# COVERT PARK RESTROOM/SHOWER FACILITY

# 80559 32nd Avenue, Covert, Michigan

Drawings Prepared For: Covert Township

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CONSTRUCTION NOTES:								
LOCATION:	VAN BUREN CTY							
TYPE:	IIIB							
OCCUPANCY:	В							
EXPOSURE:	В							
WIND:	95/110							
SNOW:	50# GROUND							

# APPLICABLE CODES

BUILDING CODE: PLUMBING CODE: MECHANICAL CODE: ELECTRICAL CODE:

IGAN BUILDING CODE 2015 MICHIGAN PLUMBING CODE 2006 MICHIGAN MECHANICAL CODE 2009 INCORPORATING 2011 NEC EDITION OF THE NATIONAL ELECTRIC CODE

# NOTES

SHOULD A CONTRACTOR FIND DISCREPANCIES OR AMBIGUITIES IN OR OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS, OR BE IN DOUBT ABOUT THEIR MEANING, HE SHALL NOTIFY THE DESIGNER IMMEDIATELY.

CONTRACTORS SHALL VERIFY AND CHECK ALL DIMENSIONS ON THE JOB DURING CONSTRUCTION AND ADVISE THE DESIGNER OF ANY DISCREPANCIES.

DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY.







GENERAL SITE NOTES:

CONTRACTOR MUST BE LICENSED AND BONDED BY THE CITY.

CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING 2. REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE.

CONTRACTOR SHALL COMPLY TO TIH FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.

5. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

10. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES

11. CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DISTURBANCE OF ALL EXISTING SHRUBS, LAWNS, AND OTHER LANDSCAPING FEATURES AND SHALL COORDJNATE REMOVAL OF TREES WITH OWNERS

16. CONTRACTOR SHALL VISIT EXISTING CONDITIONS OF THE SITE.

17. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY, STATE, FEDERAL AND OSHA REGULATIONS.

18. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST FILED LOCATION OF UTILITIES.



Γ	General Notes								
	COVERT TOWNSHIP PARK 80559 32ND AVENUE, COVERT, MICHIGAN								
Drawn:	Drawn:								
B.B.201	7,25,201	7,2,201	6,21,201	Date					
slab and wall note additions	notes revisions	note revisions	deck revisions, insulation revision	Revision/Issue					
4	Ю	2		No.					
	ARCHITECT: BRIAN PETERSON 269.767.1811								
Sheet	Sheet								
Project	rgect <sup>Jate</sup> 8.17.2018 cde								







1/2"=1'-0"















Fixture	ixture Schedule: Covert Township Park								
				Fixture Schedule: Covert Township Park					
Base Bid: All Tamperproot Fixtures			Alternate Bid: Combination Tamperproof & Wet location						
TYPE N	lanufacturer	Cat. Number Mounting	Lamp LED	TYPE	Manufacture	er Cat. Number	Lamp		
LA	Fail-Safe	G12-LD4 20-40 CL120 EDC1	20W	LA	Halo	SLD606840WH	12W		
LA/EM	Fail-Safe	G12-LD4 20-40 CL120 EDC1 EL5W/CSTG/WH	20W	LA/EN	1 Fail-Safe	G12-LD4 20-40 CL120 EDC1 EL5W/CSTG/WH	20W		
LB	Fail-Safe	TR-E-11-LD4-20-OPL-WH 120-ED-C1	20W	LB	Fail-Safe	TR-E-11-LD4-20-OPL-WH 120-ED-C1	20W		
LB/EM	Fail Safe	TR-E-11-LD4-20-OPL-WH 120-ED-C1 EL5W/CSTG/WH	20W	LB/EN	1 Fail-Safe	TR-E-11-LD4-20-OPL-WH 120-ED-C1 EL5W/CSTG/WH	20W		
LC	Fail Safe	VT1730 120V	17W	LC	WAC	FM-306-930JBWT	15.5W		
LD4	Halo	SLD4058	12W	LD-4	Halo	SLD405-8-40-WH	12W		
LD6	Halo	SLD606840 WH	12W	LE	Broan	791LEDM	12W		
LE	Broan	791LEDM	12W	LX	Sure-Lites	LPX76	6W		
ΙX	Sure-Lites	LPX76	6W						

