

7DEOH RI & RQWHQWV

\$FNQRZOHGJHPHQWV

+LVWRU\ RI 32/' LQ 0LQQHVRWD

\$ERXW 7KLV 0DQXDO

:KDW LV 3ODFH RI /DVW 'ULQN 32/' "

:KR LV WKLV PDQXDO IRU"

:K\ LV LW LPSRUWDQW WR UHGXFH RYHUVHUYL FH RI DOFRKR

+RZ GRHV 32/' ZRUN"

%URDGHU 32/' (IIRUWV

1RQ 5HWDLO 32/' /RFDWLRQV

2WKHU 32/' ORGHOV

32/' ,PSOHPHQWDWLRQ

6WHS 6WDUW XS

6WHS 'DWD &ROOHFWLRQ

32/' 'DWD &ROOHFWLRQ 6WHS E\ VWHS .H\ 'HFLVLRQV

6WHS 6WDNHKROGHU \$ZDUHQHV

6WDNHKROGHU \$ZDUHQHV 6WHS E\ VWHS .H\ 'HFLVLRQV

6WHS)ROORZ XS

32/')ROORZ XS 6WHS E\ VWHS .H\ 'HFLVLRQV

&RQFOXVLRQ

\$SSHQGLFH

\$SSHQGL[\$ %URDGHU 32/' (IIRUWV

\$SSHQGL[% 1RQ 5HWDLO 32/' /RFDWLRQV

\$SSHQGL[& 6WDUWX /HWWHU WR ,QIRUP 2WKHU \$JHQFLHV

\$SSHQGL[' 32/' 6WDUWX /HWWHU IRU (VWDEOLVKPHQWV

\$SSHQGL[(6XJJHVWLQV IRU 'UDIWLQJ D 32/' 'DWDEDVH 8VHU

\$SSHQGL[) 6DPSOH 1HZV 5HOHDVH

\$SSHQGL[* 32/' 7DONLQJ 3RLQWV

\$SSHQGL[+ 6DPSOH 6RFLDO 0HGLD 3RVW

\$SSHQGL[,L°Đ00-X6X6“.H\Q €0 € `0P€đ€H €H0p006XJHU

32/' 0DQXDO \$XWKRU V

'DQLHO 6FKULHPHU 03+
(LOHHQ 'HOHKDQW\ 03+
(OOH ODUN %6
.DWKOHHQ /HQN 03+
7UDFL 7RRPH\ 3K'

6XJJHVWHG \$FOLARDKVRORQS LGHPLRORJ\300DRJHURP/DVW 'ULQN 32/' 0D
8QLYHUVLW\ RI OLQQHVRWD 6FKRRO RI 3XEOLF +HDOWK
KWWSV DHS XPQ HGX WRROV SODFH ODVW GULQN SROG SROG U

\$FNQRZOHGJHPHQWV

7KLV SURMHFW LV VXSSRUWHG E\ WKH &HQWHUV IRU 'LVHDVH &R
'HS DUWPHQW RI +HDOWK DQG +XPDQ 6HUYLHV ++6 DV SDUW RI
WRWDOLQJ ZLWK SHUFHQW IXQGHG E\ &'& ++6 7KH FRQ
DQG GR QRW QHFHVVDULO\ UHSUHVHQW WKH RIILFLDO YLHZV RI
8 6 *RYHUQPHQW

7KDQNV WR 6KHLOD 1HVELWW /LQGD 0 %RVPD \$GDP 0RRUH -DF
-RHOOH 5DELQ &RXUW IRU SURYLGLQJ FRPPHQWV DQG JXLGDQFH

7KDQNV WR &ODXGLD +HEHUW IRU KHU ZRUN RQ WKH SUHOLPLQD

:H DSSUHFLDWH WKH VXSSRUW RI 1RUWK 0HPRULDO +HDOWK +RV

+LVWRU\ RI 32/' LQ OLQQHVRWD

7KH 0LQQHVRWD 32/' LQLWLDWLYH ZDV VWDUWHG LQ)HEUXDU\ DQG D /HYHO , 7UDXPD &HQWHU ZLWK LQSXW IURP FLW\ DWWRUQ RIILFLDOV \$ WRWDO RI DJHQFLHV DFURVV 0LQQHVRWD KDYH S LQLWLDWLYH 7KH 0LQQHVRWD 32/' LQLWLDWLYH ZDV SDUWO\ ED VWDWHV &DOLIRUQLD 0DVVDFKXVHWWV 1HZ +DPSVKLUH DQG : DJHQWV DUH WUDLQHG WR V\VWHPDWLFDOO\ DVN DERXW DQG UH

7KH 0LQQHVRWD 32/' LQLWLDWLYH LV LQQRYDWLYH LQ WKH IROO " \$JHQWV FROOHFW 32/' GDWD DW WKH WLPH RI WKH LQFLGHQZ KLFK FRXOG RFFXU PRQWKV ODWHU 7KLV PHDQV WKH GDWI RU PRUH WLPHO\ UHVSRRQVHV " 32/' LQIRUPDWLRQ LV FROOHFWHG IRU DOFRKRO LPSDLUHG DOFRKRO LQYROYHG LQFLGHQWV LQFOXGLQJ DVVDXOWV DQ " 7KH 0LQQHVRWD 32/' LQLWLDWLYH XVHV DQ RQOLQH WRRO GHVLO\ UHFRUG DQG PRQLWRU 32/' GDWD DFURVV MXULVGLF " 7KH 32/' GDWDEDVH ZDV GHVLJQHG WR EH DFFHVVLEOH IURP DFURVV HQIRUFPHQW MXULVGLFWLRQV DQG VLPSOLI\ GDW

\$ E R X W 7 K L V 0 D Q X D O

2WKHU 32/' ORGHOV

7KLV PDQXDO RXWOLQHV 32/' DFFRUGLQJ WR KRZ LW LV LPSOHPH
PRGHO HPSKDVLJHV VKRUWHU IROORZ XS WLPHV WR KHOS FKDQJ
FRPPXQLWLHV LQ ZKLFK LW LV LPSOHPHQWHG 32/' GDWD LV FRO
DQ DOFRKRO UHODWHG LQFLGHQW 2WKHU MXULVGLFWLRQV KDY
FRXUW SURFHVV ZKLFK KDV D ORQJHU WLPHOLQH 6RPH RI WKH
UHOHYDQW LI \RXU MXULVGLFWLRQ KDV GHFLGHG WR XVH D GLII

32/' , P S O H P H Q W D W L R Q

, GHQWLI\ DQG FRQWDFW NH\ GHFLVLRQ PDNHUV 'HWHUPLQH
DJHQF\ FRPPXQLW\ RU VWDWH DUH QHHGHG WR HQVXUH WK
LV LPSOHPHQWSHQGRQDQHUV D VDPSOH OHWWHU WKDW FDQ EH
GHFLVLRQ PDNHUV .H\ GHFLVLRQ PDNHUV ZLOO YDU\ E\ FRP
:KLFK NH\ GHFLVLRQ PDNHUV ZLOO \RXU DJHQF\ LQIRUP DER
" 3ROLFH FKLHI
" 6KHULII
" 'LUHFWRU RI DOFRKRO OLTXRU OLFHQVLQJ
" &LW\ FRXQFLO PHPEHUV RU RWKHU HOHFWHG RIILFLDO
" 0D\RU
" &LW\ DWWRUQH\
" &LW\ FOHUN
" 2WKHU BBBB BBBB BBBB BBBB BBBB BBBB

