

ASK4 Engineering, Inc.

18765 SE Jacoby Road

Sandy, OR 97055

Phone: (503) 668-6550

Fax: (888) 269-5424

email: outback@ask4engineering.com

June 19, 2012

Mr. Nolan Bechtel
Metallion Industries
850 NW Park Avenue
Estacada, OR 97023

Re: City of Roses Disposal Building -- 5726 NE 109th Avenue, Portland, OR
Olympia Steel Building Project #U1100630A

Dear Nolan,

The attached drawing sheets F1 and F2, with a revision #1 date of 6/19/2012, show a grade beam foundation that has been designed to withstand the liquefaction-induced settlements and lateral spreading as outlined in the geotechnical report and 6/18/2012 email as prepared by Hart Crowser for this project. The attached calculation sheets F12- F16 support this conclusion.

If you have any questions, please call me at 503-668-6550 x24.

Sincerely,

Seth M. Light
ASK4 Engineering



EXP. 12-31-12

CONCRETE GRADE BEAM DESIGN

JOB NAME: CITY OF ROSES DISPOSAL -- Portland, OR
OLYMPIA STEEL BUILDING SYSTEMS, JOB #U1100630A
FDN. LOCATION: SIDEWALL GRADE BEAM
ASK4 JOB NUMBER: A11-21

VERT. DOWNWARD TOTAL LOAD (LBS.): 19400
NET VERT. UPLIFT LOAD (LBS.): 11300
MAX. OUTWARD LATERAL LOAD (LBS.): 6400

CONCRETE STRENGTH (f'c) 2500 psi
ALLOW. SOIL PRESSURE 2000 PSF

NOTE: FOOTING SHALL EXTEND BELOW LOCAL FROST DEPTH. CONSULT LOCAL BUILDING DEPARTMENT FOR REQUIREMENTS.

SIDEWALL GRADE BEAM CONTINUOUS FOOTING

DEPTH OF FTG. BELOW GRADE 18 IN. (MIN.)
DESIGN SOIL PRESSURE 2000 PSF
FOOTING WIDTH FOR DOWNWARD LOADS: 22 IN. (MIN.)
FOOTING WIDTH FOR UPWARD LOADS: 28 IN. (MIN.)
FOOTING DEPTH 18 IN.
LOAD ON FTG. 19400 LBS.
FOOTING AREA REQUIRED 9.7 FT.^2
DESIGN d 14.5 IN.
LENGTH FTG. REQ'D. (DL+SN) 5.3 FT.
LENGTH FTG. REQ'D. (UPLIFT) 15.5 FT.

	BOTTOM	TOP	
Mu DESIGN MOMENT (FT.-LBS.):	21812	21591	
a=	0.44	0.43	
AREA OF STEEL REQ'D.:	0.45	0.45	(A.C.I. FLEXURE TABLES)

USE --> 28" WIDE X 18" DEEP GRADE BEAM

(NO SHEAR REINF. REQ'D.)

LATERAL OUTWARD THRUST @ BASE (Tu): 11740 LBS.

TIE BEAM WIDTH: 8 IN.
TIE BEAM DEPTH: 14 IN.
DESIGN d 7.0 IN.
Mu DESIGN MOMENT (FT.-LBS.): 10762 (FROM TOP OF GR. BEAM TO MID-HEIGHT OF TIE BEAM)
a= 1.33
AREA OF STEEL REQ'D.: 0.60

NOTE: SEE CALC PAGE F16 FOR TOTAL AMOUNT OF REINF. REQUIRED INCLUDING LOADS FROM LATERAL SPREADING.

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EXP. 12-31-12

(Pgs. F12-F16)

CONCRETE GRADE BEAM DESIGN

JOB NAME: CITY OF ROSES DISPOSAL -- Portland, OR

OLYMPIA STEEL BUILDING SYSTEMS, JOB #U1100630A

FDN. LOCATION: ENDWALL GRADE BEAM

ASK4 JOB NUMBER: A11-21

VERT. DOWNWARD TOTAL LOAD (LBS.): 9400
 NET VERT. UPLIFT LOAD (LBS.): 5100
 MAX. OUTWARD LATERAL LOAD (LBS.): 6900

CONCRETE STRENGTH (f_c) 2500 psi
 ALLOW. SOIL PRESSURE 2000 PSF

NOTE: FOOTING SHALL EXTEND BELOW LOCAL FROST DEPTH. CONSULT LOCAL BUILDING DEPARTMENT FOR REQUIREMENTS.

ENDWALL GRADE BEAM CONTINUOUS FOOTING

DEPTH OF FTG. BELOW GRADE 18 IN. (MIN.)
 DESIGN SOIL PRESSURE 2000 PSF
 FOOTING WIDTH FOR DOWNWARD LOADS: 14 IN. (MIN.)
 FOOTING WIDTH FOR UPWARD LOADS: 18 IN. (MIN.)
 FOOTING DEPTH 18 IN.
 LOAD ON FTG. 9400 LBS.
 FOOTING AREA REQUIRED 4.7 FT.²
 DESIGN d 14.5 IN.
 LENGTH FTG. REQ'D. (DL+SN) 4.0 FT.
 LENGTH FTG. REQ'D. (UPLIFT) 9.4 FT.

	BOTTOM	TOP	
Mu DESIGN MOMENT (FT.-LBS.):	8047	5645	
	$a =$ 0.25	0.18	
AREA OF STEEL REQ'D.:	0.17	0.12	(A.C.I. FLEXURE TABLES)

USE --> 18" WIDE X 18" DEEP GRADE BEAM

(NO SHEAR REINF. REQ'D.)

LATERAL OUTWARD THRUST @ BASE (T_u): 11040 LBS.

USE SAME TIE BEAM AS AT SIDEWALLS

NOTE: SEE CALC PAGE F16 FOR TOTAL AMOUNT OF REINF. REQUIRED INCLUDING LOADS FROM LATERAL SPR

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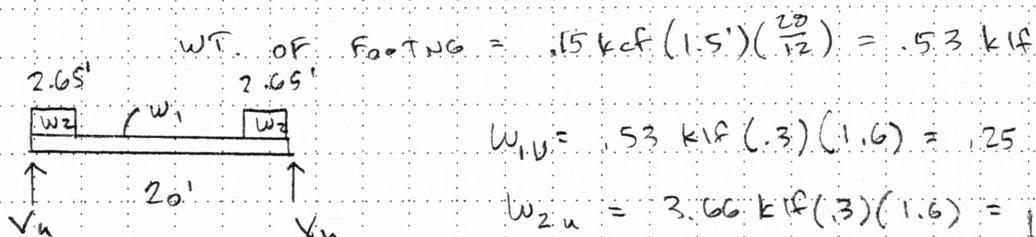
ASK4 Engineering, Inc.
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JOB NAME CITY OF ROSES DISPOSAL FDN.
 SHEET NO. F14 JOB NO. A11-21
 CALCULATED BY _____ DATE 6-19-2012
 CHECKED BY _____ DATE _____
 JOB ADDRESS _____

AT ENI

GRADE BEAM DESIGN FOR LATERAL LOADS DUE TO
 LATERAL SPREAD (SEE 6/18/12 EMAIL FROM SOLLS
 ENGINEER, ATTACHED)

AT SIDEWALL: LOAD FROM BUILDING = 19.4 k
 SPREAD OVER 5.3' \Rightarrow 3.66 klf



$$w_{1u} = .53 \text{ klf} (.3) (1.6) = .25 \text{ klf}$$

$$w_{2u} = 3.66 \text{ klf} (.3) (1.6) = 1.76 \text{ klf}$$

$$V_u = 1.76 \text{ klf} (2.65') + .25 \text{ klf} (10') = 7.16 \text{ k}$$

$$M_u = 7.16 \text{ k} (10') - .25 \text{ klf} (10')^2 \frac{1}{2} - 1.76 \text{ klf} (2.65') (8.68')$$

$$= 18.7 \text{ k}$$

$$T_u = V_u (18 \frac{1}{2}') = 7.16 \text{ k} (.75') = 5.4 \text{ k}$$

$$T_{CR} = \phi \sqrt{f'_c} \left(\frac{A_{cp}^2}{P_{cp}} \right) = .65 \sqrt{2500} \frac{[28(18)]^2}{2(28+18)}$$

$$= 89.7 \text{ k}$$

$$= 7.5 \text{ k} > 5.4 \text{ k}$$

(TORSION EFFECTS NEED
 NOT BE CONSIDERED)

AT TIE

$$M_u = 18.7 \text{ k}$$

$$b = 18 \text{''}$$

$$h = 28 \text{''}$$

$$d = 14 \text{''}$$

$$\rho = .47$$

$$A_{s \text{ min}} = .40 \text{ in}^2$$

w/ (2) #5 in(T) @ (B) For vertical

loads, $A_s \text{ prov.} = 1.24 \text{ in}^2$ OK



Seth Light <seth.light@gmail.com>

City of Roses Disposal Grade Beam Foundation Prelim

Greg Landau <Greg.Landau@hartcrowser.com>

Mon, Jun 18, 2012 at 2:06 PM

To: Seth Light <seth.light@gmail.com>

Cc: Nolan Bechtel <metallion.nolan@hotmail.com>, Michael Fritch <metallion_fasteners@hotmail.com>, Alando Simpson <alandosimpson@cityofrosesdisposal.com>

Seth,

You may use a bearing capacity up to 2,000 psf. We recommend that continuous wall footings have a minimum width of 18 inches. Exterior footings should be founded at least 18 inches below the lowest adjacent grade.

The forces exerted on the building related to lateral spreading are expected to include passive earth pressures on the sides of the grade beams and by friction on the bearing surface. The passive pressure is expected to exert a force on the uphill side of the structural elements as the soil mass moves toward the free face, while the frictional component will exert a force in the same direction as the soil moves beneath the footings. Based on the shallow depth of the grade beams, the passive pressure component is expected to be small related to the frictional component and can be ignored. Therefore, the lateral force exerted on the building foundation can be addressed by multiplying the weight exerted on the footing by the friction coefficient provided in our geotechnical report (0.30 for foundations placed on medium stiff or better silt and 0.5 for foundations placed on a minimum 2-foot thickness of compacted crushed rock).

Please let me know if you have questions.

Thanks, Greg.

HART CROWSER

Greg A. Landau, PE, GE

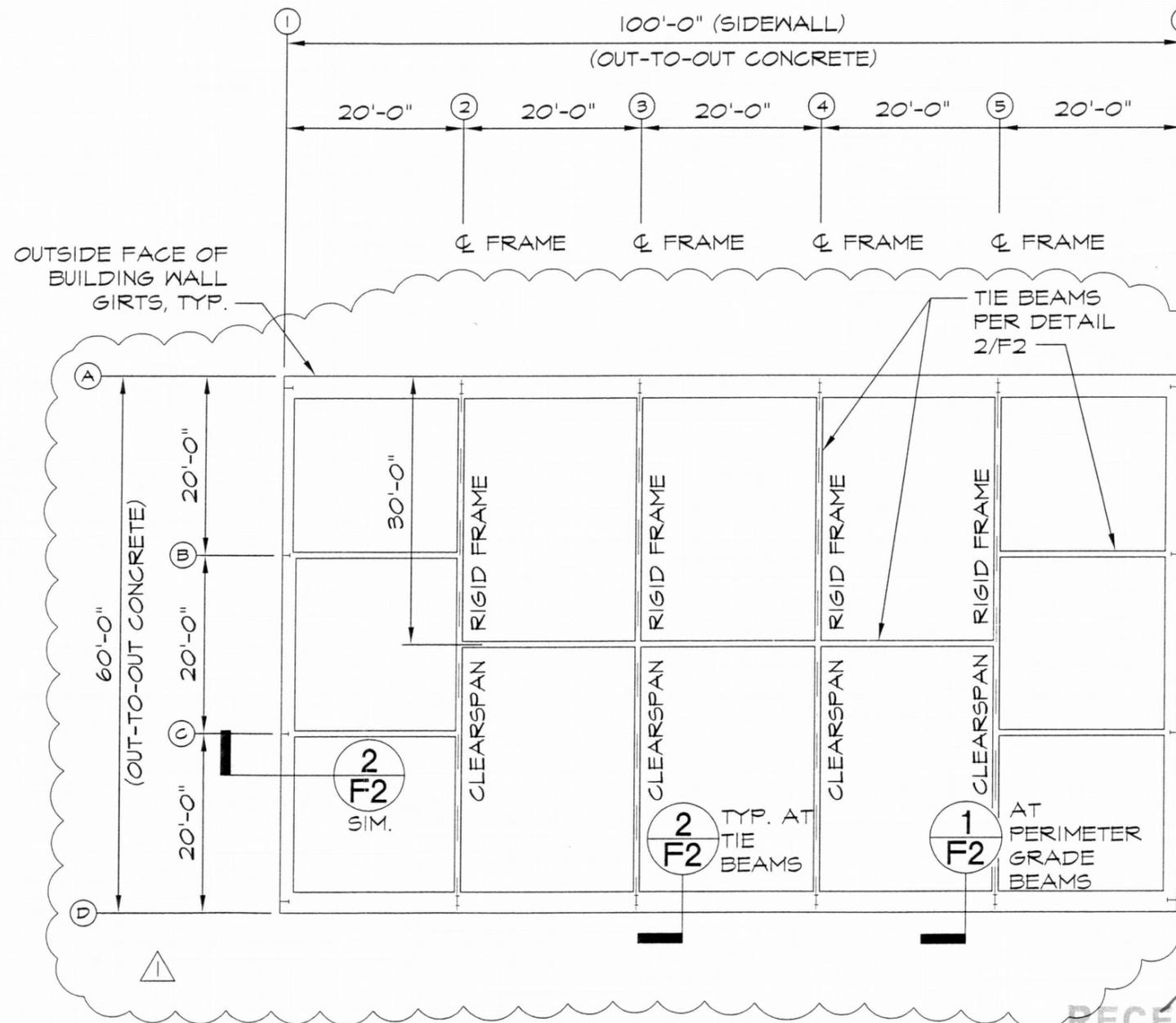
Senior Associate Geotechnical Engineer

O.971.327.9120 | M.503.347.5400 | Greg.Landau@HartCrowser.com

8910 SW Gemini Drive | Beaverton, OR 97008 | www.HartCrowser.com

TYP. FOUNDATION NOTES:

- 1) FOUNDATION DESIGN SHOWN IS FOR OLYMPIC STEEL BUILDING SYSTEMS JOB #U1100630A.
- 2) ALL CONCRETE SHALL HAVE A MIN. 28-day STRENGTH OF 2500 psi.
- 3) ALL STEEL REINFORCING TO CONFORM TO ASTM A615, GRADE 60. WELDED WIRE MESH SHALL CONFORM TO ASTM A185.
- 4) ALL ANCHOR BOLTS SHALL BE ASTM A1554, GRADE 36 THREADED RODS (WITH FULLY ENGAGED NUT AT BOTTOM). SPECIFIED EMBEDMENTS SHALL BE MEASURED FROM TOP OF CONCRETE TO TOP OF THREADED ROD NUT. SEE "OLYMPIA STEEL BUILDING SYSTEMS" DRAWINGS #F1 & F2 FOR ANCHOR BOLT LOCATIONS AND SIZES. ALL CLEARSPAN FRAME ANCHOR BOLTS SHALL BE 1"φ EMBEDDED 8" MIN. ALL ENDWALL AND CORNER COLUMN ANCHOR BOLTS SHALL BE 3/4"φ EMBEDDED 8" MIN. DOOR JAMBS ANCHORS SHALL BE 1/2"φ POWERS "WEDGE-BOLT+" ANCHORS EMBEDDED 2 1/2" MIN.
- 5) ALL EXCAVATION AND FOUNDATION PREPARATION/INSTALLATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY HART CROWSER, INC. AND DATED DECEMBER 23, 2011 FOR 5726 NE 109th AVENUE, PORTLAND, OREGON.



1 FOUNDATION PLAN
F1 SCALE: 1/16" = 1'-0"

City of Portland
 REVIEWED FOR CODE COMPLIANCE
 JUL 16 2012
 Permit Number

STRUCTURAL
 REGISTERED PROFESSIONAL ENGINEER
 #14889
 6/19/12
 OREGON
 MAY 30, 1989
 SETH M. LIGHT

RECEIVED
 JUN 21 2012
 City of Portland
 BDS - Document Services
 EXP. 12-31-12
 REV. 6-19-2012

<p>ASK4 Engineering, Inc. 18765 SE Jacoby Road Sandy, OR 97055 office: (503) 668-6550 fax: (888) 269-5424 email@ask4engineering.com</p>	<p>CITY OF ROSES DISPOSAL BLDG. 5726 NE 109th AVENUE PORTLAND, OREGON</p>	DRAWN sml	SCALE as noted	SHEET F1
		CHECKED	JOB NO. A11-21	
		DATE 1-27-2012		



NOTES AND SPECIFICATIONS

BUILDING ERECTION NOTES

1) THE GENERAL CONTRACTOR AND/OR ERECTOR IS RESPONSIBLE TO SAFELY AND PROPERLY ERECT THE METAL BUILDING SYSTEM IN CONFORMANCE WITH THESE DRAWINGS, OSHA REQUIREMENTS, AND MBMA STANDARDS PERTAINING TO PROPER ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE CORRECT USE OF TEMPORARY GUYS AND BRACING WHERE NEEDED FOR SQUARING, PLUMBING, AND SECURING THE STRUCTURAL AND SECONDARY FRAMING. SECONDARY WALL FRAMING MEMBERS (GIRTS OR BAR JOISTS) ARE NOT DESIGNED TO FUNCTION AS A WORK PLATFORM OR PROVIDE SAFETY TIE OFF ATTACHMENT IN ACCORDANCE WITH OSHA REQUIREMENTS. SECONDARY ROOF FRAMING MEMBERS (PURLINS OR BAR JOISTS) ARE NOT DESIGNED TO PROVIDE SAFETY TIE OFF ATTACHMENT IN ACCORDANCE WITH OSHA REQUIREMENTS.

2) ALL HIGH STRENGTH BOLTS ARE TYPE ASTM A325 AND ARE TO BE INSTALLED TO THE "SNUG-TIGHT" CONDITION AS DEFINED BY THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS 2004 EDITION, SECTION 8.1, UNLESS NOTED OTHERWISE. ALSO, NOTE THAT BOLTS IN STANDARD HOLES DO NOT REQUIRE WASHERS PER THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, SECTION 6.

3) ALL A307 MACHINE BOLTS ARE TO BE BROUGHT TO A "SNUG TIGHT" CONDITION TO ENSURE THAT THE MATERIALS IN THE JOINT ARE BROUGHT INTO GOOD CONTACT WITH EACH OTHER.

4) WASHERS ARE REQUIRED AT ALL SLOTTED CONNECTIONS AS FOLLOWS:
 =HOLE TO SLOT CONNECTION, ONE WASHER REQUIRED ON SLOTTED SIDE.
 =SLOT TO SLOT CONNECTION, TWO WASHERS REQUIRED, ONE ON EACH SIDE OF THE CONNECTION. HOWEVER AT LAPPED ZEE MEMBERS, WHETHER PURLINS OR GIRTS, NO WASHERS ARE REQUIRED IN THE 8-BOLT LAPPED REGION.

5) THE METAL BUILDING SUPPLIER SHALL BE NOTIFIED PRIOR TO ANY FIELD MODIFICATIONS. MODIFICATIONS SHALL BE APPROVED BY THE METAL BUILDING SUPPLIER BEFORE WORK IS UNDERTAKEN.

6) ALL WELDING MUST BE PERFORMED BY AWS QUALIFIED WELDERS FOR THE WELDING PROCESSES AND POSITIONS INDICATED. ALL WORK MUST BE COMPLETED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE AWS SPECIFICATIONS. WELD ELECTRODES USED FOR THE SMAW (OR STICK) WELD PROCESS MUST BE 70 KSI STEEL AND LOW HYDROGEN CONTENT.

7) COMMON ABBREVIATIONS:

- a) TYP UNO-TYPICAL UNLESS NOTED OTHERWISE
- b) SLV-SHORT LEG VERTICAL
- c) LLV-LONG LEG VERTICAL
- d) NS & FS-NEAR SIDE AND FAR SIDE
- e) O.A.L-OVERALL LENGTH
- f) SIM-SIMILAR
- g) NIC-NOT IN CONTRACT
- h) SL-STEEL LINE
- i) N/A-NOT APPLICABLE
- j) MBS-METAL BUILDING SUPPLIER

8) CONSTRUCTION LOADS SHALL NOT BE PLACED ON ANY STRUCTURAL STEEL FRAMEWORK UNLESS SUCH FRAMEWORK IS SAFELY BOLTED, WELDED, OR OTHERWISE ADEQUATELY SECURED.

9) PURLINS AND GIRTS SHALL NOT BE USED AS AN ANCHORAGE POINT FOR A FALL ARREST SYSTEM UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE METAL BUILDING SUPPLIER.

10) PURLINS MAY ONLY BE USED AS A WALKING/WORKING SURFACE WHEN INSTALLING SAFETY SYSTEMS, AFTER ALL PERMANENT BRIDGING HAS BEEN INSTALLED AND FALL PROTECTION IS PROVIDED.

11) CONSTRUCTION LOADS MAY BE PLACED ONLY WITHIN A ZONE THAT IS WITHIN 8 FEET OF THE CENTER-LINE OF THE PRIMARY SUPPORT MEMBER. CFR BUNDLES SHOULD BE PLACED DIRECTLY OVER THE RIGID FRAMES.

12) ALL LIFTING DEVICES MUST MEET OSHA OR MSHA STANDARDS AND IN NO CASE IS IT ACCEPTABLE TO USE STRUCTURAL MEMBERS SUPPLIED BY THE MBS AS A SPREADER BAR OR LIFTING DEVICE.

GENERAL DESIGN NOTES AND MATERIAL SPECIFICATIONS

1) ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS ARE DESIGNED IN ACCORDANCE WITH THE AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS-ALLOWABLE STRESS DESIGN", NINTH EDITION, OR THE AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS", THIRTEENTH EDITION, AS REQUIRED BY THE SPECIFIED BUILDING CODE.

2) ALL WELDING OF STRUCTURAL STEEL IS BASED ON AWS D1.1 "STRUCTURAL WELDING CODE", LATEST EDITION.

3) ALL COLD FORMED MEMBERS ARE DESIGNED IN ACCORDANCE WITH AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

4) ALL WELDING OF COLD FORMED STEEL IS BASED ON AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL", LATEST EDITION.

