State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL
Lt. Governor

Department of Administrative Services
KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management
DAVID G. BUXTON
Director

ADDENDUM NO. 4

Date:	February 29, 2012
To:	Contractors
From:	Darrell Hunting – Project Manager
Reference:	New Tooele Applied Technology College Utah College of Applied Technology – Tooele, Utah DFCM Project No. 11064280
Subject:	**Addendum No. 4**

Pages	Addendum Cover Sheet	1	page
	Revised Project Schedule	1	page
	Revised Cost Proposal Form	3	pages
	Architect Addendum No. 4	100	pages
	Total	105	pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

4.1 SCHEDULE CHANGES: See attached Revised Project Schedule. Changes are highlighted.

4.2 GENERAL ITEMS:

4.2.1 Project budget is increased to $12,250,000.
4.2.2 See attached Revised Cost Proposal Form. Additive Alternate No. 7 is removed as these items are included in the base bid.
4.2.3 See attached Architect's Addendum No. 4 dated February 29, 2012.

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

PROJECT SCHEDULE– REVISED PER ADDENDUM NO. 4 DATED FEBRUARY 29, 2012

PROJECT NAME: **NEW TOOELE APPLIED TECHNOLOGY COLLEGE BUILDING**
UTAH COLLEGE OF APPLIED TECHNOLOGY – TOOELE, UTAH

DFCM PROJECT NO. **11064280**

Event	Day	Date	Time	Place
Request for Proposals and Construction Documents Available	Friday	January 20, 2012	3:00 PM	DFCM web site *
Mandatory Pre-Proposal Site Meeting	Wednesday	February 1, 2012	1:00 PM	Room 159 USU – Tooele Regional Campus 1021 West Vine Street Tooele, UT
Last Day to Submit Questions prior to submittal of Statements of Qualifications	Friday	February 3, 2012	1:00 PM	Darrell Hunting - DFCM E- mail: dhunting@utah.gov
Addendum Deadline	Tuesday	February 7, 2012	1:00 PM	DFCM web site *
Prime Contractors turn in References, Statements of Qualifications, Management Plans (including Schedule), and Termination/Debarment Certifications	Tuesday	February 14, 2012	12:00 NOON	DFCM 4110 State Office Bldg SLC, UT
Short Listing by Selection Committee (if applicable) and Final Bid Set Issued	Friday	February 17, 2012	4:00 PM	DFCM web site *
Last Date to Submit Questions for Final Addendum	Thursday	February 23, 2012	12:00 NOON	Darrell Hunting - DFCM E- mail: dhunting@utah.gov
Final Addendum Deadline (exception for bid delays)	Wednesday	February 29, 2011	1:00 PM	DFCM web site *
Prime Contractors Turn In Cost Proposals	**Wednesday**	**March 7, 2012**	**12:00 NOON**	**DFCM** **4110 State Office Bldg** **SLC, UT**
Subcontractor List Due	**Thursday**	**March 8, 2012**	**12:00 NOON**	**DFCM** **4110 State Office Bldg** **SLC, UT** **Fax 801-538-3677**
Prime Contractors Submit Cost Reduction Proposals	**Monday**	**March 12, 2012**	**12:00 NOON**	**DFCM** **4110 State Office Bldg** **SLC, UT**
Cost Reduction Review	**Tuesday**	**March 13, 2012**	**TBD**	**TBD**
Interviews	Thursday	March 15, 2012	TBA	USU – Tooele Regional Campus 1021 West Vine Street Tooele, UT
Announcement	Friday	March 16, 2012	4:00 PM	DFCM web site *
Substantial Completion Date	Friday	May 31, 2013		

* **DFCM's web site address is http://dfcm.utah.gov.**

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

COST PROPOSAL FORM – REVISED PER ADDENDUM NO. 4 DATED FEBRUARY 29, 2012

NAME OF PROPOSER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Request for Proposals" for the **NEW TOOELE APPLIED TECHNOLOGY COLLEGE BUILDING - UTAH COLLEGE OF APPLIED TECHNOLOGY – TOOELE, UTAH - DFCM PROJECT NO. 11064280** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

BASE BID: For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 1: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide and install a vehicle five-ton crane, I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 2: **NOT USED**

ADDITIVE ALTERNATE NO. 3: **NOT USED**

ADDITIVE ALTERNATE NO. 4: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide and install a compressed air system, I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 5: For all work shown on the Drawings and described in the Specifications and Contract Documents to install a commercial driving range, I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 6: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide and install kitchen equipment, I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE NO. 7: NOT USED

ADDITIVE ALTERNATE NO. 8: For all work shown on the Drawings and described in the Specifications and Contract Documents to provide and install a dust collection system (Construction Technology Shop), I/we agree to perform for the sum of:

_____DOLLARS ($_____)
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by _____ ***(specific date to be provided by contractor),*** should I/we be the successful proposer, and agree to pay liquidated damages in the amount of **$1,000** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract. The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable l00% Performance and Payment bonds are not delivered within the time set forth.

COST PROPOSAL FORM
PAGE NO. 3

Type of Organization:

_____
(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

_____

Respectfully submitted,

_____
Name of Proposer

ADDRESS:

_____

_____

_____
Authorized Signature

TATC
Tooele Applied Technology College
A UCAT Campus

METHOD STUDIO INC.

DFCM

Division of Facilities Construction and Management
4110 State Office Building Salt Lake City, UT 84114
Telephone (801) 538-3018 FAX (801) 538-3267

ADDENDUM NO. 4
February 28th, 2012

Tooele Applied Technology College New Building
Tooele, Utah

The original specifications and drawings, dated January 20th, 2012 and amended in Addendum No.2, dated February 10th 2012 and Addendum No. 3, dated February 17th 2012, for the project referenced above are amended in Addendum No. 4, dated February 28th 2012.

Receipt of this addendum shall be acknowledged by inserting its number and date in the space provided on the bid form.

This addendum consists of the following:

CIVIL ADDENDUM ITEMS:

AD4-C01 Sheet CD101
Updated demolition of water meter on the North end of the site and location of asphalt saw cut and patch for extension of fire lines to the site fire hydrants. See attached sheet.

AD4-C02 Sheet CS101
Added ADA ramps to northwest corner of the site and the location directly across Toole Boulevard from 200 South. Called for all ADA ramps in the city right of way to be built to city standards. Updated patch location for fire hydrants extended to the site. Indicated additional curb and gutter to be replaced due to demolition of water meter on the North end of the site. See attached sheet.

AD4-C03 Sheet CS101a
Called for all ADA ramps in the city right of way to be built to city standards. See attached sheet.

AD4-C04 Sheet CS102
Added additional striping of car pool stalls and car pool and ADA drop off zone. Added striping of crosswalk from the site to the southeast corner of the intersection of 200 South and Tooele Boulevard. See attached sheet.

AD4-C05 Sheet CU101
Added the installation of a 12” water main in Tooele Boulevard alignment along with a reducer and relocated a fire hydrant and an additional connection to the 12” existing main. Upsized a valve on the 12” line from 8”, as previously indicated, to 12”. See attached sheet.

AD4-C06 Sheet CD501
Updated detail 9 to reflect comments from the city on acceptable piping materials and thrust restraints. See attached sheet.

AD4-C07 Sheet CD502
Updated detail 15 to reflect concrete thickness indicated by a "T" rather than a 4" thickness. Thickness to be indicated on the site plan where paving is called out. See attached sheet.

LANDSCAPE ADDENDUM ITEMS:

AD4-L01 Sheet L101
Updated Dimensions in back patio to match new planter design due to stair and landing pad addition. See attached sheet.

AD4-L02 Sheet L201
1. Updated Planting and hardscape(paver patio) Layout around new stair and landing addition. See attached sheet.
2. Add gravel banding where trees occurred in back patio area in two locations as shown on sheet L201. See attached sheet.

AD4-L03 Sheet L301
Updated Irrigation areas around new stair and landing addition. See attached sheet.

ARCHITECTURAL ADDENDUM ITEMS:

PRIOR APPROVALS
The following manufacturers, trade names and products are allowed to bid on a name brand only basis with the provision that they completely satisfy all and every requirement of the drawings, specifications and all addenda. Manufacturers, trade names and products shall conform to the design, quality and standards specified, established and required for the complete and satisfactory installation and performance of the building and all its respective parts.

Item	Manufacturer	Comments
Glazing	Guardian	Approved
Storefront	Architectural Facades Inc,	Approved
Curtain Walls	Architectural Facades Inc,	Approved
Weathering Steel 22 ga.	Metals sales	Rejected
Rigid Insulation	Insulfoam	Approved

AD4-A01 Specification section 088000 2.1.C.1 & 2
Remove missile testing requirements 1&2.

AD4-A02 Sheet AE701, AE702, AE703, AE704
AE701, AE702, AE703 added weld information. See attached sheets.
Added external stair, see attached sheet AE704.

AD4-A03 Sheet AE601, AE602, AE603, AE604, AE605
Butt glazing note "WHERE BUTT GLAZING CANNOT BE USED DUE TO WIND LOAD OR MANUFACTURER DESIGN LIMITATIONS USE DETAIL 9/AE503 IN LIEU OF 10/AE503" added to the general door and window schedule notes, same note added to the glazing schedule on sheets AE602, AE603, AE604, AE605.

AD4-A04 Sheet AE601 Door Schedule
Add card reader to door B119

AD4-A05 Sheet AE101
Walls adjusted in Bookstore room B110, casework altered, Bookstore Storage room B110a and doors removed. See attached sheet.

AD4-A06 Sheet AE111
Walls adjusted in Bookstore room B110, Bookstore Storage room B110a and doors removed. See attached sheet.

AD4-A07 Sheet AE151
Ceiling adjusted in Bookstore room B110, Bookstore Storage room B110a removed. See attached sheet.

AD4-A08 Sheet AE171
Walls adjusted in Bookstore room B110, Bookstore Storage room B110a removed. See attached sheet.

AD4-A09 Sheet AE215
Walls adjusted in bookstore see elevations. See attached sheet.

AD4-A10 Sheet AE216
Elevation #1 removed

AD4-A11 Sheet AE217
Casework adjusted in bookstore see elevations. See attached sheet.

AD4-A12 Sheet AE603
Glazing adjusted at the bookstore entry, see elevations. See attached sheet.

AD4-A13 Specification 051200 paragraph 1.5.B
Add the following: 1. Fabricator shall be on the DFCM approved fabricator list at the time of fabrication for this project, the general contractor will be responsible for all special inspections required. For information on getting on the DFCM approved fabricator list, see http://dfcm.utah.gov/downloads/bldg_official/approved_fabricator_requirements.pdf."

AD4-A14 Specification 062013 Exterior Finish Carpentry
Add specification section 062013, see attached.

AD4-A15 Sheet AE501 detail 20
Updated railing details and dimensions. See attached sheet.

AD4-A16 Sheet AE505 detail 10
Typical welds added to detail 10. See attached sheet.

AD4-A17 LEED Scoredcard
Current LEED scorecard, see attached.

AD4-A18 Sheets AE601, AE602, AE603
Change all storefront systems that are 12'-0" and taller to curtain wall systems including but not limited to SF1, SF2, SF7, SF8, SF9, SF10, SF11, SF12, SF13, SF14, SF15, SF17, SF18, SF19, SF 27.

AD4-A19 Sheets AE602, AE603, AE604, AE605
Change all 10/AE503 detail references to 9/AE503.

AD4-A20 Sheet AE101
Add curtain wall call out CW5 to north interior curtain wall vestibule room B102.

STRUCTURAL ADDENDUM ITEMS:

AD4-S01 Sheet SB101
1. Added framing for exterior stair along Grid 7. See attached sheet.
2. Added concrete piers, CP-2, on braced frame along Grid 5. See attached sheet.

AD4-S02 Sheet SB102
1. Added concrete piers on braced frame along Grid 5. See attached sheet.

AD4-S03 Sheet SB504
1. Modified notes 1 and 2 on "Concrete Tilt Panel Jamb Reinforcing Schedule." See attached sheet.

AD4-S04 Sheet SF101
1. Added framing for exterior stair along Grid 7. See attached sheet.

AD4-S05 Sheet SF212
1. Added concrete piers under braced frame on C2/SF212. See attached sheet.

AD4-S06 Sheet SF401
1. Added framing and details for exterior stair along Grid 7. See attached sheet.

AD4-S07 Sheet SF515
1. Modified details A4/SF515 and A5/SF515 regarding steel stud framing clip. See attached sheet.

AD4-S08 Sheet SF112
1. Modified joist loading criteria and member connections at clouded area. See attached sheet.

MECHANICAL AND PLUMBING ADDENDUM ITEMS:
DIVISION – 22 & 23
GENERAL
DRAWINGS

AD4-M01 SHEET - ME602
1. Revise the VAV Box schedule to modify the performance of VR-53. See attached.
2. Revise the fan schedule to modify the performance of EF-3 and EF-5. See attached.

AD4-M02 SHEET - ME601 & ME602 (ACC-1 Air-Cooled Condensing Unit Clarification)
1. The air-cooled condensing unit (ACC-1) was erroneously specified twice (once on ME601 & once on ME602.) Only (1) ACC-1 is required. Remove ACC-1 from sheet ME602 accordingly.

AD4-M03 SHEET - ME601, ME602, ME603

1. The following equipment shall be powder coat painted at the factory. Submit color chart including all available colors from Kwal Paint and Sherwin Williams to architect prior to submittal for approval. Paint the following:
   A. HP-1, HP-2, HP3: Variable Refrigerant Volume Condensing Units
   B. ACC-1: Air Cooled Condensing Unit
   C. ERV-1 & ERV-2: Air-To-Air Energy Recovery Schedule
   D. AH-1, AH-2, AH-3, AH-4: Rooftop Air Handlers
   E. AC-1, 2, 3, 4, 5 & 6: Split System Condensing Units

AD4-M04 SHEET - MH121
1. Add exhaust grille to Janitor B219. See attached.
2. Add supply and return grille to Storage B220.

AD4-M05 SHEET - MH122
1. Add exhaust grille and modify exhaust duct in Workroom B226. See attached.

SPECIFICATIONS
PRIOR APPROVALS

The following manufacturers, trade names and products are allowed to bid on a name brand only basis with the provision that they completely satisfy all and every requirement of the drawings, specifications and all addenda. Manufacturers, trade names and products shall conform to the design, quality and standards specified, established and required for the complete and satisfactory installation and performance of the building and all its respective parts.

Item	**Manufacturer**	**Comments**
Pump Suction Diffusers	Flo Fab	Approved
Triple Duty Valves	Flo Fab	Approved
Pressure Gauges	Flo Fab	Approved
Thermometers	Flo Fab	Approved
Airtrol Fittings	Flo Fab	Approved
Flex Connectors	Flo Fab	Approved
Y-Strainers	Flo Fab	Approved
Manual Air Vents	Flo Fab	Approved
Auto Air Vents	Flo Fab	Approved
Gauge Cocks	Flo Fab	Approved
Venturi	Flo Fab	Approved
Balancing Valves	Flo Fab	Approved
Thermometers	Miljoco	Approved
Strainers & Check Valves	Titan Co.	Approved
Backdraft & Volume Dampers	Leaders	Approved
Combination Fire Smoke Dampers	Leaders	Approved
Smoke Dampers, Fire Dampers	Leaders	Approved
Access Doors	Ward	Approved
Flex Duct	Hart & Cooley	Approved
Dryer Booster Fan	Tjernlund	Approved
Silencers	Dynasonics	Approved
Heat Exchangers	Sondex	Approved
Diffusers, Registers, & Grilles	Turtle & Bailey	Approved
Cat III and IV Vents	Schebler	Approved
Condensing Boilers	Raypack X-Therm, 96% efficiney	Rejected
Gas Fired Radiant Tube Heaters	Combustion Research	Approved
Air to Air Energy Recovery Equip	PennBary	Approved
Fan Wall Custom AHU's	Seasons-4 fn wall units	Rejected
VFD's	Variable Frequency Drives	Approved

Large Rooftop Units	Seasons-4	Rejected
Flat Panel Convectors	Sterling	Approved
Unit Heaters	Sterling	Approved
Cabinet Unit Heaters	Sterling	Approved
Coils	Precision Coils	Approved
Vehicle & Welding Exhaust	NSGV	Approved
S-1, S-2, S-3, S-4	Willoughby Industries	Approved
EWC-1, EWC2	Sunroc / Oasis Corporation	Approved
Faucets	Zurn Plumbing Products Group	Rejected
Support, Water Hammer Arrestors, Cleanouts	ZurN Spec. Drainage Operation	Approved
Wc-1, Wc-2, Wc-3, L-1, L-2, L-3	Zurn Systems One Operation	Rejected
Traps, Stops, & Supplies	Zurn Spec. Traps & Supplies Operation	Approved
Finned Tube	Rittling	Approved
Terminal Units	Rittling	Approved
Panel Radiator	Rittling	Approved
Fan Coil Units	Magic-Aire	Approved
Split System Air Conditioners	LG	Approved
Large Rooftop Units	AnnexAir	Approved
Fanwall Type Custom Air Handling Units	Unitech	Approved
Air to Air Energy Recovery Units	Annex Air, Semco	Approved
Variable Refrigerant Flow System	LG	Approved
Gravity Hoods	Air-Rite Mfg	Approved
Louvers & Vents	Pottorff	Approved
Heat Exchangers	GEA	Approved
HVAC Power Ventilators	Twin City Fan	Approved
HVAC Cabinets	Commercial Acoustics	Approved
Calibrated Balancing Valve	Nexus Valve	Approved
Air Separator	Patterson Pump Co	Approved
Expansion Tanks	Patterson Pump Co	Approved
Pump Suction Diffusers	Patterson Pump Co	Approved
Flexible Connectors	Patterson Pump Co	Approved
HVAC Pumps	Patterson Pump Co	Approved
Boilers	Fulton	Approved
Unit Heater	Sigma Corporation	Approved
Cabinet Unit Heater	Sigma Corporation	Approved
Finned Tube Radiant Panels	Sigma Corporation	Approved
Plate & Frame	HTX APV	Approved
Fan Wall Type Air Handlers	York Custom	Approved

ELECTRICAL ADDENDUM ITEMS:

ELECTRICAL – DIV 26

SPECIFICATIONS

AD4-EL01 **Section 260923 Lighting Control Devices:**

1. Cooper Controls is an acceptable manufacturer of indoor occupancy sensors.

AD4-EL02 **Section 260943 Network Lighting Controls:**

2. Cooper Controls is an acceptable manufacturer.

AD4-EL03 **Section 262200 Transformers:**

3. Synergy Energy is an acceptable manufacturer.

AD4-EL04 **Section 262655 Electric Heat Cables:**

1. Add Specifications Section.

AD4-EL05 **Section 262923 Variable Frequency Motor Controllers:**
1. General Electric is an acceptable manufacturer.

AD4-EL06 **Section 271000 Structured Cabling:**
1. Belden is an acceptable connectivity solution.

AD4-EL07 **Section 281300 Access Control and Security Systems:**
1. Add Specifications Section.

AD4-EL08 **Section 282303 Video Surveillance:**
1. Add Specifications Section.

AD4-EL09 **Section 283111 Fire Alarm:**
1. Mircom is an acceptable manufacturer.

DRAWINGS

AD4-EL10 **Sheet EP111:**
1. Several changes have been made to outlets, floorboxes and circuits. Refer to attached drawing for changes.

AD4-EL11 **Sheet EP112:**
1. Several changes have been made to outlets, floorboxes and circuits. Refer to attached drawing for changes.

AD4-EL12 **Sheet EP113:**
1. Several changes have been made to outlets, floorboxes and circuits. Refer to attached drawing for changes.

AD4-EL13 **Sheet EP121:**
1. Several changes have been made to outlets, floorboxes and circuits. Refer to attached drawing for changes.

AD4-EL14 **Sheet EP122:**
1. Several changes have been made to outlets, floorboxes and circuits. Refer to attached drawing for changes.

AD4-EL15 **Sheet EP123:**
1. Add data outlet near "ATC" panel in Boiler C203.
2. Add conduit and conductor schedule #7 to circuits 2QLB-19 and 2QLB-25 in IT Workroom C204.
3. Change equipment label on AC unit in IT Workroom C204 from AC-6 to AC-5.

AD4-EL16 **Sheet EP130:**
1. Add CU-7 and CU-8 to roof between grids 3 and 4 and E and F. Circuit to 15A/2P circuit breakers; 2QLB-51 and 2QLB-47, respectively.
2. Change equipment tag on CU unit near grids X1 and Y3 from CU-4 to CU-6. Circuit unit to panel 1ELA-2,4.

AD4-EL17 **Sheet EP501:**
1. Add details for server rack power. See attached drawing.

AD4-EL18 **Sheets EP603:**

1. Add AC-7, AC-8, CU-7 and CU-8 to equipment schedule. See attached drawing.

AD4-EL19 **Sheets EP609:**

1. Panel schedules have been updated for panel 2QLB. Refer to attached drawing.

AD4-EL20 **Sheet EL111:**

1. Add exterior fixture near grids D.5 and 6.
2. Revise lighting in Bookstore, Kitchen Storage and Vending near grids D.5 and 5.5.
3. Refer to attached drawing.
4. Add (1) type ET transfer device at emergency fixture in rooms A127, A126, A104, A101 per keynote #1 (the generator is now base bid, not an alternate).
5. Add (4) type ET transfer device at emergency fixtures in Multipurpose Room B103 per keynote #1 (the generator is now base bid, not an alternate).

AD4-EL21 **Sheet EL112:**

1. Add relay numbers at fixtures in Construction Lab C103.
2. Add photocell in Construction Lab C103. Circuit to relay panel 1RA.
3. Refer to attached drawing.
4. Add (1) type ET transfer device at emergency fixture in Construction Technology Classroom C104 per keynote #1 (the generator is now base bid, not an alternate).

AD4-EL22 **Sheet EL113:**

1. Add relay numbers at fixtures in Welding Lab C107.
2. Add photocell in Welding Lab C107. Circuit to relay panel 1RA.
3. Revise circuiting in Corridor C10B and add photocell circuited to relay panel 1RA.
4. Add photocell in CE&R Lab C121. Circuit to relay panel 1RA.
5. Refer to attached drawing.
6. Add (1) type ET transfer device at emergency fixture in rooms C124, C114 and C112 per keynote #1 (the generator is now base bid, not an alternate).

AD4-EL23 **Sheet EL121:**

1. Add exterior lights near grids E and 6.
2. Revise lighting near grids A to B and 4 to 5.
3. Revise lighting in BT Lab A210, USU Class room A204, USU Classroom A205 and IT Classroom A207.
4. Refer to attached drawing.
5. Add (1) type ET transfer device at emergency fixture in rooms A207, A205, A204 and A201 per keynote #1 (the generator is now base bid, not an alternate).

AD4-EL24 **Sheet EL122:**

1. Revise relay circuit number at TX-2 fixtures near grids 5 and F.
2. Revise circuiting at vestibule 101A.
3. Refer to attached drawing.
4. Add (1) type ET transfer device at emergency fixture in CDL Classroom C201 per keynote #1 (the generator is now base bid, not an alternate).

5. Add (1) type ET transfer device in Boardroom B224. Fixture to be controlled by ET device will be adjacent to double doors on south end of room per keynote #1 (the generator is now base bid, not an alternate).

AD4-EL25 **Sheet EL123:**

1. Revise circuiting and add keynote at X-1 fixtures.
2. Refer to attached drawing.
3. Circuit all fixtures marked as emergency to panel 1EHA.

AD4-EL26 **Sheet EL501:**

1. Update relay schedules. Refer to attached drawing.

AD4-EL27 **Sheet EL601:**

1. Delete type E battery packs. All emergency fixtures shall be circuited to generator backed up panelboards.
2. Delete type EDX-2 fixtures. Where drawings show EDX-2 fixtures, substitute type DX-2 fixtures.
3. Add requirement for fixture type TX-2 to have dual ballasts.
4. Prior approvals: The following lighting fixtures have been reviewed and have been found to be acceptable for use on this project, subject to compliance with the requirements of the contract documents:

CX-1: Prudential	BIO-STD 1T8 04' SAL TMW D1 SC UNV
Litecontrol	LG-D-4414T8 SGL CWM * ELB10.71BF 1CWQ-UNIV.VOLT
CM40: Axis	B6W-S-4-T8-2-X-W-UNV-ERS-1
DX-1: Gotham	ALED 35/18 6AR 277
DX-2: Gotham	ALED 35/22 8AR 277
EDX-2: Gotham	ALED 35/22 8AR 277 ELR
DX-2W:	Gotham ALEDW 35/22 8AR 277
DX-3: Edison Price	LED FTD DL/4 2000 3500K X VOL
Gotham	ALED 35/18 4AR 277
E: Sure-Lites	FBP 240H
G-7: Corelite	Z3 W L 2 40 1 UNV 2X2 T1
G-7D: Corelite	Z3 W L 2 40 1D X 2X2 T1
G-9: Corelite	Z3 W L 2 N5 UNV 2X2 T1
G-12: Corelite	Z3 W L 2 T8.71BF 1 UNV 24 T1
G-12D: Corelite	Z3 W L 2T8 1 D UNV X 24 T1 SD

G-13: Corelite	Z3 W L 3T8 .71BF 1 UNV 24 T1
HF-4: Lighting Alternatives	FWHB-24-T5-4-48-RPA-DFLL.187-WG-4-54T5H0-PS-UNV
Nulite	TH 4 54T5HO UNV A.187 WG
Lithonia	FGB164 4 54T5HO N1X20 PCL125WG MVOLT GEB10PS LP841
HF-6: Lighting Alternatives	FWHB-24-T5-6-48-RPA-DFLL.187-WG-6-54T5H0-PS-UNV
Nulite	TH 6 54T5HO UNV A.187 WG
Lithonia	FGB24 6 54T5HO N1X20 PCL125WG MVOLT 2/3 GEB10PS LP841
LED-2: IO LED	IO 03 I MOD4K X 100 1 XX XX REMOTE DRIVER
OB-2: Visionaire	OWK-2-8R42-COG-100P-6-AB-CBA
McGraw-Edison	BRL 42 100 MP MT CCBA
OC-27: Hubbell	TRP-150P8-WT-X-X
Visionaire	SIL-2-T2-150P-6-DL
OC-32: Hubbell	TRP-42F8-WT-X-X
Visionaire	SIL-1-T4-42CF-UNV-DL-CBA
S-9: LA Lighting	WSE400-1-4R-WL-1E8R-UNV
TX-2: Spectrum	ATXPR16CF 4 32 EX CFG CD MT
TX-3: Interlux	1200P 16 R FT32 PN U
Spectrum	SPCY0402D FACY6 CF32 E* CD CP13 BA
TX-99: Beghelli	GSLED-INT-WT32-X-UNV-X
Lumiere	696 10LED4021 X NSS
Hydrel	PDX4 SS 9LED WHT41K MVOLT SP FLC 12S TKO LPI
X-1: Beghelli	Spyder Series
IO LED Traxon	O 04 E 3K 30G 100 1 X X /250 O/OADVXX XB.LG.51731

AD4-EL28 **Sheet ET111:**

1. Update data locations per the attached Sheet.
2. Provide 2 each 4" conduits from cable tray to exterior of building at project west. Cap and label. Verify exact exterior location with owner prior to installation.

AD4-EL29 **Sheet ET112:**

1. Update data locations per the attached Sheet.

AD4-EL30 **Sheet ET113:**

1. Update data locations per the attached Sheet.

AD4-EL31 **Sheet ET121:**

1. Update data locations per the attached Sheet.
2. Remove plywood shown on the windows in the data room.

AD4-EL32 **Sheet ET122:**

1. Update data locations per the attached Sheet.

AD4-EL33 **Sheet EY111:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL34 **Sheet EY112:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL35 **Sheet EY113:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL36 **Sheet EY121:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL37 **Sheet EY122:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL38 **Sheet EY123:**

1. Revise access control and surveillance equipment. Refer to attached drawing.

AD4-EL39 **Sheet EY601:**

1. Add new sheet EF601 with access control and CCTV details and schedules. Refer to attached drawing.

AD4-EL40 **Sheet EJ111:**

1. Update AV per the attached sheet.

AD4-EL41 **Sheet EJ112:**

1. Update AV per the attached sheet.

AD4-EL42 **Sheet EJ113:**

1. Update AV per the attached sheet.

AD4-EL43 **Sheet EJ121:**

1. Update AV per the attached sheet.

AD4-EL44 **Sheet EJ122:**

1. Update AV per the attached sheet.

AD4-EL45 **Sheet FA111:**

1. Add door holders, relay and fire alarm control module at door between corridors A100 and B100. Circuit to panel 1LB2.
2. Add heat detector in Kitchen B108.

AD4-EL46 **Sheet FA112:**

1. Change candela rating on horn strobes in shelled lab C101 to 110cd.
2. Add 15cd horn/strobe near grids K & 4.

AD4-EL47 **Sheet FA113:**

1. Change candela rating on horn strobes in welding lab C107 to 110cd.
2. Add smoke detector in corridor C100B.

AD4-EL48 **Sheet FA121:**

1. Change candela rating on horn strobe near grids E.8 and 5.5 to 110cd.
2. Add 15cd horn/strobe in President Assistant B213 near grid E.1 and 5.6.
3. Move horn strobe in storage records B215 to open office B216.
4. Add 15cd strobe only unit to BT Lab A201 near grid B and 3.8.

AD4-EL49 **Sheet FA122:**

1. Change candela rating on (2) horn strobes in Reception Waiting B223 to 110cd.

AD4-EL50 **Sheet FA123:**

1. Change candela rating on horn strobes in IT Workroom C204 and Corridor C206-2 to 15cd.
2. Add (2) smoke detectors in Corridor C206-2.
3. Add (1) smoke detector in Corridor C206-1.

AD4-EL51 **Sheet TA001:**

1. For the M55 LED monitor provide Chief brackets for mounting the external speakers.

AD4-EL52 **Sheet TA002:**

1. Provide 2 each 'L' type cables in wellness room from CP4 to the server rack in the server room with AV equipment. Provide a 'D' cable form the wall controller and provide the 'S' type cable as shown on the floor plans.

AD4-EL53 **Sheet TA601:**

1. For Wellness Room provide cable from the CP4 to the DSP in the server room. Provide an additional out from the DSP to a 35 watt amp from Atlas Sound or TOA. Provide an amplified line out to the speakers in the room. The wall controller shall be a London Blu-3.
2. For all HDMI and VGA connections provide twisted pair converters at the connection panel and at the rack. Provide 2 each 'D' type cable for each connector. Twisted pair converters shall back full band 1080p 60 Hz deep color and 3D.
3. For each HDMI cable connecting to a flat panel monitor provide a HDMI to DVI connector with an Extron HAE 100 if HDMI input does not except all resolutions excepted by the DVI input.
4. For the boardroom provide overhead speakers as shown on updated floor plan. Mount an Extron MPA 152 amplifier at the projector mount.

AD4-EL54 **Sheet TT601:**

1. For each floor box and poke thru provide data when indicated by a data symbol next to the floor box on the ET sheets. Provide at least 2 jacks for each location with additional jacks for each user location as indicated on architectural plans.

2. Provide 1 each data cable to IP cameras shown on EY sheets. Terminate all camera cables to the same patch panel.

Attachments
Specifications section 281300
Specifications section 282303
Specifications section 262655

EP111, EP112, EP113, EP121, EP122, EP501, EP603, EP609, EL111, EL112, EL113, EL121, EL122, EL123, EL501, ET111, ET112, ET113, ET121, ET122, EY111, EY112

END OF ADDENDUM

Scale: 1" = 40'

40 0 10 20 40 50 60 70 80

Graphic Scale

Legend

(Note: All items may not appear on drawing)

San. Sewer Manhole	S
Water Manhole	W
Storm Drain Manhole	D
Electrical Manhole	E
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	—S—
Culinary Water	—W—
Gas Line	—G—
Irrigation Line	—IW—
Storm Drain	—SD—
Telephone Line	—T—
Secondary Waterline	—SW—
Power Line	—P—
Fire Line	—F—
Land Drain	—LD—
Power pole	
Power pole w/guy	
Light Pole	
Fence	x x x
Flowline of ditch	
Overhead Power line	—OHP—
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Ductile Iron	DI
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top of Concrete	TCN
Natural Ground	NG
Finish Grade	FG
Fire Department Connection	FDC
Finish Contour	—90—
Exist. Contour	- - 90 - -
Finish Grade	95.33TA
Exist. Grade	95.72TA
Ridge Line	—R—
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Concrete	
Open Face Curb & Gutter	
Demo Tree	
F.E.V.	Fuel Efficient Vehicle Parking Stall
POOL	Carpool Parking Stall

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General Demolition Notes:

1. Demolition and site clearing for this contract are to include all areas shown within demolition limits or by note.
2. Refer to site improvement plans for more details on limits of removal.
3. Demolish existing buildings and clear from site. (including removal of all footings and foundations.)
4. All curbs, gutters, walks, slabs, walls, fences, flatwork, asphalt, waterlines and meters, gas lines, sewer lines, light poles, buried cables, storm drain piping and structures to be cleared from site unless otherwise shown.
5. All utilities, sewer, water, gas, telephone and electrical services to be disconnected and capped According to city, county and utility company requirements, unless otherwise shown.
6. Basements and other excavated areas to be backfilled with clean granular material compacted to 95% of maximum lab density as determined by ASTM D 1557-78. (Test results to be given to owner)
7. Clear and grub trees, shrubs, and vegetation within construction limits, disposal to be off-site Except where noted otherwise.
8. DO NOT interrupt any services or disrupt the operation of any businesses shown outside the demolition limits.
9. If ASBESTOS is found in existing structures, the Asbestos must be removed in a legal manner by a contractor licensed to handle asbestos materials. (Not a part of contract)
10. Remove debris, rubbish, and other materials resulting from the demolition and site clearing operations from the site and dispose of in a legal manner.
11. The location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. Contractor shall contact authorities having jurisdiction for field locations. Contractor shall be responsible for protection of in place and relocated utilities during construction.
12. Stockpiles shall be graded to maintain slopes not greater than 3 horizontal to 1 vertical. Provide erosion control as needed to prevent sediment transport to adjacent drainage ways.
13. Contractor shall be responsible for disposal of all waste material. Disposal shall be at an approved site for such material. Burning onsite is not permitted.
14. Contractor shall verify with city any street removal, curb cuts, and any restoration required for utility line removal.
15. Install traffic warning devices as needed in accordance with local standards.
16. Contractor shall obtain all permits necessary for demolition from City, County, State or Federal Agencies as required.

CAUTION NOTICE TO CONTRACTOR

The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the propose improvements shown on the plans.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS IN RIGHT OF WAY

No. 5339572 CHRISTIAN MICHAELSON 11/01/2011 STATE OF UTAH

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METHOD STUDIO INC.
242 south 400 east
salt lake city, utah 84111
phone:(801) 532-4422

consultants:

GREAT BASIN ENGINEERING INC
5746 South 1475 East Suite 200
Ogden, Utah 84403 Main (801)394-4515
S.L.C (801)521-0222 FAX 801-392-7544
WWW.GREATBASINENGINEERING.COM

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project:

Tooele Applied Technology College - New Building

88 South Tooele Blvd
Tooele, UT 84074

project#: 13.04.20
date: 1/20/2011

revisions :

1 02/28/2012 - ADDENDUM 4

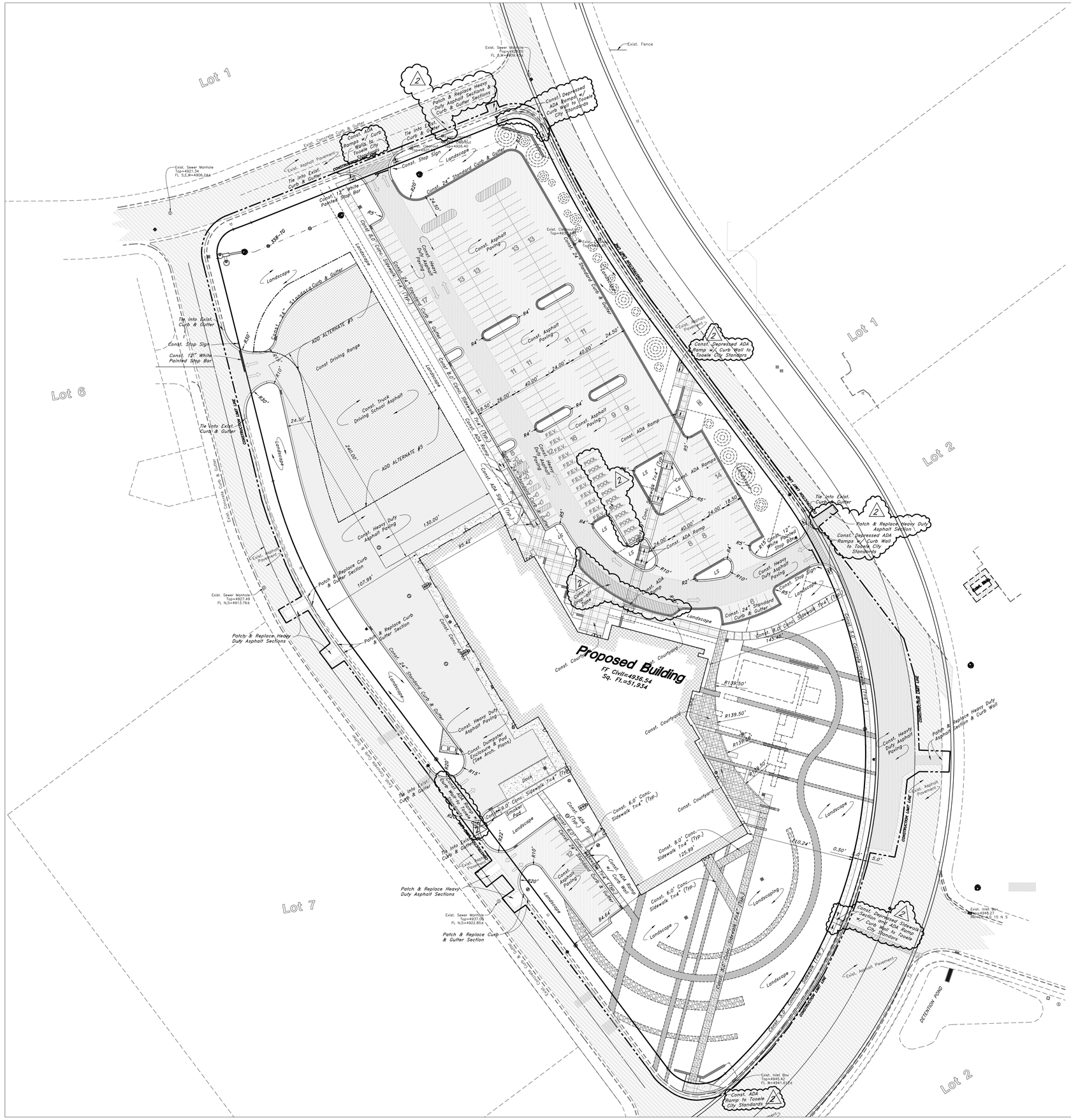
NOT FOR CONSTRUCTION

Demolition Plan

sheet:

CD-101

100% DFCM Review Set



Scale: 1" = 40'

40 0 10 20 40 50 60 70 80

Graphic Scale

Legend

(Note: All Items may not appear on drawing)

San. Sewer Manhole	S
Water Manhole	W
Storm Drain Manhole	D
Electrical Manhole	E
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	—S—
Culinary Water	—W—
Gas Line	—G—
Irrigation Line	—IW—
Storm Drain	—SD—
Telephone Line	—T—
Secondary Waterline	—SW—
Power Line	—P—
Fire Line	—F—
Land Drain	—LD—
Power pole	
Power pole w/guy	
Light Pole	
Fence	x x x
Flowline of ditch	
Overhead Power line	—OHP—
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Ductile iron	DI
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top of Concrete	TCN
Natural Ground	NG
Finish Grade	FG
Fire Department Connection	FDC
Finish Contour	—90—
Exist. Contour	—90—
Finish Grade	95.33TA
Exist. Grade	95.721A
Ridge Line	—R—
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Concrete	
Open Face Curb & Gutter	
Demo Tree	
F.E.V.	Fuel Efficient Vehicle Parking Stall
POOL	Carpool Parking Stall

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Site Date Table:
Site Area=368784 sf
Building Foot Print =52,639 sf = 14.18%
Parking Stalls =227
ADA Parking Stalls =7
Standard Asphalt Paving Area = 77,277 sf=20.9%
Med. Duty Asphalt Paving Area = 29,062 sf=7.9%
Heavy Duty Asphalt Paving Area = 30,482 sf=8.3%
Walk Area = 7,083 sf=1.9%
Apron Area =4,191 sf=1.1%
Courtyard Area = 12,221 sf=3.3%
Landscape Area = 156,154 sf=42.3%

Note:
1. The Current Parking Capacity meets the code, but doesn't exceed minimum local zoning requirements.

General Site Notes:
1. Stalls designated as handicap will require a painted handicap symbol and sign. (See Details)
2. Fire lane markings and signs to be installed as directed by the Fire Marshall.
3. Aisle markings, directional arrows and stop bars will be painted at each driveway as shown on the plans.
4. See Horizontal Control plan for coordinates, radiuses and detailed dimensions of site improvements.
5. Building sidewalks, ramps, and bollards are building contractor responsible items. See architectural plans.
6. All dimensions are to back of curb unless otherwise noted.

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project:

Tooele Applied Technology College - New Building

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2011

revisions :

1 02/17/2012 - ADDENDUM 3
2 02/28/2012 - ADDENDUM 4

NOT FOR CONSTRUCTION

Site Plan

sheet:

CS-101

100% DFCM Review Set

Earthwork Analysis:
Finish Grade down to Existing Grade

Cut	13,875.5 cyd
Fill	-9,883.2 cyd
Net	3,992.25 cyd export

Required Fill for asphalt and concrete
Asphalt A=77,277 sf, 3" over 6" = 2,146.6 cyd
Med Asphalt =29,062 sf, 3" over 8" = 986.7 cyd
Heavy Duty Asphalt = 30,482 sf, 4" over 8" = 1,129.0 cyd
Concrete Apron = 4,191 sf, 8" over 4" = 155.2 cyd
Sidewalks = 7,083 sf, 5" over 4" = 196.8 cyd
Courtyard = 12,221 sf, 5" over 4" = 339.5 cyd
Building = 52,639 sf, 6" over 6" =1,949.6
Total Estimated Required Fill =6,903 cyd

Net total export =10,895.5 cubic yards

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Scale: 1" = 40'

Graphic Scale

Legend
(Note: All items may not appear on drawing)

San. Sewer Manhole
Water Manhole
Storm Drain Manhole
Electrical Manhole
Catch Basins
Exist. Fire Hydrant
Fire Hydrant
Exist. Water Valve
Water Valve
Sanitary Sewer — S —
Culinary Water — W —
Gas Line — G —
Irrigation Line — IW —
Storm Drain — SD —
Telephone Line — T —
Secondary Waterline — SW —
Power Line — P —
Fire Line — F —
Land Drain — LD —
Power pole
Power pole w/guy
Light Pole
Fence
Flowline of ditch
Overhead Power line — OHP —
Corrugated Metal Pipe CMP
Concrete Pipe CP
Reinforced Concrete Pipe RCP
Ductile Iron DI
Polyvinyl Chloride PVC
Top of Asphalt TA
Edge of Asphalt EA
Centerline CL
Flowline FL
Finish Floor FF
Top of Curb TC
Top of Wall TWL
Top of Walk TW
Top of Concrete TCN
Natural Ground NG
Finish Grade FG
Fire Department Connection FDC
Finish Contour — 90 —
Exist. Contour — 90 —
Finish Grade 95.33TA
Exist. Grade 95.72TA
Ridge Line — R —
Direction of Flow
Existing Asphalt
New Asphalt
Heavy Duty Asphalt
Concrete
Open Face Curb & Gutter
Demo Tree
F.E.V. Fuel Efficient Vehicle Parking Stall
POOL Carpool Parking Stall
ADA Accessible Route

General Grading Notes:
1. All work shall be in accordance with the City Public Works Standard.
2. Cut slopes shall be no steeper than 2 horizontal to 1 vertical.
3. Fill slopes shall be no steeper than 2 horizontal to 1 vertical.
4. Fills shall be compacted per the recommendations of the geotechnical report prepared for the project and shall be certified by the geotechnical engineer.
5. Areas to receive fill shall be properly prepared and approved by the City inspector and geotechnical Engineer prior to placing fill.
6. Fills shall be benched into competent material as per specifications and geotechnical report.
7. All trench backfill shall be tested and certified by the site geotechnical engineer per the grading code.
8. A geotechnical engineer shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
9. The final compaction report and certification from the geotechnical engineer shall contain the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
10. Dust shall be controlled by watering.
11. The location and protection of all utilities is the responsibility of the permitee.
12. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading project.
13. All public roadways must be cleared daily of all dirt, mud and debris deposited on them as a result of the grading operation. Cleaning is to be done to the satisfaction of the city engineer.
14. The site shall be cleared and grubbed of all vegetation and deleterious matter prior to grading.
15. The contractor shall provide shoring in accordance with OSHA requirements for trench walls.
16. Aggregate base shall be compacted per the geotechnical report prepared for the project.
17. Elevations shown on this plan are finish grades. Rough grades are the subgrades of the improvements shown hereon.
18. The recommendations in the following Geotechnical Engineering Report by xxxx are included in the requirements of grading and site preparation.
The report is titled "GEOTECHNICAL ENGINEERING STUDY FOR TOOELE APPLIED TECHNOLOGY COLLEGE (TATC) UTAH COLLEGE OF APPLIED TECHNOLOGY TOOELE, UT"
Job No.: AUA11-400-00 Address: 88 SOUTH TOOELE BLVD. TOOELE, UT 84074
Dated: SEPTEMBER 2011
19 As part of the construction documents, owner has provided contractor with a topographic survey performed by manual or aerial means. Such survey was prepared for project design purposes and is provided to the contractor as a courtesy. It is expressly understood that such survey may not accurately reflect existing topographic conditions.
20. Erosion Control: Protect all inlet boxes, catch basins, etc. with straw bales or other approved method to strain the strom water during construction. Protect surrounding properties and streets from site runoff with sandbags and earth berms.

