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APPENDIX B

SUMMARY OF USER INPUT TABLES

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USER INPUTS TO MODEL

Variable	Value	Description
NormalUGDepth	24	Normal Placement Depth in inches for Buried/Underground Copper Cable
NormalFiberDepth	36	Normal Placement Depth in inches for Buried/Underground Fiber
CriticalWaterDepth	3	Depth in feet at which water impacts placement costs
WaterFactor	30	% Cost increase for presence of water within critical depth
ResLinesMultiplier	1.21	Residence Lines per household multiplier
MaxFiberSize	144	Maximum Fiber Cable Size
MaxFeederSize	4200	Maximum Copper Feeder Cable Size
Max DistSize	3600	Maximum Copper Distribution Cable Size
CprMaxDistr	12000	Maximum length of copper cable in the CBG distribution area
NewTerrainTrigger	5	Value that triggers new terrain variable multiplier
NewTerrainFactor	1	Cost multiplier when new terrain variable exceeds trigger point
MinSlopeTrigger	12	Point at which minimum slope effects placement distance
MinSlopeFactor	1.1	Change in distance due to increased average slope
MaxSlopeTrigger	30	Point where presence of very high slope causes yet more cable distance
MaxSlopeFactor	1.05	Change in distance due to a maximum only slope presence
CombSlopeFactor	1.2	Secondary change in distance due to substantial slope presence
EngrInstall	35	Engineering and installation loading factor for electronics
ElectronicFill	0.85	Fill Factors for Electronics
HiCapFill	0.95	Fill Factors for High Capacity Optic Multiplexers
SpecAccRatio	0.13	Ratio of Special Access Lines to Business and Special Access
DensAdjUnits	10	Average Number of Business lines per location
OpticsCost	162000	Average cost for each DS-3 for CO and field DS3 to DS1 multiplexers
CopperT1	1133	Average Cost per DS-1 on copper (both terminals & repeater)
InterofficeSwRatio	1.03	Multiplier to add interoffice trunking cost
	20	Digital Switching Discount % (Enter whole %)
	20	Fiber Cable Discount % (Enter whole %)
	20	Copper Cable Discount % (Enter whole %)
	10	AFC Electronics Discount % (Enter whole %)
	20	SLC Electronics Discount % (Enter whole %)
DropCostPerFoot	0.1	Drop Cost per FT
PedestalCost	[illegible].22	Cost of Pedestal
NidCost	30	Cost per NID

Input Variables for switching and overheads[1]		
SwitchEngrFactor	1.07	Loading Factor for Switch Engineering
SwitchFillFactor	0.8	Switch Fill Factor
SwLandBldgFactor	1.043	Sw Land & Buliding Factor
NonTrfSen	70.00%	% Non Traffic Sensitive (Enter as decimal)
TrfSen	73.93%	% of Traffic Sensitive that is local (Enter as decimal)
OSPEngrFactor	1.05	Loading Factor for Outside Plant Engineering
FiberSpliceRatio	0.045	Loading Factor for splicing of fiber cable (Enter as decimal)
FiberInLineRatio	0.07	Additive for in line pedestals, cross connects, etc. (fiber)
CopperSpliceRatio	0.07	Loading Factor for splicing of copper cable (Enter as decimal)
CopperInLineRatio	0.1	Additive for in line pedestals, cross connects, etc. (Copper)
CableWireFactor1	0.232761	Factor 1 for cable & Wire Facilities
ElectronicsFactor1	0.242411	Factor 1 for circuit Facilities
SwitchingFactor1	0.257033	Factor 1 for Switching facilities
OtherFactor1	133.391	Factor 1 for other loading per line served
OtherAllocRatio1	0.75	Allocation Factor 1 applied to non-plant related expenses
CableWireFactor2	0.232761	Factor 2 for cable & Wire Facilities
ElectronicsFactor2	0.242411	Factor 2 for circuit Facilities
SwitchingFactor2	0.257033	Factor 2 for Switching facilities
OtherFactor2	133.391	Factor 2 for other loading per line served
OtherAllocRatio2	0.45	Allocation Factor 2 applied to non-plant related expenses
CprSizeFctr1	1.2	Structure Cost multiplier for cables 401 to 900 pr versus < 400 pr
CprSizeFctr2	1.3	Structure Cost multiplier for cables 901 to 1500 pr versus < 400 pr
CprSizeFctr3	1.4	Structure Cost multiplier for cables 1501 to max size versus < 400 pr
FbrSizeFctr	1.2	Structure Cost Multiplier for fiber cables >60 fibers versus < 60 fibers
UGPullCost	0.77	Cost per ft to pull UG cables into conduit duct

Miscellaneous Calculations (Do not change any value!)		
AfcDiscount	0.9	AFC Pricing ratio after Discount
SlcDiscount	0.8	SLC Pricing ratio after Discount
FiberCostRatio	0.8	Fiber cable cost factor
CopperCostRatio	0.8	Copper Cable Cost factor
SwitchingCostRatio	0.8	Digital Switching cost ratio after discount
OptionalBenchMark		Optional BenchMark to replace 80
LoopInvCap	10000	Loop Investment Cap
Breakpoint	12000	Fiber/Copper breakpoint

Miscellaneous Notes

1. Switching costs are entered as a fixed cost per switch plus the per line additive. Both costs must be included to accurately reflect switching costs. The fixed cost will be converted to a per line cost and added to the per line additive to determine final switching cost per line. Costs are in the switch cost matrix above and to the right. The % Non traffic sensitive is applied to the fixed cost portion of the switch.

TABLES

Surface Type	
RockH	=Hard rock above plowing depth - requires dynamite or rock saw to place
RockS	=Soft rock above plowing depth - requires more costly trenching, backhoeing, etc.
Normal	=Straight plowing with minimal surface impact

Urban Copper Cable Table		
Cost Multiplier		
Structure	Below Ground $	Aerial $
RockH	20.84	14.18
RockS	13.92	10.59
Normal	10.7	7.62

Urban Fiber Table		
Cost Multiplier		
Structure	Below Ground $	Aerial $
RockH	20.84	14.18
RockS	13.92	10.59
Normal	10.7	7.62

Rural Copper Cable Table		
Cost Multiplier		
Structure	Below Ground $	Aerial $
RockH	13.59	8.07
RockS	5.76	5.86
Normal	2.92	4.08

Rural Fiber Table		
Cost Multiplier		
Structure	Below Ground $	Aerial $
RockH	13.59	8.07
RockS	5.76	5.86
Normal	2.92	4.08

Distribution UG/Aerial Mix Table		
Density	Below Ground %	Aerial%
0-5	90	10
5-200	80	20
200-650	70	30
650-850	70	30
850-2550	80	20
>2550	90	10

Copper Feeder UG/Aerial Mix Table		
Density	Below Ground %	Aerial%
0-5	70	30
5-200	72	28
200-650	75	25
650-850	75	25
850-2550	80	20
>2550	90	10

Fiber Feeder UG/Aerial Mix Table		
Density	Below Ground %	Aerial%
0-5	95	5
5-200	85	15
200-650	70	30
650-850	70	30
850-2550	80	20
>2550	90	10

Density/Fill Table

Density	Feeder	Distribution	
0	0.75	0.4	4
5	0.8	0.45	5
200	0.8	0.55	6
650	0.85	0.65	7
850	0.85	0.75	8
2550	0.85	0.8	9

StructureAllocationTable		
Cable Size	Cable Structure %	Fiber Structure %
0	50	50
200	55	45
900	60	40
2400	65	35
4200	75	25

Cost for AFC/SLC 200/LightSpan equipment		
DigitalCarrierCost	(Non-discounted material cost only)	
0	7700	250
48	8500	250
120	10500	250
240	77330	184
672	94909	184
1334	105409	184

CO Switch Size Table
COSwitchSize
500000
100000
60000
10000

CO Switch Cost Table		
COSwitchCost	Fixed/Startup $	Per Line $
Remote	250000	100
10000	400000	100
60000	600000	100
100000	900000	100
500000	1500000	100

Voice Grade Ratio Table				
# switched lines in CBG	% switched to VG	% switched to DS1	% special to VG	% special to DS1
0	1	0	1	0
2016	0.65	0.35	0.5	0.5
10000	0.5	0.5	0.3	0.7
20000	0.75	0.25	0.1	0.9

