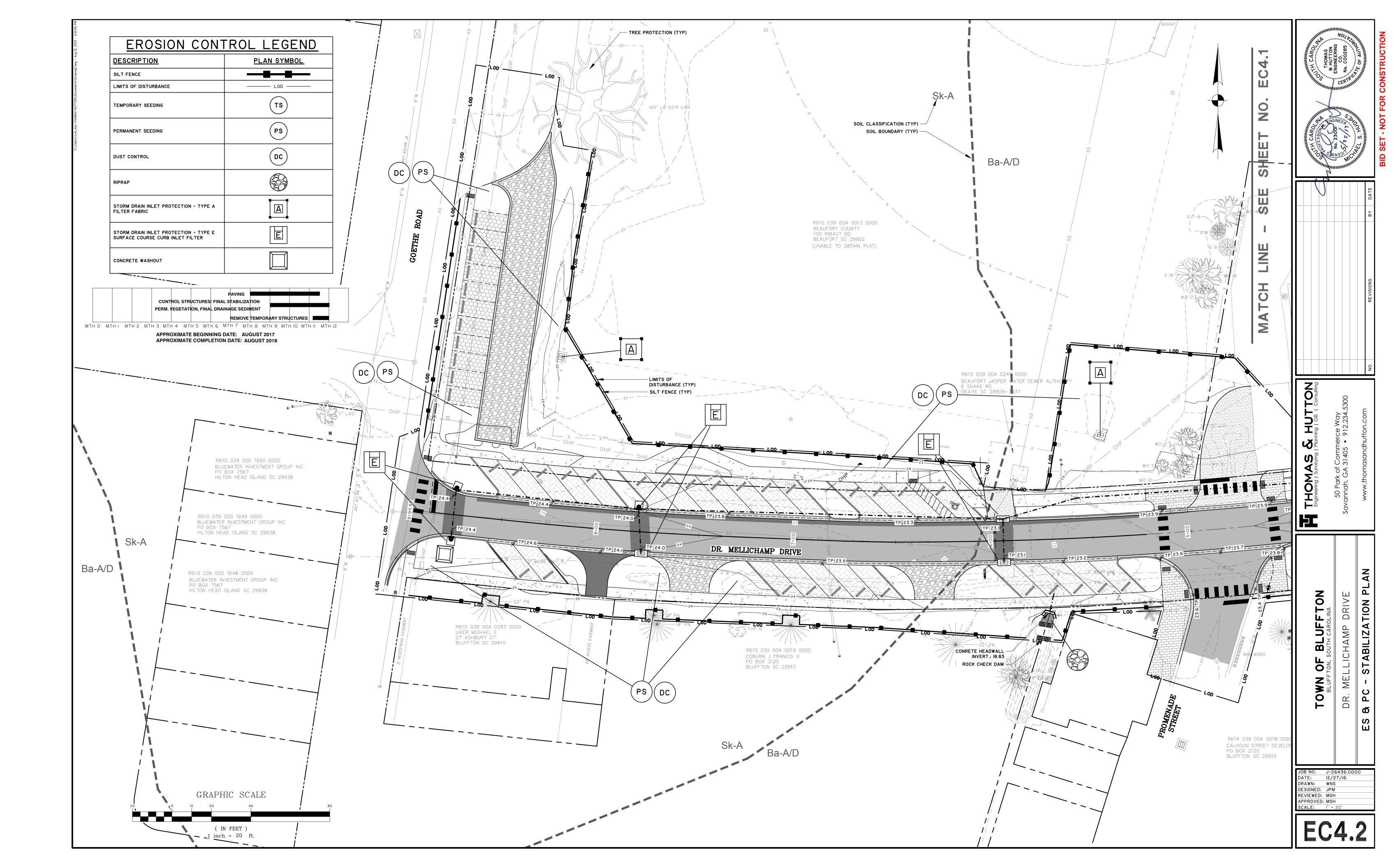


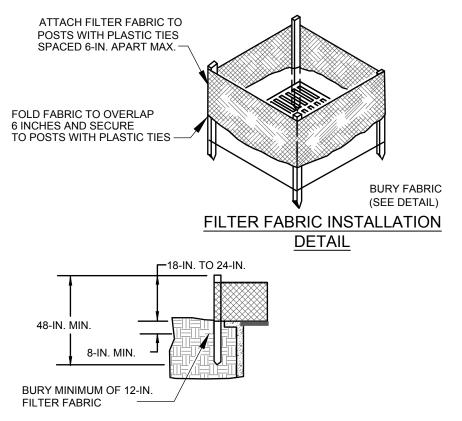












USE FILTER FABRIC THAT CONFORMS TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

USE STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS: BE COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI. HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES.

WEIGH 1.25 POUNDS PER FOOT (± 8%). BE PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

FABRIC UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

EXCAVATE A TRENCH 6-INCHES WIDE AND 6-INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE INLET UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED. EXTEND THE FILTER FABRIC A MINIMUM OF 12-INCHES INTO THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR CRUSHED STONE AND COMPACT OVER THE FILTER

USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 60-INCHES CONSISTING OF STANDARD "T" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (±8%). INSTALL THE FILTER FABRIC TO A MINIMUM HEIGHT OF 24-INCHES ABOVE GRADE. SPACE THE STEEL POSTS AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3-FEET APART AND DRIVE THEM INTO THE GROUND A MINIMUM OF 24-INCHES. CUT THE FILTER FABRIC FROM A CONTINUOUS ROLL TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, WRAP FILTER FABRIC TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6-INCH OVERLAP.

ATTACH FABRIC TO STEEL POSTS WITH HEAVY-DUTY PLASTIC TIES.

ATTACH AT LEAST FOUR (4) EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, AFFIX TIES IN NO LESS THAN FOUR (4) PLACES.

