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!"#\$%&'(#\$)*+*&&
, --. &/). &012#(34*32\$&521/)#6/*#-)&7, 058&-%&*"\$&9)#*\$\$. &: /*#-)+&

!

!"#\$%&'&&%()*+, - ./0+)!)+/12!341!0- 5+, /.)61!+*!78, . 0)1!.)9!/41!; ;<<0.)!"191, ./0+)!*+, !=>+?. &. =, 06; >/; , . >|- . , 81/<%
: 0<8<! . <<+60. /19!@!4!/41!6; , , 1)/!6+)*&06/%

""8%!

9-7-,+.: (-.!: +** -17!*3' /-0,)!)*+, -+.!*+, , ' 31)!-1! 0(1(5-0!4-' ./!3')*(1)!
, (!<.-+3!<217-0-/' !-1!5+--=' !

c

%>>!

?+,-(1+.! @+.2+,-(1!(<!+1!+73-02.,23+.!)(-!A2+.-,4!-1/' B!6+)' /!(1!,C' !
(37+1-0!5+,, ' 3!, (!0.+4!3+,-(!

D **A** C!@&!@+3(#(07%!E&&+7, K*!C!@&!E#\$+#+(+!_(*1+!C!@&!_-, #' (#%!D%3%&2(%&"C!; &!
9: &(*\$(, #!g, -\$%&"C!; &!@%#(*!E#5%&*#&\$

"8\$%!

MC' !-*++) ,NO=(!H3(0' 0,G!LB*. (3-17!,C' !P1, ' 3(*' 3+6-.-,4!(<!H3' 0-)-(1!

">>\$!

9-7-,+.: (-.!; +** -17!, (!H3' /-0,!+1/!L1+6.' !E(@' 3!E3(*!Q/(*, -(1!+1/!
H' 3<(35+10' !R-,C!; 2.,-N

J%%!

: ,3' 17,C' 1!7.(6+.!+1/!1+,-(1+!.0+*+0-,-')!(1!)(-!-1<(35+,-(1\$!)(-!
5+** -17!,(!)2** (3,!: 2),+ -1+6.'!:(-!; +1+7' 5' 1,!T::; U!/' 0)-(1!* .+11-17!!

"#\$\$&')*(+##, -! .!01, \$(, -! %2*(+#!3, 4(#5!, #' !3, 11(#5!6+&! (31-%3%#\$(#5!1+-(2%*!6+&!*7*\$, (#, 8-%!*+(-!
3, #, 5%3%#\$/!!
9: , (&1%&*+#!;! ; &+6<!=, 8(+!>%&&(8(-%!?!@&!A, 24!B, ##, 3C!D+3+##' !E7' (\$&(73C!E757*\$!. C!FGFFC! . /GG!H!
. I/GG!

0(#2%!FG. I!>: %!J--+8, -!0+(-!; , &\$#%&*: (1!LJ0; M!, #' !\$: %!"#\$\$%&5+)%%#\$, -!>%2: # (2, -!; , #%-!+#!0+(-*!
L">; OM!, &%!1&+3+\$(#5!07*\$, (#, 8-%!0+(-!N, #, 5%3%#\$(!00NM!, #' !*+(-!5+)%&# , #2%!\$+!57, &, #\$\$%!: %, -\$: K!
, #' !1&+ ' 72\$!)%!*+(-*C!(#!&%-, \$(+#!\$+!VU!L%5<!0@J*MM, #' !W[9@!(#(\$, \$())%*<: %!J0; !(*!, **(*\$(#5!
2+7#\$\$(%*\$!\$+!(31-%3%#\$\$: %!d+-7#\$, &K!J7(' %-(#%*!6+&!07*\$, (#, 8-%!0+(-!N, #, 5%3%#\$(!dJ00NM!
178-(*: %' !#!FG. aC!\$: &+75: !\$%2: # (2, -!, *1%2\$*C!178-(2, \$(+#!+6!00N!, **%**3%#\$(1&+\$+2+*!, #' !
87(-' (#5!2, 1, 2(\$K!' %) %--+13%#\$(6+&!*+(-!3+##(\$&(#5!, #' !#, \$7&, -!&%*+7&2%!3, #, 5%3%#\$(!#!+&' %&!\$+!
' +!*+C!\$: %&&!(*!, #!7&5%#\$(!#%%' !+6!5%+&%6%%' !*+(-!(#6+&3, \$(+#!-(#4%' !\$+!@%2*(+#!0711+&\$!
OK*\$%3*
>: %!J--+8, -!0+(-!"#6+&3, \$(+#!OK*\$%3!LJDWO"OM!1&+)(' %*!\$: %!\$+!+!6+&!3+##(\$&(#5!5+8, -!*+(-!&%*+7&2%*
"#!1, &\$ (27-, &C!\$: %!J0; !, #' !(\$*!1, &\$#%&*' %*(5#%' !0+(-0>E>!\$+!3+##(\$&C!6+&%2, *\$!, #' !1%&(+ ' (2, --K!
&%1+&\$!+#!\$: %!*\$, \$7*!+6!5+8, -!*+(-!&%*+7&2%*<: %!@ (5\$, -!0+(-!; &+6(-!@, \$, 8, **%*!0; @_C!P(\$: !, !\$(%&' !
, 11&+, 2: C!(*!, !&%*7-\$!+6!, !2+--, 8+&, \$(+#!+6!=EW!P(\$: !""E0EC!"OX"9H

"%>%!

: (-! : 0-' 10' !-1!,C' !Q7' !(<!E+36(1!:' A2'),3+,-(1!

A

!

"#\$%&'()*+,#-!F!k!0+(-!9, &8+#!l6&+3!1, &\$2-%!\$+!1-, #%\$!!
9: , (&1%&*+#!97&\$(*!N+#5%&c!9-K' %!E7' (\$+&(73c!E757*\$!

V>>!

E+36(1!), (3+7' !-1!) (-.)!(<!C' /7' !+73(<(3'),34!)4), ' 5)G!1' R!-1)-7C,)!(1!,C' !
/3-@' 3)!0(1,3(..-17!), (3+7' !* (, ' 1, -+.!)

_____C!@&<d, -v&(!d(, 7' !C!@&<0, 6K, !N%#, **%&(HE78&K""\$

>J\$!

; +** -17!+1/!5 (1-, (3-17!0C+17')!-1!) (-.!(37+1-0!0+36 (1!), (0W)!(<!,C' !
R(3./!

; &+6!_7' (3, #!N(#, *#K!C!D_____C!@&!N%&2%' %*!X+3, #!@+8, &2+C!; &+6!E-%S!N2_&, \$#%K!

"#\$\$&')(*(+#, -!F!k!0+(-!9, &8+#!!6&+3!1, &\$ (2-%!\$+!1-, #%\$!!

9: , (&1%&*+#!!97&\$(*!N+#5%&C!9-K' %!E7' (\$+&(73C!E757*\$!. C!FGFFC!. . /GG(#)-11(\$!)-0. 71. 97062411. 9906590. 1(H

VDJ!

EQKI Y?!P?!: YPZ: G!Q&&KL&QMPY?!Q?9!: MQI PZPM[!!

@+2\$+&!E-8, !W\$%&+H=, &(S, C!; &+6%**+&!; (11, !9: , 13, #!C!; &+6%**+&!O\$%)%#!_, #P, &\$!C!; &+6%**+&!A+*%1: !
B+-' %#!C!; &+6%**+&!9, &+-(#%!; %, 2+24!\$

"D##!

: (-!(37+1-0!0+36 (1!), (3+7' !* (, ' 1,-+!-1!7.(6+!.!03(*.+1/)!)

D _____ C!_7' (3, #!N(#, *#K!C!E-%S!N2_&, \$%#K!C!; %\$%!03(\$: ""\$

"#\$%&')(*(+#, -F!k!0+(-!9, &8+#/!6&+ 3!1, &\$2-%!\$+!1-, #%\$!!

9: , (&1%&*+#!97&\$(*!N+#5%&C!9-K' %!E7' (\$+&(73C!E757*\$!. C!FGFFC!.. /GG!H!. I /GG!

0+(-!+&5, #(2!2, &8+#!*%07%*\$&, \$(+#!LOW9*%OM!(*!2+#*(' %&% ' !, #!, \$\$&, 2\$()!2, &8+#!2, 1\$7&#!\$%2: #+-+5K!
\$+!1, &\$(-K!3(\$5, \$%!2-(3, \$%!2: , #5%<B+P%)%&C!\$: %&%!(*!2+#6-(2\$(#5!%)(' %2#!&%5, &' (#5!\$: %!1+\$%#\$(, -!
+6!OW9*%O<>: %!, ' '\$(+#, -!*\$+&, 5%!1+\$%#\$(, -!+#!%S(*\$5!5-+8, -!2&+1-, #' !(*!3(**(#5<OW9*%O!(*!&%5(+H
1%2(6(2!, #' !2+#' (\$+##%' !8K!3, #, 5%3%#187\$!3+\$!5-+8, -!*\$\$(3, \$%*!7*%!6(S%' !, 22737-, \$(+#!&, \$%*!
+&!\$(3%!6&, 3%*!L=7**!%\$!, -C!FG. bM!B%&%C!P%!*: +P!: +P!\$: %!OW9!*\$+&, 5%!1+\$%#\$(, -!, #' !(\$*!*\$%, ' K!*\$, \$%!
) , &(%*!5-+8, -K!' %1%#' (#5!+#!2-(3, \$%C!-, #' !7*%!, #' !*+(-!V*(#5!b!CT. a!*+(-!+8*%&), \$(+#!C!P%!
' %)-+1%' !, !07, #\$(-%!&%5&%**(+#!L9, ' %!, #' !U++#C!FGGI M#%7&, -!#%\$P+&4!\$: , \$!07, #\$(6(%*!\$: %!OW9!
) , &(\$+#!

"\JD!

Q73-N' 1@-3(15' 1,+.!5' +)23')!3' /20' !?DY!' 5-))- (1)!R-,C(2,!
0(5*3(5-)-17!4-' ./)!

B C!N02!9%2(-(!=+' , -!C!N02!N, &\$(#, !n, *1%&!C!@&<[' P(#!B, , *!\$

. a!@)(* (+#!F!U(\$&+5%#!2K2-(#5!, #' !*+(-! : %, -\$: /!!
9: , (&1%&*+#!; &+6<D(!!_, 55*C!+=&\$: C!E757*\$!. C!FGFFC!. . /GG!H!. I /GG!

>: %!i 5&%%#(#5j!1+-(2K!+6!\$: %![V!, (3*!\$+!&% ' 72%!\$: %!2-(3, \$!(31, 2\$!+6!, 5&(27-\$7&%!8K!*711+&\$(#5!
6, &3%&*C!P: +!, ' +1\$!1&, 2\$(2%*!\$: , \$!: %-1!3%%\$!%#)(&+#3%#\$, -, #' !2-(3, \$%!\$, &5%\$*C!87\$!P: %\$: %&!
\$: %*%!3%, *7&%*!2, #!8%!2+#*(' %&% ' !i2-(3, \$%H*3, &\$j!37*\$!8%!%), -7, \$%' <>: %&%6+&%C!P%, 11-(%' !\$: %!
D, #' *2, 1%@U@9!3+' %-\$+!2, -27-, \$%!%3(**(+#!, #' !#(\$&+5%#!87' 5%\$*!+)%&!\$%#!K%, &*!6+&!\$: &%%!

#\J!

MC' !-1, ' 3+0, -(1!6' ,R' ' 1!W' 4!) (-.!12,3-' 1,)]!0+36(1S!1-,3(7' 1!+1/!
*C()*C(32)!(1!?N040.-17S!*3(/20,-@-,4!+1/!?DY!' 5-)-(1)^!

C!@&!U(24C!>C!J(&4(#!'^C!@&!@+3(#(4, C!A<n&+!C!@&!@,)(' C!; <g, --!C!@&!=(+#, C!; <
_&%##, #'

"\8"!

Q773' 7+, ' !)-=' \$!5 (-), 23' !3' 7-5' \$!)26), 3+, ' !A2+.-, 4!+1 /!*C() *C(32)!
0(1,3(!!(1!6-(7' (0C' 5-0+.!?!040.-17!-1!<. ((/* .+-1!) (-!

D _____ C!@&<!; , *2, !E<!U(4-, 7*#C!@&<_%, \$!=&%K%C!@&<_%, \$!O\$(%&-(%C!@&<A+%&5!!D7*\$%&''\$

. a!@)(* (+#!F!/U(\$&+5%#!2K2-(#5!, #' !*+(-! : %, -\$: /!
9: , (&1%&*+#!/; &+6<D[]!_, 55*C!+=&\$: C!E757*\$!. C!FGFFC!. . /GG!H!. I /GG!
; &+2%**%*!+6!#(\$&

\J%!

?-,3(7' 1!040.-17!/-<<' 3' 10')!+)) (0+,' /!R-,C!73+)).+1/!)R+3/!0(5 * ()-,-(1!
3' @' +.!*3(5-)-17!?!.)!5-,-7+,-(1!),3+,' 7-')!+,!W' 4!,-5')!(<!,C' !4' +3!

D C B C!@&!J, &K!D, #5, #!C!@&!n, &-!X(2: , &' *!C!; &+6!9: &(*\$+1: !Nu-%&#C!@&!0, +(&*%!>&, 2K"C!
@&!B%--%#!0: %&(' , # "C!@&!@,)(' !g, --!C!@&!; , 7-!N7&1: K"\$

. a!@)(* (+#!F!U(\$&+5%#!2K2-(#5!, #' !*+(-! : %, - \$: /!
9: , (&1%&*+#!; &+6!D[]_, 55*C!+=&\$: C!E757*\$!. C!FGFFC!. . /GG!H!. I /GG!

"#%66(2(%#\$!U!6%&\$(-(*%&7*%2, #!-%, ' !\$+!&%, 2\$!)%!(#\$&+5%#!-+**!, *!#(\$&+7*!+S(' %!LU•WMM%3(**(+#!, #' !
#(\$&, \$%!LUW,HMM-%, 2: (#5!6&+ 3!, 5&(27-\$7&, -!*+(-*C!8+ \$: !%S, *1%&, \$(#5!, # \$: &+1+5%#(2!2-(3, \$%!2: , #5%!, #' !
1++&!P, \$%&!07, -(\$K!&%*1%2\$!)%K!J%#%&, --K!(!#5&, **H8, *% ' !1&+ ' 72\$(+#!*K*\$%3*C!K(%-' *!, &%!3+*\$!
-(3(\$%' !8K!#(\$&+5%#!*711-K!N7-\$(*1%2(%!*P, &' *!2+##\$, (#5!5&, **%*C!UH6(S(#5!-%573%*!, #' !6+&, 5%!
: %&8*!, &%!2+##(' %&% ' !, #!, -\$%&#, \$!)%!*+-7\$(+#!6+&! ' &K!3, \$\$%&!L@NMM1&+ ' 72\$(+#!C!(' %1%# ' %\$#!+6!
(\$%#*%)%!*K# \$: %\$(2!6%&\$(-(*%&7*%!E!K%, &H-+5!-K*(3%\$%&!%S1%&(3%#P, *!2+## ' 72\$%' !\$+!#)%*\$\$(5, \$%!
U•W!, #' !UW,HI-+**%*!1-7*!@N!K(%-' *!, #' !U!71\$, 4%!6&+3!6+7&!*K*\$%3*!<: %*%P%&!; %&%##(-!
XK%5&, **!+##-K!L; XJ!C!FeG!45!U!: , Hf!K&HfM!; %&%##(-!XK%5&, **!, #' !D+P!g: (\$%!9-+)%&!L; XJ}Dg9C!fG!45!
U!: , Hf!K&HfM!; %&%##(-!XK%5&, **!, #' !B(5: !g: (\$%!9-+)%&!L; XJ}Bg9C!G!45!U!: , Hf!K&HfM, #' !; %&%##(-!
XK%5&, **C!g: (\$%!9-+)%&! , #' !X(8P+&\$!; -, # \$, (#!L; XJ}g9}; C!Te!45!U!: , Hf!K&HfM!>: %!6&, 2\$(+#!+6!
#(\$&(6(2, \$(+#!L=UML, #' !' %#(\$&(6(2, \$(+#!L=@MP%&%2, -27-, \$%' !6&+3!, #'!U•W!(+ \$+1+3%&H3, 11(#5!
, 11&+, 2: <9737-, \$%)!U•W!, #' !UW,HI, --#5!P(\$: !2737-, \$%)!@N!K(%-' !, #' !U!71\$, 4%!P%&!#+\$!
*(5#(6(2, # \$-K! ' (66%&%\$!, 3+#5!\$: %!6+7&!*K*\$%3*!<B+P%)%&C!*%, *+##, -!, #' !%)%#!3+##: -K!), &(\$+#!
('#' (2, \$%' !4%K!\$(3%*!+6!\$: %!K%, &!P: %#!U!-+**!2+7-' !8%!3(\$5, \$%' !8K!, ' +1\$(#5!37-\$(*1%2(%!*P, &' *C!
%&5!01&(#5!6%&\$(-(*%&!, 11-(2, \$(+#!&%*7-\$%' !#): (5: %&!U•W!%3(**(+#!6&+3!; XJ!, #' !; XJ}Dg9!X(8P+&\$!
1-, # \$, (#!P, *!-(#4% ' !\$+!, !#73%&(2, --K!-+P%&!U!*711+&(#5!\$: %!8(+ +5(2, -!#(\$&(6(2, \$(+#!#): (8\$(+#!
1&+1%&\$K!, **+2(, \$%' !P(\$: !\$: (*!1%2(%*!<=7&\$: %&!&%%, &2: !7# ' %&P, K!P(-! : %-1! ' %\$%&3(#%!(6!*%, *+##, -!U!
-+**!* ,)(#5*!P(-!, 22&7%!3, 4(#5!37-\$(*1%2(%!*1&+ ' 72\$(+#!*K*\$%3*!)%&, --!3+&%!%66(2(%#\$!, #' !
7\$, (#, 8-%

>#>!

Q))'))-17!,C' !.(17N

">DV!

L.20-/+, -17!, C' !' <<' 0,)!(<!.+1/!5+1+7' 5' 1,!+1/!3(. ' !(<!) (-.!5-03(6')!-1!
1-, 3(7' 1!, 3+1)<' 3!-1!+!0. (@' 3N34' 73+))!*+), 23' !!

D _____ C!@&!n, \$&(#, !; %, &*! C!N&*!E-(* +#!n7: -! C!; &+6%**+&!X(2: , &' ![])%&*: %' ! C!; &+6%**+&!
; : -(1!N7&&, K" C!@&!D, 7&, !9, &' %#, *" C!; &+6%**+&!A%##(6%&!@7#5, (\$""#C!@&!", #!_7--!\$

\$>>!

"D>\!

: (-.,4*')!+1/!5 (' ..-17!+)!0+33-' 3)!(<! /41+5-0!) (-./' 73+ /+, -(1!
-1<(35+, -(1^!

 A B C!@&!E#5%-+!_, *(-%!C![3<!; &+6!0+(-!02(%#2%!A+: , #!_+73, "\$

l a!g JF< ./!>: %!D%5, 2K!+6!B%#&K!D(#!, #' !\$: %!67\$7&%!+6!BK' &+1%' +-+5K!!

9: , (&1%&*+#!/; &+6<B, #*H!Y{&5!d+5%-!?!@&!A+: , #!), #!>+<E-*: !. C!E757*\$!. C!FGFFC!. ./GG!H!. I /GG!

0+(-!>, S+##+3K!k!, !8%#2: 3, &4!+6!1%' +-+5K!H!

+#6, #\$\$%C!E#\$+#%--+C!>%&&(8(-%C!=<C!?!+73, C!A<LFG. fM!X%6(#5!1: K*(2, -!, *1%2\$*!+6!*+(-!07, -(\$K!, #' !
+(-!: %, -\$: !P: %#!%S1-+&(#5!\$: %!%66%2\$!+6!*+(-! %5&, ', \$(+#!, #' !2-(3, \$%!2: , #5%!+#!8(+3, **!
1&+' 72\$(+#!/, #'!"\$, -(, #!2, *%!*\$7' K<OW"DC!eL. M! . k. T<: \$\$1*/ZZ' +(<+&5Z. Ge. fTZ*+(-HeH. HFG. f!

"#\$\!

X4/3(*' /(. (7-0+!-1, ' 3*3' ,+,-(1!(<!) (-!-1<(35+,-(1!, (!)' 3@' !,C' !
C4/3(. (7-0+!0(5521-,4!

%V\$!

E233' 1,!0C+..' 17')!-1!X4/3(*' /(. (74!

D

la!gJF<./!>: %!D%5, 2K!+6!B%#&K!D(#!, #' !\$: %!67\$7&%!+6!BK' &+1%' +-+5K!!

9: , (&1%&*+#!/; &+6<lB, #*H!Y{&5!d+5%-!?!@&!A+: , #!), #!>+<C!E-*: !. C!E757*\$!. C!FGFFC!. ./GG!H!. I/GG!

"#!\$: (*!1&%*%#\$, \$(+#!P%!87(-' !71+#!\$: %!+&(5(#, -!(' % , !+6!: K' &+1%' +-+5K!, *!, #!(#\$\$%' (*2(1-(#, &K!
, 11&+, 2: !(#!*+(-!*2(%#2%<!"\$(*!8, *%' !+#!\$: %!6, 2\$!\$: , \$!, \$!, !P(' %&, #5%!+6!*1, \$(, -!*2, -%*C!1%' +-+5(2, -!
1&+2%**%*!, &%!*: , 1(#5!*78*7&6, 2%!*\$&72\$7&%*!\$: , \$!, &%!+6!2&(\$2, -(31+&\$, #2%!6+&!P, \$%&! ' K#, 3(2*!
P(\$: (#!*+(-!, #' !\$%&&%*\$&(-!*K*\$%3*C!P: (-%C!, \$!\$: %!* , 3%!(3%C!P, \$%&! ' K#, 3(2*!(*!*: , 1(#5!1%' +5%#%\$(2!
1&+2%**%*!(5#(6(2, #-\$-K!\$: &+75: !\$&, #*1+&\$!+6!*+-7\$%*!, #' !*+(-' !3, \$%&(-*<!: %!2+#2%1\$!+6!
: K' &+1%' +-+5K!P, *!2+#*(' %&, 8-K!(#*1(&% ' !8K!\$: %!P+&4!, #' !*1(&(\$!+6!B%#&K!D(#!P: +!3, ' %!*78*\$, #\$(, -!
2+#\$&(87\$(+#!\$+!(31&+)%!\$: %!7# ' %&\$, #' (#5!, #' !3+' %--(#5!+6!: K' &+-+5(2, -!1&+2%**%*!, \$!' (66%&%#\$!

"\$88!

; +,, ' 3!(<!)0+.' G!5' 37-17!*3(0'))!21/' 3),+1/-17!+1!//' 0)- (1N5+W-17!-1!
) (-.NO+36(1NO.-5+, ' !*3' /-0,-(1)!

; &+6!@&!B%&3, ##!A7#547#*\$!C! _____ **D** **F**

"#\$\$%')*(+##, -. /!01, \$(-!' %2*(+##!3, 4(#5!, #' !3, 11(#5!6+&!(31-%3%#\$(#5!1+- (2%*!6+&!*7*\$, (#, 8-%!*+(-!
3, #, 5%3%#\$/!!

9: , (&1%&*+#!@&!A, 24!B, ##, 3!?!; &+6![&(4, !N(2: -(C!D+3+##' !E7' (\$+&(73C!E757*\$!. C!FGFFC!. e/GG!H!
. ^/GG!

0+(-!+&5, #(2!2, &8+#!LOW9M(*!***%#\$(, -\$+!*7*\$, (#!2%&\$, (#!%2+*K*\$%3!*%&)(2%*!L[00M!_+ \$: C!' %2&%, *(#5!
-+**%*!+6!OW9!, #' !*%07%*\$&, \$(+##!+6!, \$3+*1: %&(2!2, &8+#!(#!*+(-*!2, #!2+7#\$\$%&8, -, #2%!2-(3, \$%!2: , #5%<
[, &\$: !*K*\$%3!3+ ' !*2%# , &(+ *!2, 1\$7&#!+7&1!&%*#4#P-%' 5%!+6!*+(-H2, &8+##H2-(3, \$%!(#\$\$%&, 2\$(+##<
B+P%)&C!7#2%&\$, (#\$(%*!&%3, (#!:(5: !8%2, 7%*!3%2: , #(*\$(2!(*5: \$*!, &#!,), (-, 8-%!, \$!2, -%*!\$: , \$!-, 24!
766(2(%#1&%+-7\$(+##!6+&!5-+8, -!3+ ' %-(#5!9+##*%07%#-\$-K!\$: %!4%K!2: , --%#5!5, (#(#5!, !5-+8, -!+)%)&)(%P!
+6!*+(-!2, &8+##H2-(3, \$%!(#\$\$%&, 2\$(+##!(*!\$+!(' %#\$6K!\$: %!*2, -%!\$: , \$!8%*!&%6-2\$*!\$: %!7# ' %&-K(#5!
1&+2%***!P(\$: +7\$!5%\$\$(#5!+*\$!(#!' %\$, (-!-%**!&%-%), #\$, \$!\$: %!\$&, #*#, \$(+##, -C!5+8, -!+&!K*\$%3![, &\$: !
2, -%!g%!*755%*\$!\$: , \$!+)%)&, &2: (#5!1&+S(%*!, \$!, !2&(\$2, -!3%*+*2, -%!2+38(#%!2-(3, \$(2!, #' !*+(-!6, 2\$+&*!
, #' !2+7- ' !%#, 8-%!&%5(+##, --K!\$, (-+&% ' !, 11&+, 2: %*<B%&%C!\$: %!B+-' &(' 5%!D(6%!w+##%!LBDwM2-, **6(2, \$(+##!
1&+)%' !\$+!8%!3+&%!\$: , #!, !' %*2&(1\$%)!\$++-!\$+!57(' %!+7&7# ' %&\$, #' (#5!+6!*+(-!2, &8+##H2-(3, \$%!
(#\$\$%&, 2\$(+##!, --P(#5!6+&!-(#4(#5!\$+1H' +P#!l6&+3!5-+8, -\$+!+2, -M, #' !8+\$\$+3H7!l6&+3!-+2, -\$+!
5-+8, -M, 11&+, 2: %*<X%5(+##, --K!\$, (-+&% ' !*+7\$(+##!6+&!8+\$: C!%S1%&(3%#*\$!, #' !3+ ' %-(#5!, 11%, &!
, 11%, -(#5!, #' !2, #!-%, ' !\$+!8%\$\$%&!3, #, 5%3%#\$(+6!*+(-, #' !\$: %![00!(\$!1&+)(' %*<"31&+)(#5!
x\$&, #*- , \$(+##!l6&+3!\$: %!*2, -%*!&%-%), #5!6+&!1&+2%***!7# ' %&\$, #' (#5!\$+!\$: %!*2, -%*!+6!' %2*(+##3, 4(#5!(*!
4%K!\$+!*7*\$, (#, 8-%!*+(-!3, #, 5%3%#\$, #' !\$+!(31&+)%'!1&% ' (2\$(+##!+6!\$: %!6, \$%!+6!+7&!, &5%*!\$%&%*\$&(-, -!
2, &8+##!&%*%&)+(&! ' 7&(#5!2-(3, \$%!2: , #5%<

‡! E3%-7#5!gC!_+**(+!@C! %!d(%*!gC!n{5%-Hn#, 8#%&!C!D: 3, ##!AC!E37# ' *+##XC!_+!XC!9+--(#*!

V"#!

: ' 5-NA2+1, -, +, -@' !' @+.2+, -(1!+1/!5+** -17!(<!621/.')!(<!) (-.! 0()4), ' 5!
)' 3@-0')!-1!+73-02., 23+.!+1/!<(3'), ' /!.+1/)!+, !, C' !3' 7-(1+.!)0+. ' !

D c c C!@&!@%-1: (#%!@%&&(%#"C!; &+6!D, 7&%#\$!0, (#\$HE#' &v

D"\$!

E(1),3+-1,P9G!R' 6N6+) ' /!, ((.!(3!) *+,-+!/-+71()-)!(<!) (-.!0(1),3+-1,)!

D D C!@&!>: +3, *!W&\$+#!C!@&!N29-K3+#\$!@,)(' "C!; &+6%**+&!U%, -!N%#](%*!\$

"D\$J!

Q!7' ()*+,--+!/)!)<(3!) (-!C' +.,CG!+!3' 7-(1+!)0+.' !0+) ' !),2/4!

A

B

C!@&!E#5%-+!_,*(-%!'#

"V\>!

"\$J>!

`2,23'!(<!_a!)(-!.0+36(1!+1/!12,3-' 1,!040.')!#!

"VJ8!

Q!R' 6N6+) ' /!(*' 1N+00'))!: *+, -+.!9' 0-)-(1!: 2** (3,! , ((.!, (!5 (1-, (3!) (-!
)' +.-17!+1/!)2** (3,!/' 0-)-(1!5+W-17!-1!236+1!* .+11-17!

; : @!J(7-(, #+!D, #5%--,' C! _____ C!; : @!E#5%+!_, *(-%"C!@&!=%' %&(2, !9,), -(%%%"C!@&!J(7-(, #+!
=%&&, &+!C!; : @!=-+&(#' +!E#\$+#+(+!N(-%\$(!C!@&!N(2: %-%!N7#, 6E&C!@&!N, &2+!@(!D%5(#(+&C!; &+6!=, 8(+!
>%&&(8(-%!'s

""8"!

Z(R!YE!),+6-.-=+,-(1!0+*+0-,4!(<!5-1' 3+.N+)) (0+,' /!(37+1-0!5+,,' 3!-1!
,3(*-0+.N+.W+.-1' !)(-.)!(<!) (2,C' 31!P1/-+!

D _____ C!N&![\$+!U+#+37&, !C!@&!N, K74+!0%4(!C!N&!B(' %\$+*:(!N(K,], 4("C!@&!N7#(, #' (!
A5, ' %%*, #C!@&!<; #' (, #!n, ##, #C!@&!B, &7+!>, #, 4, !s

"#%&')(*(+#, -F!k!0+(-!9, &8+#/!6&+3!1, &\$(-%\$+!1-, #,%\$C!9-K' %!E7' (\$+&(73C!E757*\$!. C!FGFFC!. e/GG!H!
. ^/GG!

V# %&\$, #' (#5!\$: %!*+(-!+&5, #2!2, &8+#!LOW9M!*\$, 8(-[]\$, \$(+#!3%2: , #(*3*!(*!%***#\$(, -!\$+!' %)%-+1!\$: %!
, 11&+1&(\$!3, #, 5%3%#6+&!9!*%07%*\$&, \$(+#!C!*1%2(-K!(!' %5&, ' %' !\$&+1(2, -!%2+*K*\$%3*!>: %!W9!
*\$, 8(-[]\$, \$(+#!2, 1, 2(\$K!P, *!2+#&+-%' !8K!2-, K!3(#%&, -*C!*72: !, *!E-Z=%!+S(' %!*\$, 8(-[](#5!\$: %!W9!(!
, 2(' 2!*+(-C!P: (-%!9, Z2-, K!*\$, 8(-[](#5!\$: %!W9!(!, -4, -(#!%*+(-!g%!: K1+\$: %*(!%' !\$: , \$!\$: %!, -4, -(#!
2+#' (\$+#!: , *!, !&%-, \$)%-K!+P!W9!*\$, 8(-[]\$, \$(+#!2, 1, 2(\$K!\$: , #!\$: %!, 2(' 2!2+#' (\$+#!E*!, !2, %!*\$7' K!\$+!
, **%*\$!\$: (*! K1+\$: %*(C!P%!%), -7, \$%' !\$: %!W9!*\$, 8(-[]\$, \$(+#!2, 1, 2(\$K!+6!6(#%!L • e! • 3M!6&, 2\$(+#!C!*72: !, *!
3(#%&, -H, **+2(\$, \$%' !+&5, #2!3, \$\$%&!L3WNM!(\$!\$+1(2, -, -4, -(#!%*+(-*!+6!+7\$: %&#!" #' (, !g%!2+-%2\$%' !
\$: %!7&6, 2%!*+(-*!LGH. G!23M!, \$!Tb!*\$%*!L1, ' ' K!#Z. I C!2&+1-, #' !!#ZFfC!87*: !!#ZaM!L1B!^<e•b<C!9-, K!
. b•FeqC!W9!IG<e•G<^qM!, #' !%), -7, \$%' !\$: %!3, **!, #' !W9!2+#\$%#*!+6!3WN!6&, 2\$(+#!L-. <^!5!23HI C!
•e! !€3M!7*(#5!1: K*(2, -!6&, 2\$(+#!, \$(+#!3%\$: +! !g%!6+7#' !\$: , \$!\$: %!3, **!+6!\$: %!3WN!6&, 2\$(+#!P, *!
Fb•!bqC!, #' !aTH^Fq!+6!\$+\$, -!W9!P%&#!#!\$: %!3WN!6&, 2\$(+#!g%!2, -27-, \$%' !\$: %!W9!*\$, 8(-[]\$, \$(+#!
2, 1, 2(\$K!, *!\$: %!*-+1%!+6!\$: %!&%5&%**(+#!%07, \$(+#!+6!\$: %!3, **!, #' !W9!2+#\$%#*!+6!3WN!6&, 2\$(+#!C!, #' !
(\$!P, *!G<. G!(!, --!*\$%*M!G<. I !L(#!1, ' ' KMC!, #' !G<. G!L(#!2&+1-, #' M!&%*1%2%)%K!L1•G<G. M!>: %*%), -7%*!
P%&#!, 11, &%#\$-K!+P!2+31, &%' !P(\$: !\$: %!1&%) (+7*-K!&%1+&\$%' !), -7%*!(#!\$&+1(2, -, 2(' 2H#%7\$&, -!*+(-*!
LG<I M!L=7Y(*, 4(!%\$!, -!FG. bM!>: 7*C!+7&!&%*7-\$!*755%*\$%' !\$: , \$!W9!*\$, 8(-[]\$, \$(+#!2, 1, 2(\$K!(!\$&+1(2, -H
, -4, -(#!%*+(-*!+6!+7\$: %&#!" #' (, !P, *!2, <. Z! !+6!\$&+1(2, -, 2(' 2H#%7\$&, -!*+(-*C!\$: +75: !67&\$: %&!2, %!*\$7' K!
(#!\$&+1(2, -, -4, -(#!%*+(-*!(*!#%2%**, &K<!

"%!

: (-!(37+1-0!0+36 (1!+1/!<-1' !*+3,-0.' !), (OW)!0C+17' !+. (17!+!@(.0+1-0!
0C3(1 (N!+1/!' .' @+,-(1N)' A2' 10' !(1!,C' !&+.b*+7C)!+30C-*' .+7(!

_____C!@&<N, &(, !d, -%#\$(#, !X%2: 8%&5%&!C!N02!J&%\$, !02: 3(' \$!C!@&<n, &(#!
g&(%**#(5!C!; &+6!&=#]!w%: %\$#%&'!""\$

"\$\$J!

E+,+),3(*C-0!E+36(1!; (@' 5' 1,G!M3+0-17!EC+17')!, (!P0' .+1/-0!E+36(1!
E40.-17!/2' !, (!P103' +)-17!L3()- (1!(@' 3!,C' !*+),!; -..' 11-25!

_____C!@&!E#\$: +#K!U%P\$+#C!; &+6%**+&!E#' &%P!@753+&%C!@&!A+, ##, !9-+K!

"#\$\$&')(*(+#, -!F!k!0+(-!9, &8+#!6&+ 3!1, &\$(2-%!\$+!1-, #%\$C!9-K' %!E7' (\$+&(73C!E757*\$!. C!FGFFC!. e/GG!H!
. ^/GG!

E22+&' (#5!

"#\$#!

H' / (7' 1')-)!-1!,C' !HC4.. () *C' 3' G!9 (!+36 (3' +.!C-), () (.)!-103' +)' !)(-!
0+36 (1!0+* ,23' !-1!,C' !,3(*-0)c!

D A C!A%** (2, !N7&&, K"C!B, ##, : !9+##724#c!@&!NK&#, !0(31*+##c!@&!N, -, 4!>6, (-K&c!
@&!_+##(%!g, &(#5⁵

"#%&')(*(+#, -F!k!0+(-!9, &8+#!6&+3!1, &\$(-%!\$+!1-, #%%c!9-K' %!E7' (\$+&(73c!E757*\$!. c!FGFFc!. e/GG!H!
. ^/GG!

E&8+&%, -! (*\$+*+*c!+&!2, #+1K!*+(-*c!(<%<!+&5, #(2!*+(-*!6+&3%' !(#!\$: %!2, #+1K!+6!%1(1: K\$%H2+--+#(]%' !
6+&%*\$*c!1-, K!, !)\$, -!&+-%!(#!6+&%*\$!%2+*K*\$%3*!?!3, K!*%07%*\$%&!*(5#(6(2, #\$, 3+7#*\$!+6!2, &8+#!L9M!
@%*1(\$%\$: %&!(31+&\$, #2%c!6, 2\$+&*!' %\$%&3(#5!\$: %&!' (*\$&(87\$(+#c!1&+1%&\$(%*c!?!9!2+##\$%#\$, &#!-, &5%-K!
7#4#+P#<9+71-(#5!: (5: H

"\$V!

F -./.-<' !0(1)' 3@+,-(1!+00252.+,')!0+36(1!+1/!.-71-1!-1!) (-.)!

D A Cl@&<X, 3+#, !N{&2: %#!Cl; &+6<E#Y, !D(#*\$t' \$%&"ClD(, #, !
n('#' %&3, ##"Cl@&<0(3+#!E#5+38%#Cl; &+6<g 7-6!E 3%-7#5!\$

"#\$\$%')(*(+#, -!F!k!0+(-!9, &8+#!l6&+ 3!1, &\$2-%!\$+!1-, ##%\$Cl9-K' %!E7' (\$+&(73ClE757*\$!. ClFGFFCl. e/GG!H!
. ^/GG!

9+#*%&), \$+#!(#!078!0, : , &, #!E6&(2, !*(!#%S\$&(2, 8-K!-(#4%' !\$+!P(-' -(6%!#738%&*!P(\$: !%-1: , #*\$!, *!4%K!
1%2(%<): %!(31, 2\$!%-1: , #*\$!: ,)%!+#!)%5%\$, \$(+#!*\$&72\$7&#!(*!+6\$%#!2+#*(' %&%! !\$+!2, 7*%! , !' %2-(#!
(#!2, &8+#!*\$+&, 5%!(#!P++' K!)%5%\$, \$(+#!<B+P%)%&Cl-(\$-\$!(*!4#+P#!, 8+7\$!: +P!\$: (*!, 66%2\$*!'+(-!+&5, #2!
2, &8+#!LOW9M*\$+24*!' +P#!\$+!. 3!*+(-! %1\$: !, #' !(\$*!-(5#(#!2+#\$%#*\$<W7&!, (3*!P%&#!\$+!*\$7' K!. M!\$: %!
%66%2\$*!+6!#2&%, *(#5!%-1: , ##!#738%&*!+#!0W9!, #' !FMP: %\$: %&!\$: %*%!P%&#!, -*+!&%6-%2\$%' !#!
2+#\$%#*\$!, #' !2+31+*(\$+#!+6!-(5#(#<g!%*-2\$%' !1-+*\$!P(\$: !+P!3%' (73Cl, #' !: (5: !%-1: , #*\$!
' %#*(\$%*!#!\$: %!n,) , #5+!w, 38%](!>&, #*6&+#\$(%&!E&%, !LU, 3(8(, M!, #' !07, #\$(6(%' !2, &8+#!*\$+&, 5%!(#!
8+\$: !P++' K!)%5%\$, \$(+#!, #' !*+(-*!L. !3M!*711-%3%#%\$' !8K!\$: %!, **%**3%#!+6!*+(-!' . l 9!, #' !-(5#(#!
, #, -K*%*!#!\$+1*+(-*!LGH. G23M!g %!6+7#' !\$: , \$!P(\$: !(#2&%, *(#5!%-1: , #*\$!' %#*(\$%*!0W9!*\$+24*!
(#2&%, %*! !8K!T<^!\$!: , H. ' %*1(\$!-+**%*!+6!\$&%%2, &8+#!*\$+&, 5%!8K!a<T!\$!: , H. <): %*%!: (5: %&!0W9!*\$+24*!
P%&#!3, (#-K!6+7#' !#!\$: %!711%&!GHI G23Cl87\$!, -*+!)(*8-%!(#!*78*+(-*!, #' !P%&#!-, &5%-K!&%, \$%' !\$+!\$: %!
6+&3, \$(+#!+6!0W9!6&+3!P++' K!8(+3, **!, #' !%-1: , #*\$!' 7#5<9+#\$%#*\$!+6!-(5#(#

\$8D

V%!

"D>%!

EC+17')!-1!: YE!), (OW)!+1/!+773' 7+, ')!-1!+. *-1' !+1/!*3' N+. *-1' !73+)).+1/!
) (-.)!-1!+!0C+17-17!0.-5+, ' !

D _____ !=&, #2+!C!@&!N, &\$(!g(%*3%(%&'""C!@&!_%&#' !A+*%6!_%&, 7%&#C!N, S!02: 72: , &' \$C!@&<!E##%!02: 724#%2: \$%C!@&!n, \$&(!02: #%(' %&%C!N, &27*!w(*\$-H02: -(#53, ##%C!@, #, !E#' &, ' %!D(#, &%*%C!
N(2: , %-!02: --\$%&&C!O\$%6, #(%!02: 7-]&C!N(&%--, !02: &%(8%&%C!_%#Y, 3(!g+-6%C!E#4!A%#\$*2: #C!X, -6!n(%*%C!
N(2: , %-!@, ##%#3, ##%C!; &+6<!@&<!"#5&(003364. 4()-8{0. 4(-0. 4(3)-q0. 24000. 2411. 9906590. 1694cmBT3300

>8>!

: (-!)0-' 10' !)W-..)!(3!,C' !<2,23' G!+!L23(*' +1!*' 3)*' 0,-@' !

D _____ C! _____ C _____ C!@&!X+3, (#!N%-+\$!C!; &+6<9: &(*\$(, #!g, -\$%&#

V8!!

_) -17!) (0-+!)0-' 10' !+**3(+0C')!, (!-1, ' 73+, '!. (0+!W1 (R.' /7' !RC' 1!
5 (/ ' ..-17!, C' !-5*+0,!(<!1+,23+!<. ((/!5+1+7' 5' 1,!5' +)23')!

D C C C!; &+6%**+&!9: &(*!0: +&\$!C!@&!A+: #!B, 33+#' "C!; &+6%**+&!E##%!d%&: +%6"C!N*!
, &8, &, !; %&2KC!; &+6%**+&!E##%!d%&: +%6"C!@&!N, -%4(!, ' V, #, "C!; &+6%**+&!B, ##, : !9-+4%"C!N&!@,)(' !
N, 2@+#, -' #C!N*!0, &, : !9+--(#*#C!N*!E3, #' , !"#5: , 3C!N*!_-%!g: (\$: , 3)C!N*!D+7(*%!g%88*C!N&!>+3!
W&3%*: %&

"V8\$!

"%V#!

P1, ' 73+,-17!.+1/NR+, ' 3N

_, 4%!gBC!n%-K!9C!gK#, #*\$!NC!; , \$&(24!EC!D%P(#!0C!D, P*+#!AC!U, *+-P, !C!; , 5%!EC!U, **%&(!N!?!N, &4*!
9!LFGFGM!c"#\$%5&, \$(#5!-, #' HP, \$%&H1%+1-%!2+###%2\$)(\$K!2+#2%1\$*!, 2&+**!' (*2(1-(#%*!6+&!2+H' %*(5#!+6!
+(-!%&+(+#!*+-7\$(+*#*c!D, #' !@%5&, ' , \$(+#!?!@%)%+13%##!I FC!L. FM!I T. eHI TI G!

!

n%-K!9C!gK#, #*\$!NC!N7#(*: (!Dn!U, **%&(!NC!; , \$&(24!EC!N\$(!nNC!N4(-%3, !=C!X, 8(#+)(2: !EC!J(-)% , &!@!
?!g(-*+#!J!LFGFGM!cxN(#' !\$: %!J, 1V!X%2+###%2\$(#5!D+2, -!E2\$(+#!, #' !N7-\$(HD%)% -!; +-(2%*!\$+!_&(' 5%!
\$: %!J+)%&#, #2%!J, 1<E#![S, 31-%!+6!0+(-! [&+*(+#!E2\$(+#!6&+3![, *\$!E6&(2, c!D, #' !fC!L. GM!I eFHI eF!

!

gK#, #*\$!NC!n%-K!9C!N\$(!nc!N7#(*: (!DC!; , \$&(24!EC!X, 8(#+)(2: !EC!U, **%&(!NC!J(-)% , &!@C!X+8%&\$*!9U!?!
_+%24S!; !LFG. fM!c@&())%*!+6!(#2&%, *% ' !*+(-!%&+*(+#!(!#![, *\$!E6&(2, *!, 5&+H1, *\$+&, -!*K*\$%3*!/: , #5(#5!
(#\$%&, 2\$(+#!8%\$P%##!\$: %!*+2(, -c!%2+##+3(2!, #' !#, \$7&, -!' +3, (#*c!X%5(+##, -![#)(&+##3%#\$, -!9: , #5%!
. fC!. fG. H. FF. !

!

_, 4%!gBC!X, 8(#+)(2: !EC!gK#, #*\$!NC!n%-K!9C!U, **%&(!NC!U5+##' K, !"C!; , \$&(24!EC!N\$(!nc!N7#(*: (!D!?!
_+%24S!; !LFG. bM!c0+(-!%&+*(+#!(!#![, *\$!E6&(2, /!, #!(#%\$%&' (*2(1-(#, &K!, 11&+, 2: !\$+!&%, -(#5!1, *\$+&, -!, #' !
3, #, 5%3%#%!2: , #5%#![#)(&+##3%#\$, -!X%*%, &2: !D%\$%\$%&*!. I C!L. FM!GHG!E7\$: +&!O(\$%C!@W"!W1%#!, 22%**!

V"!\!

"#D\!

K' 5 (, '!)' 1)-17!(<!0(@' 3!03(*!' 7+0-')!(1!) (-!C' +.,C!+1/!5+-1!03(*!?'N
2* ,+W' !/41+5-0)!

D C C!@&!E-(![-!B, 4%3!C!@&!D, 33%&\$!n++(*\$&, "C!@&!J%&-(#' %!@%!@%K#!\$

. a!@()*(+#!F!/U(\$&+5%#12K2-(#5!, #' !*+(-! : %, -\$: C!+=&\$: C!E757*!\$. C!FGFFC!. e/GGIH!. ^/GG!

>: %!' K#, 3(2!#, \$7&%!+6!*+(-! : %, -\$: !3, 4%*!(!\$!)(\$, -!\$+!, ' Y7*\$!*+(-!3, #, 5%3%#!\$+!\$: %!, 8(-\$K!+6!\$: %!*+(-!
\$+!1&+)' %!#7\$&(%#\$*\$!\$+!2&+1*!, \$!\$: %!&(5: \$!\$(3%!\$+!,)+' !#7\$&(%#\$!-+***\$!: &+75: !, (&!, #' !-%, 2: (#5<
9+)%&!2&+1*!1&+3+\$%!#7\$&(%#\$!&%\$%#\$(+#!(#!\$: %!*+(-!, #' !1&+)' %!U!\$+!\$: %!3, (#!2&+1! 7&(#5!3, (#!
2&+1! ' %) % -+13%#<B+P%)%&C!' (66%&%#\$!2+)%&!2&+1*!P(-!' (66%&%#\$(, -K!, 66%2\$!\$: %!*+(-!8(+--+5K!, #' !U!
, --+2, \$(+#!\$+!' (66%&%#\$!*+(-!1++*!, #' !UH-+***<X%3+\$%!*%#*(#5!%2: #++5K!%#, 8-%*!3+#(\$&(#5!\$: %!
6(%-' !: %\$%&+5%#%\$K!, #' !\$: %!\$31+&, -!2: , #5%*!+6!\$: %!2+)%&!, #' !3, (#!2&+1! ' %) % -+13%#<g!
%S1+&%!: +P!' (66%&%#\$!2+)%&!2&+1!\$&%, \$3%#\$*!, 66%2\$!\$: %!8, -, #2%!+6!\$: %!U!?!9!2K2-%*!, #' !\$: %!
3(2&+8(, -!2+337#(\$%*\$!\$: , \$!3, 4%!U!,), (-, 8-%!6+&!1-, #!\$71\$, 4%<"#!\$: (*!1&%*%#\$, \$(+#!C!\$: %!' K#, 3(2*!
+6!\$: %!3, (#!2&+1!&%*1+#+%*\$!\$+!\$: %!-%5, 2(%*!+6! (66%&%#\$!2+)%&!2&+1!3+#+27-\$7&%*!, #' !*1%2(%*!
3(\$7&%*!)(, !*+(-!1&+2%***!, &%!%S, 3(#% ' <g%!7*%!VEd!P(\$: !XJ_!, #' !37-\$(H*1%2\$&, -!2, 3%&, \#\$+!
07, #\$(6K!\$: %!\$31+&, -!' K#, 3(2*!+6!\$: %!3, (#!2&+1!&%*1+#+%*\$!\$+!\$%)*%#!' (66%&%#\$!2+)%&!2&+1!
\$&%, \$3%#\$*!(!, !-+#5H\$%&3!6(%-' !%S1%&(3%#!+#!*, #' K!*+(-<g%!6(&*\$, (3!\$+!, #, -K*%\$: %!3(#373!*%\$!
+6!#!*(\$7!1-, #!\$, #' !*+(-! , \$, !#%%' %' !\$+!2, -(8&, \$%!: %!&%3+\$%!*%#*(#5!' , \$, !, #' C!*%2+#' C!1&+)' %!
&%3+\$%!*%#*(#5!' %&)%' !2&+1!U9997-868Tm/TT&+U9997-868Tm/TT&+5%B(!)JTJETQq0(1)-0503074(!)-0. 19, 974

"%>\!

K' 0' 1, !/ ' @' . (* 5' 1,)! -1!3-0' !* +//4!5 (/ ' .-17!3')' +30C!(1!R+, ' 3!6+. +10')!
+1/!R+, ' 3!A2+.-, 4!+))'))5' 1, !

D _____

. a!@)(* (+#!F!/U(\$&+5%#!2K2-(#5!, #' !*+(-! : %, -\$: C!+=&\$: C!E757*\$!. C!FGFFC!. e/GGIH!. ^/GG!

g, \$%&!07, -(\$K!(31, 2\$!+6!&(2%!1, ' ' K!3, #, 5%3%#\$(?!*(5#(6(2, #\$(#!3, #K!E*(, #!2+7#\$&(%*!, #' !+\$: %&!
&(2%!1&+ ' 72(#5!2+7#\$&(%*!97-\$), \$(+#!+6!&(2%!(#!-+P-, #' !1, ' ' K!6(%- ' *!(#)+-) %!*78*\$, #\$(, -, 3+7# \$!+6!
(&&(5, \$(+#!' 7&(#5!5&+P(#5!*%, *+#!<!: 7*C!%#)(&+#3%#\$, -(31, 2\$!, ***3%# \$!+6!1, ' ' K!1&, 2\$(2%*!37*\$!
8%!, ***%' !)(, !, ' ' &%**(#5!\$: %!%#\$(%P, \$%&!8, -, #2%*!, \$!\$: %!2&+11(#5!*K*\$%3*!2, -%!+&!, \$!\$: %!

""D#!

Y1N<+35!),3+, ' 7-')!<(3!-5*3(@-17!) (-!C' +.,CG!I 2-./-17!+!1' ,R(3W!-1!a+1)+)!
N!_: Q!

 C B C!; : <@!"5#, 2(+!9(, 31(\$\$(!C!; : <@!@+&(), &!X7(!!@(.]!C!; : <@!9: , &-%*!X(2%!\$

. a!@)(*+#!F!U(\$&+5%#12K2-(#5!, #' !*+(-! : %, -\$: C!+=&\$: C!E757*\$!. C!FGFFC!. e/GG!H!. ^/GG!

