SECTION 2 0!"" # RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

$ENERAL

1%1 RELATED DOCUMENTS

A% D&' ()*+, '*- +.*.&'/ 0&12),)1*, 13 45. C1*4&'647)*6/8-)*+ $.*.&'/ '*- S800/.9.*4'&: C1*-)4)1*, '*- D)2),)1* 01 S0.6)3)6'4)1* S.64)1*,7 '00/:41 45), S.64)1*%

B% N1&45(.,4.&* IT/IS S4'*-'&-,31&&'6.('':,'*-6';/.4&':,31& T./.6199 98*)6'4)1*,6';/)*+%

1%2 SUMMARY

A% S.64)1* I*6/8-.,:

1% M.4'/61*-8)4,748;)*+7 '*- 3)44)*+,%
2% N1*9.4'//)6 61*-8)4,748;)*+7 '*- 3)44)*+,%
"% M.4'/()&.(':,'*- '8<)/)'&: +844.&,%
=% S8&3'6.&'6.(':,%
!% P1>. T5&8 A,,.9;/).,%
% B1<.,73/11& ;1<.,7 .*6/1,8&.,7 '*-6';)*.4,%

B% R./'4.- R.?8)&.9.*4,:

1% D)2),)1* 2 S.64)1* @U*-.&+&18*- D864, '*- R'6.(':,31& E/.64&)6'/S:,4.9,@31& .<4.&)1& -864;'*>,7 9 '*51/.,7 '*- 8*-.&+&18*- 84)/)4: 61*,4&864)1*%
2% N1&45(.,4.&* U*)2.&,)4: IT/IS S4'*-'&-, 31& 0'45(':, 31& E/.64&1*)6 S'3.4:7 C19 98*)6'4)1*, '*- S.68&)4: S:,4.9,%

1%" 12.2601()].3567*, '501()-1786.39(T)-16.7162(S)-9.00205()]TJU14.4229 -23.52 TdU[(A)2.58095(%

4'/618-8)*%

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E% EMT: C190/: ()45 ANSI C80%" '*- UL EJE%

F% FMC: C190/: ()45 UL 1K A)*6#61'4.- ,4../%

$% LFMC: F/.<);/. ,4../ 61*-8)4 ()45 PVC F'6>.4 '*- 6190/:)*+ ()45 UL " 0%

H% M8/4)#61*-8641& C';/. 4:0. MC '*- AC: U,. 13 MC 1& AC 6';/.), *14 0.&9)44.- 8*-.& '*: 6)&689,4'*6., 8*/.,, ,0.6)3)6'//: '00&12.-)* (&)4)*+ ;: 45. U*)2.&,)4:L, C5).3 E/.64&)6)'*%

I% E/.64&)6'/ *1*9.4'//)6 48;)*+ GENT 1& M;/8. 48;.NH '*- /)?8)-#4)+54 3/.<);/. *1*9.4'//)6 61*-8)4 GLFNCH '&. *14 '66.04';/. 31& 8,. 1* '*: P&1F.64%

J% F)44)*+, 31& M.4'/ C1*-8)4: C190/: ()45 NEMA FB 1 '*- UL !1=B%

1% C1*-8)4 F)44)*+, 31& H'A'&-18, GC/',,)3).-H L16'4)1*,: C190/: ()45 UL 88 '*- NFPA E0%
2% F)44)*+, 31& $RC:
) 45/)1 E1*-844.2.4) 8
'% M'4.&)'/: S4../%
;% T:0.: 45&.'-.-%

"% F)44)*+, 31& PVC 61'4.- $RC:

'% U&.45'*. 61'4)*+ 13 *19)*'/ 2 9)/ 45)6>*.,, ,5'// ;. 8*)31&9/: '*- 61*,),4.*4/: '00/).-41 45.)*4.&)1& 13 '// 3)44)*+,%
;% A//3.9'/. 45&.'-, 1* 3)44)*+, '*- 6180/)*+, ,5'// ;. 0&14.64.- ;: 8&.45'*. 61'4)*+%

