























% ')

(B75;3> #AF7 '793D6;@9 ADI3D6 !AA=;@9 (F3F7?7@FE

-=>H 9D8JB:CI 6C9 6CN 9D8JB:CIH >C=8DHG EDCGJ6IA9+7NDG:I;:G 008A J96 CD< ["I:B  
>H8JHH>DC 6C9 C6ANH>H D; >C6E896A>DDCH>I&DCI6E0 H16U:BI:KID; I(=6I 8D  
HI6I:B:CIH\ L>I=>C I=: B:6C>C< D; ;:8I>0009 ;:8D>DIE: MB#6E<;:8JG>I>:H 8I D  
AA HI6I:B:CIH I=6I 6G: CDI HI6I:BGCF6G 0;A D>DH@ D G \* 8H16I;B8 C6E: -;=: LDG9H [:M  
[6CI>8>E6I: \ [EG:9>8I \ [7:A>:K: \H H D O H A 0 C 9 6 K \$ G T > B > D C H : M E G : D H ; 6 D D @ G C E  
HI6I:B:CIH -=:H: HI6I:B:CIH 6EE:6G H 0 D 6 8 C B C 7 I : 6 C D ; F A S 8 J 9 : > C I 6 F : B : C I B G G : < 6  
8JGG:CI :ME:8I6I>DCH D; I=: DBE6CNL>H H 0 : H E ::8IIDIGH 0EED E I H D D ;;>8 I=>C<H  
DBE6CN^H 7JH>C:HH ;>C6C8>6A 8D C I 9 ; I > D B C E 0 G N 0 H H H A G 8 I D < N D E C 0 6 H I 0 6 C I : < > 8  
EDI:CI>6A 68FJ>H>I>DCH >CK:HIB 00N H H 6 8 D H 9 > H H E K > C < < H D > C H > I > 6 I > I D : H E 6 H C 8 = :  
6H A>I><6I>DC 6C9 >CK:HI><6I>D N H ; D E : 1 6 0 G 0 H A B 0 @ 8 C J > H I 6 I 9 B I : E 6 H 6 0 G : C D I < J  
E:G;DGB6C8: 6C9 >CKDAK: G>H@H 0C9 G:G 8 : G 9 6 6 E I X : H I : 8 C D > G H : @ H C ; 0 C 9 B 6 C 8 : G I 6  
;68IDGH I=6I 8DJA9 86JH: 68IJ6AD B : H D A H H > D 9 >; ;:DGB6G 0 A D A D @ > ; G < : H I 6 I : B : C  
=:69>C< ["I:B +>H@ 68IDGH\ >C I 6 0 N 9 0 C H 6 0 A D + : B D 0 > C 6 - G > A D N B 6 @ : E G D ? :  
G:HJAIH 6C9 JC9:GI6@:H CD D7A><6N>D7CA>6C9>:MCE GI:DH HE A N A 9 > 8 H A N A 6 E 8 6 H I : 6 D G G  
HI6I:B:CIH L=:I=:G 6H 6 G:HJAI D;I 8 : D G 0 ; I D G B I 6 > H D C : M ; 8 I 6 G 6 H K G C F J > G J 9 A 7 N  
G:K>:L I=>H 9D8JB:CI 6C9 I=: DI=:G 0 N 8 U B I : E I I H ; ; > A : 9 - 7 > N H I H : 8 D > E D C 6 H = D J A 9 7 :  
DCHDA>96I:9 >C6C8>6A ,I6I:B:CIH D;D'A b 8 6 I D 9 E > D C 6 6 8 8 D C A I # 8 I [ B D C I H \ 6 C 9 G  
:AH:L=:G: >C I=>H CCJ6A +:EDGI

\*( # (( \$+ '+ ,

-=: DBE6CN^H H>M G:EDGI67A: H:<B:CIH 6G: 9:H8G>7:9 7:ADL

AD F:7 8;E53> K73D 7@676 C  
(79?7@F  
'7H7@G7E )  
;@ ?;>;A@E

[REDACTED]

,J7H8G>EI>DC />9:D ,:GK>8:H

[REDACTED]

DD@ )J7A>H=>C<

[REDACTED]

(I=:G

Z

;9;F3> '73> EF3F7 (7DH;57E

-=: DBE6CN^H ><>I6A +:6A HI6I: ,>GK>8:H H C < B G C H I 8 D C H > H I 0 D D ; E 6 E J 7 A > 8  
A>HI:9 DC ,1 ,1 + 6C9 >IH >6I:G>E k > C & D K : G : H I : > G C : B : D K : > H = : A 9 7 M

2/50

+ GDJE >H 6 B6G@:I A:69>C< 9><G k6 A C B E 9 > D E 7 G H N C L H H = H E E 8 G 6 A > D C H N ; D 8 J H  
G:A6I:9 69K:GI>H>C< 6C9 H:GK>8:H 6H L:AA 6H ;>C6C8>6A H:GK>8:H

;89.;=B \*7- ;89.;=B ".5\*=-. -?.;=2<270 \*7- #.;?2,..<

+ GDJE 69K:GI>H:H EGDE:GIN 6C9> I H G D : E : H G I N H G 6 A 0 I : B D H T > G A K > 8 E B H D 6 8 G D H H  
G:H>9:CI>6A 8DBB:G8>6A 6C9 H=68D:BE6JD EG 0 I A 8 D : E 7 H : G I 8 H 6 A : 6 A : B I 6 6 J : 6 C 9 A 6 I  
EGDE:GIN G:H:6G8= H>I: EGDE:GIN 8DB 6J 6K:G 6I<.: B D C G = : A C N : I 9 > # I > C H I D G : 6 A  
B>AA>DC L>I= B>AA>DC E:DEA: K 6 > 8 H > I G 0 < C : 6 8 0 B E H I D 0 6 A C 6 6 K H 9 0 6 > H > I : 9  
G:6A:HI6I: 8DB 6J I>B:H BDG: D 0 E : K > G 6 G : 9 I J G 0 C < : I : C : 6 I G M H B B D I = H : C 9 : 9 #

"C ;>H86A + GDJE IG6CH>I>DECH H I H G 6 J 9 > I : C : 8 C E L : I 9 > > 8 H 6 I A D 6 J 9 6 : H C 8 : : E : 6 B 9 0 G H C I 7 N D J 6 8 :  
9K:GI>H>C< JG:6J JHIG6A>6^H 7DG 0 9 - 6 C I \$ A 6 0 K < G B > C H > 8 R J C 8 > A ; D  
6H:9 DC "EHDH >G>H 9616 DBE:I>I D B 7 9 6 I 6 6 K 6 > A 6 7 A : 7 : < > C C > C <

+:6A8DBB:G8>6A 8DB 6J =69 B>AAC>DE:6DEADG>H>IN::6G=:E9C9#DC:  
I=: C:6G:HI 8DBE:I>IDG 76H:9 DC "EHDH >G>H 9616

8DCHJB:GH 6G: <:C:G6AAN EGDK>9D9 D8D8 HDJ 7H8 SK EH >D:K:76JH >K DB: 6A6A: H D  
69K:GI>H:B:CI DG &:9>6 EGD9J8 H6 CB:G =DAB:H B E:GD>KCB 008I: 6 6 HDI =: GHEGD ;:  
EGD;:HH>DC6AH ID 8DC'CH8#>L<#AN::CAIDG98DB9 K6AJ67A: 8 DGH>J88A J9J9>:C8  
HEDCHDGH=>EH 9>HEA6N 69K:GIGH:BI<:IGI 6D:KI:IGA>K>@K 6G9G 'A8:6D9G<::GI: 6 6 I>D  
69K:GI>H:B:CI EG>8>C< BD9:AH >C 6A8A> 8@H18 B HG E= 6 JHG>CFJ: 8JHG EG: 6H HJ7H  
D; HE:8>;>8 8DCI:CI 6G:6H DG I6G<:I:9 <:D<G6E=>:H

"C 699>I>DC ID +&D K:DG A B DBD ;::GH DCA>C: IDDA A 66C9A B 69K> 8 CH IIDC6DC I H N>D  
EA6I;DGB I=6I >BEGDK:H I=: G:CI>CA 6 09EA 0 6 9CH 6 CDGI: 66G IHNID>JIG HD 66A>9C: ID  
LDGA9 8A6HH HJEEDGI K6>A :BEAD 0 B A6 9<6C> H N7 B 8 E 6E18>DC< ;B:DH9: 8 HCK: AA  
BD9:AH

-=: DBE6CN^H 9><>I6A G:6A :HI6I:CH= SK=>8NH8 DJBE> C> H>HK::HBB B:@ 6H 6= 6CH6G: :  
ID C:L







"C8AJ9:H K>H>IH K>6 L:7H>I:H 6C06ADN7>8H6;DEGH176H:9BDCI=9D7C9:9 #JC:

"C8AJ9:H 6<<G:<6I: JC>FJ: JH:GH: 688BEHH76CH 9L D7G>9:D76C06ADN7>AH ;DG I=: ,:BD6G4H":C9:  
JH>C:HHZ MEA6C6IDGN 'DI: +:<6G9>C<DGB661>D&:GG<8G9>;D<IBD66A8JA6I>DC D; JC>FJ: JH

2/'&33\*/.", .'/2-"4\*/. 2/%5\$43

-=: DL #DC:H H:<B:CI^H EGD;:HH>DC=6A68G;DGBI6 GEDC>EG B9H8DH:GH>8DB7>C  
L>I= I:8=CDAD<N 6C9 IDDAH I=6I >CHBGB:9::8>G8>DQIC 96G9H6>C99 6C&G6C9 8DBE  
8DCH>HI D; >IH DL #DC:H +>H@ DBEIA>K6C6C9 DLL#DCC HH C.LGHLNG:H EGD9J  
>C8AJ9: I=: ;DAADL>C<

U 8@ 87.< "2<4 86D152#D7C.:H +>H@ DBEA>6C8: EGD9G88HHEGBKG9:  
;D8JH:9 DC 6CI> 7G>7:GN 6C9 8DG8DE C>DC I:6CG8B>DHC N >A66JC8>G \*C B  
6C9 H6C8I>DC A>HIH 6C9 DI=:G 8DBEHA H6CA8J:I >DEJH> 6ABA:DCU HB JHI D B:DCG:  
7JH>C:HH IG6CH68I>DCH 6C9 I=>G19;N6GI \*JHA 66D6NC H8 D>GHE D9G66: I6C99C  
G:FJ:HI ;DAADL JE G:EDGIH ID 8D9988H ;JG8AJ9:9DCA>A><GSE @ )96D6  
H:6G8=>C< IDDAH HJ8= 6H +>H@ :C I9 66G8C:8C,8>66AC >C>B 6C:9 &8C 6 ID9G

DEEDGIJC>I>:H 6C9 8=6AA:C<:H 6C9 I=6I >I >H L:AA EDH>I>DC:9 ID

9K:GI>H>C< G:K:CJ:H 6I I=: ':LH &:9616 DFC:6A>CN 6IG>IH JG7:K:80 JI:DH HNE>86AAN =  
H:8DC9 ;>H86A FJ6GI:G 9J: ID I=: >CH B6>NC: 6DE =>6A> 6&N<HD&6DE =>CH

&73 /20 5342",\*"

':LH DGE JHIG6A>6 >H DC: D; I=: AE:6D>KG:G:HLH 6C9H>G 6DAG B 67NDG: 69CGH=>E  
B6HI=:69H 8DK:G>C< 6 C6I>DC6A G":H> 966A16A 9B 6H7=>:676C6;D:D6B 66EII=: A:6  
EGDE:GI>:H >C JHIG6A>6 76H:9 DCC B D=6I= A 6EJGD>M>B 6U:9>NC8: 9616<6G:<6I: 9  
HJ7H8G>7:GH 6H D; #JC: "06099,>6I>D66N16C8D,0000NDL:G@AN 6C9 7>  
G:69 7N B>AA>DC JHIG6A>6CH D-0N6&:66<6CK96I6 L:D:@ 176H:96 0CC9:9 &6G

':LH DGE JHIG6A>6^H C:SH.EDG+;;D59D >.C4A7J9:4<=;652D66A \*25B \$.56.09\*91  
\$1. #>7-\*B \$.5.,N9\*9:1N\*5- #609>7-\*B .; \*5-&#A7DJGIC: 8>;2.;6C95. #>7-\*B \*25  
G>H76C:1.6G9.;=209;7-\*B \*25A6>9: 6H L:AA 6H Eà• p0à><>I6A B6V>9DA>6I

%D;@F H7D397  
EEG7



6HHD8>6I:9 D9:H -=: @:N G:<JA6IDG 987B D>NC ;D SC9:J:HJGN G>HA >6:C JHIG6A>6C  
JI= DG>IN

\$:N G:<JA6IDGN >HHJ:H ;DG >IH H:JHH 8<8AU>9DC K>\$:DI>H HG<E>D E>CJH GCHIG>8  
J6CI> H>E=DC>C<^ EGDK>H>DCH D::9>6 83DD061986 HHI>GCK< 8::GK >>8C 8IA J89I> C<DHCJ7H8  
EGDK>9:GH 6C9 HIG:6B>C< H:GK>8 G> <6GH GDHII:G>K>:H: ; GDGB D6I&FG >G H C: 9 G DK>  
A>HI D; 9:H><C6I:9 :K:CIH >C8AJ9> Q H IIG-6A<A0NC ED B I 766BA: A %8:6<J6:>CC9 8G>8 @  
LDB:C^H HEDGIH JCA:HH 6 C6I>DC 0 8 6 DG: 8 DLB: B:HG:8>:AAKI> A>K>CH 7 G D 6793B 6 I>C<  
D; I=: JHIG6A>6C EDEJA6I>DC K>6HH: 8&F J KGC 9 D-G 8 J &= IGI< &#1A: =6K: CDI 7  
7::DG: I=: HI6GI D; I=: G:A:K6CI :K8BI=69966G:6H D7C6D7A9 8B EE:DG#JC>IK: GD 68F  
7 C:L EGDK>H>DCH D; I=: GD698 66C J ; 6 8 I J: G:K>H: D; 8 B 66 F J>A:K G H >B D E H 6C9  
!J77A 9:K>8:H ID EGDK>9: 688:HH IDK< >8 A H I 7 8 9 D C H 9 5 E A 4: 9 C 6 C N L: 9 C J H I 6 6 A >6  
p à@ à C I E J >6 H A B p G 6 H Z I = 6 C I D 3 E A 0 N I B C H F 8 0 B 8 0 4 B L C 2 I H ` 8: G 8 8 > 0 0 8 0 2 C 8 9 C H I G > B U > B C > G D 2 8  
a ? : 8 I ID K6H:9A`0• p €JA6II(`• p0€`0° p0à0À € p €@À•à@0 À0@• À` G 0À Pp@  
DMI:A >H 6AHD HJ7?:8I ID K6G>DJCH9 80 C H:J B::AG: 8EDGBIJ 6 >>8D6C>C C H B 8H J I=  
-:A:8DBBJC>86I>DCH 8I I= 6C9E6HND 8D>6D:MI: A 9 H H E G D K 8-H 6DC D; 7GD6  
G:I6>A 8JHIDB:GH

-=: DBE6CN^H JHIG6A>6C DE:G6I>€<G7B 8G CH H H: H= 6 GG DH 6 9 7 8 6 B I I > D < D, I: G K > 8: H  
DBE6CN^H DLC:GH=>E HIGJ8IJG: 67<9A DIN: G 8 I > 6 C H 6 9 K 5 G I: 6 H I: G D 8 I 6 8 F H J 6 H: H I > D  
H=: A>:86A DGNA>6NB>DC €••D K5`0• A•° @ à € @BN EG>9:H A<4E"•D9 DB &GD  
.7,16\*;4 ".0>5\*=287

"C 8DCC:8I>DC L>I= DL #DC:H C:G<N^H αH"; H7I5H7AG HHH9 I>I:H DBE67C: C8=B6G @  
:C8=B6G@ 9B>C>HIG6I>DC / I=: ‡ 9 B > C > H H G 6 A B G 9 H 8 G 9 6 6 J > 0 D 8 > O: 9 J C 9  
+:<JA6I>DC I=: [ . &+ \ 7 N= D G > I: N = ; D 6 A 6 G 0 6 C 8 > 6 A & 6 G @ : I H I = : [  
9B>C>HIG6IDG DK:GH::H 8DBEA>6C B G D 8 I: 9 JEG H C 8 D K: A G E > E D 8 D 8 ; A H 8 I C 9 D ; > C  
>CEJI 9616 7:C8=B6G@ B:I=D9DAD<G>8:66H HD H H B: 6 6 H I 6 6 C 9 ; 7 D G 8 6 6 6 G @ H J C 9  
9B>C>HIG6IDG =6H EJ7A>H=:9 DC 6 I I: G 6 7 A H H > k: D K D G 8 6 : H H J 8 9 B 9 B: 6 C B H I G 6 I >  
HI6I:B:CI 6H L:AA 6H EDA>8>:H 6C9 AED<D 8 H 9 J 8 D B 8 B D 6 C & C: I G C > 8 D < G B :: I 8 H 9 D D H 6 C 9

-=: 9B>C>HIG6IDG 8JGG:CIAN DK:GH:LH>I&D αG", CE6I>BG 6HH:K:IAINBJE I 8 6 H 6 G:

G:HE:8I ID E:GHDC6A 96I6 D; I=:>69 GCH E>8I>KIHGL:HI>9HG>IB>A6G EGDKIH 99>I  
DBE6CN^H L:7H>I:H BD7>A: 6EEH 6C9:EI6GG DACAD CHJ7PH8ICI:DIHA 6I8H>KC9 G:<  
DCA>C: EG>K68N D; 8=>A9G:C >C K A 8 9I>CG-DII=8I>DCA 96I: D^;H (CA E>8)G EGD=>7  
E:GHDC6A >C;DGB6I>DC DCA>C: ;G E E>8D-G AE9GG CCJCA:8D 6H::CI L E= D6JA>;DGC>  
D9: L=>8= L:CI >CID :;;:8I DC #JAN L=>8= >7H I8:JG:G GC8:BN CHIDN:9 L=D>8=: EG  
9:H><C D; DCA>C: H:GK>8:H A>@:A 6 6D:7: 6P8:HM:967C9 8=>A 6G:NA 6C9 \$>9H  
>CID :;;:8I DC (8ID7:G L=>8 I=>H A6G<:AN BD9:A:9 6;I:G

,>B>A6G A6LH 6C9 G:<JA6I>DCH 6BE>ADNC HC>B6IC>A>D= I=: DD B EG C N GD>H:G>6I:H >  
6C9 JHIG6A>6 DG :M6BEA: H:K:G 6 A I E; 6I G: HDJ E 68C NI^DH I 7 JH>C^HH:C:G 6A 6  
[ )+\ L=>8= EGDK>9:H 6 JC>;DGBI 6 I: E GDD 8GH A>HC <DIG GED G+HDCJ6 616 )GD 6:G 9>  
8I D; I=: [. \$ ) \ 6H L:AA 6H I=: 8.I\$ D:C :G 6 A A 6I I>6D)CG D[.I.\$ )+\ -=: )+ . \$  
. \$ )+ :ME6C9 I=: G:<JA6I>DC D; I=: 8 E A 6 G 8 I G D 6 C E GHD 8 J 6 H >N C D; J E: GHDC6A 9  
8DC9>I>DCH ;DG 8DCH:CI ;GDB 96H6DH J>7C 98 IK> 9H 6A:IC <+€:8CA J 9> G \* <=I I:G><=I I







D6G9 D; >G:8IDGH I=GDJ<= I=: J9>I= DBHB 6IC9: 8DBEAG668600 DI=:G , D  
9:I:GB>C>C< L=:I=:G 6CN G:9J8I>D B EDC H 6 I E D N D;DIGD;M:88tEK>KD;8DB:GAH >H L  
:BEADN::H 6G: G:FJ>G:9 ID G:<JA6G;A8B8BBEAI>6G8>C>C< D.CH 608 B^H ,I6C  
DC9J8I L=>8= H:I ;DGI= I=: DBE6AN^HCEID A L8NG 0E88I8 G:8I8:8JH>AC:HH :I=>8  
6EEA>867A: A6LH 6C9 G:<JA6I>DCH8JA C9G6 0;; 8:DBE A>8QB: 869BAD:k6A 6IC9 :I=  
I=: DBE6CN -=: ,I6C96G9H D; JH>C:JAH6GA 09689 66E:EGDK<:9L:7NG< D6G9 D;  
8DBEA:B:CI:9 7N 7JH>C:HH JC>I 6C96I>DE>8<HE :8G8>A8 9>DCA> 8>IH 6CH9EI:8I DD L  
>CI:G:HI 6CI> 8DGGJEI>DC 6C9 6CI> 7G>7:GN 6C9 >CH>9:G IG69>C<

\*6&23\*49 15\*49 ".% .\$,53\*/.

