August 1, 2017

White Mountain Communications Corp
18 Glen Road
Gorham, NH 03581

Attn: Dennis Tupick

Re: Lucas Tree - White Mountain Comm. Tower
636 Riverside Road
Portland, ME
Terracon Project No. J3171016

Dear Dennis Tupick:

As requested, Terracon representatives provided construction observation and testing services for the referenced project. These services were provided on a part-time basis when requested by you, your field representative or the contractor's representative unless otherwise noted. The attached reports provide results of services performed during the dates indicated. For your reference, a listing of the attached reports is as follows:

Service Date	Description
07/28/17	Reinforcing Steel Observations (0001)
07/28/17	Concrete Observation (0001A)
07/28/17	Concrete Compressive Strength Test (0001B)
07/31/17	Sample Pick-up (0002)

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the information presented in this report or if we can be of further assistance to you, please feel free to contact us.

Sincerely,
Terracon Consultants, Inc.

Lawrence Provost

cc: (1) White Mountain Communications Corp, Dennis Tupick

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: J3171016.0001B
Service Date: 07/28/17
Report Date: 08/28/17 Revision 2 -
Remarks:

Terracon
220 Industrial Way Unit 4
Portland, ME 04103-1279
207-828-5374

Client

White Mountain Communications Corp
Attn: Dennis Tupick
18 Glen Road
Gorham, NH 03581

Project

Lucas Tree - White Mountain Comm. Tower
636 Riverside Road
Portland, ME

Project Number: J3171016

Material Information

Specified Strength: 4,000 psi @ 28 days

Mix ID: 5043314A
Supplier: Hissong Ready Mix & Aggregate
Batch Time: 0947 **Plant:** Portland, Maine
Truck No.: 313 **Ticket No.:** 6277

Sample Information

Sample Date: 07/28/17 **Sample Time:**
Sampled By: Dylan Young
Weather Conditions: Sunny Clear
Accumulative Yards: 44 **Batch Size (cy):** 11
Placement Method: Pump
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 120' Self-Supporting Pole Structure Drilled Shaft Foundation Lucas Tree
Placement Location: 120' Self Supporting Pole Structure Drilled Shaft Foundation Lucas Tree bottom lift 0-2'

Field Test Data

Test	Result	Specification
Slump (in):	8 1/2	0 - 9
Air Content (%):	5.5	4.5 - 7.5
Concrete Temp. (F):	80	50 - 90
Ambient Temp. (F):	72	Min 32
Plastic Unit Wt. (pcf):		
Yield (Cu. Yds.):		

Laboratory Test Data

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	A	4.00	12.57			07/31/17	3	64,145	5,100	
1	B	4.00	12.57			07/31/17	3	67,930	5,410	
							Average (3 days)		**5,260**	
1	C	4.00	12.57		8.49	08/04/17	7	81,560	6,490	5
1	D	4.00	12.57		8.48	08/04/17	7	77,930	6,200	6
							Average (7 days)		**6,350**	
1	E	4.00	12.57		8.38	08/25/17	28	102,950	8,190	3
1	F	4.00	12.57		8.46	08/25/17	28	97,370	7,750	3
							Average (28 days)		**7,970**	
1	G	4.00	12.57			09/22/17	56			

Initial Cure: **Final Cure:**

Comments: **Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

CONCRETE OBSERVATION REPORT

Report Number: J3171016.0001A
Service Date: 07/28/17
Report Date: 08/01/17

Terracon
220 Industrial Way Unit 4
Portland, ME 04103-1279
207-828-5374

Client
White Mountain Communications Corp
Attn: Dennis Tupick
18 Glen Road
Gorham, NH 03581

Project
Lucas Tree - White Mountain Comm. Tower
636 Riverside Road
Portland, ME

Project Number: J3171016

Services Requested By:	Dennis Tupick, White Mountain Communications Corp
Concrete Contractor:	Northeast Pump and Crane
Concrete Placement:	Isolated footing
Observation Location(s):	120' Self- Supporting Pole Structure Drilled Shaft Foundation at Lucas Tree
Subgrade Review:	Not applicable
Reinforcing Steel Review:	Reinforcing steel was reviewed and was observed to be in general accordance with the project drawings identified below.
Formwork Review:	Formwork was reviewed and was observed to be in general accordance with project drawings identified below.
Concrete Type:	4000-psi, air-entrained concrete (Mix ID: 5043314A)
Method of Placement:	Pump
Method of Consolidation:	Mechanical Vibrator
Tests Performed:	Concrete slump, air and temperature measurements were performed and the results were in accordance with project specifications.
Specimens Fabricated:	A total of 8 compressive strength specimens [Set No(s).: 1] were fabricated during today's concrete activities.
Weather Protection:	Curing Box
Summary:	Based on our observations, cast-in-place concrete construction activities at the above-referenced locations appeared to be completed in general accordance with the project plans and specifications.
Referenced Drawings:	F-1

Services:

Terracon Rep.: Dylan Young
Reported To:
Contractor:
Report Distribution:
(1) White Mountain Communications Corp, Dennis Tupick

Reviewed By:
Lawrence Provost
Field Project Manager-Professional

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: J3171016.0001
Service Date: 07/28/17
Report Date: 08/01/17

Terracon
220 Industrial Way Unit 4
Portland, ME 04103-1279
207-828-5374

Client
White Mountain Communications Corp
Attn: Dennis Tupick
18 Glen Road
Gorham, NH 03581

Project
Lucas Tree - White Mountain Comm. Tower
636 Riverside Road
Portland, ME

Project Number: J3171016

Services Requested By: Dennis Tupick, White Mountain Communications Corp

Contractor: Northeast Pump and Crane

Construction Type: Cast-in-place Concrete

Observation Location(s): 120' Self-Supporting Pole Drilled Shaft Foundation at Lucas Tree

Summary: Based on our observations, the reinforcing steel placement at the above-referenced locations appeared to be in general accordance with the project drawings identified below. Results were reported to Dennis Tupick, White Mountain Communications Corp at the completion of today's activities.

Referenced Drawing(s): F-1

Services:

Terracon Rep.: Dylan Young
Reported To:
Contractor:
Report Distribution:
(1) White Mountain Communications Corp, Dennis Tupick

Reviewed By:
Lawrence Provost
Field Project Manager-Professional