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# MISSOURI DEPARTMENT OF TRANSPORTATION

## NEW MAINTENANCE & STORAGE BUILDINGS

## 2273 NORTH SERVICE ROAD WEST

### CODE REQUIREMENTS

BUILDING CODE - IBC 2003
PLUMBING CODE - CURRENT IBC
MECHANICAL CODE - CURRENT IBC
ELECTRICAL CODE - CURRENT N.E.C.

## FRANKLIN COUNTY

## DISTRICT #6 - ST. CLAIR, MISSOURI, 63077

### ALTERNATE CONDITIONS:

THE VARYING MAKEUP OF SOILS AND OCCURRENCE OF ROCK IN MANY MODOT DISTRICTS MAY REQUIRE CONSIDERABLE REDESIGN OF THE POST PLACEMENT BELOW GRADE FROM THAT SHOWN IN THESE DRAWINGS. THE BIDDER WILL BE RESPONSIBLE FOR OBTAINING ACCURATE INFORMATION FROM THE DISTRICTS FACILITIES MANAGER (I.E. DRILLINGS OR BORINGS INFORMATION 5'-0" DEEP AT EACH BUILDING CORNER AND AT LEAST ONE INTERMEDIATE SAMPLE TO THIS DEPTH ON THE LONG SIDES OF THE PROPOSED STRUCTURE) SO THAT THE BID WILL REFLECT ANY FOUNDATION REQUIREMENTS BEYOND THOSE SHOWN HERE. INFORMATION COULD INCLUDE PREVIOUS EXCAVATIONS THAT VERIFY FOOTING CONDITIONS THAT WILL BE ENCOUNTERED BY THIS CONTRACTOR.

PRE-ENGINEERED POLE STRUCTURE

### REQUIRED BUILDING ELEMENTS:

2 x 6 WALL GIRTS - #2 SYP OR EQUAL.

FINISH COAT ON 29 GAUGE METAL SIDING TO BE FLOUROPOLYMER (KYNAR 500 OR EQUAL. POLYESTER IS NOT ACCEPTABLE.

CONNECTION OF ROOF TRUSS TO POST OR HEADER TO BE EQUAL TO SIMPSON TIE #HD-1 OR HD2A.

POSTS TO BE A MINIMUM OF 4'-0" BELOW GRADE IN COMPACTED SOIL.

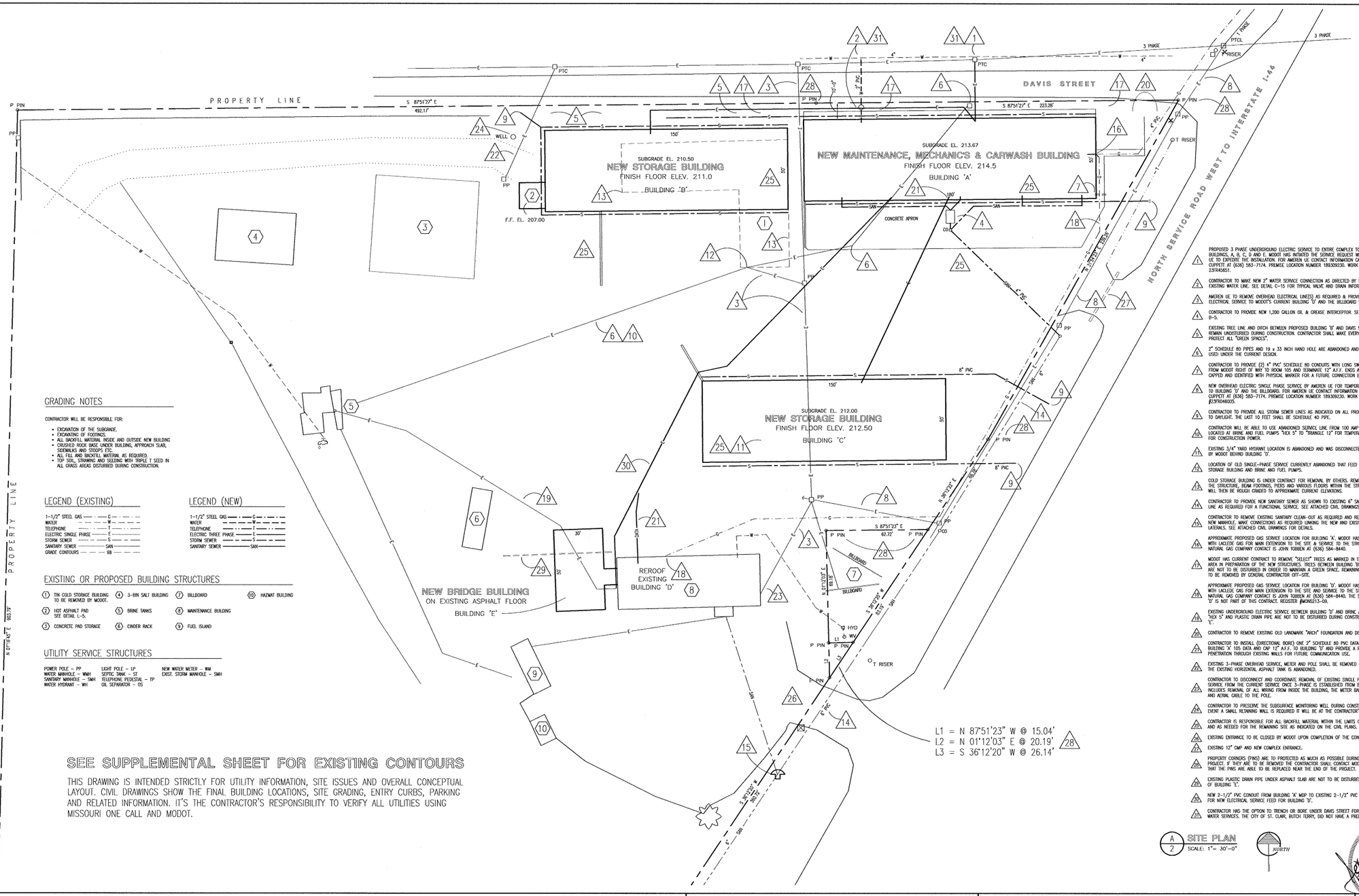
PRE-ENGINEERED POLE STRUCTURE

### FABRICATOR NOTES:

THESE DRAWINGS ARE FURNISHED AS A GUIDE TO BIDDERS IN SUBMITTING COMPLETE DETAILED DRAWINGS OF THEIR PROPOSED STRUCTURE TO BE SEALED BY AN ARCHITECT/ENGINEER. WHERE "AS REQUIRED" IS USED THE BIDDER MUST FURNISH A DETAILED DESCRIPTION OF THE BUILDING ELEMENT TO BE FURNISHED.

STATE OF MISSOURI
LARRY J. CARVER
REGISTERED ARCHITECT

| | | | |
|---|---|---|---|
| COVER SHEET | MISSOURI DEPARTMENT OF TRANSPORTATION<br>DIVISION OF GENERAL SERVICES<br>FACILITIES MANAGEMENT | NEW MAINTENANCE & STORAGE BUILDINGS<br>DISTRICT #6 ST. CLAIR, MISSOURI | DESIGN BY: LARRY CARVER<br>DRAWN BY: LARRY CARVER<br>DATE: 8-7-09<br>CHECKED BY: J.G.S.<br>Sheet 1 OF 27 |




## GRADING NOTES

CONTRACTOR WILL BE RESPONSIBLE FOR:

- EXCAVATION OF THE SUBGRADE.
- EXCAVATING OF FOOTINGS.
- ALL BACKFILL MATERIAL INSIDE AND OUTSIDE NEW BUILDING
- CRUSHED ROCK BASE UNDER BUILDING, APPROACH SLAB, SIDEWALKS AND STOOPS ETC.
- ALL FILL AND BACKFILL MATERIAL AS REQUIRED.
- TOP SOIL, STRAWING AND SEEDING WITH TRIPLE T SEED IN ALL GRASS AREAS DISTURBED DURING CONSTRUCTION.

## LEGEND (EXISTING)

| | |
|---|---|
| 1-1/2" STEEL GAS | G |
| WATER | W |
| TELEPHONE | T |
| ELECTRIC SINGLE PHASE | E |
| STORM SEWER | S |
| SANITARY SEWER | SAN |
| GRADE CONTOURS | 98 |

## LEGEND (NEW)

| | |
|---|---|
| 1-1/2" STEEL GAS | G |
| WATER | W |
| TELEPHONE | T |
| ELECTRIC THREE PHASE | E |
| STORM SEWER | S |
| SANITARY SEWER | SAN |

## EXISTING OR PROPOSED BUILDING STRUCTURES

1. TIN COLD STORAGE BUILDING TO BE REMOVED BY MODOT.
2. HOT ASPHALT PAD SEE DETAIL L-5.
3. CONCRETE PAD STORAGE
4. 3-BIN SALT BUILDING
5. BRINE TANKS
6. CINDER RACK
7. BILLBOARD
8. MAINTENANCE BUILDING
9. FUEL ISLAND
10. HAZMAT BUILDING

## UTILITY SERVICE STRUCTURES

POWER POLE – PP
WATER MANHOLE – WMH
SANITARY MANHOLE – SMH
WATER HYDRANT – WH
LIGHT POLE – LP
SEPTIC TANK – ST
TELEPHONE PEDESTAL – TP
OIL SEPARATOR – OS
NEW WATER METER – WM
EXIST. STORM MANHOLE – SMH

## SEE SUPPLEMENTAL SHEET FOR EXISTING CONTOURS

THIS DRAWING IS INTENDED STRICTLY FOR UTILITY INFORMATION, SITE ISSUES AND OVERALL CONCEPTUAL LAYOUT. CIVIL DRAWINGS SHOW THE FINAL BUILDING LOCATIONS, SITE GRADING, ENTRY CURBS, PARKING AND RELATED INFORMATION. IT'S THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES USING MISSOURI ONE CALL AND MODOT.

1. PROPOSED 3 PHASE UNDERGROUND ELECTRIC SERVICE TO ENTIRE COMPLEX TO SERVE BUILDINGS, A, B, C, D AND E. MODOT HAS INITIATED THE SERVICE REQUEST WITH AMEREN UE TO EXPEDITE THE INSTALLATION. FOR AMEREN UE CONTACT INFORMATION CALL DAN CUPPETT AT (636) 583-7174. PREMISE LOCATION NUMBER 189309230. WORK REQUEST 23704563.
2. CONTRACTOR TO MAKE NEW 2" WATER SERVICE CONNECTION AS DIRECTED BY SUPPLIER AT EXISTING WATER LINE. SEE DETAIL C-15 FOR TYPICAL VALVE AND DRAIN INFORMATION.
3. AMEREN UE TO REMOVE OVERHEAD ELECTRICAL LINE(S) AS REQUIRED & PROVIDE A RELOCATED ELECTRICAL SERVICE TO MODOT'S CURRENT BUILDING 'D' AND THE BILLBOARD SIGN.
4. CONTRACTOR TO PROVIDE NEW 1,000 GALLON OIL & GREASE INTERCEPTOR. SEE DETAIL B-5.
5. EXISTING TREE LINE AND DITCH BETWEEN PROPOSED BUILDING 'B' AND DAVIS STREET ARE TO REMAIN UNDISTURBED DURING CONSTRUCTION. CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT ALL "GREEN SPACES".
6. 2" SCHEDULE 80 PIPES AND 19 x 33 INCH HAND HOLE ARE ABANDONED AND WILL NOT BE USED UNDER THE CURRENT DESIGN.
7. CONTRACTOR TO PROVIDE (2) 4" PVC SCHEDULE 80 CONDUITS WITH LONG SWEEP ELBOWS FROM MODOT RIGHT OF WAY TO ROOM 105 AND TERMINATE 12" A.F.F. ENDS ARE TO BE CAPPED AND IDENTIFIED WITH PHYSICAL MARKER FOR A FUTURE CONNECTION BY OTHERS.
8. NEW OVERHEAD ELECTRIC SINGLE PHASE SERVICE BY AMEREN UE FOR TEMPORARY SERVICE TO BUILDING 'D' AND THE BILLBOARD. FOR AMEREN UE CONTACT INFORMATION CALL DAN CUPPETT AT (636) 583-7174. PREMISE LOCATION NUMBER 189309230. WORK REQUEST #23704604005.
9. CONTRACTOR TO PROVIDE ALL STORM SEWER LINES AS INDICATED ON ALL PROPOSED BUILDINGS TO DAYLIGHT. THE LAST 10 FEET SHALL BE SCHEDULE 40 PIPE.
10. CONTRACTOR WILL BE ABLE TO USE ABANDONED SERVICE LINE FROM 100 AMP 3-PHASE PANEL LOCATED AT BRINE AND FUEL PUMPS "HEX 5" TO "BRANGLE 12" FOR TEMPORARY ELECTRIC FOR CONSTRUCTION POWER.
11. EXISTING 3/4" YARD HYDRANT LOCATION IS ABANDONED AND WAS DISCONNECTED AT THE SOURCE BY MODOT BEHIND BUILDING 'D'.
12. LOCATION OF OLD SINGLE-PHASE SERVICE CURRENTLY ABANDONED THAT FEED THE OLD COLD STORAGE BUILDING AND BRINE AND FUEL PUMPS.
13. COLD STORAGE BUILDING IS UNDER CONTRACT FOR REMOVAL BY OTHERS. REMOVAL WILL INCLUDE THE STRUCTURE, BEAM FOOTINGS, PIERS AND VARIOUS FLOORS WITHIN THE STRUCTURE, THE SITE WILL THEN BE ROUGH GRADED TO APPROXIMATE CURRENT ELEVATIONS.
14. CONTRACTOR TO PROVIDE NEW SANITARY SEWER AS SHOWN TO EXISTING 6" SANITARY SEWER LINE AS REQUIRED FOR A FUNCTIONAL SERVICE. SEE ATTACHED CIVIL DRAWINGS FOR DETAILS.
15. CONTRACTOR TO REMOVE EXISTING SANITARY CLEAN-OUT AS REQUIRED AND REPLACE WITH A NEW MANHOLE. MAKE CONNECTIONS AS REQUIRED LINKING THE NEW AND EXISTING SANITARY LATERALS. SEE ATTACHED CIVIL DRAWINGS FOR DETAILS.
16. APPROXIMATE PROPOSED GAS SERVICE LOCATION FOR BUILDING 'A'. MODOT HAS INITIATED CONTACTS WITH LACLEDE GAS FOR MAIN EXTENSION TO THE SITE & SERVICE TO THE STRUCTURE. MISSOURI NATURAL GAS COMPANY CONTACT IS JOHN TOBBEN AT (636) 584-8440.
17. MODOT HAS CURRENT CONTRACT TO REMOVE "SELECT" TREES AS MARKED IN THE CONSTRUCTION AREA IN PREPARATION OF THE NEW STRUCTURES. TREES BETWEEN BUILDING 'B' AND DAVIS STREET ARE NOT TO BE DISTURBED IN ORDER TO MAINTAIN A GREEN SPACE. REMAINING TREE STUMPS ARE TO BE REMOVED BY GENERAL CONTRACTOR OFF-SITE.
18. APPROXIMATE PROPOSED GAS SERVICE LOCATION FOR BUILDING 'D'. MODOT HAS INITIATED CONTACTS WITH LACLEDE GAS FOR MAIN EXTENSION TO THE SITE AND SEVRICE TO THE STRUCTURE. MISSOURI NATURAL GAS COMPANY CONTACT IS JOHN TOBBEN AT (636) 584-8440. THE SERVICE TO BUILDING 'D' IS NOT PART OF THIS CONTRACT. REGISTER #MONS213-09.
19. EXISTING UNDERGROUND ELECTRIC SERVICE BETWEEN BUILDING 'D' AND BRINE AND FUEL PUMPS "HEX 5" AND PLASTIC DRAIN PIPE ARE NOT TO BE DISTURBED DURING CONSTRUCTION OF BUILDING 'E'.
20. CONTRACTOR TO REMOVE EXISTING OLD LANDMARK "ARCH" FOUNDATION AND DISCARD OFF-SITE.
21. CONTRACTOR TO INSTALL (DIRECTIONAL BORE) ONE 2" SCHEDULE 80 PVC DATA CONDUIT FROM BUILDING 'A' 105 DATA AND CAP 12" A.F.F. TO BUILDING 'D' AND PROVIDE A RISER CONDUIT AND PENETRATION THROUGH EXISTING WALLS FOR FUTURE COMMUNICATION USE.
22. EXISTING 3-PHASE OVERHEAD SERVICE, METER AND POLE SHALL BE REMOVED BY AMEREN UE ONCE THE EXISTING HORIZONTAL ASPHALT TANK IS ABANDONED.
23. CONTRACTOR TO DISCONNECT AND COORDINATE REMOVAL OF EXISTING SINGLE PHASE AMEREN UE SERVICE FROM THE CURRENT SERVICE ONCE 3-PHASE IS ESTABLISHED FROM BUILDING 'A'. WORK INCLUDES REMOVAL OF ALL WIRING FROM INSIDE THE BUILDING, THE METER BASE, WEATHER HEAD AND AERIAL CABLE TO THE POLE.
24. CONTRACTOR TO PRESERVE THE SUBSURFACE MONITORING WELL DURING CONSTRUCTION. IN THE EVENT A SMALL RETAINING WALL IS REQUIRED IT WILL BE AT THE CONTRACTOR'S EXPENSE.
25. CONTRACTOR IS RESPONSIBLE FOR ALL BACKFILL MATERIAL WITHIN THE LIMITS OF THE STRUCTURES AND AS NEEDED FOR THE REMAINING SITE AS INDICATED ON THE CIVIL PLANS.
26. EXISTING ENTRANCE TO BE CLOSED BY MODOT UPON COMPLETION OF THE CONTRACT.
27. EXISTING 12" CMP AND NEW COMPLEX ENTRANCE.
28. PROPERTY CORNERS (PINS) ARE TO PROTECTED AS MUCH AS POSSIBLE DURING THE CONSTRUCTION PROJECT. IF THEY ARE TO BE REMOVED THE CONTRACTOR SHALL CONTACT MODOT CREW TO INSURE THAT THE PINS ARE ABLE TO BE REPLACED NEAR THE END OF THE PROJECT.
29. EXISTING PLASTIC DRAIN PIPE UNDER ASPHALT SLAB ARE NOT TO BE DISTURBED DURING CONSTRUCTION OF BUILDING 'E'.
30. NEW 2-1/2" PVC CONDUIT FROM BUILDING 'A' MDP TO EXISTING 2-1/2" PVC STUBBED CONDUIT FOR NEW ELECTRICAL SERVICE FEED FOR BUILDING 'D'.
31. CONTRACTOR HAS THE OPTION TO TRENCH OR BORE UNDER DAVIS STREET FOR THE ELECTRIC OR WATER SERVICES. THE CITY OF ST. CLAIR, BUTCH TERRY, DID NOT HAVE A PREFERENCE.

A/2 SITE PLAN
SCALE: 1"= 30'-0"

NORTH

STATE OF MISSOURI
LARRY D. CARVER
NUMBER A-2101
REGISTERED ARCHITECT

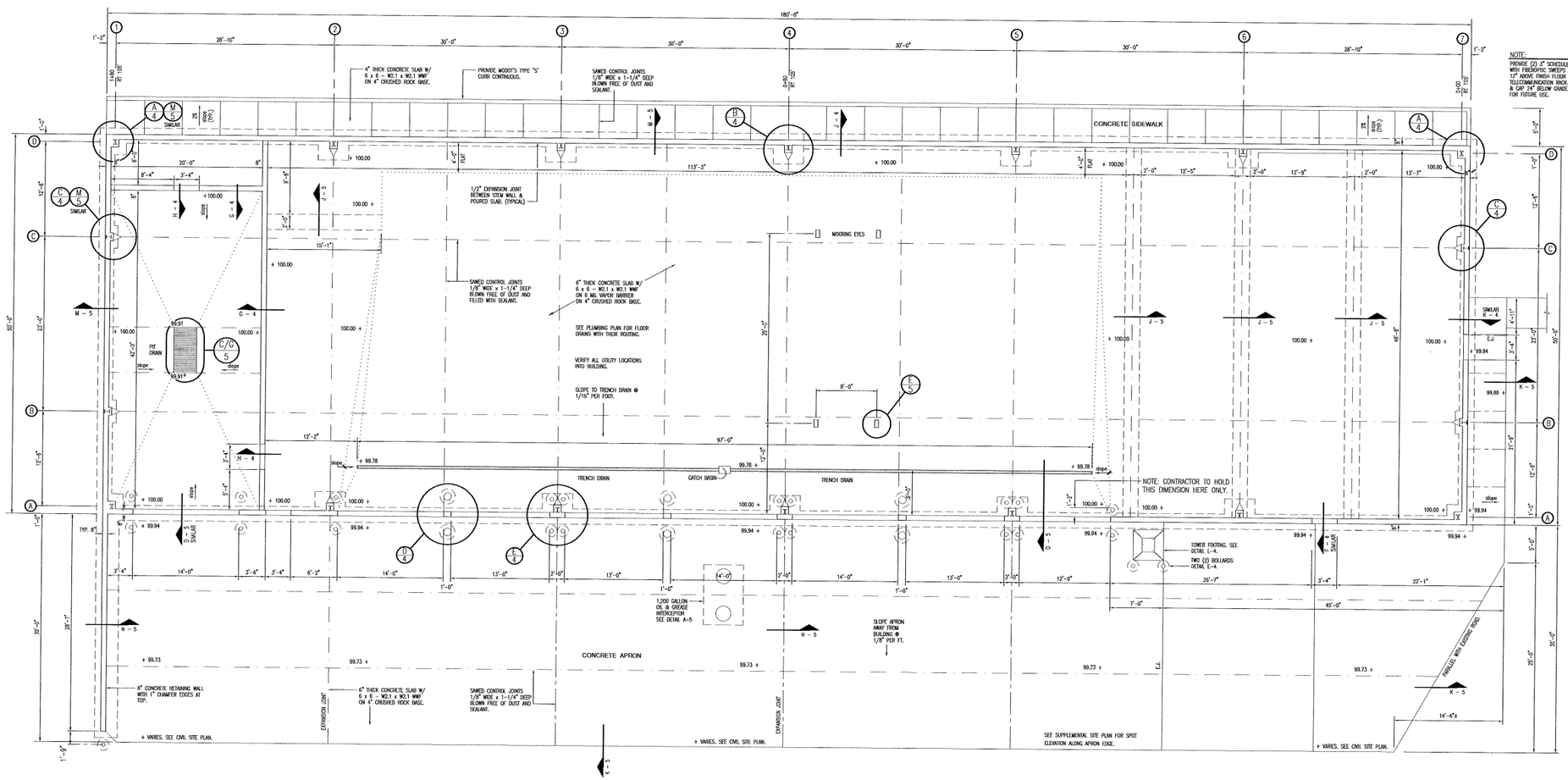
# SITE PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
|---|---|
| DESIGNED BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 2 OF 27 |

NOTE:
PROVIDE AND INSTALL BEFORE CONCRETE SLAB POUR ANY STAND PIPES IN 112 WASH EQUIPMENT AS RECOMMENDED BY THE CARWASH EQUIPMENT PROVIDER.




NOTE:
PROVIDE (2) 3" SCHEDULE 40 PVC CONDUIT WITH FIBEROPTIC SWEEPS TO 105 DATA. EXTEND 12" ABOVE FINISH FLOOR & CAP BELOW THE TELECOMMUNICATION ROOK. EXTEND 6'-0" EAST & CAP 24" BELOW GRADE. INCLUDE PULL COND FOR FUTURE USE.