Curb and Gutter Construction Notes:
1. Open face gutter shall be constructed where drainage is directed away from curb.
2. Open face gutter locations are indicated by shading and notes on site and grading plan.
3. It is the responsibility of the surveyor to adjust top of curb grades at the time construction staking.
4. Refer to the typical details for a standard and open face curb and gutter for dimensions.
5. Transitions between open face and standard curb and gutter are to be smooth. Hand form these areas if necessary.

ADA Notes:
Contractor must maintain a running slope on Accessible routes no steeper than 5.0% (1:20). The cross slope for Accessible routs must be no steeper than 2.0% (1:50). All Accessible routes must have a minimum clear width of 36". If grades on plans do not meet this requirement notify Consultants immediately.

The Client, Contractor, and Subcontractor should immediately notify the Consultant of any conditions of the project that they believe do not comply with the current state of the ADA and/or FHAA.

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No. 5339572
CHRISTIAN MICHAELSON
11/01/2011
STATE OF UTAH

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project:

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project#: 11.0420
date: 1/20/2011

revisions :

1 02/17/2012 - ADDENDUM 3
2 02/28/2012 - ADDENDUM 4

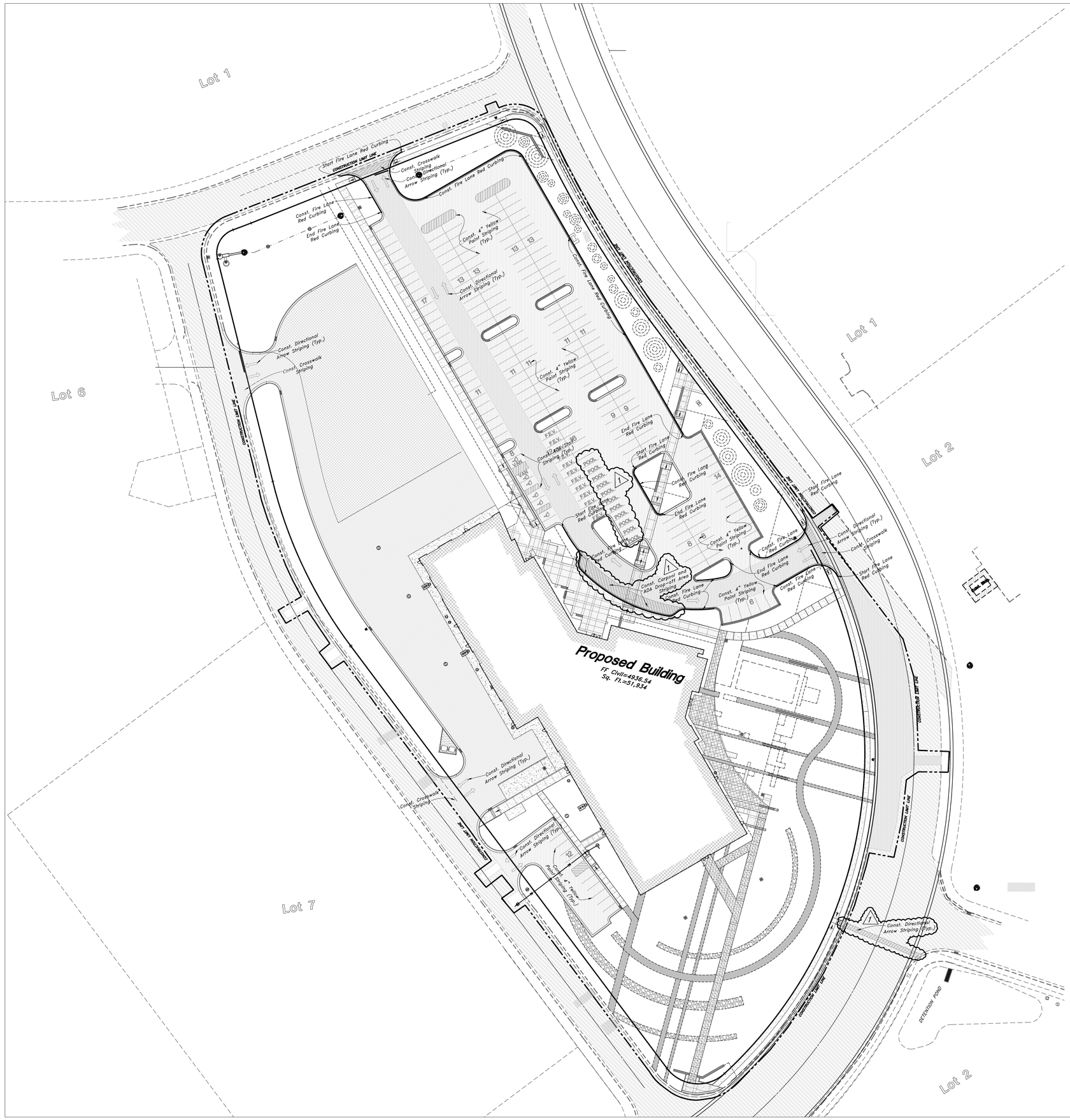
NOT FOR CONSTRUCTION

Site ADA Plan

sheet:

CS-101A

100% DFCM Review Set



Scale: 1" = 40'

Graphic Scale

Legend

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Power Line	—P—
Fire Line	—F—
Land Drain	—LD—
Power pole	
Power pole w/guy	
Light Pole	
Fence	x x x
Flowline of ditch	
Overhead Power line	—OHP—
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Ductile Iron	DI
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top of Concrete	TCN
Natural Ground	NG
Finish Grade	FG
Fire Department Connection	FDC
Finish Contour	—90—
Exist. Contour	- - 90 - -
Finish Grade	**95.33TA**
Exist. Grade	95.72TA
Ridge Line	— R —
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Concrete	
Open Face Curb & Gutter	
Demo Tree	
F.E.V.	Fuel Efficient Vehicle Parking Stall
POOL	Carpool Parking Stall

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General Site Notes:
1. Stalls designated as handicap will require a painted handicap symbol and sign. (See Details)
2. Fire lane markings and signs to be installed as directed by the Fire Marshall.
3. Aisle markings, directional arrows and stop bars will be painted at each driveway as shown on the plans.
4. See Horizontal Control plan for coordinates, radiuses and detailed dimensions of site improvements.
5. Building sidewalks, ramps, and bollards are building contractor responsible items. See architectural plans.
6. All dimensions are to back of curb unless otherwise noted.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS
The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS IN RIGHT OF WAY

UTAH LICENSED PROFESSIONAL ENGINEER No. 3339572 CHRISTIAN MICHAELSON STATE OF UTAH
11/01/2011

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METHOD STUDIO INC.
242 south 400 east
salt lake city, utah 84111
phone:(801) 532-4422

consultants:

GREAT BASIN ENGINEERING INC
5746 South 1475 East Suite 200
Ogden, Utah 84403 Main (801)394-4515
S.L.C (801)521-0222 FAX (801)392-7544
WWW.GREATBASINENGINEERING.COM

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project:

Tooele Applied
Technology College -
New Building

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2011

revisions :

1 02/28/2012 - ADDENDUM 4

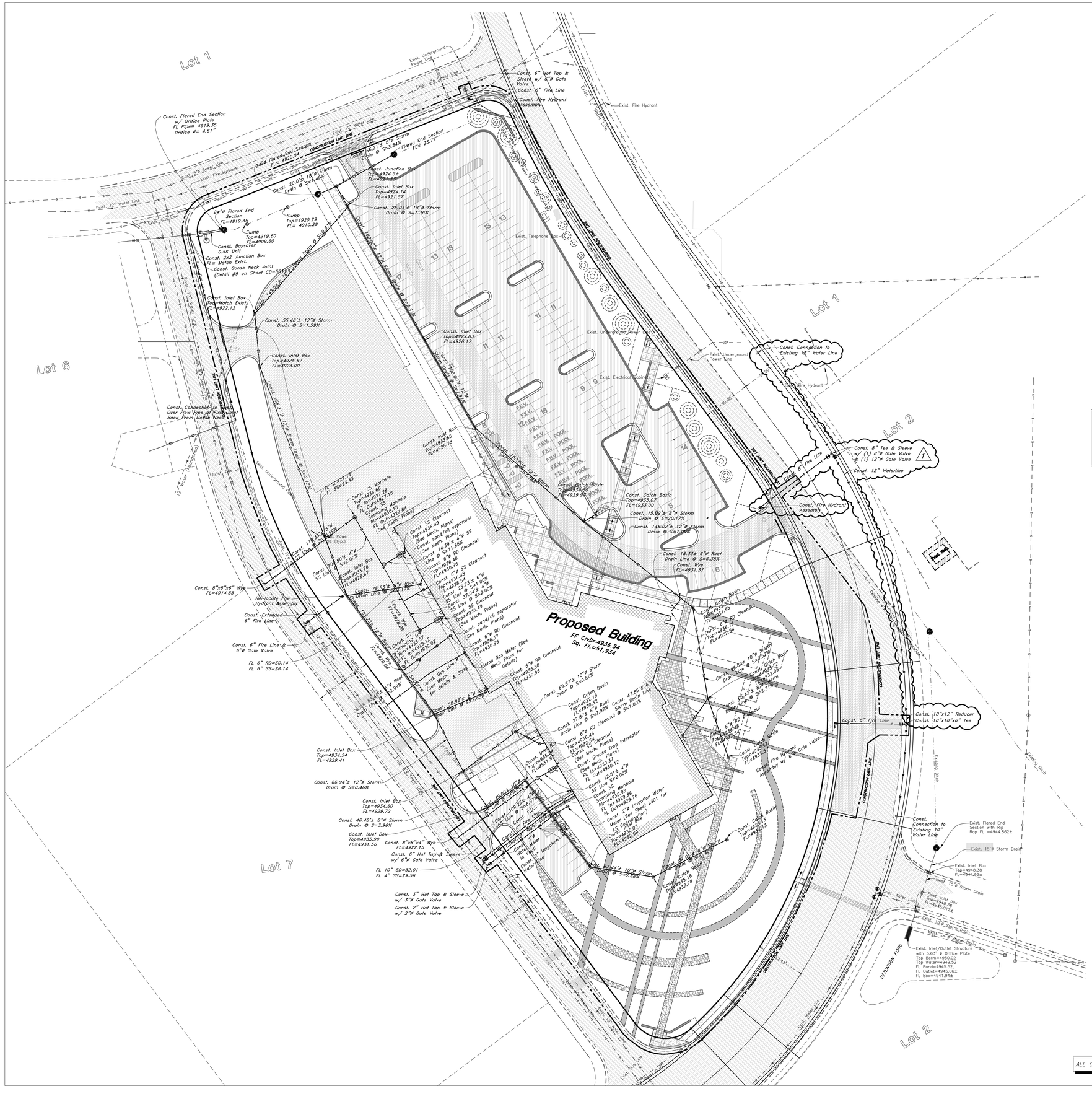
NOT FOR CONSTRUCTION

Striping Plan

sheet:

CS-102

100% DFCM Review Set


Lot 1
Lot 6
Lot 7
Lot 2
Proposed Building
FF Civil=4936.54
Sq. Ft.=51,934
Const. Flared End Section w/ Orifice Plate FL Pipe= 4919.35 Orifice #= 4.61"
Const. Connection to Existing 16" Water Line
Const. 8" Tee & Sleeve w/ (1) 8"ø Gate Valve & (1) 12"ø Gate Valve
Const. 12" Waterline
Const. Fire Hydrant Assembly
Const. 10"x12" Reducer
Const. 10"x10"x6" Tee
Const. 6" Fire Line
Const. Connection to Existing 10" Water Line
Const. 6" Hot Tap & Sleeve w/ 6"ø Gate Valve
Const. 6" Fire Line
Const. Fire Hydrant Assembly
Const. Connection to Existing Fire Hydrant
Const. Connection to Existing Over Flow Pipe at Fire Hydrant Back From Goose Neck
Const. 8"x8"x6" Wye FL=4914.53
Re-locate Fire Hydrant Assembly
Const. Extended 6" Fire Line
Const. 6" Fire Line & 6"ø Gate Valve
FL 6" RD=30.14
FL 6" SS=28.14
Const. Inlet Box Top=49.54.54 FL=4929.41
Const. 66.94'± 12"ø Storm Drain @ S=0.46%
Const. Inlet Box Top=4934.60 FL=4929.72
Const. 46.48'± 8"ø Storm Drain @ S=3.96%
Const. Inlet Box Top=4935.99 FL=4931.56
Const. 8"x8"x4" Wye FL=4922.15
Const. 6" Hot Tap & Sleeve w/ 6"ø Gate Valve
FL 10" SD=32.01
FL 4" SS=29.56
Const. 3" Hot Tap & Sleeve w/ 3"ø Gate Valve
Const. 2" Hot Tap & Sleeve w/ 2"ø Gate Valve
Const. 10"ø Irrigation Water Meter (See Mech. Plans)
Const. 3"ø Water Main In Const. 10" Irrigation Water Line
Const. Catch Basin Top=4933.00 FL=4929.97
Const. Catch Basin Top=4935.07 FL=4933.00
Const. 15.02'± 8"ø Storm Drain @ S=20.17%
Const. 146.02'± 12"ø Storm Drain @ S=1.00%
Const. 18.33± 6"ø Roof Drain Line @ S=6.38%
Const. Wye FL=4931.37
Const. Catch Basin Top=4931.56
Const. 8.02'± 10"ø Storm Drain Line @ S=2.57%
Const. Catch Basin Top=4932.26 FL=4930.26
Const. 86.43'± 8"ø Storm Drain Line @ S=5.37%
Const. 6"ø RD Cleanout Top=4936.54 FL=4932.54
Const. Catch Basin Top=4932.51 FL=4930.51
Const. 47.85'± 6"ø Storm Drain Line @ S=1.00%
Const. 6"ø RD Cleanout Top=4936.54 FL=4932.54
Const. Grease Trap Interceptor (See Mech. Plans) FL Out=4930.12
Const. 12.81'± 4"ø SS Line @ S=2.00%
Const. SS Manhole Top=4935.98 FL Out=4929.76
Const. 2"ø Irrigation Water Meter (See Mech. Plans)
Const. 2"ø Steel L301 for Irrigation Water Line
Const. Catch Basin Top=4936.13 FL=4933.13
Const. 10"ø Storm Drain @ S=0.78%
Const. 6"ø RD Cleanout Top=4936.60 FL=4930.96
Const. 69.57'± 10"ø Storm Drain @ S=0.86%
Const. Catch Basin Top=4930.12 FL=4929.12
Const. 27.87'± 6"ø Roof Drain Line @ S=7.97%
Const. 6"ø RD Cleanout Top=4936.54 FL=4932.54
Const. 48.96'± 6"ø Roof Drain Line @ S=2.61%
Const. Gas Line (See Mech. Plans for details & Size)
Install Gas Meter (See Mech. Plans for Details)
Const. Sump Top=4935.12 FL Out=4929.02
Const. SS Cleanout Top=4936.49 (See Mech. Plans)
Const. sand/oil separator (See Mech. Plans)
Const. 6"ø RD Cleanout Top=4936.57 FL=4930.96
Const. 6"ø RD Cleanout Top=4936.60 FL=4930.96
Const. Inlet Box Top=4934.60 FL=4931.56
Const. Inlet Box Top=4935.76 FL=4928.47
Const. 78.63'± 8"ø Roof Drain Line @ S=0.17%
Const. 100.50'± 4"ø SS Line @ S=2.00%
Const. 118.39'± 4"ø SS Line @ S=2.00%
Const. SS Manhole Top=4934.65 FL Inc=4927.28 FL Out=4927.18
Const. SS Manhole Top=4935.15 84 Sump=4932.84 Rim=4935.15 84 Out=4927.84 (See Mech. Plans)
Const. SS Cleanout Top=4936.49 (See Mech. Plans)
Const. sand/oil separator (See Mech. Plans)
Const. 14.34'± 8"ø SS FL=4931.85%
Const. 39.13'± 6"ø SS Cleanout Top=4936.46 FL=4932.46
Const. 6"ø SS Cleanout Top=4936.54 FL=4932.54
Const.

Note:
1. Gaskets Shall Be Full Faced ⅛ "Rubber, Bolts Shall Be Corrosive Resistant Or Coated.

2. 4" FL X Plain End Spool Length May Vary Due To Dimensions Used by Different Manufacturers.

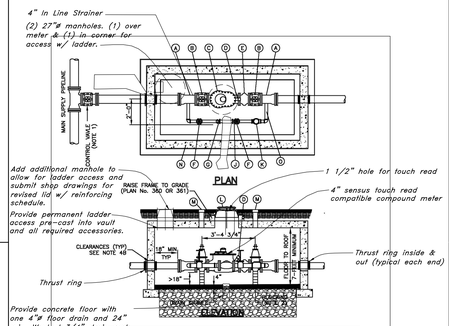
3. The Contractor Shall Verify All Material Lengths Prior To Ordering The Vault. Vault Shop Drawings And Submittal Reqd. Prior To Construction Of Vault.

4. Slope Box .5% Towards One End. Drain To Knockout.

5. Backfill With Structural Or Granular Backfill

6. See APWA Vault Detail for Vault Dimensions and Specifications.

7. All Contruction In Tooele City Rights of Way to conform to Tooele City Standards

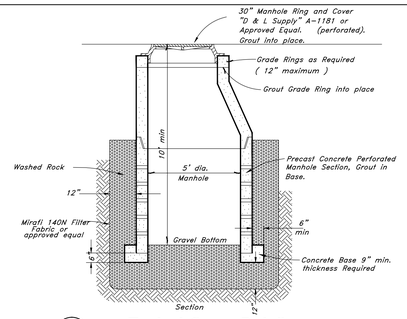


LEGEND			
No.	*	ITEM	DESCRIPTION
(A)		3" OR 4" FLANGE x M.J. ADAPTER	
(B)		3" OR 4" GATE VALVE WITH 2"x2" OPERATING NUT	4" R.S.G.V.
(C)		3" OR 4" COMPOUND METER	4" Sensus T.R.C
(D)		3" TEST ASSEMBLY	
(E)		3" OR 4" CHECK VALVE	Lever Type
(F)		2" GATE VALVE	Lockable
(G)		2" METER FLANGE	
(H)			
(I)		2" MALE METER FLANGE	
(J)		2" CHECK VALVE	
(L)		27" FRAME AND COVER	PLAN No. 502
(M)		TOP SECTION OF VALVE BOX WITH LID	PLAN No. 574
(N)		CONCRETE BOX	PLAN No. 505
(O)		COPPER PIPING	
	*	FURNISHED BY AGENCY	

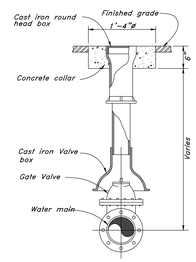
3" and 4" Compound meter with 2" bypass Plan No. **523**

Note: T.R.C. = Touch Read Compatible w/ Radio Read

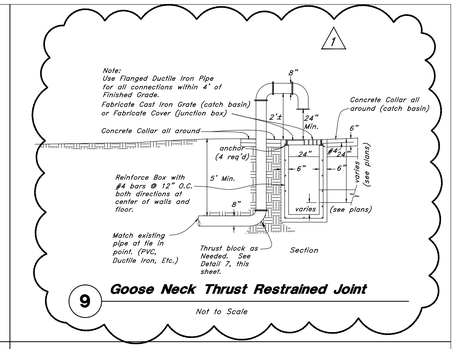
2 APWA 4" Water Meter Vault
Not to Scale



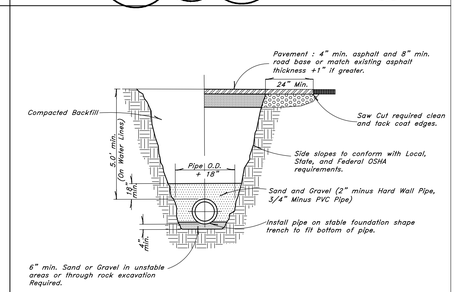
3 Typical Sump Detail
Not to Scale



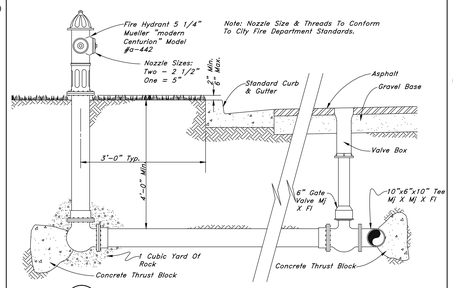
6 Typical Gate Valve
Not to Scale



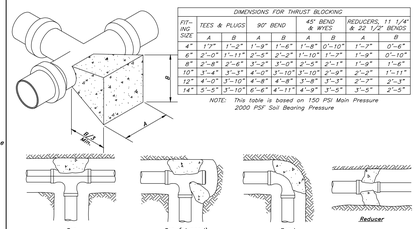
9 Goose Neck Thrust Restrained Joint
Not to Scale



10 Typical Trench Detail
Not to Scale



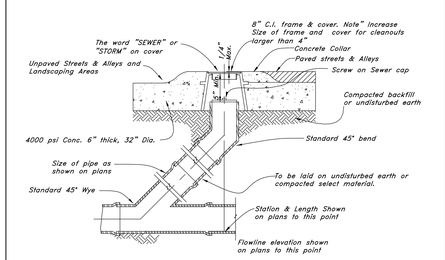
4 Typical Fire Hydrant & Valve Connection
Not to Scale



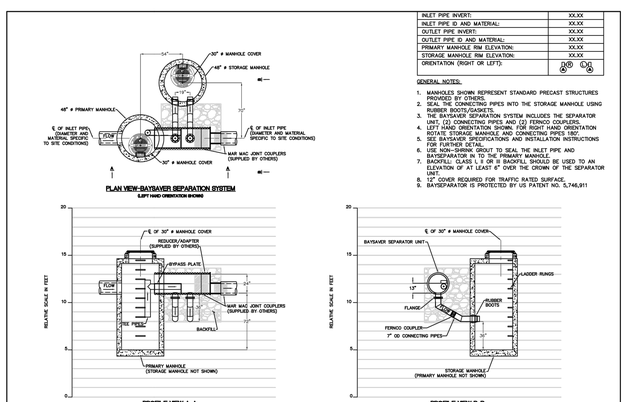
DIMENSIONS FOR THRUST BLOCKING								
FITTING SIZE	TEES & PLUGS		90° BEND		45° BEND & WYES		REDUCERS, 11 1/4° & 22 1/2° BENDS	
	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8"	0'-10"	1'-7"	0'-6"
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-3"	1'-9"	0'-10"
8"	2'-8"	2'-6"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-10"	2'-9"	2'-2"	1'-11"
12"	4'-0"	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"
14"	5'-5"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"

NOTE: This table is based on 150 PSI Main Pressure
2000 PSF Soil Bearing Pressure

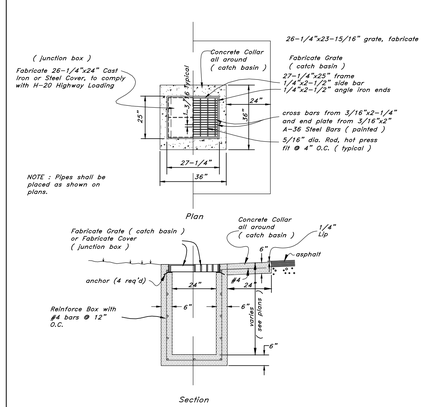
7 Thrust Blocking Details
Not to Scale



11 Sewer, Storm, and Roof Drain Cleanout Detail
Not to Scale



1 1/2K Baysaver Unit
Not to Scale



5 Catch Basin/Junction Box
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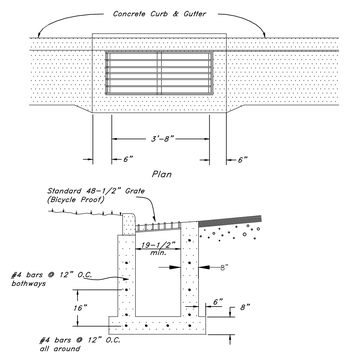
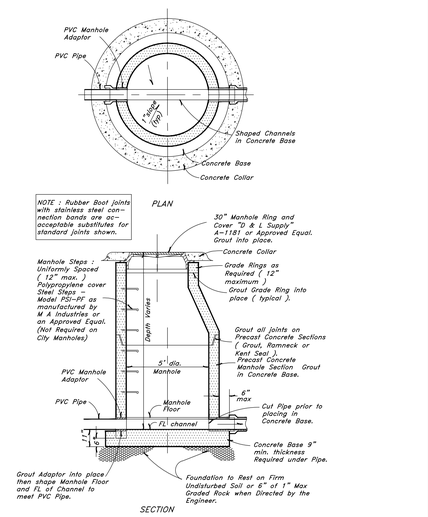


8 Typical Inlet Box
in curb & gutter
Not to Scale



12 Typical Manhole Detail
Not to Scale

No. 5339572 CHRISTIAN MICHAELSON STATE OF UTAH 11/01/2011

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project:

Tooele Applied Technology College - New Building

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2011

revisions :

1 02/28/2012 - ADDENDUM 4

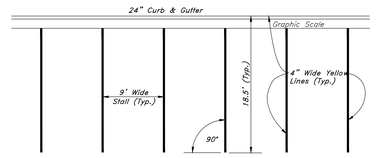
NOT FOR CONSTRUCTION

Construction Details

sheet:

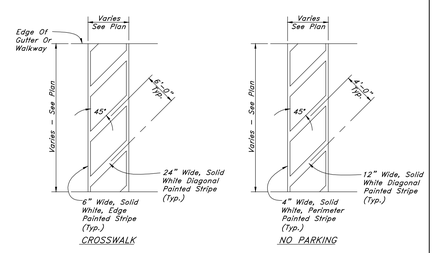
CD-501

100% DFCM Review Set



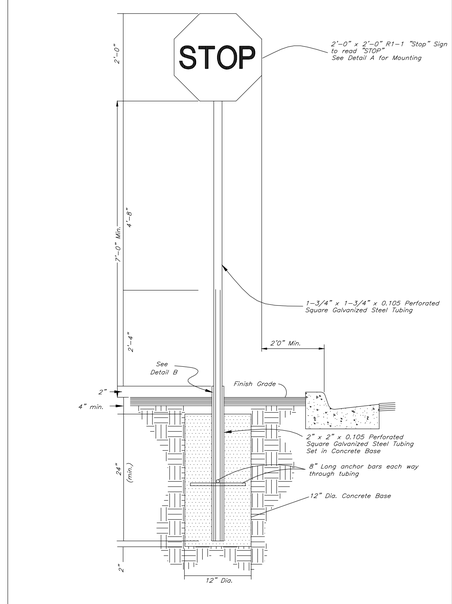
2 Typical Parking Lot Striping Plan

Not to Scale



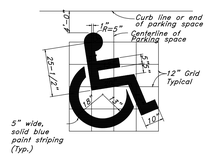
3 Striping

Not to Scale



1 Stop Sign

Not to Scale



5 Handicap Symbol

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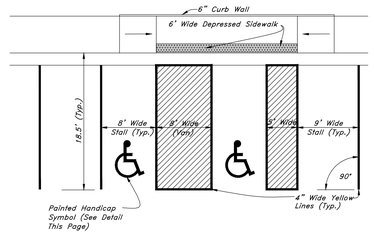
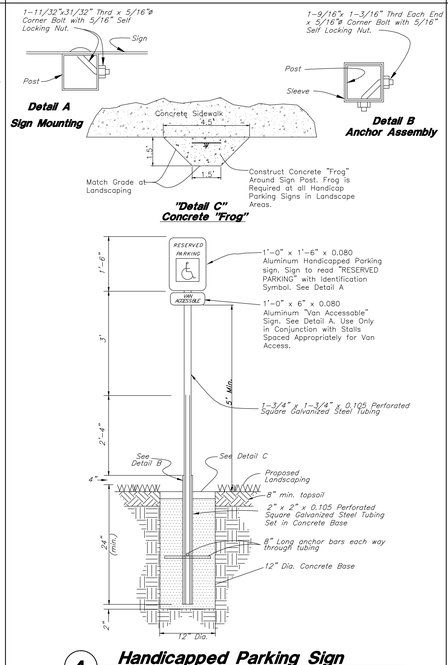


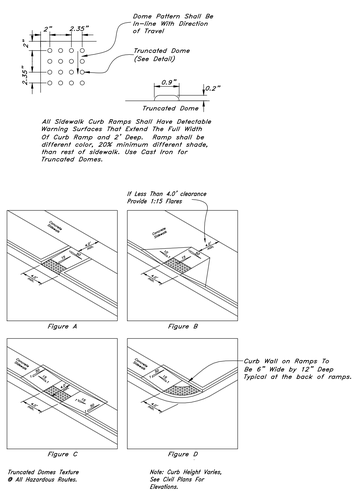
6 Typical ADA Parking Striping Plan

Not to Scale



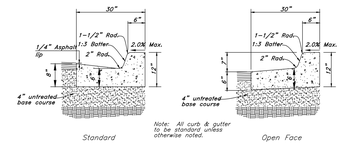
4 Handicapped Parking Sign

Not to Scale



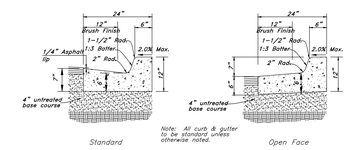
7 Typical ADA Ramp Detail

Not to Scale



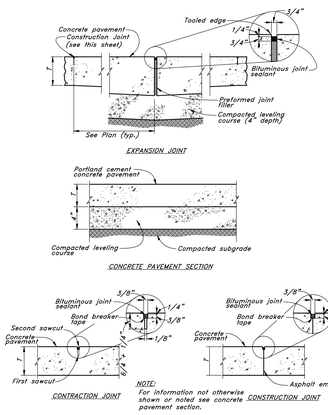
8 Typical Section - 30" Curb & Gutter

Not to Scale



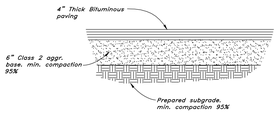
9 Typical Section - 24" Curb & Gutter

Not to Scale



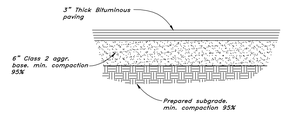
10 Portland Cement Concrete Pavement

Not to Scale



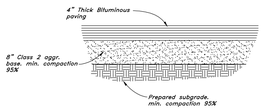
11 Typical Truck Driving School Lot Light Traffic Areas

Not to Scale



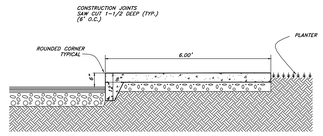
12 Typical Bituminous Pavement Section Light Traffic Areas

Not to Scale



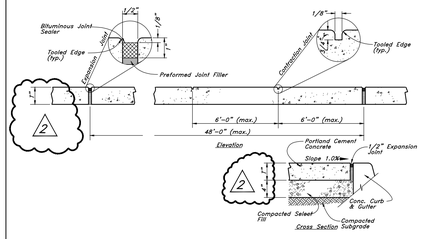
13 Typical Bituminous Pavement Section Heavy Duty Drives

Not to Scale



14 Thickened Edge Walk

Not to Scale



15 Concrete Sidewalk

Not to Scale

CHRISTIAN MICHAELSON
No. 3339572
11/01/2011
STATE OF UTAH

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project#: 11.06.20
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revisions:

1 02/17/2012 - ADDENDUM 3
2 02/28/2012 - ADDENDUM 4

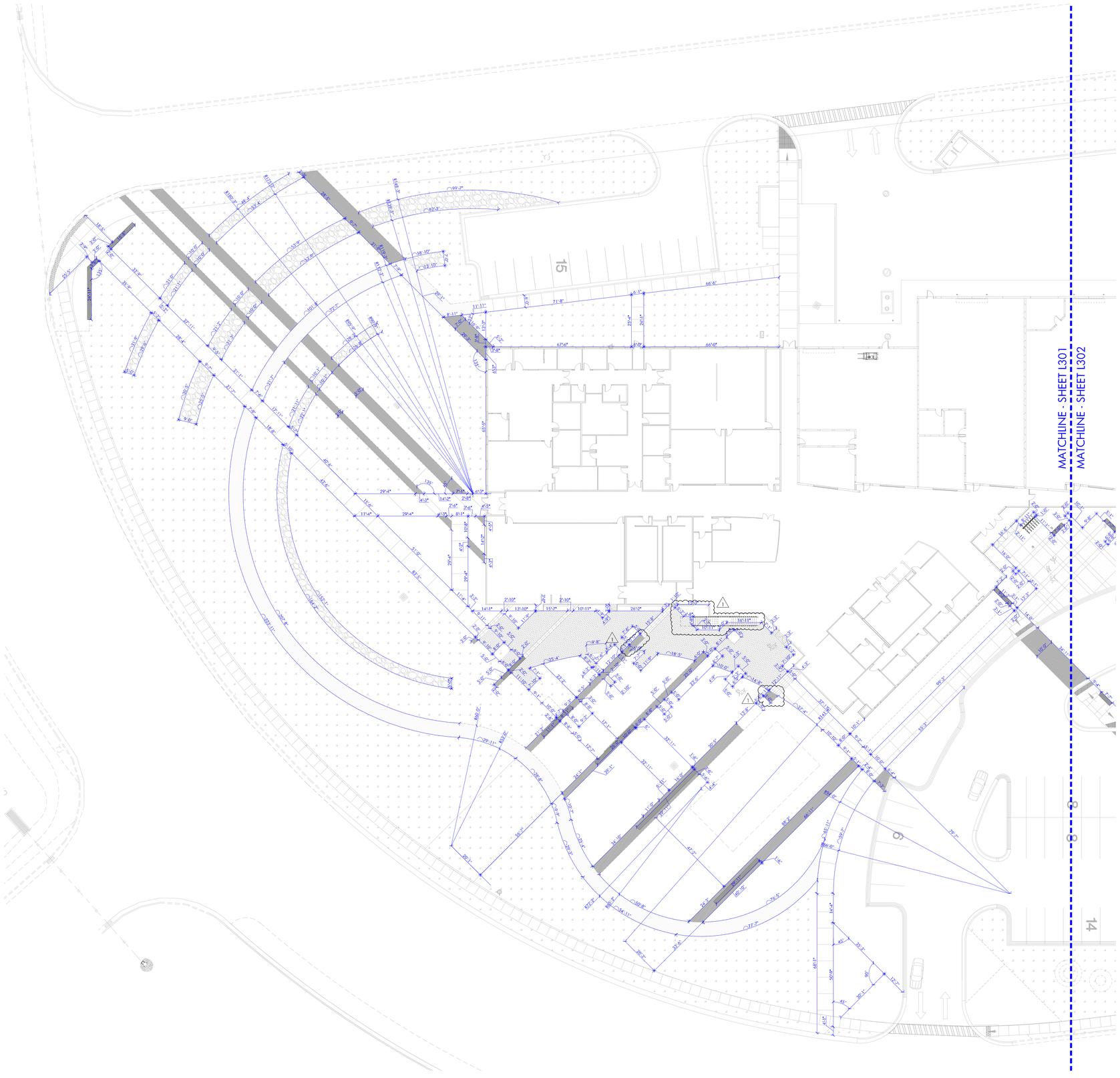
NOT FOR CONSTRUCTION

Construction Details

sheet:

CD-502

100% DFCM Review Set



GENERAL DIMENSION PLAN NOTES:

1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ALL ELEMENTS ARE LAID OUT PROPERLY AND THAT THE "BASIS OF DESIGN" IS MET AND MAINTAINED FROM PLANS TO BUILT CONSTRUCTION.

2. THE DIMENSION PLAN IS FOR HORIZONTAL CONTROL OF ALL OF THE BUILT AND IMPORTANT ELEMENTS ON THE LANDSCAPE PLAN. THESE ELEMENTS SHALL BE, BUT ARE NOT LIMITED TO, PATIOS, SITE WALLS, COBBLE BANDS, METAL OR CONCRETE EDGING, WALKWAYS, ANGLES, ARCS, RADII, ETC.

3. DIMENSIONS ARE TAKEN FROM FIXED POINTS SUCH AS BUILDINGS AND EXISTING ELEMENTS NOTED ON PLAN. THEIR PRIMARY INTENT IS TO MAINTAIN THE "BASIS OF DESIGN".

4. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND ENSURE THAT THESE ELEMENTS ARE LAID OUT PROPERLY AND THAT NO APPARENT ERRORS OR OMISSIONS HAVE OCCURRED.

5. LANDSCAPE ARCHITECT SHALL BE NOTIFIED WITHIN (5) WORKING DAYS PRIOR TO SITE VERIFICATION OF ALL ELEMENTS.

6. LANDSCAPE ARCHITECT HAS THE RIGHT TO MOVE, MODIFY, OR SUGGEST ALTERNATIVE LOCATIONS AND/OR PLACEMENT IF "BASIS OF DESIGN" HAS NOT BEEN MET. HE SHALL DO SO AT HIS OWN DISCRETION.

7. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF DISCREPANCIES ARISE FROM THE TRANSLATION OF PLAN TO BUILT CONDITIONS, SO THAT SUITABLE ALTERNATIVES MAY BE PROPOSED AND/OR MODIFICATIONS TO PLANNED ELEMENTS MAY BE REVISED ON SITE.

0 20 40 80 feet

SCALE: 1" = 20'

NORTH

REGISTERED LANDSCAPE ARCHITECT
5197921
Brandon A. Reed
STATE OF UTAH

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1 Addendum 4 2/28/2012

Dimension Plan

sheet:

L101

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PLANT SCHEDULE

TREES	QTY	COMMON NAME	CONT
	11	AUTUMN BLAZE MAPLE	2" CAL
	38	FLAME AMUR MAPLE	2" CAL
	20	MIYABEI MAPLE	2" CAL
	31	DURAHEAT RIVER BIRCH - SINGLE TRUNK	2" CAL
	27	EASTERN REDBUD	2" CAL
	21	SHADEMASTER LOCUST	2" CAL
	52	PRAIRIE FIRE CRABAPPLE	2" CAL
	36	COLORADO GREEN SPRUCE SEE PLAN FOR SPECIFIC SIZES - CONICAL AND LAYERED IN GROWTH HABIT	Varied Sizes - Note Plan

SHRUBS	QTY	COMMON NAME	CONT
	197	KARL FOERSTER	5 gal
	7	PAMPAS GRASS	5 gal
	53	COMPACT BURNING BUSH/DWARF BURNING BUSH	5 gal
	69	BLUE OAT GRASS	1 gal
	257	JAPANESE BLOOD GRASS	1 gal
	88	ADAGIO EULALIA GRASS	1 gal
	184	HAMELN DWARF FOUNTAIN GRASS	1 gal
	57	KARLIE ROSE FOUNTAIN GRASS	1 gal
	111	CUTLEAF SMOOTH SUMAC	5 gal
	233	MAY KNIGHT SALVIA	1 gal
	128	SPREADING ENGLISH YEW	5 gal
	3	ALLEGHANY VIBURNUM	5 gal
	146	IVORY TOWER YUCCA	5 gal

GROUND COVERS	COMMON NAME	CONT
	PURPLE ICE PLANT	FLAT @ 12" OC
	YELLOW ICE PLANT	FLAT @ 12" OC
	VOODOO SEDUM	FLAT @ 12" OC
	BIOGRASS	sod

REFERENCE NOTES:

SYMBOL	DESCRIPTION
1	PLANTING AREA (TYP.)
2	4"X6" INLAYED CONCRETE EDGE - BASE BID 1/4" STEEL EDGING (TYP.) - ALT.
3	PLAIN GRAY CONCRETE WITH SCORE JOINTS PER PLAN - BASE BID 'SANDSCAPE' CONCRETE FINISH WITH SCORE JOINTS PER PLAN - ALT.
4	NATIVE GRASSES/WILDFLOWER AREA(S) - TYP.
5	2' WIDE BOARD FORM CONCRETE SEAT WALLS - MATCH BOARD FORM TEXTURE ON TATC BUILDING (TYP.)
6	TATC MONUMENT SIGNAGE - PER ARCHITECT
7	BROOM FINISH CONCRETE WALKWAY (TYP.)
8	CRUSHER FINES MEANDERING WALKING PATH (TYP.)
9	PLAZA/ENTERTAINING SPACE
10	TURF AREA (TYP.)
11	DROP OFF ZONE
12	SNOW STORAGE AREA
13	NATIVE GRASS DETENTION BASIN
14	WALL (PER ARCHITECT)
15	3"-4" GRAY, ROUND, AND SMOOTH COBBLE BANDS (TYP.)
16	1" GRAY GRAVEL BANDS (TYP.)
17	AREA OUTLINE FOR VOLLEY BALL IN TURF AREA
18	PROPOSED BIKE RACK LOCATION - PER ARCHITECT
20	36" X 6" X 2-1/2" CONCRETE PAVER - GRANADA WHITE (SEE DETAILS)
21	36" X 12" X 2-1/2" CONCRETE PAVER - FRENCH GRAY (SEE DETAILS)
22	'SANDSCAPE' CONCRETE - PLAIN GRAY - ALT.
23	'SANDSCAPE' CONCRETE - SLATE - CONSULT WITH LANDSCAPE ARCHITECT FOR FINAL COLOR - ALT.
24	CONCRETE SCORE JOINTS (TYP.)
25	MODULAR CONCRETE UNIT PAVER PATIO (TYP.) - SEE PAVING PATTERN ENLARGEMENT DETAIL FOR SNAPSHOT VIEW OF PAVER LAYOUT.

GENERAL PLANTING NOTES:

1. 4" OF DARK SOIL COMPOST SHOULD BE APPLIED ON TOP OF ALL TREE AND SHRUB PLANTING AREAS AFTER PLANTING IS COMPLETED.

2. 1" OF DARK SOIL COMPOST SHOULD BE APPLIED TO ALL PERENNIAL AND GROUNDCOVER AREAS AFTER PLANTING IS COMPLETED.

3. METAL LANDSCAPE EDGING. SEE SPECIFICATIONS FOR MORE INFO.

4. FINAL PLACEMENT OF ALL PLANT MATERIAL MAY ADJUST DUE TO ON-SITE CONDITIONS - VERIFY ALL PLANT LAYOUTS WITH LANDSCAPE ARCHITECT BEFORE PLANTING

5. PLEASE CONTACT LANDSCAPE ARCHITECT TO VERIFY ANY CHANGES BEFORE OR DURING THE CONSTRUCTION PROCESS

6. ALL FLATS OF GROUND COVERS AND PERENNIALS SHALL BE PLANTED ON A TRIANGLE FORMATION TO ALLOW FOR MAXIMUM GROWTH PATTERN - NOTE O.C. PLANTINGS

7. ALL PLANT MATERIAL IS SUBJECT TO CHANGE PENDING PLANT AVAILABILITY, LANDSCAPE ARCHITECT APPEAL, OR CHANGE IN CONSTRUCTION LAYOUT. PLEASE CONTACT LANDSCAPE ARCHITECT WITH ANY CHANGES BEFORE CONSTRUCTION TAKES PLACE

8. NO WEED BARRIER SHOULD BE USED UNDER GROUND COVER AND PERENNIAL AREAS WITHIN PLANTING BEDS. INSTALL WEED BARRIER IN ALL TREE AND SHRUB PLANTER AREAS.

9. SEE CIVIL AND ARCHITECTURAL DRAWINGS FOR ALL STRUCTURES, HARDSCAPE, GRADING, AND DRAINAGE INFO.

10. SEE SHEET D-1 FOR PLANTING DETAILS.

11. PLANT SIZES ARE AS FOLLOWS UNLESS SPECIFIED ON PLANS AND/OR CALLED OUT ON PLANT LEGEND: DECIDUOUS TREES - 2" CALIPER, EVERGREEN TREES - HEIGHTS PER TREE LEGEND, SHRUBS - 5 GALLON, GRASSES/PERENNIALS - 1 GALLON TYPICAL, GROUNDCOVERS - PER PLAN OR 12" O.C. SPACING - SEE DETAILS(NOTE 10 ABOVE)

12. THE CONTRACTOR, PRIOR TO CONSTRUCTION, SHALL BE RESPONSIBLE TO VERIFY QUANTITIES INCLUDING TREES, SHRUBS, GROUNDCOVERS, MULCH, AND OTHER ITEMS SHOWN ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION OF MAJOR DISCREPANCIES. SOME ADJUSTMENT IN THE FIELD MAY BE REQUIRED PER OWNER.

13. THE CONTRACTOR SHALL STAKE THE LOCATION OF PLANT MATERIAL AND SHALL HAVE LOCATION APPROVED BY THE OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

14. NATIVE SEED AND WILDFLOWER MIX INSTRUCTIONS:
A) SITE PREPARATION - ALL EXISTING GRASSES/WEEDS PRESENT IN PROPOSED NATIVE GRASS/WILDFLOWER AREA ARE TO BE COMPLETELY ERADICATED. CONTRACTOR IS TO COMPLETE ANY AND ALL APPLICABLE SITE PREPARATION METHODS FOUND AT THE FOLLOWING LINK: HTTP://WWW.WILDFLOWERFARM.COM/INDEX.PHP?P=PAGE&PAGE_ID=SP

B) SEED INSTALLATION - ONCE THE AREA HAS BEEN PROPERLY PREPARED, SEEDING CAN COMMENCE. ALL NATIVE GRASSES SEED MIX IS TO BE APPLIED BY HYDRO SEED METHOD WITH BONDED FIBER MATRIX MIXED IN. THIS IS TO HELP HOLD SEED MIXES TO SLOPES. SEED MIXES ARE BEST APPLIED IN EARLY SPRING OR LATE FALL TO ACHIEVE DESIRED RESULTS. WILDFLOWER SEE MIX TO BE APPLIED BY HAND SPREADER, NOT HYDRO-SEED METHOD, TO ENSURE THE USE OF ALL THE WILDFLOWER SEEDS AND ENSURE FIRM SEED-TO-SOIL CONTACT. AFTER WILDFLOWER SEED MIX HAS BEEN SPREAD ON DESIRED AREA, MULCH AND BONDED FIBER MATRIX IS TO BE SPREAD ON TOP OF WILDFLOWER SEED MIX IN THE SAME DESIRED AREAS VIA HYDRO-SEED METHOD. THIS WILL STABILIZE ALL THE WILDFLOWER SEEDS ON SLOPES AND HELP IN THE GERMINATION PROCESS.

