Steps for Implementing BrM

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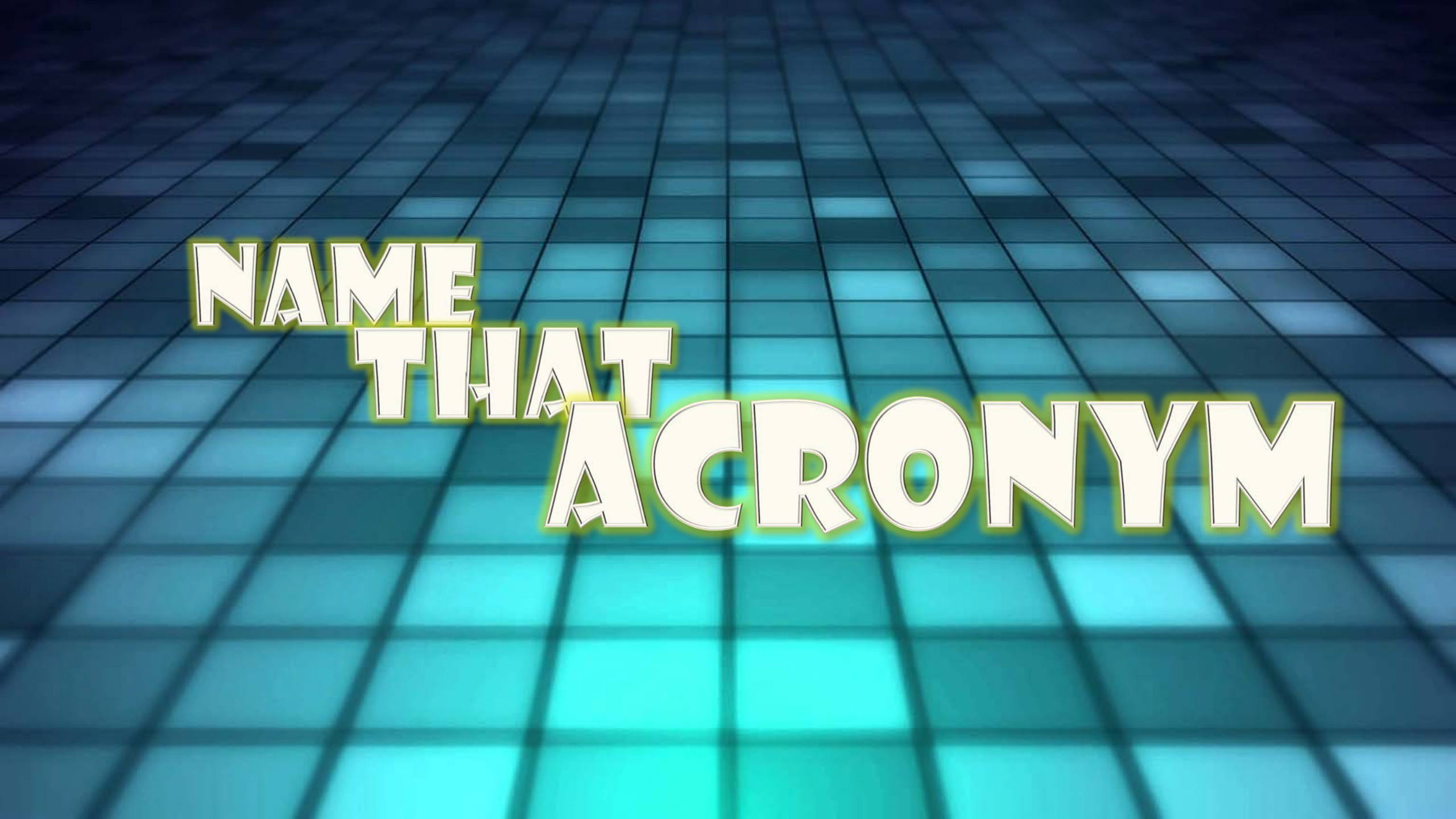
DISCLAIMER

I AM NOT AN


THERE'S NO EASY WAY OUT
THERE'S NO SHORTCUT HOME


LET'S GET STARTED


NAME
THAT
ACRONYM

NAME THAT ACRONYM

AASHTO

American Association of State Highway and Transportation Officials

NAME THAT ACRONYM

GIS

Geographic Information System

NAME THAT ACRONYM

FEMA

Federal Emergency Management Agency

NAME THAT ACRONYM

SCOTSEM

Special Committee On Transportation Security and Emergency Management

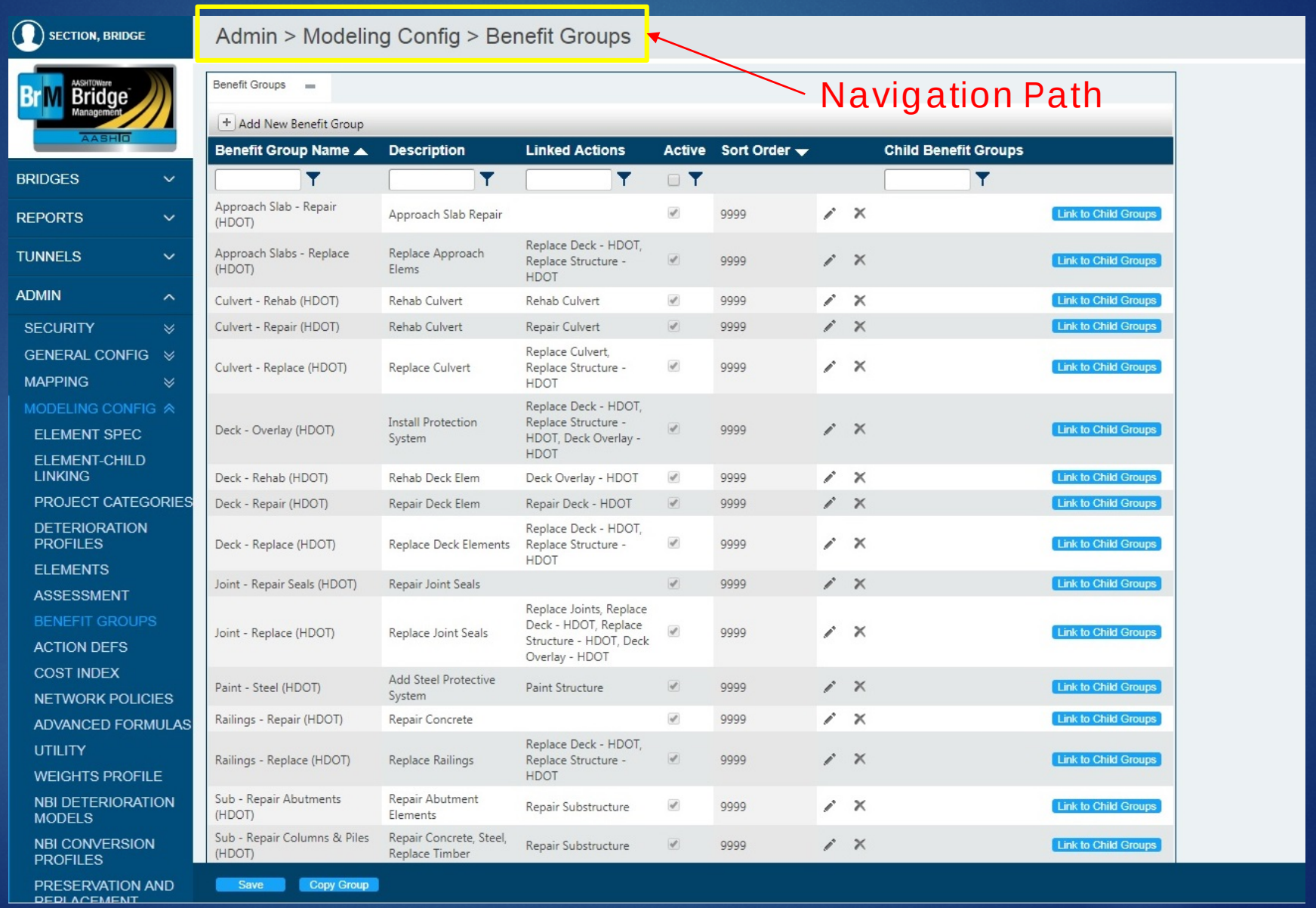
Introducing a Brand New Acronym

STEPS TO IMPLEMENTING BrM

BACDUPP

- Benefit groups
- Action Defs
- Costs
- Deterioration
- Utility
- Policies
- Programs

Benefit Groups

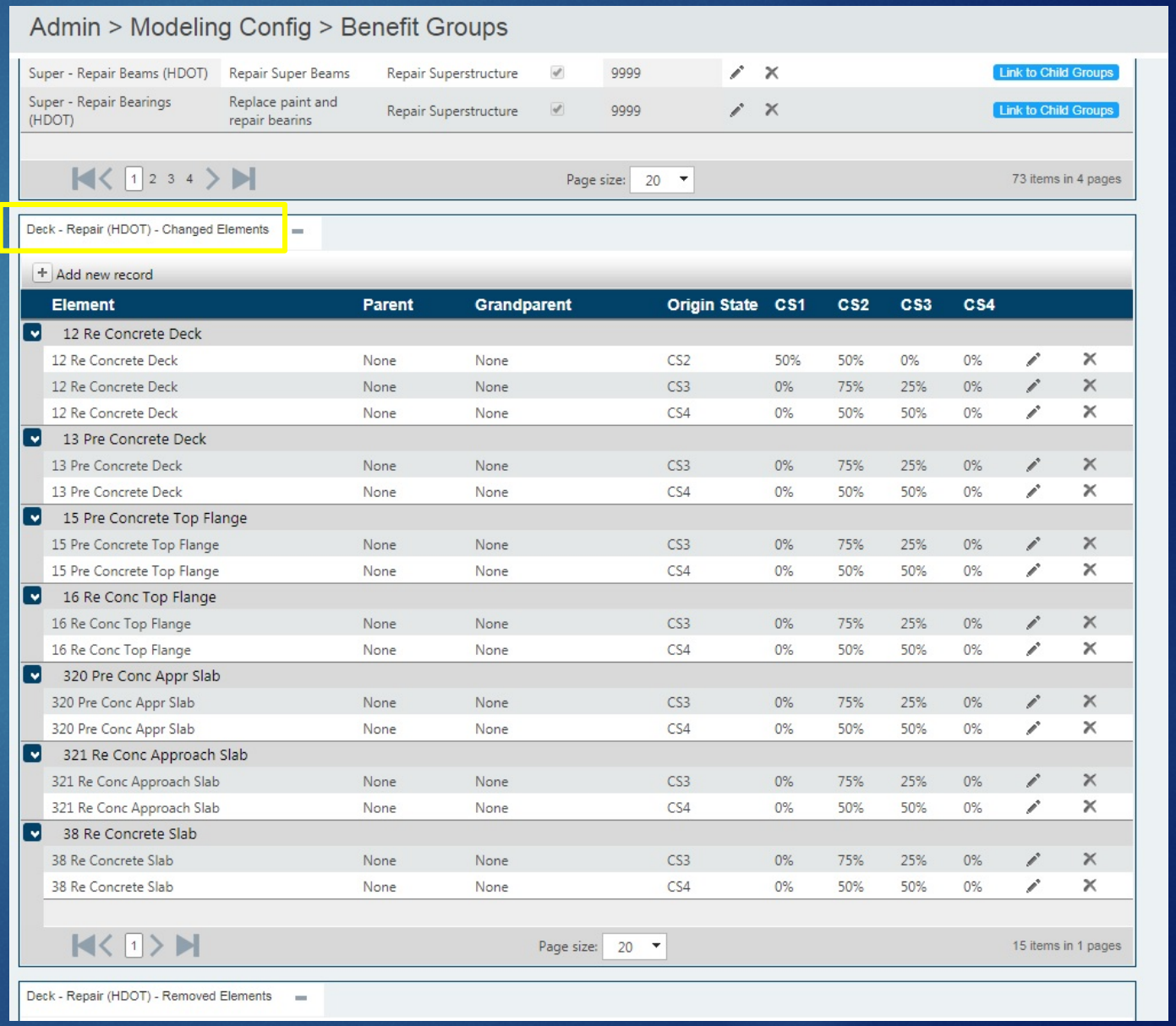


Benefit Groups

1. Change Elements
2. Remove Elements
3. Replace Elements
4. Create Protective System
5. Change the Value of a Field
6. Reduce Risk

Benefit Groups

Deck Repair Benefit Elements



Admin > Modeling Config > Benefit Groups

Super - Repair Beams (HDOT)	Repair Super Beams	Repair Superstructure	☑	9999	✎ ✕	Link to Child Groups
Super - Repair Bearings (HDOT)	Replace paint and repair bearins	Repair Superstructure	☑	9999	✎ ✕	Link to Child Groups