A/3 MAINTENANCE BUILDING 'A'
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

STATE OF MISSOURI
LARRY G. CARVER
ARCHITECT
REGISTERED ARCHITECT

# FOUNDATION PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
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| DESIGN BY: | LARRY CARVER |
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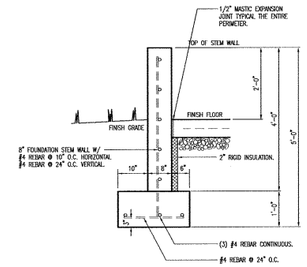
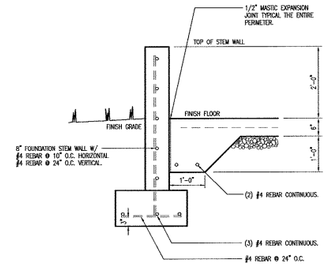
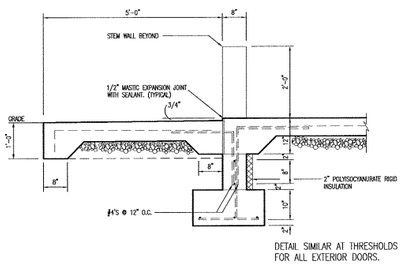
| Sheet | 3 OF 27 |



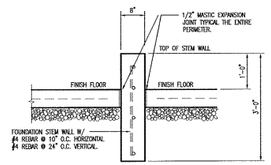

J 4 EXTERIOR STEM WALL
SCALE: 1/2" = 1'-0"



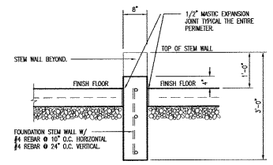

K 4 EXTERIOR STEM WALL
SCALE: 1/2" = 1'-0"



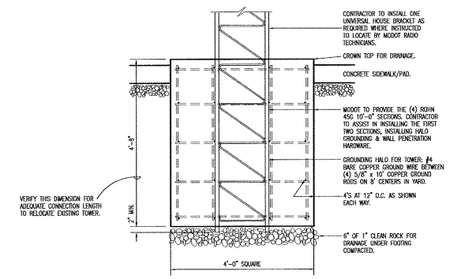

F 4 CONCRETE STOOP SECTION
SCALE: 1/2" = 1'-0"




G 4 INTERIOR STEM WALL
SCALE: 1/2" = 1'-0"



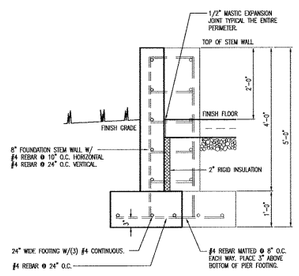

H 4 INTERIOR STEM WALL @ DOOR
SCALE: 1/2" = 1'-0"



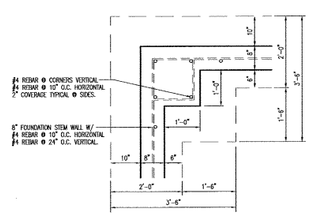

L 4 TOWER FOOTING
SCALE: 1/2" = 1'-0"

## CONCRETE NOTES:

1. CONCRETE WORK SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (A.C.I.) MANUAL OF CONCRETE PRACTICE.
2. 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 CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
4. ALL CONCRETE SHALL BE TYPE 1 CEMENT WITH A COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS WITH 4" SLUMP.
5. CONCRETE EXPOSED TO THE EXTERIOR SHALL RECEIVE AIR ENTRAINMENT 5% +/- 2%.
6. FOUNDATION BEAMS AND FOOTINGS SHALL BEAR A MINIMUM OF 12 INCHES INTO UNDISTURBED SOIL AND 36 INCHES MINIMUM BELOW FINISH GRADE.
7. DEFORMED STEEL REINFORCING BARS SHALL BE: #4 AND LARGER, ASTM A615 GRADE 60.
8. PROVIDE CORNER REINFORCING BARS WITH 12" MINIMUM LAP EQUAL IN SIZE AND GRADE TO CONNECTING BARS.
9. EXTERIOR CONCRETE FLATWORK SHALL HAVE A LIGHT BROOM FINISH.
10. 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. ENTIRE PERIMETER OF BUILDING TO RECEIVE 2" POLYISOCYANURATE RIGID INSULATION BOARD.
12. SAWED CONTROL JOINTS SHALL BE CLEANED FREE OF ALL DEBRIS AND FILLED WITH DOW CORNING 888 SILICONE JOINT SEALANT OR AN APPROVED EQUAL.
13. ALL EXPOSED INTERIOR CONCRETE FLOORS SHALL RECEIVE A CURING/SEALING FINISH PER SPECIFICATION SECTION 03346.
14. COPPER PIPING RUN THROUGH CONCRETE WORK SHALL BE RUN THROUGH PVC SLEEVES.
15. CONCRETE COLUMN PER DIMENSIONS MAY VARY PER BUILDING MANUFACTURER. CONTRACTOR MUST INCLUDE IN HIS BID ALL MATERIALS AND LABOR DUE TO ANY VARIATION FROM DRAWINGS.
16. PROVIDE PRECAST TRENCH DRAIN & CATCH BASIN AS SPECIFIED. INSTALL AS RECOMMENDED BY THE MANUFACTURER. ACTUAL CONSTRUCTION AND INSTALLATION MAY REQUIRE SOME FIELD MODIFICATIONS. ANY DEVIATION FROM THE DRAWINGS AND SPECIFICATIONS SHALL HAVE PRIOR APPROVAL FROM THE ARCHITECT OR BUILDING INSPECTOR.
17. SEE SPECIFICATION SECTION 03300 CONCRETE FOR ADDITIONAL INFORMATION.

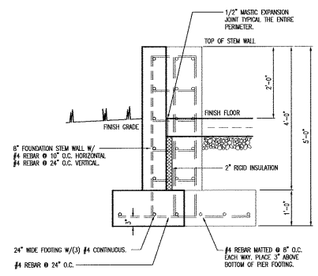



ELEVATION

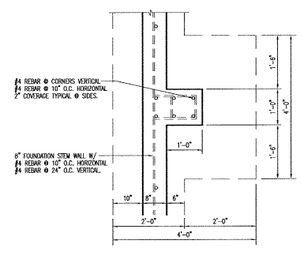



PLAN VIEW

A 4 CORNER COLUMN FOOTING
SCALE: 1/2" = 1'-0"

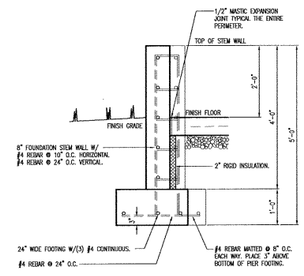



ELEVATION

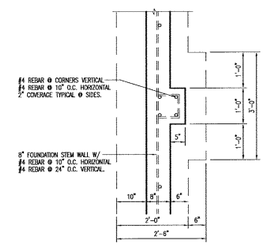



PLAN VIEW

B 4 SIDEWALL COLUMN FOOTING
SCALE: 1/2" = 1'-0"

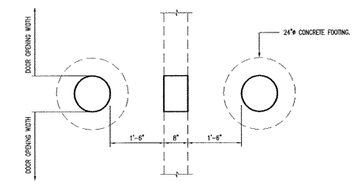



ELEVATION

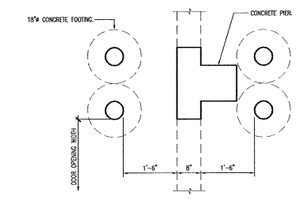



PLAN VIEW

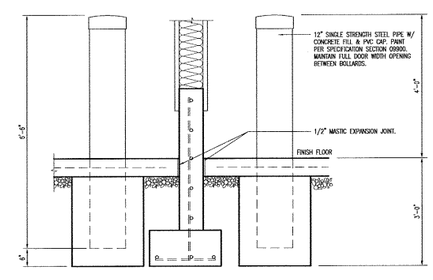
C 4 ENDWALL FRAMING COLUMN
SCALE: 1/2" = 1'-0"




PLAN

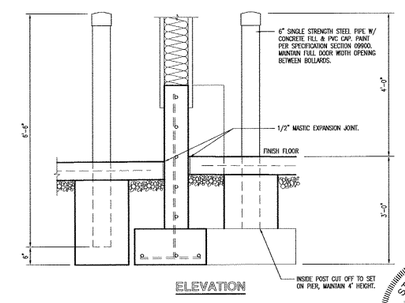



PLAN




ELEVATION

D 4 BOLLARD @ FOOTING DETAIL
SCALE: 1/2" = 1'-0"




ELEVATION

E 4 BOLLARD @ PIER DETAIL
SCALE: 1/2" = 1'-0"

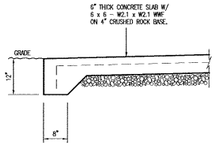
STATE OF MISSOURI
JAMES C. GRANT
NUMBER A-6169
REGISTERED ARCHITECT

# FOUNDATION DETAILS

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

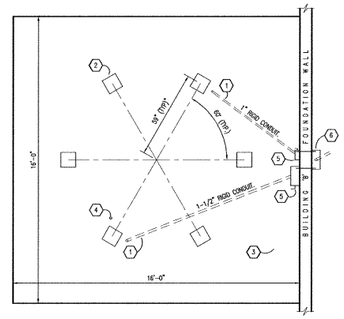
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 4 OF 27 |



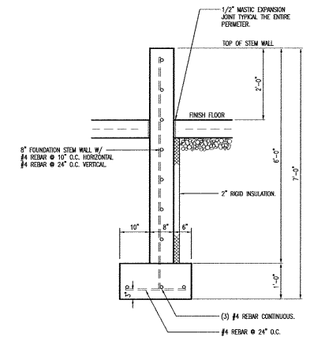

K 5 SIDEWALK SECTION
SCALE: 1/2" = 1'-0"

NOTES:

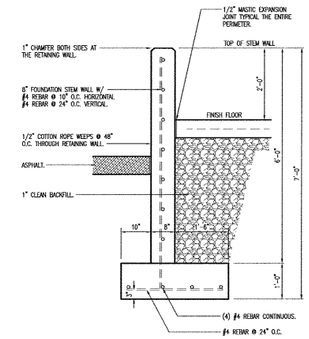
1. CONDUIT LOCATION TO BE VERIFIED IN FIELD PRIOR TO PLACEMENT.
2. VERTICAL ASPHALT TANK ANCHOR PLATES (6 - REQUIRED) TO BE SUPPLIED BY MODOT AND INSTALLED BY CONTRACTOR.
3. 16' x 16' x 12" CONCRETE PAD ON 4" OF COMPACTED BASE ROCK. WITH #5's CENTERED @ 12" O.C. EACH WAY. BROOM FINISH.
4. 3/4" x 10'-0" COPPER GROUND ROD TO 6" A.F.F.
5. NEMA (AS REQUIRED) DISCONNECT.
6. 12" x 12" x 4" J-BOX WITH 1-1/2" RIGID CONDUIT TO PANEL "A" IN BUILDING "B". SEE DETAIL A-19.



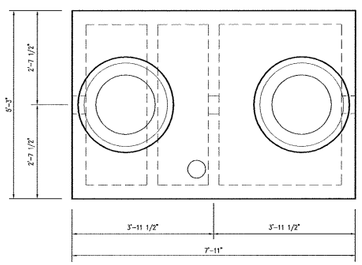

BUILDING 'B'
L 5 HEATED ASPHALT TANK PAD
SCALE: 1/4" = 1'-0"



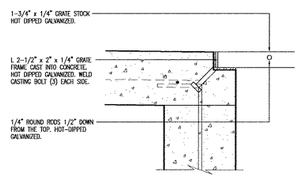

M 5 FOUNDATION WALL
SCALE: 1/2" = 1'-0"



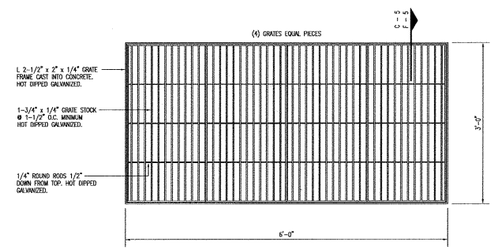

N 5 FOUNDATION WALL
SCALE: 1/2" = 1'-0"



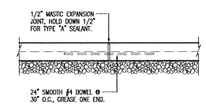

PLAN VIEW



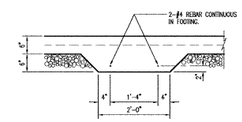

F 5 GRATE SECTION
SCALE: 1-1/2" = 1'-0"



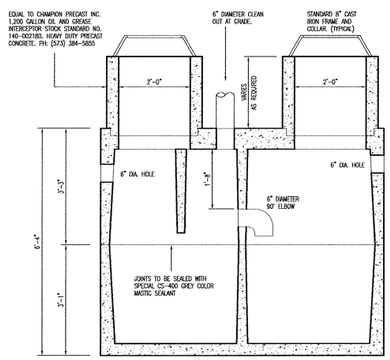

G 5 PIT DRAIN GRATE
SCALE: 3/4" = 1'-0"




H 5 EXPANSION JOINT
SCALE: 1/2" = 1'-0"

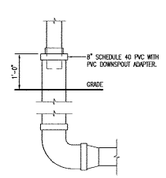



J 5 INTERIOR BEARING FOOTING
SCALE: 1/2" = 1'-0"

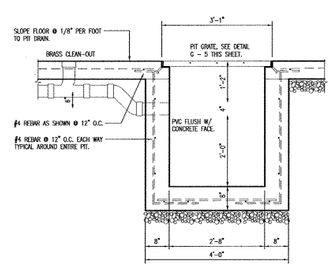



SECTION

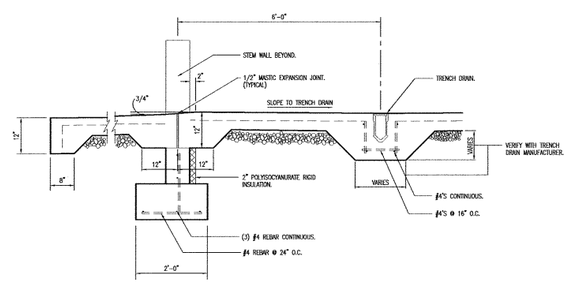
A 5 1,200 GALLON OIL SEPARATOR
SCALE: 1/2" = 1'-0"



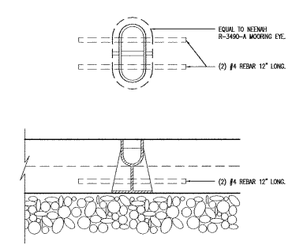

TYPICAL
B 5 DOWNSPOUT ADAPTER
SCALE: 1/2" = 1'-0"




C 5 PIT DRAIN
SCALE: 1/2" = 1'-0"




D 5 APPROACH APRON
SCALE: 1/2" = 1'-0"




E 5 MOORING EYE
SCALE: 1-1/2" = 1'-0"

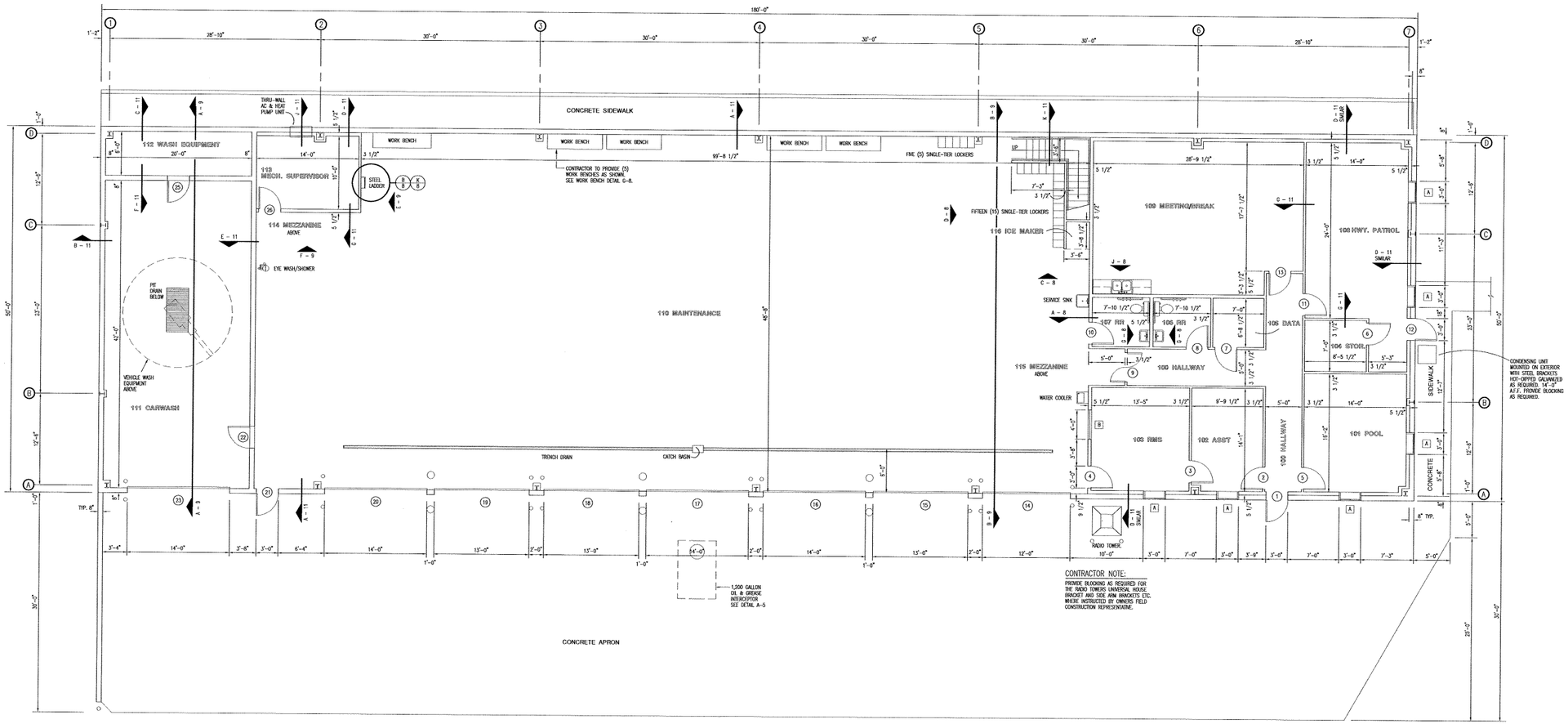
STATE OF MISSOURI
JAMES HOLD GRAHAM SCARFE
NUMBER A-6101
REGISTERED ARCHITECT

# FOUNDATION DETAILS

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 5 OF 27




A/6 MAINTENANCE BUILDING 'A' FLOOR PLAN
SCALE: 1/8" = 1'-0"

STATE OF MISSOURI
LARRY D. CARVER
COLUMBIA
C-4101
REGISTERED ARCHITECT
8-7-09

# FLOOR PLAN - BUILDING A

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

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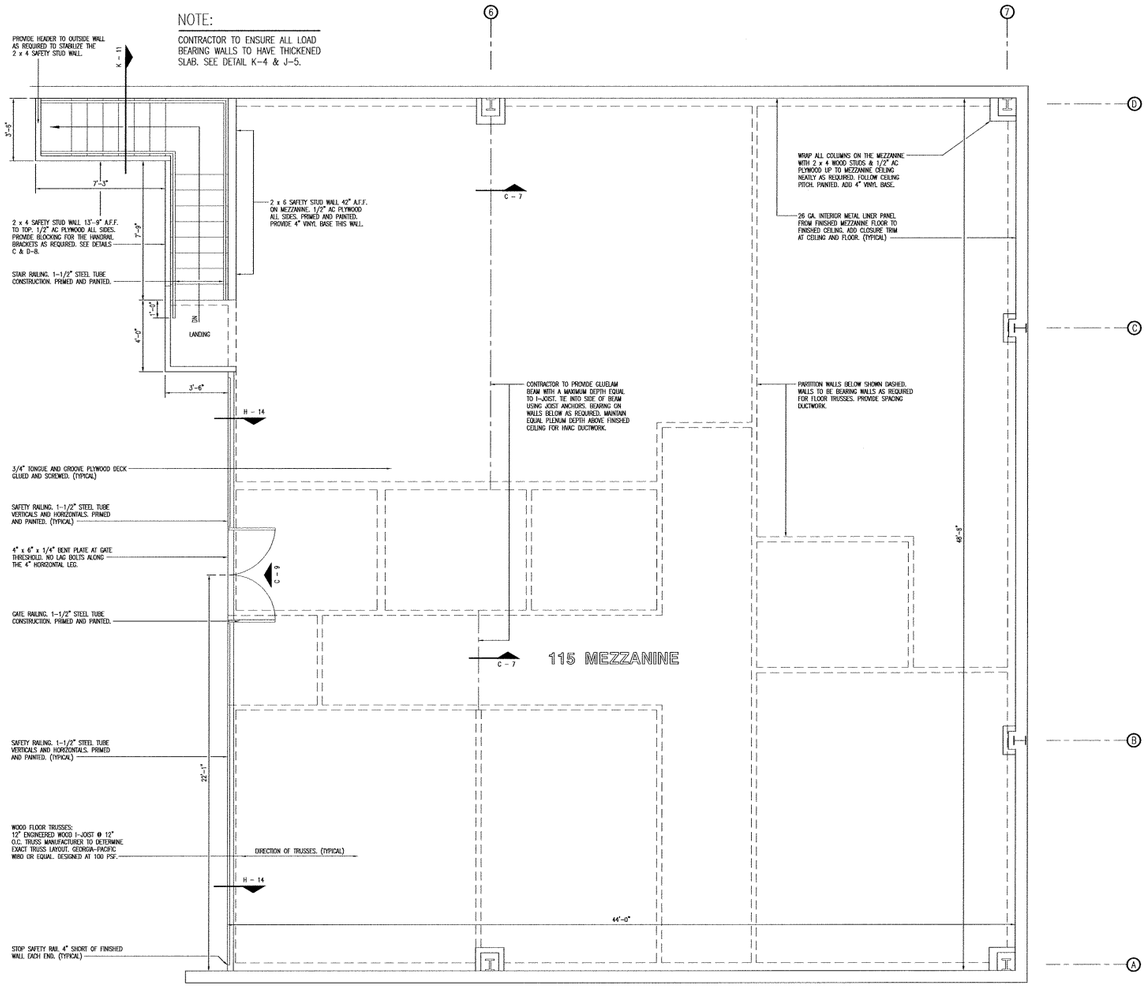
| Sheet | 6 OF 27 |

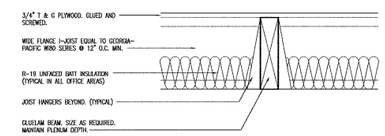
NOTE:

CONTRACTOR TO ENSURE ALL LOAD BEARING WALLS TO HAVE THICKENED SLAB. SEE DETAIL K-4 & J-5.

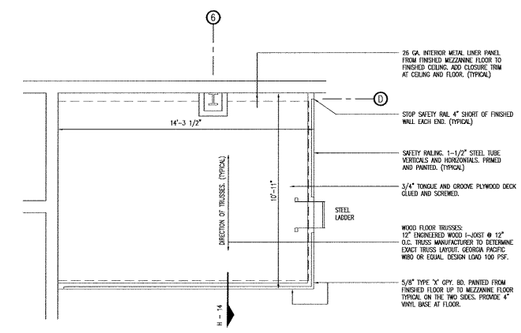



A 7 **115 MEZZANINE PLAN**
SCALE: 1/4" = 1'-0"

NORTH




C 7 **BEAM DETAIL**
SCALE: 1" = 1'-0"




B 7 **114 MEZZANINE PLAN**
SCALE: 1/4" = 1'-0"

NORTH

# MEZZANINE PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

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| DATE: | 8-7-09 |
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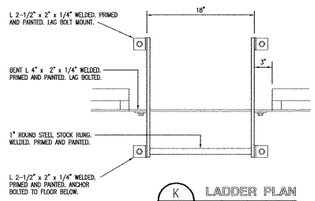
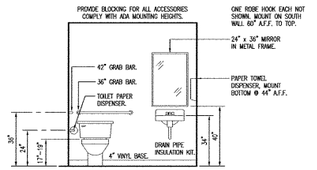
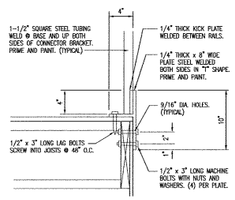
| Sheet | 7 OF 27 |



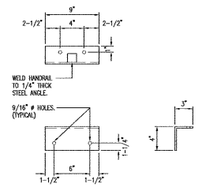

K 8 **LADDER PLAN**
SCALE: 1" = 1'-0"



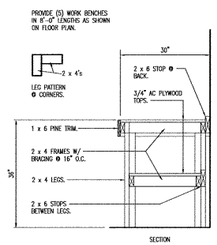

L 8 107 RR – 106 RR REVERSED
**RESTROOM ELEVATION**
SCALE: 1/4" = 1'-0"

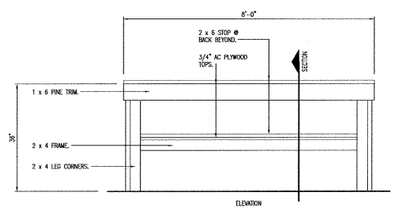



E 8 **KICK PLATE DETAIL**
SCALE: 1" = 1'-0"

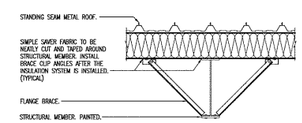



F 8 **STAIR RAIL CONNECTION**
SCALE: 1" = 1'-0"



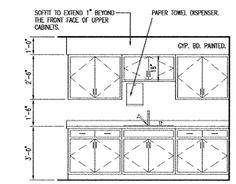




G 8 **WORK BENCH DETAIL**
SCALE: 1/2" = 1'-0"




H 8 **FLANGE BRACING**
SCALE: 1/2" = 1'-0"

NOTE: PROVIDE WOOD BLOCKING DURING STUD WALL CONSTRUCTION AS REQUIRED.




CABINET CONSTRUCTION

CABINETS – PLASTIC LAMINATE ON 3/4" HIGH DENSITY PARTICLE BOARD WITH WHITE MELAMINE INTERIORS, WIRE PULLS, AND ADJUSTABLE SHELVES.

DRAWERS TO HAVE METAL GLIDES, WIRE PULLS, AND MELAMINE INTERIORS.

