

J:\2016\12436\000\1\Drawings\T&H\161000-01.dwg \* Sun 07 2016 \* 4:02:42 PM

# 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

J-26436.0000

PREPARED BY:

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



REVISION HISTORY			
REV. NO.	REVISION	BY	DATE

SUBMITTAL HISTORY	
ISSUED FOR	DATE
FOR BID	05/26/17
OCR	02/10/17
SUBMITTED TO	DATE



VICINITY MAP  
SCALE: 1" = 2000'

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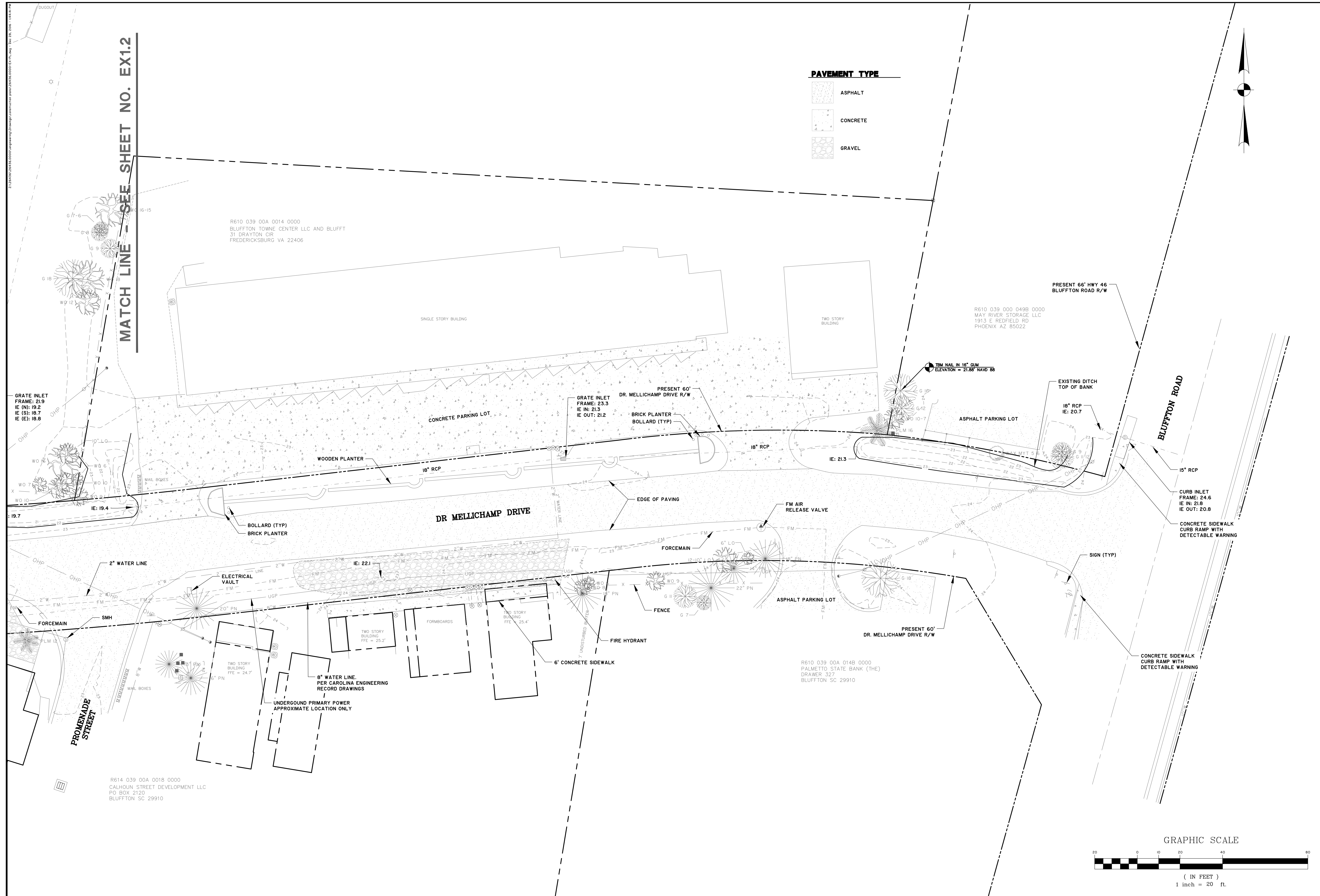


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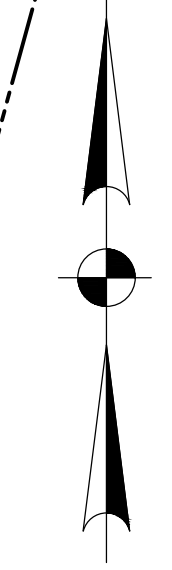
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DR. MELLICHAMP DRIVE  
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**PAVEMENT TYPE**

- ASPHALT
- CONCRETE
- GRAVEL



**MATCH LINE - SEE SHEET NO. EX1.2**

R610 039 00A 0014 0000  
BLUFFTON TOWNE CENTER LLC AND BLUFFT  
31 DRAYTON CIR  
FREDERICKSBURG VA 22406

R610 039 000 049B 0000  
MAY RIVER STORAGE LLC  
1913 E REDFIELD RD  
PHOENIX AZ 85022

R610 039 00A 014B 0000  
PALMETTO STATE BANK (THE)  
DRAWER 327  
BLUFFTON SC 29910

R614 039 00A 0018 0000  
CALHOUN STREET DEVELOPMENT LLC  
PO BOX 2120  
BLUFFTON SC 29910

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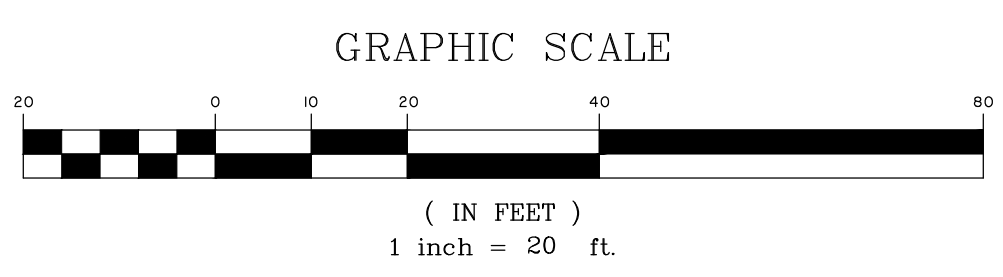
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BLUFFTON, SOUTH CAROLINA

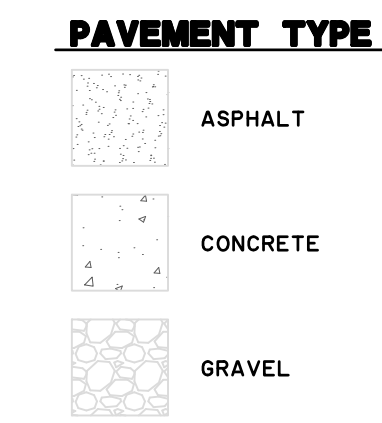
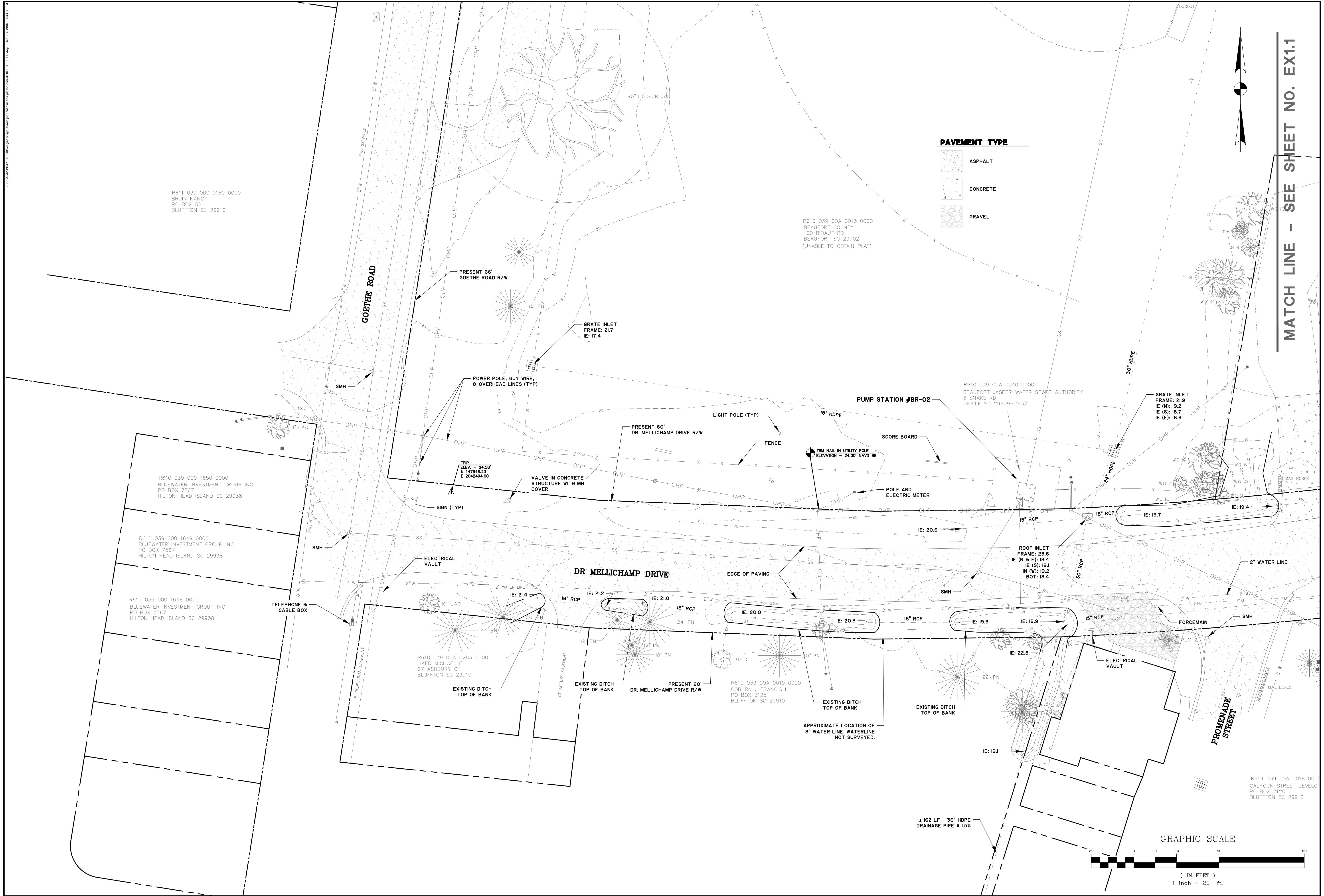
**DR. MELLICHAMP DRIVE**

**EXISTING CONDITIONS PLAN**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'



EX1.1



R611 039 000 0160 0000  
BRUIN NANCY  
PO BOX 58  
BLUFFTON SC 29910

R610 039 00A 0013 0000  
BEAUFORT COUNTY  
100 RIBAUT RD  
BEAUFORT SC 29902  
(UNABLE TO OBTAIN PLAT)

R610 039 00A 0240 0000  
BEAUFORT JASPER WATER SEWER AUTHORITY  
6 SNAKE RD  
OKATIE SC 29909-3937

R610 039 000 1650 0000  
BLUEWATER INVESTMENT GROUP INC  
PO BOX 7567  
HILTON HEAD ISLAND SC 29938

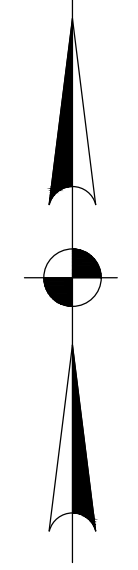
R610 039 000 1649 0000  
BLUEWATER INVESTMENT GROUP INC  
PO BOX 7567  
HILTON HEAD ISLAND SC 29938

R610 039 000 1648 0000  
BLUEWATER INVESTMENT GROUP INC  
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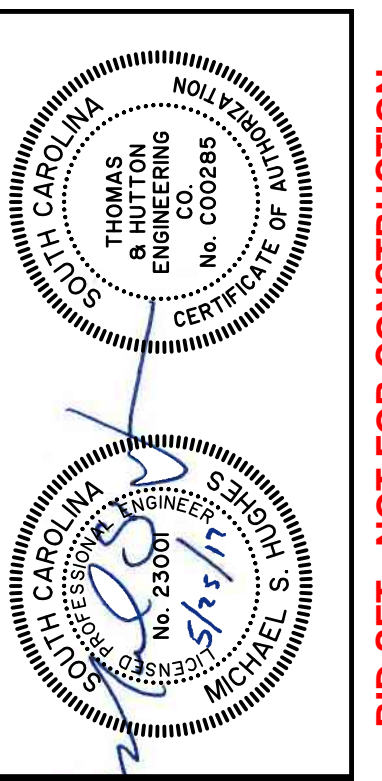
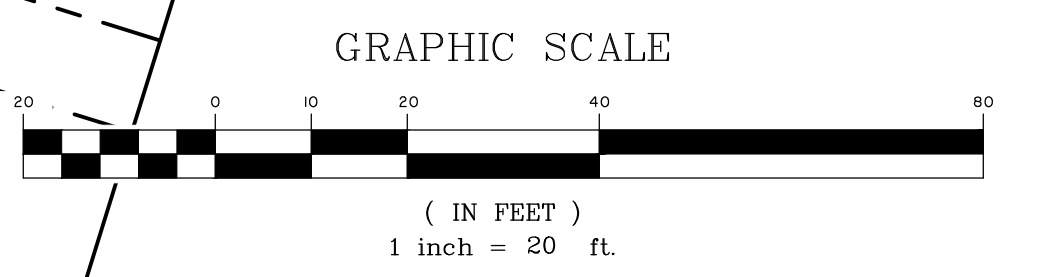
R610 039 00A 0283 0000  
LUKER MICHAEL E  
27 ASHBURY CT  
BLUFFTON SC 29910

R610 039 00A 0019 0000  
COBURN J FRANCIS III  
PO BOX 3125  
BLUFFTON SC 29910

R614 039 00A 0018 0000  
CALHOUN STREET DEVELOP  
PO BOX 2120  
BLUFFTON SC 29910



**MATCH LINE - SEE SHEET NO. EX1.1**



NO.	REVISIONS	BY	DATE

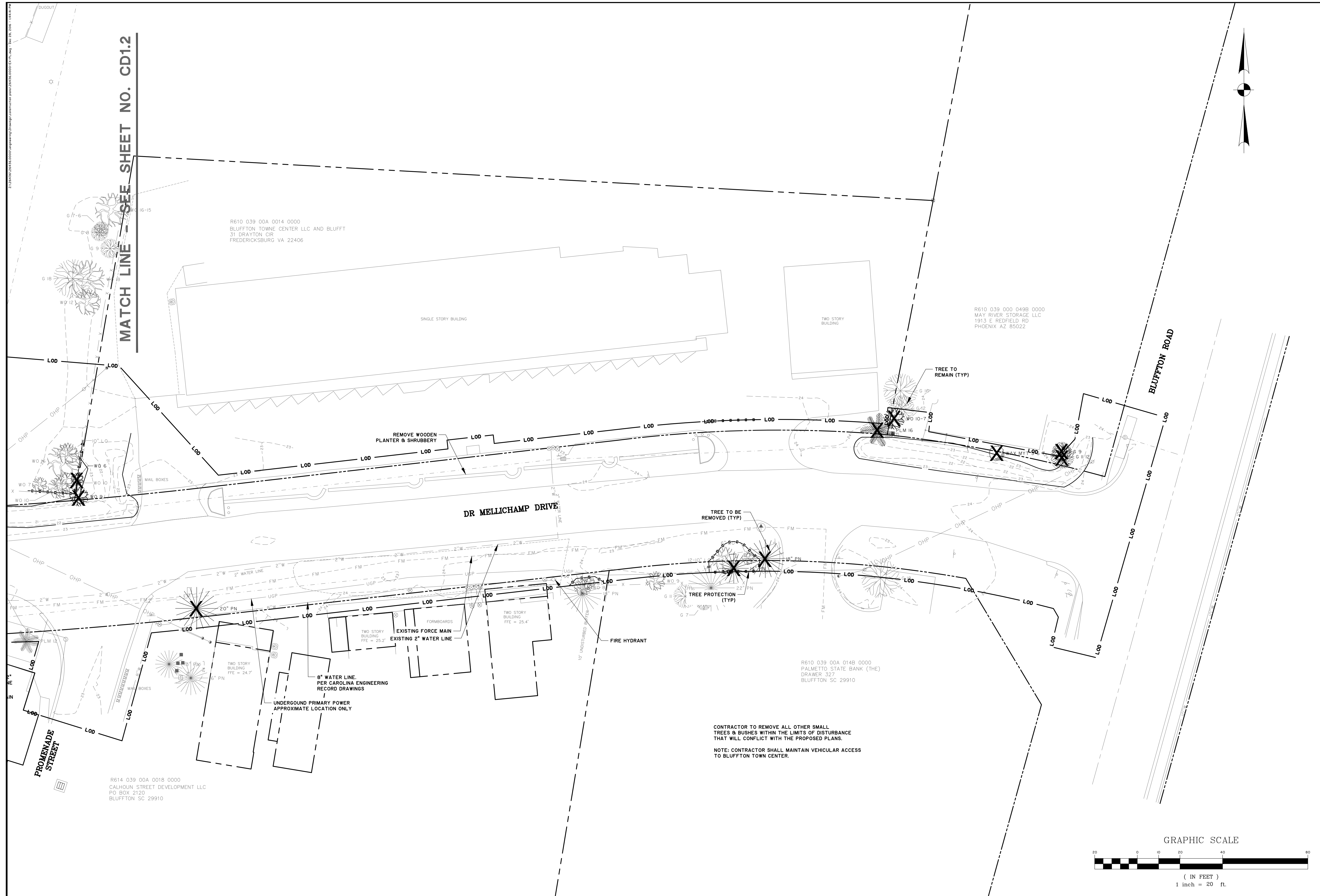
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**DR. MELLICHAMP DRIVE**  
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DATE: 12/27/16  
DRAWN: WNS  
DESIGNED: JPM  
REVIEWED: MSH  
APPROVED: MSH  
SCALE: 1" = 20'

**EX1.2**

**BID SET - NOT FOR CONSTRUCTION**



MATCH LINE - SEE SHEET NO. CD1.2

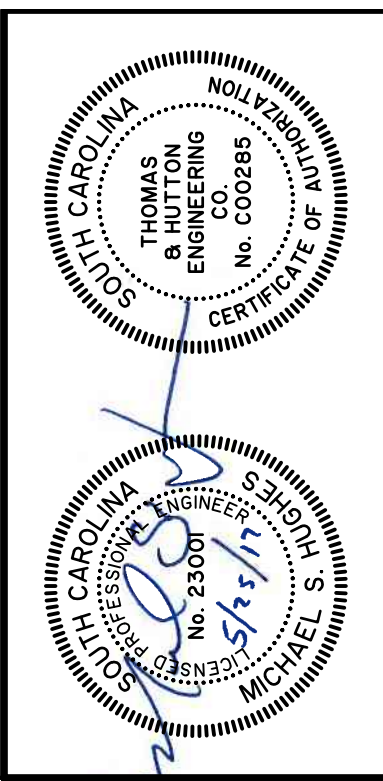
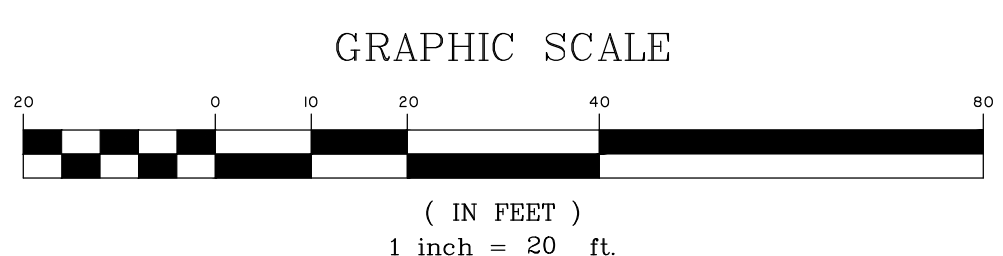
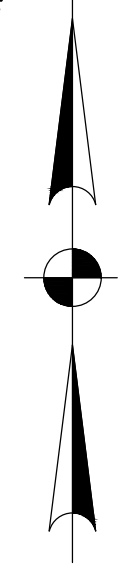
R610 039 00A 0014 0000  
BLUFFTON TOWNE CENTER LLC AND BLUFFT  
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FREDERICKSBURG VA 22406

R610 039 000 049B 0000  
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DRAWER 327  
BLUFFTON SC 29910

R614 039 00A 0018 0000  
CALHOUN STREET DEVELOPMENT LLC  
PO BOX 2120  
BLUFFTON SC 29910

CONTRACTOR TO REMOVE ALL OTHER SMALL  
TREES & BUSHES WITHIN THE LIMITS OF DISTURBANCE  
THAT WILL CONFLICT WITH THE PROPOSED PLANS.  
NOTE: CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS  
TO BLUFFTON TOWN CENTER.



NO.	REVISIONS	BY	DATE

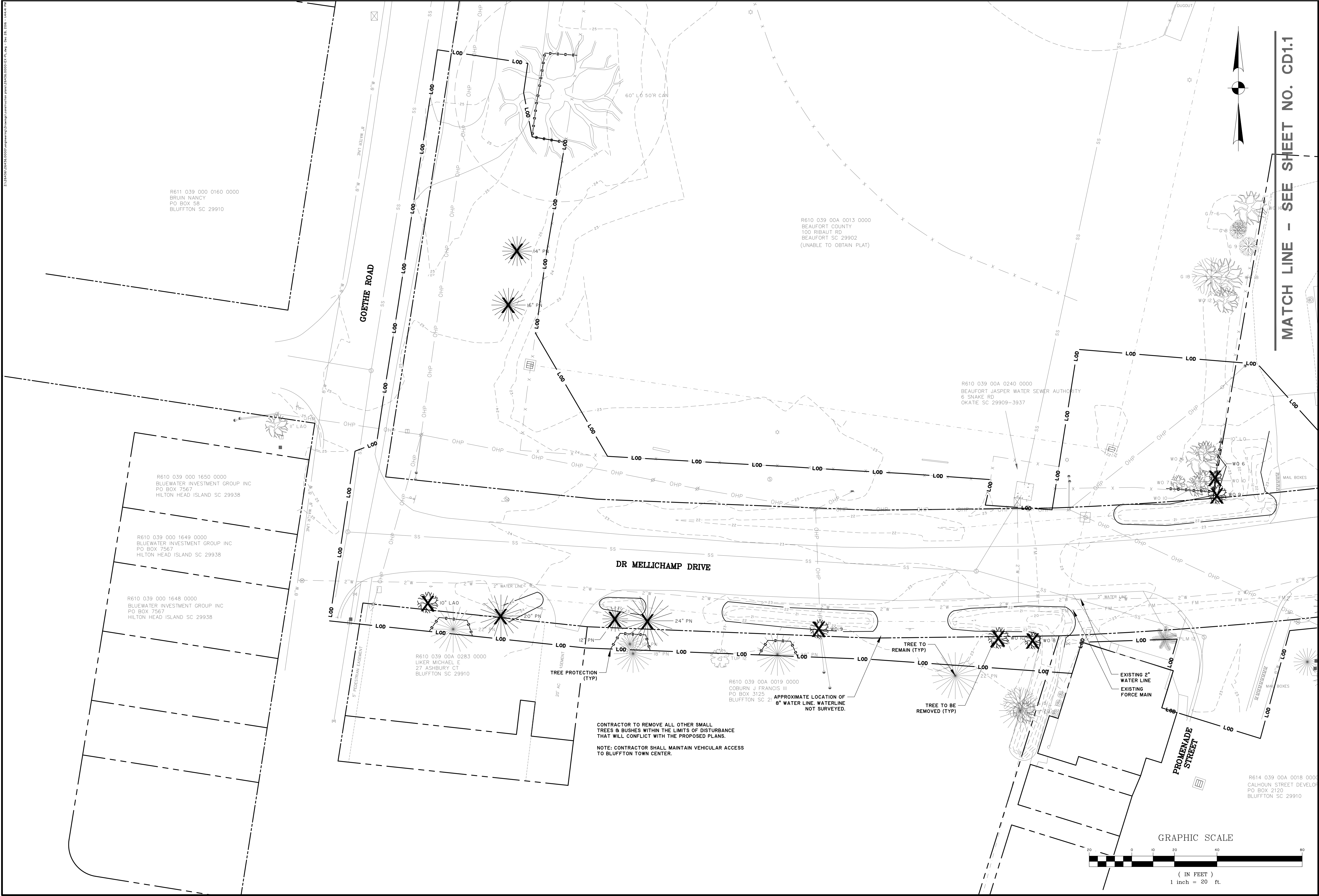
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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
**LAND CLEARING & TREE PRESERVATION PLAN**

JOB NO:	J-26436.0000
DATE:	12/27/16
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DESIGNED:	JPM
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SCALE:	1" = 20'

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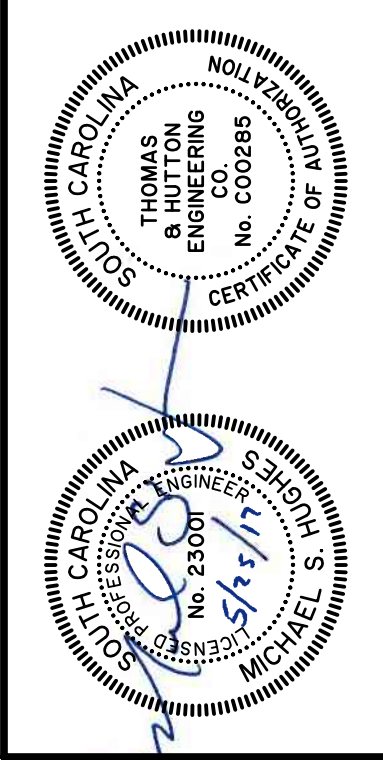
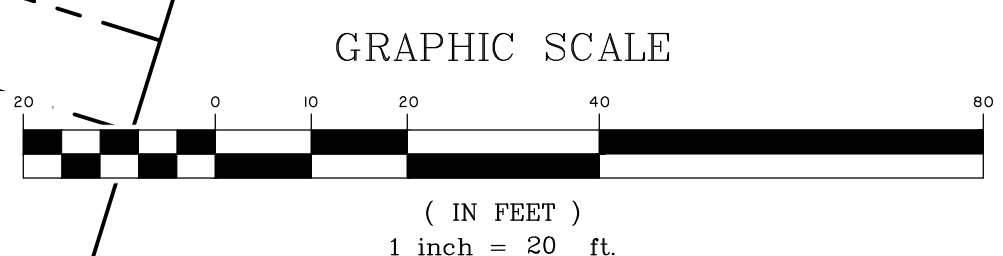
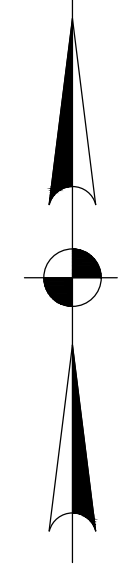
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 CALHOUN STREET DEVELOP  
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 BLUFFTON SC 29910

CONTRACTOR TO REMOVE ALL OTHER SMALL TREES & BUSHES WITHIN THE LIMITS OF DISTURBANCE THAT WILL CONFLICT WITH THE PROPOSED PLANS.  
 NOTE: CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO BLUFFTON TOWN CENTER.

MATCH LINE - SEE SHEET NO. CD1.1



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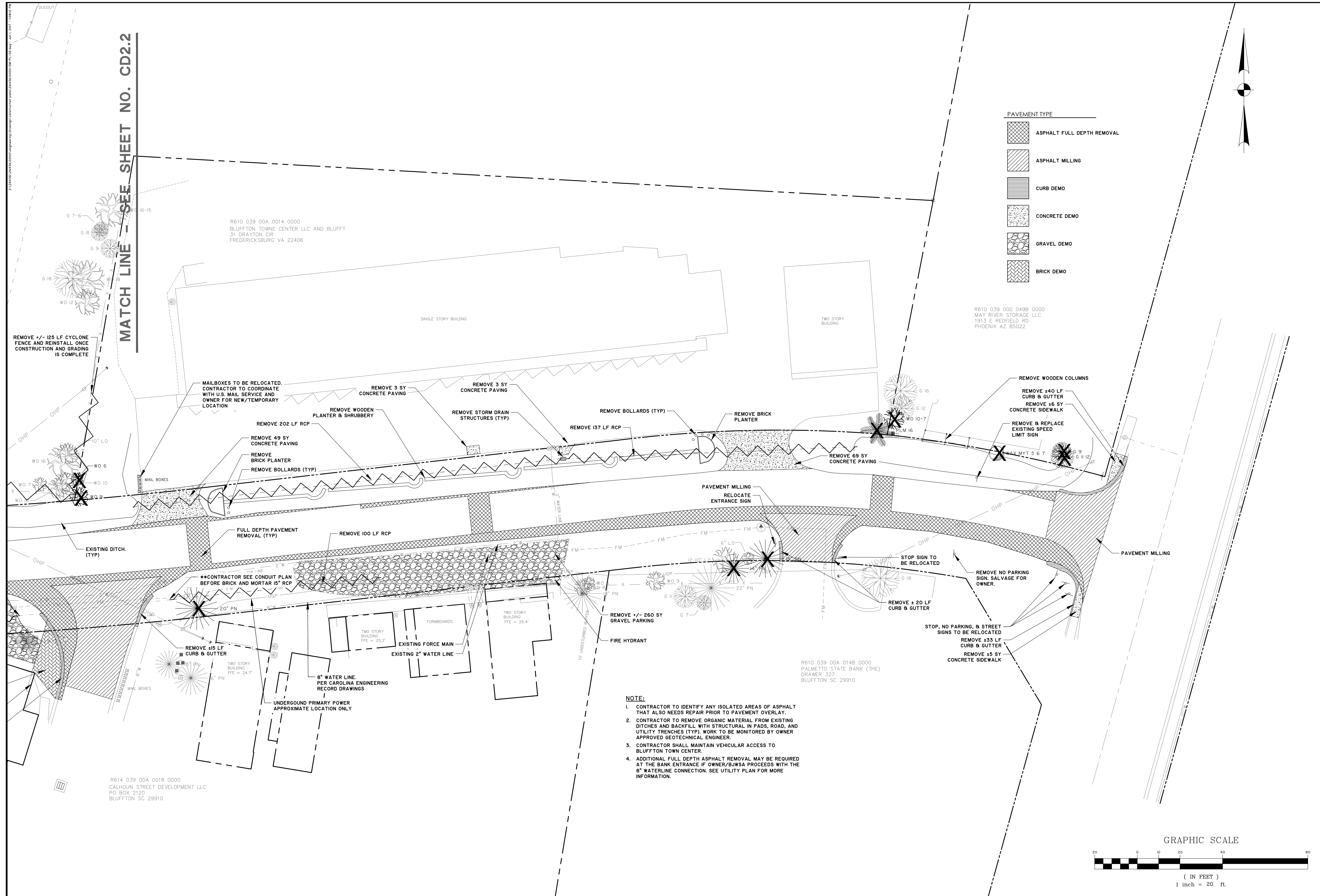
DR. MELLICHAMP DRIVE

**LAND CLEARING & TREE PRESERVATION PLAN**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**CD1.2**

BID SET - NOT FOR CONSTRUCTION

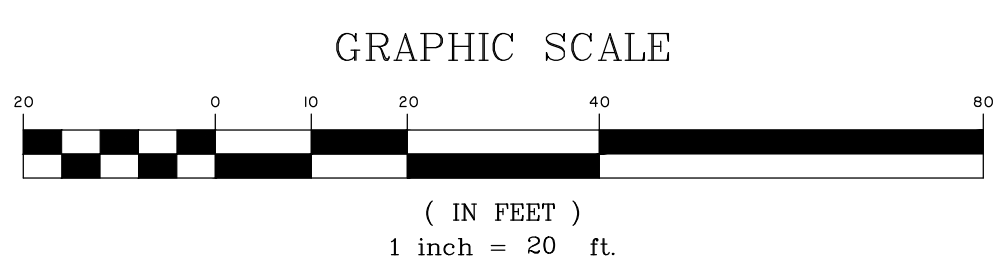


MATCH LINE - SEE SHEET NO. CD2.2

**PAVEMENT TYPE**

- ASPHALT FULL DEPTH REMOVAL
- ASPHALT MILLING
- CURB DEMO
- CONCRETE DEMO
- GRAVEL DEMO
- BRICK DEMO

- NOTE:**
1. CONTRACTOR TO IDENTIFY ANY ISOLATED AREAS OF ASPHALT THAT ALSO NEEDS REPAIR PRIOR TO PAVEMENT OVERLAY.
  2. CONTRACTOR TO REMOVE ORGANIC MATERIAL FROM EXISTING DITCHES AND BACKFILL WITH STRUCTURAL IN FADS, ROAD, AND UTILITY TRENCHES (TYP). WORK TO BE MONITORED BY OWNER APPROVED GEOTECHNICAL ENGINEER.
  3. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO BLUFFTON TOWN CENTER.
  4. ADDITIONAL FULL DEPTH ASPHALT REMOVAL MAY BE REQUIRED AT THE BANK ENTRANCE IF OWNER/BLWSA PROCEEDS WITH THE 8" WATERLINE CONNECTION. SEE UTILITY PLAN FOR MORE INFORMATION.



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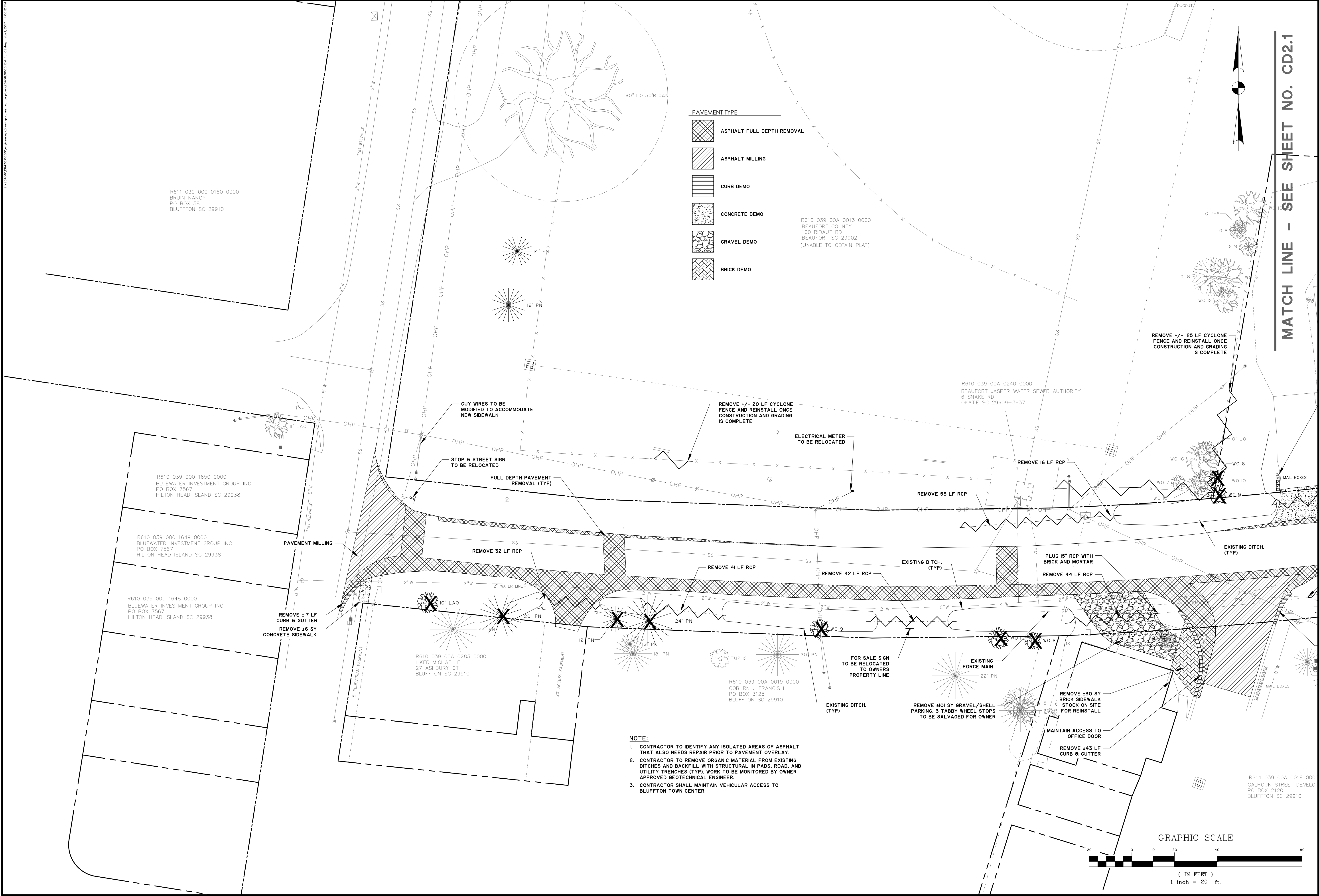
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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
 DR. MELLICHAMP DRIVE  
 DEMOLITION PLAN

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

CD2.1

BID SET - NOT FOR CONSTRUCTION



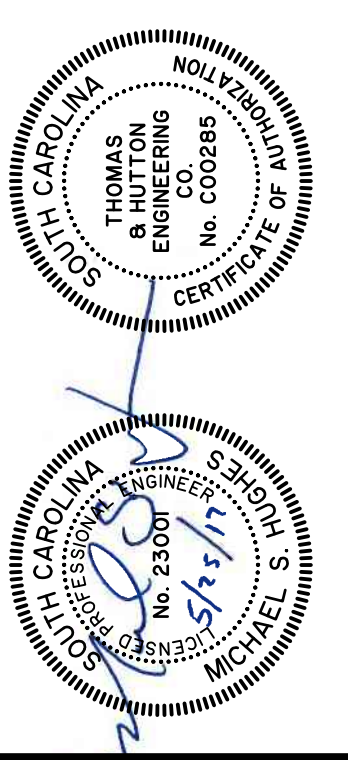
PAVEMENT TYPE

	ASPHALT FULL DEPTH REMOVAL
	ASPHALT MILLING
	CURB DEMO
	CONCRETE DEMO
	GRAVEL DEMO
	BRICK DEMO

R610 039 00A 0013 0000  
 BEAUFORT COUNTY  
 100 RIBAUT RD  
 BEAUFORT SC 29902  
 (UNABLE TO OBTAIN PLAT)

- NOTE:**
- CONTRACTOR TO IDENTIFY ANY ISOLATED AREAS OF ASPHALT THAT ALSO NEEDS REPAIR PRIOR TO PAVEMENT OVERLAY.
  - CONTRACTOR TO REMOVE ORGANIC MATERIAL FROM EXISTING DITCHES AND BACKFILL WITH STRUCTURAL IN PADS, ROAD, AND UTILITY TRENCHES (TYP). WORK TO BE MONITORED BY OWNER APPROVED GEOTECHNICAL ENGINEER.
  - CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO BLUFFTON TOWN CENTER.

MATCH LINE - SEE SHEET NO. CD2.1



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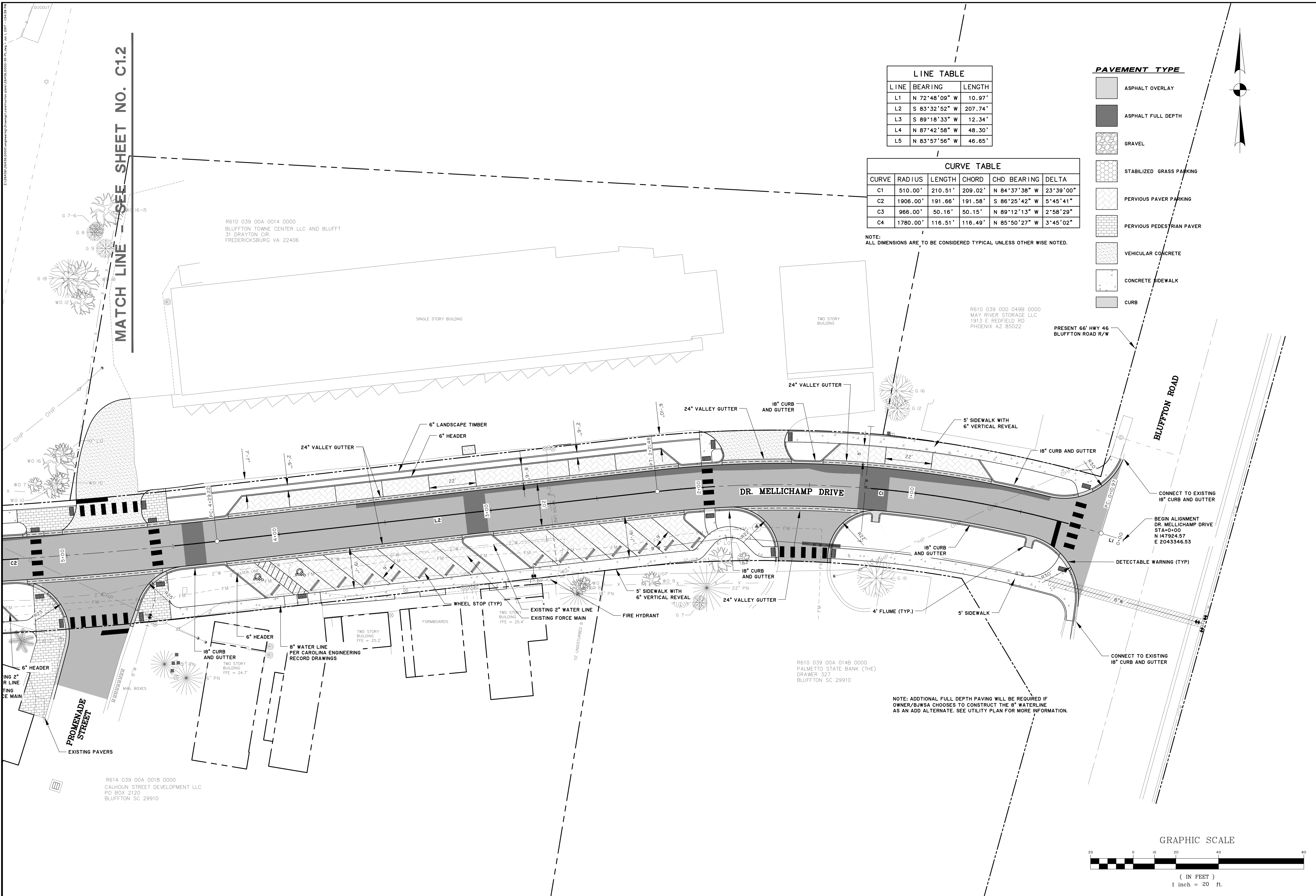
**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
 DR. MELLICHAMP DRIVE  
 DEMOLITION PLAN

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**CD2.2**

BID SET - NOT FOR CONSTRUCTION





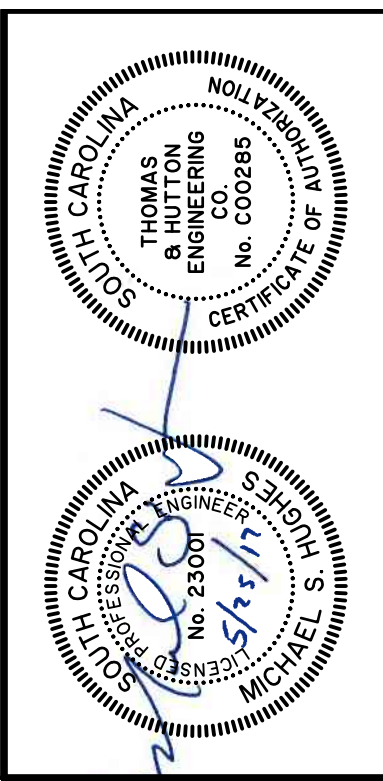
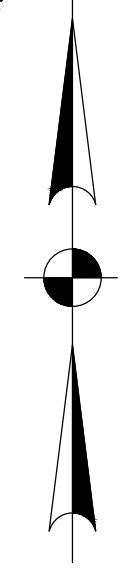
MATCH LINE - SEE SHEET NO. C1.2

LINE	BEARING	LENGTH
L1	N 72°48'09" W	10.97'
L2	S 83°32'52" W	207.74'
L3	S 89°18'33" W	12.34'
L4	N 87°42'58" W	48.30'
L5	N 83°57'56" W	46.65'

CURVE	RADIUS	LENGTH	CHORD	CHD BEARING	DELTA
C1	510.00'	210.51'	209.02'	N 84°37'38" W	23°39'00"
C2	1906.00'	191.66'	191.58'	S 86°25'42" W	5°45'41"
C3	966.00'	50.16'	50.15'	N 89°12'13" W	2°58'29"
C4	1780.00'	116.51'	116.49'	N 85°50'27" W	3°45'02"

NOTE: ALL DIMENSIONS ARE TO BE CONSIDERED TYPICAL UNLESS OTHERWISE NOTED.