1 2 3 4 Page size: 20 73 items in 4 pages

Deck - Repair (HDOT) - Changed Elements

+ Add new record

Element	Parent	Grandparent	Origin State	CS1	CS2	CS3	CS4		
12 Re Concrete Deck									
12 Re Concrete Deck	None	None	CS2	50%	50%	0%	0%	✎	✕
12 Re Concrete Deck	None	None	CS3	0%	75%	25%	0%	✎	✕
12 Re Concrete Deck	None	None	CS4	0%	50%	50%	0%	✎	✕
13 Pre Concrete Deck									
13 Pre Concrete Deck	None	None	CS3	0%	75%	25%	0%	✎	✕
13 Pre Concrete Deck	None	None	CS4	0%	50%	50%	0%	✎	✕
15 Pre Concrete Top Flange									
15 Pre Concrete Top Flange	None	None	CS3	0%	75%	25%	0%	✎	✕
15 Pre Concrete Top Flange	None	None	CS4	0%	50%	50%	0%	✎	✕
16 Re Conc Top Flange									
16 Re Conc Top Flange	None	None	CS3	0%	75%	25%	0%	✎	✕
16 Re Conc Top Flange	None	None	CS4	0%	50%	50%	0%	✎	✕
320 Pre Conc Appr Slab									
320 Pre Conc Appr Slab	None	None	CS3	0%	75%	25%	0%	✎	✕
320 Pre Conc Appr Slab	None	None	CS4	0%	50%	50%	0%	✎	✕
321 Re Conc Approach Slab									
321 Re Conc Approach Slab	None	None	CS3	0%	75%	25%	0%	✎	✕
321 Re Conc Approach Slab	None	None	CS4	0%	50%	50%	0%	✎	✕
38 Re Concrete Slab									
38 Re Concrete Slab	None	None	CS3	0%	75%	25%	0%	✎	✕
38 Re Concrete Slab	None	None	CS4	0%	50%	50%	0%	✎	✕

1 Page size: 20 15 items in 1 pages

Deck - Repair (HDOT) - Removed Elements

Benefit Groups

Deck Repair

Desired Percentages			
0	75	25	0
0	50	50	0

Elements	Short Name	Origin State	CS1	CS2	CS3	CS4	
320	Re Conc Deck						
12		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
320		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
321	Pre Concrete Deck						
321		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
321		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
15	Pre Concrete Top Flange						
15		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
15		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
16	Re Conc Top Flange						
16		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
16		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
320	Pre Concr Approach Slab						
320		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
320		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
321	Re Conc Approach Slab						
321		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
321		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E
38	Re Concrete Slab						
38		CS3	0	75	25	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '75', PON_BENEFIT_E
38		CS4	0	50	50	0	update PON_BENEFIT_ELEMENTS set PON_BENEFIT_ELEMENTS.CS1 = '0' , PON_BENEFIT_ELEMENTS.CS2 = '50', PON_BENEFIT_E

Group Name: Deck - Repair (HDOT)

Custom Spreadsheet to update benefit group elements

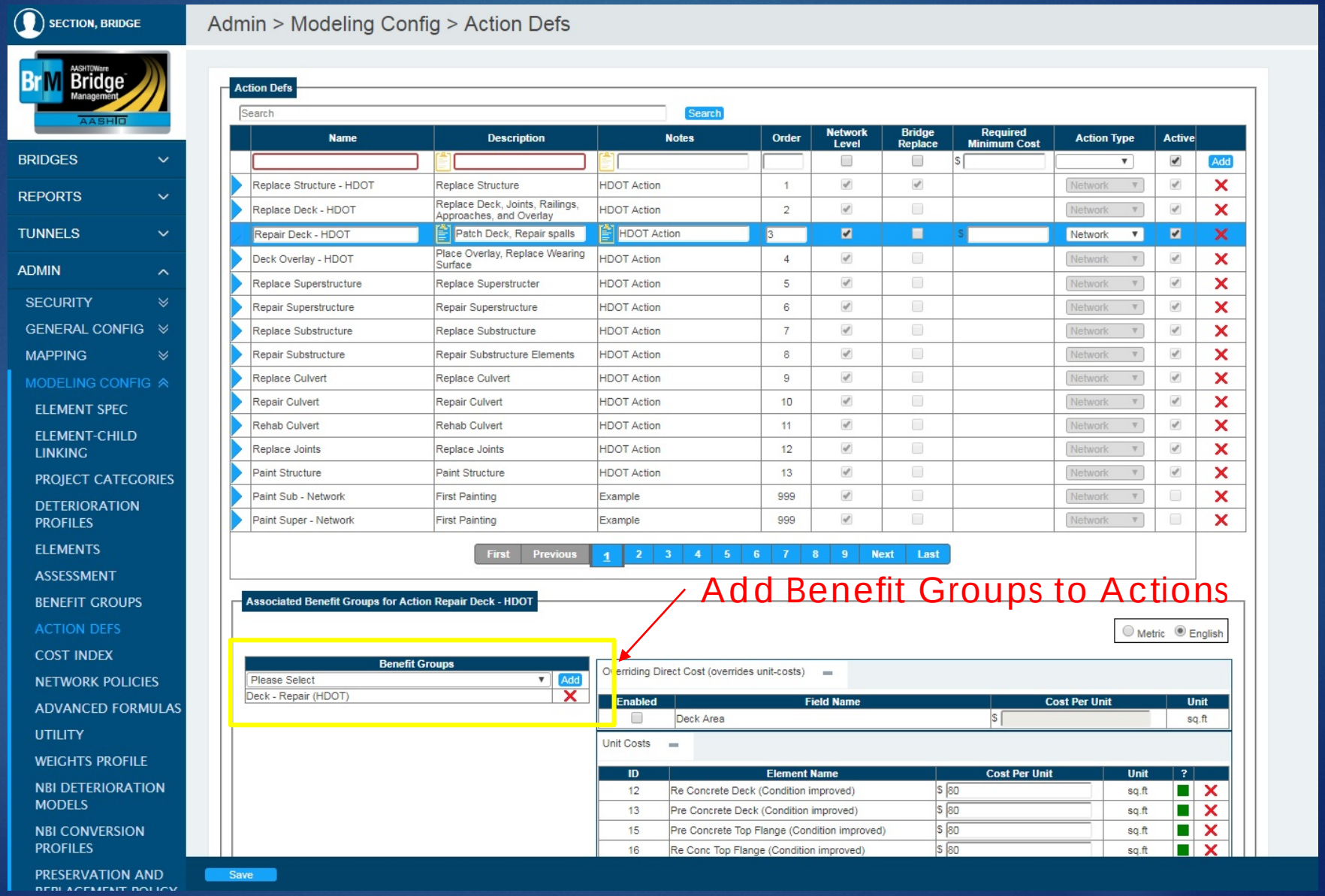
... | **Deck Repair** | Deck - Rehab | Sub - Rehab Beams | Sub- Rehab Piers & Caps | Sub- Rehab Columns & Piles | Sub- Rehab Abutments | Culvert - Reh ...

STEPS TO IMPLEMENTING BrM

BACDUPP

- Benefit groups
- **Action Defs**
- Costs
- Deterioration
- Utility
- Policies
- Programs

Action Defs

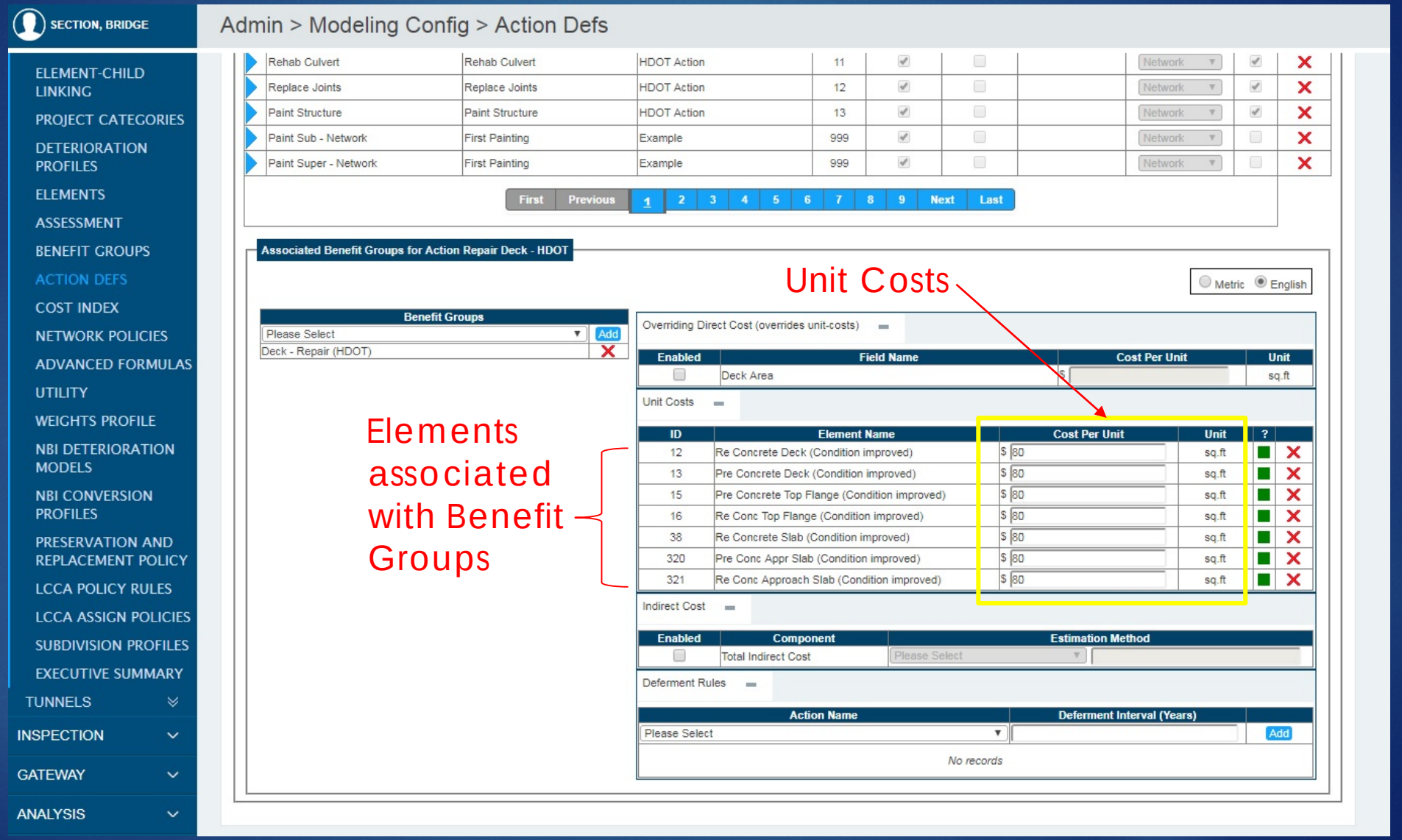

SECTION, BRIDGE
Admin > Modeling Config > Action Defs
BRIDGES
REPORTS
TUNNELS
ADMIN
SECURITY
GENERAL CONFIG
MAPPING
MODELING CONFIG
ELEMENT SPEC
ELEMENT-CHILD LINKING
PROJECT CATEGORIES
DETERIORATION PROFILES
ELEMENTS
ASSESSMENT
BENEFIT GROUPS
ACTION DEFS
COST INDEX
NETWORK POLICIES
ADVANCED FORMULAS
UTILITY
WEIGHTS PROFILE
NBI DETERIORATION MODELS
NBI CONVERSION PROFILES
PRESERVATION AND
Action Defs
Search
Name
Description
Notes
Order
Network Level
Bridge Replace
Required Minimum Cost
Action Type
Active
Replace Structure - HDOT
Replace Deck - HDOT
Repair Deck - HDOT
Patch Deck, Repair spalls
Deck Overlay - HDOT
Replace Superstructure
Repair Superstructure
Replace Substructure
Repair Substructure
Replace Culvert
Repair Culvert
Rehab Culvert
Replace Joints
Paint Structure
Paint Sub - Network
Paint Super - Network
First
Previous
Next
Last
Add Benefit Groups to Actions
Associated Benefit Groups for Action Repair Deck - HDOT
Benefit Groups
Please Select
Deck - Repair (HDOT)
Metric
English
Overriding Direct Cost (overrides unit-costs)
Enabled
Field Name
Cost Per Unit
Unit
Deck Area
sq.ft
Unit Costs
ID
Element Name
Cost Per Unit
Unit
12
Re Concrete Deck (Condition improved)
13
Pre Concrete Deck (Condition improved)
15
Pre Concrete Top Flange (Condition improved)
16
Re Conc Top Flange (Condition improved)
Save

STEPS TO IMPLEMENTING BrM

BACDUPP

- Benefit groups
- Action Defs
- **Costs**
- Deterioration
- Utility
- Policies
- Programs

