Both coordinates and elevations were derived by static GPS observations and NGS OPUS solutions on November 20, 2012. Coordinates shown hereon are NAD83 (2011) (EPOCH: 2010.0000) Texas State Plane Coordinate System Central Zone grid values, in U.S. Survey Feet. Elevations are NAVD88 values using Geoid 12-A.
CONTRACTOR NOTE:
THERE IS A KNOWN ARCHAEOLOGICAL AREA IN THIS AREA. CONTACT TPWD TO IDENTIFY AREA PRIOR TO CONSTRUCTION.
1. Locate washout structure a minimum of 50 feet away from open channels, storm drain inlets, sensitive areas, wetlands, buffers and water courses and away from construction traffic.

2. Size washout structure for volume necessary to contain wash water and solids and maintain at least 4 inches of freeboard. Typical dimensions are 10 feet x 10 feet x 3 feet deep.

3. Prepare soil base free of rocks or other debris that may cause tears or holes in the liner. For liner, use 10 mil or thicker UV resistant, impermeable sheeting, free of holes and tears or other defects that compromise impermeability of the material.

4. Provide a sign for the washout in close proximity to the facility.

5. Keep concrete washout structure water tight. Replace impermeable liner if damaged (e.g., ripped or punctured). Empty or replace washout structure that is 75 percent full, and dispose of accumulated material properly. Do not reuse plastic liner. Wet-vacuum stored liquids that have not evaporated and dispose of in an approved manner. Prior to forecasted rainstorms, remove liquids or cover structure to prevent overflows. Remove hardened solids, whole or broken up, for disposal or recycling. Maintain runoff diversion around excavated washout structure until structure is removed.
The design specifications:

1. The South Llano River State Park Headquarters, including 1300 SF building located at South Llano River State Park.

2. Influent will be conveyed to the septic tank through a 2" NPS 30 solid wall PVC pipe at a nominal slope of 1% per foot.

3. One 300 gallon single compartment septic tank will be installed.

4. All tanks must be in accordance with TCEQ requirements. All tanks must be watertight and must be in compliance with TCEQ standards for on-site wastewater treatment facilities.

5. Septic tanks with permanent connection will be provided inside of each tank on the invert and outside of each tank.

6. The effluent from the septic tank(s) will be conveyed to the absorption field through a solid PVC pipe.

7. The absorption field will consist of leaching chambers using a class B1 soil. The number of panels installed will be 20.

Environmental consideration consists of covering the surface of the leach fields with vegetation having good moisture retention properties and providing the most low-maintenance flora possible.

Maintenance:

Septic tanks require occasional pumping to remove sludge and maintain flow. All owners responsible to properly maintain these systems. Make necessary reports to order for the systems to operate properly.

Favorable Weather

HS: 30°F

NOT TO SCALE

Sketch of project plan and design for the proposed construction
WATERLINE ROUTING PLAN AND PROFILE B

SCALE: 1"=30'
EXISTING 3" GAS LINE CROSSING
CONTACT WEST TEXAS GAS
(325-446-2555) FOR DETAILS
CONTRACTOR TO FIELD VERIFY LOCATION
OF GAS LINE PRIOR TO CONSTRUCTION.

WATERLINE ROUTING PLAN AND PROFILE C
SCALE 1"=10'
1. All trees to be preserved shall be protected against injury or damage, including soil compaction, breaking or shearing of bases, branches or branches during construction operations. A minimum of 50% of the RPZ shall be preserved at natural grade. No cutting, filling, trenching, root disturbance, soil disturbance, or construction impacts shall occur closer to the trunk than 1/2 the RPZ radius.

2. Unless otherwise noted, install temporary min. 4' ht fencing. See Detail 4/L301.

3. The proposed finished grade and elevation within the RPZ of any existing tree shall not be raised or lowered more than three (3) inches. Finished grade and elevation above or below 3" shall include tree wells/retaining walls outside the RPZ.

Note: 1. Apply tree trunk wrap to wood trees and prune the crown if needed to conform to the finished grades.
2. All trees shall be protected from construction impacts.

1. **ROOT PROTECTION ZONE (RPZ)**

2. **BRANCH PRUNING**

3. **TREE ARMOR**

4. **TREE BARRICADE FENCING**

5. **TREE BARRICADE FENCING (MULTIPLE TREES)**

6. **SHADE TREE PLANTING**

7. **MULTI-TRUNK TREE PLANTING**
In the event that migratory birds are encountered onsite during project construction, every effort will be made to avoid adverse impacts to protect birds, active nests, eggs, and/or young.

### PLANT SCHEDULE

<table>
<thead>
<tr>
<th>KEY</th>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>CONDITION</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TREES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>Quercus laceyi</td>
<td>Lacey Oak</td>
<td>Container 4&quot; cal. Single trunk, 9'-11' ht; 3'-5' sprd</td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>Quercus virginiana</td>
<td>Live Oak</td>
<td>Container 4&quot; cal. Single trunk, 10'-12' ht; 4'-6' sprd</td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td>Ulmus crassifolia</td>
<td>Cedar Elm</td>
<td>Container 4&quot; cal. Single trunk, 11'-13' ht; 5'-7' sprd</td>
<td></td>
</tr>
<tr>
<td>LAWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>Buchloe dactyloides '609'</td>
<td>609 Buffalo Grass</td>
<td>Container 4&quot; cal. Single trunk, 10'-12' ht; 4'-6' sprd</td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>Secora secundiflora</td>
<td>Texas Mountain Laurel</td>
<td>Container 3' ht, min. 3 trunks, 3'-4' sprd, full.</td>
<td></td>
</tr>
</tbody>
</table>

### PLANT SCHEDULE

#### LANDSCAPE PLAN

- **Keyed Notes:**
  - See area of grading and construction details, except where solid word in symbols placed on landscape plan. See Civil Plans for grading.
  - Contractor is responsible for quantities needed to cover all seeded areas.

