

!#\$\$%&'(\$)!""*!%+!, -+)%&./!0%% ' !+%% ' !122,)344\$56%5/7-+80%% ' 85)4 ' 946.+1. ' 0%% ' !
!2.&(.86.+1. ' : \$%/+%.7%8-75!
!"3; ;<"3=; , ' !(&! , -+)%&./!0%% ' !+%% ' !%+!69!., , %(&2 ' -&28!
!>54>1!" "3" ;!<"?3?=, ' !
122,)344\$56%5/7-+80%% ' 85)4@4A*BC*=DD*B=!

E - -2(&F!GH3!A*B!C*=D!D*B=!
>-/3!"B*I?*CDDAA!

>1-!)-\$%&7!)- ' -)2-+!J!21-!+-)-.+\$1! ' -21%7)!\$/.)!F(K-)!% , , %+25&(2(-)!J%+!)257-&2)!L%+M(&F!%&!21-(+!
%+./)! , +% , %) ./)!2%17(\$5))! .&7! , +-)-&2!21-(+!%&F%(&F!L%+M8!N9!21-!-&7!%J!21-!\$/.)!(2!())!-0, -\$2-7!21.2!
' %)2!)257-&2)!L(//!\$% ' , /-2-!21-!\$% ' , +-1-&)(K-!%+./!-0. ' ! , +% , %) ./! .&7!7-J-&7!(28! P -!L(//!./)%!6-!
J%\$5)(&F!%&! ' .M(&F!)1%+2!\$%&J-+-&\$-! , +-)-&2.2(%&)Q!5)-J5!/7-\$+(, 2(K-!)2.2()2(\$)Q! .&7!-7(2(&F!9%5+!%L&!
L%+M!.)!L-//!.)!%21-+&8!

R257-&2)!L(//! , .+2(\$, .2-!(&!21-!J%//%L(&F!.\$2(K(2(-)3!

!

"8 ! "#\$%&' " () *+#, \$-#(./0"+"\$, -I(2, .3.+\$&4!R257-&2)!L(//!6-!F(K-&!F5(7-/(&-)!J%+!F-&-+.2(&F!..!)?<*!
\$7%56/-!) , .-\$-7T! , .F-!7-2.(/-7!.6)2+. \$2!%J!21-(+!+-)-.+\$1! , +% , %) ./)!8!G2!L(//!\$%K-+!6.)(\$! ' %2(K.2(%&Q!
' .(&!+-)-.+\$1!U5-)2(%&Q!21-!\$%&2+(652(%&!%J!21-(+!+-)-.+\$1!2%!21-!/(2-+.25+-Q! .&7! , +-1. ,)!M-9! , %(&2)!
%J!21-(+! ' -21%7%/F98!G2!())(' , %+2.&2!21.2!21-!+-)-.+\$1!U5-)2(%&! ' .2\$1!9%5+! ' -21%7%/F98!G!L(//!./)%!
)M!9%5!2%!(21-+!(&\$!57-Q!%+!7(\$5))!L1.2!9%5!L%5/7!(&\$!57-!(&!9%5+!V ' %&-9!F+ , 1W!%+! ' .(&!
7-)\$+(, 2(K-!)2.2()2(\$)!%+!+-./!(J-!-0. ' , /-)!S(J!7%(&F!21-%+9T8!!

!

?8 5, .63(7'##%89(./(! "#\$%&' " () *+#, \$-#4!R257-&2)!L(//!6-!)-&2!7+.J2!7-2.(/-7!.6)2+. \$2)!(&! .7K. &\$-!%J!
\$/.)!2%!21-(+!F+%5, ! ' - ' 6-+)! .&7!6-!-0, -\$2-7!2%! -7(2!21-!7-2.(/-7!.6)2+. \$2)!8!G&!\$/.)!21-!)257-&2)!
' 5)2!F%!%K-+!21-!-7(2)!(&!7-2.(/)!L(2!21-!F+%5, 4.521%+! .&7!21-!F+%5, !)1%5/7!7(\$5))!1%L!21-!.521%+!
\$.&!(' , +%K-!21-(+!L%+M8!

!

B8 :I. , #2, "+ "8#\$%#. 8+4!R257-&2)!L(//! ' .M-!.)1%+2!S"=! ' (&52-T!\$%&J-+-&\$-!)29/-! , +-)-&2.2(%&!%J!21-(+!
+-)-.+\$18!R--! ' %+-!7-2.(/)!6-/%L8!

!