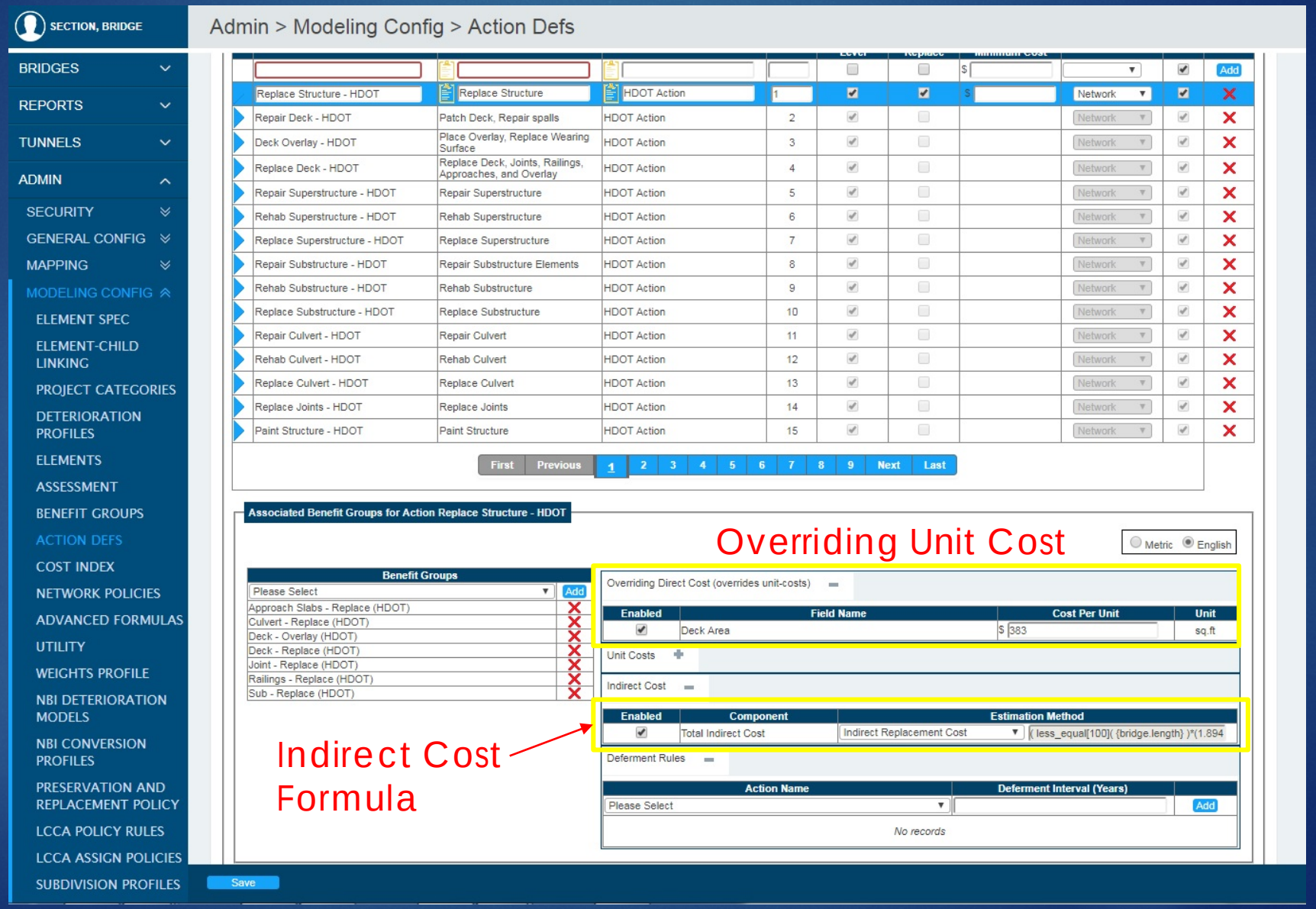
Costs


SECTION, BRIDGE
Admin > Modeling Config > Action Defs
ELEMENT-CHILD LINKING
PROJECT CATEGORIES
DETERIORATION PROFILES
ELEMENTS
ASSESSMENT
BENEFIT GROUPS
ACTION DEFS
COST INDEX
NETWORK POLICIES
ADVANCED FORMULAS
UTILITY
WEIGHTS PROFILE
NBI DETERIORATION MODELS
NBI CONVERSION PROFILES
PRESERVATION AND REPLACEMENT POLICY
LCCA POLICY RULES
LCCA ASSIGN POLICIES
SUBDIVISION PROFILES
EXECUTIVE SUMMARY
TUNNELS
INSPECTION
GATEWAY
ANALYSIS
Rehab Culvert | Rehab Culvert | HDOT Action | 11
Replace Joints | Replace Joints | HDOT Action | 12
Paint Structure | Paint Structure | HDOT Action | 13
Paint Sub - Network | First Painting | Example | 999
Paint Super - Network | First Painting | Example | 999
First Previous 1 2 3 4 5 6 7 8 9 Next Last
Associated Benefit Groups for Action Repair Deck - HDOT
Unit Costs
Metric English
Benefit Groups
Please Select Add
Deck - Repair (HDOT)
Overriding Direct Cost (overrides unit-costs)
Enabled | Field Name | Cost Per Unit | Unit
Deck Area | $ | sq.ft
Unit Costs
ID | Element Name | Cost Per Unit | Unit | ?
12 | Re Concrete Deck (Condition improved) | $ 80 | sq.ft
13 | Pre Concrete Deck (Condition improved) | $ 80 | sq.ft
15 | Pre Concrete Top Flange (Condition improved) | $ 80 | sq.ft
16 | Re Conc Top Flange (Condition improved) | $ 80 | sq.ft
38 | Re Concrete Slab (Condition improved) | $ 80 | sq.ft
320 | Pre Conc Appr Slab (Condition improved) | $ 80 | sq.ft
321 | Re Conc Approach Slab (Condition improved) | $ 80 | sq.ft
Elements associated with Benefit Groups
Indirect Cost
Enabled | Component | Estimation Method
Total Indirect Cost | Please Select
Deferment Rules
Action Name | Deferment Interval (Years)
Please Select Add
No records

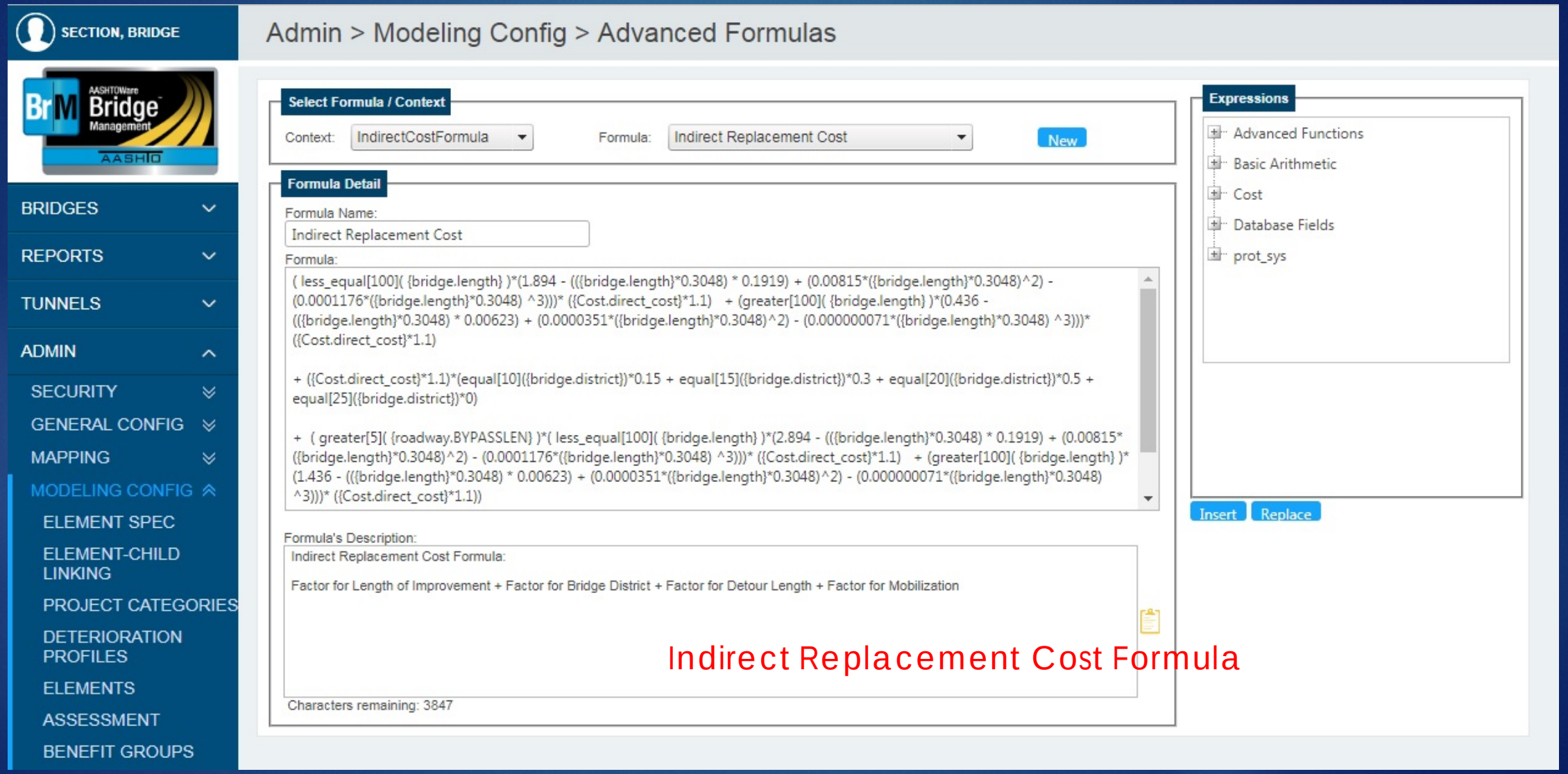
Costs

1. Overriding Direct Cost
2. Unit Costs
3. Indirect Cost
    - Percentage
    - Flat Indirect Cost
    - Formula

Costs

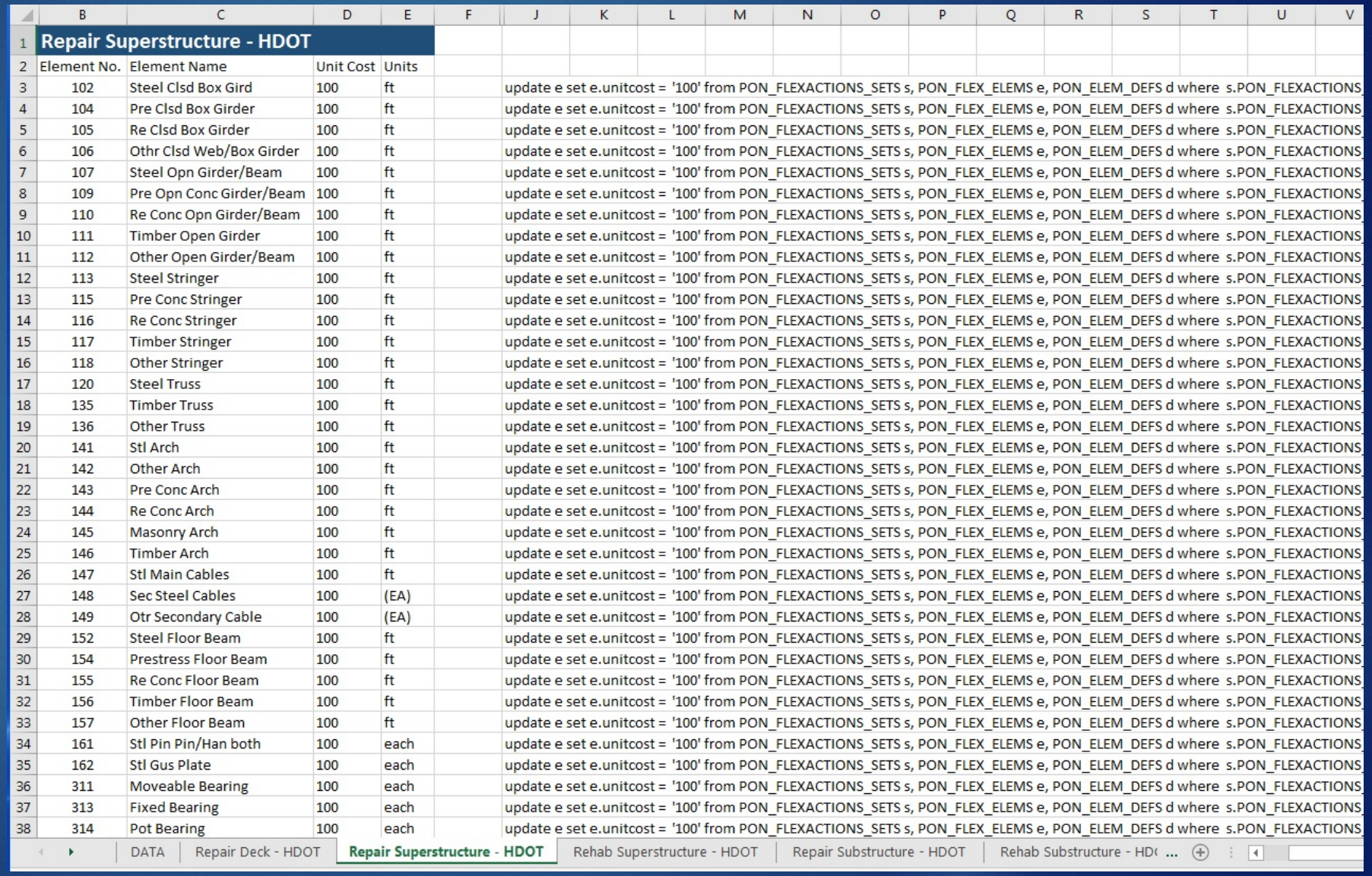

SECTION, BRIDGE
Admin > Modeling Config > Action Defs
BRIDGES
REPORTS
TUNNELS
ADMIN
SECURITY
GENERAL CONFIG
MAPPING
MODELING CONFIG
ELEMENT SPEC
ELEMENT-CHILD LINKING
PROJECT CATEGORIES
DETERIORATION PROFILES
ELEMENTS
ASSESSMENT
BENEFIT GROUPS
ACTION DEFS
COST INDEX
NETWORK POLICIES
ADVANCED FORMULAS
UTILITY
WEIGHTS PROFILE
NBI DETERIORATION MODELS
NBI CONVERSION PROFILES
PRESERVATION AND REPLACEMENT POLICY
LCCA POLICY RULES
LCCA ASSIGN POLICIES
SUBDIVISION PROFILES
Replace Structure - HDOT | Replace Structure | HDOT Action | 1 | Network
Repair Deck - HDOT | Patch Deck, Repair spalls | HDOT Action | 2
Deck Overlay - HDOT | Place Overlay, Replace Wearing Surface | HDOT Action | 3
Replace Deck - HDOT | Replace Deck, Joints, Railings, Approaches, and Overlay | HDOT Action | 4
Repair Superstructure - HDOT | Repair Superstructure | HDOT Action | 5
Rehab Superstructure - HDOT | Rehab Superstructure | HDOT Action | 6
Replace Superstructure - HDOT | Replace Superstructure | HDOT Action | 7
Repair Substructure - HDOT | Repair Substructure Elements | HDOT Action | 8
Rehab Substructure - HDOT | Rehab Substructure | HDOT Action | 9
Replace Substructure - HDOT | Replace Substructure | HDOT Action | 10
Repair Culvert - HDOT | Repair Culvert | HDOT Action | 11
Rehab Culvert - HDOT | Rehab Culvert | HDOT Action | 12
Replace Culvert - HDOT | Replace Culvert | HDOT Action | 13
Replace Joints - HDOT | Replace Joints | HDOT Action | 14
Paint Structure - HDOT | Paint Structure | HDOT Action | 15
First Previous 1 2 3 4 5 6 7 8 9 Next Last
Associated Benefit Groups for Action Replace Structure - HDOT
Overriding Unit Cost
Metric English
Benefit Groups
Please Select Add
Approach Slabs - Replace (HDOT)
Culvert - Replace (HDOT)
Deck - Overlay (HDOT)
Deck - Replace (HDOT)
Joint - Replace (HDOT)
Railings - Replace (HDOT)
Sub - Replace (HDOT)
Overriding Direct Cost (overrides unit-costs)
Enabled | Field Name | Cost Per Unit | Unit
Deck Area | $ 383 | sq.ft
Unit Costs
Indirect Cost
Enabled | Component | Estimation Method
Total Indirect Cost | Indirect Replacement Cost | (less_equal[100]({bridge.length})*(1.894
Indirect Cost Formula
Deferment Rules
Action Name | Deferment Interval (Years)
Please Select Add
No records
Save

