INDEX OF DRAWINGS

- 1 15 COVER SHEET
- 2-15 FOUNDATION / FLOOR PLAN
- 3 15 FOUNDATION DETAILS
- 4 15 FOUNDATION DETAILS
- 5 15 BUILDING SECTION
- 6 15 BUILDING SECTION
- 7 15 DETAILS
- 8 15 DETAILS
- 9 15 EAST ELEVATION
- 10 15 NORTH FLEVATION
- 11-15 SCHEDULES
- 12-15 GENERAL NOTES
- 13-15 MECHANICAL PLAN (BY OTHERS)
- 14-15 ELECTRICAL PLAN (BY OTHERS)
- 15-15 ELECTRICAL PANEL & SCHEDULE (BY OTHERS)

MISSOURI DEPARTMENT OF TRANSPORTATION

CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT RICHMOND, MISSOURI 64085 42896 Old Highway 10 Ray County

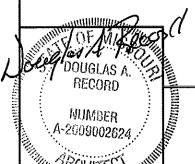
CODE REQUIREMENTS

BUILDING CODE - CURRENT IBC

PLUMBING CODE - CURRENT IBC

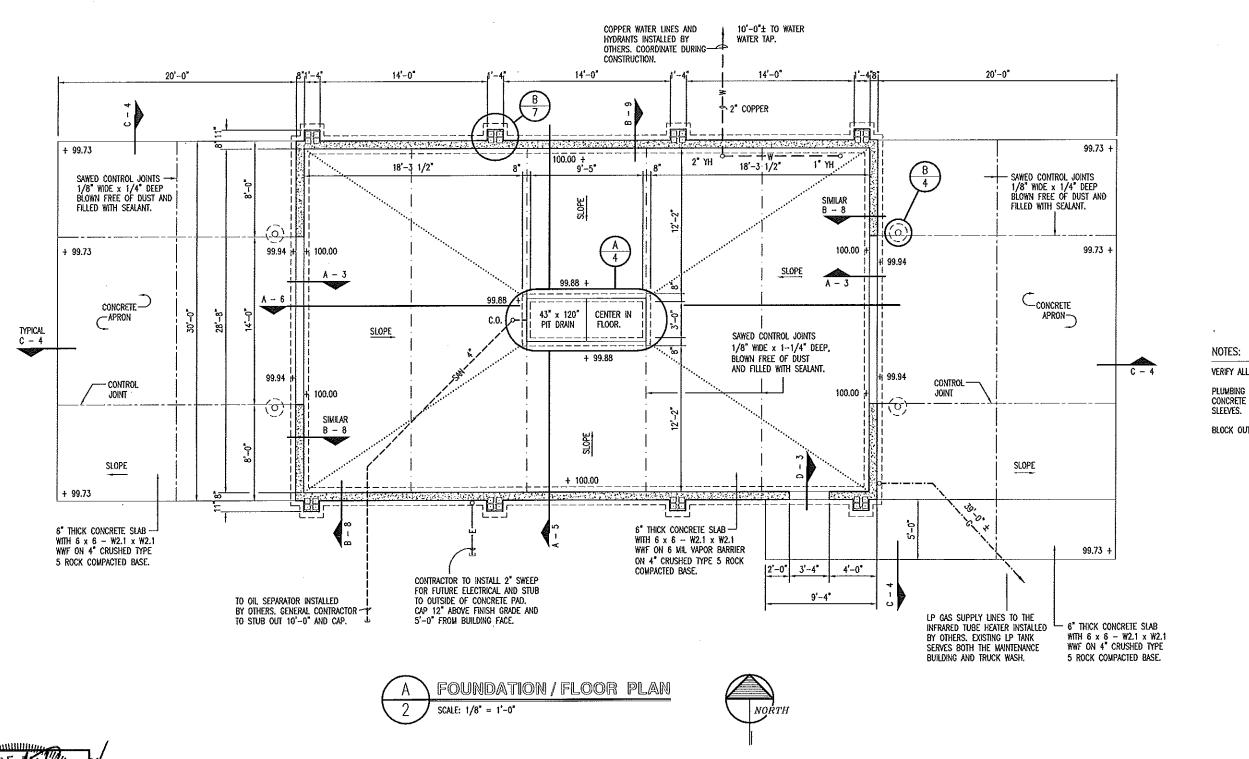
MECHANICAL CODE - CURRENT IBC

ELECTRICAL CODE - CURRENT N.E.C.



CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI iesign by: Larry Carves DRAWN BY: LARRY CARVER

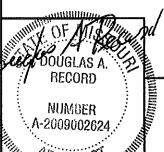
MTE: 3-21-14



VERIFY ALL UTILITY LOCATIONS INTO BLDG.

PLUMBING GALVANIZED RAN THROUGH THE CONCRETE SHALL BE IN 6" (SCH 40) PVC SLEEVES.

BLOCK OUT AT ALL DOOR OPENINGS. (TYP.)

