Operations Memorandum

To: New Haven Board of Education Finance and Operations Committee

From: Gilda Herrera, IT Director

Date: January 10, 2022

Re: F&O Action Item Request/Approval for Agreement Renewal for Leased Fiber

Circuit WAN Solution with Crown Castle Fiber, LLC

Executive Summary/Statement: For consideration and approval to renew the agreement between the New Haven Board of Education and Crown Castle International Corporation to provide leased fiber circuit WAN Ethernet Services from July 1, 2022 to June 30, 2023.

Contractor Name: Crown Castle International Corporation

Contractor Address: 1220 Augusto Drive, Suite 600, Houston TX 77057

Is the contractor a Minority or Women Owned Small Business? No

Renewal or Award of Contract/Agreement? Renewal

Total Amount of Contract/Agreement and the Hourly or Service Rate: not to exceed \$422,500 Without Erate/ \$42,250 With Erate Reimbursement

Contract or Agreement #:

Funding Source & Account #: 2022-2023 Operating Budget – Telecommunications / Internet Account #190-47200-52265

Key Questions: (Please have someone ready to discuss the details of each question during the Finance & Operations meeting or this proposal might not be advanced for consideration by the full Board of Education):

- 1. What specific service will the contractor provide: Crown Castle (formerly known as Fibertech/LightTower) provides the wide area network infrastructure NHPS uses for all communications and data transmissions.
- 2. How was the contractor selected? Quotes? RFP? Sealed Bid or Sole Source? Please describe the selection process including other sources considered and the rationale for selecting this method of selection: Sealed bid 2019-12-1248 Crown Castle was awarded this contract based on results of RFP#2019-12-1248. Crown Castle services qualify for ERATE discounts which allows the district to receive a 90% discount on services. Crown Castle Services ae considered a Category 1 funding level and is typically approved and disbursed first. Crown Castle is included on our ERATE application for the 22-23 School Year.

- 3. If this is a renewal with a current vendor, has the vendor's performance been satisfactory under the existing contract or agreement? The vendor guarantees 1-10 Gbps up time of 99.9 %, per contract. This is industry standard.
- 4. If this Contract/Agreement is a Renewal has cost increased? If yes, by how much? No, decreased, currently 50 services are active-45@\$750, 5@\$1,700
- 5. If this Contractor is New has cost for service increased from previous years? If yes, by how much? N/A
- 6. Is this a service existing staff could provide? Why or why not? No, this is an infrastructure which is leased and would require the city/school district to install fiber optic cabling throughout the city, which is cost prohibitive.