Costs


SECTION, BRIDGE
Admin > Modeling Config > Advanced Formulas
BRIDGES
REPORTS
TUNNELS
ADMIN
SECURITY
GENERAL CONFIG
MAPPING
MODELING CONFIG
ELEMENT SPEC
ELEMENT-CHILD LINKING
PROJECT CATEGORIES
DETERIORATION PROFILES
ELEMENTS
ASSESSMENT
BENEFIT GROUPS
Select Formula / Context
Context: IndirectCostFormula
Formula: Indirect Replacement Cost
New
Formula Detail
Formula Name:
Indirect Replacement Cost
Formula:
(less_equal[100]({bridge.length})*(1.894 - (({bridge.length}*0.3048) * 0.1919) + (0.00815*({bridge.length}*0.3048)^2) - (0.0001176*({bridge.length}*0.3048) ^3)))* ({Cost.direct_cost}*1.1) + (greater[100]({bridge.length})*(0.436 - (({bridge.length}*0.3048) * 0.00623) + (0.0000351*({bridge.length}*0.3048)^2) - (0.000000071*({bridge.length}*0.3048) ^3)))* ({Cost.direct_cost}*1.1)
+ ({Cost.direct_cost}*1.1)*(equal[10]({bridge.district})*0.15 + equal[15]({bridge.district})*0.3 + equal[20]({bridge.district})*0.5 + equal[25]({bridge.district})*0)
+ (greater[5]({roadway.BYPASSLEN})*(less_equal[100]({bridge.length})*(2.894 - (({bridge.length}*0.3048) * 0.1919) + (0.00815*({bridge.length}*0.3048)^2) - (0.0001176*({bridge.length}*0.3048) ^3)))* ({Cost.direct_cost}*1.1) + (greater[100]({bridge.length})*(1.436 - (({bridge.length}*0.3048) * 0.00623) + (0.0000351*({bridge.length}*0.3048)^2) - (0.000000071*({bridge.length}*0.3048) ^3)))* ({Cost.direct_cost}*1.1))
Formula's Description:
Indirect Replacement Cost Formula:
Factor for Length of Improvement + Factor for Bridge District + Factor for Detour Length + Factor for Mobilization
Characters remaining: 3847
Expressions
Advanced Functions
Basic Arithmetic
Cost
Database Fields
prot_sys
Insert
Replace
Indirect Replacement Cost Formula

Cost

Update Unit Costs



	B	C	D	E	F	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Repair Superstructure - HDOT																	
2	Element No.	Element Name	Unit Cost	Units														
3	102	Steel Clsd Box Gird	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
4	104	Pre Clsd Box Girder	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
5	105	Re Clsd Box Girder	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
6	106	Othr Clsd Web/Box Girder	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
7	107	Steel Opn Girder/Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
8	109	Pre Opn Conc Girder/Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
9	110	Re Conc Opn Girder/Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
10	111	Timber Open Girder	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
11	112	Other Open Girder/Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
12	113	Steel Stringer	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
13	115	Pre Conc Stringer	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
14	116	Re Conc Stringer	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
15	117	Timber Stringer	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
16	118	Other Stringer	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
17	120	Steel Truss	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
18	135	Timber Truss	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
19	136	Other Truss	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
20	141	Stl Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
21	142	Other Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
22	143	Pre Conc Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
23	144	Re Conc Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
24	145	Masonry Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
25	146	Timber Arch	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
26	147	Stl Main Cables	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
27	148	Sec Steel Cables	100	(EA)		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
28	149	Otr Secondary Cable	100	(EA)		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
29	152	Steel Floor Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
30	154	Prestress Floor Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
31	155	Re Conc Floor Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
32	156	Timber Floor Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
33	157	Other Floor Beam	100	ft		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
34	161	Stl Pin Pin/Han both	100	each		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
35	162	Stl Gus Plate	100	each		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
36	311	Moveable Bearing	100	each		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
37	313	Fixed Bearing	100	each		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												
38	314	Pot Bearing	100	each		update e set e.unitcost = '100' from PON_FLEXACTIONS_SETS s, PON_FLEX_ELEMS e, PON_ELEM_DEFS d where s.PON_FLEXACTIONS												

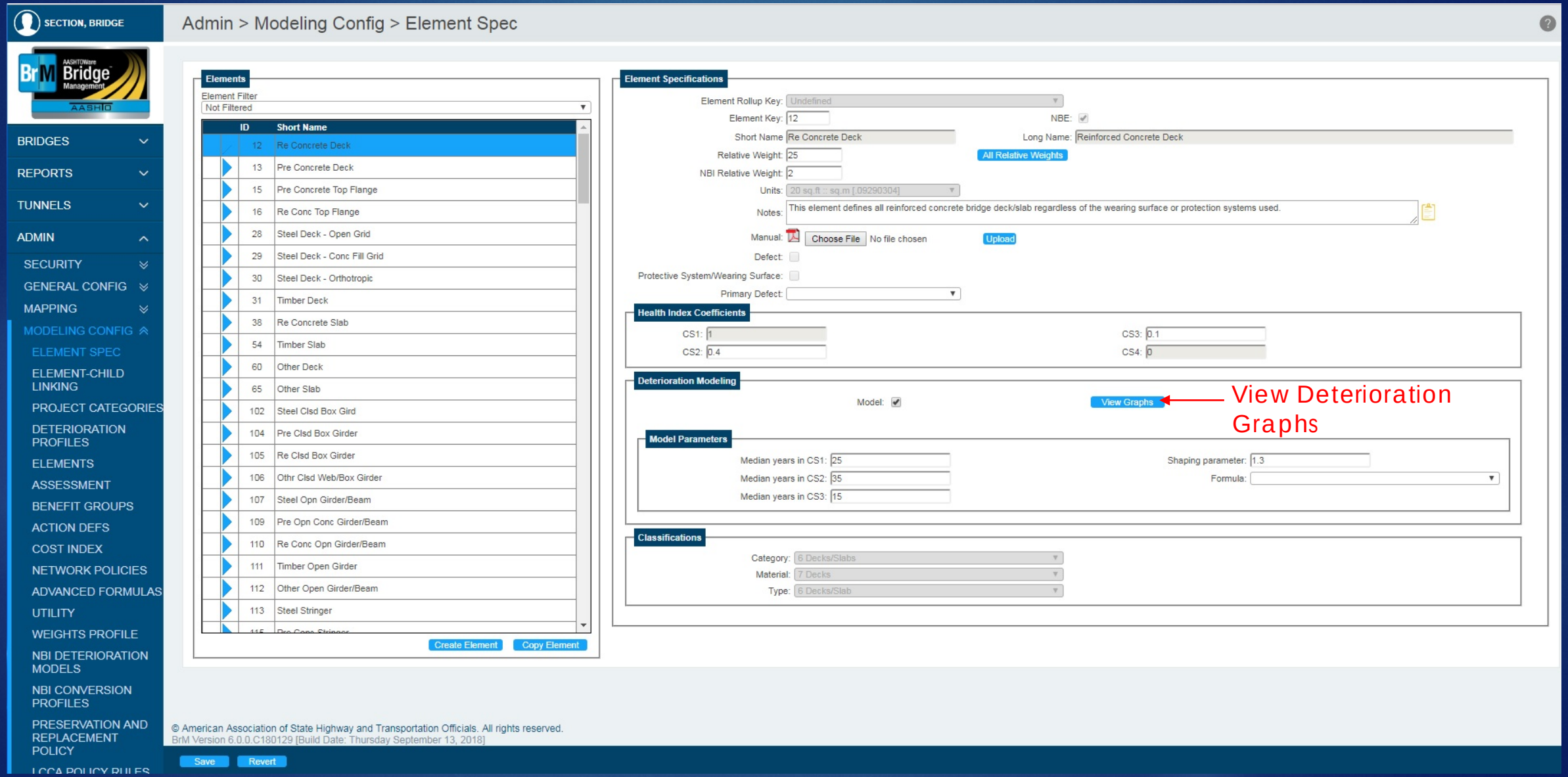
DATA | Repair Deck - HDOT | Repair Superstructure - HDOT | Rehab Superstructure - HDOT | Repair Substructure - HDOT | Rehab Substructure - HD...

STEPS TO IMPLEMENTING BrM

BACDUPP

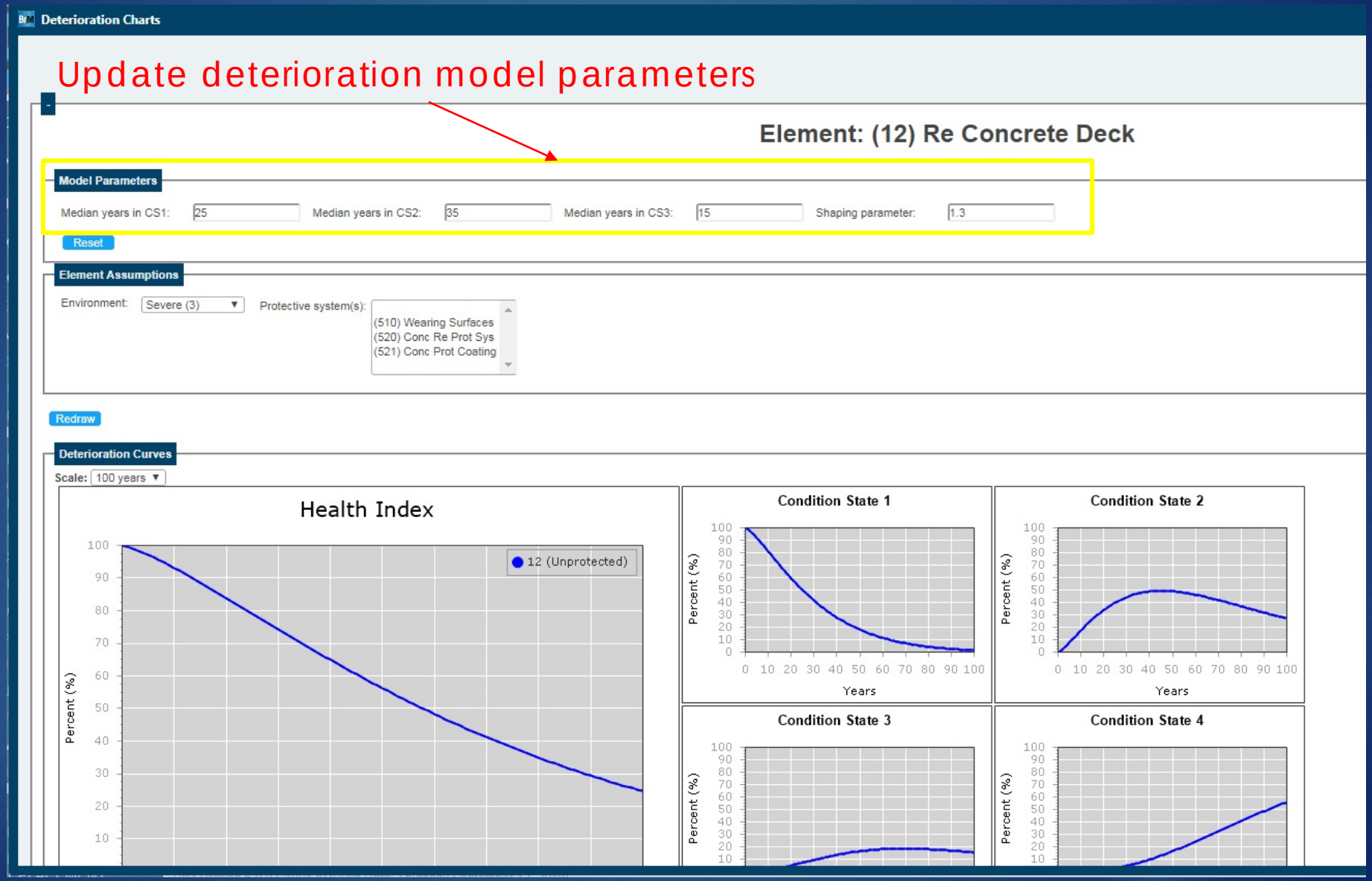
Benefit groups
Action Defs
Costs
Deterioration
Utility
Policies
Programs

