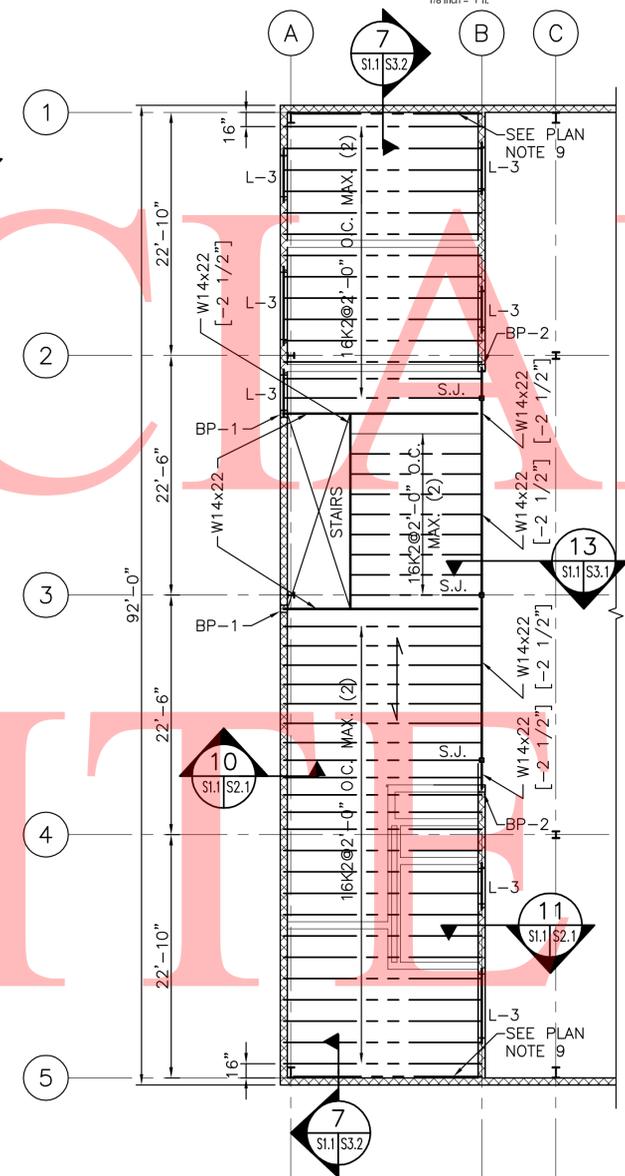
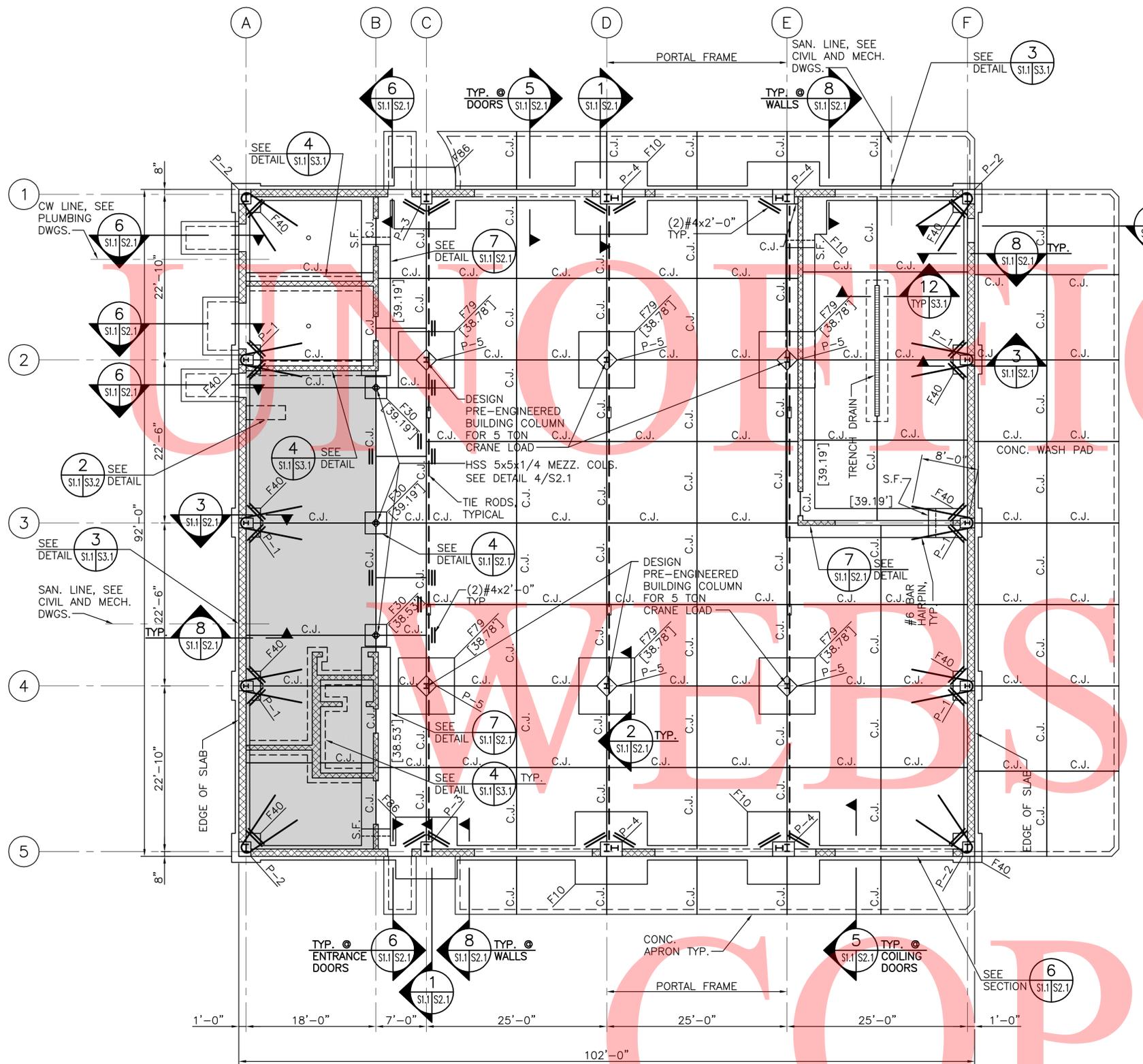


FOUNDATION AND GROUND FLOOR PLAN

CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.



FOUNDATION/GROUND FLOOR PLAN

SCALE: 1/8" = 1'-0"

MEZZANINE FLOOR PLAN

SCALE: 1/8" = 1'-0"

- FOUNDATION PLAN NOTES:**
- TOP OF SLAB ELEVATION = 39.86', UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF DEPRESSIONS AND FLOOR SLOPE.
 - CONCRETE SLAB ON GRADE SHALL BE 8" THICK, REINFORCED WITH #4@12" O.C. E.W. T&B ON 10 MIL VAPOR BARRIER AND 6" POROUS FILL, UNLESS NOTED OTHERWISE.
 - █; DENOTES CONCRETE SLAB ON GRADE SHALL BE 5" THICK REINFORCED WITH 6"x6"-W2.0xW2.0 WELDED WIRE FABRIC ON 10 MIL VAPOR BARRIER AND 6" POROUS FILL.
 - "C.J." INDICATES SLAB CONSTRUCTION / CONTROL JOINTS. SEE DETAIL 1/S3.1.
 - TOP OF FOOTING SHALL BE AT ELEVATION 37.86', UNLESS NOTED OTHERWISE ON PLAN THUS [XX.XX'].

- FOOTINGS ARE NOTED THUS F-XX ON PLAN. SEE FOOTING SCHEDULE ON S3.2 FOR SIZE AND REINFORCING. CENTER FOOTING UNDER PIER.
- PIERS ARE NOTED THUS P-X ON PLAN. SEE SCHEDULE ON S3.2 FOR SIZE AND REINFORCING. ELEVATION OF TOP OF PIERS EQUALS TOP OF SLAB ELEVATION. METAL BUILDING COLUMNS ANCHORED TO PIERS. TOP OF PIERS SHALL BE FLAT AND AT PROPER ELEVATION WITH ANCHOR BOLTS PROPERLY LOCATED. THIS SHALL BE VERIFIED BY CONCRETE CONTRACTOR DURING CONSTRUCTION.
- TIE RODS BELOW SLAB AT COLUMN LINE C,D, AND E SHALL BE (1)#7 BAR HOOKED INTO EXTERIOR COLUMN PIER & SPLICED AT THIRD POINTS. SPLICE BARS WITH "ZAP SCREW LOCK" MECHANICAL CONNECTORS MANUFACTURED BY BAR SPLICE PRODUCTS, INC. OR APPROVED EQUAL. CENTER TIE RODS UNDER SPECIFIED COLUMNS, TYP.

- ALL MASONRY WALLS ARE NOT SHOWN ON PLAN. SEE ARCHITECTURAL DRAWING FOR EXTENT OF MASONRY WALLS. PROVIDE THICKENED FOOTING AT NON-BEARING MASONRY WALL, U.N.O. SEE DETAIL 4/S3.1.
- EXTERIOR 8" MASONRY WALLS SHALL BE REINF. W/#5@24" O/C. VERTICAL FILL CELLS SOLID W/ GROUT AT VERTICAL REINF. PROVIDE STANDARD HOOK IN FOOTING.
- S.F. DENOTES STEP FOOTING. SEE DETAIL 2/S3.1.
- SEE MASONRY WALL LINTEL SCHEDULE ON S3.2.
- REFER TO CIVIL DRAWINGS FOR SPOT ELEV. OF EXTERIOR SLABS.

MEZZ. FRAMING PLAN NOTES:

- MEZZ. FLOOR CONSTRUCTION SHALL BE 3" NORMAL WEIGHT CONCRETE REINFORCED WITH 6"x6"-W2.9x2.9 W.W.F. ON 9/16"x26 GA. FORM DECK.
- ↔: DENOTES SPAN OF FLOOR DECK.
- MEZZANINE FLOOR ELEV. SHALL BE 50.33', TOP OF STEEL ELEVATION SHALL BE 3" BELOW MEZZ. FLOOR ELEV, UNLESS NOTED [XX.XX'] DENOTES STEEL BEAM ELEVATION BELOW TOP OF STEEL ELEVATION. TOP OF STEEL ELEVATION DEFINED AS BOTTOM OF DECK.
- BP-X DENOTES BEARING PLATE. SEE DETAIL 10/S3.2.
- S.J.; DENOTES STRUT JOIST. EXTEND BOTTOM CHORD & WELD TO COLUMN. SEE DETAIL 4/S3.2.
- (X) INDICATES MINIMUM NUMBER OF ROWS OF BRIDGING FOR JOISTS. PROVIDE MINIMUM (2) ROWS OF BRIDGING TYPICAL, U.N.O.
- SEE DETAIL 9/S3.2 FOR TYPICAL JOIST BEARING AT MASONRY WALLS.
- PROVIDE JOIST REINFORCEMENT FOR ANY CONSIDERABLE LOADS HUNG FROM JOISTS PER DETAIL 5/S3.2.
- PROVIDE L4x4x1/4" ANCHORED TO WALL FOR DECK SUPPORT ON NORTH & SOUTH ENDS OF MEZZANINE. FASTEN ANGLE TO WALL WITH 3/4" DIA.x5" MIN. EMBED. GROUT WALL SOLID BEHIND ANCHORS. THREADED ROD HIT-HY150 MAX. ADHESIVE ANCHORING SYSTEM @ 24" O.C. MAX. AS MANUFACTURED BY HILTI OR APPROVED EQUIVALENT.

User: jmayor P:\2008\08012101\Drawings\03-Struct\01 - 6 Bay with Wash Magnolia Shop Bldg\08012101_S1-1_L6_Boy_w_Wash-Magnolia Bldg.dwg
May 03, 2012 - 2:24pm
PREL. TRACING
DESIGN
CHKD.

SECTIONS & DETAILS

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30-801-01	KENT	SEE TITLE SHEET	S2.1 32	59

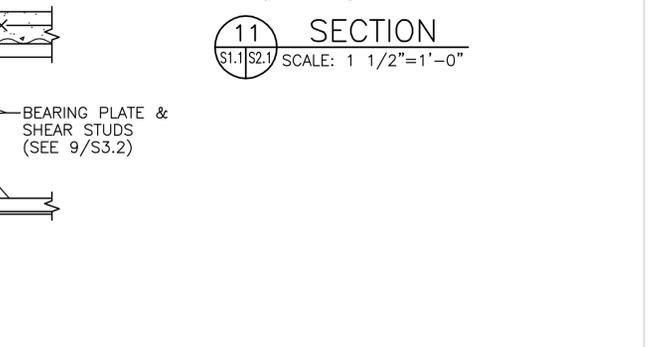
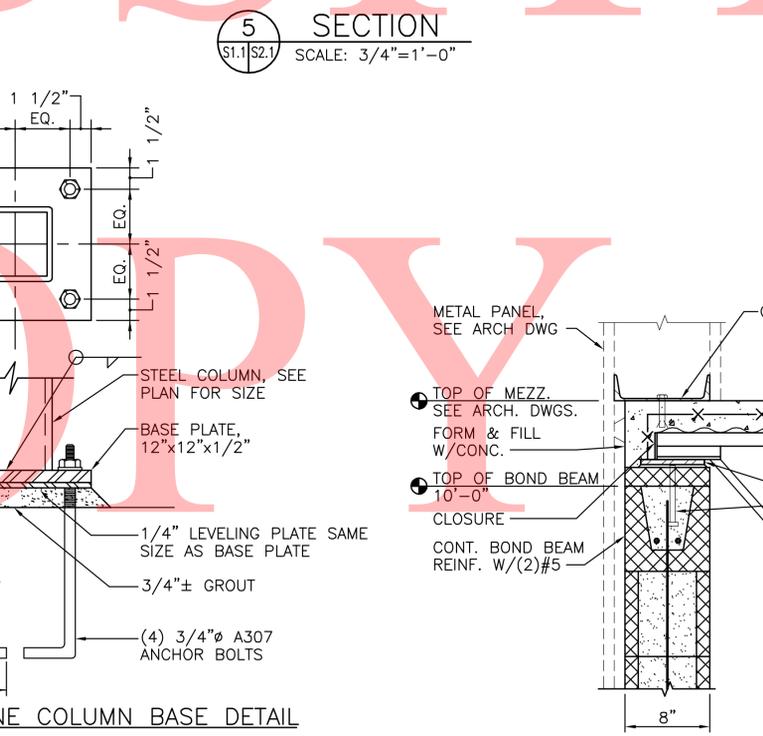
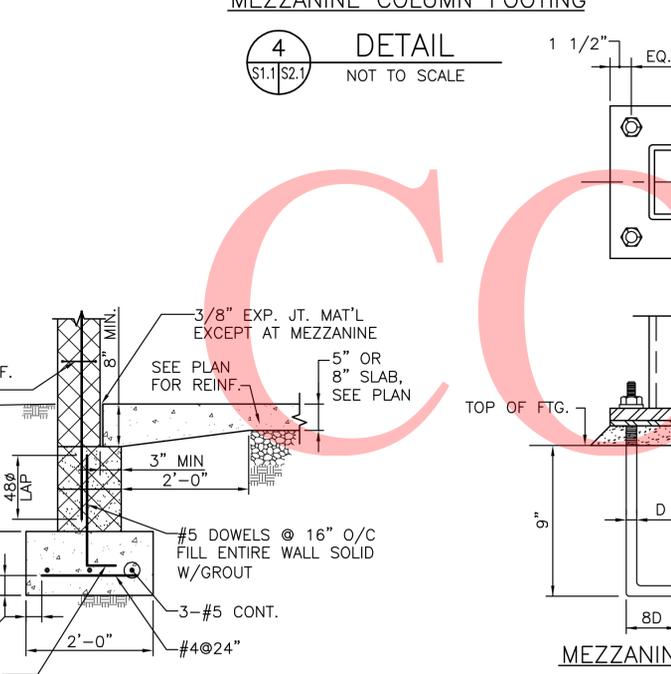
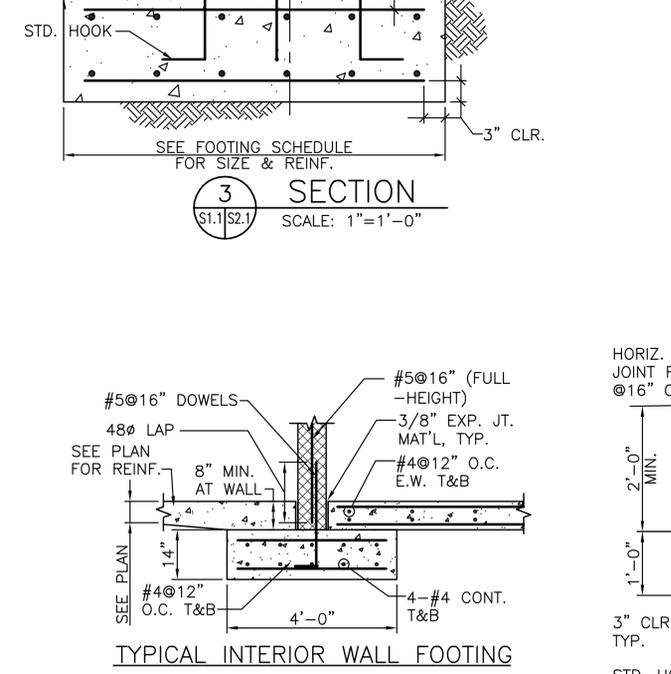
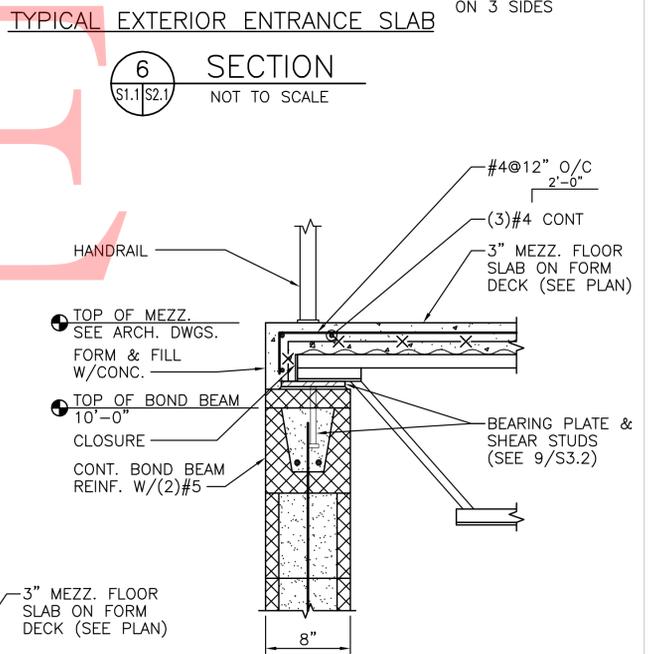
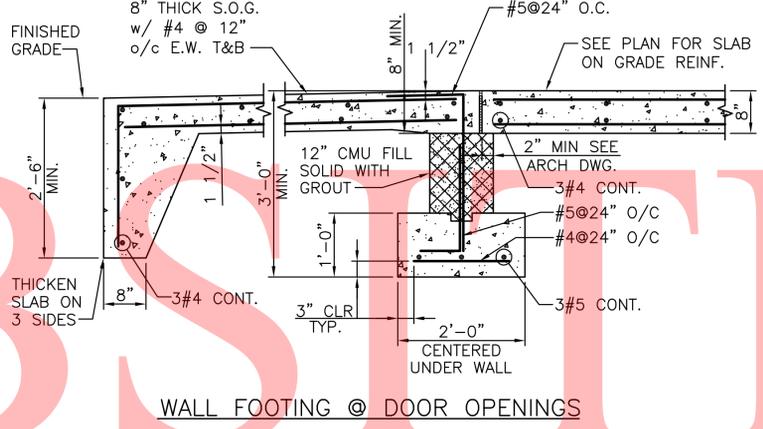
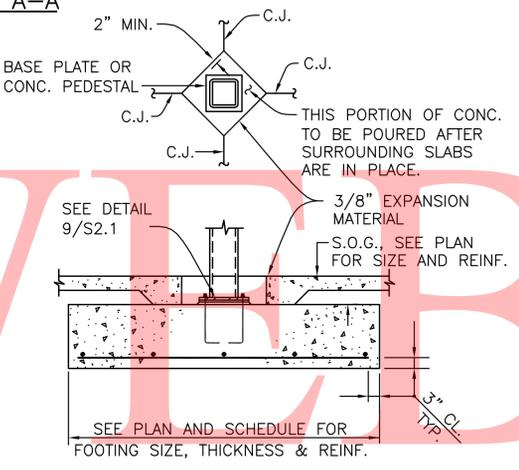
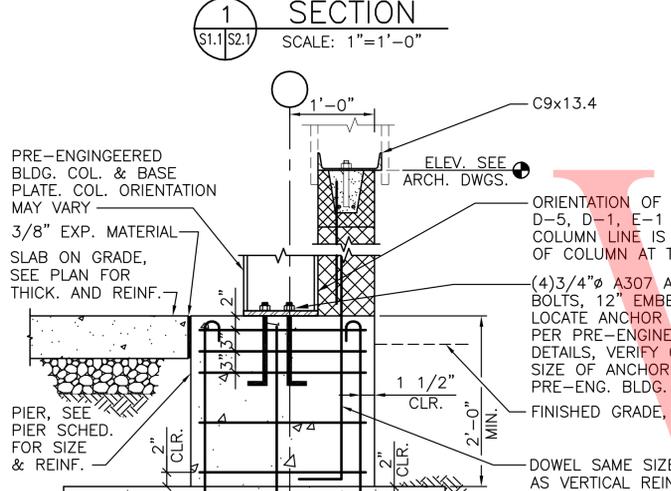
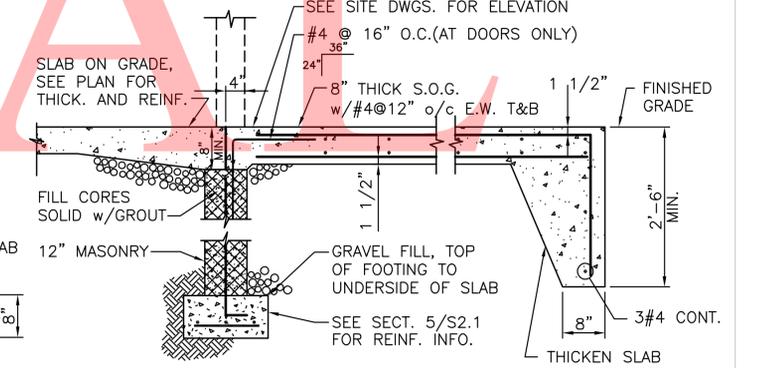
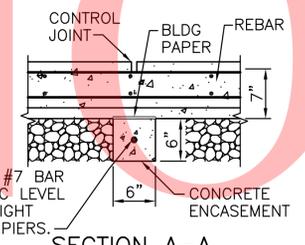
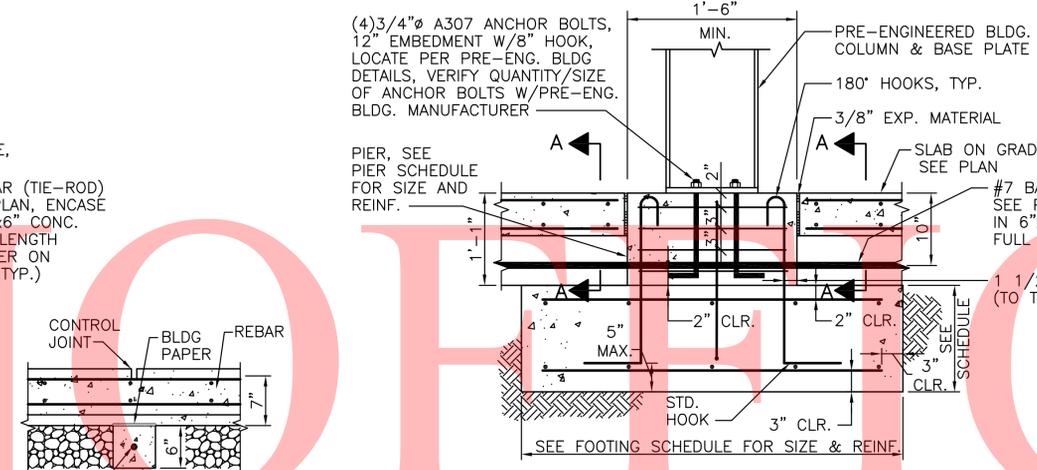
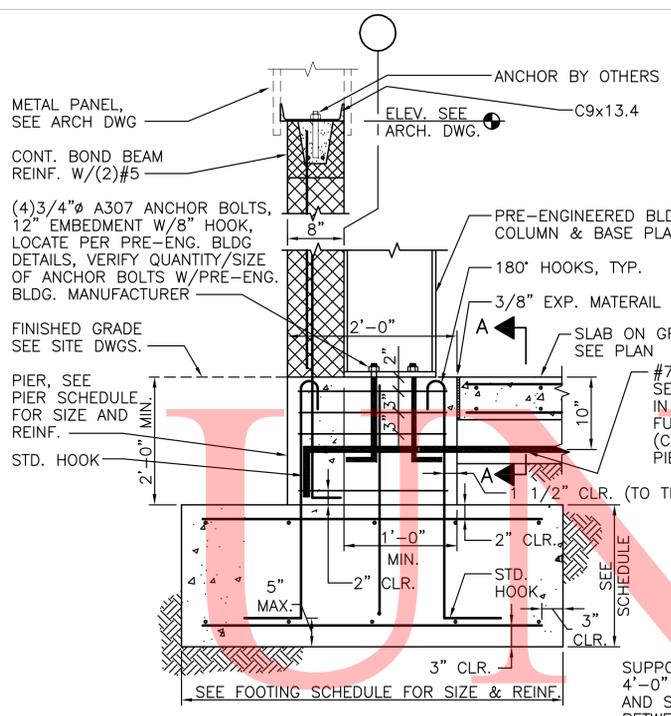
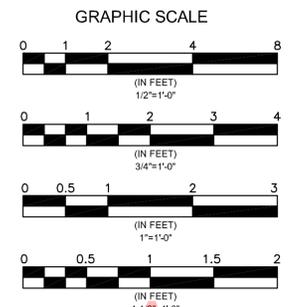
DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS

WHITNEY BAILEY COX & MAGNANI, LLC
849 Fairmount Ave. Suite 110 Baltimore, MD 21296
MAIN 410.512.4500 FAX 410.324.4100
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WBCM ARCHITECTURE ENGINEERING CONSTRUCTION

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**TYPICAL SECTIONS
AND DETAILS**



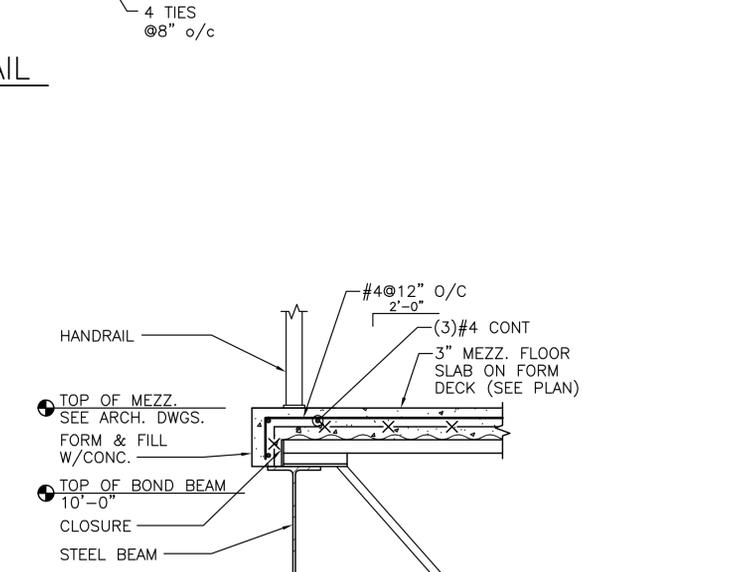
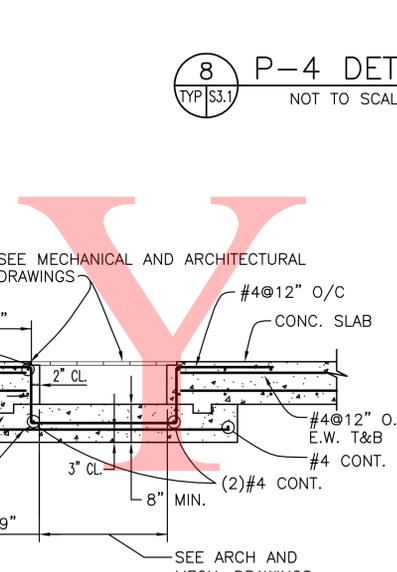
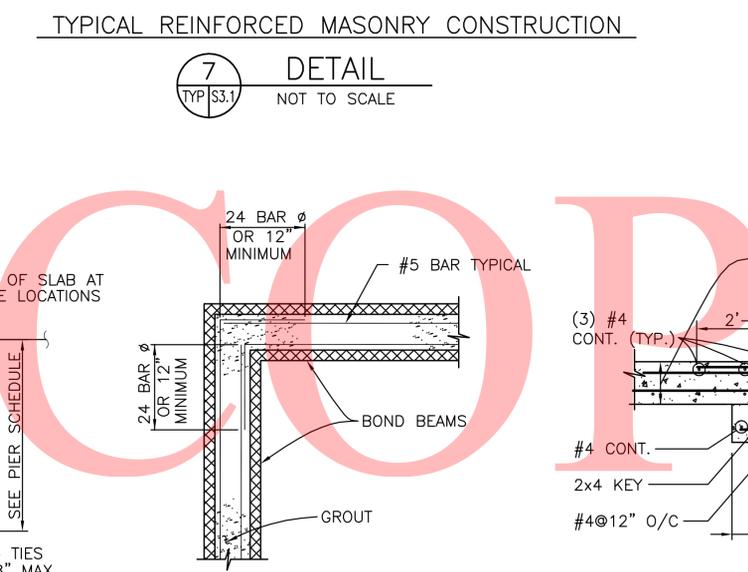
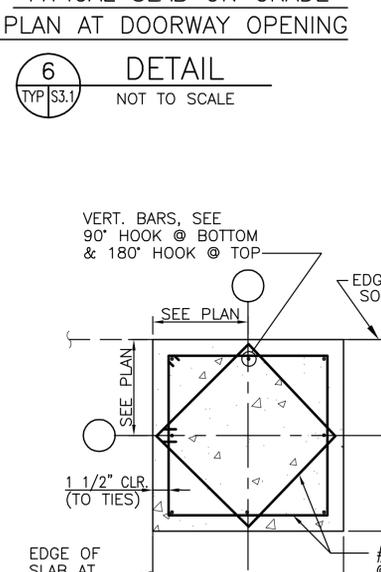
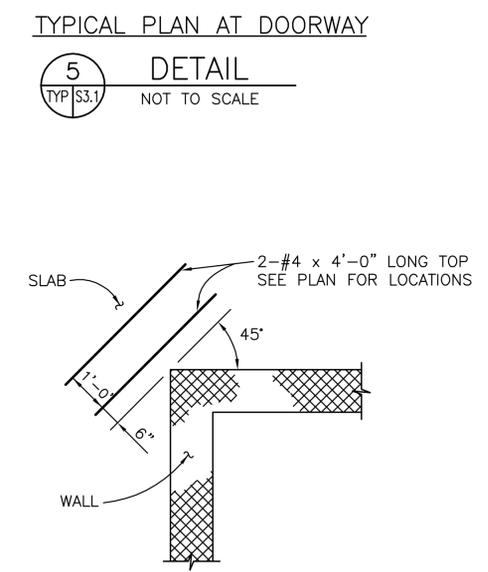
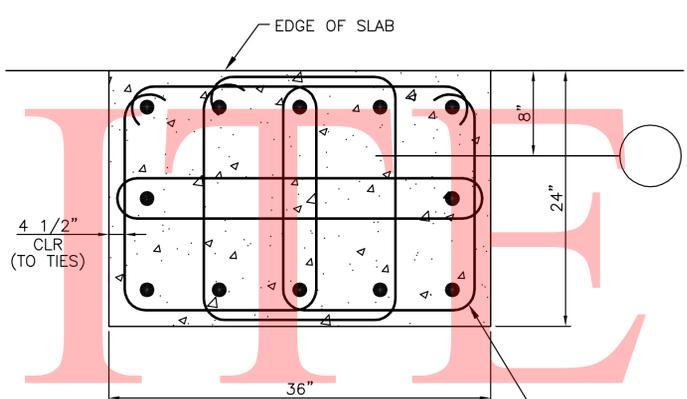
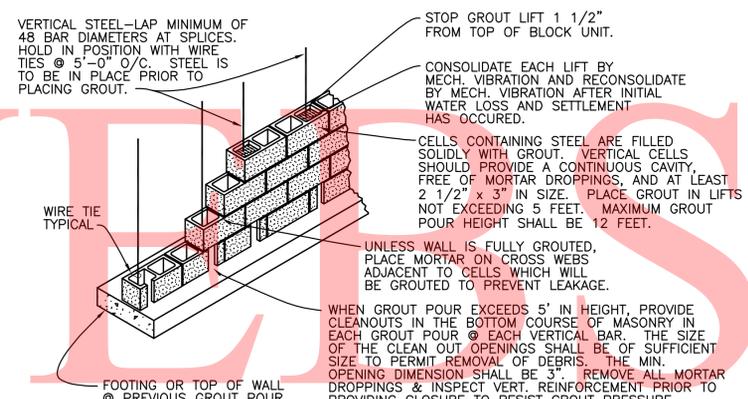
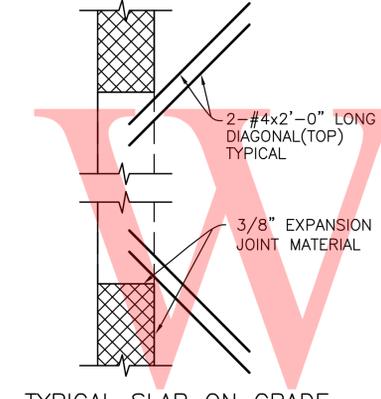
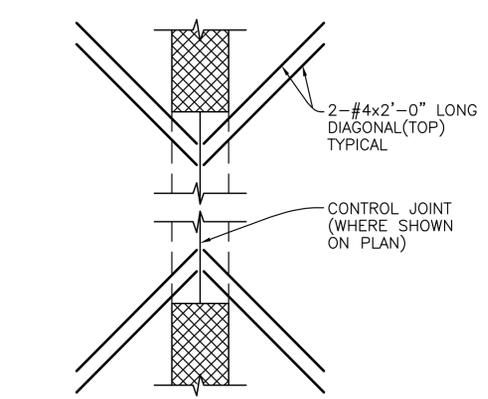
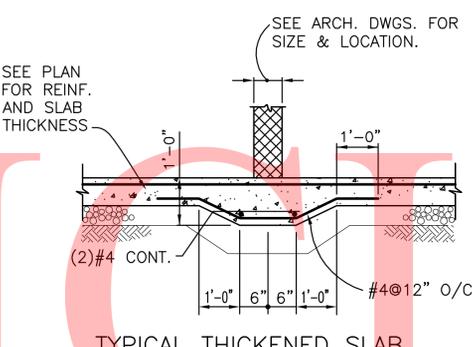
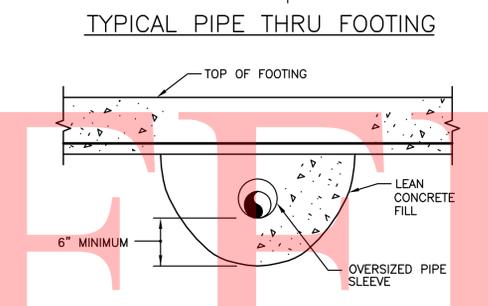
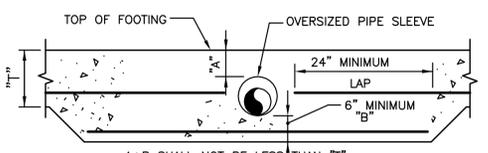
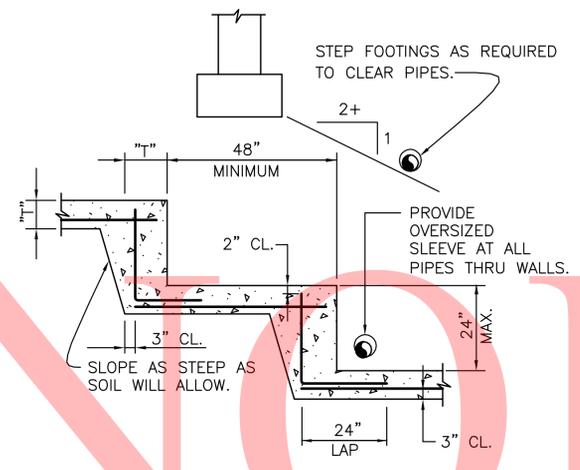
SAW-CUT JOINT AS SOON AS SURFACE IS FIRM ENOUGH SO THAT IT WILL NOT BE TORN OR DAMAGED BY BLADE (APPROX. 4-12 HOURS AFTER CONCRETE HARDENS). FILL JOINT W/ FLEXIBLE TWO-PART POLYURETHANE SEALANT W/ A SHORE "A" HARDNESS OF 75. ALLOW CONCRETE TO CURE PRIOR TO FILLING JOINT.

SEE NOTES 3&4

SAW-CUT CONTROL JOINTS

- NOTE:
1. PROVIDE SAW-CUT CONTROL JOINTS IN SLABS ON GRADE WHERE NOTED THUS (C.J.) ON THE PLAN.
 2. KEYED CONTROL JOINTS MUST BE USED BETWEEN ADJACENT POURS. USE 2"x4" KEY.
 3. CUT ALTERNATE BARS CROSSING THE JOINT.
 4. CUT ALTERNATE WIRE OF W.W.F. ACROSS THE JOINT.

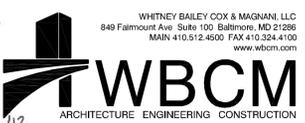
TYPICAL SLAB ON GRADE CONTROL JOINT



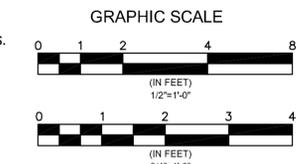
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May 03, 2012 - 2:27pm
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DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

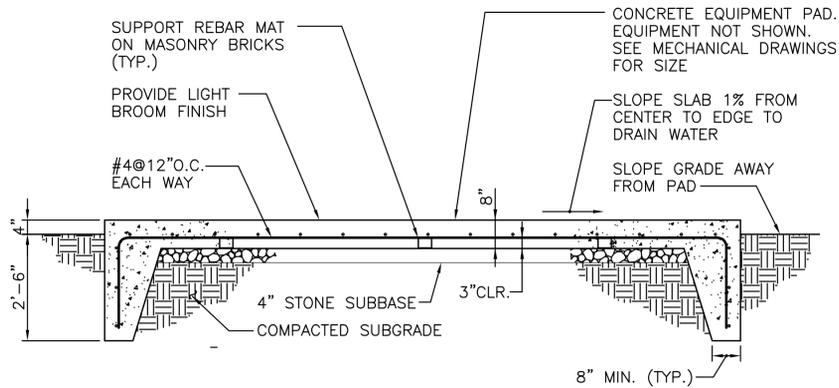
04/12/12 - REVISED PER KENT CO. COMMENTS



TYPICAL SECTIONS AND DETAILS

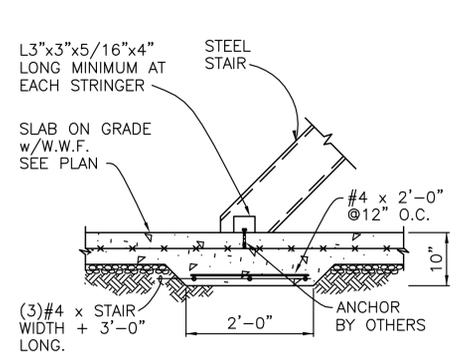


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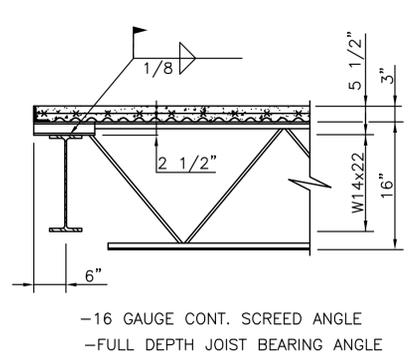
TYPICAL SECTION THRU EXTERIOR EQUIPMENT PAD

1 SECTION
TYP S3.2 NOT TO SCALE



SLAB ON GRADE AT STEEL STAIR

2 DETAIL
TYP S3.2 NOT TO SCALE



TYPICAL SECTION AT SPANDREL BEAM

3 SECTION
TYP S3.2 NOT TO SCALE

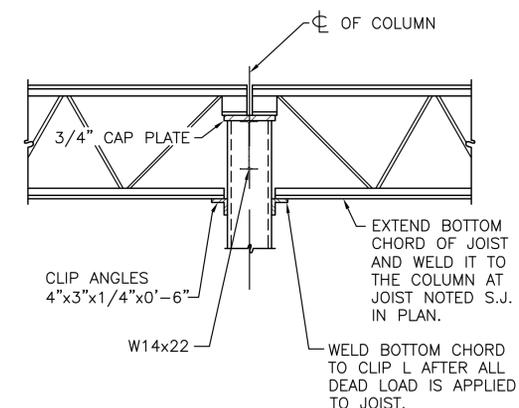
- EQUIPMENT PAD NOTES:
1. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH $f'_c=4000$ PSI AT 28 DAYS. CONCRETE SHALL HAVE $6\% \pm 1\%$ ENTRAINED AIR.
 2. ALL REINFORCEMENT SHALL BE ASTM A-615 GRADE 60.
 3. ANCHOR EQUIPMENT TO CONCRETE PAD PER MANUFACTURER'S RECOMMENDATIONS.
 4. PROVIDE GALVANIZED STEEL SHIMS AND NON-SHRINK GROUT UNDER EQUIPMENT AS REQUIRED TO LEVEL EQUIPMENT AND FULLY SUPPORT PER MANUFACTURER'S RECOMMENDATIONS.

MARK	SIZE	REINFORCEMENTS	DESIGN LOADS (IN KIPS) DUE TO ALL LOADING COMBINATIONS.				
			VERTICAL (DOWNWARD)	VERTICAL (UPWARD)	HORIZONTAL INWARD	HORIZONTAL OUTWARD	LONGITUDINAL
F-30	3'-0" SQ. x 1'-0" THK.	4-#5 E.W. BOTTOM	34	--	--	--	--
F-40	4'-0" SQ. x 1'-4" THK.	5-#5 E.W. BOTTOM	45	--	--	--	--
F-79	7'-9" SQ. x 1'-6" THK.	7-#6 E.W. T&B	56	--	5	--	--
F-86	8'-6" SQ. x 2'-0" THK.	9-#6 E.W. T&B	41	26	33	40	--
F-10	10'-0" SQ. x 2'-0" THK.	10-#6 E.W. T&B	70	26	33	40	15

MARK	SIZE	REINFORCEMENTS		DETAIL
		VERTICAL	TIES	
P-1	16" x 24"	8-#6	#4@8" O/C	1/S2.1 AND 10/S3.1
P-2	20" x 24"	8-#8	#4@8" O/C	1/S2.1 AND 10/S3.1
P-3	18" x 24"	8-#8	#4@8" O/C	1/S2.1 AND 10/S3.1
P-4	36" x 24"	12-#8	#4@8" O/C	1/S2.1 AND 8/S3.1
P-5	24" x 24"	8-#8	#4@8" O/C	2/S2.1 AND 10/S3.1

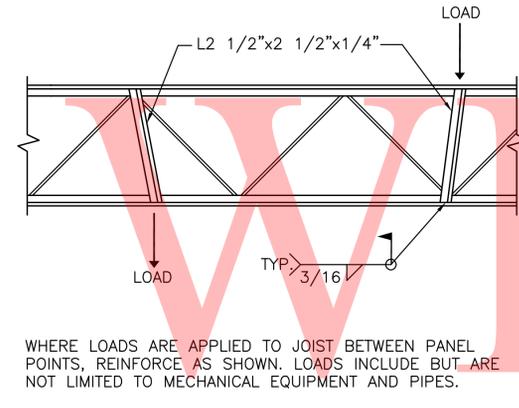
MARK	SIZE	SPAN	REMARKS
L-2	1-L 5"x3 1/2" x 5 1/16"	4'-0" TO 5'-0" CLEAR	D.O.
L-3	1-L 6"x3 1/2" x 5 1/16"	5'-0" TO 6'-4" CLEAR	D.O.

- NOTES:
1. ALL LINTELS SHALL HAVE 6" MINIMUM BEARING AT EACH END.
 2. PROVIDE LINTELS OVER ALL OPENINGS PER ABOVE, INCLUDING DOORS, WINDOWS, DUCTS, LOUVERS, RECESSES, AND OTHER OPENINGS, UNLESS SHOWN OR NOTED OTHERWISE ON STRUCTURAL OR ARCHITECTURAL DRAWINGS.
 3. FOR DIMENSIONS AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
 4. WRAP END OF LINTELS IN BUILDING PAPER AT CONTROL JOINTS.
 5. ALL EXTERIOR LINTELS SHALL BE HOT DIPPED GALVANIZED.



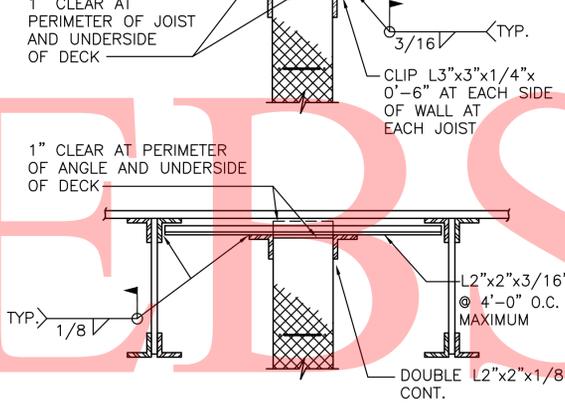
TYPICAL STRUT JOIST TO COLUMN

4 DETAIL
TYP S3.2 NOT TO SCALE



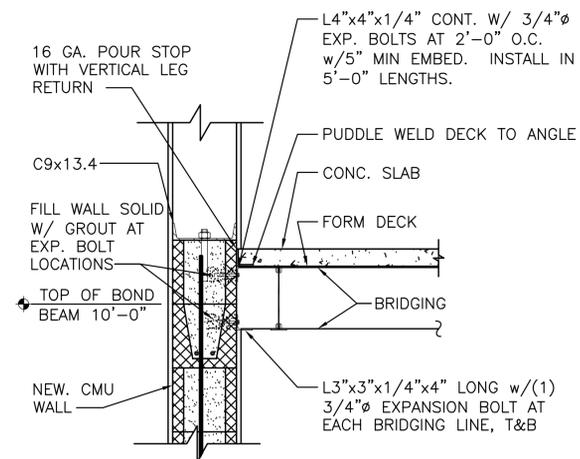
TYPICAL JOIST REINFORCEMENT

5 DETAIL
TYP S3.2 NOT TO SCALE



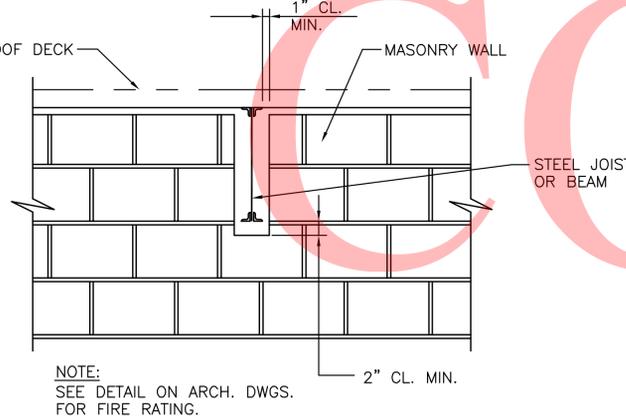
TYPICAL MASONRY WALL BRACING

6 DETAIL
TYP S3.2 SCALE: 1/2"=1'-0"



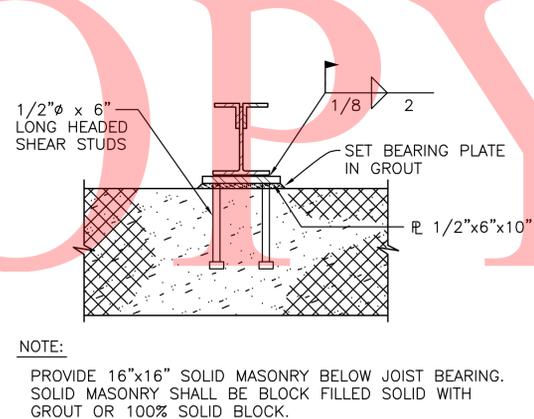
TYPICAL STEEL JOIST OR BEAM THRU MASONRY WALL

7 DETAIL
TYP S3.2 SCALE: 3/4"=1'-0"



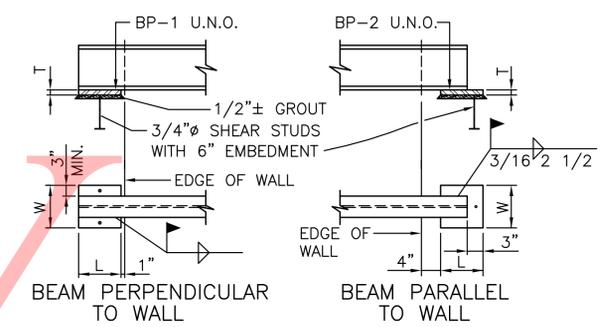
TYPICAL JOIST BEARING AT MASONRY WALLS

8 DETAIL
TYP S3.2 NOT TO SCALE



TYPICAL BEAM BEARING PLATE

9 DETAIL
TYP S3.2 NOT TO SCALE



PROVIDE 16" MINIMUM DEEP SOLID BEARING BELOW ALL BEARING PLATES ON MASONRY. SOLID BEARING SHALL BE TWICE THE LARGEST PLATE DIMENSION IN LENGTH. THE SOLID BEARING SHALL BE HOLLOW BLOCK FILLED SOLID WITH GROUT OR SOLID BRICK WHERE NOT EXPOSED IN THE FINISHED BUILDING.

