# Comprehensive Community Infrastructure Budget Narrative Template

Applicant Name: Merit Network, Inc.

EasyGrants Number: 4658

Organization Type: Non-Profit Corporation

Proposed Period of Performance: 10/1/10 through 6/30/13

Total Federal Grant Request: \$69,639,291

Total Matching Funds (Cash): \$17,409,823

Total Matching Funds (In-Kind): \$0

Total Matching Funds (Cash + In-Kind): \$17,409,823

Total Matching Funds (Cash + In-Kind) as Percentage of Total

Project Costs: 20%

# 1. Administrative and legal expenses - \$621,845

• fixed this category, includes pre-award expenses for a grant writer, writing assistant, accountants, costing consultants, research leads and assistants. The regular staffing costs were taken directly from timesheets. The hourly rate and fringe benefit costs (see fringe benefit note below) utilized were the same as their rounded, current rates. No additions were made for corporate overhead or indirect costs. The grant writer submitted timesheets and was hired at a set hourly rate and FICA charges. All timesheets were reviewed and signed by managers for appropriateness. The consultants submit invoices at hourly rates.

• The following table lists all hours and rates for these expenses:

Pre Av	ard Ex	pense	
		Hourly	<u>v</u>
<u>Staff</u>	<u>Hrs</u>	<u>Rate*</u>	<u>Total</u>
Admin	65	\$	
Admin	112	\$	
Financial	144	\$	\$
Research	100	\$	\$
Research	100	\$	\$
Research	105	\$	\$
Research	150	\$	\$
Research	152	\$	\$
Consulting Accounting	12	\$	\$
Consulting Costing	10	\$	\$
Grant Writer	290	\$	\$
			\$
* Rounded to the nearest d	ollar		
* Begin date 2/15/10			

- for this category was for pre-award legal consultants. The legal fees, at the were estimated costs (yet unbilled) for development related to Merit's MOUs (Memos of Understanding) with the seven sub-recipients of the proposal and IRUs (Indefesible Right to Use) for Merit's agreements with other fiber owners and the Michigan Mackinaw Bridge Authority.
- in this category is for an administration grant specialist, a grant administration assistant and a grant consultant to be hired during the project period to handle mandated compliance requirements, project time keeping, invoicing, project related financials, and serve as an assistant to the project managers. The estimated salary for the grant administration specialist is Merit, during this round, will have seven sub-recipients and has determined that in order to manage the recipients' invoicing and payments an assistant will be required. The estimated salary for this position is The standard fringe benefit package includes Merit's portion of FICA, health insurance and dental insurance, group insurance, retirement plan, long-term disability, and for the University of Michigan's administration of the benefit programs. The average cost for this program is per dollar of salary. Once an hourly estimate for salary was established for each position the hourly salary was then increased by to cover the fringe benefit package. The rate for each position includes salary and this fringe benefit amount only. No other costs were added to the rates. The does not include any other indirect or direct costs, (i.e.) overhead, facilities, general or administrative costs, etc. nor were any of these costs added to the proposal.

- It is expected that these will be 40 hour per week positions and will be entitled to all standard benefits offered by the corporation. A salary increase of has been built into the average hourly rate for both positions. Merit Network, Inc. has utilized grant administrators and assistants over the course of its history and is very familiar with the going rates. These positions will be limited to the duration of the project. Merit will also utilize an outside grant consultant at the initiation of the project to assist with administrative issues. It is estimated that hours at hours.
- The following table lists all hours and rates for these expense:

Administrative and Consulting									
<u>Staff</u>	<u>Hrs</u>	Hou Rat	ırl <u>y</u> te*	# of Yrs		<u>Total</u>			
Grant Administrator	2,080	\$		3	\$				
Grant Admin Assistant	2,080	\$		3	\$				
Grant Consultant	100	\$			\$				
					\$				
* Rounded to the nearest dollar									

- constitutes the remaining portion of this category and will be for consulting services. is for legal fees for construction contract review and is based on the average legal cost per mile Merit has experienced with fiber construction. BBCGI, the firm reviewing unserved and underserved statistics, invoiced Merit for
- All expenses in this category are to be supported by cash matching funds supported by Merit and its sub-recipients. All sub-recipients are sharing of the number of fiber stands they will own, for a total share cost of the remaining category expense of its directly related to a single sub-recipient and that partner will support of the expenses for a share support of the expenses for a sha

Administrative and Legal								
<b>Category Expense</b>	Grant Support	Cash Match	<b>Share Method</b>					
\$	\$	\$	All partners by strand count					
\$	\$	\$	1 Sub-recipient					
\$	\$	\$	Total					
100%	80%	20%	%					

#### 2. Land, structure, rights-of-way, appraisals, etc. - \$1,116,000

• will provide for the installation of active network equipment. These huts are are made out of concrete and are commonly

used for field equipment installations. The cost includes the hut, a concrete foundation, a gravel access road to the hut for maintenance purposed, and the installation of these components. Each hut will cost with a slight variance for the road access cost which has been averaged into the over all cost. These costs have been obtained from vendor quotes.