*8 5, .63(7'##%89(./ ; .+##(: "-#%. 8+(./#I"(2, .3.+\$&4!R257-&2)!L(//!)-&7!7+.J2)!%J!7(JJ-+-&2!)-\$2(%&!%J!
21-(+! , +% , %) ./)!2!7(JJ-+-&2! , %(&2)!(&!21-!)- ' -)2-+8!>1-9!L(//!)-&7!21-!7+.J2!(&! .7K. &\$-!%J!\$/.)!2%!
21-(+!F+%5, ! ' - ' 6-+)! .&7! .+-!-0, -\$2-7!2%!\$% ' -!2%!/\$.))!L(2!7-2.(/-7!-7(2)!J%+!-.\$1!F+%5, ! ' - ' 6-+

!

"

5)-!21(!,+-)-&2.2(%&!.)!21-(+!%+./!\$% ',+-1-&)(K-!-0. '!.&7!21(!)!21-!F% ./!%J!21-!\$/.)Z!21%)-!7%(&F!
)%L(//!1.K-!21-!J(+)!,(SM!%J!7.2-)!2!21-!-&7!%J!21-!)- ' -)2-+8!>.#'(#I\$#(\$(-. ?3&"#(',\$/#(?6+##*"'
3, .@%' "'(A/B""C+(%8(\$ '@\$8-"/.#I"(3, "+ "8#\$#\$.8(%/#(#+ "+ ,@%89(\$+(\$(-. ?3, "I"8+%@"("D\$?E! [(&./!
, , -+)! .+-!75-!%&!21-!/.)2!7.9!%J!\$/.)8!G&! ' .&9!\$.)-)21-!, , -+!9%5!1.&7-7!(&!J%+!9%5+!
\$% ' ,+-1-&)(K-!-0. ' !L(//!5JJ(\$-!)!9%5+!J(&./!, , -+!J%+!21-!\$/.)!.&7!G!L(//!-2!9%5!M&%L!21.2!.2!21-!
-&7!%J!21-!\$% ' ,+-1-&)(K-!-0. ' !R--!6-/%L!J%+! ' %+-!7-2.(/)+-F.+7(&F!21-!F5(7-/(&-)!J%+!21-!%+./!
\$% ' ,+-1-&)(K-!-0. ' !8!!

Y--+\ . 7(&F!%J!-7(2)!.&7! ' 9!\$/.)!, .+2\$(, .2(%&!F+.7-! " ;] !
R1%+2!Y+-)-&2.2(%&! ! ! ! ! ! ! " =] ! !
[(&./!Y+-)-&2.2(%&!! ! ! ! ! ! ! B =] !
[(&./!Y+%,%) /4Y. , -+! ! ! ! ! ! ! * ;] !

^//!75-!7.2-)! .+-!%&!21-!\$/.-&7.+0!652! .+-!)56@-\$2!2%\$!1.&F-!7- , -&7(&F!%&!21-!\$/.)!, +%F+-)! .&7!&-7)8!
P 1-&!7+.J2)! .+-!75-0! !%&!21-!7.9!21-9! .+-!75-8!>1(!)
./%L!)!257-&2)!2%\$!5)-!21-!\$/.)!2(' -!2%!+- .7!- . \$!1%J!21-!F+%5 , ! , , -+)8!GJ! .) !F+%5 , !9%5! .+-!%M.9!L(21!
- ' ./((&F!21-!7+.J2!%52!/.2-+!21.2!7.9!21.2!(!)%M.9!L(21! ' -8!>1-!J(&./!, +% , %) ./)! .+-!75-!21-!/.)2!7.9!%J!
\$/.)8!^! , +(&2-7!\$% , 9!&-7)2!%16-! , 52!(&! ' 9! ' .(6%0!69!21-!-&7!%J!21-!7.9! .&7!9%5!./)%!&-7!2%!' - ' .(!
' -!.\$% , 98!!

"8! [(&./!H-2.(/-7!^6)2+.\$2 2%! ' - !