MARK	SIZE	
	T	W x L
BP-1	3/4"x12"	x0'-7"
BP-2	1/2"x7"	x1'-0"

10 DETAIL
TYP S3.2 NOT TO SCALE

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May 03, 2012 - 2:28pm
PREL. TRACING
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MECHANICAL LEGEND AND GENERAL NOTES

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	M1.0 35	59

DELAWARE DEPARTMENT OF TRANSPORTATION MAGNOLIA YARD VEHICLE MAINTENANCE SHOP REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



Gipe Associates Inc.
Consulting Engineers
849 Fairmount Ave Suite 102 Baltimore, MD 21286
Baltimore, Maryland (410)832-2420
Easton, Maryland (410)822-8688
W.O.# 09035E

MECHANICAL LEGEND

SYMBOL	ABBREV.	DEFINITION	SYMBOL	ABBREV.	DEFINITION
	S.A.	SUPPLY AIR DUCT UP/DOWN		H.P.S.	HIGH PRESSURE STEAM
	R.A.	RETURN AIR DUCT UP/DOWN		L.P.S.	LOW PRESSURE STEAM
	E.A.	EXHAUST AIR DUCT UP/DOWN		SC	STEAM CONDENSATE
	O.A.	OUTSIDE AIR DUCT UP/DOWN		H.S.(P)	HEATING SUPPLY (PRIMARY)
		RECT. TO ROUND TRANSITION		H.R.(P)	HEATING RETURN (PRIMARY)
		FLEXIBLE CONNECTION (DUCTWORK)		H.S.(S)	HEATING SUPPLY (SECONDARY)
		FLEXIBLE DUCT		H.R.(S)	HEATING RETURN (SECONDARY)
	VD	MANUAL VOLUME DAMPER		CS	CONDENSER WATER SUPPLY
	FD	FIRE DAMPER		CR	CONDENSER WATER RETURN
	MOD	MOTOR OPERATED DAMPER		HS	HEATING SUPPLY
	AMS	AIR MONITORING STATION		HR	HEATING RETURN
	SA	SOUND ATTENUATOR		CHS	CHILLED WATER SUPPLY
	SD	DUCT SMOKE DETECTOR		CHR	CHILLED WATER RETURN
		ELBOW W/ TURNING VANES		CW	COLD WATER
		RADIUS ELBOW		HW	DOMESTIC HOT WATER
	FPTU	FAN POWERED VAV BOX W/ HEAT COIL		HWC	HOT WATER RECIRCULATING
	SL	ACOUSTICAL SOUND LINING		F	FIRE LINE
		DUCT TRANSITION		SD	STORM DRAIN
		CHANGE IN ELEVATION RISE(DROP)		SAN	SANITARY
		POWER ROOF VENTILATOR		V	VENT
		GATE VALVE		D	DRAIN LINE
		GLOBE VALVE		RAIR FLOW	RETURN AIR REGISTER W/ BOOT
		BALL VALVE		BTU	BRITISH THERMAL UNIT
		BALANCING VALVE		MBH	BTU PER HOUR (THOUSAND)
		MULTI-PURPOSE VALVE		SENS.	SENSIBLE
		CHECK VALVE		BHP	BOILER HORSEPOWER
		BUTTERFLY VALVE		WG	WATER GAUGE
		3-WAY MODULATING VALVE (ATC)		VEL	VELOCITY
		2-WAY MODULATING VALVE (ATC)		FFM	FEET PER MINUTE
	PRV	PRESSURE REDUCING VALVE		LF	LINEAR FOOT
		NEEDLE VALVE		KW	KILOWATT
		PRESSURE RELIEF OR SAFETY VALVE		MIN.	MINIMUM
	HED	HOSE END DRAIN VALVE		MAX.	MAXIMUM
		STRAINER W/HOSE END DRAIN VALVE AND CAP		NC	NOISE CRITERIA
		AUTOMATIC AIR VENT		DB	DECIBEL
		FLOW METER FITTING		LBS.	POUNDS
		COMBINATION SHUT-OFF/BALANCING VALVE		TEMP.	TEMPERATURE
		UNION		EXH.	EXHAUST
		FLANGE		SPLY.	SUPPLY
		CONCENTRIC REDUCER		TONS	TONS OF REFRIGERATION
		ECCENTRIC REDUCER		SQ.	SQUARE
		FLEXIBLE CONNECTION (PIPING)		WTR.	WATER
		MANUAL AIR VENT		OAT	OUTSIDE AIR TEMPERATURE
		THERMOMETER		STD.	STANDARD
		PRESSURE GAUGE W/NEEDLE VALVE		ΔT	TEMPERATURE DIFFERENCE
		TEMPERATURE SENSOR		%	PERCENT
	T'STAT	THERMOSTAT		EFF.	EFFICIENCY
		FAN SWITCH		ELECT. CHAR.	ELECTRICAL CHARACTERISTICS
		STATIC PRESSURE GAUGE		CAP	CAPACITY
	D.P.	DIFFERENTIAL PRESSURE CONTROLLER		SB	STAND-BY
	D.P.T.	DIFFERENTIAL PRESSURE TRANSMITTER		FT. H 2 O	FEET WATER GAUGE
	A.F.C.	AUTOMATIC FLOW CONTROL VALVE		IN. H 2 O	INCHES WATER GAUGE
	FS	FLOW SWITCH		ATC	AUTOMATIC TEMPERATURE CONTROL
	S.P.	STATIC PRESSURE CONTROLLER		EX.	EXISTING
		PIPE ALIGNMENT GUIDE		R.X.	REMOVE EXISTING
		PIPE ANCHOR		CON.	CONNECT TO EXISTING
		EXPANSION LOOP		DEM.	DEMOLITION ENDS HERE
		UNIT HEATER		F&T	FLOAT AND THERMOSTATIC TRAP
		PITCH OF PIPE, % SLOPE		VSD	VARIABLE SPEED DRIVE
		PIPE-TURN DOWN		°F	DEGREES FAHRENHEIT
		PIPE-TURN UP		CFM	CUBIC FEET PER MINUTE
		SOLENOID VALVE		GPM	GALLONS PER MINUTE
		END CAP		EAT	ENTERING AIR TEMPERATURE
		BLIND FLANGE		LAT	LEAVING AIR TEMPERATURE
		DIRECTION OF FLOW		EWT	ENTERING WATER TEMPERATURE
	F.O.T.	FLAT ON TOP		LWT	LEAVING WATER TEMPERATURE
	F.O.B.	FLAT ON BOTTOM		DB	DRY BULB
	AFPF	AIRFOIL PLENUM FAN		WB	WET BULB
	D.L.	DOOR LOUVER		PD	PRESSURE DROP
	A.P.	ACCESS PANEL		WPD	WATER PRESSURE DROP
				APD	AIR PRESSURE DROP
				SP	STATIC PRESSURE
				ESP	EXTERNAL STATIC PRESSURE
				PSI	POUNDS PER SQUARE INCH
				HP	HORSEPOWER
				BHP	BRAKE HORSEPOWER
				RPM	REVOLUTIONS PER MINUTE
				FFM	FEET PER MINUTE
				V	VOLTS
				HZ	HERTZ
				DIFF.	DIFFUSER
				REG.	REGISTER
				AFF	ABOVE FINISHED FLOOR
				W/	WITH
				F.O.	FLAT OVAL
				S.S.	STAINLESS STEEL
				HT.	HEIGHT
				REQ'D.	REQUIRED
				DWG.	DRAWING
				NO.	NUMBER
				VAV	VARIABLE AIR VOLUME
				E.F.	EXHAUST FAN
				FZ	FREEZE STAT
				SD	SMOKE DAMPER
				SPC	STATIC PRESSURE CONTROLLER
				AHU	AIR HANDLING UNIT
				OAT	OUTSIDE AIR TEMPERATURE
				SWT	SUPPLY WATER TEMPERATURE
				NO	NORMALLY OPEN
				NC	NORMALLY CLOSED
				E.M.S.	ENERGY MANAGEMENT SYSTEM
				S.A.F.	SUPPLY AIR FAN
				O.A.F.	OUTSIDE AIR FAN
				R.A.F.	RETURN AIR FAN
				E.A.F.	EXHAUST AIR FAN
				DA.	DIAMETER

GENERAL NOTES: (APPLIES TO MECHANICAL DRAWINGS):

- UNLESS OTHERWISE NOTED, ALL PIPING AND DUCTWORK IS OVERHEAD, TIGHT TO UNDERSIDE OF SLAB, WITH SPACE FOR INSULATION, IF REQUIRED.
- INSTALL DUCTWORK SO THAT ALL VALVES AND DAMPERS ARE ACCESSIBLE.
- COORDINATE ALL MECHANICAL WORK WITH ELECTRICAL WORK, ETC., SHOWN ON OTHER DRAWINGS, AND EXISTING CONDITIONS.
- EXCEPT AS OTHERWISE SHOWN, LOCATE ALL ROOM THERMOSTATS 5'-0" (CENTERLINE) ABOVE FINISHED FLOOR ON THE VERTICAL CENTERLINE OF THE ROOM LIGHT SWITCH. NOTIFY THE ENGINEER OF ANY ROOMS WHERE THE ABOVE LOCATION CANNOT BE MAINTAINED OR WHERE THERE IS A QUESTION ON LOCATION.
- MAINTAIN MINIMUM 6"-8" CLEARANCE TO UNDERSIDE OF PIPES, DUCTS, CONDUIT, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL AND ELECTRICAL ROOMS.
- CERTAIN ITEMS SUCH AS CLEANOUTS, ACCESS DOORS, RISE AND DROPS IN DUCTWORK, ETC., ARE INDICATED ON THE DRAWINGS FOR CLARITY OR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THOSE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE ITEMS AS REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- EQUIPMENT CONNECTION SIZES MAY DIFFER FROM INDICATED DUCT OR PIPE SIZES. PROVIDE APPROPRIATE TRANSITIONS WHERE REQUIRED.
- THESE DRAWINGS ARE DIAGRAMMATIC AND ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT NECESSARILY SHOWN. COORDINATE THE INSTALLATION OF ALL PIPING, DUCTWORK, EQUIPMENT AND OTHER WORK WITH ALL OTHER TRADES.
- IT IS THE INTENT THAT ALL WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT MATERIAL OR WORK SPECIFICALLY NOT INDICATED ON DRAWINGS, BUT NECESSARY TO COMPLETE THE WORK, SHALL BE FURNISHED.
- EXACT LOCATION OF DIFFUSERS, REGISTERS AND GRILLES PROVIDE IN CEILING SHALL BE COORDINATED WITH REFLECTED CEILING PLANS.
- REFER TO AIR DEVICE SCHEDULES FOR SIZE OF DUCT FROM BRANCH DUCT TO NECK OF AIR DEVICE.
- UNLESS INDICATED OTHERWISE, ALL BRANCH DUCT RUNOUTS TO AIR DEVICES SHALL BE PROVIDED WITH VOLUME DAMPERS.
- MATERIAL, EQUIPMENT, INSTALLATION AND PROCEDURES SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE LATEST CURRENT EDITION OF THE REFERENCED DOCUMENTATION.
 - A. REGULATIONS OF LOCAL AUTHORITIES HAVING JURISDICTION. (BALTIMORE CITY CODES)
 - B. NFPA-NATIONAL FIRE PROTECTION ASSOCIATION.
 - C. SMACNA - SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION.
 - D. ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
 - E. ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS.
 - F. ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS, INC.
- ALL AUTOMATIC TEMPERATURE CONTROL SETPOINTS SHALL BE ADJUSTABLE.

PREL. TRACING DESIGN CHKD.

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED

MECHANICAL GROUND FLOOR PLAN - HVAC

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	M.1.1 36	59

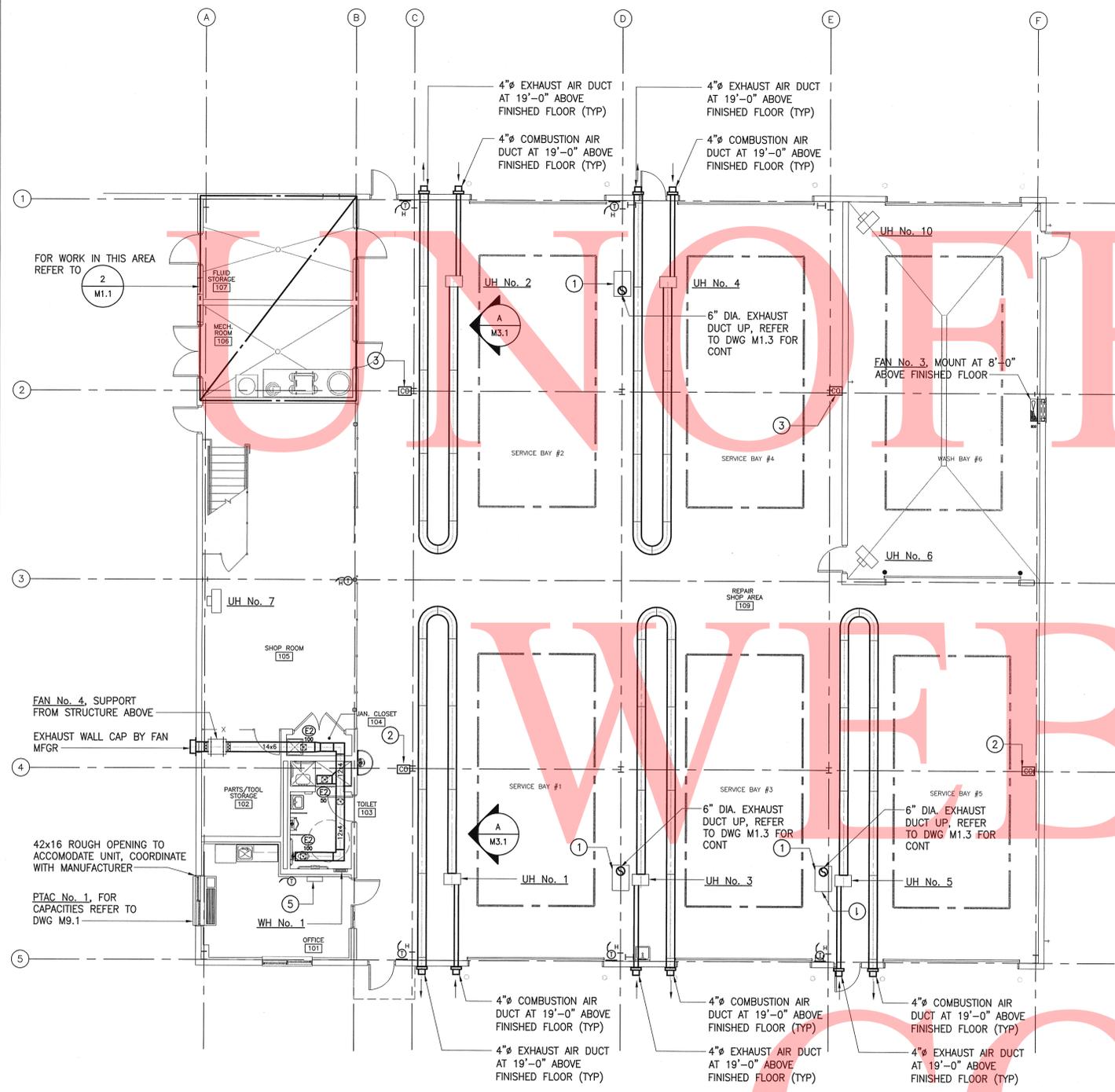
DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS

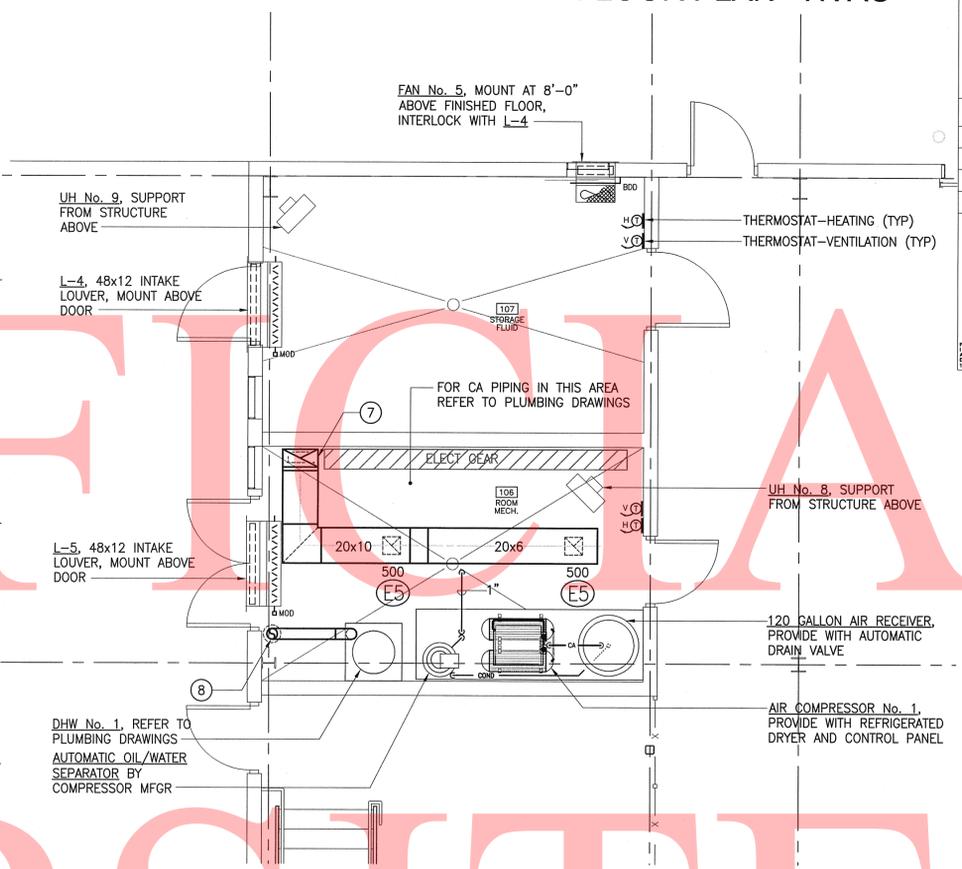
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DRAWING NOTES:

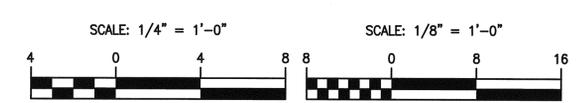
- VEHICLE EXHAUST HOSE REEL, MOUNT 8'-0" ABOVE FINISHED FLOOR
- CARBON MONOXIDE DETECTOR MOUNT AT 5'-0" ABOVE FINISHED FLOOR, INTERLOCK WITH FAN No. 1
- CARBON MONOXIDE DETECTOR MOUNT AT 5'-0" ABOVE FINISHED FLOOR, INTERLOCK WITH FAN No. 2
- CARBON MONOXIDE DETECTOR MOUNT AT 5'-0" ABOVE FINISHED FLOOR, INTERLOCK WITH FAN No. 3
- CARBON MONOXIDE DETECTOR CONTROL PANEL, MOUNT ON WALL
- THERMOSTAT WITH INSULATION BOARD, TYPICAL
- 20x10 EA UP THRU FLOOR, FOR CONTINUATION REFER TO DRAWING M1.2
- 6" PVC FLUE UP THRU FLOOR, FOR CONTINUATION REFER TO DRAWING M1.2



1 MECHANICAL GROUND FLOOR PLAN - HVAC
SCALE: 1/8" = 1'-0"



2 PART PLAN - MECH AND FLUID STORAGE AREA
SCALE: 1/4" = 1'-0"



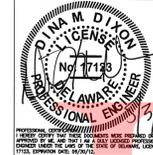
SPECIAL NOTES:
1. REFER TO PLUMBING DRAWING P1.1 FOR GAS SERVICE PIPING TO UNIT HEATERS, PTAC'S, ETC....

MECHANICAL MEZZANINE
FLOOR PLAN - HVAC

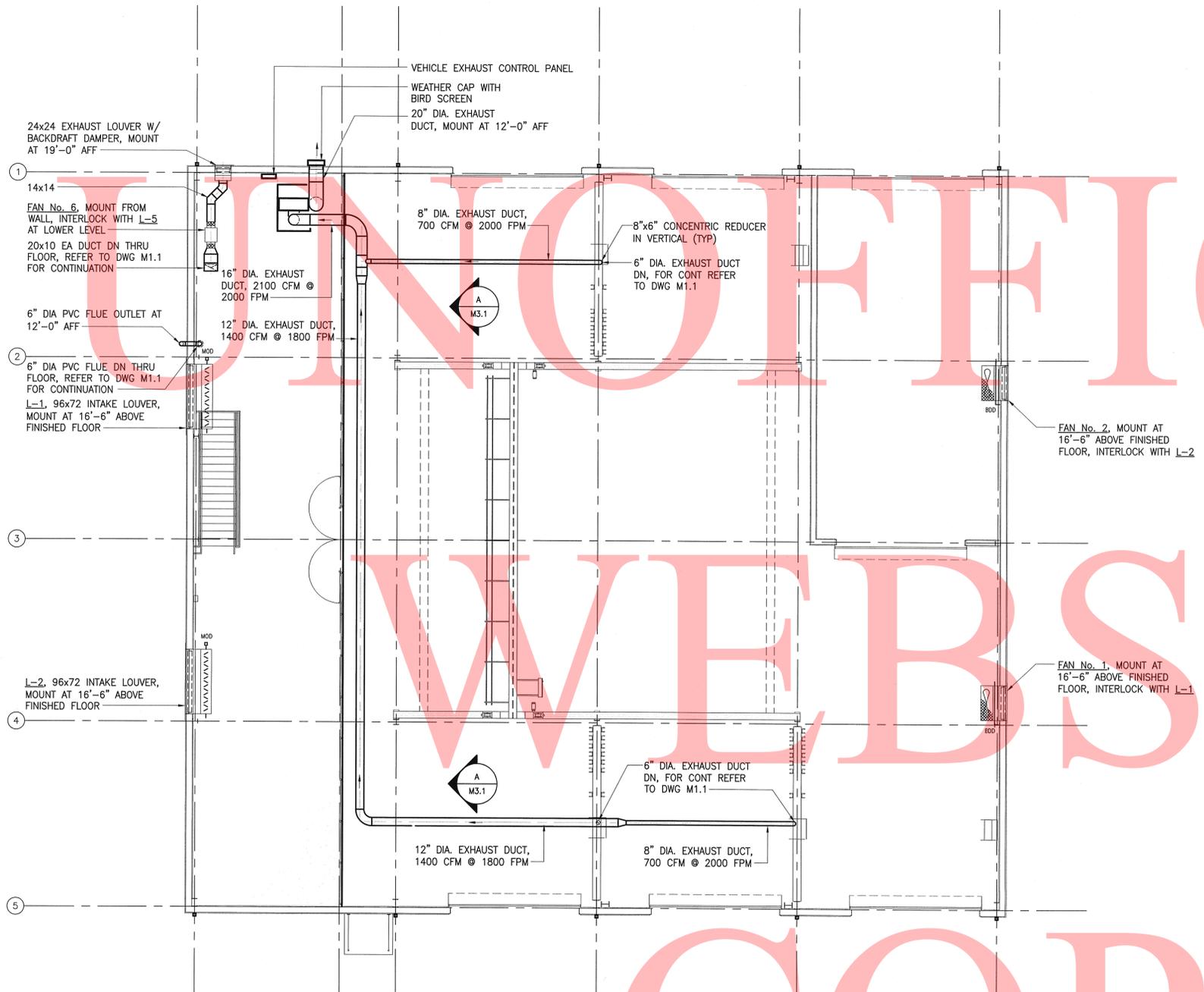
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
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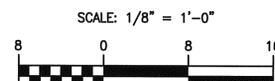
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1
M1.2
MECHANICAL MEZZANINE FLOOR PLAN - HVAC
SCALE: 1/8" = 1'-0"



PREL. TRACING DESIGN CHKD.

SPECIAL NOTES:
 1. REFER TO PLUMBING DRAWING P1.1 FOR GAS SERVICE PIPING TO UNIT HEATERS, PTAC'S, ETC....

MECHANICAL SECTIONS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	M3.1 38	59

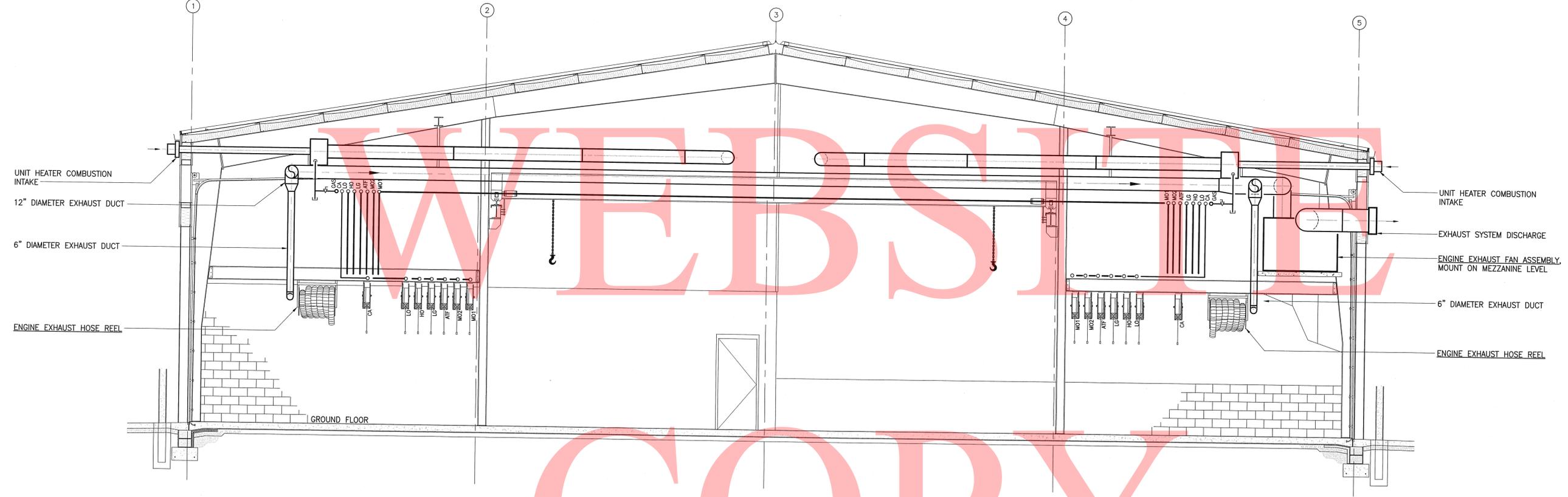
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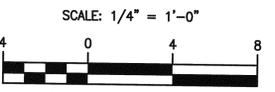


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SECTION A-A
SCALE: 1/4" = 1'-0"



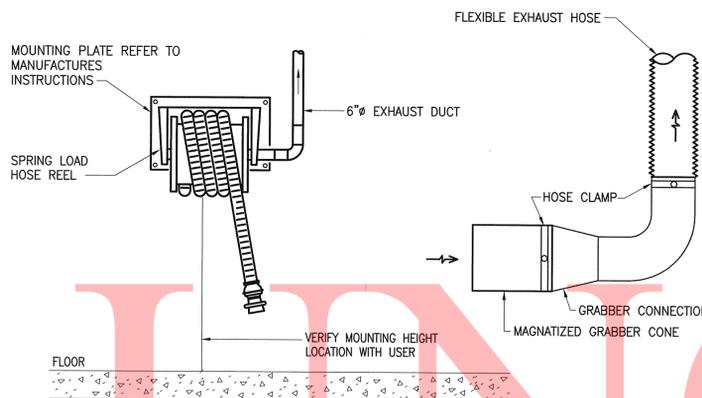
PREL. TRACING DESIGN CHKD.