- **Pre Determination Zone:** See Note 2.
1. INTERIOR ELEVATION
2. INTERIOR ELEVATION
3. INTERIOR ELEVATION
4. INTERIOR ELEVATION
5. INTERIOR ELEVATION

- Board & Batten Wood Siding, Painted
- Horizontal Wood Siding, Painted
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Sealed
- Galvanized Steel Brackets, Rods & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted
- 3CM Quartz Countertops & Splash
- Horizontal Wood Siding, Painted
- Wood Corner Trim, Painted
- Low-E, Insulated Glazing
- Wood Door, Painted, With Double-Acting Hinges
- Wood Cabinetry, Painted
- Transom Windows, With Low-E, Insulated Glazing
- Door & Window System, As Scheduled
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Stained & Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Visual Control Window
- Wood Cabinetry, Drawers
- Painted
- 3CM Quartz Countertop
- Exterior Door, As Scheduled
- Low-E, Insulated Glazing
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Horizontal Wood Siding, Painted
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Stained & Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Horizontal Wood Siding, Painted
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Wood Baseboard, Painted
- Wood Shiplap, Painted
- Board & Batten Wood Siding, Painted
- Pendant Fixtures, As Selected
- Wood Cabinetry, Painted
- Exposed Wood Rafters, Stained & Sealed

- Slat Wall, Painted
- Open, Adjustable Wood Shelving, Painted

- See Detail 7/A902
- Wood Shiplap, Painted
- 3CM Quartz Countertops, As Selected
- Wood Cabinetry, Painted
- Exposed Wood Rafters, Sealed
- Galvanized Steel Brackets, Rods, & Fasteners

- 4'-3 1/4" 3'-8 1/4" 5'-0" 3'-0" 3CM Quartz Countertops & Splash
- Horizontal Wood Siding, Painted
- Wood Corner Trim, Painted
- Low-E, Insulated Glazing
- Wood Door, Painted, With Double-Acting Hinges
- Wood Cabinetry, Painted
- Transom Windows, With Low-E, Insulated Glazing
- Door & Window System, As Scheduled
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Stained & Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Horizontal Wood Siding, Painted
- Pendant Fixtures, As Selected
- Exposed Wood Rafters, Sealed
- Galvanized Steel Brackets, Rods, & Fasteners
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Wood Baseboard, Painted
- 5/8" Gypsum Board, With Level 4 Finish, Painted

- Sheet Title
- Sheet Number
- Project Number: 134245
- Headquarters Building Renovation and Expansion
- South Llano River State Park
- Construction Documents
WOOD FRAMING.

**TYPE A**
4 3/4"
BASE AS SCHEDULED
ONE LAYER 5/8" GYP. BD. EACH SIDE
2x4 WOOD STUDS @ 16" O.C. TYP.
SCHED. CEILING
SECTION
PLAN

5/8" GYPSUM WALL BOARD
BEHIND WOOD SIDING,
WITH TAPED & FLOAT JOINTS
1x6 SHIPLAP WOOD SIDING W/ 1/4" REVEAL
PAINTED
1x6 BASE BOARD (PAINTED)
1/4x1 1/2 SHOE MOLDING
POLISHED CONCRETE
FLOOR AS SPECIFIED

**NOTE:**
1. CONTINUE GYP. BD.
FINISH A MIN. 6" ABOVE
2. LAY-IN CEILING. GYP. BD.
FINISHED CEILINGS.
6" MIN.

**TYPE B**
7 1/2"
SCHED. CEILING
ONE LAYER 5/8" GYP. BD. EACH SIDE
2x6 WOOD STUDS @ 16" O.C. TYP.
1x6 SHIPLAP WOOD SIDING W/ 1/4" REVEAL
PAINTED
SECTION
PLAN

**TYPE C**
5/8" TILE BACKER BOARD WITH CERAMIC TILE WAINSCOT.
REFER TO INTERIOR ELEVATIONS FOR HEIGHT OF WAINSCOT
2x6 WOOD STUDS @ 16" O.C.
BASE AS SCHEDULED
SCHED. CEILING
SECTION
PLAN

**TYPE D**
5/8" TILE BACKER BOARD WITH CERAMIC TILE WAINSCOT.
REFER TO INTERIOR ELEVATIONS FOR HEIGHT OF WAINSCOT
2x6 WOOD STUDS @ 16" O.C.
BASE AS SCHEDULED
SCHED. CEILING
SECTION
PLAN