-=: DBE6CN 7:A>:K:H I=6I =6K>C< 6; L:ME @G D:68:: HL>I67 6A9>K:8 H768 @<GDJC9H  
HIG:C<I=:CH >IH 67>A>IN ID 8G:6I=67G:0098I: 8009I:C:IH0C8 IE QD9J8>H 89H#DB:  
LDGA9 -=: DBE6CN H::@H ID ;DHI:GA6CN:CH >:GAD KB:ACJ: 9=>6:8AA9:9BEC9 :BED  
>9:6H ID I=: I67A: -D 68=>:K: I=>H I6DB EEDGD KG9I>:FJ 68 GBEIAD>NIB: 7JH>C:HH:8  
ID 8JAI>K6I>C< 9>K:GH>IN 68GDHH >IH 7JH>BC CHB:EG:H:DI:9:8:BD;G':LH DGE  
LDG@;DG8: D; >IH 800>DGD M>8HI>8689 D; >G:8IDGH 060I:I=DKDB 6668:C  
DBB>II:: =6H 6 EDA>8N ID >C8AJ9: 609: 066:C9DED>AC DB >H6GH DC II=: 8:608G- EG  
-=: DBE6CN^H 7JH>C:HH JC>IH =6K: HBEA9 BE G 6:8I 98:KI:G8>A D CE:9 D 0GIG>B>G G:  
<:D<G6E=>:H -=: DBE6CN^H ;;DGIH 6B DECG<DIB D:I::G9 >K:G H I N I>HC 8AJ9:A:CI 6II  
EG68I>8:H ID EGDK>9: :FJ6A :BEADAN>B:00 I B E6E09G:IB EA D>N H HD GI J8A-A66E EBEA: B  
BDG: 9>K:GH: 86C9>96I: EDDAH 6C9EB>EI: A6C9: HG 6>C:>BCE-A 009: 9:K;ADDGIH ID 7  
8JAIJG: D; >C8AJH>DC HJ8= 6H I=6E D <<G B BCI 0G9C:8 B A D N: C 8A JH D J K 8I: N <G D J E  
L>I= H=6G:9 >CI:G:HIH E:GHE:8I>K6H>DG :MEBG >I:C 86HH:HH: HBE: C B BE 6CN^H  
9>K:GH>IN :FJ>IN 6C9 >C8AJH>DC D7?:8I>K:H 6CCJ6AAN 6C9 G:EDGIH

2".\*(. (&6&/0-&.4 ".% .("(&-&.4

':LH DGE >CK:HIH >C IG6>C>C< 6C9 9DK: ADEB::G||HE GBDEAGDBHHH9:ID>Q:CK::9ADE I= 67>A>I>:H C:8:HH6GN ID :M:8JI: DC<6<:: 60B9E 6CIN^H HDCE6I6ANC6C9:LEB DGE :B G6C<: D; IG6>C>C< DEEDGIJC>I>:H <-DC DBE 0DN AE:GDC>9C:HI :8NDB:ES:A:AC8CH ; DG :BEADN::H ID I:HI C:L >9:6H 6C9 :MHEB OD; ;I:GHGL BGE6H>AEH :H:7"Y C6G H H6C9 8A ?D7 HE:8>;>8 IG6>C>C< 6C9 DI=:G 8-D:CID EEB6CN ;9G86I EDICJ BEHDJIE 86B9 =>:K:A 86G::G EA6CC>C< G:HDJG8:H 6C9 E&DIANG DBB D6CIG >CI: GIC 6-A6 B 6G>:AG 6D70>HIG 6C9 A:69:GH=>E H@>AAH "C 699>H:DH C=6K: >BEA6E:NC I6 09E SID< 6.6H+CI:DI HJEE D G:K>:LH ;DG :BEADN::H ID =><=A><I=: IH @>GA MHG6C 0I< B D6LQ 9 98CHH;NGN ID 69 EGD<G6BH =:AE I=: DBE6CN 9:K:ADE>6C9D;CAK::HDI:GB =I>E 6CMI G::EGG6:CI 6C> I6A:CI E>E:A>C: HIG6I:<N -=: DBE6G 96G8 AAN B DHC 9C 8H H BE A AND: EC<6<:B:C ID 7:II:G JC9:GHI6C9 I=: :ME:G>:C8:BB B DN::GHC H 69C 9DH6 EI H:BI:HC IEGD;<G:HH DC >C>I>6I>K:H

JB>3@3FADK #AF7 '793D6;@9 7DF3;@ "7FD;5E

:GI D; I=: DBE6CN^H B:IG>8H 6G: 86 8:JAG66A 8JHB E&CIN^9G 96EIG-GIN= 6IG: C DI 7 K:G>;>9 0=>A: I=:H: CJB7:GH 6G: 76 HK 9HDID I7=6G :I6HD DBEA6:C86 A 8AJ A6I>DCH ; B:6HJG:B:CI I=:G: 6G: >C=:G:CI 8=6A 6 BG4>HD G C -B: 6 HD BCE 6C N 7HJ 8-6 A 6J A6I>DC JC>FJ: JH:GH B6N 6AHD 9>;:G ;G DEB6 GH >B 6D:GH ;EJ7BA >H-B: 9A7NG AAN> G9 AI: D B:IG >9>;:G:C8:H >C B:I=D9DAD<N 6C9 I=: 7D BJE6GN^9H ;B D B DI 9 BA D D >I:>B B 6N

. \*15& 3&23

DG EJGEDH:H D; I=>H CCJ6A +:ED>GID GJHC >5H: 6JHE 6H86 7A: J 6SF J8 DKJ>OJ J 0 AD CA I 688:HH:H 6 EGD9J8I^H L:7H>I: JH> 6 0 6 I 7 6 6 0 9 HI:G: 9J G H C 4>6 :8 6 A: 6 6 6 6 K>A J 6 A 6EE JH>C< 6 BD7>A: 9:K>8: 9JG>C 6 868 :8 6 H A::H 9600G B D-0 6 E D'C:I-D; J6H EGG D9J8I^H 9 L:7H>I:H 6C9 DG BD7>A: 6EEH I=: >:GDHG 6EE: HHH I8D J68 9 H6JH 6 LH 7E6 EI 6G:HJC > 688:HH>C< 6 EGD9J8I^H L:7H>I:H IHGLD< 8 A 9:6;G: G=C>G7 6 0 DI H G EI 8.6H 6 G HI 6CN EGD9J8I^H L:7H>I:H 6C9 6EEH I=G B D J 6 I 9 9 ;6:HG HC IE 0 G 6 > 8 :JC 6 6 J:6AH:DH 6 HDG 6 0,# ' 6 JH:G 688:HH>C< 9>;:G:CI E8DDJ 6 J 8 9 H 6 H >6 =H CE 6 6 6 k:G D C J EF J H J H:G ;DG :

/4", \*( \*4", &6&.5&3

DG EJGEDH:H D; I=>H CCJ6A +:ED64>IIG-A 6D:KE6C:NH 6:H>I::HHI:DI 6DA; 9 DCHDA>9 ;:GK>8:H H:<B:CI G:K:CJ:H 9><>I6A 6 9 6 8 G A 6 H > D 6 6 C 9 :E J 7 H H 8 6 > E I 6 D C G:K:C J DMI:A A>C:6G 7GD6986HI 867A: G7H:D@:HH 6 AGHK6C9:HD I;G 0 BB 9 H 8 > A 6 A 6 C:DJH 9>

2/"%\$"34 5#3\$2\*#&23

GD6986HI HJ7H8G>7:GH 8DCH>HI DB:G 8H 6 9 A: GH 7 6 H 8 EI J 7 H 6 I 6 > I =G H =6 6 9 :8 6 A 8 J A

".<2-.7=2\*5 #>+<;2+.;<

-DI6A CJB7:G D; G:H>9:CI>6A HJ7 8 6 6 7 :G J 7 H 8 6 6 7 H G EI HDI D 6 A D 6 :E H 6 C N ^ H 7 G D >C8AJ9>C< HJ7H8G>7:GH D7I6>C:9 G =A 6 J 6 C H =>E 9 E 6 G I N 9>HIG>7JI>DC

866.;,2\*5 #>+<;2+.;<

DBB:G8>6A HJ7H8G>7:GH ;DG I=: DBAB6GN^H 6 6 ING-/H 7 9 H G I C:6AH :6G>K6A:CI 7J 9:G>K:9 7N 9>K>9>C< IDI6A G:8JGG 6 EI <7 0 :KCC:JHI>6DB: 9 =8 K:GH 6 J 7 H 6 6 6 7 9 8 6 HI + 8DCHI6CI I=GDJ<= I=: N:6G -DI6A CG B 7 G G E D; H:DB B: 6 8 I 6 A A 8 H D B 7 H 6 6 > 6 A H J 7 H 8 7GD6986HI E6N -/ H:GK>8:H >C8AJ9>CI< >G 9 H E 6 6 > N: 9 H HD G 6 7 > C > 9 C =G:DA 6 I > D C H

2/"%\$"34

-=: DBE6CN 86A8JA6I:H GD6986HI +N. 9 9 IG>9 H C E 6 NG D 6 9 8 6 H I C E H 6 @ 6 <: G:K:C 8JHIDB:G 8G:9>IH EGD BDI>DCH 6CH>DI 6 I 6 6 9 A H 8 D H 6 G H 7 7 0 N H 6 J D G 6 I <: E: 6 > D 9 0

BDCI=H >C I=: E:G>D9 K:G6<: G:H<9:CG>6A 86J7IH,8JG H7:G>7:G16 V ;D:G 6 <>K:C  
;>GHI 699>C< I=: 7:<>CC>C< 6C9 :DG>6&=GBD<9=C>C6A=HE7B8D976G9H 9>K>9>C  
:68= D; I=DH: BDCI=AN 6K:G6<: HJ7HN8 G=>7CG BC7J B7DG HB DCB=H>KG 9>C E:G>D9

ID 8=6C<:H >C 8DCHJB:G 6C9 8JHIDBDB EG:CNH G:Q9 :HGD;CG7:G6CH 6E6G:C:HH C  
D; >IH =><= FJ6A>IN 9>;:G:CI>6I A9 :HD CII: GIC 0 CD9I =>G; EGED9J8IH 6C9 :G:G6NK >D8; H  
9><>I6A D;;;G>C<H >C DG9:G ID DCC:H6JBC G6C 6 C-9G E U 7-HI8G6-79 G:H C 8! DL:K:G 8DCI  
;G:FJ:CIAN 6C9 6G: 9>;;>8JAI ID EG :9G:86I: G C96 AD.C E CBI:G:H8 B6NK:EA68 8:G6C9 E  
EGD9J8IH 6C9 H:GK>8:H I=6C I=:NG9A>D C>A>: >NG HDG G M:6 BFEJA:A>I!H D!G: D; <:C:  
EDL:G:9 7N BD9:AH I=6I =6K: 7::C IG 6C: N^E G8 D G D C C D: 9 DG: I67ADBD EGD9J8  
H>B>A6G ID DG >H 76H:9 DC I=: DBED6C N6YHG8-D7C I>D C L D G= B D B E: G B 6 H >D C B 6 N  
HJ7H8G>7:G 9:B6C9 ;DG I=: DBE6CN^H =96G B I6A> E G C C J 8I G H 6 E C D I :H: G 16 A 8 G :K: C  
6;;;8I >IH 7JH>C:HH 6C9 G:HJAIH C D; E G E D: 8 J 8 I > D C 9 H:(G A >G: EG G; 8>8 H D C 6 G: 6 A  
9><>I6A EA6I;DGBH 6C9 I=: DBE6CN: #H6 B 6A> B7-N: I9: 8H: C E A D I A D D G B B 6 ; 6 8 I < C <  
6C9 DI=:G EGD9J8IH 6C9 H:GK>8:HJAIH > B 6 C D 8 > J C <; G C 9 J 6 0 6 A E N > C \* ; I D 8 H J 8 = 8 = 6  
8DJA9 >C I=: ;JIJG: >BE:9: I=: DBE:6C-NK: H A 8 7-N A 9 I: 8 G D 6 H D B E :K:> H>I H> I D 6 C 9  
9><>I6A D;;;G>C<H >C8G:6H>C<L8D H I H 6 >9 ;I G: 6 ; I 6 8 ; 6 8 9 A H D I G G E A C 6 8 : E G D 9 J 8 I H

-=: DBE6CN :ME:8IH ID 8DCI>CJ: ID KE:JG 6I0 9 9:K :H A D G B I C < b 8 6 9 > D < 6 8 C 8 : 9 E G D 9  
G:B6>C 8DBE:I>I>K: HJ8= 6H 699>E I D O C A H C G L 6 8 D C K C I 6 6 4 G G H < 6 C 9 D D : D H : G > C  
EGD9J8IH 6C9 :ME:G>:C8:H 6C9 I=: 8 B E C > E J H: 9 D M E A 6 K H C D C 6 9 C 6 B : C 8 b : 7 8 : 6 I > I H  
7JH>C:HH:H -=: DBE6CN B6N 6AHD 9:K :S B E 8 6 9 9 > D 6 6 A D E G G E D 9 G 6 I I : H 6 G H D A J I >  
K6AJ: ;DG 8JHIDB:GH 6C9 8DCHJB:GH 6C9 8 D B E E D C N 9 = 6 H > C C 8 J J G G N 9 I G : C 9 : M E : 8  
H><C>;>86CI 8DHIH >C 8DCC:8I>D D C H L H I G : A 6 : H : C <; I D G I H : > C 8 I A 6 9 > E < H 8 : G : 8 0 H C B  
ID 68FJ>G: 9:K:ADE 69DEI JE<G69:I:G G C D M B A D > H 6 C I 9 6 C I 9 6 M > H C > C G 6 I G N C :  
&@CDLA:9<: 6C9 H@>AAH -=:G: 86CC7:I>G D > K H H J G 6 0 8 : J 8 C N 6 H C I 9 6 I : G K 8 8 > H G L > A A  
D G I > B : E : G > D 9 D G 6 I I = : 8 D H I I = : A A B E 6 6 N O : M I E : 8 6 K I D 6 > E 6 I I : 9 I 7 I G : ; > I H > I : M

,DB: D; I=: DBE6CN^H 8JGG:CI 6C9 E6D I C C G: 6 H D 8 0 8 : H : I > I D C G H G : G K A 6 & I D G N 7 J G  
EDH>I>DCH >C 8:GI6>C 6G:6H <6I:G: 68B EH B 6 I D G H D 8 6 B 6 H >D A ; > 8 D : C I : G G : 8 6 6 I :  
DI=:G H:GK>8:H DG HIG6I:<>8 G: A B I > D C C H C > E C H 6 C 9 > B 6 B 6 M > 6 A A 6 D B 8 : I H H D I D G :  
8=6C<:H >C I:8=CDAD<N 8DCHJB:G 68C 8 8 C H I B B G @ C I : 8 D H C 8 9 > D G H : G : C 8 A J 9 > C  
<C=6C8:9 EGD9J8IH 6C9 H:GK>8:H D > C 8 A K 9 G C << E < C C G 6 I b : K = C " D A E D < G : H F J > 8 @ A N  
DBE6CN DCI>CJ:9 8DCHDA>96I>D6C D G C H I G H I I G <> E 6 A A > 6 C 8 = H => C D B E 6 C N D E  
6;;;8I>C< I=: DBE6CN^H 7JH>C:HH:HHB 6 N 8 A C J 8 9 : G H I : I = G D U : < 6 9 K 6 C 6 I 6 : G : H 8 6 A : ;  
688:HH ID 8DCI:CI 96I6 I:8=CDAD;<N>G C E 8 A J 9 > E < D ' B B C 9 N D > H : G C D ; 7 A : I D 8 D B  
7JH>C:HH G:HJAIH D; DE:G6I>DCH 6 9 9 : G H C A N 8 6 ; 6 A 8 R D C 9 > I > D C 8 D J A 9 7

\*,;8.,87862, \*7- \*;4.= 87-2=287< \*7-. =86;9\*7B7I<< 87=<25. #B -?.;<.5B //.,=  
><27.<<

-=: DBE6CN^H 7JH>C:HH >H HJ7?: B I B I D K C C I H @ H I 6 H C 9 : J 6 H 8 I B 6 C G D : A I ; 6 I > B E 6  
B6G@:I 8DC9>I>DCH DG 9>HGJEI >I:K @ C H I K : H I K 8 > C I 8 A C 9 N C 2 G : 8 D C A D B A A > A I I H <  
DG L6GH E6C9:B>8H 6C9 DI=:G =H6 K I : 6 : 8 G : 6 H = H G C K 1 C G H A L 9 => 8 6 H B 6 N H D 8 8 J G L >  
6C9 >CI:CH>IN =DHI>A>I>:H E D H > D > G D A = D G H I D B > A 6 G J C K : C H I H I : 8 6 D C I B B E : A  
6C9 B6G@:IH =6K: 7::C 6C9 B6N >C8I=9 7N J>C; A 6 I > 6 D 6 G 6 H N : A E N G > B F E J G : H 8 = 6 C  
>A:K6I:9 >CI:G:HI G6I:H G:8:HH> D G 6 0 N H B C 9 : 6 D C I ; A < : D I E D A H I B B A N 6 : = 6 > C 9 > H  
8JGG:C8N :M8=6C<: G6I:H EJ7A>8 6 C 8 A H D 8 D C A 9 > I G : C H I 6 " C 9 ; E D 8 6 A > 8 6 E A G 5 8 G H  
6C9 :A:K6I:9 >CI:G:HI G6I:H >C E A N I > B E A 6 G I = 8 . D . C , I > G J 6 9 A I : D H 6 9 K : B 6 H A @ : 9 6 C 9  
I G 6 C H 6 8 I > D C K D A J B : H 6 C 9 6 9 ? 6 8 : C I H 7 6 H I > C : G H K I > B I : 6 I H < B : < C > I 6 A H : 6 A 9 D I = : G  
D J I H > 9 : I = : D B E 6 C N ^ H 8 D C I G D A = 6 K : C 9 C 8 D = J : A 6 6 H D 6 A : H ; D I G G H J A : 1 6 9 I D D 6 B D ; C <  
I=: DBE6CN^H 7JH>C:HH 6 I > < = I : C > A < B D J : 9 6 6 8 8 > 6 H H I D B : I 8 6 H G : H : 9 > D G : C 9 D 6 E >  
A > F J > 9 > I N > C 8 G : 6 H : H > C I = : G 6 I L : H G D 8 ; D 9 C H 6 J B A : G 6 C : 9 I D C @ = G 6 E 9 8 N 9 A B A G C G < N C  
6C9 8DBBD9>I>:H 6C9 8DJA9 >C I:JG C D A C : D 9 > I 8 9 6 I Z G D J 6 8 C G , J B G D 9 A D L C < J G C H =  
>C I=: ;JIJG: G:HJAI >C ADL:G 69K B G C > 9 > D G : I M : E : D B E 6 C N ^ H A D I D : 6 8 I H 6 C 9 H  
8=6C<:H >C I=: B>M D; EGD9J8IH 6E9:H H G I G > 8I: H6E8I G: 8>6 H G 6 I > C G > 8 9 0 k C < G 6 9 :  
6 B H 6 H ` B 0 6 9 : 6 9 : 6 6 9 N \* 6 9 : 6 6 I 0 H E D C 9 I A 0 A 6 K 6 6 6 9 9 p 0 0 6 a 0 6 z 6 H , I D C I E D C 9 I \* 6 6 H N 6 A 9 I x 6

-=: DBE6CN B6N 6AHD 7: >BE68I:9 70I QDA:GH:K8:€ I6H DG:I8:€9. , 'G: F>9: CII+6 A O  
:HI6I: >C9JHIGN :GI6>C 7GD@:G6'<+H ;6639 8A6E8H=68ID@K A6L H JA AH66A9 :I<> C  
:E6GIB:CI D; #JHI>8: I=: [ (#\ >H 66HIQ>EJ:H@>NC H:IDA 69: H6JBI>IG HHI >CK:HI><  
' + :CI:G:9 >CID 6 H:IIA:B:CI 6 <GG: B::CII=IDA 6L HD AIK: B OC 6B76I>DC L>9: 76  
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7JN:G 7GD@:GH L=D 7% &%,H ΓD :M:8JI: LG>II:C 6<G::B:CIH LGH 6I7JNC GH;DH:  
IDJG>C< 6 =DB: 0=>A: I=: >BE68I D;N169H>B>DC6AH8=6HC L::HA A=6H B6N 6G>H: ;  
>CK:HI><6I>DC DG ;GDB DI=:G A6IL HD>E6:9>8IJG8: G:I6N 6I <6C9>9>8 6C8IAAA 6;G:8I  
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EJG8=6H: ;GDB I=: DBE6C 6C9 8DKA 967K>9 H 66NI 6;;:8I &DK: ^6H>7DJGH OD B HG 66C  
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.,527. 27 ><=86.; -?.;=2<270 A9.78 29>7,B4< 8"> 6.-7>\*.x<:7=1.9.; \*=270 ".<>5=<  
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6 CJB7:G D; ;68IDGH >C8AJ9>C< H: 9KB 6C8H ;DG 6J9H>E68D 9;J86 H B 6 C 96 G: 6C9 H  
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:B6C9 ;DG I=: DBE6CN^H EGD9J8IH: 0 C9CH8 GK6>C> H N H D ;: K8 AG 68: 9 76JH = I6 H J H  
;DG 9><>I6A D;;:G>C<H 8>G8JA6 D>G 6;DAG 6=I6K 66 A HG HL 6=C89= 66G>C KH9:7N 69K  
6BDJCI D; 69K:GI>H>C< ID EJG8=6H:>;G D B 6I H H DBE 66MA 6G 0;69K >G I >9C7>K: C I N  
DC 9><>I6A EA6I;DGBH L=>8= >H 6B I H 689: 9I 7:N 6B A E 6 C N ^ H B 8I D I G: I 6 D 6 A G 6 C 9 8=6 C  
9>;;>8JAIN DG ;6>AJG: >C B6C6<>G<6886G 6I H A N D B I: 6: H J G 6 A G: 6 9 >B 6 B 9 6 6 A: G 6 A A  
D;;:G>C<H DG 68GDHH BJA I>EA: EA 6: I G D 6 H 7 C <B E 6 >68>K 6 H 6 A N H B: E 6 8 I C 6 9 D G >  
DBE6CN^H G:EJI6I>DC 6C9 G:A6I>DCH=>EH L>I= 69K:GI>H:GH