=% F)44)*+, 31& EMT:

'% M'4.&)'/: S4../%
;% T:0.: 6190&.,,)1* I)*-11&,K 6190&.,,)1* # 184-11&,%
6% S.4,6&.(3)44)*+, '&. 0&15);)4.-%

!% F/.<);/. C1*-8)4: U,. 1*/: 3)44)*+, /),4.- 31& 8,. ()45 3/.<);/. 61*-8)4% C190/: ()45 NEMA FB 2%20%
% E<0'*,)1* F)44)*+,: PVC 1&,4../41 9'465 61*-8)4 4:0.7 6190/:)*+ ()45 UL !17&'4.- 31& .*2)&1*9.*4'/ 61*-)4)1*, (5.&.)*,4'//.-7 '*-)*6/8-)*+ 3/.<);/. .<4.&*'/ ;1*-)*+ F890.&%

O% J1)*4 C19018*- 31& IMC 1& $RC: A00&12.-7 ', -.3)*.-)* NFPA E07 ;: '8451&)4).70731229 ())4.712470(4)-11.

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1% F'641&:#3';&)6'4.-'*-# ()&.-',,.9;/:13;./1(#3/11&F8*64)1*;1<()45 98/4)#65'**./.-7
45&18+5#3/11&&'6.('://3)&.,410 8*)4'*--.4'65';/. 9'465)*+3/11&,.&2)6.184/.4',,.9;/:%
2% S4../,.&2)6.5.'-'*-F8*64)1*;1<%
"% P1>.#45&8;1<3)44)*+,,5'// 9')*4')*'9)*)989 4(1#518&3)&.&'4)*+%

C% M)*)989 R'6.('::S)A.: "/=#)*65 4&'-.,)A. 31& ;&'*65 6)&68)4,7 one-inch embedded in slabs7 '*-five-inch for primary services% M'<)989 3)// 31& ;&'*65 6)&68)4 61*-8)4,: "0S% M'<)989 3)// 31& 3..-.& 61*-8)4,: 0.& 61-.%

D% M)<)*+ -)33.&.*4 4:0., 13 61*-8)4,)*-),6&)9)*'4./:)* 45.,'9.,:,4.9),0&15);)4.-%

E% R'6.('::F)44)*+,: C190'4);/.()45 &'6.('::,'*-,8)4';/. 31&8,.'*-/16'4)1*%

1% R)+)-'*-I*4.&9.-)'4. S4../C1*-8)4: U,. 45&.'-.-&)+)-,4../61*-8)4 3)44)*+, 8*/.,, 145.&(),.)*-)6'4.-% C190/:()45 NEMA FB 2%10%

2% EMT: U,.('4.&4)+54 6190&.,,)1* 4:0.,4../3)44)*+,()45)*,8/'4.-45&1'4% C190/:()45 NEMA FB 2%10%

"% F/.<);/. C1*-8)4: U,. 1*/:3)44)*+,/),4.-31&8,.()45 3/.<);/.61*-8)4% C190/:()45 NEMA FB 2%20%

F% I*,4'//,8&3'6.&'6.('::,1*/:(5.&.)*-)6'4.-1* D&'()*+,%

$% D1*14)*,4'//*1*9.4'//)6 61*-8)4 (5.&.'9;).*4 4.90.&'48&..<6..-,120-.+F G=J-.+CH%

"%2 INSTALLATION

A% C190/:()45 NECA 1 '*- NECA 101 31&)*,4'//'4)1*&.?8)&.9.*4,.<6.04 (5.&.&.?8)&.9.*4,1* D&'()*+,1&)* 45),'&4)6/.'&.,4&)64.&% C190/:()45 NFPA E0 /)9)4'4)1*,31&4:0.,13&'6.('::,'//1(-84.16666(&)-4.9 9834('')020.3334('')020.3334-4.9 9834(%)-11.07(0)0.43((()9.7207(4)0.35660 3('')0.7'**.100