5) IF JOISTS ARE INCLUDED WITH THIS PROJECT, THEY ARE SUPPLIED AS A PART OF THE SYSTEMS-ENGINEERED METAL BUILDING AND ARE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1926.758 OF THE OSHA SAFETY STANDARD FOR STEEL ERECTION, DATED JANUARY 18, 2001.

6) MATERIAL SPECIFICATIONS:

- PLATE AND FLANGE MATERIAL:
 5"-12" WIDE & THRU 1" THICK _____ A529, GRADE 55
 OTHERS _____ A36
- BUILT-UP STRUCTURAL WEB MATERIAL _____ A1011 SS (OR HSLAS CL1) GR 55
 HOT-ROLLED STRUCTURAL _____ A36 OR A572 GRADE 50 OR A992 GRADE 50
 STRUCTURAL TUBE _____ A500 GRADE B (46 KSI)
 STRUCTURAL PIPE _____ A500 GRADE B (42 KSI)
 COLD-FORMED STRUCTURAL _____ A1011 OR A1039 SS (OR HSLAS CL1) GR 55
 RPB ROOF PANELS _____ A792 GRADE 80
 STANDING SEAM ROOF PANELS _____ A792 GRADE 50, CLASS 1
 R-PANEL AND A-PANEL SIDING _____ A653 GRADE 80, CLASS 1 OR A792 GRADE 80, CLASS 1
 ROD BRACING _____ A529 GRADE 50
 CABLE BRACING _____ A475 COATING CLASS A, GRADE EHS, 7-WIRE
 WELDS _____ AWS D1.1 LATEST EDITION
 HIGH-STRENGTH BOLTS _____ A325 TYPE 1 HEAVY HEX OR A490 TYPE 1 HEAVY HEX
 MACHINE BOLTS _____ A-307 GRADE A HEX

PROJECT NUMBER: U1100630A
 PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING
 PROJECT LOCATION: PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.

REVISED

FOR BUILDING ERECTION
 THIS IS NOT AN APPROVAL SET. YOUR BUILDING IS BEING FABRICATED NO CHANGES CAN BE MADE
 MAR 29 2012

BUILDING LOADS

DESIGN CODE: OSSC 10
 ROOF LIVE LOAD: 20.00 PSF MBMA OCC. CLASS: II
 LIVE LOAD REDUCIBLE Yes
 GROUND SNOW LOAD: 35.7 PSF SNOW EXP. FACTOR, Ce: 1.00
 SNOW IMPORTANCE FACTOR, Is: 1.00

WIND: 110 mph WIND IMPORTANCE FACTOR, Iw: 1.00
 EXPOSURE: C

UL 90 No
 Classic Roof-Const. No. 161; Classic Roof w/ Translucent Panel-Const. No. 167
 CFR Roof-Const. No. 552; CFR Roof w/ Translucent Panel-Const. No. 590;
 Composite CFR Roof-Const. No. 552A; VR16 II Roof-Const. No. 332.

SEISMIC INFORMATION Ss:0.957 S1:0.330
 Design Sds/Sd1: 0.713 / 0.383 Site Class: D
 Seismic Imp. Factor: 1.00 Seismic Design Category: D
 Analysis Procedure: Equivalent Lateral Force Method
 Basic SFRS: Ordinary Steel Moment Frames and Concentrically-Braced Frames

NOTES:
 1) COLLATERAL DEAD LOADS, UNLESS OTHERWISE NOTED, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILING, ETC., ARE SUSPENDED FROM ROOF MEMBERS, CONSULT THE M.B.S. IF THESE CONCENTRATED LOADS EXCEED 200 POUNDS, OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.

2) THE DESIGN OF STRUCTURAL MEMBERS SUPPORTING GRAVITY LOADS IS CONTROLLED BY THE MORE CRITICAL EFFECT OF ROOF LIVE LOAD OR ROOF SNOW LOAD, AS DETERMINED BY THE APPLICABLE CODE.

BUILDING	
ROOF DEAD (PSF):	3.00
PRI. COL. (PSF):	1
SEC. COL. (PSF):	1
SNOW Ct:	1.00
SNOW Cs:	1.00
ROOF SNOW (PSF):	25
WIND ENCLOSURE:	Closed
Gcpl:	0.18
SEISMIC R:	3.25
SEISMIC Cs:	0.219
BASE SHEAR (KIPS):	12.05

RECEIVED

MAY 01 2012
 City of Portland
 BDS - Document Services

REVISED FINAL ERECTION DRAWINGS.
 -PAGE C2 HAS BEEN ADDED WHICH PROVIDES ALL WELD INFO. FO THE PROJECT.
 -PAGE E2: CONNECTION DETAILS HAVE BEEN ADDED AND THE SCALE OF THE CROSS SECTION AS BEEN INCREASED FOR CLARITY.

ERECTION MANUALS REQUIRED
 (ERECTION MANUALS ARE SHIPPED WITH THE BUILDING IN A WAREHOUSE PACKING CRATE)

- CFR ROOF H9600 OR H8250 SINGLE CURB (H9850)
- CLASSIC ROOF H9420 OR H8201 DOUBLE CURB (H9800)
- WALL SHEETING H9430 OR H8300 VR16 II (H9925)

DRAWING INDEX

- COVERSHEET C1, C2
- ANCHOR BOLT DRAWINGS F1, F2
- COLUMN BASE REACTIONS F2
- STRUCTURAL/SHEETING DRAWINGS E1, E2, E3, E4, E5, E6, E2.1
- DETAILS D1, D2, D3

- YES NO FASCIA, PROJECTION: _____ TOP OF FASCIA HEIGHT: _____
- FACE PANEL, TYPE: _____ GAGE, FINISH: _____
- BACK PANEL, TYPE: _____ GAGE, FINISH: _____
- CAP TRIM PAINTED: _____ BASE TRIM PAINTED: _____
- CLOSED SYSTEM, CLEAR UNDER SOFFIT TRIM:
 SOFFIT PANEL, TYPE: _____ GAGE, FINISH: _____
 SOFFIT TRIM AT BUILDING LINE PAINTED: _____
- OPEN SYSTEM, (NO SOFFIT PANEL PROVIDED)
 CLEAR UNDER FASCIA: _____
- PARAPET SYSTEM
 STRUCTURAL PARAPET NON-STRUCTURAL PARAPET
 TOP OF PARAPET HEIGHT: _____
 BACKER PANEL, TYPE: _____ GAGE, FINISH: _____
- CANOPY (EXPOSED BEAM), PROJECTION: _____
 AT EAVE LINE BELOW EAVE
 ROOF PANEL, TYPE: _____ GAGE, FINISH: _____
 SOFFIT PANEL, TYPE: _____ GAGE, FINISH: _____
 SOFFIT TRIM AT BUILDING LINE PAINTED: _____
 CLEAR UNDER CANOPY BEAM: _____
- EAVE EXTENSION (CONCEALED BEAM), PROJECTION: _____
 SOFFIT PANEL, TYPE: _____ GAGE, FINISH: _____
 SOFFIT TRIM AT BUILDING LINE PAINTED: _____
- RAKE EXTENSION, PROJECTION: _____
 SOFFIT PANEL, TYPE: _____ GAGE, FINISH: _____
 SOFFIT TRIM AT BUILDING LINE PAINTED: _____
- PARTITION WALL SHEETING
 PANEL TYPE: _____ GAGE, FINISH: _____
 PARTITION WALL TRIM COLOR: _____

City of Portland
 REVISION CODE
 COMPLIANCE
 JUL 16 2012
 Permit Number

ERECTOR NOTE:

ALTERNATE FASTENERS HAVE BEEN SUBSTITUTED ON THIS BUILDING, WHERE THE DRAWINGS INDICATE AN H1040 STRUCTURAL FASTENER, H1030 FASTENERS WITH WASHERS HAVE BEEN SUPPLIED, WHERE THE DRAWINGS INDICATE AN H1060 TRIM FASTENER, H1050 FASTENERS WITH WASHERS HAVE BEEN SUPPLIED.

THE RIGID FRAME CONNECTIONS IN THIS PROJECT MUST BE TIGHTENED TO THEIR FULLY-PRE-TENSIONED STATE USING ANY OF THE ACCEPTABLE METHODS OUTLINED IN THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, 2004 EDITION. THE SCOPE OF THIS PROJECT PRECLUDES THE USAGE OF SNUG-TIGHT BOLTED CONNECTIONS AND ARE THUS NOT PERMITTED IN THIS CASE.

FOR OCCUPANCY CATEGORY I OR II BUILDINGS, IBC ALLOWS FOR SINGLE STORY BUILDINGS TO HAVE NO LIMIT FOR SEISMIC STORY DRIFT. PLEASE NOTE THAT ANY INTERIOR WALLS, PARTITIONS, CEILING, AND EXTERIOR WALLS SHOULD BE DETAILED (BY OTHERS) TO ACCOMMODATE THIS STORY DRIFT.

- PRIMARY AND SECONDARY STEEL PRIMER COLOR: RED
- ROOF SHEETING, TYPE: BY OTHERS GAGE, FINISH: _____
- ROOF PANEL CLIP TYPE: N/A TALL SHORT UTILITY FIXED FLOATING
- THERMAL BLOCKS: YES NO EPS FOAM SPACER: YES NO
- SEAMING METHOD (FOR CFR ONLY): ROLL LOCK™ VISE LOCK™ VISE LOCK 360™
- COMPOSITE CFR DECK, TYPE: N/A GAGE, FINISH: _____
- ROOF LINE TRIM, PAINTED: BY OTHERS NOTE: GUTTER HANGERS AND GINCH STRAPS PROVIDED IN GALVANIZED COLOR ONLY.
- EXTERIOR WALL SHEETING, TYPE: BY OTHERS GAGE, FINISH: _____
- EXTERIOR WALL CORNER TRIM FINISH: BY OTHERS
- EXTERIOR BASE TRIM, PAINTED: BY OTHERS
- FRAMED OPENING TRIM, PAINTED: BY OTHERS
- WALL FRAMED OPENING, SIZES: FSW none
 BSW (2) 10'-0" x 10'-0"
 LEW none
 REW none
- INTERIOR WALL SHEETING, TYPE: none GAGE, FINISH: _____
- INTERIOR CEILING LINER, TYPE: none GAGE, FINISH: _____
- INTERIOR WALL TRIM, PAINTED: none
- YES NO DOWNSPOUTS PAINTED: BY OTHERS GUTTERS PAINTED: BY OTHERS
- WALKDOORS, QUANTITY: _____ PAINTED: _____
- WINDOWS: _____ PAINTED: _____
- INSULATION (NOT BY MBS), ROOF: 4 INCH WALLS: 4 INCH
- CRANES (SEE CRANE PLAN FOR ADDITIONAL CRANE INFORMATION)
- MEZZANINE (SEE MEZZANINE PLAN FOR ADDITIONAL MEZZANINE INFO)
- WALL TRANSLUCENT PANELS: _____
- ROOF TRANSLUCENT PANELS: _____
- INSULATED PANELS YES NO
- PIPE JACKS, SIZE: _____ QUANTITY: _____
- ROOF FRAMED OPENINGS, SEE ROOF FRAMING PLAN FOR SIZES
- RIDGE VENTS, 10'-0" LONG X 9" THROAT. QUANTITY: _____

M.B.S. HAS ASSUMED THAT THE ROOF AND WALL PANEL BY OTHERS DOES NOT EXCEED 1 PSF.

THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR ASSURING THAT WALL SHEETING (NOT BY MBS) IS DESIGNED TO SAFELY WITHSTAND ALL CODE REQUIRED LOADINGS ASSOCIATED WITH THE GIRT SPACING PROVIDED. GIRT DESIGNS ASSUME THAT SHEETING PROVIDES A DIAPHRAGM STRENGTH EQUAL TO OR GREATER THAN 54 PLF. A STIFFNESS (G') EQUAL TO OR GREATER THAN 24.9 KIPS/IN. ALL TRIM AND FLASH FOR WALLS NOT PROVIDED BY THE MBS ARE TO BE SUPPLIED BY OTHERS.

THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR ASSURING THAT ROOF SHEETING (NOT BY MBS) IS DESIGNED TO SAFELY WITHSTAND ALL CODE REQUIRED LOADINGS ASSOCIATED WITH THE PURLIN SPACING PROVIDED. PURLIN DESIGNS ASSUME THAT SHEETING PROVIDES A DIAPHRAGM STRENGTH EQUAL TO OR GREATER THAN 97 PLF. A STIFFNESS (G') EQUAL TO OR GREATER THAN 32.4 KIPS/IN. ALL TRIM AND FLASH FOR ROOF NOT PROVIDED BY THE MBS ARE TO BE SUPPLIED BY OTHERS.

ISSUE	DATE	CHK	ENG	P.E.
Anchor Bolts - For Construction	12/09/11	TGW	TB	RRS
Permit Drawings	12/09/11	TGW	TB	RRS
Rev-1 Anchor Bolts-For Const.	1/23/12	TGW	TB	RRS
Rev-1 Permit Drawings	1/23/12	TGW	TB	RRS
FINAL ERECTION DRAWINGS	2/16/12	TGW	TB	RRS
REV-1 FINAL ERECTION DWGS	3/29/12	TGW	TB	RRS

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 MCKEES ROCKS, PA 15136
 PHONE: (888) 449-7756

PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

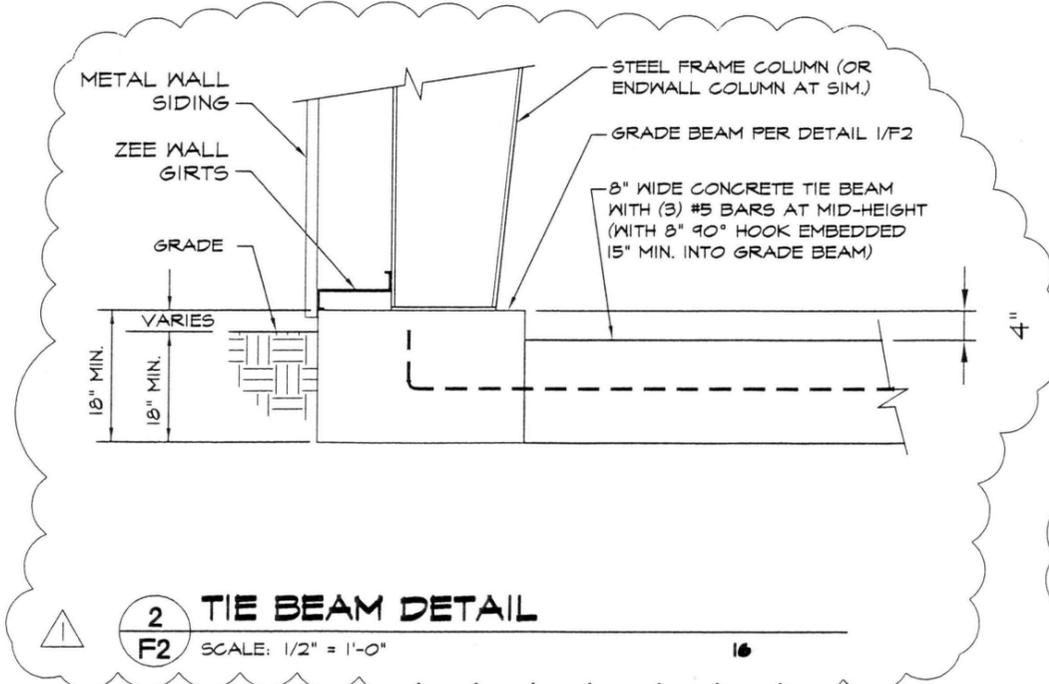
JOB NUMBER: U1100630A

SHEET NO: C1 of 2

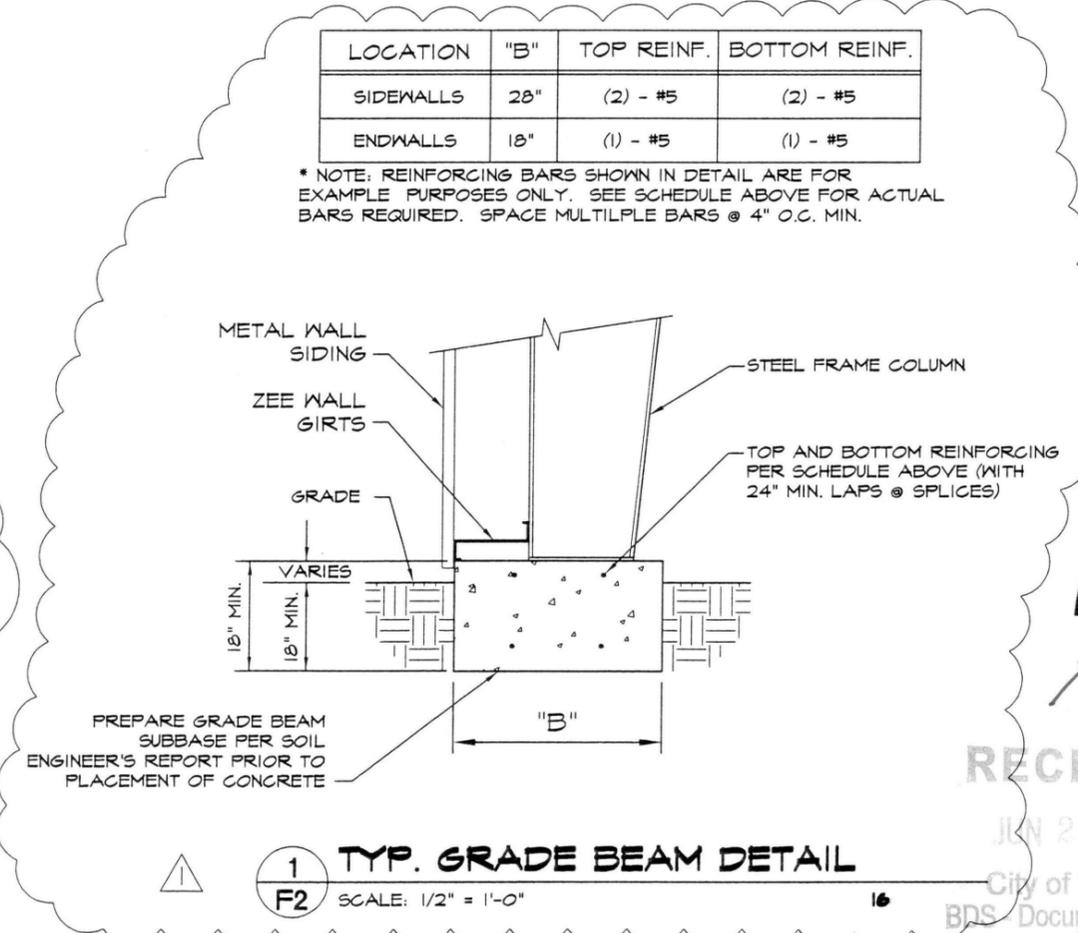
REGISTERED PROFESSIONAL ENGINEER
 78452PE
 SEPT. 14, 2004
 RUSSELL R. SKEN

EXPIRATION DATE: 06-30-2012

THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.



2 TIE BEAM DETAIL
 F2 SCALE: 1/2" = 1'-0"



1 TYP. GRADE BEAM DETAIL
 F2 SCALE: 1/2" = 1'-0"

LOCATION	"B"	TOP REINF.	BOTTOM REINF.
SIDEWALLS	28"	(2) - #5	(2) - #5
ENDWALLS	18"	(1) - #5	(1) - #5

* NOTE: REINFORCING BARS SHOWN IN DETAIL ARE FOR EXAMPLE PURPOSES ONLY. SEE SCHEDULE ABOVE FOR ACTUAL BARS REQUIRED. SPACE MULTIPLE BARS @ 4" O.C. MIN.

City of Portland
 REVIEWED FOR CODE COMPLIANCE
 JUL 16 2012
 Permit Number

STRUCTURAL
 REGISTERED PROFESSIONAL ENGINEER
 #14389
 6/19/12
 OREGON
 MAY 30, 1989
 SETH M. LIGHT
 EXP. 12-31-12

RECEIVED
 JUN 21 2012
 City of Portland
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 REV. 6-19-2012

ASK
 ENGINEERING
 INC.