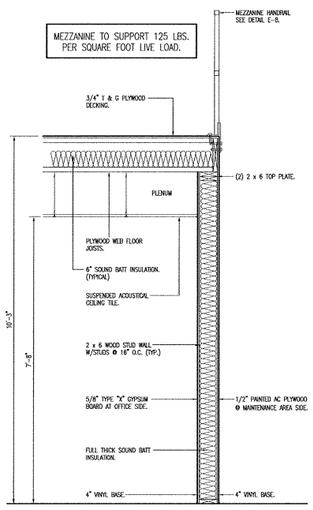
COUNTER TOP & BACKSPLASH – PLASTIC LAMINATE ON 3/4" HIGH DENSITY PARTICLEBOARD. CAULK AS REQ'D.

PROVIDE VINYL BASE AT TOE-KICK.

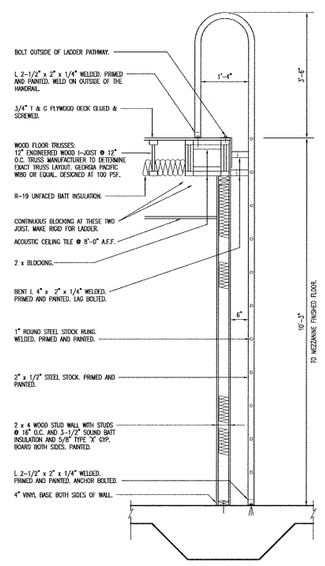
UPPER CABINETS ARE 12" DEEP.

LOWER CABINETS ARE 24" DEEP.

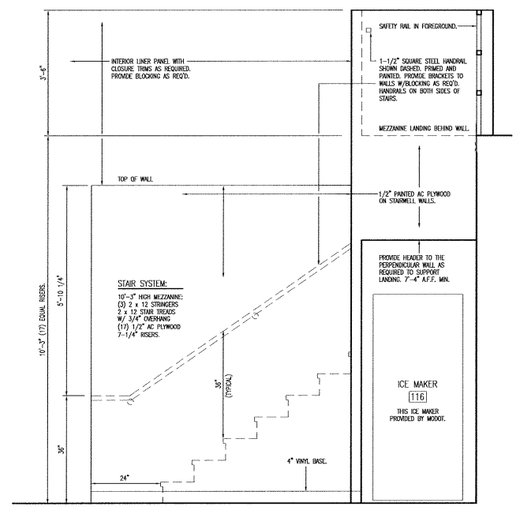
J 8 **BREAKROOM CABINET LAYOUT**
SCALE: 1/4" = 1'-0"



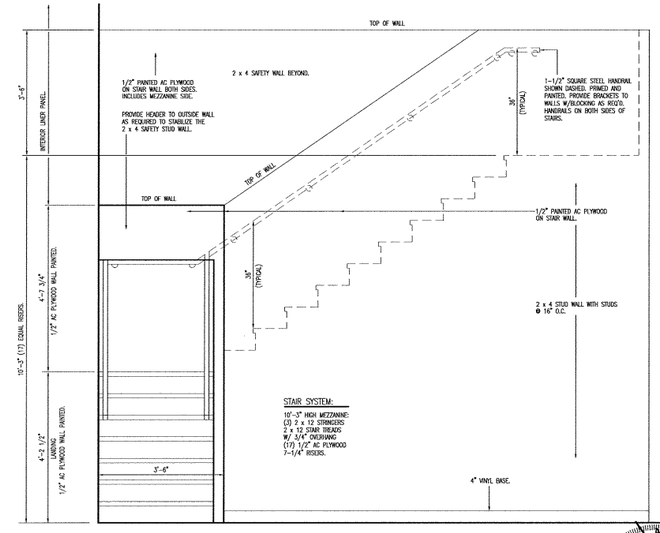

A 8 **MEZZANINE WALL SECTION**
SCALE: 1/2" = 1'-0"



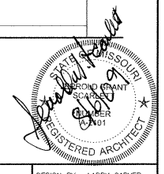

B 8 **LADDER PROFILE**
SCALE: 1/2" = 1'-0"




C 8 LOCKERS NOT SHOWN.
**MEZZANINE STAIR SYSTEM**
SCALE: 1/2" = 1'-0"




D 8 LOCKERS NOT SHOWN.
**MEZZANINE STAIR SYSTEM**
SCALE: 1/2" = 1'-0"

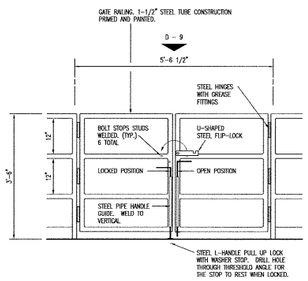



# INTERIOR ELEVATIONS

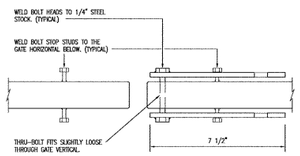
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

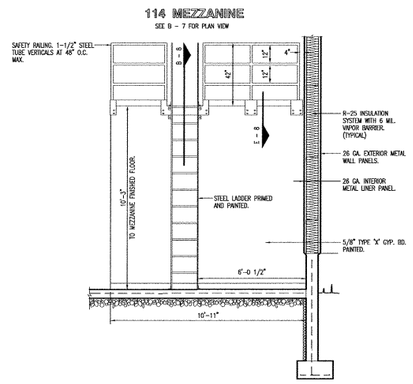
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 8 OF 27 |



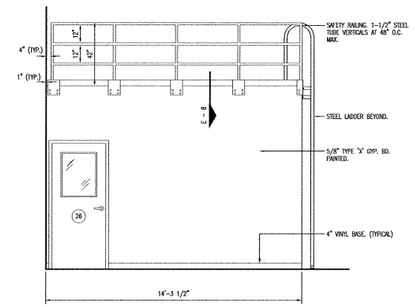

C/9 115 MEZZANINE SIDE
## GATE DETAIL
SCALE: 1/2" = 1'-0"




D/9 TOP VIEW - OPEN POSITION
## STEEL FLIP-LOCK
SCALE: 3" = 1'-0"




E/9 113 MECH SUPERVISOR
## ELEVATION
SCALE: 1/4" = 1'-0"




F/9 113 MECH SUPERVISOR
## ELEVATION
SCALE: 1/4" = 1'-0"

### CONTRACTOR NOTES:

HAND WASH BOOM HOSE TO BE OF SUFFICIENT LENGTH TO FULLY WASH VEHICLE FROM FINISHED FLOOR.

PROVIDE HOOK MOUNTED ON WALL TO HOLD BACK HOSE.

GENERAL CONTRACTOR TO PROVIDE ADEQUATE BLOCKING FOR WASH ROOM EQUIPMENT ATTACHMENT. VERIFY.

PROVIDE WALL BRACKET TO HOLD HAND WAND. PROVIDE ADEQUATE BLOCKING FOR ATTACHMENT OF BRACKET.




A/9 BUILDING SECTION - 111 CARWASH
SCALE: 1/4" = 1'-0"




B/9 BUILDING SECTION - 110 MAINTENANCE
SCALE: 1/4" = 1'-0"

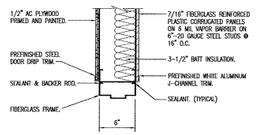
STATE OF MISSOURI
CAROLL GRANT CARVER
NUMBER A-2101
REGISTERED ARCHITECT

# BUILDING SECTIONS

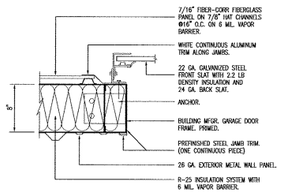
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

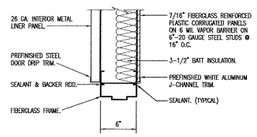
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 9 OF 27 |



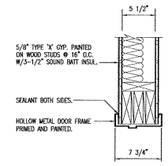

P 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



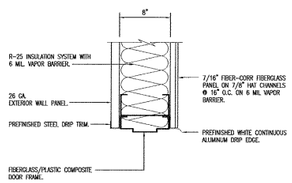

Q 10 GARAGE DOOR JAMB
SCALE: 1" = 1'-0"



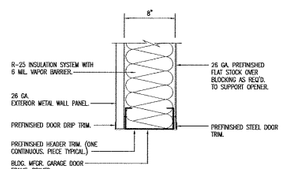

R 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



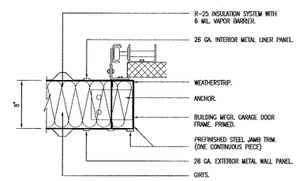

S 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



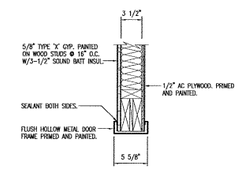

H 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



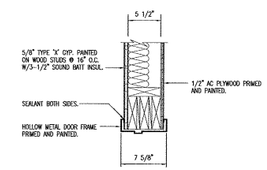

J 10 GARAGE DOOR HEAD
SCALE: 1" = 1'-0"



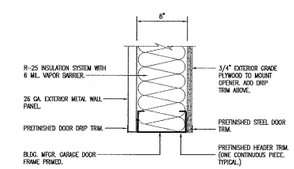

K 10 GARAGE DOOR JAMB
SCALE: 1" = 1'-0"



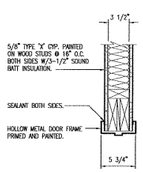

L 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



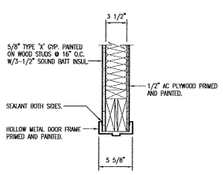

M 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



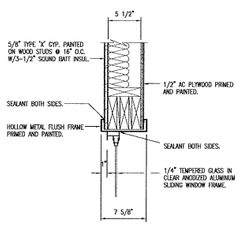

N 10 CEILING GARAGE DOOR HEAD
SCALE: 1" = 1'-0"



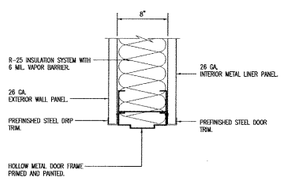

A 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



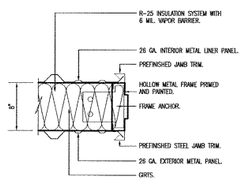

B 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"



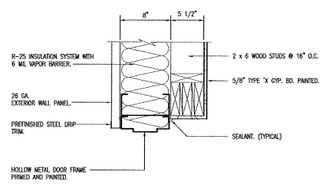

C 10 JAMB & SILL SIMILAR WINDOW HEAD
SCALE: 1" = 1'-0"



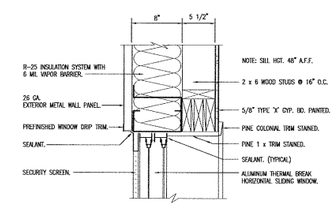

D 10 DOOR HEAD
SCALE: 1" = 1'-0"



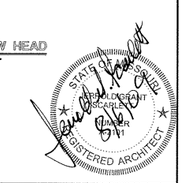

E 10 DOOR JAMB
SCALE: 1" = 1'-0"




F 10 JAMB SIMILAR DOOR HEAD
SCALE: 1" = 1'-0"




G 10 JAMB & SILL SIM. WINDOW HEAD
SCALE: 1" = 1'-0"

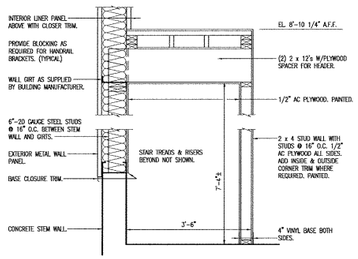



# JAMB DETAILS

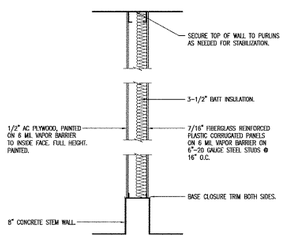
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

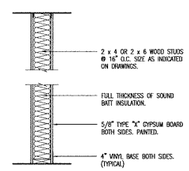
DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 10 OF 27



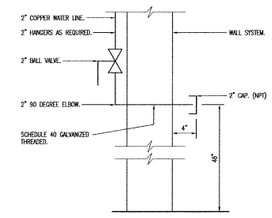

K/11 HEADER @ STAIR SECTION
SCALE: 1/2" = 1'-0"



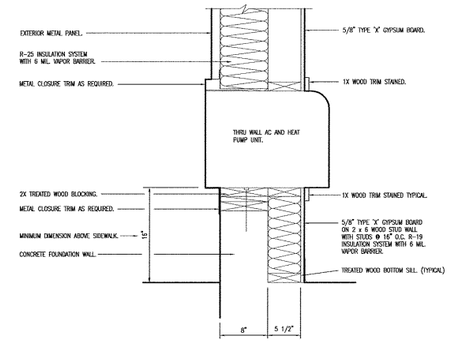

F/11 INTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"



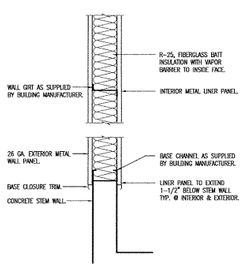

G/11 INTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"



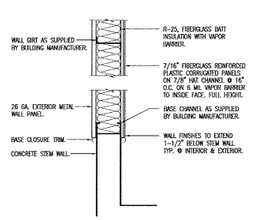

EXTERIOR WALL
H/11 2" PIPE DETAIL
SCALE: NONE



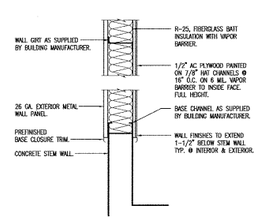

J/11 HVAC UNIT SILL
SCALE: 1" = 1'-0"



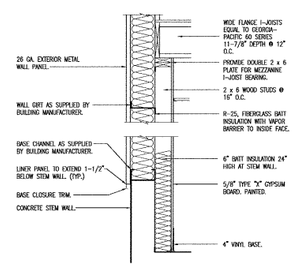

A/11 EXTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"



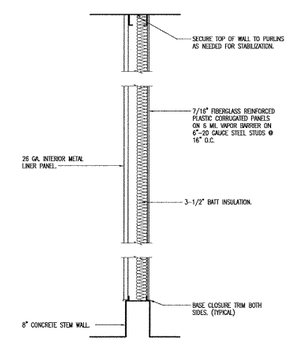

B/11 EXTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"




C/11 EXTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"




D/11 EXTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"



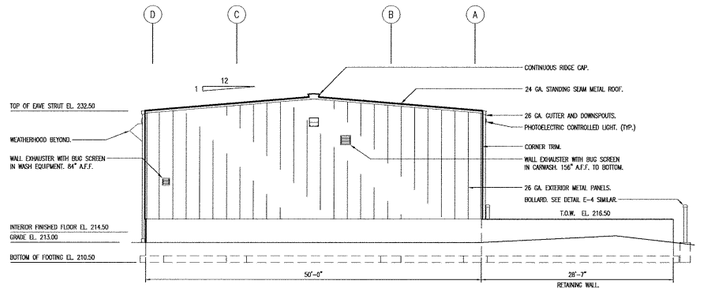

E/11 INTERIOR WALL SECTION
SCALE: 1/2" = 1'-0"

# WALL SECTIONS

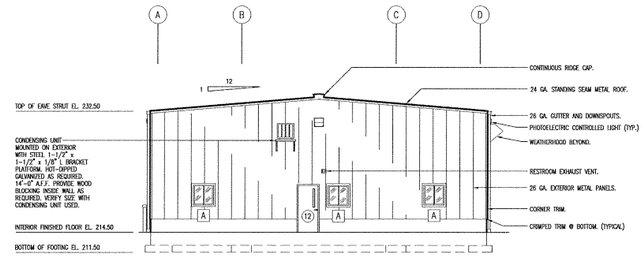
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

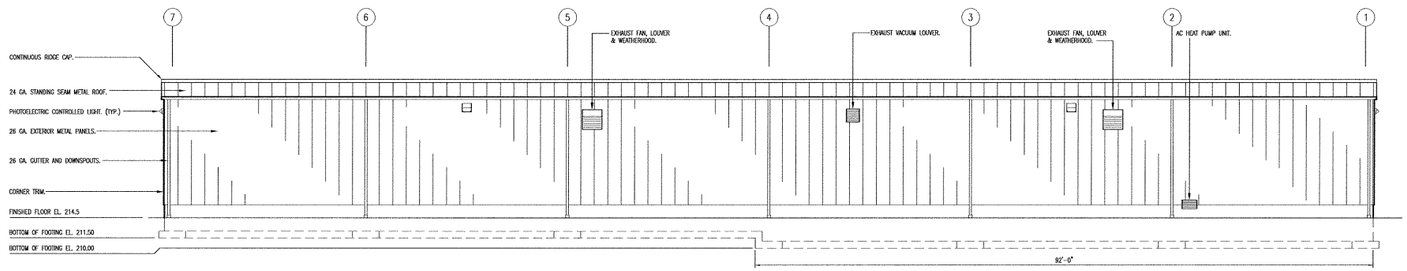
DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 11 OF 27



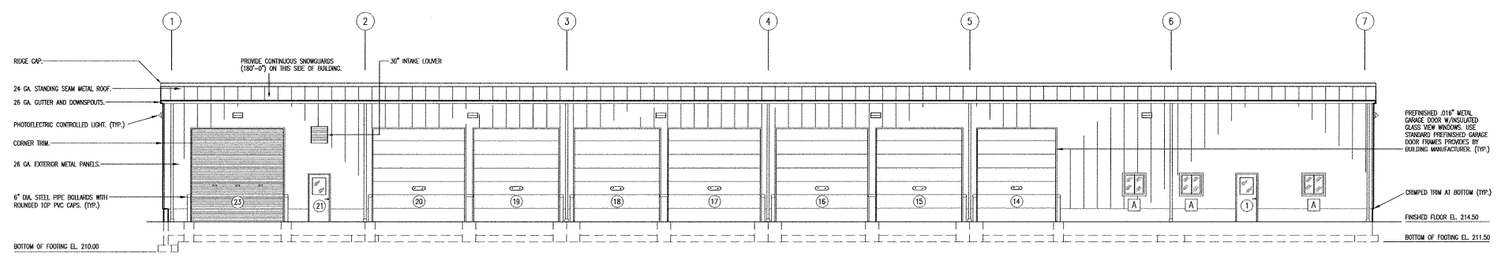

C/12 MAINTENANCE BUILDING 'A'
## WEST ELEVATION
SCALE: 3/32" = 1'-0"



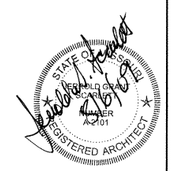

D/12 MAINTENANCE BUILDING 'A'
## EAST ELEVATION
SCALE: 3/32" = 1'-0"




B/12 MAINTENANCE BUILDING 'A'
## NORTH ELEVATION
SCALE: 3/32" = 1'-0"




A/12 MAINTENANCE BUILDING 'A'
## SOUTH ELEVATION
SCALE: 3/32" = 1'-0"




# ELEVATIONS

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

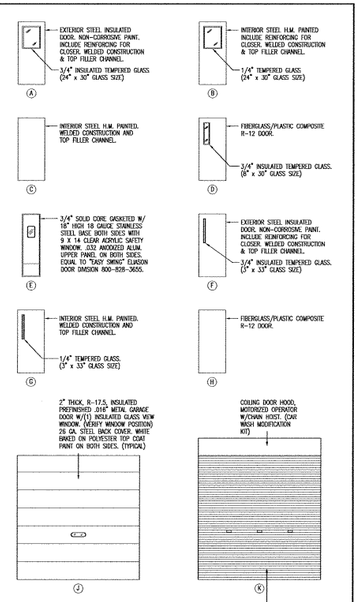
NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

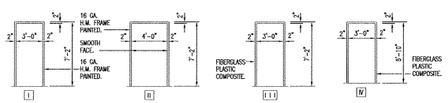
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.C.S. |
| Sheet | 12 OF 27 |

## DOOR SCHEDULE

MAINTENANCE BUILDING "A"

| NO. | SIZE | SWING | DR. TYPE | FRM. TYPE | DETAIL | DEPTH | HDWR. GRP. |
|---|---|---|---|---|---|---|---|
| 1 | 3'-0" x 7'-0" x 1-3/4" | LHR | A | I | D & E-10 | 8" | SEE ATTACHMENT IN SPECIFICATIONS |
| 2 | 3'-0" x 7'-0" x 1-3/4" | LH | B | I | A-10 | 5-3/4" | |
| 3 | 3'-0" x 7'-0" x 1-3/4" | RH | B | I | A-10 | 5-3/4" | |
| 4 | 3'-0" x 7'-0" x 1-3/4" | RH | B | I | M-10 | 7-5/8" | |
| 5 | 3'-0" x 7'-0" x 1-3/4" | RH | B | I | A-10 | 5-3/4" | |
| 6 | 3'-0" x 7'-0" x 1-3/4" | RHR | C | I | B-10 | 5-5/8" | |
| 7 | 3'-0" x 7'-0" x 1-3/4" | RHR | C | I | B-10 | 5-5/8" | |
| 8 | 3'-0" x 7'-0" x 1-3/4" | RH | C | I | A-10 | 5-3/4" | |
| 9 | (2) 2'-0" x 7'-0" x 3/4" | --- | E | II | L-10 | 5-5/8" | |
| 10 | 3'-0" x 7'-0" x 1-3/4" | RH | C | I | M-10 | 7-5/8" | |
| 11 | 3'-0" x 7'-0" x 1-3/4" | RH | G | I | A-10 | 5-3/4" | |
| 12 | 3'-0" x 7'-0" x 1-3/4" | LHR | F | I | F-10 | 8" | |
| 13 | 3'-0" x 7'-0" x 1-3/4" | LHR | B | I | A-10 | 5-3/4" | |
| 14 | 12'-0" x 14'-0" | --- | J | --- | J & K-10 | --- | |
| 15 | 13'-0" x 14'-0" | --- | J | --- | J & K-10 | --- | |
| 16 | 14'-0" x 14'-0" | --- | J | --- | J & K-10 | --- | |
| 17 | 14'-0" x 14'-0" | --- | J | --- | J & K-10 | --- | |
| 18 | 13'-0" x 14'-0" | --- | J | --- | J & K-10 | --- | |
| 19 | 13'-0" x 14'-0" | --- | --- | --- | J & K-10 | --- | |
| 20 | 14'-0" x 14'-0" | --- | --- | --- | J & K-10 | --- | |
| 21 | 3'-0" x 7'-0" x 1-3/4" | LHR | A | --- | D & E-10 | 8" | |
| 22 | 3'-0" x 6'-8" x 1-3/4" | RH | D | IV | R-10 | 6" | |
| 23 | 14'-0" x 14'-0" | --- | K | --- | N-10 | --- | |
| 24 | NOT USED | --- | --- | --- | --- | --- | |
| 25 | 3'-0" x 6'-8" x 1-3/4" | LHR | H | IV | R-10 | 6" | |
| 26 | 3'-0" x 7'-0" x 1-3/4" | LH | B | I | S-10 | 7-3/4" | |




## GENERAL NOTES:

ALL EXTERIOR HOLLOW METAL DOOR FRAMES TO HAVE SOLID GROUT FILL TO TOP OF STEM WALL (MAINTENANCE BUILDING ONLY) DURING PLACEMENT OF HOLLOW METAL FRAME.

ALL OVERHEAD DOOR JAMBS TO STOP AT FINISHED FLOOR, NOT AT TOP OF STEM WALL.

## FINISH SCHEDULE

MAINTENANCE BUILDING "A"

| NO. | ROOM | FLOOR: CURE AND SEALER ON CONCRETE | FLOOR: 3/4" PLYWOOD | BASE: 4" VINYL BASE (WALL) | BASE: NONE | WALLS: 7/16" FIBER-CORE ON 7/16" MFG. PANELS | WALLS: INTERIOR METAL LINER PANEL | WALLS: 1/2" AC PLYWOOD | WALLS: 1/2" AC PLYWOOD ON 5/8" GYP. BD. | WALLS: 1/2" AC PLYWOOD ON 7/16" MFG. PANELS | CEILING: LATEX PAINT | CEILING: 2' X 2' ACOUSTICAL CEILING TILE ** | CEILING: R-30 SHAPLE SAVER INSUL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | HALLWAY | ● | | ● | * | | | ● | | ● | ● | | |
| 101 | POOL | ● | | ● | * | | | ● | | ● | ● | | |
| 102 | ASST. | ● | | ● | | | | ● | | ● | ● | | |
| 103 | HMS | ● | | ● | | | | ● | | ● | ● | | |
| 104 | STORAGE | ● | | ● | | | ● | | | ● | ● | | |
| 105 | DATA | ● | | ● | | | ● | | | ● | ● | | |
| 106 | RESTROOM (RR) | ● | | ● | | | | ● | | ● | ● | | |
| 107 | RESTROOM (RR) | ● | | ● | | | | ● | | ● | ● | | |
| 108 | HWY. PATROL | ● | | ● | | | | ● | | ● | ● | | |
| 109 | WELTING/BREAK | ● | | ● | | | | ● | | ● | ● | | |
| 110 | MAINTENANCE *** | ● | | ● | * | | ● | | | | | | ● |
| 111 | CARWASH *** | ● | | | ● | ● | | | | | | | ● |
| 112 | WASH EQUIPMENT *** | ● | | | ● | | | | ● | ● | | | ● |
| 113 | MECH. SUPERVISOR | ● | | ● | | | | ● | | ● | ● | | |
| 114 | MEZZANINE | | ● | | * | | ● | | | ● | | | ● |
| 115 | MEZZANINE | | ● | | * | | ● | | | ● | | | ● |
| 116 | ICE MAKER | ● | | ● | | | | ● | | ● | ● | | |

* OR AS NOTED SEE BUILDING SECTION B-9 AND MEZZANINE PLAN.
** FINISHED CEILINGS AT 8'-0" A.F.F. (TYPICAL)
*** SEE BUILDING SECTIONS FOR ADDITIONAL WALL FINISH APPLICATIONS.
INTERIOR METAL LINER PANEL TO BE WHITE IN COLOR.

