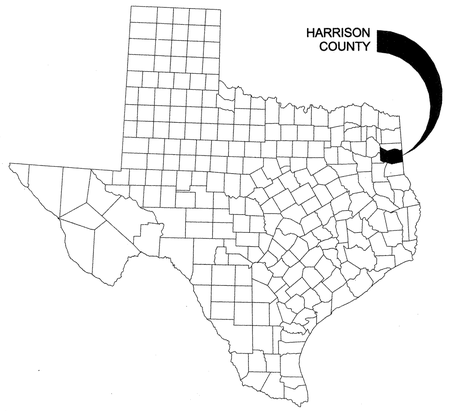
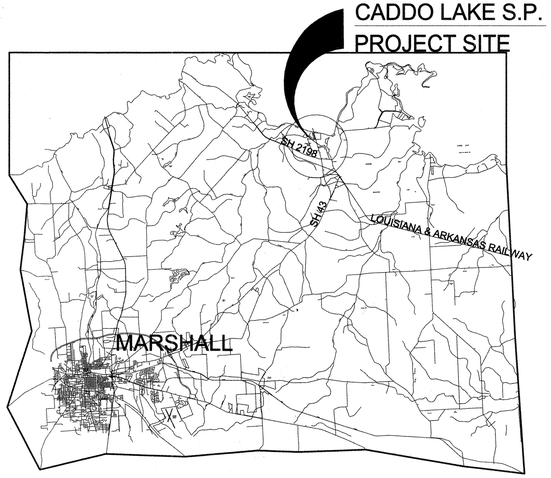


COUNTY LOCATION MAP

NOT TO SCALE

NORTH

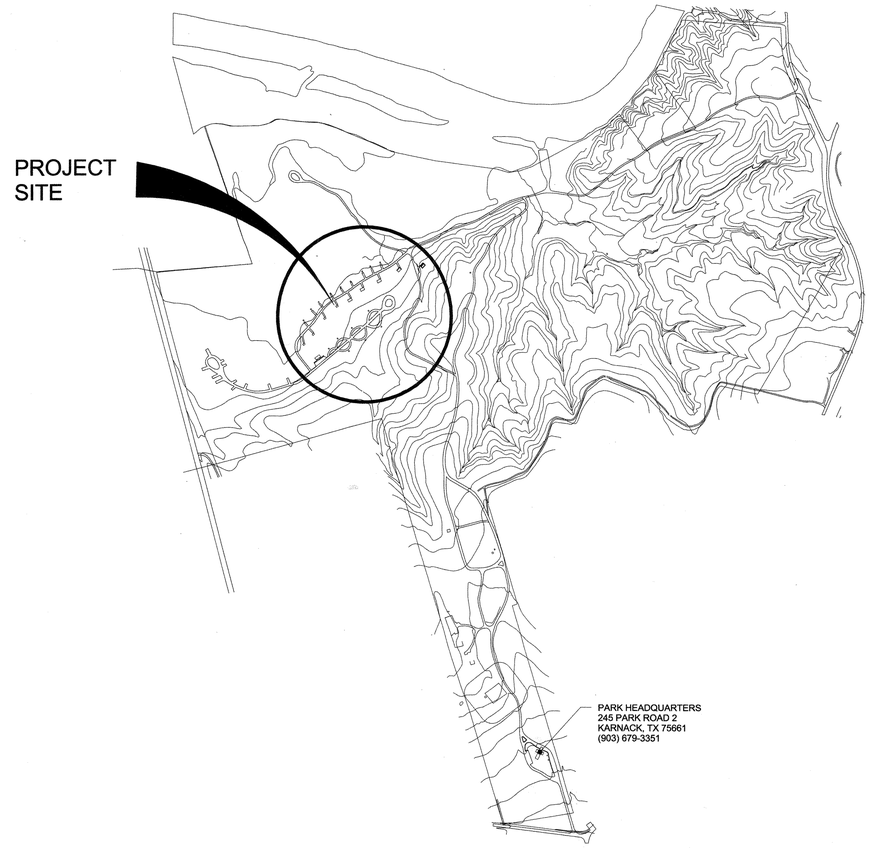


VICINITY MAP

NOT TO SCALE

NORTH

CADDO LAKE STATE PARK



SITE LOCATION MAP

NOT TO SCALE

NORTH

PROJECT

CADDO LAKE
STATE PARK

REPLACE CAMPING AREA RESTROOM

TDLR # : EABPRJB #######
PROJECT NO: 115900

DATE: AUG. 2016

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C103	SITE PLAN - PERMANENT RESTROOM FACILITY
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SCOPE OF WORK

DEMOLISH AND REMOVE EXISTING RESTROOM FACILITY. ALL IRON ORE ROCK TO BE SALVAGED FOR TPWD AND RE-USED. NEW RESTROOM FACILITY TO BE CONSTRUCTED IN SAME LOCATION. TEMPORARY SHOWER FACILITIES TO BE INSTALLED PRIOR TO DEMOLITION OF EXISTING FACILITY. UPGRADES TO VARIOUS WASTEWATER/ SEWAGE ELEMENTS FOR THE AFOREMENTIONED FACILITES.

BUILDING CODE SUMMARY

A. INTERNATIONAL CODE COUNCIL

i. BUILDING CODE	INTERNATIONAL BUILDING CODE 2012
ii. RESIDENTIAL CODE	INTERNATIONAL RESIDENTIAL CODE 2012
iii. EXISTING BUILDINGS	INTERNATIONAL EXISTING BUILDINGS CODE 2012
iv. STRUCTURAL CODE	INTERNATIONAL BUILDING CODE 2012
v. PLUMBING CODE	INTERNATIONAL PLUMBING CODE 2012
vi. MECHANICAL CODE	INTERNATIONAL MECHANICAL CODE 2012
vii. ENERGY CODE	INTERNATIONAL ENERGY CODE 2012
vii. GAS CODE	INTERNATIONAL FUEL GAS CODE 2012

B. NATIONAL FIRE PROTECTION ASSOCIATION

i. ELECTRICAL CODE	NATIONAL ELECTRICAL CODE 2014

C. STATE ENERGY CONSERVATION OFFICE/TEXAS COMPTROLLERS OFFICE

i. ENERGY CODES FOR STATE BUILDINGS — Title 34, Part 1, Ch. 19, Sb.C, Rule 19.31

1. CERTIFICATION FOR RESIDENTIAL AND NONRESIDENTIAL BUILDINGS REQUIRED BY ARCHITECT/ENGINEER

D. ACCESSIBILITY CODE

i. U.S. DEPT. OF JUSTICE. 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

ii. U.S. DEPT. OF JUSTICE. ARCHITECTURAL BARRIERS ACE, ACCESSIBILITY GUIDELINES FOR OUTDOOR DEVELOPED AREAS ON FEDERAL LANDS. EFFECTIVE NOVEMBER-25-2013

iii. 2012 TEXAS ACCESSIBILITY STANDARDS. ELIMINATION OF ARCHITECTURAL BARRIERS. TEXAS GOVERNMENT CODE, CHAPTER 469

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TEXAS PARKS & WILDLIFE

TEXAS PARKS AND WILDLIFE

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PROJECT MANAGER, INFRASTRUCTURE DIVISION — DATE 10.25.16

P&D BRANCH HEAD, INFRASTRUCTURE DIVISION — DATE 10/25/16

PM BRANCH HEAD, INFRASTRUCTURE DIVISION — DATE 10/26/2016

DEPUTY DIRECTOR, INFRASTRUCTURE DIVISION — DATE OCTOBER 27, 2016

G000

SET NO:

ISSUE FOR CONSTRUCTION

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ABBREVIATIONS

AC	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADD'L	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AL ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
BD	BOARD
BETW	BETWEEN
BG	BUMPER GUARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BR	BUMPER REAIL
CDR	CARD READER
CEM	CEMENT
CG	CORNER GUARD
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMM	COMMUNICATIONS
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COOR	COORIDOR
COORD	COORDINATE
CR	COLD ROLLED
CT	CERAMIC TILE
CTD	CENTERED
CTR	CENTER
D	DEPTH
DET	DETAIL
DIAM	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWN SPOUT
DWG	DRAWING
DWGS	DRAWINGS
EA	EACH
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATOR
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
ESC	ESCALATOR
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTIGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR	FLOOR

FT	FOOT
FTG	FOOTING
GA	GAUGE
GALV	ALVANIZED
GEN	GENERAL
GFRC	GLASS-FIBER REINFORCED CONCRETE
GL	GLASS
GM	GLAZED MASONRY UNIT
GRG	GLASS-REINFORCED GYPSUM
GRND	GROUND
GYP BD	GYPSUM BOARD
HB	HOSE BIB
HDW	HARDWARE
HDWD	HARDWOOD
HK	HOOK
HM	HOLLOW METAL
HOR	HORIZONTAL
HR	HOUR
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
K	KIPS (1000 LB)
KO	KNOCK-OUT
KPD	KEPYAD
KSF	KIPS PER SQUARE FOOT
L	ANGLE
LAV	LAVATORY
LKB	LOCKABLE
LL	LIVE LOAD
LT	LIGHT
LWC	LIGHTWEIGHT CONCRETE
MAT'L	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL, ELECTRICAL & PLUMBING
MFG	MANUFACTURER
MGO	MEGICAL GAS OUTLET
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASORNY OPENING
MOB	MEDICAL OFFICE BUILDING
MOD	MODIFIED
MOD BIT	MODIFIED BITUMEN
MTL	METAL
NA	NOT AVAILABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OVERFLOW DRAIN
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
P LAM	PLASTIC LAMINATE
PCF	POUNDS PER CUBIC FOOT
PENT	PENTHOUSE
PL	PROPERTY LINE
PL	PLATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
POL	POLISHED
PORT CEM	PORTLAND CEMENT
PP	PUSH PLATE

PR	PAIR
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PT	PNEUMATIC TUBE
PTD	PAINTED
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REF	REFER OR REFERNCE
REINF	REINFORCING
RELOC	RELOCATE/RELOCATED
REQ'D	REQUIRED
RM	ROOM
RO	ROUGH OPENING
S/H	SINGLE HUNG
SCHED	SCHEDULE
SECT	SECTION
SHWR	SHOWER
SIM	SIMILAR
SO	STRUCTURAL OPENING
SOG	SLAB ON GRADE
SP	STAND PIPE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSF	SOLID SURFACE
STA	STATION
STC	SOUND TRASMISSION CLASS
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMMETRICAL
SYS	SYSTEM
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICK
TLT	TOILET
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CURB
TOC	TOP OF CONCRETE
TOF	TOP OF FOORTING
TOP	TOP OF PARAPET
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOW	TOP OF WALL
TRSH CH	TRASH CHUTE
TYP	TYPICAL
U/C	UNDER COUNTER
U/G	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VCT	VINYL COMPOSTION TILE
VERT	VERTICAL
VEST	VESTIBULE
VWC	VINYL WALL COVERING
W	WIDTH
W/	WITH
W/C	WHEEL CHAIR
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WP	WATERPROOF(ING)

GENERAL NOTES

1. ALL DRAWINGS AND WRITTEN MATERIAL HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE ARCHITECT AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT.
2. THE WORK DESCRIBED HEREIN SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT AND I.E.C.C.
3. DIMENSIONS NOTED "CLEAR" OR "CLR" MUST BE ACCURATELY MAINTAINED. ALLOW FOR THICKNESS OF ALL WALL FINISHES. THE MEASUREMENT SHALL NOT VARY MORE THAN 1/8" WITHOUT WRITTEN CONSENT FROM THE ARCHITECT.
4. "ALIGN" MEANS TO ACCURATELY LOCATE FINISHED FACES IN THE SAME PLANE. "TYPICAL" OR "TYP" MEANS IDENTICAL FOR ALL SIMILAR CONDITIONS, U.N.O. "VERIFY" OR "VER" MEANS TO ASCERTAIN AND CONFIRM APPLICATION WITH THE ARCHITECT.
5. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. SHOULD DISCREPANCIES BE DISCOVERED, ARCHITECT SHALL BE NOTIFIED IN WRITING.
6. SPACE SHALL BE KEPT CLEAN OF DUST AND CONSTRUCTION DEBRIS AT THE END OF EACH DAY.
7. PROTECT ITEMS IN AREAS ADJACENT OT WORK. PROVIDE DUST BARRIERS AS DIRECTED BY PROJECT MANAGER.
8. PROVIDE BLOCKING PER MANUFACTURER REQUIREMENTS FOR ALL WALLL MOUNTED EQUIPMENT.
9. CONTRACTOR IS NOT TO SCALE DRAWINGS.
10. CONTRACTOR TO PROVIDE ROOM SIGNAGE FOR NEW RESTROOM FACILITY AND TEMPORARY SIGNAGE FOR TEMPORARY FACILITIES.

GRAPHIC SYMBOLS LEGEND

FOR ARCHITECTURAL SHEETS.
REF. A200, A300, & A400.

Room name 101	ROOM NAME & NUMBER
101	DOOR TAG WITH DOOR NUMBER
1 A101 SIM	DETAIL CALLOUT
01 / A01.01	EXTERIOR / INTERIOR ELEVATION
1 A101 SIM	SECTION DETAIL
0	COLUMN CENTERLINE
	SPOT ELEVATION
1t	WINDOW TAG
B1	ACCESSORY TAG
A1	PLAN DESIGNATION TAG
1t	PLUMBING FIXTURE TAG
1i	WALL TYPE TAG
#	KEYNOTE

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT BRYAN STAINHOWER 16327 STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
GENERAL INFORMATION

SHEET NUMBER
G001
OF 44

th+a

ISSUE FOR CONSTRUCTION

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NOTE:

ALL OVERHEAD ELECTRIC LINES SHALL MEET THE HEIGHT REQUIREMENTS SET FORTH BY THE CITY FIRE DEPARTMENT AND UTILITY OWNER. CONTRACTOR SHALL ADJUST/RAISE EXISTING OVERHEAD ELECTRIC LINES CROSSING FIRE LANES AS REQUIRED TO MEET THE FIRE DEPARTMENT REQUIREMENTS. CONTRACTOR SHALL LOCATE ALL EXISTING OVERHEAD ELECTRIC LINES PRIOR TO ANY CONSTRUCTION. COORDINATE WITH UTILITY OWNER.

WARNING TO CONTRACTOR:

CONTACT 1-800-344-8377 (DIG-TESS) OR OTHER UTILITY LOCATING SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. MJ THOMAS ENGINEERING IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTLITIES.

UTILITY RELOCATION NOTE:

IF ANY EXISTING UTILITY POLES, POWER POLES, GUY WIRES, TELEPHONE UTILITIES, CABLE BOXES, FIBER OPTIC CABLE, ETC. ARE FOUND TO BE IN CONFLICT WITH THESE CONSTRUCTION PLANS, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY AND COORDINATE THE RELOCATION OF ANY AND/OR ALL SUCH UTILITIES (NO SPECIAL PAY).

!!! CRITICAL !!!

LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED ON PUBLIC RECORDS. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, BEFORE THE COMMENCEMENT OF ANY CONSTRUCTION.

CONTRACTOR ADVISORY:

THE CONTRACTOR, AND HIS AGENTS, SUB CONTRACTOR/ENGINEER/SURVEYOR, ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE DIMENSION CONTROL FURNISHED HEREIN. THE OWNER, AND HIS AGENTS, ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL OF THE COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED IN WRITING, TO THE OWNER IMMEDIATELY FOR RECONCILIATION.

HYDROMULCH NOTE:

ALL AREAS OF THE SITE INCLUDING ANY OFF-SITE AREA THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES, SHALL RECEIVE AT A MINIMUM, HYDROMULCH AND 6" OF TOP-SOIL. REFER TO LANDSCAPE, DEMOLITION, GRADING, PAVING, DRAINAGE, WATER, SEWER, IRRIGATION AND SEDIMENT CONTROL PLANS TO DETERMINE ALL LIMITS OF DISTURBANCE. CONTRACTOR SHALL PROVIDE SOD AS REQUIRED ELSEWHERE IN THE PLANS.

UNDERGROUND FACILITIES AND TELEPHONE NUMBERS

THE LOCATION OF UNDERGROUND FACILITIES INDICATED ON THE PLANS IS TAKEN FROM THE PUBLIC RECORDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES.

UNDERGROUND FACILITY OWNER	TELEPHONE NUMBER
CADDO LAKE STATE PARK	(903)679-3351
TEXAS PARKS WILDLIFE DEPARTMENT (TPWD)	(512)389-4442
ALL OTHER UTILITIES	COORDINATE WITH PARK STAFF
DIG TESS	1(800)DIG-TESS

THE PURPOSE OF THESE PLANS IS TO PROVIDE GUIDE FOR THE BIDDING PROCESS TO CONSTRUCT ALL ITEMS SHOWN HEREIN UNLESS DELETED BY REFERENCE.
ITEMS INCLUDING, BUT ARE BUT NOT LIMITED TO:
- COMPACTED FILL (CONTROLLED DENSITY EMBANKMENT)
- WATER LINES AND APPURTENANCES
- SANITARY SEWER LINES AND APPURTENANCES
- DISPOSAL OF ALL DEMOLISHED MATERIALS AND TREES
- STRIPING FOR PARKING AREAS
- STABILIZED SUBGRADE
- CONCRETE SIDEWALKS 5" THICK WITH A.D.A. RAMPS
- CONCRETE CURB STOPS AT A.D.A. PARKING SPACES WHERE REQUIRED BY CODE
- EXCAVATION (ALL SITE WORK SHOWN)

BENCHMARKS:

HORIZONTAL CONTROL IS BASED ON GPS STATIC SESSIONS PERFORMED ON JUNE 25, 2014 USING TRIMBLE R6 RECEIVERS AND NGS OPUS SOLUTIONS. DATUM IS NAD83 (2011) EPOCH 2010.0000, TEXAS NORTH CENTRAL ZONE. COORDINATES ARE IN U.S. SURVEY FEET

VERTICAL CONTROL IS BASED ON STACKHOUSE MONUMENT #6, A BRASS DISK STAMPED CSP6 SET IN CONCRETE. NGVD29 ELEV. IS 176.96.

SITE BENCHMARK #1
PK NAIL FOUND IN PAVEMENT
ELEV=188.04

SITE BENCHMARK #2
40D NAIL SET OUTSIDE PAVEMENT
ELEV=193.80

LEGEND

- EXISTING ASPHALT PAVEMENT
- 180 — EXISTING CONTOUR
- 6" SS — SANITARY SEWER LINE W/ DIAMETER
- SS FM — SANITARY SEWER FORCE MAIN
- UGE — EXISTING UNDERGROUND ELECTRIC
- W — WATER LINE
- UTILITY LINE ABANDONED IN PLACE
- EXISTING TREE (SPECIES & SIZE, WHERE SHOWN)
- BENCHMARK
- E — ELECTRIC PULL BOX
- UGE — EXISTING OVERHEAD ELECTRIC
- 185 — FINISHED GRADE
- PROPOSED SANITARY SEWER MANHOLE
- WV — EXISTING WATER VALVE
- ELECTRICAL RISER
- WATER RISER
- SIGN W/ POST
- TRANS — ELECTRIC TRANSFORMER
- OR — SEWER CLEANOUT

GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONSTRUCTION AREA BEFORE COMMENCING CONSTRUCTION.
3. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY THE CONSTRUCTION TO THE ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE BUT ARE NOT LIMITED TO TRENCH BACK FILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS, AND ROADWAYS. THE CONTRACTOR SHALL INCLUDE PAVEMENT RESTORATION AND SHALL BE CONSIDERED SUBSIDIARY TO HIS BID PRICE.
4. IN THE EVENT THAT EXISTING UTILITIES SUCH AS WATER, GAS, TELEPHONE, ELECTRIC, ETC. MUST BE TAKEN OUT OF SERVICE TO FACILITATE CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TEMPORARY UTILITIES TO THE SATISFACTION OF THE OWNER. BACK FILL FOR WATER AND SEWER LINES SHALL BE PER DETAILS.
5. IF GROUNDWATER IS ENCOUNTERED WHEN LAYING UTILITY LINES, 3/4" WASHED ROCK MUST BE PLACED 6" BELOW AND 6" ABOVE THE UTILITY LINE.
6. ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL SIGNS, BARRICADES, AND FLAGGING SHALL BE INSTALLED IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE TRAFFIC CONTROL PLAN.
7. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT EROSION OCCURS AS A RESULT OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION PRIOR TO HYDROMULCHING. HYDROMULCHING SHALL INCLUDE ALL TEMPORARY WATER COSTS.
8. CONTRACTOR SHALL STRIP TOP SOIL & STORE IN DESIGNATED STOCK PILE AREA SHOWN ON THE PLAN, OR AS DIRECTED BY THE OWNERS PROJECT REPRESENTATIVE.
9. CONTRACTOR SHALL IDENTIFY ALL TREES TO BE SAVED AS INDICATED ON THE CONSTRUCTION DRAWINGS WITH PINK RIBBONS AND SHALL PROTECT AND SAVE ALL TREES AS MARKED. NO EXCAVATION, STOPPING, STANDING, STAGING, STORING, DRIVING OR PARKING ALLOWED IN DRIP LINE OF TREES UNLESS SHOWN ON THE CONSTRUCTION PLANS.
10. ROUGH GRADING SHALL BE WITHIN 0.1 FT. + OR – OF FINISHED GRADES SHOWN ON THE SITE GRADING. UNDER PAVEMENT FINISHED GRADES WILL BE CONSTRUCTED TO THE TOP OF SUBGRADE. FINISHED GRADE SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS, WITHIN + OR – 0.02'.
11. THE CONTRACTOR SHALL INSTALL ALL GRAVITY LINES (SANITARY SEWER) BEFORE INSTALLATION OF WATER LINES AND APPURTENANCES.
12. THE CONTRACTOR, AND HIS AGENTS, SUB-CONTRACTOR/ENGINEER/SURVEYOR, ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE DIMENSION CONTROL FURNISHED HEREIN. THE OWNER, AND HIS AGENTS, ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL THE COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED, IN WRITING, TO THE OWNER IMMEDIATELY FOR RECONCILIATION.
13. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SWPPP IN ACCORDANCE WITH THE REQUIREMENTS OF THE TPDES GENERAL PERMIT TXR 1500000. THE CONTRACTOR SHALL SPECIFY THE PLAN AS A JOINT SWPPP FOR BOTH THE CONTRACTOR AND THE OWNER. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SUBMITTING OTHER DOCUMENTS REQUIRED BY THE TPDES GENERAL PERMIT TXR 1500000. ALL DOCUMENTS SHALL BE SUBMITTED ACCORDING TO THE SCHEDULE INDICATED IN THE TPDES GENERAL PERMIT TXR 1500000.
14. ALL TREES WITHIN THE CONSTRUCTION ZONE SHALL BE WARRANTED FOR SURVIVAL BY THE CONTRACTOR FOR ONE YEAR AFTER THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY TO THE OWNER'S PROJECT REPRESENTATIVE. ANY TREES THAT DIE PRIOR TO OR WITHIN THE WARRANTY PERIOD SHALL BE REPLACED WITHIN 10 DAYS OF A WRITTEN REQUEST FROM THE OWNER'S PROJECT REPRESENTATIVE WITH THE SAME SIZE AND SPECIES OF TREES. THE CONTRACTOR SHALL INCLUDE THIS COST IN HIS BID PRICE.
15. CONTRACTOR SHALL PROVIDE TO THE ENGINEER, COPIES OF ALL DENSITY TESTS AND CYLINDER BREAKS. INCLUDING REPORTS OF DENSITY TESTS ON ALL BACK FILL FOR THE UTILITY LINES.
16. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL UTILITIES.
17. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EROSION CONTROL MEASURES ONCE FINAL GROUND STABILIZATION IS ESTABLISHED.
18. A TRAFFIC CONTROL PLAN THAT COMPLIES WITH THE REQUIREMENTS SET FORTH IN THE WORK AREA TRAFFIC CONTROL MANUAL SHALL BE SUBMITTED BY THE CONTRACTOR TO AND APPROVED BY THE TEXAS PARKS AND WILDLIFE DEPARTMENT.
19. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TEXAS PARKS AND WILDLIFE DEPARTMENT DETAILS.
20. IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ENGINEERS INTERPRETATION.
21. ALL EXISTING UTILITY LINE REPLACEMENTS SHALL BE COMPLETED WITH THE SAME MATERIAL AS THE EXISTING FACILITY.
22. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DISPOSE OF ALL SURPLUS SOIL AND EXCAVATED MATERIAL NOT SUITABLE OR REQUIRED FOR FILL AND BACK FILL. THE MATERIAL SHALL BE HAULED OFF SITE AND DISPOSED OF IN A LEGAL MANNER, NO SPECIAL PAY.
23. THE CONTRACTOR SHALL USE EXTREME "CAUTION" WHEN WORKING IN AREAS ADJACENT TO GAS LINES, UNDERGROUND ELECTRIC CABLE, FIBER OPTIC CABLE AND UNDERGROUND TELEPHONE CABLE. ANY UTILITY FOUND IN CONFLICT WITH PROPOSED NEW GRADING, OR UTILITY INFRASTRUCTURE, SHALL BE ADJUSTED, MOVED, OR RELOCATED TO FACILITATE NEW CONSTRUCTION.
24. ALL DITCHES WILL BE BACK FILLED AT THE END OF EACH DAY. NO TRENCHES WILL BE LEFT OPEN OVERNIGHT.
25. ALL DITCHES WILL BE REGRADED AFTER THE CONSTRUCTION HAS BEEN COMPLETED. NO EXTRA PAYMENT WILL BE MADE FOR THIS. ALL DISTURBED AREAS SHALL BE HYDRO-MULCHED UPON COMPLETION OF GRADE WORK.
26. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS IN GRADES AND ALIGNMENT.
27. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING AND ADMINISTERING THE TRENCH SAFETY PLAN FOR THIS PROJECT PRIOR TO COMMENCING ANY UTILITY CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN THE TRENCH SAFETY PLAN AS PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED WITHIN THE STATE OF TEXAS. THE TRENCH SAFETY PLAN SHALL BE SPECIFIC TO THIS PROJECT, AND SUBMITTED TO THE ENGINEER, AND APPROPRIATE CITY OFFICIAL WITHIN THE CITY IN WHICH THE WORK OCCURS. ALL EXCAVATION, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, OSHA, AND ANY LOCAL, STATE OR FEDERAL REGULATIONS FOR SAFETY THAT ARE IN EFFECT. "CONST. SAFETY AND HEALTH REGULATIONS," VOL. 29, SUB PART P, PG. 128-137, AND ANY AMENDMENTS THERETO.
28. THE CONTRACTOR SHALL NOT SCALE THE PLANS.
29. STATE LAW REQUIRES THAT DIG-TESS (1-800-344-8377) BE CONTACTED 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
30. CONTRACTOR SHALL VIDEO TAPE "ALL" AREAS ALONG THE PERIMETER OF ALL CONSTRUCTION AND AREAS TO BE USED FOR STAGING PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL PROVIDE THE OWNER & ENGINEER WITH A COPY OF THIS VIDEO ON DVD FOR THEIR RECORDS AT THE PRE-CONSTRUCTION MEETING. ITEMS DAMAGED BY CONSTRUCTION NOT INTENDED FOR DEMOLITION SHALL BE REPLACED TO "AS GOOD AS" OR "BETTER THAN" CONDITION PRIOR TO CONSTRUCTION.
31. CONTRACTOR SHALL INCLUDE IN HIS BID PRICE, ALL COSTS ASSOCIATED WITH PROVIDING TEMPORARY DE-WATERING OF THE SITE UNTIL THE FINAL IMPROVEMENTS ARE COMPLETED. THE SITE SHALL REMAIN AS DRY AS POSSIBLE AT ALL TIMES DURING CONSTRUCTION. THE METHOD OF DE-WATERING SHALL BE SUFFICIENT ENOUGH AS TO PREVENT THE FORMATION OF MUCK, SLUDGE, ETC. IN THE LOW AREAS.
32. ALL AREAS GRADED SHALL BE "BLUE-TOPPED" ON A 25' GRID PRIOR TO FINAL GRADING TO INSURE COMPLIANCE WITH THE GRADING PLAN. NO LOW POINTS IN THE GRADING SHALL BE ACCEPTABLE WITH THE EXCEPTIONS OF INLETS. ALL GRADED AND OR DISTURBED AREAS OF THE SITE SHALL BE HYDRO-MULCHED WITH A SEED MIX.
33. THE CONTRACTOR SHALL RE-ESTABLISH ANY PROPERTY MARKER, BENCHMARK, ETC. DISTURBED DURING CONSTRUCTION TO ITS ORIGINAL LOCATION AND ELEVATION. NO ADDITIONAL PAY.
34. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VERTICAL AND HORIZONTAL CONTROL SHOWN ON THE PLANS THROUGHOUT THE PROJECT.
35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING SIGNS, UTILITY POLES, ETC. INCLUDING BUT NOT LIMITED TO, RELOCATION OF GUY WIRES, UTILITY POLES, ETC. AS REQUIRED DURING CONSTRUCTION. THIS WORK SHALL BE SUBSIDIARY TO THE BID PRICE.
36. ALL PAVEMENT CUTS SHALL BE NEAT SAW CUT LINES. ALL PAVEMENT SHALL BE SAW CUT PRIOR TO DEMOLITION/REMOVAL. DAMAGED SAWCUTS SHALL BE REMOVED BY SUBSEQUENT PAVEMENT REMOVAL ALONG THE ENTIRE EDGE WITHOUT ADDITIONAL COMPENSATION.
37. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.
38. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
40. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER A COPY OF RECORD DRAWINGS IDENTIFYING ALL DEVIATIONS OR VARIATIONS FROM THE ORIGINAL PLANS.
41. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ALL FIELD CHANGES TO THE PLANS.
42. THE CONTRACTOR SHALL PROVIDE AN "AS-BUILT" SURVEY OF THE SITE, OR FOR GRADE VERIFICATION. THE "AS-BUILT" SHALL PROVIDE ELEVATIONS WITH AN ACCURACY OF 0.01', WITH A MINIMUM SHOT GRID OF 25'. IT SHALL BE ON THE SAME COORDINATE PLANE AS THE ORIGINAL DRAWINGS, SHALL SHOW ALL PHYSICAL FEATURES AND UTILITIES BOTH ABOVE AND BELOW GRADE AND SHALL BE SIGNED AND SEALED BY A LICENSED SURVEYOR IN THE STATE OF TEXAS.
43. CONTRACTOR IS STRICTLY PROHIBITED FROM PLACING SPOILS FROM PIERS, GRADE BEAMS AND OTHER CUT MATERIALS BELOW 3' UNDER ANY PAVING/SIDEWALKS ADJACENT TO BUILDING OR BACKFILL FOR GRADE BEAMS.

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) THAT IS KEPT ONSITE AT ALL TIMES WITH THESE CONSTRUCTION DOCUMENTS FOR COMPLIANCE WITH THE T.P.D.E.S. GENERAL PERMIT
2. IN ORDER TO MINIMIZE EROSION CONTROL PROBLEMS, GENERAL CONTRACTOR SHALL COORDINATE WITH EXCAVATOR, TO DETERMINE EARLIEST POSSIBLE DATE TO INSTALL GRASSING AS NOTED ON THE LANDSCAPE PLAN
3. STABILIZED SLOPES (CURLEX BLANKET AND 70% COVER OF VEGETATION) ACHIEVING EROSION-FREE CONDITIONS MUST BE IN PLACE AND EFFECTIVE BY THE PROJECT "POSSESSION DATE".
4. THE EROSION CONTROL PLAN WILL INCORPORATE EROSION CONTROL MEASURES AND TECHNIQUES TO PREVENT SEDIMENTATION AND ERODED SOIL FROM LEAVING THE SITE EITHER IN EXISTING STORM DRAIN SYSTEM OR ONTO ADJACENT PRIVATE AND PUBLIC PROPERTY. CONSTRUCT TEMPORARY EROSION CONTROL SYSTEMS AS SHOWN ON THE PLANS TO PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENTATION. CONTRACTOR SHALL NOTIFY CONSULTING ENGINEER AT ONCE IF SITE CONDITIONS WARRANT ADDITIONAL EROSION CONTROL MEASURES. CONTRACTOR IS RESPONSIBLE FOR TAKING IMMEDIATE ACTION TO REMEDY EROSION CONTROL WHILE CONSULTING ENGINEER IS PREPARING RESPONSE
5. THE CONTRACTOR SHALL STABILIZE THE EARTHEN SLOPE AREAS IN ACCORDANCE WITH THE LANDSCAPE PLAN WITHIN 72 HOURS AFTER FINAL GRADE AND TOPSOIL HAS BEEN ESTABLISHED IN ACCORDANCE WITH THE PROJECT SITEWORK SPECS
6. PRIOR TO COMMENCING ANY CONSTRUCTION, PERIMETER SILT FENCE SHALL BE INSTALLED AT THE LOCATION(S) SHOWN
7. AT THE COMPLETION OF THE PAVING AND FINAL GRADING, THE DISTURBED AREA(S) SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS
8. SILT FENCE AND INLET SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL REVEGETATION HAS BEEN COMPLETED
9. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS COVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RESEEDED OR RESODDED, IF NECESSARY
10. ALL EROSION CONTROL MEASURES TO BE PLACED BASED ON CONTRACTOR'S BEST JUDGMENT AND CONSTRUCTION PHASING TO MINIMIZE SILT RUNOFF TO THE MAXIMUM EXTENT PRACTICABLE
11. CONTRACTOR SHALL DESIGN AND CONSTRUCT THE WASH-OUT PIT AND CONTAINMENT BASIN IN ACCORDANCE WITH THE STORM WATER POLLUTION PLAN FOR THE PROJECT AND SUBMIT PROPOSED LOCATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION

SANITARY SEWER GENERAL NOTES

1. THE CONTRACTOR SHALL INSTALL WATER AND SEWER LINES SO AS TO AVOID CONFLICTS WITH OTHER UTILITIES. WATER/SEWER LINE SEPARATIONS SHALL BE MAINTAINED PER TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
2. MANHOLE TOPS & CLEAN-OUTS SHALL BE SET TO THE GRADE ESTABLISHED BY THE SITE GRADING PLAN OR APPLICABLE PLAN-PROFILE SHEETS AND SHALL BE FLUSH WITH FINISHED GRADE.
3. THE CONTRACTOR SHALL USE OSHA APPROVED CONFINED SPACE ENTRY PROCEDURES WHEN ENTERING SANITARY SEWER MANHOLES. THE SAFETY EQUIPMENT SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE OSHA CERTIFIED. PERSONS WORKING IN THESE AREAS SHALL BE TRAINED IN THE PROPER USE OF THE SAFETY EQUIPMENT.
4. ALL PROPOSED SANITARY SEWER LINES ARE TO BE LOCATED AS SHOWN ON THE PLANS. ALL LINES LOCATED WITHIN AREAS OF PAVEMENT SHALL HAVE THE TOP 8" OF BACK FILL REPLACED WITH CRUSHED STONE INCLUDING SERVICES. (SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.)
5. CONTRACTOR SHALL FURNISH & INSTALL CLAY PLUGS UPSTREAM OF EACH MANHOLE.
6. ALL WATER MAIN CLEARANCE FOR PARALLEL SANITARY SEWER MAIN SHALL BE A MINIMUM SEPARATION OF 2 FEET VERTICAL AND 9 FEET HORIZONTAL.
7. ALL FORCE MAIN SEWER PIPE WILL BE DR-18 (C-900) PVC PIPE, COLOR CODED FOR SEWERAGE APPLICATIONS. ALL GRAVITY SEWER PIPE SHALL BE SDR-26 (ASTM D-3034) FOR 4' TO 11'-9" DEPTHS, OR SDR-26 FOR 12' TO 20' DEPTHS UNLESS NOTED OTHERWISE. ALL OTHER DEPTHS SHALL BE DIP CL. 51 UNLESS NOTED OTHERWISE. MATERIALS SHALL MEET REQUIREMENTS OF THE CITY. FORCE MAIN SEWER PIPE SHALL BE INSTALLED WITH A MINIMUM OF 24" OF COVER MEASURED FROM THE TOP OF THE PIPE TO THE PROPOSED GROUND OR EXISTING GRADE.
8. WHEN A PROPOSED SEWER LINE CROSSES AN EXISTING WATER LINE, THE CONTRACTOR SHALL INSTALL ONE 20 FOOT JOINT OF SCH-40 ON THE SEWER LINE. CENTERED ON THE WATER LINE. ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.
9. UPON COMPLETION OF SEWER LINE CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED TO HAVE THE LINES TESTED, INCLUDING MANDREL TEST, AIR TEST, AND A T.V. INSPECTION AT NO COST TO THE OWNER. ALL TESTS SHALL BE DOCUMENTED WITH OWNER'S PROJECT REPRESENTATIVE. DOCUMENTATION OF ALL TESTS SHALL BE PROVIDED TO THE PROJECT ENGINEER.
10. FOR PROPOSED SEWER SERVICE LOCATIONS WHERE THE SEWER MAIN EXCEEDS A FLOW LINE DEPTH OF 8', THE CONTRACTOR SHALL INSTALL THE DEEP SERVICE CONNECTION IN LIEU OF THE STANDARD SERVICE CONNECTION. (SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.)
11. THE CONTRACTOR SHALL FIELD LOCATE EXISTING GRAVITY SEWER LINES TO BE CONNECTED PRIOR TO COMMENCING WORK. IF A DISCREPANCY EXISTS BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. SUCH VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.

WATER GENERAL NOTES

1. THE CONTRACTOR SHALL INSTALL WATER AND SEWER LINES SO AS TO AVOID CONFLICTS WITH OTHER UTILITIES. WATER/SEWER LINE SEPARATIONS SHALL BE MAINTAINED PER TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
2. HORIZONTAL BLOCKING HAS BEEN OMITTED FOR CLARITY. HOWEVER, BLOCKING SHALL BE CONSTRUCTED PER DETAILS, CONCRETE BLOCKING SHALL BE PLACED AT ALL VALVES, BENDS, TEES AND PLUGS.
3. ALL GATE VALVES FROM 1.5 INCH TO 18 INCHES SHALL BE OF THE RESILIENT SEAT TYPE.
4. THE UTILITY CONTRACTOR SHALL CONTACT TEXAS PARKS AND WILDLIFE DEPARTMENT, PRIOR TO INSTALLING THE DETECTOR CHECK.
5. ALL PROPOSED WATER LINES ARE TO BE LOCATED AS SHOWN ON THE PLANS. ALL LINES LOCATED WITHIN AREAS OF PAVEMENT SHALL HAVE THE TOP 8" OF BACK FILL REPLACED WITH CRUSHED STONE INCLUDING SERVICES. (SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.)
6. ALL WATER MAIN CLEARANCE FOR PARALLEL SANITARY SEWER MAIN SHALL BE A MINIMUM SEPARATION OF 2 FEET VERTICAL AND 9 FEET HORIZONTAL.
7. CORPORATION STOPS SHOULD BE TESTED FOR LEAKAGE AND FULL FLOW WHEN SYSTEM IS PRESSURE TESTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISINFECTION, CHLORINATION AND FLUSHING. THIS SHALL INCLUDE PROVIDING TEMPORARY ISOLATION VALVES, PLUGS, INJECTION PORTS, FLUSHING VALVES, TOOLS AND EQUIPMENT NECESSARY TO COMPLETE THE TASK. CONTRACTOR SHALL PERFORM REQUIRED BACTERIOLOGICAL TESTS AND PROVIDE RESULTS TO OWNER/ENGINEER AT CONTRACTOR'S EXPENSE.
9. ALL PVC PIPE AND APPURTENANCES (FITTINGS,VALVES, NIPPLES, ETC.) 3" DIA. AND SMALLER SHALL BE CONSTRUCTED AS SHOWN. (NO SEPARATE PAY)
10. CONTRACTOR SHALL LOCATE, PRESERVE AND PROTECT EXISTING WATER SERVICES. ANY WATER SERVICES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED ENTIRELY TO THE MAIN LINE AT THE CONTRACTOR'S EXPENSE. NO SPLICING IS ALLOWED.
11. CONTRACTOR SHALL FIELD LOCATE EXISTING WATER LINES TO BE CONNECTED TO PRIOR TO COMMENCING WORK. IF A DISCREPANCY EXISTS BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. SUCH VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.
12. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THESE PLANS, THE RULES, REGULATIONS, POLICIES, AND PROCEDURES OF THE TEXAS PARKS AND WILDLIFE DEPARTMENT.
13. ALL WATER LINES SHALL BE PVC PIPE CONFORMING TO SCH-40 PVC MINIMUM, WITH NSF SEAL UNLESS STATED DIFFERENTLY ON CONSTRUCTION PLANS, PRESSURE TESTED AND DISINFECTED IN STRICT ACCORDANCE WITH TCEQ REGULATIONS. WATER MAINS TO HAVE A MINIMUM OF 24" COVER TO TOP OF PIPE AS MEASURED FROM THE TOP OF PIPE TO THE EXISTING GROUND OR PROPOSED FINISHED GRADE, WHICHEVER IS GREATER. SERVICE LINE CONNECTORS SHALL BE COMPRESSION-TYPE WITH STAINLESS STEEL TUBE LINERS.
14. ALL WATER LINES TO BE ENCASED IN SAND. BACK FILL SHALL BE SELECT MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
15. ANY WATER VALVES LOCATED WITHIN PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE BY THE PAVING CONTRACTOR. THE PAVING CONTRACTOR SHALL CONSTRUCT A TYPICAL CONCRETE BLOCK OUT PER DETAILS.
16. WATER LINES WILL BE INSTALLED AS SHOWN ON THE PLANS. HOWEVER, FILED ADJUSTMENTS APPROVED BY TPWD OR ENGINEER MAY BE MADE TO LESSEN DAMAGE TO THE ROAD PAVEMENT OR WHEN OTHER UTILITY LOCATIONS, TREES, OR STRUCTURES WARRANT SUCH AN ADJUSTMENT.
17. ALL FITTINGS TO BE DUCTILE IRON MECHANICAL JOINT W/ MEGA LUGS. THE BID ITEM FOR D.I.M.J. FITTINGS WILL INCLUDE ALL NECESSARY BLOCKING.

PAVING AND STRIPING GENERAL NOTES

1. NO SAND SHALL BE USED UNDER ANY PAVEMENT – NO EXCEPTIONS.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT DETAILING LOCATION AND LAYOUT OF CONSTRUCTION JOINTS, EXPANSION JOINTS AND SAW CUTS FOR ALL CONCRETE PAVING ON THE SITE.
3. AN EXPANSION JOINT AS DETAILED, WITH A CONCRETE HEADER, SHALL BE CONSTRUCTED AT THE END OF EACH DAY'S CONCRETE PLACEMENT.
4. CONTRACTOR SHALL REPAIR ALL HONEYCOMBING PRIOR TO BACK FILL.
5. THE CONTRACTOR SHALL NOT STAND, PARK, DRIVE ON, OR IN ANY WAY DISTURB OR DAMAGE STEEL REINFORCING FOR SITE WORK. ALL REINFORCEMENT SHALL BE CHAIRED UP ACCORDING TO PLANS AND SPECIFICATIONS.
6. SUBGRADE SHALL BE MAINTAINED TO WITHIN THE SPECIFIED REQUIREMENTS OF MOISTURE AND DENSITY UNTIL PAVING IS PLACED. PRIOR TO PLACING PAVEMENT, THE CONTRACTOR SHALL RE-TEST THE AREAS SELECTED BY THE CONSTRUCTION MATERIALS TESTING LAB PERSONNEL AT THE CONTRACTORS OWN EXPENSE, OR IF REQUESTED BY THE OWNER'S PROJECT REPRESENTATIVE, ARCHITECT OR ENGINEER, AND IF THE SUBGRADE HAS BEEN PLACED AND ACCEPTED FOR LONGER THAN TEN (10) DAYS AND NO PAVEMENT HAS BEEN CONSTRUCTED.
7. WHERE REINFORCING IS NOT SPECIFICALLY DETAILED, REINFORCING FOR PAVING SHALL BE AT A MINIMUM, NO. 4 REBARS AT 12" O.C.E.W.
8. THE CONTRACTOR SHALL BACK FILL ALL CURBS WITHIN 48 TO 72 HOURS OF PLACEMENT.
9. THE SIDEWALKS AND/OR PEDESTRIAN ROUTES, AS SHOWN ON THESE PLANS, SHALL BE CONSTRUCTED TO COMPLY WITH ALL ADA REQUIREMENTS. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE PLANS.
10. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS.
11. ALL CONSTRUCTION JOINTS SHALL BE SAWED, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH SILICONE JOINT SEALING COMPOUND.
12. ALL SIDEWALKS SHALL HAVE TOOLED JOINTS AT MAX 5' SPACING. WITH EXPANSION JOINTS ON 30" CENTERS.
13. ADA LOADING AREA AND PARKING STALL LINES SHALL BE WHITE AND 4-INCHES IN WIDTH. STRIPING SHALL HAVE A FINAL THICKNESS OF 15 MILS MINIMUMK AND CONSIST OF TWO (2) COATS OF 100% ACRYLIC PAINT.

GRADING AND EROSION CONTROL GENERAL NOTES

1. CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED WITH EXISTING TOP SOIL AND VEGETATION.
2. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE SEEDED (OR SODDED), IRRIGATED, AND MAINTAINED UNTIL A PERMANENT STAND OF GRASS IS ACHIEVED WITH A MINIMUM OF 70% COVERAGE. UNLESS OTHERWISE NOTED, PRIVATE LAWN AREAS AND PARKWAYS IN FRONT OF PRIVATE LAWN AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED WITH BLOCK SOD SIMILAR TO EXISTING CONDITIONS.
3. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON A ROADWAY SHALL BE REMOVED IMMEDIATELY.
4. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH IS DISTURBED.
5. CONTRACTOR STAGING AREA TO BE AGREED UPON BY OWNER'S PROJECT REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE EXISTING AND PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS. CONTRACTOR ADJUSTMENTS TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE ARE ALLOWED WITH THE PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO ANY PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
7. ALL CLEARING, GRADING, COMPACTION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
8. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. AND T.A.S.) EXIST TO AND FROM EVERY DOOR. IN NO CASE SHALL ADA RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. AND T.A.S. COMPLIANCE ISSUES.
9. ALL AREAS OF THE SITE THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES, SHALL RECEIVE AT A MINIMUM, HYDROMULCH AND 6" OF TOP-SOIL. REFER TO DEMOLITION, GRADING, PAVING, DRAINAGE, WATER, SEWER, IRRIGATION AND SEDIMENT CONTROL PLANS TO DETERMINE ALL LIMITS OF DISTURBANCE. CONTRACTOR SHALL PROVIDE SOD AS REQUIRED ELSEWHERE IN THE PLANS.
10. SUPPLY THE SEEDED AREAS WITH ADEQUATE MOISTURE (6" PENETRATION) AT TEN (10) DAY INTERVALS, IF NEEDED, FOR SEED GERMINATION AND PLANT GROWTH UNTIL ACCEPTANCE BY THE OWNER. WATER THE SEED IN A MANNER WHICH WILL PREVENT EROSION OF THE SOIL. FURNISH ALL WATER TO BE USED. REPAIR WASHOUTS AND OTHER BARE SOIL AREAS IN A SEEDED AREA EITHER BY RE-SEEDING, SPRIGGING, OR SPOT-SODDING, AND PERFORM MAINTENANCE AS NEEDED TO ESTABLISH GRASS IN THE AREA. CONTROL COMPETITIVE WEED GROWTH DURING THE ESTABLISHMENT PERIOD WITH HERBICIDES. CHEMICAL USAGE SHALL BE IN ACCORDANCE WITH THE CURRENT RECOMMENDATIONS OF THE TEXAS PARK AND WILD LIFE DEPARTMENT TECHNICAL GUIDES. STRICTLY ADHERE TO ALL FEDERAL, STATE, AND LOCAL LAWS GOVERNING HERBICIDES. WEED CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY WHETHER TOPSOIL IS FROM ON-SITE OR OFF-SITE SOURCES AND ALSO FOR SEEDED AREAS WHICH ARE SPECIFIED NOT TO RECEIVE TOPSOIL.
11. ANY AREAS WHICH ARE DISTURBED BY THE CONTRACTOR WHICH ARE NOT SHOWN ON THE DRAWINGS OR SPECIFIED TO REQUIRE DISTURBANCE INCLUDING ANY APPROVED AREAS NOT SHOWN ON THE DRAWINGS, SHALL BE CONSIDERED AS UNAUTHORIZED DISTURBED AREAS. ANY SUCH AREAS SHALL BE SEEDED AS SPECIFIED IN THIS SECTION AT THE CONTRACTOR'S EXPENSE AND NO SEPARATE PAY.

SPECIAL INSTRUCTIONS COVERING TESTING OF COMPACTION OF TRENCH BACK FILL

1. TRENCH BACK FILL COMPACTION SHALL BE TESTED AT THE RATE OF ONE (1) TEST PER 100 LINEAR FEET PER 12 INCH LIFT (LOOSE). TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER TEST LOCATION OF PREVIOUS LIFT.
2. WHERE CONNECTING DISTANCE BETWEEN MANHOLES EXCEEDS 100 FEET, A MINIMUM OF TWO (2) TESTS PER LIFT, AS OUTLINED ABOVE, SHALL BE REQUIRED.
3. THE CONTRACTOR SHALL USE METHODS OF CONSTRUCTION THAT MEET OR EXCEED OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AND STATE, OR FEDERAL REGULATIONS FOR SAFETY THAT ARE IN EFFECT. THE CONTRACTOR SHALL HAVE A TRENCH SAFETY PLAN PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
4. TESTING LABORATORY SHALL MAKE ONE (1) IN PLACE DENSITY TESTS FOR EACH 5,000 SQ FT OF AREA PER LIFT (8" LOOSE LIFTS,) BUT IN NO CASE LESS THAN FOUR (4) TESTS, AND ONE TEST PER 100 LINEAR FEET OF BACKFILL AREA ADJACENT TO GRADE BEAMS, TO INSURE THAT THE SPECIFIED DENSITY IS OBTAINED

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
8/26/2016

MJ THOMAS ENGINEERING, LLC
3973 W. VICKERY BLVD., SUITE 103
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REGISTRATION NO. F-9435
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MJT NO. - 654-002

th+a

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
C101
OF 44

ISSUED FOR CONSTRUCTION

C:\Users\jfancher\Documents\Revit Local\2014-044 TPWD Caddo Lake State Park - A15_jfancher.rvt

SITE PLAN NOTES:
1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. ALL NEW CONCRETE INTERFACING WITH EXISTING CONCRETE SHALL BE CONSTRUCTED WITH A DOWELED EXPANSION JOINT AS DETAILED.
3. ALL SIDEWALKS, ACCESSIBLE PATHS AND PARKING SHALL CONFORM WITH THE TEXAS ACCESSIBILITY STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY COMPLIANCE.
4. NO SAND SHALL BE USED UNDER ANY PAVEMENT–NO EXCEPTIONS.
5. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PAINT AND STRIPE ALL PARKING AS SHOWN ON PLAN INCLUDING DRIVE LANES, FIRE LANES, TYPICAL SPACES AND ACCESSIBLE STANDARDS SPACES.
7. CONTRACTOR SHALL COORDINATE SLEEVEING FOR ELECTRICAL WITH MEP PLANS.
8. WHERE REINFORCING IS NOT SPECIFICALLY DETAILED, REINFORCING FOR PAVING SHALL BE AT A MINIMUM, NO. 4 REBARS AT 12" O.C.E.W.
9. UNLESS SPECIFICALLY NOTED ON PLANS, ALL CONCRETE PAVING, SIDEWALKS, SLABS, AND MISCELLANEOUS UTILITY INFRASTRUCTURES SHALL BE AT A MINIMUM, 4,000 PSI PORTLAND CEMENT CONCRETE AT 28 DAYS.
10. FOR ALL PAVING AND SIDEWALKS: IN AREAS WHERE SUBGRADE IS NOT SPECIFIED ON PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL 12" THICK FLEXIBLE BASE, TxDOT ITEM 247, GRADE 'A', TYPE 1, COMPACTED TO A MINIMUM 95% ASTM D–698 STD PROCTOR DENSITY.
11. CONTRACTOR SHALL COORDINATE ALL SCORING AND EXPANSION JOINTS WITH THE ARCHITECT AND ENGINEER PRIOR TO ANY CONCRETE PLACEMENT FOR FLATWORK. CONTRACTOR SHALL PROVIDE A DETAILED JOINTING PLAN OF "ALL" SITE PAVING INCLUDING SPACING AND TYPE OF JOINT TO THE ENGINEER FOR REVIEW AND ACCEPTANCE A MINIMUM OF FOUR (4) WEEKS PRIOR TO ANY CONCRETE PLACEMENT.

