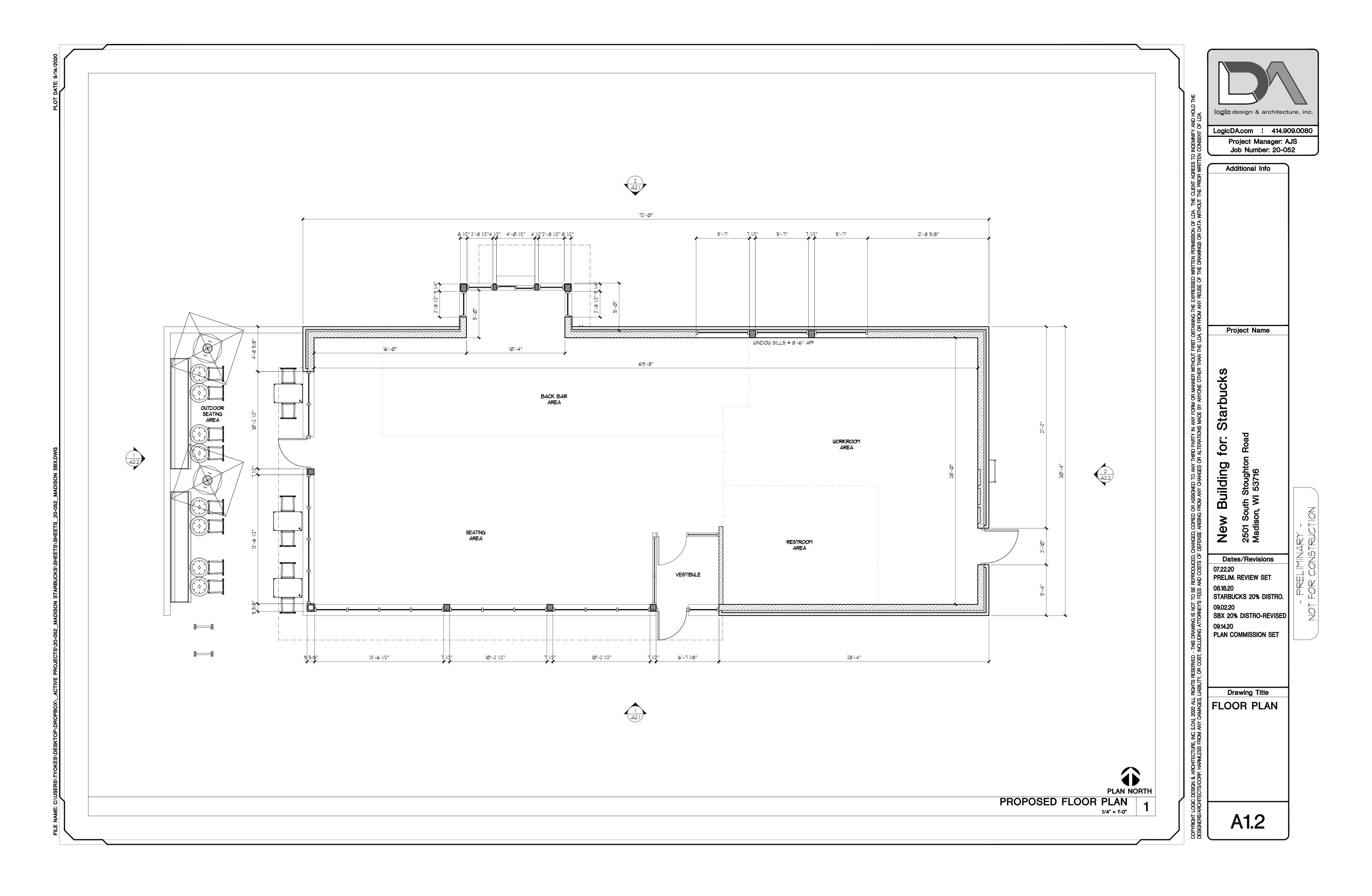


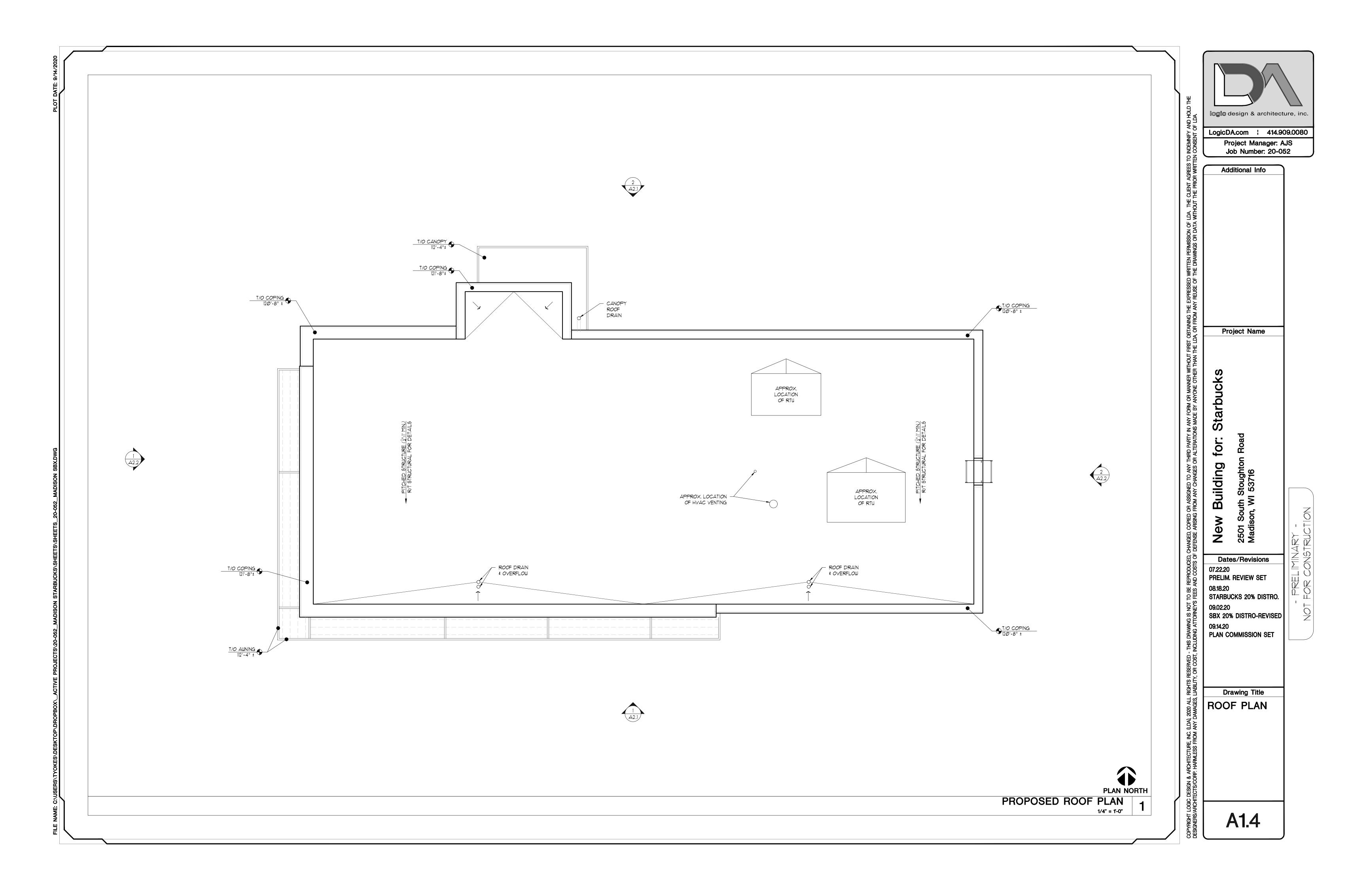
COPYRIGHT 2020 LOGIC DESIGN & ARCHITECTURE, INC.

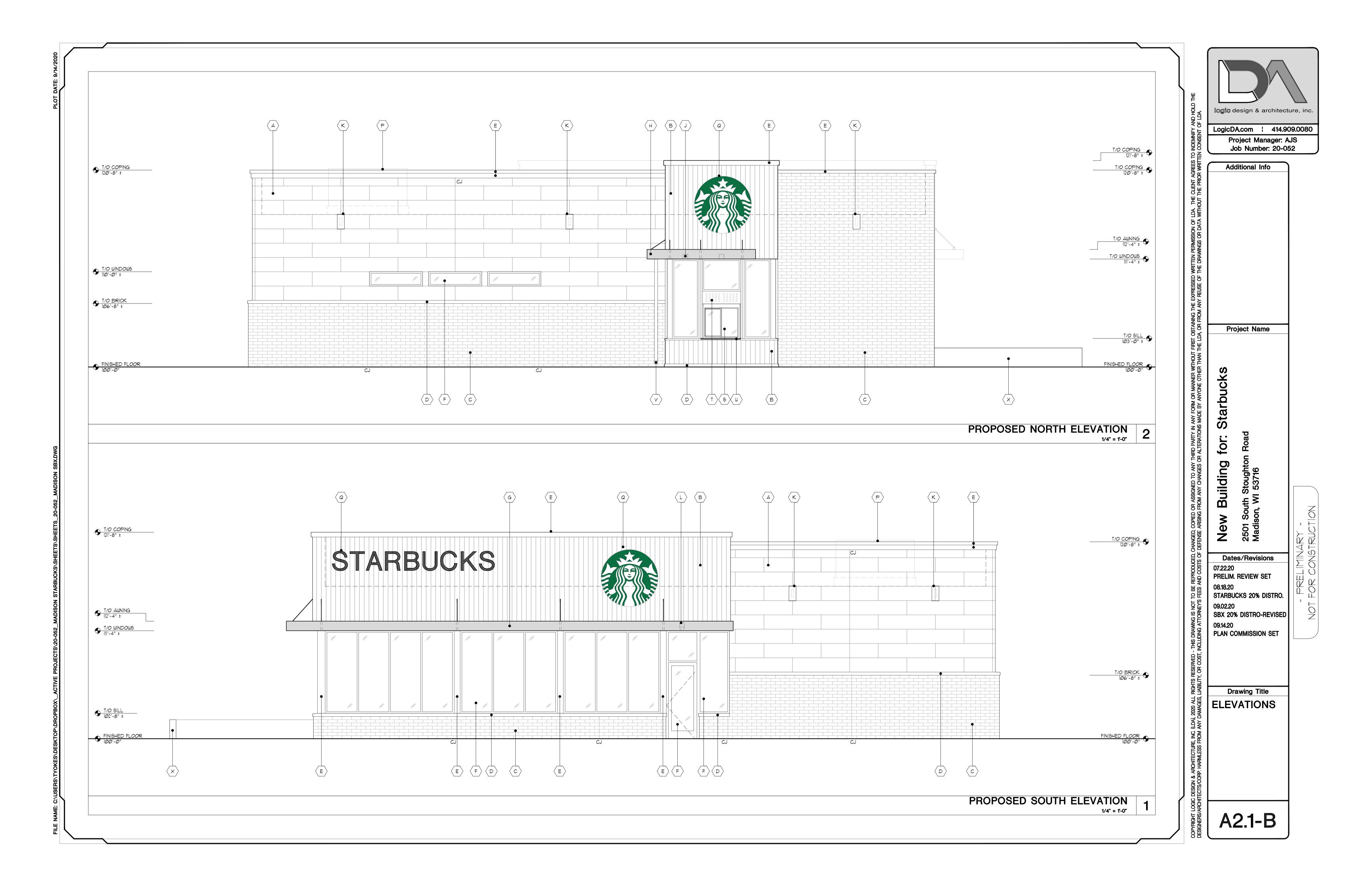
# Proposed Building @ 2501 S. Stoughton Road

