

!"#\$%&'(#)*)#

!"#\$%&'()*+),%-. /01%&.23+11+4)%'45(6./'7%&0)('0%

!

+,-.#./-&0(#123405'6/#78-&9':,5#;6<<'55--#=.17;>#93?<'59#@6&#A043(5B#C-/05-#2'94399'6/#0/2#0%&%680(#5,-#.17;#C50/2'/:#D3(-9E#09#F-#F-&-#4,0&:-2#56#26#=#!GHG*))E#46<<3/'405'6/#@&6<#A043(5B#C-/05-#I&-9'2-/5E#\$/50#J&6F/>#K#L-E#/'#53&/E#4,0&:-2#5,-#.17;#\$28'96&B#C3?46<<'55--9#56&-9-0&4,E#2-('?-&05-E#0/2#2&0@5#463&9-#-80(305'6/#4&'5-&'0#0/2#&3?'&'49#=#!G)MG*))E#46<<3/'405'6/#@&6<#.17;#4,0'&%-&96/E#N-// '@-&#OB(0/2E#56#.17;#\$28'96&B#C3?46<<'55--9#3%6/#5,-'&#-(-45'6/>#K#P3&'/'#5,-#9%&'/'#9-<-95-&E#5,-#.17;#0/2#\$28'96&B#C3?46<<'55--9#08-#9%-/5#,63&9#56#2-8-(6%#5,-#05504,-2#2643<- /59E#&-46<<- /205'6/9E#0/2#&3?'&'49K#\$5#5,-#?-'//'/:#6@#%\$%&'(#)*)#E#.17;#&-4-'8-2#5,-#&-46<<- /2-2#463&9-#%&6%690(#&-8'-F#4&'5-&'0#@&6<#-04,#\$28'96&B#C3?46<<'55--#0/2#055-<%5-2#56#0(':/#5,-#-80(305'6/#4&'5-&'0#04&699#. - /-&0(#123405'6/#405-:6&'9#0/2#5,-#-80(305'6/#&3?'&'49#@6┼-/5#(-0&'/'#63546<-9#=#CQ79>#5,05#F-&-#/'/4(32-2#/'#<3(5'(-#.- /-&0(#123405'6/#405-:6&'9K#\$9#4,0&:-2E#5,-#.17;#09#%&-9-/5-2#5,-9-#2&0@5#2643<- /59#56#5,-#A043(5B#0/2#46((45-2#46<<- /59#0/2#@--2?04R#/'#5,-#@&'95#F--R#6@#%\$%&'(#)*)#K#73&0@5#.17;#C50/2'/:#D3(-9#08-#?-- /#%&-%0&-2#/'5F#6#8-&9'6/9#@&6&#A043(5B#0/2#A043(5B#C-/05-#46/9'2-&05'6/K#S/#5,-#@'95E#/0<-2#T.17;#C50/2'/:#D3(-9#PD\$A+U#<62'@'-2#CQ79EV#F-#,08-#%&6%69-2#<62'@'405'6/9#56#5,-#(0/:30:-E#?35#/65#5,-#/'5-/5E#6@#96<-#6@#5,-#CQ79K#+,-9-#<62'@'405'6/9#9-&8-#56#4(0&'@B#5,-#CQ79#@6&#F,'4,#5,-#\$28'96&B#C3?46<<'55--9#93?<'55-2#-80(305'6/#&3?'&'49#5,05#2'2#/65#-W045(B#0(':/#F'5,#5,-#(0/:30:-#6@#5,-#CQ79#6&#F-&-#/'#46/@('45#?-'5F-- /#C3?46<<'55--9#K#L,('(-#5,-#.17;#&-46:/'X-9#5,05#5#9#F'5,'/#63,0&:-#@&6<#5,-#A043(5B#C-/05-#56&-46<<- /2#4,0/:-9#56#5,-#CQ79E#5,-9-#&-46<<- /205'6/9#0&-#<-0/5#56#?-'0446<%0/'-2#?B#099-99<- /5#2050#/'93%#6&5#6@#0/B#%&6%69-2#4,0/:-9K#C'/4-#F-#26#/65#B-5#,08-#0/B#099-99<- /5#2050#56#93%#6&5#63&#%&6%69-2#4,0/:-9#56#5,-#CQ79E#F-#,08-#0(96#93?<'55-2#0#9-46/2#8-&9'6/#6@#5,-#2&0@5#.17;#C50/2'/:#D3(-9#/0<-2#T.17;#C50/2'/:#D3(-9#PD\$A+#Y#6&'/'/0(#CQ79KV#+,9#2643<- /5#9#2-/5'40(#56#5,-#@'95#F'5,#5&04R#4,0/:-9#- /0?(-2#56#,':,(':,5#%&6%69-2#4,0/:-9#56#5,-#CQ79#0/2#9(':,5(B#2'@&-&- /5#Z'/'<3<#D3?'&'4#180(305'6/#; &'5-&'0K##S/'#6&2-8#-09-#5,-#%&64-99#@6&#A043(5B#C-/05-#0/2#56#/'4&-09-#5,-#('R-('662#5,05#. - /-&0(#123405'6/#D-8'9'6/#F'((#46/5'/3-#3/'<%-2-2E#F-#93:,-95#5,-#@6((6F'/'#%&64-99#@6'94399'6/[#