CONCRETE MATERIALS NOTES:
1. ALL CONCRETE SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C 150, TYPE 1, DOMESTIC MANUFACTURE ONLY. CONTRACTOR SHALL USE ONLY ONE BRAND OF CEMENT THROUGHOUT THE PROJECT.
2. CONTRACTOR SHALL USE AN AIR–ENTRAINING ADMIXTURE PER MANUFACTURER'S RECOMMENDATIONS, RESULTING IN CONCRETE AT THE POINT OF PLACEMENT HAVING AN AIR CONTENT OF 5% (±1%). AIR–ENTRAPMENT IS NOT ACCEPTABLE.
3. ALL CONCRETE SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO OF 0.50.
4. CONCRETE SLUMP AT THE POINT OF PLACEMENT SHALL NOT BE LESS THAN 3" AND NOT MORE THAN 5" AS DESCRIBED BY ASTM C 143.
5. FLY ASH AND CALCIUM CHLORIDE OR ADMIXTURE CONTAINING MORE THAN 0.1% CHLORIDE IONS ARE NOT PERMITTED.
6. EXPANSION JOINTS SHALL BE CONSTRUCTED ON MAXIMUM OF 90' CENTERS AND LOCATED AT ALL STRUCTURES, INTERSECTION POINTS, POINTS OF CURVATURE, POINTS OF TANGENCY, AND AT ALL REDUCTIONS OF PAVEMENT WIDTHS.

REFER TO GENERAL NOTES SHEET FOR EXISTING UTILITY CAUTIONARY NOTES AND CONTRACTOR ADVISORY

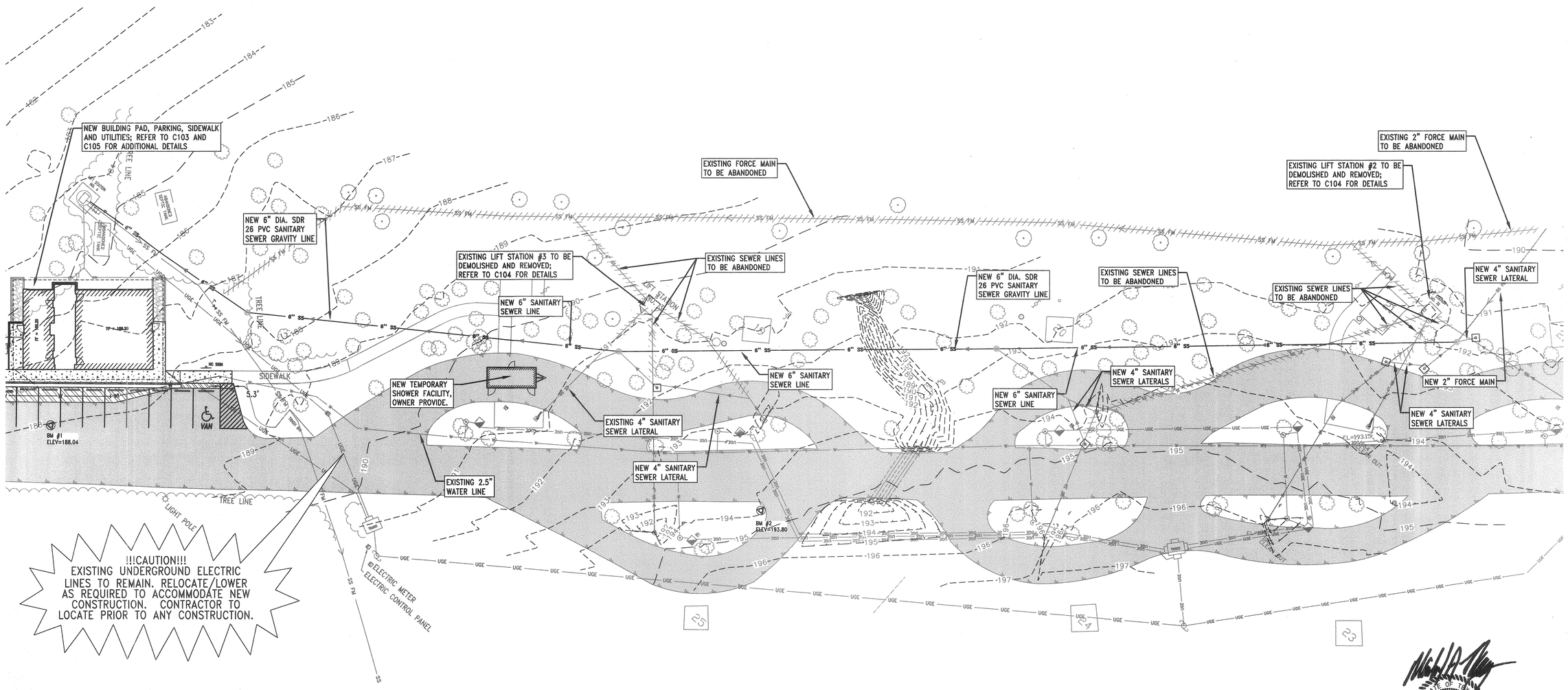
REFER TO SHEET E1.01 FOR ELECTRICAL WORK AT THIS LOCATION

LEGEND

- EXISTING ASPHALT PAVEMENT
- EXISTING CONTOUR
- 6" SS — SANITARY SEWER LINE W/ DIAMETER
- SS FM — SANITARY SEWER FORCE MAIN
- UGE — EXISTING UNDERGROUND ELECTRIC
- W — WATER LINE
- UTILITY LINE ABANDONED IN PLACE
- EXISTING TREE (SPECIES & SIZE, WHERE SHOWN)
- BENCHMARK
- E — ELECTRIC PULL BOX
- UGE — EXISTING OVERHEAD ELECTRIC
- 185 — FINISHED GRADE
- PROPOSED SANITARY SEWER MANHOLE
- WV — EXISTING WATER VALVE
- ELECTRICAL RISER
- WATER RISER
- SIGN W/ POST
- TRANS — ELECTRIC TRANSFORMER
- OR — SEWER CLEANOUT

SEE PAVING DETAILS FOR TYPICAL PAVING SECTIONS

SCALE 1" = 20'
0 10 20 40 FEET



STATE OF TEXAS
MICHAEL A. THOMAS
93640
LICENSED PROFESSIONAL ENGINEER
8/26/2016

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SHEET TITLE
SITE PLAN - OVERALL

SHEET NUMBER
C102
OF 44

ISSUED FOR CONSTRUCTION

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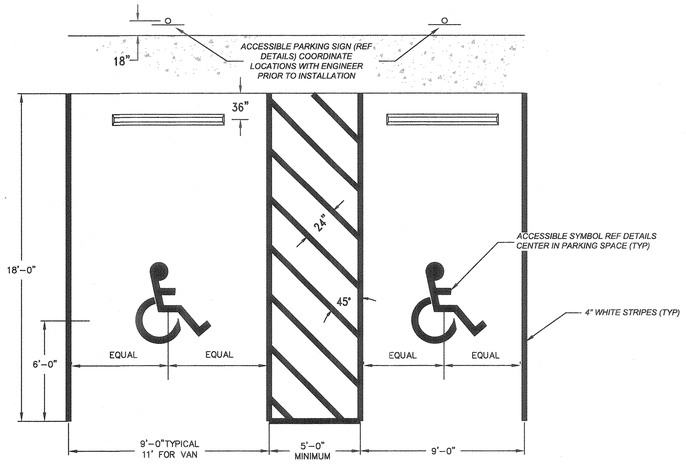
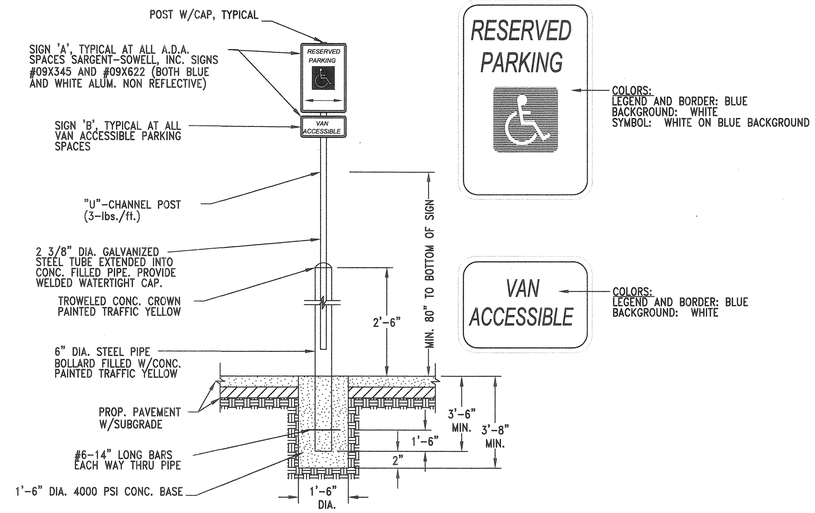
REFER TO GENERAL NOTES SHEET FOR EXISTING UTILITY CAUTIONARY NOTES AND CONTRACTOR ADVISORY

REFER TO SHEET E1.01 FOR ELECTRICAL WORK AT THIS LOCATION



HANDICAP PARKING SPACE DETAIL

NOT TO SCALE

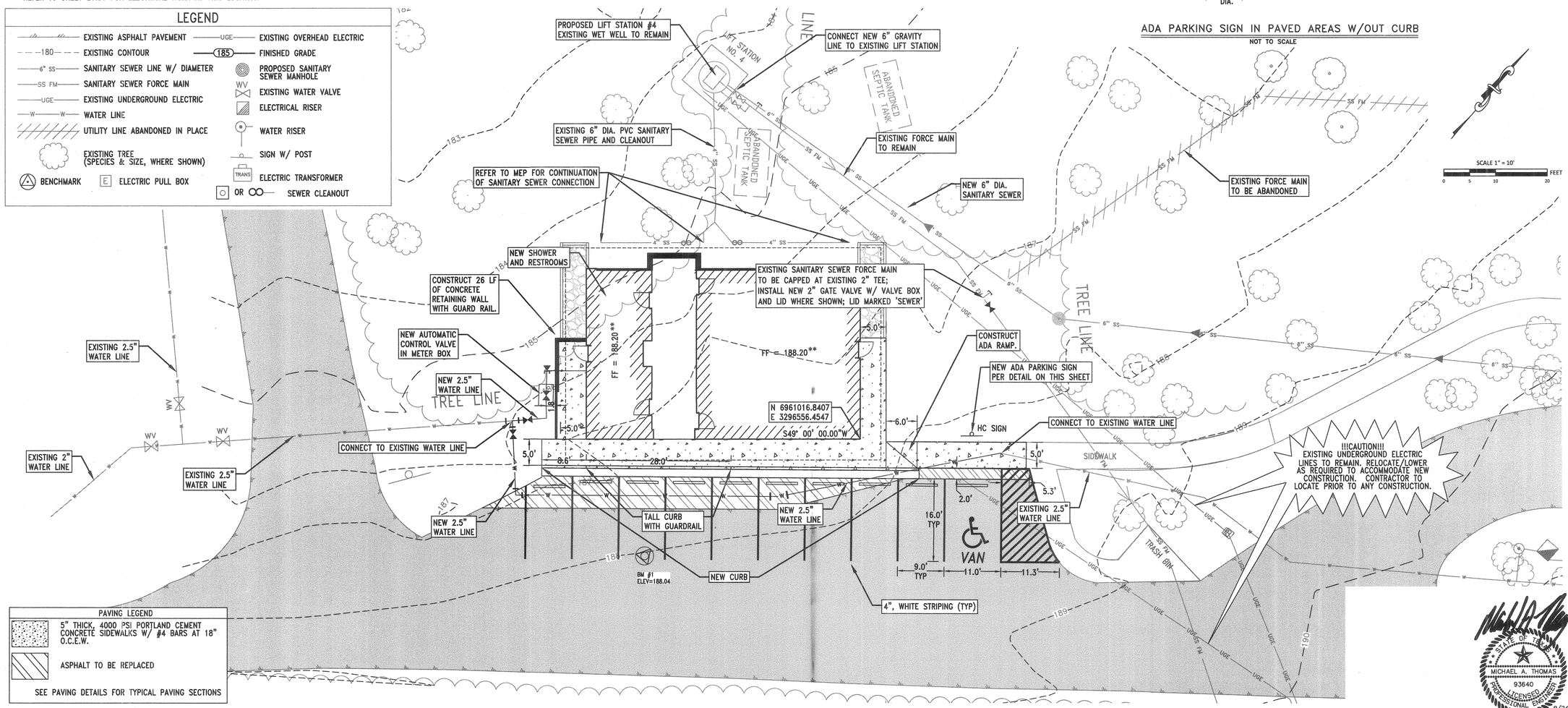


ADA PARKING SIGN IN PAVED AREAS W/OUT CURB

NOT TO SCALE

LEGEND

EXISTING ASPHALT PAVEMENT	EXISTING OVERHEAD ELECTRIC
EXISTING CONTOUR	FINISHED GRADE
SANITARY SEWER LINE W/ DIAMETER	PROPOSED SANITARY SEWER MANHOLE
SANITARY SEWER FORCE MAIN	EXISTING WATER VALVE
EXISTING UNDERGROUND ELECTRIC	ELECTRICAL RISER
WATER LINE	WATER RISER
UTILITY LINE ABANDONED IN PLACE	SIGN W/ POST
EXISTING TREE (SPECIES & SIZE, WHERE SHOWN)	ELECTRIC TRANSFORMER
BENCHMARK / ELECTRIC PULL BOX	SEWER CLEANOUT



PAVING LEGEND

	5" THICK, 4000 PSI PORTLAND CEMENT CONCRETE SIDEWALKS W/ #4 BARS AT 18" O.C.E.W.
	ASPHALT TO BE REPLACED

SEE PAVING DETAILS FOR TYPICAL PAVING SECTIONS

** FF ELEVATION SHOWN IS EQUAL TO THE REFERENCE ELEVATION 100.00 IDENTIFIED ON OTHER DISCIPLINE SHEETS.

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SHEET TITLE
SITE PLAN - PERMANENT RESTROOM

SHEET NUMBER
C103
OF 44

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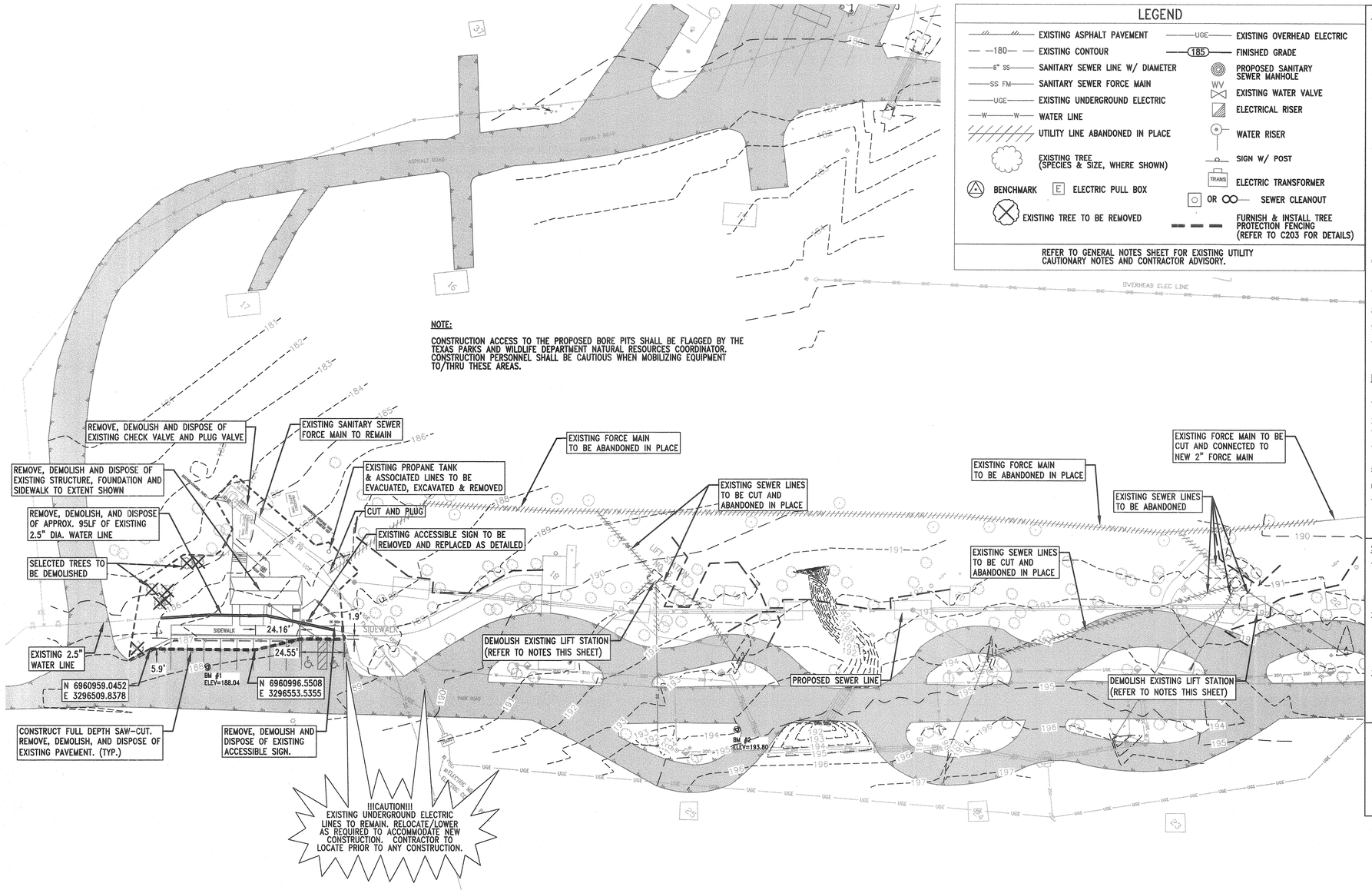

LEGEND

EXISTING ASPHALT PAVEMENT	EXISTING OVERHEAD ELECTRIC
180 EXISTING CONTOUR	185 FINISHED GRADE
6" SS SANITARY SEWER LINE W/ DIAMETER	PROPOSED SANITARY SEWER MANHOLE
SS FM SANITARY SEWER FORCE MAIN	WV EXISTING WATER VALVE
UGE EXISTING UNDERGROUND ELECTRIC	ELECTRICAL RISER
W W WATER LINE	WATER RISER
UTILITY LINE ABANDONED IN PLACE	SIGN W/ POST
EXISTING TREE (SPECIES & SIZE, WHERE SHOWN)	TRANS ELECTRIC TRANSFORMER
BENCHMARK / E ELECTRIC PULL BOX	OR SEWER CLEANOUT
EXISTING TREE TO BE REMOVED	FURNISH & INSTALL TREE PROTECTION FENCING (REFER TO C203 FOR DETAILS)

REFER TO GENERAL NOTES SHEET FOR EXISTING UTILITY CAUTIONARY NOTES AND CONTRACTOR ADVISORY.

NOTE:

CONSTRUCTION ACCESS TO THE PROPOSED BORE PITS SHALL BE FLAGGED BY THE TEXAS PARKS AND WILDLIFE DEPARTMENT NATURAL RESOURCES COORDINATOR. CONSTRUCTION PERSONNEL SHALL BE CAUTIOUS WHEN MOBILIZING EQUIPMENT TO/THRU THESE AREAS.

DEMOLITION NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. UNCHARTED UTILITY LINES MAY BE LOCATED WITHIN THE AREA OF DEMOLITION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND IDENTIFYING ANY POTENTIAL CONFLICTS.
3. ALL FENCES REMOVED TO FACILITATE CONSTRUCTION SHALL BE REPLACED AS DIRECTED BY THE OWNER'S PROJECT REPRESENTATIVE. (SHALL BE CONSIDERED SUBSIDIARY TO THE BID PRICE.)
4. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO: TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS. ALL AREAS DISTURBED BY CONSTRUCTION WILL BE HYDROMULCHED UNLESS OTHERWISE NOTED.
5. EXISTING IMPROVEMENTS WITHIN THE CONSTRUCTION AREA SHALL BE DEMOLISHED, REMOVED, DISPOSED OF, CLEARED AND GRUBBED AS SPECIFIED. ITEMS TO BE REMOVED, BUT NOT LIMITED TO ARE SPRINKLER SYSTEMS, PIERS, CONCRETE, ASPHALT, CURBS, LANDSCAPE TREES AND PLANTS, ETC.. SANITARY SEWER LINES, MANHOLES, CLEANOUTS, WATER VALVES, AND WATER SERVICES ARE TO REMAIN IN SERVICE AND ARE NOT TO BE REMOVED UNLESS NOTED OTHERWISE. ALL UTILITY SURFACE MOUNTS INCLUDING BUT NOT LIMITED TO WATER VALVES, SEWER MANHOLES, AND CLEANOUTS SHALL BE ADJUSTED TO MATCH THE PROPOSED FINISH SURFACE AND SITE GRADING. ALL ASPHALT AND CONCRETE SHALL BE SAW CUT FULL DEPTH OF PAVEMENT PRIOR TO DEMOLITION AND REMOVAL. CONTRACTOR SHALL MAINTAIN A CONTINUOUS VERTICAL CUT LINE/EDGE. DAMAGED SAWCUTS SHALL BE REMOVED BY SUBSEQUENT PAVEMENT REMOVAL ALONG THE ENTIRE EDGE WITHOUT ADDITIONAL COMPENSATION.
6. AT SITES WHERE DEMOLITION WILL OCCUR AT OR NEAR A STREET, THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION RENOVATION ACTIVITIES AS SOON AS POSSIBLE SO THAT EDGES OF THE PAVEMENT WILL NOT BE LEFT UNPROTECTED LONGER THAN NECESSARY.
7. THE CONTRACTOR SHALL COORDINATE REMOVAL OF ANY AND ALL TREES WITH THE OWNER'S AUTHORIZED PROJECT REPRESENTATIVE.
8. EXISTING PAVING REMOVAL SHALL EXTEND TO THE NEAREST JOINT TO ENSURE NO IRREGULAR SHAPED PANELS.
9. CONTRACTOR SHALL COORDINATE WITH A300 FOR THE DEMOLITION OF EXISTING STONE WALLS.
10. PROPANE TANK EVACUATION SHALL BE PERFORMED BY A QUALIFIED GAS INSTALLER/TECHNICIAN. TANK SHALL BE TAGGED AS 'EMPTY' AS CERTIFICATION PRIOR TO REMOVAL AND/OR DISPOSAL BY CONTRACTOR.

LIFT STATION DEMOLITION

1. PUMP OUT WET WELL(S) AND DISPOSE OF THE CONTENTS USING A TCEQ LICENSED SEPTAGE HAULING COMPANY.
2. REMOVE CONCRETE CAP W/ LID FROM WET WELL.
3. REMOVE ALL PIPING AND EQUIPMENT FROM WET WELL AND SUBMIT TO OWNER FOR FIRST RIGHT OF SALVAGE PRIOR TO DISPOSAL.
4. CUT AND REMOVE FIBERGLASS WET WELL TO WITHIN THREE (3) FEET OF GROUND SURFACE; DEPTH MAY BE REDUCED WHERE INTERIOR GROUT SLOPES IMPEDE FULL REMOVAL.
5. LIBERALLY APPLY HTH (CALCIUM HYPOCHLORITE) POWDER ON THE INTERIOR OF THE REMAINING FLOOR AND SIDES.
6. PLACE FLOWABLE FILL (CLSM) WITH A STRENGTH BETWEEN 100 AND 200 PSI INTO THE WET WELL TO THE TOP OF THE DEMOLISHED WALLS.
7. CONTRACTOR SHALL FILL THE AREA WITH ACCEPTABLE BACKFILL MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS.

SITE DISTURBANCE NOTES:

1. WITHIN SEVENTY-TWO (72) HOURS OF ESTABLISHING FINAL GRADE, AREAS OF THE SITE INCLUDING ANY OFF-SITE AREA THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES, SHALL RECEIVE AT A MINIMUM, HYDROMULCH AND 6" OF TOP-SOIL. REFER TO DEMOLITION, GRADING, PAVING, SEWER AND SEDIMENT CONTROL PLANS TO DETERMINE ALL LIMITS OF DISTURBANCE. PROVIDE SEED MIXTURE AS SPECIFIED BY ARCHITECT.
2. SUPPLY THE SEEDED AREAS WITH ADEQUATE MOISTURE (6" PENETRATION) AT TEN (10) DAY INTERVALS, IF NEEDED, FOR SEED GERMINATION AND PLANT GROWTH UNTIL ACCEPTANCE BY THE OWNER. WATER THE SEED IN A MANNER WHICH WILL PREVENT EROSION OF THE SOIL. FURNISH ALL WATER TO BE USED. REPAIR WASHOUTS AND OTHER BARE SOIL AREAS IN A SEEDED AREA BY RE-SEEDING, AND PERFORM MAINTENANCE AS NEEDED TO ESTABLISH A MINIMUM OF 50% COVERAGE IN THE AREA.
3. ANY AREAS WHICH ARE DISTURBED BY THE CONTRACTOR WHICH ARE NOT SHOWN ON THE DRAWINGS OR SPECIFIED TO REQUIRE DISTURBANCE INCLUDING ANY APPROVED AREAS NOT SHOWN ON THE DRAWINGS, SHALL BE CONSIDERED AS UNAUTHORIZED DISTURBED AREAS. ANY SUCH AREAS SHALL BE SEEDED AS SPECIFIED AT THE CONTRACTOR'S EXPENSE.

NOTE:

CONTRACTOR SHALL VIDEO TAPE "ALL" AREAS ALONG THE PERIMETER OF ALL CONSTRUCTION INCLUDING AREAS TO BE USED FOR STAGING PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL PROVIDE THE OWNER & ENGINEER WITH A COPY OF THIS VIDEO ON DVD FOR THEIR RECORDS AT THE PRE-CONSTRUCTION MEETING. ITEMS DAMAGED BY CONSTRUCTION NOT INTENDED FOR DEMOLITION SHALL BE REPLACED TO "AS GOOD AS" OR "BETTER THAN" CONDITION PRIOR TO CONSTRUCTION.

GRASS SEEDING/SODDING NOTES REFER TO ARCHITECT.

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SHEET TITLE
DEMOLITION PLAN -EXISTING RESTROOM FACILITY

SHEET NUMBER
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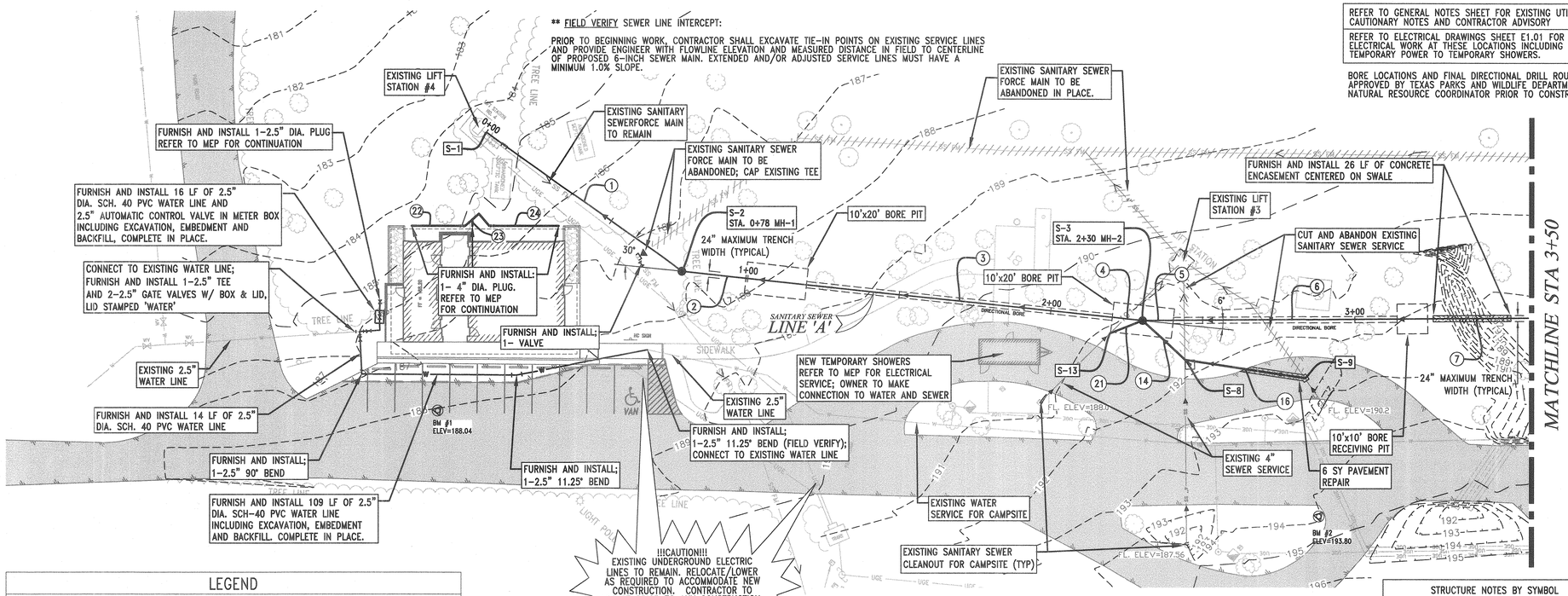

REFER TO GENERAL NOTES SHEET FOR EXISTING UTILITY CAUTIONARY NOTES AND CONTRACTOR ADVISORY

REFER TO ELECTRICAL DRAWINGS SHEET E1.01 FOR ELECTRICAL WORK AT THESE LOCATIONS INCLUDING TEMPORARY POWER TO TEMPORARY SHOWERS.

BORE LOCATIONS AND FINAL DIRECTIONAL DRILL ROUTE TO BE APPROVED BY TEXAS PARKS AND WILDLIFE DEPARTMENT NATURAL RESOURCE COORDINATOR PRIOR TO CONSTRUCTION.

UTILITY PLAN NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. ALL WATER LINES WILL BE LAID A MINIMUM OF 24" BELOW FINISHED GRADE EXCEPT AS SHOWN ON UTILITY CROSSING SHEETS.
3. ALL WATER LINE FITTINGS TO BE DUCTILE IRON MECHANICAL JOINT W/ MEGA LUGS. THE BID ITEM FOR D.I.M.J. FITTINGS WILL INCLUDE ALL NECESSARY BLOCKING.
4. UNCHARTED UTILITY LINES MAY BE LOCATED WITHIN THE AREA OF DEMOLITION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND IDENTIFYING ANY POTENTIAL CONFLICTS
5. WHERE REINFORCING IS NOT SPECIFICALLY DETAILED, REINFORCING FOR PAVING SHALL BE AT A MINIMUM, NO. 4 REBARS AT 12" O.C.E.W.
6. UNLESS SPECIFICALLY NOTED ON PLANS, ALL CONCRETE PAVING, SIDEWALKS, SLABS AND MISCELLANEOUS UTILITY INFRASTRUCTURES SHALL BE AT A MINIMUM, 4,000 PSI PORTLAND CEMENT CONCRETE AT 28 DAYS.
7. ALL AREAS OF THE SITE INCLUDING ANY OFF-SITE AREA THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES, SHALL RECEIVE AT A MINIMUM, HYDROMULCH AND 6" OF TOP-SOIL. REFER TO DEMOLITION, GRADING, PAVING, DRAINAGE, WATER, SEWER, IRRIGATION AND SEDIMENT CONTROL PLANS TO DETERMINE ALL LIMITS OF DISTURBANCE. CONTRACTOR SHALL PROVIDE SOD AS REQUIRED ELSEWHERE IN THE PLANS. REFER TO A100 FOR ADDITIONAL INFORMATION.
8. WHERE 'RESTRAINED JOINTS' ARE SPECIFIED IN PIPE USING DIRECTIONAL DRILLING, PIPE SHALL BE CERTAINTEED, CERTA-LOCK OR APPROVED EQUAL.
9. FLOW LINE ELEVATIONS SHOWN ON EXISTING CLEANOUTS/SERVICE LATERALS TAKEN FROM AS-BUILTS PROVIDED BY OWNER.

LEGEND

- RECTANGULAR BORDER=STRUCTURE LABEL — S-17 — NUMBER=STRUCTURE NUMBER (REFER TO STRUCTURE NOTES BY SYMBOL TABLE FOR CALL-OUTS)
- ROUNDED RECTANGULAR BORDER=PIPE LABEL — 18 — NUMBER=PIPE NUMBER (REFER TO PIPE NOTES BY SYMBOL TABLE FOR CALL-OUTS)

LEGEND

- EXISTING ASPHALT PAVEMENT
- 180 — EXISTING CONTOUR
- 6" SS — SANITARY SEWER LINE W/ DIAMETER
- SS FM — SANITARY SEWER FORCE MAIN
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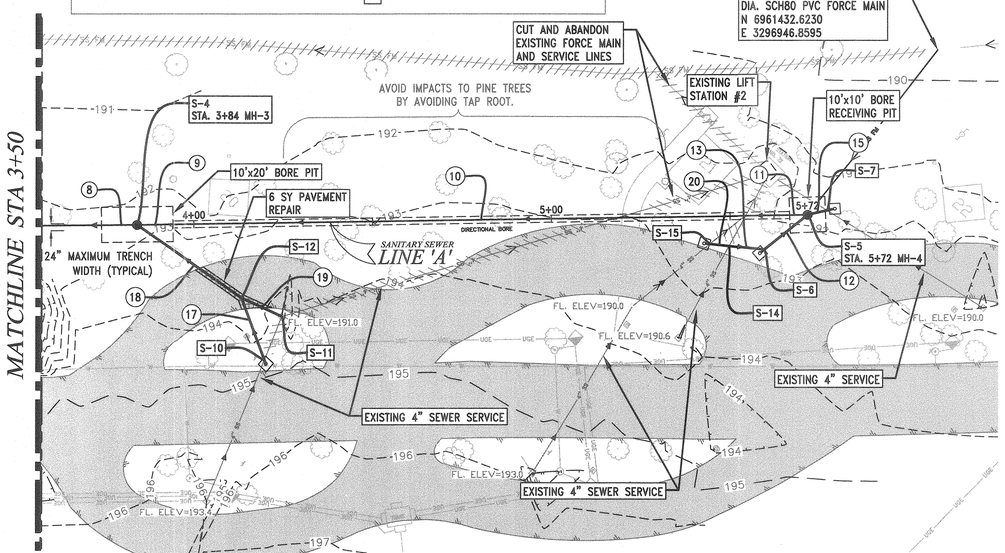

PIPE NOTES BY SYMBOL	
NO.	NOTES
12	FURNISH AND INSTALL 15.56 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
13	FURNISH AND INSTALL 9.94 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
14	FURNISH AND INSTALL 19.17 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
15	FURNISH AND INSTALL 5.59 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
16	FURNISH AND INSTALL 39.84 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
17	FURNISH AND INSTALL 18.13 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
18	FURNISH AND INSTALL 35.65 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
19	FURNISH AND INSTALL 12.48 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
20	FURNISH AND INSTALL 5.40 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.
21	FURNISH AND INSTALL 11.48 LF OF 4" DIA. SDR-26 PVC SANITARY SEWER PIPE AT MIN 2.0% SLOPE INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE. CONTRACTOR SHALL VERIFY EXISTING LINE IS DEEP ENOUGH TO PROVIDE NEW SERVICES PRIOR TO ANY CONTRUCTION.

PIPE NOTES BY SYMBOL	
NO.	NOTES
1	FURNISH AND INSTALL 78.16 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
2	FURNISH AND INSTALL 41.05 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
4	FURNISH AND INSTALL 10.00 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
5	FURNISH AND INSTALL 10.07 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
7	FURNISH AND INSTALL 61.55 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
8	FURNISH AND INSTALL 8.72 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
9	FURNISH AND INSTALL 10.03 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE
11	FURNISH AND INSTALL 5.00 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE

PIPE NOTES BY SYMBOL	
NO.	NOTES
3	FURNISH AND INSTALL 100.93 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% BY DIRECTIONAL BORE USING RESTRAINED JOINT PVC PIPE
6	FURNISH AND INSTALL 73.50 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% BY DIRECTIONAL BORE USING RESTRAINED JOINT PVC PIPE
10	FURNISH AND INSTALL 172.50 LF OF 6" DIA. SDR-26 PVC SANITARY SEWER PIPE AT 1.00% BY DIRECTIONAL BORE USING RESTRAINED JOINT PVC PIPE
22	FURNISH AND INSTALL: 34.10 LF OF 4" DIA SDR-26 PVC AT MIN 2.0% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE.
23	FURNISH AND INSTALL: 2 LF OF 4" DIA SDR-26 PVC AT MIN 2.0% AND 4" WYE, INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL.
24	FURNISH AND INSTALL: 44.30 LF OF 4" DIA SDR-26 PVC AT MIN 2.0% INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL. COMPLETE IN PLACE.

STRUCTURE NOTES BY SYMBOL	
NO.	NOTE
S-1	STA. 0+00.00 ~ SANITARY SEWER LINE 'A' CORE INTO EXISTING FIBERGLASS WET WELL AND CONNECT SECURE NEW SEWER INLET 6" FL=181.30 N=6961051.4640 E=3296492.3532
S-2	STA. 0+78.23 ~ SANITARY SEWER LINE 'A' MH-1 FURNISH AND INSTALL: 1-STD 4' DIA. SANITARY SEWER MANHOLE RIM=MATCH FINISHED GRADE 6" FL=182.08 6" FL=182.18 N=6961059.6378 E=3296570.1583
S-3	STA. 2+30.31 ~ SANITARY SEWER LINE 'A' MH-2 FURNISH AND INSTALL: 1-STD 4' DIA. SANITARY SEWER MANHOLE RIM=MATCHED FINISHED GRADE 6" FL=183.70 6" FL=183.80 4" FL=TBD 4" FL=TBD N=6961146.8136 E=3296694.7688
S-4	STA. 3+84.15 ~ SANITARY SEWER LINE 'A' MH-3 FURNISH AND INSTALL: 1-STD 4' DIA. SANITARY SEWER MANHOLE RIM=FINISHED GRADE 6" FL=185.34 6" FL=185.44 4" FL=TBD N=6961248.6492 E=3296810.0838
S-5	STA. 5+71.68 ~ SANITARY SEWER LINE 'A' MH-4 FURNISH AND INSTALL: 1-STD 4' DIA. SANITARY SEWER MANHOLE RIM=FINISHED GRADE 4" FL=TBD 6" FL=187.32 4" FL=TBD N=6961373.8365 E=3296949.7078
S-6	FURNISH AND INSTALL 4" SDR-26 PVC WYE AND STANDARD CLEANOUT FIELD VERIFY ELEVATION N=6961358.5008 E=3296947.0793
S-7	INTERCEPT EXISTING 4" SEWER LATERAL AND INSTALL TYPICAL CLEANOUT FIELD VERIFY ELEVATION N=6961378.3506 E=3296953.0006
S-8	INTERCEPT EXISTING 4" SEWER LATERAL, CONNECT TO ADJOINING LATERAL (FITTINGS AS REQUIRED) AND INSTALL STANDARD CLEANOUT FIELD VERIFY ELEVATION N=6961145.9520 E=3296713.9192
S-9	INTERCEPT EXISTING 4" SEWER LATERAL AND INSTALL 4" SDR-26 PVC WYE FIELD VERIFY ELEVATION N=6961167.2951 E=3296747.5542
S-10	INTERCEPT EXISTING 4" SEWER LATERAL AND INSTALL STANDARD CLEANOUT FIELD VERIFY ELEVATION N=6961243.7821 E=3296861.5673
S-11	MODIFY EXISTING CLEANOUT; REMOVE ELBOW AND REDIRECT NEW FL AS SHOWN FIELD VERIFY ELEVATION N=6961255.8922 E=3296857.4981
S-12	FURNISH AND INSTALL 4" SDR-26 WYE AND 11.25 DEG SDR-26 BEND FIELD VERIFY ELEVATION N=6961252.2830 E=3296845.5503
S-13	FURNISH AND INSTALL 4" SDR-26 22.5 DEG BEND FIELD VERIFY ELEVATION N=6961136.5672 E=3296689.5824
S-14	INTERCEPT EXISTING 4" SEWER LATERAL AND INSTALL 4" SDR-26 PVC WYE WITH FITTINGS AS REQUIRED FIELD VERIFY ELEVATION N=6961352.8065 E=3296938.9343
S-15	INTERCEPT EXISTING 4" SEWER LATERAL AND INSTALL STANDARD CLEANOUT FIELD VERIFY ELEVATION N=6961349.7104 E=3296934.5066

STATE OF TEXAS — 93640 — MICHAEL A. THOMAS — LICENSED PROFESSIONAL ENGINEER — 8/26/2016

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TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 8/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
WATER & SEWER UTILITY PLAN

SHEET NUMBER
C105
OF 44

ISSUED FOR CONSTRUCTION

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TEXAS PARKS & WILDLIFE

LEGEND

EXISTING ASPHALT PAVEMENT	EXISTING OVERHEAD ELECTRIC
180 EXISTING CONTOUR	185 FINISHED GRADE
SANITARY SEWER LINE W/ DIAMETER	PROPOSED SANITARY SEWER MANHOLE
8" SS SANITARY SEWER FORCE MAIN	WV EXISTING WATER VALVE
UGE EXISTING UNDERGROUND ELECTRIC	ELECTRICAL RISER
W WATER LINE	WATER RISER
UTILITY LINE ABANDONED IN PLACE	SIGN W/ POST
EXISTING TREE (SPECIES & SIZE, WHERE SHOWN)	TRANS ELECTRIC TRANSFORMER
BENCHMARK / E ELECTRIC PULL BOX	OR SEWER CLEANOUT

DIRECTION OF FLOW

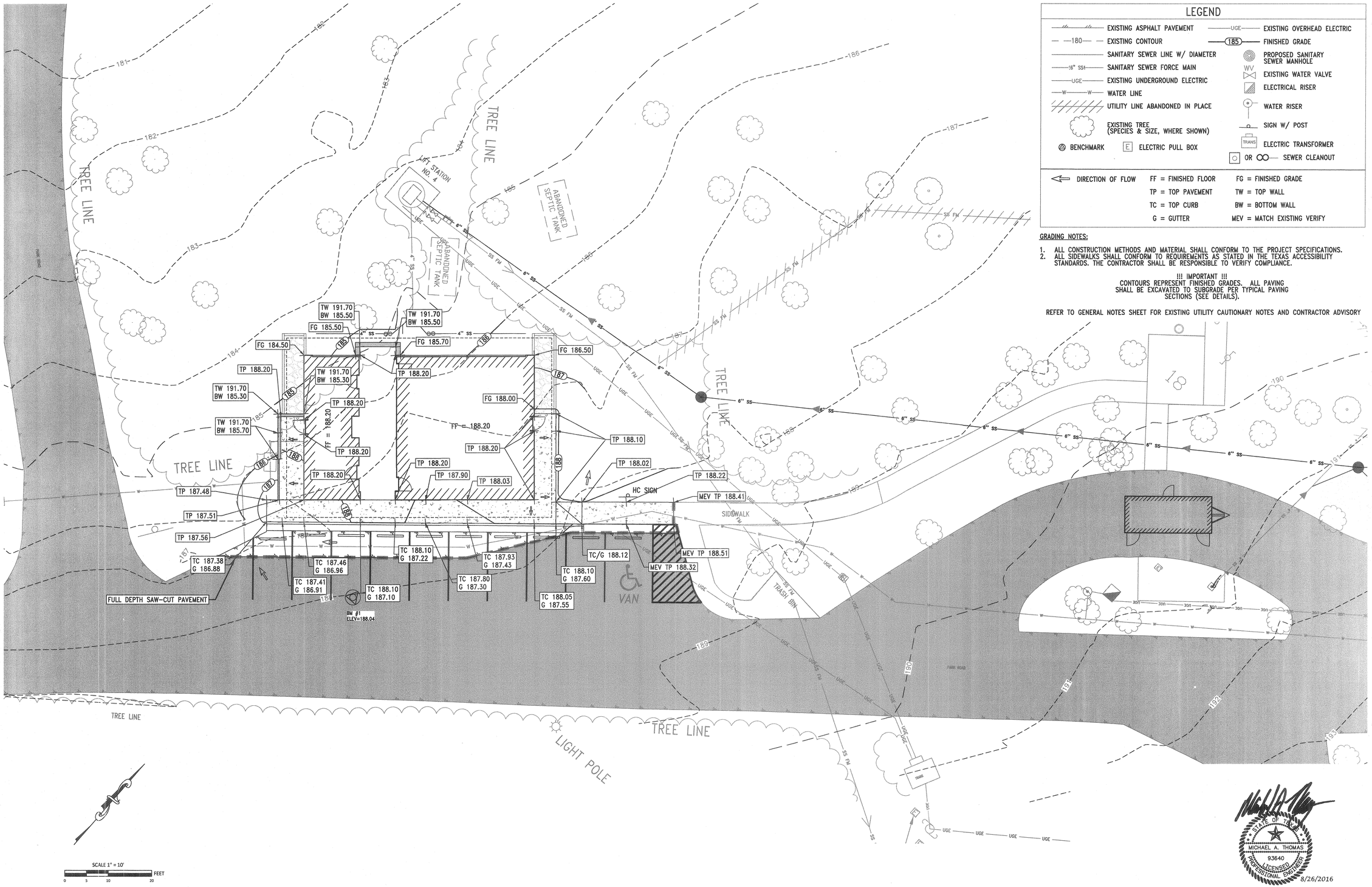
FF = FINISHED FLOOR	FG = FINISHED GRADE
TP = TOP PAVEMENT	TW = TOP WALL
TC = TOP CURB	BW = BOTTOM WALL
G = GUTTER	MEV = MATCH EXISTING VERIFY

GRADING NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. ALL SIDEWALKS SHALL CONFORM TO REQUIREMENTS AS STATED IN THE TEXAS ACCESSIBILITY STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY COMPLIANCE.

!!! IMPORTANT !!!
CONTOURS REPRESENT FINISHED GRADES. ALL PAVING SHALL BE EXCAVATED TO SUBGRADE PER TYPICAL PAVING SECTIONS (SEE DETAILS).

REFER TO GENERAL NOTES SHEET FOR EXISTING UTILITY CAUTIONARY NOTES AND CONTRACTOR ADVISORY



SCALE 1" = 10'
0 5 10 20 FEET

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 8/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

STATE OF TEXAS
MICHAEL A. THOMAS
93640
LICENSED
PROFESSIONAL ENGINEER
8/26/2016

SHEET TITLE
GRADING PLAN - PERMANENT RESTROOM FACILITY

SHEET NUMBER
C106
OF 44

ISSUED FOR CONSTRUCTION

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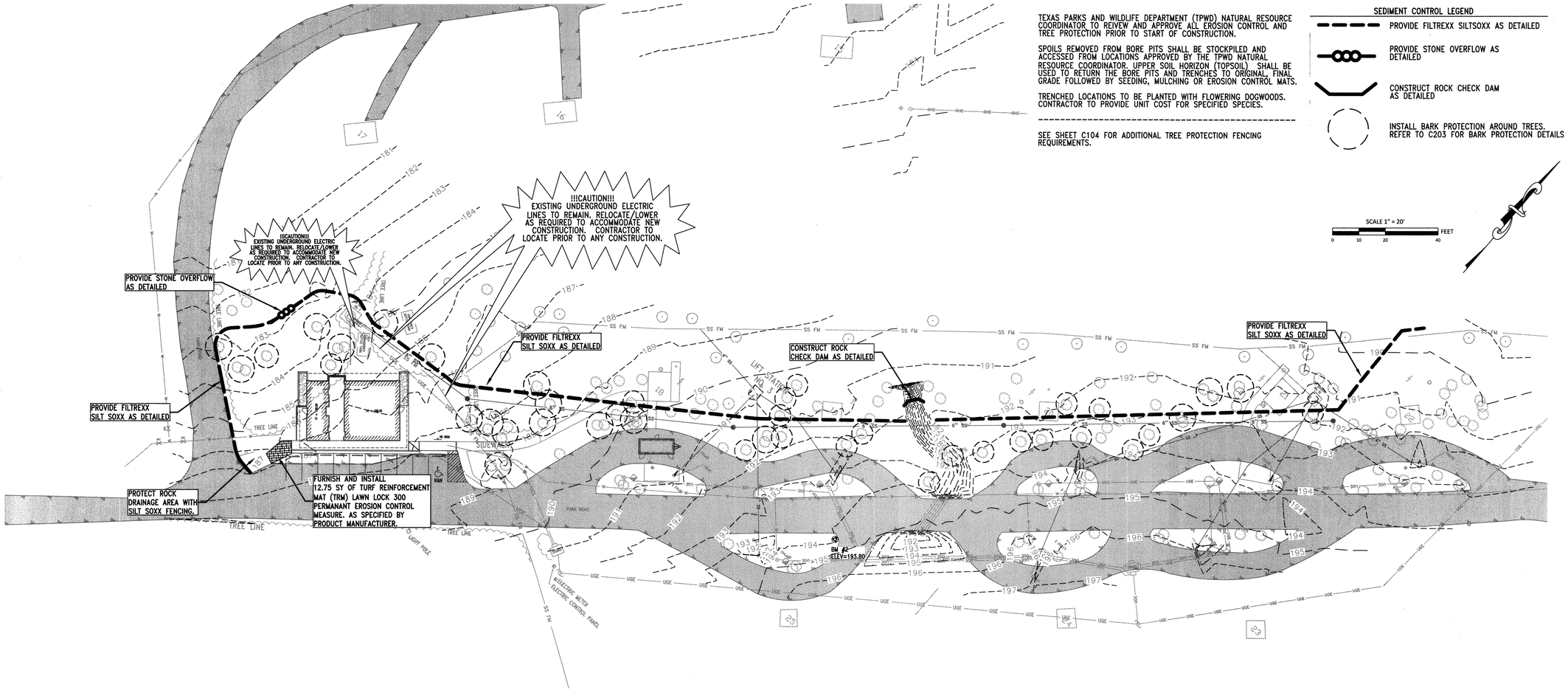

TEXAS PARKS AND WILDLIFE DEPARTMENT (TPWD) NATURAL RESOURCE COORDINATOR TO REIVEW AND APPROVE ALL EROSION CONTROL AND TREE PROTECTION PRIOR TO START OF CONSTRUCTION.

SPOILS REMOVED FROM BORE PITS SHALL BE STOCKPILED AND ACCESSED FROM LOCATIONS APPROVED BY THE TPWD NATURAL RESOURCE COORDINATOR. UPPER SOIL HORIZON (TOPSOIL) SHALL BE USED TO RETURN THE BORE PITS AND TRENCHES TO ORIGINAL, FINAL GRADE FOLLOWED BY SEEDING, MULCHING OR EROSION CONTROL MATS.

TRENCHED LOCATIONS TO BE PLANTED WITH FLOWERING DOGWOODS. CONTRACTOR TO PROVIDE UNIT COST FOR SPECIFIED SPECIES.

SEE SHEET C104 FOR ADDITIONAL TREE PROTECTION FENCING REQUIREMENTS.