Deterioration Models



View Deterioration Graphs

Deterioration Models



Deterioration Models

Example Elem 301 Pourable Joint Seal

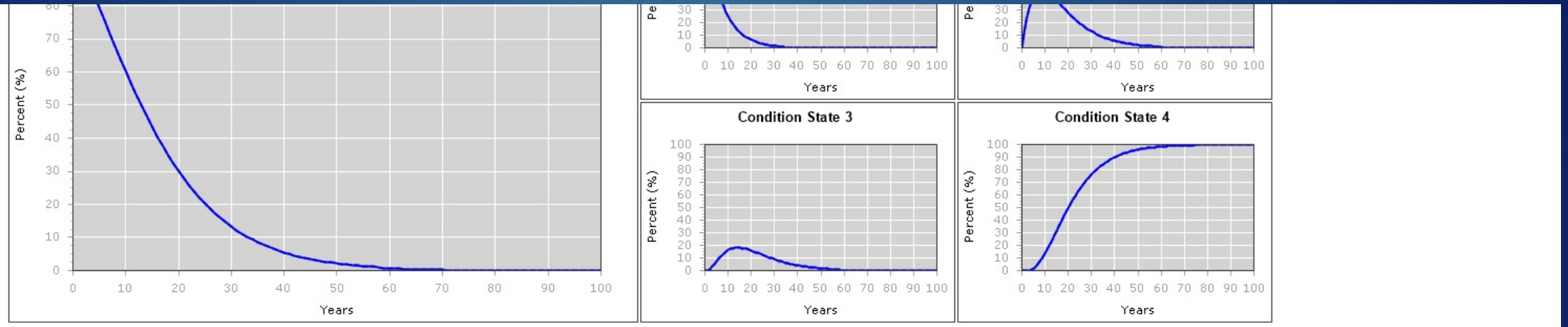
BRIDGE NUMBER	ELEMENT	NAME	MATERIAL	CATERGORY	ENV	INSP DATE	PCTSTATE	PCTSTATE	PCTSTATE	PCTSTATE	AGE
001000110306489	301	Pourable Joint Seal	Other	Joints	1	2/16/2018	79	0	0	21	78
001000190006359	301	Pourable Joint Seal	Other	Joints	1	8/1/2016	0	0	0	100	56
001000190007529	301	Pourable Joint Seal	Other	Joints	1	4/7/2017	0	0	0	100	54
001000190308983	301	Pourable Joint Seal	Other	Joints	1	3/31/2017	0	69	0	31	50
003000H11201935	301	Pourable Joint Seal	Other	Joints	1	6/7/2017	0	0	0	100	56
003000H11202269	301	Pourable Joint Seal	Other	Joints	1	8/16/2017	0	76	17	7	50
003000H11202340	301	Pourable Joint Seal	Other	Joints	1	8/28/2017	0	0	0	100	58
003000H20200021	301	Pourable Joint Seal	Other	Joints	1	1/12/2017	0	0	0	100	45
003000H20200022	301	Pourable Joint Seal	Other	Joints	1	1/12/2017	0	0	0	100	44
003000H20200024	301	Pourable Joint Seal	Other	Joints	1	1/26/2017	0	0	0	100	44
003000H30200087	301	Pourable Joint Seal	Other	Joints	1	3/7/2017	0	0	0	100	44
003000H30200129	301	Pourable Joint Seal	Other	Joints	1	11/2/2017	0	0	0	100	23
003000H30200155	301	Pourable Joint Seal	Other	Joints	1	11/3/2017	0	0	0	100	23
003009300501748	301	Pourable Joint Seal	Other	Joints	1	5/3/2016	0	0	0	100	78
003062071400019	301	Pourable Joint Seal	Other	Joints	1	2/19/2018	0	45	0	55	92
003062081400134	301	Pourable Joint Seal	Other	Joints	2	9/27/2017	70	26	2	2	80
003083451400011	301	Pourable Joint Seal	Other	Joints	1	5/4/2017	0	0	0	100	63
003083981400003	301	Pourable Joint Seal	Other	Joints	2	9/21/2017	69	0	0	31	82
003131001200001	301	Pourable Joint Seal	Other	Joints	1	8/31/2017	32	23	41	5	53
003843001100001	301	Pourable Joint Seal	Other	Joints	1	4/15/2014	75	18	0	7	48
003971001100001	301	Pourable Joint Seal	Other	Joints	1	11/7/2017	0	0	0	100	51
007005600500593	301	Pourable Joint Seal	Other	Joints	1	3/20/2017	0	0	0	100	50
009003400500233	301	Pourable Joint Seal	Other	Joints	2	8/23/2016	1	0	0	99	49
009004600501402	301	Pourable Joint Seal	Other	Joints	2	12/16/2016	0	0	0	100	64
009004600501425	301	Pourable Joint Seal	Other	Joints	2	12/16/2016	0	0	0	100	64
009004600501473	301	Pourable Joint Seal	Other	Joints	2	12/23/2016	0	0	0	100	64
009384001100001	301	Pourable Joint Seal	Other	Joints	1	9/29/2016	0	0	0	100	28

Pourable Joint Seal - Element 301	Average Env:	1.311827957	
	Env Factor:	1.844086022	
	Average Age	60	

Average Pct in CS 4	**82**
Average Age	**32.63**

MEDYR1	MEDYR2	MEDYR3
5	7	3

Deterioration Models



Deterioration Forecasts

Year	Pct. 1	Pct. 2	Pct. 3	Pct. 4	Health Index
31	1.36	12.08	8.35	78.20	12.20
32	1.18	11.12	7.77	79.93	11.19
33	1.03	10.23	7.21	81.53	10.25
34	0.90	9.40	6.69	83.02	9.39
35	0.78	8.63	6.20	84.40	8.60
36	0.68	7.91	5.73	85.68	7.87
37	0.59	7.26	5.29	86.86	7.19
38	0.52	6.65	4.89	87.95	6.58
39	0.45	6.09	4.50	88.96	6.01
40	0.39	5.57	4.15	89.89	5.49

1 2 3 4 5 6 7 8 9 10 Page size: 10

Deterioration Models

ELEM_KEY	Containg	Model Used	ELEM_SHORTNAME	MATERIAL	CATEGORY	MEDYR1	MEDYR2	MEDYR3	SHAPING_PARAM			
12	634		Re Concrete Deck	Decks	Decks/Slabs	25	35	15	1.3		Pct4 model	update pon_mod_de
13	15		Pre Concrete Deck	Decks	Decks/Slabs	23.94	48.53	26.69	1.3		Pct3 model	update pon_mod_de
15	10		Pre Concrete Top Flange	Decks	Decks/Slabs	23.94	48.53	26.69	1.3			update pon_mod_de
16	114		Re Conc Top Flange	Decks	Decks/Slabs	10	35	4	1.3			update pon_mod_de
28	3		Steel Deck - Open Grid	Decks	Decks/Slabs	10	8	6	1.1			update pon_mod_de
29	0		Steel Deck - Conc Fill Grid	Decks	Decks/Slabs	10	6	6	1.1			update pon_mod_de
30	10		Steel Deck - Orthotropic	Decks	Decks/Slabs	14	12	10	1.1			update pon_mod_de
31	58		Timber Deck	Decks	Decks/Slabs	17	22	12	1.9			update pon_mod_de
38	178		Re Concrete Slab	Decks	Decks/Slabs	25	40	20	1.3			update pon_mod_de
145	5		Masonry Arch	Other	Superstructure	46.3	38	34.55	2.5			update pon_mod_de
146	0		Timber Arch	Other	Superstructure	30	40	30	1.9			update pon_mod_de
147	0		Stl Main Cables	Other	Superstructure	40	28	12	1.8			update pon_mod_de
211	0		Other Pier Wall	Other	Substructure	95.13	60.86	61.04	2.5			update pon_mod_de
217	123		Masonry Abutment	Other	Substructure	9	16	16	2.5			update pon_mod_de
218	2		Other Abutments	Other	Substructure	65.64	56.23	45.44	1.6			update pon_mod_de
243	1		Other Culvert	Other	Substructure	45.59	56.53	34.8	2			update pon_mod_de
300	72		Strip Seal Exp Joint	Other	Joints	4	8	2	1			update pon_mod_de
301	422		Pourable Joint Seal	Other	Joints	5	7	3	1			update pon_mod_de
302	111		Compressn Joint Seal	Other	Joints	5	7	3	1			update pon_mod_de
303	9		Assem Jnt With Seal	Other	Joints	5	5	3	1.4			update pon_mod_de
304	50		Open Expansion Joint	Other	Joints	2	2	1	1			update pon_mod_de
305	2		Assem Jnt Wthut Seal	Other	Joints	9.2	7.07	4.6	1.4			update pon_mod_de
310	339		Elastomeric Bearing	Other	Bearings	7	9	5	1.9			update pon_mod_de
311	167		Moveable Bearing	Other	Bearings	9	11	5	1.9			update pon_mod_de
312	22	310	Enclosed Bearing	Other	Bearings	7	9	5	1.9			update pon_mod_de
313	193	310	Fixed Bearing	Other	Bearings	7	9	5	1.9			update pon_mod_de
314	13	310	Pot Bearing	Other	Bearings	7	9	5	1.9			update pon_mod_de
315	2	310	Disk Bearing	Other	Bearings	7	9	5	1.9			update pon_mod_de
330	425		Metal Bridge Railing	Other	Superstructure	15	20	9	1.8			update pon_mod_de
510	578		Wearing Surfaces	Other	Other Elements	10	13	7	1			update pon_mod_de
515	493		Steel Protective Coating	Other	Other Elements	12	15	6	1.8			update pon_mod_de
520	1		Conc Re Prot Sys	Other	Other Elements	8	6	4	1			update pon_mod_de

Deterioration Models | Element Pct4 | Reinf Conc Deck | Element Pct3 | Timber Deck | Fixed Bearing | Masonry Abutment | Other Bridge Railing | Re Conc Approach Slab | Re Conc Culvert | Re Conc Flo


NAME
THAT
CANDY BAR


KitKat
CRISP WAFERS
IN CHOCOLATE
NET WT. 1.5 OZ. (42 g)


Twix

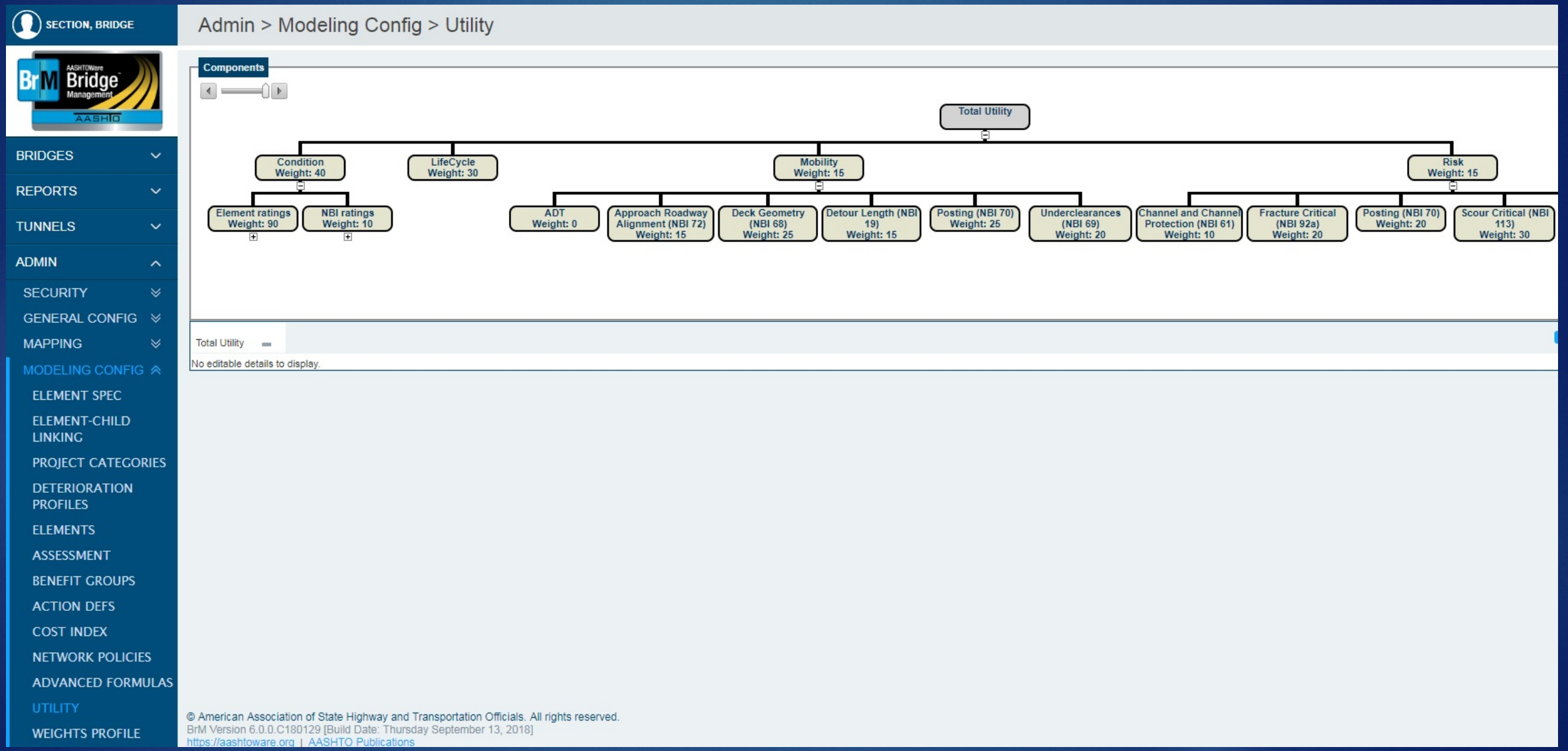

Big on Chocolate, Not on Fat
3Musketeers

STEPS TO IMPLEMENTING BrM

BACDUPP

- Benefit groups
- Action Defs
- Costs
- Deterioration
- Utility
- Policies
- Programs

