

NOTES

1. FOR UNDERPINNING STEPS FOR EACH SEQUENCE REFER TO S2.
2. FOR SECTIONS REFER TO S3 AND S4.
3. REFER TO S-4 FOR UNDERPINNING SPECIFIC NOTES.
4. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A GEOTECHNICAL INVESTIGATION AFTER DEMOLISHING EXISTING STRUCTURE AND DESIGNING PILES AND PILE CAPS BASED ON LOADS SHOWN ON STRUCTURAL DRAWINGS.
5. SPREAD FOOTINGS ARE DESIGNED FOR 2 KSF. CONTRACTOR IS RESPONSIBLE TO VERIFY THE SOIL BEAING CAPAIY.

FOUNDATINO LOADS

1. CONCRETE MASONRY UNIT WALL LOADS: 10 K/FT
2. COLUMN REACTIONS ARE AS SHOWN BELOW:

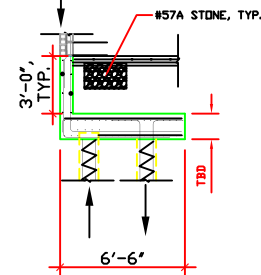
	Fx kips	Fy kips	Fz kips
A-1	-11.51	-1.97	33.99
A-7A	13.65	-0.12	62.13
A-8	10.82	0.34	27.45
B-1	1.46	-0.00	53.34
B-2	-4.38	0.02	91.79
B-3	4.50	0.02	83.14
B-4	1.68	0.01	73.90
B-5	0.71	-2.03	49.36
B-6	-0.04	0.00	66.14
B-7	0.04	0.01	75.52
B-7A	0.00	0.01	11.07
B8	-0.96	0.01	31.30
C1	-11.49	1.90	34.63
C8	13.24	-0.42	44.64

*: PERPENDICULAR TO PAPER

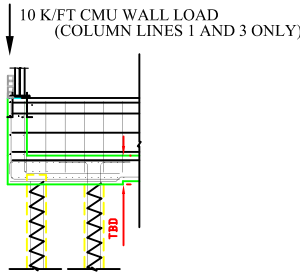
LEGEND

- 2 UNDERPINNING SEQUENCE 2
- A COLUMN-LINE A
- 1 COLUMN-LINE 1

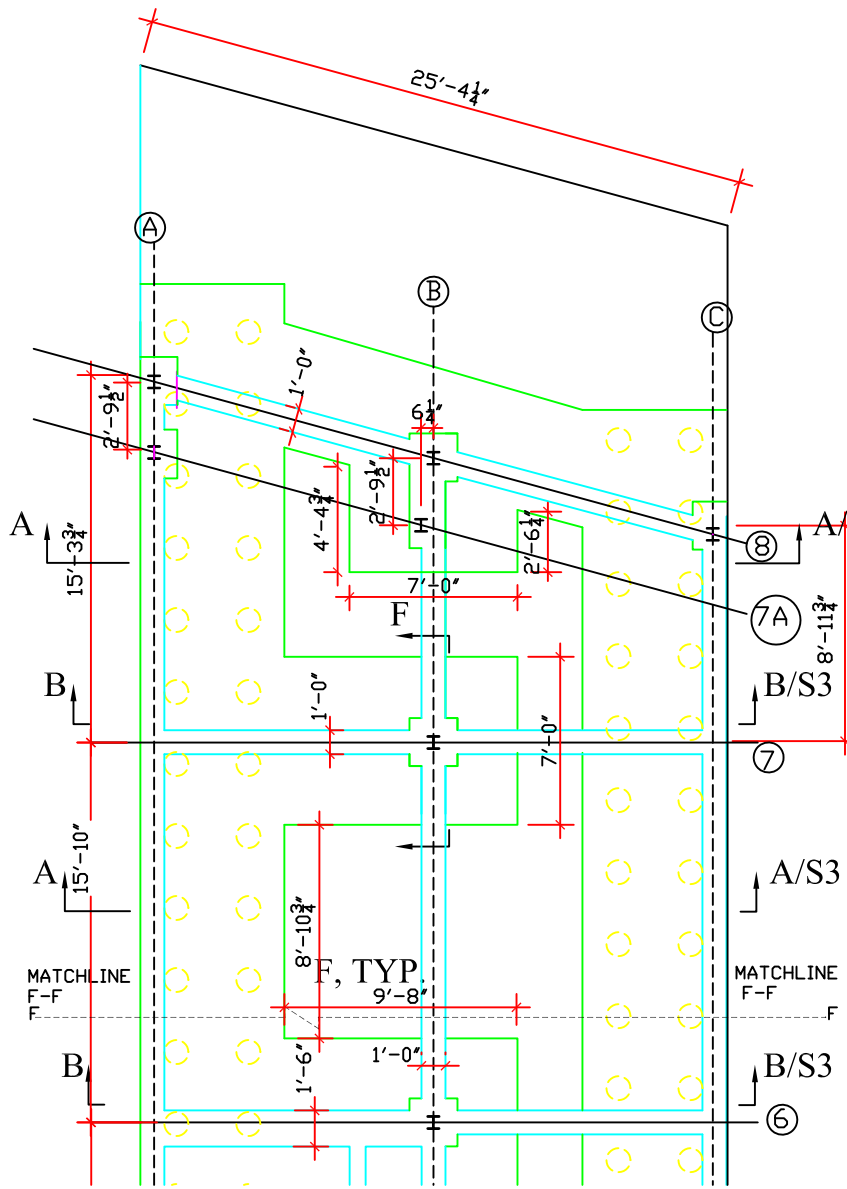
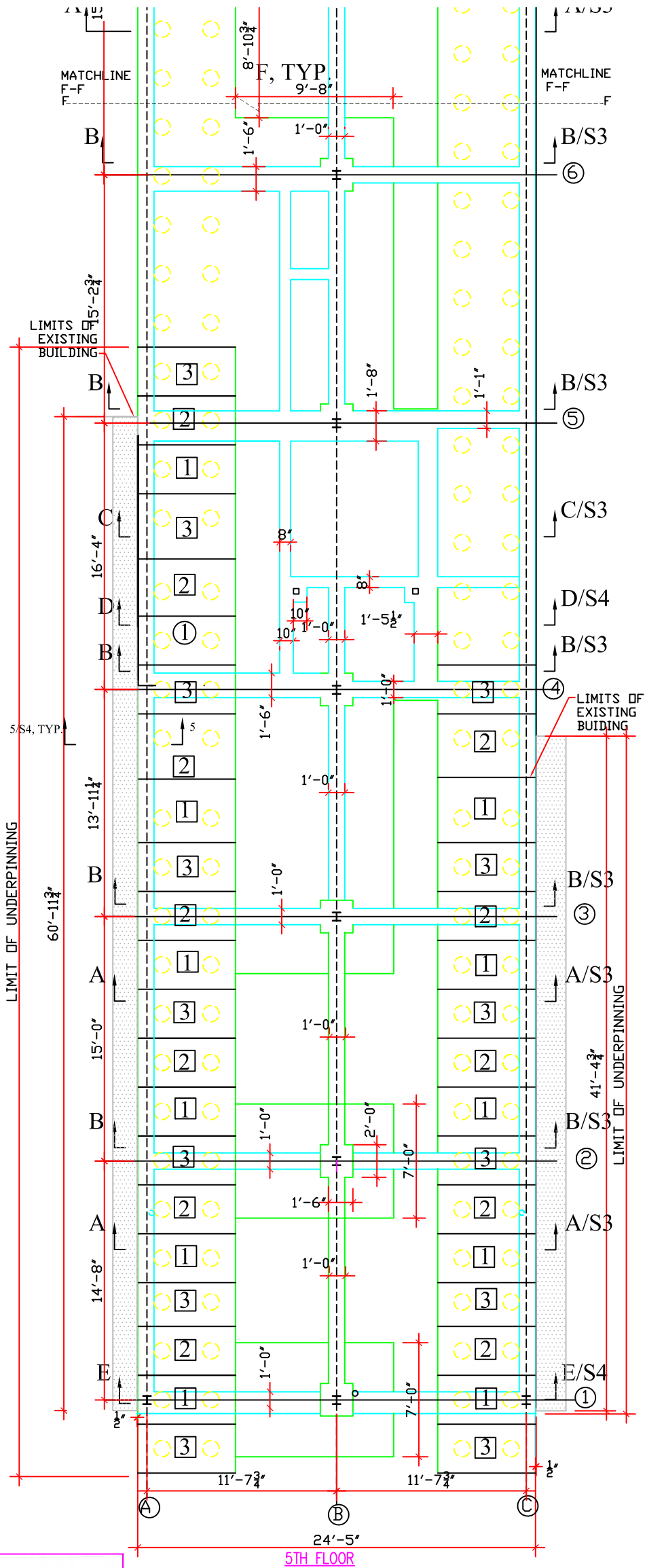
20 K/FT CMU WALL LOAD: STAIRWELL
10 K/FT CMU WALL LOAD: OTHER LOCATIONS



COLUMN LOAD



TYPICAL WALL SECTION SCHEMATIC & LOADING



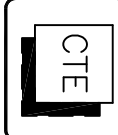
Sheet 31 of 38

REVISION	DATE

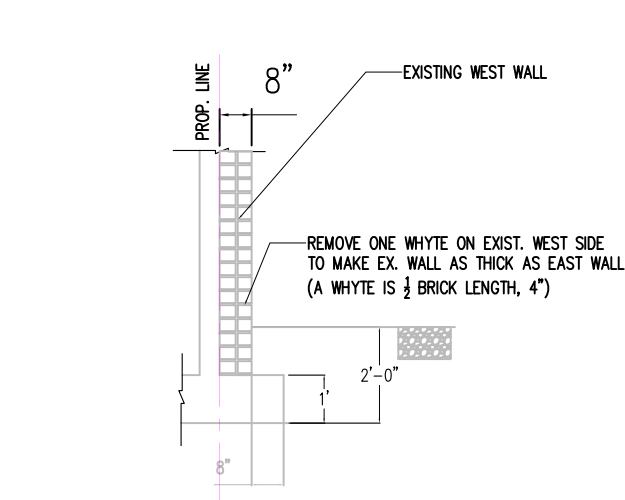
PROJECT NUMBER: CTE08D031
CLINET INFORMATION
MR. YOUSEFI
8 P. STREET, NE
WASHINGTON, D.C. 20002

CONSTRUCTION TESTING AND ENGINEERING, INC.
9111A INDUSTRY DRIVE
MANASSAS, VA 20111
TEL. (703) 335-0182 FAX. (703)335-2212
PROJECT LOCATION
8 P. ST., NE
WASHINGTON, D.C. 20002

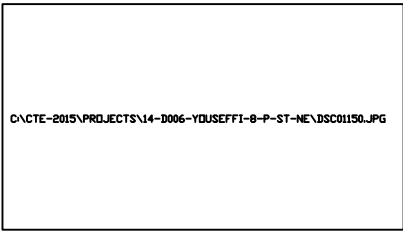
Designed by: M.A.
Dwn by: M.A.
Chk by: M.A.
Date: SEP 2015
Plot Scale: 1/8" = 1'



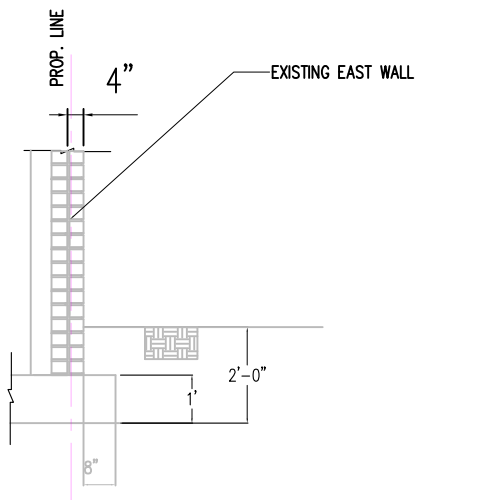
FOUNDATION UNDERPINNING AND CONSTRUCTION SEQUENCE



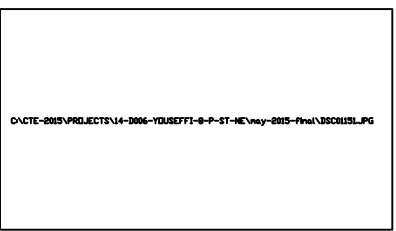
STEP 1- EXIST. WALL PREPARATION
WEST WALL