!K Z7+S7O#!56#0%&68-[#

0K C-45'6/#!K#.17;#I69'5'6/GZ'99'6/#C505-<- /5#

+, '9#9-45'6/'#/'4(32-9#+,-#I3&%69-#0/2#I&:60<#I&'/'4'(%-9#F,'4,#F-&-#50R- /#2'&-45(B#@&6<#5,-#;3&&'43(3<#%\$%&680(#.3'2-E#&-8'9-2#\G]*G*))!E#C-45'6/#^K#

?K C-45'6/#][#.- /-&0(#123405'6/#Z62-(#0/2#D-_3'&-<- /59#

+, '9#9-45'6/'#9#5,-#. - /-&0(#123405'6/#Z62-(#0%&68-2#?B#A043(5B#HG)`G)*)!K#

4K C-45'6/#H[#C5&3453&-#6@#5,-#.17;#0/2#C3?46<<'55--9#

+, -#Z-<?-&9,'%#9-45'6/#.17;#0/2#C3?46<<'55--9#C5&3453&-#F09#50R- /#@&6<#5,-#43&&- /5#A043(5B#C-/05-#JB(0F9#F'5,#5,-#@6((6F'/'#%&6%69-2#\$Z Z1OP Z1O+[#T\$%#-0(9#56#.17;#2-4'9'6/9#@&6<#.17;#\$28'96&B#C3?46<<'55--9#F'((#?-'#2-('8-&-2#56#5,-#P-9':/05-2#C-/056&E#F,6#9,0((#%&-9-/5#5,-#@-3-95#56#5,-#A043(5B#C-/05-#05#5,-#-0&('95#%699'?(-#A043(5B#C-/05-#<-5'/'KV#L-#2-5-&<' /-2#5,05#96<-#<-4,0/'9<#@6&#&-?3550(9#56#.17;#2-4'9'6/9#F09#/-4-990&BK#

2K C-45'6/#M[#. 1 7 ;#Z --5'/:#P05-9#

-K C-45'6/#^[#. 1 7 ;#\$28'96&B#C3?46<<'55--9#

+, '9#9-45'6/#'/4(32-9#5, -# . 1 7 ;#\$28'96&B#C3?46<<'55--#2-94&'5'6/#0/2#
95&3453&-#0/2#F09#50R-/#@&6<#5, -#A043(5B#C-/05-#JB(0F9E#&-8'9-2#!!G''G)*)!#F'5, #
5, -#@6((6F'/ :#%&6%69-2#\$ Z Z 1OP Z 1O+[#T+, -9-#9505-<- /59#<395#?-#93?<'55-2#
09#'/95&345-2#?B#5, -#Z -<?-&9, '%#0/2#1(-45'6/9#; 6<<'55--#23&'/ :#5, -#/6<'05'6/#
%&64-99#?B#5, -#/6<'05'6/#2-02('/-K#\$@5-, '9#2-02('/-E# . 1 7 ;#F'(#46<<3/'405-#
56#5, -#Z -<?-&9, '%#0/2#1(-45'6/9#; 6<<'55--#5, -#/0<-9#6@#A043(5B#<-<?-&9#F, 6#
, 08-#93?<'55-2#5, -'┡-<- /5K#\$ /B#A043(5B#<-<?-&#F, 6#@0'(9#56#93?<'5#5, -'&#

0/2#-@@-45'8-(B#56#0446<%('9,#0#9%-4'@'4#%3&%69-d#0/2#39-#'/@6&<05'6/#
-5,'40(BK#

'K e 30/5'505'8-#D-096/' / : [#C532- /59#F'((#?-#0?(-#56#'/5- &%&-5#<62-(9#0/2G6&#
96(8-#_30/5'505'8-#%&6?(-<9#&6<#2'@@- &- /5#46/5-W59#F'5, #&-0(UF6&(2#
&-(-80/4-d#3/2- &950/2#0/2#4&-05-#0/2#46<<3/'405-#&-096/0?(-#0&:3<- /59#
93%%6&5-2#?B#_30/5'505'8-#-8'2- /4-d#0/2#4(-0&(B#46<<3/'405-#5, 69-#
0&:3<- /59#'/#-@@-45'8-#&6&<059#=-K:KE#39' / : #F6&29E#50?(-9E#:&0%, 9E#0/2#
<05, -<05'40(#- _305'6/9>K#