SEDIMENT CONTROL LEGEND

- PROVIDE FILTREXX SILTSOXX AS DETAILED
- PROVIDE STONE OVERFLOW AS DETAILED
- CONSTRUCT ROCK CHECK DAM AS DETAILED
- INSTALL BARK PROTECTION AROUND TREES. REFER TO C203 FOR BARK PROTECTION DETAILS

SEDIMENT CONTROL NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVETION PLAN (SWPPP) AND SUBMIT TO ENGINEER FOR APPROVAL DURING THE SUBMITTAL PHASE.
3. EROSION CONTROL MEASURES SHALL FOLLOW THE SWPPP AND BE KEPT ONSITE AT ALL TIMES WITH THESE CONSTRUCTION DOCUMENTS FOR COMPLIANCE WITH THE T.P.D.E.S. GENERAL PERMIT
4. IN ORDER TO MINIMIZE EROSION CONTROL PROBLEMS, GENERAI. CONTRACTOR SHALL COORDINATE WITH EXCAVATOR, CONTRACTORS TO DETERMINE EARLIEST POSSIBLE DATE TO INSTALL GRASSING AS NOTED ON THE DEMOLITION.
5. THE EROSION CONTROL PLAN WILL INCORPORATE EROSION CONTROL MEASURES AND TECHNIQUES TO PREVENT SEDIMENTATION AND ERODED SOIL FROM LEAVING THE SITE. CONSTRUCT TEMPORARY EROSION CONTROL SYSTEMS AS SHOWN ON THE PLANS TO PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENTATION. CONTRACTOR SHALL NOTIFY CONSULTING ENGINEER AT ONCE IF SITE CONDITIONS WARRANT ADDITIONAL EROSION CONTROL MEASURES. CONTRACTOR IS RESPONSIBLE FOR TAKING IMMEDIATE ACTION TO REMEDY EROSION CONTROL WHILE CONSULTING ENGINEER IS PREPARING RESPONSE
6. THE CONTRACTOR SHALL STABILIZE THE EARTHEN SLOPE AREAS WITHIN 72 HOURS AFTER FINAL GRADE AND TOPSOIL HAS BEEN ESTABLISHED IN ACCORDANCE WITH THE PROJECT SITEWORK SPECS
7. PRIOR TO COMMENCING ANY CONSTRUCTION, PERIMETER SILT FENCE SHALL BE INSTALLED AT THE LOCATION(S) SHOWN
8. AT THE COMPLETION OF THE PAVING AND FINAL GRADING, THE DISTURBED AREA(S) SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS
9. SILT FENCE AND INLET SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL REVEGETATION HAS BEEN COMPLETED
10. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS COVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RESEEDED, IF NECESSARY
11. ALL EROSION CONTROL MEASURES TO BE PLACED BASED ON CONTRACTOR'S BEST JUDGMENT AND CONSTRUCTION PHASING TO MINIMIZE SILT RUNOFF TO THE MAXIMUM EXTENT PRACTICABLE
12. CONTRACTOR SHALL DESIGN AND CONSTRUCT THE WASH-OUT PIT AND CONTAINMENT BASIN IN ACCORDANCE WITH THE STORM WATER POLLUTION PLAN FOR THE PROJECT AND SUBMIT PROPOSED LOCATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION

CONCRETE WASH-OUT PIT NOTES:

1. CONTRACTOR SHALL PROVIDE A WASH-OUT AREA, AS SPECIFIED IN THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) WASTEWATER PERMITTING SECTION, WITH A MINIMUM OF 6 CUBIC FEET OF CONTAINMENT AREA VOLUME FOR EVERY 10 CUBIC YARDS OF CONCRETE POURED
2. CONTRACTOR SHALL NOT DUMP WASTE CONCRETE ILLICITLY OR WITHOUT PROPERTY OWNER'S KNOWLEDGE AND CONSENT
3. OVERFLOW OF WASHDOWN WATER SHALL BE DISCHARGED IN AN AREA PROTECTED BY ONE OR MORE SEDIMENT REMOVAL BMPS AND SHALL BE DONE IN MANNER THAT DOES NOT RESULT IN A VIOLATION OF GROUNDWATER OR SURFACE WATER QUALITY STANDARDS
4. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS SET FORTH IN TPDES GENERAL PERMIT TXR 150000

MAINTENANCE:

ALL MEASURES STATED ON THIS EROSION CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES, OVERFLOW STRUCTURE, AND CHECK DAM WHEN IT REACHES ONE-HALF OF ITS HEIGHT.
3. CONTRACTOR IS INSTRUCTED TO EVALUATE AREAS UPSTREAM AND DOWNSTREAM OF EROSION MEASURES CROSSING GULLIES OR DRAINAGE CHANNELS MORE FREQUENTLY THAN STATED. THESE LOCATIONS MAY REQUIRE SEDIMENT REMOVAL MORE OFTEN THAN THE STIPULATED RAINFALL OCCURRENCE DICTATES.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

EROSION CONTROL AND SLOPE PROTECTION IMPLEMENTATION:

1. PLACE EROSION CONTROL SYSTEMS IN ACCORDANCE WITH CONSTRUCTION DRAWINGS AND STORM WATER POLLUTION PREVENTION PLAN OR AS MAY BE DICTATED BY SITE CONDITIONS IN ORDER TO MAINTAIN THE INTENT OF THE SPECIFICATIONS AND PERMITS AT NO ADDITIONAL COST TO OWNER
2. DEFICIENCIES OR CHANGES ON CONSTRUCTION DRAWINGS OR STORM WATER POLLUTION PREVENTION PLAN SHALL BE IMPLEMENTED AS SITE CONDITIONS CHANGE
3. OWNER HAS AUTHORITY TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND TO DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES
4. MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS AS DIRECTED BY OWNER OR GOVERNING AUTHORITIES TO CONTROL SILTATION DURING LIFE OF CONTRACT. CONTRACTOR SHALL RESPOND TO MAINTENANCE OR ADDITIONAL WORK ORDERED BY OWNER OR GOVERNING AUTHORITIES WITHIN 48 HOURS OR SOONER IF REQUIRED AT NO ADDITIONAL COST TO THE OWNER
5. CONTRACTOR WILL BE REQUIRED TO INCORPORATE PERMANENT EROSION CONTROL FEATURES INTO PROJECT AT EARLIEST PRACTICAL TIME TO MINIMIZE NEED FOR TEMPORARY CONTROLS
6. PERMANENTLY SEED CUT SLOPES AS EXCAVATION PROCEEDS TO EXTENT CONSIDERED DESIRABLE AND PRACTICAL
7. SLOPES THAT ERODE EASILY OR THAT WILL NOT BE GRADED FOR A PERIOD OF 14 DAYS OR MORE SHALL BE TEMPORARILY SEEDED AS WORK PROGRESSES WITH PLANTING MIXTURE SPECIFIED ON THE DEMOLITION PLAN.

CONSTRUCTION ACTIVITY

1. CONSTRUCTION ACCESS--ENTRANCE TO SITE, CONSTRUCTION ROUTES, AREAS DESIGNATED FOR EQUIPMENT PARKING
2. SEDIMENT TRAPS AND BARRIERS--BASIN TRAPS, SEDIMENT FENCES AND OUTLET PROTECTION
3. RUNOFF CONTROL--DIVERSION, PERIMETER DIKES, WATER BARS, OUTLET PROTECTION
4. RUNOFF CONVEYANCE SYSTEM--STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS
5. LAND CLEARING AND GRADING--SITE PREPARATION (CUTTING, FILLING, AND GRADING, SEDIMENT TRAPS, BARRIERS, DIVERSION, DRAINS, SURFACE ROUGHENING)
6. SURFACE STABILIZATION--TEMPORARY AND PERMANENT SEEDING
7. BUILDING CONSTRUCTION--BUILDINGS, UTILITIES, PAVING
8. LANDSCAPING AND FINAL STABILIZATION--TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING

SCHEDULE CONSIDERATION

1. THIS IS THE FIRST LAND-DISTURBING ACTIVITY. AS SOON AS CONSTRUCTION BEGINS, STABILIZE ANY BARE AREAS WITH GRAVEL AND TEMPORARY VEGETATION.
2. AFTER CONSTRUCTION SITE IS ACCESSED, PRINCIPAL BASIN SHOULD BE INSTALLED, WITH THE ADDITION OF MORE TRAPS AND BARRIERS AS NEEDED DURING GRADING.
3. KEY PRACTICES SHOULD BE INSTALLED AFTER THE INSTALLATION OF PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. ADDITIONAL RUNOFF CONTROL MEASURES MAY BE INSTALLED DURING GRADING.
4. IF NECESSARY, STABILIZE STREAM BANKS AS SOON AS POSSIBLE, AND INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF CONTROL MEASURES. THE REMAINDER OF THE SYSTEMS MAY BE INSTALLED AFTER GRADING.
5. IMPLEMENT MAJOR CLEARING AND GRADING AFTER INSTALLATION OF PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES, AND INSTALL ADDITIONAL CONTROL MEASURES AS GRADING CONTINUES. CLEAR BORROW AND DISPOSAL AREAS AS NEEDED, AND MARK TREES AND BUFFER AREAS FOR PRESERVATION.
6. TEMPORARY OR PERMANENT STABILIZING MEASURES SHOULD BE APPLIED IMMEDIATELY TO ANY DISTURBED AREAS WHERE WORK HAS BEEN EITHER COMPLETED OR DELAYED.
7. DURING CONSTRUCTION, INSTALL ANY EROSION AND SEDIMENTATION CONTROL MEASURES THAT ARE NEEDED.
8. THIS IS THE LAST CONSTRUCTION PHASE. STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS, AND REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.

SEQUENCE OF CONSTRUCTION:

PHASE I:

1. PREPARE TEMPORARY PARKING AND STORAGE AREA
2. CONSTRUCT THE SILT FENCES ONSITE AND INSTALL TREE PROTECTION FENCING ONSITE.
3. CLEAR AND GRUB THE SITE
4. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES
5. BEGIN GRADING THE SITE

PHASE II:

1. TEMPORARILY SEED DENUDED AREAS AND PROVIDE SOD, AS INDICATED ON A100.
2. INSTALL UTILITIES, CURBS AND GUTTERS
3. PREPARE SITE FOR PAVING
4. PAVE SITE
5. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING
6. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED)

STATE OF TEXAS
MICHAEL A. THOMAS
93640
LICENSED
PROFESSIONAL ENGINEER
8/26/2016

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TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 8/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
SEDIMENT CONTROL PLAN & NOTES

SHEET NUMBER
C107
OF 44

ISSUED FOR CONSTRUCTION

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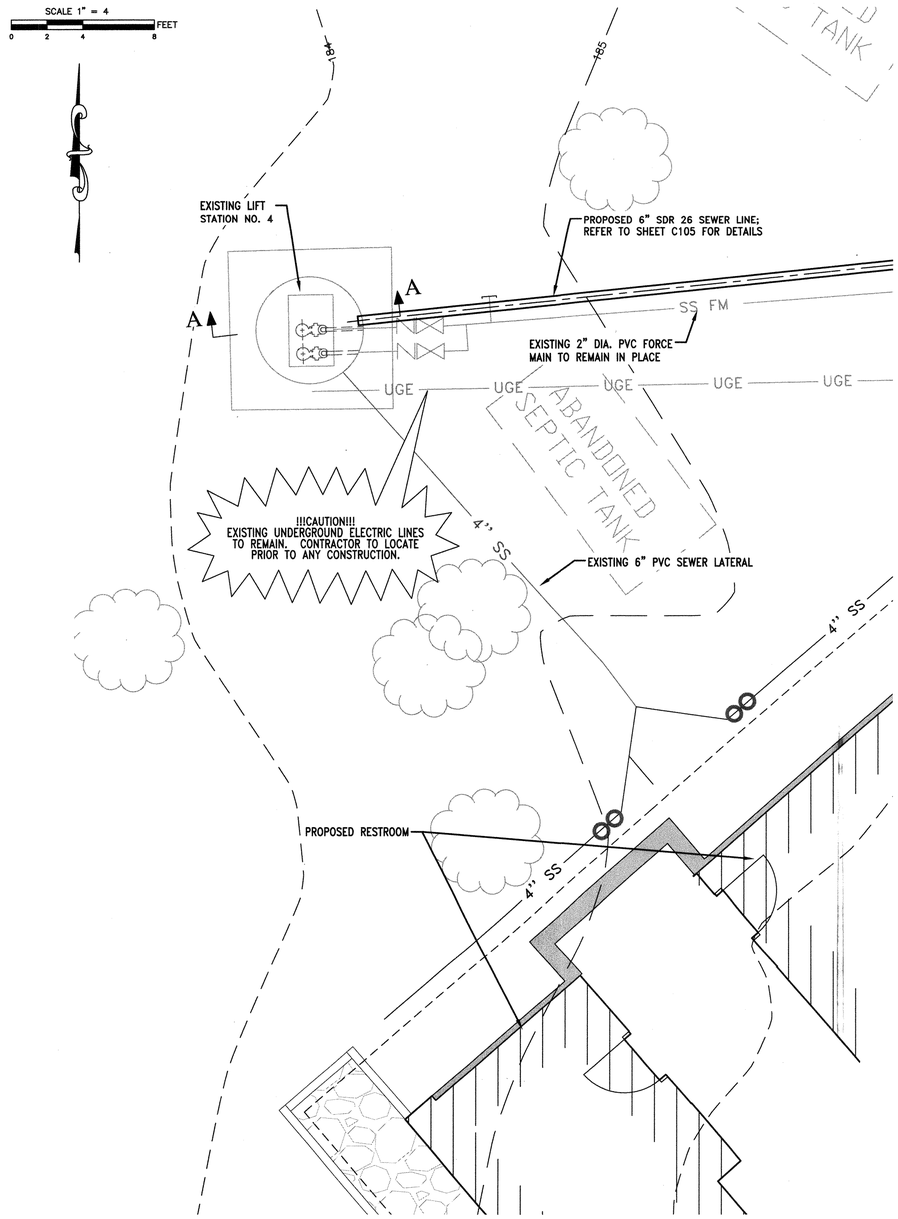
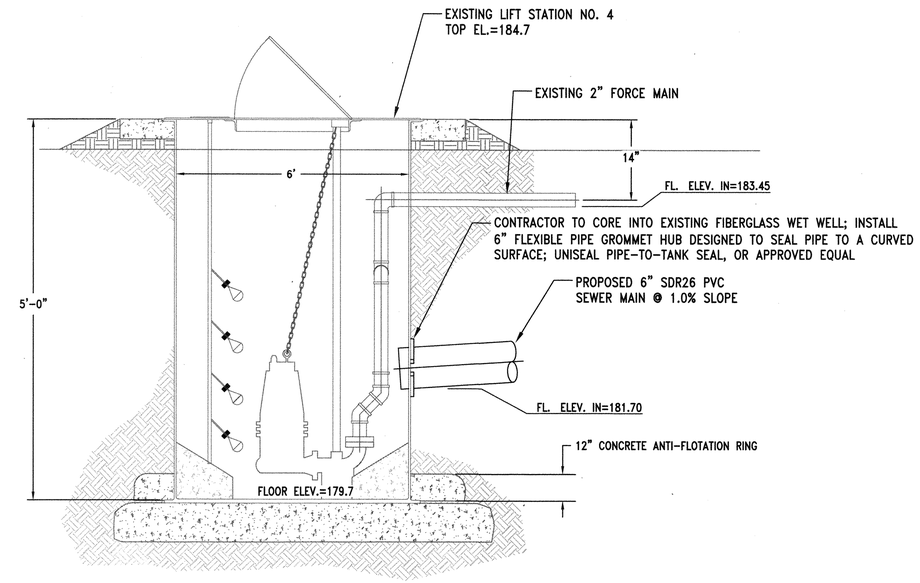


PLAN VIEW

1" = 4'



SECTION A-A

1" = 4'

LIFT STATION ASSUMPTIONS:
IMPROVEMENTS AND/OR UPGRADES TO LIFT STATION NO. 4 WAS NOT PART OF THE ENGINEER'S SCOPE. HOWEVER, THE CONNECTION OF LIFT STATION NO. 4 TO THE PROPOSED GRAVITY SEWER LINE AND SUPPLEMENTAL RESTROOM/SHOWER FACILITIES INCLUDED IN THIS PROJECT REQUIRES THAT THE LIFT STATION SUSTAIN TWO (2) OPERATIONAL SUBMERSIBLE GRINDER PUMPS, CYCLING IN A LEAD/LAG MANNER. THE OWNER IS RESPONSIBLE FOR IMPLEMENTING ANY IMPROVEMENTS NECESSARY. EACH PUMP SHALL BE RATED AT LEAST 46 GPM AT 228 FT TDH IN ORDER TO MEET OR EXCEED THE ANTICIPATED PEAK FLOW RATE ENTERING THE STATION.

STATE OF TEXAS
MICHAEL A. THOMAS
93640
LICENSED PROFESSIONAL ENGINEER
8/26/2016

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TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 8/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
LIFT STATION NO. 4 CONNECTION

SHEET NUMBER
C108
OF 44

ISSUED FOR CONSTRUCTION

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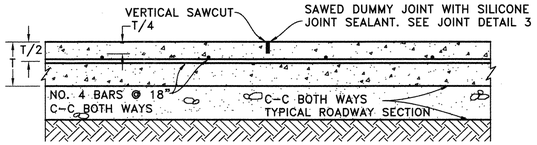
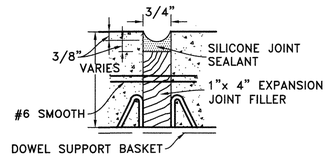
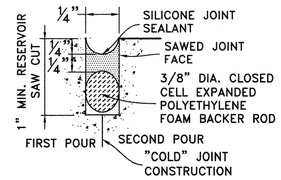


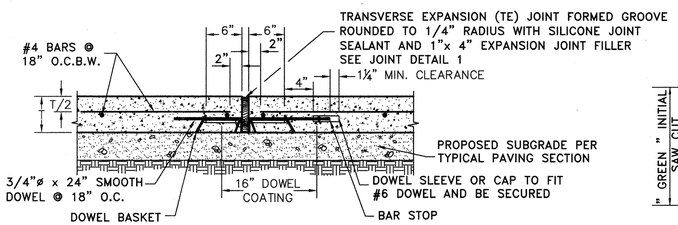
1 SAWED DUMMY JOINT
NOT TO SCALE



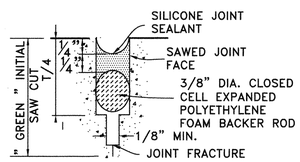
2 JOINT DETAIL NO. 1
SEAL FOR DOWELED EXPANSION JOINT
NOT TO SCALE



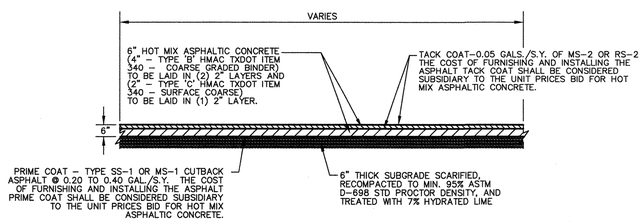
3 JOINT DETAIL NO. 2 SEAL
FOR LONGITUDINAL AND TRANSVERSE CONSTRUCTION BUTT JOINT
NOT TO SCALE



4 DOWELED EXPANSION JOINT
NOT TO SCALE



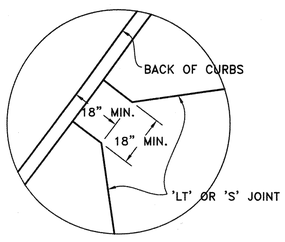
5 JOINT DETAIL NO. 3 SEAL
FOR SAWED DUMMY JOINT
NOT TO SCALE



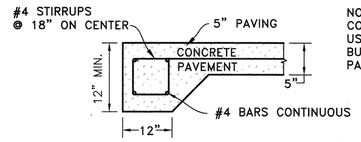
6 6" HMAC ASPHALT PAVEMENT SECTION
NOT TO SCALE

PAVEMENT JOINTING NOTES:

1. SAW CUTTING SHALL BE DONE WITHIN 8 HOURS OF POUR OR AS SOON AS CONCRETE CAN SUPPORT WEIGHT, AND PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.
2. LONGITUDINAL TRANSVERSE JOINTS SHALL BE REQUIRED AT THE END OF A DAY'S WORK, UNLESS IT ENDS AT A DOWLED EXPANSION, EXPANSION, LONGITUDINAL, OR TRANSVERSE JOINT SHOWN ON THE PLANS.
3. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
4. RADIAL JOINTS SHALL BE NO SHORTER THAN 18".
5. CONTRACTOR SHALL USE AN EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCKOUT IN THE CONCRETE PAVING.
6. ALL CONSTRUCTION JOINTS SHALL BE SAWED, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED.
7. ODD SHAPED PANELS SHALL BE REINFORCED WITH #4 BARS AT 18" EACH WAY. AN ODD SHAPED PANEL IS CONSIDERED TO BE ONE IN WHICH THE SLAB TAPERS TO A SHARP ANGLE WHEN THE LENGTH TO WIDTH RATIO EXCEEDS 3 TO 1 OR WHEN A SLAB IS NEITHER SQUARE OR RECTANGULAR.

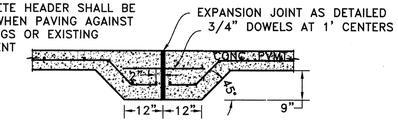


7 TYPICAL JOINTING AT ALL ANGLE JOINT TERMINATIONS
NOT TO SCALE



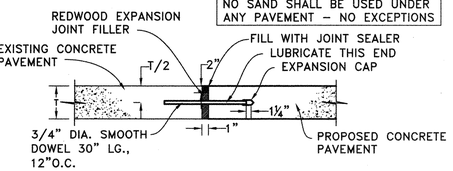
8 SIDEWALK THICKENED EDGE DETAIL
NOT TO SCALE

NOTE:
CONCRETE HEADER SHALL BE USED WHEN PAVING AGAINST BUILDINGS OR EXISTING PAVEMENT



9 CONCRETE HEADER
NOT TO SCALE

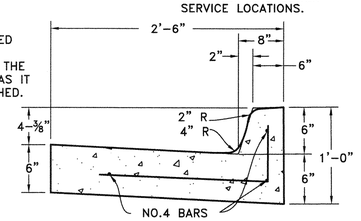
NOTE:
NO SAND SHALL BE USED UNDER ANY PAVEMENT – NO EXCEPTIONS



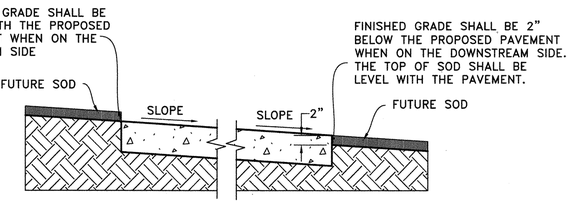
10 EXPANSION JOINT
TYPICAL TIE–IN TO EXISTING CONCRETE PAVEMENT DETAIL
NOT TO SCALE

NOTE: CURB SHALL BE STAMPED WITH A 'W' OR 'S' (2" MIN.) AT WATER AND SEWER SERVICE LOCATIONS.

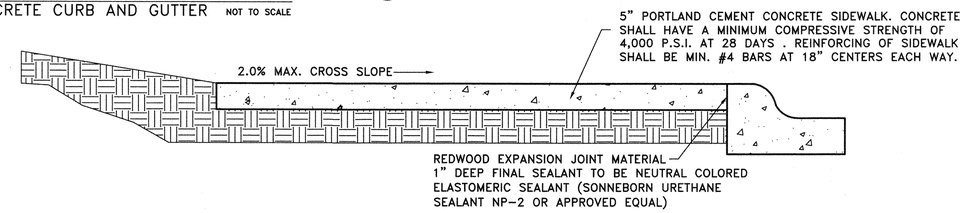
AN APPROVED WHITE PIGMENTED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CURB AND GUTTER AS SOON AS IT HAS BEEN POURED AND FINISHED.



11 TYPICAL SECTION STANDARD 30"
CONCRETE CURB AND GUTTER
NOT TO SCALE

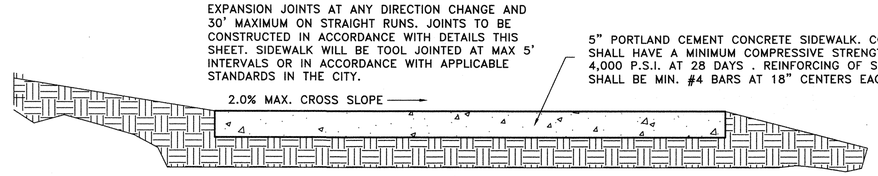


12 GRADING DETAIL FOR PAVEMENT WITHOUT CURB
NOT TO SCALE

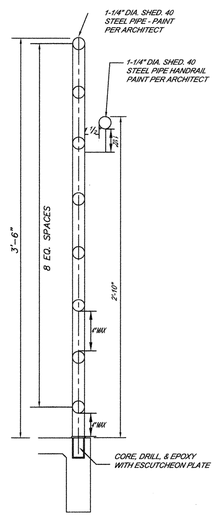


13 TYPICAL SIDEWALK SECTION – ADJACENT TO CURB – WIDTH VARIES
NOT TO SCALE

NOTE:
EXPANSION JOINTS AT ANY DIRECTION CHANGE AND 30' MAXIMUM ON STRAIGHT RUNS. JOINTS TO BE CONSTRUCTED IN ACCORDANCE WITH DETAILS THIS SHEET. SIDEWALK WILL BE TOOL JOINTED AT MAX 5' INTERVALS OR IN ACCORDANCE WITH APPLICABLE STANDARDS IN THE CITY.



14 TYPICAL SIDEWALK SECTION – WIDTH VARIES
NOT TO SCALE



TYPICAL GUARDRAIL DETAIL
NOT TO SCALE

GENERAL NOTES

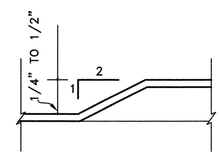
1. ON CONCRETE PAVING ALL INLETS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BOXING OUT AROUND INLET AS SHOWN. EXPANSION JOINT MATERIAL SHALL EXTEND COMPLETELY THROUGH, SHALL BE BOXED IN LIKE MANNER EXCEPT WHEN TELESCOPING–TYPE CASTINGS AND FIBERGLASS–TYPE ARE USED. WHEN A JOINT FALLS WITHIN 5' OF OR CONTACTS INLETS, MANHOLES OR OTHER STRUCTURES, SHORTEN ONE OR MORE PANELS EITHER SIDE OF OPENING TO PERMIT JOINT TO FALL ON ROUND STRUCTURES AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES.
2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS. REINFORCING STEEL SHALL BE PLACED WITH THE CENTER OF THE OUTSIDE LAYER OF BARS 2" FROM THE SURFACE OF THE CONCRETE.
3. WHERE REINFORCING BARS ARE SPLICED, A 40 DIAMETER LAP SHALL BE USED.
4. TYPE C TRANSVERSE CONTRACTION JOINTS SHALL BE ON 12' CENTERS.
5. ALL CONCRETE SHALL BE CLASS 'A' CONCRETE.
6. AN APPROVED WHITE PIGMENTED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE AS SOON AS IT HAS BEEN POURED AND FINISHED.
7. DOWELS TO BE 12" O.C. WHEN POURED HALF PAVEMENT.
8. SUBGRADE STABILIZATION WILL DEPEND ON SOIL REPORT SUBMITTED TO ENGINEER.
9. SEAL ALL VOIDS AND HONEYCOMBS AT ALL CURBS BEFORE PLACING BACKFILL.
10. NO SAND SHALL BE USED UNDER ANY PAVEMENT – NO EXCEPTIONS

NOTE:
SEE C103 – SITE PLAN FOR PAVEING THICKNESS AND TYPE

NOTE:
AN APPROVED WHITE PIGMENTED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CURB AS SOON AS IT HAS BEEN POURED AND FINISHED.

NOTE:
EXPANSION JOINTS SHALL BE CONSTRUCTED ON MAXIMUM OF 90' CENTERS. LOCATED AT ALL STRUCTURES, AT ALL INTERSECTION POINTS OF CURVATURE, AT ALL INTERSECTION POINTS OF TANGENCY, AND AT ALL REDUCTIONS OF PAVEMENT WIDTHS.

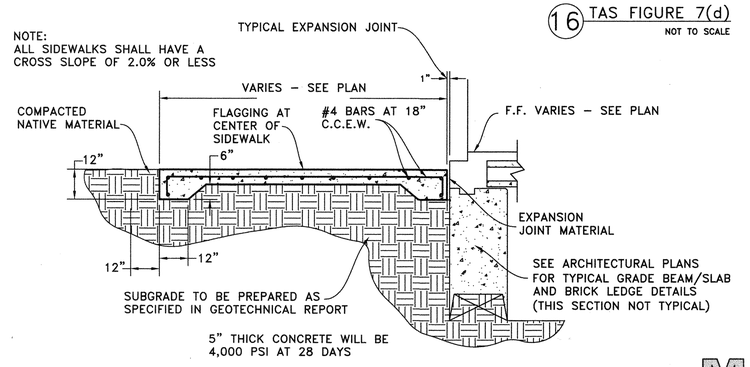
SAWED TRAVERSE CONTRACTION LONGITUDINAL JOINTS SHALL BE SPACED 12' IN PAVEMENT



16 TAS FIGURE 7(d)
NOT TO SCALE

NOTE:
1. CONTRACTOR SHALL ENSURE THAT SIDEWALK ACCESSIBLE ROUTES DO NOT EXCEED 5.0% RUNNING SLOPE EXCEPT ON RAMPS, AND 2.0% CROSS SLOPE AT ALL LOCATIONS.
2. CONTRACTOR SHALL ENSURE THAT CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2, AS SHOWN IN TAS FIGURE 7(d). CHANGES IN LEVEL GREATER THAN 1/2" SHALL BE ACCOMPLISHED BY MEANS OF A RAMP THAT COMPLIES WITH TAS SECTIONS 4.7 OR 4.8.
3. CONTRACTOR SHALL ENSURE THAT ALL ACCESSIBLE PARKING SPACES AND ACCESS AISLES ARE LEVEL WITH SURFACE SLOPES NOT EXCEED 2.0% IN ANY DIRECTION.
4. CURB STOPS, IF REQUIRED, SHALL BE LOCATED A MINIMUM OF 36" FROM THE CURB LINE.

NOTE:
ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 2.0% OR LESS



15 TYPICAL SIDEWALK ADJACENT TO BUILDING
NOT TO SCALE

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TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
PAVING & SIDEWALK DETAILS

SHEET NUMBER
C202
OF 44

ISSUED FOR CONSTRUCTION

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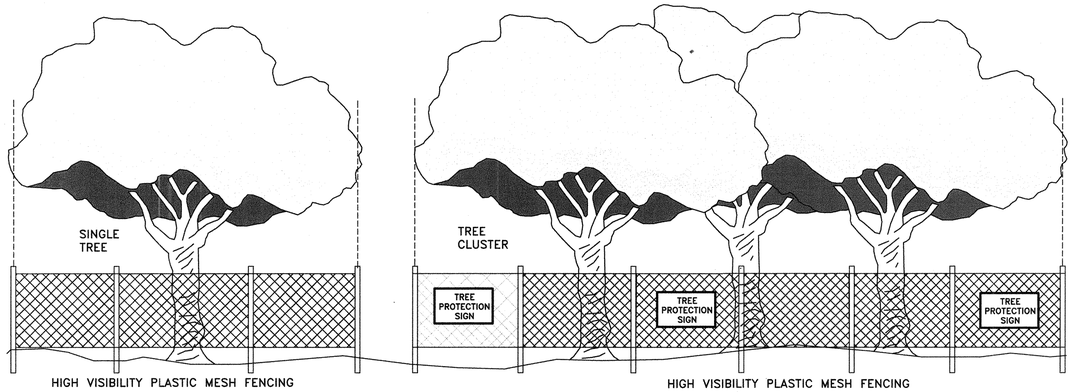


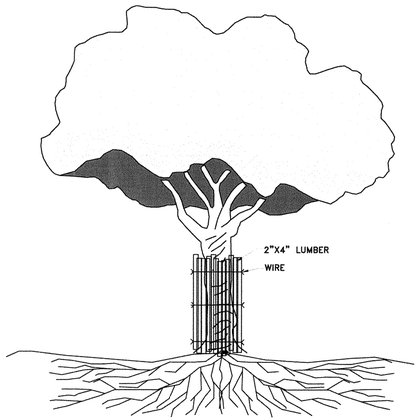
PROTECTIVE FENCING:

ORANGE VINYL CONSTRUCTION FENCING, CHAIN LINK FENCING, SNOW FENCING OR OTHER SIMILAR FENCING AT LEAST FOUR FEET (4') HIGH AND SUPPORTED AT A MAXIMUM OF TEN-FOOT (10') INTERVALS BY APPROVED METHODS SUFFICIENT ENOUGH TO KEEP THE FENCE UPRIGHT AND IN PLACE. THE FENCING SHALL BE OF A HIGHLY VISIBLE MATERIAL, AND SHALL HAVE A TREE PROTECTION SIGN AFFIXED TO THE FENCE EVERY TWENTY (20) FEET IN SUCH A MANNER TO BE CLEARLY VISIBLE TO THE WORKERS ON-SITE.

PRIOR TO CONSTRUCTION:

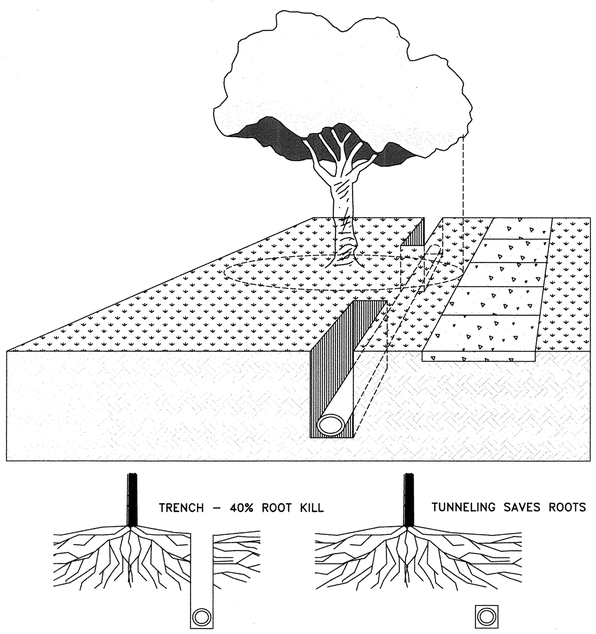
THE CONTRACTOR OR SUBCONTRACTOR SHALL CONSTRUCT AND MAINTAIN, FOR EACH PROTECTED TREE OR GROUP OF TREES ON A CONSTRUCTION SITE, A PROTECTIVE FENCING WHICH ENCIRCLES THE OUTER LIMITS OF THE CRITICAL ROOT ZONE OF THE TREES TO PROTECT THEM FROM CONSTRUCTION ACTIVITY. ALL PROTECTIVE FENCING SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY SITE WORK AND REMAIN IN PLACE UNTIL ALL EXTERIOR WORK HAS BEEN COMPLETED.

1 TYPICAL TREE PROTECTION FENCING
NOT TO SCALE



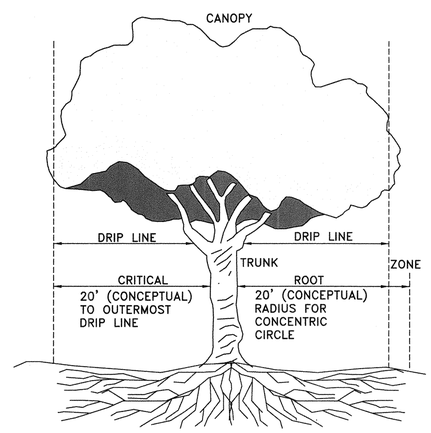
IN SITUATIONS WHERE A PROTECTED TREE REMAINS IN THE IMMEDIATE AREA OF INTENDED CONSTRUCTION AND THE TREE MAY BE IN DANGER OF BEING DAMAGED BY CONSTRUCTION EQUIPMENT OR OTHER ACTIVITY, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROTECT THE TREE WITH 2"X4" LUMBER ENCIRCLED WITH 2 RATCHETING TYPE STRAPS TO HOLD BOARDS AGAINST TREET TRUNK OTHER MEANS THAT DO NOT DAMAGE THE TREE. THE INTENT IS TO PROTECT THE TRUNK OF THE TREE AGAINST INCIDENTAL CONTACT BY LARGE CONSTRUCTION EQUIPMENT.

2 TYPICAL BARK PROTECTION
NOT TO SCALE



BORING:
BORING OF UTILITIES UNDER PROTECTED TREES SHALL BE REQUIRED IN THOSE CIRCUMSTANCES WHERE IT IS NOT POSSIBLE TO TRENCH AROUND THE CRITICAL ROOT ZONE OF PROTECTED TREES. WHEN REQUIRED, THE LENGTH OF THE BORE SHALL BE THE WIDTH OF THE CRITICAL ROOT ZONE AT A MINIMUM AND SHALL BE A MINIMUM DEPTH OF 48 INCHES.

3 SIDEWALK THICKENED EDGE DETAIL
NOT TO SCALE



CRITICAL ROOT ZONE:
THE AREA OF UNDISTURBED NATURAL SOIL AROUND A TREE DEFINED BY A CONCENTRIC CIRCLE WITH A RADIUS TO THE DISTANCE FROM THE TREE TRUNK TO THE OUTERMOST PORTION OF THE DRIP LINE.

DRIP LINE:
A VERTICAL LINE RUN THROUGH THE OUTERMOST PORTION OF THE CANOPY OF A TREE AND EXTENDING TO THE GROUND.

4 CRITICAL ROOT ZONE AREA
NOT TO SCALE

GENERAL NOTES

THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY SAVED TREE. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED ON ALL TYPES OF CONSTRUCTION PROJECTS.

1. MATERIAL STORAGE: NO STORAGE OR PLACEMENT OF MATERIALS INTENDED FOR USE IN CONSTRUCTION OR WASTE MATERIALS ACCUMULATED DUE TO EXCAVATION OR DEMOLITION SHALL BE PLACED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE.

2. EQUIPMENT CLEANING/LIQUID DISPOSAL: NO EQUIPMENT SHALL BE CLEANED OR OTHER LIQUIDS, INCLUDING, WITHOUT LIMITATION, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR OR SIMILAR MATERIALS DEPOSITED OR ALLOWED TO FLOW INTO THE CRITICAL ROOT ZONE OF A PROTECTED TREE.

3. TREE ATTACHMENTS: NO SIGNS, WIRES OR OTHER ATTACHMENTS, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY PROTECTED TREE.

4. VEHICULAR TRAFFIC: NO VEHICULAR AND/OR CONSTRUCTION EQUIPMENT TRAFFIC OR PARKING SHALL TAKE PLACE WITHIN THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE OTHER THAN ON EXISTING STREET PAVEMENT. THIS RESTRICTION DOES NOT APPLY TO SINGLE INCIDENT ACCESS WITHIN THE CRITICAL ROOT ZONE FOR PURPOSES OF ESTABLISHING THE BUILDING PAD AND ASSOCIATED LOT GRADING, VEHICULAR TRAFFIC NECESSARY FOR ROUTINE UTILITY MAINTENANCE, EMERGENCY RESTORATION OF UTILITY SERVICE, OR ROUTINE MOWING OPERATIONS.

5. GRADE CHANGES: NO GRADE CHANGES SHALL BE ALLOWED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF ANY PROTECTED TREE UNLESS ADEQUATE PROTECTIVE CONSTRUCTION METHODS ARE APPROVED IN ADVANCE IN WRITING BY TPWD.

6. IMPERVIOUS PAVING: NO PAVING WITH ASPHALT, CONCRETE OR OTHER IMPERVIOUS MATERIALS SHALL BE PLACED WITHIN THE LIMITS OF THE CRITICAL ROOT ZONE OF A PROTECTED TREE EXCEPT AS OTHERWISE ALLOWED.

7. NO HEAVY EQUIPMENT, INCLUDING BUT NOT LIMITED TO TRUCKS, TRACTORS, TRAILERS, BULLDOZERS, BOBCAT TRACTORS, TRENCHERS, COMPRESSORS, AND HOISTS, SHALL BE ALLOWED INSIDE THE DRIP-LINE OF ANY PROTECTED TREE ON ANY CONSTRUCTION SITE WITHOUT PRIOR WRITTEN APPROVAL OF TPWD.

8. ROOT PRUNING: ALL ROOTS TWO INCHES OR LARGER IN DIAMETER WHICH ARE EXPOSED AS A RESULT OF TRENCHING OR OTHER EXCAVATION SHALL BE CUT OFF SQUARE WITH A SHARP MEDIUM TOOTH SAW AND COVERED WITH PRUNING COMPOUND WITHIN TWO HOURS OF INITIAL EXPOSURE.

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED ON ALL TYPES OF CONSTRUCTION PROJECTS.

1. PROTECTIVE FENCING: PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR OR SUBCONTRACTOR SHALL CONSTRUCT AND MAINTAIN, FOR EACH PROTECTED TREE ON A CONSTRUCTION SITE, A PROTECTIVE FENCING WHICH ENCIRCLES THE OUTER LIMITS OF THE CRITICAL ROOT ZONE OF THE TREE TO PROTECT IT FROM CONSTRUCTION ACTIVITY OR IN CASES OF HEAVILY WOODED SITES, AS APPROVED BY TPWD.

2. ALL PROTECTIVE FENCING AND OR BARK PROTECTION SHALL BE IN PLACE AND APROVED BY THE REGION 6 NATURAL RESOURCES COORDINATOR OR DESIGNATE PRIOR TO COMMENCEMENT OF ANY SITE WORK AND REMAIN IN PLACE UNTIL ALL EXTERIOR CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED.

3. PROTECTIVE FENCING SHALL BE AT LEAST FOUR (4) FEET HIGH, CLEARLY VISIBLE.

4. THE USE OF ORANGE VINYL CONSTRUCTION FENCING OR OTHER SIMILAR FENCING IS GENERALLY PERMITTED ONLY IF THERE IS NO CONSTRUCTION OR VEHICULAR ACTIVITY WITHIN TEN (10) FEET OF THE FENCE. IF CONSTRUCTION ACTIVITY OR VEHICULAR TRAFFIC IS EXPECTED WITHIN TEN (10) FEET OF THE FENCE, THE FENCE SHALL BE CONSTRUCTED OF CHAIN LINK OR OTHER SIMILAR METAL, WOODEN MATERIAL OR SEMI-RIGID VINYL TAPE FENCING SUPPORTED WITH 2 RATCHETING TYPE STRAPS TO HOLD BOARDS AGAINST TREE TRUNK EQUIVALENT SUPPORT MATERIAL AFFIXED TO METAL OR WOODEN POSTS, ALL OF WHICH SHALL BE SIX (6) FEET IN HEIGHT. IF TRENCHING OR OTHER CONSTRUCTION ACTIVITIES WILL OCCUR WITHIN 10' OF A TREE TRUNK IT WILL REQUIRE THE PLACEMENT OF BARK PROTECTION, REFER DETAIL 2, BARK PROTECTION.

5. ALL PROTECTIVE FENCING SHALL BE SUPPORTED AT A MAXIMUM OF TEN (10) FOOT INTERVALS BY APPROVED METHODS SUFFICIENT ENOUGH TO KEEP THE FENCE UPRIGHT AND IN PLACE FOR THE DURATION OF THE CONSTRUCTION.

6. THE CONTRACTOR SHALL CAUSE THE REQUIRED FENCING TO BE INSTALLED AND MAINTAINED FOR THE DURATION OF THE CONSTRUCTION.

STATE OF TEXAS
MICHAEL A. THOMAS
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PROFESSIONAL ENGINEER
8/26/2016

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th+a

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
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DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
TREE PROTECTION DETAILS

SHEET NUMBER
C203
OF 44

ISSUED FOR CONSTRUCTION

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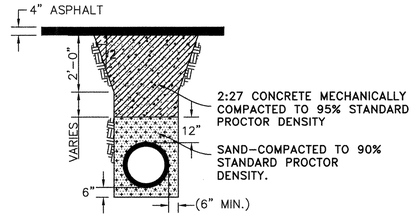
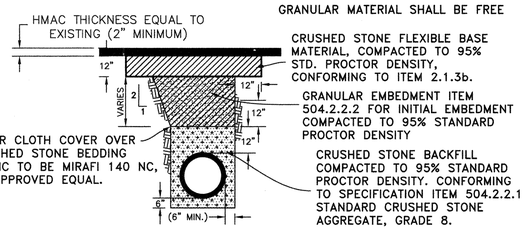


NOTE: PRIOR TO EXCAVATION WITHIN PAVEMENT THE CONTRACTOR WILL SAW CUT AN EVEN LINE TO INSURE A UNIFORM AND EVEN MATCH FOR PAVEMENT REPAIRS.

HMAC PAVEMENT

1 TYPICAL–PAVEMENT BACKFILL FOR WATER PIPE INSTALLATION

N.T.S.

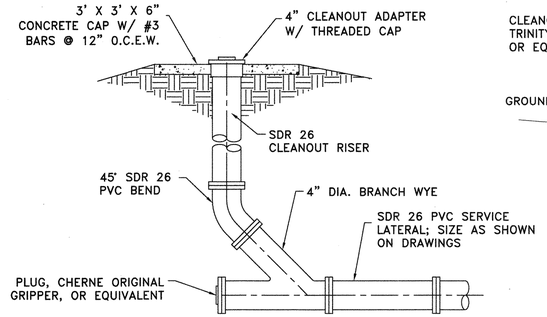


NOTE: PRIOR TO EXCAVATION WITHIN PAVEMENT THE CONTRACTOR WILL SAW CUT AN EVEN LINE TO INSURE A UNIFORM AND EVEN MATCH FOR PAVEMENT REPAIRS.

TYPE 1

2 TYPICAL PAVEMENT REPAIR DETAILS FOR SEWER PIPE INSTALLATION

N.T.S.

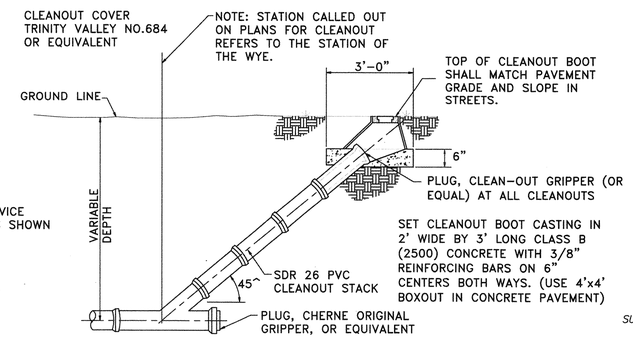


5 SURFACE CLEANOUT DETAIL

N.T.S.

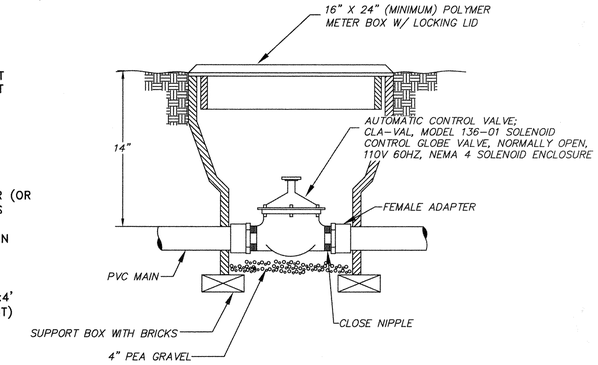
NOTES:

1. PIPE MAY NOT BE FILLED ABOVE SPRING LINE UNTIL LOWER PORTION IS COMPACTED TO 95% STANDARD PROCTOR DENSITY. EMBEDMENT BELOW PIPE SHALL BE COMPACTED BEFORE PIPE IS LAID. BELL SHALL BE DUG OUT.
2. TRENCHES SHALL BE TESTED AT THE RATE OF ONE TEST PER 300 LINEAR FEET PER 12 INCH LIFT (LOOSE). TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER THAT OF THE PREVIOUS LIFT. IF THE DISTANCE BETWEEN MANHOLES EXCEEDS 300 FT., A MINIMUM OF TWO TESTS SHALL BE REQUIRED.
3. EMBEDMENT WITHIN RIGHT–OF–WAY WILL BE USED WHEN INSTALLING UTILITY LINES WITHIN STREET RIGHT–OF–WAYS, AND UNDER PAVEMENT, ALL OTHER INSTALLATION LOCATIONS, SUCH AS IN EASEMENTS OR CROSS COUNTRY LOCATIONS WILL COMPLY WITH STANDARD EMBEDMENT DETAILS.



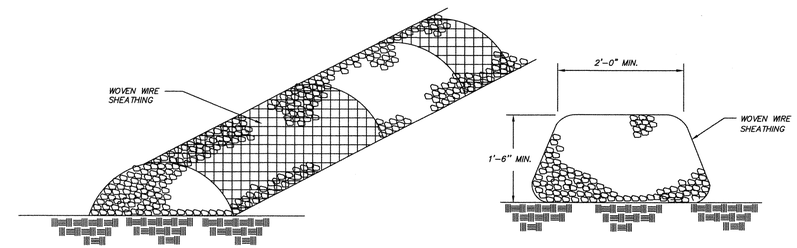
6 CLEANOUT DETAIL

N.T.S.



7 AUTOMATIC CONTROL VALVE

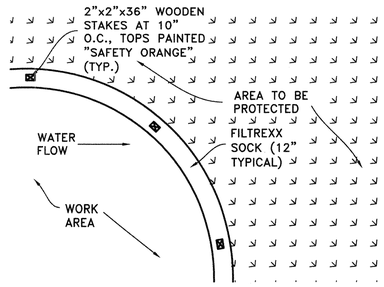
N.T.S.



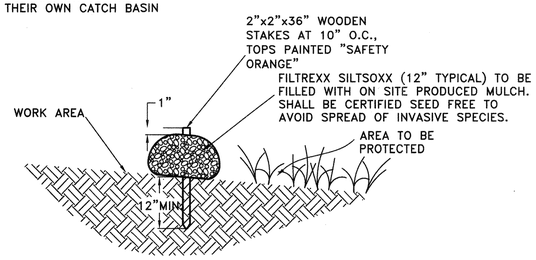
ROCK CHECK DAM

NOT TO SCALE

8

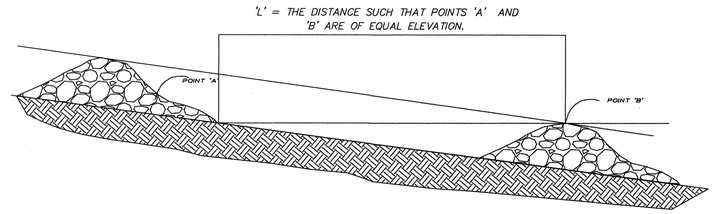


NOTE:
CONTRACTOR TO PROVIDE THEIR OWN CATCH BASIN



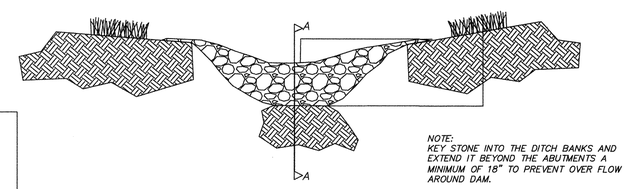
3 FILTREXX SILTSOXX SEDIMENT CONTROL

N.T.S.



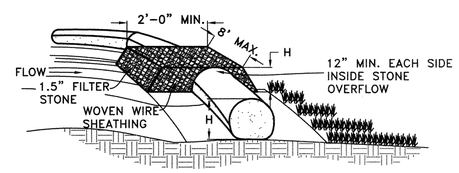
SPACING BETWEEN CHECK DAMS

NOTE: STONE OVERFLOW STRUCTURES OF OTHER OUTLET CONTROL DEVICES SHALL BE INSTALLED AT ALL LOW POINTS ALONG THE PERIMETER PROTECTION OR EVERY 300 FEET IF THERE IS NO APPARENT LOW POINT



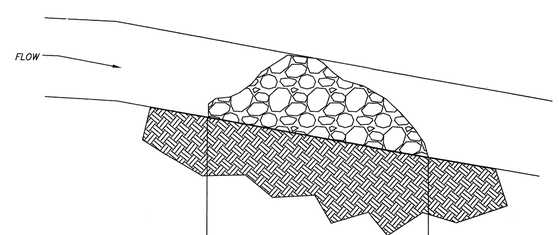
NOTE:
KEY STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT OVER FLOW AROUND DAM.