## WINDOW SCHEDULE

MAINTENANCE BUILDING "A"

| SYMBOL | SIZE | WINDOW TYPE | MFGR. & CATALOG NO. | GLAZING | REMARKS |
|---|---|---|---|---|---|
| A | 3'-0" x 3'-0" | DOUBLE HORIZONTAL SLIDING. | QUAKER 1300 SERIES WITH (.028) SECURITY SCREEN. | 1/8" DUAL GLAZED | SEE DETAIL G-10. SILL HEIGHT: 4'-0" A.F.F. |
| B | 4'-0" x 3'-4" | HORIZONTAL SLIDING IN H.M. FRAME PAINTED. | HORIZONTAL SLIDING IN CLEAR ANODIZED ALUMINUM WINDOW WITH ROLLER BEARING TRACKS. FINGER PULLS GROUND IN THE GLASS. | 1/4" TEMPERED | SEE DETAIL B-9 & C-10. SILL HEIGHT: 3'-10" A.F.F. |

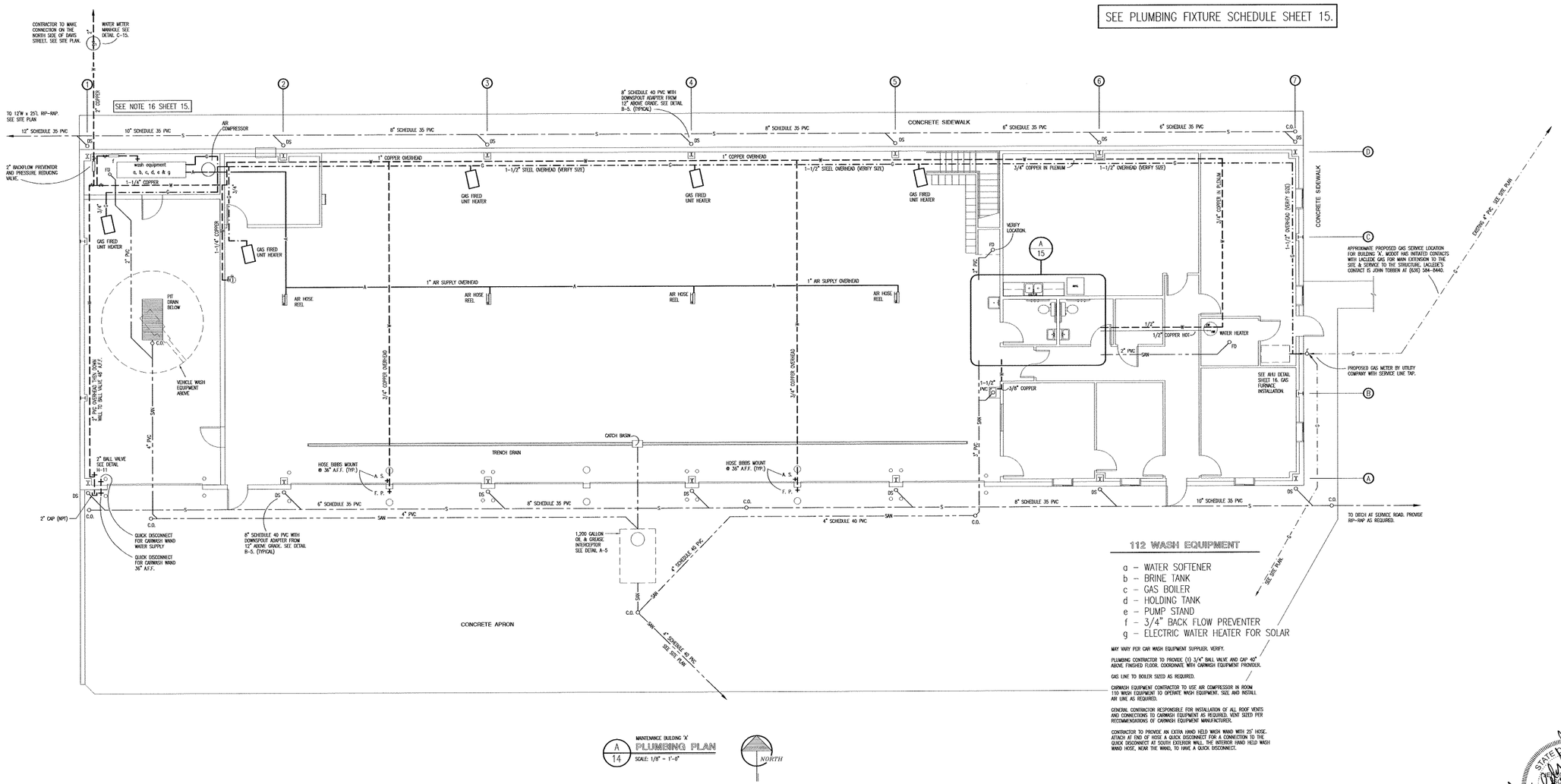
STATE OF MISSOURI
JUSTIN D. CRAWFORD
NUMBER
A-2101
REGISTERED ARCHITECT

# SCHEDULES

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 13 OF 27




STATE OF MISSOURI
DONALD SCOTT CARVER
NUMBER A-7134
REGISTERED ARCHITECT
8-6-09

# PLUMBING PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 14 OF 27

## PLUMBING FIXTURE SCHEDULE

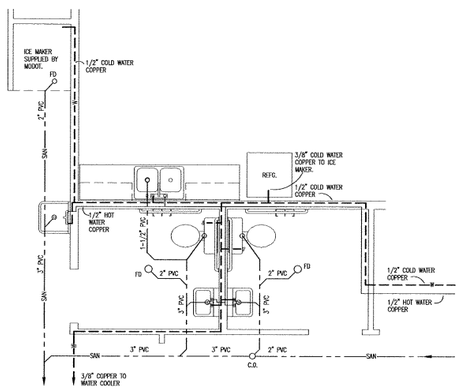
MAINTENANCE BUILDING 'A'

| | | PIPE CONNECTION SIZE | | | | |
|---|---|---|---|---|---|---|
| | | CW | HW | SAW | VT. | TRP. |
| AIR COMPRESSOR | EQUAL TO INGERSOLL-RAND MODEL #2475N7.5, 7.5 HP, 80 GALLON VERTICAL, 24.0 (ACFM) CAPACITY. MAXIMUM PRESSURE 175 LBS. 230 V 1 PHASE WITH REFRIGERATED DRYER MODEL #D25ZS SINGLE PHASE. PROVIDE RUBBERIZED WASHERS AT EACH FLOOR MOUNT TO ACT AS A SHOCK ABSORBER. SIZE AS REQUIRED. | -- | -- | -- | -- | -- |
| FD FLOOR DRAIN | CAST IRON FLOOR DRAIN WITH ADJUSTABLE NICKEL-BRONZE STRAINER, 5" DIAMETER. CONFORM TO FEDERAL SPEC. WW-P-541B. | -- | -- | 2" | 2" | 2" |
| WATER COOLER | ELKAY BARRIER-FREE WALL MOUNT MODEL EBFA-4 OR EQUAL. | 3/8" | -- | 1 1/2" | 2" | 1 1/2" |
| SERVICE SINK | EQUAL TO AMERICAN STANDARD #7692.049, 22" x 18" ENAMELED, CAST IRON "LAWENILL" SERVICE SINK W/ 8340.242 HERITAGE LEVER HANDLE FAUCET, AND 7798.176 P-TRAP. | 1/2" | 1/2" | 3" | 2" | 3" |
| WH WATER HEATER | RHEEM SOLARADE HE, SOLAR HEAT EXCHANGER, 80 GALLON, MODEL RVB80HE-1, 4500 WATT, 18.8 AMPS OR EQUAL. | 3/4" | 1/2" | -- | -- | -- |
| LAVATORY | EQUAL TO AMERICAN STANDARD #0660.004, 20" X 16" ENAMELED CAST IRON "REGALYN" WALL MOUNT LAVATORY WITH 4" CENTERSET SYMMONS S-90-2-C-FR-M SINGLE LEVER LAVATORY FAUCET. INCLUDE AN ADA APPROVED INSULATION KIT. | 1/2" | 1/2" | 1 1/4" | 2" | 1 1/4" |
| SHOWER/EYE WASH | EQUAL TO BRADLEY "MODEL S19-310" DRENCH SHOWER/EYE WASH UNIT. SAFETY YELLOW. | 1 1/4" | -- | 1 1/4" | AS REQ'D. | 1 1/4" |
| TOILET | EQUAL TO AMERICAN STANDARD #2377.100 FLOOR MOUNT. PRESSURE ASSISTED, ELONGATED WATER-SAVER "CADET" WATER CLOSET. 16 1/2" HIGH 3109.016 BOWL, 4098.100 TANK. INCLUDE OPEN FRONT SEAT WITH LID (WHITE) | 1/2" | -- | 3" | 2" | -- |

| | | PIPE CONNECTION SIZE | | | | |
|---|---|---|---|---|---|---|
| | | CW | HW | SAW | VT. | TRP. |
| F.P. HOSE BIBB | FREEZELESS, SELF DRAINING, ANTI-SIPHON HOSE BIBB EQUAL TO PRIER MODEL NUMBER C-434F10. TO EXTERIOR (TYPICAL) | 3/4" | -- | -- | -- | -- |
| DOUBLE SINK | EQUAL TO ELKAY MODEL PSR-3321 DOUBLE BOWL SINK WITH STANDARD 4 HOLE PATTERN AND ELKAY MODEL LK-4301-F CHROME FAUCET SPOUT, SWIVEL AERATOR AND SPRAY. | 1/2" | 1/2" | 1 1/2" | 1 1/2" | 1 1/2" |
| AIR HOSE REEL | EQUAL TO REELCRAFT 7850 OLP 57 300 LOW PRESSURE HEAVY DUTY ALL STEEL CONSTRUCTION WITH ONE PIECE WRAP AROUND GUIDE ARM. | -- | -- | -- | -- | -- |
| A.S. HOSE BIBB | ANTI-SIPHON ANGLE SILL HOSE BIBB EQUAL TO PRIER MODEL NUMBER C-150NP.75. FOR INTERIOR (TYPICAL) | 3/4" | -- | -- | -- | -- |
| OIL SEPARATOR | EQUAL TO CHAMPION PRECAST INC. 1,200 GALLON. MODEL 190-00118-0 WITH HEAVY-DUTY (CLASS C) STEEL LID & FRAME. | -- | -- | 4 | -- | -- |
| TRENCH DRAIN | EQUAL TO ZURN Z886 CHANNEL SLOPE TRENCH DRAIN SYSTEM WITH LOCK DOWN CAST IRON GRATE "CLASS C". | -- | -- | 4 | -- | -- |
| CATCH BASIN | EQUAL TO ZURN Z887-6x20 CATCH BASIN, WITH STAINLESS STEEL TRASH BUCKET AND LOCK DOWN CAST IRON GRATE "CLASS C". | -- | -- | 4 | -- | -- |
| C.O. CLEAN OUT | BRASS WITH ADAPTER AND CAP EQUAL TO PIPE SIZE SHOWN. | -- | -- | -- | -- | -- |
| WH WATER HEATER | EQUAL TO RHEEM #RGDV120HE-1, 120 GALLON, 208, 1-PHASE, 4500 WATT FOR CARWASH EQUIPMENT. | 3/4" | 1/2" | -- | -- | -- |

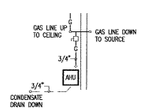
## PLUMBING NOTES

1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
2. PLUMBING SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL PLUMBING CODE.
3. 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.
4. PROVIDE PLUMBING EQUIPMENT AND ACCESSORIES REQUIRED FOR COMPLETE AND OPERATIONAL PLUMBING SYSTEMS AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
5. PLUMBING VENTS (NOT SHOWN) SHALL BE COMBINED WHENEVER IN COMPLIANCE WITH THE IBC PLUMBING CODE TO MINIMIZE ROOF PENETRATIONS. KEEP ROOF VENTS AS CLOSE AS ALLOWABLE TO PARTITION WALLS.
6. EXTERIOR BELOW GROUND WATER DISTRIBUTION PIPING SHALL RUN A MINIMUM OF 36" BELOW FINISH GRADE.
7. VEHICLE WASH EQUIPMENT, PLUMBING AND NECESSARY APPURTENANCES SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER WITH THE APPROVAL OF THE ARCHITECT FOR A COMPLETE AND FUNCTIONAL SYSTEM.
8. CONTRACTOR TO PROVIDE 2" BACK FLOW PREVENTER & PRESSURE REDUCING VALVE IN 112 WASH EQUIPMENT AS REQUIRED.
9. CONTRACTOR TO MAKE CONNECTION AS REQUIRED AT MODOT SUPPLIED PROPANE TANK AND PAD AS REQUIRED FOR FUNCTIONAL SYSTEMS TO GAS APPLIANCES. SEE SITE PLAN.
10. PROVIDE SHUT-OFF VALVE AT EACH FIXTURE.
11. PROVIDE SHOCK ABSORBERS AS REQUIRED AT EACH FAUCET.
12. PROVIDE BLOCKING TO ALL FIXTURES AS REQUIRED FOR A SECURE APPLICATION.
13. PROVIDE 3/8" COPPER WATER LINE TO REFRIGERATOR WITH SHUT-OFF AS REQ'D. FOR THE REFRIGERATOR'S ICE MAKER. SHUT-OFF TO BE INSIDE WALL COVERED BY KARP BRAND 8" x 8" HINGE-ACCESS PLASTIC ACCESS PANEL. WATER LINE TO BE THROUGH FINISHED WALL WITH CHROME ESCUTCHEON.
14. PROVIDE NEW 2" WATER LINE AND TAP AT EXISTING 4" WATER LINE AT NORTH END OF PROPERTY. SEE SITE PLAN. PROVIDE CONCRETE PIT (SIZE AS REQUIRED), WATER METER AND SHUTOFF.
15. PROVIDE AND SIZE CONDENSATION DRAIN ON MEZZANINE FOR AHU AS REQUIRED.
16. PROVIDE AND INSTALL BEFORE CONCRETE SLAB POUR ANY STUBS PIPES IN 112 WASH EQUIPMENT AS RECOMMENDED BY CAR WASH EQUIPMENT PROVIDER.
17. PROVIDE CLEAN-OUTS ON THE STORM SEWER NO MORE THAT 100'-0" O.C.

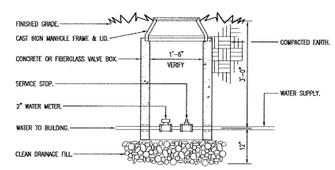



A 15 ENLARGED PLUMBING PLAN
SCALE: 1/8" = 1'-0"

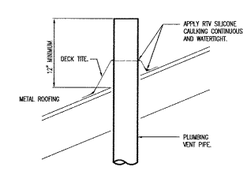
NORTH



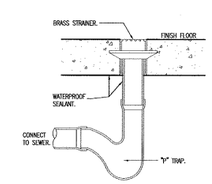

B 15 AHU DETAIL
SCALE: 1/4" = 1'-0"



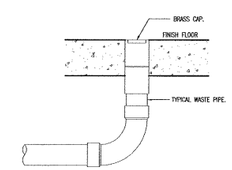

C 15 WATER VALVE & DRAIN
SCALE: 1/2" = 1'-0"




VENT THROUGH ROOF DETAIL
SCALE: N.T.S.




FLOOR DRAIN DETAIL
SCALE: N.T.S.




FLOOR CLEANOUT DETAIL
SCALE: N.T.S.

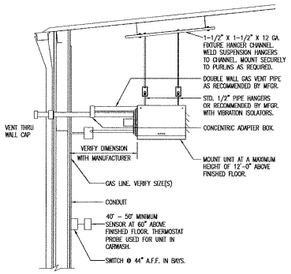
STATE OF MISSOURI JOHN C. GOTT III ARCHITECT REGISTERED ARCHITECT

# PLUMBING NOTES

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

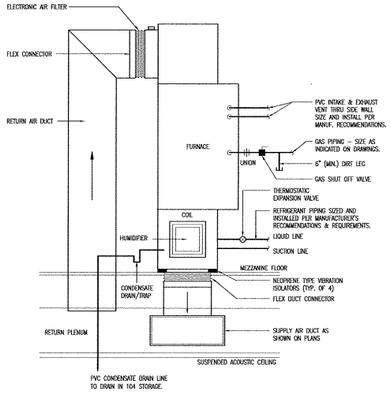
NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.C.S.
Sheet 15 OF 27



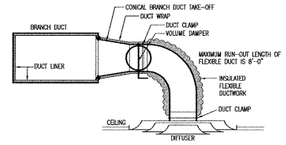

B/16 UNIT HEATER INSTALLATION

NOT TO SCALE



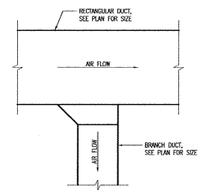

GAS FURNACE INSTALLATION

NOT TO SCALE




LAY-IN DIFFUSER MOUNTING

NOT TO SCALE

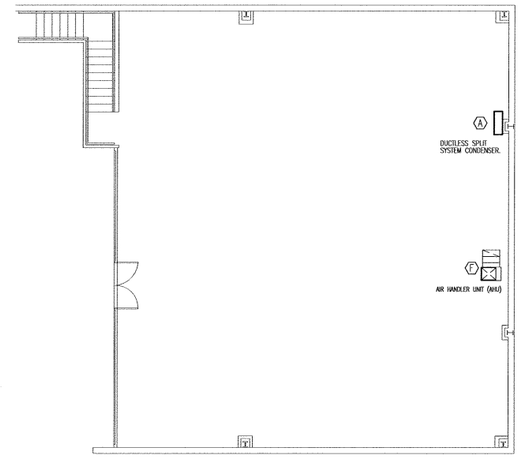



NOTES:

1. TAKEOFF ON SINGLE SIDE OR BOTH SIDES AS REQUIRED BY PLANS.
2. SEE SMACNA MANUAL FOR TAP-IN DETAILS.
3. CINCH LOCK CONNECTION TO DUCT SHALL HAVE CORNER SEALS.

BRANCH DUCT TAKE-OFF

NOT TO SCALE




B/16 MAINTENANCE BUILDING 'A' MEZZANINE MECHANICAL PLAN

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

NORTH

## HVAC SCHEDULE

MAINTENANCE BUILDING 'A'

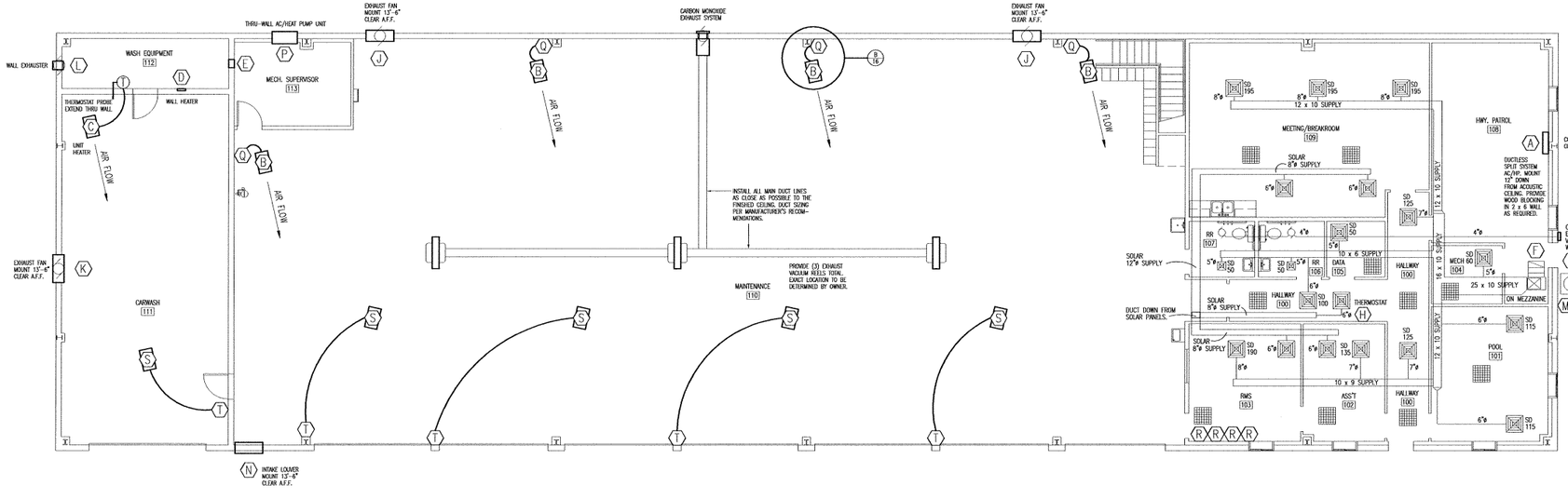
| SYM. | UNIT | MANUFACTURER | BTU OUTPUT | FUEL | VOLTAGE | REMARKS |
|---|---|---|---|---|---|---|
| A | DUCTLESS SPLIT SYSTEM AC/HEAT PUMP | FRIEDRICH GRAINGER #2DX167 OR EQUAL | 295 | ELECTRIC | 120 | FULLY PROGRAMMABLE W/REMOTE CONTROL. MULTIPLE FAN SPEEDS. W/R-410A REFRIGERANT. CONDENSER SITS ON #4X363 PAD ON MEZZANINE. |
| B | GAS FIRED UNIT HEATER | REZNOR MODEL UDHP 75 OR EQUAL | 63,000 | NATURAL GAS | 120 | SINGLE BURNER COMBUSTION, DIRECT SPARK IGNITION, 100% LOCK-OUT. |
| C | GAS FIRED UNIT HEATER | REZNOR MODEL UDAS 60 OR EQUAL | 49,800 | NATURAL GAS | 120 | 409 STAINLESS STEEL HEAT EXCHANGERS, TOTALLY ENCLOSED FAN MOTOR, HORIZONTAL COMBUSTION AIR/VENT KIT INCLUDING CONCENTRIC ADAPTER. |
| D | ELECTRIC UNIT HEATER | CMARK MODEL CMH-2101 OR EQUAL | 3,413 | ELECTRIC | 120 | INCLUDE CMH25-2 FOR 50W RECESSED, INCLUDE LOUVER GRILLE, WITH A BUILT-IN THERMOSTAT. |
| E | RETURN AIR FILTER GRILLE | HART & COOLEY MODEL 672 & 673 OR EQUAL | --- | --- | --- | 1/2" SPACED FINS, RETURN GRILLE + STANDARD 1" THICK FILTER. DOVER WHITE GRILLE. |
| F | GAS FURNACE/ FORCED AIR | CARRIER OR EQUAL 59MC9080-1-20 | 74,000 | NATURAL GAS | 120 | 90+ AFUE, 2000 CFM DOWN FLOW GAS FURNACE. WITH 2" CONCENTRIC VENT SEPARATION KIT, HUMIDIFIER, AND ELECTRONIC AIR CLEANER. * |
| G | CONDENSING UNIT | CARRIER OR EQUAL CNPVP6024A0A 25HPA5604A00 | 60,000 | ELECTRIC | 208 | EVAPORATOR COIL, 5-TON, 15 SEER, 1-PHASE, R-410A REFRIGERANT CONDENSING UNIT. |
| H | THERMOSTAT | CARRIER OR EQUAL | --- | --- | --- | 7 DAY PROGRAMMABLE. HYBRID HEAT FUNCTION. |
| J | 36" X 36" SHUTTER MOUNT EXHAUST FAN W/WEATHERHOOD | DAYTON 1HU86 & 1HBM2 OR EQUAL 6.4 AMPS. | 6,480 CFM | ELECTRIC | 120 | COMMERCIAL TYPE BELT DRIVE WALL EXHAUST FAN INCLUDING OSHA GUARD AND SHUTTER. |
| K | 14" DIA. CORROSION RESISTANT SHUTTER FAN | DAYTON 1BJJ1 OSHA GUARD OR EQUAL | 2,005 CFM | ELECTRIC | 120 | FIBERGLASS SHUTTER & BLADES. 2.1 AMPS. |
| L | 10" DIA. CORROSION RESISTANT SHUTTER FAN | DAYTON 1BJ6 OSHA GUARD OR EQUAL | 524 CFM | ELECTRIC | 120 | FIBERGLASS SHUTTER & BLADES. 1.9 AMPS. |
| M | MANUALLY OPERATED DAMPER IN RETURN DUCT | --- | --- | --- | --- | 2 - POSITION 5" # DUCT FOR EXTERNAL VENTILATION AIR. 125 CFM. PROVIDE ALUM. LOUVER WITH BUG SCREEN AS REQUIRED. |
| N | MOTORIZED DAMPER | DAYTON MODEL 3C728 OR EQUAL .37 AMPS. | --- | ELECTRIC | 120 | .30" MEDIUM GRADE, MOTORIZED, GALVANIZED STEEL DAMPER WITH 1HP MOTOR, WIRE TO OPEN WHEN EXHAUST FAN IS TURNED ON. |
| P | THRU-WALL AC & HEAT PUMP UNIT | FRIEDRICH OR EQUAL GRAINGER ITEM #3N997 | 10,000 COOL 11,000 HEAT | ELECTRIC | 208 | TOP MOUNT PROGRAMMABLE CONTROLS. INCLUDE WALL-SLEEVE GRAINGER ITEM #3UF15 SEE DETAIL J-11 FOR MOUNTING. |
| Q | WALL SENSOR | WHITE ROGER F1401S28 OR EQUAL | --- | ELECTRIC | --- | INTERCONNECT LOCATED IN ROOM #103. |
| R | PROGRAMMABLE THERMOSTAT | WHITE ROGER 1190-377 OR EQUAL | --- | ELECTRIC | --- | INTERCONNECT WITH WALL SENSORS LOCATED IN ROOM #110. |
| S | ELECTRIC BLOWER UNIT | DEJHI MODEL 410 | --- | ELECTRIC | --- | SEE SOLAR SUPPLEMENTAL DOCUMENTS. |
| T | PROGRAMMABLE THERMOSTAT | WHITE ROGER OR EQUAL | --- | ELECTRIC | --- | SEE SOLAR SUPPLEMENTAL DOCUMENTS. |

PROVIDE CONDENSATE TRAP AT ALL COILS AND PIPE TO NEAREST FLOOR DRAIN WITH 3/4" SCHEDULE 40 PVC. MECHANICAL EQUIPMENT IS SCHEDULED BY MANUFACTURER AND MODEL NUMBER FOR DESIGN INTENT ONLY, APPROVED EQUALS MAY BE SUBSTITUTED.