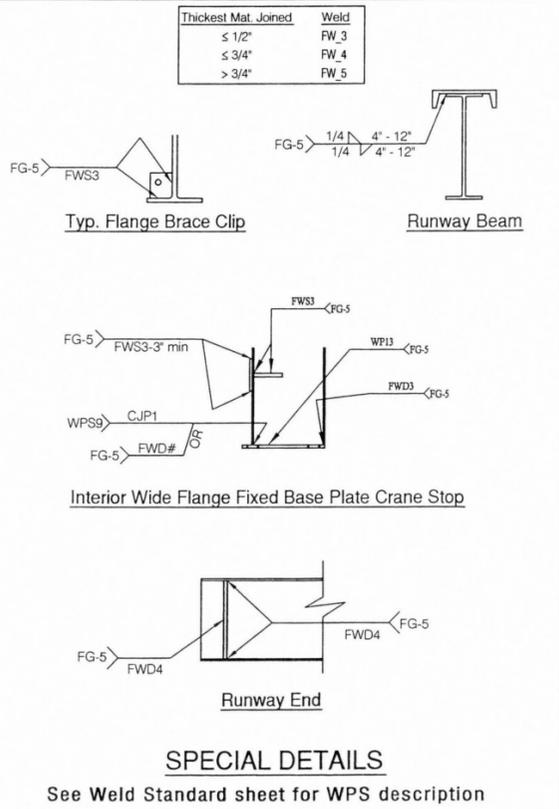
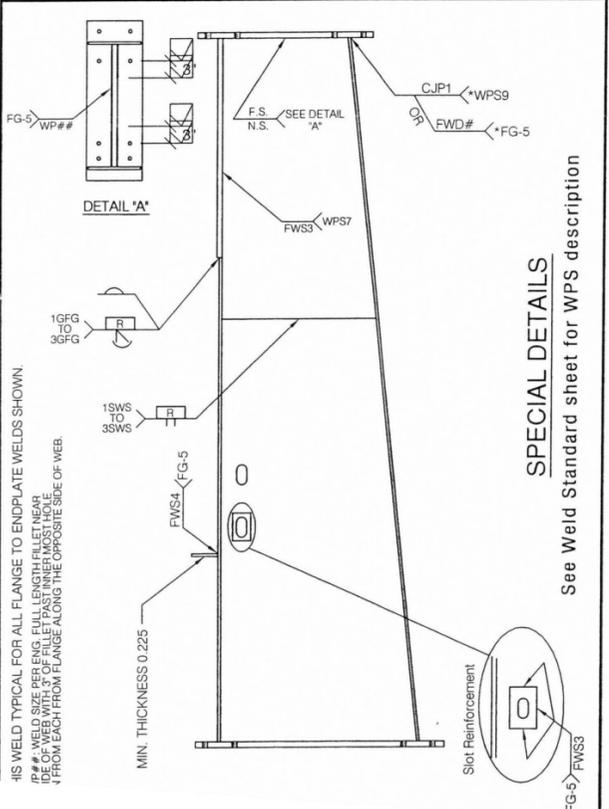
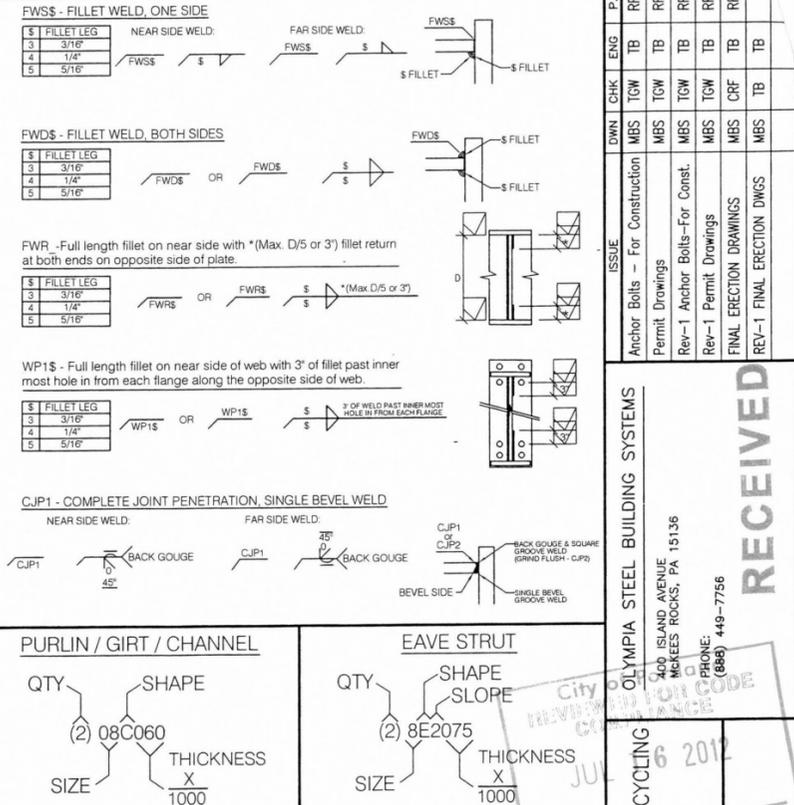
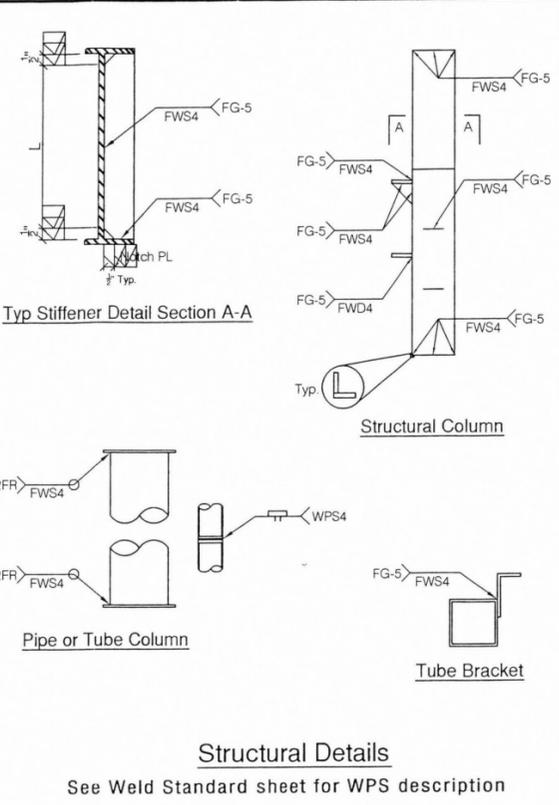
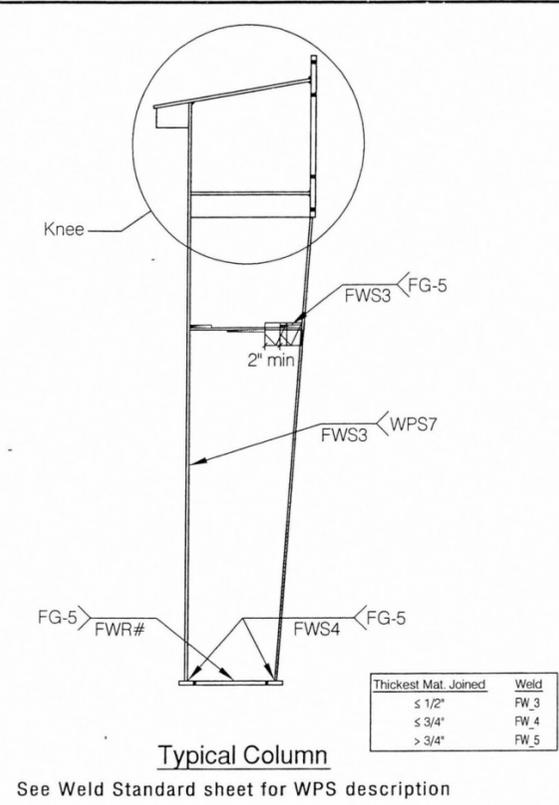
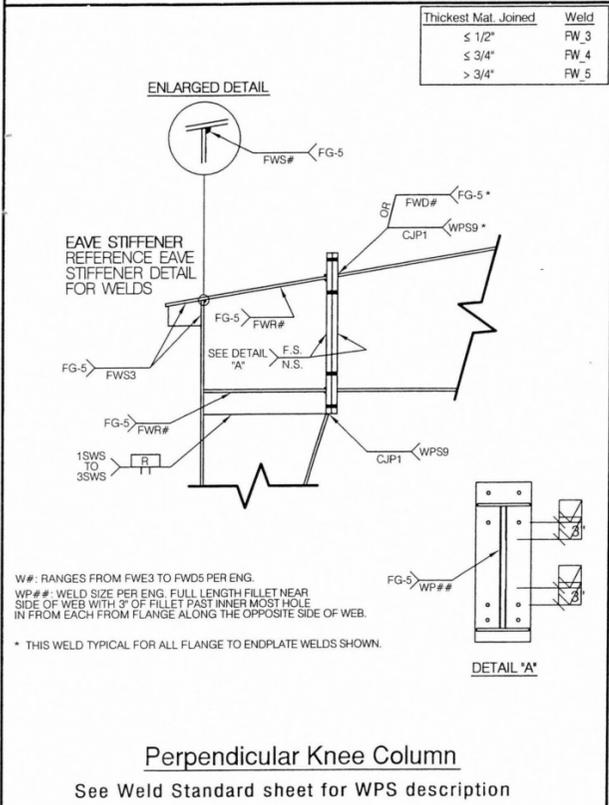
ASK4 Engineering, Inc.
 18765 SE Jacoby Road
 Sandy, OR 97055
 office: (503) 668-6550
 fax: (888) 269-5424
 email@ask4engineering.com

CITY OF ROSES DISPOSAL BLDG.
PORTLAND, OREGON
(Olympia Stl. Bldg. Syst. #U1100630A)

DRAWN aml	SCALE as noted
CHECKED	JOB NO. At1-21
DATE 1-27-2012	

SHEET
F2

STANDARD WELDS AND LEGEND



WPS #	Description	Weld Code	Process	Preq	Position	Limitation	Plant Location	
							UT	IN / SC
FG-4	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G	1/8" - 1/2"	X	X
FG-5	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	2F	1/8" - 1/2"	X	X
1FGF	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G	1/8" - 1/2"	X	X
2FGF	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G	1/8" - 1/2"	X	X
3FGF	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G-2F	1/8" - 1/2"	X	X
2036	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G-2F	1/8" - 1/2"	X	X
5FGF	1/2" multi-pass fillet weld	AWSD1-1-06	GMWV (multi-pass fillet weld)	POR	1G-2F	1/8" - 1/2"	X	X
1SWS	web splice for 0.175" through 0.315" thick	AWSD1-1-06	SAW (0.275-0.315" Web Splice)	POR	1G	0.275-0.315	X	X
2SWS	web splice for 0.175" through 0.150" thick	AWSD1-1-06	SAW (0.125-0.150" Web Splice)	POR	1G	0.125-0.150	X	X
3SWS	web splice for 0.375" through 0.250" thick	AWSD1-1-06	SAW (0.175-0.250" Web Splice)	POR	1G	0.175-0.250	X	X
2038	web splice for 0.375" through 0.500" thick	AWSD1-1-06	SAW (0.375-0.500" Web Splice)	POR	1G	0.375-0.500	X	X
2FR	pipe to endplate weld	AWSD1-1-06	GMWV (Pipe-to-Endplate Weld)	POR	ROTATED	6" thru 10"	X	X
FBG-1	rod to plate/angle weld	AWSD1-1-06	GMWV (Rod-to-Plate Weld)	POR	1G	Diameter 1/2" - 1 1/4"	X	X
WPS4	pipe splice for 0.134" through 0.375" thick	AWSD1-1-06	GMWV (Pipe Splice, 0.134"-0.375")	YES	ROTATED	Diameter 6-10"	X	X
WPS5	pipe splice for 0.375" through 0.500" thick	AWSD1-1-06	GMWV (Pipe Splice, 0.375"-0.500")	YES	ROTATED	Diameter 6-10"	X	X
WPS6	wide-flange beam splice, all sizes	AWSD1-1-06	GMWV (Hot-Rolled Splice Weld)	YES	1G	0.313-1.90	X	X
WPS7	flange to web weld made by autowelder using 0.062" electrode	AWSD1-1-06	SAW (Autowelder Weld)	YES	2F	0.125-1.00	X	X
WPS8	flange to web weld made by autowelder using 0.062" electrode	AWSD1-1-06	SAW (Small Autowelder Weld)	YES	2F	0.125-1.00	X	X
WPS9	complete penetration groove weld for tee connection, 1/2" thick	AWSD1-1-06	GMWV (Flange to endplate weld)	YES	1G	0.375-1.00	X	X
WPS1-1	vertical tack-fitters	AWSD1-1-06	GMWV (Vertical tack-fitters)	YES	3F	0.125 - Unlimited	X	X
WPS-1a	Cold-Form seam stitch weld	AWSD1-3-98	GMWV (CF seam stitch weld)	POR	FLAT	0.025" - 0.210"	X	X
WPS-1a	Cold-Form seam stitch weld (galvanized)	AWSD1-3-98	GMWV (CF seam stitch weld) (galvanized)	POR	FLAT	0.025" - 0.210"	X	X
WPS-2	Cold-Form seam weld	AWSD1-3-98	GMWV (CF seam weld)	POR	HORIZ	11-0.025" - 0.215"	X	X
WPS-2a	Cold-Form seam weld (galvanized)	AWSD1-3-98	GMWV (CF seam weld) (galvanized)	POR	HORIZ	11-0.025" - 0.215"	X	X
WPS-3	cold-form seam weld to support steel 3/16" thick	AWSD1-3-98	GMWV (CF seam weld to support steel)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-3a	cold-form seam weld to support steel 5/16" thick	AWSD1-3-98	GMWV (CF seam weld to support steel)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-4	cold-form tee connection fillet weld (galvanized)	AWSD1-3-98	GMWV (CF tee fillet weld) (galvanized)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-4a	cold-form tee connection fillet weld (galvanized)	AWSD1-3-98	GMWV (CF tee fillet weld) (galvanized)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-5	cold-form tee connection fillet weld to support steel ≥ 0.313" thick	AWSD1-3-98	GMWV (CF tee fillet to support steel)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-5a	cold-form tee connection fillet weld to support steel ≥ 0.313" thick (galvanized)	AWSD1-3-98	GMWV (CF tee fillet to support steel) (galvanized)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-6	cold-form lap fillet weld	AWSD1-3-98	GMWV (CF lap fillet weld)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-6a	cold-form lap fillet weld (galvanized)	AWSD1-3-98	GMWV (CF lap fillet weld) (galvanized)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-7	cold-form lap fillet weld to support steel ≥ 0.3125" thick	AWSD1-3-98	GMWV (CF lap fillet to support steel)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X
WPS-7a	cold-form lap fillet weld to support steel ≥ 0.3125" thick (galvanized)	AWSD1-3-98	GMWV (CF lap fillet to support steel) (galvanized)	POR	HORIZ	11-0.025" - 0.215", 12" ≥ 0.125"	X	X

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CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

PROJECT NAME: OLYMPIA STEEL BUILDING SYSTEMS
JOB NUMBER: U1100630A
SHEET NO: C2 of 2

EXPIRATION DATE: 06-30-2012

REGISTERED PROFESSIONAL ENGINEER
 75452PE
 SEP 14, 2004
 RUSSELL R. SMITH

THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.

ANCHOR BOLT SUMMARY

Qty	Locate	Dia (in)	Type	Proj (in)
32	Endwall	3/4"	F1554	3.00
32	Frame	1"	F1554	3.00

ISSUE	DWN	CHK	ENG	P.E.	DATE
Anchor Bolts - For Construction	MBS	TGW	TB	RRS	12/09/11
Permit Drawings	MBS	TGW	TB	RRS	12/09/11
Rev-1 Anchor Bolts - For Const	MBS	TGW	TB	RRS	1/23/12
Rev-1 Permit Drawings	MBS	TGW	TB	RRS	1/23/12

ANCHOR BOLT PLAN

GENERAL NOTES

1. THE SPECIFIED ANCHOR ROD DIAMETER ASSUMES F1554 GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR ROD MATERIAL OF EQUAL DIAMETER MEETING OR EXCEEDING THE STRENGTH REQUIREMENTS SET FORTH ON THESE DRAWINGS MAY BE UTILIZED AT THE DISCRETION OF THE FOUNDATION DESIGN ENGINEER. ANCHOR ROD EMBEDMENT LENGTH SHALL BE DETERMINED BY THE FOUNDATION DESIGN ENGINEER.
2. METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER, FAMILIAR WITH LOCAL SITE CONDITIONS.
3. ALL ANCHOR RODS, FLAT WASHERS FOR ANCHOR RODS, EXPANSION BOLTS, AS WELL AS ALL CONCRETE/MASONRY EMBEDMENT PLATES ARE NOT BY METAL BUILDING MANUFACTURER.
4. THIS DRAWING IS NOT TO SCALE.
5. FINISHED FLOOR ELEVATION = 100'-0" UNLESS NOTED OTHERWISE.
6. "SINGLE" CEE COLUMNS SHALL BE ORIENTED WITH THE "TOES" TOWARD THE LOW EAVE UNLESS NOTED OTHERWISE.
7. ANCHOR RODS ARE REQUIRED ONLY IN THE QUANTITIES SPECIFIED. BASEPLATES MAY BE FABRICATED WITH MORE HOLES THAN NEEDED FOR THIS PROJECT.
8. THE ANCHOR BOLT LOCATIONS PROVIDED BY METAL BUILDING MANUFACTURER SATISFY PERTINENT REQUIREMENTS FOR THE DESIGN OF THE MATERIALS SUPPLIED BY THE METAL BUILDING MANUFACTURER. PLEASE NOTE THAT THESE REQUIREMENTS MAY NOT SATISFY ALL ANCHOR BOLT CONCRETE EDGE DISTANCE REQUIREMENTS DEPENDING ON THE DETAILS OF THE FOUNDATION DESIGN. BECAUSE FOUNDATION DESIGN IS NOT WITHIN THE METAL BUILDING MANUFACTURER'S SCOPE OF WORK, IT IS THE RESPONSIBILITY OF THE QUALIFIED PROFESSIONAL DESIGNING THE FOUNDATION TO MAKE CERTAIN THAT SUFFICIENT CONCRETE EDGE DISTANCE IS PROVIDED FOR THE ANCHOR BOLTS IN THE DETAILS OF THE FOUNDATION DESIGN.

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 MCKEES ROCKS, PA 15136
 PHONE: (888) 449-7756

PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

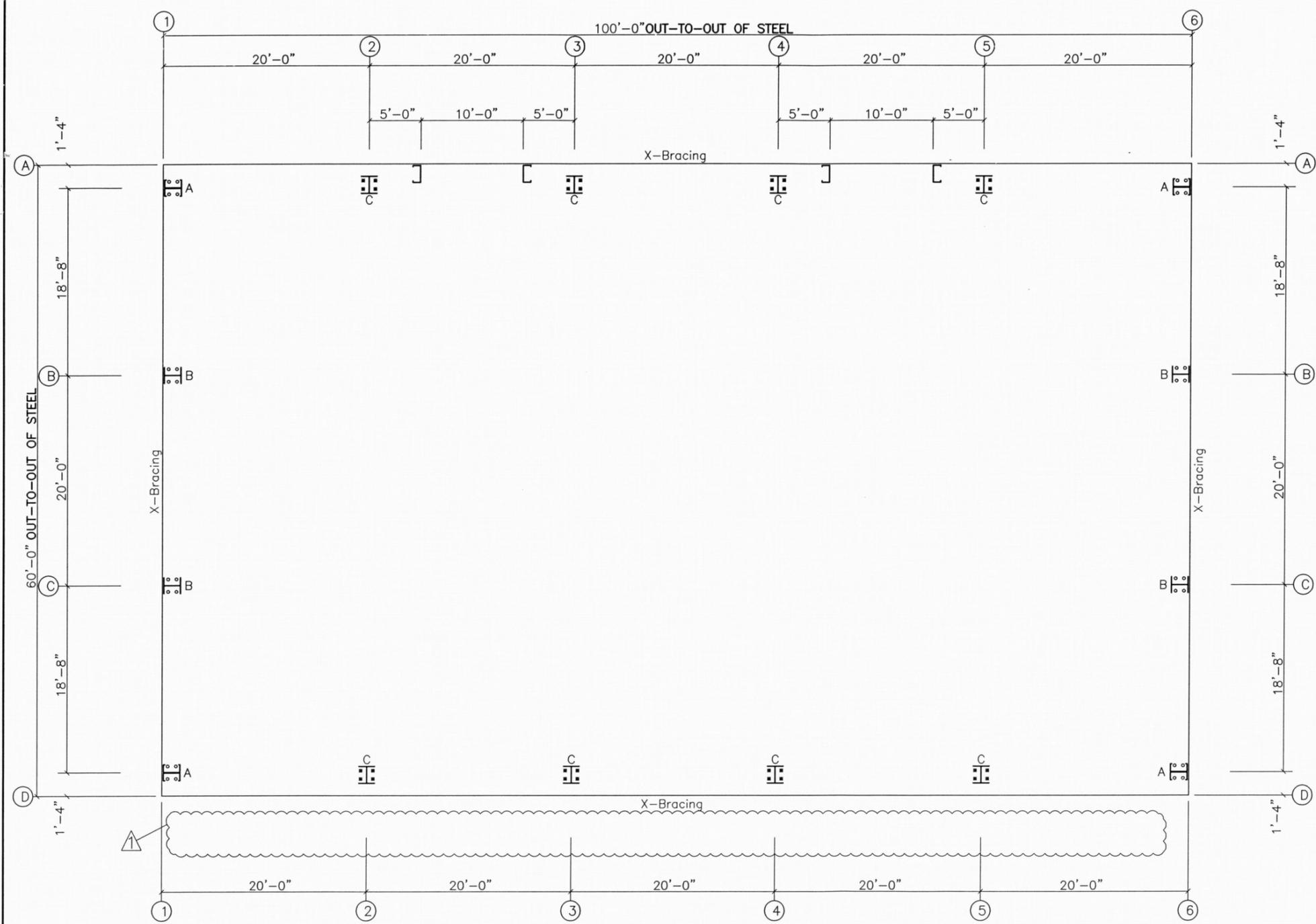
JOB NUMBER: U1100630A

SHEET NO: F1 of 2



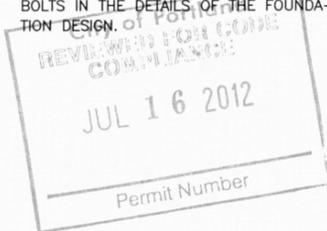
EXPIRATION DATE: 06-30-2012

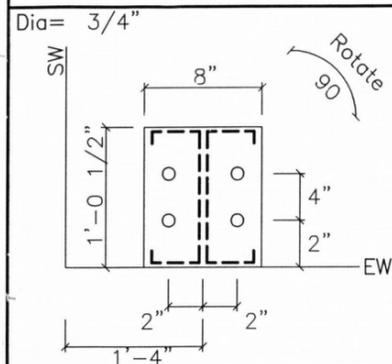
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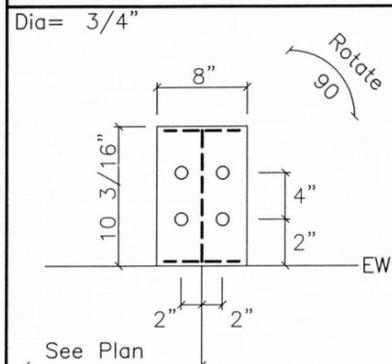
ANCHOR BOLT PLAN
 NOTE: All Base Plates @ 100'-0" (U.N.)

o Dia= 3/4"
 x Dia=1"

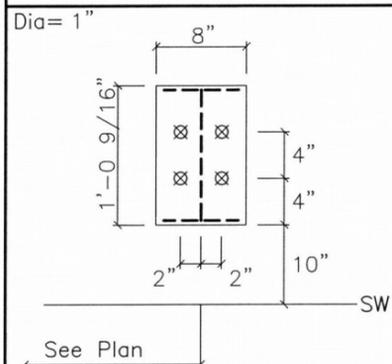




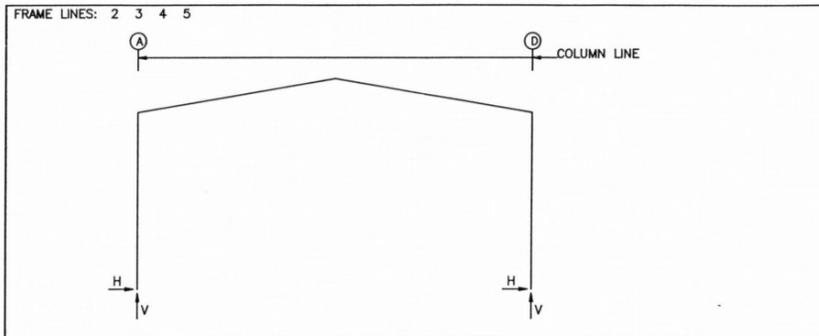
DETAIL A



DETAIL B



DETAIL C



RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Bolt Dia	Base Plate Width (in)	Base Plate Length (in)	Base Plate Thick (in)	Elev. (in)
2	A	4	1.000	8.000	12.56	0.500	0.0
2	D	4	1.000	8.000	12.56	0.500	0.0

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Bolt Dia	Base Plate Width (in)	Base Plate Length (in)	Base Plate Thick (in)	Elev. (in)
1	A	4	0.750	8.000	12.50	0.380	0.0
1	B	4	0.750	8.000	10.19	0.375	0.0
1	C	4	0.750	8.000	10.19	0.375	0.0
1	D	4	0.750	8.000	12.50	0.380	0.0
6	D	4	0.750	8.000	12.50	0.380	0.0
6	C	4	0.750	8.000	10.19	0.375	0.0
6	B	4	0.750	8.000	10.19	0.375	0.0
6	A	4	0.750	8.000	12.50	0.380	0.0

GENERAL NOTES

- ALL LOADING CONDITIONS ARE EXAMINED AND ONLY MAXIMUM/MINIMUM H OR V AND THE CORRESPONDING H OR V ARE REPORTED.
- REACTIONS ARE PROVIDED BY LOAD CASE IN ORDER TO AID THE FOUNDATION ENGINEER IN DETERMINING THE APPROPRIATE LOAD FACTORS AND COMBINATION TO BE USED WITH EITHER WORKING STRESS OR ULTIMATE STRENGTH DESIGN METHODS. WIND LOAD CASES ARE GIVEN FOR EACH PRIMARY WIND DIRECTION.
- POSITIVE REACTIONS ARE AS SHOWN IN THE SKETCH. FOUNDATION LOADS ARE IN OPPOSITE DIRECTIONS.
- BRACING REACTIONS ARE IN THE PLANE OF THE BRACE WITH THE H POINTING AWAY FROM THE BRACED YAW. THE VERTICAL REACTION IS DOWNWARD.