,=>;I>C< 8DCHJB:G EG:::G:C8:H ;DG <6D 6A: 6I 98>6C 6C 6 B H #> DECG DDAL>6 G969>DC D; 9  
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D; 9><>I6A 69K:GI>H>C< ID 9:A>KJA I B I 6 E G D B 6 G kAN 96 C9: 6CH I L G 6 7L6:N 6I: B; E J G 8=6  
EGD<G6BB6I>8 7JN>C< 8=6CC:AH =6K:B;JG 6-9:G >H D C 6 A: 9 699>6: G D> 9I <X I 6 A I D ;;;: G  
ADL:G G6I:H DG 6G: CDI DI=:GL>H %66 6 7:: 9>;> 8 66A E 6 6 I 6 D G B B H E 6 6 D B B 6 C 9 6 A H J 7  
696K>8 H>C I 6 6 G @: I EGD € à °LAD H 6 C 7 G E 7 6 C H 6 6 6 N 6 A F H à € ë • • € p à 0`À ð à € G H



7JH>C:HH 8DC8:GCH ADHH D; @:N>G EIA D N C : : D H ; @ : K : Z D H > C I : > D H C G D G 6 I I : G B C I H = > E  
DE:G6I>DCH D; I=: 9>K:HI:9 7JH>C>H>H H G G I A G I I > D C D D I ; = 8 : G > K > K C I : A > 7 J D > C : G H 6 C  
EDHI 8ADH>C< 8A6>BH

\$1. 869\*7BI< ><27.<<. < .9.7- 87 \* #2/7#59985.2.262/8;- .>6\*27 8. B ;87>, =7B\*7-  
".->, =287 8; 7=.;;>9=287 27 =1. #>9.95B, 8/ \$;1.\*<#208-2/ 2, <7=7-7#;. \* <. 27 ;2,. 8  
//., = 87 =1. 869\*7BI< ><27.<< ". < \$ 5, = 2\* 58 / 8 0 ; 2\* = 22877 < \* 7 - 27

-=: DBE6CN^H 7JH>C:HH:H 9:E:C9 DC IG= H G G E A 6 : G D N G H A J B E A > 9 : C H B D : G 8 D G I 6 > C  
DG :M6BEA: I=: DBE6CN G:A>:H DC NB S A D D J 9 0 : 7 H ; : 9 G K > 8 K H 8 D H H J E : 8 A > C B 6 C N  
7JH>C:HH 68I>K>I>:H 6C9 (EIJH G D E I G E D K G 9 : G 6 A A E D 8 > # N H D G A A H I H J H H 8 G > E : I >  
DBE6CN^H G:A6I>DCH=>E L>I= @: N H J : E E A H J : E H A 9 : I G E > D G G 6 B : # : H D G G C N G B > C 6 I  
DBE6CN DG DI=:GL>H: ;6>AH ID E A N ; D G E G : I G I D M A E > G 6 I : C B C H H D E : G 6 I I > B C < 6 D A G : ; >  
ID B::I 9:B6C9 9J: ID 8DBEDC:CI H=DG I 6 H H H : 6 I C 9 A 0 7 D : G H H J E E I A 6 N : 8 I = 6 > C H J ; ; > 8 >  
>C8>9:CIH DG DI=:GL>H: H><C>;>666:ANI>C 8 D B E I 6 C H I = D G E D 8 C H H 6 I G 8 N E G D 9 J  
EGD9J8I>DC DG EGDK>H>DC D; 6CN DBE 6 I G H G H N 7 E J H D C J 8 I I H D G : # H : J A K H 8 D ; H E E C G 6  
B6N 7: 69K:GH:AN 6;;:8I:9

"C 699>I>DC -:AHIG6 >H 8JGG:CI ANH I 6 A : : M 8 V A : 9 H K B > 8 E G 6 D D 0 > 9 C D 0 9 7 I 6 - C D 9 H : G K >  
-/ 7JH>C:HH 6C9 I=: A6G<:HI G:H:AN: 0 > D ; G > J E H > D 6 C : A 6 > I I = : H H G E K E 8 N H D ; : A > D B 6 H  
7JH>C:HH 8DJA9 G:HJAI >C 9>HG J E J 8 D C H C D J B 7 : G H D E E H A N Y H D 8 ; G 6 C : 9 G B G D G G I = :  
H:GK>8:H L=>8= 8DJA9 >C IJGCG 8 0 J A G H D A ; N D E ; ; G 6 I I > D B H 7 6 I C 9 C ; ; H C 6 C 8 > 6 A 8 D C

0=>A: I=: DBE6CN L>AA H::@ 6AI:G E I H > 6 C 9 H H D : J G K 8 > 8 I : H D I G - I G : H E D E H D > 9 J A : 6 C 9 D  
6EEA>867A: 6<G::B:CIH >I B6N C D I 6 7 > K 6 7 A D J D 8 H H 8 J G > 8 @ : A N 6 A I 9 G 8 D H A 9 ; ; : 8 I >  
>BE6>G >IH 67>A>IN ID I>B:AN 9DA> D : E G : 6 H E G H D 9 J 8 I H C 6 I C I 9 H : G K > 8 : H

7B #2072/2,\*7= 7,;.\*<. 27 =1. 8<= 889\*2B+<\*78842<< 72+>@.<919.;< 8; 2<;>9=  
869\*7BI< #>995B 1\*27 8; ;27=270 \*7B 2 2 ; ; 2. 5 B = 2 / 8 7 , = 1 # 7 7 . 8 6 9 \* 7 B I < > < 2 7 . <  
9.;\* = 287 < \* 7 - 27 \* 7 , 2 \* 5 87 - 2 = 287

)G>CI>C< 6C9 9>HIG>7JI>DC 8DHGH 6>B 8 A C 9 > 8 & 6 C I : : M D E H C H D ; ; E D G E : I G : 6 D B E 6 C N  
EJ7A>H=>C< JC>IH -=: EG>8: D; B 6 A : G 6 C 9 H E G > H D H G 8 8 B A A C I : 9 : : A : K C D A S I D G > 8 6  
IG:C9H 9J: ID K6G>DJH ;68IDGH D E 8 A 6 9 > C < < : M C E 8 G H 6 : # I : K C > C > H C J A E A > D G 6 G N E G  
G:A>:H DC I=>G9 E6GIN HJEEA>:G#> D D G E S : A I N K E G > : C I D C < E 6 E : 9 G 9 6 C I 9 C D 7 J J > D C I H  
7DD@H 6C9 C:LHE6E:GH 68IDGH H J D G G H E D G J A 6 I H D G 6 6 N : E G G H C H E : D I G I 6 I > D C  
HJEEAN 8=6>C >HHJ:H ;>C6C8>6 A D E D B H 8 H G > H C 8 A D H J G : ^ D G 8 D C K : G H > D C D ; C  
8 D C H = D 6 2 - 5 6 a > D C A 6 B D 3 G a p • H J E E A > € : G I D G C 8 6 A 6 G I C : G H A 6 7 D G J C G : H I 0 8 6 a € D D  
07 > C ìcà0—0à°C p°à€ € "p \*7A0IG:À Æb™"w•Žù 0 €Đ`à0 à€`0• •Đ `pÀ`pÀàCI H=DGI68

DG ;6>A ID B6>CI6>C >C9:E:C9:C8:: 6DBE6CIN<SDJN9 7:G69M6BE^A^NI>BE68I:9 >  
B>H6IIG>7JI: >C8DGG:8I >C;DGB6I>DCCN^H=JHDBE6CQ:G6I>K:I=" >DB>IH DLC  
EGD9J8:H 8DCI:CI >C;DGB6I>DC 6C6AN^H^A^A:R^G9GD8DB9:C>86>DICH^Q688JG6I:  
9>H8G>B>C6IDGN DG >C;G>C<>C<H:K7:DA6D7AGB^KI68N G>x<C>I;H 86G IDC-6:69>K < 8  
I=: DBE6CN^H EGD9J8IH 6C9 H:GK>8:: HB6CE:G^6I:>CDCHBE8AJDND:BI:G6HKGK >H:GH  
E6GIC:GH 7JH>C:HH 9:8>H>DCH HD8>6A G:HEDCH>7>A>IN 6C9 8JAIJG:





\*+8; 2<9>=.< \*B \*?. \*7 -?.;<. //.,=787<=1. 869\*7BI< ><2

"C HDB: D; I=: DBE6CN^H 7JH>C:HH::BEA>N:CH6K=D 6-G:HHG7?:8:HI D;8DAA:8I>K

H><C>;>86CI ;6>AJG: 8DBEGDB>H:G7<C889:C>C6;G6I>E<D E:DNIDIGBDH 8DJA9  
8DC;>9:CI>6A>IN >CI:<G>IN DG 6K<6A>C76A6I<N DC >E;;DIB6:IBHD GDDG G96HJAI >C  
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9>HH6I>H;68I>DC 96B6<: ID >IH G>EJKI:HI>>D<GIDG C7G6C9H:CGD G8ABIDG8H>DCH  
6C9 DI=:G E6NB:CIH G:HEDCH: G:8DIXHGIND6 D9GG>B 697>>6A>DNCIBDHIIG 68>HC::GH8  
DG 7JH>C:HH E6GIC:GH DG ADHH HDH:G:K:CN:HIJ8E9:KD:IG:I:G=6>CG:CHJ>A6IAG AD ADH  
9>H8ADHJG: D; >C;DGB6I>DC B6>C I6E6C98>CAI=E:;NHHD:CB<A 6C8 AJ9:9G 68 66C99 9  
EGDEG>:I6GN >C;DGB6I>DC G:A6I>GH 6DC E:IGH DDC EA C N J HI D BH G E:HK: C 6DN AJ9  
8DJA9 HJ7?:8I I=: DBE6CN ID A>6 7>AAD 7A >C8I:>GD GHA 6IC8CA 8LDHC 6C88 GJ: 6JA6I>D  
6C9 EG>K68N 6H L:AA 6H EG>K6IJ>>E9D G>G J6AA 6ID 8N 6:ICH D688 >E: C I A 68 I H DCH  
G:FJ>G:9 ID CDI>;N 8:GI6>C <DK:GDGHC6CA 6<;;88>9H 6E9KD GJ6A+U 67DJI 6CN  
H:8JG>IN 7G:68= L>I=>C HIG>8I IDBI E":G 6D9HI 6D 6B :H>6CD G>B 6E:IG8G8B G 8I H  
KJAC:G67>A>I>:H >C 6CN ,NHI:BH:CK8D :B;E:C D I D 8CB 886H 6 89 J 8DAJ 97 6AHD 69 I  
DBE6CN^H 7G6C9 6C9 G:EJI6I>DC 6H9 B6H:GA>GATA,N D6E; 68I>DHC H J 6H G 9:;>C6C8>

\*25>;. =8 8695B @2=1 8695.A \*7- ?85?Z79<=;@<#≠77-"\*.;0×5\*7-2887=;\* ,=>\*5 +  
".0\*;-270 ;2?\* ,B \*=\* %<. \*7- \*=\* ;8=?.,÷287//8,×587 \*91.\*7869\*7BI< ><27.<<  
87-2=287 \*7- ".<>5=< 8/ 9.;\*=287<

CDI ;;;:8I>K:AN :C;DG8:9 I=: DBE6CN^HGDB>AHN CD:AC8GJ6A E:GKDE;;GIN B6N  
D7I6>C>C< 6C9 B6>CI6>C>C< G><=DH BMNH>S88:6HLH-6C\$E AJA6I>DCH ID C  
<:C:G6I>K: " >H JCH:IIA:9 6C9 DAD;6>86A:ED;DA:8<6ADGIC9D:8KDAK: 6H I:8=C  
HDE=>HI>86I:9 8DJA9 B6@: >I BDG9:9J;6>8ANAIE;GGI:BI:>IDHE6C:MA D8I6J6AC EGDE  
C:<6I>K:AN >BE68I >IH K6AJ: 6C9 ;JG;D-G8:BC8G8DH:IH=: DBE6CN^H

\*25>;. +B =1. 869\*7B =8 ;8=.,= .;=\*27 7=.55.,=>\*5 ;89.;=B

>C8AJ9>C< I=: :7IDGH B6N 6AHD97>:16D66AD>6087IG96JFH16CI>6A;6BJG: L=>8  
:;;:8IH 9:H8G>7:9 67DK: 6C9 :AH:L=8GDGHC \I=>H ["I:B +>H@ 6

"C 699>I>DC I=: :7IDGH^ DJIHI6C9668>7A 6089DE:IG68>DC<68DK;66CIA I=6I  
6C9 ;>C6C8>6A ;A:M>7>A>IN -=:H: >8IDK:DC68H>6C:8A6J98:8D;B8A66C8C E;6N6C8>  
9:E:C9>C< DC I=: 6EEA>867A: :7IDG>6C8 HG77I:6>8D 8GGEG>DC=>M8tEHJ;G-DB7ID

<:D<G6E=>8 B>M D; I=: DBE6CN^H E6MDA>6IH6C9AD:HHAH6I>D-GB<DB +CC>G 6EE  
I=: DJI8DB: D; I6M 6J9>IH 6C9 8=6C<:H >C K6AJ6I>DC 6AADL6C8:H 6

-?.;<. ".<>5=< /;86 2=20\*=287 8; =1,=, =;18,..8-29\*07<B18>5<2679< < ;\*,=2,..< \*7-

GDB I>B: ID I>B: I=: DBE6CN >H6E6IING 1DJ A6ID 6NI >6009 DIF:LG AEAG D8::9>C<H  
6JI=DG>I>:H 6C9 69B>C>HIG6I>K: 6I-D: 68C>HG JIC18 AI59M C96L6 IE GG:K6E88 6IN9 H:8  
:BEADNB:CI 6C9 DI=:G B6II:GH ,,: 'DD:CHD>A> 9-6:I: 98 8>DB6E68C>N>AC, 6I: B: CIH ;DG  
B6II:GH -=: DJI8DB: D; I=:H: B6II: 6I D68C 99 DC<:HG >A> IH J7? >8ICI 6 CH >< CH>H>>876AC I J  
I=6I 6C 69K:GH: G:HDAJI>DC D; DC9 6GHBIAG > CI JG =E EIG D>8D: 96AC <6 3B 5AC 9 DG H

6C9 +:HI6I:9 N A6LH ID (1 >CHI:69 D::HJAID>CE6CNDK:G>A6BDJ@E E:GHDC HJ  
DEEDGIJC>I>:H DI=:G I=6C G:HIGX8I>C7J+69CDH H=DEEBB6CN>I>:H ID

.;=\*27 ;8?2<287< 8/ =1. 869\*7BI< 8';98;\*=.287.;≡Z/2,6\*.7.-.8/ \*77-, ".<=\*=-. - B 5\* @<  
@7.;<129 8/ =1. 869\*7BI< 86687 #=8,4>XB =\*1B 2<-,8;>1; \*0625B.8?.;< \*7- =1.  
@7.;<129 '255 //.,= =1. &8=270 ".<5#<884185=-.;<9#>8625=-.- /

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EGDK>H>DCH I=6I B6N B6@: BDG: 9>;G>88J+A6CD>G >M E8:DCI>GD A6 IDG9t6@DDK:G 6  
DBE6CN^H D6G9 D; >G:8IDGH DG 8>G D>;G 8I6ID8 @:6BA9I6H: DD A9>K-D I6 C< E  
DJIHI6C9>C< KDI>C< HID8@ "C E6GI:68J+A66I=D; DBE6CND B6H>DI6I6C9 B:C9  
EGDK>9: ;DG 6BDC< DI=:G I=>C<H

U 6 9J6A 8A6HH 8DBBDC :FJ>IN 86E>I6A HIGJ8IJG:





6H I=DH: 9:H8G>7:9 >C ["I:B +>HE@G68D DGB'GBC I\$>H6C9C1#6@:+86C 7: CD 6  
8N7:GH:8JG>IN I=G:6IH DG >C8>9::GIHH: L>;A@I @DI I=6K:D B EB60 NG>6AI #6:9 KJIJG: 0  
B6>C16>CH 8N7:G G>H@ >CHJG6C88>HCJ8 #D>CDKJGG 6A'A B6DNHGDHI 7G DIB;8N7:GH

/6&2.".\$&

':LH DGE^H D6G9 D; >G:8IDGH DK:G;D:GH>I9=:CIDBE6C<N^6HHEIGHD8>KH:6C9 B6C  
;68>C< I=: DBE6CN 6C9 :68= D; I=: 6HIG>MHH H#C D>6G9 8LDBB>C1:;H 6G:6H 9:  
-=: D6G9 D; >G:8IDGH =6H 9:A:<6IG9 BBGN:GJHE DCD#B>IA>:IN ;DG DKGGHN:>C

6 -=: A:6H:9 =:69FJ6GI:GH 6C9 :9>IDG>6A D;;>8:H D; I=: %DC9DC





U 2\*4\*\$", \$\$/5.4\*( /,\*\$\*Z3=">H38f>'D4&3>H8JHH:H 688DJCI>C kDEID=A>  
DBE6CN^H ;>C6C8>6A 8DC9>I>DC 6>C89= G:FJJAIGH: DH;> DE>G686DC HJ96<B9: C  
I=: E6GI D; B6C6<:B:CI >C 6EEA>86:I> DCHDA 6990>9>D>C 6'08>6 AI D I 6 I : B :  
DBE6CN^H H><C>;>86CI 688DJCI>6A E8AD>BG:I:HC < E 8A>8>CH 9>:H8GH H

\$+ '+ , \$ ) \$"% #.P( \*( # (( (

-=: DBE6CN B6C6<:H 6C9 G:EDGIH >IH>MJH>CBHCHH >C I=: ;DAADL>C<

; (\*4", &", 34"Z&=:&26\*\$16A +:6A HI6I: ,:GK>8:H H:<CN CH 8DCH>GH:K: I:  
>C + GDJE 6C9 >CI:G:HI >C &DKHI->C &:DB6>GHC<:A9 7N I+G: GDJ  
>H 6 B6G@:I A:69>C< 9><>I6A B:9>6 I NJ H 6 9 : H H H A H H 8 : 9 6 D 9 O I > C < J H D G 6 G A  
M8=6C<: [ ,1\ ,1 + + GDJE 69 K G G E H G H N E G : A B I G 9 N H 6 C 9 > 8 : H D  
BD7>A: 6EEH >C8AJ9>C< JHIG6A>66H A C 8 9 H G 6 G : B 6 9 : E : I G 6 A L 8 7 H B : I : 6  
G:6A8DBB:G8>6A 8DB 6J 6C9 A6IB6I:HE 8 DB: 6JN E E G D G E 6 A I H N > 8 0 B 6 9 > 6 C 9  
GDJE EGDK>9:H EGDE:GIN G:A6I:9 9 6 C 6 C B > I 6 A H : G 6 C 8 > 6 A I H G 8 I D G 6 C 9  
6C9 ;>C6C8>C< :ME:G>:C8: 6C9 6 BDGI<6<: 7GD@>C< D;::G>C<

&DK: >H 6 A:69>C< EGDK>9:G D; 9><>I6A C 9 : B 6 > B 6 6 I > A H : C K E 6 8 H G : H C > I G  
G:6A :HI6I: >C;DGB6I>DC 69K:GI>H>DC <: G 6 9 G H 6 8 K H 8 6 H : 6 A K I : D I G B I > 8 D K  
7GD@:GH >C8AJ9>C >A>JH 8 6 6 9 8 I D > C H 6 G : D 6 C 9 % > H I > C < - D D A @ > I E  
>I H G : : G G 6 A 7 6 H : 9 H : G K > 8 : H \* 6 C : 9 9 N 6 A C = D A 8 > C C 8 > D G B : G A N . E ' : H I &  
D;::GH DCA>C: IDDAH 6C9 H:GK>89H: D 6 9 D H > I N D J G H : A ; A 6 C 9 A D G 9 H 6

; 5#3\$2\*04\*/. \*%Z&/: &D6\*E8CN^H ,J7H8G>EI>DC />9:D ,GKI>8:GH:K: I:6B:CC  
6C9 C:LH H:GK>8:H ID E6N -/ 6C9 HI 6 D B B : G 8 H 6 A H A 8 > C H G H H 6 I C 9 6 D H 6 I : C  
9>HIG>7JI>DC 6C9 8DCH>HIH D; >=I=D M D B A E 6 G N J H L > > C I I : G : B I B 6 C > C >  
=:A9 7N -:AHIG6 6C ,1 A>HI:9 I:A:8 D B B J C J H 6 I 6 A D C C 8 D L H E 6 6 0 N C 6 8 9 [  
DMI:A GDJE >H I=: A6G<:HI JHIG6A>DC E 6 H D : 9 > H J G H 8 I G H > E D M D : A I E 8 N K  
6EEGDM>B6I:AN 8=6CC:AH 6C9 K>9:ID : D G 6 9 : B 6 C 9 I 6 8 0 K B G G I C < B B K D G H  
BJH>8 8=>A9G:C^H EGD<G6BB>C< 6 6 9 N D : L E D G D M I H A G 6 6 B > I G < H G : D K E / 8 H  
HEDGIH EGD<G6BB>C< 8DCI:CI >C I D H A 6 6 A H E D I G H > C Z G : 6 9 B H 6 H I C 8 A 4 9 >  
%:6<J: JHIG6A>6C DDI76AA %:6<J:H B 6 D 8 0 H E D B I 6 6 A G 6 < 6 6 9 B B 6 G \* D  
DI=:G EGD9J8IH 6C9 H:GK>8H:HC>C8I6>C:B:CI HIG:6B>C< H:GH:GK>8DMI  
I=6I EGDK>9:H 688:HH 68GDHH DMI: A C 8 A J 7 K : A 6 G 9 H D G : 8 : B 6 A C 9 8 6 0 0 8 G  
6<<G:<6I>DC EA6I;DGB

