

**MILLER Consulting Engineers**  
 9570 SW Barbur Boulevard, Suite 100  
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# LETTER OF TRANSMITTAL

DATE	May 12, 2014	JOB NO.	140271
ATTENTION	Mark		
RE:	Oak Hill Rec Center		

TO Oak Hills Maintenance  
15435 NW Perimeter Drive  
Beaverton, Oregon  
 \_\_\_\_\_  
 \_\_\_\_\_

WE ARE SENDING YOU, ATTACHED

Via  FAX  US Mail  Customer P/U  Courier \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
3	5/12/14		Sets Temporary Shoring Drawings

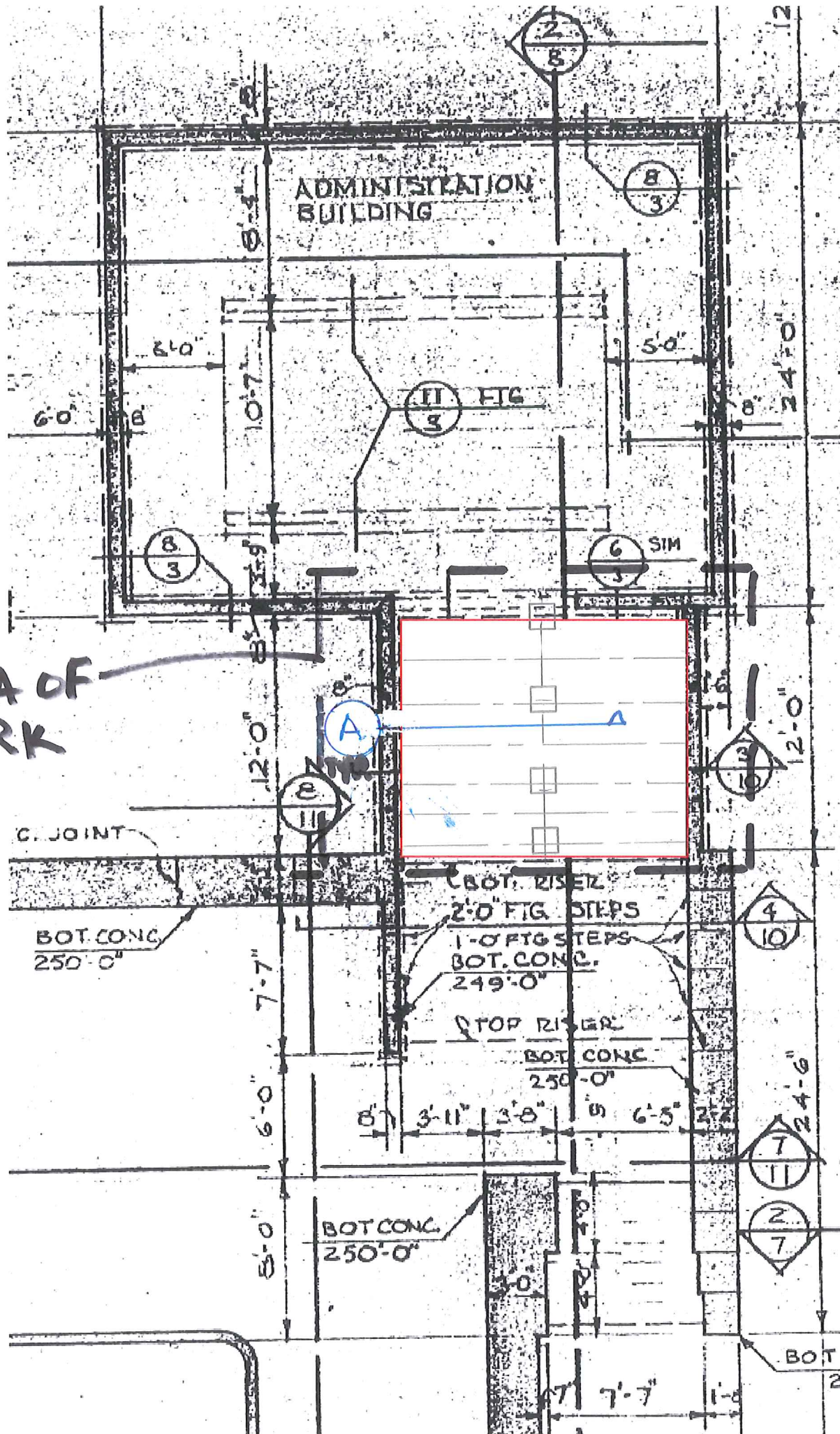
THESE ARE TRANSMITTED as checked below:

For Approval  For Your Use  As Requested  For Review and Comment

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

COPY TO file

SIGNED: Ronald Vandehey; naw



AREA OF WORK

CONCRETE SLAB NOT SHOWN FOR CLARITY

4x8 CONT. TYP. EA. END

3/4" TITEN H.D W/5 1/2" EMBED INTO CONCRETE + 3x3x 1/8" PLATE WASHER AT 12" O.C. TYP. EA. END

4x8 @ 24" O.C W/HUS 4x8 EA. END

1/2" @ 4' O.C EA SIDE

6x8 D.F #1

AC 6 COL CAP. ACE AT ENDS.

6x6 D.F #1 @ 4' O.C

5-20-2014 RGV

POST LOCATED @ C & OF STRUCTURE DETAIL SAME BOTH SIDES

ONLY 4x12 AT ENDS

4x BLOCKING BELOW 4x12 @ INT.

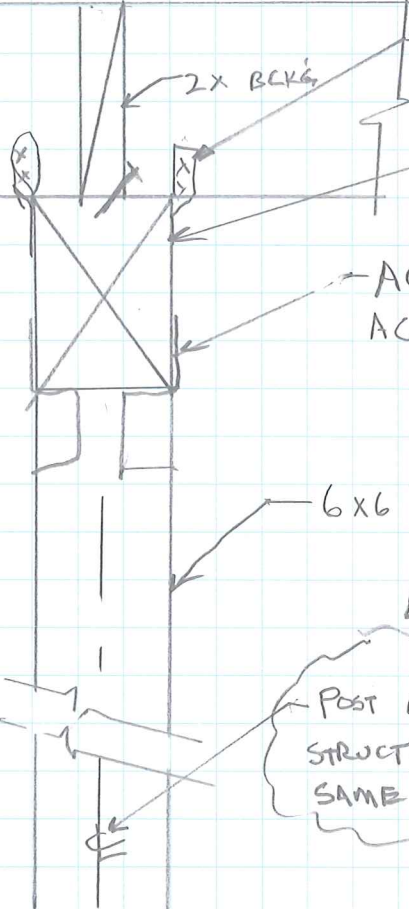
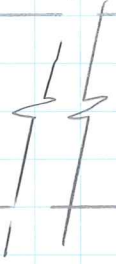
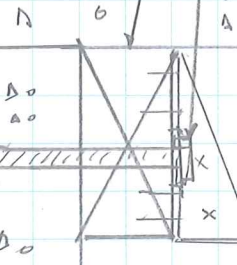
(E) SLAB

A35 EA. SIDE

TOE NAILS OR A35 CLIPS TO 4x BLOCKING

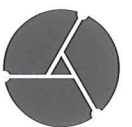
12" SQUARE @ ENDS  
18" SQUARE @ INT. COL'S

3"



A

TEMP SHORING N.T.S



MILLER CONSULTING ENGINEERS

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Project Name TEMP SHORING BELOW SLAB Project # 140271  
Location \_\_\_\_\_  
Client \_\_\_\_\_  
By RGV Ck'd ARL Date 5-7-2014 Page 2 of 6