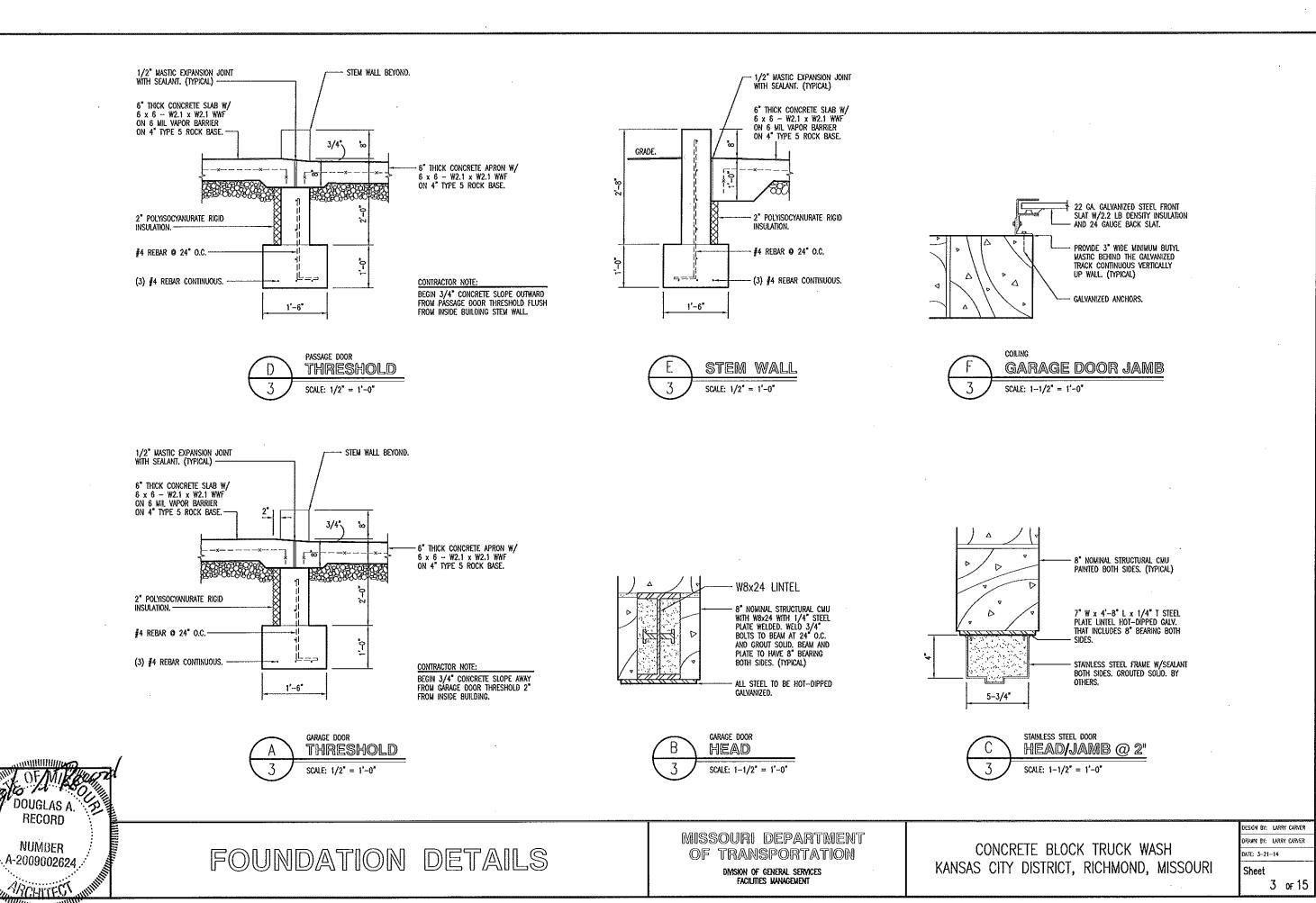


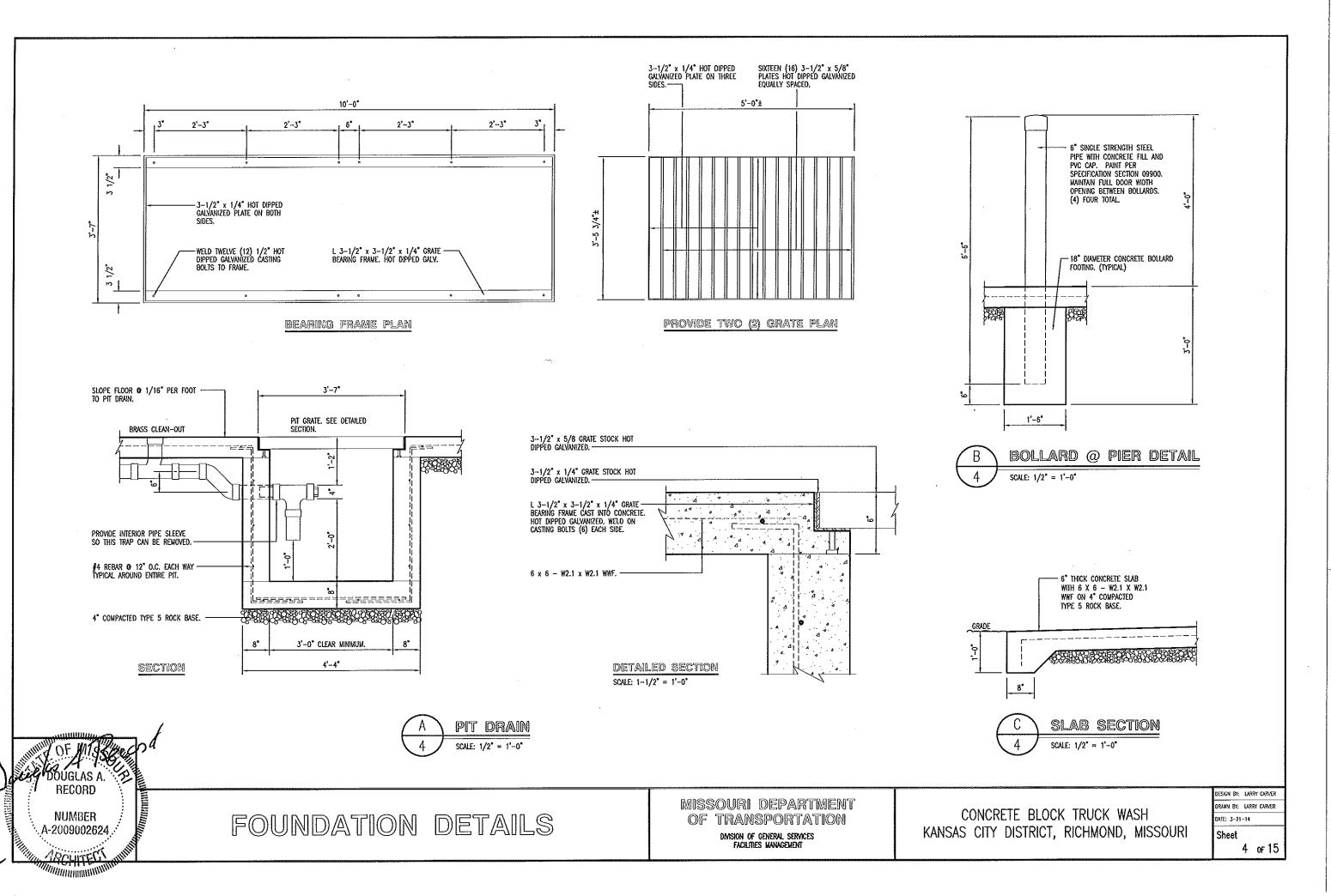
FOUNDATION / FLOOR PLAN

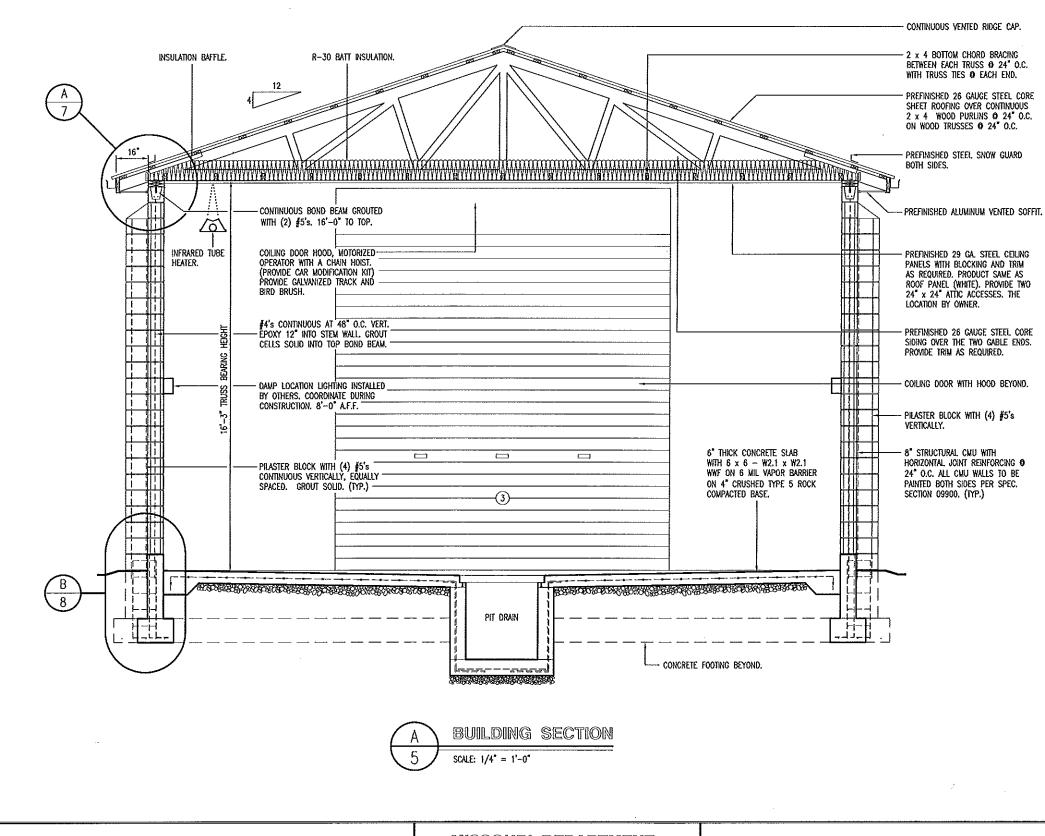
MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES NAVAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 3-21-14

Sheet .







OF MUMBER
A-2009002624

ENGINEERING DESIGN AND SHOP DRAWINGS:

1. PROFESSIONAL ENGINEER: ALL TRUSS DESIGNS SHALL

OF A LICENSED PROFESSIONAL ENGINEER.

2. TRUSS DESIGNS SHALL CONTAIN THE FOLLOWING DATA:

A LOADING (UNIFORM)

2. BOTTOM CHORD

LUMBER SPECIFICATIONS

CAMBER, IF ANY

DESIGN CRITERIA:

PERMANENT BRACING

BUILDING CODE: CURRENT IBC SEISMIC AV = 0.125; AA = 0.13

BASIC WIND SPEED 90 MPH, EXPOSURE C

BEAR THE NAME, SEAL, AND REGISTRATION NUMBER

LIVE LOAD 20 PSF

DEAD LOAD 10 PSF

SNOW DRIFT - PER 2003 IBC