All expenses in this category are to be supported by 20% cash matching funds. The huts will be
utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a
pro ration of the number of fiber stands they will own, for a total share cost of \$

Land/Structures/Right-of-Way								
Catego	ry Expense	Grant S	Support	Cash	Match	Share Method		
\$		\$		\$		All partners by strand count		
	100%		80%		20%	%		

### 3. Relocation expenses and payment - \$0

#### 4. Architectural and engineering fees - \$4,301,298

- fiber routes and preparation for the documentation of the permitting process. This is a contractual cost and has been dirived from multiple consultations with fiber installation contractors. This is estimated at per fiber mile with a build of 1172.2 miles. Note: Cost is per fiber mile and is not dependant on the number of strands which varies through out the build.
- includes pre-award expenses for engineering staff, engineering assistants, and engineering consultants. The regular staffing costs were taken directly from timesheets. The hourly rate and fringe benefit costs (see fringe benefit note below) utilized were the same as their rounded, current rates. No additions were made for corporate overhead or indirect costs. All timesheets were reviewed and signed by managers for appropriateness. The consultants submit invoices at hourly rates.

Pre Aw	Pre Award Expense									
		<b>Hourly</b>								
<u>Staff</u>	<u>Hrs</u>	<u>Rate*</u>	<u>Total</u>							
Engineering	18	\$	\$							
Engineering	43	\$	\$							
Engineering	136	\$	\$							
Engineering	94	\$	\$							
Engineering	60	\$	\$							
Consultant Engineering	10	\$	\$							
* Rounded to the nearest do	ollar									
* Begin date 2/15/10										

• is included in this category to provide for engineering staff during the project. It includes six full time positions and partial hours for several other engineering tasks. The full time

positions include a project manager, a project manager assistant, two operations engineers, and two junior engineering assistants. Rates (see below) are based upon similar or current salaried positions within the corporation and the standard fringe benefit package. The standard fringe benefit package includes Merit's portion of FICA, health insurance and dental insurance, group insurance, retirement plan, long-term disability, and for the University of Michigan's administration of the benefit programs. The average cost for this program is per dollar of salary. Once an hourly estimate for salary was established for each position the hourly salary was then increased by to cover the fringe benefit package. The rate for each position includes salary and this fringe benefit amount only. No other costs were added to the rates. The does not include any other indirect or direct costs, (i.e.) overhead, facilities, general or administrative costs, etc. nor were any of these costs added to the proposal.

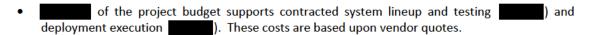
The project manager and the project assistant will have limited three year positions. The four full-time engineering positions will commense six months after the notice of the award and will continue after the project is completed. The staffing will be utilized for network design, network and optical transport equipment configuration, installation, provisioning and testing of systems. This also includes fiber testing using optical testing equipment by operations and for fiber route surveying and engineering, documentation including as-built drawings, engineering/project management of fiber build projects. Also included in the cost are engineering and documentation for entrance into anchor tenants and central officesSeveral contractual and other staff will be utilized on a partial bais as required. Rates and hours are provided below. Time and costs are based upon Merit's experience in implementing an optical and IP network

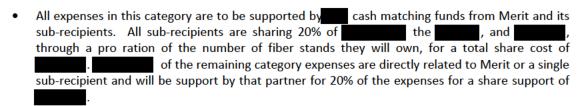
This amount also includes travel cost for engineering and the project managements staff. It is estimated that over three years the cost will be Rates are based upon average hotel costs, estimated travel miles, approved daily meal cost, and anticipated mileage.