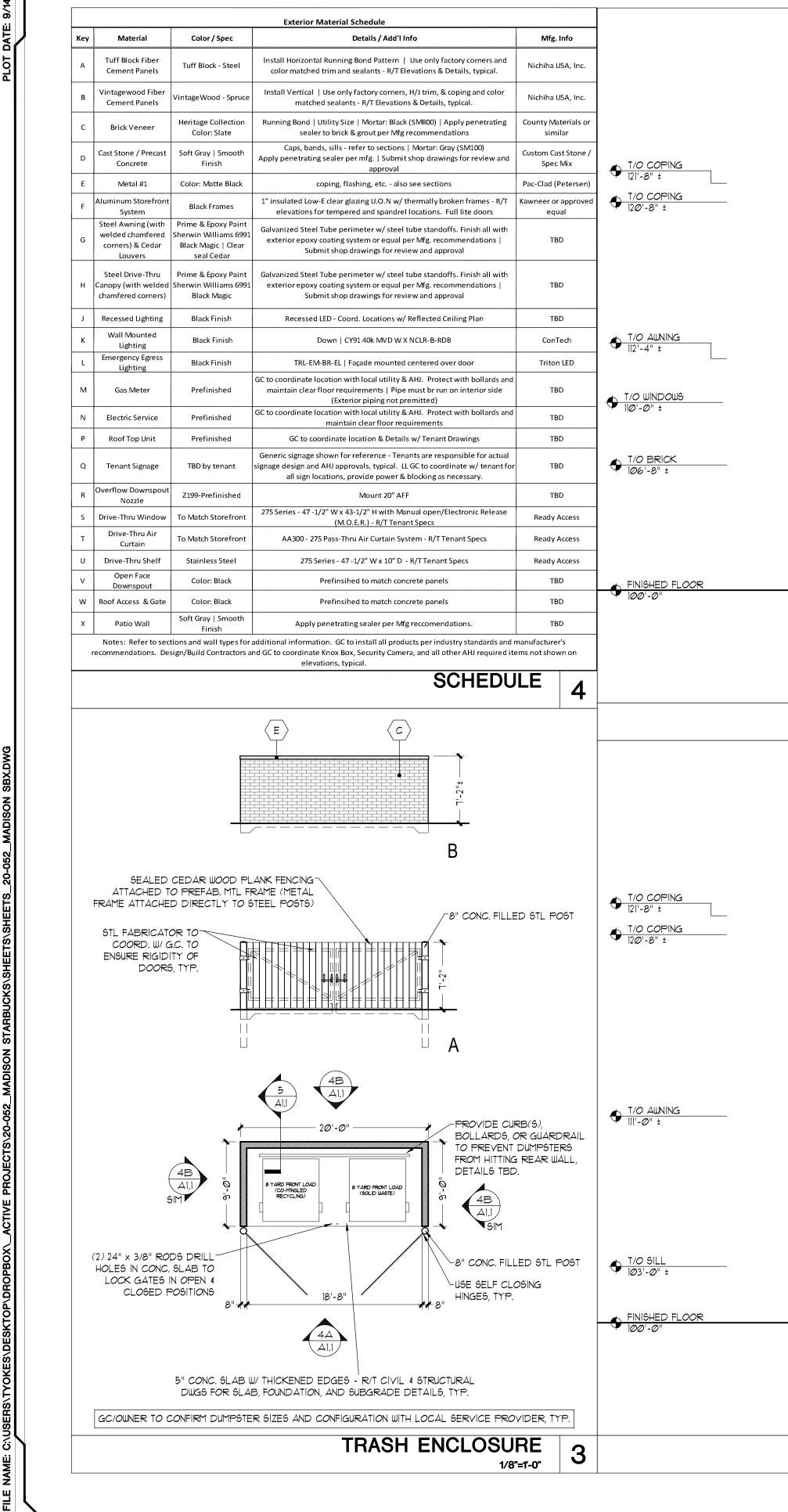
City of Madison, WI September 2020

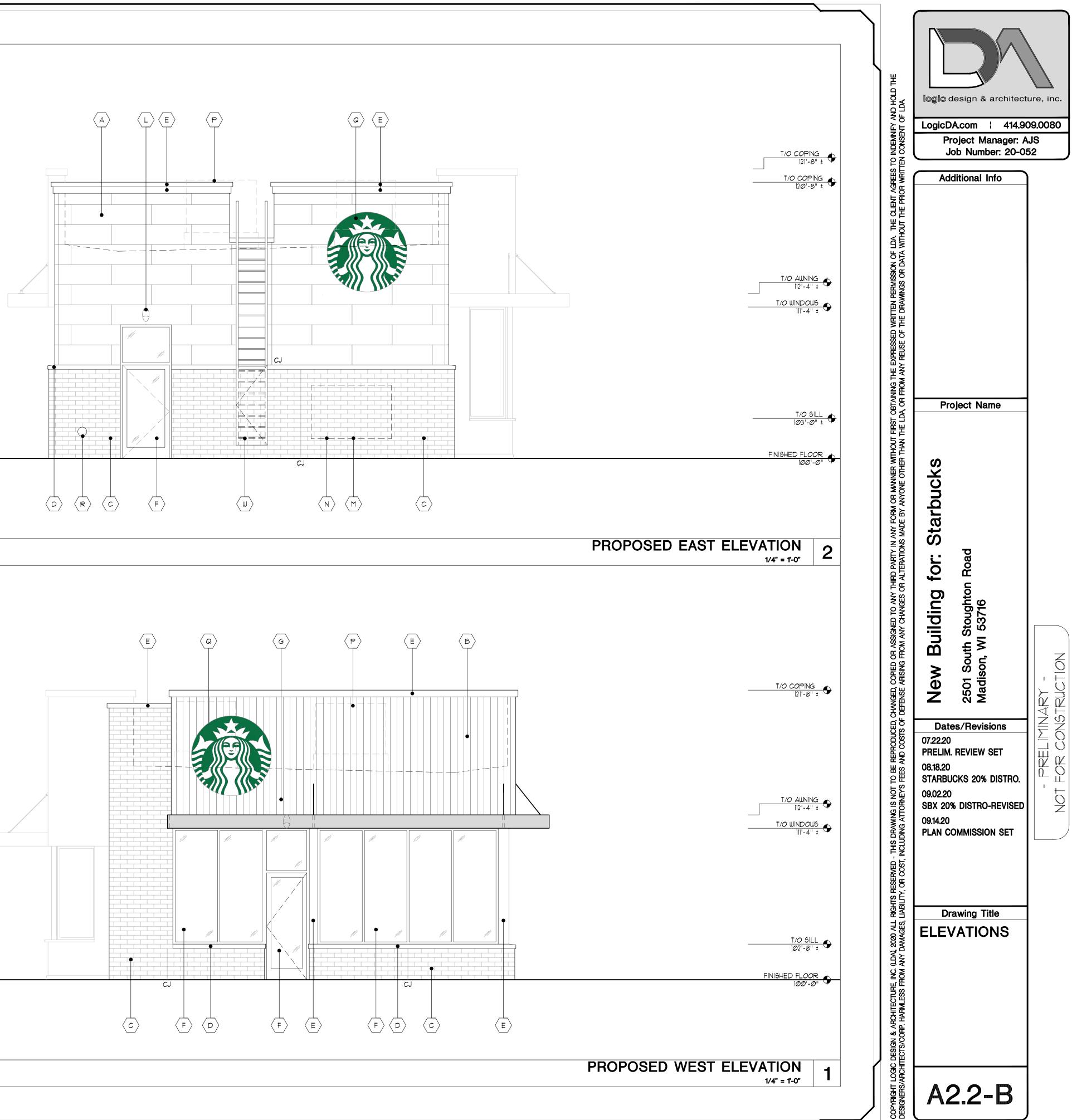




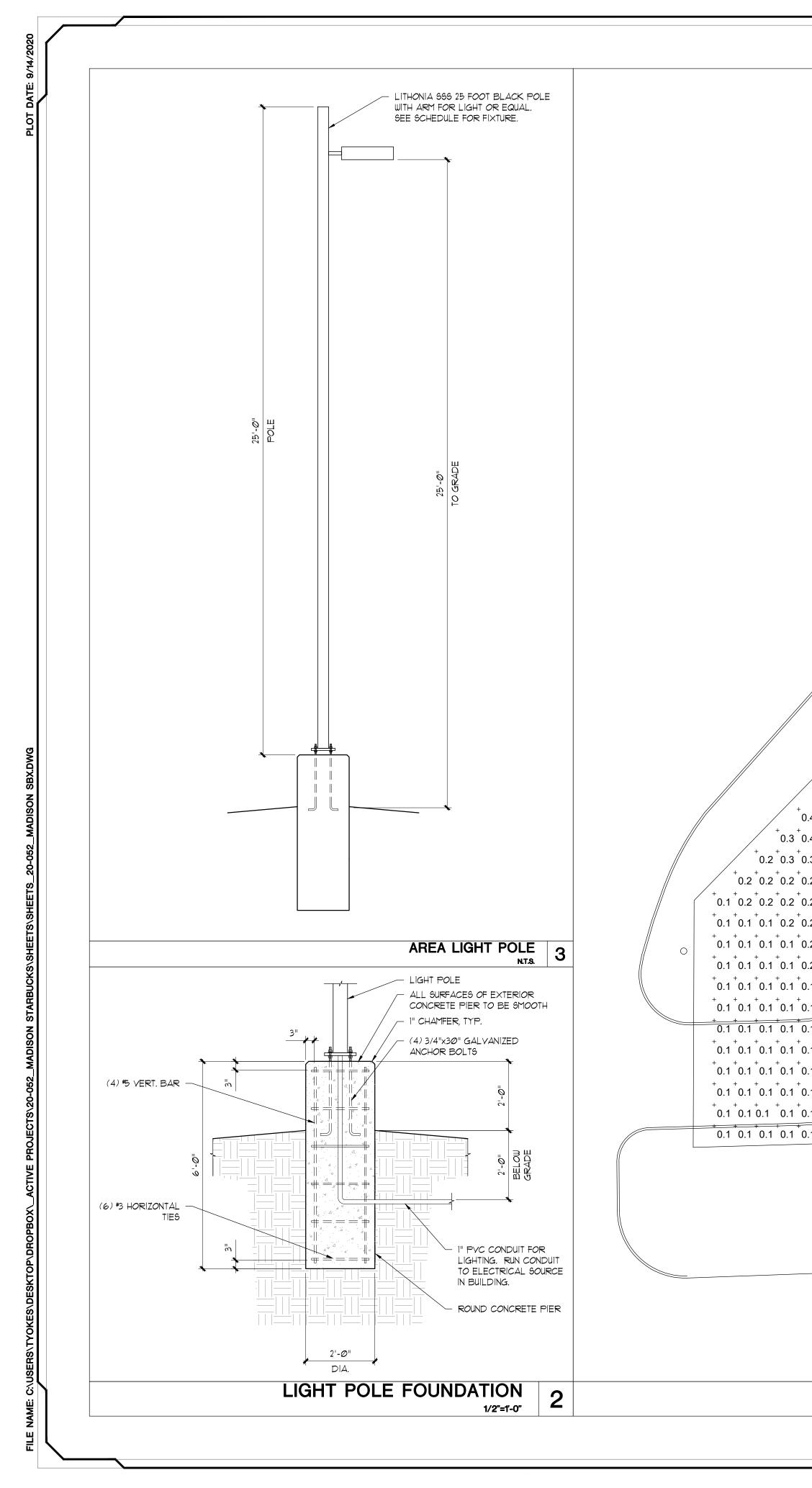




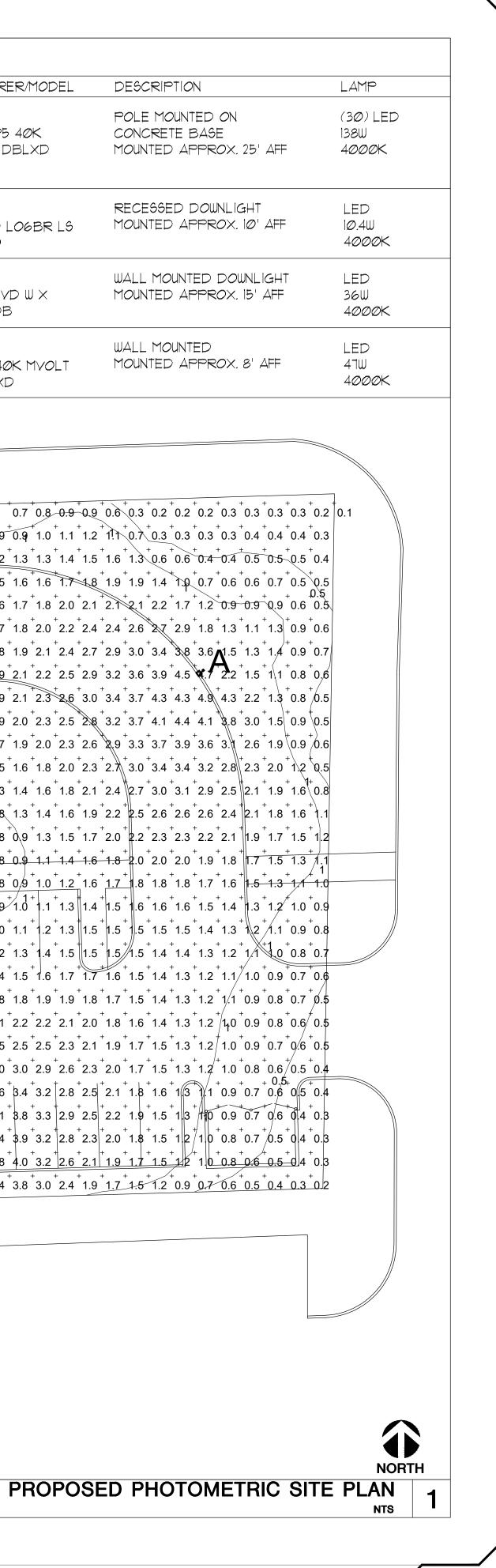


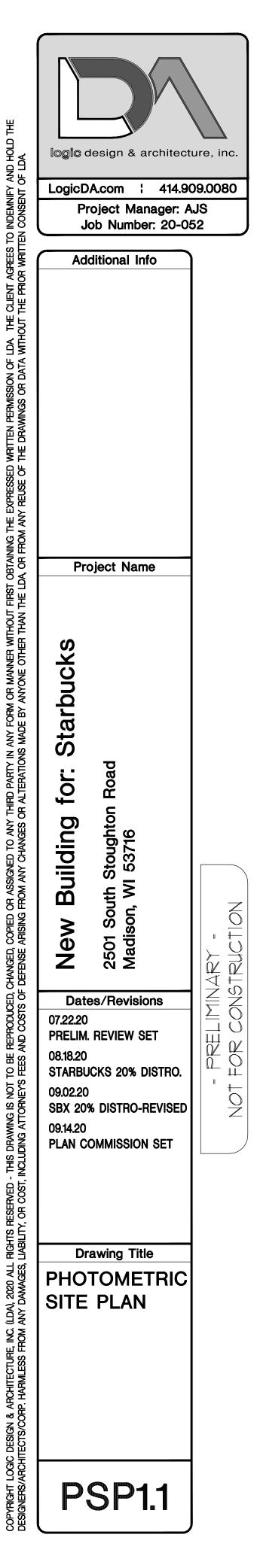






	STATISTICS					LUMIN	IAIRE	SCH	edule
	DESCRIPTION	STMBOL	AVG	MAX	MIN	SYMBOL	LABEL		MANUFACTURER/MO
	SITE CALCULATION	+	2.4 fc	54.2 fc	Ø.Ø fc		Д	5	LITHONIA DSXI LED P5 40K T4M MVOLT DBLXD
						0	В	2	LITHONIA LDNG 40/10 LOGBR MVOLT EZ10
						*	С	5	CONTECH CY91 40K MVD W X NCLR-B-RDB
							D	1	LITHONIA WPX2 LED 40K MVC E14WC DBLXD
	0.3	$^{+}0.3$	9.3 <sup>+</sup> 0.4 <sup>+</sup> 0.5 <sup>+</sup> 0.6 <sup>+</sup>	0.8 1.0 1.3 +	1.5 <sup>+</sup> 1.5 <sup>+</sup> 1.6 <sup>+</sup>	1.4 1.3 1.1	0.8 0.7	0.7 <sup>+</sup> 0.8 <sup>+</sup>	0.7 0.8 0.7 0.8 0.8 0.8 0.9 0.9 0.9 1.0 0.9 1.0
	0.4 0.5		+ + +	+ + + +	2.5 1.0 3.0	2.7 2.4 1.9	1.6 1.6	1.5 1.3	
	* + + +	0.7 0.8 0.9 1.0 <sup>1</sup>	+ + +	2.3 2.8 3.4	+ + +	· + + ·	+ + +	+ +	1.6 1.5 1.5 1.5 1.6 1.6 + + + + + +
	0.4 0.7 0.9 1.0	+ + + + +	1.6 1.8 2.0 2.2 + + +	2.4 3.0 3.6	4.4 4.9 4.7	4.0 3.3 2.8	2.4 2.2 2	2.0 1.9	1.7 1.6 1.6 1.6 1.7 1.8 + + + + + +
	$0.6 \ 1.0 \ 1.1 \ 1.2$		1.7 1.9 2.1 2.3	2.6 3.1 3.6	4.3 4.7 4.6	4.1 3.5 3.0	2.6 2.4	2.2 1.9	1.8 1.7 1.7 1.7 1.8 2.0
	$0.5^{+}0.9^{+}1.3^{+}1.3^{+}1.3^{+}$ $0.3^{+}0.8^{+}1.4^{+}1.6^{+}1.6^{+}1.6^{+}1.6^{+}$	+ + + + +	+ / + +			+ +	<b>→</b> →	\ <b>+</b> 4	
	$0.5^{+}0.8^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}1.9$						<u> </u>		
	0.7 <sup>+</sup> 019 <sup>+</sup> 1.7 <sup>+</sup> 2.0 <sup>+</sup> 2.1 <sup>+</sup> 2.2 <sup>+</sup> 2.1	+ + + +	$\langle + \langle + \bullet + \rangle$					1.1 <sup>+</sup> 1.8	$^{+}$ 1.7 1.7 1.8 1.9 2.0 2.3
	1.0 <sup>+</sup> 1.6 <sup>+</sup> 2.3 <sup>+</sup> 2.3 <sup>+</sup> 2.4 <sup>+</sup> 2.5 <sup>+</sup> 2.4	+ + + + +			С		C	1.0	<sup>+</sup> 1.9 <sup>+</sup> 1.8 <sup>+</sup> 1.7 <sup>+</sup> 1.7 <sup>+</sup> 1.9 <sup>+</sup> 2.0
	1.5 <sup>+</sup> 2.5 <sup>+</sup> 2.9 <sup>+</sup> 2.9 <sup>+</sup> 2.9 <sup>+</sup> 2.8 <sup>+</sup> 2.7/							V +' +	<sup>+</sup> 2.5 <sup>+</sup> 1.9 <sup>+</sup> 1.5 <sup>+</sup> 1.5 <sup>+</sup> 1.6 <sup>+</sup> 1.8
0.9 0.9 1.0				PROPOSE	ED BUIL	DING		+	4.4 <sup>+</sup> 1.2 <sup>+</sup> 0.9 <sup>+</sup> 1.3 <sup>+</sup> 1.4 <sup>+</sup> 1.6
	1.9 <sup>+</sup> <b>3</b> .7 <sup>+</sup> <b>3</b> .7 <sup>+</sup> <b>3</b> .4 <sup>+</sup> <b>3</b> .3 <sup>+</sup> <b>3</b> .2 <sup>+</sup> <b>2</b> / <b>9</b>	2.6 2.3 1.6 1.3	N-  T					1¥.1	4.4 1.2 0.19 1.3 1.4 1.6
<sup>+</sup> 0.7 <sup>+</sup> 1.1 <sup>+</sup> 1.5 <sup>+</sup> 1.4 <sup>+</sup>	$1.9^{+}3.7^{+}3.7^{+}3.4^{+}3.3^{+}3.2^{+}2/9$ $2.7^{+}4.7^{+}4.5^{+}4.2^{+}3.8^{+}3.5^{+}3.0$							<b>7</b> 7. N I	4.9 <sup>+</sup> 1.2 <sup>+</sup> 0.8 <sup>+</sup> 0.8 <sup>+</sup> 1.3 <sup>+</sup> 1.4 <sup>+</sup> 1.4
$^{+}0.7^{+}1.1^{+}1.5^{+}1.4^{+}$		<sup>+</sup> 2.7 <sup>+</sup> 2.1 <sup>+</sup> 1.7 <sup>+</sup> 1.4 <sup>+</sup>	I.1 ↓			С			
$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & &$	2.7 + 4.7 + 4.5 + 4.2 + 3.8 + 3.5 + 3.0 $4.4 + 5.0 + 4.6 + 4.5 + 4.0 + 3.5 + 3.0$	+ 2.7 + 2.1 + 1.7 + 1.4 + + 2.4 + 2.0 + 1.7 + 1.4 +	I.1 ↓			С		+ 9.9 13.1	4.9 + 1 2 + 0.8 + 0.8 + 1.3 + 1.4
$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	2.7 + 4.7 + 4.5 + 4.2 + 3.8 + 3.5 + 3.0 $4.4 + 5.0 + 4.6 + 4.5 + 4.0 + 3.5 + 3.0$ $4.1 + 4.6 + 4.5 + 4.4 + 3.9 + 3.2 + 2.7$ $4.1 + 4.6 + 4.5 + 4.4 + 3.9 + 3.2 + 2.7$	$\begin{array}{c} + & 2.7 & 2.1 \\ + & 2.4 & 2.0 \\ + & 2.3 & 1.9 \\ + & & & & + \\ \end{array} \begin{array}{c} + & 1.7 & 1.4 \\ + & 1.7 & 1.4 \\ + & & & & + \\ \end{array}$		<sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup> <sup>+</sup>		<b>C</b> + + + + + + + + + + + + + + + + + + +	A + 4	13.1 1.5 <sup>+</sup> .0	4.9 <sup>+</sup> 1.2 <sup>+</sup> 0.8 <sup>+</sup> 0.8 <sup>+</sup> 1.3 <sup>+</sup> 1.4 <sup>+</sup> 4.5 <sup>+</sup> 1.2 <sup>+</sup> 0.8 <sup>+</sup> 0.8 <sup>+</sup> 0.9 <sup>+</sup> 1.3 <sup>+</sup> 1.3 <sup>+</sup> 1.4 <sup>+</sup>
$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.7 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 4.1 \\ 4.0 \\ 3.6 \\ 4.1 \\ 4.0 \\ 3.6 \\ 4.1 \\ 4.0 \\ 3.6 \\ 4.1 \\ 4.0 \\ 4.1 \\ 4.0 \\ 4.1 \\ 4.0 \\ 4.1 \\ 4.0 \\ 4.1 \\$	$\begin{array}{c} + & 2.7 & 2.1 \\ + & 2.4 & 2.0 \\ + & 2.3 & 1.9 \\ + & 2.3 & 1.9 \\ + & 2.2 & 1.9 \\ + & 1.7 & 1.4 \\ + & 1.6 & 1.3 \\ + & 1.5 & 1.3 \\ + & 1.5 & 1.3 \\ + & + & + \\ + & + & + \\ + & + & + \\ + & + &$		+ + + +	0.6 <sup>+</sup> 1.0 <sup>+</sup> 4.4	<b>C</b> 31.243.650.1 4.6 35.124.9	18.1.33.9	13.1 13.1 12.3 <sup>+</sup> 6.8	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $2.9^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}$ $1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}$
$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \end{array}$	$\begin{array}{c} + 2.7 & + 2.1 \\ + 2.4 & + 2.0 \\ + 2.3 & + 1.9 \\ + 2.3 & + 1.9 \\ + 2.2 & + 1.9 \\ + 1.5 & + 1.3 \\ + 2.2 & + 1.8 \\ + 1.5 \\ + 1.5 \\ + 1.3 \\ + 2.2 \\ + 1.9 \\ + 1.6 \\ + 1.3 \\ + 1.5 \\ + 1.5 \\$	1.1	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ + & + & + \\ \hline 1.0 & 1.0 & 0.9 \\ \hline \end{array}$	0.6 <sup>+</sup> 1.0 <sup>+</sup> 4.4 0.8 <sup>+</sup> 0.9 <sup>+</sup> 1.0 0.9 <sup>+</sup> 0.9 <sup>+</sup> 110 <sup>+</sup>	<b>C</b> 31.243.650.1 4.6 35.124.9 4.6 8 6 8.3 1.1 1.2 1.2	18.1.33.9 <b>6.6</b> 8.5 1.3 1.2	13.1 13.1 12.3 6.8 6.7 <sup>+</sup> 1.2 1.2 <sup>+</sup> 1.1	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $\frac{2.9^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}}{1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}}$ $\frac{1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.0^{+}1.4^{+}}{1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}}$ $\frac{1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^$
$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.5 \\ 3.0 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 2.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.8 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.3 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.6 \\ 2.7 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.6 \\ 2.7 \\ 2.6 \\$	$\begin{array}{c} + 2.7 & + 2.1 & + 1.7 & + 1.4 & + \\ + 2.4 & + 2.0 & + 1.7 & + 1.4 & + \\ + 2.3 & + 1.9 & + 1.6 & + 1.3 & + \\ + 2.2 & + 1.9 & + 1.5 & + 1.3 & + \\ + 2.2 & + 1.8 & + 1.5 & + 1.3 & + \\ + 2.2 & + 1.9 & + 1.6 & + 1.3 & + \\ + 2.3 & + 2.0 & + 1.7 & + 1.4 & + \\ \end{array}$	1.1	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ + & + & + \\ \hline 1.0 & 1.0 & 0.9 \\ + & 0.9 \\ + & 1.2 & 1.1 & 1.1 \end{array}$	$\begin{array}{c} & & & & & & & \\ \hline & & & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ \hline 1.1 & 1.1 & 1.1 \\ \end{array}$	<b>C</b> 31.243.650.1 4.6 35.124.9 4.6 8 6 8.3 1.1 1.2 1.2 1.1 1.1 1.2	<b>6.6 8.5</b> <b>1.3 1.2</b> <b>1.2 1.3</b>	$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & $	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $\frac{2.9^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}}{1.3^{+}1.0^{+}0.8^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}1.4^{+}1.0^{+}1.4^{$
$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.0 \\ 3.5 \\ 3.0 \\ 3.2 \\ 2.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 2.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 2.6 \\ 2.8 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.6 \\ 2.6 \\ 2.5 \\ 2.6 \\ 2.5 \\ 2.6 \\ 2.5 \\ 2.6 \\ 2.5 \\ 2.6 \\ 2.5 \\ 2.6 \\ 2.5 \\$	+2.7 +2.1 +1.7 +1.4 +2.7 +2.1 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +1.9 +4.6 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.8 +1.5 +1.3 +2.2 +1.8 +1.5 +1.3 +2.2 +1.9 +1.6 +1.3 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.0 +2.3 +2.0 +1.7 +1.8 +1.6 +2.3 +2.3 +2.0 +2.3 +2.3 +2.3 +2.3 +2.3 +2.3 +2.3 +2.3	1.1	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ + & + & + & + \\ \hline 1.0 & 1.0 & 0.9 \\ + & 1.2 & 1.1 & 1.1 \\ + & 1.4 & 1.3 & 1.3 \end{array}$	$\begin{array}{c} & & & & & & & \\ \hline & & & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ 1.1 & 1.1 & 1.1 \\ 1.2 & 1.2 & 1.2 \end{array}$	C 31.243.650.1 4.6 35.124.9 4.6 8 6 8.3 1.1 1.2 1.2 1.1 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.3	<b>6.6 8.5</b> <b>1.3 1.2</b> <b>1.3 1.2</b> <b>1.2 1.3</b> <b>1.3 1.4</b>	13.1 13.1 11.51.0 12.36.8 $6.7^{+}1.2^{+}$ $1.2^{+}1.1$ $1.3^{+}1.2$ $1.5^{+}1.5$	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $\frac{2.9^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}}{1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.4^{+}}$ $\frac{1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.6^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.6^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.6^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.6^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.6^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+$
$\begin{array}{c} & \begin{array}{c} & & & & \\ & & & $	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.8 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.5 \\ 2.9 \\ 2.5 \\ 2.9 \\ 2.5 \\$	+2.7 +2.1 +1.7 +1.4 +2.4 +2.0 +1.7 +1.4 +2.3 +1.9 +1.6 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.9 +1.6 +1.3 +2.3 +2.0 +1.7 +1.6 +1.3 +2.3 +2.0 +1.7 +1.6 +1.3 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.8 +1.6 +2.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.9 +2.4 +2.4 +2.3 +2.1 +1.9 +2.4 +2.4 +2.3 +2.1 +1.9 +2.4 +2.4 +2.3 +2.1 +1.9 +2.4 +2.4 +2.3 +2.1 +1.9 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4	$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ \hline + & + & + \\ \hline 1.0 & 1.0 & 0.9 \\ + & 1.2 & 1.1 & 1.1 \\ + & 1.4 & 1.3 & 1.3 \\ \hline + & 1.4 & 1.3 & 1.3 \\ \hline + & 1.7 & 1.6 & 1.5 \end{array}$	$\begin{array}{c} \bullet \\ \bullet $	<b>C</b> <b>31.243.650.1</b> <b>4.6 35.124.9</b> <b>4.6 8.6 8.3</b> <b>1.1 1.2 1.2</b> <b>1.1 1.1 1.2</b> <b>1.2 1.2 1.3</b> <b>1.4 1.4 1.4</b>	+ 18.1 33.9 + 6.6 8.5 + 1.3 1.2 + 1.2 1.3 + 1.2 1.3 + 1.3 1.4 + 1.5 1.6	13.1 13.1 13.1 13.1 12.3 6.8 6.7 <sup>+</sup> 1.2 1.2 <sup>+</sup> 1.1 1.3 <sup>+</sup> 1.2 1.5 <sup>+</sup> 1.5 1.7 <sup>+</sup> 1.8	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.3^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}1.8^{+}1.7^{+}1.7^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}1.5^{+}1.8$
$\begin{array}{c} & \begin{array}{c} & & & & \\ & & & $	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.5 \\ 2.9 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\$	+2.7 +2.1 +1.7 +1.4 +2.4 +2.0 +1.7 +1.4 +2.3 +1.9 +1.6 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.9 +1.6 +1.3 +2.3 +2.0 +1.7 +1.6 +1.3 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.3 +2.1 +1.9 +2.5 +2.5 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.2 +2.4 +2.3 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4	$\begin{array}{c} & & & & & & & \\ 1 & 1 & & & & & & \\ 1 & 1 &$	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ \hline 1.0 & 1.0 & 0.9 \\ \hline 1.2 & 1.1 & 1.1 \\ \hline 1.4 & 1.3 & 1.3 \\ \hline 1.7 & 1.6 & 1.5 \\ \hline 2.0 & 1.8 & 1.7 \end{array}$	$\begin{array}{c} & & & & & \\ & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ 1.1 & 1.1 & 1.1 \\ 1.2 & 1.2 & 1.2 \\ 1.4 & 1.4 & 1.4 \\ 1.6 & 1.5 & 1.5 \end{array}$	C 4.6 35.124.9 4.6 8 6 8.3 1.1 1.2 1.2 1.2 1.2 1.3 1.4 1.4 1.4 1.5 1.5 1.6	+ 1.3 1.33.9 + 6.6 8.5 + + 1.3 1.2 + 1.2 1.3 + 1.2 1.3 + 1.3 1.4 + 1.5 1.6 + 1.5 1.6 + 1.7 1.8	13.1 13.1 13.1 13.1 13.1 13.1 12.3 6.8 6.7 <sup>+</sup> 1.2 1.2 <sup>+</sup> 1.1 1.3 <sup>+</sup> 1.2 1.5 <sup>+</sup> 1.5 1.7 <sup>+</sup> 1.8 2.0 <sup>+</sup> 2.1	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $1.3^{+}1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}1.0^{+}1.0^{+}1.0^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.8^{+}1.7^{+}1.7^{+}1.8^{+}1.8^{+}1.8^{+}1.5^{+}$ $1.8^{+}1.7^{+}2.1^{+}2.1^{+}2.1^{+}2.2^{$
$\begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \begin{array}{c} & & \\ & $	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.1 \\ 2.6 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.6 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.5 \\ 2.9 \\ 2.9 \\ 2.9 \\ 2.7 \\ 2.6 \\ 2.6 \\ 2.5 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.0 \\ 2.2 \\ 2.3 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.0 \\ 2.2 \\ 2.3 \\ 2.5 \\ 1.7 \\ 1.9 \\ 1.8 \\ 1.9 \\$	+2.7 +2.1 +1.7 +1.4 +2.4 +2.0 +1.7 +1.4 +2.3 +1.9 +1.6 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.9 +1.6 +1.3 +2.2 +1.9 +1.6 +1.3 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.1 +1.8 +1.6 +2.4 +2.5 +2.3 +2.2 +2.4 +2.5 +2.5 +2.6 +2.5 +2.5 +2.5 +2.6 +2.5 +2.5 +2.5 +2.5 +2.5 +2.5 +2.5 +2.5	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ \hline 1.0 & 1.0 & 0.9 \\ \hline 1.2 & 1.1 & 1.1 \\ \hline 1.4 & 1.3 & 1.3 \\ \hline 1.7 & 1.6 & 1.5 \\ \hline 2.0 & 1.8 & 1.7 \\ \hline 2.2 & 2.1 & 1.9 \end{array}$	$\begin{array}{c} & & & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ 1.1 & 1.1 & 1.1 \\ 1.2 & 1.2 & 1.2 \\ 1.4 & 1.4 & 1.4 \\ 1.6 & 1.5 & 1.5 \\ 1.8 & 1.7 & 1.7 \end{array}$	C 4.6 35.1 24.9 4.6 86 8.3 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.3 1.4 1.4 1.4 1.5 1.5 1.6 1.7 1.7 1.7	+ 1.3 1.33.9 + 6.6 8.5 + + 1.3 1.2 + 1.2 1.3 + 1.2 1.3 + 1.3 1.4 + 1.5 1.6 + 1.7 1.8 + 1.7 1.8 + 1.8 2.0 + 1	$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & $	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $1.3^{+}1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}1.0^{+}1.0^{+}1.0^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.8^{+}1.7^{+}1.7^{+}1.8^{+}1.8^{+}1.8^{+}1.5^{+}$ $1.8^{+}1.7^{+}2.1^{+}2.1^{+}2.1^{+}2.2^{+}2.5^{+}2.$