DELAWARE DEPARTMENT OF TRANSPORTATION
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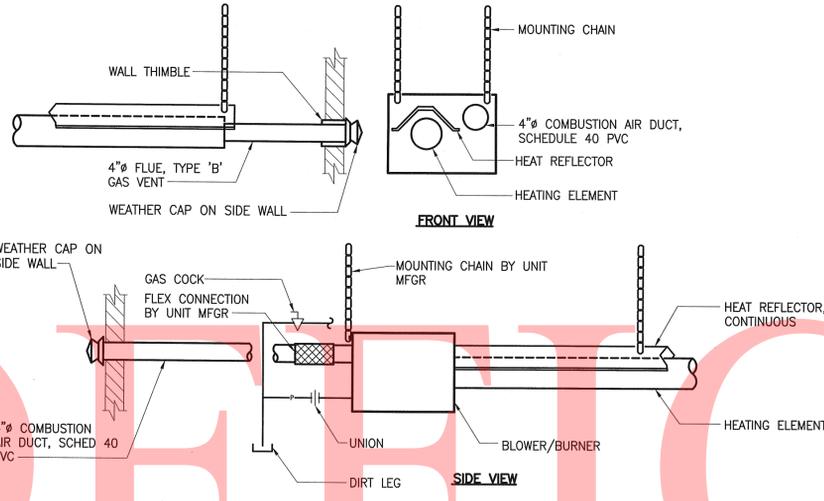


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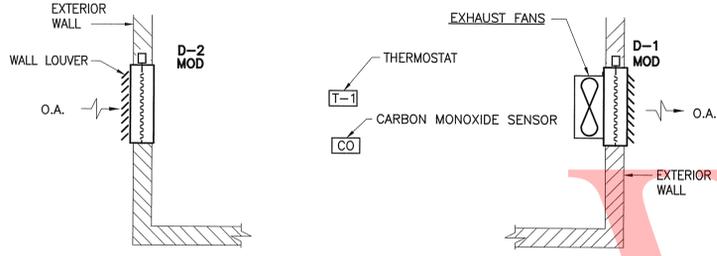
1 DETAIL - TYPICAL WALL MOUNTED VEHICLE EXHAUST HOSE REEL

SCALE: NONE



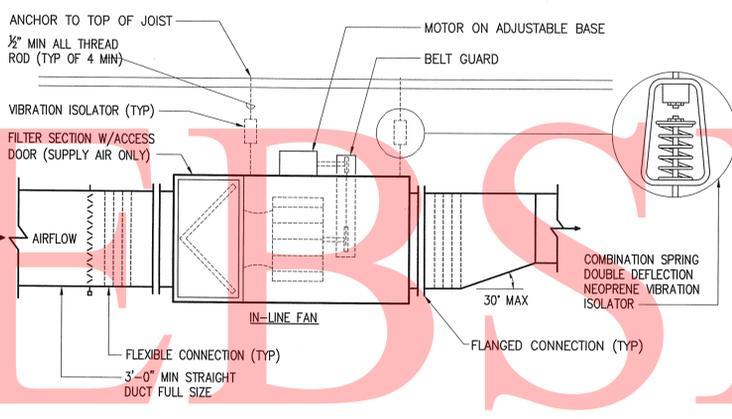
2 DETAIL - TYPICAL INFRA-RED HEATING UNIT

SCALE: NONE



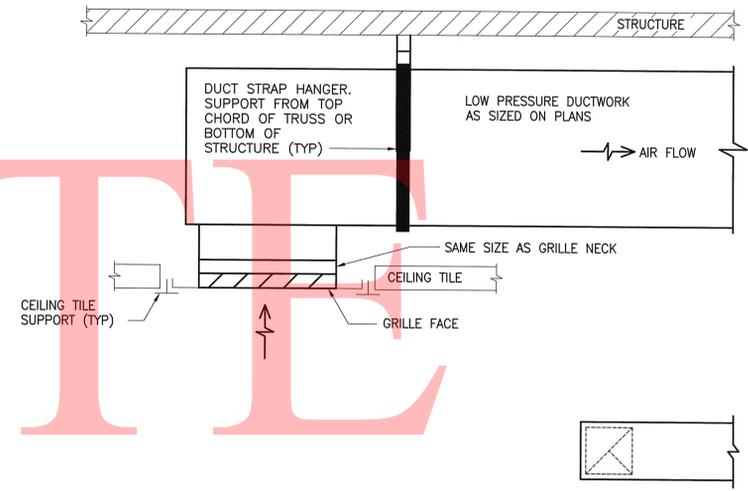
3 DETAIL - TYPICAL BUILDING VENTILATION PURGE SYSTEM CONTROL

SCALE: NONE



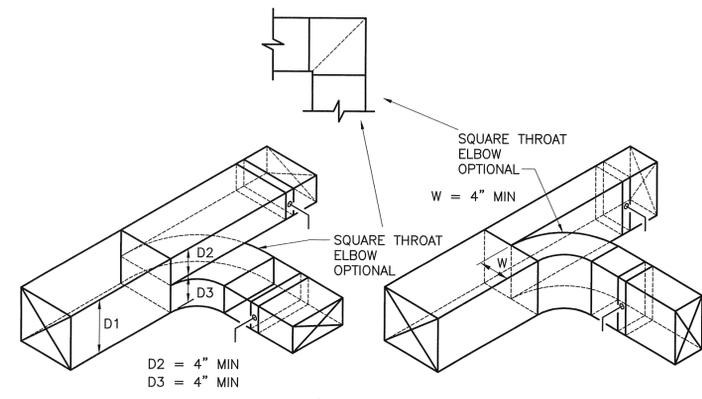
4 TYPICAL SQUARE IN-LINE FAN DETAIL

SCALE: NONE



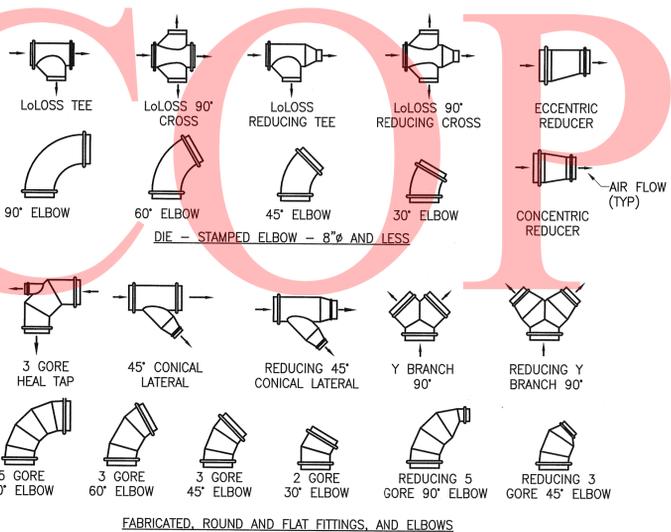
5 TYPICAL CEILING EXHAUST AIR DEVICE DETAIL

SCALE: NONE



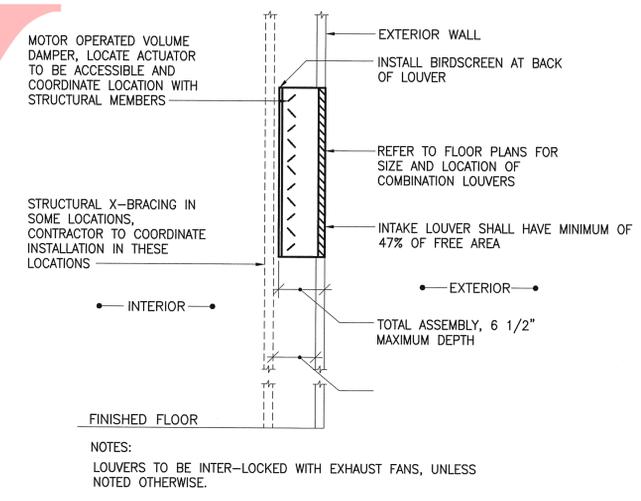
6 PARALLEL FLOW BRANCHES DETAIL

SCALE: NONE



7 TYPICAL ROUND AND FLAT OVAL DUCT FITTINGS DETAIL

SCALE: NONE



8 DETAIL - TYPICAL OUTSIDE AIR INTAKE LOUVER

SCALE: NONE Last Modified On: 04/13/12 © WBCM 2012

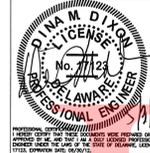
PREL. TRACING DESIGN CHKD.

MECHANICAL DETAILS

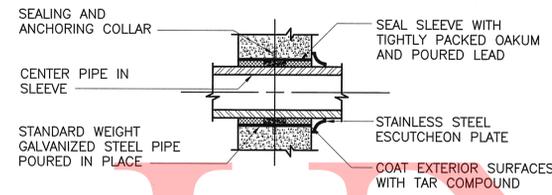
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	M7.2 40	59

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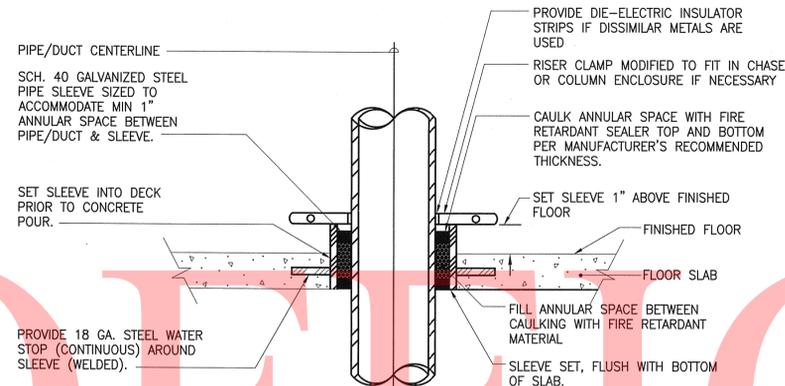


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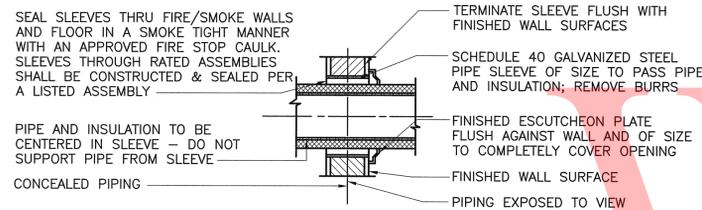
9 TYPICAL PIPE SLEEVE THRU EXTERIOR WALL ABOVE GRADE DETAIL

SCALE: NONE



10 TYPICAL PIPE SLEEVE THRU FLOOR DETAIL

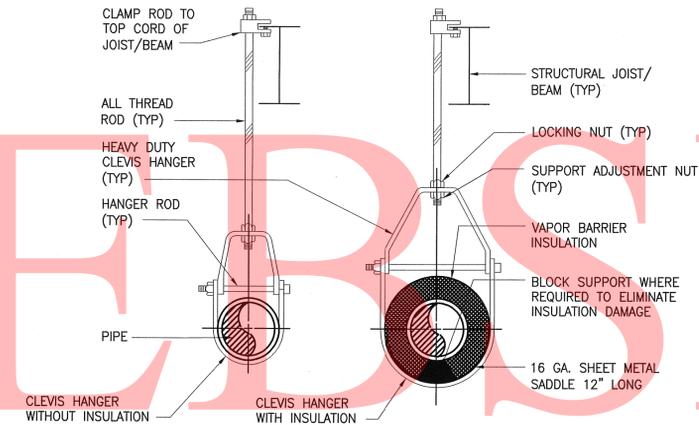
SCALE: NONE



NOTES: FOR INTERIOR FRAME PARTITIONS-PIPE SLEEVES MAY BE FABRICATED FROM GALVANIZED SHEET METAL; ROUND TUBE CLOSED WITH SNAPLOCK JOINT, WELDED SPIRAL SEAMS, OR WELDED LONGITUDINAL JOINT. FABRICATE FROM THE FOLLOWING GAUGES: 3" AND SMALLER, 20 GAUGE; 4" TO 6", 16 GAUGE; OVER 6", 14 GAUGE.

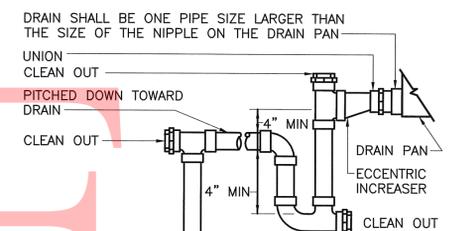
11 TYPICAL PIPE SLEEVE THRU INTERIOR WALL DETAIL

SCALE: NONE



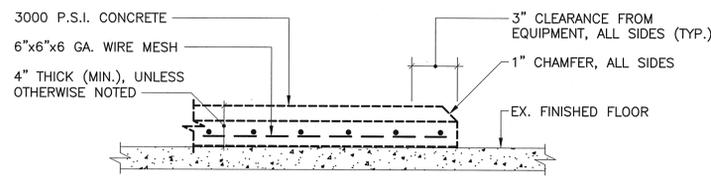
12 TYPICAL PIPE SUPPORT DETAIL

SCALE: NONE



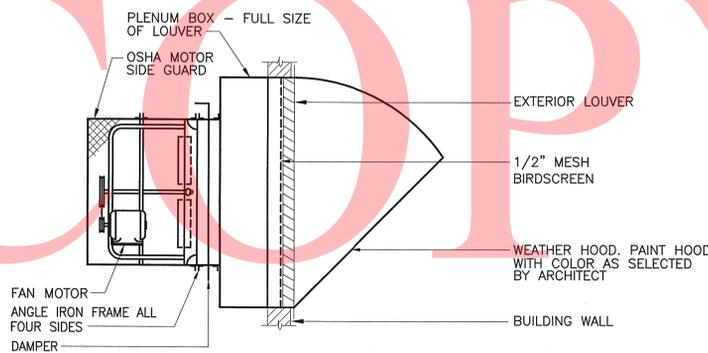
13 TYPICAL AHU CONDENSATE DRAIN TRAP DETAIL

SCALE: NONE



14 TYPICAL CONCRETE HOUSEKEEPING PAD DETAIL

SCALE: NONE



15 TYPICAL WALL PROPELLOR FAN DETAIL

SCALE: NONE

CHKD.

DESIGN

PREL. TRACING

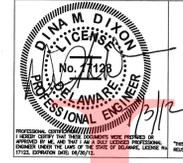
MECHANICAL SCHEDULES

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	M9.1 41	59

DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP

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PACKAGED TERMINAL AIR CONDITIONING UNIT SCHEDULE

PTAC No.	TYPE	CFM		FAN MOTOR (AMPS)	FAN RPM	ESP	ELECT. CHAR. (V/ø/HZ.)	HEATING CAPACITIES				COOLING CAPACITIES					FILTER	LOCATION	BASED ON	
		SUPPLY	OA					TOTAL MBH	TOTAL CFH	EAT DB (°F.)	LAT DB (°F.)	TOTAL MBH	SENS. MBH	EAT DB (°F.)	EAT WB (°F.)	LAT DB (°F.)				LAT WB (°F.)
1	VERTICAL	400	40	0.7	1500	0.15	208/3/60	16.0	16.0	63.0	90.0	14.0	4.90	82.7	68.4	55.3	54.1	30%	OFFICE 101	AIRXCEL DYNALINE DL3 SERIES

FAN SCHEDULE

FAN No.	SERVES	LOCATION	TYPE	CFM	SP (IN WC)	HP	RPM	ELECTRICAL V/PH/Hz	BASED ON
1	SHOP AREA	UPPER LEVEL	WALL PROP	21550	0.50	5.0	886	208/3/60	GREENHECK MODEL SBCE-3L42
2	SHOP AREA	UPPER LEVEL	WALL PROP	21550	0.50	5.0	886	208/3/60	GREENHECK MODEL SBCE-3L42
3	WASH BAY No. 1	LOWER LEVEL	WALL PROP	3500	0.375	0.50	1035	120/1/60	GREENHECK MODEL SBCE-3H24
4	TOILET ROOM AND JC	LOWER LEVEL	IN-LINE	250	0.50	0.10	1550	120/1/60	GREENHECK MODEL SQ-95D
5	FLUID STORAGE ROOM	LOWER LEVEL	WALL PROP	1000	0.375	0.25	917	120/1/60	GREENHECK MODEL SBCE-1H20
6	MECHANICAL ROOM	LOWER LEVEL	IN-LINE	1000	0.50	0.10	1550	120/1/60	GREENHECK MODEL SQB-95

UNIT HEATER SCHEDULE

IH No.	SERVES	TYPE	FUEL	MIN INLET PRESS WC	MAX INLET PRESS WC	MBH INPUT	MBH OUTPUT	STRAIGHT LENGTH	MOUNTING HEIGHT MIN	SUPPLY INLET DIA.	EXHAUST OUTLET DIA.	BASED ON
1	SERVICE BAY	TUBE	NG	11.0	14.0	90.0	88.8	28.0'	19'-0"	4"	4"	RE-VERBER-RAY HL3 SERIES
2	SERVICE BAY	TUBE	NG	11.0	14.0	90.0	88.8	28.0'	19'-0"	4"	4"	RE-VERBER-RAY HL3 SERIES
3	SERVICE BAY	TUBE	NG	11.0	14.0	90.0	88.8	28.0'	19'-0"	4"	4"	RE-VERBER-RAY HL3 SERIES
4	SERVICE BAY	TUBE	NG	11.0	14.0	90.0	88.8	28.0'	19'-0"	4"	4"	RE-VERBER-RAY HL3 SERIES
5	SERVICE BAY	TUBE	NG	11.0	14.0	90.0	88.8	28.0'	19'-0"	4"	4"	RE-VERBER-RAY HL3 SERIES
6	WASH BAY	UNITARY	E	-	-	17.1 (5kw)	-	-	9'-0"	-	-	BRASCH MODEL BTUH5-208-3
7	SHOP ROOM 106	UNITARY	E	-	-	17.1 (5kw)	-	-	7'-0"	-	-	BRASCH MODEL BTUH5-208-3
8	MECHANICAL ROOM 107	UNITARY	E	-	-	17.1 (5kw)	-	-	7'-0"	-	-	BRASCH MODEL BTUH5-208-3
9	FLUID STORAGE ROOM 108	UNITARY	E	-	-	17.1 (5kw)	-	-	7'-0"	-	-	BRASCH MODEL BTUH5-208-3
10	WASH BAY	UNITARY	E	-	-	17.1 (5kw)	-	-	9'-0"	-	-	BRASCH MODEL BTUH5-208-3

NOTES:
1. NG = NATURAL GAS E= ELECTRIC
2. MOUNTING HEIGHT IS TO BOTTOM OF UNIT TO FINISHED FLOOR
3. DESIGN CONDITIONS: 10° F OUTSIDE AIR TEMPERATURE, 65° F INDOOR TEMPERATURE SET-POINT.

ELECTRIC WALL HEATER SCHEDULE

No. WH-	LOCATION	TOTAL CAPACITY (B.T.U.H.)	WATTS	VOLTS	AMPS	CFM	HEATER TYPE (BASED ON)	REMARKS
1	TOILET ROOM 103	5119	1500	120	12.5	65	BERKO SRA-1512	RECESSED IN WALL

AIR DEVICE SCHEDULE

No.	CFM	COLLAR SIZE	BLOW	DUTY	BASED ON
1	0-50	6x6	-	EXHAUST	TITUS MODEL 350RL
2	51-100	8x8	-	EXHAUST	TITUS MODEL 350RL
3	101-175	10x10	-	EXHAUST	TITUS MODEL 350RL

MECHANICAL EQUIPMENT

VEHICLE EXHAUST HOSE REEL SYSTEM

- HOSE REEL:**
6" SPRING RETRACTABLE HOSE REEL
EXHAUST HOSE: 6" DIA
HOSE LENGTH: 33' RATED AT 660 DEG F MAX TEMP
GALVANIZED CONE NOZZLE FOR 6" HOSE WITH 8" OPENING AND LIFTING POLE
EXHAUST FAN:
2100 CFM @ 6" SP. 5.0 HP
208V/3ø/60HZ
EXHAUST DUCT: 8"ø STAINLESS STEEL
BASED ON NEDERMAN MODEL: NIF-403
ACCESSORIES:
PROVIDE HOSE REEL SYSTEM WITH A MICRO SWITCH TO START FAN WHEN HOSE IS PULLED DOWN, AND TO SHUT OFF FAN WHEN RETRACTED
ELECTRICAL CONTROL BOX WITH FAN CONTACTOR AND TRANSFORMER TO POWER MICRO-SWITCHES
BASED ON NEDERMAN: MODEL 20373557

COMPRESSED AIR SYSTEM

- TWO-STAGE RECIPROCATING ELECTRIC COMPRESSOR**
STATIONARY SKID MOUNTED PACKAGE, 10.0 HP, 35.0 CFM @ 175 PSIG, 175 PSIG
MAXIMUM OPERATING PRESSURE, 1" TANK OUTLET, DIMENSIONS: 51x46x83
NET WEIGHT = 1120 LBS., 208V/3ø/60Hz
MANUFACTURED BY INGERSOLL RAND MODEL 2545K10-V, OR EQUAL

PROVIDE WITH THE FOLLOWING ACCESSORIES:
a. MAGNETIC STARTER
b. MANUAL DRAIN
c. AUTOMATIC START-STOP PRESSURE SWITCH
d. REFRIGERATED DRYER
e. FACTORY PROVIDED START-UP KIT
f. LOW LEVEL OIL SWITCH
g. AIR-COOLED AFTER COOLER

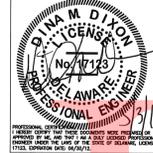
PREL. TRACING DESIGN CHKD.

