ROOF ANCHOR CAST IN PLACE

SUMMIT MODEL# SM-5-XX-XX

FOR C.I.P. DURING ROOF DECK POUR

Summit Anchor Co.®

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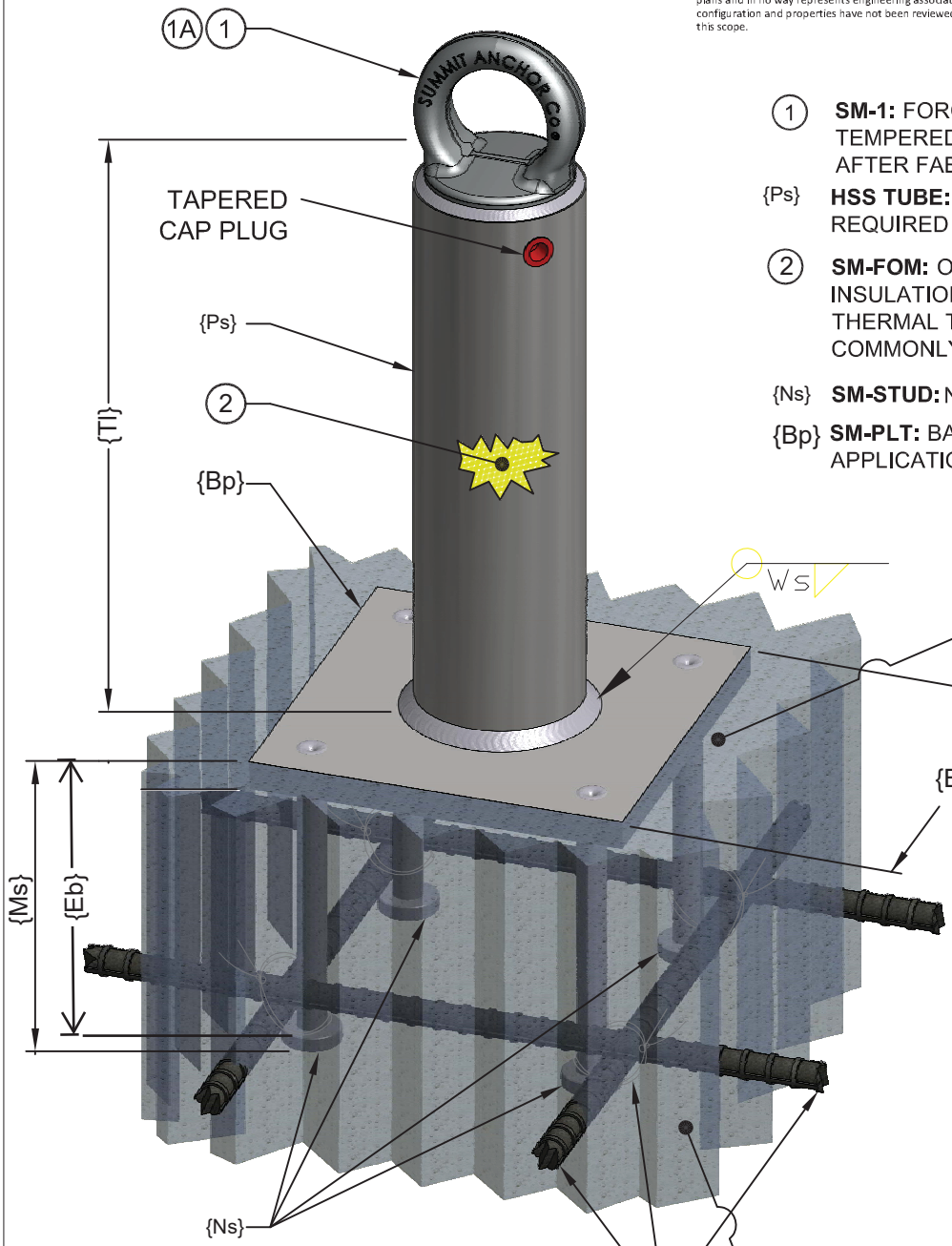
DISTRICT OF COLUMBIA — RYAN W. SMITH — No. 905473 — CIVIL — LICENSED PROFESSIONAL ENGINEER — 7/21/17

ANCHOR LOADING REQUIREMENTS:
5,000 LB. ULTIMATE LOAD
2,500 LB. PROOF LOAD
1,250 LB. WORKING LOAD LIMIT
IN ANY DIRECTION LOAD MAY BE APPLIED