Distribution Cable Size Table		DISTRIBUTION CABLE COST							
Cable Distr Cost	Cable Size	Cost UG/Brd	Cost Aerial	Density= 0-5	Density= 5-200	Density= 200-650	Density= 650-850	Density= 850-2550	Density >2550
	3600	22.20	21.90	17.74	17.71	17.69	17.69	17.71	17.74
	3000	18.80	18.50	15.02	14.99	14.97	14.97	14.99	15.02
	2400	14.30	14.10	11.42	11.41	11.39	11.39	11.41	11.42
	1800	12.44	12.24	9.94	9.92	9.90	9.90	9.92	9.94
	1200	10.68	10.00	8.49	8.43	8.38	8.38	8.43	8.49
	900	7.82	7.51	6.23	6.21	6.18	6.18	6.21	6.23
	600	7.13	7.05	5.70	5.69	5.69	5.69	5.69	5.70
	400	4.62	4.56	3.69	3.68	3.68	3.68	3.68	3.69
	200	2.36	2.33	1.89	1.89	1.88	1.88	1.89	1.89
	100	1.27	1.26	1.01	1.01	1.01	1.01	1.01	1.01
	50	0.68	0.67	0.54	0.54	0.54	0.54	0.54	0.54
	25	0.37	0.36	0.29	0.29	0.29	0.29	0.29	0.29
	18	0.32	0.31	0.26	0.25	0.25	0.25	0.25	0.26
	12	0.28	0.28	0.22	0.22	0.22	0.22	0.22	0.22

Feeder Cable Size Table		COPPER FEEDER COST							
FeederCableCost	Cable Size	Cost UG/Brd	Cost Aerial	Density= 0-5	Density= 5-200	Density= 200-650	Density= 650-850	Density= 850-2550	Density >2550
	4200	25.70	25.40	20.49	20.49	20.50	20.50	20.51	20.54
	3600	22.20	21.90	17.69	17.69	17.70	17.70	17.71	17.74
	3000	18.80	18.50	14.97	14.97	14.98	14.98	14.99	15.02
	2400	14.30	14.10	11.39	11.40	11.40	11.40	11.41	11.42
	1800	12.44	12.24	9.90	9.91	9.91	9.91	9.92	9.94
	1200	10.68	10.00	8.38	8.39	8.41	8.41	8.44	8.49
	900	7.82	7.51	6.18	6.19	6.19	6.19	6.21	6.23
	600	7.13	7.05	5.68	5.69	5.69	5.69	5.69	5.70
	400	4.62	4.56	3.68	3.68	3.68	3.68	3.68	3.69
	200	2.36	2.33	1.88	1.88	1.88	1.88	1.88	1.89
	100	1.27	1.26	1.01	1.01	1.01	1.01	1.01	1.01
	50	0.68	0.67	0.54	0.54	0.54	0.54	0.54	0.54
	25	0.37	0.36	0.29	0.29	0.29	0.29	0.29	0.29

Fiber Cable Cost Table		FIBER CABLE COST							
Fiber Cable Cost	Cable Size	Cost UG/Brd	Cost Aerial	Density= 0-5	Density= 5-200	Density= 200-650	Density= 650-850	Density= 850-2550	Density >2550
	144	5.56	5.24	4.44	4.41	4.37	4.37	4.40	4.42
	96	3.80	3.53	3.03	3.01	2.98	2.98	3.00	3.02
	72	2.84	2.65	2.26	2.25	2.23	2.23	2.24	2.26
	60	2.41	2.23	1.92	1.91	1.88	1.88	1.90	1.91
	48	1.98	1.84	1.58	1.57	1.55	1.55	1.56	1.57
	36	1.60	1.46	1.27	1.26	1.25	1.25	1.26	1.27
	24	1.18	1.05	0.94	0.93	0.91	0.91	0.92	0.93
	18	0.98	0.85	0.78	0.77	0.75	0.75	0.76	0.77
	12	0.79	0.66	0.63	0.62	0.60	0.60	0.61	0.62

Cost Factor Table

Row #	Plant Type	Urban/ RuraL	Density	Surface Category	Weighted Cost Factor	Below Ground Density Adjustment	Aerial Density Adjustment
1	Distribution	Urban	>2550	RockH	23.59262	1.18	1.03
2				RockS	17.56779	1.30	1.21
3				Normal	13.31148	1.30	1.04
4	Distribution	Urban	850-2550	RockH	16.58868	0.83	0.97
5				RockS	10.07238	0.72	0.97
6				Normal	7.62624	0.72	0.96
7	Distribution	Rural	650-850	RockH	13.13253	1.07	1.22
8				RockS	7.76892	1.36	1.30
9				Normal	6.07944	2.10	1.46
10	Distribution	Rural	200-650	RockH	12.43557	1.04	1.05
11				RockS	6.43722	1.13	1.07
12				Normal	3.48428	1.01	1.16
13	Distribution	Rural	5-200	RockH	11.922	0.96	0.92
14				RockS	4.95988	0.85	0.89
15				Normal	2.45968	0.77	0.81
16	Distribution	Rural	0-5	RockH	11.95461	0.92	0.87
17				RockS	4.83508	0.84	0.82
18				Normal	1.77132	0.57	0.67
19	Feeder	Urban	>2550	RockH	23.59262	1.18	1.03
20				RockS	17.56779	1.30	1.21
21				Normal	13.31148	1.30	1.04
22	Feeder	Urban	850-2550	RockH	16.58868	0.83	0.97
23				RockS	10.07238	0.72	0.97
24				Normal	7.62624	0.72	0.96
25	Feeder	Rural	650-850	RockH	13.367325	1.07	1.22
26				RockS	7.7797	1.36	1.30
27				Normal	6.0882	2.10	1.46
28	Feeder	Rural	200-650	RockH	12.718575	1.04	1.05
29				RockS	6.44915	1.13	1.07
30				Normal	3.3951	1.01	1.16
31	Feeder	Rural	5-200	RockH	11.47224	0.96	0.92
32				RockS	4.985432	0.85	0.89
33				Normal	2.544192	0.77	0.81
34	Feeder	Rural	0-5	RockH	10.85823	0.92	0.87
35				RockS	4.82844	0.84	0.82
36				Normal	1.98516	0.57	0.67
37	Fiber	Urban	>2550	RockH	23.59262	1.18	1.03
38				RockS	17.44071	1.30	1.09
39				Normal	13.31148	1.30	1.04
40	Fiber	Urban	850-2550	RockH	16.58868	0.83	0.97
41				RockS	10.07238	0.72	0.97
42				Normal	7.62624	0.72	0.96
43	Fiber	Rural	650-850	RockH	13.13253	1.07	1.22
44				RockS	7.76892	1.36	1.30
45				Normal	6.07944	2.10	1.46
46	Fiber	Rural	200-650	RockH	12.43557	1.04	1.05
47				RockS	6.43722	1.13	1.07
48				Normal	3.48428	1.01	1.16
49	Fiber	Rural	5-200	RockH	12.2031	0.96	0.92
50				RockS	4.94391	0.85	0.89
51				Normal	2.40686	0.77	0.81
52	Fiber	Rural	0-5	RockH	12.228705	0.92	0.87
53				RockS	4.83674	0.84	0.82
54				Normal	1.71786	0.57	0.67

SURFACE TEXTURE TABLE

CRV-SIL	1	Very Cherty & Silty Loam
CRX	1	Extremely Cherty
CRX-SIL	1	Extremely Cherty & Silty Loam
DE	0	Diotomaceous Earth
FB	0	Fibric Material
FINE	0	Fine
FL	0	Flaggy
FL-FSL	0	Flaggy & Fine Sandy Loam
FL-L	0	Flaggy & Loam
FL-SIC	0	Flaggy & Silty Clay
FL-SICL	0	Flaggy & Silty Clay Loam
FL-SIL	0	Flaggy & Silty Loam
FL-SL	0	Flaggy & Sandy Loam
FLV	1	Very Flaggy
FLV-COSL	1	Very Flaggy & Coarse Sandy Loam
FLV-L	1	Very Flaggy & Loam
FLV-SICL	1	Very Flaggy & Silty Clay Loam
FLV-SL	1	Very Flaggy & Sandy Loam
FLX	1	Extremely Flaggy
FLX-L	1	Extremely Flaggy & Loamy
FRAG	0	Fragmental Material
FS	0	Fine Sand
FSL	0	Fine Sandy Loam
G	0	Gravel
GR	0	Gravelly
GRC	0	Course Gravelly
GR-C	0	Gravel & Clay
GR-CL	0	Gravel & Clay Loam
GR-COS	0	Gravel & Course Sand
GR-COSL	0	Gravel & Coarse Sandy Loam
GRF	0	Fine Gravel
GRF-SIL	0	Fine Gravel Silty Loam
GR-FS	0	Gravel & Fine Sand
GR-FSL	0	Gravel & Fine Sandy Loam
GR-L	0	Gravel & Loam
GR-LCOS	0	Gravel & Loamy Course Sand
GR-LFS	0	Gravel & Loamy Fine Sand
GR-LS	0	Gravel & Loamy Sand
GR-MUCK	0	Gravel & Muck
GR-S	0	Gravel & Sand
GR-SCL	0	Gravel & Sandy Clay Loam
GR-SIC	0	Gravel & Silty Clay
GR-SICL	0	Gravel & Silty Clay Loam
GR-SIL	0	Gravel & Silty Loam
GR-SL	0	Gravel & Sandy Loam
GR-VFSL	0	Gravel & Very Fine Sandy Loam
GRV	1	Very Gravelly
GRV-CL	1	Very gravelly & Clay Loam
GRV-COS	1	Very Gravelly & Course Sand
GRV-COSL	1	Very Gravelly & Course Sandy