$\begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \begin{array}{c} & & \\ & $	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.7 \\ 3.4 \\ 3.8 \\ 4.1 \\ 4.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.5 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 \\ 2.1 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 2.0 \\ 2.1 \\ 2.3 \\ 2.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\ 1.8 \\ 1.8 \\ 1.9 \\ 1.5 \\ 1.4 \\ 1.6 \\ 1.8 \\$	+2.7 +2.1 +1.7 +1.4 +2.4 +2.0 +1.7 +1.4 +2.3 +1.9 +1.6 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.9 +1.5 +1.3 +2.2 +1.9 +1.6 +1.3 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.4 +2.3 +2.0 +1.7 +1.8 +1.6 +2.4 +2.3 +2.1 +2.4 +2.4 +2.3 +2.1 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4 +2.4	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	$\begin{array}{c} + & + & + & + \\ \hline 0.8 & 0.8 & 0.8 \\ \hline 1.0 & 1.0 & 0.9 \\ \hline 1.2 & 1.1 & 0.9 \\ \hline 1.4 & 1.3 & 1.1 \\ \hline 1.4 & 1.3 & 1.3 \\ \hline 1.7 & 1.6 & 1.5 \\ \hline 2.0 & 1.8 & 1.7 \\ \hline 2.2 & 2.1 & 1.9 \\ \hline 2.5 & 2.2 & 2.0 \\ \hline \end{array}$	$\begin{array}{c} & & & & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ 1.1 & 1.1 & 1.1 \\ 1.2 & 1.2 & 1.2 \\ 1.4 & 1.4 & 1.4 \\ 1.6 & 1.5 & 1.5 \\ 1.8 & 1.7 & 1.7 \\ 1.9 & 1.8 & 1.8 \end{array}$	C 4.6 $35.124.9$ 4.6 $35.124.9$ 4.6 $35.124.9$ 4.6 $86$ $8.3$ 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.3 1.4 1.4 1.4 1.4 1.5 1.5 1.5 1.6 1.7 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	+ 1.3 + 1.3 + 1.3 + 1.2 + 1.3 + 1.2 + 1.3 + 1.2 + 1.3 + 1.2 + 1.3 + 1.4 + 1.5 + 1.6 + 1.7 + 1.8 + 2.0 + 1.8 + 2.0 + 2.1 + 2.0 + 2.1 + 2.0	$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & $	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.4^{+}1.5^{+}1.6^{+}$ $1.8^{+}1.7^{+}1.7^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}$ $1.8^{+}1.7^{+}1.7^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}1.8^{+}2.1^{+}2.1^{+}2.1^{+}2.1^{+}2.5^{$
$\begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \\ & 0.7 \end{array} & 1.1 \end{array} & 1.5 \end{array} & 1.4 \\ & \begin{array}{c} & \begin{array}{c} & 0.6 \end{array} & 0.8 \end{array} & 1.1 \end{array} & 1.3 \end{array} & 1.4 \\ & \begin{array}{c} & \begin{array}{c} & 0.6 \end{array} & 0.8 \end{array} & 1.0 \end{array} & 1.2 \end{array} & 1.9 \\ & \begin{array}{c} & 0.4 \end{array} & 0.5 \end{array} & 0.6  0.8 \end{array} & 1.0  1.2  1.9 \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.4 \end{array} & 0.5  0.5 \end{array} & 0.6  0.8 \end{array} & 1.2  2.0 \end{array} \\ & \begin{array}{c} & 0.2 \end{array} & 0.3 \end{array} & 0.3  0.5  0.5 \end{array} & 0.6  1.1  2 \end{array} \\ & \begin{array}{c} & 2.02 \end{array} & 0.3 \end{array} & 0.4  0.5  0.6  1.4 \end{array} & 2.1 \end{array} \\ & \begin{array}{c} & \begin{array}{c} & 0.2 \end{array} & 0.2  0.2 \end{array} & 0.2  0.3 \end{array} & 0.4  0.6 \end{array} & 1.4  2.1 \end{array} \\ & \begin{array}{c} & \begin{array}{c} & 0.2 \end{array} & 0.2  0.2 \end{array} & 0.2  0.3 \end{array} & 0.5  0.6  1.4  1 \end{array} & 1.5  1.7 \end{array} \\ & \begin{array}{c} & 0.2 \end{array} & 0.2  0.2  0.3 \end{array} & 0.5  0.5  0.9  1.3  1.6 \end{array} \\ & \begin{array}{c} & 0.1  0.2  0.2  0.3 \end{array} & 0.5  0.8  1.1  1 \end{array} & 1.2 \end{array} & 1.4 \end{array} \\ & \begin{array}{c} & 0.1  0.2  0.3 \end{array} & 0.5  0.8  0.9  1.2  1 \end{array} & 1.4 \end{array} $ & \begin{array}{c} & \begin{array}{c} & 0.1  1 \end{array} & 0.2  0.3 \end{array} & 0.5  0.8  0.8  0.9  1.1 \end{array} & 1.2 \end{array}  & \begin{array}{c} & \begin{array}{c} & 0.1 \end{array} & 0.2  0.2  0.3 \end{array} & 0.5  0.8  0.9  1.1 \end{array} & 1.2 \end{array}  & \begin{array}{c} & \begin{array}{c} & 0.1  1 \end{array} & 0.2  0.3  0.5  0.8  0.9  1.1 \end{array}  & \begin{array}{c} & 0.1  1 \end{array} & 0.2  0.3  0.5  0.8  0.8  0.9  1.1 \end{array}	$\begin{array}{c} 2.7 \\ 4.7 \\ 4.7 \\ 4.7 \\ 4.5 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 5.0 \\ 4.6 \\ 4.5 \\ 4.4 \\ 3.9 \\ 3.2 \\ 3.0 \\ 3.2 \\ 3.0 \\ 3.2 \\ 3.0 \\ 3.2 \\ 3.0 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.6 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.0 \\ 3.0 \\ 2.6 \\ 2.5 \\ 2.9 \\ 3.1 \\ 3.6 \\ 3.5 \\ 3.5 \\ 3.0 \\ 2.6 \\ 2.5 \\ 2.9 \\ 2.6 \\ 2.5 \\ 2.1 \\ 2.4 \\ 2.6 \\ 2.5 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.5 \\ 1.9 \\ 2.2 \\ 2.3 \\ 2.4 \\ 2.4 \\ 2.4 \\ 2.5 \\ 2.5 \\ 1.7 \\ 1.9 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& 2.0 \\ \hline 3.0 & 2.7 & 2.4 \\ \hline \end{array}$	$\begin{array}{c} & & & & & & & \\ 0.6 & 1.0 & 4.4 \\ \hline 0.8 & 0.9 & 1.0 \\ \hline 0.9 & 0.9 & 110 \\ 1.1 & 1.1 & 1.1 \\ 1.2 & 1.2 & 1.2 \\ 1.4 & 1.4 & 1.4 \\ 1.6 & 1.5 & 1.5 \\ 1.8 & 1.7 & 1.7 \\ 1.9 & 1.8 & 1.8 \\ 2.1 & 1.9 & 1.9 \\ 2.2 & 2.0 & 1.8 \end{array}$	C 4.6 35.124.9 4.6 86 8.3 1.1 1.2 1.2 1.1 1.1 1.2 1.2 1.2 1.2 1.2 1.3 1.4 1.4 1.4 1.5 1.5 1.6 1.7 1.7 1.7 1.8 1.8 1.9 1.8 1.9 2.0 1.8 1.8 2.0	+ 18.1 33.9 + 6.6 8.5 + 1.3 1.2 + 1.2 1.3 + 1.2 1.3 + 1.3 1.4 + 1.5 1.6 + 1.7 1.8 + 2.0 2.1 + 2.0 2.1 + 2.1 2.3 + 2.2 2.4	$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & $	$4.9^{+}1.2^{+}0.8^{+}0.8^{+}1.3^{+}1.4^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $4.5^{+}1.2^{+}1.3^{+}0.8^{+}0.8^{+}0.9^{+}1.3^{+}$ $1.3^{+}1.0^{+}0.8^{+}0.8^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ $1.0^{+}0.9^{+}0.9^{+}0.9^{+}0.9^{+}1.0^{+}1.4^{+}$ 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2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.7 \\ 1.9 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.7 \\ 1.9 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.6 \\ 1.8 \\ 2.0 \\ 1.2 \\ 1.1 \\ 1.4 \\ 1.7 \\ 1.9 \\ 2.2 \\ 2.5 \\ 1.1 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.2 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.2 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.2 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.4 \\ 1.7 \\ 1.9 \\ 1.5 \\ 1.1 \\ 1.4 \\ 1.7 \\ 1.9 \\$	$\begin{array}{c} + 2.7 & + 2.1 \\ + 2.4 & + 2.0 \\ + 2.3 & + 1.9 \\ + 2.3 & + 1.9 \\ + 2.3 & + 1.9 \\ + 2.2 & + 1.9 \\ + 1.6 \\ + 1.3 \\ + 2.2 \\ + 1.9 \\ + 1.6 \\ + 1.3 \\ + 2.2 \\ + 1.9 \\ + 1.6 \\ + 1.3 \\ + 2.3 \\ + 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LEGEND				
	EXISTING	PROPOSED		
SANITARY SEWER MANHOLE	S	۲		
STORM SEWER MANHOLE	ଡ଼	•		
STORM SEWER CATCH BASIN (ROUND CASTING)	D	•		
STORM SEWER CATCH BASIN (RECTANGULAR CASTING	•			
PRECAST FLARED END SECTION	, □	-		
CONCRETE HEADWALL	$\overline{\zeta}$			
VALVE BOX	$\triangleleft$			
FIRE HYDRANT	ά			
CLEANOUT	Q			
SANITARY SEWER –				
FORCE MAIN -				
STORM SEWER -				
DRAIN TILE –		)		
WATER MAIN –	W	W		
FIRE PROTECTION		—— FP ——		
ELECTRICAL CABLE –	E	IEI		
OVERHEAD WIRES –	OHW			
GAS MAIN –	G	IGI		
TELEPHONE LINE –	T	——ITI—		
UTILITY CROSSING				
CAUTION EXISTING UTILITIES NEARBY		(CAUTION)		
GRANULAR TRENCH BACKFILL				
LIGHTING	-X	•		
ELECTRICAL TRANSFORMER OR PEDESTAL	TF	Ξ		
POWER POLE	-0-	-•-		
POWER POLE WITH LIGHT	×	$\times$		
GUY WIRE	-0:			
STREET SIGN	Þ	Þ		
CONTOUR	749 —	749		
SPOT ELEVATION	×(750.00)	<del>+</del> 750.00		
WETLANDS –				
PRIMARY ENVIRONMENTAL CORRIDOR	PEC			
FLOODWAY –				
FLOODPLAIN -				
HIGH WATER LEVEL (HWL)				
NORMAL WATER LEVEL (NWL) -				
DIRECTION OF SURFACE FLOW	<b>►</b> _	GRASS PAVEMENT		
DITCH OR SWALE –		GRASS PAVEMENT		
		$\rightarrow\rightarrow\rightarrow\rightarrow\rightarrow\rightarrow$		
OVERFLOW RELIEF ROUTING				
TREE WITH TRUNK SIZE	▲ 6" چ <sup>~</sup> ~رې 6"	L-1/		
SOIL BORING	B-0	B-1		
TOPSOIL PROBE	- <b>↓</b> ∘	 		
	Ŧ	<b>TP</b>		
FENCE LINE, TEMPORARY SILT –	SF	SF		
FENCE LINE, WIRE -	X	X		
FENCE LINE, CHAIN LINK OR IRON –	O	o		
FENCE LINE, WOOD OR PLASTIC -				
CONCRETE SIDEWALK				
CURB AND GUTTER =				
DEPRESSED CURB =				
REVERSE PITCH CURB & GUTTER		+++++++++++++++++++++++++++++++++++++++		
EASEMENT LINE -				

### PLAN I DESIGN I DELIVER www.pinnacle-engr.com

WISCONSIN OFFICE: 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53186 (262) 754-8888 NATURAL RESOURCES I SURVEYING CHICAGO I MILWAUKEE : NATIONWI

ABBREVIATIONS

ROW

SAN

BASE LINE

C & G CURB AND GUTTER CB CATCH BASIN

CENTERLINE

FLOW LINE

FLOODWAY

FRAME

INVERT

MANHOLE

NOT TO SCALE

FLOODPLAIN

DEGREE OF CURVE

EDGE OF PAVEMEN

FINISHED FLOOR

FINISHED GRADE

HIGH WATER LEVEL

LENGTH OF CURVE

LONG CHORD OF CURVE

ORMAL WATER LEVE

POINT OF VERTICAL INTERSEC

POINT OF CURVATURE

POINT OF TANGENC

RIGHT-OF-WAY

STORM SEWER

TOP OF BANK

TOP OF CURB

TOP OF PIPE

TOP OF WALK WATER MAIN

SANITARY SEWER

TANGENCY OF CURVE

TOP OF FOUNDATION

INTERSECTION ANGLE

**PINNACLE** ENGINEERING GROUP

TOP OF SIDEWALK

RADIUS

**ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS** 

**STARBUCKS - STOUGHTON ROAD STOUGHTON ROAD, MADISON, WI** 

PLANS PREPARED FOR

# **GALWAY COMPANIES, INC.**



# **GENERAL NOTES**

- THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
- . A GEOTECHNICAL REPORT HAS NOT YET BEEN PREPARED FOR THE PROJECT SITE. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
- . THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
- . THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
- QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
- PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.

- COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
- 9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
- 10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
- 11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
- 12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE. INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
- 13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
- 14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

# **STARBUCKS - STOUGHTON ROAD**

**STOUGHTON ROAD, MADISON, WI** 

**COVER SHEET** 

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C-2	GENERAL NOTES
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C-4	SITE DIMENSIONAL AND PAVING PLAN
C-5	GRADING PLAN
C-6	EROSION CONTROL PLAN
C-7	UTILITY PLAN
C-8	CONSTRUCTION DETAILS
C-9	CONSTRUCTION DETAILS

C-10 FIRE ACCESS PLAN

GOVERNMEN	IT CONTACTS
	CITY OF MADISON DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT 215 MARTIN LUTHER KING JR BLVD. SUITE 017 MADISON, WI 53703 MAIN: (608) 266-4635
	<b>CITY OF MADISON ENGINEERING DEPARTMENT</b> 210 MARTIN LUTHER KING JR BLVD. SUITE 115 MADISON, WI 53703 MAIN: (608) 266-4751

PROJECT TE	AM CONTACTS
<b>CIVIL ENGINEER:</b> MARK T. SEIDL, P.E. <b>PINNACLE ENGINEERING GROUP</b> 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53186 MAIN: (262) 754-8888 E-MAIL: MSEIDL@PINNACLE-ENGR.COM	SURVEYOR: JOHN KONOPACKI, P.L.S. PINNACLE ENGINEERING GROUP 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53005 MAIN: (262) 754-8888 E-MAIL: john.konopacki@pinnacle-engr.com
APPLICANT/OWNER: STEVE DORAN GALWAY COMPANIES, INC. 800 W BROADWAY, SUITE 400 MONONA, WI 53713 (608) 237-2117 E-MAIL: SDORAN@GALWAYCOMPANIES.COM	
	DIGGERS HOTLINE

Toll Free (800) 242-8511 Milwaukee Area (414) 259-1181 Hearing Impaired TDD (800) 542-2289 www.DiggersHotline.com EXPIRATION DATE: PINNACLE ENGINEERING GROUP, LLC ENGINEER'S LIMITATION INNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXI WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHA ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THI KNOWLEDGE AND CONSENT OF THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION. FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

REVISIONS	2151.00 MTS 9/02/20 N.T.S	SHEET SHEET
	JOB No PM RT DATE	
	PEG J( PEG P STAR <sup>-</sup> SCALE	C-10 °O

- 1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER & WATER IN WISCONSIN, AND WISCONSIN ADMINISTRATIVE CODE, SPS 360, 382-383, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT HIS WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS. 3. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MUNICIPALITY FORTY- EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
- 4. THE MUNICIPALITY SHALL HAVE THE RIGHT TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION OF THE PUBLIC PORTIONS OF THE WORK. THE OWNER SHALL HAVE THE RIGHT TO INSPECT,
- APPROVE, AND REJECT THE CONSTRUCTION OF ALL PRIVATE PORTIONS OF THE WORK. 5. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND
- TESTING OF THE WORK ON THIS PROJECT. 6. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE AT 1-800-242-8511 TO NOTIFY THE UTILITIES OF HIS INTENTIONS, AND TO REQUEST FIELD STAKING OF EXISTING UTILITIES.
- 8. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. FOLLOW THE SEQUENCE OF CONSTRUCTION ON THE GRADING & EROSION CONTROL PLAN FOR MORE DETAILS. INSPECTIONS SHALL BE MADE WEEKLY OR AFTER EVERY RAINFALL OF 0.5" OR MORE. REPAIRS SHALL BE MADE IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE THREAT OF EROSION HAS PASSED WITH THE APPROVAL OF THE GOVERNING AGENCY.
- 9. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED BY THE CONTRACTOR. 10. TRASH AND DEBRIS SHALL BE NOT BE ALLOWED TO ACCUMULATE ON THIS SITE AND THE SITE SHALL BE CLEAN UPON COMPLETION OF WORK.
- 11. THE OWNER SHALL HAVE THE RIGHT TO HAVE ALL MATERIALS USED IN CONSTRUCTION TESTED FOR COMPLIANCE WITH THESE SPECIFICATIONS.
- 12. SPOT ELEVATIONS REPRESENT THE GRADE ON PAVEMENT SURFACE OR FLOW LINE UNLESS OTHERWISE NOTED.
- 13. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
- 14. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
- 15. CONTRACTOR SHALL COMPLY WITH ALL DANE COUNTY CONSTRUCTION STANDARDS/ORDINANCES. 16. LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT.