## **GENERAL**

THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND CORRELATION OF ALL ITEMS AND WORK NECESSARY FOR COMPLETION OF THE PROJECT AS INDICATED BY THE CONTRACT DOCUMENTS. SHOULD ANY QUESTION ARISE REGARDING THE CONTRACT DOCUMENTS OR SITE CONDITIONS, THE CONTRACTOR SHALL REQUEST INTERPRETATION AND CLARIFICATION FROM THE ENGINEER BEFORE BEGINNING THE PROJECT. THE ABSENCE OF SUCH REQUEST SHALL SIGNIFY THAT THE CONTRACTOR HAS REVIEWED AND FAMILIARIZED HIMSELF WITH ALL ASPECTS OF THE PROJECT AND HAS COMPLETE COMPREHENSION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL SAFETY REGULATIONS DURING CONSTRUCTION.

THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SPECIFICALLY NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR CONSTRUCTION LOADS. ONLY THE CONTRACTOR SHALL PROVIDE ALL METHODS, DIRECTION AND RELATED EQUIPMENT NECESSARY TO PROTECT THE STRUCTURE, WORKMEN AND OTHER PERSONS AND PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN THE FIELD. ANY MATERIAL NOT AS SPECIFIED OR IMPROPER MATERIAL INSTALLATION OR WORKMANSHIP SHALL BE REMOVED AND REPLACED WITH SPECIFIED MATERIAL IN A WORKMANLIKE MANNER AT THE CONTRACTOR'S EXPENSE.

THESE PLANS, SPECIFICATIONS, ENGINEERING AND DESIGN WORK ARE INTENDED SOLELY FOR THE PROJECT SPECIFIED HEREIN. MILLER CONSULTING ENGINEERS DISCLAIMS ALL LIABILITY IF THESE PLANS AND SPECIFICATIONS OR THE DESIGN, ADVICE AND INSTRUCTIONS ATTENDANT THERETO ARE USED ON ANY PROJECT OR AT ANY LOCATION OTHER THAN THE PROJECT AND LOCATION SPECIFIED HEREIN. OBSERVATION VISITS TO THE JOB SITE AND SPECIAL INSPECTIONS ARE NOT PART OF THE STRUCTURAL ENGINEER'S RESPONSIBILITY UNLESS THE CONTRACT DOCUMENTS SPECIFY OTHERWISE.

NON STRUCTURAL PORTIONS OF PROJECT, INCLUDING BUT NOT LIMITED TO PLUMBING, FIRE SUPPRESSION, ELECTRICAL, MECHANICAL, LAND USE, SITE PLANNING, EROSION CONTROL FLASHING AND WATER-PROOFING ARE BEYOND THE SCOPE OF THESE DRAWINGS AND ARE PROVIDED BY OTHERS.

### **BUILDING CODE**

ALL PHASES OF THE WORK SHALL CONFORM TO THE 2010 OREGON STRUCTURAL SPECIALTY CODE, EFFECTIVE DATE JULY 1, 2010, BASED ON THE 2009 INTERNATIONAL BUILDING CODE, INCLUDING ALL REFERENCE STANDARDS, UNLESS NOTED OTHERWISE.

## **DESIGN LOADS**

LIVE LOAD REDUCTION FOR BEAMS AND COLUMNS WAS [NOT] USED. DESIGN FOR MECHANICAL LOADS INCLUDES ONLY THOSE INDICATED ON STRUCTURAL DRAWINGS. THE FOLLOWING ARE THE DESIGN REQUIREMENTS:

<b>STRUCTURAL DESIGN CRITERIA</b>	
OCCUPANCY CATEGORY	II

DESIGN DEAD LOADS	
ROOF	15 PSF
FLOOR	150 PSF
WALLS	8 PSF

FLOOR LIVE LOAD (RESIDENTIAL)	
FLOORS	40 PSF
DECKS	1 PSF
BALCONY	60 PSF
GARAGE FLOORS	40 PSF OR 3,000 LB WHEEL LOAD

FLOOR LIVE LOAD (COMMERCIAL)	
OFFICE FLOORS	50 PSF + 15 PSF PARTITIONS OR 2,000 LB
CORRIDORS/EXIT WAYS	100 PSF OR 2,000 LB
LIGHT STORAGE	125 PSF
HEAVY STORAGE	250 PSF
ASSEMBLY AREAS (FIXED SEATING)	60 PSF
ASSEMBLY AREAS (MOVABLE SEATS)	100 PSF
LOBBIES	100 PSF