0+(-! : %, -\$: !(*!1&+)%)#!\$+! : ,)%!P(' %H&, #5(#5!8%#%6(\$*!, #' !(*!+6!(#2&%, *(#5!(#%&%*\$!\$+!6, &3%&*!, #' !
, 5&(27-\$7&, -!*\$, 4%: +- ' %&*!E*!+(-! : %, -\$: !1&, 2\$(2%*!8%2+3%!3+&%!2+33+#C!', \$, !+#!+H6, &3!*+(-!
: %, -\$: !3%\$&(2*!2: , #5%*!, &%!#%#% ' %' !\$+!\$, &5%\$!3(' ' -%!, #' !-, \$%!, ' +1\$%&*!>: %!+8V%2\$!)%!+6!\$: (*!*\$7' K!
P, *!\$+!, **%**!\$: %!%66%2\$!+6!2+)%&!2&+1*!+#!*+(-! : %, -\$: !(#' (2, \$+&*!, #' !*+K8%, #!K(%-' <): (*!*\$7' K!(*!
1, &\$!+6!\$: %!n, #*, *!0+(-!B%, -\$: !; , &\$#%&*: (1C!, !6, &3%&H-%' !(#(\$, (\$)%)!\$: , \$!6+*\$%&*!\$&, #*6+&3, \$(+#!(#!
, 5&(27-\$7&#!\$: &+75: !(31&+)%' !*+(-! : %, -\$: !, #' !27&&%#-\$-K!(#) +-)%*!6+7&!6, &3*!, 2&+**!\$: %!*\$, \$%!+6!
n, #*, *!(#!\$: %!V#(\$%' !O\$, \$%*/!L. M!0+-+3+#C!L!FM_72K&7*!L!M_%-+(\$C!, #' !L!TM!J_#%#[-' %&+&!\$: (*!
, 8*\$&, 2\$C!P!P(-!6+27*!+#!*(\$%! !<0(\$%! !(*!+2, \$% ' !, \$!\$: %!n#+16! =, &3*!, #' !(*!(#!K%, &!\$: &%%!+6!6)%<): %!
%S1%&(3%#\$, -! %*(5#!P, *!6+7&!&, #' +3(!%' !, #' !&%1-(2, \$% ' !*\$&(1*LX9_@M!+6!\$: %!6, &3%&!*\$, #' , & ' !
1&, 2\$(2%!L#+!2+)%&!2&+1M!, #' !\$: %!(31&+)%' !1&, 2\$(2%!L2+)%&!2&+1M!<0+(-!* , 31-%*!P%&%!\$, 4%#!+#!, !J; 0!
2++&' (#, \$%' !5&(' !, \$!GHe!23!*+(-! %1\$: !, \$!\$: %!6(&*\$!LFG. f!H!8%#2: 3, &4M!, #' !\$: (& !LFGF. M!K%, &!+6!\$: %!
\$7' K!>: %!+(-! : %, -\$: !(#' (2, \$+&*!3%, *7&% ' !P%&%/!L. M_(-+5(2, -!3(2&+8(, -!8(+3, **!LN_MC!
, 1&+1: K\$(2!67#5(C!\$+\$, -!67#5(C!, #' !5&, 3H1+(\$)%!8, 2%&(&, !L!FM!; : K*(2, -!P, \$%&H*\$, 8-%!, 55&%5, \$%*!
, #' !L!M!9: %3(2, -!/*+(-!+&5, #2!2, &8+#!, #' !\$+\$, -!#(\$&+5%#<g%!+8*%&)%' !\$: , \$!2+)%&!2&+1*!(5#(6(2, #-\$-K!
(#2&%, *% ' !, --!8(+5(2, -!#(2, \$+&*!, \$!GHe!23!>: %!, ' ' (\$+#!+6!2+)%&!2&+1*!\$+!\$: %!2&+11(#5!*K*\$%3!' (' !
#+\$!*(5#(6(2, #-\$-K!, 66%2\$!*+K8%, #!K(%-' <9: %3(2, -!, #' !1: K*(2, -!1&+1%&\$(%*!, &%!*\$(-!8%#5!, #, -K)%' <
0, 24%\$C!A-D<!FG. !<E#!U9XHOEX[!2+)%&!2&+1!1&+V%2\$!/=, &3%&H2++1%&, \$+&!3+\$(), \$(+#!, #' !, 5&+#+3(2!
1&, 2\$(2%*!A+7&#, -!+6!\$: %!UE9EE!aL!FM!
!

D, X+*%C!A-C!NK%&*C!X<!FG. ^!E' +1\$(+#!+6!*+(-! : %, -\$: !*K*\$%3*!8, *% ' !+#!' , \$, !6+&3!\$: %!FG. ^!V!9%#*7*!
+6!, 5&(27-\$7&%<0+(-!B%, -\$: !"#*\$(7\$%<

"V\J!

Z(17N,' 35!?!<' 3,-.-=+,-(1!' <<' 0,)(1!)(-!?!/41+5-0)\$!* .+1,!?!2)' !' <<-0-' 104!
+1/!' 0()4),' 5!?!6+.+10' !

D _____ C!@&!@, &(+=+&#, &, !^s

. a!@()*(+#!F!/U(\$&+5%#!2K2-(#5!, #' !*+(-! : %, -\$: C!+=&\$: C!E757*\$!. C!FGFFC!. e/GGIH!. ^/GG!

9: &+#(2!#(\$&+5%#!LUM, ' ' (\$+#!\$+!, 5&(27-\$7&, !*+(-*!3, K! : ,)%!37

"#>D!

: -52.+,-17!1-,3(7' 1!.())!/2' !, (!+55 (1-+!@(.+,-.)+,-(1!+<,' 3!23' +!<' 3,-.)' 3!
+**.-0+,-(1!-1!QH:P; !

D

C

!@&A+#,\$: ,#!WY%' , #

\8%!

EC+3+0,' 3-)-17!,C' !@+3-+,-(1!-1!_a!6+0W73(21/!' 5-))- (1)!(<!1-,3(2)!(B-/' !

D C!; &+6!X+8%&\$!X%%*!C!@&!n, \$%!03(\$: "C!@X!X, 2: %-!>: +&3, #" \$

"" J!

X-7C!5 (21,+ -1!) (-.)!-1!,C' !Q1/')!(<!E' 1,3+.!EC-. ' !

C!N* <d, -%#\$(#, !9•&' %#, *!C!@& <W*2, &!0%57%-!C!N&<A(33K!9+&' %&+!\$

F^!gJ. <G. /!; &+5&%**!(#!7#' %&*\$, #' (#5!2&K+5%#(2!*+(-!,\$!\$: %!%#' *!+6!\$: %![, &\$: /!3+7#\$, (#+7*C!1+-, &! , #' !1%&(5-, 2(, -!&%5(+*C!E-*: !. C!E757*\$!. C!FGFFC!. e/GGHI!. ^/GG!

>: %!P%*\$%&#!6-, #4!+6!\$: %!E#' %*!, \$!9%#&\$, -!9: (-%!(+!+6!1, &\$ (27-, &!(\$%&%*\$!, *!\$: %(!&: (5: !*733(\$*! %38&, 2%! , !\$: (#!*\$&(1!+6!-, #' !2+##\$, (#(#5!+##!+6!\$: %!P+&- ' *!6P!N%' (\$%&&, #%, #!2-(3, \$%*<: (*!, &%, !(*! -+2, \$%' !8%\$P%#%!\$: %!E\$, 2, 3, !@%*%&\$!\$+P, &' !\$: %!#+&\$: !, #' !\$: %!%)%&5%#%!\$31%&, \$%!6+&%*\$! \$+P, &' !\$: %!*+7\$: C!, --!2+##*(' %&&' !\$+!8%!+##!+6!\$: %!P+&- ' *!Fe!: +\$*1+!\$!+2+##*%&)%!8(+ ')%&^(\$K< E22+&' (#5-KC!6+&, C!5%+-+5K!, #' !5%+3+&1: +-+5K!+6!\$: (*!, &%, !: ,)%!8%(#5!-, &5%-K!*\$7' (%' <B+P%)%&C! *+(-!+6!\$: %!E#' %*!, &%!-, &5%-K!7#4#+P#C!(#!2+##&, *\$!\$+!\$: %!P%-H*\$7' (%' !6%&\$(-!*+(-!+6!\$: %!9%#&\$, -! @%1&%**(+##<!"#\$: (*!*\$7' K!P%!, #, -K]!%-)%#%!+(-!1&+6(-%*!+2, \$%' !8%\$P%#%!\$: %!+P%&!, #' % , #!8%-\$! LFeGGHI eGG!3, *-M!\$: %!7!11%&!E#' % , #!8%-\$!LI eGGHI ^GG!3, *-M, #' !\$: %!#(), -Z' %*%&\$!8%-\$!L~I ^GG!3, *-M! X%*7-\$*!*: +P!, !: (5: !), &C, 8(-(\$K!(#!*+(-!1&+1%&\$(%*!, #' !*+(-!\$K1%*!(!#!*: +&\$!' (*\$, #2%*<0+(-!1&+1%&\$(%*! , -+##5!\$: %!, -\$(7' (#, -!5&, ' (%#\$!*: +P!' (66%&#%\$!' &C)%&*(#6-7%#2(#5!1%' +5%#(2!1&+2%***C!, \$!\$: %!+P%&! E#' % , #!8%-\$!+&5, #(*3*!, #' !P%, \$: %&(5!: ,)%!, !1&(3, &K!&+-%!(#' %)-+1(#5!N+--(2C!9, 38(2!, #' !B(*\$(2! : +&()+##* <>: %!7!11%&!8%-\$!*: +P*!(#%#%*)%!-%, 2: (#5!1&+2%***C!\$: , \$!*\$, #' !+7\$!(!#!\$: %!1&%*#2%!+6! , &5--(2!: +&()+##* <E8+) %C!(#!\$: %!7#)%5%\$, \$%' !]+#%C!*+(-*!, &%' +3(#, \$%' !8K!2&K+5%#(2!1&+2%***C! 5%#%&, \$(#5!6%, \$7&%*!-(4%!(2%!P%' 5%*C!*+&\$%' !1+K5+##*C!)%#\$ (27-, &!, #' !5&, #7-, &!*\$&72\$7&C!, *!P%-!, *! , %+-(, #!1&+2%***C!5%#%&, \$(#5! ' %*%&\$!1,)%3%#%\$!, #' !)%*(27-, &!: +&()+##* <>: (*!P+&4!(#' (2, \$%*!\$: %! %S(*\$%#2%!+6!P%--H' %)-+1%' !+(-*!(#!, &%, *!8%-(%)%' !\$+!8%!1&(3, &(-K!2+)%&&' !8K!&+24*C!1&+)' (#5!), -7, 8-%!(#6+&3, \$(+##!, 8+7\$!*+(-!1&+1%&\$(%*!, #' !1&+2%***C!(!, !&%5(+##! (\$: %&\$+!7#4#+P#!\$+!*+(-! -!1&%!./GGN&54 0..34%7G 11.9906 590.bb5 (BT 50 0 0 50 1576.066 -309 Tm /TT4 1 Tf [(') -0.4

J%\!

MC' !&. (6+.; +*)!(<!,C' !&. (6+.: (-.!H+3,1' 3)C-*G!<3(5!6(, , (5!, (!, (*!

; &+6<X+*, !N!; +2: !C!D E

I G!gJ. <GT!/J-+8, -!*+(-!3, 1!3, (#!, '), #2%*!, #' !P, K*!6+&P, &' C!E-*: !FC!E757*\$!. C!FGFFC!. e/GG!H!
. ^/GG!

"#!, !P+&' !P: %%&!)(*7, -[], \$(+#!+6!*2%#, &(+*!(*!(31+&\$, #C!*+(-!3, 1*!, &%!*%*%#\$(, -\$++-*!6+&! '%2*(+#!
3, 4(#5<!: %=EWZJ0; !6, 2(-(\$, \$%*!, !1, &\$2(1, \$+&K!1&+2%**!(#)+-)(#5!3%38%&!2+7#\$&(%*!(#!\$: %!
5%#%&, \$(+#!+6!5-+8, -!*+(-!3, 1*<!"#!FG. ^!\$: %!JOW93, 1!P, *!-, 7#2: %' !8, *%' !+#!\$: %!OW9!2++48++4!

">#J!

K' 0' 1,!) , ' *)!-1!,C' !9: ; !3' .+, ' /!/' @' .(*5' 1,!(<!,C' !X217+3-+1!: (-!

0], \$3 •&(C!J<!_ , 4, 2*(C!W<!D, 8+&2](C!E<!; %\$(4C!W<!; , \$, 4(C!X<!>` \$: C!><!; •*)\$+&C!D<[- , 8+&, \$(#5!
B7#5, &(, #!0%53%#&+6!\$: %!J-+8, -!N, 1!+6!0, -\$HE66%2\$%' !0+(-*!LJ003, 1W!U, \$(+#, -!9+#&(87\$(+#!\$+!, #!
"\$%&#, \$(+#, -!#(\$, (\$) %&X%3+\$%!0%#*<FGFG!. FC!TG^! I <

""JJ!

&.(6+!5+** -17!(<!0(5*.' B!) (-!*3(*' 3,-')!!

D _____ C!@&!_, *!n%31%#^!C!N, &(, H[-(!, !>7&%4^!C!@&!U(%-*!B<!_, \$Y%*^!C!J(7-(+!J%#+), ^!C!@&!D7(*!
' %!0+7*, ^!C!@&!@,)(' !X+**(\$%&!C!; &+6!@&!J%&, &' !B%7)%-(#4!\$

I G!gJ. <GT!/J-+8, -!*+(-!3, 1!3, (#!, '), #2%*!, #' !P, K*!6+&P, &' C!E-*: !F!C!E757*\$!. C!FGFFC!. e/GG!H!
. ^/GG!

E' ' &%**(#5!3, #K!+6!\$: %!*7*\$, (#, 8-%!' %)%+13%#5!+, -*!P+7-' !8%!5&%, \$-K!, (' %' !8K!\$: %!1&+)(*(+#!+6!
' (&%2\$-K!&%-%), #!\$*+(-!(#6+&3, \$(+#!, \$!' (66%&%#*\$!2, -*^!@5(\$, -!0+(-!N, 11(#5!L@0N!M(*!, #!%*\$, 8-(*: %' !
3%\$: +' ++5K!\$+!2&%, \$!3, 1*!+6!^*+(-!1&+1%&\$(%*!, \$!' (66%&%#*\$!&*+-7\$(+#!, #' !%S\$%#*\$^!N, #K!@0N!
1&+Y%2\$*!, 2&+**!\$: %!5-+8%!: ,)%!1&+)(' %' !(#6+&3, \$(+#!+#!1&(3, &K!*+(-!1&+1%&\$(%*C!*72: !, *!*+(-!
\$%S\$7&, -!6&, 2\$(+#!^!C!*+(-!2, &8+#!2+#\$%#C!2, \$(+#!%S2: , #5%!2, 1, 2(\$K!, #' !*+(-!&%, 2\$(+#!^!@0N!2, #!, -*+18%!
7*%' !\$+!3, 1!2+31-%S!*+(-!1&+1%&\$(%*C!(<%<!1&+1%&\$(%*!\$: , \$!2, #!#+\$!8%!3%, *7%*' !' (&%2\$-K!(#!\$: %!
-, 8+&, \$+&K!87\$!, &%!' %&()) %' !6&+3!1&(3, &K!*+(-!1&+1%&\$(%*!8K!1%' +\$&, #*6%&!67#2\$(+#!^!C!*5<C!,), (-, 8-%!
P, %&!2, 1, 2(\$K!^*+(-!2, &8+#!' %#*(\$K!, #' !*\$+24^!C!, #' !&+ ' (8-(\$K<!: %&%!, &%!\$P+!, 11&+, 2: %*!\$+!3, 1!
72: !1&+1%&\$(%!/. M!i 3+' %-!6(&*C!(#%\$&1+-, %!-, %&j!C!P: %&%!\$: %!2+31-%S!1&+1%&\$K!(*!2, -27-, %\$' !, \$!
1+(#\$!+8*%&), \$(+#!, #' !\$: %#!3, 11%' !!, #' !F!M!i (#%\$&1+-, %!6(&*C!3+' %-!, %&j!C!P: %&%!\$: %!2+31-%S!
1&+1%&\$K!(*!2, -27-, %\$' !6&+3!3, 1*!+6!\$: %!1&(3, &K!1&+1%&\$(%*!2+#\$&(87\$(#5!\$+!(\$<!
!

g%!1&%*%#\$, #' !' (*27**!\$: %*%!\$P+!, 11&+, 2: %*!6+&!5-+8, -, 11-(2, \$(+#!7*(#5!-%5, 2K!' , \$, !P(\$: !, !#+#H
7#(6+&3!, #' !8(, *%' !*1, \$(, -! (*\$&(87\$(+#!+6!+8*%&), \$(+#!, #' !\$: %!0+(-J&' *!P+&46+P!g%!2+31, &%!
\$: %!&%7-\$*!6+&!,), (-, 8-%!P, %&!2, 1, 2(\$K!+6!\$: %!G!\$+!. GG!23!' %1\$: !(#%\$&), -, #' !*+(-!2, &8+#!' %#*(\$%*!
6+&!*(S!' %1\$: !-, K%&*^!>: %&%!, &%!*78*\$, #\$(, -! (66%&%#2*!(#!8+\$. !1+(\$SHP(*%!), -7, \$(+#!3%\$&(2%*!, #' !(!#
-, #' *2, 1%!1, \$\$%&#*^!<!

DJ\!

"8D>!

`+35' 3)!0C+3+0,' 3-),-0)\$!-1/-7' 1(2)!W1 (R.' /7' !+1/!)(-!5+1+7' 5' 1,!
*3+0,-0')!-1<.2' 10' /!0+36(1!), (0W!+1/!' 5-))- (1)!-1!0(1,3+),-17!
+73(' 0(. (7-0+.!=(1')!(<!&C+1+!!

D C A C!@&![33,#7%-!E3+,4P,: "C!N(**!D72K!X(2:-+)%!_%K,P#\$

"#\$%&H

"\V8!

M(R+3/)!+!: 0-' 10' !(<!E-,4N: (-.!H' / (7' 1')-)!

D D _____ (!@&!E##, !g, ' %!

"#\$%&H' ()(*+#, -! /!!"#\$%&' (*4(, -)-0B\$%&

"DD"!

`-1

JDV!

J>\$!

; ' ,+*C(3)!+6(2,!)(-.^!Q1!-1,' 3/-)0-*.-1+34!-1@'),-7+,-(1!, (!3' '@' +.!6-+)')!
+1/!<(), ' 3!+0,-(1!<(3!)(-!*3')' 3@+,-(1^!

D A F C! A

"#\$\$&H' ()(*(+#, -! /!!"#\$\$%&' (*2(1-#, &K!*+(-!*2(%#2%!6+&!(3 1, 2\$C!N. C!E757*\$!. C!FGFFC!. ^/! G!H!. f/! G!

0+(-!1-, K*!, !)\$, -!&+-%!6+&!2-(3, \$%!2: , #5%! , #' !(*!8%(#5!*\$7' (%' !P(\$: (#!*%)%&, -!' (*2(1-(#%*<!
V#6+&\$7#, \$%-K!\$: %&&!(*!-(\$-\$!*1(--)%&!%66%2\$!+6!\$: %*%!*\$7' (%*!+#!, 2\$7, -!*+(-!2+#*%&), \$(+#!LX731%-!%\$!

"8D\$!

M3+1)/-0-*.1+34!3')' +30CG!+))' 56.+7')!(<!/-)0-*.1')!5' ' ,!+))' 56.+7')!
(<!5-03((37+1-)5)!

_____C!N(**<[3(-K!; : %1*!C!@&!A(3!02+P#C!@&!J(-' ,!d, &-(%&+!C!@&!>: +3, *!
J+&+2: +P*4('""\$

"#\$%&H')(*(+#, -!|/!"#\$%&' (*2(1-(#, &K!*+(-!2(%#2%!6+&!31, 2\$C!N. C!E757*!\$. C!FGFFC!. ^/!G!H!. f/!G!

n#+P-%' 5%!(+6\$%#!\$&, 11%' !P(\$: (#!, 2, ' %3(2!' (*2(1-(#%*<_K!2+##%2\$(#5!' (*\$, #!' (*2(1-(#, &K!
, 11&+, 2: %*C!*: , &%' !: +(*\$2!4#+P-%' 5%*!2, #!, &(*!P: %&%!\$: %!P: +-%!(+5&%, \$%&!\$: , #!\$: %!1, &\$<B%&%!
P%!*: +P!\$: , \$!\$&, #**' (*2(1-(#, &K!&%*%, &2: !8%\$P%#%#!%#)(&+#3%#\$, -: (*\$+&K!3(2&+8(, -!%2+-+5K!
K#\$: %\$(2!8+-+5K!, #' !\$: %!2: +-!27&&(27-73!, --+P!2+H2&%, \$(+#!+6!' , \$, %\$*!\$, #' !(#\$%&1&%\$, \$(+#!
P: (2: !\$&, #*2%# ' !' (*2(1-(#, &K!' +53, *<@UE!%07%#2(#5!P, *!7*%' !\$+!2: , &, 2\$%&(*%!8, 2\$%&(, -!
3(2&+8(+3%*!, 2&+**!(S!*(%*C!&%), -(#5!\$: %!')%&*(SKH&%' 72(#5!(31, 2\$!+6!: 73, #H2%#\$&(2!-, #' !
3, #, 5%3%#\$!1&, 2\$(2%*!, #' !')%&*(SKH8++*\$(#5!%2+\$+##*!P: %&%!%2+*K*\$%3*!3%\$<0(\$7, \$%' !
\$&, #**' (*2(1-(#, &K!&%*%, &2: !%-72(' , \$%' !\$: %!#+#H+8!%2\$()(\$K!+6!' , \$, %\$*!\$, #' !\$: %!2+##%2\$%' #**!+6!
: 73, #!, #' !#+#H: 73, #!3(2&+8(+3%*<V# ' %&\$, #' (#5!3(2&+8(+3%*!, *!+1%#!%2+-+5(%*!, #' !
, **%38-, 5%*!, &*(#5!6&+3!: 73, #!, #' !#+#H: 73, #!, 2\$(+#!8%24+#!, 11&+, 2: %*!+6!-, #' !*\$%P, &' *: (1!
&, \$: %&!\$: , #!-, #' !3, #, 5%3%#\$!, #' !8(+&%*1%2\$(#5!&, \$: %&!\$: , #!8(+1&+*1%2\$(#5!
n&%(*%C!@<!J&(66(\$: *C!@<!LFGFGMW1%#![2+-+5(%*!'!#\$&+ ' 72\$(+#!C!d(2\$+&(, #!D(\$%&, \$7&%!, #' !97-\$7&%<
: \$\$1*/ZZ' +(<+&5Z. G<. G. ^ZO. GaG. eGl . fGGGT^G<
!
0%47&+), C!W<U<C!02: #%(' %&C!W<, #' !w+\$2: %)C!0<_<C!LFG. fM!U+)%-!8(+, 2\$()%!#, \$7&, -!1&+ ' 72\$*!6&+3!
8, 2\$%&(, !), !8(+1&+*1%2\$(#5C!5%#+3%!3(#(#5!, #' !3%\$, 8+-(2!#5(%%&(#5C!N(2&+8(, -!_(\$%2: #+-+5K!
: \$\$1*/ZZ' +(<+&5Z. G<. . . . Z. ^e. H^f. e<. I I fb<

"%J!

; 2.,-N)0+.'!', '33+-1!<' +,23' !0(1),320,-(1!+1/!5+0C-1' !.' +31-17!<(3!,C' !
)* +,-+.!-1,' 3*3' ,+,-(1!(<!) (-!(37+1-0!0+36(1!), (0W)!-1!F '),!&3' ' 1.+1/!

N<02<; : (-11!J&(%*!""C!_____C!@&!; %\$%&!nu: #!""C!@&!>: +&*\$%#!_%: &%#*!C!**D**_____

"DJ!

I 3-/7-17!,C' !7+*!R-,C!: ?Q*c!E (56-1-17!. (0+.-=' /!) (-.!) +5* .-17!R-,C!
1' ,R(3W!+1+.4)-)!, (!,+0W.' !' . ' 5' 1,+.!5-73+,-(1!,C3(27C!,C' !)(-.)0+*' !"#!

D C C!9+--(!A!g %8%&"C!@&49: &(*\$(, #!)+#!01%&8%&#s

. T!@)(*+#!. !9+33(**+#!. <F!/0+(-!5%+5&, 1: K!/8, *(2!*2(%#2%!, #' !#%P!\$%2: #+-+5(%*/!!
9: , (&1%&*+#!/; &+6%**+&!>: +3, *!02: +-\$%#C!D+3+#' !E7' (\$+&(73C!E757*\$!. C!FGFFC!. ^/I G!H!. f/I G!

"D\!

Z+37' !)0+.' !)23@' 4!(<!+1 ,C3(* (7' 1-0!) (-!.+1/)0+*')!-1!?' R!L17.+1/S!_: QS!
2)-17!), +, ' N(<N,C' N+3,!5+0C-1' !.' +31-17!, ' 0C1-A2')!T[(. (@#U!

 A **B** C!g+7\$%&!d%&*2: ++6H), #!' %&!d, , &\$"C!; &+6<!>: +3, *!X, , 8!C!; &+6<!g(-(-, 3!
W7(3%\$

"8>"!

j 2+1,-,+,-@' !2)')!(<!) (-!0(. (3!<(3!,C' !/' @' .(*5' 1,!+1/!*3')' 1,+,-(1!(<!
) (-!)23@' 4!/+ ,+!-1!,C' !_1-, ' /!: ,+, ')!

D D B C!N&!9: , &-%*!=%&57*+#!\$

. T!@()(*(+#!. !9+33(**(+#!. <F!/0+(-!5%+5&, 1: K!/8, *(2!*2(%#2%!, #' !#%P!\$%2: #+-+5(%*/!!
9: , (&1%&*+#!/!; &+6%***+&!>: +3, *!02: +-\$%#C!D+3+#' !E7' (\$+&(73C!E757*\$!. C!FGFFC!. ^/!G!H!. f/!G!

>: %!2+-+&!+6!*+(-!*!+#%!+6!\$: %!6%P!\$: (#5*(#!#, \$7&%!\$: , \$(!*!, &57, 8-K!+6!%07, -(#%\$%&*!\$+!8+\$: !
*2(%#\$(**\$*!, #' !2: (-' &%#!, \$!1-, K<0+(-!*2(%#\$(**\$*!, #' !*7&)%K+&*!, 11&%2(, \$%!\$: %!P%, -\$: !+6!(#6+&3, \$(+#!
\$: , \$(!*!\$K1(2, --K!&%-, \$%' !\$+!*+(-!2+-+&!), &(, \$(+#!(#!' %1\$: !, #' !*1, 2%<0+(-!2+-+&!*711+&\$*!, !1&, 2\$(2, -C!
07, -(\$, \$!)%!*2, 66+-' (#5!6+&!+7&!7# ' %&\$, #' (#5!+6!, !-, #' *2, 1%*!&%2%#\$, #' !-+#5H\$%&3!: (*\$+&K!2-7%*!
, 8+7\$!' +3(#, #!3(#%&, -+5K! , !*\$&(4#5!1(2\$7&%!+6!P: %&%!+&5, #(2!3, \$\$%&! : , *!, 22737-, \$%' C!, #' !3, #K!
+\$: %&!6, 2\$+&*!\$: , \$!, 66%2\$!+7&!7*%!, #' !7# ' %&\$, #' (#5!+6!\$: %!*+(-!&%*+7&2%<: %!N7#*%-!*K*\$%3!
1&+)' %*!*+(-!*2(%#\$(**\$*!, #' !+\$: %&!\$%2: #2, -!7*%&*!+6!*+(-*' , \$, !, !2+#)%#(%#*\$!K*\$%3!+6!
2+337#(2, \$(+#!<J)%#!\$: %!&(5: \$!2+##\$%S\$C!, !' %1(2\$(+#!+6!*+(-!2+-+&!, #' !(\$*!(#%\$&1&%\$, \$(+#!2, #!

"\%!

E(5*+3-)(1!(<!7.(6+!@' 3)2!)(-N(3/' 3!5 (/'.)!<(3!)(-!*3(*' 3,-')!
'),-5+,-(1!<3(5!k-)N

"\$>\$!"

""\$#!

`' 5-1-1' !H)40C(N: *-3-,2+.N: (0+.!E(1),320,)!(<!?+,23' S!Z+1/S!L+3,CS!+1/!
: (-!

"JDD!"

>V!

MC' !C-), (34!(<!) (-.!+1/!C25+1!C' +.,C!

_____C!; &+6%**+&![&(2!_&%) (4""\$

FT!@)(*+#!T!9+33(**(+#!T<e/!B(*\$+&K!1: (-+*+1: K!, #' !*+2(+--+5K!+6!*+(-!*2(%#2%C!+=&\$: C!E757*\$!. C!
FGFFC!. ^/!G!!!. f/!G!

>: %!: (*\$+&K!+6!*+(-!, #' !: 73, #!: %, -\$: !
; %+1-%!: ,)%!-+#5!4#+P#!\$: , \$!\$: %!%#)(&+#3%#\$, 66%2\$*!\$: %(&! : %, -\$: !%(\$: %&! ' (&%2\$-K!+&! (#' (&%2\$-K!
\$: &+75: !\$: %(&!6++ ' C! ' &(#4(#5!P, \$%&!, #' !\$: %!, (&!\$: %K!8&%, \$: %<0%)%&, -!%, &-K!2) (-[] , \$(+#!&%6%&&' !\$+!
&%-, \$(+#!8%\$P%#%!\$: %!%#)(&+#3%#\$, #' !: 73, #!: %, -\$: !!\$: %K!' &%P!(#6%&%#2%*!6&+3!&%1%, \$%' !

%J!

\\!

VD\!

J>V!

: ' 5-N/' ,+-. ' /!)23@' 4!+1/!5+** -17!(<!F KI!) (-.!3') (230')!-1!L,C- (*-+!2)-17!
/-<<' 3' 1,!*+,CR+4)!, (!(*,-5-)' !6' ,R' ' 1!+0023+04!+1/!*3' 0-)-(1!!

Ir. Johan Leemaars¹, Ir Ali Asherafi², Ir Maria Ruiperez Gonzalez¹, Dr Bas Kempen¹,

">\#!

FKI !+1/!: (-.IP1<(35+,-(1!: 4), ' 5)IN!), ' *)!, (IC+35 (1-= ' /!R(3./!)(-!
-1<(35+,-(1!

D E E

I e!gJ. <f!k!E'), #2%*(#!7#' %&*\$, #' (#5!*+(-*!, *!&%6-%2\$%' !8K!\$: %!T\$: !%' (\$+#!+6!\$: %!gX_C!E-*: !. C!
E757*\$!. C!FGFFC!. ^/I G!!!. f/I G!

>: %!#%P!%' (\$+#!+6!\$: %!g +&- ' !X%&%%!_, *%+6!0+(-!X%*+

"8\$\!

X(R!, (!-/ ' 1, <4!) (-./-+71 () , -0!C(3=(1)c!Q!W' 4!, (!, C' !/-+71 () , -0!<' +, 23')!
(<!, C' !F(3./!K' <' 3' 10' !I +)' !<(3!) (-.!3') (230')!

D D C!N&!B<[' P, &' !N<X7**%-!A&<' '#C!@&!E#' %&*_!_Y™&#N™--%&#C!@&!; %\$%&!=(#4%''\$

I e!gJ. <f!kIE'), #2%*(#!7# ' %&\$, #' (#5!*+(-*!, *!&%6%2\$%' !8K!\$: %!T\$: !%' (\$+#!+6!\$: %!gX_C!E-*: !. C!
E757*\$!. C!FGFFC!. ^/I G!H!. f/I G!

"#\$%&#, \$(+#, --K!\$: %!3+*\$!P(' %-K!7*%' !*+(-!2-, **6(2, \$(+#!*K*\$%3*!0+(-!>, S+#+ 3K!L0+(-!07&)%K!0\$, 66C!
FG. TMC!' %)%-+1%' !8K!\$: %!V0@E!, #' !\$: %!xg+&-!X%6%%!_ , *%!6+&!*+(-!&%*+7&2%*\!LgX_MC!' %)%-+1%' !
8K!, #'!V00!P+&4(#5!5&+71!L"V00!g+&4(#5!J&+71C!FG. e!M!8+\$: !: (#5%!*+#!\$: %!&%2+5#\$(+#!+6!' (, 5#+*\$\$(2!
: +&()+#*C!1&+1%&\$(%*C!, #' !3, %&(&(-*!W#2!\$: %!' (, 5#+*\$\$(2!6%, \$7&%*!+6!%, 2: !: +&()+#!, &%!%*\$, 8-(*: %' C!, !
#, 3%!2, #!8%! , \$\$&(87\$%' !+!\$: %!2+#!*' %&% ' !1%' +#!8K!6+--+P(#5!, !' %\$%&3(#, \$(+#!4%K<!B+P%)%&C!*+!
6, &C!#+!' %\$%&3(#, \$(+#!4%K!%S(*\$!6+&!(' %\$\$(6K(#5!(#!, !*K*\$%3, \$(2!, #' !%66(2(%#\$!P, K!\$: %!' (, 5#+*\$\$(2!
6%, \$7&%*!+6!*+(-!1&+6(-%*!@%)%+1(#5!*72: !, !4%K!P+7-' !6, 2(-\$, \$%#!#, 3(#5!*+(-!2+&&%2\$-K!, #' !*: +7-' !
8%!: %-167-!6+&!, 7\$+3, \$(#5!\$: %!2-, **6(2, \$(+#!+6!-%5, 2K!*+(-!' , \$, <g%!: %&%6+&%!, (3%' !, \$!' %)%-+1(#5!, !
' %\$%&3(#, \$(+#!4%K!, 11-(2, 8-%!6+&!(' %\$\$(6K(#5!' (, 5#+*\$\$(2!: +&()+#!, 22+&' (#5!\$+!gX_!, #' !1&+1+*%!: (*!
, *!, !2+##\$&(87\$(+#!\$+!, !67\$7&%!)%&*(+#!+6!gX_<!!
!

"#!, !6(&\$!(#*\$, #2%C!, --!\$: %!2&(\$%&(!1%&\$, (#(#5!\$+!\$: %!' (, 5#+*\$\$(2!6%, \$7&%*!, &%!(-*\$%' !\$+!2&%, \$%!, !iGZ. !
3, \$&(Sj!# ' (2, \$(#5!\$: %!&!, 11-(2, 8(-(\$K<078*%07%#-\$K!C!, !2-7*\$%&!, #, -K*(!(*!1%&6+&3%' !+#!\$: (*!3, \$&(S!\$+!
5&+71!6%, \$7&%*!*72: !\$: , \$!, !+5(2!, #' !%66(2(%#\$!' %\$%&3(#, \$(+#!4%K!2, #!8%! ' %)%-+1%' <!>: %!
' %\$%&3(#, \$(+#!4%K!(*!\$%*\$%' !, #' !), -(' , %' !7*(#5!' , \$, !+6!*+(-!1&+6(-%*!#!+7!+P#!2+--%2\$(+#!, #' !
' , \$, 8, *%*!, *!P%-!, *!+6!\$: %!(#%\$&#, \$(+#, -!*+(-!37*%73!"0X"9!#!g, 5%#(#5%#C!>: %!U%\$: %&- , #' *<!
@%)%+1(#5!\$: (*!(' %\$\$(6(2, \$(+#!4%K!, -*+!8&(#5*\$+!-(5: \$!, 38(57\$(%*!, #' !2+##\$&, ' (2\$(+#!#!\$: %!27&&%#\$!

D"8!

VVJ!

MC' !#,C!' /-,-(1!(<!,C' !F KI !TD8DDU!

D

I e!gJ. <f!k!E'), #2%*(#!7#' %&*\$, #' (#5!*+(-*!, *!&%6-%2\$%' !8K!\$: %!T\$: !%' (\$+#!+6!\$: %!gX_c!E-*: !. C!
E757*\$!. C!FGFFC!. ^/!G!!!. f/!G!

>: %!"V00!g +&4(#5!J&+71!gX_!&%-%, %*%!%)%&K!*%2+#' !g +&' !9+#5&%**!, !#%P!%' (\$+#!+6!\$: %!

"VDD!

X+-3)!5+,, ' 3!+ ,!<-' ./!)0+.' !<(3!)C((,!73(R,C!+1/!12,3-' 1,!2* ,+W' S!62,!3((,! ,3+-,!* .+),-0-,4!-)!*3-5+3-.4!,3-77' 3' /!64!, ' B,23' !

D

C!N, S(3%!; : ,-%31(#!

"\J8!

K((,!<(3+7-17!+1/!5-1-17!),3+, ' 7-')!)C+*' !' 0()4), ' 5!)' 3@-0')!! !+!<(02)!(1!
6-(7' (0C' 5-0+.!040.-17!+1/!) (-.!<(35+,-(1!-1!. (R\1*2,!+73(' 0()4), ' 5)!

D

!

>: +&71Hn&(*\$%#*%#C!n<!B, -8%&5C!U<!U(2+-, (*%#C!N<!W-%*%#C!A<[<!9&%P*C!><[<!B(#*(#5%&C!; <!n(&4%5, , &' C!A<!; (%&&%\$C!E<!?!@&%*8™-C!@<_<!LFGFGM<@(55(#5!@%%1%&!6+&!E5&(27-\$7&, -!X%*+7&2%*C!\$: %!

"D%>!

.Tfd J0@(%' : (+7C!0(&%C!n+3(!_<E** (58%\$**%C!E3(#, \$, !_, ' (, #%C!"8&, : (3, !@(%' : (+7C!E3(#, \$, !U<

"J\$>!

"" J!

E+.-63+,-(1!,3+1)<' 3G!+!0+) ' !),2/4!2)-17!Z9: `!) *' 0,3+.!-63+34!

_____C!D%(5: !g(#+P(%24("C!E# ' &%P!0(-, "C!d, -%#\$(#%!n, &, &("C![-])(*!g%7--+P"C!>+&HJ7##, &!
d, 5%#"C!; &+6!_7' (3, #!N(#, *#K!\$

"#\$\$&')(*(+#, -!f!/U+)%-!3%\$: +' *!, #' !\$%2: #(07%*C!D+ 3+#' !E7' (\$+&(73C!E757*\$!FC!FGFFC!Gf/GG!H!
.. /GG!

"#6&, &' !*1%2\$&+*2+1K!; , *!8%2+ 3%! , !)(, 8-%!, -\$%&#, \$()%!6+&!\$: %!&, 1(' !2: , &, 2\$%&(), \$(+#!+6!*+(-<!
N7-\$(1-%!1&+1%&\$(%*!2, #!8%!* (37-\$, #%+7*-K!1&% ' (2\$%' !6&+ 3!, !*(#5-%!*1%2\$&73<!>: %&%!(*!, #!+#5+(#5!
' %)%-+13%# \$!6+&!5-+8, -!*1%2\$&, -!(8&, &(%*<B+P%)%&C!\$: %!*1%2\$&, -!' , \$, !2+--%2\$%' !\$+P, &' *!\$: %!5-+8, -!
1%2\$&, -!(8&, &(%!P%&%!+6\$%#!&%2+&' %' !7*(#5!' (66%&%#*\$!1%2\$&+ 3%\$%&*!7# ' %&! ' (66%&%#*\$!2, ##(#5!
2+#' (\$+#!, #' !1&+2%' 7&%*<!>: %*%!), &(\$+#!(#!*1%2\$&, !' , \$, !2+--%2\$(+#!3, 4%!: %!2+#Y+(#\$!7*, 5

"\88!

`MPKNQMKG!Q!; ' ,C(/!&-@-17!_1-A2' !P1)-7C,)!-1, (!,C' !E(5*()-,-(1!(<!:(-!

D A _____ C!N&*!E#5%-,!N!N, (#!C!@&!X%], !n!B, 5: (!\$

"#\$\$&')(*(+#, -!f!/U+)%-!3%\$: +' *!, #' !\$%2: #(07%*C!D+3+#' !E7' (\$+&(73C!E757*\$!FC!FGFFC!Gf/GG!H!
.. /GG!

"#!&%2%#\$!K%, &*!\$: %!7*%!+6!*+(-!*1%2\$&+*2+1KCl(#!\$: %!3(' !, #' !#%, &!/#6&, &%' !&%5(+*^C!: , *!5, (#%' !(#!
1+17-, &(\$K!6+&!\$: %!1&% ' (2\$(+#!+6!*+(-!1&+1%&\$(%*!7*(#5!2: %3+3%\$&(2!, 11&+, 2: %*^dB+P%)&C!\$: %!
(#\$\$&1&%\$, \$(+#!+6!*1%2\$&, !\$+!5, (#!(#*(5: \$!(#\$(+#!+(-!2+31+*(\$(+#!, #' !2: , #5%*(#!*+(-!: , *!8%#%, -3+*\$!
%#\$(&%-K!#%5-%2\$%' <"#6&, &%' !*1%2\$&, !(#!\$: %!3(' !(#6&, &%' !&%5(+#!5!)%!, #!+)%, --!2: %3(2, -!1&+6(-%!+&!
i6(#5%&1&(#\$j!+6!\$: %!*+(-!P: (2: !(31+&\$, #-\$K!(#2-7' %*!8+\$: !\$: %!+&5, #(2!, #' !3(#%&, -!2+31+##%\$*!
1&%*#%\$-!>: %!=>"XHE>X!L=+7&(%&!>&, #*6+&3!"#6&, 2(80. 5(#)-0. 4(,)-4(*)-0. 680. 2611. 9906590. 1694cmBT50005066

#D%!

?(@' .!-1)-7C,)!-1,(!' ' !+1/!Q.!0(N(3/-1+,-(1!-1!)(-.)!3(5!: ML; NLLZ: !+1/!
.+6(3+, (34N6+) ' /!: MNmQ: !

D A _____ C!; &+6!07*, #!_%&#, -!C!@&!E#' K!_&+P#`C!@&!B%-%#!=&%%3, #!C!; &+6!N, &4!B+' *+##C!
N*!d(24K!D%, ' -%K%C!@&!X+8!N(--*#C!@&!E#4!U%73, ##&C!N*!B%-%#!; %#! -+P*4(C!@&!N, &\$(!O\$%##%\$)\$C!
@&_&, #!g, -4-%K+C!N*!E3K!g&(5: \$#\$

"#\$%&')(*(+#, -!f/!U+)%!3%\$: +' *!, #' !\$%2: #(07%*C!D+3+##' !E7' (\$+&(73C!E757*\$!F!FGFFC!Gf/GG!H!
.. /GG!

>: %!2+H+&' (#, \$(+#!*\$, \$%*!+6!, -73(#(73!, #' !(&+#!(#90. (435!)-0. 1, /TT41TfcmBT-((0. (435!))-0. 4(9!)TjETcmBT-0

">"%!

I - (<210, ((.G!Q1!-1N<- ' ./!*+OW+7' !, (!+))'))!) (-.!A2+.-,4!6+)' /!(1!) (-!
<210,-(1-17!

D A B C!@&<E-%S(*!>: +73,]%, 7"\$

>\$\$!

P11' 3!(37+1-+=, -(1!(<!) (-.!032),)G!1' R!-1)-7C,)!<3(5!,R(N/-5' 1)-(1+!.mN3+4!
5-03(/-<<3+0,-(1!

_____C!@&! =, 8(%#!B78%&\$!C!@&!_, 1\$(*\$%!@,], *!C!@&![&(2!=%&&, 5%!C!@&!>: +3, *!@, 8, \$!C!
@&!_&(, #!J&v5+(&%!C!; &![33, #7%-!>%&&\$%!C!; &!X(2: , &' !J(+!\$!C!@&!D, 7&%#\$!N(2: +!\$!C!@&! =+4%&&\$!), #!
W+&\$!C!@&! =%-(*, !_%&%#57%&%\$

"#\$\$%&')(*(+#, -!f!/U+)%-!3%\$: +' *!, #' !\$%2: #(07%*C!D+3+#' !E7' (\$+&(73C!E757*\$!FC!FGFFC!Gf/GG!H!
../GG!

g, \$%&!%&+*(+#!&, #4*!, *!+#!%!+6!\$: %!3, Y+&!%#)(&+#3%#\$, -!(**7%*!\$: &%, \$%#(#5!*+(-!6%&\$(-\$K<=+&3, \$(+#!
+6!2&7*\$!, \$!\$: %!\$+1*+(-!*7&6, 2%!1-, K*!, !4%K!&+-%!(#!6,)+&(#5!\$: %!%&+*(+#!8K!2+#\$&+--(#5!\$: %!8, -, #2%!
8%\$P%#P, \$%&!#6(-\$&, \$(+#!, #' !&7#+66<9&7*\$!6+&3, \$(+#!&%*7-\$*!6&+3!&%+&5, #(), \$(+#!+6!6(#%!1, &\$(-%*!

!
""V%!

"D\$D!

MC' !3' @-) ' /!&' 35+1!: (-! : 4), ' 5!N!-5*3(@' /!), 320, 23' S!1' R!) (-!, 4*')!+1 /!
+1!+., ' 31+, -@' !/-+71 (), -0!C(3=(1!+**3(+0C!

D E E

. F!@)(* (+#!/!. !9+33(**(+#!. <T!9+33(**(+#!. <a!k!0+(-!2-, ** (6(2, \$(+#!, #' !1, -, %+1%' ++5KC!_+(*' , -%! . C!
E757*\$!F!FGFF!Gf/GG!!!. . /GG!

J%&3, #!0+(-!OK*\$%3, \$(2*!L1, &\$!+6!\$: %!*+(-!*7&)%K!57(' %-(#%*C!27&&%#\$!)%&* (+#!(#!\$: %!X%6%&%#2%*M!: , *!
8%#%#!&%) (*' !\$(+!(3 1&+)%!(\$*! : (*\$+&(2, -K!5&+P#!*\$&72\$7&%C!\$+!2+)%)&!)%&K!' %5&, ' %' !, #' !, 3%-(+&, \$%' !
6%#!, #' !8+5!*+(-*C!\$+!(#2-7' %!#+\$!K%\$!2+#+*(' %&%' !*+(-!*LE#'+*+*C!V38&(*+*!, #' !*+(-!, 66%2\$%' !8K!
-, \$%&, -!\$&, #*-, \$(+#!1&+2%**%*!+6!(&+#!+&!(3%M!_2, 7*%!: %!7#(\$*!+6!\$: %!*+(-!*K*\$%3!: ,)%!8%#%!
' %6(#%' !8K!: +&[]+#!*%07%#2%*C!\$: %!-(#4!8%P%#%!*+(-!*K*\$%3!, #' !: +&[]+#!' %*(5#, \$(+#!+6!\$: %!*+(-!
' %*2&(1\$(+#!, #' !' %6(#\$(+#!(*!2+*%<!: %&%6+&%C!: +&[]+#!' %*(5#, \$(+#!: ,)%!8%#%#!&%) (*' !\$(+!*\$&%*!

#"\$!

E.+))<-0+,-(1!(<!*+.' (.)G!1' ' /)S!0(10' *,)S!+1/!(26,)!!!

D C

. F!@)(*+#!. !9+33(**+#!. <T!9+33(**+#!. a!k!0+(-!2-, **6(2, \$(+#!, #' !1, -, %+1%' ++5KC!_+(*' , -%! . C!
E757*\$!F!FGFF!Gf/GG!H!. . /GG!

02(%#\$(*\$*!, 5&%%!(#!5%#%&, -!\$: , \$!\$: %!#, 3(#5!+6!1, -%+*+*!*: +7-' !6+--+P!\$: %!2-, **6(2, \$(+#!*K*\$%3*!+6!
3+' %&#Z*7&6, 2%!*+(-*!\$+!*\$&%**!*(3(-, &!&%-, \$(+#!*: (1*!8%\$P%#%!%#)(&+#3%#\$, -!2+#' (\$+#!, #' !*+(-!
2+)%&!#!\$: %!1, *\$!, #' !3+' %&#!\$(3%*!B+P)%&!87&(%' !*+(-!+6\$%#!, &!(#2+31-%\$%L\$&7#2, \$%' M!, #' !
, -\$%&%' !8K!1+*\$H

>%"

H3+0,-0+.' @+.2+,-(1!(<!: (-.!M+B(1(54S!X217+3-+1!0.+))<-0+,-(1!+1/!F KI!-1!
, ' 35)!(<!?9kP!+1/!' .' @+,-(1S!-1)-/' !+!)+,N+<<' 0,' /!+..2@-+!*. (,!

_____C!_%#2%!J, --, ("C!@&<!>(8+&!U+)•4#C!@&!0], 8+-2*!9](5•#K%C!; &+6%**+&!E#' &•*!!
N, 4`!C!@&!N•\$K•*!<&), (!C!@&!A•#+*!!Nv*]•&+*!C!@&!; v\$%&!D•*)-`!C!@&!O•#' +&!n+` *!C!@&!N(: •-K!
n+2*(*!C!@&!n(\$\$(!_, -+5!\$

"\>>!

*%07%#2!\$+!, !-, #' *2, 1%!%) + -7\$(+#!3+' %-/!D, \$%!; -%(*\$+2%##!, #' !B+-+2%##!) + -2, #(*3C!*+(-!6+&3, \$(+#!
, #' !-, #' !7*%!(#!\$: %!*: , ' %!+6!N+7#\$!d%*7)(7*!L"\$, -KM!†7, \$<"#\$<!I fTC!. eek. ^f<

D%\!

Y*' 1N) (230' !M((.)!<(3!_ ^: ^!: (-.IM+B(1(54!Q** .0+,-(1)!

 A B

. F!@()(*(+#!. !9+33(**(+#!. <T!9+33(**(+#!. a!k!0+(-!2-, **6(2, \$(+#!, #' !1, -, %+1%' +-+5K!_+(*' ,-%!. C!
E757*\$!F!C!FGFFC!Gf/GG!H! . /GG!

X%2%#-\$-K!\$: %&%!: , *!8%#%! , !6+27*!+#!127&, \$(#5!\$, S+#+3(2!' (2\$(+#, &(%*C!6+&3, \$()!%-3%#%\$!-(*\$^C!, #' !
2+317\$%&!2+' %!6+&!3, (#\$%#, #2%C!' %)%-+13%#%C!, #' !, 11-(2, \$(+#!+6!V<0<0+(-!>, S+#+3K<!
!

U%P!+1%#!' , \$, %\$*!, #' !2+317\$, \$(+#, -!&+7\$(#%*!7*(#5!\$: %!X!1&+5&, 33(#5!-, #57, 5%!, &%!8, *% ' !+#!
+66(2(-!*+7&2%*(#2-7' (#5!\$: %-, \$%*\$!%' (\$+#!+6!\$: %!n%K*!\$+!0+(-!>, S+#+3K!, #' !0+(-!0%&(%*!
9-, **6(2, \$(+#!' , \$, 8, %*%<X%-, \$%' !' %*2&(1\$(+#!, #' !3%\$, ' , \$, !: ,)!%8%#%! , 55&5, \$%' !6&+3!\$: %!V<0<
U, \$(+#, -!0+(-!#6+&3, \$(+#!0K*\$%3!LUE0"OM, #' !0+(-!07&)%K!J%+5&, 1: (2!' , \$, 8, %*%!*\$+!%#: , #2%!\$: %!
, 8(-\$K!6+&!7*%&!\$+!&%, *+#!+) %&!\$: %!: (%&, &2: (2, -!*\$&72\$7&%!+6!0+(-!>, S+#+3K!, #' !2+##%2!\$: +*%!
2+#2%1\$*\$+!\$: %(&! ' , \$, <!
!