#### INSPECTION AND MAINTENANCE

SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FENCE. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT. IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM.

STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO THE ELEVATION OF THE DROP INLET STRUCTURE CREST. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.



## FILTER FABRIC INLET PROTECTION (TYPE A)

NOT TO SCALE





# Prevent the movement of dust from exposed

- soil surfaces.
- · Prevent the movement of airborne substances that may be harmful to health.

## INSTALLATION

- Apply according to approved plan, if shown. · Mulch disturbed areas and tackify with resins such as asphalt, Curasol or Terratack according to manufacturer's recommenda-
- · Stabilize disturbed areas with temporary or
- permanent vegetation. · Irrigate disturbed areas until surface is wet.
- Cover surfaces with crushed stone or gravel.

- Du · Apply calcium chloride at a rate to keep
- surfaces moist. · Apply spray-on adhesives to mineral soils

#### (not muck soils) as described in Table 1. Table 1. Spray-On Adhesive Application

Requirements							
Water Dilution	Nozzle Type	Applicat (Gal./Ac					
7:1*	Coarse spray	1,200					
12.5:1 *	Fine spray	235					
4:1*	Fine spray	300					
	Water Dilution 7:1* 12.5:1 *	Water Dilution Nozzle Type  7:1* Coarse spray  12.5:1 * Fine spray  4:1* Fine					

\*Use manufacturer's recommendations when available.

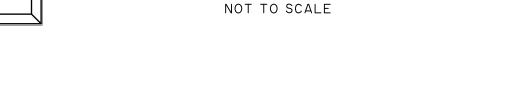
# DUST CONTROL MEASURES

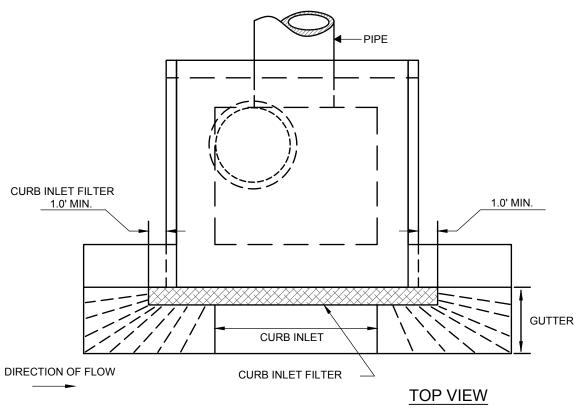


SURFACE COURSE CURB INLET FILTERS (TYPE E)