* OPTIMIZER CHANGE OVER SYSTEM.

## MECHANICAL SYMBOLS

| | |
|---|---|
| SD 175 CFM | 24" x 24" SUPPLY DIFFUSER AND CFM |
| | CEILING PLENUM RETURN AIR GRILLE |
| T | UNIT HEATER THERMOSTAT |
| Ø/C | ROUND - DIMENSION SHOWN IS ID |



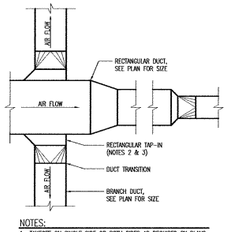

A/16 MAINTENANCE BUILDING 'A' MECHANICAL PLAN

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

NORTH

## 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.
3. PROVIDE EQUIPMENT AND APPURTENANCES NOT NECESSARILY SHOWN OR SPECIFIED BUT NEEDED FOR COMPLETE AND PROPER INSTALLATION.
4. 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.
7. THERMOSTAT CONTROL FOR 111 CARWASH TO BE LOCATED IN THE 112 WASH EQUIPMENT ROOM WITH PROBE LOCATED AS SHOWN.




NOTES:

1. TAKEOFF ON SINGLE SIDE OR BOTH SIDES AS REQUIRED BY PLANS.
2. CINCH LOCK CONNECTION TO DUCT SHALL HAVE CORNER SEALS.
3. EXTRACTORS, SCOOPS, OR DEFLECTORS THAT PROTRUDE INTO MAIN DUCT SHALL NOT BE USED.

DIFFUSER TAKE-OFF

NOT TO SCALE

STATE OF MISSOURI LARRY D. CARVER NUMBER A-5613 REGISTERED ARCHITECT

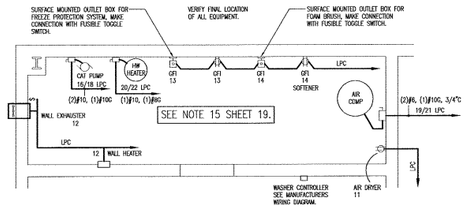
# MECHANICAL PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION

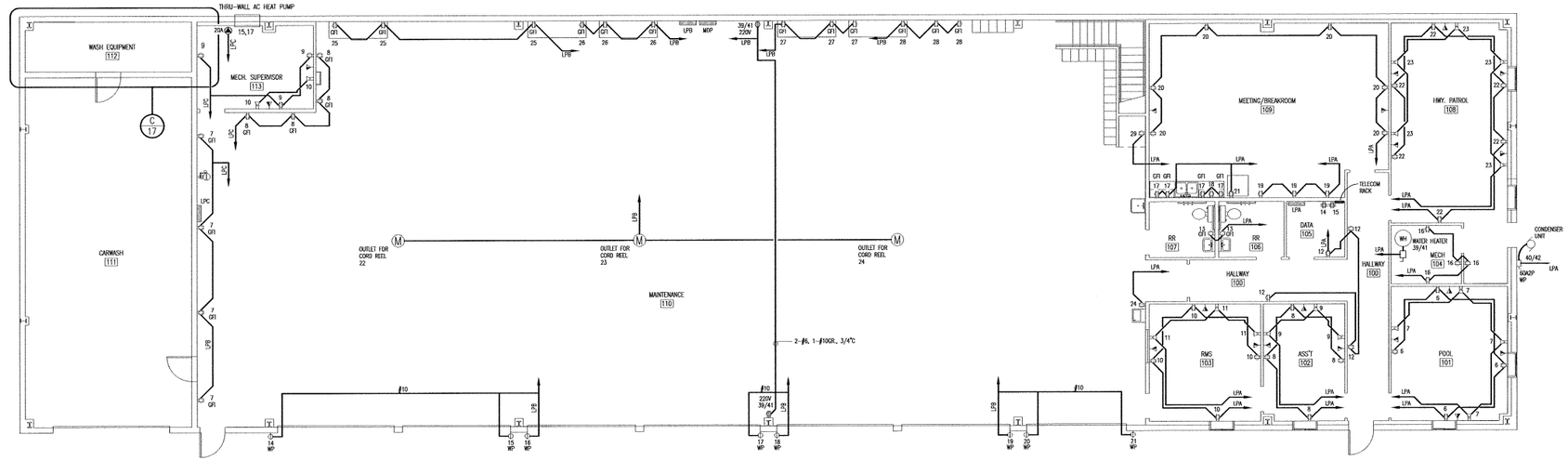
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 16 OF 27 |



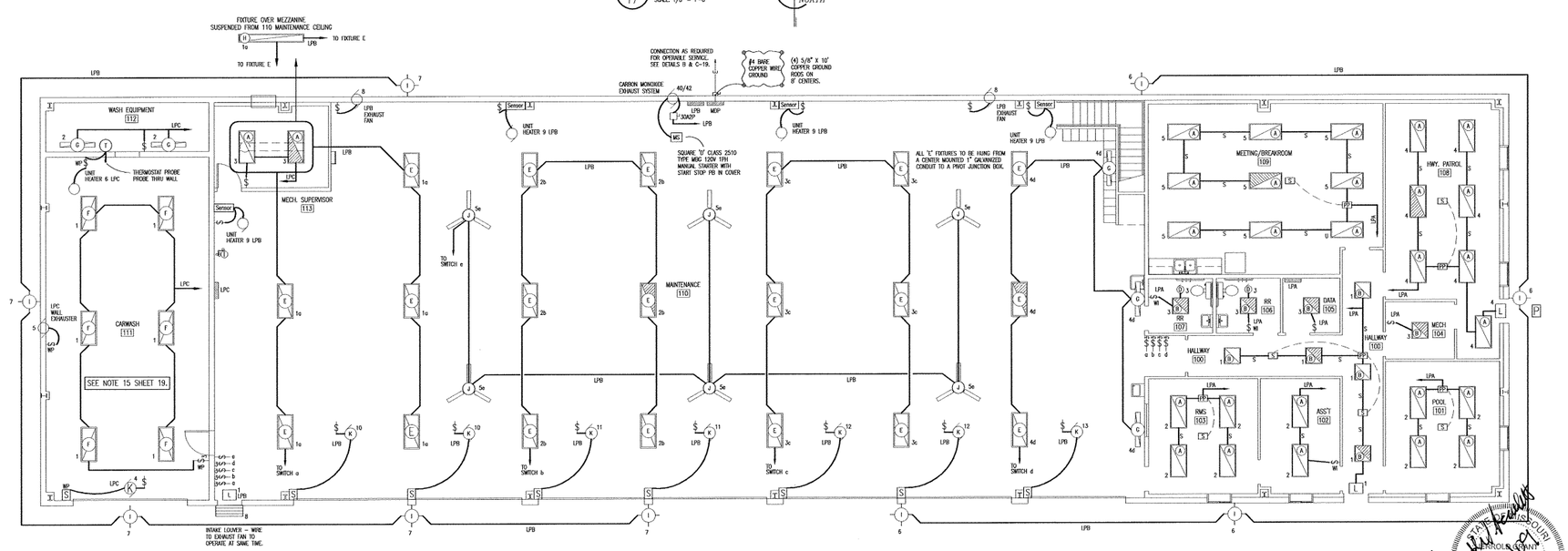

C 17 112 WASH EQUIPMENT POWER PLAN
SCALE: 1/4" = 1'-0"




B 17 MAINTENANCE BUILDING 'A' POWER PLAN
SCALE: 1/8" = 1'-0"

NORTH

ELECTRICAL PANELS AND SCHEDULES ON SHEET 19.




A 17 MAINTENANCE BUILDING 'A' LIGHTING PLAN
SCALE: 1/8" = 1'-0"

NORTH

STATE OF MISSOURI
JAMES L. GRANT
NUMBER A-2101
REGISTERED ARCHITECT

# ELECTRICAL PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 17 OF 27 |

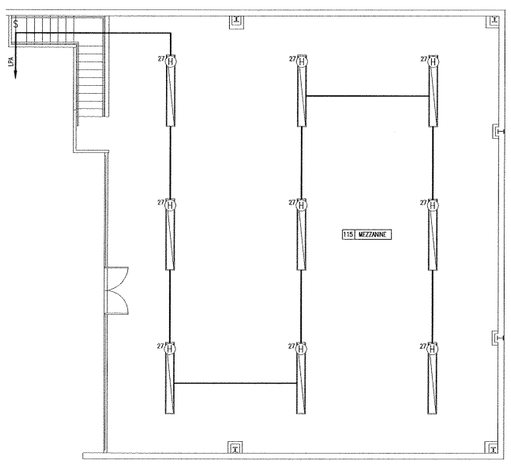
BUILDING 'E'

## SERVICE PANEL LPA

| | | |
|---|---|---|
| MAIN BUS: 100A<br>VOLTS: 120/208 3-PH, 4 WIRE<br>BUSS MATERIAL: COPPER<br>MOUNTING: SURFACE | SQUARE "D" NQOD OR EQUAL<br>W/NEUTRAL BUSS & GROUNDING BUSS<br>CIRCUIT BREAKERS BOLT-IN 10000 AIC<br>100 AMP MAIN BREAKER | CONNECTED LOAD<br>A PHASE 13539 VA<br>B PHASE 4259 VA<br>C PHASE 11902 VA<br>TOTAL 29700 VA |

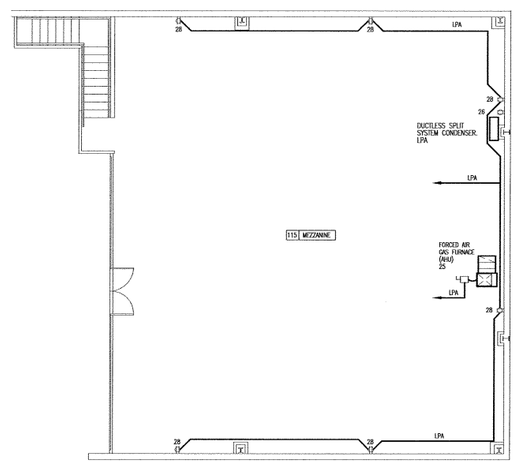
| CIR | SERVICE | VA | BKR | | BKR | VA | SERVICE | CIR |
|---|---|---|---|---|---|---|---|---|
| 1 | EXTERIOR LIGHTING | 201 | 20A1P | A | 20A1P | 1296 | CEILING LIGHTING | 2 |
| 3 | BENCH LIGHTING | 256 | 20A1P | B | 20A1P | 128 | OHD OPERATOR | 4 |
| 5 | WELDER | 4100 | 50A2P | C | 50A2P | 4100 | WELDER | 6 |
| 7 | | 4100 | | A | | 4100 | | 8 |
| 9 | BAND SAW | 1622 | 20A3P | B | 20A1P | 813 | EXHAUST FAN & LOUVER | 10 |
| 11 | | 1622 | | C | 20A1P | 1000 | EXTERIOR RECEPTACLE | 12 |
| 13 | | 1622 | | A | 20A1P | 1000 | EXTERIOR RECEPTACLE | 14 |
| 15 | GFI RECEPTACLES | 720 | 20A1P | B | 20A1P | 360 | GFI RECEPTACLES | 16 |
| 17 | GFI RECEPTACLES | 720 | 20A1P | C | 20A1P | 360 | GFI RECEPTACLES | 18 |
| 19 | GFI RECEPTACLES | 360 | 20A1P | A | 20A1P | 360 | GFI RECEPTACLES | 20 |
| 21 | RECEPTACLE | 360 | 20A1P | B | 20A1P | --- | SPARE | 22 |
| 23 | SPARE | --- | 20A1P | C | 20A1P | --- | SPARE | 24 |
| 25 | SPARE | --- | 20A1P | A | 20A1P | --- | SPARE | 26 |
| 27 | | | | B | | | | 28 |
| 29 | | | | C | | | | 30 |
| 31 | | | | A | | | | 32 |
| 33 | | | | B | | | | 34 |
| 35 | | | | C | | | | 36 |
| 37 | | | | A | | | | 38 |
| 39 | | | | B | | | | 40 |
| 41 | | | | C | | | | 42 |

ELECTRICAL PANELS AND SCHEDULES ON SHEET 19.



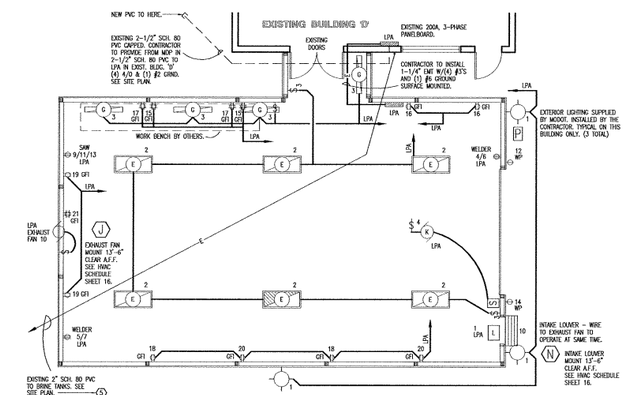

A 18 MEZZANINE BUILDING 'A' LIGHTING PLAN
SCALE: 1/8" = 1'-0"

NORTH




B 18 MEZZANINE BUILDING 'A' POWER PLAN
SCALE: 1/8" = 1'-0"

NORTH




C 18 BUILDING E ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

NORTH

# MEZZANINE ELECTRICAL PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 18 OF 27

MAINTENANCE BUILDING 'A'

## SERVICE PANEL LPA

| | | |
|---|---|---|
| MAIN BUS: 200A MLO<br>VOLTS: 120/208 3-PH. 4 WIRE<br>BUSS MATERIAL: COPPER<br>MOUNTING: SURFACE | SQUARE "D" NQOD OR EQUAL<br>W/NEUTRAL BUSS & GROUNDING BUSS<br>CIRCUIT BREAKERS BOLT-IN 10000 AIC | CONNECTED LOAD<br>A PHASE 8906 VA<br>B PHASE 14012 VA<br>C PHASE 13921 VA<br>TOTAL 36839 VA |

| CIR | SERVICE | VA | BKR | | BKR | VA | SERVICE | CIR |
|---|---|---|---|---|---|---|---|---|
| 1 | 100 – LIGHTS | 690 | 20A1P | A | 20A1P | 1280 | 101, 102, 103 – LIGHTS | 2 |
| 3 | 104, 105, 106, 107 – LIGHTS | 512 | 20A1P | B | 20A1P | 946 | 108 – LIGHTS | 4 |
| 5 | 109 – LIGHTS | 1152 | 20A1P | C | 20A1P | 720 | 101 – RECEPTACLES | 6 |
| 7 | 101 – RECEPTACLES | 720 | 20A1P | A | 20A1P | 720 | 102 – RECEPTACLES | 8 |
| 9 | 102 – RECEPTACLES | 540 | 20A1P | B | 20A1P | 720 | 103 – RECEPTACLES | 10 |
| 11 | 103 – RECEPTACLES | 540 | 20A1P | C | 20A1P | 720 | 100, 105 – RECEPTACLES | 12 |
| 13 | 106, 107 – RECEPTACLES | 360 | 20A1P | A | 20A1P | 360 | 105 – RECEPTACLE | 14 |
| 15 | 105 – TELECOMMUNICATIONS | 360 | 20A1P | B | 20A1P | 720 | 104, 108 – RECEPTACLES | 16 |
| 17 | 109 – GFI RECEPTACLES | 720 | 20A1P | C | 20A1P | 800 | 109 – MICROWAVE | 18 |
| 19 | 109 – RECEPTACLES | 540 | 20A1P | A | 20A1P | 1080 | 109 – RECEPTACLES | 20 |
| 21 | 109 – REFRIGERATOR | 600 | 20A1P | B | 20A1P | 1080 | 108 – RECEPTACLES | 22 |
| 23 | 108 – RECEPTACLES | 900 | 20A1P | C | 20A1P | 480 | 110 – WATER COOLER | 24 |
| 25 | 115 – AHU | 1356 | 20A1P | A | 15A1P | 1800 | 115 – DUCTLESS SPLIT SYSTEM | 26 |
| 27 | 115 – LIGHTING | 1152 | 20A1P | B | 20A1P | 1080 | 115 – RECEPTACLES | 28 |
| 29 | 116 – ICE MAKER | 1587 | 20A1P | C | | | | 30 |
| 31 | | | | A | | | | 32 |
| 33 | | | | B | | | | 34 |
| 35 | | | | C | | | | 36 |
| 37 | | | | A | | | | 38 |
| 39 | 104 – WATER HEATER | 3910 | 25A2P | B | 30A2P | 2392 | EXTERIOR – CONDENSER UNIT | 40 |
| 41 | | 3910 | | C | | 2392 | | 42 |

MAINTENANCE BUILDING 'A'

## SERVICE PANEL LPB

| | | |
|---|---|---|
| MAIN BUS: 200A<br>VOLTS: 120/208 3-PH. 4 WIRE<br>BUSS MATERIAL: COPPER<br>MOUNTING: SURFACE | SQUARE "D" NQOD OR EQUAL<br>W/NEUTRAL BUSS & GROUNDING BUSS<br>CIRCUIT BREAKERS BOLT-IN 10000 AIC<br>200 AMP MAIN BREAKER | CONNECTED LOAD<br>A PHASE 10380 VA<br>B PHASE 15430 VA<br>C PHASE 13668 VA<br>TOTAL 39478 VA |

| CIR | SERVICE | VA | BKR | | BKR | VA | SERVICE | CIR |
|---|---|---|---|---|---|---|---|---|
| 1 | 110 – LIGHTS | 1258 | 20A1P | A | 20A1P | 1296 | 110 – LIGHTS | 2 |
| 3 | 110 – LIGHTS | 1296 | 20A1P | B | 20A1P | 840 | 110 – LIGHTS | 4 |
| 5 | 110 – CEILING FANS | 468 | 20A1P | C | 20A1P | 868 | 110 – EXTERIOR LIGHTS | 6 |
| 7 | 110 – EXTERIOR LIGHTS | 1085 | 20A1P | A | 20A1P | 1580 | 110 – EXHT. FANS & LOUVER | 8 |
| 9 | 110 – UNIT HEATERS | 1584 | 20A1P | B | 30A1P | 2162 | 110 – OHD OPENERS | 10 |
| 11 | 110 – OHD OPENERS | 2162 | 30A1P | C | 30A1P | 2162 | 110 – OHD OPENERS | 12 |
| 13 | 110 – OHD OPENER | 1081 | 20A1P | A | 20A1P | 1000 | EXTERIOR RECEPTACLE | 14 |
| 15 | EXTERIOR RECEPTACLE | 1000 | 20A1P | B | 20A1P | 1000 | EXTERIOR RECEPTACLE | 16 |
| 17 | EXTERIOR RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | EXTERIOR RECEPTACLE | 18 |
| 19 | EXTERIOR RECEPTACLE | 1000 | 20A1P | A | 20A1P | 1000 | EXTERIOR RECEPTACLE | 20 |
| 21 | EXTERIOR RECEPTACLE | 1000 | 20A1P | B | 20A1P | 540 | CORD REEL ● | 22 |
| 23 | CORD REEL ● | 540 | 20A1P | C | 20A1P | 540 | CORD REEL ● | 24 |
| 25 | 110 – GFI RECEPTACLES | 540 | 20A1P | A | 20A1P | 540 | 110 – GFI RECEPTACLES | 26 |
| 27 | 110 – GFI RECEPTACLES | 540 | 20A1P | B | 20A1P | 540 | 110 – GFI RECEPTACLES | 28 |
| 29 | | | | C | | | | 30 |
| 31 | | | | A | | | | 32 |
| 33 | | | | B | | | | 34 |
| 35 | | | | C | | | | 36 |
| 37 | | | | A | | | | 38 |
| 39 | 110 – WELDER OUTLETS | 4100 | 50A2P | B | 20A2P | 828 | 110 – CARBON MONXIDE | 40 |
| 41 | | 4100 | | C | | 828 | | 42 |

● CIRCUIT BREAKER SHALL BE GFI RATED

MAINTENANCE BUILDING 'A'

## SERVICE PANEL LPC

| | | |
|---|---|---|
| MAIN BUS: 200A<br>VOLTS: 120/208 3-PH. 4 WIRE<br>BUSS MATERIAL: COPPER<br>MOUNTING: SURFACE | SQUARE "D" NQOD OR EQUAL<br>W/NEUTRAL BUSS & GROUNDING BUSS<br>CIRCUIT BREAKERS BOLT-IN 10000 AIC<br>200 AMP MAIN BREAKER | CONNECTED LOAD<br>A PHASE 10634 VA<br>B PHASE 13579 VA<br>C PHASE 6779 VA<br>TOTAL 30992 VA |

| CIR | SERVICE | VA | BKR | | BKR | VA | SERVICE | CIR |
|---|---|---|---|---|---|---|---|---|
| 1 | 111 – LIGHTS | 1296 | 20A1P | A | 20A1P | 128 | 112 – LIGHTS | 2 |
| 3 | 113 – LIGHTS | 128 | 20A1P | B | 20A1P | 1081 | 111 – OHD OPENER | 4 |
| 5 | 111 – EXHAUST FAN | 252 | 20A1P | C | 20A1P | 396 | 111 – UNIT HEATER | 6 |
| 7 | 110 – GFI RECEPTACLES | 720 | 20A1P | A | 20A1P | 720 | 110 – RECEPTACLES | 8 |
| 9 | 113 – RECEPTACLES | 540 | 20A1P | B | 20A1P | 360 | 113 – RECEPTACLES | 10 |
| 11 | 112 – AIR DRYER | 483 | 20A1P | C | 20A1P | 1228 | 112 – HEATER & EXHST. FAN | 12 |
| 13 | 112 – RECEPTACLES | 360 | 20A1P | A | 20A1P | 360 | 112 – RECEPTACLES | 14 |
| 15 | 113 – AC HEAT PUMP | 1920 | 20A2P | B | 30A2P | 2500 | 112 – CAT PUMP | 16 |
| 17 | | 1920 | | C | | 2500 | | 18 |
| 19 | 112 – AIR COMPRESSOR | 4800 | 70A2P | A | 30A2P | 2250 | 112 – WATER HEATER IN WASH EQUIPMENT FOR SOLAR | 20 |
| 21 | | 4800 | | B | | 2250 | | 22 |
| 23 | | | | C | | | | 24 |
| 25 | | | | A | | | | 26 |
| 27 | | | | B | | | | 28 |
| 29 | | | | C | | | | 30 |
| 31 | | | | A | | | | 32 |
| 33 | | | | B | | | | 34 |
| 35 | | | | C | | | | 36 |
| 37 | | | | A | | | | 38 |
| 39 | | | | B | | | | 40 |
| 41 | | | | C | | | | 42 |