>: %*%!*+(-!\$, S+#+3K!&%, \$%' !\$++-*!, &%!1, &\$!+6!, !8&+, ' %&!%66+&\$!\$+!1&+3+\$%!7# ' %&*\$, #' (#5!+6!2+&%!
2+#2%1\$*!(#!\$: %!V<0<0+(-!>, S+#+3(2!0K*\$%3<N+*\$!+6!\$: %!27&&%#%\$!7\$(-(\$%*!, &%!6+&!P+&4(#5!P(\$: !
\$, S+#+3(2!2+#2%1\$*!, !\$: %!,: (5: %&,,!\$, S+#+3(2!-%)*!/W&' %&C!078+&' %&C!J&%, \$!J&+71C!, #' !0785&+71!

-0.1 (\$,#) -0.4 (C) 0.4\$*!8K#09+++09\$(+,#CP+5(+)-0.3 (7) -0.4 (11.2) 0.1(& T!| (,#) -0.4 (#) -9.4) 0.4 (+)0.1 (6) [-0-0.2 (t+)-0.3 () 0.4 (+)1.2&%-#!

\$V''!

: (-.!*3(*' 3,-')!+)!*3' /-0, (3)!(<!6- (/-' 3)-,4!-1!<(3'),)G!P)! ,C' 3' !+!E3-, -0+.!
: (-.!9' * ,Cc!

D _____ C!@&!; : -(11!J+%8%*!C!@&!n, &*%#!02: 3(' \$"C!@&!0, 8(#%!_+\$: #C!; &+6!@&!B%-5%!
_&7%-. %(' %%&C!; &+6!@&!E-%S, #' &,[&63%(%&'&C!; &+6!@&!>: +3, *!02: +-\$%#!C!@&!; %\$%&!nu: #!\$

"88V!

"#D>!

: +@+11+!: (-!E+36(1G!-1,' 3+0,-@' !-5 *+0,)!(<!<-3' S!73+=-17!+1/!0.-5+, '!(1!
)(-!3')-.' 10' !!

_____C!; &+6%**+&!n, \$%!; , &&#C!@&!A%, #%\$\$%!g: (\$, 4%&"C!; &+6%**+&!O, --K!E&2: (8, -' %C!@&!
0() 7!0(\$7#57%C!; &+6%**+&!X+8%&\$!N29-%%&K&C!; &+6%**+&!U(24!W*\$-%!\$

T. !gJI<F!/E'),

##J!

H' +, .+1/)!) *' 0,3+./+, +!-1<.2' 10' !-1!7.(6+.) *' 0,3+.!5 (/ ' ..-17!(<!) (-!
(37+1-0!0+36(1!+1/!, (,+.!1-,3(7' 1!2)-17!/-<<2)' !3' <.' 0,+10' !)' *' 0,3()0(*4!

D _____ C!; &+6%**+&!@&!N(2: , %-!0+33%&!C!@&!OK-)(, !n+*](#*4(!C!N, &2!
g%: &: , #!\$

"J\$!

: (-.!E+36(1!:, (OW)!)!Q<<' 0, ' /!64!Z+1/!_) ' !EC+17')!-1!,C' !H+5*+)!(<!
: (2,C' 31!! 3+=-.!

D C _____C!N*A%**(2, !N, 2:, ' +!N, 2(%-!C!N&!A+#, \$:, *!9, &), -: %' +!A+: #*+#!C!N*!_&7#, !
X, 07%-!g(#24!C!N*![-%#, !; +-\$+!>, 8+&' , !^s

T. !gJl<F/!E'), #2%*(#!(##+), \$()!\$%2: #+-+5(%*!, #' !3%\$: +' *!6+&!07, #\$(6K(#5!8(+5%+2: %3(2, -!2K2-%*!
+6!2, &8+#!, #' !#7\$&(%#\$*(#!6+&%*\$!*+(-*C!E-*: !. C!E757*\$!F!C!FGFFC!Gf/GG!H!.. /GG!

>: %!5&, **-, #' *!+6!X(+!J&, #' %!' +!07-!(#!0+7\$: %&#!_&,](-C!1, &\$!+6!\$: %!; , 31, *!%2+&%5(+#!+6!0+7\$: !
E3%&(2, C!: ,)%!8%%#!: (*\$+&(2, --K!#%5-%2\$%' !6&+3!, !2+#!*%&), \$(+#!*\$, #' !1+(#\$!LW)%&8%24!%\$, -C!FGG^M!
D, #' !7*%!2: , #5%!(^!, 22%-&, \$(#5HH!

">%J!

Z(17NM' 35!M3' 1/)!-1!E+.0-25!+1/!: (-!Q0-/-,4!-1!` (3'),!:(-.)!Q

J#!

>V\$!

K-0' !X2)Wi I -(0C+3!Q5' 1/5' 1,!P103' +) ')!:(-.!E+36(1!+1/!Q.,' 3)!
&3' ' 1C(2)' !&+)!L5-))- (1)!-1!+1!_.,-) (.!H+//4!: (-!

 F C!@&#N, \$\$!D(3 3%&!C!@&#E#5%-(, !0%K66%&\$: !\$

TT!g JI<T!/!N(\$5, \$(+#!, #' !, ' , 1\$, \$(+#!*\$&, \$%5(%*!6+&!2-(3, \$%!2: , #5%!(#!&(2%H8, *% ' !*K*\$%3 *C!E-*: !FC!
E757*\$!FC!FGFFC!Gf/GG!H!.. /GG!

X(2%!6%' *!+)%)&!:, -6!\$: %!P+&' !, #' !(\$*!2+#+*731\$(+#!(*!(#2&%, *(#5!, ##7, --KL. CFM!>: %!6-++' %' !
2+##' \$(+#!*!L-+P![: M7*%' !(#!&(2%!1&+' 72\$(+#!&%*7-\$*!(#!(\$!8%(#5!&%*1+#+*(8-%!6+&! . FHFaq!+6!
, #\$: &+1+5%#(2!3%\$: , #%!L9B¥M%3(**(+#!L!CTMC!P: (2: !(#2&%, *%P(\$: !+&5, #(2!, 3%# ' 3%#*\$*LeHfM!E\$!
:(5: %&![: C!#(\$&+7*!+S(' %!LU•VMM, #' !2, &8+#!' (+S(' %!L9W•M, &%, -*+!%3(\$\$% ' L!C. GH. Fm!9, &8+#!2, #!8%!
%07%\$%&% ' !\$: &+75: !2&+1!&%*(' 7%!(#2+&1+&, \$(+#!L^CbC. !MC!87\$!5&%%#: +7*%!5, *!LJBjM%3(**(+#!2, #!
+7\$P%(5: !*+(-!+&5, #(2!3, \$\$%&!LOWN!M87(-' 71!(#!1, ' ' K!+*(-*L. FM!X%*(' 7%!3, #, 5%3%#\$, #' !(&&(5, \$(+#!
, -*+!*\$&+5-K!(31, 2\$!' (**+)% ' !+&5, #(2!2, &8+#!!@W9M! K#, 3(2*(#!1, ' ' K!+*(-*L. Tc. eM!X(2%!&%*(' 7%!
, #' !(&&(5, \$(+#!37*\$!8%!3, #, 5%' !+!3, S(3[]!OWN!P: (-!3(#(3[](#5!@W9!-+**!, #' !JBj!%3(**(+#!
g%!, 11-(%' !&(2%!: 7*4!\$+!V-\$(*+!1, ' ' K!3%*+2+*3*!, *!6&%*: !B7*4C!+PH\$%31%&, \$7&%!LTeg9M!_(+2: , &C!
+&!9: , &0(-| , !1&+ ' 72\$!' %&)% ' !6&+3!87&#(#5!: 7*4!, \$!-. GGG9<LJBj!6-7Sc!@W9C!, #' !OWN!
3%, *7&%3%#*\$!P%&%!\$, 4%#!6+&!I !K%, &*!6+--P(#5!, 3%# ' 3%#*\$!#!, ' ' \$(+#!C!, !1+#!*\$7' K!P, *!
2+##' 72\$%' !(#!\$, #' %3!7*(#5!\$: %!* , 3%!*+(-!, 3%# ' 3%#*\$!, #' !(#2-7' (#5!(&&(5, \$(+#!\$&%, \$3%#*\$!+6!

n+k, 3, c!0<!n, \$, 5(&C!><!N(#, 3(4, P, C!n<!n, \$+C!N<!?!B, K, *: (C!B<!LFG. aMk[66%2\$*!+6!&(2%!: 7*4!
2: , &2+, -!, 11-(2, \$(+#!+#!&(2%!K(%-' C!3%\$: , #%!%3(**(+#C!, #' !*+(-!2, &8+#!*%07%*\$&, \$(+#!(#!, #' +*+!
1, ' ' K!*+(-<A, 1, #!E5&(27-\$7&, !X%*%, &2: !†7, &\$%&-K!eGLTM!I . fkIF^<
: \$\$1*/ZZ' +(<+&5Z. G<aGfGZY, &0<eG<l . f!
!
X(2%!0+(-!7# ' %&!@(66%&%#\$!1B<!0+(-!02(%#2%!0+2(%\$K!+6!E3%&(2, !A+7&#, -!a^LaM!. feFk. febd
: \$\$1*/ZZ' +(<+&5Z. G<F. I aZ***, YFGGI<. feF

\>%!

>V>!

"JV8!

E3(*!/-@' 3)-,4!/' 03' +)'!) (-!(37+1-0!5+,, ' 3!/' 0(5*()-,-(1!-1!,C'!
3C-=()*C' 3'!

n-%(#C!0< ; <!02: #%(' %&!B<N<! ; %&4(#*C!E<9<_&+P#C!n<N<!?!DK#2: C!A< ; <LFGFGM<N7-\$(1-!(#%5& , \$%' !
&++\$!1: %#+\$K1%*! , &%! , **+2(, \$%' !P(\$: !(31&+)%' !' &+75: !\$+-%& , #2%<! ; - , # \$! ; : K*(++5K<! . b! l! M<! . G. . k
. GF<: \$\$1*/ZZ' +(<+&5Z. G< . GTZ11<FG<GGF. . !

!

N, P+'] , C!><_7&2, C!J<9, **+#C!0<?!N%#+#C!N<LFGFGM<g: % , \$!&++\$!*K*\$%3! , &2: (\$%2\$7&%! , #' !*+(-!
3+(*\$7&%!' (*\$&(87\$(+#!(#! , #! , 55&%5 , \$%' !*+(-!7*(#5!#%7\$&+#!2+317\$%' ! \$+3+5& , 1: K<J%+' %&3 , C! e f<!
. . l fbb<: \$\$1*/ZZ' +(<+&5Z. G< . G. aZ!5%+' %&3 , <FG. f< . l fbb!

!

; +(&(%&C!d<X+73%\$C!9<E#5%&*C!@<?!N7#*+#C!E<LFG. b!M<01%2(%*! , #' !&++\$!\$& , (\$*!(31 , 2\$!

"D#>!

L@+.2+,-(1!(<!Q3+6-+1!9')' 3,!Y31+5' 1,+.!?+,-@!H.+1,!:' *' 0-')!<(3!. (17N
, ' 35!P5 *+0,(1!:(-!H3(*' 3,-')S!F +,' 3!_) ' !L<<-0-' 104!+1/!; 40(33C-=-+!
Q)) (0+,-(1!

 A A C!@&![-4%!U%73,##!\$

"#%&')(*+#+,-!T!H!; -, ##!*+(-!(#%\$&, 2\$(+#!, #' !\$: %(&!&+-%*!(#!*+(-!6+&3, \$(+#!, #' !*7*\$, (#, 8-%!2&+1!
1&+ ' 72\$(+#!C!N. C!E757*\$!FC!FGFFC!. I/GG!H!. e/GG!

; 78-(2!1, &4*!, #' !5, &' %#!*!5&%, \$-K!2+31-%3%#!\$!: %!&%' (' %#\$(-, #' !\$+7&(*\$(2!), -7%!+6!2(\$%*!+6!\$: %!J7-6!
X%5(+#!C!87\$!3, (#%\$#, #2%!+6!%S+\$(2!1-, ##!*\$, #' *!&%07(&%*!*78*\$, #\$(, -!07, #\$((\$%*!+6!(&&5, \$(+#!P, %\$&!
, #' !6%&\$(-![]&*!7# ' %&!: %!1&%), (-(#5!*+(-, #' !2-(3, \$(2!*%\$\$(#5*!<'#!&%2%#%K%, &*C!*+3%!E&, 8(, #'! %*%&\$!
6-+&, -!*1%2(%*!: ,)%!8%#%#!(#\$&+ ' 72%' !, *!2+31+##%#*!+6!+&#, 3%#\$, -!7&8, #!1-, #\$, \$(+#!\$+!7&8, #!
1, 2%!+6!\$: %!J7-6!X%5(+#!C!3, (#-K!P(\$: !\$: %!(#%\$#\$(+#!+6!1-733%\$(#5!(&&5, \$(+#!P, %\$&!%S1%# ' (\$7&%<'#!
, !6(%- ' !&(-, -C!%5: \$!#, \$()%, #' !6+7&!%S\$%#*())%-K!7*%' !%S+\$(2!+&#, 3%#\$, -!1-, ##!*1%2(%*!P%&!
2+31, &, \$()%-K!%), -7, \$%' !6+&!\$: %(&!+&#, 3%#\$, -!), -7%*C!P, %\$&!7*%!%66(2(%#2(%*C!, #' !-+5H%\$&3!(31, 2\$*!
+#!1&+1%&\$(%*!+6!, !)(&5(#!E&%#*+!(-#!E-!E(#C!VE[<!U, \$()%1-, #\$\$\$!(<%<!9+##) +-)7-7*!)(&5, \$7*C!0%##, !
(\$, -(2, C!>%1: &+*(, !, 1+--(#%, C!N+&(#5, !1%&&5&(#, !, #' !>, 3, &(S!#(-+\$(2, !:, ' !\$: %!: (5: %*\$!+&#, 3%#\$, -!
, -7%*!, #' !P, %\$&!7*%!%66(2(%#2(%*!*(5#(6(2, #-\$-K!E6\$%&!+##%K%, &!+6!27-\$), \$(+#!LFGFGH!FGF. MC!9<
)(&5, \$7*C!0!(\$, -(2, C!, #' !><!, 1+--(#%, !:, ' !-%6\$!372: !: (5: %&!, 3+7#*\$!+6!-(\$%&!, #' !&+!\$!8(+3, **!8%: (#' !
\$: , #!\$: %!\$&%%!*1%2(%*!><#(-+\$(2, !, #' !N<1%&&5&(#, C!+&!\$: %!%S+\$(2!1-, ##!*1%2(%*<E-!3K2+\$&+1: (2!
1-, #\$\$\$!: , ' !6+&3% ' !, **+2(, \$(+#!P(\$: !, &87*27-, &!3K2+&&: (], -!67#5(!LEN=M!7# ' %&!-(3(\$%' !&%*+7&2%*!
(#17\$!-%)*-<_, *%' !+#!+8\$, (#%' !&%*7-\$*!+6!\$: %!, #, -K*%*!+6!*+(-!+&5, #2!3, \$\$%&!2+##%#%\$!LOWNMC!2, \$(+#!
%S2: , #5%!2, 1, 2(\$K!L9[9M, #' !P, %\$&!: +- ' (#5!2, 1, 2(\$K!LgB9M(\$!2, #!8%!2+##2-7' %' !\$: , #!(#%\$5&, \$(+#!+6!
+&#, 3%#\$, -!' %*%&\$!#, \$()%1-, #\$\$\$!(#\$+!178-(2!7&8, #!5&%%#%&K!2, #!8%! , !&%*+7&2%H*,)(#5!*\$&, %\$5K!\$+!
(31&+)%!\$: %!1: K*(2, -, #' !2: %3(2, -!1&+1%&\$(%*!

>8\!

_) -17!3((,)! , (!6-(N' 17-1' ' 3!) (-.G!MC' !52.,-N<210,-(1+!3(. '! (<!0(@' 3!03(*!
3((,)! , (!5-, -7+, ' !)(-!/' 73+/, +, -(1!

#88!

K')*(1)'!(<!3((,!/' @' .(*5' 1,!(<!. ' +<!@' 7' ,+6.')!, (!) (-!C' , ' 3(7' 1' (2)!)
<' 3,-.-=+,-(1!64!0(56-1' /!+**.-0+,-(1!(<!*C())*C(32)!+1!/R+,' 3N)(.26.'!
(37+1-0!5+,, ' 3!

_____C!N, *, : (4+!n, \$+: !s

"#%&')*(+##, -!T!H!; -, #!\$*+(-!(#%&, 2\$(+##!, #' !\$: %(&!&+-%*(#!*+(-!6+&3, \$(+##!, #' !*7*\$, (#, 8-%!2&+1!
1&+ ' 72\$(+##!N. C!E757*\$!FC!FGFFC!. I/GG!H!. e/GG!

; : +*1: +&7*!L; M(33+8(-[), \$(+##!(#!*+(-!*!&% ' 72%*!\$: %!; !7*%!%66(2(%#2K<"\$!: , *!8%%#!4#+P#!\$: , \$!\$: %!
, 11-(2, \$(+##!+6!P, %&H*+-78-%!+&5, #(2!3, \$\$%&!g OWNM! '%&())% ' !8K!, #(3, -!3, #7&!2+31+*\$!2+7-'!
*711&%**!; !(33+8(-[), \$(+##!&%*7-\$(#5!(#!\$: %!(31&+)%3#%\$!+6!\$: %!; !7*%!%66(2(%#2K!6&+3!_&, ** (2, !X, 1, <
"#!\$: %!*+(-!; !, #' !g OWN!, &!#+\$!: +3+5%#+7*-K!87\$!: %\$%&+5%#+7*-K!' (*\$&(87\$%' !(#!\$: %!&++\$!]+#%<
>: %!, (3!+6!\$: (*!*\$7' K!P, *!\$+!7# ' %&*\$, #' !\$: %!&++\$!' %)%-+13%#%\$, #' !; H71\$, 4%!*\$&, \$%5K!(#!, !1-, #\$(#!

"#V%!

; +** -17!5 (. ' 02.+3!0(5* ()-,-(1!C' , ' 3(7' 1' - ,4!(<!*+3,-02.+ , '! (37+1-0!
5+,, ' 3!/23-17!,C' !/' 0(5* ()-,-(1!(<!(37+1-0!<' 3,-.-=' 3!+ ,!/-<<' 3' 1 ,!/' * ,C)!

D C!@&!9: &(*\$+1: %&!A7*\$!C!O(P%(!D7+!C!N, &\$, !=+5\$!""C!; &+6!N(2: , %-!02: -+\$%&!""C!; &+6!
"#5&(' !n{5%-Hn#, 8#%&'#C!@&![-%, #+&!B+8-%K! '%s

%"#!

? ' 5+, (/ ' !+5* .-0(1!) ' A2' 10-17!-) !2)' <2.!, (!3' @' +. !-1, ' 3N!+1/!-1,3+3' 7-(1+!
T<210,-(1+.U!6- (/ -@' 3)-,4!/-<<' 3' 10')!-1!0(1@' 1,-(1+.!+1/!(37+1-0!<+35-17!
)4), ' 5)!

!@(%\$%&!0-+*!>:(8,7-\$!@%)+-' %&!c!n&(*\$(, #!n<_&, #' \$"c![]), !D-+&%\$#c!n&(*\$, !
; %-\$+#(%3(

"#D!

H3(6-17!,C' !1+,23' !(<!) (-!(37+1-0!5+,, ' 3G!+!,C' (34N/3-@' 1!3' @-' R!

D _____ C!; &+6%**+&!A+: , ##%*!D%: 3, ##"C!@&!D74, *!d, #!wP(%\$%#C!; &+6%**+&!O\$%1: %#!A+*%1: %C!
@&!_&, 7-(+!0<!E&2: , #Y+&C!@&!_&72%!9+P(%\C!@&!D, &*!>: +3*%#\C!@&!N, &4!A<!>+8(#\C!@&!A(\$&, 1+&#!
d+#5*)()7\$\C!@&!E##, -(*%!n-(#\C!@&!9, *%K!D<!@++-%\$\$%)C!@&!B%-#!B+7!C!; &+6%**+&!9, &*\$%#!g<
N7%-&+C!; &+6%**+&![#]+!D+38\C!; &+6%**+&!; %\$%&!N<n+1(\$\$4%!\$

" J8%!

: -52.+,-17!3((,! B2/+,-(1!*3(0'))')!2)-17!5-03(/-+.4-)!|!' B+5-1-17!
)C(3,N,' 35!E!)2** .4!+1/!?!+@+-.+6-.-,4!-1!1' +3!3' +.N,-5' !

 D B

"#%&')(*(+#, -!f!H!U+)%-!3%\$: +' *!, #' !%2: #(07%*C!D+3+#' !E7' (\$+&(73C!E757*\$!FC!FGFFC!. I/GG!H!
. e/GG!

X++\$!%S7' , \$(+#!(*!, !P(' %-K!*\$7' (%' !1-, #!\$!67#2\$(+#!\$: , \$!: , *(31-(2, \$(+#!6+&!3, #K!*+(-!1&+2%**%*!<
[S, 3(#5!\$: %*%!1&+2%**%*!2, #!8%!2: , -%#5(#5!P(\$: !\$: %!3%\$: +' *!P%!2+33+#-K!7*%C!P: (2: !, &%!
1&+#!\$+!, &\$%6, 2\$*!+&! ('\$7&8, #2%*!\$: , \$!2, #!, -\$%&!*+(-!2+#' (\$+#!7#&%, -(*\$(2, --K!g%!P(-!*: +P!P+&4!

"J>8!

; (. ' 02.+3N.' @' .!0C+3+0,' 3-)+,-(1!(<!/+5+7' /!+1/!3'), (3' /!*' +,!)(-.)!2)-17!
5 (. ' 02.+3!,+77-17!+1/!+/@+10' /!?!; K!)*' 0,3()0(*4!

_____C!@&!U(2: +--%!_%--!\$

">\$#!

MC' !oj 2+1,-: .+W' M'),o\$!+!. (RN

"D#V!

: *+0' NM-5' !)' . ' 0,-(1!(<!) (-.)+5 *.')!<(3!. (0+!0+.-63+,-(1!(<!)*' 0,3+.!
5 (/ ' .)!!

D F C!N02!E#5%-+!_%#)%#7\$+"C!@&!W*) , -' +!0, -,], &"\$

>>D!

""J!

K' .-0,!EC+30(+!X' +3,C!TKEXU!) (-.)!!!*3(*' 3,-')!+1/!0.+))-<-0+,-(1!

D

""V!

H+. ' (' 1@-3(15' 1,+.!) -71-<-0+,-(1!(<!Z+, ' !H.' -), (0' 1' !H+.2), 3-1' !0+.03' , ')!
-1!,C' !; +-* (!6+)-1\$!E' 1,3+.!EC-. ' !

C!N*!; (-, &!d, &5, *"C!@&!d, -%#\$(#, !=+&%*HE07%)%07%"

"\$V#!

MC' !*+. ' (N' 1@-3(15' 1,+!.3' 0(1),320,-(1!(<!+!0' 1,3+.N)(2,C' 31!Q*' 11-1'!

n%&#C!W<E<!n+7\$*+' %#' &(*!E<!Nt2: \$-%!_<!9: &(*\$, #(*!n<!02: 74&, 6\$C!J<!02: +-]C!9<!n+\$\$: +66C!V<!?!
; &+*!A<LFG. fM!...X=!2+&!*2, ##(#5!K(%-' *!&%-(, 8-%!*%3(07, #\$(, \$()%' , \$, !+#!\$: %!%-3%#\$, -!

J\$\$!

E(2./!k' 3

J%>!

aN

\8!

Q1,C3(* (7' 1-0!+1/!0.-5+, -0!), 3')) (3)!-1, ' 3+0,!, (!/-)32* ,!) (-.!0(5 521-, -')!
+1/!12,3-' 1,!040.-17!

D

"V\$V!

; -03(6-+!-1*2,)!+,!,C' !-., ' 3!.+4' 3!,3+1).+, ' !0.-5+, ' !-1, (!+., ' 3' /(37+1-0!
5+,, ' 3!*3(*' 3,-')!

D _____ C!@&E--(*+#!NK%&*H; (55!C!@&?In, \$%!E<[' P, &' *"C!; &+6<!0: , &+#!E<_(-(#5*#C!N&<
A, 3(%!g, &&%#C!N*<=&, #2%*!E<!; +' &%8, &, 2!C!; &+6<07*, #![<w(%5-%&!\$

"\$%J!

I -(0C+3!+1/!0(N-1(02.+,' /!* .+1,!73(R,C!*3(5(-17!6+0,' 3-+!' 1C+10' /!
P1(37+1-0!?Ha!<' 3,-.-=' 3!2*,+W' !+1/!2)' !' <<-0-' 104!64!5+== ' !!

D C A

"DV!

L1' 37' , -0!K' , 231!(1!P1@') , 5' 1 , !9' , ' 35-1')!Y@' 3+..!: (-.!; -03(6-+.!Q0, -@ , 4!

 D C!E#4%!B%&&3 , ##!C!A7-(%!D%-+71"C!9v' &(2!; &]K8K-*4(#C!D7' +)(2!+=\$("C!D72!E88 , ' (%"C!
U , +(*%!U7# , #"\$

#>"!

I-(*3() *' 0,-(1!+1/!)' 1,-1' .!(37+1-)5)!+)!5 (1-, (3-17!, ((.)!<(3!+))'))-17!
,C' !-5 *+0,!(<!0.-5+, ' !R+35-17!(1!) (-.)!-1!,C' !E+1+/-+1!?(3,C!

D _____ C!@&!E##%!A7#58-7\$%C!@&!E-%S, #' %&!97--%K#&C!@&!A, 207%*!9+&8%(!'"\$

"JW!

; (. ' 02.+3!+* *3(+0C')!, (' B+5-1' !5-03(6-+!/-@' 3)-,4!T.(17N,' 35!
' B*' 3-5' 1,+.!)-, ')U!

F C!@&!A+: #![-1:(#*\$+##%C!; &+66<N,\$\$: %P!J+' ' ,&' C!@&!," #!E' , 3*C!@&!A+ , # ,!
d(2%#\$\$!

. f!@)(*+#!F!9+33(**+#!F<l /!0+(-!3(2&+&5, #(*3*!7# ' %&!2: , #5(#5!%#)(&+##3%#C!+=&\$: C!E757*!F!C!
FGFFC!. l/GG!H!. e/GG!

_(+--+5(2, -!2+337#(\$%*!; ,)%!8%##!' %*2&(8%' !, *!, #!(31+&\$, #!\$6, 2\$+&!(!#10+(-!B%, -\$: C!P: %\$: %&!&
&%2K2-(#5!#7\$&(%#\$*C!(31&+)(#5!1-, #!\$5&+P\$: C!*711&%**(#5!1-, #!\$1, \$: +5%#(2!+&5, #(*3*!+&!6+&3(#5!
8%#%6(2(-!*K38(+\$(2!, **+2(, \$(+#!P(\$: !1-, #!\$*<: %!1&%**%#*\$!\$7' K!, (3*!\$+!(31&+)%!7# ' %&*\$, #' (#5!+6!
\$: %!')%&*(K!+6!*+(-!8(+--+5K!, #' !: +P!(\$!&%*1+#!' *!\$+!2+33+#!3, #, 5%3%#1&, 2\$(2%*!P(\$: (#!\$: %!
, 5&(27-\$7&, -!*%2\$+&!+!\$: , \$!*+(-*!2, #!8%!3, #, 5%!' \$+!* , 6%57, &' !%**%#\$(, -!8(+--+5(2, -!67#2\$(+#!\$: , \$!
%#*7&!2&+11!&+' 72\$)(K!, *!P%-!, *!%2+--+5(2, -!, #' !: 73, #!*7*\$, (#, 8(-\$K!E!2+38(#, \$(+#!+6!*(S!
%S1%&(3%#\$, -!*(%*!, *!1, &\$!+6!\$: %!0_0B!; , &\$#%&*: (1!P, *!7# ' %&!(#)%*\$5, \$(+#!\$+!*\$7' K!-+5H\$%&3!
%66%2\$*!+6!' (66%&%#!+&5, #2!*+(-!, 3%# ' 3%#*\$*C!' &, (#, 5%!' \$&%, \$3%#*\$*C!\$(-, 5%!, 11&+, 2: %*!C!1B!-%)*!
, #' !6%&\$(-!%&!, 11-(2, \$(+#!*!0+(-!8(+ ')%&*(K!; , *!8%#%!, #, -K*%' !7*(#5!3%\$, 8, &2+' (#5!1&+2%' 7&%*!
6+--+P(#5!; 9X!, 31-(6(2, \$(+#!+6! a0!, #' !">0!&XUE!3, &4%&*\$!\$+!, **%**!8, 2\$%&(-, #' !67#5, -!2+337#(\$K!
')%&*(K!<E#, -K*%' !P%&%!1%&6+&3% ' !7*(#5!\$: %!+1%#H*+7&2!*+6\$P, &%!1(1%-(#%!+""N[F!\$+!, **%**!\$: %!
3, (#!2: , #5%*!(#!*+(-!3(2&+8(+3%!, &*(#5!6&+3!' (66%&%#2%!(#!*+(-!3, #, 5%3%#&*>: %!' , \$, !*: +P!, !
(5#(6(2, #!%66%2\$!+6!1B!+#!67#5, -!, #' !8, 2\$%&(-, -!2+337#(\$%!<@(66%&%#!6%&\$(-*%&C!2&+11(#5!
%07%#2%C!+&5, #2!, 3%# ' 3%#\$*C!*+(-!2+31, 2\$(+#!C!' &, (#, 5%!, #' !\$(-, 5%!, 11-(2, \$(+#!*, -*+!, 66%2\$%' !
*+(-!3(2&+8%*C!87\$!\$: %!*(!%*!+6!\$: %*%!*%66%2\$*!P%&%!372: !*3, --%&!\$: , #!6+&!1B!<B+P%)%&C!\$: %!*\$&(4(#5!
+8%*&), \$(+#!P, *!\$: , \$!, 5&+##+3(2!*+(-!3, #, 5%3%#*\$*!: , ' !-%**!(31, 2\$!+#!*+(-!3(2&+8(-!')%&*(K!\$: , #!
\$: %!%66%2\$*!+6!5%+5&, 1: (2, -!+2, \$(+#!+&!*%, *+#!!P: %&%!K+7!, &%!, 66%2\$*!+(-!8(+--+5K!3+&!\$: , #!P: , \$!
K+7!' +<
: \$\$1*/ZZ, : ' 8<+&5<74Z*+(-H8(+--+5KH, #' H*+(-H: %, -\$: H1, &\$#%&*: (1

=7#5, -!"#\$%&#, -!>&, #*2&(8%' !01, 2%&!N, &4%&!J%#%#!; &(3%&*!6+&!N(2&+8(, -!9+ 3 37#(\$K!07&)%K*
30K*\$%3*!FG. e!@%2!FFI. L. W%GGGGfH. e! +(/!. G< . FbZ30K*\$%3*!GGGGfH. e!; N"@/!F^bFFe. b!
; N9"@/!; N9eGaf^eT
!
: \$\$1/ZZ*+(-')%&, 5&+<%7Z

"8"%!

X-7C!3+-1<+..!/-),236)! (-!5-03(6-+!.),320,23' !+1/!<210,-(1!-1!+!5+,23' !

J\$J!

&3' ' 1!5+123-17!0+1!3' /20' !EC-1')' !/' *' 1/' 10' !(1!<' 3,-.-=' 3!1-,3(7' 1!64!
#8p!-1!3-0' !*3(/20,-(1!)4), ' 5!

@&40+#5V7, #!J, +!C!@&4J7+1%#5!w: +7"C!@&4@, ##, !9:, #5"C!D _____ C!@&4n&(*\$(, #!>: +&71H
n&(*\$%#*%#%C!@&4g%(' +#5!9, + "C! _____ B _____

T!lgJ!! <T!X%2%#\$, '), #2%*(#!#7\$&\$(+##, -C!8(+--+5(2, -, #' !1: K*(2, -!1&+2%***(#!1, ' ' K!'+(-*C!E-*: !. C!
E757*\$!fC!FGFFC!. I/GG!H!. e/GG!

X(2%!1&+' 72\$(+#!(#!9: (#, !:, *(#2&%, *% !2+##(7+7*-K!+)%)&!\$: %!1, *\$!T!' %2, ' %*C!87\$!\$: (*!2:, #5%!: , *!
8%#%#!, 22+31, #(%' !8K!(5#(6(2, #5!%#)(&+#3%#\$, -!87&' %*#*C!-%, ' (#5!\$+!1+--7\$(+#!+6!, (&C!P, \$%&! , #' !
+(-!>: %&&!(*!\$: %&&6+&%! , !&#%P%' !(\$%&&*\$(#!&+-%!+6!\$&, ' \$(+##, -!1&, 2\$(2%*!+6!5&%%#!3, #7&(#5C!(#!
*711+&\$(#5!3+&!*7*\$, (#, 8-%!6++' !1&+' 72\$(+##!>: %!(#2&%, *% !7*%!+6!#(\$&+5%#!LUM!6%&\$(-[]%&*!: , *!
&% ' 72%' !\$: %!1&%) , -%#2%!+6!5&%%#!3, #7&(#5!87\$!, \$!, !*(5#(6(2, #5!%#)(&+#3%#\$, -!2+*#*!#!, !#%P!
, #, -K*(+!+6!, !#, \$(+##P(' %!%S1%&(3%#\$, -!#%\$P+&4!+6!5&%%#!3, #7&(#5C!\$: %!&*7-\$*!+6!. fF!*(%\$HK%, &!6(%-' !
%S1%&(3%#*\$!6&+3!l!5&%%#!3, #7&%!%S1%&(3%#*\$!-+2, \$%' !, \$!. T!*(%\$*! 7&(#5!FGGb!\$+!FGFG!*: +P%' !
\$: , \$!&(2%!K(%-' *!(#2&%, *% !P: %#!2+38(#%' !P(\$: !. GGq!+&!bGq!+6!2+##)##\$(+##, -, 3+7#%!+6!U!6%&\$(-[]%&C!
, #' !3, (#\$, (#%' !+&!%)%#!(2&%, *% !6+--+P(#5!, !Tgq!&' 72\$(+#!+6!6%&\$(-[]&!U!(#17\$!(#!5&%%#!3, #7&%H
&(2%!&+\$, \$(+##*!>: %!1+*(\$)%!%66%2\$*!+6!5&%%#!3, #7&%!+#!K(%-' *!(#2&%, *#5!P(\$: !\$: %!, 11-(2, \$(+#!K%, &*!
+6!5&%%#!3, #7&%!&9&+1!U!71\$, 4%, #' !U!6%&\$(-[]&!7*%!%66(2(%#2K!P%&!%#%: , #2%' C!, #' !*+(-!9!, #' !U!
1+--*!P%&!#(2&%, *% !8K!5&%%#!3, #7&(#5!' %*1(\$!&% ' 72%' !U!6%&\$(-[] , \$(+##!>: %!1+\$%#\$(, -, &%, !
,), (-, 8-%!6+&!5&%%#!3, #7&%!7\$(-[] , \$(+#!(*!, 8+7\$!. G!3(-(+#!: , !(#!*+7\$: !9: (#, C!2+&&*1+##' (#5-K!\$+!, !
,)(#5!+6!G<a!3(-(+#!\$!+6!U!6%&\$(-[]%&! , 2: !K%, &!P(\$: +7\$!+**!+6!K(%-' <!: 7*C!5&%%#!3, #7&(#5!(*!, #!
%66%2\$)%!, #' !1&, 2\$(2, 8-%!\$++-\$!+P, &' *!7*\$, (#, 8-%!, 5&(27-\$7&#!(#!9: (#, <
. <J, +C!0<J!<w: +7C!, #' !g!<9, +C![66%2\$*!+6!3(-4!)%\$2: !LE*\$&, 5, -7*!*(#(27*M, *!P(#%&!5&%%#!3, #7&%!
+#!&(2%!K(%-' !, #' !&, \$%!+6!6%&\$(-[]%&! , 11-(2, \$(+#!(#!&(2%!1, ' ' (%*(#!*+7\$: !9: (#, <A+7&#, -!+6!; -, #5!
U7\$&\$(+#!, #' !=%&\$(-[]%&*C!FGFG!FaL. FM!1!F. . THF. Fed
F!<w: +7C!J!<!%\$, -<!9+H(#2+&1+&, \$(+#!+6!5&%%#!3, #7&%!, #' !&(2%!*\$&, P!(31&+)%*!&(2%!1&+' 72\$(+##C!*+(-!
2: %3(2, -C!8(+2: %3(2, -, #' !3(2&+8(+--+5(2, -!1&+1%&\$(%*(#!, !K1(2, -!1, ' ' K!6(%-' !#!*+7\$: %&#!9: (#, <0+(-!
, #' !>(-, 5%!X%*, &2: C!FGFG! f^<
l!<...(%C!w!<!%\$, -<!078*\$7\$(+#!+6!6%&\$(-[]%&HU!8K!5&%%#!3, #7&%!(31&+)%*!\$: %!*7*\$, (#, 8-(\$K!+6!K(%-' !#!
' +78-%H&(2%!2&+11(#5!*K*\$%3!#!*+7\$: !9: (#, <=(%-' !9&+1*X%*, &2: C!FG. a!<. bb!1!<. TFH. Tf!<
T!<m, #5C!D!<!%\$, -<!9+H(#2+&1+&, \$(+#!+6!X(2%!O\$&, P!, #' !J&%%#!N, #7&%!_%#%6(\$*!X(2%!m(%-' !, #' !
U7\$&(##\$!V1\$, 4%<9&+1!02(%#2%C!FG. f!<efLFW!1!<^TfH^ef<

J8"

>%D!

LB*. (3+, - (1! (<!) (-! 5+03 (* (3'))! -1! +! 0 (5 * +0, ' /! * . (27C! * +1! 64! 3-0' !
7' 1 (, 4 * ')!

D

TI! g J! I < T! X% 2% # \$!, ') , # 2% *!(#! # 7\$ & \$(+ #, - C! 8(+ - + 5(2, -!, # ' ! 1: K*(2, -! 1 & + 2% * * *!(#! 1, ' ' K! * + (- * C! E - * : ! . C!
E 75 7 * \$! F C! F G F F C! . I / G G ! ! ! . e / G G!

D + # 5 H \$ % & 3 ! 1 7 ' ' - (# 5! (#! 1, ' ' K! * K * \$ % 3 * C! + & ! \$ (-, 5 % ! (#! 7 1 -, # ' ! * K * \$ % 3 * C! + 6 \$ % # ! 2 & % , \$ % * !, ! : , & ' ! -, K % & !
8 % - + P ! \$: % ! 1 - + 7 5 : ! -, K % & ! 2, - - % ' ! \$: % ! 1 - + 7 5 : ! 1, # < ! ; - + 7 5 : ! 1, # * ! (# : (8 (\$! ' % % 1 ! & + + \$ (# 5 ! 8 K !, 6 6 % 2 \$ (# 5 !
1 + & + * (\$ K C! 8 7 - 4 ! ' % # * (\$ K !, # ' ! 1 % # % \$ & , \$ (+ # ! & % * (* \$, # 2 ! + 6 ! * + (- < > : % & % 6 + & % C! ' % % 1 ! - % , 2 : % ' ! # 7 \$ & (% # \$ * !, # ' !
P, \$ % & ! 8 % 2 + 3 % * ! - % * * !, 2 2 % * * (8 - % < ! N, 2 & + 1 + & % * ! * 7 2 : !, * ! 2 & , 2 4 * !, # ' ! 8 (+ 1 + & % * ! (# ! : , & ' ! * + (- ! 2 + 7 - ' ! : % - !
' % % 1 ! & + + \$ (# 5 C! 3 (\$ 5, \$ (# 5 ! 2 + # * \$ & , (# \$ * ! \$ + ! & + + \$! 5 & + P \$: ! 6 + & ! & (2 % ! 1 & + ' 7 2 \$ (+ # < ! 0 + ! \$: % !, (3 ! + 6 ! \$: (* ! & % * % , & 2 : !
P, * ! \$ + ! (#) % * \$ (5, \$ % ! : + P ! * + (- ! 3, 2 & + 1 + & % * ! \$: & + 7 5 : !, ! 1 - + 7 5 : ! 1, # !, 6 6 % 2 \$ * ! & (2 % ! & + + \$! 5 & + P \$: < ! @ % % 1 !
& + + \$ (# 5 ! _ , 2 4 ! J + & , !, # ' ! * : , - - + P ! & + + \$ (# 5 ! " X a T ! & (2 % !) , & (% \$ (% * ! P % & % ! 5 & + P # ! (# ! 1, 2 4 % ' ! 2 + & % * ! + 6 !
7 # * , \$ 7 & , \$ % ' ! * + (- ! (# !, ! 5 & % % # : + 7 * % < ! E & \$ (6 (2 (, - ! 8 (+ 1 + & % * !, # ' ! 2 & , 2 4 * ! P % & % ! (# * % & \$ % ' ! \$: & + 7 5 : ! 1 - + 7 5 : ! 1, # !
\$ + ! 6 + & 3 ! ' (6 6 % & % # \$! \$ & % , \$ 3 % # \$ * < ! ; - + 7 5 : ! 1, # * ! P (\$: ! 3, 2 & + 1 + & % * ! : , ' ! F e ! I F ! q ! 3 + & % ! & + + \$ * ! \$: , # ! P (\$: ! # + !
3, 2 & + 1 + & % * < ! X D @ ! P, * ! e e ! q ! 5 & % , \$ % & ! (# ! \$: % ! 1 - + 7 5 : ! 1, # ! -, K % & ! (6 ! 2 & , 2 4 * ! P % & % ! 1 & % * % # \$! 2 + 3 1, & % ' ! \$ + !
8 (+ 1 + & % * < ! 9 + #) % & * % - K C! X D @ ! P, * ! F a ! q ! - % * * ! (# ! * 7 8 * + (- ! (6 ! \$: % ! 1 - + 7 5 : ! 1, # ! : , ' ! 2 & , 2 4 * ! 2 + 3 1, & % ' ! \$ + !
8 (+ 1 + & % * < ! @ % % 1 H & + + \$ % ' ! _ , 2 4 ! J + & , ! 1 & + ' 7 2 % ' ! b. q ! 5 & % , \$ % & ! X D @ C! ! G ! q ! 3 + & % ! & + + \$! # 7 3 8 % & * !, # ' ! . G ! ! q !
3 + & % ! 8 & , # 2 : (# 5 ! \$: , # ! \$: % ! * : , - - + P ! & + + \$ % ' ! & (2 % ! 5 % # + \$ K 1 ! " X a T ! P (\$: (# ! \$: % ! 1 - + 7 5 : ! 1, # ! -, K % & < ! 9 & , 2 4 * !
P % & % ! 6 + 7 # ' ! \$ + ! 8 % ! 6, & ! 8 % \$ % \$ & ! \$: , # ! 8 (+ 1 + & % * ! 6 + & ! & (2 % ! & + + \$! 5 & + P \$: ! \$: & + 7 5 : ! 1 - + 7 5 : ! 1, # * C! P (\$: !, ! ' % % 1 !
& + + \$ (# 5 !) , & (% \$ K ! 8 % (# 5 ! 6, & ! 3 + & % ! & % * 1 + # * () % ! \$ + ! 3, 2 & + 1 + & % ! 1 & % * % # 2 % < ! > : (* ! & % * % , & 2 : ! * 7 5 5 * \$ * ! \$: , \$!
*(3 1 - % ! 0 7, # \$ (6 (2, \$ (+ # ! + 6 ! 3, 2 & + 1 + & + * (\$ K ! 3, K ! 8 % ! (# * 7 6 6 (2 % # \$ C! , # ' ! \$: , \$! 3, 2 & + 1 + & % * ! : , 1 % ! : , * !, ! -, & 5 % !
(3 1, 2 \$! + # ! & + + \$!, 2 2 % * * !, # ' ! 8 & , # 2 : (# 5 < !

"D%D!

EC+17')!-1!) (-!*3(*' 3,-')!+1/!) (-!A2+.-,4!-1!. (17N,' 35!3-0' N6+)' /!
03(**-17!)4), ' 5!21/' 3!0(1)' 3@+,-(1!+73-02.,23' ^!

D _____C!@&!N, ' : ,)(!N+--7&7!C!N*!0&(#(4, !0: %%- , !s

TI!gJ!I <T/I%X%2%#\$, '), #2%*!(#!#7\$&(\$+#+, -C!8(+--+5(2, -, #' !1: K*(2, -!1&+2%****(#!1, ' ' K!*+(-*C!E-*: !. C!
E757*\$!F!C!FGFFC!. I/GG!H!. e/GG!

E!*(SHK%, &!6(%-' !%S1%&(3%#P, *!2+#' 72\$%' !(#!BK' %&, 8, ' C!"# ' (, C!+#!d%&\$(2!B, 1-7%*\$%1\$!P(\$: !, !&(2%#H
3, (]!%HO%*8, #, !2&+11(#5!*K*\$%3!\$+!*\$7' K!\$: %!(31, 2\$!+6!\$(-, 5%!2+38(#, \$(+#!', #' !P%%' !
3, #, 5%3%#P!1&, 2\$(2%*!+#!*+(-!1&+1%&\$(%*!, #' !*+(-! : %, -\$: <9-(3, \$%!+6!\$: %!%S1%&(3%#P, -*(\$%!P, *!
%3(H, &(' <!--, 5%!\$&%, \$3%#P(#2-7' %' !2+38(#, \$(+#!+6!2+#)%#\$(+#+, -!\$(-, 5%!L9>M, #' !]!&+H\$(-, 5%!
Lw>M!P(\$: ZP(\$: +7\$!2&+1!&%*(' 7%*!LXM(#!' &K!' (&%2\$H*%' %' !&(2%!L@0XMZ\$&, #*1-, #P%!' !&(2%' 7&(#5!0+7\$: H
P%*\$!3+#+++#!, #' !3, (]!(!#!P(#%&<: %!P%%' !3, #, 5%3%#P!+1\$(+#!P%&!2: %3(2, -!P%%' !
3, #, 5%3%#P!gN!L"#P%5&, \$%' !g%' !N, #, 5%3%#P!P(\$: !2: %3(2, -, #' !3%2: , #2, -!3%\$: +' *M, #' !
7#P%%' %' !2+#+\$+<!

!

E' +1\$(#5!w>!: , *!(31&+)' !*+(-!, 55&%5, \$(+#!C: K' &, 7-(2!2+#!' 72\$)(\$K!87-4!' %#*(\$K!1%#P%&,\$(+#!
&%*(\$, #2%<_%%\$&!3, 2&+H, 55&%5, \$(+#!, #' !(31&+)' !*+(-!1&+1%&\$(%*!P(\$: !&%\$%#\$(+#!+6!2&+1!&%*(' 7%*!
P, *!&%1+&\$%' !8K!_ , #' K+1, ' : K, K!%\$!, -C!FG. G!, #' !9: +7' : 7&K!%\$!, -C!FG. TM!

!

>+\$, -!+&5, #2!2, &8+#!, #' !+&5, #2!2, &8+#!6&, 2\$(+#!L)%&KH-, 8(-%C!-, 8(-%C!-%**H-, 8(-%!, #' !#+#H-, 8(-%M!
P%&!*5#(6(2, #P-K!: (5: %&!7# ' %&!w>!&%\$, \$3%#P*\$!\$: , #!9>!&%\$, \$3%#P*\$<X%\$%#\$(+#!+6!2&+1!&%*(' 7%*!(#!w>!
\$&%, \$3%#P*\$!#%: , #2%!' !*+(-!%#]K3%! , 2\$)(\$%*!L' %: K' &+5%#, *%C!7&%, *%C!, 2(' Z, -4, -(#!1: +*1: , \$, *%!
, #' !2, \$, -, *%M!+) %&!2+#)%#\$(+#+, -!\$(-, 5%<!--, 5%!1&, 2\$(2%*!, #' !2+#!%07%#P!\$*+(-!, %&, \$(+#!*\$, \$7*!
(#6-7%#2%' !\$: %!+#!*+(-!3(2&+8(, -!1+17-, \$(+#!*5#(6(2, #P-K!L8, 2\$%&C, C!67#5(C!, 2\$(#+3K2%\$%*C!
E]+\$+8, 2\$%&!, #' !E]+*1(&(-73M!g%' !3, #, 5%3%#P!1&, 2\$(2%*!' (' !#+\$!, 66%2\$!*+(-!1: K*(2, -, #' !
2: %3(2, -!1&+1%&\$(%*<B%&8(2(' %!, 11-(2, \$(+#!2, 7%*' !, !&\$, #*(%#P!&%' 72\$(+#!(#!*+(-!3(2&+8(, -!2+7#\$*!, #' !
%#]K3%! , 2\$)(\$%*<!

!

0+(-!07, -(\$K!(#' %SC!2+317\$%' !8K!1&(#2(1, -!2+31+##%#P!, #, -K*(C!P, *!: (5: %*\$!P(\$: !7#P%%' %' !2+#+\$+<+!
(#!w>}X

\$"#!

E2.,-@+,-17!<((/' /!3-0' !+)!+!,3' +,5' 1,!, ' 0C1(. (74!, (!5-, -7+, ' !12,3-' 1,!
.(+ /)!+1 /!-5 *3(@' !)(-!A2+.-,4!<3(5!+73-02.,23+!R+, ' 3)C' /)!

\ "\$!

H-* -17!<(35+,-(1!+1!/!/-),3-62,-(1!-1!+!)' 5-N+3-/' 1@-3(15' 1,G!Q!1' R!
0(10' *,2+.!5 (/ ' !

 A C!; &+6!>, -!0)+&, K! C!; : @![-(!E&5, 3, #'\$

\$>8!

H3' /-0,-17!12,3-' 1,! (.)! /2' !, (!R+, ' 3!+1/!R-1/!' 3()- (1!+03())!?' R!:(2,C!
F +.')\$!Q2),3+.-+!

D

"\$\$!

Q!03(*!*C' 1 (. (74N6+) ' /!+**3(+0C!, (!A2+1, <4!,C' !EN<+0, (3!+,!,C' !<' ./N
+30' .!)0+.' !-1!L23(' !

F C!@&!; , #+*!; , #, 5+*"C!; &+6<J%&\$!d%&*\$&, %\$%#!\$

"D>D!

9-) ' 1,+17.-17!*3(. (17' /!3+-1<+..!+1/!.+1/!2)' !0C+17' !-1,' 3+0,-(1)!(1!
0+,0C5' 1,!)' /-5' 1,!)(230' !/41+5-0)!<3(5!52.,-16-(,3+0' 3)!-)(, (*' !
0(5*()-,-(1!

D _____ (!@X!m7*: %#5!w: , #5!C!@&!O\$%)%#!A!J&, #5%&!C!N, 6, -' , !N(2, -%!C!; &+6!E' &(, #!

JJD!

P1, ' 73+, -17!6- (0C+3!-1, (!03(** -17!)4), ' 5)!3' /20')! (-!. ())!+1/!321N

D((C!w<!J7C!9<!w: , #5C!X<! "8& , : (3C!N<!w: , #5C!J<!g , #5C!D<!?!D(7C!m<!LFG. ^M<!>: %!8%##%6(2!%66%2\$!
(#' 72%' !8K!8(+2: , &!+#!*+(-!%&+*(+#!, #' !#7\$&(%#\$!+**!+6!*--+11(#5!-, #' !7#' %&!#, \$7&, -!&, (#6, --!
2+#' (\$(+#!(#!2%#\$&, -!9: (#, <E5&(27-\$7&, -!g, \$%&!N, #, 5%3%#\$C!. beC!. Tek. eG<

#8\!

##"

">\$D!

MC' !-5 * (3,+10' !(<!) (-.!C (3=(1)!-1!*' / (. (74!

 A C!@&!m, 47#!w: , #5!

\$D#!

9-)' 1,+17.-17!,C' !*' / (7' 1-0!<+0, (3)!0(1,3(..-17!+0,-@' !Q.!+1/!' ' !
0(10' 1,3+,-(1)!-1!)(-.)!(<!,C' !E+5' 3((1!@(0+1-0!.-1' !