(QJDJH NH\ S~~D~~W~~M~~K~~Q~~HUDJHQFLHV DQG RUJDQL]DWLRQV FDQ DV
PDQDJHPHQW DQG IROORZ XS , GHQWLI\ LQJ DQG HQJDJLQJ W
HQVXUH WKDW H[SHUWV LQ GDWD PDQDJHPHQW DQG DQDO\W
D KHDOWK GHSDUWPHQW RU FRDOLWLRQ DJUHHV WR JHQHUD
IROORZ XS PHFKDQLVPV DUH LQ SODFH H J D UHVSRRQVH E
WR D IUHTXHQW 32/' HVWDEOLVKPHQW &RPPXQLFDWLQJ ZL
WKH VWDUW XS SKDVH PD\ EH KHOSIXO IRU FUHDWLQJ D SOD

6WHS 'DWD & ROOHFWLRQ

32/' GDWD FROOHFWLRQ LV WKH GD\ WR GD\ ZRUN RI FROOHFWLG
HQWHULQJ LW LQWR WKH 32/' GDWDEDVH 7R HQVXUH WKDW WKH
DQG FRQVLVWHQW LW LV FUXFLDO WKDW DJHQWV DUH WUDLQHG
GDWD ,W LV LPSRUWDQW WR JHW EX\ LQ IURP DJHQWV WR HQVX
DUH D URXWLQH SDUW RI UHVSQRQLQJ WR DOFRKRO LQYROYHG L

6RPH DJHQFLHV FROOHFW 32/' GDWD RQO\ IRU '8, LQFLGHQWV Z
LQFLGHQWV LQ ZKLFK DOFRKRO FRQVXPSSLRQ LV D IDFWRU & RC
LQFLGHQWV FDQ KHOS DJHQFLHV EHWWHU XQGHUVWDQG ZKLFK D
FRQWULEXWLQJ WR DOFRKRO UHODWHG FRQFHUQV LQ D FRPPXQI

32/' 'DWD & ROOHFWLRQ 6WHS E\ VWHS .H\ 'HFLVLRQV
2EWDLQ DFFHVV WR D \$Z/HOO WKOEDWHRQLQJ GDWDEDVH PDNH
HQWHU 32/' GDWD DQG WR JHQHUDWH UHSRUWV \$ 32/' GDWD
UHJLRQ RU VWDWH WKDW \RX FDQ XVH RU DGDSW ,I QRW \F
GDWDEDVH WR HQDEOH \RXU DJHQF\ WR V\VWHPDWLFDOO\ F
NH\ IHDXUHV RI D 32/' GDWDEDVH LQFOXGH
D (DV\ WR JHQHUDWH UHSRUWV
E 'URSGRZQ PHQX IRU ORFDWLRQV
F ,QFOXGHV HVWDEOLVKPHQWV IURP UHJXODUO\ XSGDWH
G \$ELOLW\ WR VKDUH GDWD DPRQJ MXULVGLFWLRQV
H ,QFOXGHV D YDULHW\ RI LQFLGHQW W\SHV QRW MXVW

:KDW GDWDEDVH ZLOO \RXU DJHQF\ XVH"
" ([LVWLQJ 32/' GDWDEDVH
" 1HZ 32/' GDWDEDVH FUHDWHG E\ \RXU DJHQF\
" 32/' GDWDEDVH DGDSWHG IURP DQRWKHU DJHQF\
" 2WKHU BBBB BBBB

5HJDUGOHVV RI ZKHWKHU \RX XVH D QHZ RU H[LVWLQJ GDWDEDV
DJUHHPHQW LV QHHGHG 7KLV ZRXOG EH DQ DJUHHPHQW EHWZH
VKDUHG DQG ZLWSZKQIR[6H\WJJHVWLQVIRU GUDIWLQJ D GDWD
DJUHHPHQW

'RHV D GDWDEDVH XVHU DJUHHPHQW QHHG WR EH FUHDWHG'
" <HV
" 1R

\$GYLFH IURP D 32/' DJHQF\ OHG
8VLQJ D GURS GRZQ PHQX KDV LWV VWUHQJWKV DQG OI
VSHOOLQJ HUURUV VKRUWHQHG QDPHV RU ZULWLQJ WŁ
PDNHV LW HDVLHU WR NHHS WUDFN RI HVWDEOLVKPHQV
RXW WKH IRUP DQG LGHQWLII\ D 32/' 8VLQJ D GURS GRZ
FRPSOLFWDHG LQ ODUJH MXULVGLFWLRQV ZLWK PDQ\ D
XSGDWLQJ ZKLFK PD\ UHTXLUH DGGWLWRQDO VWDII WLP

6\VWHPDWLFDOO\ FROOHFW UHFRKJGVHD Q\W HSQWWKUR X2/G GEDHW
VWDWHG LQ \RXU DJHQF\ \V VWDQGDUG RSHUDWLQJ SURFHGX
\RXU DJHQF\ REWDLQV DUH WUXVWZRUWK\
" &ROOHFW GDWD \$OO DJHQWV VKRXOG FROOHFW GDWD
LV EHWV WR DVN DQ LQGLYLGXDO HDUO\ LQ WKH LQWHU
<\RXU FLW\ FRXQW\ RU VWDWH PD\ KDYH VSHFLILF UXOH
FROOHFWLRQ VR FRQVXOW \RXU FLW\ RU FRXQW\ DWWR
+RZ ZLOO \RXU DJHQF\ GDWD LQ €P0p UQHPLW\ RU FR
XSGDWLQJ ZKLFK €WKH 6À BB/€0 €G 6À BBLQVWDQFHV

7DEOH 32/' 'DWD (QWU\ 2SWLRQV

	'LUHFW (QWU\	6LQJOH 3RLQW (Q\
6WUHQJWK	\$JHQWV PD\ KDYH G WR GDWD LI GDWDE 6KDUHG UHVSQRQVLE HQWU\ 5HDO WLPH GDWD H	0RUH FRQVLVWHQW G W\SHV QDWXUH RI QR 2QH SHUVRQ YHU\ IDP GDWD DQG WUHQGV
/LPLWDWL	6FDOH RI WUDLQLQJ UHTXLUHG DFURVV D 3RWHQWLDO LQFRQV HQWU\ 5HDO WLPH GDWD H	0RUH FRQFHQWUDWHG \$GGLWLRQDO SHUVRQ FDVHV WR ILQG 32/' LC 3RVVLEOH ODJ LQ GDV
0LWLJDWL 6WHSV	&RQGXFW FDVH UHY PLVVLQJ 32/' HQWUL HQWHULQJ RI GDWD LPSRUWDQW GXULQJ ,QFRUSRUDWH 32/' L FKHFNOLVWV PDQX 3URYLGH UHJXODU U DJHQWV WR HQWHU *LYH UHFRJQLWLRQ FRQVLVWHQWO\ HQW)UHTXHQWO\ VKDUH U ZLWK DJHQF\ VR DJHQ UHVXOWV RI GDWD FRQ 3URYLGH UHJXODU UH WR UHFRUG 32/' LQIRU FDVH UHSRUWV DQG IC *LYH UHFRJQLWLRQ W FRQVLVWHQWO\ UHFRU LQ WKHLU FDVH UHSRU FDVHV