SITE PLAN - ELECTRICAL

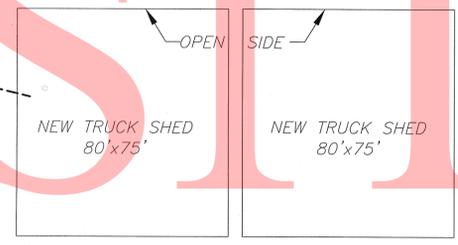
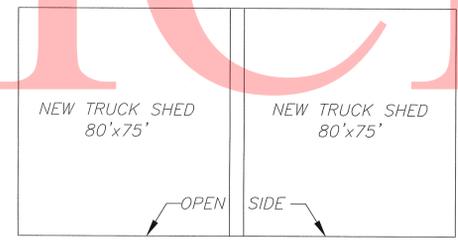
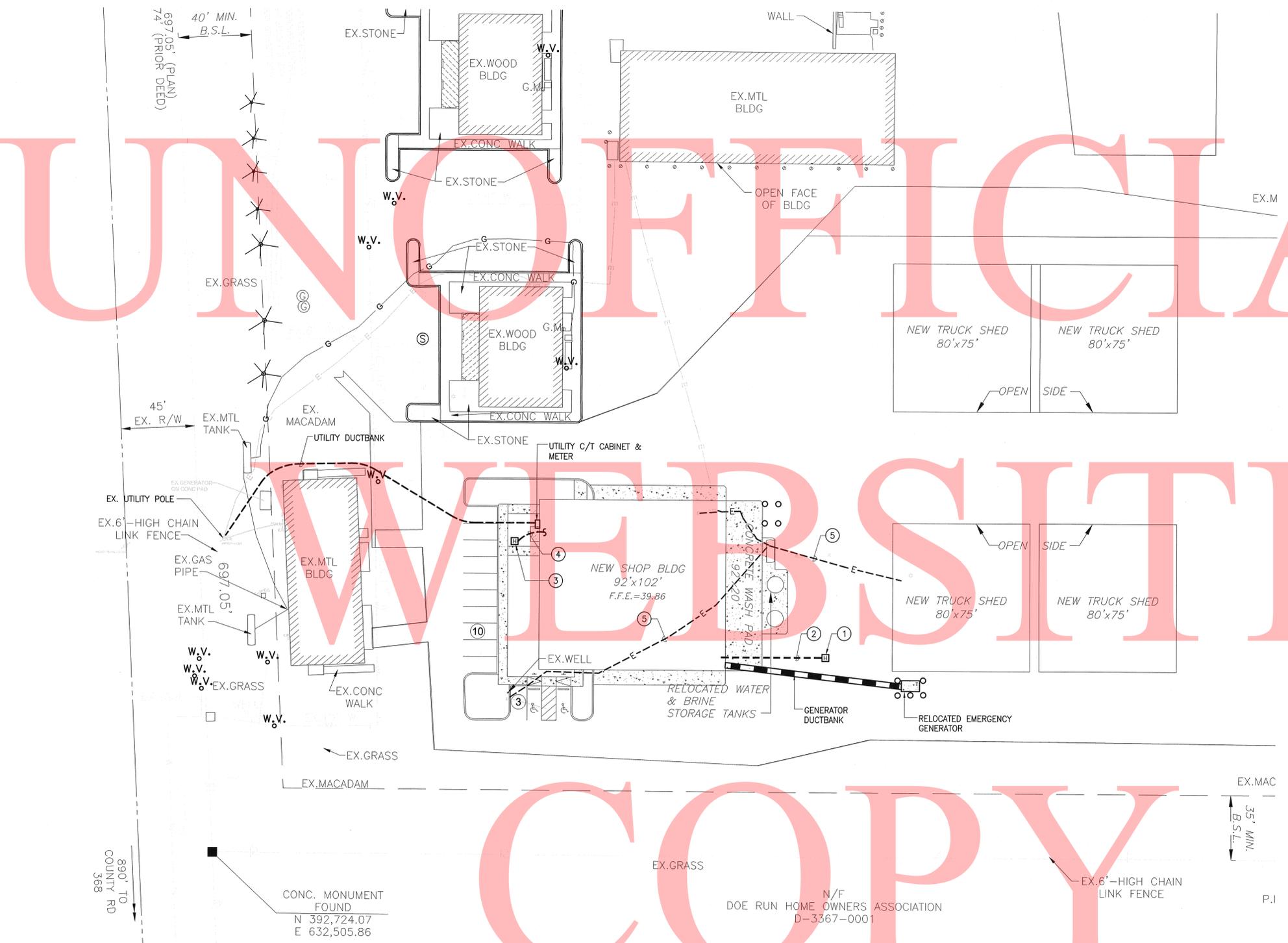
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E0.2 43	59

DELAWARE DEPARTMENT
OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



Gipe Associates Inc.
Consulting Engineers
849 Fairmount Ave Suite 102 Baltimore, MD 21286
Baltimore, Maryland (410)832-2420
Easton, Maryland (410)822-8688
W.O.# 09035E



DRAWING NOTES:

- 1 PROVIDE AN EXTERIOR JUNCTION BOX FOR FUTURE FIRE ALARM CONNECTION TO TRUCK SHEDS.
- 2 PROVIDE 1" PVC CONDUIT WITH PULL STRINGS AND TRACER WIRE FROM EXTERIOR JUNCTION BOX TO FIRE ALARM CONTROL PANEL IN THE SHOP BUILDING MECHANICAL ROOM. STUBBED UP INTO THE SHOP BUILDING. REFER TO SHEET E2.1 FOR CONTINUATION AND ADDITIONAL INFORMATION.
- 3 PROVIDE AN EXTERIOR JUNCTION BOX FOR TELECOMMUNICATION SERVICE.
- 4 PROVIDE TWO (2) 4" PVC CONDUITS FROM EXTERIOR JUNCTION BOX TO BE STUBBED UP INTO THE MECHANICAL ROOM IN THE SHOP BUILDING. REFER TO SHEET E2.1 FOR CONTINUATION AND ADDITIONAL INFORMATION.
- 5 ELECTRICAL WIRING & CONDUIT TO BE DEMOLISHED.

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SITE PLAN - ELECTRICAL
SCALE: 1" = 30'-0"

N/F
DOE RUN HOME OWNERS ASSOCIATION
D-3367-0001

PREL. TRACING DESIGN CHKD.

890' TO
COUNTY RD
368

CONC. MONUMENT
FOUND
N 392,724.07
E 632,505.86

EX. MAC
35' MIN.
B.S.L.

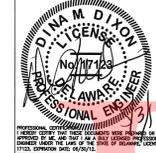
P.I

GROUND FLOOR PLAN -
LIGHTING

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHITS
30-801-01	KENT	SEE TITLE SHEET	E1.1 44	59

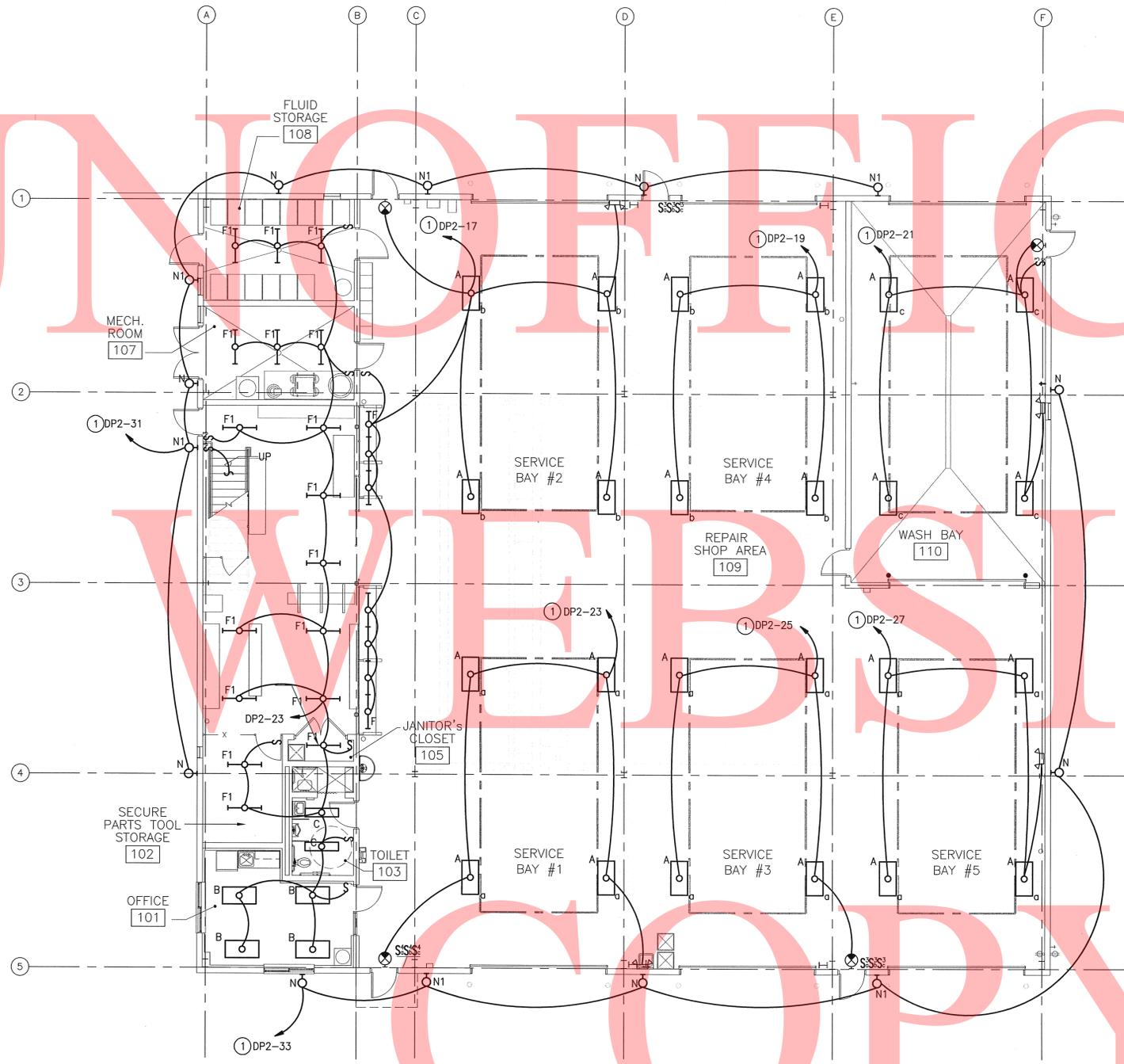
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DRAWING NOTES:
① LIGHTING FIXTURES SHALL BE CIRCUITED TO PANELBOARD INDICATED VIA RELAY CONTROL PANEL LOCATED IN MECHANICAL ROOM.

1 GROUND FLOOR PLAN - LIGHTING
E1.1 SCALE: 1/8" = 1'-0"

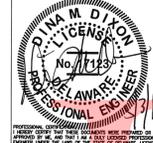
PREL. TRACING DESIGN CHKO.

MEZZANINE PLAN -
LIGHTING

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E1.2 45	59

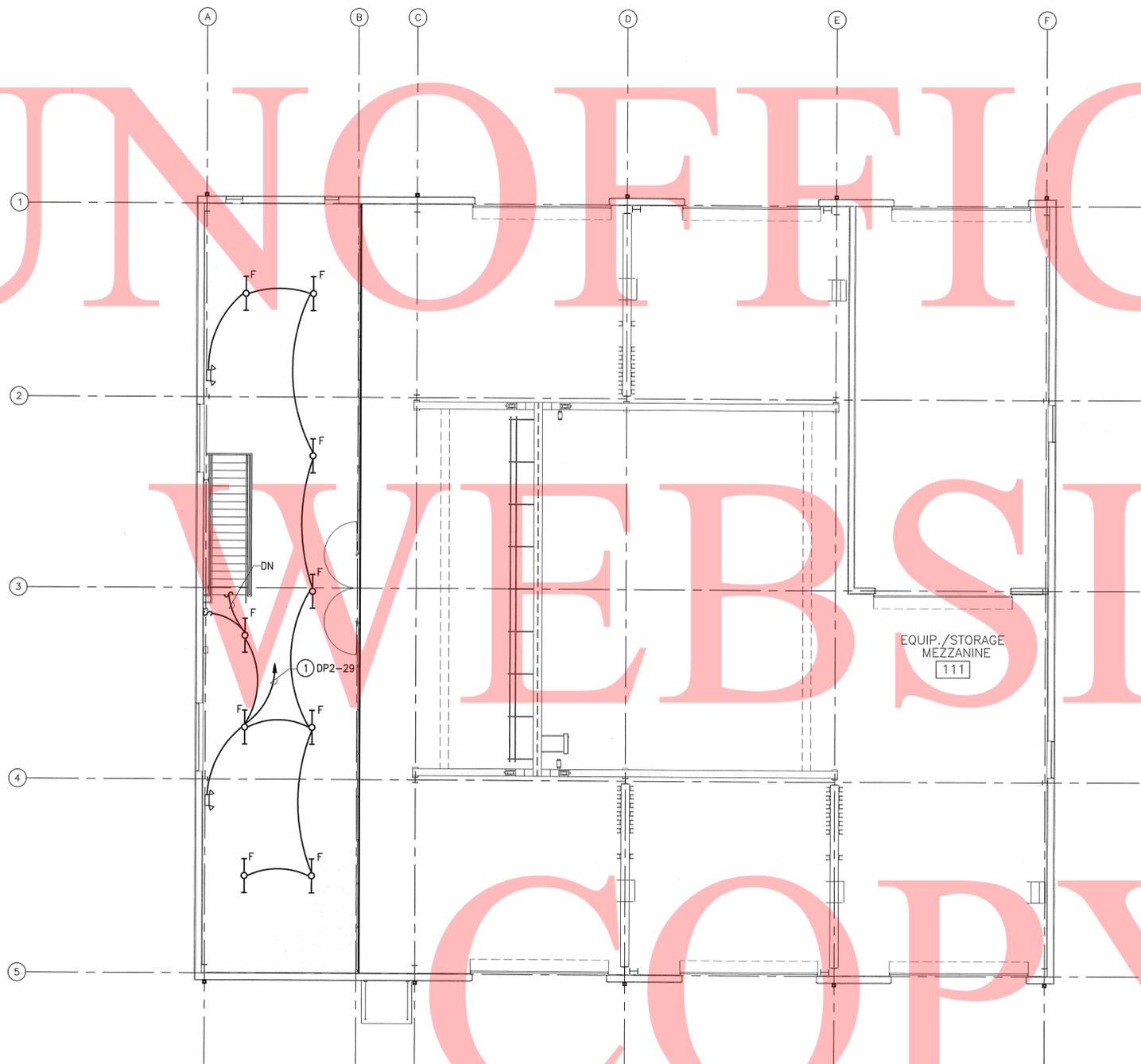
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MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
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- DRAWING NOTES:**
- ① LIGHTING FIXTURES SHALL BE CIRCUITED TO PANELBOARD INDICATED VIA RELAY CONTROL PANEL LOCATED IN MECHANICAL ROOM.

PREL. TRACING _____ DESIGN _____ CHKD. _____

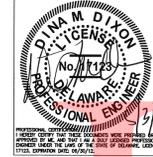
① MEZZANINE PLAN - LIGHTING
SCALE: 1/8" = 1'-0"

GROUND FLOOR PLAN - POWER & SPECIAL SYSTEMS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E2.1	46

DELAWARE DEPARTMENT OF TRANSPORTATION MAGNOLIA YARD VEHICLE MAINTENANCE SHOP REVISIONS

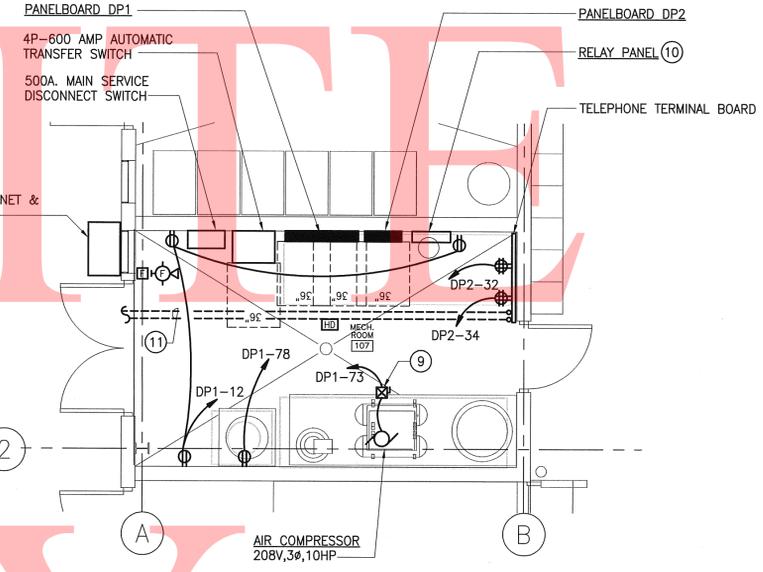
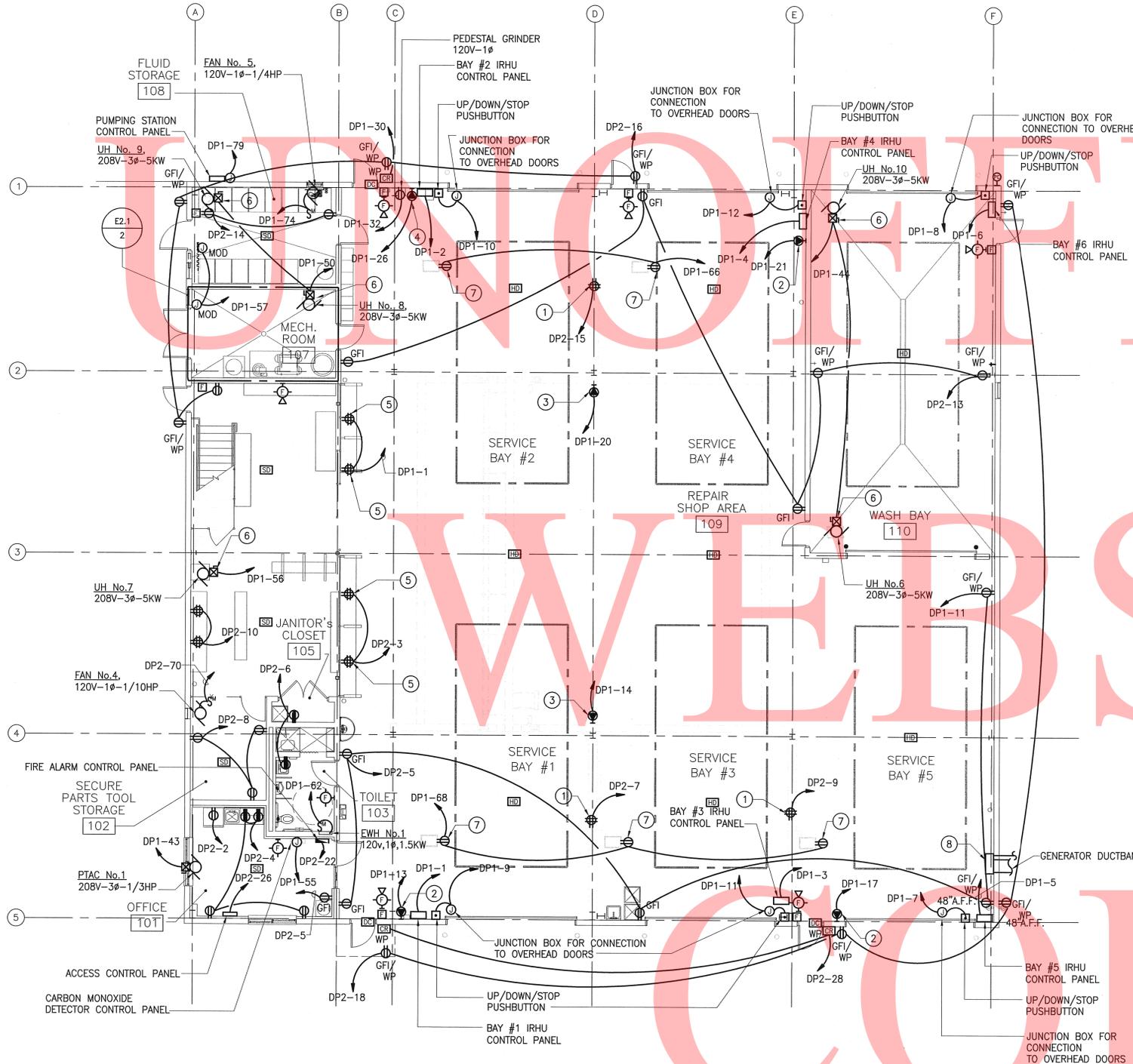
04/12/12 - REVISED PER KENT CO. COMMENTS



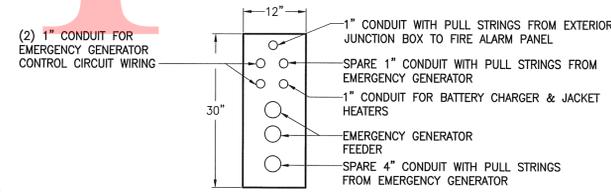
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DRAWING NOTES:

- PROVIDE CEILING MOUNTED HEAVY DUTY SERIES ELECTRIC CORD REEL. COORDINATE EXACT LOCATION IN FIELD WITH OWNER. REFER TO DETAIL SHEET E6.2 FOR ADDITIONAL INFORMATION.
- SPECIAL RECEPTACLE NEMA 6-50R (208V,1Ø,50A), FOR PORTABLE WELDER.
- SPECIAL RECEPTACLE NEMA L15-30R (208V,3Ø,30A TWIST LOCK) FOR VEHICLE LIFT SYSTEM OR PLASMA CUTTER.
- SPECIAL RECEPTACLE NEMA 15-20R (208V,3Ø,20A), FOR DRILL PRESS.
- PROVIDE SUPPORTS FOR CONDUIT AND SURFACE MOUNTED RECEPTACLE AGAINST WIRE MESH FENCE.
- 3P-30A F/SS (FUSED PER MANUFACTURER RECOMMENDATIONS) AND NEMA SIZE 1 COMBINATION STARTER WITH HOA SWITCH IN NEMA 1 ENCLOSURE. MOUNT AT UNIT AND MAKE ALL CONNECTIONS.
- MOUNT OUTLETS IN THE CEILING SPACE ABOVE FOR CONNECTION TO PLUG-IN GAS-FIRED HEATERS. COORDINATE EXACT LOCATION OF OUTLETS WITH MECHANICAL EQUIPMENT.
- PROVIDE 30"X24"X4"12"D PULL BOX FOR INCOMING GENERATOR DUCTBANK AND FIRE ALARM CONDUIT. REFER TO PULL BOX DETAIL ON THIS SHEET AND THE ELECTRICAL SITE PLAN ON SHEET E0.2 FOR CONTINUATION AND ADDITIONAL INFORMATION.
- 3P-60A F/SS (FUSED PER MANUFACTURER RECOMMENDATIONS) AND NEMA SIZE 2 COMBINATION STARTER WITH HOA SWITCH IN NEMA 1 ENCLOSURE. MOUNT AT UNIT AND MAKE ALL CONNECTIONS.
- PROVIDE LEVITON RELAY CONTROL PANEL MODEL #R24BD-L16 RELAY CONTROL PANEL SHALL BE CIRCUITED TO DP2-35.
- PROVIDE TWO 4" CONDUITS WITH PULL STRINGS STUBBED UP AT TTB FOR TELECOMMUNICATION WIRING. REFER TO ELECTRICAL SITE PLAN ON SHEET E0.2 FOR CONTINUATION AND ADDITIONAL INFORMATION.

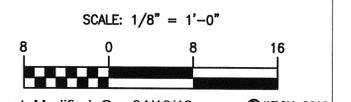


PART PLAN - MECHANICAL ROOM
SCALE: 1/4" = 1'-0"



PULL BOX DETAIL
SCALE: NONE

GROUND FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"



CHKD. DESIGN PREL. TRACING

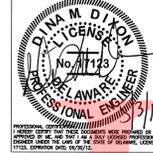
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MEZZANINE PLAN -
POWER & SPECIAL SYSTEMS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E2.2 47	59

DELAWARE DEPARTMENT
OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



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Easton, Maryland (410)822-8688
W.O.# 09035E

DRAWING NOTES:
① 3P-30A NF/SS AND NEMA SIZE 1 COMBINATION MOTOR STARTER WITH HOA SWITCH IN NEMA 1 ENCLOSURE. MOUNT AT UNIT AND MAKE ALL CONNECTIONS.



① MEZZANINE PLAN - POWER & SPECIAL SYSTEMS
SCALE: 1/8" = 1'-0"

PREL. TRACING DESIGN CHKD.

RISER DIAGRAMS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E5.1 48	59

DELAWARE DEPARTMENT OF TRANSPORTATION MAGNOLIA YARD VEHICLE MAINTENANCE SHOP REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



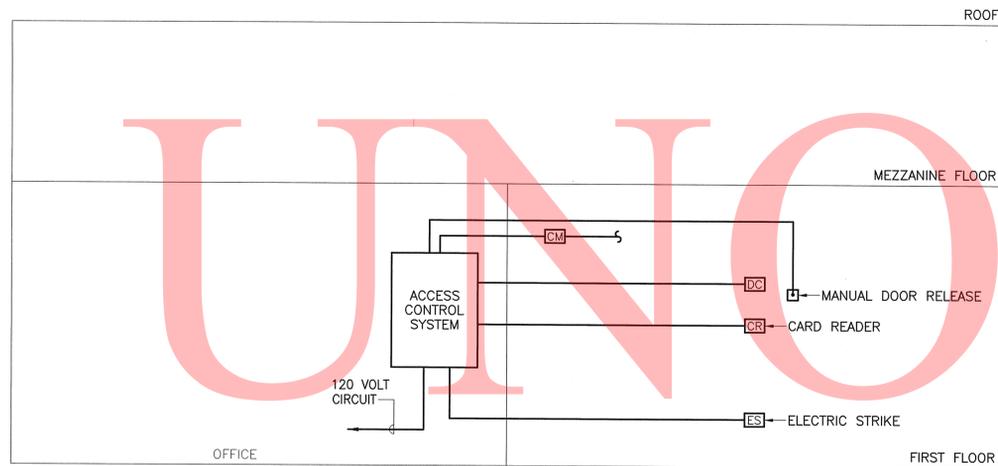
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Consulting Engineers
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Easton, Maryland (410)822-8688
W.O.# 09035E

GENERAL NOTES:

- REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL REDUCE FEEDER SIZE (IF REQUIRED) WITHIN 5'-0" OF EQUIPMENT TO ACCOMMODATE LUG SIZE.