- PAVEMENT TYPE**
- ASPHALT OVERLAY
  - ASPHALT FULL DEPTH
  - GRAVEL
  - STABILIZED GRASS PARKING
  - PERVIOUS PAVER PARKING
  - PERVIOUS PEDESTRIAN PAVER
  - VEHICULAR CONCRETE
  - CONCRETE SIDEWALK
  - CURB



NO.	REVISIONS	BY	DATE

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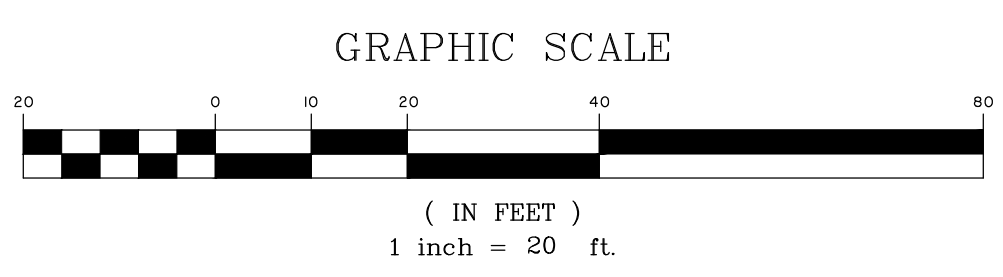
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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA

**DR. MELlichAMP DRIVE**

**SITE LAYOUT PLAN**

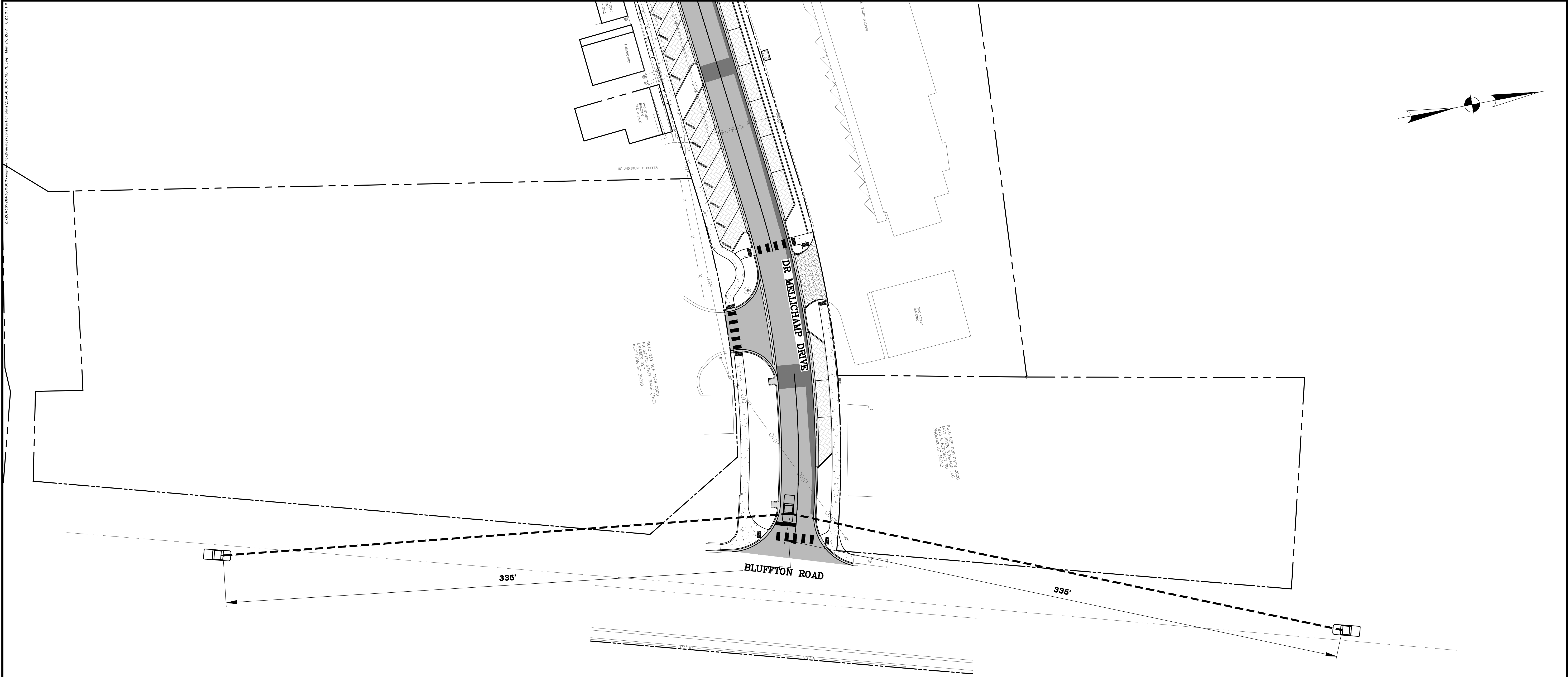
JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'



**C1.1**

BID SET - NOT FOR CONSTRUCTION

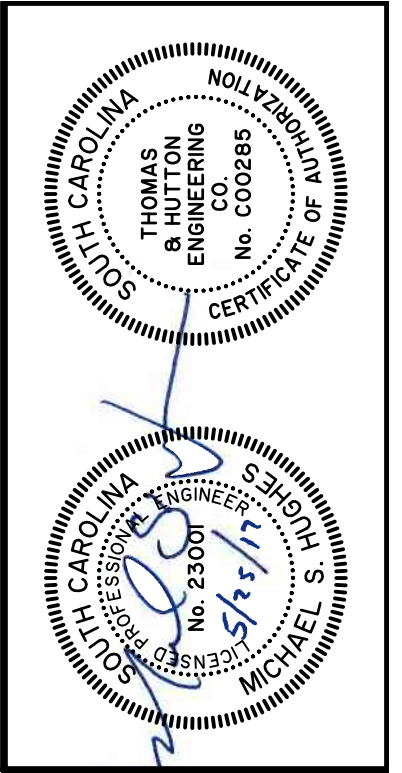
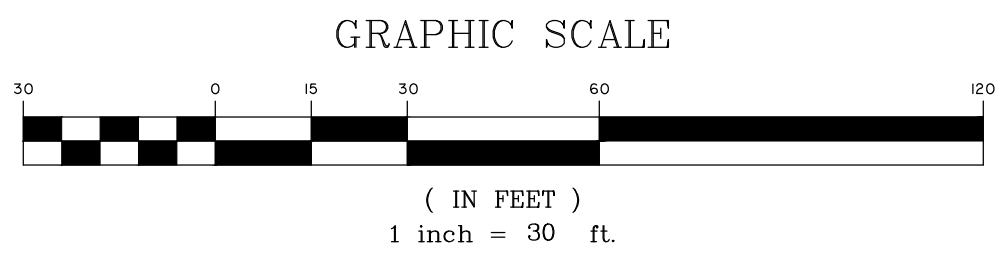




**NOTES**

SIGHT DISTANCE IS BASED ON TABLE 7-12: INTERSECTION SIGHT DISTANCE, VEHICLES APPROACHING FROM THE LEFT AND FOR VEHICLES APPROACHING FROM THE RIGHT ON A TWO-LANE HIGHWAY OR STREET ONLY.

1. DESIGN SPEED IS 30 MPH.
2. DESIGN VEHICLE IS PASSENGER CAR.
3. REQUIRED SIGHT DISTANCE FOR VEHICLE APPROACHING FROM THE LEFT OR RIGHT IS 335'.



NO.	REVISIONS	BY	DATE

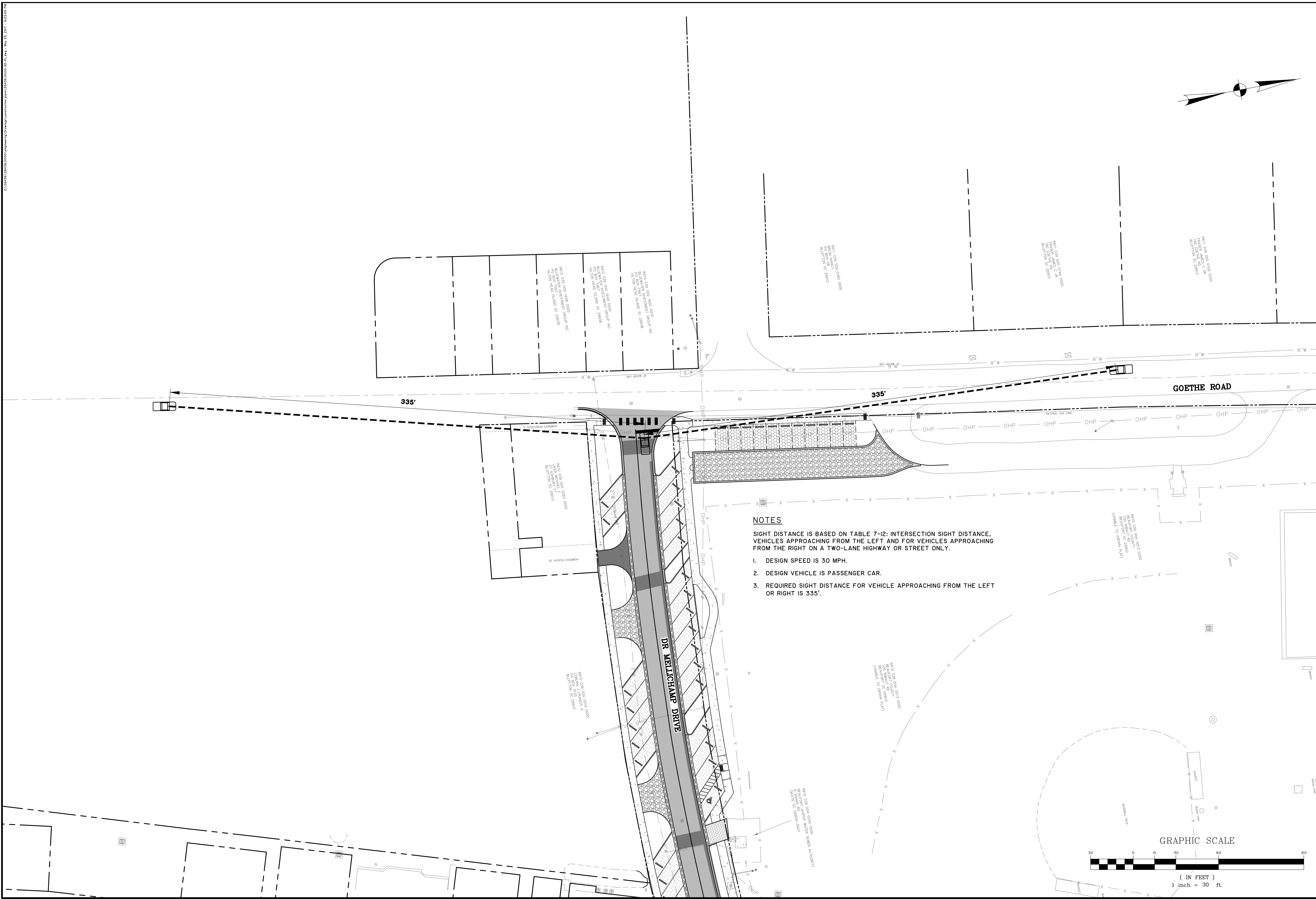
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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
**SIGHT DISTANCE PLAN**

JOB NO: J-26436.0000  
 DATE: 12/27/16  
 DRAWN: WNS  
 DESIGNED: JPM  
 REVIEWED: MSH  
 APPROVED: MSH  
 SCALE: 1" = 30'

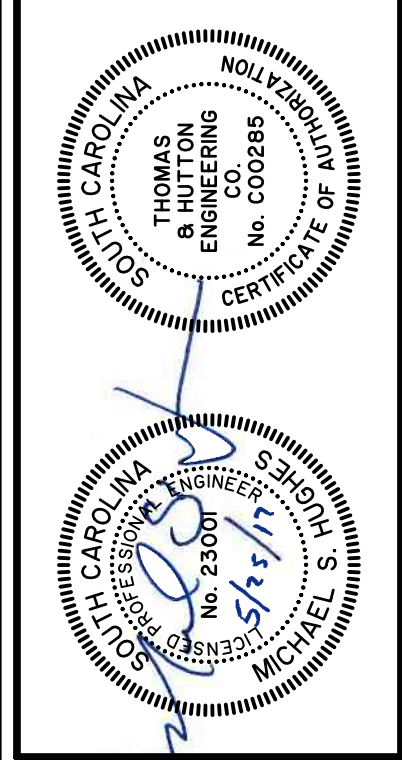
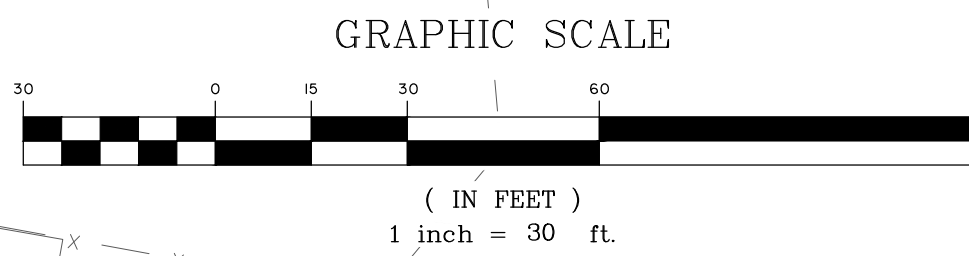
**C2.1**

BID SET - NOT FOR CONSTRUCTION



**NOTES**

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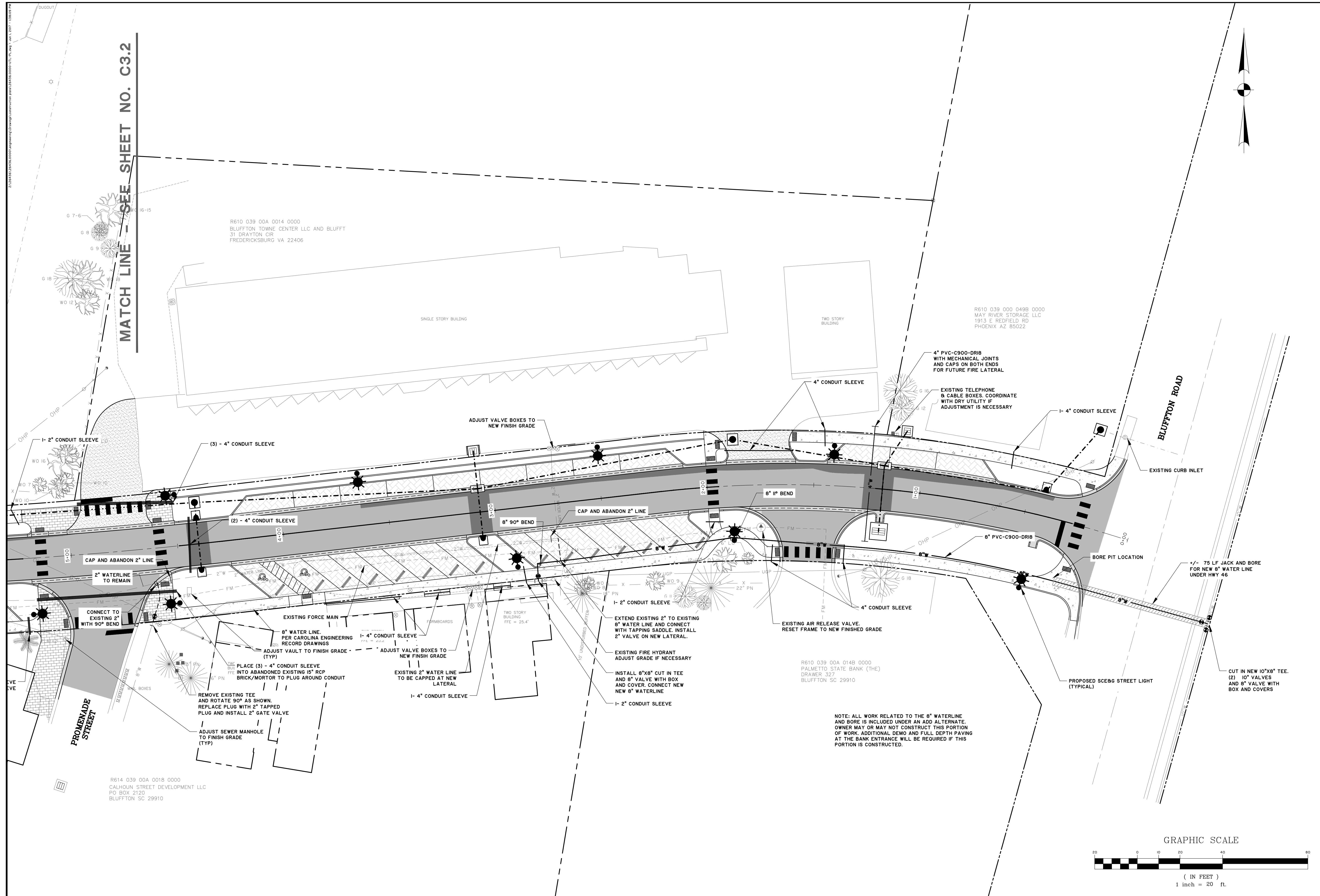
**DR. MELLICHAMP DRIVE**

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DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 30'

**C2.2**

BID SET - NOT FOR CONSTRUCTION



25.048458,34.850000,Engineering,Utility,Bluffton,SC,29910,UTL\_P1.dwg, Jan 4, 2017 - 13:09 PM

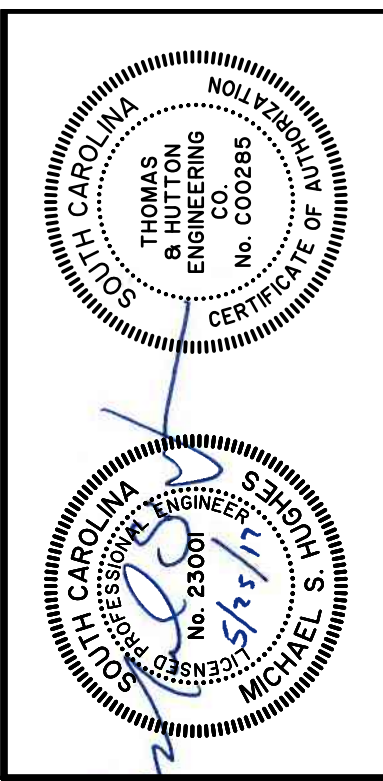
**MATCH LINE - SEE SHEET NO. C3.2**

R610 039 00A 0014 0000  
 BLUFFTON TOWNE CENTER LLC AND BLUFFT  
 31 DRAYTON CIR  
 FREDERICKSBURG VA 22406

R610 039 000 049B 0000  
 MAY RIVER STORAGE LLC  
 1913 E REDFIELD RD  
 PHOENIX AZ 85022

R610 039 00A 014B 0000  
 PALMETTO STATE BANK (THE)  
 DRAWER 327  
 BLUFFTON SC 29910

R614 039 00A 0018 0000  
 CALHOUN STREET DEVELOPMENT LLC  
 PO BOX 2120  
 BLUFFTON SC 29910



NO.	REVISIONS	BY	DATE

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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA

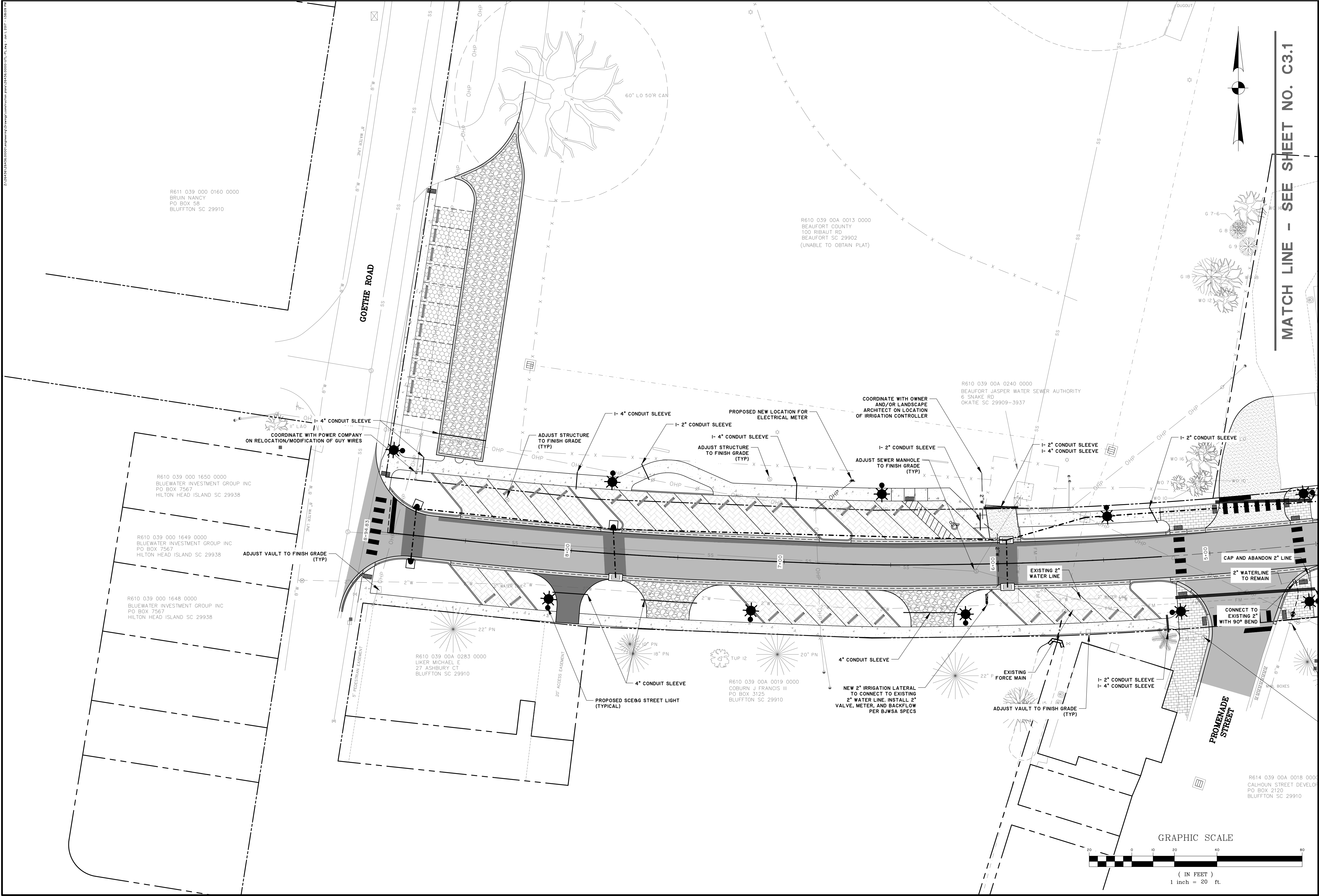
**DR. MELLICHAMP DRIVE**

**UTILITY PLAN**

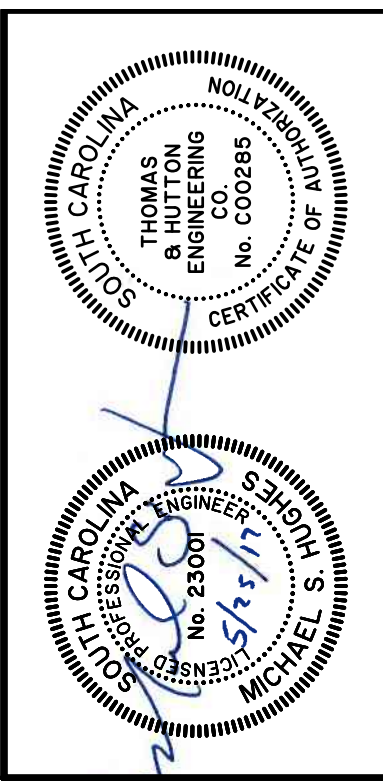
JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**C3.1**

**BID SET - NOT FOR CONSTRUCTION**



MATCH LINE - SEE SHEET NO. C3.1



NO.	REVISIONS	BY	DATE

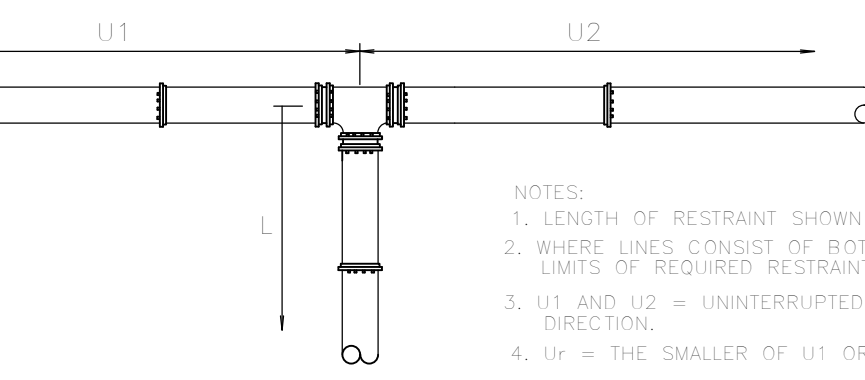
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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
 DR. MELLICHAMP DRIVE  
 UTILITY PLAN

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**C3.2**

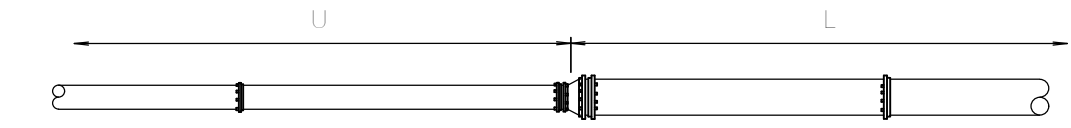
BID SET - NOT FOR CONSTRUCTION



MINIMUM RESTRAINED LENGTH (L)  
\* RESTRAIN AT TEE ONLY.

PIPE	5'-10"	11'-20"	21'-35"	> 35'
4X4	43	28	4	*
6X4	38	17	*	*
8X4	64	49	25	*
8X6	34	6	*	*
8X8	61	42	10	*
8X8	87	72	48	12
10X4	29	*	*	*
10X6	58	34	*	*
10X8	84	66	35	*
10X10	106	91	67	31
12X4	24	*	*	*
12X6	54	26	*	*
12X8	82	60	23	*
12X10	104	86	57	13
12X12	126	112	87	51

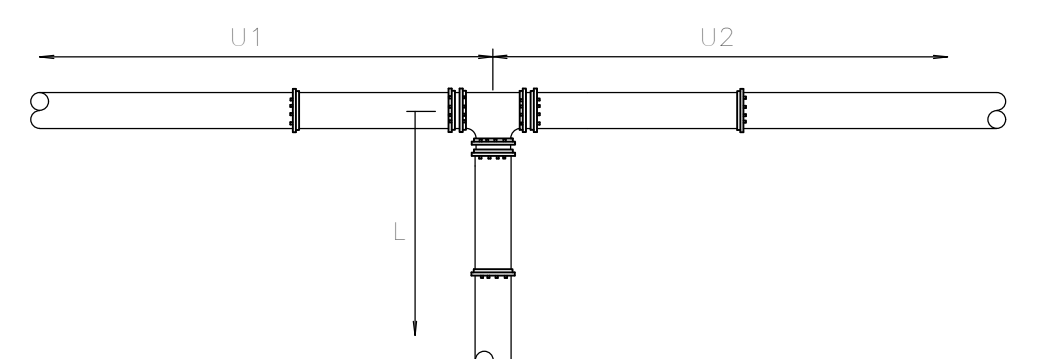
**TEE RESTRAINT (PVC LINE)**  
NOT TO SCALE



MINIMUM RESTRAINED LENGTH (L)  
NOT TO SCALE

REDUCER	U	L
6X4	30	21
6X4	72	38
6X6	29	22
10X4	123	51
10X6	63	38
10X8	26	21
12X4	186	84
12X6	106	53
12X8	59	39
12X10	26	21
16X6	214	79
16X8	141	68
16X10	91	56
16X12	54	40
20X10	174	84
20X12	123	71
20X16	51	40
24X12	207	97
24X16	113	72
24X20	48	39

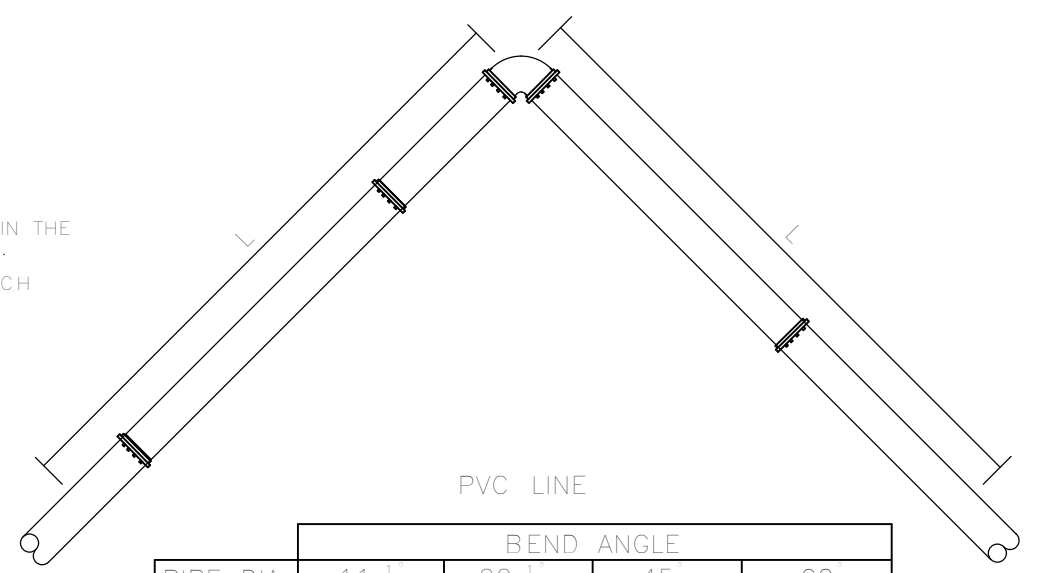
**REDUCER RESTRAINT**  
NOT TO SCALE



MINIMUM RESTRAINED LENGTH (L)  
\* RESTRAIN AT TEE ONLY.

PIPE	5'-10"	11'-20"	21'-35"	> 35'
4X4	43	28	4	*
6X4	38	17	*	*
8X4	64	49	25	*
8X6	34	6	*	*
8X8	61	42	10	*
8X8	87	72	48	12
10X4	29	*	*	*
10X6	58	34	*	*
10X8	84	66	35	*
10X10	106	91	67	31
12X4	24	*	*	*
12X6	54	26	*	*
12X8	82	60	23	*
12X10	104	86	57	13
12X12	126	112	87	51

**TEE RESTRAINT (DUCTILE IRON LINE)**  
NOT TO SCALE



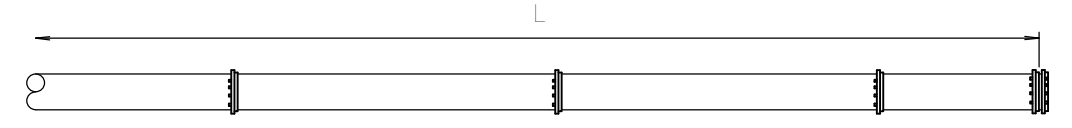
MINIMUM RESTRAINED LENGTH (L)  
NOT TO SCALE

PIPE DIA.	11"	22"	45"	90"
4	3	6	12	29
6	4	8	17	41
8	5	11	22	53
10	6	13	26	64
12	7	15	31	75

MINIMUM RESTRAINED LENGTH (L)  
NOT TO SCALE

PIPE DIA.	11"	22"	45"	90"
4	2	4	8	20
6	3	6	12	28
8	4	7	15	36
10	4	9	18	43
12	5	10	21	51
16	6	13	27	65
20	8	16	33	79
24	9	18	38	92

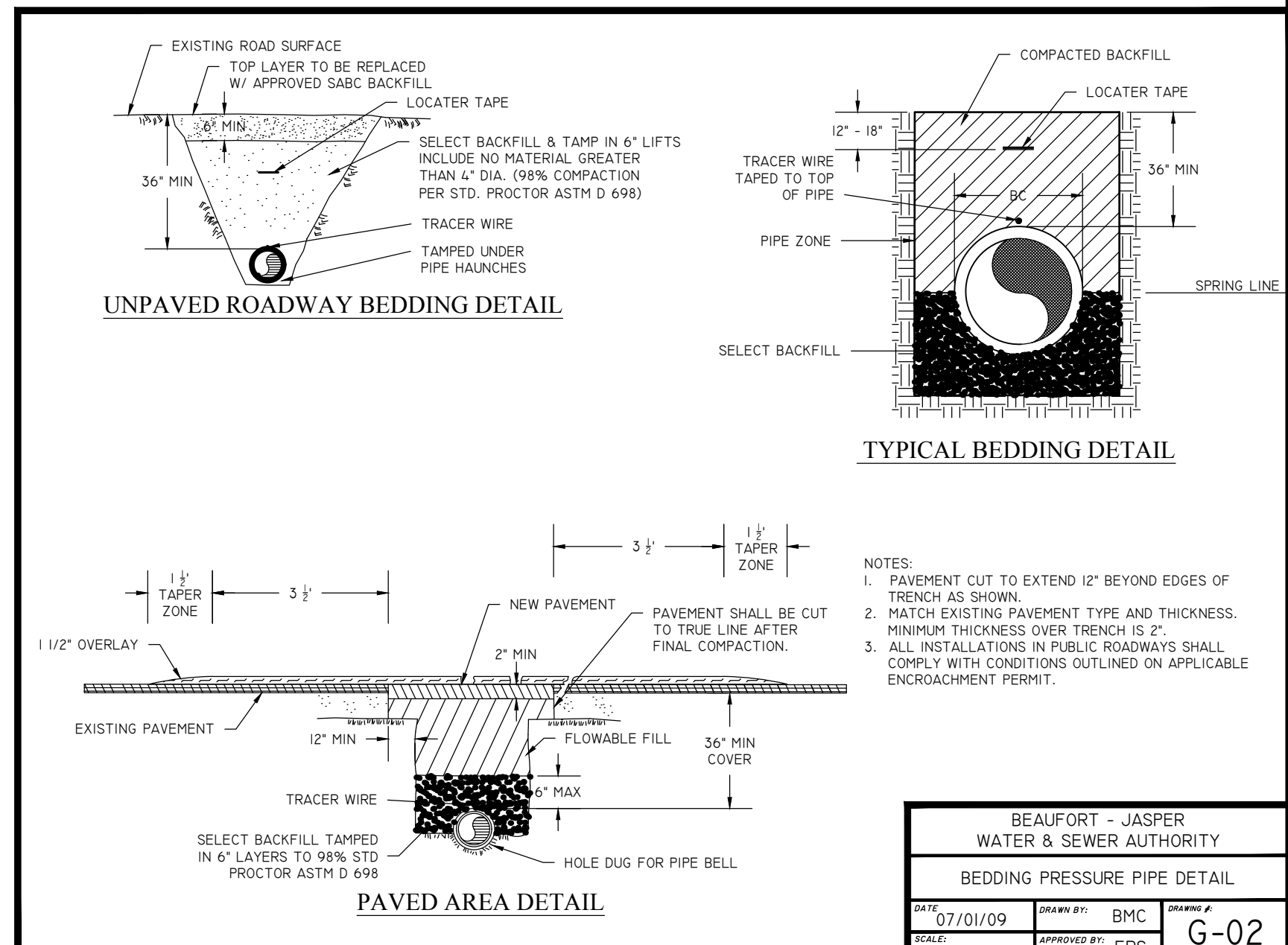
**HORIZONTAL BEND RESTRAINT**  
NOT TO SCALE



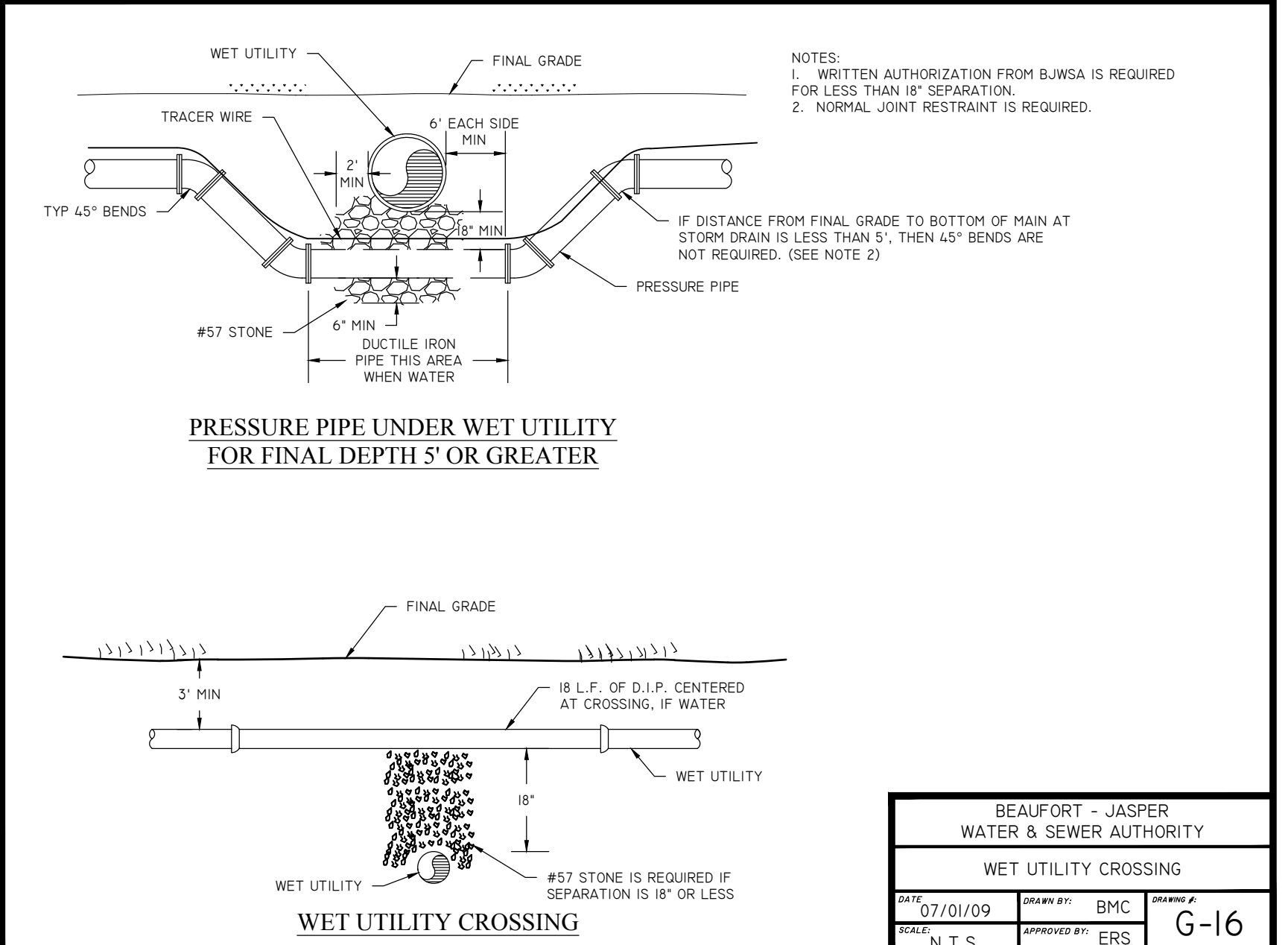
MINIMUM RESTRAINED LENGTH (L)  
NOT TO SCALE