 Below is a table listing the project engineering staff, positions, rates, hours and travel and is followed by a table detailing travel requirements:

Architectu	re and E	nginee	rin	g Fees	
		<u>Hourl</u>	<u>y</u> _		
<u>Staff</u>	<u>Hrs</u>	<u>Rate</u>	<u>k</u>	# of Yrs	<u>Total</u>
Project Manager	2,080	\$		3	\$
PM Assistant	2,080	\$		3	\$
Engineer/Ops 1	1,733	\$		2.5	\$
Engineer/Ops 2	1,733	\$		2.5	\$
Enginering Staff Assistant	1,733	\$		2.5	\$
Enginering Staff Assistant	1,733	\$		2.5	\$
Engineering Equipment Mg	360	\$		1	\$
Engineering Field Equipme	440	\$		1	\$
Engineering Design	580	\$		1	\$
Eng.Project, R/W/Staking	147	\$		1	\$
Engineering Support	220	\$		1	\$
Travel Project Manager		_			\$
Travel Engineering					\$
Travel Access Engineering					\$
					\$
* Rounded to the nearest dollar					

Travel Detail		Cost	of Miles		Lodg	ing Cost	Me	al Cost	Travel	Lodging	Meals	# of Yrs	Total
	Mons of Travel	# of trips/ Mon	Total Miles	Cost/ Mile	Hote I Days	Cost/ Days	Meal Days	Meal Cost/Day					
Project Manager	7	2.0	1,200	\$ 0.50	3	\$	3	\$	\$	\$ <b>EEE</b>	\$	2.5	\$
PM Assistant	5	0.8			1	\$	1	\$	\$	\$	\$	2	\$
Engineer/Ops 1	9	1.5	1,200	\$ 0.50	2	\$	2	\$	9	\$	\$	3	\$
Engineer/Ops 2	9	1.5	1,200	\$ 0.50	2	\$	2	\$	\$	\$	\$	1.5	\$
Access Optical Eng.	6	1.5	591	\$ 0.50	0	\$ -	2	\$	\$	\$ -	\$	3	\$





Ar	Architecture and Engineering									
Category Expense	Grant Support	Cash Match								
\$	\$	\$	All partners by strand count							
\$	\$	\$	All partners by strand count							
\$	\$	\$	1 Sub-recipient							
\$	\$	\$	All partners by strand count							
\$	\$	\$	Merit only							
\$	\$	\$	1 Sub-recipient							
\$	\$	\$	1 Sub-recipient							
\$ 4,301,298	\$	\$	Total							
100%	80%	20%	%							

#### 5. Other architectural and engineering fees - \$0

#### 6. Project inspection fees - \$732,625

• \$732,625 is an estimate for pole inspections and Michigan Department of Transportation (MDOT) charges. Pole inspections average about \$5.00 per pole. The project is estimated to utilize about poles per mile and the total mileage is 1172.2. The total cost for pole inspection is estimated at MDOT charges an inspection fee of per mile. With 1172.2 miles the

estimated charge for MDOT inspection is \_\_\_\_\_. Fees are also for verification of acceptance once work is completed.

All expenses in this category are to be supported by a 20% cash matching funded by all partners.
 Merit and all sub-recipients are sharing 20% of through a pro ration of the number of fiber stands they will own, for a total share cost of the stands through a pro ration of the number of fiber stands they will own, for a total share cost of the stands through a pro ration of the number of fiber stands they will own, for a total share cost of the stands are sharing as a standard program of the standard prog

	Project Inspection Fees								
Category Expense Grant Supp				Cash	n Match	<b>Share Method</b>			
\$		\$		\$		All partners by strand count			
	%								

#### 7. Site work - \$723,009

- is for wiring work in the central offices. The estimate is based upon quotes from vendors. This includes inside plant preparation work including conduit, fiber panel, and power installation for network and optical equipment. Also in this budget category are the added costs of working with local telecommunication companies to penetrate the indentified central offices in the proposal.
- is the estimate for the fiber connectionwork associated with anchor tenant access. The cost is based on quotes from two fiber installation contractors and Merit's own experience installing fiber into anchor tenants.
- is the estimate for additional fiber installation and wiring based on quotes from vendors.
- is the estimate for power improvement at AMP sites based upon current known rates. This is for network management of the optical transport equipment. The list is the cost for the Network Management appliance and software for the optical transport. This cost comes from a vendor quote.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit or one of the partners. The for the central office wiring and the for anchor tenant access is exclusive to Merit and the 20% share of is to be supported by Merit, The remaining for an access is exclusive to make the control of the central office wiring and the supported by Merit, The remaining for access is exclusive to merit and the 20% share cost is the responsibility of partners for the central office wiring and the supported by Merit or one of the partners.