L% A// ,8,0.*,)1* ,:,4.9, 98,4 ;. 58*+)*-.0.*-.*4/: 3&19 ,4&8648&.K M0)++:;'6>N ,8,0.*,)1* ,:,4.9,31&&'6.('':, '&. 0&15);)4.-%

M% PVC R'6.('':, B./1(S/';,:

1% R8* 61*-8)4 /'&+.& 45'* 1#)*65 G2E#99H 4&'-. ,)A.7 0'&'//./ 1& '4 &)+54 '*+/., 41 9')* &.)*31&6.9.*4% W5.&. '4&)+54 '*+/., 41&.)*31&6.9.*47 0/'6.61*-8)4 6/1,.41 ,/';,8001&4% S.68&.&'6.('':, 41&.)*31&6.9.*4 '4 9 '<)9891 0#3114 G"#9H)*4.&2'/,%
2% A&&'*+.&'6.('':, 41 6&1,, ;8)/-)*+ .<0'*,)1* F1)*4, '4&)+54 '*+/., ()45 .<0'*,)1* 3)44)*+,%
"% A&&'*+.&'6.('':, 41 >..0 ' 9)*)989 13 ")*65., GE! 99H 13 61*6&.4. .*6',.9.*4)* '// -)&.64)1*,%
=% D1 *14 .9;.- 45&.'-/.,, 3)44)*+,)* 61*6&.4. 8*/.,, ,0.6)3)6'//: '00&12.- ;: 45. C5).3 E/.64&)6)'* 31& .'65 ,0.6)3)6 /16'4)1*% F)44)*+, ,5'// ;. 61*6&.4. 4)+54%

N% PVC L'&+. D)'9.4.&R'6.('':, B.*-)*+ R'-)8,:

1% F18&#)*65 61*-8)4: "!N 9)*)989%
2% F)2.#)*65: !0N 9)*)989%
"% S)<#)*65: 1N 9)*)989%

O% S48;#80, 41 A;12. R.6.,,.- C.)/)*+,:

1% U,. EMT 31&&'6.('':,%
2% U,. ' 61*-8)4 ;8,5)*+ 1&)*,8/'4.- 3)44)*+ 41 4.&9)*'4. ,48;#80, *14 4.&9)*'4.-)* 58;, 1&)* '* .*6/1,8&.%

P% T5&.'-.- C1*-8)4 J1)*4,7 E<01,.- 41 W.47 D'907 C

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B% J8*64)1* ;1<., 13 -)33.&.*4 ,:,4.9 , ,5'// ;.)-.*4)3).- ;: 61/1&,)*-)6'4.- ;./1 (% B1< '*- 612.& ,5'// ;. 0')*4.- 0&)1& 41 '44'65)*+)-.*4)3)6'4)1* /';./,%

C% P&12)-. 0.&9'*.*4 *'9.0/'4., 31& '// 08// '*- F8*64)1* ;1<.,)-.*4)3:)*+ 6)&68)4,7 21/4'+.7 '*- ,18&6.%

D% W5.&. 61*-8)4), .<01,.-)* 08;/)6 1& 3)*),5.- '&.',7 45. 61*-8)4, ,5'// ;. 0')*4.- 41 9'465 45. '-F'6.*4 ('// 1& 6.)/)*+ 61/1&% A,,16)'4.- F8*64)1* ;1<., '*- 612.&, ,5'// ;. 0')*4.-)*,)-. 41 9'465 N1&45(.,4.&* ,4'*-'&- 61*-8)4 61/1& 61-. ;./1 (%

E% R'6.(':, '*- 6180/.&, 13 -)33.&.*4 ,:,4.9 , ,5'// ;.)-.*4)3).- ;: 61/1&% R'6.(':, 80 41 =N ,5'// 5'2.) ## ! "%

1% R'6.(':, 80 41 =N ,5'// 5'2. ,1/)- 61/1& ()45)* ./.64&)6'/&11 9 , '*- 2'8/4,%
2% R'6.(':, /'&+.& 45'* =N ,5'// ;.)-.*4)3).- ;: 0.&9'*.*4 ,*'0#1* 61/1& ;'*-,)*,4'//.-

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