Utility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BRIDGES
REPORTS
TUNNELS
ADMIN
SECURITY
GENERAL CONFIG
MAPPING
MODELING CONFIG
ELEMENT SPEC
ELEMENT-CHILD LINKING
PROJECT CATEGORIES
DETERIORATION PROFILES
ELEMENTS
ASSESSMENT
BENEFIT GROUPS
ACTION DEFS
COST INDEX
NETWORK POLICIES
ADVANCED FORMULAS
UTILITY
WEIGHTS PROFILE
Components
Total Utility
Condition Weight: 40
LifeCycle Weight: 30
Mobility Weight: 15
Risk Weight: 15
Element ratings Weight: 90
NBI ratings Weight: 10
ADT Weight: 0
Approach Roadway Alignment (NBI 72) Weight: 15
Deck Geometry (NBI 68) Weight: 25
Detour Length (NBI 19) Weight: 15
Posting (NBI 70) Weight: 25
Underclearances (NBI 69) Weight: 20
Channel and Channel Protection (NBI 61) Weight: 10
Fracture Critical (NBI 92a) Weight: 20
Posting (NBI 70) Weight: 20
Scour Critical (NBI 113) Weight: 30
Total Utility
No editable details to display.
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BrM Version 6.0.0.C180129 [Build Date: Thursday September 13, 2018]
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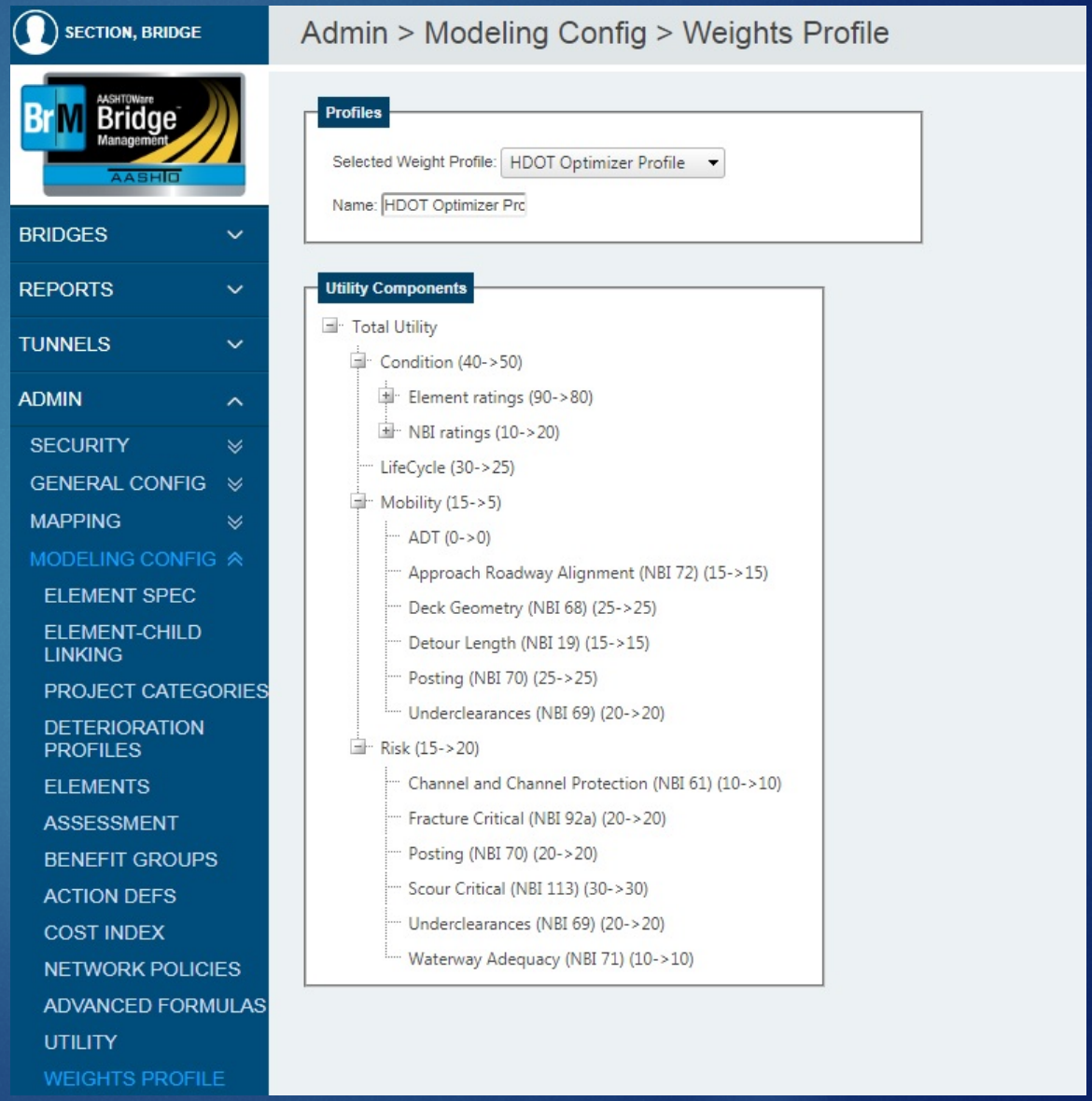
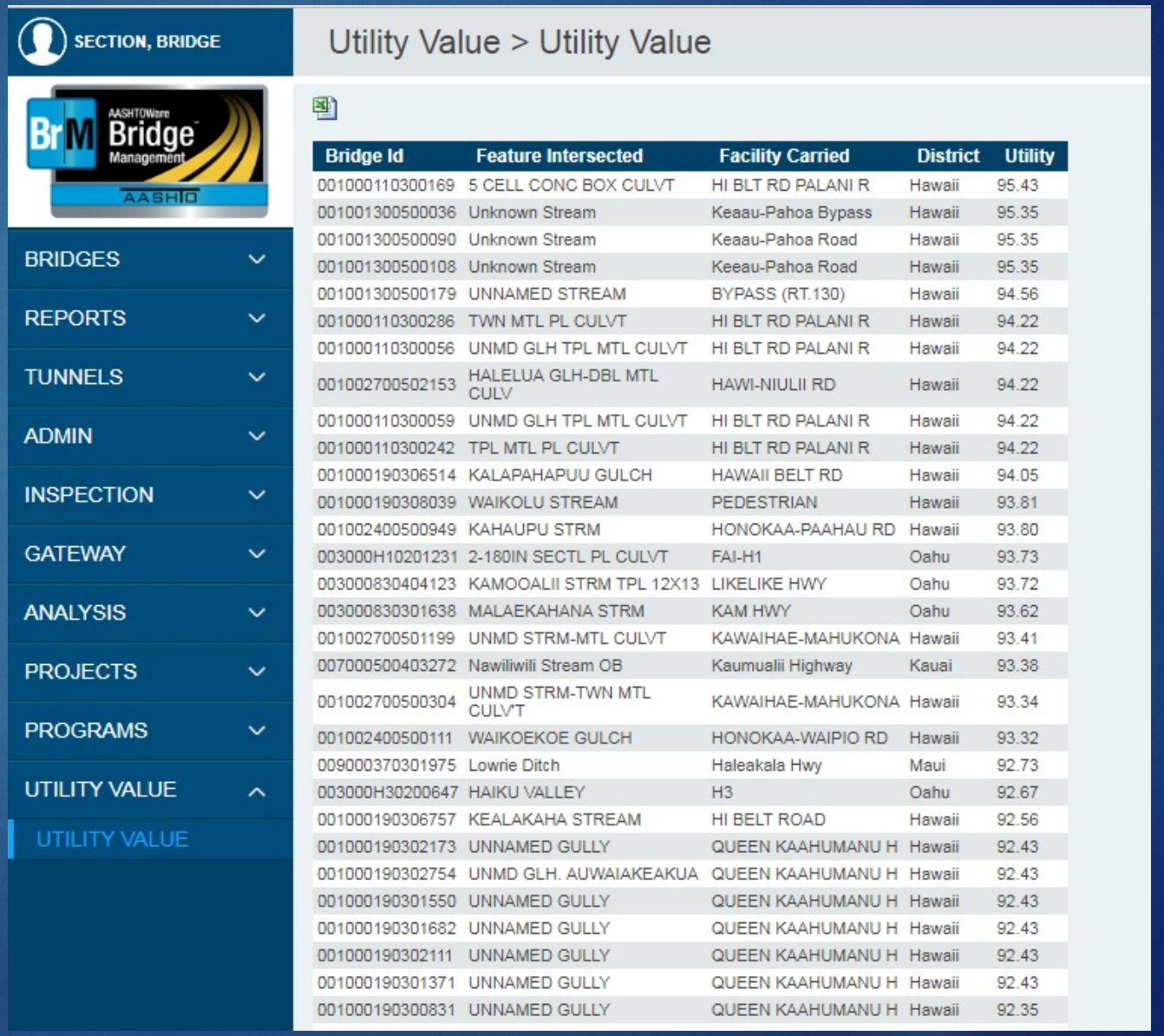
Utility

Utility Weight Profile



Utility

Custom Utility Screen



Bridge Id	Feature Intersected	Facility Carried	District	Utility
001000110300169	5 CELL CONC BOX CULVT	HI BLT RD PALANI R	Hawaii	95.43
001001300500036	Unknown Stream	Keaau-Pahoa Bypass	Hawaii	95.35
001001300500090	Unknown Stream	Keaau-Pahoa Road	Hawaii	95.35
001001300500108	Unknown Stream	Keeau-Pahoa Road	Hawaii	95.35
001001300500179	UNNAMED STREAM	BYPASS (RT.130)	Hawaii	94.56
001000110300286	TWN MTL PL CULVT	HI BLT RD PALANI R	Hawaii	94.22
001000110300056	UNMD GLH TPL MTL CULVT	HI BLT RD PALANI R	Hawaii	94.22
001002700502153	HALELUA GLH-DBL MTL CULV	HAWI-NIULII RD	Hawaii	94.22
001000110300059	UNMD GLH TPL MTL CULVT	HI BLT RD PALANI R	Hawaii	94.22
001000110300242	TPL MTL PL CULVT	HI BLT RD PALANI R	Hawaii	94.22
001000190306514	KALAPAHAPUU GULCH	HAWAII BELT RD	Hawaii	94.05
001000190308039	WAIKOLU STREAM	PEDESTRIAN	Hawaii	93.81
001002400500949	KAHAUPU STRM	HONOKAA-PAAHAU RD	Hawaii	93.80
003000H10201231	2-180IN SECTL PL CULVT	FAI-H1	Oahu	93.73
003000830404123	KAMOOALII STRM TPL 12X13	LIKELIKE HWY	Oahu	93.72
003000830301638	MALAEKAHANA STRM	KAM HWY	Oahu	93.62
001002700501199	UNMD STRM-MTL CULVT	KAWAIHAE-MAHUKONA	Hawaii	93.41
007000500403272	Nawiliwili Stream OB	Kaumualii Highway	Kauai	93.38
001002700500304	UNMD STRM-TWN MTL CULV'T	KAWAIHAE-MAHUKONA	Hawaii	93.34
001002400500111	WAIKOEKOE GULCH	HONOKAA-WAIPIO RD	Hawaii	93.32
009000370301975	Lowrie Ditch	Haleakala Hwy	Maui	92.73
003000H30200647	HAIKU VALLEY	H3	Oahu	92.67
001000190306757	KEALAKAHA STREAM	HI BELT ROAD	Hawaii	92.56
001000190302173	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.43
001000190302754	UNMD GLH. AUWAIAKEAKUA	QUEEN KAAHUMANU H	Hawaii	92.43
001000190301550	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.43
001000190301682	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.43
001000190302111	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.43
001000190301371	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.43
001000190300831	UNNAMED GULLY	QUEEN KAAHUMANU H	Hawaii	92.35