	Site V	Vork			
Category Expense	Grant S	upport	Cash N	/latch	
\$	\$		\$		Merit only
\$	\$		\$		Merit only
\$	\$		\$		1 Sub-recipient
\$	\$		\$		1 Sub-recipient
\$	\$		\$		Total
100%		80%		20%	%

#### 8. <u>Demolition and removal - \$0</u>

#### 9. Construction - \$51,151,342

• is for the fiber build that will vary from to strands covering 1172.2 miles. The build includes installation of fiber optic cable and repair of any current infrastructure (make ready). Labor includes both aerial and underground construction. Variances between build costs are due to location issues and number of fiber strands in the bundle. Costs are based upon consultation with multiple fiber installation contractors.

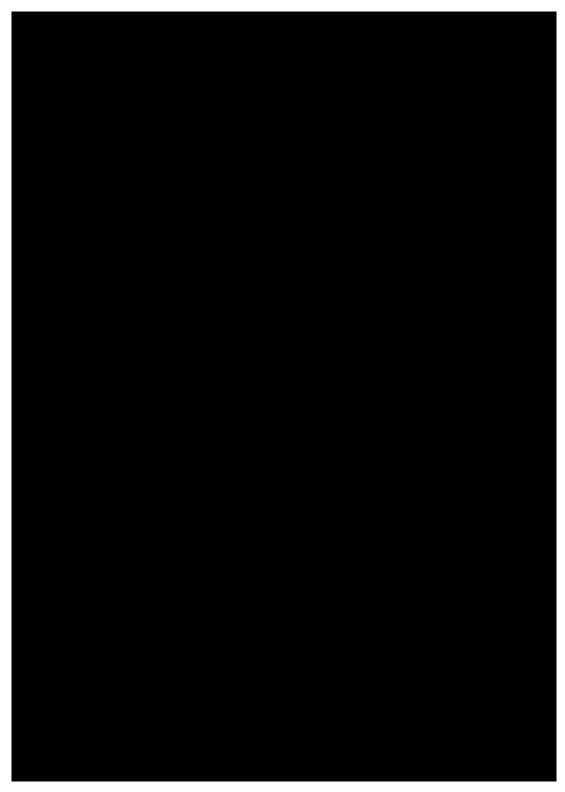
	Fiber Construction Costs								
<u>Strands</u>	/Build	<u>Miles</u>	Cost	/Mile					
Fiber Build	Strands	14.0	\$		\$				
Fiber Build	Strands	88.8	\$		\$				
Fiber Build	Strands	96.7	\$		\$				
Fiber Build	Strands	29.5	\$		\$				
Fiber Build	Strands	160.2	\$		\$				
Fiber Build	Strands	123.0	\$		\$				
Fiber Build	Strands	369.5	\$		\$				
Fiber Build	Strands	72.4	\$		\$				
Fiber Build	Strands	29.7	\$		\$				
Fiber Build	Strands	75.0	\$		\$				
Fiber Build	Strands	16.3	\$		\$				
Fiber Build Strands		97.1	\$		\$				
	Total	1172.2			\$				

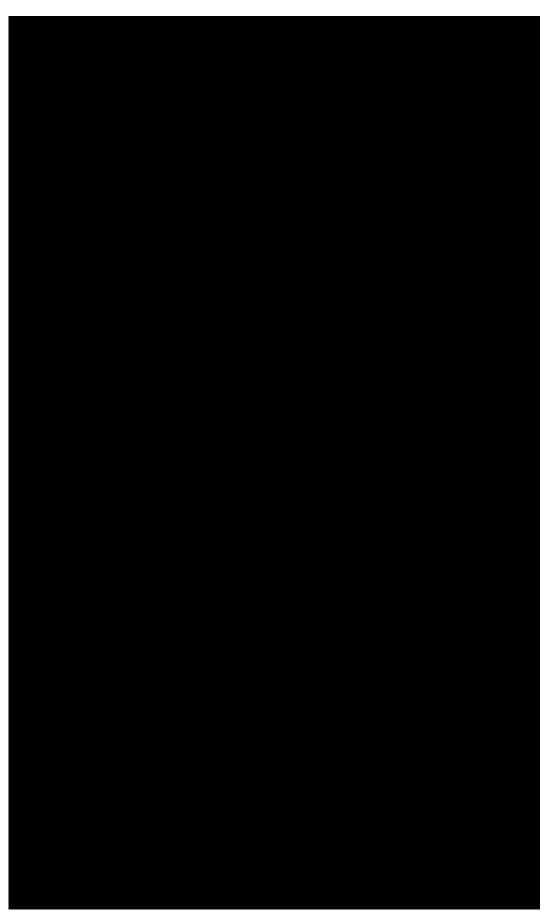
- is budgeted for the wiring construction into the central offices. The cost is an estimate bused upon consultation with vendors who have built dual entrance access into central offices.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. The fiber construction and the central office wiring construction will be utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a pro ration of the number of fiber stands they will own, for a total share cost of \$