CB-SIL	0	Cobbly & Silt Loam
CB-SL	1	Cobbly & Sandy Loam
CBV	1	Very Cobbly
CBV-C	1	Very Cobbly & Clay
CBV-CL	1	Very Cobbly & Clay Loam
CBV-FSL	1	Very Cobbly & Fine Sandy Loam
CBV-L	1	Very Cobbly & Loamy
CBV-LFS	1	Very Cobbly & Fine Loamy Sand
CBV-LS	1	Very Cobbly & Loamy Sand
CBV-MUCK	1	Very Cobbly & Muck
CBV-SCL	1	Very Cobbly & Sandy Clay Loam
CBV-SIL	1	Very Cobbly & Silt
CBV-SL	1	Very Cobbly & Sandy Loam
CBV-VFS	1	Very Cobbly & Very Fine Sand
CBX	1	Extremely Cobbly
CBX-L	1	Extremely Cobbly Loam
CBX-CL	1	Extremely Cobbly & Clay
CBX-SIL	1	Extremely Cobbly & Silt
CBX-SL	1	Extremely Cobbly &Sandy Loam
CBX-VFSL	1	Extremely Cobbly Very Fine Sandy Loam
CE	0	Coprogenous Earth
CIND	0	Cinders
CL	0	Clay Loam
CM	1	Cemented
CN	0	Channery
CN-CL	0	Channery & Clay Loam
CN-FSL	0	Channery & Fine Sandy Loam
CN-L	0	Channery & Loam
CN-SICL	0	Channery & Silty Clay Loam
CN-SIL	0	Channery & Silty Loam
CN-SL	0	Channery & Sandy Loam
CNV	0	Very Channery
CNV-CL	0	Very Channery & Clay
CNV-L	0	Very Channery & Loam
CNV-SCL	0	Channery & Sandy Clay Loam
CNV-SIL	0	Very Channery & Silty Loam
CNV-SL	0	Very Channery & Sandy Loam
CNX	0	Extremely Channery
CNX-SL	0	Extremely Channery & Sandy Loam
COS	0	Coarse Sand
COSL	0	Coarse Sandy Loam
CR	0	Cherty
CRC	1	Coarse Cherty
CR-L	1	Cherty & Loam
CR-SICL	1	Cherty & Silty Clay Loam
CR-SIL	1	Cherty & Silty Loam
CR-SL	1	Cherty & Sandy Loam
CRV	1	Very Cherty
CRV-L	1	Very Cherty & Loam

		Loam
GRV-FSL	1	Very Gravelly & Fine Sandy Loam
GRV-L	1	Very Gravelly & Loam
GRV-LCOS	1	Very Gravelly & Loamy Course Sand
GRV-LS	1	Very Gravelly & Loamy Sand
GRV-S	1	Very Gravelly & Sand
GRV-SCL	1	Very Gravelly & Sandy Clay Loam
GRV-SICL	1	Very Gravelly & Silty Clay Loam
GRV-SIL	1	Very Gravelly & Silt
GRV-SL	1	Very Gravelly & Sandy Loam
GRV-VFS	1	Very Gravelly & Very Fine Sand
GRV-VFSL	1	Very Gravelly & Very Fine Sandy Loam
GRX	1	Extremely Gravelly
GRX-CL	1	Extremely Gravelly & Coarse Loam
GRX-COS	1	Extremely Gravelly & Coarse Sand
GRX-COSL	1	Extremely Gravelly & Coarse Sandy Loam
GRX-FSL	1	Extremely Gravelly & Fine Sand Loam
GRX-L	1	Extremely Gravelly & Loam
GRX-LCOS	1	Extremely Gravelly & Loamy Coarse
GRX-LS	1	Extremely Gravelly & Loamy Sand
GRX-S	1	Extremely Gravelly & Sand
GRX-SIL	1	Extremely Gravelly & Silty Loam
GRX-SL	1	Extremely Gravelly & Sandy Loam
GYP	1	Gypsiferous Material
HM	0	Hemic Material
ICE	1	Ice or Frozen Soil
IND	1	Indurated
L	0	Loam
LCOS	0	Loamy Course Sand
LFS	0	Loamy Fine Sand
LS	0	Loamy Sand
LVFS	0	Loamy Very Fine Sand
MARL	0	Marl
MEDIUM COURSE	0	Medium Course
MK	0	Mucky
MK-C	0	Mucky Clay
MK-CL	0	Mucky Clay Loam
MK-FS	0	Muck & Fine Sand
MK-FSL	0	Muck & Fine Sandy Loam
MK-L	0	Mucky Loam
MK-LFS	0	Mucky Loamy Fine Sand
MK-LS	0	Mucky Loamy Sand
MK-S	0	Muck & Sand
MK-SI	0	Mucky & Silty
MK-SICL	0	Mucky & Silty Clay Loam
MK-SIL	0	Mucky Silt

MK-SL	0	Mucky & Sandy Loam
MK-VFSL	0	Mucky & Very Fine Sandy Loam
MPT	0	Mucky Peat
MUCK	0	Muck
PEAT	0	Peat
PT	0	Peaty
RB	1	Rubbly
RB-FSL	1	Rubbly Fine Sandy Loam
S	0	Sand
SC	0	Sandy Clay
SCL	0	Sandy Clay Loam
SG	0	Sand & Gravel
SH	0	Shaly
SH-CL	0	Shaly & Clay
SH-L	0	Shale & Loam
SH-SICL	0	Shaly & Silty Clay Loam
SH-SIL	0	Shaly & Silt Loam
SHV	1	Very Shaly
SHV-CL	1	Very Shaly & Clay Loam
SHX	1	Extremely Shaly
SI	0	Silt
SIC	0	Silty Clay
SICL	0	Silty Clay Loam
SIL	0	Silt Loam
SL	0	Sandy Loam
SP	0	Sapric Material
SR	0	Stratified
ST	0	Stony
ST-C	0	Stony & Clay
ST-CL	0	Stony & Clay Loam
ST-COSL	0	Stony & Course Sandy Loam
ST-FSL	0	Stony & Fine Sandy Loam
ST-L	0	Stony & Loamy
ST-LCOS	0	Stony & Loamy Course Sand
ST-LFS	0	Stony & Loamy Fine Sand
ST-LS	0	Stony & Loamy Sand
ST-SIC	0	Stony & Silty Clay
ST-SICL	0	Stony & Silty Clay Loam
ST-SIL	0	Stony & Silt Loam
ST-SL	0	Stony & Sandy Loam
ST-VFSL	0	Stony & Sandy Very Fine Silty Loam
STV	1	Very Stony
STV-C	1	Very Stony & Clay
STV-CL	1	Very Stony & Clay Loam
STV-VFSL	1	Very Stony & Very Fine Sandy Loam
STV-FSL	1	Very Stony & Fine Sandy Loam
STV-L	1	Very Stony & Loamy
STV-LFS	1	Very Stony & Loamy Fine Sand
STV-LS	1	Very Stony & Loamy Sand

STV-MPT	1	Very Stony & Mucky Peat
STV-MUCK	1	Very Stony & Muck
STV-SICL	1	Very Stony & Silty Clay Loam
STV-SIL	1	Very Stony & Silty Loam
STV-SL	1	Very Stony & Sandy Loam
STV-VFSL	1	Very Stony & Very Fine Sandy Loam
STX	1	Extremely Stony
STX-C	1	Extremely Stony & Clay
STX-CL	1	Extremely Stony & Clay Loam
STX-COS	1	Extremely Stony & Course Sand
STX-COSL	1	Extremely Stony & Course Sand Loam
STX-FSL	1	Extremely Stony & Fine Sandy Loam
STX-L	1	Extremely Stony & Loamy
STX-LCOS	1	Extremely Stony & Loamy Course Sand
STX-LS	1	Extremely Stony & Loamy Sand
STX-MUCK	1	Extremely Stony & Muck
STX-SIC	1	Extremely Stony & Silty Clay
STX-SICL	1	Extremely Stony & Silty Clay Loam
STX-SIL	1	Extremely Stony & Silty Loam
STX-SL	1	Extremely Stony & Sandy Loam
STX-VFSL	1	Extremely Stony & Very Fine Sandy Loam
SY	1	Slaty
SY-L	1	Slaty & Loam
SY-SIL	1	Slaty & Silty Loam
SYV	1	Very Slaty
SYX	1	Extremely Slaty
UNK	0	Unknown
UWB	1	Unweathered Bedrock
VAR	0	Variable
VFS	0	Very Fine Sand
VFSL	0	Very Fine Sandy loam
WB	1	Weathered Bedrock