15. SHRUBS, GRASSES/PERENNIALS, AND GROUNDCOVERS SHALL BE PLANTED A MINIMUM OF 1' FROM THE EDGE OF WALKS, WALLS, BUILDINGS, AND CURBS UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT.

16. LANDSCAPE MOUNDING BEHIND NORTH EAST MONUMENT SIGN TO BE LEVEL AND ALLOW FOR TREES TO ALL BE PLANTED AT SAME HEIGHT.

17. SUBSTITUTIONS SHALL NOT BE ALLOWED UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.

18. OWNER AND/OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL DEEMED UNACCEPTABLE AND NOT TO PROPER SPECIFICATION.

19. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF UNDERGOUND UTILITY INSTALLATION THAT MAY BE AFFECTED BY HIS WORK AND SHALL BE RESPONSIBLE FOR DAMAGES TO SUCH INSTALLATION CAUSED AS A RESULT OF LANDSCAPE INSTALLATIONS.

0 20 40 80 feet
SCALE: 1" = 20'
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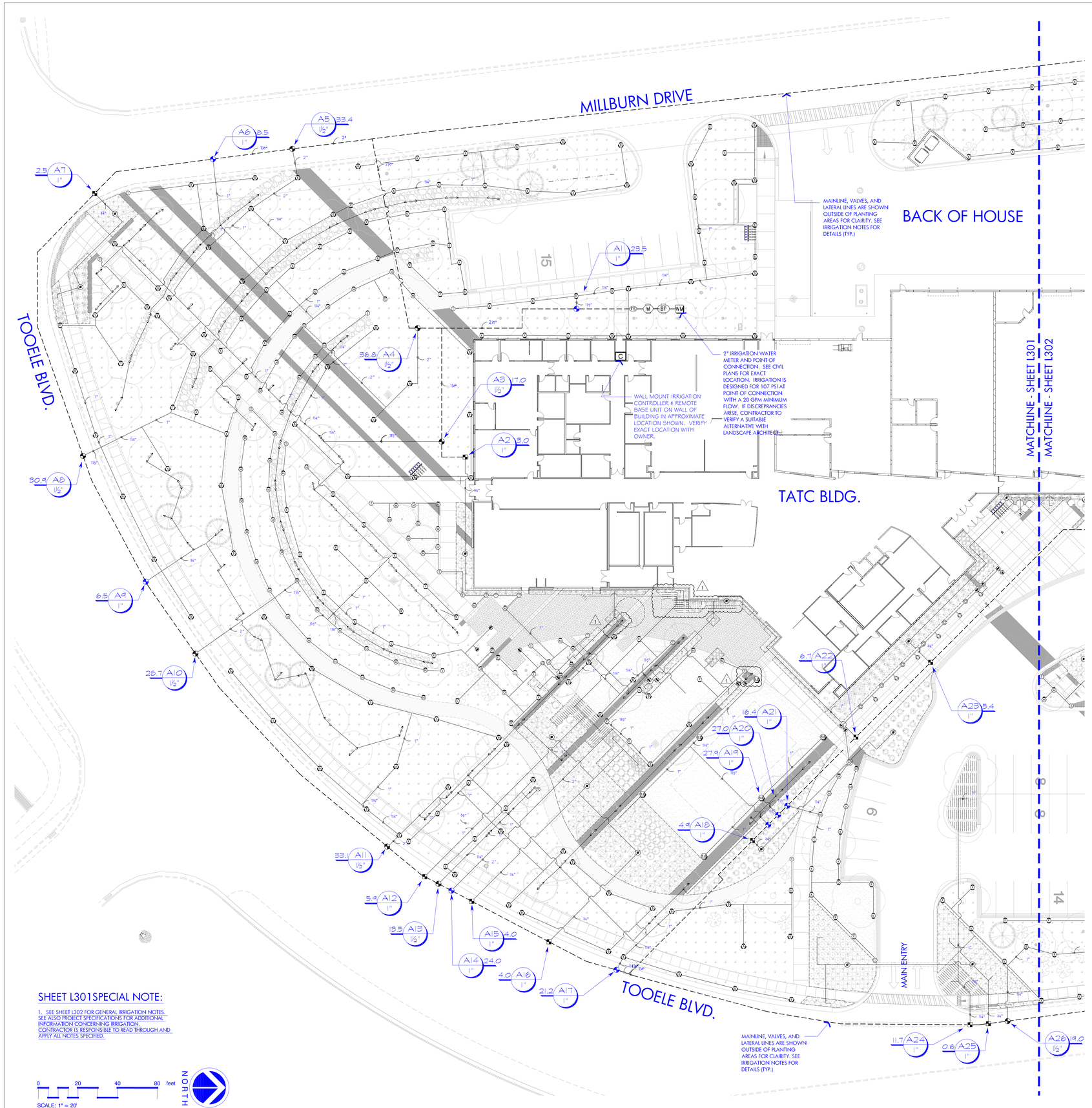
1 Addendum 4 2/28/2012

Landscape Plan

sheet:

L201

Project Status



SHEET L301SPECIAL NOTE:

1. SEE SHEET L302 FOR GENERAL IRRIGATION NOTES. SEE ALSO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION CONCERNING IRRIGATION. CONTRACTOR IS RESPONSIBLE TO READ THROUGH AND APPLY ALL NOTES SPECIFIED.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
Q T H F	HUNTER PROS-06-CV 8' RADIUS TURF SPRAY, 6" POP-UP WITH FACTORY INSTALLED DRAIN CHECK VALVE AND RECLAIMED BODY CAP.	95	30
8 10 12 15 17	HUNTER PROS-06-CV ADJ TURF SPRAY, 6" POP-UP WITH FACTORY INSTALLED DRAIN CHECK VALVE AND RECLAIMED BODY CAP.	4	30
M O	HUNTER MP1000 W/ PROS-06-CV TURF SPRAY 6" POP-UP WITH CHECK VALVE, MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC, ON MPR40 6" POP-UP BODY.	57	40
K G R	HUNTER MP2000 W/ PROS-06-CV TURF SPRAY 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC, ON MPR40 6" POP-UP BODY.	15	40
B Y A	HUNTER MP3000 W/ PROS-06-CV TURF SPRAY 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC, ON MPR40 6" POP-UP BODY.	8	40
T	HUNTER MP CORNER W/ PROS-06-CV TURF SPRAY 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105, ON MPR40 6" POP-UP BODY.	19	40
LST RST SST	HUNTER MP STRIP W/ PROS-06-CV TURF SPRAY 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, MP ROTATOR NOZZLE. LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP, ON MPR40 6" POP-UP BODY.	22	40
M O	HUNTER MP1000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH CHECK VALVE, PURPLE CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC ON PRS40 BODY.	79	40
K G R	HUNTER MP2000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC ON PRS40 BODY.	195	40
B Y A	HUNTER MP3000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC ON PRS40 BODY.	93	40
T	HUNTER MP CORNER PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH CHECK VALVE, PURPLE CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. T=TURQUOISE ADJ ARC 45-105 ON PRS40 BODY.	8	40
LST RST SST	HUNTER MP STRIP PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP ON PRS40 BODY.	5	40
.25 .50 .50H 1.0H 1.0F 2.0F	HUNTER PROS-04-CV-MSBN MULTI-STREAM BUBBLER, 4" POP-UP, FACTORY INSTALLED DRAIN CHECK VALVE, 25=.25GPM, 50=0.5GPM, 10=1.0GPM, 20=2.0GPM.	182	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
9.0	HUNTER I-20-ADS, 36S TURF ROTOR, 4" POPUP, ADJUSTABLE AND FULL CIRCLE, WITH CHECK VALVE, STAINLESS STEEL RISER	6	55	9.00	46'
3.0	HUNTER I-20-12-ADV, 36V SHRUB ROTOR, 12" POP-UP, ADJUSTABLE AND FULL CIRCLE, FACTORY INSTALLED CHECK VALVE.	1	55	3.40	39'
4.0	HUNTER I-20-12-ADV, 36V SHRUB ROTOR, 12" POP-UP, ADJUSTABLE AND FULL CIRCLE, FACTORY INSTALLED CHECK VALVE.	2	55	4.50	41'
8.0	HUNTER I-20-12-ADV, 36V SHRUB ROTOR, 12" POP-UP, ADJUSTABLE AND FULL CIRCLE, FACTORY INSTALLED CHECK VALVE.	11	55	9.00	46'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZ-100-B-COM DRIP CONTROL KIT, 1" PEBS VALVE, 1" BASKET FILTER, AND 40PSI PRESSURE REGULATOR, 1" BALL VALVE.	18
	PIPE TRANSITION POINT PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING WITH RISER IN DRIP BOX.	24
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XERI-BUG XB SINGLE OUTLET PRESSURE COMPENSATING DRIP EMITTER, BARBED INLET, BLUE=0.5GPH, BLACK=1.0GPH, RED=2.0GPH. Emitter Notes: 1 gal plant to receive 2 05PC emitters. 2 gal plant to receive 2 05PC emitters. 3 gal plant to receive 2 10PC emitters. 5 gal plant to receive 3 10PC emitters. 15 gal plant to receive 5 10PC emitters. 25 gal plant to receive 6 20PC emitters. 30 gal plant to receive 6 20PC emitters. B & B plant to receive 10 20PC emitters. B & B, 2.5"Cal plant to receive 10 20PC emitters.	19,593 S.F.
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFD-09-12 LANDSCAPE DRIPLINE WITH 0.9GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN.	3,781 S.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	HUNTER ICV ELECTRIC REMOTE CONTROL VALVE, PLASTIC GLOBE.	27
M	HUNTER HFV-201G 2" ELECTRIC REMOTE CONTROL VALVE, 2" BRASS, WITH GLOBE VALVE, FLOW CONTROL.	1
BF	FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	WEATHERTRAK WTPRO2S-C-48-CWM SUBSCRIPTION MODEL # CIM-PRO2C-1248-1Y	1
FS	BADGER MODEL IR220P 2 FLOW SENSOR 2"	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 PVC SCHEDULE 40 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	16,383 L.F.
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	3,820 L.F.
	PIPE SLEEVE: BILL-LOCK AND PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	1,215 L.F.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

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1 Addendum 4 2/28/2012

Irrigation Plan

sheet:

L301

Project Status

SECTION 062013 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Tongue and groove cedar soffits.

1.2 ACTION SUBMITTALS

A. LEED Submittals:

1. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional.
2. Certificates for [**Credit MR 7**]: Chain-of-custody certificates indicating that products specified to be made from certified wood comply with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product.

B. Samples: 2’x2’ sample board for each type of product involving selection of colors, profiles, or textures.

1.3 INFORMATIONAL SUBMITTALS

A. Compliance Certificates:

1. For lumber that is not marked with grade stamp.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Regional Materials: The following wood products shall be manufactured within 500 miles (800 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site.
1. Exterior soffits.

2.2 TONGUE AND GROOVE SOFFITS

A. Western Red Cedar.

1. Species, size, joint: Western red cedar, 1x6 smooth, flush joint

2. Grade: A Clear NLGA 200a

3. Provide kiln-dried lumber complying with DOC PS 20.

B. Finish: Premium color stain to match western red cedar finish. Architect to select finish based on full manufacturer palette.

2.3 MISCELLANEOUS MATERIALS

A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches (38 mm) into wood substrate.

1. For prefinished items, provide matching prefinished aluminum fasteners where face fastening is required.
2. For applications not otherwise indicated, provide [**stainless-steel**]

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

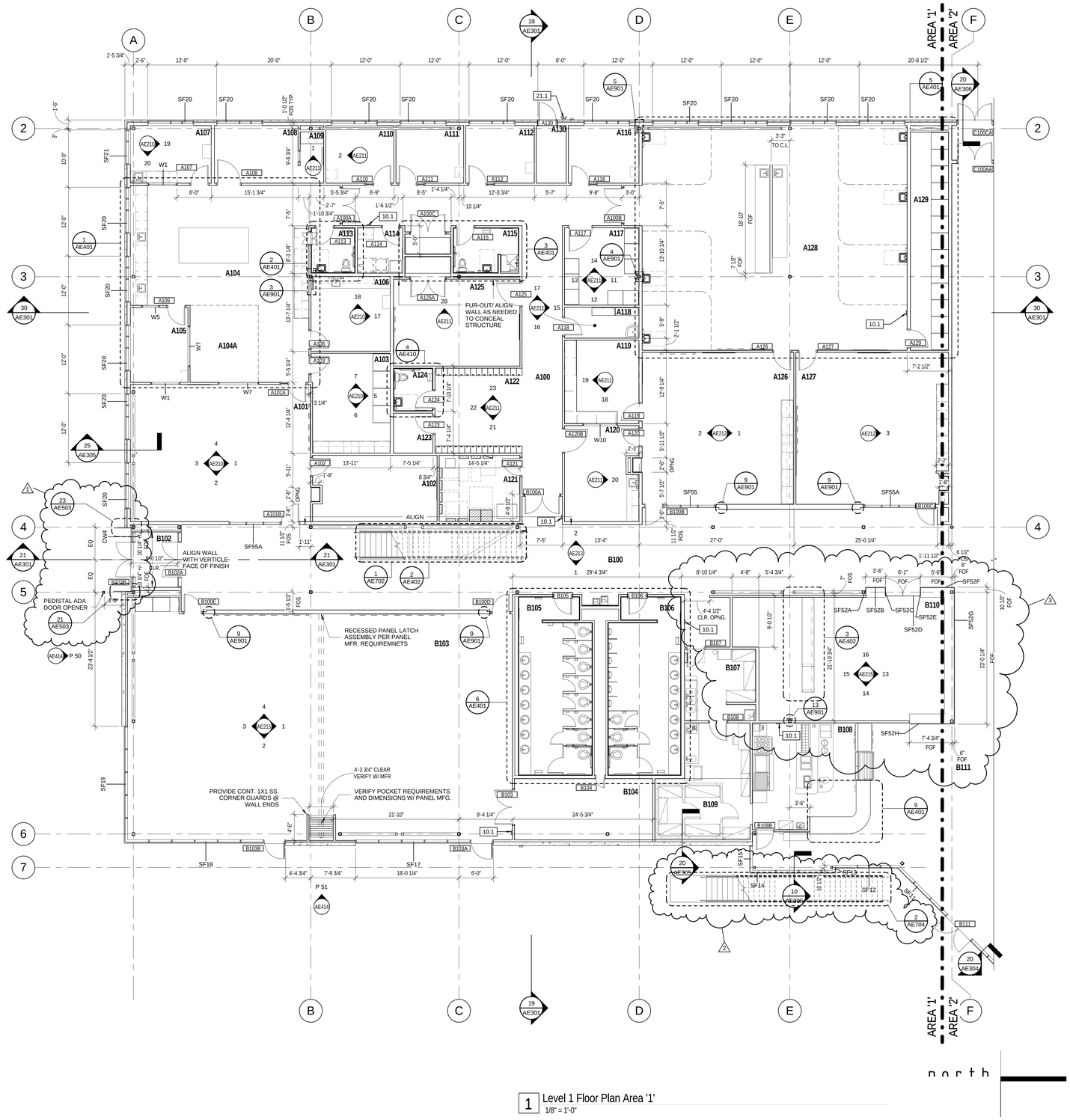
A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

2. Seal butt joints at inside and outside corners and at trim locations.
3. Install continuous metal flashing at horizontal panel joints.
4. Apply battens and corner trim as indicated.
5. Conceal fasteners to greatest practical extent by placing in grooves of siding pattern.

END OF SECTION 062013

ROOM SCHEDULE LEVEL _1	
Number	Name
A100	CORRIDOR
A101	MEDICAL ASSISTING CLASSROOM
A102	TESTING
A103	STORAGE
A104	MEDICAL ASSISTING LAB
A104A	LAB RECEPTION
A105	MA Office
A106	SURGERY
A107	EXAM
A108	XRAY
A109	X-RAY CONTROL
A110	OFFICE
A111	OFFICE
A112	OFFICE
A113	TOILET
A114	LAUNDRY
A115	INSTRUCTION TOILET
A116	OFFICE
A117	CNA STORAGE
A118	JANITOR
A119	CONTROL
A120	SIM ROOM
A121	ELECTRICAL
A122	LOCKER ROOM
A123	STORAGE
A124	TOILET
A125	CPR
A126	LPN/CNA CLASSROOM
A127	RN CLASSROOM
A128	LPN/RN/CNA LAB SUITE
A129	STORAGE
A130	FIRE RISER ROOM
B100	CORRIDOR
B101	LOBBY
B101A	VESTIBULE
B102	VESTIBULE
B103	MULTIPURPOSE ROOM
B104	STORAGE
B105	WOMEN
B106	MEN
B107	KITCHEN STORAGE
B108	KITCHEN
B109	WALK-IN COOLER
B110	BOOKSTORE
B111	CAFETERIA
B112	MEDIA
B113	PLACEMENT
B114	PLACEMENT OFFICE
B115	OFFICE
B116	ASSESSMENT
B117	ELEV. EQ.
B118	ELEVATOR
B119	RECEPTION
B120	ENROLLMENT
B120A	CORRIDOR
B121	ENROLMENT WAITING
B122	COUNSELOR
B123	SIS OFFICE
B124	STORAGE / STUDENT RECORDS
B125	SPARE OFFICE
B126	SS VP
C100	CORRIDOR
C100A	CORRIDOR
C100B	COORIDOR
C100C	VESTIBULE
C100D	VESTIBULE
C101	SHELLED LAB
C102	SHELLED CLASSROOM
C102A	RECEIVING
C103	CONSTRUCTION TECHNOLOGY LAB
C103A	VESTIBULE
C104	CONSTRUCTION TECHNOLOGY CLASSROOM
C105	CT STORAGE
C106	CT OFFICE
C107	WELDING LAB
C108	GRINDING
C109	MAIN ELECTRICAL
C110	SUPPLY ROOM
C111	TOOL STORAGE
C112	DIESEL CLASSROOM
C113	DIESEL OFFICE
C114	WELDING CLASSROOM
C115	WELDING OFFICE
C116	WL STORAGE
C117	LOCKER
C118	TOILET
C119	LOCKER
C120	TOILET
C121	CE & R LAB
C122	CE & R STORAGE
C123	CE & R OFFICE
C124	CE & R CLASSROOM



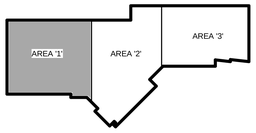
1 Level 1 Floor Plan Area '1'
1/8" = 1'-0"

GENERAL NOTES

1	SEE SHEET AE601 FOR DOOR AND WINDOW SCHEDULE.
2	SEE SHEET AE602, AE603 AND AE603 FOR ALL GLAZING ELEVATIONS. SEE AE605 FRAME TYPES AND DOOR TYPES
3	GUARDRAIL AND SUPPORTS TO BE SYMMETRICAL ACROSS FLOOR OPENINGS AND ADJACENT LIKE ELEMENTS TYP. INITIAL SUPPORTS TO BE 6" FROM START AND END OF GUARD RAIL RUNS TYP. MAX SPACING BETWEEN SUPPORTS TO BE 5'-0" TYP. NOT ALL GUARDRAILS ARE ELEVATED. COORDINATE ALL GUARDRAILS AND SUPPORTS WITH GUARDRAIL DETAIL SHEETS.
4	ALL INTERIOR EXPOSED STEEL TO BE PAINTED, SEE FINISH SCHEDULE. AREAS 2 & 3, WEST OF GRID 4 AND SHOP SPACES ARE EXCLUDED U.N.O.
5	PROVIDE SEMI-RIGID JOINT SEALER @ ALL INTERIOR CONCRETE JOINTS WEST OF GRID 4 AND NORTH OF GRID G
6	CONTRACTOR TO PROVIDE SOLID BLOCKING AT ALL CASE WORK, FIXED FURNISHINGS AND EQUIPMENT. COORDINATE WITH ELEVATIONS, SECTIONS AND FURNITURE AND FIXTURE SHEETS AND SPECIFICATIONS. SEE SHEET AE901 FOR TYPICAL DETAILS

KEYNOTE LEGEND

10.1	SEMI-RECESSED FIRE EXTINGUISHER CABINET
21.1	FIRE DEPARTMENT CONNECTION. SEE MECHANICAL.



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consultants:

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions:

1	Addendum 2	2/10/2012
2	Addendum 3	2/17/2012
3	Addendum 4	2/28/2012

Lvl 1 Floor Plan Area '1'

sheet:

AE101

100% Construction Documents

ROOM SCHEDULE LEVEL _1	
Number	Name
A100	CORRIDOR
A101	MEDICAL ASSISTING CLASSROOM
A102	TESTING
A103	STORAGE
A104	MEDICAL ASSISTING LAB
A104A	LAB RECEPTION
A105	MA Office
A106	SURGERY
A107	EXAM
A108	XRAY
A109	X-RAY CONTROL
A110	OFFICE
A111	OFFICE
A112	OFFICE
A113	TOILET
A114	LAUNDRY
A115	INSTRUCTION TOILET
A116	OFFICE
A117	CNA STORAGE
A118	JANITOR
A119	CONTROL
A120	SIM ROOM
A121	ELECTRICAL
A122	LOCKER ROOM
A123	STORAGE
A124	TOILET
A125	CPR
A126	LPN/CNA CLASSROOM
A127	RN CLASSROOM
A128	LPN/RN/CNA LAB SUITE
A129	STORAGE
A130	FIRE RISER ROOM
B100	CORRIDOR
B101	LOBBY
B101A	VESTIBULE
B102	VESTIBULE
B103	MULTIPURPOSE ROOM
B104	STORAGE
B105	WOMEN
B106	MEN
B107	KITCHEN STORAGE
B108	KITCHEN
B109	WALK-IN COOLER
B110	BOOKSTORE
B111	CAFETERIA
B112	MEDIA
B113	PLACEMENT
B114	PLACEMENT OFFICE
B115	OFFICE
B116	ASSESSMENT
B117	ELEV. EQ.
B118	ELEVATOR
B119	RECEPTION
B120	ENROLLMENT
B120A	CORRIDOR
B121	ENROLMENT WAITING
B122	COUNSELOR
B123	SIS OFFICE
B124	STORAGE / STUDENT RECORDS
B125	SPARE OFFICE
B126	SS VP
C100	CORRIDOR
C100A	CORRIDOR
C100B	COORIDOR
C100C	VESTIBULE
C100D	VESTIBULE
C101	SHELLED LAB
C102	SHELLED CLASSROOM
C102A	RECEIVING
C103	CONSTRUCTION TECHNOLOGY LAB
C103A	VESTIBULE
C104	CONSTRUCTION TECHNOLOGY CLASSROOM
C105	CT STORAGE
C106	CT OFFICE
C107	WELDING LAB
C108	GRINDING
C109	MAIN ELECTRICAL
C110	SUPPLY ROOM
C111	TOOL STORAGE
C112	DIESEL CLASSROOM
C113	DIESEL OFFICE
C114	WELDING CLASSROOM
C115	WELDING OFFICE
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C119	LOCKER
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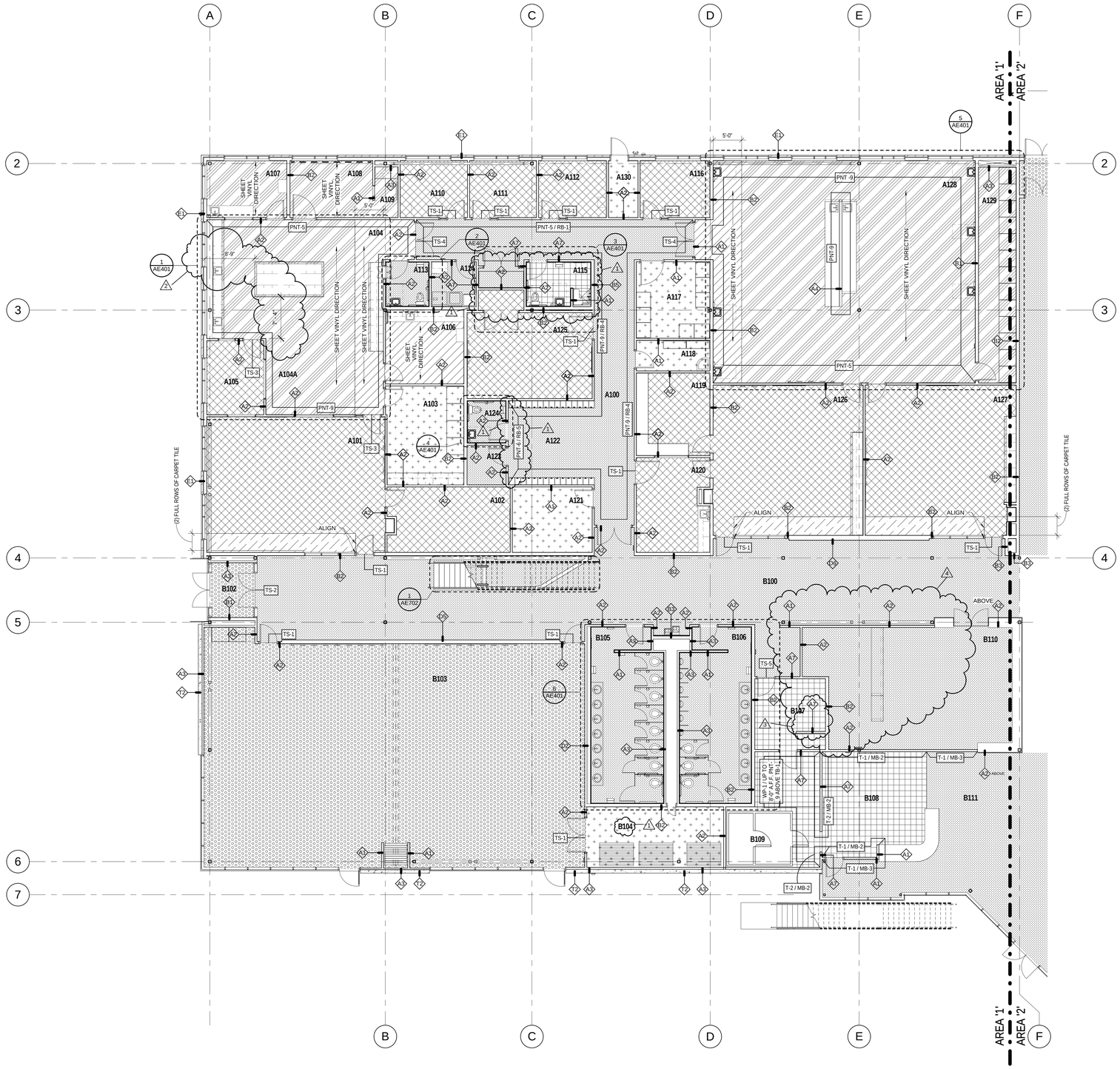


1 Level 1 Finish Plan Area '1'
1/8" = 1'-0"

north

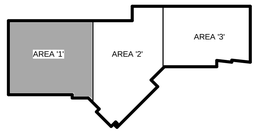
GENERAL FINISH FLOOR PLAN NOTES	
1	SEE FLOOR PLANS FOR INTERIOR ELEVATIONS
2	NOT USED
3	ALL METAL STUD WALLS TO DECK ABOVE, SEE SHEET AE621 FOR WALL TYPES
4	PROVIDE DEFLECTION TRACKS @ ALL STUD WALLS, SEE DETAIL 4/AE804
5	ALL MATERIALS TO BE INSTALLED PER SPECIFIC MANUFACTURER'S INSTALLATION RECOMMENDATIONS
6	ALL EXPOSED METAL TO BE INSTALLED PER SPECIFIC MANUFACTURER'S INSTALLATION RECOMMENDATIONS
7	FLOORING MATERIAL TRANSITIONS TO OCCUR AT CENTER LINE OF DOOR THRESHOLDS, U.N.O.
8	PREPARE FLOORS/WALLS TO RECIEVE FINISH MATERIAL. REFER TO MANUFACTURERS RECOMMENDATIONS FOR SURFACE PREPERATION. NOTIFY ARCHITECT IF CONDITIONS ARE INADEQUATE FOR REQURED INSTALLATION.
9	REFER TO ROOM FINISH SCHEDULE AND MATERIAL LEGEND IN SHEET AE611 FOR MORE INFORMATION
10	SEE AE621 FOR WALL TYPES
11	CONTRACTOR TO PROVIDE SOLID BLOCKING AT ALL CASE WORK, FIXED FURNISHINGS AND EQUIPMENT. COORDINATE WITH ELEVATIONS, SECTIONS AND FURNITURE AND FIXTURE SHEETS AND SPECIFICATIONS. SEE SHEET AE901 FOR TYP. DETAILS
12	PROVIDE CEMENTITIOUS BOARD IN LIEU OF GYPSUM BOARD (BEHIND TILE), IN ROOMS A115, B228, B229, B230 AND B231.
13	WRAP GYP. BD. AT EXPOSED FURRING ENDS U.N.O.

FLOOR FINISH LEGEND

CODE	MATERIAL
CPT-1	CARPET TILE
CPT-2	CARPET TILE
CPT-3	CARPET TILE
CPT-4	CARPET TILE
CPT-5	CARPET TILE
CPT-6	WALK OFF MAT
PSC-1	POLISHED SEALED CONCRETE
SC-1	SEALED CONCRETE
T-2	PORCELAIN TILE
T-8	PORCELAIN TILE
T-10	MOSAIC TILE
SV-1	SHEET VINYL
SV-2	SHEET VINYL
SCF-1	STATIC CONTROL FLOORING
VF-1	VINYL PLANK
WF-1	WOOD FLOORING
TS	TRANSITION STRIP

WALL / BASE FINISH LEGEND:

B-1
MATERIAL TYPE
MATERIAL TRANSITION



LICENSED ARCHITECT
6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions:

1	Addendum 2	2/10/2012
2	ASI #1	TBD
3	Addendum 3	2/17/2012
4	Addendum 4	2/28/2012

Lvl 1 Wall Type/Finish Plan Area '1'

sheet:

AE111

100% Construction Documents

ROOM SCHEDULE LEVEL _1	
Number	Name
A100	CORRIDOR
A101	MEDICAL ASSISTING CLASSROOM
A102	TESTING
A103	STORAGE
A104	MEDICAL ASSISTING LAB
A104A	LAB RECEPTION
A105	MA Office
A106	SURGERY
A107	EXAM
A108	XRAY
A109	X-RAY CONTROL
A110	OFFICE
A111	OFFICE
A112	OFFICE
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A115	INSTRUCTION TOILET
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A126	LPN/CNA CLASSROOM
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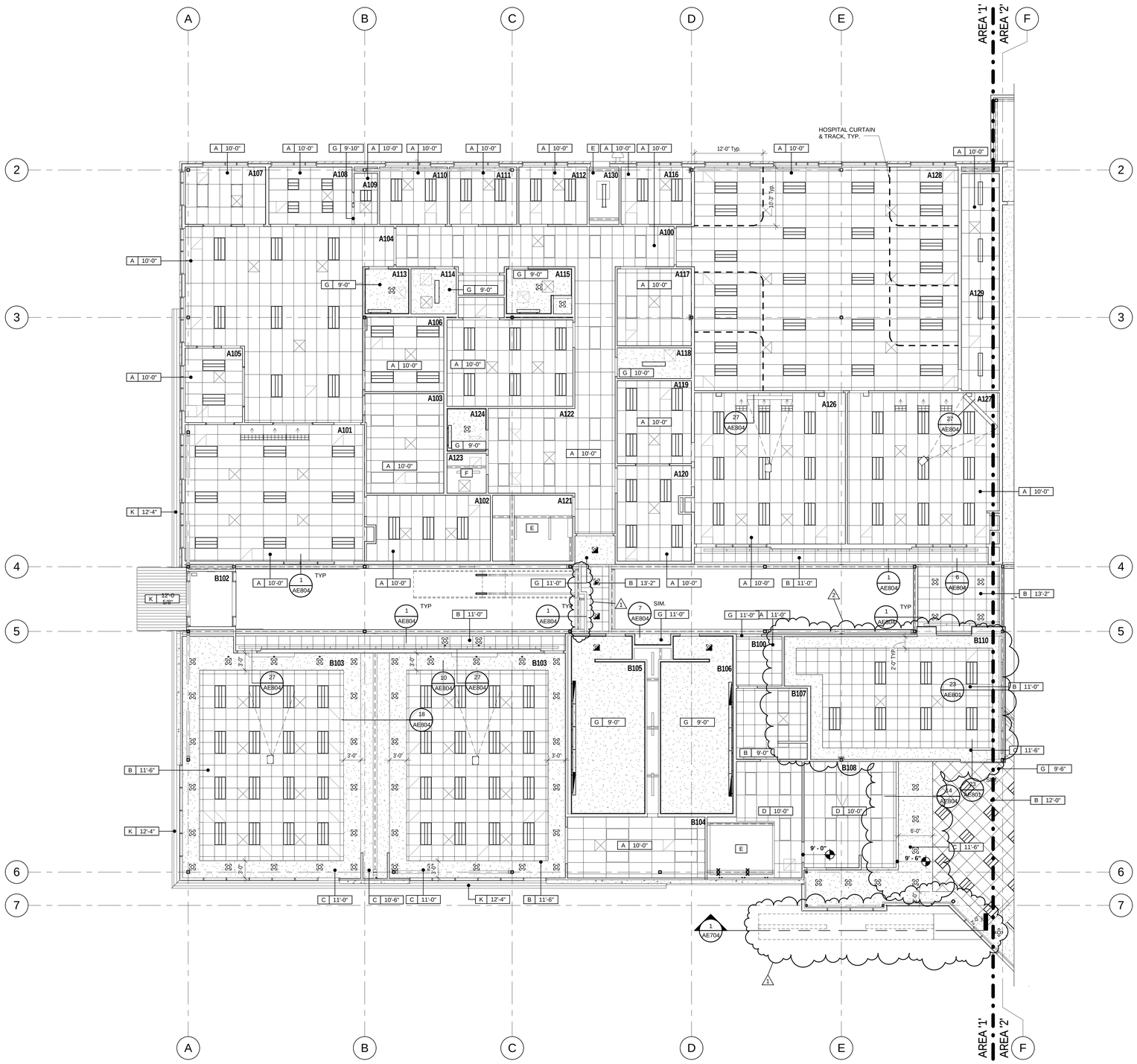
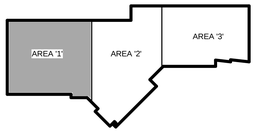


1 Level 1 RCP Area '1'
1/8" = 1'-0"

GENERAL CEILING PLAN NOTES -	
1	CEILING GRID SHOWN IS ONLY A GRAPHIC REPRESENTATION OF CEILING. CONTRACTOR SHALL VERIFY ACTUAL GRID LAYOUT/LOCATION IN THE FIELD.
2	VERIFY ALL LIGHT, SMOKE DTECTORS AND EXIT SIGN LOCATIONS WITH ELECTRICAL DRAWINGS.
3	VERIFY ALL MECHANICAL DUCT, GRILL, DIFFUSER AND VENT LOCATIONS WITH MECHANICAL DRAWINGS.
4	COORDINATE FIXTURE LAYOUT AND QUANTITY WITH ELECTRICAL PLANS. REFER TO MECHANICAL DRAWINGS FOR DIFFUSER LOCATION.
5	SEE SHEET AE806 FOR TYP. FIXTURE SUPPORT, CLIP ANGLE & SEISMIC BRACING DETAILS.
6	MAKE FACTORY EDGE WHERE TILE IS CUT TYP. FOR ALL LAY IN ACOUSTICAL TILE WITH TEGULAR EDGE

RCP PLAN LEGEND	
TYPE A	2' x 4' LAY-IN ACOUSTICAL TILE IN SUSPENDED GRID (FINISH ACT-2)
TYPE B	2' x 2' LAY-IN ACOUSTICAL TILE IN SUSPENDED GRID (FINISH ACT-1)
TYPE C	5/8" GYPSUM BOARD SOFFIT (PAINTED) PROVIDE MTL. STUD WALL FROM STRUCTURE ABOVE OR ADJACENT WALLS, DIAGONAL BRACING AS NECESSARY
TYPE D	2' x 4' FRP CEILING IN SUSPENDED GRID (FINISH ACT-4)
TYPE E	EXPOSED STRUCTURE
TYPE F	EXPOSED STRUCTURE (PAINTED)
TYPE G	5/8" GYPSUM BOARD (PAINTED) 0N METAL SUSPENSION SYSTEM
TYPE H	WOOD VENEER ON GYP. BD.
TYPE J	METAL SOFFIT
TYPE K	EXTERIOR T & G
TYPE L	30"X30" LAY-IN ACOUSTICAL TILE IN SUSPENDED GRID (FINISH ACT-3)



LICENSED ARCHITECT
6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
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88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions:
1 Addendum 3 2/17/2012
2 Addendum 4 2/28/2012

Lvl 1 Reflected Ceiling Plan 1

sheet:
AE151

100% Construction Documents

ROOM SCHEDULE LEVEL _1	
Number	Name
A100	CORRIDOR
A101	MEDICAL ASSISTING CLASSROOM
A102	TESTING
A103	STORAGE
A104	MEDICAL ASSISTING LAB
A104A	LAB RECEPTION
A105	MA Office
A106	SURGERY
A107	EXAM
A108	XRAY
A109	X-RAY CONTROL
A110	OFFICE
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A130	FIRE RISER ROOM
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B101A	VESTIBULE
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B103	MULTIPURPOSE ROOM
B104	STORAGE
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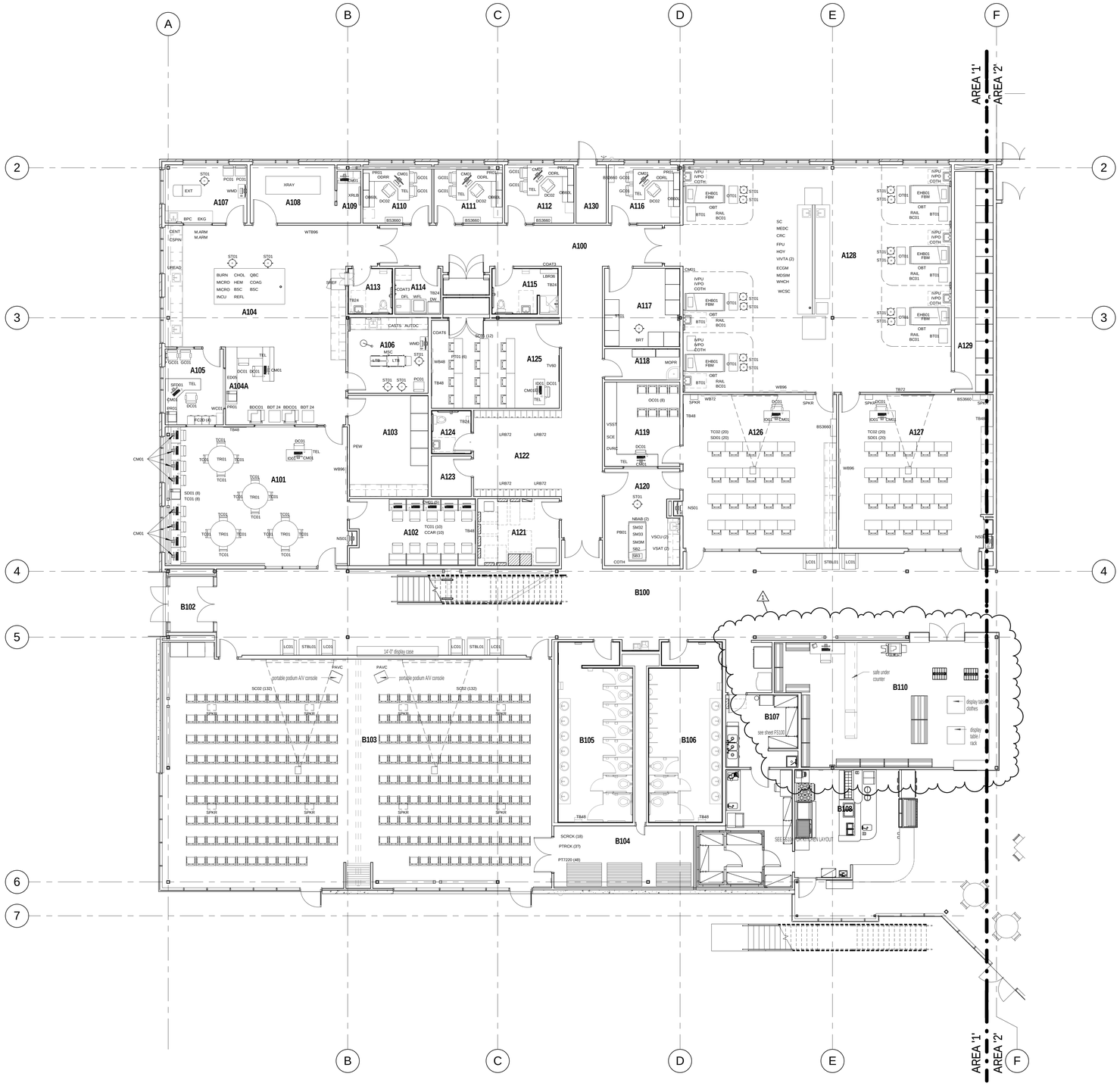
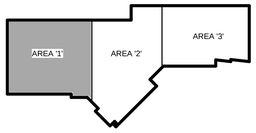


1 Level 1 Furniture Plan Area '1'
1/8" = 1'-0"

north



KEYNOTE LEGEND

GENERAL FF&E NOTES	
1	THIS SHEET IS FOR REFERENCE COORDINATE WITH THE FF&E SPECIFICATIONS
2	CONTRACTOR TO PROVIDE SOLID BLOCKING AT ALL CASE WORK, FIXED FURNISHINGS AND EQUIPMENT. COORDINATE WITH ELEVATIONS, SECTIONS AND FURNITURE AND FIXTURE SHEETS AND SPECIFICATIONS.

LICENSED ARCHITECT 6710870 JOSEPH FLINT SMITH STATE OF UTAH
01.20.12

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DFCM PROJECT #11064280

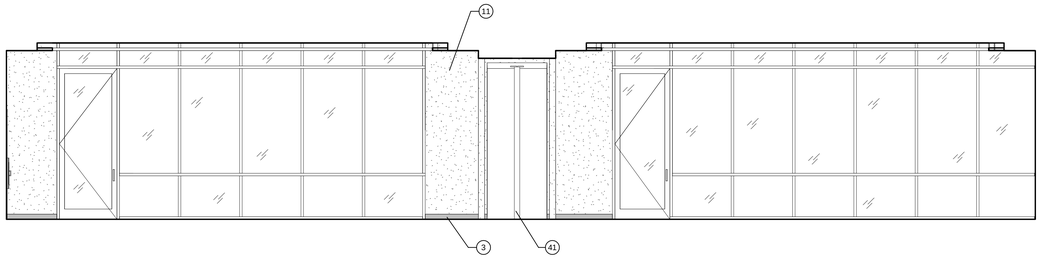
project#: 11.0420
date: 1/20/2012

revisions :
1 Addendum 4 2/28/2012

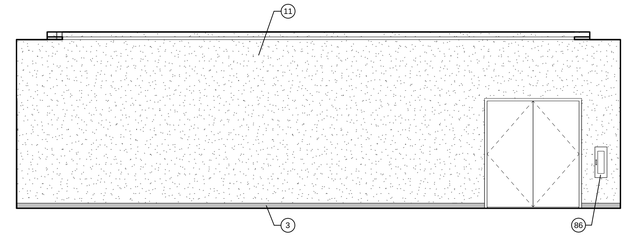
Lvl 1 Furniture Plan Area '1'

sheet:
AE171

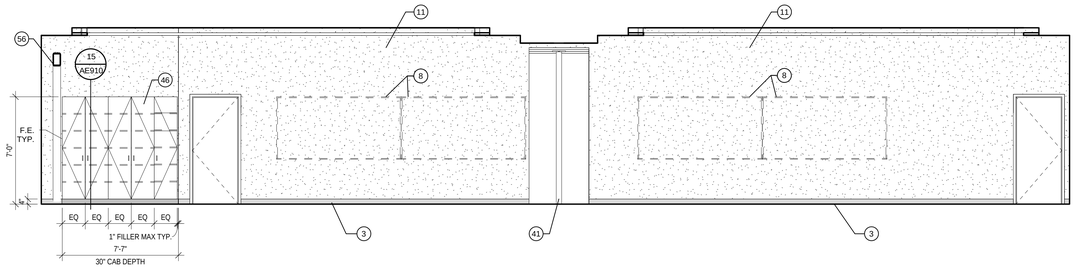
100% Construction Documents



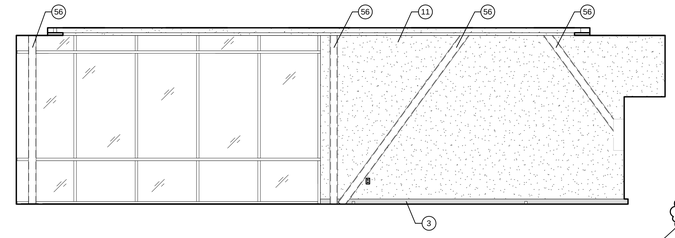
2 B103 East Multipurpose Classroom
1/4" = 1'-0"



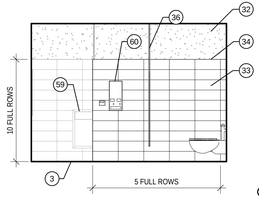
1 B103 North Multipurpose Classroom
1/4" = 1'-0"



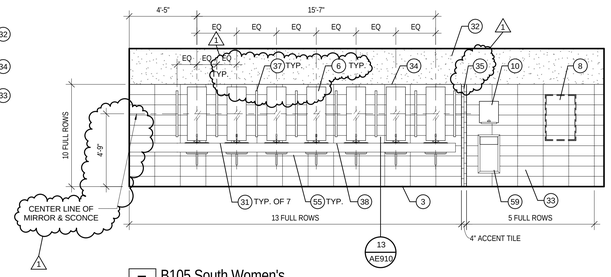
4 B103 West Multipurpose Classroom
1/4" = 1'-0"



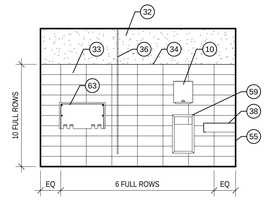
3 B103 South Multipurpose Classroom
1/4" = 1'-0"



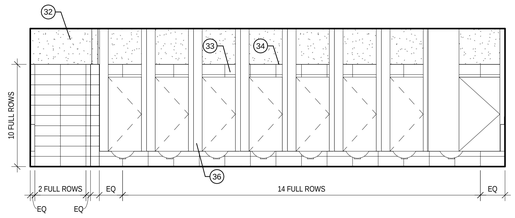
8 B105 West Women's
1/4" = 1'-0"



7 B105 South Women's
1/4" = 1'-0"

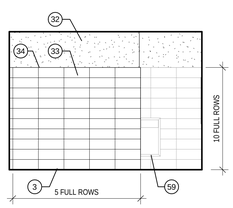


6 B105 East Women's
1/4" = 1'-0"

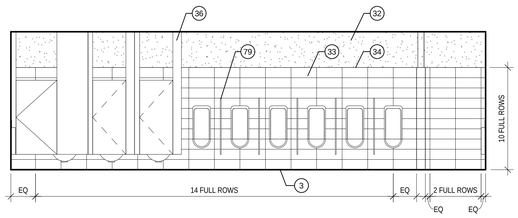


5 B105 North Women's
1/4" = 1'-0"

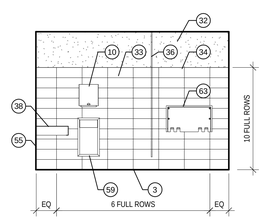
NOTE: PROVIDE SANITARY NAPKIN DISPOSALS IN ALL WOMEN'S STALLS. PROVIDE TOILET PAPER DISPENSERS, AND TOILET SEAT COVER PROTECTORS IN ALL STALLS. PROVIDE GRAB BARS IN 'ADA' AND AMBULATORY STALLS. PROVIDE COAT HOOKS @ BACK OF STALL DOORS.