D _____C!N<02<0: (+&!V%' , !C!@&!E\$*7*: (!U, 4, + "C!@&!E\$#+(#%N)+# ' +!W%#C!@&!
X, #' K!@, : -5&%#%C!@&!0: (#K, !=7#, 4, P, !^s

.. !0+(-!J%#%*(C!N. C!E757*\$!F!FGFFC!. e/!G!H!. ^/!G!

E2\$)%!E-!, #' !=%L+S, -, \$%!%S\$&, 2\$, 8-%!E-Z=%!E-+Z=%+M*\$&+#5-K!, 66%2\$!*+(-!1: K*(2, -C!2: %3(2, -, #' !
8(+--+5(2, -1&+1%&\$(%!L>, 4, :, *: (!?!@, : -5&%#C!FG. aM<>: (*!*\$7' K!%S, 3(#%' !\$: %!1%' +5%#(2!6, 2\$+&*!
, 66%2\$(#5!E-+!, #' !=%+!2+#\$%#*\$!, 2&+**!, !*+(-!P%, \$: %&(#5!*%07%#2%!(#!9, 3%&+#+#<!g%!(#)%*\$\$(5, \$%' !
\$: %!_!: +&()+#!L•eGH23!' %1\$: M6&+3!Fa!*+(-!6+&3%' !(#!8, *, -\$Z\$&, 2: K\$%!) +-2, #(2!3, \$%&(-*!, \$!
' (66%&%#\$%-), \$(+##*!L. . GkFe^G!3M(#2+&1+&, \$(#5!, !P(' %!&, #5%+6!\$%31%&, \$7&%!L. TkF^h9M, #' !
1&%2(1(\$, \$(+#!L. eFGkl . !G!33M<>: %!P%, \$: %&(#5!*%07%#2%!&, #5%' !6&+3!P%, 4-K!P%, \$: %&%! !E# ' +*+*!
(#!\$: %!*+7\$: P%*\$!&%5(+#!5&, ' (#5!\$+!*\$&+#5-K!P%, \$: %&%! !WS(*+*!+#!\$: %!2%#\$&, -!: (5: -, #' *<!g%!
, **73%' !1K&+1: +*1: , \$%!%S\$&, 2\$, 8-%!E-Z=%!LE-1Z=%1M, *!+&5, #+HE-Z=%C!, #' !LE-+!K!E-1M, #' !L=%+!k!
=%1M, *!*: +&\$H

">"!

Q00' .' 3+, ' /!) (-!/' @' .(* 5' 1,!/2' !, (!)' +) (1+.!R+, ' 3N)+,23+,-(1!21/' 3!
C4/3-0!0(1/-,-(1)""""!

D%%!

Q7' !+1/!* (.47' 1' , -0!(3-7-1!(<!H.+1 () (.)!-1!* () , 7.+0-+.!+3' +)!(<!E' 1,3+.!
L23(*' !

 D C C!N02<[-]8(%\$, !N7*]\$K6, 5, !\$

.. !0+(-!J%#%*(C!N. C!E757*\$!F!FGFFC!. e/I GHI!. ^/IG!

0\$, 5#+5-%K%' C!\$%S\$7&, --K!2+#\$&, *\$(#5!*+(-*!\$: , \$!3%%\$!\$: %!2&(\$%&(, !+6!D7)(2!; -, #+*+ -*!gX_!FG. eM!, &%!

"DJ#!

: (-.N

\$\#!

K' 0(1),320,-17!) (-.)!<3(5!R+), ' G!6+33-' 3)!+1/!(** (3,21-,-')!

D _____ C!N&!U(24!g(--%#8&+24" C!; &+6%**+&!_&(, #!X%(' #C!@&!U, +6%-!E-Y, 6%&!C!@&!J%+&5%!!
D(\$%-Y+: #!C!N&*!E#5%-, !B, &&+1!C!;

""%\!

L5' 37-17!) (-!5-03(6+.N6+) ' /!), 3+, ' 7-')!<(3!3'), (3-17!6- (/-' 3)-, 4!+1/!

D8"

: (-.15-03(6-(5' N

\J>!

_1/' 3),+1/-17!+1,-5-03(6-+!.3')-),+10' !-1!)(-.N*.+1,!4), ' 5!<(3!Y1' !X' +.,C!

. f!@)(*+#!F!9+33(**(+#!F<I /!0+(!3(2&++&5, #(*3*!7#' %&!2: , #5(#5!%#)(&+#3%#&C!+=&\$: C!E757*\$!FC!
FGFFC!. e/I G!H!. ^/I G!

>: %!' (*2+)%&K!+6!\$&%1\$+3K2(#!, *!, #!%66%2\$!)%!, #\$(8(+\$(2!8K!-, \$%!; &+6!0!g, 4*3, #!(^!#+\$!+#-K!, !
3(-%*\$+##%!(#!3%' (2, -!*2(%#2%!87\$!, -*+!, !&%3, &4, 8-%!, 2: (%)%3%#\$(#!*+(-!8(+--+5K!&%*%, &2: <
U)%&\$: %-**C!\$: %!%S\$%#*%)!7*%!, #' Z+&!, 87*%!+6!, #\$(8(+\$(2*!(#!\$: %!1, *\$!6%P!' %2, ' %*!: ,)%!2, 7*%' !
(5#(6(2, #!%#&(2: 3%#%!+6!, #\$(3(2&+8(, -!&%(*\$, #2%!LENXM(#!8+\$. !2-(#(2*!, #' !\$: %!%#)(&+#3%#&C!
E-\$: +75: !*+(

DD#!

; ((/4!5-03(6')q!E40.')!(<!) (-!, ' 5*' 3+,23' !+1/!*' / (7' 1-0!@+3-+,-(1)!
/-)' 1,+17.' !)(-!5-03(6-(5'!*3' /-,-(1)!-1!Q2),3+.-+1!)(-.)!

D

LeM!X+3, #C!N<!N28&, \$#%KC!E<!N(#, *#KC!_<!?!N, -+#%C!_<!LFGF. M!0%\$\$(#5!71!, !6&, 3%P+&4!\$+!, **%**!
2: , #5%*(#!*+(-!2+#' (\$+#!, #' !2, 1, 8(-(\$K!+)%%&!, &5%!, &%, *<!#!0+(-!0%27&(\$K<[-*%)(%&!D\$' <!

"8V>!

: (-.!<217+.!-1,' 3+0,-(1)!0C+17' !<3(5!1' 7+,-@' !, (!* ()-,-@' !21/' 3!. (R' 3!
<' 3,-,4!!

D

J##!

Q1!+1,-A2' !+)) (0-+,-(1!6' ,R' ' 1!<217-!+1/!* .+1,)!,C+,!0+1!)+@' !,C' !<2,23' !
(<!+73-02.,23+.!*3(/20,-(1!-1!,C' !<+0' !0.-5+, ' !0C+17' !

D _____ **C** C!N%!J%&3,##,!J+7)%(,!>,), &%*"C!N%!D%\$\$2(!X%]%' %!0, #\$, #, "C!
D, (*!

"8JD!

L@+.2+,-(1!(<!0' 1,3(-!/!21-,)!)<3(5!! 3+=-.-+1!,(!_1-@' 3)+.!: (-.!E.+))<-0+,-(1!
:4), ' 5!!

D C!; : @![&(4, !N(2: v-(!C!; : @!E#Y+*!D! 2(, !B%-%#, !97#: , !' +*^C!; : ' !<' •3!
9*+&8, !C!; : @![-(, #%! ' %!; , 7-, !9-%3%#%\$!E-3%' , #^s

I T!gJ. <b!k!E'), #2%*(#!7#)%&*, -!*+(-!2-, **6(2, \$(+ #C!E-*: !FC!E757*!FC!FGFFC!. e/I G!H!. ^/I G!

N+' %&#!*+(-!2-, **6(2, \$(+#!*K*\$%3*!L090M!*\$, &\$%' !, *!-+2, -, #' !&%5(+#, -!%66+&\$*!+6!*2(%#*\$*!\$+!5&+71!
(#' 0)(' 7, -!*+(-!*8K!\$: %(&!, \$\$&(87\$%*!, #' !, **+2(, \$%' !%#)(&+ #3%#\$* <197&&%#\$-K!\$P+!090!, &%!, 22%1\$%' !, *!
(#\$%&# , \$(+ #, -C!\$: %!g +&- ' !X%6%%!_, *%!, #' !\$: %!0+(-!>, S+#+ 3K<!>: %*%!*K*\$%3*!P%&%' %)%-+1%' !
6&+3!' , \$, 8, %*!3, (#-K!6&+3!\$%31%&, \$%!&%5(+#!+6!\$: %!P+&- ' !, #' !P(\$: !6%P!\$&+1(2, -!*+(-*C!*1%2(, --K!
\$: %!+ #%*!&(2: !(!#!=#!, #' !E-C!*72: !, *!\$: +*%!' +3(#, ##!(!#!*+3%!_&,](-, #!*\$, \$%*<_%^*(' %*C!*+(-!
(#6+&3, \$(+#!(*!)%&K!' (66(27-\$!\$+!\$&, #*- , \$%!, 2&+**!2+7#\$&(%*!, #' !(#\$%&# , \$(+ #, -!090!' 7%!\$+!' (66%%*(#!
2&(\$%&(, !, #' !-, 8+&, \$+&K!3%\$: +* !, ' +1\$%' !(!#\$: %!#, \$(+ #, -!*K*\$%3* <!>+! : 78!*+(-!(#6+&3, \$(+ #C!, !
2%#\$&+(' , -!090!(!7#' %&!' %)%-+13%#\$, *!1, &\$!+6!\$: %!1&+1+*, -!+6!\$: %!"V00!P+&4(#5!J&+71!\$+!' %)%-+1!
\$: %!V#()%&*, -!0+(-!9-, **6(2, \$(+#!LV09M!K*\$%3<0+3%!+6!\$: %!(#\$%&3%' (, \$%!*\$%1*!2+ #*(*\$!+6!2+317\$ (#5!
, #' !2+31, &(#5!2%#\$&+(' *!6&+3!#, \$(+ #, -, #' #2%&# , \$(+ #, -!*4*\$%3-0. 4(*)-0. 2(<)-0. 4(!)-0. 1(0)-0. 5(+)-. 5(2)094. 4

J\>!

: (-.!*3(, ' 0,-(1!(3!12,3-' 1,!)2** .4c!92+.!3(. ' !(<!.-, , ' 3!.+4' 3!-1!0+0+ (!
+73(<(3'),34!)4), ' 5)!

_____c!@&!@, #, %!NE!X+]#', , -!c!N&!@, ##K!@!0, 17\$&, !""c!@&!n7&#(, \$7#!B, (&, : "c!@&!
A, 3%*!N!X+*: %\$4+#c!@&!N%(#%!), #!U++&' P(Y4! '#\$

TG!gJI<F!/9, &8+#!, #' !#7\$&(%#\$!2K2-%*!7# ' %&!(\$%#*(6K(#5!2-(3, \$%!2:, #5%!, #' !-, #' !3, #, 5%3%#C!
E-*: !. c!E757*\$!F!c!FGFFc!. e/I G!H!. ^/I G!

D(\$%&!1&+\$%2\$*!\$: %!7# ' %&-K(#5!*+(-c! ' %1%# ' (#5!+#!-(\$%&6, --!, #' !' %2+31+*(+\$+#!c!87\$!' K#, 3(2*!+6!\$: %!
\$, #' (#5!-(\$%&!\$+24!(#!, 5&+6+&%*\$&K!*K*\$%3*!&%3, (#!1++&-K!7# ' %&*\$++' <g%!, (3%' !&+!7#&,)%!

""8!

MC' !' <<' 0,!(<!)+. -1-,4!(1!/-)) (.@' /!(37+1-0!E!+1/!12,3-' 1,)!-1!1 (1N)+.-1' !
)(-.)!

D _____ C!@&!@+#, -' !01, &4*!\$

""%D!

MC' !-5 *+0,)!(<!)' +!. ' @' .!3-)' !(1!*C ())*C(32)!040.-17!-1!0(+),+.)(-.)!

D C _____ C!@&<[-(], 8%\$: !>+3, *]P*4("C!@&<07#%#' &, !A+*: (!C!@&<@+#, -' !01, &4*!\$

TG!g JI<F/!9, &8+#!, #' !#7\$&(%#\$!2K2-%*!7# ' %&!(\$%#*(6K(#5!2-(3, \$%!2: , #5%!, #' !-, #' !3, #, 5%3%#C!
E-*: !. C!E757*\$!FC!FGFFC!. e/I G!H!. ^/I G!

9-(3, \$%H' &)%#!*%, !-)%-!&(*%!LODXM: , *!5-+8, --K!-%' !\$+!(#2&%, *(#5!* , -\$P, \$%&!(\$&7*(+#!(\$\$+!2+, *\$, -!
+(-!, \$!, #!(#2&%, *(#5!&, \$%C!P: (2: !2+7-' !(31, 2\$!1: +*1: +&7*!L; M! K#, 3(2*!(#!2+, *\$, -!*+(-*!, #' !67&\$: %&!
, 66%2\$!P, \$%&!07, -(\$K<B+P%)%&C!; !3+-%27-, &!*1%2(, \$(+#C!\$: , \$!-, &5%-K!' %\$%&3(#%*!(\$*!8(+,), (-, 8(-(\$K!
, #' !\$&, #*6+&3, \$(+#!(#!2+, *\$, -!*+(-*!&3, (#*!7#4#+P#<g%!), -7, \$%' !\$: %!ODX!(31, 2\$*!+#!; !
\$&, #*6+&3, \$(+#!7*(#5!...H&, K!, 8* +&1\$(+#!*1%2\$&+*2+1K!L...EU[OM!, #' !3+' (6%' !B%' -%K!6&, 2\$(+#, \$(+#!
7*(#5!, !*+(-*!, -(\$K!5&, ' (%#\$!6&+3!@%- , P, &%!X%: +8+\$: !_, K<:>: %!* , -(\$K!5&, ' (%#\$!2+#+*(\$%' !+6!6!)!
*(\$%*C!&%1&%*#(\$#5!' (66%&%#\$!' %5&%%*!+6!ODXH(#' 72%' !* , -\$P, \$%&!(\$&7*(+#!<g(\$: !' %2&%, *(#5!' (*\$, #2%!
\$+!\$: %!*: +&%C!8+\$: !*+(-*!, -(\$K!LFf<I !k

"8J\!

VJD!

EYD!3' , ' 1,-(1!(1!R((/!+)C')!<3(5!/-<<' 3' 1,!3+R!5+,' 3-+.)!+1/!EYD!
3' . ' +)' !+<,' 3!)(-!5-B-17!

_____C!N*!X(4, !_(\$+: !s

"\$V>!

MC' !&3' ' 1!&3' ' 1!: +1/!(<!X(5' 6!-55' 3)-@' !' B*' 3-' 10')!<(3!03' +,-17!)(-!
+R+3' 1'))!

!
""\ \$!

Q2),3+.-+n)!?+,-(1+.: (-.)!Q/@(0+, ' !!

"#%&')*(+ #, -!^/!0+(-!*%27&(#5!: 73, #(\$K!Â!B73, #(\$K!*%27&(#5!*+(-!D+3+#' !E7' (\$+&(73!E757*\$!I!C!
FGFF!Gb/GG!!!. G/GG!

!
N72: !: , *!8%%#!' +#!#!(#!E7*\$&, -(, !\$+!7#' %&*\$, #' C!2+#*%&)%!, #' !(31&+)%!*+(-!K%\$!*+(-!2+#' (\$+#!, #' !
: %, -\$: !2+#\$(#7%*\$!\$+!' %2-(#!#!3, #K!, &%, *!0+3%!' %2*(+#!3, 4%&*!&%2+5#(*%\$! %!2-%, &!2+##%2\$(+#!
8%\$P-0. 4(%41Tf[5000501("(<)-01694cmB. 9997-21(%)0. 4. 3(5)0%)0. 4(!1-0. 4(K)5000501("4!)-0. 101(*). 24004(!)

!

J%J!

E(11' 0,-17!)(-.)!R-,C!*' (*.' G!-1,-,+,-@')!(<!,C' !&.(6+!:(-!H+3,1' 3)C-*!

; &+6<X+*, !N!; +2: !C! _____

"#\$%&')*(+##, -!^/!0+(-!*%27&(#5!: 73, #(\$K!A!B73, #(\$K!*%27&(#5!*+(-C!D+3+##' !E7' (\$+&(73C!E757*\$!I C!
FGFFC!Gb/GG!#!. G/GG!

E*!+(-!*2(%#\$(**!P%, &#!, P, &#!\$: , \$!P%2, #!#+-+##5&!P+&4!7#2+##%2\$%' !\$+!\$: %!1%+1-%!/+7&!P+&4!(*!
' (&%2\$-K!&%-, \$%' !\$+!: (5: -(5: \$!\$: %!*+(-!*!&+-%!(#!1&+)(*(+#!+6!%2+*K*\$%3!*%&)(2%*C!, #' !\$: 7*C!\$: %!*+(-!
2(%#2%!2+337#(\$K!: +7-' !&(*!\$+!\$: %!2: , --%#5!+6!1&+)' (#5!&%-(, 8-%!, #' !&%, ' (-K!, 22%**(8-%!
(#6+&3, \$(+#!\$+!\$: %!2+337#(\$%*!\$+!&%3, (#!&%-), #!\$!0+(-!, P, &%#%**(?!+##%!+6!\$: %!1(-, &*!+6!=EW*!
J0; !, #' !">: 0C!P: (2: !P+&4*!+#!2+##%2\$(#5!*+(-!*\$+!1%+1-%<: %!, ##7, -!g+&-' !0+(-!@, K!L@%2%38&!
e\$: M!P, *!-, 7#2: %' !(!#!FG. T<!"\$*!1, &\$2(1, \$(+#!(#2&%, *% ' !*(#2%!\$: %#!C!, #' !(!#!FGFG!, -+##%C!, #!%*\$3, \$%' !
bGG!3(-(+#!1%+1-%!P+&-' P(' %!1, &\$2(1, \$%' !(!#%: %!%)%#%\$: %-' !(!#+)%&!+##%!: 7#' &% ' !2+7#&(%*<: %!
)%#%\$!27-3(#, \$%' !(!#%: %!1&+' 72\$(+#!+6!, !2: (-' &%#*!8++4!\$(\$-%' !i>: %!3, 5(2, -!P+&-' !+6!*+(-!
8(+ ')%&*(\$Kj!\$: &+75: !, !8++4!2+31%\$(+#!Y+(\$-K!+&5, #[]%' !8K!\$: %!=EW!, #' !"V00!(!#!FGFG<: (*!P, *!
, #!%S2(\$#5!, 2: (%)%3%#%\$!6+&!\$: %!8++4!(*!, #!%66%2\$()!*&%, \$%5K!\$+!2, 1\$7&!(#%&%*\$!+6!K+7#5!2: (-' &%#!
(#!*+(-!*2(%#2%!(#!\$: %(&!6+&3, \$()%)!*\$, 5%!, *!67\$7&! ' %2*(+#!3, 4%&*<+!*711+&\$!, 2\$()(\$%*!, \$!6(%-' !-%)%-!
1&+3+\$#5!*7*\$, (#, 8-%!*+(-!3, #, 5%3%#%C!\$: %!J-+8, -!0+(-!@+2\$+&*!1&+5&, 33%!(?!), (-, 8-%!\$+!1&+)' %!
6, &3%&H\$+H6, &3%&!\$&, (#(#5C!, *!(#!9+--+38(, C!P: %&%!\$: %!=EW!, #' !\$: %!J0; !P+&4%' !\$+!), -(' , \$%!\$: %!0+(-!
@+2\$+&*!\$+--+4(\$!7*%' !(!#%: %!1&+5&, 33%<E#+\$: %&!(\$, \$()%)!*(!JDWOWDEU!P: (2: !(*!, !1, &\$2(1, \$()%)!
#%\$P+&4!(!#!P: (2: !3%38&!-, 8+&, \$+&(%*!, #' !%S1%&\$*!(#!*+(-, #, -K*(*!*: , &%!\$: %(&!#6+&3, \$(+#!, #' !
%S1%&(#2%*!6+&!\$: %!17&1+*%!+6!' %)%+1(#5!: , &3+#[%' !*\$, #' , &' *!, #' !\$&, (#(#5!3, %&(-, C!), (-, 8-%!
+#!\$: %!JDWOWDEU!P%81, 5%<
U+!&%6%%*

!
"#J\!

Q))'))-17!0(21,3-')h!0(55-,5' 1,)!<(3!)(-!(37+1-0!0+36(1!*3(,' 0,-(1!+1/!
)' A2'),3+,-(1!21/' 3!,C' !,C3' ' !K-(!E(1@' 1,-(1)!

D _____

"#\$\$&')(*(+#, -!^/!0+(-!*%27&(#5!: 73, #(\$K!Â!B73, #(\$K!*%27&(#5!*+(-C!D+3+#' !E7' (\$+&(73C!E757*\$!I C!
FGFFC!Gb/GG!H!. G/GG!

V>8!

MC' !* (,' 1,-+!(<!-11(@+,-@' !)(-!5+1+7' 5' 1,!*3+0,-0')!, (!+/3'))!)(-!
0C+..+17')!+03())!L23(*' !N!Y2,0(5')!(<!,C' !-N: (; HL!H3(0' 0,!

_____c!@&!&!=&v' v&(2!d, #P(#' %4%#*c!@&!&!_&7#+!B7K5: %8, %&\$c!@&!9-, 7' (, !@(!_%#%c!@&!
; , *07, -%!U(#+c!@&!; %\$%&!g%(**4+16!

"#\$%&')(*(+#, -!b!/07*\$, (#, 8-%!-, #' !7*%c!N. c!E757*\$!I c!FGFFc!Gb/GG!!!

">JD!

: (-.!.+1/!' 1@-3(15' 1,+.!.))2')!-1!)+1/4!) (-.)!

@&<A(#5K(!B7, #5!C!D A

"#\$\$%')(*(+#, -!b!/07*\$, (#, 8-%!-, #' !7*%C!N. C!E757*\$!I C!FGFFC!Gb/GG!H!. G/GG!

0, #' K!*+(-*!, &%!P(' %-K!' (*\$&(87\$%' !, 2&+**!\$: %!P+&-' <@7%!\$+!\$: %!5&+P(#5!5-+8, -!1+17-, \$(+#!, #' !
7&8, #[], \$(+#C!

\$: %*%!*+(-*!, &%!(#2&%, *(#5-K!7*%' !\$+!1&+)(' %!6++' C!6%%' C!6(8%&C!%#%&5K!, #' !+\$. %&!*%&)(2%*!\$+!+7&!

*+2(%\$K!g%!*733, &[]!*+3%!&%2%#*\$!\$7' (%*!+#!*, #' K!*+(-*!, #' !&%)(%P!\$: %!3, (#!*+(-!, #' !

%#)(&+#3%#\$, -(**7%*!&%-, \$%' !\$+!7# ' %&*\$, #' (#5C!7*%C!, #' !3, #, 5%3%#<g%!2-, **(!K!\$: %!*+(-!(**7%*!

">J#!

E.-5+, 'N)5+3,!Q?9!)2),+-1+6.' !5+1+7' 5' 1,!(<+73-02.,23+!) (-.)G!
-/' 1,-<4-17!)41' 37-')!+1/!+//3'))-17!,3+/' N(<<)!

 D C C C!@&!0, *4(!n%%**\$&, "C!@&!A+: , ##, !D%11, -, #C!@&!V-&(4%!w(%5-%&%C!@&!N, &(, !
=, #\$, 11(%&C!; &!0+1: (%!w%2: 3%(*\$%&(C!@&!@,)(' !g, --)C!N&*!D(#%!9, &-%#(7*+C!N&*!X, (*, !J%&, *(# , 'C!@&!
0, *4(!d(**%&"\$

"#\$\$%&')(*(+#, -!b!/07*\$, (#, 8-%!, #' !7*%C!N. C!E757*\$!I C!FGFFC!Gb/GG!H!. G/GG!

0+(-!, &%!, \$!\$: %!2&+ **&+, ' !+6!+2, -!, *!P%--!, *!5+8, -!2: , --%#5%*!, #' !, &%!(#2&%, *(#5-K!%S1%2\$%' !\$+!: %-1!
, ' ' &%**!2: , --%#5%*!*72: !, *!6++' !*%27&(\$K!2+38, \$\$(#5!-, #' !' %5&, ' , \$(+#C!, ' , 1\$(#5!\$+!, #' !
, \$\$%#7, \$(#5!2-(3, 0. 4\$B0. 5(#)-. 1(2)0. 1(:)-0. 1(, #)-0. 4(5)0. 4(%)0-3(')-0. 4(!), \$!(#!(#, 1&, \$(27-&!\$: %!2, *%!6+&!5

!
"D\8!

Z(17N,' 35!5 (1-, (3-17!(<!0+36(1!/- (B-/ ' !+1/!5' ,C+1' !<.2B')!<3(5!

!

"J8V!

: (-.; -))-(1!: 2** (3,6!H+3,-0-*+, (34!-/ ' 1,-<-0+,-(1!(<!3')' +30C!r!-11 (@+,-(1!
7+*)!<(3!+!)2),+-1+6.' !)(-!+1/!.+1/!2)' !*3+0,-0' !

D _____ C!; &+6<n, \$: , &(#, !B%-3(#5' C!N02!D(#' , !N, &(#5" C!N02!A+*!_&(-* C!N02!J%&, -' !
A, #![-%#" C!N02![-+*%N, *+##C!@&<E#\$+#(+!!_(*1+#C!@&<N(&%(-%N, \$\$#C!N02!O+1: (%!!\$\$#%&%C!@(1-<
0, #' & !U, 73, ##%\$

!

JV8!

P5 * +0,)!(<!) (-!3' /-),3-62,-(1!64!,-...+7' !(1!03(*!*3(/20,-(1!

_____C!; &+6!; %\$%&!=(%#%&""\$

"#\$%&')(*(+#, -!b!/07*\$, (#, 8-%!-, #' !7*%C!N . C!E757*\$!I C!FGFFC!Gb/GG!H!. G/GG!

0+(-!*7*%' !6+&!2&+1!1&+' 72\$(+#!2+)%)&! e<e!3(--+#!43^!, #' !, -3+*\$!, --!: ,)%!8%#%#!\$(-%' !, \$!*+3%!1+(# \$!
(#!\$: %(&!:(*\$+&K!K%\$!\$: %!&+-%!+6!\$(-, 5%!(#!&% ' 72(#5!*+(-! %1\$: !&%3, (#*!, #!7# ' %&H&%2+5#(*%' !\$: &%, \$!\$+!
1-, #!\$!1&+' 72\$(+#!<g: (-%!(!\$: , *!8%#%#!' %3+##\$&, %\$' !\$: , \$!\$(-, 5%!%&+*(+#!3+)%*!(5#(6(2, #!\$, 3+7#*\$!+6!
+(-! +P#H-+1%C!+6\$%#%!S2%%' (#5!\$: , \$!, \$\$&(87\$%' !\$+!P, %\$&!, #' !P(#' !%&+*(+#!P!4#+P!-(\$-\$!, 8+7\$!
: +P!\$: %!2: , #5%*!(#!*+(-! %1\$: !, #' !*+(-!1&+1%&\$(%*!, **+2(, %\$' !P(\$: !\$(-, 5%!, 66%2\$!2&+1!K(%-' *<#"#!\$: (*!
\$, -4!P%!!(-7*\$&, %\$!\$: %!(31, 2\$*!+6!\$(-, 5%!%&+*(+#!71+#!K(%-' *C!6+27*(#5!+#!&%*7-\$*!6&+3!, !
1, &*(3+#+(+7*!3+' %--(#5!, 11&+, 2: !2+71-(#5!P%-!%*\$, 8-(*: %' !\$(-, 5%!%&+*(+#!P(\$: !2&+1!5&+P\$: !
3+' %-*<g%!!(-7*\$&, %\$!\$: , \$!-, #' *2, 1%*2, -%!(--, 5%!%&+*(+#!ZK(%-' !%66%2\$!5&, ' 7, --K!(#2&%, *%!P(\$: !
' 7&, \$(+#!, #' !(#\$%#*(K!+6!\$(-, 5%C!%)%#!(#!, &%, *!#+\$!1&+#!\$+!P, %\$&!%&+*(+#!, #' !(-7*\$&, %\$!\$: , \$!K(%-' !
(#2&%, *%*!(#!' %1+*\$(+#, -, &%, *!1, &\$-K!2+31%#*, %\$!6+&!K(%-' !+**%*!(#!\$: (##(#5<g%#!%S1-+&%!\$: %!
1&+*1%2\$*!6+&!\$: %!#%S\$!6(6\$K!\$+!. GG!K%, &*!' %3+##*\$&, \$(#5!\$: , \$!+%S\$!6(+0. 4%6(6\$K!\$+!. G\$+' *2, 1%

#"8!

Z+1/(2)') i

%\!

P5 *+0,!(<!73' ' 1!5+123')!(1!' 7+04!)(-!*C()*C(32)!5(6-.)+,-(1!+1!/03(*!
*' 3<(35+10'!

c

. ^!@()*(+#!F!/07*\$, (#, 8-%!7*%!+6!-%5, 2K!*+(-!1: +*1: +&7*ClJ, -, ClE757*\$!l ClFGFFClGb/GG!H!. G/GG!

"#!3, #K!, 5&+%2+*K*\$%3*Cl*(5#(6(2, #S!07, #S\$(%*!+6!, 11-(%' !1: +*1: +&7*!: ,)%!, 22737-, \$%' !(#!\$: %!*+(-!
, *!i-%5, 2K!1: +*1: +&7*j!P: (2: !&%1&%*%#\$*!, !1+\$%#\$(, --K!), -7, 8-%!&%*+7&2%!\$: , \$!2+7-' !2+#\$(87\$%!\$+!
+#5+(#5!, #' !67\$7&%!1-, #S!1: +*1: +&7*!&%07(&%3%#\$*!>: %!(#2-7*(+#!+6!, 11&+1&(, \$%!5&%%#!3, #7&%!
2&+1*!(!, &, 8-%!&+\$, \$(+#!3, K!%#: , #2%!\$: %!+)%&, --!7\$(-[), \$(+#!, #' !8(+,), (-, 8(-(\$K!+6!1: +*1: +&7*Cl
(#2-7' (#5!-%5, 2K!*+(-!1: +*1: +&7*!#!\$%: %!, 8*%#2%!+6!, !*7(\$, 8-%!6(%-' !S&(, -Cl, #!%S\$%#' %' !2+#\$&+--%' H
%#)(&+#3%#\$!%S1%&(3%#\$!P, *!2+#' 72\$%' !S+!(#)%*(5, \$%!, #' !07, #\$(6K!\$: %!(31, 2\$!+6!\$: &%%15&%%#!
3, #7&%*!2&+1!*1%2(%*!L8-7%!-71(!LD71(#7*!, #57*\$\$(6+-(7*MC!1%, !L; (*73!* , \$)73MC!8, &-%K!LB+&' %73!

\\V!

: (.2,-(1!<(3!,C'!*C()*C(32)!03-)-)G!' 1@-3(15' 1,+!.!<3-' 1/.4!C463-/!Z9X!
)' 3@')!+!)!. (R!3' .' +)'!*C()*C+,' !<' 3,-.-=' 3!

_____C!N(**!B, #Hm7!9: %#!C!@&<4D(, #5H9: (#5!B*7#C!@&<4m7H>(#5!D(7!""\$

\$" \$!

Q//3'))-17!*C()*C(32)!.' 7+0-')!+1/!' <<-0-' 10-')!,C3(27C!,C' !:0-' 10' !+1/!
M' 0C1 (. (7-')!<(3!HC()*C(32)!: 2),+-1+6-.-,4!T:MLH:U!E' 1,' 3!-1-,-+,-@' !!

D **B** C!...7%!_ , (!C!@&<D72(, #+!J, \$(8+#(

!
"\$""!

K')-/2+.!+1/!3' 0+.-,3+1,!*C ()*C(32)!* ((.)!+1/!-) (, (*' !)-71+,23')!, (!
,3+OW!. ' 7+04!) (230')!!

A%** (2, !E#\$+#!C!w: , +: 7, !A(, #5!C!D D

. ^!@)(* (+#!F/!07*\$, (#, 8-!7*%!+6!-%5, 2K!*+(-!1: +*1: +&7*!C!J, -, C!E757*\$!I C!FGFFC!Gb/GG!H!. G/GG!

>: %!%S(*\$ (#5!-(3(\$, \$(+#!+6!, #, -K\$(2, -!3%\$: +' *!6+&!\$&, 2(#5!1: +*1: +&7*!L; M(#!\$: %!%#) (&+#3%#\$: , *!
1+*%' !, !2: , --%#5%!\$+!' (*2%&#!*1%2(6(2!*+7&2%*!72: !, *!-%5, 2K!; <B%&&C!P%!, #, -K]%' !\$: %!%&2, -2(\$&, #!\$!
, #' !&%*(' 7, -!; !1++-*!6&+3!1+\$%#\$(, -!; !*+7&2%*!, #' !*(#4*!(!, !*78HP, \$%&*: %' !P\$:(#!\$: %!-, &5%&!
9: %*, 1%, 4%!_ , K!P, \$%&*: %' <B, &*: !&%, 5%#*\$!7*%' !6+&!\$: %!%S&&, 2\$(+#!+6!&%2, -2(\$&, #!\$, #' !&%*(' 7, -!*+(-!
; !1++-*!P%&!\$%*\$%' !6+&!(*+\$+1%!(#%\$5&(\$K!, #' !P%&&!6+7#' !#+\$!\$+!2+3!1&+3(*%!+&(5(#, -!(*+\$+1%!
(5#, \$7&%<E3+#5!\$: &%&!&%, 5%#*\$!L. G!N!BUW!C!. G!N!U, WBC!, #' !, 07, !&%5(, M7*%' C!\$: %!, 07, !&%5(, !
1++-!; , ' !\$: %!(5: %*\$!; !2+#\$%#C!87\$!\$: %!3, \$&(S!(#%\$&6%%!(3(\$%' !\$: %!(*+\$+1%!, #, -K*(*!6&+3!\$: (*!
1++-!; : +*1: , \$%!+SK5%#!(*+\$+1%*!L' . bW; M!+6!&%*(' 7, -!*+(-!; !&%), -%' !, !5%#%&, --K! (*\$ (#2\$!&, #5%!+6!
(*+\$+1%!), -7*%! , 3+#5!' (66%&#%\$!-, #' !7*%*C!*755%*\$ (#5!\$: %!7*%67-#%*!+6!' (*2&(3(#, \$ (#5!; !*+7&2%*<
"\$%&&*\$ (#5-KC!2, &8+#!L' . I9M, #' !#(\$&+5%#!L' . eUM(*+\$+1%*!+6!&%*(' 7, -!*+(-!1++-*!P%&&! (*\$ (#2\$C!P: (2: !
(#' (2, \$%*!(*+\$+1%*!5#, \$7&%*!, &%!(4%-K!1&%*%&)%' !, 3+#5!*+7&2%!*(\$%*!, #' !*(#4!*%' (3%#*\$<"+\$+1%!
3, **!8, -, #2%!2, -27-, \$(+#!*': +P!\$: , \$!; !*+7&2%*!(!!\$: %!71*\$&%, 3!*%' (3%#\$, &%!2+3!1+*%' !+6!), &(7*!
1&+1+&\$ (+#!+6!P%\$-, #' *C!*\$&%, 38, #4*!, #' !, 5&(27-\$7&, -!*+(-*!X%*7-\$*!+#!1+\$%#\$(, -!*+7&2%*!+8\$, (#%' !
6&+3!' . bW; C!' . eUC!, #' !' . I9!), -7*%!+6!&%*(' 7, -!*+(-!1++-*!5%#%&, --K!, 5&%%' !P\$!: \$: , \$!+6!\$: %!
_, K%*(, #!%-3%#\$, -!6(#5%&1&(#\$ (#5!3+' %-<#!*733, &KC!(*+\$+1%!), -7*%!+6!&%*(' 7, -!; !1++-*!, &%!3+*\$!
-(4%-K!\$+18%!(+*\$+1(2, --K!(\$, 2\$!(#!\$: %!6(%-' !, #' !\$: %&%6+&%!, &%!3+&%!&%-, 8-!1&+S(%*!6+&!*+7&2%!
\$&, 24(#5<
#+#%

!
"\$"%!

j 2+1,-<4-17!C(R!520CS!RC' 3' S!+1/!RC+;!<(35!(<!.' 7+04!H!+03())!0+.')G!
,C' !0+) ' !(<!P..-1 (-)!!

D A

"DV"!

Q))'))5' 1,!(<!,C' !C4/3(. (7-0+.),+,2)!(<!; +3)C.+1/)!-1!,C' !: (2,C!(<IP3+A!
2)-17!+!0(56-1+,-(1!(<!' 5(,')' 1)-17!+1/!/3(27C,!-1/-0')!

D A A A C!@&!E##%!d%&: +%6"C!@&!n%)(#!g: (\$%""\$

FF!@()*(+#!I!9+33(**(+#!I<. !k!0+(-!%), -7, \$(+#!, #' !-, #' !7*%!1-, ##(#5C!+=&\$: C!E757*\$!I C!FGFFC!Gb/GG!H!
. G/GG!

W)%&\$: %!1, *\$!' %2, ' %*C!\$: %*%!%S\$%#*()%"&, O(!3, &*: -, #' *!*K*\$%3!: ,)%!8%%#!: %,)(-K!, 66%2\$%' !8K!
8+\$: !2-(3, \$%!, #' !, #\$: &+1+5%#(2!6, 2\$+&*!@

=, #C!D<HK<!%\$, -<LFGGF1K1,"#)%*\$5, \$(#5!\$: %!&%-, \$(+##*: (1!8%\$P%%#!U@d", #' !DE"!(#!*%3(H, &' !5&, **-, #' !
(#!"##%&!N+#5+-(, !7*(#5!(#H*(\$7!3%, *7&%3%#*\$<,>: %+&%\$(2, -!, #' !, 11-(%' !2-(3, \$+--+5K!feL. HFW!. e. H
. ea!
!
=+&+,\$, #C![<C!%\$, -<LFG. ^M!„D, &5%H02, -%!>+\$, -!g, \$%&!O\$+&, 5%!, #' !g, \$%&!=-7S!9: , #5%*!+)%)&!\$: %!E&(' !
, #' !0%3(, &' !; , &\$*!+6!\$: %!N(' ' -%![, *\$!6&+ 3!JXE9[!, #' !X%, #, -K*(*!; &+' 72\$*„!07&)%K*!(#!J%+1: K*(2*!
I bLIM!ef. Ha. e<

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>JD!

` 210,-(1+!' @+.2+,-(1!(<!/ -7-,+!) (-!C4/3+2.-0!*3(*' 3,4!5+*)!,C3(27C!
0(5*+3-)(1!(<!) -52.,' /!+1/!3' 5(,' .4!)' 1)' /!5+ -= ' !0+1 (*4!0(@' 3!

D _____ C!@&<!0\$%6, , #!@+ #' %K#%"C!@&<[-(#%!d, #7K\$&%2: \$#C!@&<[' P(#!UK(&%#' , %C!; &+6<
A+*!d, #!W&*: +)%#s

FF!@()(*(+#!I!9+33(**(+#!I<. !K!0+(-!%), -7, \$(+#!, #' !-, #' !7*%!1-, ##(#5C!+=&\$: C!E757*\$!I C!FGFFC!Gb/GG!H!
. G/GG!

0+(-!3, 1*!2, #!7*%67--K!*%&)%!(#!' , \$, !*2, &%!&%5(+#!C!6+&!%S, 31-%!6+&!K(%-' !L5, 1M, **%**3%#*\$!7*(#5!, !
2&+1!*(37-, \$(+#!3+' %<!: %!*+(-!1&+1%&\$K!%*(3, \$%*\!2+#\$&(87\$(+#!\$+!(# , 227&, 2K!, #' !7#2%&\$, (#\$K!2, #!
8%!67#2\$(+#, --K!%), -7, \$%' !8K!2+31, &(#5!3+' %!&%*7-\$*!7*(#5!\$: %!%*(3, \$%*!, *!(#17\$!, 5, (#*\$!
(#' %1%#' %#\$!+8*%&), \$(+#!*!g%!2+#' 72\$%' !, !67#2\$(+#!, -!%), -7, \$(+#!+6!' (5(\$, -!3, 1*!+6!*+(-! : K' &, 7-(2!
1&+1%&\$(%*!+6!\$: %!w, 38%](!X())%&!, *(#!7*(#5!2&+1!5&+P\$: !3+' %-!E07, 9&+1!E07, 9&+1!P, *!&7#!
, -(3%#\$\$' !P(\$: !+2, -!3%\$%+&+5(2, -!' , \$, !, #' !P(\$: !*+(-! : K' &, 7-(2!1&+1%&\$(%*!' %&())%' !6&+3!\$: %!' (5(\$, -!
3, 1*!+#!\$: %!+##%!: , #' !)*<!%*(3, \$%' !P(\$: !\$: %!P(' %K!7*%' !0, S\$+#!?!X, P-*!1%' +\$&, #*6%&!67#2\$(+#!
+#!\$: %!+\$: %&!: , #' <!: %!\$P+!(37-, \$%' !\$(3%!*%&(%*!+6!2, #+1K!2+)%&!LE07, 9&+1H99H@0N!, #' !
E07, 9&+1H99

0, #' : 7C!X<!?!"&3, 4C!0<LFG. fM!E***%*3%#\$!+6!E07, 9&+1!3+' %-!(#!*(37-, \$(#5!3, (]!2, #+1K!2+)%&C!
*+(-H

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V#"!

Q!0+2,-(1+34!,+.'!(<!5+0C-1'!.'+31-17S!.+1/!2)'!+1/!.+1/!)2-,+6-.,4!
+))'))5' 1,!

D A B C!@&!d<D<L>(\$, MN7-' %&"C!; &+6

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\">!
Q))'))-17!* (,' 1,-+!) (-!' 0()4), ' 5-0!)' 3@-0')!-1!236+1!73' ' 1!+3' +)!<3(5!
5' +)23' 5' 1,)!(<!) (-!*3(*' 3,-')6!-1)-7C,!<3(5!,C' !_KI :LK:Y!*3(0' 0,!

c

J, & ' + #c! = dX< !0, # \$ + *c! X< = d' + *c! ? ! X + ' & (57% *c! X< ! X< ! LFGFGM< _& ,] (-\! 6+ & % * \$! & % * \$ + & , \$ (+ #c! 8(+ 3 , **!, #' !
2, & 8+ #! * \$ + 24* / ! E! 2& (\$ (2, -! & %) (%P! + 6! \$: %! 4# + P- %' 5% ! 5, 1 * d = + & % * \$! [2+ + + 5K!, #' ! N, #, 5% 3% # \$c! TaFc!
.. ^f^F<: \$\$1*/ZZ' + (<+ & 5Z. G<. G. aZA<=WX[9W<FGFG<. . ^f^F

"JVD!"

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%%\$!

j 2+1,-<4-17!*' / (/-' 3)-,4!+,!/-<<' 3' 1,!)0+. ')!

D _____ !@&!E-%**, #' &+!J(3+#, ''\$

Fb!gJ. <F!k!@(5\$, -!*+(-!3, 11(#5!/, '), #2%*!\$+P, &' *!@(5\$, -!0+(-!E***3%#\$/C!E757*\$!I C!FGFF!

"#!\$: (*!P+&!P%!%S1-+&!!\$P+!' (66%&#%\$!, 11&+, 2: %*!\$+!\$: %!07, #\$(6(2, \$(+#!+6!1%' +') %&*(\$K<W#%!8, *%' !
+#!3%\$: +' *!7*%' !(#!\$: %!' %*2&(1\$(+#!+6!8(+++5(2, -!') %&*(\$K!C!, #' !\$: %&%6+&!!&%1-, 2(#5!*1%2(%*!P(\$: !*+(-!
7#(\$*C!, #' !+#!%8, *%' !+#!*1, \$(, -!*\$, \$(*\$2, -!3%\$: +' *!, 11-(%' !+!2+#\$(#7+7*!*+(-!1&+1%&\$(%!*7&6, 2%*!
' %&())' !6&+3!' (5\$, -!*+(-!3, 11(#5!L@0NM!

!
g%!%S1-+&!3%, *7&%*!+6!-+2, -!') %&*(\$K!C!*1, \$(, -!\$7&#+) %&!, #' !&%5(+#, -H*2, -%') %&*(\$K!8, *%' !+#!
, 22737-, \$(+#!27&)%*C!, #' !*: +P!: +P!\$+!2+31, &%!1%' +') %&*(\$K!+6!, &8(\$&, &K!&%5(+#!C!P(\$: !
, 11-(2, \$(+#!\$+!&())%&!2, \$2: 3%#\$*<!: %!&%*7-\$*!, &%!' %1%#%' %#\$!+#!\$: %!*2, -!+6!, #, -K*(*<g%!, -*+!*: +P!
\$: , \$!\$: %!\$P+!, 11&+, 2: %*!, &%!2+31-%3%#\$, &K!(!\$: %!07, #\$(6(2, \$(+#!+6!') %&*(\$K!<!: %!, #, -K*(*!P, *!
, 11-(%' !+!\$: %!P: +-#!+6!02+-\$, #' !LVnM!

UE

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"\>V!

9-7-,+.: (-.!; +** -17!+1/!X4/3(. (7-0+.!; (/ ' ..-17!*3(/20')!)(.2,-(1)!<(3!
)' @' 3' !-1<3+),320,23' !/+5+7' !-1!E()5 (!E-,4\$!: (2,C!Q<3-0+!

D _____ C!; &+6!A+: , #!), #!>+- "C!@&!@, &&%#!_+7P%&#C!; &+6!0(3+#!D+&%#\$]%C!; &+6!; (%\$%&!-%!
X+7S#s

!

D>#!

3+)),+G!K+), ' 3N6+) ' /!: *+, -+!:, 3+, -<0+, -(1!Q.7(3-, C5)!+1/!, C' -3!Q** .0+, -(1!
-1!9-7-, +!:(-!; +** -17!

!
""JD!

K' *3')' 1,+,-@' !L.' 5' 1,+34!Q3' +)!, (!(*,-5=-' !<' ./!) (-!)+5*.-17!21/' 3!
. (7-),-0+!0(1),3+-1,)!!

D C _____ C!@&<9+-8K!_&7#5, &' !s

Fb!gJ. <F!k!@5(\$,-!*+(-!3, 11(#5!/!, '), #2%*!\$+P, &' *!@5(\$,-!0+(-!E***3%#\$/C!E757*\$! C!FGFF!

"#6+&3, \$(+#!+#!*+(-!1&+1%&\$(%*!, #' !\$: %(&!*1, \$(, -!' (*\$&(87\$(+#!(*!2&\$(2, -!6+&!, #' !1-, ##(#5!, #' !
7\$, (#, 8-%!*+(-!3, #, 5%3%#\$<@5(\$,-!0+(-!N, 11(#5!L@0NM07, #\$(6%*!*+(-!), &(\$+#!8K!%*\$, 8-(*: (#5!
&%-,\$(+#*: (1*!8%\$P%#%#!6(%-' !+8*%&), \$(+#!, #' !%#)(&+#3%#\$, -!2+), &(\$%*!>: 7*C!\$: %!
07, -(\$K!, #' !, 227&, 2K!+6!@0N!1&% ' (2\$(+#!&%-K!+#!\$: %!' (*\$&(87\$(+#!+6!\$: %!+8*%&), \$(+#!<10%)%&, -!
, 31-(#5!, 11&+, 2: %!, \$\$%31\$!\$+!2, 1\$7&%!*+(-!*1, \$(, -!), &(, 8(-(\$K<B+P%)%&C!+5(*\$(2, -!2+#!*\$&, (#\$*!
(31+*%!(3(\$, \$(+#!\$+!*+(-!* , 31-(#5!(!, &%, *!P: %&%!*+(-!(#6+&3, \$(+#!(*!%*%#\$/C, -!L%5<C!3+7#\$, (#+7*!
&%5(+#!M!
g%!1&+1+*%!, !3%\$: +' !\$+!+1\$(3(!%!*+(-!* , 31-(#5!(!&%3+\$%!, &%, *!2, --%' !\$: %!X%1&%*%#\$, \$()%!
[-%3%#\$, &K!E&%, !LX[EM*, 31-(#5<: %!X[E!*\$&, \$%5K!7*%*!, !\$+1H' +P#!, 11&+, 2: !\$+!*\$&, \$(6K!78*%\$C!
, #' !(' %#\$6K!*3, --!, &%, *!\$: , \$!2, 1\$7&%!\$: %!67--!&, #5%!+6!-, #' *2, 1%!), &(, 8(-(\$K<g%!6(&*!*\$&, \$(6K!\$: %!
*\$7' K!, &%, !8K!5%+3+&1: (2!%#)(&+#3%#LJ[M<: %#C!\$: %!, &%, *!, &%!*78')(' %' !8K!*788, *(#*C!%, 2: !+6!
\$: %!*788, *(#*!(*!2+#!(' %&%' !, #!%-3%#\$, &K!

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%V''!

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"#\ \$!

` (3' 1)-0!s` -17' 3*3-1,-17h!TH3(@' 1+10' !9' , ' 35-1+,-(1U!-1!,C' !H3' /-0,-@' !
&' (. (0+,-(1!(<!,C' !&. (6+!.IM3+/' !-1!P..-0,!; -1' 3+.)!+1/!; ' ,+.)!

D D C!; &+6!@7#2, #!; (&&%!

Te!gJT<. !H!>: %!, 11-(2, \$(+#!+6!0+(-!02(%#2%!(#!\$: %!9&(3(#, -!A7*\$2%!OK*\$%3/C!E-*: !FC!E757*\$!I C!FGFFC!
Gb/GG!H!. G/GG!

>: %!(-%5, -!\$&, 66(24(#5C!\$: %6\$!, #' !\$&, ' %!(#!3(#%&, -*!, #' !3%\$, -*!(*, !3, Y+&!5+8, -!1&+8-%3<!--(2\$!
3(#%&, -*!, #' !3%\$, -*!3, K!8%2+3%ix-%5\$(3(*% ' \!)(, !3+#!K!-, 7# ' %&(#5!2: %3%*!, #' !%#%&!\$: %!*711-K!
2: , (#!, 6\$%&!\$: %K!; ,)%!8%##!8%6(#% ' C!7*7, --K!, \$!, !' (66%&%#\$!5%+5&, 1: (2, -!+2, \$(+#!\$+!\$: %(&!+&(5(#<!: %!
8%#%6(2(, &(*!, &!+6\$%#!P%-H+&5, #(*% ' !*K# ' (2, \$%*C!2&(3(#, -!5, #5*C!2, &\$%-*!+&!\$%&&+&(*\$!+&5, #(*, \$(+#!<
>: (*!, 2\$()(\$K!(#)+-) %*!1&%2(+7*!3(#%&, -*!, #' !3%\$, -*C!1-, \$(#73!5&+71!3(#%&, -*!, #' !2+#!6-(2\$!3(#%&, -*!
L\$(#C!\$75*\$%#!, #' !\$, #\$, -73M!N(#%&, -*!, #' !3%\$, -*!,)%!(# : %&%#\$!), &(, 8(-(\$K!(#!\$%&3*!+6!\$: %(&!
1: K*(2, -C!2: %3(2, -!L%<5<!(+*\$+1%!, \$(+*MC!3+&1: ++5(2, -!L*7&6, 2%MC!\$%S\$7&, -!, #' !3(#%&, -+5(2, -!
2: , &, 2\$%&(*\$2*<: (*!), &(, 8(-(\$K!2, #!8%!, \$\$&(87\$%' !\$+!, !#738&!+6!6, 2\$+&*!(#2-7' (#5!6+&!%S, 31-%!\$: %(&!
5%+-+5(2, -!+&(5(#C!1+*\$!3(#5!3(#%&, -!1&+2%**(#5C!8%#%6(2(, \$(+#!+&!\$: %!8-%#' (#5!+6! (66%&%#\$!
\$&%, 3!E#!+8Y%2\$() %!+6!1&+) %#, #2%!' %\$%&3(#, \$(+#!L1&' (2\$() %!5%+-+2, \$(+#!M(*!\$+! %\$%&3(#%!: %!
5%+5&, 1: (2, -!+2, \$(+#!6&+3!P: %&#!, !3(#%&, -!+&!3%\$, -!* , 31-%!P, *!' %&C) %' !+&!&6(#% ' C!\$+!)%&(6K!
P: %\$: %&!+&!#+\$!(\$!+&(5(#, \$%' !6&+3!, !2+#!6-(2\$!*+7&2%!+&!6&+3!, !3(#%!+&!1&+2%**(#5!1-, #!\$, -(5#%' !P(\$: !
2&(3(#, -!, 2\$()(\$%*<:>&, 2%, 8(-(\$K!&%6%&*!\$+!\$: %!1: K*(2, -!\$&, 2(#5!, #' !\$&, 24(#5!+6!1&%2(+7*!3(#%&, -*!, #' !
3%\$, -*!, *!\$: %K!3+)%!\$: &+75: !\$: %!*711-K!2: , (#!6&+3!\$: %!3(#%!\$+!\$: %!&%6(#%&!, #' !3, &4%\$<
>&, 2%, 8(-(\$K!(#2-7' %*!2: , (#!+6!27*\$+ ' KC!* , 31-%!*%27&(\$KC!8, 55(#5C!\$, 55(#5!, #' !2%&\$6(2, \$%!+6!+&(5(#C!
' 7%! ' (-5%#2%!, 7' (\$*C!8%5(*\$&K!+6!3(#%&, -*!1&+ ' 72%&*!, #' !\$&, ' %&*C!\$: %!7*%!+6!3(2&+\$, 55, #!\$!
(' %\$%6(2, \$(+#!1, &\$(2-%*C!, !5%+6+8%#*(2!1, **1+&\$C!%-3%#\$, -!1&+6(-#5!, #' !3(#%&, -+5(2, -!1&+6(-#5<E#!
+)%)&)%P!+6!\$: %*%!3%\$: + ' !P(-!8%!1&+)' (' %' !P(\$: !*+3%!+1%&, \$(+#, -!2, %!*%S, 31-%*<
@+##%-KC!D<A!FG. ^<L% ' &M [1(*+ ' %*!A+7&#, -!+6!#%\$&#, \$(+#, -!J%+*2(%#2%<01%2(, -!***7%!+#!+&%#*(2!
J%+-+5KC!"#\$%&#, \$(+#, -!V#(+#!+6!J%+-+5(2, -!02(%#2%*C!A7#%!FG. ^C!TG<

!