NOT TO SCALE

ROADWAY 24" DEPTH LINED W/ PLASTIC CONCRETE WASHOUT DETAIL





ONLY USE SURFACE COURSE INLET FILTERS THAT HAVE A MINIMUM HEIGHT OR DIAMETER OF 9-INCHES AND HAVE A MINIMUM LENGTH THAT IS 2-FEET LONGER THAN THE LENGTH OF THE CURB OPENING. SURFACE COURSE INLET FILTERS ARE NOT DESIGNED TO COMPLETELY BLOCK THE INLET OPENING.

SURFACE COURSE INLET FILTERS ARE CONSTRUCTED WITH A SYNTHETIC MATERIAL THAT WILL ALLOW STORM WATER TO FREELY FLOW THROUGH WHILE TRAPPING SEDIMENT AND DEBRIS. THE GEOTEXTILE IS NON-BIODEGRADABLE AND RESISTANT TO DEGRADATION BY ULTRAVIOLET EXPOSURE AND RESISTANT TO CONTAMINANTS COMMONLY ENCOUNTERED IN STORM WATER. STRAW, STRAW FIBER, STRAW BALES, PINE NEEDLES AND LEAF MULCH ARE NOT PERMISSIBLE FILTER MATERIALS.

SURFACE COURSE INLET FILTERS HAVE AGGREGATE COMPARTMENTS FOR STONE, SAND OR OTHER WEIGHTED MATERIALS OR MECHANISMS TO HOLD THE UNIT IN PLACE.

USE FILTER FABRIC THAT IS CAPABLE OF REDUCING EFFLUENT SEDIMENT CONCENTRATIONS BY NO LESS THAN 80% UNDER TYPICAL SEDIMENT

APPLICABLE TYPE E INLET FILTERS MAY BE SELECTED FROM THE SCDOT APPROVED PRODUCTS LIST.

SURFACE COURSE INLET FILTERS ARE APPLICABLE FOR ROAD CATCH BASIN AFTER THE ROAD SURFACE COURSE IS PLACED. PLACE SURFACE COURSE INLET FILTERS WHERE SEDIMENT MAY SPILL OVER SIDEWALKS AND CURBS.

INSTALL SURFACE COURSE INLET FILTERS IN FRONT OF CURB INLET OPENINGS. THE FILTER SHALL HAVE A MINIMUM HEIGHT OR DIAMETER OF 9-INCHES AND HAVE A MINIMUM LENGTH THAT IS 2-FEET LONGER THAN THE LENGTH OF THE CURB OPENING. THIS WILL ALLOW SUFFICIENT LENGTH TO COVER THE INLET WITH AT LEAST 1-FOOT OF CLEARANCE BEYOND THE INLET ON BOTH ENDS.

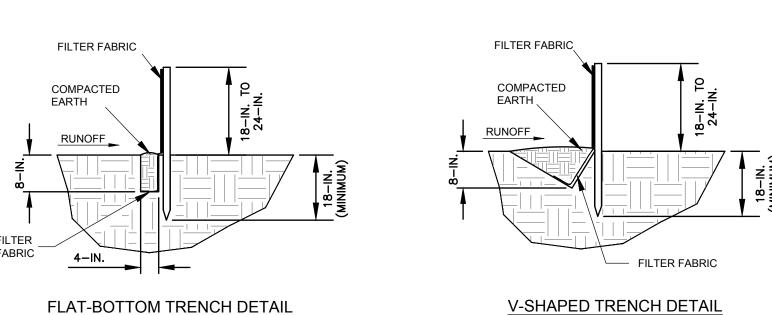
DO NOT COMPLETELY BLOCK THE INLET OPENING WITH SURFACE COURSE INLET FILTERS. INSTALL SURFACE COURSE INLET FILTERS IN A MANNER TO

FILL THE AGGREGATE COMPARTMENT TO A LEVEL (AT LEAST 1/2 FULL) THAT WILL KEEP THE SURFACE COURSE INLET FILTER IN PLACE AND CREATE A SEAL BETWEEN THE SURFACE COURSE INLET FILTER AND THE ROAD SURFACE.

PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY, THEREFORE ROUTINE MAINTENANCE MUST BE PROVIDED. INSPECT SURFACE COURSE CURB INLET FILTERS ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS. CLEAN THE SURFACE COURSE CURB INLET FILTER IF A VISUAL INSPECTION SHOWS SILT AND DEBRIS BUILD UP AROUND THE FILTER.



1.25 LB./LINEAR FT. STEEL POSTS FILTER FABRIC HEAVY DUTY PLASTIC TIE BACKFILL TRENCH WITH FOR STEEL POSTS COMPACTED EARTH **USE EITHER FLAT-BOTTOM** OR V-BOTTOM TRENCH SHOWN BELOW



SILT FENCE INSTALLATION

WHERE THE MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE IS 100-FEET. WHERE THE MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO FENCE LINE) IS 2H:1V

DO NOT PLACE SILT FENCE ACROSS CHANNELS OR USE IT AS A VELOCITY CONTROL BMP.

USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:

FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES.

COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI. HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES. WEIGH 1.25 POUNDS PER FOOT (± 8%). HAVE A SOIL STABILIZATION PLATE WITH A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES ATTACHED TO THE STEEL POSTS.

PAINTED WITH A WATER BASED BAKED ENAMEL PAINT. USE STEEL POSTS WITH A MINIMUM LENGTH OF 4-FEET, WEIGHING 1.25 POUNDS PER LINEAR FOOT (± 8%) WITH PROJECTIONS TO AID IN FASTENING THE FABRIC. EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON SITE, STEEL POSTS WILL HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH, THE PLATE WILL BE BELOW THE GROUND LEVEL FOR ADDED STABILITY.

THE SOIL PLATES SHOULD HAVE THE FOLLOWING CHARACTERISTICS: BE COMPOSED OF MINIMUM 15 GAUGE STEEL. HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

CUT TO A MINIMUM WIDTH OF 36 INCHES.

COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER. FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION.

USE ONLY FABRIC APPEARING ON SCDOT APPROVAL SHEET #34 MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT. BURY 12-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE WITH A SLICING METHOD. PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAPPED THE FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 6-INCH MINIMUM OVERLAP. INSTALL POSTS TO A MINIMUM DEPTH OF 24-INCHES. INSTALL POSTS A MINIMUM OF 1- TO 2- INCHES ABOVE THE FABRIC, WITH NO MORE THAN 3-FEET OF THE POST ABOVE THE GROUND. SPACE POSTS TO MAXIMUM 6-FEET CENTERS. ATTACH FABRIC TO WOOD POSTS USING STAPLES MADE OF HEAVY-DUTY WIRE AT LEAST 1-1/2-INCH LONG, SPACED A MAXIMUM OF 6-INCHES APART. STAPLE A 2-INCH WIDE LATHE OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF WOODEN POSTS. ATTACH FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN CALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES. INSTALL THE FABRIC A MINIMUM OF 24-INCHES ABOVE THE GROUND. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN 24-INCHES. IN TIDAL AREAS, EXTRA SILT FENCE HEIGHT MAY BE REQUIRED. THE POST HEIGHT WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN THE SAME AND EXTRA HEIGHT FABRIC WILL BE 4-, 5-, OR 6-FEET TALL. LOCATE SILT FENCE CHECKS EVERY 100 FEET MAXIMUM AND AT LOW POINTS. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND

CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY. CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE

FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY. REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED. REMOVE TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE. REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR

AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPS) ARE NO LONGER NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL.