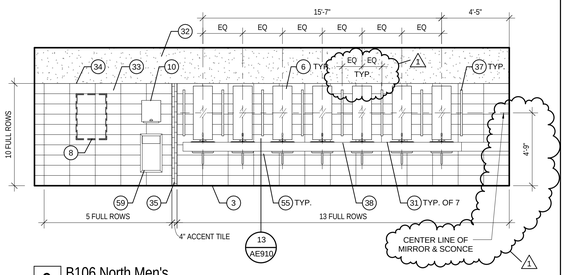
12 B106 West Men's
1/4" = 1'-0"



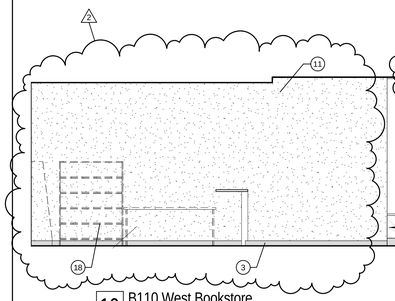
11 B106 South Men's
1/4" = 1'-0"



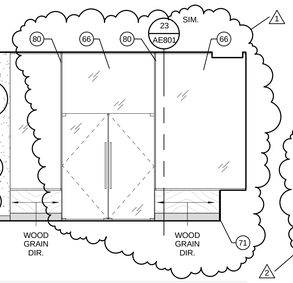
10 B106 East Men's
1/4" = 1'-0"

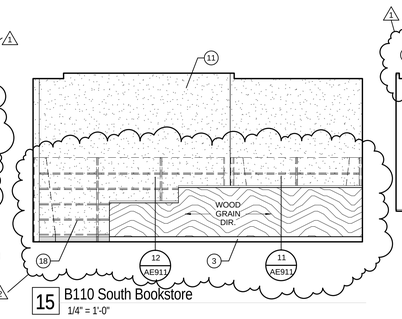


9 B106 North Men's
1/4" = 1'-0"

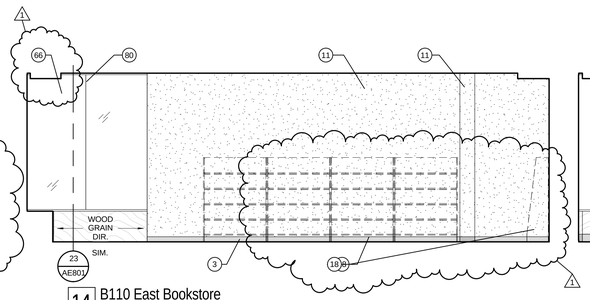


16 B110 West Bookstore
1/4" = 1'-0"

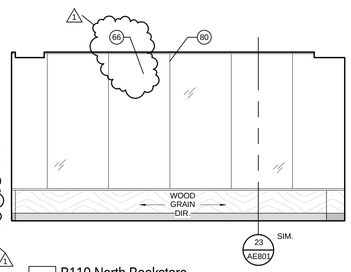




15 B110 South Bookstore
1/4" = 1'-0"



14 B110 East Bookstore
1/4" = 1'-0"



13 B110 North Bookstore
1/4" = 1'-0"

KEYNOTE LEGEND

3	BASE AS SPECIFIED
6	MIRROR - CENTER OVER SINK - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
8	WHITE BOARD / TACK BOARD BY OTHERS
10	AUTOMATIC PAPER TOWEL DISPENSER - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
11	GWB PAINTED WALL - REFER TO ROOM FINISH SCHEDULE (AE611)
18	FURNITURE OR EQUIPMENT BY OTHERS
31	COUNTER MOUNTED SOAP DISPENSOR - REFER TO ACCESSORY SCHEDULE (AE611)
32	PAINT ABOVE TILE (PNT-9)
33	WALL TILE (T-1) - 8"x20" GRID STACKED
34	BULL NOSE EDGE TRIM (T-7)
35	ACCENT TILE - 2"x8" (T-5) - RUN VERTICALLY UP WALL
36	CEILING MOUNTED PLASTIC LAMINATE TOILET PARTITION - PROVIDE BLOCKING IN CEILING AND WALLS - REFER TO ACCESSORY SCHEDULE (AE611)
37	WALL SCONCE - REFER TO ELECTRICAL DRAWINGS
38	STONE COUNTERTOP W/ NO BACKSPLASH
41	CEILING MOUNTED ACOUSTICAL FOLDING PARTITION - REFER TO DETAILS AND SECTIONS
46	PLASTIC LAMINATE TALL CABINETS W/ ADJUSTABLE SHELVING
55	FULLY CONCEALED WORK SURFACE SUPPORTS - 3' O.C.
56	PAINTED METAL STRUCTURE (PNT-9)
59	SEMI-RECESSED TRASH RECEPTACLE - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
60	SANITARY NAPKIN DISPENSOR - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
63	BABY CHANGING STATION - REFER TO ACCESSORY SCHEDULE (AE611)
66	1/2" CLEAR TEMPERED GLASS - FRAMELESS
71	METAL BASE (MB-1)
79	WALL MOUNTED PLASTIC LAMINATE URINAL PARTITION - REFER TO ACCESSORY SCHEDULE (AE611)
80	1/4" GAP @ FRAMELESS GLASS
86	SEMI-RECESSED FIRE EXTINGUISHER CABINET

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, SEE SHEET 1/AE901 FOR TYPICAL ACCESSORY MOUNTING HEIGHTS
2. UPPER, LOWER, AND TALL MILLWORK CABINETS NOT TO EXCEED 36" IN WIDTH
3. UNLESS NOTED OTHERWISE, MATCH UPPER CABINET WIDTH DIMENSIONS TO BASE CABINETS - TYP.
4. ALL ELECTRICAL AND DATA OUTLETS ABOVE COUNTER TOPS SHOULD BE MOUNTED HORIZONTALLY
5. PROVIDE SAFETY INSULATION ON ALL EXPOSED SUPPLY WATER LINES AND WASTE LINES.
6. PROVIDE BLOCKING @ ALL ATTACHMENT LOCATIONS; INCLUDING BUT NOT LIMITED TO CASEWORK, SHELVING, EQUIPMENT, & FURNITURE. SEE 27/AE901 FOR TYP.

LICENSED ARCHITECT
6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

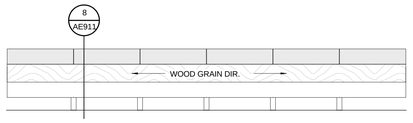
project#: 11.0420
date: 1/20/2012

revisions:
1 Addendum 2 2/10/2012
2 Addendum 4 2/28/2012

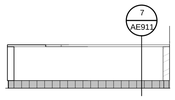
Interior Elevations

sheet:
AE215

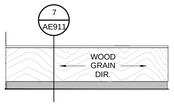
100% Construction Documents



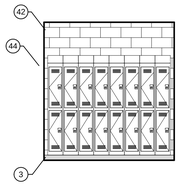
13 Cafeteria Bar South Elevation
1/4" = 1'-0"



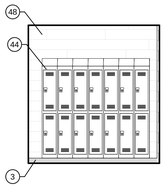
14 Kitchen Service Counter West Elevation
1/4" = 1'-0"



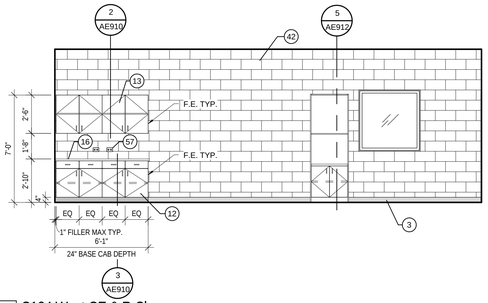
15 Kitchen Service Counter East Elevation
1/4" = 1'-0"



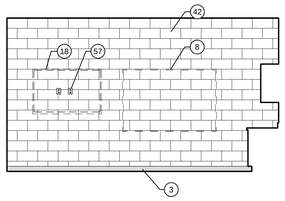
2 C117 West Locker
1/4" = 1'-0"



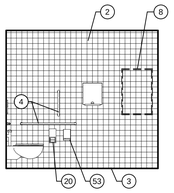
1 C117 East Locker
1/4" = 1'-0"



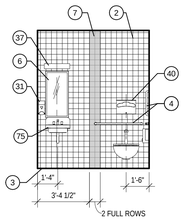
8 C124 West CE & R Classroom
1/4" = 1'-0"



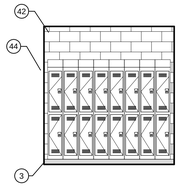
7 C124 South CE & R Classroom
1/4" = 1'-0"



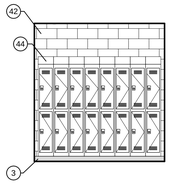
6 C120 South Toilet
1/4" = 1'-0"



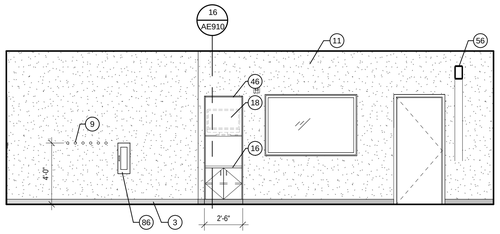
5 C120 East Toilet
1/4" = 1'-0"



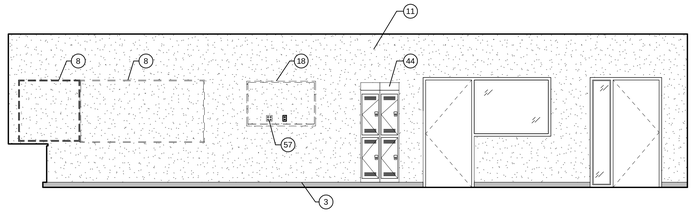
4 C119 West Locker
1/4" = 1'-0"



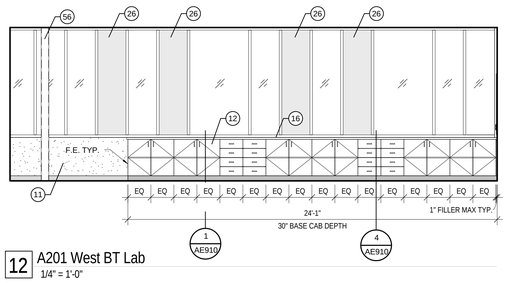
3 C119 East Locker
1/4" = 1'-0"



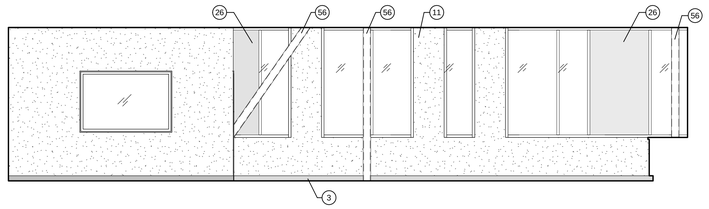
10 A201 East BT Lab
1/4" = 1'-0"



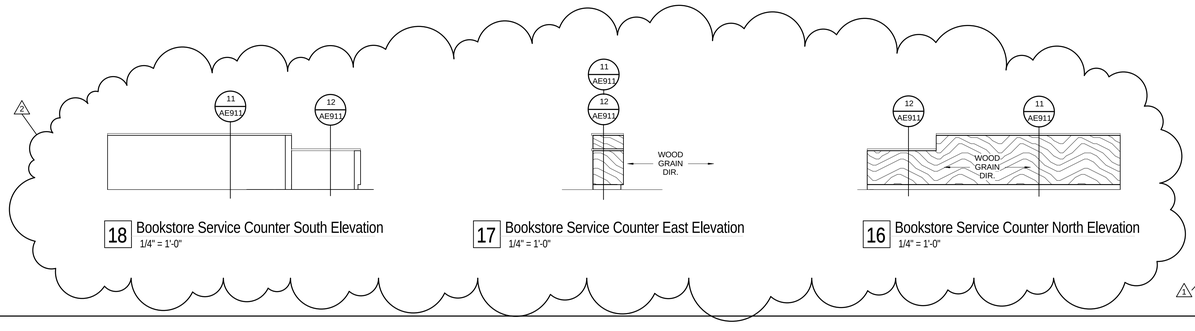
9 A201 North BT Lab
1/4" = 1'-0"



12 A201 West BT Lab
1/4" = 1'-0"



11 A201 South BT Lab
1/4" = 1'-0"



18 Bookstore Service Counter South Elevation
1/4" = 1'-0"

17 Bookstore Service Counter East Elevation
1/4" = 1'-0"

16 Bookstore Service Counter North Elevation
1/4" = 1'-0"

KEYNOTE LEGEND

2	4x4 CERAMIC TILE (T-3)
3	BASE AS SPECIFIED
4	GRAB BAR - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901), & ACCESSORY SCHEDULE (AE611)
6	MIRROR - CENTER OVER SINK - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
7	TILE ACCENT (T-4) - TWO (2) FULL ROWS
8	WHITE BOARD / TACK BOARD BY OTHERS
9	COAT HOOK - REFER TO ACCESSORY SCHEDULE (AE611)
11	GWB PAINTED WALL - REFER TO ROOM FINISH SCHEDULE (AE611)
12	PLASTIC LAMINATE BASE CABINET
13	PLASTIC LAMINATE UPPER CABINET
16	PLASTIC LAMINATE COUNTERTOP W/ NO BACKSPLASH
18	FURNITURE OR EQUIPMENT BY OTHERS
20	TOILET PAPER DISPENSOR - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
26	TINTED GLASS
31	COUNTER MOUNTED SOAP DISPENSOR - REFER TO ACCESSORY SCHEDULE (AE611)
37	WALL SCONCE - REFER TO ELECTRICAL DRAWINGS
40	SEAT COVER DISPENSER - CENTER OVER TOILET - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCEDULE (AE611)
42	PAINTED CMU - REFER TO FINISH SCHEDULE (AE611)
44	METAL PARTIAL HEIGHT VENTED LOCKERS - HARDWARE FOR PADLOCKS
46	PLASTIC LAMINATE TALL CABINETS W/ ADJUSTABLE SHELVING
48	SEALED CONCRETE TILT-UP WALL PANEL- REFER TO FINISH SCHEDULE (AE611)
53	SANITARY NAPKIN DISPOSAL - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901) & ACCESSORY SCHEDULE (AE611)
56	PAINTED METAL STRUCTURE (PNT-9)
57	DATA / ELECTRICAL - REFER TO ELECTRICAL DRWGS
75	WALL MOUNTED SINK - REFER TO MECHANICAL DRWGS - REFER TO MOUNTING HEIGHT ELEVATIONS (1/AE901)
76	MECHANICAL EQUIPMENT - REFER TO MECHANICAL DRWGS.
86	SEMI-RECESSED FIRE EXTINGUISHER CABINET

GENERAL NOTES

1. UNLESS NOTED OTHERWISE, SEE SHEET 1/AE901 FOR TYPICAL ACCESSORY MOUNTING HEIGHTS
2. UPPER, LOWER, AND TALL MILLWORK CABINETS NOT TO EXCEED 36" IN WIDTH
3. UNLESS NOTED OTHERWISE, MATCH UPPER CABINET WIDTH DIMENSIONS TO BASE CABINETS - TYP.
4. ALL ELECTRICAL AND DATA OUTLETS ABOVE COUNTER TOPS SHOULD BE MOUNTED HORIZONTALLY
5. PROVIDE SAFETY INSULATION ON ALL EXPOSED SUPPLY WATER LINES AND WASTE LINES.
6. PROVIDE BLOCKING @ ALL ATTACHMENT LOCATIONS; INCLUDING BUT NOT LIMITED TO CASEWORK, SHELVING, EQUIPMENT, & FURNITURE. SEE 27/AE901 FOR TYP.

LICENSED ARCHITECT
6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

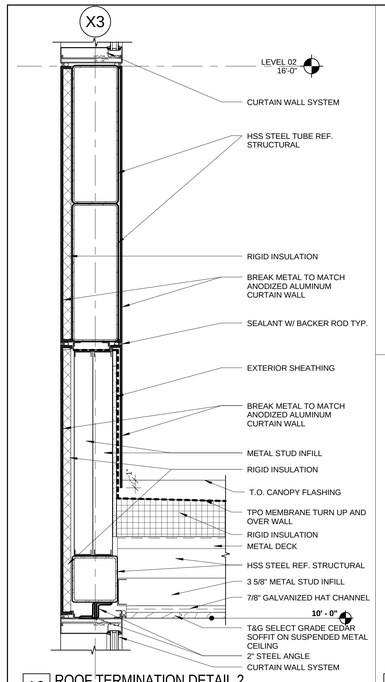
project#: 11.0420
date: 1/20/2012

revisions:
1 Addendum 2 2/10/2012
2 Addendum 4 2/28/2012

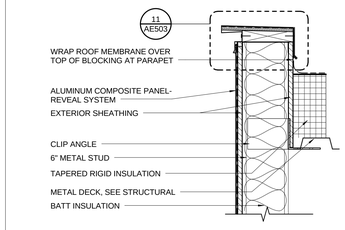
Interior Elevations

sheet:
AE217

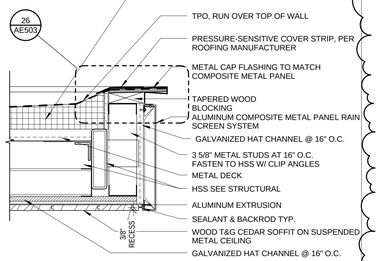
100% Construction Documents



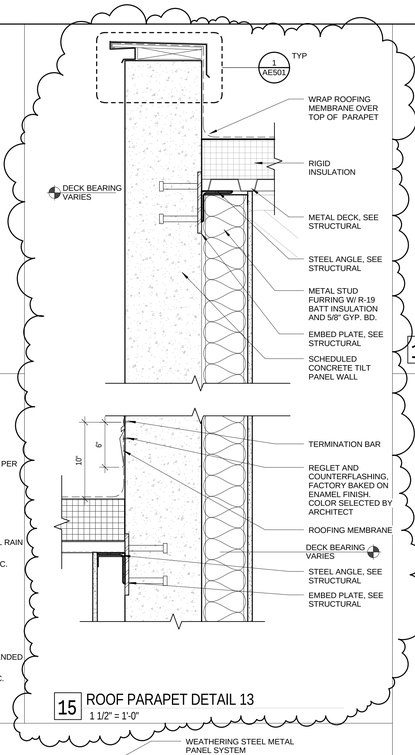
18 ROOF TERMINATION DETAIL 2
1 1/2" = 1'-0"



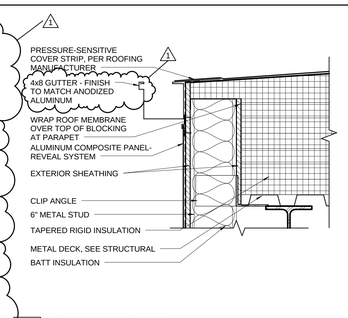
16 ROOF PARAPET DETAIL 3
1 1/2" = 1'-0"



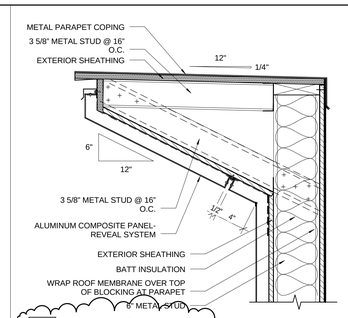
17 ROOF PARAPET DETAIL 17
1 1/2" = 1'-0"



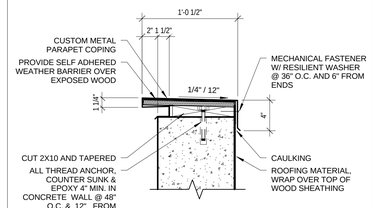
15 ROOF PARAPET DETAIL 13
1 1/2" = 1'-0"



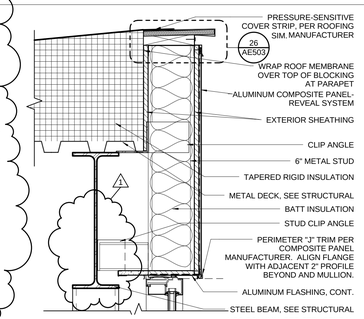
10 CLERESTORY DETAIL
1 1/2" = 1'-0"

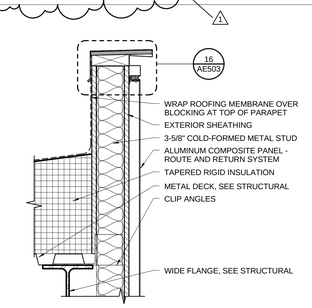


5 PARAPET CAP DETAIL
1 1/2" = 1'-0"

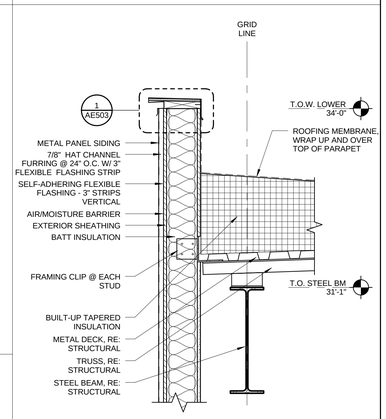


1 PARAPET DETAIL - CONCRETE WALL
1 1/2" = 1'-0"

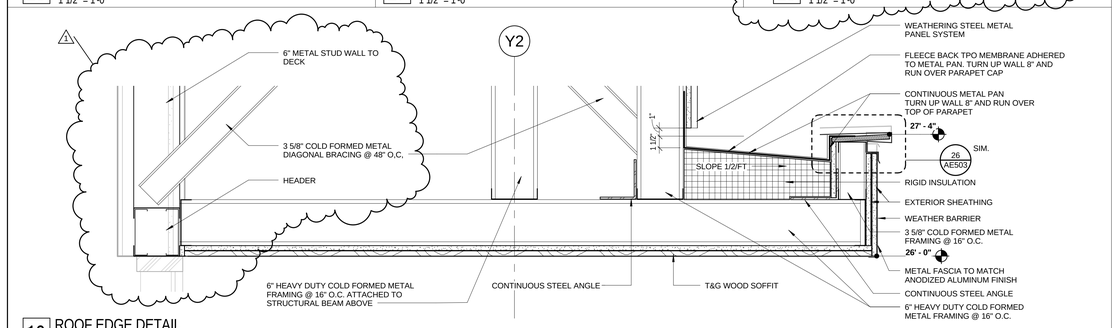




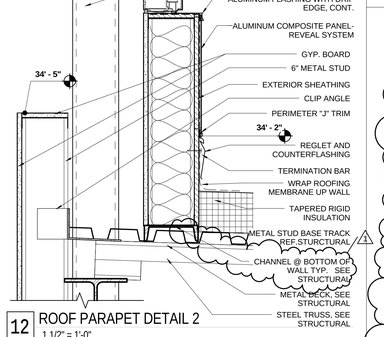
6 ROOF PARAPET DETAIL 11
1 1/2" = 1'-0"



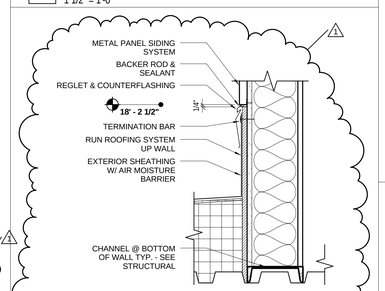
2 ROOF PARAPET DETAIL
1" = 1'-0"



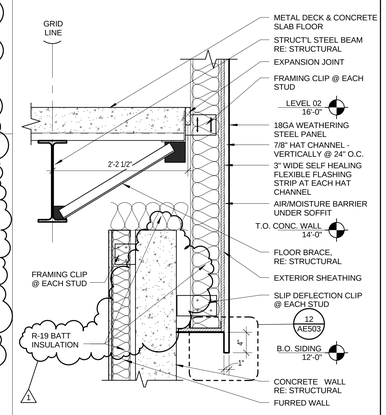
19 ROOF EDGE DETAIL
1 1/2" = 1'-0"



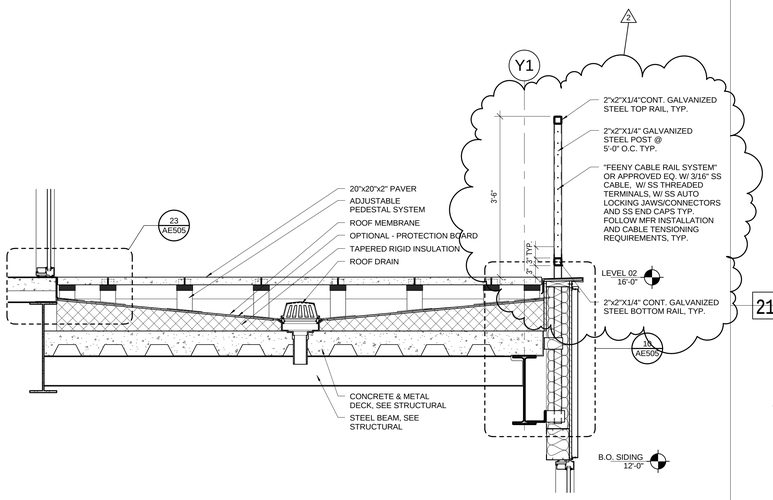
12 ROOF PARAPET DETAIL 2
1 1/2" = 1'-0"



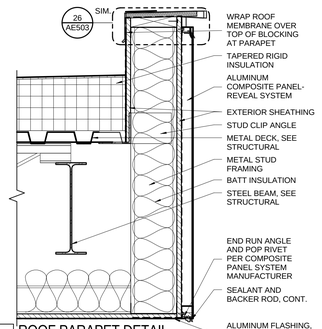
7 REGLET DETAIL
1 1/2" = 1'-0"



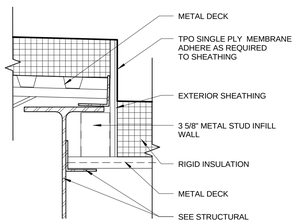
3 WALL TRANISTION DETAIL
1" = 1'-0"



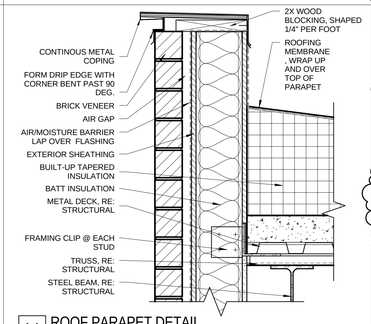
20 RAISED PAVER SECTION
3/4" = 1'-0"



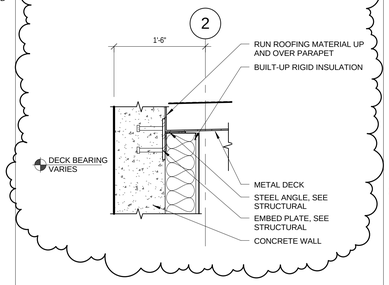
21 ROOF PARAPET DETAIL
1 1/2" = 1'-0"



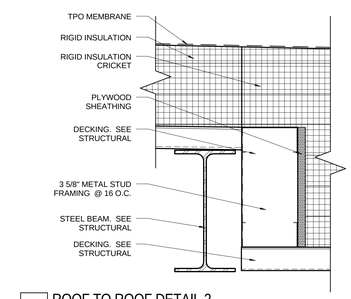
13 ROOF TO ROOF DETAIL
1 1/2" = 1'-0"



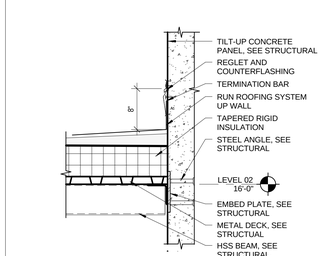
11 ROOF PARAPET DETAIL
1 1/2" = 1'-0"



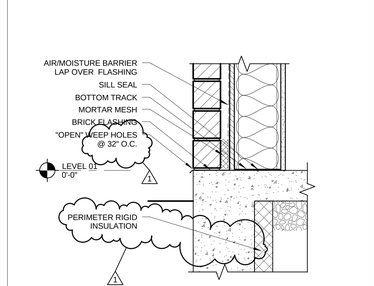
8 ROOF BEARING DETAIL
1" = 1'-0"



14 ROOF TO ROOF DETAIL 2
3" = 1'-0"



9 ROOF BEARING DETAIL
1" = 1'-0"



4 BRICK SILL FLASHING DETAIL
1 1/2" = 1'-0"

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6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions :
1 Addendum 2 2/10/2012
2 Addendum 4 2/28/2012

Exterior Details

sheet:
AE501

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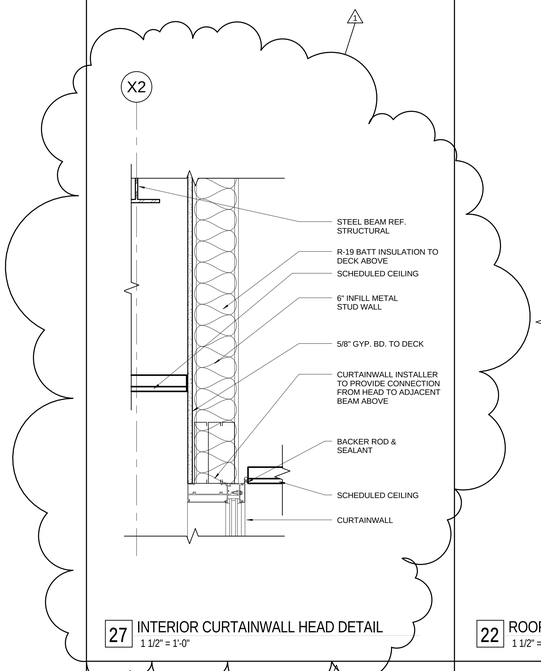
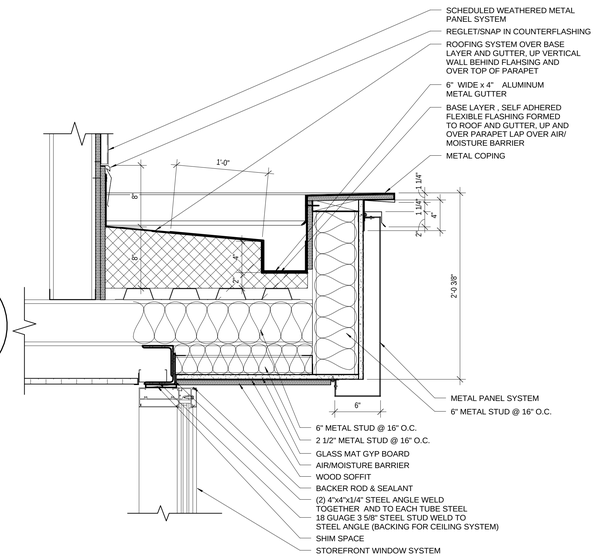
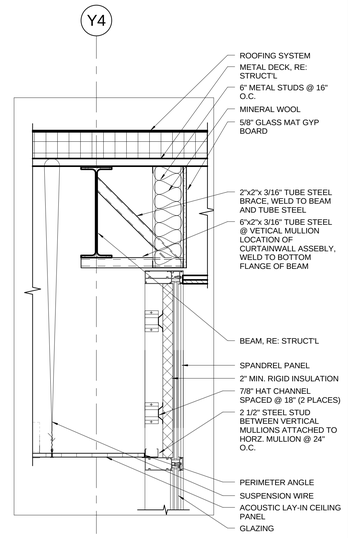


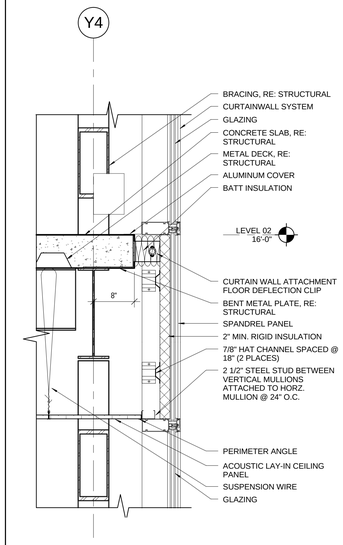
27 INTERIOR CURTAINWALL HEAD DETAIL
1 1/2" = 1'-0"



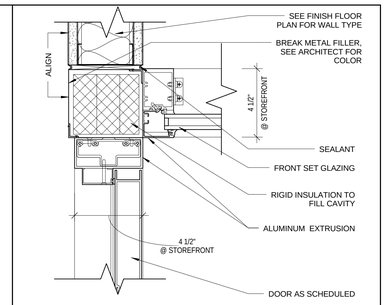
22 ROOF EYEBROW DETAIL
1 1/2" = 1'-0"



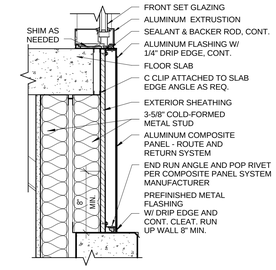
12 CONNECTION DETAIL @ CURTAINWALL
1" = 1'-0"



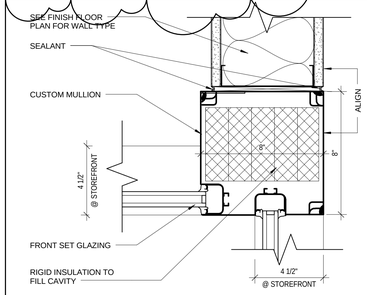
7 CONNECTION DETAIL @ SLAB/CURTAINWALL
1" = 1'-0"



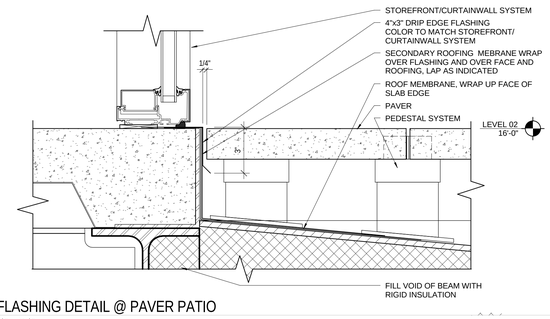
1 SF Corner Plan Detail
3" = 1'-0"



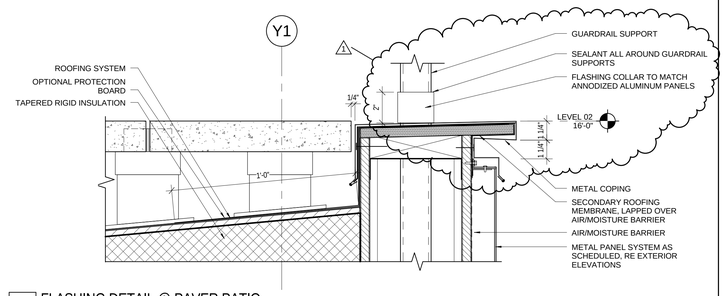
2 METAL PANEL@SLABEDGE-STOREFRONT
1 1/2" = 1'-0"



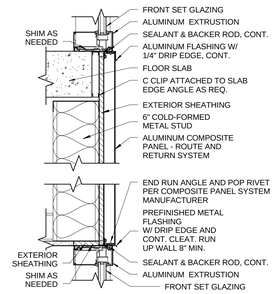
28 Corner Mullion Detail
3" = 1'-0"



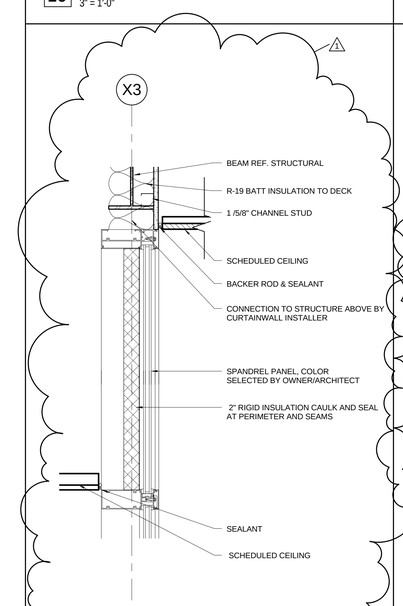
23 FLASHING DETAIL @ PAVER PATIO
3" = 1'-0"



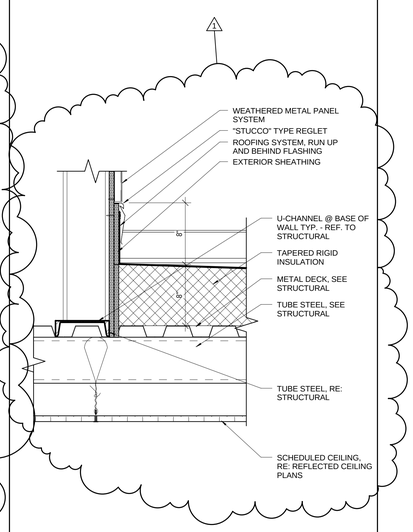
13 FLASHING DETAIL @ PAVER PATIO
3" = 1'-0"



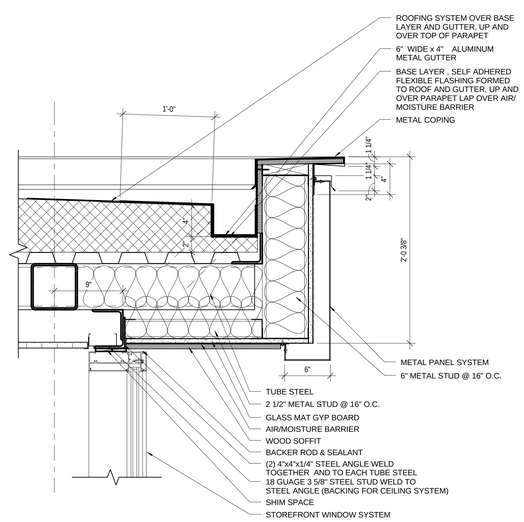
3 STOREFRONT @ METAL PANEL SYSTEM
1 1/2" = 1'-0"



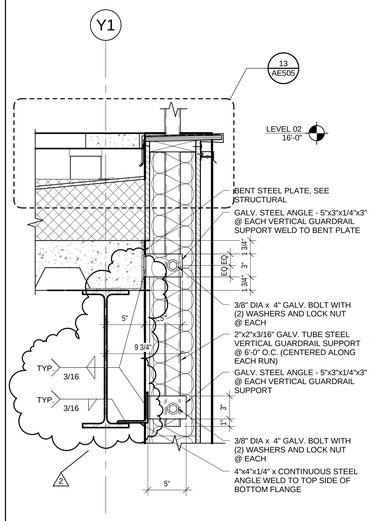
30 CURTAINWALL HEAD @ SPANDREL PANEL
1 1/2" = 1'-0"



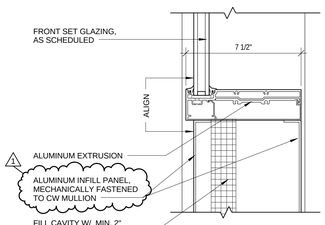
25 REGLET FLASHING DETAIL
1 1/2" = 1'-0"



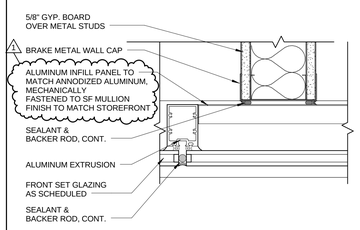
20 DETAIL @ GUTTER
1 1/2" = 1'-0"



10 GUARDRAIL CONNECTION DETAIL
1 1/2" = 1'-0"



4 CW HORIZONTAL MULLION - BRAKE METAL
3" = 1'-0"



5 SF/WALL MULLION INTERSECTION (OFFSET)
3" = 1'-0"

LICENSED ARCHITECT
6710870
JOSEPH FLINT SMITH
STATE OF UTAH
01.20.12

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project:
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88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions:
1 Addendum 2 2/10/2012
2 Addendum 4 2/28/2012

Exterior Details

sheet:
AE505

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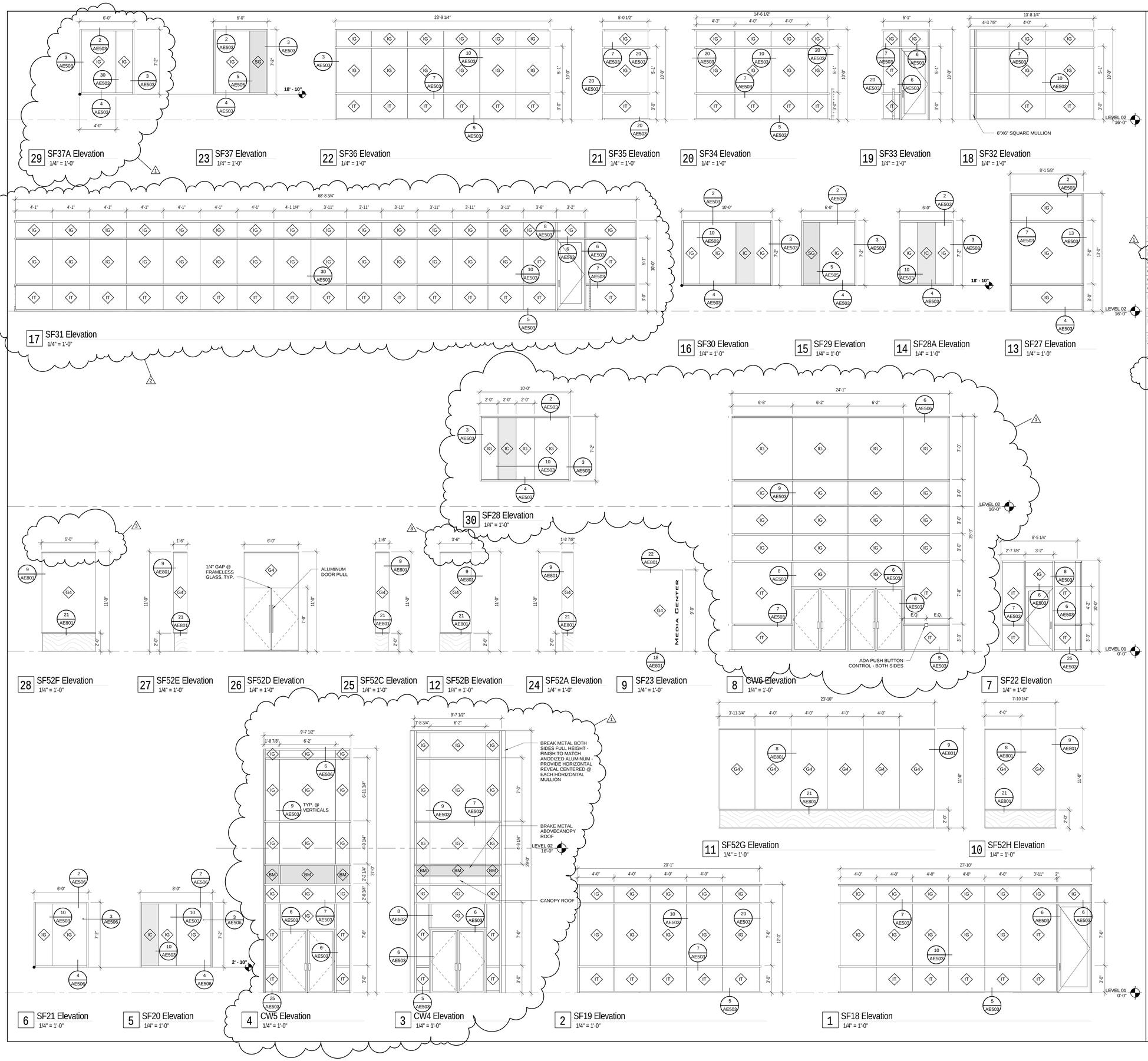

GLAZING SCHEDULE

Type Mark	Type	Comments
BM	Aluminum Infill Panel	
G1	1/4" Clear Glass	
G2	1/4" Clear Tempered Glass	
G3	1/2" Clear	
G4	1/2" Clear Tempered	
IC	1" Dbl Glazed Insulated Unit w/ Low-E color	Colored Low-E Coated Glass
IG	1" Dbl Glazed Insulated Unit	
IT	1" Dbl Glazed Insulated Unit - Tempered	
SG	Spandrel Glass	Insulated 1"
TG	1 3/4" Trpl Glazed Insulated Unit - Tempered	

NOTE: WHERE BUTT GLAZING CANNOT BE USED DUE TO WIND LOAD OR MANUFACTURER DESIGN LIMITATIONS USE DETAIL 9/AE503 IN LIEU OF 10/AE503

LICENSED ARCHITECT 6710870 JOSEPH FLINT SMITH STATE OF UTAH 01.20.12

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revisions:

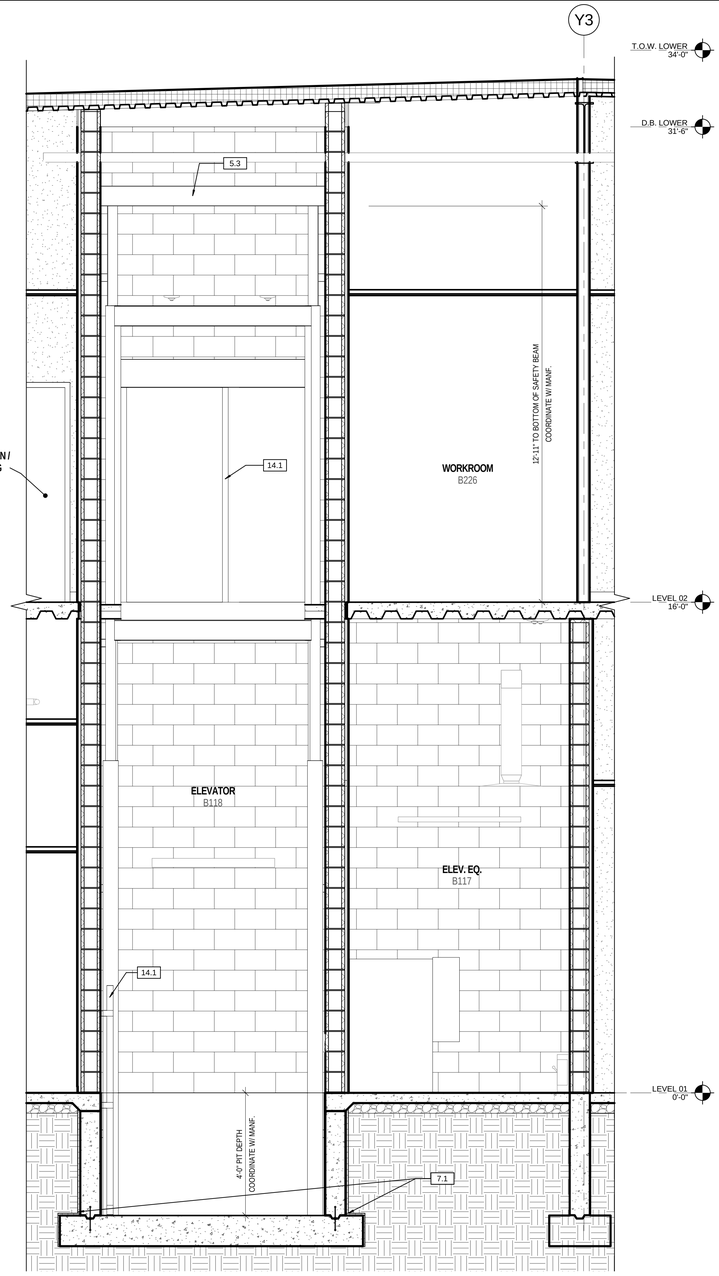
1	Addendum 2	2/10/2012
2	Addendum 3	2/17/2012
3	Addendum 4	2/28/2012

Window Elevations

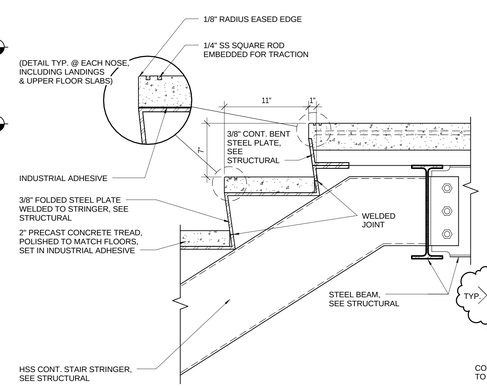
sheet:

AE603

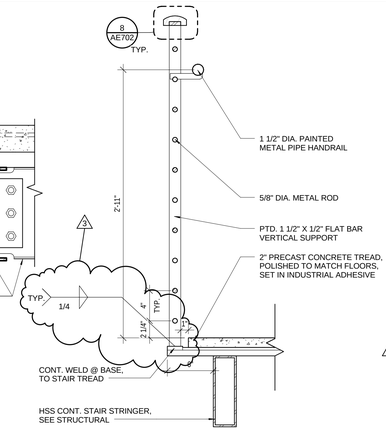
100% Construction Documents



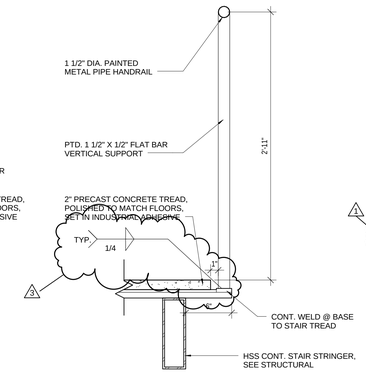
4 Elevator Section
1/2" = 1'-0"



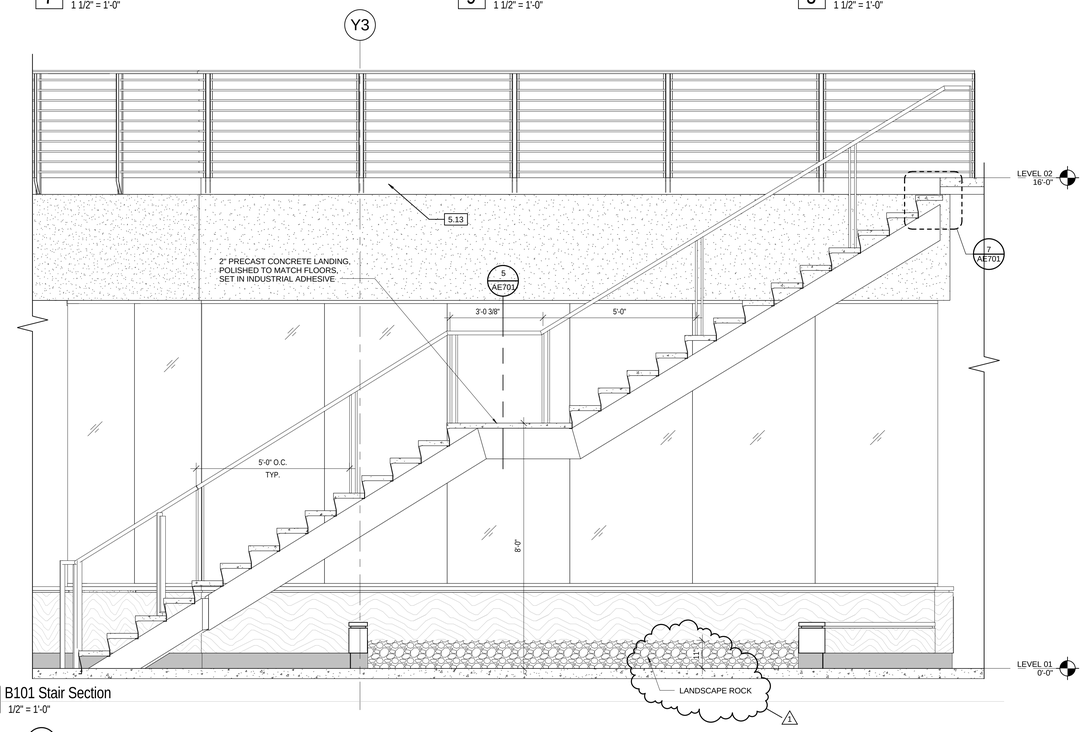
7 B101 Stair Section
1 1/2" = 1'-0"



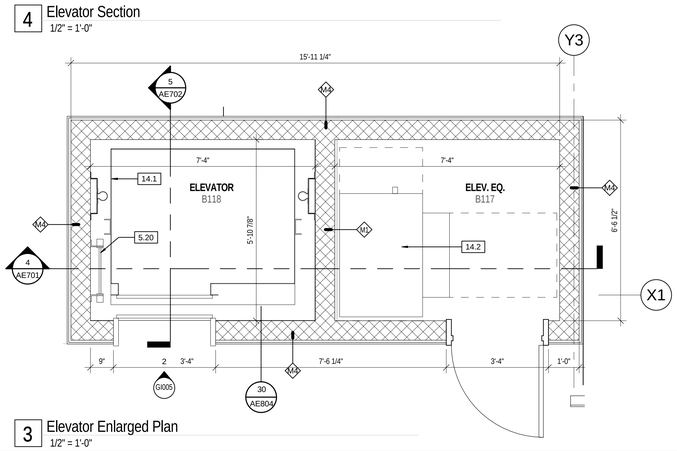
9 Guardrail w/ Handrail Detail
1 1/2" = 1'-0"



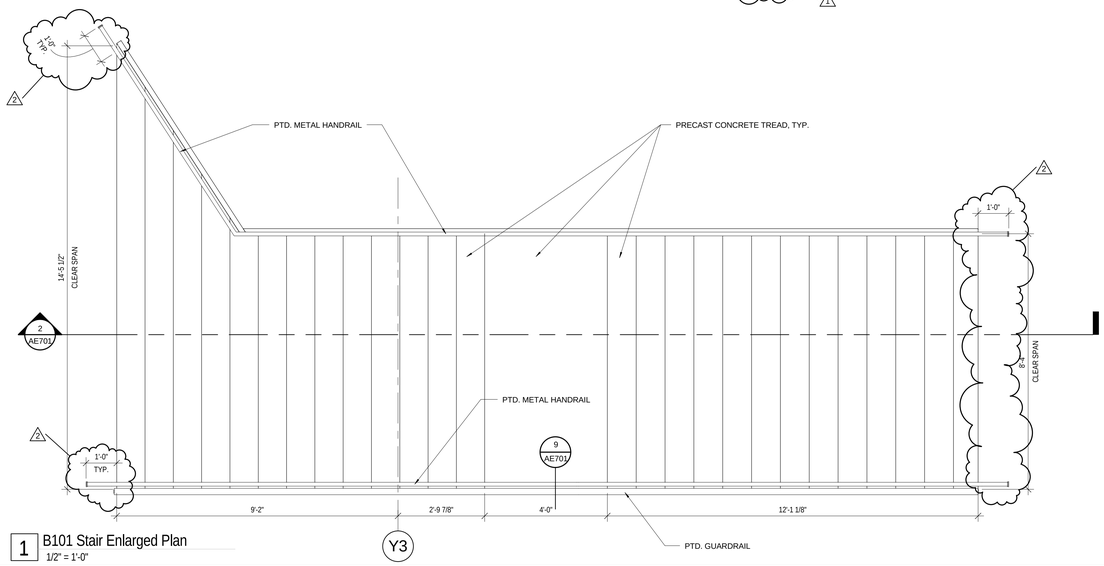
5 Stair Handrail Detail
1 1/2" = 1'-0"



2 B101 Stair Section
1/2" = 1'-0"



3 Elevator Enlarged Plan
1/2" = 1'-0"



1 B101 Stair Enlarged Plan
1/2" = 1'-0"

KEYNOTE LEGEND

5.3	STEEL SAFTEY BEAM AS REQUIRED PER OSHA 1926.502. SEE STRUCTURAL.
5.13	3" METAL DECK, SEE STRUCTURAL
5.20	ELEVATOR PIT LADDER
7.1	SELF ADHERING SHEET WATERPROOFING W/PROTECTION BOARD AND WATER AT FOOTING.
14.1	HYDRAULIC ELEVATOR
14.2	ELEVATOR EQUIPMENT AND CONTROLS

GENERAL ELEVATOR NOTES

1	VERIFY ELEVATOR DIMENSIONS AND ELEVATIONS WITH MANUFACTURER.
2	ALL EXPOSED STEEL TO BE PAINTED U.N.O.

LICENSED ARCHITECT 6710870 JOSEPH FLINT SMITH STATE OF UTAH
01.20.12

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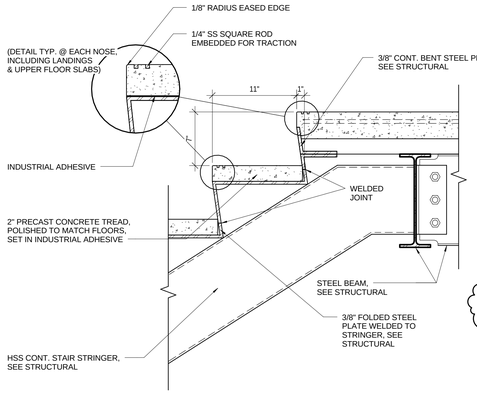
Enlarged Stair/Elevator Plans/Sections

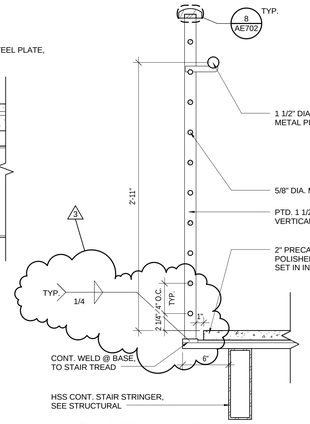
sheet:

AE701

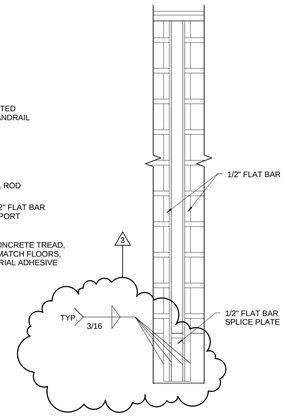
100% Construction Documents



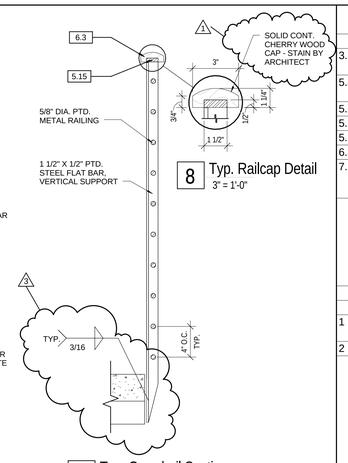
4 Callout of B100 Stair Section
1 1/2" = 1'-0"



6 Stair B100 Handrail Detail
1 1/2" = 1'-0"

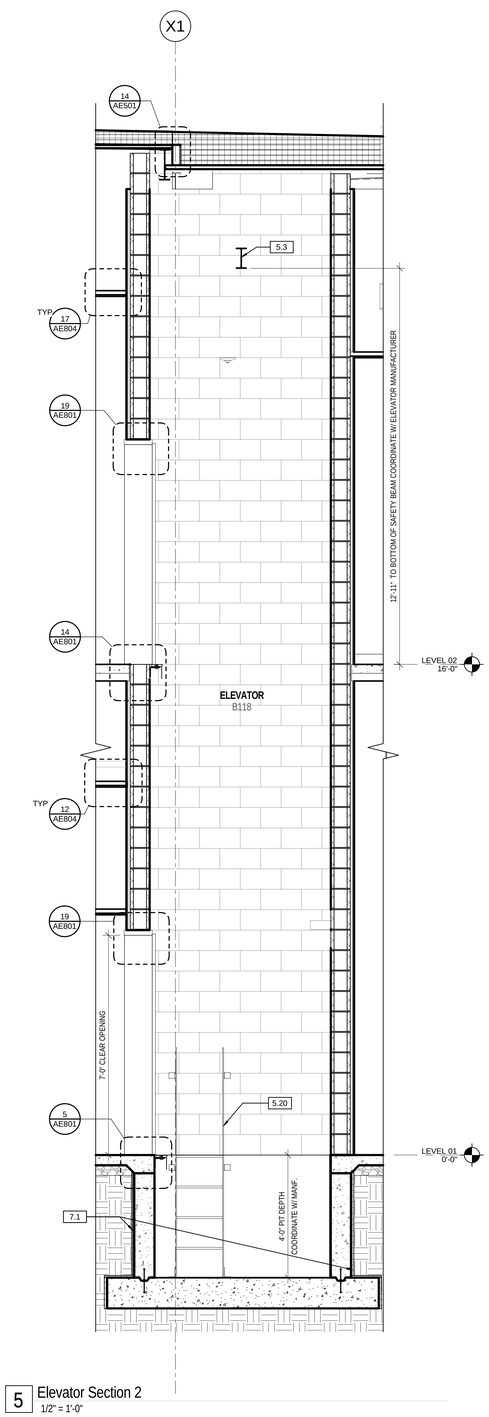


7 Typ. Guardrail Elevation
1 1/2" = 1'-0"

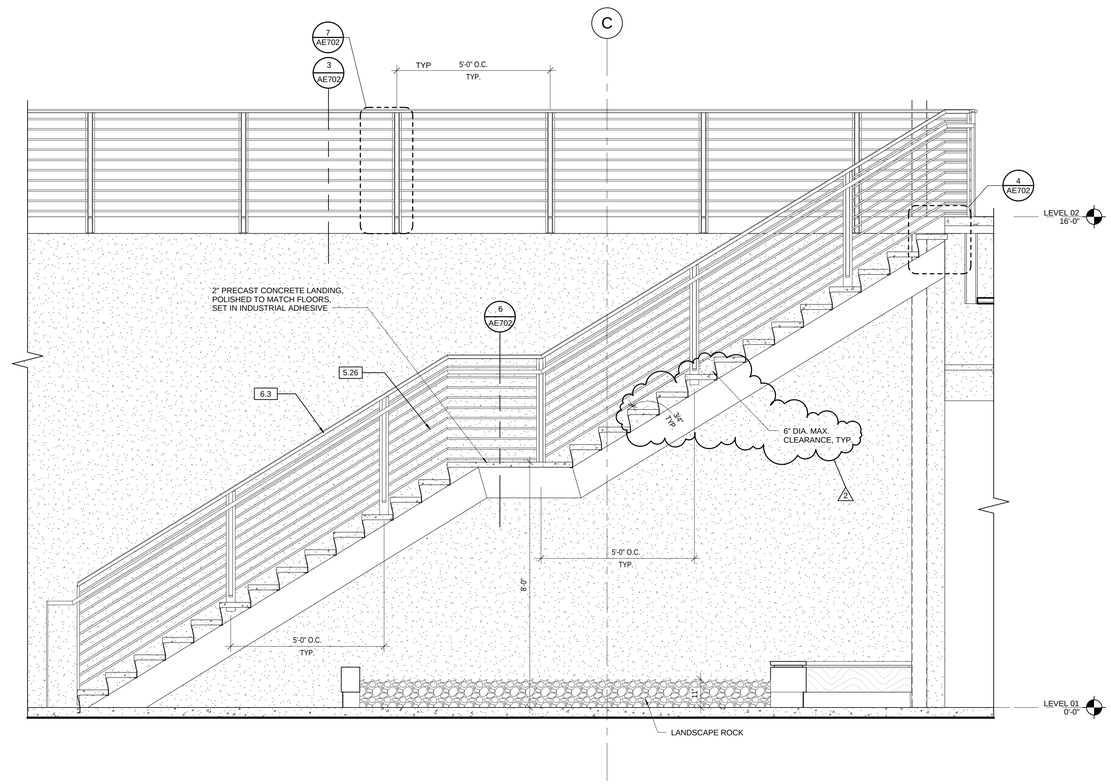


8 Typ. Railcap Detail
3" = 1'-0"

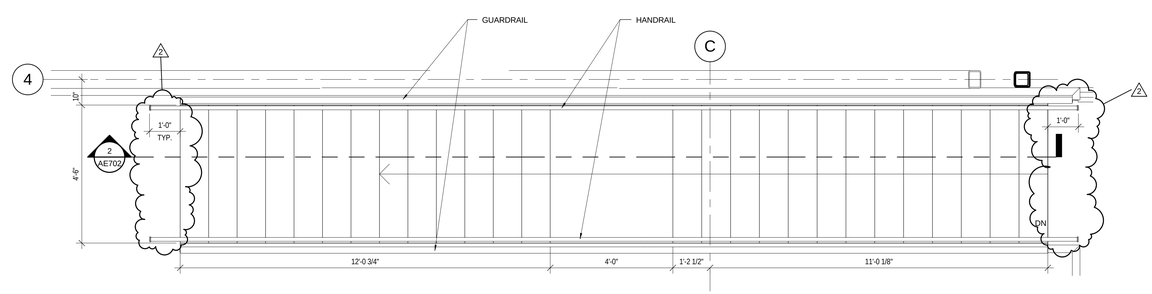
3 Typ. Guardrail Section
1 1/2" = 1'-0"



5 Elevator Section 2
1/2" = 1'-0"



2 B100 Stair Section
1/2" = 1'-0"



1 B100 Stair Enlarged Plan
1/2" = 1'-0"

KEYNOTE LEGEND

3.1	CAST-IN-PLACE CONCRETE SLAB, SEE STRUCTURAL
5.3	STEEL SAFTEY BEAM AS REQUIRED PER OSHA 1926.502. SEE STRUCTURAL.
5.15	1.5" X .5" FLAT BAR
5.20	ELEVATOR PIT LADDER
5.26	ORNAMENTAL RAILINGS
6.3	1 1/2" X 2 1/2" RAIL CAP
7.1	SELF ADHERING SHEET WATERPROOFING W/PROTECTION BOARD AND WATER AT FOOTING.

GENERAL ELEVATOR NOTES

1	VERIFY ELEVATOR DIMENSIONS AND ELEVATIONS WITH MANUFACTURER.
2	ALL EXPOSED STEEL TO BE PAINTED U.N.O.

LICENSED ARCHITECT 6710870 JOSEPH FLINT SMITH STATE OF UTAH
01.20.12

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METHOD STUDIO INC.
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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

DFCM PROJECT #11064280

project#: 11.0420
date: 1/20/2012

revisions:

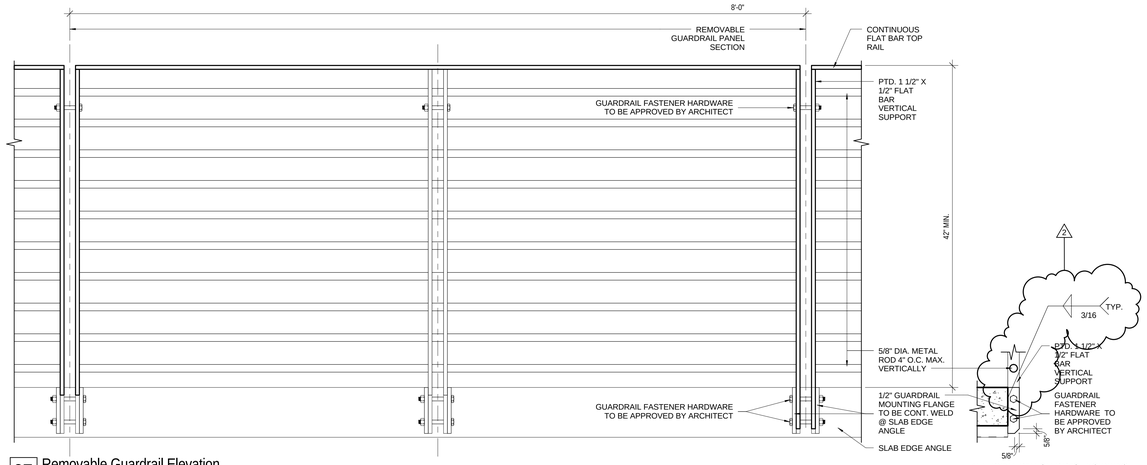
1	Addendum 2	2/10/2012
2	Addendum 3	2/17/2012
3	Addendum 4	2/28/2012

Enlarged Stair Plan/Section

sheet:

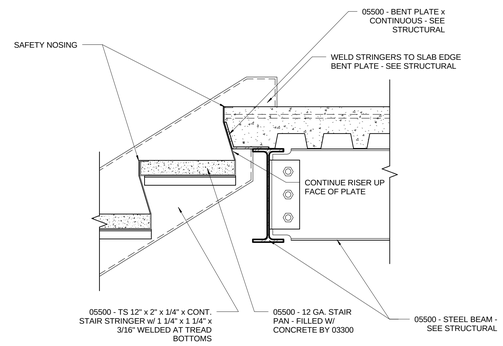
AE702

100% Construction Documents

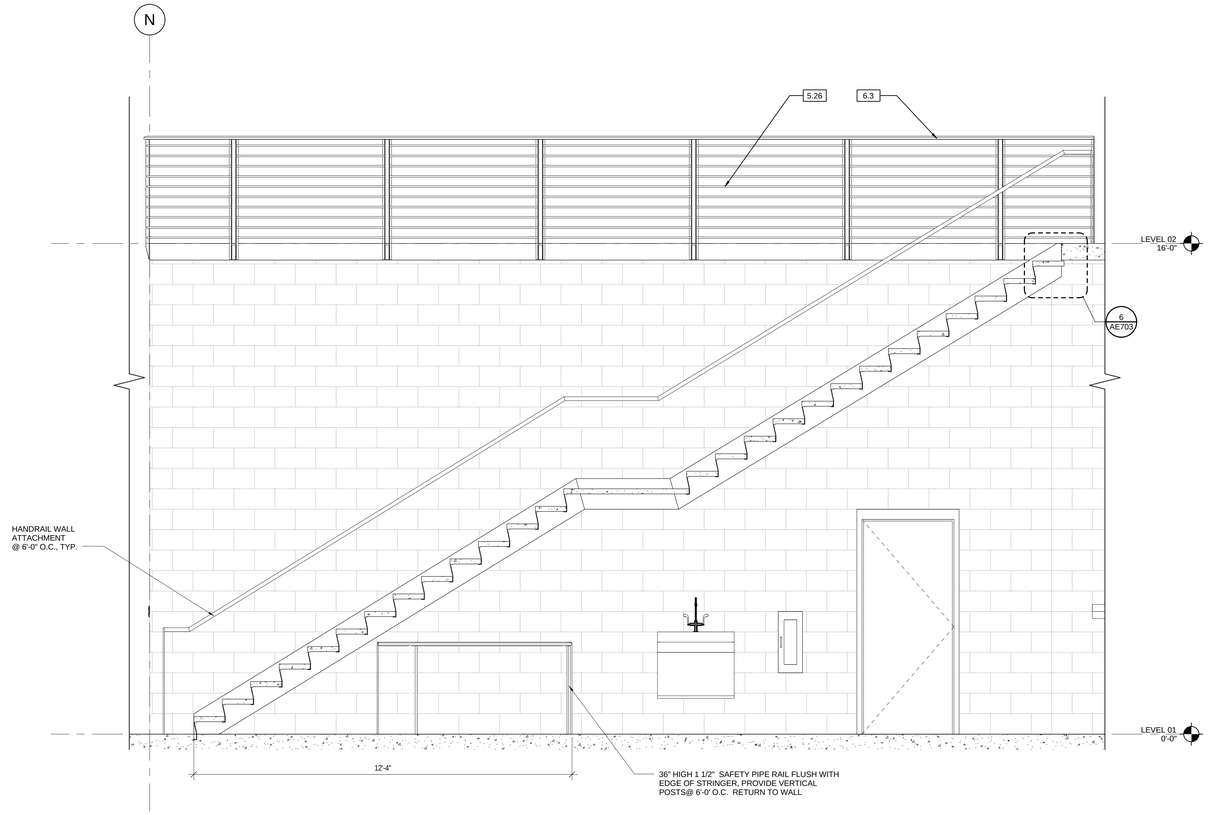


27 Removable Guardrail Elevation
1 1/2" = 1'-0"

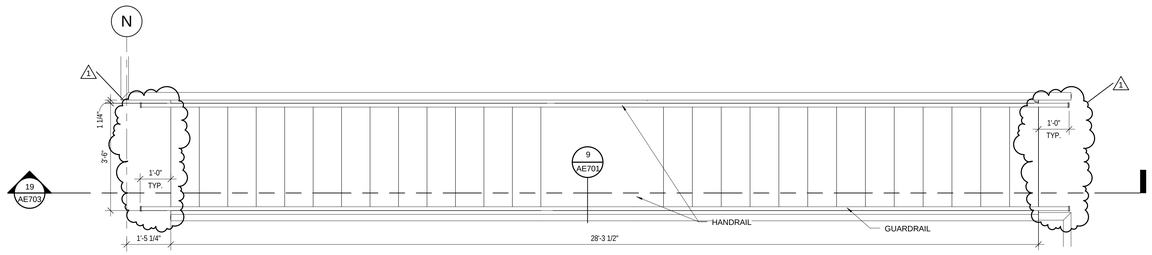
ALTERNATE BALUSTER BASE MOUNTING CONFIGURATION & MOUNTING FLANGE @ REMOVABLE GUARDRAIL PANEL SECTIONS



6 Callout of C121 Stair Section
1 1/2" = 1'-0"



19 C121 Stair Section
1/2" = 1'-0"



20 C121 Stair Enlarged Plan
1/2" = 1'-0"

KEYNOTE LEGEND

5.26	ORNAMENTAL RAILINGS
6.3	1 1/2" X 2 1/2" RAIL CAP

GENERAL NOTES

1 ALL EXPOSED STEEL TO BE PAINTED

LICENSED ARCHITECT 6710870 JOSEPH FLINT SMITH STATE OF UTAH
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1 Addendum 3 2/17/2012
2 Addendum 4 2/28/2012

Enlarged Stair Plan/Section

sheet:

AE703

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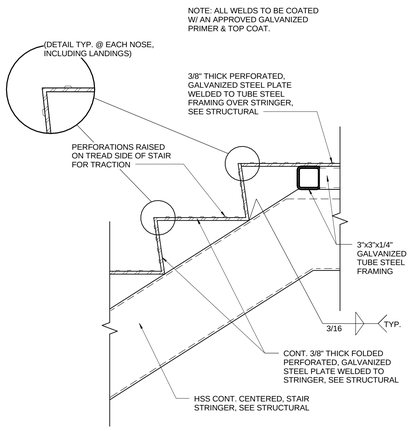
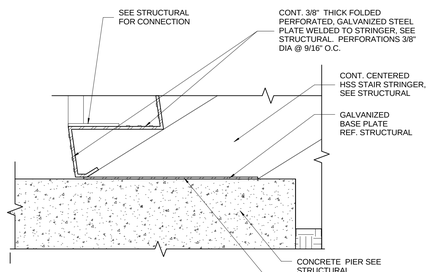
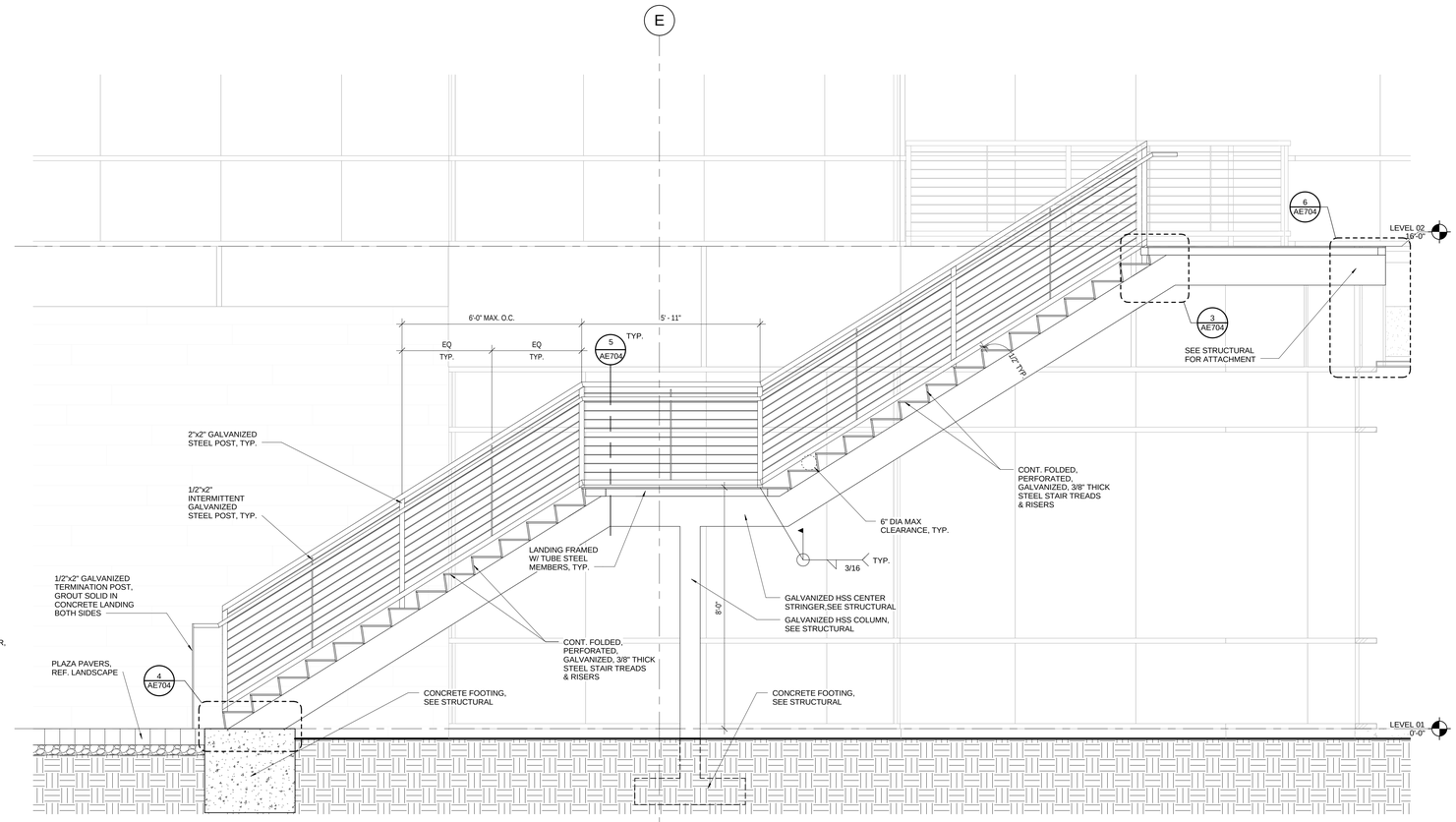


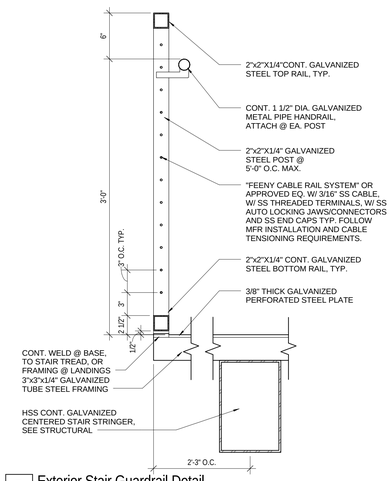
3 Exterior Stair Tread/Landing Detail
1 1/2" = 1'-0"



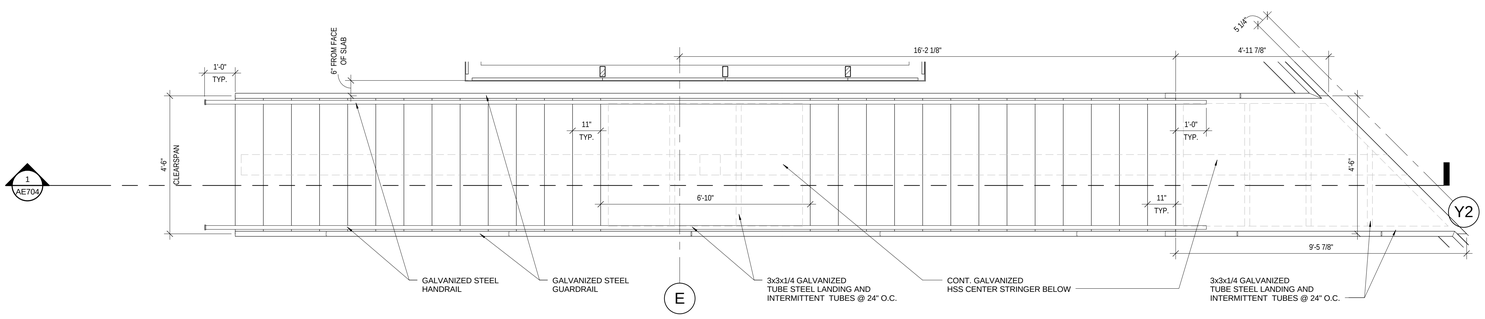
4 Exterior Stair Base Detail
1 1/2" = 1'-0"



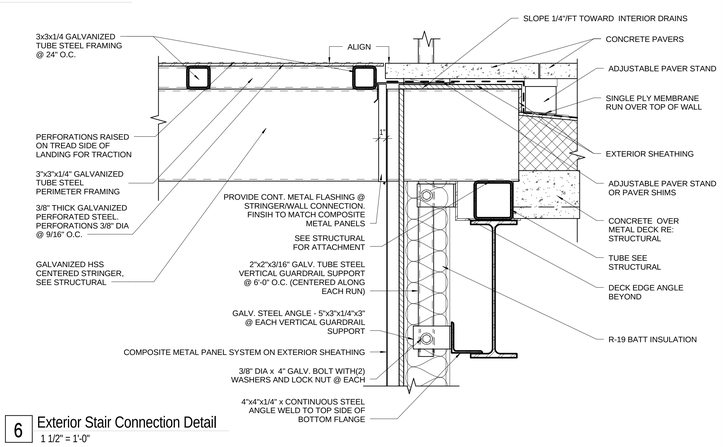
1 Exterior Stair Section
1/2" = 1'-0"



5 Exterior Stair Guardrail Detail
1 1/2" = 1'-0"



2 Exterior Stair Plan
1/2" = 1'-0"



6 Exterior Stair Connection Detail
1 1/2" = 1'-0"

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Enlarged Stair Plan/Section

sheet:
AE704

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LEED 2009 for New Construction and Major Renovations

Project Checklist

Tooele Applied Technology Building

January 13,2012

Sustainable Sites — Possible Points: 26

Y	?	N			
18		8		**Sustainable Sites**	Possible Points: 26
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
		5	Credit 2	Development Density and Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
1			Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
		1	Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y	?	N			
4		6		**Water Efficiency**	Possible Points: 10
Y			Prereq 1	Water Use Reduction—20% Reduction	
2		2	Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
2		2	Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y	?	N			
11		24		**Energy and Atmosphere**	Possible Points: 35
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
3		16	Credit 1	Optimize Energy Performance	1 to 19
2		5	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
		3	Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y	?	N			
7	1	6		**Materials and Resources**	Possible Points: 14
Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
	1		Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y	?	N			
12	2	1		**Indoor Environmental Quality**	Possible Points: 15
Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
1			Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
1			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
		1	Credit 7.1	Thermal Comfort—Design	1
	1		Credit 7.2	Thermal Comfort—Verification	1
	1		Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

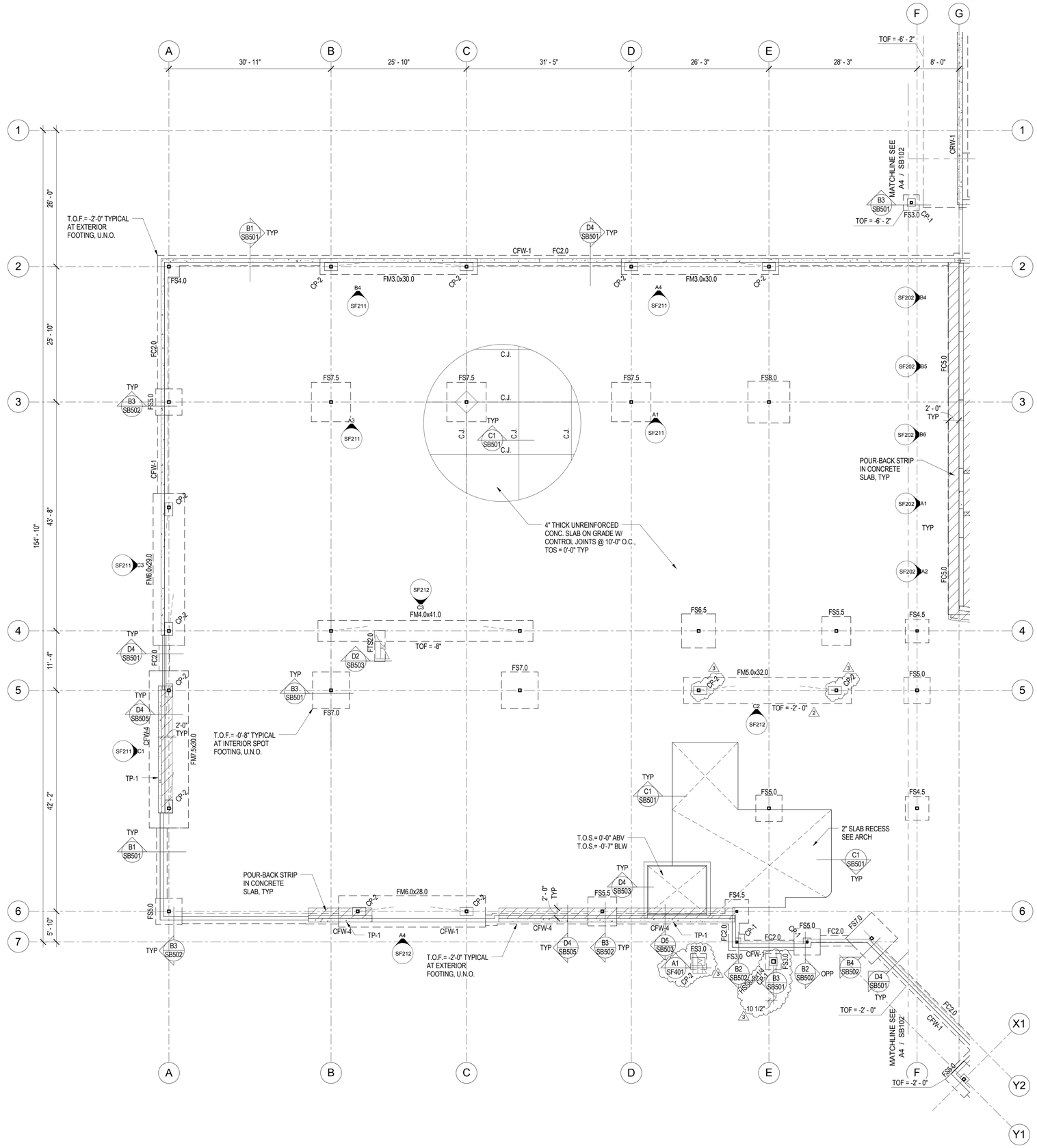
Y	?	N			
2	4			**Innovation and Design Process**	Possible Points: 6
1			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
	1		Credit 1.3	Innovation in Design: Specific Title	1
	1		Credit 1.4	Innovation in Design: Specific Title	1
	1		Credit 1.5	Innovation in Design: Specific Title	1
	1		Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

Y	?	N			
	2	2		**Regional Priority Credits**	Possible Points: 4
	1		Credit 1.1	Regional Priority: Specific Credit	1
	1		Credit 1.2	Regional Priority: Specific Credit	1
		1	Credit 1.3	Regional Priority: Specific Credit	1
		1	Credit 1.4	Regional Priority: Specific Credit	1

Y	?	N			
54	9	47		**Total**	Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110



A1 / SB101 FOOTING & FUNDATION PARTIAL PLAN 1

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

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE PIER IN CONCRETE WALL. TOP OF PIER RECESSED 8" BELOW SLAB. TYP U.N.O.
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- RECESSED/DEPRESSED SLAB
- OPENING

FOOTING & FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.