1RWH 7KH RULJLQDO YHUVLRQ RI WKLV WDEOH ZDV FUHDWHG EV

" 6SHFLDO 6LWXDWLRQV

v %XVLQHVVHV ZLWK PXOWLSOH ORFDWLRQV VR LW LV LPSRUWDQW
VHUYHG WKH LQGLYLGXDO\ ODVW GULQN
v ,QFLGHQWV ZKHUH FROOHFWLQJ 32/' PD\ EH LQDSSU
KDYH VXIIHUHG VH[XDO DVVDXOW RU VHYHUH LQMXU
FROOHFW 32/' GDWD DW WLPH RI LQFLGHQW \$JHQW
UHFRJQLJH WKHVH VLWXDWLRQV \$ VSHFLDO FDWHJL
EH LQFOXGHG LQ WKH 32/' GDWDEDVH

7UDLQLQJ DQG \$RQLWQRQULYQLJ XDOV LQYROYHG LQ FDUU\LQJ R
RU D SRUWLRLQ RI WKH 623 PXXWVERPHWQ\DLQW\QD\WIRQG RD \WHRQ WV
VWDII GXULQJ WKH VWDUW XS SKDVH DV ZHOO DV SURYLGLQ
ZKR MRLQ \RXU DJHQF\ DIWHU 6WDUW XS <RXU DJHQF\ VKRX
PDLQWDLQ KLJK TXDOLW\ LPSOHPHQWDWLRLQ HVSHFLDOO\ Z
DJHQWV DQG RWKHU VWDII KDYH D EURDG XQGHUVWDQGLQJ
XQGHUVWDQGLQJ WKHLU LQGLYLGXDO UROH WKH\ PD\ EH PR
UHODWHV WR WKH JRDO RI UHGXFLQJ DOFRKRO UHODWHG SU
" 6WDUW XS DQG 1HZ \$J%Q\ORZUDU\Q\LVQRPH PHWKRGV RI LQV
\RXU DJHQF\ FDQ XVH WR WUDLQ DJHQWV WKDW DUH QH
" ,Q SHUVRQ LQVWUXFWLRQ IURP D VXSHUYLVRU
" 'LVWULEXWLQJ SDSHU RU GLJLWDO PDWHULD OV WKD
WR ODWHU
" *RLQJ WKURXJK HDFK SDUW RI WKH GDWD FROOHFW
SURFHVV
" 5ROH SOD\LQJ RU REVHUYLQJ DQ DJHQW LQ WKH ILH
" 3UDFWLFLQJ GDWD UHFRUGLQJ DQG HQWU\ WKDW LV
DFFXUDF\ DQG FRPSOHWHQHV
" :DWFKLQJ LQVWUXFWLRQDO YLGHGV DV D JURXS DQ
WR \RXU DJHQF\ \V 623
| &RQVLGHU XWIGQJR WKRQ R WUR ZKHQOSL WDPLOLDUL]H
DJHQWV ZLWK 32/'

+RZ ZLOO \RXU DJHQF\ WUDLQ LWV DJHQWV DQG VWDII F

BB

\$IWHU VWDUWLQJ 32/' KRZ ZLOO \RXU DJHQF\ WUDLQ QH
PHPEHUV"

BB

2QJRLQJ WUDLQLQJ DQG UHPLQGHUV 7UDLQLQJ DQG UH
UHJXODU LQWHUYDOV DQG DOVR ZKHQ LQFRQVLVWHQFL
PHHWLQJV DQG UROO FDOOV DUH DOVR JRRG RSSRUWXG
UHFRJQL]H DJHQWV IRU FRQVLVWHQW DQG DFFXUDWH G
:KHQ ZKHUH DQG KRZ RIWHQ ZLOO \RXU DJHQF\ UHPLQ
RQJRLQJ WUDLQLQJ RQ WKH GDWD FROOHFWLRQ UHFRU
| :KHQ ZKHUH
" 6WDII 0HHWLQJV
" 5ROO FDOO
" 1HZ HPSOR\HH RULHQWDWLRQ RQERDUGLQJ
" 32/' WUDLQLQJ VHVVLRQ
" 2WKHU BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB
| +RZ RIWHQ
" 0RQWKO\
" 4XDUWHUO\
" \$QZXDOO\
" :KHQ GDWD FROOHFWLRQ QHHGV WR EH LPSURY
" 2WKHU BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB
"
" 0RQLWR\IRQLWRULQJ GDWD FDQ KHOS LGHQWLII\ LI VRPH
HQWHULQJ 32/' GDWD DQG LGHQWLII\ PLVVLQJ LQIRUPDW
HVWDEOLVKPHQW OLVWHG LQ WKH QRWHV DV WKH 32/' V
WKH GDWDEDVH 'DWD PRQLWRULQJ DQG UHYLHZ PD\ EH
DJHQF\ RU ZLWKLQ D SDUWQHU DJHQF\ GHSHQGLQJ RQ
RUJDQL]H 32/' DW \RXU DJHQF\
:KR DW \RXU DJHQF\ RU D SDUWQHU DJHQF\ ZLOO UHJX
GDWD"
BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB
+RZ RIWHQ ZLOO WKLV SHUVRQ UHYLHZ WKH HQWHUHG C
BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB
BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB

\$GYLFH IURP D 32/' DJHQF\ OHDG
5HJXODUO\ UHPLQG DJHQWV WKDW LW LV LPSRUWDQW
LQFLGHQWV ,W FDQ VRPHWLPHV EH FKDOOHQJLQJ WR
LQFLGHQWV EXW LW LV LPSRUWDQW IRU 32/' GDWD FRC
FRQVLVWHQWO\ DQG IDLUO\ IRU DOO DOFRKRO UHODWH
PRQLWRULQJ DPRQJ HVWDEOLVKPHQWV ZKHWKHU WKH\

6 W H S

6 W D N H K R O G H U \$ Z D U H Q H V V

0DLQWDLQ DZDUHQHVV RI 32/' DPRQJ DOFRKRO HVWDEOLVKF
VHUYL FH 5HW\QADU FRPPXQLFDWLRQ ZLWK DOFRKRO HVWDEOL
" 5HPLQG EXVLQHVHV WKDW \RXU DJHQF\ WDNHV SUHYH
" (PSKDVL]H WKDW WKH JRDO LV WR SUHYHQW RYHUVHUYI
WDUJHW RU SXQLVK EXVLQHVHV
" ,QIRUP EXVLQHVHV WKDW \RXU DJHQF\ LV PRQLWRULQJ
RYHUVHUYLFH
" %XLOG UHODWLRQVKLSV EHWZHHQ DJHQF\ VWDII DQG DC
" 3URYLGH SRVLWLYH UHLQIRUFPHQW WR HVWDEOLVKPH
" ,PSURYH LQWHUDFWLRQV ZLWK HVWDEOLVKPHQWV WKDW

&RPPXQLFDWLQJ WKDW \RXU DJHQF\ LV PDNLQJ HYHU\ H
IDLU DQG XQELDVHG ZD\ PD\ DOVR PDNH HVWDEOLVKPH
IHHGEDFN 7KH IUHTXHQF\ RI UHPLQGHUV ZLOO GHSHQG
FRPPXQLW\ ,Q SHUVRQ PHHWLQJV ZLWK PDQDJHPHQW D
DQG PD\ KHOS EXLOG D VWURQJHU UHODWLRQVKLS ZLW
\RXU FRPPXQLW\ \V VLJH DQG \RXU DJHQF\ \V ZRUNORDG
DOVR EH DSSURSULDWH