PIPE DIA.	L
4	28
6	40
8	52
10	62
12	73
16	94
20	114
24	132

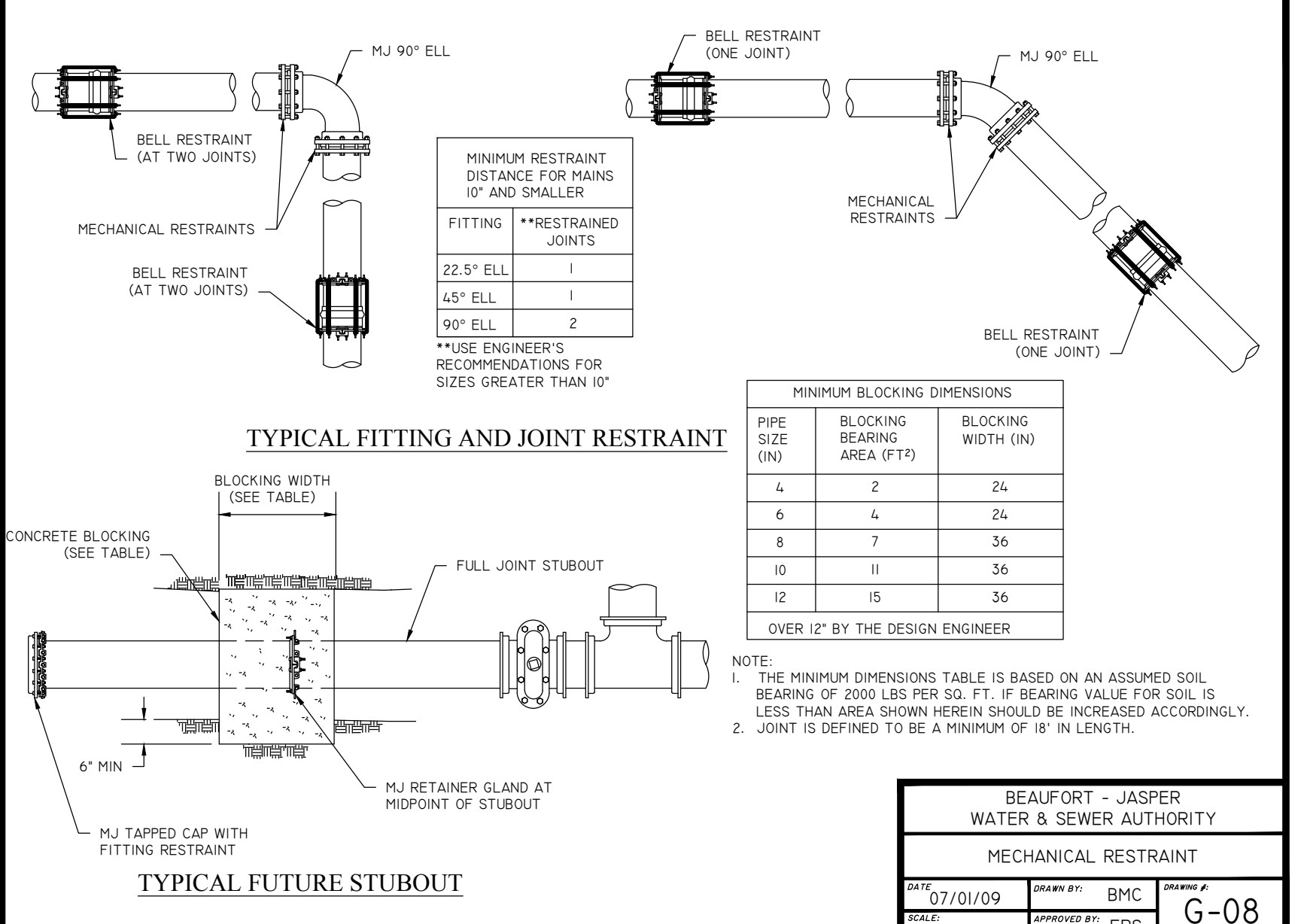
**DEAD END RESTRAINT**  
NOT TO SCALE



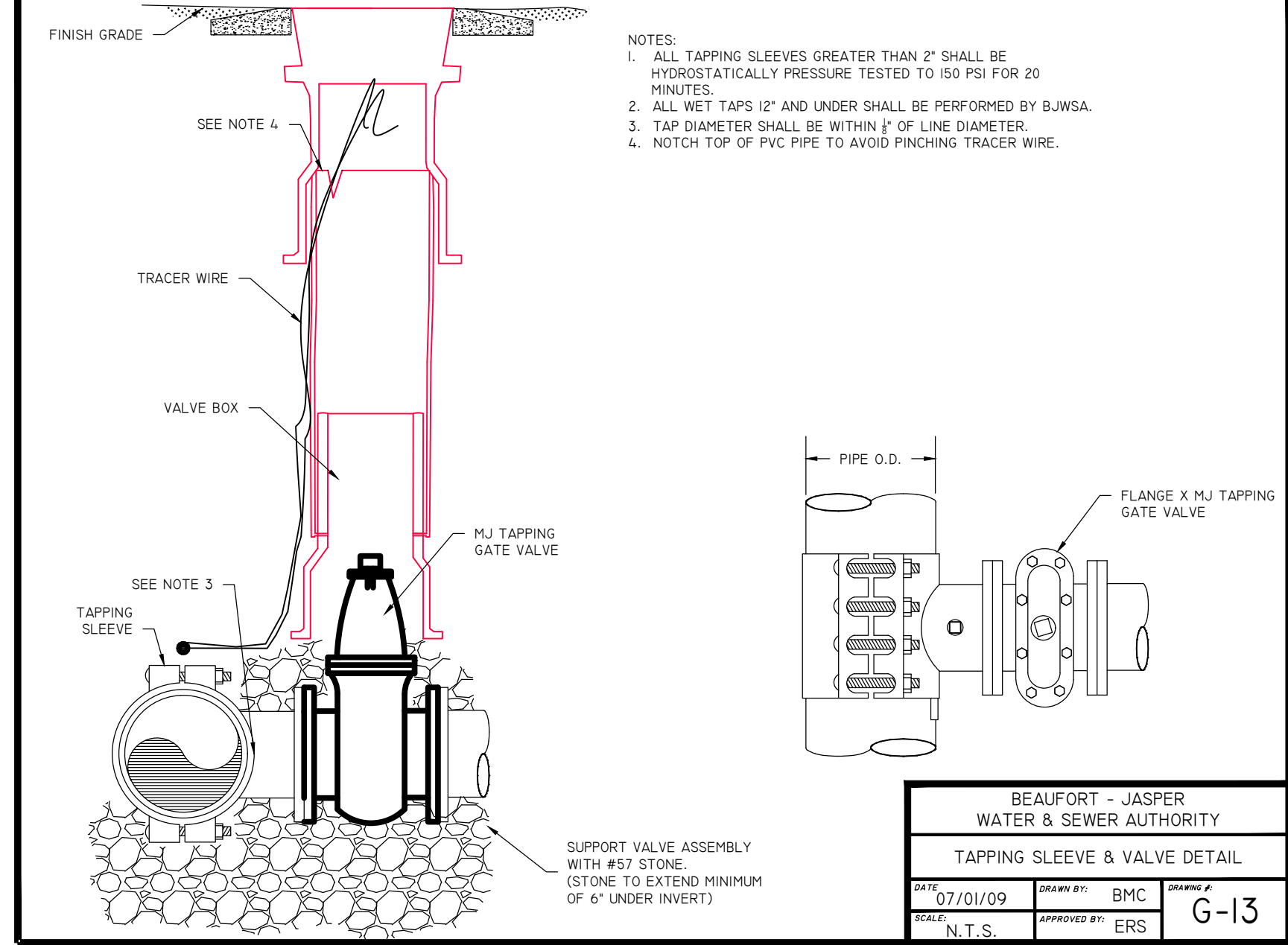
BEAUFORT - JASPER WATER & SEWER AUTHORITY  
BEDDING PRESSURE PIPE DETAIL  
DATE: 07/01/09 DRAWN BY: BMC CHECKED BY: ERS  
SCALE: N.T.S. APPROVED BY: ERS PROJECT # G-02



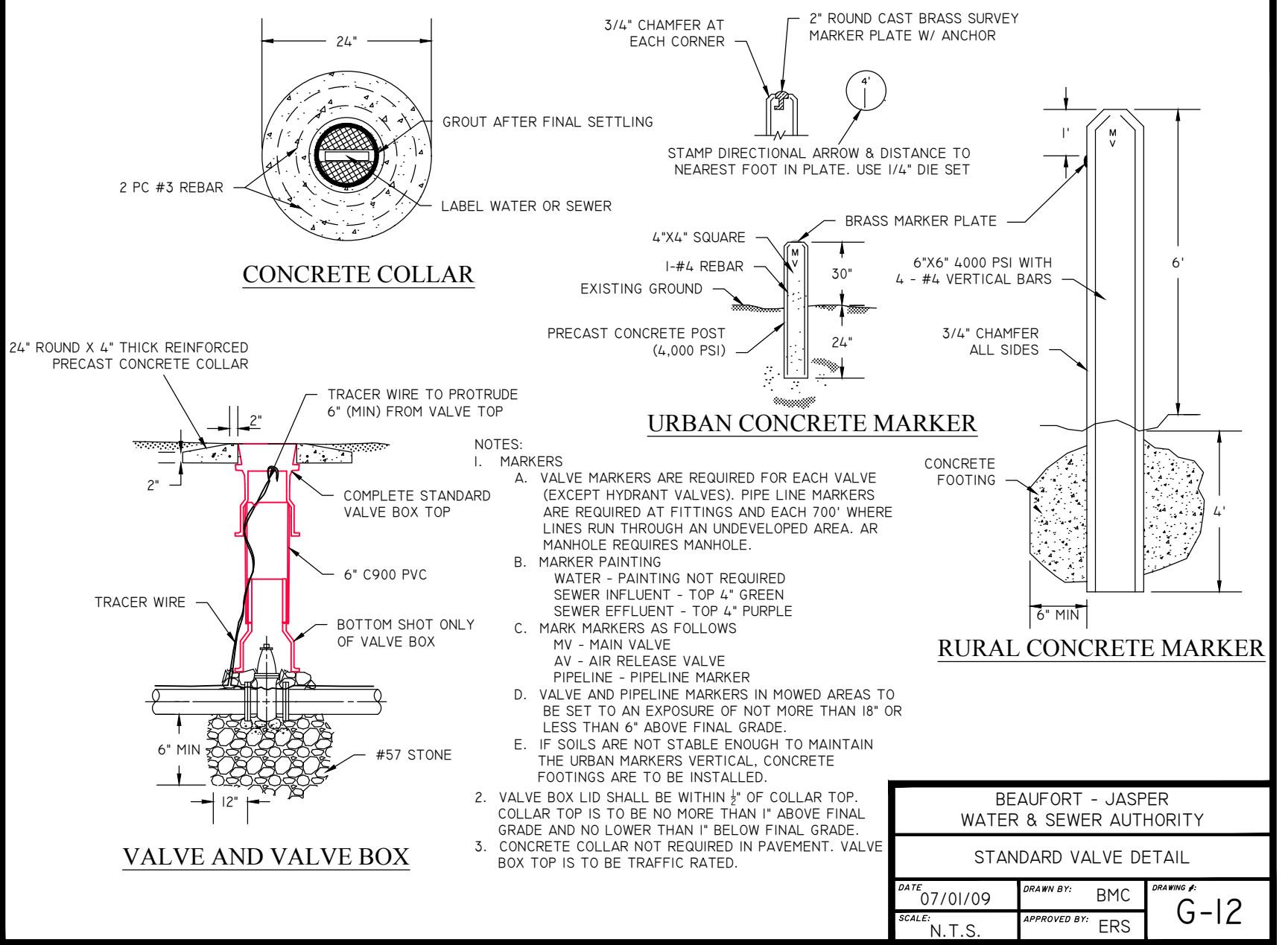
BEAUFORT - JASPER WATER & SEWER AUTHORITY  
WET UTILITY CROSSING  
DATE: 07/01/09 DRAWN BY: BMC CHECKED BY: ERS  
SCALE: N.T.S. APPROVED BY: ERS PROJECT # G-16



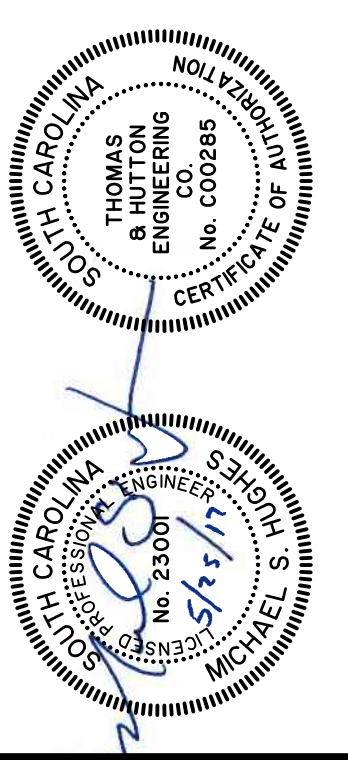
BEAUFORT - JASPER WATER & SEWER AUTHORITY  
MECHANICAL RESTRAINT  
DATE: 07/01/09 DRAWN BY: BMC CHECKED BY: ERS  
SCALE: N.T.S. APPROVED BY: ERS PROJECT # G-08



BEAUFORT - JASPER WATER & SEWER AUTHORITY  
TAPPING SLEEVE & VALVE DETAIL  
DATE: 07/01/09 DRAWN BY: BMC CHECKED BY: ERS  
SCALE: N.T.S. APPROVED BY: ERS PROJECT # G-13



BEAUFORT - JASPER WATER & SEWER AUTHORITY  
STANDARD VALVE DETAIL  
DATE: 07/01/09 DRAWN BY: BMC CHECKED BY: ERS  
SCALE: N.T.S. APPROVED BY: ERS PROJECT # G-12



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www.thomasandhutton.com  
Barnwell, GA | Charleston, SC | Myrtle Beach, SC | Wilmington, NC

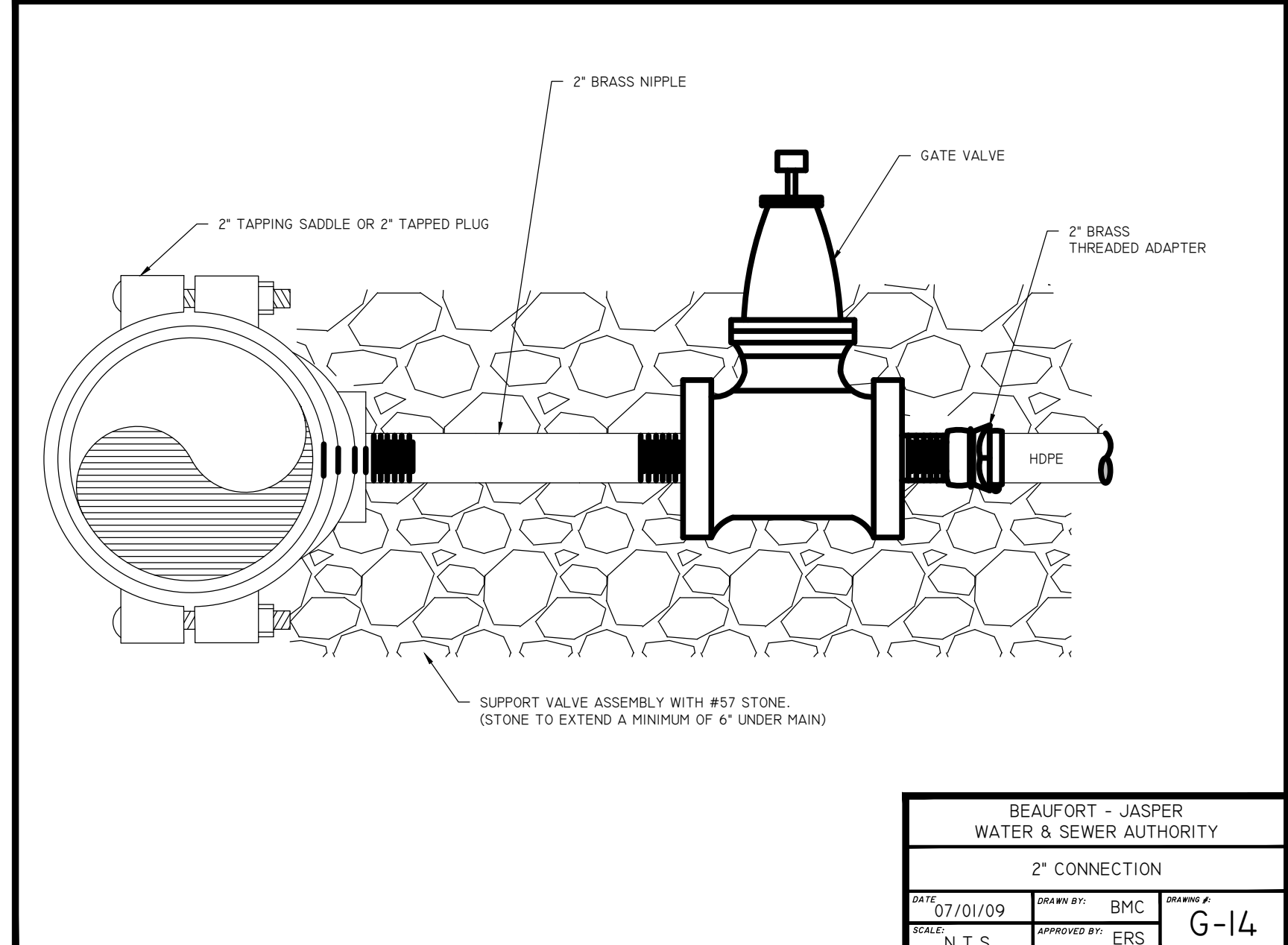
**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
WATER DETAILS

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

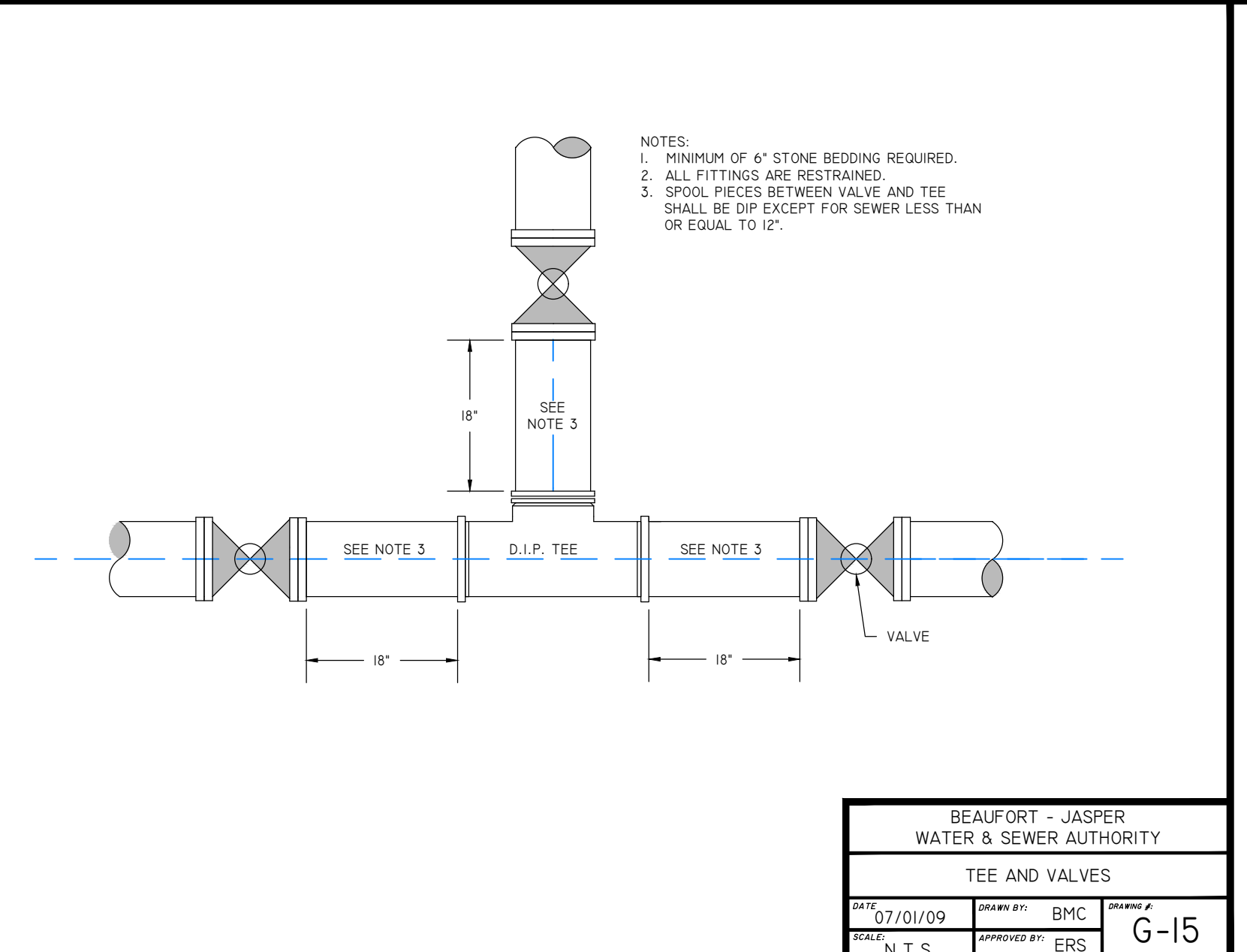
**C3.3**

BID SET - NOT FOR CONSTRUCTION

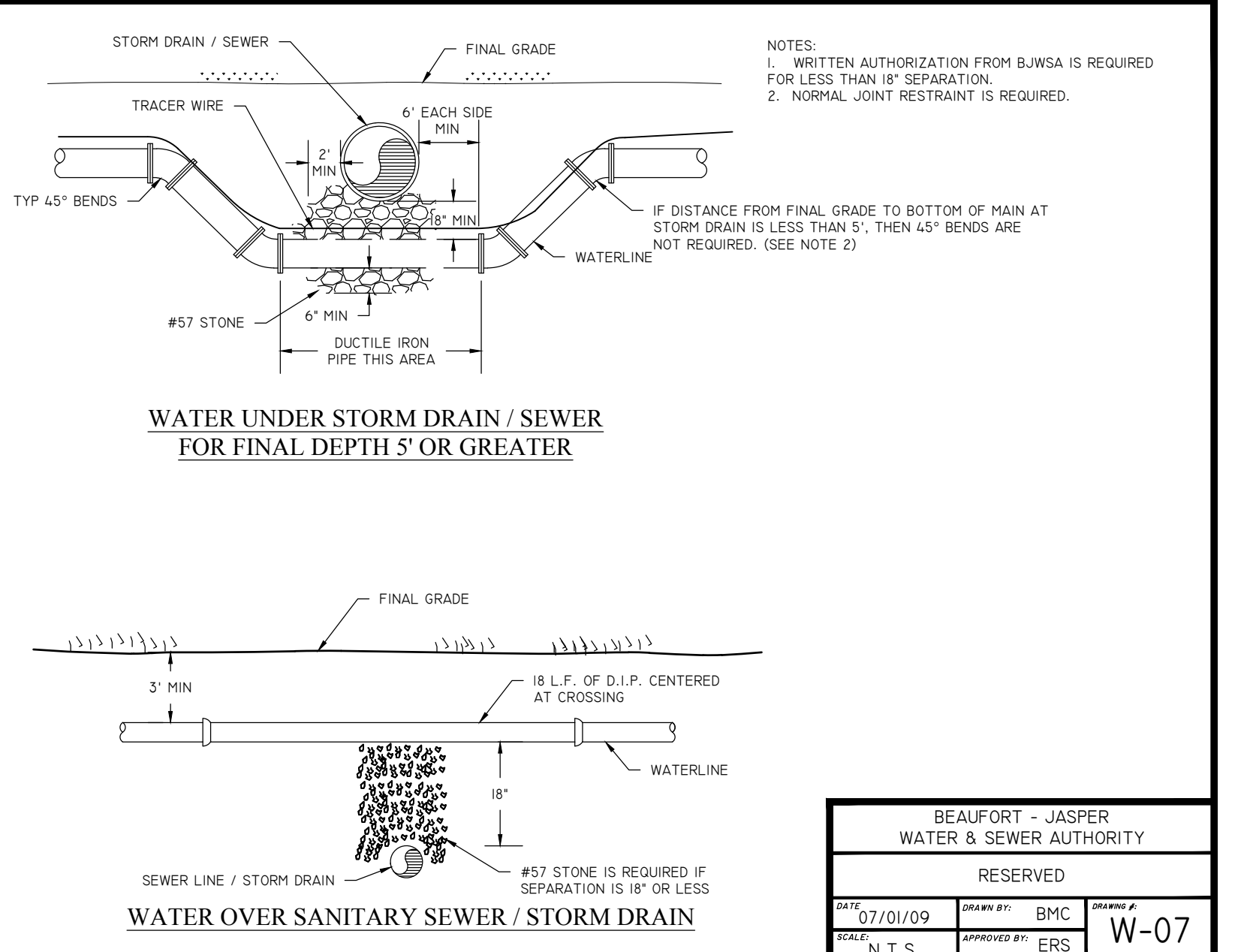
\\p\plm\it\10\Current\Phase\2\100003000\Engineering\Submittals\Construction\Plan\100003000\82\87.dwg - Apr 6, 2011 - 9:33:37 AM



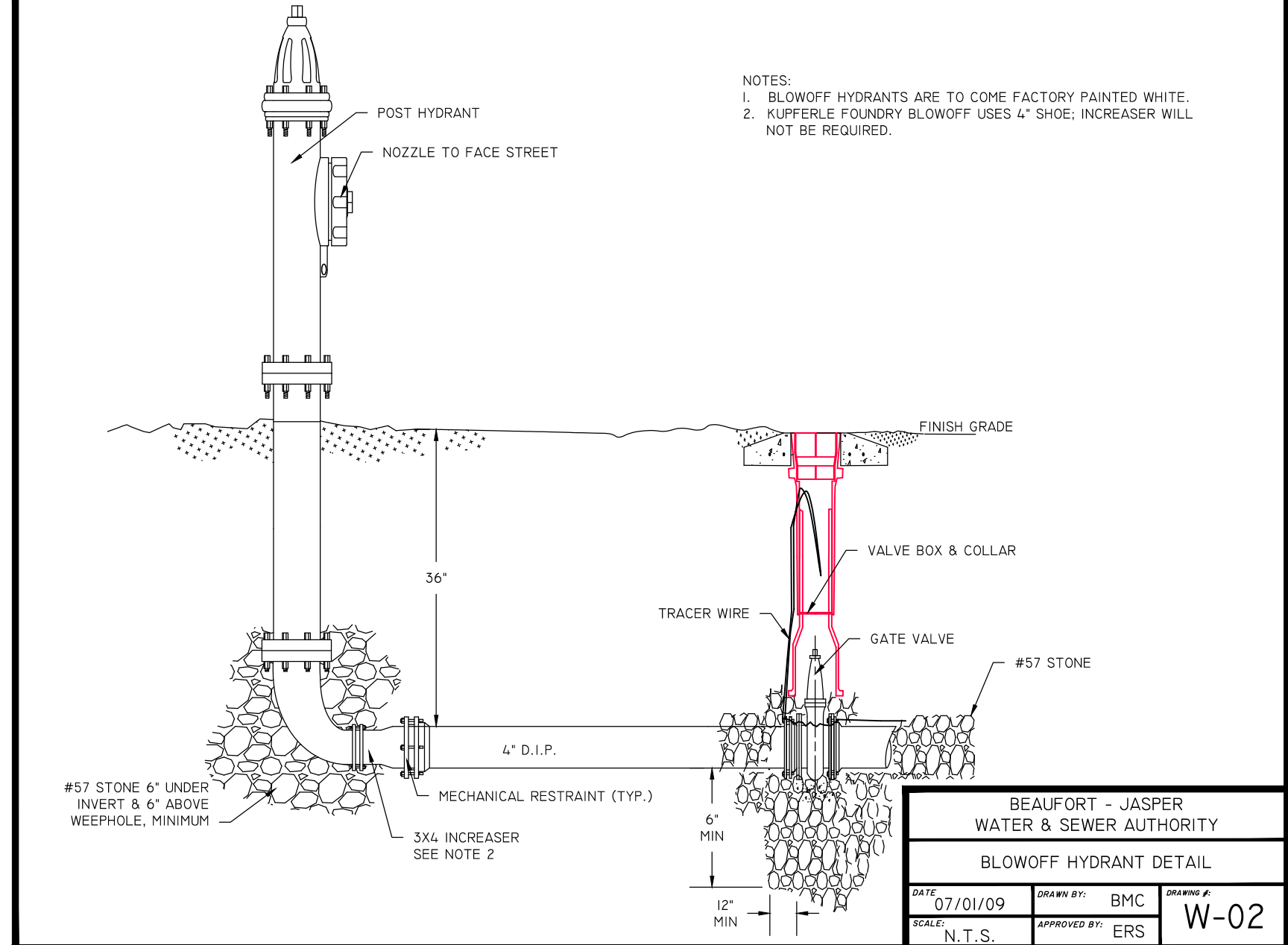
BEAUFORT - JASPER WATER & SEWER AUTHORITY			
2" CONNECTION			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # G-14
SCALE: N.T.S.	APPROVED BY:		



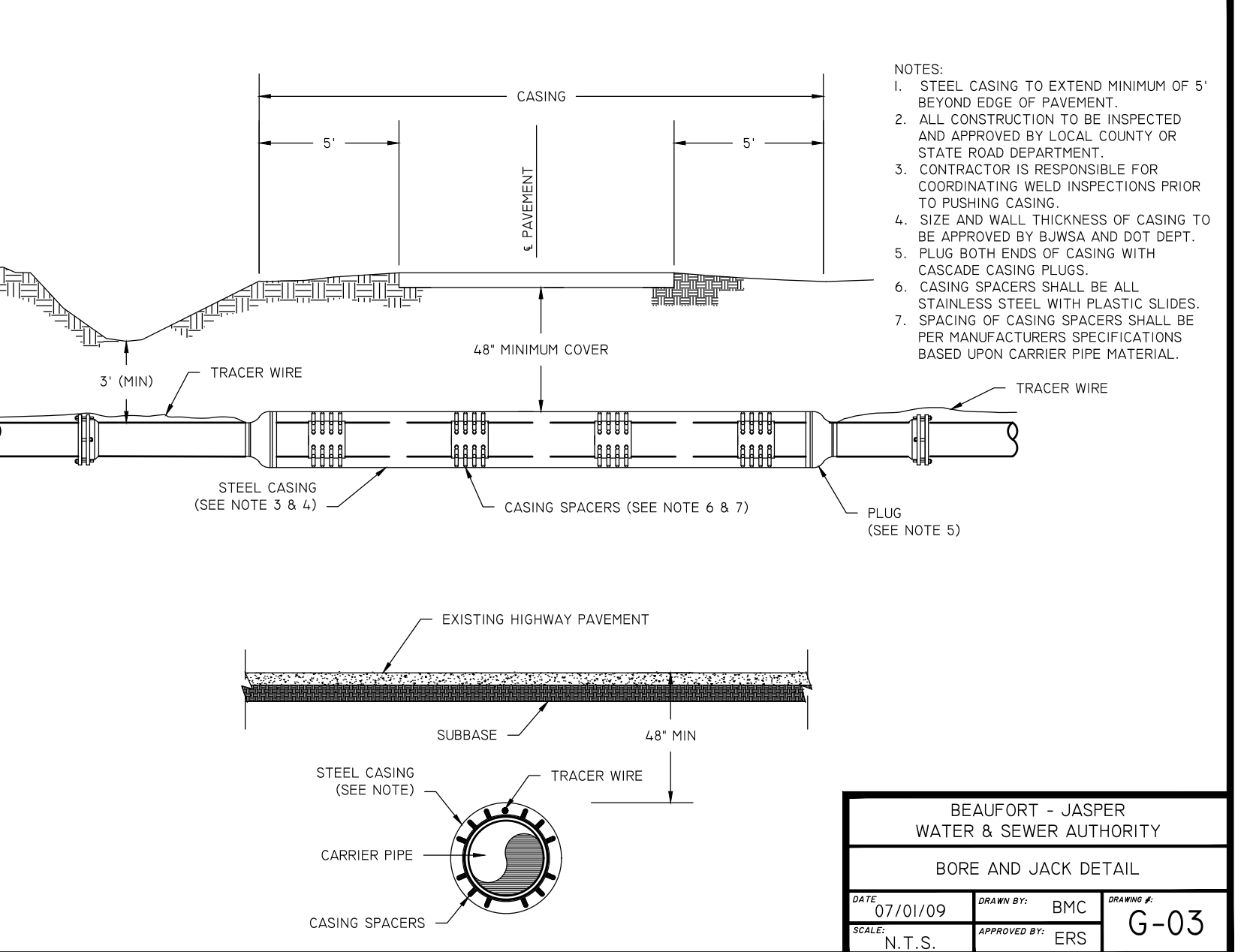
BEAUFORT - JASPER WATER & SEWER AUTHORITY			
TEE AND VALVES			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # G-15
SCALE: N.T.S.	APPROVED BY:		



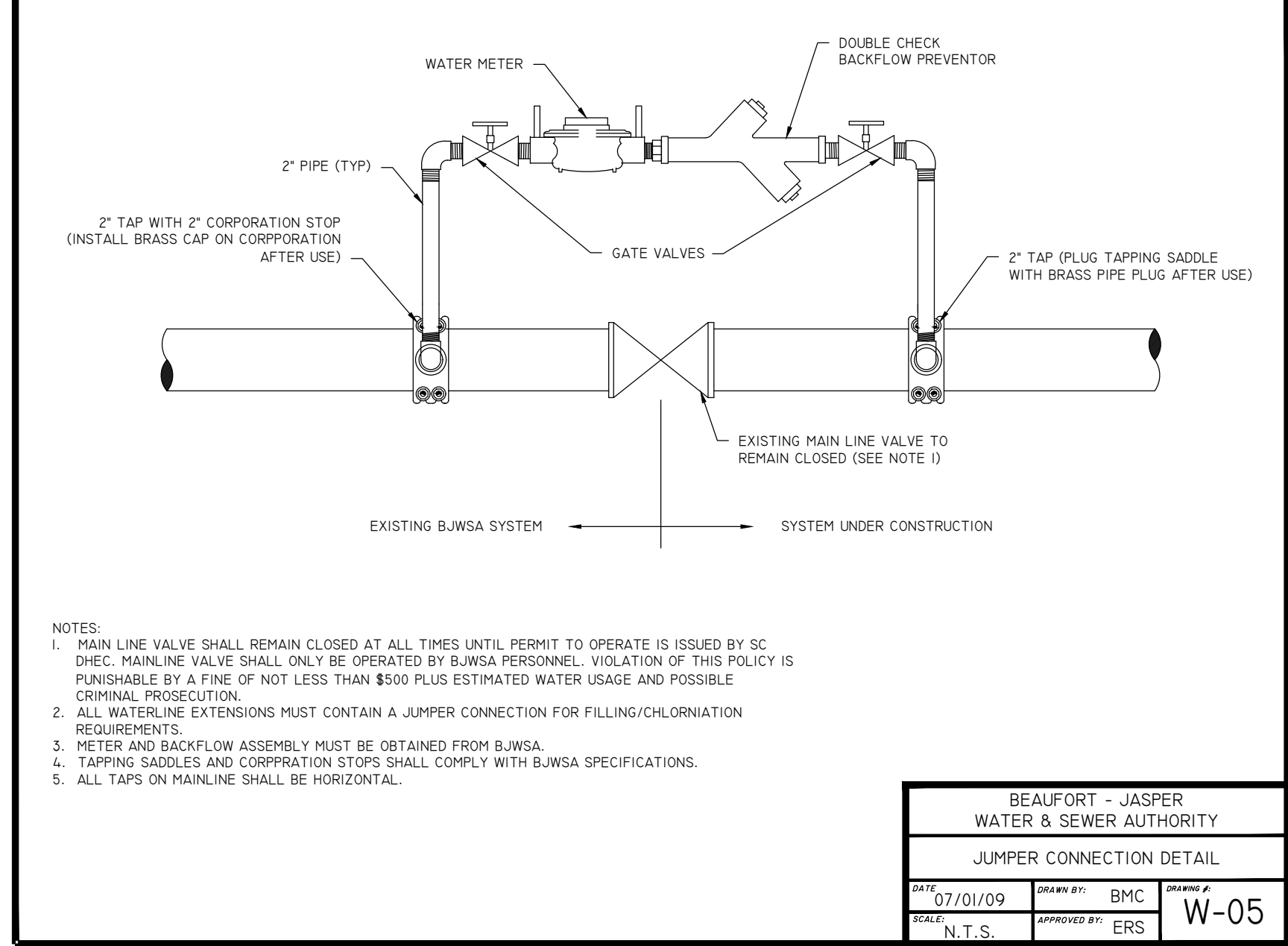
BEAUFORT - JASPER WATER & SEWER AUTHORITY			
RESERVED			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # W-07
SCALE: N.T.S.	APPROVED BY:		



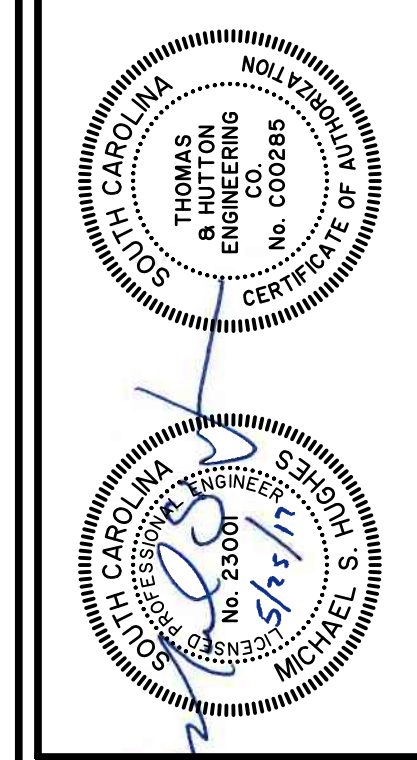
BEAUFORT - JASPER WATER & SEWER AUTHORITY			
BLOWOFF HYDRANT DETAIL			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # W-02
SCALE: N.T.S.	APPROVED BY:		



BEAUFORT - JASPER WATER & SEWER AUTHORITY			
BORE AND JACK DETAIL			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # G-03
SCALE: N.T.S.	APPROVED BY:		



BEAUFORT - JASPER WATER & SEWER AUTHORITY			
JUMPER CONNECTION DETAIL			
DATE: 07/01/09	DRAWN BY: BMC	CHECKED BY: ERS	DESIGN # W-05
SCALE: N.T.S.	APPROVED BY:		



REVISIONS		
NO.	BY	DATE

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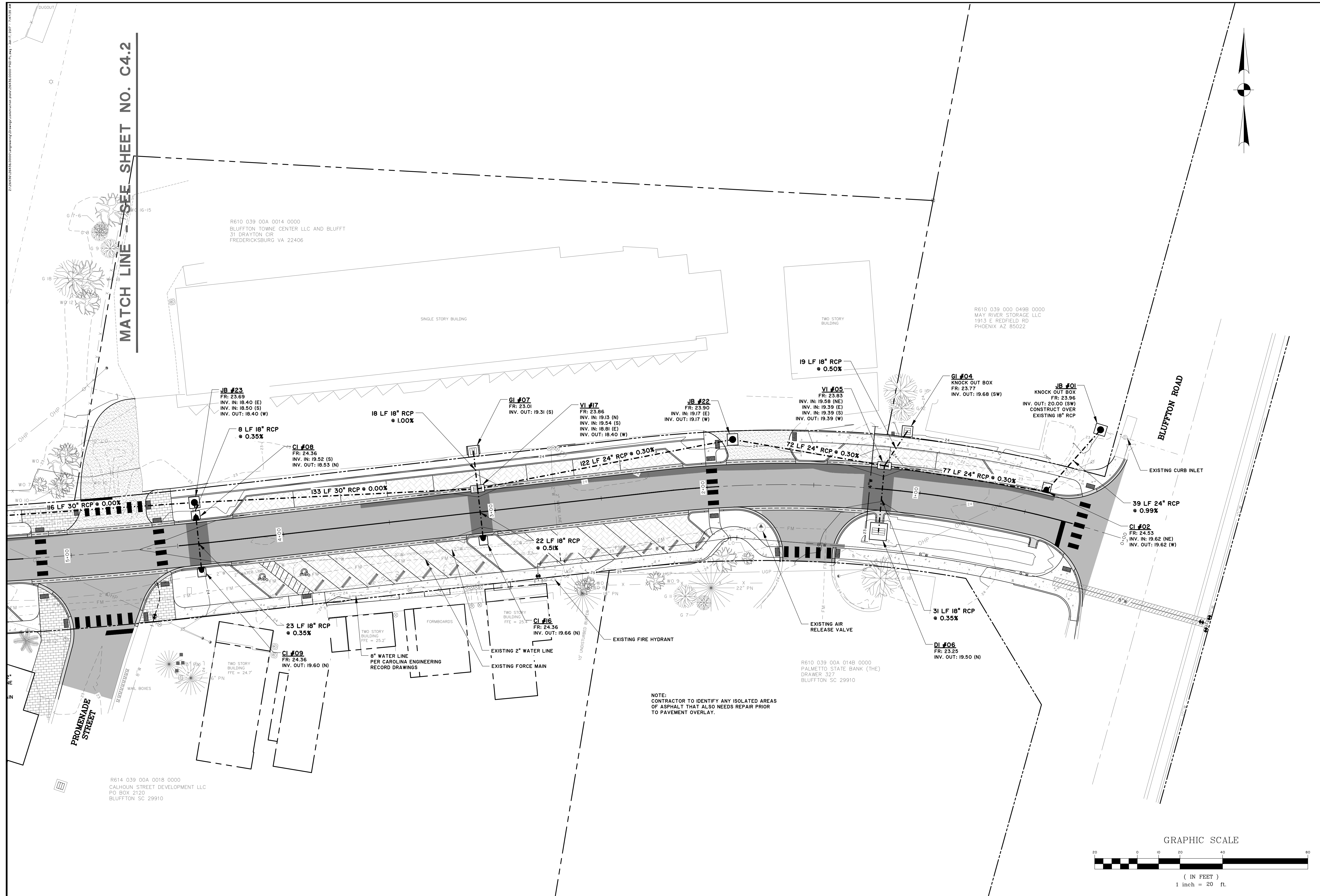
**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
DR. MELLICHAMP DRIVE  
WATER DETAILS

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

C3.4

BID SET - NOT FOR CONSTRUCTION





MATCH LINE - SEE SHEET NO. C4.2

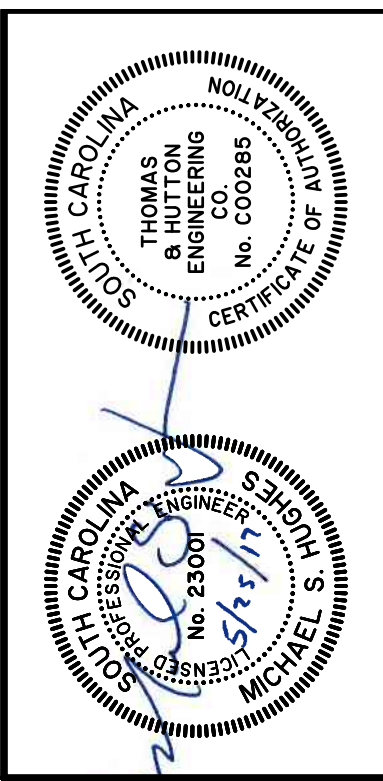
R610 039 00A 0014 0000  
BLUFFTON TOWNE CENTER LLC AND BLUFFT  
31 DRAYTON CIR  
FREDERICKSBURG VA 22406

R610 039 000 049B 0000  
MAY RIVER STORAGE LLC  
1913 E REDFIELD RD  
PHOENIX AZ 85022

R614 039 00A 0018 0000  
CALHOUN STREET DEVELOPMENT LLC  
PO BOX 2120  
BLUFFTON SC 29910

R610 039 00A 014B 0000  
PALMETTO STATE BANK (THE)  
DRAWER 327  
BLUFFTON SC 29910

NOTE:  
CONTRACTOR TO IDENTIFY ANY ISOLATED AREAS  
OF ASPHALT THAT ALSO NEEDS REPAIR PRIOR  
TO PAVEMENT OVERLAY.