2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

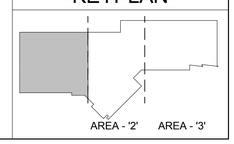
7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

10. SEE TYPICAL REINFORCING AROUND MISC OR RECESSED MASONRY OPENING FOR ADDITIONAL REINFORCING AT MASONRY WALLS.

KEYPLAN



LICENSED CERTIFIED STRUCTURAL ENGINEER NO. 176729 MARK R. HARRIS UTAH

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Consulting Structural Engineers

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3	Addendum #4	02.28.12

FOOTING & FOUNDATION Partial Plan 1

sheet:

SB101

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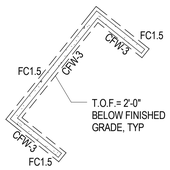
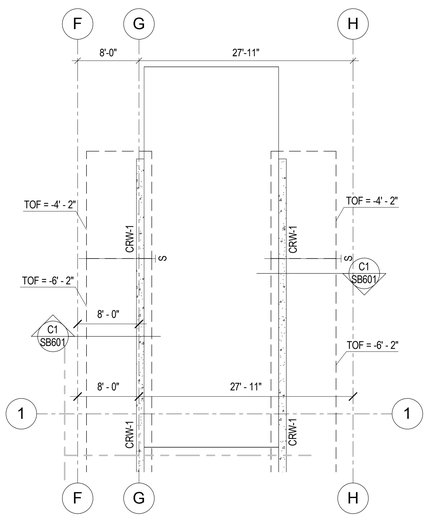


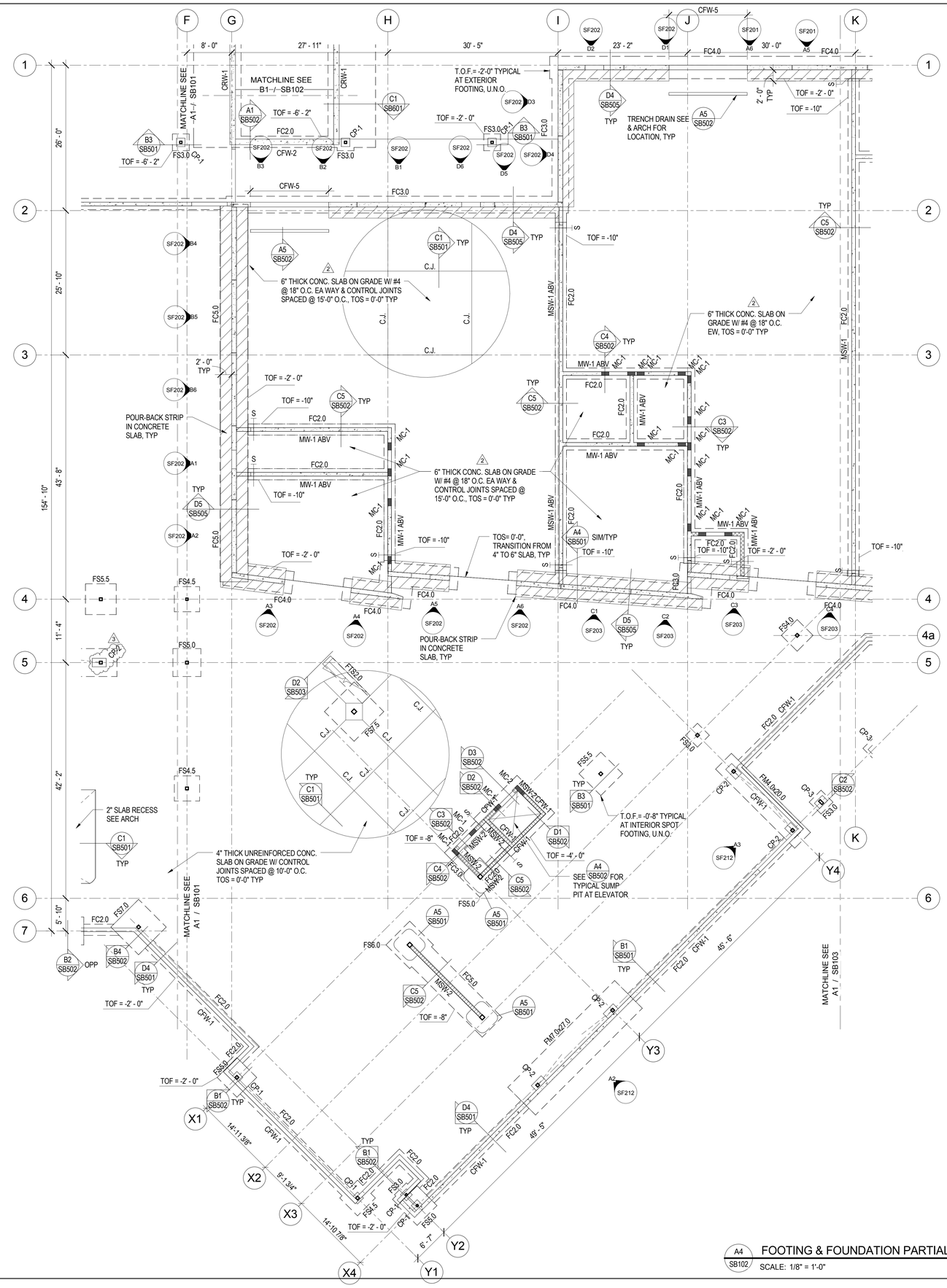
D1 / SB102 GARBAGE ENCLOSURE FOOTING & FOUNDATION PLAN

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



B1 / SB102 FOOTING & FOUNDATION PARTIAL PLAN 2

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



A4 / SB102 FOOTING & FOUNDATION PARTIAL PLAN 2

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

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE PIER IN CONCRETE WALL. TOP OF PIER RECESSED 8" BELOW SLAB. TYP U.N.O.
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- RECESSED/DEPRESSED SLAB
- OPENING

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2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

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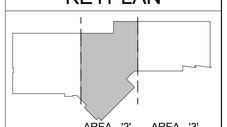
KEYPLAN



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FOOTING & FOUNDATION Partial Plan 2

sheet:

SB102

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CONCRETE TILT-UP PANEL REINFORCING SCHEDULE				
PANEL MARK	THICKNESS	VERT REINF	HORIZ REINF	CONC PSI
TYPICAL	10"	#5@12"O.C.,E.F.	#4@6"O.C. 2	4500 PSI
TP-1	8"	#5@15"O.C.	#4@16"O.C.	4500 PSI

NOTE: PANEL THICKNESS IS TOTAL PANEL THICKNESS, INCLUDING THE DIMENSION OF ANY REVEALS AND/OR RECESSES.
1. SEE DETAIL B2/SB504 FOR REINFORCING PLACEMENT DIAGRAMS.
2. SEE CONCRETE TILT-UP PANEL ELEVATIONS FOR ADDITIONAL REINFORCEMENT.
3. PROVIDE 135° HOOK AT EACH END OF HORIZONTAL REINFORCEMENT.

2 1

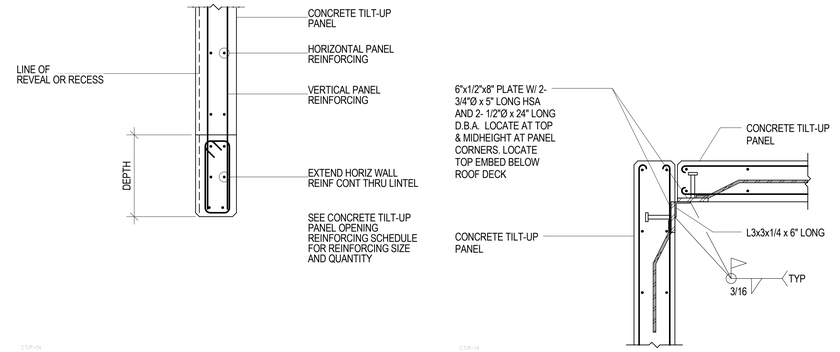
D1 / SB504 CONCRETE TILT-UP PANEL REINFORCING SCHEDULE
NO SCALE

CONCRETE TILT-UP PANEL OPENING REINFORCING SCHEDULE					
MARK	SPAN	LINTEL REINFORCING			NOTES
		DEPTH	HORIZONTAL REINFORCING	STIRRUPS	
TL-1	UP TO 4'-5"	18"	2-#7 T&B	3@8"	
TL-2	4'-5" TO 6'-0"	24"	2-#7 T&B	3@8"	
TL-3	6'-0" TO 7'-0"	36"	2-#7 T&B	3@8"	

1

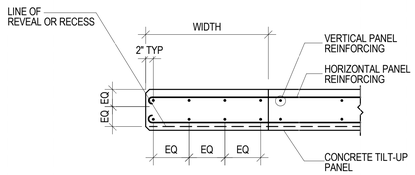
NOTES:
1. JAMB REINFORCING, INCLUDING TIES, SHALL EXTEND THE FULL HEIGHT OF THE PANEL EXCEPT FOR OPENINGS LESS THAN 3'-1" WHICH SHALL BE REINFORCED PER DETAIL C2/SB504. SPACE TIES @ 32" O.C. FROM 2'-0" ABOVE OPENING TO THE TOP OF THE PANEL TYPICAL. USE SINGLE LAYER JAMB REINFORCING WHENEVER POSSIBLE.
2. HALF OF THE VERT JAMB REINFORCING TO BE PLACED ON EACH FACE OF THE PANEL WHEN DOUBLE LAYER JAMB REINFORCING IS USED.
3. EXTEND LINTEL REINFORCING BEYOND EDGE OF THE OPENING 4'-0" MINIMUM. WHERE NOT POSSIBLE, EXTEND TO THE EDGE OF PANEL AND TERMINATE WITH A STANDARD 90° HOOK.
4. SEE ARCHITECTURAL FOR PANEL ELEVATIONS AND OPENING LOCATIONS.
5. SEE DETAILS C1 & D5/SB504 FOR REINFORCING PLACEMENT DIAGRAMS (LINTEL & JAMB COLUMN)

D2 / SB504 CONCRETE TILT-UP OPENING REINFORCING SCHEDULE
NO SCALE

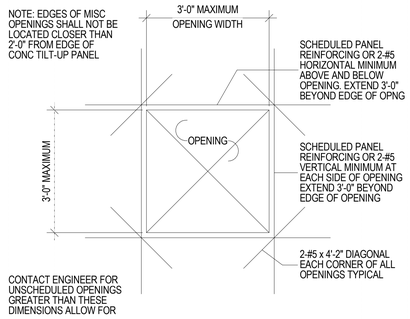


D5 / SB504 TYPICAL LINTEL DETAILS
NO SCALE

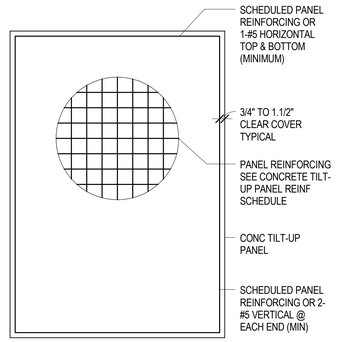
B5 / SB504 TYPICAL CONCRETE TILT-UP PANEL CORNER CONNECTION DETAIL - PLAN
NO SCALE



C1 / SB504 TYPICAL JAMB DETAILS
NO SCALE



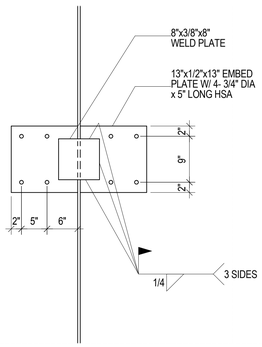
C2 / SB504 TYPICAL MINIMUM REINFORCING AROUND MISC. OPENINGS THRU CONCRETE TILT-UP PANELS
NO SCALE



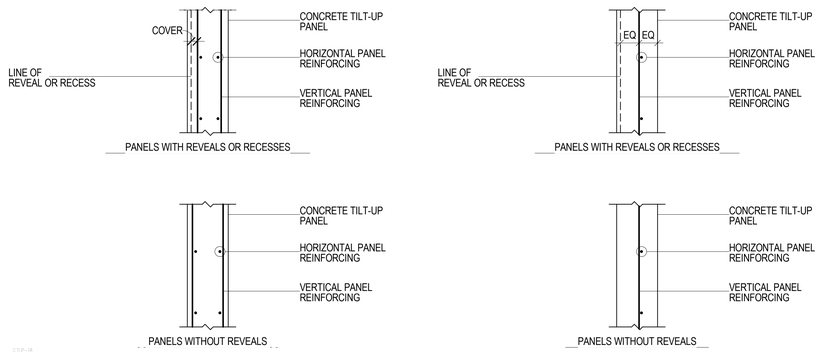
C3 / SB504 TYPICAL CONCRETE TILT-UP PANEL ELEVATION
NO SCALE

CONCRETE TILT PANEL JAMB REINFORCING SCHEDULE				
JAMB MARK	PANEL #	LENGTH	VERTICAL REINFORCEMENT	COMMENTS
TJ-1	1	63"	10 - #6	
TJ-2	2	97"	12 - #5	
TJ-3	3	75"	11 - #6	
TJ-4	4	75"	8 - #6	
TJ-5	5	78"	8 - #6	
TJ-6	6	60"	10 - #6	
TJ-7	7	20"	6 - #6	SEE NOTE 4. 2
TJ-8	7	36"	7 - #8	
TJ-9	8	72"	9 - #5	
TJ-10	9	72"	9 - #5	
TJ-11	10	96"	11 - #5	
TJ-12	12	73"	6 - #5	
TJ-13	12	73"	6 - #5	
TJ-14	13	147"	13 - #5	
TJ-15	14	96"	8 - #5	
TJ-16	15	96"	8 - #5	
TJ-17	18	96"	8 - #5	
TJ-18	19	96"	9 - #5	
TJ-19	20	44"	4 - #5	
TJ-20	20	57"	5 - #5	
TJ-21	24	30"	4 - #5	
TJ-22	24	78"	7 - #5	
TJ-23	26	60"	7 - #6	
TJ-24	27	40"	6 - #7	
TJ-25	30	84"	12 - #5	
TJ-26	31	38"	5 - #5	
TJ-27	31	44"	6 - #5	
TJ-28	32	66"	8 - #5	
TJ-29	33	114"	10 - #5	
TJ-30	34	86"	10 - #5	
TJ-31	35	50"	5 - #5	
TJ-32	35	42"	5 - #6	
TJ-33	36	95"	9 - #5	
TJ-34	39	50"	5 - #5	
TJ-35	39	42"	6 - #8	
TJ-36	40	138"	14 - #5	
TJ-37	41	184"	16 - #5	
TJ-38	42	51"	5 - #5	
TJ-39	42	42"	6 - #8	
TJ-40	43	106"	14 - #5	
TJ-41	45	173"	15 - #5	
TJ-42	46	102"	13 - #6	
TJ-43	47	120"	14 - #5	
TJ-44	48	136"	14 - #5	
TJ-45	49	107"	14 - #5	

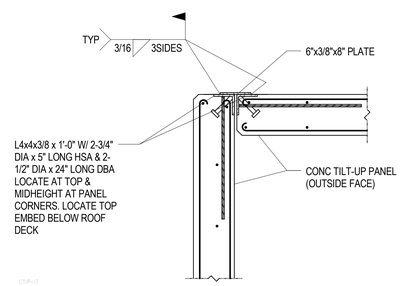
NOTES:
1. JAMB REINFORCING, INCLUDING TIES, SHALL EXTEND THE FULL HEIGHT OF THE PANEL EXCEPT FOR OPENINGS LESS THAN 3'-1" WHICH SHALL BE REINFORCED PER DETAIL C2/SB504. SPACE TIES @ 32" O.C. FROM 2'-0" ABOVE OPENING TO THE TOP OF THE PANEL TYPICAL.
2. FULL AMOUNT OF JAMB REINFORCING SHALL BE PLACED ON EACH FACE OF THE PANEL. 3
3. IF THE LEG OF THE CONCRETE TILT-UP PANEL IS NO MORE THAN 6" WIDER THAN THE SCHEDULED JAMB WIDTH, THEN REVISE THE WIDTH OF THE SCHEDULED JAMB TO FIT WITHIN THE LEG OF THE CONCRETE TILT-UP PANEL.
4. PROVIDE #3 @ 6" O.C. CLOSED STIRRUPS THAT EXTEND FULL HEIGHT OF JAMB COLUMN. 2



B1 / SB504 TYPICAL CONCRETE TILT-UP PANEL CONNECTION DETAIL
NO SCALE



B2 / SB504 TYPICAL PANEL REINFORCING PLACEMENT DIAGRAMS
NO SCALE



A3 / SB504 TYPICAL CONCRETE TILT-UP PANEL CORNER CONNECTION DETAIL - PLAN
NO SCALE

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 170778
MARK R. HARRIS
UTAH
04-22-21

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88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/10/12

revisions :

1	Addendum #2	02.10.12
2	Addendum #3	02.17.12
3	Addendum #4	02.28.12

TYP TILT-UP FOOTING & FDTN DETAILS

sheet:

SB504

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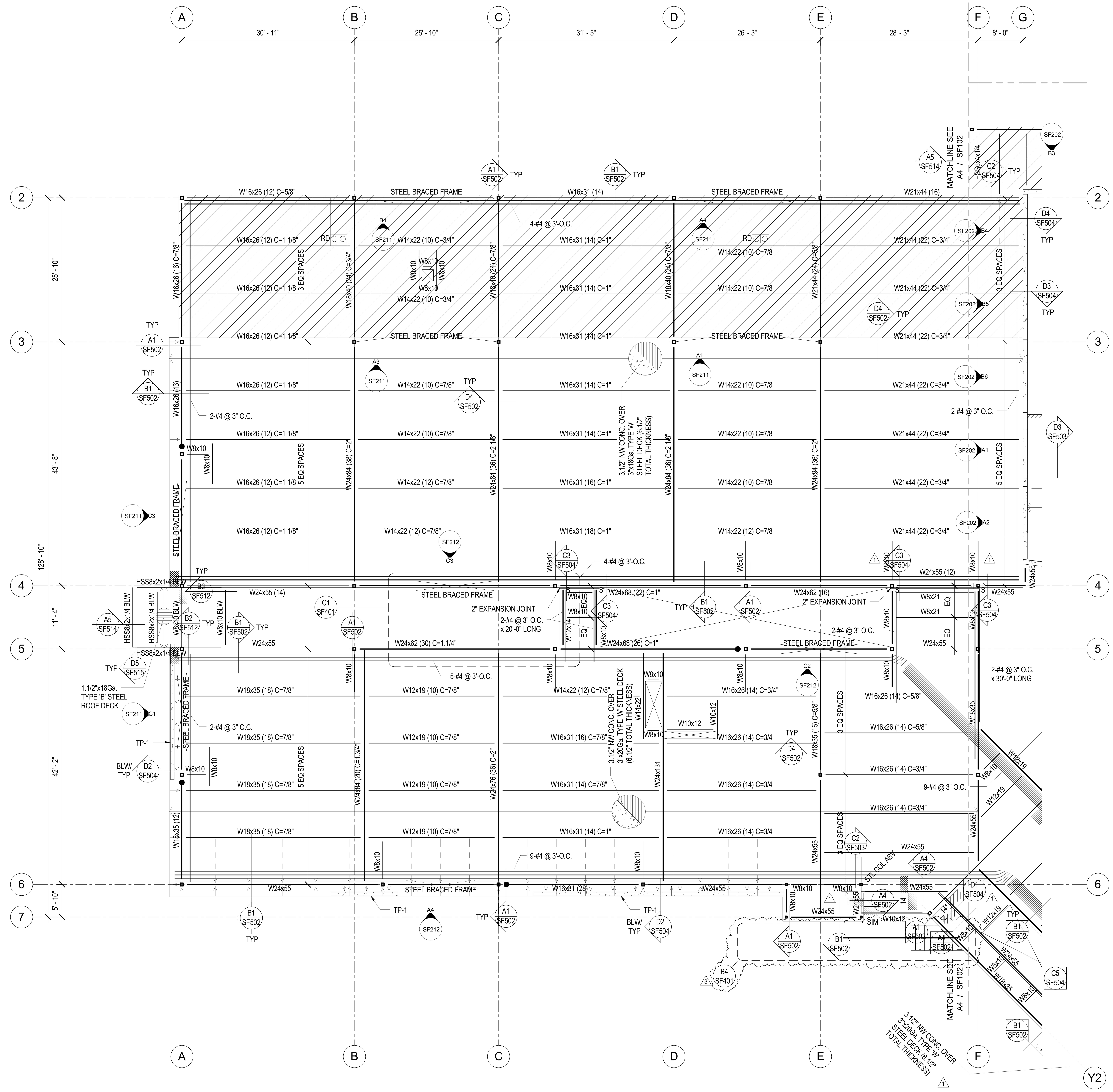


A1 / SF101 SECOND FLOOR FRAMING PARTIAL PLAN 1

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

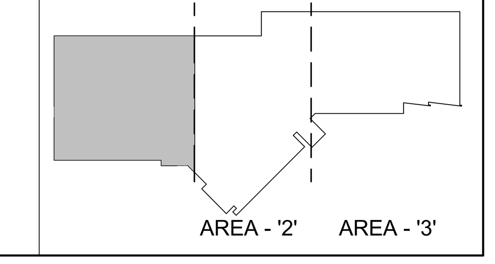
FLOOR FRAMING PLAN LEGEND

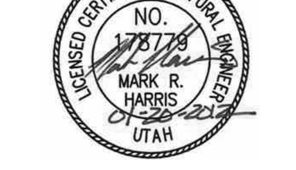
- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B1/SF501
- SLIP CONNECTION SEE A5/SF511, U.N.O.
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- BALLASTED ROOF
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

FLOOR FRAMING PLAN NOTES

1. SEE GENERAL STRUCTURAL NOTE (3.4.H) AND DETAIL D4/SF502 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.
2. SEE DETAILS D1/SF502 FOR MISCELLANEOUS FLOOR OPENINGS.
3. SEE GENERAL STRUCTURAL NOTE (5.10.G) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.
4. SEE TYPICAL REINFORCING AROUND MISC OR RECESSED MASONRY OPENING FOR ADDITIONAL REINFORCING AT MASONRY WALLS.
5. PROVIDE 4.1/2" LONG HSA ON COMPOSITE BEAM IN AREA OF 1" SLAB RECESS.

KEYPLAN





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2nd FLOOR FRAMING Partial Plan 1

sheet:

SF101

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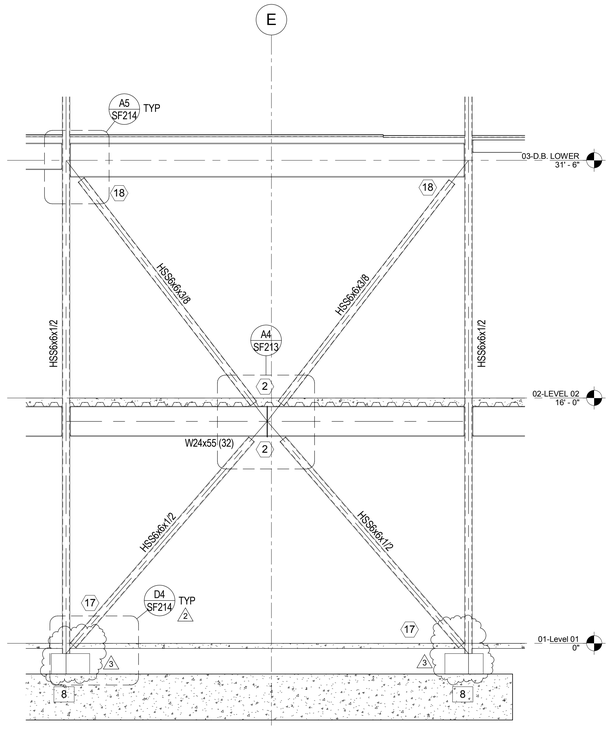
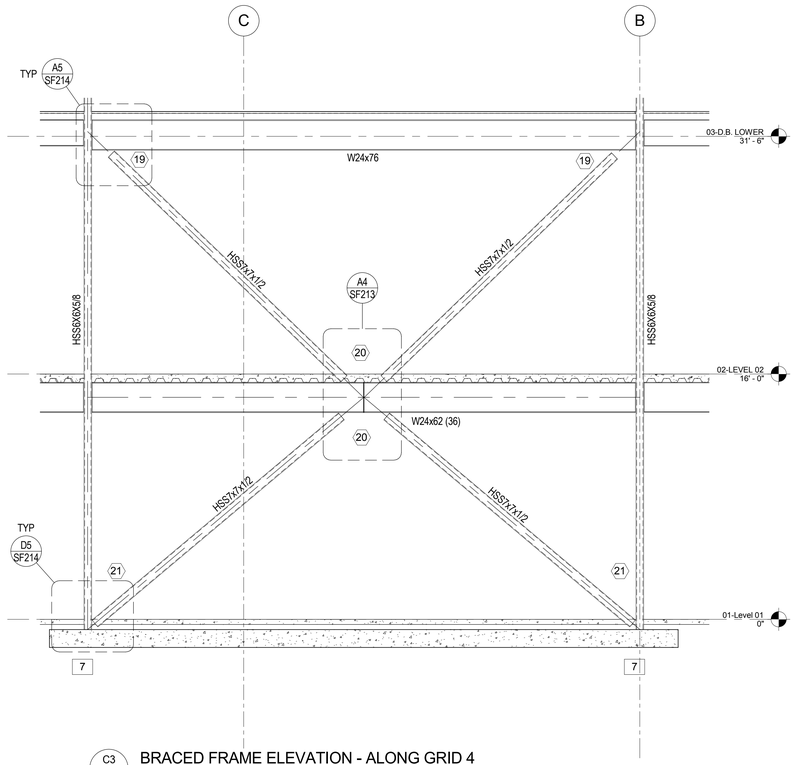


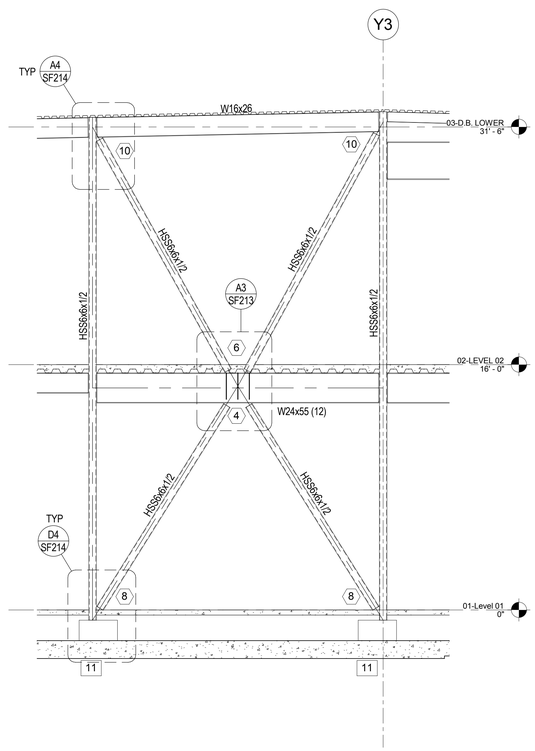
C2 SF212 BRACED FRAME ELEVATION - ALONG GRID 5

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



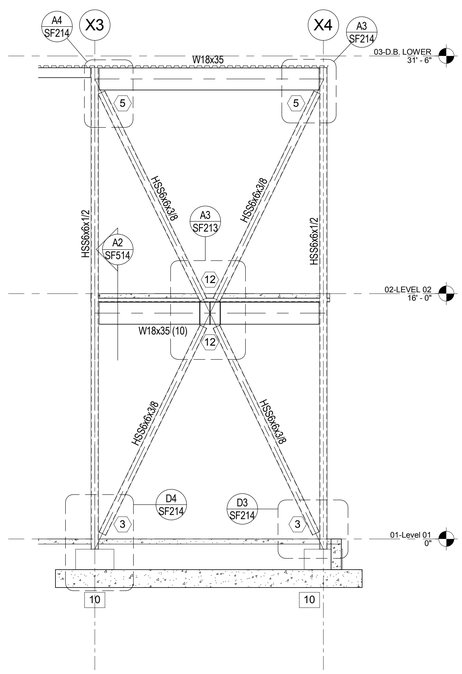
C3 SF212 BRACED FRAME ELEVATION - ALONG GRID 4

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



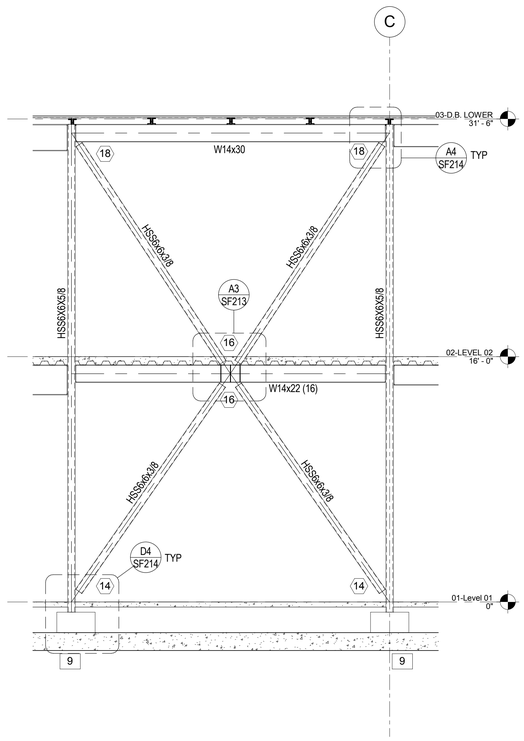
A2 SF212 BRACED FRAME ELEVATION - ALONG GRID R

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



A3 SF212 BRACED FRAME ELEVATION - ALONG GRID 8

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



A4 SF212 BRACED FRAME ELEVATION - ALONG GRID 6

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

BRACED FRAME ELEVATION NOTES AND LEGEND

1. ALL W-SHAPED BRACED FRAME MEMBERS SHALL BE ASTM A992 (Fy = 50KSI) STEEL, U.N.O.

2. ALL HSS-SHAPED BRACED FRAME MEMBERS SHALL BE ASTM A500 GRADE B (Fy = 46KSI) STEEL, U.N.O.

3. (?) INDICATES BRACED FRAME CONNECTION MARK. SEE C1/SF213 FOR BRACED FRAME CONNECTION SCHEDULE.

4. [?] INDICATES STEEL BASE PLATE MARK. SEE C3/SF213 FOR SCHEDULE.

5. VERIFY ALL DATUM ELEVATIONS W/ ARCHITECTURAL DRAWINGS.

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3	Addendum #4	02.28.12

BRACED FRAME ELEVATIONS

sheet:

SF212

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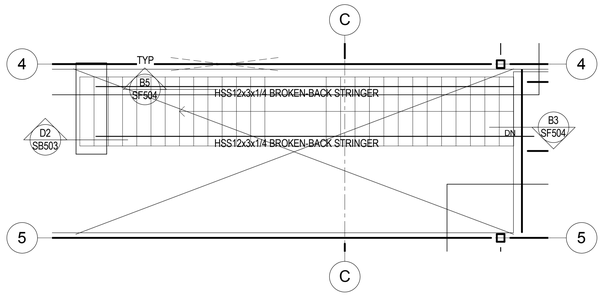
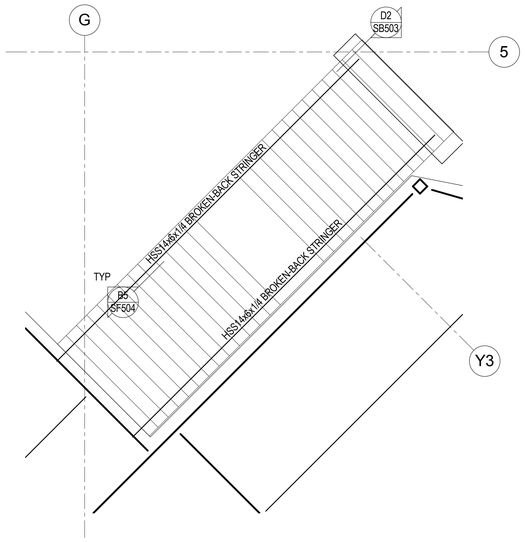


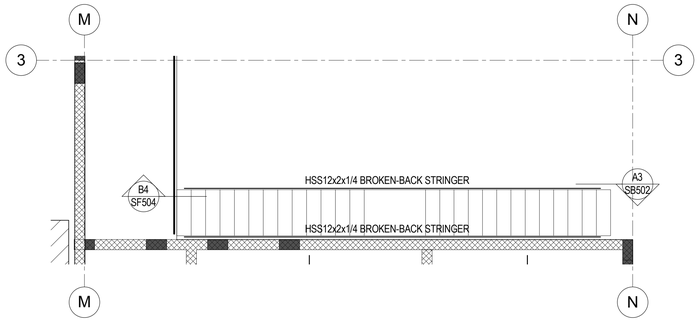
C1 / SF401 ENLARGED STAIR FRAMING PLAN - AREA 1

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



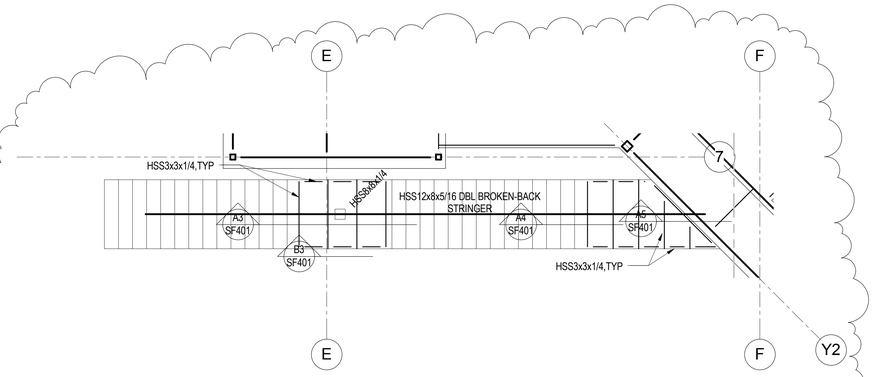
C3 / SF401 ENLARGED STAIR FRAMING PLAN - AREA 2

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



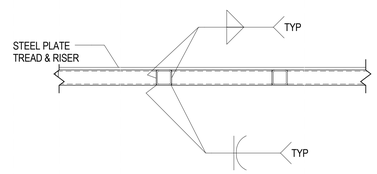
C4 / SF401 ENLARGED STAIR FRAMING PLAN - AREA 3

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



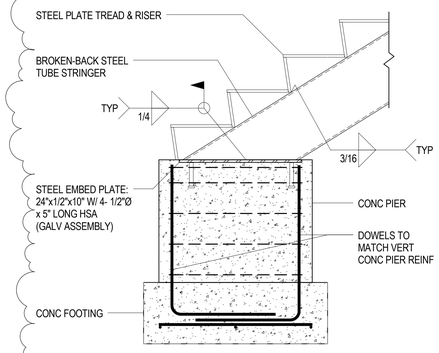
B4 / SF401 SECOND LEVEL FLOOR FRAMING PLAN

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



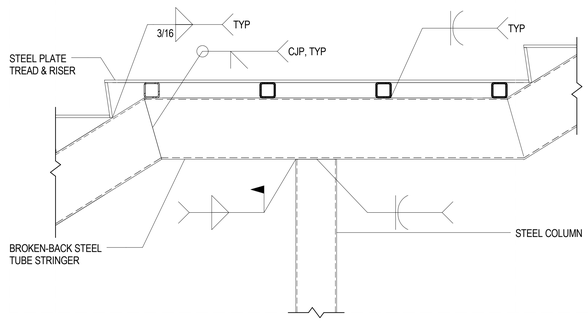
B3 / SF401 STEEL TUBE BEAM TO STEEL TUBE BEAM

NO SCALE



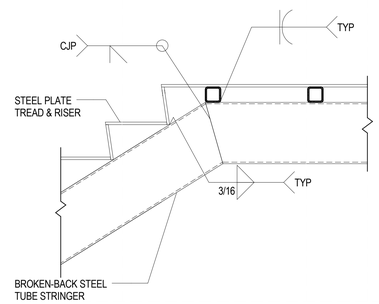
A1 / SF401 STAIR STRINGER TO CONCRETE PIER AT CONC FOOTING

NO SCALE



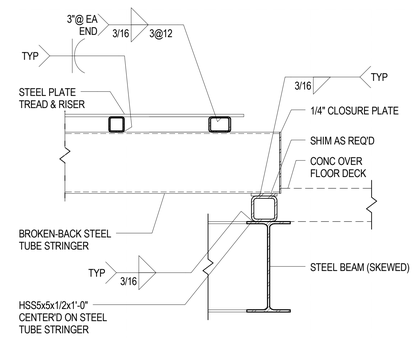
A3 / SF401 STEEL TUBE STRINGER TO STEEL COLUMN

NO SCALE



A4 / SF401 BROKEN-BACK STEEL TUBE STRINGER CONNECTION AT LANDING

NO SCALE



A5 / SF401 BROKEN-BACK STEEL TUBE STRINGER TO STEEL BEAM

NO SCALE

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 176728
MARK R. HARRIS
UTAH

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STAIR FRAMING PLANS

sheet:

SF401

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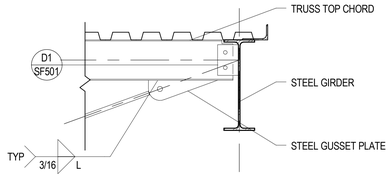
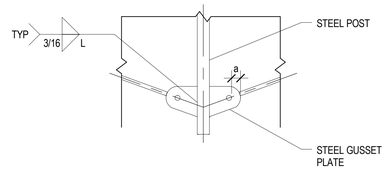


TRUSS #	a	L	GUSSET PALTE THICKNESS
1	3"	23.1/2"	3/4"
2	2.3/4"	21.1/2"	5/8"
3	2.1/4"	17.1/2"	1/2"
4	2"	15.1/2"	3/8"
5	1.3/4"	13.1/2"	1/4"

D2 SF515 STEEL GUSSET PLATE AT STEEL BEAM

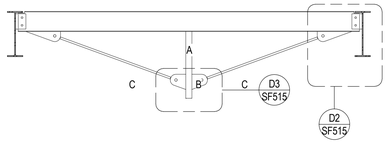
NO SCALE



TRUSS #	a	L	GUSSET PALTE THICKNESS
1	3"	10.1/2"	3/4"
2	2.3/4"	9.1/2"	5/8"
3	2.1/4"	8"	1/2"
4	2"	7"	3/8"
5	1.3/4"	6"	1/4"

D3 SF515 STEEL GUSSET PLATE AT STEEL POST

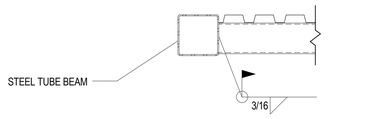
NO SCALE



TRUSS #	A	B	C	CLEVIS	PIN DIAMETER
1	W8x18	2" X-STRONG	1.1/4" A36 STEEL ROD	3.5	2
2	W8x15	2" X-STRONG	1.1/8" A36 STEEL ROD	3	1.3/4
3	W8x10	2" X-STRONG	1" A36 STEEL ROD	3	1.1/2
4	W8x10	2" X-STRONG	1" A36 STEEL ROD	3	1.1/4
5	W8x10	2" X-STRONG	3/4" A36 STEEL ROD	2.5	1

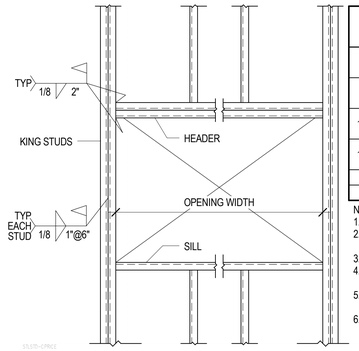
D4 SF515 CLERESTORY ROOF TRUSSES

NO SCALE



D5 SF515 STEEL TUBE BEAM AT STEEL TUBE BEAM

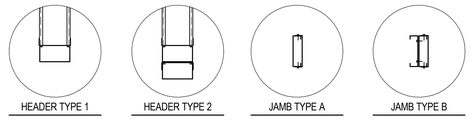
NO SCALE



HEIGHT OF WALL	WIDTH OF OPENING	JAMB SIZE	JAMB TYPE	JAMB NO. OF KING STUDS	SILL SIZE	HEADER SIZE	HEADER TYPE
UP TO 12'-0"	UP TO 4'-0"	600S162-33	A	1+T	(1)600T125-33	(1)600S162-33	1
		600T125-33					
UP TO 12'-0"	4'-1" TO 8'-0"	(2)600S162-33	B	2+T	(2)600S162-33	(2)600S162-33	2
		600T125-33			(1)600T125-33	(1)600T125-33	
12'-1" TO 17'-6"	UP TO 4'-0"	600S162-54	A	1+T	(1)600S162-54	(1)600S162-54	1
		600T125-54					
12'-1" TO 17'-6"	4'-1" TO 8'-0"	(2)600S162-54	B	2+T	(2)600S162-54	(2)600S162-54	2
		600T125-54			(1)600T125-54	(1)600T125-54	

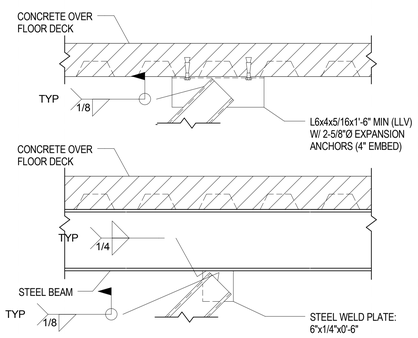
NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL OPENINGS IN STUD WALLS.
2. ALL STUD SIZE DESIGNATIONS ARE PER THE STANDARD ESTABLISHED BY THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA) AND THE NORTH AMERICAN STEEL FRAMING ALLIANCE (NASFA).
3. HEIGHTS OF WALL IN SCHEDULE DO NOT INCLUDE PARAPETS.
4. AT CONTRACTORS OPTION, USE #12 SCREWS @ 12" O.C. TO ATTACH TRACK/OTHER STUDS TO JAMB/HEADER STUDS TYPICAL IN LIEU OF WELDING.
5. OTHER PROPRIETARY STUD FRAMING SYSTEMS MAY BE USED WITH WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.
6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TYPICAL STUD WALL CONSTRUCTION	
UP TO 12'-0"	600S162-33 @ 16" O.C.
12'-1" TO 16'-0"	600S162-43 @ 16" O.C.
16'-1" TO 17'-6"	600S162-54 @ 12" O.C.



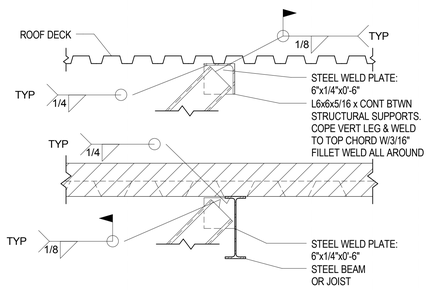
B4 SF515 TYPICAL EXTERIOR STUD WALL FRAMING SCHEDULE WITH FRAMED OPENING DETAIL

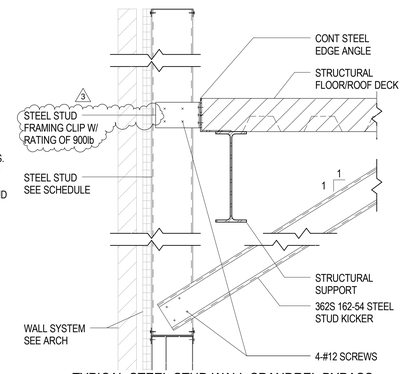
NO SCALE



A2 SF515 TYPICAL STEEL STUD BRACE CONNECTION TO FLOOR/ROOF DECK

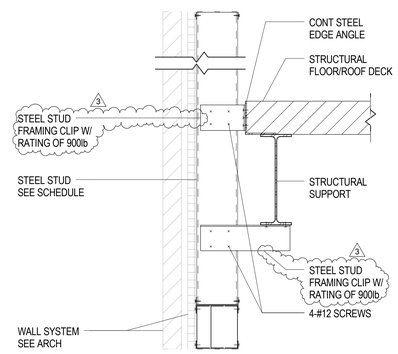
NO SCALE





A4 SF515 TYPICAL STEEL STUD WALL SPANDREL BYPASS BRACED TO DECK

NO SCALE



A5 SF515 TYPICAL STEEL STUD WALL BYPASS AT FRAMED OPENING BRACED TO STEEL BEAM

NO SCALE

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 176779
MARK R. HARRIS
UTAH

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

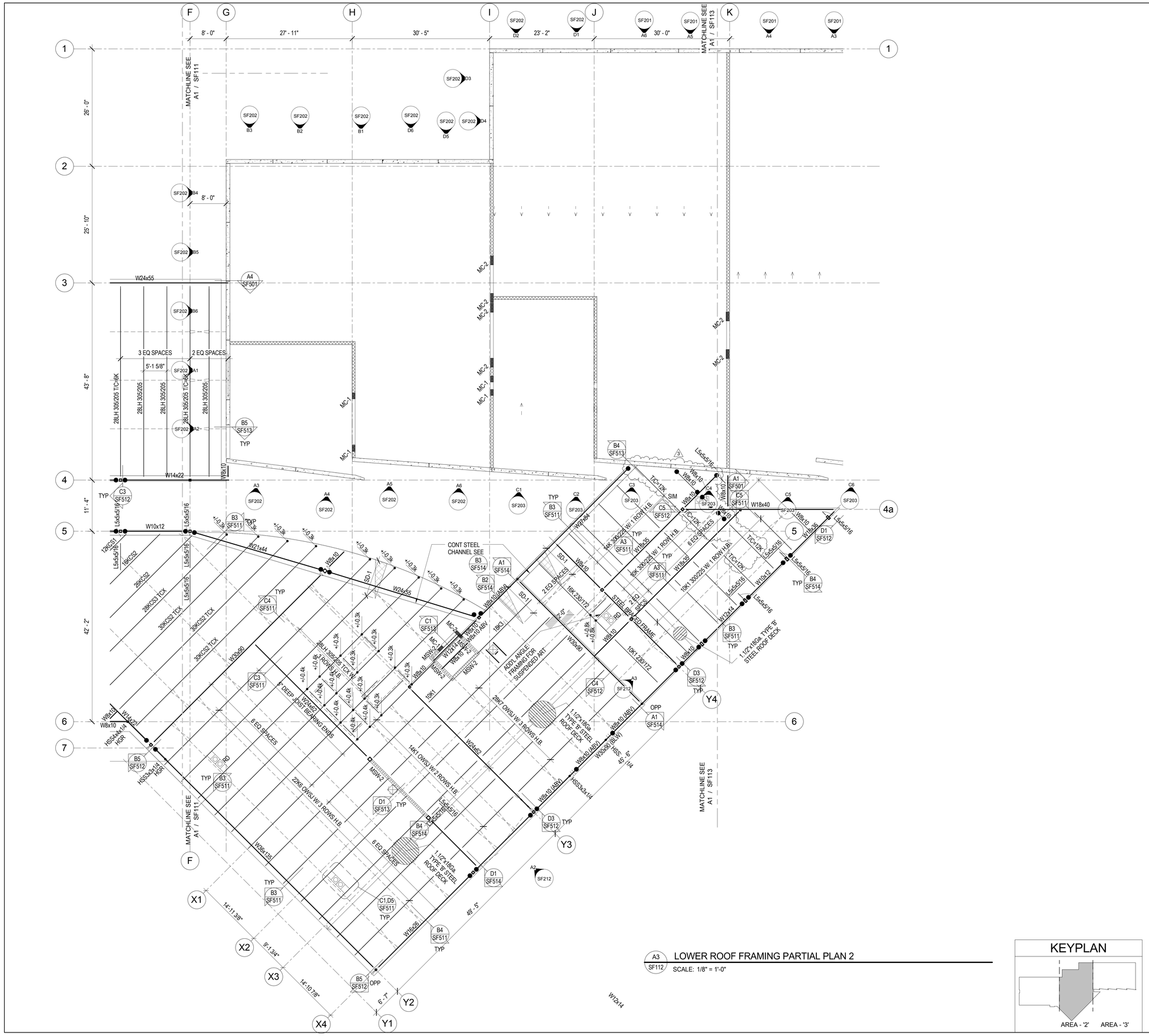
project#: 11.0420
date: 1/20/12

revisions :
3 Addendum #4 02.28.12

ROOF FRAMING DETAILS

sheet:
SF515

100% Construction Documents



A3 / SF112 LOWER ROOF FRAMING PARTIAL PLAN 2

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

ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B1/SF501
- SLIP CONNECTION SEE A5/SF511
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- BALLASTED ROOF
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL D4/SF511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL D3/SF511. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL C2/SF511.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE D5 & C1/SF511 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

5. ±#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS. ALL POINT LOADS ON JOISTS ARE LIVE LOADS, U.N.O.

6. T/C=##K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL D1/SF511.

8. SEE DETAIL D2/SF511 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. SEE A2/SF601 FOR SD-# FOR SNOW DRIFT DIAGRAMS. SEE B5/SF601 FOR SPJ-# FOR SPECIAL JOIST LOADING DIAGRAMS.

12. DESIGN OWSJ FOR MIN. NET UPLIFT OF 23.6psf, U.N.O.

13. 600lb DEAD POINT LOAD AT CONT STEEL CHANNEL.