Licensee or Customer New Haven Public Schools	l iconcoo or Custon	nor Contact Do	4ail				
Address & Contact City, State NeW HAVEN, CT 00519							
City State Photon 2009-946-9888 Fax	Licensee or Customer						
Pinne	Address 0.00-11-11						
Name Name Name Name Name Name Name Name Name Set Meadow Street Phone 2039468800 Phone 203946800 Phone 2039468000 Phone 203946800 Phone 203946800 Phone 2039468000	Address & Contact				Fox		
Billing Address & Contact							
City, State New Haven, CT 06510 Primary Phone 2039468800 Alternate Phone 12034106772		Name	NEW HAVEN PUBLIC SCHOOL	-S (13920)	Email		
Name Rober Clusson Primary Phone 2039458800 Alternate Phone 12034168702	Billing Address & Contact	1			Phone	2039468800	
## Product Detail ### Product Type		City, State	New Haven, CT 06510				
Product Detail	Technical Contact				•		
Product Type		E-mail	robert.cusson@new-haven.k	k12.ct.us	Alternate Phone	12034106772	
Product Type	Product Detail		'				
Total MRC S750.00 Total NRC S272725 Service Level Stating Product ID S272725		Product Type	Metro-F Advanced Private Line		Total Bandwidth	1Ghns	
Install Lead Time		1		Total NDC		•	00.09/
Comments S277275			·	TOTAL NKC	Φ 0.00	Selvice Level	99.976
Comments		Install Lead Time					
170 Derby Ave. 1st Floor, New Haven, CT 06519		Comments	3212123				
Decision Z 54 Meadow St, 1st Floor, New Haven, CT 06519 Service Level 9th			Exis	sting Product ID	S272725		
Product Type	_ocation A	170 Derby Ave, 1st F	oor, New Haven, CT 06511				
Total MRC S750.00 Total NRC S0.00 Service Level 96 Install Lead Time As soon as available Comments S272726 Existing Product ID S272726	_ocation Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Total MRC S750.00 Total NRC S0.00 Service Level 96 Install Lead Time As soon as available Comments S272726 Existing Product ID S272726	Ethernet #2	Product Type	Metro-F Advanced Private Line		Total Bandwidth	1Ghps	
Install Lead Time Comments S272726		1		Total NPC		·	00 0%
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180 Canner St, 1st Floor, New Haven, CT 06519		Comments	3212120				
S4 Meadow St, 1st Floor, New Haven, CT 06519 Service Level 95			Exis	sting Product ID	S272726		
Product Type	Location A	180 Canner St, 1st Fl	oor, New Haven, CT 06511				
Total MRC S750.00 Total NRC S0.00 Service Level 98 Service	Location Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Total MRC S750.00 Total NRC S0.00 Service Level 98 Install Lead Time As soon as available S272727 S272728 S272729	Ethernet #3	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Install Lead Time Comments S272727 Existing Product ID S272727		1		Total NRC		•	99 9%
Existing Product ID S272727			·	Total NAC	ψ0.00	Oci vice Level	33.370
Existing Product ID S272727 S272728 S272729 S2							
130 Bassett St, 1st Floor, New Haven, CT 06511 54 Meadow St, 1st Floor, New Haven, CT 06519		Comments	<u> </u>				
Product Type			Exis	sting Product ID	S272727		
Product Type	Location A	· '	•				
Total MRC \$750.00 Total NRC \$0.00 Service Level 98	Location Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Total MRC \$750.00 Total NRC \$0.00 Service Level 98 Install Lead Time As soon as available S272728 Existing Product ID S272728	Ethernet #4	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Install Lead Time Comments S272728 Existing Product ID S272728		1		Total NRC		•	99 9%
Existing Product ID S272728			•	rotar itito	ψ0.00	00,7,00 2070,	00.070
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150 Fournier St, 1st Floor, New Haven, CT 06511		Comments					
S4 Meadow St, 1st Floor, New Haven, CT 06519				sting Product ID	S272728		
Product Type Metro-E Advanced Private Line Total Bandwidth 1Gbps Total MRC \$750.00 Total NRC \$0.00 Service Level 98 Install Lead Time As soon as available Comments Existing Product ID \$272729 Location A 200 Wilmot Rd, 1st Floor, New Haven, CT 06515 Location Z 54 Meadow St, 1st Floor, New Haven, CT 06519 Ethernet #6 Product Type Metro-E Advanced Private Line Total Bandwidth 1Gbps Total MRC \$750.00 Total NRC \$0.00 Service Level 98 Install Lead Time As soon as available S272730 Existing Product ID \$272730 Existing Product ID \$272730 Location A 199 Wilmot Rd, 1st Floor, New Haven, CT 06515							
Total MRC \$750.00 Total NRC \$0.00 Service Level 98	_ocation Z	54 Meadow St, 1st Fl	por, New Haven, CT 06519				
Total MRC \$750.00 Total NRC \$0.00 Service Level 98	Ethernet #5	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Install Lead Time As soon as available S272729		1		Total NRC	\$0.00	·	99.9%
Comments S272729 Existing Product ID S272729			·				
Existing Product ID S272729							
Cocation A 200 Wilmot Rd, 1st Floor, New Haven, CT 06515 200 Wilmot Rd, 1st Floor, New Haven, CT 06515 200 Wilmot Rd, 1st Floor, New Haven, CT 06519 200 Wilmot Rd, 1st Floor, New Haven, CT 06519 200 Wilmot Rd, 1st Floor, New Haven, CT 06519 200 Wilmot Rd, 1st Floor, New Haven, CT 06515 200 Wilmot Rd,		Comments					
Description Comments S4 Meadow St, 1st Floor, New Haven, CT 06519 S272730 S2				sting Product ID	S272729		
Product Type Metro-E Advanced Private Line Total Bandwidth 1Gbps Total MRC \$750.00 Total NRC \$0.00 Service Level 99 Install Lead Time As soon as available Comments S272730 Existing Product ID \$272730 Location A 199 Wilmot Rd, 1st Floor, New Haven, CT 06515							
Total MRC \$750.00 Total NRC \$0.00 Service Level 99 Install Lead Time		1 54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Total MRC \$750.00 Total NRC \$0.00 Service Level 99 Install Lead Time	Ethernet #6	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Install Lead Time S272730 Comments Existing Product ID S272730 Location A 199 Wilmot Rd, 1st Floor, New Haven, CT 06515		1		Total NRC	\$0.00	•	99.9%
Comments S272730							
Existing Product ID S272730 Location A 199 Wilmot Rd, 1st Floor, New Haven, CT 06515							
Location A 199 Wilmot Rd, 1st Floor, New Haven, CT 06515		Comments					
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ocation 7 I 54 Meadow St. 1st Floor, New Haven, CT 06519			<u> </u>				
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Ethernet #7	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272731				
		Exist	ing Product ID	S272731		
Location A	311 Valley St. 1st Flo	or, New Haven, CT 06515		-2.2.0.		
Location Z		oor, New Haven, CT 06519				
Ethernet #8		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	• • • • • • • • • • • • • • • • • • • •	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272732				
		Exist	ing Product ID	S272732		
Location A	737 Edgewood Ave. 1	st Floor, New Haven, CT 0651		•	-	
Location Z		oor, New Haven, CT 06519	-			
Ethernet #9		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272733				
		Exist	ing Product ID	S272733		
Location A	55 Foote St, 1st Floor	, New Haven, CT 06511				
Location Z		oor, New Haven, CT 06519				
Ethernet #10				Total Dandwidth	10hr-	
Luieiliel # IV		Metro-E Advanced Private Line	T. (. 1	Total Bandwidth	1Gbps	00.007
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available S272734				
	Comments	3212134				
		Exist	ing Product ID	S272734		
Location A	114 Truman St, 1st Fl	oor, New Haven, CT 06519				
Location Z	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Ethernet #11	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Ghns	
Luiciliei #11	Total MRC		Tatal NDC		1Gbps	00.00/
		As soon as available	Total NRC	Φ 0.00	Service Level	99.9%
		S272735				
	Comments	5 2.2.65				
			ing Product ID	S272735	-	
Location A	60 S Water St, 1st Flo	oor, New Haven, CT 06519				
Location Z	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Ethernet #12	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	• • • • • • • • • • • • • • • • • • • •	\$750.00	Total NRC		Service Level	99.9%
		As soon as available	· otal itito	, ,,,,,	2011100 20161	30.370
		S272736				
	Comments					
			ing Product ID	S272736		
Location A		loor, New Haven, CT 06519				
Location Z	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Ethernet #13	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
		As soon as available				
	Comments	S272737				
	Comments			0.000		
1	1000 - 1000 -		ing Product ID	S272737		
Location A		loor, New Haven, CT 06519				
Location Z	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Ethernet #14	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
		\$750.00	Total NRC	\$0.00	Service Level	99.9%
		As soon as available				
	Comments	S272738				
	Comments					
	1=210		ing Product ID	S272738		
	I 150 Kimberly Ave 1c	t Floor, New Haven, CT 06519				
Location A	1 130 Killibelly Ave, 13					