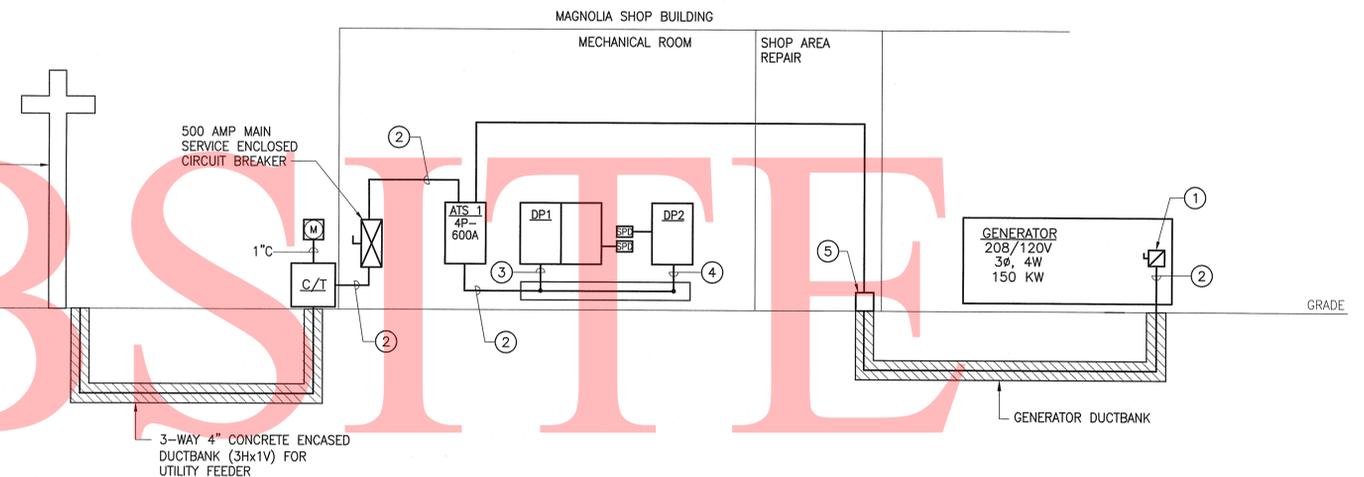
DRAWING NOTES:

- 3P-400A GENERATOR OUTPUT CB (22 KAIC).
- 2 SETS (4 #250 KCMIL + 1 #2 GW IN 3" CONDUIT).
- 2 SETS (4 #3/0 + 3 GW IN 2" CONDUIT).
- 4 #3/0 + 1 #6 GW IN 2" CONDUIT.
- REFER TO SHEET E2.1 FOR PULL BOX DETAIL, FEEDER ROUTING, AND ADDITIONAL INFORMATION.

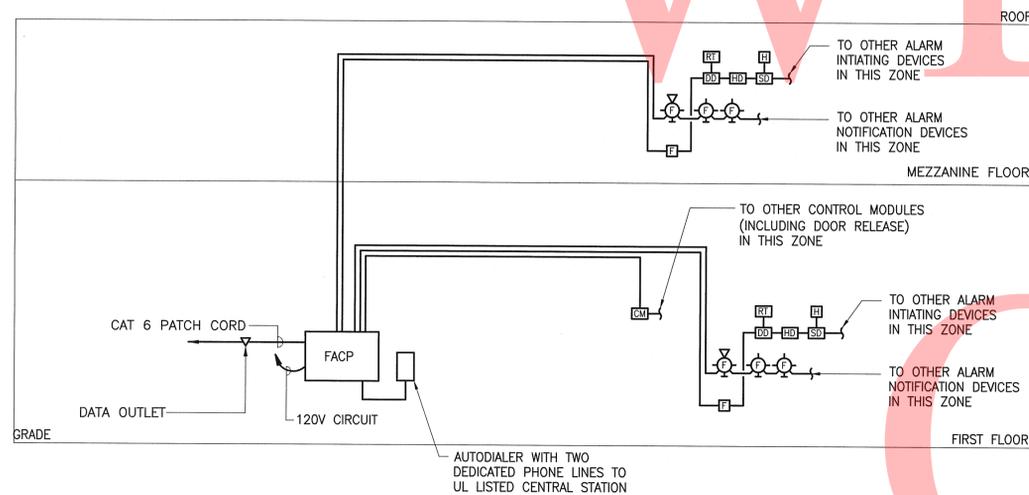


NOTES: REFER TO FLOOR PLANS FOR EXACT DEVICE COUNT AND LOCATIONS. PROVIDE CONDUIT AND WIRING AS REQUIRED BY SYSTEM MANUFACTURER.

ACCESS CONTROL/CARD READ SYSTEM RISER DIAGRAM
NO SCALE



SCHEMATIC POWER RISER DIAGRAM
NO SCALE



SCHEMATIC FIRE ALARM RISER DIAGRAM
NO SCALE

NOTES:

- REFER TO FLOOR PLANS FOR EXACT DEVICE COUNT AND LOCATIONS. PROVIDE CONDUIT AND WIRING AS REQUIRED BY SYSTEM MANUFACTURER.

CHKD.

DESIGN

PREL. TRACING

ELECTRICAL DETAILS

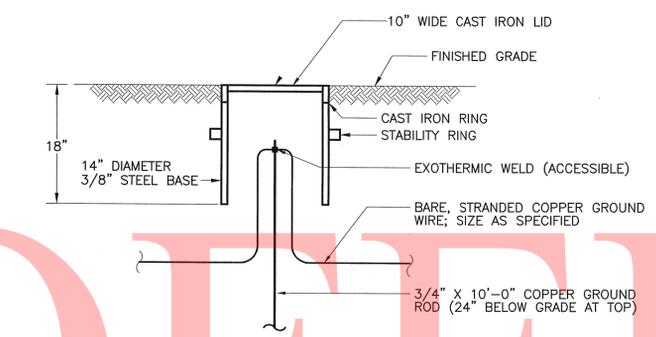
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E6.1 49	59

DELAWARE DEPARTMENT OF TRANSPORTATION MAGNOLIA YARD VEHICLE MAINTENANCE SHOP REVISIONS

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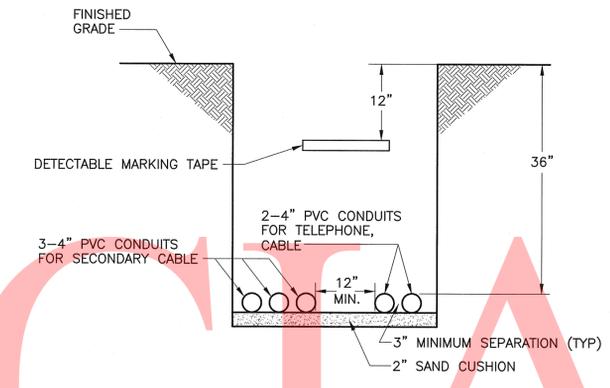
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TEST WELL SHALL BE WARREN LIGHTNING ROD CO. MODEL #3132 OR APPROVED EQUAL

2 TYPICAL GROUND ROD TEST WELL

NO SCALE



NOTE: COORDINATE EXCAVATION OF TRENCH AND INSTALLATION OF CONDUITS WITH UTILITY COMPANIES IN ADVANCE.

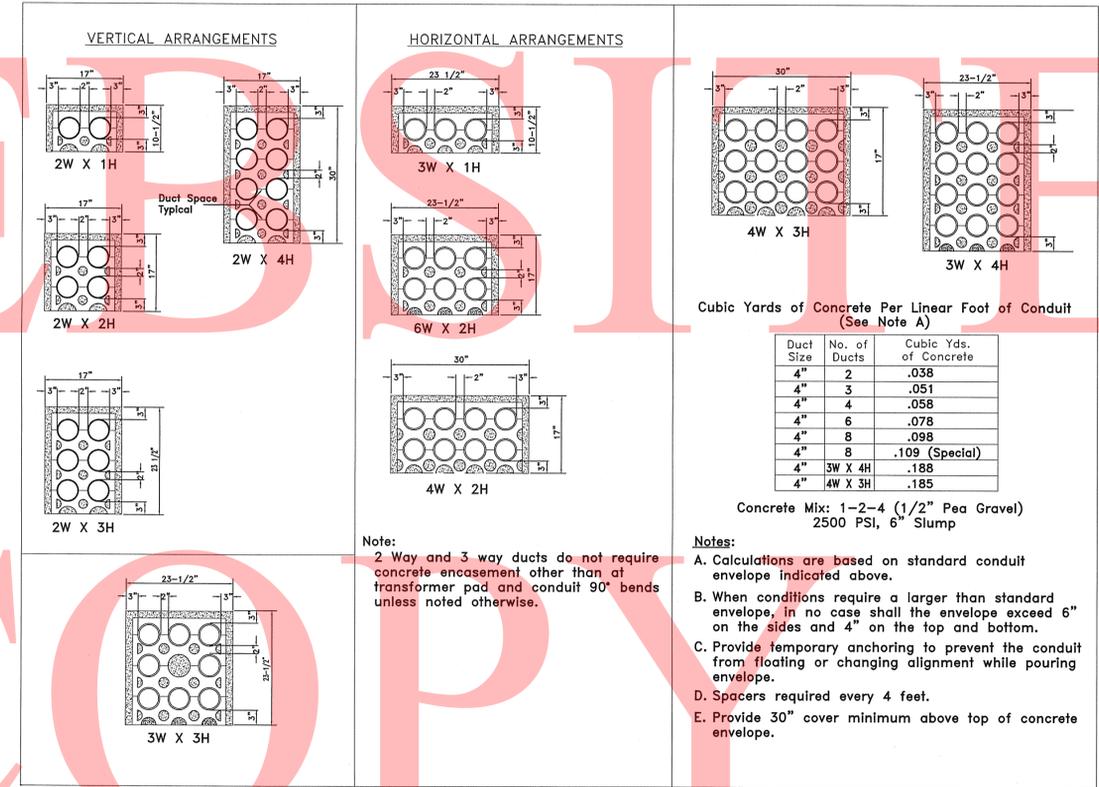
3 TRENCH DETAIL- INCOMING SERVICES

NO SCALE

UNOFFICIAL

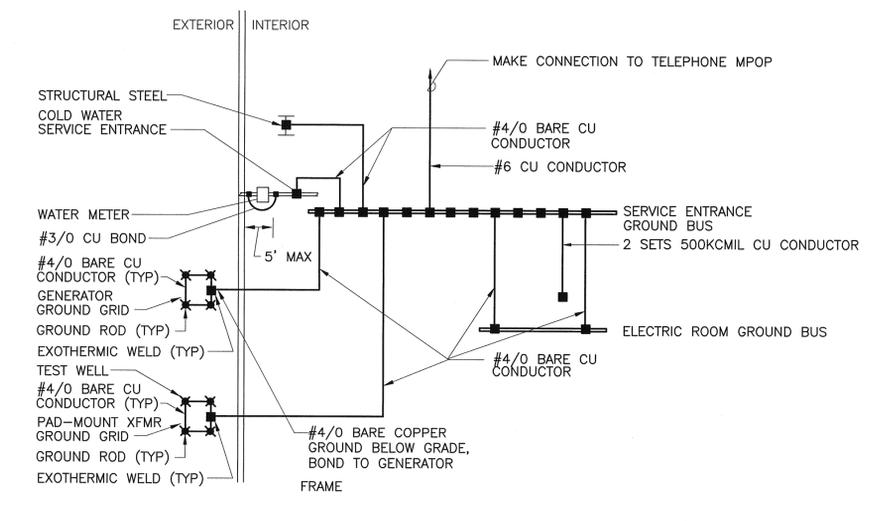
1 NOT USED

NO SCALE



5 DUCTBANK ARRANGEMENT/INSTALLATION

NO SCALE



4 PARTIAL SCHEMATIC GROUNDING DIAGRAM

NO SCALE

CHKD. DESIGN PREL. TRACING

ELECTRICAL DETAILS

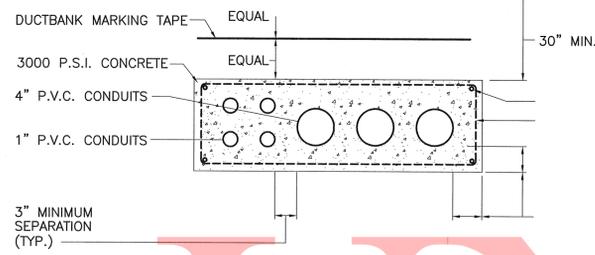
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E6.2 50	59

DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP

REVISIONS

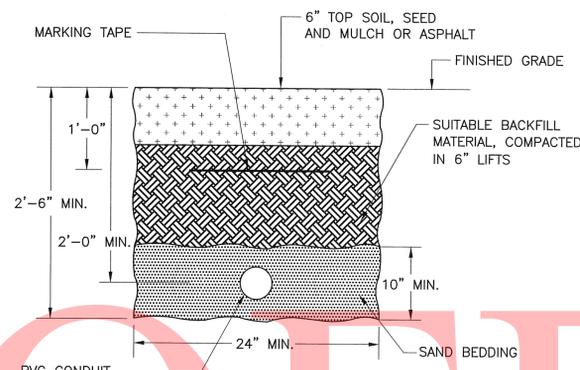
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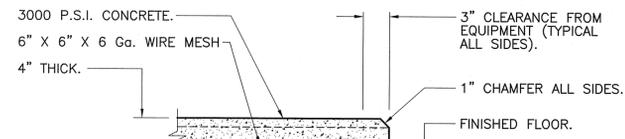
1 GENERATOR DUCTBANK

NO SCALE



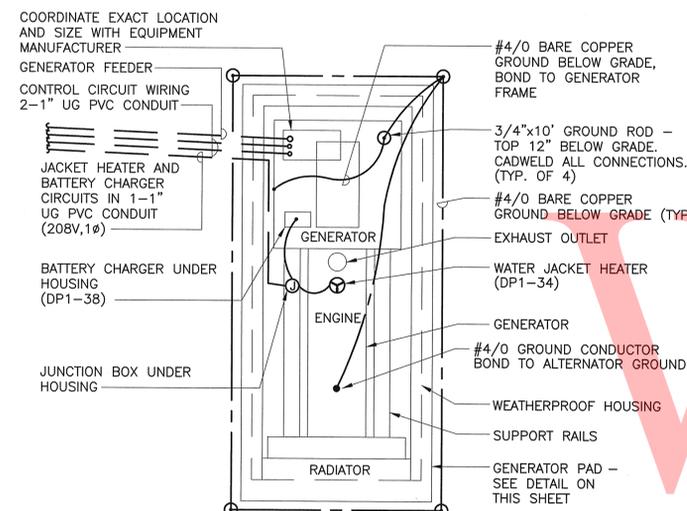
2 TYPICAL DIRECT BURIED PVC CONDUIT

NO SCALE



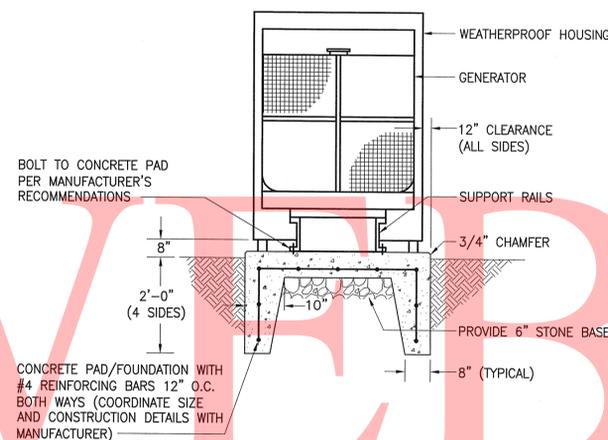
3 TYPICAL CONCRETE HOUSEKEEPING PAD

NO SCALE



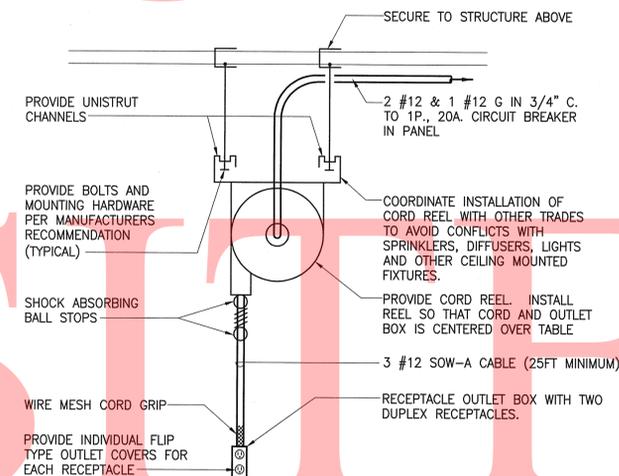
4 GENERATOR CONNECTIONS DETAILS

NO SCALE



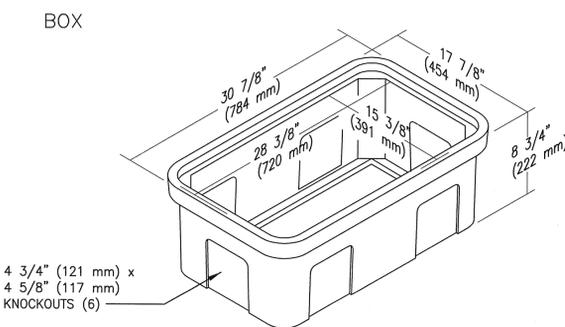
5 EMERGENCY GENERATOR PAD

NO SCALE

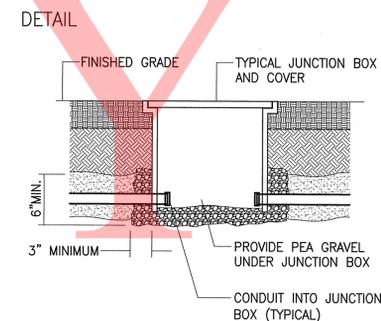
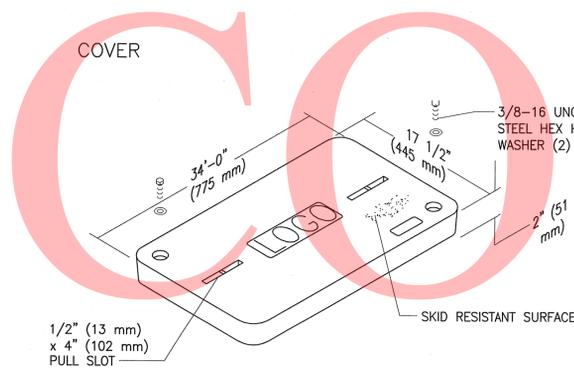
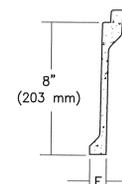


6 DETAIL - POWER CORD REEL

NO SCALE



10 DETAIL - EXTERIOR JUNCTION BOX



NO SCALE

ELECTRICAL SCHEDULES

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	E7.1 51	59

DELAWARE DEPARTMENT
OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP

REVISIONS

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PANEL DP1 (SECTION I)										PANEL DP2																											
VOLTAGE: 208/120V,3PH,4W										VOLTAGE: 208/120V,3PH,4W																											
MAIN BUS: 400A										MAIN BUS: 225A																											
400 A MCB					100% RATED NEUTRAL BUS					200 A MCB					100% RATED NEUTRAL BUS																						
MOUNTING: SURFACE										MOUNTING: SURFACE																											
LOCATION: MECHANICAL ROOM										LOCATION: MECHANICAL ROOM																											
42,000 A.I.C.										42,000 A.I.C.																											
CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	NO	SIZE	GND	C	CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	NO	SIZE	GND	C	CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	NO	SIZE	GND	C	CONN KVA										
0.1	1	BAY #1 - IRHU	1	20	2	12	12	3/4	0.1	2	BAY #2 - IRHU	1	20	2	12	12	3/4	0.1	0.8	1	WORK BENCH RECEPT	1	20	2	12	12	3/4	1.0									
0.1	3	BAY #3 - IRHU	1	20	2	12	12	3/4	0.1	4	BAY #4 - IRHU	1	20	2	12	12	3/4	0.1	0.8	3	WORK BENCH RECEPT	1	20	2	12	12	3/4	0.8									
0.1	5	BAY #5 - IRHU	1	20	2	12	12	3/4	0.1	6	BAY #6 - IRHU	1	20	2	12	12	3/4	0.1	1.0	5	WATER COOLER	1	20	2	12	12	3/4	0.4									
1.0	7	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	8	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	0.4	7	RECEPT HOSE REEL	1	20	2	12	12	3/4	0.4									
1.0	9	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	10	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	0.4	9	RECEPT HOSE REEL	1	20	2	12	12	3/4	0.4									
1.0	11	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	12	OVERHEAD DOOR	1	20	2	12	12	3/4	1.0	0.8	11	SHOP AREA REPAIR RECEPT	1	20	2	12	12	3/4	0.8									
4.9	13	PORTABLE WELDER	2	50	2	4	10	1	2.9	14	VEHICLE LIFT/PLASMA	3	30	3	10	10	3/4	2.9	0.4	13	SHOP AREA REPAIR RECEPT	1	20	2	12	12	3/4	0.4									
15	15	-	-	-	-	-	-	-	2.9	16	CUTTER	-	-	-	-	-	-	2.9	0.8	15	RECEPT HOSE REEL	1	20	2	12	12	3/4	0.4									
17	17	PORTABLE WELDER	2	50	2	4	10	1	2.9	18	-	-	-	-	-	-	-	2.9	1.3	17	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
19	19	-	-	-	-	-	-	-	2.9	20	VEHICLE LIFT/PLASMA	3	30	3	10	10	3/4	2.9	1.3	19	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
21	21	PORTABLE WELDER	2	50	2	4	10	1	2.9	22	CUTTER	-	-	-	-	-	-	2.9	1.3	21	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
23	23	-	-	-	-	-	-	-	2.9	24	-	-	-	-	-	-	-	2.9	1.3	23	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
25	25	SPACE	1	-	-	-	-	-	1.2	26	DRILL PRESS	3	20	3	12	12	3/4	1.2	1.3	25	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
27	27	SPACE	1	-	-	-	-	-	1.2	28	-	-	-	-	-	-	-	1.2	1.3	27	SHOP AREA REPAIR LIGHTING	1	20	2	12	12	3/4	1.0									
29	29	SPACE	1	-	-	-	-	-	1.2	30	-	-	-	-	-	-	-	1.2	1.3	29	MEZZ LIGHTING	1	20	2	12	12	3/4	0.8									
31	31	SPACE	1	-	-	-	-	-	1.2	32	PEDESTAL GRINDER	1	20	2	12	12	3/4	1.2	0.6	31	SPACE	1	-	-	-	-	-	0.8									
33	33	SPACE	1	-	-	-	-	-	1.5	34	GENERATOR JACKET HEATER	2	30	2	10	10	3/4	1.5	1.1	33	SPACE	1	-	-	-	-	-	0.4									
35	35	SPACE	1	-	-	-	-	-	1.5	38	-	-	-	-	-	-	-	1.5	1.1	35	SPACE	1	-	-	-	-	-	0.4									
37	37	HOIST CRANE (FUTURE)	3	-	-	-	-	-	1.0	38	GENERATOR BATTERY CHARGER	1	20	2	12	12	3/4	1.0	0.5	37	HOIST CRANE (FUTURE)	3	-	-	-	-	-	1.5									
39	39	-	-	-	-	-	-	-	1.0	40	SPARE	1	20	-	-	-	-	1.0	0.1	39	-	-	-	-	-	-	0.1										
41	41	-	-	-	-	-	-	-	1.0	42	SPARE	1	20	-	-	-	-	1.0	0.1	41	-	-	-	-	-	-	0.1										
TOTAL CONNECTED LOAD			43 KVA							KVA PER PHASE:			A	16.3	B	15.6	C	10.7	TOTAL CONNECTED LOAD			29.4 KVA							KVA PER PHASE:			A	10.0	B	10.2	C	9.2

PANEL DP1 (SECTION II)																		
VOLTAGE: 208/120V,3PH,4W																		
MAIN BUS: 400A																		
400A MLO					100% RATED NEUTRAL BUS													
MOUNTING: SURFACE																		
LOCATION: MECHANICAL ROOM																		
42,000 A.I.C.																		
CONN KVA	CKT	DESCRIPTION	BREAKER P	AMPS	NO	SIZE	GND	C	CONN KVA									
2.5	43	PT AC NO.1	2	35	3	8	10	3/4	3.3									
2.5	45	-	-	-	-	-	-	-	3.3									
0.5	47	VEHICLE EXHAUST CNTRL PNL	1	20	2	12	12	12	3.3									
2.1	49	VEHICLE EXHAUST	3	30	3	10	10	3/4	3.3									
2.1	51	HOSE REEL SYSTEM	-	-	-	-	-	-	3.3									
2.1	53	-	-	-	-	-	-	-	3.3									
0.5	55	CARBON MONOXIDE DET	1	20	2	12	12	3/4	1.6									
0.5	57	MOTORIZED DAMPER	1	20	2	12	12	3/4	1.6									
0.5	59	MOTORIZED DAMPER	1	20	2	12	12	3/4	1.6									
2.0	61	FAN-1	3	30	3	10	10	3/4	1.5									
2.0	63	-	-	-	-	-	-	-	1.5									
2.0	65	-	-	-	-	-	-	-	0.6									
2.0	67	FAN-2	3	30	3	10	10	3/4	0.9									
2.0	69	-	-	-	-	-	-	-	1.2									
2.0	71	-	-	-	-	-	-	-	0.3									
3.7	73	AIR COMPRESSOR	3	60	3	8	10	1	0.7									
3.7	75	-	-	-	-	-	-	-	0.3									
3.7	77	-	-	-	-	-	-	-	0.5									
1.0	79	PUMPING STATION	3	20	3	12	12	3/4	0.1									
1.0	81	-	-	-	-	-	-	-	0.1									
1.0	83	-	-	-	-	-	-	-	0.1									
CONNECTED LOAD (SECTION II)			KVA PER PHASE:							A	25.2	B	24.6	C	21.5			
TOTAL CONNECTED LOAD			114 KVA							KVA PER PHASE:			A	41.5	B	40.2	C	32.2