**TYPE E**
5/8" TILE BACKER BOARD WITH CERAMIC TILE WAINSCOT.
REFER TO INTERIOR ELEVATIONS FOR HEIGHT OF WAINSCOT
2x6 WOOD STUDS @ 16" O.C.
BASE AS SCHEDULED
SCHED. CEILING
SECTION
PLAN

**TYPE F**
7 1/2"
SCHED. CEILING
ONE LAYER 5/8" GYP. BD. EACH SIDE
2x6 WOOD STUDS @ 16" O.C.
1x6 SHIPLAP WOOD SIDING W/ 1/4" REVEAL
PAINTED
SECTION
PLAN

**TYPE G**
4 3/4"
2x4 WOOD STUDS @ 16" O.C. TYP.
SCHED. CEILING
SECTION
PLAN

5/8" GYPSUM WALL BOARD
BEHIND WOOD SIDING,
WITH TAPED & FLOAT JOINTS
1x6 SHIPLAP WOOD SIDING W/ 1/4" REVEAL
PAINTED
1x6 BASE BOARD (PAINTED)
1/4x1 1/2 SHOE MOLDING
SOUTH LLANO RIVER STATE PARK
HEADQUARTERS BUILDING RENOVATION AND EXPANSION

1. TOP OF STRUCTURAL STEEL ELEVATION (BOTTOM OF ROOF PLAN) IS DENOTED AS FOLLOWS UNLESS OTHERWISE DESIGNATED.

2. REFER TO GENERAL NOTES AND SHEAR WALL SCHEDULE.

3. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ROOF SLOPES NOT DIMENSIONED ON PLAN.

4. REFER TO GENERAL NOTES, ELECTRICAL, AND PLUMBING DRAWINGS FOR LOCATIONS AND DIMENSIONS OF ROOF PENETRATIONS NOT SHOWN OR DIMENSIONED ON PLAN.

5. STRUCTURAL CONCRETE SLAB (AREA ELEVATION) (SPOT ELEVATION) INDICATES STRUCTURAL CONCRETE.

6. INDICATES STRUCTURAL CONCRETE STEP.

7. INDICATES STRUCTURAL CONCRETE SLAB.

8. INDICATES STRUCTURAL CONCRETE SLOPE EXTENTS.

9. INDICATES STRUCTURAL CONCRETE STEP CHANGE.

10. INDICATES STRUCTURAL CONCRETE."
### TYPICAL DETAIL
#### LAP SCHEDULE

<table>
<thead>
<tr>
<th>Size</th>
<th>Qty/Bag</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1' - 0&quot;</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>1' - 6&quot;</td>
<td>50</td>
<td>50%</td>
</tr>
<tr>
<td>&gt; 2'-0&quot;</td>
<td>75</td>
<td>75%</td>
</tr>
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</table>

#### DOWEL SCHEDULE

<table>
<thead>
<tr>
<th>Size</th>
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</tr>
</thead>
<tbody>
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<td>100%</td>
</tr>
<tr>
<td>5/32&quot;</td>
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</tr>
<tr>
<td>3/32&quot;</td>
<td>100</td>
<td>50%</td>
</tr>
<tr>
<td>1/8&quot;</td>
<td>50</td>
<td>25%</td>
</tr>
</tbody>
</table>

#### NOTE
1. DOWEL SPACING TO BE THE SAME AS SLAB OR WALL REINFORCEMENT UNLESS OTHERWISE NOTED ON DETAILS.

#### MECHANICAL CURB

- **NOTES:**
  1.打ち込みの詳細は、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。
  2. カーブの Damon を除く、他の詳細で指定されている場合を除き、ドーブルの位置は変更しないでください。

### TYPICAL DETAIL
#### STANDARD HOOK SCHEDULE

<table>
<thead>
<tr>
<th>Size</th>
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<th>Coverage</th>
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</thead>
<tbody>
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<td>1/2&quot;</td>
<td>250</td>
<td>100%</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>150</td>
<td>75%</td>
</tr>
<tr>
<td>1&quot;</td>
<td>100</td>
<td>50%</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>50</td>
<td>25%</td>
</tr>
</tbody>
</table>

#### NOTE
1. 90° HOOKS およびコンクリートを除く、他の詳細で指定されている場合を除き、ドーブルの位置は変更しないでください。

### TYPICAL DETAIL
#### WALL OR GRADE BEAM REINFORCING

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。
  2. カーブの Damon を除く、他の詳細で指定されている場合を除き、ドーブルの位置は変更しないでください。

### TYPICAL DETAIL
#### REINFORCEMENT SPACING

<table>
<thead>
<tr>
<th>Size</th>
<th>Qty/Bag</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>250</td>
<td>100%</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>150</td>
<td>75%</td>
</tr>
<tr>
<td>1&quot;</td>
<td>100</td>
<td>50%</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>50</td>
<td>25%</td>
</tr>
</tbody>
</table>

#### NOTE
1. このスケジュールは、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### SLAB-ON-GRADE OR STRUCTURAL SLAB MECHANICAL CURB

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。
  2. カーブの Damon を除く、他の詳細で指定されている場合を除き、ドーブルの位置は変更しないでください。

### TYPICAL DETAIL
#### ADDITIONAL REINFORCING AT BLOCKOUT IN SLAB-ON-GRADE

#### NOTE
1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### SLAB-ON-GRADE RE-ENTRANT CORNER REINFORC.

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### MECHANICAL PAD

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### OFFICE BUILDING RE-ENTRANT CorNER REINFORC.