### SPECIFICATIONS FOR GRADING & EROSION CONTROL

- 1. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT. CONTRACTOR SHALL NOTIFY OWNER OF THE NEED TO IMPORT OR HAUL OFF SOIL. ON-SITE LOCATIONS SUITABLE FOR BORROW OR FILL MAY BE PRESENT. COORDINATE WITH OWNER.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER.
- 3. SITE SHALL BE CLEARED TO THE LIMITS SHOWN ON THE PLANS. REMOVE VEGETATION FROM THE SITE. BURNING IS NOT PERMITTED. PROTECT TREES AND OTHER FEATURES FROM DAMAGE WITH FENCING. STOCKPILES SHALL NOT BE LOCATED CLOSER THAN 25' TO A DRAINAGE STRUCTURE OR FEATURE AND SHALL BE SURROUNDED WITH SILT FENCE. 4. THE GEOTECHNICAL ENGINEER IS RESPONSIBLE FOR VERIFYING COMPACTION AND FILL PLACEMENT IN THE FIELD. THE GEOTECHNICAL ENGINEER MAY SUPERCEDE THESE SPECIFICATIONS IF
- THERE IS GOOD CAUSE TO DO SO. AN EXPLANATION MUST BE SUBMITTED TO THE ENGINEER IN WITTING BEFORE ANY DEVIATIONS ARE MADE. 5. IF NO GEOTECHNICAL RECOMMENDATION IS AVAILABLE, THEN THE FOLLOWING SPECIFICATIONS SHALL APPLY. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE PLACED IN
- ACCORDANCE WITH THE FOLLOWING: THE COMPACTED FILL SUBGRADE SHALL CONSIST OF AND SHALL BE UNDERLAIN BY SUITABLE BEARING MATERIALS, FREE OF ALL ORGANIC, FROZEN OR OTHER DELETERIOUS MATERIAL AND INSPECTED AND APPROVED BY THE RESIDENT GEOTECHNICAL ENGINEER. PREPARATION OF THE SUBGRADE, AFTER STRIPPING, SHALL CONSIST OF PROOF-ROLLING TO DETECT UNSTABLE AREAS THAT MIGHT BE UNDERCUT, AND COMPACTING THE SCARIFIED SURFACE TO THE SAME MINIMUM DENSITY INDICATED BELOW. THE COMPACTED FILL MATERIALS SHALL BE FREE OF ANY DELETERIOUS, ORGANIC OR FROZEN MATTER AND SHALL HAVE A MAXIMUM LIQUID LIMIT (ASTM-D-423) AND PLASTICITY INDEX (ASTM D-424) IF 30 AND 10 RESPECTFULLY, UNLESS SPECIFICALLY TESTED AND FOUND TO HAVE LOW EXPANSIVE PROPERTIES AND APPROVED BY AN EXPERIENCED SOILS ENGINEER. THE TOP TWELVE (12") INCHES OF COMPACTED FILL SHOULD HAVE A MAXIMUM THREE (3") INCH PARTICLE DIAMETER AND ALL UNDERLYING COMPACTED FILL A MAXIMUM SIX (6") INCH PARTICLE DIAMETER UNLESS SPECIFICALLY APPROVED BY AN EXPERIENCED SOILS ENGINEER. ALL FILL MATERIAL MUST BE TESTED AND APPROVED UNDER THE DIRECTION AND SUPERVISION OF AN EXPERIENCED SOILS ENGINEER PRIOR TO PLACEMENT, IF THE FILL IS TO PROVIDE NON-FROST SUSCEPTIBLE CHARACTERISTICS, IT MUST BE CLASSIFIED AS A CLEAN GW, GP, SW, OR SP PER UNITED SOIL CLASSIFICATION SYSTEM (ASTM D-2487). FOR STRUCTURAL FILL THE DENSITY OF THE STRUCTURAL COMPACTED FILL AND SCARIFIED SUBGRADE AND GRADES SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR (ASTM D-698) WITH THE EXCEPTION TO THE TOP 12 INCHES OF PAVEMENT SUBGRADE WHICH SHALL A MINIMUM IN-SITU DENSITY OF 100 PERCENT OF THE MAXIMUM DRY DENSITY, OR 5 PERCENT HIGHER THAN UNDERLYING FILL MATERIALS. THE MOISTURE CONTENT OF COHESIVE SOIL SHALL NOT VARY BY MORE THAN -1 TO +3 PERCENT AND GRANULAR SOIL ±3 PERCENT OF OPTIMUM WHEN PLACED AND COMPACTED OR RECOMPACTED. UNLESS SPECIFICALLY APPROVED BY THE SOILS ENGINEER TAKING INTO CONSIDERATION THE TYPE OF MATERIALS AND COMPACTION EQUIPMENT BEING USED. THE COMPACTION EQUIPMENT SHOULD CONSIST OF SUITABLE MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR SOIL COMPACTION. BULLDOZERS OR SIMILAR TRACKED VEHICLES ARE TYPICALLY NOT SUITABLE FOR COMPACTION. MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION
- MAY BE SPREAD ON THE FILL AND PERMITTED TO DRY. DISCING, HARROWING OR PULVERIZING MAY BE NECESSARY TO REDUCE THE MOISTURE CONTENT TO A SATISFACTORY VALUE, AFTER WHICH IT SHALL BE COMPACTED. THE FINISHED SUBGRADE AREAS OF THE SITE SHALL BE COMPACTED TO 100 PERCENT OF THE STANDARD PROCTOR (ASTM D-398) MAXIMUM DENSITY. 6. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
- 7. SUBGRADE TOLERANCES ARE +/-1" FOR LANDSCAPE AREAS AND +/- 2/2" FOR ALL PAVEMENT AND BUILDING AREAS.
- 8. TOPSOIL SHALL BE FREE OF DELETERIOUS MATERIALS, ROOTS, OLD VEGETATION, ROCKS OVER 2" DIAMETER AND SHALL NOT BE EXCESSIVELY CLAYEY IN NATURE. NO CLUMPS LARGER THAN 4" ARE ACCEPTABLE. TOPSOIL MAY BE AMENDED AS NEEDED WITH SAND OR COMPOST TO BE LOOSE WHEN SPREAD.
- 9. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE THE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEVIATE WATER PONDING. ANY DEWATERING SHALL NOT GO DIRECTLY TO STREAMS, CREEKS, WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS WITHOUT BEING TREATED FIRST. A DIRT BAG OR OTHER DEWATERING TREATMENT DEVICE MAY BE USED TO CAPTURE SEDIMENT FROM THE PUMPED WATER.
- 10. CONTRACTOR IS ADVISED THAT ALL MUD AND DEBRIS MUST NOT BE DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE MUNICIPALITY OR OTHER APPROPRIATE GOVERNMENT AGENCIES. IN THE EVENT THIS OCCURS, THE ROADWAYS SHALL BE POWER SWEPT IMMEDIATELY AND ALL SEDIMENT REMOVED FROM DOWNSTREAM FACILITIES.

### SPECIFICATIONS FOR PRIVATE UTILITIES

- 1. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.
- 2. ALL CONNECTIONS TO EXISTING PIPES AND MANHOLES SHALL BE CORED CONNECTIONS. CONNECTIONS TO WATERMAIN SHALL BE WET TAPED WITH A STAINLESS STEEP TAPPING SLEEVE 3. PROPOSED SANITARY SEWER AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. THE EXACT
- LOCATION OF ALL DOWN SPOUTS CONNECTIONS SHALL BE PER THE ARCHITECTURAL PLANS.
- 4. CONTRACTOR SHALL NOT SHUT OFF WATER OR PLUG SANITARY SEWER IN MUNICIPAL LINES WITHOUT PRIOR APPROVAL. 5. MATERIALS FOR STORM SEWER SHALL BE AS FOLLOWS: STORM SEWER PIPE 48" OR LESS SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE WITH AN INTEGRALLY FORMED SMOOTH WATERWAY SUCH AS ADS N-12. FOR PIPE 10" OR LESS IN DIAMETER, PVC, ASTM D-3034, SDR-26, MAY ALSO BE USED. WHERE SPECIFICALLY REQUIRED, REINFORCED CONCRETE PIPE (RCP), ASTM C-76, CLASS III OR HIGHER, MAY BE USED, TRENCH SECTION SHALL BE CLASS "B" FOR PVC AND HDPE AND CLASS "C" FOR CONCRETE (PER STANDARD SPECIFICATIONS), MANHOLES, INLETS AND CATCH BASINS SHALL BE PRE CAST REINFORCED CONCRETE, ASTM C-478, CASTINGS SHALL BE HEAVY DUTY CAST IRON. AREA DRAINS SHALL BE PER DETAIL ON PLAN OR EQUIVALENT AND SHALL BE A MINIMUM OF 24" IN DIAMETER. CONNECTIONS TO EXISTING PIPES SHALL BE MADE WITH INSERTA WYE OR EQUIVALENT. LAST (3) THREE JOINTS SHALL BE RESTRAINED WITH RODS.
- 6 MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS: SANITARY SEWER SHALL BE PVC. ASTM D-3034. SDR-35 WITH RUBBER GASKETED JOINTS. CONFORMING TO ASTM D-3212. TRENCH SECTIONS SHALL BE CLASS "B" BEDDING (PER STANDARD SPECIFICATIONS). CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. CONNECTIONS SHALL BE MAD WITH A INSERTA WYE
- OR EQUIVALENT. A MINIMUM OF 6' OF COVER IS REQUIRED FOR ALL SANITARY SEWER. 7. MATERIALS FOR WATER SERVICES AND PRIVATE HYDRANTS SHALL BE AS FOLLOWS: WATER SERVICES SHALL BE PVC, HDPE, OR DI AS ALLOWED BY MUNICIPAL CODE, PVC SHALL BE AWWA C-900. DI SHALL BE AWWA C151, CLASS 52 (OR AS REQUIRED BY LOCAL CODE). TRENCH SECTIONS SHALL BE CLASS "B" BEDDING (PER STANDARD SPECIFICATIONS). CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. CONNECTION SHALL BE MADE WITH A WET TAP, CORPORATE STOP AND VALVE BOX PER MUNICIPAL STANDARDS. A MINIMUM OF 6' COVER IS REQUIRED FOR ALL WATERMAIN. VALVES SHALL BE NONRISING STEM, RESILIENT SEATED GATE VALVES COMPLYING WITH AWWA C509 WITH A THREE PIECE CAST IRON VALVE BOX. INSTALL THRUST BLOCKS AT ALL BENDS AND TEES. DISINFECT ALL NEW LINES AND OBTAIN SAFE WATER SAMPLE PRIOR TO USE.
- 8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER & WITHIN 5 FEET OF ALL
- PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. 9. TRACER WIRE (NO. 10 SINGLE STRAND COPPER) AND WARNING TAPE SHALL BE INSTALLED ON ALL UTILITIES IN ACCORDANCE WITH THE LOCAL AND STATE CODES. TRACER WIRE SHALL TERMINATE
- IN A VALVECO TERMINAL BOX AT EACH END. 10. MANDREL TESTING ON SANITARY LINES AND PRESSURE TESTING ON WATERMAIN MAY BE REQUIRED BY THE OWNER OR MUNICIPALITY.

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- 11. UPON COMPLETION OF FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
- 12. 45° BENDS SHALL BE USED IN PLACE OF 90° BENDS WHEREVER POSSIBLE

### SPECIFICATIONS FOR PAVING

- 1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS NOTED OTHERWISE. ALL UTILITY DIMENSIONS ARE TO OUTSIDE OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED. ALL PAVING DIMENSIONS ARE TO FACE OF CURB OR TO EDGE OF PAVEMENT; EXCEPT FOR THE SETBACK FROM PARKING LOTS, MANEUVERING LANES AND FIRE ACCESS LANES, WHERE THE SETBACK IS MEASURED FROM THE BACK OF CURB TO THE PROPERTY LINE.
- 2. AGGREGATES USED IN THE CRUSHED STONE BASE SHALL CONFORM TO THE GRADATION REQUIREMENTS SECTIONS 301.2 AND 305.2.2 OF THE STANDARD SPECIFICATIONS. THICKNESS SHALL BE PER THE DETAIL ON THE PLANS. BASE SHALL BE 1 1 INCH DIAMETER LIMESTONE UNLESS NOTED OTHERWISE. RECYCLED MATERIALS MAY BE ALLOWED WITH APPROVAL FROM THE OWNER.
- 3. SUBGRADE SHALL BE PROOFROLLED AND APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF STONE BASE. EXCAVATE UNSUITABLE AREAS AND REPLACE WITH BREAKER RUN STONE AND RECOMPACT. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL SPECIFICATIONS.
- 4. EXISTING PAVEMENT SHALL BE SAWCUT IN NEAT STRAIGHT LINES TO FULL DEPTH AT ANY POINT WHERE EXISTING PAVEMENT IS REMOVED. CURB AND WALK SHALL BE REMOVED TO THE NEAREST JOINT. REMOVED PAVEMENT SHALL BE REPLACED WITH THE SAME SECTION AS EXISTING. MUNICIPAL STANDARDS MAY REQUIRE ADDITIONAL WORK.
- 5. ASPHALT FOR PARKING AREAS AND THE PRIVATE ROAD SHALL BE PER THE DETAILS. MATERIALS AND PLACEMENT SHALL CONFORM TO THE DOT STANDARD SPECIFICATIONS, SECTION 450 AND 460
- TYPE LT IS REQUIRED UNLESS NOTED OTHERWISE. A COMMERCIAL GRADE MIX MAY BE SUBSTITUTED ONLY WITH APPROVAL FROM THE OWNER. 6. CONCRETE FOR CURB, DRIVEWAY, WALKS AND NON-FLOOR SLABS SHALL CONFORM TO THE SECTION 415 OF THE STANDARD SPECIFICATIONS, GRADE A, ASTM C-94, 6 BAG MIX, WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI. JOINTING SHALL BE PER SECTION 415.3.7 OF THE STANDARD SPECIFICATION WITH CONSTRUCTION JOINTS HAVING A MAXIMUM SPACING OF 10'. EXPANSION JOINTS SHALL BE PROVIDED EVERY 50'. CONCRETE SHALL BE FINISHED PER SECTION 415.3.8 WITH A MEDIUM BROOM TEXTURE. A CURING MEMBRANE IN CONFORMANCE WITH SECTION 415.3.12 IS REQUIRED.
- 7. PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING PAINT FOR NEW ASPHALT OR COATED ASPHALT. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.
- 8. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT EXISTING PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.



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### GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

- 2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST
- 3. MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
- 4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK. INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
- 5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
- 6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY THE GOVERNING AGENCIES.
- 7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS, INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS . ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
- 8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
  - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
  - BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
  - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
- 9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
- 10. IF APPLICABLE, ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH DOUBLE ROW OF SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS.
- 11. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT
- 12. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
- 13. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORK DAY, WHICH EVER OCCURS FIRST.
- 14. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH FROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
- 15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
- 16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
- 17. ALL DISTURBED SLOPES EXCEEDING 4:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
- 18. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
- 19. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
- 20. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH. OR MORE. PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.

21. SEE ADDITIONAL DETAILS AND NOTES ON SITE STABILIZATION AND CONSTRUCTION DETAILS.

### **DEMOLITION NOTES**

- 1. PERIMETER SILT FENCING AND CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO ANY DEMOLITION. PLEASE REFER TO GRADING AND EROSION AND SEDIMENT CONTROL PLAN SHEETS FOR FURTHER DETAILS.
- 2. EXISTING FEATURES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "MISS DIG" PRIOR TO ANY DEMOLITION.
- 3. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- 4. COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES AND THE MUNICIPALITY TO PROTECT EXISTING FUNCTIONING UTILITIES. BULKHEAD/REMOVE CONNECTIONS AS NECESSARY, AND TO ENSURE ALL UTILITIES ARE INACTIVE PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO ENSURE PROTECTION OF EXISTING UTILITIES THAT ARE NOT TO BE IMPACTED. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY EXISTING UTILITIES DAMAGED AS A RESULT OF THE DEMOLITION.
- 5. VOIDS LEFT BY REMOVAL OF FEATURES SHALL BE MODIFIED/FILLED TO PREVENT PONDING OF WATER.
- 6. DEMOLISH AND DISPOSE EXISTING PIPING, CABLE/WIRES, STRUCTURES, OR
- 7. CLEARING AND GRUBBING DESIGNATIONS SHALL INCLUDE CLEARING, GRUBBING, REMOVING, AND DISPOSING OF ALL VEGETATION AND DEBRIS WITHIN THE LIMITS OF CONSTRUCTION, AS DESIGNATED ON THE PLANS. CONTRACTOR SHALL REMOVE ONLY THOSE TREES ABSOLUTELY NECESSARY TO ALLOW FOR CONSTRUCTION.
- 8. CONTRACTOR SHALL REMOVE EXISTING FENCING IN A MANNER TO ALLOW REUSE. ANY FENCING MATERIAL TO BE REUSED IN THE CONSTRUCTION OF RELOCATED FENCE LINES SHALL BE PRESENTED TO ENGINEER FOR INSPECTION AND PROPOSED CONTRACT DEDUCT ASSOCIATED WITH REUSE OF THE SALVAGED MATERIAL. ENGINEER OR OWNER WILL PROVIDE WRITTEN ACCEPTANCE OF THE PROPOSED SALVAGED MATERIAL.
- 9. CONTRACTOR SHALL COORDINATE WITH THE MUNICIPALITY FOR TERMINATION OF PUBLIC UTILITY CONNECTIONS TO SITE.
- 10. CONTRACTOR SHALL COORDINATE STOCKPILE LIMITS AND LOCATIONS WITH ENGINEER/OWNER PRIOR TO DEMOLITION.