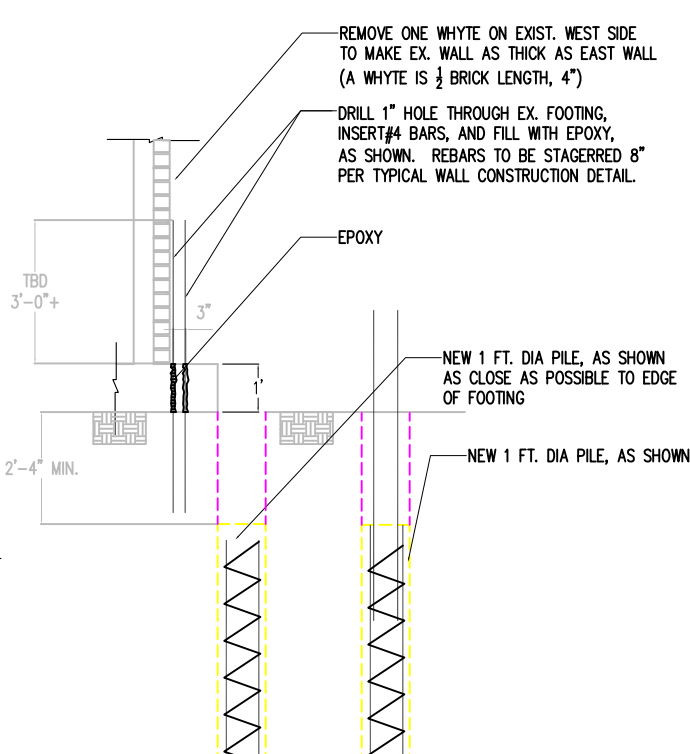
EXISTING 8" WALL ON WEST SIDE



STEP 1- EXIST WALL PREPARATION
EAST WALL



EXISTING 4" WALL ON EAST SIDE



STEP 2- INSTALL ALL PILES

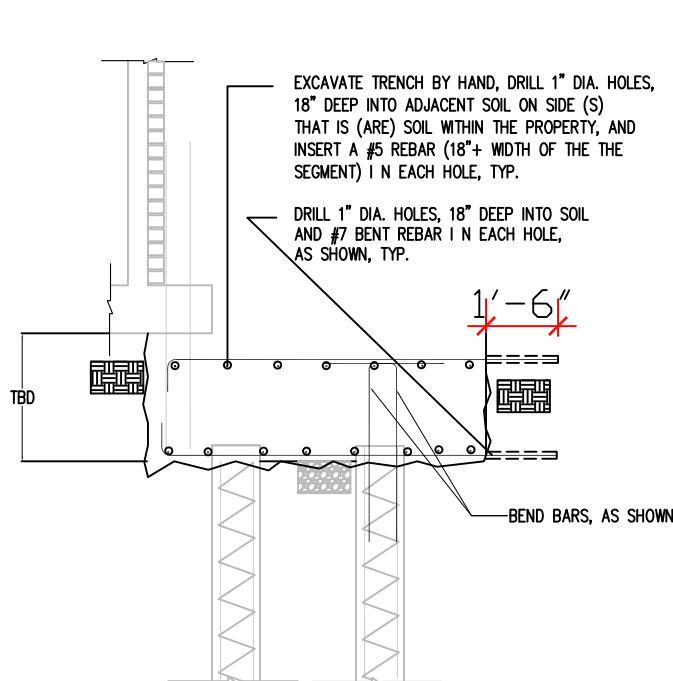
- UNDERPINNING CONSTRUCTION SEQUENCE FOR EACH STRIP
1. FOLLOW THE UNDERPINNING SEQUENCE FOR EACH STRIP OUTLINED IN THE UNDERPINNING DRAWINGS.
 2. 2 INSTALL ALL PILES TO THE RIGHT DEPTH AND SET TOP AT PROPOSED HEIGHT.
 3. FOR EACH UNDERPINNING STRIP, EXCAVATE THE TRENCH TO THE DEPTH AND WIDTH SHOWN ON THE FOUNDATION PLAN.
 4. INSTALL NEW REINFORCING THROUGH EXISTING FOOTING AS SHOWN ON STEP 1.
 5. INSTALL NEW REINFORCING FOR THE PROPOSED PILE CAP. DRILL INTO ADJACENT SOIL AND INSTALL SPLICE REBARS AS SHOWN ON SKETCH 3.
 6. PLACE HIGH STRENGTH (10,000 PSI) CONCRETE FOR BOTTOM LAYER (FOOTING) AS SHOWN ON STEP 5.
 7. ONCE CONCRETE STRENGTH EXCEEDS 2000 PSI, DRYPACK UNDER THE EXISTING FOOTING WITH NONSHRINK GROUT.
 8. PROCEED TO THE NEXT LOCATION AND REPEAT STEPS 3 THROUGH 7, AT LEAST 24 HOURS AFTER DRYPACKING.

- DESIGN CODES
1. IBC 2003

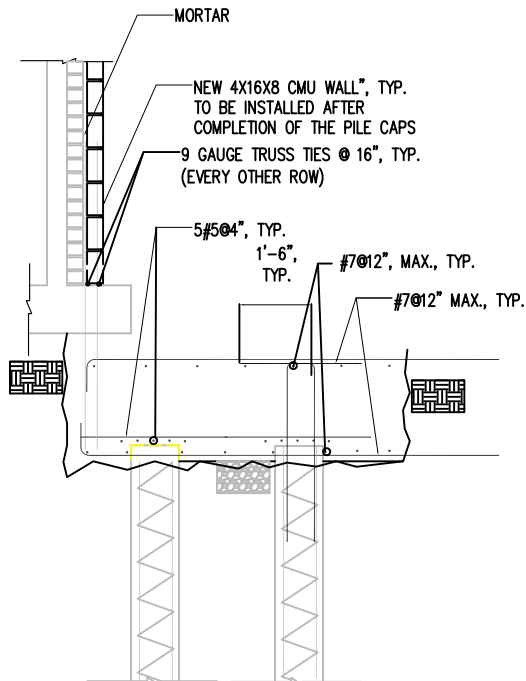
- MATERIALS
1. UNDERPINNING CONCRETE 28 DAY STRENGTH; 10,000 PSI
 2. FLOOR/FINAL WALL LINING CONCRETE 28 DAY STRENGTH; 4,000 PSI
 3. CONCRETE ADMIXTURES: ASTM C494.
 4. DRY PACK MORTAR: NON-SHRINK GROUT CEMENT ASTM C-928 AND ASTM C-107
 5. REINFORCING STEEL; ASTM A615, FY = 60 KSI
 6. STRUCTURAL STEEL; ASTM A36, FY = 36 KSI
 7. STEEL BOLTS; ASTM A307
 8. PLYWOOD:
THICKNESS: 3/4"
ALLOWABLE BENDING, FLO=L, 900 PSI
ALLOWABLE ROLLING SHEAR, 70 PSI
 9. LUMBER!
ALLOWABLE BENDING, FB= 1,500 PSI,
ALLOWABLE SHEAR, FV =230 PSI

- DESIGN LOADS
1. CONCRETE UNIT WEIGHT: 150 PCF
 2. SOIL UNIT WEIGHT: 120 PCF
 3. SOIL BEARING CAPACITY: 2,000 PSF
 4. SOIL EQUIV. FLUID LATERAL PRESSURE; 60 PSI
 5. SOIL SLIDING FRICTION COEFFICIENT: 0.3

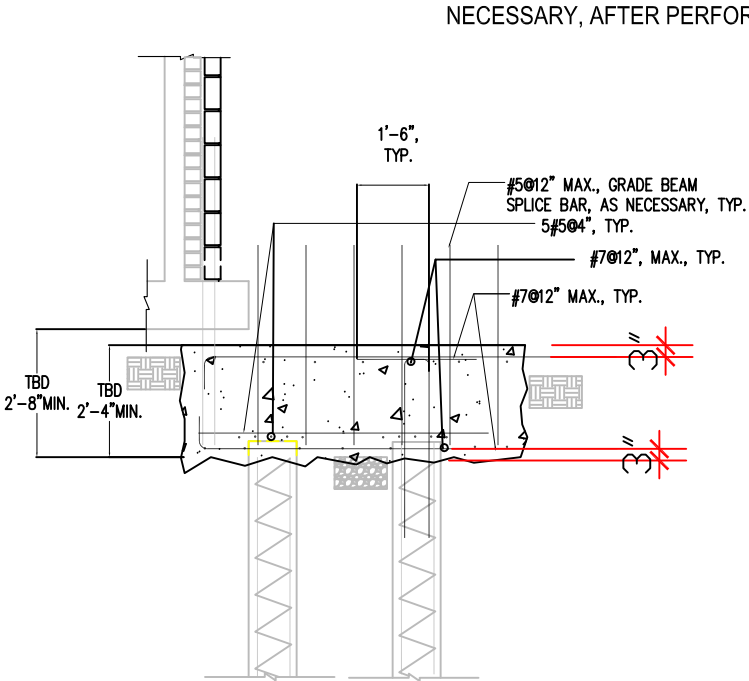
- NOTES
1. FOR UNDERPINNING SEQUENCE REFER TO S1.
 2. THE PILE CAP DETAILS SHOWN ON THIS SHEET ARE THE ABSOLUTE MINIMUM REQUIREMENTS. CONTRACTOR SHALL DESIGN THE FOUNDATION, INCREASE PILE CAP DIMENSIONS AND REINFORCING IF NECESSARY, AFTER PERFORMING GEOTECHNICAL INVESTIGATION.



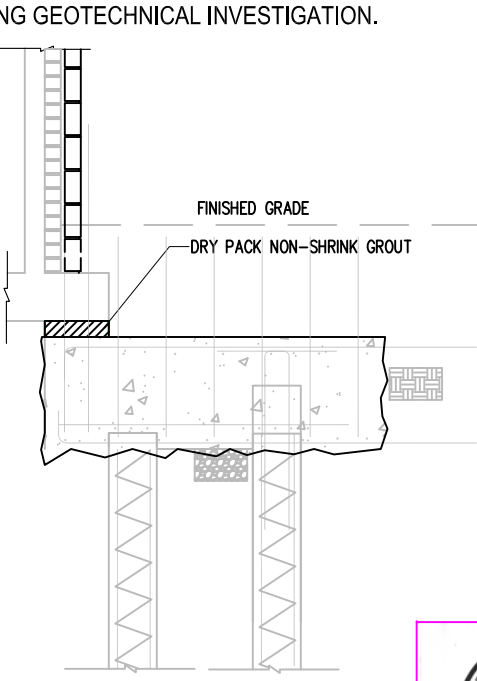
STEP 3 - EXCAVATE SEGMENT
@ INSTALL LAP REBARS



STEP 4 - PLACE REINFORCING STEEL



STEP 5- PLACE CONCRETE FOR
PILE CAP SEGMENT



STEP 5 - DRYPACK



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Drawn by:	M.A.
Date:	JULY 2015
Plot Scale:	1/4" = 1'