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### HEADQUARTERS BUILDING RENOVATION AND EXPANSION

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### SOUTH LLANO RIVER STATE PARK

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。

### TYPICAL DETAIL
#### AEC JOB#:

- **NOTES:**
  1. 基本の詳細は、コンクリートブロックまたはウエイド詳細で指定されている場合を除き、スラブまたは壁の剛性補強材と同じスペーシングで行うことを指定してください。
NOTES:
1. SEE PLAN FOR THICKNESS OF SLAB (T) AND REINFORCING.
2. PROVIDE A CONSTRUCTION OR A CONTROL JOINT ON THE CENTERLINES OF COLUMNS, U.O.N.
3. SLABS SHALL BE POURED IN A STRIP PATTERN AND CUT IN A JOINT PATTERN WITH WIDTHS NOT EXCEEDING THOSE SHOWN, U.O.N. CONTRACTOR SHALL SUBMIT JOINT PATTERNS FOR REVIEW.
4. IF METAL FORMS ARE USED, REMOVE THEM BEFORE POURING ADJACENT SLAB.
5. FOR SLABS WITH THICKNESS (T) GREATER THAN 6", THICKENED EDGES ARE NOT REQUIRED AT JOINTS.
6. INFILL STRIPS CAN BE PLACED AFTER INITIAL SLAB STRIPS HAVE CURED FOR 3 DAYS.

CONTROL JOINT
CONSTRUCTION JOINT

TOOL 1/8" RADIUS @ EDGE OF JOINT
3/4"Ø x 1'-4" SMOOTH DOWELS @ 12" O.C.

DEEP GRADE BEAM AND WALL VERTICAL CONSTRUCTION JOINT

TYPICAL DETAIL
1. NO SCALE
HORIZONTAL PIPE PENETRATIONS THROUGH GRADE BEAM

TYPICAL DETAIL
2. NO SCALE
GRADE BEAM SHEAR KEY AT HORIZONTAL JOINT

TYPICAL DETAIL
3. NO SCALE
DEEP GRADE BEAM AND WALL VERTICAL CONSTRUCTION JOINT

TYPICAL DETAIL
4. NO SCALE
HORIZONTAL PIPE PENETRATIONS THROUGH GRADE BEAM

TYPICAL DETAIL
5. NO SCALE
STEP IN TOP GRADE BEAM

TYPICAL DETAIL
6. NO SCALE
STEP IN BOTTOM GRADE BEAM
ADHESIVE ANCHOR INSTALLATION INFORMATION

1. REFER TO GENERAL NOTES FOR ADHESIVE ANCHOR TYPE.
2. LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS WITH EXISTING REINFORCING. ANCHOR LOCATIONS SHOULD BE DETAILED ON THE CONNECTION PLATE.
3. ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.
4. PROVIDE "N" HOOKS TO TOP BARS AT DEPTH FOR TOP BARS AT SUPPORT & "T" FOR TOP & SIDE BARS AT REINFORCEMENT.

ADHESIVE ANCHOR NOTES:

- SPECIFIED ANCHORING ADHESIVE MFR'S INSTRUCTIONS FILL w/ SPECIFIED ANCHORING ADHESIVE
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE

HOLE DIAMETER:

- NEW CONCRETE
  - 3/4" Ø FOR #5 DWLS.
  - 5/8" Ø FOR #4 DWLS.
  - 1/2" Ø FOR #3 DWLS.
- EXISTING CONCRETE
  - 4 1/4" FOR #4 DWLS
  - 4" FOR #4 DWLS
  - 6" FOR #5 DWLS

ANCHOR INSTALLATION TYPICAL NOTES:

- OSB 1/4" X 3" X 3" PLATE WASHERS LARGER THAN THE ANCHOR DIAMETER. IF LARGER HOLES ARE REQUIRED, ADD'L HOLES CAN BE ADJUSTED BY A MAXIMUM OF 1 1/2" FROM DETAILED LOCATIONS.
- THE CONTRACTOR SHALL CREATE TEMPLATES FOR EMBEDDED ITEMS, THE CONTRACTOR SHALL CREATE TEMPLATES FOR EACH ANCHOR GROUP.
- THE CONTRACTOR SHALL CREATE TEMPLATES FOR EACH ANCHOR GROUP.
- THE CONTRACTOR SHALL CREATE TEMPLATES FOR EACH ANCHOR GROUP.
- THE CONTRACTOR SHALL CREATE TEMPLATES FOR EACH ANCHOR GROUP.

ADHESIVE DOWELING

- ADHESIVE DOWEL NOTES: BASED ON FIELD VERIFIED LOCATIONS OF REINFORCING STEEL & EXISTING REINFORCING. ANCHOR LOCATIONS CAN BE ADJUSTED BY A MAXIMUM OF 1 1/2" FROM DETAILED LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS WITH EXISTING REINFORCING. ANCHOR LOCATIONS SHOULD BE DETAILED ON THE CONNECTION PLATE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.

ADHESIVE ANCHOR FOR SOLID & GROUTED MASONRY & CONCRETE

- ADHESIVE ANCHOR FOR SOLID & GROUTED MASONRY & CONCRETE
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.