' DE:G6I:H I=: ,@N ':LH JHIG6A>6 G I B D A G I @ 8 = J C I G : 6 A > B J A I > E A D 6 I ; D C  
' 8=6CC:AH 6G: 9>HIG>7JI:9 I=GDJ< @N I ' : L J H H I G H A 9 > 6 H I D G 7 D I M 9 : A 6 C : 9 :  
' : I L D G @ - : A : K > H > D C % > B > I : 9 ' 6 A H D D H L C G 6 8 6 9 D = B C G 6 : I A H U => 8 ' > > H  
I:GG>IDG>:H DJIH>9: JHIG6A>6 6 0 0 9 I ' 6 B 6 3 D 6 A H 6 6 9 K 6 6 0 0 : 9 I D ; D G 8 > & D C 6 A E  
>C8AJ9>C< L:7 BD7>A: 6C9 I=>G9 E6GIN EGDK>9:GH

U /7 /.Z3=: DL #DC:H H:<B:CI 8DCH>HIH D; D L @ D G H : K C 0 7 A H D 7 6 A H E G > D  
L=DH: EGD9J8IH I6G<:I >C9>K>9J6AB80 B H J 0 9 6 6 6 : 6 6 9 H : I G I > G E I G 9 H I = 6 D H 4  
8=6CC:AH >C8AJ9>C< C:LHE6E:GH C:CHILH 8:HI:GLH7HB6I<6IO >D:7>AE 6DEE  
A>K: ?DJGC6A>HB K>9:D 6C9 ED9868IIHH >C8IA #D:CE I 6 ^ B I > 8 9 I C 7 H C 6 8 9 H E I G J  
8>;7\*5;;87I & 6 G @ : I 0 6 I 8 7 . 6 6 8 ; I < > < 2 7 D . k # D \* 2 : 5 B ^ H E G D ; : H H > D C 6 A > C ; D  
L=>8= I6G<:I :CI:GEG>H: 8JHIDB:GH E-A>86ACJ8:: 6 I A : # 9 6 C K E - G D K > 9 : D B D  
=:AE 8JHIDB:GH >9:CI>;N 6C9 B6C6EJIG1 \* D A C 6 6 A 6 G N H 8 0 D G E I D G I D I D 8 I 6 9 ; D 8  
8G>B: H6C8I>DCH IG69: 6C9 DI=:G# 8 0 B H E A 6 6 G 8 N G 6 F A > ( E G > 8 > C G D 0 K > 6  
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>C;DGB6I>DC 6C9 6C6ANH>H ID ;>G6IC8>6A EGD;:HH>DC6AH 6C9 >CK

; //+ 5#, \*Z)\*=( DD@ )J7A>H=>C< H:<B:CI 8DCHD9HADG k8 BE 8D DHAJB:G  
EJ7A>H=:G >C I=: LDGA9 L>I= DE:IG8J>ADGHHJG:C<8DHG>IG x::H :GG9A E68  
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-=: BDHI H><C>;>86CI DE:G6I>C< :MB:C:K:K>D;;HI#::<B7DB66EII>D68F9>H>I>DC  
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H6I:AA>I: 6C9 96I6 G:A6I:9 IG6CHB>BHGD<8DMI EHC6C9 -H:IJ9M D: 6E9H: 6HGD8>6  
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,:GK>8:H H:<B:CI ID ;AJ8IJ6I: 76H:9 DDMI=A IGD>JE^H6A9 86AM 6DC;9I>CI:GC6I>DC  
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HJ7H8G>7:G 68FJ>H>I>DC 8DHIH HJ89= 6GIDHDA>HD 6DAI:HM 609HBH 66@A6I CA>DN>B  
6C9 6L6G:C:HH D; I=: 8=6CC:AH 6C9 IM:E:G HE:GHDxG66B9:CH6A 66>I:HD CBA ADN::  
6C9 DI=:G GDJI>C: DK:G=:69 :ME:CH:H

AI A@7E

-=: DL #DC:H H:<B:CI^H EGD9J8IH I6G<CI:GEG>K:986AIBB CGHJB #GKI:GC: ;GDB  
H:<B:CI^H 8DCHJB:G 7JH>C:HH >H D:G>K#9 8E>G 686JA:MI ;GJ7BH 8G 6BI>AD6>66CA9  
6C9 EG>CI 8DCHJB:G EGD9J8IH I6: I#H AC <D; A9>8: CIH AC6C9: IEG:DCI 6 9HKH 6COI 6  
E6GI>8>E6I>DC ;::H ;DG >IH A>KG ?K:DGCH6 A6GH B9: K: C9HCI >DC8 JA:6 8>DDC: BI D; I=  
8DCHJB:G EGD9J8IH EG>8:H D; >I6H6C:9A D G HB IED: BDIID-6K6 AE 6B9JK>H>:H 6C9  
G:K:CJ: >H 9:E:C9:CI DC 6 CJB7:G DQ G 6I8:I D 6HL #>DC8:AHJ 9>EB: 9IBH C89D CHJB:G E  
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G:EJI6I>DC :GI6>C H:8IDGH D; I=>8:6DICEBBI 6B 6DD CI D D G 6CHH^K 6;9K:GI>H>  
I:8=CDAD<N 6C9 ;>C6C8: L=>8= 8D 6I>8C J C8 10 I 6>G;N: 8IC9: 7N 8:6AD CD 9K:GI>  
HJ7?:8I ID H:6HDC6A>IN L>I= G:KDBE:GHCIN EI>H 68ADAN9 =;>4H:6A F06G::G 9J: ID I  
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EG:::G:C8:H L=>8= =6K: 69K:GH:AN 6;;:8I:9 6C9 6G: :ME:8I:9 ID° •D 6GI:G



-=: DL #DC:H H:<B:CI^H EGD::HH>DC6A666;DHG B6I>DEEG 7 JH >CJ:HIID BLG H 8 9: G > K  
HJ7H8G>EI>DCH ID >IH EGD::HH>D;CH6A>DC;DAG B 6I;>DGB 6IG D 0J 8 JH > C= H B G-D G K: H  
EGD9J8IH I=6I 8DB7>C: C:LH 6C9 >C|DGB 6I|>D6I 6 6I;D G: B =9C 0>AH<DNC 6HC 0C9 6>9  
JC9:GHI6C9>C< 6C9 8DBEA>6C8: -C; DGB 6I: H I D 0 ;7 JH:> E G-D H: 0I: E> D 0I 6 AD 6 > I H 6 7  
H:GK>8:H 6EEA>86I>DCH 6C9 ;JCB J>>D 6I 6: A>I 6: EHG 6 I 6: I 8J: H I I D B:: GH: 9 H= DK D 6 006 I:  
D;I:CI>B:H =><=AN G:<JA6I:9 >C9J 6 6C>8::H 6C 9 => 6 I B J;H C 6 6 I D 6 009 I > 0>E 0 H: 6 C 9  
6C9 G:<JA6IDGN 6C9 I:8=CDAD<>86A 8=6C<:H

,><C>;>86CI :ME:CH:H ;DG I=: EGD>C 8A>JDC 0AK>A D I E G B 6 I >8DCH I7J H H 6 A H H 6 C 9 B  
6C9 HJ EEDGI H:GK>8:H GDN6AI>HH>HDC 66AG >::HH 8 I 6 0 H H A 8 I D B B >6 C 9> E G 0 I;\*>B: E A D  
DK:G=:69 :ME:CH:H

-=: DL #DC:H H:<B:CI^H EGD::HH>DC6:AL>C=DK6B6I D D I 0 E C;D 0 J B 6 H> B D B H E::G K > 8:  
96I6 EGDK>9:GH <AD76A ;>C6C8>6A96I 6 H L E G: H 8 6 C 0 6 C: 9 0 N I 6 C E G 0 I K B B D G H >  
+ %1 >C8AJ9>C< %:M>H':M>H 6C9 " ", 6C9;>C<J H K&:9>6 A 0 H 7 6 L A A A- 6 H B 6 C N D I

-=: ':LH &:9>6 H:<B:CI^H EGD9J8IH 8DBE:6C9D69IG::GD>BHG\*EL>6J9AD86A 6C9 C  
6AHD 8DBE:I: L>I= DI=:G B:9>6 6AB:660@I>HK:HD>BCE:II>:I>G G::HDE:8I>K8JA6D>CDC 6  
I=: 8DCI:CI D; I=: EGD9J8IH EGDK>D>B: EKG>D>JH6E9D BDDBDIGHB: I@: HJ88:HH  
9:E:C9H JEDC 69K:GI>H:GH^ ?J9<B::CDH I6H>IG 69K:EGD>HH>C:<87>K<:JH 76BE 9I>I  
JEDC EGD9J8I G:68= 6C9 :C<6<:B:CG 69HKJ 6IHH 6E6>A67:HA>69NKDG I6AI:HG66G>K:  
9:BD<G6E=>8H H 6 G:HJAI D; G6E>9DAAND 8>6HC <>C&A699 C K DCA:K>CI<9I::K:A DEB: C  
<:C:G6I>K: " 9>HIG>7JI>DC EA6I; BDBB:6E9D 79H6E:8H6E6D:9H A+C 8D9HJB:G 7  
H:<B:CI 8DCI>CJ:H ID ;68: >C8G:6HA6I\* BDBE:9>69D 6G I>D6>7D I6:8K:G8JHE6GI>8  
9K:GI>H>C< >C E6GI>8JA6G =6HE:7:96C>B E6DB:9E 6N QF:IDH 9>:I>I>CAHL=>8= =6  
8=D>8:H 6C9 ;DGB6IH G:HJAI>C< >8G 66H 9>: 8D:B;EG:6xIB:DC6I>:B6C6CA9D x6:8+:HH I6  
6C9 EG68I>8:H =6K: 7::C 6C9 L>AA B6AC:IB:CJ:9ID=7:I 8:K@AD>B:8D6:99>;;>8JAI II  
:::8I>K:C:HH D; 9><>I6A 69K:GI>H>C K:LF:48= B6N >BE68I G6I:H DG

H BJA I> EA6I;DGB C:LH EGDK>9:GHH I&::97\$HH C:BI:K:IHHL>@=>ID B6M>B>O: G:K:C  
B:9>6 ;DGB6IH 6C9 EA6I;DGBH >C8AJ9DQ <=AAK:8G 6H>C<< I6G 66 6D:6I:CIH L>I=  
9:K:ADE>C< C:L 69K:GI>H>C< BD9:AHG 6G9 >8D 6IEGD:9JIB I>HC K:DH7>>AC 9=K>8:H 6  
I:8=CDAD<>:H EGDK>9: 8DCI>CJ:9 DLEH 66CJC>I>:LH ;D 9>6:H7:4B>C:I:HE:BE6D: I=  
6 C:L 6J9>:C8: D; G:69:GH >CIGD 9J8:BCH L6D 6 9:K::A6:EI I 66 6E 6D 9H 8I>HH:DH 6D  
6C9 DG 6;;:8I I=: G:A6I>DCH=>E 7:CLHJB:8DCI:CI EGDK>9:GH 6C9 8D

\$F:7D

-=: (I=:G H:<B:CI EG>B6G>AN 8DCH>6H9 H MDE: C:IC:IG 6AI 6DGE 6D 6DH IDHK6C9 8DH I H  
' :LHE6E:G &6II:GH

\$F:7D GE;@7EE 7H7>AB?7@FE

../5.\$&% &"%\$/5.4 &%5\$4\*/.

"C G:HEDCH: ID I=: B68GD:8DCDB>8 BBEA6C:IC^HH7J6H>CC HIB:6CN =D; D=BE6CN >B  
>C>I>6I>K:H >C8AJ9>C< I=: =:698DGC6 6N9J8I>D=C 6C69D:DC:19 G:9J8I>DC L6  
8DBEA:I:9 6H D; :8:B7:G 6C9 IHD 8D>BE:6C86 6=8G<CI>6Q 89J6G>C< 8=6G<:H  
B>AA>DC 6H:9 DC I=: 68I>DCH I6@C 66AI>O: 9B 66CHH 8:DHG 6H6K>C<H >C :  
B6?DG>IN D; L=>8= L6H G::A:8I:9 >CG J8H 86AC< )GD:<GBB:H Z=C: H#: 688DBE6CN  
,16I:B:CIH

/-#\*."4\*/. /' 2\*.4\*.( 0&2"4\*/.3

"C (8ID7:G ':LH . \$ 6C9 & &:9>6 6C6CJ B 8C9 ID E83DBE7D B:986GIG>C EG>CI>  
8DBE6C>:H L>I=>C 6 H:E6G6I: ?D>CI I<:CH J6G G 6<:< B BCEI6 C>A A: A>AK: H BEGDK: I  
6C9 & &:9>6^H EG>CI DE:G6I>DCH H6C9:HHH 67DA9:HA=: B CH 6H I6 6C67AA C:7JHE 6E:G  
6GG6C<:B:CI G:8:>K:9 G:<JA6IDGN 67EE>6D K6:AC I>JG:&6G66C<:B6C9 U6H :::8I J6I  
JG>C< I=: ;>H86A N:6G :C9:9 #JC: O:9 CDC=86EB E66E6>GG 8DG:IC 8=6G<:H D;  
LG>I: 9DLC D; ;>M:9 6HH:IH 6HHD8>6I:9 L>I= I=: 8DB7>C6I>DC

533\* ". %. +2\* ". \* ". \$/.' ,\*\$4

-=: DBE6CN I6@:H :MI:CH>K: HI:EB JI6C:CA^JHG H I6C 9H 6I:6NGDE:SIHHD 7C:C A=>K: . @  
B:6HJG:H 6 G:E.D'G\$5G#>DG=L68>;97:15>C:9 7N +JHH>6C 6JI=DG>I><B B:C I&6G 8=:  
8DJCIGN -=: DBE6CN :C<6<:9 A:<6AE8DDJIC>9:9 ;DDC I>C G: E 6GHIJ E66C9I ID =:AE  
J<JHI -=: DBE6CN EG>DG>I>QNH 6IG 9 6:AAI 7:4C6<:DN >HH8JBEADN::H 6C9  
6;;:8I:9 :BEADN::H >C I=: G:<>DC

&35,43 /' 0&2"4\*/.3< \*3\$", 6&2353 \*3\$",  
-=: ;DAADL>C< I67A: H:IH ;DGI= I=;;DCB;E6C8AH DE 6C6B>DBE 6GH9ADH;>H86A  
AD F:7 8;E53> K73DE 7@676 G@7  
:3@97 :3@97  
;@ ?;>>;A@E 7J57BF 7FF7D ,ADE7

>G8JA6I>DC 6C9 HJ7H8G>EI>DC

DCHJB:G

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(E:G6I>C< :ME:CH:H

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FJ>IN ADHH:H D; 6;;>A>6I:H

(I=:G C:I

"C8DB: I6M :ME:CH:

'I >C8DB: 6IIG>7JI67A: ID CDC8DCIGDAA>C< >CI:G:HIH

&,,\*( (&.2", ".% "Z%:AA302"4<6Q:G6A 6C9 69B>C>HIG6I>K;D<C8E::6HH86A NB  
#JC: 6H 8DBE6G:9 ID ;>H86A<:C:G6A 6C9 69B>C>HIG6I>K#JC: I=: ;>  
L6H EG>B6G>AN 9G>K:C 7N =><A:GHIME:CEKJ:K:HIH:;<B<G16A6E:6:AN 9J: ID  
6C9 7GD@:G 8DBB>HH>DCH 6I + GDCE 6IC&D:K:8G:16H:9 B6G#@>C>H H:HB::CI 9  
I:8=CDAD<N 6C9 B6G@:I>C< HE:C9 6C9 0G:K:CD7N@=>J7A:GH:BEA:DN:;<B:DH IH  
E6GI>6AAN D;;H:I 7N ADL:G :ME:CH:K>8:H=H:<JF:HCGE:G>B6G/>AN:9J: ID ADL:G  
DBE6CN 6AHD 7:C:;>I:9 ;GDB <GDHCH BDE8:86K>C698GJAC8I:9:9D8I>D6 >C>I>6  
;DG:><C 8JGG:C8N ;AJ8IJ6I>DCH 8JG6:C8,>:9IDA:AJGA 1686>C 6I ,ADA86Q8G <6B:G6  
D; B>AA>DC ;DG I=: ;>H86A N:6G::C9D9;#H86A 6H 8DBE6

&02&\$\*"4\*/. ".% "Z/2E4G:"84\*6I>DC 6C9 6BDGI>O6I>DC :MGE:CH;D<GB-G:6HH86A NB:  
#JC: 6H 8DBE6G:9 ID ;>H86A:G 9:EEG8B6IG:ACN69JI=:ID >>>6A +:6A HI6I  
>BE68I D; ;DG:><C 8JGG:C8N ;AJ8CJ6I>ADG8AD8JEG:C8>9:DA66GJ:K:0>CC 6 9:EG  
:ME:CH: 9:8G:6H: D; B>AA>DC DG#JC:;DG I=: 6HH86A BNE:6G:9C9D9;>H86A

-0"\*2-&.4 ".% 2&34257450>.C \$)"=2 (&3H86A N:6GH :C9:9 #JC:6CN G:8DQ9:9 I  
G:HIGJ8IJG>C< 8=6G<:H D; B>AA>DC DG#JC:;DG I=: 6HH86A BNE:6G:9C9D9;>H86A  
DCHDA>96I:9 >C6C8>6A ,16I:B:CIH

JG>C< I=: ;>H86A N:6G :C9:9 #JC: O:9 CDC=86B BE:6CEN6 >GG 8DG:IC8=6G<:H D;  
G:A6I:9 ID I=: LG>I: 9DLC D; ;>M:9DB7HC6H>DCHD886G:86L6I= \$=:E8>CII>G:9DE:  
E6GIN 6I I=: ':LH &:9>6 H:<B:CI

JG>C< I=: ;>H86A N:6G :C9:9 #JC: O:9 CDC=86B BE:6CEN6 >GG 8DG:IC8=6G<:H D;  
>BE6>GB:CI D; 8:GI6>C >C9:;>C>I: IA>KDB E6C8C4> 6A:C66IA:7B E6>GG:EC:CI 6HH: H  
,:: 'DI: Z)GDE:GIN )A6CI 6C9 FJ>EB:9I (6E:9G'DC:16Z <D>79L>AA:6B >C I=: 688D  
DCHDA>96I:9 >C6C8>6A ,16I:B:CIH

15\*49 ,/33&3 Z FJ>,IN 4&DHH:H D; 6;;>A>6I:H >BEG BK69 7N6G :C9:9A#JCC ;DG  
8DBE6G:9 ID ;>H86A EG>B6G>8NH9JLGD II=:9DZGH:IC8+D; 6DJECH >CK:HIB:  
6EEGDM>B6I:AN B>AA>DC 6C9 ADJHHG6A6G6B 6ED:GCK: H6B::G>6E KCCIJG: G:  
,:: 'DI: Z"CK:HIB:CIH >C I=: 688DBE6G:9C9D9;C&I: B:CHDA>96I:9 >C6C8>

.4&2&34 &8Z8CB:8G:H&4:ME:CH: C:I ;DG I=: ;>H86A 8GN6HG9:C9:9#AJC>DC DG  
ID ;>H86A 9G>K:C 7N =><=:G >6<:GCH>G:GDIB: 6B16HGD BJA6HD; 766C98:H  
'DI: Z >C6C8>6A "CHIGJB:CIH 6C9 6>688DBE6G:9C9D9;C&I: B:CHDA>96I:9 >C6C8>

4)&2 Z(&4:G C:I 9:8G:6H:9 B>AA>DC ;DG I=: ;>H86A 8GN6HG9:C9:9#AJC>DC DG  
99>I>DC6A >C6C8>6A "C;DGB6I>DC:9C>IG6688DBE6G:9C9D9;C&I: B:CHDA>96I:9 >C6C8>

.\$/-& 4"8 &B0&G3I=: ;>H86A N:6G :C9:9 #JC: >C8DB: 16MBE:6CEN6:8DG9:9 B  
16M >C8DB: D; B>AA>DC G:HJA:I>C< >C 6C :;L:6H>K>46MG G66:CDI:=: ,L+H:6JIDGN 16M G6  
>BE68I:9 7N ;DG:><C DE:G6I>DCH IG:6I8H 6B:EI6J7B:8CIHD 6C9<K:6AJ6M>DM 6AAD  
ADL:G 16M 7:C:;>IH 6C9 K6AJ6I>DCM6A:AD:L 6DB:HC 8:8D69C9 76J46>C:HIHIH