,Q DGGLWLRQ LW PD\ EH LPSRUWDQW WR FRPPXQLFDW
VHUYLQJ VWDII GLUHFWO\ DV ZHOO DV WKURXJK WKHLU
" 0DQDJHPHQW PD\ QRW DOZD\V UHOD\ PHVVDJHV WR
" 6HUYLQJ VWDII DUH RQ WKH IURQW OLQH RI SUHYH
DUH QRW DZDUH RI 32/' WKH\ PD\ FRQWLQXH WR RY

&RPPXQLFDWLQJ LQIRUPDWLRQ DERXW 32/' WKURXJK VH
DQG JHQHUDO DZDUHQHVV FDPSDLJQV PD\ EH ZD\V RI U
VWLOO UHVSHFWLQJ WKH UHODWLRQVKLS EHWZHHQ HVW
HPSOR\HHV

+RZ ZLOO \RX PDLQWDLQ DZDUHQHVV DPRQJ HVWDEOLVK
" ,Q SHUVRQ PHHWLQJV
" 3KRQH FDOOV
" /HWWHUV
" 2WKHU BBBB BBBB BBBB
+RZ ZLOO \RX PDLQWDLQ DZDUHQHVV DPRQJ HVWDEOLVK
" 'XULQJ VHUYLQJ VWDII WUDLQLQJ
" \$ZDUHQHVV FDPSDLJQV
" 2WKHU BBBB BBBB BBBB

0DLQWDLQ DZDUHQHVV DPRQJ ORFDO JRYHUQPHQW RIILFLDO
ERDUG OLFHQVLQJ ~~DJHFQDFXLVH~~ FHWFFRXQW\ OHDGHUV DQG OL
RIWHQ FRQWURO ILQHV DQG SHQDOWLHV IRU DOFRKRO OLFH
HVSHFLDOO\ LPSRUWDQW :KHQ ORFDO OHDGHUV NQRZ ZKDW
WKH\ FDQ EH EHWWHU LQIRUPHG DQG FKRRVH WR WDNH DFW
DQG RU IDFW VKHHWV FDQ HDVLO\ EH JLYHQ GXULQJ IRUPDC
WKH HVWDEOLVKPHQW QDPH WKH QXPEHU RI 32/' UHSRUWV
IROORZ XS DFWLRQV WDNHQ

:KR ZLOO \RX FRPPXQLFDWH ZLWK"

" &LW\ FRXQFLO PHPEHUV

" 2WKHU FLW\ OHDGHUV BBBBBBBBBBBBBB

" /RFDO OLFHQVLQJ GHSDUWPHQW

" &RXQW\ OHDGHUV

" 2WKHU BBBBBBBBBBBBBB

+RZ ZLOO \RX FRPPXQLFDWH ZLWK WKHVH OHDGHUV"

" 3UHVHQWDWLRQV

" ,QGLYLGXDO PHHWLQJV

" :ULWWHQ UHSRUWV

")DFW VKHHWV

" 2WKHU BBBBBBBBBBBBBB

+RZ RIWHQ ZLOO \RX FRPPXQLFDWH ZLWK WKHVH OHDGHUV

O DLQWDLQ DZDUHQHVV DPRQJ2 B WDKQHLY DNWHU RSQDMURMQLW QFLHV
DQ LQWHUHVW LQ SUHYHQWLQJ DOFRKRO UHODWHG SUREOH
LQFOXGH

D +HDOWK GHSDUWPHQWV

E 7UDQVSRUWDWLRQ GHSDUWPHQWV

F &RDOLWLRQV ZRUNLQJ RQ XQGHUDJH GULQNLQJ LVVXH

G &RDOLWLRQV ZRUNLQJ RQ GULQNLQJ DQG GULYLQJ LVV

H 2WKHU FRPPXQLW\ RUJDQL]DWLRQV QRQSURILW RUJDQ

7KHVH RUJDQL]DWLRQV PD\ QRW EH SDUW RI GD\ WR GD
WKH\ PD\ EH DEOH WR VXSSRUW 32/' LQ RWKHU ZD\V H
32/' UDLVLQJ DZDUHQHVV DERXW 32/' DPRQJ WKHLU PHF

6WHS)ROORZ XS

\$IWHU 32/' GDWD FROOHFWLRQ EHJLQV WKH QH[W VVHS LV WR S
UHSRUWV RQ D UHJXODU EDVLV WR LGHQWLIV HVWDEOLVKPHQWV
SDWWHUQ RI RYHUVHUYL FH 2QFH DQ HVWDEOLVKPHQW LV LGHQWV
VWUDWHJLHV WKDW FRQHOOQDFERI WDFNLDQY HQVHQS ISFHROOFIKQHJW SWHQHDOWLHV
GHVFULSWLRQV EHORZ ORVW DJHQFLHV VWDUW ZLWK D FROODE
IROORZ XS VWUDWHJLHV DQG KDYLQJ VWDQGDUG IROORZ XS SURF
KHOSV HQVXUH WKDW 32/' LV LPSOHPHQW HG FRQVLVWHQWO\ DQG
GDWD IRU WKHLQ XRUQIRVQHJW RWKHU HQIRUFPHQW DFWLWLYLWLHV)RU
JXLGH ZKHUH WR FRQGXFW VDWXUDWLRQ SDWUROV WDUJHWLQJ
SURYLGH DJHQFLHV ZLWK LQIRUPDWLRQ UHJDUGLQJ KRZ WR XVH
'8, DQG RWKHU RYHUVHUYL FH HQIRUFPHQW

32/')ROORZ XS 6WHS E\ VVHS .H\ 'HFLVLRQV

" 5HYLHZ 32/' GDWD 2QFBKQBDWOGDWD DUH FROOHFWHG WKH\ PX
RUGHU WR EH XVHIXO 'HSHQGLQJ RQ WKH VLJH RI \RXU FRP
32/' UHSRUWV WKH IUHTXHQF\ RI GDWD UHYLHZ PD\ YDU\ <F
SDUWQHULQJ ZLWK RWKHU DJHQFLHV VXFK DV D KHDOWK GH
\$%& DJHQF\ WR FRQGXFW WKH GDWD UHYLHZ SURFHVV 7K
FDVHV ZKHUH WKH SULPDU\ DJHQF\ ODFNV WKH FDSDFLW\ WI
5HYLHZLQJ WKH UHSRUWV LQ D WLPHO\ IDVKLRQ LV FUXFLDC
LQIRUP ZKLFK IROORZ XS DFWLWLRQV LI DQ\ \RXU DJHQF\ RU
HVWDEOLVKPHQWV LQ \RXU FRPPXQLW\)ROORZ XS ZLWK HV
LQ RUGHU WR PD[LPL]H LWV HIIHFVLYHQHV

+RZ IUHTXHQWO\ ZLOO \RXU DJHQF\ UHYLHZ 32/' GDWD"

" 2QJRLQJ

" :HHNO\

" 0RQWKO\

" %LPRQWKO\

" 2WKHU BBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB

:KR ZLOO JHQHUDWH WKHVH UHSRUWV"

