Template V2.2 Last Updated 08/9/08

Responsibility Schedule

Item	Furnished By: GC	Furnished By: Landlord	Furnished By: AT&T	Furnished By: Separate Vendor	Installed By: GC	Installed By: Landlord	Installed By: AT&T	Installed By: Separate Vendor	Installed By: Existing	Comments
Architectural										
Ceilings	•		•		•					Sales floor ceilings provided by AT&T. GC to provide BOH.
Demising Partitions									•	Provide rated demising walls between Tenants, constructed in accordance with City Code and coordinated with adjacent Tenant construction. Demising wall maintenance will be by Tenant. Demising walls should be free of holes or depressions which require patching prior to painting. If applicable, any openings in the demising wall must be closed and patched.
Demolition	•				•					Remove existing conditions as required per local codes & ordinances for new buildout
Display Fixtures			•		•					Sales floor fixtures provided by AT&T
Entry Door & Hardware	•				•					
Flooring	•				•					All flooring provided by GC. GC to coordinate with tenant for standardized finishes.
Interior Doors, Frames & Hardware	•				•					
Interior Finishes	•				•					GC to provide and install all finish materials as indicated on finish sheet
Interior Partitions	•				•					
QMI Cabinet			•		•					One unit to be provided by AT&T. GC to install in back of house. Coordinate with tenant.
Storefront System	•				•					GC to provide and install storefront system that complies with development's design standards.
Communications										
Antenna & Dish Installation	•				•					One (1) 2" diameter weatherproof conduit penetrating roof for tenant's satellite antenna or dish installation(s) shall be provided. Conduit location requires Tenant approval prior to installation
Data Cabling				•					•	GC to coordinate with Tenant. AT&T to provide DSL or T-1 service.
IT Equipment				•					•	GC to coordinate with Tenant. AT&T to provide AATV IT equipment, device Alive IT equipment and universal memory charger.
Muzak System				•					•	GC to coordinate with Tenant.
Security System				•					•	GC to coordinate with Tenant. AT&T to provide ShopperTrak.
Telephone System				•					•	GC to coordinate with Tenant. AT&T to provide DSL or T-1 service.
Electrical										
Electric Meter	•				•					
Electrical Distribution	•				•					All power/data cabling & conduit as required including electrical wiring & conduit(s) as required to the Tenant's exterior storefront sign

Item	Furnished By: GC	Furnished By: Landlord	Furnished By: AT&T	Furnished By: Separate Vendor	Installed By: GC	Installed By: Landlord	Installed By: AT&T	Installed By: Separate Vendor	Installed By: Existing	Comments
Electrical Panel(s)	•				•					Electrical panel requirements to be verified by responsible party's engineer to comply with all codes, regulations and AT&T requirements prior to construction
Electrical Service to Space	•									
Light Switches	•				•					
Lighting	•				•					
Service Disconnect	•				•					
Telephone Service to Space	•				•					
Life Safety										
Emergency Lighting Fixtures	•				•					GC to provide additional as required by local codes & ordinances
Fire Extinguishers	•				•					Fire Extinguishers are to be located as required by local municipal codes
Fire Sprinkler & Alarm System	•				•					Where applicable, all fire sprinklers and alarms should be laid out and installed in consideration of AT&T's approved floor and ceiling plan. If applicable, all strobes shall be confirmed to comply with all TAS and/or ADA regulations.
Smoke Detector & Alarm System	•				•					
Mechanical										
HVAC Distribution	•				•					Including all ductwork, dampers, and diffusers to be provided and installed based on the lighting layout on the ceiling plan provided by Oculus Inc.
HVAC Rooftop Unit & Curb	•				•					See MEP drawings for additional information.
Restroom Exhaust Fan(s)	•				•					
Thermostat(s)	•				•					
Plumbing										
Restroom Accessories	•				•					
Restroom Fixtures	•				•					
Sanitary Line Rough-In	•				•					
Water Line		•				•				
Signage										
Interior Signage			•				•			
Primary Building Sign				•				•		Sign Vendor to obtain all required signage permits

Symbol Legend (Not to Scale)

- Project Limit Line — Scope of Project
- ALIGN — Aligned Surfaces
- Area Name / 150 SF — Area Name, Area — Area Tag
- Room Name / 101 / 150 SF — Room Name, Room No., Room Area — Room Tag
- 101 — Door/Room No. — Door Tag
- 1t — Window Type — Window Type Tag
- F 1 1 a — Partition Configuration, Insulation, Partition Configuration — Partition Tag
- 1 / A101 SIM — Reference Label, Detail No., Sheet No. — Building Section
- 1 / A101 SIM — Reference Label, Detail No., Sheet No. — Wall Section
- 1 / A101 SIM — Reference Label, Detail No., Sheet No. — Detail Section/Callout
- Key Note No. — Key Note
- ℄ — Centerline
- Graphic North — Reference Label — North Arrow
- 0 — Grid No. — Column Grid Line
- Name / Elevation — Level/Datum Name, Level/Datum Elevation AFF — Level Marker
- Spot Elevation AFF — Spot Elevation
- Xx.x / Xx.x — Detail No., Sheet No. — Elevation
- Starting Point @ Center — Dimension Crosshair
- Highpoint @ Tail — Slope Indicator
- Change @ Head — Material Change Indicator

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General Project Notes

1) The Architect shall be notified immediately of any discrepancies between these documents and any applicable codes by the agent involved with the governing agency having jurisdiction. It is understood that the "field inspector" for such agency has final authority to approve/disapprove project construction and correctness of all code related items.
2) Each subcontractor is considered a specialist in their respective field or trade and shall notify, prior to performance of the work, the General Contractor and the Architect of any work called out in the drawings which cannot be fully guaranteed or constructed as designed or detailed.
3) The Contractor shall verify all site conditions and dimensions prior to commencing the work and immediately notify the Architect in writing of any discrepancies.
4) The Contractor shall verify all dimensions and locations of all openings, bases, and special provisions required for equipment, ducts, piping, conduits, finish hardware, etc. And immediately notify the Architect in writing of any discrepancies.
5) Do not scale drawings. All dimensions specified shall govern.
6) Where construction details are not shown or noted for any part of the work, detailing shall be the same as for other similar first class work for the trade involved. The Architect shall be notified immediately of any alternate non-standard or untested method(s) proposed.
7) General Contractor shall coordinate architectural drawings with mechanical and electrical, plumbing, civil and landscape drawings.
8) General Contractor shall maintain all existing fire ratings during demolition and construction.

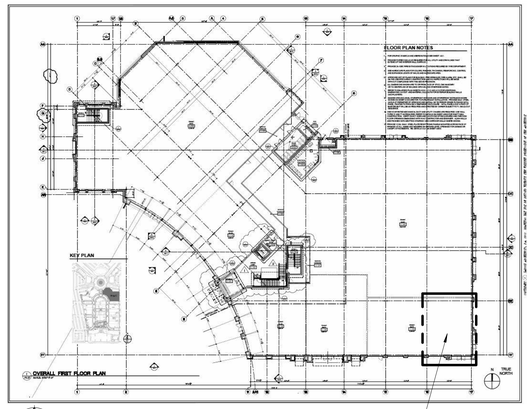
List of Common Abbreviations

AAV	Automatic Air Vent	D	Deep	HB	Hose Bibb	S	Sink
AB	Anchor Bolt	DA	Double Facing	HC	Hollow Core	SCH	Schedule
ABV	Above	DEM	Demolish, Demolition	HDRE	Hardware	SCT	Structural Clay Tile
AC	Air Conditioning	DET	Detail	HK	Hook (s)	SIM	Similar
ACC	Access	DEPR	Depressed	HM	Hollow Metal	STD	Standard
ACOUS	Acoustical	DF	Drinking Fountain	HORIZ	Horizontal	SECT	Section
ACPL	Acoustical Plaster	DIA	Diameter	HP	High Point	SFGL	Safety Glass
ACT	Acoustical Ceiling Tile	DIAG	Diagonal	HR	Handrail	SNT	Sealant
ACP	Acoustical Ceiling Panel	DIM	Dimension	HT	Height	SQ	Square
AD	Access Door	DIV	Division	HTG	Heating	SS	Stainless Steel
ADD	Addendum	DL	Dead Load	HVAC	Heating/Ventilating/AC	STA	Station
ADH	Adhesive	DMT	Demountable	HWH	Hot Water Heater	STD	Standard
ADJ	Adjustable	DN	Dow	ID	Inside Diameter	STG	Seating
ADJC	Adjacent	DP	Damp Proofing	IF	Inside Face	STL	Steel
AFF	Above Finished Floor	DPR	Damper	INCL	Include (d), (ing)	STO	Storage
AHU	Air Handling Unit	DR	Door	INFO	Information	STRUCT	Structural
ALT	Alternate	DS	Downspout	INSUL	Insulate (d), (ion)	SUSP	Suspended
AL	Aluminum	DW	Dumbwaiter	INT	Interior	SYM	Symmetry (ical)
ALUM	Aluminum	DWG	Drawing	INV	Invert	SYS	System
ANC	Anchor, Anchorage	DWR	Drawer	JBOX	Junction Box	T	Tread
ANOD	Anodized	EA	Each	JC	Janitor's Closet	TB	Tack Board
AP	Access Panel	EACT	Acoustical Tile (Exist to Remain)	JT	Joint	TC	Top of Curb
APPROX	Approximate	EB	Expansion Bolt	KCPL	Keene's Cement Plaster	TEL	Telephone
ARCH	Architect (ural)	EEC	Existing Exposed Construction	KIT	Kitchen	TERR	Terrazzo
ASB	Asbestos	EG	Exterior Grade	KO	Knockout	T&G	Tongue And Groove
ASPH	Asphalt	EJ	Expansion Joint	KP	Kick plate	TH	Threshold
AT	Asphalt Tile	EL	Elevation	L	Long	THK	Thick (ness)
AUX	Auxiliary	ELEC	Electric (al)	LAB	Laboratory	TKS	Tack Strip
B/D	Bottom of Deck	ELEV	Elevator	LAM	Laminate (d)	TLB	Towel Bar
BACC	Bath Accessory	EMERG	Emergency	LAV	Lavatory	TO	Top of
BBD	Bulletin Board	EMT	Electrical Metallic Tubing	LB	Pound	TOL	Tolerance
BD	Board	ENAM	Enamel	LL	Live Load	T.O.S.	Top of Steel
BEL	Below	ENT	Entrance	LP	Low Point	TPD	Toilet Paper Dispenser
BET	Between	EQ	Equal	LT	Light	TPTN	Toilet Partition
BEV	Beveled	EQUIP	Equipment	LVR	Louver	TS	Top of Slab
BIT	Bituminous	EST	Estimate	MAINT	Maintenance	TS	Transparent Finish-Stained
BLDG	Building	EWC	Electric Water Cooler	MAS	Masonry	TV	Television
BLK	Block	EXF	Exhaust Fan	MAT	Material (s)	TW	Top of Wall
BLKG	Blocking	EXH	Exhaust	MAX	Maximum	TYP	Typical
BM	Beam	EXT	Exterior	MCB	Metal Corner Bead	UNF	Unfinished
BOT	Bottom	EXTG.	Existing	MECH	Mechanic (al)	UON	Unless Otherwise Noted
BRG	Bearing	EXP	Exposed	MED	Medium	UR	Urinal
BRG PL	Bearing Plate	FA	Fire Alarm	MTL	Metal	V	Vent
BRK	Brick	FAB	Fabric	MFR	Manufacture (er)	VB	Vinyl Base
BS	Both Sides	FAS	Fasten, Fastener	MIN	Minimum	VCT	Vinyl Composition Tile
BSMT	Basement	FBO	Furnished by Others	MIR	Mirror	VERT	Vertical
BUR	Built Up Roofing	FDN	Foundation	MISC	Miscellaneous	VIN	Vinyl
BW	Both Ways	F/CONC	Face of Concrete	MO	Masonry Opening	VPB	Vapor Barrier
C	Conduit	FD	Floor Drain	MULL	Mullion	VT	Vinyl Tile
CAB	Cabinet	FF	Finished Floor/Face	N/A	Not Applicable	VWF	Vinyl Wall Fabric
CA. BA.	Catch Basin	FFH	Factory Finish	NIC	Not In Contract	W/	With
C.B.	Chalkboard	F/FIN	Face of Finish	NOM	Nominal	WB	Wood Base
CC	Center to Center	FE	Fire Extinguisher	NRC	Noise Reduction Coefficient	WC	Water Closet
CCTV	Closed Circuit Television	FEC	Fire Extinguisher Cabinet	NTS	Not To Scale	WD	Wood
CEM.	Cement	FGL	Fiberglass	OA	Overall	WG	Wired Glass
CER	Ceramic	FHC	Fire Hose Cabinet	O.C.	On Center (s)	WIN	Window
CFL	Counter-flashing	FHS	Fire Hose Station	O.H.	Opposite Hand	WMP	Wire Mesh Partition
CG	Corner Guard	FHMS	Flathead Machine Screw	OD	Outside Diameter	W/O	Without
CIRC	Circumference	FHWS	Flathead Wood Screw	OHD	Overhead	WP	Weatherproof
CJ	Construction Joint	F/N	Finish (ed)	OPNG	Opening	WPF	Weatherproofing
CK	Calk (ing)	FL	Fluorescent	OPP	Opposite	WPT	Working Point
CLG	Ceiling	FLASH	Flashing	P	Paint (New)	WSCT	Wainscot
CLOS	Closet	FLX	Flexible	PFB	Prefabricate (d)	WWM	Welded Wire Mesh
CLR	Clear (ance)	F/MAS	Face of Masonry	PFN	Pre-finished	XFMR	Transformer
CLS	Closure	FPRFG	Fireproofing	PL	Plate		
CMU	Concrete Masonry Unit	FR	Fire Resistant	PLAM	Plastic Laminate		
CO	Clean Out	FS	Face of Studs	PLAS	Plaster		
CPT	Carpet (ing)	FSZ	Full Size	PLY.	Plywood		
COL	Column	FT	Feet	PM	Pressed Metal		
COMP	Compress (Ed),(ion),(ible)	FTG	Footing	PNB	Panic Bar		
CONC	Concrete	FURR	Furred (ing)	POL	Polished		
CONN	Connection	FoB	Face of Brick	PROP	Property		
CONST	Construction	GA	Gage, Gauge	PRT	Preservative Treated		
CONT	Continuous or Continue	GALV	Galvanized	PTD	Painted		
CONTR	Contract (or)	GB	Grab Bar	PTN	Partition		
CORR	Corridor	GC	General Contractor (or)	PTR	Paper Towel Receptor		
C.R.	Card Reader	GFI	Ground Fault Interrupt	PVC	Polyvinyl Chloride		
CRT	Cathode Ray Tube	GL	Glass, Glazing	QT	Quarry Tile		
CT	Ceramic Tile	GVL	Gravel	R	Riser		
CTR	Counter	GWB	Gypsum Wall Board	RA	Return Air		
CTSK	Countersink	GYP	Gypsum	RAD	Radius		
		GYP.BD.	Gypsum Board	RB	Resilient Base		
				RD	Roof Drain		
				RDC	Roof Drain Conductor		
				REF	Reference		
				REFL	Reflect (ed),(ive),(or)		
				REINF	Reinforcement		
				REQD	Required		
				REV	Revision (s), Revised		
				RFG	Roofing		
				RM	Room		
				RO	Rough Opening		

Materials Legend (Not to Scale)

- Acoustic Ceiling Panel/Tile
- Batt Insulation
- Blocking
- Concrete
- Continuous Framing
- Earth Compacted Fill
- Glass
- Gravel
- Gypsum Board
- Masonry, Brick
- Masonry, CMU
- Rigid Thermal Insulation
- Sheathing
- Steel

Building Key Plan (Not to Scale)



Project Directory

MEP Engineer Contact:
AEdifica Case Engineering
796 Merus Ct
Fenton, MO 63026
Randy Buechele
rbuechele@aedifica.com
(636) 349-1600 xt 224 phone
(636) 349-1730 fax

Architect Design Consultant:
Oculus Inc.
One S. Memorial Dr. Suite 1500
St. Louis, MO 63102
Matt Bradley
mattb@oculusinc.com
(314) 367-6100 phone
(314) 367-1489 fax

Construction Manager:
CBRE
Casey Hubbard
casey.hubbard@cbre.com
(720) 204-1833
(720) 212-0862 fax

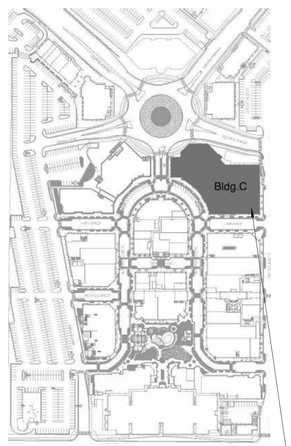
Dealer Contact:
Spring Mobile
3939 South Wasatch Blvd.
Salt Lake City, UT 84124
Tony Merck
tmerck@springmobile.com
(801) 308-1343 phone
(801) 243-8736 mobile

Light Fixture Orders:
Grainger
Jason Jones
(404) 234-1425
jason_jones@grainger.com

Carpet Orders:
Shaw
Mark Law
(770) 241-1345
mark.law@shawinc.com

HVAC Ordering: (if applicable)
Trane National Accounts
Ed Metzger
(404) 836-2106
ehmetzger@trane.com

Location Map (Not to Scale)



Oculus Inc.
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(314) 367-6100

at&t Your world. Delivered.

Farmington, UT

220 N. Central Avenue
Farmington, UT 84025

DES Enhanced

#	Description	Date

ISSUED FOR PERMIT

Client Approval

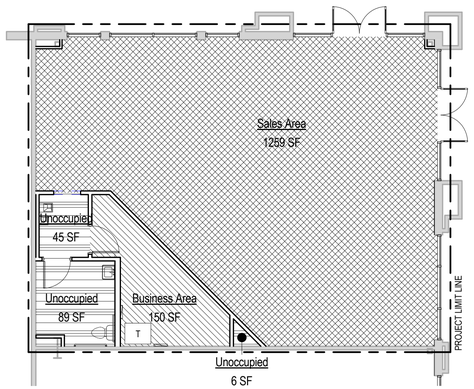
General Project Information

Project #	17513-UT02
Issue Date	10/22/2013
Scale	As indicated
Drawn by	MAP
Checked by	MTB

A0.1

of

10/23/2013 1:39:27 AM Farmington, UT



L7 Occupancy Plan
1/8" = 1'-0"

Building Code Summary

Project Summary:
A 1549 SF tenant fit-out of a new tenant suite for a retail store selling cellular telephones, accessories, & service.

Building Code Data:	
Building Code Agency/Jurisdiction	City of Farmington, UT
Building Code	International Building Code 2012
Project/Building Data:	
Type of Work	Tenant Fit-out
Existing Construction Type	II-B
New Construction Type	II-B
Project Location Above Grade	On Grade
Total Number of Floors/Stories in Building	3
Fire Suppression System	Sprinklered
Occupancy Data:	
Use/Occupancy Group	M (Mercantile)

Description of Existing Building Construction:
Existing masonry building on slab with metal columns and roof structure. Interior partitions consist of metal studs with GWB.

Occupancy Area Schedule

Name	Area	Percentage	Occupancy	LoadFactor	Occupant Load
Business Area	150 SF	10%	B (Business)	100	2
Sales Area	1259 SF	81%	M (Mercantile)	30	42
Unoccupied	140 SF	9%	Unoccupied	0	0
	1549 SF	100%			44

Exit Requirements

	Sprinkled
Required Number of Exits Per Code (Table 1021.1):	1
Number of Exits shown on Plans:	2
Required Distance Between Exit Doors Per Code (Section 1015.2.1):	N/A
Actual Distance Between Exit Doors:	N/A
Maximum Dead End Corridor Depth (Section 1018.4):	50

Occupancy Legend

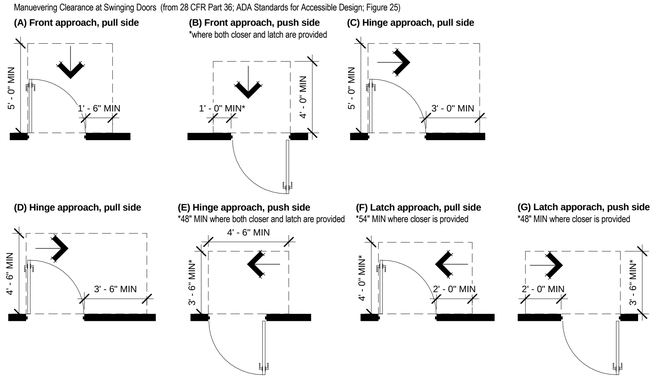
Business Area
Unoccupied
Sales Area

Plumbing Fixture Schedule

Occupancy	Waterclosets		Urinals	Lavatories		Drinking Fountains	
	Male	Female		Male	Female	Regular	Accessible
M (Mercantile)	ONE		N/A	ONE		ONE	ONE

*Plumbing fixtures included in this schedule are existing fixtures provided by the Landlord

Manuevering Clearance at Swinging Doors (from 28 CFR Part 36; ADA Standards for Accessible Design; Figure 25)



S10 Required Door Clearances
1/4" = 1'-0"

Oculus Inc.
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at&t
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220 N. Central Avenue
Farmington, UT 84025

DES Enhanced

#	Description	Date

ISSUED FOR PERMIT

Client Approval

Building Code Summary

Project #	17513-UT02
Issue Date	10/22/2013
Scale	As indicated
Drawn by	MAP
Checked by	MTB

A0.1a
of

PART 1 BIDDING AND CONTRACT REQUIREMENTS

00700 GENERAL CONDITIONS

A. The AIA A201-2007 "General Conditions for Construction," 2007 edition shall govern the work.
B. The following supplements the AIA A201-2007 "General Conditions for Construction", 2007 edition. All unaltered provisions shall remain in effect.
1. Delete subparagraph 3.7.1, and substitute the following:
a. "3.7.1 Unless otherwise provided in the Contract Documents, the Owner will pay for the general plan check fee. The Contractor shall secure and pay for the building permit and for all other permits, governmental fees, licenses, and inspections necessary for the proper execution and completion of the Work."
2. Add the following new subparagraph to 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES:
a. "3.12.12 If the Contractor fails to review Shop Drawings, Product Data, or Samples to determine their responsiveness to the Contract Documents, or fails to substantially respond to Architect's review comments prior to resubmittal, or if he makes submittals which substantially alter the Contract Documents, the Contractor shall reimburse the Owner for the charges of the Architect for extra services required to review such submittals."

PART 2 TECHNICAL SPECIFICATIONS

Division 1 General Requirements
01100 SUMMARY
A. This specification includes the requirements for several AT&T Wireless projects; consequently this specification may contain additional elements that do not apply to this particular project. Where noted in the specifications, please refer to the Drawings to determine if the specified element applies to this Project.
B. Special Work Requirements:
1. Work shall be phased such that each specific area shall be protected, demolished and completed in the least amount of time possible.
2. Daily activities must be respected by the Contractor with the least amount of disturbance to AT&T Wireless and other building occupants.
3. Use of Premises:
a. Conform to the requirements of the building owner.
C. Separate Work:
1. Items noted "NIC" (Not In Contract) or "FOIO" (Furnished by Owner; installed by Owner) will be furnished and installed by others
2. Perform work so as to allow the performance of work by other contractors.
3. The following will be furnished and installed by others:
a. Cingular Graphics (other than hard signage installed by the GC, or as required by local code)
b. Bill Payment Machine (G.C. to provide and coordinate electrical and data requirements).
D. Products Furnished by Owner for Installation by the Contractor (FOIC):
1. Coordinate work to facilitate installation of products furnished by the Owner for Installation by the Contractor.
2. The following are elements which are furnished by AT&T Wireless for Installation by the Contractor:
a. Wall Units.
b. Live Bar
c. Modular SSA Desks
d. Cash Wrap Fixtures
e. Others as indicated on Drawings
3. AT&T Wireless Responsibilities:
a. Arrange and pay for owner supplied fixture(s) and product deliveries to the contractor on site.
b. Upon delivery, inspect products jointly with Contractor.
c. Submit claims for transportation damage.
d. Arrange for replacement of damaged, defective, or missing items.
e. Arrange for manufacturers' warranties, inspections, and service where required.
4. Contractor's Responsibilities:
a. Review shop drawings, product data, and samples.
b. Receive and unload products at site; inspect for completeness, for damage, jointly with AT&T Wireless. GC to coordinate and provide forklift and all labor as required for offloading of owner provided fixtures on site. Coordinate deliveries with FTC.
c. Handle, store, coordinate, install, and provide all labor and material to finish product installation.
d. Repair or replace items damaged by Work of this Contract.
e. Coordinate and provide for the installation of all fixture requirements including power and data, within all new or renovated areas.
5. The following are elements which are to be both provided and installed by the general contractor (FCIC).
a. All carpet and VCT (all flooring unless otherwise noted)
b. All wood flooring (if applicable)
c. All light fixtures
d. All signage (other than store graphics provided by AT&T Wireless)
e. Drop box to be furnished and installed by G.C. (when indicated on plans) Installation includes all modification of Storefront as required. (May be obtained from US Communications, John Ragusin @ (770) 886-7605).
f. Microwave and Refrigerator as specified in section 11450 - B
E. Applications for Payment: Submit applications for Payment in accordance with the General Conditions
F. Coordination:
1. Coordinate work to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
2. Coordinate space requirements for mechanical and electrical Systems. Make runs parallel with lines of building. Utilize spaces efficiently, and maximize accessibility for maintenance, repair, and other installations.
3. Execute cutting and patching to integrate elements of the Work. Remove ill-timed and defective work and replace with new work conforming to the requirements of the Contract Documents.
4. Uncover defective and nonconforming work and furnish samples as required for testing.
5. Seal penetrations through floors, walls, and ceilings.

01312 PROJECT MEETINGS
A. Preconstruction Meeting(s): Prior to the start of work, Contractor and AT&T Wireless shall have a pre-construction meeting to determine the exact sequencing and phasing of construction. GC shall also schedule a pre-construction meeting with FTC.
B. Progress Meetings: Attend progress meetings called by AT&T Wireless or Architect throughout the progress of the work.
C. Pre-installation Meeting: Convene a pre-installation meeting when it is specified for a certain portion of the Work. Require attendance of entities directly affecting, or affected by, the work of the Section.

01330 SUBMITTAL PROCEDURES
A. Submittal Procedure:
1. Identify deviations from Contract Documents. Leave space for Contractor and AT&T Wireless review stamps.
2. Review and sign each submittal prior to submittal to AT&T Wireless. Unsigned submittals may be returned without review.
3. Unless specified otherwise, submit the number of submittals the Contractor requires, plus one that will be retained by AT&T Wireless.
4. Transmit each item to AT&T Wireless, unless directed otherwise. Include project name, Contractor name, subcontractor or supplier name, and drawing sheet, detail number, or specification section number corresponding to the submittal as appropriate.
5. Make submittals as required to cause no delay in the Work. Allow sufficient time for possible revision and resubmittal of rejected submittals. Coordinate submittal of related items.
6. Revise and resubmit rejected submittals as required to obtain approval, identifying changes made since previous submittal.
B. Progress and Value Schedules: Submit the following to AT&T Wireless.
1. Progress Schedule: Submit horizontal bar chart with separate bar for each major trade or operation, identifying first workday of each week.
2. Schedule of Values:
a. Submit typed schedule on form provided by AT&T Wireless.
b. Subdivide into each major trade or category of work.
c. Include a line item amount for each Allowance if applicable.
d. Include in each line item a directly proportional amount of Contractor's overhead and profit.
3. Submit progress and value schedules in duplicate within 5 business days after Notice to Proceed.
4. Submit revised schedules with each Application for Payment; revised schedules shall reflect changes, including change orders, since previous submittal.
C. Shop Drawings, Product Data and Samples:
1. Shop Drawings:
a. Submit shop drawings in the form of one reproducible transparency and one opaque reproduction.
b. Unless specified otherwise, shop drawings shall show quantities, materials, methods of assembly, adjacent construction, dimensions, and all other appropriate information to fully illustrate the work.
2. Product Data:
a. Mark each copy to identify applicable products, models, options and other data; supplement manufacture's standard data to provide information unique to the work.
b. Submit the number of copies that Contractor requires, plus 2 copies that will be retained by AT&T Wireless.
3. Samples:
a. Submit samples as specified in the technical sections.
b. nclude identification on each sample giving full information.
c. Submit three samples, one of which will be retained by AT&T Wireless, unless indicated otherwise in the technical section.
D. Certificates: Submit the original signed version to AT&T Wireless.

01450 QUALITY CONTROL
A. Standards: Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
B. Regulatory Requirements:
1. Perform all work to meet or exceed the requirements of all applicable codes, ordinances, laws, regulations, safety orders, and directives from authorities having jurisdiction over the work.
2. Accessibility: All equipment, accessories and work shall be in accordance with all Federal, State and local codes with respect to handicap accessibility, and with The Americans with Disabilities Act (ADA) and/or the "Texas Accessibility Standards" as required. The more restrictive code shall apply.
C. Perform work with persons qualified to produce workmanship of specified quality.
D. Install products in accordance with the manufacturer's recommendations. Where conflict exists between manufacturer's recommendations and the specified requirements. Notify the Architect immediately.
E. Examination Prior to Installation:
1. Prior to starting work, carefully inspect installed work of other trades and verify that such work is complete to the point where work of this Section may properly commence. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the work.
2. Do not begin installation until all unsatisfactory conditions are resolved. Beginning work constitutes acceptance of site conditions and responsibility for defective installation caused by prior observable conditions.

01500 TEMPORARY FACILITIES & CONTROLS
A. Temporary Utilities: Provide temporary utilities, services, and construction as required to perform the work. Coordinate all temporary facilities and controls with AT&T Wireless and the building owner.
1. Electricity and Gas: Connect to existing service. AT&T Wireless will pay costs of energy used. Take measures to conserve energy.
2. Lighting: Permanent lighting may be used during construction. Provide additional temporary lighting as required. Maintain lighting and make routine repairs.
3. Heating and Ventilation: Permanent system may be used. AT&T Wireless will pay for the cost of energy used. Maintain system during operation.
4. Telephone.
5. Water: Utilize existing facilities. AT&T Wireless will pay for water used.
B. Controls:
1. Dust Control: Provide positive methods and apply dust control materials to minimize raising dust from construction operations, and provide positive means to prevent airborne dust from dispersing into the atmosphere.
2. Water Control: Comply with applicable jurisdictional requirements regarding water usage, conservation, detention, pollution, and permits.
C. Maintain pedestrian and vehicular access to site and within site to provide uninterrupted access:
1. To temporary construction facilities, storage and work areas.
2. For use by persons and equipment involved in construction of Project.
3. For use by emergency vehicles.
4. To minimize impact on adjacent operations.
D. Fire Safety: Comply with applicable provisions of UFC Article 87 for fire safety during demolition and construction operations.
E. Temporary Construction:
1. Obtain approval from AT&T Wireless for all modifications to existing systems or facilities not indicated.
2. Remove temporary systems or facilities when use is no longer required. Clean and repair damage caused by installation or use of temporary systems or facilities.
F. Construction Cleaning:
1. Control accumulation of waste materials and rubbish. Periodically dispose of off-site.
2. Maintain areas free of dust and other contaminants during finishing operations.
3. Sweep & clean site daily

01600 PRODUCT REQUIREMENTS
A. Delivery, Storage, and Handling:
1. Transport and handle products by methods to avoid product damage.
2. Manufactured products shall remain in manufacturer's containers or packaging, until ready for installation.
3. Unless specified otherwise, store manufactured products in accordance with manufacturer's instructions.
B. Product Options and Substitutions:
1. Furnish products specified, except where "or approved" is used, substitute products may be submitted to the Architect, through AT&T Wireless for approval.
2. Substitutions will be considered only for the following reasons:
a. A product becomes unavailable due to no fault of the Contractor.
b. Subsequent information or changes indicate that the specified product will not perform as intended.
c. A substitute product will be in AT&T Wireless' best interest.
3. Document each substitution request with complete data substantiating compliance of proposed substitution with contract documents.
4. A substitution request constitutes a representation that Contractor:
a. Has investigated proposed product and has determined that it meets or exceeds, in all respects, the specified product.
b. Shall provide the same warranty for substitution as for specified product.
c. Will coordinate installation and make other changes that may be required for work to be complete in all respects.
d. Waives claims for additional costs that may subsequently become apparent.
e. Agrees to pay all costs of redesign related to the substitution.
5. Substitutions will not be considered when they are indicated or implied on shop drawings or product data submittals.
6. Architect will determine acceptability of proposed substitution, and will notify Contractor of acceptance or rejection within a reasonable time.

01735 PATCHING & REPAIR
A. Repair existing surfaces and construction as necessary to make Work complete, with all components matching and consistent.
B. Provide a smooth, even, and invisible transition to new construction. When finished surfaces are cut so that an invisible transition with new work is not possible, terminate existing surface along the nearest break line, joint, or corner.

01770 CLOSEOUT PROCEDURES
A. Final Cleaning:
1. Thoroughly clean all surfaces prior to final acceptance.
2. Remove waste and surplus materials, rubbish, and construction facilities from the site.
B. Closeout Procedures:
1. Comply with procedures stated in General Conditions of the Contract for Substantial and Final Completion.
2. Submit all certificates of approval issued by the governing authorities, including, without limitation, the following:
a. Certificate of occupancy.
3. Prior to final payment, submit the following affidavits using the forms listed below:
a. Contractor's Affidavit of Payment of Debts and Claims AIA Document G706.
b. Consent of Surety to Final Payment AIA Document G707.
c. Contractor's lien release, and lien releases from each subcontractor; Contractor's Affidavit of Release of Liens AIA Document G706A
4. Submit final Application for Payment identifying total adjusted contract sum, previous payments, and sum remaining due.
C. Project Record Documents:
1. Maintain a complete set of record drawings that clearly and neatly indicate exact installed locations of items that will be concealed in the work such as conduit, piping, ducts, reinforcing, mechanical and electrical equipment, and similar items. Show all changes from the contract documents, and all uncovered existing conditions that will be subsequently concealed.
2. Record drawings shall be used for no other purpose and shall be stored separately from those used for construction.
3. Documents shall be in same format as the Construction Documents.
4. Keep documents current; do not permanently conceal any work until required information has been recorded.
5. At Contract Closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.
D. Submittals: In addition to submittals required by the Conditions of the Contract, and submittals required by Section 01330, furnish submittals required by governing authorities, and submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
E. Operation and Maintenance Data:
1. Submit complete data for each piece of equipment and component used in the work.
2. Submit operation and maintenance data for mechanical and electrical systems.
3. Arrange in a binder with a section for each system.
F. Warranties, Guarantees and Bonds:
1. Submit all manufacturer warranties.
2. Furnish written guarantee, from each subcontractor performing work covered by the additional guarantee requirements specified in the technical sections. Unless specified or approved otherwise, the guarantee shall commence on the date of the Certificate of Occupancy.
3. Each guarantee shall be signed, and shall state that the work under guarantee was installed in accordance with the Contract Documents, and that the work will be free from defects in workmanship and material for the period of time specified, and that all defects will be promptly repaired without additional cost to Cingular Wireless LLC.
G. Spare Parts and Maintenance Manuals: Furnish products, spare parts, and maintenance materials in quantities specified in each Section, in addition to that used for construction of Work. Coordinate with AT&T Wireless; deliver to Project Site and obtain receipt prior to final payment.