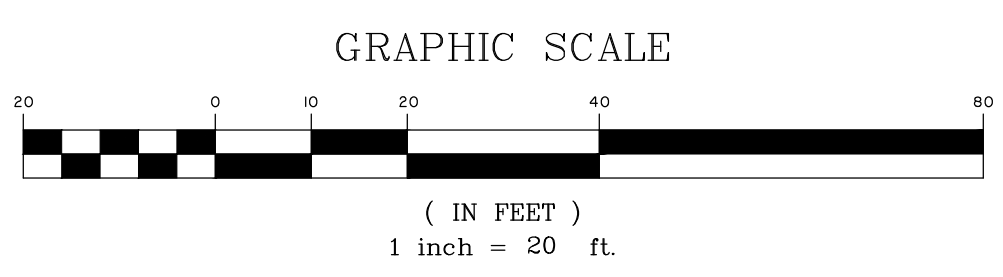


NO.	REVISIONS	BY	DATE

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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
DR. MELLICHAMP DRIVE  
PAVING, GRADING, AND DRAINAGE PLAN

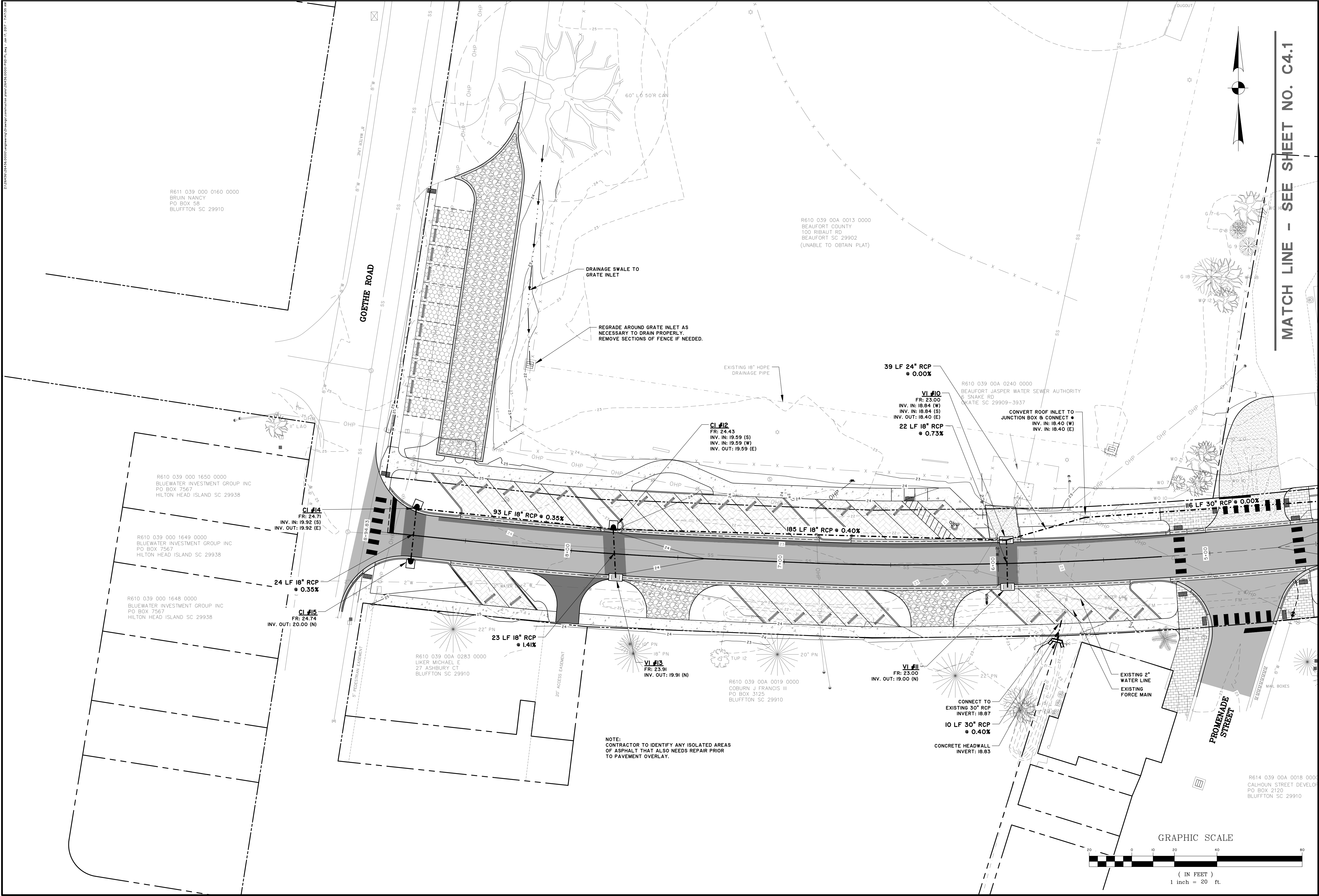
JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'



**C4.1**

BID SET - NOT FOR CONSTRUCTION

2:31:16.158 (12/28/2016 09:00 AM) \\bluffton\planning\GIS\Projects\16-0000\16-0000.dwg, Plot Date: 12/27/16 10:42:25 AM



R611 039 000 0160 0000  
 BRUIN NANCY  
 PO BOX 58  
 BLUFFTON SC 29910

**GOETHE ROAD**

DRAINAGE SWALE TO  
 GRATE INLET  
  
 REGRADE AROUND GRATE INLET AS  
 NECESSARY TO DRAIN PROPERLY.  
 REMOVE SECTIONS OF FENCE IF NEEDED.

R610 039 00A 0013 0000  
 BEAUFORT COUNTY  
 100 RIBAUT RD  
 BEAUFORT SC 29902  
 (UNABLE TO OBTAIN PLAT)

39 LF 24" RCP  
 ● 0.00%  
  
 VI #10  
 FR: 23.00  
 INV. IN: 18.84 (W)  
 INV. IN: 18.84 (S)  
 INV. OUT: 18.40 (E)  
  
 22 LF 18" RCP  
 ● 0.73%

R610 039 00A 0240 0000  
 BEAUFORT JASPER WATER SEWER AUTHORITY  
 6 SNAKE RD  
 KATIE SC 29909-3937  
  
 CONVERT ROOF INLET TO  
 JUNCTION BOX & CONNECT ●  
 INV. IN: 18.40 (W)  
 INV. IN: 18.40 (E)

CI #12  
 FR: 24.43  
 INV. IN: 19.59 (S)  
 INV. IN: 19.59 (W)  
 INV. OUT: 19.59 (E)

CI #14  
 FR: 24.71  
 INV. IN: 19.92 (S)  
 INV. OUT: 19.92 (E)  
  
 24 LF 18" RCP  
 ● 0.35%  
  
 CI #15  
 FR: 24.74  
 INV. OUT: 20.00 (N)

R610 039 000 1650 0000  
 BLUEWATER INVESTMENT GROUP INC  
 PO BOX 7567  
 HILTON HEAD ISLAND SC 29938

R610 039 000 1649 0000  
 BLUEWATER INVESTMENT GROUP INC  
 PO BOX 7567  
 HILTON HEAD ISLAND SC 29938

R610 039 000 1648 0000  
 BLUEWATER INVESTMENT GROUP INC  
 PO BOX 7567  
 HILTON HEAD ISLAND SC 29938

R610 039 00A 0283 0000  
 UKER MICHAEL E  
 27 ASHBURY CT  
 BLUFFTON SC 29910

R610 039 00A 0019 0000  
 COBURN J FRANCIS III  
 PO BOX 3125  
 BLUFFTON SC 29910

VI #11  
 FR: 23.00  
 INV. OUT: 19.00 (N)

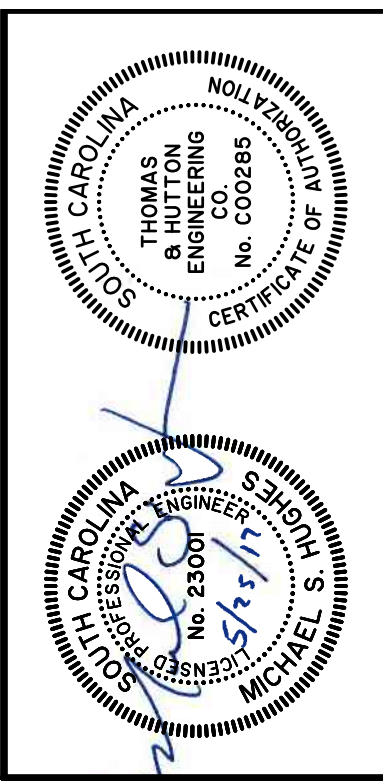
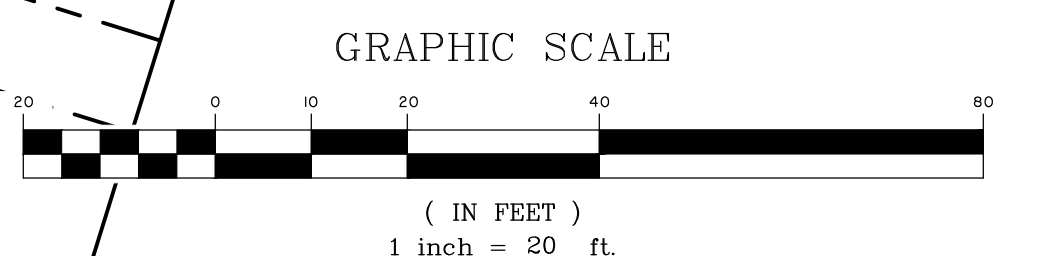
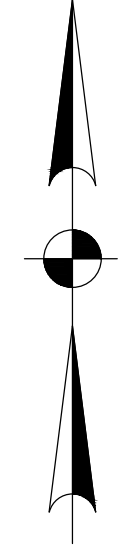
CONNECT TO  
 EXISTING 30" RCP  
 INVERT: 18.87  
  
 10 LF 30" RCP  
 ● 0.40%  
  
 CONCRETE HEADWALL  
 INVERT: 18.83

EXISTING 2"  
 WATER LINE  
 EXISTING  
 FORCE MAIN

NOTE:  
 CONTRACTOR TO IDENTIFY ANY ISOLATED AREAS  
 OF ASPHALT THAT ALSO NEEDS REPAIR PRIOR  
 TO PAVEMENT OVERLAY.

R614 039 00A 0018 0000  
 CALHOUN STREET DEVELOP  
 PO BOX 2120  
 BLUFFTON SC 29910

**MATCH LINE - SEE SHEET NO. C4.1**



NO.	REVISIONS	BY	DATE

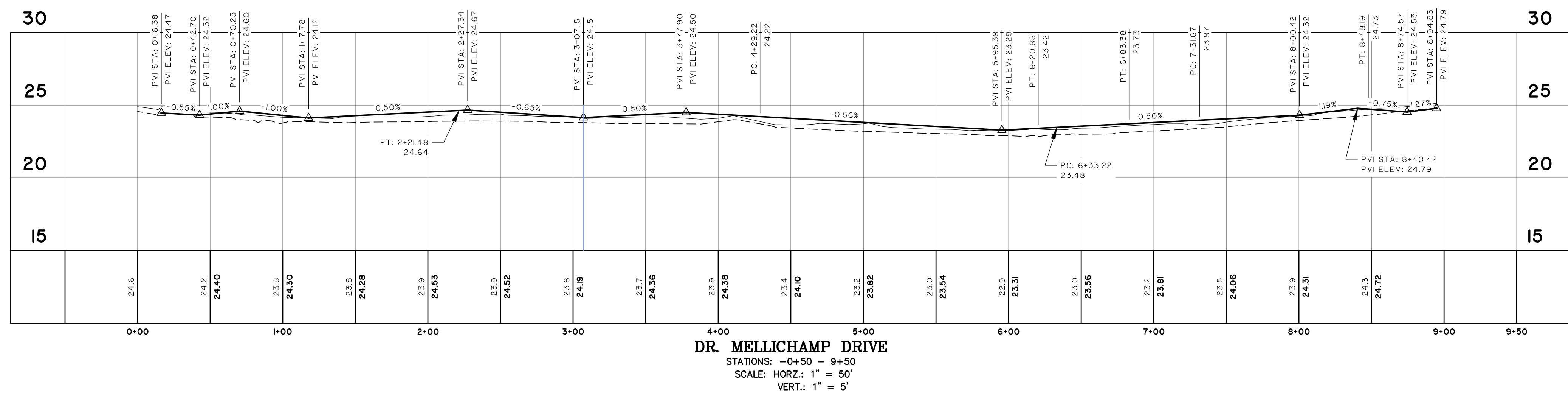
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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
  
 DR. MELLICHAMP DRIVE  
  
**PAVING, GRADING, AND DRAINAGE PLAN**

JOB NO: J-26436.0000  
 DATE: 12/27/16  
 DRAWN: WNS  
 DESIGNED: JPM  
 REVIEWED: MSH  
 APPROVED: MSH  
 SCALE: 1" = 20'

**C4.2**

**BID SET - NOT FOR CONSTRUCTION**

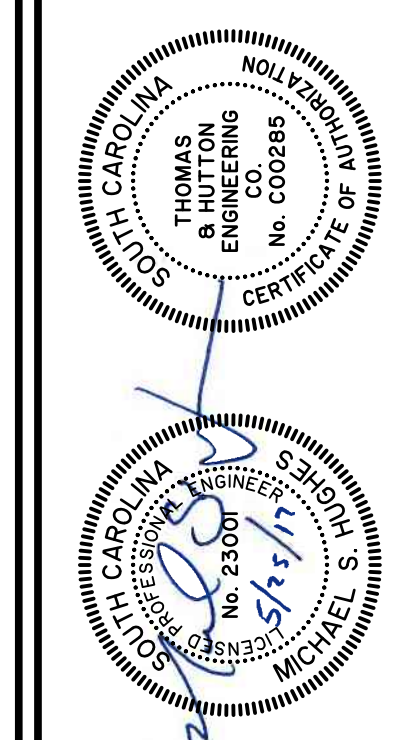


JOB NO: J-26436.0000  
 DATE: 12/27/16  
 DRAWN: WNS  
 DESIGNED: JPM  
 REVIEWED: MSH  
 APPROVED: MSH  
 SCALE: 1" = 50'

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

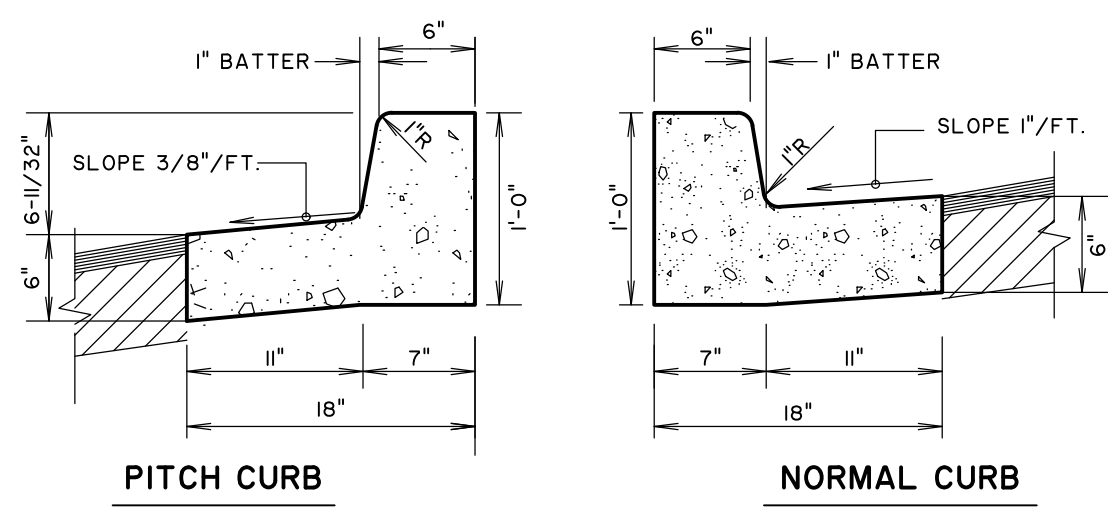
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NO.	REVISIONS	BY	DATE



**BID SET - NOT FOR CONSTRUCTION**

**C4.3**

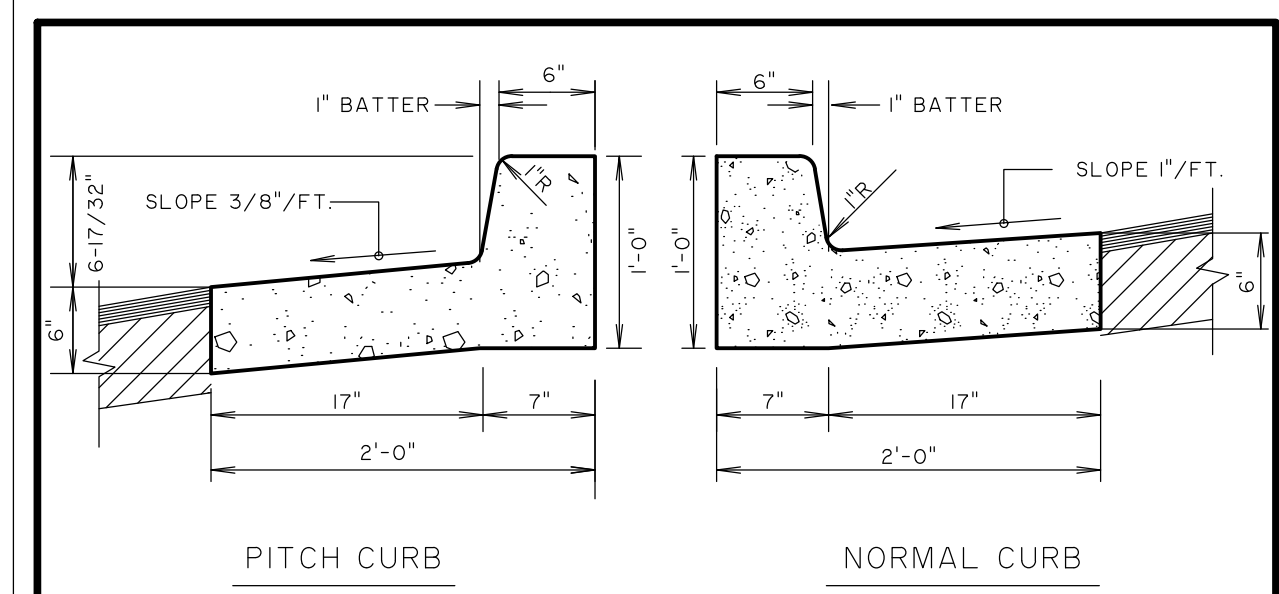


**PITCH CURB**                      **NORMAL CURB**

- NOTES:  
 1. ALL CONCRETE SHALL BE 3,000 PSI.  
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').  
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50).  
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.  
 5. PROVIDE LIGHT BROOM FINISH.

**18" STANDARD CURB & GUTTER**

NOT TO SCALE



**PITCH CURB**                      **NORMAL CURB**

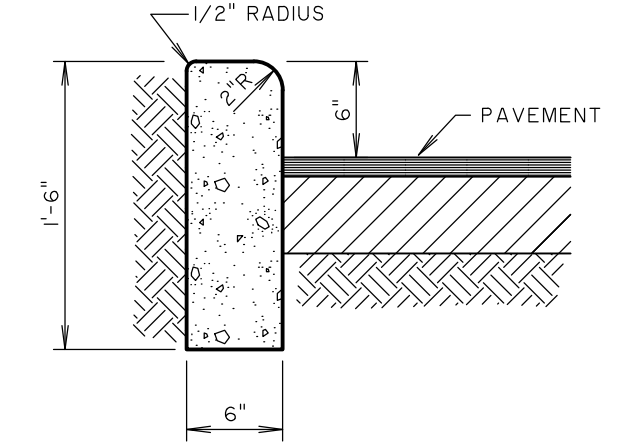
- NOTES:  
 1. ALL CONCRETE SHALL BE 3,000 PSI.  
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').  
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50).  
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.  
 5. PROVIDE LIGHT BROOM FINISH.

**24" STANDARD CURB & GUTTER**

NOT TO SCALE

**P16**  
OCT. 2008  
THOMAS & HUTTON  
ENGINEERING CO.

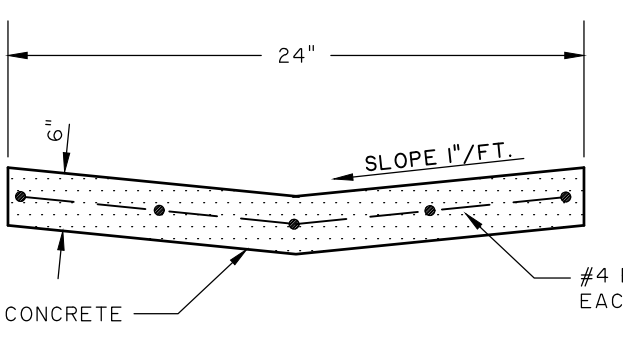
- NOTES:  
 1. ALL CONCRETE SHALL BE 3,000 PSI.  
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').  
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50).  
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.  
 5. PROVIDE LIGHT BROOM FINISH.



**HEADER CURB**

NOT TO SCALE

**P23**  
OCT. 2008  
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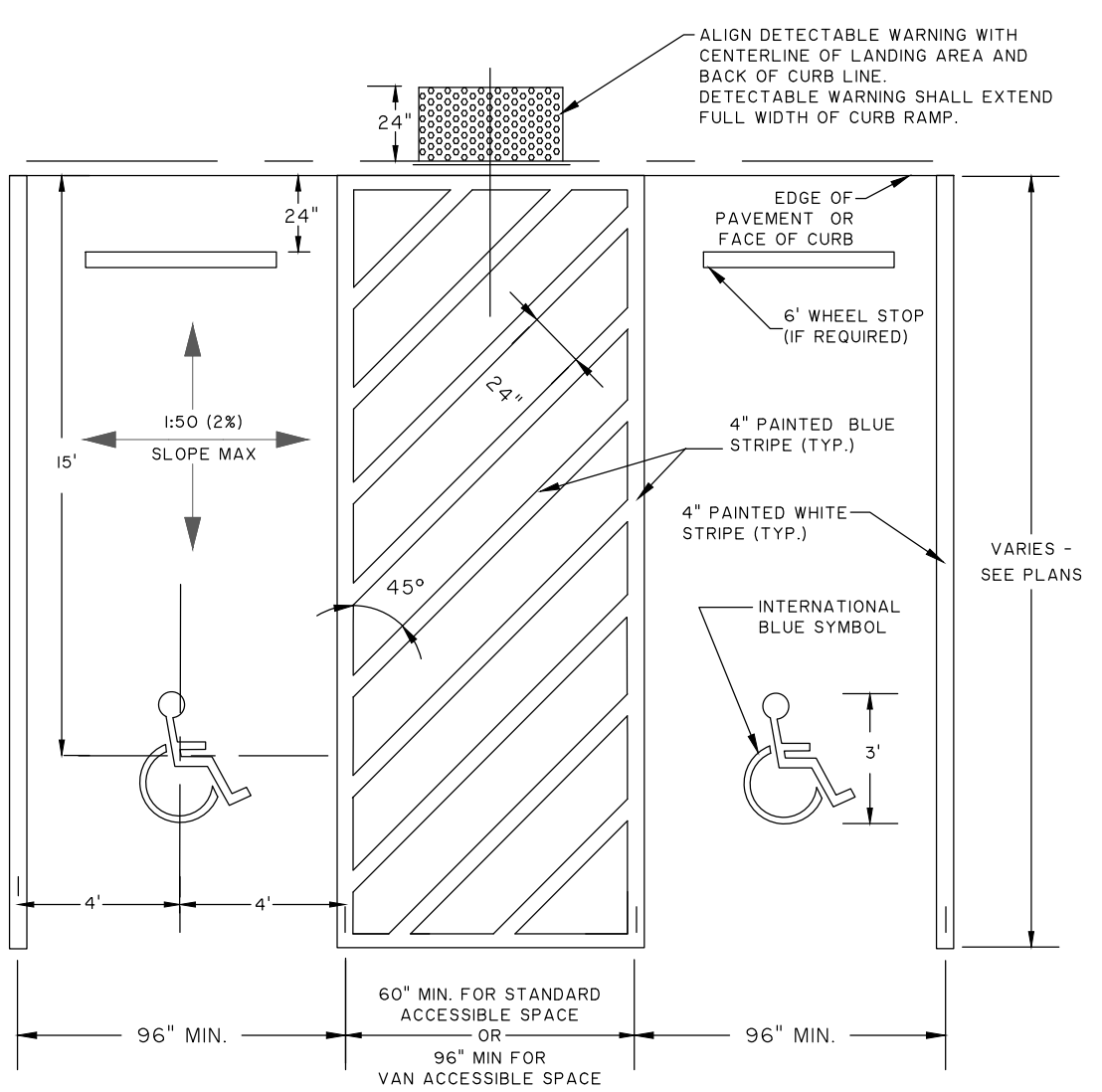
**VALLEY GUTTER DETAIL**

NOT TO SCALE

- NOTES:  
 1. ALL CONCRETE SHALL BE 3,000 PSI.  
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').  
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50).  
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.  
 5. PROVIDE LIGHT BROOM FINISH.

**FLUSH HEADER CURB**

NOT TO SCALE

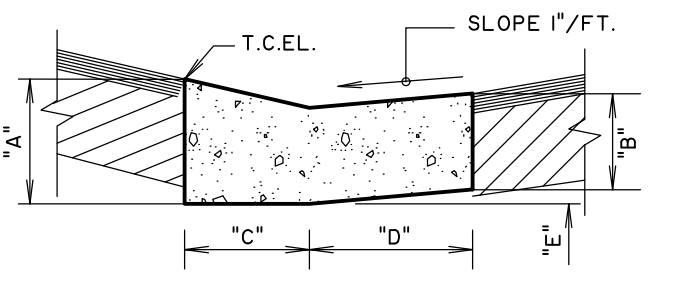


**ACCESSIBLE PARKING SPACE STRIPING DETAIL**

NOT TO SCALE

- NOTES:  
 1. STRIPING AND CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS.  
 2. 2% MAXIMUM SLOPE IN ALL DIRECTIONS WITHIN ACCESSIBLE PARKING SPACE AND ACCESS AISLE.  
 3. ONE IN EVERY 8 ACCESSIBLE SPACES SHALL BE SERVED BY AN 8' WIDE ACCESS AISLE AND SHALL BE DESIGNATED "VAN ACCESSIBLE".

	24" CURB	18" CURB
"A"	9"	8"
"B"	6"	6"
"C"	9"	8"
"D"	15"	10"
"E"	3/4"	1/2"

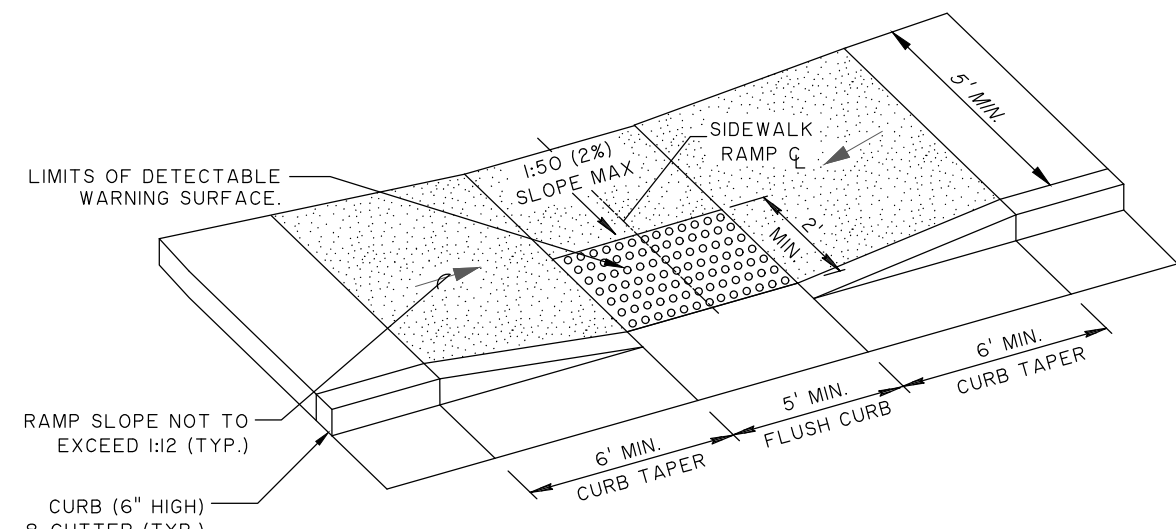


**DEPRESSED CURB**

NOT TO SCALE

- NOTES:  
 1. ALL CONCRETE SHALL BE 3,000 PSI.  
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').  
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50).  
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.  
 5. PROVIDE LIGHT BROOM FINISH.

**P25**  
OCT. 2008  
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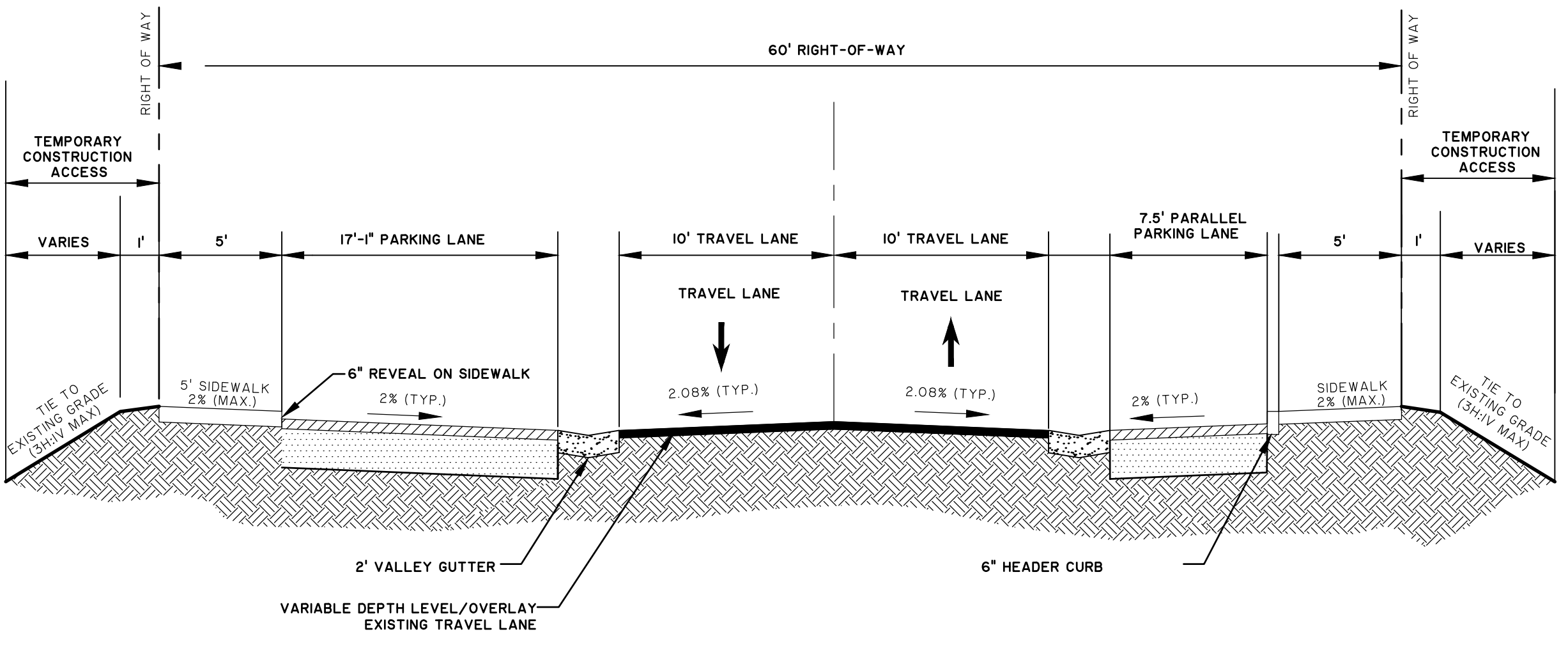


**ISOMETRIC VIEW OF RAMP**

- NOTES:  
 1. CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.  
 2. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%).  
 3. CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL.

**CURB RAMP "TYPE B"**

NOT TO SCALE

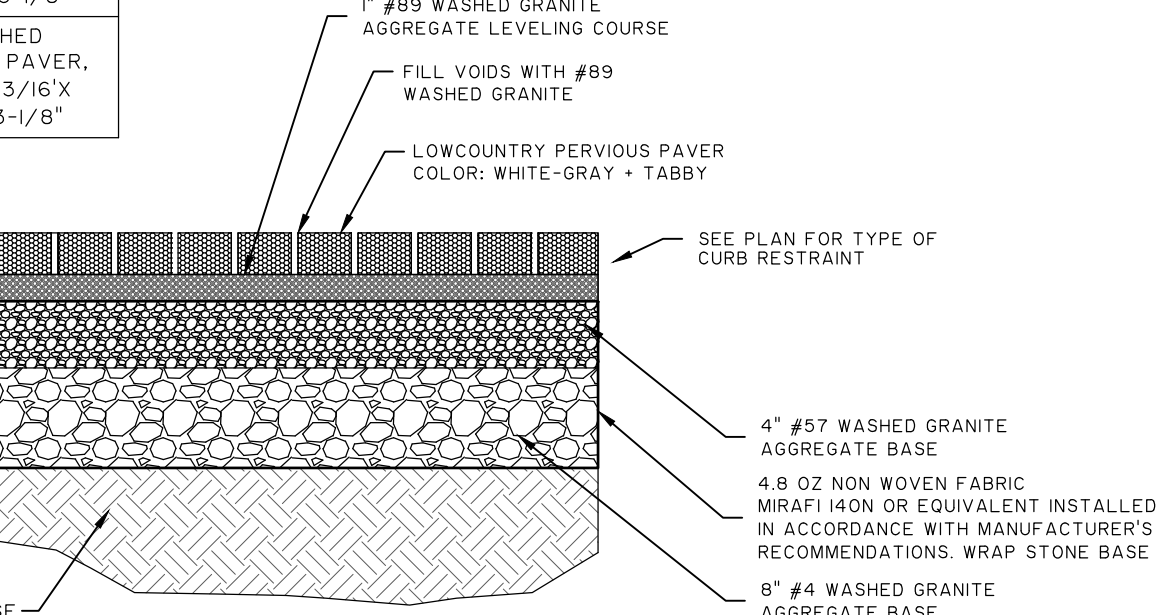


**TYPICAL CROSS SECTION DR. MELLICHAMP DRIVE**

NOT TO SCALE

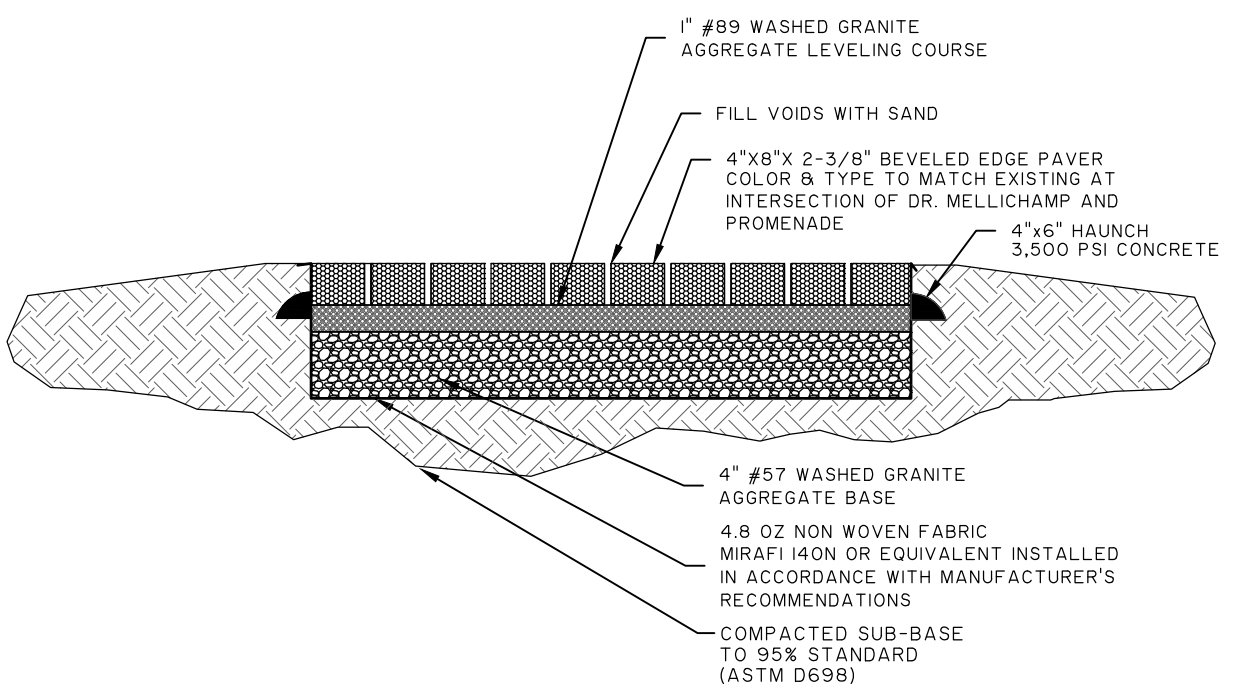
PERVIOUS PARKING PAVER SPECIFICATIONS

ADA PARKING AREAS	HYDRASHED PERMEABLE PAVER, 80 MM, 3-7/8" X 7-13/16" X 3-1/8"
ALL OTHER PARKING AREAS	WATERSHED PERMEABLE PAVER, 80 MM, 4-13/16" X 9-7/8" X 3-1/8"