" \$ GDWD RU UHFRUGV PDQDJHU DW \RXU DJHQF\

" \$ FRPPXQLW\ OLDSLVRQ DW \RXU DJHQF\

" \$Q LQWHUQ DW \RXU DJHQF\

" \$ SDUWQHULQJ DJHQF\ H J KHDOWK GHSDUWPHQW

" 7KH 32/' VWDII OHDG DW \RXU DJHQF\

" 2WKHU BBBB BBBB BBBB BBBB BBBB BBBB BBBB

" ,GHQWLIV 32/' HVWDEOLVKPHQW V.KM\QD\WQ QHHVHGDIEROOLO/RKZP HCS
LGHQWLILHG DV D IUHTXHQW 32/' \RXU DJHQF\ RU DQRW

32/' ,QFLGHQW 7KURHVKRDOBQFQFLHV VHW D WKUHVKRO
RI 32/' LQFLGHQWV WKDW PD\ RFFXU LQ D VSHFLILH
IROORZ XS WDNHV SODFH)RU H[DPSOH DQ DJHQF\
ZLWK DQ\ HVWDEOLVKPHQW WKDW LV QDPHG DV D 3
SUHYLRXV PRQWK RU TXDUWHU WLPH SHULRG PD\ C
FRPPXQLW\ DQG QXPEHU RI DOFRKRO UHODWHG LQF

IUZZ HQW 7KUHVKRFG

IUZZ

6KDUH GDWD UHSRUWV ZLWK NH\ SDUWQHUV ,W PD\ EH
SDUWQHU DJHQFLHV WKDW FDQ KHOS IROORZ XS ZLWK H
ORFDWLR\$ \$ H Q IHR[U%PRUH LQIRUPDWLRQ DERXW RWKHU 3
\RX FKRRVH WR GR VR FRQVLGHU WKH EHWZD\V WR P
LQIRUPDWLRQ H J JHQHUDWLQJ DXWRPDWLF UHSRUWV
KHOS ZLWK WKLV SURFHVV ,W\P V DOVR LPSRUWDQW WR
YLRODWH DQ\ SDUWV RI WKH 32/' GDWDEDVH XVHU DJUH
:KLFK DJHQFLHV ZLOO UHFHLYH UHJXODU 32/' UHSRUWV
" /RFDO ODZ HQIRUFPHQW DJHQFLHV
" /RFDO OLFHQVLQJ GHSDUWPHQW
" 6WDWH OLFHQVLQJ DJHQF\
" /RFDO KHDOWK GHSDUWPHQW
" 6WDWH KHDOWK GHSDUWPHQW
" /RFDO RU VWDWH FRDOLWLRQV
" 2WKHU BBBB BBBB BBBB

" 6KDUH 32/' LQIRUPDWLRQ ZLWK DJHQFLH\W\ QHDUE\ FR
H[FKDQJH ZLWK QHDUE\ FRPPXQLWLHV FDQ KHOS LGHQW
MXULVGLFWLRQ WKDW DUH EHLQJ UHSRUWHG WR DJHQF
6LPLDUO\ \RXU DJHQF\ PD\ GHDO ZLWK DOFRKRO LQFL
DOFRKRO DW HVWDEOLVKPHQWV ORFDWHG LQ RWKHU FR

" 6 @ K
DWPðÀ`° B“-Ð€`€ B @1P 0€`€À•\ LO`0€`P
HVEP6LPLOp°7 @ pKROÀE P

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" \$GGUHVV)UHTXHQW 32/' (VWDEOLVKPHQWV
ORVW FRPPXQLWLHV VWDUW ZLWK D FROODERUDWLYH DSSUR
" &ROODERUDWLYH DSSURDFKHV VKDUHG SUREOHP VROYL
HWDEOLVKPHQWV

\$ GGLWLRQDO WUDLQLQJ WUDLQLQJ IRU EDUWHQGH
FRXOG EH WKURXJK \RXU DJHQF\ RU WKURXJK D WU
" 9ROXQWDU\ FKDQJH RI GULQN VSHFLDOV KRXUV RI I
VHUYL FH &KDQJHV FDQ LQFOXGH UHVWULFWLQJ GU
KRXUV RU H[WHQGLQJ KRXUV WKDW IRRG LV VHUYH

: KDW FKDQJHV ZLOO \RXU DJHQF\ DVN HVWDEOLVKPHQW
" \$ GGLWLRQDO WUDLQLQJ IRU VHUYLQJ VWDII DQG RU
" 5HGXFH RU HOLPLQDWH GULQN VSHFLDOV
" ([WHQG KRXUV RI IRRG VHUYL FH
" 5HGXFH KRXUV RI DOFRKRO VHUYL FH
" 2WKHU BBBBBBB

;I 5RGXOFLEQRDU\ VGBRQ PGHQHW QRW ZQ "D0•••q` p°€PÐ0 WKH p0p` €
" HQW"

2YHUVHUYL FH (QIQUDEGQEHQWRQ WR LQYHVWLJDWLQJ
LQFLGHQWV XQGHUF RYHU REVHUYDWLRQV WR GHW
KHOS EXLOG D OHJDO FDVH IRU RYHUVHUYL FH SHQD
D ORW RI SHUVRQ KRXUV \$JHQFLHV FRXOG XVH 32/
REVHUYDWLRQV RQO\ LQ HVWDEOLVKPHQWV WKDW [
QRW ZRUNLQJ FRODERUDWLYHO\ ZLWK \RXU DJHQF
SUDFWLFHV 8VLQJ 32/' GDWD WR JXLGH RYHUVHUYL
DYRLG IDYRULWLVP RU ELDVHG HQIRUFPHQW

& RQFOXVLRQ

32/' LV DQ LPSRUWDQW WRRO WKDW FDQ EH XVHG DV SDUW RI D
RYHUVHUYL FH RI DOFRKRO (DFK VWUDWHJ\ XVHG DV SDUW RI D
FRPSOH[LVVXHV OLNH RYHUVHUYL FH RI DOFRKRO ZLOO KDYH WK
WR PD[LPL]H SRWHQWLDO HIIHF WV 7KLV PDQXDO ZDV FUHDWHG
LPSOHPHQWDWLRQ RI 32/' LQ D FRPPXQLW\ *LYHQ WKDW DOFRKRO
OLFHQVHG HVWDEOLVKPHQWV DQG RWKHU ORFDWLRQV ORFDWLRQV
ZRUN EH VHW LI LPSOHPHQW HG DFURVV ODUJHU UHJLRQV RU DW W
VWLOO LPSOHPHQW 32/' DQG VHH SRVLWLYH FKDQJHV HYHQ LI LW
JHRJUDSKLF DUHD