VIEW LOOKING UPSTREAM

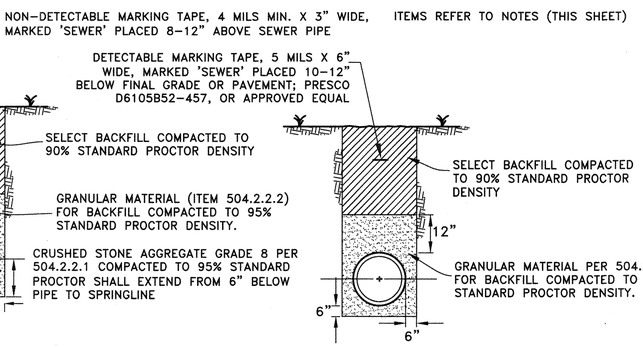


9 STONE OVERFLOW STRUCTURE

N.T.S.



SECTION A – A



STANDARD EMBEDMENT FOR SEWER LINE NOT IN R.O.W.

STANDARD EMBEDMENT DETAIL FOR WATER LINE NOT IN R.O.W.

4 EMBEDMENT DETAILS FOR P.V.C. PIPE

N.T.S.

NOTES:

504.2.2.1. CRUSHED STONE EMBEDMENT. THE AGGREGATES SHALL CONSIST OF DURABLE PARTICLES OF CRUSHED STONE, FREE FROM FROZEN MATERIAL OR INJURIOUS AMOUNTS OF SALT, ALKALI, ORGANIC MATTER OR OTHER MATERIAL EITHER FREE OR AS ADHERENT COATING, AND ITS QUALITY SHALL BE REASONABLY UNIFORM THROUGHOUT. IT SHALL HAVE A WEAR OF NOT MORE THAN 40–PERCENT WHEN TESTED IN ACCORDANCE WITH TXDOT TEST METHOD TEX–410–A ABRASION OF COARSE AGGREGATE USING THE LOS ANGELES MACHINE.

504.2.2.2. GRANULAR MATERIAL. FLOWING, SUCH AS SAND OR HYDRAULICALLY GRADED CRUSHED STONE FINES, OR MIXED SAND AND GRAVEL, OR SANDY LOAM. THE MATERIAL SHALL BE FREE FROM LUMPS, STONES OVER TWO INCHES IN DIAMETER, CLAY AND ORGANIC MATTER.

ESTABLISHMENT OF GROUND COVER

REFER TO GENERAL NOTES ON C101

MJ THOMAS ENGINEERING, LLC
3973 W. VICKERY BLVD., SUITE 103
FORT WORTH, TX 76107
REGISTRATION NO. F-9435
PHONE - (817) 732-9839
FAX - (817) 732-9841
MJT NO. - 654-002

th+a

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: MJT
DRAWN BY: MJT
REVIEWED BY: MJT
REVISED:
REVISED:
REVISED:

SHEET TITLE
MISCELLANEOUS DETAILS

SHEET NUMBER
C204
OF 44

ISSUED FOR CONSTRUCTION

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STANDARD ACCESSORIES LAYOUTS, MOUNTING HEIGHTS AND ACCESSIBILITY DETAILS

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

NOTES:
* LOCATE FLUSH ACTIVATOR ON WIDE SIDE AT ALL TOILETS - LOCATE FLUSH VALVE BENEATH ADJACENT GRAB BARS.
* ACCESSORIES LISTED MAY HAVE GAPS IN ALPHABETICAL ORDER.
* PROVIDE BACKING AS REQUIRED PER MANUFACTURER.
* ACCESSORIES LISTED MAY HAVE GAPS IN ALPHABETICAL LISTING.
* GROUT & FILL CELLS AT ALL MOUNTING LOCATIONS, WHERE FIXTURE PENETRATIONS WILL OCCUR; REF. 1/A001.

TAS COMMON SLOPES & CONVERSION NOTES:

ACCESSIBLE ROUTE:
RUNNING SLOPE - NOT TO EXCEED 1:20 (5%)
CROSS SLOPE - NOT TO EXCEED 1:48 (2%)
(i.e. SIDEWALKS)

ACCESSIBLE LEVEL AREA:
ANY DIRECTION - NOT TO EXCEED 1:48 (2%)
(i.e. PARKING SPACE AND AISLE, LANDINGS, PORCHES)

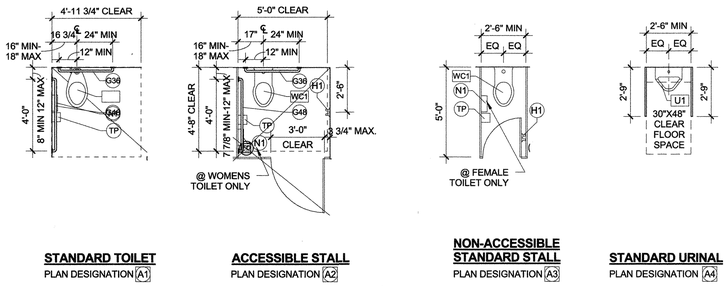
ACCESSIBLE CURB RAMP:
RUNNING SLOPE - NOT TO EXCEED 1:12 (8%)

ACCESSIBLE RAMP:
RUNNING SLOPE - NOT TO EXCEED 1:12 (8%)
NOTE: RAMP REQUIRES HANDRAILS ON BOTH SIDES

CONVERSION CHART:
1:12 = 8.33% = 1" PER FOOT
1:20 = 5% = 5/8" PER FOOT
1:48 = 2.08% = 1/4" PER FOOT

ACCESSORY SCHEDULE

MARK	DESCRIPTION	Manufacturer	Model	COMMENTS
CR	HOOKLESS SHOWER CURTAIN & ROD	(CURTAIN) MEDLINE (ROD) BRADLEY	SHWRP71X74WHI 9538	RAINDROP COLLECTION 1" O.D. ROD, 36" LONG
D1	DIAPER CHANGING STATION: SURFACE MOUNTED	KOALA KARE	KB200-01	GREY
DC	DISPLAY CASE - 60"W X 36"H X 3"D (LIGHTING NOT NEEDED)	OutdoorDisplayCases.com	SCBBRL234-6036	FRAME: BLACK; BACKBOARD: HUNTER GREEN
G3	GRAB BAR - VERTICAL - 18" LONG	BOBRICK	B-6806-18	
G4	GRAB BAR - HORIZONTAL "L" SHAPED 18" x 33"	BOBRICK	B-6861	
G36	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-36	
G48	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-48	
H1	SINGLE ROBE HOOK: SURFACE MOUNTED	BREY KRAUSE	S-4039-SS	BREAK AWAY, CONCEALED MOUNT
HD	HAND DRYER	WORLD DRYER	#L-973	SLIMdri - STAINLESS STEEL, BRUSHED
M1	FRAMED MIRROR - 24" X 36"	BOBRICK	B-166	WITH SHELF
N1	SANITARY NAPKIN DISPOSAL: SURFACE MOUNTED	BOBRICK	B-254	
SK	SOLATUBE SKYLIGHT	SOLATUBE	BRIGHTEN UP - 290 DS	
SN	SOAP NICHE	FLOORING SUPPLY SHOP	12X12, RECESSED	PORCELAIN WHITE GLOSSY
TB	WOOD TRAILSIDE BENCH - SINGLE PEDESTAL	PILOT ROCK - TRAILSIDE	OWB	24"D X 72"L X 18"H
TP	SURFACE MOUNTED MULTI ROLL TOILET TISSUE DISPENSER	COMPACT	SKU: 56748	QUAD, CORELESS - STAINLESS STEEL
TS1	TOILET STALL - ACCESSIBLE: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS2	TOILET STALL - STANDARD: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS3	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS4	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
WF	RESTROOM SIGN W/ ADA SYMBOL	TBD	TBD	EXTERIOR GRADE, ADA COMPLIANT SIGNAGE
Z1	MOP AND BROOM HOLDER: SURFACE MOUNTED	BOBRICK	B-223	

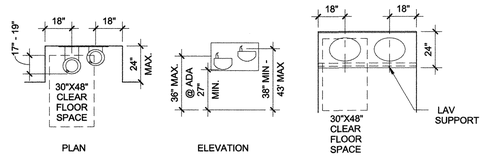


STANDARD TOILET
PLAN DESIGNATION A1

ACCESSIBLE STALL
PLAN DESIGNATION A2

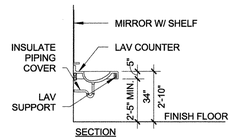
NON-ACCESSIBLE STANDARD STALL
PLAN DESIGNATION A3

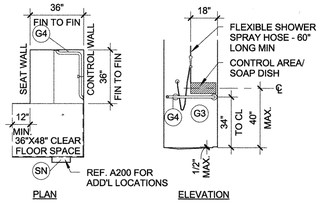
STANDARD URINAL
PLAN DESIGNATION A4



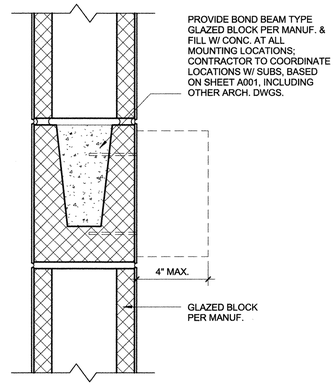
ELECTRIC DRINKING FOUNTAIN

STANDARD ACCESSIBLE LAVATORY

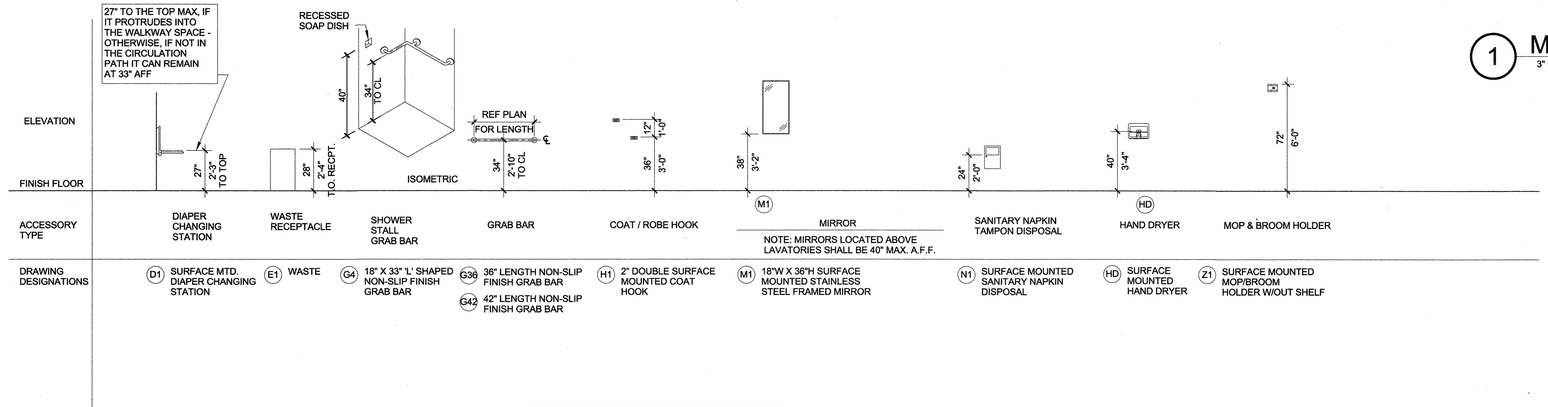


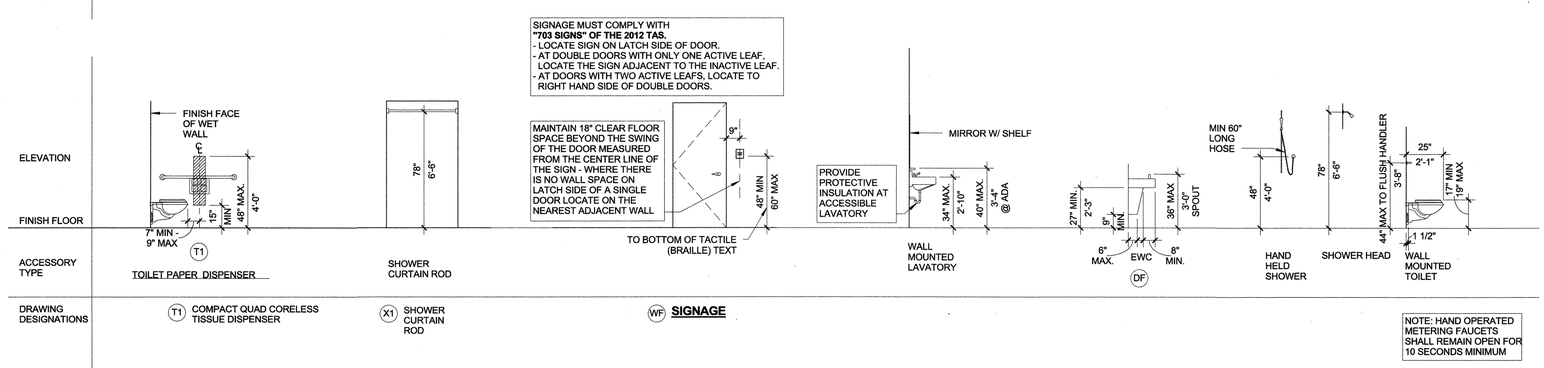


ACCESSIBLE SHOWER TRANSFER
A5



1 MOUNTING DETAIL
3" = 1'-0"





NOTE: HAND OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT STEPHEN A. JOHNSON 16322 STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
ACCESSIBILITY STANDARDS

SHEET NUMBER
A001
OF 44

th+a

ISSUE FOR CONSTRUCTION

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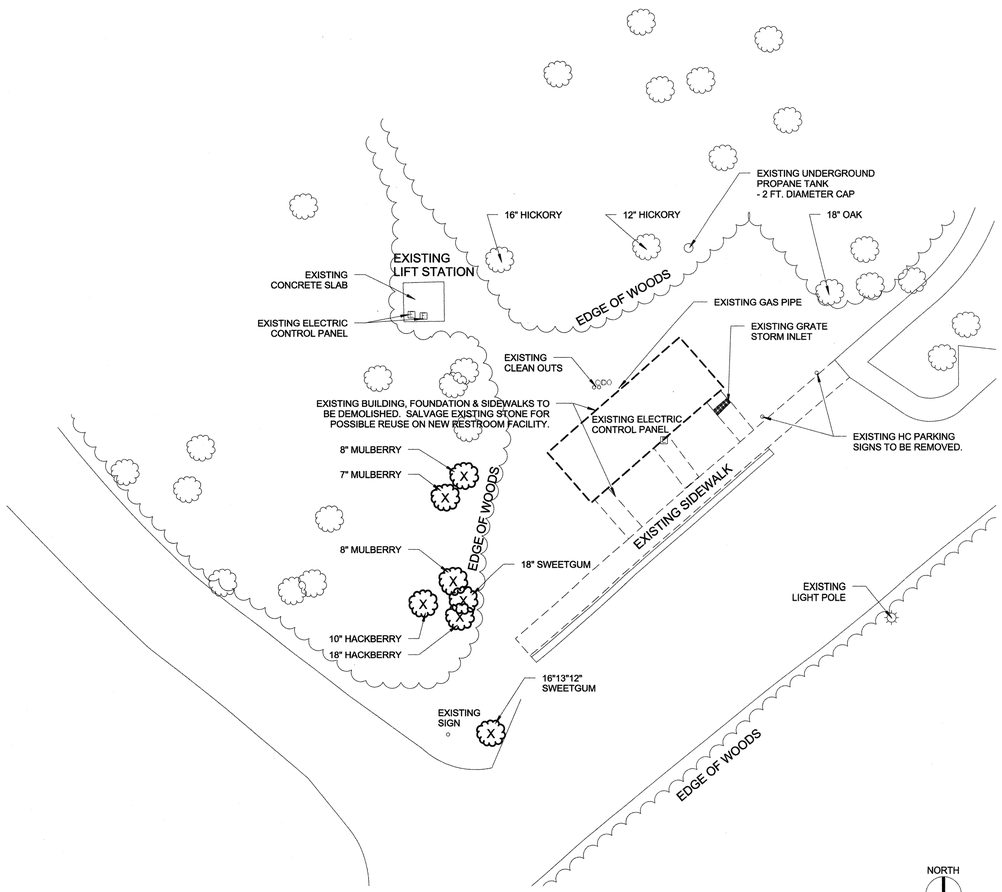
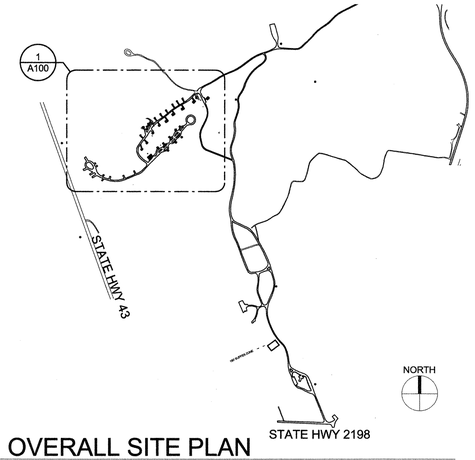
LEGEND

- EXISTING TREE
- EXISTING TREE & ROOT BALL INCLUDING ROOTS UP TO 1 IN. TO BE REMOVED
- AREA TO RECEIVE ST. AUGUSTINE SOD (APPROX. 20'-0" FROM NEW BUILDING PERIMETER)
- SITEWORK TO BE DEMOLISHED
- BUILDING TO BE DEMOLISHED
- TREE DRIPLINE
- ROCK GARDEN

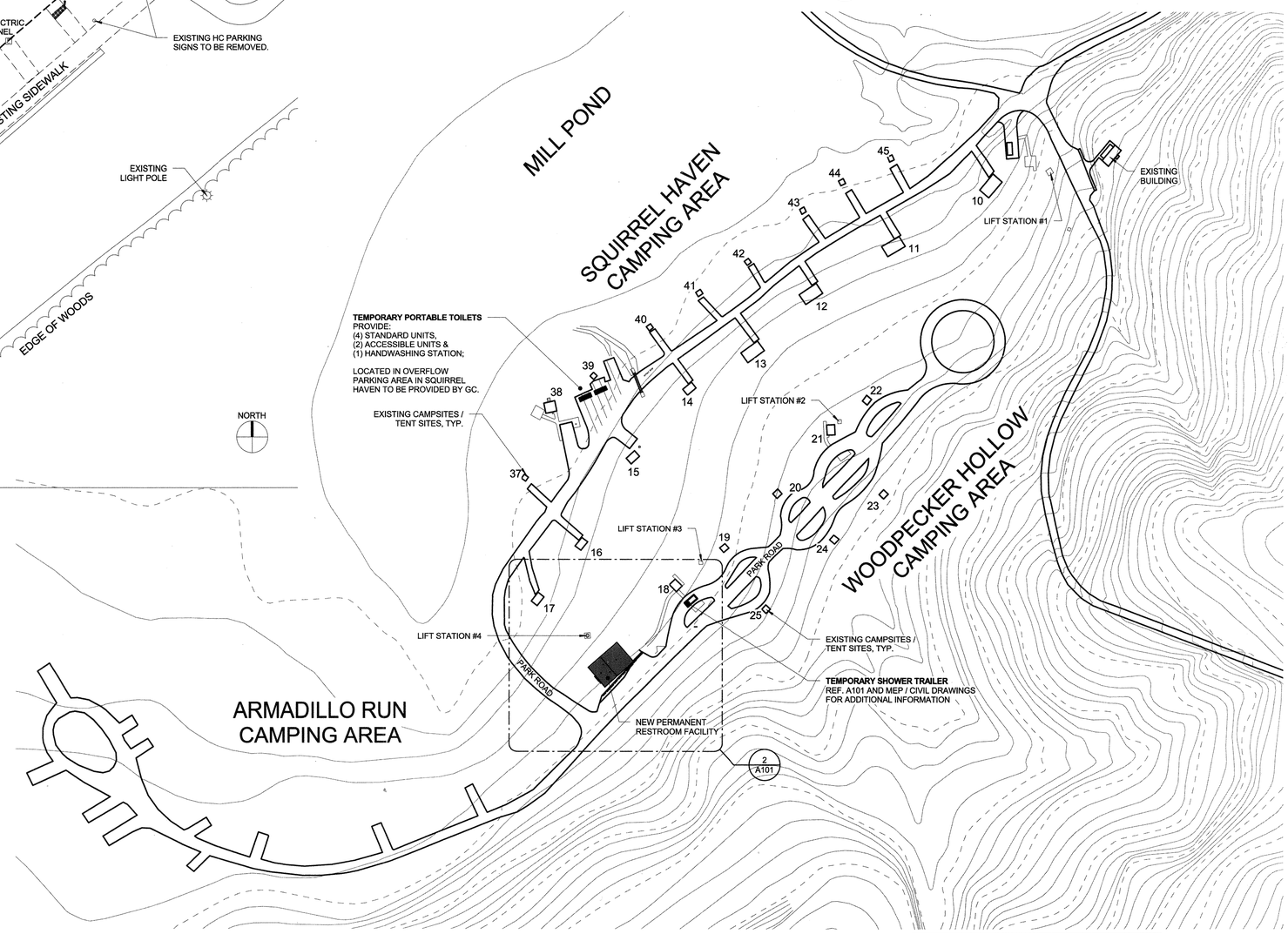
*** ALL SYMBOLS MAY NOT APPEAR ON EACH SITE PLAN.**



3 DEMO SITE PLAN
1/16" = 1'-0"



2 OVERALL SITE PLAN
1" = 1000'-0"



1 SITE PLAN
1" = 100'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
ARCHITECTURAL SITE PLANS

SHEET NUMBER
A100
OF 44

th+a

ISSUE FOR CONSTRUCTION

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WATERING NOTES

GENERAL NOTE:
THE CONTRACTOR SHALL SUPPLY TEMPORARY IRRIGATION/WATERING TO PROVIDE FULL, 100% COVERAGE TO THE NEWLY SEEDED, SODDED, AND PLANTED AREAS. THE CONTRACTOR MAY UTILIZE POTABLE WATER FROM THE FACILITY. THE CONTRACTOR SHALL SUPPLY LABOR AND EQUIPMENT (SUCH AS HOSES, PIPING, VALVES, ROTARY HEADS) AS NEEDED TO FULLY IRRIGATE THE NEW PLANTINGS. THE CONTRACTOR SHALL PROVIDE WATERING UNTIL THE NEWLY SEEDED, SODDED AND PLANTED AREAS ARE FULLY ESTABLISHED AS DEFINED BY THE OWNER. THE CONTRACTOR SHALL PROVIDE WATERING FOR A MINIMUM OF ONE GROWING SEASON AND FOR A MAXIMUM OF ONE YEAR.

ADDITIONAL INFORMATION:
1. START WATERING SEEDED, SODDED AND PLANTED AREAS IMMEDIATELY AS NEEDED TO ENHANCE GERMINATION AND GROWTH. TO ACHIEVE A FULL STAND OF GRASS, THE SEED MUST BE KEPT MOIST TO GERMINATE. NATIVE GRASS SEEDS HAVE THICK HULLS WHICH TAKE MORE TIME TO GERMINATE THAN NON-NATIVE BERMUDA GRASS WHICH IS SOLD WITH THE HULLS REMOVED. FREQUENT WATERING WILL INCREASE THE SPEED AND SUCCESS OF GERMINATION AND SEEDLING GROWTH. SOLID SOD AND CONTAINER/PLUGGED PLANTS ALSO REQUIRE FREQUENT WATERING TO SUPPORT ROOT GROWTH AND PREVENT ROOT DESICCATION.
A. IRRIGATION SHOULD OCCUR DURING TIMES WHEN WATER LOSS FROM EVAPORATION IS LOWEST DUE TO WINDS AND TEMPERATURE, BUT WITHOUT POTENTIALLY CREATING A DISEASE PRONE ENVIRONMENT.
B. IRRIGATION SHOULD NOT OCCUR AFTER A SUFFICIENT RAIN EVENT OR WHEN OTHERWISE UNNECESSARY. USE WATERING REGIMES THAT PREVENT EROSION.
2. APPLICATION GUIDELINES. APPLY WATER AT A RATE SUFFICIENT TO INSURE THOROUGH WETTING OF SOIL TO A DEPTH OF 2-INCHES WITHOUT RUN OFF FOR ALL PLANTED, SEEDED AND SODDED AREAS. DURING THE GERMINATION PROCESS, SEED IS TO BE KEPT ACTIVELY GROWING AND NOT ALLOWED TO DRY OUT.
A. SEEDED AREAS: SEEDED AREAS REQUIRE THE MOST WATER SINCE THEY TAKE THE LONGEST TO ESTABLISH FROM GERMINATION TO SEEDLING TO MATURE PLANTS. ALL NEWLY SEEDED AREAS WILL RECEIVE 0.25 INCHES OF WATER PER DAY FOR FIRST 10 DAYS TO PREVENT GERMINATING SEEDS FROM DRYING OUT. THEREAFTER, A DEEP WATERING TO MAINTAIN SOIL MOISTURE TO AT LEAST 6-INCHES EVERY WEEK FOR THE NEXT 2 MONTHS. THIS WILL REQUIRE A 1 INCH IRRIGATION EVENT EVERY WEEK OR TWICE A WEEK UNDER HOT DRY CONDITIONS. FOR THE REMAINDER OF THE GROWING SEASON, (MARCH – OCTOBER INCLUSIVE FOR WARM SEASON GRASSES, OCTOBER – APRIL INCLUSIVE FOR COOL-SEASON GRASSES) THERE SHOULD BE A MINIMUM WATERING OF 1-INCH EVERY 2 WEEKS. THE FOLLOWING WATERING ACTIVITY IS RECOMMENDED WHEN NATURAL RAINFALL IS NOT SUFFICIENT TO KEEP THE SEED AND ROOT BED MOIST.
I. GERMINATION PERIOD – WATER TWO TO THREE TIMES PER DAY FOR FIVE MINUTES UNTIL GERMINATION AND SEEDLING REACHES ONE TO TWO INCH HEIGHT. GERMINATION PERIODS VARY FOR THE SEED MIXES AS FOLLOWS.
- BERMUDA GRASS – 2 WEEKS.
- BLUE GRAMA GRASS – 2 TO 3 WEEKS.
- BUFFALO GRASS (UNHULLED) – 60 DAYS.
- OTHER NATIVE GRASSES – 3 TO 4 WEEKS.
- WILDFLOWERS – ANNUALS WILL GERMINATE IN 3 TO 4 WEEKS. PERENNIALS MAY REMAIN DORMANT UNTIL SPRING OR FALL IMMEDIATELY FOLLOWING SEEDING. THE WATERING RECOMMENDATIONS FOR WILDFLOWERS WILL BE THE SAME AS FOR OTHER NATIVE GRASSES.

II. YOUNG SEEDLING PHASE – REDUCE WATERING FREQUENCY, BUT INCREASE THE AMOUNT OF WATER APPLIED TO STIMULATE ROOT GROWTH.
- FIRST 2 WEEKS - WATER ONCE OR TWICE PER DAY (DEPENDING ON EVAPORATION) FOR 10 MINUTES TO KEEP ROOT ZONE MOIST.
- NEXT 2 WEEKS – WATER ONCE PER DAY OR ONCE EVERY OTHER DAY FOR 10 TO 15 MINUTES TO KEEP ROOT ZONE MOIST.
- CONTINUE WATERING UNTIL PLANTS REACH FOUR TO FIVE INCHES HEIGHT.

III. MATURE SEEDLING PHASE (PLANTS THAT ARE MINIMUM 4-5" HEIGHT) – PROVIDE 10 TO 15 MINUTE WATERING AS NEEDED WHEN GRASSES TURN PALE GRAY (INDICATING THAT SOIL MOISTURE NEED TO BE REPLENISHED.) CONTINUE WATERING UNTIL GRASSES REACH TEN TO TWELVE INCH HEIGHT.
B. SOLID SODDED AND PLUGGED AREAS: WATER IS ONLY NEEDED FROM 4 TO 6 WEEKS TO ACHIEVE A WELL ROOTED SOD THAT CAN SURVIVE ON RAINFALL. PLUGS AND CONTAINER PLANTS ALSO CONSIST OF VIBRANT PLANTS AND ROOTS THAT NEED TO BECOME WELL ROOTED INTO THE SOIL AND ABLE TO SUBSIST ON RAINFALL.
- INITIAL INSTALLATION: WATER TWICE PER DAY FOR ONE WEEK (OR THREE TIMES PER DAY BASED ON HEAT AND EVAPORATION) TO KEEP ROOT SYSTEM MOIST SO THAT THE ROOTS WILL BOND WITH SOIL. WATER ONCE PER DAY FOR THE SUBSEQUENT WEEK TO KEEP ROOTS MOIST. SUPPLEMENT WATERING AS NEEDED FOR HEAT.
- ROOT DEVELOPMENT: TO CONTINUE ROOT DEVELOPMENT DURING THE THIRD AND FOURTH WEEKS, WATER EVERY OTHER DAY. WATER ONCE PER WEEK FOR THE NEXT FOUR WEEKS TO SUPPLEMENT RAINFALL.
- PLANT ESTABLISHMENT: AFTER EIGHT WEEKS HAVE PASSED, PROVIDE ADDITIONAL WATERING IF THE GRASS OR PLANTS APPEAR STRESSED.

C. PROVIDE CONTINUED WATERING AS NEEDED TO ACHIEVE A MATURE, DENSE STAND AND PLANTS IN VIGOROUS CONDITION. PROVIDE WATERING TO REPLACEMENT PLANTS, SEEDING AND SODDING.

LEGEND

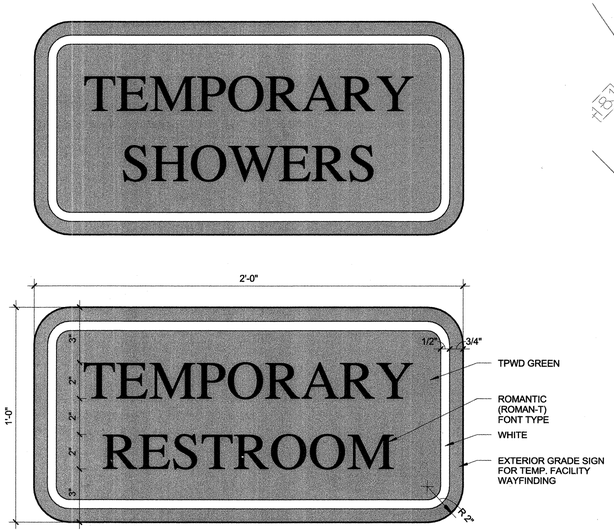
- EXISTING TREE
- EXISTING TREE & ROOT BALL INCLUDING ROOTS UP TO 1 IN. TO BE REMOVED
- AREA TO RECEIVE ST. AUGUSTINE SOD (APPROX. 20'-0" FROM NEW BUILDING PERIMETER)
- SITEWORK TO BE DEMOLISHED
- BUILDING TO BE DEMOLISHED
- TREE DRIPLINE
- ROCK GARDEN

*** ALL SYMBOLS MAY NOT APPEAR ON EACH SITE PLAN.**

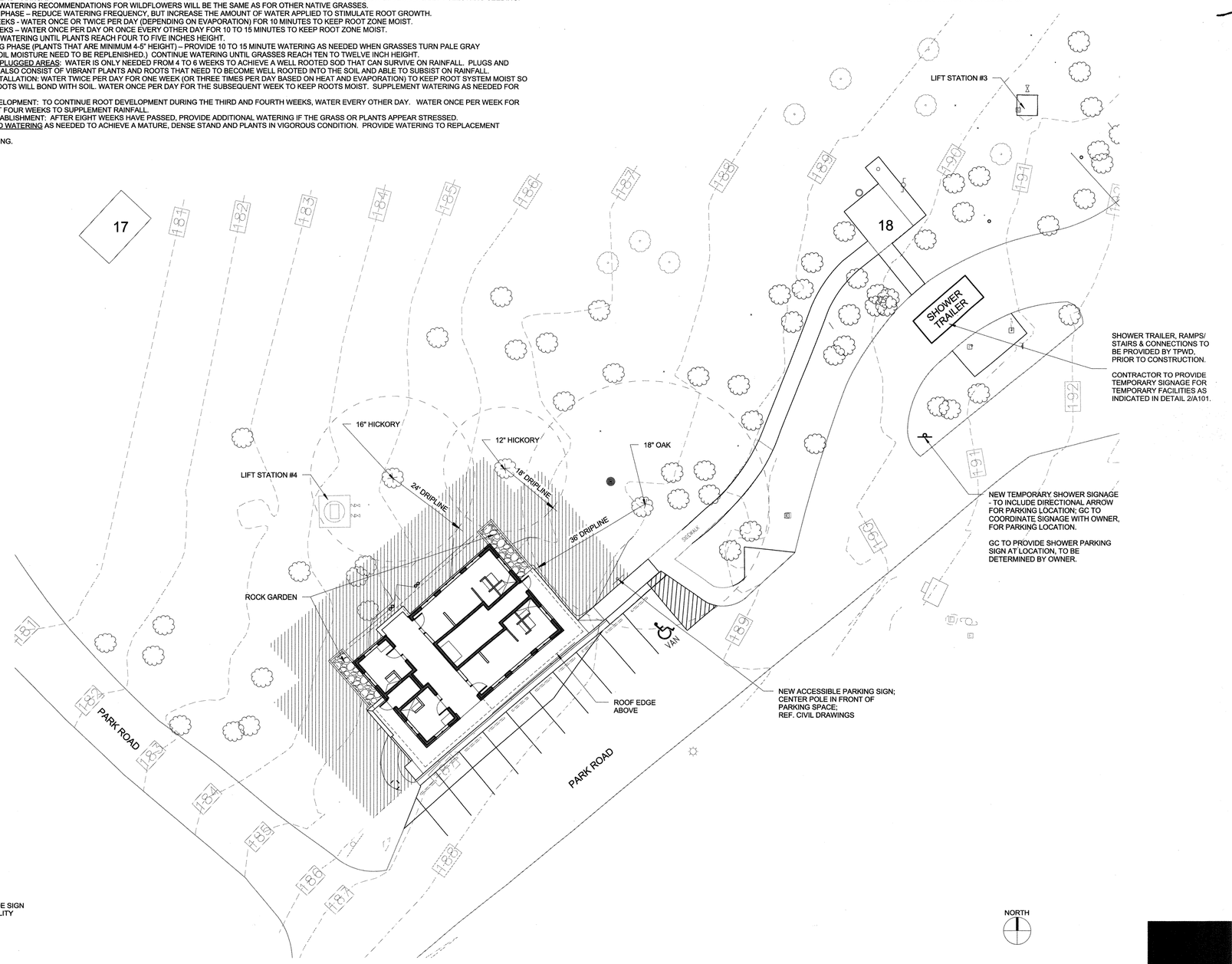
SHEET NOTES

1. AFTER **(7)** EXISTING TREES ARE REMOVED, **(5)** NEW TREES TO BE PLANTED & STAKED:
   (3) SOUTHERN RED OAK (QUERCUS FALCATA) - 2" CALIPER (EQUIVALENT TO 10-15 GALLON TREES).
   (2) FLOWERING DOGWOODS (CORNUS FLORIDA, TO SCREEN THE RESTROOM) NATIVE WHITE VARIETY - 2" CALIPER (EQUIVALENT TO 7-10 GALLON TREES).
   *** NEW LOCATIONS TO BE DETERMINED BY OWNER AT TIME OF PLANTING.**
2. CONTRACTOR TO PROVIDE SOD AT ALL DISTURBED AREAS IMMEDIATELY ADJACTENT TO THE NEW RESTROOM BUILDING.
3. CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION AT ALL SODDED AREAS TO KEEP IT ALIVE FOR UP TO 1 YEAR.
4. FOR TRANSITIONS FROM SOD TO EXISTING UNDISTRUBED AREAS, SEEDING MAY BE NEEDED. PROVIDE A MIXTURE OF INLAND SEA OATS AND VIRGINIA WILDRYE WITH:
   INLAND SEA OATS & CHASMANTHIUM LATIFOLUM
   PLANTING RATES = 1 LB PER 300 SF

   VIRGINIA WILDRYE & ELYMUS VIRGINICUS
   PLANTING RATES = 0.5 LB PER 300 SF
5. SEED SHOULD BE PURCHASED FROM A REPUTABLE TEXAS NATIVE SEED VENDOR AND HARVESTED FROM PLANTS ORIGINATING FROM AND GROWN IN TEXAS. RAKE GROUND SO THAT IT IS BARE. SHOULD THERE BE A HEAVIER THAN 1" RAINFALL WITHIN 10 DAYS, CONTRACTOR SHALL REAPPLY SEED. MINIMUM ESTABLISHMENT 50% COVERAGE LIGHTLY WATER UNTIL ESTABLISHED.
6. EXISTING TREES (WITHIN LIMITS OF CONSTRUCTION) TO BE PROTECTED. REF. CIVIL DRAWINGS FOR ADD'L INFO.



1 SITE SIGNAGE DETAIL
3" = 1'-0"



2 ENLARGED SITE PLAN
1/16" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
BRYAN STAMPER WHITE
16322
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
ENLARGED SITE PLAN

SHEET NUMBER
A101
OF 44

th+a

ISSUE FOR CONSTRUCTION

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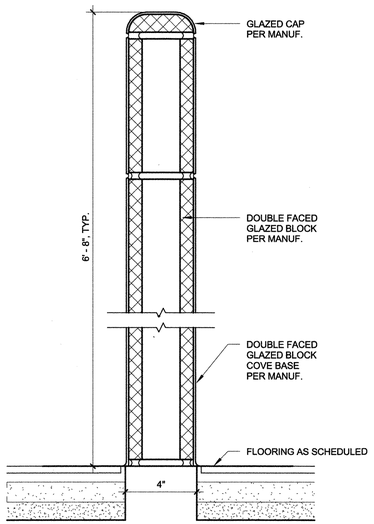
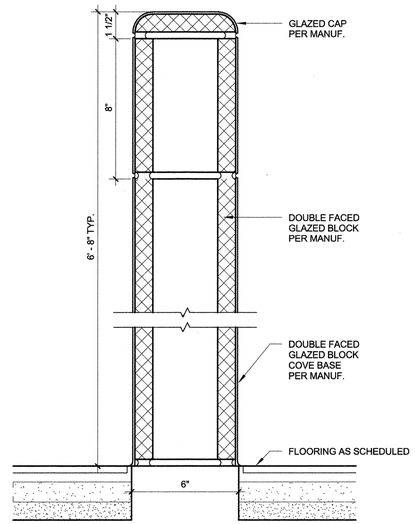
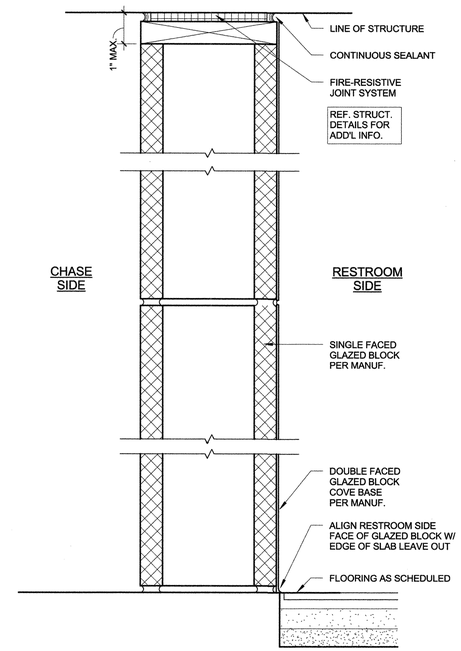


PARTITION TYPE 'M4' - 4"x16"x8" Block



PARTITION TYPE 'M6' - 6"x16"x8" Block



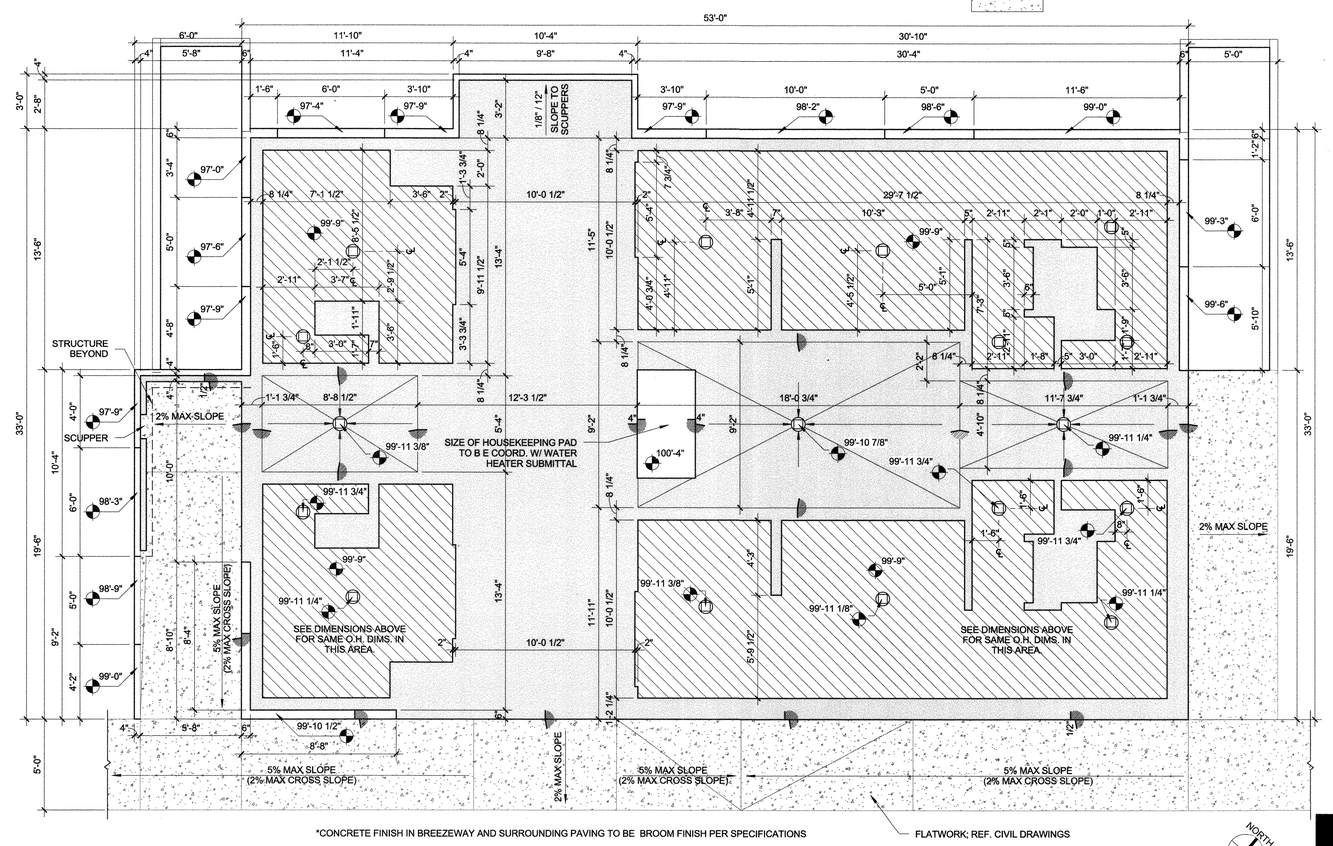
PARTITION TYPE 'M8' - 8"x16"x8" Block

SHEET NOTES

1. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
2. REFER TO G001 SERIES SHEETS FOR ADDITIONAL NOTES AND ABBREVIATIONS.
3. REFER TO A200 SERIES SHEETS FOR PARTITION TYPE LOCATIONS & ROOM FINISH SCHEDULE.
4. ALL PARTITION TYPES INDICATED APPLY TO INTERIOR PARTITIONS ONLY. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ALL LOAD-BEARING WALL FRAMING.
5. PROVIDE CONTROL JOINTS AS FOLLOWS (COORDINATE ALL LOCATIONS WITH ARCHITECT):
   A. WHERE A PARTITION ABUTS A STRUCTURAL ELEMENT; (EXCEPT FOR A FLOOR) OR DISSIMILAR WALL OR CEILING
   B. WHERE A CEILING OR SOFFIT ABUTS A STRUCTURAL ELEMENT, DISSIMILAR WALL OR PARTITION, OR OTHER VERTICAL PENETRATION;
   C. WHERE CONSTRUCTION CHANGES WITHIN THE PLANE OF THE PARTITION OR CEILING;
   D. WHERE A PARTITION OR FURRING RUN EXCEEDS 30 FEET;
   E. WHERE CEILING DIMENSIONS EXCEED 50 FEET IN EITHER DIRECTION WITH PERIMETER RELIEF, OR 30 FEET WITHOUT RELIEF;
   F. WHERE EXTERIOR SOFFITS AND CEILINGS EXCEED 30 FEET IN EITHER DIRECTION;
   G. VERTICALLY ABOVE FROM BOTH CORNERS OF THE TOP DOOR/ WINDOW FRAME EXTENDING TO THE FINISHED CEILING;
   H. WHERE CEILINGS INTERSECT COLUMN PENETRATIONS, LIGHT FIXTURES AND AIR DIFFUSERS THAT CAN IMPOSE STRESSES ON THE CEILING MATERIAL.
6. REF. CIVIL DRAWINGS FOR ADDITIONAL INFO. REGARDING T.O.C. ELEVATIONS AND REQ. SLOPES.

FORMING PLAN LEGEND

- FINISHED FLOOR = 100'-0"
- FLOOR DRAIN — TOP OF FD
- LEAVE-OUT AREA
- CONCRETE SIDEWALK; REF. CIVIL



*CONCRETE FINISH IN BREEZEWAY AND SURROUNDING PAVING TO BE BROOM FINISH PER SPECIFICATIONS

FLATWORK; REF. CIVIL DRAWINGS

1 FORMING PLAN
1/4" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
BRIAN STAINHOUSE
16322
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
FORMING PLAN & INTERIOR PARTITION TYPES

SHEET NUMBER
A150
OF 44

th+a

ISSUE FOR CONSTRUCTION

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KEY TO MATERIALS

MARK	DESCRIPTION	MANUFACTURER	PATTERN	COLOR	NOTES
C-1	SEALED CONCRETE	-	-	-	
CT-1	3" X 3" CERAMIC FLOOR TILE	CROSSVILLE	3" X 3"	A1114 - TREE HOUSE	THICK SET
GB-1	GLAZED BLOCK	TRENWYTH	ASTRA-GLAZE-SW+	CUSTOM GRAY	
PT-1	EXTERIOR GRADE PAINT	BENJAMIN MOORE		TAHOE BROWN #081-51	
R-1	COMPOSITION SHINGLES	TBD	TBD	TBD	
S-1	STAIN	OLYMPIC	SOLID COLOR	OXFORD BROWN - 53210A	
SS-1	COUNTER TOP	SILESTONE	BASIQ SERIES	CORAL CLAY	
ST-1	STONE VENEER	LOCAL	FIELD STONE	IRON ORE	NEW STONE VENEER & SALVAGED STONE FROM EXISTING BUILDING AND SITE
WD-1	1X6 WOOD LAP-SIDING			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-2	1/2" EXTERIOR GRADE PLYWOOD	-	-		
WD-3	1X6 V-GROOVED BEAD BOARD SOFFIT			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-4	1X14 WESTERN RED CEDAR FASCIA	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-5	2X4 WESTERN RED CEDAR TRIM	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD

ROOM FINISH SCHEDULE

LOCATION ROOM NAME	ROOM NO	FLOOR FINISH	BASE FINISH	WALL FINISH	MILLWORK	CEILING FINISH	REMARKS
FAMILY RESTROOM A	100	CT-1	GB-1	GB-1	SS-1	WD-3	
FAMILY RESTROOM B	200	CT-1	GB-1	GB-1	SS-1	WD-3	
WOMEN'S RESTROOM	300	CT-1	GB-1	GB-1	SS-1	WD-3	
MEN'S RESTROOM	400	CT-1	GB-1	GB-1	SS-1	WD-3	
CHASE / STORAGE	500	C-1	N/A	N/A	S-1	WD-2	Broom Finish
CHASE / STORAGE	600	C-1	N/A	N/A	S-1	WD-2	Broom Finish
BREEZEWAY	700						

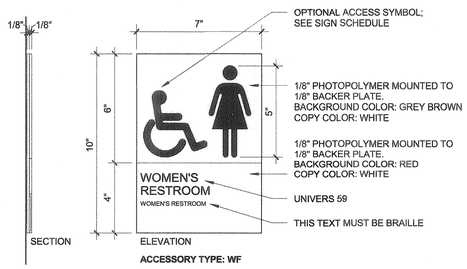
*CONCRETE FINISH IN BREEZEWAY AND SURROUNDING PAVING TO BE BROOM FINISH PER SPECIFICATIONS

(XX) ACCESSORY SCHEDULE

MARK	DESCRIPTION	Manufacturer	Model	COMMENTS
CR	HOOKLESS SHOWER CURTAIN & ROD	(CURTAIN) MEDLINE (ROD) BRADLEY	SHWRP71X74WHI 9538	RAINDROP COLLECTION 1" O.D. ROD, 36" LONG
D1	DIAPER CHANGING STATION: SURFACE MOUNTED	KOALA KARE	KB200-01	GREY
DC	DISPLAY CASE - 60"W X 36"H X 3"D (LIGHTING NOT NEEDED)	OutdoorDisplayCases.com	SCBBRL234-6036	FRAME: BLACK; BACKBOARD: HUNTER GREEN
G3	GRAB BAR - VERTICAL - 18" LONG	BOBRICK	B-6806-18	
G4	GRAB BAR - HORIZONTAL "L" SHAPED 18" x 33"	BOBRICK	B-6861	
G36	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-36	
G48	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-48	
H1	SINGLE ROBE HOOK: SURFACE MOUNTED	BREY KRAUSE	S-4039-SS	BREAK AWAY, CONCEALED MOUNT
HD	HAND DRYER	WORLD DRYER	#L-973	SLIMdri - STAINLESS STEEL, BRUSHED
M1	FRAMED MIRROR - 24" X 36"	BOBRICK	B-166	WITH SHELF
N1	SANITARY NAPKIN DISPOSAL: SURFACE MOUNTED	BOBRICK	B-254	
SK	SOLATUBE SKYLIGHT	SOLATUBE	BRIGHTEN UP - 290 DS	
SN	SOAP NICHE	FLOORING SUPPLY SHOP	12X12, RECESSED	PORCELAIN WHITE GLOSSY
TB	WOOD TRAILSIDE BENCH - SINGLE PEDESTAL	PILOT ROCK - TRAILSIDE	OWB	24"D X 72"L X 18"H
TP	SURFACE MOUNTED MULTI ROLL TOILET TISSUE DISPENSER	COMPACT	SKU: 56748	QUAD, CORELESS - STAINLESS STEEL
TS1	TOILET STALL - ACCESSIBLE: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS2	TOILET STALL - STANDARD: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS3	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS4	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
WF	RESTROOM SIGN W/ ADA SYMBOL	TBD	TBD	EXTERIOR GRADE, ADA COMPLIANT SIGNAGE
Z1	MOP AND BROOM HOLDER: SURFACE MOUNTED	BOBRICK	B-223	

ROOM SIGNAGE SCHEDULE

ACCESSORY TYPE	ROOM NUMBER	ROOM LABEL
WF	100	FAMILY RESTROOM
WF	200	FAMILY RESTROOM
WF	300	WOMEN'S RESTROOM
WF	400	MEN'S RESTROOM



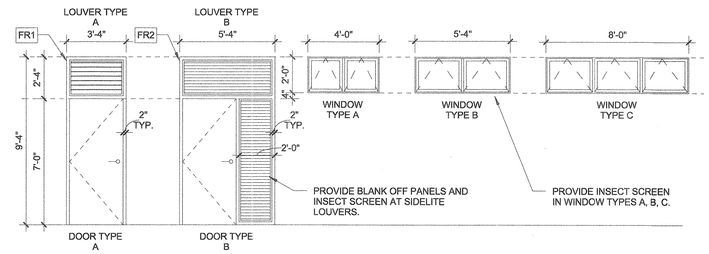
2 RESTROOM SIGNAGE DETAIL
3" = 1'-0"

DOOR SCHEDULE

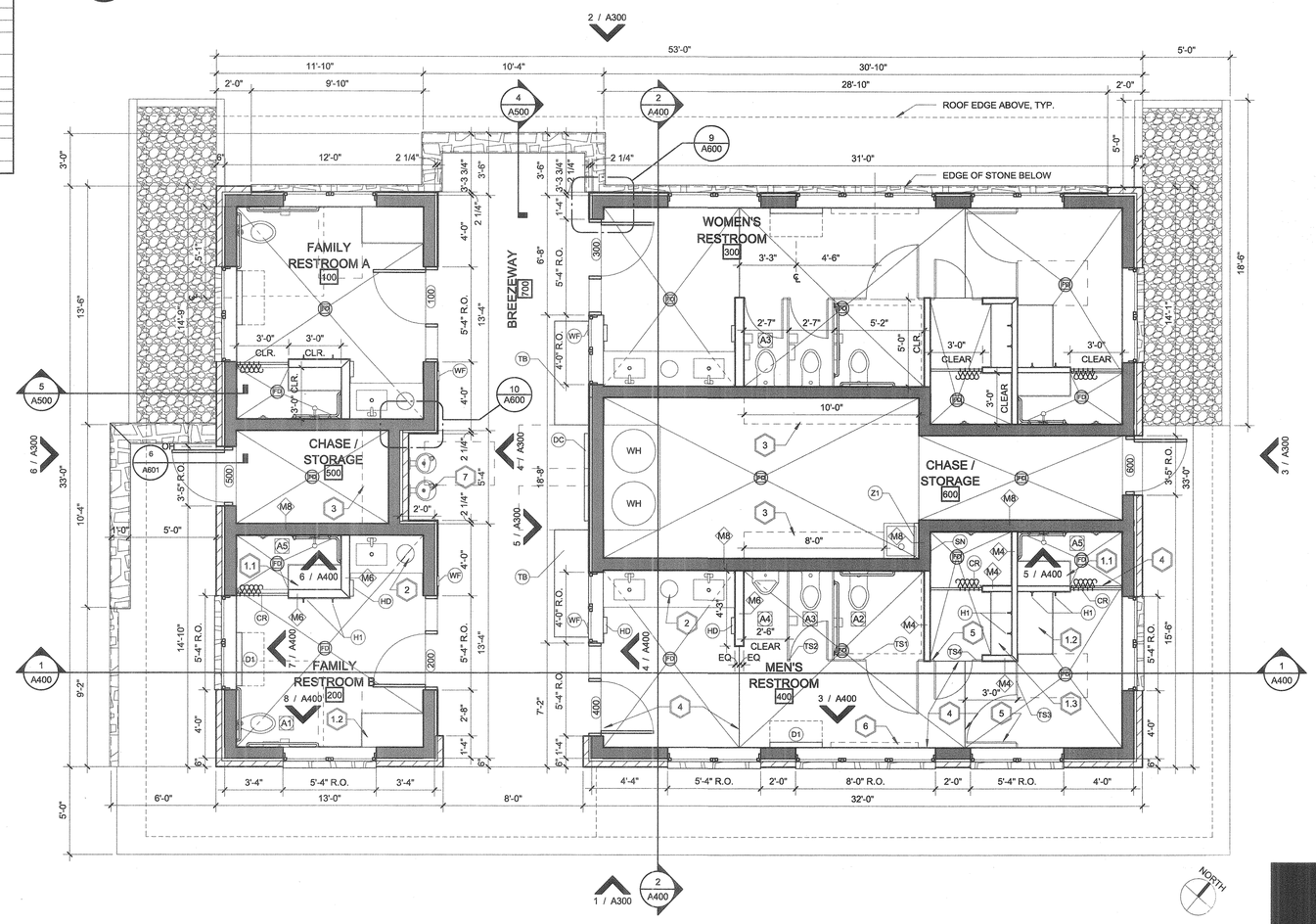
DOOR NUMBER	DOOR WIDTH	DOOR HEIGHT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FIRE RATING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HARDWARE	COMMENTS
100	3'-0"	7'-0"	B	HM	PT	FR2	HM	PT-1	-	2/A601	4/A601	7/A601	01	W/ ANNODIZED LOUVERED TRANSOM & SIDE LITE; REF. MEP.
200	3'-0"	7'-0"	B	HM	PT	FR2	HM	PT-1	-	2/A601	4/A601	7/A601	01	W/ ANNODIZED LOUVERED TRANSOM & SIDE LITE; REF. MEP.
300	3'-0"	7'-0"	B	HM	PT	FR2	HM	PT-1	-	2/A601	5/A601	7/A601	02	W/ ANNODIZED LOUVERED TRANSOM & SIDE LITE; REF. MEP.
400	3'-0"	7'-0"	B	HM	PT	FR2	HM	PT-1	-	2/A601	5/A601	7/A601	02	W/ ANNODIZED LOUVERED TRANSOM & SIDE LITE; REF. MEP.
500	3'-0"	7'-0"	A	HM	PT	FR1	HM	PT-1	-	2/A601	6/A601	8/A601	03	W/ ANNODIZED LOUVERED TRANSOM; REF. MEP.
600	3'-0"	7'-0"	A	HM	PT	FR1	HM	PT-1	-	2/A601	6/A601	8/A601	03	W/ ANNODIZED LOUVERED TRANSOM; REF. MEP.