PANEL: RR-RLP-1				LOCATION: MECH/ELECTRIC ROOM							
WIRE SIZE BRANCH CIRCUIT	NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER	LOAD (VA)	BRANCH CIRCUIT NO.	BRANCH CIRCUIT NO.	LOAD (VA)	CIRCUIT BREAKER	LOAD DESCRIPTION	NOTES	BRANCH CIRCUIT WIRE SIZE
					1	2	4500	30A 2P	WATER HEATER 80 GALLON		
					3	4					
		WALL FAN #1 N.S.	25ASP	2250	5	6	4500	30A	WATER HEATER 80 GALLON		
		WALL FAN #2 S.S.	25ASP	2250	7	8		25			
		SHOWER/CHANGING ROOM LTG	20ASP	85	9	10	180	20ASP	MECH ROOM OUTLETS		
		MEN'S ROOM LTG	20ASP	150	11	12	102	20ASP	MECH ROOM LTG		
		MEN'S ROOM GFI OUTLET	20ASP	180	13	14	500	20ASP	PRIVATE RR LTG/EXF/GFI		
		EXTERIOR LTG VIA PEC	20ASP	200	15	16	150	20ASP	WOMEN'S ROOM LTG		
			20ASP		17	18	180	20ASP	WOMEN'S ROOM GFI		
					19	20	72	20ASP	CORRIDOR LTG & EXITS		
			5115 VA SURFA M.C.			A 1	17684				•
		MOUNTING				ACI	ACE .B.		TOTAL CONNECTED (VA) 254–79		
		LUGS OR CIRCUIT BREAKER				с.в.			TOTAL CONNECTED (AMPS) 106	1	
		BUS RATING (AMPERES) & TYPE	150, 120/240						FEEDER: 3 #2/0 THWN 1-#4EG		
		VOLTAGE					-0V 1Ø		OPTIONS:		

1–60A2P 2–30A2P 2–25AIP 16–20AIP

Covert Township Park Electrical Plan Notes

Temporary construction power can be obtained by running a drop into the old existing shower room and connect to the 220V/30A circuit where the water heater currently is. Or, if the new electric service pedestal is already installed, a temporary lead could come from it. E.C shall supply necessary WP electrical equipment to accomplish these temporaries.

New Electrical Service:

- 1. Electrical contractor (EC) shall call I&M Power (1-800-311-6424) and request a new Electrical Service at Covert Township Park. Existing AEP pole number is V-329-35 and it has an existing 15KV single phase, 120/240V secondary.
- 2. Electrical Contractor (EC) shall furnish and install a new 200A/150A, 1-phase, 120/240V, 3-wire +G underground service from the new Electrical Service Low Profile Pedestal (see detail). (EC) to use Directional Boring from Service Disconnect to new Panel.
- 3. The (EC) shall install a  $\frac{34''}{4}$  PVC conduit under the new concrete floor slab from the Existing WP junction box on the East end to the new Pavilion to the Panel in the Mechanical room. This will provide for the raceway for a 20A, 120V for the existing control circuit. Both existing circuits are in the Existing WP junction box.
- 4. The (EC) shall provide a Base Bid using the fixture schedule with Fail Safe tamper proof fixtures. The (EC) may offer an Alternate price for substituting for Types LA, LC, using Halo LED 6" . Do not substitute for any type LA/EM or LB and LB/EM fixtures.

5.(EC) to use deep Octagon boxes or Deep 4" Square boxes with a flat cover and raised oct. opening for all ceiling joist mounted LED fixtures.

6. (EC) shall install a 120V 1800W rated Photo-Electric Cell under the North eave overhang for control of all type LB fixtures.

7. (EC) shall 2-pole contactor with 120v coil for control of the (2) wall fans, circuits #5 & #7

8. The (EC) shall use only PVC conduit and type MC cable for wiring. No ROMEX allowed.



## GENERAL NOTES:

Construction shall comply with all applicable national, state and local building codes.

The Contractor shall check and verify all dimensions and conditions before proceeding with construction. Do not scale drawings. Noted dimensions take precedence.

Workmanship shall conform to the best and highest standards of quality in each trade and shall include all items of fabrication, construction and installation. All work shall be completed by skilled tradesmen and mechanics. Installation of all equipment and materials shall be in strict accordance with manufacturer's recommendations.