@+##%-KC!D<A!; (&&C!@<B, &&(*+#!N<C!X766%-C!E<, #' !@, P*+#!C!D<L% ' *M!KFGF. <E!J7(' %!\$+!+=&%#*(2!
J%+-+5K<J%+-+5(2, -!0+2(%\$KC!D+#! +#!C!: \$\$1*/ZZ' +(<+&5Z. G<. . T TZJ=J<I <

!

@+##%-KC!D<A! , #' !X766%-C!E<FGF. <[3%&5(#5!, 11-(2, \$(+#!+6!6+&%#*(2!5%+-+5K<#!@+##%-KC!D<A!
; (&&C!@<B, &&(*+#!N<C!X766%-C!E<, #' !@, P*+#!C!D<L% ' *M!E!J7(' %!\$+!+=&%#*(2!J%+-+5K<J%+-+5(2, -!
0+2(%\$KC!D+#! +#!C!. ^ . k. b^<

!

=(\$]1, \$&(24C!X!g<?!@+##%-KC!D<A<L% ' *M=+&%#*(2!0+(-!02(%#2%!, #' !J%+-+5K<J%+-+5(2, -!0+2(%\$KC!
D+#! +#!C!01%2(, -!; 78-(2, \$(+#!*C!Tff<: \$\$1*/ZZ' +(<+&5Z. G<. . T TZ0; TffHFGF. Hb. !

!

!
"J">!

M3+0' !' @-/ ' 10' !0(5*+3-)(1!6' ,R' ' 1!)(-!(1!<((,R' +3!+1/!3' <' 3' 10' !)-, ' !
. (0+,-(1)G!+**.-0+,-(1!, (!+!523/' 3!-1@'),-7+,-(1!

 D C! A C!N&!!E-, *\$, (&!!d, ##, #"C!N&!!@+3(#(2!!N+#, 5: , #"C!
N&*!D(*, !!A+: #*\$+#"C!@&!!A7-(%!X+8%&\$*#C!@&!!N, &4!!01%#2%&C!; &+6!!N, &4!_%P%&&§

Te!gJT<. !H!>: %!, 11-(2, \$(+#!+6!0+(-!02(%#2%!(#!\$: %!9&(3(#, -!A7*\$(2%!0K*\$%3/C!E-*: !FC!E757*\$!I C!FGFFC!
Gb/GG!H!. G/GG!

"#!0%1\$%38%&!FG. ^!1+-(2%!*, P!, !3, -%!P, -4(#5!(#!, !&%*(' %#\$(-!, &%, <!g: %#!\$: %K!2, 3%!, 2&+**!: (3!, !
*%2+#' !\$ (3%!: %!P, *!#+\$!P%, &(FG. ^!1)0. 5(F)09906-0. \$6590. 160. 4(G)0. 2(.)0. 240\$!B(G)0. 2&(, !

!
"J#\!

MC' !: ' +30C!<(3!; (-3+!

_____ **D** _____ C!@&!E-, *\$, (&!X766%--"C! _____ **C** _____

Te!gJT<. !H!>: %!, 11-(2, \$(+#!+6!0+(-!02(%#2%!(#!\$: %!9&(3(#, -!A7*\$(2%!0K*\$%3/C!E-*: !FC!E757*\$!I C!FGFFC!
Gb/GG!

=(\$] 1 , \$ & (2 4 ! X < g < ! N < @ < X ,) % # ! , # ' ! 0 < < = + & & % * \$ % & ! L F G G f M E ! 0 K * \$ % 3 , \$ (2 ! E 1 1 & + , 2 : ! \$ + ! 0 + (- ! = + & % # * (2 * / !
9 & (3 (# , - ! 9 , * % ! 0 \$ 7 ' (% * ! " #) + .) (# 5 ! > & , # * 6 % & % # 2 % ! 6 & + 3 ! 9 & (3 % ! 0 2 % # % ! \$ + ! = + & % # * (2 ! [] (' % # 2 % < ! " # ! 9 & (3 (# , - !
, # ' ! [#) (& + # 3 % # \$, - ! 0 + (- ! = + & % # * (2 * ! L [' * < ! n < X (\$) ! D < @ , P * + # ! @ < ! N (- % & M ! 1 1 < ! . G e h . F ^ < ! 0 1 & (# 5 % & !
0 2 (% # 2 % } _ 7 * (# % * * ! N % ' (, ! _ < d < ' + (/ ! . G < . G G ^ Z f ^ b h . H T G F G H f F G T h a z b

!
JJJ!

` (3' 1)-0!&' (. (74!+1/!E-@. !H3 (,' 0,-(1G!RC' 1!<(3')' ' +6.' !C4/3(7' (. (7-0+!
/-)+), ' 3)!0+2)' !@-0,-5)!

D _____ **D** _____

Te!gJT<. !!!

!

#D8!

: (-!(37+1-0!0+36(1!, (!0.+4!3+,-(G!' <<' 0,-@' !<(3!5(1-, (3-17!5+1+7' 5' 1,! +0,-@-,-')!, (!+0C-' @' !-5 *3(@' /!0+36(1!),+,2)!+1/!0(1/-,-(1!(<!) (-.)^!

_____C!@&!n%(\$: !0: %1: %&' #C!; &+6%** +&!0\$%)%!N2J&, \$: !C!; &+6%** +&!J7K!n(&4"C!@&!0\$%1: , #!
B, %%-%!\$

"#\$%&')(*(+#, -!^!H!0+(-!*%27&(#5!: 73, #(\$K!Ã!B73, #(\$K!*%27&(#5!*+(-C!D+3+#' !E7' (\$+&(73C!E757*\$!I C!
FGFFC!. G/I G!H!. F/I G!

!
%%>!

&. (6+!5 (/ ' ..-17!(<!) (-!<210,-(1)!, (!)2** (3,!)(-!)' 023-,4!

D

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\$>!

: ' 023-17!: (-!, (!: ' 023' !X25+1!X' +.,C!

D E B _____!@&&!N, &5, &%\$!E<!W-)%&""\$

"#\$\$%&')(*(+#, -!^!H!O+(-!*%27&(#5!: 73, #(\$K!Â!B73, #(\$K!*%27&(#5!*+(-C!D+3+#' !E7' (\$+&(73C!E757*\$!I C!
FGFFC!. G/I G!H!. F/I G!

O+(-!2, #!1&+)(' %!6++' !+6!, ' %07, \$%!07, #\$(K!, #' !07, -(K!, #' !+\$. %&!&%*+7&2%*C!%S1+*%*!: 73, #*!\$+!
2: %3(2, -*!6+7# ' !(#!*+(-C!-%, ' *!\$+!: 73, #!2+#\$, 2\$!P(\$: !*+(-!+&5, #(*3*C!, #' !2, #!6(-\$%&!P, *\$%*<!"\$!
(#6-7%#2%*!: 73, #!: %, -\$: !8+\$: !' (&%2\$-K!, #' !(#' (&%2\$-K!\$: &+75: !\$: %*%!3%2: , #(*3* <>: %!' (3%#*(+*!
+6!*+(-!*%27&(\$K!, &%!(31+&\$, #\$(#!\$: %!P, K!*+(-!#6-7%#2%*!: 73, #!: %, -\$: <!@ (3%#*(+#!. !L2, 1, 8(-(\$K!H!
(#6-7%#2%*!*+(-*!, 8(-(\$K!\$+!1&+' 72%!6++' C!+\$: %&!&%*+7&2%*C!, #' !6(-\$%&!P, *\$%!1&+' 72\$*!\$+!1&+)(' %!, !
2-%, #!%#)(&+#3%#C!1, &\$(27-, &-K!2-%, #!P, \$%&!*711-(%*<@ (3%#*(+#!F!L2+#' (\$+#M!: %-1*!' %\$%&3(#%!\$: %!
#7\$&(\$+#, -!07, -(K!+6!, 5&(27-\$7&, -!1&+' 72\$*<@ (3%#*(+#!! !L2, 1(\$, -M&%2+5#(]!*!\$: , \$!\$: %&%!(*) , -7%!\$+!
\$: %!*%&)(2%*!*+(-!1&+)(' %*!(#!1&+3+\$(#5!: 73, #!: %, -\$: C!2+*\$*!P: %#!*+(-!2+#*\$(\$7%#\$*!, &%!' %\$&(3%#\$, -!
\$+!: 73, #!: %, -\$: C!, #' !*(5#(6(2, #!) , -7%!(#!1&+' 72\$*!*72: !, *!3%' (2, \$(+#!\$: , \$!2+3%!6&+3!*+(-<!

!
">>!

P5 *+0,!(<!) (-.! 3()- (1!(1!) (-.!)' 023-,4!21/' 3!7.(6+.!0.-5+, ' !0C+17' G!
-1)-7C,)!<3(5!)-52.+,-(1!(<!) (-.!R+, ' 3!/41+5-0)!+1/!/3(27C,!

_____C!@&<!N, &\$, !' %-!; (-, &!A(3v#%]H@+#, (&%!\$

"#\$\$&')(*(+#, -!^!H!0+(-!*%27&(#5!: 73, #(\$K!Â!B73, #(\$K!*%27&(#5!*+(-!D+3+#' !E7' (\$+&(73C!E757*\$!I C!
FGFFC!. G/I G!!!. F/I G!

E5&(27-\$7&, -!2&+1!1&+' 72\$(+#!(#!3, #K!, &%, *!+6!\$: %!P+&- ' !(*!-(3(\$%' !8K!*+(-!P, \$%&!,), (-, 8(-(\$K<!: (*!
2&\$(2, -!&%*%&)+(&!2, #!8%!*%)%&-K!, 66%2\$%' !8K!*+(-!%&+*(+#!<!: (*!1&+8-%3!(*!%S1%2\$%' !\$+!(#2&%, *%!(#!
\$: %!#%S\$!' %2, ' %*!' 7%!\$+!2-(3, \$%!2: , #5%! , 66%2\$(#5!&, (#6, --!1, \$\$%&#*!<

\DJ!

9' @' .(*-17!+1/!-5*.' 5' 1,-17!+!/-+71(),-0!(-!)' 023-,4!+))'))5' 1,!<3+5' R(3W!<(3!Q2),3+.-+!+1/!6' 4(1/!!

 A B C!; &+6!@, 3(%#!=(%- ' !C!@&!N%&2%' %*!X+3, #!@+8, &2+!C!@&!A+ *%!; , ' , &(, #!C!@&! E-%S, #' &%!g, ' +7S!C!N*!0, #' &![], #5%-(*\$, 'C!; &+6!_7' (3, #!N(#, *#K!\$

"#\$\$&')(*(+#, -!^!H!0+(-!*%27&(#5!: 73, #(\$K!Â!B73, #(\$K!*%27&(#5!*+(-C!D+3+#' !E7' (\$+&(73C!E757*\$!I C! FGFFC!. G/I G!H!. F/I G!

0+(-!*%27&(\$K!(*!, !#%P!2+#2%1\$!/\$!' +%*!#+\$!K%\$!: ,)%!, !6&, 3%P+&4!6+&!(\$*!, **%** 3%#\$!, #' !6+&!\$: , \$!\$+! 8%!*722%**67-!(\$!#%%' *!\$+!8%!07, #(\$(\$, \$)%C!&%1&%*%#\$, \$)%!, #' !-+2, --K!%S1-(2(\$!g%!, (3!\$+!' %)(*%!, ! 07, #(\$(\$, \$)%!6&, 3%P+&4!6+&!%, 2: !+6!\$: %!6()%' (3%#*(+##*!+6!*+(-!*%27&(\$K!6+&!, !#738%&!+6!(' %#\$!6(%' ! *+(-!67#2\$(+##*!, \$!, #K!5)%#!-+2, \$(+#!(#!\$: %!P+&- ' <g%!: ,)%!' +##%1&%-(3(#, &K!P+&4!(\$!\$: %!B7#\$\$%&!

"VJ\!

9-7-,+.!*' / (7' 1 (1!5+** -17!<(3!+))'))-17!0C+17')!-1!) (-!0(1/-,-(1!<3(5!
. (0+.! , (!0(1,-1' 1,+!)0+.' !

D **D** C!B+!A7#!A, #5!C!; &+6%**+&!E-%S!N2_&, \$##%K!C!; &+6%**+&!_7' (3, #!
N(#, *#K!C!@&<_&%#' , #!N, -+#%""\$

"#\$%&'()(*+-----

#JJ!

Q**.-0+,-(1!(<!(37+1-0!5+,' 3-+.)!(1!.+1/!N

!

"\V\!

Z+1/!2)' !/' 0)- (1)!21/' 3!0.-5+, ' !0C+17' G!K' 0(10.-17!<((/!*3(/20,-(1!+1/!
,3' ' !*.+1,-17!!

D C!N&*!9, &+-(#!n%, K!C!@&n, \$(%!N%' 2, -6"C!@&!J%3 3, !_%-"C!N&!", #!X755#C!N&!
E&P%-!g(--(, 3*#C!N&!A, 3%*!9++4%#s

"#\$\$%')(*(+#, -!b!H!07*\$, (#, 8-%!-, #' !7*%C!N. C!E757*\$!I C!FGFFC!. G/I G!H!. F/I G!

n%K!27&&#%\$!1+-(2K!' %2*(+#!(#2-7' %!: +P!\$+!&%2+#2(-%!2+31%\$(#5!' %3, #' *!6+&!-, #' !7*%!, #' !: +P!
\$: %*%!P(--!*: (6\$!7# ' %&!2-(3, \$%!2: , #5%!1&+Y%2\$(+#!*!E!2+H1&+ ' 72%' !3+ ' %-(#5!%S%&2(*!(!#!g, -%*!
' %)%-+1%' !*%)%&, -!*1, \$(, -!+7\$17\$*!+6!-, #' !2, 1, 8(-(\$K!6+&! , 5&(27-\$7&%C!*7(\$, 8(-(\$K!6+&!2&+1*!, #' !
*7(\$, 8(-(\$K!6+&!&\$%&!*1%2(%*!7# ' %&!67\$7&%!2-(3, \$%!*2%#, &(+*!<>: %&%!P, *!, #!(31&+) %3%#\$(#!-, #' !
2, 1, 8(-(\$K!6+&! , 5&(27-\$7&, -!1&+ ' 72\$(+#!(#!\$: %!#%, &!67\$7&%!87\$!, !' %2-(#!8K!FGbG!' 7%!\$+!(#2&%, *% ' !
' &+75: \$!*1(B307. 999-0. 5(8(7)-0. 4*)-0. 10)-0. 4(*)-0. 1(&)0. 1(g)0. 441Tf[((\$7)-0. 4(&)0. 4()-0. 5(&)0. 441Tf[

!
!
"J>J!

H3(, ' 0,!! .+0W!: (-.)!, (!Q0C-' @' !' ((/!+1/!L1@-3(15' 1,+.!: ' 023-,4G!K' * (3,!(<!
,C' !&.(6+!.: ,+,2)!(<!I .+0W!: (-.)!

; : <' <D|2(, !B%-%#, !E#Y+*!C!; : <@<m7S(#!>+#5"C!; : <@<d"), #!d, *%#%)#C!; : <@<N, &2+*!["*\$%8, #!E#5%-(#%C!
; : <@<; ,)%-!n&, *(-#(4+)&C!N02!g(-, 3!N, K(C!; : <@<!...(, +K7, #!J%#5)C!; : <@<D72, !N+#\$, #, &%-, +C! _____
_____C!; : <@<E-%S%(!0+&+4(#\$

"#\$\$%')(*+#, -!b!H!07*\$, (#, 8-%!-, #' !7*%C!N. C!E757*\$!I C!FGFFC!. G/I G!H!. F/I G!

_, 24!*+(-*!, &%, 3+#5!3+*\$!\$: &%, \$%#%' !*+(-!&%*+7&2%*!+6!\$: %!P+&' <@%1-%\$(#5!\$: %*%!*+(-*!: ,)%!
2+#+%07%#2%*!6+&!6++' !*%27&(\$K!2-(3, \$%!2: , #5%! , #' !8(+ ')%&*(\$K!-+**<!: %K!, &%)%&K!6%&\$(-%!, #' !\$: 7*!
2+#+(' %&% ' !i\$: %!P+&' !2&+1!8, *4%\$j!+&!i5(, #!\$1, #' , *!(#!27-\$), \$%' !6, &3-, #' *jC!&%2%)(#5!)(#2&%, *(#5!
1&%**7&%*!6+&!7*, 5%<!: %K!, &#!(#\$%#*%)%K!6, &3%' !, --!+) %&!\$: %!P+&' C!, #' !(#2&%, *(#5-K!27-\$), \$%' !6+&!
2%&%, -C!1, *\$7&%C!&, #5%!, #' !6+&, 5%!*K*\$%3* <!: %(&!*(5#(6(2, #!\$!*+(-!+&5, #2!2, &8+#!LOW9M2+##\$%\$!
3, 4%*!\$: %3!)%&K!*%#*(\$)%!, *!(#4*!, #' !*+7&2%*!+6!5&%#%# : +7*%15, %* <!: %!&%2+5#(\$+#!+6!2%#\$&, -!
&+-%!+6!8-, 24!*+(-!&%*+7&2%*!6+&!6++' !*%27&(\$K!, 5&(27-\$7&, -!7*\$, (#, 8-(\$K!, #' !1&+' 72\$)(\$K!, #' !
(#2&%, %*' !, P, &%#%**!\$: , \$!\$: %K!1-, K!, !*(5#(6(2, #!\$!&+-%!(#!2-(3, \$%!2: , #5%!, ' , 1\$, \$(+#!, #' !3(\$5, \$(+#!
\$&(55%&' !#73%&+7*!1&+V%2\$*C!(\$(\$, (\$) %*!, #' !, 2\$(+#!5-+8, --K!LO@J!. I M!9+#+*(' %&(#5!\$: %!5&%, \$!
(31+&\$, #2%!+6!8-, 24!*+(-*!, #' !&(*4*!+6!*%)%&%' %5&, ' , \$(+#!8%2, 7*%!+6!&%2+3

!

#>>!

MC' !t&3(21/R+, ' 3!l ' 1' <-,!d(1' u!-1!: +.-1' !Q73-02.,23' \$!H3(* ()+.)\$!

!
>"\$!

P5 *3(@-17!)(-!' 0()4), ' 5!)' 3@-0')!-1!X(2), (1\$!M' B+)!,C3(27C!.+37' N

%\#!

_) -17!) (-!C' +., C!, '), -17!, (!/')-71!03(*!3(,+,-(1)!, C+, !+3' !<-, !<(3!, C' !<2, 23' !
64!6+. +10-17!*3(/20, -@-, 4!R-, C!)2), +-1+6-., 4!

c

!
"D8!

E(N

QT

!

\$DD!

: (-!X' +.,C!-)!,C' !&2-/' G!MC3' '!.'))(1)!<3(5!+))'))-17!73+=-17!

5+1+7' 5' 1,!*3+0,-0')!-1!,C' !R'),' 31!_1-, ' /!: ,+, ')!

_____C!@&<N%5, #!U, *\$+"C!@&<n&(*!B7-)%K"C!E7*\$%#!D, 38%&\$!C!@%, #!O\$, 2K!C!N(-%*!
9+4%&!C!D72(--%!X+--(#*!\$

"#\$%&')(*(+#, -!b!H!

!

"D%\$!

M3+/' N(<<)!1' ' /' /!-1!/' .-@' 3-17!' 1@-3(15' 1,+!)' 3@-0')!,C3(27C!
' B,' 1)-<-0+,-(1!(<|-5 *3(@' /!_a!2*.+1/!*+),23' !)(-.)!

D _____ C!@&!9, &+-(#%!J!=&%%3, #' C!@&!E#' &%P!@%\$: %&(' 5%!C!; &+6!J, &%\$: !J&(66(\$: 'C!@&!@K-, #!
JPK##HA+#%*!\$

"#\$\$&')*(+##, -b!H!07*\$, (#, 8-%!-, #' !7*%C!N. C!E757*#!C!FGFFC!. G/I G!H!. F/I G!

0+(-*!, &%!#P!%S1%2\$%' !\$+!' %-()&&! ,!&, #5%!+6!!%#)(&+#3#%\$, -!*%&)(2%*C!(#!, ' ' (\$+#!\$+!\$: %&!\$&, ' (\$+##, -!
&+-%!(#!6++' !, #' !6(8&%!1&+' 72\$(+##<!>: (*!:, *!-%' !\$+!(#\$\$%#*%!' %8, \$%!(#!&%-, \$(+#!\$+!-, #' !7*%!, #' !
3, #, 5%3%#%\$!1, &\$(27-, &-K!(#!71-, #' !1, *\$7&%*<V# ('*\$7&8%' C!\$: %*%!*%3(H#, \$7&, -!5&, **-, #' *!, &%!5-+8, -!
8(+ ')%&*(K!: +\$*1+\$*!6+&!3, 2&+67#5(!LP, S2, 1*MC!87!\$: %K!, -*+!: ,)%!, #!(31+&\$, #\$(#6-7%#2%!+#!
2, \$2: 3%#%\$!: K' &+-+5K!5()#%\$!: %&!+2, \$(+##C!P(\$: !K1(2, --K!: (5: !&, (#6, --!, #' !*-+1(#5!\$+1+5&, 1: K<"#!\$: %!
Vn!372: !+6!\$: (*!!71-, #' !, 2(' !5&, **-, #' !P, *!-(3%' C!6%&\$(-(*%' !, #' !&%*%%' %' !\$+!(31&+)%, 5&(27-\$7&, -!
1&+' 72\$(+#!(#!\$: %!-, *\$!2%#\$7&K<#!*72: !1, *\$7&%H8, *% ' !, 5&(27-\$7&%C!%S\$%#*(6(2, \$(+##C!(#)+-)(#5!
&%' 72\$(+##*!(#!(#!17\$*!, #' !5&,](#5!(#\$\$%#*(K!C!(1&+1+*%' !, *!, !3%, #*!+6!%#: , #2(#5!

!
">J%!

HC()*C(32)!<3+0,-(1)!+1/!+@+-.+6-.-,-')!-1!/-<<' 3' 1,!)(-!/' * ,C)!+<,' 3!D8!
4' +3)!(<!0(1,-12(2)!)(-!H!5+1+7' 5' 1,^!

m7%!B7

!
"V#"!

FC+,!0(1,3(.!)!,C' !+@+-.+6-.-,4!(<! (37+1-0!+1/!-1 (37+1-0!H!) (230')!-1!, (*N!
+1/!)26)(-) ? Q!VVH!-) (, (*-0!.+6' ..-17!),2/4!

 A C!@&49, --73!_, #6(%-' '!""C!@&4J7+' + #5!0: , +!C!@&4n,]%3!w, 3, #(, #C!N&!>+8(, *!

"\$#!

Q/)(3*,-(1!+1!/!') (3*,-(1!/41+5-0)!(<!(37+1-0!*C()*C(32)!<(35)!<3(5!
`' iQ!(B4C4/3(B-/')!+1!/!0.+4!5-1' 3+.)^!

F A AD

E# '%&*+#C!J<![<J<g(-(-, 3*c!%\$!A, 207%-(#%!W<N+(&<. f^T<Á!E!9+31, &(*+#!+6!\$: %!0+&1\$(+#!+6!

!
%#\!

Q)) (0-+, -(1)!(<!-1 ()-, (!*C ()*C+, ')!+1/!0(5*.' B!*C ()*C(5(1('), ' 3)!

"#JJ!

_1/' 3),+1/-17!&X&)/41+5-0)!(<!,,' 31+,-@' !5+1+7' 5' 1,!*3+0,-0')!
21/' 3!)C+..(R!R+, ' 3!,+6.' !0(1/-,-(1)!

D _____ C!@&dJ%3(#(!@%-!d%' +)%"Cl; &+6dU(2+-, !@, -!=%&&+!C!@&dX(22, &' +!; +-=%*! C!N&*<!
_, &8, &, !D,]], &+^#C!; &+6d=&, #2%*2+!N+&, &(!^s

F. !@)(* (+#! C!9+33(**(+#! <F!H!0+(-!P, %&C!1+--7\$, #\$, #' !5, *!3+)%)3#%\$!(#!\$: %!2+#\$S\$!+6!, !
2: , #5(#5!2-(3, %C!+=&\$: C!E757*\$! C!FGFFC!. G/I G!H!. F/I G!

E-\$%&#, \$!)%!3, #, 5%3%#1&, 2\$(2%*!, &%!1&+3+\$%' !\$+!&%' 72%!#7\$&(%#\$!1+--7\$(+#!, #' !3\$(5, %!
5&%%#: +7*%!5, *!LJBJM%3(**(+#!<B+P%)%&C!\$: %!%66%2\$!+6!P, %&!\$, 8-%!Lg>M!+#!JBJ!%3(**(+#!6&+3!
3(#%&, !*+(-*!7#' %&! (66%&%#\$!2&+11(#5!*K*\$%3*! : ,)%#!#+\$!K%\$!8%#%#!67--K!%S, 3(#%' <"#!, !\$: &%%HK%, &!
%S1%&(3%#\$C!P!%07, #\$(6%' !JBJ*!LUFWC!9BT!, #' !9WFM%3(**(+#!(!, !: (5: -K!%07(11%' !-K*(3%\$%&!
%S1%&(3%#\$C!2+31, &(#5!2+#\$&, *\$(#5!2&+11(#5!*K*\$%3*!L2+#)%#\$(+#!, -!H9dHC!2+#*%&), \$(+#!H9EH!, #' !
2+#)%#\$(+#!, -, 5&(27-\$7&!P(\$: !2+)%&!2&+1*!H99HM, *!3, #, 5%' !, 22+&' (#5!\$+!' (66%&%#\$!g>!-)%-!*!L6&%%!
' &, (#, 5%!H=@HC!aG!, #' !. FG!23!' %1\$: M!J, *!6-7S*!P%&!2+#\$(#7+7*-K!3%, *7&%! !7*(#5!' K#, 3(2!
2: , 38%&!2+#%#2\$%' !\$+!, !=>"X!, #, -K]%%&C!&*7-\$#5!(!, !3, **)%#!#738%&!+6!&2+&' %' !6-7S*!L+)%&!
. abGGM!@7&(#5!\$: %!2&+11(#5!*%, *+^#C!: %\$%&+\$&+1: (2!P, *!' (*\$#57(*: %' !6&+3!\$+\$, -!&*1(&, \$(+#!7*(#5!
, #!(#H*(\$7!2, -(8&, %\$' !3+' %<!: %!*+(-!P, %&!2+#\$%#\$, #' !\$%31%&, \$7&%!P%&!, -*+!3+#(\$+&%' !(!\$: %!
P: +-%!*+(-!1&+6(-%<

V# ' %&!99!, #' !9EC!8+\$: !UFW!, #' !9BT!P%&!(#6-7%#2%' !8K!\$: %!1&%*%#2%+6!\$: %!P, %&!\$, 8-%C!P(\$: !
-+P%&!), -7*!, **+2(, \$%' !P(\$: !=@!%<5<!<G!)!*. <F!45!UHUFW!: , H. !6+&!g>!, #' !=@C!&*1%2\$()%-KM!
B%\$%&+\$&+1: (2!&*1(&, \$(+#!P, *!(3(-, &!, 3+#5!3, #, 5%3%#1&, 2\$(2%*!L. TT. <e!45!9H9WF!: , H. M!87\$!
: (5: %&!7#' %&!=@<"#!\$%&3*!+6!\$+\$, -!JBJ!%3(**(+#!C!99!+7\$&, #4%' !9d!, #' !9EC!,)%&, 5(#5!FTef<fC!
F. baG!, #' !. b^e<a!45!9H9WF%!: , H. C!&*1%2\$()%-K<: (*!*\$7' K!*: +P%' !2+#\$&, *\$(#5!&*7-\$*!, #' !' (' !#+\$!
67--K!2+#6(&3!\$: %!3\$(5, \$(+#!%66%2\$!+6!, -\$%&#, \$!)%!3, #, 5%3%#1&, 2\$(2%*C!*1%2(, --K!P: %#!, **+2(, \$%' !
P(\$: !*: , --+P!P, %&!\$, 8-%!2+#' \$(+#!*<

!
9+22+C! [<! %&+\$&, C!9<!007, &\$(#(C!E<!@%-!d%' +)%C!J<!_%&\$(C!E<C!J&(5#, #(C!9<!D,]], &+C!<C!?!N+&, &(C!<=d
LFG. bM!B+P!*: , --+P!P, %&!\$, 8-%!2+#' \$(+#!, 66%2\$!UFW!%3(**(+#!, #' !, **+2(, \$%' !3(2&+8(-!
, 87#' , #2%*!7#' %&! (66%&%#\$!#(\$+5%#!6%&\$(-*, \$(+#!<E5&(27-\$7&C![2+*K*\$%3*!, #' ![#](&+#3%#C!
Fa. LN, &2: M!k. . d: \$\$1*/ZZ' +(<+&5Z. G<. G. aZ!<, 5%<FG. bG!<G. b!
!
@%-!d%' +)%C!J<C!E-8%&\$(C!J<C!w7(-, #(C!N<C!?!; %&%%**+\$(C!E<LFGG^M!E7\$+3, \$%' !N+#(\$+&(#5!+6!0+(-!
X%*1(&, \$(+#!, #!"31&+)%' !E7\$+3, \$(2!9: , 38%&!OK*\$%3<!"\$, -(, #!A+7&#, -!+6!E5+#++3K!C!FLTMC! !^^k! bF<
: \$1*/ZZ' +(<+&5Z. G<Tgb. Z(!, <FGG^< !^^

!
""J>!

!
VV!

L<<' 0,)!(<!6-(/' 73+ /+6.' !* .+),-0)!(1!) (-!*3(*' 3,-')!+1/!73' ' 1C(2)' !7+)!
*3(/20,-(1)!

E

F. !@)(*+#!I C!9+33(**+#!I <F!H!

!
%\!"!

?-,3+, ' \$!1-,3(2)!(B-/ ' \$!+1/!+55(1-+!.())!5-,-7+,-(1!R-,C!(*, -525!3+, ' !(<!

!
%%V!

M3+/' N(<<!) (3!0 (N6' 1' <-,)! (<!0+36 (1!-1*2,!), 3+, ' 7-')! (1!73' ' 1C (2)' !7+)!
' 5-))- (1)!-1!. (R! (37+1-0!5+, , ' 3!) (-.)! (<!,C' !: (2,C' +) ,!_ ^: ^!!

D A _____ C!@&!g, K#!X+8, &5%!C!@&!B%#&(07%!@, !X+*!9, &), -: +!\$

F. !@)(* (+#!I C!9+33 (** (+#!I <F!H!0+(!P, \$%&C!1+--7\$, #\$, #' !5, *!3+) %3%#\$(#!\$: %!2+#\$%S\$!+6!, !
2: , #5(#5!2-(3, \$%C!+=&\$: C!E757*\$!I C!FGFFC!. G/I G!H!. F/I G!

>: %!*78H\$&+1(2, -!2+, *\$, -!1-, (#!*+(-*!+6!\$:

!

">"V!

!

VV#!

EC+3+0, ' 3-+=, -(1!(<!*(/= (-0!) (-.)!2)-17!/ -7-, +.!) (-.!5 (3*C(5', 3-0)!-1!
)26,3(*-0+.!)26+. *-1' !<(3'),)

!
" \V%!

k+.2' !+//' /!*' /(. (74\$!+!5-03(5 (3*C(. (7-0!3' R3-, ' !(<!+!?,32/(!

J#\!

` (3' 0+), -17!) (-.!R+, ' 3!0(1, ' 1,!R-,C!) (-.!5 (/ ' .)!+1/!R' +,C' 3!-1<(35+,-(1!

D _____

I ^!gJF<F!k!N+' %--(#5!*+(-!1&+2%***!6&+3!1%' !\$+!5-+8, -!*2, -%/C!E-*: !. C!E757*\$! C!FGFFC!. G/I G!H!
. F/I G!

0+(-!P, \$%&!2+#\$%#\$(#6-7%#2%*!3, #K![, &\$: !*7&6, 2%!1&+2%***!6&+3!6-++' (#5!\$+![>!\$+!5&+7# P, \$%&!&%2: , &5%<E** (3(-, \$(#5!1%' +\$&, #*6%&!67#2\$(+#!*C!' (5(\$, -!*+(-!3+' %-*C!, #' !: (5: H&%*+-7\$(+#!P%, \$: %&!6+&%2, *\$*C!P%!2, #!6+&%2, *\$!*+(-!P, \$%&!2+#\$%#\$(, #' !*\$+&, 5%C!, #' !\$: %#!7*%!\$: %*%!6+&%2, *\$!*\$+!*+-)%!

>\$"

; (/ ' ..-17!,C' !-5*+0,!(<!.+1/№5+1+7' 5' 1,!6+)' /!1+,23+!.k.((/!
5+1+7' 5' 1,!5' +)23')!2)-17!0(56-1' /!)(-!C4/3(. (7-0+!.!+1/!)23<+0' №
73(21/R+, ' 3!5 (/ ' .)!

!
">V"!

Z-1W-17!: ,+,-0!+1/!941+5-0!H3(*' 3,-')!M(!9' <-1' !: (-!X' , ' 3(7' 1' -,4!Q,!MC' !
; ' , ' 3N: 0+.' !

D D _____ C!@&<E\$\$(-,!U%3%*"C!@&<N, \$\$: %P!; , \$\$%&*+#!C!@&<[*\$: %&!_+%3"C!@&<E##%\$\$%!
@, \$: %C!@&<X7\$: !n%&&K%

I ^!gJF<F!K!N+' %--(#5!*+(!1&+2%***!6&+3!1%' !\$+!5-+8, -!*2, -%/C!E-*: !. C!E757*\$! C!FGFFC!. G/I G!H!
. F/I G!

[), -7, \$(+#!+6!\$&, #*1+&\$!1&+2%***!(#!*+(!&%07(&%!\$: %!07, #\$(6(2, \$(+#!+6!\$&, #*1+&\$!2+%66(2(%#\$*!>: %*%!
2+%66(2(%#\$*C!, #' !\$: %!1&+SK!1&+1%&\$(%*!7*%' !\$+!1&% ' (2\$!\$: %3C!), &K!(#!*1, 2%! , #' !(#!*+3%!2, %*%!(3%<
>: %!2: , &, 2\$%&[] , \$(+#!+6!\$: %*%!), &(\$+#!, 2&+**!*2, -%*!2, #!8%! , 2: (%)%' !8K!&%*+-)(#5!\$: %!*1, \$(, -!
\$&72\$7&%!+6!\$: %!1&+1%&\$(%!+6!(#%&%*%\$!, #' !8K!2+#\$(#7+7*!(#H*(\$7!3+#(\$+&(#5<#!\$: (*!*\$7' K!P%!*%4!

!

>V%!

; +0C-1' !.' +31-17!, (!-1@'),-7+, ' !5 (/ ' .!3' *3')' 1, +, -(1!(<!: YE!), (3+7' !+1/!
/41+5-0)!

D _____ C!@&!0, 5, &!J, 7\$, 3!''''\$

I ^!gJF<F!k!N+' %--(#5!*+(-1!&+2%***!6&+3!1%' !\$+!5-+8, -!2, -%/C!E-*: !. C!E757*\$!! C!FGFFC!. G/I G!H!
. F/I G!

X%*1+#%*!+6!*+(-!2, &8+#!\$+!67\$7&%!2-(3, \$%!&3, (#*!, !3, Y+&!7#2%&\$, (#\$K!(#!\$: %!5-+8, -!2, &8+#!2K2-%<
X%2%#\$-KC!7*%!+6!3, 2: (#%!-%, &#(#5!, 11&+, 2: %*!: , *!(#2&%, *% ' !#!(#)%*\$5, \$(+#!+6!*+(-!+&5, #2!2, &8+#!
LOW9M*\$+&, 5%!, #' !' K#, 3(2*!g%!7*%' !3, 2: (#%!-%, &#(#5!, 11&+, 2: %*!P(\$: !*+(-!+&5, #2!2, &8+#!6(%-' !
+8*%&), \$(+#!L#ZaCF. I MC!' , \$, !+6!%#)(&+#3%#\$, -!6, 2\$+&*!L#Z! . MC!, #' !\$: &%!%, &\$: !*K*\$%3!3+' %-!
1&+Y%2\$(+#!\$+!L. M! '%)-+!167#2\$(+#, -!&-%, \$(+#!: (1*!8%\$P%#%#%#)(&+#3%#\$, -!6, 2\$+&*!, #' !OW9!*\$+24*
LFM!8%#2: 3, &4!-, #' !'7&6, 2%!3+' %-!&%1&%*%#\$, \$(+#!+6!%#)(&+#3%#\$, -!2+#!&+--%&*!+6!OW9!*\$+24*
LI M!1&% ' (2\$! %2, ' , -!2: , #5%*!(#!2+#\$(#%#\$, -!V#(\$% ' !0\$, \$%*!LV<0M*7&6, 2%!OW9!*\$+24*7# ' %&!67\$7&%!
%3(**(+#!*2%# , &(+*!<: %!67#2\$(+#, -!&-%, \$(+#!: (1*!8%\$P%#%#%#)(&+#3%#\$, -!2+#!&+--%&*!, #' !OW9!
\$+24!\$: , \$!P#! %&())% C!1&+ ' 72%' !*(3(-, &!1&% ' (2\$(+#!, 227&, 2K!, *!+8\$, (#% ' !6&+3!\$: %!&, #' +3!6+&%*
3, 2: (#%!-%, &#(#5!, 11&+, 2: <![#)(&+#3%#\$, -!2+#!&+--%&*!%#\$, \$(+#!+6!OW9!*\$+24*!(#!27&&%#%#%#2+71-% ' !
3+' %-!(#%&2+31, &(+#!1&+Y%2\$!1: , *%*!(S!L9N"; aM[, &\$: !*K*\$%3!3+' %-!%, &#!#+\$!2+#!(*\$%#!P(\$: !6(%-' !
+8*%&), \$(+#!<: %!&%*7-\$*!+6!%2, ' , -!, #' !\$+\$, -!OW9!2: , #5%*!(#!2+#\$(#%#\$, -!V<0!7&6, 2%!+(-*
+8\$, (#% ' !6&+3!%#*%38-%!3, 2: (#%!-%, &#(#5!, 11&+, 2: !(*!#+\$!#!, 5&%%3%#!P(\$: !9N"; a!*(37-, \$(+#!
g%!(' %#\$6(% ' !-, #' !2+) %&!\$K1%*!, #' !-, #' !, &%, *!(#!2+#\$(#%#\$, -!V<0!P: %&%!8+\$: !3, 2: (#%!-%, &#(#5!, #' !
[, &\$: !*K*\$%3!3+' %-!%, 5&%%!, #' !' (*, 5&%%!(#!\$: %!' (&%2\$(+#!+6!OW9!2: , #5%!7# ' %&!67\$7&%!2-(3, \$%<#!
733, &K!2+317\$, \$(+#, -!, 11&+, 2: %!2, #! : %-1!(#!07, #\$(6K(#5!2-(3, \$(2!(31, 2\$*!+#!OW9!, #' !&% ' 72(#5!
\$: %!7#2%&\$, (#\$K!\$: , \$!%S(*\$!(#!3+' %-!1&+Y%2\$(+#!+6!67\$7&%!2, &8+#!2-(3, \$%!6%%' 8, 24*
N(*: &, C!V<J, 7\$, 3C!0<X(-%K!g<A<?!B+663, #C!<=!LFGFGM! [#*%38-%!3, 2: (#%!-%, &#(#5!, 11&+, 2: !
8%\$\$%&!1&% ' (2\$*!\$: %!*1, \$(, -! : %\$%&+5%#%(\$K!+6!7&6, 2%!*+(-!+&5, #2!2, &8+#!*\$+24*!(#!' , \$, H-(3(\$% ' !
#+&\$: %&#!2(&2731+, &!&%5(+#!<=&+#!\$%&*!(#!_5!' , \$, C!I C!TGC! ' +(!. G<I I bfZ6' , \$, <FGFG<eFbTT. <
E' : (4, &C!n<N(*: &, C!V<WP%#*C!; <X<D(8+ : +), C!w<g(-*C!0<E<D!X(-%K!g<A<B+663, #C!<=N<?!?03(\$: C!
@<X<LFGFGM! "31+&\$, #2%!, #' !*\$&%#5\$: !+6!%#)(&+#3%#\$, -!2+#!&+--%&*!+6!*+(-!+&5, #2!2, &8+#!2: , #5%*!
P(\$: !*2, -%<J%+ ' %&3, C!I ^eC!. . TT^FC! ' +(!. G<. G. aZY5%+ ' %&3, <FGFG<. TT^F<

%VV!

MC' !P5 *+0,!(<!Z' 4)!+1/!: C' ' *!&3+=-17!(1!: (-.!: ,320,23' !+1/!X4/3(. (7-0+!
`210,-(1-17!

 E C!@&! , #! ; , \$\$(*+#! C! ; &+6%**+&!A+#, \$: , #!X<D%, 4%"C!@&!DK' (, !N<A<!O3(\$: #C!@&! ; , \$&(24!
N2n%##, #C! ; &+6%**+&!0, 3(!V--, : %&C! ; &+6%**+&!@,)(' !D<A+#%*C! ; &+6%**+&!E' &(, #!D<!9+--(#*)C!@&!D(*, !
U+&\$+#+^s

"#%&')(*(+#, -!e!/0+(-!2(%#2%!, #' !\$: %!%3%&5(#5!1: (-+*+1: K!+6!&%5%#%&, \$()%!, 5&(27-\$7&%/C!D+3+#' !
E7' (\$+&(73C!E757*\$! I C!FGFFC!. T/I G!#!. a/I G!

>: %!(#2&%, *(#5!(#\$%#*(6(2, \$+#!+6!, 5&(27-\$7&%!(#!\$: %!-, \$\$%&!; , -6!+6!\$: %!FG\$: !9%#\$7&K!; , *!-%' !\$+!
P(' %*1&%, ' !' %2-(#%!(#!\$: %!1: K*(2, -!07, -(\$K!+6!, &, 8-%!*+(-*C!/#2-7' (#5!2+31, 2\$(+#!-+**!+6!+&5, #(2!
3, \$\$%&! , #' !&%! 72%' !: K' &+-+5(2, -!67#2\$(+##5<! "6!-%6\$!7#&% , %' C!\$: (*!2+7-' !\$: &%, \$#0. 4(')-0-0. 5(*)-0. 1(!!) -0.


!
D\%!

L@+.2+,-17!: (-!X' +.,C!H3+0,-0')!+,!`-' ./!: 0+.' !

#DJ!

K'), (3-17!) (-!' 0()4), ' 5!C' +., C!+1/!<210, -(1-17!-1!3' 7' 1' 3+, -@' N6+) ' /!
73+-1!03(*!*3(/20, -(1!)4), ' 5)!

(#!, !-+#5H\$%&3!#+H\$(-, 5%!*K*\$%3!Q. G<. GGFZ-' &l f. bR<D, #' !@%5&, ' , \$(+#!?!@%)%+13%#\$C!| FL^MC!
FI bl



!
"%8>!

: (-.!0+36(1!)' A2'),3+,-(1!6' 4(1/!7.(6+!.!,+37' ,)6!) (-!(37+1-0!5+,, ' 3!
-103' +)')!-1!+!5 (/ ' 31!+3+6.' !+1/!. ' 4!<+35-17!)4), ' 5!

D

!
"\$>\!

:0+.+6.'!M+37' ,)!<(3!: (-!X' +.,C!P5 *3(@' 5' 1,)!-1!K' 7' 1' 3+,-@' !Q73-02.,23' !

D _____ C!@&<d, #2%!E-307(*\$!C!N*!†7, #\$\$&(, !X, #' -%!""C!N&<_&#\$\$!>: +3, *!'#C!N&<X+8%&\$!>: +3, *!'C!@&<9&(*\$(#!D<0!N+&5, #'C!@&<9!g, K#!B+#!K27\$\$!\$

"#\$\$&')(*(+#, -!e!/0+(-!*2(%#2%!, #' !\$: %!%3%&5(#5!1: (-+*+1: K!+6!&5%#%&, \$()%, 5&(27-\$7&%/C!D+3+#' !

"\$8D!

!

Q!,3' ' !+7+-1),!C217' 3G!L1)' ,N6+)' /!<+35-17!)4),' 5)!<(3!62-./-17!)(-!
C' +.,C!-1!,C' !,3(*-0)!!

D _____ C!N&<!0, 87&, !0: , &, "C!N&<!J%], : %5#!J, &+ "C!@&<!=", **(-!>%66%&, "C!@&<!
W-)(%&!B+##, K!C!@&<!X+%-!N%&24S!C!@&<!X+#K!0P%##%#!\$

"#\$%&')(*(+#, -!e!/0+(-!*2(%#2%!, #' !\$: %!%3%&5(#5!1: (-+*+1: K!+6!&%5%#%&, \$(%)!, 5&(27-\$7%&/C!D+3+#' !
E7' (\$+&(73C!E757*\$! C!FGFFC!. T/I G!H!. a/I G!

@&+75: !\$+\$-%&, #C!37-(17&1+*%!1%&%##(, -!2&+1*!, &%!, #!(31+&\$, #\$,)%#7%!(#!1&+\$%2\$(#5!*+(-!:%, -\$: !
, #' !(#2&%, *(#5!&%*(-(%#2%!, 5, (#*\$!2-(3, \$%!2: , #5%!(#!\$: %!\$&+1(2*!U%)%&\$: %-%**C!3, #K!+6!\$: %*%!, &%!*+!
2, --%

"8"

MC' !3' .' @+1, !3+17' !(<!)0+. ')!<(3!V9!52., -N)0+. ' !0(1, ' B, 2+!) *+, -+!
5 (/ ' ..-17!

D _____ C!; &+6<!@&<!N, &\$(!_ , &\$%-: %(3' !&C!@&<!N, &\$, !@\$,]Hw+&(\$, !_+#(-, '!&C!@&<
>: +&\$%#!_ %: &%#*""%C!@&<10, #' & , !>%78%&'!%C!; &+6<!@&<!>: +3, *!02: +-\$%#!""%C!@&<n, &\$%#!02: 3(' \$! ""#'%\$

!

">%!

H3' /-0,-17!236+1!. (0+,-(1)!+;!3-)W!(<!C-7C!) (-!H6!0(10' 1,3+,-(1)!2)-17!+!
3+1/(5!<(3'),!5 (/ ' .^!!

 D C!; &+6%**+&!N, &5, &%\$!J&, : , 3!C!@&!_%#Y, 3(#!!N, &2: , # \$"C!N*!=(+#, !=+&' K2%"C!
@&!U%(-!0\$7, &\$!\$

. !!@)(* (+#!. !9+33(**(+#!. <e!/B+P!; %' +3%\$\$&(2*!2, #!2&+**!8+7#' , &(%*!, #' !2: , #5%!*+2(%\$K/C!N. C!
E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

!

"JJD!

: *+, -+.!03()N

!

D%V!

FC+,!-)!,C' !+00' *, ' /!' @' .!(<' 33(1' (2)!/' 0-)-(1!<(3!,C' !: R-))!+3+6.' !.+1/!
-1@' 1,(34c!_10' 3,+1,4!*' 30' *, -(1!(<!/ -7-,+!) (-!5+*)^!!!

D _____ c!0(3+#!>, ##%&! c!; &+6<!@&!0\$v1: , #%!_7&5+*!\$

. I!@)(*+#!. !9+33(**+#!. <e/!B+P!; %' +3%\$&(2*!2, #!2&+**!8+7#' , &(%*!, #' !2: , #5%!*+2(%\$K/C!N. C!
E757*\$!I C!FGFFC!. T/I GH!. a/I G!

@%\$, (-% !*+(-!3, 1*!, &!2&72(-!\$+!8, -, #2%!(#\$%&*\$!*+6!7&8, #!1-, ##(#5!, #' !*+(-!1&+\$%2\$(+#!"#!
OP(\$]%- , #' C!: (5: H07, -(\$K!, &, 8-%!-, #' !(*!1&+\$%2\$%' !8K!, #!(#)%#\$+&K!, #' !*7&6, 2%*!(#*(' %!\$: %!(#)%#\$+&K!

!
""\$>!

H' / (NL0(1(5' ,3-0!Q))'))5' 1,!(<!,C' !L<<-0-' 10-')!(<!: (-!' 210,-(1)!

@&<n, \$*7\$+*:(!N(!7\$, C!

!
V8D!

9-)0(@' 3-17!j 2+1,-,+,-@' !: (-.NZ+1/)0+*' !K' .+,-(1)C-*)!<3(5!: (-! : 23@' 4!
9+,+^!!!

_____c!@&!9+-8K!_&7#5, &' !s

. I!@)(*+#!. !9+33(**+#!. <e/!B+P!; %' +3%\$\$&(2*!2, #!2&+**!8+7#' , &(%*!, #' !2: , #5%!*+2(%\$K/C!N. C!
E757*\$!I C!FGFFC!. T/I G!!!. a/I G!

0+(!*7&)%K+&*!37*\$!2&%, \$%!2+#2%1\$7, -!*+(-H, #' *2, 1%!3+' %-*\$+!8%!2+#*(*\$%#\$(#!\$: %(&!3, 11(#5!
%66+

!

V#8!

E.-5+, ' !0C+17' N-1/20' /!+., ' 3+,-(1)!-1!<3' ' =' N,C+R!*+, , ' 31)!-1!: R' /' 1!!
 -5* .0+,-(1)!<(3!* (3' !)*+0' !0C+3+0, ' 3-),-0)!+1/!C4/3+2.-0!*3(*' 3,-')!(<
 +73-02.,23+!) (-.)!