Utility

Prioritized Bridge Work List

No.	District	Bridge Number	Feature Intersected	Facility Carried	Utility	Comments	Priority Rank (Not on STIP)
1	Oahu	003000930301404	UNMD STRM(MAKAHA #3)	FARR HWY	31.68	STIP	
2	Oahu	003000930301412	UNMD STRM(MAKAHA #3A)	FARR HWY	32.36	STIP	
3	Kauai	007005600500427	WAIKOKO STRM	KUHIO HWY	34.65	STIP	
4	Kauai	007005600500396	WAIPA STRM	KUHIO HWY	38.04	STIP	
5	Oahu	003000920400796	PENSACOLA RELIEF DRAIN	ALA MOANA BLVD	40.58	BEING REPAIRED	
6	Oahu	003000830302242	WAIMANANA STRM	KAM HWY	45.32	PPR SUBMITTED	1
7	Maui	009000300303640	HONOKOHAU STRM BR #70	KAHEKILI HWY	45.74		2
8	Maui	009000300300346	HONOLUA STRM	HONOAPIILANI HWY	45.94	STIP	
9	Oahu	003000830300869	PAUMALU STRM	KAM HWY	48.20	PPR SUBMITTED	3
10	Oahu	003000800300071	NF KAUKONAHUA(K THOT)	KAM HWY	49.63	REPAIRED*	
11	Maui	009000300303899	ANAKALUAHINE STRM BR#69	KAHEKILI HWY	50.42		4
12	Hawaii	001000110306600	NINOLE STRM	HAWAII BELT RD	51.85	STIP	
13	Oahu	003000930300832	MAIPALAOA STRM	FARR HWY	52.16	STIP	
14	Hawaii	001000190409696	WAILUKU STRM	HAWAII BELT RD	52.66	PPR SUBMITTED	5
15	Oahu	003000830302282	KALUANUI STRM	KAM HWY	52.72	STIP	
16	Oahu	003000H10400875	WAIAWA IC #3A FAI-H1	FARR HWY	53.47		6
17	Oahu	003000830303575	KAALAEA STRM	KAM HWY	53.99		7
18	Oahu	003000830301851	LAIELOA STRM	KAM HWY	54.80	STIP	
19	Oahu	003000930400536	NANAIKAPONO STRM	FARR HWY	54.89		8
20	Oahu	003000830302099	KAIPAPAU STRM	KAM HWY	54.97	STIP	
21	Oahu	003000830302112	WAIPILOPILO STRM	KAM HWY	55.69	STIP	
22	Maui	009004500900536	MAPULEHU STRM	KAM V HWY	56.04		9
23	Oahu	003000830300043	OPAELUA WAIALUA TWN B	KAM HWY	56.49		10
24	Oahu	003000830302903	KAAAWA STRM	KAM HWY	57.04		11
25	Oahu	003000930400640	ULEHAWA STRM	FARR HWY	57.19	STIP	
26	Kauai	007005600500343	WAIOLI STRM	KUHIO HWY	57.35	STIP	
27	Oahu	003000H11101241	KAAMILO ST SEP FAI-H1	KAAMILO ST	57.66		12
28	Oahu	003000830303459	WAIAHOLE STRM(COUNTY)	KAM HWY	58.02	STIP	
29	Oahu	003000830300041	WAIALUA TWN A (HELEMANO)	KAM HWY	58.67		13
30	Hawaii	001000190308549	KOLEKOLE STRM	HAWAII BELT RD	59.04		14

Prioritized by Utility Value

STEPS TO IMPLEMENTING BrM

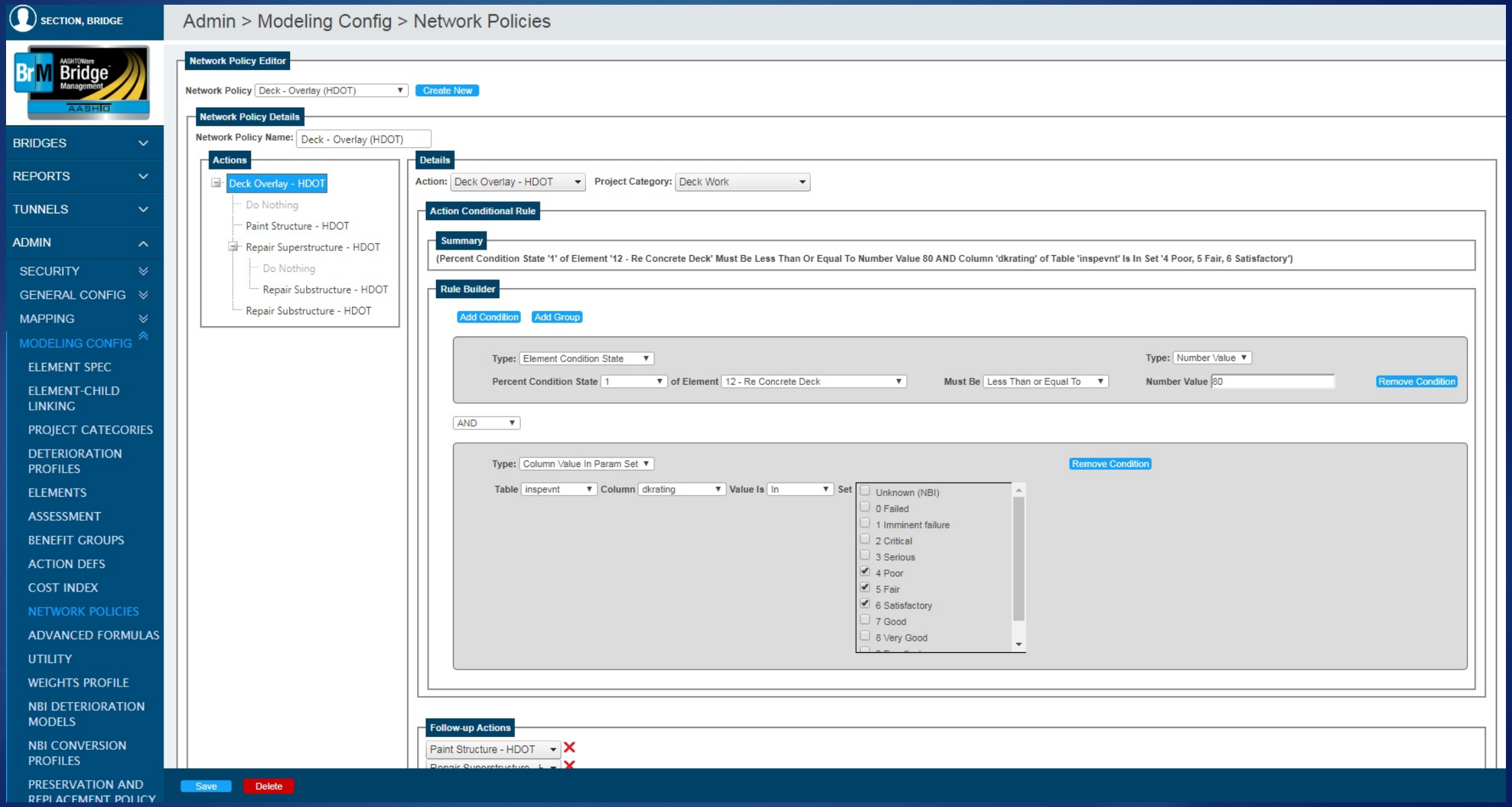
BACDUPP

- Benefit groups
- Action Defs
- Costs
- Deterioration
- Utility
- **Policies**
- Programs

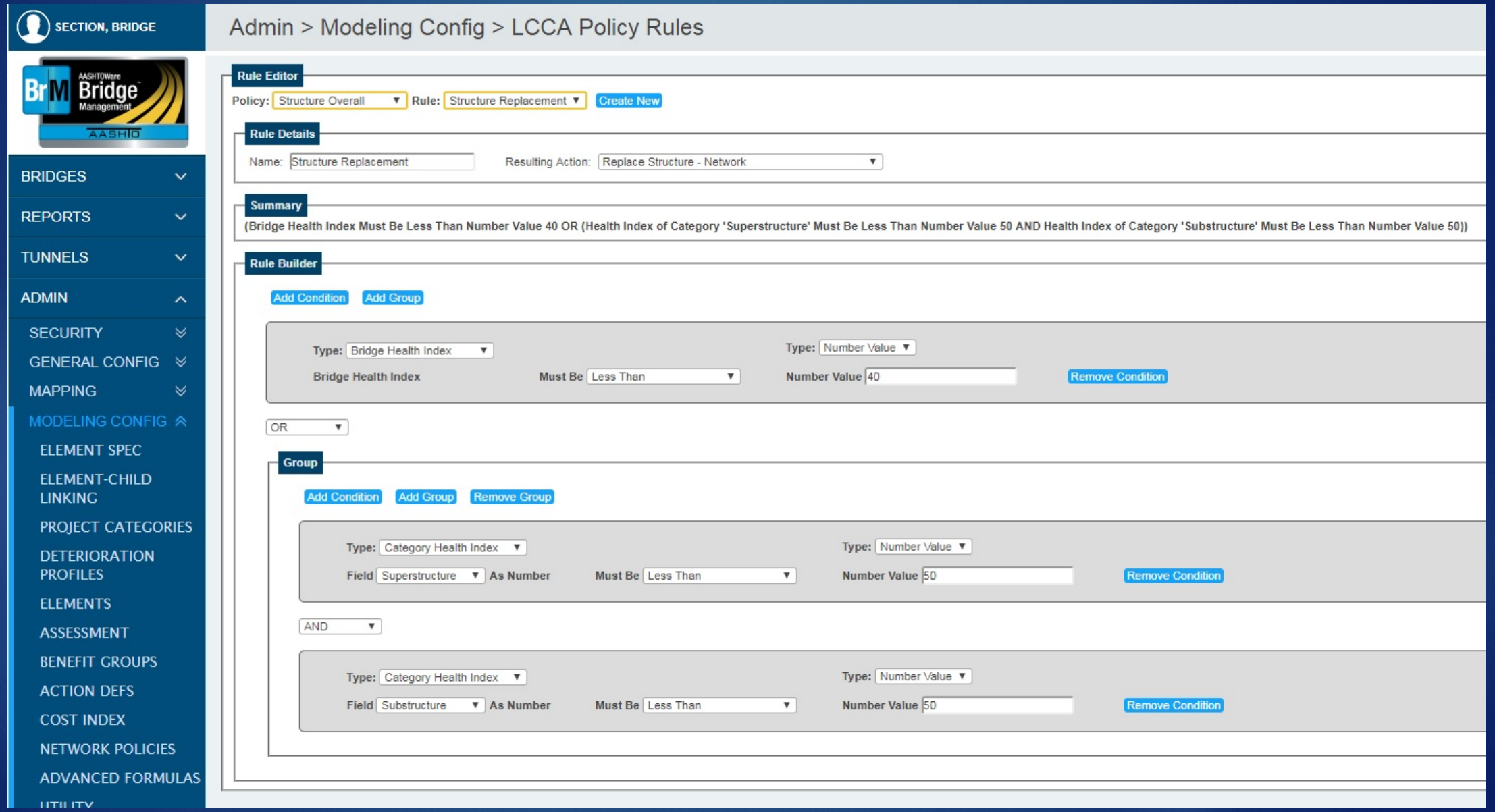
Policies

1. Network Policies
2. Life Cycle Policies

Policies – Network Policies

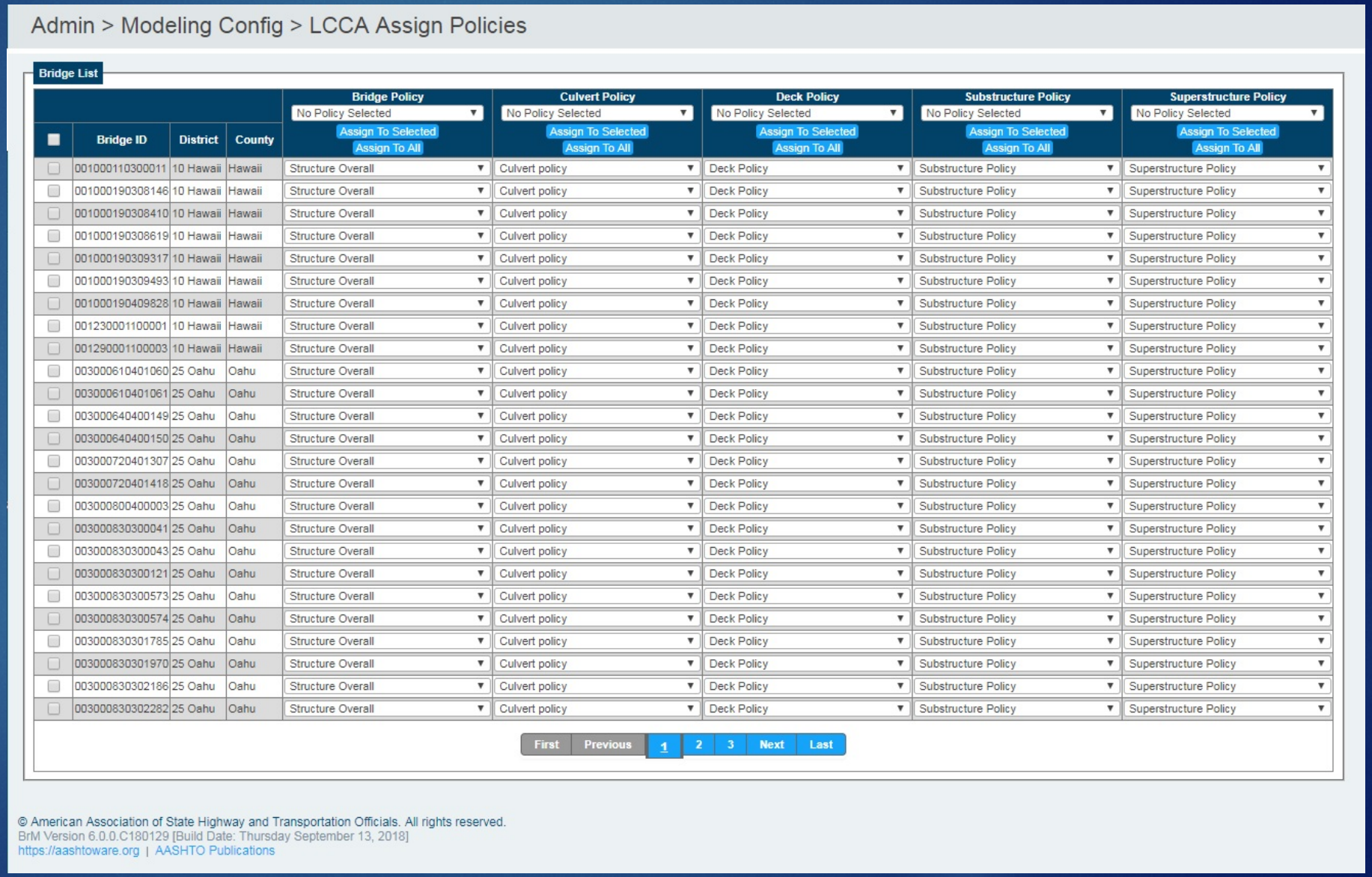


Policies – Lifecycle Policies



Policies – Lifecycle Policies

Assign Life Cycle Policies



Admin > Modeling Config > LCCA Assign Policies

Bridge List

	Bridge ID	District	County	Bridge Policy: No Policy Selected / Assign To Selected / Assign To All	Culvert Policy: No Policy Selected / Assign To Selected / Assign To All	Deck Policy: No Policy Selected / Assign To Selected / Assign To All	Substructure Policy: No Policy Selected / Assign To Selected / Assign To All	Superstructure Policy: No Policy Selected / Assign To Selected / Assign To All
☐	001000110300011	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190308146	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190308410	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190308619	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190309317	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190309493	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001000190409828	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001230001100001	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	001290001100003	10 Hawaii	Hawaii	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000610401060	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000610401061	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000640400149	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000640400150	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000720401307	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000720401418	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000800400003	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830300041	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830300043	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830300121	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830300573	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830300574	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830301785	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830301970	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830302186	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy
☐	003000830302282	25 Oahu	Oahu	Structure Overall	Culvert policy	Deck Policy	Substructure Policy	Superstructure Policy