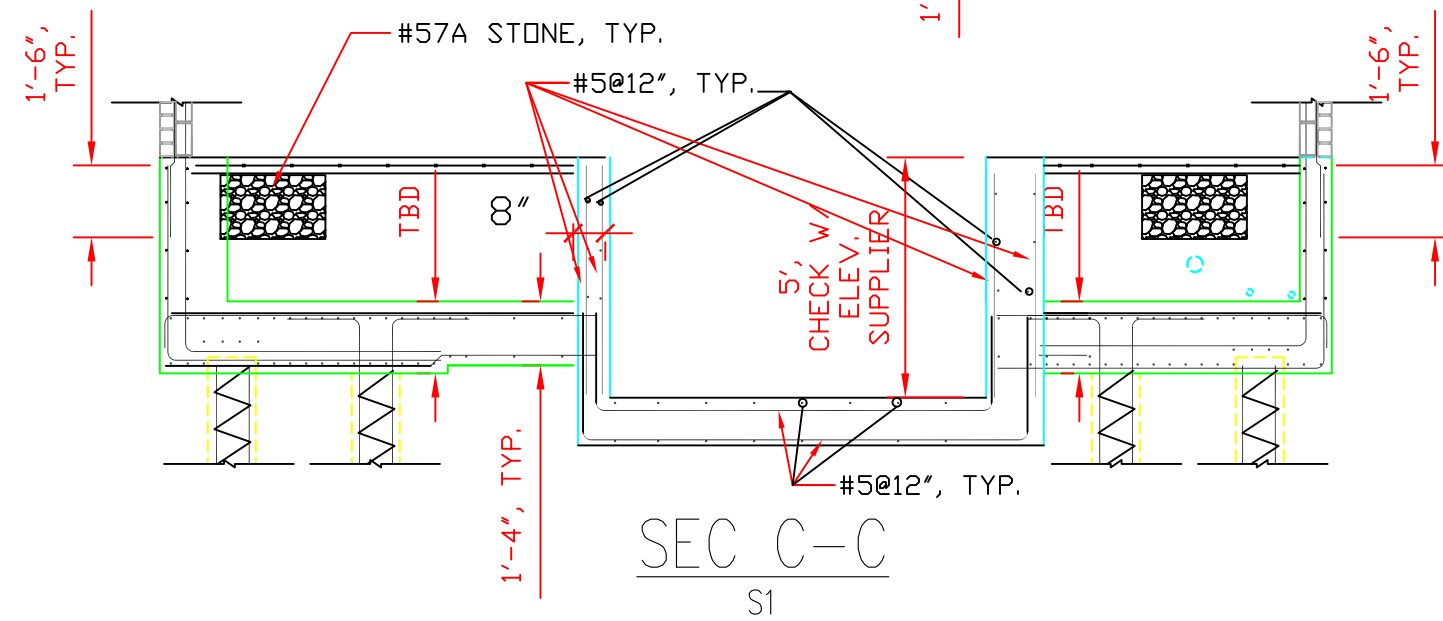
PROJECT NUMBER: CTE080031
CLIENT INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002

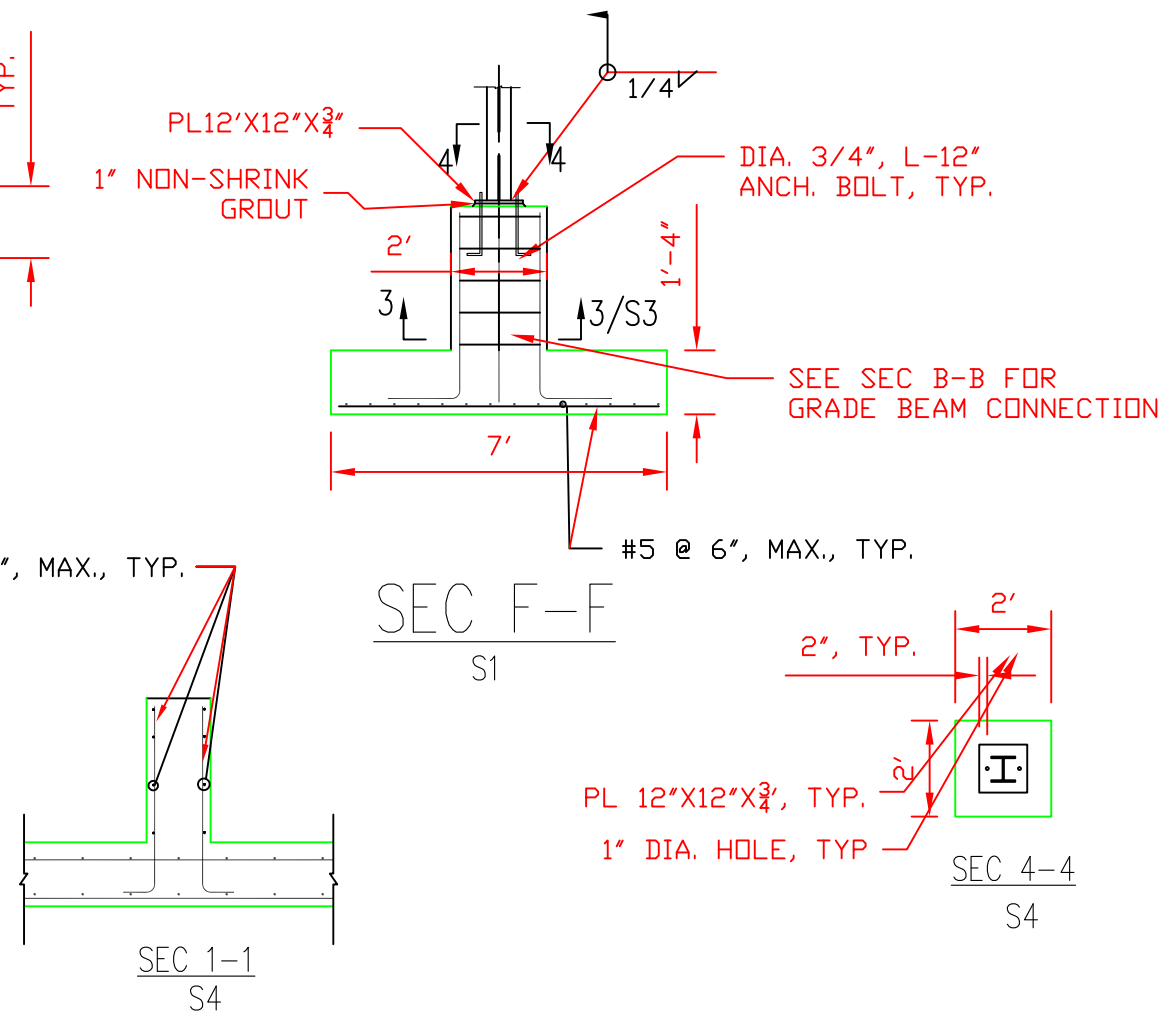
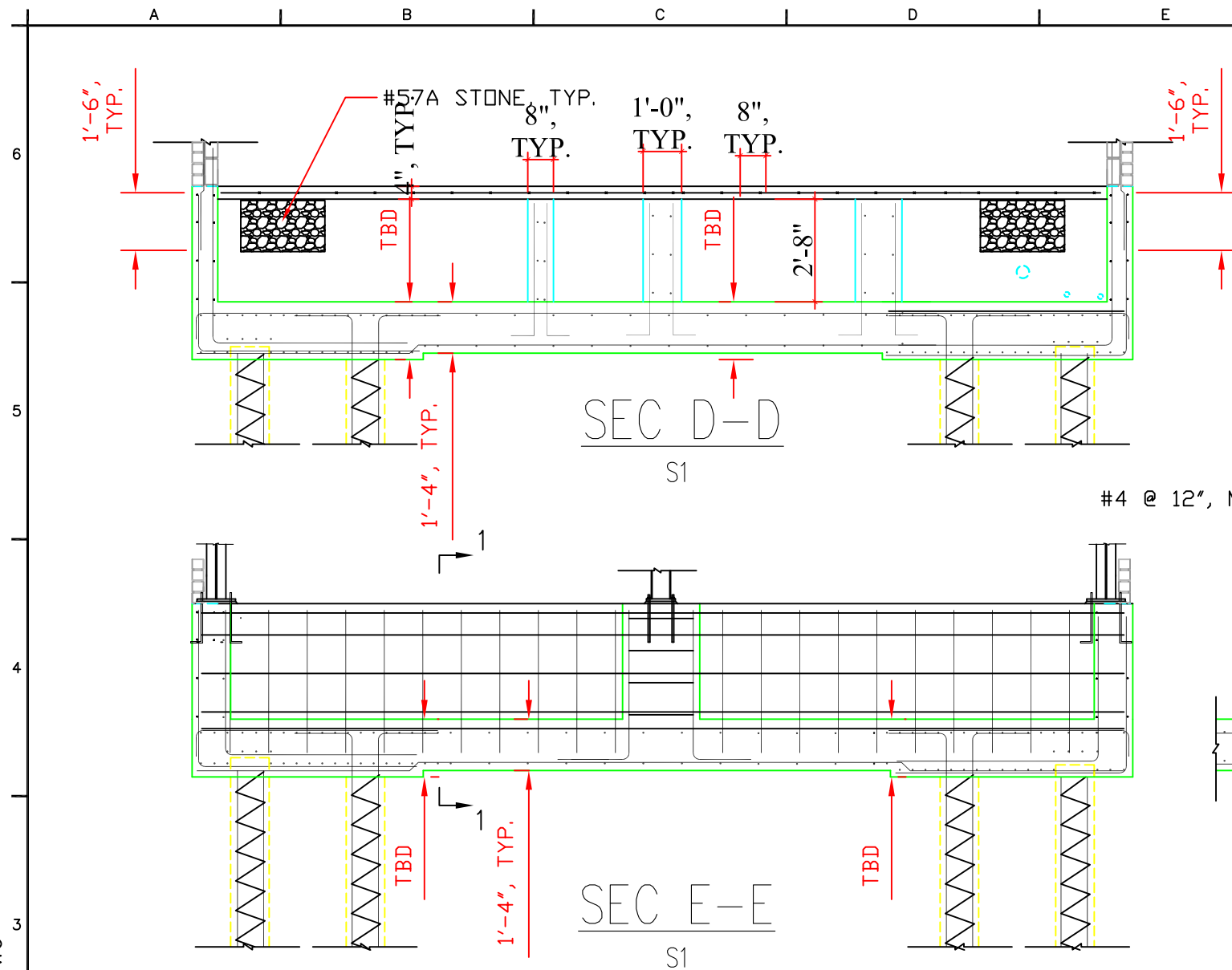
DATE
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Sheet _S2 of 8_



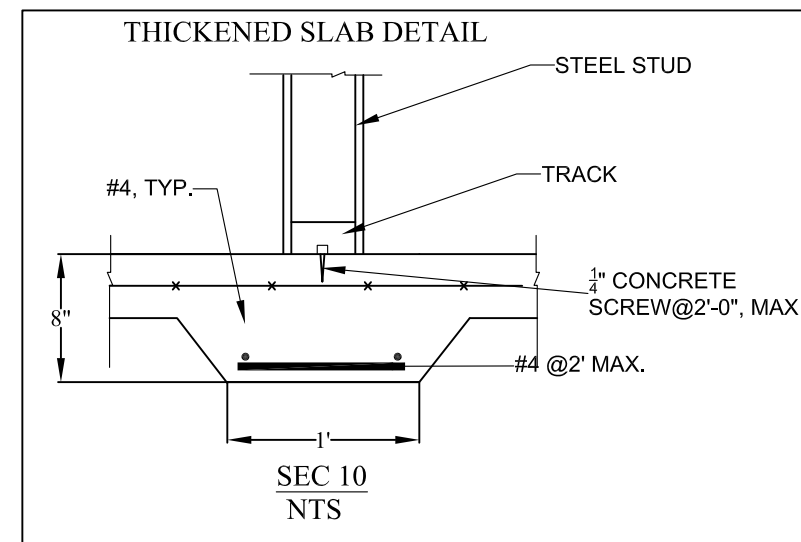
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Sheet S3 of 8



GENERAL CONSTRUCTION NOTES

1. THE FOUNDATION DEPTHS, ELEVATION AND SIZES WERE NOT KNOWN WHEN THESE DRAWINGS WERE BEING DEVELOPED, CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO START OF WORK AND INFORM THE ENGINEER IMMEDIATELY ABOUT THE DISCREPANCIES.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING, IDENTIFYING, CAPPING AND RELOCATING ALL OVERHEAD AND UNDERGROUND UTILITIES, AS NEEDED.
3. CONTRACTOR IS RESPONSIBLE FOR EROSION PROTECTION AND SEDIMENT CONTROL.
4. CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF GROUNDWATER AND THE CONTROL OF SURFACE WATER RUNOFF SO THAT THE UNDERPINNING WORK CAN BE PERFORMED IN NEAR DRY CONDITIONS AND IN ONE CONTINUOUS OPERATION WITHOUT DELAYS.
5. MATERIALS OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR THOSE SHOWN ON THE DRAWINGS WITH THE APPROVAL OF ENGINEER,
6. ALL UNDERPINNING WORK SHALL BE DONE BY AN EXPERIENCED SUBCONTRACTOR SPECIALIZED IN SUCH WORK.
7. NO HEAVY MACHINERY IS ALLOWED WITHIN 8 FT OF THE UNDERPINNING AREA.
8. AN INSPECTOR SHALL BE PRESENT ON-SITE PRIOR TO POURING THE UNDERPINNING PIERS CONCRETE AND DURING THE DRY-PACKING OPERATIONS,
9. CONTRACTOR SHALL COMPLY WITH THE DISTRICT OF COLUMBIA'S REQUIREMENTS FOR UNDERPINNING OF THE PARTY WALLS.
10. CONTRACTOR SHALL PERFORM A GEOTECHNICAL INVESTIGATION AFTER DEMOLISHING THE EXISTING STRUCTURE, DETERMINE THE SOIL CHARACTERISTICS AND PARAMETERS, DESIGN THE PILE CAP DIMENSIONS AND REINFORCING, MICRO PILES DEPTH, SIZE AND REINFORCING, BASED ON THE FOUNDATION LOADS PROVIDED ON SHEET S1.