DG I=: ;>H86A N:6G :C9:9 #JC: C8DB=:16MBE:6CEN6:8DG9:9B>AA>DC DC E  
B>AA>DC G:HJA:I>C< >C 6C :;L:6H>K>46MG G66:CDI:=: ,L+H:6JIDGN 16M G6  
>BE68I:9 7N ;DG:><C DE:G6I>DCH IG:6I8H 6B:EI6J7B:8CIHD 6C9<K:6AJ6M>DM 6AAD  
7:C:;>IH >C 8:GI6>C 7JH>C:HH:H ,:: 688DBE6G:9C9D9;C&I: B:CHDA>96I:9 >C6C8>6A

&4 \*.\$Z!& >C8DB: L6H B>AA>DC ;DG I=: ;>H86A 8GN6HG9:C9:9#AJC>DC DG  
N:6G :C9:9 #JC: 6C >C8G:6HE:GD:B6G>BNA9G:DK:CD7N I=: ;68IDGH 9>H8J

&4 \*.\$/-& "442\*#54"#,& 4/ ./.\$%:142C8D B:\*.6I&Q&74B67A: ID CDC8DCA6DAA>D6 >  
>H86A N:6G :C9:9 #JC: 6H 8DBE6G:9 ID I=: 67H:C8: D;I+>:C&CH8B:HC b(G>)G9B1C:IND JGJ >C I=:  
EG>B6G>AN 9J: ID I=: 67H:C8: D;I+>:C&CH8B:HC b(G>)G9B1C:IND JGJ >C I=:  
>6GC>C<H 6I + GDJE

&(-&.4 .",93\*3

,:<B:CI "- >H I=: EG>B6GN B:6HJG: ;HDE:7G6II>C<D9B E6EAD B B6@:G ID :K6A  
6C9 6AAD86I: G:HDJG8:H L>I=>C I=: D'E6EINI^H; 7CH9 G:HH K::HK:CJ<E: A:HH DE:  
H:AA>C< <:C:G6A 6C9 69B>C>HIG6I>:KI: CND E:CH8 AJ9,;<B:EG:8>6I>DDC 6C9 6BD  
G:HIGJ8IJG>C< 8=6G<:H :FJ>IN MAB:KHI::H DC 86D B>A>6I:HD I>CG:GCHI 6C9 >C8DB:  
,:<B:CI "- B6N CDI 7: 8DBE6G67A: I E E>BD A 6:9 A7N IDIA: G B D6HEJGC>:H H>C  
>CK:HIDGH B6N 9>;:G 6H ID L=6I >86BA8 JH-6D J D D D; ; C8BA:J9:9 ">C I=:<B:CI "-  
B6C6<:B:CI >CK:HIDGH 6C9 :FJ>IN ANOANHJHDE>G6I6 B<6H:GG D GDB 6C6: D; :68=  
7JH>C:HH H:<B:CIH 6C9 >IH :CI:G 6C6> H C K 8AD B E6 k-6I>DGH I^=9-6H I6D G6A8 E ADJ9< = =>HI  
>C9>86I>K: D; ;JIJG: G:HJAIH 6HND EDC6I >CC< CE: G CD B 66G 8;6 8 HD E H< =>AC 8 AJ9>C  
EG:::G:C8:H

-DI6A ,:<B:CI "- >H 6 CDC ) B:6HJGG:0 C>9CH6-9DJA 9 D7C 8DD C6ID9 6H 6 HJ7HI  
ADHH 86H= ;ADL 6C9 DI=:G B:6HJGD B ID9 >CC 6 E 8 D GA 6E:G; D 6 I B=6C8) GC 699>  
CDI G;;A:8I 86H= 6K6>A67A: ID ;JCBHG:FJ8E:6HC9 HE 6C9>6M8IA C96E 9> 6BDGI>O6  
G:HIGJ8IJG>C< 8=6G<:H L=>8= 6GHH>E E>I;:8 6DCB E8DCNE^DHC::CC H C>8G 6AH H: G; DGE  
7:A>:K:H I=6I I=: EG:H:CI6I>DC D; -DUHA; ;J:A B:C;ID G'B6I>EDCD B>96I9>C< I=: DB  
DI=:G ;68IDGH I=6I 6;;:8I I=: DBE6C8N^A H : E D:G ID9 B 6 B NATHA >EK 8H I=6I D N :M  
CDC 86H= >I:BH HJ8= 6H >BE6>GB:C 9 6ECC: 8;:6H I>EDJ 6 I 6 G 9 6 B B 6 6 G 6 H> DCH 6H L:  
7:IL::C E:G>D9H 86JH:9 7N ;68IDGH H I G J 8 I W H G ;H 66CC98 8 E & C6-C H 8 CE B 6 I AE NH >I>D  
EGDK>9:H JH:GH D; >IH 8DCHDA>96I<9I; >C6D 87>D6IA H I 6 I :8D GIHDE>G-6 I 6 C 8 H 6 H  
G:EDGI:9 G:HJAIH 7:IL::C E:G>D9H 7JIGL =G B E G =E GDHB:ED 6 N K: AD;; K: I H 8 D 0; 7 J H  
I=: DBE6CN^H 8DCHDA>96I:9 ;>C6C 8 D 6 K 6 H I 6 6 I B 8 G I 6 C 6 G H 7 C I I: 6: 8 DAG: DCEN G 6 I >  
68GDHH 9>;:G:CI E:G>D9H

-=: ;DAADL>C< I67A: G:8DC8>A:H ':I >C;8DCB I =D; >DH186AA ,N< B CCH :C"9:9 #JC:

AD F:7 8;E53> K73DE  
G@7

;@ ?;>;A@E



99



(I=:G C:I



FJ>IN ADHH:H D; 6;;>A>6I:H



:EG:8>6I>DC 6C9 6BDGI>O6I>DC



-=: ;DAADL>C< I67A: H:IH ;DGI= I=: DBE6"G N^7HN+GKEDJG H6 7A:9 H:<B:CI ;DG I=:  
#JC: 6C9

AD F:7 8;E53> K73DE 7@676 G@7

;@ ?;>>;A@E

(79?7@F (79?7@F  
'7H7@G7E '7H7@G7E )

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AD F:7 8;E53> K73DE 7@676 G@7

:3@97 :3@97

;@ ?;>>;A@E 7J57BF

7FF7D ,ADE7

[REDACTED]

>G8JA6I>DC 6C9 HJ7H8G>EI>DC

[REDACTED]

(I=:G

[REDACTED]

[REDACTED]

GD6986HI

GD6986HI ,J7H8G>7:G =JGC



-=: ;DAADL>C< I67A: HJBB6G>O:H 6K:G6<: 96>AN 8DCHJB:G HJ7H8G>EI







JG>C< I=: ;>H86A N:6G :C9:9 #JC: B>AA>DDBE70NGGD1>C< G:E6NB:CIH  
G:;>C6C8>C< D; DMI:A 6C9 + GDJE^H 9:7I EDGI;DA>DH B>A



-=: HNC9>86I:9 ;68>A>IN 6<G::B:CI <D<86A>IN<G≠FJ>G:H + G:GDIJE ID B6>CI6  
G6I>D D; CDI BDG: I=6C ID 669>D>D; 6CD>AI::H HII=8DK:G6D: 8:G:16>G:  
DI=:G 8JHIDB6GN 6;;>GB6I>K: 6C9 Q:86;16KA18DK7:0:6C IHD 68C916<:CI:HM 0: E8>DCH  
DG EGD=>7>I + GDJE 6C9 >IH HJ7H>9>6G8H G GDB< 66DEJ6G6C G:1-C< 9:7I  
EGDE:GI>:H DG 6HH:IH B:G<>C< D:G HDC HBA@9CI< C×CI6>C18>6AN6 08D:BB E96I>D  
8:GI6>C DI=:G ;>C6C8>C< 6GG6C<:BI:C>A A8GC>I>CG<D G>E<G B6I C>DC< 6GBH^ A:0  
6;;>A>6I:H JC9:G<D>C< ;JC96B:CI6 A:7UI6>81H9 E8=NE:C:IH 6C9 B6 @>C<

JG>C< I=: ;>H86A N:6G :C9:9 #JC: G:9 >CI<D 6GGDJE B>AHAD>DCI:JCH:8JG:9 7>A  
;68>A>IN I=: [ ,J7H>9>6GN 68>,A7H>9>6GN 8:68HAD;IN=L:G: JH:9 IND 63::>C6  
DC: D; >IH HJ7H>9>6G>:H 6C9 ID =DG9 >:GHB7;JH>6C:8H>C D;IE GDA 9:HC 6I4H6<:CIH  
JC9:G I=: ,J7H>9>6GN 68>A>IN=688B JG 6A>I6G:HI, 2IEA JH6 6: B6G<>C DI;  
86GGN 6 8DBB>IB:CI ;:: D; D; I=:>AEHN>86GA:BB6IG<D K:GE>C8I=: ,J7H  
I=: A:C9:G ID 86C8:A >IH 8DBB>IB: 06BDCI 0 9H 8>ABE:9 6AIA ADJ 9HI:6C99 CE6N 697 A: 6;  
>C HE:8>;>:9 8>G8JBHI6C8:H >C8A:69>JG< H;D8: 6IHK >CJ 70H: 49 DEGN 6;16 CALD: ADL I  
8DCH:8JI>K: FJ6GI:GH -=: 6<G::B: C8J6A H B 66DNC 66>CG B 8 I 6K6>6C 0 IG:: 66I>K: 8DI  
9;;6JAI I=6I 6G: H>B>A6G ID I=DH: <D<K> 6 6INC< I=: + G:9>I

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: -=: DBE6CN =6H 8DCIG68IJ6A 8DB>H>HB DCCIH; 0K>H6H: A-A>I: DIB6CCHB^H 666QA>BI: CIGH6 CNHEDC9  
;>H86A 6C9 6G: 688DJCI:9 ;DGH6H7 0HE:: 6 0IG C<: DJC 9>6A6 8C A: IB BH D; I=DH: 6GG6C<: B: C  
; ,,: 'DI: Z DGGDL>C<H >C I=: 688DBB 66A>C6d: EDCHDA>96I:9 >C6C  
< +:;A:8IH I=: DBE6CN^H :ME:8I:9 ;9IDC: 7CC:GDH>CE-6HI BD:CIHI 67C9>C< 6CC9: >CI:G:HI J66I:G6 6:HE  
HJ7?:8I ID 8=6C<: >C ;JIJG: E:G>D9#: 68:8 DBE6Z ND>CC>DLD>CH>DHA>06II:9 >C6C8>6A ,I6I:B:CIH

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-=: I67A: 6AHD :M8AJ9:H I=: DBE6CN^HDEI GHI>DCBDC A 7<6I>>DIH [(DI A: D:7A ><  
;DG JCG:8D<C>O:9 I6M 7:C:;>IH ;DGDJCE86 GIN6>E UCM 7EAD H DI>GD CHDCH 7A 09EG:9  
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-=: DBE6CN G:8D<C>O:H I6M 7:C:;>HHD,GANB J C 8 I G^H >EDIG:MAE @HAN D=C: C DI  
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9:I:GB>C:9 7N I=: L:><=I:9 6K:G6<: 8 D H G 9 B H: I 6 D 6 H: 6 K: D B I 6 6 O M N 8 G H 6 C 9 D 7 H D A  
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>C;AJ:C8: >H <:C:G6AAN EG:HJB:9 I D CM>CHI t G:HC 7I: t L::DBE6 6C 9D LCHDG L=:C I  
I=: 67>A>IN ID :M:G8>H: H><C>;>8B O t D Q ;A;J 638:D J.CI9:G<I I=:F J>B N 6CN >C8AJ  
6BDJCIH 9J: ID 6C9 ;GDB HJ8= >CK:H t B: OIHE 6C N^IH , 66A 6E:8: I H=D: J H E: G 6I>DCH  
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-=: 9>;;:G:C8: 7:IL::C I=: DBE6CN^H; >E K:;H t B: OI6 6D 9 D;H=H=J6C:: DAN>C< C:I I  
>CK:HI:: JEDC 68FJ>H>I>DC >H >K G HI I> 6A 6D-8>7 A9: HD >6 9 t ;6C;>IC >A>6K 9 >C I 6C<  
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>C8JGG:9 ID 9:K:ADE >CI:GC6A JH: IHDI; 6 k 6 G:G 9 J 6 6 E G k 6 A=> 09:K 6ACD E 6 B D G I > O : 9  
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8JHIDB:G 9:B6C9 6C9 688:EI6C8: D; I= D C D B E 6 C N 6 8 D B 6 H: O G > J H: M: 8 J I > C < I C  
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>CHI6AA6I>DC 6C9 8DBB>HH>DCH 6 E G: L: M 6: C A I: 9 6 A E D I C C 6 6 H > K 6 E > D; C I =: M 8 J > E B  
DBE6CN >C L=>8= 86H: I=: 8DHI D; >E 9 > G J 8 E B: C H I 6 6 A 6 9 > 6 8 8 8 8 9 H 6: 6: 8 6 E >  
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BDCI=H DG A:HH -=:H: 8DHIH 6G: S:8088:99B b E>H>IG 6IA K>G< I<::C:IG6: B CN H D  
6AHD 9D:H CDI 86E>I6A>O: H><C>;>86 CG 686:CG8 DC 4=8 D-BDED9C DCG HI LG KH8 D SH  
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E:G;DGB6C8: D7A><6I>DCH I=6I L>G9 H6I6 HE;S>D BGGEBD8G>68ANE H6I D:8; -=: G:K  
G:A6I:9 ID JCH6I>H;>:9 E:G;DGB6C8: ID7A 6E6IG DMH B66H: DN #JC: B>AA>DC D;  
B>AA>DC >H :ME:8I:9 ID 7: G:8D<C>A>9>D CG>K<M E H8I6 A ID 7: G:8D<C>O:9  
B>AA>DC >H :ME:8I:9 ID 7: G:8I<C>D69 G:G>HD8 7A G:8D<C>O:9 I=:G:6;I:G  
>C8AJ9: > 8DCIG68IH L>I= 6C :MÆ:8H9 9>G 8I D OIG 88I B C;D 8: 8G>B 6 K 6G9>67A:  
76H:9 DC I=: 8JHIDB:G^H HJ7H:FJ: 67AH 68AD CHG 9: H664> DC 96A>A>D 86K 69D :E:G;DG  
;DG JC9:G I=: H:G>:H <J>96C8: I=KI BC:9HGI=;".6?A A D.8 6;18-D C8 D-7;?;8-I< @12=@1 0@<=>

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:HI6I: H:GK>8:H 8DBE6CN >C ,DJI=:6H8D MA 67 DG 6I D B E D6C I 9 G 8I8:HH; DD 6 9::E:C  
I:8=CDAD<N 6C9 >CK:HIB:CI >C I=: G:H >D I CD G+ I=: G7D6EG G:D; ;9K:G: 8I0:GH D; )GD  
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DL #DC:H ID 7:8DB: 6 A:69>C< EGD K6 9 DGC D6;C76 HU:G8=: B H 8 6 AH <D6; D 6 B 7J>A9>  
7JH>C:HH C:LH 6C9 >C;DGB6I>DC EA6 ID B 6 36 I; D9G7 B G D; L #H D <D B 6 6 6 9 &IH>LG:HJA  
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9::GG:9 G:K:CJ: 6C9 688DJCIH G:8:CK 6 7>A: 7 6 C 9 C I 6 C B >>A A > D 6 C H D; I H 9 8 D <D H > H I >  
D; 8JHIDB:G G:A6I>DCH=>EH L>I= SA AH: D CAGA A 6: I: D; ID N: 86 C D A D < B L>I D; 6 L:>  
N:6GH 6C9 B>AA>DC >C IG69:C 6 6: H L' C I 6 8 8 D I 6: 9 6 6 8 A >L; >I D; , N: I=: :M8:H  
8DCH>9:G6I>DC DK:G I=: ;6>G K6 6 < > 7 A D; 6 H H C H D6;C <> 7 B > A C 9 D < C L 6 H G:8DG9  
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;6>G B6G@:I K6AJ:H FJ>IN H:8JG>A>;H >LG IB DG @GI: 6K6>AJN H9 6IGG BK>6A6: E A6J H8 D H  
DG B>CJH 8=6C<:H >C ;6>G K6AJ: 6=H CA I HC X C; G D B: G A M: 6K67 H 6 EIG D C: H ; D G 6  
>CK:HIB:CI D; I=: H6B: >HHJ:G

-=: 8DBEDC:CIH 8DBEG>H>C< IDI6A G6>C:H 6G9 H D H;H:GH =D C:ADJL>IN H:8J

AD F:7 8;E53> K73DE 7@676 G

:@ ?;>>;A@E

%:HH ':I <6>CH ADHH:H G:8D<C >G>B DC> GF:9>IN H:8JG>I>:H HDZA9 D

CG;FK !AEE7E A8 88;>;3F7E

-=: DBE6CN^H H=6G: D; I=: ADHH:H B>A>H D: FJ>IN B>;A>D C: H C \$ H B 9 A 9 > D C  
#JC: 6C9 G:HE:8I>KA D M H ! B E > H 8 6 6 A G > A N G ::; A:8I I=: C D G 8 6 H =  
>CK:HIB:CI >C )GDE:GIN JGJ D; 6EE B D M > G D B: 6 K > C B > H B > D I C > C C 0 C A D J H I G 6 A >  
K:CIJG:

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\$D;9;@3> E A8 G@7  
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%6C9

><>I6A H:I IDE JC>IH 6C9 >CHI6AA6I>DCH

6E>I6A>O:9 HD;IL6G: ID N:6GH

DCHIGJ8I>DC >C EGD<G:HH

88JBJA6I:9 9:EG:8>6I>D C 6C9 6BDGI>O6I>DC

6 "C8AJ9:H 688JBJA6I:9 6BDGI>O6I6DEGD;M>6E>I6A>O:9 HB>A>G D O 6 C 9 6 C B > A A > D C 6 H D ;  
G:HE:8I>K:AN

:EG:8>6I>DC 6C9 6BDGI>O6I>DC GJ: A B B :: C I I L E H G D E : G I > N A E > D C C I 6 C 9 B > F A A > D C 6  
>H86A N:6GH :C9:9 #JC: - = 6 K 9 > C 8 A J 9 :: H H B : B D > G I > A N 6 I > D C D ; 8 6 B 6 I 6 A  
B>AA>DC 6C9 B>AA>DC ;DG I=: ;>H86A N 9 6GH :G 9 H E : 8 J E K : A N

2A.- <<. = 69\*2;6.7=<

JG>C< I=: ;>H86A N:6G :C9:9 #JC: O:9 C D C = 8 6 B B E > 6 C E N 6 > G 8 D G : C 8 = 6 G < : H D ;  
&:9>6 H:<B:CI G:A6I:9 ID I=: LG>I: 9: D L C > D ; I: > M 8 9 B 7 H C 6 H > D I C H D ; 8 8 6 G I 6 > C . C > I  
EG>CI>C< DE:G6I>DCH L>I= I= D H: D; 6 I=>G9 E6GIN

JG>C< I=: ;>H86A N:6G :C9:9 #JC: O:9 C D C = 8 6 B B E > 6 C E N 6 > G 8 D G : C 8 = 6 G < : H D ;  
LG>I: 9DLC D; ;>M:9 6HH:IH 6HHD8>6D;98LG I 6 > I G : . H = E I 9 D C C > 6 E 9 ; 6 B > A A > I > : H 6 I







#\$) '\$\$, # (

-=: DBE6CN^H IDI6A 7DGGDL>C<H 8DCH>HI D; I=: ;DAADL>C<

@F7D7EF D3F7G3F,FK 3F  
G@7 G@7 E A8 G@7 E A8 G@7

;@ ?;>>;A@E

[REDACTED]

-:GB AĐ6C

&6G

[REDACTED]

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DMI:A 8G:9>I ;0(Up 6

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&73 /20/2"4\*/. /22/7\*.(3

H D; #JC: I=: DBE6CN =69 >A7BGGD8DC#H>C< D;B>IH DJIH6C9>  
,:C>DG 'DI:H 8DAA:8I>K:AN I=: [,C#DGG9D#H\ 6CB>AABDC%D;6CC9G6LC 8DE  
I=: +:KDAK>C< 68>A>IN

#.728; 8=.<

-=: ,:C>DG 'DI:H 6G: I=: H:C>DG JCBIE8JCN 96 07 AG-6G @ DIEJ6 DAN =>C DG ><=I D; E  
DI=:G H:C>DG 9:7I >C8AJ9>C< 7DG 6DAKGEH JCC8>A>#HH-:6IB 9:6C9:9:0:ADL  
8=6C<: >C 8DCIGDA :K:CIH I=: DBE6CJNHB8B9>DC< G:CD DEG G8#>H;G8B I=: =DA  
:FJ6A ID D; I=: EG>C8>E6A 6BDJG>9 EAU#GCHDNG888DJ;>C6CS>JCAEB6>CI:C6  
G:HE:8I ID I=: ,:C>DG 'DI:H -=: >C867AJG,;H <DK:'DC:HC&DIGI66EED#=:G 8DK:C6  
I=>C<H 6C9 HJ7?:8I ID 8:GI6>C :M8HE6>DACHIN >CA>IB>I6I7>A DIBEDC#H HJ7H>  
H:8JG>C< >C9:7I:9C:HH ;DG 7DGGDL6CND#H: 676CA>IN>DA8>BGHDA:>9DB: DG B:G  
E:GHDC DG H:AA DG DI=:GL>H: 9>HEIDH:6BH:6AADDG=HJ7DIBIECCN6CA9L>DMAHJ7H