APPENDIX C

SUMMARY OF INDIVIDUAL SENSITIVITY ANALYSES (AUGUST 1996 REPORT)

Summary of Individual Sensitivity Analyses (August 1996 Report)
Washington State Results

Default BCM2 Statewide Average Monthly Cost for Washington State = **$29.41** (Aggregate Support at $30 Benchmark Level = **$131,124,029**)

Variable	BCM2 Default	Adjusted Value	Revised Statewide Average Monthly Cost	$ (Reduction) or Increase From Default	Revised Support at the $30 Benchmark	$ (Reduction) or Increase in Support from the $30 Default Level	August Report Page Reference	August Report Appendix Page Reference
Cost Factors:								
Cable & Wire Investment	0.23276	0.2297						
Circuit Equipment Investment	0.24241	0.2297						
Switching Equipment Investment	0.25703	0.2297						
Other Allocation Factor	75%	0%	$20.35	($9.06)	N/A	N/A	p. 24	N/A
Also, tested independently at two values:								
Other Allocation Factor	75%	0%	$21.07	($8.34)	$82,805,441	($48,318,588)	p. 25	p. 39
	75%	20%	$23.29	($6.12)	$92,082,893	($39,041,136)	p. 24	p. 37
Structure Cost Multipliers	Default	BCM1	$20.21	($9.20)	$24,718,768	($106,405,261)	pp. 62-66	pp. 83, 99-103
Copper/Fiber Crossover Point	12,000	9,000	$30.25	$0.84	$134,240,149	$3,116,120	p. 74	p. 91
	12,000	15,000	$28.70	($0.71)	$127,610,722	($3,513,307)	p. 74	p. 93
	12,000	18,000	$28.14	($1.27)	$124,821,817	($6,302,212)	p. 74	p. 95
Digital Switching Discount	20%	50%	$28.43	($0.98)	$120,362,695	($10,761,334)	p. 43	p. 51
Feeder and Distribution Fill Factors	See note[1]	BCM1[1]	$30.01	$0.60	N/A	N/A	p. 69	N/A
Feeder and Distribution Fill Factors	See note[1]	HMFills[1]	$29.27	($0.14)	$126,607,867	($4,516,162)	p. 70	p. 87
Electronics Fill Factor	0.85	0.95	N/A	N/A			N/A	N/A
Switch Fill Factor	0.80	0.95	N/A	N/A			N/A	N/A

[1] See the table showing the feeder and distribution fills for BCM1, Hatfield Model and BCM2 on page 3 of this appendix.

Summary of Individual Sensitivity Analyses (August 1996 Report)
Washington State Results

Default BCM2 Statewide Average Monthly Cost for Washington State = **$29.41** (Aggregate Support at $30 Benchmark Level = **$131,124,029**)

Variable	BCM2 Default	Adjusted Value	Revised Statewide Average Monthly Cost	$ Reduction or Increase From Default	Revised Support at the $30 Benchmark	$ (Reduction) or Increase in Support from the $30 Default Level	August Report Page Reference	August Report Appendix Page Reference
Drop, Pedestal and NID Costs:								
Drop Cost per Foot	$0.10	$0						
Pedestal Cost	$48.22	$0						
Network Interface Device Cost	$30.00	$0	$28.84	-0.57	$123,378,657	($7,745,372)	p. 71	p. 89
Slope Factors:								
Minimum Slope Factor	1.10	1.0						
Maximum Slope Factor	1.05	1.0						
Combined Slope Factor	1.20	1.0	$29.05	-0.36	$121,672,057	($9,451,972)	p. 78	p. 97
Copper & Fiber Size Factors:								
Copper Size Factor 1	1.2	1.0						
Copper Size Factor 2	1.3	1.0						
Copper Size Factor 3	1.4	1.0						
Fiber Size Factor	1.2	1.0	$29.26	-0.15	$130,292,793	($831,236)	p. 66	p. 85

Comparison of Outside Plant Fill Factors
(Objective Fill Factors)

Feeder			
Density Zone	**BCM**	**BCM2**	**HM**
1	.65	.75	.65
2	.75	.80	.75
3	.80	.80	.80
4	.80	.85	.80
5	.80	.85	.80
6	.80	.85	.80
Distribution			
Density Zone	**BCM**	**BCM2**	**HM**
1	.25	.40	.50
2	.35	.45	.55
3	.45	.55	.60
4	.55	.65	.65
5	.65	.75	.70
6	.75	.80	.75

Notes: Hatfield Version 2.2, Release 1.
The CPM is not a bottoms-up, engineering/planning model in which cable is sized to meet demand. Consequently, the CPM does not have any objective fill factor inputs for comparison.

APPENDIX D

SAMPLE "MAIN LOGIC" WORKSHEET

Sample Main Logic
Worksheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2																		
3																		
4																		
5	Cli	Company	Central Office Type	Census Block Group Number	Quadrant	Omega	Alpha	Centroid Distance Feet	Total House Holds	Total Business Lines	Area-sq Miles	Depth to Bedrock (Inches)	Rock Hardness	Surface Soil Texture	Water Table Depth (Feet)	Minimum Soil Slope	Maximum Soil Slope	New Terrain Variable
6	ANGLDEANR	BELL ATLANTIC DE INC	R	100050511987	1	359.5	0.5	17050.34	206	127	1.41431	52.27		MPT	1.89	0.05	2.73	
7	ANGLDEANR	BELL ATLANTIC DE INC	R	100050510987	2	122.41	32.41	10803.55	59	96	1.54837	60		LS	3.7	0.7	3.6	
8	ANGLDEANR	BELL ATLANTIC DE INC	R	100050510985	2	92.46	2.46	10976.78	606	8	2.633367	60		MPT	3.62	0.67	3.51	
9	ANGLDEANR	BELL ATLANTIC DE INC	R	100050510981	3	149.3	30.7	19564.55	450	25	9.46573	60		LS	3.7	0.7	3.6	
10	ANGLDEANR	BELL ATLANTIC DE INC	R	100050510989	3	191.9	11.9	21363.68	586	3	9.484139	60		LS	3.7	0.7	3.6	
11	ANGLDEANR	BELL ATLANTIC DE INC	R	100050510988	4	284.26	14.26	3914.47	385	18	5.400506	60		MPT	3.23	0.54	3.07	
12	ANGLDEANR	BELL ATLANTIC DE INC	R	100050507003	4	227.18	42.82	16089.21	191	0	2.19769	60		LS	3.7	0.7	3.6	
13	ANGLDEANR	BELL ATLANTIC DE INC	R	100050507004	4	271.37	1.37	14220.19	656	15	4.037183	60		MPT	2.67	0.35	2.43	
14	ANGLDEANR	BELL ATLANTIC DE INC	R	100050507005	4	262.9	7.1	24792.66	789	13	5.554362	60		MPT	3.4	0.6	3.26	
15	BGVLDEBGR	BELL ATLANTIC DE INC	R	100050503003	1	358.82	1.18	11540.71	871	468	15.600886	60		LS	3.87	1.6	4.82	
16	BGVLDEBGR	BELL ATLANTIC DE INC	R	100050503001	3	177.5	2.5	22215.76	410	928	11.816076	60		SL	3.56	1.49	4.45	
17	CMDNDECDS	BELL ATLANTIC DE INC	S	100010417003	1	321.74	38.26	4753.22	261	12	0.986323	55.83		SL	4.41	1.58	4.66	
18	CMDNDECDS	BELL ATLANTIC DE INC	S	100010416001	1	36.26	36.26	5707.42	903	522	1.158788	55.83		SL	4.41	1.58	4.66	
19	CMDNDECDS	BELL ATLANTIC DE INC	S	100010417004	1	359.51	0.49	7926.43	596	21	1.348314	55.83		SL	4.41	1.58	4.66	
20	CMDNDECDS	BELL ATLANTIC DE INC	S	100010412001	1	38.2	38.2	11975.41	1146	2146	2.944383	55.86		MPT	4.39	1.57	4.63	
21	CMDNDECDS	BELL ATLANTIC DE INC	S	100010422001	1	349.17	10.83	15807.44	768	39	4.813035	56.4		MPT	4.03	1.36	4.19	
22	CMDNDECDS	BELL ATLANTIC DE INC	S	100010415001	2	88.69	1.31	7242.63	1530	432	1.225759	55.83		SL	4.41	1.58	4.66	
23	CMDNDECDS	BELL ATLANTIC DE INC	S	100010417001	3	204.24	24.24	6492.27	702	195	2.031522	55.83		SL	4.41	1.58	4.66	
24	CMDNDECDS	BELL ATLANTIC DE INC	S	100010418003	3	159.16	20.84	19627.92	1244	65	15.282486	57.41		SL	3.98	1.36	4.31	
25	CMDNDECDS	BELL ATLANTIC DE INC	S	100010417002	4	247.04	22.96	8279.33	666	225	2.140266	55.83		SL	4.41	1.58	4.66	
26	CMDNDECDS	BELL ATLANTIC DE INC	S	100010422002	4	308.24	38.24	15026.69	333	24	5.184598	55.83		SL	4.41	1.58	4.66	
27	CMDNDECDS	BELL ATLANTIC DE INC	S	100010421002	4	228.06	41.94	18607.5	560	181	10.06224	56.98		SL	4.1	1.42	4.4	
28	DGBODEDGR	BELL ATLANTIC DE INC	R	100050513002	1	32.73	32.73	17870.01	295	0	4.976921	60		LS	3.61	0.69	3.59	
29	DGBODEDGR	BELL ATLANTIC DE INC	R	100050513003	1	357.42	2.58	19083.8	379	0	9.962425	60		LS	2.35	0.6	3.58	
30	DGBODEDGR	BELL ATLANTIC DE INC	R	100050515001	2	86.17	3.83	13074.89	246	0	7.409447	60		LS	3.68	0.69	3.59	
31	DGBODEDGR	BELL ATLANTIC DE INC	R	100050515003	3	150.31	29.69	3479.4	228	39	3.207153	60		LS	2.08	0.58	3.58	
32	DGBODEDGR	BELL ATLANTIC DE INC	R	100050515002	4	312.43	42.43	8775.22	640	51	7.022788	60		LS	2.61	0.62	3.58	
33	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010410001	1	29.44	29.44	12078.62	1645	275	9.646376	59.02		SL	3.74	1.8	4.77	
34	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010410002	1	340.02	19.98	11797.83	185	11	0.907686	56.27		SL	4.32	1.61	4.68	
35	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010411009	1	329.2	30.8	20956.95	1212	28	6.332992	58.2		MPT	3.53	1.37	4.04	
36	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010404001	1	20.14	20.14	26605.41	455	51	7.230828	59.5		MPT	2.65	0.86	2.94	
37	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010409001	2	105.81	15.81	2646.32	896	899	0.548844	55.83		SL	4.41	1.58	4.66	
38	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010405002	2	121.8	31.8	14313.56	346	27	1.63883	55.83		SL	4.41	1.58	4.66	
39	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010405003	2	83.3	6.7	14481.38	1109	22	5.416114	56.02		SL	4.37	1.59	4.67	
40	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010405001	2	121.1	31.1	27205.18	411	1262	8.3509	55.86		SL	4.41	1.58	4.66	
41	DOVRDEDVS	BELL ATLANTIC DE INC	S	100010408002	3	142.64	37.36	6148.64	889	117	0.807287	55.83		SL	4.41	1.58	4.66	