>1-!, 5+, %) -!%J!21-!" = ' (&!, +-)-&2.2(%&)! .+-!2%!F(K-!9%5! , +.\$2(\$-!2!.)1%+2!\$%&J+-&\$-<)29-!
, +-)-&2.2(%&8!! !>1-! ' %)2!(' , %+2. &2! , .+2!%J!21-!
, +-)-&2.2(%&!(!)21-!J(+)!2!J(K-! ' (&52-)0!(&!L1(\$!1%9%5! .+-!-0, -\$2-7!2%!/ .9!%52!(&K-+9!\$/- .+! .&7!\$%&\$(-) -!
2-+ ')!9%5+! ' %2(K.2(%&!9%5+!+-)- .+\$!1!U5-2(%&!&7!(2)!\$%&2+(652(%&!2%\$!21-!/(2-+ .25+8! _%5+! , +-K(%5)!
L%+M!L+(2(&F! .&7!+-K)(&F!9%5+!7-2.(/-7! .6)2+.\$2!1%5/7!6-&J(2!9%5!1-+-8!!N-\$.5)-! ' %)2!%J!9%5!L(//!&%2!
1.K-!\$% ' , /-2-7!+-)- .+\$!1!2%\$!7(\$5))0!21-!+- ' .(&(&F!" ; ! ' (&52-)1%J!21-!, +-)-&2.2(%&!\$.&2.M-!%&!%&-!%J!
21-!)5FF-2-7!J%+ ')!6-/%L8! ` , 2(%&!H!(!)&%2!L1.2!9%5!L .&2!2%\$!7%! .&7!)1%5/7!&%2!6-!21-!.(' !a!652!
+-)- .+\$!1!7%-)&X2!./L.9)! , .&!%52!21-!L.9!L-!L .&2!(2!2%8!
!

^T!GJ!9%5!1.K-!, +-(' (& .+9!+-)5/2)0!21-!%+-2(\$./!%+!- ' , +(\$./!F%! .1-.7! .&7! , +-)-&2!21- ' !@5)2!.)!9%5!
L%5/7!2!.\$%&J+-&\$-8!>1(!) ' .9!(&\$/57-! .!V ' %&-9W!F+ , , 1!2%! ' %2(K.2-!9%5+!(7-&2J(\$.2(%&!&2)+.2-F98!
!

NT!GJ!9%5! .+-!7%(&F!- ' , +(\$./!+-)- .+\$!1!0! .&7!9%5!7%\$!&%2!1.K-!+-)5/2)0!9%5!\$.&!/ .9!%52!21-!- ' , +(\$./!
' %7-!/.&74%+!9%5+!(7-&2J(\$.2(%&!&2)+.2-F9! .&7! .&9!6(.)-)!9%5! .+-!L%+(-7! .6%52!S-8F8! ' %+2./29!%+!
' (F+ .2(%&!)-/\$2(%&T8!GJ!9%5!1.K-!7.2. !652!7%\$!&%2!1.K-!+-)5/2)0!F-&-+ .2-!7-)\$+(, 2(K-! .&./9)(!2%\$!7-)\$+(6-!
21-!U5./29!%J!(&J%+ ' .2(%&! .&7!21-!M-9!K.+(.2(%&!9%5!5)-!J%+!(7-&2J(\$.2(%&8!>1-!/.22-+!%J2-&2.M-)!21-!
J%+ ' !%J! .!F+ , , 18!_%5! ' .9!./)%!L .&2!2%\$!7(\$5))! .&9! ' .@%+!+% .7!6/%\$M)!9%5!1.K-!-&\$%5&2-+-7!%+!21(&M!
9%5!L(//!-&\$%5&2-+8!
!

bT!GJ!9%5! .+-!L%+M(&F!%&! .!21-!%+9! , , -+0! .&7!7%\$!&%2!9-2!1.K-!+-)5/2)0!9%5!\$.&!) , -&7!)% ' -!2(' -!
' %2(K.2(&F!9%5+! ' %7-!L(21!21-! .&-7%2-0)Q!\$.)-)257(-)Q!29/(0-7!J.\$2)!21.2!\$%&K(&\$-!5)!9%5+! ' %7-!1!.)!
+- .<L%+7/!(' , /(\$.2(%&!)Q!./)%! , +-)-&2!21-!6.)(!)-2!5 , !%J!9%5+! ' %7-!&7! .F.(&!, +%6/- ')!9%5! .+-!J.(\$&F!
(&!)%K(&F!%+!)-22(&F!5 , !21-! ' %7-8! E .M-!)5+-!9%5! .+-!\$/- .+!%&!21-!\$%&2+(652(%&!&7!L1.2! ' %7-)!9%5!
.+-!-02-&7(&F! .&7!L198!
!