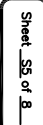
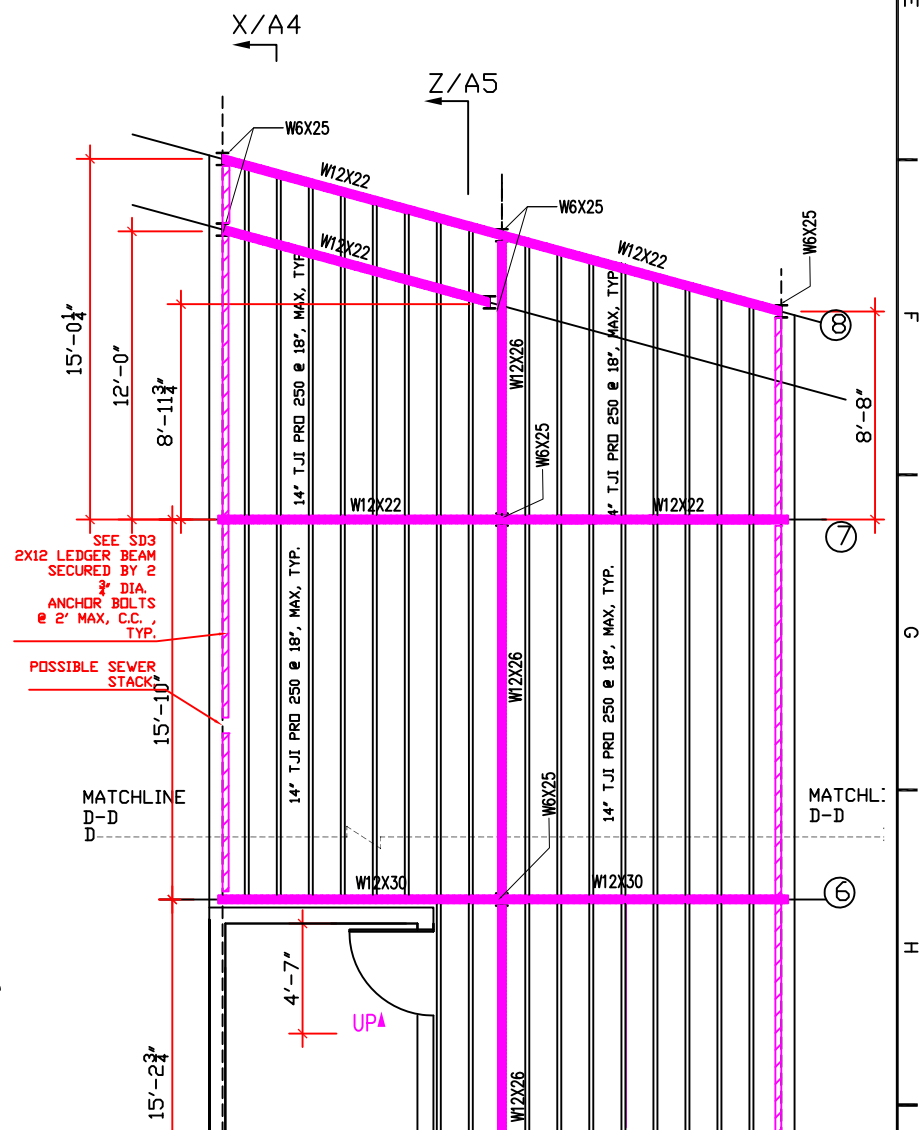
CONSTRUCTION TESTING AND ENGINEERING, INC. 9111A INDUSTRY DRIVE WASHDC, VA 22031 TEL (703) 333-0148 FAX (703) 333-2212	PROJECT LOCATION 8 P ST., NE WASHINGTON, D.C. 20002	Designed by:	Drawn by:	Chk by:	M.A.
		M.A.	M.A.	M.A.	
		Date:	JULY 2015		
		Plot Scale: 1/4" = 1'			

PROJECT NUMBER: CTE08D031	CLINET INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002
---------------------------	--

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Sheet S4 of 8

1. CHECK PLUMBING DRAWINGS FOR LOCATIONS OF THE THE STACK. USE THE LEDGE BEAM DETAIL SHOWN ON SD3 AT THE STACKS. AT OTHER LOCATIONS JUST PLACE A JOIST AS CLOSE AS POSSIBLE TO THE CMU WALL.
2. THE LOCATIONS OF THE PIPE STACKS SHOWN ON THIS DRAWING MAY NOT BE ACCURATE..



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CLINET INFORMATION
MR. YOUSEFI
8 P. STREET, NE
WASHINGTON, D.C. 20002

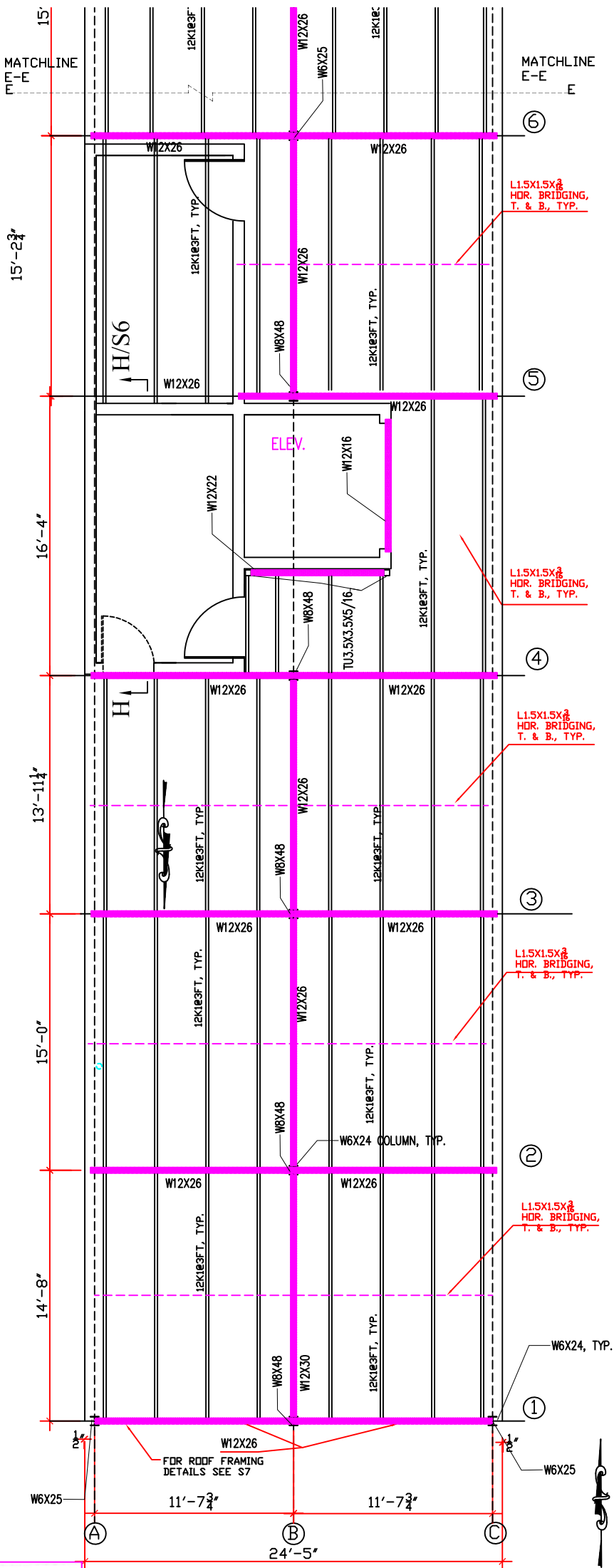
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Dwn by: M.A.	Chk by:	M.A.
Date:	JULY 2015	
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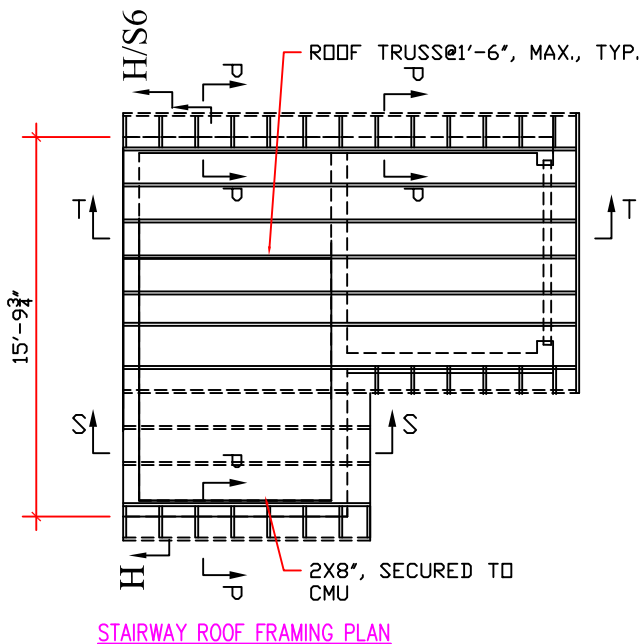
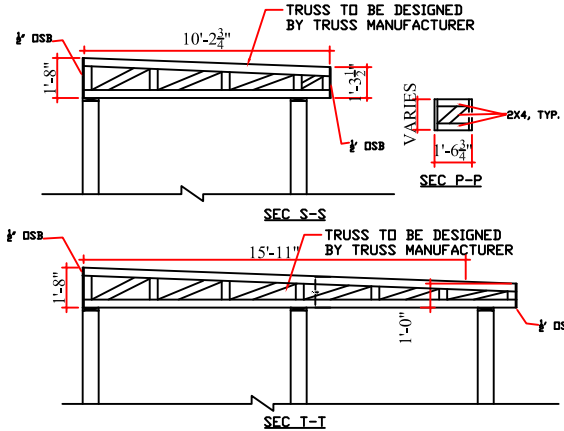
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BEAM-COLUMN MOMENT CONNECTION

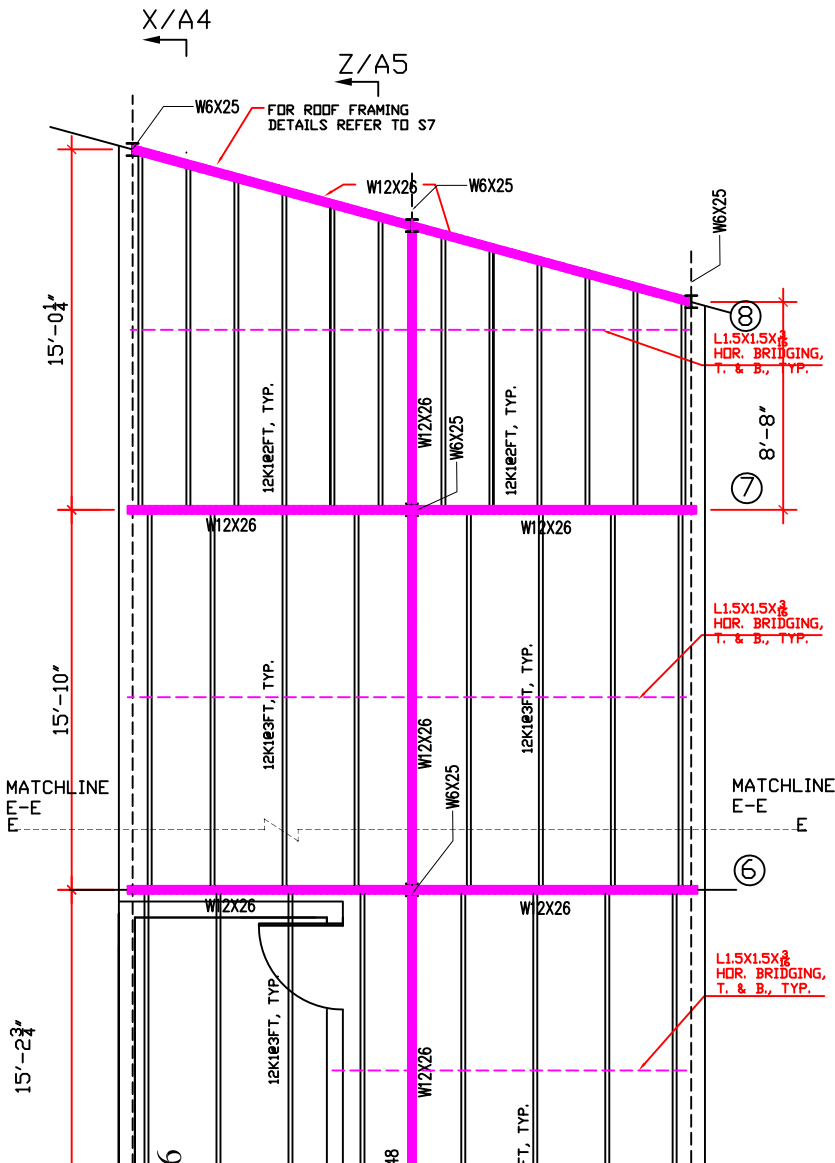
- NOTES
1. U.D.N. ALL BEAM COLUMN CONNECTIONS ARE "SIMPLE CONNECTIONS".
 2. FOR STEEL CONNECTION DETAILS REFER TO SD2.
 3. FOR MASONRY AND LINTEL BEAM DETAILS REFER TO SD3.