_____C!N, \$*!D, &*8+!C!U(2: +-, *!A, &)(*!C!A%##(%!_, &&+#!\$

F. !@)(*+#!I C!9+33(**+#!I <F!k!0+(-!P, \$%&C!1+--7\$, #!\$, #' !5, *!3+)%3%#\$(#!\$: %!2+#%\$S!+6!, !
 2: , #5(#5!2-(3, \$%C!+=&\$: C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

=&%%]H\$: , P!L=Z>M!2K2-%*!: ,)%!6&&07%#-\$-K!8%%#!*\$, \$%' !\$+!8%!, #!(31+&\$, #!\$6, 2\$+&!, 66%2\$(#5!\$: %!

!
"J%8!

L)0C' 3-0C-+!0(.!+1/!KC(/(0(002)!' 34,C3(*(-)!,3+1)* (3,!+1/!<+, ' G!
,3+-1-17!(3!+, ,+0C5' 1,c!

D

F. !@)(*+#!I C!9+33(**+#!I <F!k!0+(!P, \$%&C!1+--7\$, #\$, #' !5, *!3+) %3%#\$(#!\$: %!2+#\$%S\$!+6!, !
2: , #5(#5!2-(3, %C!+=&\$: C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

; , \$: +5%#(2!, #' !#+#1, \$: +5%#(2!8, 2\$%&(-!\$&, #*1+&\$!, #' !&%\$%#\$(+#!3%2: , #(*3*' %1%# ' !+#!
, \$\$, 2: 3%#\$, #' !6+P!1, \$: P, K*!(#!*+(-*C!P: (2: !, &#!, 66%2\$%' !8K!: K' &+1: +8(2(\$K<+!\$: (*!%# ' C!, #!
%S1%&(3%#\$(!*\$%\$H71!P, *!' %*(5#%' !+!1&%' (2\$![*2: %&(2: (, !2+-(!, #' !L; >99. ^a^M!X: +' +2+227*!
%&K\$: &+1+(-*\$!\$&, #*1+&\$!\$: &+75: !, (&' &(%' !LH. eGGG!23M!, #' !&%*1%2\$!)%P%\$\$%' !*\$, \$%!LG!23M!+6!, !
P%\$\$, 8-%!, #' !P, \$%&!&%1%--%#*\$!, #' !3%' (, <E!17-*%!+6!8, 2\$%&(!, #' !8&+3(' %!L(<%<!. È. Gb!9=V!3-H. !
, #' !. G!33+-!-H. C!&*1%2\$!)%KM!P, *!1+7&%! !+#\$+!\$: %!*7&6, 2%!+6!(#(\$(-K!, (&' &(%' !P%\$\$, 8-%!, #' !P, \$%&!
&%1%--%#*\$!, #' !2+-73#*<0, \$7&, \$%' !6+P!7*(#5!, !\$%#*(+#!(#6(-&+3%\$%&!P, *(31+*%' !+#!\$: %!\$+1!+6!\$: %!
2+-73#*C!&%P%\$\$(#5!\$: %!*+(-*<D%, 2: (#5!2+#\$(#7%' !6+&!6+7&!1+&%)!)+-73%*<!: -0. m6590. -0. 1. 5(%)0. 4(3)0. *<1-0

!
V\\$!

X-// ' 1!/+17' 3)!(<!0(1@' 3,-17!_a!0(1-<' 3!<(3'),),!(!63(+/. ' +<!R((/.+1/)!)

!
"8\$!

; -, -7+, -17!<. ((/-17N-1/20' /!*C() *C(32)!.)')!<3(5!) (-.)!2)-17!-1 (37+1-0!
) (-.!+5' 1/5' 1,)!!

D D _____ C!@&!@+75!J+--\$]!C!@&!0&(3, \$: (%!"#' &, &, \$#%!'s

F. !@)(*+#!I C!9+33(**+#!I <F!k!0+(-!P, \$%&C!1+--7\$, #!\$, #' !5, *!3+) %3%#\$(#!\$: %!2+#\$%S\$!+6!, !
2: , #5(#5!2-(3, \$%C!+=&\$: C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

0(5#(6(2, #!&% ' 72\$(+#!(#!1: +*1: +&7*!L; M!&7#+66!, #' !-%, 2: (#5!+**%*!: ,)!8%%#!&%1+&\$%' !P(\$: !*+(-!
, 3%#' 3%#\$*C!: +P%) %&!\$: %(&!%66%2\$())%#%*#!(#!&% ' 72(#5!6-++ ' (#5H(#' 72%' !; !&%-%, *%!(#!-%**!4#+P#<
=-++' (#5!' 7&(#5!&, (#6, --!%)%#*\$!, #' !*1&(#5!*#+P3%-\$!(#!2+-' !&%5(+#!2+7-' !%#: , #2%!; !&%-%, *%!6&+3!
+(-!!\$!+)%&-K(#5!P, \$%&<E!*%&(%*!+6!-, 8+!E500%!(+\$0. 313, 8\$(+#!() -0*\$7' . !++! !+\$, 2\$!*+. !+!((-02+0. 4(%)*%!

2%' !\$: %!(TJET0q0.

, 3%#' 3%#\$*!2+7-' !0. 5(, %)0. 4(!)-031(1+)+0\$4(054(%), *2)060(\$(%)+53!) !0#0(%)(%)4(+)-0! 4(5004(%)) (+7)-\$#0. 4(%
10. 4(%). !#5!#+P3%-\$!0. 4(%))7#+66<!N+0. 4(%))!0. 4(%)(%)0. 4(*)-0. 1(%))0. 4(, 0. 4(%))2)0. 1(:)-0. 4(!)-0. 1(!)(+)

0. 4(%), \$%#C!0<; <C!?!J+--\$]C!@<LFGF. M!

!
"JV!
E(1@.

!
%#>!

L@+.2+,-(1!(<!; 1!+1/!' '!YB-/!' !K' /20,-(1!941+5-0)!2)-17!+!KC=() *C' 3' !
E+5' 3+!+1/!P5+7' !Q1+.4)-)!

D _____ C!W-()(!D%=%)&%!C!@!A+%K!O: , P!C!@&&lm, #()!W-*: , #*4K!\$

I .!gJ. <e/!0%#*(#5!*+(-!2: %3(2, -C!1: K*(2, -!, #' !8(+++5(2, -!1&+1%&\$(%*!H!, '), #2*!, #' !%3%&5(#5!
\$%2: #(07%*C!E-*: !. C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

X%' +S!1+\$%#\$(, -*!, &%!3%, *7&%! !(#!\$: %!6(%-' !8K!' %\$%&3(#5!)+-\$, 5%! (66%&%#2!*!8%\$P%#%#!; \$!1&+8%*!
, #' !, !&%6%&%#2%!%-2\$&+ ' %<E#!, -%&#, \$() %!6+&!%), -7, \$(#5!&% ' 72%' !*+(-!2+#!' (\$+#!(*!\$: %!'#!' (2, \$+&!+6!
X%' 72\$(+#!(#!0+(-*!L"X"OM"X"O!\$78%*!+&!6(-3*!, &%!7*%' !P(\$: !2+, \$(#5*!+6!(&+#!+&!3, #5, #%*%!+S(' %!\$+!
+8*%&)%!' %!1\$: !+&!+227&&%#2!+6!&% ' 72(#5!2+#!' (\$+#!*!P(\$: !2+, \$(#5!&%3+), -C!+6\$%#!, **%*%' !P%4-K<
g%!%), -7, \$%' !\$: %!7*%!+6!, !&: (!+*1: %&%!2, 3%&, !\$+!2, 1\$7&%!3, #5, #%*%!, #' !(&+#!&% ' 72\$(+#!L2+, \$(#5!
&%3+), -M!E!&: (!+*1: %&%!\$78%!P, *!2+, \$%' !P(\$: !3, #5, #%*%!, #' !(&+#!+S(' %!, #' !(#*%&\$%' !(#\$+!, !
*, \$7&, \$%' !2+-73#!6(-%' !P(\$: !, !*7&6, 2%!: +&(!+#!6&+3!, !P%\$-, #' !*+(-!LJ-%K*+-!K"3, 5%*!P%&%!\$, 4%#!

!
VV\$!

Q1+.4)' N, (N7(! (1!, C' !<' ./G!*3(, (, 4*')#) (-.D/+ , +!

D _____ C!E# ' &%, *!N {--%&"C!N, \$\$: (, *!>%&: , , 5#C!@, #(%-!N%#\$&71%C!B%# ' &(4!n%&***%#%C![-%#, !
U, Y' % #4+&C!@&<=&, #4!D+&%#]&C!B%(#&(2: !>%*2: (C!@&<(&#+!N+*-%&(C!g, -\$%&!U(%\$6%- ')C!g, -\$%&!; %\$%&*+C!
d, ' (3!X(%' %-!C!; &+6<!E&#+!X724%-*: , 7*%#!\$

I . !gJ. <e!/!0%#*(#5!*+(-!2: %3(2, -C!1: K*(2, -!, #' !8(+++5(2, -!1&+1%&\$(%*!H!, '), #2%*!, #' !%3%&5(#5!
\$%2: #(07%*C!E-*: !. C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

n#+P-%' 5%!+6!\$: %!*3, -H*2, -%!#7\$&(%#*\$!\$, \$7*!+6!, !6(%-' !(*!, #!(31+&\$, #!\$8, *(!*6+&! ' %2*(+ #H3, 4(#5!

!
VJ>!

Q!&. (6+.!: (-.!: *' 0,3+.!E+.-63+,-(1!Z-63+34!+1/!L),-5+,-(1!: ' 3@-0' !

D C!@&!X(2: !=%&57*+#"C!@&!@,)%!B++)%&"C!@&!=%##K!), #![53+#' #C!@&!

">\$%!

L: MP; QMP?&!; YPZ!YK&Q?PE!; QMMLK!` KY; !ELZZ!HXY?L!P; Q&L:!

D A B

I. !gJ. <e/!0%#*(#5!*+(-!2: %3(2, -C!1: K*(2, -!, #' !8(+++5(2, -!1&+1%&\$(%*!H!, '), #2%*!, #' !%3%&5(#5!
\$%2: #(07%*C!E-*: !. C!E757*\$!I C!FGFFC!. T/I G!H!. a/I G!

0+(-!+&5, #(2!3, \$\$%&!LOWN!M(*!2+#*(' %&% ' !, *!\$: %!8, 248+#%!+6!*+(-! : %, -\$: !, #' !*+(-!07, -(\$K<!>: 7*C!(\$*! \!
%*\$ (3, \$(+#!(*!2&\$(2, -!\$+!*711+&\$!\$: %!' %)%-+1 3%#\$\$!+6!3, #, 5%3%#\$\$!' %2*(+#!(#2-7' (#5!1&%2*(+#!
, 5&(27-\$7&%<!>+!+) %&2+3%!2: , --%#5%*!+6!-, 8+&(7*C!%S1%#*()%C!, #' !\$(3%H2+#*73(#5!-, 8+&, \$+&K!
3%, *7&%3%#*\$C!&%2%#\$\$!, '), #2%*!(#!(3, 5%!, 207*((\$+#!*K*\$%3*!1&+)(' %' !, !#%P!' (3%#*(+#!+6!(3, 5%
8, *% ' !OWN!1&% ' (2\$(+#!<0+(-!3+(*\$7&%!2, #!*(5#(6(2, #K!(#6-7%#2%!*+(-!2+-+&! , #' !\$: 7*!2+#6+7# ' *!\$: %!
&%-, \$(+#!*: (1!8%\$P%#%#!OWN!, #' !*+(-!2+-+&<!>: (*!*\$7' K!07, #\$(6(%*!\$: %!%66%2\$*!+6!*+(-!3+(*\$7&%!+#!\$: %!
&%-, \$(+#!*: (1!8%\$P%#%#!OWN!, #' !2+-+&!1, &, 3%\$%&*! ' %&())% ' !6&+3!2%-!1: +#!%(3, 5%*!, #' !%*\$, 8-(*: %*!
7\$(, 8-!OWN!1&% ' (2\$(+#!3+ ' %-!7# ' %&!), &K(#5!2+#' (\$+#!+6!*+(-!3+(*\$7&%!2+#\$%#*\$!LON9*M! " 3, 5%*!

!

V\$8!

: (-.),320,23' !3' @' +.' /!<3(5!0(@+3-+,-(1!-1!,C' 35+.!+1/' .' 0,3-0+.!
3(' 3,-')!

D _____ C!@&<m+#5P%(!=7C!@&<X+8%&\$!B+&\$+#!

!
#%!

9' 73' ')!,C+,!,3+-1!),2/' 1,)!<(3!0+3' ' 3)!-1!) (-!)0-' 10' 6!H' 3)*' 0,-@')!<3(5!
/-@' 3)' !0(21,3-')!

@&![&(2!_&%) (4!C!@, 3(%#!=(%-' "C!A, 207%-(#%!!B, ##, 3#C!N, Y, !!n&](2%C!X, (#%&!B+&#%C!9&(*\$(#%!!N755-%&C!
A7' %!!W' : (, 38+^C!m+*:(\$, 4, !!V2: (' , +C!D _____ C!B+#5H*: %5!!g7!·C!D(, #, !!; +]], "C!D, 7&, !_%&\$: , !!
X%K%*HO•#2: %]!^C!>: +3, *!!02: +-%#!"\$

Ta!gJT<F/!97-\$7&%!, #' !0+(-!W7\$-++4!, #' !(#*(5: \$*!6&+3!, &+7#' !\$: %!P+&-' C!E-*: !F!E757*\$!I C!FGFFC!
. T/I G!!!. a/I G!

0+(-!*2(%#2%!(^!, #!%S\$&%3%-K!(#\$%&' (*2(1-(#, &K!6(%-' m/TT41Tf1(%). 4(!)-0. c5000%3*4(-). 4(. 1(%). 0). 2. 1(6)-06-66

""\$\$!

!
" \>8!

: (-.!k (-0')!

D A C!

!

"#J#!

s9' 0(. (1=-17!1+33+, -@')!(<!0(1)' 3@+,-(1hg!l .((/!+1/!: (-!* (.-,-0)!+1/!,C' !
Z(17!X-), (3- ')!(<!E (. (1-+.!k-(.' 10' v!

D_____

!
"8%8!

L23(*' +1!E2.,23+!K((,)!(<!K' .+,-17!, (!: (-!

D

!
"\D%!

_1/' 3),+1/-17!<+35' 3)h!02.,23+.!3' .+,-(1)!R-,C!)(-.G!+!03())N0(21,34!
0(5*+3-)(1!-1!,C' !; ' /-, ' 33+1' +1!

 E C!@&!9&(*\$(#, !†7(#\$, *HO+&(, #+"C!; &+6%**+&!>+8(, *!; -(%#(#5%&!\$

Ta!gJT<F/!97-\$7&%!, #' !0+(-!W7\$-++4!, #' !(#*(5: \$*!6&+3!, &+7#' !\$: %!P+&' C!E-*: !F!E757*\$!I!C!FGFFC!
. T/I G!!!. a/I G!

@&K-, #' !6, &3%&*!, 2&+**!\$: %!N%' (\$%&&, #%, #!(#2&%, *(#5-K!*%4!*+7\$(+##*!\$+!\$: %!2: , --%#5%*!+6!*+(-!, #' !
P, \$%&!2+##*%&), \$(

!
"8%\!

!

\$\$!

?+,-@' !Q5' 3-0+1!(3-7-1!54,C)!+1/!* (,' 1,-+!.!-1W)!, (!5 (/ ' 31!02.,23' !

D E B _____ C!@&!A%66&%K!B+ 387&5" C!@&!0, 8(#%!J&7#P, -' #&

!

!

L8(+H(#17\$*MC!: ,)%!: %! 1+\$%#\$(, -\$+!&%)%&*%!: %!-+P!-%)%-*!+6!*+(-!6%&\$(-\$K!, #' !\$: %&%6+&%!&%1&%*%#\$!, !
1&+2%**!(3(-, &!\$+!&%)%&*%!P%, \$: %&(#5<!
E! #738%&! +6! 1+*(\$!)%! 1&+ ' 72\$!)%! &%*7-\$*! +8\$, (#%' !(#!' (66%&%#\$! &%5(+*#! \$: %!(##+), \$()! 1&+6(-%! +6!
&,](-, #!6, &3%&*! 2+71-%' !P(\$: !\$: %! &%*\$&(2\$%' !, 22%**! \$+!6%&\$(-[]%&*!L: (5: !2+*\$*M! : ,)%!-%' !&,](-!\$+!
8%2+3%! \$: %! 6(&\$! 2+7#\$&K! \$+! %*\$, 8-(*: C! \$: &+75: !-, P*!, #' !&%57-, \$(+*#! 2+#' (\$+*#!, #' ! 3(#(373!!
57, &, #\$\$%*!6+&! \$: %! 7*%!, #' !2+33%&2(, -[]\$, \$(+#! +6!*+(-!&%3(#%&, -[]%&*!E' : %*(+#!\$+!\$: (*!+1\$(+#!: , *!
5&+P#!%S1+##%#\$(, --K!+) %&! \$: %!-, *\$!6)%!K%, &*!' 7%!\$+!\$: %!6+--+P(#5!&%, *+*#!&%5(+#, -,), (-, 8(-\$K!+6!

!
#\$"!

_3+1-25!+1/!0+ /5-25!+00252.+,-(1!-1!L23(*' +1!+73-02.,23+!) (-.)!/2' !, (!
5-1' 3+!*C()*C+, '!<' 3,-.)' 3!+**.-0+,-(1)!!

B **B** C!@&!N(

!
VV\!

K+/- (0')-25!2* ,+W' !64!@' 7' ,+6.')!-1!/-<<' 3' 1,!)(-.)!+<,' 3!120.' +3!+00-/' 1,!
(<!` 9?HH!

D _____ c!@&<m7*74%!V##+"c!N*!B(*, %=7V(3+\$+!c!N*!E4(4+!N, &7K, 3, !c!N*!0, %4+!
m, *: (&+ #c!N&!0, \$+*: (!E*, %' , #c!@&!B, K, \$+!N, &7K, 3, !c!@&!>+*: (: (&+!g, \$, #, 8%!c!@&!E\$*7: (!U, 4, +%c!@&!
n, \$*7*: (!n78+&c!@&!>, 4, *: (!0, (\$+ #

""%8!

Q))-, ' /!*C4, (' B,3+0,-(1!(<!d1!<3(5!0(1,+5-1+, ' /!) (-.)!2)-17!+., ' 31+, ' !
)265' 3)-(1!040.')]!+!1 (@' .!+ **3(+0C!

D E _____ C!@&<E##, 1, +-, !J(+&' ,#+!C!; &+6<=&, #2+!EY3+#%HN, &*, #!\$

"#\$%&')(*(+#, -. G!/D, #' !2+#\$, 3(#, \$(+#!, #' !' %5&, ' , \$(+#C!(#2-7' (#5!V&8, #!D, #' C!D+3+#' !
E7' (\$+&(73C!E757*\$!T!FGFFC!Gf/I G!H! . . /I G!

!
"\$DD!

: YPZ!; LKE_K[!ZLkLZ: !P?!Q!?QM_KQZ!HKYMLEML9!QKLO!9L&KQ9L9!I [!
PZZL&QZ!QKMP: Q?QZ!Q?9!: ; QZZN: EQZL!&YZ9!; P?P?&!P?!MXL!HLK_kPQ?!
Q; QdY?!

_____c!N&!@%##(*!' %-!9, *\$(-+ "c!N&! [&(4!03+-' %&*!c!N&!d-, ' (3(&!
X, 3(&%)#c!N&!A+% -!; , (\$, #c!N*!E' %4, !N7s+]"c!N&![' P(#!_%2%&&, "c!N&!X+#, -' !9+&)%&, "\$

"#%&')(*(+#, -. G!/D, #' !2+#\$, 3(#, \$(+#!, #' !' %5&, ' , \$(+#c!(#2-7' (#5!V&8, #!D, #' c!D+3+#' !
E7' (\$+&(73c!E757*\$!Tc!FGFFc!Gf/I G!H! . . /I G!

>: %!E&\$(*, #, -, #' !*3, --H

5+-' !3(#5!(#!\$: %!; %&7)(, #!E3,]+#4A4[#)(&+#4N, #, 5%4Fbb0!.. FI aT4
: \$\$1*/ZZ' +(4&5Z. G<. G. aZY4%#) 3, #4FGF.<. . FI aT!

!
\$>J!

M3+0' !' .' 5' 1,)!-1!*+.5!(-!*3(/20,-(1!)4),' 5)G!P5*.-0+,-(1)!<(3!
-1,' 31+,-(1+.!+73-02.,23' !

_____C!; &+6%**+&!0, --K!J, P!C!; &+6%**+&!_&%\$!X+8(#*+#!C!=&, #*(^2, !
E&(, #\$(#/#5*(:"C!075%*\$(!N7: , 33, ' !E&(%6"\$

"#%&')(*(+#, -!. G!/D, #' !2+#\$, 3(#, \$(+#!, #' !' %5&, ' , \$(+#!(#2-7' (#5!V&8, #!D, #' C!D+3+#' !
E7' (\$+&(73C!E757*\$!T!FGFFC!Gf/I G!H! . . /I G!

""8\$!

` 210,-(1+!7' 1' !+1+.4-)!(<!*C() *C(32)N040.-17!5-03(6-+.!0(5 521-,-')!-1!
(37+1-0!+1/!2**' 3!5-1' 3+.) (-.!C(3=(1)!<3(5!+!, ' 5*' 3+, ' !3+-1!<(3'),!
0C3(1())' A2' 10' !

 D C!@&<![' 7, &' +!N(\$\$%&!C!n, 3(#(!n: +*-, !C!A+#!J, (%&+!C!; &+6!E-, #!X(2: , &' *+#"C!; &+6!
D%+!9+#' &+##\$

FG!@)(* (+#!F!9+33(**(+#!F<I H!0+(-!8(+--+5K!(!#\$&, #*(#+#!6&+3!' %*2&(1\$!)%!\$+!3%2: , #(*\$(2, -!
7#' %&\$, #' (#5C!N. C!E757*\$!TC!FGFFC!Gf/I G!H!. . /I G!

0+(-!2: &+#+*%07%#2%*!, &!2: , &, 2\$%&[]%' !8K!' K#, 3(2!2: , #5%*(#!U!, #' !; !8(+5%+2: %3(2, -!2K2-%*!\$: , \$!

!

>>"!

&(-17!/' '*!N!; -03(6-+.!EN

!
"8V!

: ,+7' !<3' ' !<(3!,C' !9-@' 3)-,4!(<!: (-!L2W+34(,')G!!Q1!L_NR-/' !; ' ,+6+30(/-17!
Q1+.4)-!0(33' .+,-17!! -(/-@' 3)-,4!R-,C!L1@-3(15' 1,+.!93-@' 3)!

!
"">#!

H3(73'))!, (R+3/)!+!5' 0C+1-), -0!) (-!' 1=45 (. (74!, (!*2,! ,C' !s6-(h!-1!
6-(7' (0C' 5-),34!!

D A _____

FG!@)(*+#!F!9+33(**(+#!F<I H!0+(-!8(+--+5K!(#!\$&, #*(\$(+#!6&+3!' %*2&(1\$!)%!\$+!3%2: , #(*\$(2, -!
7#' %&\$, #' (#5C!N. C!E757*\$!TC!FGFFC!Gf/I G!H!. . /I G!

[#]K3%*(#!*+(-*!2, \$, -K]!&%'+S!\$&, #*6+&3, \$(+#!, #' !: K' &+-K\$(2!\$&, #*6+&3, \$(+#!+6!2, &8+#C!
#(\$&+5%#C!1: +*1: +&7*!, #' !*7-67&<!>: %!%S\$&, 2%--7-, &!#, \$7&!+6!3, #K!*+(-!%#]K3%*!L(<-%<! , 8(+#\$2M!
3%, #*!\$: %K!(#\$\$5&, \$!8(+\$(2!, #' !, 8(+\$(2!' &())%&*!+6!; !' K#, 3(2*!B+P%)%&C!\$: %!1+\$%#\$(, -!+6!%#]K3%*!

!
"8V\!

: C-<,)!-1!3((,N+)) (0-+, ' /!<217+.!0(5521-,-')!21/' 3!@+3-+,-(1)!-1!) (-.!?GH!
, (-0C-(5' ,34!N!,C' !' <<' 0,)! (1!<(3'),!' 0()4), ' 5!*3(0'))')!

D _____ C!; &+6!N, &4!>(88%\$\$'!\$

!
"D"!"

MC' !3' .+, -(1)C-*(<!) (-!(37+1-0!5+, , ' 3!+1/!6+0, ' 3-+.!0(5521-,4!),320,23' !
-1!73+)).+1/)!+03(!)!5+0(3!) (-!=(1')!!

 D C!@&<!E-(#%!=&+** , &' "C!; &+6<!@&<![&(24!w, 5, -!d%#%5, *#C!; &+6<!@&<!0%8, *\$(, #!@{\$\$%&-!\$

FG!@)(* (+#!F!9+33(**(+#!F<IHI0+(-!8(+--+5K!(#!\$&, #*(\$(+#!I6&+3!' %*2&(1\$!)%!\$+!3%2: , #(*\$2, -!
7#' %&\$, #' (#5C!N. C!E757*\$!TC!FGFFC!Gf/I G!H!.. /I G!

0+(-!+&5, #(2!3, \$\$%&!LOWN!07, -(\$K!, #' !07, #\$(K!(*!, #!(31+&\$, #\$(' &())%&!+6!\$: %!*\$&72\$7&%!+6!*+(-!
8, 2\$%&(, -!2+337#(\$%*!L=(%&%&C!FG. ^M!B+P%)%&C!-(\$\$-%!(*!4#+P#!P: %\$: %&!H!, #' !P: (2: !H!8, 2\$%&(, -!
1: K-+\$K1%*!, &%!, **+2(, \$%' !P(\$: !OWN!1&+1%&\$(%*!>: %!2+31-%S(\$K!+6!OWN!07, -(\$K!, #' !(\$*!*\$, 8(-[] , \$(+#!
' (66%&(#5!, 2&+**!3, Y+&!*+(-!+&' %&*!, #' !2-(3, \$(2!&%5(3%*!3(5: \$!8%14%K!\$(+!(31&+)%)!+7&!7#' %&\$, #' (#5!
+6!: +P!OWN!, 66%2\$*!3(2&+8(, -!2+337#(\$K!*\$&72\$7&%*!<!
"#!\$: (*!*\$7' KC!P%!7*%!, !2+&&%-, \$(%)!, 11&+, 2: !\$(+!(' %#\$(6K!3(2&+8(, -!1: K-+\$K1%*!\$: , \$!, &%!*\$&+#5-K!
, **+2(, \$%' !P(\$: !K!*+(-!1%2(6(2!H!OWN!1&+1%&\$(%*!>g%!* , 31-%' !I e!\$+1*+(-*!LG!K! G!23M2: , &, 2\$%&[]%' !
8K!), &K(#5!OWN!07, -(\$K!, #' !07, #\$(K!, *!P%-!, *!*+(-!1&+1%&\$(%*!, -+#5!, !TGGG!43!#+&\$: H*+7\$: !

!
"V%D!

: (-.!5' ,+7' 1(5-0!+1+.4)-)!(<!/-<<' 3' 1,!F KI !/-+71(),-0!21-,)!21/' 3!
/-<<' 3' 1,!5+1+7' 5' 1,!

@%&()#5!g+&'!X%6%%!_, *%!X%6%%!0+(-!J&+71*!6&+3!\$: %!1&+*1%2\$)%!J--+8, -!0+(-!N, 1!
1&+' 72\$!H!E!2, *%!*\$7' K!+#!3, Y+&!*+(-!\$K1%*!+6!E6&(2, !

J[W@[XNE!Fa! !11<FFaHF! I <C!b!1<LFG. aM

!

9*%#4(C!O•#' +&!D< #5C!d(#2%!

0+(-!* , 31-(#5!, #' !1&%*2&(1\$(+#!1-, ##(#5C!7*(#5!*(31-%!5%+*\$, \$(*\$(2, -!3%\$: +' *!L"#!B7#5, &(, #M

N[wEB\X!WX0w< JW0!EJX< X"U=WXN< 9" ' 0!owEnDE; !FGFGZb!11<aTHaa<C! !1<LFGFGM

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"\$DJ!

\$8"!

?',R(3WNI +)' /!Q**3(+0C')!<(3!Q/ (* ,-(1!(<! : (-.!+1/!Q73(1(5-0!
; +1+7' 5' 1,!H3+0,-0')!!

E**+2(, \$%!; &+6%**+&!E88%K!g(24!C!_____C!@&!N, &(*+!_%&\$!\$

Fe!@)(*+#!T!9+33(**+#!T<T/!0+(-!%' 72, \$(+#!k!(#!02: ++-C!7#)%&*(K!, #' !"#HO%&)(2%!\$&, (#(#5C!+=&\$: C!

!
\>V!

9(!R' !1' ' /!, (!1' R!)' ,!(<!) (-!*3-10-*.')!, (!72-/ ' !7' 1' 3+.) (-!' /20+, -(1!

 D F C!; &+6%** +&!E-%S, #' %&!N2_&, \$#%K!

Fe!@)(* (+#!T!9+33 (** (+#!T<T!0+(-!' 72, \$(+#!k!(#!02: ++-C!7#C)%&*(\$K!, #' !"#HO%&)(2%\$&, (#(#5C!+=&\$: C!
E757*\$!T!FGFFC!Gf/I G!H! . /I G!

>: %!(31+&\$, #2%!+6!, #' !&+-%!\$: , \$!*+(-!1-, K*!(#!%#*7&(#5!\$: %!67\$7&%!*7*\$, (#, 8(-(\$K!+6!: 73, #!, #' !
1-, #%%\$, &K!: %, -\$: !!, #' !\$: %!%3%&5(#5!*+(-!*%27&(\$K!2+#2%1\$!2-%, &-K!(' %#\$ (6%*!\$: , \$!%' 72, \$(+#!(*!, !2&72(-,
, !2+31+#%#&\$<>&, ' (\$+#, --K!*+(-!*2(%#2%!%' 72, \$(+#!: , *!8%#%#-(3(\$%' !\$+!' %) %)+1(#5!' (*2(1-(#%!
%S1%&\$(*%<!>+18%!\$&7-K!%66%2\$!)%!P#!#%%' !\$+!5+!8%K+#' !\$: %!8+7#', &(%*!, #' !%S1-+&%!\$: %!\$K1%*!+6!
-%, &#(#5!\$: , \$!%#5, 5%*!\$: %!P: +-!2+337#(\$K!, #' !&, (*%!+7&!2+-%2\$!)%!*+(-!2+##%2\$!)(\$K<
; &%) (+7*-K!\$: %!\$: %+&%\$ (2, -!6&, 3%P+&4!+6!\$+!x4#+P\C!x4#+P!+6!\, #' !x8%!, P, &%\!+6!*+(-!(*!, 22%1\$%' C!
, --#5!P(\$: %!S1%&#%\$ (, -!%, &#(#5!1&, 2\$(2%*!7*(#5!\$: %!%\$, 2: (#5H&%*%, &2: H"#' 7*\$&KH-%, &#(#5!L>X"DM!
3+' %-*<!>+!*+2(, -[!%\$: (*!' +!P#!#%%' !!, !*%\$!+6!#%P-K!1&+1+*%' !*%\$!+6!1&(#2(1-%*C!(#!\$: %!* , 3%P, K!
1&(#2(1-%*!!: ,)%!8%#%#!' %) %)+1%' !6+&! ' (*2(1-(#%*!(!#8(+--+5K!, #' !5%+--+5K<!

!
0\$, &\$(#5!P(\$: !\$: %!; %' +#!\$: (*!%-3%#\$, &K!-%)!P(-!%#*7&%!, P, &%#%*!+6!*+(-!9+71-%' !P(\$: !+7\$P, &' !
6+27*%' !&%*1+#*(8(-(\$K!+6!1&+)' (#5!* , -(%# \$!4#+P-%' 5%!\$+5%\$: %&!P(\$: !\$: %!*+2(, -!(#\$%--(5%#2%!P(--!7*%!
\$: %!*%2+#' !1&(#2(1-%!+6!; &+2%*%*!\$+!1&+)' (!&%*+ -7\$(+#!\$+!'+(-!&%-, \$%' !1&+8-%3* <!>&, ' (\$+#, --K!\$: (*!
4#+P-%' 5%!(+6\$%#17*%' !\$+!\$, 24-%!P%--!4#+P!\$: &%, \$*C!87\$!3+&%!&%2%#-\$-K!\$: %!, '), #2%*!(!#)' (5(\$, -!*+(-!
3, 11(#5!, #' !' %2&%, *(#5!*+(-!3+' %--(#5!; ,)%!%# , 8-%' !5&%, \$%&!(#\$%&' (*2(1-(# , &K!+11+&&7#(\$%*!\$+!
+)%!+(-!4#+P-%' 5%!8, *%' !, &+7#' !\$: %!1&(#2(1-%*!+6!); &C, \$(+#!, #' !7-\$ (3, \$%-K!6+&%2, *\$ (#5!*+(-!
2: , #5%<!

!
>: (*!1, 1%&!P(--!, -(5#!\$: %!*%\$!+6!1&(#2(1-%*!, 5, (#*\$!\$: %!27&&%#*\$!+(-!*2(%#2%!%' 72, \$(+#!1&, 2\$(2%*!, #' !
: +P!\$: %*%!2, #!8%!7*%' !\$+!%#5, 5%!P(\$: !\$: %!8&+, ' %&!2+337#(\$K!+7\$*(' %!+6!, 2, ' %3(, <!!

!
U+#%

!

>VJ!

: (-!0+W')G!21' B*. (3' /!3') (230')!, (!-5 *3(@' !)(-!+R+3' 1'))!

_____C!N*!; , 7-(#, !_&%#, "C!N*!@, #(%-, !<-), &%]!\$

!
"\DD!

MXL!kPKM_QZ!KYKQP; Q!: YPZ!; _: L_; !MY!: _HHYKM!: YPZ!L9_EQMPY?!

E D D C!>B[!d"X>VED!XWXE"NE!OW"D!NVO[VN!>W!OV; ; WX>!OW"D!
[@V9E>"WU!A+¾+!9, &+*!!9+%-: +!(-: +!""C!>B[!d"X>VED!XWXE"NE!OW"D!NVO[VN!>W!OV; ; WX>!OW"D!
[@V9E>"WU!9, &+*!B%#&(O7%!!!N, \$+*!#C!>B[!d"X>VED!XWXE"NE!OW"D!NVO[VN!>W!OV; ; WX>!OW"D!
[@V9E>"WU!D72(, #+!!!0(-), !%C!>B[!d"X>VED!XWXE"NE!OW"D!NVO[VN!>W!OV; ; WX>!OW"D!
[@V9E>"WU!A+*v!&7\$7+*+!!!d, -%!A7#(+&!&C!>B[!d"X>VED!XWXE"NE!OW"D!NVO[VN!>W!OV; ; WX>!OW"D!
[@V9E>"WU!d, -' (#, &!N%-+!'(\$

Fe!@)(* (+#!T!9+33(**(+#!T<T!0+(-!' 72, \$(+#!k!(#!02: +-C!7#())%&*(K!, #' !"#HO%&)(2%!\$&, (#(#5C!&+&\$: C!
E757*\$!T!C!FGFFC!Gf/I G!H! . /I G!

>: %!X+&, (3, !0+(-!N7*%73!LN0XXM(*!, #!(31+&\$, #!\$*1, 2%!6+&!+H*(\$%!0+(-![' 72, \$(+#!, 2\$(+#!\$: , \$!, (3!
\$+!1&+3+\$%!2, &#!, #' !, \$\$%#\$(+#!\$+!\$: %!*+(-!&=, 2%!\$: %!27&&#%#!*2%#, &(#+!+6!, !9Wd"@H. f!1, # %3(2C!
, \$\$%#', #2%!\$+!\$: %!37*%73!P, *!*7*1%#%' % C!87\$!\$: %!(31+&\$, #2%!+6!: ,)(#5!, #!, -\$%&#, \$(%)!6+&3!+6!
, 22%*!\$+!\$: %!N0XX!2+--%2\$(+#!P, *!*\$(-!1%&2%)%' <!: (*!P+&4!1&%*%#*!\$: %!d(&\$7, -!X+&, (3, !0+(-!
N7*%73!LNd0XXM(*!, #!(33%&*)%!)(&\$7, -!&%, -(\$K!37*%73!\$+!*711+&\$!%' 72, \$(+#!(#!*+(-*C!8, *% ' !+#!\$: %!
X+&, (3, !0+(-!N7*%73!+6!\$: %!E5&(27-\$7&, -!02(%#2%*!9%#%\$&!+6!\$: %!=%' %&, -!V#())%&*(K!+6!X+&, (3, C!
' %)%-+1%' !6+3!A, #7, &K!\$+!N, K!FGF. C!\$: &+75: !' (5(\$, -[]), \$(+#!+6!(\$*!2+--%2\$(+#!P(\$: !\$: %!+8V%2\$%)%!+6!
' (**%3(#, \$(#5!0+(-!02(%#2%!(#!, !#+#H1&%*%#\$(, -!3, ##%&&!; &%-(3(#, &K!&%*7-\$*!+6!)(*!\$+!Nd0XX!
(#' (2, \$%!\$: , \$!\$: (*!, -\$%&#, \$(%)!37*%73!2, #!8%!, !5++' !+1\$(+#!\$+!*711+&\$!%' 72, \$(+#!(#!*+(-*C!#+\$!+#!-K!
(#!\$: %!27&&#%#!*2%#, &(#+!+6!2+#!6+&#\$, \$(+#!P(\$: !9Wd"@H. f!C!87\$!(#!, !1%&3, #%#%\$, #' !2+31-%3%#\$, &K!
P, K!\$+!N0XX!

!
!
dED[!AÍ U"WXC!A!&=d!09BE=[XC!9<[<J<X<J^a#%*%!%J%+5&, 6(!' +*!0++*!*+8!0,), #, <!"#!dED[!
AÍ U"WXC!A!&=d!09BE=[XC!9<[<J<X<LW&5^M!0++*!*+8!0,), #, *!' %!X+&, (3, !/J^a#%*%C!9-, **!(6(2, æ¾+!%!
X%-, æ!%*!E38(%#\$, (*<_+, !d(*\$, !/[@V=XXC!FG. G<1<. ^HI a<
NVJJD[XC!9<9<!: "U>W!OW_X"UBWC!&=d!NE9BE@WC!d!E![' 72, æ¾+!%3!0++*!; &(#2\$1(+*C!>%+&(, !%!
Nv\$+ +*<X%)(*\$, !_&, *(-(%&, !' %!9(a#2(, !' +!0++C!)<!GC!1<^!IH^TGC!FGGa<

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"\D>!

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\%!

: (-.: W-..)G!Q!H3(6.' 5NI +)' /!`-' ./!EC+..' 17' !M(R+3/)!Q0,-@' !Z' +31-17!L,C()!
<(3!_1/' 373+/2+, ' !: (-.)!:,2/' 1,)!!

D A C!N&!E: 3%' !E-HN, K: , (!C!N&!B, 3, ' !E-H_7*, (' (!C!; &+6!E#), &!n, 2(3+)!C!@&!!

D>V!

9' @' .(*5' 1,)!+1/!Y*' 1!EC+..' 17')!(<!P1<(35+,-(1!; (/ ' !<(3!&. (6+!.: (-!
P1<(35+,-(1!: 4), ' 5!

!

"DJ8!

P1, ' 73+, -17!-1<(35+, -(1!+1/!-1<' 3' 10' !4), ' 5)!

D _____ C![' P, &' !A+#%*! C!E-%S!N2_&, \$#%K!\$

I F!gJ. <a/!0+(-!(#6+&3, \$(+#!*\$, #' , &' *!, #' !*K*\$%3 *!H!27&&%#\$(#(\$, \$())%*!, #' !, '), #2%*C!E-*: !. C!
E757*\$!T!C!FGFFC!Gf/I G!H!. . /I G!

0+(-!(#6+&3, \$(+#!*K*\$%3 *C!(!#: %&!&+-%!+6!*\$+&(#5!, #' !' (*\$&(87\$(#5!*+(-!' , \$, C!: ,)%#1&+)%#!\$+!8%, #!
(31+&\$, #5!2+31+#%#5!+6!3+' %&#!*+(-!*2(%#2!&%*%, &2: <B+P%)%&C!2+-, \$(#5!, #' !+&5, #*(#5!' , \$, !(*!
Y7*\$!, !*3, --!6&, 2\$(+#!+6!\$: %!2, 1, 8(-(\$%*!+6!, !2+317\$%&!*K*\$%3 <E#!(#6%&%#2!%#5(#%C!, *!1, &\$!+6!*72: !
K\$%3C!(*!2, 1, 8-%!+6!7*(#5!\$: %!4#+P-%' 5%!S&, 2\$%' !6&+3!\$: %!' , \$, !\$+!5%#%&, %!#%P!(#6+&3, \$(+#!<
B%&%C!P%1&%*%#5!, #!(31-%3%#\$, \$(+#!+6!, !*+(-!(#6%&%#2!*K*\$%3!L0; [9H0"U=[XOM!\$: , \$!2+38(#%*'! %%1!
-%, &#(#5!*1%2\$&, -!3+' %-*!P(\$: !2+#)%#\$(+#, -!1%' +\$&, #*6%&!67#2\$(+#!, *!(\$*!4#+P-%' 5!8, *%<g%!
: , &%!+3%!+6!\$: %!' *(5#!, #' !(31-%3%#\$, \$(+#!%S1%&(%#2%*!, #' !1&%*%#5!*+3%!%S, 31-%*!+#!: +P!\$+!
-(!4!0"U=[X0!P(\$: !, !*+(-!(#6%&%#2!*K*\$%3<
UE

!
"JD>!

Y1!)(-./+,+!)C+3-17G!. ' 7+.!3+5' R(3W!+1/!7' 1' 3+.!)C+3-17!* (-0-')!
3')2.,-17!<3(5!,C' !-1@'),-7+,-(1!/(1' !-1!LeH!: YPZ!XD8D8!*3(73+55' !

D F C!@&!J(#%)&, !; %&75(#%--("C!@&!0, &, !9+#\$(("C!@&!0\$%1: , #(%!X%#%#%*#C!@&!9: &(*\$(#%!D%!
_, *#C!@&!=%##K!), #![53+#' %\$

I F!gJ. <a!/0+(-!(#6+&3, \$(+#!*\$, #' , &' *!, #' !*K*\$%3*!H!27&&%#\$(#(\$, (\$) %*!, #' !, '), #2%*C!E-*: !. C!
E757*\$!T!C!FGFFC!Gf/I G!H!. . /I G!

>: %!+8Y%2\$() %!+6!\$: %!P+&4!1, 24, 5%!a!+6!\$: %![A; !OW"D!1&+5&, 33%!L: \$\$1*/ZZ%Y1*+(-<%7ZC!FGFGHFGFeC!
baFafeM(*!\$+!*711+&\$!*+(-!' , \$, !*: , &(#5!(#[7&+1%CI P: (2: !(31-(%*!\$: %!+)%&2+3(#5!+6!-%5, -!2+#*\$&, (#*<
E#!, #, -K*(!+6![V!-%5, -!6&, 3%P+&4!P, *!1%&6+&3%' CI, #' !, !07%*(+##, (&!+#!*+(-!' , \$, !+P#%&*: (1!, #' !
*: , &(#5!P, *!%- , 8+&, \$%' !, #' !' (*\$(87\$%' !, 3+#5![A; !OW"D!1, &\$#%&*CI, #' CI\$: &+75: !\$: %3C!\$+!&%-%), #!\$!
*\$, 4%: +- ' %&*C!%S\$%&#, -!\$+!\$: %!2+#*+&\$ (73<E!' %-())%&, 8-%!L@a<FMC!(#!\$: %!6+&3!+6!, !178-(2!&%1+&\$C!P, *!
%-, 8+&, \$%' CI P: (2: !2+#*(%\$%' !#!, #!(#\$&+' 72\$(+#!\$+!"(+)-0(%)0. 4(!)V0. 1(!)-0. 5(#(\$1)-40. 4(')C0. 40. 4(!)-0. 1(, #)

!
">VD!

L),+6.-)C5' 1,!(<!,C' !X217+3-+1!: (-.!: *' 0,3+.!Z-63+34!

D A C C!N+: , 3%' !w%(!@&!>, 3•*!E#' &•*!0]%5(!Cd(4\$` &(, !D, 8, #2]!CIA`]*%6!E\$\$(-, !>`\$: !C!
; &+6![&(4, !N(2: v-(!\$

!
"V"

: (-.!s9+,+NX4*' 3. ((*-17hg!Q1!Q2, (5+, ' /!`3+5' R(3W!<(3!E23+,-17!:(-!9+,+!

!

"J""!

LeH!: YPZG!F (3W-17!, (R+3/)!+!L23(*' +1!) (-!/+ , +!-1<3+), 320, 23' !

 F E C! &<N, &(, !=, #\$, 11(> "c!A, #' (&4!_7-%#*!c!N, &2!), #!D(%' %4%&4%#c!9: &(*\$(#%!-%!
_, *%c!9-%3%#\$!D, \$\$%- , (*%c!X, 2: (' lm, : (, +7(%c!n, \$&(%#!W+&\$*%c!J(+), ##(!-cE8, \$%"c!D7(*! %!O+7*, (c!; , 7-!
) , #!J%#72: \$%#(c!D(#\$+#!@+##+), #)\$

IF!gJ. <a!/O+(-!(#6+&3, \$(+#!*\$, #' , &' *!, #' !*K*\$%3*!H!27&&#\$(#(\$, (\$) %*!, #' !, '), #2%*c!E-*: !. c!
E757*\$!Tc!FGFFc!Gf/I G!H! . /I G!

J() %#!\$: %!7# ' %&*\$++' !(31+&\$, #2%!, #' !(#2&%, *% ' !, \$\$%#\$(+#!6+&!*+(-!, \$!1&%*%#%c!\$: %![7&+1%, #!V#(+#!
67# ' %' !, !-, &5%!BFGFG!&%*%, &2: !1&+Y%2\$c!\$: %![7&+1%, #!A+(#%!; &+5&, 33%!+#!O+(-!x>+P, &' *!2-(3, %H
*3, &\$!*7*\$, (#, 8-%!3, #, 5%3%#%!+6!, 5&(27-\$7&, -!*+(-*!c![A; !OW"D!L: \$\$1*/ZZ%Y1*+(-%7Zc!FGFGHFGFec!Uh!
baFafeM!P(\$: !\$: %!, (3*!\$+!6+*\$%&![7&+1%, #!&%*%, &2: !2+--, 8+&, \$(+#!, #' !\$+!, '), #2%!+#!, --!*+(-!&%-, %%' !
\$+1(2*!W#%!+6!\$: %!3, Y+&! , #' !2&+**H27\$\$(#5!\$+1(2*!(*!+(-!(#6+&3, \$(+#!,), (-, 8(-\$Kc!*\$, #' , &' (*, \$(+#!c!
: , &3+#(*, \$(+#!c!1&+)(*(+#!, #' !%S2: , #5%!+6!*+(-!' , \$, <J() %#!\$: %![7&+1%, #!2+##%\$S!c!\$: %!6&, 3P+&4!(*!
\$: %!"UO; "X[!' (&%2\$)%!6+&!(#6+&3, \$(+#!1&+)(*(+#!>: %!6(&*\$, (3!(*!\$+!1&+)(' %!5%#%&(2!*711+&\$!, #' !

!
JV\!

L<<' 0,)!(<!)26)(-!-10' 0,-(1!(<!2.,3+<-1' N73+-1' /!-5'), (1' \$!*' +,!+1/!23-1' !
(1!7' (0C' 5-),34!+1/!03(*i3((,!73(R,C!-1!+1!+0-/)2.<+, ' !)(-!

D _____ C!@&<[), !B{56+&*HX{##: +-3 "C!@&<; %44, !0\$%#^C!@&!N(&(, 3!UK*\$&, #' !C!@&<!0\$%#!
[#58+3"\$

I b!gJl< ./!E2(' !*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(-*!, #' !P%\$-, #' !*+(-*/C!E-*: !FC!E757*\$!TC!FGFFC!GF/I G!H!
../IG!

07-6(' (2!*%' (3%#\$*!' &,(#%' !6+&! 5&(27-\$7&, -!7*%!3, K!' %)%-+1!, !' %%1!L71!\$+!. <e!3!+&!3+&%M+S(' (]'! !
P%-H*\$&72\$7&%!' !*+(-!1&+6(-!P(\$: !1B!•!T!L, 2(' !*7-6, \$%!*+(-M\$: , \$!-%, 2: !)%&K!-, &5%!07, #\$(%*!+6!, 2(' (\$K!
, #' !3%\$, -*!\$+!P, \$%&2+7&*%*!07&6, 2%!-(3(#5!+&!+\$: %&!#%7\$&, -(#5!, 5%#\$*!2, #!#%7\$&, -(]%, 2(' (\$K!(!
\$: %!1-+75: !-, K%&!LG!k!G<T!3M(#!+&' %&!\$+!2&%, \$%!5++' !5&+P\$: !2+#' (\$+*!6+&!2&+1!&+*\$*!g: (-!\$: (*
3, 4*!\$: %*%!6, &3-, #' *!: (5: -K!1&+' 72\$()%(!(\$!: , *!#+!%66%2\$*!+. 4(%)0. /TT41(\$:)0. 3(%)05%+2: %3(, *, &+6\$: %' %%

!
V#>!

; (/ ' ..-17!7' (0C' 5-0+!*3(0'))')!+1/!,3+1)* (3,!-1!+0-/)2.<+, ' !) (-.)!21/' 3!
, ' +/4!),+, ' !-1<. (R!+1/!@+3+6.' !/3+-1+7' !/' *,C)!

D _____ C!@&!0%(Y, !d(&\$, ###"C!@&!B, ##%#D, (#%Hn, 7-(+#'! C!; &+6!B, &&(!n+())7*, -+!C!@&!>%%37!n+44+##%#!\$

I b!g JI<. /!E2(' !*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(-*!, #' !P%- , #' !*+(-*/C!E-*: !FC!E757*\$!TC!FGFFC!GF/I G!H!
.. /IG!

"#!=(#-, #' C!, 2(' !*7-6, \$%!*+(-*!: ,)%!8%%#!, &\$6(2(, --K!' &, (#%' !6+&!27-\$(), \$(+#!1&, 2\$(2%*!&%*7-\$(#5!\$+!
+S(' , \$(+#!+6!1K&(\$%!, #' !3+#+*7-6(' %*!P: (2: !(*!: , &367-!6+&!\$: %!%#)(&+#3%#<+!*\$7' K!\$: %!%66%2\$*!+6!
6(%-' !' &, (#, 5%!+#!\$: %!+S(' , \$(+#!*\$, \$%C!P, \$%&!6+P!, #' !5%+2: %3(2, -!1&+2%***(#!, #!, 2(' !*7-6, \$%!*+(-!
1&+6(%!P, *!3+' %--%' !8K!B; .!*+6\$P, &%!L2+71-%' !Bm@XV0!. @!, #' !; BX[[†9HI M!>: %!+8Y%2\$()!P, *!\$+!
(#)%*\$\$(5, \$%!\$: %!4%K!1&+2%***(!6+&!5%+2: %3(2, -!3+' %-(#5!, #' !\$+!%*(3, \$%!: +P!' (66%&%#!' &, (#, 5%!
' %1\$: *!, 66%2\$!\$: %!1B!, #' !*+-7\$%!2+#2%#&&, \$(+#!(#!1+&!P, \$%&<
>: %!3+' %!P, *!87(-\$!\$+!' %*2&(8%!\$: %!5%+2: %3(2, -!2: , #5%*(#!\$: %!0{' %&6Yt&' %#!, 5&(27-\$7&, -!6(%-' !
, 6\$%&!+1%#!' (\$2: %*!P%&%!&%1-, 2%' !8K!*78*7&6, 2%' &, (#*!L' %1\$: !2, <!. <F!3C!*1, 2(#5!! ekeG!3M!(\$*\$, --%' !
(#!. feG*<: %!(37-, \$(+#!P590. 169. 24000. 2411. 9906590. 1((, , 5Tc508%-0. 3(#). 4(1). 3(#). 44(*)-0-0. 5(!)-0.