WINDOW SCHEDULE

TYPE	WIDTH	HEIGHT	R.O. WIDTH	R.O. HEIGHT	COMMENTS	DETAILS HEAD	DETAILS JAMB	DETAILS SILL
A	3'-11"	1'-11"	4'-0"	2'-0"	ACID-ETCHED TRANSLUCENT LOW-E GLASS, BRONZE ANODIZED ALUMINUM FRAMES	8/A600	11/A600	6,7/A600
B	5'-3"	1'-11"	5'-4"	2'-0"	ACID-ETCHED TRANSLUCENT LOW-E GLASS, BRONZE ANODIZED ALUMINUM FRAMES	8/A600	11/A600	6,7/A600
C	7'-11"	1'-11"	8'-0"	2'-0"	ACID-ETCHED TRANSLUCENT LOW-E GLASS, BRONZE ANODIZED ALUMINUM FRAMES	8/A600	11/A600	6,7/A600



DOOR, WINDOW & LOUVER TYPES
1/4" = 1'-0"



1 FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

1. REFER TO SHEET G001 & A001 SYMBOLS LEGENDS & DESCRIPTIONS.
2. ALL DIMENSIONS FROM FINISHED FACE OF WALL UNLESS NOTED OTHERWISE.
3. KEYNOTES & ACCESSORY TAGS, INDICATED IN MENS RESTROOM / FAMILY RESTROOM B ALSO APPLY TO WOMENS RESTROOM / FAMILY RESTROOM A.
4. PROVIDE CLASSROOM DEADBOLT & PRIVACY LOCK ON LEVER AT FAMILY RESTROOMS.
5. PROVIDE DEADBOLTS ONLY AT MAIN RESTROOMS.
6. REF. SHEET A001 FOR PLAN DESIGNATION TAG INFORMATION.

KEY NOTES

1. BENCH - SS-1 SILESTONE OVER CMU; REF: 12/A600 FOR DETAIL.
   1.1 = 36"L X 16"D X 17"H
   1.2 = 42"L X 24"D X 17"H
   1.3 = 43"L (VIF) X 14"D X 17"H
2. 8" DIA. OPENING IN SOLID SURFACE COUNTER. PROVIDE STAINLESS STEEL GROMMET.
3. BUILT-IN SHELVING; REF: 10/A601 FOR DETAIL.
4. TILE EXPANSION JOINT. ADDITIONALLY, PROVIDE TILE EXPANSION AROUND ENTIRE ROOM PERIMETER.
5. SHOWER DOOR/PARTITION TO MATCH TOILET PARTITIONS.
6. 4" X 60" METAL SHELF MOUNTED @ 48" AFF MAX.
7. DRINKING FOUNTAIN; HIGH-LOW

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
JOHN STAINBROOK
16322
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
FLOOR PLAN & SCHEDULES

SHEET NUMBER
A200
OF 44

th+a

ISSUE FOR CONSTRUCTION

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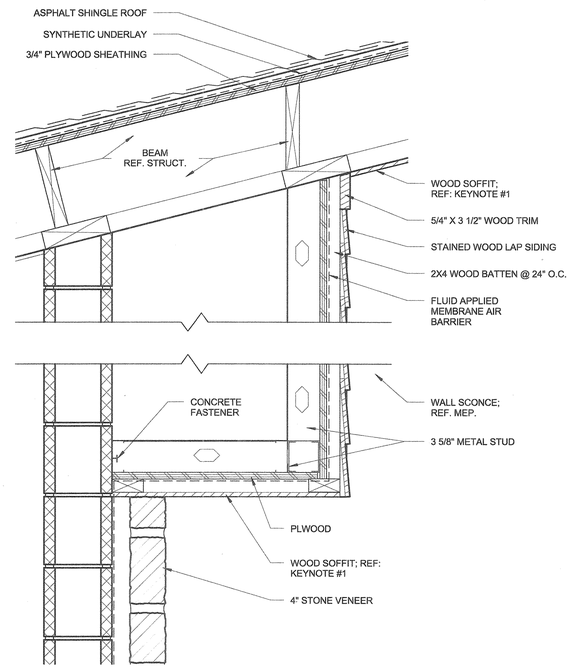


2 SECTION @ SOFFIT ABOVE DRINKING FOUNTAIN
1 1/2" = 1'-0"

SHEET NOTES

1. REF: KEY TO MATERIALS ON SHEET A200 OR A300.
2. CENTER SKYLIGHTS BETWEEN STRUCTURE ABOVE. APPROXIMATE LOCATION DIMENSIONS ARE PROVIDED ON ROOF PLAN ON SHEET A202 - DIMENSIONS ARE RELATIVE TO THE PLAN VIEW AND DO NOT ACCOUNT FOR THE ROOF'S SLOPE.

KEY NOTES

1. 4" VENT THROUGH ROOF; REF. PLUMBING DWGS.
2. 2" VENT THROUGH ROOF; REF. PLUMBING DWGS.

LEGEND

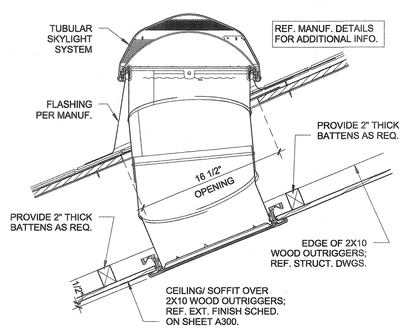
FT'-IN"	FINISHED CEILING HEIGHT ABOVE FINISHED FLOOR		OCCUPANCY SENSOR
	L.E.D. WALL SCONCE		EXIT SIGN W/ EMERGENCY LIGHTING
	L.E.D. FULL CUTOFF WALL SCONCE		SOLATUBE SKYLIGHT, TYP.

KEY TO MATERIALS

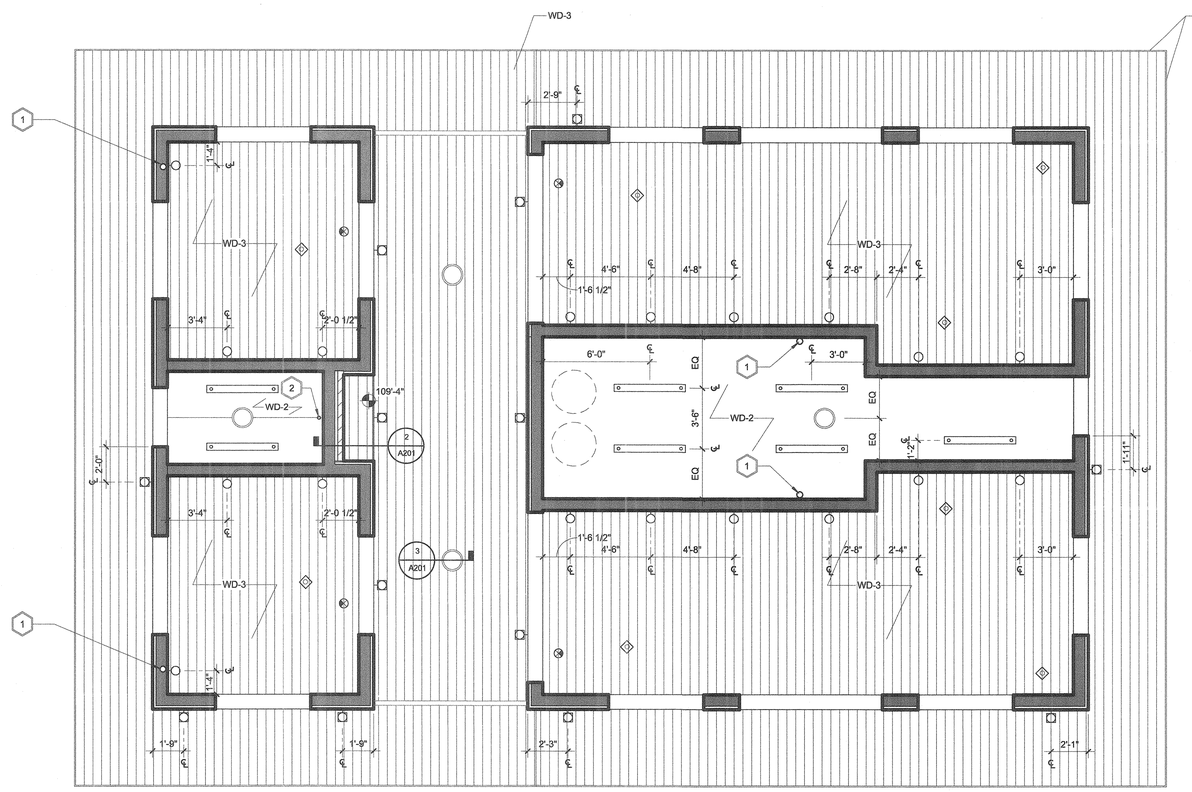
MARK	DESCRIPTION	MANUFACTURER	PATTERN	COLOR	NOTES
C-1	SEALED CONCRETE	-	-	-	
CT-1	3" X 3" CERAMIC FLOOR TILE	CROSSVILLE	3" X 3"	A1114 - TREE HOUSE	THICK SET
GB-1	GLAZED BLOCK	TRENWYTH	ASTRA-GLAZE-SW+	CUSTOM GRAY	
PT-1	EXTERIOR GRADE PAINT	BENJAMIN MOORE		TAHOE BROWN #081-51	
R-1	COMPOSITION SHINGLES	TBD	TBD	TBD	
S-1	STAIN	OLYMPIC	SOLID COLOR	OXFORD BROWN - 53210A	
SS-1	COUNTER TOP	SILESTONE	BASIQ SERIES	CORAL CLAY	
ST-1	STONE VENEER	LOCAL	FIELD STONE	IRON ORE	NEW STONE VENEER & SALVAGED STONE FROM EXISTING BUILDING AND SITE
WD-1	1X6 WOOD LAP-SIDING			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-2	1/2" EXTERIOR GRADE PLYWOOD	-	-		
WD-3	1X6 V-GROOVED BEAD BOARD SOFFIT			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-4	1X14 WESTERN RED CEDAR FASCIA	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-5	2X4 WESTERN RED CEDAR TRIM	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD

ROOM FINISH SCHEDULE

LOCATION ROOM NAME	ROOM NO	FLOOR FINISH	BASE FINISH	WALL FINISH	MILLWORK	CEILING FINISH	REMARKS
FAMILY RESTROOM A	100	CT-1	GB-1	GB-1	SS-1	WD-3	
FAMILY RESTROOM B	200	CT-1	GB-1	GB-1	SS-1	WD-3	
WOMEN'S RESTROOM	300	CT-1	GB-1	GB-1	SS-1	WD-3	
MEN'S RESTROOM	400	CT-1	GB-1	GB-1	SS-1	WD-3	
CHASE / STORAGE	500	C-1	N/A	N/A	S-1	WD-2	Broom Finish
CHASE / STORAGE	600	C-1	N/A	N/A	S-1	WD-2	Broom Finish
BREEZEWAY	700						



3 TUBULAR SKYLIGHT SECTION DETAIL
1 1/2" = 1'-0"



1 REFLECTED CEILING PLAN
1/4" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
STEPHEN HOWARD BRINCHER
16322
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
REFLECTED CEILING PLAN & DETAILS

SHEET NUMBER
A201
OF 44

th+a

ISSUE FOR CONSTRUCTION

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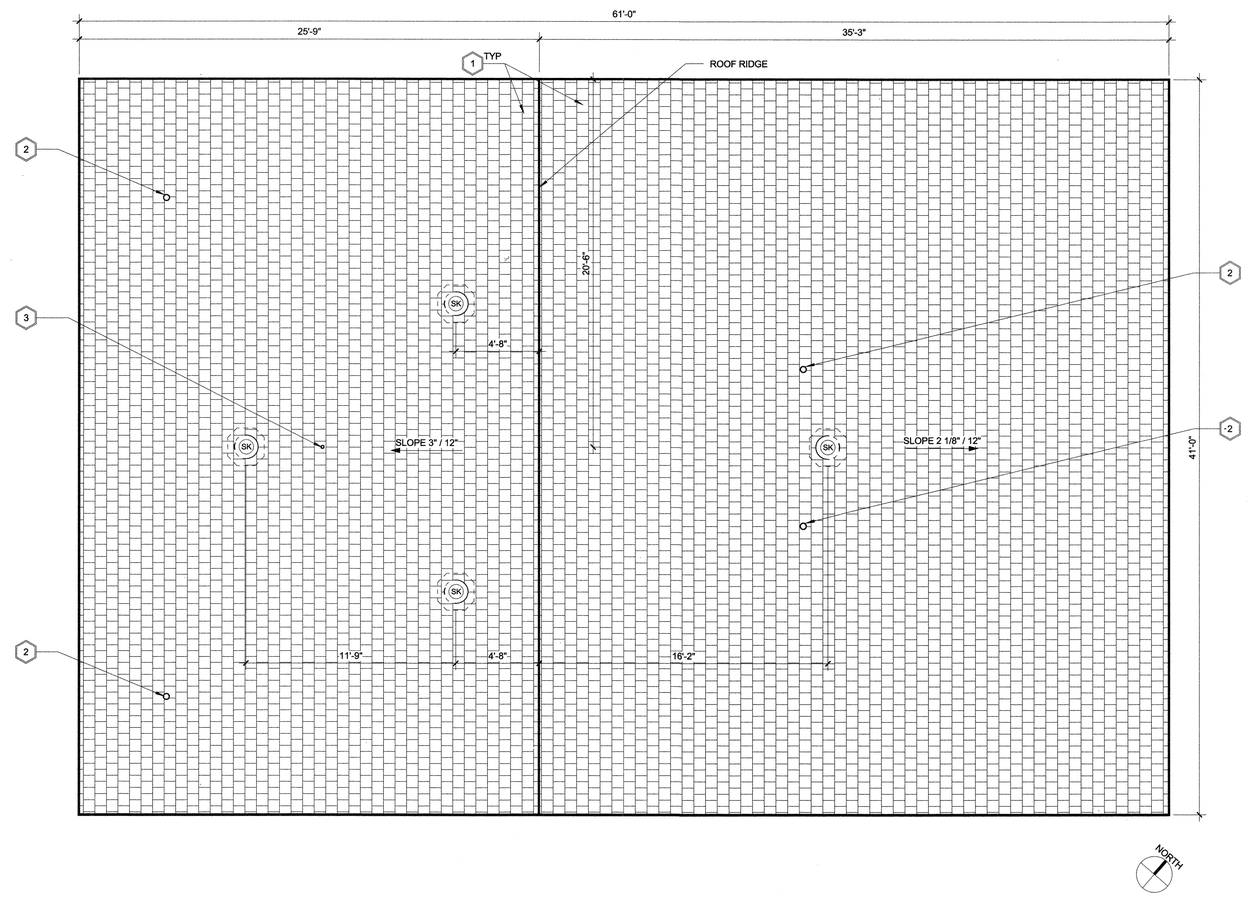
KEY NOTES

REF. SHEET A001 OR A200 FOR ACCESSORY SCHEDULE.
REF. SHEET A200 OR A300 FOR KEY TO MATERIALS SCHEDULE.

1. ASPHALT SHINGLE ROOF
2. 4" VENT THROUGH ROOF; REF. PLUMBING DRAWINGS
3. 2" VENT THROUGH ROOF; REF. PLUMBING DRAWINGS



1 ROOF PLAN
1/4" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
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SHEET TITLE
ROOF PLAN

SHEET NUMBER
A202
OF 44

ISSUE FOR CONSTRUCTION

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KEY TO MATERIALS

MARK	DESCRIPTION	MANUFACTURER	PATTERN	COLOR	NOTES
C-1	SEALED CONCRETE	-	-	-	
CT-1	3" X 3" CERAMIC FLOOR TILE	CROSSVILLE	3" X 3"	A1114 - TREE HOUSE	THICK SET
GB-1	GLAZED BLOCK	TRENWYTH	ASTRA-GLAZE-SW+	CUSTOM GRAY	
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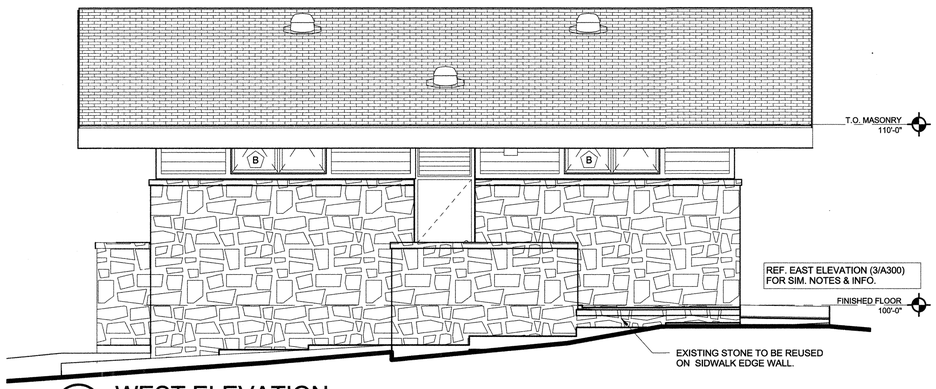
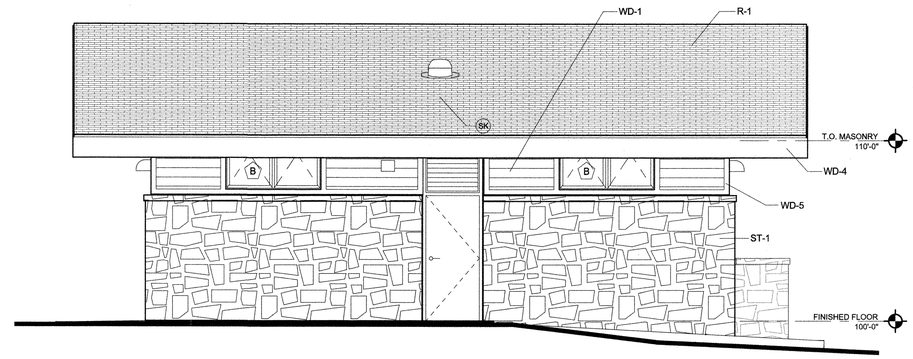
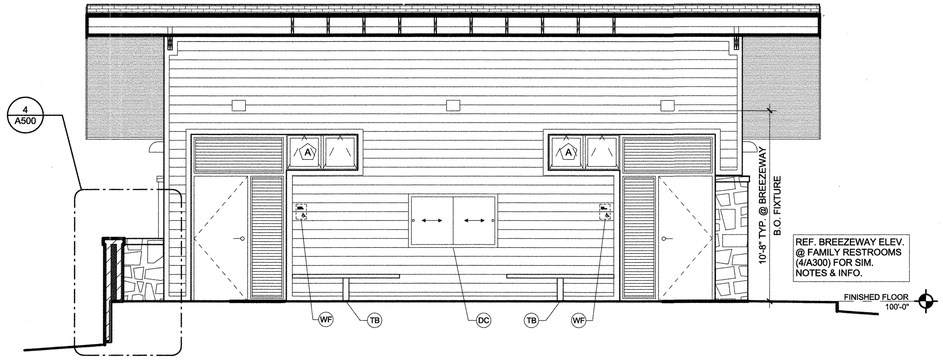
R-1	COMPOSITION SHINGLES	TBD	TBD	TBD	
S-1	STAIN	OLYMPIC	SOLID COLOR	OXFORD BROWN - 53210A	
SS-1	COUNTER TOP	SILESTONE	BASIQ SERIES	CORAL CLAY	
ST-1	STONE VENEER	LOCAL	FIELD STONE	IRON ORE	NEW STONE VENEER & SALVAGED STONE FROM EXISTING BUILDING AND SITE
WD-1	1X6 WOOD LAP-SIDING			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-2	1/2" EXTERIOR GRADE PLYWOOD	-	-		
WD-3	1X6 V-GROOVED BEAD BOARD SOFFIT			STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-4	1X14 WESTERN RED CEDAR FASCIA	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD
WD-5	2X4 WESTERN RED CEDAR TRIM	-	-	STAIN: S-1	ALT. 1 - SEALED THERMALLY MODIFIED WOOD



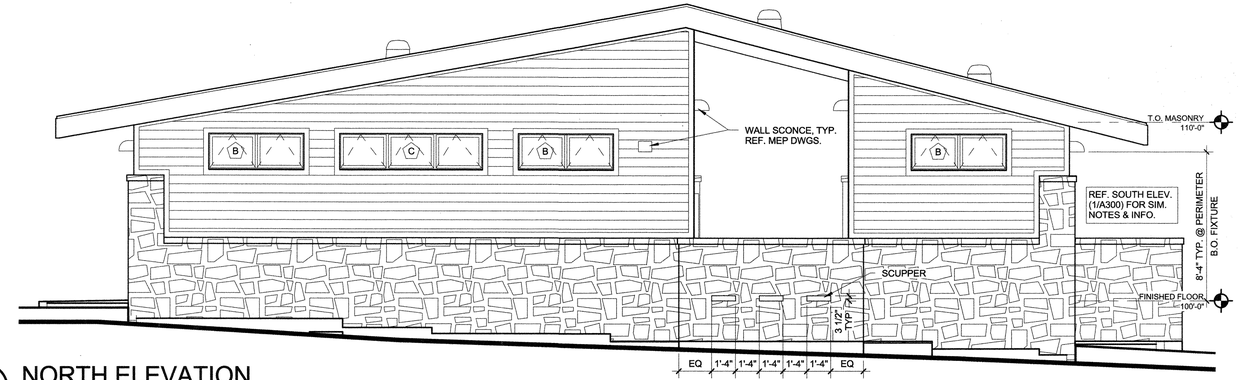
6 WEST ELEVATION
1/4" = 1'-0"



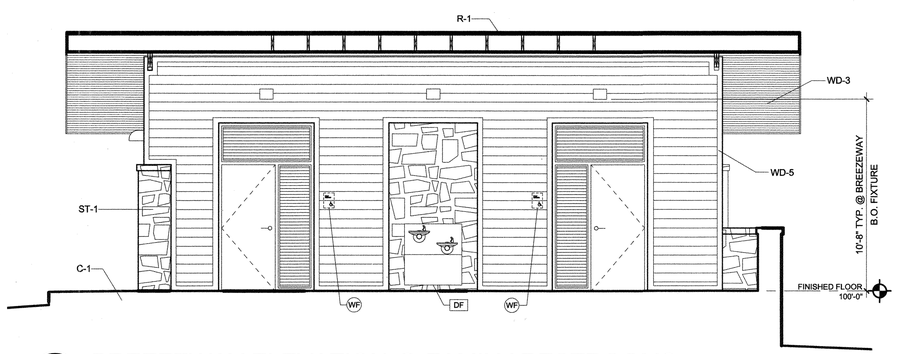
3 EAST ELEVATION
1/4" = 1'-0"



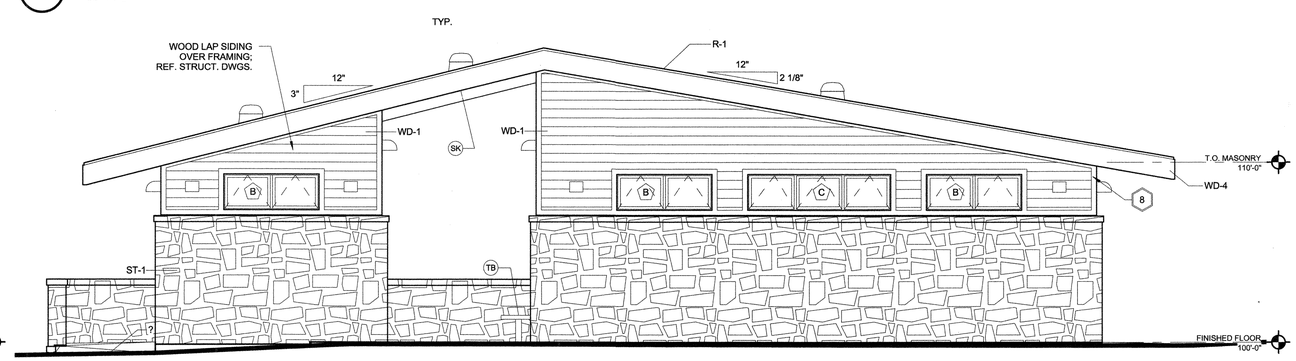
5 BREEZEWAY ELEVATION @ PUBLIC RESTROOMS
1/4" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"



4 BREEZEWAY ELEVATION @ FAMILY RESTROOMS
1/4" = 1'-0"



1 SOUTH ELEVATION
1/4" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
EXTERIOR ELEVATIONS

SHEET NUMBER
A300
OF 44

th+a

ISSUE FOR CONSTRUCTION

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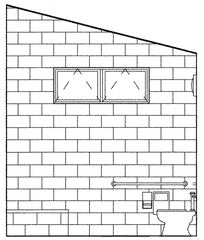
ACCESSORY SCHEDULE

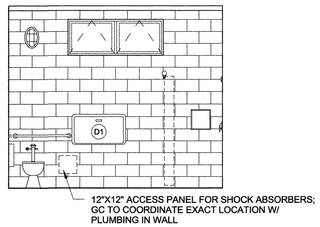
MARK	DESCRIPTION	Manufacturer	Model	COMMENTS
CR	HOOKLESS SHOWER CURTAIN & ROD	(CURTAIN) MEDLINE (ROD) BRADLEY	SHWRP71X74WHI 9538	RAINDROP COLLECTION 1" O.D. ROD, 36" LONG
D1	DIAPER CHANGING STATION: SURFACE MOUNTED	KOALA KARE	KB200-01	GREY
DC	DISPLAY CASE - 60"W X 36"H X 3"D (LIGHTING NOT NEEDED)	OutdoorDisplayCases.com	SCBBRL234-6036	FRAME: BLACK; BACKBOARD: HUNTER GREEN
G3	GRAB BAR - VERTICAL - 18" LONG	BOBRICK	B-6806-18	
G4	GRAB BAR - HORIZONTAL "L" SHAPED 18" x 33"	BOBRICK	B-6861	
G36	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-36	
G48	GRAB BAR - HORIZONTAL - 12" LONG	BOBRICK	B-6806-48	
H1	SINGLE ROBE HOOK: SURFACE MOUNTED	BREY KRAUSE	S-4039-SS	BREAK AWAY, CONCEALED MOUNT
HD	HAND DRYER	WORLD DRYER	#L-973	SLIMdri - STAINLESS STEEL, BRUSHED
M1	FRAMED MIRROR - 24" X 36"	BOBRICK	B-166	WITH SHELF
N1	SANITARY NAPKIN DISPOSAL: SURFACE MOUNTED	BOBRICK	B-254	
SK	SOLATUBE SKYLIGHT	SOLATUBE	BRIGHTEN UP - 290 DS	
SN	SOAP NICHE	FLOORING SUPPLY SHOP	12X12, RECESSED	PORCELAIN WHITE GLOSSY
TB	WOOD TRAILSIDE BENCH - SINGLE PEDESTAL	PILOT ROCK - TRAILSIDE	OWB	24"D X 72"L X 18"H
TP	SURFACE MOUNTED MULTI ROLL TOILET TISSUE DISPENSER	COMPACT	SKU: 56748	QUAD, CORELESS - STAINLESS STEEL
TS1	TOILET STALL - ACCESSIBLE: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS2	TOILET STALL - STANDARD: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS3	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
TS4	SHOWER STALL - PARTITION: FLOOR MOUNTED (BRACED)	BRADLEY	SERIES 400 - SENTINEL	PARTITION FINISH - 5WL
WF	RESTROOM SIGN W/ ADA SYMBOL	TBD	TBD	EXTERIOR GRADE, ADA COMPLIANT SIGNAGE
Z1	MOP AND BROOM HOLDER: SURFACE MOUNTED	BOBRICK	B-223	

KEY NOTES

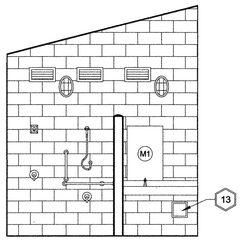
1. ROOF STRUCTURE; REF: STRUCT. DWGS.
2. SINGLE-WYTHE REINFORCED GLAZED BLOCK WALL; REF. STRUCT. DWGS.
3. WINDOW, REF. WINDOW & LOUVER SCHEDULE
4. WOOD SOFFIT; REF. EXTERIOR FINISH SCHEDULE ON SHEET A300.
5. SOLID SURFACE COUNTER
6. NOT USED.
7. AIR GRILLE INTO CHASE (BEYOND)
8. COMPOSITION SHINGLE ROOF
9. TOILET PARTITIONS; REF. ACCESSORY SCHEDULE ON SHEET A200.
10. CLOSED CELL SPRAY FOAM INSULATION - R-30 MIN.
11. WALL HUNG ADA COMPLIANT TOILET
12. WALL SCONCE; REF. MEP DWGS.
13. HOZE BIBB; RECESSED, FREEZE-PROOF



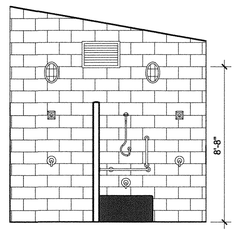
8 INTERIOR ELEV. C @ FAMILY RESTROOM
1/4" = 1'-0"



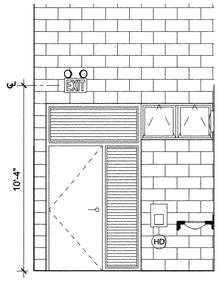
7 INTERIOR ELEV. B @ FAMILY RESTROOM
1/4" = 1'-0"



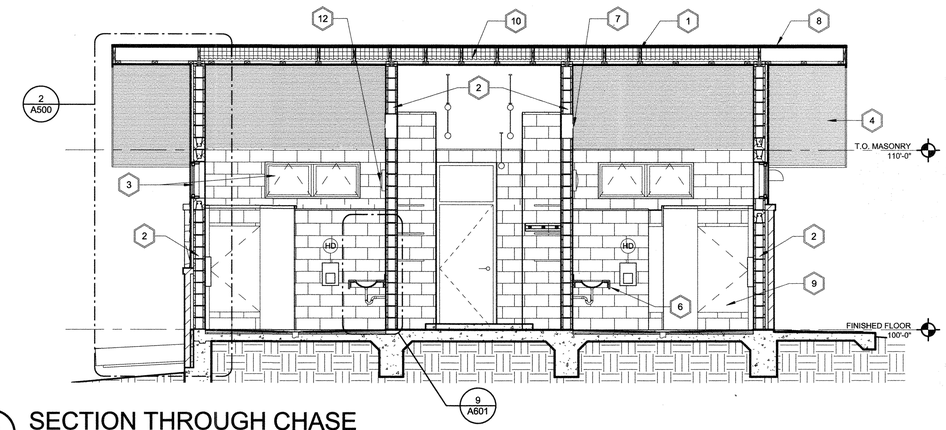
6 INTERIOR ELEV. A @ FAMILY RESTROOM
1/4" = 1'-0"



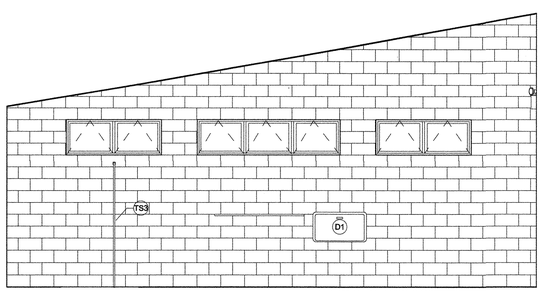
5 INTERIOR ELEV. @ SHOWERS
1/4" = 1'-0"



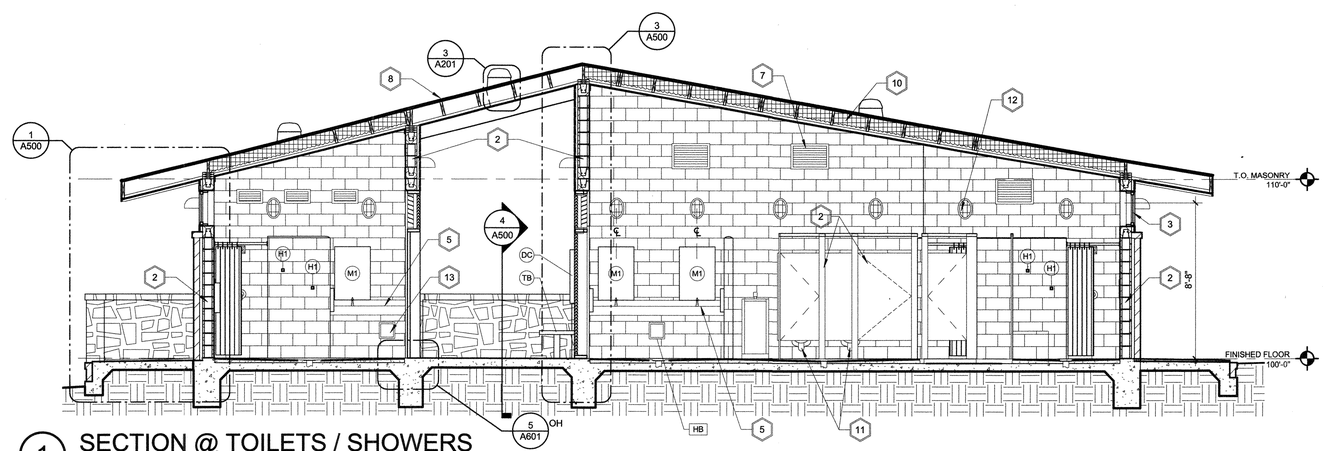
4 INTERIOR ELEV. @ ENTRY
1/4" = 1'-0"



2 SECTION THROUGH CHASE
1/4" = 1'-0"



3 INTERIOR ELEV. OPPOSITE CHASE WALL
1/4" = 1'-0"



1 SECTION @ TOILETS / SHOWERS
1/4" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT STEPHEN HOWARD BRANCHER 7632 STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
INTERIOR ELEVATIONS & SECTIONS

SHEET NUMBER
A400
OF 44

th+a

ISSUE FOR CONSTRUCTION

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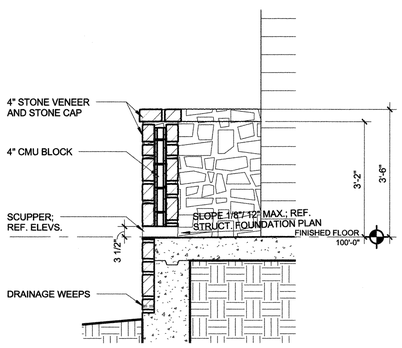
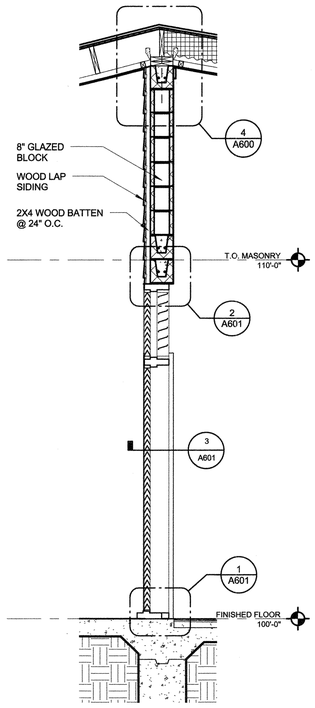
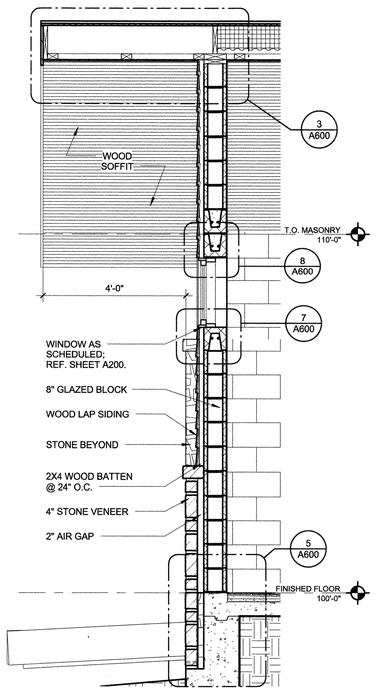


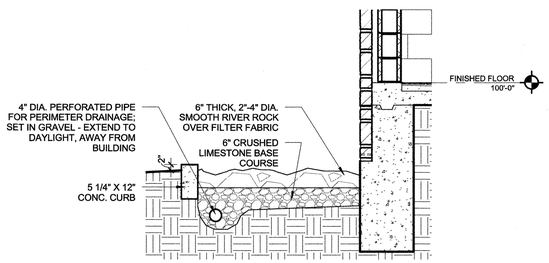
4 SECTION @ BREEZEWAY END WALL
1/2" = 1'-0"



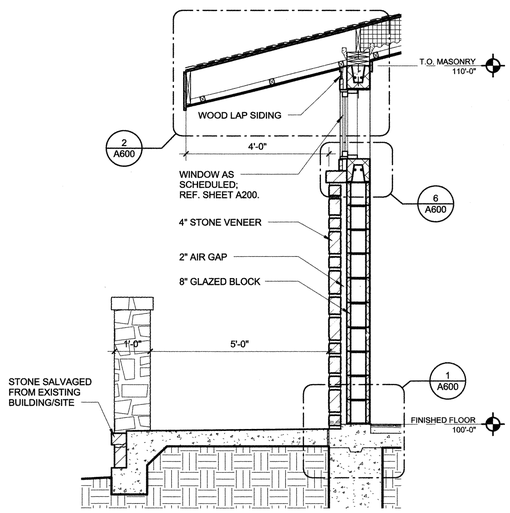
3 SECTION @ ROOF RIDGE
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



5 SECTION @ ROCK GARDEN
1/2" = 1'-0"



1 WALL SECTION
1/2" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT
STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
WALL SECTIONS

SHEET NUMBER
A500
OF 44

th+a

ISSUE FOR CONSTRUCTION

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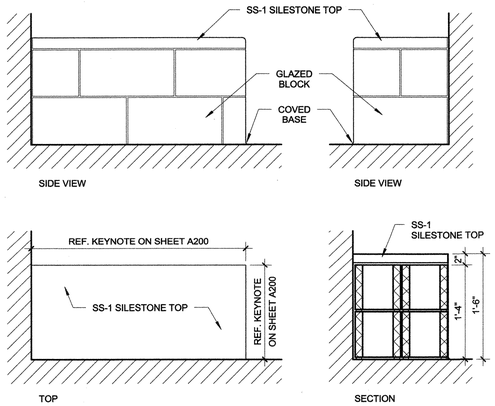
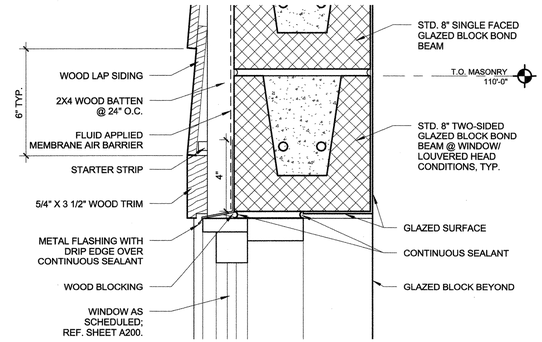
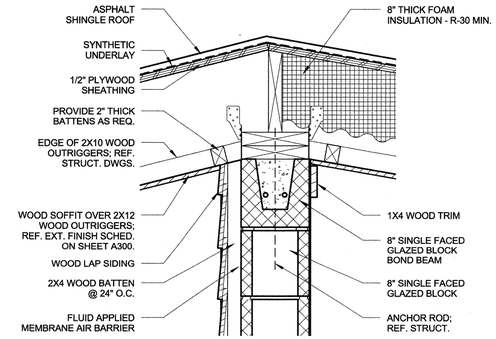


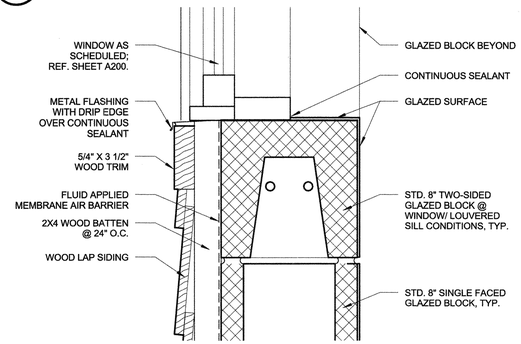
12 RESTROOM BENCHES
1" = 1'-0"



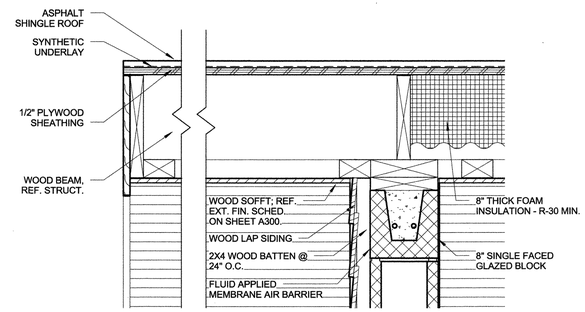
8 WINDOW HEAD DETAIL
3" = 1'-0"



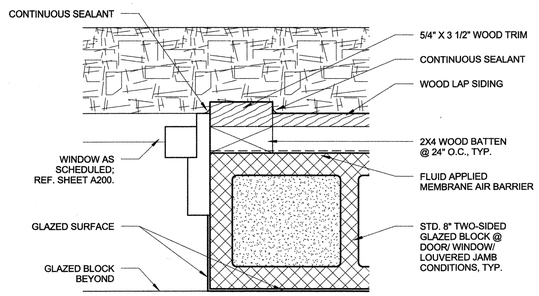
4 DETAIL @ RIDGE
1 1/2" = 1'-0"



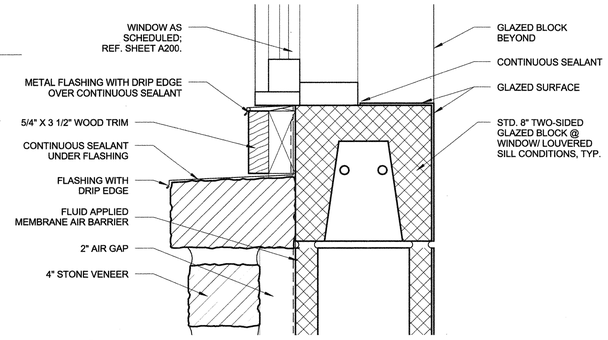
7 WINDOW SILL DETAIL @ SIDING
3" = 1'-0"



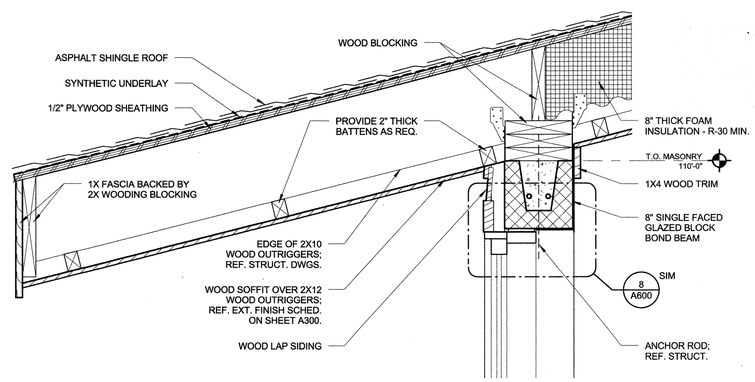
3 DETAIL @ SOFFIT (RAKE)
1 1/2" = 1'-0"



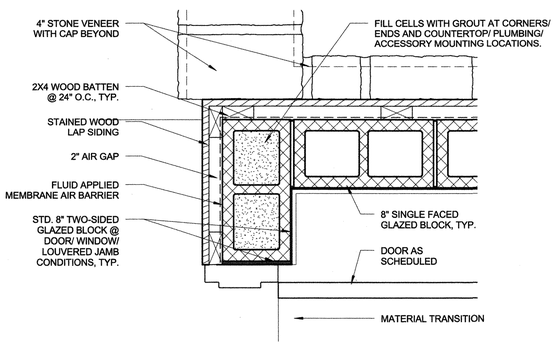
11 WINDOW JAMB DETAIL
3" = 1'-0"



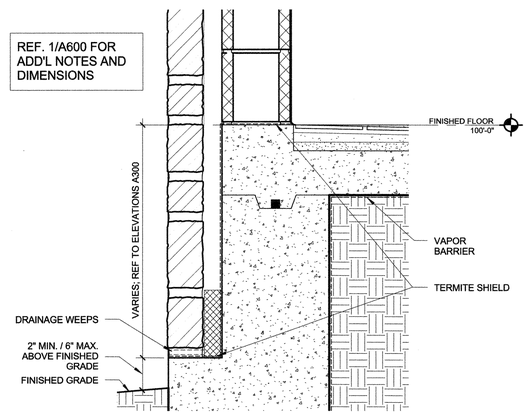
6 WINDOW SILL DETAIL @ STONE WALL
3" = 1'-0"



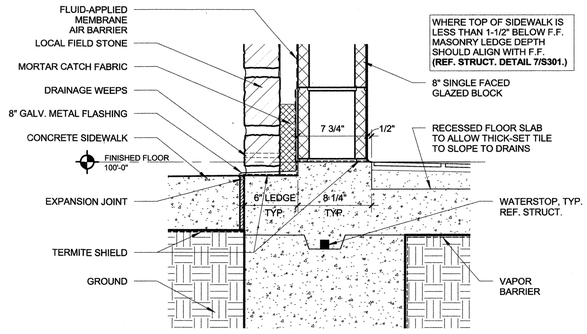
2 DETAIL @ SOFFIT
1 1/2" = 1'-0"



9 DETAIL @ CORNER, STONE/SIDING TRANSITION
1 1/2" = 1'-0"



5 DETAIL @ FOUNDATION @ LEDGE
1 1/2" = 1'-0"



1 DETAIL @ FOUNDATION @ SIDEWALK
1 1/2" = 1'-0"

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT BRIAN STAINHOUSE 16322 STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
DETAILS