ROOF FRAMING PLAN



STAIRWAY ROOF FRAMING PLAN



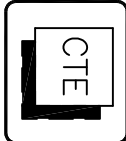
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REVISION	DATE

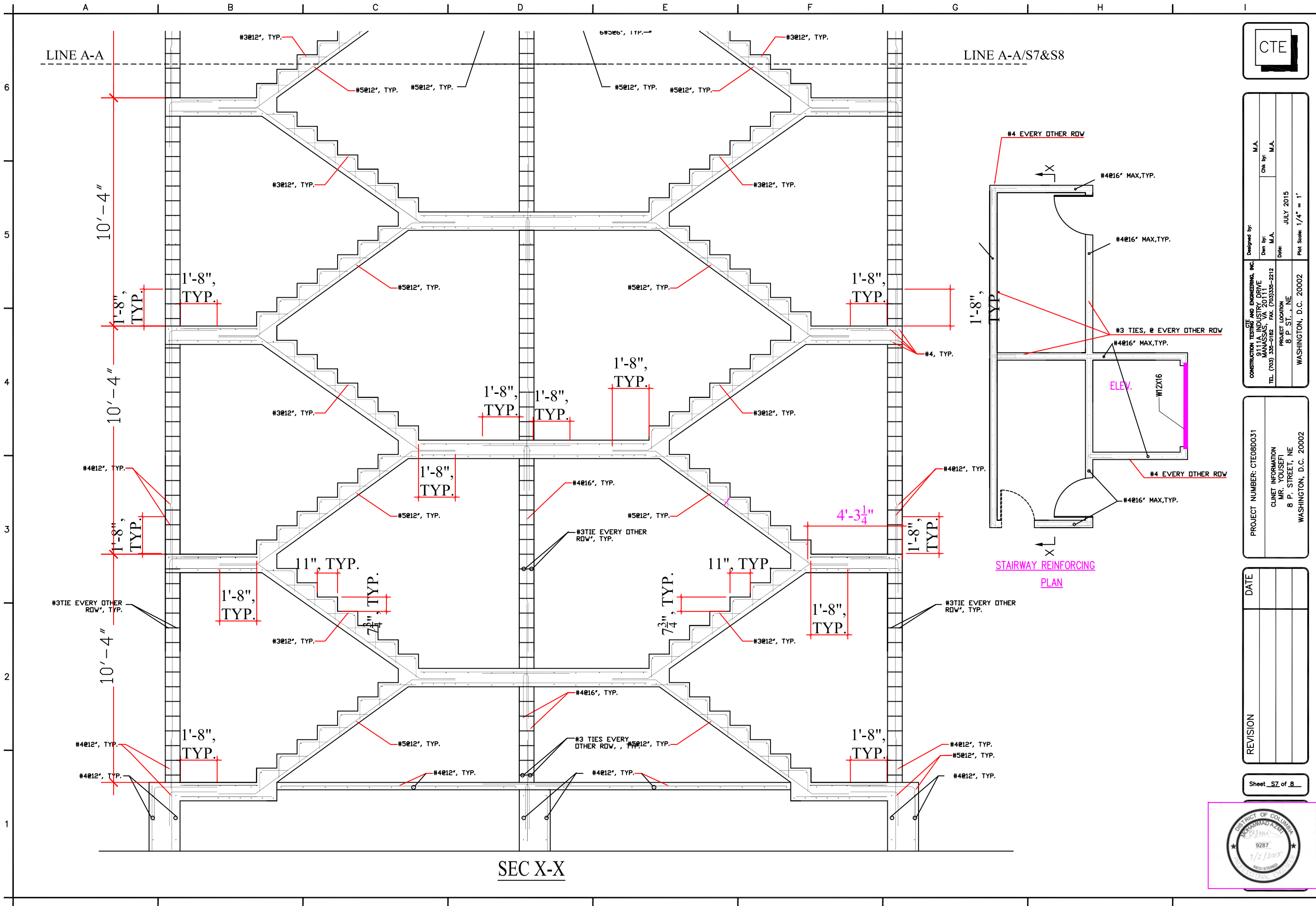
PROJECT NUMBER: CTE08D031
CLINET INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002

CTE CONSTRUCTION TESTING AND ENGINEERING, INC. 9111A INDUSTRY DRIVE MANASSAS, VA 20111 TEL. (703) 335-0182 FAX. (703) 335-2212
PROJECT LOCATION 8 P. ST., NE WASHINGTON, D.C. 20002

Designed by: M.A.	Chk by: M.A.
Dwn by: M.A.	Date: JULY 2015
Plot Scale: 1/8" = 1'	



FILENAME:15D005-8-P-ST-NE-YOUSEFFI-3-23-15.DWG



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Date:	JULY 2015
Plot Scale:	1/4" = 1'
PROJECT LOCATION	WASHINGTON, D.C. 20002
PROJECT NUMBER: CTE080031	
CLIENT INFORMATION	MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002

PROJECT NUMBER: CTE080031

CLIENT INFORMATION

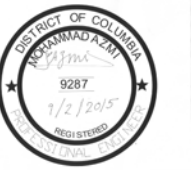
MR. YOUSEFI

8 P. STREET, NE

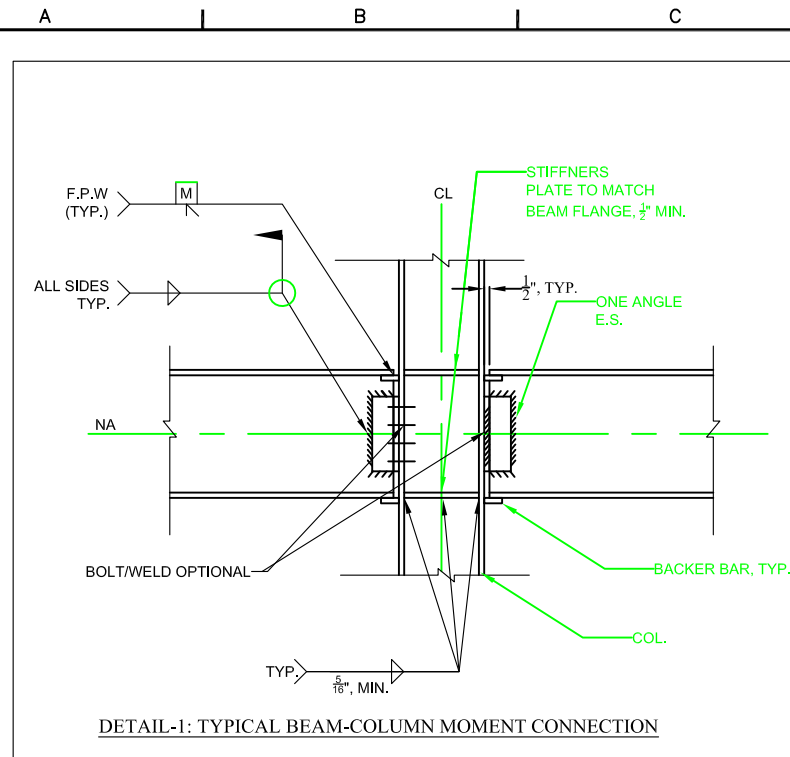
WASHINGTON, D.C. 20002

DATE	
REVISION	

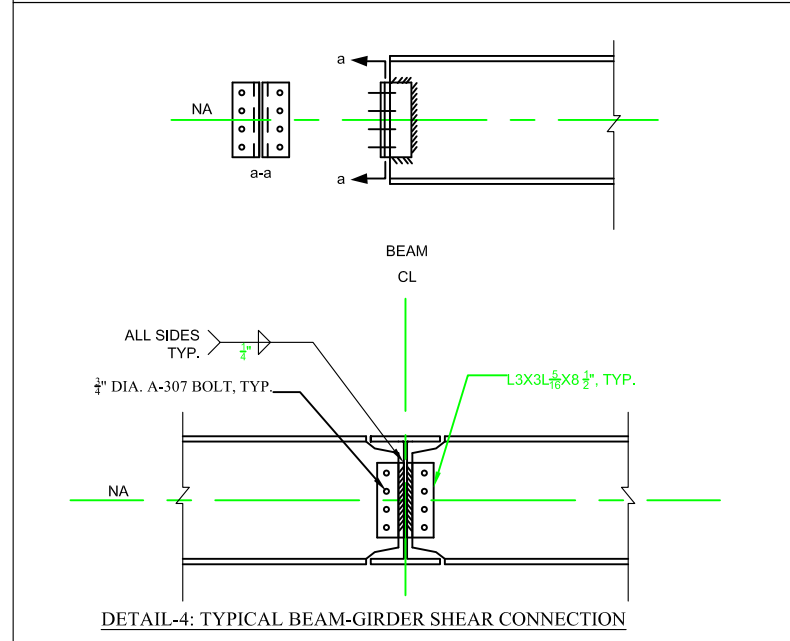
Sheet S7 of 8



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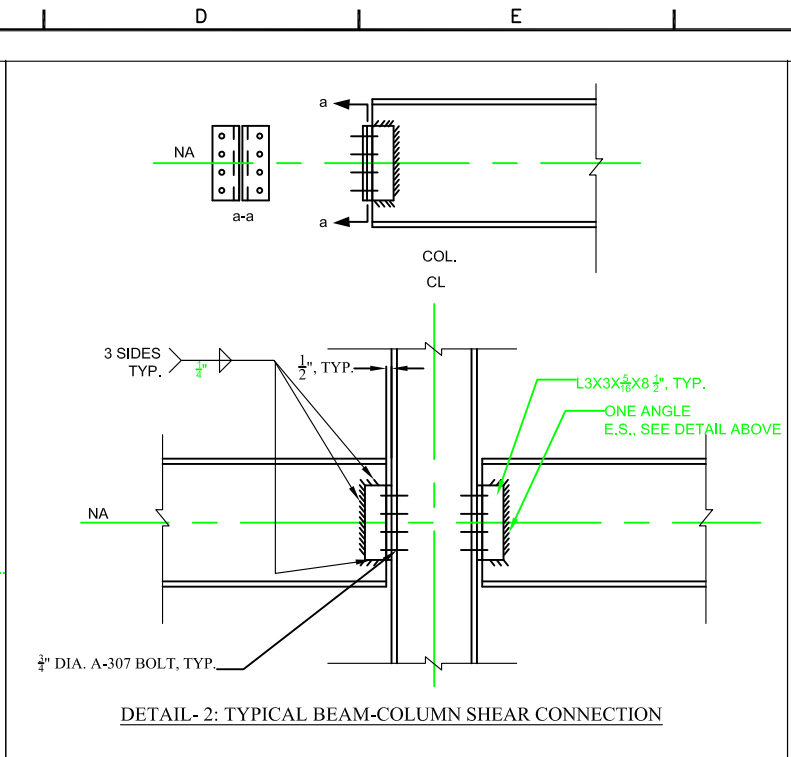
DETAIL-1: TYPICAL BEAM-COLUMN MOMENT CONNECTION



