Florida Department of TRANSPORTATION

MAC Quick Sheet

April 8, 2024

ERS Sample Numbering System

Proctor Samples

Proctor samples become parent samples to ERS field density samples. In order to ensure that the Proctor sample numbers are available for ERS field density samples and they are identifiable, the following FDOT Sample Numbering system should be used on Proctor samples.

Spec. ID	Material Type		Example
120(125)	Embankment/Pipe Backfill		E 0 0 1 Q
145	Geosynthetic Reinforcement Backfill		G 0 0 1 Q
160	Stabilizing	Local Stabilizing Material (440A)	C 0 0 1 Q
		Stabilized Subgrade * Note: Replace "S" with "L" for independent VT LBR samples	S 0 0 1 Q / L 0 0 1 V
		Granular Subbase In-Lieu of Stabilized Subgrade (Pit Proctor)	B P S 0 0 1 Q
		Granular Subbase In-Lieu of Stabilized Subgrade (Non-Pit Proctor)	B S 0 0 1 Q
200/285	Optional Base Group	Base (Non-Pit Proctor)	B 0 0 1 Q
		Base (Pit Proctor)	B P 0 0 1 Q
		Recycled Aggregate Base (RAP)	R 0 0 1 Q
548	Retaining Wall Systems	Retaining Wall Backfill	M 0 0 1 Q

Notes:

1. FDOT Sample Number for Proctor samples must start with an alpha character that may be up to four characters. Extra characters after the first character may be added to depict extra information. For example, "P" for Pit-Proctor, "S" for subbase, etc. For shoulder (non-mainline) only samples, include an S for the last alpha character (BPSS0001Q). Coordinate with District Materials and Research Office (DMRO) for additional sample numbering codes.
2. The next three characters must be a sequential number that is between 001 and 999.
3. FDOT Sample # must end with a "Q" for the Contractor, "V" for Verification, "R" for Resolution, or "IV" for Independent Verification.

ESB Plots
X00X-T00X(Q)

X00X = Area Number
T00X = Test Number*
(Q) = QC test – Optional
The sample levels are displayed on the comparison package screen. If it makes it easier for the PA to create comparison packages, it is recommended to use the Sample Level alpha character.

ken	FDOT Sample Number	LOT #	Mix Design	Sample Level
	E001-T005Q			QC
	E001-T006Q			QC
	E001-T007Q			QC
	E001-T008Q			QC
	E001-T008V			VT

FDOT Sample Number	LOT #	Mix Design	Sample Level
E001-T005			QC
E001-T006			QC
E001-T007			QC
E001-T008			QC
E001-T008			VT

VT Sample should match the QC Sample that it pairs with. For example, if VT pairs with QC E002-T003(Q), VT would be E002-T003(V), even though it is the first VT test performed.

Initial Production (if performed)
IPL001(Q), IPL002(Q), IPL003(Q), IPL004(Q), etc.*
*Because there is only one IPL per operation, no area is needed, just test number

Embankment
E001-T001(Q), E001-T002(Q), E001-T003(Q), E001-T004(Q), etc.
E002-T001(Q), E002-T002(Q), E002-T003(Q), E002-T004(Q), etc.
E003-T001(Q), E003-T002(Q), E003-T003(Q), E003-T004(Q), etc.

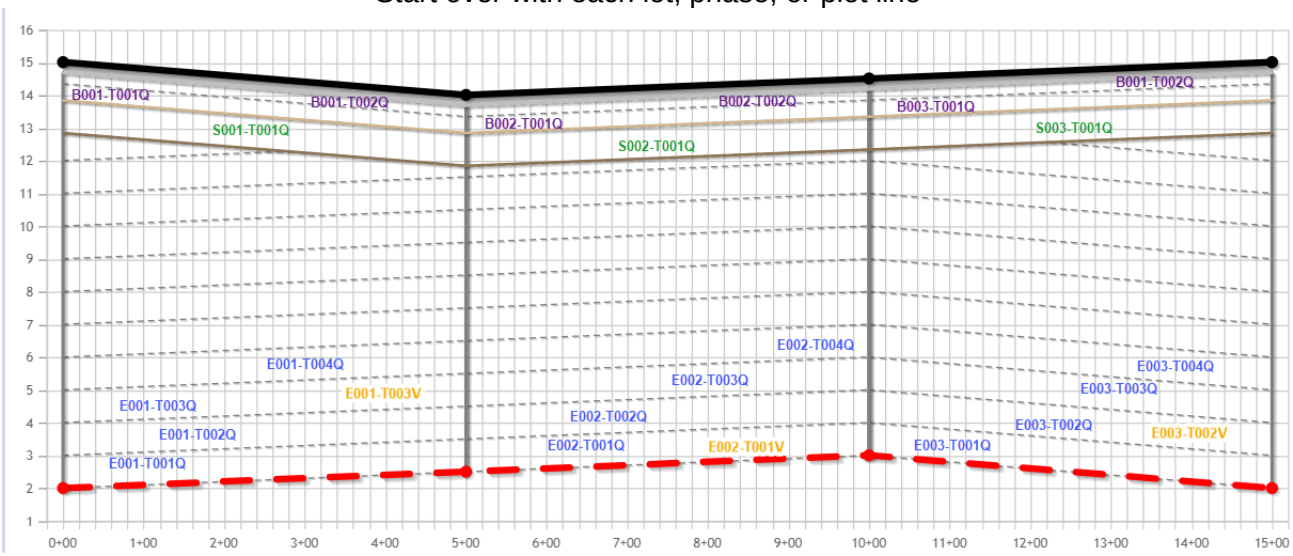
Subgrade
S001-T001(Q), S001-T002(Q), S001-T003(Q), S001-T004(Q), etc.