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Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #15	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments S272739	1Gbps Service Level	99.9%
	Existing Product ID S272739		
Location A	103 Hallock Ave, 1st Floor, New Haven, CT 06519		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #16	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments \$272740	1Gbps Service Level	99.9%
	Existing Product ID S272740		
Location A	100 Jewell St, 1st Floor, New Haven, CT 06515		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #17	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments S272741	1Gbps Service Level	99.9%
	Existing Product ID S272741		
Location A	293 Clinton Ave, 1st Floor, New Haven, CT 06513		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #18	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments \$272742	1Gbps Service Level	99.9%
	Existing Product ID S272742		
Location A	15 Lexington Ave, 1st Floor, New Haven, CT 06513		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #19	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments S272743	1Gbps Service Level	99.9%
	Existing Product ID S272743		
Location A	400 Canner St, 1st Floor, New Haven, CT 06511		
Ethernet #20	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available S272744	1Gbps Service Level	99.9%
	Comments		
Location A	Existing Product ID S272744 21 Wooster Pl, 1st Floor, New Haven, CT 06511		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #21	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available Comments \$272745	1Gbps Service Level	99.9%
	Existing Product ID S272745		
Location A	360 Columbus Ave, 1st Floor, New Haven, CT 06519		
Location Z	54 Meadow St, 1st Floor, New Haven, CT 06519		
Ethernet #22	Product Type Metro-E Advanced Private Line Total Bandwidth Total MRC \$750.00 Total NRC \$0.00 Install Lead Time As soon as available \$272746	1Gbps Service Level	99.9%
	Comments S272746		



