



!"#\$%&'()\* +,\$-./#)\$'+)-00\$)"1)\$(\$12\$"#133#2\$/-&\$.2,\$12\$#415\$\$  
12/\$7"1)\$)'/\$18'-).)999\$

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=&,5! >\$,7+! ,5! .+)#! '5! '! 5\$\*\*8+.+)#! #3! #&+!"')# +! 2+>\$8'#,3)! ?07.),5#2'#,3)! 3%!  
@-'.,)#,3)5 A&C&,(&'!) !D+!%3\$)7!&+2+/  
!"#\$%&&&(&)\*+%,(-/0%#12%+\*+103-\*4#)5-\*0/%06+3%+13-,-/"7+B),'#12

0)F3)+! C&3!C,88!D+!(#,>!3)!D+&'8%!3%G#H+25,#F!'5!)!+-'!\*23(#32!.\$5# !D+!%!. ,8,2  
C,#&!#&+!2\$8+5!8',7!3\$#8,#!+)'# +!2+>\$8'#,3)E

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I+5\* ,#+!#&+!'H',8'D,8,#F!3%#!#&+5+!2+>\$8'#,3)E, #7+!3%!\*355,D8+!+H+)#5!(!)#!#J+!\*8'(+!  
7\$2,)>!')!+-'.A!%32!C&,(&!)3!5\*+(,%,\*23#3(38!,5!>,H+)E&+>\$,7+!D+83CA!\*2+5+)#+7!,')!  
KL0!%32.#A5!D'5+7!\$\*3)!(#\$'8!+H+)#5A!)7!#&+!2+>\$8'#,3)E, #5+5!2+%8+(#!#&+!(388+(# ,H+!C,573.!3%!  
5+H+2'8!+-\*+2,+)(+7!),7,H,7\$'85!#!GMNE

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O)!#&+!'P32,#F!3%!( '5+5A!+-'.5!\*23(++7!5.33#&8F!C,#&3\$#!),(,7,Q#E+H+2A!#&+2+!'2+!'!  
%+C!5#\$7+)#5!C&3!C,88!D+!##+. \*#,(#3H+!#&+,2!>2'7+5!7,5&3)+5#8FA!)7!,#!,5!F3\$2!P3D!  
'5!'!23(#32!#3!#"#\$%&&,5!%23.!&'\*\*+),>E!R#(&,>!7,5&3)+5#F!,)!(# ,3)! ,5!5+(3)7!D+5#!  
#3!2+H+)#,>! ,#!,)!#&+!%,25#!'B'(+

8F!'))3\$)(+!+-'!

2\$8+5\$(&'5!)

U3!+8+(#23),(!7+H,(+5!3%!)F!J,)7!'2+!\*+2.,##+7  
088!3\$#7332!(3'#5!')7!D'>5!5&3\$87!D+!\*8'(+'7!#!#&+!%23)#!3%#!#&+!2+!  
5+!#5A!32!) 3#&+2+(\$2+A!7+5,>)'#+7!'2+!'V)3#+!#&#!#&+!%53((\$22+7A!53!  
C+! '2+! 7,5(3\$2'>+7! %23.! %32(,) >! 5#\$7+)#5! #3! 8+'H+! H'8\$'D8+5! ,)! ,)5+(\$2+!  
83(#,3)5A!\*'2#,\$8'28F!,)!8'2>+!+-'.5\$  
=&,5!+-'!.!5!W!&25!83)>  
U3!3#&+2!.'#+2,'85!'2+!\*+2.,##+7  
X3\$!C,88!)3!D+!\*+2.,##+7!8+'H+!#&+!233.!7\$2,) >!#&+!%,25#!W!:!,) \$#+5

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9S T+!H,>,8')#A!)7#(##%\$#3!D+!H,>,8')#E3\$!'2+!)3#!73,) >!F3\$2!P3D!DF!5,##,) >!#!#&+!7+5J!  
>2'7,) >! \*\*+25A! \$5,) >! F3\$2! (+88! \*83) V3#&+2! #&!) %32! +-'.! D\$5,) +5\$32+7,) >! '  
) +C5\*\*+ 2E%&'()\*&'\*\*+,-!C'8J!'23\$)7!#&+!233.,)!!'2')73.!%'5&,3) A!32!\*8'(+!F3\$25+8%!  
,)!!'83(#,3)!C&+2+!F3\$!'&H+!'!(8+2!H,+C!3%!\*23#32A!&'H+!'! \*8')! ,)! \*8'(+! %32! #&+! 327+28F!  
#.,+!5,##,) >!73C)E