Base
B001-T001(Q), B001-T002(Q), B001-T003(Q), B001-T004(Q), etc.

Thicklift Test Strip
Embankment
ETS001-T001(Q), ETS001-T002(Q), ETS001-T003(Q), ETS001-T004(Q), etc.
ETS002-T001(Q), ETS002-T002(Q), ETS002-T003(Q), ETS002-T004(Q), etc.
ETS003-T001(Q), ETS003-T002(Q), ETS003-T003(Q), ETS003-T004(Q), etc.

Base
BTS001-T001(Q), BTS001-T002(Q), BTS001-T003(Q), BTS001-T004(Q), etc.

Start over with each lot, phase, or plot line



NOTE: Area = area tested, not displayed plot. For example, E001 = first embankment lot tested, not first embankment lot plotted.

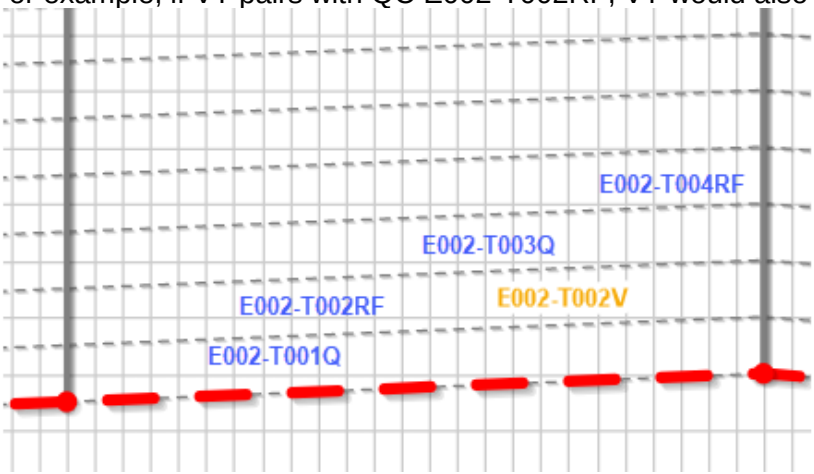
Reduced Frequency
X00X-T00X(Q)
Or
X00X-T00XRF

X00X = Area Number
T00X = Test Number*
(Q) = QC test - Optional
RF = Reduced Frequency Lift with no QC test – *Required*

For example: Lifts 2 and 4 have no QC test
E001-T001(Q), E001-T002RF, E001-T003(Q), E001-T004RF, etc.

The RF samples are designated with a Yes on the “Is this LOT a Reduced Frequency lift?” question and have the same proctor sample as the VT test.

VT Sample should match the QC Sample that it pairs with even if it is a Reduced Frequency Lift. For example, if VT pairs with QC E002-T002RF, VT would also be E002-T002(V).



Drainage
PH00X-T00X(Q)