\$V DJHQFLHV ZRUN WKURXJK HDFK RI WKH IRXU LPSOHPHQWDWLRQ
PDQXDO WKH\ VKRXOG DOVR WKLQN WKURXJK KRZ WR PDNH VXUH
RYHU WLPH :KLOH PDQ\ DJHQFLHV KDYH UHSRUWHG WKDW 32/' F
IORZV ZLWKRXW D VLJQLILFDQW FKDQJH WR VWDII EXUGHQ LW P
IRU 32/' HIIRUWV 7R PDNH VXUH 32/' HIIRUWV DUH VXVWDLQHG
ORQJ WHUP IXQGLQJ 7KLV W\SH RI IXQGLQJ PD\ EH DYDLODEOH
GHSDUWPHQWV WUDQVSRUWDWLRQ GHSDUWPHQWV \$OFRKRO %H
PD\ DSSO\ IRU JUDQWV LQ SDUWQHUVKLS ZLWK RWKHU DJHQFLHV
\$JHQFLHV FRXOG DOVR LQFOXGH D OLQH LWHP IRU 32/' LQ WKHL
JRYHUQPHQW DJHQFLHV FDQ DOVR KHOS PDNH VXUH WKDW WKHU
OHYHOV RI JRYHUQPHQW DQG DFURVV DJHQFLHV)LQDOO\ KDYL
DFFRXQWDEOH IRU LPSOHPHQWDWLRQ RI 32/' LV NH\ WR PDNLQJ
FRXOG PHDQ FUHDWLQJ D VSHFLILF MRE IRU GPLQLVWHULQJ 32'
HPSOR\HH\ MRE GHVFULSWLRQ

\$SSHQGL[\$ %URDGHU 32/' (IIRUWV
7KLV PDQXDO IRFXVHV RQ KRZ WR LPSOHPHQW 32/' DW WKH FLW\\
FRPPXQLW\ PD\ GHFLGH WR LPSOHPHQW 32/' RQ LWV RZQ +RZHY
32/' LQ SDUWQHUVKLS ZLWK RWKHU QHDUE\ FRPPXQLWLHV DW D
UHODWHG WR DOFRKRO OLNH Gµ PX` REOHPV
UH SD[HU QHPPX ÀpÀ€`ð0° 0` °0•ð€ PV

/RFDO &LW\ 7RZQ &RXQW\ +HDOWK 'HSDUWPHQWV
" \$VVLVW ZLWK LQFUHDVLQJ DZDUHQHV RI 32/' ORFDOO\
" 5HJXODUO\ UHYLHZ ORFDO 32/' GDWD
" OHHW ZLWK IUHTXHQW 32/' VLWHV
/RFDO RU 6WDWH /LFHQVLQJ \$XWKRULWLHV
" \$SSO\ SHQDOWLHV WR 32/' ORFDWLRQV WKDW FRQWLQXH WR
WKH DXWKRULW\ WR DSSO\ OLFHQVLQJ SHQDOWLHV YDULHV

\$SSHQGL[% 1RQ 5HWDLQ 32/' /RFDWLRQV
ODQ\ RI WKH DJHQFLHV LPSOHPHQWLQJ 32/' LQ 0LQQHVRWD WUDF
DUH QDPHG LQ DQ DOFRKRO UHODWHG LQFLGHQW 7KHHVH ORFDV
HVVDEOLVKPHQWV H J EDUV UHVWDXUDQWV RU QRQ UHWDLQ
VWDGLXPV ZRUNVLWHV SDUWLHV LQ SXEOLF SODFHV OLNH SDU
VKRZV WKDW WKH 32/' IRU DERXW KDOI RI GULQNLQJ DQG GULYL
HVVDEOLVKPHQWV 7KLV PHDQV WKDW WKH 32/' IRU WKH RWKHU
2YHUVHUYL FH RI DOFRKRO DW WKH VHW RWKHU ORFDWLRQV OLNHO
LQFLGHQWV

,W PD\ EH LPSRUWDQW IRU D FRPPXQLW\ WR XQGHUVWDQG KRZ P
DUHD UHVXOW IURP RYHUVHUYL FH DW D EDU VSRUWV VWDGLXP
WKH EHVW VROXWLRQV WR UHGXFH DOFRKRO UHODWHG SUREOHP
GLIIHUhQW VWUDWHJLHV WR DGGUHVV RYHUVHUYL FH LQ GLIIHUh
VWUDWHJLHV WR DGGUHVV RYHUVHUYL FH RI DOFRKRO LQ QRQ U
RWKHU ORFDWLRQV DQG SRVVLEOH VWUDWHJLHV &RPPXQLW\ OH
LGHQWL\ WKH PRVW DSSURSULDWH VWUDWHJLHV IRU WKHLU FRR
&RPPXQLW\)HUVWQYBRQBXQLWLHV KDYH IHVWLYDOV 2IWHQ YHQ
D WHPSRUDU\ OLTXRU OLFHQVH WR VHOO DOFRKRO)HUVWLYDO S
DOFRKRO VHUYHUV RIWHQ YROXQWHHUV DW WKH VHW HYHQWV DU
UHIXVH VHUYL FH WR LQWR[LFDWHG DQG XQGHUDJH LQGLYLGXDO
ZKR FDQ EDFN XS WKH VHUYHUV ZKHQ WKH\ UHIXVH DQ DOFRKRO
u†SRUDU\ OLTXR gđ595` p€p

u†SRUDU\ OLTXR gđ595` p€p

\$SSHQGL[& 6WDUWXS /HWWHU WR ,QIRUP 2WKHU

%HORZ LV D OHWWHU \RXU DJHQF\ FRXOG DGDSW WR LQIRUP RW
)RU DJHQFLHV WKDW VLPSO\ QHHG WR EH QRWLILHG EXW ZLOO Q
UHPRYH WKH VHQWHQFH KLJKOLJKWHG LQ JUHHQ)RU DJHQFLHV
LPSOHPHQWDWLRQ \RX PLJKW FRQVLGHU LQFOXGLQJ D VHQWHQ

'HDU >\$*(1&< 25*\$1,=\$7,21@

7KLV OHWWHU LV WR LQIRUP \RX WKDW >\$*(1&<@ LV SUHSDULQJ
'ULQN 32/' LQ >&20081,7< 1\$0(@ 7KLV SURJUDP DLPV WR UHGXF
DOFRKRO WR DQ REYLRXVO\ LQWR[LFDWHG SHUVRQ DW HVWDEO

2YHUVHUYL FH FDQ OHDG WR SUREOH PV LQ WKH FRPPXQLW\ VXFI
LQFLGHQWV :KHQ ZH UHVS RQG WR VXF K LQFLGHQWV ZH ZLOO D
KDG WKHLU ODV W GULQN %\ FROOHFWLQJ WKLV LQIRUPDWLRQ Z
SUREOHPDWLF DOFRKRO VHUYL FH DW OL FHQVHG HVWDEOLVKPHQ
HVWDEOLVKPHQW DV D IUHTXHQW VRXUFH RI DOFRKRO UHODWHG
XS ZLWK WKHP WR SURY LGH HGXF DWLRQ DQG RXWOLQH SRWHQW

2XU JRDO LV WR KD YH D FRRSHUDWLYH UHODWLRQVKLS ZLWK OL
RFFXU QRW WR QHJDWLYHO\ LPSDFW D UHWDL OHU\ EXVLQHVV
H[FHVVL YH DOFRKRO XVH DQG DOFRKRO UHODWHG KDUPV WR PD

:H KRSH \RXU DJHQF\ FDQ EH LQYROYHG LQ ;;;; FDSDFLW\ DQG Z
SDUWQHUVKLS IXUWKHU ,I \RX KD YH TXHVWLRQV DERXW 32/' \RX
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6LQFHUHO\

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\$SSHQGLI 32/ 6WDUWXS /HWWHU IRU (VWDEOLVH