SHEET NUMBER
A600
OF 44

th+a

ISSUE FOR CONSTRUCTION

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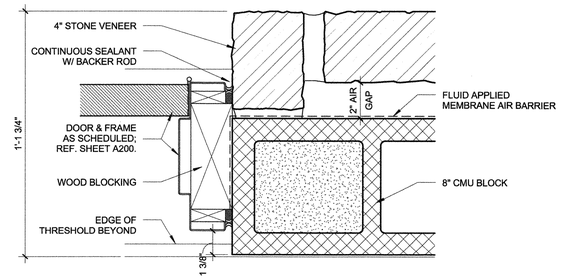
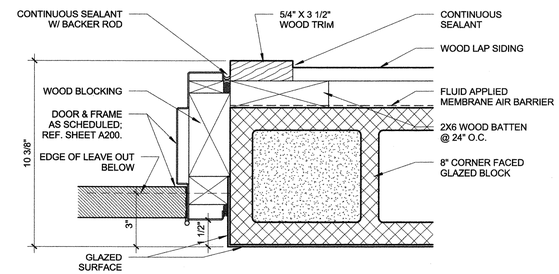
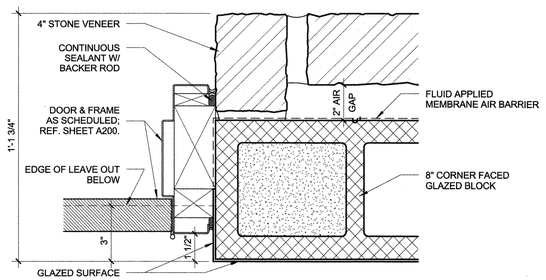


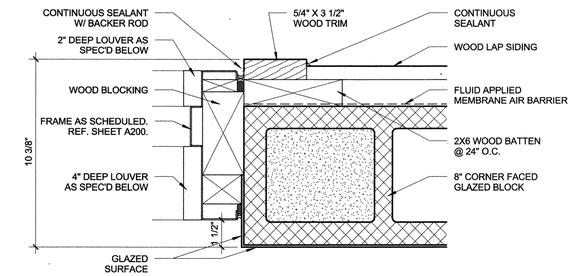
8 DOOR JAMB DETAIL @ CHASE
3" = 1'-0"



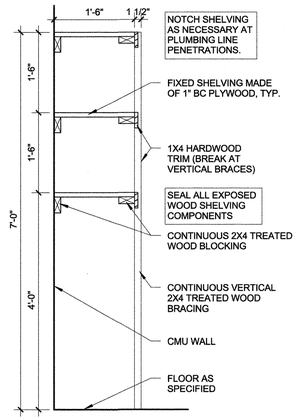
4 DOOR JAMB DETAIL @ SIDING
3" = 1'-0"



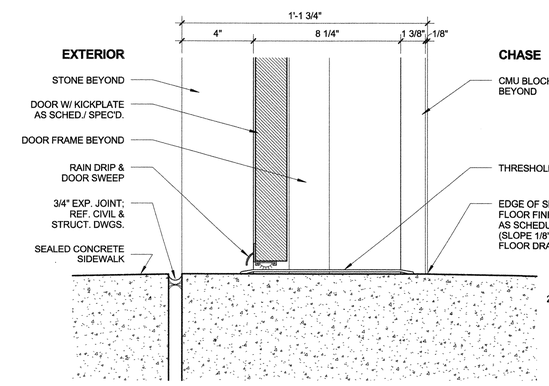
7 DOOR JAMB DETAIL @ STONE
3" = 1'-0"



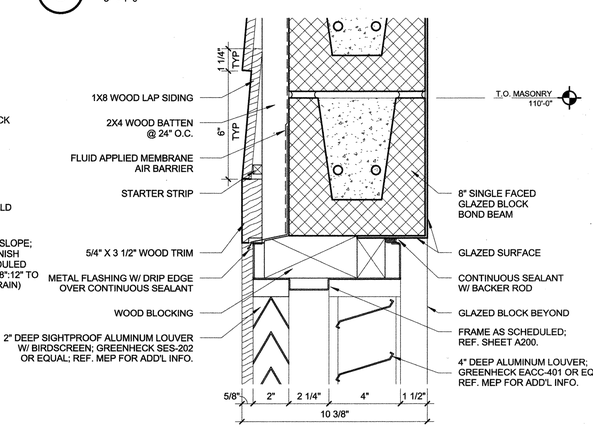
3 LOUVER JAMB DETAIL
3" = 1'-0"



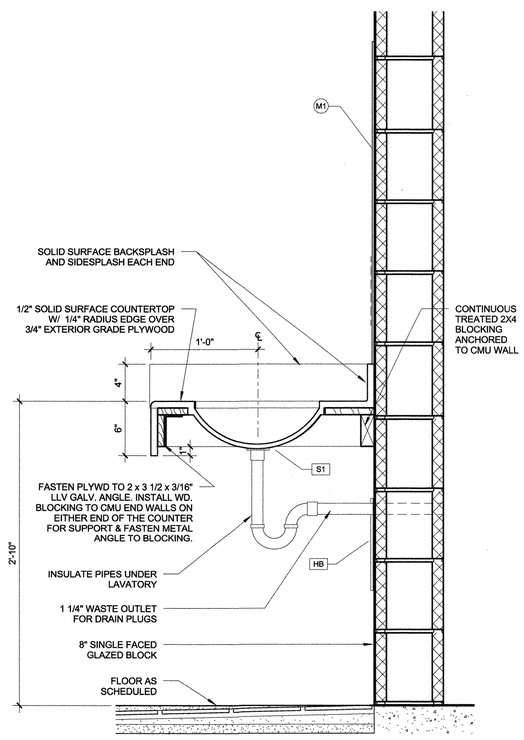
10 SECTION @ BUILT-IN SHELF
3/4" = 1'-0"



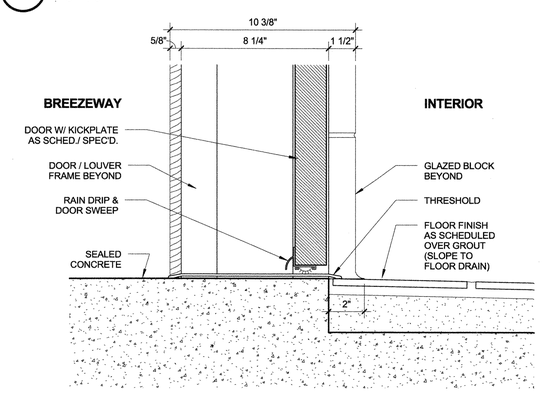
6 DOOR SILL DETAIL @ CHASE
3" = 1'-0"



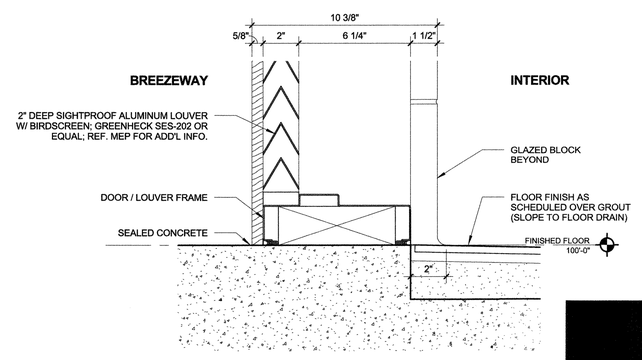
2 LOUVER HEAD DETAIL
3" = 1'-0"



9 ADA LAVATORY DETAIL
1 1/2" = 1'-0"



5 DOOR SILL DETAIL @ BREEZEWAY, TYP.
3" = 1'-0"



1 LOUVER SILL DETAIL
3" = 1'-0"

th+a

TEXAS PARKS & WILDLIFE

08/26/16

REGISTERED ARCHITECT JOHN STAINHOUSE WILLIAMS 16327 STATE OF TEXAS

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: BR
DRAWN BY: JF
REVIEWED BY: BR
REVISED:
REVISED:
REVISED:

SHEET TITLE
DETAILS

SHEET NUMBER
A601
OF 44

ISSUE FOR CONSTRUCTION

C:\Users\jfancher\Documents\Revit Local\2014-044 TPWD Caddo Lake State Park - A15_jfancher.rvt

S T R U C T U R A L N O T E S

COORDINATION

A. THE CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER SERIES DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

B. ONLY LARGER SLEEVE OPENINGS AND FRAMED OPENINGS IN STRUCTURAL FRAMING COMPONENT MEMBERS ARE INDICATED ON THE STRUCTURAL DRAWINGS. HOWEVER, ALL SLEEVES, INSERTS AND OPENINGS, INCLUDING FRAMES AND/OR SLEEVES SHALL BE PROVIDED FOR PASSAGE, PROVISION AND/OR INCORPORATION OF THE WORK OF THE CONTRACT, INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL AND PLUMBING WORK. THIS WORK SHALL INCLUDE THE COORDINATION OF SIZES, ALIGNMENT, DIMENSIONS, POSITION, LOCATIONS, ELEVATIONS AND GRADES AS REQUIRED TO SERVE THE INTENDED PURPOSE. OPENINGS NOT INDICATED ON THE STRUCTURAL DRAWINGS, BUT REQUIRED AS NOTED ABOVE, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

C. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, DRAINS AND LOCATION OF DEPRESSED AND ELEVATED FLOOR AREAS.

D. COMPATIBILITY OF THE STRUCTURE AND PROVISIONS FOR BUILDING EQUIPMENT SUPPORTED ON OR FROM STRUCTURAL COMPONENTS SHALL BE VERIFIED AS TO SIZE, DIMENSIONS, CLEARANCES, ACCESSIBILITY, WEIGHTS AND REACTION WITH THE EQUIPMENT FOR WHICH THE STRUCTURE HAS BEEN DESIGNED PRIOR TO SUBMISSION OF SHOP DRAWINGS AND DATA FOR EACH PIECE OF EQUIPMENT AND FOR STRUCTURAL COMPONENTS. DIFFERENCES SHALL BE NOTED ON THE SUBMITTALS.

E. THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE STRUCTURAL DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS.

F. ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER. TEMPORARY SUPPORTS SHALL NOT RESULT IN THE OVERSTRESS OR DAMAGE OF THE ELEMENTS TO BE BRACED NOR ANY ELEMENTS USED AS BRACE SUPPORTS.

G. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES AND SAFETY MEASURES INCLUDING, BUT NOT LIMITED TO, ADHERENCES TO ALL OSHA GUIDELINES. THE ENGINEER SHALL NOT HAVE CONTROL OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THESE PERSONS TO CARRY OUT THE WORK IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS.

H. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.

I. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF JQ IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION IS NOT INTENDED TO BE A CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER A PERIODIC CHECK IN AN EFFORT TO INFORM THE OWNER AGAINST DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

CODES

A. THE GENERAL BUILDING CODE USED AS THE BASIS FOR THE STRUCTURAL DESIGN IS AS FOLLOWS:

1. INTERNATIONAL BUILDING CODE, 2012 EDITION

B. STRUCTURAL CONCRETE: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE, ACI 318, AS REFERENCED BY THE GENERAL BUILDING CODE.

C. CONCRETE MASONRY: BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE, ACI 530, AS REFERENCED BY THE GENERAL BUILDING CODE.

D. STRUCTURAL STEEL: MANUAL OF STEEL CONSTRUCTION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION INC., THIRTEENTH EDITION, ANSI/AISC 360, AS REFERENCED BY THE GENERAL BUILDING CODE.

E. WOOD FRAMING: NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION WITH SUPPLEMENT, NATIONAL FOREST AND PAPER PRODUCTS ASSOCIATION, AS REFERENCED BY THE GENERAL BUILDING CODE.

F. STRUCTURAL PLYWOOD: PLYWOOD DESIGN SPECIFICATION, AMERICAN PLYWOOD ASSOCIATION, AS REFERENCED BY THE GENERAL BUILDING CODE.

G. PREFABRICATED WOOD I-JOISTS: PRODUCTS SHALL BE TESTED AND QUALIFIED UNDER ASTM D5055 AND CERTIFIED UNDER ICCES AC 14.

DESIGN LOADS

A. DEAD LOADS INCLUDE THE SELF-WEIGHT OF THE STRUCTURAL ELEMENTS AND THE FOLLOWING SUPERIMPOSED LOADS:

1.	CEILING AND MECHANICAL AT ROOF	10 psf
2.	ROOFING AND RIGID INSULATION	8 psf
3.	TOPPING SLAB, PER INCH OF THICKNESS	12.5 psf

B. LIVE LOADS

	OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs.)
1.	PARTITIONS AT AREAS WITH LIVE LOAD OF 80 PSF OR LESS	15	N/A
2.	RESTROOMS	60	2000
3.	ROOF - UNREDUCED	20	N/A

C. SNOW LOADS

1. GROUND SNOW LOAD, Pg — 5 psf

D. WIND LOADS

1. WIND LATERAL LOAD ON STRUCTURAL FRAME IS BASED ON ASCE 7-10 USING THE FOLLOWING:

a.	BASIC WIND SPEED	105 mph
b.	EXPOSURE	C
c.	INTERNAL PRESSURE COEFFICIENT, GCPI	+/-0.18
d.	OCCUPANCY CATEGORY	I

2. COMPONENTS AND CLADDING WIND PRESSURES:

SURFACE	(psf)	ZONE	AREA At (ft2)
EXTERIOR WALLS	+25.5	INTERIOR AND EDGE	10 or less
	-27.7	INTERIOR	10 or less
	-34.2	EDGE	10 or less
	+19.0	INTERIOR AND EDGE	500 or greater
	-21.2	INTERIOR AND EDGE	500 or greater
ROOF	-23.4	INTERIOR	10 or less
	-40.7	EDGES	10 or less
	-60.1	CORNERS	10 or less
	-21.2	INTERIOR	100 or greater
	-47.2	EDGES AND CORNERS	100 or greater

- PRESSURES FOR TRIBUTARY AREAS IN BETWEEN THE LISTED VALUES MAY BE LINEARLY INTERPOLATED.
- NEGATIVE VALUE SIGNIFIES PRESSURE ACTING AWAY FROM THE SURFACE (SUCTION).
- EDGE AND CORNER ZONE DISTANCES SHALL BE DETERMINED IN ACCORDANCE WITH REFERENCED STANDARD.
- PRESSURES ON PARAPETS SHALL BE DETERMINED BY COMBINING POSITIVE AND NEGATIVE WALL PRESSURES OR WALL AND ROOF PRESSURES LISTED ABOVE IN ACCORDANCE WITH THE REFERENCED STANDARD.

* PRESSURES ARE FOR GROSS UPLIFT CONDITIONS. REFER TO ROOF PLAN(S) FOR NET UPLIFT VALUES FOR DESIGN OF JOISTS, JOIST GIRDERS, AND BRIDGING.

E. SEISMIC LOADS

1. THE STRUCTURE AND STRUCTURAL COMPONENTS OF THE BUILDING HAVE BEEN DESIGNED IN ACCORDANCE WITH GENERAL BUILDING CODE WITH THE FOLLOWING CRITERIA:

a.	SEISMIC IMPORTANCE FACTOR, IE	1.0
b.	OCCUPANCY CATEGORY	I
c.	MAPPED SPECTRAL RESPONSE ACCELERATIONS	
	i. Ss (%g)	12.8
	ii. S1 (%g)	7.1
d.	SITE CLASS	D
e.	SPECTRAL RESPONSE COEFFICIENTS	
	i. SDS	13.7
	ii. SD1	11.3
f.	SEISMIC DESIGN CATEGORY	A
g.	BASIC SEISMIC-FORCE-RESISTING SYSTEM	ORDINARY REINFORCED MASONRY SHEAR WALLS
h.	DESIGN BASE SHEAR, V	0.1*W
i.	SEISMIC RESPONSE COEFFICIENT(S), Cs	N/A
j.	RESPONSE MODIFICATION FACTOR(S), R	2
k.	ANALYSIS PROCEDURE USED	SIMPLIFIED PROCEDURE

BUILDING MOVEMENTS

A. THE BUILDING MOVEMENTS SPECIFIED HEREIN ARE ANTICIPATED TO OCCUR AND SHALL BE TAKEN INTO ACCOUNT BY THE CONTRACTOR IN THE DESIGN, DETAILING, AND INSTALLATION OF THE BUILDING ELEMENTS.

B. SPANDREL BEAM DEFLECTIONS: PROVISIONS SHALL BE MADE IN THE BUILDING CLADDING FOR RELATIVE FLOOR TO FLOOR VERTICAL DEFLECTIONS OF L/360.

C. INTERIOR FLOOR/ROOF DEFLECTIONS: PROVISIONS SHALL BE MADE IN INTERIOR PARTITIONS AND OTHER ELEMENTS SUPPORTED BY OR ATTACHED TO THE FLOORS OR ROOFS FOR RELATIVE FLOOR TO FLOOR VERTICAL DEFLECTIONS OF L/240.

D. SLAB-ON-GRADE MOVEMENT: PROVISIONS SHALL BE MADE IN THE BUILDING CLADDING AND INTERIOR PARTITIONS FOR RELATIVE DEFLECTIONS BETWEEN THE SOIL-SUPPORTED SLAB ON GRADE AND THE ROOF OR FLOOR LEVEL DIRECTLY ABOVE. DESIGN OF SOIL SUPPORTED BUILDING SLABS IS BASED ON A RANGE OF [LOWER LIMIT] 0 INCH(ES) TO [UPPER LIMIT] 1 INCH(ES), BASED ON THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT. REFER TO BUILDING PAD PREPARATION NOTES FOR SOIL STABILIZATION UNDER SOIL-SUPPORTED BUILDING SLABS.

E. LATERAL BUILDING DRIFT: PROVISIONS SHALL BE MADE IN BUILDING CLADDING AND OTHER ARCHITECTURAL FINISHES FOR RELATIVE FLOOR TO FLOOR LATERAL DEFLECTIONS OF STORY HEIGHT/400.

BUILDING PAD PREPARATION

A. BUILDING PAD PREPARATION SHALL BE BASED ON THE GEOTECHNICAL REPORT DATED OCT. 20, 2014 BY KLEINFELDER CENTRAL, INC.

B. PRIOR TO PLACING FILL MATERIAL, REMOVE ALL ORGANIC AND OTHER DELETERIOUS MATERIAL FROM THE EXISTING SUBGRADE FOR A DISTANCE OF 3' 0" BEYOND BUILDING LINE. FOLLOWING EXCAVATION, PROOF ROOL THE EXPOSED SUBGRADE WITH EQUIPMENT WEIGHING AT LEAST 25 TONS. REMOVE AND REPLACE ANY SOFT, EXCESSIVELY WET, OR OTHERWISE UNSUITABLE FILL MATERIAL. ALL EXPOSED SURFACES SHALL THEN BE SCARIFIED TO A DEPTH OF 6 INCHES, WATERED AS REQUIRED AND RECOMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM D 698 (STANDARD PROCTOR TEST) AT A MOISTURE CONTENT WITHIN +/- 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.

C. FOLLOWING COMPACTION, EXCAVATED ON-SITE CLAYS OR IMPORTED SELECT FILL SHOULD BE PLACED WITHIN THE BUILDING AREA SO AS TO ACHIEVE A FINISHED BUILDING PAD ELEVATION GREATER THAN THE EXISTING GRADE IN ORDER TO PROVIDE POSITIVE DRAINAGE. THE SELECT FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES AND MOSITURE CONDITIONED TO WITHIN +/- 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PREVIOUSLY STATED

CONCRETE FOOTINGS

A. CONCRETE FOOTING DESIGN IS BASED ON AN ALLOWABLE NET BEARING CAPACITY OF 2,500 PSF IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED OCT. 20, 2014 BY KLEINFELDER CENTRAL, INC.

B. BEARING STRATUM SHOWN ON THE FOOTING DETAILS IS SANDY LEAN CLAY.

C. FOOTINGS NOT SPECIFICALLY LOCATED ON THE PLAN SHALL BE LOCATED ON CENTERLINE OF PILASTER OR COLUMN ABOVE. WHERE NO PILASTER OR COLUMN OCCURS, LOCATE ON CENTERLINE OF WALL OR BEAM.

D. PROVIDE DOWELS FROM FOOTINGS INTO CONCRETE ABOVE USING SAME BAR SIZE AND NUMBER AS SHOWN FOR PILASTER OR COLUMN ABOVE. WHERE NO PILASTER OR COLUMN OCCURS, USE 4 #7 DOWELS. EXTEND DOWELS 30 BAR DIAMETERS INTO PIER AND WALL, BEAM, PILASTER OR COLUMN, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

E. ELEVATION OF TOP OF PLINTHS/FOOTINGS, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, IS AT THE BOTTOM OF THE DEEPEST INTERSECTING BEAM OR WALL SUPPORTED BY THE FOOTING.

F. FOOTING EXCAVATIONS SHALL BE TO NEAT LINES AND SHALL BE FREE OF LOOSE OR WET MATERIALS.

G. FOOTING REINFORCING AND CONCRETE SHALL BE PLACED IMMEDIATELY AFTER EXCAVATIONS ARE COMPLETE; IN NO CASE SHALL A FOOTING BE EXCAVATED THAT CANNOT BE PLACED BY THE END OF THE WORKDAY.

H. REINFORCING STEEL SHOP DRAWINGS SHALL INCLUDE PLACING DRAWINGS FOR TEMPLATES TO SET DOWELS IN FOOTINGS.

I. ALL FOOTINGS SHALL BE INSPECTED IN ORDER TO ENSURE THAT THE PROPOSED BEARING MATERIAL HAS BEEN REACHED IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT AND THAT THE FOOTING HAS BEEN CONSTRUCTED TO SPECIFIED SIZE, WITH DETAILED REINFORCING, AND TO SPECIFIED TOLERANCES.

CAST-IN-PLACE CONCRETE

A. CLASSES OF CONCRETE

ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS AS SPECIFIED IN THE TABLE BELOW, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:

CONCRETE MIX SCHEDULE:

CONC CLASS	STRENGTH psi	AGG. TYPE	AGG. SIZE	SLUMP Inches	MAX w/c	NOTES
A	4500	NWT	1"	5-7	----	

a. "NWT" REFERS TO NORMAL CONCRETE HAVING AIR DRY UNIT WEIGHT OF APPROXIMATELY 145 PCF (ASTM C33 AGGREGATE).

b. WHERE W/C RATIO IS NOT INDICATED IN THE CONCRETE MIX SCHEDULE, IT SHALL BE AS NECESSARY TO MEET STRENGTH REQUIREMENTS.

c. WHERE THE W/C RATIO IS SHOWN, IT SHALL BE ADHERED TO REGARDLESS OF STRENGTH REQUIREMENTS.

d. "STRENGTH" IS REQUIRED COMPRESSIVE CYLINDER STRENGTH AT AN AGE OF 28 DAYS.

MIX USAGE SCHEDULE:

DESCRIPTION OF USE	CONCRETE CLASS	AIR CONTENT
INTERIOR FOOTINGS	A	-----
EXT. GRADE BEAMS & FOOTINGS, SLAB-ON-GRADE, RETAINING WALLS	A	3 - 6%

B. A MAXIMUM OF 30% OF THE CEMENTITIOUS MATERIALS USED IN MIX DESIGNS MAY BE REPLACED WITH CLASS C OR F FLY ASH.

C. PROVIDE 5 PERCENT PLUS OR MINUS 1 1/2 PERCENT OF ENTRAINED AIR IN CONCRETE PERMANENTLY EXPOSED TO THE WEATHER AND ELSEWHERE AT THE CONTRACTOR'S OPTION.

D. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE PLACEMENTS SHALL BE PERMITTED ONLY WHERE INDICATED ON THE STRUCTURAL DRAWINGS. ALL VERTICAL CONSTRUCTION JOINTS SHALL BE MADE IN THE CENTER OF SPANS IN ACCORDANCE WITH THE TYPICAL DETAILS. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS FOR CONSTRUCTION JOINTS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR REVIEW BY THE ARCHITECT AND ENGINEER. ADDITIONAL CONSTRUCTION JOINTS MAY REQUIRE ADDITIONAL REINFORCING AS SPECIFIED BY THE ENGINEER WHICH SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

E. EMBEDDED CONDUITS, PIPES, AND SLEEVES SHALL MEET THE REQUIREMENTS OF ACI 318, SECTION 6.3, INCLUDING THE FOLLOWING:

1. CONDUITS AND PIPES EMBEDDED WITHIN A SLAB, WALL, OR BEAM (OTHER THAN THOSE PASSING THROUGH) SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED.
2. CONDUITS, PIPES AND SLEEVES SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER.

F. CONCRETE PLACEMENTS SHALL NOT EXCEED 10,000 SQUARE FEET OR 100 LINEAR FEET ON EACH SIDE WITHOUT PRIOR APPROVAL BY THE ARCHITECT FOR EACH PLACEMENT.

G. GRADE BEAMS IN CONTACT WITH EARTH SHALL BE FORMED BOTH SIDES UNLESS NOTED OTHERWISE IN DETAILS.

H. CONCRETE SAMPLING FOR QUALITY ASSURANCE: CONCRETE THAT IS PUMPED SHALL BE SAMPLED AT THE POINT OF DISCHARGE FROM THE TRUCK FOR INFORMATION, INCLUDING SLUMP; AND SHALL BE SAMPLED AT THE POINT OF PLACEMENT FOR ACCEPTANCE OF SLUMP AND AIR CONTENT.

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: SC
DRAWN BY: FP
REVIEWED BY: SC
REVISED:
REVISED:
REVISED:

SHEET TITLE
STRUCTURAL NOTES

SHEET NUMBER
S100
1 OF 44

ISSUE FOR CONSTRUCTION

shaping the built environment
JQ ENGINEERING, LLP
100 GLASS STREET
214.752.9098
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JQ PROJECT NO: 3140276
TBPE FIRM F-1294

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
8/26/16

th+a

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S T R U C T U R A L N O T E S

CONCRETE REINFORCING

A. CONCRETE REINFORCEMENT FOR THE PROJECT SHALL CONFORM TO THE FOLLOWING:
   1. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL IN ACCORDANCE ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWINGS OR THESE NOTES.
   2. WELDED REINFORCING STEEL. PROVIDE REINFORCING STEEL CONFORMING TO ASTM A706.

B. DETAILING OF REINFORCING STEEL SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE 315 DETAILING MANUAL AND ALL HOOKS AND BENDS IN REINFORCING BARS SHALL CONFORM TO ACI DETAILING STANDARDS, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

C. WELDED WIRE REINFORCEMENT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED ONE CROSS WIRE SPACING PLUS 2".

D. REINFORCEMENT IN TOPPING SLABS SHALL BE WELDED SMOOTH WIRE REINFORCEMENT MINIMUM 6 X 6 W2.9 X W2.9 IN ALL TOPPING SLABS UNLESS SPECIFIED OTHERWISE ON THE STRUCTURAL DRAWINGS.

E. REINFORCEMENT IN HOUSEKEEPING PADS SHALL BE WELDED SMOOTH WIRE REINFORCEMENT 6 X 6 W2.9 X W2.9 MINIMUM IN ALL HOUSEKEEPING PADS SUPPORTING MECHANICAL EQUIPMENT WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT UNLESS HEAVIER REINFORCEMENT IS CALLED FOR ON THE STRUCTURAL DRAWINGS.

F. IN UNSCHEDULED GRADE BEAMS, WALLS, AND SLABS, DETAIL REINFORCING AS FOLLOWS:
   1. CLASS A LAP BEAM TOP REINFORCING BARS AT MID SPAN.
   2. CLASS A LAP BEAM BOTTOM REINFORCING BARS AT THE SUPPORTS.
   3. PROVIDE CLASS B LAP AT OTHER LOCATION PENDING ENGINEER'S APPROVAL.
   4. PROVIDE STANDARD HOOKS IN TOP BARS AT CANTILEVER AND DISCONTINUOUS ENDS OF BEAMS, WALLS AND SLABS.
   5. PROVIDE CORNER BARS FOR ALL HORIZONTAL BARS AT THE INSIDE AND OUTSIDE FACES OF INTERSECTING BEAMS OR WALLS. CORNER BARS ARE NOT REQUIRED IF HORIZONTAL BARS ARE HOOKED.
   6. PROVIDE 2-#4 DIAGONAL BARS AT ALL SLAB RE-ENTRANT CORNERS PLACED UNDER THE TOP MAT OF STEEL.

G. WELDING OF REINFORCING STEEL WILL NOT BE PERMITTED UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

H. HEAT SHALL NOT BE USED IN THE FABRICATION OR INSTALLATION OF REINFORCEMENT.

I. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS:

1. EARTH-FORMED GRADE BEAMS	1 1/2" top, 3" sides, 3" bottom
2. FOOTINGS	3"
3. FORMED GRADE BEAMS	1 1/2" top, 2" sides, 3" bottom
4. SLAB-ON-GRADE	3/4" top

   a. "EXTERIOR EXPOSURE" REFERS TO CONCRETE EXPOSED TO EARTH OR WEATHER.

STRUCTURAL MASONRY

A. MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (F'M) SHALL BE 1,500 POUNDS PER SQUARE INCH.

B. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. MASONRY CEMENT SHALL NOT BE USED.

C. CONCRETE MASONRY UNITS SHALL BE HOLLOW LOAD BEARING UNITS WHICH CONFORM TO ASTM C90, WITH A MINIMUM NET COMPRESSIVE STRENGTH AS FOLLOWS:

F'm (psi)	NET AREA COMPRESSIVE STRENGTH OF CMU BLOCK (psi)
1500	1900

D. CHASES SHALL BE BUILT IN AND NOT CUT IN. CHASES SHALL BE PLUMB AND SHALL BE MINIMUM ONE UNIT LENGTH FROM JAMBS OF OPENINGS. ANCHORS, WALL PLUGS, ACCESSORIES AND OTHER ITEMS TO BE BUILT IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE THE WORK OF OTHER SECTIONS SHALL BE DONE BY MASONS WITH MASONRY SAWS.

E. REINFORCE CONCRETE MASONRY UNIT JOINTS WITH LADDER TYPE HOT DIP GALVANIZED COLD-DRAWN STEEL CONFORMING TO ANSI/ASTM A82, WITH W1.7 SIDE RODS WITH W1.7 CROSS RODS.
   1. SPACE JOINT REINFORCING AT 16 INCHES O.C. UNLESS NOTED OTHERWISE.
   2. LAP JOINT REINFORCING 14 INCHES AT SPLICES.
   3. PROVIDE PREFABRICATED JOINT REINFORCING CORNER PIECES AT ALL WALL CORNERS AND INTERSECTIONS.
   4. JOINT REINFORCING SHALL BE DISCONTINUOUS AT CONTROL AND EXPANSION JOINTS.

F. LAP REINFORCING BARS IN GROUTED MASONRY AS NOTED BELOW. SPLICES IN REINFORCING SHALL BE STAGGERED SO THAT NOT MORE THAN 1/2 OF ALL BARS ARE SPLICED AT THE SAME LOCATION.

1. VERTICAL BARS:	60 BAR DIAMETERS
2. BOND BEAMS:	40 BAR DIAMETERS
3. LINTELS:	DO NOT SPLICE

STRUCTURAL MASONRY CONT.

G. Z-TIES SHALL BE PROVIDED IN ALL MASONRY SURFACES USED AS A FORM FOR GROUT AT 16 INCHES ON CENTER EACH WAY IN VERTICAL MASONRY SURFACES AND AT 8 INCHES ON CENTER EACH WAY IN HORIZONTAL MASONRY SURFACES. THE LEG EMBEDDED IN THE MASONRY JOINT SHALL HAVE ITS HOOK PLACED 3/4 INCH FROM THE OUTSIDE FACE OF THE MASONRY.

H. Z-TIES SHALL BE MANUFACTURED FROM 3/16 INCH DIAMETER COLD DRAWN WIRE. TIES SHALL BE HOT DIP GALVANIZED, 6 INCHES LONG WITH A 2 INCHES HOOK AT EACH END, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

I. PROVIDE 1 INCH CLEAR COVER BETWEEN TIES OR LONGITUDINAL REINFORCING AND THE INSIDE FACE OF MASONRY USED AS FORMS IN GROUTED BEAMS, PILASTERS AND COLUMNS.

POST-INSTALLED ANCHORS AND DOWELS

A. EXPANSION ANCHORS:
   1. IN CONCRETE: EXPANSION ANCHORS SHALL BE ONE OF THE FOLLOWING:
      a. KWIK BOLT TZ, HILTI INC.
      b. STRONG BOLT 2, SIMPSON STRONG-TIE CO., INC.
   2. IN GROUTED MASONRY: INSTALLATION SHALL NOT BE ALLOWED WITHIN 1 1/2 INCHES OF A HEAD (VERTICAL) MORTAR JOINT. QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING PRODUCTS:
      a. KWIK BOLT 3, HILTI INC.
      b. WEDGE-ALL, SIMPSON STRONG-TIE CO., INC.
      c. STRONG-BOLT 2, SIMPSON STRONG-TIE CO., INC.

B. SCREW ANCHORS:
   1. IN CONCRETE: QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING:
      a. KWIK HUS-EZ, HILTI INC.
      b. TITEN HD, SIMPSON STRONG-TIE CO., INC.
   2. IN GROUTED MASONRY: INSTALLATION PERMITTED IN BOTH THE TOP AND FACE OF WALL. QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING PRODUCTS:
      a. TITEN HD, SIMPSON STRONG-TIE CO., INC.
      b. KWIK HUS-EZ AND HUS-EZ I, HILTI INC.

C. UNDERCUT ANCHORS:
   1. QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING:
      a. HDA, HILTI INC.
      b. TORQ-CUT, SIMPSON STRONG-TIE CO., INC.

D. ADHESIVE ANCHORS WITH THREADED ROD:
   1. IN CONCRETE: QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING PRODUCTS:
      a. EPOXY: HIT-RE 500-SD, HILTI INC.
      b. EPOXY: SET-XP, SIMPSON STRONG-TIE CO., INC.
      c. ACRYLIC: HIT-HY 200 SAFE SET ADHESIVE WITH HIT-Z ANCHOR OR HOLLOW DRILL BIT WITH HAS ANCHOR, HILTI INC.
      d. ACRYLIC: AT-XP (IAPMO-ER-0281), SIMPSON STRONG-TIE CO., INC.
   2. IN GROUTED CONCRETE MASONRY: INSTALLATION PERMITTED IN THE TOP AND FACE OF WALL. QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING:
      a. ACRYLIC: HIT-HY 200 A OR R, HILTI INC.
      b. EPOXY: SET, SIMPSON STRONG-TIE CO., INC.
      c. ACRYLIC: AT-XP, SIMPSON STRONG-TIE CO., INC.
   3. IN UNGROUTED CONCRETE MASONRY:
      a. EPOXY: SET, SIMPSON STRONG-TIE CO., INC.
      b. ACRYLIC: HIT HY-70, HILTI, INC.
   4. THREADED ANCHOR ROD SHALL BE ONE OF THE FOLLOWING:
      a. HILTI ADHESIVE: "HIT-Z" AISI 1038
      b. SIMPSON ADHESIVE: STEEL MEETING THE REQUIREMENTS OF ASTM A1554, GRADE 36.
      c. ANCHOR ROD SHALL HAVE A CHAMFERED END ON ONE END TO ACCEPT A NUT AND WASHER; IT MAY HAVE A 45-DEGREE CHISEL POINT ON THE OTHER END.

E. ADHESIVE REBAR DOWELLING
   1. QUALIFYING ANCHORS SHALL BE ONE OF THE FOLLOWING PRODUCTS:
      a. EPOXY: HIT-RE 500-SD, HILTI INC.
      b. EPOXY: SET-XP, SIMPSON STRONG-TIE CO., INC.
      c. ACRYLIC: HIT-HY 200 SAFE SET WITH HOLLOW DRILL BIT, HILTI, INC.

F. ANCHOR AND DOWEL INSTALLATION
   1. ANCHORS AND DOWELS OF THE SIZE AND EMBEDMENT SHOWN ON THE DRAWINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT FOR THE ANCHOR. IF CONFLICTS EXIST BETWEEN THESE REFERENCED DOCUMENTS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.

G. FOR ADHESIVE ANCHORS INSTALLED IN A HORIZONTAL ORIENTATION SUBJECT TO SUSTAINED TENSION LOADING AND ALL UPWARDLY INCLINED (INCLUDING SOFFIT INSTALLATIONS) ORIENTATION:
   1. PER ACI 318-11 (D.9.2.2): INSTALLATION SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY ACI/CRSI "ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM." CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS.

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CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
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SHEET TITLE
STRUCTURAL NOTES

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S T R U C T U R A L N O T E S

TIMBER FRAMING

A. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, ALL STRUCTURAL FRAMING LUMBER SHALL BE CLEARLY MARKED NO. 2 SOUTHERN YELLOW PINE OR DOUGLAS FIR.

B. WOOD PRESERVATIVE TREATED LUMBER (PRESSURE TREATED):
   1. PRESERVATIVE TREATED LUMBER SHALL BE SOUTHERN YELLOW PINE AND SHALL BE TREATED AS DESCRIBED BELOW.
   2. PRESERVATIVE TREATMENT BY PRESSURE PROCESS SHOULD BE PERFORMED ACCORDING TO THE AWPA METHODS DESCRIBED BELOW. THE PRESERVATIVE CHEMICALS SHALL BE WATERBORNE AND CAN INCLUDE ALKALINE COPPER QUAT (ACQ-C, ACQ-D) AND COPPER AZOLE (CBA-C & CA-B) FOR INTERIOR OR EXTERIOR USES AND INORGANIC BORON (SBX) FOR INTERIOR USE ONLY. PRESERVATIVE SHALL NOT CONTAIN ARSENIC OR CHROMIUM AND SHALL NOT CONTAIN AMMONIA CARRIERS.
   3. WOOD INSTALLED FOR ABOVE GROUND USE SHALL BE PRESERVATIVE TREATED USING WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U2, USE CATEGORY UC3B. THE LOCATIONS TO BE TREATED ARE AS FOLLOWS:
      a. WOOD FRAMING MEMBERS INCLUDING WOOD SHEATHING WHICH REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8INCHES FROM THE EXPOSED EARTH.
      b. WOOD FRAMING MEMBERS OR FURRING STRIPS ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR OR CONCRETE WALLS BELOW GRADE.
      c. WOOD GIRDER ENDS SUPPORTED BY EXTERIOR MASONRY OR CONCRETE WALLS UNLESS 1/2 INCH AIRSPACE IS PROVIDED ON TOP, SIDES, AND END.
   4. WOOD IN CONTACT WITH GROUND (EXPOSED EARTH) OR FRESH WATER SHALL BE PRESERVATIVE TREATED USING WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1, WITH USE CATEGORY UC4C.
   6. OTHER WOOD MEMBERS NOTED IN THE DRAWINGS SHALL BE PRESERVATIVE TREATED USING WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 WITH USE CATEGORY UC3A.

C. ALL WOOD HEADERS, BEAMS, AND TOP PLATES SHALL BE NO. 2 SOUTHERN YELLOW PINE OR DOUGLAS FIR.

D. ROOF SHEATHING: 1/2" APA RATED SHEATHING WITH AN EXPOSURE 1 RATING. PANELS SHALL BE CONTINUOUS OVER TWO OR MORE SPANS WITH THE LONG DIMENSION ORIENTED PERPENDICULAR TO THE FRAMING MEMBERS. NAIL WITH 8D COMMON NAILS AT 6" ON CENTER AT SUPPORTED EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS. STAGGER JOINTS IN SHEATHING.

E. SOLID 2X BLOCKING OR BANDBOARD SHALL BE PROVIDED AT SUPPORTS AND CANTILEVER ENDS OF ALL WOOD JOISTS, AND BETWEEN SUPPORTS IN ROWS NOT EXCEEDING 8'-0" APART.

F. UNLESS NOTED OTHERWISE, ALL FRAMING MEMBERS FRAMING INTO THE SIDE OF A HEADER SHALL BE ATTACHED USING METAL JOIST HANGERS OF TYPE "LU" AS MANUFACTURED BY THE SIMPSON COMPANY OR EQUAL. THE HANGER SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SIZE OF JOIST SUPPORTED.

G. NAILING AND ATTACHMENT OF ALL FRAMING MEMBERS AND SHEATHING SHALL BE AS SPECIFIED IN THE INTERNATIONAL BUILDING CODE NAILING SCHEDULE UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. COMMON WIRE NAILS OR SPIKES, OR GALVANIZED BOX NAILS SHALL BE USED FOR ALL FRAMING UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

H. SIMPSON STRONG TIE STEEL CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL THE FOLLOWING COMPOSITION/ FINISH:

USAGE	TYPE OF PRESERVATIVE RETENTION LEVEL	SIMPSON FINISH
INTERIOR	SBX/DOT	G90
INTERIOR/EXTERIOR	ACQ (All) / 0.40 pcf (max)	HDG / ZMAX
INTERIOR/EXTERIOR	CBA-A / 0.41 pcf (max)	HDG / ZMAX
INTERIOR/EXTERIOR	CA-B / 0.21 pcf (max)	HDG / ZMAX

UNCERTAIN OR RETENTION LEVELS GREATER THAN NOTED ABOVE WILL REQUIRE TYPE 304 OR 316 STAINLESS STEEL CONNECTORS AND FASTENERS.

I. AS AN ALTERNATE, PLATES MAY BE ATTACHED TO CONCRETE FOUNDATION ELEMENTS WITH POWER ACTUATED FASTENERS. PROVIDE WASHERS AT LEAST 0.08 INCHES THICK, AND 1.1 INCHES SQUARE OR 1.425 INCHES IN DIAMETER AT EACH FASTENER. FASTENERS SHALL BE 3" LONG AND SHALL HAVE A MINIMUM SHANK DIAMETER OF 0.145 INCHES. PROVIDE TWO FASTENERS LOCATED 6 AND 10 INCHES FROM THE END OF EACH SILL PLATE PIECE, AND THEN AT A MAXIMUM SPACING OF 18 INCHES ON CENTER MAXIMUM AT EXTERIOR WALLS AND AT INTERIOR PARTY WALLS. AT INTERIOR NON-LOAD BEARING PARTITIONS, FASTENERS MAY BE SPACED AT 36" ON CENTER, MAXIMUM. FASTENERS SHALL BE HILTI X-CR 72P8 PINS OR EQUAL. SUBMIT MANUFACTURER'S INFORMATION ON FASTENER TO BE USED PRIOR TO START OF CONSTRUCTION.

J. PROVIDE DOUBLE JOISTS UNDER ALL INTERIOR PARTITION WALLS ORIENTED PARALLEL TO THE JOISTS.

K. ALL BOLTS AND LAG SCREWS SHALL HAVE STANDARD WASHERS. ALL ANCHOR AND EXPANSION BOLTS USED IN WOOD TO CONCRETE CONNECTIONS SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL.

L. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WOOD FRAMING MEMBERS. PROVIDE ADDITIONAL WOOD FRAMING MEMBERS SHOWN ON THE ARCHITECTURAL DRAWINGS EVEN THOUGH THEY MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.

STRUCTURAL ABBREVIATIONS

ABOVE	- ABV.
ABOVE FINISHED FLOOR	- A.F.F.
ADDITIONAL	- ADDN'L.
ADHESIVE	- ADH.
ADJACENT	- ADJ.
AGGREGATE	- AGGR.
AIR CONDITIONER	- A/C
AIR HANDLING UNIT	- AHU
ALTERNATE	- ALT.
AMERICAN CONCRETE INSTITUTE	- A.C.I.
AMERICAN INSTITUTE OF STEEL CONSTRUCTION	- A.I.S.C.
ANCHOR BOLT	- A.B.
AND	- &
ANGLE	- L
APPROVED	- APPD.
APPROXIMATE	- APPROX.
ARCHITECT	- ARCH.
ARCHITECTURAL	- ARCH'L.
ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	- A.E.S.S.
ARCHITECTURALLY EXPOSED CONCRETE	- A.E.C.
AT	- @
BACK FACE	- B.F.
BACK TO BACK	- B. TO B.
BASEMENT	- BSMT.
BEAM	- BM.
BEARING	- BRG.
BELOW FINISH FLOOR	- B.F.F.
BETWEEN	- BTWN.
BEVEL(ED)	- BEV(D)
BLOCK	- BLK.
BLOCK LINTEL	- B.L.
BLOCKING	- BLKG.
BOTTOM	- BOT.
BOTTOM OF	- B.O.
BOTTOM OF STEEL	- B.O.S.
BRACKET	- BRKT.
BRIDGLEDGE	- BR L.
BRIDGING	- BRDG.
BUILDING	- BLDG.
CAMBER	- C
CAST-IN-PLACE	- C.I.P.
CEILING	- CLG.
CENTER LINE	- C.L.
CENTER OF GRAVITY	- C.G.
CENTER OF GRAVITY OR STRAND	- C.G.S.
CLEAR OR CLEARANCE	- CLR.
COLD FORMED STEEL	- CFS
COLUMN	- COL.
COMPRESSION	- C OR COMP.
CONCRETE	- CONC.
CONCRETE MASONRY UNIT	- CMU
CONNECTION(S)	- CONN(S)
CONTINUOUS	- CONT.
CONTRACTOR	- CONTR.
CONTROL JOINT	- C.J.
CONSTRUCTION	- CONST.
CONSTRUCTION JOINT	- CONST. JT.
COORDINATE	- COORD.
COVER PLATE	- COV. PL.
DETAIL	- DTL.
DEAD LOAD	- D.L.
DEFORMED BAR ANCHOR	- D.B.A.
DIAGONAL	- DIAG.
DIAMETER	- DIA. OR Ø
DIMENSION(S)	- DIM(S).
DOUBLE	- DBL.
DOUBLE EXTRA STRONG	- XX-STR
DOVETAIL	- DVTL.
DOWEL(S)	- DWL(S).
DOWNSPOUT	- DS.
DRAWING(S)	- DWG(S).
EACH	- EA.
EACH FACE	- E.F.
EACH WAY	- E.W.
ELECTRICAL	- ELEC.
ELEVATION	- EL.
ELEVATOR	- ELEV.
EMBEDMENT	- EMBED.
ENGINEER	- ENGR.
EQUAL	- EQ.
EQUIPMENT	- EQUIP.
EXHAUST FAN	- EF
EXISTING	- EXIST.
EXPANSION	- EXP.
EXPANSION JOINT	- E.J.
EXTERIOR	- EXT.
EXTRA STRONG	- X-STR
FACE TO FACE	- F. TO F.
FABRICATOR	- FABR.
FAR SIDE	- F.S.
FIELD VERIFY	- F.V.
FINISH(ED)	- FIN(D)
FINISHED FLOOR	- FIN.FL.
FIREPROOF(ING)	- FP.
FLANGE	- FLG.
FLOOR	- FL.
FLOOR DRAIN	- F.D.
FOOT(OR)/FEET	- FT.
FOUNDATION	- FDN.
FRAMING	- FRMG
GAGE OR GAUGE	- GA.
GALVANIZED	- GALV.
GENERAL CONTRACTOR	- G.C.
GRADE	- GR.
GRADE BEAM	- GR.BM.

HEADED STUD ANCHOR	- H.S.A.
HEIGHT	- HT.
HIGH POINT	- H.P.
HOLLOW STRUCTURAL SECTION	- HSS
HOOK	- HK.
HORIZONTAL	- HORIZ.
HORIZONTAL BRACE	- H.B.
HOT-DIP	- H.D.
INCH	- IN.
INFORMATION	- INFO.
INSIDE DIAMETER	- I.D.
INSIDE FACE	- I.F.
INTERIOR	- INT.
INTERMEDIATE	- INTERM.
JOINT	- JT.
JOIST(S)	- JST(S)
JOIST GIRDER	- J.G.
KIPS(1000 LBS)	- K
KIP PER LINEAR FOOT	- KLF
KIP PER SQUARE FOOT	- KSF
KIP PER SQUARE INCH	- KSI
LENGTH	- L.
LIGHTWEIGHT	- LWT.
LIGHTWEIGHT CONCRETE	- L.W.C.
LIVE LOAD	- L.L.
LOCATION	- LOC.
LONGITUDINAL	- LONG.
LONG LEG HORIZONTAL	- LLH
LONG LEG VERTICAL	- LLV
LONG SIDE HORIZONTAL	- LSH
LONG SIDE VERTICAL	- LSV
LONG SLOTTED HOLE	- LSL
LOW POINT	- L.P.
MANUFACTURE(R)	- MFR.
MASONRY	- MAS.
MATERIAL	- MAT.
MAXIMUM	- MAX.
MECHANICAL	- MECH.
MECHANICAL, ELECTRICAL, PLUMBING	- MEP
METAL	- MTL.
MEZZANINE	- MEZZ.
MIDDLE	- MID.
MINIMUM	- MIN.
MISCELLANEOUS	- MISC.
MOMENT	- M
MOMENT CONNECTION(S)	- M.C.
NEAR FACE	- N.F.
NOMINAL	- NOM.
NON-SHRINK	- N.S.
NOT IN CONTRACT	- N.I.C.
NOT TO SCALE	- N.T.S.
NUMBER	- NO. OR #
ON CENTER	- O.C.
OPENING(S)	- OPNG(S)
OPPOSITE	- OPP.
OPPOSITE HAND	- O.H.
OUTSIDE FACE	- O.F.
OUTSIDE DIAMATER	- O.D.
OVER-SIZED HOLE	- OVS
PAN	- P
PANEL JOINT	- P.J.
PARALLEL	- PAR.
PERPENDICULAR	- PERP.
PIECE	- PC.
PLATE	- PL.
POINT	- PT.
POST-TENSION(ED)	- P-T
POUNDS	# OR LBS.
POUNDS PER CUBIC FOOT	- PCF
POUNDS PER LINEAR FOOT	- PLF
POUNDS PER SQUARE FOOT	- PSF
POUNDS PER SQUARE INCH	- PSI
PRECAST CONCRETE	- P/C
PRE-ENGINEERED METAL BUILDING	- P.E.M.B.
PREFABRICATED	- PREFAB.
PRELIMINARY	- PRELIM.
PRESSURE TREATED	- P.T.
PROJECTION	- PROJ.
QUANTITY	- QTY.
RADIUS	- R
REINFORCED CONCRETE PIPE	- RCP
REINFORCE(ING)(ED)(MENT)	- REINF.
REMAINDER	- REM.
REQUIRE	- REQ.
REQUIRED	- REQD.
RETENTION SYSYTEM	- RET.SYS.
RISER	- RIS.
ROOF	- RF.
ROOF DRAIN	- R.D.
ROOF TOP UNIT	- R.T.U.
ROOM	- RM.
ROUGH OPENING	- R.O.
ROUND	- RND.

SCHEDULE(D)	- SCHED.
SECTION	- SECT.
SHEAR	- V
SHEET	- SHT.
SHORT SLOTTED HOLE	- SSL
SIDEWALK	- SW.
SIMILAR	- SIM.
SLAB ON GRADE	- S.O.G.
SPACE	- SPA.
SPECIFICATIONS(S)	- SPEC(S)
SPECIFIED	- SPEC'D
SQUARE	- SQ.
SQUARE FOOT	- S.F.
STAGGERED	- STAGG.
STAINLESS STEEL	- S.S.
STANDARD	- STD.
STEEL	- STL.
STEEL JOIST INSTITUTE	- S.J.I.
STIFFENER	- STIFF
STRAIGHT	- STR.
STIRRUPS	- STIRR.
STRUCTURAL	- STRUCT'L
STRUCTURE	- STRUCT.
SUBCONTRACTOR	- SUBCONTR.
SUPPORT(S)	- SUPT(S).
TEMPERATURE	- TEMP.
TENSION	- T
TERRAZZO	- TERR.
THICK	- THK.
THREAD(ED)	- THRD.
TONGUE AND GROOVE	- T&G
TOP AND BOTTOM	- T&B
TOP OF	- T.O.
TOP OF BEAM	- T.O.B.
TOP OF CONCRETE	- T.O.C.
TOP OF FOOTING	- T.O.F.
TOP OF JOIST	- T.O.J.
TOP OF PIER	- T.O.P.
TOP OF PIER (PIPLE) CAP	- T.O.P.C.
TOP OF STEEL	- T.O.S.
TOP OF WALL	- T.O.W.
TRANSVERSE	- TRANSV.
TREAD	- TR.
TYPICAL	- TYP.
UNLESS NOTED OTHERWISE	- U.N.O.
VERTICAL	- VERT.
VERTICAL BRACE	- V.B.
WATERPROOFING	- WPFG.
WATERSTOP	- WS.
WEIGHT	- WT.
WELDED WIRE MESH	- W.W.M.
WIDTH	- W.
WIND LOAD	- W.L.
WINDOW	- WDW.
WITH	- W/
WITHOUT	- W/O
WOOD	- WD.
WORK POINT	- W.P.