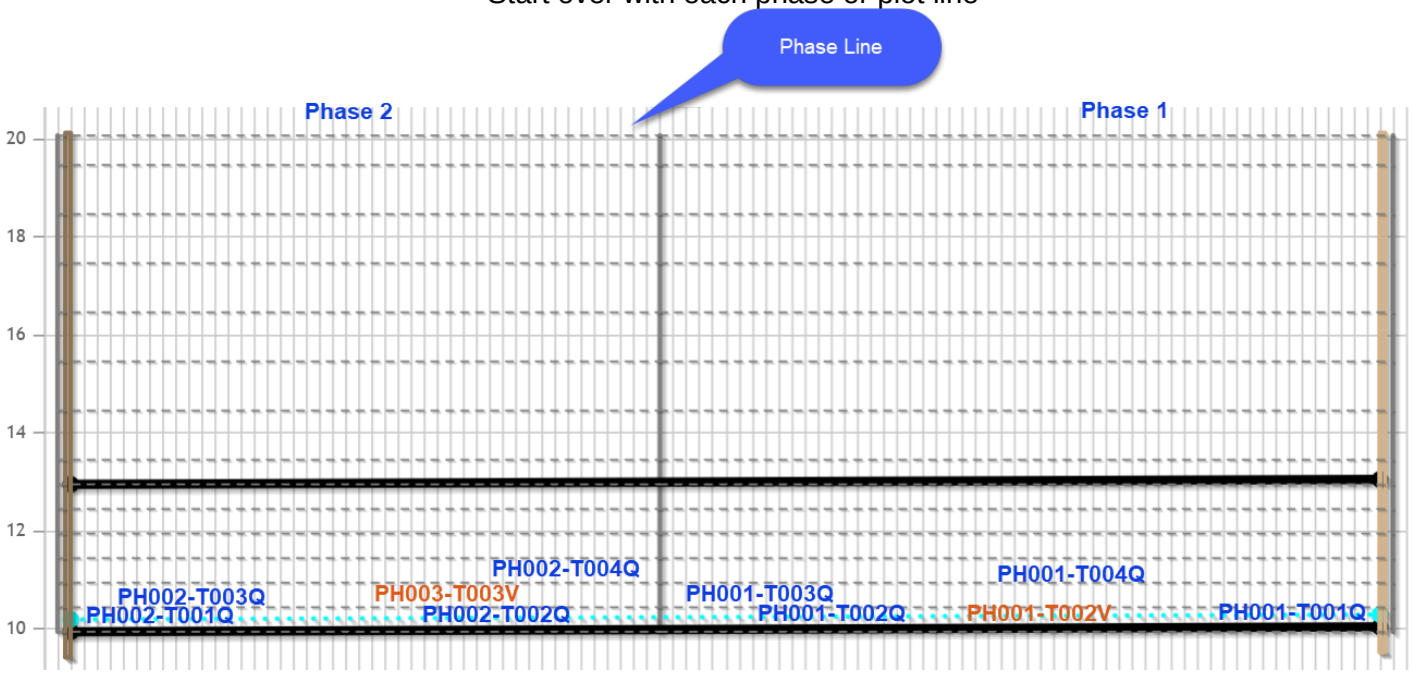
PH00X = Phase Number
T00X = Test Number
(Q) = QC test - Optional

VT Sample should match the QC Sample that it pairs with. For example, if VT pairs with QC E002-T002(Q), VT would be E002-T002(V), even though it is the first VT test performed.

Initial Production (if performed)
IPL001(Q), IPL002(Q), IPL003(Q), IPL004(Q), etc.*
*Because there is only one IPL per operation, no area is needed, just test number

PH001-T001(Q), PH001-T002(Q), PH001-T003(Q), PH001-T004(Q), etc.
PH002-T001(Q), PH002-T002(Q), PH002-T003(Q), PH002-T004(Q), etc.
PH003-T001(Q), PH003-T002(Q), PH003-T003(Q), PH003-T004(Q), etc.

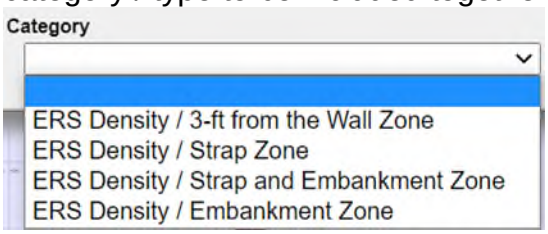
Start over with each phase or plot line



MSE Wall
X00X-T00XQ

X00X = Area Number
T00X = Test Number
(Q) = QC test - Optional

VT Sample should match the QC Sample that it pairs with. For example, if VT pairs with QC E002-T002(Q), VT would be E002-T002(V), even though it is the first VT test performed. Ensure the samples are designated with the correct Category / Type from MAC Spec 548. Samples must be within the same category / type to be included together in a comparison package.