Sample Main Logic
Worksheet

	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM
1																					
2																					
3																					
4																					
5	Density-Total HH/Sqmi	Total CBG Lines Served	Segment B	Segment A	Segment D	Total Feeder Distance	"A" Portion Feeder Distance	Maximum Distribution Distance	Urban?	Surface Indicator	Copper Depth Condition	Fiber Depth Condition	Dist Cable Multiplier	Feeder Cable Multiplier	Fiber Multiplier	B Segment Feeder Distance	BG Sequence #	Segment Type 1	Segment Type 2	Segment Type 3	Total Lines on Copper
6	154.63	375.64	17,049.69	148.79	6,279.23	17,049.69	0.00	8,581.61	N	0	3	3	0.3328	0.3777	1.9084	17,049.69	1	SLC			0
7	44.30	167.21	9,120.73	5,790.42	6,570.09	11,626.11	2,505.38	8,212.61	N	0	3	3	0.256	0.2905	1.468	9,120.73	1	AFC	SLC		0
8	230.43	739.44	10,966.66	471.14	8,568.20	10,966.66	0.00	12,166.84	N	0	3	3	0.279	0.2790	1.404	1,845.94	2	SLC			0
9	47.80	568.15	16,822.62	9,988.54	16,244.67	18,688.83	1,866.21	22,890.22	N	0	3	3	0.256	0.2905	1.468	16,822.62	1	SLC			0
10	61.82	710.30	20,904.55	4,405.28	16,260.46	20,904.55	0.00	23,089.86	N	0	3	3	0.256	0.2905	1.468	4,081.93	2	SLC			0
11	71.62	482.70	3,793.86	964.22	12,270.19	3,793.86	0.00	17,178.26	N	0	3	3	0.256	0.2905	1.468	3,793.86	1	SLC			0
12	86.91	230.54	11,801.32	10,935.79	7,827.39	18,823.41	7,022.10	10,622.89	N	0	3	3	0.256	0.2905	1.468	8,007.46	2	SLC			0
13	162.86	806.79	14,216.13	339.99	10,608.97	14,216.13	0.00	15,097.38	N	0	3	3	0.3328	0.3777	1.9084	2,414.81	3	SLC			0
14	142.28	965.32	24,602.55	3,064.41	12,443.74	24,602.55	0.00	17,807.42	N	0	3	3	0.256	0.2905	1.468	10,386.42	4	SLC			0
15	58.83	1519.30	11,538.26	237.66	20,854.92	11,538.26	0.00	29,892.05	N	0	3	3	0.256	0.2905	1.468	11,538.26	1	SLC			0
16	42.55	1422.87	22,194.62	969.04	18,149.75	22,194.62	0.00	25,496.07	N	0	3	3	0.256	0.2905	1.468	22,194.62	1	SLC			0
17	265.84	327.03	3,732.27	2,943.34	5,243.77	4,053.73	321.46	7,248.74	N	0	3	3	0.279	0.2790	1.404	3,732.27	1	Cable	SLC		327.027
18	824.31	1611.92	4,602.13	3,375.66	5,683.76	5,135.90	533.77	8,158.95	N	0	3	3	0.2905	0.2560	1.276	869.86	2	SLC			0
19	443.59	740.37	7,926.14	67.79	6,130.97	7,926.14	0.00	8,705.98	N	0	3	3	0.279	0.2790	1.404	3,324.01	3	SLC			0
20	462.10	3529.22	9,410.96	7,405.69	9,060.06	12,286.62	2,875.66	13,057.15	N	0	3	3	0.279	0.2790	1.404	1,484.82	4	SLC			0
21	160.38	965.98	15,525.89	2,970.15	11,583.60	15,525.89	0.00	16,548.00	N	0	3	3	0.256	0.2905	1.468	6,114.94	5	SLC			0
22	1283.45	2278.71	7,240.74	165.58	5,845.70	7,240.74	0.00	8,476.26	Y	0	3	3	0.858	1.0470	6.154	7,240.74	1	SLC			0
23	355.15	1042.31	5,919.87	2,665.46	7,525.66	5,919.87	0.00	10,731.04	N	0	3	3	0.279	0.2790	1.404	5,919.87	1	SLC			0
24	81.83	1566.51	18,343.81	6,982.82	20,641.01	18,343.81	0.00	29,814.79	N	0	3	3	0.256	0.2905	1.468	12,423.94	2	SLC			0
25	321.69	1028.86	7,623.42	3,229.67	7,724.45	7,623.42	0.00	10,992.49	N	0	3	3	0.279	0.2790	1.404	7,623.42	1	SLC			0
26	64.69	425.93	11,802.34	9,300.87	12,022.41	15,092.01	3,289.67	16,768.10	N	0	3	3	0.256	0.2905	1.468	4,178.92	2	SLC			0
27	57.45	856.92	13,841.10	12,436.36	16,748.71	17,903.11	4,062.01	23,727.33	N	0	3	3	0.256	0.2905	1.468	2,038.76	3	SLC			0
28	59.27	356.07	15,032.75	9,661.97	11,779.16	18,805.14	3,772.39	16,359.94	N	0	3	3	0.256	0.2905	1.468	15,032.75	1	SLC			0
29	38.04	457.45	19,064.46	859.04	16,665.43	19,064.46	0.00	23,331.60	N	0	3	3	0.3328	0.3777	1.9084	4,031.71	2	SLC			0
30	33.20	296.92	13,045.69	873.35	14,372.32	13,045.69	0.00	19,761.94	N	0	3	3	0.256	0.2905	1.468	13,045.69	1	AFC			0
31	72.31	314.20	3,022.62	1,723.37	9,455.70	3,022.62	0.00	13,001.59	N	0	3	3	0.3328	0.3777	1.9084	3,022.62	1	SLC			0
32	91.86	823.48	6,477.01	5,920.54	13,992.29	6,477.01	0.00	19,912.10	N	0	3	3	0.3328	0.3777	1.9084	6,477.01	1	SLC			0
33	173.38	2260.52	10,518.92	5,936.78	16,398.95	10,518.92	0.00	23,798.47	N	0	3	3	0.256	0.2905	1.468	10,518.92	1	SLC			0
34	205.03	234.30	11,087.74	4,031.23	5,030.39	12,603.77	1,516.03	6,826.96	N	0	3	3	0.279	0.2790	1.404	568.82	2	SLC			0
35	191.82	1490.88	18,001.18	10,730.86	13,287.35	22,088.36	4,087.18	19,171.75	N	0	3	3	0.256	0.2905	1.468	6,913.44	3	SLC			0
36	63.63	600.19	24,978.60	9,160.65	14,198.03	27,040.23	2,061.64	20,006.31	N	0	3	3	0.3328	0.3777	1.9084	6,977.42	4	SLC			0
37	1796.32	1980.47	2,546.21	720.99	3,911.64	2,546.21	0.00	5,606.68	Y	0	3	3	0.858	1.0470	6.154	2,546.21	1	Cable	SLC		1980.472
38	212.77	444.62	12,164.99	7,542.61	6,759.29	16,327.96	4,162.97	9,427.43	N	0	3	3	0.279	0.2790	1.404	9,618.78	2	SLC			0
39	205.17	1360.56	14,382.48	1,689.55	12,287.90	14,382.48	0.00	17,709.04	N	0	3	3	0.279	0.2790	1.404	2,217.49	3	SLC			0
40	64.33	1758.08	23,294.90	14,052.38	15,258.10	29,718.23	6,423.33	21,434.00	N	0	3	3	0.256	0.2905	1.468	8,912.42	4	SLC			0
41	1115.71	1190.02	4,887.18	3,731.12	4,744.04	6,246.28	1,359.11	6,799.78	Y	0	3	3	0.858	1.0470	6.154	4,887.18	1	SLC	Cable	SLC	516.018