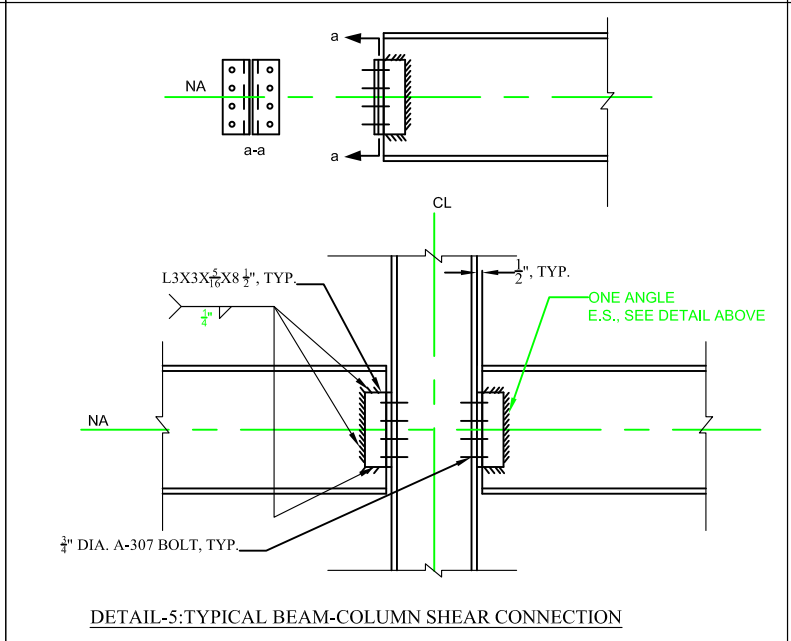
DETAIL-4: TYPICAL BEAM-GIRDER SHEAR CONNECTION

NOTES

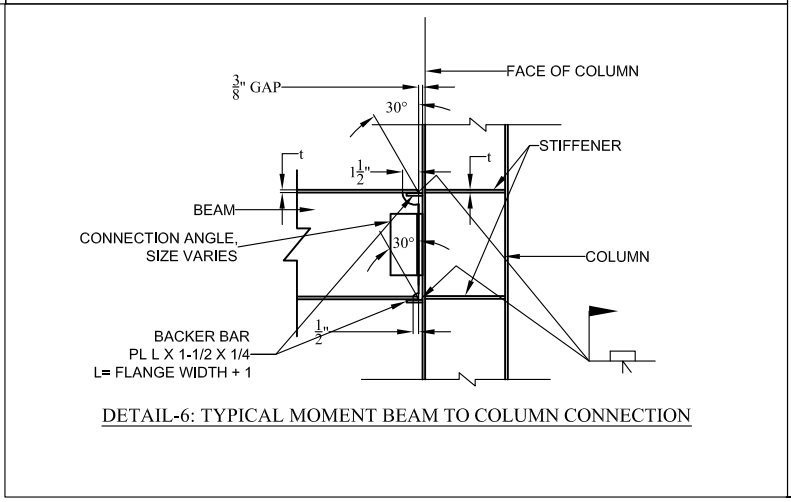
1. ALL BEAM CONNECTIONS SHALL BE DESIGNED TO CARRY A MINIMUM REACTION OF 10 KIPS AND SHALL HAVE NO FEWER BOLTS THAN SHOWN BELOW: W8, W10, W12 BEAMS: 2, W14, W16, W18 BEAMS: 3, W21, W24 BEAMS: 4, W27, W30 BEAMS: 5 BOLTS SHALL BE PROVIDED IN A SINGLE ROW.
2. ALL BEAM CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE TYPE UNLESS DETAILED OTHERWISE. FOR DESIGN OF STANDARD CONNECTIONS USE THE LARGER OF EITHER THE SHEAR SHOWN ON THE DRAWINGS, (INDICATED AS "V = " " K" AT THE MEMBER ENDS) , OR 55% OF THE TOTAL LOAD CAPACITY DERIVED FROM THE UNIFORM LOAD CONSTANTS TABLES, NINTH EDITION OF THE AISC CODE. ALLOWABLE STRESS REDUCTIONS MUST BE TAKEN WITH THE USE OF LONG SLOTTED HOLES.
3. PROVIDE A MINIMUM BEARING LENGTH OF 4" FOR ALL BEAMS SUPPORTED ON MASONRY.



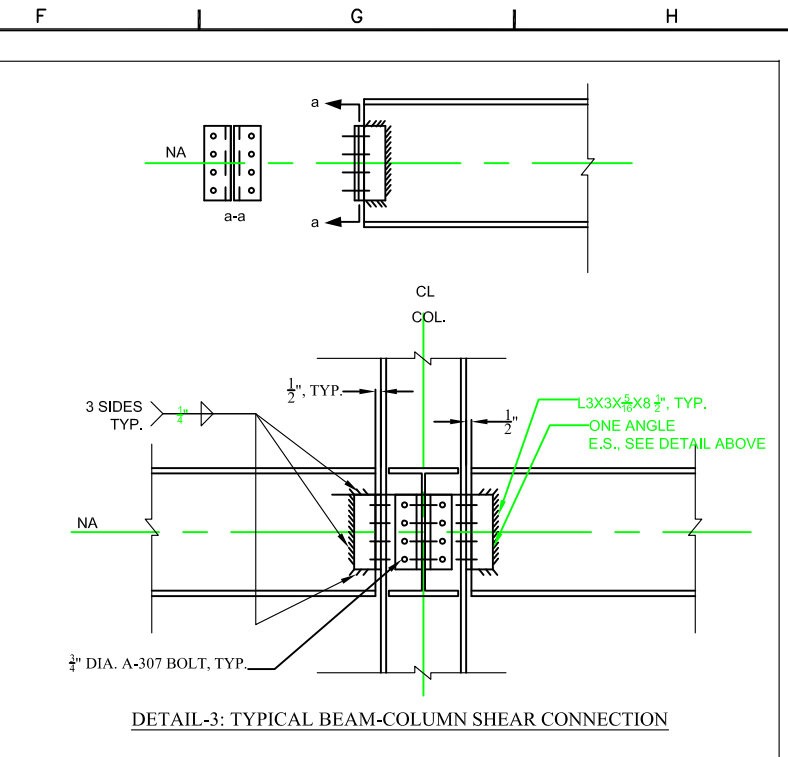
DETAIL-2: TYPICAL BEAM-COLUMN SHEAR CONNECTION



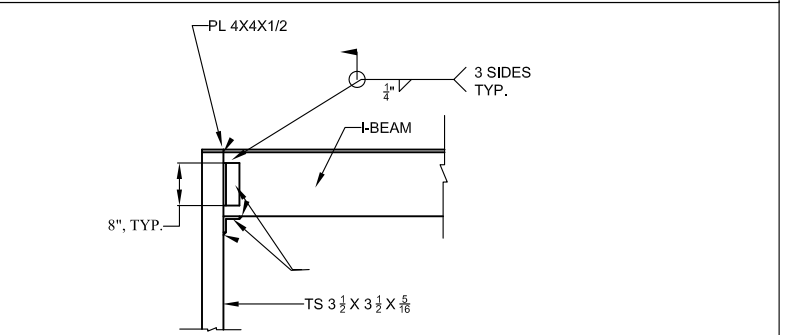
DETAIL-5: TYPICAL BEAM-COLUMN SHEAR CONNECTION



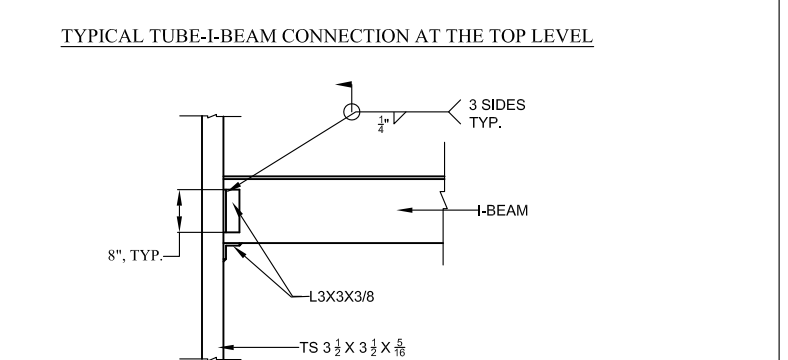
DETAIL-6: TYPICAL MOMENT BEAM TO COLUMN CONNECTION



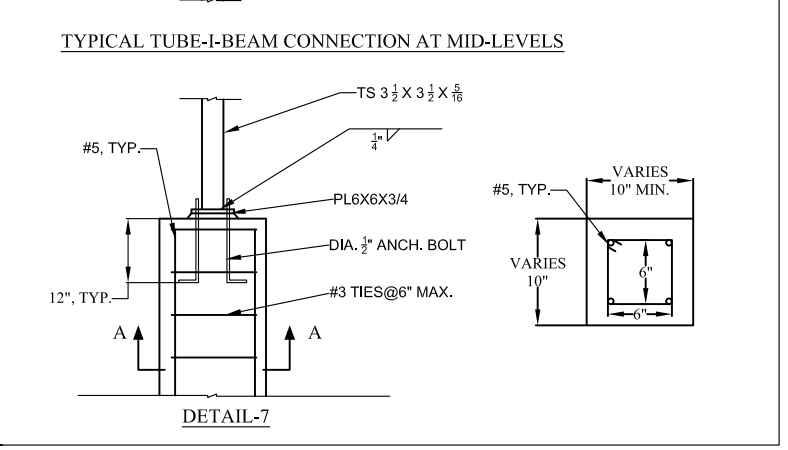
DETAIL-3: TYPICAL BEAM-COLUMN SHEAR CONNECTION



TYPICAL TUBE-I-BEAM CONNECTION AT THE TOP LEVEL



TYPICAL TUBE-I-BEAM CONNECTION AT MID-LEVELS



DETAIL-7

CTE

Designed by:	M.A.
Drawn by:	M.A.
Date:	FEB. 2015
Plot Scale:	1/4" = 1'
PROJECT LOCATION	8 P. ST., NE
PROJECT NUMBER	WASHINGTON, D.C. 20002
CONSTRUCTION TESTING AND ENGINEERING, INC.	9111A INDUSTRY DRIVE
MANASSAS, VA 20111	TEL: (703) 335-0182 FAX: (703) 335-2212