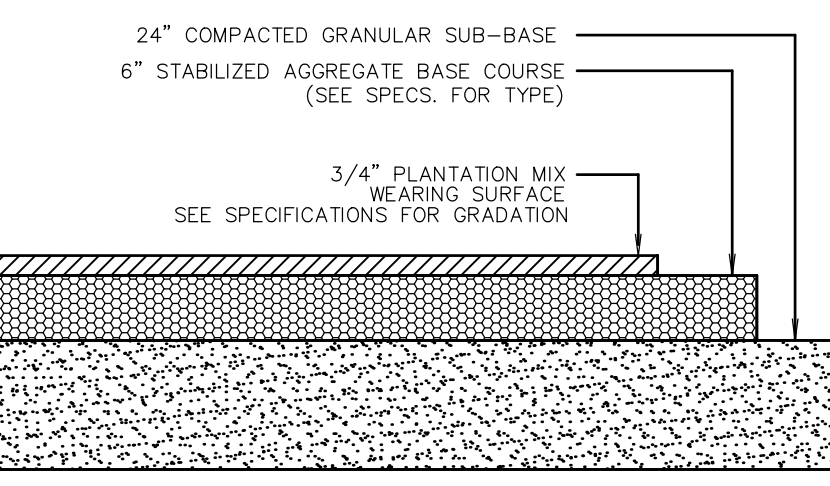
**PERVIOUS PARKING SECTION**

NOT TO SCALE



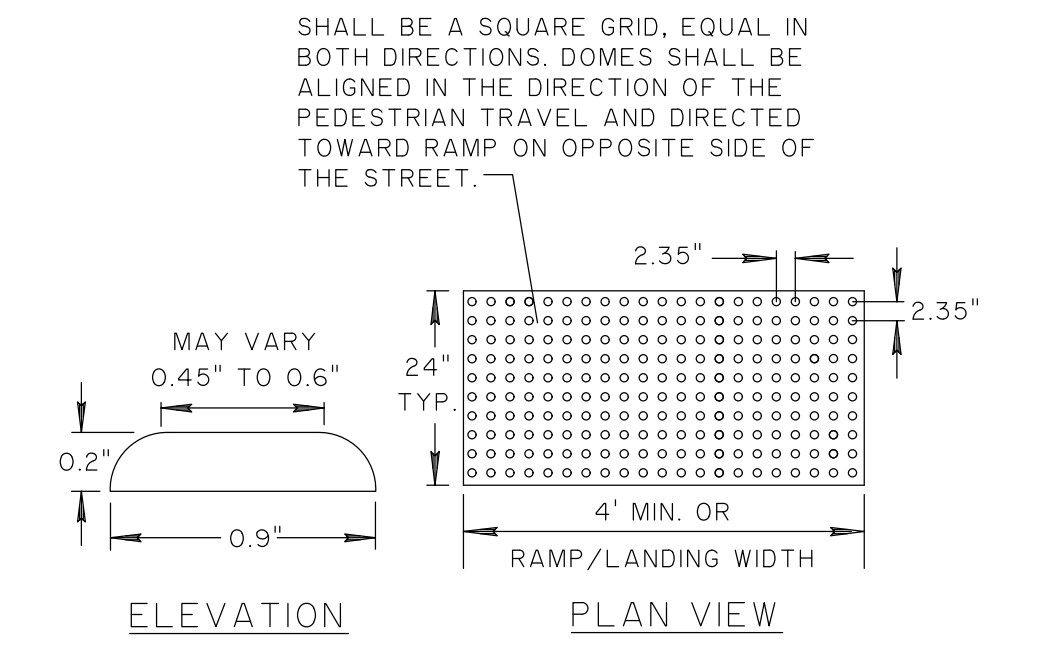
**PERVIOUS PEDESTRIAN PAVER SECTION**

NOT TO SCALE



**GRAVEL PAVEMENT SECTION**

NOT TO SCALE



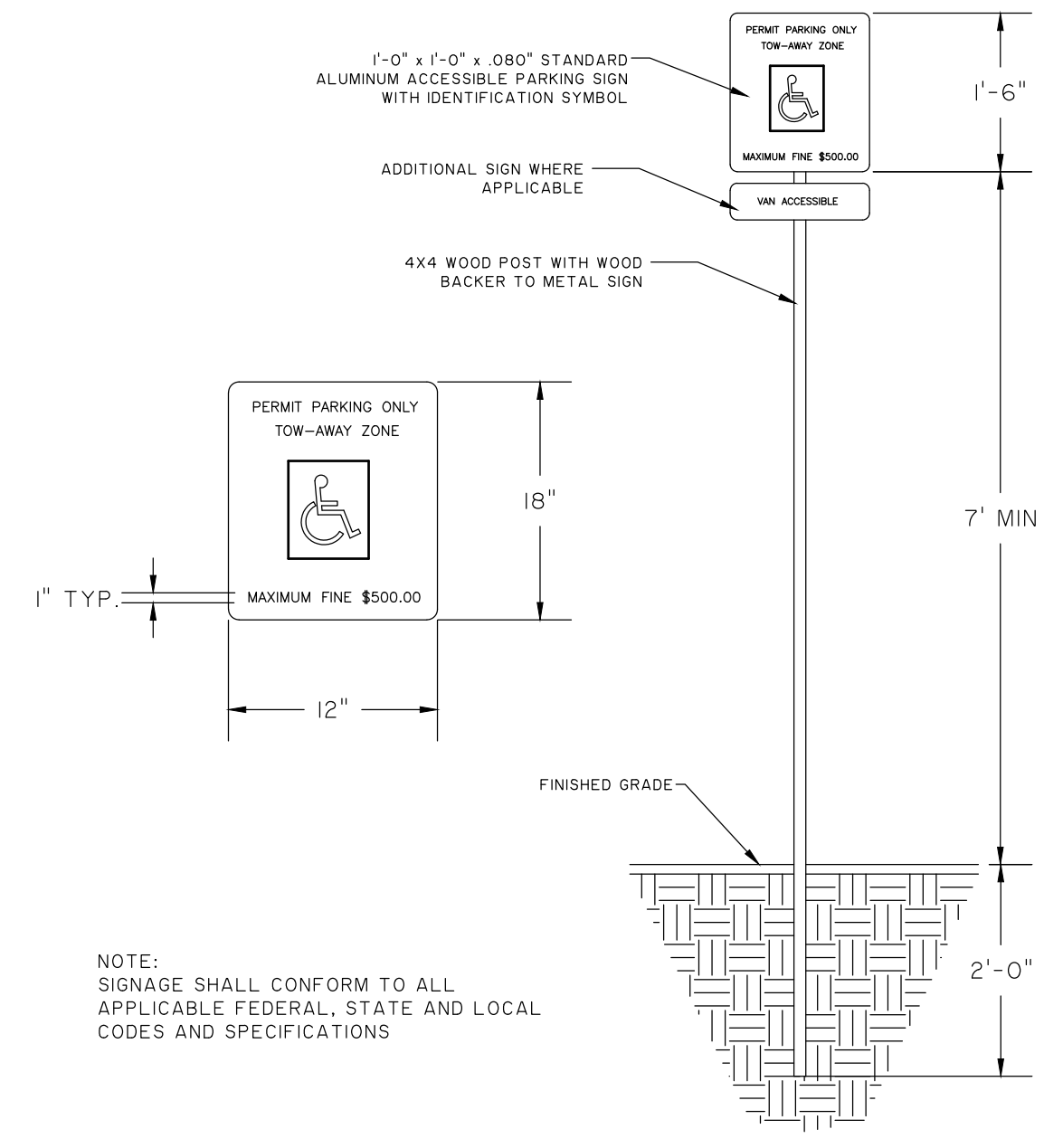
**ELEVATION**

**PLAN VIEW**

- NOTE:  
 1. 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**

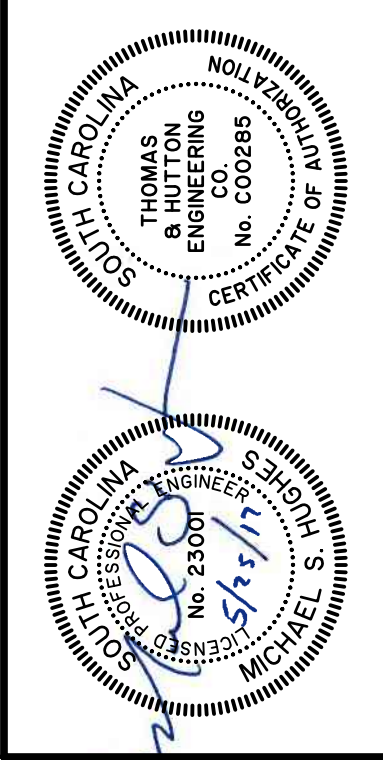
NOT TO SCALE



**ACCESSIBLE PARKING SIGN DETAIL**

NOT TO SCALE

- NOTE:  
 SIGNAGE SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS



NO.	REVISIONS	BY	DATE

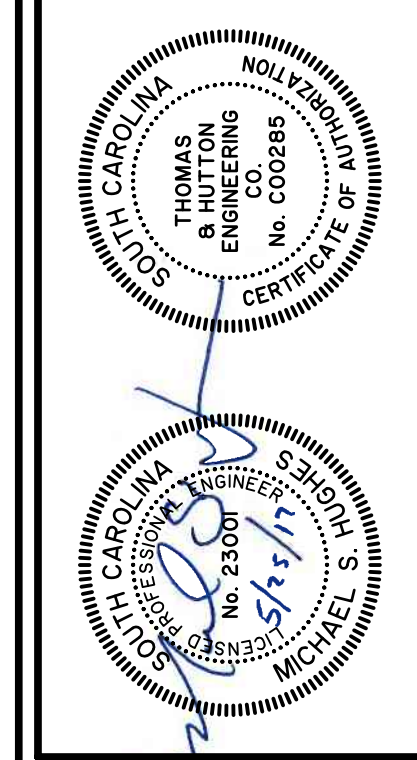
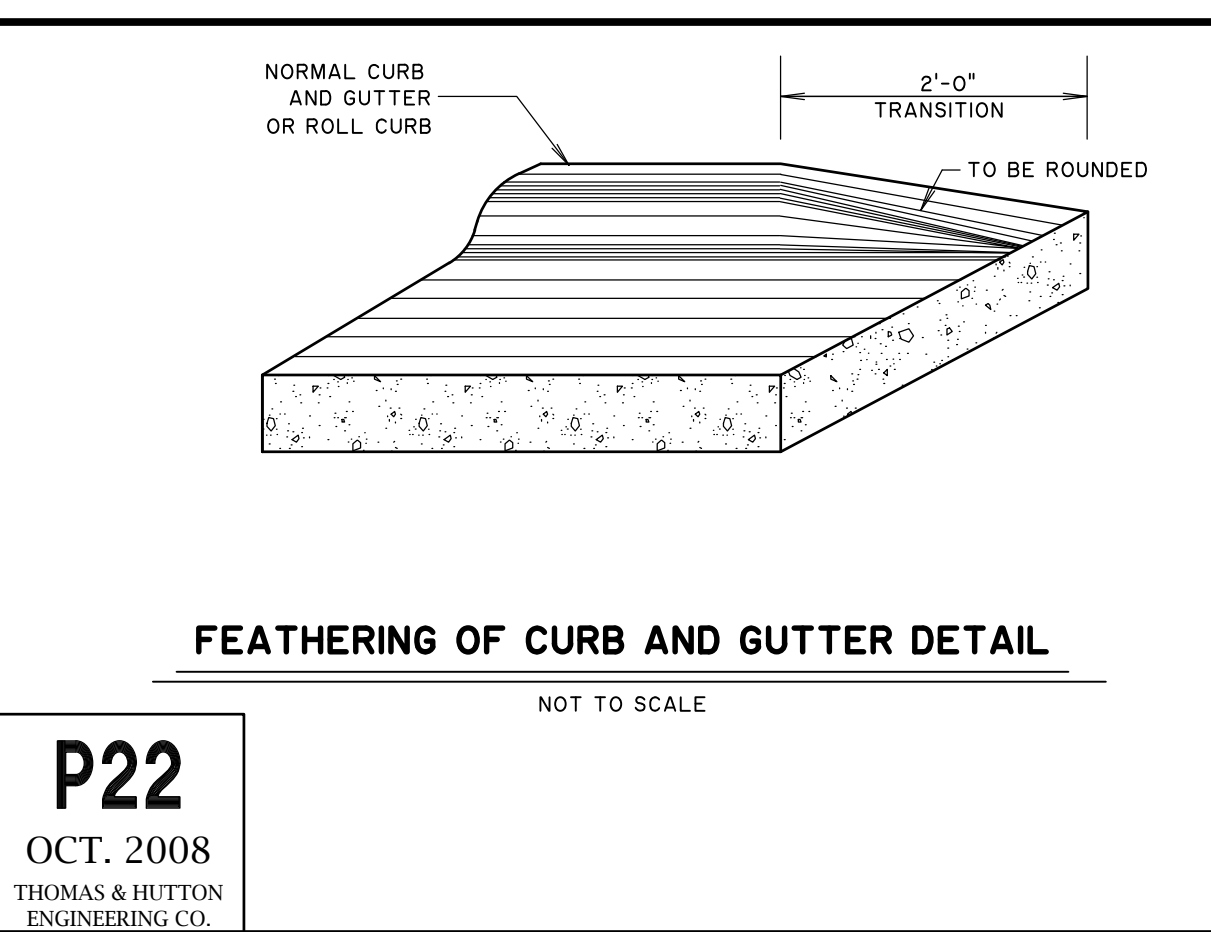
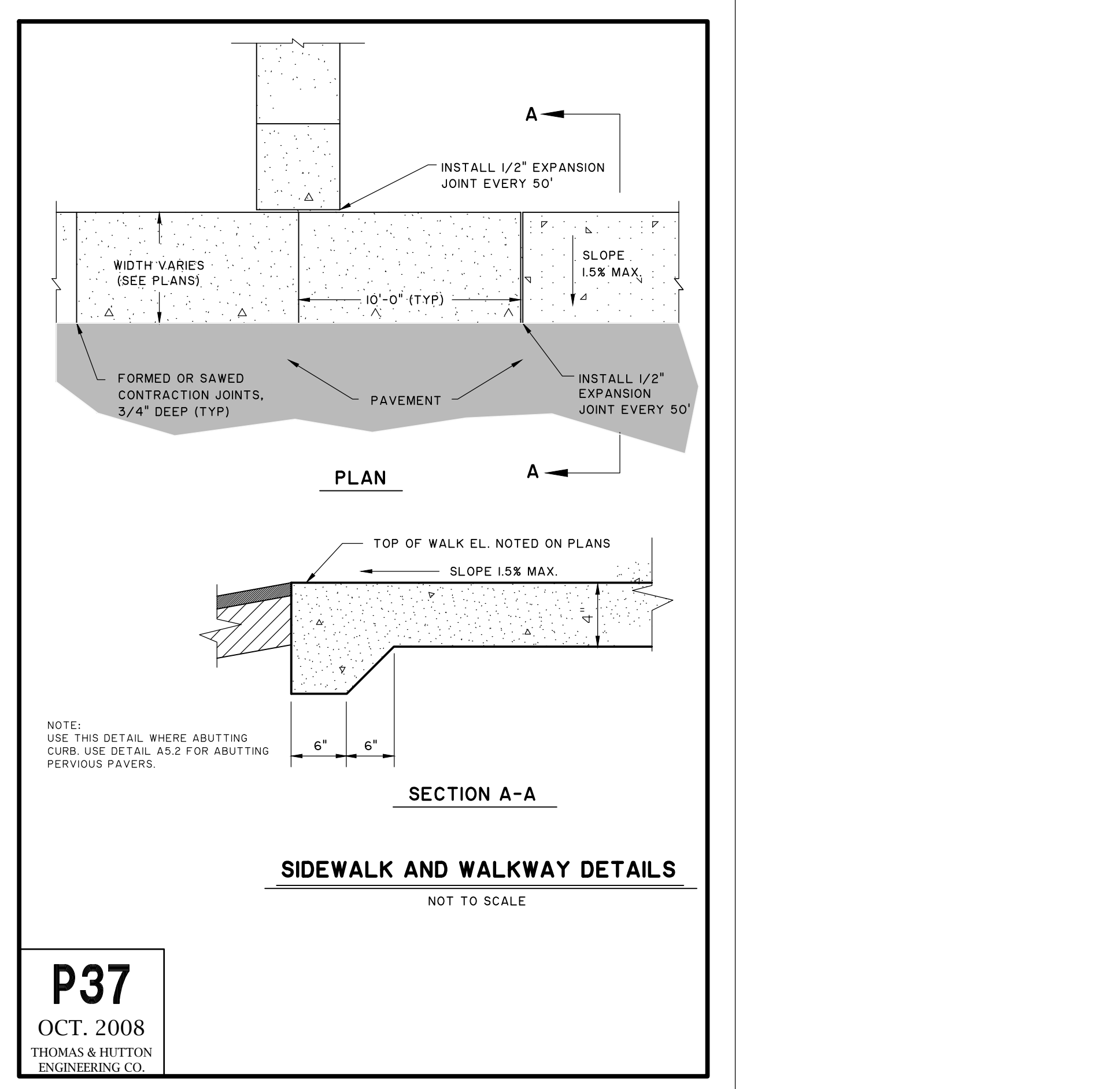
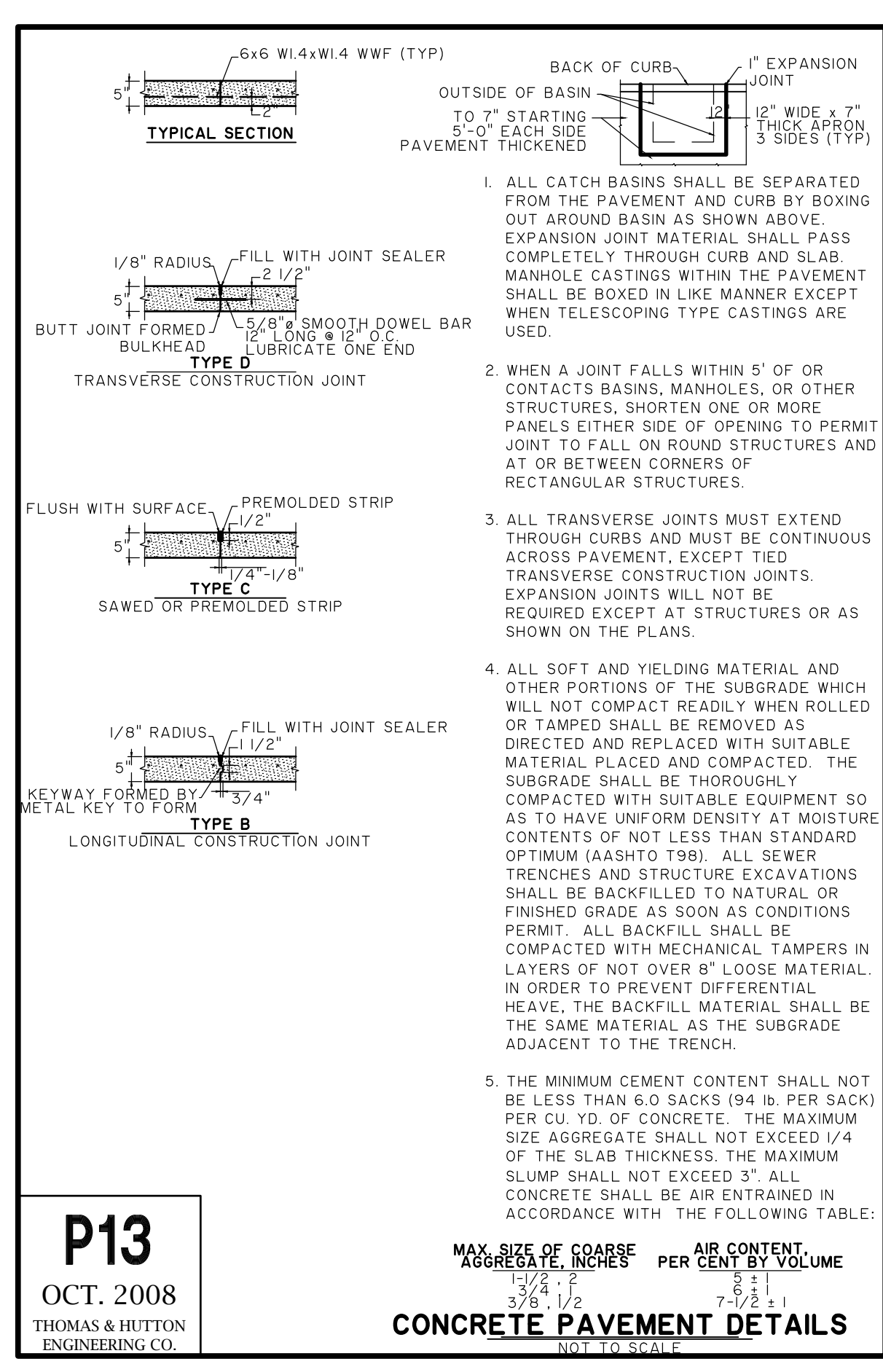
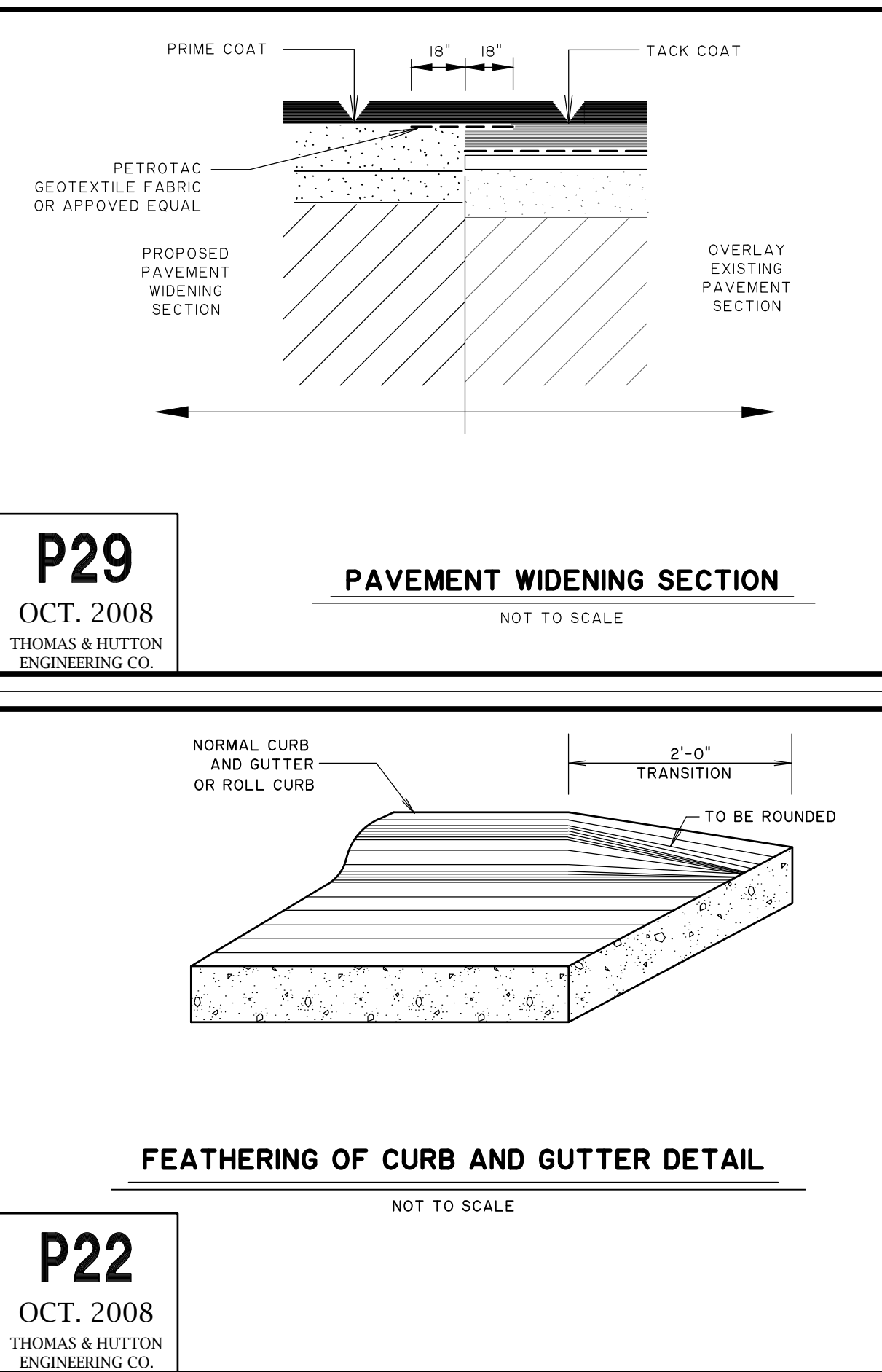
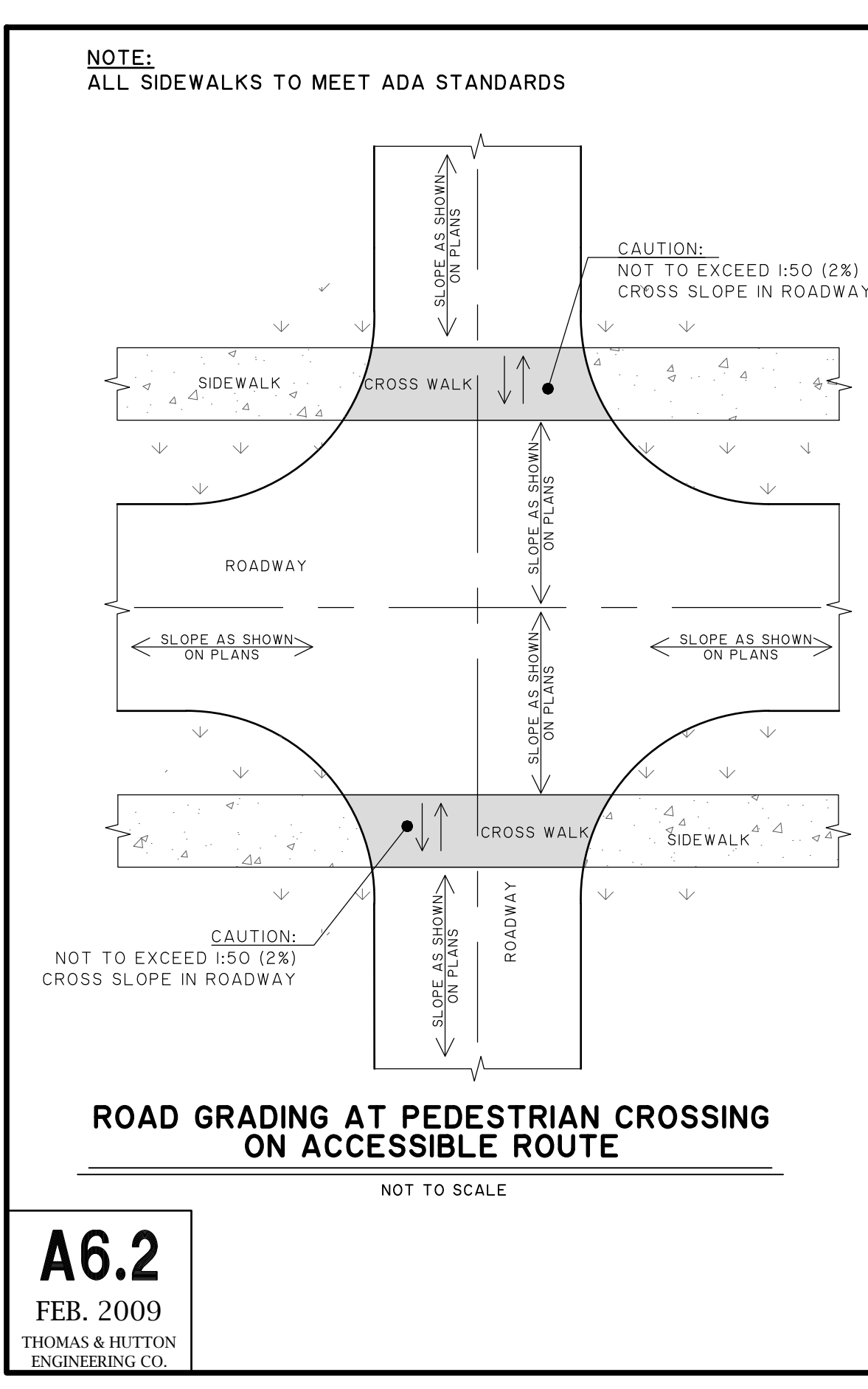
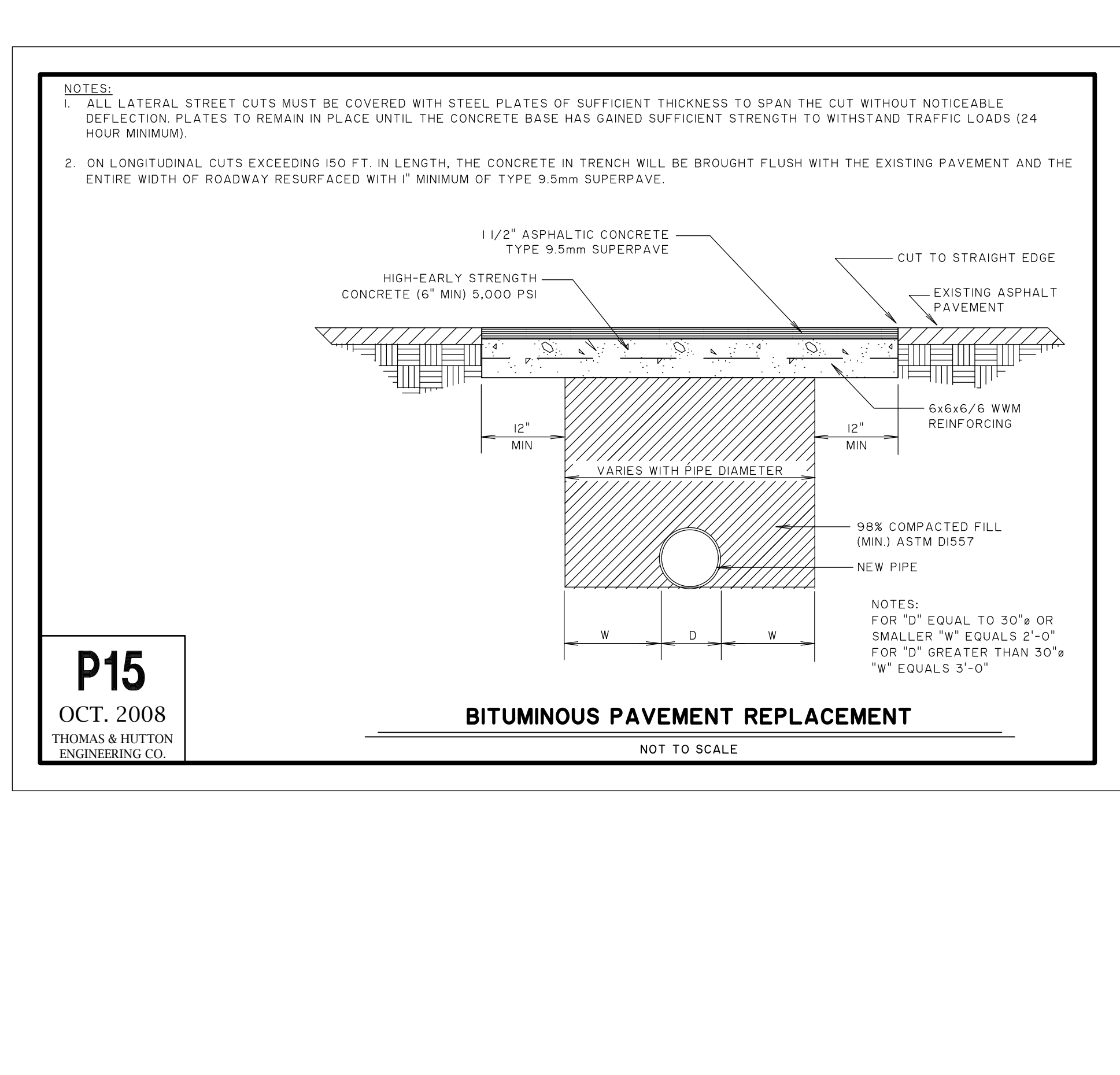
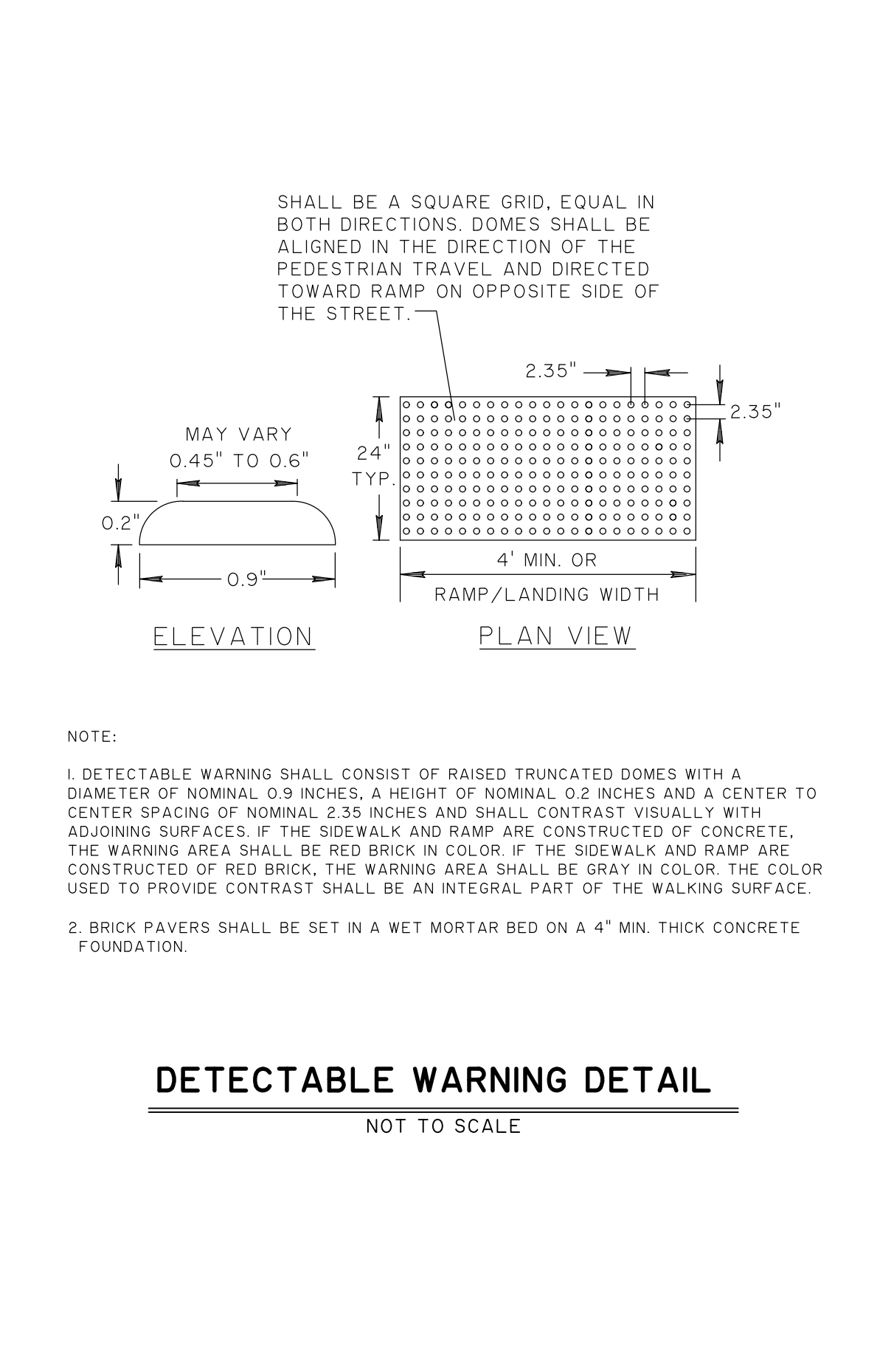
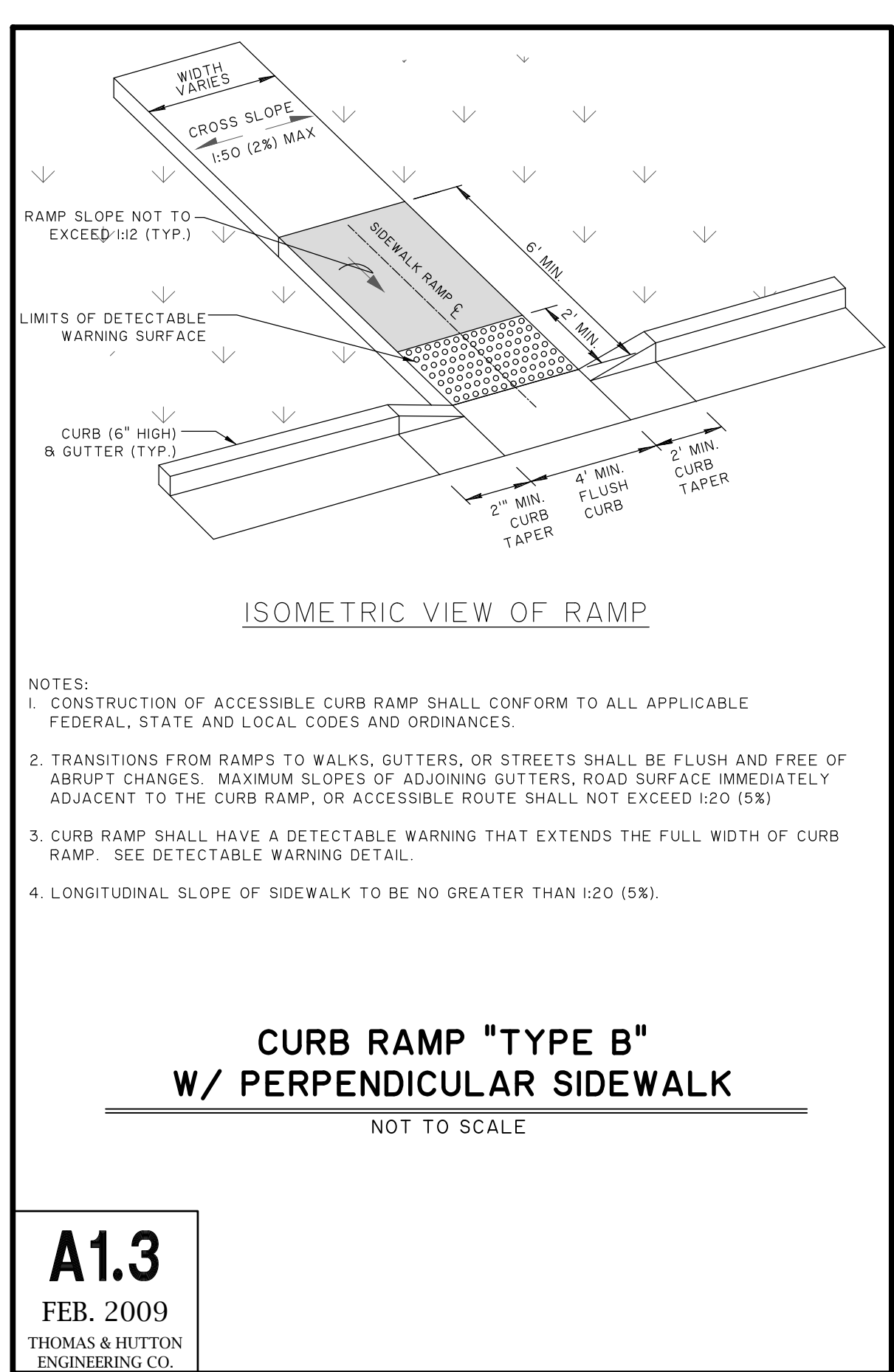
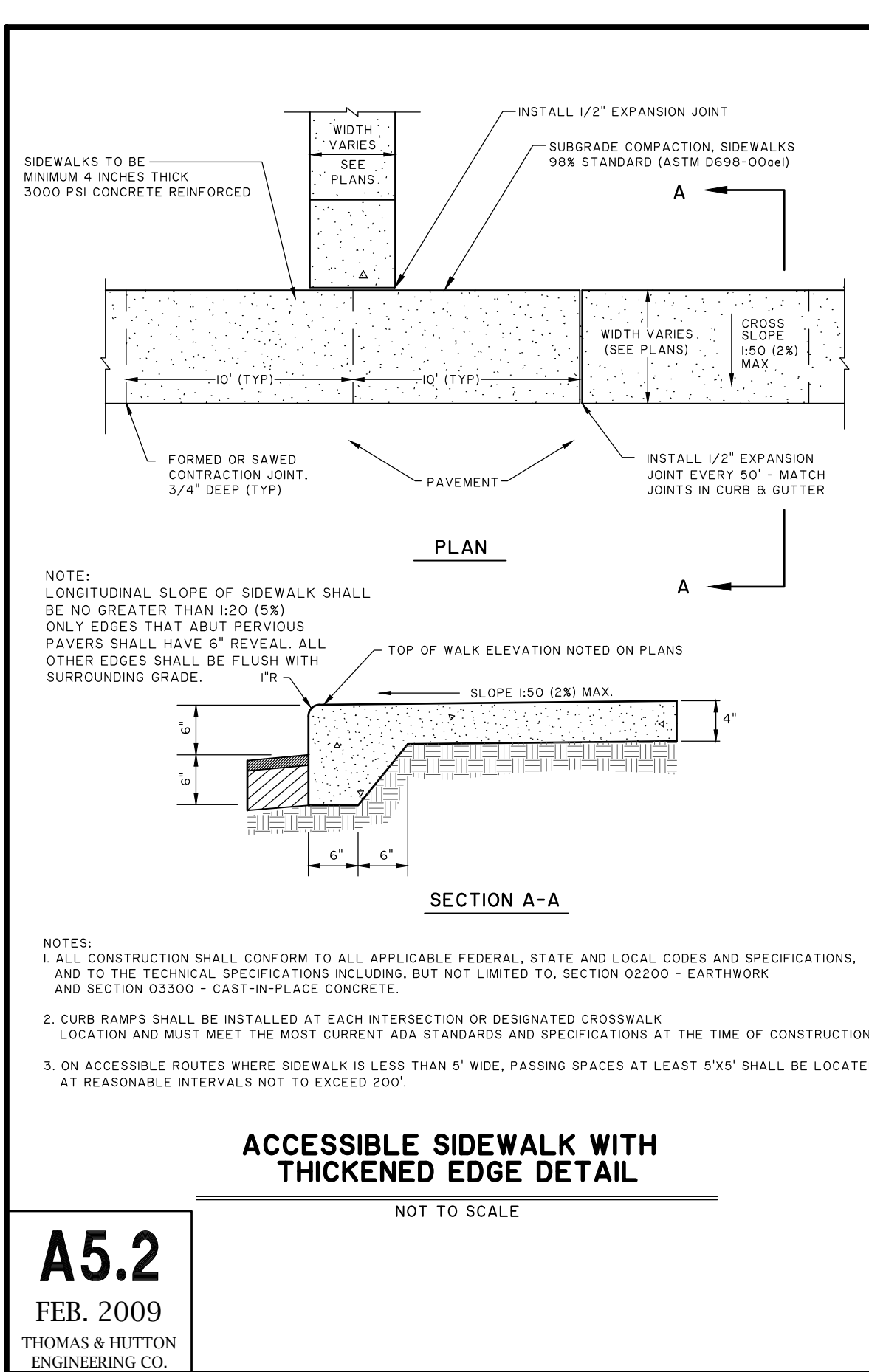
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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
**PAVING DETAILS**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 1'

**C4.4**

BID SET - NOT FOR CONSTRUCTION



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

JOB NO: J-26436.0000  
DATE: 12/27/16  
DRAWN: WNS  
DESIGNED: JPM  
REVIEWED: MSH  
APPROVED: MSH  
SCALE: 1" = 1'

**C4.5**

BID SET - NOT FOR CONSTRUCTION

Load Description	Depth of Base		Depth of Base	
	AGGREGATE		ENGINEERED AGGREGATE/TOPSOIL <sup>2</sup>	
	CBR <sup>1</sup> 2-4	CBR <sup>1</sup> >4	CBR <sup>1</sup> 2-4	CBR <sup>1</sup> >4
<b>Heavy Fire Truck Access &amp; H-20 loading.</b> Typical 758 kPa (110 psi) maximum tire pressure. Single axle loadings of 145 kN (32 kip), tandem axle loadings of 220 kN (48 kip). Gross vehicle loads of 38.3 tonne (80,000 lb).	150 mm (6 in)	150 mm (6 in)	Not Recommended	Not Recommended
<b>Light Fire Truck Access &amp; H-15 loading.</b> Typical 586 kPa (85 psi) maximum tire pressure. Single axle loadings of 110 kN (24 kip). Gross vehicle loads of 27.2 tonne (60,000 lb).	150 mm (6 in)	100 mm (4 in)	Not Recommended	Not Recommended
<b>Utility &amp; Delivery Truck Access &amp; H-10 loading.</b> Typical 414 kPa (60 psi) maximum tire pressure. Single axle loadings of 75 kN (16 kip). Gross vehicle loads of 18.1 tonne (40,000 lb).	100 mm (4 in)	50 mm (2 in)	Recommended	Recommended
<b>Cars &amp; Pick-up Truck Access.</b> Typical 310 kPa (45 psi) maximum tire pressure. Single axle loadings of 18 kN (4 kip). Gross vehicle loads of 3.6 tonne (8,000 lb).	50 mm (2 in)	None*	None*	None*
<b>Trail Use.</b> Loading for pedestrian, wheelchair, equestrian, bicycle, motorcycle and ATV traffic.	None*	None*	None*	None*

A minimum of 50 mm (2 in) of aggregate base should be placed below the GeoPave units as a drainage layer and an infiltration storage area. Greater depth may be required depending upon design rainfall needs and subbase permeability.

\* CBR is the abbreviation for California Bearing Ratio. Methods for determining CBR vary from more sophisticated laboratory methods to simple field identification methods that use hand manipulation of the soil. Presto does not recommend one method over the other, however, the user must have a high degree of confidence in the results produced by the chosen method. If other-than-CBR soil strength values exist, use available correlation charts to relate the value to CBR.

<sup>2</sup> With the aggregate/topsoil mix and a vegetative surface, infrequent/occasional passes are recommended. Infrequent/occasional passes are defined as the number of passes over any period of time that causes no lasting damage to the vegetation. This number will be a function of vegetation type and age, climatic conditions, and maintenance practices. This number is not a function of the GeoPave material.

**BASE MATERIAL:** IF NECESSARY FOR LOADING REQUIREMENTS, THE RECOMMENDED BASE SHALL BE AGGREGATE OR AN ENGINEERED AGGREGATE/TOPSOIL MIXTURE, AND SHOULD BE CONSISTENT WITH THE CHOSEN INFILL TYPE.  
A MINIMUM OF 50 MM (2 IN) OF BASE MATERIAL IS GENERALLY RECOMMENDED FOR DRAINAGE, EVEN IF NOT REQUIRED BY DESIGN FOR LOAD SUPPORT. ADDITIONAL BASE DEPTH MAY BE ADDED IF REQUIRED OVER A LOW-PERMEABLE BASE OR TO FUNCTION AS A STORM WATER DETENTION/RETENTION LAYER.

**RECOMMENDED AGGREGATE INFILL:** THE AGGREGATE INFILL SHALL BE A WELL-GRADED 10 MM TO 13 MM (0.375 TO 0.5 IN) CRUSHED ANGULAR STONE WITH A FINE CONTENT LESS THAN 5%.

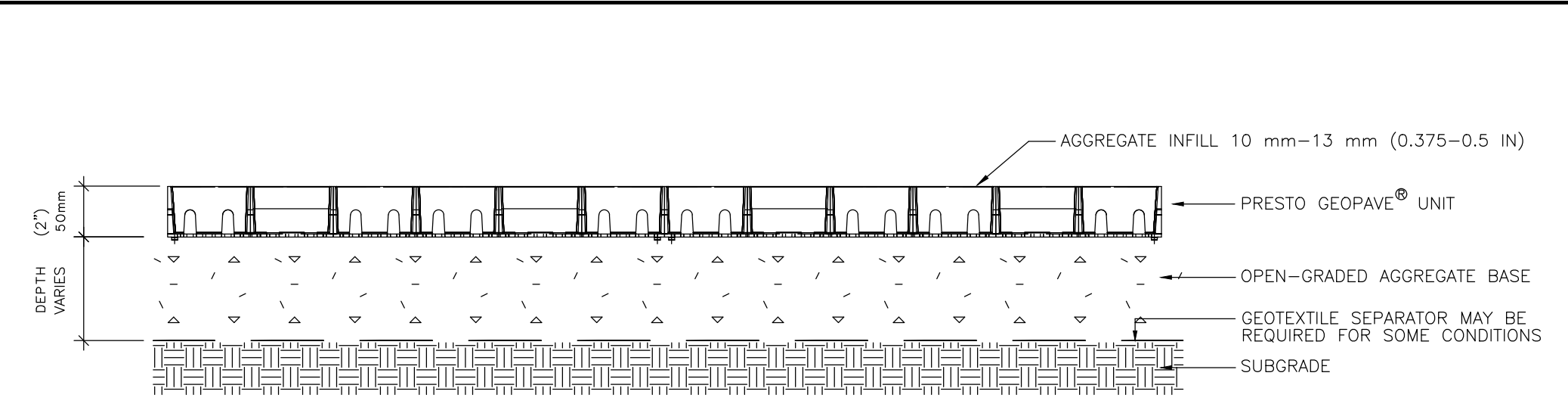
**RECOMMENDED ENGINEERED BASE FOR VEGETATED SOLUTIONS:** SUPPORT SOIL SHALL CONSIST OF A HOMOGENOUS MIXTURE CONSISTING OF 1) A CLEAR-STONE/CRUSHED ROCK HAVING AN AASHTO #5 OR SIMILAR DESIGNATION BLENDED WITH 2) PULVERIZED TOPSOIL, AND 3) A VOID COMPONENT GENERALLY CONTAINING AIR AND/OR WATER. THIS HOMOGENOUS MIXTURE WILL PROMOTE VEGETATIVE GROWTH AND PROVIDE REQUIRED STRUCTURAL SUPPORT. THE AGGREGATE PORTION SHALL HAVE A PARTICLE RANGE FROM 10 MM TO 25 MM (0.375 TO 1.0 IN) WITH A 5% OF 13 MM (0.5 IN). THE PERCENTAGE VOID-SPACE OF THE AGGREGATE PORTION WHEN COMPACTED SHALL BE AT LEAST 30%. THE PULVERIZED TOPSOIL SHALL EQUAL 25% OF THE TOTAL VOLUME AND BE ADDED AND BLENDED TO PRODUCE A HOMOGENOUS MIXTURE PRIOR TO PLACEMENT. ONCE PLACED, THE MIXTURE SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.

**RECOMMENDED ENGINEERED INFILL FOR VEGETATED SOLUTIONS:** SAME AS ENGINEERED BASE BUT WITH A PARTICLE RANGE FROM 10 MM TO 13 MM (0.375 TO 0.5 IN).