## ELECTRIC SCHEDULE

| MANUF. | MODEL | LAMPS # | TYPE | W | MNT | REMARKS |
|---|---|---|---|---|---|---|
| WILLIAMS (A) | 50G-S24-432-RA12125-EB4-120 | 4 | FLUORESCENT | 32 | CLG | 24" x 48" STATIC TROFFER FIXTURE, W/ FULL DOOR FRAME, NO REVEAL, WHITE ALUMINUM, & ELECTRONIC BALLAST. |
| WILLIAMS (A) | 50G-S24-432-RA12125-EM7-EB4-120 | 4 | FLUORESCENT | 32 | CLG | 24" x 48" STATIC TROFFER FIXTURE, W/ FULL DOOR FRAME, NO REVEAL, WHITE ALUMINUM, ELECTRONIC BALLAST & EMERGENCY BATTERY. |
| WILLIAMS (B) | 50G-S22-432-RA12125-EB4-120 | 4 | FLUORESCENT | 32 | CLG | 24" x 24" STATIC TROFFER FIXTURE, W/ FULL DOOR FRAME, NO REVEAL, WHITE ALUMINUM, & ELECTRONIC BALLAST. |
| WILLIAMS (B) | 50G-S22-432-RA12125-EM7-EB4-120 | 4 | FLUORESCENT | 32 | CLG | 24" x 24" STATIC TROFFER FIXTURE, W/ FULL DOOR FRAME, NO REVEAL, WHITE ALUMINUM, ELECTRONIC BALLAST & EMERGENCY BATTERY. |
| LITHONIA (C) | SP9 – NOT USED. | 2 | INCANDESCENT | 60 | CLG | 9" ROUND, SURFACE MOUNT, LIGHT FIXTURE W/ GLASS DIFFUSER. |
| BROAN (D) | GRAINGER #4C772 | | | | CLG | 80 CFM CEILING MOUNT BATHROOM VENTILATOR. |
| WILLIAMS (E) | GL-4-454T5H-HUB3/4" EB4-120 | 4 | FLUORESCENT | 54 | CLG | 14" x 48" LOW PROFILE FIXTURE, W/ WHITE ALUMINUM HOUSING, HIGH SPECULAR ALUMINUM REFLECTOR & ELECTRONIC BALLAST. |
| WILLIAMS (E) | GL-4-454T5H-HUB3/4" EM7-EB4-120 | 4 | FLUORESCENT | 54 | CLG | 14" x 48" FIXTURE, W/ WHITE ALUMINUM HOUSING, HIGH SPECULAR ALUMINUM REFLECTOR ELECTRONIC BALLAST & EMERGENCY BATTERY. |
| WILLIAMS (F) | GLS-4-454TH5-FCHA118-VBY3-EB4-UNV | 4 | FLUORESCENT | 54 | CLG | 15" x 48" DAMP LOCATION, CHAIN SUSPENDED FIXTURE, WITH ALUMINUM HOUSING, CLEAR ACRYLIC LENS & ELECTRONIC BALLAST. |
| LITHONIA (G) | DMW 2 48HO ARDP 120 ES | 2 | FLUORESCENT | 32 | WALL | 48" LONG SURFACE MOUNT FLUORESCENT LIGHT FIXTURE, W/ PAINTED STEEL HOUSING, & ELECTRONIC BALLAST. |
| LITHONIA (H) | T2UN 4 32 120 ES (2) WG2UN | 4 | FLUORESCENT | 32 | CLG | 96" LONG SURFACE MOUNT FLUORESCENT LIGHT FIXTURE, W/ PAINTED STEEL HOUSING, ELECTRONIC BALLAST, & WIRE GUARD. |
| WILLIAMS (I) | PGM-175H-128-2 | 1 | METAL HALIDE | 175 | WALL | EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, W/ ALUMINUM HOUSING, & IMPACT RESISTANT ONE-PIECE, WRAPAROUND LENS. |
| DAYTON (J) | 4C853 | | | | CLG | SINGLE-SPEED, THREE-BLADE, HEAVY DUTY COMMERCIAL CEILING FAN. |
| (K) | OVERHEAD DOOR OPERATOR | | | | WALL | 115V, 1-PH, HOOD MOUNT TYPE COMMERCIAL IN CARWASH & TROLLEY TYPE IN MAINTENANCE. SEE SPECIFICATION SECTION 08720. |
| HUBBELL (L) | SERIES PRB | | | | CLG | PATHFINDER SERIES EXIT LIGHT W/ WHITE THERMOPLASTIC HOUSING & UNIVERSAL MOUNT. |
| REELCRAFT (M) | L 4050 163 1 | | | | CLG | CEILING MOUNTED SPRING RETRACTABLE, ELECT. CORD REEL WITH INCANDESCENT LAMP & THREE PRONG OUTLET PLUG. |
| (S) | OVERHEAD DOOR CONTROL | | | | 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. |
| LITHONIA (Q) | ELT50 N N1812 MT | | | | WALL | "TITAN" EMERGENCY LIGHTING UNIT. MAINTENANCE FREE NICKEL- CADMIMUM BATTERIES, 12V/18 WATT LAMPS AND METAL LAMP HEADS. |

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

## LEGEND

| | |
|---|---|
| $ | SINGLE POLE SWITCH, FLUSH MOUNTED IN FINISHED AREAS @ 48" A.F.F.<br>SINGLE POLE SWITCH, SURFACE MOUNTED IN UNFINISHED AREAS @ 48" A.F.F. |
| $3 | 3-WAY SWITCH, FLUSH MOUNTED IN FINISHED AREAS @ 48" A.F.F.,<br>3-WAY SWITCH, SURFACE MOUNTED IN UNFINISHED AREAS @ 48" A.F.F. |
| $WP | SINGLE POLE SWITCH, MOUNT IN FS BOX WITH HUBBELL HBL 7420 COVER. |
| ⏀ | QUAD-PLEX RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 42" A.F.F. TO BOTTOM OF OUTLET. |
| ⏀ | DUPLEX RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.<br>DUPLEX RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F. |
| ⏀ | DEDICATED RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.<br>DEDICATED RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F. |
| ⏀ GFI | DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER. |
| ⏀ WP | DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER. |
| ⏀ | SINGLE RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.<br>SINGLE RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F. |
| ⏀ WP | SINGLE RECEPTACLE MOUNTED IN FS BOX WITH PASS SEYMOUR WIUC10-DCL IN USE COVER OR EQUAL. |
| ⏀ 50A | WELDER RECEPTACLE SURFACE MOUNTED 42" A.F.F., MOUNT IN 4" SQUARE BOX WITH RAISED COVER. |
| ▽ | VOICE AND DATA OUTLET FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.<br>VOICE AND DATA OUTLET SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F. |
| ▽ V | VOICE OUTLET FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.<br>VOICE OUTLET SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F. |
| ☐ | NO FUSED DISCONNECT SWITCH. |
| F | FUSED DISCONNECT SWITCH. |

## ELECTRICAL NOTES:

1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR THE DIMENSIONS.
2. ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.)
3. PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
4. SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE AMPERE SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND FAULT INTERRUPTION WHERE SHOWN OR AS REQUIRED BY CODE.
5. RESTROOM EXHAUST FANS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
6. SEE HVAC SCHEDULE FOR EQUIPMENT SYMBOLS AND EQUIPMENT TO BE HARD WIRED.
7. CONTRACTOR SHALL PROVIDE SERVICE DISCONNECTS AS REQUIRED ON EXTERIOR OF NEW BUILDING(S).
8. ALL RECEPTACLES IN GARAGE AREAS TO BE MOUNTED AT 48" A.F.F.
9. CONTRACTOR TO PROVIDE DISCONNECTS FOR AIR COMPRESSOR & THE AIR CONDENSING UNIT AS REQUIRED.
10. PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
11. SEE SPECIFICATION SECTION 16100 – ELECTRICAL FOR ADDITIONAL REQUIREMENTS.
12. COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH ELECTRICAL WORK.
13. ALL DEDICATED 20 AMP EXTERIOR GFI SINGLE RECEPTACLE OUTLETS TO BE CLASS B.
14. 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.
15. ALL EXPOSED CONDUIT, BOXES, CONNECTORS, ETC. IN 111 CARWASH AND 112 WASH EQUIPMENT TO BE IN SCHEDULE 40 PVC. CONTRACTOR TO VERIFY THE DIAMETERS OD CONDUIT AS REQUIRED.
16. GROUP CIRCUITS IN CONDUIT WHERE FEASIBLE AS REQUIRED.
17. EXPOSED CONDUIT RISER(S) IN POLE BARNS TO BE RIGID CONDUIT AT ALL RISER LOCATIONS UP TO PANELBOARDS.
18. CONTRACTOR RESPONSIBLE TO SUPPLY AND INSTALL ALL BREAKERS, CONDUITS, CONDUCTORS ETC. FOR A FUNCTIONAL SYSTEM FOR THE SOLAR PANELS AS REQUIRED.

## OCCUPANCY SENSOR SCHEDULE

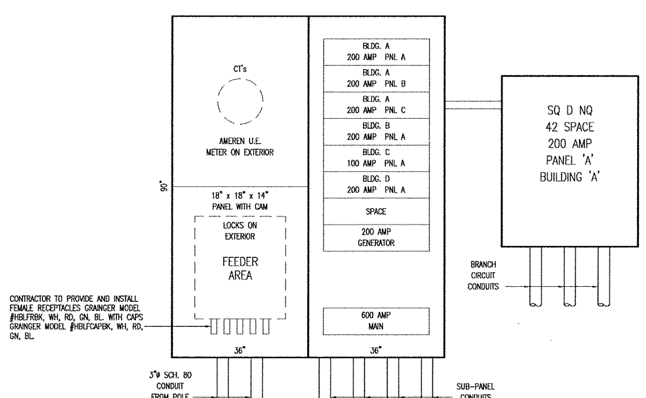
| ROOM | MODEL | MOUNT |
|---|---|---|
| 101 – HALLWAY | WT-2250 | CEILING |
| 102 – OFFICE | WI-200 | WALL |
| 103 – OFFICE | WI-200 | WALL |
| 105 – STORAGE | WI-200 | WALL |
| 106 – OFFICE | WI-200 | WALL |
| 108 – WOMEN'S | WI-200 | WALL |
| 109 – MEN'S | WI-200 | WALL |
| 110 – TRAINING ROOM | UT-300 | CEILING |
| 112 – BREAKROOM | UT-300 | CEILING |

ALL MODELS BASED ON WATT STOPPER

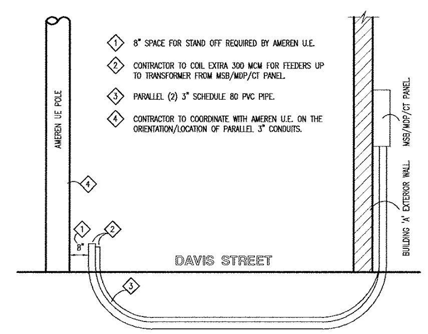
### INTERIOR VIEW MAIN SWITCH BOARD

(MDP) 208Y / 120V 3-PHASE, 4 WIRE

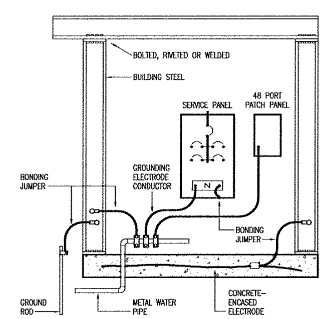
POW-R-LINE C SWITHCBOARD
MANUFACTURED BY HOLT ELECTRIC SUPPLY
(314) 533-5555 OR EQUAL
WITH KIRK KEY SWITCHING FOR GENERATOR CONNECTION



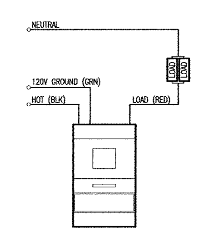

B / 19 — BUILDING 'A' **MDP PANEL** SCALE: NONE



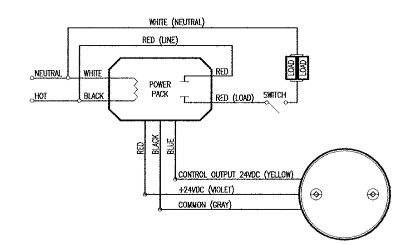

C / 19 — BUILDING 'A' **CONDUIT TO CT CABINET** SCALE: NONE



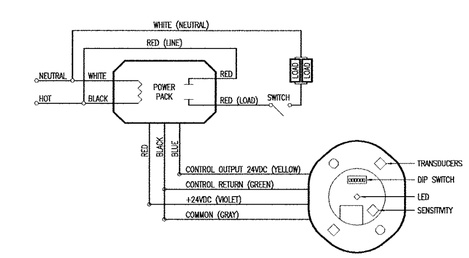

GROUNDING SYSTEM




WI-200 WIRING

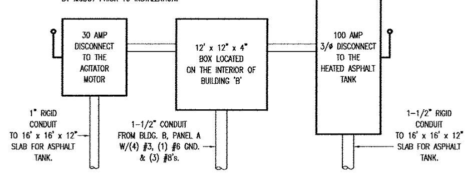



UT-300 WIRING




WT-2250 WIRING

NOTE:
ELECTRICAL CONTRACTOR TO VERIFY ACTUAL CONDUCTOR SIZES ONCE THE HEATED ASPHALT TANK IS PURCHASED BY MODOT PRIOR TO INSTALLATION.




A / 19 — SERVICE DISCONNECT (CONCEPTUAL) @ BUILDING 'B' **HEATED ASPHALT TANK** SCALE: NONE

# ELECTRICAL PANELS & SCHEDULES

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |

## ELECTRICAL NOTES:

1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR THE DIMENSIONS.
2. ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.)
3. PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
4. SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE AMPERE SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND FAULT INTERRUPTION WHERE SHOWN OR AS REQUIRED BY CODE.
5. CONTRACTOR SHALL PROVIDE SERVICE DISCONNECT ON EXTERIOR OF BUILDING.
6. ALL RECEPTACLES TO BE MOUNTED @ 48" A.F.F.
7. SEE SPECIFICATION SECTION 16100 – ELECTRICAL FOR ADDITIONAL REQUIREMENTS.
8. FIXTURE LOCATIONS ARE APPROXIMATE, EXACT LOCATIONS TO BE DETERMINED AFTER COLLABORATION WITH OWNER AND OTHER TRADES.
9. PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
10. COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH WORK.
11. ALL DEDICATED 20 AMP EXTERIOR GFI SINGLE RECEPTACLE OUTLETS TO BE CLASS B.

## LEGEND

- $ — SINGLE POLE SWITCH, FLUSH MOUNTED IN FINISHED AREAS @ 48" A.F.F. SINGLE POLE SWITCH, SURFACE MOUNTED IN UNFINISHED AREAS @ 48" A.F.F.
- $WP — SINGLE POLE SWITCH, MOUNT IN FS BOX WITH HUBBELL HBL 7420 COVER.
- DUPLEX RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET. DUPLEX RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F.
- WP — DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER.
- SINGLE RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F.
- WP — SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER.
- WELDER RECEPTACLE SURFACE MOUNTED 42" A.F.F., MOUNT IN 4" SQUARE BOX WITH RAISED COVER.

#12 COPPER NEUTRAL CONDUCTOR UNLESS NOTED
#12 COPPER PHASE CONDUCTORS UNLESS NOTED
1/2" EMT UNLESS NOTED
#12 COPPER GROUNDING CONDUCTOR UNLESS NOTED

## LEGEND

- WP — DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER. MOUNT 42" A.F.F.
- WP — SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER. MOUNT 42" A.F.F.

STORAGE BUILDING 'B'

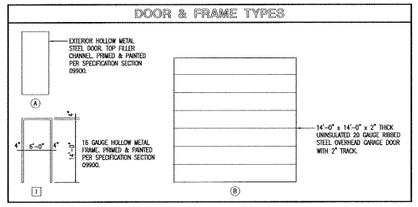
## DOOR SCHEDULE

| NO. | SIZE | SWING | DR. TYPE | FRM. TYPE | DETAIL | DEPTH | HDWR. GRP. |
|---|---|---|---|---|---|---|---|
| 1 | 3'-0" x 7'-0" x 1-3/4" | LHR | A | 1 | J-26 | 6-1/2" | * |
| 2 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 3 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 4 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 5 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |

* EQUAL TO STANLEY 1-1/2 PR. HINGES, FBH179 4 1/2 x 4 1/2 US28D + EQUAL TO BEST STOREROOM LOCKSET 93K-7-D-15D-S3-626 US26D, PROVIDE SILENCERS AS REQUIRED.

STORAGE BUILDING 'B'

## DOOR & FRAME TYPES




## GENERAL NOTES:

BUILDING MANUFACTURER TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, WINDOWS, COLUMNS AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

## SERVICE PANEL A - STORAGE BLDG. 'B'

MAIN BUS: 200A
VOLTS: 120/208 3-PH, 4 WIRE
BUSS MATERIAL: COPPER
MOUNTING: SURFACE

SQUARE "D" NOCD OR EQUAL
W/NEUTRAL BUSS & GROUNDING BUSS
CIRCUIT BREAKERS BOLT-IN 10000 AIC
200 AMP MAIN BREAKER

CONNECTED LOAD
A PHASE 25153 VA
B PHASE 21013 VA
C PHASE 18041 VA
TOTAL 64207 VA

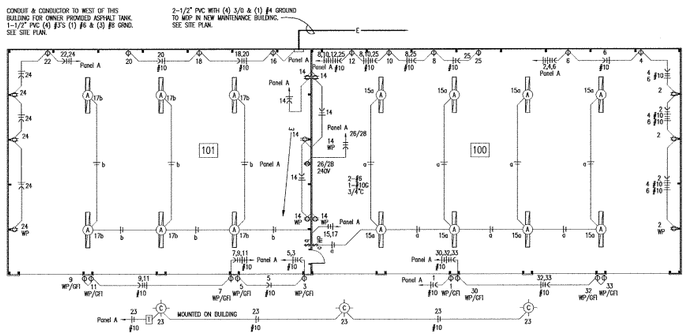
| CIR | SERVICE | VA | BKR | | BKR | VA | SERVICE | CIR |
|---|---|---|---|---|---|---|---|---|
| 1 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | A | 20A1P | 540 | 100 – RECEPTACLES @ | 2 |
| 3 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | 20A1P | 1000 | 100 – RECEPTACLES @ | 4 |
| 5 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | 100 – RECEPTACLES @ | 6 |
| 7 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | A | 20A1P | 1000 | 100 – RECEPTACLES @ | 8 |
| 9 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | 20A1P | 1000 | 100 – RECEPTACLES @ | 10 |
| 11 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | 100 – RECEPTACLES @ | 12 |
| 13 | SPARE | --- | 20A1P | A | 20A1P | 1080 | 100, 101 – RECEPTACLES @ | 14 |
| 15 | 100 – LIGHTS | 1280 | 20A1P | B | 20A1P | 1000 | 101 – RECEPTACLES @ | 16 |
| 17 | 101 – LIGHTS | 960 | 20A1P | C | 20A1P | 1000 | 101 – RECEPTACLES @ | 18 |
| 19 | SPARE | --- | 20A1P | A | 20A1P | 1000 | 101 – RECEPTACLES @ | 20 |
| 21 | SPARE | --- | 20A1P | B | 20A1P | 900 | 101 – RECEPTACLES @ | 22 |
| 23 | EXTERIOR – LIGHTS | 648 | 20A1P | C | 20A1P | 900 | 101 – RECEPTACLES @ | 24 |
| 25 | 100 – RECEPTACLES @ | 1000 | 20A1P | A | 50A2P | 4500 | 101 – WELDER | 26 |
| 27 | HEATED OIL TANK | 8333 | 100A2P | B | | 4500 | | 28 |
| 29 | | 8333 | | C | 20A1P | 1000 | EXTERIOR – RECEPTACLE | 30 |
| 31 | | 8333 | | A | 20A1P | 4500 | EXTERIOR – RECEPTACLE | 32 |
| 33 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | 20A1P | --- | SPARE | 34 |
| 35 | TANK AGITATOR MOTOR | 1250 | 30A2P | C | | | | 36 |
| 37 | | 1200 | | A | | | | 38 |
| 39 | | | | B | | | | 40 |
| 41 | | | | C | | | | 42 |

@ CIRCUIT BREAKER SHALL BE GFI RATED

## ELECTRIC SCHEDULE

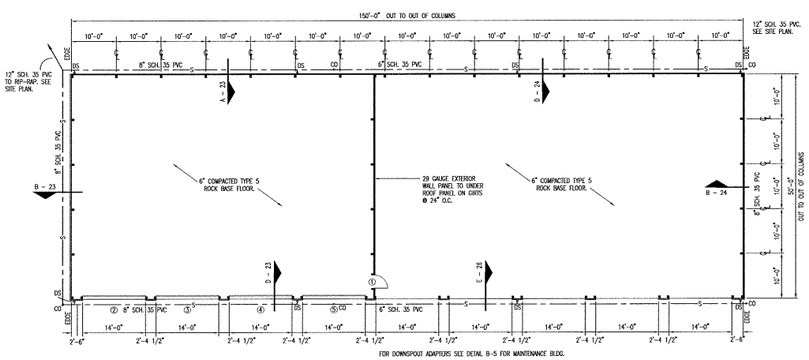
| MANUF. | MODEL | LAMPS # | LAMPS TYPE | LAMPS W | MOUNT | REMARKS |
|---|---|---|---|---|---|---|
| LITHONIA (A) | CM 2 32 ARED 120 CW | 2 | FLOURESCENT | 32 | WALL | 48" LONG SURFACE MOUNT FLUORESCENT LIGHT FIXTURE, W/ PAINTED STEEL HOUSING, & ELECTRONIC BALLAST. |
| WILLIAMS (C) | PGW-175H-128-2 | 1 | METAL HALIDE | 175 | WALL | EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, W/ ALUMINUM HOUSING, & IMPACT RESISTANT ONE-PIECE, WRAP-AROUND LENS. |
| (S) | OVERHEAD DOOR CONTROL | | | | WALL | THREE BUTTON OVERHEAD DOOR CONTROL AS SUPPLIED BY OVERHEAD DOOR MANUF. SEE SPECIFICATION SECTION 08720. |
| TORK (T) | 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.




C/20 STORAGE BUILDING 'B' ELECTRIC PLAN
SCALE: 1/16" = 1'-0"

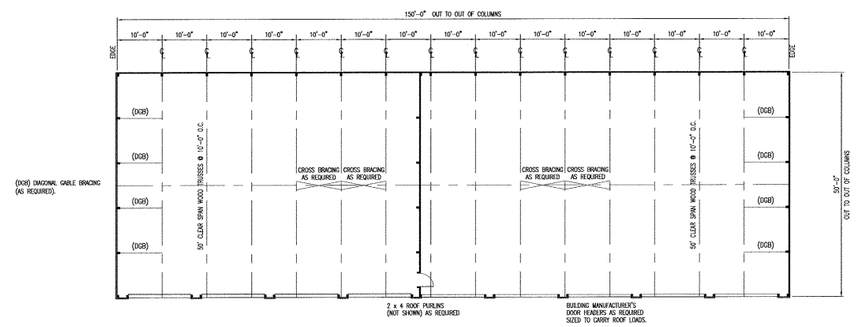
NORTH




A/20 STORAGE BUILDING 'B' FLOOR PLAN
SCALE: 1/16" = 1'-0"

NORTH

NOTE: SEE A-27 FOR FOUNDATION PLAN




B/20 STORAGE BUILDING 'B' ROOF FRAMING PLAN
SCALE: 1/16" = 1'-0"

NORTH

## ROOF FRAMING NOTES

1. DESIGN LOADING FOR ROOF TRUSSES SHALL MEET THE FOLLOWING CRITERIA:
   - ROOF LIVE LOAD 20 PSF
   - ROOF DEAD LOAD 4 PSF
   - BOTTOM CORD DEAD LOAD 5 PSF
   - EARTHQUAKE ZONE 1, LATEST EDITION IBC
   - WIND 90 MPH, EXPOSURE B
   - DEFLECTION L/360
   - SPACING AS REQUIRED.
2. TRUSS DESIGN SUBMITTALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI.
3. ROOF TRUSSES AND RAFTERS SHALL BE ANCHORED TO THE TOP PLATE OF LOAD BEARING WALLS WITH SEISMIC AND HURRICANE ANCHORS EQUAL TO SIMPSON STRONG TIE (R)H ANCHORS.