DIVISION 2 SITE WORK
02225 SELECTIVE DEMOLITION
A. Demolish in an orderly and careful manner as required to accommodate the work. Where demolition exceeds that indicated, verify such demolition with the Architect prior to proceeding.
B. Protect existing structural members. Contact the Architect prior to modifying structural members beyond the extent indicated. Cease operations and notify the Architect immediately if continued demolition operations might endanger the existing structure.
C. During demolition operations, notify the Architect of all conditions that differ substantially from those indicated, specified, or expected. Notify the Architect if previously unknown operational, or potentially operational elements, are uncovered during demolition operations. Perform no demolition in such areas, unless approved by the Architect.
D. Provide temporary shoring as required to support existing construction against movement or overload during demolition operations, until permanent supports are in place.
E. Except where noted or specified otherwise, take possession of materials being demolished, and immediately remove from site. Do not overload existing construction to remain with demolished materials.
F. Carefully remove, store, and protect all materials and components to be reused.
G. Where possible without damage, remove, store, and protect existing materials and components not noted for removal, which if removed, would facilitate the new construction and reconditioning.
H. Carefully remove, protect, and turn over as directed, materials and components claimed by AT&T Wireless or the building owner for salvage. Prior to demolition, contact AT&T Wireless to determine which items will be claimed.
I. Where cut edges of the existing construction will be visible in the completed work, cut in uniform straight lines. Concrete and masonry shall be saw cut or core drilled.
J. Repair all demolition performed in excess of that required, at no additional cost to the AT&T Wireless.

DIVISION 3 CONCRETE
03547 CEMENTITIOUS UNDERLAYMENT
A. Summary:
1. Leveling of existing cast-in-place concrete slabs.
2. Ramps and tapers to align finish materials.
B. Unit Price:
1. Item: State the price for leveling and filling existing exposed floor substrate to specified tolerance. Price shall include all labor materials and equipment necessary to recondition the floor including preparation, priming and filling as specified.
2. Unit Measure:
a. Per square foot to a depth of ¼ inch.
C. Submittals:
1. Product Data: Manufacturer's product data and installation instructions.
D. Materials:
1. Fast-Setting Self Leveling Underlayment System: Self-leveling, pourable, cement based material, minimum 28 day compressive strength 4,500 psi when tested in accordance with ASTM C109; minimum bond strength 200 psi; one of the following.
a. "Ultra/Plan" by Mapei Corporation.; 800-42-MAPEI.
b. "SDL" Self-Leveling Underlayment Concrete by Ardex Inc.; 412-264-4240.
c. "Level-Right FS-10" by Maxxon; 800-356-7887.
2. Fast-Setting Trowelable Underlayment System:
a. "Quickcem Top 102" or "Novo/Plan 1" by Mapei Corporation; 800-42-MAPEI.
b. "SD-P" Fast-Setting Underlayment. by Ardex Inc.; 412-264-4240.
c. "Euco-Speed" by Euclid Chemical Company; 800-321-7628.
3. Accessories: Furnish primers, patching compounds, and sand fillers as recommended by the underlayment manufacturer for the conditions of the project.
E. Mixing
1. Thoroughly mix underlayment materials for each type of product in proper proportions to achieve smooth homogeneous mix, free of lumps.
F. Preparation:
1. Ensure that subfloor is clean, dry, hard, sound, and free of oils, or other substance that would affect proper bonding and curing. Shotblast surface as necessary to achieve clean surface.
2. Verify that all areas to be leveled are at or below final design elevation.
G. Application:
1. Install trowelable underlayment at locations where slopes are indicated and at other locations as appropriate to installation conditions. Install self-leveling underlayment at other locations as necessary to correct slab flatness and levelness.
2. Set screeds, markers, and reference blocks. Set screeds at all construction and control joints to establish weakened plane joints in underlayment.
3. Install in accordance with the manufacturer's recommendations. Where subsequent finishing of the material is required, float to level surface. Do not over trowel.
4. Apply primer to all areas to receive underlayment; repeat application if necessary to achieve proper build.
5. Mix materials and pour or pump and squeegee into place to achieve appropriate thickness. At areas to receive epoxy terrazzo flooring, provide fill thickness as necessary to align epoxy terrazzo flooring with crush line of adjacent carpet surfaces.
6. Cure in accordance with the manufacturer's instructions. Use no curing compounds that would affect the bond of subsequent finish materials.
7. Tolerances: "Very flat"; level to within 1/8" in 10 feet. FF 50, FL 30, over test area; FF 25, FL 15, local minimum.

DIVISION 4 MASONRY
04415 SLATE
A. Summary:The work included under this section consists of all exterior slate and related items necessary to complete the work indicated on drawings and described in the specifications.
B. Submittals
1. Submit (4) samples to architect for approval prior to fabrication. Samples shall be 12" x 12" x 3/8", unless specified otherwise. They shall represent the type of slate, finish and any other characteristics as required. They shall be labeled as to type of slate, finish, job name, and slate contractor.
Shop Drawings
a. Submit (4) copies of shop drawings to architect for approval prior to proceeding with fabrication. The drawings shall show layout, method of anchoring, and all information necessary or helpful to obtain job site dimensions to insure proper fabrication and installation. Each piece shall be numbered as to location to facilitate placement and checking. Except, as noted, dimensions and layout shall be in accordance with architectural drawings. Considerations that necessitate deviation shall be noted and architect's approval obtained prior to fabrication.
C. Quality & Finish
1. All slate shall be sound, durable, and free of spalls, cracks, open seams, pits, or any other defects that are likely to impair its structural integrity in its intended use. The architect shall select the finish that will best suit the design requirements from among the finishes available. The slate shall be Clear stock.
2. Machined back to accept thin-set bonding agent.
D. Material
1. General: Natural slate conforming to the physical requirements as listed in Table 1 of ASTM Standard specification for Slate Dimensional Stone C-629. (Current Edition)
a. Slate sha ... the shop drawings. Cutting, finish ... ring, mortar joints, and grouting s ... andards, except as modified by d

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2. Manufacturer:
a. Global Gı
3. Finish:
a. Natural
4. Color:
a. Black Natural
5. Size:
a. 12" x 12" x 3/8"
6. Edges:
a. Sawn edges
E. Installation
1. Anchoring:
a. Slate shall be installed using the thin-set method. Refer to Division 9.
2. Joints
a. Joints shall be held to dimensions shown on drawings, unless dimension changes on the job require minor deviations. Recommended joints are a minimum of 3/8" width. Joints for dimensional stones can be less than 3/8", depending on finish and fabrication recommendations.
3. Sealant
a. Joints shall be held to dimensions shown on drawings, unless dimension changes on the job require minor deviations. Recommended joints are a minimum of 3/8" width. Joints for dimensional stones can be less than 3/8", depending on finish and fabrication recommendations.
F. Cleaning
1. Exposed surfaces of the slate should be sponged down during installation to prevent mortar stains from forming. Wash water should be kept clean by frequent changing. All mortar stains should be cleaned from the slate within 24 hours of its installation. After slate has been set for at least 14 days, it should be scrubbed with an approved detergent or cleaning agent, followed by a thorough rinsing with clean water.

DIVISION 5 METALS
05500 METAL FABRICATIONS
A. Summary: Steel fabrications indicated on the Architectural Drawings and not specified in other sections.
B. Materials:
1. Steel Plate, Bars, Shapes: ASTM A36.
2. Tubes: ASTM A500 or A501.
3. Pipe: ASTM A53, seamless, Type S, plain end; schedule 40 unless indicated otherwise.
4. Bolts and Nuts: ASTM A307
C. General Fabrication Requirements: Fabricate as follows, unless specified or indicated otherwise.
1. Verify all dimensions and fabricate to detail with accurate sizes and shapes, straight lines, smooth curves, and sharp angles.
2. Welds shall have sufficient strength to withstand the loads applied.
D. Installation:
1. Install metal fabrications in accurate locations shown. Unless indicated otherwise, fabrications shall be installed plumb and level.
2. Provide all anchorage devices as indicated and required for a secure installation.

05700 ORNAMENTAL METAL
A. Summary: Poster frame and support indicated on the Drawings.
B. Materials:
1. Aluminum Extrusions: ASTM B221.
2. Sheet: ASTM B209.
3. Aircraft Cable: 3/16 inch diameter, plain galvanized steel strand; vinyl covered strand is not acceptable.
4. Ferrules: Aluminum; crimpable; size to match aircraft cable diameter.
C. General Fabrication Requirements: Fabricate as follows, unless specified or indicated otherwise.
1. Verify dimensions, and fabricate to detail with accurate sizes and shapes, straight lines, smooth curves, and sharp angles.
2. Fabricate end caps from aluminum sheet; grind and polish caps to low lustre finish.
D. Installation:
1. Install poster frames in accurate locations indicated, plumb and level.
2. Cut aircraft cable to appropriate lengths to result in posters provided by others hanging in appropriate positions. Apply ferrules to aircraft cable by crimping once the final position is obtained.
3. Trim cable so as to eliminate unraveling during handling; leave no exposed frayed ends in the finished installation, and with no kinks or twists.
4. Remove and replace any aircraft cable assembly that does not result in a proper finished installation per these conditions.
5. Provide all anchorage devices as indicated and required for a secure installation.

DIVISION 6 WOODS & PLASTICS
06100 ROUGH CARPENTRY
A. Summary:
1. Blocking and nailers.
2. Terminal backboards.
B. Dimension Lumber:
1. Lumber shall be manufactured in accordance with PS 20, and shall be stamped and graded in accordance with WWPA, WCLIB, or NLGA grading rules.
2. Moisture Content: Kiln dried to 19% maximum moisture content, except for material whose least dimension is 4 inches thick or greater.
3. Species: Hem-Fir, Spruce-Pine-Fir (SPF), or Douglas Fir Larch, unless indicated or specified otherwise.
4. Architectural Lumber Grades: Unexposed non-structural wood framing and blocking indicated on the Architectural Drawings shall be graded as follows:
a. (2" to 4" thick, 2" to 4" wide): "No 2 - Structural Light Framing," or better; "Stud" grade may be used at stud applications.
b. (2" to 4" thick, 5" and wider): "No. 2 - Structural Joists and Planks," or better.
5. Treated Wood Blocking
a. Provide alkaline copper quaternary (ACQ) treated wood blocking in dimensions noted on the Drawings for all blocking, nailers, etc. called out as treated. Products shall be arsenic- and chromium-free pressure-treated wood produced in accordance with Quality Control Standard ACQ-94.
C. Panel Materials:
1. Terminal Backboards: APA AC grade exterior; fire retardant treated.
D. Accessories:
1. Fasteners:
a. Hot-dipped galvanized or copolymer coated steel for treated wood locations.
2. Treated Wood Fasteners
a. Hot-Dip Galvanized conforming to ASTM-A153 (for Hot-Dip fastener products) and ASTM-A653 (Coating Designation G-185 for Hot-Dip connector and sheet products).
b. Other fasteners and hardware as recommended by the manufacturer.
E. Blocking and Nailers:
1. Wood Blocking: Install wood blocking to receive mechanical fasteners for support of plumbing and electrical fixtures and equipment, cabinets, doorstop plates, toilet and bath accessories, and all other wall and ceiling mounted components. Metal backing may be substituted as specified n Section 09111.
F. Interior Plywood:
1. Provide a fire retardant treated plywood terminal backboard for systems where indicated on the drawings.

06400 ARCHITECTURAL WOODWORK
A. Summary:
1. Plastic laminate casework.
2. Custom display casework
3. Cement countertops.
4. Ornamental metal elements related to custom casework.
5. Standing and running trim, including doorframes.
B. Quality Assurance
1. Fabricator: A minimum of 5 years experience in the fabrication of custom architectural woodwork of the type specified.
2. All Architectural Woodwork shall be under the responsibility of a single fabricator.
3. Qualifications of Installers: Use only journeyman finish carpenters who are thoroughly trained and skilled in the work, and who are completely familiar with the materials and quality standards specified. No allowance will be made for lack of skill on the part of workmen.
4. Unless specified otherwise, perform work in accordance with AWI "Custom" grade standards.
C. Referenced Standards
1. American Plywood Association (APA)
2. Architectural Woodwork Institute (AWI):
a. Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program (Current Edition).
D. Submittals:
1. Shop Drawings. Indicate materials, components, profiles and configurations, dimensions, fastening methods, jointing details, colors and finishes, and accessories. Details shall be at a minimum scale of 1-1/2 inch per foot.
2. Product Literature: Submit literature of each hardware component proposed.
3. Samples:
a. Painted MDF: Submit 8 x 10 inch samples of each paint color and sheen combination.
b. Opaque Finish Wood: Submit 12-inch long doorframe samples showing the maximum range of graining and surface imperfections to be expected.
d. Stainless steel: Minimum 12-inch long tube section with proposed finish.
e. Perforated Metal Panel: Minimum 8x 10 with single stiffening angle.
E. Materials:
1. Opaque Finish Lumber: AWI Grade II Poplar; optimum moisture content per AWI recommendations.
2. Wood Veneer: Type as scheduled on the Drawings.
3. Plywood: APA rated in accordance with PS 1; 3/4-inch thick AC exterior grade unless indicated or specified otherwise; touch sanded where plastic laminate veneers are to be applied.
4. Particle Board: ANSI A208.1; grade M-2. Provide quality assurance stamp or manufacturer's certifications as required by local jurisdictional code authorities.
5. Medium Den
6. Prefinished E
7. Plastic Lamir
a. Brands a
b. Exposed
c. Backing

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8. Metals:
a. Aluminum:
1) Extrusions: ASTM B221.
2) Sheet: ASTM B209.
b. Stainless Steel: ASTM A167 Type 302 or 304.
9. Paint Systems:
a. M-1 and M-2: Powder coat metallic systems as scheduled on the Drawings over metal substrates. Provide spray applied Dupont Imron urethane metallic paint to match at MDF applications. Include primer as recommended by the manufacturer for the substrate.
b. M-3 and SF-1:
1) Primer: Tnemec "Series N27 Typoxy" epoxy-polyamide coating or approved.
2) Urethane paint System: Tnemec Series 75 Endura-Shield III Acrylic polyurethane enamel or approved; semi-gloss sheen; custom color as scheduled.
F. Accessory Materials:
1. Cabinet Hardware:
a. Pulls: 4 inch wire pulls; brushed chrome finish.
b. Drawer Slides: Full extension ball bearing; clear zinc finish; rail mount; Accuride, or approved; load rating as required for the application.
1) Light Duty Rating (drawers 12 inches wide or less): Accuride 2632; 65 lb BIFMA load rating
2) Medium Duty Rating (drawers 32 inches wide or less): Accuride 7432; 100 lb BIFMA load rating.
3) Heavy Duty Rating (drawers 42 inches wide or less): Accuride 3640; 200 lb BIFMA load rating.
c. Drawer Locks: Olympus Lock or approved; 5 pin tumbler cylinder locks; ANSI Grade 1; configuration to suit condition; keyed alike as directed, and masterkeyed. Furnish two keys for keyed alike group, and four masterkeys; finish to match pulls.
d. Concealed Hinges: European style; concealed; self-closing; 125 degree of opening, Blum, Grass or Hafele.
e. Cabinet Shelf Brackets: Metal pin style support; chrome finish.
2. Wall Shelf Hardware: As scheduled on Drawings.
3. Contact Bond Adhesive: Water based type.
4. Wiring Grommets: "TG Series" by Doug Mockett and Company, Inc., Manhattan Beach CA.; size to match application; black color, unless indicated otherwise.
5. Wall Shelf Hardware:
a. Brackets: Knape & Vogt No. 185 Anochrome finish; length as appropriate for shelving indicated.
b. Standards: Knape & Vogt #85 Anochrome finish.
6. Precast Cement Countertops: "Meazza Stone"; available from Gravel Pit Design Studio (Contact 206-406-2555); color and texture to match the approved sample.
7. Perforated Metal: Steel; 14 gage with stiffening angles; perforation pattern as indicated.; powder coated finish as scheduled and specified above.
G. Veneer Panel Fabrication:
1. Fabricate veneer paneling to AWI "Premium" grade standards.
2. Fabricate panels with wood veneer over medium density particleboard core.
3. Provide solid wood edging at veneer panels edges subject to abuse, unless approved otherwise.
4. Arrange veneers in the directions indicated:
5. Unexposed panel backs shall have wood veneer balance sheets with seal coat on the back of each panel.
6. Fabricate panels with joints accurately matched, tightly fitted.
H. Standing and Running and Trim Fabrication:
1. Shop cut and mill all lumber to the shapes indicated.
2. Shop fit and assemble to the greatest extent possible.
3. Mill and assemble built-up sections. All glue lines shall be free of squeeze-out where transparent finishes are to be applied.
4. Tolerances for overall assembly dimensions shall be within 1/32 of an inch.
5. Fabricate frames from single length pieces, without joints, for each straight length.
6. Fabricate from each section from solid stock, except composite construction consisting of fabricator selected solid wood clad with specified transparent finish veneer may be used. Exposed edges shall consist of minimum 1/8-inch thick solid wood to match the veneer.
7. Back or kerf cut all trim greater than 2 inch in width, except terminate before exposed ends.
I. Casework Fabrication:
I. Casework Fabrication:
1. General Fabrication Requirements:
a. Fabricate to the configurations indicated, unless approved otherwise on the shop drawings.
b. Provide openings in casework for the incorporation of all electrical and mechanical components. Openings for all plumbing equipment shall be cut from templates obtained from the plumbing equipment installer.
c. Provide concealed access to casework electrical fixtures and wiring.
d. Unless indicated or approved otherwise, provide adjustable base to provide level installation that accommodates variations in floor levelness.
e. Shop assemble casework to the greatest practical extent
f. Adjustable Shelves: All casework shelves shall be adjustable, unless otherwise noted. Provisions for shelf adjustment shall be by drillings at 2 inches on center in the cabinet body for the placement of shelf support brackets. Provide 4 supports for each shelf. Drillings shall be in straight even lines.
g. Provide all hardware, fasteners, and exposed trim.
2. Plastic Laminate Casework Construction:
a. Fabricate casework in accordance with AWI standard section 400; custom grade.
b. Design: AWI Flush Overlay design, unless indicated otherwise. Joint between exposed doors, drawer faces, and countertop edges shall be 1/8 inch plus or minus 1/16.
c. Exposed Surfaces: Plastic laminate clad with PVC or self edging as necessary to exactly match plastic laminate, unless otherwise indicated; provide hardwood trim at locations indicated.
d. "Inside" Exposed Surfaces of Shelving Units and Cabinets Without Doors: Plastic laminate finished board, with exposed edges banded with plastic laminate self edging or PVC tape to match face color.
e. Semi-Exposed Surfaces: Prefinished board, unless indicated otherwise.
f. Provide vertical grade plastic laminate, except use general purpose grade at countertops.
g. Backs of Doors and Drawers: Plastic laminate.
h. Particleboard shall be minimum 3/4" thick unless indicated otherwise. Shelves shall be 1" thick, minimum.
3. Plastic Lami
a. Fabricat ... apes indicated.
b. Where ...
4. Wall and Cl ... with matching plastic laminate ed

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5. Hardware:
a. Unless otherwise shown or specified, all drawers shall be equipped with standard full extension slides.
b. Install hardware straight and true and in perfect alignment horizontally and vertically with adjacent casework and hardware.
c. Carefully fit and securely attach cabinet hardware in accordance with manufacturers' printed instructions, and exercise caution not to mar or injure finish surfaces.
J. Shop Applied Transparent Finish:
1. Shop finish wood surfaces and wood doors indicated to receive transparent finish.
2. Sand exposed and semi-exposed wood surfaces smooth, always sanding in the direction of the wood grain.
3. Sand exposed transparent finish wood surfaces to AWI "Premium " grade standards. Sand all semi-exposed transparent finish wood surfaces to AWI "Custom" grade standards.
4. Fill depressions and imperfections with color matched putty, except imperfections shall not exceed AWI Premium grade standards.
5. Transparent Finish Coating: Spray apply in accordance with AWI Finish System TR-2, Premium Grade (catalyzed lacquer) or AWI Finish System TR-4, Premium Grade (conversion varnish); satin sheen; stain colors as scheduled.
K. Metal Fabrication:
1. Accurately fabricate work to the configurations indicated; fit to field conditions.
Fabricate with clean lines, and free of bends and twists. Curved surfaces shall have smooth and uniform radiuses. Flat surfaces shall form true planes, free of oil canning.
Leave no open joints, except where indicated or required for expansion and contraction. Exposed joints shall be uniform, straight, and hairline.
Welding and Brazing:
a. Limit welding and brazing to locations or methods where weld and brazing marks will not be visible in the finished work.
b. The use of paint coatings to conceal welding or brazing discoloration is not acceptable.
c. Finish brazed and welded areas to match adjacent surfaces.
5. Unless indicated otherwise, provide concealed fasteners wherever possible. Where not possible, exposed fasteners shall match material and finish of adjacent finish materials.
6. Use compatible materials, or provide isolation of dissimilar materials.
7. Material thicknesses indicated are minimum. Provide heavier material as necessary to meet the specified fabrication requirements.
8. Finishes:
a. Aluminum: Paint finishes as indicated and specified above.
b. Stainless Steel: #4 finish in accordance with the NAAMM Metal Finishes Manual.
L. Casework Installation:
L. Casework Installation:
1. Coordinate casework installation with work of other trades for final electrical and mechanical connections.
2. Install all casework accurately, scribed plumb, square, and level, and permanently secured in precise position as indicated on the Drawings.
3. The casework installation shall be made complete with all required fastenings, clip angles, braces, anchors, adjustable levelers, and other fittings as required to render the work rigid and secure.
4. All fasteners securing casework shall be in concealed or semi-concealed locations, unless approved otherwise.
Avoid damaging finished surfaces. Repair or replace all damaged materials and surfaces in a manner approved by the Architect.
Upon completion of work, (and if requested; in the presence of the Cingular manager), demonstrate hardware to work freely as intended.

DIVISION 7 THERMAL AND MOISTURE PROTECTION
07210 BUILDING INSULATION
A. Summary: This Section includes building insulation.
B. Submittals
1. Product Data: Submit product data for each product indicated.
C. Quality Assurance
1. Source Limitations: Obtain each type of building insulation through one source.
2. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per ASTM E 84 for surface-burning characteristics by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
D. Products
1. INSULATING MATERIALS
General: Provide insulating materials that comply with requirements and with referenced standards and, for preformed units, in sizes to fit applications indicated, selected from manufacturer's standard thicknesses, widths, and lengths.
2. Foil-Faced, Flexible Glass-Fiber Batt Insulation: Complying with ASTM C 665, Type III; faced on one side with foil-scrim-kraft vapor retarder; with maximum flame-spread and smoke-developed indices of 25 and 50, respectively; and of the following properties:
a. Nominal density of not less than 1.5 lb/cu. ft. (24 kg/cu. m) nor more than 1.7 lb/cu. ft. (26 kg/cu. m), thermal resistivity of 4 deg F x h x sq. ft./Btu x in. at 75 deg F (27.7 K x m/W at 24 deg C).
3. Auxiliary Insulating Materials
a. Vapor Retarder Tape: Minimum 5 mil tri-directional, reinforced, dead soft, aluminum foil faced tape with minimum 2 mil rubber or acrylic based adhesive, flame spread rated class A (25 or Less) per ASTM E84 and Classified to UL STD 723 General Use Tape.
4. GC to patch & repair spray fire proofing on structural steel as necessary
E. Installation
1. General: Install insulation to comply with insulation manufacturer's written instructions applicable to products and application indicated. If printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations before proceeding with installation of insulation.
2. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice and snow.
3. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
4. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions.
5. Set vapor-retarder-faced units with vapor retarder to warm side of construction, unless otherwise indicated. Do not obstruct ventilation spaces.
6. Maintain integrity of insulation with vapor retarders by taping joints, ruptures and edges of units adjoining other surfaces. Seal joints caused by pipes, conduits, electrical boxes and similar items penetrating vapor retarder by taping to create an airtight seal between penetrating objects and vapor barrier. Repair any tears or punctures in vapor retarders immediately before concealment by other work using tape.

Oculus Inc.
ARCHITECTURE I STRATEGIC PLANNING I INTERIORS I MOVE MANAGEMENT
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(314) 367-6100

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Farmington, UT
220 N. Central Avenue
Farmington, UT 84025
DES Enhanced

#	Description	Date

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Client Approval

Specifications 1

Project # 17513-UT02
Issue Date 10/22/2013
Scale
Drawn by MTB
Checked by MTB

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of

Template V2.2 Last Updated 08/05/08

7. Install glass fiber blankets in cavities formed by framing members according to the following requirements:
   a. Use blanket widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
   b. Place blankets in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.Delete subparagraph below if no metal-framed wall construction
   c. For metal-framed wall cavities support faced blankets by taping stapling flanges to flanges of metal studs.

07920 Joint Sealants

A. Sealants:
1. Type A - ASTM C834; Tremco "Acrylic Latex Caulk", Pecora "AC-20", Sonneborn "Sonolac" or approved; standard colors to match adjacent construction.
2. Type S - Neutral Cure Silicone Sealant: Dow Corning "790 Silicone Building Sealant", or approved.
3. Type SM - Mildew Resistant Silicone Sealant: Dow Corning "786", or approved; USDA approval required; clear.

B. Accessory Materials:
1. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
2. Joint Filler: Closed cell polyethylene foam; round profile; thickness: 130% of joint width.
3. Bond Breaker: Pressure-sensitive tape recommended by sealant manufacturer to suit application.

C. Preparation:
1. Clean and prepare joints in accordance with manufacturer's instructions. Remove any loose materials and other foreign matter that might impair adhesion of sealant.
2. Apply masking tightly around joints to protect adjacent surfaces from excess sealant.
3. At wide joints, place backing materials to achieve proper sealant width/depth ratios. Use bond breaker where there is insufficient depth for backing materials.

D. Installation:
1. Perform work as recommended by the sealant manufacturer.
2. Sealant beads shall have a sectional width to depth ratio of 2 to 1, except no bead shall have a depth greater than 3/4 inch
3. Tool joints concave, unless indicated otherwise. Finish free of air pockets, foreign embedded matter, ridges, and sags.

E. Protect sealant in joints subject to dirt, moisture, and traffic during the sealant curing process. Protection shall be able to resist traffic while remaining securely in position.

F. Schedule:
   Type A: Provide at all interior joints, unless specified otherwise.
   Type S Provide at all exterior joints, unless specified otherwise; custom colors to match the Architect's samples.
   Type SM: Provide at joints around countertops in wet locations.

Division 8 Doors and Windows

08115 Welded Hollow Metal Frames

A. Summary: Exterior hollow metal doors and frames.

B. References:
1. Steel Door Institute (SDI): SDI-105 - Recommended Erection Instructions for Steel Frames.
2. American National Standards Institute (ANSI): A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames.
3. American Society for Testing and Materials (ASTM)
   a. A366 - Specification for Steel, Carbon, Cold Rolled Sheet, Commercial Quality.
   b. A569 - Specification for Steel, Carbon (0.15 Maximum Percent), Hot Rolled Sheet and Strip, Commercial Quality.

C. Submittals:
1. Product Literature: Submit manufacturer's published literature for doors and frames.

D. Quality Assurance:
1. Conform to requirements of ANSI A250.8.
2. Regulatory Requirements:
   a. Installed frame and door assembly shall conform to NFPA 80 for fire rated class indicated.

E. Acceptable Manufacturers:
1. Members of the Steel Door Institute and of the National Association of Architectural Metal Manufacturer's, subject to compliance with the specified requirements.

F. Materials:
1. Steel Sheet: Cold rolled ASTM A366, or hot rolled pickled and oiled sheet conforming to ASTM A569.

G. Doors:
1. ANSI A250.8; Seamless.
2. Minimum 18-gage face sheets for interior doors; minimum 16 gage face sheets for exterior doors.
3. Core:
   a. Exterior Doors: Polystyrene or polyurethane foam core.
4. Provide continuously welded seamless edges. No plastic fillers will be accepted.
5. Close top edges of exterior doors flush with steel filler cap; seal joints watertight.
6. Cut mortises for butts using appropriate templates; universal non-handed preparation of doors is not acceptable.

H. Frames:
1. Design: Double equal rabbet, unless indicated otherwise; fully welded.
2. Gages:
   a. Interior Frames: Minimum 16 gage for frames of door openings up to and including 4 feet in width; 14 gage for frames greater than 4 feet in width.

I. Finish:
1. Exterior Units: Hot dip galvanized zinc coating conforming to ASTM A653 A60 (.60 oz/sq ft. coating weight), with manufacturer's standard rust inhibiting primer.

J. Installation of Frames:
1. Install frames in accordance with SDI-105 and in accordance with labeling requirements.
2. Coordinate with wall construction for anchor placement.
3. Where acoustical insulation is indicated, coordinate for installation of acoustical insulation at hollow metal frames as specified in Section 09820.
4. Install accessories.
5. Installation Tolerances; Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.
6. Door and hardware installation is specified in Section 08710.

08122 Knock-Down Hollow Metal Frames

A. Summary: Interior knock-down prefinished hollow metal frames.

B. Submittals:
1. Product Literature: Submit manufacturer's published literature for doors and frames.

C. Quality Assurance: Conform to requirements of SDI-100.
1. Regulatory Requirements:
   a. Installed frame and door assembly shall conform to NFPA 80 for fire rated class indicated.
   b. Where doors are noted with an hourly fire resistance rating, provide door and frame assemblies labeled by Underwriter's Laboratory, or any other testing laboratory approved by the local code authorities, to meet the hourly fire rating noted. Assemblies shall meet code requirements for positive pressure.

D. Knock Down Metal Frames
1. Prefinished Steel Door frames by Timely, Pacoima, CA (818-896-3094).
   Fabrication:
   a. Frames: ASTM A366; cold rolled sheet steel; 18-gage minimum.
   b. Casings: Steel to match frame.
   c. Roll or break form frame to the shapes indicated. If not otherwise indicated, supply Timely TA-8 standard steel casing.
   d. Size frame as required to fit wall construction indicated with additional clearance as required to accommodate tile waterproof membrane installed at the wall base.
   e. Provide 14 gage multi-purpose reinforcing brackets to receive field installed door hardware.
   f. Finish: Pre-finished primer coated. Ready for final paint finish in field.

E. Installation of Knock-Down Frames:
1. Install frames in accordance with manufacturer's printed instructions.
1. Coordinate with wall construction to allow secure fastening of frame.
3. Install roll formed steel reinforcement channels between two abutting frames. Anchor to structure and floor.
4. Installation Tolerances:
   a. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.
   Install casing beads and other accessories. All joints shall be tightly fitted and accurately aligned.
   Where acoustical insulation is indicated, coordinate for installation of acoustical insulation at hollow metal frames as specified in Section 09820.

08210 Wood Doors

A. Submittals:
1. Submit product literature.

B. Solid Core Flush Doors:
1. AWI Section 1300, Premium grade.
2. Core: Solid particle board core, unless required otherwise for fire labeling requirements.
3. AWI PC-5 or PC-7.
4. Face Veneer: Paint grade birch.
5. 1-3/4 Inch thick, unless scheduled otherwise.

C. Fabrication:
1. Fabricate doors, to the configurations indicated, in accordance with the AWI standards specified, and to fire rated labeling requirements.
2. Bevel lock and hinge edges 1/8 inch in 2 inches on all single acting doors.
3. Bond edge banding to solid core with hot melt or RF cured adhesive.
4. Prefit and premachine doors for hardware in accordance with AWI 1300-S-6. Locate as specified in Section 08739.
5. Flush Door Blocking: For flush doors, provide solid lock blocks and special blocking as required for the hardware components specified elsewhere. Blocking for fire rated doors shall meet the door manufacturer's labeling requirements.
6. Special 'Dutch' Door: Coordinate with specified hardware in Section 08710.

D. Installation:
1. Fit and prepare doors for installation in accordance with the door manufacturer's printed instructions.
2. Provide clearances of 1/8 inch at jambs and heads and 3/8 inch from bottom of door to top of decorative floor finish or covering, except where threshold is shown or scheduled provide 1/4-inch clearance from bottom of door to top of threshold.

08331 Overhead Coiling Counter Door

A. System Description:
1. Assembly: Provide curtain, curtain guides, brackets, counterbalance, hood, motor operator, push button station, and steel structural support.
2. Accessories: Provide all other accessories required for a complete installation.

B. Submittals:
1. Product Data: Submit manufacturer's complete product literature indicating specified items and method of installation.
2. Shop Drawings: Indicate details and dimensions of installation, including tracks, supports, connection points and details, and locations of operating components.
3. Closeout Submittals:
   a. In accordance with Section 01770.
   b. Submit maintenance manual and spare parts list, and name of nearest service representative.

C. Quality Assurance:
1. Installers: Trained and authorized by the door manufacturer.

D. Counter Door:
1. Manufacturer: The Cookson Company (704/866-9146) is specified as the standard of approval, similar and equal products from Overhead Door Corporation, Atlas Door Subsidiary Clopay, Wayne-Dalton Corporation, Cornell Corporation, R&S Rolling Door, and Pacific Rolling Door Company may be used.
2. Product: Cookson "Type CD8-2M Manual (non-motorized) Counter Door"; provide lock mechanism with latch on interior face of the door, and key outside; between-jambs mounting; clear anodized aluminum finish.
   a. Provide crank operation for use of the door.
   b. Provide bottom deadlock to accept (1) interchangeable core as identified in Section 08710.

E. Support Framing:
1. Provide tube steel framing as indicated to support the overhead coiling counter coor.
2. The support framing shall be Contractor designed.
3. Provide bracing, attachments, and anchors to adjacent structure to maintain the installation firmly in position.
4. Framing shall be designed to accommodate deflection from the structure above without transmission of the load to
5. Design framir

F. Installation:
6. Install door a

NOT USED

08334 Overhead Coiling Grille

A. System Description: Overhead coiling grille assembly includes grille, guides, brackets, counterbalance, hood, control mechanisms, and all other accessories required for a complete installation.