ADHESIVE ANCHOR FOR WOOD & BRICK MASONRY & CONCRETE

- ADHESIVE ANCHOR FOR WOOD & BRICK MASONRY & CONCRETE
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.

ADHESIVE ANCHOR FOR STEEL STUDS

- ADHESIVE ANCHOR FOR STEEL STUDS
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.

ADHESIVE ANCHOR FOR METAL & FIBERGLASS

- ADHESIVE ANCHOR FOR METAL & FIBERGLASS
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.

ADHESIVE ANCHOR FOR PLASTIC & PLYWOOD

- ADHESIVE ANCHOR FOR PLASTIC & PLYWOOD
- CLEAN HOLE w/ WATER OR AIR PER MFR'S INSTRUCTIONS & FILL w/ SPECIFIED ANCHORING ADHESIVE
- LOCATE EXISTING REINFORCING STEEL IN THE CONCRETE USING NON-DESTRUCTIVE METHODS & POSITION ANCHOR LOCATIONS TO AVOID CONFLICTS, UNLESS NOTED OTHERWISE.
- ALL ABANDONED HOLES SHALL BE FILLED WITH NONSHRINK GROUT.
TREATED 2X6 LEDGER ANCHOR @ 1'-0" O.C. w/ 1/2"Ø HILTI KWIK 3 1/2" EMBEDMENT BOLT EXPANSION DECK PER PLAN STAGGERED SIMILAR REF. ARCH.

#4 HORIZ. E.F. @ 12'' O.C. 1/2" SLAB & SPLAY @ GRADE BEAM REINF.:

#3 STIR. @ 10'' O.C.

TYPICAL GRADE BEAM DETAIL 2' - 6" MIN.

TREATED 2X LEDGER ANCHOR @ 1'-0" O.C. w/ 1/2"Ø HILTI KWIK 3 1/2" EMBEDMENT BOLT EXPANSION

2' - 6" TYPICAL INTERIOR GRADE BEAM

SECTION - DOG TROT FRAMING

SECTION - DOG TROT AND BUILDING INTERFACE

SECTION - POST BASE

SECTION - GRADE BEAM BELOW WALL

SECTION - GRADE BEAM BELOW WALL

SECTION - GRADE BEAM BELOW WALL

SECTION - INTERIOR GRADE BEAM BELOW SHEAR WALL

DETAIL - DOG TROT FRAMING

DETAIL - DOG TROT AND BUILDING INTERFACE

DETAIL - WOOD BEAM ON CONCRETE COLUMN

SECTION - TYPICAL INTERIOR GRADE BEAM

SECTION - INTERIOR GRADE BEAM BELOW SHEAR WALL

SECTION - TYPICAL INTERIOR GRADE BEAM

SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"

SCALE: 1" = 1'-0"
**TYPICAL DETAIL**

**SCHEMATIC SINGLE-PLATE FRAMING CONNECTIONS**

1. **CONNECTION TO SUPPORTED MEMBER**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 1 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

2. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 2 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

3. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 3 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

4. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 4 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

**NOTES:**

1. REF. DETAIL “A” FOR ADD'L INFO.
2. MULTIPLE ANGLE CONNECTIONS SHALL BE DESIGNED AS SINGLE ANGLE CONNECTIONS.
3. BOLTS ARE A325N WITH STANDARD HOLES.
4. ALL OTHER CONNECTIONS DEVIATING FROM TYPICAL CONNECTIONS SHOWN APPLY TO RIGHT ANGLE CONNECTIONS AND WIRING CONNECTIONS UP TO 90° FROM HORIZONTAL.
5. BEAM CONNECTIONS ARE "TYPICAL" UNLESS NOTED ON PLAN.
6. WORKLINES ARE ON CENTERLINES OF BEAMS AND COLUMNS.
7. WELD CAPACITY BASED ON Exx = 70 KSI.
8. CONTRACTOR RESPONSIBLE FOR METING ALL O.S.H.A. REQUIREMENTS.
9. TABLE BASED ON LL4x31/2, A36 STEEL.
10. CONTRACTOR RESPONSIBLE FOR MEETING ALL O.S.H.A. REQUIREMENTS.

**TYPICAL DETAIL**

**SCHEMATIC DOUBLE-ANGLE FRAMING CONNECTIONS**

1. **CONNECTION TO SUPPORTED MEMBER**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 1 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

2. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 2 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

3. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 3 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

4. **SUPPORTED MEMBER CONNECTION**
   - SUPPORT BOLTS AS PER TABLE.
   - MINIMUM DIAMETER FOR BOLTS: CL. OF BEAM/GIRDER
   - NO. OF ROWS OF BOLTS: 4 MIN.
   - MAX. SPACING OF BOLTS: BEAM & COLUMN

**NOTES:**

1. REF. DETAIL “A” FOR ADD'L INFO.
2. MULTIPLE ANGLE CONNECTIONS SHALL BE DESIGNED AS SINGLE ANGLE CONNECTIONS.
3. BOLTS ARE A325N WITH STANDARD HOLES.
4. ALL OTHER CONNECTIONS DEVIATING FROM TYPICAL CONNECTIONS SHOWN APPLY TO RIGHT ANGLE CONNECTIONS AND WIRING CONNECTIONS UP TO 90° FROM HORIZONTAL.
5. BEAM CONNECTIONS ARE "TYPICAL" UNLESS NOTED ON PLAN.
6. WORKLINES ARE ON CENTERLINES OF BEAMS AND COLUMNS.
7. WELD CAPACITY BASED ON Exx = 70 KSI.
8. CONTRACTOR RESPONSIBLE FOR METING ALL O.S.H.A. REQUIREMENTS.
A | D