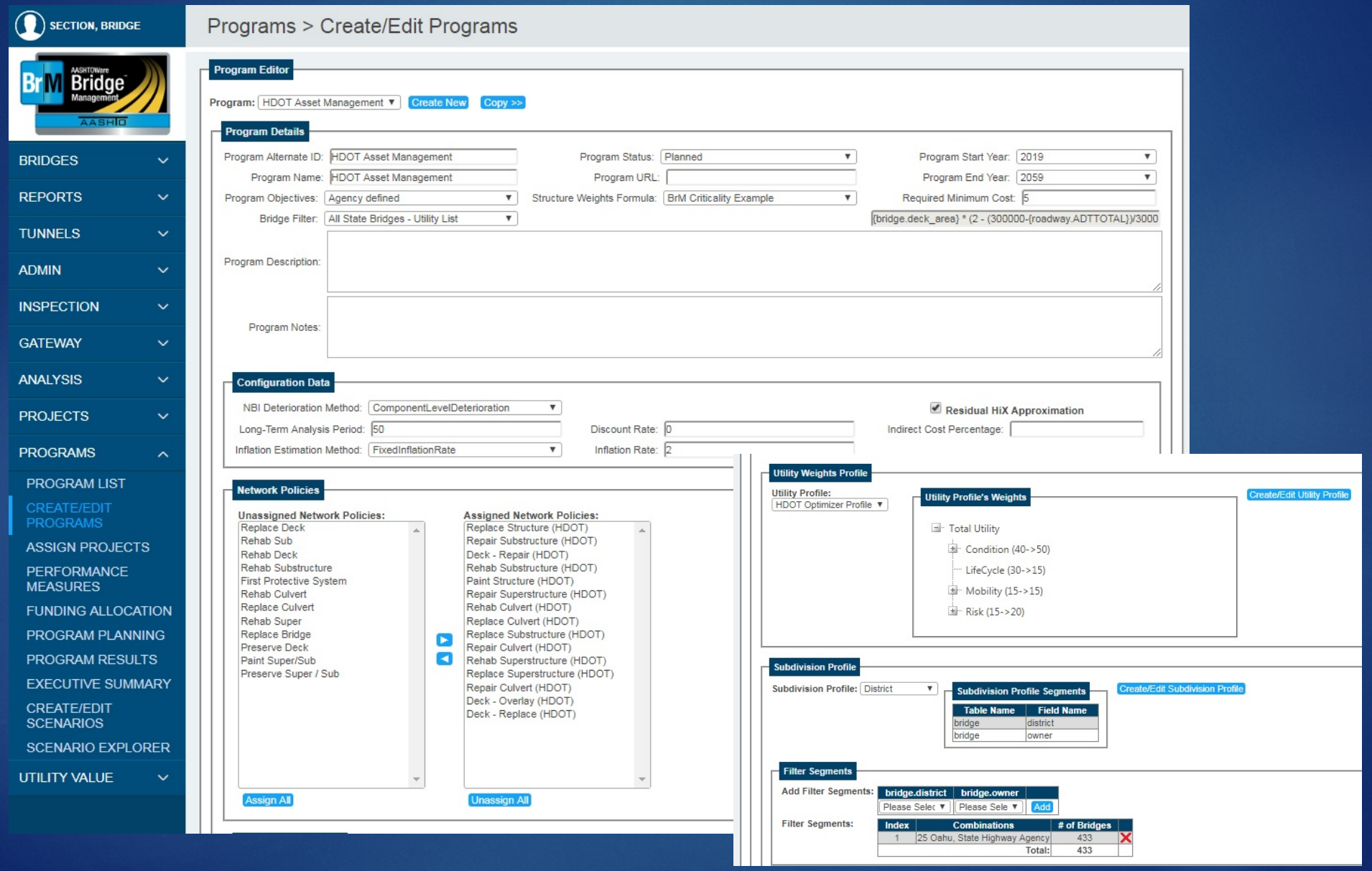
First | Previous | 1 | 2 | 3 | Next | Last

STEPS TO IMPLEMENTING BrM

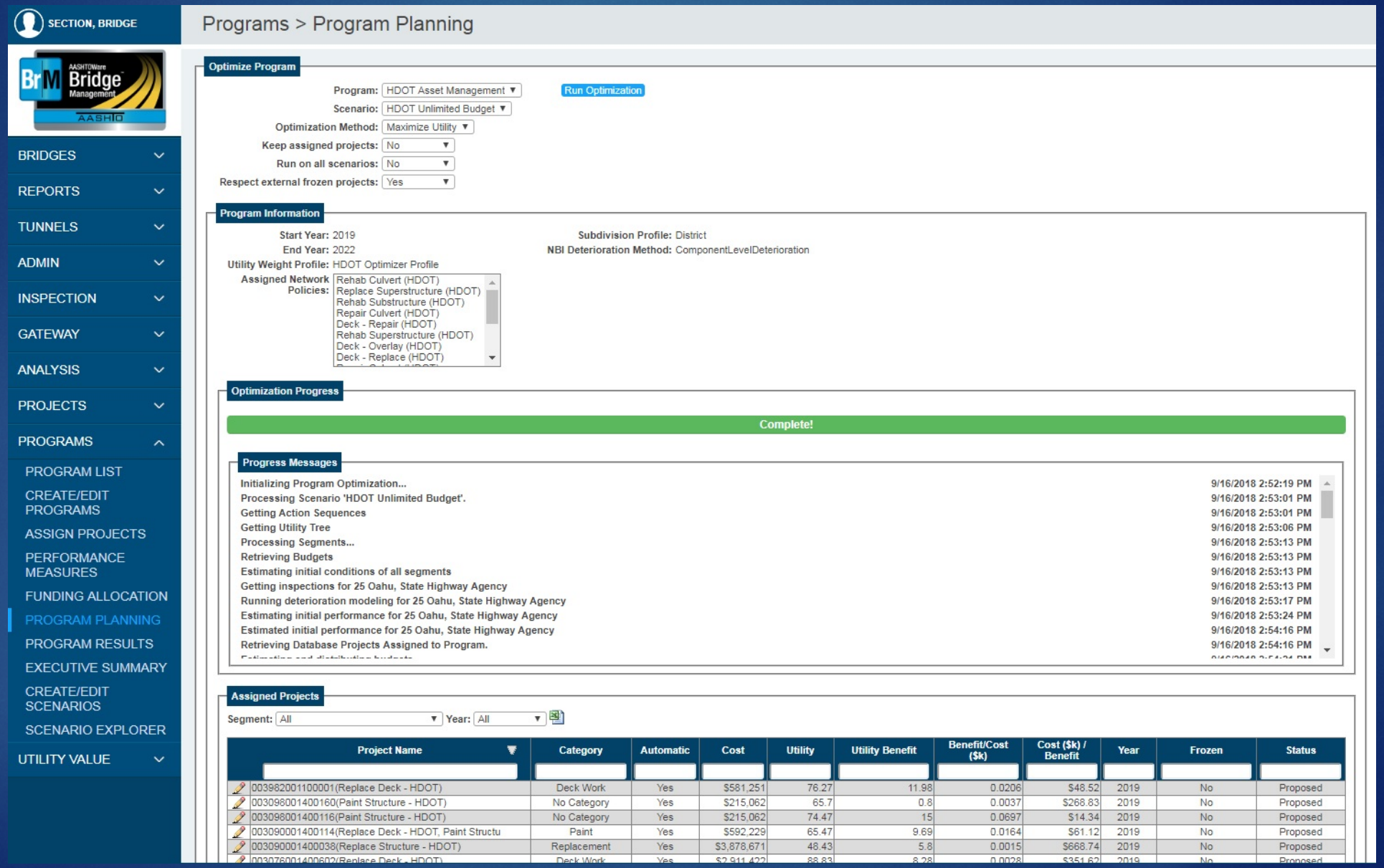
BACDUPP

- Benefit groups
- Action Defs
- Costs
- Deterioration
- Utility
- Policies
- Programs

Programs


SECTION, BRIDGE
BrM AASHTOWare Bridge Management AASHTO
BRIDGES
REPORTS
TUNNELS
ADMIN
INSPECTION
GATEWAY
ANALYSIS
PROJECTS
PROGRAMS
PROGRAM LIST
CREATE/EDIT PROGRAMS
ASSIGN PROJECTS
PERFORMANCE MEASURES
FUNDING ALLOCATION
PROGRAM PLANNING
PROGRAM RESULTS
EXECUTIVE SUMMARY
CREATE/EDIT SCENARIOS
SCENARIO EXPLORER
UTILITY VALUE
Programs > Create/Edit Programs
Program Editor
Program: HDOT Asset Management
Create New
Copy >>
Program Details
Program Alternate ID: HDOT Asset Management
Program Name: HDOT Asset Management
Program Objectives: Agency defined
Bridge Filter: All State Bridges - Utility List
Program Status: Planned
Program URL:
Structure Weights Formula: BrM Criticality Example
Program Start Year: 2019
Program End Year: 2059
Required Minimum Cost: 5
{bridge.deck_area} * (2 - (300000-{roadway.ADTTOTAL})/3000
Program Description:
Program Notes:
Configuration Data
NBI Deterioration Method: ComponentLevelDeterioration
Long-Term Analysis Period: 50
Inflation Estimation Method: FixedInflationRate
Discount Rate: 0
Inflation Rate: 2
Residual HiX Approximation
Indirect Cost Percentage:
Network Policies
Unassigned Network Policies:
Replace Deck
Rehab Sub
Rehab Deck
Rehab Substructure
First Protective System
Rehab Culvert
Replace Culvert
Rehab Super
Replace Bridge
Preserve Deck
Paint Super/Sub
Preserve Super / Sub
Assigned Network Policies:
Replace Structure (HDOT)
Repair Substructure (HDOT)
Deck - Repair (HDOT)
Rehab Substructure (HDOT)
Paint Structure (HDOT)
Repair Superstructure (HDOT)
Rehab Culvert (HDOT)
Replace Culvert (HDOT)
Replace Substructure (HDOT)
Repair Culvert (HDOT)
Rehab Superstructure (HDOT)
Replace Superstructure (HDOT)
Repair Culvert (HDOT)
Deck - Overlay (HDOT)
Deck - Replace (HDOT)
Assign All
Unassign All
Utility Weights Profile
Utility Profile:
HDOT Optimizer Profile
Utility Profile's Weights
Create/Edit Utility Profile
Total Utility
Condition (40->50)
LifeCycle (30->15)
Mobility (15->15)
Risk (15->20)
Subdivision Profile
Subdivision Profile: District
Subdivision Profile Segments
Table Name
Field Name
bridge
district
bridge
owner
Create/Edit Subdivision Profile
Filter Segments
Add Filter Segments:
bridge.district
bridge.owner
Please Selec
Please Sele
Add
Filter Segments:
Index
Combinations
# of Bridges
1
25 Oahu, State Highway Agency
433
Total:
433

Programs – Optimizer



Programs – Optimizer

3. For each potential combination calculate the project scores based on the following formulas

$$S_{proj} = w_s \frac{\Delta U}{cost} \qquad \text{(equation 4-5)}$$

Where:

- S_{proj} is the weighted project score
- w_s is structure weight (structure weights are discussed later in this section)
- ΔU is the change in the utility value (i.e. benefit) based on the improvements to the criteria that are a result of the project alternative
- Cost is the estimated cost of the project alternative

Programs – Optimizer

Custom Optimizer Results Report

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
PROGRAM RESULTS REPORT

Ranked by Project Score

Rank	Bridge No.	Benefit	Cost	Utility	Struct Weight	Proj Score	Year
1	001000190307799	0.80	$ 2,445	79.97	14233	4.66	2019

Recommended Action	Cost	Target Year
Repair Deck - HDOT	$2422	2019
Repair Substructure - HDOT	$22	2019

Rank	Bridge No.	Benefit	Cost	Utility	Struct Weight	Proj Score	Year
2	003000H20100425	0.43	$ 12,418	75.27	77335	2.68	2019

Recommended Action	Cost	Target Year
Rehab Substructure - HDOT	$326	2019
Rehab Superstructure - HDOT	$12092	2019

Rank	Bridge No.	Benefit	Cost	Utility	Struct Weight	Proj Score	Year
3	003000780400438	0.37	$ 1,027	83.63	5877	2.12	2019

Recommended Action	Cost	Target Year
Repair Culvert - HDOT	$1027	2019

Rank	Bridge No.	Benefit	Cost	Utility	Struct Weight	Proj Score	Year
4	003000H10201256	1.53	$ 3,960	75.22	4431	1.71	2019

Recommended Action	Cost	Target Year
Repair Deck - HDOT	$3960	2019

QUESTIONS