ROOF LIVE LOAD	SNOW LOAD CONTROLS DESIGN
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ROOF SNOW LOAD	
DESIGN ROOF SNOW LOAD	25 PSF
SNOW DRIFTING	AS NOTED ON PLANS (IF OCCURS)
IMPORTANCE FACTOR	$I_s = 1.0$
GROUND SNOW LOAD	$P_g = 15$ PSF
EXPOSURE FACTOR	$C_e = 1.0$
THERMAL FACTOR	$C_t = 1.0$
FLAT ROOF SNOW LOAD	$P_f = 11$ PSF

WIND DESIGN DATA	
BASIC WIND SPEED (3 SEC GUST)	95 MPH
IMPORTANCE FACTOR	$I_w = 1.0$
EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT	$G_{cpi} = +/- 0.18$
WALL COMPONENTS/CLADDING	
INTERIOR ZONES (ZONE 4)	15 PSF
END ZONES (ZONE 5)	20 PSF
ROOF COMPONENTS/CLADDING	
INTERIOR ZONES (ZONE 1)	12 PSF
END ZONES (ZONE 2)	15 PSF
CORNER ZONES (ZONE 3)	20 PSF

## WOOD FRAMING

ALL STRUCTURAL WOOD COLUMNS AND BEAMS TO BE DOUGLAS FIR/LARCH (DF/L), #1 UNLESS NOTED OTHERWISE. ALL JOISTS, PURLINS, AND GIRTS TO BE DF/L #2 AND BETTER UNLESS NOTED OTHERWISE. ALL BLOCKING AND NON-STRUCTURAL FRAMING TO BE CONSTRUCTION GRADE AND BETTER. ALL WOOD PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE HEM-FIR #2 PRESSURE TREATED UNLESS NOTED OTHERWISE. ALL COLUMNS SHALL HAVE SOLID BLOCKING FOR THE FULL COLUMN AREA TO SUPPORTING MEMBERS BELOW. COLUMNS SHALL ALIGN THROUGH ALL FLOORS TO THE FOUNDATION.

ALL PREFABRICATED METAL TIMBER CONNECTORS AND HANGERS SHALL BE FULLY BOLTED AND/OR NAILED AS INDICATED BY MANUFACTURER, UNLESS NOTED OTHERWISE. ALL CONNECTORS, HANGERS AND FASTENERS SHALL BE CORROSION PROTECTED PER MANUFACTURER'S RECOMMENDATIONS. SIMPSON PREFABRICATED METAL TIMBER CONNECTORS NOTED. OTHER TYPES OF METAL CONNECTORS REQUIRE PRIOR REVIEW.

### WOOD FRAMING FASTENING SCHEDULE

ALL NAILS SHALL BE COMMON AND NAILING SHALL BE PER THE NAILING SCHEDULE UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE FOLLOWING NAIL SIZES SHALL BE USED UNLESS NOTED OTHERWISE:

- 6D NAIL: 0.113 INCH DIA. X 2 INCHES LONG WITH MIN. HEAD DIA. 17/64 IN.
- 8D NAIL: 0.131 INCH DIA. X 2 ½ INCHES LONG WITH MIN. HEAD DIA. 9/32 IN.
- 10D NAIL: 0.148 INCH DIA. X 3 INCH LONG WITH MIN. HEAD DIA. 5/16 IN.
- 12D NAIL: 0.148 INCH DIA. X 3 ¼ INCHES WITH MIN. HEAD DIA. 5/16 IN.
- 16D NAIL: 0.162 INCH DIA. X 3 ½ INCHES WITH MIN HEAD DIA. 11/32 IN.