> '\$7 (@

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> 1 \$ 0 (2) (6 7 \$ % / , 6 + 0 (1 7 @
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' HDU * HQHUDO 0DQDJHU

7KLV OHWWHU LV WR LQIRUP \RX WKDW ZH KDYH VWDUWHG D SU
>&20081,7< 1\$0(@ :KHQ ZH UHVSRRQG WR LQFLGHQWV LQYROYLQJ
RU PHGLFDO LQFLGHQWV ZH ZLOO DVN SHRSOH LQYROYHG ZKHU
WKLV LQIRUPDWLRQ DQG QRWLII\ HVWDEOLVKPHQWV LI WKH\ DUH
LQWHQWLRQ LV WR KHOS \RX UHGXFH \RXU SRWHQWLDO OLDELOL
WR NHHS \RXU FXVWRPHUV DQG WKH UHVW RI WKH FRPPXQLW\ VI

,I \RXU HVWDEOLVKPHQW LV IUHTXHQWO\ QDPHG DV D 32/' >,16(5
,1&,'(17 7+5(6+2/' +(5(@ ZH ZLOO IROORZ XS ZLWK \RX WR GLVFX
DOFRKRO VHUYLQJ SUDFWLFHV :H HQFRXUDJH HVWDEOLVKPHQW
DQG WR KDYH DQG FRPPXQLFDWH UHVSΡRQVLEOH DOFRKRO VHUYL

3OHDVH FRQWDFW PH LI \RX KDYH DQ\ TXHVWLRLQV :H DUH KDSS^T
TXHVWLRLQV YLD SKRQH >3+21(@ RU HPDLO >(0\$, /@ 7KDQN \RX IP

6LQFHUHO\

\$SSHQGL[(6XJJHVWLRQV IRU 'UDIWLQJ D 32/' 'DWDEDV
7KH FRPSRQHQWV RI D 32/' GDWDEDVH XVHU DJUHHPHQW ZLOO Y
LV IXQGHG ZKR PDLQWDLQV DQG PDQDJHV WKH GDWDEDVH ZKH
WKH MXULVGLFWLRQ V LQ ZKLFK WKH GDWDEDVH LV KRVWHG 0D
ILQDOL]LQJ DQ\ 32/' GDWDEDVH DJUHHPHQW %HORZ DUH D IHZ V
FRQVLGHU LQFOXGLQJ LQ D 32/' GDWDEDVH XVHU DJUHHPHQW

7HUPV RI MRLQLQJ WKH GDWDEDVH 7KHSV WHUPV PD\ LQFO
GDWDEDVH XVH GHWDLOHG LQ D XVHU JXLGH RU IURP FRPPX
PDQDJLQJ WKH 32/' GDWDEDVH
32/' GDWD UHVSQRQVLELOLW\ SDHQIRZQRURZQLWSWKH GDWD DQG
UHVSQRQVLEOH IRU HQVXULQJ GDWD DFFXUDF\
\$JUHHPHQW WR VKDUH GDWD ZLWK RWKHU 32/' DJHQFLHV \$J
PD\ QHHG WR DFFHVV RQH DQRWKHU\ GDWD WR DVVHVV ZK
FRPPXQLW\ ZHUh QDPHG DV D 32/' IRU LQFLGHQWV RFFXUULC
DJUHHPHQW ZRXOG VSHFLI\ ZKLFK\@GDW 0 °QH DFFHVV WR
GDWDEDVV DEDJHDO\#0EDQH DFFHVV WK DO# 32/' PD D 0\RDQ
UHVSQRQVLEOH IRU PDQDJLQJ DQG PDLQWDLQLQJ WKH 32/' GD
XVHUV³p~“ 32/' GDWD 7KLG PD\ GHOV WKH GDWDEDVH PDQDJH
0I RP ZRQHUQPHQW \@GDW
GDWDEDVV DFFHVV 0IJU DLRWH\QFH DQG RQGDGHV 7KL G P
GDWDEDVV DFFHVV 0EV UHVHDUVJHDV 7KH 32/' GDWDEDV PD
GDWDEDVV DFFHVV 0DQG RVV EV JJQHUIJWHQV 7HGHUDO R
ZRQHUQPHQW \FFHVV WR WKH 32/' GDWDEDV#
JHHV 7KH GDWDEDVH PDQDJHU PDV UHVHUQH WKH UDJQV W
WKH FRVWr0 3•0p@p@P@`€0@p0 LQLVWTp@p\0
2JQHUIJLRJ EDV

\$SSHQGL[) 6DPSOH 1HZV 5HOHDVH
1HZV 5HOHDVH
>\$*(1&< 1\$0(@
)RU ,PPHGLDW^H 5HOHDVH RU +ROG XQWLO 'DWH 7LPH
'DWH (PDLO DGGUHV^V
([DPSOH +HD>SOL10@ DQQRXQFH^V SODQ WR DGGUHV^V FRPPXQLW^V
DOFRKRO
,QWURGXFWRU\ 3DUDHJOD SKRYLGH WKH :KR :KDW :KHUH DQG :K
>&20081,7<@ ZLOO EH LPSOHPHQWLQJ 32/' WR SUHYHQW RYHUVH
UHVWDXUDQWV 2YHUVHUYL^FH RI DOFRKRO PHDQV VHUYLQJ DOFF
7KLV FDQ OHDG WR KLJK SHUFHQWDJHV RI SHRSOH ZKR DUH LQW
FDXVH PDQ\ SRWHQWLDO SUREOHPV LQFOXGLQJ LQFUHDVHG HFF
YDQGDOLVP :KHQ WKH >\$*(1&<@ UHVS^RRQGV WR DQ LQFLGHQW L
DOFRKRO WKH DJHQWV ZLOO FROOHFW LQIRUPDWLRQ DERXW ZK
ODVW GULQN 7KLV SURJUDP LV FDOOHG WKH 3ODFH RI /DVW 'UL
KHOS >\$*(1&<@ VHH LI VSHFLILF EXVLQHV^VH DUH UHJXODUO\ RY
WR DOFRKRO UHODWHG SUREOHPV LQ WKH FRPPXQLW\ 7KH >\$*(1
EXVLQHV^VH WR SUHYHQW IXWXUH RYHUVHUYL^FH RI DOFRKRO
)LUVW 4XRFW\ GH D TXRWH IURP D FRPPXQLW\ OHDGHU DERXW ZK
SURJUDP)RU H[DPSOH 32/' LV DQ LPSRUWDQW WRRO WR KHOS
FRPPXQLW\ IDFHV EHFDXVH RI H[FHV\LYH DOFRKRO XVH' OD\RU
([SDQG ,QIRUPDWLRQ IURP WKH RYHUVH DQG SUREOHPV IURP
>\$*(1&<@ ZLOO UHJXODUO\ UHYLHZ 32/' GDWD WR LGHQWL^I\ EDU
EXVLQHV^VH WKDW UHJXODUO\ RYHUVHUYH DOFRKRO 7KLV GDW
OHDGHUV RI >&20081,7<@ VHH ZKLFK HVWDEOLVKPHQWV PD\ EH P
SUREOHPV LQ WKH FRPPXQLW\ DQG SUHYHQW SUREOHPV IURP RF
GHVLJQHG WR FROOHFW GDWD LQ DQ REMHFWLYH XQELDVHG ZD
EXVLQHV^VH 7KH JRDO RI 32/' LV WR SUHYHQW RYHUVHUYL^FH RI
RXW RI EXVLQHV^V 32/' LQIRUPDWLRQ FDQ KHOS HVWDEOLVKPHQ
SUHYHQW RYHUVHUYL^FH RI DOFRKRO DQG DYRLG OLDELOLW\ LVV
6HFRQG 4XRW^H ,I SRVVLEOH LQFOXGH D VHFRQG TXRWH IURP D
EXVLQHV^V OLFHQVHG WR VHUYH DOFRKRO)RU H[DPSOH 3:H FDW
DQG WKLV FRPPXQLW\ 32/' LQIRUPDWLRQ ZLOO KHOS XV NQRZ ZI
DQG VXSSRUW IRU RXU DOFRKRO VHUYHUV' 2ZQHU RI EXVLQHV^V
)LQDO 3DUDJUD SKDPSOH
>\$*(1&<@ JRDO LV WR SUHYHQW SUREOHPV UHODWHG WR DOFR
GDPDJH WR EXVLQHV^VH DQG KRPHV 32/' LV RQH WRRO WR KHOS