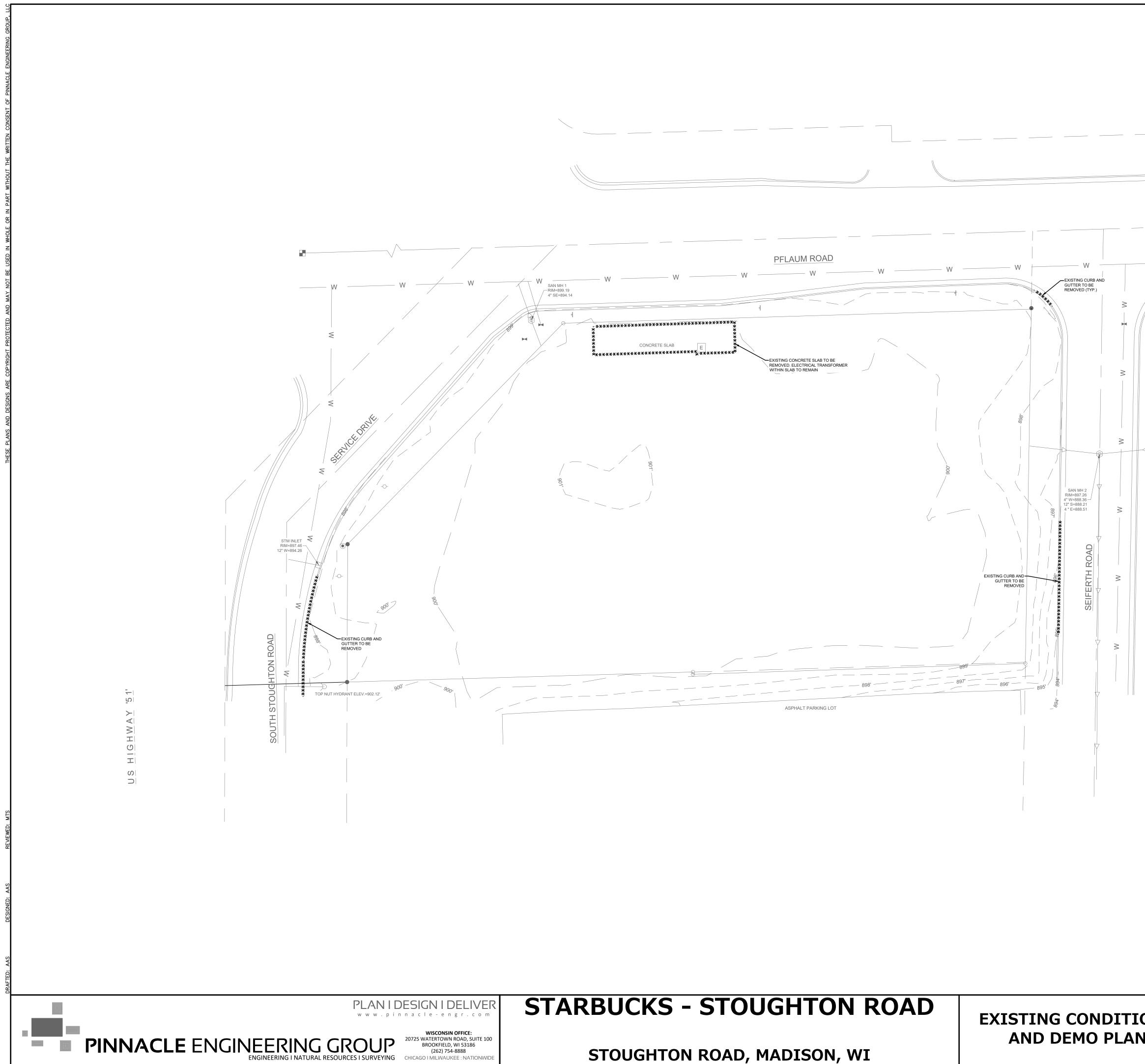
# **STARBUCKS - STOUGHTON ROAD**

**STOUGHTON ROAD, MADISON, WI** 

**GENERAL NOTES** 

OTHER SURFACE FEATURES INDICATED ON THE PLANS TO BE REMOVED.

	REVISIONS		SHEET g
S		021	
		PEG JOB NG PEG PM START DAT SCALE	C-10



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LEGEND				
SANITARY MANHOLE	$\langle \overline{O} \rangle$	STORM SEWER	)	
STORM MANHOLE	$\bigcirc$	WATER MAIN	W	
CATCH BASIN	$\bigcirc$	LIGHTING	τφ.	
INLET		ELECTRICAL CABLE	——— E	
PRECAST FLARED END SECTION	$\triangleleft$	ELECTRICAL TRANSFORMER OR PEDESTAL	E	
CONCRETE HEADWALL	<	POWER POLE	-0-	
VALVE VAULT	$\otimes$	POWER POLE WITH LIGHT	<u> </u>	
VALVE BOX		GUY WIRE	-@	
FIRE HYDRANT	Ŕ	STREET SIGN		
BUFFALO BOX	Φ	GAS MAIN	G	
CLEANOUT	0	TELEPHONE LINE	T	
SANITARY SEWER —		CONTOUR		
FORCE MAIN —	_\\	TREE WITH TRUNK SIZE	6" p <sup>∞</sup> →	
CONCRETE SIDEWALK				
		EASEMENT LINE		

# CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL **CONSTRUCTION NOTES LOCATED ON SHEET C-2**

CONTRACTOR TO CONFIRM ALL STARBUCKS SITE ITEMS WITH STARBUCKS CONSTRUCTION DOCUMENTS

TOP NUT HYDRANT ELEV.=898.22'

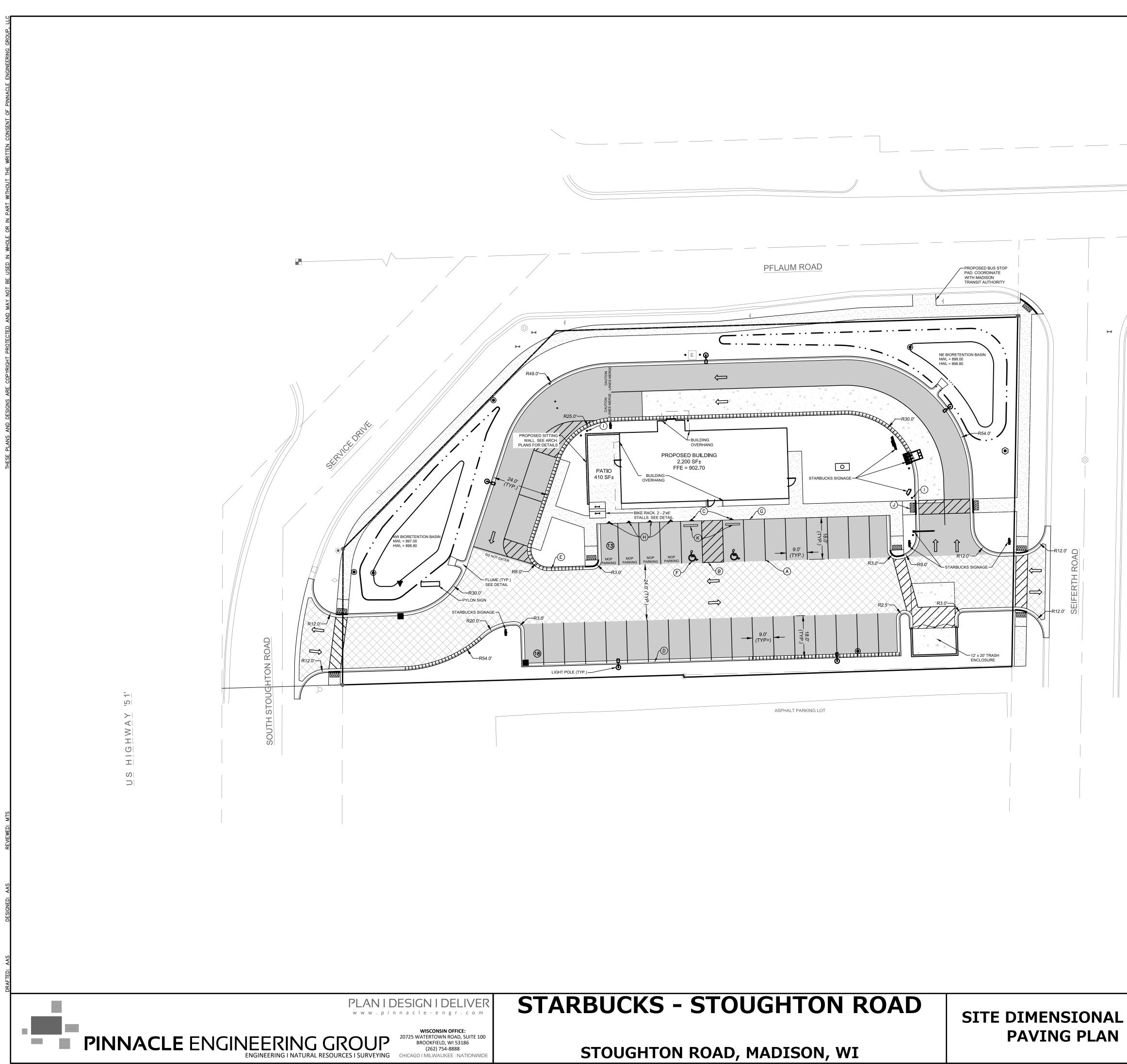
## **EXISTING CONDITIONS SURVEY:**

EXISTING CONDITIONS SURVEY PROVIDED BY PINNACLE ENGINEERING GROUP. ALTHOUGH PEG HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTS THAT EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.

## **CONTRACTOR RESPONSIBILITY:**

THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE.

		GRAPHICAL SCA	ALE (FEET)
	REVISIONS	20 21	SHEET
ONS N			
•		PEG JOB No. PEG PMSTART DATE	



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**PAVING PLAN** 

	LEGEND
	LIGHT DUTY ASPHALT PAVEMENT - 9" - 1 ¼" CRUSHED AGGREGATE TB - 3" HMA PAVEMENT (2 LIFTS) 1 ½" BINDER COARSE - 3 LT 58-28 S 1 ½" SURFACE COARSE - 5 LT 58-28 S
	HEAVY DUTY ASPHALT PAVEMENT - 12" - 1 ¼" CRUSHED AGGREGATE TB - 4" HMA PAVEMENT (2 LIFTS) 2 ½" BINDER COARSE - 3 LT 58-28 S 1 ½" SURFACE COARSE - 5 LT 58-28 S
а. А. а.	CONCRETE PAVEMENT - 6" CONCRETE SLAB WITH 6 x 6 - W2.9 x W2.9 W.W.M. - 6" MIN 1 抖" CRUSHED AGGREGATE TB
	CONCRETE SIDEWALK - 5" CONCRETE SIDEWALK - 4" - 1 ¼" CRUSHED AGGREGATE TB
A	4" SOLID WHITE STRIPE
В	4" DIAGONAL AT 45° SPACED 2' O.C.
©	ADA PARKING STALL SIGNAGE WITH BOLLARD (SEE DETAIL)
D	18" CURB & GUTTER (SEE DETAIL)
E	18" REVERSE PITCH CURB & GUTTER (SEE DETAIL)
F	ADA STALL INSIGNIA
G	INTEGRAL CURB AND GUTTER (SEE DETAIL)
H	MOBILE ORDER PICKUP SIGNAGE (SEE STARBUCKS DETAIL)
	BOLLARD (SEE STARBUCKS DETAIL)
J	TACTILE WARNING PLATES (NEENAH CAST IRON)
K	WHEEL STOP
10	PARKING COUNT (FOR INFORMATION ONLY, NOT TO BE PAINTED)

# SITE DATA

SITE AREA: DISTURBANCE LIMITS: BUILDING AREA: PROPOSED CAR PARKING SPACES: 31 SPACES (2 A.D.A.) GRASS AREA: TOTAL IMPERVIOUS AREA: GREEN SPACE (%)

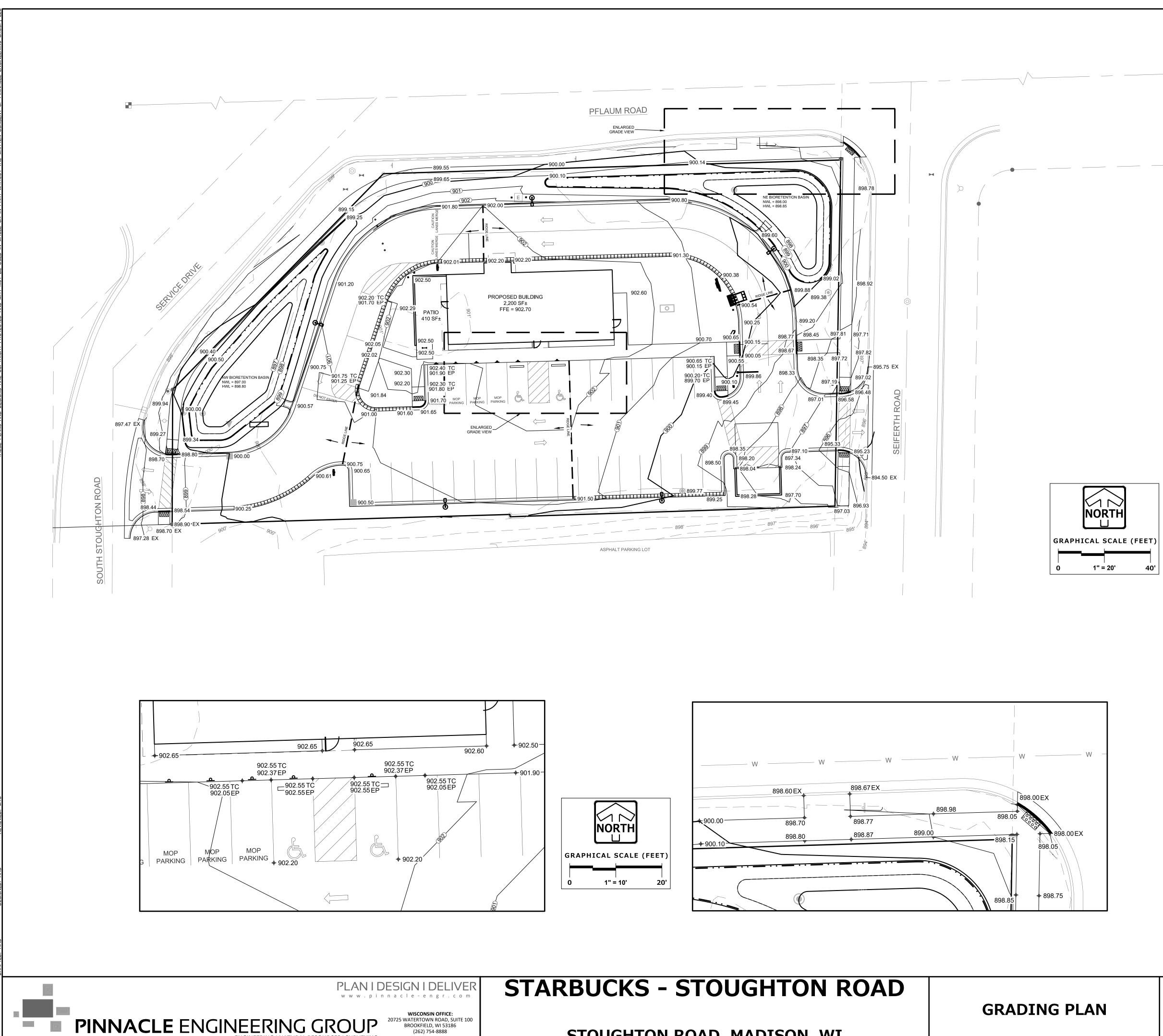
0.97 AC 0.05 AC 0.33 AC 0.57 AC 36.33 %

0.90 AC

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL **CONSTRUCTION NOTES LOCATED ON SHEET C-2** 

CONTRACTOR TO CONFIRM ALL STARBUCKS SITE **ITEMS WITH STARBUCKS CONSTRUCTION** DOCUMENTS

	GR	APHICAL SCALE (FEET)	TONAL A
	0	1" = 20' 40'	IENS
AND	REVISIONS	PEG JOB NO. 2151.00 PEG PM MTS START DATE 09/02/20 SCALE 1"=20' DT=20' T=20'	SITE DIN



RESOURCES I SURVEYING

CHICAGO I MILWAUKEE : N/

**STOUGHTON ROAD, MADISON, WI** 



۲	SANITARY SEWER MANHOLE	GRASS PAVEMENT	DIRECTION OF SURFACE FLOW
۲	STORM SEWER MANHOLE		<ul> <li>NORMAL WATER LEVEL (NWL)</li> </ul>
•	STORM STORM CATCH BASIN (ROUND CASTING)	<b></b>	DITCH OR SWALE
	STORM SEWER CATCH BASIN (RECTANGULAR CASTING)	>>>	- DIVERSION SWALE
►	PRECAST FLARED END SECTION	SF	- SILT FENCE
	CLEANOUT	$\bigcirc$	TYPE D INLET PROTECTION
	VALVE BOX		CONSTRUCTION ENTRANCE
>	FIRE HYDRANT	20203	
749	PROPOSED CONTOUR	KXXXXXX	EROSION CONTROL BLANKET
750.0	PROPOSED SPOT ELEVATION		(NORTH AMERICAN GREEN S75 OR EQUAL)
WET	- WETLANDS		
	- FLOODPLAIN		
· · —	<ul> <li>HIGH WATER LEVEL (HWL)</li> </ul>		

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL **CONSTRUCTION NOTES LOCATED ON SHEET C-2** 

# **CONSTRUCTION SITE SEQENCING**

- INSTALL PERIMETER SILT FENCE, INLET PROTECTION, TEMPORARY CONSTRUCTION ENTRANCE AND ANY OTHER EROSION CONTROL MEASURES
- 2. DEMOLITION AND REMOVALS OF BUILDINGS, PAVEMENTS & LANDSCAPING.
- 3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS AND SEDIMENT TRAPS/BASINS AS NEEDED.
- 4. CONSTRUCTION OF FOUNDATIONS AND BUILDING.
- 5. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
- COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
- INSTALL TOPSOIL AND LANDSCAPING. IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
- EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

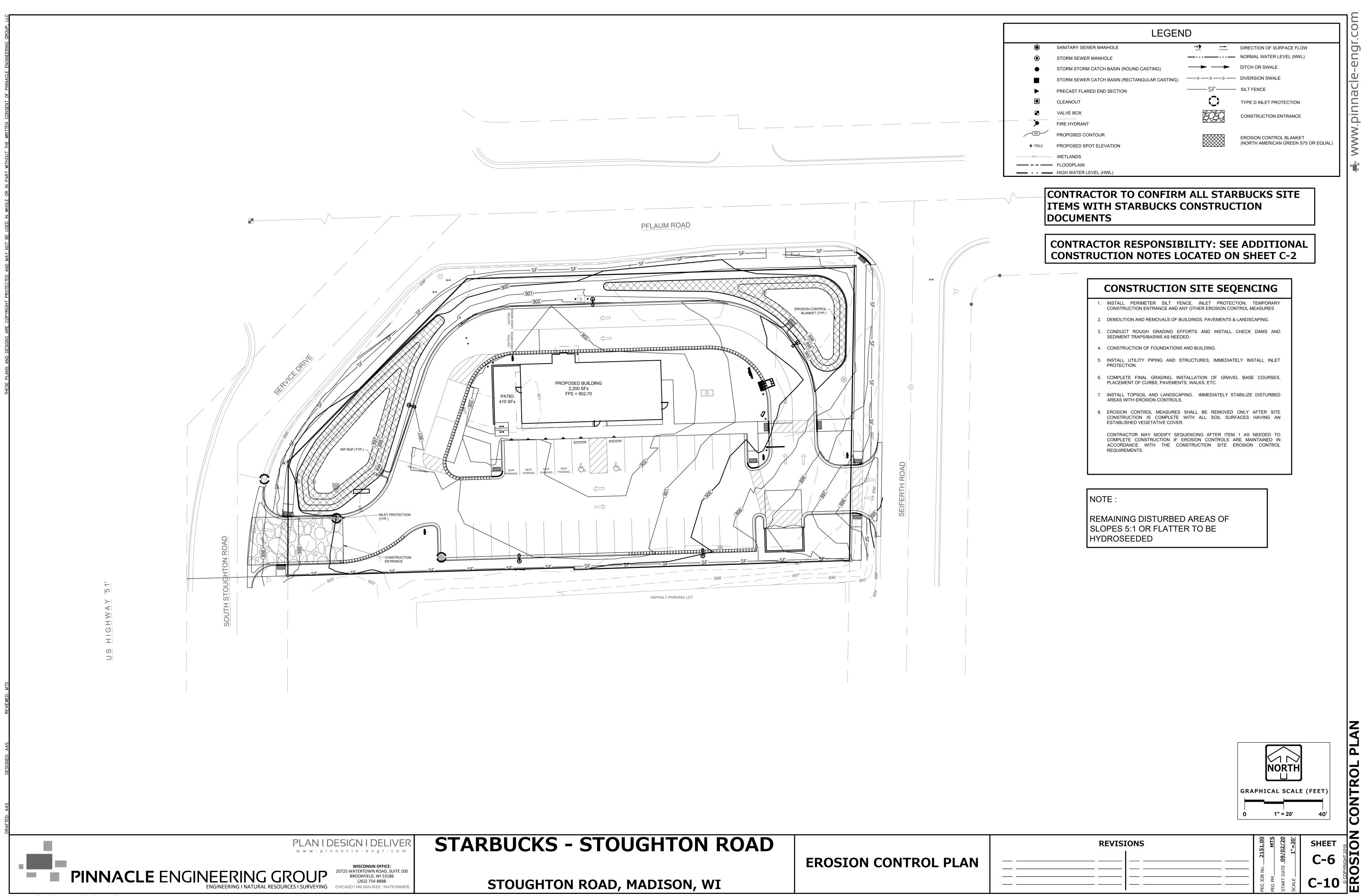
CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

NOTE :