\V#!

: ' +R+, ' 3!-121/+, -(1!-1/20')!,3+0' !5' ,+!5 (6-.)+, -(1!-1!<3')CR+, ' 3!) (-.)G!
P5 *+0,!(<!)' +!. '@' .!3-) '!(1!5' ,+!6-(7' (0C' 5-),34!-1!0(+),+!' 1@-3(15' 1,)!!

 E C!@&!A+: #!B7\$*+#!C!@&!A7&, Y!=, &4, *C!E**+2(, \$%!; &+6%**+&!D74%!N+*-%K!

I b!g JI< ./!E2(' !*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(, -*!, #' !P%\$, #' !*+(-*/C!E-*: !FC!E757*\$!TC!FGFFC!GF/I GIH!

!

"D\D!

; -03(6-+.!?DY!*3(/20,-(1!-1!+!*' +,4!+0-!/!)2.*C+, ' !)(-!/' 3-@' /!<3(5!6.+0W!
)0C-),)!

_____C!; : @!E*4+!0(3+Y+4(!C!; : @!0, ##, !n, #%) , !C!N02!n,](!N' !A, : , #5(&!n, 8(&"C!
; &+6%**+&!N, &447!m-(HB, --, !s

I b!g J!<. !/E2(' !*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(-*!, #' !P%\$-, #' !*+(-*/C!E-*: !FC!E757*\$!TC!FGFFC!Gf/I G!H!
.. /IG!

[3(**(+#!+6!U•W!, #' !\$: %!6, 2\$+&*!-(3(\$#5!(\$*!1&+ ' 72\$(+#!P%&%!(#)%*\$\$(5, \$%' !(!, !27-\$() , \$%' !1%, \$-, #' !
P: (2: !: , *!, #!, 2(' !*7-1: , \$%!3(#%&, -!*78*+(-!' %&())%' !6&+3!8-, 24!*2: (*\$<[3(**(+#!P%&%!3%, *7&%' !
8(P%%4-K!8K!' , &4!*\$, \$(2!2: , 38%&*!+#!\$: &%#!+2, \$(+#!P(\$: !1%, \$!), &K(#5!(!\$: (24#%**!8%P%#%! eHaG!
23!+)%&-K(#5!\$: %!3(#%&, -!*78*+(-<!: %!%3(**(+#!), &(' !5&%, \$-K!P(\$: !\$(3%CP(\$: !1%, 4*!(#!%3(**(+#!
2+(#2(' #5!P(\$: !*1&(#5!\$: , P<!W)%&, -C!\$: %!%3(**(+#!P%&%!#+\$, 8-K!-+P!!2+31, &%' !P(\$: !K1(2, -!
%3(**(+#!*!6&+3!8+\$: !1%, \$!, #' !, 2(' !*7-1: , \$%!*+(-!*<@7&(#5!\$: %!%3(**(+#!1%, 4*C!\$: %!*(%!P(\$: !\$: %!
\$: (#%*\$!1%, \$!, K%&!, #' !, 2(' !*7-1: , \$%!*78*+(-!2-+**\$!\$+!\$: %!*+(-!*7&6, 2%!S: (8(\$%' !!\$: %!-, &5%*\$!
%3(**(+#!*<N%2: , #(*3*!2+#\$&+-(#5!\$: %!1&+ ' 72\$(+#!+6!U•W!, !\$: %!*(%!P%&%!(#)%*\$\$(5, \$%' !(!#!
-, 8+&, \$+&K!%S1%&(3#%\$*!7*(#5!*+(-!* , 31-%*!6&+3!\$: &%%!+&!6+7&!*+(-! : +&()+#*<@&, (#, 5%!%3% !\$+!
(#2&%, *%!U•W!1&+ ' 72\$(+#!CP: %&%, *!(#!P%\$!*+(-C!\$: %!1&+ ' 72\$(+#!+6!U•W!(!\$: %!3(#%&, -!*78*+(-!P, *!
*3, -!, #' !\$: %!1%, \$!: +&()+#!P, *!, !*(#4!+6!U•W<D+P%&(5!+6!\$%31%&, \$7&%!6&+3!FG!\$+!e!h9!: , ' !, -3+*\$!
#+!&+-%!(#!\$: %!, %&+8(2!U, W!1&+ ' 72\$(+#!<D, 24!+6!2, &8+#!*+7&2%!(3(\$%' !, #, %&+8(2!U•W!1&+ ' 72\$(+#!(!#!
\$: %!711%&3+*\$!1%, \$!: +&()+#!CP: (-%!(#!\$: %!+\$: %&! : +&()+#*C!#(\$&, \$%P, *!\$: %!3+*\$!-(3(\$#5!6, 2\$+&<"\$!(*!

!
"8#8!

Z(17!, ' 35!' <<' 0,)!(<!73(21/R+, ' 3!5+1+7' 5' 1,!+1/!)26)23<+0' !-33-7+,-(1!
(1!,C' !R+, ' 3!A2+.-,4!<3(5!6(3' +.!+0-/!)2.<+, ' !)(-!.<+35.+1/!

D _____C!@&<!0%(V, !d(&\$, #%# "C! [3%&(\$7*!; &+6%**+&!N, &447!m-(HB, --, #C!@&!A, , #, !V7*(H
nt311t%C!@&<n, &(lm-), (#(+%C!E##, !_+#' %&C!E**+2(, \$%!; &+6%**+&!; %\$%&!×*\$%&: +-3!\$

I b!gJl< ./!E2(' !*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(-*!, #' !P%\$-, #' !*+(-*/C!E-*: !FC!E757*\$!TC!FGFFC!GF/I G!H!
../IG!

V1+#!' &, (#, 5%!*7-6(' %H8%, &(#5!*%' (3%#\$*!+S(' (!%!, #' !' %)%-+1!(#\$+!, 2(' !*7-6, \$%!*+(-*!L1B!•!TM!

!
\$D\!

; +** -17!(<l+0-/)2.<+, ' !)(-.)!-1!`-1.+1/!

_____C!N&!A, , 44+!E7&(#C!@&!E#\$+#!_+3, #C!N&!O\$%6, #!N, \$\$8t24"C!N*!; , 7-(# , !D(P, \$, H
n%#\$t-t!C!N&!B, ##7!B(&), *#(%3!\$

I b!g JI<. /!E2('!*7-6, \$%!*+(-*C!*7-6(' (2!3, \$%&(, -*!, #' !P%\$-, #' !*+(-*/C!E-*: !F!E757*\$!T!C!FGFFC!Gf/I G!H!
.. /IG!

E2('!*7-6, \$%!*+(-!*LE00M!, &%!(#!=#-, #' !' %6(#%' !, *!*+(-*C!*%' (3%#\$*!L(#2-7' (#5!5-, 2(, -!\$(-M!+&5, #(2!
3, \$%&(, -!L%<5<1%, \$M2+#\$, (#(#5!: K1%&*7-6(' (2!3, \$%&(, -*!P: (2: !71+#!+S(' , \$+ #C!%(\$: %&!#, \$7&, --K!+&!
' 7&(#5!(#278, \$(+#!(#!\$: %!-, 8+&, \$+&K!6+&3!*7-67&(2!, 2(' !\$: , \$!(5#(6(2, #K!-+P%&*!*+(-H1B!\$+!•T!6+&!
3(#%&, -*+(-!3, \$%&(, -*!, #' !•! !6+&!+&5, #(2!*+(-!3, \$%&(, -*&!
>: %!*7-6(' (2!*%' (3%#\$*!&%*1+#*(8-%!6+&!E00!6+&3, \$(+#!: ,)%!8%#%!' %1+*(#5!, 6\$%&!\$: %!-, \$%*\$!

!
!
#\$D!

LB*. (3-17!, C' !' 1@-3(15' 1, +. !-5*. -0+, -(1)!(<!5-03(N!+1/!1+1(N*.+), -0!
/' 63-)! (1!+73-02., 23+.!)(-.)!

D C C C!; &+6%** +&!A7-(%!"#5&, 3! C!@&!A, #%!N(--*! C!N&!U(2+-, *!_%&(+ \$"C!; &+6!d(+-%\$\$%!
J%(*%#"C!; &+6![*1%&, #], !B7%&\$, !DP, #5, "\$

"#%&')(*+ #, -. G!H!D, #' !2+ #\$, 3(#, \$(+ #!, #' !' %5&, ' , \$(+ #C!(#2-7' (#5!V&8, #!D, #' /C!D+ 3+ #' !
E7' (\$+&(73C!E757*\$!T!C!FGFFC!. I/GG!H!. e/GG!

; -, *\$(2*!, &!78(07(\$+7*!(#!+7&!%#)(&+ #3%#\$!g: (-*\$!*%)%&, -!*\$7' (%*!: ,)%!(' %#\$ (6(%' !\$: %!

!
"D%V!

_) -17! (<!k-)N

8+\$. p!E#, -K\$(2, -!, #' !_(+, #, -K\$(2, -!9: %3(*\$&K!TGb/bI ^^kbl f. ↓: \$\$1*/ZZ' +(<+&5Z. G<. GG^Z*GGF. aH
G. aHffeaHl <

!
" \>D!

M(.2' 1' !6-(/' 73+/-17!5-03(6-+.!0(5521-,-')!+)) (0-+, ' /!R-,C!) (-.!+1/!
3((,)!(<!+!* (*.+3!*C4, (3' 5' /-+,-(1!)4), ' 5!-1!+1!236+1!.+1/)0+*' !

 D C!@&<![' 7, &' +!N(\$\$%&!C!@&[-(), 8%\$: !B, , 24"C!@&!@,)(' !>*, + #C!n, 3(#(!n: +*-, !C!; &+6!
_%\$: !; , &4%&!\$

"#\$%&')(*(+#, -!. G!H!

"V\$J!

H3')' 10' !(<+1, -6-(, -0)!-1!).2/7' !<3(5!R+), ' R+, ' 3!, 3' +, 5' 1, !* .+1,)!+1/!
+5' 1/' /!) (-.)!+1/!03(*)!

D A B C!N*2!X, 07%-!9%-, H!@, 8-, #2, !C!N*2!D72\$, !X+' &\$57%]HD` 1%]"C!; &+6%**+&!N, #7%-!
E&(, *H[*\$v)%]"C!@&!N, &\$, !A+*%6, !=%&#*# ' %]HO, #Y7&Y+'C!@&!E)%-(#+!U|s%]H@%-5, ' +!C!; &+6%**+&!
[*1%&, #], !<-), &%)HX+' &\$57%]!\$

"#\$%&')(*(+#, -. G!H!D, #' !2+#\$, 3(#, \$(+#!, #' !' %5&, ' , \$(+#C!(#2-7' (#5!V&8, #!D, #' /!C!D+3+#' !
E7' (\$&(73C!E757*\$!T!C!FGFFC!. I/GG!H!. e/GG!

>: %!%-), \$%' !7%*!+6!, #\$(8(+\$(2*!P+&' P(' %!LLg, #5!, #' !>, #5C!FG. GM!\$&(55%&*!\$: %!, 22737-, \$(+#!+6!
\$: %*%!*78*\$, #2%*!(#!\$: %!*-7' 5%!6&+3!P, *\$%P, %&!\$&%, \$3%#S!1-, #*\$!Lgg>; M, #' !\$: %!1+** (8-!
2+#\$, 3(#, \$(+#!+6!*+(-*!, 3%# ' %' !P(\$: !(\$C!, *!P%-!, *!+6!2&+1*!5&+P(#5!(#!\$: +*%!*+(-*!#!\$: (*!&%*%, &2: !
P%!, #, -K*%' !\$: %!1&%*%#2%!+6!, #\$(8(+\$(2*!#!*!-7' 5%!6&+3! (66%&%#!\$gg>; !(!#J, -(2, !LUG!01, (#M!(#!
-7' 5%!2+31+\$%' !8K!P, *\$%!3, #, 5%&*C!, #' !(!#*+(-*!P: %&%!\$: %!2+31+*\$%' !*-7' 5%!P, *!, 11-(% ' C!, *!
P%-!, *!(#!2&+1*!L2+&#C!)(#%K, &' M5&+P(#5!+#!(\$!<: %!, #\$(8(+\$(2*!P%&%!07, #\$(6(% ' !8K!3%, #'!+6!B; D9H
NOZNO!<: %!&%*7-\$*!(#' (2, \$%!\$: , \$!, -3+*\$!, --!\$: %!*-7' 5%!*, 31-%*!1&%*%#\$\$%' !*+3%!\$K1%!+6!, #\$(8(+\$(2C!
87!\$: %!3+*\$!, 87#' , #\$(+*%*!P%&%!2(1&+6+S, 2(#!, #' !%) +6+S, 2(#!P(\$: !3, S(373!), -7%*!aF! !#5Z5!
, #' !bF! !#5Z5C!&%*1%2\$))-K!<: %!*-7' 5%!\$&%, \$3%#S!&% ' 72%' !*(5#(6(2, #S-K!\$: %!#738%&!, #' !\$: %!, 3+7#S!
+6!, #\$(8(+\$(2*!1&%*%#S!#!\$: %!*+(-*!P: %&%!*-7' 5%!P, *!, 11-(% ' C!*+3%!, #\$(8(+\$(2!P, *!' %\$%2\$%' !(!*3, --!
, 3+7#S*!87\$!Y7*\$(#!. ^q!+6!\$: %!* , 31-%*!X%5, &' (#5!\$: %!2&+1*!C!#+!, #\$(8(+\$(2!P, *!' %\$%2\$%' !(!!\$: %!
&+*\$*C!*\$, -4C!-,)%*!, #' !5&, (#!+6!2+&#C!#%(\$: %&!#!\$: %!5&, 1%*!* , 31-%' !(!)(#%K, &' *!g%12, #!2+#2-7' %!
\$: , \$!\$: %!\$&%, \$3%#S*!27&&%#S-K!, 11-(% ' !#!\$: %!gg>; !7# ' %&!*\$7' K!, &%!#+\$!\$+\$, --K!%66%2\$))(!#!
&%3+)(#5!, #\$(8(+\$(2*!6&+3!\$: %!*-7' 5%!, -\$: +75: !+7&!6(#' (#5*!*755%*\$!\$: , \$!\$: %!, ' ' (\$+#, -!1%2(6(2!
\$&%, \$3%#S!+6!\$: %!*-7' 5%! '%&)% ' !6&+3!\$: %*%!gg>; !(*!%66%2\$))(!#!&% ' 72(#5!\$: %!&(*4!+6!
%#)(&+3%#\$, -!1+--7\$(+#!' 7%!\$+!, #\$(8(+\$(2*!C!, #' !*1%2(6(2, --K!(!!\$: %!2, *%!*+6!*+(-*!, 3%# ' %' !P(\$: !\$: %*%!
+&5, #(!3, \$%&(-, #' !2&+1*!5&+P(#5!+#!(\$!<
g, #5C!N!>, #5C!A-9C!FG. G!X%*%, &2: !+6!, #\$(8(+\$(2*!1+--7\$(+#!(!!*+(-!%#)(&+3%#S*!, #' !(\$*!%2+--5(2, -!
\$+S(2(\$K!A!E5&(2!#[#)(&+#!<02(<!FfC!Fa. HFaa<

""\$!

EC+3+0,' 3=+,-(1!+1!/A2+1,-<0+,-(1!(<!5-03(*.+),-0)!(1!+73-02.,23+!<' ./)!
+5' 1/' /!R-,C!521-0-*+.!0(5*()),^!

!
\$D8!

: *+, -+.!@+3-+,-(1!(<!(37+1-0!*(..2,+1,)!-1!`3' 10C!)(-.)!

C **F** C!@&!U(2+-, *!; <E<0, 8K!C!@&!9-, 7' KIA+-(%)\$!C!N&*!D(#%!_+7-+##%!C!@&!J(+), ##(!

!
%\$8!

E-302.+3!236+1!.+1/N

!

"8"\$!

P1@'),-7+,-17!,C' !-1W!6' ,R' ' 1!) (-!R+,' 3!3' *' ..' 104!+1/!6- (. (7-0+!) (-!
032),!)23<+0' !/41+5-0)!2* (1!R' ,,-17!

D _____ **F** _____ C!N02!D%##, &\$!B(#]"C!_02!D72, *!=&%7' %#\$: , -!C!@&<07*, ###!g+2: %!C!@&<!
[3(-(!X+' &(57%)H9, 8, --%&+#!C!@&<0: 78(#!D, #!%C!; &+6<@&<[' 7, &' !X%(\$: 3%(%&"C!; &+6<@&<!0\$%1: , #!; %\$: !⁵

. e!@)(*+#!. !, #' !F!9+33(**+#!. < C!9+33(**+#!F< K!0+(-!*\$72\$7&!H!W8*%&), \$(+#!C!&%*(-(%#2%!, #' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#!5C!N. C!E757*!T!C!FGFFC!. I/GG!H!. e/GG!

_(+2&7*\$*!, &%!\$+1*+(-!3(2&+8, -!2+337#(\$%*!\$: , \$!, &%!%*\$\$(3, %\$' !\$+!2+)%)&!~!. G!q!+6!\$: %!5-+8, -!, #' !
7&6, 2%<>: %K!1-, K!4%K!&+-%!(#!%2+*K*\$%3!67#2\$(+#!5!8K!(#2&%, *(#5!*+(-!*\$, 8(-\$K!, #' !&%' 72(#5!
%&+*(+#!<#!' &K-, #' *C!+#!%!+6!\$: %&!3+*\$!(31+&\$, #!\$!67#2\$(+#!(*!\$: %!&%57-, \$(+#!+6!: K' &+-+5(2, -!
1&+2%**%*C!*72: !, *!P, %\$&!(#6(-\$&, \$(+#!, #' !&%' (*\$&(87\$(+#!), !&7#H+66<>: (*!*\$&+#!5-K!' %1%#' *!+#!\$: %&!
7&6, 2%!1&+1%&\$(%!@%1%#' (#5!+#!3, #K!6, 2\$+&*!72: !, *!+&5, #(*3, -!2+31+*(+#!C!8(+2&7*\$*!S: (8(\$!
\$&+#!5!' (66%&%#2%!(#!3(2&+\$+1+5&, 1: K!C!P: (2: !, 66%2*\$*C!, 3+#!5!+\$: %&*C!\$: %!2+##%2\$(K!+6!1, \$: P, K*!
6+&!7&6, 2%!&7#H+66!, #' !7-\$3, %\$-K!2+#!\$&+*!+(-!%&+*(+#!<g: (-!\$: %!2+##%2\$(+#!8%P%#!8(+2&7*\$!
' %)-+13%#\$, #' !3(2&+\$+1+5&, 1: K!: , *!8%#P%-!' +273%#P% C!-(\$%-!(*!4#+P#!, 8+7!\$: %!' K#, 3(2*
+6!8(+2&7*\$*7&6, 2%!1&+1%&\$(%*C!*1%2(, --K!(#!&%-, \$(+#!\$+!: K' &+1: +8(2(\$K!>+!(#)%*(5, %\$!\$: %!-(#4!
8%P%#P%\$, 8(-\$K!, #' !' (66%&%#\$(, -!*7&6, 2%!P%-(#5!, 6\$%&!P%\$\$(#5!P!*2, ##%!' (66%&%#!8(+2&7*\$*
6&+3!*\$7' K!*(%*!(#!01, (#!, #' !9: (#, !8%6+&%!, #' !, 6\$%&!, !P%\$\$(#5!%)%#<B(5: H&%*+-7\$(+#!!@!' , \$, !+6!
\$: %!8(+2&7*\$*7&6, 2%*!P, *!+8\$, (#%!' !P(\$: !, !*\$&72\$7&%' H(5: \$!@!*2, ##%&!LbG!€3!8%*+-7\$(+#!M!0(#2%!
%*1%2(, --K!(#!: K' &+1: +8(2!*+(-*C!*P%-(#5!+6!\$: %!*7&6, 2%!3, K!+#!-K!+227&!+#!2%!: %!: K' &+1: +8(2(\$K!P, *!

!

"V%V!

Y37+1-0!5+, , ' 3!-1/20' /!) (-!) ,320,23' !<(35+,-(1!7' 1' 3+, ')!/-),-10,
+30C-, ' 0,23+.!<' +,23')!+,!,C' !5-03()0+.' !

D F B B C!@&<0\$%66%#!E<02: P%(]!%&! C!_<02!E###!_ { : 3!C!@&<9, &3%#!B{*2: %#!C!; &+6<
@&<!#5&(' !n{5%-Hn#, 8#%&!'!''\$

. e!@)(* (+#!. !, #' !F!9+33(**(+#!. <. C!9+33(**(+#!F<. k!0+(-!*\$&72\$7&%!H!W8*%&), \$(+#!C!&%(-(%#2%!, #' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#!5C!N. C!E757*!T!C!FGFFC!. I/GG!H!. e/GG!

>+!7# ' %&\$, #' !\$: %!2+31-%S!1&+2%*!+6!*+(-!*\$&72\$7&%!6+&3, \$(+#!C!(\$!#!%2%* , &K!\$+!%S1-+&#!\$: %!
1, \$, -(#%\$&, 2\$(+#!+6!+&5, #(!3, \$\$%&!LWNM, #' !3(#%&, -!1, &\$(2-%!g%!7*%' !, !*: +&\$H\$&3!-, 8!
(#278, \$(+#!%S1%&(3%#!P(\$: !, &\$(6(2(, -!3+' %-*+(-*\$+!1&+ ' 72%!*+(-!, 55&%5, \$%*C!6+&3%' !(!#1!&*%#2%!+6!
, !' (*\$(\$2!WN!&*(' 7%<: %!3(#%&, -!3(\$7&%C!2+*(*\$#5!+6!07, &\$]!5&, (#*C!2-, K!3(#%&, -*!, #' !5+%\$: (\$%!
1, &\$(2-%*C!P, *!' %*(5#%' !\$+!3(3(2!, #!, &, 8-%!9, 38(*+!P(\$: !*, #' K!-, 3!\$S\$7&%<: %!WN!P, *!(\$: %&!
1&%*%#\$, *!1-, #!1-(\$%&!; WN!IG<a!HF!33MC!+&8, 2\$%&(, -!#%2&+3, **!L_, 2(-7*!78\$(-*MC!, #' !\$: %&P, *!, !
2+#!\$&+!P(\$: +7\$!WN!, ' ' (\$+#!<!
_+\$: !WN!&*(' 7%*!P%&!, 8-%!\$+!(# ' 72%!P, %&H*\$, 8-%!, 55&%5, \$%*C!P: (2: !P%&!*\$, 8(-]%' !8K!*+3%!
3, -!, #' !' (\$(\$2\$!5-7%!*1+#!+6!WN!+2271K(#5!• . ^q!+6!\$: %!3(#%&, -!7&6, 2%!, &%, !(!#!\$: %!*+(-*!<
N(#%&, -!3(#%&, -!(\$%&, 2\$(+#!LUFH_[>M!, 22+7#%' !6+&!\$: %!3, Y+&(\$K!+6!\$: %!7&6, 2%!(#%&, 2\$(+#!C!87\$!
' (' !#+\$!(# ' 72%!-, &5%!P, %&H*\$, 8-%!, 55&%5, \$%*!<!
E!2+38(#%' !, 11&+, 2: !+6!6-7+&%*2%#2%!3(2&+*2+1K!, #' !#, #+*2, -!%*2+#! , &K!(+#!3, **!1%2\$&+3%\$&K!
LU, #+0"NOMP, *!7*%' !\$+!3, 1!, #' !07, #\$(6K!\$: %!, 55&%5, \$%!, &2: (\$2\$7&%C!8, 2\$%&(, -!2+--+#!(], \$(+#!C!, #' !
WN!' (*\$&(87\$(+#!7*(#5!\$: (#!%2\$(+#!+6!(*+-, %' C!&*(#H%38%' ' %' !, 55&%5, \$%*!<!
>: %!+8\$, (#% ' !3, 5%*!*: +P!\$: , !5+%\$: (\$%H&(2: C!6(#%!1, &\$(2-%!2+, \$(#5*!, --+P%' !\$: %!(#2+&1+&, \$(+#!+6!
-, &5%!*, #' !5&, (#*!(\$+\$!\$: %!6+&3%' !, 55&%5, \$%*!<: %!(!]!, #' !*: , 1%!+6!\$: %!' (*\$(\$2!WN!&*(' 7%*!
' %6(#%' !\$: %!+2, -!(!]!, #' !*1, \$(-!1, \$\$%&#!+6!\$: %!WN!5-7(#5!*1+#!P(\$: (#!\$: %!, 55&%5, \$%*!<: %!
8, 2\$%&(, -!#%2&+3, **!(# ' 72% ' !#73%&+7*!3, -!WN!*1+#!C!P: %&%, *!\$: %!-, &5%&!; WN!1(%2%*!87(-!6%PC!
87\$!-, &5%&!2+##%2\$(#5!8&(' 5%*!P(\$: (#!\$: %!3(#%&, -!3, &\$(S<!
!

!

724, C!<=<<!=%- ' %C!d!A!N<U<D<C!; %\$: C!0<C!?!n{5%-Hn#, 8#%&C!<LFGF. M!@(*%#\$, #5-(#5!\$: %!%66%2\$*!+6!
WN!07, -(K!, #' !*+(-!\$S\$7&%!+#!3(2&+8(, -K!3%' (, \$%' !*\$&72\$7&%!6+&3, \$(+#!(!, &\$(6(2(, -!3+' %-*+(-*!<
J%+' %&3, C!TGI C!. . eF. I<! +(/: \$\$1*/ZZ' +(<+&5Z. G<. G. aZ!-5%+' %&3, <FGF. <. . eF. I!

!

724, C!<=<<!n{5%-Hn#, 8#%&C!<LFGF. M!@(*%#\$, #5-(#5!\$: %!%66%2\$*!+6!

!
"D"#!

`210,-(1+.!C+6-,+,!0(11' 0,-@-,4!-1!)(-.)G!5(3' !,C+1!02),!* (3' !)-=')!

D _____ C _____ C!; &+6!X7\$: !=, -2+#%&"C!@&!d, -v&(!; +\$#C!; &+6!g(-6&%' !W\$\$%#^{!\$}

.e!@)(*+#!.!, #' !F!9+33(**+#!.< C!9+33(**+#!F<. k!

!
"\$V%!

LB*' 3-5' 1,-17!C4/3+2.-0!<+,-72' !(<!) (-!6-(5+03(* (3')!

!

>>%!

; (/ ' ..-17!, C' !-1, ' 3+0, -(1)!6' , R' ' 1!) (-!) , 320, 23' !10+36 (1!040.-17S!
C4/3(. (7-0+! *3(0'))')!+1/!03(*! *3(/20, -(1!!

D _____ c!@&!n, \$: , &(#, !N%7&%&!\$

. e!@)(* (+#!. !, # ' !F!9+3 3(**(+#!. < C!9+3 3(**(+#!F<. k!0+(-!*\$&72\$7&%!H!W8*%&), \$(+#!C!&*(-(%#2%! , # ' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#!(#5!N. C!E757*\$!T!C!FGFFC! . I/GG!H! . e/GG!

N+ ' %-*!+6!*+(-!+&5, #2!3, \$\$%&!LOWNM*\$+&, 5%!, # ' !\$7&#+)%&!, &%!7*%67-!\$+ +- *!\$+!, #, -K]!\$: %!%66%2\$*!+6!
+(-!, # ' !2&+1!3, #, 5%3%#1&, 2\$(2%!, # ' !2-(3, \$%!2: , #5%+#!*+(-!+&5, #2!2, &8+#!*\$+24*!>: %!
, 55&%5, \$%' !*\$&72\$7&%!+6!*+(-!*!4#+P#!\$+!1&+\$%2\$IOWN!6&+3! ' %2+31+*(#+#C!, # ' !\$: 7*!(#6-7%#2%!\$: %!
1+\$%#\$(, -!6+&!+ #5H\$%&3!*%07%*\$&, \$(+#!<!#\$7&#C!\$: %!\$7&#+)%&!, # ' !*\$+&, 5%+!6!OWN!, 66%2\$*!+(-!
, 55&%5, \$(+#!C!1: K'(2, -!, # ' !: K' &, 7-(2!1&+1%&\$(%*!, # ' !\$: %!1&+ 72\$()%2, 1, 2\$(K!+6!*+(-!<): %*%!\$P+HP, K!
(#\$%&, 2\$(+#!: ,)!#+\$!K%\$!8%%#!%S1-(2\$(K!2+##*(' %&% ' !(#!3+ ' %-(#5!, 11&+, 2: %*!<B%&%C!P%1!&%*%#\$, !
#%P!3+ ' %!+6!\$: %! K#, 3(2!6% ' 8, 24*!8%\$P%#%!OWN!*\$+&, 5%C!*+(-!*\$&72\$7&%!, # ' !*+(-!1: K'(2, -!, # ' !
: K' &, 7-(2!1&+1%&\$(%*!L%<5!1+&+*(K!87-4! ' %#*(K!C!1+&!*[]%! ' (*&(87\$(+#!*+(-!P, \$%&!&%\$%#\$(+#!, # ' !
1&+6(-!\$: (24#%*!M!g%!*: +P!\$: %!&%*7-\$*!+6!, !1&-(3(#, &K!\$%*\$!7*(#5!3%, *7&%3%#*!+6!87-4! ' %#*(K!
OWNC!*+(-!P, \$%&!&%\$%#\$(+#!, # ' !*+(-!7&6, 2%!%-), \$(+#!C!3, ' %!' 7&(5!a! !K, &*(#!, !6(%-! \$&(-!, -!, \$!
V11*, -, !LOP% ' %M(#!\$: &%!&\$%&, \$3%#*\$!P\$: !2+##\$, *\$(#5!(#17\$*!+6!WN!8, &%!6, --+PC!, #3, -!, # ' !
5&%%#!3, #7&%M!>: %!&%*7-\$*!755%*\$!\$: , \$(!\$!*: +7-' !8%!P+&\$: P: (-!\$+!(#2+&1+&, \$%+7&!3+ ' %-!
, 11&+, 2: !(# \$+!3+&%!2+3!1&: %#*()%!3+ ' %-*!+6!\$: %!*+(-H2&+1!*K*\$%3!\$: , \$!, - *+!(#2-7' %!' %*2&(1\$(+#!+6!
+(-! : K' &+5(2, -!1&+2%%*!, # ' !2&+1!5&+P\$: <072: !, !3+ ' %-*: +7-' !1&+)%!7*%67-!(#!, #, -K*%*!+6!6+&!
%S, 31-%C!\$: %!&, \$%*!, # ' !1+\$%#\$(, -!6+&!2, &8+#!*%07%*\$&, \$(+#!, # ' !*+(-!&%2+)%&K!7# ' %&!, # ' !7*%!, # ' !
2-(3, \$%!2: , #5%<+!(-7*\$&, \$%!\$: (*!P!P(-!1&%*%#\$, !, \$+K,, !*+(-H1-, # \$!3+ ' %-')%)-+1% ' !6+&!
' %3+##*\$&, \$(+#!17&1+*%*C!\$+5%\$: %&!P(\$: !\$: %!&%*7-\$*!+6!*+3%1!&-(3(#, &K!*2%#, &(+!*(37-, \$(+#!<
N%7&%&C!n<!9: %#7C!9<!9+72: %#%K! [<!B%&&3, ##C!E<!n%-&C!><!nt\$\$%&&C!><!U(38-, ' !0)%#**+#!@!<?!
A, &)(*!U<!LFGFG, M!N+ ' %-(#5! ' K#, 3(2!(#%&&, 2\$(+#!*8%\$P%#%!*+(-!*\$&72\$7&%!, # ' !\$: %!*\$+&, 5%!, # ' !
\$7&#+)%&+6!*+(-!+&5, #2!3, \$\$%&<_ (+5+*2(%#2%*C!. ^C!eGFeHeGTF<

!

N%7&%&C!n<_, &&+#!A<!9: %#7C!9<!9+72: %#%K! [<!(=('% (#5C!N<!B, --\$\$C!; <!B%&&3, ##C!E<!n%-&C!><!<
n+%*\$%<!A<!D, &*8+C!N<!D!P, #C! [<!W&C!@<!, &*+##*C!@<!, &)(#C!U<!>, K-+&C!E<!d%&%24%#C!B<?!A, &)(*!<
U<!LFGFG8M!E!6&, 3%P+&4!6+&!3+ ' %-(#5!*+(-!*\$&72\$7&%!' K#, 3(2*!(# ' 72% ' !8K!8(+5(2, -!, 2\$()\$K!J-+8, -!
9: , #5%!_ (+5+5K!Fac!el bFkeTGI<

!
">"#!

: (-.),320,23' !(<!*' +,!+1/!-,)!3(. ' !-1!' 0()4), ' 5!<210,-(1-17!

D _____ [!@&&!=%%(' +7#!X%], #%]: , ' " [!@&&_!%&# ' !D%##, &\$]!\$

. e!@)(* (+#!. !, #' !F!9+3 3 (**(+#!. < !9+3 3 (**(+#!F<. k!

w: , #5!...<!J&%5+&K!E<0<!g: , --%K!g<X<!9+-%3, #C!n<!U%, -C!E<0<!_, 20HD, 8&%7(-C!E<!N++#%K!0<A<!
9&, P6+&' C!A<g<!0+5, C!n<!?"-- , #5, *%4, &%C!>B<LFGF. M!X%-, \$(+#*: (1!8%\$P%%#!*+(-!2, &8+#!
%07%\$&, \$(+#!, #' !\$: %!, 8(-\$K!+6!*+(-!, 55&%5, \$%*\$!\$+!\$&, #*1+&\$!' (**+-)%' !+SK5%#C!J%+' %&3, C!TGI C!
. . eI ^G!: \$\$1*/ZZ' +(&5Z. G<. G. aZ!5%+' %&3, <FGF. <. . eI ^G

"D\\$!

F -..!3((,!6-(5+))!/' 73+/' !<+), ' 3!-1!/' ' *!) (-.!21/' 3!w#xE!-1!, ' 5*' 3+, ' !
<(3'),)c!Z'))(1)!<3(5!+!. (17N,' 35!<' ./!-1026+,-(1!' B*' 3-5' 1,!

B _____C!9K&(-!w+**+!C!; @!@&<!J7(' +!g(%*%#8%&5!C!@&<!N, &5, &%\$!>+&#"C!; &+6<!@&<!N(2: , %-!
02: 3(' \$!\$

. b!@)(*+#!F!9+33(**(+#!F<F!k!_(+5%+2: %3(2, -!2K2-%*!(#!\$: %!*+(-!H!1&+2%***!-(#4(#5!\$: %!, 8(+\$(2!, #' !
8(+\$(2!&%, -3*C!+=&\$: C!E757*!T!C!FGFFC!. I/GG!H!. e/GG!

9-(3, \$%!3+' %-!*755%*\$!Th9!P, &3(#5!7#\$(!F. GG!P: (2: !2+7-' !, 22%-&%, \$%!*+(-!2, &8+#!+**C!
5&%%#: +7*!5, *!&%-%, *%C!, #' !\$: 7*!1&+3+\$%!5-+8, -!P, &3(#5<!@%*1(\$%!-+P!2, &8+#!2+#2%#\$&, \$(+#!*C!

!
V8\!

; -03(6-+.!0+36(1!2)'!' <<-0-' 104!+)!+<<' 0,' /!64!.+1/!2)'!0(1@' 3)-(1!<3(5!
6(3' +.!(3'),!, (!+73-02.,23+!.+1/!

_____c!N02!>(#+!; %1-, 7!c!; &+6!@&!9: &(*\$+1: !9< >%88%"c!; @!@&!9: &(*\$+1: %&!; +%1-, 7!\$

. b!@)(*+#!F!9+ 3 3(**+#!F<F!k!_(+5%+2: %3(2, -!2K2-%*(#!\$: %!*+(-!H!1&+2%***!-(#4(#5!\$: %!, 8(+\$(2!, #'!
8(+\$(2!&%, -3*c!+=&\$: c!E757*\$!Tc!FGFFc!. I/GG!H!. e/GG!

@7%!\$+!2-(3, \$%!2: , #5%cl(\$!(*!(4%-K!\$: , \$!, 5&(27-\$7&#!%S1, #' *!\$+P, &' *!#+&\$: <"\$!(*!7#4#+P#!: +P!
27-\$(), \$(+#!, 66%2\$*!\$: %!' K#, 3(2*!+6!*+(-!+&5, #(2!2, &8+#!LOW9M(#!\$: %!2+-' !, #' !#7\$&(%#\$!-(3(\$%' !*+(-!+6!
78, &2\$(2!&5(+#!<0\$7' K(#5!1, &, 3%\$%&!+6!3(2&+8(-!3%\$, 8+(-*3c!72: !, *!\$: %!3(2&+8(-!2, &8+#!7*%!
%66(2(%#2K!L9V[MC!1&+)' (*!), -7, 8-%!(#6+&3, \$(+#!+#!: +P!-, #' !7*%!2: , #5%!(*, 66%2\$(#5!OW9!' K#, 3(2*
B%&%c!P%!(#)%*\$\$(5, \$%' !(6!-, #' !7*%!2+#!)%&*(+#!, 66%2\$*!9V[!, #' !P: %\$: %&!*\$+(2: (+3%\$&Kc!+(-!%S\$7&%c!
*+(-!1B!, #' !\$: %!&%, \$()%! , 87#', #2%!+6!8, 2\$%&(, c!, &2: , %, !, #' !67#5!(#6-7%#2%!9V[<"#!, ' ' \$(+#!c!P%!
\$7' (%' !P: %\$: %&!1+\$%#\$(, -!: (6\$*!(#!9V[!P(\$: !P, &3(#5!+&!UH, ' ' \$(+#!' %1%#' !+#!-, #' !7*%!\$K1%<!
g%!07, #\$(6(%' !3(2&+8(-!9V[!8K!\$: %!. bWH-, 8%-(#5!3%\$: +' !, #' !&%, \$()%! , 87#', #2*%!+6!' +3, (#*!8K!
0; 9X!+6!. f!6+&%\$c!. T!5&, **-, #' !, #' !. a!2&+1-, #' !*+(-!6&+3!. f!6, &3*!' (*\$&(87\$%' !+)%&!\$: %!3, (#!
2%#\$&%*!+6!, 5&(27-\$7&, -!, 2\$)(\$K!#!\$: %!m74+#!c!9, #, ' , <=(&\$!&%*7-\$*!*: +P!\$: , \$!9V[!(5#(6(2, #-\$K!
(#2&%, *% ' !7# ' %&! , 5&(27-\$7&, -!7*%<9V[!P, *!*\$&+5-K!1+*(%)<K!2+&&%-, \$%' !\$+!+(-!1B!L1!<G-GG. M!
=7&\$: %&!&%*7-\$*!+#!9V[!, #' !2+3 3 7#(\$K!, 87#', #2%!P(-!, -*+!8%1!&%%#\$\$%' <N(2&+8(-!&%*1+#!%\$+!})!
. Gh9!P, &3(#5!+&!UH, ' ' \$(+#!P%&!, **%***' !#!, #!, ' ' \$(+#!, -!(#278, \$(+#!%S1%&(3%#<V#%S1%2\$%' -Kc!
*: +&\$H%&3!P, &3(#5!(#2&%, *% ' !9V[!L}!I G!qM!, #' !UH, ' ' \$(+#!&% 72%' !9V[!LH!^!qM!N(2&+8(-!5&+P\$: !
P, *!\$: %!3, !+&!&!)%&!+6!9V[!8%*1+#!%\$+!\$&%, \$3%#\$*<X, \$: %&!\$: , #!-, #' !7*%!\$K1%c!*(%\$H*1%2(6(2!
1, &, 3%\$%&*!P%&%' &)(#5!\$: %!P, &3(#5!&%*1+#!%\$+6!3(2&+8(-!3%\$, 8+(-*3<g: %&%, *c!5&+P\$: !
&%*1+#!%\$+!UH, ' ' \$(+#!P, *!' %1%#' (#5!+#!\$: %!1&%), (-#5!&%, \$()%! , 87#', #2*%!+6!67#5!(, #' !8, 2\$%&(, <!

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H

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%#8!

Z-1W-17!3((,)!, (!) (-.!0+36(16!5' ,C (/)S!/+ ,+!+1/!5 (/' .)!

D A

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D>\$!

P1 (37+1-0!0+36(1!5' /-+, ')!, -..+7' !' <<' 0,)!(1!) (-!(37+1-0!0+36(1!), (OW)!-1!
+3-!/!+73-02., 23+..!) (-.)!

D **B** C!@&<107*, #!9&+P" C!@&<19: &(*!_&(%#C!@&<1E* 3%&%\$!E*%6, P!_%&: %%

">"!"

MC' !K; j :NI -(/-@' 3)-,4!+)!+!*3(0' 0,!(<!.+37' N)0+.' !)(-!6-(/-@' 3)-,4!
5(1-, (3-17!-1!` 3+10' !

D C c!@&!D72(, !0, # \$+&76+ "c!N*!9, &+-%!W&\$%5, !c!@&!9-, 7' KIA+-())%\$!c!@&!E1+--(#%!E72-%&2#c!
@&!U+-P%##!_+75+#%c!@&!m), #!9, 1+P(%]&c!@&!U, \$: , -(%!9: %)(&+#(c!@&!@, #(%-!9-7], 7)c!@&!Av&_ 3%!
9+&\$%\$+c!N*!J, C--!@%&+#](%&%c!@&!N(24, C-!B%' ' %*c!@&!E#\$(#%!Dv)°07%!·c!@&!=-+&%#2%!N, 7#+7&KH
@, #5%&!c!@&!D, 7&%#\$!; , -4, 'c!@&!J7v#+-, !; v&> *!#c!@&!D(+#%-!X, #Y, &' !%c!@&!_##+!\$!d, #: %%!&c!@&!9v2(-%!
d(-%#,)%!(c!N&!0\$, #(*-, *!g&+], %c!@&!E#\$(+!_(*1+!\$

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"J"%!

; +0C-1' !.' +31-17!-1!)*+0' !+1/!,-5' !<(3!7.(6+.!5 (/ ' ..-17!(<!) (-!(37+1-0!
0+36(1!0C+17' !

D _____ C!@&!D, 7&, !; +55(+C!@&!A+#, \$: , #!0, #' %&3, #C!@&!@+ 3(#(2!g ++-6C!@&!A+: , ##%*!
D%: 3, ##C!@&!@%8+&, :!_+**(+!

!!gJ.<^!k!

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%\$"

9-77-17!-1, (!,C' !62.W!/' 1)-,4!+1/!0(+3)' !<3+75' 1,!/+,+!(<! ,C' !` 3' 10C!) (-!
A2+.-,4!5 (1-, (3-17!1' ,R(3W!!

D _____ C!@&!N, #7%-!N, &\$(#!C!@&!D(#%!_+7-+##%!C!@&!U(2+-, *!0, 8K!C!@&!
@+3(#07%!E&&+7, K*!\$

II!gJ. <^!kIE'), #2%*(#!*+(-!3+#(\$+&(#5/C!E-*: !. C!E757*\$!T!C!FGFFC!. I/GG!H!. e/GG!

7-4!' %#*(SK!L@M!, #' !2+, &*%!6&, 53%#L9=M2+#\$%#\$, &!#%#%' %' !\$+!, **%**!2: , #5%*!+6!2, &8+#!L9M
\$+24!(#!*+(-*!V# #&\$, #' (#5!\$: %!%) +7\$(+#!+6!_@!(#!#%#%' %' !\$+!2, -27-, \$%!*\$+24!2: , #5%*!8, *% ' !+#!
%07), -%#3, **!<=, 2\$+&*!72: !, *!-, #' !7*%!, #' !3, #, 5%3%#1&, 2\$(2%*!:,)%!, #!%66%2\$!+#!_@<
B+P%)&C!07, #\$(6K(#5!\$: +*%!%66%2\$*!(*!2: , --%#5(#5! 7%\$!+!7#2%&\$, (#\$(*!-(#4%' !\$+!' %\$%&3(#, \$(+#!
3%\$: +* !, #' !*1, \$(, -!), &C, 8(-\$K!E' '\$(\$+#, --K!-, &5%!7#2%&\$, (#\$K!(#!9=!2+#\$%#\$(#!*+3%!*+(-!2, #!
2+31&+3(*!\$: %!), -('\$K!+6!9!*\$+24*!2: , #5%*C!1, &\$27-, &-K!(#!*\$+#!K!*+(-*!B%&&C!P%! ' (*27**!\$: %!
-%**+#!*!%, !6&+3!\$: %!6(&*\$!, #' !*%2+#!' !2, 31, (5#*!+6!\$: %!: !*+(-!07, -(\$K!3+#(\$+&(#5!#%\$P+&4!
LXN+OM&5, &' (#5!\$: %!3%, *7&%3%#*!+6!_@!, #' !9=C!6+27*(#5!+#!\$: %!) +73%\$&(2!&(#5!LeGG!23!M!, #' !
\$: %!%S2,), \$(+#!3%\$: +* *!g%! (*27**!\$: %!*\$7, \$(+#!*!(#!P: (2: !\$: %!3%\$: +* !, &%!1&%6%&&' C!\$: %(&!1&+*!
, #' !2+#!*!<: %!&(#5!3%\$: +* !P, *!\$: %!3+*\$!6&07%#\$, #' !(\$!P, *!1&%6%&&' !(#!*+(-*!P(\$: !Gq!9=!\$+!-%**!
\$: , #!eG!q!LP(5: \$!2+#\$%#M!>: %!%S2,), \$(+#!3%\$: +* !P, *!7*%' !, *!P%--!8%\$P%#Gq!\$+!eG!q!9=
2+#\$%#5!87\$!-%**!6&07%#-K!g: %#!9=!2+#\$%#\$(#!-!eGqC!%S2,), \$(+#!P, *!\$: %!1&%6%&&' !3%\$: +* !<: %!
&%5&%**(+#!6(\$!8%\$P%#!\$: %!), -7%*!+6!\$: %!6(&*\$!, #' !*%2+#!' !2, 31, (5#!P, *!2+#!*(*\$%#-K!8%\$&16+&!_@!
, #' !9=!3%, *7&% !8K!\$: %!) +73%\$&(2!&(#5!\$: , #!8K!\$: %!%S2,), \$(+#!3%\$: +* !<: (*!755%*\$*!\$: , \$!\$: %!
) +73%\$&(2!&(#5!(*!3+&! , 227&, \$%16+&!, **%***(#5!2: , #5%*!+6!_@!, #' !5%)%*!3+&!2+#!*(*\$%#!8%*7-\$*!+6!
9=!, 2&+**!2, 31, (5#*!<m%\$C!(\$*!(# , 11-(2, 8(-\$K!(!: (5: -K!*\$+#!K!*+(-*!-(3(\$*!\$*!P(' %*!1&%, ' !7*%!!!!!
g, -\$%&C!n!<!@+#!C!E!<(&3%K%&C!_<!?!=&%8, 7%&C!E!<LFG. aM!@%\$%&3(#5!0+(-!_7-4!@%#*(SK!6+&!9, &8+#!
0\$+24!9, -27-, \$(+#!*!E!OK*\$%3, \$(2!N%\$: +* !9+31, &(*+#!<0+(-!02(%#2!0+2(%\$K!+6!E3%&(2, !A+7&#, -C!
bGLIM!e^f!Hef. <!'+/!. G!F. Iaz***, YFG. ec. . <GTG^!
>: &+++1C!B!<D!<E&2: %&C!0!<X!<C!N+5%&C!B!<9!<!?!g, -\$3, #C!0!<LFG. FM!g: %#!87-4!' %#*(SK!3%\$: +* !

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&' 35+14h)!?+,-(1+.!` (3'),!:(-.!P1@' 1, (34G!3')2.,)!(<!+00(5*+1-' /!),2/-')!
,(!C+35(1-)' !)(-!) +5*.-17!+1/!.+6!+1+.4)-)!

D E _____ c!@&!U(2+-%!g%-8&+24!\$

l l!gJ. <^!k!E'), #2%*(#!*+(-!3+#(\$+&(#5/C!E-*: !. C!E757*\$!TC!FGFFC!. I/GG!H!. e/GG!

>: %!5+, -!+6!\$: %!U, \$(+#, -!+=&%*\$!0+(-!#)%#\$+&K!LU=0"m(*!\$+!5%#%&, \$!&%-(, 8-%!' , \$, !+#!\$: %!27&&#%\$!
\$, \$%! , #' !2: , #5%(#!6+&%*\$!*+(-*!P: (2: !, &%!&%1&%*%#\$, \$()%!+#!&%5(+#, -!*2, -%!, #' !2+31, &, 8-%!, 2&+**!

\\#!

EC+17')!-1!0+36(1!+1/!1-,3(7' 1!) (-.!), (0W)!+00(3/-17!, (!,C' !)+5*.-17!
*3(, (0(!64!,C' !PEY:!(@' 3!,C' !.+),!/' 0+/' ^!

D _____C!@&!U(2+-, *!; <E<0, 8K!C!@&!A+*vHD7(*!N7#%&, H[2: %)%%&&(!C!@&!; , 7-(#%!
_7K**%"C!@&!0v8, *\$(%#!D, 6+#\$#C!N*!9v-(#!X, \$(v!C!N&!A%, #H; : -(11%!9: %#7!C!@&!9-, 7' K!A+-())%\$!C!@&!
U(2+-, *!; &+(S%C!N3%!_&(5(\$%#!@7&, #' "C!@&!_%#Y, 3(#!D+78%\$"\$

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D%>!

; (1-, (3-17!-103' +)')!-1!) (-!*X!-1!3') * (1)' !, (!)2.*C23!/' * ()-, -(1!+, !+!
1+, -(1+!)0+. ' !

D F _____ C!@,)(' !X+8(#* +#! C!@+#!N+#\$%\$: ! C!; , 7-!_u&4#%&"C!"#3, !D%8&+#! C!0, 3!>+3-(#* +#! C!
_&(' 5%\$![33%\$\$! C!0(3+#!03, &\$!\$

II!gJ. <^!k!E'), #2%*(#!* +(-!3+#(\$+&(#5/C!E-*: !. C!E757*\$!T!FGFFC!. I/GG!H!. e/GG!

E2&+**![7&+1%C!&%' 72(#5!*7-1: 7&!%3(**(+#!*(#2%!: %!. f^G*!: ,)%!5()%)#!%2+*K*\$%3*!, #!+11+&\$7#(\$K!
\$+!&%2+)%&!6&+3!, 2(' (6(2, \$(+#!C!: +P%)%&!\$: %!%S\$%#\$\$!, #' !%2+-+5(2, -(31, 2\$!+6!\$: (*!&%2+)%&K!(*!*\$(-!
7#2-%, &1, &\$27-, &-K!P: %#!2+#!*(' %&%' !(#!\$: %!2+#!%S\$!+6!2: , #5(#5!2-(3, \$%!, #' !-, #' !7*%<B%&%!P%!
1&%*%#\$\$! , \$, !6&+3!\$: +7*, #' *!+6!*(%*!, 2&+**!J&%, \$!_&(\$, (#!*7&)%K%' !6&+3!. f^b

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"\$V"!

QI3' @-' R!(<' B-), -17!) (-!5 (1-, (3-17!)4), ' 5)!, (!* +@' !, C' !R+4!, (!, C' !L_!: (-!
Y6)' 3@+, (34!

D A B C!@&!w*` 6(!_, 4, 2*(C!@&!=#K!), #![53+#' C!@&!_+]#%, !03&%2], 4C!@&!J&]%5+&]!!
0(%8(%-%2C!@&!A+: , ##, !g%\$\$%&-(#' C!@&!X7' (!B%***-C!@&!E&PK#!A+#%*C!@&!N, &(, !=, #\$, 11(>!

II!gJ. <^!kIE'), #2%*!(#!*+(-!3+#(\$+&(#5/C!E-*: !. C!E757*\$!T!C!FGFFC!. I/GG!H!. e/GG!