SM-5 SERIES - STUD EMBEDMENT DEPTH TABLE

MODEL	{Tl}TUBE LENGTH	{Ps} PEDESTAL H.S.S. TUBE Ø/SCH. (A500 GRADE C)	{Ws} TUBE TO BASE WELD SIZE	{Bp} BASE PLATE SIZE (A-572-GR 50)	{Ns} NELSON STUD (C-1015)	{Ss} STUD SPACING	MIN.EFFECTIVE. EMB. DEPTH * {EB}	MIN. SLAB THICKNESS {Ms} WITH STUD END ON FORM WORK
SM-5-8-12-12	12"	3-1/2" O.D. SCH40, x W.216	1/4"	8" X 8" x 1/2"	5/8" x 6"	6"	4,000 PSI - 4.25" 5,000 PSI - 4.00" 6,000 PSI - 3.50"	4,000 PSI - 4.625" 5,000 PSI - 4.375" 6,000 PSI - 3.825"
SM-5-8-18-58	18"	3-1/2" O.D. SCH80, x W.300	5/16"	8" X 8" x 3/8"	5/8" X 6"	6"	4,000 PSI - 5.50" 5,000 PSI - 5.00" 6,000 PSI - 4.75"	4,000 PSI - 5.825" 5,000 PSI - 5.375" 6,000 PSI - 5.125"
SM-5-10-24-34	24"	4-1/2" O.D. SCH80 ,237	5/16"	10" X 10" x 3/4"	3/4" x 6"	8"	4,000 PSI - 5.00" 5,000 PSI - 4.50" 6,000 PSI - 4.25"	4,000 PSI - 5.375" 5,000 PSI - 4.875" 6,000 PSI - 4.625"
SM-5-12-36-34	36"	4.1/2" O.D. SCH80 x W.337	3/8"	10" X 10" X 3/4"	3/4" X 6 "	8"	4,000 PSI - 6.75" 5,000 PSI - 6.25" 6,000 PSI - 5.75"	4,000 PSI - 7.125" 5,000 PSI - 6.625" 6,000 PSI - 6.125"
SM-5-12-45-78	45"	5.56" O.D. SCH80 x W.337	3/8"	12" x 12" x 7/8"	7/8" x 6"	10"	4,000 PSI - 6.50" 5,000 PSI - 6.00" 6,000 PSI - 5.50"	4,000 PSI - 6.825" 5,000 PSI - 6.375" 6,000 PSI - 5.825"



TIE-IN REINFORCING BAR(S) ABOVE STUD HEAD. REINFORCING BAR SIZE, QUANTITY, AND LAYOUT BY OTHERS AS REQUIRED TO SUPPORT LOADS IMPOSED BY THE ANCHOR CHECK WITH A PROFESSIONAL ENGINEER.

CONCRETE

(1) **SM-1:** FORGED PAD EYE, QUENCHED AND TEMPERED. ENTIRE ANCHOR HOT-DIP GALVANIZED AFTER FABRICATION.

{Ps} **HSS TUBE:** HEIGHT, DIAMETER, AND THICKNESS AS REQUIRED FOR APPLICATION.

(2) **SM-FOM:** OPTIONAL MOLDED URETHANE INSULATION INJECTED INSIDE H.S.S. TUBE REDUCES THERMAL TRANSFER AND CONDENSATION; COMMONLY USED IN GREEN CONSTRUCTION.

{Ns} **SM-STUD:** NELSON STUDS, WELDED TO BASE PLATE

{Bp} **SM-PLT:** BASE PLATE SIZED AS REQUIRED FOR APPLICATION.

THE MINIMUM CONCRETE COMPRESSIVE STRENGTH IS 4,000 PSI FOR THESE STANDARD ANCHORS.

LOWER P.S.I.'s POSSIBLE WITH AN OVERSIZED BASE PLATE AND/OR STUDS.

{Bp}

DESIGN GUIDELINES:

1. ANCHORS ARE DESIGNED IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS, AMERICAN WELDING SOCIETY " AWS ", AND THE I-14 WINDOW CLEANING SAFETY STANDARD.
2. WHEN INSTALLED PROPERLY, SUMMIT ANCHOR STANDARD PRODUCTS ARE DESIGNED TO SUPPORT LOADS AS FOLLOWS:
   a) 1,250 LB. WORKING LOAD LIMIT (ALLOWABLE LOAD)
   b) 2,500 LB. PROOF LOAD (TEST LOAD WITHOUT PERMANENT DEFORMATION)
   c) 5,000 LB. ULTIMATE LOAD (LOAD AT WHICH POSSIBLE DEFORMATION MAY OCCUR TO ANCHORAGE WITHOUT FRACTURE OR FAILURE).

CUSTOMER IS RESPONSIBLE FOR THE FOLLOWING:

3. ASSURANCE THAT SUMMIT ANCHOR PRODUCTS ARE ATTACHED TO ADEQUATE AND COMPATIBLE STRUCTURE.
4. THE UNDERSTANDING THAT ANCHORS MAY FAIL DUE TO IMPROPER INSTALLATION OR INADEQUATE SUPPORTING STRUCTURE. SERIOUS INJURY OR DEATH MAY RESULT FROM ANCHOR FAILURE. INSTALLATION OF ANCHORS MUST BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER WITH EXPERIENCE IN SUSPENDED ACCESS EQUIPMENT. ADDITIONALLY, ANCHORS SHALL BE TESTED AND CERTIFIED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER *BEFORE* BEING INITIALLY PLACED INTO SERVICE (e.g.: SEE IWCA I-14.1 WINDOW CLEANING SAFETY STANDARD).
5. PROVIDING INFORMATION TO THE OWNER, OR THEIR REPRESENTATIVE, VERIFYING THE ANCHOR LAYOUT COMPLIES WITH APPLICABLE LOCAL AND NATIONAL CODES, REGULATIONS, AND SAFETY STANDARDS FOR THE INTENDED USE.
6. ENSURING THAT THE APPLICATION IN WHICH THE ANCHOR(S) ARE USED AND THE STRUCTURE TO WHICH IT IS ATTACHED WILL SUPPORT THE APPLICABLE LOADS INDICATED ON THIS DRAWING. THE STRUCTURE AND FIELD CONNECTION DETAILS MUST BE FULLY DEVELOPED TO RESIST THE LOADS INDICATED ON THE DRAWINGS INCLUDING MOMENT, SHEAR, AND AXIAL FORCES. THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN ELEMENTS OF THE CONNECTION OF THE ANCHOR TO THE STRUCTURE. THESE ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO: THE INTEGRITY OF STRUCTURE, FIELD CONNECTION DETAILS (INCLUDING ANY FIELD WELDS), ADHESIVE OR MECHANICAL ANCHORS FASTENERS, REINFORCING BARS, OR ANY OTHER ELEMENT REQUIRED IN THE CONNECTION TO SUPPORT THE ABOVE LOADS.