DEAD LOAD 5 PSF
TOTAL LOAD 35 PSF
WETAL CONNECTORS — NOTE GAUGE SIZES OF

CONNECTORS, NAME OF MANUFACTURER, AND

PITCH, SPAN, AND SPACING OF TRUSSES DESIGN LOADINGS AND ALLOWABLE UNIT STRESS

FORCE ANALYSIS OF BAR FORCES IN EACH

SIZE AND LOCATION OF ALL CONNECTOR PLATES
TRUSS SUPPORTS O TOP PLATES & BOTTOM

CAPACITY OF EACH CONNECTION,

CHORD BRACING JOIST HANGERS.

3. FIVE COPIES OF EACH TRUSS DESIGN AND/OR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT

FOR REVIEW PRIOR TO THE FABRICATION OF ANY COMPONENTS.
STRUCTURAL ENGINEERS REVIEW OF DRAWINGS PREPARED BY THE CONTRACTORS, SUPPLIERS, ETC., ARE ONLY FOR CONFORMANCE WITH DESIGN CONCEPT. CONSTRUCTION SHALL NOT START WITHOUT SAID

HANDLING AND ERECTION INSTRUCTIONS

PROVIDE SIMPSON STRONG TIE H1 RAFTER CONNECTOR EACH END TO SUBSTRATE. (TYP.)