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-=: DBE6CN >H E6GIN ID 6 8G:9>I 6GG:BBCCI I=6I[EGDKG:9>H ;DG 6 B>AA>  
8G:9>I ;68>A>IN I=: [-:GB 68>A>:ICB 6C88I>A>IN6CH: JC:GB I=%D6CH\ 6C9  
JCH:8JG:9 G:KDAK>C< 8G:9>I ;68>A>DNC L6K6>A H7J7:A>BG I>B HJ6C8:HAD< A:II:GH  
68>A>IN\ 6C9 ID<:I=:G L>I= I=: -:HCB .C888AI#N I=: G:88>A>D>:B:CI I=: DB  
>C8G:6H:H L>I= G:HE:8I ID :>I=:G>E68A>6BIDNJ6C6DI 6D<GM&6:9 EG>E8AA>DC

-=: -:GB %D6CH 6BDGI>O: >C :FJ6A6F4GG46G'ANC>CJH6A68BBJCIH: F06ACID  
G:HE:8I>K:AN D; I=: DG><>C8A E688A>EN6AD6CB D68C= D;BIBCI#GE:G>D9 8D  
%D6CH JC9:G I=: +:KDAK>C< 688AA>N>9HD <CK:68B6IJD>IN=9:6I: D; &6G8=  
8:GI6>C 8>G8JBHI6C8:H 6H H:I ;DGI#>C DB:E6CN 869>IG:FG:HB:K:6I I=: B6IJG>  
68>A>IN 7: :MI:C9:9 7N 6I A:6HI DCN N68G D;C9= DG:K=6AK>C-88IG89>I 88BB>IB  
68>A>IN 7: :MI:C9:9 ;DG JE ID ILD 699>I>DC6A DC: N:6G E:G>D9H

"CI:G:HI DC 7DGGDL>C<H >H 76H:9G0CC8NI =:GB6+66C ;DAGBGJQ6I>K7: 6 -:GB ,( +  
AI:GC6I>K: JGG:C8N 6>AN +6I: ;DG[BJA6K66I #66:DJD-G 89 :6-8= 6H: +6I#;DG  
>C I=: G:6CH JC9:G I=

JG>C< I=: ;>H86A N:6G :C9:9 #JC: ;>C6C8:9=>IHDMI:A BGD A EDC: G:KDAK>C  
B>AA>DC I:GB AD6C ;68>A>IN ~~ECC~~>KG6:CBA68:B ;G|H#:C>D.G, JCH:8JG:9 CD  
C:L 7>AA>DC HNC9>86I:9 8G:9G:968>A8>M>IN\ [ -=: DMI:AMI:A IGQ:~I 6  
HJ7 ;68>A> B>I ECTN G:KDAK>C< 8G:9>I ;68>A>IN I=: [G6C8D-MIAA G>9>  
., B>I ;D N E I GB AD6C ;68>A>IN I=: [ DMI:A G:9>I 68>A>IN Z IG6C8





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6 > CH ADHH: H G: 8D < C > O: 9 > C 88 JB #A; 60 00 ID t = ; CH 8 DB ENG 6- G B H S K : 9A #JC :  
9: G > K6I > K: > CHIGJB: CI

AD F: 7 8; E53 > K73DE 7 @ 676

; @ ? ; > ; A @ E

DG: > < C 8JGG: C8N 9: G > K6I > K: HZ86H = ; ADL = : 9 < : H Z

-DI6A

6 > CH ADHH: H G: 8A6HH > ; > : 9 ; GDB : 8A8DB #A; 60 00 ID t = ; G 68 DB: EGH = DC H E KG 6I > D C  
: C9: 9 #JC: 6C9 7N 9: G > K6I > K: > CHIGJB: CI

@ 5A? 7 ( F3F7?? @ F > 3EE; 8; 53F; A @ AD F: 7 8; E53

; @ ? ; > ; A @ E

DG: > < C 8JGG: C8N 9: G > K6I > K: H 86H = G; 6A DC < : ME HC H: H Z

GDHH 8JGG: C8N > CI: G: HI G6I: 9: G > K6I > K: IG KH H: ME: CH: C: I Z

6 -=: H: 8GDHH 8JGG: C8N > CI: G: HN G: H > < C 6 > K 66 H K 8 H H =: GA D LC > I: 9 & A H G: 9K6I 6 K 8 B J O H H 0 > H B 0 C  
: 8: B7: G

-=: 6BDJCIH G: 8D < C > O: 9 > C ( I =: G G > ID < CH IG: H, J A I > BC E I; G DB ( IE: G 6 = 6 C < : N > C ; 6  
> CI: G: HI G6I: 9: G > K6I > K: H I = 6I L: 0: < 9 H H 8 J D G D > E J 9 0: 6 H C 8; 6 H 8 > ; K D L: H H 6 H D ; :  
< 6 > CH D; 6EEGDM > B6I: AN B > AA > DG I =: B > A 8 6 A D N: 6 G H : C B: 9 A # J > D: C ;  
G: HE: 8I > K: AN

# A @ D75GDD; @ 9 3; D + 3 > G7 "73EGD7?? @ FE

" C 699 > I > DC ID 6HH: IH 6C9 A > 67 > A > K 6 AH: I D 60 6 GG: 8 J B G > H C G: 796 H > H 6 EIG > B D B E A  
< DD9L > AA > CI 6 C < > 7A: 6HH: IH : FJ > GN NB: E-AD 9 C > 6 K 9 H: I B J S E H B: 60 9 I E 6 D E G 9 C D I  
ID ; 6 > G K6AJ: 6I I =: : C9 D; : 68 = G < E D G H > B < I E: G > D B E 6 ( ON 6 B C D D S K D G H L =: I =: G :  
8 > G 8 J B H I 6 C 8: H 8 = 6 C <: I = 6I LDJA 9 B D G: GAK @ A: A: N I D: 6 C = C D I 6 H: H J H 7 = A D L I =: > C  
DBE6CN 9: I: GB > C: H I = 6I I =: H: 6HH: IHD 6 0 9 > 6 E 6 > 0 D L CI =: : H: B 6 H B N H ID ; 6 > G  
; 6 > G K6AJ: B: 6HJG: B: CIH 6G: 8DCH > K: G A 9: I D > 7G 0 G K = A > C I =: ; 6 >

\$ F: 7D 3; D + 3 > G7 "73EGD7?? @ FE

H D; #JC: I =: 86GGN > C < K6A 9 > D < 7-D G 0 B E 6 C N H H 6 D B G D M > B6I: H I =: ; 6  
'DI: H 6C9 I =: ; : C > DG 'DI: H 6G: 8 A G H H 6 > ; C > 9 C 6 H 7 B G K G A L > 6 E 0 16 G: 8 A 6 A H H > ; >  
=>: G6G8 = N

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GF: AD; L76 3B; F3 > (FA5 =

-=: DBE6CN ^ H 6JI = DG > O: 9 86E > I 6A H H D 8 @: 8 D D C: H A H I H H D; D B B D C , I D 8 @ E 6 G  
H = 6G: H D; A 6 H H D B B D C , I H = 8 6 0 : E 6 G K 6 A J H = 6G: B: 0; ; : G > : H D B B  
E: G H = 6G: 6C9 H = 6G: K 6 A J : ) G: ; : G E G 0 H H D 8 0 @ E 6 G

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A??A@ (FA5= 3@6 %D787DD76 (FA5=

#1\* ; . < > = < Z \* H - D 7 0 # J C : I = : D B E 6 C N = 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C  
D J I H I 6 C 9 > C < 6 I 6 E 6 G K 6 A J : D ; E : G > H = 6 G : H D ; # J C : C D H = 6 G I : H : D D B E 6 C N = 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C ,  
K 6 A J : D ; E : G H = 6 G : H D ; # J C : C D H = 6 G I : H : D D B E 6 C N = 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C , I D 8 @ D G )  
D J I H I 6 C 9 > C <

2??- . 7 - < F ; D A A D L > C < I 6 7 A : H J B B 6 G > O : H I = E : G > H = 6 G : H D ; # J C : C D H = 6 G I : H : D D B E 6 C N = 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C ,  
, I D 8 @ 6 C 9 A 6 H H D B B D C , I D 8 @

AD F : 7 8 ; E 5 3 > K 7 3 D E 7 @ 6 7 6 G

- = : I > B > C < 9 : 8 A 6 G 6 I > D C 6 B D J C I 6 C 9 D E H N D B : @ = D A 9 J G J H G : > 9 > 6 C N : G 9 H L > I = > C I =  
D B E 6 C N ^ H D 6 G 9 D ; > G : 8 I D G H I = : 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C , I D 8 @ D G )  
9 > K > 9 : C 9 H L > A A 9 : E : C 9 D C B 6 C N ; 6 8 I D G H I = : 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C , I D 8 @ D G )  
> 6 8 I D G H I = : 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C , I D 8 @ D G )  
K D A 6 I > A > I N 8 D K : C 6 C I H D I = : G 8 D C I A 6 H H D B B D C , I D 8 @ D G )

& 8 = 2 7 0 Z 2 D A 9 < G H D ; I = : D B E 6 C N ^ H A 6 H H D B B D C , I D 8 @ D G )  
> C I = : D B E 6 C N ^ H + : H I 6 I : 9 : G I > ; > 8 6 G I D G \ " C 8 D A G E D G I 6 D ; D E : I B B E 6 C N ^ H A 6 H H  
: C I > I A : 9 I D D C : K D I : ; D G : 6 8 = H = 6 G H H : A 7 9 5 D I ; I : G : 8 D 6 9 K D C : D A : A I B : 6 H I : D 8 @ = D A 9 : G

2 : > 2 - \* = 2 8 Z " 2 0 4 = < K : C I D ; 6 A > F J > 9 6 I > D C D G D A 9 H : 6 D H A D I ; > D A 6 H D H I = : D B B D C , I D 8 @ D G )  
D B B D C , I D 8 @ H = 6 A A 7 : : C I > I A : 9 I D 6 H 8 I H K D ; 6 I A A D ; B I E : 6 C N B 6 6 < 6 G > A 6 7 A : ; D G 9 > H  
H I D 8 @ = D A 9 : G H G 6 I 6 7 A N > C E G D E 9 G N D A C 6 H D H I = : D C B B D C , I D 8 @ D G )  
= D A 9 : G H G : H E : 8 I > K : A N " C I = : : K : C I D D L 6 I G N D B : G : C : I D B G D 8 I B C H D A I > 9 N I I = : = D A  
, I D 8 @ 6 C 9 I = : = D A 9 : G H D ; A 6 H H D B B D C , I D 8 @ D G )  
8 D C H > 9 : G 6 I > D C

. C 9 : G I = : D B E 6 C N ^ H = 6 G I : G I = : D : 6 9 6 H = 6 G D M H B 6 I : A 6 H H B > D A B > D C , I D 8 @ D G )  
6 C N I > B : L > I = D J I H I D 8 @ = D A 9 : G 6 E E 9 G D D K 6 A M > E : D C J : B D : G B D , G H = 6 G : H : H 9 6 H C > K C 6  
E G : : G : C 8 : H 6 C 9 G : A 6 I > K : E 6 G I > 8 7 H 6 D > G < J 8 9 H I > C > C 6 I A 6 I 9 L : D A I A : G H 6 6 A I 6 I 5 D A >  
D G G : H I G > 8 I > D C H I D I = : ; J A A : M H 0 7 ? E 8 G B D I I = 9 A N B > A 6 I > D C C : H A 6 I I ; D G I = > C I =  
H I D 8 @ = D A 9 : G 6 E E G D K 6 A G : F J > G : B D C ; I H G L : ; I 6 G : 9 H I 8 I 8 D D 6 : H H G : H C 8 D B B D ; C H  
I D B D G : I = 6 C D C : K D I : E : G H = 6 G :

(FA5= '7BGD5:3E7E

- = : D 6 G 9 D ; > G : 8 I D G H = 6 H 6 J I = D G B C I D 6 J B B D : 6 8 : G : E J G 8 = 6 7 H : A 6 S D E G > 6 C H I = : 6  
D J I H I 6 C 9 > C < A 6 H H D B B D C , I D 8 @ 6 C 9 : E A 6 G H 6 H D B B D C G , 6 B 8 @ - = : B 6 C C : G I  
H = 6 G : E G > 8 : D ; 6 C N G : E J G 8 = 6 H : H L > A 6 I 7 : I H : 9 : G B 8 C : 1 9 D 6 6 6 : 9 D B A E 6 9 : E : C 9 J E  
B 6 G @ : I E G > 8 : D ; I = : H I D 8 @ < : C : G 6 A : B 6 G @ I : > : B I D A C 6 9 L H > D A H : G 6 6 E A K : 8 6 7 0 K : H I B : C  
; 6 8 I D G H - = : + : E J G 8 = 6 H : ) G D < G 6 B = 6 9 H : C D 9 I > B J H A 5 : E 9 I : 6 0 9 B 9 6 N H 8 D B I D C J : 9 6 I  
I = : G : B 6 > C > C < 6 J I = D G > O : 9 6 B D J G 6 B I C 6 : 6 6 6 E E G D E M H 6 B 6 I 6 H N ) G D < B > A A > D C

,ID8@ G:EJG8=6H:H JC9:G I=: +:EJG8=6H7:GG D<G 6 B -D B;D:CA8D9 >DC< 'ID7 A: HJB  
G:EJG8=6H:9 6 C9 HJ7H:FJ:CIAN G:l>DC 9E6G 9 0=J:G CA:6I=9 8>DC86A9 NG 6GH :C9:9

AD F:7 8;E53> K73DE 7@676 G@7

(:3D7E ?AG@F (:3D7E ?AG@F (:3D7E  
;@ ?;>>;A@E

A6HH DBBDC ,ID8@

(FA5=:A>67DE 9D77?7@F

"C ,:EI:B7:G I=: DBE6CN :CI:G:9 >CID 6 HID8@=DA9:GH 6<G:



JG>C< ;>H86A 6C9 8:GI6%C" )E 6G8>8K B6 EG6 GICH ID; I>B: K:HI:9 +,  
6L6G9H >H HJ7?:8I ID I=: E6GI>8>E6 DIBH6CNCII>GDJ9 #I:IG K 6E:EA>I8-67A: K:HI>C  
<G69:9 K:HI>C< EG>B6G>AN DK:G I=G:: N:6GH

-=: ;DAADL>C< I67A: HJBB6G>O:H >G;DIE B6G>DC< G=A6;I:9 8IDA <N:6GHH :D;9:9 #JC

AD F:7 8;E53> K73DE 7@676 G@7

;@ ?;>>;A@E

6H= H:IIA:9<G,6KI:9

6 G6CI:9 ID :M:8JI>K: >G:8IDGH DG9>KC:BEAONIDBH C 8:GI6>C ;

-=: ;DAADL>C< I67A: HJBB6G>O:H >C;DIE B6G>DC< IG:A;6IHS6A K:6GHH DC9:9 #JC:

AD F:7 8;E53> K73DE 7@676 G@7

(:3D7E (7FF>7?7@F (+3>G7 (:3D7E (7FF>7?7@F (+3>G7 (:3D7E (7FF>7?7@F (+3>G7

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6H= H:IIA:9 +,.H K:HI:9

# \$) ' # # ( ! \$ ( ( % ' ( ' )

-=: ;DAADL>C< I67A: H:IH ;DGI= I=J18D B E G C > G D E D A; D76H>B: 6 C 1 7 2 7 0 A < J C . 9 : 6 1 \* ;

AD F:7 8;E53> K73DE 7@676 G

;@ ? ;>> ;A@E 7J57BF B7D E:3D7

' : I > C8DB: 6IIG>7JI67A: ID CDC8DCIGDAA>C< >CI:G:HIH

0: > < = I:9 6K:G6<: CJB7:G D; H=6G:H D; 68H>B BDC HID8@ DJIHI6C9>C<Z7

0: > < = I:9 6K:G6<: CJB7:G D; H=6G:H D; >8AUB BDC HID8@ DJIHI6C9>C<Z9

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6 C 9 6 9 B > C > H I G 6 I > K : H : G K > 8 : H - = : I D B : E 6 6 0 I 9 6 I G 6 0 A H 0 8 E > G : K H D L J H A N G : 6 6 1 : 9 E  
7 G D 6 9 8 6 H I G > < = I H

-=: ;DAADL>C< I67A: H:IH ;DGI= I=:AG:II: 9G EK: 6: 6: : H: M E 3 0 A H 9 : 9 G > D B I G : , I 6 I : B : C I H

AD F:7 8;E53> K73DE 7@676 G

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-=: ;DAADL>C< I67A: H:IH ;DGI= I=: 6BDJCI D; G:8:>K67A:H 9J: ;G

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/--\*4-&.43

-=: DBE6CN =6H 8DBB>IB:CIH JC9:G @<GB6G CH; >GB 68@.C|G|68J E6 N6:G6H -=: F  
H:8JG: I=: 8JGG:CI 6C9 ;JIJG: G>\*8tH ID K6 G HD9 H G H #: IGD6B6 A:8KJG<H: D; D  
I67A: HJBB6G>O:H I=: DBE6CN^H B6#G:6A ;>GB 8DBB>IB:CIH 6H D;

E A8 G@7

%3K?7@FE G7 4K %7D;A6

!7EE F:3@

"AD7 F:3@

)AF3>

K73D

K73DE

K73DBDE

;@ ?;>>;A@E



,EDGIH EGD<G67BB>C< G><=IH



(E:G6I>C<9 A:6H:H



%6C9 6C9 7J>A9>C<H



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# \$ ) ' ) ' " # ) # ) \$ ! ) \$ # (

-=: DBE6CN^H :BEADN::H E6GI>8>E E:CHG DKG G ED JHDH:I;G C>9G7BCC;I>EA6CH HE D  
>IH HJ7H>9>6G>:H )A6CH >C I=: ;DG:>\$C EAH CGH6 A 66 686 D JDCI:9G;D G H H 9:;>C  
88DG9>C<AN I=: ;JC9:9 6C9 JC;JC:8:D GBDH>IG D E: D 6 A 6 6 8 :E,A6 Q H H 8 J 6 G > 6 A  
=6K: CDI N:I 7::C G:8D<C>O:9 I=G DJ<8-8 CBU A 6 18 D ED:1 6 GG 8D 8 E G 9 9 C H C K: ADHH  
6G: 6BDGI>O:9 6H 6 8DBEDC:CI D; 9:11 EEB 66 6 19>D8C7DQ:7>C:8 DHD7A=><6I>DCH 6C  
:ME:CH:H G:A6I:9 ID I=: EA6CH 6G:DG E: C-9::CB ED?D 6 66G H DJHE 6 H D C J H B EIG > B 6 G > A I  
:ME:8I:9 ADC< I:GB G6I:H D; G:IJG G 6 ICHE A 66CC 6 4:HB::IHI 6 C 9 : B D E H 6 A 6 8 I A 6 H H J B E  
8DBE6CN :ME:G>:C8: >C 8DC?JC8I>D68 4 >I 6 9 B 6 G @J:6 AG 8AD6IC9G96 1:6C; D 6 > 8= H J 8  
HI6IJH D; I=: EA6CH 86C 8=6C<: ; 6 DB; N=6 G J D D : 9 : 6 6 C 6 H I 4 6 K : 6 7 H C I H 4 6 ; I > 8 > : C I  
86B: 9J: >C :68= D; ;>H86A 6C9

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-=: DBE6CN JH:H 6 #JC: B:6HJG:B:EDH6G:I;DG:6:ACA E:C H>D E A66CC9H -=: 8DB  
;DG:><C E:CH>DC 6C9 EDHIG:I>G:B:C IE7C G ; D C E6A66C B DGH:IGJ:A 4 9: B:C 167:C:;>IH  
B>AA>DC 6C9 B>AA>DC 6I #JCAN -=: 6DBE6CN G:8IE<8I>K:9 I=:H: 6BDJC  
6I #JC: 6C9 6H ;DAADLH

\_\_\_\_\_%7@E;A@ 7@78;FE  
\_\_\_\_\_A?7EF;5 \_\_\_\_\_AD7;9@ \_\_\_\_\_%AEFD7F;D7?7@F \_\_\_\_\_)AF3>  
\_\_\_\_\_  
\_\_\_\_\_;@ ?;>>;A@E



(I=:G 8JGG:CI A>67>A>I>:H Z Z



' : I 6HH: I A>67>A>IN G:8D<C>O:9

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-=: ;DAADL>C< I67A: H:IH ;DGI= I=;>8 =D7A><6C>D-C E8=D7C:81:9C7IE: ;6>6HK6IAJ:  
6C9 ;JC9:9 HI6IJH

\_\_\_\_\_  
%7@E;A@ 7@78;FE

\_\_\_\_\_ %AEFD7F;D7??@F  
A?7EF;5 \_\_\_\_\_ AD7:9@ 7@78;FE \_\_\_\_\_ )AF3>

\_\_\_\_\_ E A8 G@7

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,:GK>8: 8DHI \_\_\_\_\_ Z \_\_\_\_\_ Z \_\_\_\_\_ Z

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:C:;>IH E6>9

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8IJ6G>6A <6>C ADHH \_\_\_\_\_ Z

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)GD?:8I:9 7:C:;>I D7A><6I>DC :C9 D; I=: N:6G