## GENERAL NOTES:

BUILDING MANUFACTURER TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, WINDOWS, POLE(S) AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

## ALTERNATE CONDITIONS:

THE VARYING MAKEUP OF SOILS AND OCCURRENCE OF ROCK IN MANY MIDWEST DISTRICTS MAY REQUIRE CONSIDERABLE REDESIGN OF THE POST PLACEMENT BELOW GRADE FROM THAT SHOWN IN THESE DRAWINGS. THE BIDDER WILL BE RESPONSIBLE FOR OBTAINING ACCURATE INFORMATION FROM THE DISTRICTS FACILITES MANAGER (I.E. DRILLINGS OR BORINGS INFORMATION 5'-0" DEEP AT EACH BUILDING CORNER AND AT LEAST ONE INTERMEDIATE SAMPLE TO THIS DEPTH ON THE LONG SIDES OF THE PROPOSED STRUCTURE) SO THAT THE BID WILL REFLECT ANY FOUNDATION REQUIREMENTS BEYOND THOSE SHOWN HERE. INFORMATION COULD INCLUDE PREVIOUS EXCAVATIONS THAT VERIFY FOOTING CONDITIONS THAT WILL BE ENCOUNTERED BY THIS CONTRACTOR.

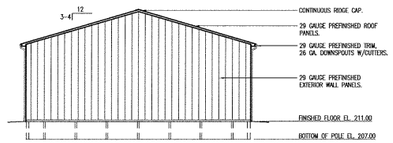
STATE OF MISSOURI
LARRY D. CARVER
NUMBER A-2101
REGISTERED ARCHITECT

# STORAGE BUILDING B PLANS

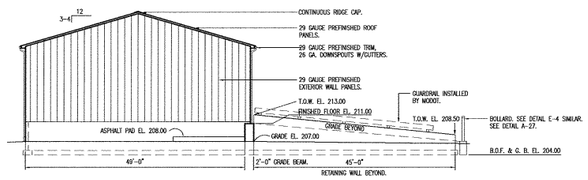
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

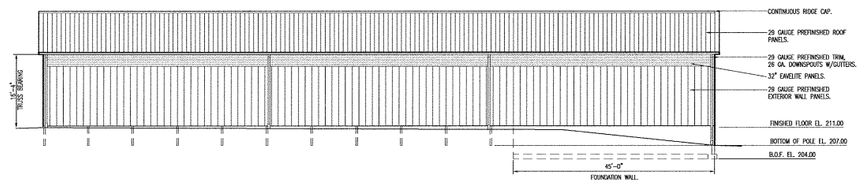
DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.C.S.
Sheet 20 of 27



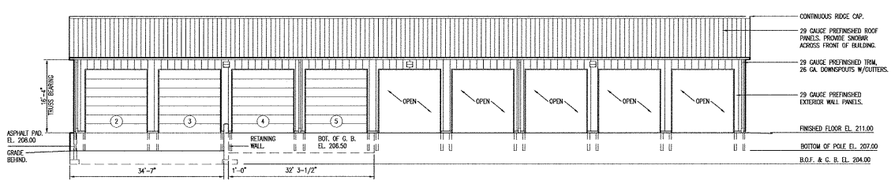

D 21 STORAGE BUILDING 'B'
## EAST ELEVATION
SCALE: 1/16" = 1'-0"



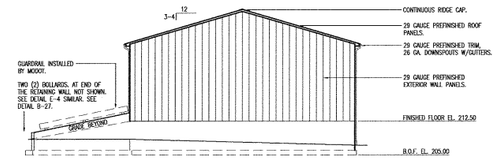

C 21 STORAGE BUILDING 'B'
## WEST ELEVATION
SCALE: 1/16" = 1'-0"



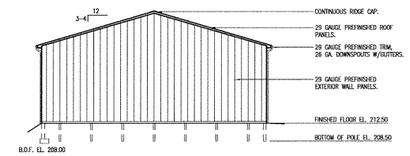

B 21 STORAGE BUILDING 'B'
## NORTH ELEVATION
SCALE: 1/16" = 1'-0"



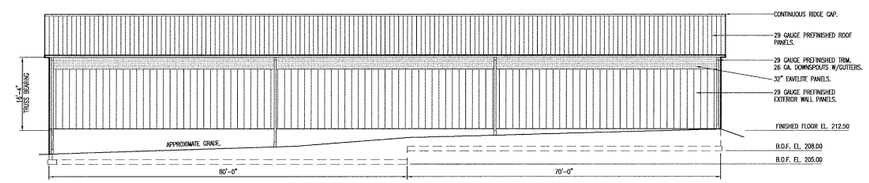

A 21 STORAGE BUILDING 'B'
## SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



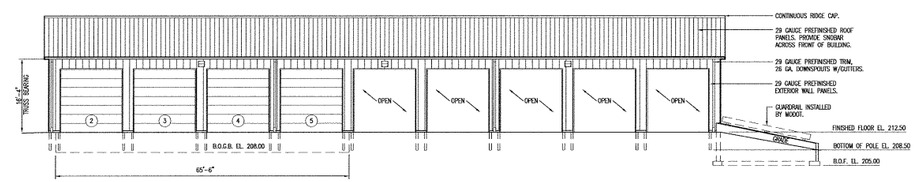

H 21 STORAGE BUILDING 'C'
## WEST ELEVATION
SCALE: 1/16" = 1'-0"




G 21 STORAGE BUILDING 'C'
## EAST ELEVATION
SCALE: 1/16" = 1'-0"




F 21 STORAGE BUILDING 'C'
## SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



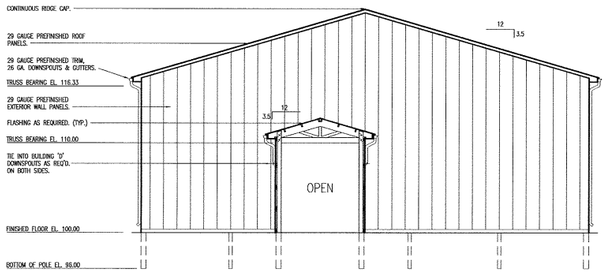

E 21 STORAGE BUILDING 'C'
## NORTH ELEVATION
SCALE: 1/16" = 1'-0"

# STORAGE BUILDING B & C ELEVATIONS

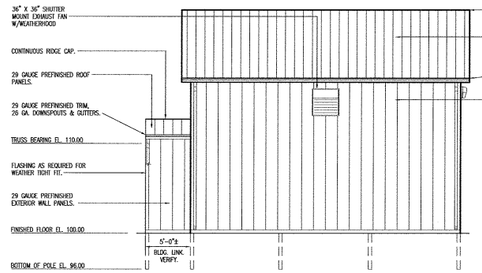
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

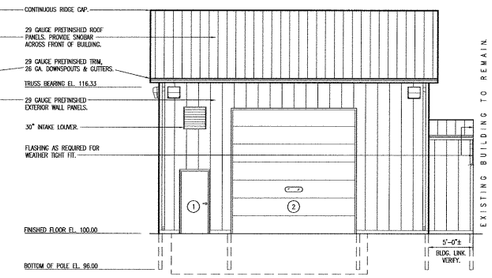
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 21 OF 27 |



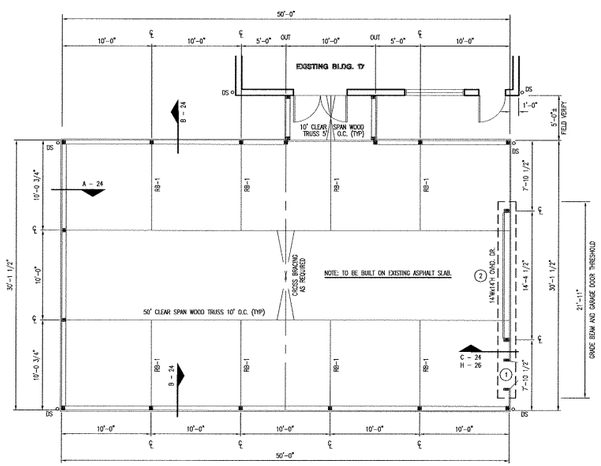

C 22 **EAST ELEVATION**
SCALE: 1/8" = 1'-0"




D 22 **NORTH ELEVATION**
SCALE: 1/8" = 1'-0"




E 22 **SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"




A 22 BUILDING "E" FLOOR PLAN WITH **ROOF FRAMING PLAN**
SCALE: 1/8" = 1'-0"

NORTH

## CONTRACTOR NOTE:

CONTRACTOR TO INSTALL POLES AS REQUIRED THROUGH EXISTING ASPHALT FLOOR AS REQUIRED AT BUILDING "E". MODOT TO PATCH FLOOR AFTER CONSTRUCTION.

CONTRACTOR TO CONNECT DOWNSPOUTS ON BOTH SIDES OF 5'-0"± LINK TO EXISTING DOWNSPOUTS ON BUILDING "D" AS REQUIRED. SEE DETAIL B-26.

## ROOF FRAMING NOTES

1. DESIGN LOADING FOR ROOF TRUSSES SHALL MEET THE FOLLOWING CRITERIA:

| | |
|---|---|
| ROOF LIVE LOAD | 20 PSF |
| ROOF DEAD LOAD | 4 PSF |
| BOTTOM CORD DEAD LOAD | 5 PSF |
| EARTHQUAKE | ZONE 1, LATEST EDITION IBC |
| WIND | 90 MPH, EXPOSURE B |
| DEFLECTION | L/360 |
| SPACING | AS REQUIRED. |

2. TRUSS DESIGN SUBMITTALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI.

3. ROOF TRUSSES AND RAFTERS SHALL BE ANCHORED TO THE TOP PLATE OF LOAD BEARING WALLS WITH SEISMIC AND HURRICANE ANCHORS EQUAL TO SIMPSON STRONG TIE #H1 ANCHORS.

## DOOR SCHEDULE

| NO. | SIZE | SWING | DR. TYPE | FRM. TYPE | DETAIL | DEPTH | HDWR. GRP. |
|---|---|---|---|---|---|---|---|
| 1 | 3'-0" x 7'-0" x 1-3/4" | UHR | A | 1 | J-26 | 6-1/2" | * |
| 2 | 14'-0" x 14'-0" | --- | B | --- | F,K,L-26 | --- | --- |

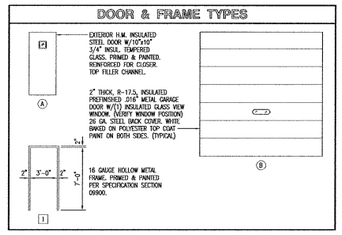
* SEE DOOR HARDWARE ATTACHMENT SHEET.

## GENERAL NOTES:

BUILDING MANUFACTURER TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, WINDOWS, COLUMNS AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

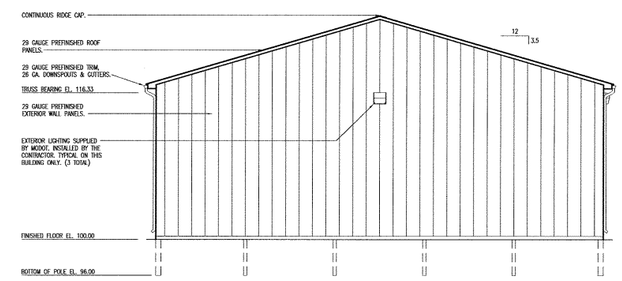
BUILDING MANUFACTURER'S DOOR HEADERS AS REQUIRED SIZED TO CARRY ROOF LOAD.

## DOOR & FRAME TYPES




## ALTERNATE CONDITIONS:

THE VARYING MAKEUP OF SOILS AND OCCURRENCE OF ROCK IN MANY MODOT DISTRICTS MAY REQUIRE CONSIDERABLE REDESIGN OF THE POST PLACEMENT BELOW GRADE FROM THAT SHOWN IN THESE DRAWINGS. THE BIDDER WILL BE RESPONSIBLE FOR OBTAINING ACCURATE INFORMATION FROM THE DISTRICTS FACILITIES MANAGER (I.E. DRILLINGS OR BORINGS INFORMATION 5'-0" DEEP AT EACH BUILDING CORNER AND AT LEAST ONE INTERMEDIATE SAMPLE TO THIS DEPTH ON THE LONG SIDES OF THE PROPOSED STRUCTURE) SO THAT THE BID WILL REFLECT ANY FOUNDATION REQUIREMENTS BEYOND THOSE SHOWN HERE. INFORMATION COULD INCLUDE PREVIOUS EXCAVATIONS THAT VERIFY FOOTING CONDITIONS THAT WILL BE ENCOUNTERED BY THIS CONTRACTOR.




B 22 **WEST ELEVATION**
SCALE: 1/8" = 1'-0"

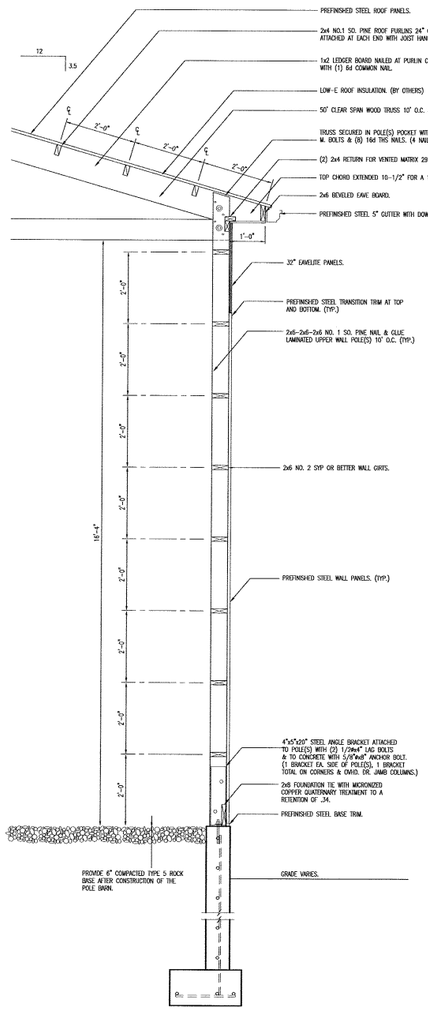
STATE OF MISSOURI
LARRY D. CARVER
NUMBER A-6104
REGISTERED ARCHITECT
8/6/09

# BUILDING E PLANS

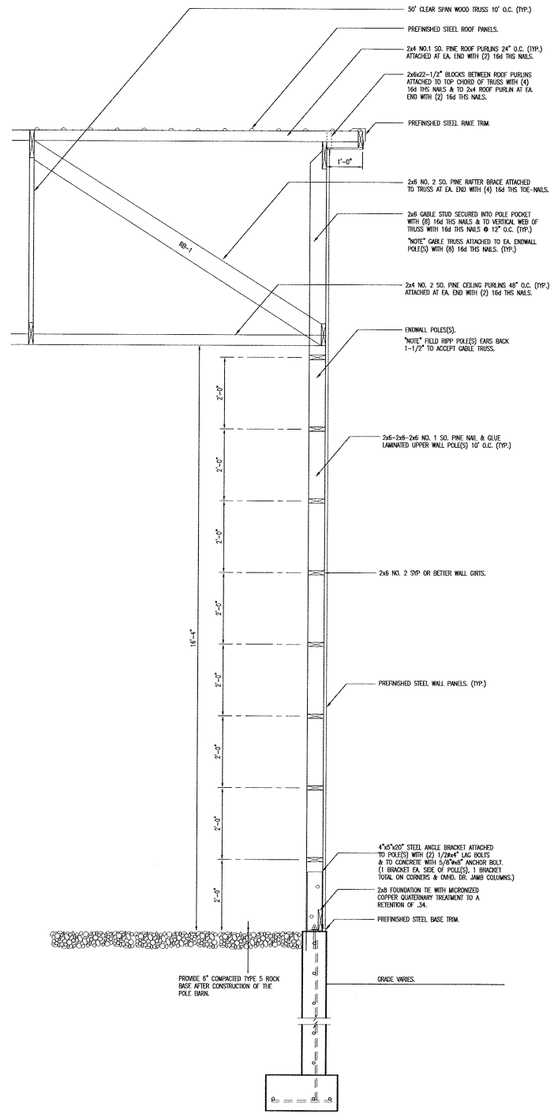
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

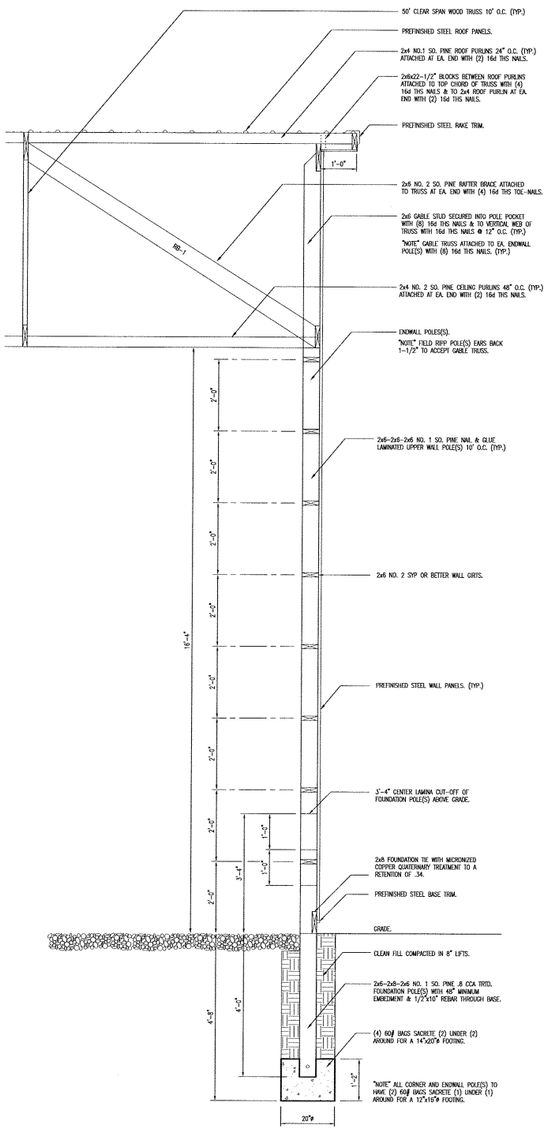
DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 22 OF 27



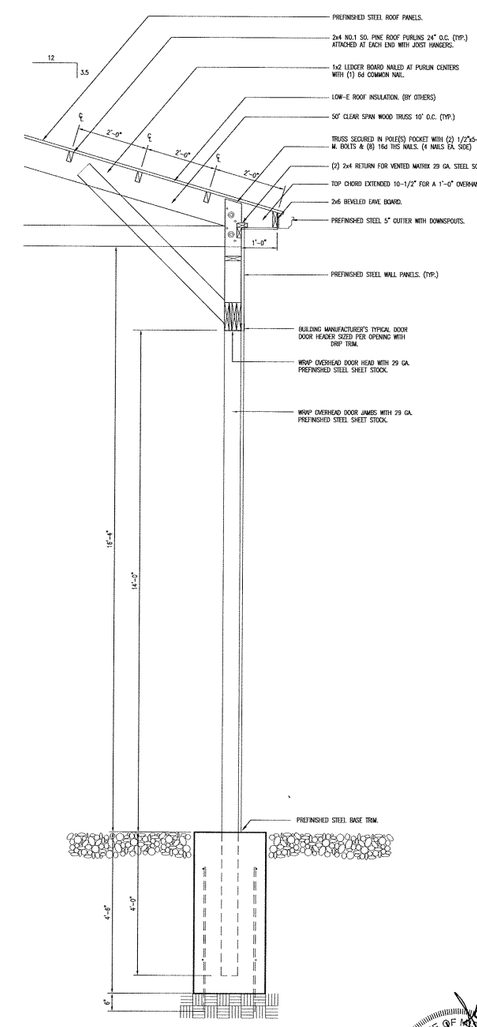

A 23 STANDARD FRAME CONCRETE MOUNT **WALL SECTION**
SCALE: 1/2" = 1'-0"




B 23 STANDARD FRAME CONCRETE MOUNT **WALL SECTION**
SCALE: 1/2" = 1'-0"




C 23 STANDARD FRAME IN-GROUND **WALL SECTION**
SCALE: 1/2" = 1'-0"



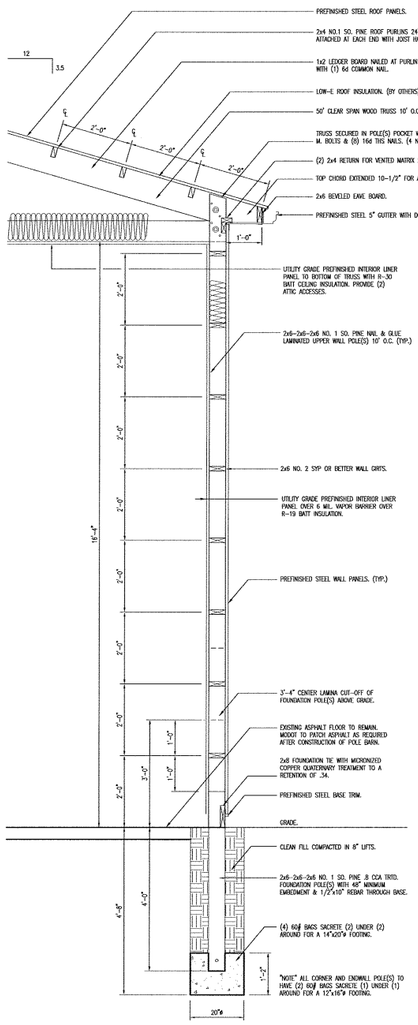

D 23 **OVERHEAD DOOR SECTION**
SCALE: 1/2" = 1'-0"

# POLE BARN WALL SECTIONS

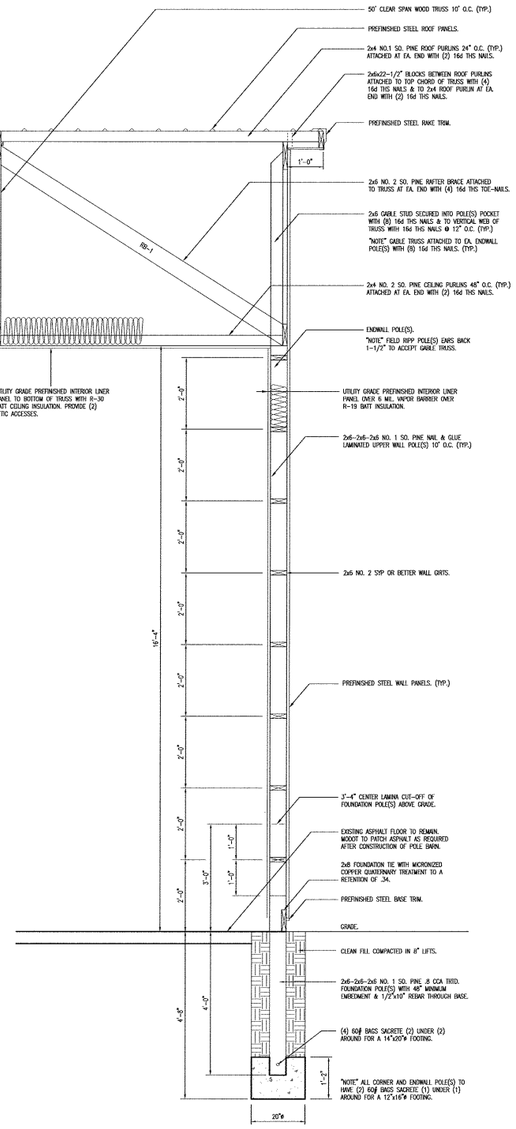
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

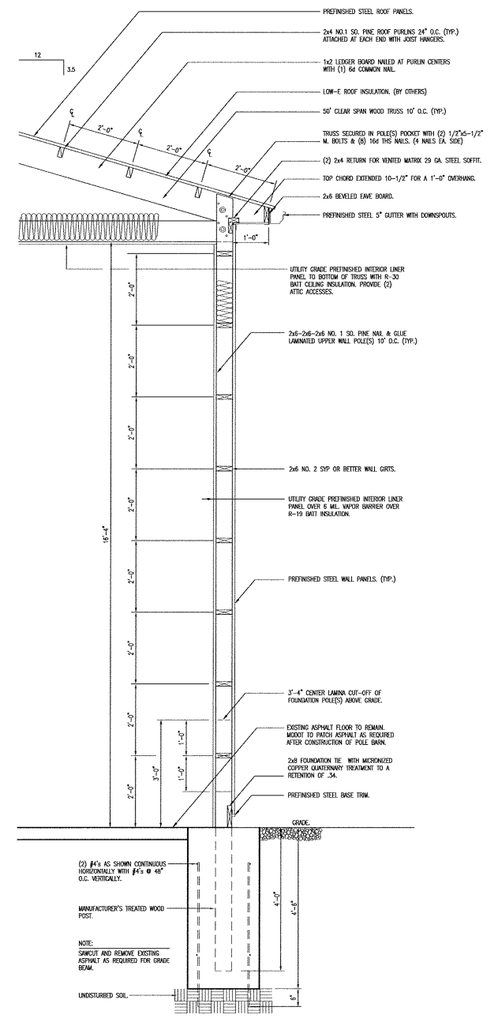
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 23 OF 27 |



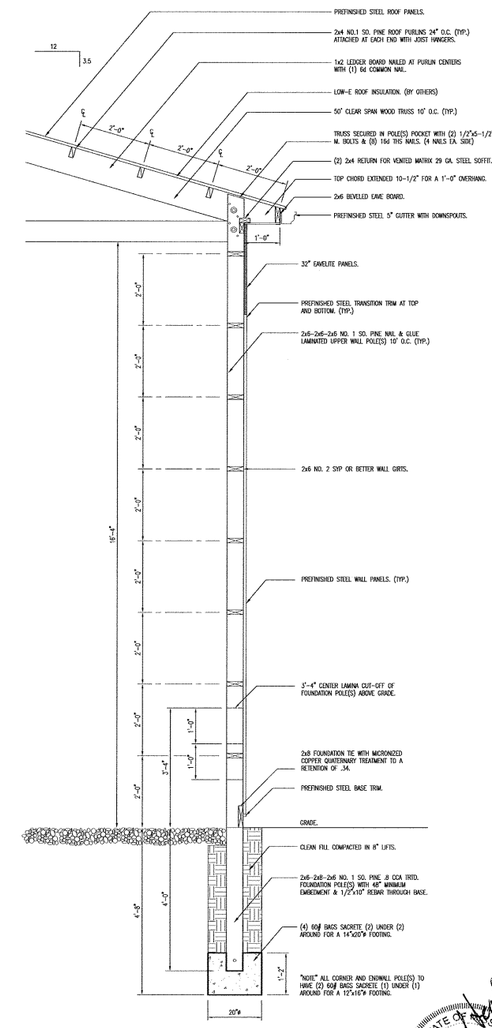

A/24 STANDARD FRAME IN-GROUND WALL SECTION
SCALE: 1/2" = 1'-0"




B/24 STANDARD FRAME IN-GROUND WALL SECTION
SCALE: 1/2" = 1'-0"




C/24 STANDARD FRAME IN-GROUND WALL SECTION
SCALE: 1/2" = 1'-0"




D/24 STANDARD FRAME IN-GROUND WALL SECTION
SCALE: 1/2" = 1'-0"

STATE OF MISSOURI
DEBORAH D. DRAKE
NUMBER
A-2101
REGISTERED ARCHITECT

# POLE BARN WALL SECTIONS

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 24 OF 27 |

## ELECTRICAL NOTES:

1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR THE DIMENSIONS.
2. ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.)
3. PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
4. SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE AMPERE SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND FAULT INTERRUPTION WHERE SHOWN OR AS REQUIRED BY CODE.
5. CONTRACTOR SHALL PROVIDE SERVICE DISCONNECT ON EXTERIOR OF BUILDING.
6. ALL RECEPTACLES TO BE MOUNTED @ 48" A.F.F.
7. SEE SPECIFICATION SECTION 16100 – ELECTRICAL FOR ADDITIONAL REQUIREMENTS.
8. FIXTURE LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED AFTER COLLABORATION WITH OWNER AND OTHER TRADES.
9. PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
10. COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH WORK.
11. ALL DEDICATED 20 AMP EXTERIOR GFI SINGLE RECEPTACLE OUTLETS TO BE CLASS B.