***** RIGID FRAME LOAD CASE ABBREVIATIONS: *****

Wind_L1/Wind_R1: LATERAL WIND FROM THE LEFT/RIGHT, CASE 1
 Wind_L2/Wind_R2: LATERAL WIND FROM THE LEFT/RIGHT, CASE 2
 Wind_Ln1/Wind_Ln2: LONGITUDINAL WIND, CASE 1/2
 Seismic_L/Seismic_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
 LWind_L/LWind_R: LONGITUDINAL WIND EDGE ZONES
 F#UNB_SL_L/F#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
 F#PAT_LL # / F#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS

***** ENDWALL COLUMN LOAD CASE ABBREVIATIONS: *****

Collat: COLLATERAL LOAD
 Rafter Wind_L/Rafter Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
 Brace Wind_L/Brace Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
 Wind_P/Wind_S: LONGITUDINAL WIND PRESSURE/SUCTION ON COLUMNS
 LWind_Ln: LONGITUDINAL WIND SUCTION ON ROOF
 Seis_L/Seis_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
 E#UNB_SL_L/E#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
 E#PAT_LL # / E#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead	Collat	Live	Snow	Rafter Wind_L	Rafter Wind_R	Brace Wind_L	Brace Wind_R	Wind_P	Wind_S	LnWind1	LnWind2
2	A	0.9	3.0	0.2	0.6	2.6	7.6	5.5	15.7	-7.9	-14.6	1.8	-8.2
2	D	-0.9	3.0	-0.2	0.6	-2.6	7.6	-5.5	15.8	-1.9	-8.2	7.9	-14.6

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

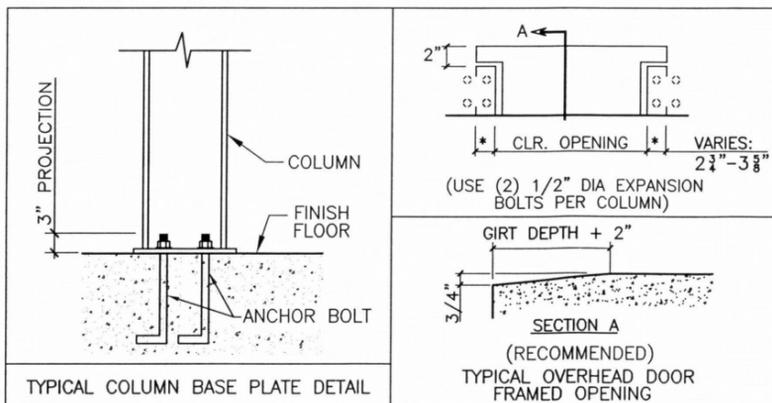
Frm Line	Col Line	Dead	Collat	Live	Snow	Rafter Wind_L	Rafter Wind_R	Brace Wind_L	Brace Wind_R	Wind_P	Wind_S	LnWind1	LnWind2
1	A	0.6	0.1	1.6	2.0	-2.7	-1.6	-2.7	-1.6	-3.0	3.7	-1.9	-1.1
1	B	1.6	0.2	4.8	6.0	-6.7	-4.4	-6.7	-4.4	-6.3	6.9	-5.0	-3.0
1	C	1.6	0.2	4.8	6.0	-6.7	-4.4	-6.7	-4.4	-6.3	6.9	-5.0	-3.0
1	D	0.6	0.1	1.6	2.0	-1.6	-2.7	-1.6	-2.7	-3.0	3.7	-1.9	-1.1

Frm Line	Col Line	E1PAT_SL 6	-LWIND1_L	-LWIND1_R	-LWIND2_L	-LWIND2_R
1	A	0.0	-0.3	0.0	0.0	0.0
1	B	0.0	1.4	0.0	0.1	0.0
1	C	0.0	3.3	0.0	0.1	0.0
1	D	0.0	0.9	0.0	0.0	-0.8

Frm Line	Col Line	E2PAT_SL 6	-LWIND1_L	-LWIND1_R	-LWIND2_L	-LWIND2_R
6	D	0.0	-0.3	0.0	0.0	0.0
6	C	0.0	1.4	0.0	0.1	0.0
6	B	0.0	3.3	0.0	0.1	0.0
6	A	0.0	0.9	0.0	0.0	-0.8

BUILDING BRACING REACTIONS

Wall Loc	Col Line	± Reactions (k)	Panel Shear (lb/ft)
L_EW	1 B,C	3.8 5.1 1.8 2.4	
F_SW	D 3,4	9.2 11.0 6.3 7.6	
R_EW	6 C,B	3.8 5.1 1.8 2.4	
B_SW	A 4,3	9.2 11.0 6.3 7.6	



FOUNDATION DESIGN NOTE:
 THE ORIENTATION OF THE ANCHOR BOLT DETAILS SHOWN ON THIS PAGE MAY NOT COINCIDE WITH THE ACTUAL COLUMN ORIENTATION SHOWN ON PAGE F1. PLEASE REFERENCE THE SIDEWALL (SW) AND ENDWALL (EW) STEEL LINES SHOWN ON THE ANCHOR BOLT PLAN ON PAGE F1 DURING LAYOUT OF COLUMN AND ANCHOR BOLT LOCATIONS.



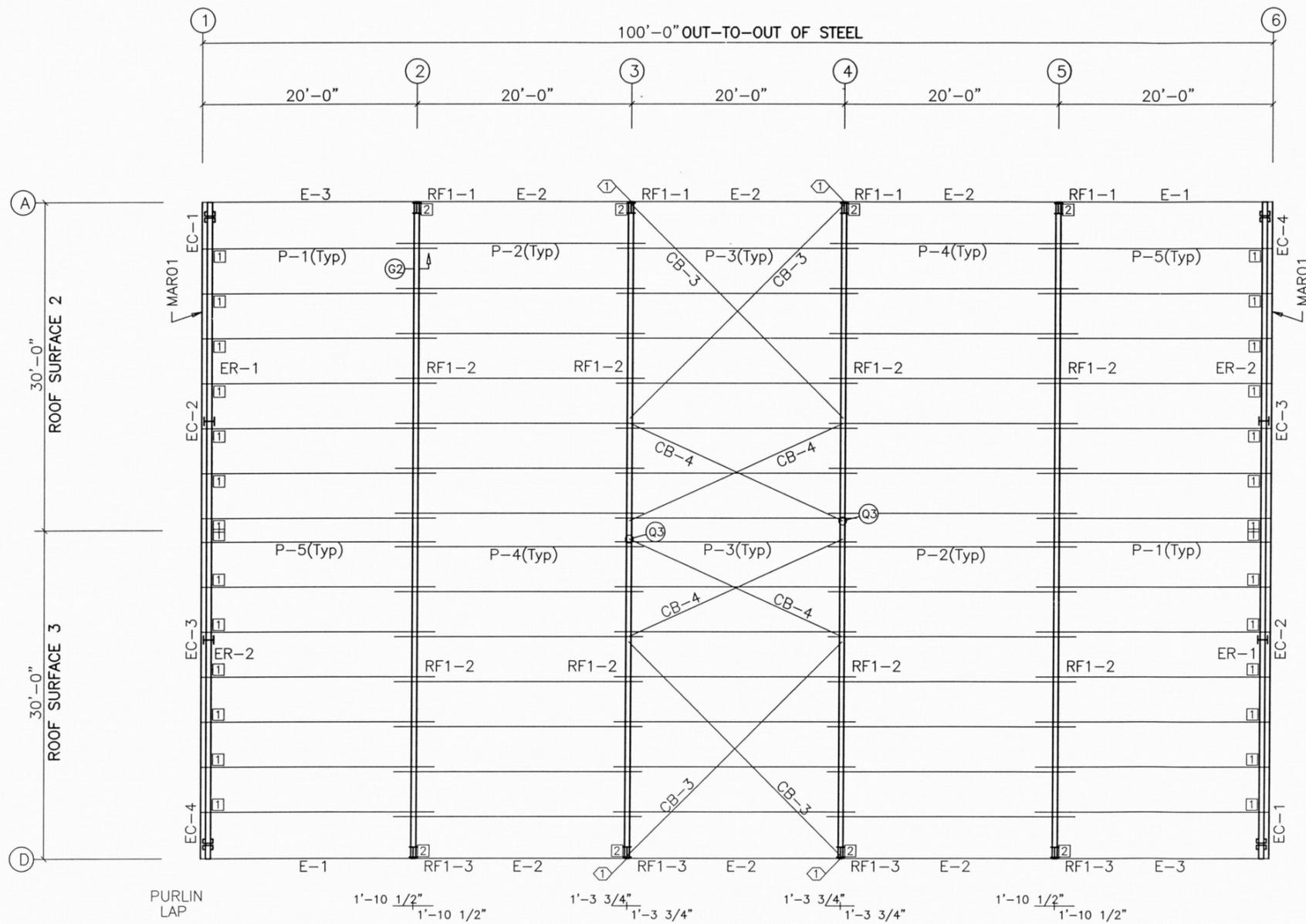
PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

JOB NUMBER: U1100630A
 SHEET NO: F2 of 2

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
 75452PE
 Russell R. Skem
 OREGON
 SEPT. 14, 2004
 RUSSELL R. SKEM

EXPIRATION DATE: 06-30-2012

THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.



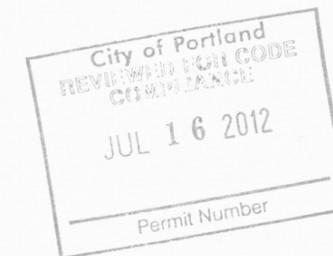
ROOF FRAMING PLAN

ROOF SHEETING
PANELS:
BY OTHERS

SPECIAL BOLTS				
ROOF PLAN				
Ø ID	QUAN	TYPE	DIA	LENGTH WASH
1	4	A325	1/2"	2" 1

MEMBER TABLE		
ROOF PLAN		
MARK	PART	LENGTH
P-1	08Z075	262.250
P-2	08Z060	278.250
P-3	08Z060	271.500
P-4	08Z060	278.250
P-5	08Z075	262.250
E-1	08E2060	239.500
E-2	08E2060	239.500
E-3	08E2060	239.500
CB-3	RDB-	329.000
CB-4	RDB-	269.000

CONNECTION PLATES	
ROOF PLAN	
Ø ID	MARK/PART
1	PCC02
2	ESC06



ROOF FRAMING PLAN

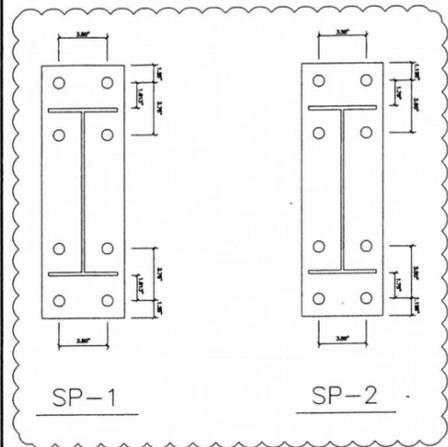
GENERAL NOTES

1. PLACE TAGGED END OF RAFTERS TOWARDS THE LOW EAVE.
2. STD. ROD/CABLE SIZES PER PART PREFIX ARE:

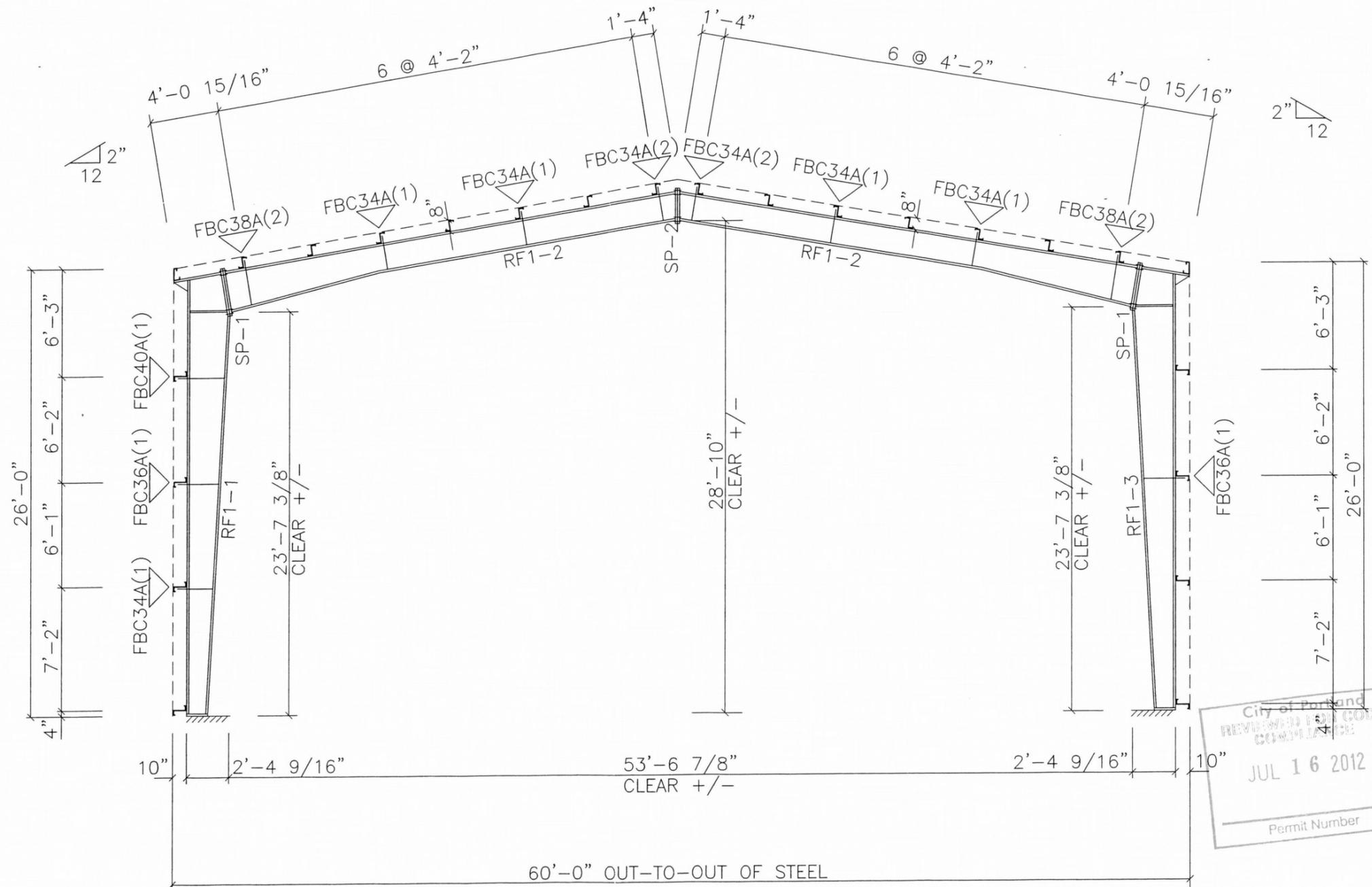
ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
3. PURLIN AND EAVE STRUT CONNECTIONS UTILIZE BOTH A307 AND A325 BOLTS. REFER TO THE DETAILS FOR SPECIFIC USAGE REQUIREMENTS.
4. THIS DRAWING IS NOT TO SCALE.

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>DATE</th><td>12/08/11</td></tr> <tr><th>P.E.</th><td>RRS</td></tr> <tr><th>ENG</th><td>TB</td></tr> <tr><th>CHK</th><td>TB</td></tr> <tr><th>DWN</th><td>TB</td></tr> </table>	DATE	12/08/11	P.E.	RRS	ENG	TB	CHK	TB	DWN	TB	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>ISSUE</th><td>Anchor Bolts - For Construction</td></tr> <tr><th>ISSUE</th><td>Permit Drawings</td></tr> <tr><th>ISSUE</th><td>Rev-1 Anchor Bolts - For Const</td></tr> <tr><th>ISSUE</th><td>Rev-1 Permit Drawings</td></tr> </table>	ISSUE	Anchor Bolts - For Construction	ISSUE	Permit Drawings	ISSUE	Rev-1 Anchor Bolts - For Const	ISSUE	Rev-1 Permit Drawings	<p>OLYMPIA STEEL BUILDING SYSTEMS</p> <p>400 ISLAND AVENUE MCKEES ROCKS, PA 15136 PHONE: (888) 449-7756</p> <hr/> <p>PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING</p> <p>PORTLAND, OR</p> <p>CUSTOMER: METALLION INDUSTRIES, INC. ESTACADA, OR</p> <hr/> <p>JOB NUMBER: U1100630A</p> <hr/> <p>SHEET NO: E1 of 6</p> <div style="text-align: center;"> </div> <p>EXPIRATION DATE: 06-30-2012</p> <p><small>THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.</small></p>
DATE	12/08/11																			
P.E.	RRS																			
ENG	TB																			
CHK	TB																			
DWN	TB																			
ISSUE	Anchor Bolts - For Construction																			
ISSUE	Permit Drawings																			
ISSUE	Rev-1 Anchor Bolts - For Const																			
ISSUE	Rev-1 Permit Drawings																			

SPLICE PLATE & BOLT TABLE									
Mark	Qty		Int	Type	Dia	Length	Width	Thick	Length
	Top	Bot							
SP-1	4	4	0	A325	0.750	2.75	6"	5/8"	2'-8 5/8"
SP-2	4	4	0	A325	0.625	2.25	6"	1/2"	1'-11 1/4"



Mark	Web Depth		Web Thick	Web Plate Length	Outside Flange			Inside Flange		
	Start	End			W	Thk	Length	W	Thk	Length
RF1-1	12.0	28.0	0.150	279.7	5	1/4"	304.7	5	5/16"	280.1
	28.0	23.2	0.220	28.9	6	3/8"	33.6			
RF1-2	26.0	17.0	0.188	110.3	5	1/4"	329.3	5	1/4"	110.6
	17.0	17.0	0.150	219.1	5	3/8"	33.6	5	3/16"	216.2
RF1-3	23.2	28.0	0.220	28.9	6	3/8"	33.6	6	5/16"	280.1
	28.0	12.0	0.150	279.7	6	1/4"	304.7			



GENERAL NOTES

- ▽ INDICATES FLANGE BRACING LOCATIONS. (1) = ONE SIDE; (2) = TWO SIDES.
- IF FLANGE BRACING IS REQUIRED ON BOTH SIDES OF AN EXPANDABLE RIGID FRAME, THE OPPOSITE SIDE FLANGE BRACES WILL HAVE TO BE INSTALLED AT THE TIME OF FUTURE EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.
- RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.