O CAS)				30 # 2022-836	92
		Exis	ting Product ID	S272746		
ocation A	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
ocation Z	177 College St, 1st Flo	oor, New Haven, CT 06510				
Ethernet #23	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC		Service Level	99.9%
		As soon as available		40.00	00.1.00 =0.0.	00.070
	Comments	S272747				
	Comments					
			ting Product ID	S272747		
Location A		oor, New Haven, CT 06519				
Location Z	115 Water St, LL1 Flo	oor, New Haven, CT 06511				
Ethernet #24	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272748				
		Fyis	ting Product ID	S272748		
Location A	54 Meadow St. 1st Flo	oor, New Haven, CT 06519	ing i roddor ib	0272710		
Location Z		Floor, New Haven, CT 06511				
Ethernet #25	,	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
		\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272749				
		Exis	ting Product ID	S272749		
Location A	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Location Z	191 Fountain St, 1st F	Floor, New Haven, CT 06515				
Ethernet #26	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Lincifici #20	Total MRC		Total NRC		Service Level	00.0%
		As soon as available	Total NAC	φυ.υυ	Sel vice Level	33.370
		S272750				
	Comments					
			ting Product ID	S272750		
Location A		oor, New Haven, CT 06519				
Location Z	1481 Quinnipiac Ave,	1st Floor, New Haven, CT 065	513			
Ethernet #27	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272751				
			ting Product ID	S272751		
Location A	75 Rarnes Δve. 1st Fl	oor, New Haven, CT 06513	ang i roddet ib	0212131		
Location Z		oor, New Haven, CT 06519				
	J4 Meadow St, 15t Fit	Joi, New Havell, CT 00319				
Ethernet #28	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
		\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272752				
		Exis	ting Product ID	S272752		
Location A	35 Davis St, 1st Floor	, New Haven, CT 06515		·	•	
Location Z	54 Meadow St, 1st Flo	oor, New Haven, CT 06519				
Ethernet #29	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	**	\$750.00	Total NRC		Service Level	99 9%
		As soon as available	TOTAL NIC	ψ0.00	Sei vice Level	JJ.J/0
		S272753				
	Comments					
			ting Product ID	S272753		
Location A		1st Floor, New Haven, CT 0651	11			
	54 Meadow St. 1st Flo	oor, New Haven, CT 06519				
Location Z		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Location Z	Product Type	Metro-E Advanced Private Line \$750.00	Total NRC		1Gbps Service Level	99.9%
Location Z Ethernet #30	Product Type Total MRC		Total NRC		·	99.9%