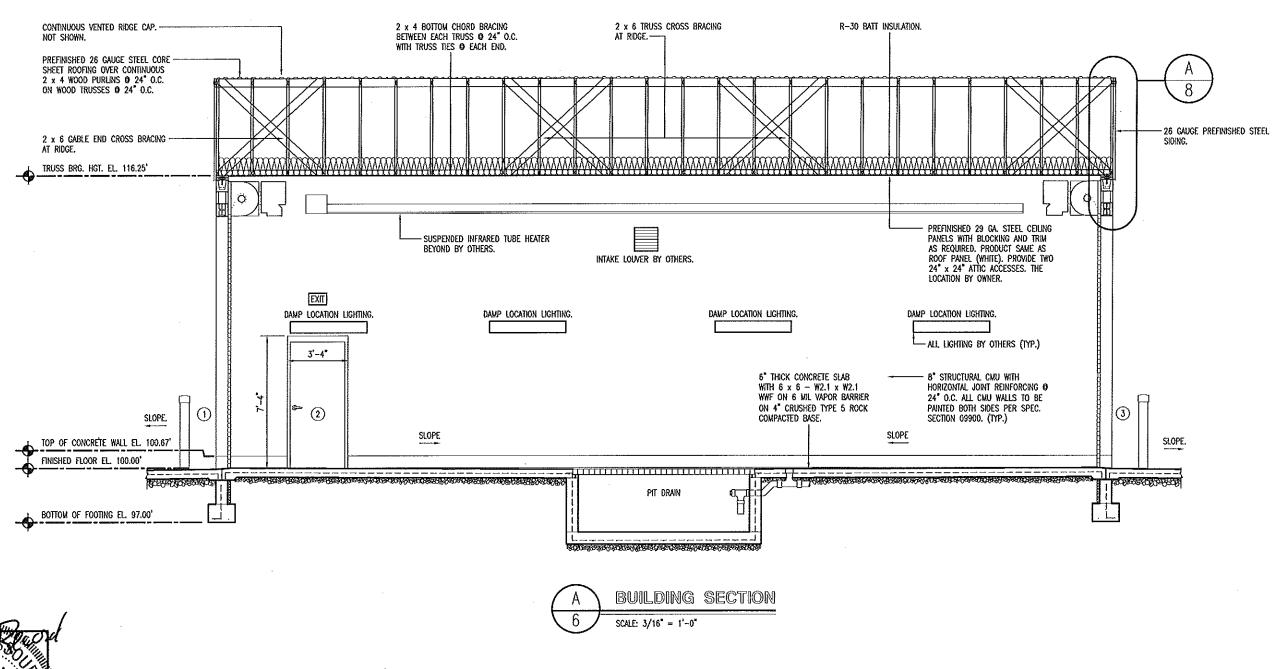
BUILDING SECTION

MISSOURI DEPARTMENT
OF TRANSPORTATION

DAYISION OF GENERAL SERVICES FACILITIES HANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN 81: LARRY CARVER
DRAWN 81: LARRY CARVER
DATE: J-21-14

Sheet 5 of 15

3/14/14



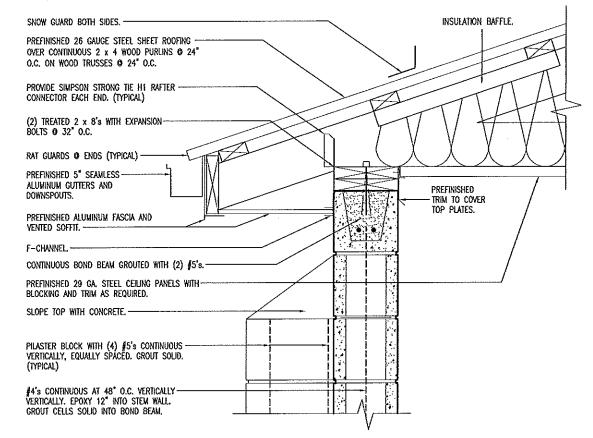
OF MISSER DOUGLAS A. RECORD NUMBER A-2009002624

BUILDING SECTION

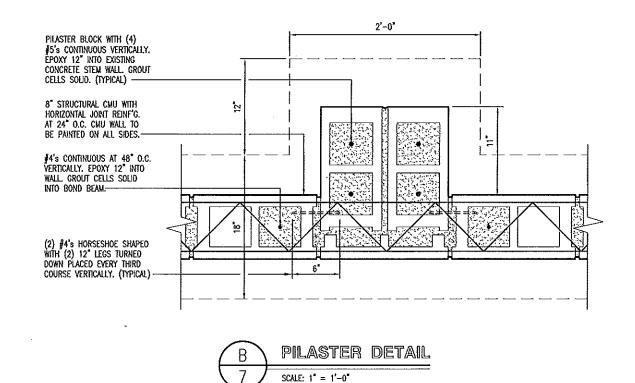
MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES NAVAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 3-21-14

Sheet 6 of 15







DOUGLAS A. RECORD

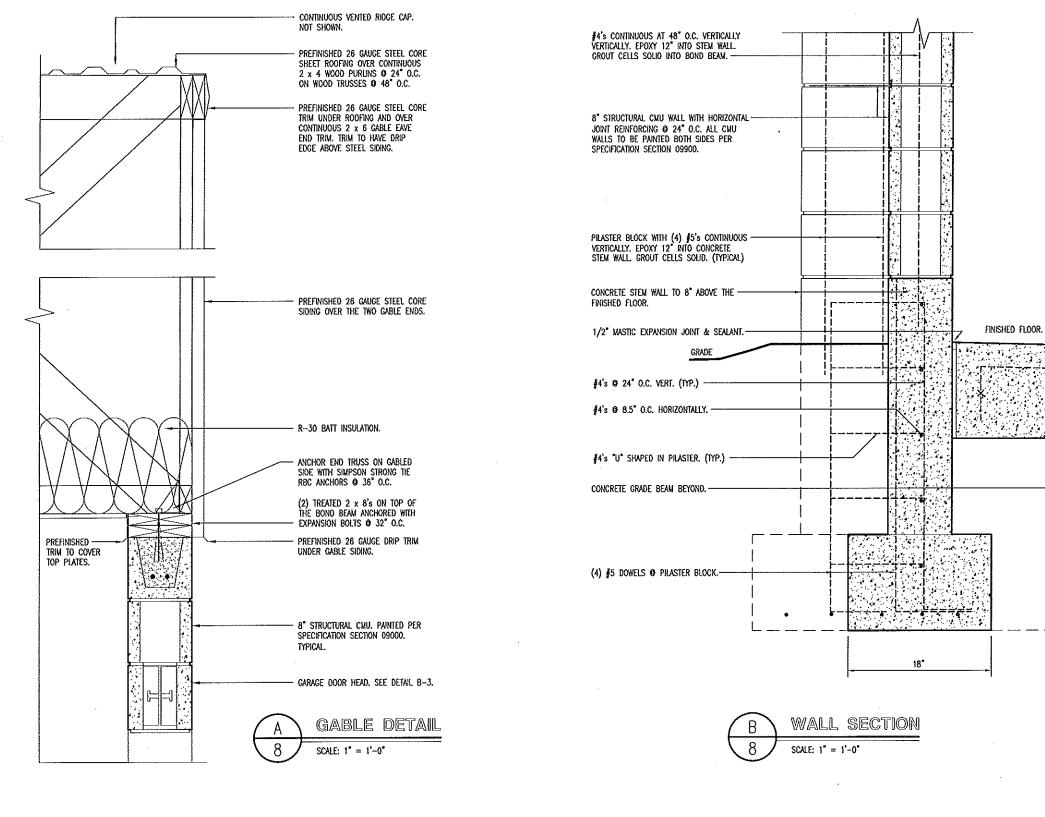
NUMBER
A-2009002624

DETAILS

MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES HANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 3-28-14