RIGID FRAME ELEVATION: FRAME LINE 2 3 4 5

City of Portland
 REVIEWED FOR CODE COMPLIANCE
 JUL 16 2012
 Permit Number

DATE	ISSUE	CHK	ENG	P.E.
12/09/11	Anchor Bolts - For Construction	MBS	TGW	RRS
12/09/11	Permit Drawings	MBS	TGW	RRS
1/23/12	Rev-1 Anchor Bolts-For Const.	MBS	TGW	RRS
1/23/12	Rev-1 Permit Drawings	MBS	TGW	RRS
2/16/12	FINAL ERECTION DRAWINGS	MBS	CRF	RRS
3/29/12	REV-1 FINAL ERECTION DWGS	MBS	TB	RRS

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 MCKEES ROCKS, PA 15136
 PHONE: (888) 449-7756

PROJECT NAME:
 CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER:
 METALLION INDUSTRIES, INC.
 ESTACADA, OR

JOB NUMBER:
 U1100630A

SHEET NO:
 E2 of 6

REGISTERED PROFESSIONAL ENGINEER
 75452PE
 OREGON
 SEPT. 14, 2004
 RUSSELL R. SKEM

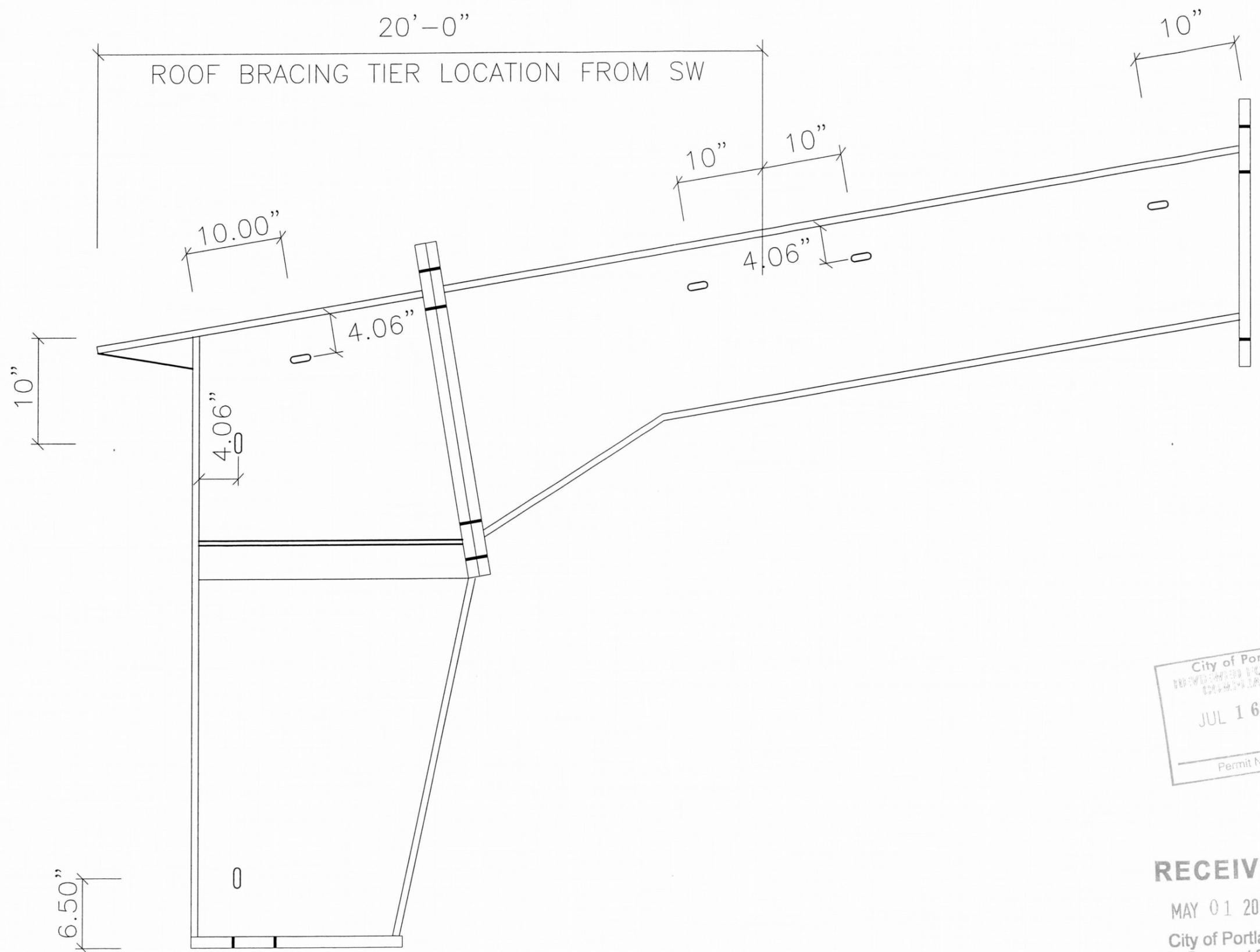
EXPIRATION DATE: 06-30-2012

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MAY 01 2012

City of Portland
 BDS - Document Services



City of Portland
 REVIEWED FOR CODE
 COMPLIANCE
 JUL 16 2012
 Permit Number

RECEIVED
 MAY 01 2012
 City of Portland
 BDS - Document Services

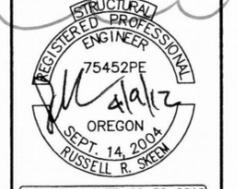
ISSUE	DWN	CHK	ENG	P.E.	DATE
Anchor Bolts - For Construction	MBS	TGW	TB	RRS	12/09/11
Permit Drawings	MBS	TGW	TB	RRS	12/09/11
Rev-1 Anchor Bolts-For Const.	MBS	TGW	TB	RRS	1/23/12
Rev-1 Permit Drawings	MBS	TGW	TB	RRS	1/23/12
FINAL ERECTION DRAWINGS	MBS	CRF	TB	RRS	2/16/12
REV-1 FINAL ERECTION DWGS	MBS	TB	TB	RRS	3/29/12
REV-2 FINAL ERECTION DWGS	MBS	CRF	TB		4/9/12

OLYMPIA STEEL BUILDING SYSTEMS
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 McKEES ROCKS, PA 15136
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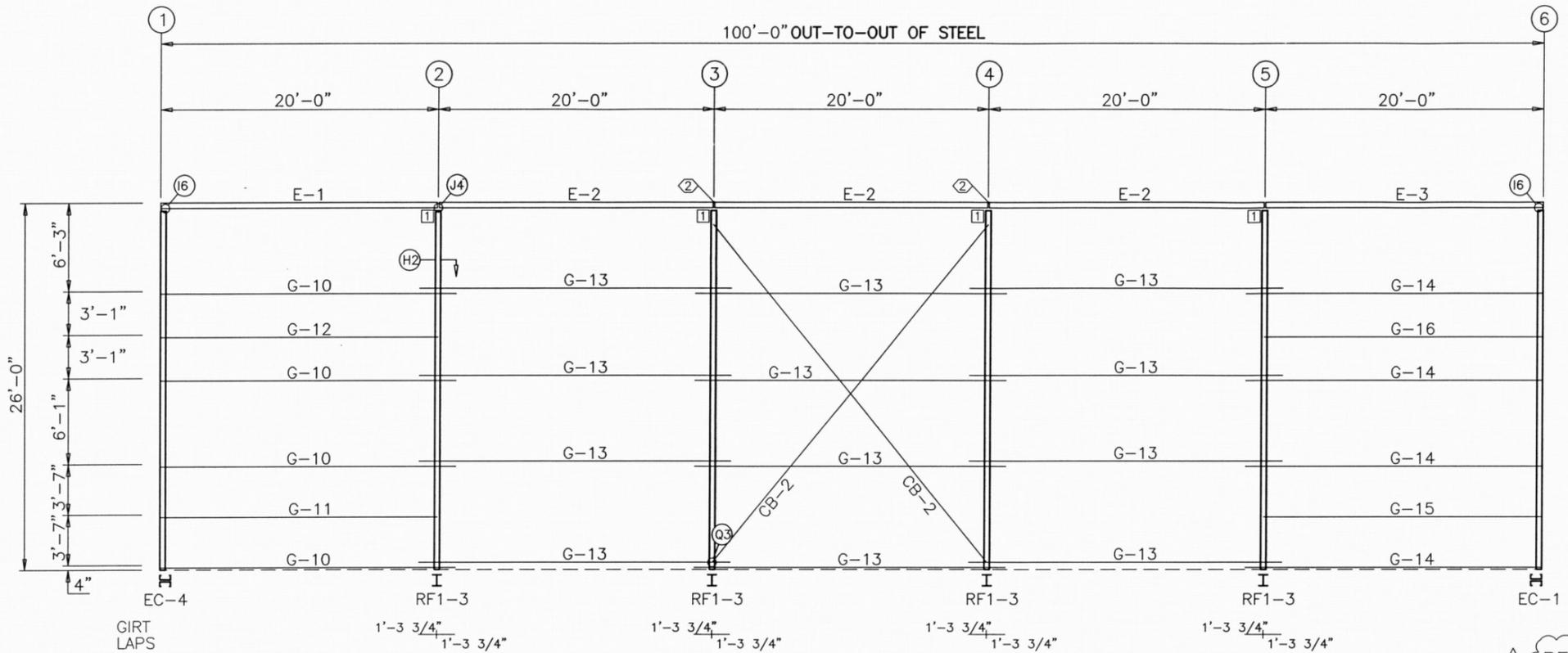
PROJECT NAME:
 CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
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 ESTACADA, OR

JOB NUMBER:
 U1100630A

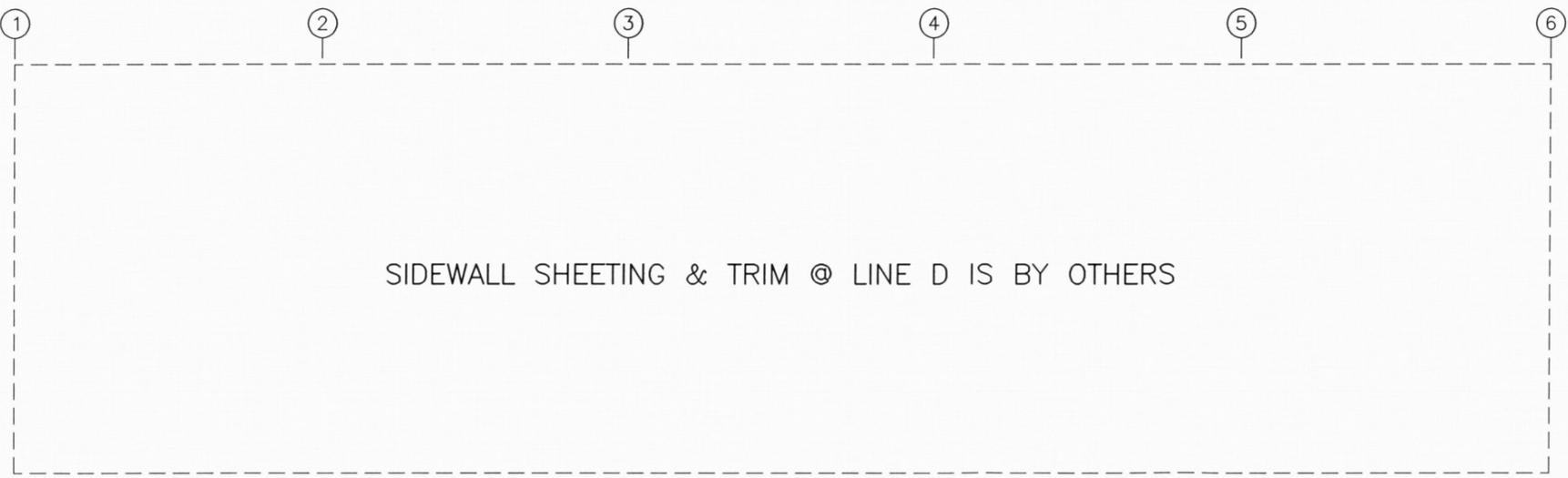
SHEET NO:
 E2.1 of 6



EXPIRATION DATE: 06-30-2012
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SIDEWALL FRAMING: FRAME LINE D



SIDEWALL SHEETING & TRIM @ LINE D IS BY OTHERS

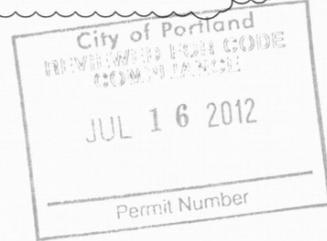
SIDEWALL SHEETING & TRIM: FRAME LINE D

SPECIAL BOLTS					
Q ID	QUAN	TYPE	DIA	LENGTH	WASH
2	4	A325	1/2"	2"	1

MEMBER TABLE		
FRAME	LINE	D
MARK	PART	LENGTH
E-1	08E2060	239.500
E-2	08E2060	239.500
E-3	08E2060	239.500
G-10	10Z060	255.500
G-11	10Z075	242.000
G-12	10Z067	242.000
G-13	10Z060	271.500
G-14	10Z060	255.500
G-15	10Z075	242.000
G-16	10Z067	242.000
CB-2	RDD-	383.000

CONNECTION PLATES	
FRAME	LINE
Q ID	MARK/PART
1	ESC06

REMOVED OPENINGS - REVIEW IN FULL



SIDEWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

DATE	ENG	CHK	DWN	ISSUE
12/09/11	RIS	TB	MBS	Anchor Bolts - For Construction
12/09/11	RIS	TB	MBS	Permit Drawings
1/23/12	RIS	TB	MBS	Rev-1 Anchor Bolts - For Const
1/23/12	RIS	TB	MBS	Rev-1 Permit Drawings

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 MCKEES ROCKS, PA 15136
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PROJECT NAME:
 CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
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 METALLION INDUSTRIES, INC.
 ESTACADA, OR

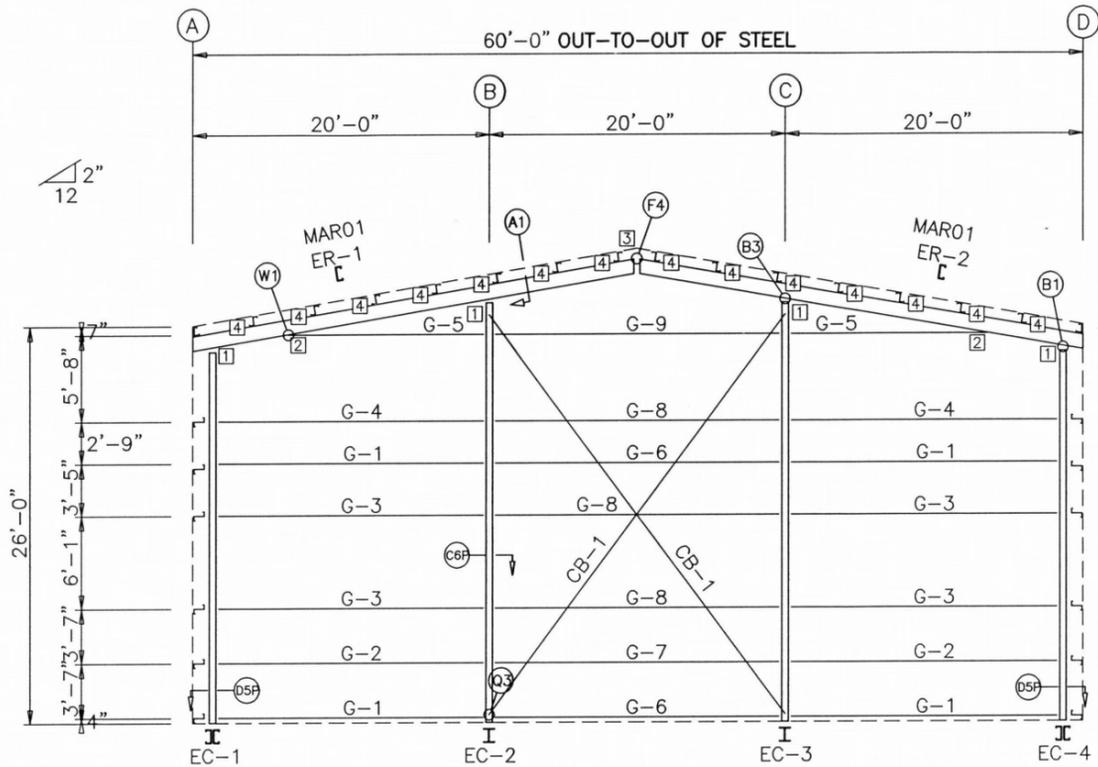
JOB NUMBER:
 U1100630A

SHEET NO:
 E3 of 6

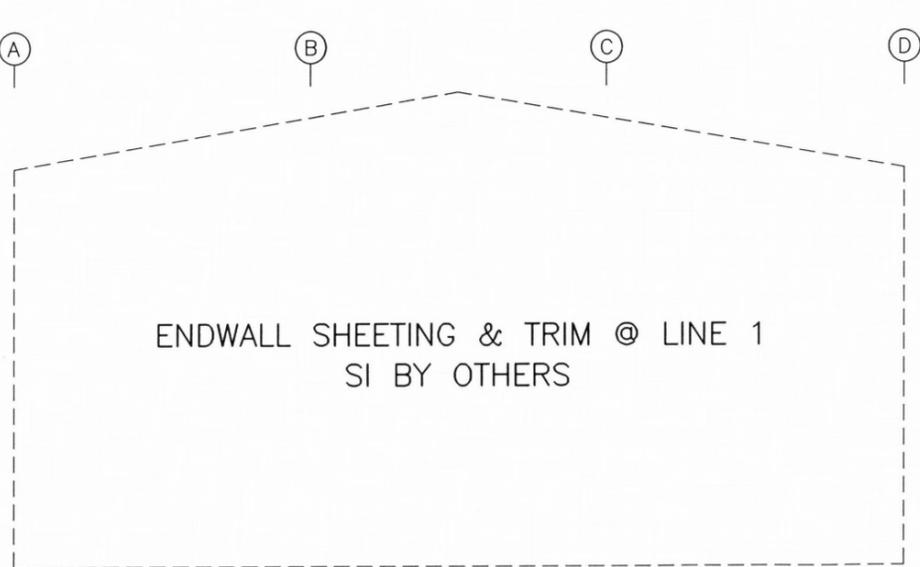


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ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

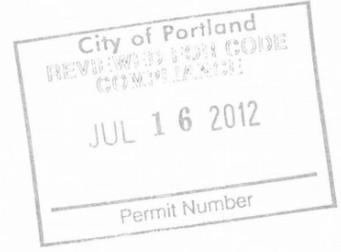
BOLT TABLE				P.E.	DATE
FRAME LINE 1				RRS	12/09/11
LOCATION	QUAN	TYPE	DIA	LENGTH	
ER-1/ER-2	4	A325	1/2"	2"	
Cor_Column/Raf	6	A325	1/2"	2"	
Int_Column/Raf	2	A325	1/2"	2"	

MEMBER TABLE			OWN	CHK	ENG	DATE
FRAME LINE 1			MBS	TGW	TB	RRS
MARK	PART	LENGTH	MBS	TGW	TB	RRS
EC-1	W12SD089	294.391				
EC-2	W10x22	332.203				
EC-3	W10x22	332.203				
EC-4	W12SD089	294.391				
ER-1	W12S120	362.459				
ER-2	W12S120	362.459				
G-1	08Z060	215.500				
G-2	08Z067	215.500				
G-3	08Z089	215.500				
G-4	08Z075	215.500				
G-5	08Z089	150.590				
G-6	08Z060	231.500				
G-7	08Z075	231.500				
G-8	08Z089	231.500				
G-9	08Z099	231.500				
CB-1	RDB-	405.000				

CONNECTION PLATES	
FRAME LINE 1	
ID	MARK/PART
1	EWA01
2	GCR32ewa
3	NCR04
4	PCC02

ISSUE	DATE	BY	CHK	ENG
Anchor Bolts - For Construction	12/09/11	RRS	TGW	TB
Permit Drawings	12/09/11	RRS	TGW	TB
Rev-1 Anchor Bolts - For Const.	1/23/12	RRS	TGW	TB
Rev-1 Permit Drawings	1/23/12	RRS	TGW	TB

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 WAREHOUSES, PA 15136
 PHONE: (888) 449-7756



ENDWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:
 ROD: RDB- = 5/8" ROD, RDC- = 3/4" ROD, RDD- = 7/8" ROD, RDE- = 1" ROD, RDF- = 1 1/8" ROD, RDG- = 1 1/4" ROD
 CABLE: CAA- = 1/4" CABLE, CAB- = 3/8" CABLE, CAC- = 1/2" CABLE
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

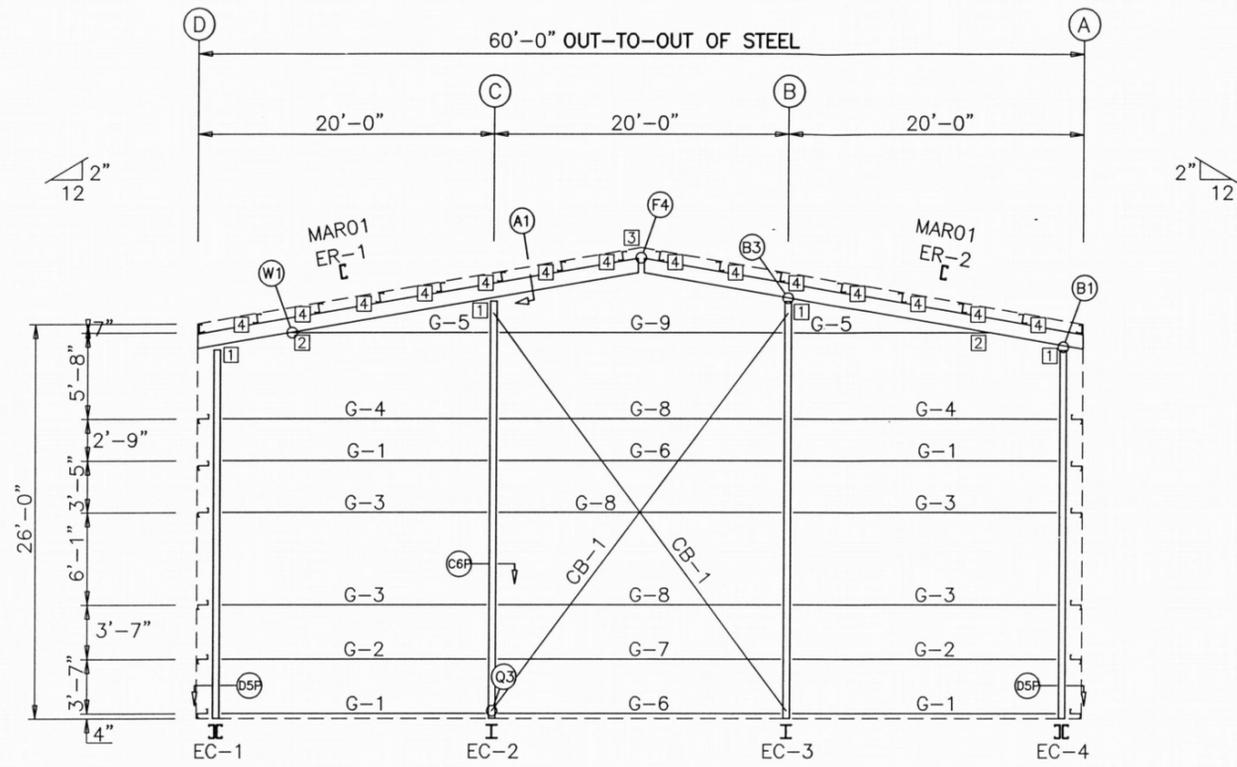
PROJECT NAME: CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