Sample Main Logic
Worksheet

	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
1																					
2																					
3																					
4																					
5	Total Lines on SLC	# SLC Fibers this BG	Total # SLC Fibers	Total Lines on AFC	# AFC Fibers this BG	Total # AFC Fibers	Cable Structure %	Fiber Structure %	Copper Multplr	Fiber Multiplr	Copper Feeder B Pairs Needed	Copper B Segment Feeder Size	# Max Size B Segment Cables	A Segment Feeder Pairs Needed	A Segment Feeder Size	# Max Size "A" Cables	# Fibers Required	+# Max Size Fiber	Fiber Cable Size	CLLIQUAD	Segment Count
6	376	4	4	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	4	0	12	ANGLDEANR1	1
7	739	0	4	167.213	4	4	0	1	0	1.468	0	0	0	0	0	0	8	0	12	ANGLDEANR2	2
8	739	4	4	0	0	0	0	1	0	1.404	0	0	0	0	0	0	4	0	12	ANGLDEANR2	1
9	1278	4	8	0	0	0	0	1	0	1.468	0	0	0	0	0	0	8	0	12	ANGLDEANR3	2
10	710	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	ANGLDEANR3	1
11	2485	4	16	0	0	0	0	1	0	1.468	0	0	0	0	0	0	16	0	18	ANGLDEANR4	4
12	2003	4	12	0	0	0	0	1	0	1.468	0	0	0	0	0	0	12	0	12	ANGLDEANR4	3
13	1772	4	8	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	8	0	12	ANGLDEANR4	2
14	965	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	ANGLDEANR4	1
15	1519	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	BGVLDEBGR1	1
16	1423	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	BGVLDEBGR3	1
17	6847	0	24	0	0	0	0.55	0.45	0.15345	0.6318	344	400	0	344	400	0	24	0	24	CMDNDECDS1	5
18	6847	4	24	0	0	0	0	1	0	1.276	0	0	0	0	0	0	24	0	24	CMDNDECDS1	4
19	5236	4	20	0	0	0	0	1	0	1.404	0	0	0	0	0	0	20	0	24	CMDNDECDS1	3
20	4495	12	16	0	0	0	0	1	0	1.404	0	0	0	0	0	0	16	0	18	CMDNDECDS1	2
21	966	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	CMDNDECDS1	1
22	2279	8	8	0	0	0	0	1	0	6.154	0	0	0	0	0	0	8	0	12	CMDNDECDS2	1
23	2609	4	8	0	0	0	0	1	0	1.404	0	0	0	0	0	0	8	0	12	CMDNDECDS3	2
24	1567	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	CMDNDECDS3	1
25	2312	4	12	0	0	0	0	1	0	1.404	0	0	0	0	0	0	12	0	12	CMDNDECDS4	3
26	1283	4	8	0	0	0	0	1	0	1.468	0	0	0	0	0	0	8	0	12	CMDNDECDS4	2
27	857	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	CMDNDECDS4	1
28	814	4	8	0	0	0	0	1	0	1.468	0	0	0	0	0	0	8	0	12	DGBODEDGR1	2
29	457	4	4	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	4	0	12	DGBODEDGR1	1
30	0	0	0	296.922	4	4	0	1	0	1.468	0	0	0	0	0	0	4	0	12	DGBODEDGR2	1
31	314	4	4	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	4	0	12	DGBODEDGR3	1
32	823	4	4	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	4	0	12	DGBODEDGR4	1
33	4586	12	24	0	0	0	0	1	0	1.468	0	0	0	0	0	0	24	0	24	DOVRDEDVS1	4
34	2325	4	12	0	0	0	0	1	0	1.404	0	0	0	0	0	0	12	0	12	DOVRDEDVS1	3
35	2091	4	8	0	0	0	0	1	0	1.468	0	0	0	0	0	0	8	0	12	DOVRDEDVS1	2
36	600	4	4	0	0	0	0	1	0	1.9084	0	0	0	0	0	0	4	0	12	DOVRDEDVS1	1
37	3563	0	12	0	0	0	0.65	0.35	0.68055	2.1539	2085	2400	0	2085	2400	0	12	0	12	DOVRDEDVS2	4
38	3563	4	12	0	0	0	0	1	0	1.404	0	0	0	0	0	0	12	0	12	DOVRDEDVS2	3
39	3119	4	8	0	0	0	0	1	0	1.404	0	0	0	0	0	0	8	0	12	DOVRDEDVS2	2
40	1758	4	4	0	0	0	0	1	0	1.468	0	0	0	0	0	0	4	0	12	DOVRDEDVS2	1
41	4999	4	20	0	0	0	0.55	0.45	0.57585	2.7693	543	600	0	0	0	0	20	0	24	DOVRDEDVS3	5