Builders Risk Insurance shall be maintained by the contractor during the course of construction until final acceptance by the owner. All bonding and insurance requirements shall be coordinated with the Owner prior to beginning construction. All contractors shall provide and be solely responsible for necessary barricades and safety precautions, and strictly adhere to all governing codes on safety, including the OSHA Act.

THE CONTRACTOR SHALL COORDINATE THE WORK WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ALL NECESSARY OPENINGS AND PENETRATIONS THROUGH WALLS, CEILING AND FLOORS.

ALL PLUMBING, ELECTRICAL AND MECHANICAL WORK WHICH WILL BE ABANDONED FOR PROPOSED CONSTRUCTION WORK SHALL BE CUT BACK, REROUTED, CAPPED AND SAFED-OFF.

ALL MATERIALS AND CONSTRUCTION TO BE INCORPORATED IN THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATIONS APPLICABLE AND SHALL CONFORM TO THE STANDARDS AND RECOMMENDATIONS OF THE VARIOUS TRADE INSTITUTES (A.C.I., A.I.S.C., ETC.) WHERE APPLICABLE.

LOCATION OF ACCESS DOORS SUPPLIED BY MECHANICAL TRADES AND INSTALLED BY OTHERS SHALL BE DETERMINED IN THE FIELD THROUGH COORDINATION OF TRADES, LOCATION OF LIGHT FIXTURES SHALL GOVERN POSITION OF DUCTS AND PIPES FOR WHICH ACCESS DOORS ARE REQUIRED. ACCESS DOORS SHALL NOT BE PLACED IN INACCESSIBLE POSITIONS OR IN THE WAY OF LIGHTS, GRILLS, REGISTERS, CONCEALED BY CASEWORK, ETC.

ALL WORK SHALL BE CONSIDERED NEW UNLESS OTHERWISE INDICATED

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, NOTES AND CONDITIONS ON SITE BEFORE ANY CONSTRUCTION WORK IS STARTED. ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT. NO WORK OR ORDERING OF MATERIAL MAY BE STARTED UNTIL ALL DIMENSIONED ITEMS HAVE BEEN RESOLVED. NO EXTRA CHARGE OF COMPENSATION WILL BE ALLOWED ON ACCOUNT OF ANY DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND THE MEASUREMENTS WHICH MAY BE FOUND AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ASSUME FULL AND UNDIVIDED RESPONSIBILITY FOR THE ACCURACY, FIT, AND STABILITY OF ALL PARTS OF THE WORK.

ALL LABOR, MATERIALS AND INSTALLATIONS MUST COMPLY WITH THE CODES, RULES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCY WHICH EXISTS BETWEEN THE REQUIREMENTS BY THE PLANS, SPECIFICATIONS, SAID CODES, RULES AND REGULATIONS, SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT, IN WRITING FOR RESOLUTION. IF ANY CHANGE IN THE PLANS AND / OR SPECIFICATIONS OCCURS AS A RESULT OF THE REQUIREMENTS OF THE LIFE SAFETY CODE (NFPA 101) OR ANY OTHER AUTHORITIES HAVING JURISDICTION AFTER THE SUBMISSIONS OF BIDS, THEN THE BIDDERS WILL BE GIVEN THE OPPORTUNITY TO ADJUST THEIR BIDS, IF NECESSARY, ONLY FOR THE CHANGE.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION OF EXISTING WORK AND NEWLY ADDED WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION AND MISALIGNMENT ACCORDING TO APPLICABLE CODES AND STANDARDS.

THE CONTRACTOR SHALL REPAIR AND RESTORE TO ITS ORIGINAL CONDITION ALL WORK AND ITEMS DAMAGED AS A RESULT OF BUILDING OPERATIONS AND SHALL LEAVE THE WORK COMPLETED TO THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE ARCHITECT AND OWNER.

ANY DISTURBANCE OR DAMAGE TO THE EXISTING BUILDINGS OR UTILITIES RESULTING EITHER DIRECTLY OR INDIRECTLY FROM THE OPERATION OF THIS CONTRACT SHALL BE PROMPTLY REPAIRED, RESTORED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

Construction site to be in a clean and orderly condition throughout the construction process. Clean interior spaces prior to the start of finish painting and the application of other finishes. At the conclusion of construction, the project shall be properly cleaned

### 02 00 00 - Existing Conditions

Contractor shall review construction documents and provide necessary site work, excavation and grading as required to construct said project.