Initial Production (if performed)
IPL001(Q), IPL002(Q), IPL003(Q), IPL004(Q), etc.*
*Because there is only one IPL per operation, no area is needed, just test number

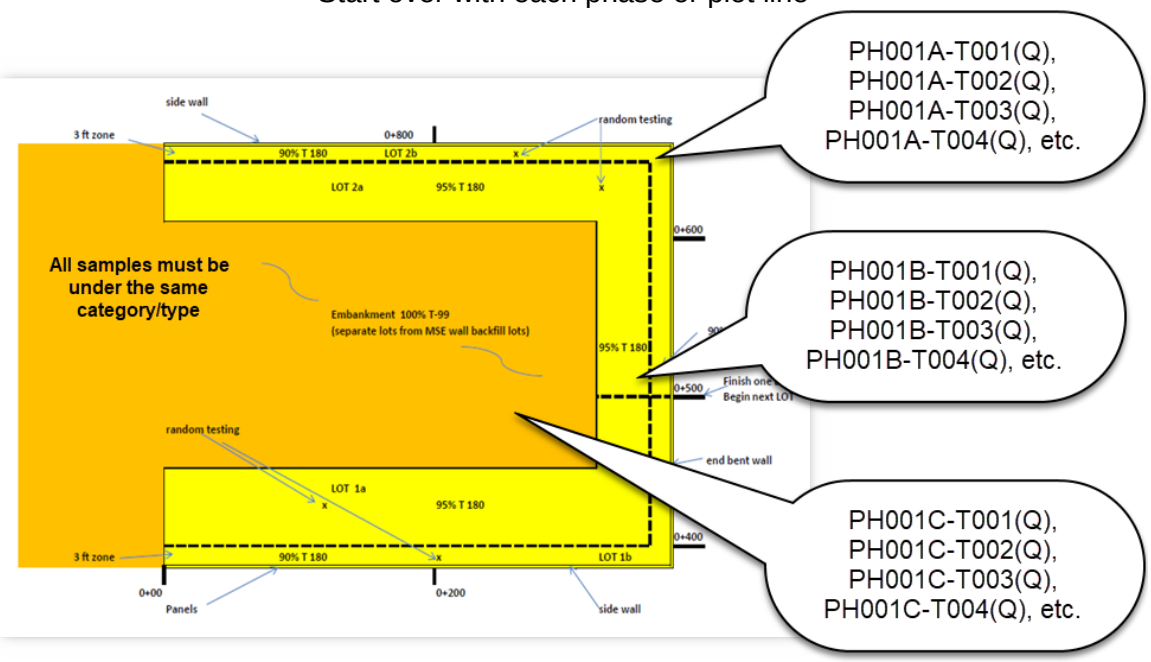
3' Wall Zone
PH001A-T001(Q), PH001A-T002(Q), PH001A-T003(Q), PH001A-T004(Q), etc.*
PH002A-T001(Q), PH002A-T002(Q), PH002A-T003(Q), PH002A-T004(Q), etc.

Strap/Embankment Zone
PH001B-T001(Q), PH001B-T002(Q), PH001B-T003(Q), PH001B-T004(Q), etc.*
PH002B-T001(Q), PH002B-T002(Q), PH002B-T003(Q), PH002B-T004(Q), etc.

Embankment Zone Only
PH001C-T001(Q), PH001C-T002(Q), PH001C-T003(Q), PH001C-T004(Q), etc.*
PH002C-T001(Q), PH002C-T002(Q), PH002C-T003(Q), PH002C-T004(Q), etc.

Thicklift Test Strip
MTS001-T001(Q), MTS001-T002(Q), MTS001-T003(Q), MTS001-T004(Q), etc.*
MTS002-T001(Q), MTS002-T002(Q), MTS002-T003(Q), MTS002-T004(Q), etc.

Start over with each phase or plot line



Pad Construction
One Lift
XX00x(Q)

Some pads only have one lift. In these cases, only the test number portion of the ERS sample is needed.

XX = Pad type
SS = Shoulder Subgrade
SB = Shoulder Base
SW = Sidewalk
SU = Shared Use Path
CD = Concrete Driveway
CP = Curb Pad
If more than one curb pad, CP1, CP2, etc.
Other = OT
x = Test number
(Q) = QC test - Optional

SS001(Q), SS002(Q), SS003(Q), SS004(Q), etc.*
SB001(Q), SB002(Q), SB003(Q), SW004(Q), etc.
SW001(Q), SW002(Q), SW003(Q), SW004(Q), etc.
SU001(Q), SU002(Q), SU003(Q), SU004(Q), etc.
CD001(Q), CD002(Q), CD003(Q), CD004(Q), etc.
CP001(Q), CP002(Q), CP003(Q), CP004(Q), etc.
OT001(Q), OT002(Q), OT003(Q), OT004(Q), etc.*
*only if pad is one lift

VT Sample should match the QC Sample that it pairs with. For example, if VT pairs with SU002(Q), VT would be SU002(V), even though it is the first VT test performed.