JOB NUMBER: U1100630A

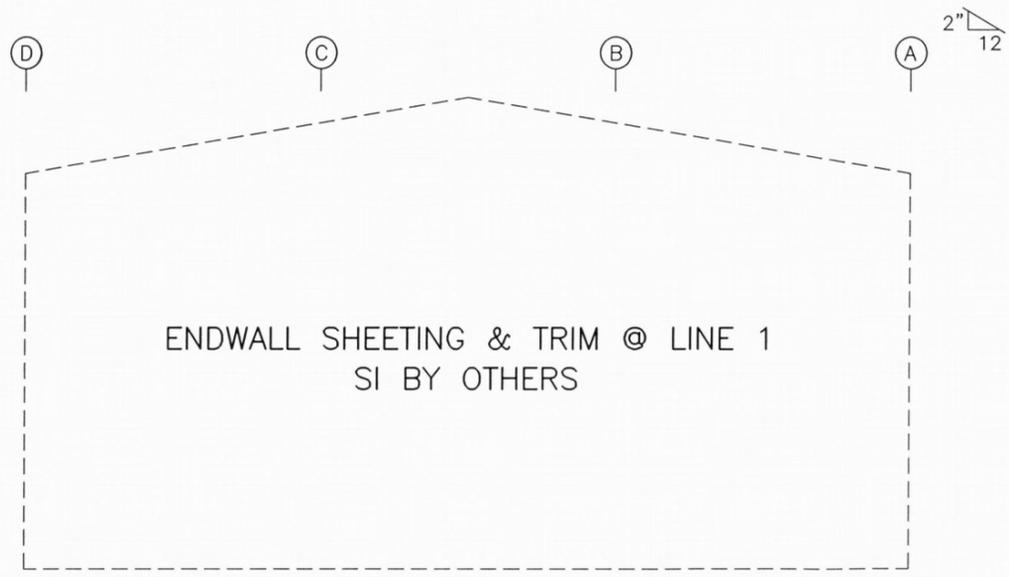
SHEET NO: E5 of 6



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ENDWALL FRAMING: FRAME LINE 6



ENDWALL SHEETING & TRIM: FRAME LINE 6

BOLT TABLE				
FRAME LINE 6				
LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-2	4	A325	1/2"	2"
Cor_Column/Raf	6	A325	1/2"	2"
Int_Column/Raf	2	A325	1/2"	2"

MEMBER TABLE		
FRAME LINE 6		
MARK	PART	LENGTH
EC-1	W12SD089	294.391
EC-2	W10x22	332.203
EC-3	W10x22	332.203
EC-4	W12SD089	294.391
ER-1	W12S120	362.459
ER-2	W12S120	362.459
G-1	08Z060	215.500
G-2	08Z067	215.500
G-3	08Z089	215.500
G-4	08Z075	215.500
G-5	08Z089	150.590
G-6	08Z060	231.500
G-7	08Z075	231.500
G-8	08Z089	231.500
G-9	08Z099	231.500
CB-1	RDB-	405.000

CONNECTION PLATES	
FRAME LINE 6	
ID	MARK/PART
1	EWA01
2	GCR32ewa
3	NCR04
4	PCC02



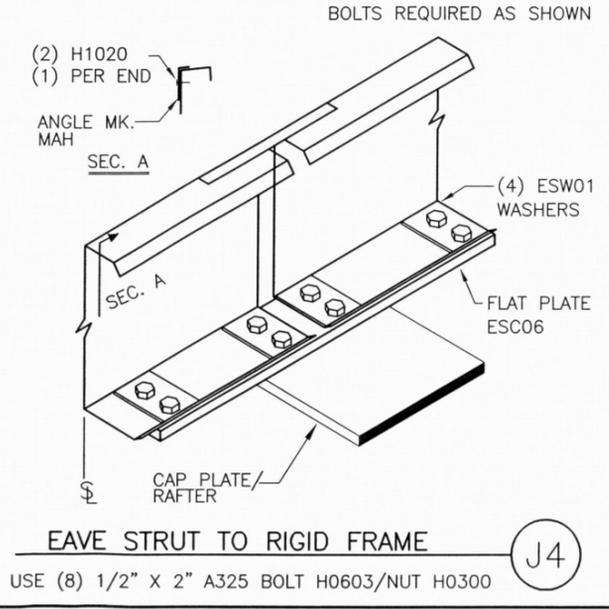
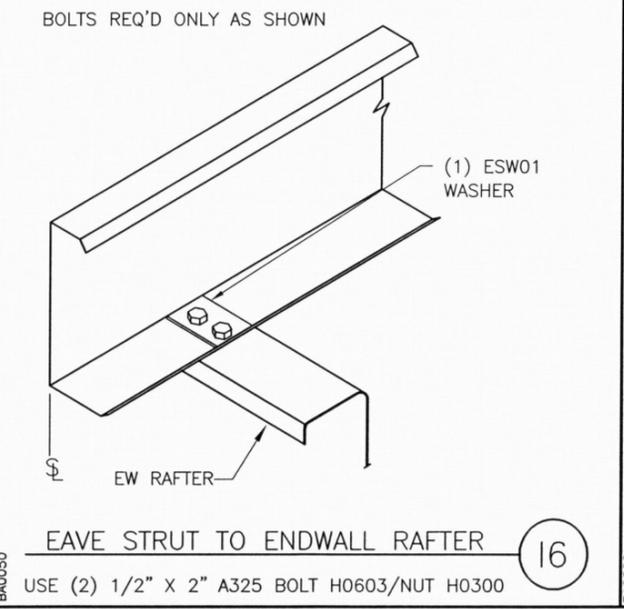
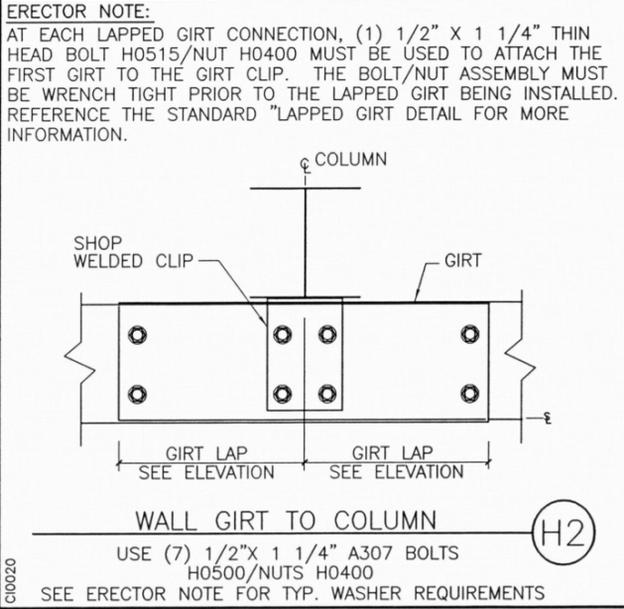
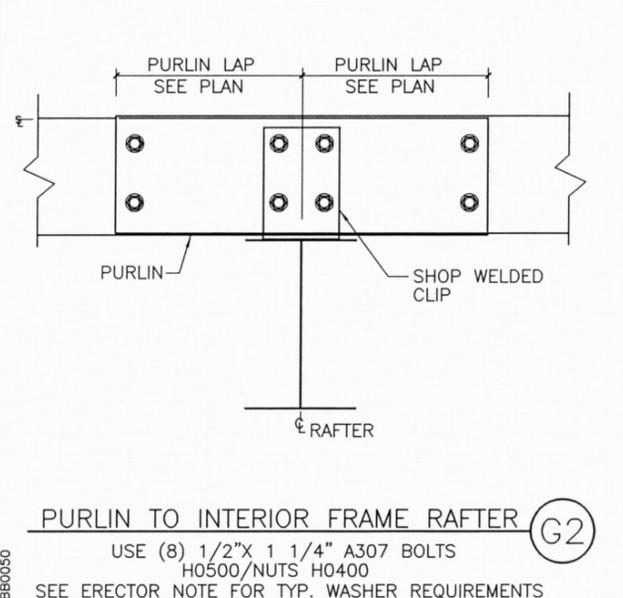
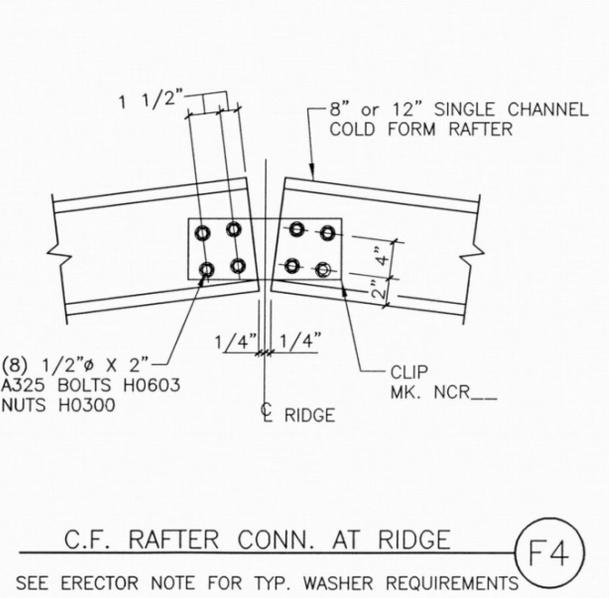
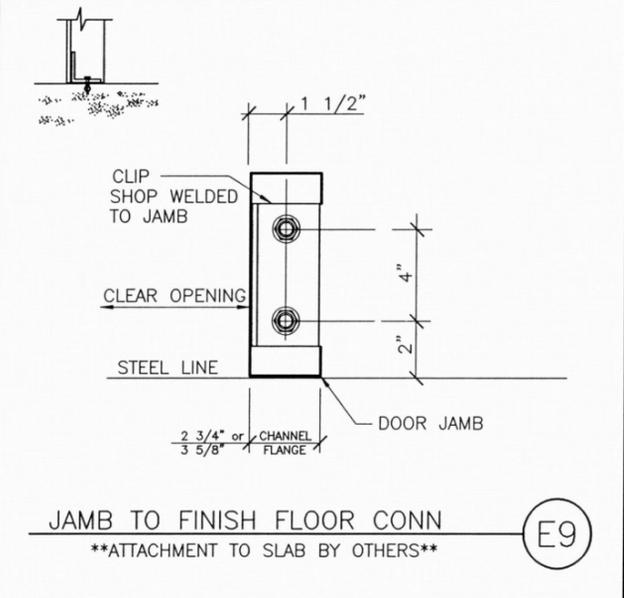
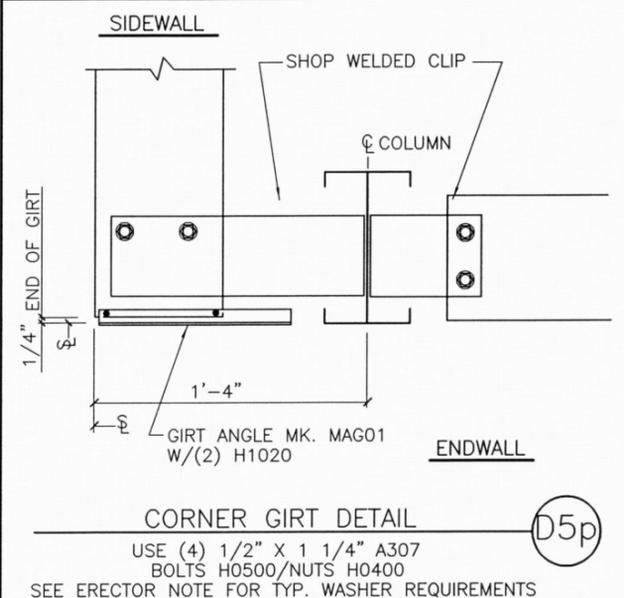
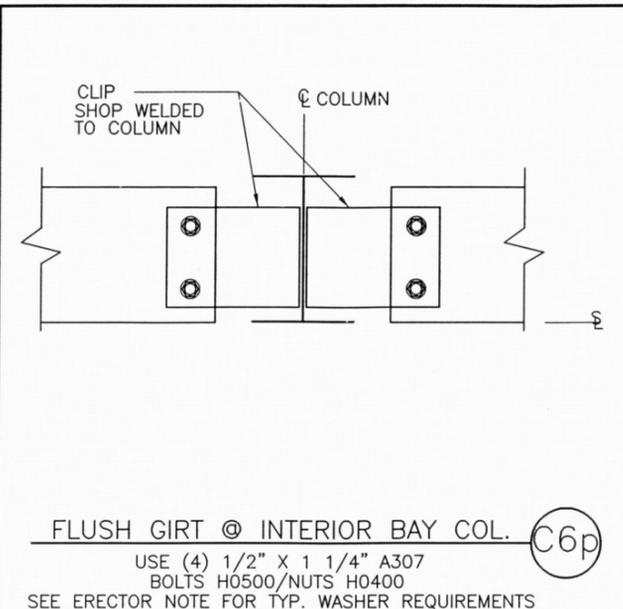
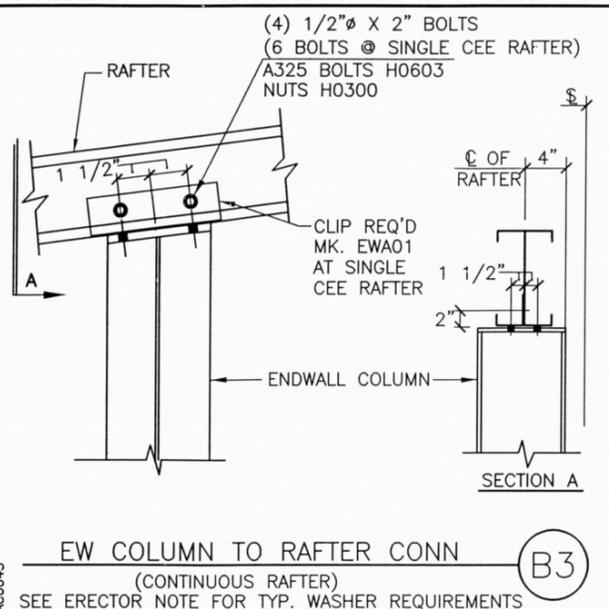
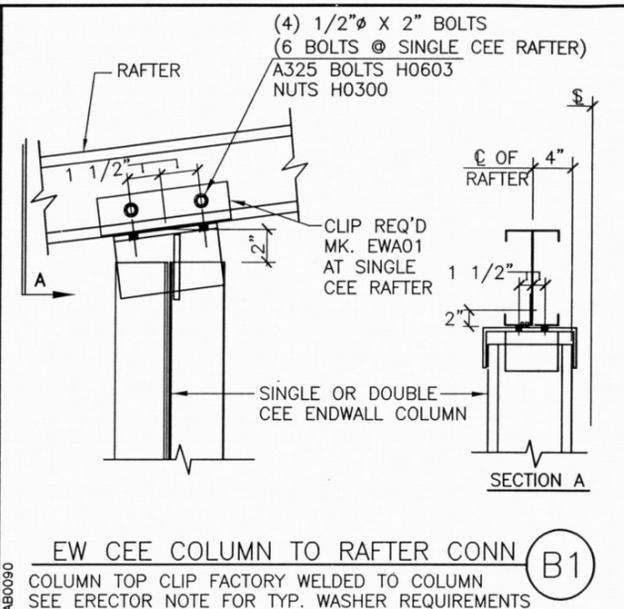
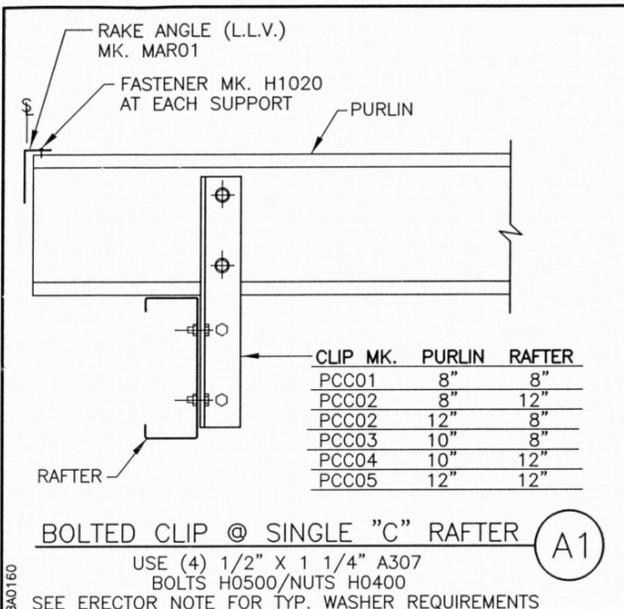
ENDWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

DATE	12/09/11
P.E.	RRS
CHK	TOW
DWN	MBS
ISSUE	Anchor Bolts - For Construction
	Permit Drawings
	Rev-1 Anchor Bolts - For Const
	Rev-1 Permit Drawings
PROJECT NAME:	OLYMPIA STEEL BUILDING SYSTEMS
JOB NUMBER:	U1100630A
SHEET NO.:	E6 of 6
CITY OF ROSES DISPOSAL & RECYCLING	PORTLAND, OR
METALLION INDUSTRIES, INC.	ESTACADA, OR
CUSTOMER:	METALLION INDUSTRIES, INC.
PHONE:	(888) 449-7756
400 ISLAND AVENUE	McKEES ROCKS, PA 15136
<small>THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.</small>	



ISSUE	DATE
Anchor Bolts - For Construction Permit Drawings	12/09/11
Rev-1 Anchor Bolts - For Const.	12/09/11
Rev-1 Permit Drawings	1/23/12

OLYMPIA STEEL BUILDING SYSTEMS
 400 ISLAND AVENUE
 MCKEES ROCKS, PA 15136
 PHONE: (888) 449-7756

CITY OF ROSES DISPOSAL & RECYCLING
 PORTLAND, OR
 CUSTOMER: METALLION INDUSTRIES, INC.
 ESTACADA, OR

JOB NUMBER: U1100630A

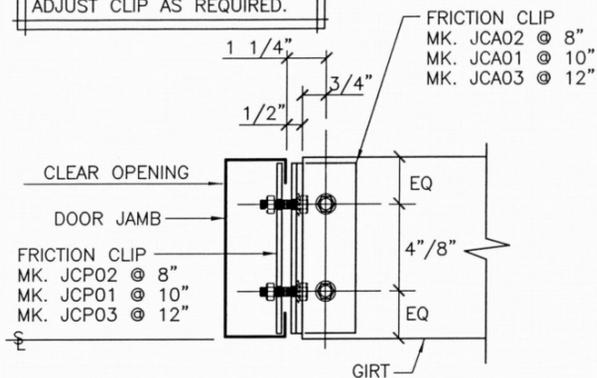
SHEET NO: D1 of 3

City of Portland
 REVIEWED FOR CODE COMPLIANCE
 JUL 16 2012
 Permit Number

REGISTERED PROFESSIONAL ENGINEER
 75452PE
 OREGON
 SEPT. 14, 2004
 RUSSELL R. SWEIN

(EXPIRATION DATE: 06-30-2012)
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NOTE:
INSTALL CLIPS ON JAMB
BEFORE STANDING JAMB. USE
LEVEL TO ALIGN GIRTS
ADJUST CLIP AS REQUIRED.

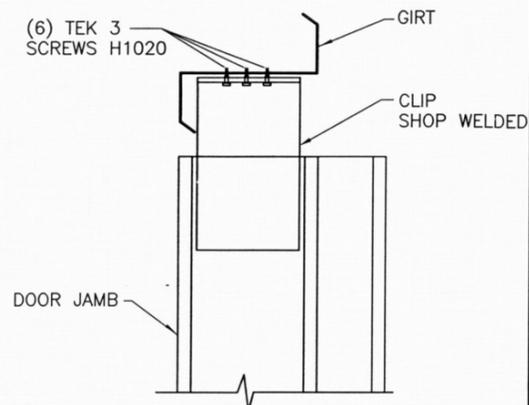


GIRT TO JAMB CONNECTION

(K1)

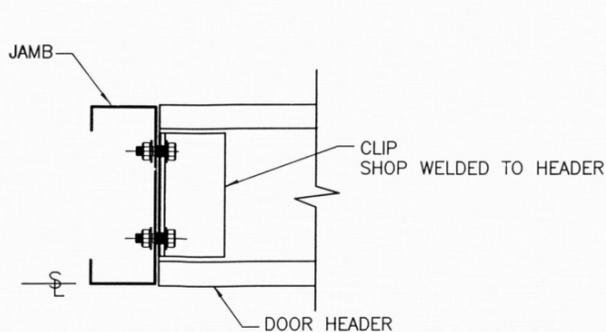
USE (4) 1/2" X 1 1/4" A307
BOLTS H0500/NUTS H0400
SEE ERECTOR NOTE FOR TYP. WASHER REQUIREMENTS

ERECTOR NOTE:
PRE-DRILL HOLES @ NESTED ZEE GIRTS
& DOUBLE CEE GIRTS IF REQUIRED.