Sample Main Logic
Worksheet

	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1																					
2																					
3																					
4																					
5	Segment $/Line	Cum CBG $/Line	Allocated Copper $	SLC Segment $/Fiber	Cum SLC Segment $/Fiber	Allocated SLC $	AFC Segment $/Line	AFC Cum Segment $/Line	Allocated AFC $	Feeder Size A	Last B Cost	Max Cable Costs	B Segment $ incl Structure	A Segment $ incl Structure	Total BG $ after Reallocation	Fiber Base Data Size A	Fiber Base Data A $	Last B Fiber Cost	Max Fiber Cost	SLC Fiber B Segment $ incl Structure	SLC Fiber A Segment $ incl Structure
6	0.00	0.00	0.00	10,478.01	10,478.01	41,912.04	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	10,509	0	41,912.04	0.00
7	0.00	0.00	0.00	2,300.51	2,300.51	0.00	55.03	55.03	9,202.03	0	-	-	-	-	-	12	1,544.32	5,622	0	9,202.03	0.00
8	0.00	0.00	0.00	895.24	3,195.75	12,782.99	0.00	55.03	0.00	N/A	-	-	-	-	-	N/A	0.00	1,109	0	3,580.96	0.00
9	0.00	0.00	0.00	4,243.15	4,243.15	16,972.59	0.00	0.00	0.00	0	-	-	-	-	-	12	1,150.33	10,369	0	33,945.17	3,765.68
10	0.00	0.00	0.00	2,059.16	6,302.31	25,209.22	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	2,516	0	8,236.64	0.00
11	0.00	0.00	0.00	510.61	510.61	2,042.44	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	2,915	0	8,169.74	0.00
12	0.00	0.00	0.00	1,346.47	1,857.08	7,428.33	0.00	0.00	0.00	0	-	-	-	-	-	12	4,328.42	4,936	0	16,157.68	14,169.39
13	0.00	0.00	0.00	742.02	2,599.10	10,396.40	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	1,488	0	5,936.15	0.00
14	0.00	0.00	0.00	5,239.51	7,838.61	31,354.43	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	6,402	0	20,958.02	0.00
15	0.00	0.00	0.00	5,820.56	5,820.56	23,282.24	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	7,112	0	23,282.24	0.00
16	0.00	0.00	0.00	11,196.23	11,196.23	44,784.93	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	13,681	0	44,784.93	0.00
17	41.09	41.09	13,438.26	224.87	224.87	0.00	0.00	0.00	0.00	400	13,745.24	-	13,438.26	1,154.27	15,322.15	N/A	0.00	3,407	0	5,396.93	0.00
18	0.00	41.09	0.00	75.76	300.63	1,202.52	0.00	0.00	0.00	0	-	-	-	-	-	12	320.69	794	0	1,818.19	967.15
19	0.00	41.09	0.00	368.67	669.30	2,677.20	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	3,034	0	7,373.38	0.00
20	0.00	41.09	0.00	192.61	861.91	10,342.89	0.00	0.00	0.00	0	-	-	-	-	-	12	1,727.70	1,118	0	3,081.74	5,578.54
21	0.00	41.09	0.00	3,084.72	3,946.63	15,786.52	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	3,769	0	12,338.89	0.00
22	0.00	0.00	0.00	6,063.38	6,063.38	48,507.08	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	4,426	0	48,507.08	0.00
23	0.00	0.00	0.00	1,435.50	1,435.50	5,742.02	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	3,557	0	11,484.04	0.00
24	0.00	0.00	0.00	6,267.35	7,702.85	30,811.41	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	7,658	0	25,069.39	0.00
25	0.00	0.00	0.00	1,232.40	1,232.40	4,929.59	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	4,580	0	14,788.78	0.00
26	0.00	0.00	0.00	1,054.04	2,286.44	9,145.76	0.00	0.00	0.00	0	-	-	-	-	-	12	2,027.75	2,576	0	8,432.34	6,637.99
27	0.00	0.00	0.00	1,028.47	3,314.91	13,259.63	0.00	0.00	0.00	0	-	-	-	-	-	12	2,503.82	1,257	0	4,113.87	8,196.44
28	0.00	0.00	0.00	3,791.69	3,791.69	15,166.76	0.00	0.00	0.00	0	-	-	-	-	-	12	2,325.30	9,266	0	30,333.51	7,612.04
29	0.00	0.00	0.00	2,477.71	6,269.40	25,077.61	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	2,485	0	9,910.86	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	88.66	88.66	26,323.97	N/A	-	-	-	-	-	N/A	0.00	8,041	0	0.00	0.00
31	0.00	0.00	0.00	1,857.57	1,857.57	7,430.28	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	1,863	0	7,430.28	0.00
32	0.00	0.00	0.00	3,980.49	3,980.49	15,921.97	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	3,992	0	15,921.97	0.00
33	0.00	0.00	0.00	1,006.37	1,006.37	12,076.42	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	9,766	0	24,152.83	0.00
34	0.00	0.00	0.00	91.96	1,098.32	4,393.29	0.00	0.00	0.00	0	-	-	-	-	-	12	910.83	342	0	1,103.47	2,940.97
35	0.00	0.00	0.00	1,743.77	2,842.09	11,368.36	0.00	0.00	0.00	0	-	-	-	-	-	12	2,519.34	4,261	0	13,950.13	8,247.23
36	0.00	0.00	0.00	4,288.02	7,130.11	28,520.45	0.00	0.00	0.00	0	-	-	-	-	-	12	1,270.79	4,301	0	17,152.09	5,067.97
37	14.95	14.95	29,614.11	572.70	572.70	0.00	0.00	0.00	0.00	N/A	29,047.17	-	29,614.11	-	31,094.81	N/A	0.00	1,556	0	6,872.45	0.00
38	0.00	14.95	0.00	1,554.97	2,127.67	8,510.68	0.00	0.00	0.00	0	-	-	-	-	-	12	2,501.11	5,779	0	18,659.60	8,075.80
39	0.00	14.95	0.00	537.72	2,665.39	10,661.56	0.00	0.00	0.00	N/A	-	-	-	-	-	N/A	0.00	1,332	0	4,301.74	0.00
40	0.00	14.95	0.00	4,495.93	7,161.32	28,645.29	0.00	0.00	0.00	0	-	-	-	-	-	12	3,959.34	5,494	0	17,983.73	12,961.18
41	57.00	57.00	0.00	877.93	877.93	3,511.72	0.00	0.00	0.00	0	27,813.89	-	29,410.94	-	-	12	830.69	4,512	0	17,558.62	4,504.75