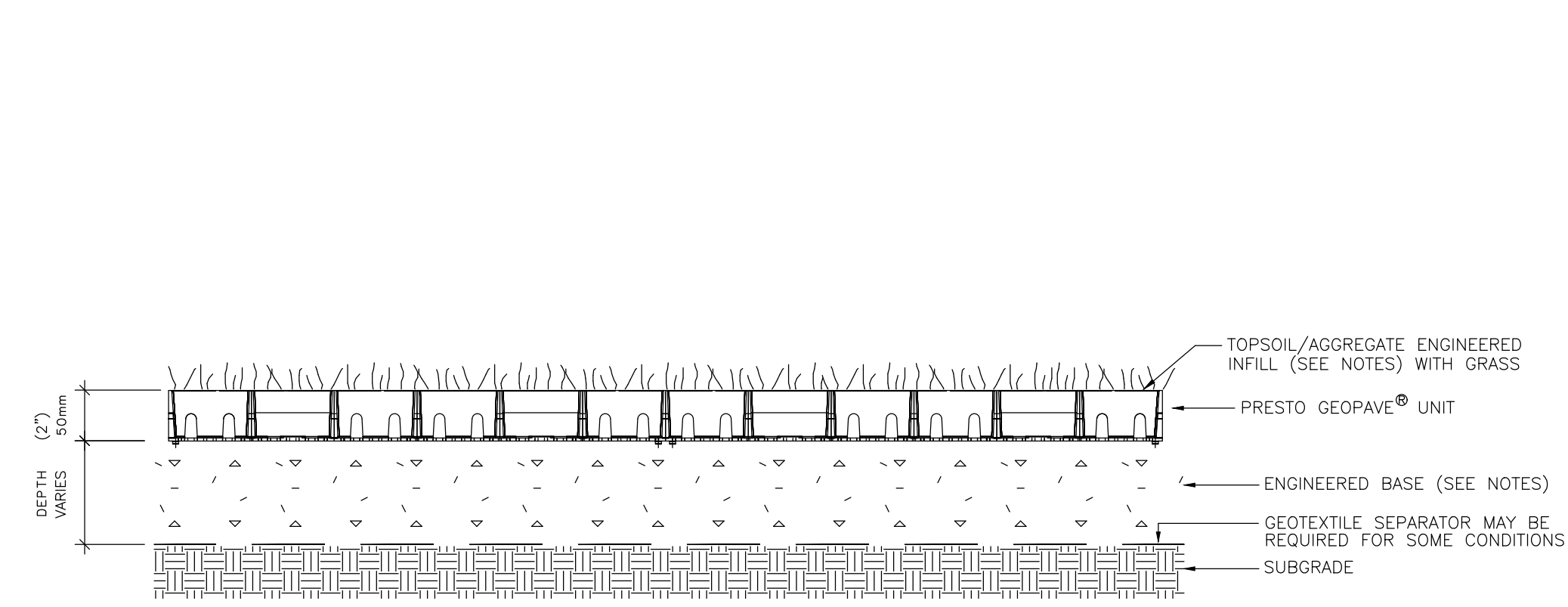
**GEOPAVE<sup>®</sup> SYSTEM USAGE GUIDELINES**

Item	Specifications & Details
Material	Up to 97% Recycled Polyethylene*
Color	Ranges from dark shades of gray to black
Chemical Resistance	Superior
Carbon Black for Ultraviolet Light Stabilization	1.5% - 2.0%
Empty Unit Minimum Crush Strength @ 21°C (70°F)	1,202 kPa (175 psi)
Aggregate or Aggregate/Topsoil Filled Unit Minimum Crush Strength @ 21°C (70°F)	6,869 kPa (1000 psi)
Nominal Dimensions (width x length)	0.50 m x 1.00 m (20 in x 40 in)
Nominal Unit Depth	50 mm (2 in)
Nominal Coverage Area	0.50 m <sup>2</sup> (6.38 ft <sup>2</sup> )
Cells per Unit	50
Cell Size (small cell)	83 mm x 83 mm (3.25 in x 3.25 in)
Cell Size (large cell)	83 mm x 165 mm (3.25 in x 6.5 in)
Top Open Area per unit	90.5%
Bottom Open Area per unit	32.6%
Bottom Mesh Openings	6.35 mm x 6.35 mm (.25 in x .25 in)
Nominal Weight per Unit	3.6 kg (8.0 lb)
Runoff Coefficient @ 63.5 mm/hr (2.5 in) Rainfall	(0 - 0.15)
Units per Pallet	46

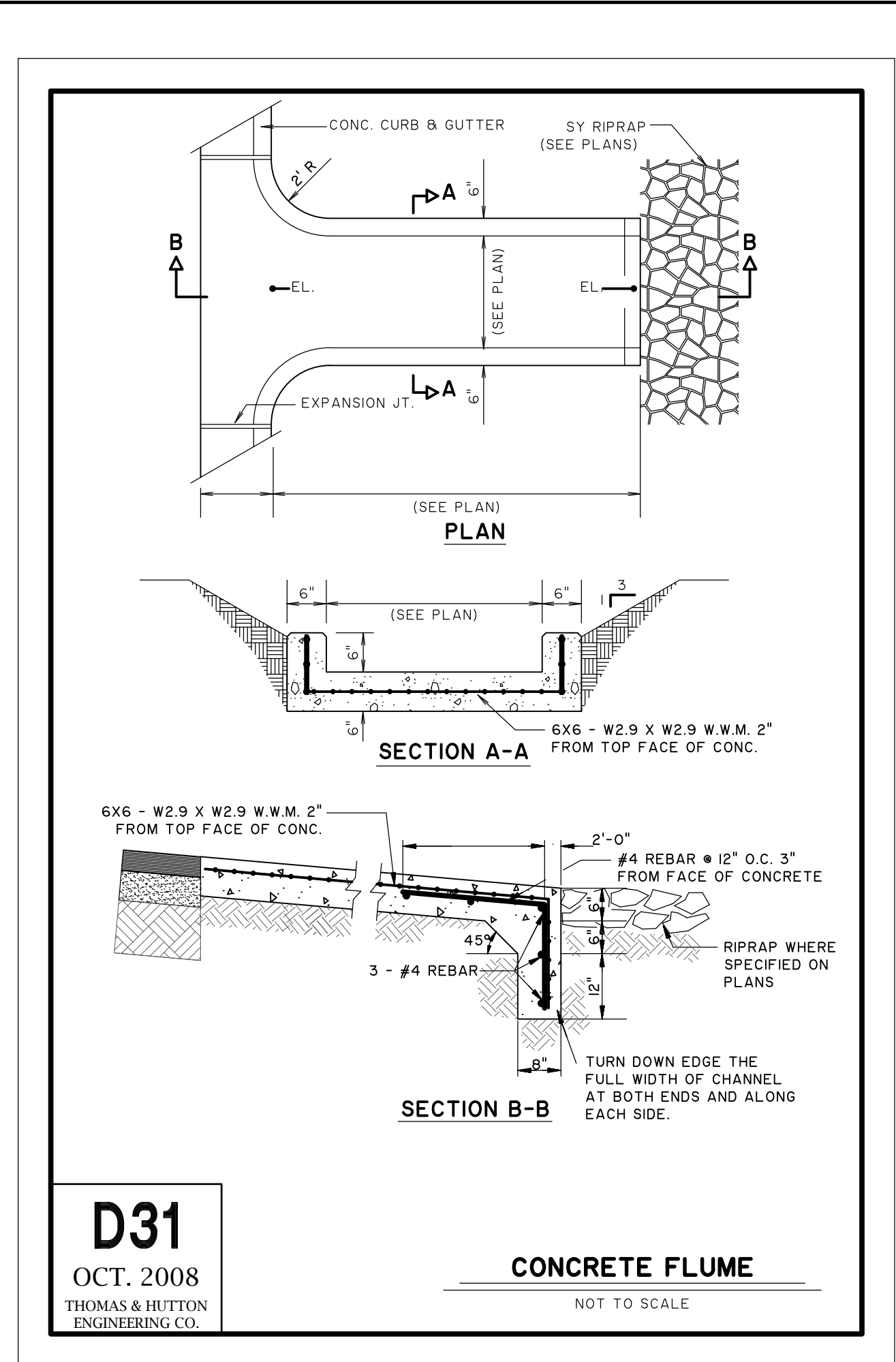
**GEOPAVE<sup>®</sup> MATERIAL SPECIFICATIONS**



AGGREGATE SOLUTION



VEGETATED SOLUTION



**D31**  
OCT. 2008  
THOMAS & HUTTON  
ENGINEERING CO.

**CONCRETE FLUME**

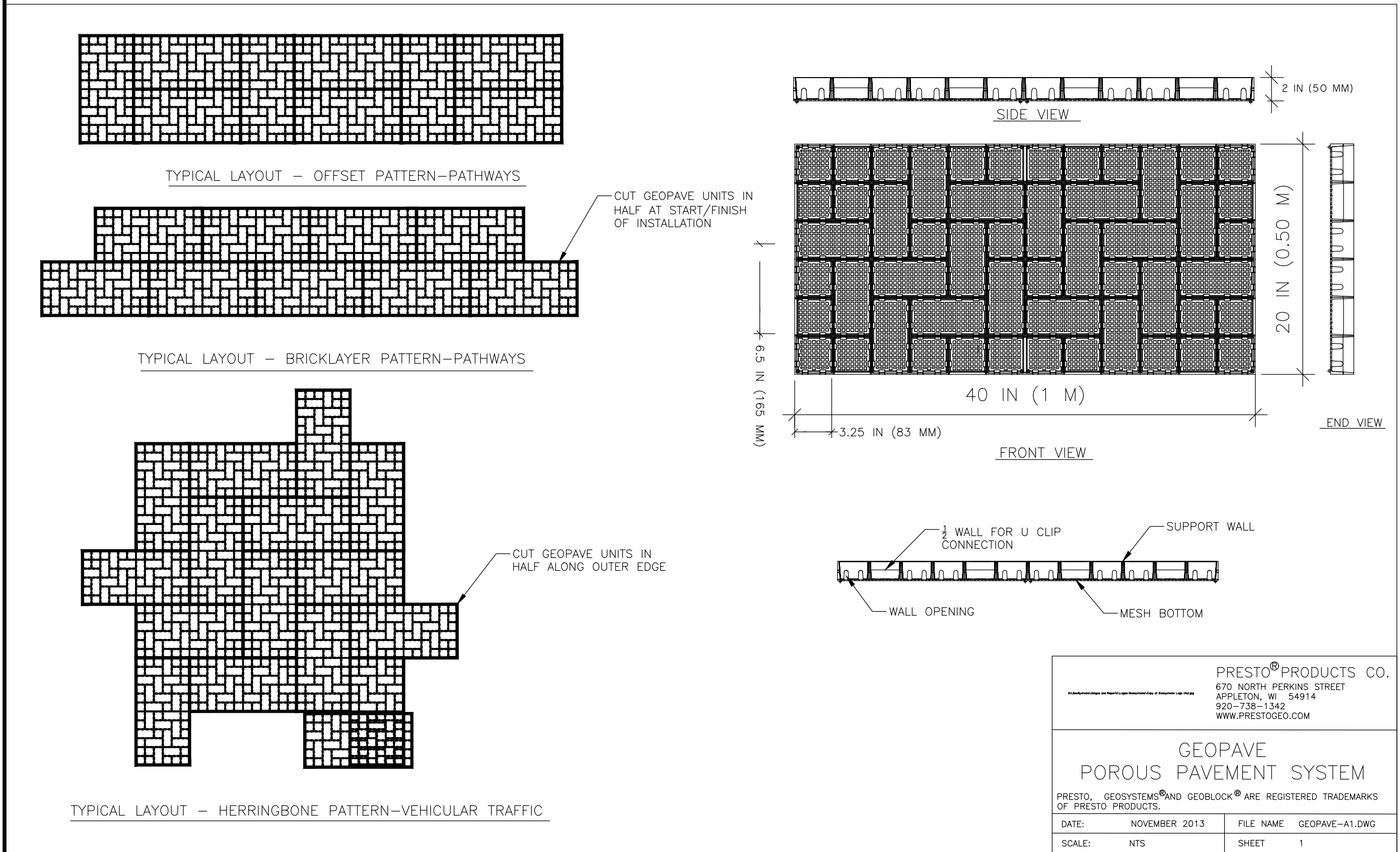
NOT TO SCALE

**PRESTO GEOSYSTEMS<sup>®</sup>**

**THE GEOPAVE<sup>®</sup> POROUS PAVEMENT SYSTEM**

GEOSYSTEMS<sup>®</sup> AND GEOPAVE<sup>®</sup> ARE REGISTERED TRADEMARKS OF PRESTO PRODUCTS COMPANY.

DATE	DECEMBER, 2008	FILE NAME	GEOPAVE-B1.DWG
SCALE	NTS	SHEET	2

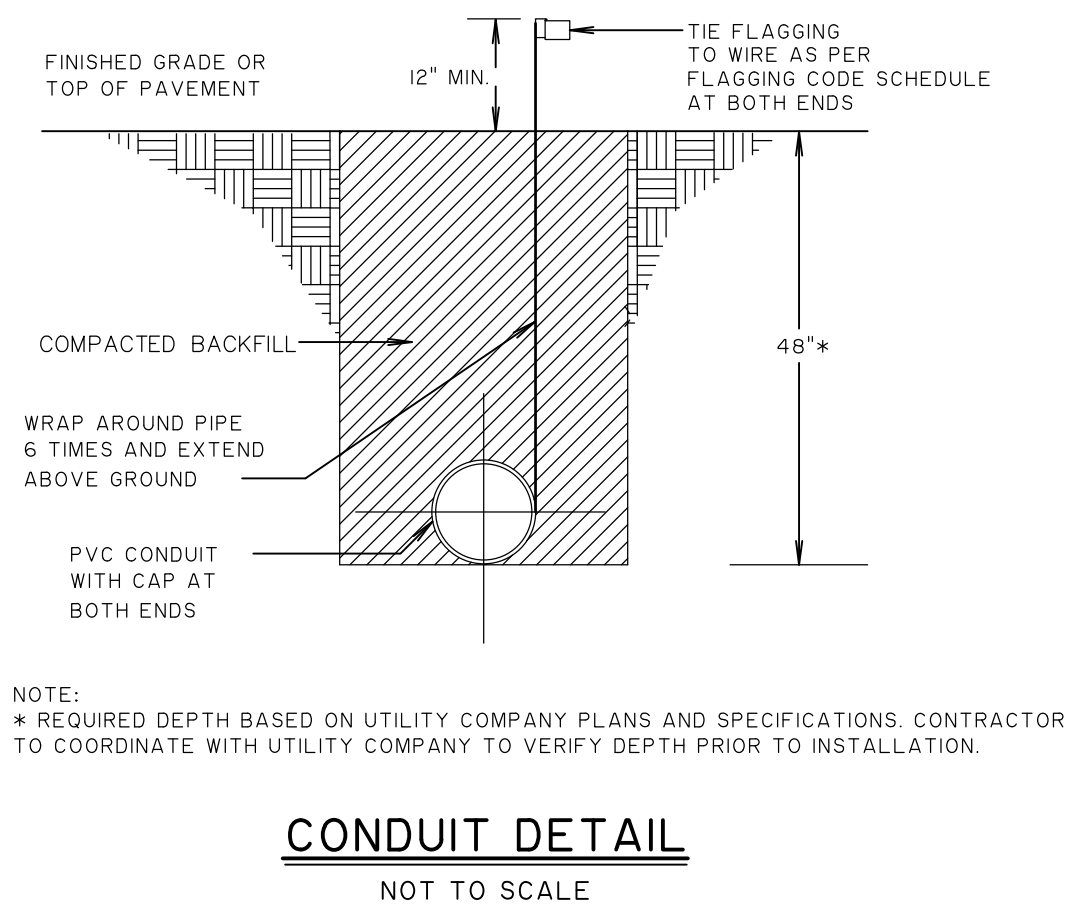


**PRESTO<sup>®</sup> PRODUCTS CO.**  
670 NORTH PERKINS STREET  
APPLETON, WI 54914  
920-738-1342  
WWW.PRESTOGE.COM

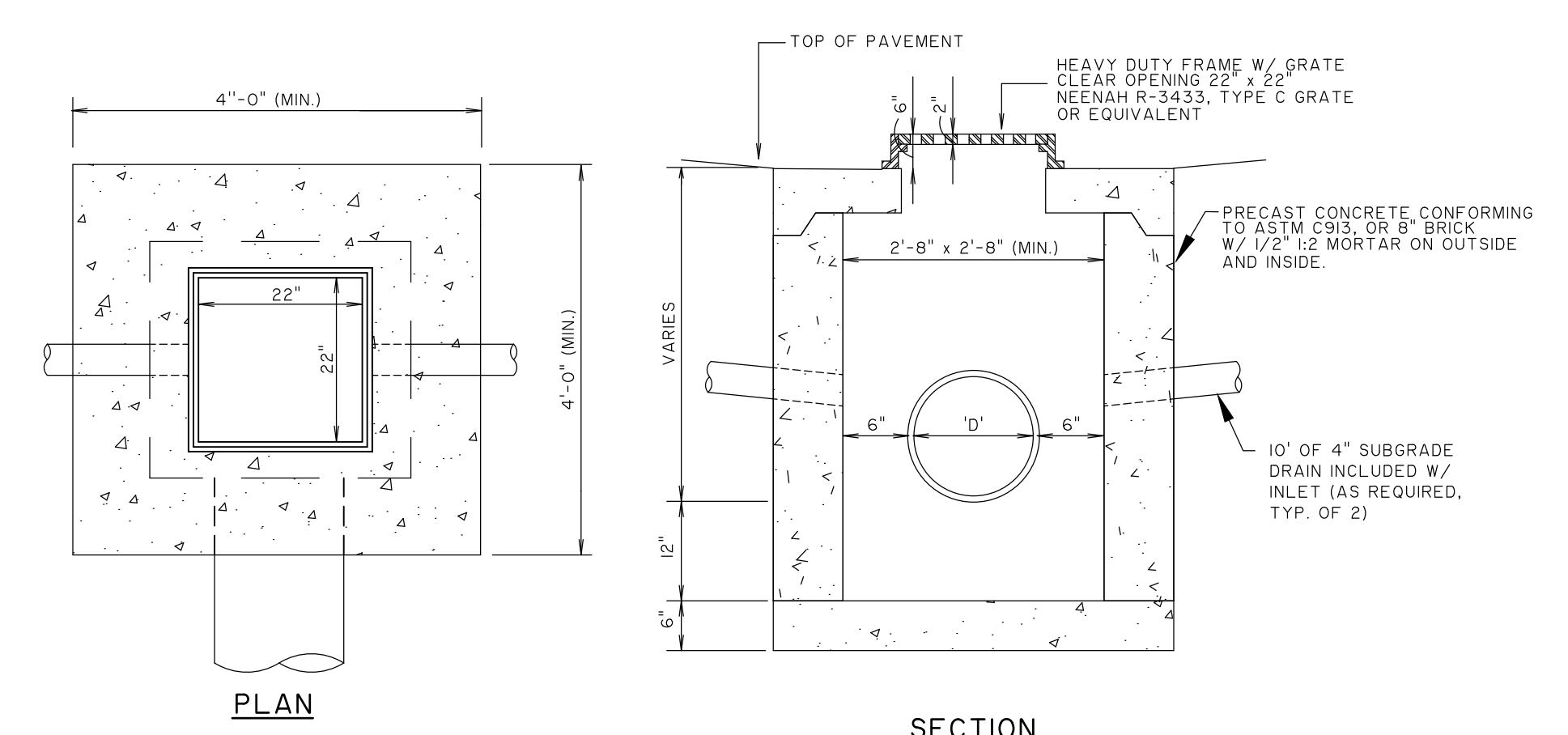
**GEOPAVE POROUS PAVEMENT SYSTEM**

PRESTO, GEOSYSTEMS<sup>®</sup> AND GEOPAVE<sup>®</sup> ARE REGISTERED TRADEMARKS OF PRESTO PRODUCTS.

DATE	NOVEMBER 2013	FILE NAME	GEOPAVE-A1.DWG
SCALE	NTS	SHEET	1



**CONDUIT DETAIL**  
NOT TO SCALE



**STANDARD INLET - GRATE TYPE**  
NOT TO SCALE

**THOMAS & HUTTON**  
ENGINEERING CO.  
REGISTERED PROFESSIONAL ENGINEER  
No. 2300  
15171  
MICHAEL

NO.	REVISIONS	BY	DATE

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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA

**DR. MELLICHAMP DRIVE**

**PAVING AND DRAINAGE DETAILS**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 1'

**C4.6**

BID SET - NOT FOR CONSTRUCTION

**GENERAL NOTES:**

- ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
- ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
- SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
- PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET.
- ALL REINFORCING BARS TO BE GRADE 60.

**REINFORCEMENT SCHEDULE, BASE**

SECTION	PIPE SIZE	SKW OF CROSS DRAIN
"A"	#4's @ 6" E.W.	
"B"	#6's @ 6" E.W.	

**TABLE OF "W" DIMENSIONS**

PIPE SIZE	STRAIGHT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"

**DOUBLE FOR "A" SECTION ONLY**

PIPE SIZE	STRAIGHT	30°	45°
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

**REINFORCEMENT SCHEDULE, WALLS**

SECTION	WIDTH ("W")	HORIZONTAL	VERTICAL
"A"	BETWEEN 4' & 7'	#4's @ 9"	#4's @ 10"
	GREATER THAN 7'	#6's @ 9"	#4's @ 10"
"B"	BETWEEN 4' & 7'	#5's @ 6"	#4's @ 10"
	GREATER THAN 7'	#6's @ 6"	#4's @ 10"

**TABLE OF "T" & "N" DIMENSIONS**

SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	8"
	GREATER THAN 7'	6" + PIPE THICKNESS	10"	8"

**REINFORCEMENT SCHEDULE, TOP**

DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

**PLAN**

**ELEVATION**

**SECTION "A"-"A"**

**JUNCTION BOX**  
NOT TO SCALE

**CORNER BAR**

**D126**  
OCT. 2008  
THOMAS & HUTTON  
ENGINEERING CO.

**DIMENSIONS**

**QUANTITIES ONE ENDWALL W/ 45° WINGS**

OPENING	AREA SQ FT	FOOTING						CLASS "B" CONCRETE		STEEL TIE RODS	
		H	G	L	M	F	WALL FOOT	TOTAL			
18"	1.9	2'-6"	3'-10"	1'-2"	1'-9"	1'-3"	10.7	14.5	25.2	0.93	NONE
24"	3.1	3'-0"	4'-4"	1'-5"	2'-10"	1'-4"	16.6	17.8	34.4	1.27	2-3/4" x 2'-0"
30"	4.9	3'-6"	4'-10"	1'-9"	3'-6"	1'-6"	22.9	24.4	47.3	1.71	2-3/4" x 2'-0"
36"	7.1	4'-0"	5'-4"	2'-1"	4'-3"	1'-8"	30.2	32.0	62.2	2.30	2-3/4" x 3'-0"
42"	9.6	4'-6"	5'-10"	2'-5"	4'-11"	2'-0"	38.8	44.0	82.8	3.07	2-3/4" x 3'-0"
48"	12.6	5'-0"	6'-4"	2'-8"	5'-6"	2'-0"	47.5	48.6	96.1	3.56	2-3/4" x 3'-0"
54"	16.0	5'-6"	6'-10"	3'-2"	6'-1"	2'-0"	57.0	53.4	110.4	4.09	2-3/4" x 3'-0"
60"	19.6	6'-0"	7'-4"	3'-6"	6'-9"	2'-0"	68.5	59.1	127.6	4.73	2-3/4" x 3'-0"

\* FOR EACH ADDITIONAL PIPE LINE, 12" TO 30", ADD 1'-6" + 1 D., 30" AND ABOVE ADD 2'-0" + 1 D.

**FRONT ELEVATION**

**SIDE ELEVATION**

**PLAN**

**CONCRETE ENDWALLS 45° WINGS**  
NOT TO SCALE

**PLAN**

**SECTION**

**DITCH INLET**  
NOT TO SCALE

**VALLEY INLET**  
NOT TO SCALE

**SECTION**

**PLAN**

**DITCH INLET**  
NOT TO SCALE

**THOMAS & HUTTON ENGINEERING CO.**

**PLAN**

**SECTION**

**JOINT DETAIL**

**PRECAST CONCRETE KNOCKOUT BOX DETAIL**  
NOT TO SCALE

**D12**  
OCT. 2008  
THOMAS & HUTTON  
ENGINEERING CO.

**PLAN**

**SECTION**

**NOTES:**

- MATERIAL: ASTM-A48 CLASS 35B GRAY IRON.
- FRAME WT: 500 LBS. APP.
- GRATE WT: 300 LBS. APP.

**U.S. FOUNDRY & MFG. CORP.**  
MEDLEY, FLORIDA

**USF 5112 FRAME & 6143 GRATE**

DWN. BY: DBB  
CHK. BY: DBB  
SCALE: 1" = 1'-0"  
DATE: 3/26/99  
DWC. NO: A1770

**PLAN**

**SECTION**

**US FOUNDRY & MFG. CORP.**  
8351 NW 93rd Street, Medley, FL 33166-5025  
PH: 1-800-432-9706; FAX: 305-887-9429  
www.usfoundry.com

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**USF 4641 Fr & 6492 Gr**

MATERIAL: ASTM-A48 GRAY IRON CLASS 35B  
Frame No: 8030063  
Grate No: 8070198  
SCALE: 1/8" = 1"  
DATE: 11/18/2013  
PNC BY: JM/AB

REV: 1 | DATE: 5/23/2013 | REV BY: OD | QUOTE

**THOMAS & HUTTON ENGINEERING CO.**  
Professional Engineer  
No. 2300  
5/15/11

NO.	REVISIONS	DATE

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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA

**DR. MELLICHAMP DRIVE**

**PAVING AND DRAINAGE DETAILS**

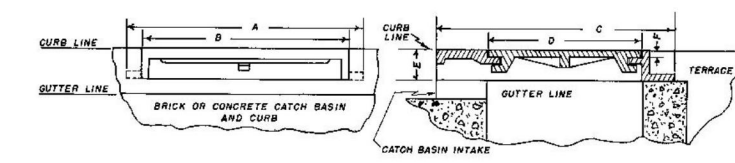
**C4.7**

BID SET - NOT FOR CONSTRUCTION



**R-3330 Series**

Catch Basin Frame, Lid  
Heavy Duty

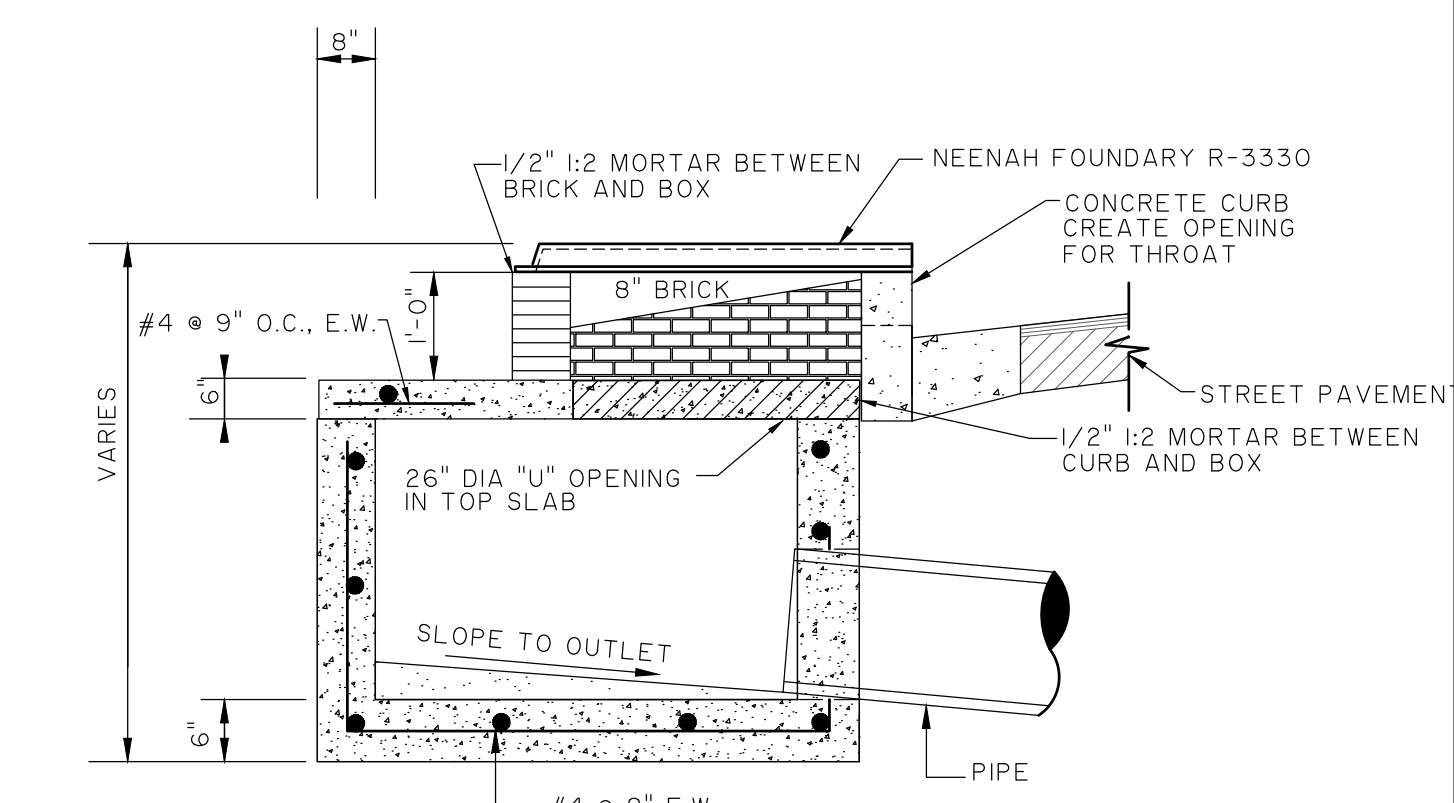
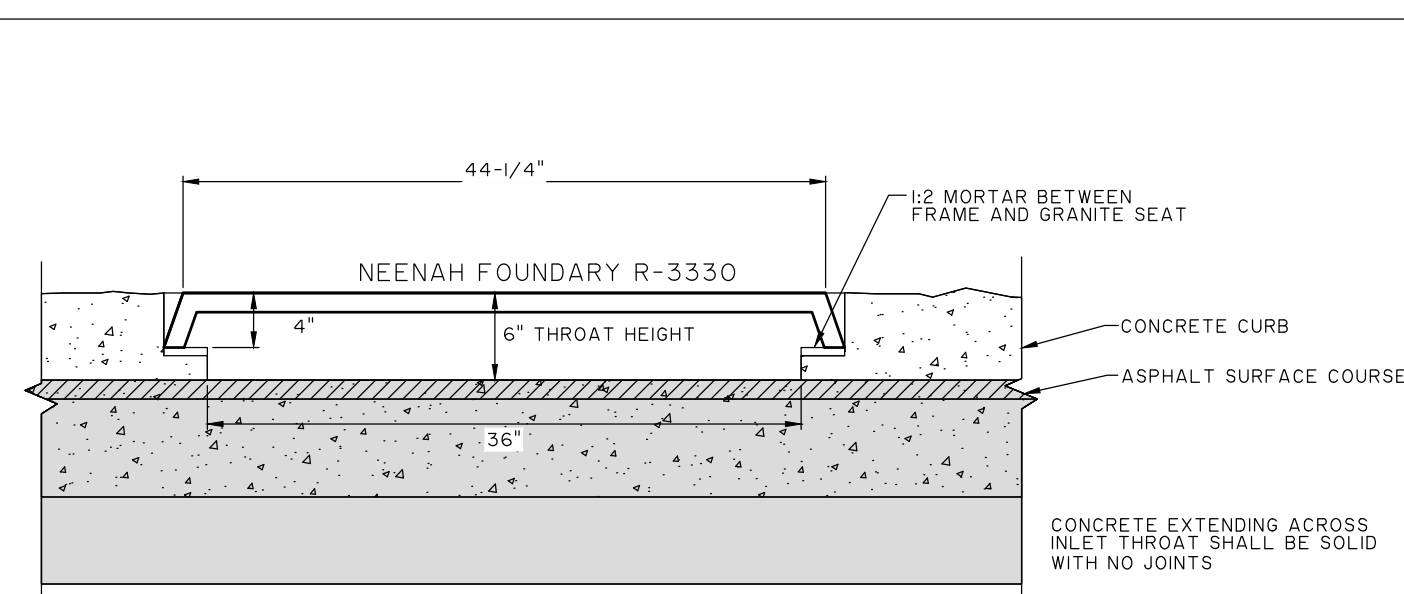


Illustrating R-3330

Catalog No.	A	B	C	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.

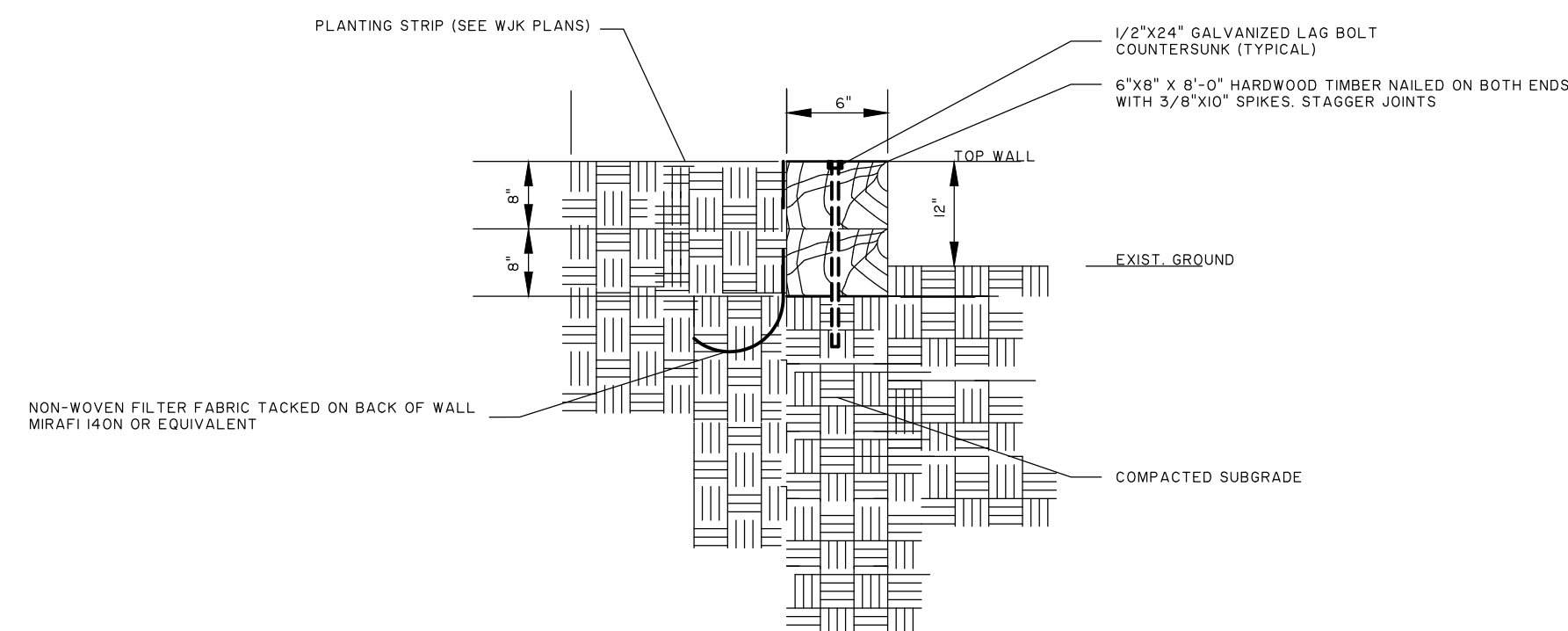
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**NOTES:**

1. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4"
2. PIPE TIEING TO CURB INLET MUST BE SEALED INSIDE AND OUTSIDE OF STRUCTURE WITH BRICK AND MORTAR
2. MINIMUM INSIDE BOX WIDTH SHALL BE 4 FT BE SEALED INSIDE AND OUTSIDE OF STRUCTURE WITH BRICK AND MORTAR

**P216**  
MAR. 2012  
THOMAS & HUTTON  
ENGINEERING CO.

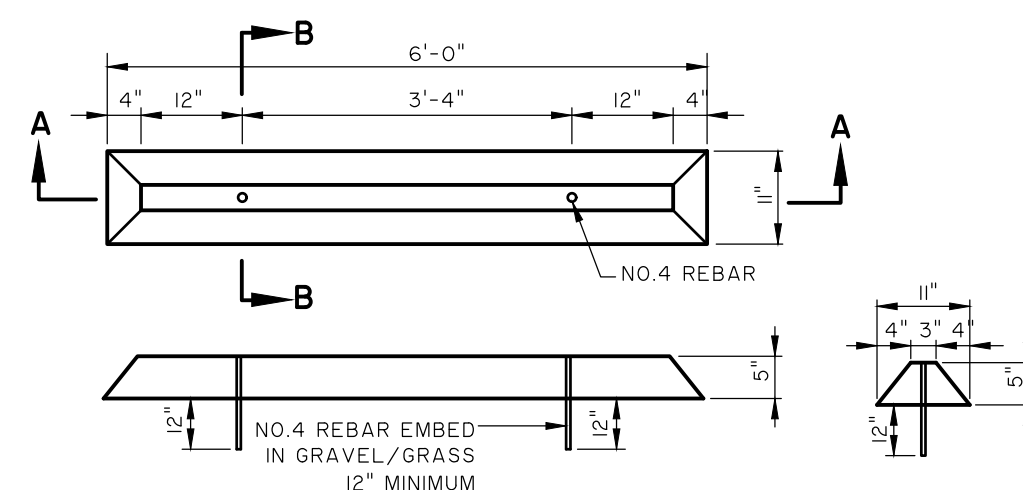


**CROSSTIE RETAINING WALL DETAIL**

NOT TO SCALE

<http://www.nfco.com/municipal/products/print-hsh/>

5/8/2015

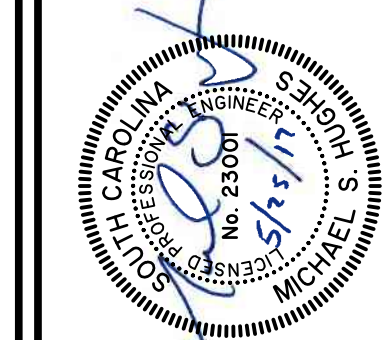
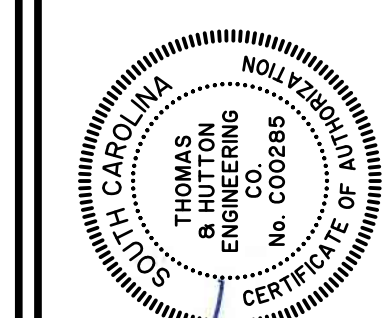


SECTION A-A

SECTION B-B

**CONCRETE WHEEL STOP DETAIL**

NOT TO SCALE



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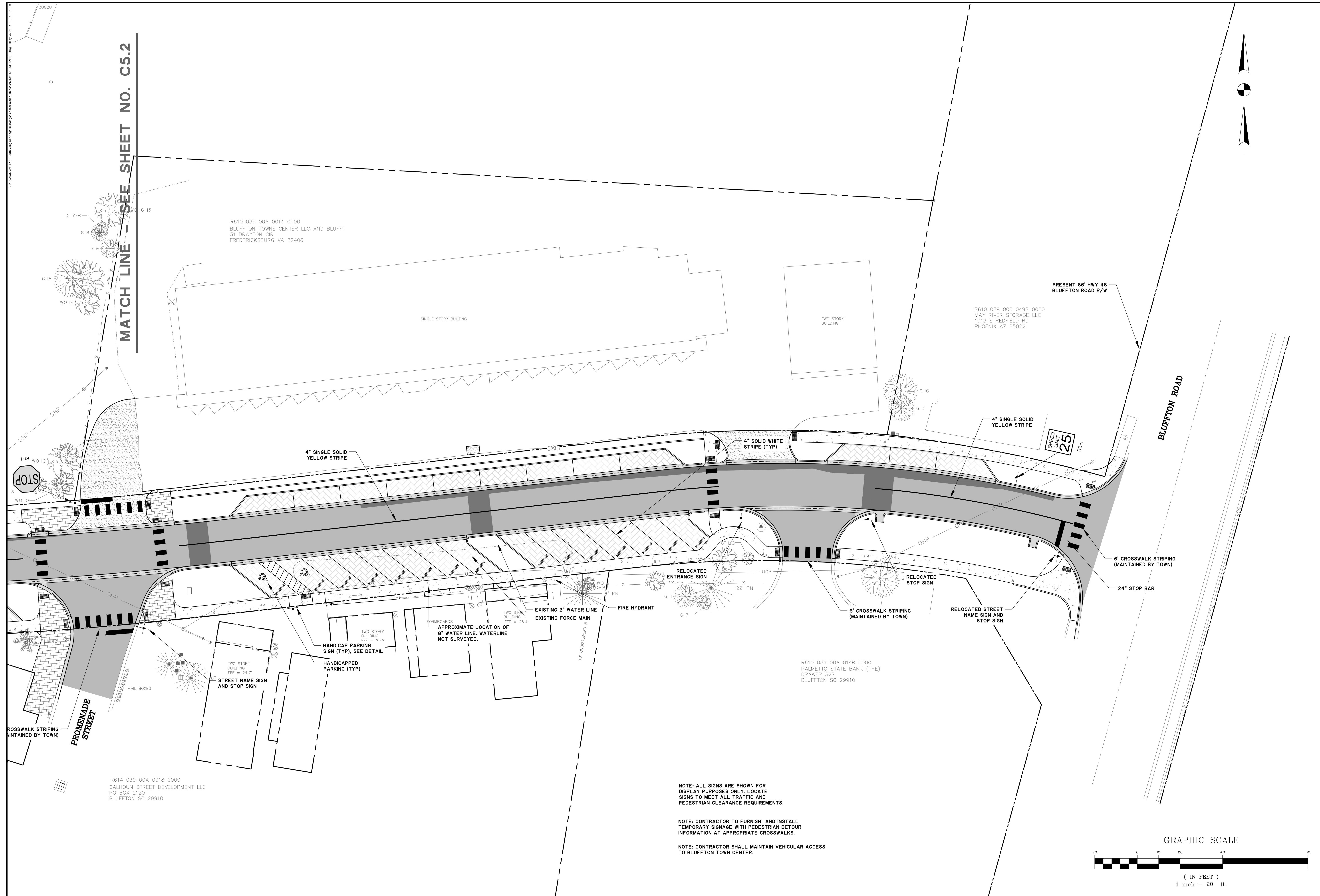
**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
DR. MELLICHAMP DRIVE  
PAVING AND DRAINAGE DETAILS

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 1'

**C4.8**

BID SET - NOT FOR CONSTRUCTION

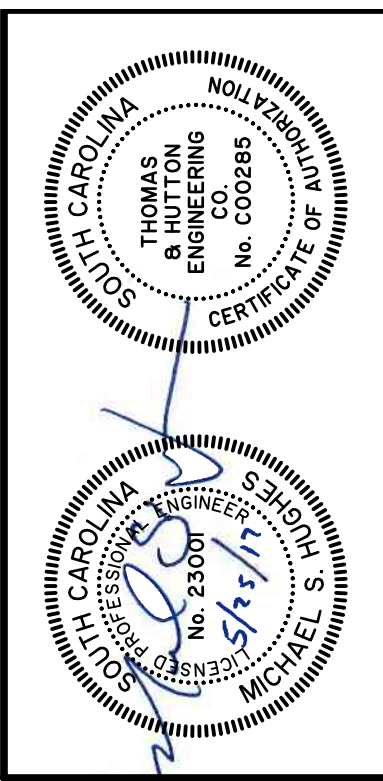
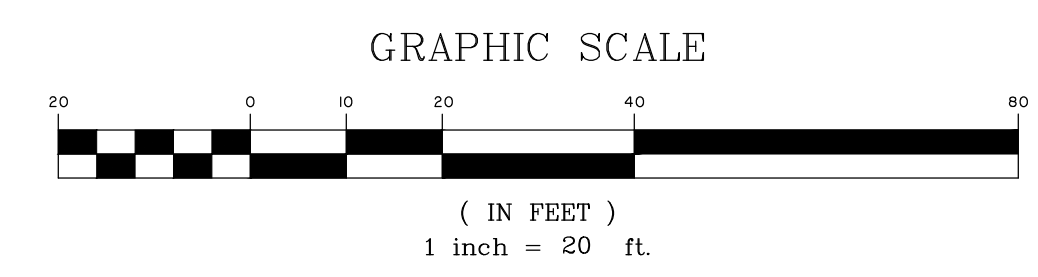




NOTE: ALL SIGNS ARE SHOWN FOR DISPLAY PURPOSES ONLY. LOCATE SIGNS TO MEET ALL TRAFFIC AND PEDESTRIAN CLEARANCE REQUIREMENTS.