B. Quality Assurance:
1. Installers: Installation shall be performed by a factory trained and authorized representative.

C. Submittals:
1. Submit product data.
2. Shop Drawings: Indicate details and dimensions of fabrication and installation, including closures, supports, tracks, locations of control boxes.
3. Closeout Submittals:
   a. In accordance with Section 01770.
   b. Submit maintenance manual and spare parts list, and name of nearest service representative.

D. Coiling Grille:
1. Manufacturer: The Cookson Company (704/866-9146) is specified as the standard of approval, similar and equal products from Overhead Door Corporation, Atlas Door Subsidiary Clopay, Wayne-Dalton Corporation, Cornell Corporation, R&S Rolling Door, and Pacific Rolling Door Company may be used.
2. Product: Cookson "Type JMG - Manual Rolling Grille."
   a. Curtain: G5015 design aluminum curtain.
   b. Finish: Clear anodized finish.
   c. Provide "Featheredge" pneumatic safety door bottom.
   d. Hardware: Provide bottom deadlock to accept (2) interchangeable cores as identified in Section 08710.

E. Installation:
1. Install grille and operating equipment complete with accessories in accordance approved shop drawings, and manufacturer's recommendations.

F. Field Quality Control:
1. Verify that moving parts operate smoothly, coiling grilles are free from warp, twists, or distortion, grilles remain in required position, and safety features function properly.
   Repair damage to overhead coiling grilles to match manufacturer's original finish. Replace
   Repair damage to overhead coiling grilles to match manufacturer's original finish. Replace components that cannot be properly repaired.

G. Adjust: Adjust mechanism so moving parts operate smoothly,

08410 Aluminum Storefront

A. Summary:
1. Provisions for new materials to match existing when indicated on the Drawings, including retrofit of aluminum storefront systems indicated to remain.
2. Provisions for new storefront when indicated on the Drawings.
3. Provisions for interior storefront assemblies when indicated on the Drawings.
4. Glazing and accessories required for aluminum storefront systems.
5. Fabricate brake metal shapes of materials to closely match storefront finish where such shapes are indicated on the Drawings. Provide rigid mechanical attachment of brake metal to storefront without compromising the weather integrity of the installation.
6. Finish: Interpon® D2000 Powdercoat Finish - Color: Sandstone

B. Manufacturer's Warranty: One year with no limitations; include existing materials.

C. System Components:
1. Storefront Framing: Kawneer TRIFAB VG 451T; 2 x 4-1/2 inch extruded aluminum section; front set flush design. Thermally broken framing.
2. Doors: Kawneer 190 or approved; extruded aluminum frame; narrow stile; 10-inch bottom rail.
3. Door Hardware:
   a. Hinges: Match existing storefront hinges.
   b. Weatherstripping: Manufacturer's standard.
   c. Threshold: Extruded aluminum; match storefront finish.
   d. Closer: Concealed overhead closer.
   e. Other hardware: As specified in 08710.
4. Glass: Match existing adjacent storefront glazing.
5. Glazing Beads: Furnish manufacturer's standard EPDM or neoprene glazing beads, for a complete weatherproof seal.

D. Storefront Framing Fabrication:
1. Rigidly fit joints and corners. Make corner joints flush, hairline, and weatherproof. Seal joints with sealant.
2. Provide drainage holes to allow water to flow to exterior.
3. Provide internal reinforcement in mullions with members to maintain rigidity. Provide reinforcing at all door strike jambs.
4. Fabricate storefront system to accommodate hardware.
5. Finish: Match existing.

E. Glass Framing Fabrication:
1. Insulating Glass Units:
   a. Dual light units; 1/2-inch nominal airspace; dual seal system with outer seal compatible with glazing system.
   b. Provide ten year manufacturer's warranty, covering seal failure, interpane dusting or misting.
2. Tempered Glass:
   a. Comply with ANSI Z97.1, and applicable codes.

F. Storefront Installation:
1. Install frames, doors, and hardware in accordance with manufacturer's instructions.
2. Align frames plumb and level, free of warp or twist. Maintain dimensional tolerances, aligning with adjacent work.
3. Install water diverters at exterior jamb conditions, under extruded aluminum sill section.
4. Provide end dams. Apply sealant to end dams, and screw penetrations.
5. Protect aluminum from dissimilar materials with a coating of bituminous paint, minimum 1 mil thickness of zinc chromate primer, plastic separator materials, or isolation tape. Isolation materials are to be concealed.

G. Glazing:
1. Glaze in accordance with the current edition of GANA.
2. Adjust glazing gaskets for uniform sightline.

H. Special Requirements for Interior Storefront Application:
1. Provide storefront configured with 1/2 inch thickness tempered glazing at interior applications in lieu of insulated glazing units required at exterior applications.

08710 Door Hardware

A. Submittals:
1. Hardware Schedule: Submit to the Architect, in triplicate, a complete schedule of proposed finish hardware. Schedule shall be completely detailed, showing all items, numbers and finishes for all hardware for each separate opening.

B. Supplier Qualifications: Finish hardware shall be supplied by recognized builders' hardware supplier who has been furnishing hardware in the same area as the project for a period of not less than five years. The supplier's organization shall include consultants who are available at all reasonable times during the course of the work to meet personally with the AT&T Wireless, Architect, or Contractor for hardware consultation. The supplier shall maintain a parts inventory of items supplied for future service for AT&T Wireless

C. Keys & Keying:
1. All cylinder items shall be keyed as directed by the AT&T Wireless.
2. Keys: Furnish 3 for each cylinder unit.

D. Finish: Brushed stainless steel typical

E. Installation:
1. Mark each item of hardware as to description and location of installation in accordance with approved hardware schedule.
2. Exposed surfaces of hardware shall be covered and well protected during installation, so as to avoid damage to finishes.
3. Install each hardware item in compliance with manufacturer's instructions. Wherever cutting and fitting are required to install hardware onto or into surfaces which are later to be painted or finishes in another way, install each item completely and then remove and store in a secure place during the finish operation. After completion of the finishes, reinstall each item. Do not install surface mounted items until finishes have been completed on the substrate.
4. Hardware Mounting Heights: Mounting heights are based on recommendations of the National Builders Hardware Association (NBHA). Generally, mount hardware units at the following locations on each door or door opening, except as otherwise indicated on the Drawings or required to meet code and handicapped requirements. Verify any conflicts with location of other hardware for proper clearances for installation prior to cutting or milling for specified hardware. Notify Architect immediately if such conflicts are determined.
   a. Latch and Locksets: 38 inches finish floor to center of knob.
   b. Dead Locks: 52 inches finish floor to center of cylinder.
   c. Emergency Exit Cross Bar: 36 inches from finish floor.
   d. Push/Pull: 42 inches finish floor to centerline of push/pull.
   e. Push Plate: 1/2 inch from edge of door; 42 inches to centerline of plate, except 45 inches where independent of the push/pull.
   f. Kick Plates: Mount at bottom edge of door and 1/2 inch from outside edge of door.;
   g. Top Hinge: 5 inches from top of door to top of hinge.
   h. Bottom Hinge: 10 inches from finish floor to bottom of hinge.
   i. Center Hinge: Equal distance between top and bottom hinges.
   j. Multiple hinge locations shall be equally spaced between top and bottom hinge.
   k. Wall Stops: Centerline of knob or point of first contact.
   l. Thresholds: Mount at exterior doors such that slope breakpoint on threshold is at lead edge of door. Set in full bed of caulking material.
   m. Closers: Mount for maximum degree of opening obtainable considering other hardware provided and opening conditions. Size closers for conditions and code requirements.
   n. Trim/Protection: Kickplate shall be 2" LDW x height indicated.
   o. Other hardware items shall be located as recommended by NBHA, or as may be shown or required otherwise.
   p. Dutch Door Bolts: Centerline of bolt placed vertically 4 inches from latch edge of door, strike plate mortised flush in shelf on lower leaf, and face plate mortised flush in bottom edge of upper leaf.
5. Adjusting and Cleaning: Adjust and check each operating item of hardware and each door to ensure proper operation. Clean door and hardware.

F. Hardware Groups:
   Note: Unless indicated otherwise, the standard finish for door hardware is US26D
   AT&T Wireless Approved Supplier:
   Jenn Ciesniewski
   1-877-333-9294
   Stanley Security Solutions
   150 East 75th St.
   Indianapolis, IN 46250
   JCiesniewski@stanleyworks.com

HW1P (EXTERIOR - WOOD/METAL)
3 PR BUTTS STA FBB179 - NRP - 4-1/2 X 4-1/2
2 FLUSHBOLT QUA 1358 - 12"
1 DEADLOCK BES 38H7K-626
2 PUSH/PULL SET QUA Q-484
2 CLOSER STA D4550-SB
1 THRESHOLD NGP 425
2 SWEEP NGP 102V
1 SEAL NGP 5050 - BN
1 ASTRAGAL BY DOOR SUPPLIER

HW1AP (EXTERIOR - ALUM/ALUM)
3 PR BUTTS MFG STANDARD
2 FLUSHBOLT MFG STANDARD
1 DEADLOCK A/R MS1850S - 1-1/8"
1 CYLINDER BES 1E76-C181-RP-626
1 THUMBTURN BES 1E6A4-C181-626
2 PUSH/PULL SET ELM G685-01-001-L748
2 CLOSER STA D4550-SB
2 DROP PLATE STA P45-180
1 THRESHOLD NGP 425 X WIDTH OF OPENING
2 SWEEP NGP 102V
1 SEAL MFG STANDARD
1 ASTRAGAL MFG STANDARD

HW1S (EXTERIOR SINGLE - WOOD/METAL
1-1/2 PR BUTTS STA FBB179 - NRP - 4-1/2 X 4-1/2
1 DEADLOCK BES 38H7K-626
1 PUSH/PULL SET QUA Q-484
1 CLOSER STA D4550
1 THRESHOLD NGP 425
1 SWEEP NGP 102V
1 SEAL NGP 5050 - BN

HW1AS (EXTERIOR SINGLE - ALUM/ALUM)
1-1/2 PR BUTTS MFG STANDARD
1 DEADLOCK A/R MS1850S - 1-1/8"
1 CYLINDER BES 1E76-C181-RP-626
1 THUMBTURN BES 1E6A4-C181-626
1 PUSH/PULL SET QUA Q-484
1 CLOSER STA D4550-SB
1 DROP PLATE STA P45-180
1 THRESHOLD NGP 425
1 SWEEP NGP 102V
1 SEAL MFG STANDARD

HW2 (PASSAGE WITH CLOSER)
1-1/2 PR BUTTS STA FBB179 – 4-1/2 X 4-1/2
1 PASSAGE BES 93KON1D0-S3-626
1 CLOSER STA D3550-SB
1 KICKPLATE QUA 10" X 2" LDW – 16 GA
1 STOP QUA 431ES
3 SILENCER GJ GJ64

HW3 (PRIVACY WITH CLOSER)
1-1/2 PR BUTTS STA FBB179 – 4-1/2 X 4-1/2
1 PRIVACY BES 93KOL1D0-S3-626
1 CLOSER STA D3550-SB
1 KICKPLATE QUA 10" X 2" LDW – 16 GA
1 STOP QUA 431ES
3 SILENCER GJ GJ64

HW4 (STOREROOM ELECTRONIC KEYPAD LOCK WITH CLOSER)
1-1/2 PR BUTTS STA FBB179 - 4-1/2 X 4-1/2
1 LOCKSET BES 93KZ7DV15KP-S3-626
1 CLOSER STA D3550-SB
1 KICKPLATE QUA 10" X 2" LDW - 16 GA
1 STOP QUA 431ES
3 SILENCER GJ GJ64

HW5 (OFFICE LOCK WITH CLOSER)
1-1/2 PR BUTTS STA FBB179 – 4-1/2 X 4-1/2
1 LOCKSET BES 93K7AB15D-S3-626
1 CLOSER STA D3550-SB
1 KICKPLATE QUA 10" X 2" LDW – 16 GA
1 STOP QUA 431ES
3 SILENCER GJ GJ64

HW6A (EXTERIOR WITH LOCAL ALARM)
1-1/2 PR BUTTS STA FBB179 - NRP-4-1/2 X 4-1/2
1 ALARM LOCK ARM A101-002(see note below)
1 CYLINDER (I.S.) BES 1E74
1 CLOSER STA D4550-SB
1 KICKPLATE QUA 10" X 2" LDW – 16 GA
1 THRESHOLD NGP 425 X WIDTH OF OPENING
1 SWEEP NGP 102V
1 SEAL NGP 5050-BN X PERIMETER OF DOOR OPENING
1 RAIN DRIP NGP 16A + 4"
1 VIEWER IVE 698B

The standard alarm system for rear exit doors is the Arm-A-Door A1 01-002, but in those locations that require fire rated assembly, Arm-A-Door A1-01-002 may be substituted. Hardware group contains panic hardware.

HW6B (EXTERIOR WITH ALARM TO REMOTE LOCATION)
1-1/2 PR BUTTS STA FBB179 -NRP- 4-1/2 X 4-1/2
1 PANIC PRE 5101WALW501-689-WH495
1 TRANSFER PRE EPT-5
1 HORN
1 CLOSER STA D4550-SB
1 KICKPLATE QUA 10" X 2" LDW-16GA
1 THRESHOLD NGP 425
1 SWEEP NGP 102V
1 SEAL NGP 5050-BN
1 RAIN DRIP NGP 16A + 4"
1 VIEWER IVE 698B
1 CYLINDER(I.S.) BES 1E74

HW7 (INTERIOR PAIR-LOCKED)
3 PR BUTTS STA FBB179 - 4-1/2 X 4-1/2
2 FLUSHBOLT QUA 1358-12"
1 DUST STRIKE QUA 1225
1 LOCKSET FAL T581DL-Q-ICC/7-ASA
2 OVERHEAD STOP GJ GJ454S-TB
4 SILENCER GJ GJ64
1 CORE MED #33-60001-26-7CS

MANUFACTURERS LISTING:
STA STANLEY HARDWARE
QUA QUALITY HARDWARE
BES BEST LOCK
NGP NATIONAL GUARD PRODUCTS
GJ GLYNN-JOHNSON
IVE H.B. IVES
A/R ADAMS/RITE
ELM ELMES DOOR HARDWARE
PRE PRECISION HARDWARE
ARM ARM_A_DOOR HARDWARE
FAL FALCON
MED MEDCO

Division 9 Finishes

09111 Light-Gage Metal Support Systems

A. System Description:
1. Structural Design:
   a. Select framing systems, gages, supports, bracing, and connections as necessary to meet the structural req. specified.
   b. Partition framing shall conform to the widths indicated, unless approved otherwise. Provide thicker gages and increased stud spacing as necessary to meet the design requirements.
2. Design Loads:
   a. Interior Ceiling Assemblies: 5 pounds per square foot uniform live load, plus dead loads.
   b. Interior Partitions: 5 pounds per square foot uniform live lateral load.
   c. Seismic Loads: Conform to the requirements of the Uniform Building Code for the appropriate seismic zone of the specific store location.
   d. Folding Security Grille: Design framing members to support weight of folding security grille. Design members to support the load concentrated in the folded position.
3. Deflection Requirements: Maximum of 1/240 the span.
4. Soffit Framing: Provide sufficient fasteners and framing elements to adequately resist the combined dead and live loads of suspended overhead construction. Base the design on the working capacities stated in the manufacturer's technical data for the components, unless required otherwise by jurisdictional Code authorities.

B. Submittals.
1. Product Data:
   a. Schedules: Proposed manufacturer's tables of partition heights and stud gages, as applicable to the work.
2. Shop Drawings:
   a. Assemblies Suspended from Overhead Construction: Show framing configurations and fastening systems for overhead soffits and other suspended assemblies; include applicable technical data for fasteners; indicate existing overhead construction to be attached to.

C. Code Requirements:
1. Provide assemblies meeting the hourly fire ratings indicated and specified. Assemblies shall been tested in accordance with ASTM E119, and shall be approved by the local jurisdictional code authorities. Coordinate installation of other materials that are a part each assembly.
2. Fire rating requirements take precedence over the construction requirements indicated. In the event of conflict, notify the Architect, and do not begin construction in the area of conflict until the conflict has been resolved.
3. Provide all calculations, drawings, product data, and other verification as required by the jurisdictional code authority to obtain approval of the light gage metal framing installation.

D. Materials:
1. Light Gage Metal Framing: ASTM C645; galvanized; provide "C" shaped studs, U shaped runners, hat and "Z" shaped furring channels, and other sizes and shapes as indicated on the drawings, and required in the standards referenced. Minimum 20 gage, except provide thicker gages as required to meet deflection requirements.
2. Cold Rolled Channels: Rust inhibitive paint coating; sizes in accordance with ASTM C754.
3. Screws: Self-tapping; low profile head.
4. Other Framing Materials: Furnish in accordance with ASTM C754.

E. Partition Framing:
1. Runners:
   a. Secure runners with fasteners at maximum 24 inches oc.
   b. At concrete floors, use powder driven fasteners or drilled in concrete anchors.
   c. Where indicated, attach top runner to acoustical ceiling grid with screws at 24 inches on center. Provide spacer strip between runner and ceiling suspension system to allow tegular or reveal edge acoustical panels to clear partition.
2. Unless indicated otherwise, install studs vertically at 16 inches oc, and not more than 2 inches from abutting construction, at each side of openings, and at corners.
3. Fit runners under and above openings; secure intermediate studs at spacing of wall studs.
4. Brace partition framing system and make rigid. Provide diagonal stud bracing at 8 ft on center at all framing that does not extend to structure.
5. Install double studs continuous from floor to ceiling track at the jamb of each doorframe and cased opening. Studs shall be the same gage as the adjacent studs, but no less than 20 gage. Provide diagonal steel stud bracing to structure at each jamb at partitions that do not extent to structure.
6. Coordinate erection of studs with installation of service utilities. Align stud web openings.
7. Coordinate erection of stud system with requirements of door and window frames, fire extinguisher cabinets, access doors, and other construction within mounted partition construction.
8. Coordinate the installation of framing with the gypsum board installer to ensure support at all board edges. Provide framing immediately either side of expansion joints.
9. Stud splicing not permissible.
10. Stud Bridging:
   a. At interior partitions greater than 4 feet in length, and with rigid facing material on one stud flange only, provide 3/4" bridging channels in horizontal rows at a maximum of 5'-0" on center for the full height of the partition.
   b. Interior full height partitions (studs extending from the floor to the structure above) with rigid facing material stopping 3'-0" or more below top of studs - Provide one row 3/4" bridging channel horizontally at termination of gypsum board material, and one additional row for each 5'-0" of exposed studs.
   c. Install stud bridging channels in long lengths, wire tying and lapping the joints a minimum of 12." Attach bridging channel to each stud as shown in manufacturer's printed instructions.

F. Soffit Framing:
1. Secure runners to structure above. Provide reinforcing washers at each fastener to prevent the fastener from being pulled through the top runner due to the applied loads.
2. Screw fasten framing at each joint.
3. Provide detailing as indicated to allow for deflection of building structure.
4. Provide bracing to meet seismic requirements.

G. Backing:
1. Provide steel backing for support of wall mounted items.
2. Unless indicated otherwise, steel backing shall consist of minimum 4-inch wide 16 gage steel plate screwed rigidly to the studs.
3. Coordinate all required blocking for furniture, shelving, cabinets, wall stops, etc., with the appropriate vendor.

H. Installation Tolerances:
1. Install members to provide surface plane with maximum variation of 1/8 inch in 10 feet in any direction.
2. Locate assemblies within 1/4 inch of required locations.

09250 Gypsum Board Construction

A. Quality Control: Provide assemblies meeting the hourly fire ratings indicated. Assemblies shall be approved by the local jurisdictional code authorities

B. Materials:
1. Gypsum Board:
   a. 5/8 inch thick unless noted otherwise.
   b. Radius Walls: Use thickest board that will readily conform to the radius indicated on the Drawings.
   c. Standard Board: ASTM C36; type X in fire rated partitions where indicated.
2. Accessories:
   a. Trim: Concealed flange screw-on type; metal or PVC at Contractor's option; GA 216.
   b. Joint Compound, Tape, and Finishing Compound: ASTM C475 and GA 216.
   c. Screws: ASTM C1002.

C. Installation:
1. Installation Standard: Unless specified otherwise, perform work in accordance with Gypsum Association 216, "Recommended Specifications for the Application and Finishing of Gypsum Wallboard."
2. Screw fasten board to framing, unless approved otherwise.
3. Control Joints:
   a. Position control joints to intersect light fixtures, air diffusers, door openings, and other areas of stress concentration.
   b. Position control joints at locations where expansion or control joints occur in the building structure.
   c. Locate control joints to form rectangular or square sections, in "L," "U," "T," or other irregularly shaped areas.
4. Finishing:
   a. 3 coat smooth wall finish.
   b. Gypsum board surfaces shall form a smooth surface free of ridges, joint marks, fastener depressions, and joint filler lines. Tapered board joints shall be taped, filled, and feathered to 12 inches either side of the joint. Non-tapered board joints shall be taped, filled, and feathered to 18 inches either side of the joint.
   c. Skim coat all gypsum board surfaces in public areas (FOR EXISTING CONDITIONS ONLY, AS REQ'D).

D. Special Requirements at Graphic Wall Covering:
1. Apply an extra layer of gypsum wall board to area indicated on the Drawings adjacent to graphic wall covering.
2. Provide vertical reveals at gypsum wall board surfaces adjacent to graphic wall covering indicated on the Drawings.
3. Coordinate wall finishing with requirements for graphic wall covering installation identified in Section 09720.

09253 Gypsum Soffit Board

A. Summary: Fully-Embedded glass-mat gypsum sheathing board and sheathing joint-and-penetration treatment.

B. Reference
1. ASTM B 117 - Practice for Operating Salt Spray (Fog) Testing Apparatus.
2. ASTM C 514 - Standard Specification for Nails for the Application of Gypsum Board.
3. ASTM C 954 - Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.33 inch (0.84 mm) to 0.112 inch (2.84 mm) in Thickness.
4. ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
5. ASTM C 1177 - Standard Specification for Nails for Glass Mat Gypsum Substrate for Use as Sheathing.
6. ASTM C 1280 - Standard Specification for Application of Gypsum Sheathing.
7. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.
8. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
9. ASTM E 136 - Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.
10. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association.
11. GA-253 - Application of Gypsum Sheathing; Gypsum Association.
12. GA-600 - Fire Resistant Design Systems; Gypsum Association.
13. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

C. Submittals
1. Manufacturer's data sheets on each product to be used, including:
   a. Preparation instructions and recommendations.
   b. Storage and handling requirements and recommendations.
   c. Installation methods.

D. Manufacturers
1. Acceptable Manufacturers:
   a. BPB (Base Bid)
   b. USG
   c. National Gypsum
2. Single Source Responsibility: Obtain gypsum board products, joint treatment products, and textured coatings from a single manufacturer.

E. Gypsum Soffit Board
1. GlasRoc Sheathing: Conforming to the requirements of ASTM C 1177 and the following:
   a. Flame spread: ASTM E 84 (CAN/ULC-S102): 0 maximum.
   b. Smoke developed: ASTM E 84 (CAN/ULC-S102): 0 maximum.
2. Thickness: 1/2 inch (12.7 mm) thick where GlasRoc® Sheathing indicated.
3. Width: 48 inches (1219 mm).
4. Length: 96 inches (2438 mm) and 108 inches (2743 mm) standard. Custom lengths available.
5. Edges: Square.

F. Sheathing Joint-And-Penetration Treatment Materials
1. Glass-Fiber Mesh Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches (50 mm) wide, 10 by 10 or 10 by 20 threads/inch (390 by 390 or 390 by 780 threads/m), of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing board.

G. Accessories
1. Fasteners: Steel drill screws, in lengths recommended by sheathing manufacturer for thickness of sheathing board to be attached and as follows:
2. Provide all fasteners with an organic-polymer or other corrosion-protective coating.

H. Installation
1. Install soffit board in accordance GA-253, ASTM C 1280 and manufacturer's written instructions.

09260 Gypsum Board Assemblies on Metal Framing

Summary: Pre-engineered drywall suspension system consisting of straight main tees along with straight furring cross channels or cross tees, that join together to support screw attached gypsum panels and independently supported light fixtures and air diffusers. Installed systems must conform to U.L. and other applicable codes where applicable.

References
   a. ASTM C635, Standard Specifications for Metal Suspension Systems.
   b. ASTM C636, Recommended Practice for Installation of Metal Suspension Systems.
   c. CISCA Ceiling Systems Installation Handbook.
   d. GA 216, Installation & Finish of Gypsum Panels.
   e. ASTM C645, Standard Specification for Non-Load Bearing (Axial) Steel Studs, Runners, (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.
   f. ASTM C754, Specification for Installation of Steel Framing Members to Receive Screw-Attach Gypsum Boards.

C. Submittals
1. Samples: Submit actual samples and technical data for suspension system main tees and cross tees for review.
2. Shop Drawings:
   a. Reflected ceiling plans: Submit ceiling suspension system layout indicating dimensions, lighting fixture locations,and related mechanical components.
   b. Assembly drawings: Indicate installation details, accessory attachments and installation of related lighting fixtures and related mechanical system components.
3. Manufacturer's Data:
   c. System details: Submit manufacturer's catalogue cuts or standard drawing showing details of system with project conditions clearly identified and manufacturer's recommended installation instructions.

D. Acceptable products: Drywall Suspension System by USG.

E. Materials
   Commercial quality, cold rolled steel, hot dipped galvanized finish.
   USG Flat Drywall Suspensions Systems:
   a. Main Tees: Fire-Rated Heavy Duty classification 1-1/2" high, integral reversible splice with knurled face. DGL-26 15/16_ Face or DGLW-26 1-1/2_ Face
   b. Cross Members: Fire-Rated members with knurled face. Cross Tees: DGLW-424 cross tee 1-1/2" high x 48" long with 1-1/2" wide face. Tees must have quick release cross tee ends to provide positive locking and removability without the need for tools. or Furring Channel: DGCL-4 furring channel 7/8" high x 48" long with 1-1/2" face.
   c. Accessory Cross Tees: Cross tees must have knurled faces. Cross tees have quick release cross tee ends to provide positive locking and removability without the need for tools.
   d. Wall moldings: Single web with knurled face. DGWM-24 1"x 1-1/2" x length wall molding. DGCM-25 144" x 1-9/16" x 1"x 1" channel molding.

F. Accessories
1. Transition Clip DGTC-90
2. Splice Clip DGSC-180

G. Fasteners
1. Conventional Gypsum Panel fasteners (ASTM C1002). No. 6 Type-S, HiLo bugle head, self-drilling, self-tapping steel screws.

H. Installation
1. Standard reference: Install in accordance with ASTM C636, CISCA installation standards, and other applicable code references.
2. Manufacturer's reference: Install in accordance with manufacturer's current printed recommendations.
3. Drawing reference: Install in accordance with approved shop drawings and locate ceiling in accordance with main tee dimensions relative to elevations.
4. Component and hanger wire installation:
   a. Flat Ceilings: Main tees shall be spaced a maximum of 48" on center and supported by hanger wires spaced a maximum 48" on center and as specified by UL Fire Resistance Directory attaching hanger wires directly to structure above. Cross tees shall be spaced per manufacturers' recommendations and as specified by UL Fire Resistance Directory.
   b. Transitions: Changes in Elevation in Soffit and Fascia Ceiling Applications.

Oculus Inc.
ARCHITECTURE I STRATEGIC PLANNING I INTERIORS I MOVE MANAGEMENT
ONE SOUTH MEMORIAL DRIVE | SUITE 1500 | ST.LOUIS, MO 63102
(314) 367-6100

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Farmington, UT 84025
DES Enhanced

#	Description	Date

ISSUED FOR PERMIT

Client Approval

Specifications 2

Project # 17513-UT02
Issue Date 10/22/2013
Scale
Drawn by MTB
Checked by MTB

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c. When constructing stepped soffits, bracing of the drywall suspension system and/or additional hanger wires may be necessary to ensure stability and structural performance during and after drywall attachment.
d. The maximum vertical soffit height is 48". (Maximum unsupported drywall area shall not exceed 48" x 24").
e. Intermediate cross tees are not necessary when soffit dimensions do not exceed 24".
f. Cross tee spacing in horizontal soffit plane is not to exceed 24".
g. Intermediate cross tees may be necessary to maintain visually acceptable drywall planes and drywall corners.
h. General hanger wire notes: Hanger wires are required within 12" on both sides of a pivoted splice clip. At least 1 hanger wire is required within 12" of a transition clip. Limitations: Do not support wires from mechanical and/or electrical equipment occurring above ceiling.

I. Accessories: Install accessories as applicable to meet project requirements.

J. Expansion Joints
1. Provide a separation in the suspension system at expansion joints as shown on the drawings and carry the joint through the gypsum panels.
2. Expansion joints are installed to separate the suspension system and allow for movement in large ceiling areas.

09305 Tile Setting Materials & Accessories

A. SUMMARY: Provide tile installation materials and accessories as indicated on drawings, as specified herein, and as needed for complete and proper installation.

B. SYSTEM DESCRIPTION
1. Quarry tile and base installed using latex modified Portland cement mortar over a plastic Portland cement mortar bed or over a cured (pre-floated) Portland cement mortar bed with epoxy grouted joints.

C. SUBMITTALS
1. Submit shop drawings and manufacturers' product data under provisions of Section 01300.
2. Submit manufacturers' installation instructions under provisions of Section 01300.
3. Submit manufacturer's certification under provisions of Section 01450 that the materials supplied conform to ANSI A137.1.
4. Submit proof of warranty.
5. Submit sample of installation system demonstrating compatibility/functional relationships between adhesives, mortars, grouts and other components under provision of Section (01300.) (01340.)

D. QUALITY ASSURANCE
1. Installation System Manufacturer (single source responsibility): Company specializing in adhesives, mortars, grouts and other installation materials with ten (10) years minimum experience and ISO 9001 certification. Obtain installation materials from single source manufacturer to insure consistent quality and full compatibility.

E. WARRANTY
The Contractor warrants the work of this Section to be in accordance with the Contract Documents and free from faults and defects in materials and workmanship for a period of 10 years. The manufacturer of adhesives, mortars, grouts and other installation materials shall provide a written ten (10) year warranty, which covers materials and labor - reference LATICRETE Warranty Data Sheet 230.12 for complete details and requirements.

F. EXTRA MATERIALS STOCK
Upon completion of the work of this Section, deliver to the Owner extra stock of adhesives, mortars, grouts and other installation materials for the Owner's use in replacement and maintenance. Extra stock to be from same production run or batch as original tile and installation materials.

G. PRODUCTS
1. CERAMIC TILE INSTALLATION MATERIALS MANUFACTURER
a. Base Bid: LATICRETE International, Inc., 1 Laticrete Park North, Bethany, CT 06524-3423 USA Phone 800-243-4788, (203) 393-0010 support@laticrete.com www.laticrete.com
b. Substitutions: See Section 1600
2. Summary: Cement backer board for stone tile wall cladding
a. Backer Board: Cementitious, water durable, board; surfaced with fiberglass reinforcing mesh on front and back; long edges wrapped; and complying with ANSI A118.9 and ASTM C 1325.
1. Thickness: ½ in.
2. Width: 4 ft.
3. Length: 8 ft.
4. Edges: Tapered
5. Compressive Strength: Not less than 2250 lbs. per sq. in. when tested in accordance with ASTM D 2394.
6. Water Absorption: Not greater than 8 percent when tested for 24 hours in accordance with ASTM C 473.

H. PERFORMANCE SPECIFICATION - TILE INSTALLATION ACCESSORIES
1. Waterproofing Membrane to be thin, cold applied, single component liquid and load bearing. Reinforcing fabric to be non-woven rot-proof specifically intended for waterproofing membrane. Waterproofing Membrane to be non-toxic, non-flammable, and non-hazardous during storage, mixing, application and when cured. It shall be certified by IAPMO as a shower pan liner and shall also meet the following physical requirements:
a. Water Permeability @ 30ft.hydro/0.9 atmos/91.2kPa (Fed. Spec.TT-C-00555 Modified): Nil
b. Elongation @ break (ASTM D751): 20-30%
c. Service Temperatures (LIL 1016):-20° to 280°F(-28° to 137°C)
d. Breaking Strength (ASTM D751): 2950 psi (20.4 MPa)
e. Thickness (LIL 1013): 20 mils (0.5 mm)
f. Shear Bond Strength (ANSI A118.4):250 PSI (1.7 MPa)
g. Service Rating (TCA/ASTM C627): Extra Heavy/cycles 1-14
2. Crack Suppression Membrane to be thin, cold applied, single component liquid and load bearing. Reinforcing fabric to be non-woven rot-proof specifically intended for crack suppression membrane. Materials to be non-toxic, non-flammable, and non-hazardous during storage, mixing, application and when cured. Crack Suppression Membrane sh[…]
a. Elongatio[…]
b. Service T[…]
c. Breaking […]
d. Thickness[…]

NOT USED

e. Service Rating (TCA/ASTM C627): Extra Heavy/cycles 1-14
3. Wire Reinforcing: 2 inch x 2 inch (50 x 50 mm) x 16 ASW gauge or 0.0625 inch (1.6mm) diameter galvanized steel welded wire mesh complying with ASTM A185 and ASTM A82.
4. Cleavage membrane: 15 pound asphalt saturated, non-perforated roofing felt complying with ASTM D226, 15 pound coal tar saturated, non-perforated roofing felt complying with ASTM D227 or 4.0 mils (0.1 mm) thick polyethylene plastic film complying with ASTM D4397.
5. Cementitious backerboard units: size and thickness as specified, complying with ANSI A118.9.