Sheet _



OFAMILE SECOND NUMBER
A-2009002624

DETAILS

MISSOURI DEPARTMENT OF TRANSPORTATION

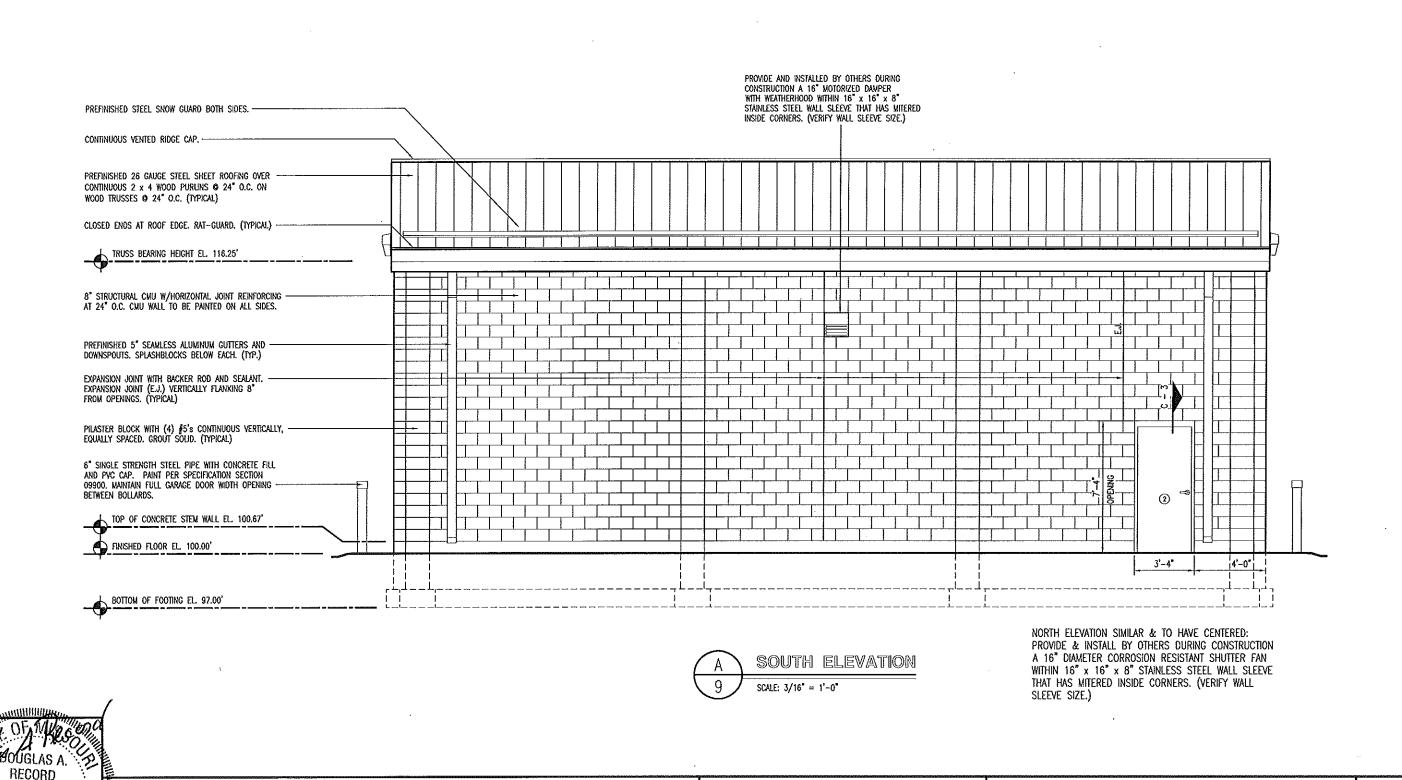
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI

DESIGN BY: LARRY CARVER

DRAWN BY: LARRY CARVER

DATE: 3-21-14

Sheet 8 of 15



MISSOURI DEPARTMENT

OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT DESIGN BY: LARRY CARVER

DRAWN BY: LARRY CARVER

9 of 15

DATE: 3-21-14

Sheet

CONCRETE BLOCK TRUCK WASH

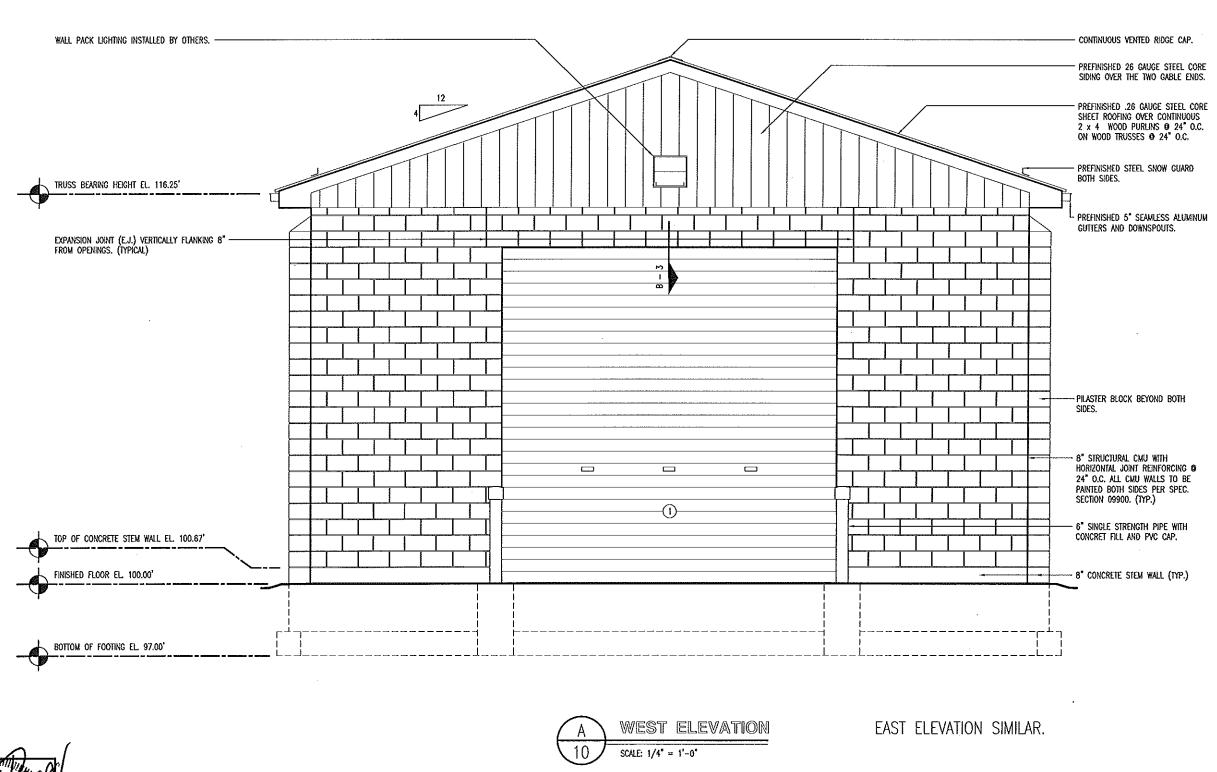
KANSAS CITY DISTRICT, RICHMOND, MISSOURI