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WSO)! \*2,32! (3)5\$8#'#,3)! C,#&! #&+! (&,+%! \*23(#32A! &'H+!'! \*8')! ,)! \*8'(+! %32! #&+! 327+28F!  
(388+(# ,3)!3%!\*'+25!#!#&+!+)'7!3%#!#&+!+-'.E

\*23(#32#B\$!73!)3#!&'H+!#&2, > &#!#3!'\*\*8F!)F!\*+)'8#FA!)32!#3!2+.3H+!#&+!5#\$7+)#!%23.!#&+!  
+-'.E!!O)5#+7A!F3\$!5&3\$87!%,)7!'!C,#)+55!V+E>EA!)3#&+2!\*23(#32SA!>'#&+2!+H,7+)(+A!73(\$.+  
#&+!),),7+)#A!)7A!,%!)++55'2FA!#J+!5#+\*5!#3)#2(8)#,\$+7!(&+#,)>!%23.!#J,)>!\*8'(+E  
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KE =&+!\*&3#3!3)

C'1)+\$12/\$D1(E31(E-\$

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KE R')!O! ,.\*35+!'!J,)7!3%!?72+55!(37+632!#&+!+-'.5!#3!5#3\$7+ )#5!C+'2,)>!D,>!(3'#5!  
C,#&!.)F!\*3(J+#5!%32!+-'.\*8+Z!

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0E =3!'!8,..#+7!+-#+)#A!F+5E3\$(!) A%32!+-'.\*8+A2+Y\$,2+!#&+!2+.3H'8!3%! '88!&'#5!C,#&!'  
\*+'J!V!(3..3)!(&+'#,)>#338SE !!X3\$(!)'853!2+Y\$,2+?&3375!73C)B%32!)F3)+!C+'2,)>!  
'!&337,+E!X3\$(!)' 853!2+Y\$,2+'88!8'2>+!3\$#(335!#3!D+!\*8'(7!#!#&+%23)#!3%!#&+!  
233.! '83)>!C,#&!D'>5E!O%!'!5#\$7+ )#!(8',.8+!32!5&+!)++75

KE U3!O4.15\$2+!#&,5!\*+253)!,5!833J,)>!'#!)3#&+2!5#\$7+)#45!4&3E87!O!\*\$88!#&+,2!\*\*\*+2!  
'7!#&23C!#&+!.!3\$#Z

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0E U3\_ '15')(#,3)!('!)3)8F!D+!'\*\*8,+7!'%#&+2!)!,)H+5#,>#,#,3)!3%!!'5(&38'5#,(!3%%+D(F!#&+!  
7+\*'2#.+)#!R&',2 !VC&,(&!5&3\$87!(+2#',)8F!3((\$2A!,)!#&,5!(15a'SE!'('2+%\$8!)3#++3%!  
#&+! #,+.!'7!'88! #&+! 2+8+H')#! 7+#',85! 3)! #&+! )3.,)'8! 2388! 5&O%EF3\$! 73)4#! '82+'7F  
J)3C A!>+#!#&+!)'.+5!3%!'88!5#\$7+)#5!'7P'(+)!#3!&#'+2B!O%!'#&+2+32+!#&')!3)+!  
\*23(#32! \*2+5+)#A! '8+2#! ')3#&+2! \*23(#32! #3! #&+! D+&'H,32! ')7! >+#! #&+!.! #3! &#)+55  
+H+)#5)7!(3 b5,>)!5!)3#+7!3)!#&+!)3.,)'8!2388E