GALV. STEEL BMS.
PER PLAN, TYP.
T.O. STEEL EL.
REF. PLAN

REF. ARCH. FOR
GUTTER & TRELLIS
2 1/2"
WT2.5X8 w/ FLANGES
CUT TO WIDTH SHOWN
3" 2'-3"

3 1/2"
WF PER PLAN, CUT AS SHOWN
w/ SHEAR TAB AS REQ'D.

REF. PLAN
T.O. BEAM EL.
REF. PLAN

1"4"
1/4'' STEEL SADDLE PL. w/
(2) - 1/2'' Ø THRU BOLTS
STEEL POST PER PLAN

WOOD JOIST PER PLAN
5"

SLOPING TRUSS
BLOCKING
(4) - 1/2" Ø A307
THRU-BOLTS
FACE PL. 6" x 6" x 3/8"

3/8" GUSSET PL.
PC. OF 2" Ø PIPE w/
3/8" X 3" Ø ROUND PL.
PIPE BRACE,
REF. PLAN

4"
REF. FOR CONNECTION
PIPE BRACE,
REF. PLAN

/2
S510
BUILT-UP BM.
PER PLAN, LOW
WOOD BEAM AT AWNING,
REF. PLAN

3A
S510
3"
SHEATHING
NOT SHOWN

CONT. EDGE MEMBER.
REF PLAN

3/16" PL. STRAP
AT DIAGONAL
ROOF TRUSS
ADD BLOCKING BTWN. BOTT.
CHORDS FOR 3
BAYS

STANDARD FACE
MOUNT HANGER
1' - 1 1/2"

BUILT-UP BM.
PER PLAN, HI
PIPE DIAG. BRACE
BENT PL. 3/8" w/(2)-1/2"
DIA. THRU-BOLTS
3/8" GUSSET PL.
PC. OF 2" Ø PIPE w/
3/8" X 3" Ø ROUND PL.

3/8" PL. SADDLE
w/ (4)-1/2" DIA.
THRU BOLTS
GUARDRAIL POST.
REF. ARCH'L
Nailing Schedule

1. Floor Joist to Band Joist, Face Nail 3-16d
2. Floor Joist to Sill Plate or Girder, Toe Nail 3-8d
3. Bridging to Joists, Toe Nail or End Nail Each End 2-8d
4. Sill Plate to Band Joist or Blocking, Face Nail 16d at 16" O.C.
5. Top Plates and Laps, Face Nail 2-16d or 3-10d
6. Stud to Sill Plate
7. Double Studs, Face Nail 16d at 24" O.C. Max. 20d at 32" O.C. at Top
8. Built-Up Girder and Beams, Three Members
9. Top Plates and Intersections, Face Nail 2-16d or 3-10d
10. Top Plates and Laps, Face Nail
11. Continuous Header—Two Pieces 16d at 16" O.C.
12. A Fastener That Splits the Wood Will Not Support the Design Load. If the Wood Has a Tendency to Split, Pre-Bores Holes to 3/4 of the Nail Diameter Per the NDS.

Field Nailing Per Plan

Wood Construction Connector Notes:
2. All Specific Fasteners Shall Be Installed According to the Details for the Material Shown in the Southern Cross-Section.
3. BOLT HEADS SHALL BE 3/8" OR A MINIMUM OF 1/4" LESSER THAN THE BOLT DIAMETER.
4. Nailing Schedule in Table Notes Only Applies to Sill Plate, Stud, or Top Plate.
5. NAILING SCHEDULE IN TABLE NOTES APPLIES TO SILL PLATE, STUD, OR TOP PLATE.
7. Fastener Must Be Required to Limit The Stress of the Connector or Other, Nail Diameter Shall Be Used to Determine the Minimum Size of Connector. Choose the Correctly Listed Dimensions Based Upon Code Selections. For More Information, Contact Architectural Engineers Collaborative For Simpson Strong-Tie Product Information and Review Project.
9. All Lags, Brick, Wood, and Other Common Nails and May Not Be Replaced With Another Brand, Type, Material, or Finish. Contact Architectural Engineers Collaborative for Further Information and Review Project.

Installing All Finishes Before Nailing the Connections Is Not Required.