DOOR JAMB TO GIRT CONNECTION

(L8)



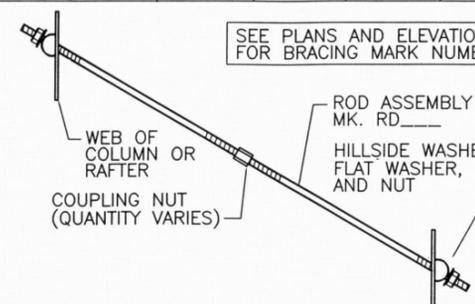
HEADER TO JAMB CONNECTION

(M3)

USE (2) 1/2" X 1 1/4" A307
BOLTS H0500/NUTS H0400 (U.N.O.)
SEE ERECTOR NOTE FOR TYP. WASHER REQUIREMENTS

ROD DIAMETER	MARK NUMBER	HILLSIDE WASHERS	FLAT WASHERS	A307/A325 NUTS	COUPLING NUTS
5/8" Ø	RDB	(2) H0930	(2) H0210	(2) H0310	H0810
3/4" Ø	RDC	(2) H0930	(2) H0220	(2) H0320	H0820
7/8" Ø	RDD	(2) H0930	(2) H0230	(2) H0325	H0830
1" Ø	RDE	(2) H0960	(2) H0240	(2) H0330	H0840
1 1/8" Ø	RDF	(2) H0960	(2) H0250	(2) H0450	H0850
1 1/4" Ø	RDG	(2) H0960	(2) H0260	(2) H0340	H0860

SEE PLANS AND ELEVATIONS
FOR BRACING MARK NUMBERS



ROD BRACE DETAIL

(Q3)

(WEB TO WEB)

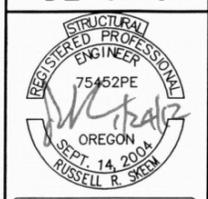
DATE	ISSUE	CHK	ENG	P.E.
12/09/11	Anchor Bolts - For Construction	MBS	TGW	RRS
12/09/11	Permit Drawings	MBS	TGW	RRS
1/23/12	Rev-1 Anchor Bolts - For Const.	MBS	TGW	RRS
1/23/12	Rev-1 Permit Drawings	MBS	TGW	RRS

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
MCKEES ROCKS, PA 15136
PHONE: (888) 449-7756

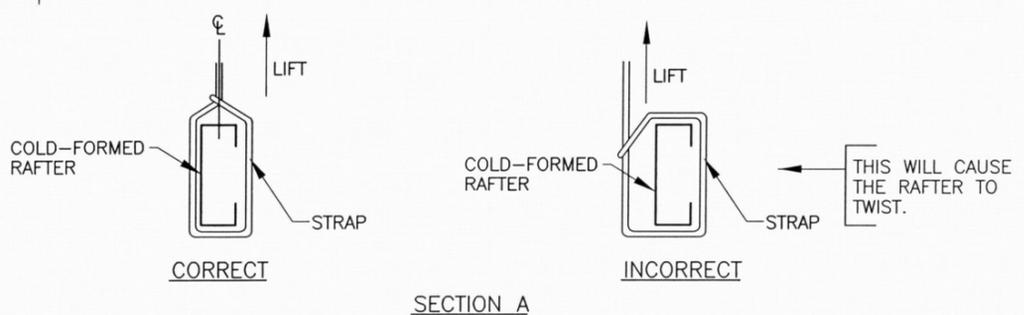
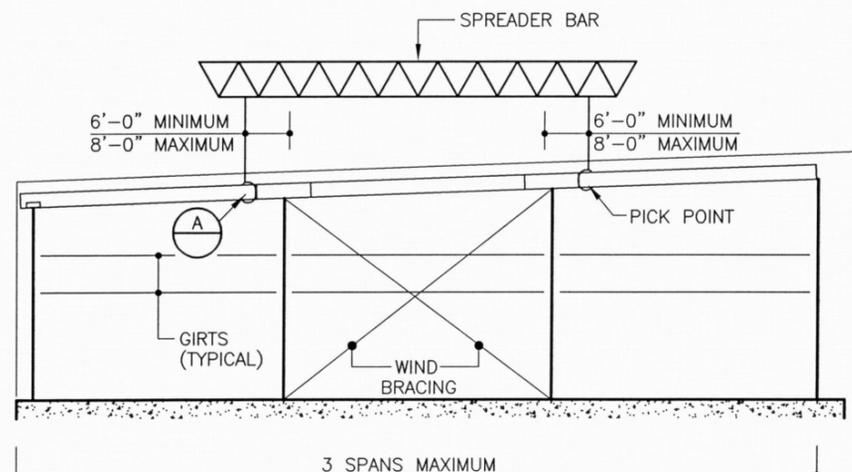
PROJECT NAME:
CITY OF ROSES DISPOSAL & RECYCLING
PORTLAND, OR
CUSTOMER:
METALLION INDUSTRIES, INC.
ESTACADA, OR

JOB NUMBER:
U1100630A

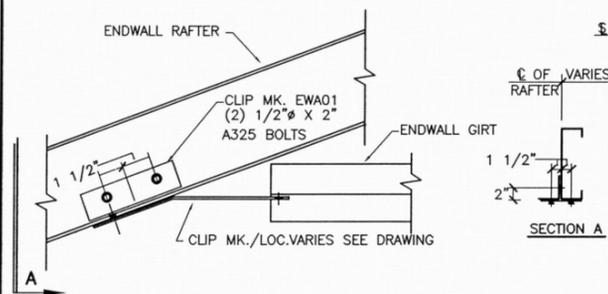
SHEET NO:
D2 of 3



THIS SEAL PERTAINS ONLY TO THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE DRAWINGS AND THE METAL BUILDING WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.



COLD FORMED ENDWALL ERECTOR DETAIL



INSET/FLUSH GIRTS TERMINATION TO SINGLE CEE/CHANNEL RAFTER WEB

(W1)

(4) 1/2" x 1 1/4" A307 BOLTS H0500/NUTS H0400
(2) 1/2" x 2" A325 BOLTS H0603/NUTS H0300
REFERENCE ERECTOR NOTE FOR TYP. WASHER REQUIREMENTS

- GIRTS, CLIPS, RAFTERS AND COLUMNS MUST BE SECURELY AND TIGHTLY BOLTED TOGETHER PRIOR TO STANDING UP THE ENDWALL SECTION. (NOTE: THE GIRTS PROVIDE STABILITY TO THE ENDWALL SYSTEM DURING THE ERECTION PROCESS)
- BUILT-UP COLUMNS/RAFTERS MUST BE ERECTED INDIVIDUALLY WHEN USED WITH COLD FORMED ENDWALL PARTS
- THIS DETAIL IS SUGGESTED IN ORDER TO MAINTAIN STRUCTURAL INTEGRITY OF ENDWALL PARTS AFTER ERECTION. SOUND JUDGEMENT BASED ON ERECTION KNOWLEDGE AND EXPERIENCE SHOULD BE APPLIED REGARDING SAFETY AND PRACTICALITY OF INDIVIDUAL SITUATIONS.
- REGULATIONS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ACT, LOCAL, STATE, AND/OR FEDERAL AGENCIES SHOULD BE ADHERED TO AT ALL TIMES. THE METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR INJURY, DAMAGE, OR FAILURE WHICH MAY RESULT FROM FAILING TO MEET ANY OF THESE REGULATIONS.

000060

4A0005

TYPICAL FIELD WELD REQUIREMENTS ERECTOR NOTE:
(UNLESS NOTED OTHERWISE ON DRAWINGS)

ALL FIELD WELDING MUST BE PERFORMED BY AWS/CWB CERTIFIED WELDERS WHO ARE QUALIFIED FOR THE WELDING PROCESSES AND POSITIONS INDICATED.
ALL WORK MUST BE COMPLETED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE AWS/CWB SPECIFICATIONS.
WELD ELECTRODES USED FOR THE SMAW (OR STICK) WELD PROCESS MUST BE 70 KSI/483 MPa MATERIAL AND LOW HYDROGEN CONTENT.

GALVANIZED STEEL FIELD WELDING RECOMMENDATIONS

PREPARATION OF WELD AREA
AWS D-19.0, WELDING ZINC COATED STEEL, CALLS FOR WELDS TO BE MADE ON STEEL THAT IS FREE OF ZINC IN THE AREA TO BE WELDED. FOR GALVANIZED STRUCTURAL COMPONENTS, THE ZINC COATING SHOULD BE REMOVED AT LEAST ONE TO FOUR INCHES (2.5-10 cm) FROM EITHER SIDE OF THE INTENDED WELD ZONE AND ON BOTH SIDES OF THE WORKPIECE. GRINDING BACK THE ZINC COATING IS THE PREFERRED AND MOST COMMON METHOD; BURNING THE ZINC AWAY OR PUSHING BACK THE MOLTEN ZINC FROM THE WELD AREA ARE ALSO EFFECTIVE.

TOUCH-UP OF WELD AREA
WELDING ON GALVANIZED SURFACES DESTROYS THE ZINC COATING ON AND AROUND THE WELD AREA. RESTORATION OF THE AREA WILL BE PERFORMED IN ACCORDANCE WITH ASTM A 780, STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS, WHICH SPECIFIES THE USE OF PAINTS CONTAINING ZINC DUST, ZINC-BASED SOLDERS OR SPRAYED ZINC. ALL TOUCHUP AND REPAIR METHODS ARE CAPABLE OF BUILDING A PROTECTIVE LAYER TO THE THICKNESS REQUIRED BY ASTM A 780.

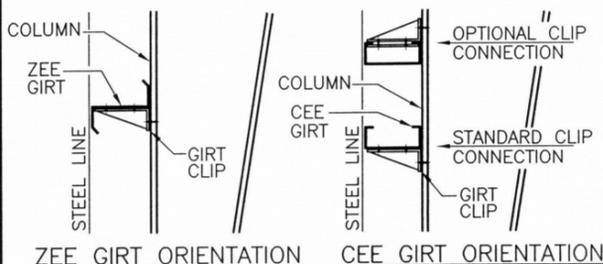
SAFETY & HEALTH
WHEN WELDING DIRECTLY ON GALVANIZED STEEL IS UNAVOIDABLE, OSHA PERMISSIBLE EXPOSURE LIMITS (PELS) MAY BE EXCEEDED AND EVERY PRECAUTION, INCLUDING HIGH-VELOCITY CIRCULATING FANS WITH FILTERS, AIR RESPIRATORS AND FUME-EXTRACTION SYSTEMS SUGGESTED BY AWS, SHOULD BE EMPLOYED. FUMES FROM WELDING GALVANIZED STEEL CAN CONTAIN ZINC, IRON, AND LEAD. FUME COMPOSITION TYPICALLY DEPENDS ON THE COMPOSITION OF THE MATERIALS USED, AS WELL AS THE HEAT APPLIED BY THE PARTICULAR WELDING PROCESS. IN ANY EVENT, GOOD VENTILATION MINIMIZES THE AMOUNT OF EXPOSURE TO FUMES.

PRIOR TO WELDING ON ANY METAL, CONSULT ANSI/ASC Z-49.1, SAFETY IN WELDING, CUTTING AND ALLIED PROCESSES, WHICH CONTAINS INFORMATION ON THE PROTECTION OF PERSONNEL AND THE GENERAL AREA, VENTILATION AND FIRE PREVENTION.

INFORMATION COURTESY OF AMERICAN GALVANIZERS ASSOCIATION

ERECTOR NOTE: UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD ZEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED DOWN AT THE STEEL LINE AS SHOWN IN THE DETAIL BELOW.

UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD CEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED UP AS SHOWN IN THE DETAIL BELOW. STANDARD CLIP ATTACHMENT IS BELOW THE GIRTS, HOWEVER SOME DETAILS REQUIRE THAT THE CLIP BE ABOVE THE GIRTS. (REFER TO THE GIRTS DETAILS ON THE ERECTION DRAWINGS FOR REQUIREMENTS) BOTH CLIP ATTACHMENTS ARE SHOWN IN THE DETAIL BELOW.

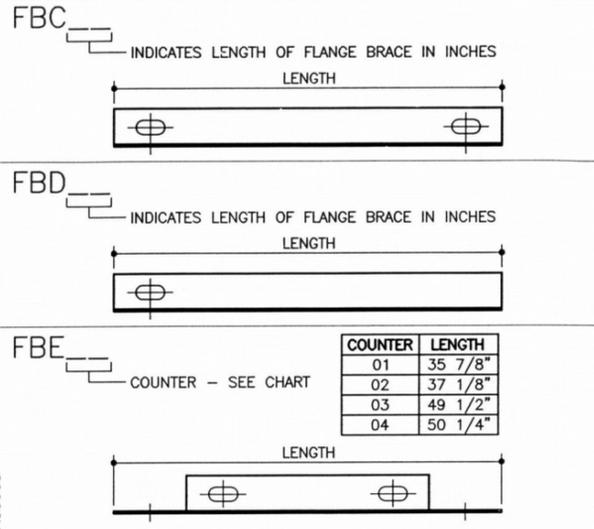


STANDARD GIRTS ORIENTATION DETAIL

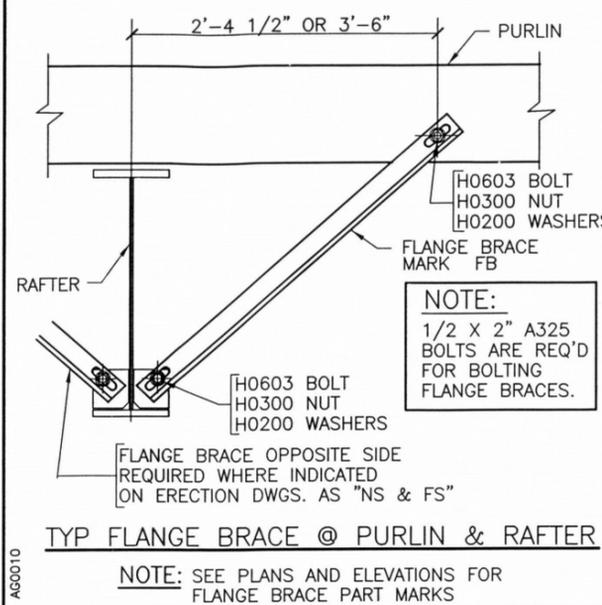
NOTE: BYPASS GIRTS CONDITION IS SHOWN FOR REFERENCE ONLY. YOUR PROJECT MAY HAVE FLUSH OR INSET GIRTS.

TYPICAL FLANGE BRACE MARK NUMBERS

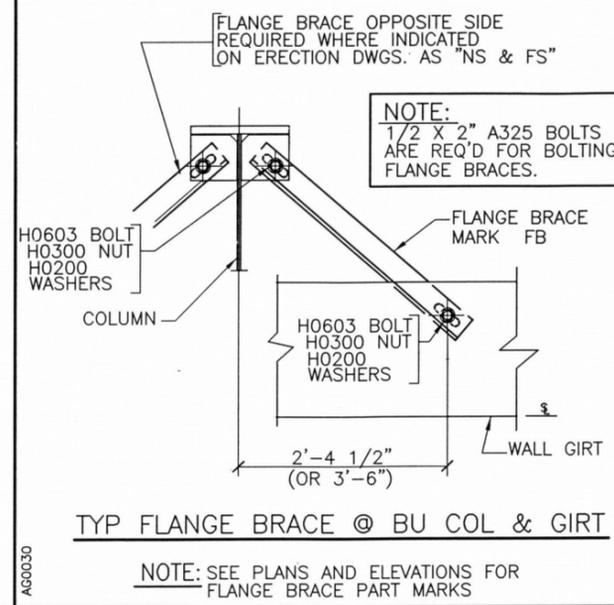
ACTUAL FLANGE BRACES DO NOT HAVE MARK NUMBERS ON THEM



AG0003



AG0010



AG0030

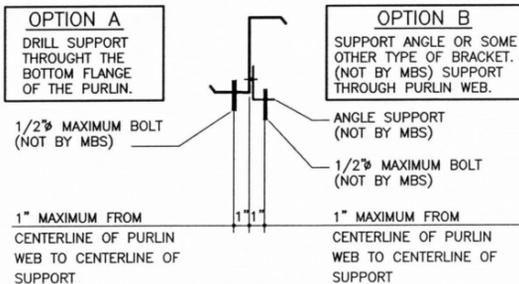
COLLATERAL DEAD LOADS, UNLESS OTHERWISE NOTED, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILING, ETC. ARE SUSPENDED FROM ROOF MEMBERS, CONSULT NUCOR ENGINEERING IF THESE CONCENTRATED LOADS EXCEED 200 POUNDS, OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.



GENERAL RESTRICTION:

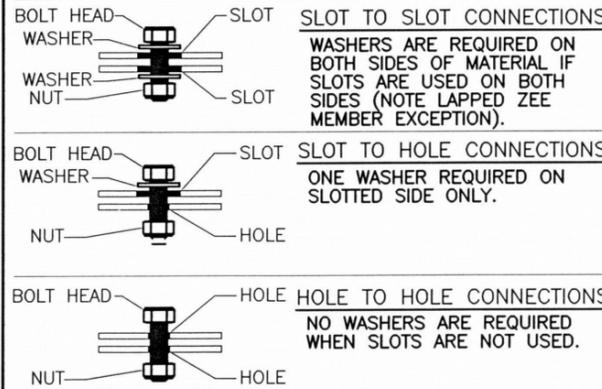
UNDER NO CIRCUMSTANCES CAN THE PURLIN STIFFENING LIP BE FIELD MODIFIED FROM THE FACTORY SUPPLIED CONDITION. ALSO DO NOT HANG ANYTHING FROM PURLIN STIFFENING LIP.

OPTIONS FOR SUPPORT ATTACHMENTS:



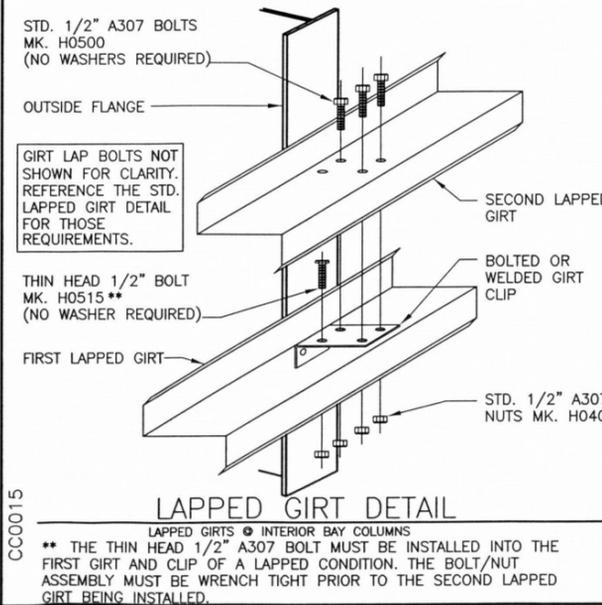
BD0130

TYPICAL WASHER REQUIREMENTS ERECTOR NOTE
(UNLESS NOTED OTHERWISE ON DRAWINGS)

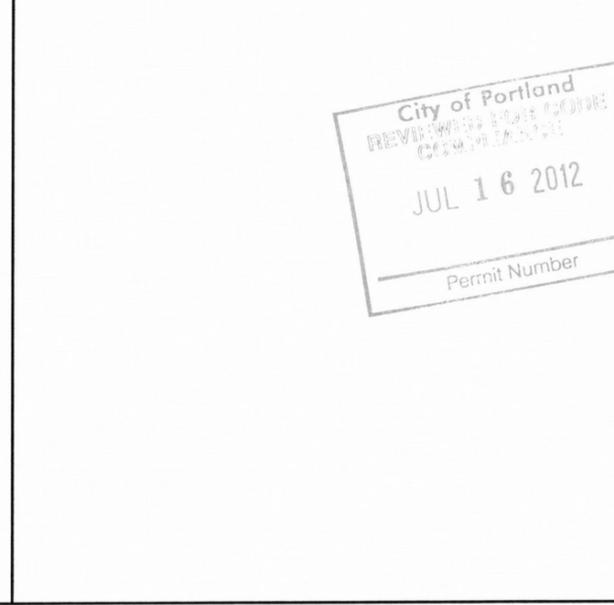
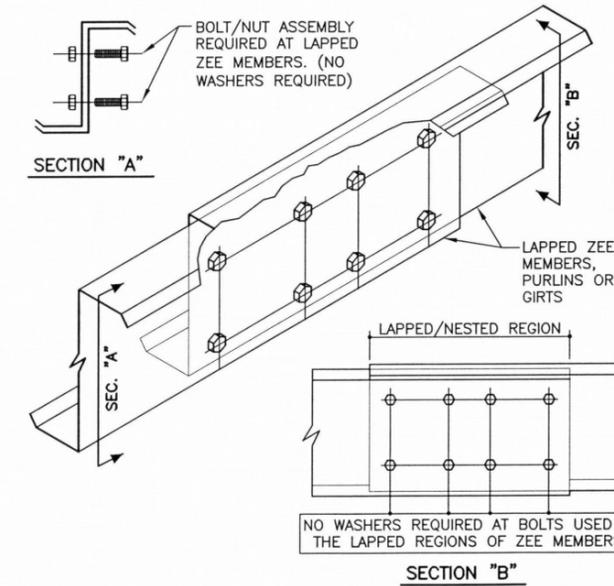


WASHER PART NUMBERS

H0200 - 1/2" FLAT WASHER	H0240 - 1" FLAT WASHER
H0210 - 5/8" FLAT WASHER	H0250 - 1 1/8" FLAT WASHER
H0220 - 3/4" FLAT WASHER	H0260 - 1 1/4" FLAT WASHER
H0230 - 7/8" FLAT WASHER	



CC0015



ISSUE	DATE	P.E.	ENG.	CHK.	OWN.
Anchor Bolts - For Construction	12/09/11	RRS	TGW	TGW	MBS
Permit Drawings	12/09/11	RRS	TGW	TGW	MBS
Rev-1 Anchor Bolts - For Const.	1/23/12	RRS	TGW	TGW	MBS
Rev-1 Permit Drawings	1/23/12	RRS	TGW	TGW	MBS

OLYMPIA STEEL BUILDING SYSTEMS
400 ISLAND AVENUE
WAKEFIELD, PA 15136
PHONE: (888) 448-7766

CITY OF ROSES DISPOSAL & RECYCLING
PORTLAND, OR
CUSTOMER: METALLION INDUSTRIES, INC.
ESTACADA, OR

JOB NUMBER: U1100630A

SHEET NO: D3 of 3

City of Portland
REVIEWED FOR CODE
COMPLIANCE
JUL 16 2012
Permit Number

REGISTERED PROFESSIONAL ENGINEER
75452PE
RUSSELL R. STEIN
EXPIRATION DATE: 06-30-2012

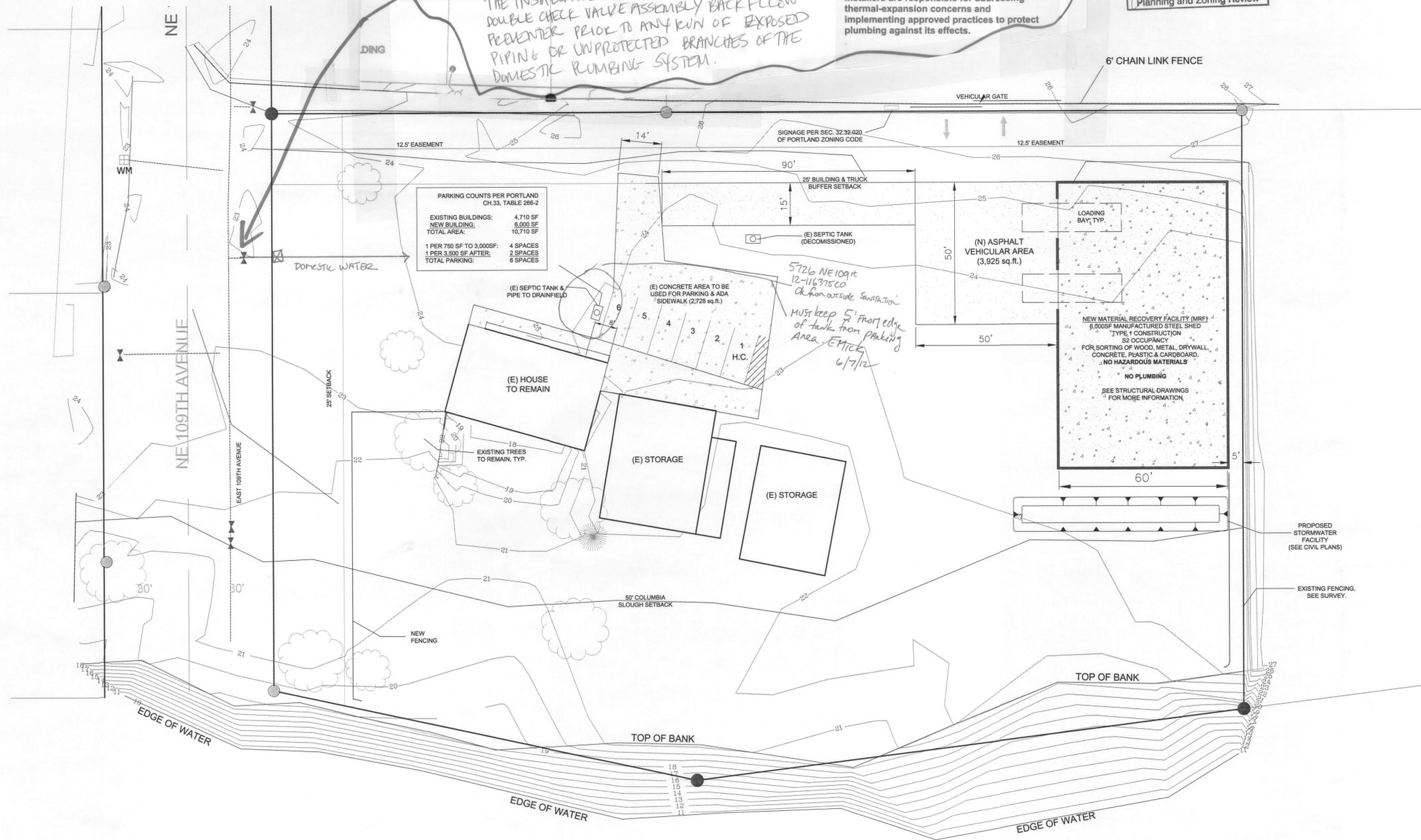
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Premise-Isolation Backflow Protection
Water Quality Backflow (WQBP) Review
 Required by Portland Water Bureau (503-523-7336). Must be installed per Water Bureau Backflow Installation Requirements www.portlandonline.com/water/backflow/installationrequirements

***NOTE: DOMESTIC WATER SERVICE REQUIRES THE INSTALLATION OF A PREMISE ISOLATION DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER PRIOR TO ANY RUN OF EXPOSED PIPING OR UNPROTECTED BRANCHES OF THE DOMESTIC PLUMBING SYSTEM.**

Installation of a backflow assembly may cause thermal-expansion. Backflow assembly installers are responsible for addressing thermal-expansion concerns and implementing approved practices to protect plumbing against its effects.