I. PERFORMANCE SPECIFICATION - TILE INSTALLATION MATERIAL
1. Latex Portland Cement Thin Bed Mortar for thin set and slurry bond coats to be weather, frost, shock resistant, non-flammable and to meet the following physical requirements:
a. Compressive strength (ANSI A118.4): 2400 psi (16.5 MPa) Min.
b. Bond strength (ANSI A118.4): 500 psi (3.5MPa) Min.
c. Smoke & Flame Contribution (ASTM E84 Modified): 0
2. Organic Adhesive shall be non-flammable, water resistant, latex adhesive and shall meet the following physical requirements:
a. Open Time (ANSI A136.1): 70 minutes @ 75°F (24°C)
b. Color: White
c. Density (ANSI A136.1): 13.2 lbs/gal (1.6 kg/l)
3. Epoxy Grout (Commercial/Residential) shall be non-toxic, non-flammable, non-hazardous during storage, mixing, application and when cured and shall meet the following physical requirements:
a. Compressive Strength (ANSI A118.3):3500 psi (24 MPa)
b. Shear Bond Strength (ANSI A118.3): 1000 psi (6.9 MPa)
c. Water Absorption (ANSI A118.3): < 0.5 %
d. Cured Epoxy Grout to be chemically and stain resistant to ketchup, mustard, tea, coffee, milk, soda, beer, wine, bleach (5% solution), ammonia, juices, vegetable oil, brine, sugar, cosmetics, and blood, as well as chemically resistant to dilute acids and dilute alkalis.
4. Latex Portland Cement Grout to be weather, frost and shock resistant, as well as meeting the following physical requirements:
a. Compressive Strength (ANSI A118.7): 3500 psi (24 MPa)
b. Water Absorption (ANSI A118.7): < 5%
c. Linear Shrinkage (ANSI A118.7): < 0.1 %
d. Smoke & Flame Contribution (ASTM E84 Modified): 0
5. Expansion and Control Joint Sealant to be a one component, neutral cure, exterior grade silicone sealant meeting the following requirements:
a. Tensile Strength (ASTM C794):225 psi (1.5 MPa)
b. Hardness (ASTM D751; Shore A): 25 (colored sealant)/15 (clear sealant)
c. Weather Resistance (QUV Weather-ometer): 10000 hours (no change)
6. Spot Bonding Epoxy Adhesive for installing tile, brick and stone over vertical and overhead surfaces shall be high strength, high temperature resistant, non-sag and shall meet the following physical requirements:
a. Thermal Shock Resistance (ANSI A118.3): 2600 psi (17.9 MPa)
b. Water Absorption (ANSI A118.3): 0.1 %
c. Compressive Strength (ANSI A118.3) 8379 psi (57.8 MPa)
d. Shear Bond Strength (ANSI A118.3 Modified): 2000 psi (13.8 MPa)

J. Installation - General
1. SUBSTRATE EXAMINATION: Verify that surfaces to be covered with tile, mosaics, pavers, brick, stone, trim or waterproofing are:
a. Sound, rigid and conform to good design/engineering practices; with maximum deflection under all live, dead and impact loads, including concentrated loads, of L/360 for ceramic tile, mosaics, pavers or brick and L/480 for stone;
b. Clean and free of dust, dirt, oil, grease, sealers, curing compounds, laitance, efflorescence, form oil or loose plaster, paint and scale;
c. Level and true to within 1/4" in 10' (6mm in 3m), and no more than 1/16" in 1' (1.5mm in 0.3m) variation from substrate high points, for applications by the thin bed method over substrate, thin waterproof membrane or thin crack suppression membrane;
d. Not leveled with gypsum or asphalt based compounds;
e. Dry as per American Society for Testing and Materials (ASTM) D4263 "Standard Test for Determining Moisture in Concrete by the Plastic Sheet Method."
ACCESSORIES:
a. Waterproofing:
1. Install waterproof membrane in compliance with current revisions of ANSI A108.1 (A-1 through A-3) and ANSI A108.13.

K. INSTALLATION - TILE, BRICK & STONE
1. General: Install in accordance with current versions of American National Standards Institute, Inc. (ANSI) "A108 American National Standard for Installation of Ceramic Tile" and TCA "Handbook for Ceramic Tile Installation." Cut and fit ceramic tile, brick or stone neatly around corners, fittings, and obstructions. Perimeter pieces to be minimum half tile, brick or stone. Chipped, cracked, split pieces and edges are not acceptable. Make joints even, straight, plumb and of uniform width to tolerance +/- 1/16" over 8' (1.5mm in 2.4m). Install divider strips at junction of flooring and dissimilar materials.
2. Thin Bed Method: Install latex Portland cement mortar in compliance with current revisions of ANSI A108.1 (A-1 through A-3) and ANSI A108.5 (A-4.3). Use the appropriate trowel notch size to ensure proper bedding of the tile, brick or stone selected. Work the latex Portland cement mortar into good contact with the substrate and comb with notched side of trowel. Spread only as much latex Portland cement mortar as can be covered while the mortar surface is still wet and tacky. When installing large format (>8" x 8"/200mm x 200mm) tile/stone, rib/button/lug back tiles, pavers or sheet mounted ceramics/mosaics, spread latex Portland cement mortar onto the back of (i.e. 'back-butter') each piece/sheet in addition to troweling latex Portland cement mortar over the substrate. Beat each piece/sheet into the latex Portland cement mortar with a beating block or rubber mallet to insure full bedding and flatness. Allow installation to set until firm. Clean excess latex Portland cement mortar from tile or stone fac and joints between pieces.
3. Polymer Modified Cement Grout (ANSI A118.7): Install polymer modified cement grout in compliance with current revisions of ANSI A108.1 (A-1 through A-3) and ANSI A108.10 (A-4.7.3.5.4, A-4.7.4 through A-4.7.8). Dampen dry surfaces with clean water. Spread using a sharp edged, hard rubber float and work grout into joints. Using diagonal (at 45° angle to direction of grout line) strokes, pack joints full and free of voids/pits. Hold float face at a 90° angle to grouted surface and use float edge to "squeegee" off excess grout, stroking diagonally to reduce pulling grout out of filled joints. Initial cleaning can begin as soon as grout has become firm, typically 20-30 minutes after grouting depending on temperature. Drag a clean towel dampened with water, or wipe a clean, dampened sponge, diagonally over the veneer face to remove any grout haze left after "squeegeeing." Rinse towel/sponge frequently and change rinse water at least every 200 ft2 (2 m2). Repeat this cleaning sequence again if grout haze is still present. Allow grout joints to become firm. Buff surface of grout with clean coarse cloth. Inspect joint for pinholes/voids and repair them with freshly mixed grout. Within 24 hours, check for remaining haze and remove it with warm soapy water and a nylon scrubbing pad, using a circular motion, to lightly scrub surfaces and dissolve haze/film. Do not use acid cleaners on latex Portland cement mortar grout less than 7 days old.
4. Expansion an[…]d in full conformity, especially in v[…]
a. Substrate[…]
b. Install ex[…] substrates.
c. Install ex[…]lls, curbs, columns), cha[…]

NOT USED

d. Joint width and spacing depends on application - follow TCA "Handbook for Ceramic Tile Installation" Detail "EJ-171 Expansion Joints" or consult sealant manufacturer for recommendation based on project parameters.
e. Joint width: ≥ ⅛" (3mm) and ≤ 1" (25mm).
f. Joint width:depth ~2:1 but joint depth must be ≥ ⅛" (3mm) and ≤ ½" (13mm).
g. Layout (field defined by joints): 1:1 length:width is optimum but must be ≤ 2:1.
h. Remove all contaminants and foreign material from joint spaces/surfaces, such as dirt, dust, oil, water, frost, setting/grouting materials, sealers and old sealant/backer. Install appropriate Backing Material (e.g. closed cell backer rod) based on expansion joint design and as noted in the Drawings. Apply masking tape to face of tile, brick or stone veneer. Use caulking gun, or other applicator, to completely fill joints with sealant. Within 5-10 minutes of filling joint, 'tool' sealant surface to a smooth finish. Remove masking tape immediately after tooling joint. Wipe smears or excess sealant off the face of non-glazed tile, brick, stone or other absorptive surfaces immediately.
5. Adjusting: Correction of defective work for a period of one (1) year following substantial completion, return to job and correct all defective work. Defective work includes, without limitation, tiles broken in normal abuse due to deficiencies in setting bed, loose tiles or grout, and all other defects which may develop as a result of poor workmanship.

L. INSTALLATION - CEMENT BOARD
1. Fasteners:
a. Screws: Drill point screws (No. 8) wafer head, corrosion-resistant, 1-1/4 in. or 1-5/8 in. long, and complying with ASTM C 1002.
2. Joint Treatment:
a. Tape: Alkali-resistant fiberglass mesh tape intended for use with cement board.
3. Bonding Materials:
a. Mortar: Dry-set portland cement mortar in accordance with ANSI A118.1.
b. Mortar: Latex-portland cement mortar in accordance with ANSI A118.4.
c. Adhesive: Organic adhesive in accordance with ANSI A136.1, Type 1.
4. Installation
a. General: In accordance with the following reference standards and manufacturer's recommendations: ANSI A108.11.

M. CLEANING
1. Clean excess mortar/epoxy from veneer surfaces with water before they harden and as work progresses. Do not contaminate open grout/caulk joints while cleaning. Sponge and wash veneers diagonally across joints. Do not use acids for cleaning. Polish with clean dry cloth. Remove surplus materials and leave premises broom clean.

09510 Acoustical Ceilings

A. Submittals:
1. Submittals shall be in accordance with Section 01300 - Submittals.
2. Submit product literature for each acoustical ceiling tile and suspension system proposed.

B. Quality Assurance:
1. Codes: Comply with all pertinent requirements of the jurisdictional code authorities.

C. Products:
1. Ceiling Tile: As scheduled on the Drawings.
2. Suspension System: ASTM A635; intermediate or heavy duty classification; exposed T system; 9/16 exposed face; factory painted white to match ceiling tile.

D. Installation:
1. Installation in accordance with manufacturer's recommendations.
2. Hang system independent of walls, columns, ducts, pipes and conduit. Where ducts or other equipment prevent the regular spacing of hangers, provide secondary carrying members for indirect support of the suspensions system, or reinforce the nearest adjacent hangers and related carrying channels as required to span the required distance.
3. Do not anchor system in any manner that might cause damage to the structural system.
4. Align system with window mullions as indicated on the Drawings.
5. Hold-Down Clips: Install hold-down clips within 20 feet of an exterior door.
6. Tolerances:
a. Variation form Flat and Level Surface: 1/8 inch in 10 feet.
b. Variation from Plumb of Grid Members Caused by Eccentric Loads: Two degrees maximum.

09648 Wood Flooring

A. Must be installed per manufacturer's specifications to maintain full warranty.

09650 Resilient Flooring

A. Submittals:
1. Submit product literature for each product proposed, including resilient flooring, transition strips, and adhesives; Includes L-1 and VCT-1 scheduled on the Drawings.

B. Materials:
1. Resilient Flooring:
a. L-1: Forbo Linoleum, Inc. "Marmoleum FRESCO", (570)459-0771; 2.5 mm sheet; colors as scheduled on the Drawings.
b. VCT-1: As scheduled on the Drawings.
2. Subfloor Filler: White premix latex filler, mixed with water to produce a cementitious paste.
3. Primers and Adhesives: Types as recommended by resilient flooring manufacturers for specific application.
4. Flash Cove Accessories:
a. Strips: Wax, wood, or plastic cove fillet strips; approximately 1-inch radius.
b. Cap Trim: Aluminum.
5. Transition Strips: Rubber or vinyl reducer strip, one inch wide x thickness to match flooring; square one edge, tapered opposite edge; color as selected by Architect.

C. General Resilient Flooring Installation Requirements:
1. Install subfloor filler to fill low spots, cracks, construction joints, holes and other defects, and as required to adjust level to meet adjacent finishes. Feather to maximum slope of 1/8 inch in 3 feet; float to smooth, flat, hard surface. Prohibit traffic over filler.
2. Install all resilient flooring where scheduled in accordance with the manufacturer's recommendations.
3. Unless indicated otherwise, install resilient flooring with joints and seams parallel to building lines.
4. Terminate resilient flooring at centerline of door at door openings where adjacent floor finish is dissimilar, and where no threshold is indicated.
5. Install edge strips at unprotected or exposed edges where flooring terminates.
6. Scribe flooring to walls, columns, cabinets, floor outlets and other appurtenances to produce tight joints.
7. Clean substrate. Spread cement evenly in quantity recommended by manufacturer to ensure adhesion over entire area of installation. Spread only enough adhesive to permit installation of flooring before initial set.
8. Set flooring in place, press with heavy roller to ensure full adhesion.
9. Seal joint between flooring and adjacent materials at restrooms, bathrooms, kitchens, and other moist areas with clear silicone sealant.

D. Special Requirements for Resilient Tile:
1. Open floor tile cartons, enough to cover each area, and mix tile to ensure shade variations do not occur within any one area.
2. Unless indicated otherwise, lay tiles parallel to building lines to produce symmetrical tile pattern.
3. Install with minimum tile width 1/2 full size at room or area perimeter.
4. Arrange to square grid pattern with all joints aligned.

E. Special Flashed Coved Base Requirements:
Provide cove fillet at intersection of floor and wall to ease transition.
Miter cut, fit, and heat weld. Extend flooring to 4 inches above finished floor level.
Cut top exposed edge straight and level.
Cap top edge with cap trim. Miter all trim corner joints. Install trim in maximum possible lengths with no piece shorter than 18 inches for continuous runs longer than 18 inches.

F. Cleaning

09678 Resilient Base

A. Materials:
1. Resilient Base: As scheduled on the Drawings.
2. Primers and Adhesives: Types as recommended by resilient base manufacturer for specific application.

B. Installation:
1. Adhesive install base materials in accordance with the manufacturer's recommendations. Adhere tightly to wall and floor surfaces.
2. Use manufacturer's longest lengths. Where cutting is necessary, maintain minimum measurement of 18 inches between joints.
3. Miter or cope inside corners for accurate fit.
4. Install base to walls, columns, and to wood casework toe kicks in all areas where rubber base is scheduled.
5. Score back of base material with grooving tool, at all outside corners; maintain minimum leg length 18 inches where wall length permits. Mount base so that scored groove is accurately aligned with corner, and with base tightly adhered to wall at both sides of corner, with no visible gaps at top of base. Where cove base is formed around outside corners, stretch toe of cove for smooth transition around corner, with toe in uniform contact with the finish flooring.
6. Scribe and fit to doorframes and other obstructions.
7. Install straight and level to variation of plus or minus 1/8 inch over 10 feet.
8. Coordinate installation of base with work of Section 09680.
9. Fit joints tight and vertical.

C. Cleaning
1. Remove excess adhesive from base and wall surfaces without damage.
2. Clean base in accordance with manufacturer's instructions.

09680 Carpeting

A. Summary: Installation of carpet tiles, and roll carpeting scheduled on the Drawings. General Contractor to purchase carpet tiles and roll carpeting as scheduled on the Drawings.

B. Submittals:
1. Samples:
a. Samples of each type of carpet edge strip; three inches minimum.
2. Installation Instructions: Submit for each type of carpet provided.

C. Quality Assurance:
1. Carpet Installer: Minimum of 3 years experience in carpet installations of similar size and scope. Able to show evidence of experience when requested by the Architect.

D. Warranty: Furnish manufacturer's standard 5-year warranty against wear and deterioration.

E. Warranty: Furnish manufacturer's standard 5-year warranty against wear and deterioration.
1. Carpet Tile: integral padded backing.
2. Roll Carpeting: As scheduled on the drawings; no pad.
3. Accessories:
a. Adhesives: As recommended by the carpet manufacturer for installation under conditions of this project.
b. Use release type adhesives at carpet tile locations.
c. Latex Underlayment: White premix latex filler.
d. Edge Strips: Vinyl reducer strips; size and configuration as appropriate for conditions; color as selected by Architect from manufacturers standard line.

F. Preparation:
1. Clean floors of dust, dirt, solvents, oil, grease, paint, plaster, and other substances that would be detrimental to the proper performance of adhesive and carpet.
2. Fill low spots and cracks over 1/8 inch in width with latex underlayment.

G. Carpet Installation:
1. Install carpet tiles in strict accordance with the manufacturer's recommendations; install roll carpeting in accordance with Carpet and Rug Institute (CRI) recommendations.
2. Floor adhesive shall be applied in accordance with adhesive manufacturer's recommendations using a roller to ensure maximum contact. Roll stock carpet, and carpet tile shall be fully adhesively bonded.
3. Orient carpet tiles in the same direction, unless scheduled or directed otherwise.
4. Lay out area such that cut perimeter tiles will be not less than 8 inches wide. Commence laying tile in center of room or space and work toward perimeters; cut border tile after field tiles have been installed. Cut carpet evenly and accurately to fit neatly at walls, columns, and projections. Lay tile square with area of installation. Joints shall be tight and unnoticeable upon completion.
5. Cut carpet for telephone and electrical outlets.
6. Carpet tile installation shall be rolled and re-rolled on the day following installation to assure complete transfer of adhesive.
7. Install edging strips where carpet terminates at other floor coverings. Use full length pieces only. Butt tight to vertical surfaces. Where splicing cannot be avoided, butt ends tight, flush, and accurately aligned.

H. Remnants: Upon completion of the installation, package all remaining carpet tiles. G.C to leave onsite with the store manager 1 box of carpet tiles, and/or 2 sq. yds of roll goods, for future use in onsite maintenance. Remove and dispose of all other additional remainder at a legal off-site location.

I. Cleanup:
1. The premises shall be kept free from unnecessary accumulation of tools, equipment and surplus materials during the progress of the work.
2. Remove threads with sharp scissors. Remove spots with manufacturer's recommended spot remover.
Thoroughly power vacuum entire surface using equipment with motor driven brushes.

09820 Acoustical Insulation and Sealants

A. Materials:
1. Acoustic Insulation: ASTM C665, Type I; unfaced glass fiber batts, blankets, or rolls; minimum fire hazard classification rating of 25/50 per ASTM E84; minimum 3-inch thick, unless required otherwise to meet the STC requirements indicated or specified; widths to friction-fit between studs, where indicated for installation in stud walls.
2. Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board; similar to USG "Acoustical Sealant."
3. Accessories: Furnish other accessories such as fasteners and retainers, not specifically described, but required for a complete installation.

B. Installation:
1. Install insulation in accordance with manufacturer's instructions, and as indicated.
2. Install insulation without gaps or voids.
3. Trim insulation neatly to fit spaces. Use insulation materials free of damage.
4. Acoustical Insulation at Ceilings:
a. Lay acoustical insulation over each acoustically insulated partition that terminates at the ceiling. Insulation shall extend a minimum of 24" each side of the centerline of the acoustical partition
b. Acoustical insulation batts shall be tightly butted.
c. Cut and fit neatly around mechanical and sprinkler drops.
d. Fill spaces between wall batts (at top plate line) and ceiling batts to ensure complete sound closure.
5. Sealant:
a. Install acoustical sealant around perimeter of all acoustically insulated partitions; one continuous bead at each side of framing member interface with substrate.
b. Seal all penetrations through acoustical assemblies, except for penetrations in fire rated construction to receive fire-stopping.

09900 Painting

A. Submittals:
1. Submit a list of each paint system to be used in the work.
2. Submit a minimum of 3 each 8 x 10 inch sample of each paint color and sheen proposed for the work.

B. Quality Assurance:
1. Paint coatings shall be free of dust, dirt, flow lines, streaks, sags, blisters, pinholes, bugs, runs, or other surface imperfections.
2. In addition to the coats specified, provide additional coats as required to obtain adequate hide.

C. Maintenance Materials: Furnish a minimum of one gallon of each color paint to Cingular Wireless LLC for future touch-up work.

D. Materials:
1. Unless specified otherwise, furnish manufacturer's highest grade coating systems by one of the following manufacturers. Materials to be VOC compliant:
a. Benjamin Moore Paint Company.
b. Pittsburgh Paints.
c. Pratt & Lambert.
d. The Sherwin-Williams Company.
e. ICI Paints North America.
f. Kelly-Moore Preservative Paint Company
2. Paint Selections P-3 and P-4: Provide custom Sherwin Williams colorways for the AT&T Wireless national account.
3. Overhead Dry Fall Paint: Tnemec "Uni-Bond" Series 16, or approved; modified alkyd dry-fall interior overhead paint; VOC compliant.

E. Surface Preparation:
1. Prepare surfaces by removing all dirt, dust, grease, oil, moisture, and other contaminants that will impair the proper adhesion of the finish.
2. Wood - Opaque paint finish:
a. Spot coat knots, pitch streaks, and sappy sections with sealer.
b. Fill all nail holes and cracks. Sand filler smooth and level with wood surface.
3. Gypsum Board: Remove all light dust and dirt.
4. Existing Finished Surfaces To Be Repainted:
a. Remove loose, blistered, scaled, or crazed finishes to bare substrate; feather new work into existing work. Prepare surfaces to the nearest break line if necessary to blend new finishes with old finishes.
b. Wash and rinse surfaces with trisodium phosphate and water or other solution required to remove remaining film, wax, oil, grease, smoke or foreign matter which will impair bond, or cause bleed through, of newly applied finishes.
c. Lightly sand, or apply a liquid deglosser on existing semi-gloss and high-gloss finishes before refinishing.

F. Special Application Requirements:
1. Unless specified or indicated otherwise, follow paint manufacturer's label directions for general application procedures and coverage rates.
2. Do not apply finishes on surfaces that are not sufficiently dry. Make sure each coat of finish is dry and hard before a following coat is applied unless the manufacturer's directions state otherwise.
3. Tint filler to match stain when clear finishes are specified; work filler well into grain and, before it has set, working perpendicularly to the grain, wipe the excess from the surface.
4. Opaque Finishes:
a. Apply number of coats scheduled for each application, except that additional finish coats shall be applied as necessary for complete hiding of substrate colors.
b. Apply primer coats un-tinted. Where more than one coat of paint is required, tint each succeeding coat up to the final coat similar in tint, but slightly lighter in value (shade).
c. Sand lightly between coats if necessary to achieve required finish; sand between all coats applied to wood substrates.
Rollers for application and backrolling of latex paints shall have a nap of 3/8 inch or less.
Where roller texture is scheduled for application to plaster and gypsum board surfaces, finish coats may be roller-applied, or spray applied and backrolled at Contractor's option.
Factory Primed Surfaces: Apply scheduled finish system, less primer coat, except as necessary to for patching damage to factory prime coating.

G. Systems:
1. Gypsum Board - Latex System:
a. 1 coat PVA primer, 2 coats of latex paint. Apply to interior gypsum board surfaces, unless specified or scheduled otherwise.
2. Ferrous Metals - Latex System:
a. System: Three coats; first coat rust resistant primer, second and third coats latex enamel. The primer may omitted at factory primed surfaces, except as necessary to recoat damaged or abraded preprimed surfaces.
b. Sheen: Semi-gloss, unless indicated otherwise.
c. Application: Interior ferrous metal surfaces including welded hollow metal doors and frames, electrical panels, fire extinguisher cabinets, and access doors.
Wood:
a. Wood - Opaque Latex System: 1 coat quick dry primer and 2 coats of latex paint.
b. Sheen: Semi-gloss, unless indicated otherwise.
c. Application: Interior plywood at Inventory Room, and paint grade wood doors.

H. Color Schedule: As scheduled on the Drawings.

Division 10 Specialties

10400 Signage

A. Section Includes: Installation of pin-mounted foam letters provided by General Contractor (F.C.I.C.).

B. Installation:
1. Accurately measure and mark location for installation of each pin-mounted letter; coordinate approved locations with the Owner's Representative.
2. Install each pin-mounted letter in succession, and in accordance with the pin manufacturer's instruction for the substrate the letters are being installed on.

C. Cleanup:
1. Take precautions to assure adjacent surfaces remain free from dust, and adhesive.
2. Immediately clean surfaces that become soiled during installation of the letters.
3. Upon installation, clean the letters and pin mounts of dust with a damp cloth, taking care not to damage underlying surfaces.
4. Leave the installation clean, and completely free of foreign material that would detract from visual appearance of the letters.

10520 Fire Extinguishers and Cabinets

A. Larsen Extinguisher Cabinet - V-2709

B. Extinguishers:
1. Multi-Purpose Dry Chemical Type (FE): Heavy Duty DOT Steel tank; UL rating 2A 10B:C, 5 lb capacity, with pressure gage; red enamel finish; metal valves and siphon tubes.

C. Cabinets:
1. Provide surface mounted models in locations as indicated on the drawings
2. Provide sizes as necessary to accommodate extinguishers.
3. Trim: Formed Sheet Steel, minimum 20 gage, 1-1/4 to 1-3/4 inches wide face.
4. Door: Formed Sheet Steel, minimum 20 gage; reinforced for flatness and rigidity; satin zinc or aluminum pull, roller catch, and continuous hinge; clear glass vision panel.
Cabinet Finishes:
a. Cabinet Trim and Door: Manufacturer's standard primed finish to receive paint coatings as specified in Section 09900.
b. Cabinet Interior: Manufacturer's standard white epoxy or white baked enamel.

D. Accessories:
1. Fire Extinguisher Brackets: Manufacturer's standard J-type. Provide at fire extinguisher locations where no cabinet is indicated.

E. Installation:
1. Install cabinets plumb and level in wall openings in locations as indicated. Unless otherwise indicated, install 30 inches from finished floor to inside bottom of cabinet.
Secure rigidly in place in accordance with manufacturer's instructions.
When recessed cabinets are installed in fire rated walls, maintain fire resistance rating continuously behind the cabinet.

10800 Toilet Accessories

A. NOTE: All fixtures and mounting heights must be installed in full compliance with all TAS (Texas Accessibility Standards) or ADA (Americans with Disabilities Act); depending on geographic project location.

B. Provide the following accessories as manufactured by Bobrick Washroom Equipment Company, unless approved otherwise.

C. Accessories available from AT&T Wireless approved vendor:
1. Grab Bars (GB): Bobrick B-550 (36") B-550 (42").
2. Paper Towel Dispenser(PTD): B-262
3. Sanitary Napkin Vender (SNV): B- 3500; 25 cent operation.
4. Sanitary Napkin Disposals (SND):
a. B-4354 (Partition Mounted Dual Unit): For installation between each two toilet stall enclosures in Women's toilet rooms, except where wall mounted units are shown.
b. B-4353 (Recessed Single Unit): For installation in end wall locations at accessible toilet stall enclosures at women's toilet rooms.
5. Toilet Paper Dispenser (TPD): B-264.
6. Toilet Paper Dispenser/Seat Cover Dispenser/Napkin Dispenser (TPD2): B-3574
7. Soap Dispenser (SD): B-156.
8. Seat Cover Dispenser (SCD): B-3013.
9. Door Coat Hook (DCH): B-6707.
10. Mop and Broom Holder: B-224 x 30.
11. Mirrors: B-293-2436

D. Fold Down Baby Counter:
1. Manufacturer: Koala Corporation, St. Paul, MN (800/666-0363).
2. Construction: White HDPE shell with steel hinges, counterbalance, safety straps and integral bed liner dispenser.
3. Design: "Koala Bear Kare Baby Changing Station"; furnish horizontal, and vertical designs as appropriate for installation at locations indicated on the Drawings.
4. Bed Liners: Provide one box of 500 - three ply liners per installed baby counter.

10999 Miscellaneous Specialties

A. Shelf Standards and Brackets:
1. Shelf Standards: Capitol Hardware, Niles, MI (800/327-6083) "No. 1903 A-Line Heavy Duty Standard", or approved; zinc finish; length as indicated on the Drawings.
2. Shelf Brackets: Capitol Hardware, Niles, MI (800/327-6083) " No. 973 A-Line Heavy Duty Double Bracket", or approved; for use with "No. 1903" Shelf Standard; zinc finish; size as indicated on the Drawings.

Division 11E[…]

11450 Kitche[…]

NOT USED

A. Submittals: […]

B. Appliances:
1. Undercounter Refrigerator: Model #: GMR04AAMWW by GE or approved equal. Color: Black
2. Microwave: Model#: JE1160WD by GE Color: Black

Division 13 Special Construction

Fire Protection is Design/Build (where applicable in a fully sprinklered building)

Division 14 Conveying Systems

Not Used

Division 15 Mechanical

Refer to MEP Project Specifications

Division 16 Electrical

Refer to MEP Project Specifications

Oculus Inc.
ARCHITECTURE I STRATEGIC PLANNING I INTERIORS I MOVE MANAGEMENT
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Farmington, UT 84025

DES Enhanced

#	Description	Date

ISSUED FOR PERMIT

Client Approval

Specifications 3

Project #	17513-UT02
Issue Date	10/22/2013
Scale	
Drawn by	MTB
Checked by	MTB

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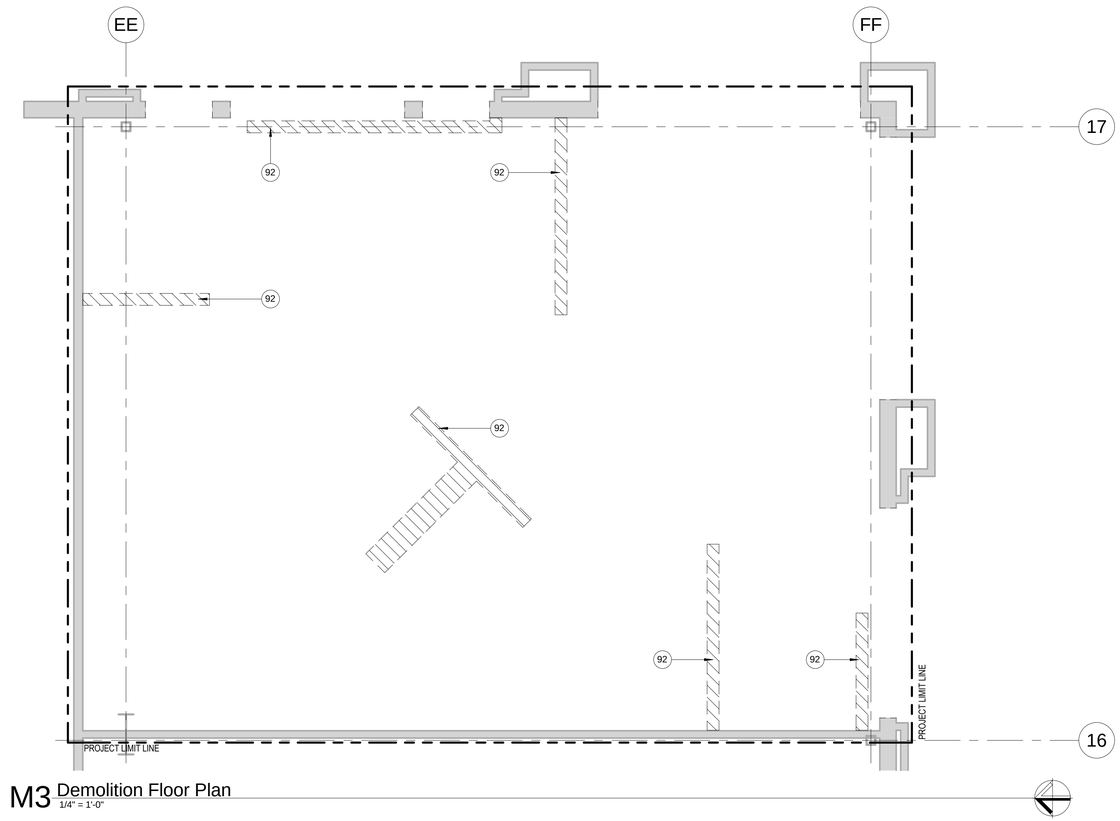
Template V2.2 Last Updated 08/9/08



M3 Demolition Floor Plan
1/4" = 1'-0"

Sheet Notes

- Dashed lines on Demolition Plan represent items to be demolished/removed.
- Patch and repair remaining existing partitions that are damaged by demolition
- Prepare all surfaces to receive new finishes as scheduled. Level floor as required.
- Remove and cap off any electrical outlets, telephone and communication lines, and plumbing lines which occur in walls which are being removed as shown dashed on plans. Operation of remaining systems shall continue uninterrupted.
- If plumbing, water, waste or vent pipes are encountered in wall scheduled to be removed, and pipe is scheduled to be abandoned as a part of this work, remove section of pipes exposed and cap off pipe with-in floor, walls or above ceiling. Patch floor, walls and ceiling damaged during pipe removal and capping. If pipe is not scheduled to be abandoned as a part of this work, relocate pipe to the nearest wall or column and enclose in wall or column.
- GC to protect existing sub-grade building utilities from demolition and reconnect new systems to existing where available.
- GC shall notify Architect when demolition is complete and new construction begins.
- Contractor to verfiy and maintain existing fire ratings of existing building components (doors, frames, walls, etc). Maintain ratings throughout new/demolition construction activities.
- GC to protect existing construction during demolition and construction phases.

Key Notes

Key #	Keynote Text
92	Floor saw cutting, concrete removal, installation of dowels & wire mesh reinforcing, repouring 4" concrete slab shall be by the G.C. Trenching, installation of conduits, backfilling & compaction of backfill by E.C. 4" concrete slab shall by dowelled into existing slab with #5 dowels, 6" into existing slab and extend 1'-0" into new slab pour. The new slab wire mesh reinforcement to 1'-0" section or dowel sticking out of exisitng slab. Reference Sheet R1.1 for floor box/stub-up locations.