NOTE: CONTRACTOR TO FURNISH AND INSTALL TEMPORARY SIGNAGE WITH PEDESTRIAN DETOUR INFORMATION AT APPROPRIATE CROSSWALKS.

NOTE: CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO BLUFFTON TOWN CENTER.



NO.	REVISIONS	BY	DATE

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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA

**DR. MELLICHAMP DRIVE**

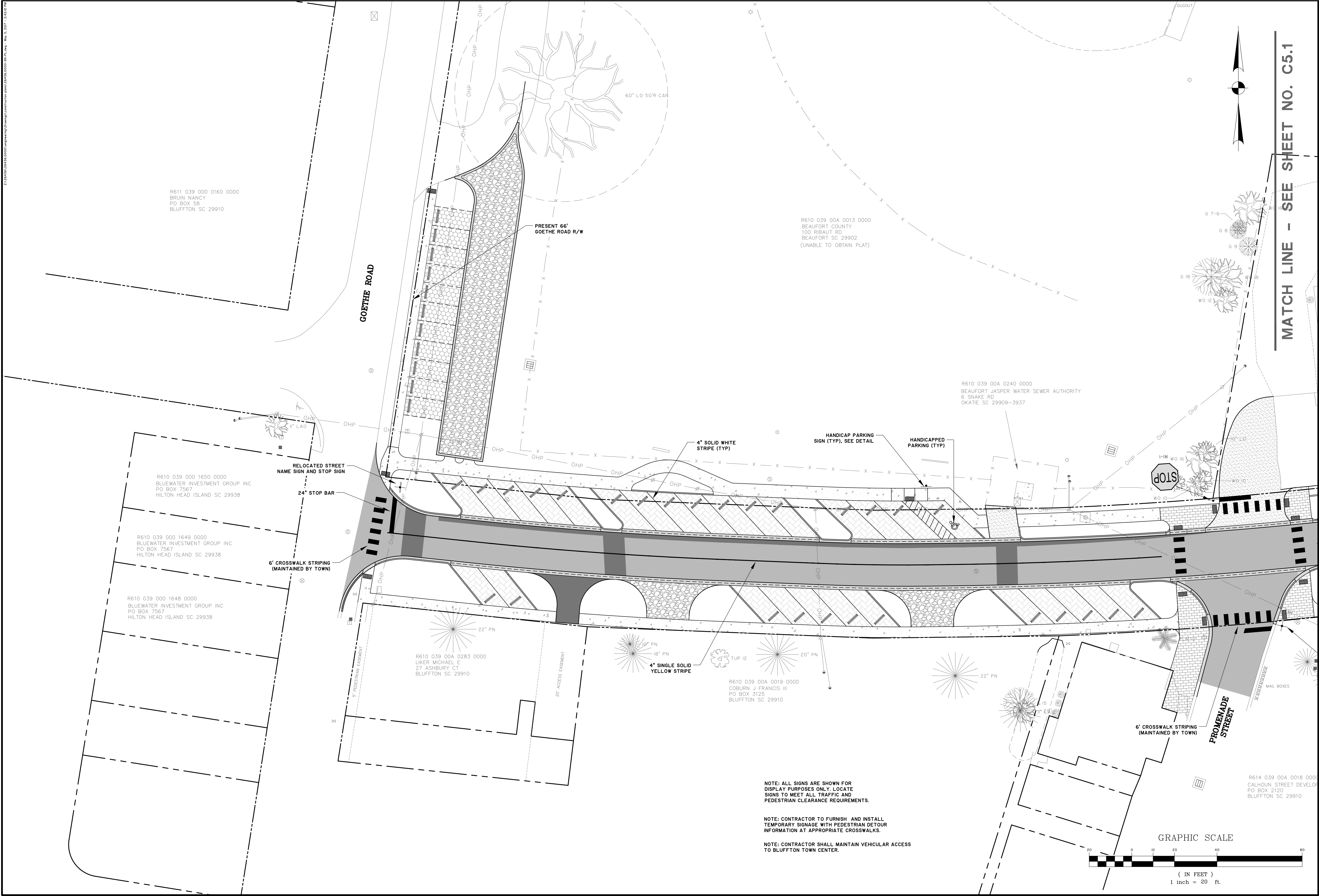
**SIGNING & MARKING PLAN**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**C5.1**

BID SET - NOT FOR CONSTRUCTION

Z:\048528\1515\0000\TEMP\DWG\1515\0000\1515\0000.DWG - May 18, 2017 - 12:52 PM



R611 039 000 0160 0000  
BRUN NANCY  
PO BOX 58  
BLUFFTON SC 29910

PRESENT 66'  
GOETHE ROAD R/W

R610 039 00A 0013 0000  
BEAUFORT COUNTY  
100 RIBAUT RD  
BEAUFORT SC 29902  
(UNABLE TO OBTAIN PLAT)

R610 039 00A 0240 0000  
BEAUFORT JASPER WATER SEWER AUTHORITY  
6 SNAKE RD  
OKATIE SC 29909-3937

R610 039 000 1650 0000  
BLUEWATER INVESTMENT GROUP INC  
PO BOX 7567  
HILTON HEAD ISLAND SC 29938

R610 039 000 1649 0000  
BLUEWATER INVESTMENT GROUP INC  
PO BOX 7567  
HILTON HEAD ISLAND SC 29938

R610 039 000 1648 0000  
BLUEWATER INVESTMENT GROUP INC  
PO BOX 7567  
HILTON HEAD ISLAND SC 29938

R610 039 00A 0283 0000  
LUKER MICHAEL E  
27 ASHBURY CT  
BLUFFTON SC 29910

R610 039 00A 0019 0000  
COBURN J FRANCIS III  
PO BOX 3125  
BLUFFTON SC 29910

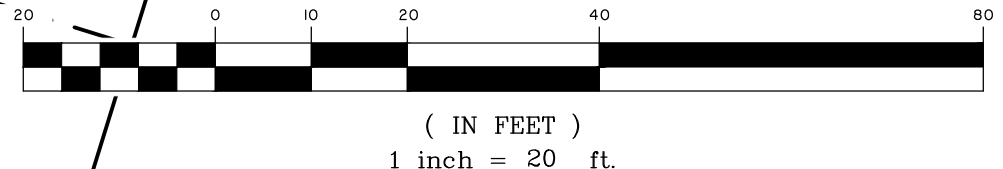
R614 039 00A 0018 0000  
CALHOUN STREET DEVELOP  
PO BOX 2120  
BLUFFTON SC 29910

NOTE: ALL SIGNS ARE SHOWN FOR  
DISPLAY PURPOSES ONLY. LOCATE  
SIGNS TO MEET ALL TRAFFIC AND  
PEDESTRIAN CLEARANCE REQUIREMENTS.

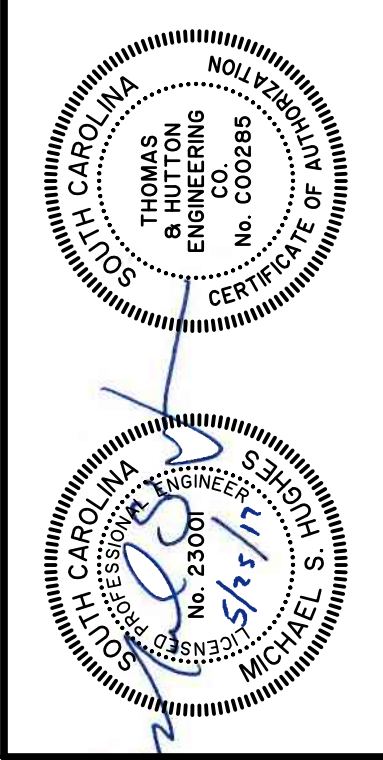
NOTE: CONTRACTOR TO FURNISH AND INSTALL  
TEMPORARY SIGNAGE WITH PEDESTRIAN DETOUR  
INFORMATION AT APPROPRIATE CROSSWALKS.

NOTE: CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS  
TO BLUFFTON TOWN CENTER.

GRAPHIC SCALE



MATCH LINE - SEE SHEET NO. C5.1



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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA

DR. MELLICHAMP DRIVE

**SIGNING & MARKING PLAN**

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**C5.2**

BID SET - NOT FOR CONSTRUCTION

Table with 2 columns: Item description and Value. Includes I. SITE DESCRIPTION, II. CONTROL MEASURES, III. MAINTENANCE, and IV. INSPECTIONS.

Table with 2 columns: Item description and Value. Includes V. LONG TERM MAINTENANCE OF DRAINAGE AND STORM WATER MANAGEMENT SYSTEM, VI. SC DHEC STANDARD NOTES, VII. EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES, and VIII. HOUSEKEEPING.

Table with 2 columns: Item description and Value. Includes IX. GRASSING NOTES and X. PERMANENT STABILIZATION.

Table with 2 columns: Item description and Value. Includes XI. FERTILIZER REQUIREMENTS and XII. SWPP PREPARER CERTIFICATION.

Table with 3 columns: No., Revision, and Date. Includes a section for REVISIONS.

STORMWATER POLLUTION PREVENTION PLAN

BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE. TRAVERSE CONSTRUCTION EXITS TO REMOVE MUD FROM TIRES. SCHEDULE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXPOSED AREA AND DURATION OF EXPOSURE. IN SCHEDULING, TAKE INTO ACCOUNT THE SEASON AND THE WEATHER FORECAST. 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 EROSION AND CONTROL SEDIMENT. EROSION AND SEDIMENT CONTROL MEASURES WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE ENTIRE PROJECT IS TERMINATED OR SUSPENDED FOR AN INDEFINITE LENGTH OF TIME. ALL DISTURBED AREAS SHALL BE PLANTED WITH PERMANENT VEGETATION. 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 AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL LOT OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 AND SCR100000. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS. 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 CANNOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES. A COPY OF THE SWPPP, INSPECTION RECORDS AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS. FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED. 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. MINIMIZE SOIL COMPACTION IN AREAS NOT UNDER PAVEMENTS AND/OR STRUCTURES AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. 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. 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.). THE FOLLOWING DISCHARGES ARE PROHIBITED: 16.1. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL; 16.2. WASTEWATER FROM WASHOUT AND CLEANOUT OF OF STUCCO, PAINT, FORM RELEASE OILS, SEDIMENT AND OTHER CONSTRUCTION MATERIALS; 16.3. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND 16.4. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE. 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 AS SOON AS REASONABLY POSSIBLE. 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-CLEAR PROJECTS THAT DISTURB TO A GREATER OR MORE. THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE. 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. 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 EROSION LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS. 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. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A MAJOR STORM EVENT. 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 WATER INTO THE DOWNSTREAM SYSTEM. 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. 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 SWEEPED AND ANY EXPOSED SOILS ARE STABILIZED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REMOVING ANY PROTECTION AFTER CONSTRUCTION IS COMPLETED. 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). 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 TRENCHES, SHALL BE TREATED BY ONE OF THE FOLLOWING: 9.1. TEMPORARY SEDIMENTATION BASINS 9.2. SEDIMENT FILTERING BAGS 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 OVERGROUND 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. 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. EGRESS FROM THE SITE SHALL BE CONTROLLED SUCH THAT VEHICLES LEAVING THE SITE MUST

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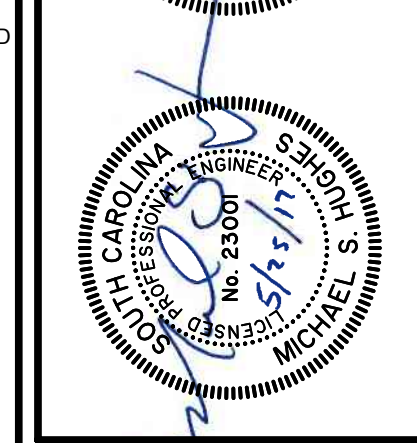
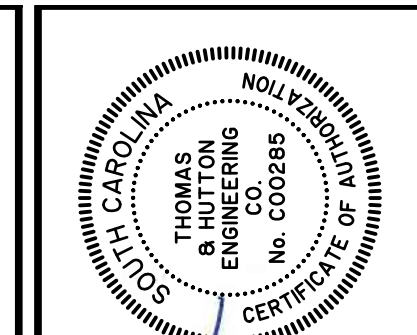


Table with 3 columns: No., Revision, and Date.

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TOWN OF BLUFFTON BLUFFTON, SOUTH CAROLINA

DR. MELLICHAMP DRIVE ES & PC - NOTES

JOB NO: J-26436.0000 DATE: 12/27/16 DRAWN: MNS DESIGNED: JLS CHECKED: MNS REVIEWED: MSH APPROVED: MSA SCALE: N/A

EC1.1

BID SET - NOT FOR CONSTRUCTION

### STORMWATER POLLUTION PREVENTION PLAN

### EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
CLEARING LIMITS	
DIVERSION DIKE	
DIVERSION BERM	
TEMPORARY DIVERSION	
PERMANENT DIVERSION	
SUBSURFACE DRAIN	
VEGETATED CHANNEL	
RIP RAP LINED CHANNEL	
ECB OR TRM LINED CHANNEL	
PAVED CHANNEL	
TREE PROTECTION	
SURFACE ROUGHENING	
TOP SOILING	
TEMPORARY SEEDING	
PERMANENT SEEDING	
MULCHING	

### EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT	
FLEXIBLE GROWTH MATRIX	
BONDED FIBER MATRIX	
SODDING	
SLOPED SODDING	
STAKED SOD	
STAKED SOD AROUND INLET	
RIPRAP	
OUTLET PROTECTION - RIP RAP	
OUTLET PROTECTION - ECB OR TRM	
DUST CONTROL	
POLYACRYLAMIDE (PAM)	
SEDIMENT BASIN	
SEDIMENT BASIN WITH SKIMMER	
SEDIMENT TRAP	
ROCK SEDIMENT DIKE	
SEDIMENT TUBE	

### EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
ROCK CHECK DAM	
POROUS BAFFLES	
STABILIZED CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE A SEDIMENT TUBE	
STORM DRAIN INLET PROTECTION - TYPE B HARDWARE FABRIC AND STONE	
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	
STORM DRAIN INLET PROTECTION - TYPE F INLET TUBE	
STORM DRAIN INLET PROTECTION - TYPE G IMPERVIOUS AREA	
STORM DRAIN INLET PROTECTION - CATCH BASIN INSERT	
PIPE SLOPE DRAINS	
TEMPORARY STREAM CROSSING	
LEVEL SPREADER	

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40												
RYE, GRAIN	56												
RYEGRASS	50												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	40												
JAPANESE MILLET	40												
RYE, GRAIN	56												
OATS	75												
RYEGRASS	50												

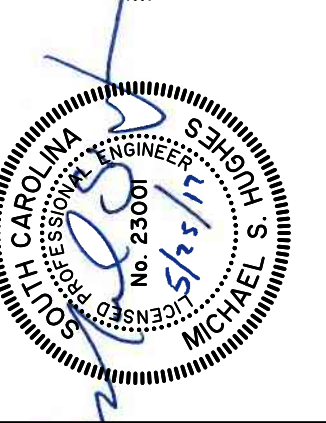
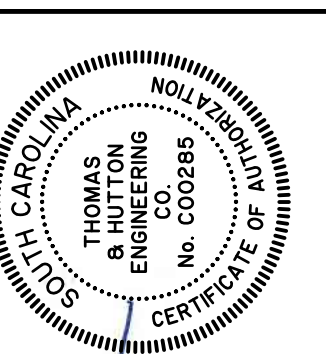
SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10												
BAHIAGRASS	40												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
ATLANTIC COASTAL PANICGRASS	15												
BROWNTOP MILLET	10												
SWITCHGRASS (ALAMO)	8												
LITTLE BLUESTEM	4												
SERICEA LESPEDEZA	20												
BROWNTOP MILLET	10												
WEeping LOVEGRASS	8												
WELL DRAINED, CLAYEY/LOAMEY SITES													
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												
INDIAGRASS	3												

### LIST OF ACRONYMS FOR SEDIMENT AND EROSION CONTROL

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AMD	ACRYLAMIDE POLYMER
BFM	BONDED FIBER MATRIX
BMP(S)	BEST MANAGEMENT PRACTICE(S)
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
DHEC	DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ECB	EROSION CONTROL BLANKET
EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPSC	EROSION PREVENTION AND SEDIMENTATION CONTROL
FDA	UNITED STATES FOOD AND DRUG ADMINISTRATION
FGM	FLEXIBLE GROWTH MATRIX
HDPE	HIGH DENSITY POLYETHYLENE
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
MSDS	MATERIAL SAFETY DATA SHEETS
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PAM	POLYACRYLAMIDE OR POLYMER
RCP	REINFORCED CONCRETE PIPE
SCS	SOIL CONSERVATION SERVICE
SWPPP	STORMWATER POLLUTION PREVENTION PROGRAM
TRM	TURF REINFORCEMENT MAT
VFS	VEGETATED FILTER STRIP

### 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, ROADS, ETC.	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE.
12 LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	LAST CONSTRUCTION PHASE-STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.



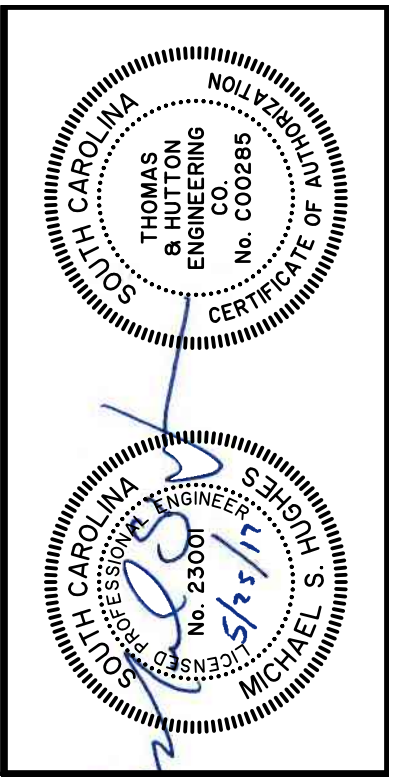
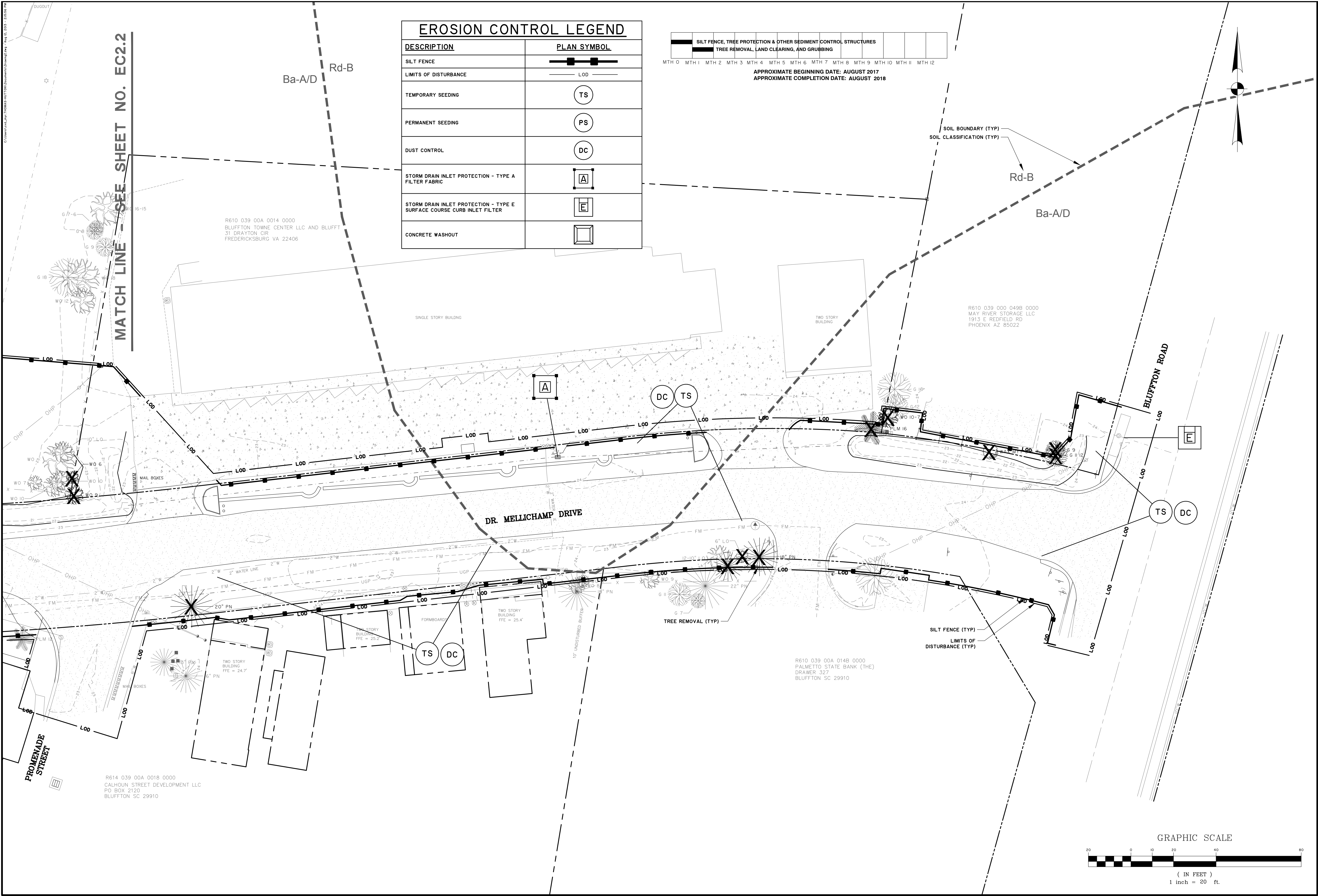
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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
DR. MELLICHAMP DRIVE  
ES & PC - CHARTS

JOB NO: J-26436.0000  
DATE: 12/27/16  
DRAWN: WNS  
DESIGNED: JPM  
REVIEWED: MSH  
SCALE: N/A  
**EC1.2**

BID SET - NOT FOR CONSTRUCTION



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 DR. MELLICHAMP DRIVE  
 ES & PC - INITIAL PLAN

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
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REVIEWED:	MSH
APPROVED:	MSH
SCALE:	1" = 20'

**EC2.1**

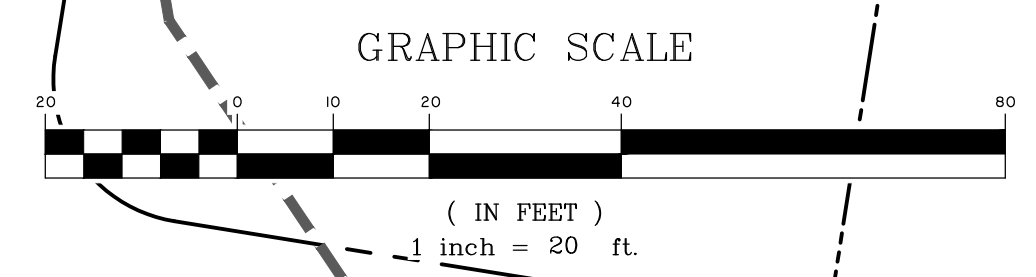
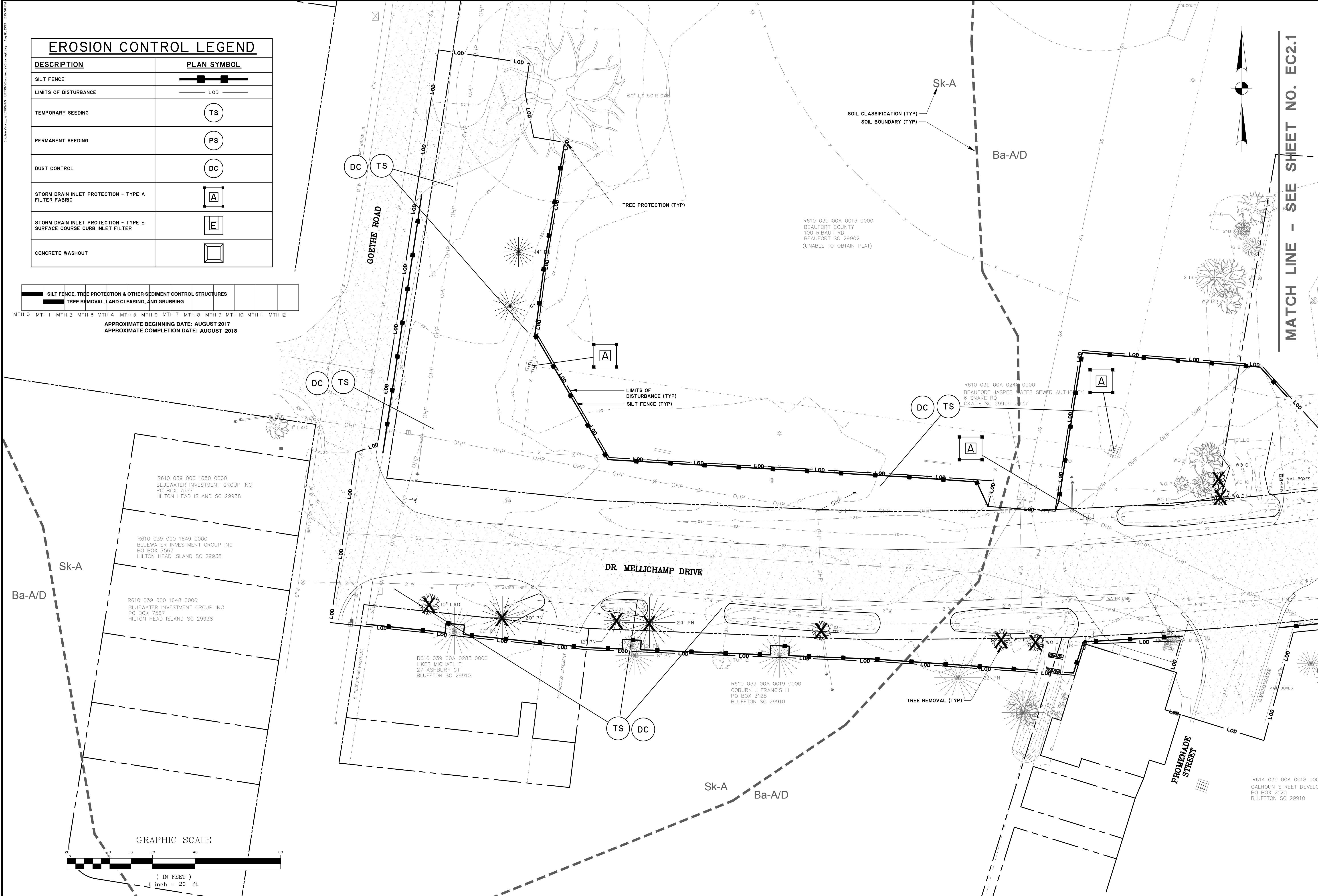
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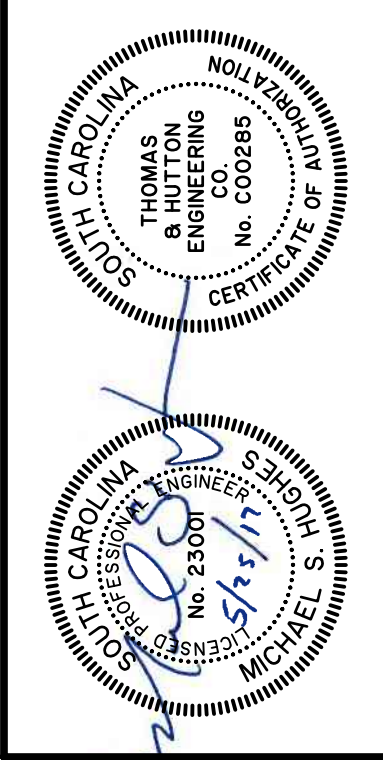
EROSION CONTROL LEGEND	
DESCRIPTION	PLAN SYMBOL
SILT FENCE	
LIMITS OF DISTURBANCE	
TEMPORARY SEEDING	
PERMANENT SEEDING	
DUST CONTROL	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
CONCRETE WASHOUT	

SILT FENCE, TREE PROTECTION & OTHER SEDIMENT CONTROL STRUCTURES												
TREE REMOVAL, LAND CLEARING, AND GRUBBING												

MTH 0 MTH 1 MTH 2 MTH 3 MTH 4 MTH 5 MTH 6 MTH 7 MTH 8 MTH 9 MTH 10 MTH 11 MTH 12  
 APPROXIMATE BEGINNING DATE: AUGUST 2017  
 APPROXIMATE COMPLETION DATE: AUGUST 2018



MATCH LINE - SEE SHEET NO. EC2.1



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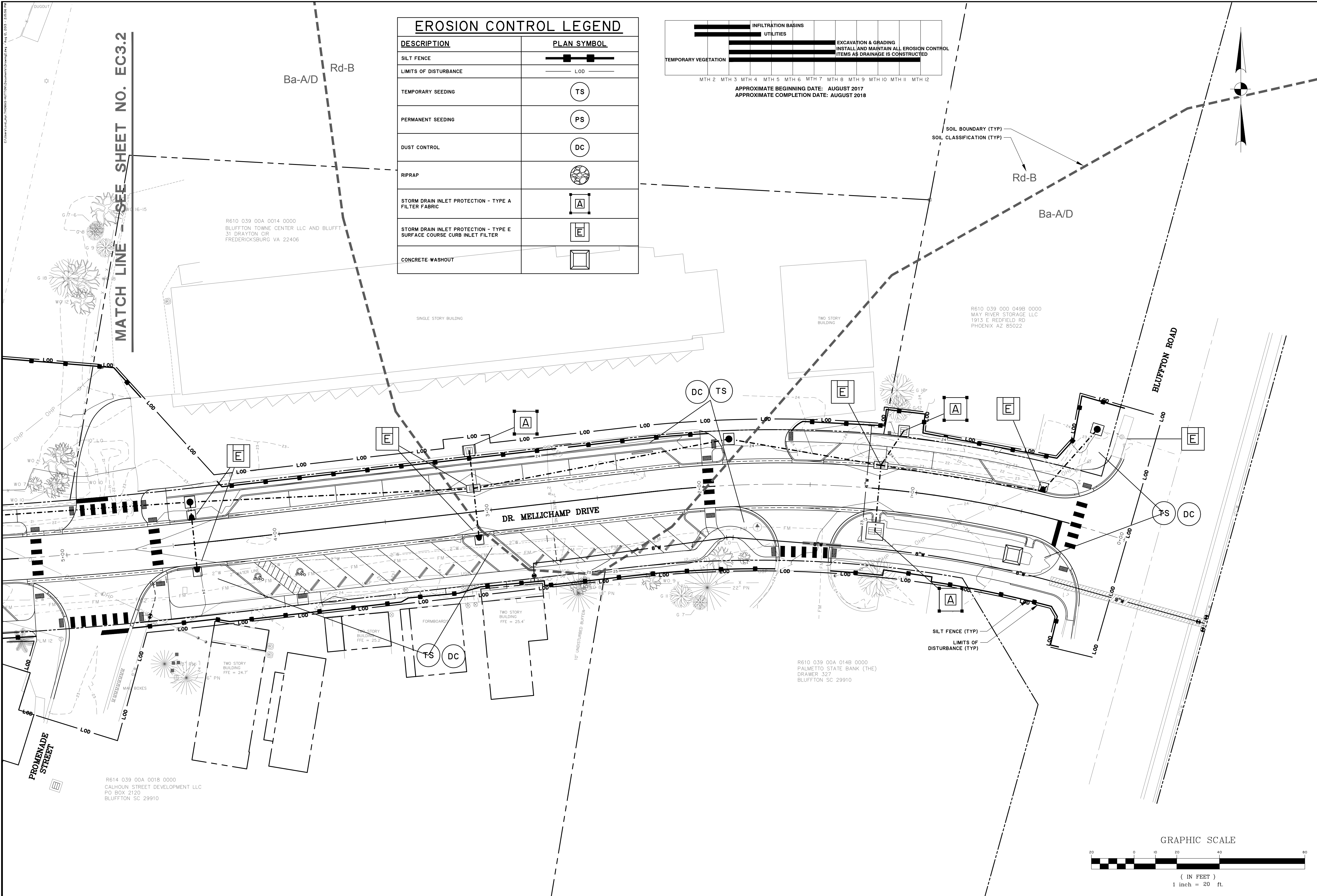
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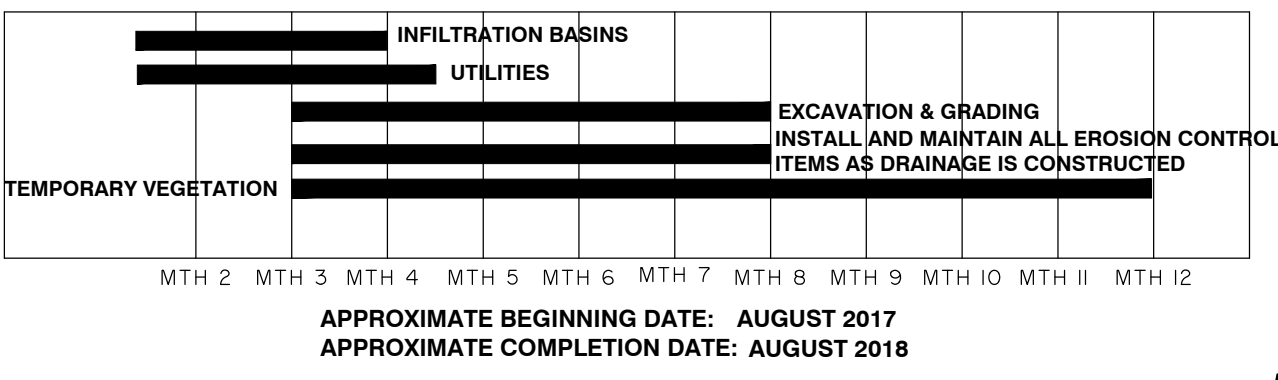
**EC2.2**

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### EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
LIMITS OF DISTURBANCE	
TEMPORARY SEEDING	
PERMANENT SEEDING	
DUST CONTROL	
RIPRAP	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
CONCRETE WASHOUT	



MATCH LINE - SEE SHEET NO. EC3.2

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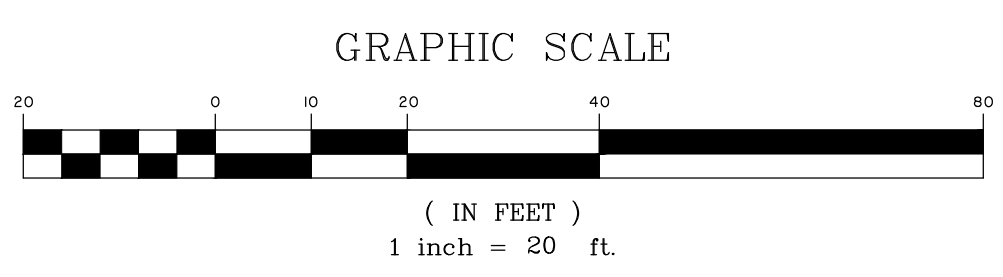
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BLUFFTON, SOUTH CAROLINA

**DR. MELLICHAMP DRIVE**

**ES & PC - CONSTRUCTION PLAN**

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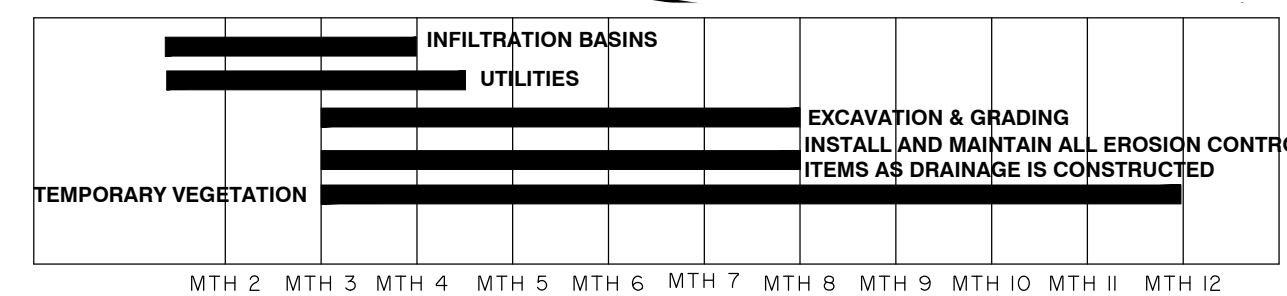
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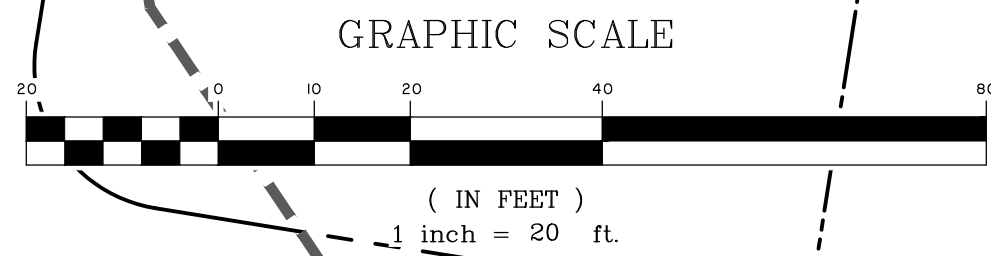
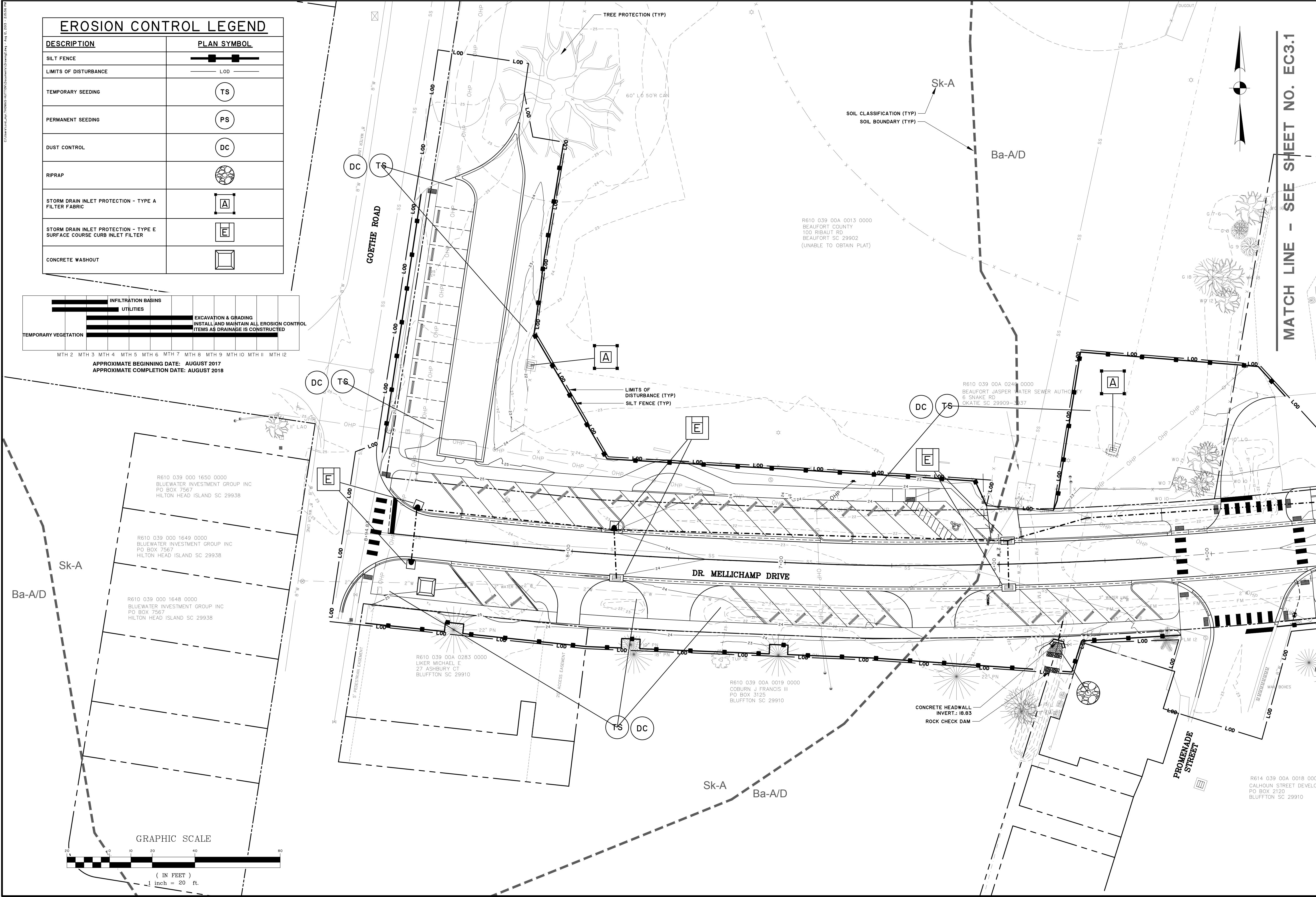
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EROSION CONTROL LEGEND	
DESCRIPTION	PLAN SYMBOL
SILT FENCE	
LIMITS OF DISTURBANCE	LOD
TEMPORARY SEEDING	TS
PERMANENT SEEDING	PS
DUST CONTROL	DC
RIPRAP	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
CONCRETE WASHOUT	



MTH 2 MTH 3 MTH 4 MTH 5 MTH 6 MTH 7 MTH 8 MTH 9 MTH 10 MTH 11 MTH 12  
 APPROXIMATE BEGINNING DATE: AUGUST 2017  
 APPROXIMATE COMPLETION DATE: AUGUST 2018