Wood Construction Connector Notes:
2. All Specific Fasteners Shall Be Installed According to the Details for the Material Shown in the Southern Cross-Section.
3. BOLT HEADS SHALL BE 3/8" OR A MINIMUM OF 1/4" LESSER THAN THE BOLT DIAMETER.
4. Nailing Schedule in Table Notes Only Applies to Sill Plate, Stud, or Top Plate.
5. NAILING SCHEDULE IN TABLE NOTES APPLIES TO SILL PLATE, STUD, OR TOP PLATE.
### Typical Detail: Shearwall Schedule

<table>
<thead>
<tr>
<th>Code</th>
<th>Shearwall Type</th>
<th>Note</th>
<th>Anchor Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-1</td>
<td>SW-2</td>
<td></td>
<td>SW-3</td>
<td></td>
</tr>
<tr>
<td>SW-4</td>
<td>SW-5</td>
<td></td>
<td>SW-6</td>
<td></td>
</tr>
</tbody>
</table>

#### Notes:
1. Prior to construction of shearwalls, review latest dimensional architectural drawings and notify structural engineer of any locations where minimum dimensional limits and ratios are met. Separate separate notes on out-of-plane vs. in-plane notes.
2. All shear wall panels to be 5/8" (15) (USC) @ maximum panel size, TYP.
3. Holddowns to be 3/4" (19) (USC) @ maximum panel size, TYP.
4. See plans for shearwall to overall elevation locations.
5. Place shear wall panels on out of wall where minimum panel sizes exceed.
6. Horizontally plumb holes are offset by 5/2 (12.5) (USC) where wall height dictates horizontal space at wall. Provide in holddown. Do not space 5/2 (12.5) (USC) at top plates.
7. Lag screws, corner top plates and special plates, A.C.S.
8. See detail for typical shearwall details of intersecting partition wall.
9. Sheathing thickness is nominal, actual thickness equivalent: 3/8" (11), 5/8" (19), 3/4" (23). Sheathing thickness is mandatory.
10. Wall sections above are diagrams, see details for information not shown.
11. Retighten all anchor bolts prior to close-in.
12. "MASS" mudsill anchors to be installed with standard installation only (not used).
T.O. PLATE EL. 
REF. PLAN

STEEL COL. PER PLAN 
w/ STEEL CAP, REF. /
S510 WALL, REF. PLAN OR SW SCHED.

ROOF TRUSS BY OTHERS w/ TIE 
PER GEN'L. NOTES (NOT SHOWN)
OFFSET PRE-FAB TRUSSES FROM JOIST CONNX. AS 
REQ'D. FOR ATTCHMENT CLEARANCE

T.O. BEAM EL. 
REF. PLAN

(2) - 2X12 @ ALTERNATING 
TRUSSES; REF. FOR ADD'L. INFO.

REF. ARCH.
FOR TAPER 
DECK & PURLINS 
PER PLAN

T.O. BEAM EL. 
REF. PLAN

BEAM PER PLAN w/ H2.5A @ EA. RAFTER OR TRUSS, TYP.

ROOF TRUSS BY OTHERS 
(2) - 2X12 @ ALTERNATING 
TRUSSES; REF. FOR ADD'L. INFO./
4 S610

S612
8
18.435°

A

B

T.O. PLATE EL. 
REF. PLAN

T.O. BEAM EL. 
REF. PLAN

T.O. BEAM EL. 
REF. PLAN

T.O. BEAM EL. 
REF. PLAN

(2) - 2X12 @ ALTERNATING 
TRUSSES; REF. FOR ADD'L. INFO.

REF. ARCH.
FOR TAPER 
DECK & PURLINS 
PER PLAN

T.O. PLATE EL. 
REF. PLAN
GALV. GUSSET PL. AND STAINLESS BOLTS, REF. FOR ADD'L INFO. ALIGN ALL BOLTS TO THE SAME SIDE OF THE WIND BRACE.

REF. PLAN AND FOR WOOD MEMBER SIZES.

T.O. BEAM EL.

REF. PLAN

STOP GUSSET SHORT OF PERP. BEAM GALV. CCTQ-SDS2.5 BY SIMPSON

REF. FOR FACE PLATE AND BOLTS

FLITCH BEAM PER PLAN w/ (2) - 1/2''Ø BOLTS @ 24'' O.C. FULL LENGTH AND (3) ROWS OF (3) - 1''Ø BOLTS AT THE ENDS. WALL BEYOND POSTS FOR HOLDDOWNS WITHIN WALL BEYOND, REF. HD SCHED.

LVL PER PLAN TYP. 3" MIN., A23 BY SIMPSON @ 32'' O.C. EA. SIDE

3/4''Ø THRU-BOLT EA. SIDE OF BEAM AND EA. POST (4 TOTAL PER BEAM END).

COUNTERSINK WHERE REQUIRED TO FIT IN FINISH L5X5X3/8 x 14'' MIN. EA. SIDE w/ 3/4''Ø BOLT @ EA. POST. CENTER BOLTS ON POST 3" MIN.

POSTS FOR HOLDDOWNS PER PLAN. WALL SHEATHING NOT SHOWN PER PLAN. ROOF TRUSS, REF. ELEV.