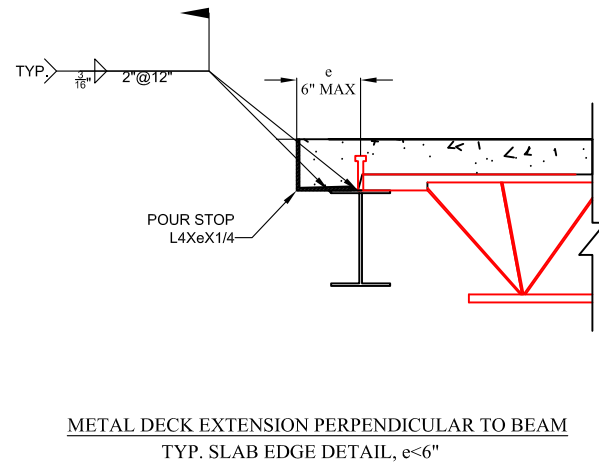
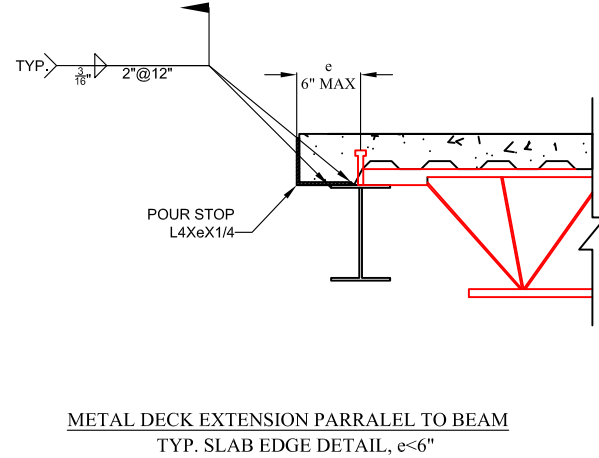
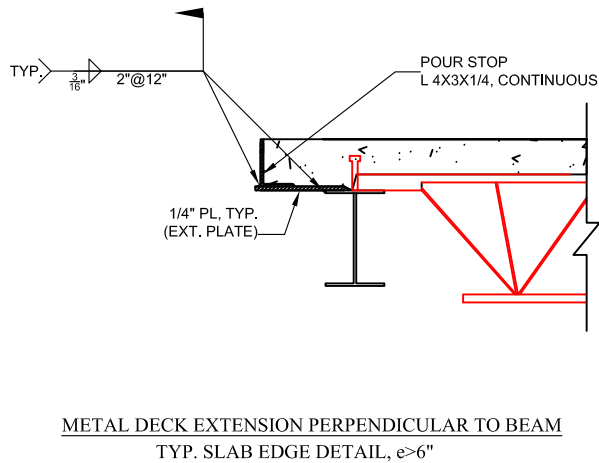
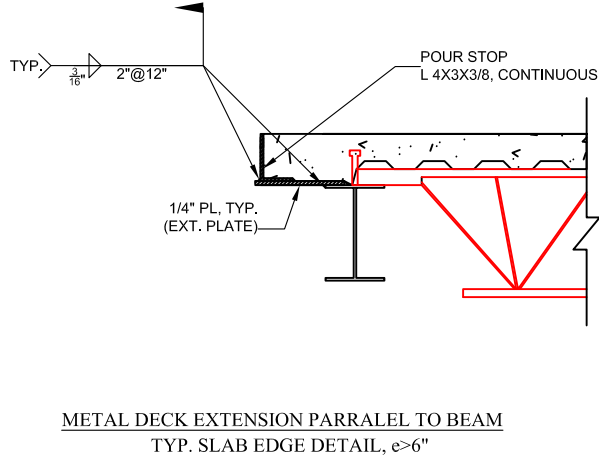
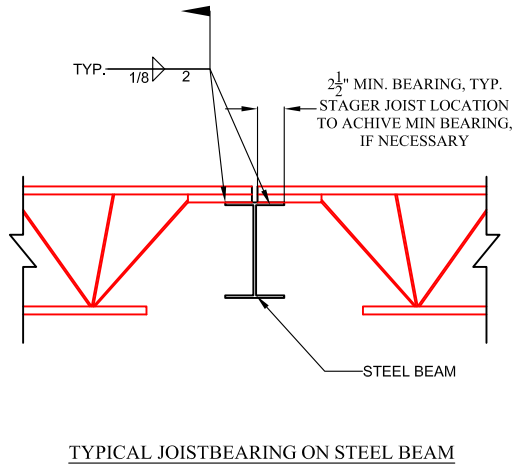
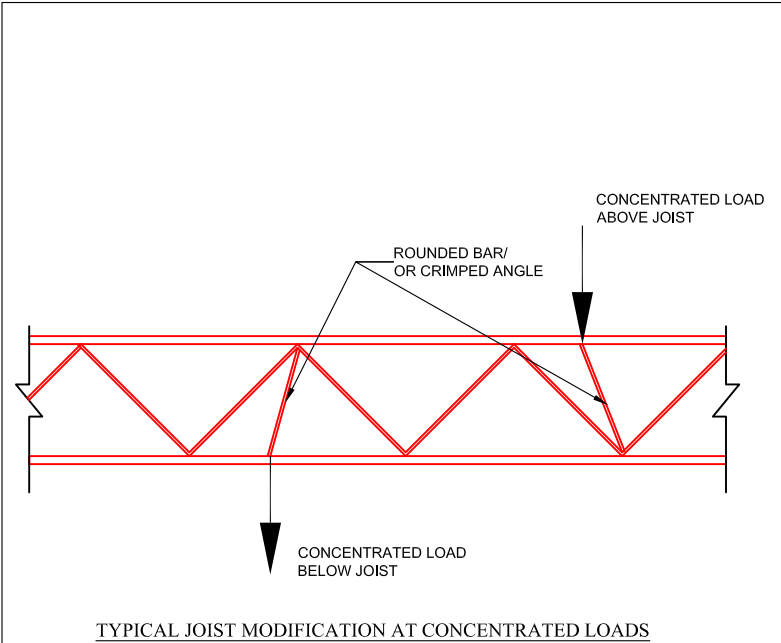
PROJECT NUMBER: CTE08D031
CLIENT INFORMATION
MR. YOUSEFI
8 P. STREET, NE
WASHINGTON, D.C. 20002

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Sheet SD1 of 4



FILENAME:15D005-8-P-ST-NE-YOUSEFFI-3-23-15.DWG



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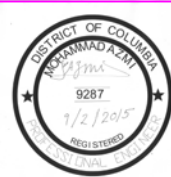
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CONSTRUCTION TESTING AND ENGINEERING, INC.
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TEL: (703) 335-0182 FAX: (703) 335-2212
PROJECT LOCATION
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WASHINGTON, D.C. 20002

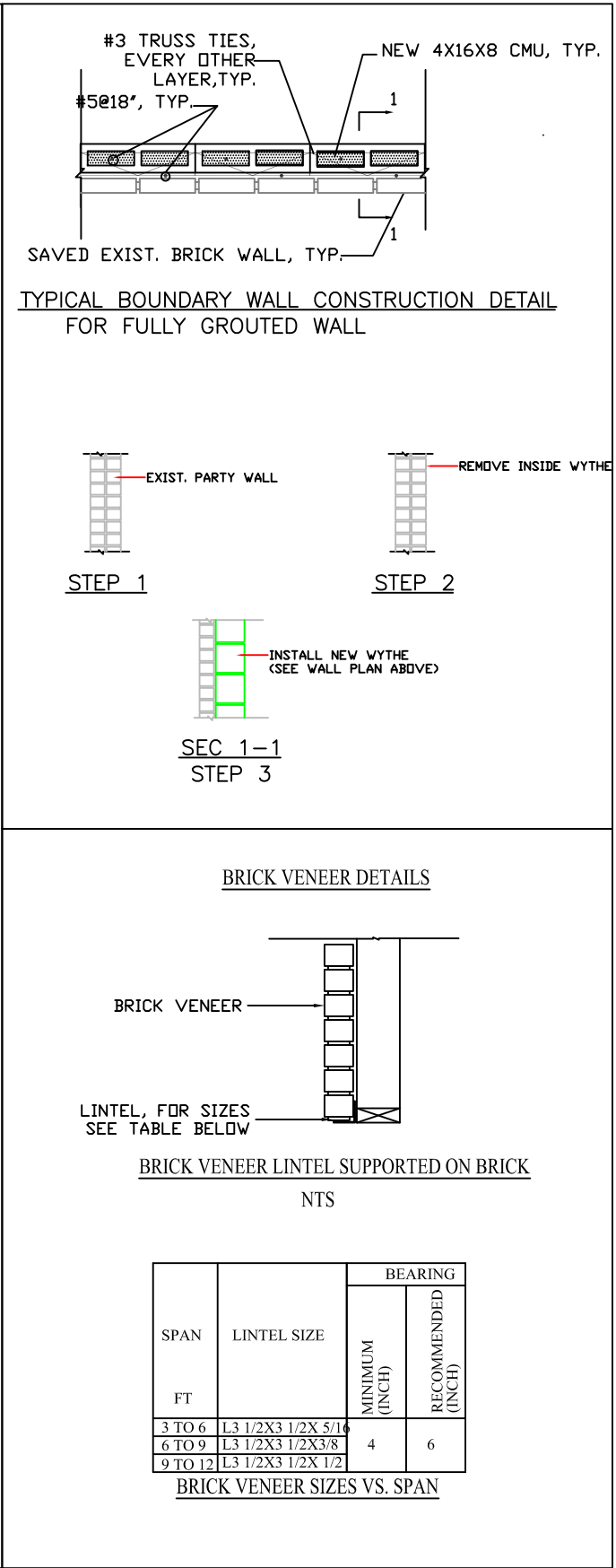
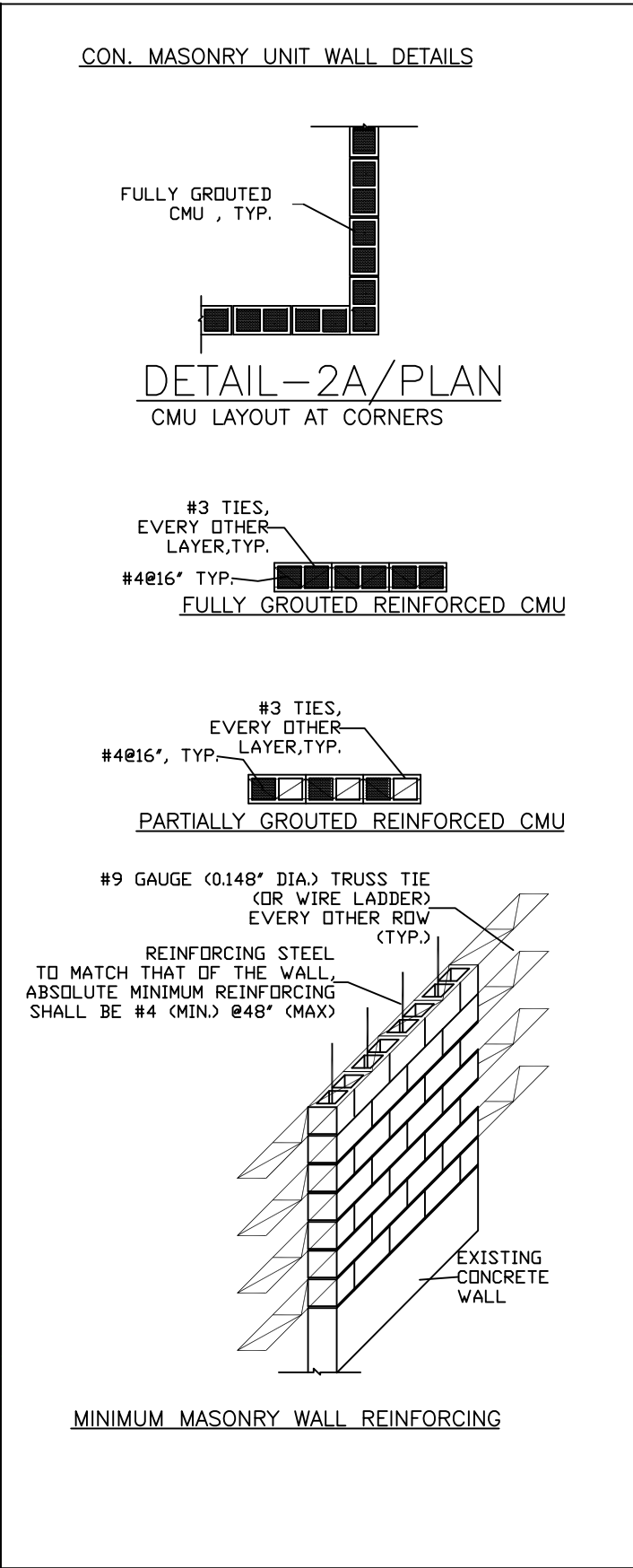
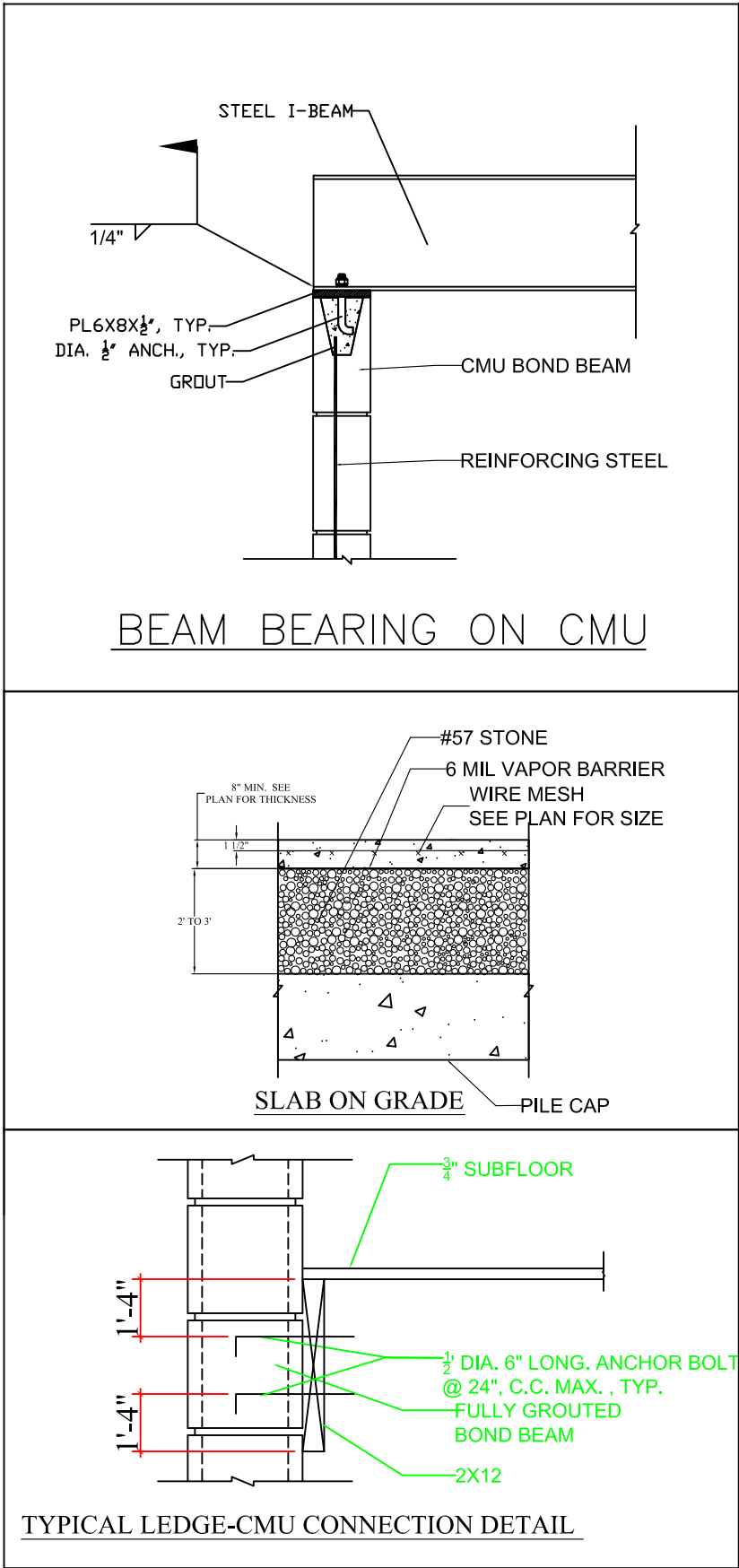
PROJECT NUMBER: CTE08D0031
CLIENT INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002