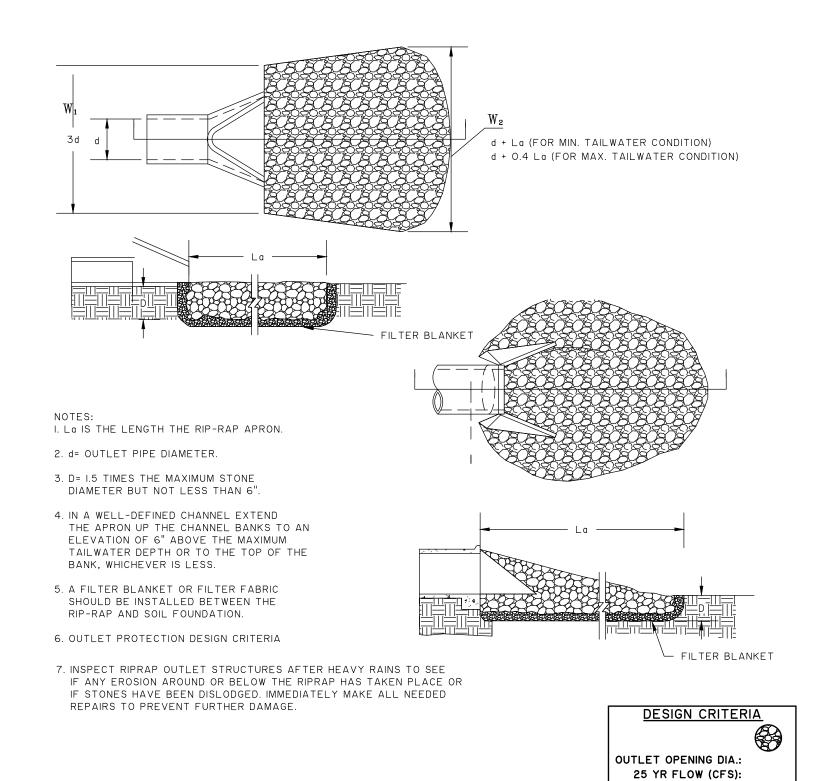
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12/27/16 DRAWN: WNS DESIGNED: JPM REVIEWED: MSH APPROVED: MSH SCALE: N/A

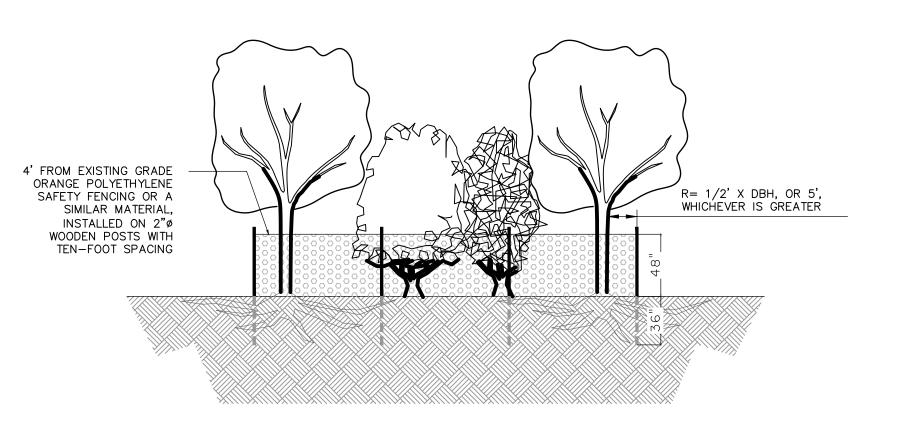
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## STORMWATER POLLUTION PREVENTION PLAN