## LEGEND

- $ — SINGLE POLE SWITCH, FLUSH MOUNTED IN FINISHED AREAS @ 48" A.F.F. SINGLE POLE SWITCH, SURFACE MOUNTED IN UNFINISHED AREAS @ 48" A.F.F.
- $WP — SINGLE POLE SWITCH, MOUNT IN FS BOX WITH HUBBELL HBL 7420 COVER.
- DUPLEX RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET. DUPLEX RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F.
- WP — DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER.
- SINGLE RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F.
- WP — SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER.
- WELDER RECEPTACLE SURFACE MOUNTED 42" A.F.F., MOUNT IN 4" SQUARE BOX WITH RAISED COVER.
- #12 COPPER NEUTRAL CONDUCTOR UNLESS NOTED
- #12 COPPER PHASE CONDUCTORS UNLESS NOTED
- 1/2" EMT UNLESS NOTED
- #12 COPPER GROUNDING CONDUCTOR UNLESS NOTED

## LEGEND

- WP — DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER. MOUNT 42" A.F.F.
- WP — SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER. MOUNT 42" A.F.F.

STORAGE BUILDING "C"

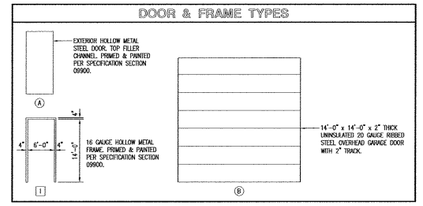
## DOOR SCHEDULE

| NO. | SIZE | SWING | DR. TYPE | FRM. TYPE | DETAIL | DEPTH | HDWR. GRP. |
|---|---|---|---|---|---|---|---|
| 1 | 3'-0" x 7'-0" x 1-3/4" | LHR | A | I | J-26 | 6-1/2" | * |
| 2 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 3 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 4 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |
| 5 | 14'-0" x 14'-0" | --- | B | --- | K & L-26 | --- | --- |

* EQUAL TO STANLEY 1-1/2 PR. HINGES, FBB179 4 1/2 x 4 1/2 US26D + EQUAL TO BEST STOREROOM LOCKSET 93K-7-D-15D-53-626 US26D, PROVIDE SILENCERS AS REQUIRED.

STORAGE BUILDING "C"

## DOOR & FRAME TYPES




## GENERAL NOTES:

BUILDING MANUFACTURER TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, WINDOWS, COLUMNS AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

## SERVICE PANEL A - STORAGE BLDG. "C"

MAIN BUS: 100A MLO
VOLTS: 120/208 3-PH, 4 WIRE
BUSS MATERIAL: COPPER
MOUNTING: SURFACE

SQUARE "D" NQOD OR EQUAL W/NEUTRAL BUSS & GROUNDING BUSS
CIRCUIT BREAKERS BOLT-IN 10000 AIC
100 AMP MAIN BREAKER

CONNECTED LOAD
A PHASE 11120 VA
B PHASE 11680 VA
C PHASE 7508 VA
TOTAL 30308 VA

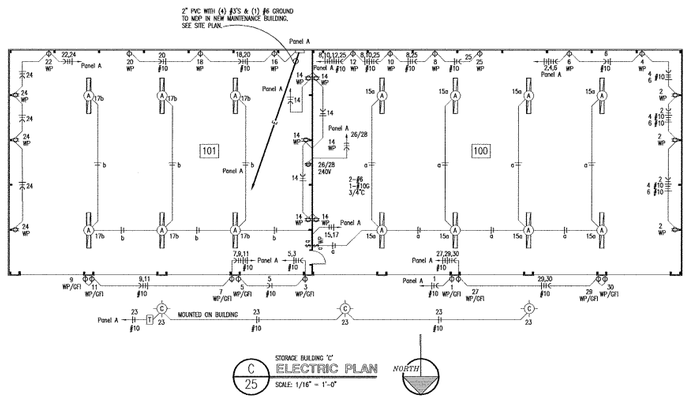
| CKT | SERVICE | VA | BKR | | BKR | VA | SERVICE | | CKT |
|---|---|---|---|---|---|---|---|---|---|
| 1 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | A | 20A1P | 540 | 100 – RECEPTACLES | GFI | 2 |
| 3 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | 20A1P | 1000 | 100 – RECEPTACLES | GFI | 4 |
| 5 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | 100 – RECEPTACLES | GFI | 6 |
| 7 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | A | 20A1P | 1000 | 100 – RECEPTACLES | GFI | 8 |
| 9 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | 20A1P | 1000 | 100 – RECEPTACLES | GFI | 10 |
| 11 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | 100 – RECEPTACLES | GFI | 12 |
| 13 | SPARE | --- | 20A1P | A | 20A1P | 1080 | 100, 101 – RECEPTACLES | GFI | 14 |
| 15 | 100 – LIGHTS | 1280 | 20A1P | B | 20A1P | 1000 | 101 – RECEPTACLES | GFI | 16 |
| 17 | 101 – LIGHTS | 960 | 20A1P | C | 20A1P | 1000 | 101 – RECEPTACLES | GFI | 18 |
| 19 | SPARE | --- | 20A1P | A | 20A1P | 1000 | 101 – RECEPTACLES | GFI | 20 |
| 21 | SPARE | --- | 20A1P | B | 20A1P | 900 | 101 – RECEPTACLES | GFI | 22 |
| 23 | EXTERIOR – LIGHTS | 648 | 20A1P | C | 20A1P | 900 | 101 – RECEPTACLES | GFI | 24 |
| 25 | 100 – RECEPTACLES GFI | 1000 | 20A1P | A | 50A2P | 4500 | 101 – WELDER | | 26 |
| 27 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | B | | 4500 | | | 28 |
| 29 | EXTERIOR – RECEPTACLE | 1000 | 20A1P | C | 20A1P | 1000 | EXTERIOR – RECEPTACLE | | 30 |
| 31 | | | | A | | | | | 32 |
| 33 | | | | B | | | | | 34 |
| 35 | | | | C | | | | | 36 |
| 37 | | | | A | | | | | 38 |
| 39 | | | | B | | | | | 40 |
| 41 | | | | C | | | | | 42 |

GFI CIRCUIT BREAKER SHALL BE GFI RATED

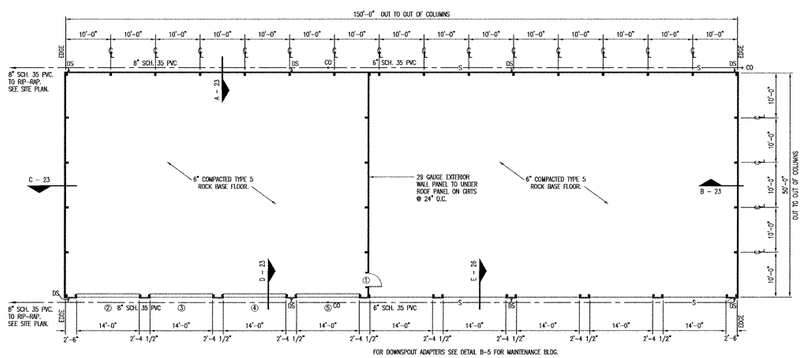
## ELECTRIC SCHEDULE

| MANUF. | MODEL | # | LAMPS TYPE | W | MOUNT | REMARKS |
|---|---|---|---|---|---|---|
| LITHONIA LIGHTING | DM 2 32 ARBP 120 CW | 2 | FLOURESCENT | 32 | WALL | 48" LONG SURFACE MOUNT FLUORESCENT LIGHT FIXTURE, W/ PAINTED STEEL HOUSING, & ELECTRONIC BALLAST. |
| WILLIAMS | PSW-175H-128-2 | 1 | METAL HALIDE | 175 | WALL | EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, W/ ALUMINUM HOUSING, & IMPACT RESISTANT ONE-PIECE, WRAP-AROUND LENS. |
| S | OVERHEAD DOOR CONTROL | | | | WALL | THREE BUTTON OVERHEAD DOOR CONTROL AS SUPPLIED BY OVERHEAD DOOR MANUF. SEE SPECIFICATION SECTION 08720. |
| TORK I | 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.

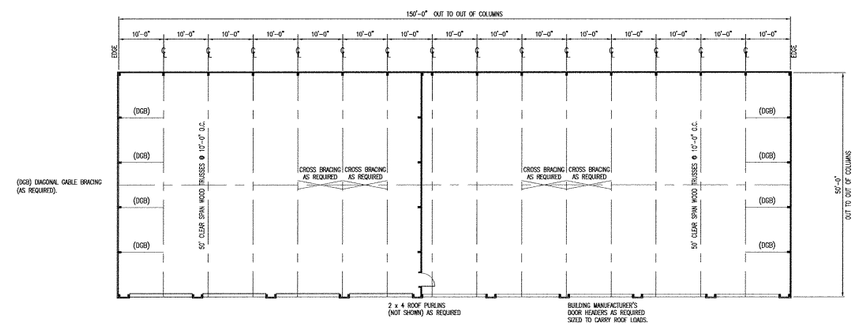



C/25 STORAGE BUILDING "C" ELECTRIC PLAN
SCALE: 1/16" = 1'-0"
NORTH




A/25 STORAGE BUILDING "C" FLOOR PLAN
SCALE: 1/16" = 1'-0"
NORTH

NOTE: SEE B-27 FOR FOUNDATION PLAN




B/25 STORAGE BUILDING "C" ROOF FRAMING PLAN
SCALE: 1/16" = 1'-0"
NORTH

## ROOF FRAMING NOTES

1. DESIGN LOADING FOR ROOF TRUSSES SHALL MEET THE FOLLOWING CRITERIA:

| | |
|---|---|
| ROOF LIVE LOAD | 20 PSF |
| ROOF DEAD LOAD | 4 PSF |
| BOTTOM CORD DEAD LOAD | 5 PSF |
| EARTHQUAKE | ZONE 1, LATEST EDITION IBC |
| WIND | 90 MPH, EXPOSURE B |
| DEFLECTION | L/360 |
| SPACING | AS REQUIRED. |

2. TRUSS DESIGN SUBMITALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI.
3. ROOF TRUSSES AND RAFTERS SHALL BE ANCHORED TO THE TOP PLATE OF LOAD BEARING WALLS WITH SEISMIC AND HURRICANE ANCHORS EQUAL TO SIMPSON STRONG TIE #H1 ANCHORS.

## GENERAL NOTES:

BUILDING MANUFACTURER TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, WINDOWS, POLE(S) AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

## ALTERNATE CONDITIONS:

THE VARYING MAKEUP OF SOILS AND OCCURRENCE OF ROCK IN MANY MODOT DISTRICTS MAY REQUIRE CONSIDERABLE REDESIGN OF THE POST PLACEMENT BELOW GRADE FROM THAT SHOWN IN THESE DRAWINGS. THE BIDDER WILL BE RESPONSIBLE FOR OBTAINING ACCURATE INFORMATION FROM THE DISTRICTS FACILITIES MANAGER (I.E. DRILLINGS OR BORINGS INFORMATION 5'-0" DEEP AT EACH BUILDING CORNER AND AT LEAST ONE INTERMEDIATE SAMPLE TO THIS DEPTH ON THE LONG SIDES OF THE PROPOSED STRUCTURE) SO THAT THE BID WILL REFLECT ANY FOUNDATION REQUIREMENTS BEYOND THOSE SHOWN HERE. INFORMATION COULD INCLUDE PREVIOUS EXCAVATIONS THAT VERIFY FOOTING CONDITIONS THAT WILL BE ENCOUNTERED BY THIS CONTRACTOR.

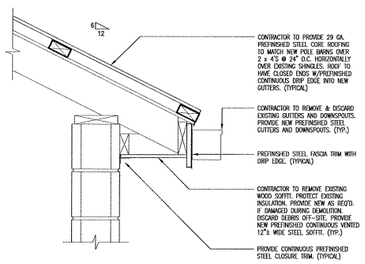
STATE OF MISSOURI
JOHN C. SCHMITT
NUMBER A-2101
REGISTERED ARCHITECT
8/7/09

# STORAGE BUILDING C PLANS

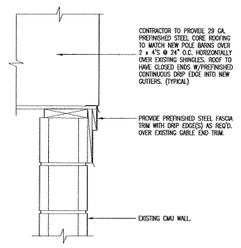
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

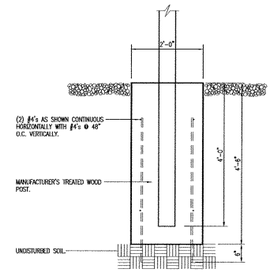
DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.C.S.
Sheet 25 OF 27



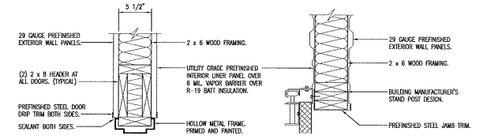

BUILDING D
**M 26 SOFFIT SECTION**
SCALE: 1" = 1'-0"




**N 26 GABLE END WALL**
SCALE: 1" = 1'-0"

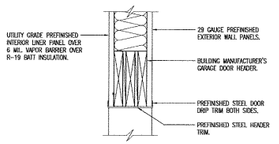



GRADE BEAM AND GARAGE DOOR THRESHOLD
**H 26 FOUNDATION DETAIL**
SCALE: 1/2" = 1'-0"

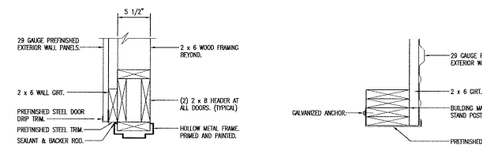



**P 26 DOOR HEADER/JAMB**
SCALE: 1" = 1'-0"

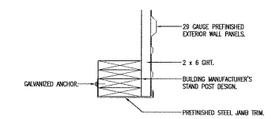
**Q 26 GARAGE DOOR JAMB**
SCALE: 1" = 1'-0"



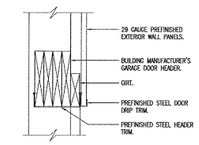

**R 26 GARAGE DOOR HEAD**
SCALE: 1" = 1'-0"



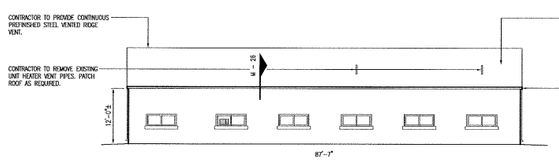

**J 26 DOOR HEADER/JAMB**
SCALE: 1" = 1'-0"



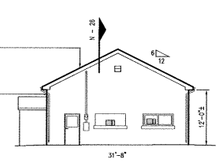

**K 26 GARAGE DOOR JAMB**
SCALE: 1" = 1'-0"



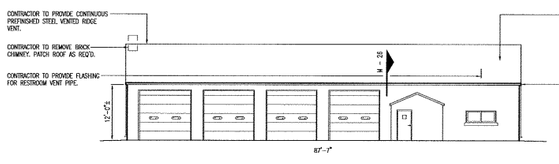

**L 26 GARAGE DOOR HEAD**
SCALE: 1" = 1'-0"



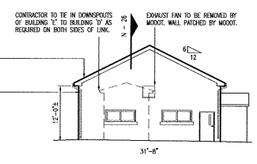

BUILDING D
**C 26 NORTH ELEVATION**
SCALE: 1/16" = 1'-0"



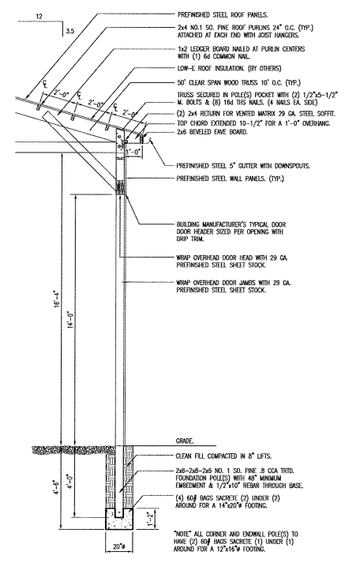

BUILDING D
**D 26 EAST ELEVATION**
SCALE: 1/16" = 1'-0"



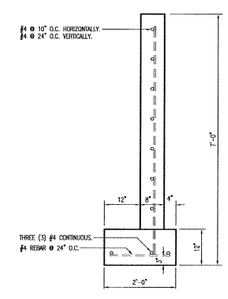

BUILDING D
**A 26 SOUTH ELEVATION**
SCALE: 1/16" = 1'-0"



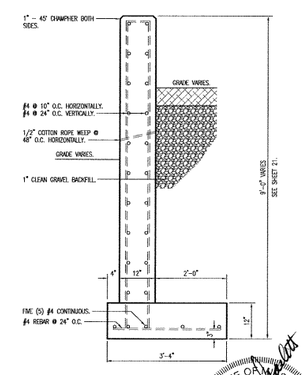

BUILDING D
**B 26 WEST ELEVATION**
SCALE: 1/16" = 1'-0"




STANDARD FRAME IN-GROUND
**E 26 WALL SECTION**
SCALE: 1/4" = 1'-0"




**F 26 WALL SECTION**
SCALE: 1/2" = 1'-0"




RETAINING
**G 26 WALL SECTION**
SCALE: 1/2" = 1'-0"

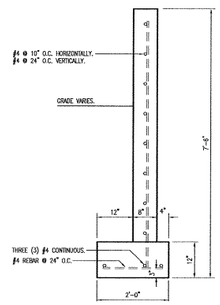
STATE OF MISSOURI
JERRY L. CARVER
NUMBER A-2101
REGISTERED ARCHITECT
8/31/09

# STORAGE BUILDING D REROOF

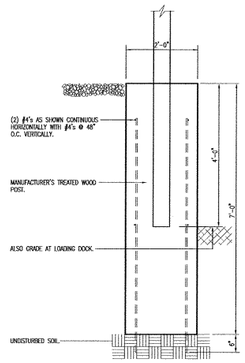
MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

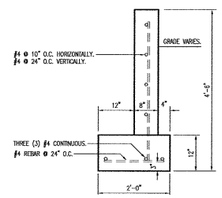
| | |
|---|---|
| DESIGN BY: | LARRY CARVER |
| DRAWN BY: | LARRY CARVER |
| DATE: | 8-7-09 |
| CHECKED BY: | J.G.S. |
| Sheet | 26 OF 27 |



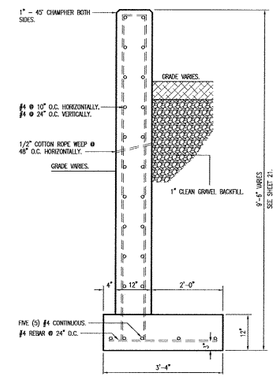

C 27 FOUNDATION **WALL SECTION**
SCALE: 1/2" = 1'-0"



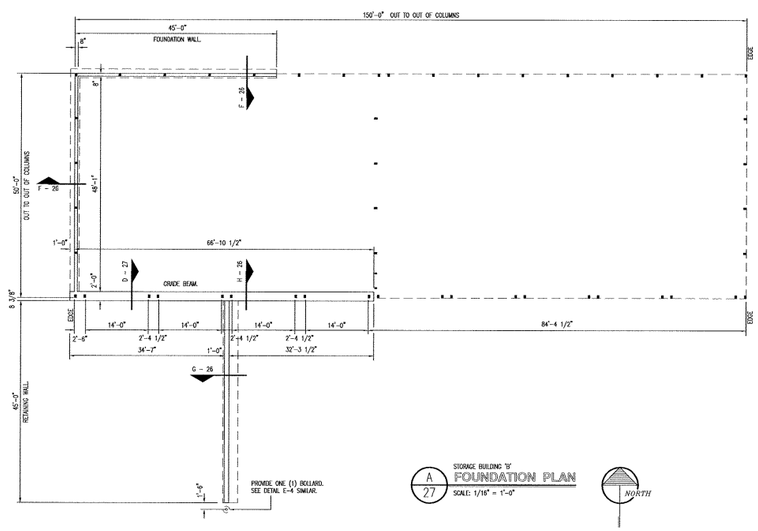

D 27 GRADE BEAM AND GARAGE DOOR THRESHOLD **FOUNDATION DETAIL**
SCALE: 1/2" = 1'-0"




E 27 FOUNDATION **WALL SECTION**
SCALE: 1/2" = 1'-0"

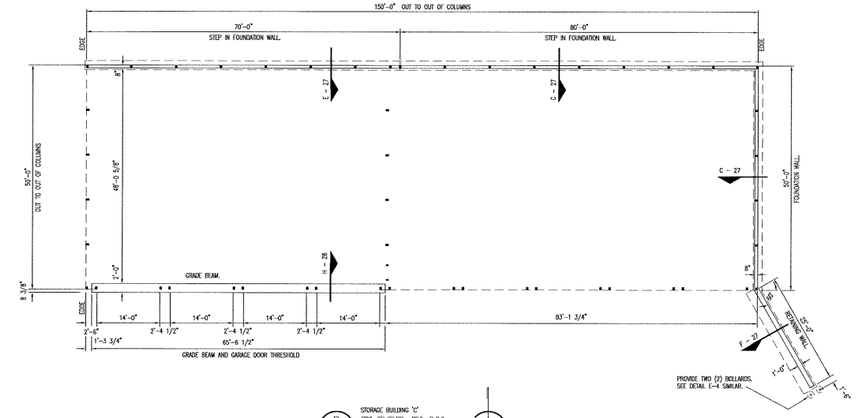



F 27 RETAINING **WALL SECTION**
SCALE: 1/2" = 1'-0"




A 27 STORAGE BUILDING 'B' **FOUNDATION PLAN**
SCALE: 1/16" = 1'-0"

NORTH




B 27 STORAGE BUILDING 'C' **FLOOR PLAN**
SCALE: 1/16" = 1'-0"

NORTH

# FOUNDATION PLANS BUILDING B & C

MISSOURI DEPARTMENT OF TRANSPORTATION
DIVISION OF GENERAL SERVICES
FACILITIES MANAGEMENT

NEW MAINTENANCE & STORAGE BUILDINGS
DISTRICT #6 ST. CLAIR, MISSOURI

DESIGN BY: LARRY CARVER
DRAWN BY: LARRY CARVER
DATE: 8-7-09
CHECKED BY: J.G.S.
Sheet 27 OF 27