### 02 41 00 - Demolition

Provide all labor, materials and equipment to perform the required demolition of existing pavement no longer needed for access or parking, abandoned utilities and structures which interfere with the proposed construction. When required install chain link fencing around the area of demolition work. Protect all adjacent areas not to be demolished. Remove all debris from job site before construction begins.

### 03 00 00 - Concrete

Contractor shall review construction documents and provide labor and materials pertaining to concrete and foundations as required in said documents and as specified herein, while complying with all applicable building codes.

### 03 05 00 - Common Work Results for Concrete

All concrete work shall be designed on the basis of "Strength Design" in accordance with ACI 318 "Building Code Requirements for reinforced Concrete." Concrete work shall be proportioned in accordance with ACI 301 "Specifications for Structural Concrete" and ACI 211.1 "Recommended Practice for Selecting Proportions for Normal Weight Concrete". Concrete patios, driveways, walls and foundations shall be constructed of a minimum 4000 psi concrete, 28 day test, with a 4" minimum to 6" maximum slump maximum, air-entrained to 5 - 8%. No additional water shall be added to concrete after slump test is recorded. Concrete should be a mix of high grade Portland cement, clean sand or granular fill and washed gravel or crushed stone as coarse aggregate per ACI 530. Maximum aggregate size shall be <sup>3</sup>/<sub>4</sub>". All aggregates shall conform to ASTM C33. Gravel should be well graded and not exceed 1 1/2" in size. Water shall not exceed 5 1/2 gallons for each bag, unless sand is very dry. Concrete shall be mixed using an approved batch machine or mobile mixer until uniform in color and providing a 4" minimum to 6" maximum slump.

### **03 10 00 - Concrete Forming and Accessories**

Provide all labor, materials and equipment necessary for the completion of the plain and reinforced concrete called for on the plans. Concrete when deposited shall have a temperature ranging between a minimum of 50 degrees Fahrenheit and a maximum of 90 degrees Fahrenheit.

**Construction of Forms -** Construct wood forms of sound material, and of the correct shape and dimensions, constructed tightly and of sufficient strength. Brace and tie the forms together. Make joints and seams mortar tight. Install leakage control materials in accordance with manufacturer's installation instructions.

**Embedded Items** - make provisions for sleeves, anchors, inserts, water-stops and other features.

Form Ties - Use form ties of sufficient strength and in sufficient quantities to prevent spreading of the forms. Place ties at least 1 inch away from the finished surface of the concrete. Do not use ties consisting of twisted wire loops. Leave inner rods in concrete when forms are stripped. Space all form ties equidistant and symmetrical and line up both vertically and horizontally.

Cleanouts and Access Panels - Provide removable cleanout sections or access panels at the bottom of all forms to permit inspection and effective cleaning of loose dirt, debris and water material. Clean all forms and surfaces to receive concrete of all chips, sawdust, and other debris and thoroughly blow out with compressed air just before concrete is placed.

### 03 15 13 - Concrete Accessories

Provide 1/2" thick by 4" wide bituminous expansion joint material at all surfaces where slabs adjoin raised slab, crawlspace or basement stem-wall CMU or poured foundations.

### 03 21 00 - Reinforcing Steel

Reinforcing steel (rebar) shall be minimum ASTM A615, grade 40. All reinforcement splices shall be as follows: #5 bars 25" minimum, #7 bars 35" minimum. All rebar (reinforcing steel) shall be located 3" clear from bottom and side of footing and 2" clear from top. Locate vertical rebar (reinforcing steel) 4'-0" on center (OC). All reinforcement splices shall be in accordance with ACI 318 for "Strength Design." All reinforcement steel shall be accurately placed, rigidly supported, and firmly tied in place with bar supports and spacers in accordance with ACI 301 and ACI 318.

### 03 22 00 - Welded Wire Fabric Reinforcing

Welded wire fabric shall conform to ASTM A105 and be located in the center of the depth. Install at slab on grade conditions.