COPY

PREL. TRACING DESIGN CHKD.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION	
---	CW	COLD WATER	---	LOC	LIMIT OF CONTRACT	---	HVAC	HEATING, VENTILATION & AIR CONDITIONING	
---	HW	HOT WATER	---	---	ECCENTRIC REDUCER	---	ID	INSIDE DIAMETER	
---	HWR	HOT WATER RETURN	---	---	CONCENTRIC REDUCER	---	KW	KILOWATT	
---	HW-140'	140' HOT WATER	---	---	FLEXIBLE CONNECTION	---	LBS	POUNDS	
---	HW-180'	180' HOT WATER	---	CAP	PIPE CAPPED	---	LG	LENGTH	
---	'F'	FIRE LINE	---	BF	BLIND FLANGE	---	LWT	LEAVING WATER TEMPERATURE	
---	SP	SPRINKLER LINE	---	VB	VACUUM BREAKER	---	MBH	THOUSANDS BTUH	
---	EX	EXISTING	---	MAV	MANUAL AIR VENT	---	MIN	MINIMUM	
---	PD	PUMPED DISCHARGE	---	AAV	AUTOMATIC AIR VENT	---	MAX	MAXIMUM	
---	LOC	LIMIT OF CONTRACT	---	---	BALANCING VALVE	---	MTD	MOUNTED	
---	LPS	LOW PRESSURE STEAM	---	---	BLOW DOWN VALVE (W/HOSE END)	---	MTG HGT	MOUNTING HEIGHT	
---	SAN	SANITARY	---	---	UNION	---	NUM	NUMBER	
---	V	VENT	---	---	PRESSURE/TEMPERATURE RELIEF VALVE	---	NC	NORMALLY CLOSED	
---	SC	STEAM CONDENSATE	---	---	CONNECT TO EXISTING	---	NO	NORMALLY OPEN	
---	SD	STORM DRAIN	---	---	PRESSURE DIFFERENCE	---	NA	NOT APPLICABLE	
---	IW	INDIRECT WASTE	---	---	TEMPERATURE DIFFERENCE	---	hg	INCHES OF MERCURY	
---	FD	FOUNDATION DRAIN	---	---	INVERT ELEVATION	---	psig	POUNDS PER SQUARE INCH GAUGE	
---	---	BALL VALVE	---	---	CENTER LINE	---	NIC	NOT IN CONTRACT	
---	FCO	FLOOR CLEAN OUT	---	---	THERMOMETER	---	NTS	NOT TO SCALE	
---	WCO	WALL CLEAN OUT	---	---	PRESSURE GAUGE	---	OC	ON CENTER	
---	CO	CLEANOUT	---	---	DIA	DIAMETER (OR ELECTRICAL PHASE)	---	OD	OUTSIDE DIAMETER
---	---	WALL HUNG DOUBLE/SINGLE CARRIER ON STACK	---	---	BWV	BACK WATER VALVE	---	PSI	POUNDS PER SQUARE INCH
---	---	P-TRAP (SHOWN PLAN/ELEV)	---	---	---	PIPING BELOW GRADE OR SLAB	---	PRESS	PRESSURE
---	UP	PIPE UP	---	---	---	SOLENOID VALVE (HIGH TEMP SHUTOFF VALVE)	---	QT	QUART
---	DN	PIPE UP & DN	---	---	---	SLOPE OF PIPE	---	QTY	QUANTITY
---	UP&DN	PIPE DN (SHOWN PLAN/ELEV)	---	---	---	DIRECTION OF FLOW	---	RCV	RISER CONTROL VALVE
---	---	SIGHT GLASS	---	---	---	FUNNEL CONNECTION @ FLOOR DRAIN	---	RPM	REVOLUTIONS PER MINUTE
---	---	FLOAT VALVE	---	---	---	ABOVE FINISHED FLOOR	---	REQ'D	REQUIRED
---	PH	PIPE HANGER	---	---	---	ABOVE	---	SPEC	SPECIFICATIONS
---	F.D.R.	FLOOR DRAIN	---	---	---	ANCHOR	---	SUCT	SUCTION
---	F.D.R./TP	FLOOR DRAIN WITH TRAP PRIMER	---	---	---	AQUASTAT	---	SYS	SYSTEM
---	RD	ROOF DRAIN	---	---	---	APPROX	---	TDH	TOTAL DYNAMIC HEAD
---	DST	DEEP SEAL TRAP	---	---	---	BHP	---	TEMP	TEMPERATURE
---	VTR	VENT THROUGH ROOF (SHOWN PLAN/ELEV)	---	---	---	BOP	---	TOT	TOTAL
---	---	45° ELL TAKEOFF-TOP OF PIPE (PLAN/VIEW)	---	---	---	BTU	---	TYP	TYPICAL
---	---	90° ELL TAKEOFF-BOTTOM OF PIPE (PLAN/VIEW)	---	---	---	BTUH	---	LR	LONG RADIUS ELBOW
---	---	BUTTERFLY VALVE	---	---	---	BOTT	---	SR	SHORT RADIUS ELBOW
---	---	GATE VALVE	---	---	---	CONN	---	XS	EXTRA STRONG
---	---	GLOBE VALVE	---	---	---	CU FT	---	VEL	VELOCITY
---	---	MIXING VALVE	---	---	---	CAP	---	VIB ISA	VIBRATION ISOLATION/ISOLATORS
---	PRV	PRESSURE REDUCING VALVE	---	---	---	CLG	---	VERT	VERTICAL
---	---	CHECK VALVE	---	---	---	CONC	---	VOL	VOLUME
---	DDC	DOUBLE DETECTOR CHECK VALVE	---	---	---	DWG	---	W/	WITH
---	BFP	BACKFLOW PREVENTER	---	---	---	DN	---	WG	WATER GAUGE
---	---	METER	---	---	---	DISH	---	YCO	YARD CLEANOUT
---	IN	INCHES	---	---	---	ELEC	---	YH	YARD HYDRANT
---	FT	FEET	---	---	---	EWT	---	MH	MANHOLE
---	WH	WALL HYDRANT	---	---	---	STD	---	V	VOLT
---	NFWH	NON-FREEZE WALL HYDRANT	---	---	---	CI	---	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
---	HED	HOSE END DRAIN	---	---	---	SCH	---	AG	AIR GAP
---	O,S&Y	OUTSIDE STEM & YOKE VALVE	---	---	---	HYD	---	---	DETAIL NUMBER
---	NRS	NON-RISING STEM & YOKE W/TAMPER SWITCH	---	---	---	ELEV	---	---	DRAWING DETAIL APPEARS ON...
---	FS	FLOW SWITCH	---	---	---	GPM	---	---	SECTION NUMBER
---	TS	TAMPER SWITCH	---	---	---	GA	---	---	DRAWING SECTION APPEARS ON
---	FDV	FIRE DEPT HOSE CONNECTION	---	---	---	GALV	---	---	NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.
---	FCVA	FLOOR CONTROL VALVE ASSEMBLY	---	---	---	HD	---	---	
---	---	'Y' STRAINER	---	---	---	HGT	---	---	
---	WHA	WATER HAMMER ARRESTOR	---	---	---	HOR	---	---	
---	AP	ACCESS PANEL	---	---	---	HP	---	---	
---	---	POINT OF CONNECTION TO SITE UTILITIES	---	---	---	HTR	---	---	
---	HB	HOSE BIBB	---	---	---	---	---	---	

PLUMBING LEGEND AND GENERAL NOTES

GENERAL NOTES: (APPLIES TO ALL PLUMBING DRAWINGS):

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. REPAIR ALL DAMAGES OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- RUN ALL SOIL, WASTE, AND DRAIN PIPING WITH 2% MINIMUM GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO THE SOIL OR WASTE PIPE BY GRAVITY.
- ELEVATIONS NOTED ARE TO CENTER LINES OF PIPES FOR ALL PRESSURE LINES AND TO INVERT FOR ALL GRAVITY FLOW LINES.
- ADJUST SEWER INVERTS TO KEEP TOPS OF PIPE IN-LINE WHERE PIPE SIZE CHANGES.
- MAINTAIN MINIMUM OF 3'-0" COVER OVER UNDERGROUND WATER MAINS AND MINIMUM OF 2'-6" COVER OVER UNDERGROUND SEWERS AND DRAINS.
- PROVIDE SHUT-OFF VALVES IN DOMESTIC WATER SYSTEMS IN BRANCH LINES SERVING TWO OR MORE FIXTURES.
- UNLESS OTHERWISE NOTED, ALL PIPING AND DUCTWORK IS OVERHEAD, TIGHT TO UNDERSIDE OF SLAB, WITH SPACE FOR INSULATION, IF REQUIRED.
- INSTALL PIPING SO THAT ALL VALVES ARE ACCESSIBLE.
- COORDINATE ALL PLUMBING WORK WITH ELECTRICAL WORK MECHANICAL WORK, ETC., SHOWN ON OTHER DRAWINGS.
- MAINTAIN MINIMUM 6'-8" CLEARANCE TO UNDERSIDE OF PIPES, DUCTS, CONDUIT, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL AND ELECTRICAL ROOMS.
- CERTAIN ITEMS SUCH AS CLEANOUTS, ACCESS DOORS, RISE AND DROPS IN PIPING, ETC., ARE INDICATED ON THE DRAWINGS FOR CLARITY OR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THOSE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE ITEMS AS REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- EQUIPMENT CONNECTION SIZES MAY DIFFER FROM INDICATED DUCT OR PIPE SIZES. PROVIDE APPROPRIATE TRANSITIONS WHERE REQUIRED.
- THESE DRAWINGS ARE DIAGRAMMATIC AND ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT NECESSARILY SHOWN. COORDINATE THE INSTALLATION OF ALL PIPING, DUCTWORK, EQUIPMENT AND OTHER WORK WITH ALL OTHER TRADES.
- IT IS THE INTENT THAT ALL WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT MATERIAL OR WORK SPECIFICALLY NOT INDICATED ON DRAWINGS, BUT NECESSARY TO COMPLETE THE WORK, SHALL BE FURNISHED.
- MATERIAL, EQUIPMENT, INSTALLATION AND PROCEDURES SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE LATEST CURRENT EDITION OF THE REFERENCED DOCUMENTATION.
 - REGULATIONS OF LOCAL AUTHORITIES HAVING JURISDICTION.
 - NFPA-NATIONAL FIRE PROTECTION ASSOCIATION.
 - SMACNA - SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION.
 - ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
 - ASTM - AMERICAN SOCIETY OF TESTING AND MATERIALS.
 - ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS, INC.
 - IBC - INTERNATIONAL PLUMBING CODE, LATEST ADOPTED EDITION.
- CONTRACTOR SHALL PROVIDE COORDINATED PIPE SLEEVE DRAWINGS SHOWING ALL PENETRATIONS THROUGH FLOORS.

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P1.0 52	59

DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



Gipe Associates Inc.
Consulting Engineers
849 Fairmount Ave Suite 102 Baltimore, MD 21286
Baltimore, Maryland (410)832-2420
Easton, Maryland (410)822-8688
W.O.# 09035E

THESE DRAWINGS AND THE DESIGN AND CONSTRUCTION FEATURES SHOWN ARE HEREBY TO BE ACCEPTED BY THE CONTRACTOR AS THE BASIS FOR THE WORK TO BE PERFORMED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL INFORMATION AND DATA PROVIDED TO HIM BY OTHER PROFESSIONALS AND SHALL NOT BE HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THESE DRAWINGS OR THE WORK PERFORMED THEREUNDER.

PREL. TRACING DESIGN CHKD.

FOUNDATION PLAN -
PLUMBING WORK

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P1.1 53	59

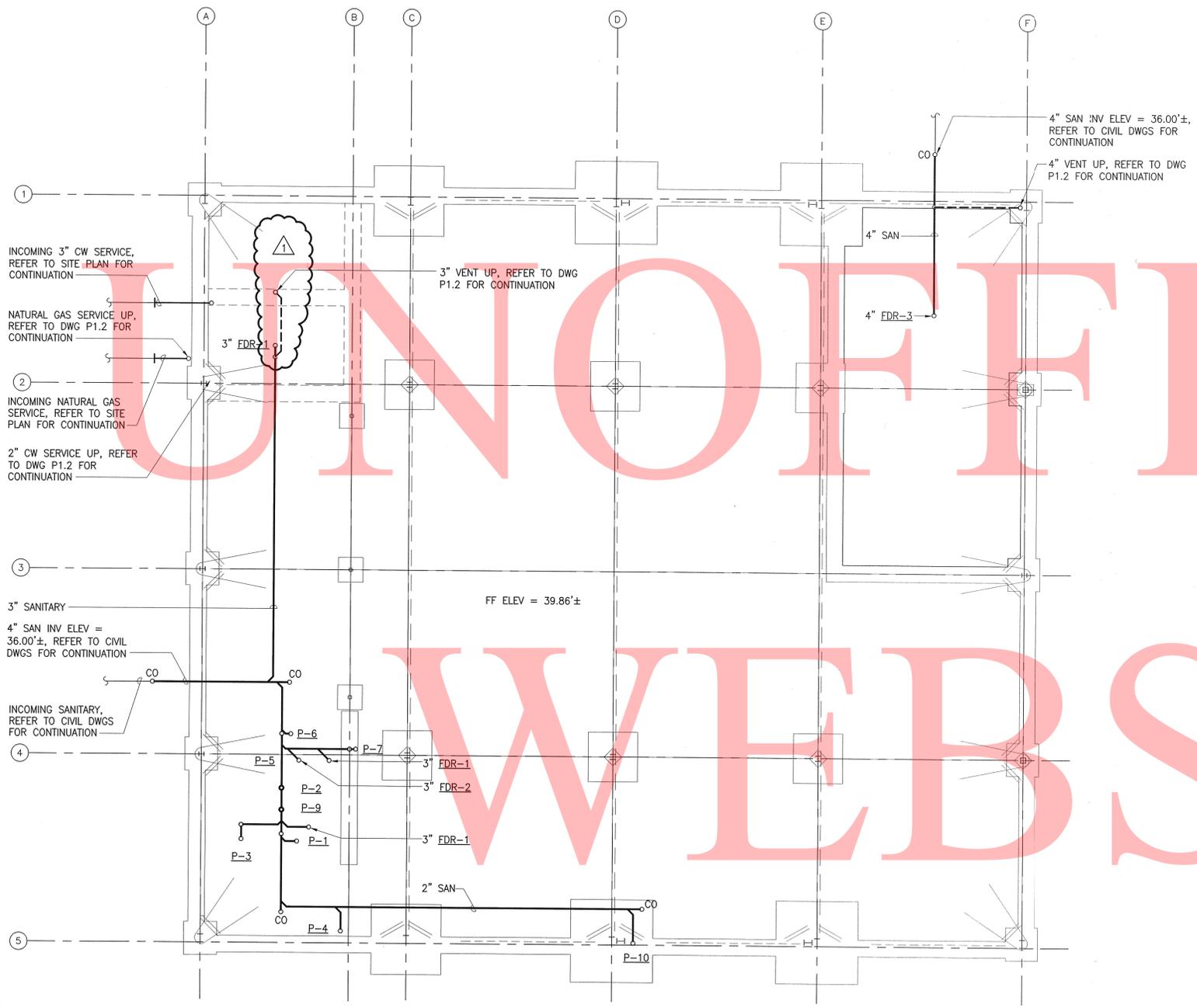
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△ DELETE FLOOR DRAIN	10/8/12
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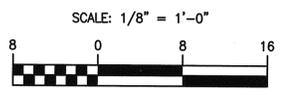
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1 FOUNDATION PLAN - PLUMBING
SCALE: 1/8" = 1'-0"

COPY

PREL. TRACING DESIGN CHKD.



GROUND FLOOR PLAN - PLUMBING

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30-801-01	KENT	SEE TITLE SHEET	P1.2 54	59

DELAWARE DEPARTMENT OF TRANSPORTATION MAGNOLIA YARD VEHICLE MAINTENANCE SHOP

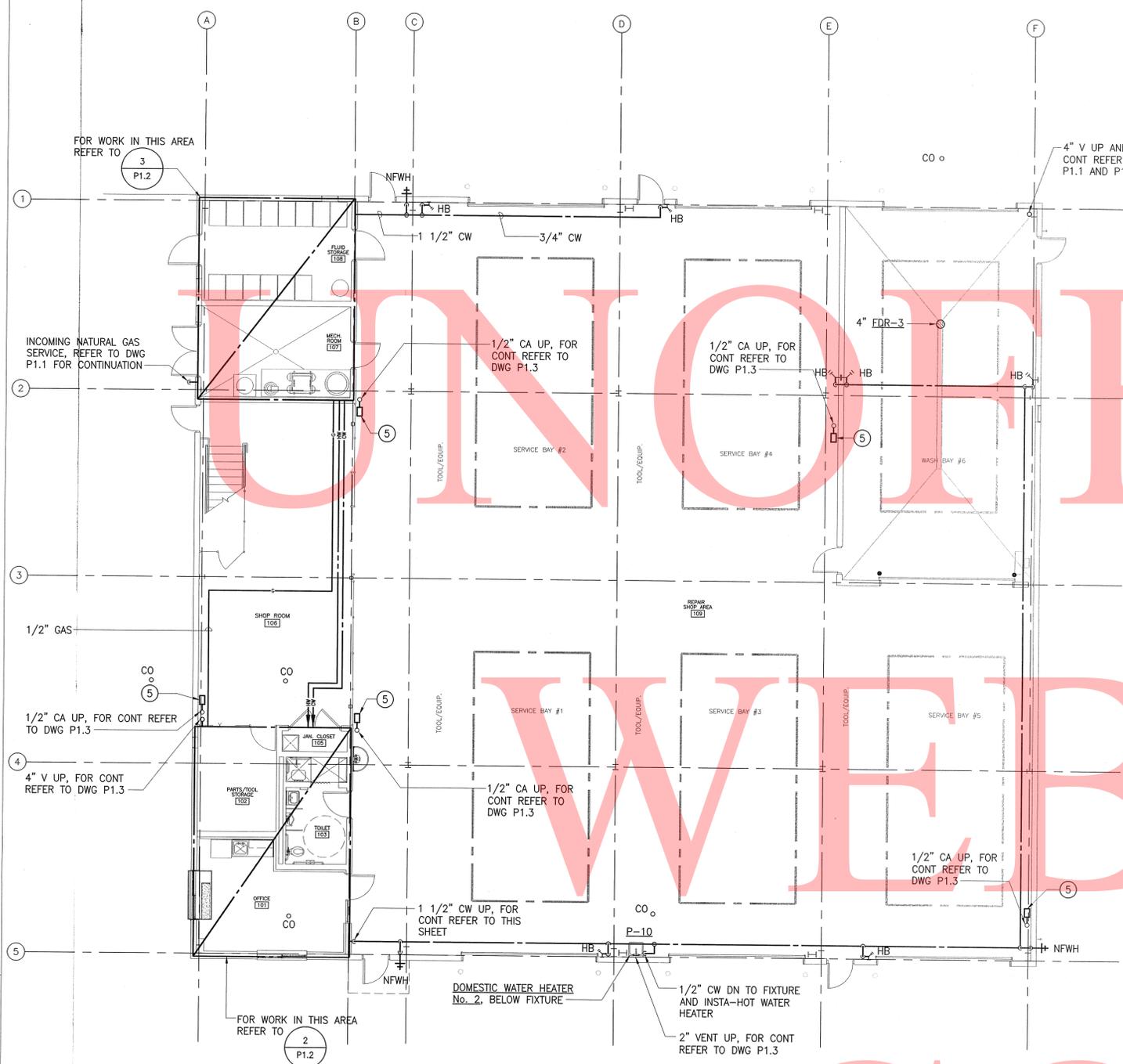
REVISIONS

△ DELETE FLOOR DRAIN	10/8/12
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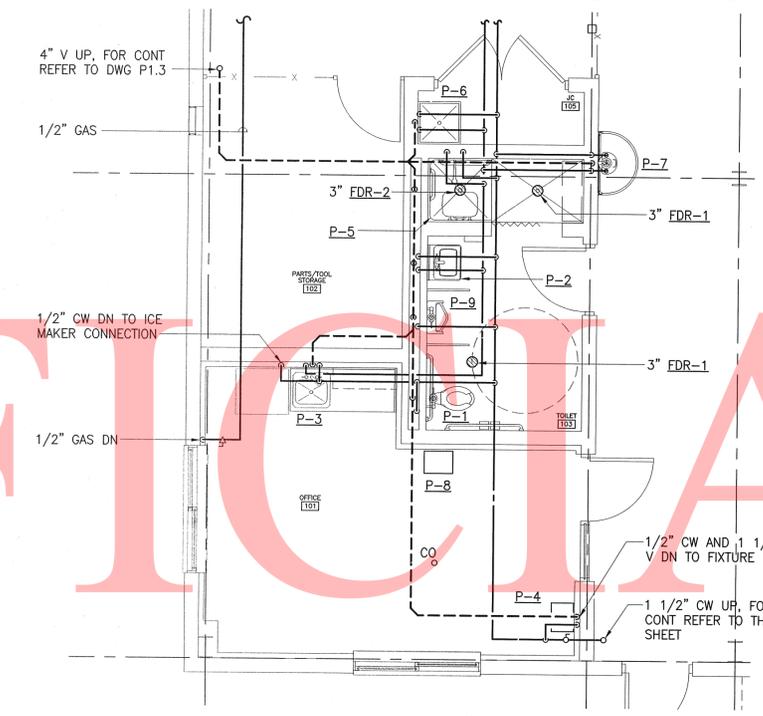
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DRAWING NOTES:

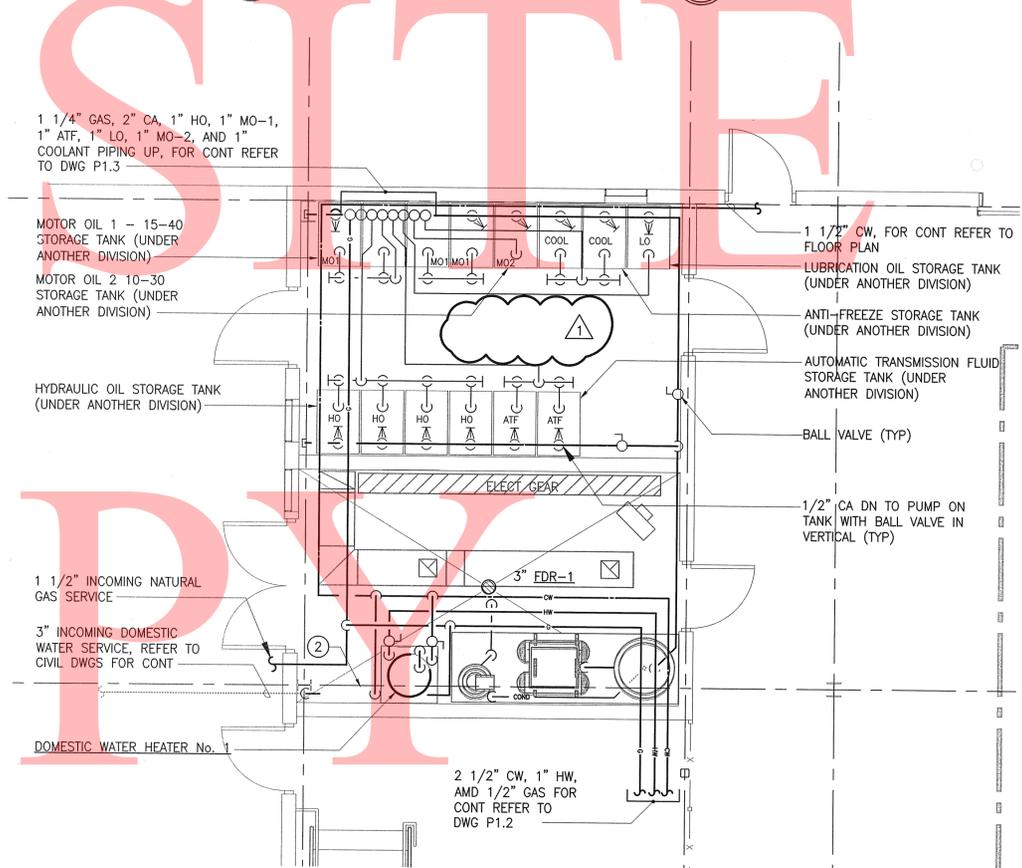
- 1" CW AND 1/2" HW DN, FOR CONT REFER TO PART PLAN THIS SHEET
- INCOMING DOMESTIC WATER SERVICE VALVE ASSEMBLY, REFER TO DETAIL ON DRAWING P7.1
- 3/4" COMPRESSED AIR DN. TO WASTE OIL SUMP PUMP.
- 2'x2'x2" CONCRETE WASTE OIL SUMP WITH NON-SKID STEEL GRATE. INSTALL WASTE OIL COLLECTION TANK AND SUMP PUMP, FURNISHED BY OTHERS, INSTALLED BY CONTRACTOR
- COMPRESSED AIR STATION DROP (MOUNT AT 48" AFF), PROVIDE WITH FILTER/REGULATOR, REFER TO DRAWING DETAIL ON SHEET P7.1



1 P1.2 GROUND FLOOR PLAN - PLUMBING
SCALE: 1/8" = 1'-0"



2 P1.2 PART PLAN - TOILET ROOMS
SCALE: 1/4" = 1'-0"



3 P1.2 PART PLAN - MECH AND FLUID STORAGE RM. PLAN
SCALE: 1/4" = 1'-0"

CHKD. DESIGN PREL. TRACING

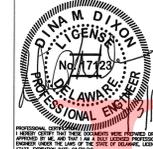


MEZZANINE FLOOR PLAN -
PLUMBING

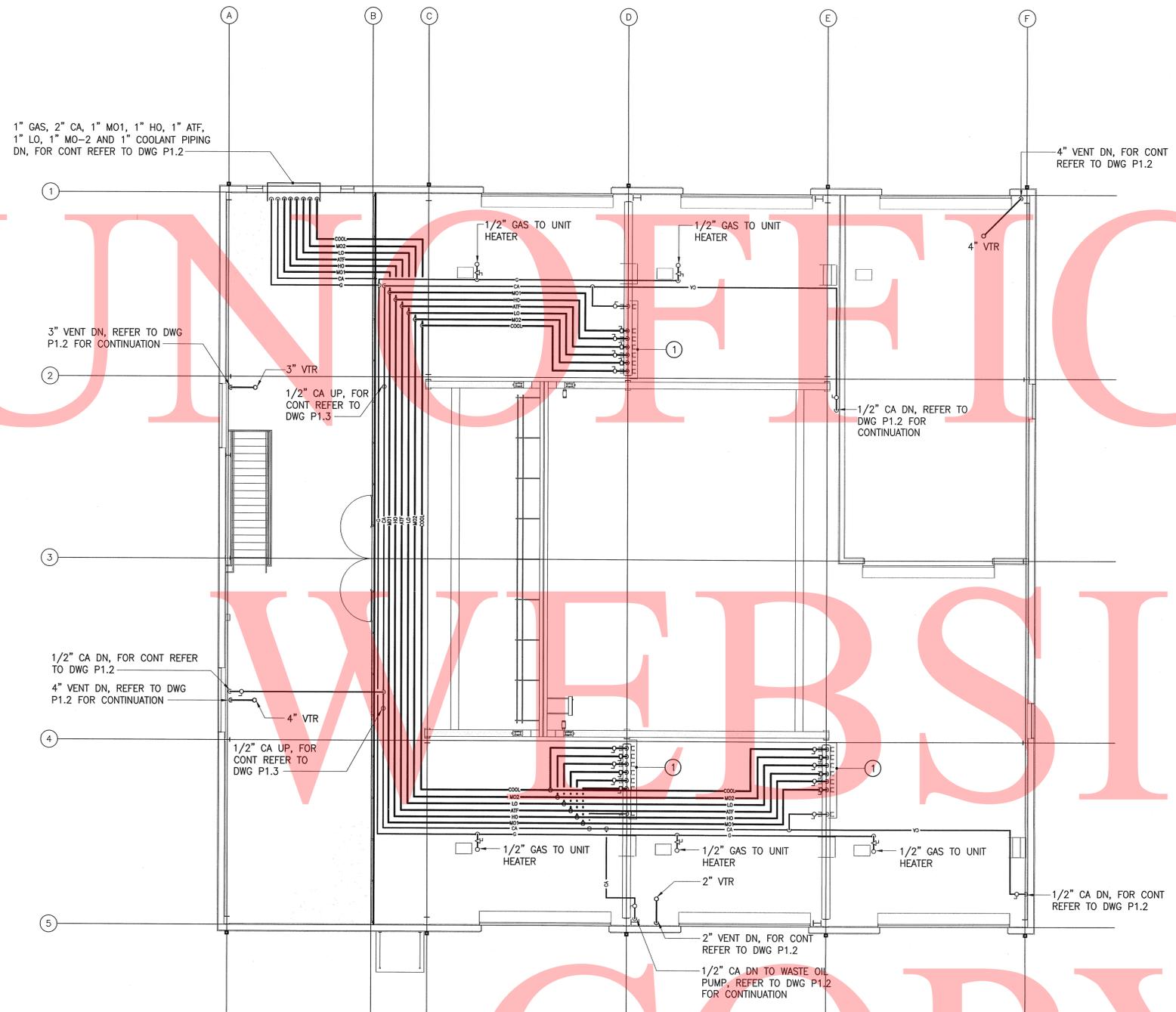
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P1.3 55	59

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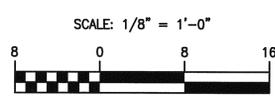
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1 MEZZANINE FLOOR PLAN - PLUMBING
P1.3 SCALE: 1/8" = 1'-0"



PREL. TRACING DESIGN CHKD.