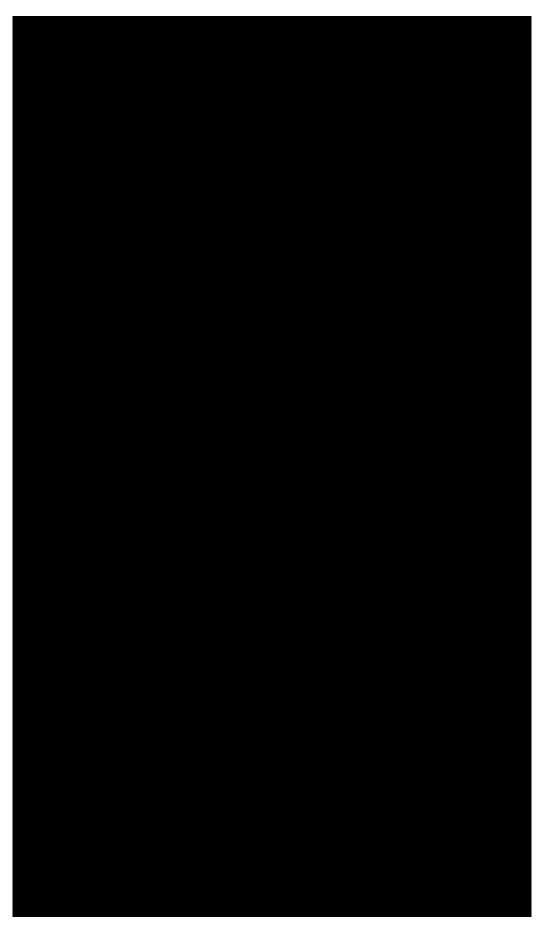
Construction								
Cate								
\$		\$		\$		All partners by strand count		
\$		\$		\$		All partners by strand count		
\$		\$		\$		Total		
	100%		80%		20%	%		