TEXAS PARKS & WILDLIFE

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SPECIAL INSPECTIONS TABLES FOR STRUCTURAL ELEMENTS

SPECIAL INSPECTIONS

1. Special inspections shall be performed in accordance with Chapter 17 of the 2012 International Building Code (IBC) by a Special Inspector contracted by the Owner to perform the Special Inspections listed below. The Special Inspector shall be qualified by an approved agency according to the City's building official to perform the special inspections for which they will be undertaking. The Contractor shall coordinate with and notify the Special Inspector of all tests. The Special Inspector shall be responsible to verify that the items detailed in the Construction Documents were built accordingly and shall prepare, sign, and furnish inspection reports to the building official and the Architect for all time spent at the site. The inspector shall bring discrepancies to the immediate attention of the General Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the Architect prior to the completion of that phase of the work. These special inspections are in addition to the other inspections listed in these Structural Notes or Project Specifications.

VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION (IBC TABLE 1705.3)

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY		REFERENCED STANDARD	IBC REFERENCE
		CONTINUOUS	PERIODIC		
YES	1. Inspection of reinforcing steel, including prestressing tendons, and placement.	--	X	ACI 318: 3.5, 7.1-7.7	1910.4
NO	2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b.	--	--	AWS D1.4 ACI 318: 3.5.2	--
NO	3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.	--	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
NO	4. Inspection of adhesive anchors installed in hardened concrete. Special inspector must be certified by ACI/CRSI "Adhesive Anchor Installer. A report must be submitted to the licensed design professional and building official documenting, stating how anchor was installed and the manufacturer's printed installation instructions per ACI 318-11 (D.9.2.2 and D.9.2.4)	X	--	ACI 318: Appendix D	1909.1
YES	5. Inspection of mechanical anchors installed in hardened concrete.	--	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
YES	6. Verifying use of required design mix.	--	X	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
YES	7. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	--	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
YES	8. Inspection of concrete and shotcrete placement for proper application techniques.	X	--	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
YES	9. Inspection for maintenance of specified curing temperature and techniques.	--	X	ACI 318: 5.11-5.13	1910.9
	10. Inspection of prestressed concrete:				
NO	a. Application of prestressing forces:	X	--	ACI 318: 18.20 ACI 318: 18.18.4	--
NO	b. Grouting of bonded prestressing tendons in the seismic-force-resisting system:	X	--		
NO	11. Erection of precast concrete members.	--	X	ACI 318: Ch. 16	--
NO	12. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	--	X	ACI 318: 6.2	--
YES	13. Inspect formwork for shape, location and dimensions of the concrete members being formed.	--	X	ACI 318: 6.1.1	--

LEVEL B VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION (ACI 530 Table 1.18.2)

SPECIAL INSPECTION REQUIRED	VERIFICATION, INSPECTION AND TESTING	INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
	MINIMUM TESTS		
YES	Verification of Slump flow and VSI as delivered to the site in accordance with Article 1.5 B.1.b.3 for self-consolidating grout	--	--
YES	Verification of f'_m and f'_{AAC} prior to construction, except where specifically exempted by this Code	--	--
	INSPECTION TASKS		
YES	1. Verify compliance with the approved submittal	--	X
	2. As masonry construction begins, verify that the following are in compliance:		
YES	a. Proportions of site-prepared mortar	--	X
YES	b. Construction of mortar joints	--	X
YES	c. Grade and size of prestressing tendons and anchorages	--	X
YES	d. Location of reinforcement, connectors, and prestressing tendons and anchorages	--	X
NO	e. Prestressing technique	--	X
	3. Prior to grouting, verify that the following are in compliance:		
YES	a. Grout space	--	X
YES	b. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	--	X
YES	c. Placement of reinforcement, connectors and prestressing tendons and anchorages	--	X
YES	d. Proportions of site-prepared grout and prestressing grout for bonded tendons	--	X
YES	e. Construction of mortar joints	--	X
	4. Verify during construction:		
YES	a. Size and location of structural elements	--	X
YES	b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction	--	X
NO	c. Welding of reinforcement	X	--
YES	d. Preparation, construction and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))	--	X
NO	e. Application and measurement of prestressing force	X	--
NO	f. Placement of grout and prestressing grout for bonded tendons is in compliance	X	--
YES	5. Observe preparation of grout specimens, mortar specimens and/or prisms	--	X

VERIFICATION AND INSPECTION OF WOOD (IBC 1705.5)

SPECIAL INSPECTION REQUIRED	VERIFICATION, INSPECTION AND TESTING	INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
NO	1. Fabrication process of prefabricated wood structural elements and assemblies shall be in accordance with IBC 1704.2.5 and local amendments	--	X
	2. Inspect lateral resisting elements, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs for the following:		
YES	a. Grade and thickness of framing members on building plans.	--	X
NO	b. Nominal size of framing members at adjoining panel edges for diaphragms and shear walls.	--	X
NO	c. Nail or staple diameter and length for diaphragms and shear walls.	--	X
NO	d. Number of fastener lines and the spacing between fasteners in each line and at edge margins	--	X
YES	e. Bolting, anchoring, and other fastening of components.	--	X
	3. Trusses with clear span 60'-0" or greater, inspector shall verify the following:		
NO	a. Temporary installation restraint/bracing installed per approved truss submittal.	X	--
NO	b. Permanent individual truss member restraint/bracing installed per approved truss submittal.	X	--

REQUIRED VERIFICATION AND INSPECTION OF SOILS

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
YES	1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	--	X
YES	2. Verify excavations are extended to proper depth and have reached proper material.	--	X
YES	3. Perform classification and testing of controlled fill materials.	--	X
YES	4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	--
YES	5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	--	X

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: SC
DRAWN BY: FP
REVIEWED BY: SC
REVISED:
REVISED:
REVISED:

SHEET TITLE
SPECIAL INSPECTIONS

SHEET NUMBER
S103
4 OF 44

ISSUE FOR CONSTRUCTION

shaping the built environment
JQ ENGINEERING, LLP
320 GLASS STREET
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JQENG.COM
JQ PROJECT NO: 31402276
TBPE FIRM F-1294
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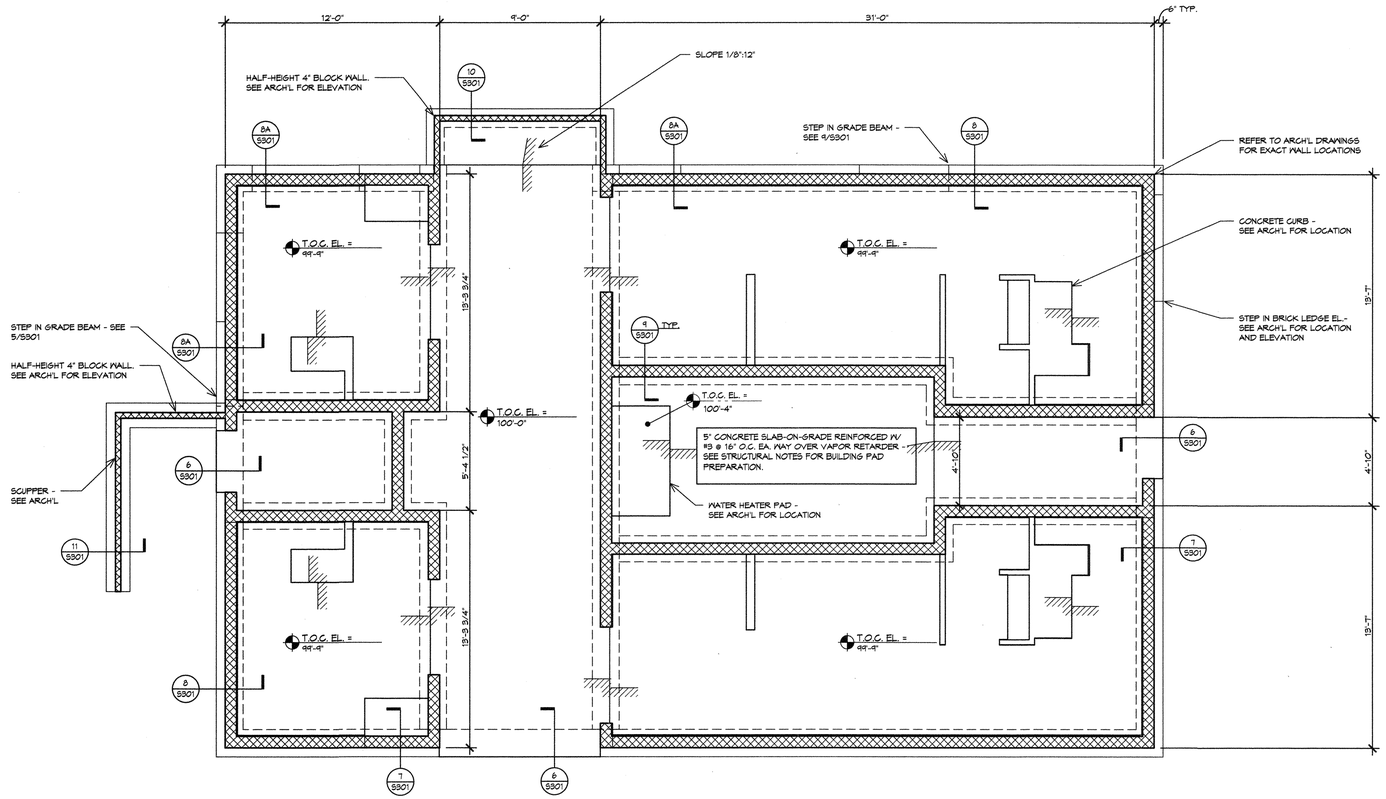

north

1 FOUNDATION PLAN

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

PLAN NOTES:

1. FINISH FLOOR ELEVATION = 100'-0" UNLESS NOTED OTHER WISE. ACTUAL ELEVATION 188.20' (PER CIVIL) = 100'-0"
2. REFER TO ARCHITECTURAL FOR EXACT LOCATIONS OF FLOOR RECESSES, DROPS, AND SLOPES NOT DIMENSIONED ON PLAN.
3. REFER TO CIVIL DRAWINGS FOR GRADING AND PAVING.
4. FOUNDATION ELEMENTS NOT DIMENSIONED ON PLAN SHALL BE CENTERED UNDER WALLS. SEE ARCHITECTURAL DRAWINGS FOR EXACT WALL LOCATIONS.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	SLAB OR DECK SPAN DIRECTION
	DROP IN SLAB OR DECK
	DROP AND SLOPE IN SLAB OR DECK
	SLOPE IN SLAB OR DECK
	MASONRY WALL
	WINDOW IN MASONRY WALL
	DOOR IN MASONRY WALL

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK

REPLACE CAMPING AREA RESTROOM

PROJECT NUMBER:115900

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SHEET TITLE

FOUNDATION PLAN

SHEET NUMBER

S200

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ISSUE FOR CONSTRUCTION

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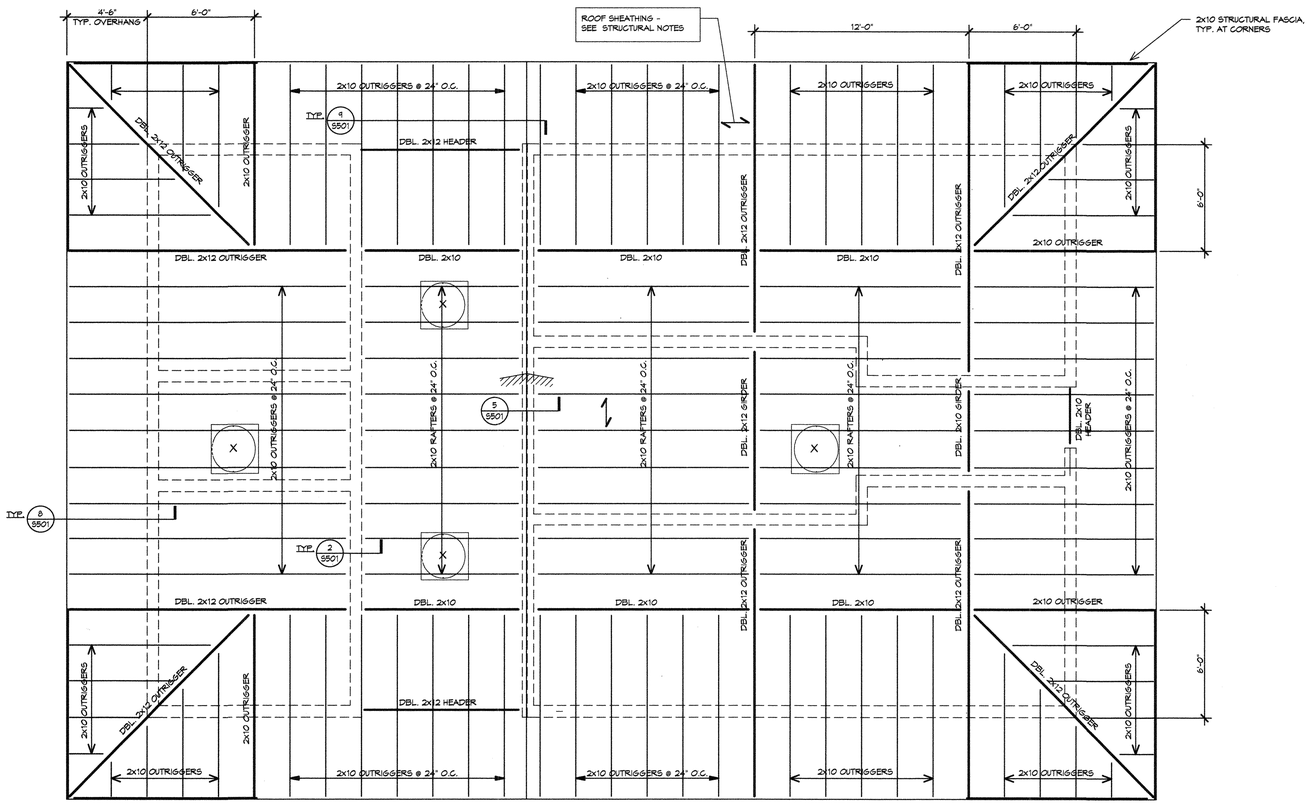

north

1 ROOF FRAMING PLAN

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

PLAN NOTES:

1. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATION AND DIMENSIONS OF ROOF PENETRATIONS.
2. SKYLIGHTS DENOTED BY "X" SHALL BE CENTERED BETWEEN AND NOT INTERFERE WITH STRUCTURAL FRAMING.

SYMBOLS LEGEND	
SYMBOL	DESCRIPTION
	SLAB OR DECK SPAN DIRECTION
	DROP IN SLAB OR DECK
	DROP AND SLOPE IN SLAB OR DECK
	SLOPE IN SLAB OR DECK
	MASONRY WALL
	WINDOW IN MASONRY WALL
	DOOR IN MASONRY WALL

TEXAS PARKS & WILDLIFE

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SHEET TITLE
ROOF FRAMING PLAN

SHEET NUMBER
S201
6 OF 44

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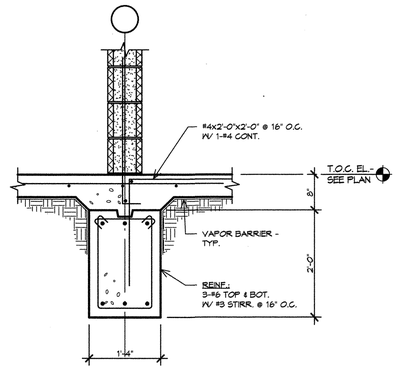
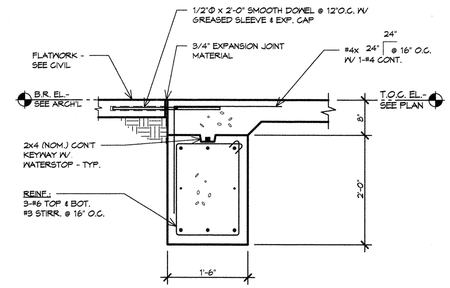
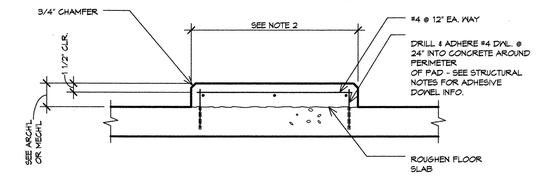


9 TYPICAL GRADE BEAM DETAIL
SCALE: 3/4" = 1'-0"



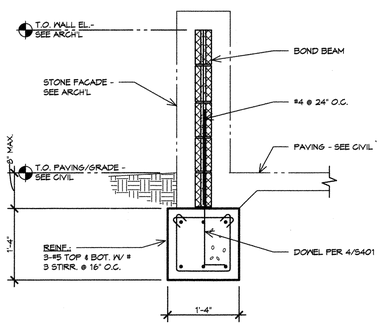
6 TYPICAL SECTION AT OPENING
SCALE: 3/4" = 1'-0"



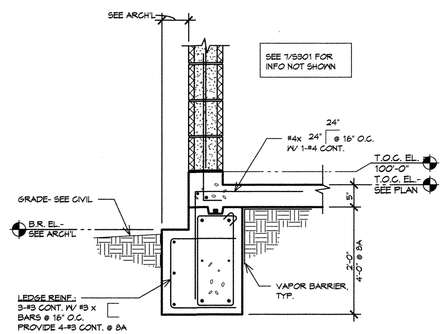
NOTES:

1. EQUIPMENT PADS TO BE PROVIDED UNDER EQUIPMENT SUPPORTED ON SLAB-ON-GRADE OR ELEVATED SLABS.
2. COORDINATE MECHANICAL PAD SIZE, LOCATION AND EMBEDDED ITEMS WITH MEP DRAWINGS AND EQUIPMENT MANUFACTURER.

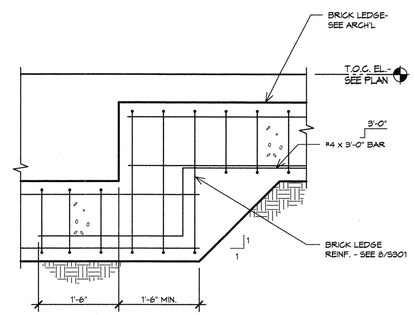
3 TYPICAL MECHANICAL EQUIPMENT PAD DETAIL
NO SCALE



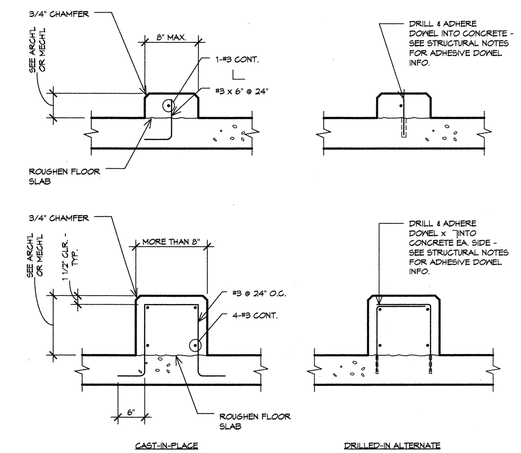
11 SECTION
SCALE: 3/4" = 1'-0"



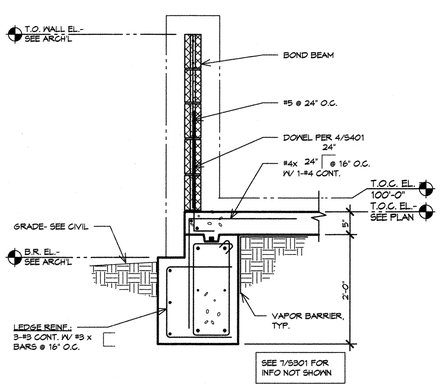
8, 8A TYPICAL PERIMETER SECTION AT GRADE
SCALE: 3/4" = 1'-0"



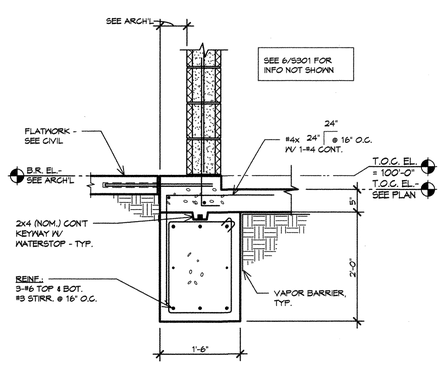
5 TYPICAL STEP IN GRADE BEAM
NO SCALE



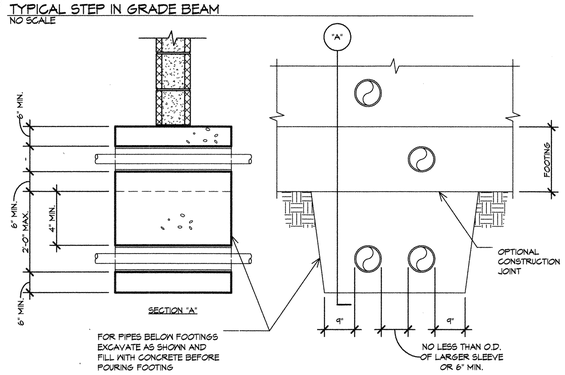
2 TYPICAL CONCRETE CURB DETAILS
NO SCALE



10 SECTION
SCALE: 3/4" = 1'-0"



7 TYPICAL PERIMETER SECTION AT SIDEWALK
SCALE: 3/4" = 1'-0"



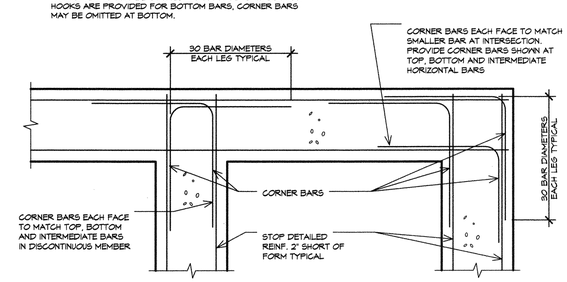
NOTES:

1. DO NOT PASS PIPES THROUGH ISOLATED FOOTINGS.
2. WHERE PIPES ARE MORE THAN 2'-0" BELOW FOOTING. BACKFILL WITH SOIL AS SPECIFIED.

4 TYPICAL PIPES AND TRENCHES AT FOOTINGS
NO SCALE

NOTES:

1. MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.
2. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS CORNER BARS MAY BE OMITTED AT TOP. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.



PLAN

1 TYPICAL CORNER BARS AT WALL OR GRADE BEAM INTERSECTION DETAIL
NO SCALE

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TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: SC
DRAWN BY: FP
REVIEWED BY: SC
REVISED:
REVISED:
REVISED:

SHEET TITLE
TYPICAL CONCRETE DETAILS & SECTIONS

SHEET NUMBER
S301
7 OF 44

ISSUE FOR CONSTRUCTION

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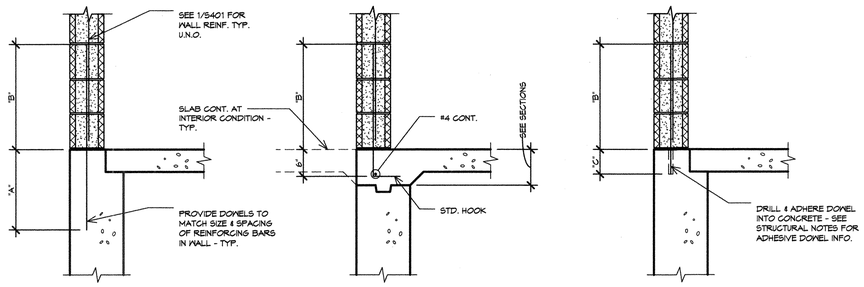


CAST-IN-PLACE (STRAIGHT BAR) | CAST-IN-PLACE (HOOKED BAR) | DRILLED-IN ALTERNATE (@ INTERIOR PARTITIONS ONLY)

NOTES:

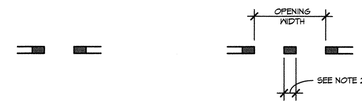
1. AT WALLS WITH DOUBLE REINFORCING, PROVIDE SINGLE DOWEL AT SIZE AND SPACING OF SCHEDULED WALL REINFORCING. CENTER DOWEL ON WALL, U.N.O.
2. MASONRY DOWELS SHALL BE TIED IN OR DRILLED AND ADHERED. MASONRY DOWELS SHALL NOT BE "STABBED" IN.
3. HOLES FOR MASONRY DOWELS MUST BE CLEANED WITH A WIRE BRUSH AND COMPRESSED AIR. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

DOWEL SIZE	DIMENSIONS		
	"A"	"B"	"C"
#4	1'-6"	2'-6"	5 1/2"
#5	1'-6"	3'-2"	7"
#6	2'-0"	3'-4"	8 1/2"
#7	2'-6"	4'-5"	10"

4 TYPICAL MASONRY WALL DOWEL DETAIL
NO SCALE

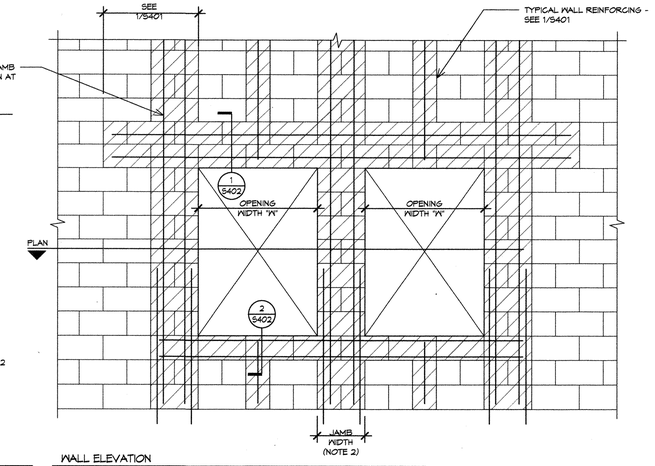
NOTES

1. a.) FOR OPENING AT EXTERIOR WALL, EXTEND JAMB REINFORCING TO TOP OF WALL.
   b.) FOR OPENING AT INTERIOR WALL < 6'-0", TERMINATE JAMB REINFORCING AT TOP OF LINTEL.
2. FOR TYPE 2 OPENINGS, LINTEL SHALL SPAN ACROSS BOTH OPENINGS. INTERMEDIATE CMU WALL BETWEEN OPENINGS SHALL BE EQUIVALENT OF COMBINED JAMB REINFORCING FROM EACH OPENING.
3. REFER TO 3/S402 FOR REINFORCING DETAIL AT JAMB CONDITIONS.



TYPE-1 OPENING | TYPE-2 OPENING

PLAN
NO SCALE



WALL ELEVATION
NO SCALE

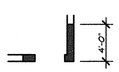
JAMB WIDTH & REINFORCING SCHEDULE					
WALL HEIGHT BETWEEN SUPPORTS *	CLEAR OPENING SIZE (W)				
	< 8'-0"	<10'-0"	<12'-0"	<14'-0"	<16'-8"
≤10'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#5	8" / 2-#5	16" / 4-#6
≤12'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#6	16" / 4-#6	16" / 4-#6
≤14'-0"	8" / 2-#6	8" / 2-#7	16" / 4-#5	16" / 4-#6	24" / 6-#6
≤16'-0"	16" / 4-#6	16" / 4-#6	16" / 4-#6	16" / 4-#7	24" / 6-#7
≤18'-0"	16" / 4-#6	16" / 4-#6	24" / 6-#6	24" / 6-#7	32" / 8-#7

* SUPPORTS ARE DEFINED AS FLOORS, ROOFS, GIRTS, ETC. THAT ARE CONNECTED TO THE WALL WHICH BRACE THE WALL OUT OF PLANE.

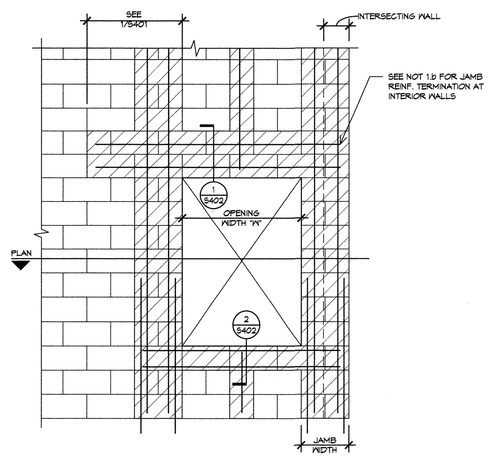
2 CMU WALL JAMB REINFORCING DETAIL
NO SCALE

NOTES

1. a.) FOR OPENING AT EXTERIOR WALL, EXTEND JAMB REINFORCING TO TOP OF WALL.
   b.) FOR OPENING AT INTERIOR WALL < 6'-0", TERMINATE JAMB REINFORCING AT TOP OF LINTEL.
2. REFER TO 3/S402 FOR REINFORCING DETAIL AT JAMB CONDITIONS.



TYPE-3 OPENING



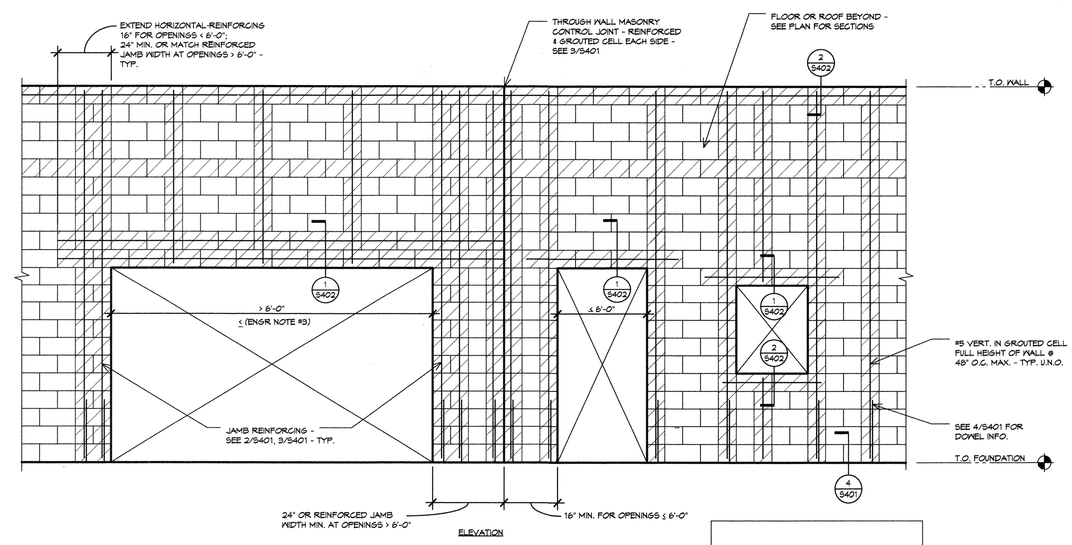
PLAN
NO SCALE

WALL ELEVATION
NO SCALE

JAMB WIDTH & REINFORCING SCHEDULE					
WALL HEIGHT BETWEEN SUPPORTS *	CLEAR OPENING SIZE (W)				
	< 8'-0"	<10'-0"	<12'-0"	<14'-0"	<16'-8"
≤10'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#5	8" / 2-#5	16" / 4-#6
≤12'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#6	16" / 4-#6	16" / 4-#6
≤14'-0"	8" / 2-#6	8" / 2-#7	16" / 4-#5	16" / 4-#6	24" / 6-#6
≤16'-0"	16" / 2-#7	16" / 4-#6	16" / 4-#6	16" / 4-#7	24" / 6-#7
≤18'-0"	16" / 2-#7	16" / 4-#6	24" / 6-#6	24" / 6-#7	32" / 8-#7

* SUPPORTS ARE DEFINED AS FLOORS, ROOFS, GIRTS, ETC. THAT ARE CONNECTED TO THE WALL WHICH BRACE THE WALL OUT OF PLANE.

3 CMU WALL JAMB REINFORCING DETAIL - CORNER & TEE-CONDITIONS
SCALE: 1/8" = 1'-0"



ELEVATION

NOTES:
1. SEE ARCH'L. DRAWINGS FOR LOCATION AND DIMENSIONS OF WALL OPENINGS.
2. SEE THE STRUCTURAL MASONRY NOTES ON S101 FOR LAP SPLICE LENGTHS.

1 TYPICAL CMU WALL REINFORCING DETAIL
NO SCALE

TEXAS PARKS & WILDLIFE

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REVISED:
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SHEET TITLE
TYPICAL CMU DETAILS & SECTIONS

SHEET NUMBER
S401
8 OF 44

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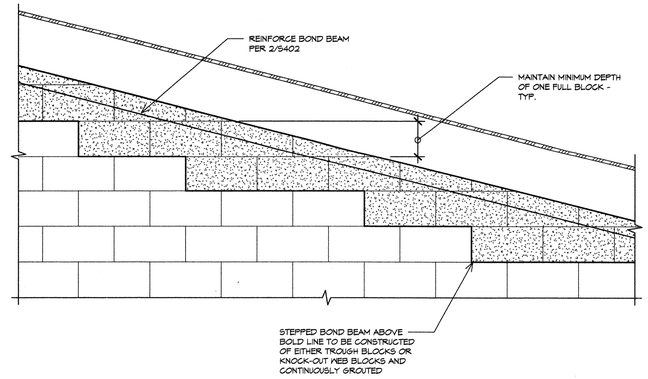
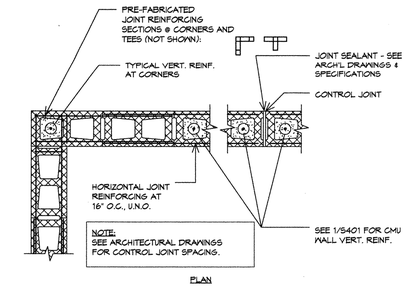


6 TYPICAL STEPPED BOND BEAM DTAILE
NO SCALE



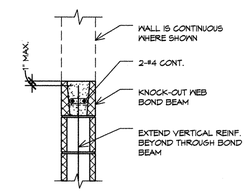
3 TYPICAL CMU BAR PLACEMENT DETAIL
NO SCALE

MASONRY LOOSE LINTEL SCHEDULE	
OPENING	LINTEL SIZE
UP TO 5'-0"	L4x4x1/4
5'-0" TO 7'-0"	L6x4x5/16 LLV
7'-0" TO 8'-0"	L6x4x3/8 LLV

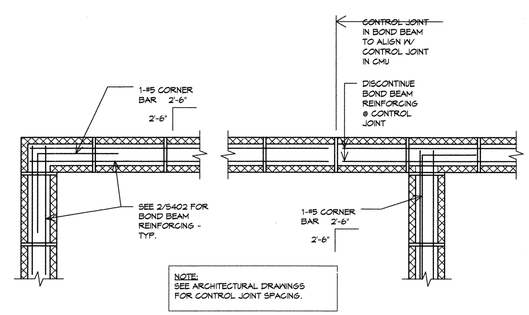
NOTE:

1. LINTEL ANGLES SHALL BE HOT DIP GALVANIZED.
2. PROVIDE 3/8" GAP IN MORTAR AT ENDS OF ANGLE. FORM GAP WITH BACKER ROD.
3. PROVIDE 4" BEARING AT EACH END OF LINTEL ANGLE.

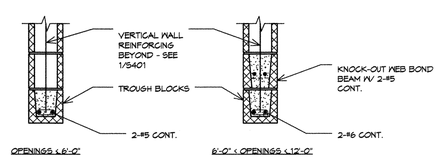
5 MASONRY LOOSE LINTEL SCHEDULE
NO SCALE



2 TYPICAL CMU BOND BEAM DETAIL
NO SCALE



4 TYPICAL CORNER BARS AT BOND BEAMS DETAIL
NO SCALE



NOTES:

1. LINTELS SHALL REMAIN SHORED UNTIL MASONRY CONSTRUCTION ABOVE HAS CURED FOR A MINIMUM OF 14 DAYS.
2. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZE AND LOCATION.
3. VERTICAL CONTROL JOINTS SHALL NOT CROSS LINTEL REINFORCING.

1 TYPICAL CMU LINTEL DETAIL
NO SCALE

TEXAS PARKS & WILDLIFE

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S402
9 OF 44

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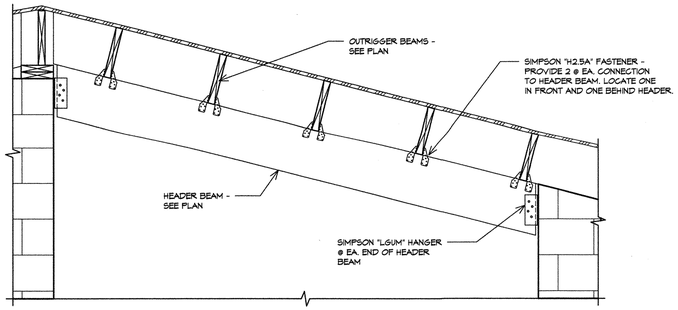
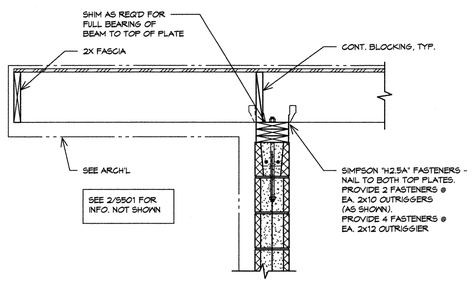


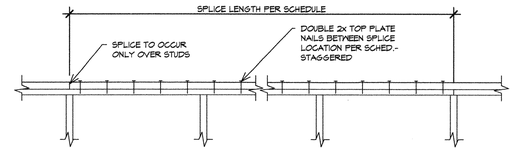
9 HEADER BEAM OVER BREEZEWAY DETAIL
SCALE: 3/4" = 1'-0"



8 TYPICAL OUTRIGGER BEARING DETAIL
SCALE: 3/4" = 1'-0"

NOT USED

7 ALLOWABLE TOP PLATE PENETRATIONS
NO SCALE

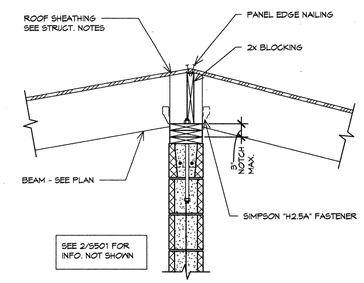


LENGTH OF WALL (BETWEEN CORNERS)	SPLICE LENGTH (MINIMUM)	NAILS ALONG SPLICE LENGTH
OVER 30'	4'-0"	18-3"x.148"ø
OVER 20'	2'-8"	10-3"x.148"ø
OVER 10'	1'-4"	6-3"x.148"ø
LESS THAN 10'	1'-4"	4-3"x.148"ø

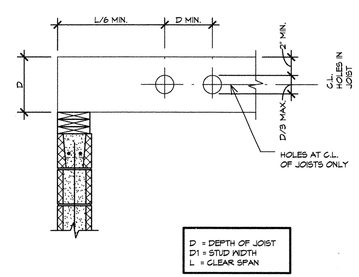
NOTES:

1. DO NOT SPLICE TOP PLATES WITHIN 6'-0" OF ENDS OF WOOD STRUCTURAL PANEL SHEAR WALLS.
2. THIS DETAIL APPLIES AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS.

6 TYPICAL DETAIL @ SPLICE IN TOP PLATE
NO SCALE



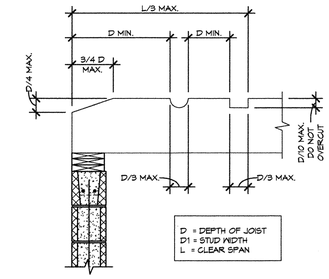
5 TYPICAL RIDGE CONDITION
SCALE: 3/4" = 1'-0"



NOTES:

1. HOLE CUTS ALLOWED IN JOISTS AND STUDS ONLY - NOTIFY ENGINEER PRIOR TO CUTTING POSTS OR BEAMS - TYP. U.N.O.
2. THIS DETAIL DOES NOT APPLY TO ENGINEERED WOOD "I" JOISTS.

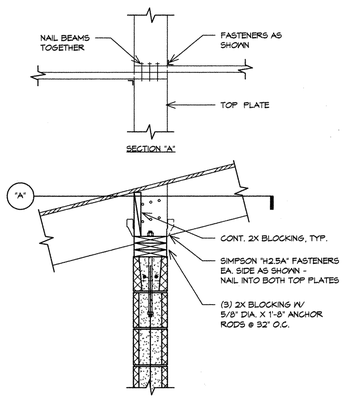
4 TYPICAL HOLES IN WOOD DETAIL
NO SCALE



NOTES:

1. NOTCH CUTS ALLOWED IN TOP OF JOISTS ONLY - NOTIFY ENGINEER PRIOR TO CUTTING BEAMS - TYP. U.N.O.
2. THIS DETAIL DOES NOT APPLY TO ENGINEERED WOOD "I" JOISTS.

3 TYPICAL NOTCHES IN WOOD DETAIL
SCALE: 3/4" = 1'-0"



2 TYPICAL INTERIOR WOOD BEAM BEARING
SCALE: 3/4" = 1'-0"

NAILING SCHEDULE

CONNECTION	NAILING
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 PLATE TO STUD, END NAIL	2-16d
6. STUD TO SILL PLATE	4-8d TOE NAIL OR 2-16d EACH END
7. DOUBLE STUDS, FACE NAIL	16d AT 24" O.C. MAX.
8. DOUBLE TOP PLATES, FACE NAIL	16d AT 16" O.C.
9. TOP PLATES AND INTERSECTIONS, FACE NAIL	2-16d OR 3-10d
10. TOP PLATES AND LAPS, FACE NAIL	8-16d
11. CONTINUOUS HEADER-TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
12. CEILING JOISTS TO PLATE, TOE NAIL	3-8d
13. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
14. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
15. RAFTER TO PLATE, TOE NAIL	3-8d
16. 3/4" LET-IN BRACE TO EACH STUD AND PLATES, FACE NAIL	2-8d
17. BUILT-UP CORNER STUDS	16d AT 24" O.C.
18. BUILT-UP GIRDER AND BEAMS, THREE MEMBERS	20d AT 32" O.C. AT TOP AND BOTTOM (STAGGERED) 2-20d AT ENDS

NOTES:

1.PROVIDE NAILING CONNECTIONS INDICATED IN SCHEDULE UNLESS DETAILED OR NOTED OTHERWISE.

1 TYPICAL NAILING SCHEDULE
NO SCALE

shaping the built environment
JQ ENGINEERING, LLP
100 GLASS STREET
214.752.9098
DALLAS, TEXAS 75207
JQENG.COM
JQ PROJECT NO: 3140276
TBPE FIRM F-1294
STATE OF TEXAS
JOHN J. HOENIG
96493
LICENSED PROFESSIONAL ENGINEER
8/26/16
th+a

TEXAS PARKS & WILDLIFE

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER:115900

DATE: 08/26/16
DESIGNED BY: SC
DRAWN BY: FP
REVIEWED BY: SC
REVISED:
REVISED:
REVISED:

SHEET TITLE
TYPICAL WOOD SECTIONS & DETAILS

SHEET NUMBER
S501
10 OF 44

ISSUE FOR CONSTRUCTION

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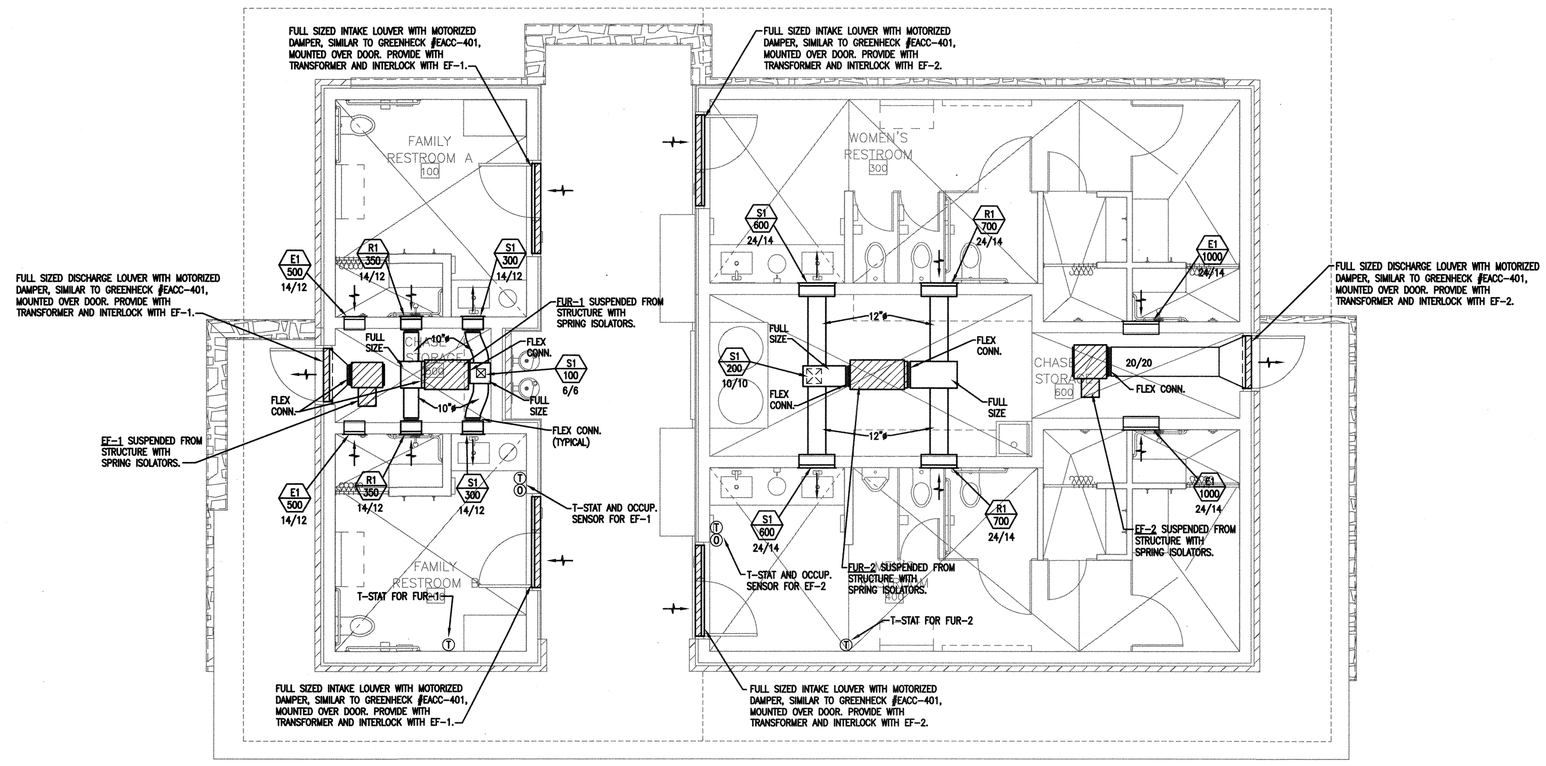
SEQUENCE OF OPERATION

EXHAUST FANS
EXHAUST FANS SHALL ENERGIZE AND OPERATE AT LOW SPEED BASED UPON THE OCCUPANCY SENSOR LOCATED WITHIN THE SPACE. THE EXHAUST FAN SHALL OPERATE AT HIGH SPEED WHEN SPACE TEMPERATURE EXCEEDS 80 DEGREES BASED UPON THE THERMOSTAT LOCATED WITHIN THE SPACE.

FURNACES
FURNACE FAN AND HEATER SHALL ENERGIZE AND OPERATE WHEN THE SPACE TEMPERATURE DROPS BELOW 70 DEGREES BASED UPON THE THERMOSTAT LOCATED WITHIN THE SPACE.



TRUE NORTH

1 **FLOOR PLAN - MECHANICAL**
SCALE: 1/4"=1'-0"

GENERAL NOTES

A. REFER TO SHEET M301 FOR GENERAL NOTES.

B. ALL DUCTWORK SHALL BE ALUMINUM.

C. ALL THERMOSTATS AND OCCUPANCY SENSORS SHALL BE TAMPER PROOF.

TEXAS PARKS & WILDLIFE

STATE OF TEXAS
MIKE L. ASHCRAFT
56590
LICENSED
08/26/2016

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER: 115900

DATE: 08/26/2016
DESIGNED BY: CH
DRAWN BY: CH
REVIEWED BY: MS
REVISED:
REVISED:
REVISED:

SHEET TITLE
FLOOR PLAN MECHANICAL

SHEET NUMBER
M201
OF 44

ISSUED FOR CONSTRUCTION

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PROJECT # 14645

th+a

AIR DEVICE SCHEDULE

MARK	SERVICE	MOUNTING	FACE SIZE	NECK SIZE	DAMPER	MATERIAL	MANUFACTURER	MODEL	NOTES
S1	SUPPLY	SIDEWALL	NK+1.25"	SEE PLAN	YES	ALUMINUM	PRICE	620-OBD	ALL
-	-	-	-	-	-	-	-	-	-
R1	RETURN	SIDEWALL	NK+1.25"	SEE PLAN	YES	ALUMINUM	PRICE	630-OBD	ALL
-	-	-	-	-	-	-	-	-	-
E1	EXHAUST	SIDEWALL	NK+1.25"	SEE PLAN	YES	ALUMINUM	PRICE	630-OBD	ALL
-	-	-	-	-	-	-	-	-	-

NOTES:
1. PROVIDE WITH APPROPRIATE MOUNTING.
2. DO NOT SCREW THRU FACE OF DEVICE UNLESS SCREW HOLES ARE PROVIDED BY MANUFACTURER.
3. RUNOUTS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS NOTED OTHERWISE.
4. PROVIDE IN COLOR/FINISH AS DIRECTED BY ARCHITECT.
5. ENTIRE AIR DEVICE AND DAMPER ASSEMBLY SHALL BE ALUMINUM.

FAN SCHEDULE

MARK	SERVES	TYPE	CFM (HIGH SPEED)	CFM (LOW SPEED)	ESP ("WG)	DRIVE TYPE	FAN RPM	MOTOR HP	VOLTAGE	MANUFACTURER	MODEL	WEIGHT (LBS)	NOTES
EF-1	FAMILY RESTROOMS	IN LINE	1000	500	0.5	BELT	1537	1/4	120/1	GREENHECK	BSQ-100-4	70	ALL
EF-2	MAIN RESTROOMS	IN LINE	2000	1225	0.5	BELT	1272	1/2	120/1	GREENHECK	BSQ-140-5	100	ALL
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. PROVIDE WITH UNIT MOUNTED DISCONNECT.
2. PROVIDE WITH 2-SPEED FAN MOTOR.
3. REFER TO SEQUENCE OF OPERATION ON SHEET M201.

FURNACE SCHEDULE

MARK	SERVES	TYPE	FAN CFM	ESP ("WG)	HEATER KW	MINIMUM STAGES	MOTOR HP	VOLTAGE	MANUFACTURER	MODEL	WEIGHT (LBS)	NOTES
FUR-1	FAMILY RESTROOMS	HORIZONTAL	700	0.3	5	1	1/5	240/1	KING	KFS2405-1	60	ALL
FUR-2	MAIN RESTROOMS	HORIZONTAL	1400	0.3	10	2	1/2	240/1	KING	KFS2410-1	70	ALL
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
1. PROVIDE WITH UNIT MOUNTED DISCONNECT.
2. PROVIDE WITH 1" FILTER SECTION.
3. REFER TO SEQUENCE OF OPERATION ON SHEET M201.

GENERAL NOTES

A. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES.

B. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.

C. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

D. COORDINATE THE EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

E. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

F. COORDINATE THE LOCATION OF DUCTWORK AND PIPING WITH OTHER TRADES AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED.

G. IT IS THE INTENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF DUCTWORK AND PIPING AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED TO MEET THIS INTENT.

H. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

I. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

J. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS.

K. ANY DEVIATIONS FROM SCHEDULED EQUIPMENT RESULTING IN ADDITIONAL COST DUE TO THE LACK OF COORDINATION WITH DIMENSIONS AND WEIGHTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

L. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH CONSTRUCTION PHASING AND WITH OWNER'S SCHEDULES, OCCUPANCIES, AND WORK.

M. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY BETWEEN TRADES.

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th+a

TEXAS PARKS & WILDLIFE

STATE OF TEXAS
MIKE L. ASHCRAFT
56590
LICENSED
08/26/2016

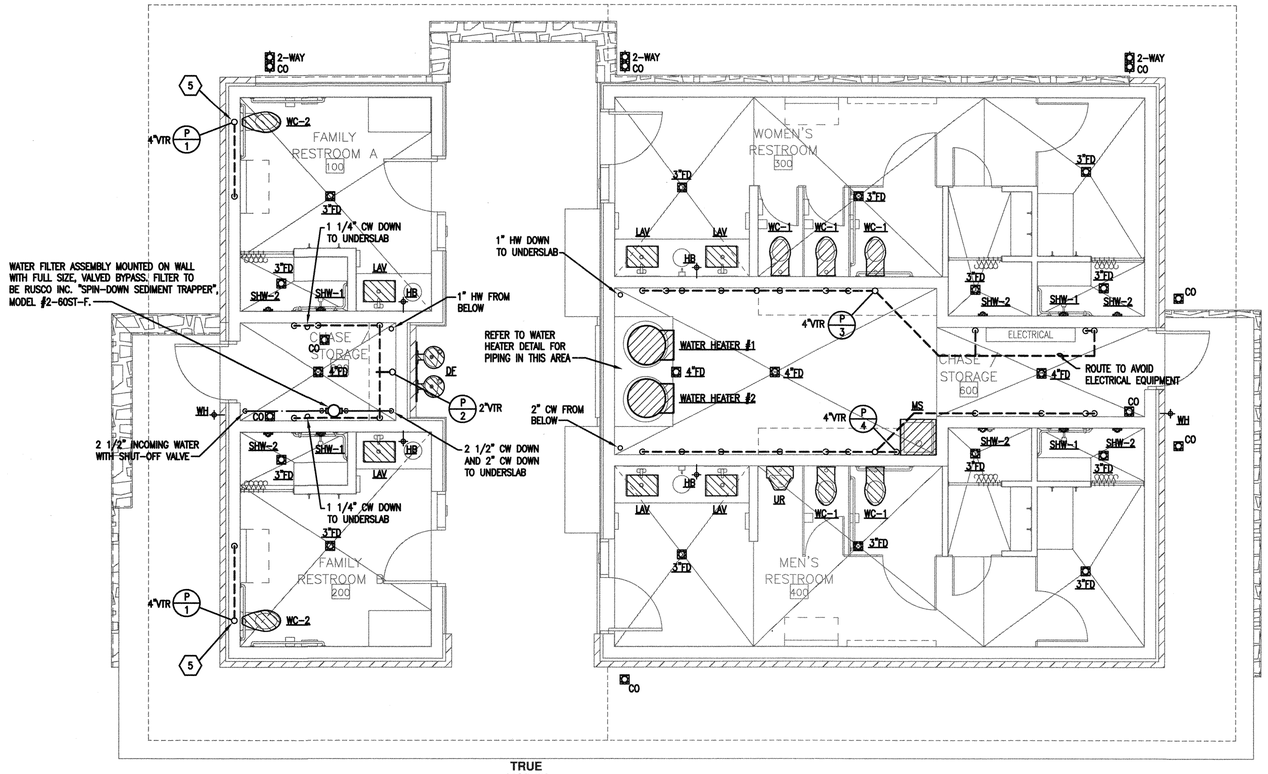
CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER: 115900

DATE: 08/26/2016
DESIGNED BY: CH
DRAWN BY: CH
REVIEWED BY: MS
REVISED:
REVISED:
REVISED:

SHEET TITLE
SCHEDULES & DETAILS MECHANICAL

SHEET NUMBER
M301
OF 44

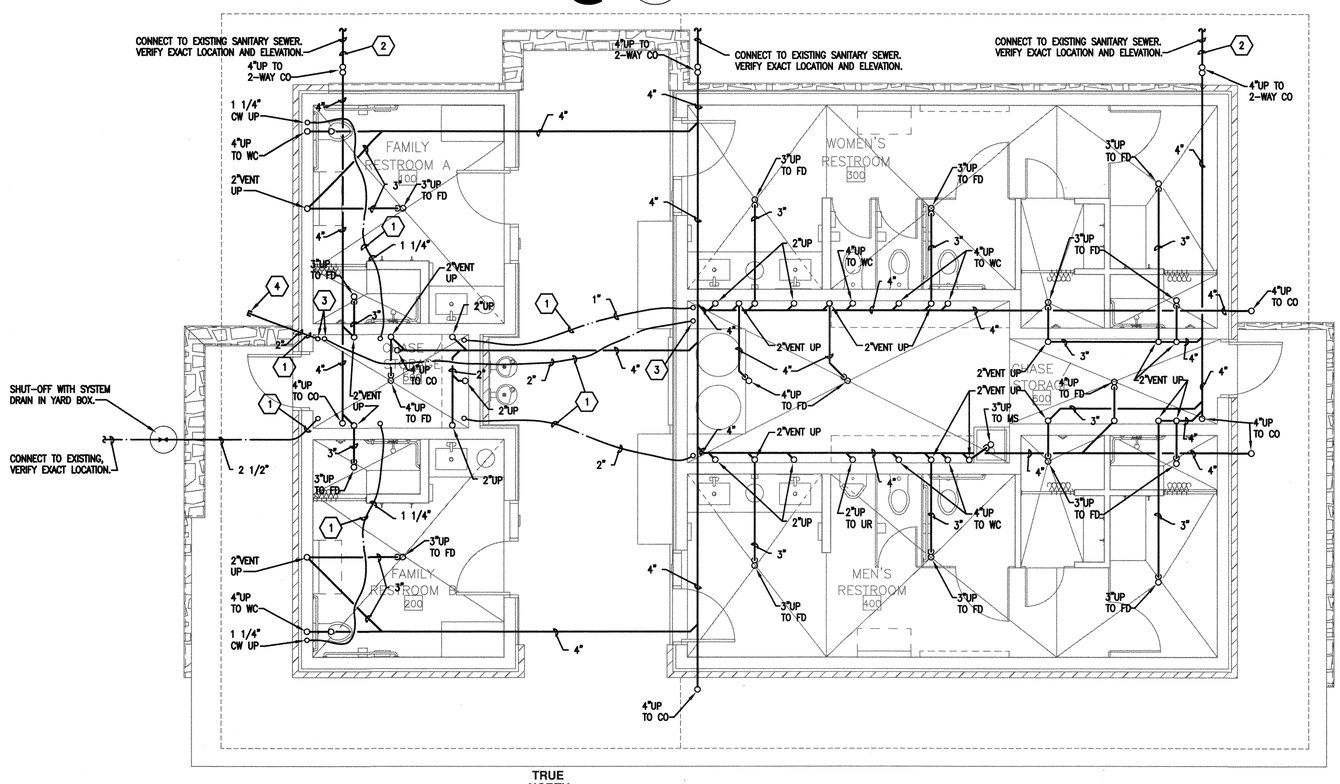
ISSUED FOR CONSTRUCTION



TRUE NORTH

2 FLOOR PLAN - PLUMBING

SCALE: 1/4"=1'0"



TRUE NORTH

1 UNDERFLOOR PLAN - PLUMBING

SCALE: 1/4"=1'0"

GENERAL NOTES

A. REFER TO SHEET P301 FOR GENERAL NOTES.

KEY NOTES

NOTE: REFERENCE NUMBER INSIDE HEXAGON

1. INSTALL WATER PIPING, BELOW SLAB, IN PVC SLEEVE.
2. PAINT PIPING PURPLE TO DESIGNATE AS DRAINAGE FROM SHOWERS ONLY, FOR FUTURE GRAY WATER RECYCLING SYSTEM.
3. STUB UP WATER PIPING, CAP AND PAINT PURPLE FOR FUTURE USE WITH GRAY WATER RECYCLING SYSTEM.
4. CAP AND PAINT PURPLE FOR FUTURE USE WITH GRAY WATER RECYCLING SYSTEM.
5. PROVIDE HEAT TRACING ON WATER LINE IN EXTERIOR WALL. SIMILAR TO CHROMALOX SRL, 8W/FT AT 120V. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

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TEXAS PARKS & WILDLIFE

STATE OF TEXAS
MIKE L. ASHCRAFT
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LICENSED
PROFESSIONAL ENGINEER
08/26/2016

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
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DATE: 08/26/2016
DESIGNED BY: CH
DRAWN BY: CH
REVIEWED BY: MS
REVISED:
REVISED:
REVISED:

SHEET TITLE
UNDERFLOOR & FLOOR PLAN PLUMBING

SHEET NUMBER
P201
OF 44

ISSUED FOR CONSTRUCTION

GENERAL NOTES

A. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES AND THE REQUIREMENTS OF THE LATEST EDITION OF THE BHCS PROJECT MANUAL.

B. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.

C. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

D. COORDINATE THE EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

E. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

F. COORDINATE THE LOCATION OF DUCTWORK AND PIPING WITH OTHER TRADES AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED.

G. IT IS THE INTENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF DUCTWORK AND PIPING AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED TO MEET THIS INTENT.

H. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

I. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

J. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS.

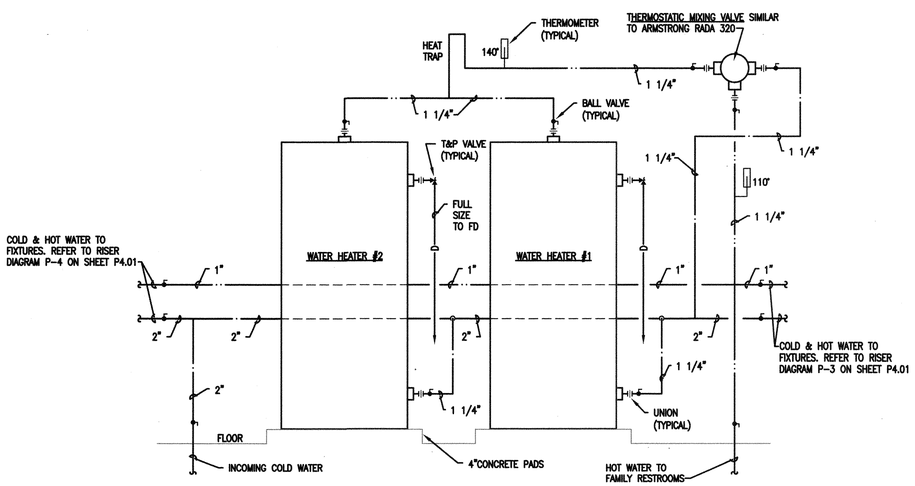
K. ANY DEVIATIONS FROM SCHEDULED EQUIPMENT RESULTING IN ADDITIONAL COST DUE TO THE LACK OF COORDINATION WITH DIMENSIONS AND WEIGHTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

L. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH CONSTRUCTION PHASING AND WITH OWNER'S SCHEDULES, OCCUPANCIES, AND WORK.

M. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY BETWEEN TRADES.

N. SANITARY SEWER AND VENT PIPING SHALL BE PVC. REFER TO SPECIFICATIONS.

O. WATER PIPING SHALL BE COPPER. REFER TO SPECIFICATIONS.



1 **WATER HEATER DETAIL**
SCALE: NONE

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER, MODEL AND ACCESSORIES
WC-1	WALL HUNG WATER CLOSET	WALL HUNG VITREOUS CHINA SIPHON JET 1.28 GPF ADA WATER CLOSET WITH REAR SPUD, KOHLER "KINGSTON" K-4323. PROVIDE WITH HEAVY DUTY OPEN FRONT SEAT K-4731-C, BATTERY OPERATED CONCEALED FLUSH VALVE WITH COURTESY FLUSH BUTTON AND EXTENSION FOR THICK WALL SIMILAR TO SLOAN "OPTIMA" 152-1.28 ES-S TMO AND HEAVY DUTY CARRIER.
WC-2	FLOOR MOUNTED WATER CLOSET	FLOOR MOUNTED VITREOUS CHINA SIPHON JET 1.28 GPF ADA HEIGHT WATER CLOSET WITH TOP SPUD, KOHLER "HIGHLINE" K-4405. PROVIDE WITH HEAVY DUTY OPEN FRONT SEAT K-4731-C, BATTERY OPERATED FLUSH VALVE WITH COURTESY FLUSH BUTTON SIMILAR TO SLOAN "OPTIMA" 111-1.28 SMO.
UR	STALL URINAL	FLOOR MOUNTED STALL TYPE VITREOUS CHINA 0.5 GPF ADA URINAL WITH BACK SPUD, KOHLER "BRANHAM" K-4920-R. PROVIDE WITH BATTERY OPERATED CONCEALED FLUSH VALVE WITH COURTESY FLUSH BUTTON AND EXTENSION FOR THICK WALL SIMILAR TO SLOAN "OPTIMA" 195-0.5-ES-S.
LAV	UNDERCOUNTER MOUNTED LAVATORY	UNDERCOUNTER MOUNTED RECTANGULAR VITREOUS CHINA ADA LAVATORY AMERICAN STANDARD "STUDIO" 0618.000. PROVIDE WITH BATTERY OPERATED 4" SPREAD FAUCET AND MIXING VALVE SIMILAR TO SLOAN "OPTIMA" EBF-187-BDT, TRUEBRU TRAP/SUPPLY GUARDS, GRID STRAINER, CP P-TRAP WITH CLEANOUT AND CP SUPPLIES WITH KEYED STOPS.
SHW-1	ADA SHOWER	PRESSURE BALANCING SHOWER VALVE ASSEMBLY WITH LEVER HANDLE MOEN SF8360. HAND HELD SHOWER ASSEMBLY WITH METAL SLIDE RAIL, SPIRAL HOSE AND DROP ELL MOEN S3870EP. COORDINATE INSTALLATION IN 8" THICK CMU WALL.
SHW-2	SHOWER	PRESSURE BALANCING SHOWER VALVE ASSEMBLY WITH LEVER HANDLE MOEN SF8360. VANDAL PROOF ADJUSTABLE SHOWER HEAD MOEN 8292. COORDINATE INSTALLATION IN 8" THICK CMU WALL.
DF	WALL HUNG DRINKING FOUNTAIN	WALL HUNG BARRIER FREE BI-LEVEL DRINKING FOUNTAIN WITH CONCEALED SUPPORT CARRIER AND FREEZE RESISTANT ASSEMBLIES MURDOCK GRD65-BP6. COLOR/FINISH PER ARCHITECT.
MS	MOP SINK	24"x24"x12" TERRAZZO MOP SINK WITH STAINLESS STEEL CURB CAPS AND 3" DRAIN ASSEMBLY FIAT TSB100. PROVIDE WITH WALL MOUNTED FAUCET ASSEMBLY FIAT 830-AA.
WH	NON-FREEZE WALL HYDRANT	BOX & DOOR TYPE NON-FREEZE WALL HYDRANT WITH DOUBLE CHECK BACKFLOW PREVENTER SIMILAR TO WOODFORD B67.
FD	FLOOR DRAIN	CAST IRON FLOOR DRAIN WITH SQUARE ADJUSTABLE BRONZE STRAINER, PERFORATED STAINLESS STEEL BASKET AND TRAP GUARD.
HB	HOSE BIBB	WALL MOUNTED KEYED HOSE BIBB WITH VACUUM BREAKER. WOODFORD #24/SL-24
SA	SHOCK ARRESTOR	SIOUX CHIEF "HYDRARESTER" SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.
CO	CLEAN OUT	SMITH 4262L WITH GASKET SEAL AND BRONZE PLUG. PROVIDE WITH 18"x18"x6" THICK REINFORCED CONCRETE PAD WHERE LOCATED IN GRADE.

NOTES: 1. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT OF ALL FIXTURES.

WATER HEATER SCHEDULE

MARK	STORAGE (GALLONS)	REC. AT 100 RISE (GPH)	WATTAGE	VOLTAGE	MANUFACTURER	MODEL	NOTES
WATER HEATER #1	80	42	(2) 5000	240/1	LOCHINVAR	ETA080M2	ALL
WATER HEATER #2	80	42	(2) 5000	240/1	LOCHINVAR	ETA080M2	ALL
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTES: 1. UNIT SHALL BE MEET OR EXCEED ALL CURRENT FEDERAL EFFICIENCY STANDARDS.
2. ELEMENTS SHALL BE WIRED FOR SIMULTANEOUS OPERATION.

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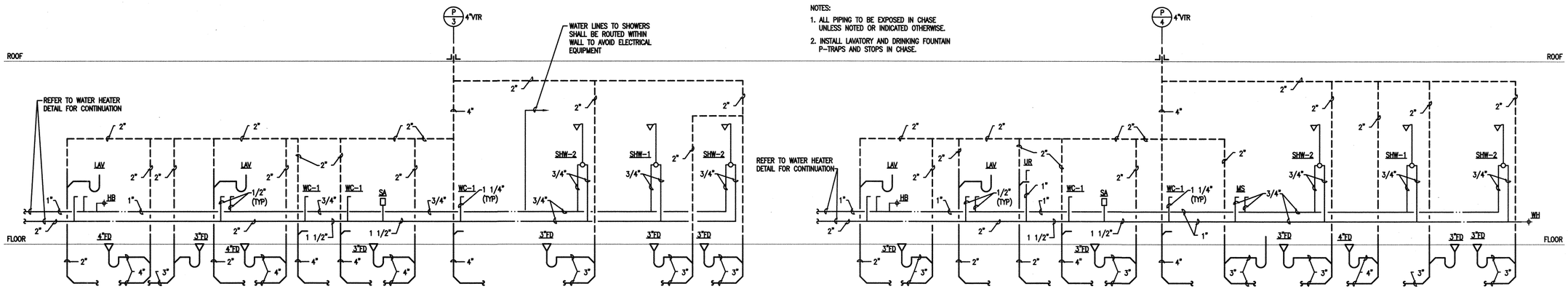
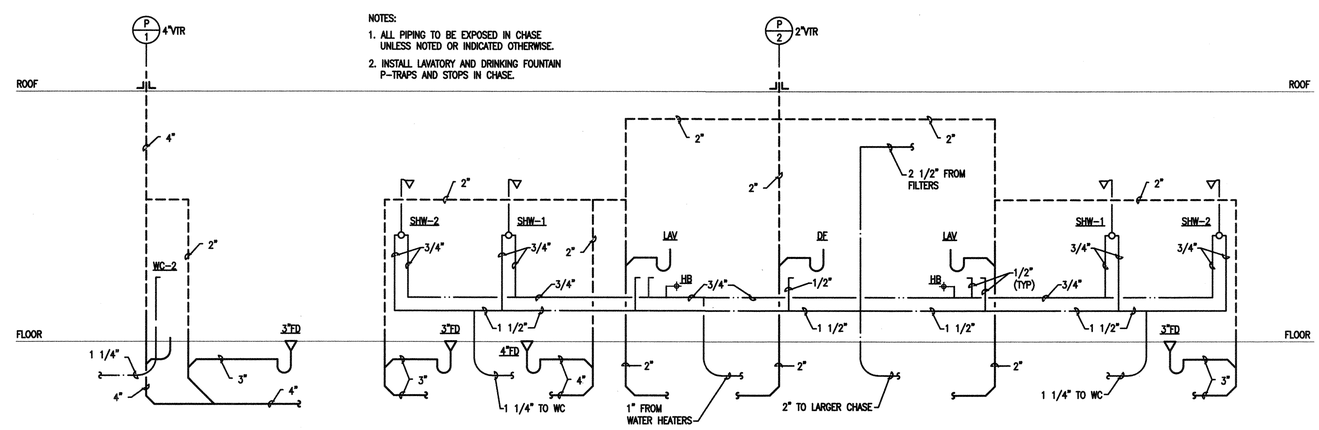


NOTES:
1. ALL PIPING TO BE EXPOSED IN CHASE UNLESS NOTED OR INDICATED OTHERWISE.
2. INSTALL LAVATORY AND DRINKING FOUNTAIN P-TRAPS AND STOPS IN CHASE.



NOTES:
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2. INSTALL LAVATORY AND DRINKING FOUNTAIN P-TRAPS AND STOPS IN CHASE.

1 RISER DIAGRAMS - PLUMBING

SCALE: NONE

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TEXAS REGISTERED ENGINEERING FIRM F-6872
PROJECT # 14645

th+a

TEXAS PARKS & WILDLIFE

STATE OF TEXAS
MIKE L. ASHCRAFT
56590
LICENSED
08/26/2016

CADDO LAKE STATE PARK
REPLACE CAMPING AREA RESTROOM
PROJECT NUMBER: 115900

DATE: 08/26/2016
DESIGNED BY: CH
DRAWN BY: CH
REVIEWED BY: MS
REVISED:
REVISED:
REVISED:

SHEET TITLE
RISER DIAGRAMS PLUMBING

SHEET NUMBER
P401
OF 44

ISSUED FOR CONSTRUCTION

ELECTRICAL SYMBOLS
(NOT ALL SYMBOLS ARE NECESSARILY USED)

SYMBOL	DESCRIPTION	MOUNTING
	2'X4' FLUORESCENT LIGHT FIXTURE – NORMAL POWER	NOTE 1
	2'X4' FLUORESCENT LIGHT FIXTURE – EMERGENCY POWER	NOTE 1
	2'X4' FLUORESCENT LIGHT FIXTURE – NORMAL AND EMERGENCY POWER	NOTE 1
	2'X4' FLUORESCENT LIGHT FIXTURE WITH 2 BALLASTS	NOTE 1
	2'X2' FLUORESCENT LIGHT FIXTURE – NORMAL POWER	NOTE 1
	2'X2' FLUORESCENT LIGHT FIXTURE – EMERGENCY POWER	NOTE 1
	4' FLUORESCENT STRIP LIGHT – NORMAL POWER	NOTE 1
	4' FLUORESCENT STRIP LIGHT – EMERGENCY POWER	NOTE 1
	RECESSED DOWNLIGHT – NORMAL POWER	NOTE 1
	RECESSED DOWNLIGHT – EMERGENCY POWER	NOTE 1
	WALL MOUNTED LIGHT FIXTURE	NOTE 1
	WALL WASHER	NOTE 1
	EXIT LIGHT FIXTURE WITH DIRECTIONAL CHEVRONS AS SHOWN	NOTE 1
	WALL MOUNTED EXIT LIGHT	NOTE 1
	EMERGENCY DUAL HEAD LIGHTING UNIT WITH BATTERY PACK	NOTE 1
	SINGLE POLE SWITCH	48" AFF UNO
3	THREE WAY SWITCH	48" AFF UNO
4	FOUR WAY SWITCH	48" AFF UNO
P	SWITCH WITH PILOT LIGHT	48" AFF UNO
D	DIMMER SWITCH	48" AFF UNO
K	KEYED SWITCH	48" AFF UNO
MD	MOTION DETECTOR SWITCH	CLG
MD	WALL MOUNTED MOTION DETECTOR SWITCH	48" AFF
M	MANUAL MOTOR SWITCH WITHOUT OVERLOAD PROTECTION	NOTE 2
	DISTRIBUTION PANELBOARD	AS REQ'D
	LIGHTING AND APPLIANCE PANELBOARD	AS REQ'D
	SINGLE RECEPTACLE, NEMA 5-20R	15" AFF UNO
	DUPLEX RECEPTACLE, NEMA 5-20R	15" AFF UNO
	DUPLEX RECEPTACLE, NEMA 5-20R, ABOVE COUNTER	6" ABV. CTR.
	QUAD RECEPTACLE, NEMA 5-20R.	15" AFF UNO
E	EMERGENCY POWER RECEPTACLE	15" AFF UNO
	SPECIAL PURPOSE RECEPTACLE	15" AFF UNO
	FLOOR MOUNTED RECEPTACLE	FLOOR
	POKE THROUGH DEVICE	FLOOR
	JUNCTION BOX	AS REQ'D
	WALL MOUNTED JUNCTION BOX	AS REQ'D
	PLUGMOLD, NEMA 5-20R RECEPTACLE 24" O.C. UNO	AS REQ'D
	TELEPHONE OUTLET	15" AFF UNO
P	PAY TELEPHONE OUTLET	48" AFF UNO
W	WALL MOUNTED TELEPHONE OUTLET	48" AFF UNO
	FLOOR MTD TELEPHONE OUTLET	FLOOR
	COMBINATION TELEPHONE/DATA OUTLET	15" AFF UNO
	DATA OUTLET	15" AFF UNO
	FLOOR MTD DATA OUTLET	FLOOR
	TELEPHONE PLYWOOD BACKBOARD, 3/4" THICK, 8' HIGH	NOTE 3
TC	TIMECLOCK	AS REQ'D
PC	PHOTOCELL	AS REQ'D
	PA SYSTEM SPEAKER (WALL MTD)	WALL
	PA SYSTEM SPEAKER (CEILING MTD)	CEILING
	TELEVISION SIGNAL OUTLET	84" AFF UNO
	CLOCK OUTLET – SINGLE FACE	84" AFF UNO
FAAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL	AS REQ'D
FACP	FIRE ALARM CONTROL PANEL	AS REQ'D
FATP	FIRE ALARM TRANSPONDER PANEL	AS REQ'D
NAC	FIRE ALARM NOTIFYING APPLIANCE CIRCUIT POWER SUPPLY	AS REQ'D
EGA	EMERGENCY GENERATOR ANNUNCIATOR PANEL	AS REQ'D
F	FIRE ALARM MANUAL PULL STATION	NOTE 4
S	FIRE ALARM SMOKE DETECTOR	CEILING
D	FIRE ALARM DUCT SMOKE DETECTOR	IN HVAC DUCT
H	FIRE ALARM HEAT DETECTOR	CEILING
F	FIRE ALARM AUDIO/VISUAL INDICATING DEVICE	NOTE 5
F	FIRE ALARM VISUAL INDICATING DEVICE (STROBE)	NOTE 5
TS	FIRE ALARM/SPRINKLER SYSTEM TAMPER SWITCH	AS REQ'D
FS	FIRE ALARM/SPRINKLER SYSTEM FLOW SWITCH	AS REQ'D
F	FIRE ALARM FIRE FIGHTER'S JACK	48" AFF
DH	DOOR HOLDER	AS REQ'D
	EXIT BUTTON	AS REQ'D
PP	PUSH PLATE	AS REQ'D
CR	CARD READER	AS REQ'D
	MOTOR	
XX/NF/X	NON-FUSED DISCONNECT SWITCH ("XX" DENOTES SWITCH SIZE IN AMPS, "X" DENOTES NUMBER OF POLES)	NOTE 2
XX/XX/X	FUSED DISCONNECT SWITCH ("XX/XX" DENOTES SWITCH/FUSE SIZE IN AMPS, "X" DENOTES NUMBER OF POLES)	NOTE 2
NEMA X	COMBINATION STARTER/DISCONNECT SWITCH, NEMA SIZE AS INDICATED	NOTE 2
	CONDUIT AND HOMERUN TO PANEL: 2#12, 1#12G, 3/4"C, U.N.O.	
	CONDUIT WITH 3 PHASE CONDUCTORS, ONE NEUTRAL & ONE GROUND	
	GROUND	

ABBREVIATIONS:

ABV CTR	ABOVE COUNTERTOP
AFF	ABOVE FINISHED FLOOR
CB	CIRCUIT BREAKER
EX	EXISTING
E	INDICATES DEVICE ON EMERGENCY CIRCUIT
G	GROUND
GFI	GROUND FAULT CIRCUIT INTERRUPTER
IG	ISOLATED GROUND
RCPT(S)	RECEPTACLE(S)
UNO	UNLESS NOTED OTHERWISE
WP	WEATHERPROOF
XFMR	TRANSFORMER

NOTES:

1. MOUNTING AS INDICATED ON LIGHT FIXTURE SCHEDULE, LETTER ADJACENT TO FIXTURE DENOTES FIXTURE TYPE.
2. MOUNT ON WALL, ON UNISTRUT FRAME (BY EC) AS REQUIRED.
3. BOTTOM OF PLYWOOD BOARD 12" AFF UNO
4. MANUAL PULL STATION: 48" AFF TO CENTER OF DEVICE.
5. AUDIO/VISUAL DEVICE: 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER. DIMENSION IS TO BOTTOM OF VISUAL DEVICE.
6. AS INDICATED ON ARCHITECTURAL ELEVATION OR 48" AFF UNO.

PANELBOARD SCHEDULE

PANEL DESIGNATION: "1L" SERVICE: 120/240 VOLT, 1 PHASE, 3 WIRE MAINS: 300A MCB
POLES: 42
AIC (RMS SYM): 10K LOCATION: ELECT RM MOUNTING: SURFACE

SERVES	AMPS POLES	LOAD (VOLT-AMPS) LTG	PWR	RCPT	CKT. NO.			LOAD (VOLT-AMPS) LTG	PWR	RCPT	AMPS POLES	SERVES
FURNANCE FUR-2 10 KW	60/2		5000		1	A	2		5000		60/2	WATER HEATER 10 KW
-	-		5000		3	B	4		5000		-	-
WATER HEATER 10 KW	60/2		5000		5	A	6		2500		30/2	FURNANCE FUR-1 5 KW
-	-		5000		7	B	8		2500		-	-
EF-1	20/1		1176		9	A	10		1800		20/1	HAND BLOWERS
EF-2	20/1		696		11	B	12		1800		20/1	HAND BLOWERS
LIGHTING	20/1		331		13	A	14		1800		20/1	HAND BLOWERS
LIGHTING	20/1		655		15	B	16		1800		20/1	HAND BLOWERS
POWER	20/1		860		17	A	18		1800		20/1	HAND BLOWERS
POWER	20/1		500		19	B	20		1800		20/1	HAND BLOWERS
DAMPER CONTROLS	20/1		500		21	A	22		500		20/1	POWER
POWER	20/1		500		23	B	24		310		20/1	LIGHTING
SPARE	20/1				25	A	26		540		20/1	WATER HEATER CONTRLS AND DUPLE
SPACE	20/1				27	B	28				20/1	SPARE
SPACE	20/1				29	A	30				20/1	SPARE
SPACE	20/1				31	B	32				20/1	SPACE
SPACE	20/1				33	A	34				20/1	SPACE
SPACE	20/1				35	B	36				20/1	SPACE
SPACE	20/1				37	A	38				20/1	SPACE
LIFT STATION	50/2		8400		39	B	40				20/1	SPACE
-	-				41	A	42				20/1	SPACE
		0	33618	0				0	27150	0		

NOTES:

	CONNECT KVA		DESIGN KVA	AMPS
LIGHTING.....	0	x1.25=	0	
POWER.....	61	x1.0=	61	
RECEPTACLES.....	0	NEC 220-13	0	
TOTAL KVA / AMPS...	61		61	253

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMP	VOLTAGE	REMARKS
A	WALL MOUNTED LED VANDAL RESISTANT DIE-CAST ALUMINUM HOUSING, POLYCARBONATE LENS, OVAL OPEN FACE LITHONIA GATEWAY VG05C-40LED-120-*-TRS-LP1	SURFACE WALL @ 84" AFF	LED	120V	PROVIDE 3500 K LAMP
B	LED LOW PROFILE STRIP CHANNEL, CHAIN HUNG WITH WIRE GUARD, FROSTED DIFFUSER, LITHONIA ZLIN-L48-5000LM-FST-MVOLT-35K-80CRI-WH-HC36-WGZ48	CHAIN HUNG	LED	120V	PROVIDE 3500 K LAMP
C	LED FULL CUTOFF WALL MOUNTED OUTDOOR FIXTURE. 802 LUMENS, UNIVERSAL DRIVER, WET LOCATION LISTED, DARK SKY COMPLIANT. HUBBELL LAREDO SERIES #LCC-12LU-5K	WALL	LED	120V	
X	TWIN LED LAMP COMBINATION EXIT SIGN / EMERGENCY LIGHT. SINGLE FACE PLATE, NICKEL-CADMIUM BATTERY, THERMOPLASTIC HOUSING. LITHONIA #LHQM-LED	WALL	LED	120V	

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SHEET TITLE
SYMBOLS & LEGENDS ELECTRICAL

SHEET NUMBER
E001
OF 44

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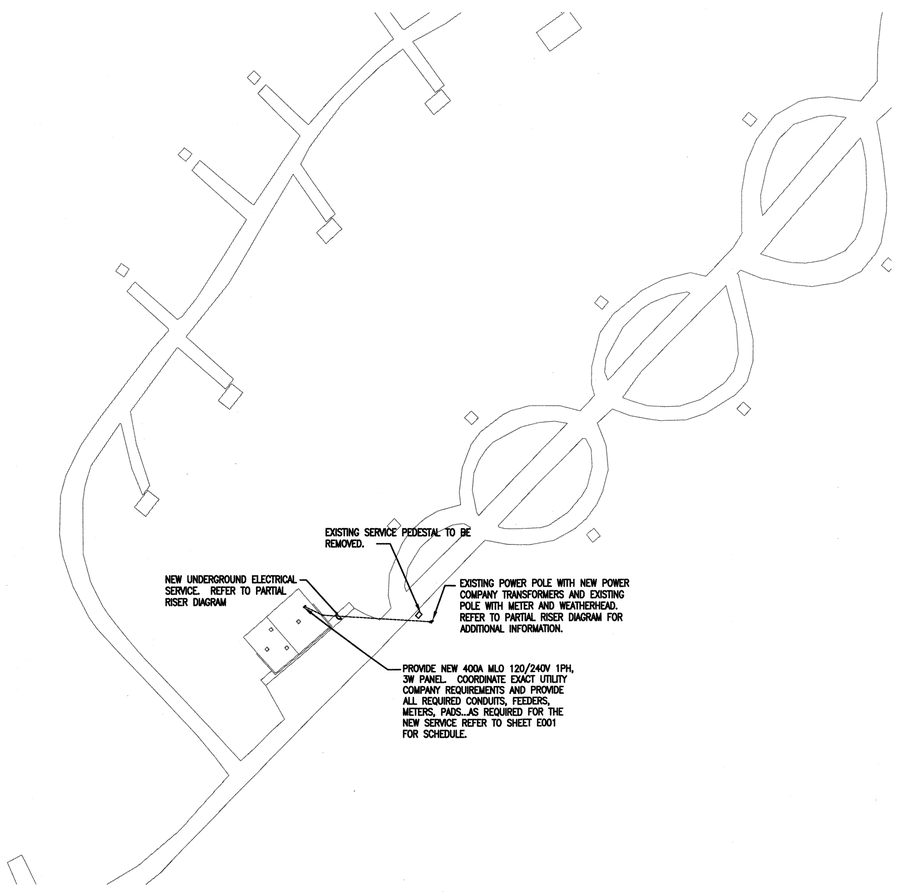
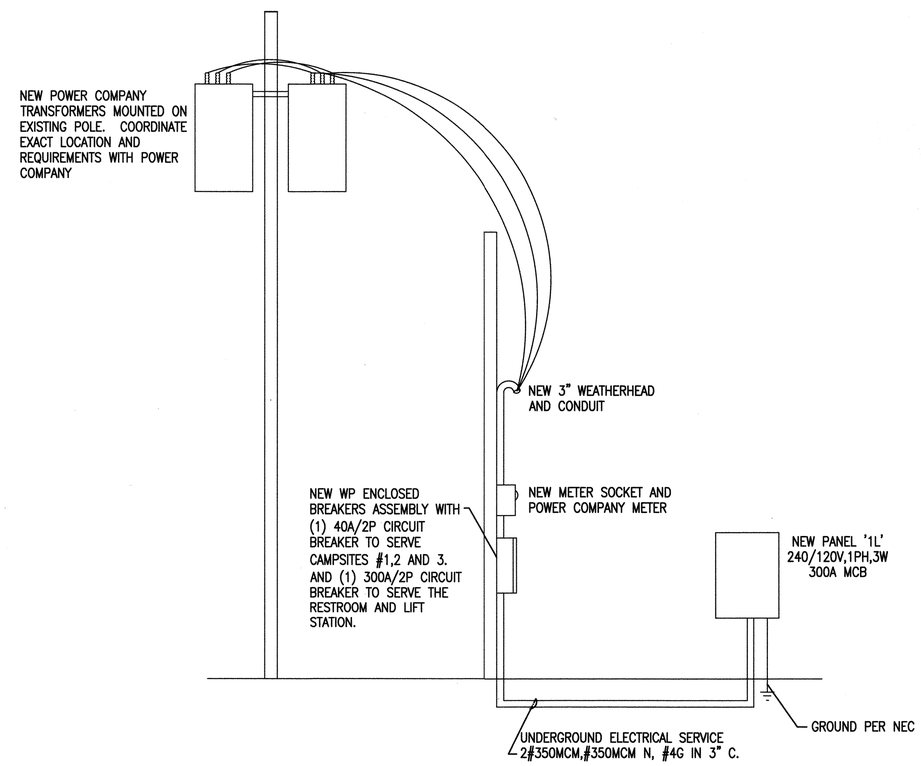


TRUE NORTH

1 ELECTRICAL SITE PLAN

SCALE: 1"=60'-0"



2 PARTIAL RISER DIAGRAM

SCALE: NONE

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SHEET TITLE
ELECTRICAL SITE PLAN

SHEET NUMBER
E101
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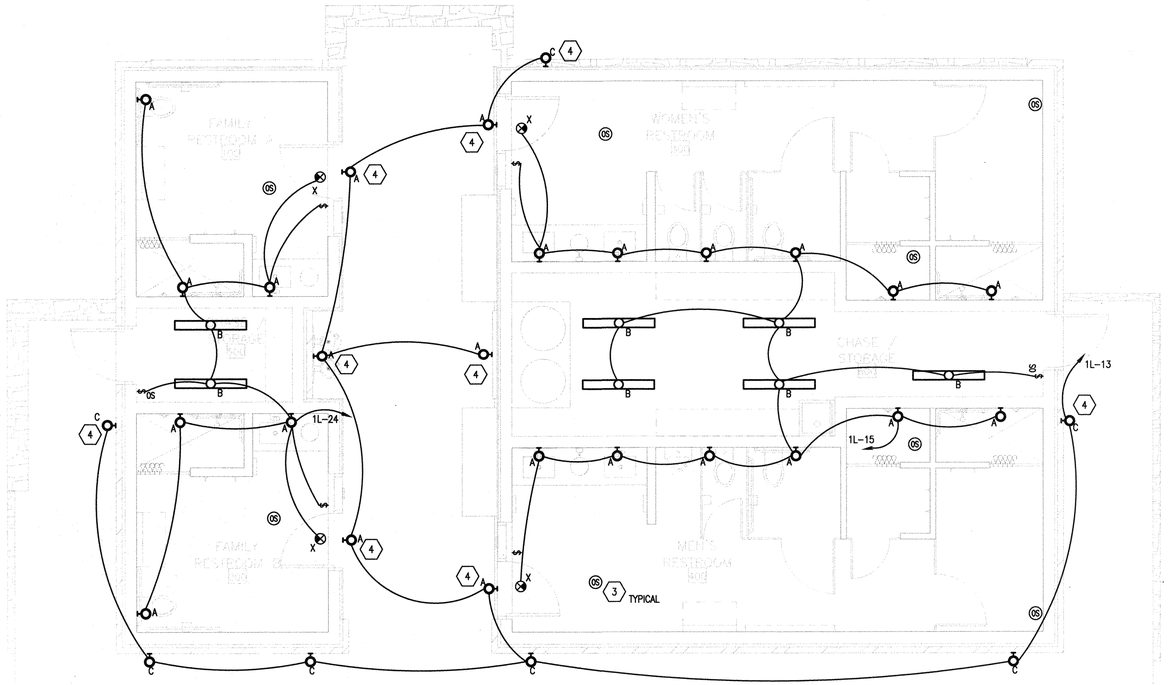
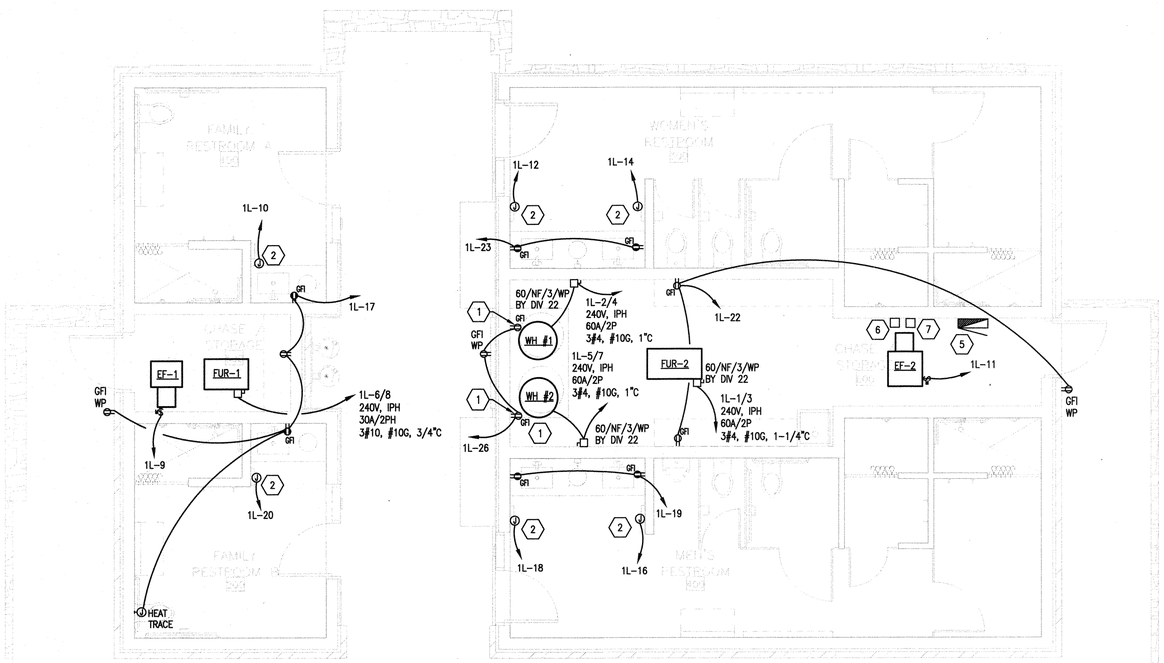
ISSUED FOR CONSTRUCTION



TRUE NORTH

2 FLOOR PLAN - LIGHTING

SCALE: 1/4"=1'0"



TRUE NORTH

1 FLOOR PLAN - POWER

SCALE: 1/4"=1'0"

LIGHTING GENERAL NOTES

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ELEVATIONS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES.

DEMOLITION GENERAL NOTES

1. EXISTING ELECTRICAL SERVICE FOR RESTROOM TO BE REMOVED AND REPLACED WITH NEW SERVICE.

GENERAL NOTES

A. REFER TO ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS FOR EXACT LOCATION AND QUANTITES OF ALL WIRING DEVICES.

B. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.

C. ALL RECEPTACLES WITHIN 6'-0" OF A WET AREA SHALL BE GFI. ALL RECEPTACLES SERVING EQUIPMENT (SUCH AS REFRIGERATORS) THAT ARE NOT READILY ACCESSIBLE SHALL BE PROTECTED BY A GFI BREAKER IN THE PANEL AND LABELED ACCORDINGLY.

D. PROVIDE 120V POWER TO MOTORIZED DAMPERS IN THIS AREA. REFER TO MECHANICAL DRAWING FOR EXACT LOCATION AND QUANTITY OF DAMPERS. CONNECT TO CIRCUITS 1L-21.

E. PROVIDE 120V 20A/1P CIRCUIT FOR HEAT TRACE. COORDINATE EXACT LOCATION WITH PLUMBING PLANS.

KEY NOTES

NOTE: REFERENCE NUMBER INSIDE HEXAGON

1. RECEPTACLE FOR WATER HEATER CONTROLS.
2. RECESSED J-BOX WITH DEDICATED CIRCUIT (120V/30 AMP) FOR ELECTRIC HAND DRYER.
3. DUAL-TECGNOLOGY OCCUPANCY SENSOR, CONNECT TO CONTROL ZONED INTERIOR LIGHTS IN EACH RESPECTIVE SPACE.
4. CONTROL EXTERIOR LIGHT FIXTURE WITH PHOTOCELL AND OVERRIDING ASTRONOMIC TIME CLOCK.
5. NEW 120/240V, 1PH 225A MCB 42 POLE PANELBOARD. REFER TO SCHEDULE. COORDINATE LOCATION WITH ALL TRADES PRIOR TO INSTALLATION.
6. TIME CLOCK. COORDINATE LOCATION WITH ALL TRADES PRIOR TO INSTALLATION.
7. LIGHTNING ARRESTOR AND SURGE ARRESTOR. CONNECT THE LEADS FROM THESE TWO DEVICES ON THE LOAD SIDE OF THE MAIN CIRCUIT BREAKER. COORDINATION LOCATION WITH ALL TRADES PRIOR TO INSTALLATION.

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SHEET TITLE
POWER AND LIGHTING PLANS

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E201
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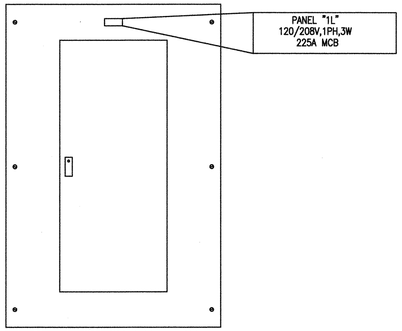
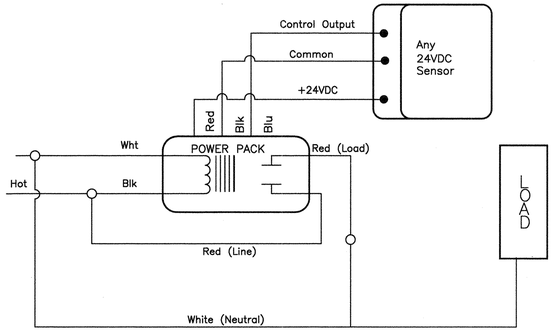
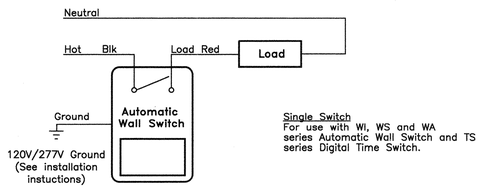


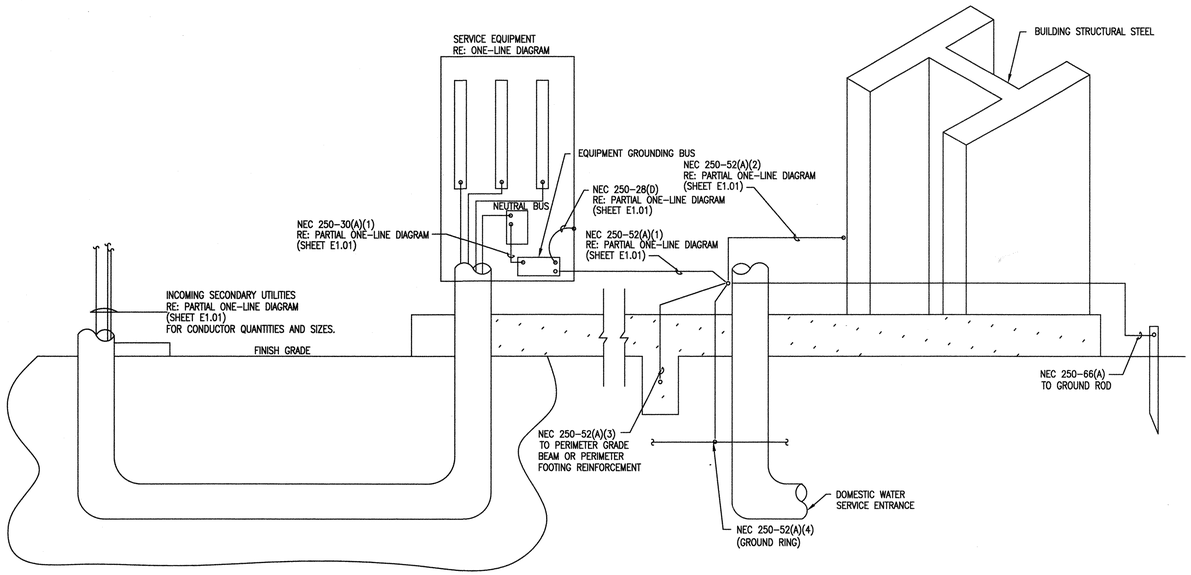
1 PANEL BOARD IDENTIFICATION
SCALE: NONE



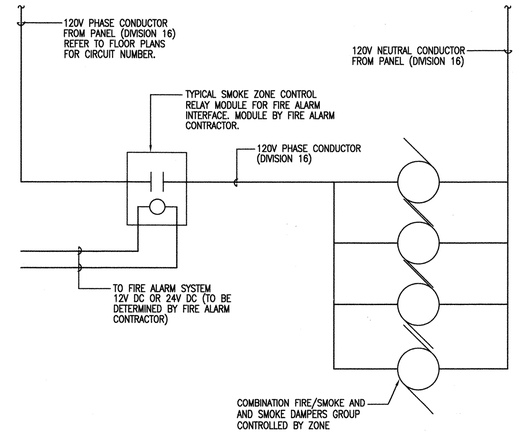
2 CEILING MOUNTED OCCUPANCY SENSOR
SCALE: NONE



3 OCCUPANCY SENSOR - WALL SWITCH
SCALE: NONE



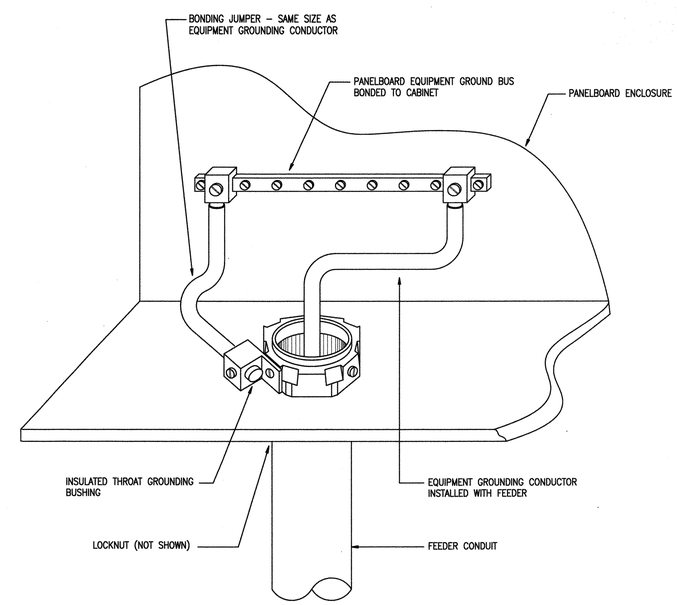
4 ELECTRICAL SERVICE GROUNDING SCHEMATIC
SCALE: NONE



NOTES

A. DAMPERS PROVIDED AND INSTALLED BY DIVISION 15.
B. FIRE ALARM CONTROL RELAY MODULES AND CONTROL WIRING FURNISHED AND INSTALLED BY FIRE ALARM VENDOR.
C. 120V POWER WIRING AND TERMINATIONS BY ELECTRICAL CONTRACTOR.
D. COORDINATE WITH DIV 15 TO PROVIDE CORRECT QUANTITY OF RELAY MODULES TO ALLOW PROPER FUNCTION OF DAMPER SYSTEM

4 TYPICAL MOTORIZED DAMPER WIRING DIAGRAM
NO SCALE



5 PANELBOARD BONDING DETAIL
SCALE: NONE

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