Wall & Door Legend

- Existing Wall to Remain
- Existing Wall to Remove (Demo)
- New Construction Wall
- Existing Door to Remain
- Existing Door to Remove (Demo)
- Existing Door Relocated
- New Construction Door

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DES Enhanced

#	Description	Date

ISSUED FOR PERMIT

Client Approval

Demolition Plan

Project #	17513-UT02
Issue Date	10/22/2013
Scale	1/4" = 1'-0"
Drawn by	MAP
Checked by	MTB

A1.1

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10/22/2013 11:35:38 AM Farmington, UT

Template V2.2 Last Updated 08/9/08

Fixture Schedule

QTY	Plan ID	Description
FOIO		
1	AATV BENCH	AATV Bench
1	AATV SML	Small AATV Wall
1	ACC-DIA	Diamond Accessory Fixture
1	ACC-LRG	Accessory Fixture - Large
1	ACC-SML	Accessory Fixture - Small
1	BCW-MED	Medium Backwrap
1	CT-SML	Small Community Table
1	IP-D	60" iPhone Fixture
2	LT-D	DES1 Learning Table - NOT SUPPLIED BY FIXT. VENDOR
4	LT-S	LT Stool
2	MPOS	Manager Point of Sale
7	MWU-D	Merchandise Wall Unit
4	MWU-D-G	Merchandise unit with graphic back
1	WINB	Window Banner

Finish Legend

ACP-1 USG Frost Climaplus
Size: 2' x 2'
Number: #414
Edge: SLB
Tile Color: Silvertone #052
Grid: Donn DX 15/16"
800-950-3839

CPT-1 Shaw
Style: #4546V
AT&T High Speed Square
Color: M5556 - Blue Streak
Construction: Pattern Loop
Installation: Quarter Turn
1-800-424-7429 x5396

P-1E Benjamin Moore
"Wedding Veil"
#2125-70

Eggshell Finish

(White walls)

P-2E Benjamin Moore
"Sweet Innocence"
#2125-50

Eggshell Finish
(Light grey walls/
sales floor column)

ACP-2 USG Radar Climaplus
Size: 2' x 4'
Number: #2420
Edge: SLT
Color: Flat White
Grid: Donn DX 15/16"
800-950-3839

CPT-3 Shaw
Style: CO149 AT&T Entry
Color: JB210 Jet Black
24"x24" Multilevel Loop
Installation: Quarter Turn
Mark Law
800-424-7429 x5396

RB-1 Johnsonite
Size: 4"
Color Number: #82
Color: Black Pearl

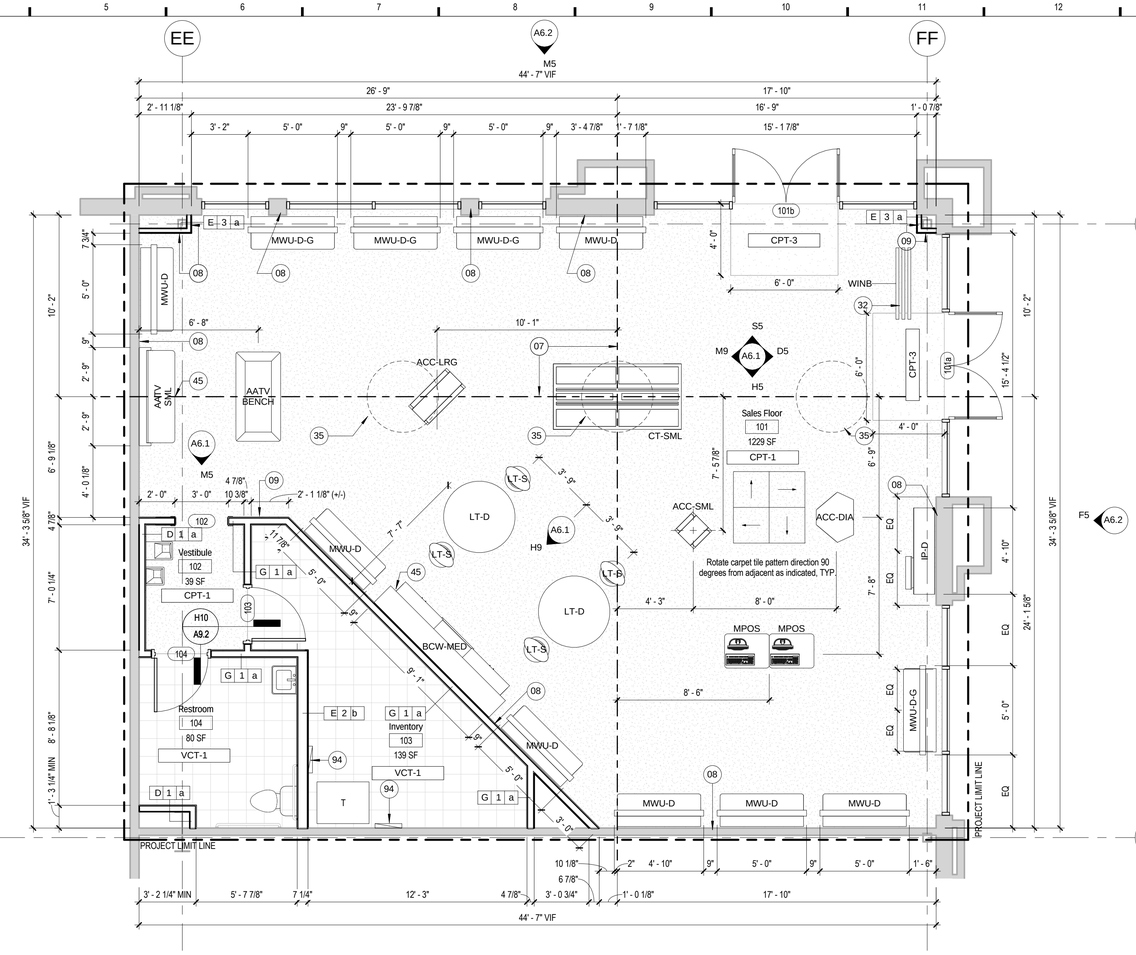
P-4E Benjamin Moore
"Orange Burst"
#2015-20

Eggshell Finish

P-4S Benjamin Moore
"Orange Burst"
#2015-20

Semigloss Finish
(Orange doors/
frames)

VCT-1 Armstrong
Imperial Texture
#51904
Color: Sterling
12" x 12" x 1/8"
Anthony Lawson
513-398-9448 EXT. 8943



K5 Floor Plan
1/4" = 1'-0"

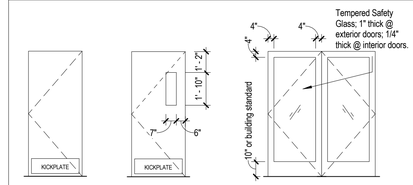
Sheet Notes

- GC to install fire retardant blocking as required for all casework, shelving, countertops, & owner provided equipment.
- Patch concrete slab as required to repair conduit installation. See electrical for extend of slab trenching
- All dimensions are finish to finish unless noted otherwise.
- Maintain existing fire ratings at tenant separation walls during demo/construction activities.
- See Interior Elevations on sheet A6.1 for all walls where no finish or base is indicated.
- Paint all Back of House (BOH) and Sales Floor doors and frames (aluminum storefront not included) to match adjacent wall color, using a semi-gloss finish UON.
- All GWB columns, if applicable, are to be painted P-2E (sweet innocence - eggshell finish).
- GC to provide rubber base as scheduled around the base of the AATV, Cashwrap, and Backwrap fixtures after they have been installed. Coordinate installation with Fixture Vendor.

Key Notes

Key #	Keynote Text
07	Centerlines are used to layout store, including ceiling, Power/Data, Fixtures, etc. and must be marked and varified prior to start of construction. Contact architect immediately if there are dimensional discrepancies.
08	GC to paint wall P-4E to 8' - 0" AFF and P-1E above 8' - 0" AFF. See interior elevation sheet for more information.
09	GC to paint wall P-1E. See interior elevation sheet for more information.
32	Promotional poster rails provided by Fixture Vendor, promotional poster provided by others.
35	Light fixture above - see RCP for location and additional information
45	GC to install rubber base (RB-1) @ bottom of fixture after being installed by vendor.
94	Electrical panels to be coordinated with Landlord.

Door Types

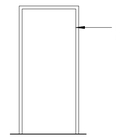


A
Flush Door

D
Flush Door w/ 7" x 22" one way glass panel (mirrored on sales floor side)

E
Storefront Door
w/ tempered glass
finish: match adjacent construction.

Frame Types



F1: 2" HEAD

Finish Schedule

Room #	Room Name	Area	Perimeter	Floor	Base	Wall	Ceiling	Comments
101	Sales Floor	1229 SF	147' - 7"	CPT-1	RB-1	P-1E/P-4E	ACP-1	See floor plan and elevations for more information.
102	Vestibule	39 SF	25' - 1"	CPT-1	RB-1	P-1E	ACP-2	
103	Inventory	139 SF	56' - 11"	VCT-1	RB-1	P-1E	ACP-2	
104	Restroom	80 SF	36' - 9"	VCT-1	RB-1	P-1E, FRP-1	See Ceiling Plan	FRP to 48" AFF, all walls.

Door Schedule

Mark	Door Width	Door Height	Door Thickness	Door Type	Door Material	Frame Head	Frame Jamb	Frame Material	Frame Type	Hardware Group (See Sheet A0.3)	Comments
101a	6' - 0"	9' - 0"	1 3/4"	E	-	-	-	-	-	HW1AP	Storefront system to be provided and installed by GC as per Centercal Properties, LLC's design. Refer to Station Park construction documents for additional information.
101b	6' - 0"	9' - 0"	1 3/4"	E	-	-	-	-	-	HW1AP	Storefront system to be provided and installed by GC as per Centercal Properties, LLC's design. Refer to Station Park construction documents for additional information.
103	3' - 0"	7' - 0"	1 3/4"	D	WD-SC	L7/A9.2	L10/A9.2	STL/KD	F1	HW2	
104	3' - 0"	7' - 0"	1 3/4"	A	WD-SC	L7/A9.2	L10/A9.2	STL/KD	F1	HW3	

Wall & Door Legend

Existing Wall to Remain

Existing Wall to Remove (Demo)

New Construction Wall

Existing Door to Remain

Existing Door to Remove (Demo)

Existing Door Relocated

New Construction Door

Door Abbreviations

AL-SF	ALUMINUM STOREFRONT
CO	CASED OPENING
CG	COILING GRILLE
F	FLUSH
F (D)	FLUSH (DUTCH)
FACT	FACTORY
FG	FULL GLASS
FR 45	FIRE RATING LABEL IN MINUTES
G	GLASS
GL-1	GLAZING TYPE
HO	HOLD-OPEN
HW	HARDWARE
MFR	MANUFACTURER'S STANDARD
NCO	NON-CASED OPENING
OPP	OPPOSITE
PNL	PANEL
PR	PAIR
PS	POCKET SLIDE
PT	PAINT
PVC	POLYVINYL CHLORIDE
S	SMOKE CONTROL "S" LABEL
STL	STEEL
STL-CC	STEEL COMPOSITE CORE
STL-KD	STEEL KNOCK-DOWN
STL-W	STEEL WELDED
T	TEMPERATURE RISE LABEL - DOOR
TC	TRANSPARENT FINISH - CLEAR
TS	TRANSPARENT FINISH - STAINED
WD	WOOD
WD-HC	WOOD HOLLOW CORE
WD-SC	WOOD SOLID CORE

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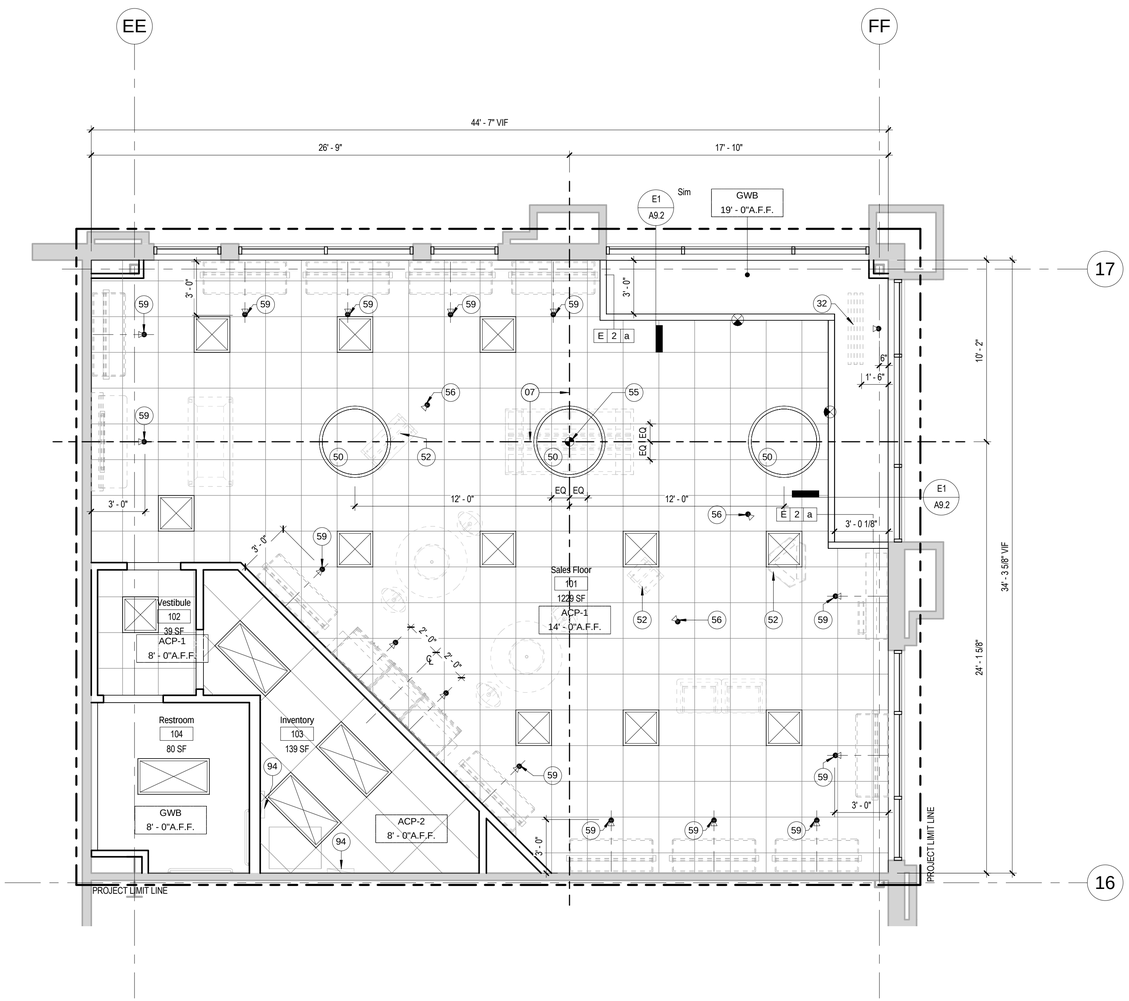
Floor Plan

Project #	17513-UT02
Issue Date	10/22/2013
Scale	As indicated
Drawn by	MAP
Checked by	MTB

A2.1
of

10/23/2013 11:39:43 AM Farmington, UT



M3 Reflected Ceiling Plan
1/4" = 1'-0"

Sheet Notes

- Light fixtures are to be centered on ceiling Panels UON.
- All sales floor light fixtures are to be ordered through Grainger per national agreement.
- All existing difusers & return air grilles are to remain. Paint all diffusers & return grilles on ACP-1 ceiling at Sales Floor P-2E
- Not all light fixtures may be used on this project. GC to verify light quantities and fixtures with quantities listed on drawings
- Provide 100 lumen battery backups in emergency fixtures where indicated on drawings.
- GC to build ceiling to comply with "D2" seismic zone standards. Refer to Interior Details Sheet A9.2 for more information.

Key Notes

Key #	Keynote Text
07	Centerlines are used to layout store, including ceiling, Power/Data, Fixtures, etc. and must be marked and varified prior to start of construction. Contact architect immediately if there are dimensional discrepancies.
32	Promotional poster rails provided by Fixture Vendor, promotional poster provided by others.
50	Surface mounted light fixture
52	Fixture below - refer to A2.1 for more information and exact placement.
55	GC to set ceiling grid off centerlines as shown.
56	Light to shine on fixture below
59	Light to be centered on fixture below. GC to aim light on center shelf of MWU (if applicable) - Refer to sheet R1.2 for fixture placement information.
94	Electrical panels to be coordinated with Landlord.

Lighting & Ceiling Reference Legend

NOT TO SCALE
MEP/HVAC Drawings shall Govern

- Recessed Troffer Light Fixture (2x2, 2x4, etc.)
- Recessed Can Wall Washer (arrow indicates direction)
- Recessed Can Light Fixture
- Sprinkler (filled dot within a circle)
- Emergency Exit Light (filled region indicates graphics face)
- Return Diffuser
- Supply Diffuser

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Client Approval

Ceiling Plan

Project #	17513-UT02
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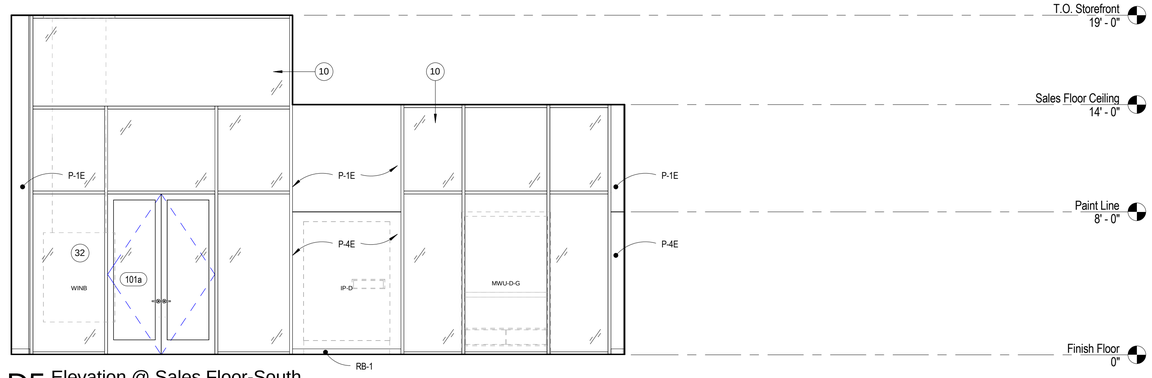
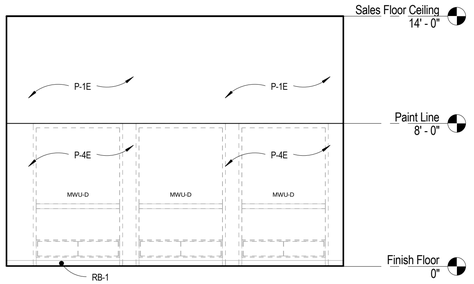
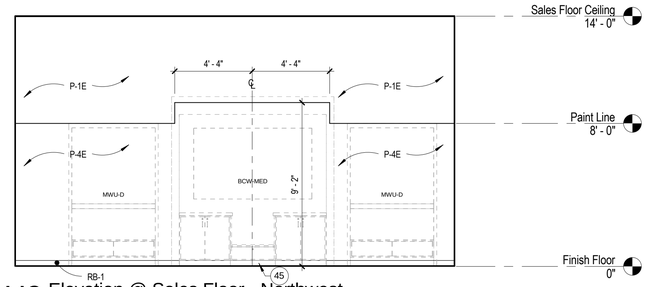
A3.1
of



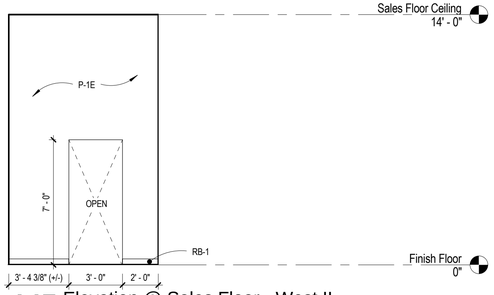
D5 Elevation @ Sales Floor-South
1/4" = 1'-0"



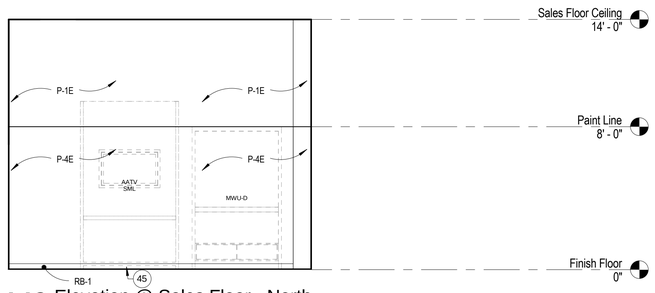
H5 Elevation @ Sales Floor - West I
1/4" = 1'-0"



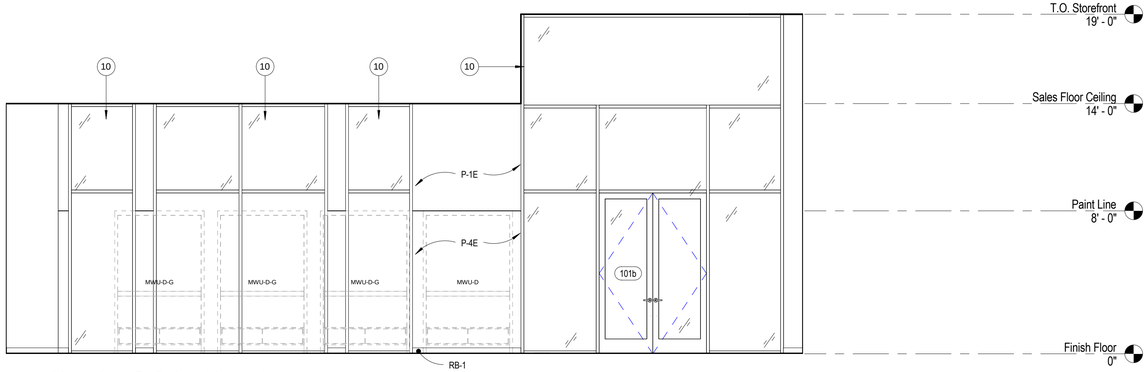
H9 Elevation @ Sales Floor - Northwest
1/4" = 1'-0"



M5 Elevation @ Sales Floor - West II
1/4" = 1'-0"



M9 Elevation @ Sales Floor - North
1/4" = 1'-0"



S5 Elevation @ Sales Floor - East
1/4" = 1'-0"

Sheet Notes

- Provide fire retardant treated backing/blocking in wall as required. GC to coordinate backing/blocking for all Fixture Vendor-provided items.
- For additional fixture information, see A2.1
- Refer to Finish Legend on A2.1 for finish designations.

Key Notes

Key #	Keynote Text
10	Storefront system to be provided and installed by GC as per Centercal Properties, LLC's design. Refer to Station Park construction documents for additional information.
32	Promotional poster rails provided by Fixture Vendor, promotional poster provided by others.
45	GC to install rubber base (RB-1) @ bottom of fixture after being installed by vendor.

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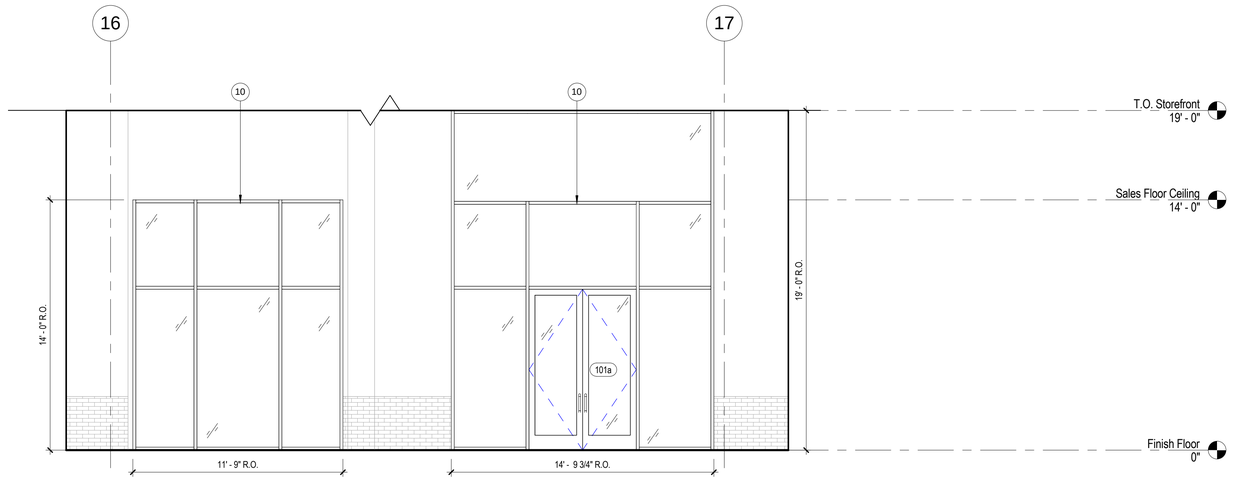
Interior Elevations

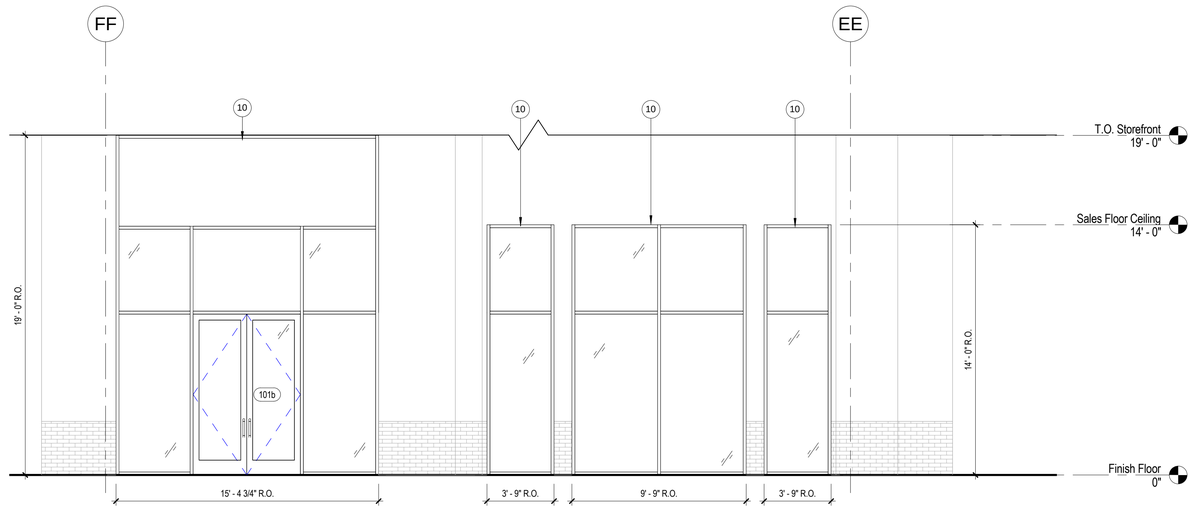
Project #	17513-UT02
Issue Date	10/22/2013
Scale	1/4" = 1'-0"
Drawn by	MAP
Checked by	MTB

A6.1

of



F5 South Exterior Storefront Elevation
1/4" = 1'-0"



M5 East Exterior Storefront Elevation
1/4" = 1'-0"

Sheet Notes

- Provide fire retardant treated backing/blocking in wall as required. GC to coordinate backing/blocking for all Fixture Vendor-provided items.
- For additional fixture information, see A2.1
- Refer to Finish Legend on A2.1 for finish designations.

Key Notes

Key #	Keynote Text
10	Storefront system to be provided and installed by GC as per Centercal Properties, LLC's design. Refer to Station Park construction documents for additional information.

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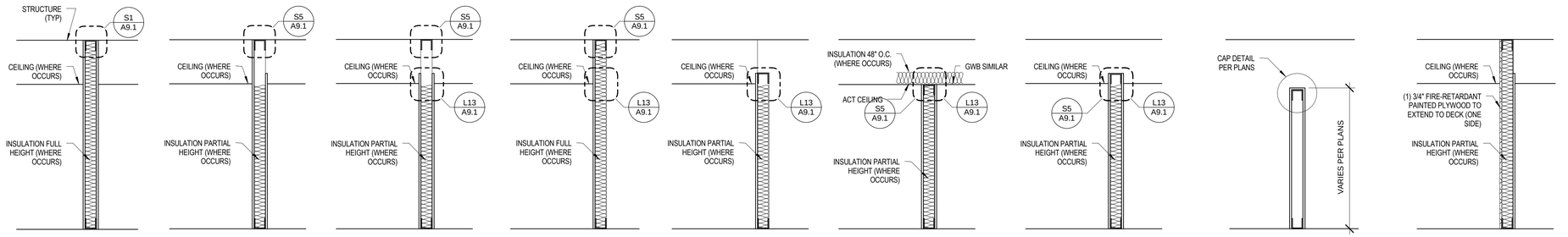
Exterior Elevations

Project #	17513-UT02
Issue Date	10/22/2013
Scale	1/4" = 1'-0"
Drawn by	MAP
Checked by	MTB

A6.2
of



A — PARTITION CONFIGURATION - FULL HEIGHT FINISH MATERIALS BOTH SIDES

B — PARTITION CONFIGURATION - FULL HEIGHT FINISH MATERIALS ONE SIDE, PARTIAL HEIGHT FINISH MATERIALS ONE SIDE

C — PARTITION CONFIGURATION - PARTIAL HEIGHT FINISH MATERIALS BOTH SIDES

D — PARTITION CONFIGURATION - FULL HEIGHT FINISH MATERIALS ONE SIDE, NO FINISH MATERIAL ONE SIDE.

E — PARTITION CONFIGURATION - PARTIAL HEIGHT FINISH MATERIALS ONE SIDE, NO FINISH MATERIAL ONE SIDE.

F — PARTITION CONFIGURATION - GRID HEIGHT FINISH MATERIALS BOTH SIDES

G — PARTITION CONFIGURATION - STUDS & FINISH MATERIALS TO 6" ABOVE CEILING HEIGHT BOTH SIDES

H — PARTITION CONFIGURATION - PARTIAL HEIGHT FRAMING AND FINISH MATERIALS

J — PARTITION CONFIGURATION - FULL HEIGHT FINISH MATERIALS ONE SIDE, PARTIAL HEIGHT FINISH MATERIALS ONE SIDE

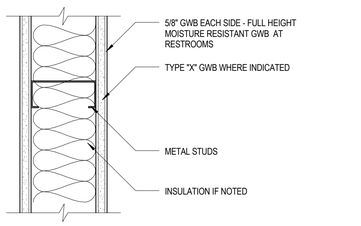
F1 Wall/Partition Configurations
1 1/2" = 1'-0"

UL #	FR	Typical Partition Type
U419	1 hr	A1a - 3 5/8" MTL Studs, One Layer 5/8" Type X GWB Each Side
U411	2 hr	A7a - 3 5/8" MTL Studs, Two Layers 5/8" Type X GWB Each Side

C15 UL Reference
3" = 1'-0"

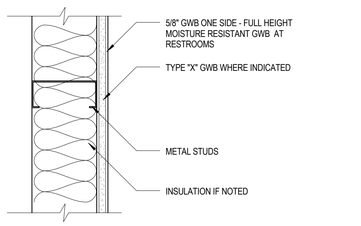
- a — NO INSULATION
- b — BATT ACOUSTICAL INSULATION
- c — RIGID INSULATION
- d — BATT THERMAL INSULATION
- e

F15 Wall/Partition Insulation
1 1/2" = 1'-0"



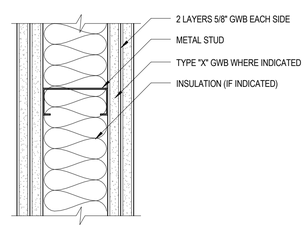
1 — 3 5/8" METAL STUDS
2 — 6" METAL STUDS
3 — 2 1/2" METAL STUDS

L1 Wall/Partition Construction 1
1 1/2" = 1'-0"



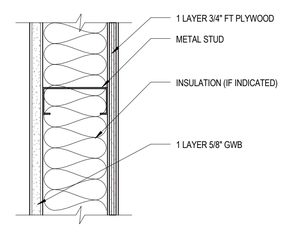
4 — 2 1/2" METAL STUDS
5 — 1 1/2" METAL STUDS
6 — 7/8" HAT CHANNELS

L4 Wall/Partition Construction 2
1 1/2" = 1'-0"



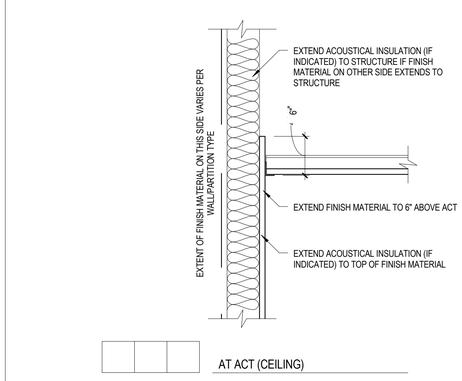
7 — 3 5/8" METAL STUDS
8 — 6" METAL STUDS

L7 Wall/Partition Construction 3
1 1/2" = 1'-0"



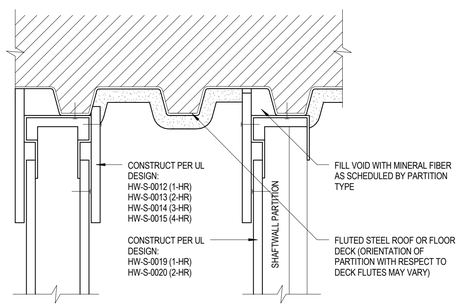
9 — 3 5/8" METAL STUDS

L10 Wall/Partition Construction 4
1 1/2" = 1'-0"

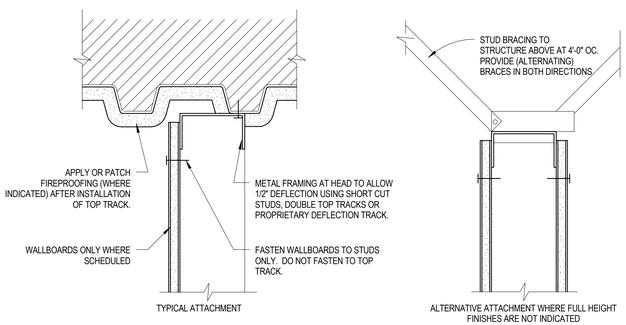


AT ACT (CEILING)

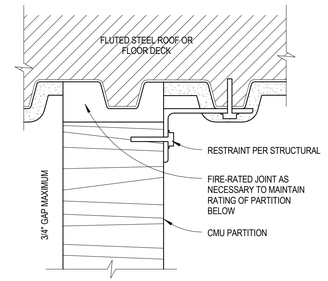
L13 Wall/Partition Construction 5
1 1/2" = 1'-0"



S1 Joint @ Rated Partitions
1 1/2" = 1'-0"

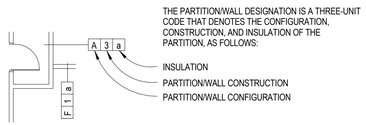


S5 Joint @ Non-Rated Partitions
1 1/2" = 1'-0"



S10 Joint @ Masonry Partitions
1 1/2" = 1'-0"

1. SEE FLOOR PLANS FOR WALL RATINGS
   - NON-RATED
   - SMOKE PARTITION
   - 1 HR RATED
   - 2 HR RATED
   - 3 HR RATED
2. SEE SPECS FOR STUD SPACING AND GAUGE
3. COORDINATE CONSTRUCTION OF FIRE-RATED WALS/PARTITIONS WITH DESIGN NUMBER SPECIFIED AT EACH PARTITION-TYPE DETAIL
4. FRAME AND FINISH OPENINGS FOR MECHANICAL AND ELECTRICAL SYSTEMS AS REQUIRED AND AS SPECIFIED ON MECHANICAL/ELECTRICAL DRAWINGS/SPECIFICATIONS
5. ACOUSTICAL PARTITIONS SHALL BE CONSIDERED ANY PARTITIONS CONTAINING ACOUSTICAL INSULATION



THE PARTITION/WALL DESIGNATION IS A THREE-UNIT CODE THAT DENOTES THE CONFIGURATION, CONSTRUCTION, AND INSULATION OF THE PARTITION, AS FOLLOWS:

S13 Wall/Partition Notes
1 1/2" = 1'-0"

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Wall & Partition Assemblies Diagrams

Project #	17513-UT02
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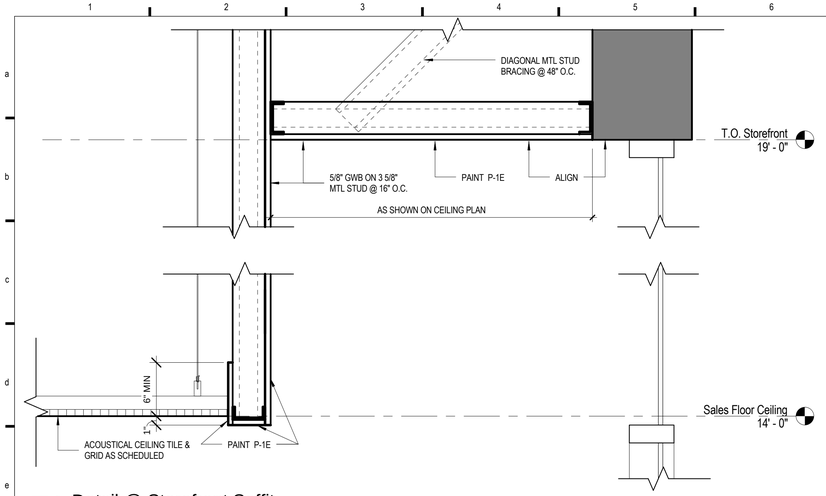
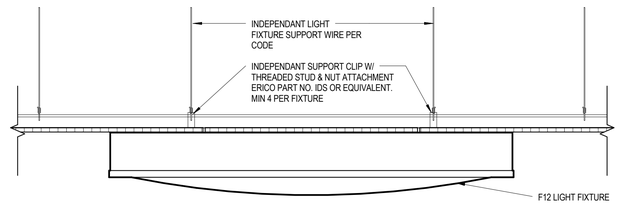
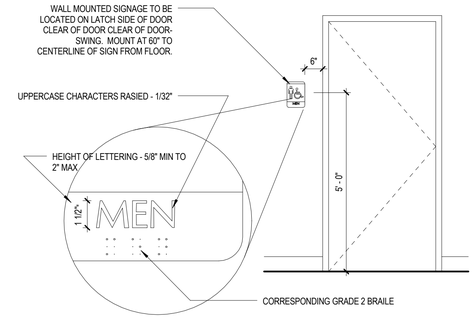


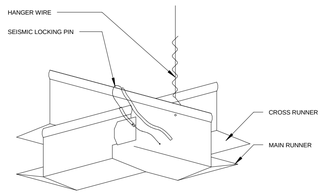
E1 Detail @ Storefront Soffit
1 1/2" = 1'-0"

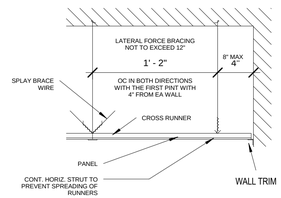


E7 Section @ F12 Light Fixture
1 1/2" = 1'-0"



E13 ADA Signage Mounting Location
1/2" = 1'-0"





LOCKING CLIP TO FASTEN CROSS

RUNNER TO MAIN RUNNER

SPLICES AND INTERSECTIONS OF RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES WITH BENT TABS, OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2 X DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION (MINIMUM 60 POUNDS).