3/24/14

NUMBER

.A-2009002624.

SOUTH ELEVATION



OF ALL DOUGLAS A. RECORD NUMBER A-2009002624

WEST ELEVATION

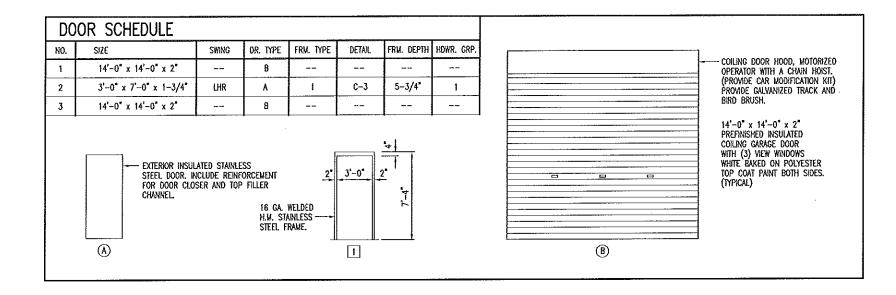
MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 3-21-14

Sheet

10 of 15



HV	HVAC SCHEDULE						
SYM.	UNIT	MANUFACTURER	BTU OUTPUT	FVEL	VOLTAGE	REWARKS	
	INFRARED TUBE HEATER	SUNSTAR SPS/U 150-L5 OR EQUAL	150,000	LP GAS	115	HEAVY DUTY CAST IRON BURNER, DIRECT SPARK IGNITION, STANDARD OUTSIDE COMBUSTION AIR INTAKE, SIDEWALL VENTING,	
B	16" DIA. CORROSION RESISTANT SHUTTER FAN	Dayton 181J1 Osha Guard Or Equal	2,005 CFM	ELECTRIC	115	FIBERGLASS SHUTTER & BLADES. 2.1 AMPS. PROVIDE 16" x 16" x 9-1/4" STAINLESS STEEL WALL SLEEVE THAT HAS MITERED INSIDE CORNERS. (VERIFY WALL SLEEVE SIZE)	
(((((((((((((((((((MOTORIZED DAMPER WITH WEATHERHOOD	DAYTON MODEL 40560 OR EQUAL 60 HERTZ	***	ELECTRIC	115	16" CENTER-PIVOTING, MOTORIZED, GALV. STEEL DAMPER. WIRE TO OPEN WHEN THE EXHAUST FAN IS TURNED ON. HOOD EQUAL TO NATIONAL FAN CO. Ph: 1-877-389-3131 16" GALVANIZED WEATHER HOOD. MODEL! NFC-GH-XF16. PROVIDE 16" x 16" x 9-1/4" STAINLESS STEEL WALL SLEEVE THAT HAS MITERED INSIDE CORNERS. (VERIFY WALL SLEEVE SIZE)	
1	WATERPROOF THERMOSTAT	as required.	••••	dryk bride		AS RECOMMENDED BY THE INFRARED TUBE HEATER MANUFACTURER.	

DOUGLAS A. RECORD

NUMBER
A-2009002624

MISSOURI DEPARTMENT OF TRANSPORTATION

DMISION OF GENERAL SERVICES FACILITIES MANAGEMENT

CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER

Sheet

3/14/14

SCHEDULES

GENERAL NOTES:

- CONCRETE WORK SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (A.C.I.) MANUAL OF CONCRETE
- FOUNDATION DESIGN IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2,000 PSF. IF WET OR UNUSUAL SOIL CONDITIONS ARE ENCOUNTERED, NOTIFY THE DESIGNER AND CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
- 3. IF CONDITIONS REQUIRING ROCK EXCAVATION ARE ENCOUNTERED, NOTIFY THE DESIGNER AND FIELD INSPECTOR BEFORE PROCEEDING WITH THE WORK.
- ALL CONCRETE SHALL BE TYPE I CEMENT WITH A COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS WITH 4" SLUMP.
- 5. CONCRETE EXPOSED TO THE EXTERIOR SHALL RECEIVE AIR ENTRAINMENT OF $6\%~\pm$
- 6. FOUNDATION WALLS AND FOOTINGS SHALL BEAR A MINIMUM OF 12" INTO UNDISTURBED SOIL AND 36" MINIMUM BELOW FINISH GRADE.
- 7. DEFORMED STEEL REINFORCING BARS SHALL BE #5 AND LARGER, ASTM A615 GRADE
- 8. PROVIDE CORNER REINFORCING BARS WITH 12" MINIMUM LAP EQUAL IN SIZE AND GRADE TO CONNECTING BARS.
- 9. INTERIOR AND EXTERIOR CONCRETE FLATWORK SHALL HAVE A LIGHT BROOM FINISH.
- Coordinate work of other trades required to be installed in, under, or through concrete prior to placement of concrete, install all anchorages and sleeves required for the installation of work by other trades.
- 11. SAWED CONTROL JOINTS SHALL BE CLEANED FREE OF ALL DEBRIS AND FILLED WITH DOW CORNING 888 SILICONE JOINT SEALANT OR AN APPROVED EQUAL. SAWCUT WITHIN
- 12. SEE SPECIFICATION SECTION 03300 CONCRETE FOR ADDITIONAL INFORMATION.