CASI					30 # 2022-636	092
	Comments	S272754				
		Evia	sting Product ID	\$2727E4		
Location A	122 Nach St. 1ct Flor	or, New Haven, CT 06511	sting Product ID	3212134		
Location Z	· ·	oor, New Haven, CT 06519				
Ethernet #31	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272755				
		Exis	sting Product ID	S272755		
Location A	569 Congress Ave, 1	st Floor, New Haven, CT 0651	9			
Location Z		oor, New Haven, CT 06519				
Ethernet #32	<u> </u>	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
Lineinet #32		\$750.00	Total NDC		Service Level	00.00/
	Total MRC	As soon as available	Total NRC	\$0.00	Service Level	99.9%
		S272756				
	Comments	32 72733				
		Exis	ting Product ID	S272756		
Location A		oor, New Haven, CT 06519				
Location Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Ethernet #33	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272757				
	Comments	Facia	tion Does does t ID	0070757		
Location A	195 Coffo St. 1st Flor		sting Product ID	5212151		
Location A Location Z	· · · · · · · · · · · · · · · · · · ·	or, New Haven, CT 06511 oor, New Haven, CT 06519				
Ethernet #34	1	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	·	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272758				
		Exis	ting Product ID	S272758		
Location A Product Details		1000T Coppe	r			
Location A	500 Boston Post Rd,	1st Floor, West Haven, CT 06	516			
Location Z	54 Meadow St, LL1 F	loor, New Haven, CT 06519				
Ethernet #35	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
		As soon as available				
	Comments	S272759				
		Evic	stimer Draduct ID	0070750		
Location A	164 Grand Ava. 1st E	loor, New Haven, CT 06513	sting Product ID	3212139		
Location Z		oor, New Haven, CT 06519				
Ethernet #36		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	\$750.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272760				
		Exis	ting Product ID	S272760		
Location A	100 James St, 1st Flo	or, New Haven, CT 06513				
Location Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				
Ethernet #37	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC		Service Level	99 9%
		As soon as available	. Oldi Milo	73.00	JOI VICE LEVEL	30.070
		S272761				
	Comments					
			ting Product ID	S272761		
Location A		oor, New Haven, CT 06511				
Location Z	54 Meadow St, 1st Fl	oor, New Haven, CT 06519				



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Ethernet #38		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	·	Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272762				
	Comments					
Laadlaa A	475 Water Ot 4 at Fla		ting Product ID	S272762		
Location A Location Z		or, New Haven, CT 06511 oor, New Haven, CT 06519				
Ethernet #39	,,,	Metro-E Advanced Private Line	Tatal NDC	Total Bandwidth	1Gbps	00.00/
	Total MRC	As soon as available	Total NRC	\$0.00	Service Level	99.9%
		S272763				
	Comments					
Lagation A	105 Damas Ava 1at I		ting Product ID	S272763		
Location A Location Z		Floor, New Haven, CT 06513 oor, New Haven, CT 06519				
		·				
Ethernet #40	1	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	·	Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272764				
	Comments					
Laadan A	075 Outaniaia a Assa		ting Product ID	S272764		
Location A Location Z	<u>'</u>	1st Floor, New Haven, CT 0657 oor, New Haven, CT 06519	13			
Ethernet #41	, ,	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	•	Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272765				
	Comments					
	100 T		ting Product ID	S272765		
Location A Location Z		st Floor, East Haven, CT 0651 oor, New Haven, CT 06519	12			
	1 54 Meadow St, 1St Fit	Oor, New Haveri, CT 00519				
Ethernet #42		Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC	• • • • • •	Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272766				
	Comments	0272700				
			ting Product ID	S272766		
Location A		st Floor, New Haven, CT 0651	3			
Location Z	54 Meadow St, 1st Fi	oor, New Haven, CT 06519				
Ethernet #43	Product Type	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272767				
	Comments					
	500 EU T 0		ting Product ID	S272767		
Location A		d, 1st Floor, New Haven, CT C)6519			
Location Z	1 34 IVIEAGOW St, 1St Flo	oor, New Haven, CT 06519				
Ethernet #44	, ,	Metro-E Advanced Private Line		Total Bandwidth	1Gbps	
		\$750.00	Total NRC	\$0.00	Service Level	99.9%
		As soon as available S272768				
	Comments	0212100				
Leader AB L 15 1 P			ting Product ID	S272768		
Location A Product Details	Handoff Type					
Location A Location Z Product Details		or, New Haven, CT 06515				
Location Z Product Details	Handoff Type 54 Meadow St. 1st Flo	1000T Copper oor, New Haven, CT 06519				
Ethernet #45		Metro-E Advanced Private Line	TakalNDO	Total Bandwidth	1Gbps	00.00/
	Total MRC	·	Total NRC	Φ 0.00	Service Level	99.9%
		As soon as available S272769				
	Comments					
	Comments					