City of Portland
 Bureau of
 Development Services
 By 1/24/12 Date 7/16/12
 Approved by
 Planning and Zoning Review



PARKING COUNTS PER PORTLAND CH 33, TABLE 266-2

EXISTING BUILDINGS:	4,710 SF	
NEW BUILDING:	6,000 SF	
TOTAL AREA:	10,710 SF	
1 PER 750 SF TO 3,000SF:	4 SPACES	
1 PER 3,000 SF AFTER:	2 SPACES	
TOTAL PARKING:	6 SPACES	

(N) ASPHALT VEHICULAR AREA (3,925 sq. ft.)

LOADING BAY, TYP.

NEW MATERIAL RECOVERY FACILITY (MRF) 8,000SF MANUFACTURED STEEL SHED TYPE 1 CONSTRUCTION S2 OCCUPANCY FOR SORTING OF WOOD, METAL, DRYWALL, CONCRETE, PLASTIC & CARDBOARD. NO HAZARDOUS MATERIALS. NO PLUMBING. SEE STRUCTURAL DRAWINGS FOR MORE INFORMATION.

5726 NE 109th 12-116315 CO
 1/24/12
 Must keep 5' from edge of tank from parking area. 6/7/12

City of Portland
 REVIEWED PER CITY CODE
 JUL 16 2012
 Permit Number

RECEIVED
 JUN 05 2012
 BDS
 DOCUMENT SERVICES

REV	DATE	DES	CHECK	APPROVALS	REVISION DESCRIPTION

DATE:	DATE:	CIVIL REVIEW:
DESIGNED:		ARCH REVIEW:
DRAWN:		STRUC REVIEW:
CHECKED:		MECH REVIEW:
APPROVED:		

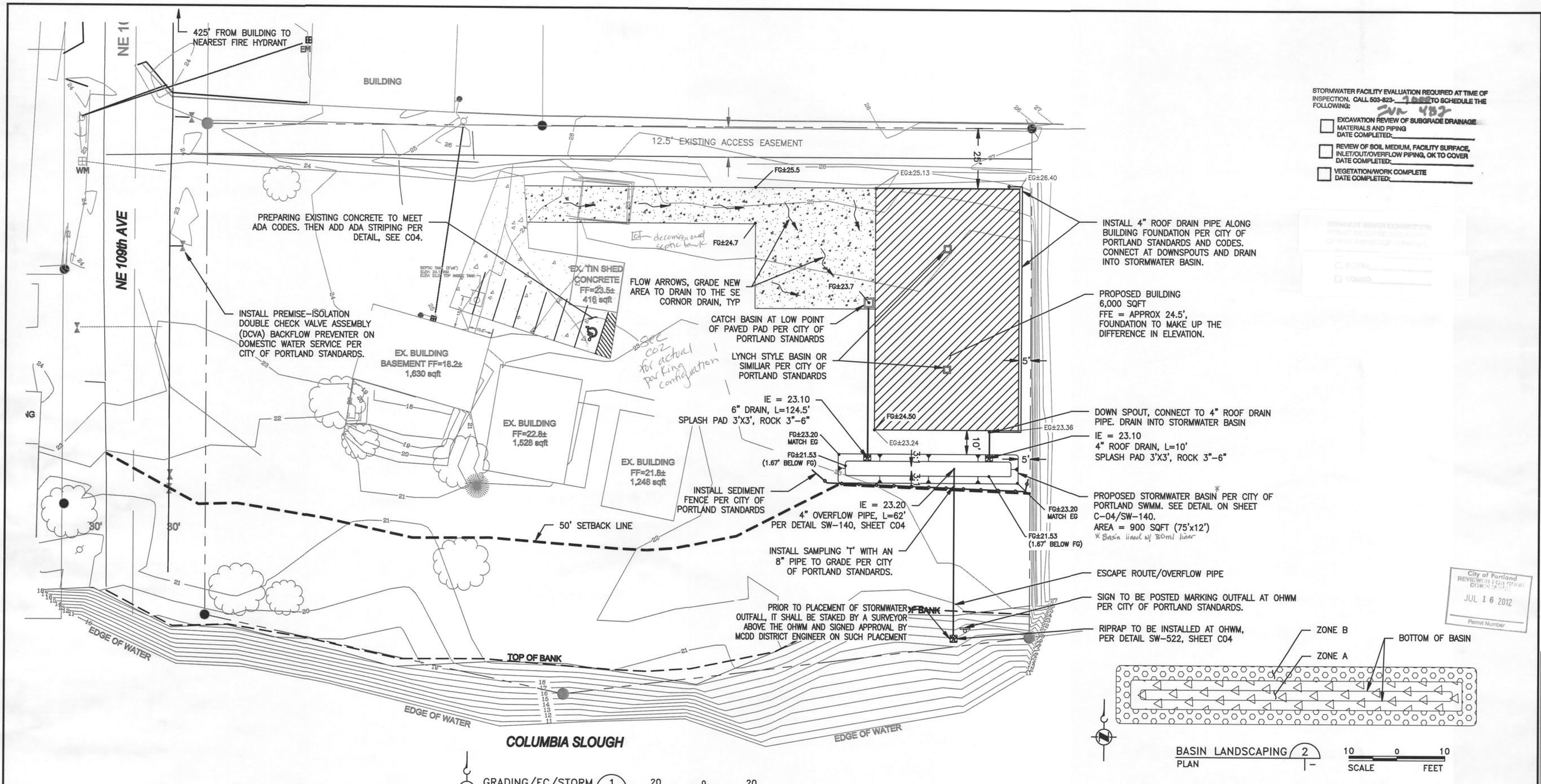
KB CONSULTING & DESIGN
 6217 N WAYLAND AVE
 PORTLAND, OR 97203

CITY OF ROSES DISPOSAL & RECYCLING
 COR MRF RECYCLING SHED
SITEPLAN/ PARKING PLAN

FILE NO:
 PROJECT NO:
 DWG NO: **C02**
 SHEET: SHT OF TLT

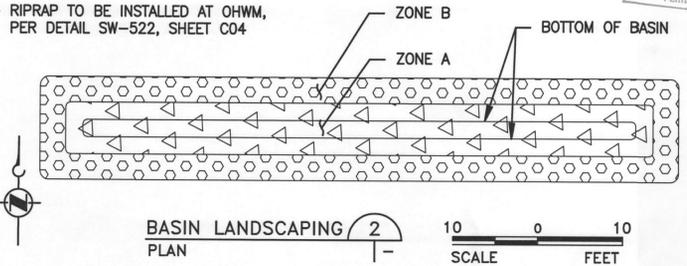
This drawing is full size when 22"x 34" or is reduced to half size when 11"x17"

COPYRIGHT
 02:Urban Systems & Infrastructure, 12:00:04:CORPORATE_MRF_Site.dwg Xref: 8/16/12/12/12



- STORMWATER FACILITY EVALUATION REQUIRED AT TIME OF INSPECTION. CALL 503-823-1882 TO SCHEDULE THE FOLLOWING:
- EXCAVATION REVIEW OF SUBGRADE DRAINAGE MATERIALS AND PIPING DATE COMPLETED: **2/16/12**
 - REVIEW OF SOIL MEDIUM, FACILITY SURFACE, INLET/OUT/OVERFLOW PIPING, OK TO COVER DATE COMPLETED: **2/16/12**
 - VEGETATION/WORK COMPLETE DATE COMPLETED: **2/16/12**

City of Portland
 REVIEWED BY: [Signature]
 JUL 16 2012
 Permit Number



PLANT QUANTITIES AND SPECIES								
ZONE	TREE QUANTITIES	TREE SPECIES	LARGE SHRUB QUANTITIES	LARGE SHRUB SPECIES	MED/SM SHRUB QUANTITIES	MED/SM SHRUB SPECIES	PLANT QUANTITIES	PLANT SPECIES
ZONE A	-	-	-	-	20	DULL OREGON GRAPE*	485	CALIFORNIA BROME GRASS*
ZONE B	4	MAPLE*	12	OREGON GRAPE*	16	SNOWBRUSH*	-	-

* USE THESE PLANTS OR A SIMILAR PLANT FROM THE PLANT LIST IN SWMM APPENDIX F. PLEASE SEE DETAIL SW-140, NOTE 9 FOR MORE INFORMATION.

APPROVED by
 BES Source Control
 Sign: [Signature] Date: 5/30/12

REV	DATE	DES	CHECK	APPROVALS	REVISION DESCRIPTION
1	5/21/12				ADDRESS CITY COMMENTS

DATE: FEB 2012	CIVIL REVIEW: MR
DESIGNED: MR	ARCH REVIEW: SKEEM
DRAWN: MR	STRUC REVIEW: SKEEM
CHECKED: EW/AS	MECH REVIEW: -
APPROVED:	

RIVERO DESIGN
 MARIA RIVERO
 www.RiveroDesign.com
 4046 NW RIGGS DR
 Portland, Oregon 97229
 Phone: 503-475-2351

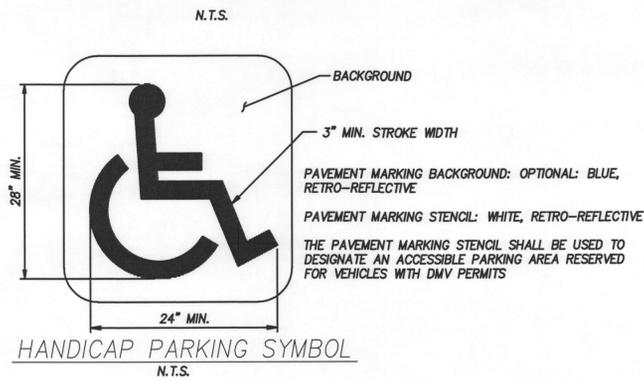
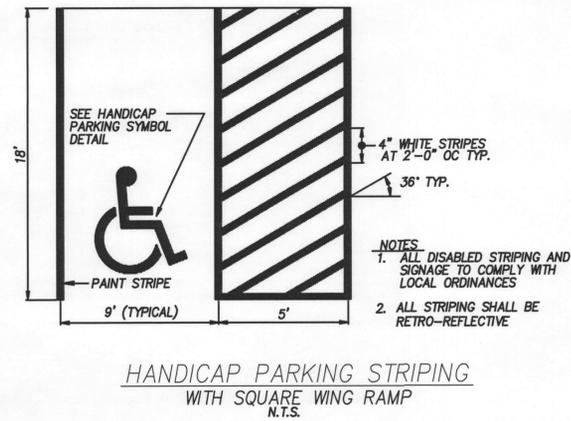
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 MAY 24 2012
 City of Portland
 BDS - Document Services

City of Roses Disposal & Recycling
CORE Recycling

FILE NO: 2011310058
 PROJECT NO:
 DWG NO: **C03**
 SHEET: OF

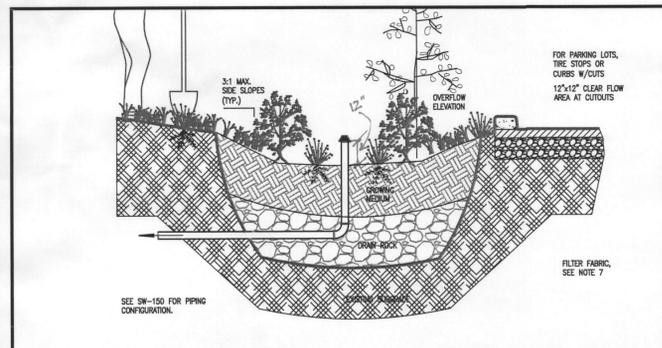
GRADING/EROSION CONTROL AND STORMWATER PLAN

This drawing is full size when 22"x 34" or is reduced to half size when 11"x17"



HANDICAP PARKING STRIPING
WITH SQUARE WING RAMP
N.T.S.

HANDICAP PARKING SYMBOL
N.T.S.



- Provide protection from all vehicle traffic, equipment, and foot traffic in proposed infiltration areas prior to, during, and after construction.
- Dimensions:
 - Width of basin: 6' minimum.
 - Depth of basin (from top of growing medium to overflow elevation): Stippled: 12", Presumptive: 9"-10".
 - Flat bottom width: 2' min.
 - Side slopes of basin: 3:1 maximum.
- Setback (from midpoint of facility):
 - Infiltration basins must be 10' from foundations and 5' from property lines.
 - Flow-through weaves must be lined with connection to approved discharge point according to SWMM Section 1.3.
- Overflow:
 - Overflow required for Stippled Approach.
 - Inlet elevation must allow for 2" of freeboard, minimum.
 - Protect from debris and sediment with strainer or grate.
- Piping: shall be ABS Sch.40, cast iron, or PVC Sch.40. 3" pipe required for up to 1,000 sq ft of impervious area, otherwise 4" min. Piping must have 1% grade and follow the Uniform Plumbing Code.
- Drain rock:
 - Size for infiltration basin: 1 1/2" - 5/8" washed
 - Size for flow-through basin: 5/8" washed
 - Depth for Stippled: 12"
 - Depth for Presumptive: 0-48", see notes.
- Separation between drain rock and growing medium: Use filter fabric (see SWMM Exhibit 2-9) or a gravel lens (1/4 - 3/8 inch washed, crushed rock 2 to 3 inches deep).
- Growing medium:
 - 18" minimum
 - See Appendix F.3 for specification or use seed/soil/compost 3-way mix.
- Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Minimum container size is 1 gallon. # of plantings per 1000 sq ft of facility area:
 - Zone A (wet): 110 herbaceous plants OR 100 herbaceous plants and 4 shrubs
 - Zone B (moderate to dry): 1 tree AND 3 large shrubs AND 4 medium to small shrubs.
 The delineation between Zone A and B shall be either at the outlet elevation or the check dam elevation, whichever is lower.
- Install washed pea gravel or river rock to transition from inlet and splash pad to growing medium.
- Inspection: Call BDS IVR Inspection Line, (503) 823-7000, for appropriate inspections.

-DRAWING NOT TO SCALE-

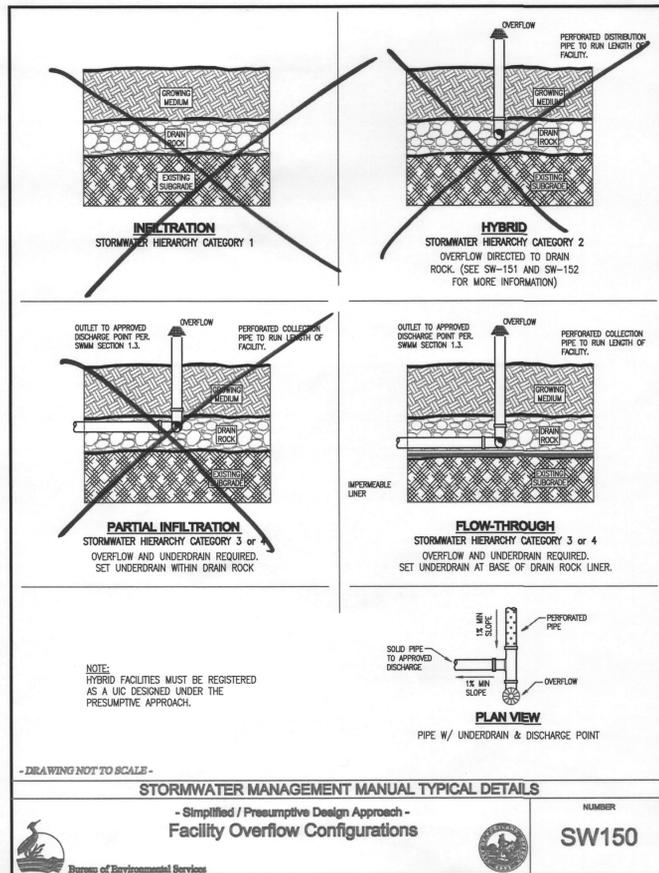
STORMWATER MANAGEMENT MANUAL TYPICAL DETAILS

- Simplified / Presumptive Design Approach -

Basin

NUMBER: SW-140

FILE: CIVIL DESIGNING CODE: 2012 - 15010



-DRAWING NOT TO SCALE-

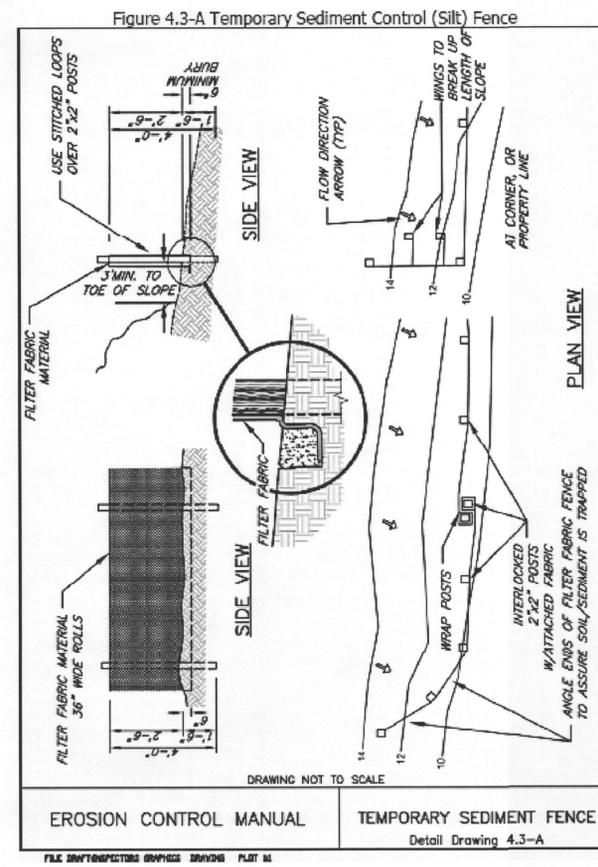
STORMWATER MANAGEMENT MANUAL TYPICAL DETAILS

- Simplified / Presumptive Design Approach -

Facility Overflow Configurations

NUMBER: SW150

FILE: CIVIL DESIGNING CODE: 2012 - 15010

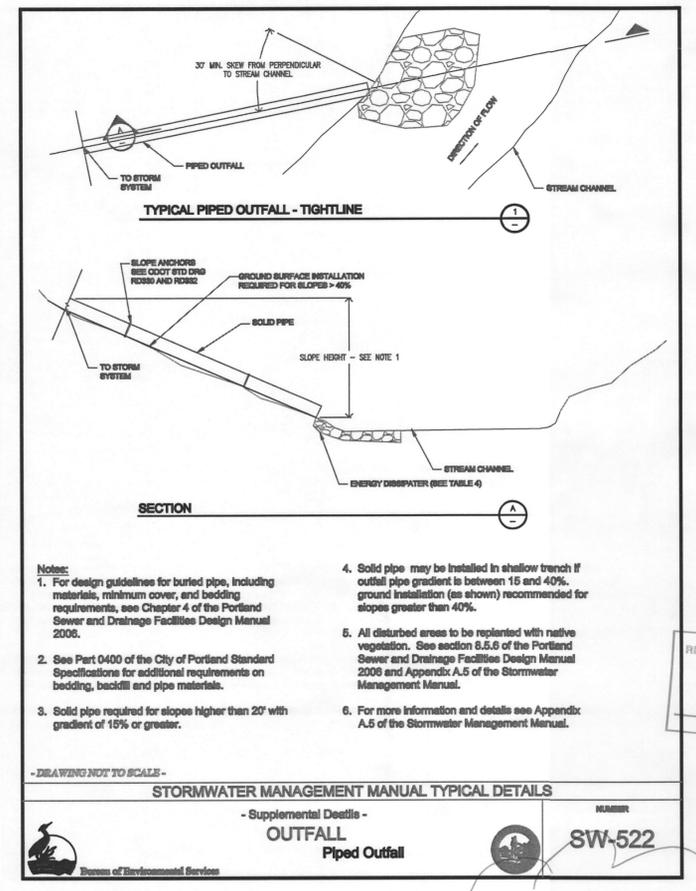


EROSION CONTROL MANUAL

TEMPORARY SEDIMENT FENCE

Detail Drawing 4.3-A

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-DRAWING NOT TO SCALE-

STORMWATER MANAGEMENT MANUAL TYPICAL DETAILS

- Supplemental Detail -

OUTFALL

Piped Outfall

NUMBER: SW-522

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