GRADING NOTES:

FILLING AND BACKFILLING: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE THE SPECIFIED MOISTURE CONTENT, COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DENSITY FOR THE AREA.

WASTE EARTH WATERIAL: STORED ON SITE, LOCATION AS DIRECTED BY OWNER.

EXCAVATION: CONTRACTOR TO SLOPE GRADE AWAY FROM NEW TRUCK WASH AS REQUIRED WITH 6" TYPE 5 ROCK BASE INCLUDING ALL AREAS DISTURBED DURING CONSTRUCTION.

STAKING: STRUCTURE LOCATION STAKED AND LEVELED BY MODOT AT THE MAINTENANCE SITE.

PLUMBING NOTES:

- PLUMBING SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE ISC PLUMBING CODE.
- PLUMBING SHALL BE LOCATED AND PLACED UNDER THE SLAB PRIOR TO POURING OF CONCRETE, PIPING SHALL BE RUN IN SAND FILLED TRENCH UNDER THE BASE ROCK AND SLEEVED WITH PVC WHENEVER RUN THROUGH CONCRETE.
- PROVIDE PLUMBING EQUIPMENT AND ACCESSORIES REQUIRED FOR COMPLETE AND OPERATIONAL PLUMBING SYSTEMS AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
- 1" YARD HYDRANT: EQUAL TO WOODFORD MODEL Y2 FREEZLESS, BACKFLOW PROTECTED, AUTOMATIC DRAINING YARD HYDRANT, PROVIDE 36" BURY LENGTH.
- 2" YARD HYDRANT: EQUAL TO \$71 NATIONAL TYPE "A" COMPRESSION HYDRANT. ANTI-FREEZING AUTOMATIC DRAIN. ALL BRONZE WITH 2" VALUE OPENING & 10" WHEEL TOP. 36" BURY LENGTH.

NUMBER A-2009002624

MISSOURI DEPARTMENT OF TRANSPORTATION

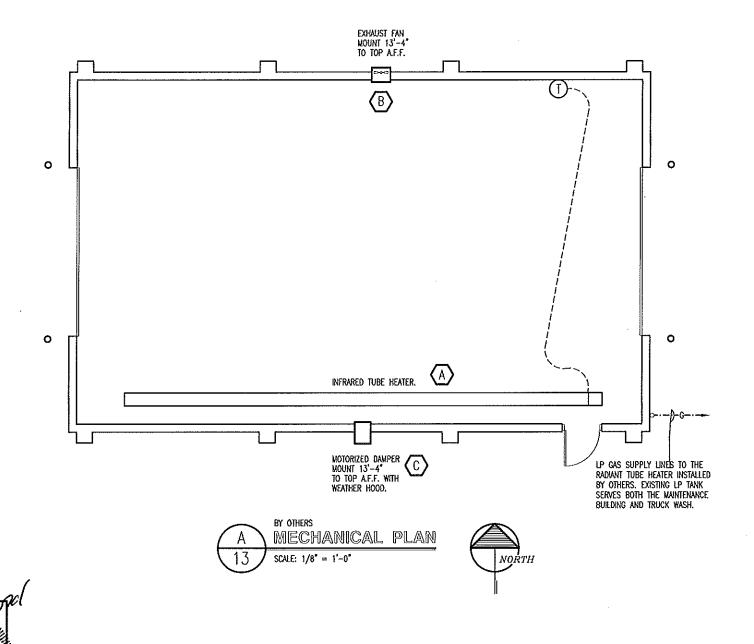
> DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI ESIGN BY: LARRY CARMER JAN BY: LARRY CARVER

ATE: 3-21-14 Sheet

GENERAL NOTES

SEE HVAC SCHEDULE SHEET 11.



MECHANICAL NOTES

- 1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 2. MECHANICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE IBC MECHANICAL CODE.
- PROVIDE EQUIPMENT AND APPURTENANCES NOT NECESSARILY SHOWN OR SPECIFIED BUT NEEDED FOR COMPLETE AND PROPER INSTALLATION.
- ALL EQUIPMENT AND MATERIALS, IN PARTICULAR VALVES, FILTERS, MOTORS, AND CONTROLS SHALL BE ARRANGED TO PROVIDE PROPER CLEARANCE FOR SERVICE, MAINTENANCE, AND INSPECTION.
- 5. MECHANICAL SUBCONTRACTOR SHALL FULLY COORDINATE ALL WORK WITH PLUMBING AND ELECTRICAL WORKERS PRIOR TO COMMENCING OF THE MECHANICAL INSTALLATION.
- 6. PROVIDE BLOCKING TO HVAC DEVICES AS REQUIRED FOR A SECURE APPLICATION.
- CONTRACTOR WORK WILL BEGIN FROM EXISTING PROPANE TANK WITH GAS LINE TO INFRARED TUBE HEATER. SIZE AS REQUIRED FOR A FUNCTIONAL SYSTEM.