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V21

Order Form

Order Type: Renewal

SO # 2022-83692

Initials

ocation A Product Details		100001	Existing Product ID	S272769		
	Handoff Type					
Location A		Floor, New Haven, CT				
Location Z Product Details	Handoff Type		MM			
ocation Z	54 Meadow St, 1st Fi	oor, New Haven, CT 0	0519			
Ethernet #46	Product Type	Ethernet LAN (E-LAN)		Total Bandwidth	10Gbps	
		Standard EVC	Business Priority EVC	Business Critical EVC	Mission Critical EVC	
	CoS Bandwidth	10 Gbps	0 Mbps	0 Mbps	0 Mbps	
	CoS MRC	\$1,700.00	\$0.00	\$0.00	\$0.00	
	Total MRC	\$1,700.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272770				
			Existing Product ID	S272770		
ocation A Product Details	Handoff Type	10 GigE	Existing 1 Toddet ID	GETETTO		
ocation A		loor, New Haven, CT (16510			
ocation Z Product Details	Handoff Type		50519			
	, ,,					
thernet #47	Product Type	Ethernet LAN (E-LAN)		Total Bandwidth	10Gbps	
		Standard EVC	Business Priority EVC	Business Critical EVC	Mission Critical EVC	
	CoS Bandwidth	10 Gbps	0 Mbps	0 Mbps	0 Mbps	
	CoS MRC	\$1,700.00	\$0.00	\$0.00	\$0.00	
	Total MRC		Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available				
	Comments	S272771				
			Existing Product ID	S272771		
ocation A Product Details	Handoff Type	10 GigE	J J J J J J J J J J J J J J J J J J J			
ocation A		1st Floor, New Haven,	CT 06511			
ocation Z Product Details	Handoff Type					
thernet #48				Total Dandwidth	10Chno	
thernet #40	Product Type	Ethernet LAN (E-LAN)		Total Bandwidth	10Gbps	
		Standard EVC	Business Priority EVC	Business Critical EVC	Mission Critical EVC	
	CoS Bandwidth	10 Gbps	0 Mbps	0 Mbps	0 Mbps	
	CoS MRC	\$1,700.00	\$0.00	\$0.00	\$0.00	
		\$1,700.00	Total NRC	\$0.00	Service Level	99.9%
	Install Lead Time	As soon as available S272772				
	Comments	3212112				
			Existing Product ID	S272772		
ocation A Product Details	Handoff Type	10 GigE				
ocation A		10 GigL				
ocation Z Product Details	181 Mitchell Dr, 1st F	loor, New Haven, CT ()6511			
Soution 2 1 Toutiet Details	181 Mitchell Dr, 1st F Handoff Type	loor, New Haven, CT (06511			
	Handoff Type	loor, New Haven, CT (10 GigE	06511	Total Bandwidth	10Ghns	
		loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN)		Total Bandwidth	10Gbps	
	Handoff Type Product Type	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC	Business Priority EVC	Business Critical EVC	Mission Critical EVC	
	Handoff Type Product Type CoS Bandwidth	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps	Business Priority EVC 0 Mbps	Business Critical EVC 0 Mbps	Mission Critical EVC 0 Mbps	
	Handoff Type Product Type CoS Bandwidth CoS MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00	Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00	Mission Critical EVC 0 Mbps \$0.00	99 99/
	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00	Business Priority EVC 0 Mbps	Business Critical EVC 0 Mbps	Mission Critical EVC 0 Mbps	99.9%
	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available	Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00	Business Priority EVC 0 Mbps \$0.00 Total NRC	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
Ethernet #49	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773	Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
cthernet #49	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
ocation A Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C'	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
ocation A Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C'	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C'	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID	Business Critical EVC 0 Mbps \$0.00 \$0.00	Mission Critical EVC 0 Mbps \$0.00	99.9%
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s Handoff Type	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN)	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773	Mission Critical EVC 0 Mbps \$0.00 Service Level	99.9%
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s Handoff Type Product Type	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC	Business Critical EVC 0 Mbps \$0.00 \$0.00 \$272773 Total Bandwidth Business Critical EVC	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC	99.9%
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s Handoff Type Product Type CoS Bandwidth	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC 0 Mbps	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773 Total Bandwidth Business Critical EVC 0 Mbps	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC 0 Mbps	99.9%
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s Handoff Type Product Type CoS Bandwidth CoS MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773 Total Bandwidth Business Critical EVC 0 Mbps \$0.00	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC 0 Mbps \$0.00	
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s: Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC 0 Mbps	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773 Total Bandwidth Business Critical EVC 0 Mbps	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC 0 Mbps	
Ethernet #49 Location A Product Details Location A Location Z Product Details Ethernet #50	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s: Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773 Total Bandwidth Business Critical EVC 0 Mbps \$0.00	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC 0 Mbps \$0.00	
ocation A Product Details ocation A ocation Z Product Details	Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC Install Lead Time Comments Handoff Type 255 Blatchey Ave, 1s: Handoff Type Product Type CoS Bandwidth CoS MRC Total MRC	loor, New Haven, CT (10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00 As soon as available \$272773 10 GigE t Floor, New Haven, C' 10 GigE Ethernet LAN (E-LAN) Standard EVC 10 Gbps \$1,700.00 \$1,700.00	Business Priority EVC 0 Mbps \$0.00 Total NRC Existing Product ID T 06513 Business Priority EVC 0 Mbps \$0.00	Business Critical EVC 0 Mbps \$0.00 \$0.00 S272773 Total Bandwidth Business Critical EVC 0 Mbps \$0.00	Mission Critical EVC 0 Mbps \$0.00 Service Level 10Gbps Mission Critical EVC 0 Mbps \$0.00	