ROOF PLAN - PLUMBING

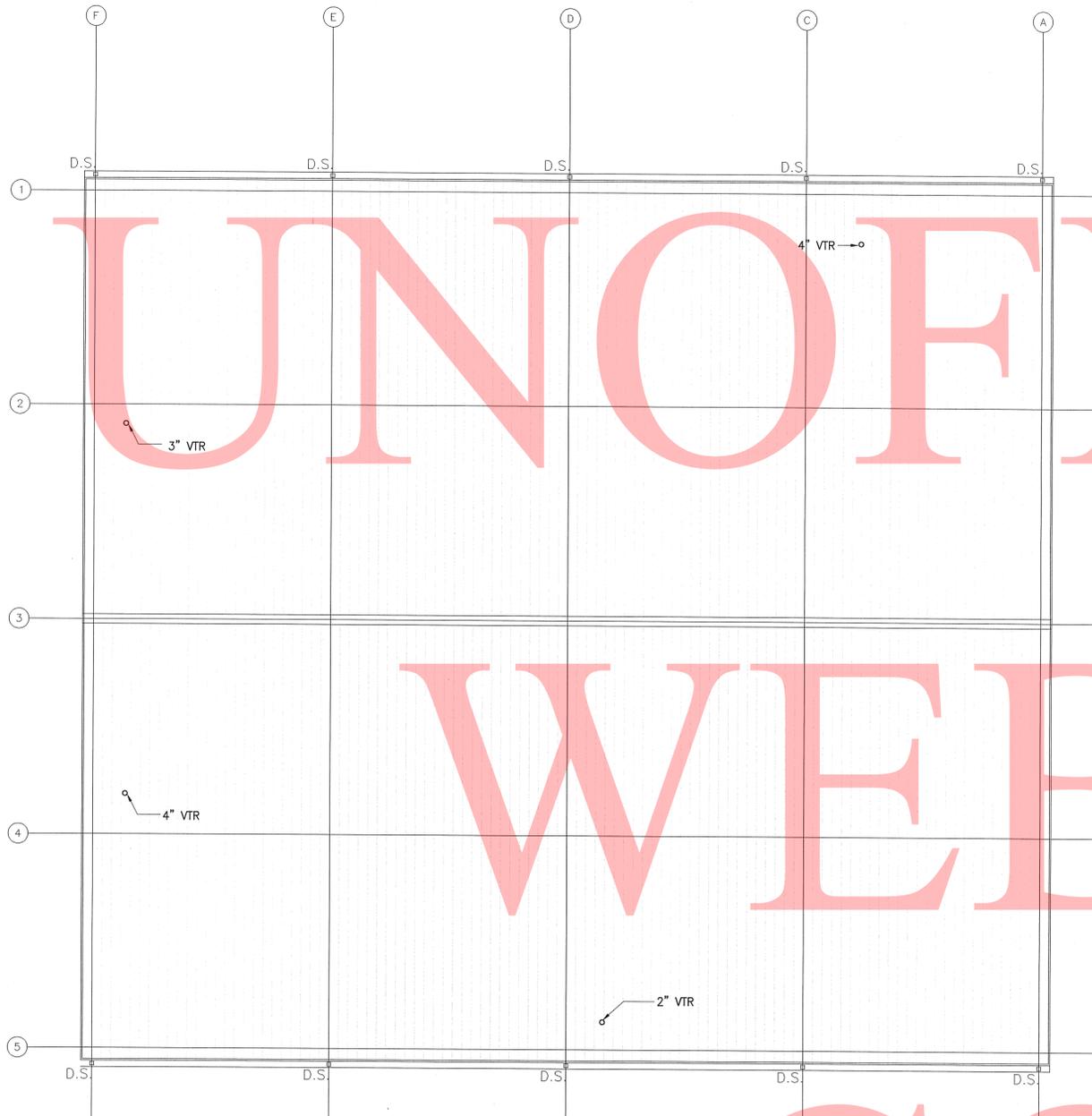
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
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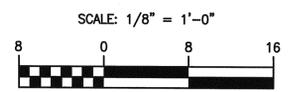
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1
P1.4 ROOF PLAN - PLUMBING
SCALE: 1/8" = 1'-0"

COPY

PREL. TRACING DESIGN CHKD.



PLUMBING RISER DIAGRAMS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P3.1	59

**DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP**

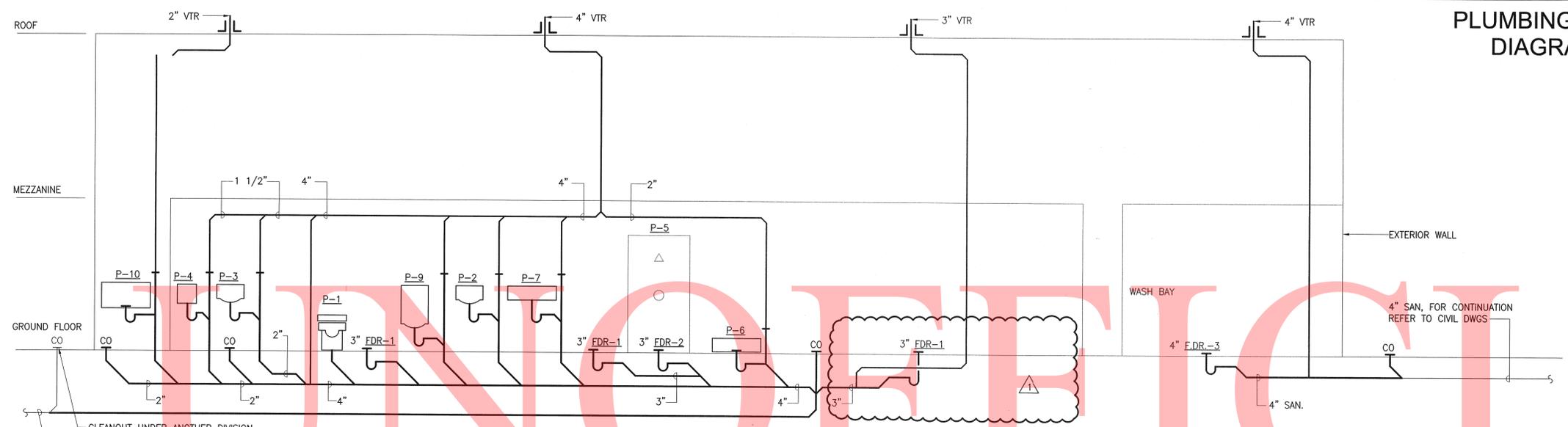
REVISIONS

△ DELETE FLOOR DRAIN	10/8/12
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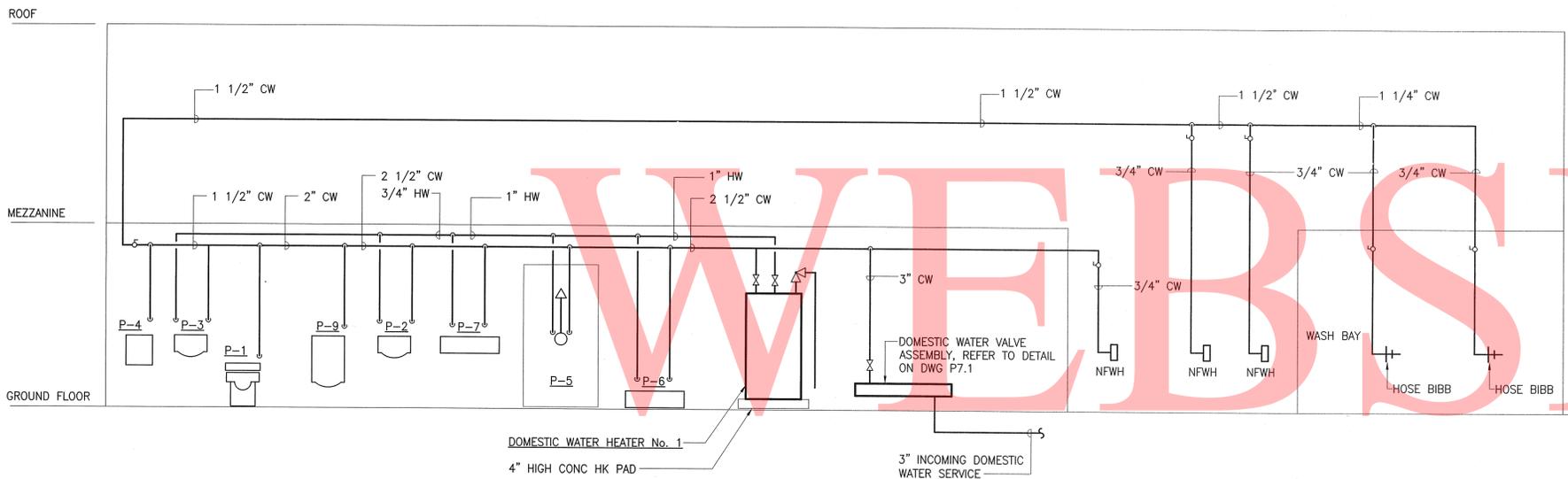
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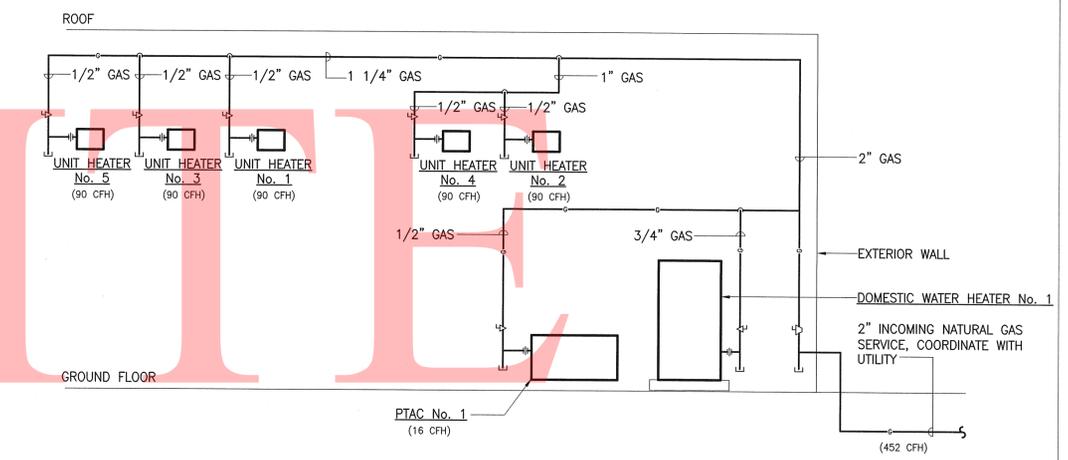
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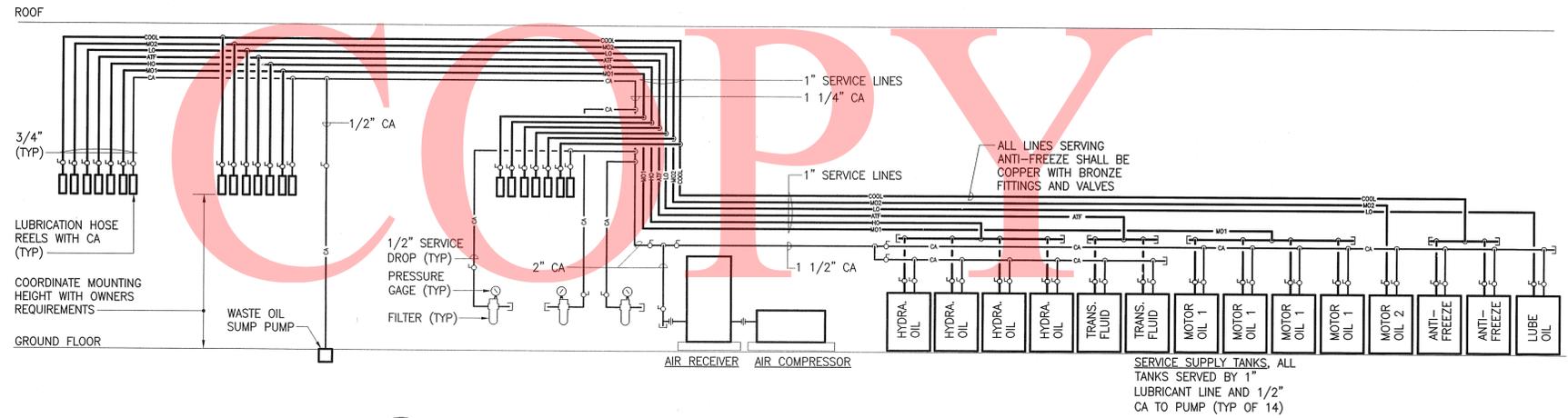
(S-1) SANITARY RISER DIAGRAM
SCALE: NONE



(W-1) DOMESTIC WATER RISER DIAGRAM
SCALE: NONE



(G-1) NATURAL GAS RISER DIAGRAM
SCALE: NONE



(L-1) HOSE REEL LUBRICANT W/ COMPRESSED AIR RISER DIAGRAM
SCALE: NONE

PREL. TRACING DESIGN CHKD.

PLUMBING DETAILS

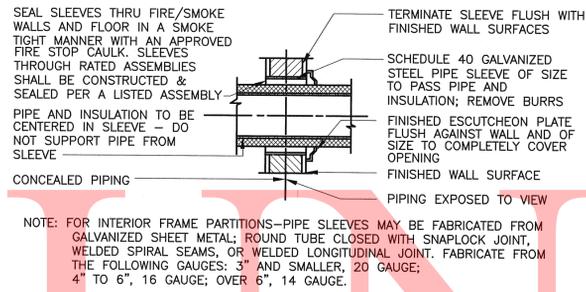
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P7.1 58	59

DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
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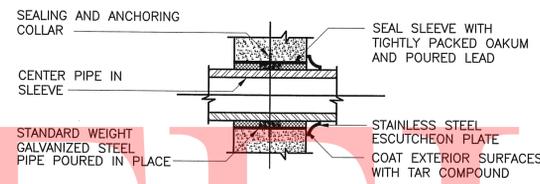


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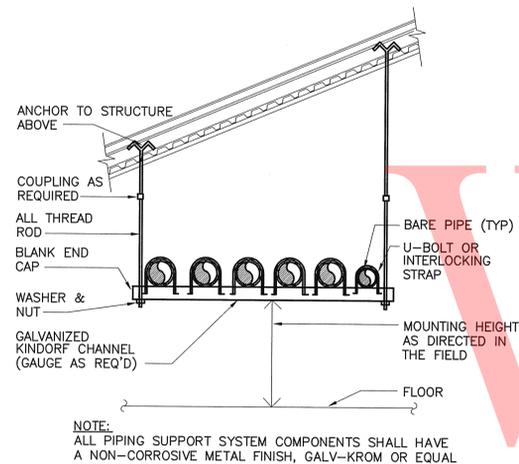
1 TYPICAL PIPE SLEEVE THRU WALL DETAIL

SCALE: NONE



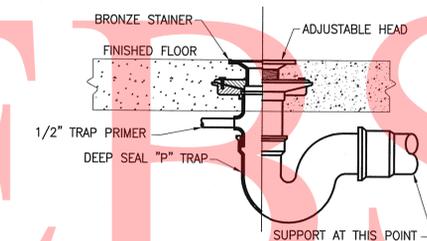
2 PIPE SLEEVE THRU EXTERIOR WALL DETAIL

SCALE: NONE



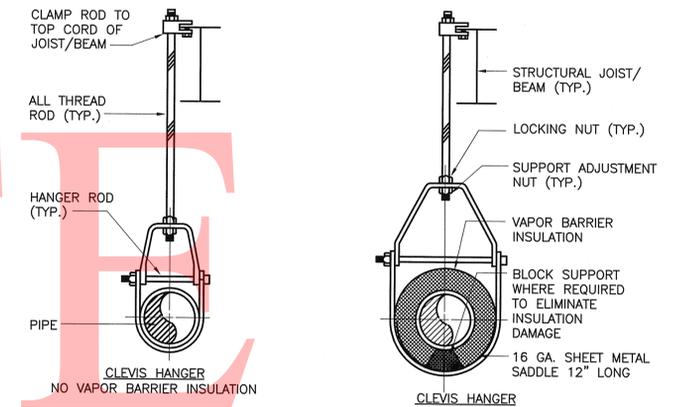
3 TRAPEZE PIPE SUPPORT DETAIL

SCALE: NONE



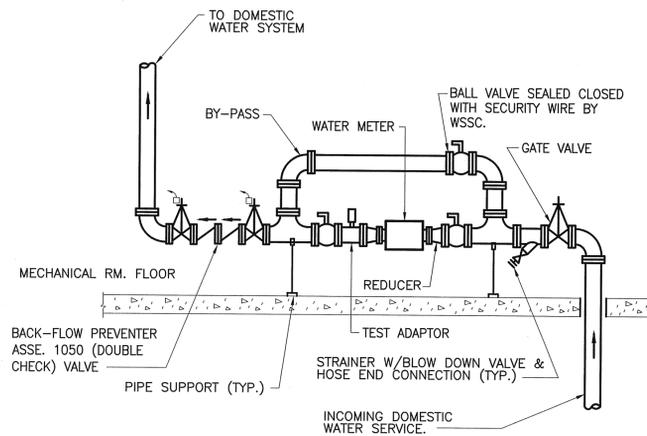
4 FLOOR DRAIN WITH TRAP PRIMING LINE DETAIL

SCALE: NONE



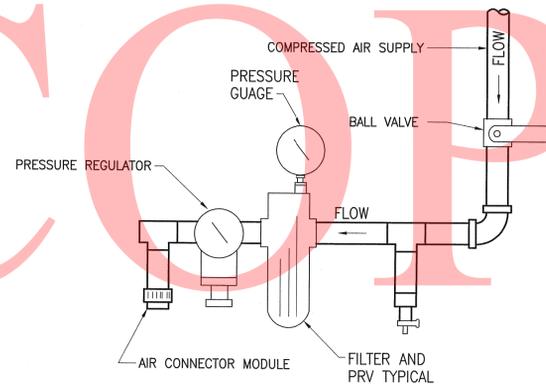
5 PIPING SUPPORT DETAIL

SCALE: NONE



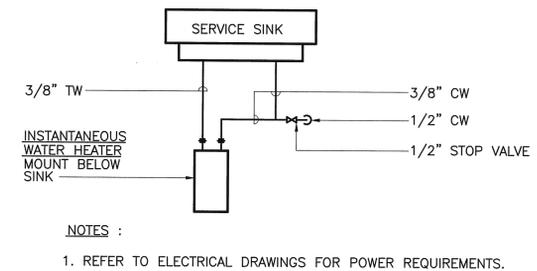
6 INCOMING DOMESTIC WATER SERVICE DETAIL

SCALE: NONE



7 COMPRESSED AIR WALL OUTLET - DETAIL

SCALE: NONE



8 INSTANTANEOUS WATER HEATER DETAIL

SCALE: NONE Last Modified On: 04/13/12

PLUMBING SCHEDULES

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS
30-801-01	KENT	SEE TITLE SHEET	P9.1 59	59

DOMESTIC WATER EXPANSION TANK SCHEDULE									
NO.	LOCATION	SERVES	TOTAL VOLUME (GALLONS)	TOTAL ACCEPTANCE (GALLONS)	FILL PRESSURE (PSI)	MINIMUM OPERATING TEMP (°F)	MAXIMUM OPERATING TEMP (°F)	MAXIMUM OPERATING PRESS. (PSI)	BASED ON
1	MECHANICAL ROOM	DWH No. 1	5.0	1.2	50.0	45.0	160.0	90.0	AMTROL

DOMESTIC WATER HEATER SCHEDULE											
NO.	LOCATION	TYPE	ELEC INPUT (TOTAL KW)	GAS INPUT (TOTAL MBH)	OPERATING WEIGHT (LBS)	RECOVERY RATE (GPH or GPM)	TEMP. RISE (DEGREES F.)	STORAGE (GALLONS)	ELECTRICAL CHARACTERISTICS V/ø/Hz	BASED ON	
1	MECHANICAL ROOM	POWER VENT COMMERCIAL	-	76.0	650.0	83.0 GPH	100.0	50.0	120V/1ø/60	STATE MODEL SHE-50	
2	SERVICE BAY	INSTANTANEOUS	6.5	-	10.0	-	89.0	-	240V/1ø/60	EEMAX EX65	

PLUMBING FIXTURE SCHEDULE						
NO.	FIXTURE	CW	HW	WASTE	VENT	REMARKS
P-1	WATER CLOSET	1"	-	4"	2"	ADA FLOOR MOUNTED
P-2	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	WALL MOUNTED
P-3	KITCHEN SINK	1/2"	1/2"	2"	1 1/2"	COUNTER TOP MOUNTED
P-4	DRINKING FOUNTAIN	1/2"	-	2"	1 1/2"	WALL MOUNTED
P-5	SHOWER	1/2"	1/2"	2"	1 1/2"	ADA ENCLOSERE BY OTHERS
P-6	MOP SINK	1/2"	1/2"	1 1/2"	1 1/2"	FLOOR MOUNTED
P-7	WASH FOUNTAIN	1/2"	1/2"	1 1/2"	1 1/2"	SEMI-CIRCULAR FL. MOUNTED
P-8	EYE WASH STATION	-	-	-	-	SELF-CONTAINED PORTABLE UNIT
P-9	URINAL	3/4"	-	2"	1 1/2"	ADA WALL MOUNTED
P-10	SERVICE SINK	1/2"	1/2"	2"	2"	WALL MOUNTED

DELAWARE DEPARTMENT OF TRANSPORTATION
MAGNOLIA YARD VEHICLE MAINTENANCE SHOP
REVISIONS

04/12/12 - REVISED PER KENT CO. COMMENTS



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PREL. TRACING _____ DESIGN _____ CHKD. _____