M'2)! #&+! 5#\$7+)#! Y\$,+#8F! #&#! &+! 32! 5&+! &'5! D+5+2B!D7+-&,D,#,) > 5\$5\*,(,3\$5!  
D+&'H,32!)7!.3H+!#&+!5#\$7+#!#3!#&+!%23)#!3%!'#&+!233.!,%!'!H'(')!#7+5J!,5!'H'!8!D8+E!  
#&+! +)7! 3%!'#&+! +-'.A! #+88! #&+! 5#\$7+)#! #&'#! &+! 32! 5&+! C,88! D+!,)H+5#,>#7!%32! (&+  
O)%32.!#&+!(&,+%!\*23(#32!32!+-'.!(3327,)#B2E

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C"#1)\$:"##)+\$

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KE N)!!'23\$#,)+!,)5\*+(#,#,3)A!O!%,)7!#&'#!58\$7+)#45!('8(\$8'#32!V32!C'#+2!D3##8A!8#D!8



KE "#\$7+)#5!'2+!'883C+7!#3!\$5+!'!5\*+(,%,('8(\$8'#32!7\$2,)>!#&+!+-'.E!0!5#\$7+)#!,5!%3\$)7!  
C,#&!'!7,%%+2+)#!.37+8!3%!(('8(\$8'#32!3)!#&+!M&5&3\$87!O!73Z

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0E O)%32.!#&+!\*23%+5532!32!(&,+%!\*23(#32!,...+7,0%FE+!('8(\$8'#32!,5!7,%%+2+)#!%23.!#&+!  
'883C+7!.37+8A!F3\$!.F!(3)%5('#+!#&+!('8(\$8'#32!)!('8(\$8'#32!,5!2+Y\$,2+7!%32!#&+!  
+-'.A!#&+!(&,+%!\*23(#32!.F!7+(,7+!#3!'883C!#&+!5#\$7+)#!#3!(3)#,\$+!\$5,)>!#&+!('8(\$8'#32!





>415\$>5#&,#2(.#+ \$  
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KE aF!+-'.!233.!,5 !83(J+7A!)7!#&+2+!'2+!W::!5#\$7+ )#5!C',#,)>!#3!C2,#+E!!M&'#!73!O!73Z  
!  
OE O%!F3\$!(')!%,)7!'!D\$,87,)>!(5\$#37,')A!#&+F!C,88!D+!'D8+!#3!>+#!F3\$!,)E!!N#&+2C,5+A!,#!5&  
D+!\*355,D8+!#3!2+'(&'!#415\$+)100\$5#58#&\$1)\$4NONP23.!W:!.,)#\$+5!\*2,32!#3!#&+!  
2+>\$8'285(&+7\$8+7!+-'.!5#2#!#,.+5A!\$\*!#3!W:!.,)#\$+5!%#+2A!7\$28+!(+.D+2!')7!  
0\*2,8+-'.!\*+2,375 E!08#+2)'#,H+8FA!F3\$!(3\$87!('88C#53!+\$%'L.(#\$1)\$4NQQRR#&+,2!  
+-#+)5,3)!%32!32+.+2>+)(F!('885\_ #&+F!C,88!'853!&'H+!(3)#(#!,)%32.'#,3)E  
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KE =&+2+!,582+'7F!'!(8'55!,)!#&+!233.A!)7!#&+F!5'F!#&+F!&'H+!,#D33J+7E!!R')!O!J,(J!#&+!  
3\$#Z  
!  
OE =&+!233.!,5!H+2F!\$)8,J+8F!#3!&'H+!D++)!73\$D8+7ET3#&F3\$!)7!#&+!3#&+2!(&,+%!  
\*23(#32!5&3\$87&+(J!F3\$2!,)%32.'#,3)!('2+%\$88FE!!O#!C3\$87!8,J+8F!D+!H+2F!#32\$\*#,H  
#2F!#3!.3H+!'!(8'55!#&'#!,5!'82+'7F!C2,#,)>A!53!'!Y\$, (J!7+(,5,3)!#3!2+83('#+!. 'F!)++7!#3!D+!  
'7+E!!]32!+-'.5 !,)!I+(+.D+2!')7!0\*2,8A! '>,)'('88 \$NONP#3!C32J!3\$#!#&+!D+5#!(3\$25+!  
3%!(#3)E  
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