Date

Order Form

Order Type: Renewal **SO #** 2022-83692

Location A Product Details Handoff Type 10 GigE 140 Dewitt St, 1st Floor, New Haven, CT 06519 Location A Location Z Product Details Handoff Type 10 GigE Order Summary Salesperson Bob David Term (Months) 12 Client Service Mgr Tatiana Lima Order Contact Robert Cusson Contact Email robert.cusson@new-haven.k12.ct.us **Pricing & Contract Terms** NRC * MRC* **Ethernet** \$0.00 \$42,250.00 \$0.00 \$42,250.00 **Total** *Pricing shown does not reflect applicable taxes and fees. ORDER ACCEPTANCE This Order Form is entered into between Provider (or "Company") and Customer (or "Licensee") effective as of the date of the last signature below, and is subject to the provisions of the Master Telecommunications License Agreement or other master agreement between the parties dated 1/1/2016 ("Agreement"), which is incorporated herein by reference. In the event the date in the previous sentence is blank, or the Agreement is no longer in effect, then this Order Form will be governed by the "Crown Castle Terms and Conditions Version 4.2" available at https://fiber.crowncastle.com/crown-castle-telecommunications-license-terms-and-conditions.pdf ("Online Terms"). In addition, if Company and Licensee have not executed a Supplement or Service Level Agreement applicable to the type of product contemplated by this Order Form, then the product-specific portion of the Online Terms applicable to the product under this Order Form shall apply. **Licensee or Customer Company or Provider** New Haven Public Schools Crown Castle Fiber LLC Signature Signature Name/Title Name/Title

Date