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6>G K6AJ: D; EA6C 6HH:IH 7:<>CC>C< D; I=: N:6G \_\_\_\_\_ Z \_\_\_\_\_ Z

\_\_\_\_\_  
BEADN:G 8DCIG>7JI>DCH \_\_\_\_\_ Z \_\_\_\_\_ Z \_\_\_\_\_ Z

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,:IIA:B<sup>6</sup>CIH \_\_\_\_\_ Z \_\_\_\_\_ Z \_\_\_\_\_ Z \_\_\_\_\_ Z

\_\_\_\_\_  
6>G K6AJ: D; EA6C 6HH:IH :C9 D; I=: N:6G \_\_\_\_\_ Z \_\_\_\_\_ Z

6 BDJCIH G:A6I:9 ID E6NB:CIH B69: DBE DGB :GC:BEAADN:HA DB: C#:D; I=:>G E:CH>DC 7:C:;>IH  
7 8IJ6G>6A <6>CH ;DG ;>H86A 6A; EGC9D B:GIE 86CCH9 E-C>BGG6IA ND C6:IA BI J HD9I >C >E C 8G JG >C>C  
D7A><6I>DCH 6H D; #JC:

BDJCIH G:8D<C>O:9 >C 88JBBA6I:9 D>H:G ;8DBEG:=:CH>K: ADHH 8DCH

\_\_\_\_\_  
%7@E;A@ 7@78;FE

\_\_\_\_\_ %AEFD7F;D7??@F  
A?7EF;5 \_\_\_\_\_ AD7:9@ 7@78;FE \_\_\_\_\_ )AF3>

\_\_\_\_\_ E A8 G@7

\_\_\_\_\_ ;@ ?;>>;A@E

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)G>DG H:GK>8: 8DHI 7:C:;>I \_\_\_\_\_ Z \_\_\_\_\_ Z

88JBBA6I:9 E:CH>DC 7:C:;>I D7A><6I>DCH G6H D; #JCA>DC 6C9 B>AA>DC

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:ADL >H >C;DGB6I>DC 67DJI ;JC9:9 6C9 JC;JC9:9 E:CH>DC EA6CH

A?7EF;5 %7@E;A@ 7@78;FE
G@676 %>3@E *@8G@676 %>3@E
E A8 G@7
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@ ?;>>;A@E

)GD?:8I:9 7:C:;>I D7A><6I>DC  
88JBJA6I:9 7:C:;>I D7A><6I>DC

AD7;9@ %7@E;A@ 7@78;FE
G@676 %>3@E *@8G@676 %>3@E
E A8 G@7
;
@ ?;>>;A@E

)GD?:8I:9 7:C:;>I D7A><6I>DC  
88JBJA6I:9 7:C:;>I D7A><6I>DC

-=: 688JBJA6I:9 7:C:;>I D7A><6I>D 6 C: M 8: H 9 H H I ; D G 6 6 A G A K 9 6 D A B J : : H D ; 8 E E : C H > D C E A  
:ADL >H >C;DGB6I>DC 67DJI ;DG:> 8 6 J B J C A 6 1 : D C 7 E C A : 6 S I H D > C A L < 6 I 8 > D C = : M 6 : : 9 H I  
6HH:IH

AD7;9@ %7@E;A@ 7@78;FE
G@676 %>3@E *@8G@676 %>3@E
E A8 G@7
;
@ ?;>>;A@E

)GD?:8I:9 7:C:;>I D7A><6I>DC  
88JBJA6I:9 7:C:;>I D7A><6I>DC

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-=: DBE6CN G:8DG9:9 B>AA>DC G>DB>8A7:DC;6IC8DGHH >C C=1 B6I:B86AH D  
N:6GH :C9:9 #JC: 6C9 E6C:NI EJ:8IA>KOANI I=::JDB N>:A9 8JGK: 6E  
H:GK>8: 6C9 >CI:G:HI 8DHI 8DBEDBIIBIHDD;>CHI E:GH DD 686 C:9C D;H:6DEDHIG:I>

-=: 6BDGI>O6I>DC D; 6BDJCIH G:A68:98DHUHG8SD&>CIHO:99:E,GGD:G A DGH#H 6C9



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-=: I67A: 7:ADL H:IH ;DGI= 6 HJBB6JGND;D> 6K66CIB::IC IHCIG;A; 6B:9 K6A%:K:A 6H 6C9

!7H7>  
@H7EF?7@FE  
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8IJ6A G:IJGC DC EA6C 6HH:IH

+:A6I>C< ID 6HH:IH HDA9 9JG>C< I=: E:G>D9

-G6CH;;GH >C 6C9 DJI D; %:K:A

8IJ6A G:IJGC DC EA6C 6HH:IH

+:A6I>C< ID 6HH:IH HDA9 9JG>C< I=: E:G>D9

-G6CH;;GH >C 6C9 DJI D; %:K:A

-=: DBE6CN^H >CK:HIB:CI HIG6I:<N6MD>B>OH IE::CAMD<C IE@BCGH6 6:HDI;DGBIJGC DC 688:EI67A: A:K:A D; G>H@ >C DG9:GC kDEB6 6>B 6O7: C; ;>8IDHLL=D;A E B D K G I 6 >C >C <-=: DBE6CN^H EG68I>8: >H ID 8DCI9 JB;I 6I HE :GHD:9>6A H D G 6 I I :>D 6 G H K >:DBE6CN^H I6G<:IH 6G: ID =6K: 6 E:CH>DC 6HHF:U>EIDGHI;BAGDI 8:HBEG>H:M:9 ;>C8DBC9H:8JG DI=:G >CK:HIB:CIH "C 9:K:ADE>C< G::I J G I E:8I 9 ADBE6GNG8DC6H>9D G:9 I6HIE:C 6K:G6<: G6I: D; G:IJGCH 6C9 ;JIJGG 6DWHG 6H:IM:E:8A6IH:DH DEFIDGIKDCK D9; 4E: D 86H= ID EGDK>9: ;DG :ME:8I:9 7:CG;B IH=:D DBE6G 6 I ^:HC: FJ:>HN DEIGI; DA>6H 6G ID 68=>:K: DEI>B6A 9>K:GH>IN -=: AD>DE 6 6 I N ^:HK;HMB9C 4 C 8 6 6 9: E D G I I 4 D 6 << G : < 6 B6C6<: 6CN 6HH:IH >CI:GC6AAN

-=: DBE6CN^H 7:C:;>I EA6C L:><=I:9 N 6 6 H G 6: 4: 8 6 H: H: D 6 M A 6 6 6 6 I 6 H D C D I A A D L H

%7@E;A@ EE7FE  
E A8 G@7

FJ>IN H:8JG>I>:H

6H= 6C9 DI=:G

+:FJ>G:9 E:CH>DC EA6C 8DCIG>7JI>DCH B6N 7: 6;;:8I:9 7N AEJ:CIH DDC86 6 I C I: H 6 9 9 G A > G 7 > A > I N N: 6 K 6 -=: DE B6@: KDAJCI6GN 8DCIG>7JI>DCH 6HJG:8:HH6GN ID >BEGDK: ;JC9:9 HI6

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-=: DBE6CN =6H 9:;>C:9 8DCIG>7JI>DCH 6ECA 6 6 AIA;ND 6 AIA:: B ECA:DAI::DH; BI::I>C< 8: G G:FJ>G:B:CIH BEADN:G 8DCIG>7JI>DCH 6HJG:8:HH6GN ID >BEGDK: ;JC9:9 HI6 #JC: 6C9 G:HE:8I>K:AN



-=: G:8DC8>A>6I>DC 7:IL::C I=: DBE6CN^H I68IH6AI J;D:8N>K:, I6M:G 6A 6B8DB:

AD F:7 8;E53> K73DE 7@676 G

[REDACTED]  
9 G6A C8DB I6M G6I  
,I6I: 6C9 AD86A I6M:H C:I

[REDACTED]  
8I D DG >C DE G6I>DCH  
=6C<: >C K6AJ6I>7DC 6AADL6C8: Z

[REDACTED]  
DC 9:9J8I>7A: 8DBE:CH6I>DC 6C9 7:C:;>IH

[REDACTED]  
B 6HJG B C I D 9: 6G 9 I6M 6HH IH Z Z  
+ I6M 8G:9>IH

[REDACTED]  
BE68I D 8 HEDH I>DCH Z  
(I=:G

[REDACTED]  
8I>K I6M G6I

6 -=: DBE6CN^H :;;:8I>K: I6M G6I: >8I B>BE 68;I>8I H N C 8 DB: D < 6 ED BE 6 CN^H 9 HCG: B & G > 8 I: G 6 I > D  
6C9 I=: . \$ L=>8= =6K: 6 =><=:G HI6IJIDGN >C8DB: I6M G6I: I=6



-=: H><C>;>86CI 8DBEDC:CIH D; I=: 00BE AG N 7 HA9:I;> GHG L9 G 6 M H6 HDHA HD L H

E A8 G@7

;@ ?;>>;A@E

88GJ:9 A>67>A>I>:H

' :I DE:G6I>C< ADHH 86GGN;DGL6G9H

(E:G6I>C< A:6H: A>67>A>I>:H

-DI6A 9:::GG:9 I6M 6HH:IH

/6AJ6I>DC 6AADL6C8:H D; B>AA>DBE6CN>H=:B>AAG:DC8=6K: 8:;CGG=9 16M  
DBE6CN^H'(%H ID 6C 6BDJCI I=6I L:6AA B:DG:HAD @#AN:I=6C CD6C7: G G:HE

H D; #JC: I=: DBE6CN =69 6BEGDM>B6IAANDC D7>86E>DCA ADH H 86G  
I=: . \$ G:HE:8I>K:AN L=>8= B6N A:N86-G G 86E >DGL 6C9H H C8:G>CN;IDGLN G9H 6C  
G:A:K6CI 16M 6JI=DG>I>:H >C I=:6?JG>:H9>8I6 D>CH ID; ID>JG =86E >N6A:AD B6E H I 6  
<6>C 16M67A: >C8DB: 6C9 H6I>H;N>G E 8:G9 6D>C 8.DC>G CHH I 8:DJ>DGL:G:GHH -=:  
9:::GG:9 16M 6HH:I D; 7>AA>DC;DB D=:#JC8:6E>16A 8DH H 86GGN;DGL=6G9H  
I=: DBE6CN L>AA CDI <:C:G6I: 86E>8DAJ G H >D;>C.8H>BC: HCH I>C C-D. B B 8A G>H9>8  
K6AJ6I>DC 6AADL6C8:H D; 7>A:A>B CI=6K:6 E>:G A H A B H A> B 6GG ND, DGG D6G 9 9::;  
I=6I L>AA BDG: A>@:AN I=6C CDI 8C9:6A>O:9 6H D; #JC:

H D; #JC: I=: DBE6CN =69 6EE;GDM>;B61G6M 16MB8A:A>D86GGN;DGL6  
B>AA>DC D; ;DG:><C 16M 8G:9>JH>CC 8H 8 8>A>A H D C =D;8<:C::G6A ID :ME>G:  
G:HE:8I>K:AN

H D; #JC: I=: DBE6CN =69 6BEGDM>.B6I:AM 8G:B>AA 8>DCC N;DGL6G9H  
6BDJCIH 7:<>CC>C< >C 6C9 8G>AM>DGL 6G 9H 6IC:16M; 8G:9>B:8G 6A>D JH:;>I  
6BDJCIH 7:<>CC>C< >C

K6AJ6I>DC 6AADL6C8: D; B>AA>DC =6H 7::C :HI67A>H=:9 ID G:

-=: ;DAADL>C< >H 6 HJBB6GN D; B6?DG I6M ?JG>H9>8I>DCH ;DG L=>8=

# \$) ( " #) # \$' " ) \$ #

--: DBE6CN B6C6<:H 6C9 G:EDGIH >IH> MJH><CB HCHH >C I=: ;DAADL>C<

; (\*4", &" , 34"Z&=:&2G\*\$16A +:6A HI6I: ,:GK>8:H H:<CN CH 8DCH>>GII:K: ;  
>C + GDJE 6C9 >CI:G:HI >C &DKHI->C &:DBI6>GHC=:A9 7NCI+G: GDJ  
>H 6 B6G@:I A:69>C< 9><>I6A B:9>6ITNJH6G:HHH AH:EH8:96 D&OI>C< JHD GEG  
M8=6C<: [ ,1\ ,1 + + GDJE 69KGG EHG HNEG:DA B:IG9 NH 6C9>8:H D  
BD7>A: 6EEH >C8AJ9>C< JHIG6A>66H A C89 HG 6 G: B G D: E:IG 6M L 87DH>B: 6  
G:6A8DBB:G8>6A 8DB 6J 6C9 A6IB6I:HE G DB: GJN EGDDBE 6AHN >8D B C89> 6 C 9  
GDJE EGDK>9:H EGDE:GIN G:A6I:9 96C6CB>I6A ;H:G6C>8>HAI HG 8ID<G 6C9  
6C9 ;>C6C8>C< :ME:G>:C8: 6C9 6 BDGI<6<: 7GD@>C< D;::G>C<

&DK: >H 6 A:69>C< EGDK>9:G D; 9><>I6AC G: B A >:B16I>AHN: GHE 6EHC: HC>:IG  
G:6A :HI6I: >C;DGB6I>DC 69K:GI>H>DC ;: G B 9GH6 K H 86H: BAKI:;DIG B>&DK  
7GD@:GH >C8AJ9>C<A>JH 8D6C@8D>KDC H6 G: D 6C9 %>HI>C< -DDA@>I E  
>IH G::GG6A 76H:9 H:GK>8:H\* 6C99N: DAC E,DAIA >DC>8>;:DG B:GAN .E':HI  
D;::GH DCA>C: IDDAH 6C9 H:GK>89H: D6 9DH>I NDJGH:A; A6C9ADG9H 6

; 5#3\$2\*04\*/. \*%Z&/: & D6\*E&CN^H ,J7H8G>EI>DC />9:D ,:GKI>8:GII:K: I:6B.C  
6C9 C:LH H:GK>8:H ID E6N -/ 6C9 HIG D6BB:G<8 H6A7 H8>G>7HG HH 6C96 DH6I:G  
9>HIG>7JI>DC 6C9 8DCH>HIH D; >=I=D MIBA 6G D JH L>+<E II:G: B I B 6C C >  
=:A9 7N -:AHIG6 6C ,1 A>HI:9 I:A:8D>B J C>H 6I6 A>C C 8 DLHE 6<6NC 6: A9 [  
DMI:A GDJE >H I=: A6G<:HI JHIG>6A>>DC E 6ID:9>B:JG H 8IG> ED MD:CA IE AN K  
6EEGDM>B6I:AN 8=6CC:AH 6C9 K>9:DC :DG 6 A :B6C9I 6 DKBGGIC <B B E D:GH  
BJH>8 8=>A9G:C^H EGD<G6BB>C< 6 G 9ND: L ED GDM IHA G6 69>IG < HG: DJE>8H  
HEDGIH EGD<G6BB>C< 8DCI:CI >C IDHA 66A HE DIGH>C ZG: B 69 BH HIC 6 A &9>  
%:6<J: JHIG6A>6C DDI76AA %:6<J:H BGD>D@ HED B I E 6AG D <6C9B B 6 G \*D  
DI=:G EGD9J8IH 6C9 H:GK>8H:HC>C8I A J C: B:CI HIG:6B>C< H:GH:GK>8DMI  
I=6I EGDK>9:H 688:HH 68GDHH DMI:AC H AJ7K:A6G9HDG:9: B 6AC9 A 8D 8G  
6<<G:<6I>DC EA6I;DGB

' DE:G6I:H I=: ,@N ':LH JHIG6A>6 G IBDAGI@ 8=6CIG:6A>B J AI> EAD6I;DC  
' 8=6CC:AH 6G: 9>HIG>7JI:9 I=GDJ<@DN I': LHH I>G H A>6H IGG 7 DIM9: A 6 C: 9  
' :ILDG@ -:A:K>H>DC %>B>I:9 ' 6AHD D H L G H 6 A 6 9 D B 6 C C: I A H U =>8'>->H C  
I:GG>IDG>:H DJIH>9: JHIG6A>6 6 C9I '6 B 6D6A H 6 9K 66C>9: I D; ;D G H >&D C 6 A E  
>C8AJ9>C< L:7 BD7>A: 6C9 I=>G9 E6GIN EGDK>9:GH

U /7 /.8Z3=: DL #DC:H H:<B:CI 8DCH>HIH D; DL #DLG: H C 0 Z A H 7 6 A H E G D  
L=DH: EGD9J8IH I6G<:I >C9>K>9J6AB8G B H 6 C 9 6 H 6 : 6 9 H:IGI>G EIG 9 H = 6 D H 4  
8=6CC:AH >C8AJ9>C< C:LHE6E:GH C: CHLH A :;IH: GLH7 HB>6I< B IO >BD: 7> AE 6 E E  
A>K: ?DJGC6A>HB K>9:D 6C9 ED9868IIHH >C8IA #9:CE I A B I>8D I C 7 C I 6 8 9 H E I 6 J  
8>;7\*5;;87I & 6G @:I06I 8 7. 6 6 9;I< ><2 D k #D\*2:5 B H EGD::HH>DC6A >C;D  
L=>8= I6G<:I :CI:GEG>H: 8JHIDB:GH E AC 86CJ8:: 6 I A :#D 6 C H E G D K >9: D B D  
=:AE 8JHIDB:GH >9:CI>;N 6C9 B6C6E J I G I \* J A C 6 6 A G N H 8 D G E I D G I D A I 6 9; D 8  
8G>B: H6C8I>DCH IG69: 6C9 DI=:G# 8 D C B H A 6 6 G 8 N G 6 F A >(E G >8>C 6 D M 6  
C:LH >CH><=IH 6C6ANH>H 6C9 DI=:G >C;DGB6I>DC ;DG à:G\ 8DHU

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U &73 &Z/\*=: ':LH &:9>6 H:<B:CI 8DCH>HIH EG>B6G>IAN .D; 6C9I)B;GE J  
8<6C9 >C\$AJ9>K=;\*52\*7 \$1. \*25B \$.5.0;\*91 25\$1.#>7.;\$29.18>;2.;;  
C:LH 8DB 6J L:7H>I\$1>.C\$25HkG\$A>#>7-\*B \$26.< \$1. #6C9\$I=:#J C 8D #>  
I=: . \$ 6C9 I=: HJC 8DB >C I=: . , -@>B:H:HB:CG DAH DD<EC&AUDGH D; 16/  
A:69>C< HEDGIH G69>D C:ILDG @ >,CDIG N;J\$ 6-6AD@>>6A IB::9>\$ 8DC9:CI  
U 4)Z2=: (I=:G H:<B:CI 8DCH>HIH EG>B6G>A9N:ME <CE: 6AH 18D6G E<DNG 8D:HD  
G:A6I:9 ID I=: . \$ ':LHE6E:G &6II:GH

,:<B:CI "- >H I=: EG>B6GN B:6HJG: ;,HDE:7G6 II>C <D9B E6KND B B6@:G ID :K6A  
6C9 6AAD86I: G:HDJG8:H L>I=>C I=: D'B E6EN ^H; ZCH9 G:HH K::HK: C J< B: A:HH DE:  
H:AA>C< <:C:G6A 6C9 69B>C>HIG6I>:KI: CME:OCH:AJ9,;< B:EG:8>6I>DD 6C9 6BD  
G:HIGJ8IJG>C< 8=6G<:H :FJ>IN M&:KHH::H >C 86D B>A <6 I:HD I>CG:GC HII 6C9 >C8DB:  
,:<B:CI "- B6N CDI 7: 8DBE6G67A: IB B>BD <6:9 A7N IDIA:G B D6HEJCC>:H H>C  
>CK:HIDGH B6N 9>;;:G 6H ID L=6I >86AH J A-6D J D D; ;> C-8A:9:9 ">C I=:<B:CI "-  
B6C6<:B:CI >CK:HIDGH 6C9 :FJ>IN AN OANH IHD E>G 6 I6 <6H:GG D GDB 6C6: D; :68=  
7JH>C:HH H:<B:CIH 6C9 >IH :CI:G B 6G> BIC 9 B AD: E6 k>6I>DCH I ^=96H I6D G6>A8 6 D79< =>H I  
>C9>86I>K: D; ;JIJG: G:HJAIH 6HND EDC6 B>CC<< CE: 0 CD B 66 N 8;6 8 HD 6 H< =>AC 8 AJ9>C  
EG:::G:C8:H

,:<B:CI >C;DGB6I>DC >H HJBB6G>O:9 6H ;DAADLH

AD F:7 8;E53> K73DE 7@676 G

;@ ?;>;A@E

><>I6A +:6A HI6I: ,:GK>8:H

DL #DC:H

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> H 8 6 A N : 6 G 6 8 I > K > I N <sup>8</sup> C : I D ; > C 8 D B : I 6 M : H