REMAINING DISTURBED AREAS OF SLOPES 5:1 OR FLATTER TO BE HYDROSEEDED

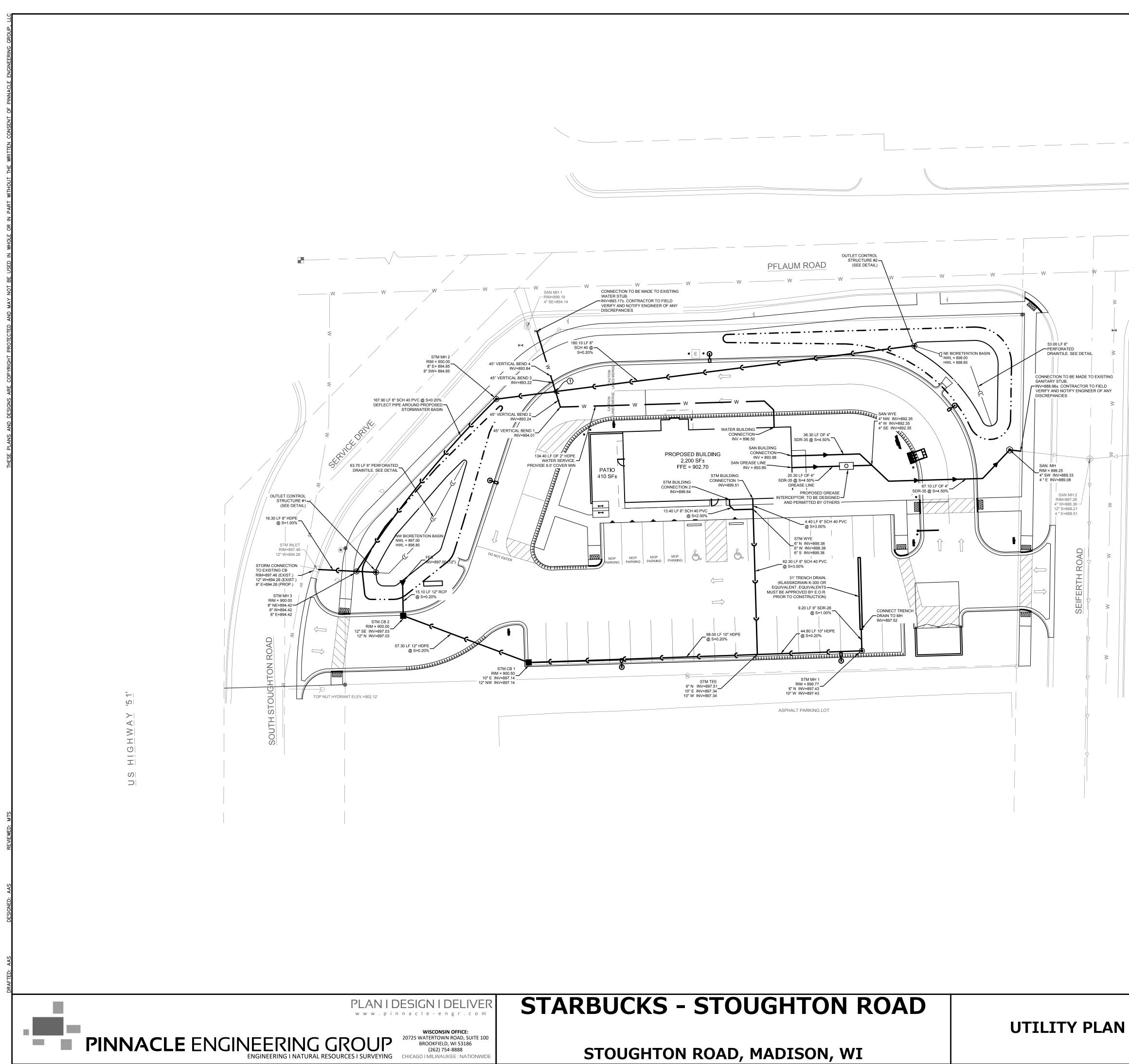
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	0. 21	C-5
	PEG JOB NG PEG PM START DAT SCALE	C-10

PLAN



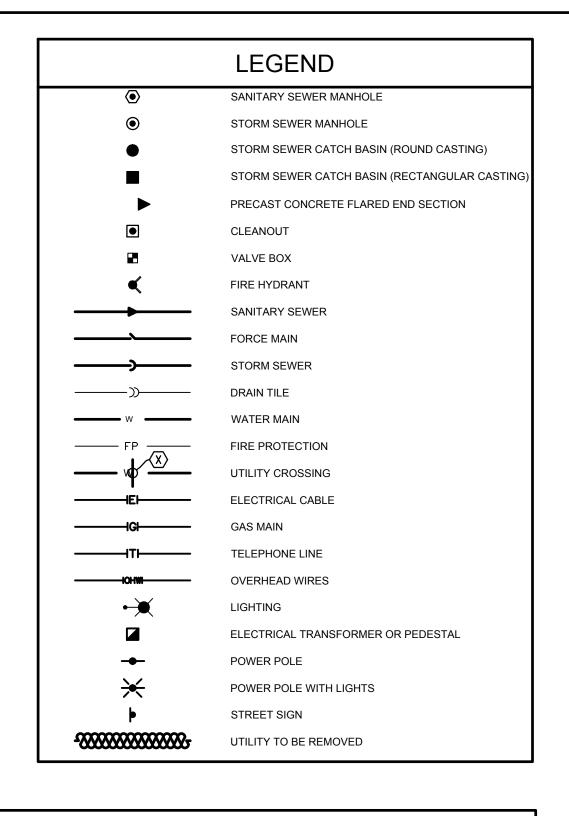
Z:\PROJECTS\2020\2151.00-WI\CAD\SHEETS\C-5 GRADING AND EROSION CONTROL PLAN.DWG

		LEGENI	D	
۲	SANITARY SEWER MA	NHOLE	GRASS PAVEMENT	DIRECTION OF SURFACE FLOW
۲	STORM SEWER MANH	OLE		<ul> <li>NORMAL WATER LEVEL (NWL)</li> </ul>
•	STORM STORM CATC	H BASIN (ROUND CASTING)		DITCH OR SWALE
	STORM SEWER CATC	H BASIN (RECTANGULAR CASTING)	>>>	- DIVERSION SWALE
	PRECAST FLARED EN	D SECTION	SF	- SILT FENCE
	CLEANOUT		$\bigcirc$	TYPE D INLET PROTECTION
	VALVE BOX			CONSTRUCTION ENTRANCE
<b>)</b>	FIRE HYDRANT			
(749)	PROPOSED CONTOUR			EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75 OR EQ
<del>\$</del> 750.0	PROPOSED SPOT ELE	VATION		
	- WETLANDS - FLOODPLAIN			
•••	<ul> <li>HIGH WATER LEVEL (I</li> </ul>	HWL)		
L	CONSTRUC	CTION NOTES LO	CATED O	N SHEET C-2
		CONSTRUCTION	SITE SEC	QENCING
	1.	INSTALL PERIMETER SILT FEN CONSTRUCTION ENTRANCE AND AN		
	2.	DEMOLITION AND REMOVALS OF BUI	_DINGS, PAVEMENTS &	& LANDSCAPING.
	3.	CONDUCT ROUGH GRADING EFFO SEDIMENT TRAPS/BASINS AS NEEDEI		CHECK DAMS AND
	4.	CONSTRUCTION OF FOUNDATIONS A	ND BUILDING.	
	5.	INSTALL UTILITY PIPING AND STR PROTECTION.	RUCTURES, IMMEDIAT	TELY INSTALL INLET
	6.	COMPLETE FINAL GRADING, INST. PLACEMENT OF CURBS, PAVEMENTS		EL BASE COURSES,
	7.	INSTALL TOPSOIL AND LANDSCAPIN AREAS WITH EROSION CONTROLS.	NG. IMMEDIATELY S	TABILIZE DISTURBED
	8.	EROSION CONTROL MEASURES S CONSTRUCTION IS COMPLETE W ESTABLISHED VEGETATIVE COVER.		
		CONTRACTOR MAY MODIFY SEQU COMPLETE CONSTRUCTION IF ER ACCORDANCE WITH THE CON REQUIREMENTS.	OSION CONTROLS	ARE MAINTAINED IN
	NO	TE :		
	REI	MAINING DISTURBED	AREAS OF	



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TOP NUT HYDRANT ELEV.=898.22'

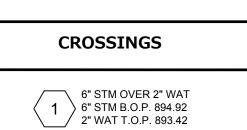


# **CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2**

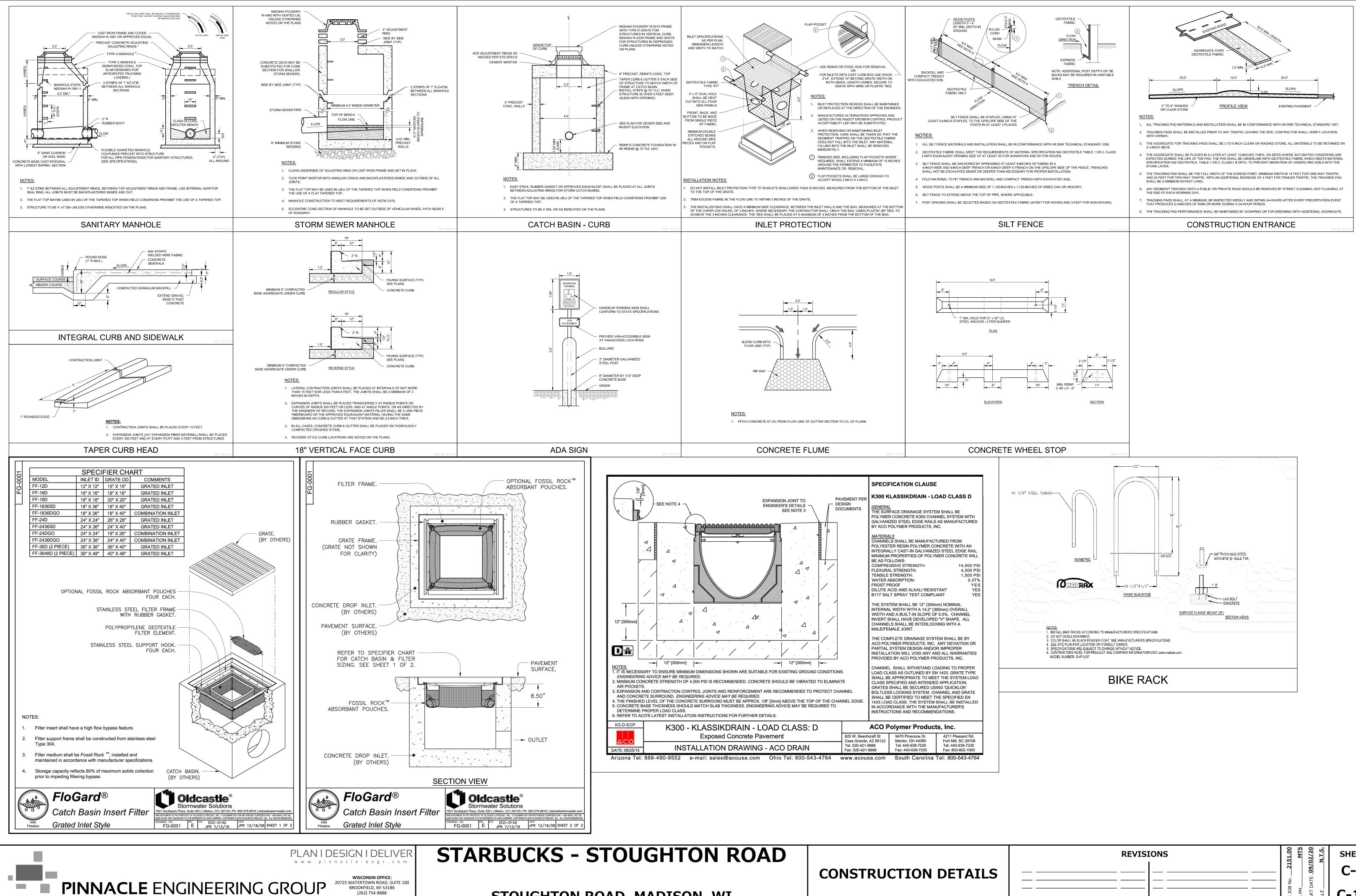
CONTRACTOR TO CONFIRM ALL STARBUCKS SITE ITEMS WITH STARBUCKS CONSTRUCTION DOCUMENTS

DESIGN/BUILD PLUMBER TO ADJUST WATER SUPPLY PIPE SIZING AS NECESSARY TO COMPLY WITH STARBUCKS REQUIREMENTS (PROVIDE A MINIMUM **OPERATING FLOW OF 60 GALLONS PER MINUTE**, MINIMUM OPERATING PRESSURE OF 50PSIG AND A MAXIMUM OF 80PSIG DYNAMIC PRESSURE AT ALL TIMES, ETC. - GC TO COORDINATE

ALL STORM CATCH BASINS TO HAVE OIL & GREASE FILTERS PER SPECIFICATIONS ON SHEET C-8



GRAPHICAL SCALE (FEET)	
2151.00 MTS 9/02/20 1"=20' 1"=20'	REVISIONS
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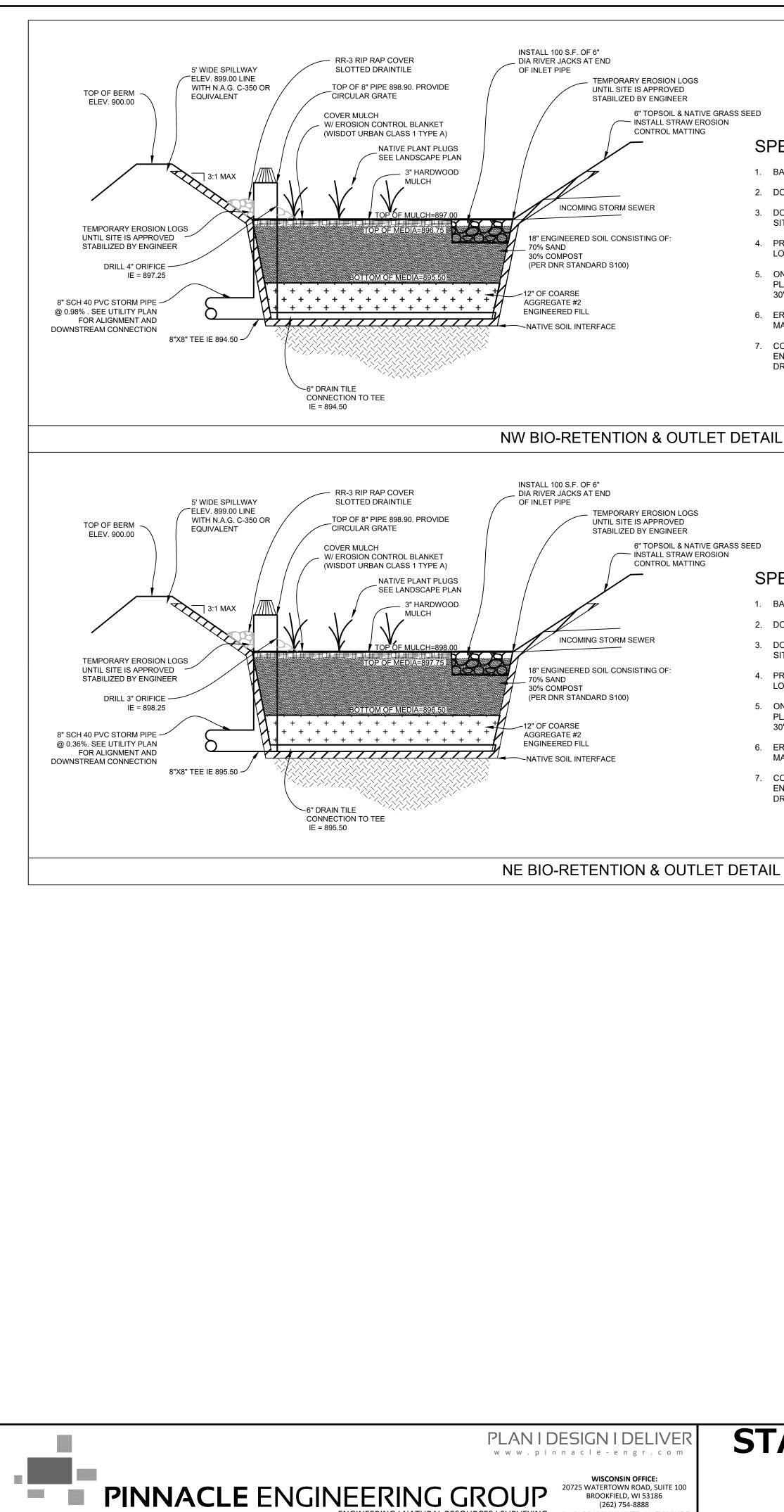
**STOUGHTON ROAD, MADISON, WI** 

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		PEG JOB N PEG PM START DA SCALE	C-10

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**JCTION DETAIL** 



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## SPECIFICATIONS:

- 1. BASIN MAY BE USED AS SEDIMENT CONTROL DEVICE DURING CONSTRUCTION.
- 2. DO NOT USE HEAVY EQUIPMENT IN THE BASIN.
- 3. DO NOT PLACE TOPSIL, MEDIA, MULCH, OR PLANTS UNTIL AFTER THE PAVING OPERATIONS ARE COMPLETE AND THE SITE IS STABILIZED.
- 4. PRIOR TO COMPLETING THE GARDEN, REMOVE ANY SEDIMENT THAT HAS ACCUMULATED AND REMOVE FINAL FOOT AND LOOSEN BOTTOM SOIL PRIOR TO PLACEMENT OF ANY FINISH MATERIALS.
- 5. ONCE THE ENGINEERED SOIL OR TOPSOIL IS PLACED, THE SURFACE SHALL BE COVERED WITH A VARIOUS AREAS OF PLANTINGS AND/OR SEEDING AS SPECIFIED ON THE LANDSCAPE PLAN. HARDWOOD MULCH MAY NOT BE USED WITHIN 30' OF THE OUTLET TO AVOID WASHOUTS. DECORATIVE 6" STONE SHALL BE USED INSTEAD.
- 6. EROSION CONTROL MATTING SHALL BE ANCHORED, OVERLAPPED, STAKED AND ENTRENCHED PER THE MANUFACTURER'S RECOMMENDATIONS.
- 7. CONTRACTOR TO PROVIDE A COPY OF ALL GEOTECHNICAL REPORTS AND DATA PERTAINING TO THE PONDS TO THE ENGINEER FOR APPROVAL. ENGINEER SHALL SUBMIT COPIES TO THE CITY FOR APPROVAL ALONG WITH THE RECORD DRAWINGS.