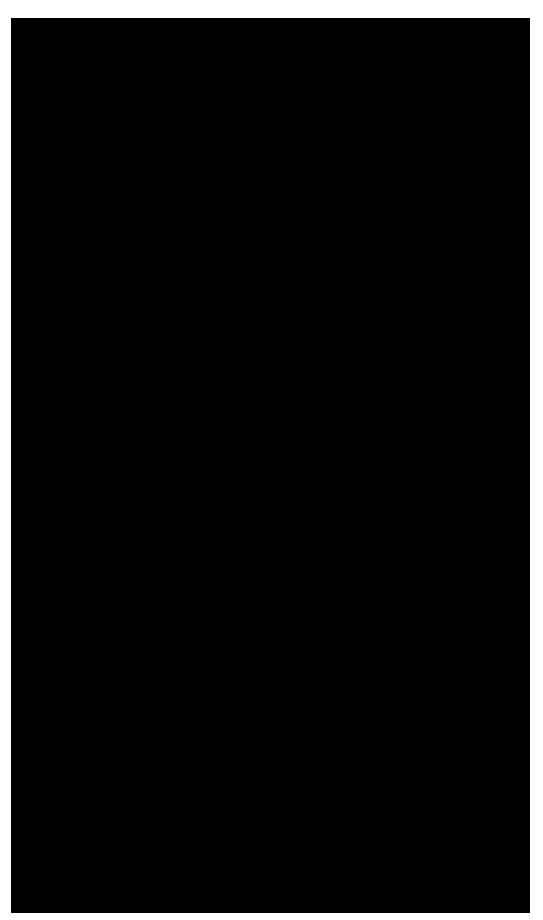
## 10. <u>Equipment - \$28,244,599</u>

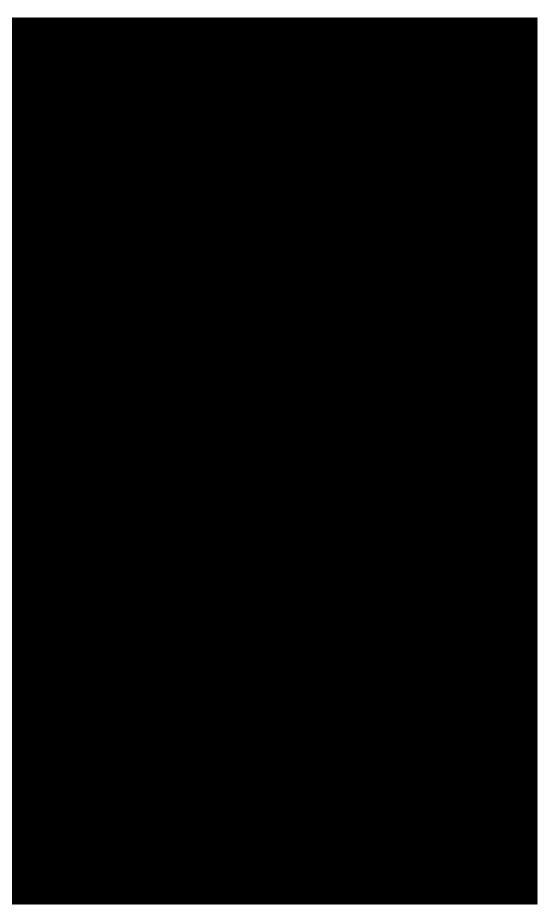
• \$28,244,599 is budgeted for equipment. All the equipment is purchased except for two, twenty (20) year IRUs (Indefesable Right to Use) leases on fiber. All equipment costs are based on vendor quotes or negotiated IRUs. All project equipment is listed below:









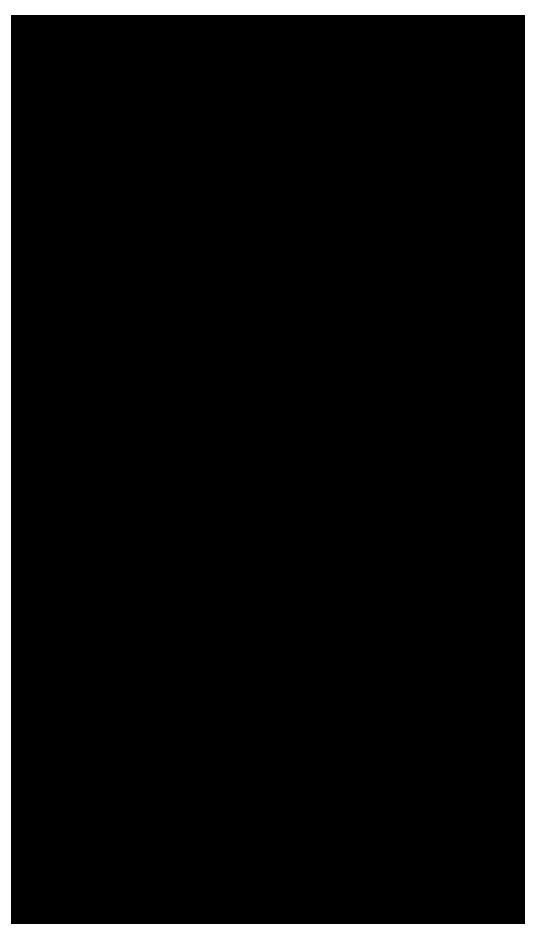








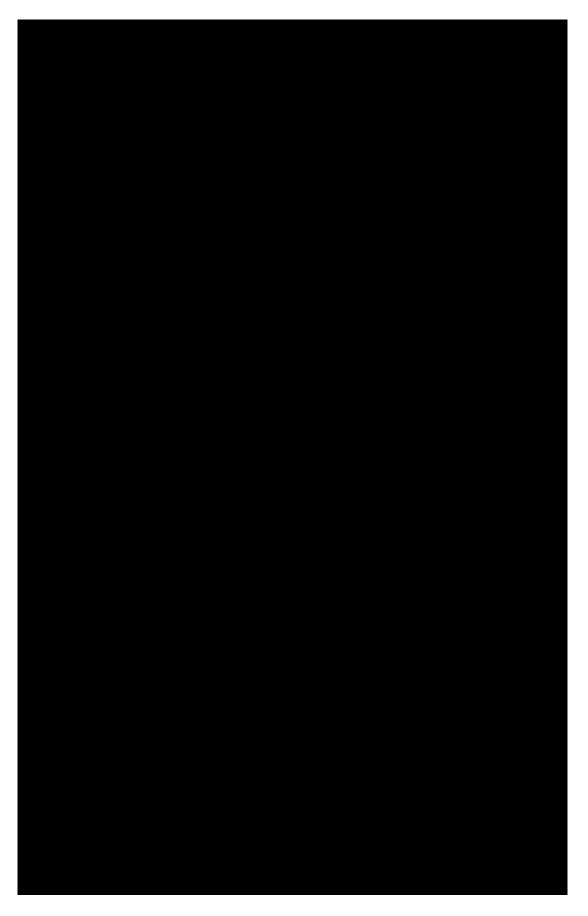


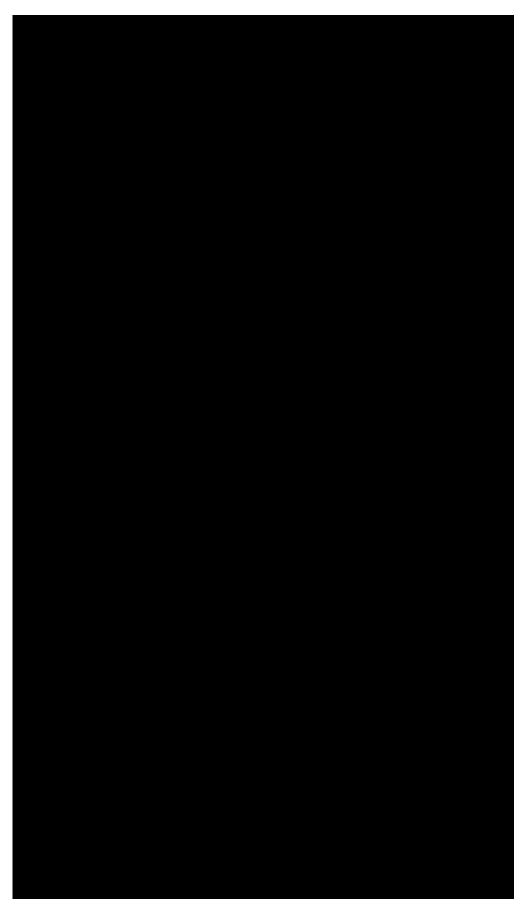


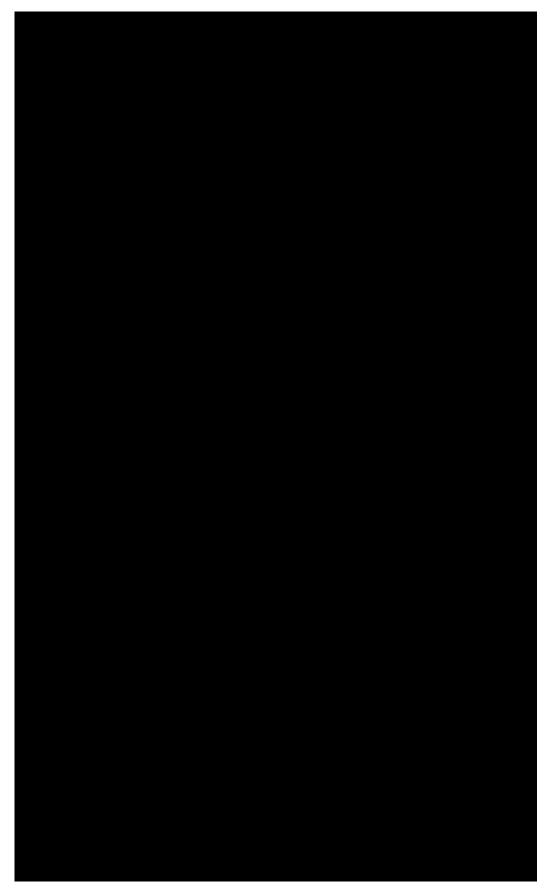


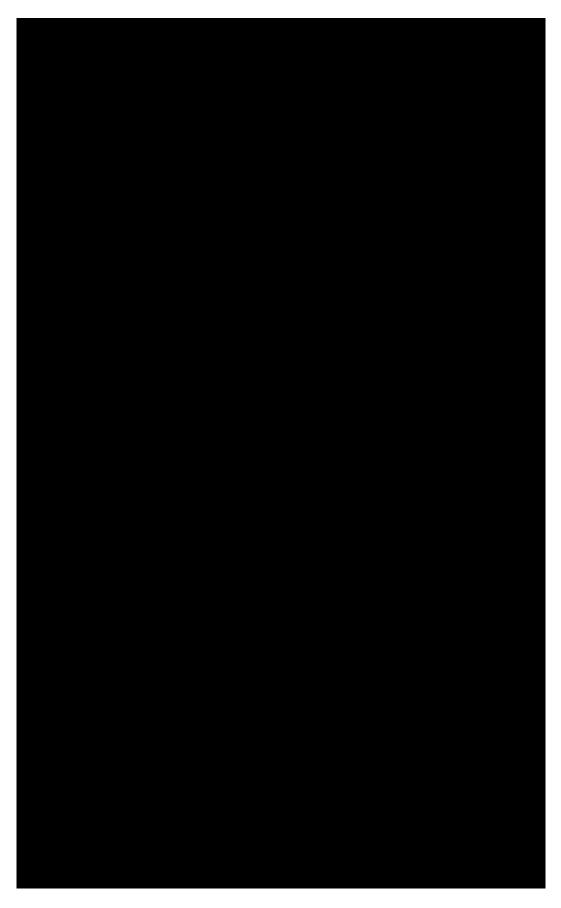






















All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. The fiber equipment will be utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a pro ration of the number of fiber stands they will own. The network access equipment and the chromatic dispersion meter will be owned by individual partners or Merit and the supporting 20% cash match will be supplied by those individual companies. The IRU's are to be supported by some of the partners and Merit and they will share the 20% cash support. In total, Merit and the project partners will support a 20% match of for equipment.

Equipment						
<u>Description</u>	Category Expense	<b>Grant Support</b>	Cash Match			
Network/AccessPartner	\$			Partners		
·				equipment		
Network/Access Merit	\$			Merit		
				equipment		
Fiber Optic Cable	\$			All partners by		
	·		-	strand count		
Fiber IRU SSM	\$			Various		
				partners &		
				Merit		
Fiber IRU Bridge	\$			Various		
				partners &		
				Merit		
Fiber Optic 48 Strand	Ś			1 Sub-recipient		
Anchor Tenant Access Laterals	\$			Merit		
				equipment		
Telepone Poles	\$			All partners by		
				strand count		
Hang Tags	\$			All partners by		
				strand count		
Domed Marker Poles	\$			All partners by		
			_	strand count		
Underground Tags	\$			All partners by		
-				strand count		
Chromatic Dispersion Meter	\$			1 Sub-recipient		
Total	\$			Total		
	100%	80%	20%	%		

 Note: Fiber specifications will require operation in the C-Band transmission window with non-zero chromatic dispersion to facilitate dense wave division multiplexing (DWDM) for high capacity systems.

#### 11. <u>Miscellaneous - \$158,396</u>

- is estimated for computers and cell phones. This amount includes six computers projected at each based on vendor quotes. Cell ohones are for the lead engineers, project manager and the project manager's assistant. These are estimated at an initial charge of each and then average annual usage of overest and years for a total of the cell ohone usage is based on the current cell phone plan
- is estimated for the environmental assesment. Cost is based upon current results of Merit's RFP for round one.