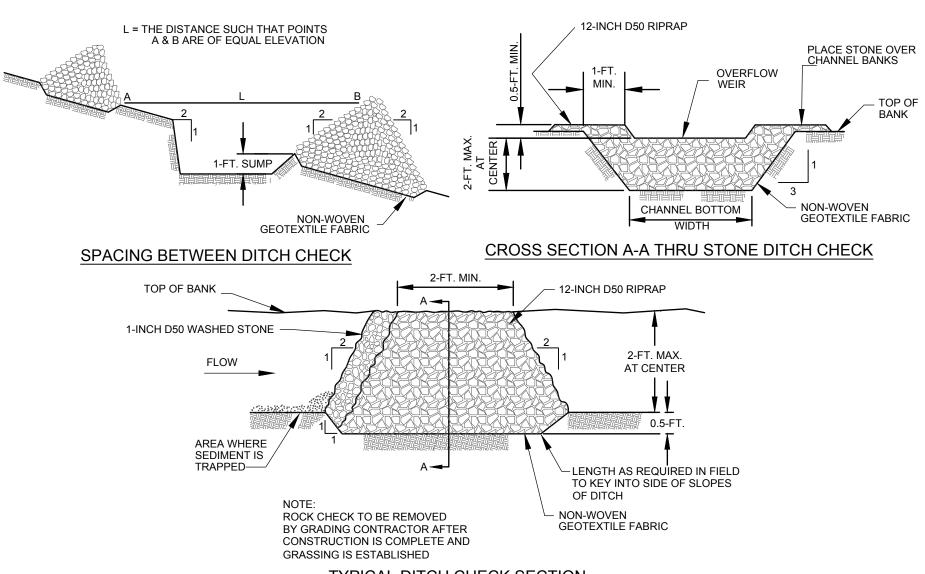
VELOCITY (V) (FPS): TAILWATER > 0.5Do

d50:



# TREE PROTECTION DETAIL

NOT TO SCALE



## TYPICAL DITCH CHECK SECTION

WHEN AND WHERE TO USE IT: A ROCK DITCH CHECK SHOULD BE INSTALLED IN STEEPLY SLOPED SWALES, OR IN SWALES WHERE ADEQUATE VEGETATION CANNOT BE ESTABLISHED.
ROCK DITCH CHECKS SHOULD BE USED ONLY IN SMALL OPEN CHANNELS. ROCK DITCH CHECKS SHOULD NOT BE PLACED IN WATERS OF THE COMMONWEALTH

#### **INSTALLATION:**

A NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE ROCK DITCH CHECK IS TO BE PLACED.

#### THE BODY OF THE ROCK DITCH CHECK SHALL BE COMPOSED OF 12-INCH D50 RIPRAP.

THE UPSTREAM FACE OF THE ROCK DITCH CHECK MAY BE COMPOSED OF 1-INCH D50 WASHED STONE.

ROCK DITCH CHECKS SHOULD NOT EXCEED A HEIGHT OF 2-FEET AT THE CENTERLINE OF THE CHANNEL.

ROCK DITCH CHECKS SHOULD HAVE A MINIMUM TOP FLOW LENGTH OF 2-FEET.

#### STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO PREVENT WATER FROM CUTTING AROUND THE DITCH CHECK.

THE ROCK MUST BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM DAM) TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO ENSURE THAT THE CENTER OF THE CHECK IS LOWER THAN THE EDGES.

THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM CHECK.

# INSPECTION AND MAINTENANCE:

INSPECT FOR SEDIMENT AND DEBRIS ACCUMULATION. INSPECT DITCH CHECK EDGES FOR EROSION AND REPAIR PROMPTLY AS REQUIRED.

#### SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/3 THE ORIGINAL CHECK HEIGHT.

IN THE CASE OF GRASS-LINED DITCHES AND SWALES, ROCK DITCH CHECKS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY

TO PROTECT THE DITCH OR SWALE UNLESS THE SLOPE OF THE SWALE IS GREATER THAN 4%.

AFTER CONSTRUCTION IS COMPLETE, ALL STONE SHOULD BE REMOVED BY THE GRADING CONTRACTOR IF VEGETATION WILL BE USED FOR PERMANENT EROSION CONTROL MEASURES.

THE AREA BENEATH THE ROCK DITCH CHECKS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER ROCK CHECK DAM REMOVAL.









ROCK DITCH CHECK

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12/27/16 DRAWN: WNS DESIGNED: JPM REVIEWED: MSH APPROVED: MSH

SCALE: N/A