STAPLE OF EQUIVALENT VALUE MAY BE SUBSTITUTED AFTER REVIEW BY ENGINEER. NAILS AND STAPLES SHALL NOT BE OVERDRIVEN.

<b>WOOD FRAMING FASTENING SCHEDULE</b>	
ITEM	FASTENERS
BOT PL TO DECKING/JOISTS (FACE NAIL)	16d AT 8" O.C.
BOT PL/TOP PL TO STUDS (END NAIL)	(2) 16d AT 2X4, (3) 16d AT 2X6
BUILT-UP DBL STUDS (FACE NAIL)	10d AT 8" O.C. STAGGERED
DBL TOP PL (FACE NAIL)	10d AT 12" O.C. STAGGERED
DBL TOP PL SPLICES (FACE NAIL)	(14) 10d EA SIDE OF JOINT
DBL TOP PL CORNERS/INTERSECTIONS (FACE NAIL)	(4) 10d STAGGERED
CONTINUOUS HEADER(S) (HDRS) TO STUDS (TOE NAIL)	(4) 10d
TOP PL TO HDRS (FACE NAIL)	16d AT 16" O.C.
JOIST TO DBL TOP PL/SILL PL (TOE NAIL)	(4) 10d
BLOCKING TO STUDS (TOE NAIL)	(2) 10d
JOISTS TO BLOCKING (END NAIL)	(3) 16d
STUDS TO HDRS (END NAIL)	(6) 16d AT 4X6/4X8 (8) 16d AT 4X10/4X12
HDRS TO CRIPPLE STUDS (TOE NAIL)	(4) 10d

ROOF TRUSS BOT CHORD TO DBL TOP PL	SIMPSON H2.5A
NAIL-LAMINATED BEAMS (FACE NAIL)	16d AT 8" O.C. STAGGERED W/ (3) 16d AT EA. END
BLOCKING TO TRUSSES/JOISTS (TOE NAIL)	(4) 10d
JOIST LAP SPLICES OVER DBL TOP PL (FACE NAIL)	(4) 10d
RIM JOIST TO JOISTS (END NAIL)	(3) 16d
2X6 TONGUE AND GROOVE DECKING	(2) 16d HDG FACE NAILS AND (1) 16d HDG TOE NAIL EA. COURSE AT EA. SUPPORT
SHEATHING	
ROOF	8d AT 6" O.C. AT ALL SUPPORTED PANEL EDGES AND ROOF PERIMETER AND 12" O.C. AT ALL INTERMEDIATE SUPPORTS
FLOORS	10d GALV OR RING SHANK. AT 6" O.C. AT ALL SUPPORTED PANEL EDGES AND FLOOR PERIMETER AND 12" O.C. AT ALL INTERMEDIATE SUPPORTS
WALLS	8d AT 6" O.C. AT ALL PANEL EDGES AND AT 12" O.C. AT ALL INTERMEDIATE FRAMING MEMBERS
GYPSUM WALL BOARD	
1/2" GWB	5d COOLER OR WALLBOARD NAILS AT 7" O.C. AT ALL FRAMING MEMBERS
5/8" GWB	6d COOLER OR WALLBOARD NAILS AT 7" O.C. AT ALL FRAMING MEMBERS
(2) LAYERS 5/8" GWB	BASE PLY - 6d COOLER OR WALLBOARD NAILS AT 9" O.C. FACE PLY - 8d COOLER AT 7" O.C.
NOTE: #6-1 1/4" TYPE S OR W SCREW MAY BE SUBSTITUTED FOR GIVEN NAILS IN ALL GWB. FOR MULTIPLE LAYERS OF GWB, SCREWS REQUIRE 3/4" MIN. EMBED INTO WOOD MEMBER.	