'8K C4'- /5'@'4#D-096/' / : [#C532- /59#F'((#?-#0?(-#56#'2- /5'@B#0/2#39-#- <% '&40(#
-8'2- /4-#56#2-94&'? -G#-W%(0' /E#0/2#%&-2'45#/053&0(#%, - /6<- /0#5, &63: , #
0%#('405'6/#6@#5, -#94'- /5'@'4#<-5, 62d#0/2#39-#94'- /5'@'4#%&' /4'@(-9#56#2-9' : /E#
-80(305-E#0/2#<%(- <- /5#95&05- : '-9#56#0/9F- %- /U- /2-2#_3-95'6/9K#

8K a /2- &950/2' / : #5, -# f 3<0/# L 6&(2[#C532- /59#F'((#-W%(6&-#0%)(B#<-5, 629#
5, 05#F'((#- /0?(-#5, - <#56#&-46: /'X-#0/2#'/5- &%&-5#-8'2- /4-#6@#, 3<0/#
5, 63: , 5E#045'6/E#-W%&-99'6/E#0/2G6&#-W%-&' - /4-E#39' / : #46/5-W59#0/2#
/0&&05'8-9#56#3/2- &950/2#-W%(0' / #, 3<0/'5Bg9#4, 0/ : -#68- ' <-K#

8'K h /6F(-2: -#6@#5, -# f 3<0/# 1W%- &' - /4- [#C532- /59#F'((#?-#0?(-#56#2-94&'? -#
0/2#46<%0&-#5, -#2-8-(6%<- /5#0/2#<%045#6@#80&'639#0&5'95'4E#43(53&0(E#
-46/6<'4E#, '956&'40(E#'/5-((-4530(E#('/ : 3'95'4E#%6('5'40(E#964'0(E#0/2G6&#
9%'&'530(#9B95- <9d#0/2#&-46: /'X-#46<<6/#_3-95'6/9#0/2G6./4- &/9#
, 3<0/9#46/@&6/5#0/2#5, -#2'8- &9-#95&05- : '-9#&6&#&-96(8' / : #5, 69-#46/4- &/9K#

8''K ;'8'4#c #; 6<<3/'5B#1 / : 0: - <- /5[#C532- /59#F'((#2- <6/95&05-#R/6F(-2: -#
0/2#9R'((9# / -4-990&B#56#%0&5'4'%05-#045'8-(B# / #4'8'4#0/2#46<<3/'5B#(' -#0/2#
'2- /5'@B#993-9#3/2- &(B' / : #%3?('4#%6('4BK#

8'''K 1<- &: '/ : #c#1 /23&' / : #. (6?0(#S993-9[#C532- /59#F'((#? -#'/@6&<-2E#
&-9%6/9'?(-E#0/2#0?(-#56#46/9'2- �/2#2'94399# - <- &: '/ : #0/2G6&#- /23&' / : #
: (6?0(#'993-9#? -' / : #E#055- /5'8-#56#2'8- &9'5B#04&699#5, -#9%-45&3<#6@#
2'@@- &- /4-9d#3/2- &950/2#, 6F#5, - '-'6/9#0@@-45#265, # (640(#0/2G6&#: (6?0(#
46<<3/'5'-9d#0/2#022&-99#5, -#F6&(2e9#<695#%&-99' / : #0/2#- /23&' / : #'993-9#
46((0?6&05'8-(B#0/2#- _3'50?(BK#

'WK 1 /8'&6/ <- /50(#C3950' /0?' '5B[#C532- /59#F'((#? -#0?(-#56#5&04-#5, -#F0B9#'/#
F, '4, #' /2'8'230(#045'6/9#0&- #('R-2#562-94&'? -#5, -# /5- &46/ / -45'6/9#6@-2#
/053&0(E#, 3<0/E#0/2#964'0(#9B95- <9#0/2#5, -#93950' /0?'('5B#5, - &-6@F'5, #5, -#
: 60(#56#<%&68-#-46(6: '40(#'/5- : &'5BE#, 3<0/#F-(U?' -' / : #E#0/2G6τ'0(#
- 3'5BK#

WK 15, '40(#D-096/' / : [#C532- /59#F'((#?-#0?(-#56#&-096/#0?635#&': ,5#0/2#F&6/ : #
-3<0/#46/2345d#099-994&'5'40(B#&-@(-45#6/ #5, - 'F / #5, -'40(#46&-#? -(' -@9#
0/2#80(3-9#0/2#5, -#964'0(#46/5-W5#6@#%&6?(<9d#&-46: /'X-#-5, '40(#'993-9#0/2#
5, - 'τ'0(#46/5-W5# / #0#80&' -5B#6@#9-55' / : 9d#5, '/R#0?635#, 6F-80(305-#