### **03 30 00 - Footings**

Center all footings on walls, piers, or columns above unless otherwise noted. All footings shall rest on undisturbed virgin soil with minimum soil bearing allowable of 2500 psf, tested for 95 percent compaction, or 3/4" stone compacted in 12" lifts to 95 percent density if fill is required. Footings at building perimeter shall be a minimum of 12" below frost line and 20" wide, (check with local building officials for frost line level) constructed of 3000 psi concrete. Provide 3 - #5 rebar (reinforcing steel) continuous through footers. Provide #5 rebar (reinforcing steel) corner bars at all corners and intersections of footers, beams and walls. Each side should overlap 2'-0", with a 90 degree bend. Footers shall bear on undisturbed soil and kept free from ground water. Underneath load-bearing walls and interior or exterior column footings, thicken slabs within a 1' radius to 12"thick.

### 03 30 01 - Slab Foundations

Concrete floor slabs shall be constructed of 4000 psi concrete, 4" thick reinforced with 10 gauge 6" x 6" welded-wire mesh continuous and rebar (reinforcing steel) as per plans. Place slabs over well-compacted granular fill compacted in 12 inch lifts to 95 percent density per AASHTO T-180 Proctor, and a 4 or 6 mil vapor barrier. Provide broom finish for all interior slab areas . Provide broom finish texture for all exterior slabs. Slope exterior patio or porch slabs away from building at 1/4" of drop in elevation for every 1'-0" in distance. Exterior slabs shall be constructed of 4000 psi concrete.

### 03 35 00 - Concrete Finishing

Repair of surface defects shall begin immediately after removal of form or pouring of slab foundation. Provide smooth steel trowel finish for all interior slab areas and garage surfaces. Provide broom finish texture for all exterior slabs. Slope exterior patio or porch slabs away from building at 1/4" of drop in elevation for every 1'-0" in distance. At garage slab, provide positive drainage and taper lip at garage/overhead door. Patch all voids and depressions exceeding 3/8 inch in any direction.

### 04 22 00 - Concrete Unit Masonry

Shall be in accordance with ASTM C90 or C145, 1500 psi compressive strength, grade N, Type 1, hollow core load bearing CMU and shall have minimum net compression strength of 1900 psi. Use Grade N, type 1, specialty shapes load bearing concrete masonry units as specified. Standard width of mortar joints for both horizontal and vertical joints shall be 3/8 inch Joints shall have a full mortar coverage. Lay CMU plumb with all courses level using appropriate corner blocks at corners, window and door jambs. Reinforcing mesh shall be installed in the three courses above all openings and shall extend 3 feet 9 inches beyond each side of opening. Mesh shall be installed in every third course of all masonry unit walls. Cut block with a carborundum saw. Use solid load-bearing block when required for structural purpose.

### 05 50 00 - Metal Fabrications

Install metal detailing as specified on construction documents. Install metal gates, grilles, iron work, etc. to meet all applicable building codes, with appropriate detailing and patterns as shown in construction documents. Metal shall be shop built, welded together, cleaned thoroughly and painted with two coats of an anti-rust primer. After installation, apply an additional coat and anti-rust primer in preparation for finish coats.

### 06 00 00 - Wood, Plastics, and Composites

Contractor shall review construction documents and provide labor and materials pertaining to carpentry work as required in said documents and as specified herein, while complying with all applicable building codes.

### 06 11 00 - Wood Framing

Information below pertains to conventional stick framing, if pre-engineered trusses are used follow manufactures guidelines for installation. Pressure treated lumber shall be used where any lumber shall come into contract with concrete, masonry block, roof curbing or roof blocking.

Roof Decking - Provide and install exterior sheathing of APA rated and code certified CDX plywood panels or OSB. Sheathing shall be installed with the face grain running across the rafters, vertical joints staggered. Nails shall be 6d or 8d common smooth, ring-shank or spiral thread nails spaced 6" apart on the ends and 12" apart inside. Install with plywood "H" clips between each piece of decking, every 48". Install one layer of moisture barrier 15# or 30# felt, overlapped a minimum of 6".

Decks, Porches, Balconies - Exterior grade lumber and Azek composites shall be used for exterior deck. Provide and install galvanized joist hangers to connect 2"x 10" floor joists to the main structure every 12"-16" on center (OC).