BEAMS PER PLAN 109642
## Electric Unit Heater Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>CHP</th>
<th>Input (kW)</th>
<th>Output (kW)</th>
<th>kW</th>
<th>Temp.</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

## Louver Schedule

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</tbody>
</table>

## Split System Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Electric</th>
<th>Gas/Propane</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

## Cooling Pre-Condenser Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>kW</th>
<th>HP</th>
<th>Btu/h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

## Indoor Fan coil Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>kW</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

## Electrical Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>HP</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

## Condenser Unit Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>kW</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

## Reference

**Mechanical Engineering**

**Cleary Zimmermann Engineers**

**Air Devices Schedule**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cardinal</th>
<th>HP</th>
<th>kW</th>
<th>CHP</th>
<th>HP</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

## Flex Duct Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (in)</th>
<th>Max. CHP</th>
<th>Input kW</th>
<th>Output kW</th>
<th>Temp. (°F)</th>
<th>Temp. (°C)</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

## Fan Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>H.P.</th>
<th>kW</th>
<th>Input kW</th>
<th>Output kW</th>
<th>Temp. (°F)</th>
<th>Temp. (°C)</th>
<th>Reference</th>
</tr>
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</table>

**Notes:**

1. All data supplied is based on current manufacturer's specifications and may be subject to change without notice.

2. Please consult the manufacturer's specifications for the latest information.

3. All units are available in a variety of sizes and capacities.

4. Please contact the manufacturer for detailed information regarding installation and maintenance.
**LIGHTING FIXTURE SCHEDULE (HQ)**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>DESCRIPTION</th>
<th>MODEL</th>
<th>LOCATION</th>
<th>VOLTAGE</th>
<th>AMPS</th>
<th>TECHNICAL CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OVERHEAD LUMINAIRES</td>
<td>H40</td>
<td>VARIOUS</td>
<td>120</td>
<td>2</td>
<td>ALL</td>
</tr>
<tr>
<td>2</td>
<td>WALL SCONCES</td>
<td>H40</td>
<td>VARIOUS</td>
<td>120</td>
<td>0.2</td>
<td>ALL</td>
</tr>
<tr>
<td>3</td>
<td>FLOOR LAMPS</td>
<td>H40</td>
<td>VARIOUS</td>
<td>120</td>
<td>0.5</td>
<td>ALL</td>
</tr>
<tr>
<td>4</td>
<td>TABLE LAMPS</td>
<td>H40</td>
<td>VARIOUS</td>
<td>120</td>
<td>0.3</td>
<td>ALL</td>
</tr>
</tbody>
</table>

**NOTES:**
- All fixtures shall be of approved type and size according to the manufacturer's specifications.
- All fixtures shall be installed in accordance with the electrical and plumbing codes of the jurisdiction where the building is located.
- All electrical and mechanical systems shall be in compliance with the national electric and plumbing codes.
- All electrical and mechanical systems shall be installed in accordance with the manufacturer's instructions.
- All electrical and mechanical systems shall be installed in accordance with the local building code.
- All electrical and mechanical systems shall be installed in accordance with the national fire protection and life safety codes.
- All electrical and mechanical systems shall be installed in accordance with the local electrical and mechanical codes.
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ONE-LINE DIAGRAM - HEADQUARTERS

GROUNDING AND BONDING DETAIL

SOUTH LlANO RIVER STATE PARK
HEADQUARTERS BUILDING RENOVATION AND EXPANSION
PROJECT NUMBER: 13425

CLEARY ZIMMERMANN ENGINEERS

E401
# Plumbing Symbols and Abbreviations

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<tr>
<th>SYMBOL</th>
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<tbody>
<tr>
<td></td>
<td>WATER SUPPLY CONNECTION TO PIPE</td>
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<td>VALVE BOX SHOWN (OPEN OR SHUT)</td>
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**Legend:**

- **WATER SUPPLY**: Water supply connections to pipes
- **VALVES**: Valve boxes shown (open or shut)
- **TAPS**: Taps
- **FLOOR BOXES**: Floor boxes
- **AUTOMATIC WTS. TO DWV**: Automatic weights to DWV
- **FLOOR VALVES**: Floor valves
- **PRESSURE SWITCHES**: Pressure switches
- **DRAINS**: Drains
- **WALL VALVES**: Wall valves
- **BUTTERFLY VALVES**: Butterfly valves
- **WATER MLB (WASTE-STOP)**: Water main line block (waste-stop)
- **PEW IN DEER BEND**: Pew in deer bend
- **DRAINAGE EJECTOR PUMPS**: Drainage ejector pumps
- **BEND IN DEER BEND**: Bend in deer bend
- **DRAINAGE DETENTIONS OF TOP**: Drainage detentions of top
- **DRAINAGE DETENTIONS OF BOTTOM**: Drainage detentions of bottom
- **GUTTER DRAINS**: Gutter drains
- **CHIMNEYS**: Chimneys
- **LAVATORIES**: Lavatories
- **SHOWERS**: Showers
- **FLOOR PLUGS**: Floor plugs

**Note:** These symbols are used to represent various plumbing components and elements in a plumbing system.
### Air Compressor Schedule

<table>
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<th>Time</th>
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<th>Work (hrs)</th>
<th>Work (units)</th>
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<td>0800</td>
<td>Start Up</td>
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<td>1</td>
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<tr>
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### Plumbing Fixture Schedule

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### General Schedule

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### Water Heater Schedule

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### Floor Drain Schedule

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### Notes

1. All work performed is in accordance with applicable codes and standards.
2. All materials are subject to change based on the decision of the project manager.
3. Work hours and units are subject to change based on project requirements.

---

**SOUTHERN LOS ANGELES COUNTY PUBLIC SCHOOLS**

**PROJECT NUMBER:** 034203

**LOCATION:** LAKE SANTA ANA

**ENGINEER:** CLEARY ZIMMERMAN

**CONTRACTOR:** FORD SCARCE

**DATE:** 03/01/2023