Sample Main Logic
Worksheet

	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY
1																						
2																						
3																						
4																						
5	Total SLC Fiber BG $ after Reallocation	SLC on Fiber Electronics $	Total SLC on Fiber $	AFC Fiber B Segment $ incl Structure	AFC Fiber A Segment $ incl Structure	Total AFC Fiber BG $ after Reallocation	AFC Electronics $	Total AFC $	Total Feeder Cost	Base Lot Side Length	# Lots per Base Side	# Distribution Legs	# Feeder Legs in CBG	# Lines per Feeder Leg	Distribution Vertical Distance per Feeder	Theoretical Max Horizontal Copper Distance	# Lots Between Terminals	Longest Actual Horizontal Copper Distance	Horizontal Fiber Feeder Cable Length	Total Horizontal Copper Cable Length	# Distribution Vertical Legs per Terminal	# Terminal Locations per Feeder Leg
6	44,007.64	162,209.52	206,217.16	0.00	0.00	0.00	0.00	0.00	206,217	419	15	8	1	376	5,442	9,279	15	2,930	2,930	5,861	8	1
7	0.00	0.00	0.00	9,202.03	5,055.43	14,970.33	67,432.50	82,402.83	82,403	821	8	4	1	167	4,928	9,536	8	2,464	3,285	4,928	4	1
8	13,422.14	257,503.32	270,925.46	0.00	0.00	0.00	0.00	0.00	270,925	343	25	13	1	739	7,883	8,059	25	4,113	4,113	8,225	13	1
9	21,775.18	286,264.80	308,039.98	0.00	0.00	0.00	0.00	0.00	308,040	738	22	11	1	568	14,768	4,616	14	4,430	11,076	17,721	7	2
10	26,469.68	316,470.24	342,939.92	0.00	0.00	0.00	0.00	0.00	342,940	650	25	13	1	710	14,960	4,520	14	3,903	11,708	15,610	7	2
11	2,144.56	185,261.04	187,405.60	0.00	0.00	0.00	0.00	0.00	187,406	614	20	10	1	483	11,043	6,478	20	5,522	6,135	11,043	10	1
12	22,677.61	132,004.08	154,681.69	0.00	0.00	0.00	0.00	0.00	154,682	559	14	7	1	231	6,709	8,645	14	3,355	3,914	6,709	7	1
13	10,916.22	271,811.16	282,727.38	0.00	0.00	0.00	0.00	0.00	282,727	408	26	13	1	807	9,793	7,104	26	4,896	5,304	9,793	13	1
14	32,922.15	305,196.12	338,118.27	0.00	0.00	0.00	0.00	0.00	338,118	429	29	15	1	965	11,586	6,207	29	6,007	6,007	12,015	15	1
15	24,446.35	652,017.60	676,463.95	0.00	0.00	0.00	0.00	0.00	676,464	695	30	15	1	1,519	19,465	2,268	8	2,085	18,074	16,684	4	4
16	47,024.18	548,629.20	595,653.38	0.00	0.00	0.00	0.00	0.00	595,653	864	21	11	1	1,423	16,421	3,789	10	3,457	13,828	20,743	5	3
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15,322	308	17	9	1	327	4,627	9,687	17	2,468	2,468	4,935	9	1
18	2,278.16	451,665.72	453,943.88	0.00	0.00	0.00	0.00	0.00	453,944	183	31	16	1	1,612	5,317	9,341	31	2,750	2,750	5,500	16	1
19	2,811.06	257,503.32	260,314.38	0.00	0.00	0.00	0.00	0.00	260,314	245	25	13	1	740	5,640	9,180	25	2,943	2,943	5,886	13	1
20	16,717.50	843,681.96	860,399.46	0.00	0.00	0.00	0.00	0.00	860,399	266	34	17	1	3,529	8,527	7,736	34	4,264	4,530	8,527	17	1
21	16,575.85	305,196.12	321,771.97	0.00	0.00	0.00	0.00	0.00	321,772	414	28	14	1	966	10,756	6,622	28	5,378	5,792	10,756	14	1
22	50,932.43	597,215.16	648,147.59	0.00	0.00	0.00	0.00	0.00	648,148	146	40	20	1	2,279	5,553	9,223	40	2,777	2,923	5,553	20	1
23	6,029.12	321,093.72	327,122.84	0.00	0.00	0.00	0.00	0.00	327,123	279	27	14	1	1,042	6,968	8,516	27	3,623	3,623	7,247	14	1
24	32,351.98	747,457.20	779,809.18	0.00	0.00	0.00	0.00	0.00	779,809	573	36	18	1	1,567	19,494	2,253	8	1,720	18,348	17,201	4	5
25	5,176.07	317,914.20	323,090.27	0.00	0.00	0.00	0.00	0.00	323,090	297	26	13	1	1,029	7,130	8,435	26	3,565	3,862	7,130	13	1
26	16,572.94	173,337.84	189,910.78	0.00	0.00	0.00	0.00	0.00	189,911	633	19	10	1	426	10,757	6,622	19	5,695	5,695	11,390	10	1
27	22,528.87	346,675.68	369,204.55	0.00	0.00	0.00	0.00	0.00	369,205	698	24	12	1	857	15,353	4,324	14	4,187	11,864	16,749	7	2
28	23,917.74	158,235.12	182,152.86	0.00	0.00	0.00	0.00	0.00	182,153	654	18	9	1	356	10,470	6,765	18	5,235	5,890	10,470	9	1
29	26,331.49	264,008.16	290,339.65	0.00	0.00	0.00	0.00	0.00	290,340	833	20	10	1	457	14,999	4,501	12	4,166	11,666	16,665	6	2
30	0.00	0.00	0.00	26,323.97	0.00	27,640.17	123,930.00	151,570.17	151,570	898	16	8	1	297	12,576	5,712	14	5,390	8,084	21,558	7	2
31	7,801.80	149,491.44	157,293.24	0.00	0.00	0.00	0.00	0.00	157,293	591	16	8	1	314	8,274	7,863	16	4,137	4,728	8,274	8	1
32	16,718.07	340,316.64	357,034.71	0.00	0.00	0.00	0.00	0.00	357,035	538	26	13	1	823	12,916	5,542	22	5,382	8,072	21,527	11	2
33	12,680.24	861,747.12	874,427.36	0.00	0.00	0.00	0.00	0.00	874,427	400	41	21	1	2,261	15,599	4,200	22	4,000	11,999	15,999	11	2
34	7,700.98	132,798.96	140,499.94	0.00	0.00	0.00	0.00	0.00	140,500	359	14	7	1	234	4,312	9,844	14	2,156	2,515	4,312	7	1
35	20,596.37	518,186.16	538,782.53	0.00	0.00	0.00	0.00	0.00	538,783	380	35	18	1	1,491	12,528	5,736	32	5,695	7,213	22,778	16	2
36	35,267.85	292,623.84	327,891.69	0.00	0.00	0.00	0.00	0.00	327,892	645	22	11	1	600	12,907	5,546	18	5,163	8,390	20,652	9	2
37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31,095	130	30	15	1	1,980	3,651	10,175	30	1,825	1,956	3,651	15	1
38	17,415.81	177,312.24	194,728.05	0.00	0.00	0.00	0.00	0.00	194,728	356	19	10	1	445	6,048	8,976	19	3,202	3,202	6,404	10	1
39	11,194.63	399,203.64	410,398.27	0.00	0.00	0.00	0.00	0.00	410,398	361	34	17	1	1,361	11,565	6,217	34	5,783	6,144	11,565	17	1
40	43,686.79	573,827.76	617,514.55	0.00	0.00	0.00	0.00	0.00	617,515	727	21	11	1	1,758	13,805	5,098	16	5,086	9,445	20,344	8	2
41	8,417.29	352,094.04	360,511.33	0.00	0.00	0.00	0.00	0.00	360,511	158	30	15	1	1,190	4,428	9,786	30	2,214	2,372	4,428	15	1

Sample Main Logic
Worksheet

	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS
1																				
2																				
3																				
4																				
5	# Voice Grade Lines Equipped per Terminal Location	# SLC Systems at Full Capacity	# Switched Lines in Overflow SLC Terminal	# Lines at DS-1 per Terminal Location	# DS-3/DS 1 Units per Terminal Location	Total # Terminal Locations in CBG	# Fibers Required per Terminal Location	Total Number Fibers per Feeder Leg	Total # Fibers For CBG	# Max Size Fiber Feeder Cables Each Leg	Last Fiber Feeder Cable Size For Each Leg	Supplemental Vertical Fiber Length	Supplemental # Fibers	# Max Size Supplemental Fiber Cables	Last Supplemental Fiber Cable Size	Size Feeder Extension (If Copper)	# Pairs required per Distribution Leg	Copper Distribution Leg Cable Size	Fiber Distribution Leg Cable size	# Pairs per Horizontal Distribution Leg
6	396	0	396	0	0	1	4	4	4	0	12	0	0	0	0	0	25	25	0	198
7	180	0	180	0	0	1	4	4	4	0	12	0	0	0	0	0	23	25	0	89
8	780	0	780	0	0	1	4	4	4	0	12	0	0	0	0	0	30	50	0	390
9	300	0	300	0	0	2	4	4	4	0	12	0	0	0	0	0	28	50	0	150
10	376	0	376	0	0	2	4	4	4	0	12	0	0	0	0	0	29	50	0	187
11	512	0	512	0	0	1	4	4	4	0	12	0	0	0	0	0	26	50	0	255
12	244	0	244	0	0	1	4	4	4	0	12	0	0	0	0	0	18	18	0	122
13	852	0	852	0	0	1	4	4	4	0	12	0	0	0	0	0	33	50	0	425
14	1,020	0	1,020	0	0	1	4	4	4	0	12	0	0	0	0	0	34	50	0	509
15	400	0	400	0	0	4	4	4	4	0	12	0	0	0	0	0	54	100	0	200
16	500	0	500	0	0	3	4	4	4	0	12	0	0	0	0	0	69	100	0	250
17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	400	20	25	0	173
18	1,700	0	1,700	0	0	1	4	4	4	0	12	0	0	0	0	0	54	100	0	849
19	780	0	780	0	0	1	4	4	4	0	12	0	0	0	0	0	30	50	0	390
20	2,372	1	356	1,344	1	1	12	12	12	0	12	0	0	0	0	0	74	100	0	1,242
21	1,020	0	1,020	0	0	1	4	4	4	0	12	0	0	0	0	0	37	50	0	509
22	1,552	0	1,552	848	1	1	8	8	8	0	12	0	0	0	0	0	41	50	0	811
23	1,100	0	1,100	0	0	1	4	4	4	0	12	0	0	0	0	0	40	50	0	549
24	332	0	332	0	0	5	4	4	4	0	12	0	0	0	0	0	46	50	0	165
25	1,084	0	1,084	0	0	1	4	4	4	0	12	0	0	0	0	0	42	50	0	542
26	452	0	452	0	0	1	4	4	4	0	12	0	0	0	0	0	23	25	0	225
27	452	0	452	0	0	2	4	4	4	0	12	0	0	0	0	0	38	50	0	226
28	376	0	376	0	0	1	4	4	4	0	12	0	0	0	0	0	21	25	0	188
29	244	0	244	0	0	2	4	4	4	0	12	0	0	0	0	0	25	25	0	121
30	162	0	162	0	0	2	4	4	4	0	12	0	0	0	0	0	20	25	0	79
31	332	0	332	0	0	1	4	4	4	0	12	0	0	0	0	0	21	25	0	166
32	436	0	436	0	0	2	4	4	4	0	12	0	0	0	0	0	34	50	0	217
33	772	0	772	419	1	2	8	12	12	0	12	0	0	0	0	0	39	50	0	403
34	248	0	248	0	0	1	4	4	4	0	12	0	0	0	0	0	18	18	0	124
35	788	0	788	0	0	2	4	4	4	0	12	0	0	0	0	0	44	50	0	393
36	316	0	316	0	0	2	4	4	4	0	12	0	0	0	0	0	29	50	0	158
37	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2400	70	100	0	1,043
38	472	0	472	0	0	1	4	4	4	0	12	0	0	0	0	0	24	25	0	235
39	1,436	0	1,436	0	0	1	4	4	4	0	12	0	0	0	0	0	43	50	0	717
40	928	0	928	0	0	2	4	4	4	0	12	0	0	0	0	0	85	100	0	463
41	1,256	0	1,256	0	0	1	4	4	4	0	12	0	0	0	0	0	42	50	0	627