KEYPLAN

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 176728
MARK R. HARRIS
UTAH

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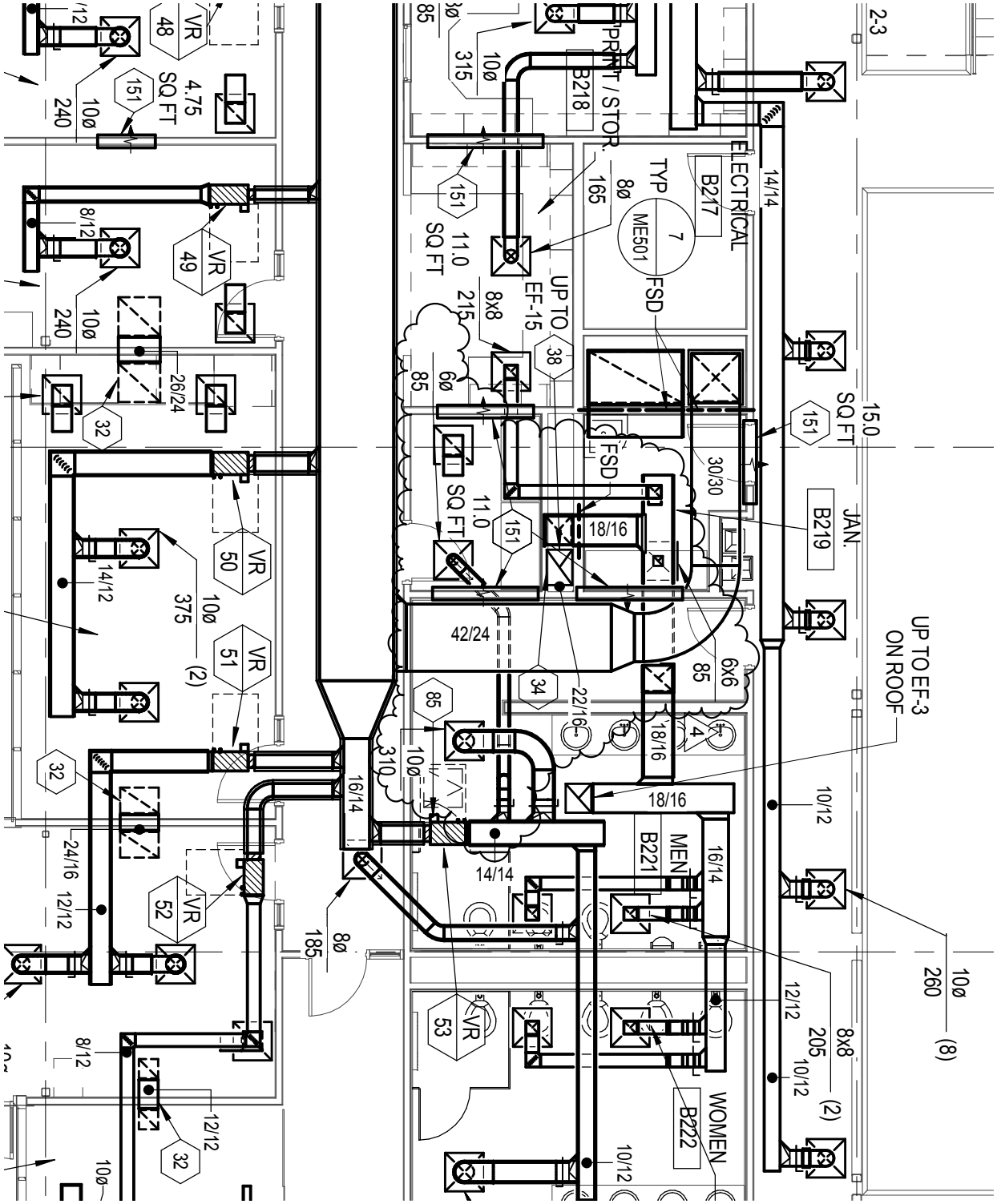
LOWER ROOF FRAMING Partial Plan 2

sheet:
SF112

100% Construction Documents



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ADDENDUM #4

PROJECT #:	11222
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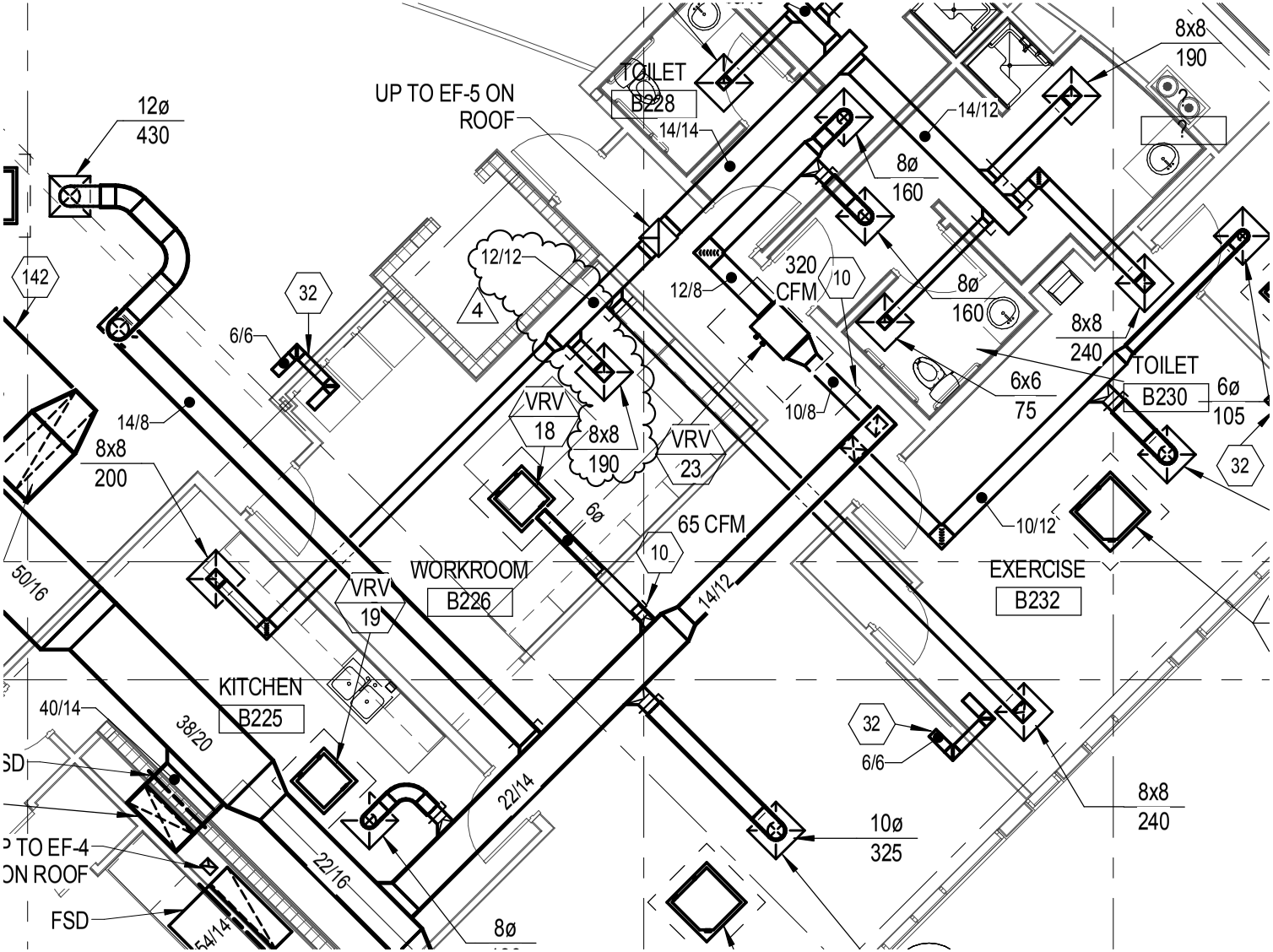
SHEET CONTENTS

LEVEL 2
MECHANICAL
PLAN 1
(SHEET M121)

SD-M01



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SHEET CONTENTS

LEVEL 2
MECHANICAL
PLAN 2
(SHEET M122)

SD-M02

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	FAN: OUTLET VELOCITY (FPM)	FAN: FAN SPEED (RPM)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	WEIGHT (LBS)	NOTES
EF-1	GREENHECK G-090-VG	ROOF	1ST FLOOR NURSING	DOME	660	0.45	880	1725	1/4	0.08	1725	115/1/60	22 DIA / 16	36	(1)(2)
EF-2	GREENHECK SQ-75-D	LAUNDRY A114	CLOTHES DRYER EXHAUST	INLINE	120 4	0.5	194	1550	1/30	0.02	1550	115/1/60	15 / 12 / 12	30	(1)(9)(10)
EF-3	GREENHECK G-133-VG	ROOF	ADMIN GENERAL EXHAUST	DOME	2140	0.45	4 1911	1687	3/4	4 0.44	1687	460/3/60	28 DIA / 26	60	(1)(2)
EF-4	GREENHECK G-097-VG	ROOF	ELEVATOR MACHINE EXHAUST	DOME	100	0.4	104	1104	1/4	0.02	1725	115/1/60	24 DIA / 26	50	(1)(2)
EF-5	GREENHECK G-123-VG	ROOF	2ND FLOOR AREA 2	DOME	1355 4	0.35	1419	1302	1/2	0.17	1725	115/1/60	24 DIA / 26	60	(1)(2)
EF-6	GREENHECK SWB-212	ROOF	WELDING BOOTH EXHAUST	UTILITY VENT SET	1800	3.5	2195	2984	2	1.56	1725	460/3/60	23 / 27 / 24	175	(1)(4)(11)
EF-7	GREENHECK SWB-124	ROOF	WELDING GENERAL EXHAUST	UTILITY VENT SET	6510	0.92	1973.0	910	2	1.72	1725	460/3/60	46 / 47 / 49	500	(1)(4)(5)
EF-8	GREENHECK SWB-216	ROOF	WELDING BOOTH EXHAUST	UTILITY VENT SET	3600	3.85	2368	2314	5	3.39	1725	460/3/60	31 / 34 / 33	255	(1)(4)(11)
EF-9	GREENHECK SWB-216	ROOF	WELDING BOOTH EXHAUST	UTILITY VENT SET	3600	4.0	2368	2350	5	3.52	1725	460/3/60	31 / 34 / 33	275	(1)(4)(11)
EF-10	GREENHECK SWB-218	ROOF	DIESEL VEHICLE EXHAUST	UTILITY VENT SET	3600	4.3	1957	2090	5	3.86	1725	460/3/60	34 / 38 / 36	350	(1)(4)(11)
EF-11	GREENHECK SWB-212	ROOF	DIESEL VEHICLE EXHAUST	UTILITY VENT SET	1800	3.8	2195	3082	2	1.7	1725	460/3/60	23 / 27 / 24	175	(1)(4)(11)
EF-12	GREENHECK SWB-224	ROOF	DIESEL GENERAL EXHAUST	UTILITY VENT SET	7640	0.95	2315	1055	3	2.26	1725	460/3/60	46 / 47 / 49	530	(1)(4)(5)
EF-13	GREENHECK G-123-VG	ROOF	MINIMUM SHOP EXHAUST	DOME	1285	0.6	1382	1421	1/2	0.23	1725	115/1/60	24 DIA / 26	57	(1)(2)(5)
EF-14	GREENHECK CUBE-141	ROOF	KITCHEN HOOD EXHAUST	UPBLAST	1725	0.75	1003	1373	1/2	0.41	1725	115/1/60	29 DIA / 32	100	(1)(6)(7)(8)
EF-15	GREENHECK G-123-VG	ROOF	BOILER ROOM VENTILATION	DOME	1,640	0.4	1763	1551	1/2	0.28	1725	115/1/60	24 DIA / 26	60	(1)(2)(5)
EF-16	GREENHECK CUBE-141	ROOF	CONST TECH GEN EXHAUST	DOME	1,900	0.5	1105	1309	1/2	0.36	1725	115/1/60	29 DIA / 32	75	(1)(3)

(1) ALL CAPACITIES AT 5,070 FEET ELEVATION.

(2) ROOF MOUNTED EXHAUST FAN. COMPLETE WITH DC BRUSHLESS MOTOR (MINIMUM 85% EFFICIENT) PRE-FAB ROOF CURB, BIRD SCREEN, INTEGRAL THERMAL OVERLOAD PROTECTION, ELECTRICAL DISCONNECT, AND MOTORIZED BACKDRAFT DAMPER WITH END SWITCH AND INTERLOCK BY MECHANICAL.

(3) ROOF MOUNTED UPBLAST EXHAUST FAN. COMPLETE WITH PRE-FAB ROOF CURB, BIRD SCREEN, INTEGRAL THERMAL OVERLOAD PROTECTION, ELECTRICAL DISCONNECT, AND MOTORIZED BACKDRAFT DAMPER WITH ENDSWITCH AND INTERLOCK BY MECHANICAL.

(4) ROOF MOUNTED UTILITY VENT SET. COMPLETE WITH PRE-FAB ROOF CURB, MOTORIZED DAMPER AND END SWITCH, NEMA PREMIUM EFFICIENCY MOTOR WITH THERMAL OVERLOAD PROTECTION. OUTLET SHALL BE ORIENTED VERTICALLY. PROVIDE GUY WIRES AND INSTALL DUCT TO HEIGHT SHOWN ON PLANS.

(5) CONTROL: ATC.

(6) ROOF MOUNTED GREASE EXHAUST FAN (UL 762) COMPLETE WITH PRE-FAB ROOF CURB, HINGED BASE W/ FLEXIBLE CABLES, BIRDSCREEN, INTEGRAL THERMAL OVERLOAD PROTECTION, ELECTRICAL DISCONNECT, GREASE TRAP DRAIN, AND MOTORIZED BACKDRAFT DAMPER WITH END SWITCH.

(7) CONTROL: EXHAUST FAN SHALL BE CONTROLLED BY A HEAT SENSOR LOCATED IN THE KITCHEN EXHAUST HOOD.

(8) AIRFLOW AND EXTERNAL STATIC PRESSURE SPECIFIED IS BASED ON INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE ACTUAL AIRFLOW AND STATIC PRESSURE DROP WITH KITCHEN SUPPLIER PRIOR TO SUBMITTING EXHAUST FAN FOR APPROVIAL. EXHAUST FAN SELECTED BASED ON THE FOLLOWING CRITERIA:

(A) KITCHEN HOOD - 1,725 CFM @ -0.37" S.P.

(9) DIRECT DRIVE INLINE EXHAUST FAN. COMPLETE WITH INTEGRAL THERMAL OVERLOAD PROTECTION, ELECTRICAL DISONNECT, AND VIBRATION ISOLATORS.

(10) CONTROL: INTERLOCK WITH CLOTHES DRYER.

(11) CONTROL: USER ACCESSIBLE WALL SWITCH. SEE PLANS FOR LOCATION.

VAV BOX SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AREA SERVED	INLET SIZE (IN)	AIR: COOLING MAXIMUM AIR (CFM)	AIR: HEATING MAXIMUM AIR (CFM)	AIR: MINIMUM AIR (CFM)	AIR: LEAVING AIR TEMP. DB (DEG. F)	AIR: NC LEVELS @ 2" S.P. AIR	AIR: NC LEVELS @ 2" S.P. RAD	FLUID: HEAT CAPACITY (MBH)	FLUID: TOTAL FLUID FLOW (GPM)	FLUID: WORKING FLUID	REMARKS
VR-52	4 PRICE SDV	PRESIDENT ASSISTANT B213	8	360	255	110	96.6	23	21	10.5	1	H. WATER	(1)(2)(3)(4)(5)
VR-53	PRICE SDV	MEN/WOMEN B221 & B222	10	890	890	890	80	25	24	22.9	2.2	H. WATER	(1)(2)(3)(4)(5)
VR-54	PRICE SDV	CDL CLASSROOM C201	10	765	230	230	81.5	28	23	6.2	0.6	H. WATER	(1)(2)(3)(4)(5)
VR-55	PRICE SDV	LOBBY B101	24x16	2700	2700	2700	85	30	30	83.0	7.4	H. WATER	[illegible]

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SHEET CONTENTS

MECHANICAL SCHEDULES (SHEET ME602)

SD-M03

SECTION 281300 - ACCESS CONTROL AND SECURITY SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes a microprocessor based and managed access control and security system and specifies sensors, signal equipment, system controls, and displays.

1.3 DEFINITIONS

A. Hard-Wired System: Alarm, supervisory, and detection devices are directly connected, through individual dedicated conductors, to central control panels.

1.4 SYSTEM DESCRIPTION

A. The system shall have both access controlled doors and perimeter doors and hatches monitored with door position switches.

B. The system shall support automatic responses to alarms entering the system. Each alarm condition shall be capable of initiating numerous events including but not limited to: Activation of remote devices, door control, remote annunciation LED's, and card validation.

C. Access control functions shall include but not be limited to: Validation based on time of day and day of week, holiday scheduling with card validation override, and access validation based on positive verification of card.

D. The system shall interface with the fire alarm system and in the event of an alarm, shall release all controlled doors designated for emergency egress, and put them in fail-safe mode allowing free egress.

1.5 FUNCTIONAL PERFORMANCE

A. The system shall consist of intelligent controllers used in a distributed processing configuration. Each controller shall retain all data necessary for system operation in it's own RAM. Each controller will contain an integrated real time clock that continues to govern events even if communication with the host computer is interrupted.

B. The system host computer shall act as an interface point with the controller network, a data base management tool, and a transaction storage device. Upon the successful entry of passwords, the host computer shall be accessible via the owners computer network utilizing LAN network software and hardware.

C. Card access system basic requirements:

1. Provide a system including but not limited to the following capabilities:

a. ADD, DELETE, REPORT or EDIT cardholder information.

b. Cardholder information shall include unique card number up to 12 digits and optional

Personal Identification Number.

c. Provide a minimum of 8 user fields.

d. Provide storage of all system transactions in a retrievable history file.

e. Provide ability to program descriptions for all system alarm points.

f. Provide ability to program description for all system output relays.

g. Provide ability to program description for all system card readers.

h. Monitor both supervised and non-supervised alarm points.

i. Report alarm point activity or status

j. The reporting shall notify system of 'Alarm,' 'Normal,' or 'Trouble' condition.

k. Interlock any alarm point condition to an output relay.

l. Interlock any alarm point condition to another alarm point.

m. Program alarms and associate incoming alarms with related outputs.

n. Bypass alarms in the system.

o. Log all events by time and date.

p. Execute alarm interrupts in all modes of operation.

q. Provide ability to make system configuration changes at any time.

r. ADD, DELETE, REPORT or EDIT time zone definitions. Time zone definitions shall include; starting time, ending time, days of the week, holiday override and a provision to link multiple time zone definition.

s. ADD, DELETE, REPORT or EDIT access level definitions. The access Levels shall define specific points of access.

t. Support multiple card reader technology including:

1. Wiegand effect.
2. Magnetic strip.
3. Proximity.
4. Biometrics.
5. Bar Code.

1.6 SUBMITTALS

A. General: Submit the following according to Conditions of Contract and Division 1 Specification Sections.

B. Product data for system components, including "Nationally Recognized Testing Laboratory" (NRTL) listing data and list of materials, dimensioned plans, sections, and elevations showing minimum clearances, mounting arrangements, and installed features and devices.

C. Wiring diagrams shall be provided for the system, including all devices, components, and auxiliary equipment. System diagram is unique to the Project system; a manufacturer's generic system diagram is not acceptable. Diagrams differentiate between manufacturer-installed and field-installed wiring. Include diagrams for equipment and for system with all terminals and interconnections identified.

D. System operation description, including method of operation and supervision of each component and each type of circuit, and sequence of operations for all manually and automatically initiated system inputs. Description must cover this specific Project; manufacturer's standard descriptions for generic systems are not acceptable.

E. Operation and maintenance data for inclusion in "Operating and Maintenance Manual" specified in Division 1. Include data for each type product, including all features and operating sequences, both automatic and manual. Include user's software data and recommendations for spare parts to be stocked at the site. Provide names, addresses, and telephone numbers of service organizations that stock repair parts for the system.

F. Product certifications signed by the manufacturers of system components certifying that their products comply with the referenced standards.

G. Separate Qualification Data for Manufacturers and Installers: Demonstrate their capabilities and experience as specified in Quality Assurance Article. Include lists of completed projects with project names and addresses, names of Contracting Officer and Government representatives, plus other information specified.

H. Record of field tests of system.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: The system shall be installed by a contractor who has been regularly engaged in the installation of access control equipment for at least 5 years. The installer shall be a factory authorized sales and services representative of the system submitted. Provide, in writing, proof of compliance with system manufacturers service and installation certification programs. Installer must be capable of providing emergency maintenance and repairs for the overall system at the project site with 24 hours maximum response time. The installer shall have a local office staffed with factory trained technicians, fully capable of supervising installation, system start-up, providing training and servicing of both hardware and software for systems of similar complexity and function as the system described in this specification.

B. Comply with NFPA 70, "National Electrical Code."

C. Listing and Labeling: Provide system and components that are listed and labeled for their indicated use and location on the Project.

1. The Terms "Listed" and "Labeled": As defined in the "National Electrical Code," Article 100.
2. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory" (NRTL) as defined in OSHA Regulation 1910.7.

D. Comply with UL Standard 609, 1023, and 1076.

E. FM Compliance: Provide FM-approved card access system and components.

F. Single-Source Responsibility: Obtain system components from a single source (the prime system manufacturer) that assumes responsibility for system components and for their compatibility.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. American Magnetics
2. TAC I/Net
3. GE interlogix
4. Lenel
5. Bosch – Radionics
6. Software House
7. S2

2.2 ACCESS CONTROL SYSTEM EQUIPMENT, GENERAL

A. Surge Protection: Comply with minimum requirements of UL Standard 1449, "Transient Voltage Surge Suppressors," for each component using solid-state devices and having a line voltage power source connection or an exterior underground signal connection.

B. Provide at the locations identified, a complete and operational Access Control and Security System including but not limited to the following equipment:

1. Card Readers
2. Door Logic Panels
3. Relay output contacts
4. All power supplies and/or transformers
5. All equipment, security devices, components, wire, cable, and mounting hardware as required to meet specification requirements and manufacturers documented installation procedures.

C. Basic Central System Components:

1. Communications Hub and door logic controller panels to meet the system functional specifications listed above and for the number of readers as indicated in the drawings.

2.3 ELECTRICAL POWER

A. Normal System Power Supply: 120 V 60 Hz from locked disconnect device. System components are supplied with power through separate power supplies. Provide all required power supplies and associated transformers as specified by the manufacturer.

B. Power Source Transfer: When normal power is interrupted, system is automatically switched to backup supply without degradation of critical system function or loss of signals or status data.

1. Backup Source: Batteries in power supplies of individual system components. Such batteries are an integral part of power supplies of the components.
2. Annunciation: Switching of the system or any system component to backup power is indicated as a change in system condition.

2.4 CARD ACCESS SYSTEM HARDWARE, GENERAL

A. Types, features, accessories, and mounting conditions of individual devices are as indicated.

B. Battery Back-up: The access control panel shall be provided with back-up battery power for up to eight hours operation upon loss of AC power.

F. Suppression: The access control panel shall have provisions for relay suppressor kits for each relay used, to protect the access control panel from collapsing electrical fields.

G. Card Readers: Card readers shall be HID Prox-Pro and HID Mini-Prox readers for door control. The access control panel shall support card readers using Magstripe, Barcode, Wiegand, Proximity and Biometrics technologies.

1. Proximity Readers: The system shall be provided with uni-directional proximity card readers. The HID MiniProx mullion type card readers shall have a read range of five inches. The standard ProxPro readers shall have a read range of five to eight inches. The reader shall be able to be mounted with its sides against metal door or window frames, and masonry walls. The reader shall be powered by an external +12VDC regulated power supply. The card shall use 32 or 34 bits and have a label indicating the encoded number. The reader shall meet the following specifications:

a. Electrical: Voltage +12 VDC nominal voltage (10.5-14 volts), 130 mA.
b. Environmental: Outdoor operating temperature -30 to +65 degrees. Indoor operating temperature 0 to +50 degrees.

2.5 DOOR POSITION SWITCHES

A. Position switches on doors shall be magnetic reed switch type—normally closed to match existing, and shall be per manufacturers recommendations for the type of door installed on.

2.6 POWER SUPPLIES.

A. Provide power supplies as per manufacturers written recommendations with total number of powered devices for each power supply restricted to only consuming 75 percent of the power supplies rated amperage. Provide separate power supplies for system controllers (As per manufacturer), card readers (12VDC, 5 A), and locks (24 VDC, 7 A).

2.7 WIRE AND CABLE

A. General: Provide both TPS, Twisted pair Shielded, and TP, Twisted Pair, as indicated in the drawings, with the appropriate number of pairs.

B. Comply with Division 26 Section "Wires and Cables" except as indicated.

C. Cable for Low-Voltage Control and Signal Circuits: Shielded twisted-pair cable with drain. Comply with Division 26 Section "Wires and Cables."

2.8 RACEWAY

A. Comply with Division 26 Section "Raceways."

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install system according to NFPA 70, applicable codes, and manufacturer's printed instructions.

B Wiring Method: Install all wiring in raceways, ¾ inch minimum. Multiple home runs may be contained in a single conduit of appropriate size. Conceal raceways except in unfinished indoor spaces. Conduit fill shall not exceed 40%.

C Wiring Within Panels And Enclosures: Bundle, wrap, and train the conductors to terminal points with 6-inches of slack minimum, 12-inches of slack maximum. Provide and use cable management hardware and distribution spools.

C. Number of Conductors: As recommended by system manufacturer for functions indicated.

D. Splices, Taps, and Terminations: Make splices, taps, and terminations on numbered terminal strips in junction, pull and outlet boxes, terminal cabinets, and equipment enclosures.

E. Tighten connections to comply with tightening torques specified in UL Standard 486A.

F. Identification of Conductors and Cables: Color-code conductors and apply wire and cable marking tape to designate wires and cables so media are identified and coordinated with system wiring diagrams.

G. Install power supplies and other auxiliary components for detection devices at the door controller panel or at a data-gathering panel except as otherwise indicated. Do not install such items in the vicinity of the devices they serve.

J. Install fire interface relay such that in the event of a fire annunciation, designated locking devices will GOTO the FAIL SAFE condition. Provide one input of the door logic controller for the fire alarm system.

3.2 GROUNDING

A. Ground system components and conductor and cable shields to eliminate shock hazard and to minimize ground loops, common mode returns, noise pickup, cross talk, and other impairments.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide services of a factory-authorized service representative to supervise the field assembly and connection of components and system pre-testing, testing, adjustment, and programming.

B. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.

C. Pre-testing: Align and adjust the system and perform pre-testing of all components, wiring, and functions to verify conformance with specified requirements. Correct deficiencies by replacing malfunctioning or damaged items with new items. Retest until satisfactory performance and conditions are achieved.

D. Testing: Provide at least 10 days' notice of acceptance test performance schedule.

E. Operational Tests: Perform operational system tests to verify conformance with specifications. Test all modes of system operation and intrusion detection. Methodically test for false alarms in each zone of space intrusion detection devices by simulating activities outside indicated detection patterns.

F. Installer Start-up Responsibility: The Installer shall initiate system operation. The Installer shall provide competent start-up personnel on each consecutive working day until the system is fully functional. Upon reoccurring technical problems, the Installer shall supply factory direct Manufacturer's support in the form of factory technical representation and/or diagnostic equipment until the resolution of those defined problems.

3.4 ADJUSTMENT

A. Occupancy Adjustments: When requested within 1 year of date of substantial completion, provide on-site assistance in adjusting and reprogramming to suit actual occupied conditions. Provide up to 3 visits to the site for this purpose without additional cost.

3.5 DEMONSTRATION

A. Train Government's operating personnel in the programming and operation of the system. Train Government's maintenance personnel in the procedures and schedules involved in preventive maintenance and in programming, operating, adjusting, troubleshooting, and servicing of the system. Provide a minimum of 4 hours training.

B. Schedule training with advance notice of at least 7 days.

END OF SECTION 281300

SECTION 282303 - VIDEO SURVEILLANCE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes a video surveillance system consisting of cameras, network video recorder, and IP data transmission wiring.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated. Include dimensions and data on features, performance, electrical characteristics, ratings, and finishes.

B. Shop Drawings: For video surveillance. Include plans, elevations, sections, details, and attachments to other work.

1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
2. Functional Block Diagram: Show single-line interconnections between components for signal transmission and control. Show cable types and sizes.
3. Dimensioned plan and elevations of equipment racks, control panels, and consoles. Show access and workspace requirements.
4. UPS: Sizing calculations.
5. Wiring Diagrams: For power, signal, and control wiring.

C. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation.

D. Field quality-control reports.

E. Operation and maintenance data.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NECA 1.

C. Comply with NFPA 70.

D. Electronic data exchange between video surveillance system with an access-control system shall comply with SIA TVAC.

1.4 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of cameras, equipment related to camera operation, and control-station equipment that fail in materials or workmanship within specified warranty period.

1. Warranty Period: One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SYSTEM REQUIREMENTS

A. Video-signal format shall comply with IP based digital transmission.

B. Surge Protection: Protect components from voltage surges entering through power, communication, signal, control, or sensing leads. Include surge protection for external wiring of each conductor's entry connection to components.

1. Minimum Protection for Power Connections 120 V and More: Auxiliary panel suppressors complying with requirements in Division 26 Section "Transient-Voltage Suppression for Low-Voltage Electrical Power Circuits."
2. Minimum Protection for Communication, Signal, Control, and Low-Voltage Power Connections: Comply with requirements in Division 26 Section "Transient-Voltage Suppression for Low-Voltage Electrical Power Circuits." as recommended by manufacturer for type of line being protected.

C. Tamper Protection: Tamper protection capability shall be provided as part of the camera manufacture and design.

2.2 CAMERAS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ACTI
2. Arecont Vision
3. AXIS
4. Canon
5. CBC (AMERICA) Corp
6. GE Security, Inc.
7. Honeywell International Inc.; Honeywell Video Systems.
8. Ioimage
9. IQ Invision
10. Panasonic Corporation of North America; Panasonic Security Systems
11. StarDot
12. SONY
13. Vivotek

B. Description: Camera shall be an all-in-one solution with integrated megapixel camera, varifocal lens, and vandal resistant dome enclosure. Provide the Arecont AV1355DN or approved equal.

1. Camera shall be 1.3 megapixels utilizing a ½" CMOS sensor.
2. Camera shall have a dome enclosure complying with IP66 weatherproofing standards.
3. Camera shall have a 3 axis gimbal with 360 degree pan, 90 degree tilt, and 180 degree Z-rotation for accurate positioning.
4. Camera shall be surface with optional pendant mount or wall mount. Provide the pendant mount.
5. Camera shall be H.264 (MPEG4, Part 10) compliant.
6. Camera's H.264 implementation shall maintain full real time video frame rates.
7. Camera shall have megapixel IR corrected varifocal lens, F1.8. Select best varifocal range for application.

2.3 POWER SUPPLIES

A. Low-voltage power supplies matched for voltage and current requirements of cameras and accessories, and of type as recommended by manufacturer of camera and lens.

1. Enclosure: NEMA 250, Type 3.

2.4 CAMERA-SUPPORTING EQUIPMENT

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ACTI
2. Arecont Vision
3. AXIS
4. Canon
5. CBC (AMERICA) Corp
6. GE Security, Inc.
7. Honeywell International Inc.; Honeywell Video Systems.
8. Ioimage
9. IQ Invision
10. Panasonic Corporation of North America; Panasonic Security Systems
11. StarDot
12. SONY
13. Vivotek

B. Minimum Load Rating: Rated for load in excess of the total weight supported times a minimum safety factor of two.

C. Mounting Brackets for Fixed Cameras: Type matched to items supported and mounting conditions. Include manual pan-and-tilt adjustment.

D. Protective Housings for Fixed Cameras: Dome type enclosures with internal camera mounting and connecting provisions that are matched to camera/lens combination and mounting and installing arrangement of camera to be housed. Dome enclosures mounted outside, (Type 3), shall be manufactured with environmental features for sustained function in all expected temperatures.

1. Camera Viewing Window: Polycarbonate dome window, smoked tint.
2. Built-in environmental controls for operation in temperatures as specified.

3. Mounting bracket and hardware for pole mounting of the housing, as indicated. Bracket shall be of same material as the housing.
4. Finish: Housing and mounting bracket shall be factory finished using manufacturer's standard finishing process suitable for the environment.

2.5 NETWORK VIDEO RECORDERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ExacqVision, or pre-approved equal

B. External storage or internal 16TB hard disk drive.

1. Video and audio recording over TCP/IP network.
2. Video recording of MPEG-2 / MPEG-4 / h.264 streams.
3. Duplex Operation: Simultaneous recording and playback.
4. Continuous and alarm-based recording.
5. Full-Featured Search Capabilities: Search based on camera, time, or date.
6. Automatic data replenishment to ensure recording even if network is down.
7. Digital certification by watermarking.
8. Full integration with LAN, Intranet, or Internet through standard Web browser or video management software.
9. Integrated Web server FTP server functionality.
10. Supports up to 64 devices.

2.6 IP VIDEO SYSTEMS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AXIS
2. ExacqVision
3. GE Security, Inc.
4. Milestone Systems

B. Description:

1. System shall provide high-quality delivery and processing of IP-based video, audio, and control data using standard Ethernet-based networks.
2. System shall have seamless integration of all video surveillance and control functions.
3. Graphical user interface software shall manage all IP-based video matrix switching and camera control functions, two-way audio communication, alarm monitoring and control, and recording and archive/retrieval management. IP system shall also be capable of integrating into larger system environments.
4. System design shall include all necessary compression software for high-performance, dual-stream, MPEG-2/MPEG-4/h.264 video. Unit shall provide connections for all video cameras, camera PTZ control data, bidirectional audio, discreet sensor inputs, and control system outputs.
5. All camera signals shall be compressed, encoded, and delivered onto the network for processing and control by the IP video-management software.

6. Camera system units shall be ruggedly built and designed for extreme adverse environments, complying with NEMA Type environmental standards.
7. Encoder/decoder combinations shall place video, audio, and data network stream that can be managed from multiple workstations on the user's LAN or WAN.
8. All system interconnect cables, workstation PCs, PTZ joysticks, and network intermediate devices shall be provided for full performance of specified system.

2.7 NETWORK SWITCHES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following;
   1. Hewlett Packard:
      a. Rack Mounted Switch: HP ProCurve Switch 5406zl-48G-PoE+; switch; 44 ports Mfg. part J9447A#ABA with (2) HP Procurve Switch Redundant Power Supplies - Mfg. part J9306A#ABA installed.

2.8 SIGNAL AND POWER TRANSMISSION COMPONENTS

A. Cable: Four pair, 100 ohm, Category 6 compliant UTP.

B. Video Surveillance Cable Connectors: Category 6 compliant.

C. Camera Power: Single pair, 16 – 18 AWG twisted conductors, unshielded. Determine conductor gauge based on distance and power loss.

PART 3 - EXECUTION

3.1 WIRING

A. Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems."

B. Wiring Method: Install cables in metal conduit raceways.

C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.

D. Splices, Taps, and Terminations: For power and control wiring, use numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

E. For LAN complaint wiring, cables shall be installed and terminated per ANSI/TIA/EIA 568B standards.

F. Grounding: Provide independent-signal circuit grounding recommended in writing by manufacturer.

3.2 VIDEO SURVEILLANCE SYSTEM INSTALLATION

A. Install cameras at heights noted in drawings.

B. Set pan-and-tilt unit stops to suit final camera position and to obtain the field of view required for camera. Connect all controls and alarms, and adjust.

C. Identify system components, wiring, cabling, and terminals according to Division 26 Section "Identification for Electrical Systems."

3.3 FIELD QUALITY CONTROL

A. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

B. Tests and Inspections:

1. Inspection: Verify that units and controls are properly installed, connected, and labeled, and that interconnecting wires and terminals are identified.
2. Pretesting: Align and adjust system and pretest components, wiring, and functions to verify that they comply with specified requirements. Conduct tests at varying lighting levels, including day and night scenes as applicable. Prepare video-surveillance equipment for acceptance and operational testing as follows:

    a. Verify operation of auto-iris lenses.
    b. Set back-focus of fixed focal length lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Adjust until image is in focus with and without the filter.
    c. Set back-focus of zoom lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Additionally, set zoom to full wide angle and aim camera at an object 50 to 75 feet away. Adjust until image is in focus from full wide angle to full telephoto, with the filter in place.
    d. Set sensitivity of motion detection.
    e. Connect and verify responses to alarms.
    f. Verify operation of control-station equipment.

3. Test Schedule: Schedule tests after pretesting has been successfully completed and system has been in normal functional operation for at least 14 days. Provide a minimum of 10 days' notice of test schedule.
4. Operational Tests: Perform operational system tests to verify that system complies with Specifications. Include all modes of system operation.

C. Video surveillance system will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

3.4 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain video-surveillance equipment.

END OF SECTION 282303

SECTION 262655 – ELECTRIC HEATING CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes snow and ice melting on roofs and in gutters and downspouts with the following electric heating cables:
   1. Self-regulating, parallel resistance.

B. Related Requirements:

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

   1. Include rated capacities, operating characteristics, and furnished specialties and accessories.
   2. Schedule heating capacity, length of cable, spacing, and electrical power requirement for each electric heating cable required.

B. Shop Drawings: For electric heating cable.

   1. Include plans, elevations, sections, and attachment details.
   2. Include diagrams for power, signal, and control wiring.

1.4 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

B. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For electric heating cables to include in operation and maintenance manuals.

1.6 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace electric heating cable that fails in materials or workmanship within specified warranty period.

1. Warranty Period: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SELF-REGULATING, PARALLEL-RESISTANCE HEATING CABLES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. BriskHeat.
2. Chromalox.
3. Delta-Therm Corporation.
4. Easy Heat; a division of EGS Electrical Group LLC.
5. Nelson Heat Trace; a division of EGS Electrical Group LLC.
6. Pyrotenax; a brand of Tyco Thermal Controls LLC.
7. Raychem; a brand of Tyco Thermal Controls LLC.
8. Thermon Americas Inc.
9. Trasor Corp.

B. Comply with IEEE 515.1.

C. Heating Element: Pair of parallel No. 16 AWG, tinned, stranded copper bus wires embedded in crosslinked conductive polymer core, which varies heat output in response to temperature along its length. Terminate with waterproof, factory-assembled, nonheating leads with connectors at one end, and seal the opposite end watertight. Cable shall be capable of crossing over itself once without overheating.

D. Electrical Insulating Jacket: Flame-retardant polyolefin.

E. Cable Cover: Stainless-steel braid and polyolefin outer jacket with ultraviolet inhibitor.

F. Maximum Operating Temperature (Power On): 150 deg F (65 deg C).

G. Maximum Exposure Temperature (Power Off): 185 deg F (85 deg C).

H. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

I. Capacities and Characteristics:

1. Maximum Heat Output: 10 W/ft. (32.8 W/m).
2. Electrical Characteristics for Single-Circuit Connection:

a. Volts: 120 OR 208 Volts as indicated on drawings.
b. Phase: Single.
c. Hertz: 60.

2.2 CONTROLS

A. Precipitation and Temperature Sensor for Snow Melting on Roofs and in Gutters:

1. Automatic control with manual on, automatic, and standby/reset switch.
2. Precipitation and temperature sensors shall sense the surface conditions of roof and gutters and shall be programmed to energize the cable as follows:

    a. Temperature Span: 34 to 44 deg F (1 to 7 deg C).
    b. Adjustable Delay-Off Span: 30 to 90 minutes.
    c. Energize Cables: Following two-minute delay if ambient temperature is below set point and precipitation is detected.
    d. De-Energize Cables: On detection of a dry surface plus time delay.

3. Corrosion-proof and waterproof enclosure suitable for outdoor mounting, for controls and precipitation and temperature sensors.
4. Minimum 30-A contactor to energize cable or close other contactors.
5. Precipitation sensor shall be freestanding.
6. Provide relay with contacts to indicate operational status, on or off, for interface with central HVAC control-system workstation.

2.3 ACCESSORIES

A. Cable Installation Accessories: Fiberglass tape, heat-conductive putty, cable ties, silicone end seals and splice kits, and installation clips all furnished by manufacturer, or as recommended in writing by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces and substrates to receive electric heating cables for compliance with requirements for installation tolerances and other conditions affecting performance.

    1. Ensure surfaces and pipes in contact with electric heating cables are free of burrs and sharp protrusions.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATIONS

A. Install the following types of electric heating cable for the applications described:

    1. Snow and Ice Melting on Roofs and in Gutters and Downspouts: Self-regulating, parallel-resistance heating cable.

3.3 INSTALLATION

A. Install electric heating cable across expansion, construction, and control joints according to manufacturer's written instructions; use cable-protection conduit and slack cable to allow movement without damage to cable.

B. Electric Heating-Cable Installation for Snow and Ice Melting on Roofs and in Gutters and Downspouts: Install on roof and in gutters and downspouts with clips furnished by manufacturer that are compatible with roof, gutters, and downspouts.

C. Set field-adjustable switches and circuit-breaker trip ranges.

3.4 CONNECTIONS

A. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."

B. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

3.5 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.

B. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
   1. Test cables for electrical continuity and insulation integrity before energizing.
   2. Test cables to verify rating and power input. Energize and measure voltage and current simultaneously.

C. Cables will be considered defective if they do not pass tests and inspections.

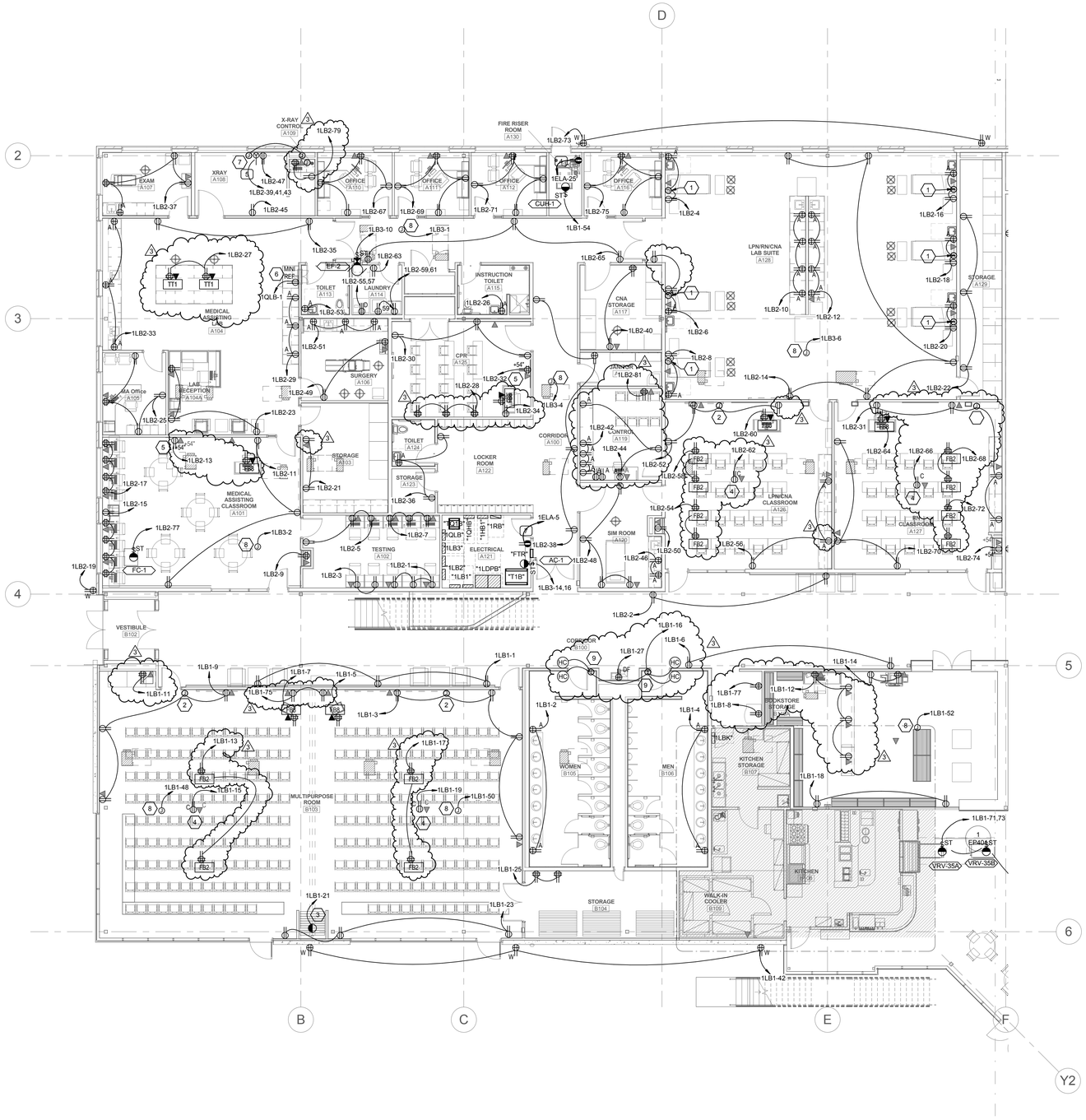
D. Prepare test and inspection reports.

3.6 PROTECTION

A. Protect installed heating cables, including nonheating leads, from damage during construction.

B. Remove and replace damaged heat-tracing cables.

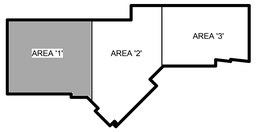
END OF SECTION 262655



1 LEVEL 1 POWER PLAN - AREA '1'

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

PROJECT NORTH TRUE NORTH



GENERAL SHEET NOTES

1 MOUNT RECEPTACLES IN ALL SHOP AREAS AT +48" A.F.F.

2 CE & R LAB 121 IS CLASSIFIED CLASS 1 DIVISION 2 UP TO 18" ABOVE FINISHED FLOOR. COMPLY WITH THE REQUIREMENTS OF NEC ARTICLES 501 AND 511 FOR ALL ELECTRICAL RACEWAY, WIRING AND EQUIPMENT IN THIS AREA. REFER TO DETAIL XX/EP50X.