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Sheet SD2 of 4



FILENAME:15D005-8-P-ST-NE-YOUSEFFI-3-23-15.DWG



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Date:	FEB. 2015
Plot Scale:	1/4" = 1'

CONSTRUCTION TESTING AND ENGINEERING, INC.
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WASHINGTON, D.C. 20002

PROJECT NUMBER: CTE08D031

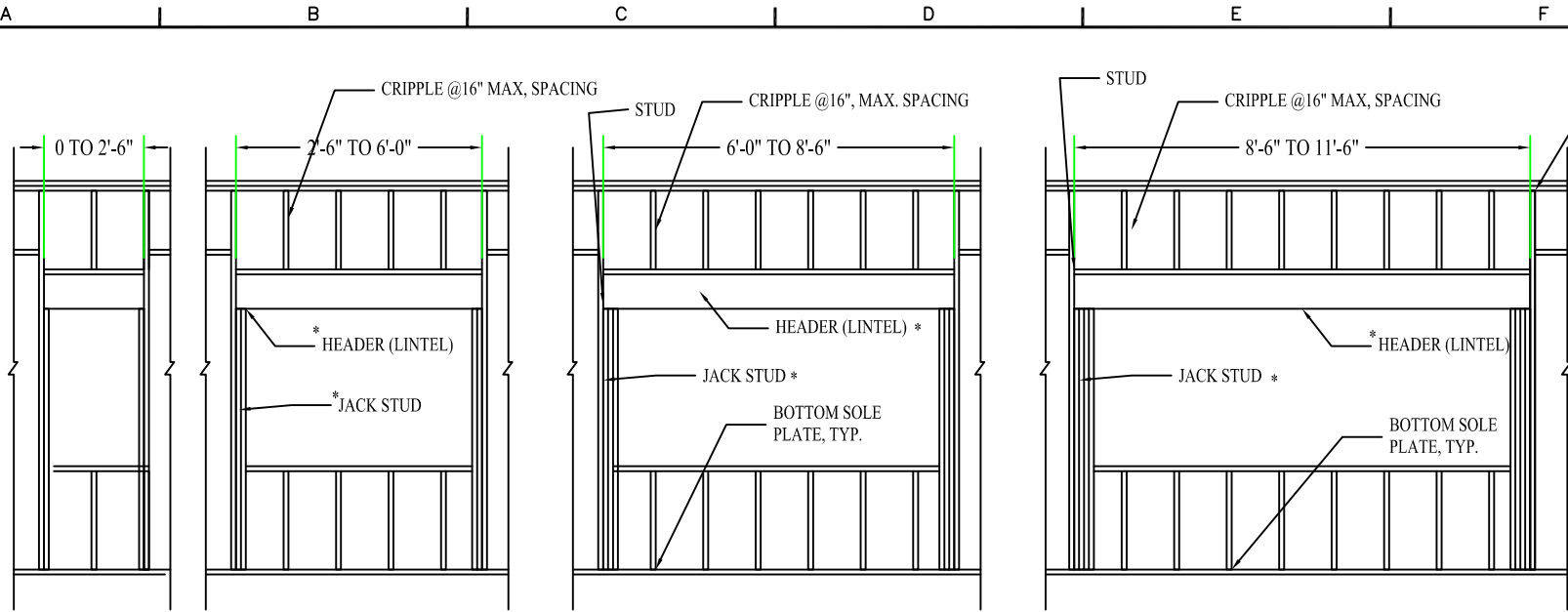
CLIENT INFORMATION
MR. YOUSEFI
8 P. STREET, NE
WASHINGTON, D.C. 20002

DATE	
REVISION	

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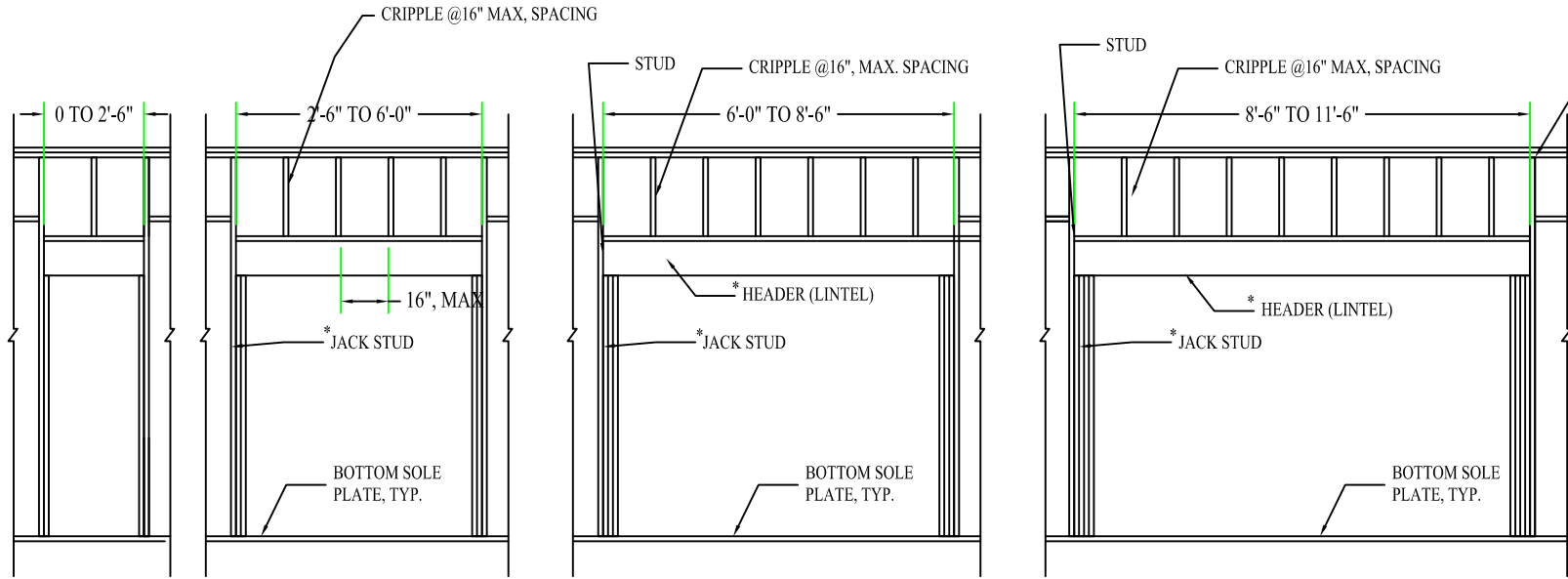


FILENAME:15D005-8-P-ST-NE-YOUSEFFI-3-23-15.DWG



WINDOW FRAMING FOR LOAD BEARING WALLS

* FOR HEADER SIZE AND NUMBER OF JACK STUDS SEE NOTES BELOW.



DOOR FRAMING FOR LOAD BEARING WALLS

* FOR HEADER SIZE AND NUMBER OF JACK STUDS SEE NOTES BELOW.

LOAD BEARING WALLS FRAMING NOTES

1. ALL STUD WALLS SHALL BE 2X4 @ 16", MIN.
2. THE MINIMUM NUMBER OF JACK STUDS ON EACH SIDE IS CALCULATED BY DIVIDING THE NUMBER OF CRIPPLES BY 2 (IF AN EVEN NUMBER) OR ROUNDING UP THE NUMBER OF CRIPPLES TO THE NEXT NEXT HIGHER EVEN NUMBER AND DIVIDING IT BY TWO.
3. THE ACTUAL JACK STUDS SHALL BE THE LARGER OF THE MINIMUM CALCULATED JACK STUDS AND THOSE LISTED ON IRC R502.5(1) AND R502.5 (2).
4. ALL HEADER SIZES ARE SHOWN ON THE DRAWINGS. IF THE HEADER SIZES ARE NOT PROVIDED, THEY SHALL BE SIZED IN ACCORDANCE WITH IBC R502.5(1) AND R502.5(2).
5. HEADER SIZES ARE SHOWN ON THE CITY APPROVED SET.

MATERIALS

LUMBER: LUMBER SHALL BE SOUTHERN PINE #2 OR APPROVED EQUAL.
ALLOWABLE BENDING, $F_b = 1,400$ PSI,
ALLOWABLE SHEAR, $F_v = 90$ PSI
 $E = 1,300,000$ PSI

MINIMUM ALLOWABLE JACK/STUD SCHEDULE
FOR LOAD BEARING WALLS

OPENING	SUPPORTING 1 FLOOR	SUPPORTING 2 FLOORS
UP TO 3'	1J & 1S	1J & 1S
3' TO 6'	2J & 1S	2J & 2S
6'-9'	2J & 1S	3J & 2S
9' TO 12'	3J & 1S	4J & 2S

J : JACK UNDER HEADER

S: STUD NAILED TO JACK ALONG SIDE HEADER

NOTES:
1. ALL JACK STUDS ARE ASSUMED TO BE 2X4'S, MIN.
2. MAX. STUD HEIGHT SHALL BE 10'
3. ALL JACK STUDS TO BE GLUED & NAILED
W/16d NAILS @ 8" O.C.



Designed by:	M.A.
Drawn by:	M.A.
Date:	FEB. 2015
Plot Scale:	1/4" = 1'
PROJECT LOCATION 8 P. ST., NE WASHINGTON, D.C. 20002	
PROJECT NUMBER: CTE080031	
CLIENT INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002	

PROJECT NUMBER: CTE080031
CLIENT INFORMATION MR. YOUSEFI 8 P. STREET, NE WASHINGTON, D.C. 20002

REVISION	DATE

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