0+(-!, &%!2+#*\$, #-\$-K!%) +-) (#5!' 7%!\$+!#, \$7&, -!6, 2\$+&*!, *!2-(3, \$%, #' !-)(#5!+&5, #(* 3*!L1%' +5%#%*(MC!
87\$!, -*+' 7%!\$+!%SS%&#, -!1&%**7&%*!-(#4%' !3, (#-K!\$+!: 73, #!, 2\$(%)(\$%*!L%<5!7&8, #(), \$(+ #C!
3, #, 5%3%#%\$!1&, 2\$(2%*C!' (667*%!(#17\$*!+6!#7\$&(%#%*!+&!2+#\$, 3(#, #*\$!\$: &+75:!, \$3+*1: %&(2!' %1+*(\$!
+&!P, *\$%!*1&%, '(#5M!>: %!%) +7\$(+#!+6!*+(-!3, 4%*!(\$!#%2%**, &K!\$+!*%\$!71!3+#(\$+&(#5!1&+5&, 33%* <!
@%*(5#(#5!, #' !(31-%3%#%\$(#5!, !0+(-!N+#(\$+&(#5!0K*\$%3!LONOM&%07(&%*!, \$!-%, *\$!\$+!2: ++*%!/!\$: %!
\$, \$(^\$(2, -!, 31-(#5!' %*(5#C!\$: %!6(%-' !*, 31-(#5!*\$&, \$%5K!(#!\$(3%!, #' !*1, 2%C!\$: %!%#%\$K!\$: , \$!(!* , 31-%' !
L(<%<1%' +5%#(2!: +&[]+#!+&!6(S%' !' %1\$: *M, #' !: +P!L%<5!1(\$*C!, 75%&(#5C!*1, ' %MC!\$: %!\$+\$, -!\$: (24#%**!
+) %&!P: (2: !*+(-!* , 31-%' C!\$: %!P, K!\$: %!* , 31-%*!, &%!3, #, 5%' !L%<5!2+31+*(\$%!* , 31-%MC!1&%1, &%' !
, #' !, #, -K*%' !, #' !\$: %!3%\$, ' , \$, !(*!\$+18%!2+--%2%\$' !, #' !*\$+&' !L' , \$, !, 8+7\$!\$: %!* , 31-(#5!(\$*%-6C!(\$*!
-+2, \$(+#!, #' !*7&&+7#' (#5*M!\$+!(#%\$&1&%\$!\$: %!&%*7-\$*!E--!\$: +*%!2: +(2%*!&%1&%*%#%\$!1+** (8-%!), &(, \$(+#!
\$: , \$!%#, 8-%!\$: %!&%*7-\$*!\$+18%!2+31, &%' <!
0(#2%!FGIK%, &*C!*%)%&, -!1&+V%2\$*!, #' !(#(\$, (\$) %*!7#' %&-(#' !\$: %!%S*(#5!' (66(27-\$(%*!\$+!2+31, &%!, #' !
*: , &%!' , \$, !6&+3!#, \$(+ #, -!ONOC!%(\$: %&! ' 7%!\$+!\$%2: # (2, -!(**7%*!L%<5!<*, 31-(#5!' %*(5#*!, #' !1&+\$+2+*C!
, #, -K\$(2, -!3%\$: +' *C!' , \$, !6+&3, \$M87\$!, -*+!+#!3+\$(), \$(+#!L%<5!P: K!\$+!*: , &%!\$: %!' , \$, C!6+&!P: , \$!
17&1+*%M!, #' !-%5, -!&%07(&%3%#%\$!L%<5!<, &%!P%!, --+P%' !\$+!*: , &%!\$: %!' , \$, M!g(\$: !\$: %!+8V%2\$!)%!+6!

V>!

&' 1/' 3!LA2-,4!-1!: (-.!: 0-' 10' G!Q!k-' R!<3(5!; 2.,-*.' !E(21,3-')!!

D E B C!@&<D, 7& !_%&\$: , !!X%K%*HO•#2: %]"C!@&<D+&#, !!@, P*+##\$

>8V!

P5+7-17!(<l3((,!)!+1/!* (3' !1' ,R(3W)!-1!) (-.)4), ' 5)!64!2)-17!C-7C!
3')(.2, -(1!mN3+4!5-03(NEM!

_____C!>: (-+![(24: +&*"\$C!B, ##%*!02: 3(' \$#C!N, \$\$: (, *!B, -*2: %\$

. e!@)(*+##!. !, #' !F!9+33(**+#!. < C!9+33(**+#!F<. k!0+(-!*\$&72\$7&%/!W8*%&), \$(+##C!&%*(-(%#2%! , #' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+##5C!N. C!E757*\$!T!C!FGFFC!. e/I G!H!. ^/I G!

>+ ' , K!*: (5: H&%*+-7\$(+#!...H&, K!9>!-%# ' *!(\$*-6!#, \$7&, --K!\$+!5%+-+5(2, -!, #' !1%' +-+5(2, -!, 11-(2, \$(+##*
>: +*%!(#2-7' %!\$: %!#+#H' %*\$&72\$!)%!(#%\$&(+&!%S, 3(#, \$(+#!, #' !\$%S\$7&, -!, #, -K*(#!+6!&+24!, #' !*+(-!
, 31-%*!, #' !3%, *7&%3%#\$(+6!\$: %(&!1%&3%, 8(-\$K!, #' !1+&+*(\$K![*1%2(, --K!*1, \$(, -!' (*\$&(87\$(+#!, #' !
5%+3%\$&K!+6!1+&%*C!3(%&, -!1: , %*%!, #' !6&, 2\$7&%*!, &%!(31+&\$, #!6+&!\$: %!%) , -7, \$(+#!+6!: K' &+-+5(2!
, #' !, %&, \$(+#!1&+1%&\$(\$*!(#!*+(-*!, *!P--!, *!6+&!&++\$!' %)-+13%#\$(#!\$!%!*+(-!3, \$&(S<!: %!1+** (8(-\$K!\$+!
)(*7, -(]%! , !P: +-%!*+(-!, 55&%5, \$%!+&!&++\$!(\$*7%!(#!, !#+#H' %*\$&72\$!)%!P, K!(*!7#' +78\$%' -K!\$: %!3+*\$!
) , -7, 8-%!6%, \$7&%!, #' !(*!, !2: , --%#5(#5!, &%, !6+&!&+7\$(#%!, 11-(2, \$(+#!+6!\$: (*!3%\$: + ' <
!

!

D8#!

: (-./' <(35+,-(1!! IC (R!<+3!+3' !)C' +3!-1/20' /!0(2*.' /!5' 0C+1-0+.!+1/!
C4/3+2.-0!*3(0'))')!<21/+5' 1,+.!<(3!,C' !*3' /-0,-(1)!<!,3+<<-0+6-.-,4!

D _____ C!@&<!>7*: %5!X%#C!@&<...(#V7#B7, #5!

. e!@)(*+*#!. !, #' !F!9+3 3(**+#!. <. C!9+3 3(**+#!F<. k!0+(-!*\$&72\$7&!W8*%&), \$(+#!C!&%*(-(%#2%! , #' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#!(5C!N. C!E757*\$!T!C!FGFFC!. e/I GH!. ^/I G!

0+(-*!, &!\$: %!3+*\$!2&\$(2, !-(6%h*711+&\$(#5!2+31, &\$3%#*\$!+6!\$: %!8(+*1: %&%<: %K!1&+)(' %!#73%&+7*!
%2+*K*\$%3!*%&)(2%*!72: !, *!: , 8(\$, \$!6+&!8(+ ')%&*(K!C!P, %\$&!, #' !#7\$&(%#\$*C!, *!P%-!, *!1&+ ' 72(#5!6++ ' C!
6%!' C!6(8%&!, #' !%#%&5K!B+P%)%&C!*+(-*!7# ' %&5+!(#\$%#*%!, #' !(&&%)%&*(8-%!2: , #5%*! ' 7%!\$+!, !#+#!H*(\$%!
, ' !7*\$%' !, #' !3, #, 5%3%#\$, #' !(3!1&+1%&!, 11-(2, \$(+#!+6!3, 2: (#%&K!, #' !\$%2: #(07%*!(#!(\$*!8&+, ' %*\$!
%#%<#!#2+38(#, \$(+#!P(\$: !\$: %!5&+P(#5!1+17-, \$(+#!L7#\$(!FGeG!P!P(-!: ,)%!, 11&+S!f!_(-(+#!
1%+1-%M!\$: %!7&5%#%\$!#%#% ' !6+&!, !3+&%!&%-(, 8-%! ' , \$, *%\$!+6!*+(-!1&+1%&\$(%*!, #' !*+(-!67#2\$(+#!5, (#*!(#!
(31+&\$, #2%!(#!+&' %&!\$+!%)%#!1&%1, &%!3+&%!&%-(, 8-%!3+ ' %-*!6+&!), &(+7*!&%07%*\$*!<@%6+&3, \$(+#!
1&+2%**%*! ' 7&(#5!*\$&%**!, 11-(2, \$(+#!, &%!\$: %!3+&%!1&+#+7#2%' !\$: %!: (5: %&!\$: %!*: %, &!2+31+##%#\$!+6!
\$: %!\$+\$, -!*\$&%**C!, #' !3, K!%)%#!&%*7-\$!(!, !2+31-%\$%!(07%6, 2\$(+#!(6!*+(-!P, %\$&!2, ##+!\$8%! ' &, (#% ' !+66!
, ' %07, %\$-K!0: %, &!, #' !)(8&, \$(+#!(#!' 72%' !*+(-! ' %6+&3, \$(+#!\$: %&%6+&%!%#: , #2%*!\$: %!' %\$%&(+&, \$(+#!+6!
+(-!1&+1%&\$(%!%*1%2(, --K!(6!\$: %!*+(-!P, %\$&!2+##%#\$, #' !\$: %!(#\$%&#, -!*+(-!*\$&%5\$: !, &%!)%&K!-+P<!: %!
, 3%!(\$!7%!6+&!, #3, -!\$&, 31-(#5!(#!2+38(#, \$(+#!P(\$: !+)%&5&,](#5!+6!3+(*!\$+!P%\$!1, *\$7&%*C!P: (2: !
78%07%#-\$-K!2, 7%!' %#*%&!L(<%&!&' 72%' !1&+1+&\$+#!+6!2+, &%!1+&%*!P(\$: !*3, --%&!2+##(#7(\$KM!87\$!
\$(-!\$&72\$7&% ' !*+(-! : +&[]+*#!, #' !P(-!6(#, --K!%# ' !(!, !2+31, 2%\$! !- , \$K!*\$&72\$7&%<#!#2+38(#, \$(+#!P(\$: !
: (5: !P, %\$&!2+##%#\$, #' !*: %, &(#5! ' 7%!\$+!\$&, 31-(#5!&%*7-\$!(!, !2+31-%\$%!37 ' ' K!: +3+5%#%+7*!+(-!
P(\$: !#+!*\$&72\$7&%!, \$!, --<!>: 7*C!\$: %!2+##%07%#2%+6!' (-, \$, \$(+#!L-(4%!2+31, 2\$(+#!M, #' !*: %, &(#5!(#!
2+38(#, \$(+#!, 66%2\$!\$: %!(#\$%&#, -!*+(-!*\$&%5\$: !, #' !%2+5(2, -!67#2\$(+#!<!
.. < B+&#C!X!FGF. <!0+(-*(#!E5&(27-\$7&, -[#5(##%&(#5!/! [Y%2\$!+6!D, #' H7*%!N, #, 5%3%#%!OK*\$%3*!+#!
N%2: , #2, -!0+(-!; &+2%**%<#!#BK' &+5%+-+5K!9: %3(2, -!g%, \$: %&(#5C!, #' !0+(-!+=&3, \$(+#!!
B7#\$CE<[5-(C!N<!=, K8(*: %#4+C_<L[' *!M9: , 1\$%&!. GECl. b^H. ffl!g(-%K?0+*#!B+8+4%#C!UAC!VOE!"0_U!
f^bh. H. . fHeal fall

!

"V\$!

; (/ ' .-17!) (-.!), 320, 23' !/41+5-0)!-1!0(5 *+0, ' /!) (-.)!-1/20' /!64!.-@'), (OW!
, 3' +/-17!

A

!
">V#!

Q**.-0+,-(1!(<! : ,320,23' !` 210,-(1!Q1+.4)-)!, (lj 2+1,-<4-17!: (-!
; -03(5(3*C(. (74!<3(5!mN3+4!EM!P5+7' 34!

D _____ C!@&<!@, #(%-!J(3%#%) "C!@&<![' ' (%!N, !s

. e!@)(*+#!. !, #' !F!9+33(**(+#!. <. C!9+33(**(+#!F<. k!0+(-!*\$&72\$7&%/!W8*%&), \$(+#C!&%*(-(%#2%! , #' !
(\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#(#5C!N. C!E757*\$!TC!FGFFC!. e/I GH!. ^/I G!

0%3), &, #2%! , #, -K*(*(!, !P(' %KH7*%' !s%2: #(07%!(#!-, #' *2, 1%!1%' +-+5K!P(\$: !*%3), &(+5&, 3!
3+' %-(#5!*%&)(#5!, *!\$: %!8, *(!6+&!4&(5(#5<@(&%2\$(+#, -!*%3), &, #2%! , #, -K*(*(!%31-+K%' !s+!' %\$%2\$!
, #' !2: , &, 2\$%&[]!*\$&72\$7&, -, #(*+\$&+1K<d, &(+7*!1%2(6(2!1, &, 3%\$%&*!2, #!, -*+!8%!2, -27-, \$%' !' !-**(6!(5, 0. 1(2)!

!

"V%\$!

; 2.,-N)0+.' !),2/4!(<!) (-!),320,23' !-1!3' .+,-(1!, (!1-,3(2)!(B-/ ' ! 5--)-(1)!

E C!N*!E5#>*!J&+**%-!C!N*!<N, &(#%!D, 2+*\$%!C!N*!<"*, 8%--!9+7*(#!\$

. e!@)(*+#!.!, #' !F!9+3 3(**+#!. < C!9+3 3(**+#!F<. k!0+(-!*\$&72\$7&!W8*%&), \$(+#!C!&%*(-(%#2%!, #' ! (\$*!&+-%!(#!%2+*K*\$%3!67#2\$(+#!5C!N. C!E757*\$!T!C!FGFFC!. e/I G!H!. ^/I G!

U(\$&+7*!+S(' %!LU•WM(*!, !1+\$%#JBJ!, #' !,!' +3(#, #!\$!]+#%H' %1-%\$5!78*\$, #2%<97&&%#-KC!3+&%! \$: , #! : , -6!+6!5-+8, -!, #!\$: &+1+5%#(2!U•W!%3(**+#!2+3%!6&+3!27-\$), \$%' !+(-*!, #' !, &%!3+*\$-K!-(#4%' ! \$+!#(\$&+5%#!6%&\$(-]!&!7*%<

!

0+(-*!U•W!%3(**+#!(*!, !37-\$6, 2\$+&(-!1: %#+3%#+#C!P(\$: !, !-, &5%!*1, \$(+H\$31+&, -!), &(-(\$K! P: , \$%)%&!\$: %!*2, -%<+!%S1-, (#!\$: (*!), &(-(\$K!3, #K! '%\$%&3#(*\$2!*\$7' (%*!6+27*!%(\$: %&!+#!\$: %!*+(-! 3(2&+*\$&72\$7&!*2, -%C!(<#<!\$: %!*2, -%!+6!3(2&+&5, #(*3!: , 8(\$, \$!, #' !U•W!1&+' 72\$(+#!L02: -u\$%&!%\$, -<! FG. bM!+&!+#!\$: %!3, 2&+*\$&72\$7&!*2, -%C!\$+!6+27*!+#!6-7(' *!\$&, #*6%&*!LP, \$%&C!U•W!MLX, 8+\$!%\$, -<!FG. eM! B+P%)%&C!\$: %!37-\$(*2, -%!(#6-7%#2%!+6!*+(-!*\$&72\$7&!+#!U•W!%3(**+#!(*!*\$(-!1+&-K!7# ' %&\$++' C!, #' ! 2+#!(*\$*!(!!\$: %!+8%2\$%)%!+6!+7&!P+&4<

!

"#!\$: (*!*\$7' KC!P%, **%***' !, !37-\$(*2, -%!, 11&+, 2: !\$+!5, (#!, !3+&%! %\$, (-' !7# ' %&\$, #' (#5!+6!\$: %!U•W! %3(**+#!' %\$%&3#(*3!>: %!6(%- ' H*2, -%!), &(-(\$K!+6!U•W!%3(**+#!: , *!8%#%#!*\$3, \$%' !' 7&(#5!, ! *#, 1H*: +\$!2, 31, (5#!(#!*+(-*!P(\$: !2+#!\$&, *\$%' !*\$&72\$7&C!(!# ' 72%' !8K! (66%&%#\$, 5&(27-\$7&, -!1&, 2\$(2%*!LT! *+(-!3+' , -(\$%*!2&+**(#5!*\$&(1H\$(-!, #' !!\$(-, 5%!P(\$: !2+31, 2\$%' !+&!7#2+31, 2\$%' !, &%, *M!FT!*+(-! 2K-(#' %&*!P%&!2+--%2\$%' !(!!+P!, #' !: (5: !U•W!%3(**+#!]+#%*!, #' !P%&!\$: %#!*2, ##%' !8K!7*(#5!8+\$: ! ..H&, K!3, 2&+H!, #' !3(2&+H\$+3+5&, 1: K!>: %!*+(-!*\$&72\$7&!P, *!\$: %#!' %*2&(8%' !, \$!3, 2&+!, #' !3(2&+H

!
#\\$!

E(@' 3!03(*!' <<' 0,)! (1!yEMN5' +)23' /!7' (5' ,3-0+.!* (3' !0C+3+0,' 3-),-0)!

D _____ C!@&!D, -(\$: !X, #4+\$. !C!@&!9-, &4!J, #]\$%&!C!@&!0\$%1: %#!E#' %&* +#!\$

#%V!

: (-.!5-03(6-+.!1' 03(5+))!+!+1!'))' 1,-+.!0+36(1\$!1-,3(7' 1!+1/!*C()*C(32)!
3')' 3@(-3!-1!<(3'),!) (-.)!

!@&<0%8, *\$(, #!D+%113, ##!C!@&<n-, 7*!A, &+*2: "C!>: +3, *!w(--, #C!A, #!

!
"#8\$!

MC' !H3-5-17!Q3' 1+G!) (-.!5-1' 3+. (74!+1/!),320,23' !-1, ' 3+0,!R-,C!,C' !
0C' 5-0+.!0(5 * ()-, -(1!(<!*.+1,N/' 3-@' /!-1*2,)!, (!5' /-+, '!*3-5-17!' <<' 0,)!

. b!@)(*+#!F!9+ 3 3(**(+#!F<F!/k!_(+5%+2: %3(2, -!2K2-%*!(#!\$: %!*+(-!!!1&+2%**%*!-(#4(#5!\$: %!, 8(+\$(2!, #' !
8(+\$(2!&%, -3*C!+=&\$: C!E757*\$!T!FGFFC!. e/I G!H!. ^/I G!

0+(-!+&5, #(2!3, \$\$%&!1&(3(#5!(*' %6(#%' !, *!\$: %!2: , #5%!(#!&, \$%!+6!+&5, #(2!3, \$\$%&!3(#%&, -(*, \$(+#!, 6\$%&!

!
D8D!

; -B-17!0(@' 3!03(*!3')-/2')!-103' +) ')!(-!5-03(6+-.!6-(5+))!R-,C!1 (!
3')2.,+1,!*3-5-17!(<! : Y; !/' 0(5* ()-,-(1!

@&!...(#!0: 7!C!@&!m(&, #!w+7!C!; &+6%***+&!D(!A!0: , P!C!@&!D(#' * , K!9!>+' 3 , #'C!; &+6%***+&!N , &!>(88%\$\$"C!
D

. b!@)(* (+#!F!9+33(**(+#!F<F!/k!_ (+5%+2: %3(2, -!2K2-%*(#!\$: %!*+(-!H!1&+2%***!-(#4(#5!\$: %!, 8(+\$(2!, #' !
8(+\$(2!&%, -3*C! =+&\$: C!E757*\$!T!C!FGFFC!. e/I G!H!. ^/I G!

"#2&%, *(#5!\$: %!8+\$, #(2, -!')%&*(\$K!+6!\$: %!2&+1*!5&+P#!(#!, &, 8-%!*K*\$%3*! : , *!8%#1&+3+\$% ' !\$+!
(31&+)%!\$: %!' %-()%&K!+6!37-\$ (1-%!2+-+5(2, -!67#2\$(+#!<g%!: K1+\$: %*(%' !\$: , \$!3(S(#5!\$: %!&%' (' 7%*!
6&+3!' (66%&# \$!2&+1*!5&+P#!(#!1+-K27-\$7&!&*7-\$*!(#!3+&!2, &8+#!%#%&(#5!\$: %!3(2&+8(, -!8(+3, **!
, #' !\$: %&%6+&!3+&!1+\$%#\$(, -!\$+!8%2+3%3(2&+8(, --KH' %&()%' !*\$, 8-%!*+(-!+&5, #(2!2, &8+#!<g%!7*%' !
. I 9!(* +\$+1%!-, 8%-%' !2+) %&!2&+1!&*(' 7%*!L8724P : %, \$C!2-+) %&C!&, ' (* : C!, #' !*7#6+P%&M!\$+\$&, 24!\$: %!

!
V%\$!

!
""J#!

Q6-(,-0!+1/!6-(,-0!0(1,3(.)(1!5-03(6-+!/' 3-@' /!0+36(1!040.-17!

D _____ C!0: %%K-!_%-!@&<9: &(*\$+1: %%!n, *, #4%!@&<!+(, #!w: , +!

. b!@)(*+#!F!9+33(**+#!F<F!/k!_(+5%+2: %3(2, -!2K2-%*!(#!\$: %!*+(-!H!1&+2%***%*!-(#4(#5!\$: %!, 8(+\$(2!, #' !
8(+\$(2!&%, -3*C!+=&\$: C!E757*\$!T!FGFFC!. e/I G!H!. ^/I G!

N(2&+8(-!#%2&+3, **!(?!2+#!*(' %&% ' !, !' +3(#, #!\$!*+7&2%!+6!*+(-!+&5, #(2!3, \$\$%&!LOWNM!>: %&%6+&%C!
7#' %&\$, #' (#5!P: (2: !3(2&+8(-!\$, S, !, #' !2-, ***!*+6!3(2&+8(-H' %&())%' !2+31+7#' *!, &%!*%-2\$)%-K!
1&%*%&)%' !3, K!%#: , #2%!OWN!3, #, 5%3%#\$<!: (*!&%07(&%*!(' %#\$6(2, \$(+#!+6!\$: %!3(2&+8(++5(2, -!, #' !
5%+2: %3(2, -!&%, 2\$(+#!-%, ' (#5!\$+!\$: %!6+&3, \$(+#!, #' !*\$, 8(-(\$K!+6!3(2&+8(-H' %&())%' !OWN!g%!\$%*\$%' !

!
"8#\!

EC+3+0,' 3-),-0)!(<!/(-)) (.@' /!(37+1-0!5+,,' 3!-1!+73-02.,23+.!5-1' 3+!) (-.)!-1!
I (3' +.!3' 7-(1!

_____C!; : <@!W(-!n((44(-t! C!; : <@!B%-%# ,!0+(##%"C!; : <@!0, ##, !n, #%&), !s

. b!@)(*+#!F!9+ 3 3(**(+#!F<F!/k!_(+5%+2: %3(2, -!2K2-%*!(#!\$: %!*+(-!!1&+2%**%*!-(#4(#5!\$: %!, 8(+\$(2!, #' !
8(+\$(2!&%, -3*C!+=&\$: C!E757*\$!T!FGFFC!. e/I G!H!. ^/I G!

0+(-!+&5, #(2!3, \$\$%&!2+##(*\$*!+6!, !P(' %!), &(%\$K!+6!2+31+7#' *!\$: , \$!' (66%&!(!#!\$: %(&!, 66(#(\$K!\$+!*+(-!

0: , &3, c; <!D, +&c!m<!X,)()c!N<!N%' (#, c!0<!0, , ' (c!"<!n&, *#+)*4Kc!E<!d, 5%&c!N<!D%)Kc!J<A<!, &H>, -c!E<!
?!_+&(*+)%&c!N<!LFG. ^M<!9+31+*\$(+#+, -!2: , &, 2\$%&(*\$(2*!+6!+&5, #(2!3, \$\$%&! , #' !(\$*!P, \$%&H%SS&, 2\$, 8-%!
2+31+#%#\$*!, 2&+**!, !1&+6(-%!+6!+&5, #(2, -K!3, #, 5%' !*+(-<J%+' %&3, c!Fba/!^! kbF<

!

!

K+/-)C!73(R,C!+1/!DY!' 5-)-(1)!2)-17!+!?' 13-0C' /!6-(0C+3N6+)' /!
<' 3,-.-=' 3!!

c

!
DDJ!

: 4), ' 5+, -0!+1+.4)-)!(<!6-(0C+3!*' 3<(35+10' !(1!* .+1,!73(R,C!-1!)(46' +1!

N, C!B<![5, 38%&' (%), C!@<!g(&\$: C!0<!_#5&, \$: Hn(3 7&, !0<@<LFG. fM! [66%2\$!+6!8(+2: , &! , #' !(&&(5, \$(+#!
+#!*+K8%, #H&: (]+8(73!*K38(+\$(2!1%&6+&3, #2%!, #' !*+(-!%#]K3, \$(2!, 2\$()(\$K!(#!6(%-' !&: (]+*1: %&%<!
E5&+##+3K<fC!aFa<

JΛ!

, *: , 5, -74%CI!A<<!D+5, : C!d<!W1+47C!E<!O, &4+' (%HE' ' +C!A<, #' !W1+47C!E<FGFG<9&+1!#7\$&(%#\$!71\$, 4%!
, #' !1&+' 72\$()(\$K!+6!6+7&!\$&+1(2, -!2&+11(#5!*K*\$%3*!7#' %&!8(+2: , &!, 3%#' 3%#\$!E5&+#+3K!A+7&#, -!
.. F!/FaaTHFa^eC!!' +(<+&5Z. G<. GGFZ, 5YF<FGFef!
!
JP%#](C!U<!9: , 747&, C!U<!N74+3, C!U<@<!N, 2: , ' +C!O<!?!UK,

!
"J"8!

EC+3+0,' 3-)+,-(1!(<!I -(0C+3G!,C' !H(R' 3!(<!E(56-1-17!`MPK!+1/!: L; iL9:!
Q1+.4)-)!

 E D C!@&!E!B!A%,#!X+8%&\$*+#!C!N&*!D, 7&, HA, #%!O\$&, 2: ,#!C!N&*!E#5%-, !N!N, (#!^s

!
>D%!

I -(0C+3!0(N0(5*()),!0+1!*3(5(,'!)2),+-1+6.'!+73-02.,23+.!-1,'1)-<-0+,-(1!-1!
C-7C.4!R'+,C'3' /!&C+1++1!)(-.)!

 F

!
"\$>>!

K+*-!/3')*(1)'!(<!) (-.!<210,-(1)!, (!) (-!0(@' 3)!+<,' 3!3' C+6-.-,+,-(1!(<+!` .4N
Q)C!Z+1/<..^!

N&!W*2, &!9&+)+!C! **D F A**

C!N&!=&, #2(*2+!N+#\$%2(#+!C!N&![#]+!E-), &%]

!
!

"D#%!

: 255+34!(<!<(23!4' +3)!(<!3')' +30C!(1!236+1!) (-.)!-1!: +1,-+7(!/' !

E(5* (), ' .+!T: *+-1U!

D _____ Cl@&<N, &\$, !>%&%*, !_, &&, -!C!9%2(-, !B%&8` #!C!N, &\$, !X++!C!@&<..., 8(%&! ; +#\$%)%' &, H; +38, -!C!@&<[' 7, &' +!J, &2\$, HX+' %Y, 'Cl@&<N, &\$, !9%-%(&+"C!@&<9, &3%#!J, &2\$, HA, &%*"C!@&<N, &, (4%!; &+8*\$#C!@&<N, &\$, !J` 3%]H_&, #' `#%\$

!
"8D%!

` (), ' 3-17!+)2), + -1+6.' !2)' !(<!) (-!+1/!' 1C+10-17!<((/!A2+.-,4!+1/!) +<' ,4!
-1!236+1!+73-02.,23+.!+3' +)!(<!?+*.')!

@&!E#\$+#+(+!J(, #' +#, \$+!9, 1+&, -%!C!@&!N, &(#, !9%&7*+"C!@&!D7(5(!X755(%&+!

D, #5%3%K%&C!A<C!N, ' &(' HD+1%]C!9<C!N%#' +], !_-%\$&, #C!E<C!d(--, -8, !N%#' %]C!J<LFGF. M!V&8, #!
, 5&(27-\$7&%!H!E!#%2%**, &K!1, \$: P, K!\$+P, &' *!7&8, #!&%*(-(%#2%! , #' !5-+8, -!*7*\$, (#, 8(-(\$Kp!D, #' *2, 1%!
, #' !V&8, #!; -, ##(#5C!F. Gc!. GTGee<: \$\$1*/ZZ' +(<+&5Z. G<. G. aZY<, #' 7&81-, #<FGF. <. GTGee!
!
0, #KvHN%#57, -C![<C!01%2: \$C!n<C!n&(4*%&C!><C!d, ##(C!9<C!; %##(*C!J<C!W&*(#(C!=<C!?!J(, #07(#\$+C!J<C!<
LFG. bM!0+2(, -, 22%1\$, #2%! , #' !1%&2%()%' !%2+*K*\$%3!*%&)(2%*!+6!7&8, #!, 5&(27-\$7&%!(#!0+7\$: %&#!
[7&+1%!!!
>: %!2, *%!+6!_++5#, C!"\$, -K<C!; D+0!WU[!. I LfW!%GFGGffI <!!
: \$\$1*/ZZ' +(<+&5Z. G<. I ^ . ZY+7&#, -<1+##%<GFGGffI!
!
>, 1(, C!9<C!X, #' , -C!D<C!g, #5C!0<C!?!_+&5%*C!E<LFGF. M!N+##(\$+&(#5!\$: %!2+##\$(87\$(+#!+6!7&8, #!
, 5&(27-\$7&%!\$+!7&8, #!*7*\$, (#, 8(-(\$K!/!, #!(#' (2, \$+&H8, *%' !6&, 3%P+&4<107*\$, (#, 8-%!9(\$%*!, #' !0+2(%\$Kc!
^Tc!. GI . I G<!!
: \$\$1*/ZZ' +(<+&5Z. G<. G. aZY<*2*<FGF. <. GI . I G!

!
\\$V!

E88, ' (%C!D72!	. FI!	!	ENE@WVC!"00"=WV!	. aT!
E88+\$\$C!J%+66&%K!	. G. T!	!	E3%-7#5C!g 7-6!	. al!
E8%C!O: (#!	^G.!	!	E35, (#C!U, 8,!	a. T!
E8%#' &+\$: !C!D+&(!	. a. f!	!	E3+, 4P, : C![33, #7%-!	. GFel!
E8&, : , +C!E##,!	^F.!	!	E37#' *+ #C!X+#, -'!	. fef!
E8&, 3+), C!E##,!	a. e!	!	E37#' *+ #C!X+#, -'!	a. e!
E8&+*(3+)C!n+#*\$, #\$(#!	f. G!	!	E37&(C!UK, 38(-,!	. fI T!
E87&\$+C!=%-(1%!	. b. I!	!	E#' %&*+ #C!O\$%1: %#!	Tba!
E87&\$+!J7%&&%&+C!=%-(1%!	. bFaC!. aee!			

<-), &]C!@, #(%-, ! eI ^! ! <&), (C!N•\$K•*! .eT^C!ef. !
<-), &]HX+' &\$57%]C! .Ia^! ! ! !
[*1%&, #], !
!
!

_, 24C!N, \$\$: %P! I fa! ! _-73C!g(#6&(%' ![-Bd . Tf!
_, ' Y, #, C!N, -%4(! I Gc!ea. ! ! _+%(C!E#, !=-,)(, ! . ^^b!
_, 55*C!D(!] baTC!. ^IG! ! _+%%\$\$(#5%&C!A, #(*! . ^e!
_, (C!...7%! a. a! ! _+5%(C!U, \$: , #! . aeG!
_, 4, 2*(C!w*` 6(! . al. ! ! _{ : 3C!E##%! . I f!
_, -' +24C!9: &(*! FFT! ! _+: #C!N%K%&! . bl f!
_, --C!n(&*\$\$#! Fea! ! _+-' &(C!@,)(' ! TT!
_, -+5C!n(\$\$! ef. ! ! _+-[E*C!A+&' (! eTT!
_, #6(%-' C!9, --73! . IT. ! ! _+3, #C!E#\$+#! aFb!
_, #P, &\$C!O\$%)%#! I F^! ! _+##' %C!E##, ! . GTG!
_, &2%(#, *I9&7]C! TF. ! ! _+#6, #\$\$C!E#\$+##--+! . FebC!. Fa^!
B%&3##%5(-' +!
_, &(--+\$C!X+3, (#! aTG! ! _+#: , 5%C!E-%S, #' %&! . FbC!. . ^!
_, &&, -C!N, &\$, !>%&*, ! . FTf! ! _+#(#(!; (&%*C!9, &+*! . . FT!
_, &&%(&+C!E#, ! . Ia^! ! _+**(+C!@%8+&, : ! . ^. f!
_, &&+#C!A%##(%! ITG! ! _+\$: C!O, 8(%! al. !
_, &&` #C!d(' , -! Ta^! ! _+75: -, -, C!N+: , 3%' ! . bFe!
_, &\$%-: %(3C!N, &\$(#! . G. ! ! _+75+#C!U+-P%##! . e. . !
_, *: , 5, -74%C!A, #)(%P%&! ^b. ! ! _+7--##%C!D(%! aFGC!fa. !
_, *(-%C!E#5%+! . FebC! ! ! _+73, C!A+: , #! . FebC!. Fa^!
. Fa^C!
. I ^G!
_, *\$(, %##*C!A, #! . ale! !

_%#' (#5C!J, &K

9, 1+&, -%C!E#\$+#+(!	. GFf!	!	9-7]% , 7C!@, #(%-!	. e. .!
J(, #' +#, \$+!				
9, 1+P(%]C!m), #!	. e. . C!	!	9+%-: +!(-: +C!A+¾+!9, &-+*!	. bFF!
	. eTG!			
9, &' %#, *C!D, 7&, !	. eFI!	!	9+4%&C!N(-%*!	aFF!
9•&' %#, *C!N, 2, &%#, !D<	l . b!	!	9+-%C!D(*, !	FG. !
9•&' %#, *C!d, -%#\$(#, !	. . . ^!	!	9+-%3, #C!n%)(#!	. l a!
9, &' %KC!O, &, :!	. l Ga!	!	9+-(#%\$C!J(-%*!	b. e!
9, &' +*+C!&%#%N, &(!	. GeG!	!	9+--(#*C!E' &(, #!D<	. FeF!
9, &(, C!J(+), ##(

!

@, !X+*!9, &), -: +C! B%#&(07%! @, 8, \$C!>: +3, *! @, '](%C!=&%' %%&(24! @, : , #C!X, 2: ('! @, : -5&%#C!X, #' K!	ffI! eaa! . . fb! . bFe! aFT!	! ! ! ! !	@(!_#%C!9-, 7' (, ! @(!"+&(+C![&(4, ! @(!D%5(#(+C!N, &2+! @(!N, 55(+C!X+*, !N, &(, ! @(!,]C!E#(\$, !	IeG! . aITC!. GeIC!. FFI! . I^G! ^^^! fGa
--	---	---------------------------	---	---

@%]*\$C!A`]*%6! f. T! ! @7\$&, !%!0(-), C!0, #' &+! e^b!
@: , 37C!d(4&, 3! . bFT! ! @P()%' (C!_0! F^b!
U, &, K, #, #!
@: , &73, &, Y, #C!0! F^bC!. bf! ! !
!

' , !0(-), C!D, (*!U+, 3K! ^TT!

=%#' +&6C!02+\$\$!	. G^f!	!	=&%%3, #C!9, &+-(#%J!	. Ffa!
=%#5C!J7!	aG^!	!	=&%%3, #C!B%-%#!	TFf!
=%&57*+#C!9: , ' !	FTF!	!	=&%7' %#\$: , -C!D72, *!	. G. a!
=%&57*+#C!9: , &-%*!	. Ge. !	!	=&%7-+#C!...,)(%&!	aFG!
=%&57*+#C!X(2: !	l^e!	!	=&%K!_%, \$!	. bG. !
=%&#, #' %]C! =, 8(, #!	.. ^eC!fb. !	!	=&%K' (%&C!Xv3(!	ba! !
=%&#, #' %]C!N, \$(, *!	. ^! !	!	=&(31+#5C!nP, 3%!	eFf!
=%&#•#' %]!9, -)(s+C!@,)(' !	f. T!	!	=&+5%&C!9-, (&!	aFG!
=%&#•#' %]HO, #Y7&Y+C!	. l a^!	!	=&+** , &' C!E-(#%!	. F. . !
N, &\$, !A+*%6, !				
=%&&, 5%C![&(2!	ea!	!	=&+** , &' C![33, #7%-!	fTb!
=%&&, #' +!A+&5%C!U%&%, !	l. b!	!	=7C!m+#5P%(!	l aG!
=%&&, &+C!J(7-(, #+!	. l^G!	!	=72: *C!N, &\$, !	. Tea!
=%&&,]C!n, &(#!' , !9+*\$, !	. ^^b!	!	=7%#%\$*C!_&K, #!	FeT!
X(8%(&+!				
=(%-' C!@, 3(%#!	beF!bF^C!	!	=7%#%\$*HJ, &2\$, C!N, &(, #+!	Ta^!
	be! !			
=(%-' C!@, 3(%#!	Tf!	!	=7Y(3+\$+C!B(*, %!	l l b!
=(%#%&C!; %\$%&!	^!G!	!	=7#, 4, P, C!O: (#K, !	aFT!
=(#4%C!; %\$%&!	. Gab!	!	!	!

!

J, (%&+C!A+#!	.. Ga!	!	J(3+#, C!E-%** , #' &+!	ffa!
J, --C!9+&(##, !	TT. !	!	J(+&' , #+C!E##, 1, +-, !	.. fG!
J, --, (C!_#%2%!	ef. !	!	J(+&C!X(2: , &' !	ea!
J, #\$: %&C!N(#: !	. l FF!	!	J(&4(#C!U(24C!><C!	Tb^!
J, #%-%%\$C!X(2: , &' !	ea. C!. fGe!	!	J+8%](%C!>%58, &7!	. bl. !
J, #]\$%&C!9-, &4!	Tba!	!	J+' ' , &' C!N, \$\$: %P!	. ^! !
J, +C!O+#5Y7, #!	^a^!	!	J+%8%*C!; : (-11!	al. !
J, &2(, !=&, #2+C!U+%-(!	. Fef!	!	J+-' 67*C!B, (3!	eTT!
J, &2\$, HA, &%*C!9, &3%#!	. FTf!	!	J+-\$]C!@+75!	. Ga!
J, &2\$, H				

J%8-%: HJ+K' , &, 5: C! N, &K, 3!	bbT!	!	J&(%*C!; : (-11!	. f^!
J%8&&3(2: , %-c!E3, #7%-!	Tb^!	!	J&(66(\$: C!J, &%\$: !	. Ffa!
J%(*%#C!d(+-%\$\$!	TaF!	!	J&(66(\$: *C!X+8%&\$!	FG. !
J%-*-%(2: \$%&C!m7&(!	. G^F!	!	J&(55C!A+&' , #!	. . . a!
J%-*-%(2: \$%&!m7&(!E# ' &%C! m7&(!E# ' &%(!	. Tea!	!	J&(57*+), C!; , 7-(# , !	. Tbb!
J%#5C!...(, +K7, #!	. ^e^!	!	J&(33C!N, &4!	TG^!
J%#+), C!J(7-(+!	. . ^!	!	J&+**%-C!E5#>*!	. I fa!
J%+66&+K!d(#2%# \$!	ea!	!	J&+)%&C!0, 3, #\$: , !	. FF. !
J%+5: %5, #C!B(-, &K!	l. b!	!	J&7Y('C!U(4+-, !	f. T!
J%+&5%C!; , 7-!	Te. !	!	J&u#%8%&5C! [&(4!	Teb!
J%+&5%C!>(3!	aG^!	!	J&7#P, -' C!0, 8(#%!	. . aTc!.. aaC!.. ae!
J%+&5%C!>0!	. ^ae!	!	J&7#P, -' C!0, 8(#%!	. GfbC!aa!
J%+&5%C!>(3!	. ^IG!	!	J*2: 3%('-%&C!_&(5(\$\$%!	^FI!
J%&, *(4(#, C!E##, !	. eFf!	!	J7C!9: 7#: , +!	. . fFc!. a. f!
J%&, *(# , C!X, (*, !	. e^T!	!	J7%#%\$C!_%&\$&, #' !	aa^!
J%&(*C!A+*(%!	. TFG!	!	J7%&&&+H9&(, ' +C!A+*v!A,)(%&!	Ta^!
J%&4%C!n(&(-!	f. G!	!	J7(57%C!A7-(%#!	. Tl fC!. e. I!
J%&], 8%4C!N, &\$(#!	. f!	!	J7(--%)(2C!=-+&(, #%!	

B, &1%&C!9: , &-%*!	ab. !	!	B++)%&C!@,)%!	I ^e!
B, &&+-' C!D74%!	. TGa!	!	B++)%&C!@,)(' !	a. b!
B, &&+1C!E#5%- , !	abT!	!	B+14(#*C!@,)(' !	. b! f!
B, &\$%3(#4C!E-6&%' !	. eaF!	!	B+&#C!X, (#%&!)	FGT!
	. e^F!			
B, \$, #+C!XK7*74%!	. FbG!	!	B+&#C!X, (#%&!)	Tf!
B, K5, &\$: C! : -(1!	. Tb. !	!	B+&\$+&#C!X+8%&\$!	!aG!
B, K5, &\$: C! : -(1!N<	. ^Ff!	!	B{ *2: %&C!9, &3%#!	. ! f! C! . ^ . F!
B+3B%*&B%4B/#			B+7C!B%-B%	

A, #5C!B+!A7#!	. I ^b!	!	A+ -() % \$C! 9-, 7' K!	bbTC!aFGC!. e. .!
A, #7, &KH_%)%&*C!@%8+&, :!	e. a!	!	A+#%*C!E&PK#!	. a! .!
A, &+*2: C!n-, 7*!	. e^fC!	!	A+#%*C!@,)(' !D<	fI I!
	. aF^C!			
	TfI!			
A, &+*2: C!n-, 7*!E<	. ^. F!	!	A+#%*C![' P, &' !	. F^G!
A, &)(*C!U(2: +- , *!	I TG!	!	A+&' , C!B%-##, !	. I FF!
	eef!			
A,), 7Sc!N, \$: (%7!	. I FF!	!	A+*%1: C!O\$%1: %#!	aGF!
A%66%&KC!O(3+#!	I fa!	!	A+* : (C!O7#%#' &, !	. . . G!
A%##%P%(#C!AK+\$(!	. eea!	!	A+* : (C!O7#%#' &, !	. . ff!
A%##(#5*C!XK, #!	I GC!ea. !	!	A+*\$C!=-+&(#%!	b. e!
A%#\$*2: C!E40. 459				

D, #5%--, C!J(7-(, #+!

N, C!B7, !	FF^!	!	N: -, #5, C!_-%**(#5!	baT!
N, C!A(, +Y(+, !	. GGI!	!	N(2, -%C!N, 6, -' , !	. FeF!
N, C!m7S(#!	. b^I!	!	N(2: %-C![&(4, !	. Tea!
N, 2' +#, -' C!E#! K!	TTa!	!	N(2: v-C![&(4, !	. G^FC!. eIF!
N, 2' +#, -' C!@,)(' !	ea.!	!	N(2: +\$C!@(' (%&!	. aea!

U, 4, +c!E\$*7: (!
U, 4, +c!E\$*7*: (!

l l b!

!

U(%3%K%&!9, -%8!

.. Gf!

;v&>*C!J7v#+-,!	.e..!	!	; &+8*\$C!N, &, (4%!	.FTf!
;%&75(#%-(C!J(#%&!,	.^Fe!	!	; &+(SC!U(2+-,*!	bbT!
;%\$%&*C!J%+&5(K!	f.G!	!	; &+7\$C!A+#, :!	TFG!
;%\$%&*C!g, -\$%&!	! a!	!	; &]K8K-*4C!9v' &(2!	.FI!
;%\$: C!O\$%1: , #!	.G.a!	!	; 7\$(#(2, C!9&(*\$(#%-!	eGb!

!
!

†7, #! \$C!@(%\$3, &!	TT.!	!	†7(#\$, *HO+&(, #+C!9&(*\$(#, !	.bFfC!. bFe!
†7, #\$(#C!9v2(-%!	ba!	!	†7(#\$+#C!A+: #!	^!G!

!

X, , 8C!E-S%, #' &, !	.Fbc!	!	X(%' %-C!d, ' (3!	! a!
	..^!			

X, , 8C!>: +3, *!	.Fbc!	!	X(#5%&C!N, &(, ##, !	.e.!
	..^C!			
	TG^!			

X, 88, #KC!E87-!	a.T!	!	X+8, &5%C!g, K#%!	ffI!
X, 3%], #KC!O: , 5: , K%5: !	TG^!	!	X+8%&\$*C!N, &\$K#!	.TFG!
X, 3(&%)C!d-, ' (3(&!	.aFF!	!	X+8%&\$*C!A7-(%!	.^ .e!
X, 3+*C!N, &(, !D72&v2(, !	e^b!	!	X+8%&\$*+*#C!E!B!A%, #!	.bGGC!. ^ .G!

J%&+*, !				
X, #' -%C!†7, #\$\$\$&(, !	.aeb!	!	X+8%&\$*+*#C!"- , !	.beG!

X, #Y, &' C!D(+#%-!	.e..!	!	X+8(#*+*#C!_&\$\$!	ae^!
X, #4+\$: C!D, -(\$: !	Tba!	!	X+8(#*+*#C!@,)(' !	Ffe!

X, \$: 4%C!O, 37%-!	Fea!	!	X+2: , !E&, 7Y+C!A+*v!	eee!
X, \$(vC!9v-(#%!	bbT!	!	X+' &(57%]C!E#' &%*!	..Tb!

X, 7C!N, &5, &\$%: , !	!Fb!	!	X+' &(57%]![75%#(+C!U, \$, -(, !	^fb!
X,)%#C!N, &4!	.I^f!	!	X+' &(57%]H9, 8, --%&+C! [3(-(+!	.G.a!

X, P-74C!E#' &% , !	.FF.!	!	X+' &\$57%]HD`1%]C!D72\$, !	.!a^!
X%, KC!N(2: , %-, !	.eF!C!	!	X+%24%&C!O\$%1: %#!	FTF!
	.GGI!			

X%2%#, HJ, &&' +C!X, 3(&+!	Ta^!	!	X+--(*C!D72(-%!	aFF!
X%2: 8%&5%&C!N, &(, !	.f!	!	X+3, #!@+8, &2+C!N%&2%' %*!	e^aC!bF^C!. I^b!

d, -%#\$(#, !				
X%' : %, ' C!A+: #!	.a^e!	!	X+3, #%#4+C!n+*#\$, #\$(#!	f.G!

X%' 3(-%

X%(\$: 3%(%&![' 7, &' ! .G. a! ! X+**(C!N, 5, -(!

0, #&\$+&76+c!D72(!	. e. .! !	0(3+y+4(c!E*4+!	. FbFc!. GG^!
0, #&\$+*c!A+*v!N, \$%7*!' +*!	e^b! !	0(3+#c!_, &8, &, !	f. T!
0, 17\$&, c!@, ##K!@!	^be! !	0(31*+#c!9-, (&%!	FTF!
0, &(c!X(4, !X, \$#, !	^be! !	0(31*+#c!NK&#, !	. TaT!
0, &4+' (%HE' ' +c!A+*%1: !	^b. ! !	0(31*+#c!w, 2: !	. bFG!
0, 7%&c!@, #(%-, !	. baF! !	0#(\$*K#c!E#' &%K!	TF. !
0, 7%&c!N(2: , %-!	TT. ! !	0(1+*c!; v\$%&!	. e. !
0, 7&%\$%c!@, #(%-!	. bl. ! !	0(\$7#57c!0)7!	. TFe!
0,), &%*%c!9-, 7' (!, !	fTb! !	0()37&c!>+3!	. lGac!FGF!
02, &2(5-(, c!=, 8(+!	. bee! !	0-+*c!@(%\$%&!	f. T!
02: , ' c!; %\$%&!	l Fbc! !	03, &\$c!0(3+#!	
	ll^!		

>, \$, c!X, 3!; &, 4, *:!
>, K-+&c!E-%S!
>, K-+&c!E*\$&'!
>%88%c!9: &(*\$+1: !9<
>%5\$3%(%&c!A, #!
>%&, *: (3, c!N, (!
>%&: , , 5c!N, \$\$: (, *!
>%&&(8(-%c! =, 8(+!

>%&\$&%c![33, #7%-!
>%*2: c!B%(#&(2: !
>%78%&c!0, #' &, !
>6, (-Kc!N, -, 4!

. Fff! !
. fIT! !
. eFT! !
l Gb! !
TfI! !
^fe! !
l la! !
. Fa^c! !
. l ^G!
eaa! !
l la! !
. G. ! !
. TaT! !

>+11c![33%-(#%!
>+11c!n, (&*\$K!
>+&#c!N, &5, &%\$!
>+(*\$c!9, &-+*!
>+&&%#\$c!A+*v!
>+\$. c!J%&5%-K!
>`\$: c!A`]*%6!E\$\$(-, !
>`\$: c!>(8+&!
>&, 2Kc!0, +(&*\$!
>&, Y, #+)c!E#%\$, !
>&%#\$c!g(-(-, 3!
>&(6+#+), c!d(2\$+&(, !

. bFfc!. bFe!
bGfc!fbT!
. Fba!
. ^af!
Ta^!
TFF!
. eIF!
ef. !
b^fc!ab. !
^FI!
bb^!

d, #!D, %&C!D(%*8%\$: !	. TbF! !	d%&: +%6C!E###!	I GC!. FI . C!ea. !
d, #!U+++&' P(Y4C!>+++*!	I . b! !	d%&*2: ++6H), #!' %&!d, , &\$C!	. Fb!
		g+7\$%&!	
d, #!W&*: +)%#C!A+*!	e^F! !	d%&*\$\$, %\$%#C!J%&\$!	. a. a!
d, #!wP(%\$%#C!D74, *!	aGFC! !	d%\$%&-%(#C!@+&(*!	. I FF!
	. TF!		
d, #2, 31%#: +7\$C!n, &%#!	. ale! !	d(, ##, C!N7&(-+!	. G^b!
d, #' %&8+&5: \$C!A, #!	. I FF! !	d(, 7' C!d, -v&(%!	I ee!

g, -4%&C!J&, ' K!
g, -4%&C!U, #2K!
g, -4%&C!X+8(#!
g, -4-%KC!_&, # \$!
g, -C!@,)(' !

. l Ga! !
. Ffe! !
fbT! !
TFf! !
b^fC!
. e^T

g(24C!E88%K!
g(%*%#8%&5C!J7(' +!
g(%*%HX+], #+)C!D(%* -!
g(%* 3%(%&C!N, &\$(#!

FbfC!aG. !
. Fba!
. T^b!
l f!

m, : (, +7(C!X, 2: (' !
m, #C!...(, +K7, #!
m, #, (C!A7#\$, !

m, #5C!...(: 7, !
m, #5C!...7%-(#5!
m, *: (&+C!O, %4+!

. ^ . . ! !
. . GT! !
^G. C! !
^fe!
aeG! !
^T! !
l l b! !

m-(), (#(+C!n, &(!
m+&4C!X(2: , &' !
m+7#5C!N(2: , %-!
m7, #C!A(#5!
m74*%-C!n%%3!
m73, *: %)C!@3(\$&K!

. GTG!
. ^eG!
^Tb!
^T!
. FfI!
. a^e!