### 07 13 13 - Felt

On all roof surfaces install a minimum 15, 30 # asphalt impregnated rooting felt. For roofs that are steeper than a 6:12 pitch use a single layer of felt. For roofs with less than a 6:12 pitch install a double layer of felt and overlap a minimum of 18". Overlap felt a minimum of 4" vertically and 12" horizontally. Continue felt 6" up all vertical surfaces and 4" over gutter and valley metal. Fasten all edges with large headed galvanized nails on 6" centers. Lay courses parallel with eaves. Do not stretch courses.

### 08 50 00 - Windows

Confirm that openings are compliant with all applicable building codes concerning egress, lighting and ventilation requirements. Temper all glass located within 2'-0" from exterior doors, all glass in doors and above tub enclosures. Provide and install necessary windows and appropriate hardware to operate and lock windows. Hardware Finish shall be: TBD by owner.

### 08 71 00 - Door Hardware

Finish hardware shall include keyed deadbolt locksets at all exterior doors. Interior doors shall be a combination of privacy and passage locks. Hardware shall be as per allowance. Specify in chart below the type of hardware for each door. All exterior locksets shall be keyed the same.

### 09 29 00 - Gypsum Board

Gypsum board must be held firmly against the framing while fastening to avoid later movement of gypsum board on the shank of the nails or screws.

Nails or Screws: Nails and screws shall be a minimum 3/8" and a maximum of 1/2" from edges and ends of wallboard and the heads shall be seated slightly below the surface without breaking the paper. Nails shall be spaced not to exceed 7" on ceilings or 8" on sidewalls. Head diameter shall be a nominal 1/4" with the length 1 1/2" to penetrate a minimum of 7/8" into nailing member. Nails shall meet the minimum requirements of ASTM C514 and may include coated, etched treated or annular ring shanks to improve withdrawal resistance. Drywall screws shall meet the minimum requirements of ASTM C1002. Bugle-shaped heads shall be 0.315" in nominal diameter and contain a No. 2 Phillips driving recess. Type "W" screws are designed for easier fastening in wood.

Joints: At gypsum wallboard joints install a 2" strong, cross threaded tape with a cross tensile strength of 45 lbs per lineal inch. Press a strong, good quality tape firmly onto sheathing joints and around openings, imbedded in joint cement. At corners and angles, install metal corner beads as specified by manufacturer. If corners are rounded, install corner reinforcement as required. Spread gypsum wallboard mud at all tape joints, corner beads, nails and screw penetrations and where a smooth surface is needed. Apply second coat of wallboard mud after a minimum 24 hours. After drying (minimum 48 hours), sand all joints and other areas to a smooth consistent surface.

Ceilings: Apply a single layer of 1/2" gypsum wallboard across the supports and fasten with nails or screws. Offset joints between layers at least 10". Nails are spaced 6"on center (OC) with 1 1/4" heads. Screws are spaced 12" on center (OC). Ceiling finish shall be smooth.

Water Resistant Gypsum Wallboard: Around showers, tubs, whirlpools, or as required by applicable building codes, install 1/2" water resistant drywall.

22 00 00 - Plumbing Plumbing shall be a fully operational system of hot and cold water. Provide and install all piping, soil, vents, drains, sewage removal and water supply systems to connect with appropriate water and sewage systems. Provide and install appropriate insulation around piping. All permits and inspections are to be obtained by contractor as required by local building codes and the Uniform Plumbing Code.

09 91 23 - Interior Painting See Room Schedules for information

Specify Wall Paint: TBD by owner

### 15 00 00 - Mechanical

Contractor shall review construction documents and provide labor and materials pertaining to the mechanical systems, as required, while complying with all applicable building codes.

Provide shut-off valves at sinks, toilets, water heater and other fixtures (stainless steel ball valves). Test all pipes under 100 lbs pressure per building code requirements.

Waste Drainage - Drain size to be 4" minimum, schedule 80. Install sewage clean-out at the end of each horizontal drainage run and every 100 feet per building code requirements. Vents shall be installed throughout plumbing connections and connected with the vertical stacks and vented through the roof. Check with local building code officials for specific venting requirements.

General Note K K  $\triangleleft$  $\square$  $\sim$  $\cap$  $\sim$  $\frown$ SON Ř  $\widetilde{\Sigma}$ HITEC' AN ARCH റ് BR| 9