MATCH LINE - SEE SHEET NO. EC3.1

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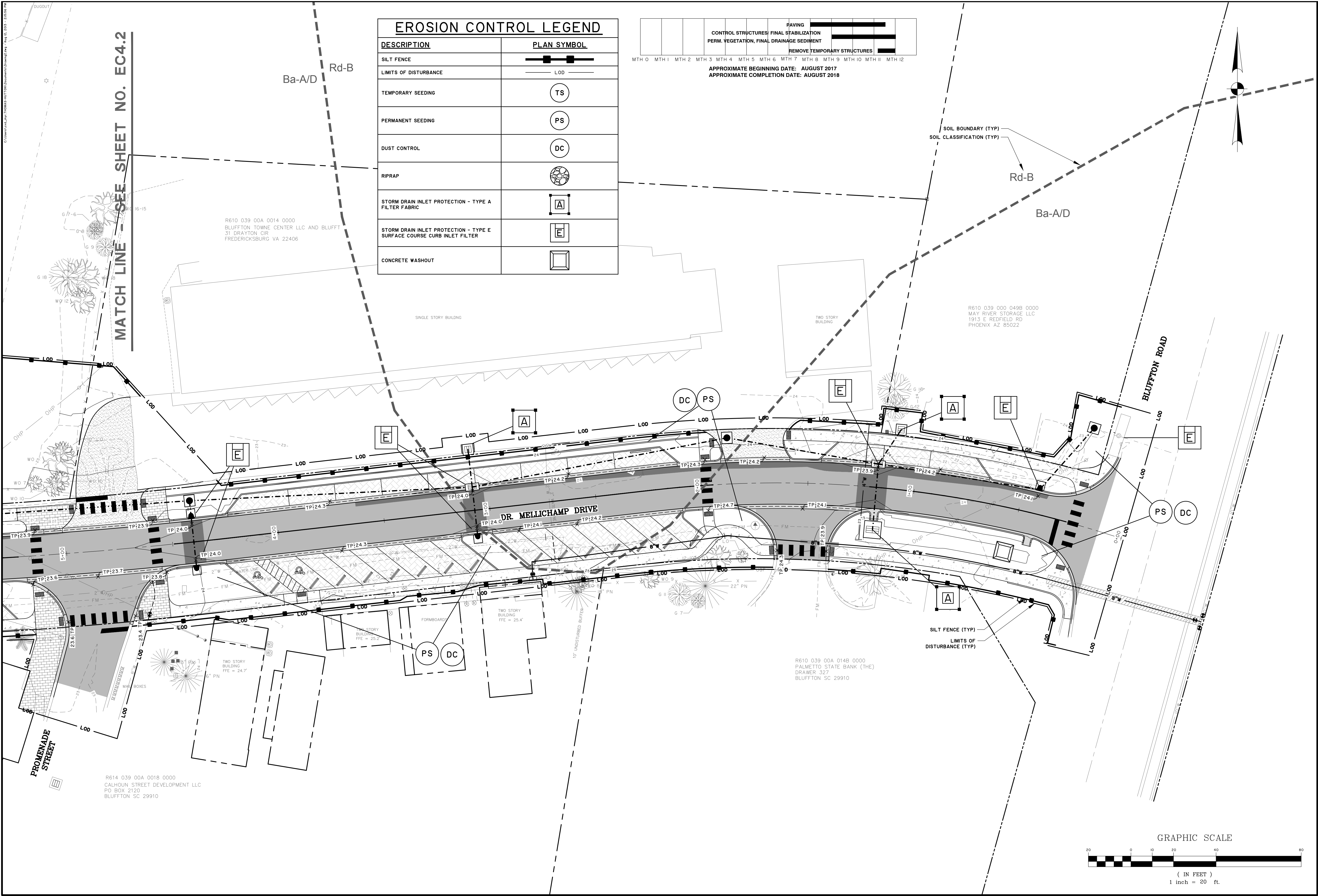
**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
**ES & PC - CONSTRUCTION PLAN**

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### EROSION CONTROL LEGEND

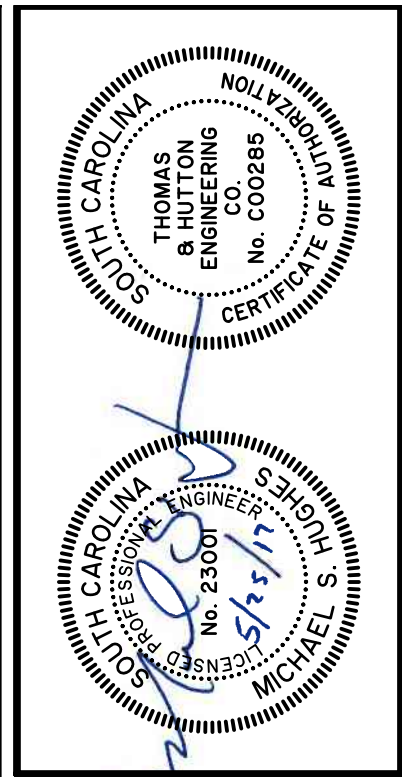
DESCRIPTION	PLAN SYMBOL
SILT FENCE	
LIMITS OF DISTURBANCE	— LOD —
TEMPORARY SEEDING	⊙ TS
PERMANENT SEEDING	⊙ PS
DUST CONTROL	⊙ DC
RIPRAP	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
CONCRETE WASHOUT	

PAVING	
CONTROL STRUCTURES/ FINAL STABILIZATION	
PERM. VEGETATION, FINAL DRAINAGE SEDIMENT	
REMOVE TEMPORARY STRUCTURES	

MTH 0 MTH 1 MTH 2 MTH 3 MTH 4 MTH 5 MTH 6 MTH 7 MTH 8 MTH 9 MTH 10 MTH 11 MTH 12

APPROXIMATE BEGINNING DATE: AUGUST 2017  
APPROXIMATE COMPLETION DATE: AUGUST 2018

MATCH LINE - SEE SHEET NO. EC4.2



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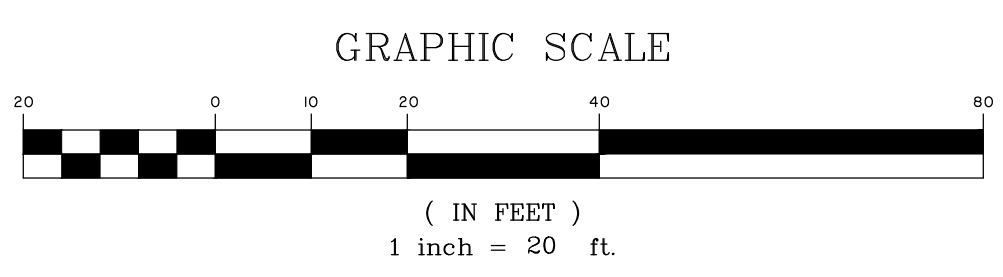
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**DR. MELLICHAMP DRIVE**

**ES & PC - STABILIZATION PLAN**

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**EC4.1**



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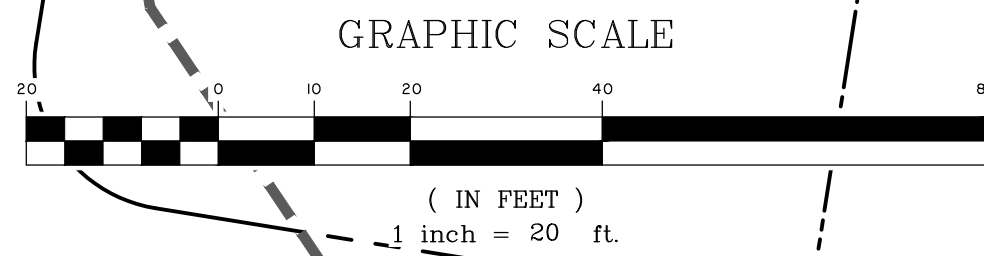
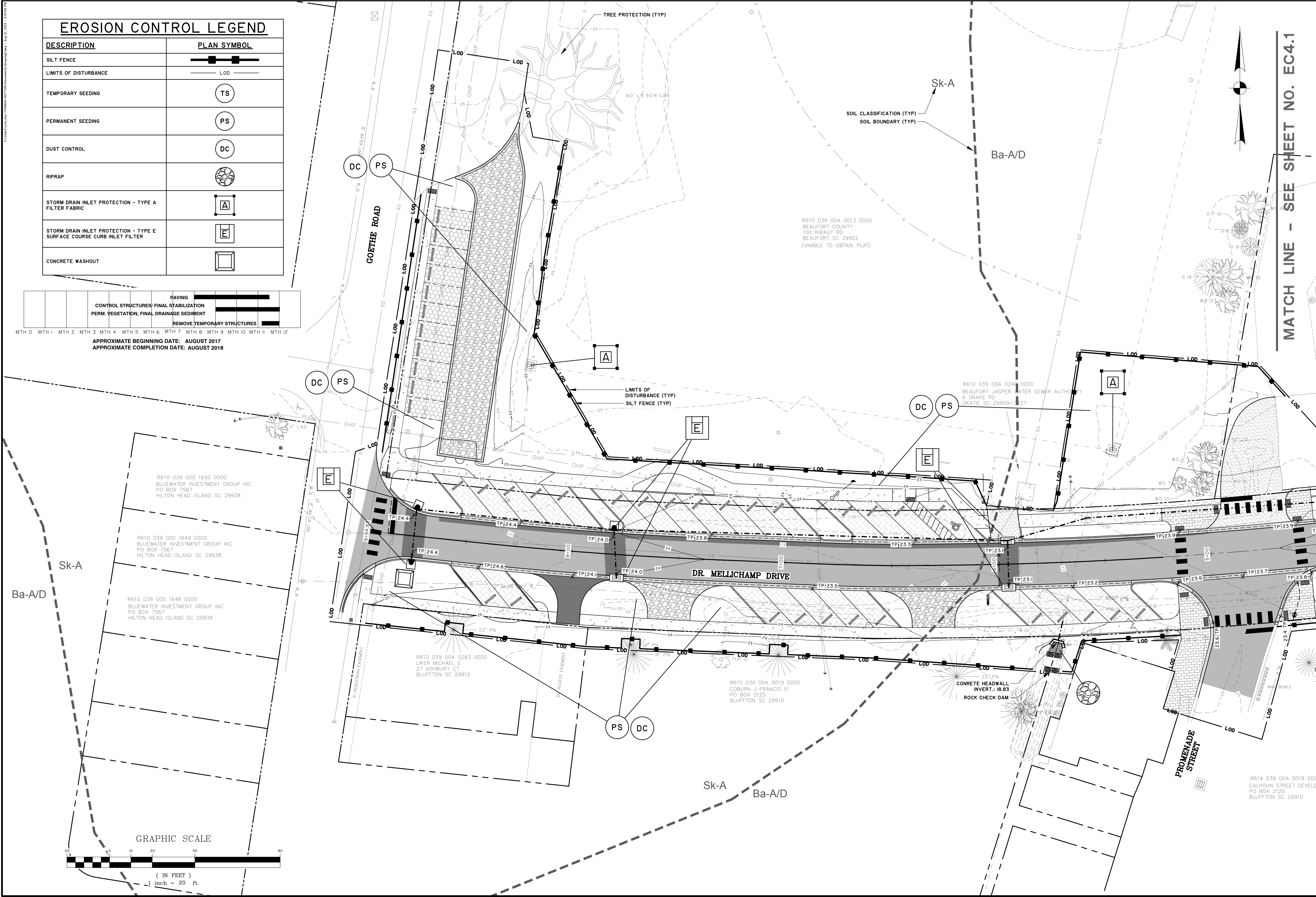
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### EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
LIMITS OF DISTURBANCE	LOD
TEMPORARY SEEDING	TS
PERMANENT SEEDING	PS
DUST CONTROL	DC
RIPRAP	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	
CONCRETE WASHOUT	

PAVING												
CONTROL STRUCTURES/ FINAL STABILIZATION												
PERM. VEGETATION, FINAL DRAINAGE SEDIMENT												
REMOVE TEMPORARY STRUCTURES												
MTH 0	MTH 1	MTH 2	MTH 3	MTH 4	MTH 5	MTH 6	MTH 7	MTH 8	MTH 9	MTH 10	MTH 11	MTH 12

APPROXIMATE BEGINNING DATE: AUGUST 2017  
 APPROXIMATE COMPLETION DATE: AUGUST 2018



MATCH LINE - SEE SHEET NO. EC4.1

Professional Engineer Seal for Thomas & Hutton, Inc. License No. 2300, State of South Carolina. The seal is circular and contains the text 'THOMAS & HUTTON, INC.', 'ENGINEERING', 'LICENSE NO. 2300', 'STATE OF SOUTH CAROLINA', and 'MICHAEL H. HUTTON, P.E.'.

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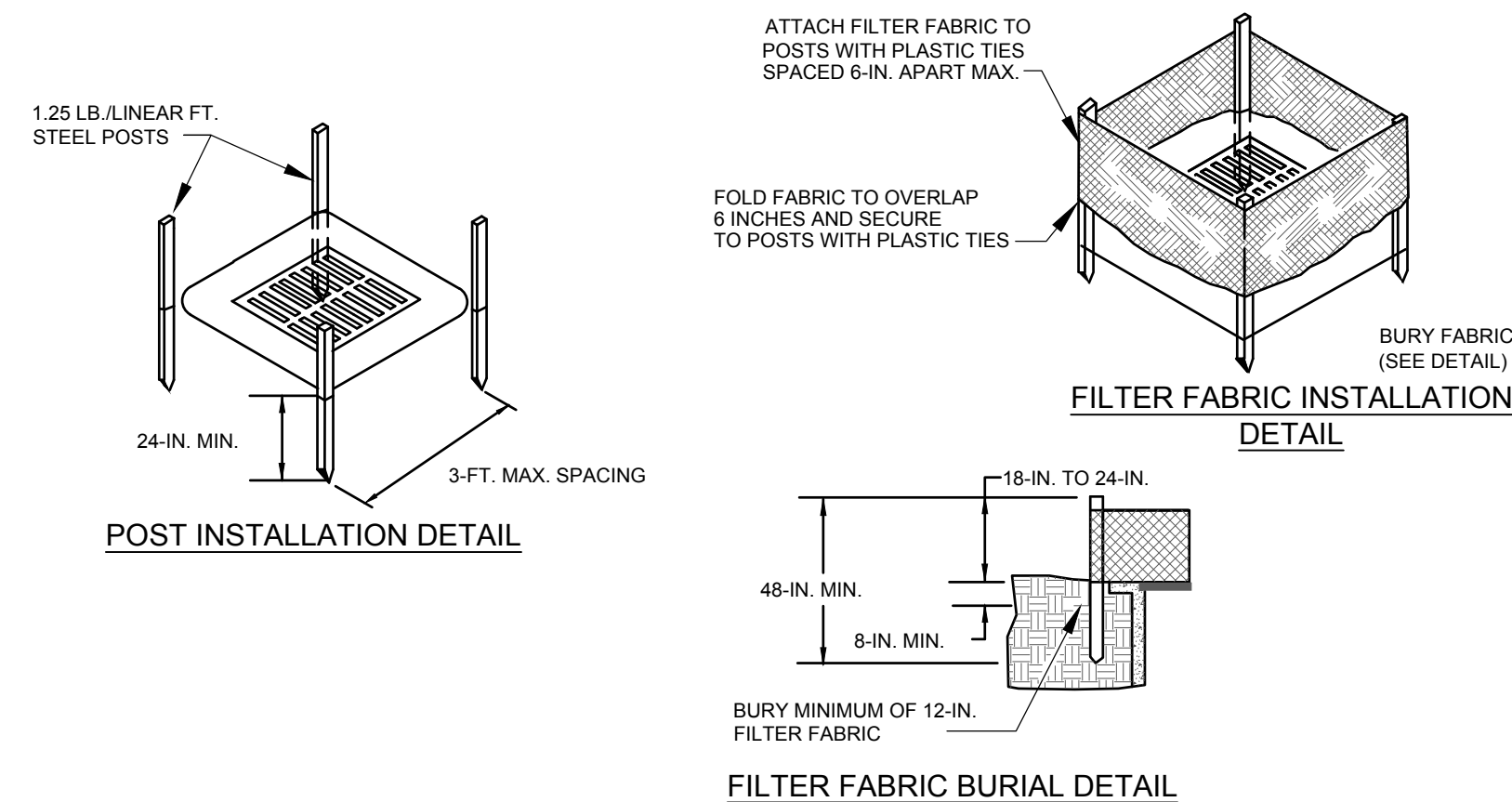
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 BLUFFTON, SOUTH CAROLINA  
**DR. MELLICHAMP DRIVE**  
**ES & PC - STABILIZATION PLAN**

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**EC4.2**

BID SET - NOT FOR CONSTRUCTION

STORMWATER POLLUTION PREVENTION PLAN



**MATERIALS:**  
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.

**INSTALLATION:**  
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 FABRIC UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

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.



**Du DUST CONTROL ON DISTURBED AREAS**

**DEFINITION**

Controlling surface and air movement of dust on land-disturbing activities.



**PURPOSE**

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

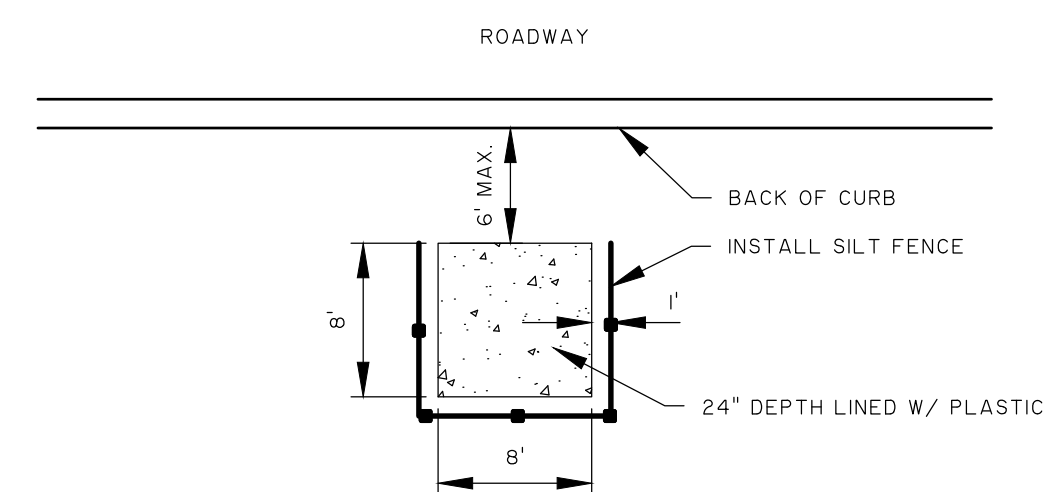
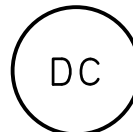
**INSTALLATION**

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

32

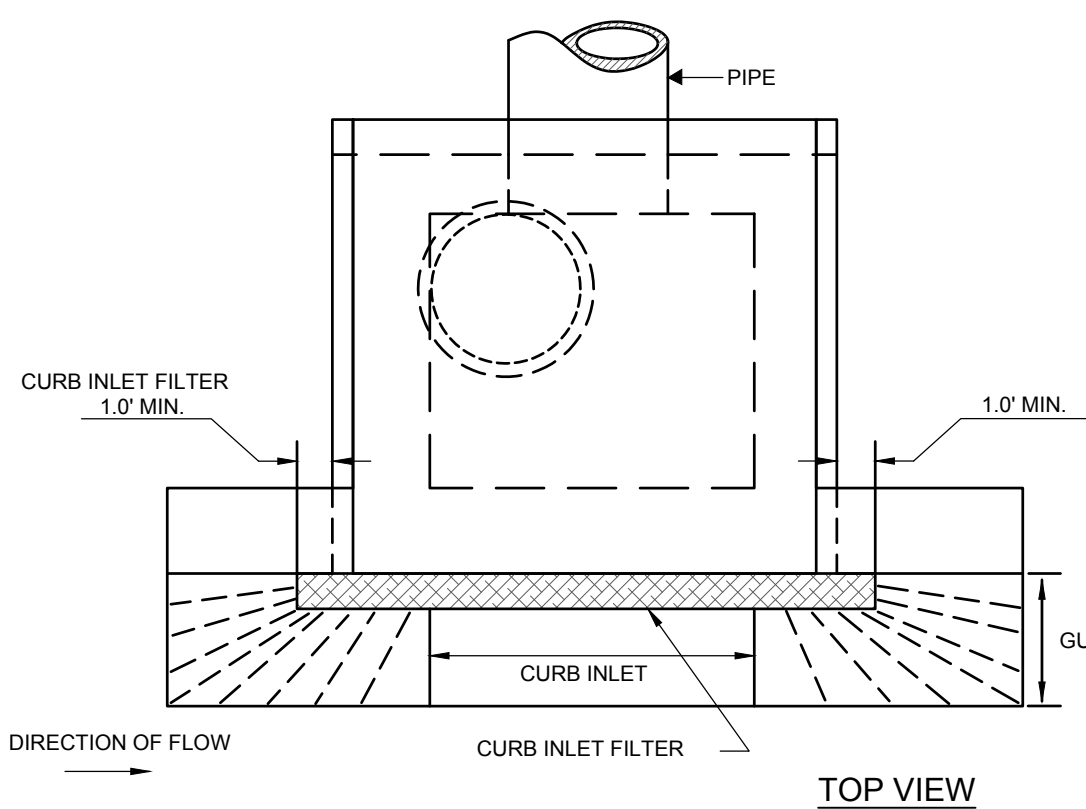
**DUST CONTROL MEASURES**

NOT TO SCALE



**CONCRETE WASHOUT DETAIL**

NOT TO SCALE



**MATERIALS:**  
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 MIGRATION CONDITIONS.

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

**INSTALLATION:**  
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.

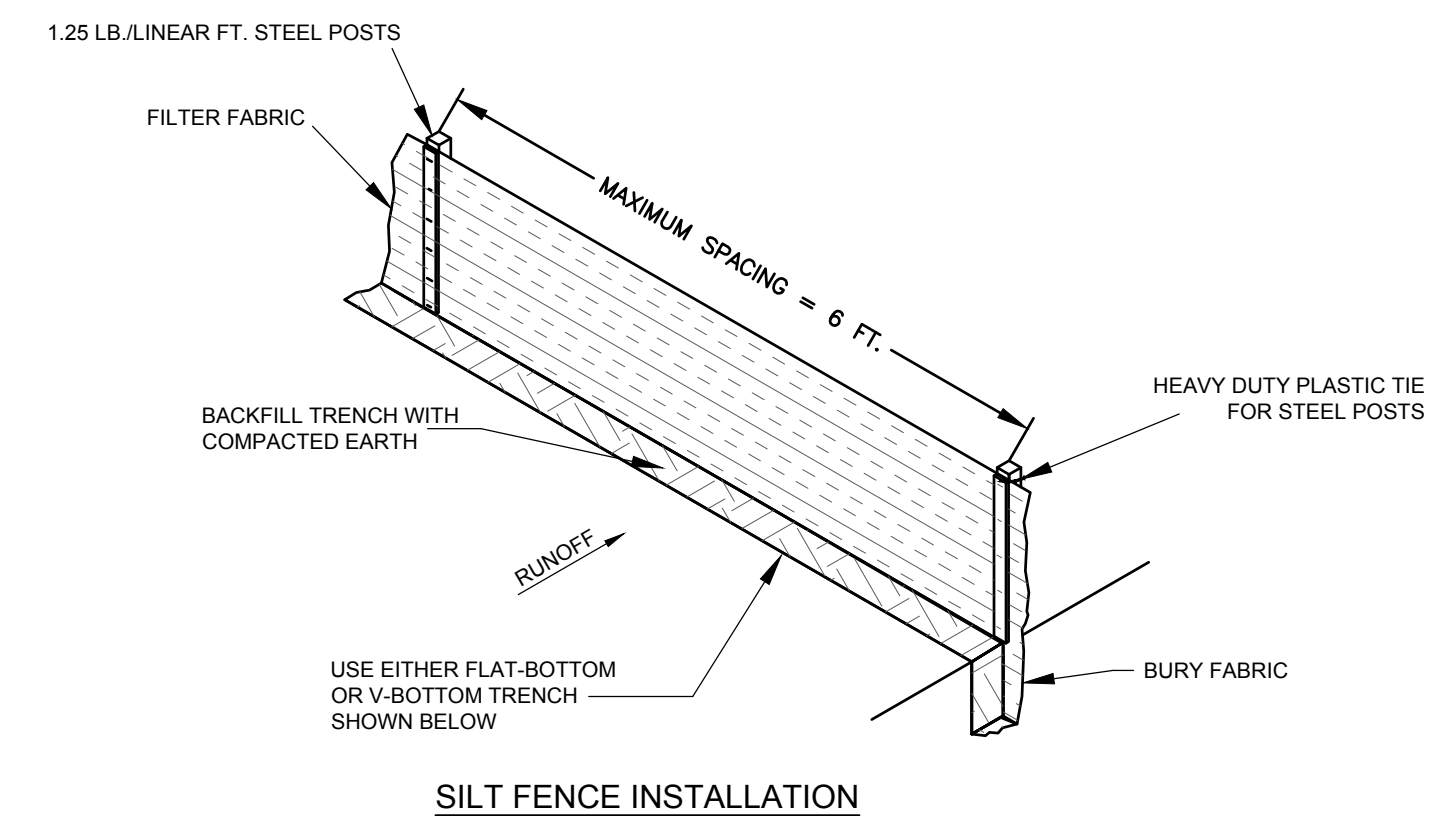
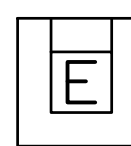
DO NOT COMPLETELY BLOCK THE INLET OPENING WITH SURFACE COURSE INLET FILTERS. INSTALL SURFACE COURSE INLET FILTERS IN A MANNER TO ALLOW OVERFLOWS TO ENTER THE CATCH BASIN.

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.

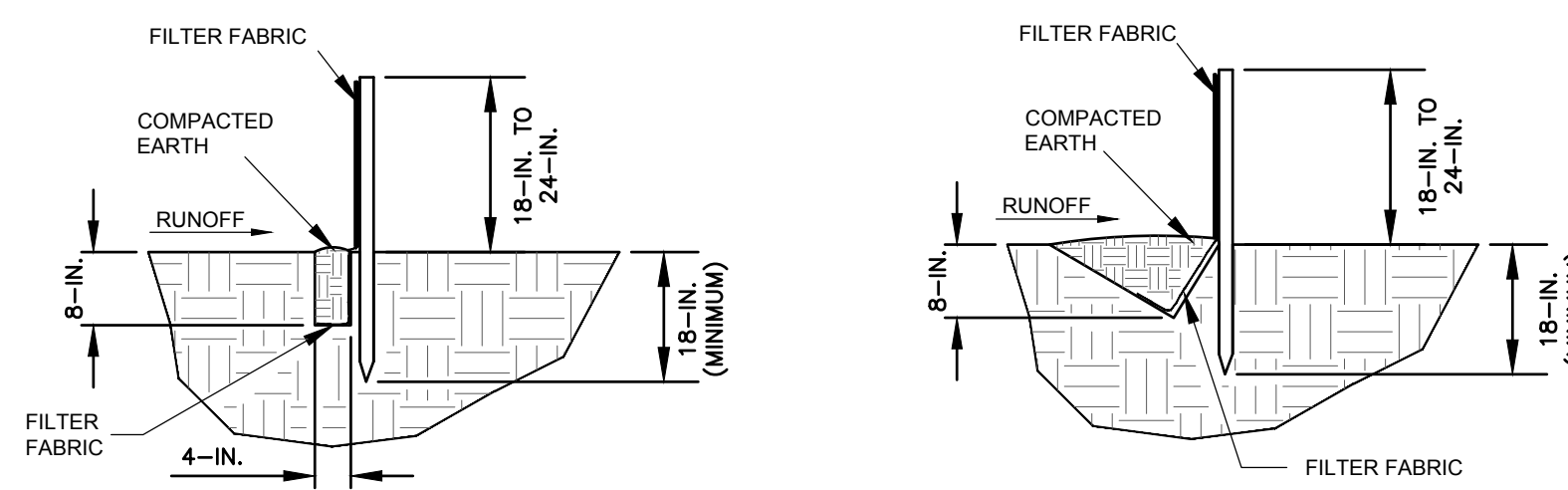
**INSPECTION AND MAINTENANCE:**  
PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. THEREFORE ROUTINE MAINTENANCE MUST BE PROVIDED. INSPECT SURFACE COURSE CURB INLET FILTERS ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS. CLEAN THE SURFACE COURSE CURB INLET FILTER IF A VISUAL INSPECTION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

**E SURFACE COURSE CURB INLET FILTERS (TYPE E)**

NOT TO SCALE



**SILT FENCE INSTALLATION**



**FLAT-BOTTOM TRENCH DETAIL**

**V-SHAPED TRENCH DETAIL**

**WHEN AND WHERE TO USE IT:**  
SILT FENCE IS APPLICABLE IN AREAS:

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.  
THAT DO NOT RECEIVE CONCENTRATED FLOWS GREATER THAN 0.5 CFS.

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

**MATERIALS:**

**STEEL POSTS**  
USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:  
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 1/8 GAUGE STEEL.  
HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

**GEOTEXTILE FILTER FABRIC:**

**FILTER FABRIC IS:**  
COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES.  
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.  
FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES.  
CUT TO A MINIMUM WIDTH OF 36 INCHES.

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.

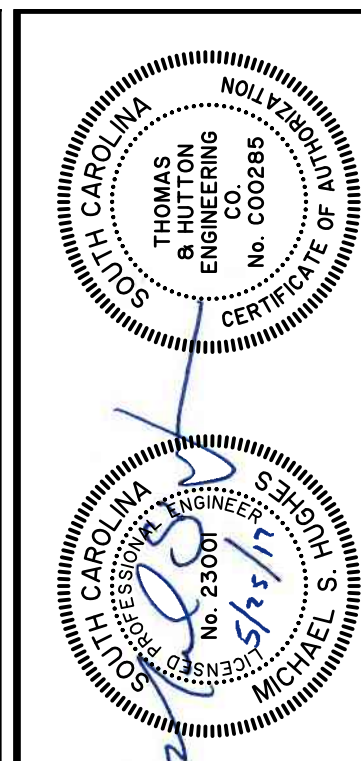
**INSTALLATION:**  
EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT. 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, WRAP 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 TO 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 LATH 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 ALL 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 CLEANOUT.

**INSPECTION AND MAINTENANCE:**

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.

**SILT FENCE**

NOT TO SCALE



NO.	REVISIONS	BY	DATE

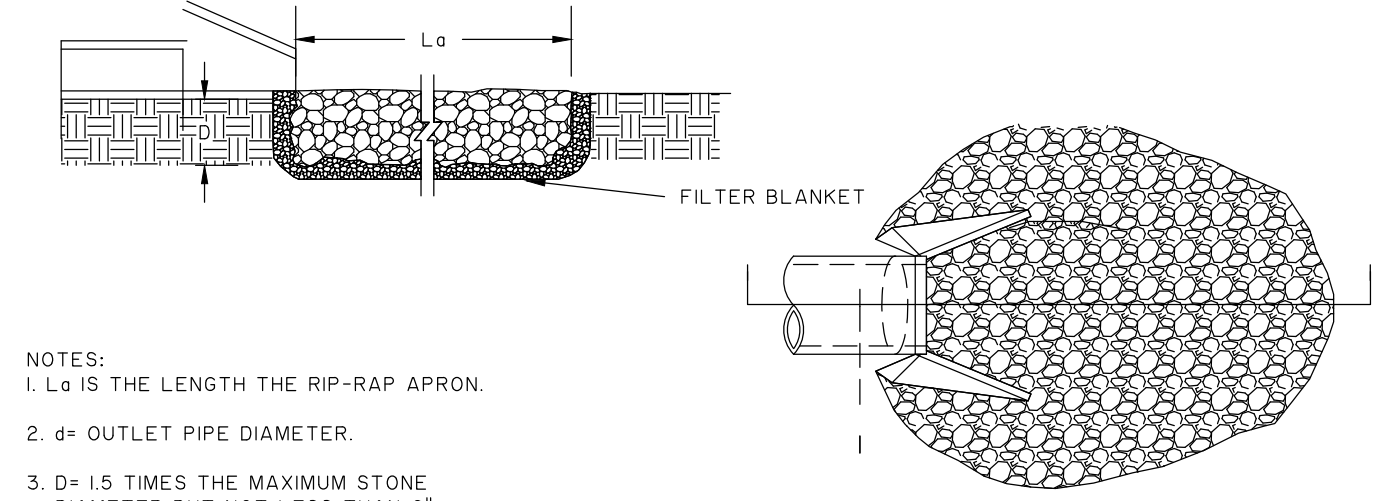
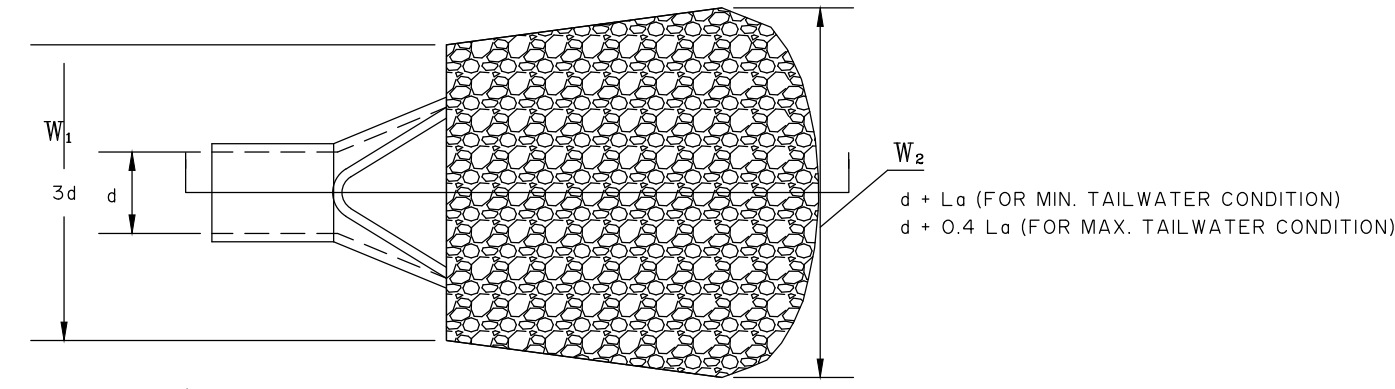
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**TOWN OF BLUFFTON**  
BLUFFTON, SOUTH CAROLINA  
DR. MELLICHAMP DRIVE  
ES & PC - DETAILS

JOB NO:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	N/A

**EC5.1**

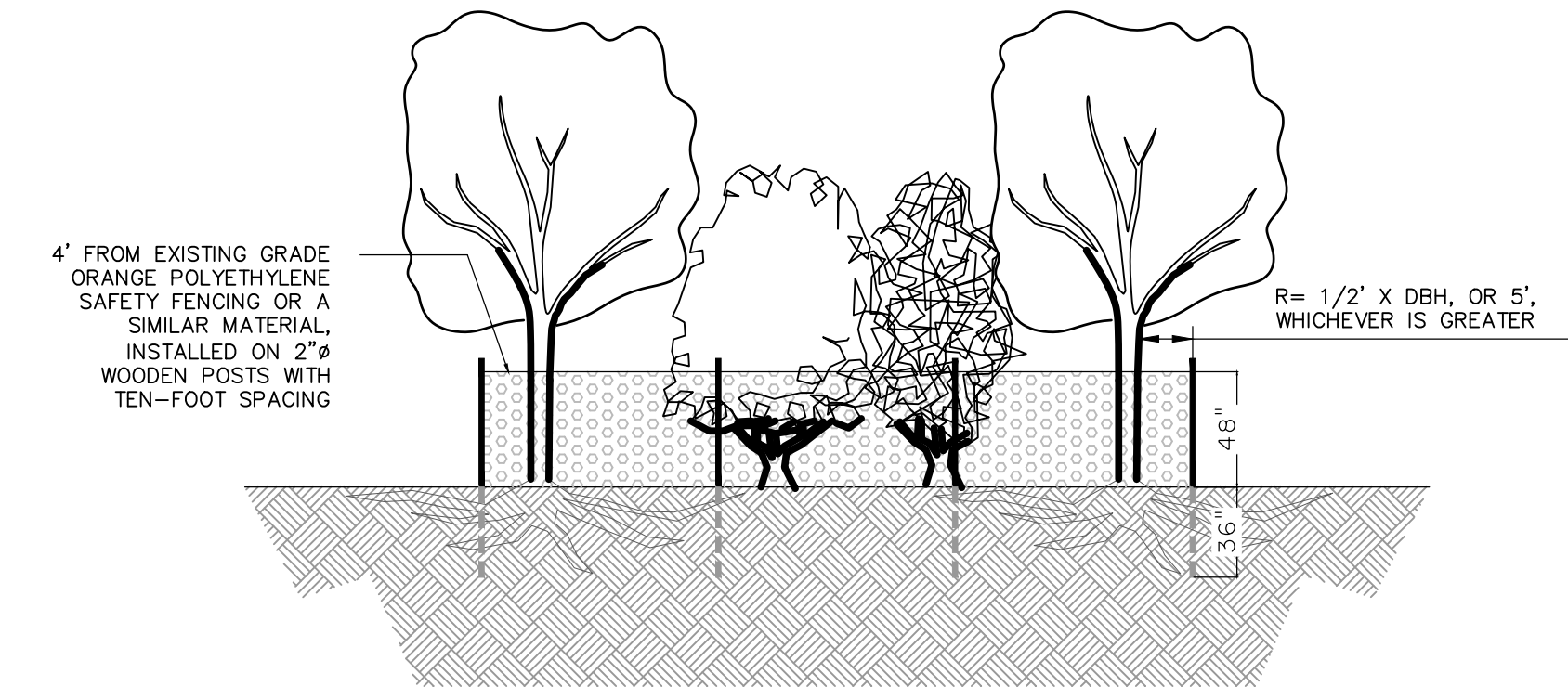
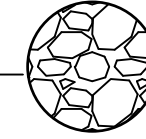
BID SET - NOT FOR CONSTRUCTION



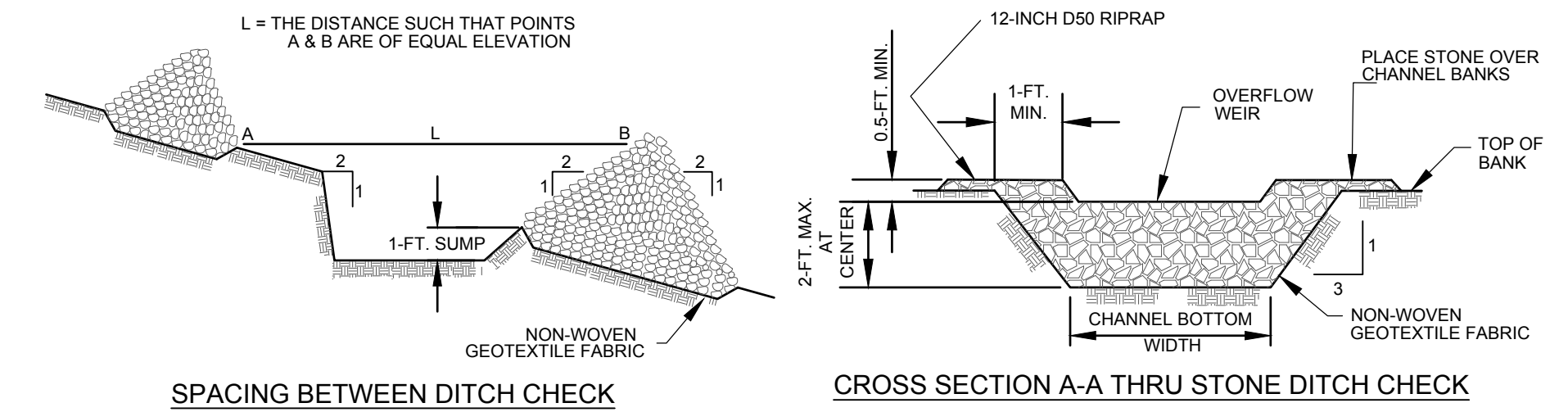
- NOTES:
1.  $L_r$  IS THE LENGTH THE RIP-RAP APRON.
  2.  $d =$  OUTLET PIPE DIAMETER.
  3.  $d = 1.5$  TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
  4. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
  5. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIP-RAP AND SOIL FOUNDATION.
  6. OUTLET PROTECTION DESIGN CRITERIA
  7. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

DESIGN CRITERIA	
OUTLET OPENING DIA.:	25 YR FLOW (CFS):
VELOCITY (V) (FPS):	TAILWATER > 0.5D <sub>0</sub>
L <sub>0</sub> :	W <sub>0</sub> :
W <sub>0</sub> :	450:
D:	

RIP-RAP DETAIL  
NOT TO SCALE

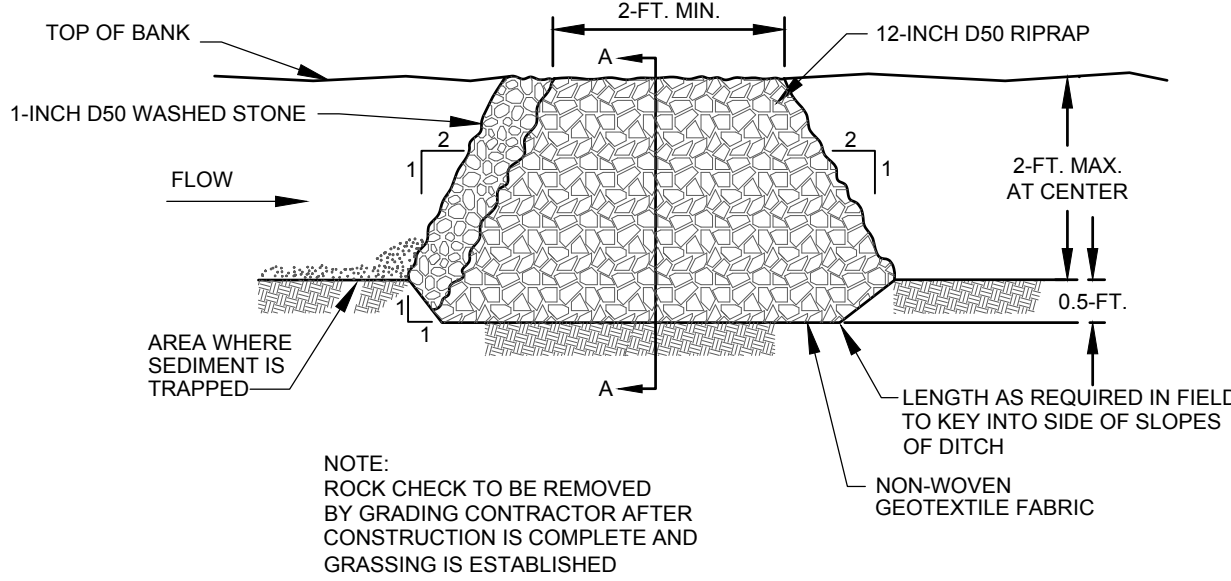


TREE PROTECTION DETAIL  
NOT TO SCALE



SPACING BETWEEN DITCH CHECK

CROSS SECTION A-A THRU STONE DITCH CHECK



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 OR USGS BLUE-LINE STREAMS.

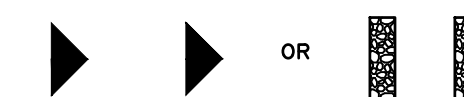
INSTALLATION:  
 A NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE ROCK DITCH CHECK IS TO BE PLACED.  
 THE BODY OF THE ROCK DITCH CHECK SHALL BE COMPOSED OF 12-INCH D50 RIPRAP.  
 THE UPSTREAM FACE OF THE ROCK DITCH CHECK MAY BE COMPOSED OF 1-INCH D50 WASHED STONE.  
 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%.

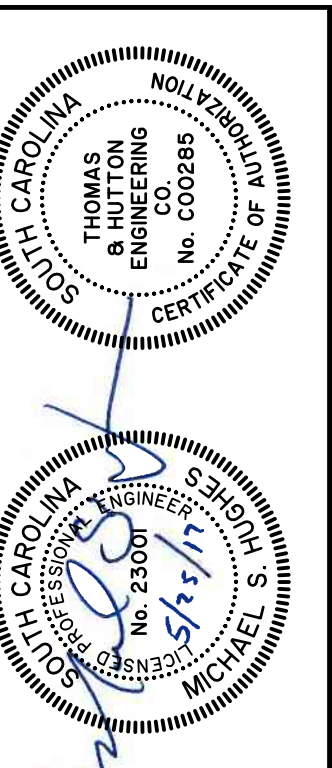
AFTER CONSTRUCTION IS COMPLETE, ALL STONE SHOULD BE REMOVED BY THE GRADING CONTRACTOR IF VEGETATION WILL BE USED FOR PERMANENT EROSION CONTROL MEASURES.

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



ROCK DITCH CHECK

NOT TO SCALE



NO.	REVISIONS	BY	DATE

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**TOWN OF BLUFFTON**  
 BLUFFTON, SOUTH CAROLINA

DR. MELLICHAMP DRIVE

ES & PC - DETAILS

JOB NO.:	J-26436.0000
DATE:	12/27/16
DRAWN:	WNS
DESIGNED:	JPM
REVIEWED:	MSH
APPROVED:	MSH
SCALE:	N/A

EC5.2

BID SET - NOT FOR CONSTRUCTION