\$SSHQGL[* 32/' 7DONLQJ 3RLQWV

\$SSHQGL[+ 6DPSOH 6RFLDO 0HGLD 3RVW
>,QVHUW UHOHYDQW SKRWR@
>\$JHQF\@ LV VWDUWLQJ D QHZ SURJUDP FDOOOG 3ODFH RI /DVW
DJHQWV UHVSRRQG WR DQ LQFLGHQW WKDW LQYROYHV DOFRKRO
WKHLU ODVW GULQN :H ZLOO XVH WKLV LQIRUPDWLRQ WR VHH Z
ORFDWLRQV WKDW DUH UHJXODUO\ RYHUVHUYLQJ DOFRKRO 2XU

1RWLI\ 6WDII RI &XVWRPHU ,QWR[LFDWLRQ /HYHOV
1RWLI\ DUULYLQJ VHUYLQJ VWDII DERXW WKH LQWR[LFDWLRQ VW
VWDII LI D FXVWRPHU KDV EHHQ FXW RII RU LV DSSURDFKLQJ LQ

:K\"
" 3UHYHQW RYHUVHUYL FH ZKHQ FXVWRPHUV DUH VHUYHG E\ P
VKLIW FKDQJH RU ZKHQ FXVWRPHUV PD\ PRYH IURP RQH VH

:KDW FDQ VHUYLQJ VWDII DQG RU VHFXULW\ GR"
" &OHDUO\ FRPPXQLFDWH ZLWK RWKHU VHUYLQJ VWDII DQG VH
LQWR[LFDWLRQ OHYHOV

:KDW FDQ HVWDEOLVKPHQW RZQHUV PDQDJHUV GR
" (VWDEOLVK D V\VWHP IRU VHUYLQJ VWDII DQG VHFXULW\ WR
VWDWXV RI WKHLU FXVWRPHUV
" 'LVFXVV HIIHFWL YHQHV V RI WKLV V\VWHP DW UHJXODU VWDI
" 'LVFLSOLQH HPSOR\HHV ZKR URXWLQHO\ GRQ W IROORZ WK

+RQRU \$ 7ZHqw\ 3HUFHQW *UDWXLW\ IRU 5HVS RQVLEOH %HYHUD.
*XDUDQWHH DOO VHUYLQJ VWDII D JUDWXLW\ LI DOFRKRO VH
OHDYH D WLS

:K\"
" \$ JXDUDQWHHG WLS ZLOO HQFRXUDJH VHUYLQJ VWDII WR WH
DSSURSULDWH

:KDW FDQ VHUYLQJ VWDII DQG RU VHFXULW\ GR"
" &XW RII VHUYLFH WR LQWR[LFDWHG FXVWRPHUV
" 1RWLI\ PDQDJHU DQG RWKHU VHUYLQJ VWDII WKDW \RX KDYH

:KDW FDQ PDQDJHPHQW GR"
" %DFN XS VHUYLQJ VWDII DW DOO WLPHV
" 3URYLGH VHUYLQJ VWDII ZLWK D JUDWXLW\ LI WKH JXHVV
ZHUH FXW RII

0DLQWDLQ D 6DIH 3K\VL FDO (QYLURQPHQW
0RQLWRU DOO DUHDV RI WKH HVWDEOLVKPHQW LQFOXGLQJ ZKH
DQG WKH SDUNLQJ ORW IRU XQVDIH DFWLYLWLHV

:K\"

" (PSOR\HHV PD\ EH DEOH WR LGHQWLII\ XQGHUDJH RU REYLRX
PRQLWRULQJ FXVWRPHU EHKDYLRLU LQ WKHVH DUHDV
| 7R SUHYHQW YLROHQW VLWXDWLRQV IURP RFFXUULQJ
| 7R SUHYHQW LQWR[LFDWHG SDWURQV IURP GULYLQJ
| 7R LQFUHDVH VDIHW\ RI VWDII DQG FXVWRPHUV

:KDW FDQ VHUYLQJ VWDII DQG RU VHFXULW\ GR"
" &KHFN UHVWURRPV KDOOZD\ SDWLRV DQG SDUNLQJ ORWV EDVLV
" 1RWLI\ PDQDJHPHQW ZKHQ DQ LQWR[LFDWHG FXVWRPHU OHDFXVWRPHU LV EHLQJ YLROHQW
" 1RWLI\ PDQDJHPHQW LI \RX VHH XQVDIH RU SRWHQWLDOO\ GYRPLWLQJ DJJUHVVLYH EHKDYLRLU HWF
" 'HVFULEH DQ\ REVHUYHG SUREOHGV LQ LQFLGHQW ORJ

:KDW FDQ PDQDJHPHQW GR"
" (VWDEOLVK SURFHGXUHV IRU KDQGOLQJ WURXEORVPH DJJ
WUDLQ DOO HPSOR\HHV RQ WKHVH SURFHGXUHV
" %DFN XS HPSOR\HHV ZKHQ GHDOLQJ ZLWK LQWR[LFDWHG FXVWRPHU UDWR
" 0DLQWDLQ DQ DSSURSULDWH VWDII FXVWRPHU UDWR
" &RQVLGHU LQVWDOOLQJ YLGHR VXUYHLOODQFH FDHUDV RX
GHWHU VXVSLFLRXV DFWLYLWLHV
")RU VRPH EDUV DQG QLJKWFOXEV KDYH VHFXULW\ RQ GXW\
" +DYH DGGLWLRQDO VWDII RQ GXW\ IRU EXV\ HYHQLQJV DQG
WKH H[LW WR PRQLWRU SDWURQV DV WKH\ OHDYH WKH HVWD

(QVXUH D 6DIH &ORVLQJ 7LPH

:K\"

" %DU FORVLQJ FDQ EH D FKDOOHQJLQJ WLPH IRU VWDII FXVWRPHU
" \$ ODUJH QXPEHU RI LQWR[LFDWHG FXVWRPHUV H[LWLQJ WKH
SUREOHGV
" \$Q HVWDEOLVKPHQW FDQ EH VXHG LI WKH\ VHUYH WKH ODVV
VXEVTXHQWO\ FDXVHV KDUP WR RWKHUV GXH WR WKHLU LQ