MECH

MECHANICAL PLAN

MISSOURI DEPARTMENT
OF TRANSPORTATION

DAYSION OF GENERAL SERVICES FACILITIES MANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI

DESIGN 81: LARRY CARVER
DRAWN 81: LARRY CARVER
OWTE: 3-21-14

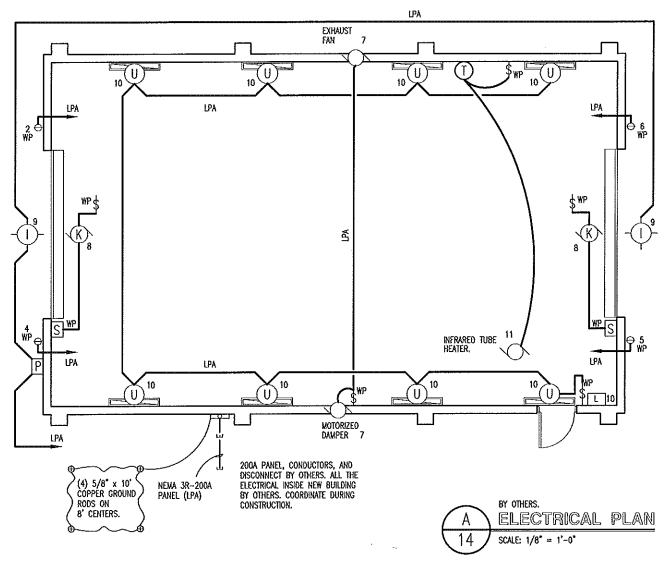
Sheet 13

13 of 15

3/24/14

RECORD

A-2009002624





DOUGLAS A. RECORD

NUMBER
A-2009002624

ELECTRICAL PLAN

IISSOURI DEPARTMENT
OF TRANSPORTATION

DMSKIN OF GENERAL SERVICES FACILITIES MANAGEMENT CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN 8Y: LARRY CARVER DRAWN BY: LARRY CARVER

Sheet

BY OTHERS.

	SERVICE PANEL LPA							
	VOLTS: 120/240, 1PH, 3-WIRE NEMA 3R, SQUARE D-MH35WP, GROUND-AS REQUIRED.							
CIR	SERVICE	VA	8KR	CIR	BKR	VA	SERVICE	CIR
1	200A SERVICE DISCONNECT		100A2P	A	20A1P	1000	exterior - receptacle 🐵	2
3				В	20A1P	1000	exterior — receptacle ⊘	4
5	exterior — receptacle 🚳	1000	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE @	6
7	EXHAUST FAN AND DAMPER	1221	20A1P	В	30A1P	2162	OHD OPENERS	8
9	exterior lights	434	20A1P	Å	20A1P	1246	BAY LIGHTING	10
11	infrared tube heater	300	20A1P	8	20A1P	-	SPARE	12
13				A				14
15				8				16
17				A				18
19				В				20
21				A				22
23				В				24
25				Á				26
27				В				28
29				A				30
31	-			8				32
33				A				34
35	•			В				38
37				A				38
39				В				40
41				A				42

CIRCUIT BREAKER SHALL, BE GFI RATED

ALL ELECTRICAL BY OTHERS UNLESS OTHERWISE NOTED. COORDINATE DURING CONSTRUCTION.

BY OTHERS.

MANUF.	MODEL	# LAMP TYPES W	MOUNT	REWARKS
LITHONIA	VRI-2-54T5HO_MVOLT GEB10PS90	2 FLUORESCENT 54	CLG	7-5/8" x 50" DAMP LOCATION, FIBERGLASS HOUSING, CLEAR HIGH-IMPACT ACRYLIC LENS AND COLD WEATHER ELECTRONIC BALLAST.
WILLIAMS -()-	PGM-175H-128-2	1 METAL HALIDE 175	WALL.	EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, WITH ALUMINUM HOUSING, & IMPACT RESISTANT ONE-PIECE, WRAPAROUND LENS.
(§)	OVERHEAD DOOR OPERATOR		WALL	115V, 1-PH, HOOD MOUNT TYPE COMMERCIAL IN CARWASH & TROLLEY TYPE IN MAINTENANCE. SEE SPECIFICATION SECTION 08720.
LTHONIA L	SERIES LOM LOM-SW-3R-120/277 ELN		CLG	Quantum series exit light with white Thermoplastic Housing & Universal Mount. Install above light fixture "u" at door 2.
S	OVERHEAD DOOR CONTROL WATERPROOF		WALL	Three Button overhead door control as supplied by overhead door manuf. See specification section 08720.
TORK P	2001		WALL	120V PHOTO ELECTRIC CONTROL OF EXTERIOR LIGHTS.

ELECTRICAL FIXTURES AND EQUIPMENT ARE SCHEDULED BY MANUFACTURER AND MODEL NUMBER FOR DESIGN INTENT ONLY, APPROVED EQUALS MAY BE SUBSTITUTED.

LEGEND

- \$ WP SINGLE POLE SWITCH, MOUNT 48" A.F.F. IN FS BOX WITH HUBBELL HBL 7420 COVER.
- Φ WP SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER.

ELECTRICAL NOTES:

- DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR THE DIMENSIONS.
- ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.)
- PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
- SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE ANPERE SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND FAULT INTERRUPTION WHERE SHOWN OR AS REQUIRED BY CODE.
- SEE HYAC SCHEDULE FOR EQUIPMENT SYMBOLS AND EQUIPMENT TO BE HARD WIRED.
- CONTRACTOR SHALL PROVIDE SERVICE DISCONNECTS AS REQUIRED ON EXTERIOR OF NEW BUILDING.
- PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
- SEE SPECIFICATION SECTION 16100 ELECTRICAL FOR ADDITIONAL REQUIREMENTS.
- COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH ELECTRICAL WORK.
- CONDUCTOR AND BREAKER SIZE MAY VARY PER MANUFACTURER SHOWN ON THE EQUIPMENT SPECIFIED. ELECTRICAL CONTRACTOR TO VERIFY SIZES WITH EXACT EQUIPMENT ORDERED PRIOR TO PURCHASING ELECTRICAL SUPPLIES.
- ALL EXPOSED CONDUIT, BOXES, CONNECTORS, ETC. IN THE WASH BAY TO BE IN SCHEDULE 40 PVC. CONTRACTOR TO VERIFY THE DIAMETERS OD CONDUIT AS REQUIRED.
- 12. GROUP CIRCUITS IN CONDUIT WHERE FEASIBLE AS REQUIRED.
- PROVIDE CONDUIT, CONDUCTORS, BOXES, CONNECTORS, ETC. FROM EXISTING EXTERIOR POWER SOURCE (VERIFY) AS REQUIRED FOR A FUNCTIONAL SYSTEM.

DOUGLAS A. P. RECORD

NUMBER
A-2009002624

Electrical Panel & Schedule

MISSOURI DEPARTMENT OF TRANSPORTATION

DMISION OF GENERAL SERVICES FACILITIES MANAGEMENT

CONCRETE BLOCK TRUCK WASH KANSAS CITY DISTRICT, RICHMOND, MISSOURI DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 3-21-14

Sheet