OR: CROSS-FURRING SHALL BE SECURELY ATTACHED TO THE MAIN RUNNER BY SADDLE-TYING WITH NOT LESS THAN ONE STRAND OF NO.16 OR TWO STRANDS OF NO.18 US. GAUGE TIE WIRE OR APPROVED EQUIVALENT ATTACHMENTS.

NOTE:
METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND FOR LAY-IN PANEL CEILINGS SHALL BE INSTALLED IN ACCORDANCE WITH CHICAGO METALLIC I.C.B.O. #1905.

LATERAL FORCE-BRACING MEMBERS FOR SUSPENDED CEILINGS SHALL BE A MINIMUM OF 6" FROM ALL HORIZONTAL PIPING OR DUCT WORK NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZONTAL FORCES. BRACING WIRES SHALL BE ATTACHED TO THE GRID AND STRUCTURE AND SHALL SUPPORT A DESIGN LOAD THE GREATER OF 200 LBS OR THE ACTUAL LOAD, WITH A SAFETY FACTOR OF 2. (UBC STDS. 25.213, 25.214)

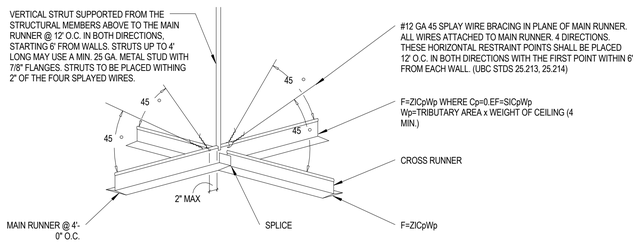
SUSPENDED CEILING DETAIL AT WALL

HANGER WIRE	ALLOWABLE TENSION
#12	170#
#11	225#
#10	300#

RUNNERS AND FURRING: THE MAIN RUNNER AND CROSS FURRING SHALL BE NOT LESS THAN THE SIZES SET FORTH, EXCEPT THAT OTHER STEEL SECTIONS OF EQUIVALENT STRENGTH MAY BE SUBSTITUTED FOR THOSE SET FORTH.

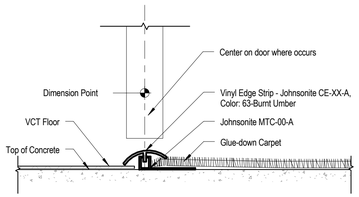
HANGERS: HANGERS FOR SUSPENDED CEILING SHALL BE NOT LESS THAN THE SIZES SET FORTH, FASTENED TO OR EMBEDDED IN THE STRUCTURAL FRAMING, MASONRY, OR CONCRETE. HANGERS SHALL BE SADDLE-TIED AROUND MAIN RUNNERS TO DEVELOP THE FULL STRENGTH OF THE HANGERS. LOWER ENDS OF FLAT HANGERS SHALL BE BOLTED WITH 1/4" BOLTS TO RUNNER CHANNELS OR BENT TIGHTLY AROUND RUNNERS AND BOLTED TO THE MAIN PART OF THE HANNGERS.

MECHANICAL AND LIGHT FIXTURES: MUST BE CONNECTED TO ONE (1) VERTICAL 12 GA. WIRE ATTACHED TO OPPOSING CORNERS ALONG THE FIXTURE'S DIAGONAL. THESE WIRES MAY BE SLACK. PROVIDE PERIMETER VERTICAL WEIS 8" OUT FROM WALL. (UBC STDS. NO. 25.213, 25.214)

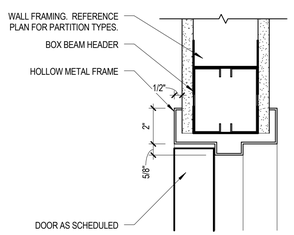


S1 Typical Seismic Bracing Details
1 1/2" = 1'-0"

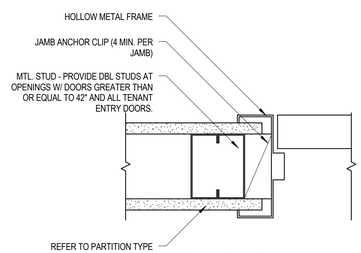
H7 Detail @ ADA Signage Dimensions
3" = 1'-0"



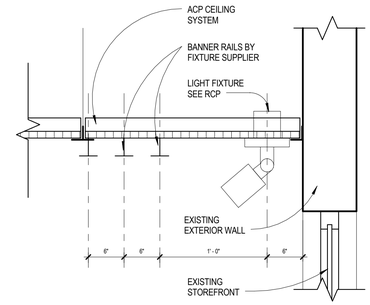
H10 Transition @ VCT & Carpet
1 1/2" = 1'-0"



L7 Detail @ Typical Door Head
3" = 1'-0"



L10 Detail @ Typical Door Jamb
3" = 1'-0"



L13 Detail @ Promotional Poster
1 1/2" = 1'-0"

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#	Description	Date

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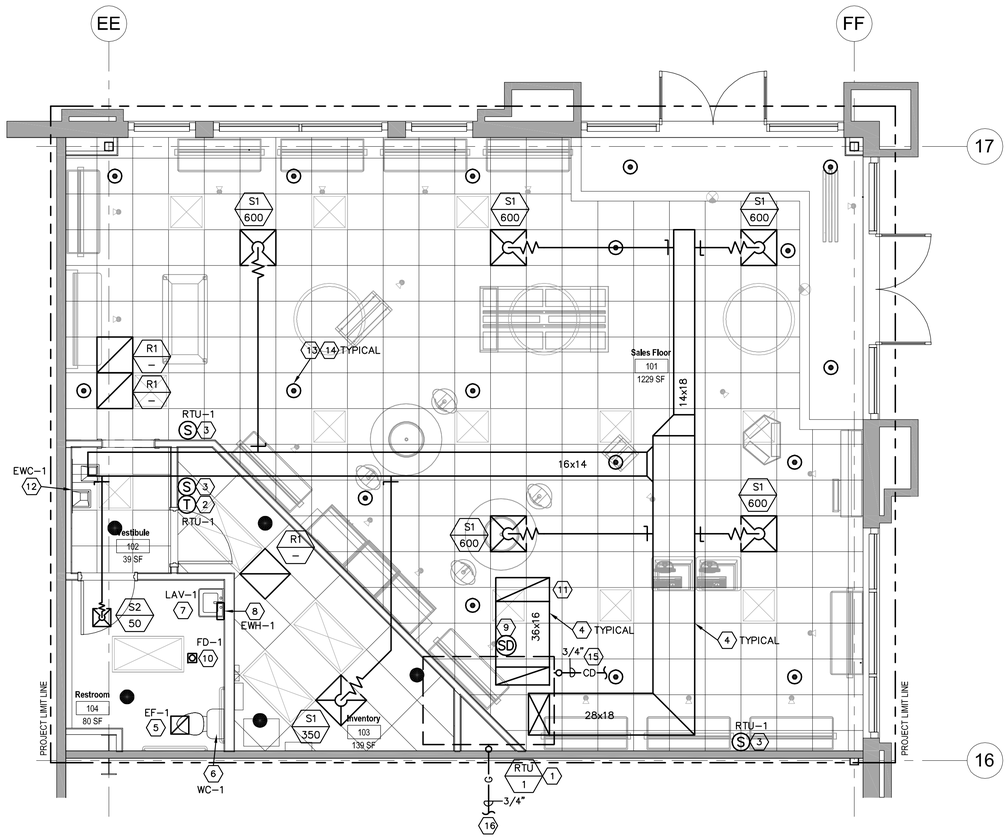
Interior Details

Project #	17513-UT02
Issue Date	10/22/2013
Scale	As indicated
Drawn by	MTB
Checked by	MTB

A9.2

of



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

MECHANICAL KEYED NOTES

1. FURNISH AND INSTALL NEW ROOFTOP UNIT, (RTU–1). VERIFY EXACT LOCATION IN FIELD WITH LANDLORD REPRESENTATIVE. ROUTE CONDENSATE LINE FROM ROOFTOP UNIT TO NEAREST ROOF DRAIN. PROVIDE WITH 2 PSI TO 7 IN WC PRESSURE REGULATOR.
2. FURNISH AND INSTALL SEVEN–DAY PROGRAMMABLE THERMOSTATS WITH AUTO CHANGEOVER AND RELATED WIRING TO CONTROL ROOFTOP UNITS. MOUNT AT 45" AFF. VERIFY LOCATION OF THERMOSTATS WITH OWNER. VERIFY PROPER OPERATION IN FIELD.
3. FURNISH AND INSTALL THERMOSTAT COMPATIBLE REMOTE SENSOR AND CONNECT TO ROOFTOP UNIT THERMOSTAT. MOUNT ON WALL AT 42" AFF. MULTIPLE SENSORS TO BE AVERAGED.
4. FURNISH AND INSTALL GALVANIZED STEEL TRUNK DUCTWORK, SIZES AS NOTED ON DRAWINGS. DUCTWORK SIZES ARE SHEET METAL SIZES. ALL NEW RECTANGULAR DUCTWORK SHALL HAVE 1" INTERNAL LINER.
5. FURNISH AND INSTALL CEILING MOUNTED EXHAUST FAN, (EF–1), COOK MODEL GC–144 OR EQUIVALENT, 75 CFM, 120V. PROVIDE WITH 6"ø DUCT THROUGH ROOF. PROVIDE ROOF CAP AND CURB. VERIFY LOCATION IN FIELD.
6. FURNISH AND INSTALL ADA COMPLIANT WATER CLOSET, (WC–1), AMERICAN STANDARD MODEL 3305.000 OR EQUIVALENT, OPEN FRONT SEAT LESS COVER. LOCATE WATER CLOSET CENTERLINE 18" FROM WALL, 1.6 GALLON TANK TYPE.
7. FURNISH AND INSTALL ADA COMPLIANT LAVATORY, (LAV–1), AMERICAN STANDARD 0356.421 OR EQUIVALENT, WITH WALL BRACKET, OFFSET P–TRAP. PROVIDE SYMMONS MODEL #S–60–G CENTERSET LAVATORY FAUCET, SELF CLOSING, SINGLE HANDLE, 0.5 G.P.M. FLOW RESTRICTOR, AERATOR, GRID STRAINER.
8. FURNISH AND INSTALL 0.5 GAL., INSTANTANEOUS, 4.1KW, 208V/1PH ELECTRIC WATER HEATER, (EWH–1), BELOW LAV. WATER HEATER SHALL BE EEMAX SP4208 OR EQUIVALENT. PROVIDE WITH THERMOSTATIC MIXING VALVE.
9. DUCT SMOKE DETECTOR IN RETURN AIR DUCT BY ELECTRICAL CONTRACTOR. SMOKE DETECTOR SHALL BE INTERLOCKED TO DE–ENERGIZE RTU UPON DETECTION OF SMOKE. COORDINATE WITH ELECTRICAL CONTRACTOR.
10. FURNISH AND INSTALL 3" FLOOR DRAIN, (FD–1), J.R. SMITH MODEL 2005 WITH 7"'ø STRAINER & DEEP SEAL TRAP, OR EQUIVALENT.
11. RETURN DUCT TURNED UP TOWARDS ROOF, OPEN TO PLENUM.
12. FURNISH AND INSTALL ELECTRIC WATER COOLER, (EWC–1), ELKAY MODEL EZTL8C OR EQUIVALENT.
13. SPRINKLER SYSTEM SHALL BE MODIFIED AS REQUIRED TO SERVE THE NEW LAYOUT SHOWN ON THE DRAWING. NOTIFY THE LANDLORD 72 HOURS BEFORE SPRINKLER SHUTDOWN IS REQUIRED AND PAY ALL CHARGES FOR SPRINKLER SHUTDOWN.
14. CONNECT TO LANDLORD'S EXISTING SPRINKLER LINE AND TO CONNECTIONS THAT EXIST IN THE SPACE TO ACCOMMODATE THE NEW SPRINKLER LOCATIONS.
15. ROUTE 3/4"ø CONDENSATE DRAIN FROM ROOFTOP UNIT TO NEAREST ROOF DRAIN. VERIFY EXACT LOCATION IN FIELD.
16. PROVIDE NEW GAS METER IN TENANT GAS METER ROOM, VERIFY EXACT LOCATION WITH LANDLORD REPRESENTATIVE. DELIVERY PRESSURE 2 PSI, TOTAL 180 MBH. VERIFY WITH GAS COMPANY EXACT INSTALLATION REQUIREMENTS AND GUIDELINES. APPROXIMATE TOTAL DEVELOPED PIPING LENGTH 260'–0". CONTRACTOR TO VERIFY EXACT LENGTH IN FIELD AND RESIZE AS NECESSARY. ROUTE 3/4"ø GAS FROM GAS METER UP TO ROOF AND OVER TO 2 PSI TO 7 IN WC PRESSURE REGULATOR AT NEW ROOFTOP UNIT.

ALL ROOFING WORK MUST BE PERFORMED BY THE LANDLORD'S CONTRACTOR AT THE GENERAL CONTRACTOR'S EXPENSE.

SEQUENCE OF OPERATIONS

OCCUPIED MODE:
SUPPLY FAN OPERATES CONTINUOUSLY DURING OCCUPIED PERIOD. O.A. DAMPER(S) OPEN TO MINIMUM POSITION. HEATING/COOLING CYCLE ON/OFF TO SATISFY THERMOSTAT.

UNOCCUPIED MODE:
SUPPLY FAN OPERATES AS NEEDED ON THERMOSTAT CALL FOR HEATING/COOLING AT SET BACK TEMPERATURE. OUTSIDE AIR DAMPER(S) IN CLOSED POSITION, RETURN AIR DAMPER(S) IN FULLY OPEN POSITION.

ECONOMIZER MODE:
AMBIENT CONDITIONS PERMITTING, DIFFERENTIAL ENTHALPY ECONOMIZER MAY MODULATE O.A. DAMPERS UP TO FULLY OPEN POSITION, RETURN AIR DAMPER MODULATES UP TO FULLY CLOSED POSITION. RELIEF AIR VENTS THROUGH GRAVITY RELIEF DAMPERS/LOUVERS.

DIFFUSER NECK SIZE SCHEDULE	
NECK SIZE	CFM
6"ø	0 – 140
8"ø	150 – 250
10"ø	260 – 400
12"ø	410 – 600
14"ø	610 – 1000
16"ø	1010 – 1400
18"ø	1410 – 1900

AIR DEVICE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	MATL.	NECK SIZE	FRAME TYPE	PANEL SIZE	NOTES
S1	TITUS	OMNI	ST	SCHED.	LAY–IN	24"x24"	1,2
S2	TITUS	OMNI	ST	6"ø	LAY–IN	12"x12"	1,2
R1	TITUS	PAR	ST	22"x22"	LAY–IN	24"x24"	2

1. AIR DEVICE RUN–OUT SHALL BE SAME SIZE AS DIFFUSER NECK. FLEX DUCT, MAXIMUM LENGTH 5'–0".
2. ALL AIR DEVICES TO BE WHITE UNLESS OTHERWISE NOTED. ALL AIR DEVICES IN SALES AREA TO BE PAINTED TO MATCH THE CEILING, VERIFY COLOR WITH ARCHITECT.

ROOFTOP UNIT SCHEDULE

MARK	MFR	MODEL NO.	TONS	CFM	O.A. CFM	ESP	HP	CLG MBH TOT.	CLG MBH SENS.	GAS MBH IN	GAS MBH OUT	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLT/PHASE	REMARKS
RTU–1	CARRIER	48TCEE09	8.5	3400	250	0.5	1.6	96.5	77.8	180	120	20.5	25	460/3	1,2,3

1. PROVIDE NEW MANUFACTURER APPROVED ROOF CURB OR ROOF CURB ADAPTER IF REQUIRED. VERIFY NEW ROOFTOP LOCATION IN FIELD WITH LANDLORD REPRESENTATIVE.
2. VERIFY ELECTRICAL VOLTAGE/PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING UNIT.
3. PROVIDE (2) STAGES COOLING MIN, ECONOMIZER, POWER EXHAUST, THROWAWAY FILTERS, OUTSIDE AIR DAMPERS, HAIL GUARDS, POWERED CONVENIENCE OUTLET, HUMIDIMIZER AND HUMIDITY SENSOR MOUNTED IN RETURN AIR DUCT.

FIRE PROTECTION SYMBOLS LEGEND

○E	EXISTING SPRINKLER HEAD
●	SEMI–RECESSED SPRINKLER HEAD
○	UPRIGHT SPRINKLER HEAD
◉	CONCEALED SPRINKLER HEAD
▶|	SIDEWALL SPRINKLER HEAD

PLUMBING SYMBOLS LEGEND

— - —	COLD WATER
— - - —	HOT WATER
———	SANITARY DRAIN
— — —	SANITARY VENT
VTR	VENT THROUGH ROOF
——⊃o	PLUMBING TRAP
CO	CLEAN OUT
	PRESSURE REGULATING VALVE(PRV) 50 PSI
— CA —	COMPRESSED AIR
FCO	FLOOR CLEAN OUT
ADA	AMERICANS WITH DISABILITIES ACT

MECHANICAL SYMBOLS LEGEND

(T)	THERMOSTAT
(S)	TEMPERATURE SENSOR
(SD)	SMOKE DETECTOR
	FLEXIBLE DUCT
	VOLUME DAMPER
FD ■	FIRE DAMPER
	CEILING SUPPLY AIR DIFFUSER
	CEILING RETURN AIR GRILLE
	SIDEWALL AIR DIFFUSER OR GRILLE
	NEW DUCTWORK
	EXISTING DUCTWORK
— D —	CONDENSATE DRAIN
— G —	GAS PIPING
	PIPE TURNING DOWN
	PIPE TURNING UP
	BALL VALVE
	GATE VALVE
	CONNECTION OF NEW TO EXISTING
	CHECK VALVE
	GAS COCK
	UNION
	PRESSURE GAUGE
	STRAINER
AFF	ABOVE FINISHED FLOOR
S1 / 100	AIR DEVICE # / CFM — S – SUPPLY, R – RETURN, E – EXHAUST

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electrical
plumbing
fire protection
structural

#	Description	Date
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DARRELL CASE - ENGINEER
99-371400-2202

ISSUED FOR PERMIT

Client Approval

Mechanical Plan

Project #	17513-UT01
Issue Date	10/22/2013
Scale	As indicated
Drawn by	LJW
Checked by	DRC

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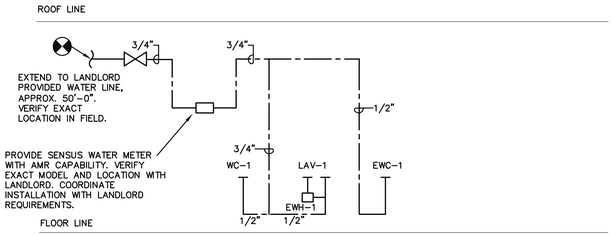
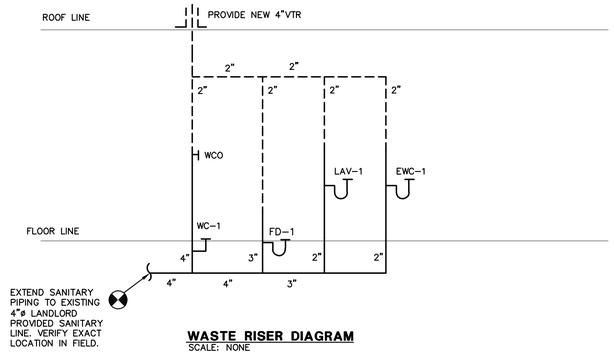
of

2/1/2005 11:14:44 AM Tyson's Corner (Rev RSO)



WATER RISER DIAGRAM
SCALE: NONE



WASTE RISER DIAGRAM
SCALE: NONE

GENERAL NOTES

1. ALL OF THE MECHANICAL WORK IS NOT NECESSARILY SHOWN OR NOTED ON THESE DRAWINGS. THE CONTRACTORS SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS RELATED TO THEIR WORK BEFORE BIDDING. NOTIFY THE OWNER OF ANY DISCREPANCIES. THOSE ITEMS NOT SHOWN OR NOTED BUT WHICH ARE DEEMED NECESSARY FOR REMOVAL OR RELOCATION BY OWNER'S REPRESENTATIVE SHALL BE PART OF THIS CONTRACT.
2. THE SUBMISSION OF PROPOSALS SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTORS HAVE VISITED THE SITE. NO EXTRA PAYMENTS WILL BE ALLOWED THESE CONTRACTORS CLAIMS FOR EXTRA WORK MADE NECESSARY BY THEIR FAILURE TO VISIT THE SITE.
3. GUARANTEE ALL EQUIPMENT AND MATERIAL INSTALLED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND REPAIR OR REPLACE WITHOUT COST TO THE OWNER ANY EQUIPMENT WHICH IS DEFECTIVE, OR IMPROPERLY INSTALLED. IN ADDITION, ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDING AND ITS CONTENTS OR OTHER EQUIPMENT CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIALS INSTALLED UNDER THIS PORTION OF THE WORK.
4. ALL WORK SHALL BE COMPLETED ACCORDING TO STATE AND OR LOCAL CODES.
5. PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS AND PROVIDE A CERTIFICATE OF INSPECTION.
6. REVIEW ALL LANDLORD/OWNER REQUIREMENTS AND INSTALL ALL MATERIALS AND EQUIPMENT AS DIRECTED BY THE LANDLORD'S REPRESENTATIVE AND AS REQUIRED BY THE LEASE DOCUMENTS. VERIFY THE REQUIREMENTS BEFORE SUBMITTING A BID.
7. VERIFY THE SIZE, LOCATION AND CONDITION OF THE EXISTING DUCTWORK, EQUIPMENT AND CONTROLS THAT ARE TO REMAIN. NOTIFY THE OWNER OF ANY DISCREPANCIES. REPLACE EXISTING COMPONENTS IF INADEQUATE FOR THE NEW REQUIREMENTS OR INOPERABLE. COORDINATE REPLACEMENT COMPONENT SPECIFICATIONS WITH THE LANDLORD'S FIELD REPRESENTATIVE.
8. FIVE (5) COPIES OF ALL SHOP OR EQUIPMENT DRAWINGS SHALL BE SUBMITTED TO THE OWNER. THESE DRAWINGS SHALL BE CLEARLY MARKED INDICATING WHICH ITEMS ARE TO BE SUPPLIED AND SHALL STATE CAPACITIES, SIZES, REQUIRED INSPECTION LABELS AND GENERAL DESCRIPTION OF ALL EQUIPMENT AND FIXTURES.
9. ALL AIR INTAKES AND EXHAUSTS NEED TO BE SEPARATED BY A MINIMUM OF 10'-0".
10. COORDINATE DISCREPANCIES BETWEEN DOCUMENTS AND FIELD CONDITIONS WITH THE TENANT OR HIS AUTHORIZED AGENT. COORDINATE THE EXTENSION, MODIFICATION, FINAL CONNECTION AND TESTING OF ALL UTILITIES OR INTERFACED SYSTEMS WITH THE LANDLORD'S FIELD REPRESENTATIVE.
11. ACCESS TO ALL LANDLORD AND TENANT COMPONENTS REQUIRING PERIODIC INSPECTION AND SERVICE CAN BE ACCOMMODATED THROUGH THE REMOVAL OF CEILING TILE. CONTRACTOR SHALL LABEL THE APPROPRIATE CEILING TILES UTILIZED FOR ACCESS WITH THE NAME OF THE HIDDEN COMPONENT(S). CONTRACTOR SHALL DEMONSTRATE ACCESS TO ALL HIDDEN COMPONENTS FOR THE LANDLORD'S FIELD REPRESENTATIVE PRIOR TO OCCUPANCY.
12. ALL ROOF WORK IS BY LANDLORD CONTRACTOR, AT TENANT EXPENSE. COORDINATE WITH ON SITE OPS DIRECTOR. ALL WORK RELATED TO THE ROOF FLASHING SHALL BE THE RESPONSIBILITY AND EXPENSE OF THE TENANT, BUT SHALL BE PERFORMED BY THE LANDLORDS APPROVED ROOFING CONTRACTOR. PROVIDE STRUCTURAL REINFORCEMENT AS REQUIRED FOR THE INSTALLATION OF ALL EQUIPMENT.
13. FILTER MEDIA SHALL BE UTILIZED TO PROTECT ALL DUCTS, OPENINGS AND EQUIPMENT DURING CONTRACTION.
14. PROVIDE CLEAR ACCESS TO ALL EQUIPMENT AND VALVES.
15. ALL PENETRATIONS OF FLOOR SLABS SHALL BE PROVIDED WITH PIPE SLEEVES THAT EXTEND AT LEAST 2" ABOVE THE FLOOR.
16. A RETURN AIR PLENUM IS UTILIZED FOR THE SPACE. ALL COMPONENTS OF AND WORK IN THE PLENUM MUST COMPLY WITH CODE REQUIREMENTS FOR USE IN A PLENUM.

MECHANICAL SPECIFICATIONS

A. FABRICATE AND INSTALL GALVANIZED SHEET METAL DUCTWORK FOR VELOCITIES LESS THAN 2000 FEET PER MINUTE AND STATIC PRESSURES OF LESS THAN 2" WATER GAUGE IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA'S LOW VELOCITY DUCT CONSTRUCTION MANUAL. ALL ELBOWS AND BRANCHES FROM THE MAIN IN ALL SUPPLY AND RETURN DUCTS SHALL BE PROVIDED WITH TURNING VANES. DUCTWORK SHALL BE CONSTRUCTED, INSTALLED, SEALED AND INSULATED IN ACCORDANCE WITH THE LATEST EDITION OF THE MECHANICAL CODE. FIBERGLASS DUCTBOARD IS NOT ACCEPTABLE.

B. TEST AND ADJUST ALL AIR HANDLING EQUIPMENT TO PROVIDE THE REQUIRED AIR VOLUME WITHIN 10% OF DESIGN CONDITIONS. TEST AND ADJUST ALL AIR DEVICES TO THE CFM SHOWN ON THE DRAWINGS. PROVIDE ALL CHANGES REQUIRED TO OBTAIN CFM QUANTITIES SHOWN ON THE DRAWINGS. TESTING AND BALANCING SHALL BE BY AN INDEPENDENT TEST AND BALANCING AGENCY IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE TESTING AND BALANCING MANUAL AS PUBLISHED BY SMACNA. SCHEDULE BALANCING WITH THE LANDLORD'S FIELD REPRESENTATIVE. THE OWNER SHALL BE PROVIDED WITH THREE CERTIFIED COPIES OF THE AIR BALANCE REPORT BEFORE FINAL PAYMENT WILL BE MADE. PROVIDE A COPY OF THE APPROVED REPORT TO THE LANDLORD.

C. FURNISH AND INSTALL ALL MECHANICAL EQUIPMENT AND OR AIR DEVICES AS SCHEDULED ON THE DRAWINGS. BIDS SHALL BE BASED ON THE EQUIPMENT SPECIFIED AND NO SUBSTITUTIONS WILL BE ACCEPTED.

D. FURNISH AND INSTALL ALL SYSTEMS OF HVAC CONTROL (TO INCLUDE CONTROL WIRING) TO PROVIDE A COMPLETE SYSTEM.

E. FLEX DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH. FLEX DUCTWORK ALLOWED ONLY IN ACCESSIBLE AREAS PER CODE. ONLY ONE 90 DEGREE ELBOW ALLOWED N FLEXIBLE DUCTWORK.

F. ALL ROOF MOUNTED EQUIPMENT SHALL BE MOUNTED A MINIMUM HEIGHT OF EIGHT INCHES ABOVE THE EXPOSED ROOF MEMBRANE, PER THE LANDLORD'S REQUIREMENTS.

G. ALL ROOF WORK IS BY LANDLORD CONTRACTOR, AT TENANT EXPENSE. COORDINATE WITH ON SITE OPS DIRECTOR.

PLUMBING SPECIFICATIONS

A. PROVIDE ALL LABOR AND MATERIAL FOR A COMPLETE PLUMBING SYSTEM AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID.

B. FURNISH AND INSTALL STANDARD WEIGHT CAST IRON SOIL PIPE WITH "NO-HUB" FITTINGS FOR ALL WASTE AND VENT PIPING ABOVE GRADE AND SERVICE WEIGHT CAST IRON PIPING WITH APPROVED COMPRESSION JOINTS UNDER FLOOR.

C. INTERIOR WATER PIPING ABOVE THE FLOOR SHALL BE TYPE L WITH 95-5 SOLDERED JOINTS. VALVES SHALL BE NIBCO S-590 BALL VALVES OR EQUIVALENT. TEST WATER PIPING TO 125 LBS. FOR AT LEAST TWO HOURS WITH NO LEAKS BEFORE COVERING. INSULATE HOT AND COLD PIPING ABOVE THE FLOOR WITH 1" THICK FIBERGLASS TYPE WRAP AROUND INSULATION WITH ALL SERVICE JACKET.

D. ALL PENETRATIONS OF FLOOR SLAB SHALL BE SAW CUT, GROUTED, AND SEALED WATER PROOF.

E. CAP ALL UNUSED PLUMBING LINES ASSOCIATED WITH LEASED SPACE AS REQUIRED BY LANDLORD AND LOCAL INSPECTION AUTHORITIES.

F. FURNISH AND INSTALL A BACKFLOW PREVENTER IF REQUIRED BY CODE.

G. PVC PIPING ALLOWED WHERE PERMITTED BY CODE.

FIRE PROTECTION SPECIFICATIONS

A. ALL PIPING AND HEADS SHALL BE INSTALLED PER LATEST EDITION OF NFPA 13. HEAD SPACING SHALL BE BASED UPON THE ORDINARY HAZARD GROUP 2. ALL SPRINKLER PIPING SHALL BE SCHEDULE 40 BLACK IRON. SCHEDULE 10 PIPING IS PERMISSIBLE IF ACCEPTABLE TO THE LANDLORD. HYDRAULICALLY CALCULATE SYSTEM AND SUBMIT COPIES OF THE CALCULATIONS TO THE AUTHORITY HAVING JURISDICTION AND THE LANDLORD.

B. PREPARE SHOP DRAWINGS FOR SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION AND THE LANDLORD BEFORE FABRICATION.

C. TWO COPIES OF THE APPROVED SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER AND THE LANDLORD PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

D. PROVIDE FOR INSPECTION TESTING AND APPROVAL BY THE AUTHORITY HAVING JURISDICTION AND THE STATE INSPECTION BUREAU AS REQUIRED.

E. PROVIDE SIGNED CERTIFICATE OF COMPLETION COPIES TO BE GIVEN TO OWNER'S REPRESENTATIVE, INSURANCE REPRESENTATIVE, AND PROJECT OFFICE.

F. SPRINKLER LINES SHALL BE INSTALLED AS HIGH AS POSSIBLE.

G. SPRINKLER HEADS IN SALES AREA SHALL BE CONCEALED TYPE WITH WHITE COVER PLATES. UPRIGHT PENDANT HEADS SHALL BE USED IN ALL AREAS WITHOUT A CEILING. PENDANT HEADS WITH ESCUTCHEON PLATES SHALL BE USED IN ALL STOCKROOM AREAS WITH LAY-IN OR GYPSUM BOARD CEILINGS. SPRINKLER HEADS IN RESTROOMS SHALL BE CONCEALED TYPE. SPRINKLER HEAD TEMPERATURE RATINGS SHALL BE 165°F IN SALES AND STOCK AREAS AND 212°F IN DISPLAY WINDOWS AND LIGHTING FIXTURE CANOPIES OR AS REQUIRED BY LANDLORD'S INSURANCE AGENCY AND LOCAL AUTHORITIES. SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE. ALL SEMI-RECCESSED AND CONCEALED HEADS SHALL BE WHITE.

H. VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS WHICH WILL AFFECT THE WORK. PROVIDE ALL REQUIRED PIPING AND OR REVISIONS TO PIPING AS NEEDED FOR A COMPLETE SPRINKLER SYSTEM WHICH IS APPROVED AND ACCEPTED BY LOCAL AUTHORITIES.

I. SPRINKLER SHOP DRAWINGS UNDER SEPARATE COVER. SUPPLY SPRINKLER SHOP DRAWINGS AND APPLY TO BUILDING DEPARTMENT (REQUIRED).

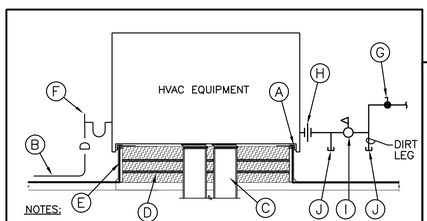
J. LANDLORD DESIGNATED CONTRACTOR TO PERFORM ALL SPRINKLER MODIFICATIONS. SYSTEM MODIFICATIONS SHALL BE SCHEDULED IN ADVANCE WITH THE LANDLORD'S FIELD REPRESENTATIVE. THE SPRINKLER SYSTEM SHALL BE FULLY CHARGED AND OPERATIONAL WHEN THE CONTRACTOR IS OFF THE SITE.

K. ALL FIRE PROTECTION AND SPRINKLER SYSTEM WORK SHALL BE IN ACCORDANCE WITH MALL'S INSURANCE AGENCY REQUIREMENTS, NFPA, STATE, COUNTY AND LOCAL FIRE MARSHALL.

L. ALL SPRINKLER WORK IS DONE BY LANDLORD CONTRACTOR, AT TENANT'S EXPENSE, AND SHALL BE COORDINATED WITH ON SITE OPERATIONS DIRECTOR. ALL SPRINKLER WORK SHALL BE APPROVED BY THE LANDLORD'S INSURER.

M. CONTRACTOR SHALL LOCATE SPRINKLER HEADS SO THEY ARE CENTERED IN CEILING TILES AND SYMMETRICAL.

N. THE TENANT IS RESPONSIBLE FOR ALL DRAIN DOWNS AND REFILLING OF THE SPRINKLER SYSTEM, INCLUDING ALL COSTS, AS REQUIRED OF THE INSTALLATION OF THEIR SPRINKLER SYSTEM. THE LANDLORD SHALL BE GIVEN NOTICE FIVE WORKING DAYS PRIOR TO PERFORMING WORK ON THE SPRINKLER SYSTEM.



RTU CURB AND PIPING DETAIL
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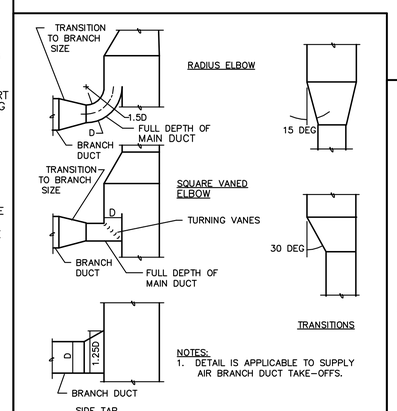

BRANCH DUCT TAKEOFFS AND TRANSITIONS
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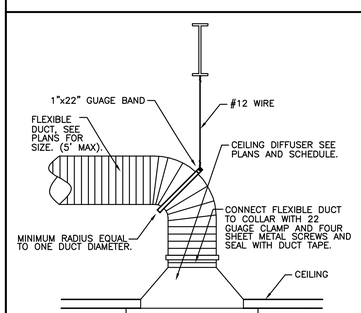

DIFFUSER INSTALLATION DETAIL
NOT TO SCALE

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structural

#	Description	Date
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DARRELL CASE - ENGINEER
99-371400-2202

ISSUED FOR PERMIT

Client Approval

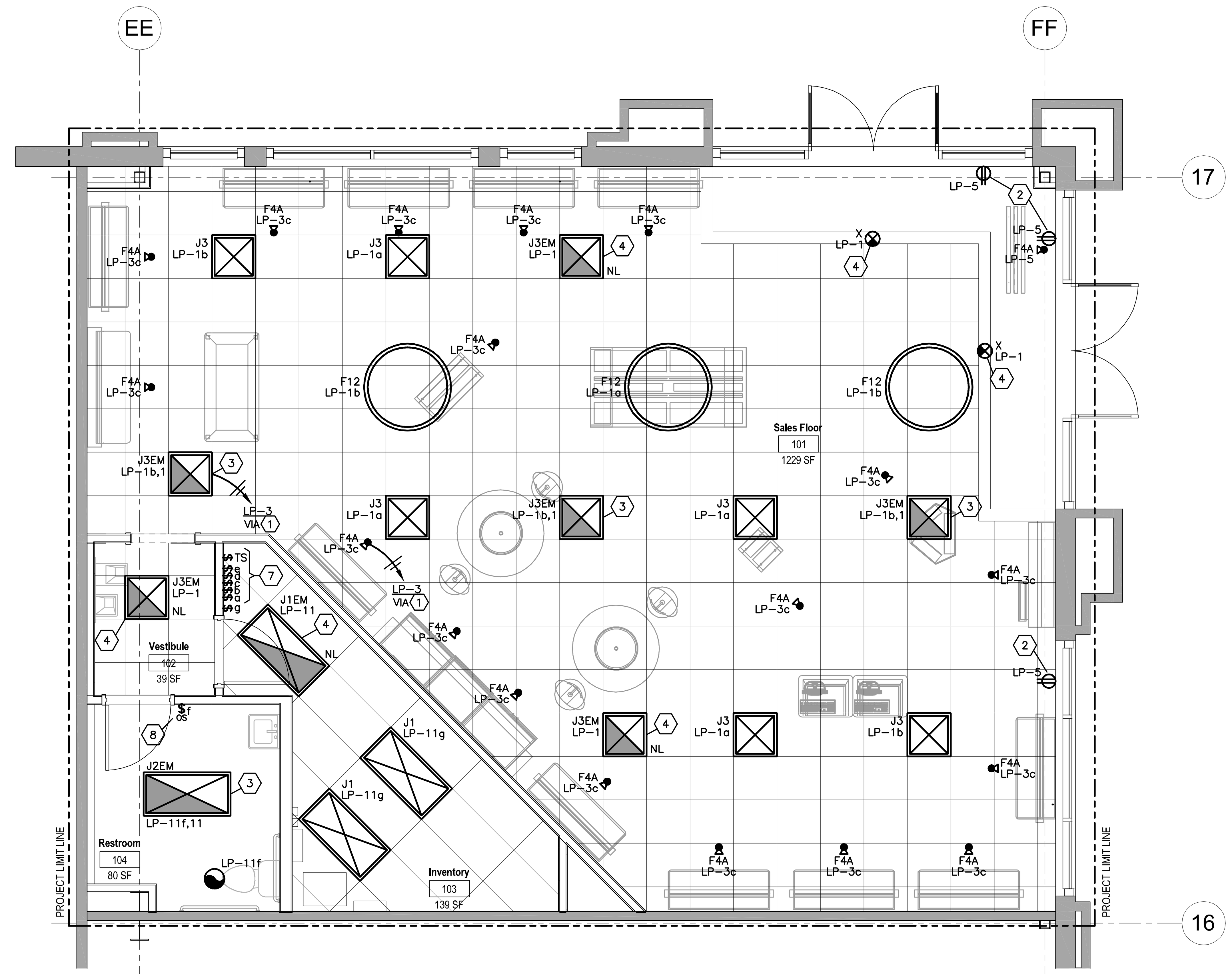
Mechanical Details and Specifications

Project #	17513-UT01
Issue Date	10/22/2013
Scale	As indicated
Drawn by	LJW
Checked by	DRC

M2

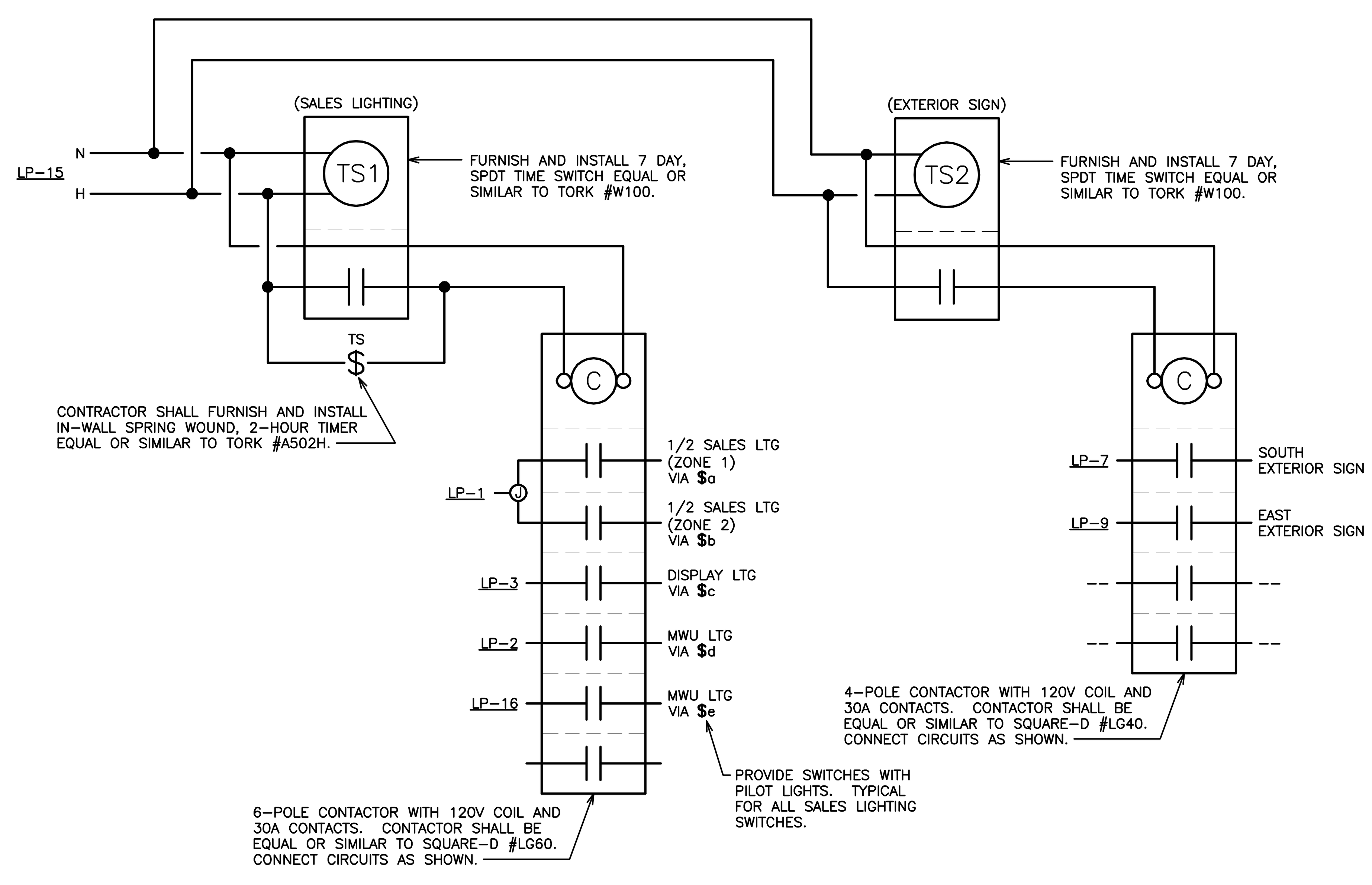
of

2/1/2005 11:14:44 AM Tysons Corner (New RSO)



1 ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"

FIELD VERIFY ALL EXISTING CONDITIONS



1 LIGHTING CONTROL DIAGRAM
1/4" = 1'-0"

GENERAL ELECTRICAL NOTES :

1. CONNECT ALL SIGNALING/CONTROL DEVICES PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH NEW NATIONAL ELECTRICAL CODE AND ANY STATE/LOCAL CODES.
3. ALL CONDUIT SHALL BE GALVANIZED RIGID HEAVY WALL STEEL, OR EMT, SIZES SHALL BE DETERMINED PER N.E.C. WATERTIGHT FITTINGS SHALL BE PROVIDED AS REQUIRED BY CODE. EMT CONDUITS SHALL HAVE COMPRESSION FITTINGS. FLEXIBLE CONDUITS (GALVANIZED STEEL) MAY BE USED FOR SHORT CONDITIONS TO VIBRATING EQUIPMENT, AND SHOWCASES, AS REQUIRED. 1/2 INCH SIZE MINIMUM, WITH A MAXIMUM LENGTH OF 6 FEET.
4. ALL ELECTRICAL EQUIPMENT SHALL BE RESTRAINED FOR SEISMIC FORCES IN ACCORDANCE WITH ALL BUILDING CODES.
5. ALL EQUIPMENT NOT TO BE REUSED IS TO BE REMOVED FROM SPACE COMPLETELY. NO EQUIPMENT OR COMPONENTS MAY BE ABANDONED IN PLACE WITHOUT WRITTEN PERMISSION FROM THE LANDLORD.
6. EXACT LOCATION, CUT-OUTS AND MOUNTING HEIGHTS FOR WIRING DEVICES IN CASEWORK SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
7. REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES, DO NOT SCALE FROM THESE DRAWINGS.
8. ALL CIRCUIT BREAKERS USED FOR LIGHTING CIRCUITS SHALL BE SWITCH DUTY RATED TYPE CIRCUIT BREAKERS.
9. VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. NOTIFY OWNER OF ANY DISCREPANCIES. IF ACCEPTABLE TO OWNER'S REPRESENTATIVE, EXISTING EQUIPMENT MAY BE RE-USED. IF NOT ACCEPTABLE, FURNISH AND INSTALL NEW.
10. ALL RECEPTACLES, DATA AND TELEPHONE OUTLETS ARE TO BE MOUNTED AT +20" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.

KEYED ELECTRICAL NOTES:

1. FURNISH AND INSTALL TIME SWITCH 'TS1'– AND CONTACTORS FOR CONTROLLING SALES LIGHTING. REFER TO LIGHTING CONTROL DIAGRAM ON THIS SHEET.
2. FURNISH AND INSTALL DUPLEX RECEPTACLE FOR SHOW WINDOW LIGHTING. MOUNT VERTICAL ON WALL ABOVE SHOW WINDOW. FIELD VERIFY EXACT LOCATION PRIOR TO FINAL ROUGH-IN.
3. CIRCUIT LIGHT FIXTURE TO SWITCHED CIRCUIT AND EMERGENCY BALLAST TO UNSWITCHED CIRCUIT.
4. CIRCUIT ALL EXIT LIGHTS, EMERGENCY LIGHTS AND NIGHT LIGHTS TO UNSWITCHED LIGHTING CIRCUIT.
5. EXISTING CONDUIT STUB WITH PULL WIRE FOR SIGN CIRCUIT. EXTEND CONDUIT BACK TO ELECTRICAL PANEL. PROVIDE 120 VOLT, 1ø POWER FOR SIGN. PROVIDE NON-FUSED DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING. PROVIDE DEDICATED #10 COPPER GROUND WIRE FROM EQUIPMENT GROUND BUS IN PANEL FOR CIRCUIT SERVING SIGN. DO NOT USE CONDUIT AS A GROUND. FIELD VERIFY EXACT LOCATION OF ROUGH-IN.
6. FURNISH AND INSTALL TIME SWITCH 'TS2' FOR CONTROLLING EXTERIOR SIGN. REFER TO LIGHTING CONTROL DIAGRAM ON THIS SHEET. SET TIME AS DIRECTED BY TENANT/LANDLORD.
7. FURNISH AND INSTALL SWITCHES FOR SALES LIGHTING. REFER TO LIGHTING CONTROL DIAGRAM ON THIS SHEET.
8. PROVIDE OCCUPANCY WALL SWITCH – WATT STOPPER #WS250-WH OR EQUAL.
9. LANDLORD TO FURNISH AND INSTALL ALL ELECTRICAL IN RESTROOM. CIRCUIT AS SHOWN.

LIGHT FIXTURE SCHEDULE

TYPE	MFR.	CATALOG NUMBERS		DESCRIPTION	QUANTITY		VA
		FIXTURE	LAMP		FIXT	LAMP	
F4A	COOPER HALO	STATIS L50516-20CMH-AH-L111-LM50516-L973-AH CANOPY	GE CMH20MR16/830/FL	CANOPY MOUNTED CMH MR16 MONOPOINT ACCENT LIGHT, LOCKING TILT AND ROTATION, ON-OFF SWITCH, ALUMINUM DIE-CAST HOUSING WITH VERTICAL ELECTRONIC BALLAST, SOFT FOCUS LENS AND HOLDER, SQUARE MONOPOINT CANOPY ACCESSORY, ALUMINUM HAZE FINISH	19	19	25
F12	LITE ENERGY/ LIGHTOLIER	LE/CS-44120-4XF25T8-120	GE F25W/T8/SPX35	48" DIAMETER, 4-LAMP, LARGE SCALE SUFACE MOUNTED LUMINAIRE WITH WHITE ACRYLIC DIFFUSER, 20 GAUGE DIE FORMED STEEL HOUSING, ELECTRONIC BALLAST, POLYESTER POWDER COAT MATTE WHITE FINISH	3	12	89
J1	LITHONIA	2GT8-3-32-A12-MVOLT-1/3-GEB101S	GE F32T8/SPX35/ECO	2'x4' LAY-IN, GRID, 3-LAMP FLOURESCENT LIGHT FIXTURE WITH ACRYLIC LENS, ELECTRONIC BALLAST	2	6	95
J1EM	LITHONIA	2GT8-3-32-A12-MVOLT-1/3-GEB101S-EMERGENCY BALLAST	GE F32T8/SPX35/ECO	2'x4' LAY-IN, GRID, 3-LAMP FLOURESCENT LIGHT FIXTURE WITH ACRYLIC LENS, ELECTRONIC BALLAST; *PROVIDE EMERGENCY BALLAST	1	3	95
J2EM	LITHONIA	2GT8-F-3-32-A12-MVOLT-1/3-GEB101S-EMERGENCY BALLAST	GE F32T8/SPX35/ECO	2'x4' LAY-IN, FLANGED, 3-LAMP FLOURESCENT LIGHT FIXTURE WITH ACRYLIC LENS, ELECTRONIC BALLAST; *PROVIDE EMERGENCY BALLAST	1	3	95
J3	LITHONIA	2GT8-2-U31-A12-MVOLT-1/3-GEB101S-EMERGENCY BALLAST	GE F32T8/SPX35/ECO	2'x2' LAY-IN, GRID, 2-LAMP FLOURESCENT LIGHT FIXTURE WITH ACRYLIC LENS, ELECTRONIC BALLAST	6	12	65
J3EM	LITHONIA	2GT8-2-U31-A12-MVOLT-GEB101S-EMERGENCY BALLAST	GE F32T8/SPX35/ECO	2'x2' LAY-IN, GRID, 2-LAMP FLOURESCENT LIGHT FIXTURE WITH ACRYLIC LENS, ELECTRONIC BALLAST; *PROVIDE EMERGENCY BALLAST	6	12	65
X	LITHONIA	EDG 1 120 ELN	RED LED	SINGLE FACE, EDGE LIT EXIT LIGHT WITH BATTTERY BACKUP	2	--	5

ALL FIXTURES WITH EMERGENCY BATTERY BACK-UP SHALL BE CAPABLE OF MAINTAINING FULL LUMENS FOR A MINIMUM OF 90 MINUTES.

* EMERGENCY BALLASTS FOR FLUORESCENT LAMPS SHALL BE CAPABLE OF PRODUCING 1350 LUMENS.

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electrical
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structural

#	Description	Date
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DARRELL CASE - ENGINEER
99-371400-2202

ISSUED FOR PERMIT

Client Approval

Electrical Lighting Plan

Project #	17513-UT01
Issue Date	10/22/2013
Scale	As indicated
Drawn by	RAB
Checked by	DRC

E1

of

EC SHALL REWORK EXISTING PANEL AS REQUIRED BY THIS REMODEL.

PANEL BOARD 'LPA'

RECESSED MOUNTED

120/208 VOLTS 3 PHASE 4 WIRE 100 AMP. BUS

100 AMP. MAIN CIRCUIT BREAKER CIRCUIT BREAKER TYPE

CKT. NO.	TRIP AMPS	NO. POLE	LOAD SERVED	LOAD– V. A. Aø	Bø	Cø	LOAD SERVED	NO. POLE	TRIP AMPS	CKT. NO.
1	20	1	SALES GENERAL LIGHTING	1093 / 550			MWU RECEPTS (SWITCHED)	1	20	2 (HT)
3	20	1	SALES DISPLAY LIGHTING		450 / 1260		MWU RECEPTS (UNSWITCHED)	1	20	4 (HT)
5	20	1	SHOW WINDOW			565 / 360	PORTABLE POS STATIONS	1	20	6
7	20	1	SOUTH EXTERIOR SIGN	1200 / 360			BACKWRAP RECEPTACLES	1	20	8
9	20	1	EAST EXTERIOR SIGN		1200 / 180		BACKWRAP RECEPTACLES	1	20	10
11	20	1	RESTROOM, INVENTORY LTG			540 / 360	BACKWRAP RECEPTACLES	1	20	12
13	20	1	–SPARE–	-- / 720			LEARNING TABLE FLR RECEPT	1	20	14
15	20	1	TIMESWITCHES/CONTACTORS		500 / 770		MWU RECEPTS (SWITCHED)	1	20	16 (HT)
17	30	2	WATER HEATER			2050 / 1260	MWU RECEPTS (UNSWITCHED)	1	20	18 (HT)
19				2050 / 360			AATV WALL RECEPTS	1	20	20
21	20	1	–SPARE–		-- / 360		AATV FLOOR RECEPTACLES	1	20	22
23	20	1	–SPARE–			-- / 720	COMMUNITY TABLE RECEPTS	1	20	24
25	20	1	–SPARE–	-- / 1080			CONVENIENCE RECEPTACLES	1	20	26
27	20	1	–SPARE–		-- / 460		WATER COOLER	1	20	28
29	20	1	–SPARE–			-- / --	–SPARE–	1	20	30
31	20	1	–SPARE–	-- / --			–SPARE–	1	20	32
33	20	1	–SPARE–		-- / --		–SPARE–	1	20	34
35	20	1	–SPARE–			-- / --	–SPARE–	1	20	36
37	20	1	–SPARE–	-- / --			–SPARE–	1	20	38
39	20	1	–SPARE–		-- / --		–SPARE–	1	20	40
41	20	1	–SPARE–			-- / --	–SPARE–	1	20	42
				7413	5180	5855				

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	DEMAND
LIGHTING	1.25	6368	7960
RECEPTACLES	1st 10KVA @ 100%	7020	7020
RECEPTACLES	REMAINDER @ 50%	--	--
MISC. EQUIPMENT	1.00	960	960
WATER HEATER	1.25	4100	5125
HVAC EQUIPMENT	1.00	--	--
	TOTAL–	18448	21065

HT PROVIDE HANDLE TIE ON BREAKERS
L/O PROVIDE LOCK–ON DEVICE
GFI GROUND FAULT CURRENT INTERRUPTER

PANELBOARD LOAD = 21065 V.A.
FULL LOAD AMPS = 58.5 A.

EC SHALL REWORK EXISTING PANEL AS REQUIRED BY THIS REMODEL.

EXISTING PANEL BOARD 'HA'

SURFACE MOUNTED

277/480 VOLTS 3 PHASE 4 WIRE 100 AMP. BUS

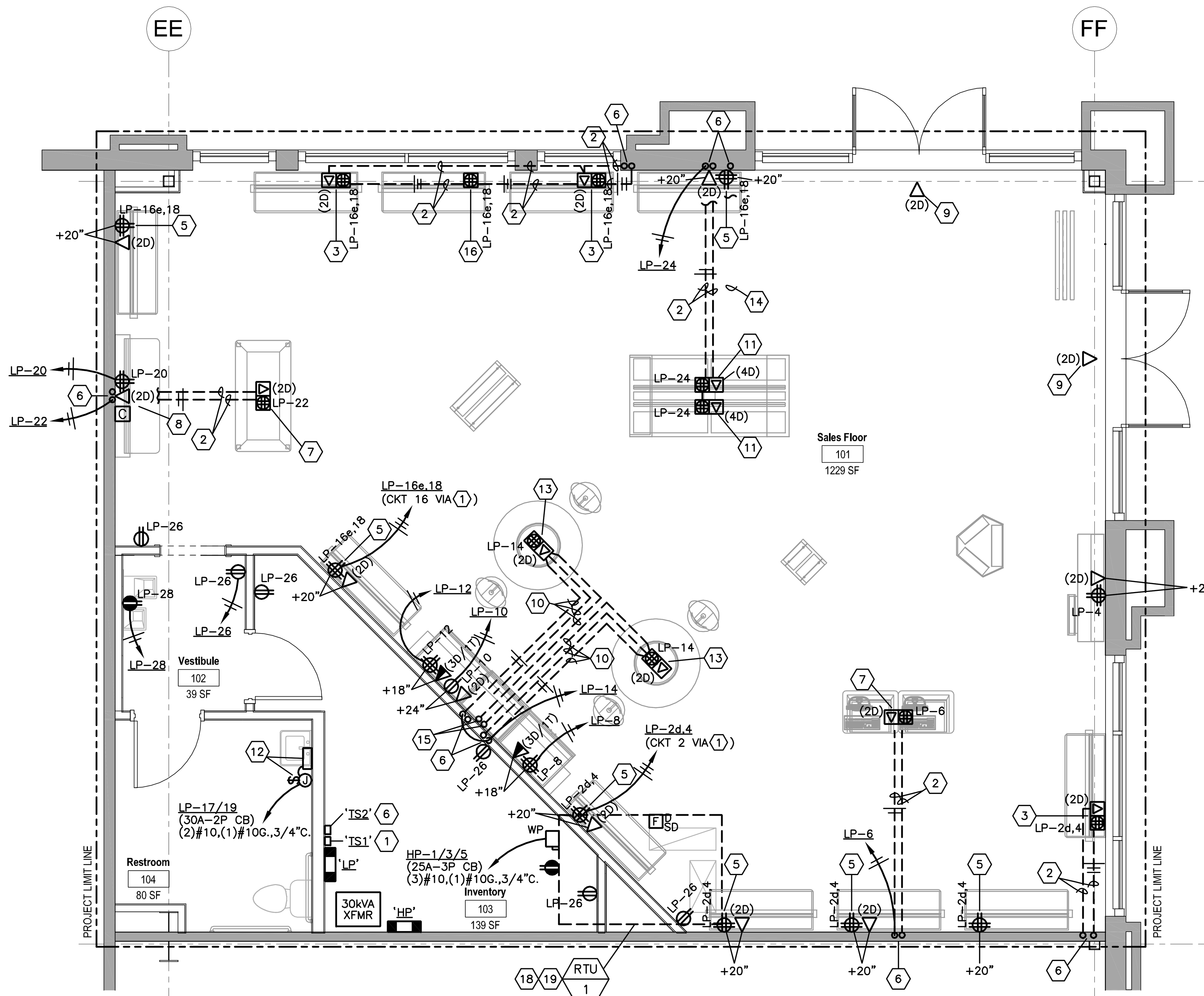
100 AMP. MAIN CIRCUIT BREAKER CIRCUIT BREAKER TYPE

CKT. NO.	TRIP AMPS	NO. POLE	LOAD SERVED	LOAD– V. A. Aø	Bø	Cø	LOAD SERVED	NO. POLE	TRIP AMPS	CKT. NO.
1				5679 / 7413						2
3	25	3	ROOF TOP UNIT RTU–1 (20.5 MCA)		5679 / 5180		30 KVA TRANSFORMER	3	50	4
5						5679 / 5855				6
7	--	1	– – – SPACE – – –	-- / --			– – – SPACE – – –	1	--	8
9	--	1	– – – SPACE – – –		-- / --		– – – SPACE – – –	1	--	10
11	--	1	– – – SPACE – – –			-- / --	– – – SPACE – – –	1	--	12
13	--	1	– – – SPACE – – –	-- / --			– – – SPACE – – –	1	--	14
15	--	1	– – – SPACE – – –		-- / --		– – – SPACE – – –	1	--	16
17	--	1	– – – SPACE – – –			-- / --	– – – SPACE – – –	1	--	18
				13092	10859	11534				

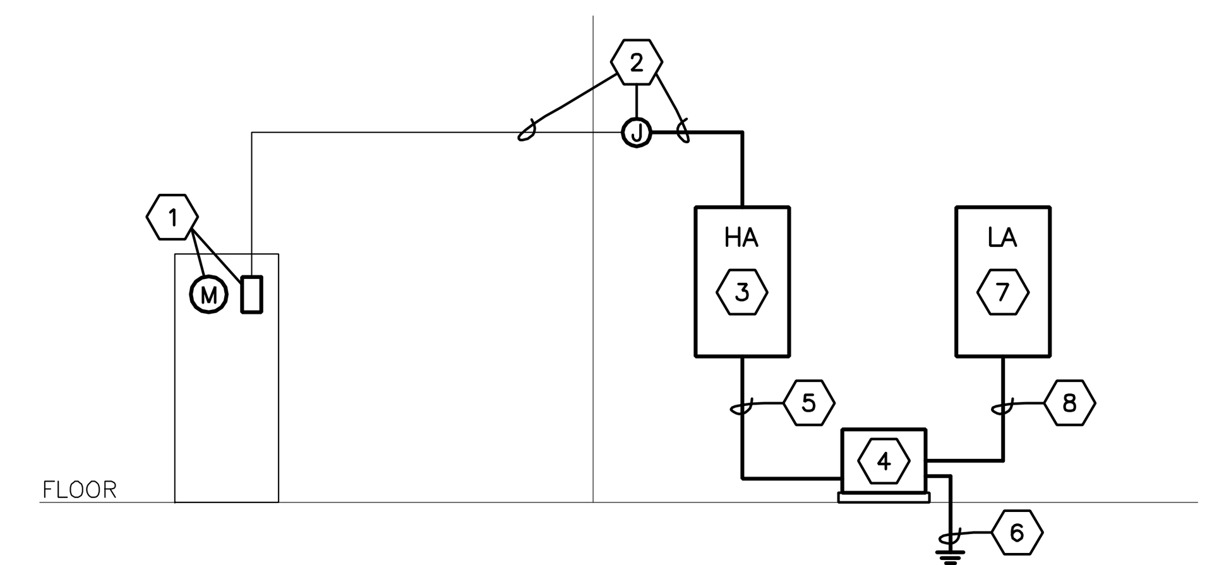
LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	DEMAND
LIGHTING	1.25	6368	7960
RECEPTACLES	1st 10KVA @ 100%	7020	960
RECEPTACLES	REMAINDER @ 50%	--	--
MISC. EQUIPMENT	1.00	960	960
ELECTRIC HEAT	1.25	4100	5125
HVAC EQUIPMENT	1.00	17037	17037
	TOTAL–	35485	32042

HT PROVIDE HANDLE TIE ON BREAKERS
L/O PROVIDE LOCK–ON DEVICE
GFI GROUND FAULT CURRENT INTERRUPTER

PANELBOARD LOAD = 32042 V.A.
FULL LOAD AMPS = 38.6 A.



1 ELECTRICAL POWER PLAN
1/4" = 1'-0"



KEYED ELECTRICAL NOTES:

1. FURNISH AND INSTALL NEW 100A–3P CIRCUIT BREAKER DISCONNECT SWITCH IN LANDLORD'S EXISTING 277/480V, 3ø, 4W, 2000 AMP METER CENTER IN LANDLORD'S ELECTRIC ROOM. COORDINATE METERING WITH LOCAL UTILITY COMPANY. FIELD VERIFY AND REPORT ANY DISCREPANCIES TO TENANT'S REPRESENTATIVE PRIOR TO BID.
2. EXISTING 2–1/2"C. FROM LANDLORD'S METER CENTER AND STUBBED INTO TENANT SPACE. FURNISH AND INSTALL NEW PULL BOX WITHIN TENANT SPACE AND EXTEND CONDUIT WITH PULL WIRE TO LOCATION OF PANEL 'HA'. FURNISH AND INSTALL (4)#3, (1)#8G. WIRES IN ENTIRE RUN OF CONDUIT AND MAKE FINAL CONNECTIONS AT PANEL 'HA' AND LANDLORD'S METER CENTER. FIELD VERIFY AND REPORT ANY DISCREPANCIES TO TENANT'S REPRESENTATIVE PRIOR TO BID.
3. FURNISH AND INSTALL NEW PANEL 'HA' – 100A, 277/480V, 3ø, 4W, 18–POLE WITH 100 AMP MAIN CIRCUIT BREAKER. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
4. FURNISH AND INSTALL NEW PAD MOUNTED TRANSFORMER 30 KVA, 480V, 3ø DELTA PRIMARY, 120/208V, 3ø WYE SECONDARY.
5. FURNISH AND INSTALL NEW FEEDER FROM NEW PANEL 'HA' TO NEW 30 KVA TRANSFORMER. FEEDER SHALL BE (3)#6, (1)#10G, IN 3/4"C.
6. FURNISH AND INSTALL NEW #6 CU GROUND. CONNECT TO BUILDING STEEL.
7. FURNISH AND INSTALL NEW PANEL 'LA' – 100A, 120/208V, 3ø, 4W, 42–POLE WITH 100 AMP MAIN CIRCUIT BREAKER. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
8. FURNISH AND INSTALL NEW FEEDER FROM 30 KVA TRANSFORMER TO NEW PANEL 'LA'. FEEDER SHALL BE (4)#3, (1)#6G, IN 1–1/4"C.

NOTE: THIS RISER DIAGRAM REPRESENTS (AS ACCURATELY AS POSSIBLE) THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM. FIELD VERIFY ALL SIZES OF EQUIPMENT, CONDUCTORS, FUSES, ETC. SIZES SHOWN ON THIS DRAWING SHALL BE CONSIDERED A MINIMUM. ANY EXISTING EQUIPMENT CONDUCTORS, FUSES, ETC. WHICH DO NOT MEET MINIMUM SHALL BE REPLACED TO MEET MINIMUM. FUSES FOR HVAC EQUIPMENT SHALL BE PER UNIT NAMEPLATE DATA. FUSE AMPACITY SHALL NOT EXCEED CONDUCTOR AMPACITY.