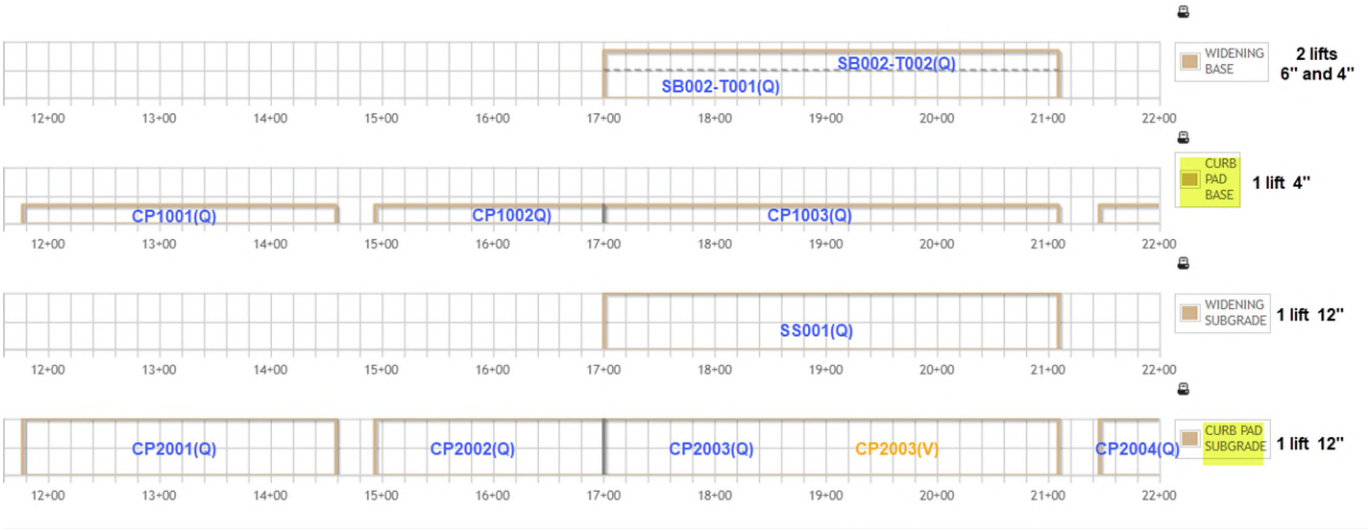
Pad Construction
Multiple Lift
XX00X-T00X(Q)

Some pads have more than one lift. In these cases, the area number and test number portion of the ERS sample is needed.

XX00X = Pad Type and Area Number
T00X = Test Number
(Q) = QC test - Optional

SS001-T001(Q), SS001-T002(Q), SS001-T003(Q), SS001-T004(Q),
SS002-T001(Q), SS002-T002(Q), SS002-T003(Q), SS002-T004(Q),
SS003-T001(Q), SS003-T002(Q), SS003-T003(Q), SS003-T004(Q),
SS004-T004(Q), SS004-T002(Q), SS004-T003(Q), SS004-T004(Q),

VT Sample should match the QC Sample that it pairs with. For example, if VT pairs with SS002-T003(Q), VT would be SS002-T003(V), even though it is the first VT test performed.



Mixing Depth
MD00X

X = Test number
MD001, MD002, MD003, MD004

Base Thickness Depth
BT00X

X = Test number
BT001, BT002, BT003, BT004

Additional Form Information

MAC Spec Category / Type

Material ID	MAC Possible Categories/Types	
120	ERS Density	Embankment
145	ERS Density	Reinforcement Backfill
160	ERS Density	Stabilized Subgrade
		LRI (OBG)
		LRI (GAB)
	ERS Stabilizing Mixing Depth	
200	ERS Density	OBG
		GAB
	ERS Base Thickness	
548	ERS Density	3-ft from the Wall Zone
		Strap Zone
		Strap and Embankment Zone
		Embankment Zone

For Material Placement on all samples and any additional conditions on samples with other conditions, the following number(s) should be used in field 27. If multiple conditions apply, enter all that apply. For example, Normal Embankment with a project specific target compaction would be 1, 9. The actual target would be entered in the form field. If the override target compaction condition is indicated by a 9, then enter the value in the notes (form field 28).

MAC Conditions		
1	Material Placed Condition for 120	Normal Embankment
2		Pipe run only & within cover zone
3		Sidewalk/Driveway
4		Noise or Perimeter Wall
5		Spread Footer
6		Concrete Barrier Wall
7	Thicklift Test Strip	
8	Thicklift Test Wall	
9	Override Target Compaction	