## SPECIFICATIONS:

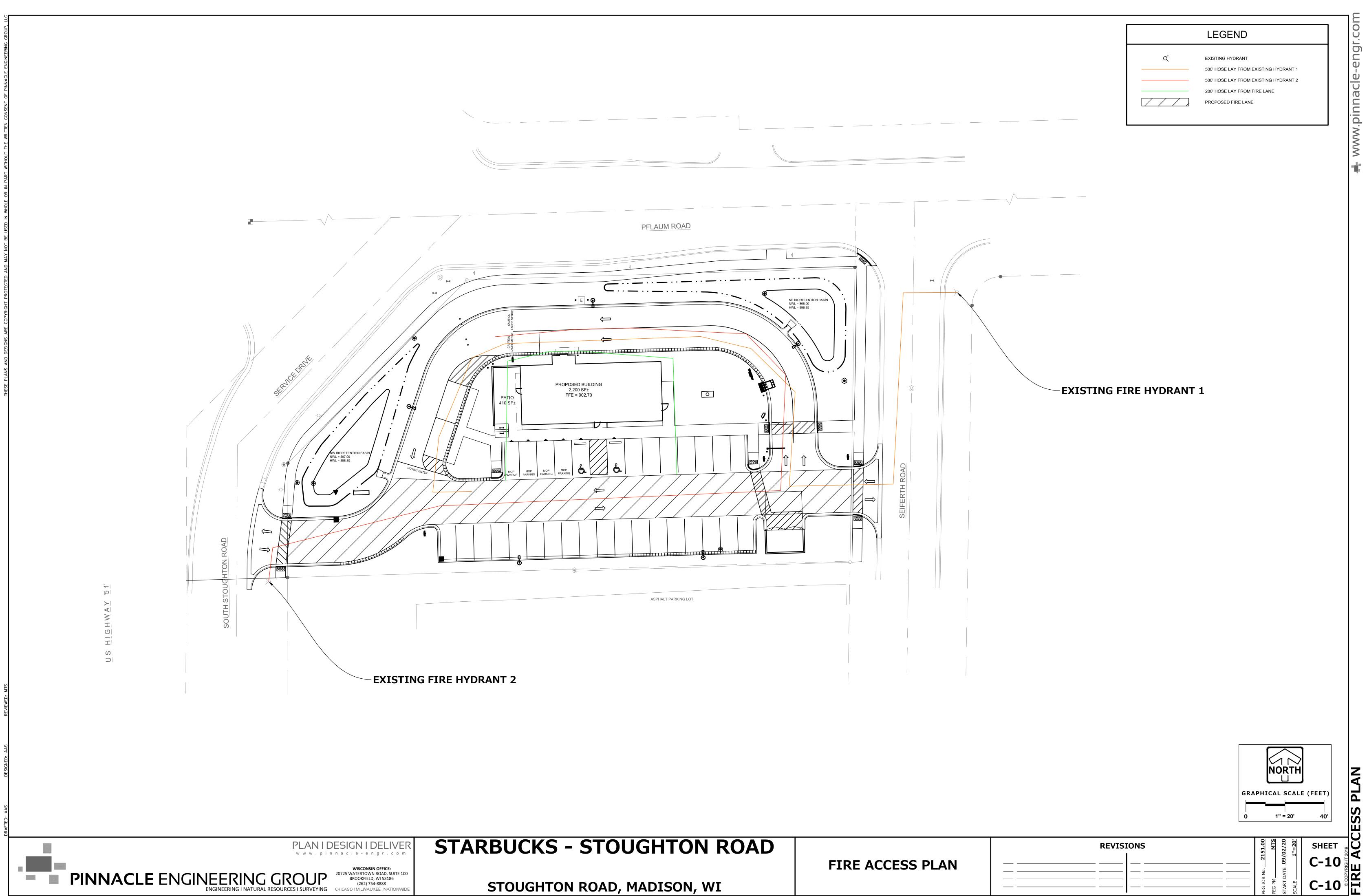
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# **STARBUCKS - STOUGHTON ROAD**

**STOUGHTON ROAD, MADISON, WI** 

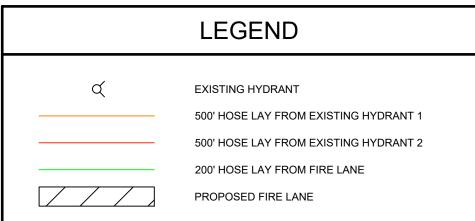
**CONSTRUCTION DET** 

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		PEG JOB NG PEG PM START DAT SCALE	C-10



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**STOUGHTON ROAD, MADISON, WI** 



### Proposed Plant Material Table

Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comments
2	Ceja	0	Cercidiphyllum japonicu	Jm	Katsura Tree	2 1/2"-Cal - B&B	35	1
4	GibiPS	0	Ginko biloba 'Princeton	Sentry'	Princeton Sentry Maidenhair Tree	2 1/2"-Cal - B&B	35	1, 8
4	GltrS	0	Gleditsia triacanthos 'Su	nburst'	Sunburst Honey Locust	2 1/2"-Cal - B&B	35	1
2	Qubi	₩ (A)	Quercus bicolor		Swamp White Oak	2 1/2"-Cal - B&B	35	1
2	UlmoA	$\sim$	Ulmus 'Morton' Accolad	е	Accolade Elm	2 1/2"-Cal - B&B	35	1
-	Extg	$\odot$	Existing to Remain		Existing to Remain	Existing	-	3
-	Extg	τ <u>τ</u>	Existing to be Removed		Existing to be Removed	Existing	-	4
roadleaf De	ciduous Oversto	ry Street Re	eplacement Tree					
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comments
1	UINH		Ulmus 'New Horizon'		New Horizon Elm	2 1/2"-Cal - B&B	35	1
Broadleaf De	ciduous Orname	enta Tree						
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comments
3	AcfrA	0	Acer × freemanii 'Armstr	ong'	Armstrong Maple	1 1/2" Cal - B&B	15	1
2	BeplW		Betula platyphylla japonica 'V	Vhitespire'	Whitespire Japanese White Birch	10' - 12' - Clump B&B	15	2
7	MaAk	0	Malus "Adirondack"		Adirondack Flowering Crab	1 1/2" Cal - B&B	15	1
Conifer Everg	reen Tree	1			·			
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comments
3	PiomB	Ű	Picea omorika 'Bruns'		Bruns Serbian Spruce	6' - B&B	35	5
3	PifI∨	Ť	Pinus flexis 'Vanderwolf's	s Pyramid'	Vanderwolf's Pyramid Limber Pine	6' - B&B	35	5
Shrub		*		,	,			
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comment
8	CeocS	and the second s	Cephalanthus occidentalis 'SI	NCOSS'	Sugar Shack Butttonbush	18'' - Cont	3	6
7	DiriKB	Acres	Diervilla rivularis 'SMNDR	SF'	Kodiak Black Diervilla	18'' - Cont	3	6
16	HyanS	×	Hypericum androsaemum 'Se	ifire'	Ignite Red St. John's Wort	18'' - 24''- Cont	3	6
9	PhopJ	Ô	Physocarpus opulifolius	'Jefam'	First Editions Amber Jubilee Ninebark	18'' - 24''- Cont	3	6
12	RoM	Ö	Rosa 'Meimirrot'		Apricot Drift Groundcover Ros	18'' - Cont	3	6
25	RoRa	C	Rosa x 'Radtko'		Double Knock Out Rose	18" - 24"- Cont	3	6
14	SainH	*	Salix integra 'Hakuro-nisł	niki'	Dappled Willow	18'' - Cont	3	6
31	SpfrP	G	Spiraea fritschiana 'J.N.	Select A'	Pink-a-liciaous Spirea	18" - 24"- Cont	3	6
12	WefISB	0	Weigela florida 'Bokraso	pin'	Sonic Bloom Pink Reblooming Weigela	4 1/2" pot	3	6
Conifer Everg	reen Shrub							
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comments
10	JuchMJ	AN ANT	Juniperus chinensis 'Mint	t julep'	Mint julep juniper	18" - 24" - B&B	4	6
6	JupfSG		Juniperus x pfizeriana 'N	1onSan'	Sea of Gold Juniper	18" - 24" - B&B	4	6
4	ThocB	Ô	Thuja occidentalis 'Boba	azam'	Mr. Bowling Ball Arborvitae	18'' - Cont	4	6
2	ThocH		Thuja occidentalis 'Holm	nstrup'	Holmstrup Dwarf Arborvitae	3' - 4' - B&B	10	5
Grass		1			•			
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Point Value	Comment
20	DecaNL	*	Deschampsia caespitosa 'Nor	'thern Liahts'	Northern Lights Tufted Hair Grass	1-Gal - Cont	2	7
15	PaviHR	A My	Panicum virgatum 'Hot I		Hot Rod Switch Grass	1-Gal - Cont	2	7
32	PaviN	*	Panicum virgatum 'Nort		Northwind Switch Grass	1-Gal - Cont	2	7
20	SpheT	**	Sporobolus heterolepis "		Tara Prairie Dropseed	1-Gal - Cont	2	7
Perennial	I .		1		· · ·	[	1	1
Quantity	Code Name	Symbol	Scientific Name		Common Name	Planting Size	Comments	Comment
,		,						
52			Hemerocallis x 'Nosferat	U	Trophytaker Nosferatu Daylily	4 1/2" - Cont	2	7
	1  - Storm W	ater Manc	_					
Quantity	Symbol	್ರಾವ್ರವ್ರವರ್ಷ ಹಾಗೂ ತಂಗಲಾಗಿ ಕ	Supplier T	уре				
1400 sq. ft. 1100 sq. ft.					WALE PRAIRIE SEED MIX - mixture con 2 of 17 native forb species. Apply at9			

Comments

Straight central leader, full & even crown. Prune only after planting

Well balanced, multi-stemmed tree with a minimum of (3) strong canes and full appearance.

Prune existing tree, remove any dead, diseased or hazardous limbs. Thin out as required and raise canopy for

safety and viability for both pedestrians and motorists. Remove existing tree in right of way in its entirety and grind stump to a minimum of 6" below adjacent grade.

Remove grinding ships and fill hole with topsoil and sow turf grass seed as required.

Evenly shaped upright tree with full branching to the ground.

Full, well rooted plant, evenly shaped.

Full, well rooted plant. Male only

### SITE INFORMATION

USDA PLANT HARDINESS ZONE	5a (-20 to -15 Degrees F)
LOT ZONING	IL -INDUSTRIAL - LIMITED DISTRICT
TOTAL LOT AREA	39,103 SQ. FT. (0.90 Acres)
SITE BUILDING AREA	2,200 SQ. FT. (0.05 Acres)
LOT DEVELOPED AREA	36,903 SQ. FT. (0.85 Acres)
TOTAL IMPERVIOUS AREA	25,012 SQ. FT. (0.57 Acres)
TOTAL LOT GREENSPACE	14,091 SQ. FT. (0.32 Acres)
SITE LANDSCAPE PERCENTAGE	32.3%
TOTAL PARKING STALLS	32 STALLS

LANDSCAPE CALCULATIONS AND DISTRIBUTION

DEVLOPED AREA IS DEFINED AS THAT AREA WITHIN A SINGLE CONTIGUOUS BOUNDARY EXCLUDING THE AREA OF ANY BUILDING FOOTPRINT AT GRADE TOTAL LOT AREA 39,103 SQ. FT - SITE BUILDING AREA 2,200 SQ. FT. = TOTAL DEVELOPED AREA 36,903 SQ. FT. FOR THE IL DISTRICTS, ONE (1) POINT SHALL BE PROVIDED PER ONE HUNDRED (100) SQUARE FEET OF DEVELOPED AREA (36,903 / 100) X 1 = 369 LANDSCAPE POINTS REQUIRED

432 LANDSCAPE POINTS ARE PROVIDED \*TREES MUST BE WITHIN DEVELOPED AREA AND CANNOT COMPRISE MORE THAN 40% (30%) OF TOTAL REQUIRED POINTS 28.142(5) DEVELOPMENT FRONTAGE LANDSCAPING

ONE (1) OVERSTORY DECIDUOUS TREE AND FIVE (5) SHRUBS SHALL BE PLANTED FOR EACH THIRTY (30) LINEAL FEET OF LOT FRONTAGE (2) ORNAMENTAL TREES OR (1) TALL EVERGREEN TREE CAN BE SUBSTITUTED FOR (1) OVERSTORY DECIDUOUS TREE TOTAL STREET FRONTAGE = 538 LINEAL FEET OF LOT FRONTAGE THEREFORE:

(18) OVERSTORY DECIDUOUS TREES ARE REQUIRED

18 TOTAL - (9) NEW OVERSTORY DECIDUOUS TREES ARE PROVIDED in combination of (4) TALL EVERGREEN trees and (10) ORNAMENTAL TREES 100 TOTAL - NEW BROADLEAF DECIDUOUS AND CONIFEROUS EVERGREEN SHRUBS ARE PROVIDED

DESIGN COMPLIANCE:

THIS LANDSCAPE PLAN IS ACCURATE AND IN

COMPLAINACE WITH THE CITY OF MADISON 28.142 -

LANDSCAPING AND SCREENING REQUIREMENTS.

(3) LANDSCAPE PLAN AND DESIGN STANDARDS,

(5) DEVELOPMENT FRONTAGE LANDSCAPING.

(6) INTERIOR PARKING LOT LANDSCAPING,

(7) FOUNDATION PLANTINGS

(4) LANDSCAPE CALCULATIONS AND DISTRIBUTION,

(90) SHRUBS ARE REQUIRED (6) INTERIOR PARKING LOT LANDSCAPING

ALL PARKING LOTS WITH TWENTY (20) OR MORE PARKING SPACES SHALL BE LANDSCAPED IN ACCORDANCE WITH THE FOLLOWING INTERIOR PARKING LOT STANDARDS

ONE (1) DECIDUOUS CANOPY TREE FOR EVERY ONE HUNDRED SIXTY (160) SQUARE FEET OF REQUIRED LANDSCAPED AREA. (5) REQUIRED

(7)FOUNDATION PLANTINGS

FOUNDATION PLANTINGS SHALL BE INSTALLED ALONG BUILDING FACADES, EXCEPT WHERE BUILDING FACADES DIRECTLY ABUT THE SIDEWALK, PLAZA, OR OTHER HARDSCAPE FEATURES. FOUNDATION PLANTINGS SHALL CONSIST PRIMARILY OF SHRUBS, PERENNIALS, AND NATIVE GRASSES.

CONTRACTOR NOTE: THE LANDSCAPE CONTRACTOR/GENERAL CONTRACTOR IS/ARE RESPONSIBLE TO INSTALL THE LANDSCAPE AS PER THE APPROVED PLAN. IF ANY CHANGES OR DEVIATIONS ARE MADE FROM THE THIS APPROVED PLAN, THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE RESPONSIBLE FOR UPDATING THE PLANS ACCORDINGLY AND SUBMITTING THOSE REVISED PLANS FOR APPROVAL AND "SIGN OFF" WITH THE CITY OF MADISON. THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE ALSO RESPONSIBLE FOR VERIFYING THAT ANY PLANT MATERIAL SUBSTITUTIONS OR MODIFICATIONS THAT ARE MADE TO THE APPROVED LANDSCAPE DESIGN DOCUMENTS WILL NOT CHANGE OR ALTER ANY OF THE REQUIRED SUPPORTING LANDSCAPE REQUIREMENT CALCULATIONS. UPON COMPLETION OF THE CONSTRUCTION PROJECT AND FILE THAT AFFIDAVIT WITH THE CITY of madison.

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LANDSCAPE POINTS TABLE		
PLANT TYPE	POINTS	MINIMUM SIZE AT INSTALLATION
OVERSTORY DECIDUOUS TREE	35	2½ INCH CALIPER MEASURED DIAMETER AT BREAST HEIGHT (DBH) MINIMUM 12'-14' HGT.
TALL EVERGREEN TREE (I.E.PINE, SPRUCE)	35	5-6 FEET TALL
ORNAMENTAL TREE	15	1 <sup>1</sup> / <sub>2</sub> INCH CALIPER
UPRIGHT EVERGREEN SHRUB (I.E. ARBORVITAE)	10	3-4 FEET TALL
Shrub, deciduous Min. 12"-24"	3	#3 GALLON CONTAINER SIZE
SHRUB, EVERGREEN MIN.12''-24''	4	#3 GALLON CONTAINER SIZE
ORNAMENTAL GRASSES/PERENNIALS	2	#1 GALLON CONTAINER SIZE MIN. 8"-18"
ORNAMENTAL/DECORATIVE FENCING OR WALL	4 PER 10 LN. FT.	N/A
EXISTING SIGNIFICANT SPECIMEN TREE MAXIMUM POINTS PER TREE: 200	14/CALIPER INCH DBH	MINIMUM SIZE: 2 ½ INCH CALIPER DBH *TREES MUST BE WITHIN DEVELOPED AREA AND CANNOT COMPRISE MORE THAN 40% (30%) OF TOTAL REQUIRED POINTS
LANDSCAPE FURNITURE FOR PUBLIC SEATING AND/OR TRANSIT CONNECTIONS	5 POINTS / "SEAT"	*FURNITURE BE WITHIN DEVELOPED AREA, PUBLICALLY ACCESSIBLE, AND CANNOT COMPRISE MORE THAN 5% OF TOTAL REQUIRED POINTS

EXISTING CONDITIONS GENERAL NOTES

- 1. INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE LANDSCAPE DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE
- LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT. 2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA OF DISTURBANCE THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING
- THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. 3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS
- ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS. 4. VERIFY LOCATION OF ACCESS PANELS W/ MECHANICAL AND ELECTRICAL EQUIPMENT FOR ACCESSIBILITY OF MECHANICAL & ELECTRICAL ITEMS.
- 5. INSITE LANDSCAPE DESIGN, INC, ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF INSITE LANDSCAPE DESIGN, INC.

# LANDSCAPE PLAN GENERAL NOTES

PLANT MATERIAL SHOWN ON LANDSCAPE PLAN IS DEPICTED AT MATURE GROWTH. 1. AT LEAST SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AS GIVEN BY THE ELECTRIC, GAS, TELEPHONE, WATER, SEWER, AND CABLE TELEVISION COMPANIES, UTILITIES OR ENTITIES. REVIEW WITH OWNER'S REPRESENTATIVE SITE MECHANICAL, SITE ELECTRICAL AND LIGHTING, SITE GRADING AND DRAINAGE, SITE IRRIGATION AND ALL OTHER DRAWINGS PERTAINING TO UNDERGROUND UTILITY LOCATIONS. RECORD SET OF INFORMATION THE SAME AS IN POSSESSION OF OWNER'S REPRESENTATIVE. ALSO REVIEW OWNER'S "MARK SETS" OF ALL OF THESE DRAWINGS IN POSSESSION OF THE CONTRACTOR OR OWNER. MARK ALL SUCH UTILITIES ON THE SITE PRIOR TO COMMENCING. COORDINATE WITH OWNER BEFORE AND DURING CONSTRUCTION. REPAIR ANY DAMAGE TO ANY SYSTEM THAT IS CAUSED BY LANDSCAPE

- CONTRACTOR AT NO COST TO OWNER.
- STANDARD OF NURSERY STOCK ANSI Z60.1 2014 AND ANSI STANDARDS FOR PLANTING 2012.
- WILL NOT BE RECOGNIZED BY LANDSCAPE ARCHITECT AND OWNER.
- 5. PROTECT PUBLIC FROM CONSTRUCTION WITH BARRIERS AND BARRICADES.
- REPAIR DAMAGE DONE BY OTHERS.
- LANDSCAPE MATERIAL.
- COVERAGE OF ALL AREAS DELINEATED. THE PLANS ARE TO SUPERSEDE THE PLANT LIST IN ALL CASES.

- MAINTENANCE PERIOD.
- GENERAL CONTRACTOR SHALL LEAVE THE SITE FREE OF CONSTRUCTION DEBRIS.
- LSP1.2 FOR FURTHER INFORMATION. 15.
- CONDITION OF EXISTING SOIL. REFER TO LSP1.2 FOR FURTHER INFORMATION. COMPOSTED, ORGANIC MATERIAL.

- INFORMATION
- 19. PROVIDE A 4'-0" 5'-0" DIAMETER MULCH RING AT THE ROOT BALL FLARE OF ALL LAWN TREES.

- 23. DELUXE 50 GRASS SEED MIX REINDER'S (800) 785-3301 20% KENTUCKY BLUE GRASS
- 15% NEWPORT KENTUCKY BLUE GRASS 15% SR 2100 Kentucky Bluegrass
- 25% Creeping Red Fescue
- 15% Replicator Perennial Ryegrass 10% Fiesta 4 Perennial Ryegrass
- CONSTANTLY BE REMOVED, NO EXCEPTIONS WILL BE GRANTED. MAINTENANCE NOTE:
- NECESSARY IRRIGATION (if REQUIRED)
  - INTEGRATED PEST MANAGEMENT, PROPER FERTILIZATION
  - TREE CARE AND PRUNING, SHRUB TIP CLIPPING AND SHAPING AS REQUIRED

  - PERPETUITY. WEED MANAGEMENT AND BED CARE.
- WINTER DESICCATION.
- MONTHS OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST.
- CONSTRUCTION FENCE.

2. ALL PLANTINGS SPECIFIED FOR THE STARBUCKS - MADISON S. STOUGHTON RD. PROJECT PLANTING TABLES SHALL COMPLY WITH STANDARDS AS DESCRIBED IN AMERICAN

3. ALL DEVIATIONS FROM THE APPROVED STARBUCKS - MADISON S. STOUGHTON RD. PROJECT PLANS SHALL BE NOTED ON THE RECORD DRAWINGS BY THE CONTRACTOR AND MAY BE EXECUTED ONLY WITH PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. VERBAL AGREEMENTS OR REVISIONS WITHOUT A CHANGE ORDER

4. ALL PLANTS MUST BE BID AND SELECTED PER THE SPECIES SPECIFIED ON THE PLANS. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED IN WRITING BY LANDSCAPE ARCHITECT. THE SIZES OF PLANT MATERIAL LISTED HEREIN IS A MINIMUM ACCEPTABLE SIZE. ADDITIONALLY, IF EXCESSIVE PRUNING REDUCES THE CROWN THE PLANT SHALL BE REPLACED.