- is estimated for additional liability insurance over the three year project build. Cost based upon current rates from AON.
- is estimated for engineer training. This includes training for four engineers for Fiber Splicing (\$3000 each), OTDR Testing (\$3000 each), Optronics Testing (\$2114 each). These expenses are based upon known costs for the training classes and the number of engineers that will be participating.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. Some projedct expenses are exclusive to Merit or a partner and the cost share will be supported by that individual company. All other expenses are shared by all through a pro ration of the number of fiber stands they will own, for a total share cost of \$ \_\_\_\_\_\_.

Miscellaneous						
<u>Description</u>	Category Expense	Grant Support	Cash Match			
Engineer Computers	\$			Merit		
Project Management Computers	\$			All partners by strand count		
Project Management Cells	\$			All partners by strand count		
Engineer Cells	\$			Merit		
Environmental Assessment	\$			All partners by strand count		
Additional Insurance	\$			All partners by strand count		
Training	\$			Merit		
Training	\$			1 Sub-recipient		
Total	\$ 158,396	\$ 126,717	\$ 31,679	Total		
	100%	80%	20%	%		

## 13. Contingencies - \$0

## 15. Project (program) income - \$0

#### <u>Addendum</u>

Except for fringe benefits no other indirect costs are included in the budget.

Merit's fringe benefit package is controlled by the University of Michigan since all Merit employees are contracted to Merit from the university per a five year hosting agreement. No Merit employee has access to special packages or rates. The package includes the employer's portion of FICA, pro rata health insurance subsidy, and dental insurance, group insurance, retirement plan, long-term disability, and 1.9% for university administration of the programs. The university rates currently average 28.5% per dollar of salary. This is the rate that was used to estimate total salary and fringe benefits for new positions. For current staffing their known rate was applied.

The fringe benefit costs included in the salary rates refers only to this package. It does not include any other indirect costs, (i.e.) overhead, facilities, general or administrative, etc.