2 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

KEYED ELECTRICAL NOTES:

1. FURNISH AND INSTALL NEW TIME SWITCH 'TS2' FOR CONTROLLING NEW SALES FLOOR LIGHTING. FURNISH AND INSTALL LIGHTING CONTACTORS AS REQUIRED. REFER TO LIGHTING CONTROL DIAGRAM ON SHEET E1. SET TIME AS DIRECTED BY TENANT/LANDLORD.
2. GC TO SAW CUT CONCRETE FLOOR FOR EC TO INSTALL NEW CONDUITS TO NEW FLOOR BOXES. PROVIDE (1) 1"C. WITH POWER WIRING FOR RECEPTACLE(S) AND (1) 1–1/4"C. WITH PULLWIRE FOR DATA OUTLET(S). EC TO PROVIDE TRENCHING BACKFILL AND COMPACTION OF BACKFILL. PATCHING BY GC. REFER TO POWER/COMMUNICATIONS PLAN ON SHEET R1.1 FOR ADDITIONAL INFORMATION. FIELD VERIFY ROUTING OF CONDUIT.
3. PROVIDE FLOOR BOX(ES) FLUSH IN FLOOR IN THIS LOCATION TO ACCOMMODATE FURNITURE ACCESS PANEL. FLOORBOX SHALL BE 'WIREMOLD' #881RC4ATCBK BOX WITH (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES AND (2) TELECOM OUTLETS. PROVIDE DUAL BRANCH CIRCUIT – ONE (1) DUPLEX RECEPTACLE TO BE ON ONE (1) SWITCHED CIRCUIT (SWITCHED ON TIMESWITCH), AND THE OTHER DUPLEX RECEPTACLE TO BE ON ONE (1) UNSWITCHED CIRCUIT.
4. LOCATION OF SWITCHES FOR SALES LIGHTING. REFER TO LIGHTING PLAN AND LIGHTING CONTROL DIAGRAM ON SHEET E1.
5. TWO (2) OUTLETS OF QUAD RECEPTACLE TO BE SWITCHED ON BY TIMESWITCH, AND THE OTHER TWO (2) OUTLETS TO BE UNSWITCHED. PROVIDE BLACK ADHESIVE LABEL WITH 1/4" LETTERING INDICATING "SWITCHED FOR LIGHTING". SEE KEYNOTE 1.
6. STUB CONDUITS UP THRU WALL. STUB DATA AND TELEPHONE CONDUITS OUT OF WALL AND INTO ACCESSIBLE CEILING SPACE. FIELD VERIFY STUB–UP LOCATION WITH TENANT REPRESENTATIVE.
7. PROVIDE 'WIREMOLD' #881RC4ATCBK FLOOR BOX WITH (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES AND (2) TELECOM OUTLETS. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
8. OUTLETS AT AATV WALL SHALL BE MOUNTED AT +20" AFF.
9. (2) DATA PORTS IN CEILING FOR SHOPPERTRAK, FURNISHED AND INSTALLED BY OTHERS. CENTER OVER ENTRY DOOR.
10. GC TO SAW CUT CONCRETE FLOOR FOR EC TO INSTALL NEW CONDUITS TO NEW FLOOR BOX(ES). PROVIDE (1) 3/4"C. WITH POWER WIRING FOR RECEPTACLE(S), (1) 1"C. WITH PULLWIRE FOR DATA OUTLET(S), AND (1) 2"C. FOR USB/HDMI CABLES. EC TO PROVIDE TRENCHING BACKFILL AND COMPACTION OF BACKFILL. PATCHING BY GC. REFER TO POWER/COMMUNICATIONS PLAN ON SHEET R1.1 FOR ADDITIONAL INFORMATION. FIELD VERIFY ROUTING OF CONDUIT.
11. PROVIDE 'WIREMOLD' #881RC4ATCBK FLOOR BOX WITH (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES AND (4) TELECOM OUTLETS. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
12. NEW INSTANTANEOUS WATER HEATER – 208V/1ø, 4.1 KW. FURNISH AND INSTALL 30A–2P DISCONNECT SWITCH AT UNIT. CIRCUIT AS SHOWN.
13. PROVIDE 'WIREMOLD' #RFB4E FLOOR BOX WITH #2HUB ACCESSORY, #6CTBKTR COVER, (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES AND (2) TELECOM OUTLETS. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
14. GC TO SAW CUT CONCRETE FLOOR FOR EC TO INSTALL NEW CONDUIT TO NEW FLOOR BOX. PROVIDE (1) 1"C. WITH PULLWIRE FOR DATA OUTLET(S). EC TO PROVIDE TRENCHING BACKFILL AND COMPACTION OF BACKFILL. PATCHING BY GC. REFER TO POWER/COMMUNICATIONS PLAN ON SHEET R1.1 FOR ADDITIONAL INFORMATION. FIELD VERIFY ROUTING OF CONDUIT.
15. 2"C. STUB–UPS BEHIND FIXTURE (OUTSIDE OF WALL), FLUSH WITH CONCRETE.
16. PROVIDE FLOOR BOX FLUSH IN FLOOR IN THIS LOCATION TO ACCOMMODATE FURNITURE ACCESS PANEL. FLOORBOX SHALL BE 'WIREMOLD' #881RC4ATCBK BOX WITH (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES. PROVIDE DUAL BRANCH CIRCUIT – ONE (1) DUPLEX RECEPTACLE TO BE ON ONE (1) SWITCHED CIRCUIT, (SWITCHED ON TIMESWITCH), AND THE OTHER DUPLEX RECEPTACLE TO BE ON ONE (1) UNSWITCHED CIRCUIT.
17. PROVIDE FLOOR BOX FLUSH IN FLOOR IN THIS LOCATION TO ACCOMMODATE FURNITURE ACCESS PANEL. FLOORBOX SHALL BE 'WIREMOLD' #881RC4ATCBK BOX WITH (2) 20 AMP, 125V, 3W DUPLEX RECEPTACLES AND (2) TELECOM OUTLETS. PROVIDE DUAL BRANCH CIRCUIT – ONE (1) DUPLEX RECEPTACLE TO BE ON ONE (1) SWITCHED CIRCUIT, (SWITCHED ON TIMESWITCH), AND THE OTHER DUPLEX RECEPTACLE TO BE ON ONE (1) UNSWITCHED CIRCUIT.
18. NEW ROOF TOP UNIT WITH FACTORY WIRED WEATHERPROOF/GFI RECEPTACLE. FURNISH AND INSTALL NEW 30A–3P, NON–FUSED DISCONNECT SWITCH. CIRCUIT AS SHOWN.
19. CONTRACTOR SHALL PROVIDE NEW DUCT DETECTOR. REFER TO FIRE ALARM NOTES ON THIS SHEET FOR ADDITIONAL INFORMATION.

FIELD VERIFY ALL EXISTING CONDITIONS

FIRE ALARM NOTES:

1. THIS CONTRACTOR SHALL INCLUDE ALL FIRE ALARM COSTS IN HIS BID. THIS INCLUDES PERMIT, ALL NEW INSTALLATIONS AS WELL AS ANY ALTERATIONS TO THE EXISTING BUILDING SHELL FIRE ALARM SYSTEM THAT MAY BE REQUIRED.
2. THIS CONTRACTOR SHALL UTILIZE THE LANDLORD'S REQUIRED FIRE ALARM MONITORING COMPANY WHO WILL GENERATE FIRE ALARM DRAWINGS REQUIRED BY LOCAL AUTHORITIES. CONTRACTOR SHALL SUBMIT A COMPLETE ELECTRICAL PLAN TO THE LANDLORD'S REQUIRED FIRE ALARM MONITORY COMPANY FOR THEIR USE.
3. THIS CONTRACTOR SHALL UTILIZE LANDLORD'S REQUIRED FIRE ALARM CONTRACTOR FOR ALL FIRE ALARM WORK REQUIRED.
4. THIS CONTRACTOR SHALL CONTACT LANDLORD'S TENANT COORDINATOR TO OBTAIN CONTACT INFORMATION OF LANDLORD'S REQUIRED FIRE ALARM MONITORING SYSTEM AND REQUIRED FIRE ALARM CONTRACTOR.

   CENTERCAL PROPERTIES, LLC.
   BENJAMIN ARBOGAST
   SENIOR TENANT COORDINATOR

   TEL: 801–451–5993
   FAX: 801–451–7399
   CELL: 801–979–2275

5. DRAWINGS MUST HAVE LANDLORD'S APPROVAL PRIOR TO ISSUING FOR PERMIT.

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plumbing
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#	Description	Date
--	--	--

DARRELL CASE - ENGINEER
99-371400-2202

ISSUED FOR PERMIT

Client Approval

Electrical Power Plan

Project #	17513-UT01
Issue Date	10/22/2013
Scale	As indicated
Drawn by	RAB
Checked by	DRC

E2

of

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
○———	CONDUIT UP +2" UNLESS NOTED
●———	CONDUIT DOWN
— — —	CONDUIT BELOW FLOOR
———	CONDUIT IN CEILING OR WALL 2 #12 THWN–CU
———//———	3 #12 THWN–CU IN 1/2" CONDUIT (2 CIR. & 1 NEUTRAL WIRES)
———//———	4 #12 THWN–CU IN 3/4" CONDUIT (3 CIR. & 1 NEUTRAL WIRES)
———//——— 0	3 #12 THWN–CU IN 1/2" CONDUIT (1 CIR. WITH DEDICATED GND)
	HOME RUN
J	JUNCTION BOX
E/R	20A, 1P, 125V, GROUNDING TYPE DUPLEX RECEPTACLE, E = EXISTING; R = EXISTING RELOCATED
	20A, 1P, 125V, DEDICATED GROUNDING TYPE DUPLEX RECEPTACLE
	20A, 1P, 125V, GFCI TYPE DUPLEX RECEPTACLE
	20A, 1P, 125V, GROUNDING TYPE DOUBLE DUPLEX RECEPTACLE
	20A, 1P, 125V, DEDICATED GROUNDING TYPE DOUBLE DUPLEX RECEPTACLE
B	LOW VOLTAGE BELL
	EXHAUST FAN
$	LIGHT SWITCH
$d	DIMMER SWITCH
$OS	OCCUPANCY SENSOR SWITCH
OS	CEILING OCCUPANCY SENSOR
(#T)	TELEPHONE OUTLET ROUGH–N WITH 3/4"C. AND PULL WIRE TO ABOVE ACCESSIBLE CEILING (#T = QUANTITY OF TELEPHONE OUTLETS)
(#D)	DATA OUTLET ROUGH–N WITH 3/4"C. AND PULL WIRE TO ABOVE ACCESSIBLE CEILING (#D = QUANTITY OF DATA OUTLETS)
	COMBINATION TELEPHONE/DATA OUTLET ROUGH–N WITH 3/4"C. AND PULL WIRE TO ABOVE ACCESSIBLE CEILING
C (#C)	COAXIAL OUTLET ROUGH–N WITH 3/4"C. AND PULL WIRE TO ABOVE ACCESSIBLE CEILING (#C = QUANTITY OF DATA OUTLETS)
G11a	INCANDESCENT FIXTURE. TYPE "G". CIRCUIT #11. SWITCH a.
R	FLUORESCENT FIXTURE. R = EXISTING RELOCATED
NL	FLUORESCENT FIXTURE WITH EMERGENCY BALLAST. NL = NIGHT LIGHT
	1 LAMP STRIPLIGHT
R	WALL MOUNTED EMERGENCY LIGHT. R = EXISTING RELOCATED
	DISCONNECT SWITCH
LV	LOW VOLTAGE
+12"	12" ABOVE FLOOR LINE OF AREA WHERE SHOWN
J 30	UNFUSED SAFETY SWITCH (AMPS)
J 30/20	FUSED SAFETY SWITCH (AMPS SW/FUSE)
	POWER PANEL
F	FIRE ALARM MANUAL PULL STATION
FSD	FIRE ALARM SMOKE DETECTOR
FDSD	FIRE ALARM DUCT SMOKE DETECTOR
FH	FIRE ALARM HEAT DETECTOR
FDH	FIRE ALARM MAGNETIC DOOR HOLD OPEN DEVICE
F	FIRE ALARM STROBE – WALL MOUNTED
F	FIRE ALARM HORN/STROBE – WALL MOUNTED
F	FIRE ALARM HORN/STROBE – CEILING MOUNTED
FFS	FIRE ALARM FLOW SWITCH
FTS	FIRE ALARM TAMPER SWITCH

Note! Manufacturers' names on which the specification is based indicate the minimum quality of product required. Substitution may be made to those specified if deemed equivalent by the owner's representative. All work and products shall meet the requirements of the landlord.

1. The general conditions and supplementary general conditions shall be considered as part of this specification.

2. Contractors shall visit site prior to bidding. Bids shall serve as evidence of knowledge of existing conditions. Field verify Landlord's electrical and telephone equipment and distance from leased space.

3. Furnish all labor, materials, equipment and tools to perform electrical work shown, noted or scheduled for a complete and finished installation.

   All materials and equipment shall be commercial grade and shall carry a U.L. label.

   Materials, products and equipment, including components thereof shall be new and such as appears on the Underwriter's Laboratory list of approved items and shall meet the requirements of recognized standards.

   Equipment shall be sized in conformity with requirements of the National Electrical Code (NEC) and other applicable codes.

4. The word "provide" as used herein means to furnish and install complete.

5. All work to be in accordance with NEC and all applicable federal, state, and local codes.

6. Secure and pay for all required permits and inspection certificates.

7. Submit material lists and shop drawings for major equipment to the architect for approval. Submittals shall be in accordance with general conditions and shall bear the stamp of the electrical contractor showing that he has reviewed and approved them. Lack of such contractor's approval will be cause for rejection without review by the architect.

8. Scope of work:

   Provide electrical service to space per drawings and landlords requirements.

   Install new lighting fixtures, per schedule.

   New receptacles as indicated.

   If applicable, circuiting of relocated panel(s). Provide new circuit breakers as required. Relocate transformer.

   Provide telephone service and telephone system raceway and junction boxes. All telephone system wiring and devices within tenant space furnished and installed by Electrical Contractor.

   Testing of all cables and circuit wiring after installation.

   Testing of all electrical equipment.

   Provision for temporary construction power.

   Warranty of all work for a period of one year from date of project close–out.

9. Conduit shall be standard steel, rigid IMC or EMT (thin wall). Conduit shall be concealed in finished areas. Except as otherwise approved by Landlord's representative. EMT connections shall be compression type.

   Minimum sizes of conduit shall be 3/4" except 1/2" for switch legs. EMT shall be galvanized or electro–galvanized. EMT shall be used for feeders and branch circuits run above suspended ceilings or concealed in interior partitions. EMT shall not be concealed in poured concrete floor or walls.

   Use heavy wall conduit or IMC for under slab installations. IMC is permitted with screw connections.

   Flexible metal conduit may be used only for short connections to fixtures and equipment, as permitted by code. Maximum length 5'–0".

10. All conductors shall be soft drawn, annealed copper, with 600V insulation:

    #10 and smaller– solid with single braid.

    #8 and larger– stranded with at least double braid.

    All wiring to be 2 #12, unless otherwise noted. #14 may be used for control applications. All low voltage wiring not required to be in conduit shall be fire retardant plenum rated.

    All wire and cable shall be new and shall be brought to the site in unbroken packages.

    General wiring shall have THW, THHN, or THWN insulation.

    Aluminum conductors are not permitted.

    Wire connectors shall be equal to Scotchlock for #8 and smaller, and T&B "Lock–Tite" for #6 and larger.

    Wires shall be color coded and followed throughout for feeders and branch circuits and used as a basis for balancing loads:

    Use 10 Awg (minimum) conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.

    Use 10 Awg (minimum) conductors for 20 ampere, 277 volt branch circuits longer than 150 feet.

120/208 Y VOLTS		277/480 Y VOLTS	
PHASE	COLOR	PHASE	COLOR
A	BLACK	A	YELLOW
B	RED	B	BROWN
C	BLUE	C	ORANGE
NEUTRAL	WHITE	NEUTRAL	WHITE W/TRACER OR GRAY
GROUND	GREEN	GROUND	GREEN

11. Boxes and fittings:

    Boxes and fittings shall be new, top quality and located where required to install the conductors in compliance with the prevailing codes. approved manufactures are: STEEL CITY, RACO or APPLETON.

    Sheet metal boxes: NEMA OS 1.

    cast metal boxes: NEMA FB 1, type FS or FD, cast ferroalloy box with gasketed cover.

    Boxes in fire–rated walls shall have a fire rating equal to or greater than the rating of the wall.

12. Wiring Devices:

    Wall switches, single pole, double pole, and three way shall be spec. grade, 20A, 120/277V, with screw terminals, equal to Hubbell #HBL1221. manufacturer shall be Hubbell, Bryant, Pass and Seymour or Leviton.

    General duty duplex receptacles shall be 2–pole, 3–wire grounding type, commercial grade, 20A, 125V equal to Hubbell #5362. Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Ground fault interrupter receptacle shall be, white, duplex receptacles, feed–through type, capable of protecting connected downstream receptacles on a single circuit, 20A, 120V, 60 HZ; with solid–state ground fault sensing and signaling; with 5 milliamperes ground–fault trip level equal to Hubbell #GF5362. Approved Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Weatherproof receptacle cover shall be Hubbell #WP826MP. Approved Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Dedicated duplex receptacles shall be 2–pole, 3–wire grounding type, red, commercial grade, 20A, 125V equal to Hubbell #5362–R. Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Wiring device accessories including all wall plates shall be provided at each device. Wall plates shall be same color as device and manufactured as a companion to the device. All wiring devices shall be white, unless otherwise noted.

    Mounting heights of devices shall be to the following centerlines, unless otherwise noted:

Toggle switches	4'–0"
Receptacles	1'–6'
Telephone outlets	4'–6'
Disconnect switches (TOP)	5'–6'
Panelboards (TOP)	6'–0"

13. Grounding system: This contractor shall provide, install, and connect a complete system of grounding for all equipment and structures. Mechanical and electrical connection shall be made with approved grounding connectors.

    Electrical system and equipment grounds shall comply with all local, state, and NEC codes and regulations.

    Panels, conduit systems, motor frames, lighting fixtures and other equipment that are a part of this installation shall be securely grounded.

    Main grounding system shall be sized to confirm with section 250 of the NEC. Provide conduit to protect ground wire from damage to an area 6'–0" above floor.

    Ground all 3 wire receptacles to the outlet boxes.

    Ground conductor shall be supplied in all non–metallic conduit.

14. Panelboards: Panelboards shall be dead front and consist of cabinets, interiors, bus, main and branch circuit protective devices, main lugs, and all necessary equipment for a complete panelboard. Detailed characteristics such as number of branches, frame or ampere rating, trip, bus size, type mounting or voltage ratings, shall be as shown on the drawings.

    Cabinet shall be fabricated of code gauge, hot galvanized steel with adequate gutters. Joints shall be welded and reinforced where required. The outside of surface mounted cabinets shall be finished with one coat of zinc chromate primer and at least one coat of gray enamel. Load center type panelboards are not acceptable.

    Trim and panelboard front shall be made of cold–rolled steel of code gauge steel. Trim shall have doors with concealed hinges and have a flush type combination lock and catch or a multiple point contact catch. Each lock shall be provided with two keys. All panelboards shall be keyed alike. Furnish and install a typed index identifying the panelboard and indicating the circuit number with the description or function of the associated branch circuit. Index shall be mounted under a clear glass or plastic protective cover. Trim shall be cleaned, and given a prime coat of paint and at least one finished coat of gray enamel.

    All lugs shall be of the solderless type.

    All panelboards shall have engraved nameplates identifying panelboards as indicated by Owner. All panelboard switches and circuit breakers shall be labeled as directed by Owner.

    277/480 volt panels shall be equal to Square D type NF with type EDB (25000 AIC) bolt–on circuit breakers.

    120/208 volt panels shall be equal to Square D type NQOD with type QO–VH (22000 AIC) bolt–on circuit breakers.

15. Work in electrical panel shall include:

    Check and tighten all connections and wiring.

    Verify operation of all breakers.

    New circuit breakers shall be quick–make, quick–break, trip indicating type and ambient compensating. Circuit breakers shall be bolt on type, minimum interrupting shall be as noted on panel schedule.

    Breakers serving lighting circuits shall be rated for switch service. Breakers serving HVAC equipment shall be HACR rated.

    Provide "Lock–on" device at breakers serving cash register, night light/emergency, fire alarm equipment and time switch circuits, as indicated on the panel schedule.

    Provide new panel directory, typed and installed behind clear plastic cover on inside of the door.

    Panel shall be circuited so that the load is distributed evenly across all three phases to within 10% per NEC.

16. Safety and disconnect switches: Provide safety and disconnect switches, fused or non–fused, as called for on drawing and as required by code. Switches shall be heavy duty, load and horsepower rated. Square D type H. Switch enclosure to be suitable for application.

17. Fuses: Cartridge fuses shall be one time Bussmann "Fusetron", "Low–peak", or "Hi–cap", sized according to the load or as indicated on the drawings.

    Provide fuses in all switches requiring them. In addition, furnish to the Owner one set of each size and type fuse on the job.

18. Dry type transformers: Transformers shall be of KVA rating as noted on the drawings, 2 winding, dry type, 3 phase, with six 2–1/2% taps, 2 above and 4 below normal primary voltage. Transformer shall be NEMA type 1, quiet type with core and coils isolated from the case by vibration dampers. Transformers shall be Square D type Watchdog (TP–1),

19. Seismic restrains on electrical equipment: All electrical equipment shall be provided with seismic restraining services as required by local building Codes. Contractor shall have local building office review each piece of equipment when installed and the Contractor shall install all required tie down, anchors, straps or other devices required.

20. Telephone system: Make arrangements with the local utility for installation of telephone service.

    Conduit system for telephone distribution within tenants premises shall be provided as required by code or as indicated on the drawings. Telephone rough–in outlet boxes shall be 4" square minimum with single device cover and telephone plate.

21. This contractor shall make arrangements for temporary power and shall pay the cost for the utility connection and shall be responsible for the proper maintenance of the temporary work and for the removal of same.

    Contractor shall pay all utility charges in connection with the temporary power.

    Contractor shall provide ground fault protection for all equipment used on the premises during construction.

22. This contractor shall do all cutting, chasing, or channeling and patching required for any work herein specified. Any cutting shall have prior approval by the landlord.

    Contractor is responsible to take whatever measures are necessary including but not limited to those measures prescribed by the landlord in the exercise of its reasonable judgment to assure that coreboring will not damage landlord's structure, conduits, etc. or the work of other tenant's below. The cost of such tests or repair of any damage will be borne by this contractor.

    All sleeved, openings, etc. through fire rated walls and floors shall be sealed after conduit installation with sealer equal to or exceeding fire rating of floor or wall.

23. All electrical work shall be installed so as to be readily accessible for operating, servicing, maintaining and repair.

    Hangers shall include all miscellaneous steel, such as channels, rods, etc., necessary for the installation of work and shall be secured to the building structure, not to piping or ductwork.

    All conduit shall be concealed where possible. Exposed conduit shall be run in straight lines parallel with or at right angles to column lines and separated at least 3" from water lines wherever they run along side or across suck lines.

24. Lighting Fixtures: The contractor shall install a new lighting fixture of the type specified for each lighting outlet shown with complete lamps or tubes. All fixtures shall be hung and mounted in place, properly wired, tested and left ready for operation.

    Note! This contractor shall refer to architectural reflected ceiling plan, for fixture schedule and shall install fixtures as dimensioned on that plan.

    The Owner selects and provides all lighting fixtures, complete with accessories and lamps. Refer to the light fixture schedule on Electrical drawings.

    Fixtures provided by Owner workshop shall be shipped to the site for installation by the electrical contractor. The contractor shall survey the shipment to verify fixture quantities and damages. In the event that shipment is incomplete or damaged, contractor shall inform Owner.

    After the shipment is verified and accepted, contractor shall move fixture to an area of safety for storage until they may be installed. He assumes responsibility for the fixtures until the project is turned over to the owner.

25. Painting of electrical conduits, etc,. if required, will be by general contractor.

26. Electrical contractor shall record all field changes in his work as the job progresses, and upon completion shall turn over to the tenant a record set of prints showing these changes.

27. At the completion of job, contractor shall replace any lamps that have burned out, new and existing, clean all fixtures, touch up any scratches and replace any fixtures that have been damaged.

28. Guarantee:

    Materials, equipment and installation shall be guaranteed for a period of one year from the date of acceptance. Defects which appear during that period shall be corrected at this contractor's expense.

    For the same period, electrical contractor shall be responsible for any damage to the premises caused by defects in workmanship or in the work or equipment furnished and/or installed by him.

29. It is the intent that the foregoing work shall be complete in every respect and that any material or work not specifically mentioned or shown on the drawings, but necessary to fully complete the work shall be furnished.

30. The location of receptacles and fixtures shown on the drawing is approximate and the owner shall have the right to relocate any receptacles or fixtures before they are installed without additional cost.

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#	Description	Date
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DARRELL CASE - ENGINEER
99-371400-2202

ISSUED FOR PERMIT

Client Approval

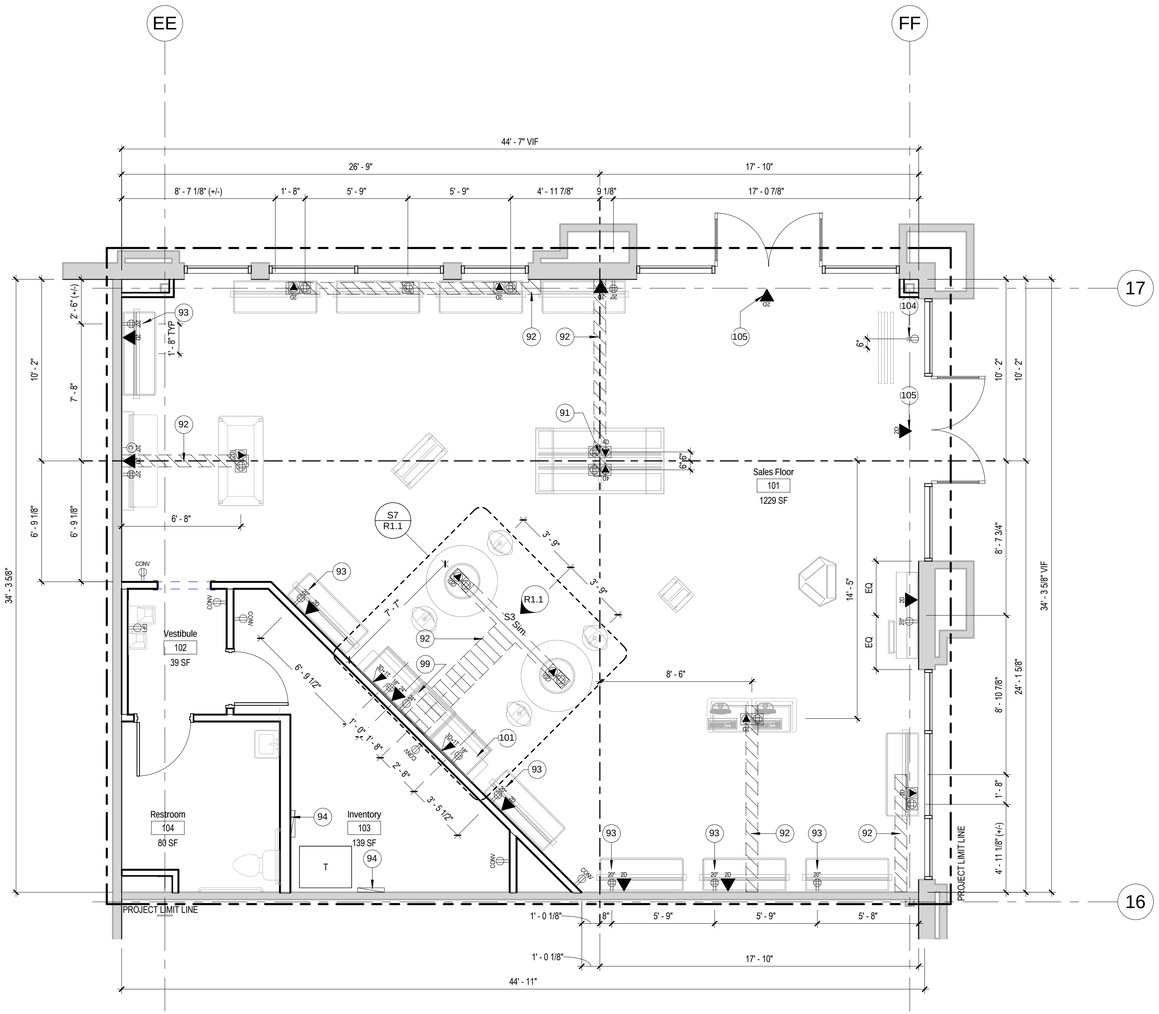
Electrical Specifications & Symbols Legend

Project #	17513-UT01
Issue Date	10/22/2013
Scale	As indicated
Drawn by	RAB
Checked by	DRC

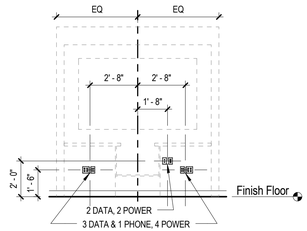
E3

of

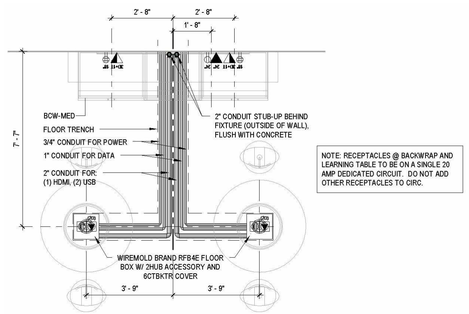
2/1/2013 11:14:44 AM Tysons Corner (Rev RSO)



M3 Power/Communications Reference Plan
1/4" = 1'-0"



S3 Elevation @ MED-BCW
1/4" = 1'-0"



S7 Power/Data Enlarged Plan @ BCW & LT
1/8" = 1'-0"

Sheet Notes

A. GC to provide all wiring in full compliance with the most current AT&T IT Standards, RFP V2.5 or later.
B. Electrical information shown for reference only. Reference Electrical drawings for engineering design information.
C. Data outlet information shown for location reference only. Reference electrical drawings for additional information.
D. Provide pull strings in all voice/data outlet conduit.
E. Grommit locations to be coordinated through GC with Owner.
F. Sawcut and remove exist. slab shown for new MEP work. Coordinate locations on fixture and MEP drawings. Patch and repair flooring as noted. GC to coordinate with Landlord's on-site representative prior to cutting or drilling existing slab.
G. If Electrical Contractor not providing data/voice cabling, then install pull-string within each conduit for later installation by Cabling Vendor.
H. All existing electrical outlets under 24" AFF to be left as convinence outlets. All faceplates to be white - replace as required.

Key Notes

Key #	Keynote Text
91	Location of floor box for Future Fixture - must locate here in order to accomodate access hatch within fixture. Provide dual branch circuit fourplex receptacle, non-switched. Multiple selling stations can be grouped per electrical equipment list.
92	Floor saw cutting, concrete removal, installation of dowels & wire mesh reinforcing, repouring 4" concrete slab shall be by the G.C. Trenching, installation of conduits, backfilling & compaction of backfill by E.C. 4" concrete slab shall by dowelled into existing slab with #5 dowels, 6" into existing slab and extend 1'-0" into new slab pour. The new slab wire mesh reinforcement to 1'-0" section or dowel sticking out of exisitng slab. Reference Sheet R1.1 for floor box/stub-up locations.
93	Provide dual branch circuit fourplex receptacle; 2 outlets switched (control fixture lighting), 2 outlets hot - Provide black adhesive label with 1/4" lettering indicating "SWITCHED FOR LTG." Adhered to the half of the fourplex providing power to switched lighting.
94	Electrical panels to be coordinated with Landlord.
99	Receipt printer, 24" AFF dedicated circuit (multiple printers can share the same circuit)
101	Lighting @ Backwrap to be provided by fixture vendor, and shall be set as night lights.
104	Provide one outlet centered on display element (window banner). Mount to ceiling above display element or to adjacent wall above storefront windows as needed (see reference plans). Add additional outlets as required per code.
105	2 Data port in ceiling for Shoppertrak, furnished and installed by others. Center over entry door.

NOTE: THESE DOCUMENTS CONTAIN INFORMATION PERTAINING TO THE ARCHITECTURAL SCOPE OF WORK ONLY. FOR THIS PROJECT ENGINEERING DESIGN, DOCUMENT AND SPECIFICATION PREPARATION, AS REQUIRED FOR ALL OTHER DISCIPLINES, HAVE BEEN PREPARED BY OTHERS AND ARE NOT THE RESPONSIBILITY OF THE ARCHITECT/OCULUS INC. INFORMATION INDICATED ON THESE DRAWINGS/DOCUMENTS SHOWING OR REFERENCING MECHANICAL, ELECTRICAL, PLUMBING OR FIRE PROTECTION INFORMATION WHERE IT OCCURS HAS BEEN PROVIDED AS REFERENCE INFORMATION AND IS FOR DESIGN COORDINATION PURPOSES ONLY. THE ENGINEERING DESIGNERS, AS LICENSED AND QUALIFIED PROFESSIONALS, UNDER CONTRACT TO OTHERS, SHALL REMAIN SOLELY RESPONSIBLE FOR ALL DESIGN AND APPLICABLE CODE COMPLIANCE MATTERS RELATIVE TO THEIR RESPECTIVE DISCIPLINES. THIS SHALL INCLUDE ADDRESSING AND RESOLVING ANY PLAN REVIEW COMMENTS RELATIVE TO THEIR SPECIFIC SCOPE OF WORK. THE PROJECT ENGINEERING DESIGNERS SHALL ENDEAVOR TO BRING TO THE ATTENTION OF THE ARCHITECT/OCULUS INC. ANY DESIGN CHANGE OR CODE COMPLIANCE ITEMS IMPACTING THE ARCHITECTURAL SCOPE OF WORK AS EXPEDITIOUSLY AS POSSIBLE.

Power/Communications Reference Legend

MEP/HVAC Drawings shall Govern

- Duplex Outlet
- Duplex Outlet Dedicated
- Quad Outlet
- Quad Outlet Dedicated
- Coaxial Cable Outlet
- Floor Data Outlet
- Data Outlet
- Voice Outlet
- Voice/Data Outlet
- Thermostat
- Floor Duplex Outlet
- Coaxial Cable Outlet
- Mud Ring

A "+" Indicates that the associated fixture is to be installed so that the bottom of the cover plate is 1" above the countertop backsplash.

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#	Description	Date

FOR DESIGN INTENT REFERENCE ONLY

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Client Approval

Reference Plans

Project #	17513-UT02
Issue Date	10/22/2013
Scale	As indicated
Drawn by	MAP
Checked by	MTB

R1.1

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Template V2.2 Last Updated 09/9/08

10/23/2013 11:36:05 AM Farmington, UT