6. ALL AREAS THAT WERE DISTURBED DURING CONSTRUCTION AND AREAS NOT COVERED WITH PAVEMENT, BUILDING, PLANTING BEDS, OR TREE PITS ARE TO BE TOPSOILED 3" DEEP (MIN.) AND SHALL BE SODDED/SEEDED WITH SPECIFIED LAWN GRASS. LANDSCAPE CONTRACTOR SHALL INCLUDE COST PER SQUARE YARD FOR ADDITIONAL SEED OPERATIONS AS MAY BE POSSIBLY REQUIRED TO REESTABLISH ADJACENT TURF GRASS AREAS WHICH MAY BECOME DAMAGED DURING THE CONSTRUCTION PROCESS OR TO

7. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR PROPER PLANTING AND INSTALLATION OF ALL

8. OUANTITIES ON PLANT MATERIALS LIST ARE FOR CONVENIENCE OF BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS AND

9. CONTRACTOR IS RESPONSIBLE FOR ALL ESTIMATING AND BIDDING, ALL AREAS, QUANTITIES MATERIALS SHOULD BE FIELD VERIFIED WITH SITE CONDITIONS.

10. WHERE DISCREPANCIES OCCUR BETWEEN THE LANDSCAPE PLANS AND/OR ARCHITECTURAL AND/OR THE CIVIL DRAWINGS (AND ANY OTHER SITE DRAWINGS) THE DISCREPANCIES MUST BE BROUGHT TO THE LANDSCAPE ARCHITECTS ATTENTION FOR COORDINATION AND RESOLUTION.

11. ALL DISEASED, NOXIOUS OR INAPPROPRIATE MATERIALS SHALL BE REMOVED FROM THE PROPOSED SITE PRIOR TO THE START OF CONSTRUCTION AND DURING THE

13. ALL LAWN AND PLANTING AREAS SHALL SLOPE TO DRAIN A MINIMUM OF 2% UNLESS NOTED OTHERWISE AND REVIEWED WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL. 14. FINISH GRADES FOR SHRUB AND GROUND COVER AREAS SHALL BE HELD 1" BELOW TOP OF ADJACENT PAVEMENTS AND CURBS, UNLESS NOTED OTHERWISE ON THE PLANS. REFER TO

ALL PERENNIAL, ANNUAL AND GROUND COVER AREAS TO RECEIVE A BLEND OF ORGANIC SOIL AMENDMENTS PRIOR TO PLANTING. TILL THE FOLLOWING MATERIALS INTO EXISTING TOPSOIL TO A DEPTH OF APPROXIMATELY 8". A DEPTH OF 12" IN TREE PITS. PROPORTIONS AND QUANTITIES MAY REQUIRE ADJUSTMENT DEPENDING ON THE PER EVERY 100 SQUARE FEET ADD: ONE - 2 CUBIC FOOT BALE OF PEAT MOSS, 2 POUNDS OF 5 -10 -5 GARDEN FERTILIZER, 1/4 CUBIC YARD OF COMPOSTED MANURE OR OTHER

16. ALL SHRUBS TO BE POCKET PLANTED WITH A 50/50 MIX OF COMPOSTED, ORGANIC MATERIAL AND EXISTING SOIL. INSTALL TOPSOIL INTO ALL BEDS AS NEEDED TO ACHIEVE PROPER GRADE. REMOVE ALL EXCESSIVE GRAVEL, CLAY AND STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.

17. PLANT ALL TREES SLIGHTLY HIGHER THAN FINISHED GRADE AT ROOT FLARE. BACK FILL HOLE WITH 2/3 EXISTING TOPSOIL AND ORGANIC SOIL AMENDMENTS SPECIFIED IN NOTE 15. AVOID ANY AIR POCKETS. DISCARD ANY GRAVEL CLAY OR STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.

18. ALL TREES TO BE INSTALLED, STAKED AND GUYED ACCORDING TO DETAILS. REFER TO ANSI STANDARDS FOR PLANTING 2012 AND DETAILS ON LSP1.2 FOR FURTHER

20. ALL PLANTINGS TO BE WATERED AT THE TIME OF PLANTING, THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF PROJECT AS REQUIRED.

21. WHERE SPECIFIED, ALL PLANT BEDS, PITS AND TREE RINGS ARE TO RECEIVE A MINIMUM OF 2" - 3" DRESSING OF SHREDDED HARDWOODM OAK BARK MULCH SHAVINGS FREE OF GROWTH, WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE OR GERMINATION INHIBITING INGREDIENTS. LANDSCAPE CONTRACTOR TO PROVIDE A SAMPLE TO OWNER FOR APPROVAL. CONTRACTOR TO TAKE CARE WITH INSTALLATION NOT TO DAMAGE OR COVER PLANTS. REFER TO LSP1.2 FOR FURTHER INFORMATION

22. LAWN INSTALLATION: CONTRACTOR TO FURNISH AND PREPARE TOPSOIL (3" MIN) AND SEED BED (REMOVE ALL STONES 1" OR LARGER), APPLY STARTER FERTILIZER AND SEED UNIFORMLY. PROVIDE A MULCH COVERING SUITABLE TO GERMINATE AND ESTABLISH TURF. EROSION CONTROL MESH SHOULD BE USED IN SWALES AND STEEP GRADES WHERE APPLICABLE. METHODS OF INSTALLATION MAY VARY AT THE DISCRETION OF CONTRACTOR. IT IS HIS/HER RESPONSIBILITY TO ESTABLISH AND GUARANTEE A SMOOTH, UNIFORM, QUALITY TURF. IF STRAW MULCH IS USED AS A COVERING, A TACKIFIER MAY BE NECESSARY TO AVOID WIND DAMAGE.

APPLY AT A RATE OF 200 POUNDS PER ACRE. REFER TO SUPPLIERS SPECIFICATIONS & INSTALLATION CUT SHEETS FOR FURTHER FORMATION

24. DURING THE INITIAL "30 DAY MAINTENANCE PERIOD" THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE AND ON-GOING PLEASANT VISUAL ENVIRONMENT WHEREAS ANY PLANT WHICH IS NOT RESPONDING TO TRANSPLANTING OR THRIVING SHALL IMMEDIATELY BE REPLACED. NEW LAWNS SHALL BE WATERED AND REPAIRED AND WEEDS MUST

MAINTENANCE IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN REQUIRED LANDSCAPING IN ACCORDANCE WITH THE MUNICIPALITY'S PROPERTY MAINTENANCE CODE AND AN APPROVED MAINTENANCE PLAN. THE MAINTENANCE MUST INCLUDE, AT A MINIMUM, METHODS FOR PROVIDING THE FOLLOWING:

• REPLACEMENT OF LOST VEGETATION, AND ALL DISEASED, DAMAGED, OR DEAD MATERIAL WILL BE REPLACED BY THE END OF THE FOLLOWING PLANTING SEASON IN

25. ALL NEWLY PLANTED TREES AND SHRUBS ARE TO RECIEVE AN APPLICATION OF AN ANTI-TRANSPIRANT SPRAY THAT WILL EFFECTIVELY REDUCE THE WATER LOSS OF TRANSPIRATION OF PLANT MATERIAL AND REDUCE THE STRESS OF TRANSPLANTATION. IT IS RECOMENDED AS PART OF THE ONGOING MAINTENANCE THAT ANY BROADLEAF EVERGREEN AND CONIFEROUS TREE AND SHRUBS (EXCLUDING ARBORVITAE) RECIEVE AN APPLIATION OF AN ANTI-DESICANT SPRAY TO REDUCE THE LOSS OF MOISTURE DUE TO

26. MAINTENANCE. THE OWNER SHALL TEND AND MAINTAIN ALL PLANT MATERIALS IN A HEALTHY GROWING CONDITION AS PER THE APPROVED PLAN. PLANTINGS SHALL BE REPLACED WHEN NECESSARY AND KEPT FREE FROM REFUSE & DEBRIS. ALL PLANTING MATERIAL WHICH IS DYING OR DAMAGED BEYOND RECOVERY SHALL BE REPLACED WITHIN SIX (6)

27. LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE SALVAGED AND CLEARLY TAG THEM WITH MARKING TAPE AND

TO OBTAIN LOCATION OF PARTICIPANT'S UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN



UNDERGROUND SEWER AND UTILITY INFORMATION TO OBTAIN LOCATION OF AS SHOWN IS OBTAINED FROM THE RECORDS OF PARTICIPANT'S UNDERGROUND MUNICIPALITY AND LOCAL UTILITY COMPANIES. FACILITIES BEFORE YOU DIG IN THE ACCURACY OF WHICH CAN NOT BE WISCONIN CALL THE MILWAUKEE GUARANTEED OR CERTIFIED TO. THE LOCATIONS UTILITY ALERT NETWORK OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON <u>(800)-242-8511</u>, (262) 432-7910 THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

(877) 500-9592 www.Diggershotline.com



ow what's below. Call before you dig.



Landscape Consulting & Master Planning Design Sevices

11525 W. North Avenue, Suite 1B Wauwatosa, WI 53226 Tel (414) 476-1204 www.insitedesigninc.com mdavis@insitedesigninc.com

<u>Project:</u>

# Starbucks Madison

2507 S. Stoughton Road Madison, WI 53716

Issuance and Revisions

Date	Number	Client Review Reportion
09/15/20		Plan Commission

Plan Commission Submittal

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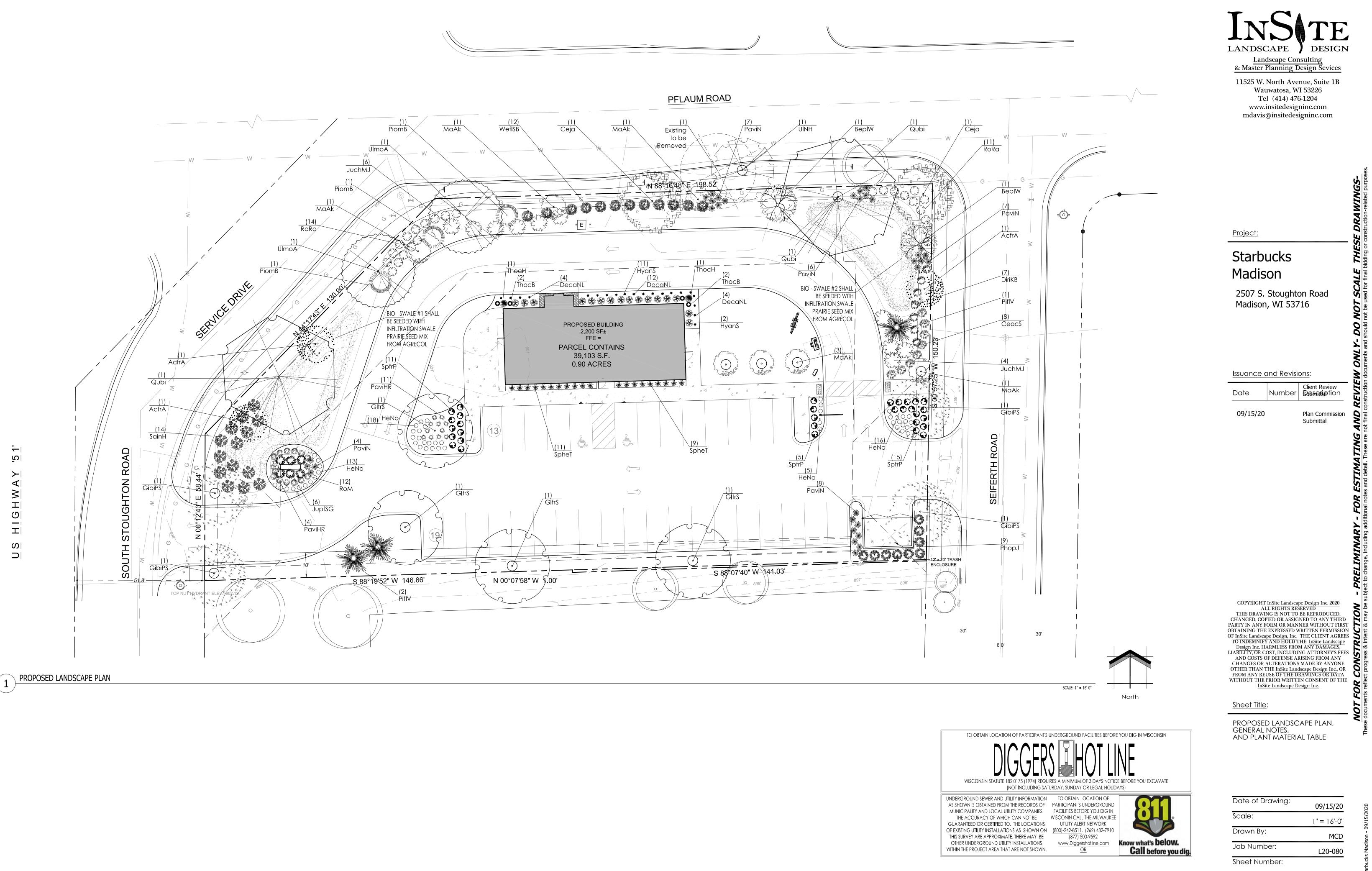
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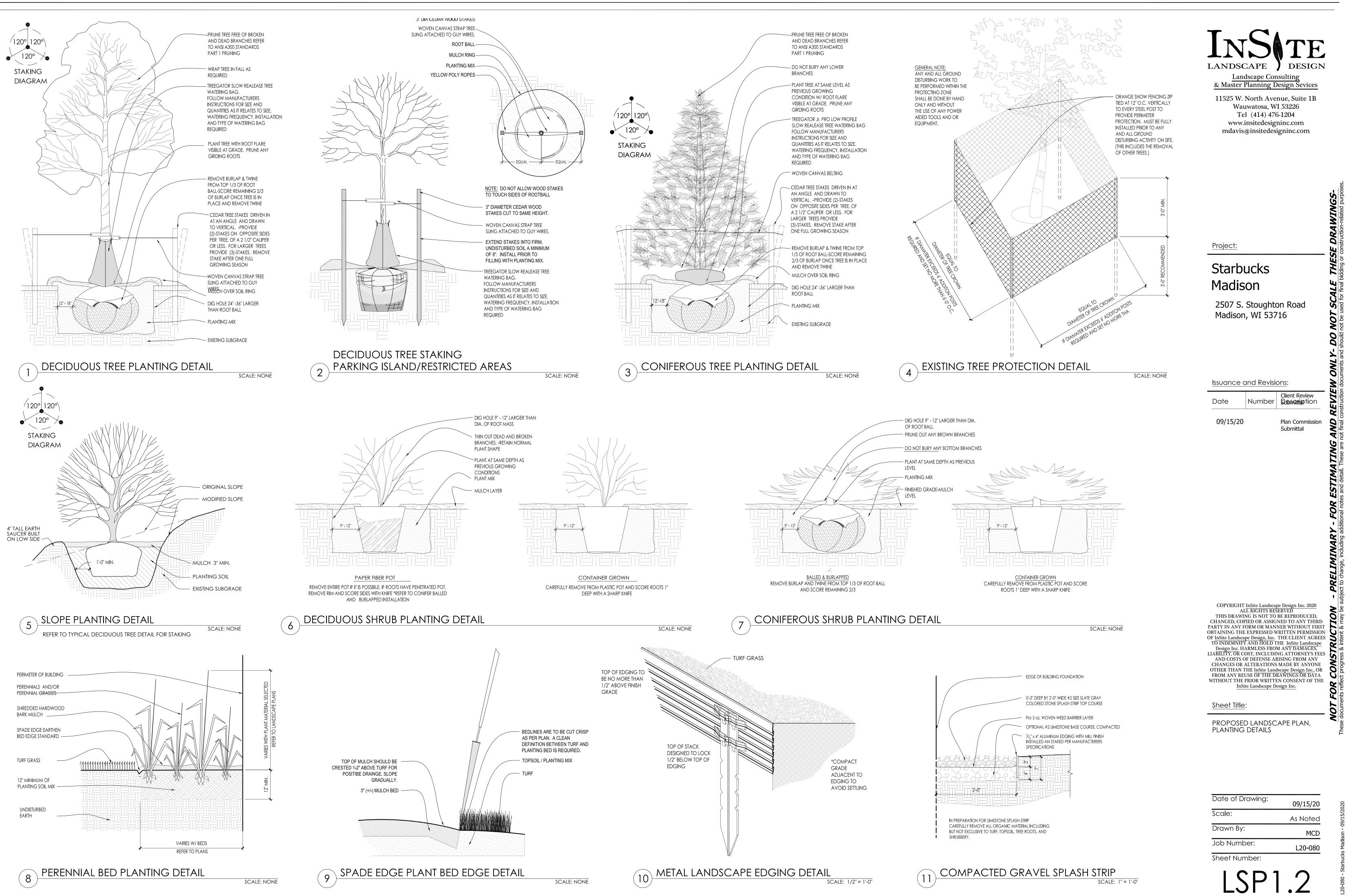
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Sheet Title:

PROPOSED LANDSCAPE PLAN GENERAL NOTES, PLAN REQUIREMENT NOTES AND PLANT MATERIAL TABLE

Date of Drawing:	09/15/20
Scale:	1'' = 16'-0''
Drawn By:	MCD
Job Number:	L20-080
Sheet Number:	







### CITY OF MADISON LANDSCAPE WORKSHEET

Section 28.142 Madison General Ordinance

Project Location /	Address 2501 S Stoughton Rd	
Name of Project	Starbucks Stoughton Rd Madison	
Owner / Contact	Adam Stein - Agent for Applicant	
Contact Phone	Contact Emailastein@logicda.com	

### \*\* Landscape plans for zoning lots greater than ten thousand (10,000) square feet in size MUST be prepared by a registered landscape architect. \*\*

### **Applicability**

The following standards apply to all exterior construction and development activity, including the expansion of existing buildings, structures and parking lots, except the construction of detached single-family and two-family dwellings and their accessory structures. The entire development site must be brought up to compliance with this section unless all of the following conditions apply, in which case only the affected areas need to be brought up to compliance:

- (a) The area of site disturbance is less than ten percent (10%) of the entire development site during any ten-(10) year period.
- (b) Gross floor area is only increased by ten percent (10%) during any ten-(10) year period.
- (c) No demolition of a principal building is involved.
- (d) Any displaced landscaping elements must be replaced on the site and shown on a revised landscaping plan.

### Landscape Calculations and Distribution

Required landscaped areas shall be calculated based upon the total developed area of the property. Developed area is defined as that area within a single contiguous boundary which is made up of structures, parking, driveways and docking/loading facilities, but excluding the area of any building footprint at grade, land designated for open space uses such as athletic fields, and undeveloped land area on the same zoning lot. There are three methods for calculating landscape points depending on the size of the lot and Zoning District.

(a) For all lots except those described in (b) and (c) below, five (5) landscape points shall be provided for each three hundred (300) square feet of developed area.

e nunured (300) square feet of developed area.	VIA
Total square footage of developed area _	X/A
Total landscape points required	N/A

(b) For lots larger than five (5) acres, points shall be provided at five (5) points per three hundred (300) square feet for the first five (5) developed acres, and one (1) point per one hundred (100) square feet for all additional acres.

Total square footage of developed area	N/A
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Five (5) acres = 217,800 square feet

First five (5) developed acres = 3,630 points

Remainder of developed area

Total landscape points required \_\_\_\_\_

(c) For the Industrial - Limited (IL) and Industrial - General (IG) districts, one (1) point shall be provided per one hundred (100) square feet of developed area.

Total square footage of developed area 36, 903Total landscape points required 369 points

### **Tabulation of Points and Credits**

Use the table to indicate the quantity and points for all existing and proposed landscape elements.

Plant Type/ Element	Minimum Size at Installation	Points	Credits/ Existing Landscaping		New/ Proposed Landscaping	
			Quantity	Points Achieved	Quantity	Points Achieved
Overstory deciduous tree	2 <sup>1</sup> / <sub>2</sub> inch caliper measured diameter at breast height (dbh)	35	ł	-	14	490
Tall evergreen tree (i.e. pine, spruce)	5-6 feet tall	35		t	le	210
Ornamental tree	1 1/2 inch caliper	15		*	12	180
Upright evergreen shrub (i.e. arborvitae)	3-4 feet tall	10	1		2	20
Shrub, deciduous	#3 gallon container size, Min. 12"-24"	3	1		134	40Z
Shrub, evergreen	#3 gallon container size, Min. 12"-24"	4	ł	•	20	80
Ornamental grasses/ perennials	#1 gallon container size, Min. 8"-18"	2	X	<b>a</b> n	139	Z78
Ornamental/ decorative fencing or wall	n/a	4 per 10 lineal ft.	**	<b>4</b> ~~	<b></b>	1
Existing significant specimen tree	Minimum size: 2 ½ inch caliper dbh. *Trees must be within developed area and cannot comprise more than 30% of total required points.	14 per caliper inch dbh. Maximum points per tree: 200	-	¥	-	1
Landscape furniture for public seating and/or transit connections	* Furniture must be within developed area, publically accessible, and cannot comprise more than 5% of total required points.	5 points per "seat"	~			ŕ
Sub Totals						

Total Number of Points Provided  $\underline{1460}$ 

\* As determined by ANSI, ANLA- American standards for nursery stock. For each size, minimum plant sizes shall conform to the specifications as stated in the current American Standard for Nursery Stock.