6 ' : I D ; > C 8 D B : I 6 M : M E : C H : 7 : C : > D C D 6 ; C 9 B B > A A A > D D C ; D G > I A A ; > H 8 6 A N C O G H : C G : H E # J D : K : A N  
7 ' : I D ; > C 8 D B : I 6 M : M E : C H : 7 : C : > D C D 6 ; C 9 B > A B A > A D A G > D C ; D B G A A : ; > H 8 6 A N C O G H : C G : H E # J D > K : A  
8 M 8 A J 9 : H B > A A > D C B > A A > D I D C C D C 8 D C I B > A A A > D C G C A 6 6 : H I H ; D G I = : ; H 8 6 A N : 6 G H  
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& 6 A 6 N H > 6 6 C 9 - = 6 > A 6 C 9 - = : D B E 6 C M A 6 > D D < D 6 C I : 9 6 > 6 5 D H D ; > D C D > H J 8 = : C I > I > : H  
7 J G > C < I = : ; > H 8 6 A N : 6 G : C 9 : 9 # J C E A : I : 9 > I H ) D E < G N L J G J 6 D B < : I D L C A I D A : 9 > C < H : G < : B > 6 : 9  
H J 7 H : F J : C I > C K : H I B : C I H B 6 9 : > C 8 D G C : 8 I G D C E A H I D U E : G B 6 6 E H 6 8 I : D C H I > C > D E : 0 I N J G B > A 0 A  
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AD F:7 8;E53> K73DE 7@676 G

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3>3@57 3F  
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5CG;E;F;A@E  
66;F;A@E 6;EBAE3>E

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3>3@57 3F  
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AADL6C8:H ;DG 9DJ7I;JA 688DJCIH

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:::GG:9 I6M K6AJ6I>DC 6AADL6C8:

AADL6C8:H ;DG 9DJ7I;JA 688DJCIH

Z

:::GG:9 I6M K6AJ6I>DC 6AADL6C8:

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2?2-.7- .,5\*;\*=287

"C J<JHI I=: DBE6CN 9:8A6G:9 \$ DI;B> 6CEC 66A=866H;=: DSK>A06BH DBBD C  
DBBDC ,ID8@ -=>H 9>K>9:C9 >H E6N\$@A.DA@:GHIID7;:G:8DG9 6DI HDI; ,:EI:B7:G



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-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H GN:'BH L>IG: GI:DHCH8>HD8 D=C I6D BE\$ >C I=: )GDMN  
DBE6CN^H CCJ6A &::I>C< D; ,ID8@=IDA9DG7H ;>A:Q)GDMN ,I6I: JC9:G I=:  
A:8I>DC D; >G:8IDGH\ 6C9 >H =>CH DGEJD6A6 #:E D IG:::G:C8: >C I

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I=: =:69>C< [ M:8JI>K: (;;>8:GH\ 6C9: >HC >E8B GEDG6A:9:END GI:::G:C

-D I=: :MI:CI 6EEA>867A: I=: >C;DGB6I>DC:GH EG:8FJ>DG 89D BBA>6GH>ILBI= ,:8II>DC  
>H 8DCI6>C:9 >C I=: )GDMN ,I6I:B:GIC8C9>SHI =>CH DGEJD6A6 #:E D IG:::

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H GN:'BH L;>6€ 96:GH8D ;DJH>C DHE6DC9J8I >H  
,I6I:B:CI JC9:G I=: =:69>C< [ DGEDG6I.G6DK: GK 6C86 88:II):DA>ZD:GH DC9 >H >C  
>C I=>H CCJ6A +:EDGI

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H GN:'BH L>D>IG:DBE8IIII:D I>C8DBE6C< I=: J9>  
D6G9 D; >G:8IDGH >H 8DCI6>C:9 >G:IG>CGDMNG,EDIGB:ICI DK 9GC 6E8: &6II:GH  
+:8DBB:C96I>DC D; >G:8IDG 6C9>96j:G\ 88C9>SHI =>CH DGEJD6A6 #:E D IG

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H GN:'BH L>D>IG:DBE8IIII:D I>C8DBE6C< I=: J9>  
B:B7:GH 6C9 >IH ;>C6C8>6A :ME:GI: B>E I 8,000I:G>C=9 =>G9>C>G DDMNE DIG 6I: DK:C  
DBB>II::H\ 6C9 >H >C8DGEDG6I:9 7N GG:::G:C8: >C I=>H CCJ6A +:E

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H GN:'BH L>C H>G:IG:IEI 616 9D C< :E DAB E8N >H 8DCI6  
JC9:G I=: =:69>C< [ DBE:CH6I>DC >H8JGH>DG 6DA>8N 6N9>)>H>G>9I:>DC DC  
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,I6I:B:CI JC9:G I=: =:69>C<H [ DBE:CH6I>DC [ M H8JJ HK>DCB E CQH C16 ANC \ ( ) 6N +  
) :G;DGB6C8:\ 6C9 [ >G:8IDG DBE:CH6I>DC EVD G 6HI EG: 87N KG A;NG:CC9 >E I=>H CC

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H >D CB ELD A>8G::HEE68I9I B G88B E8CH 6IH I=: N G:  
B6C6<:B:CI >H 8DCI6>C:9 >C I=: )GDMN +>IH @ B: 6IAJ6C 99 GD = DB E: C>O I>DC )DA>  
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-D I=: :MI:CI 6EEA>867A: I=: >C;DGB6I>DC:GH EG:8FJ>DG 89D BBA>C>HI >D CB 8DBB>II::  
E6GI>8>E6I>DC >H 8DCI6>C:9 >C IEG 6G: 9MNM ,66j: 6:CB:660 >H C 8DCG 6A +:EDC

-=: G:EDGI D; I=: DBE6CN^H DBE:CH6I>DC:DBBH I8:D CG 6FJG: 9 C7N=: )GDMN  
=:69>C< [+ :EDGI D; I=: DBE:CH6I>DCI:DBBH>GI:::G6C9: >HC >E8B GEDG6A +:EDG

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-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H 8IJB DSB OCG: HB CB>HDH H6 88G >IC9:G IBC DB  
EA6CH >H 8DCI6>C:9 >C I=: )GDMN J 6N B DCB EJ C 9I:G >I C >A68G C E; D B B 6I>DC \ 6  
G:::G:C8: >C I=>H CCJ6A +:EDGI

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H I NI:BLIC>GHE>HEED8 I8I:G IIG>CH 78 CG;>8>6A DL  
8DCI6>C:9 >C I=: )GDMN ,I6I:B:CI JC9:GHI=>E I6;9>C H [ DGEJD6A6 \ DC \ 6C9 >H  
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) " ' ) # ' ! ) \$ # ( % ( # ' ! ) ) ' # ( ) \$ # ( # ' ) \$ ' # % # #  
-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H G:H: B >J>I G:A:H E9 8E: G H D G G C H B 8 8 D C 9 6 G C:9  
I=: =:69>C< [ DGEDG6I: DK:GC6C8: & 6111 G H Z D > G E 8 I G G : " O O K E G C \$ : C 8 : & 6 1 1 : G H Z D  
CCJ6A +:EDGI

-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H C9:B:C9I€8G:H H:8 D C D 6 9 G 9 8 D G =: ) G D M N  
=:69>C<H [ DGEDG6I: DK:GC6C8: & 6111 G H Z D > G E 8 I G G : " O O K E G C \$ : C 8 : & 6 1 1 : G H Z D  
6C9 >H >C8DGEDG6I:9 7N G:::G:C8: >C I=>H CCJ6A +:EDGI

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-=: >C;DGB6I>DC G:FJ>G:9 7N I=>H , > 6 : B B > G I 8 D C 9 : G > C = 9 => G 9 > C < B Q M N D E D H 6 A  
, : A : 8 I > D C D ; " C 9 : E : C 9 : C I + : < > H I : G : 9 ) J 7 A > 8 I D 8 8 0 9 : E I > C 9 < C > G B > Z H : H G : 9 ) J 7 A > 8  
( ) G D E D H 6 A + 6 I > ; > 8 6 I > D C D ; , : A : 8 I > D C A D 8 " 8 8 D E J : C I 9 : C < + > G B Z I J G > I D B B > I I : :  
) D A > 8 > : H 6 C 9 ) G D 8 : 9 J G : H \ 6 C 9 > H > H C 8 D G E D A G 6 I E 9 D 7 N G : : : G : C 8 : > C I =

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6 -=: ;DAADL>C< 9D8JB:CIH 6G: ;>A:9 6H E6GI D; I=>H G:EDGI  
-=: DBE6CN^H DCHDA>96I:9 >C6C8>>6A:9,16H:EE:CGH DE; FJ>B:9C DJ 67A  
+:EDGIH D; "C9:E:C9:CI +:<>HI:G:9 )87A9:8 88D,6G||>'C'< "b:BB 6G:C:6C  
6C9 ,JEEA:B:CI6GN 616  
AA DI=:G ;>C6C8>6A HI6I:B:CI H8=:G:JFAJ:HIG6G > D BD>GIB 817 D8G JHH CDI  
I=: >C;DGB6I>DC 86AA:9 ;DG >H >C88A:9:9>C8Q8>6 D B, E66ICB:CH H D88H D=  
DCHDA>96I:9 >C6C8>6A ,16I:B:CIH  
M=>7>IHZ-=: :M=>7>IH A>HI:9 JCG:GC)88GG E D G 7 I A9D Z N6 G::; :GA C98 :D 6 H  
+:EDGI [X\ >9:CI>;>:H :68= B6C6<: B NC E A 6 C I 6 G 88 GGG6 8 8:BE 00 H6:IFU  
:M=>7>I ID I=>H CCJ6A +:EDGI 6C9 GH J C= 7A> B I:;CG< C H >C8DGEDG6I  
7 M=>7>IH

,:E6G6I>DC 6C9 >HIG>7JI>DC <G:BB:CC' :9LH:9D6JED:G6I>DC ':L ':LH  
' :LH DGE !DA9>C<H .\$ "G:A6C9 "CMBG E-DIG6I:9D7IN:G:JGG:CC8: +DE DG  
DGEDG6I>DC DC DGB \$ >A: 'D JG>I>:H ;6A99 M8+6C<: , DBB>HH>D

)6GI>6A HH><CB:CI 6C9 HHJBEI>G8= <G::B:C6B88C<9-6HC DN &>6GHI :  
DM DGEDG6I>DC ':LH DGEDG6I>DC GC A 6' C19H >DGE: H8A8I>D<H=:,\$,:E'6  
>HIG>7JI>DC <G::B:CI 96I:9 #JC:;;;G:C8: "D8MGED>G6I:9IDNI-G \*J6G  
' :LH DGEDG6I>DC DC DGB \* >A:='D,:8JG>I>:H;6A:9 M8=6IC<: DBB  
&6N

-6M ,=6G>C< 6C9 "C9:BC>;>86I>DC <G:1B:CI':96I:9G#EDG6I>DC 6C9  
DGEDG6I>DC "C8DGEDG6I:9 7N GGG 00 8+:EDGM=D;7>LH D8E8:G6I>D  
'D ;>A:9 L>I= I=: ,:8JG>I>:H;6A:9 M8=6IC<: DBB>HH>D

B:C9:9 6C9 +:HI6I:9 (1 ,)(+,- -G69: &6G@1%>6HCN; (8ID:7BGC 7  
&:9>6 %% 6C9 DM ,EDGIH JHIG6A>N GN:G>B8:1:9 MG8D8IEDG6D:9=7  
D; ':LH DGEDG6I>DC DC DGB \* >A:='D,:8JG>I>:H;6A:9 M8=6IC<: D  
:7GJ6GN

B:C9:9 6C9 +:HI6I:9 (1 -G69: &6G@9%#8DC H8I D 7:GB:CI 96I7:IL::C D  
%% 6C9 DM ,EDGIH JHIG6A>6 )IN G:CB>1:9 M8D8IEDG6D:9=7N JGGI:  
' :LH DGEDG6I>DC DC DGB \* >A:='D,:8JG>I>:H;6A:9 M8=6IC<: DBB  
:7GJ6GN

B:C9:9 6C9 +:HI6I:9 DMI:A -G69: 86G@6%#8: C8HD7<G::B:CI 97:IL::C  
%% 6C9 DMI:A &6C6<:B:CI )IN %19 D"CMB87>DG6I:9D7IN:G:J6G:IC8AN +:  
DGEDG6I>DC DC DGB \* >A: 'D 8JG>I>:H;6A:9 M8=6IC<: ,:DBB>HH>

B:C9:9 6C9 +:HI6I:9 (1 -G69: &6G@9%#8DC H8I D 7:GB:CI 96I7:IL::C D  
%% 6C9 DMI:A &6C6<:B:CI )IN %>B>8:9ID "MB-DGEDG6I:9 7A: GJ6:GI:GA  
' :LH DGEDG6I>DC DC DGB \* >A:='D,:8JG>I>:H;6A:9 M8=6IC<: DBB  
:7GJ6GN R

+ :HI6I:9 :GI>;>86I: D; "C8DGEDG6I:9D7IN:G:J6G:IC8AN +:  
+:EDGI D; ':LH DGEDG6I>DC DC DGB A:9 \$>I>A='D:8JG>I>:H;6C9 M8=  
DBB>HH>DC DC J<JHI

:GI>;>86I: D; A>B>C6I>DC D; ||>C<:CG::HG G#9C,+D8@)GGI>:8HE6DGEDG6  
7N G:;;G:C8: ID M=>7>I ID I=: `0•AàD @D` 0À€A @\$pQ @ªa à9 à6à0`•à@0  
DBB>HH>DC DC J<JHI à0À€€Dp`x: & 0• 0à À@ àà@0`0• p À p A€

J::4;F  
#G?47D J::4;F 7E5D;BF;A@

:H8G>EI>DC D; ':LH DGEDG6I>DCMHG;;8GG>8>IH ME8D:GIEDG6D:9=: C  
':LH DGEDG6I>DC DC DGB \$ >A:='D;:8JG>I>:H;6A99 M8#6C<: DBB  
J<JHI

"C9:CIJG: 96I:9 EG>A 7:;L::6C@:'6D>BEG6CN 6H9D8>6I>DC 6H  
"C8DGEDG6I:9 7N G:::G:C8: ID M=>D7>ILH IDGIEDG6G:G:CID:CE DGB \$  
>A:9 L>I= I=: ;:8JG>I>:H 6C9 EM8#6C<: DBB>HH>DC DC

DGB D; ;C>DG 'DI:H 9J: G:'C8:DDGEND-G7I>9 7NIG:]=: JGG:C  
DGEDG6I>DC DC DGB \$ >A: 'D JG>I>:H ;6A99 M8#6C<: ;DBB>HH>D

"C9:CIJG: 96I:9 :7GJ6GN 7:;L:6C@=:GD BE6DBE6CN '6I>DC6.  
IGJHI:: "C8DGEDG6I:9 7N G:::G:C8:+:EDM#>D7;>I:LH IDGIEDG6GSDC DC  
>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DBB>HH>DC DC

DGB D; ;C>DG 'DI:H 9J: G:'C8:DDGEND-G7I>9 7NIG:]=: JGG:C  
DGEDG6I>DC DC DGB \$ >A: 'D JG>I>:H ;6A99 M8#6C<: ;DBB>HH>D

B:C9:9 6C9 +:HI6I:9 BEADNB:CI <G::B::CL::Q6I:9H&6DNGEDG6I>DC 6C9  
-=DBHDC "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
>A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DB X

B:C9:9 6C9 +:HI6I:9 BEADNB:CI <G::B::CL::Q6I:9H&6DNGEDG6I>DC 6C9  
)6CJ88>D "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
>A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DB X

B:C9:9 6C9 +:HI6I:9 BEADNB:CI <G::B::CL::Q6I:9H&6DNGEDG6I>DC 6C9  
)>ID;H@N "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
>A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DB X

':LH DGEDG6I>DC %DC< -:GB "C89CG>K16)A\$C;;6H>4B:ODK9B7:G  
"C8DGEDG6I:9 7N G:::G:C8: ID M=>D7>ILH IDGIEDG6GSDCID:CE DGB \$  
'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DBB>HH>D

':LH DGE +:HIDG6I>DC )A6C 6B:GJ:9N6C9 G:HI6I:98DBEDG67:9 7N G:  
ID I=: \*J6GI:GAN +:EDGI D; ':LH DGEDG6I>DC DC;>A:9L>I= I=: ;:  
M8#6C<: DBB>HH>DC DC &6N X

DGB D; <G::B:CI ;DG 6H= ;:IIA:9JCG:GGB:6C8H, ID8@D.C6I>DC %  
"C8:CI>K: )A6C "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
>A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DB X

DGB D; <G::B:CI ;DG ,ID8@ ;:IIA:9JCG:GGB:6C8H, ID8@D.C6I>DC  
"C8:CI>K: )A6C "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
\$ >A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DB X

DGB D; <G::B:CI ;DG 6H= ;:IIA:9JCG:GGB:6C8H, ID8@D.C6I>DC %D  
)A6C "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DBB>HH>D

DGB D; <G::B:CI ;DG ,ID8@ ;:IIA:9JCG:GGB:6C8H, ID8@D.C6I>DC %D  
"C8:CI>K: )A6C "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
\* >A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DBB>HH>D

G:9>I <G::B:CI 96I:9 6H D; &6G8#6CN I=:6B:ODG<GH:6C9 DI=:G E6G  
6C@ D; B:G>86 ' 6H 9B>C>HIGNISK::G<C8I: IDC8D-G7D9G6I:9ID I=:  
D; ':LH DGEDG6I>DC DC DGB \$ >A: 'D8JG>I>:H ;6A99 M8#6C<: DB  
&6G8=

B:C9B:CI 'D 96I:9 6H D; &6G8#6CN I=:6B:ODG<GH:6C9 DI=:G E6G  
DBE6CN I=: A:C9:GH 6C9 DI=:G E6G|>BHGE6GIN I=:6HID9B:CG>HIG@I>K  
"C8DGEDG6I:9 7N G:::G:C8: ID M=>D7>ILH IDGIEDG6I>D  
>A:9 L>I= I=: ;:8JG>I>:H 6C9 &6N#6C<: DBB>HH>DC DC

,NC9>86I:9 68>A>IN <G::B:CI 96I:9 6H D; MU:AJK6C6<:B:CI )IN %>B>  
7DGGDL:G I=: &% H C6B:9 I=:G>C II=:G>CG166A ;DBB:ODG:GHIE6B@  
;68>A>IN 6<:CI "C8DGEDG6I:9 7N G:::G:C8:GAIN +ME=D>G>ID; ':LH IDGIEDG6I>D  
\* >A: 'D ;>A:9 L>I= I=: ;:8JG>I>:H 6C9 :M8#6C<: DBB>HH>D





J::4;F  
#G?47D J::4;F 7E5D;BF;A@

--: ;DAADL>C< ;>C6C8>6A >C;DGG6J>6AC+;6DB11BC+;DGBIG6C;DH I=: ;  
#JC: ;DGB611:9 >C "CA>C: 1 +%CIH>D; DE+G6A>96IH9;DIG11B: ;>H86  
#JC: 6C9 >> DCHDA>96I:9C,H6IKB:"CIHDB; %DHH ;DG  
:C9:9 #JC: 6C9 >>>=:DIGHDA>96#JC:6A6C8: 6C9  
>K DCHDA>96I:9 ,16I:B:CIH D; 6H:C9AD#HC;DG I=: ;>H86ACN:6GH  
K DCHDA>96I:9 ,16I:B:CIH D; FJ>I#JJDG I=: ;>H86A6N96GH :60.99 K>  
DCHDA>96I:9 >C6C8>6A ,16I:B:CIH

--: 8DK:G E6<: ;GDB ':LH DGEDG6B>DC\$ HDGQ#6A>H86DAGND6G DC9:9 #  
;DGB611:9 >C "CA>C: 1 +% >C8AJ9:9 6H M=>7>I

2222222222222222222222222222222222

>A:9 =:G:L>I=  
JGC>H=:9 =:G:L>I=

X &6C6<:B:CI 8DCIG68I DG 8DBE:CH6IDGN EA6C DG 6GG6C<:B:CI  
R :GI6>C EDGI>DCH D; I=>H :M=>7>"II:36K: 7::C DB>H:9JA6C+D6C,I\$D

) " \$" (" " '.

'DC:

( # ) \* ' (

)JGHJ6CI ID I=: G:FJ>G:B:CIH D; ,:G>DCH MDG=6C@: D;I ID:: ,:8JI=: G:H>HIG6C  
G:EDGI ID 7: H><C:9 DC >IH 7:=6A;97NN=6JJ<DGG>D>&C:9 I=:G:JCID

' 0, (+)(+ -"(' +:<>HIG6CI

N \_\_\_\_\_ H ,JH6C )6CJ88>D  
(GE3@ %3@G55;A  
::78 ;@3@5;3> \$88;57D

6I: J<JHI

)JGHJ6CI ID I=: G:FJ>G:B:CIH D; I=: ,:8JG>H>GHE MBI=66H:7:8C D; ><C:9 7HADL  
DC 7:=6A; D; I=: G:<>HIG6CI 6C9 >C 98<86689>I>:H 6C9 DC I=: 96

(;9@3FGD7 );F>7 3F7

H +D7:GI # -=DBHDC =>; M:8JI>K: (;>8:G 6C9 J>G:8IDG  
'A47DF ):A?EA@ )G>C8>E6A M:8JI>K: (;>8:G

H ,JH6C )6CJ88>D =>; >C6C8>6A (;>8:G  
(GE3@ %3@G55;A )G>C8>E6A >C6C8>6A (;>8:G

H &6GN<G68: : G6O>D =>; 88DJCI>C< (;>8:G  
"3DK9D357 7 D3L;A )G>C8>E6A 88DJCI>C< (;>8:G

H %68=A6C \$ &JG9D8=  
!-658IDG) %68 8> @J\_#\_312 LE %684UDGIJA 6>G H = J<JHI 6

Ended June 30, 2024