HT!_ %5!\$.&!7(\$5))!21-!J%+ ' !9%5+!,+-)-&2.2(%&!L%5/7!2.M-!L(21!\$% ' ,/-2-7!)/(7-)!3!-8F8!V>1(!)/(7-!L(//!
\$%&2.(&! ' 9! ' %7-!/.))5 ' ,2(%&8!!>1(!)/(7-!L(//!\$%&2.(&!Y+%,%)2(%&!GQ!L1(\$1!L(//!(M-/9!)2.2-!c8!!>1(!)
)/(7-!L(//!F+.,1!%52\$% ' -!_!.)!J5&\$2(%&!%J!21-! ' %7-!/,+. ' -2-+)^!.&7!N8W!!%+!V>1(!)/(7-!L(//!1.K-!!
2.6/-!%J! ' 9!6.)(\$!` dR!+-)5/2)8!!>1(!)/(7-!L(//!\$%&2.(&! ' 9!J(O-7<-JJ-\$2)!+-)5/2)0!,%%/-7!.&7!21-&!
)-,+.2-7!(%&2!7-K-%,(%&F!.&7!7-K-%,-7!\$%5&2+(-)8W!GJ!9%5!5)-!21(!% ,2(%&Q!,-.)-!./)%!(%&\$/57-!L1.2!
,+%F+-))!9%5!1.K-! ' .7-!)(%&\$-!/.)2!- ' -)2-+0!%+!75+(%&F!21-!)- ' -)2-+8!
!
>1-!.57(-&\$-!L(//!%6)-+K-!\$%&J-+-&\$-<)29/-!+5/-)0!L1(\$1! ' -.&)!L-!%&/9!(%&2-++5,2!J%+!\$/ .+(J9(%&F!
U5-)2(%&)! .&7!+-)-+K-!)56)2.&2(K-!U5-)2(%&)!J%+!21-!-&78!!>1(!) ' -.&)!21.2!9%5+!"="! ' (&52-)!L(//!6-!
K(+25.//9!5&(&2-++5,2-78!!_ %5! .+!-0,-\$-7!2%!.71-+-!)2+(\$2/9!2%!21-!2(' -!/(' (2Q!.)!F%(%&F!%K-+!+-J/-)\$2)!
,%%+9!%&!9%5!.2!+-./!\$%&J-+-&\$-)8!!>1-+-!L(//!6-!=" ;! ' (&52-)!J%+!U5-)2(%&)! .J2-+!9%5+!,+-)-&2.2(%&8!
_ %5!&-7!2%!- ' .(/!21-!\$/.)!9%5+!7-2.(/-7!.6)2+.\$2!.2!/-.)2!2L%!7.9)!6-J%+!9%5! ,+-)-&2!S)-&7!69!R5&7.9!
(J! ,+-)-&2!%&!>5-)7.9T8!G!-0,-\$2!-.\$1!)257-&2!2%!.1.K-!+- .7!21-!7-2.(/-7!.6)2+.\$2!J%+!21.2!7.9X)!
,+-)-&2.2(%&)! .&7!2%!.1.K-!,+- ,+-7!U5-)2(%&8!!
!
P -!L(//!7%!B! ,+-)-&2.2(%&)! ,+!7.9!.&7!9%5!L(//!6-!,+-)-&2!69!)1.+(%&F!9%5+!)\$+-&!L1-&!7%(%&F!
,+-)-&2.2(%&8!

` &-!1%5+!,+-)-&2.2(%&!J%+!21%)-!7%(%&F!21-+!\$% ' ,+-1-&)(K-!%+./!-0. ' Z!1./J!.&!1%5+!%21-+L(-)8!

()!+/-K.&2!J%+!21-!+-)-.+\$1!,+%@-\$28!!G2!(!)21-&!21-!)257-&2X)!+-),%&)(6/(29!2%!J.'/(.+(0-!1('41-+)-/J!L(21!
21(!)/(2-+.25+-Q!L1(\$1!)1%5/7!6-!/(!)2-7!69!21-!-0.'(&-+!L(21!)5JJ(\$(-&2!/-7<2('!J%+!21.2!,5+,%) -Q!6-J%+-!
21-!,+-)-&2.2(%&8!!H5+(&F!21-!-0.'Q!-0.'(&-+)!'.9Q!%J!\$%5+)-Q!U5-)2(%&!21-!)257-&2!%&!.&9!())5-)!.&7!
/(2-+.25+-!21-9!L()1!21.2!(!)\$%K-+-7!(&!21-!,+% ,%)./8!!

!

DT!Y+(%+!2%!21-!)2.+2!%J!21-!%+./)!9%5!L(//!6-!.)M-7!2%!/- .K-!21-!+% % '!)%!21-!\$% ' '(22--!\$.&!6+(-J/9!2./M8!!

!

CT!^2!21-!-&7!%J!21-!%+./!\$% ',+-1-&)(K-!-0.'Q!./!.22-&7--)!-0\$-,2!21-!-0.'(&(&F!\$% ' '(22--!'5)2!-0(2!
21-!+% % '!)%!21.2!21-!-0.'(&-+)!'.9!7(\$5))!21-!,--J%+' .&\$-!%J!21-!)257-&28!_%5!L(//!6-!.)M-7!6.\$M!
(&2%!21-!+% % '!.&7!2%/7!21-!+-)5/2!%J!9%5+!-0.'8!

!