3 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE CONNECTION TO HEADWALL UNIT. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS.

2 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED SCREEN WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. MOUNT CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. INTERFACE WITH A/V CONTROLS PER A/V DRAWINGS.

3 PROVIDE CONNECTION TO MOTORIZED WALL SYSTEM WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

4 CEILING OUTLET FOR PROJECTOR OR MONITOR. MOUNT FLUSH TO CEILING ON 6'-0" WHIP FOR FLEXIBILITY IN FINAL CONNECTION. COORDINATE FINAL LOCATION WITH AV INSTALLER AND MOUNT SECURELY TO STRUCTURE.

5 OUTLET FOR WALL MOUNTED MONITOR. COORDINATE LOCATION WITH AV INSTALLER.

6 RECEPTACLE FOR UNDER COUNTER REFRIGERATOR. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS.

7 PROVIDE 1" CONDUIT AND JUNCTION BOXES IN XRAY AND CONTROL AREAS FOR XRAY CONTROL WIRING. COORDINATE LOCATION WITH OWNER.

8 CIRCUITS FOR HVAC CONTROLS SYSTEM. COORDINATE LOCATION WITH MECHANICAL CONTROLS INSTALLER.

9 PROVIDE CONNECTION TO MOTORIZED DOOR OPERATOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

STATE OF UTAH LICENSED PROFESSIONAL ENGINEER No. 7162

01/18/2012

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project #: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Power Plan - Area '1'

sheet:

EP111

100% Construction Documents

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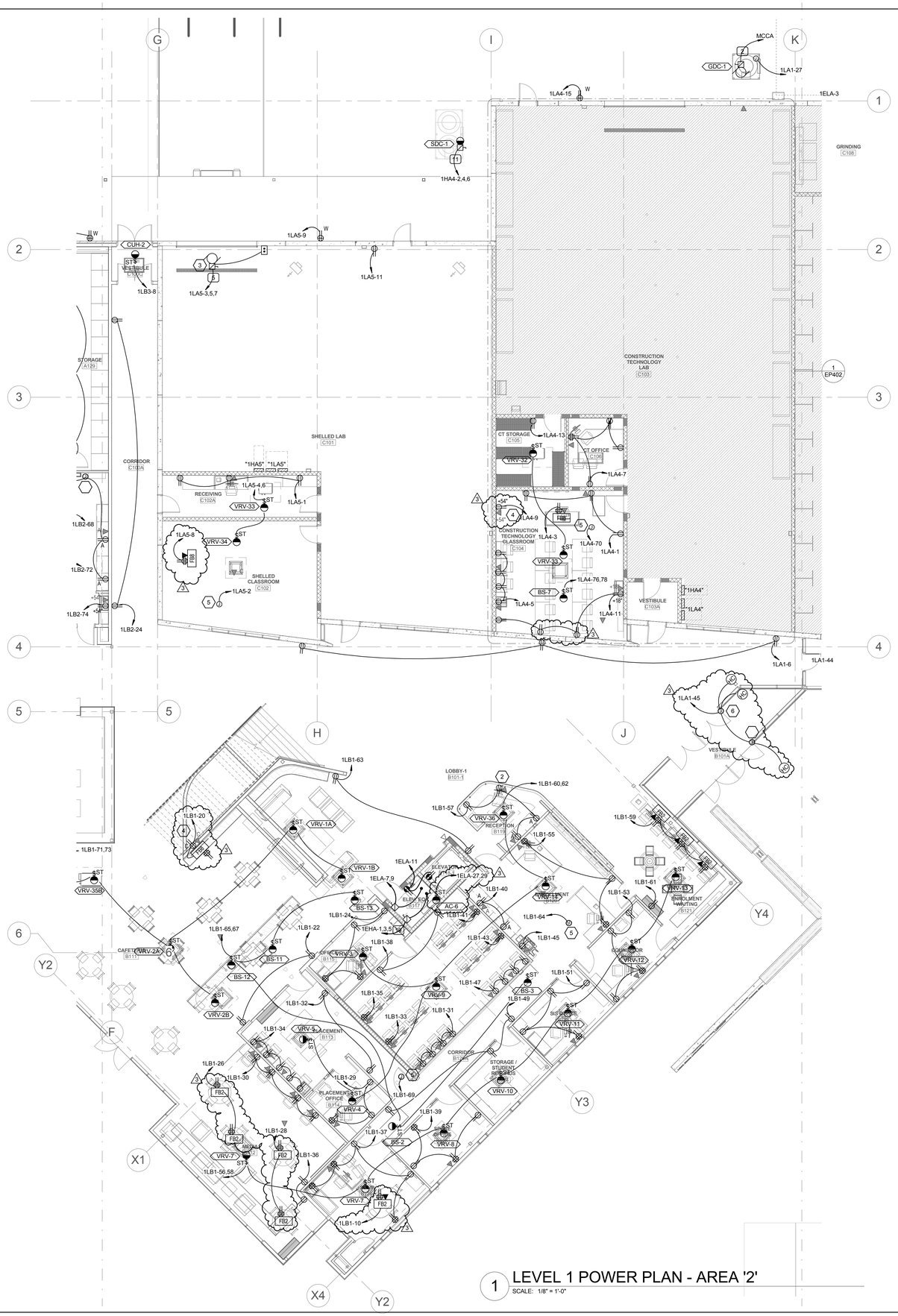

1 LEVEL 1 POWER PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

1 MOUNT RECEPTACLES IN ALL SHOP AREAS AT +48" A.F.F.

2 CE & R LAB 121 IS CLASSIFIED CLASS 1 DIVISION 2 UP TO 18" ABOVE FINISHED FLOOR. COMPLY WITH THE REQUIREMENTS OF NEC ARTICLES 501 AND 511 FOR ALL ELECTRICAL RACEWAY, WIRING AND EQUIPMENT IN THIS AREA. REFER TO DETAIL XX/EP50X.

3 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE ELECTRICAL CONNECTIONS TO MOTORIZED SCREEN WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS. MOUNT CONTROL SWITCH IN LOCATION APPROVED BY ARCHITECT. INTERFACE WITH A/V CONTROLS PER A/V DRAWINGS.

2 OUTLET(S) MOUNTED IN MILLWORK. COORDINATE LOCATION WITH ARCHITECTURAL DETAILS AND MILLWORK INSTALLER.

3 PROVIDE CONNECTION OT OVERHEAD MOTORIZED DOOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

4 OUTLET FOR WALL MOUNTED MONITOR. COORDINATE LOCATION WITH AV INSTALLER.

5 CIRCUITS FOR HVAC CONTROLS SYSTEM. COORDINATE LOCATION WITH MECHANICAL CONTROLS INSTALLER.

3 6 PROVIDE CONNECTION TO MOTORIZED DOOR OPERATOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

01/18/2012

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METHOD STUDIO INC.
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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Power Plan - Area '2'

sheet:

EP112

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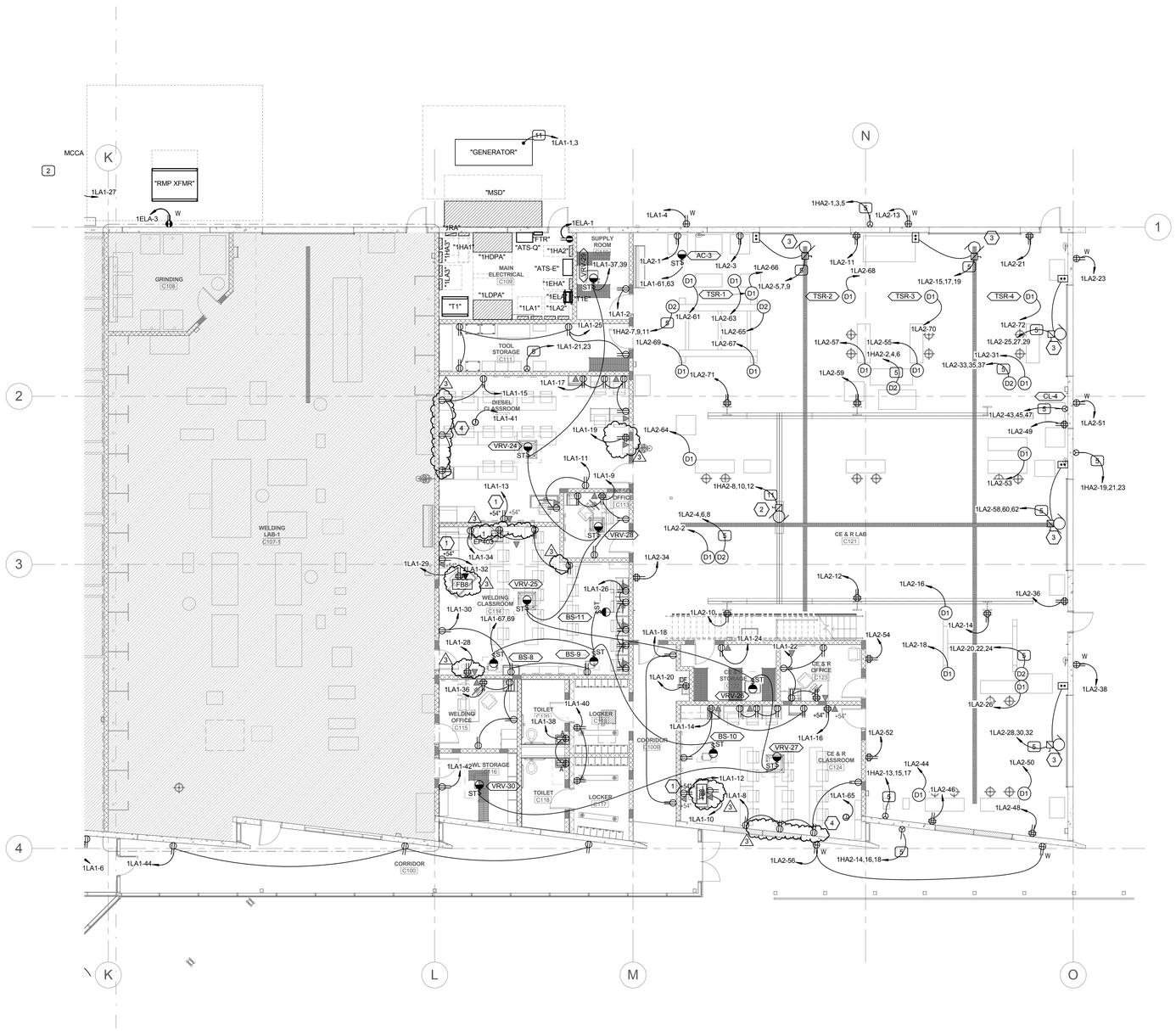
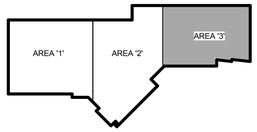


1 LEVEL 1 POWER PLAN - AREA '3'

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

PROJECT NORTH TRUE NORTH



GENERAL SHEET NOTES

1 MOUNT RECEPTACLES IN ALL SHOP AREAS AT +48" A.F.F.

2 CE & R LAB 121 IS CLASSIFIED CLASS 1 DIVISION 2 UP TO 18" ABOVE FINISHED FLOOR. COMPLY WITH THE REQUIREMENTS OF NEC ARTICLES 501 AND 511 FOR ALL ELECTRICAL RACEWAY, WIRING AND EQUIPMENT IN THIS AREA. REFER TO DETAIL XX/EP50X.

3 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 OUTLET FOR WALL MOUNTED MONITOR. COORDINATE LOCATION WITH AV INSTALLER.

2 PROVIDE CONNECTION TO HIGH BAY CRANE WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER' WRITTEN INSTRUCTIONS. CRANE AND ELECTRICAL CONNECTIONS ARE PART OF BID ALTERNATE #1.

3 PROVIDE CONNECTION OT OVERHEAD MOTORIZED DOOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

4 CIRCUITS FOR HVAC CONTROLS SYSTEM. COORDINATE LOCATION WITH MECHANICAL CONTROLS INSTALLER.

5 PROVIDE CONNECTION TO MOTORIZED DOOR OPERATOR WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

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project:

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date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Power Plan - Area '3'

sheet:

EP113

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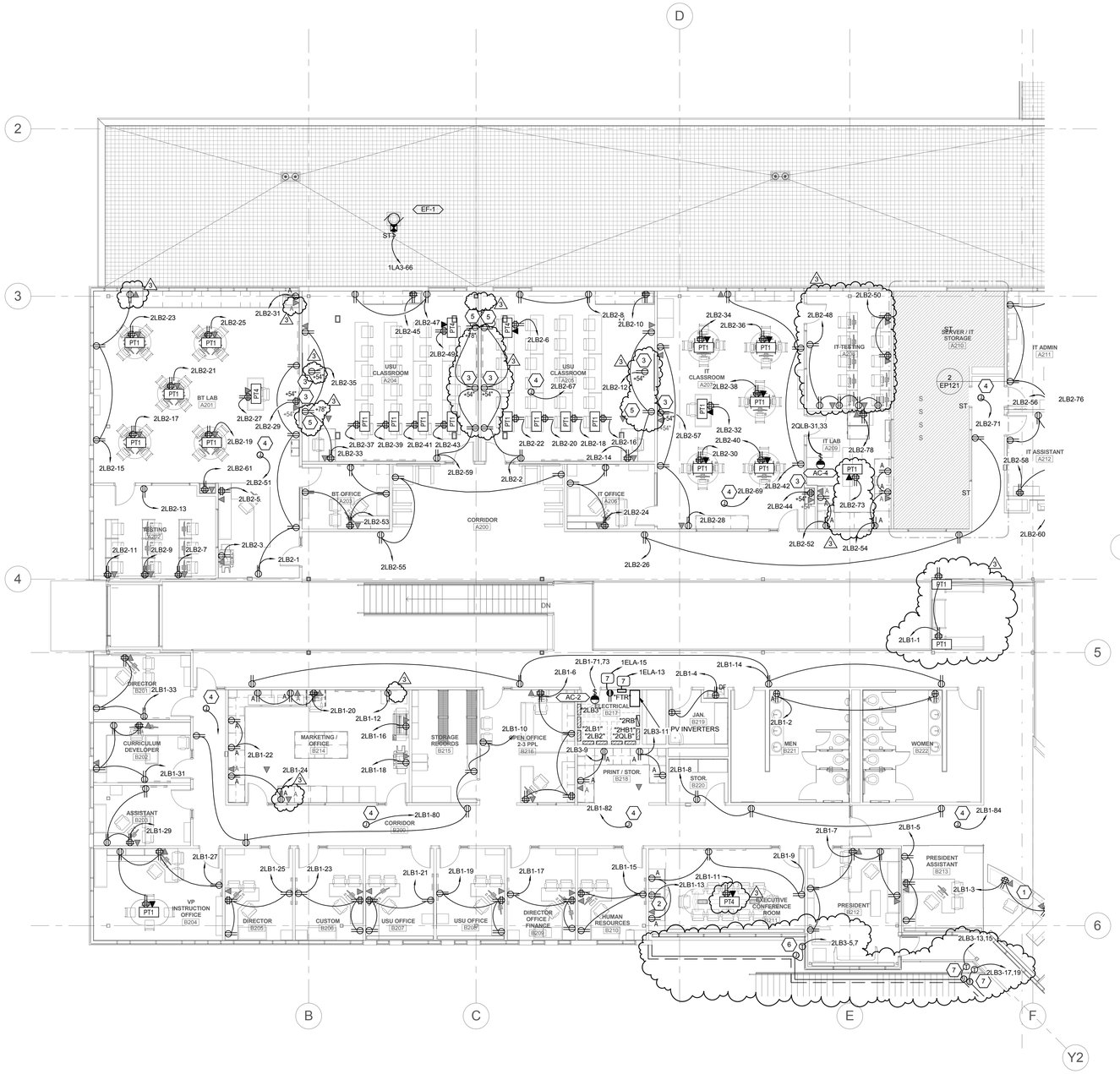
GENERAL SHEET NOTES

1. MOUNT RECEPTACLES IN ALL SHOP AREAS AT +48" A.F.F.
2. CE & R LAB 121 IS CLASSIFIED CLASS 1 DIVISION 2 UP TO 18" ABOVE FINISHED FLOOR. COMPLY WITH THE REQUIREMENTS OF NEC ARTICLES 501 AND 511 FOR ALL ELECTRICAL RACEWAY, WIRING AND EQUIPMENT IN THIS AREA. REFER TO DETAIL XX/EP50X.
3. LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

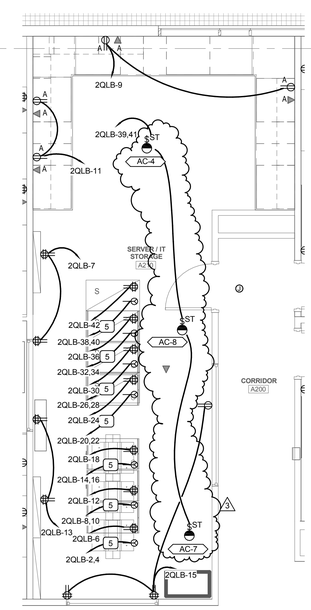
SHEET KEYNOTES

1. OUTLET(S) MOUNTED IN MILLWORK. COORDINATE LOCATION WITH ARCHITECTURAL DETAILS AND MILLWORK INSTALLER.
2. RECEPTACLE FOR UNDER COUNTER REFRIGERATOR. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS.
3. OUTLET FOR WALL MOUNTED MONITOR. COORDINATE LOCATION WITH AV INSTALLER.
4. CIRCUITS FOR HVAC CONTROLS SYSTEM. COORDINATE LOCATION WITH MECHANICAL CONTROLS INSTALLER.
5. POWER FOR WALL MOUNTED CAMERA. COORDINATE LOCATION WITH AV INSTALLER.
6. PROVIDE 10 WATTS PER FOOT SELF REGULATING HEAT TRACE IN DOWN SPOUT. VERIFY QUANTITY REQUIRED WITH ARCHITECTURAL DRAWINGS. PROVIDE ADJUSTABLE THERMOSTAT. PROVIDE 30MA GFEP CIRCUIT BREAKER.
7. PROVIDED 10 WATTS PER FOOT SELF REGULATING HEAT TRACE IN GUTTER. VERIFY QUANTITY REQUIRED WITH ARCHITECTURAL DRAWINGS. PROVIDE ADJUSTABLE THERMOSTAT. PROVIDE 30MA GFEP CIRCUIT BREAKER.



1 LEVEL 2 POWER PLAN - AREA '1'

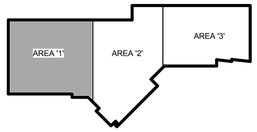
SCALE: 1/8" = 1'-0"



2 ENLARGED SERVER/IT A210

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

PROJECT NORTH TRUE NORTH



REGISTERED PROFESSIONAL ENGINEER No. 7862 STATE OF UTAH

01/18/2012

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project:

TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

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project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 2 Power Plan - Area '1'

sheet:

EP121

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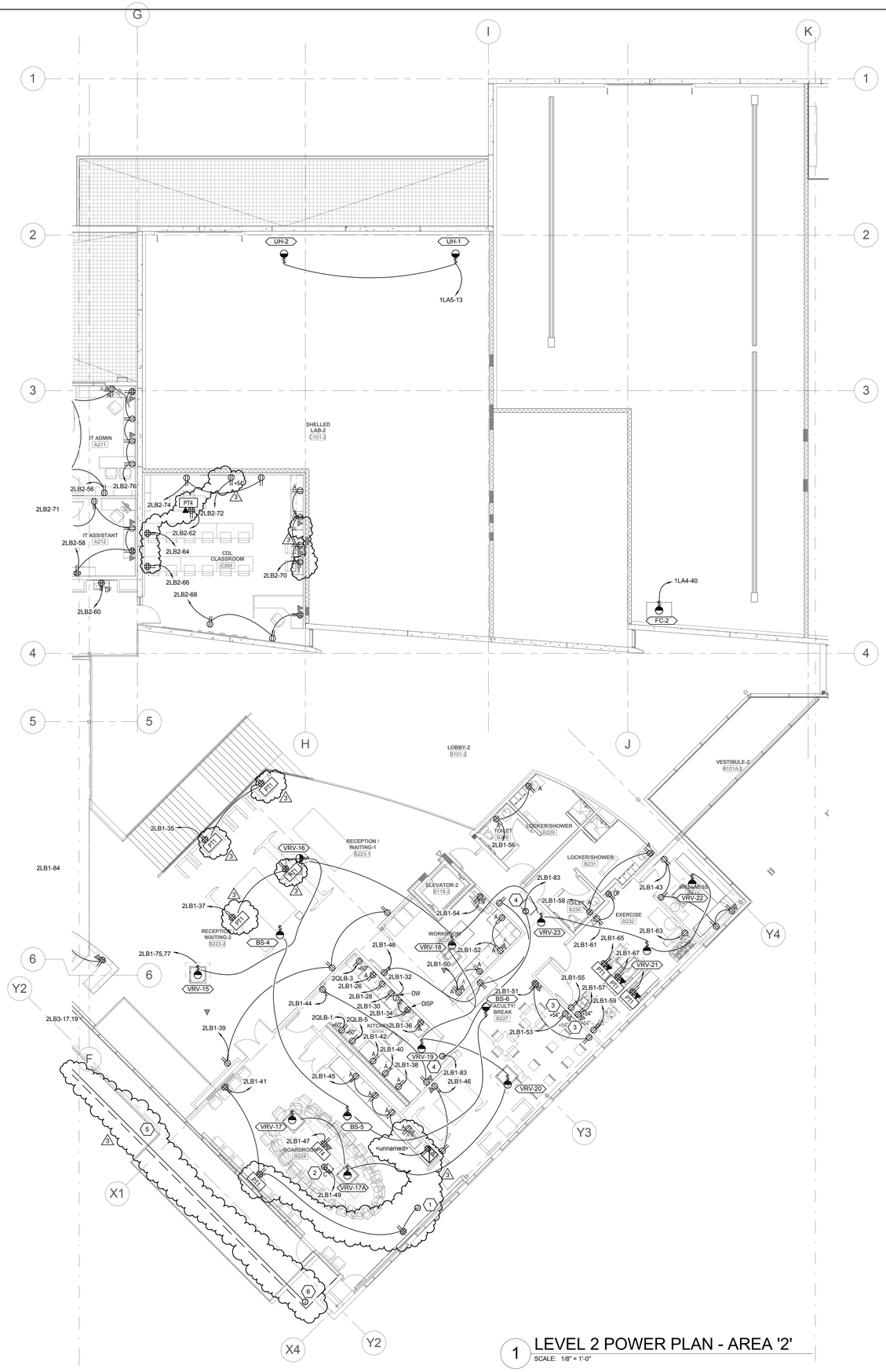

1 LEVEL 2 POWER PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

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3 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE CONNECTION TO MOTORIZED WALL SYSTEM WITH ALL POWER AND CONTROL WIRING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

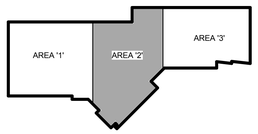
2 CEILING OUTLET FOR PROJECTOR OR MONITOR. MOUNT FLUSH TO CEILING ON 6'-0" WHIP FOR FLEXIBILITY IN FINAL CONNECTION. COORDINATE FINAL LOCATION WITH AV INSTALLER AND MOUNT SECURELY TO STRUCTURE.

3 OUTLET FOR WALL MOUNTED MONITOR. COORDINATE LOCATION WITH AV INSTALLER.

4 CIRCUITS FOR HVAC CONTROLS SYSTEM. COORDINATE LOCATION WITH MECHANICAL CONTROLS INSTALLER.

3 5 PROVIDED 10 WATTS PER FOOT SELF REGULATING HEAT TRACE IN GUTTER. VERIFY QUANTITY REQUIRED WITH ARCHITECTURAL DRAWINGS. PROVIDE ADJUSTABLE THERMOSTAT. PROVIDE 30MA GFEP CIRCUIT BREAKER.

6 PROVIDE 10 WATTS PER FOOT SELF REGULATING HEAT TRACE IN DOWN SPOUT. VERIFY QUANTITY REQUIRED WITH ARCHITECTURAL DRAWINGS. PROVIDE ADJUSTABLE THERMOSTAT. PROVIDE 30MA GFEP CIRCUIT BREAKER.



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project#: 11.0420
date: 1/20/2012

revisions :
3 ADDENDUM 4 02/28/2012

Level 2 Power Plan - Area '2'

sheet:
EP122

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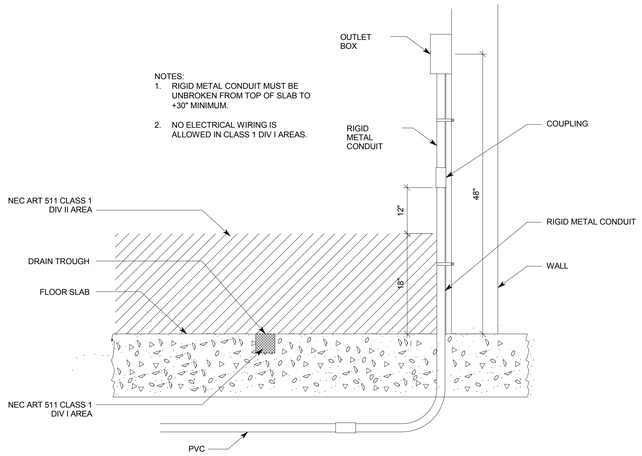
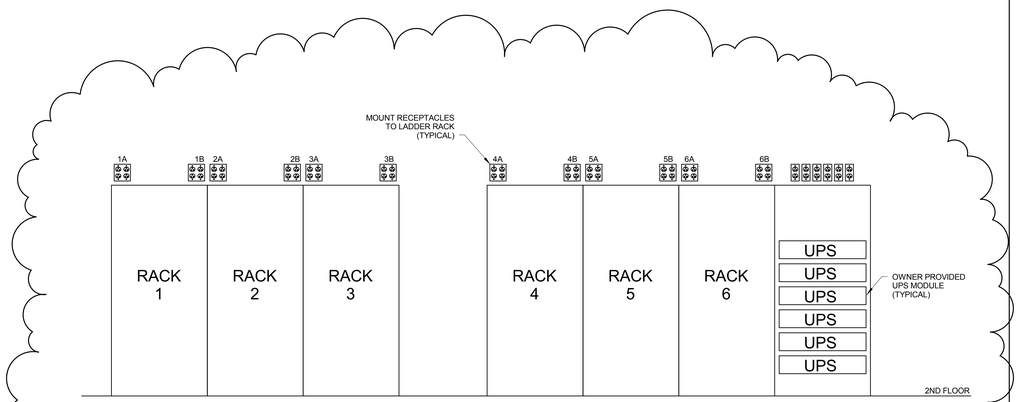
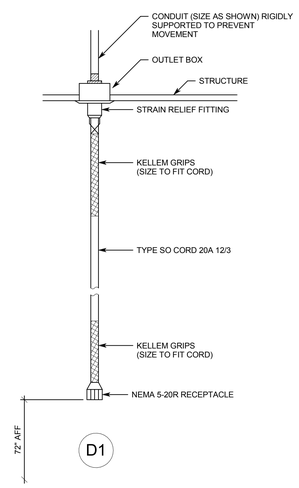


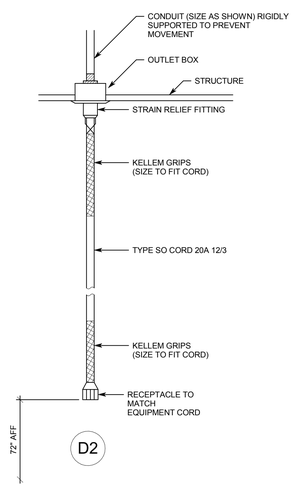
2 CE&R LAB SHOP OUTLET DETAIL
SCALE: NTS



5 SERVER RACK POWER DETAIL
SCALE: NTS

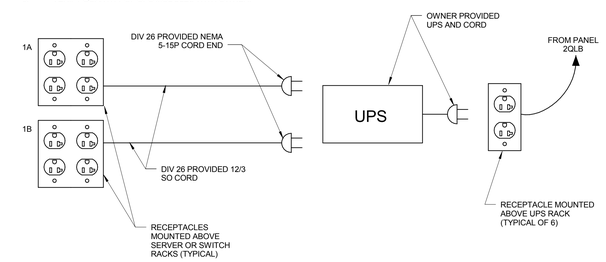


1 120V DROP CORD DETAIL
SCALE: NTS



3 SPECIAL PURPOSE DROP CORD DETAIL
SCALE: NTS

NOTES:
1. PROVIDE 2 EA. RECEPTACLE AND CORD ASSEMBLIES PER EACH SERVER OR SWITCH RACK.
2. PROVIDE LENGTH OF CORD TO REACH ANY UPS IN UPS RACK.
3. VERIFY QUANTITY OF UPS MODULES WITH OWNER.



4 SERVER RACK POWER SCHEMATIC
SCALE: NTS

STATE OF UTAH LICENSED PROFESSIONAL ENGINEER No. 7162
01/18/2012

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project#: 11.0420
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revisions :
3 ADDENDUM 4 02/28/2012

Power details

sheet:
EP501

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EQUIPMENT SCHEDULE

MARK	QTY	ITEM DESCRIPTION	LOAD DATA							WIRE AND CONDUIT SIZE	OVERCURRENT PROTECTION			DISCONNECT			STARTER DATA									NOTES	MARK
			HP	kW	MCA	FLA	VOLT	PH	Hz		FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	SIZE	SELECTOR SWITCH	PILOT LAMP	NORMALLY OPEN CONTACTS	NORMALLY CLOSED CONTACTS	PHASE FAILURE RELAY		
AC-1		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-1
AC-2		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-2
AC-3		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-3
AC-4		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-4
AC-5		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-5
AC-6		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-6
3 AC-7		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-7
AC-8		AIR CONDITIONER			1		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										AC-8
ACC-1		AIR COOLED CONDENSING UNIT		106.2	186		480	3	60	3 #4/0, #4 GR 2.5" CND	E	225A/3P CB	MCCA	Q			Q										ACC-1
ACP-1		AIR COMPRESSOR	25			34	480	3	60	3 #6, #10 GR 1" CND	E	60A/3P CB	PANEL	E	60A/3P FRS-45	ADJ. TO EQUIP.	Q										ACP-1
AD-1		AIR DRYER					120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	CORD & PLUG	ADJ. TO EQUIP.	Q										AD-1
AH-1-R		AIR HANDLER RETURN FAN	27				480	3	60	3 #4, #8 GR 1.25" CND	E	70A/3P CB	MCCA	E	100A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 4 NOTE 7	AH-1-R
AH-1-S		AIR HANDLER SUPPLY FAN	60				480	3	60	3 #1/0, #6 GR 2" CND	E	150A/3P CB	MCCA	E	200A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 5 NOTE 7	AH-1-S
AH-2-R		AIR HANDLER RETURN FAN	20			27	480	3	60	3 #6, #10 GR 1" CND	E	50A/3P CB	MCCA	E	60A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-2-R
AH-2-S		AIR HANDLER SUPPLY FAN	15			21	480	3	60	3 #6, #10 GR 1" CND	E	40A/3P CB	MCCA	E	60A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-2-S
AH-3-R		AIR HANDLER RETURN FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-3-R
AH-3-S		AIR HANDLER SUPPLY FAN	7.5			11	480	3	60	3 #12, #12 GR 0.75" CND	E	20A/3P CB	MCCA	E	30A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-3-S
AH-4-R		AIR HANDLER RETURN FAN	10			14	480	3	60	3 #10, #10 GR 0.75" CND	E	30A/3P CB	MCCA	E	30A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-4-R
AH-4-S		AIR HANDLER SUPPLY FAN	10			14	480	3	60	3 #10, #10 GR 0.75" CND	E	30A/3P CB	MCCA	E	30A/3P NO FUSE	ADJ. TO EQUIP.	E	VFD	ADJ. TO EQUIP.							NOTE 7	AH-4-S
AH-5		FUTURE AIR HANDLER	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E												NOTE 3	AH-5
ATC	8	AIR TEMP CONTROL PANEL					120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	Q			Q										ATC
B-1		BOILER				5	480	3	60	3 #12, #12 GR 0.75" CND	E	20A/3P CB	MCCA	E	30A/3P FRS-	ADJ. TO EQUIP.	Q									NOTE 6	B-1
B-2		BOILER				5	480	3	60	3 #12, #12 GR 0.75" CND	E	20A/3P CB	MCCA	E	30A/3P FRS-	ADJ. TO EQUIP.	Q									NOTE 6	B-2
BS-1		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-1
BS-2		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-2
BS-3		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-3
BS-4		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-4
BS-5		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-5
BS-6		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-6
BS-7		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-7
BS-8		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-8
BS-9		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-9
BS-10		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-10
BS-11		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-11
BS-12		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-12
BS-13		BRANCH SELECTOR			0.4		208	1	60	2 #12, #12 GR 0.75" CND	E	15A/2P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										BS-13
CFS-1		CHEMICAL FEED SYSTEM	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	CORD & PLUG	ADJ. TO EQUIP.	Q										CFS-1
CU-1		CONDESNING UNIT			16		208	1	60	2 #10, #10 GR 0.75" CND	E	20A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-1
CU-2		CONDESNING UNIT			10.5		208	1	60	2 #10, #10 GR 0.75" CND	E	20A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-2
CU-3		CONDESNING UNIT			22		208	1	60	2 #10, #10 GR 0.75" CND	E	30A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-3
CU-4		CONDESNING UNIT			22		208	1	60	2 #10, #10 GR 0.75" CND	E	30A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-4
CU-5		CONDESNING UNIT			16		208	1	60	2 #10, #10 GR 0.75" CND	E	20A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-5
CU-6		CONDESNING UNIT			15		208	1	60	2 #10, #10 GR 0.75" CND	E	20A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-6
3 CU-7		CONDESNING UNIT			22		208	1	60	2 #10, #10 GR 0.75" CND	E	30A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-7
CU-8		CONDESNING UNIT			22		208	1	60	2 #10, #10 GR 0.75" CND	E	30A/2P CB	PANEL	E	30A/2P FRN-	ADJ. TO EQUIP.	Q										CU-8
CUH-1		CABINET UNIT HEATER	1/40			0.55	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										CUH-1
CUH-2		CABINET UNIT HEATER	1/40			0.55	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										CUH-2
ECSP-1	2	EVAP COOLER SUMP PUMP	1/3			7.2	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	Q										ECSP-1
ECSP-2	3	EVAP COOLER SUMP PUMP	1/10				120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.											ECSP-2
EF-1		EXHAUST FAN	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	E	RELAY	ADJ. TO EQUIP.								EF-1
EF-2		EXHAUST FAN	1/30				120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	E	RELAY	ADJ. TO EQUIP.								EF-2
EF-3		EXHAUST FAN	3/4			1.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	PANEL	E	30A/3P FRS-2	ADJ. TO EQUIP.	E	FVNR	ADJ. TO EQUIP.	1	HOA	R,G	2	2			EF-3
EF-4		EXHAUST FAN	1/4			5.8	120	1	60	2 #12, #12 GR 0.75" CND	E	15A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	E	RELAY	ADJ. TO EQUIP.								EF-4
EF-5		EXHAUST FAN	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	E	RELAY	ADJ. TO EQUIP.								EF-5
EF-6		EXHAUST FAN	2			3.4	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-5	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-6
EF-7		EXHAUST FAN	2			3.4	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-5	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-7
EF-8		EXHAUST FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-10	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-8
EF-9		EXHAUST FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-10	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-9
EF-10		EXHAUST FAN	5			7.6	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-10	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-10
EF-11		EXHAUST FAN	2			3.4	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-5	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-11
EF-12		EXHAUST FAN	3			4.8	480	3	60	3 #12, #12 GR 0.75" CND	E	15A/3P CB	MCCA	E	30A/3P FRS-10	ADJ. TO EQUIP.	E	FVNR	MCCA	1	HOA	R,G	2	2			EF-12
EF-13		EXHAUST FAN	1/2			9.8	120	1	60	2 #12, #12 GR 0.75" CND	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ. TO EQUIP.	E	RELAY	ADJ. TO EQUIP.								EF-13

NOTES:
1. PROVIDE 120V CONTROL CIRCUIT TO EQUIPMENT.
2. SEE DETAIL 1/EE501 FOR RELAY CONTROL REQUIRMENTS.
3. AIR HANDLER AH-5 IS FUTURE. PROVIDE CONDUIT ONLY TO FUTURE LOCATION AS SHOWN ON DRAWINGS.
4. AH-1 RETURN FAN IS (18) 1.5 HP FANS. PROVIDE (1) VFD TO CONTROL ALL FANS AS A GROUP. PROVIDE INDIVIDUAL OVERLOAD PROTECTION FOR EACH MOTOR.
5. AH-1 SUPPLY FAN IS (12) 5 HP FANS. PROVIDE (1) VFD TO CONTROL ALL FANS AS A GROUP. PROVIDE INDIVIDUAL OVERLOAD PROTECTION FOR EACH MOTOR.
6. PROVIDE SHUNT TRIP BREAKER AND EMERGENCY OFF BUTTON AT EACH BOILER ROOM EXIT.
7. PROVIDE QUICK BREAK,SLOW MAKE AUXILIARY CONTACTS ON DISCONNECT TO SHUTDOWN VFD PRIOR TO OPENING OF MAIN CONTACTS.

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REGISTERED PROFESSIONAL ENGINEER No. 7162 STATE OF UTAH
01/18/2012

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions:
1 ADDENDUM 2 02/10/2012
3 ADDENDUM 4 02/28/2012

Equipment Schedule

sheet:
EP603

100% Construction Documents

PANEL "2LA1"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	PUMP C202	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	20	1	POWER	0.2	0.9					PWR: ECSP-1	1	15	2
3	15	1	PWR: ECSP-1			0.9	0.2			CO ROOF	1	20	4
5	20	1	LTG AH-1 LIGHTS					0.5	0.5	PWR: ECSP-2	1	15	6
7	20	1	POWER	0.2	0.5					LTG AH-3 LIGHTS	1	20	8
9	20	1	LTG AH-2 LIGHTS			0.5	0.5			MTR: ECSP-2	1	15	10
11	20	1	CO ROOF					0.5	1.2	MTR: EF-15	1	15	12
13	15	1	MTR: EF-13	0.4	0.4					CO ROOF	1	20	14
15	20	1	PWR: ECSP-2			0.5	0.5			LTG AH-4 LIGHTS	1	20	16
17	20	1	MTR: P-5					1.2	1.2	MTR: P-7	1	20	18
19	20	1	MTR: EF-16	1.2	1.2					MTR: P-6	1	20	20
21	20	1	MTR: P-8			1.2	1.2			MTR: RCP-1	1	20	22
23	20	1	PWR: UH-3					0.1	0.9	PWR: CFS-1	1	20	24
25	20	1	PWR: AD-1	1.2	0.3					MTR: RCP-2	1	20	26
27	20	1	MTR: RCP-3			0.3	1.8			PWR: WH-2	1	20	28
29	20	1	PWR: WH-1					1.8	1.8	PWR: WS-1	1	20	30
31	20	1	RECEPT PUMP C202	0.7	0.5					RECEPT BOILER C203	1	20	32
33	20	1	ATC			1.2	0.5			CO Room C205, C206-2	1	20	34
35	20	1	CO Room C206-1					0.4	0.0	SPARE	1	20	36
37					0.0					SPARE	1	20	38
39	30	2	PWR: CU-3			2.3	0.0			SPARE	1	20	40
41	--	--	--					2.3	0.0	SPARE	1	20	42

TOTALS: CONNECTED kVA PER PHASE **8** **12** **12** CONNECTED TOTAL kVA **32**
CONNECTED AMPS PER PHASE **64** **102** **108** CONNECTED AVERAGE AMPS PER PHASE **88**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING — ALL OTHER LOADS @100%= **12.7 kVA** — DIVERSIFIED TOTAL kVA **31**
RECEPTACLES **1 kVA @100% =1 kVA** — TOTAL MOTOR DEMAND= **13.0 kVA** — AVERAGE AMPS PER **87**

Notes:

PANEL "2LB3"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL B217	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	15	1	MTR: EF-5	1.2	0.0					SPARE	1	20	2
3	15	1	PWR: EF-4			0.4	0.0			SPARE	1	20	4
5	20	2	PWR HEAT TRACE 30MA GFEP					0.3	0.0	SPARE	1	20	6
7	--	--	--	0.3	0.0					SPARE	1	20	8
9	20	1	POWER PRINT / STOR. B218			0.4	0.0			SPARE	1	20	10
11	20	1	POWER PRINT / STOR. B218					0.4	0.0	SPARE	1	20	12
13	20	2	PWR HEAT TRACE 30MA GFEP	1.0	0.0					SPARE	1	20	14
15	--	--	--			1.0	0.0			SPARE	1	20	16
17	20	2	PWR HEAT TRACE 30MA GFEP					1.0	0.0	SPARE	1	20	18
19	--	--	--	1.0	0.0					SPARE	1	20	20
21	20	1	SPARE			0.0	0.0			SPARE	1	20	22
23	20	1	SPARE					0.0	0.0	SPARE	1	20	24
25	20	1	SPARE	0.0	0.0					SPARE	1	20	26
27	20	1	SPARE			0.0	0.0			SPARE	1	20	28
29	20	1	SPARE					0.0	0.0	SPARE	1	20	30
31	20	1	SPARE	0.0	0.0					SPARE	1	20	32
33	20	1	SPARE			0.0	0.0			SPARE	1	20	34
35	20	1	SPARE					0.0	0.0	SPARE	1	20	36
37	20	1	SPARE	0.0	0.0					SPARE	1	20	38
39	30	2	PWR: CU-1			2.3	0.0			SPARE	1	20	40
41	--	--	--					2.3	0.0	SPARE	1	20	42

TOTALS: CONNECTED kVA PER PHASE **3** **4** **4** CONNECTED TOTAL kVA **11**
CONNECTED AMPS PER PHASE **29** **34** **33** CONNECTED AVERAGE AMPS PER PHASE **32**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING — ALL OTHER LOADS @100%= **9.1 kVA** — DIVERSIFIED TOTAL kVA **12**
RECEPTACLES — TOTAL MOTOR DEMAND= **1.9 kVA** — AVERAGE AMPS PER **32**

Notes:

PANEL "2HB1"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
480/277 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL B217	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	20	1	LTG: OFFICES	3.0	1.7					LTG: RECEPTION / WAITING-2 B223-2	1	20	2
3	20	1	LTG: CANOPY			0.3	1.1			LTG: LOBBY B101	1	20	4
5	20	1	LTG: RECORDS/OFFICE/LAVS					1.7	1.8	LTG: CORRIDOR A200	1	20	6
7	20	1	LTG: USU CLASSROOM A204	2.3	2.1					LTG: LOBBY/STAIR	1	20	8
9	20	1	LTG: USU CLASSROOM A205			1.6	0.0			SPARE	1	20	10
11	20	1	LTG: CDL CLASSROOM C201					1.8	0.0	SPARE	1	20	12
13	20	1	LTG: BRD RM/BREAK/EXCERCISE	3.7	0.0					SPARE	1	20	14
15	20	1	SPARE			0.0	0.0			SPARE	1	20	16
17	20	1	SPARE					0.0	0.0	SPARE	1	20	18
19	20	1	SPARE	0.0	0.0					SPARE	1	20	20
21	20	1	SPARE			0.0	0.0			SPARE	1	20	22
23	20	1	SPARE					0.0	0.0	SPARE	1	20	24
25	30	3	PWR: HA-1A	3.9	3.9					PWR: HP-2B	3	30	26
27	--	--	--			3.9	3.9			--	--	--	28
29	--	--	--					3.9	3.9	--	--	--	30
31	30	3	PWR: HP-1B	3.9	3.9					PWR: HP-2A	3	30	32
33	--	--	--			3.9	3.9			--	--	--	34
35	--	--	--					3.9	3.9	--	--	--	36
37	30	3	PWR: HP-1C	3.9	0.4					PWR: EF-1	3	15	38
39	--	--	--			3.9	0.4			--	--	--	40
41	--	--	--					3.9	0.4	--	--	--	42

TOTALS: CONNECTED kVA PER PHASE **33** **23** **25** CONNECTED TOTAL kVA **80**
CONNECTED AMPS PER PHASE **119** **82** **92** CONNECTED AVERAGE AMPS PER PHASE **97**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING **21kVA @ 125% = 26kVA** — ALL OTHER LOADS @100%= **58.1 kVA** — DIVERSIFIED TOTAL kVA **86**
RECEPTACLES — TOTAL MOTOR DEMAND= **1.5 kVA** — AVERAGE AMPS PER **104**

Notes:

PANEL "2LB1"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL B217	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	20	1	CO CORRIDOR A200	1.0	0.4					CO Room B221, B222	1	20	2
3	20	1	CO RECEPTION / WAITING-2 B223-2			0.7	1.0			PWR Room B219	1	20	4
5	20	1	CO PRESIDENT ASSISTANT B213					0.7	1.3	CO OPEN OFFICE 2-3 PPL B216	1	20	6
7	20	1	CO	1.1	0.5					CO Room B220, B200, A200, B218	1	20	8
9	20	1	CO EXECUTIVE CONFERENCE ROOM B211			0.7	0.9			CO Room B215, B216, B200	1	20	10
11	20	1	CO EXECUTIVE CONFERENCE ROOM B211					0.5	0.2	CO MARKETING / OFFICE B214	1	20	12
13	20	1	PWR EXECUTIVE CONFERENCE ROOM B211	0.5	0.7					CO CORRIDOR A200	1	20	14
15	20	1	CO HUMAN RESOURCES B210			0.7	0.2			CO	1	20	16
17	20	1	CO Room B209					0.7	0.2	CO	1	20	18
19	20	1	CO Room B208	0.7	0.7					CO MARKETING / OFFICE B214	1	20	20
21	20	1	CO Room B207			0.7	0.4			CO MARKETING / OFFICE B214	1	20	22
23	20	1	CO Room B206					0.7	0.4	CO MARKETING / OFFICE B214	1	20	24
25	20	1	CO DIRECTOR B205	0.7	0.2					CO KITCHEN B225	1	20	26
27	20	1	CO VP INSTRUCTION OFFICE B204			1.2	0.2			PWR KITCHEN B225	1	20	28
29	20	1	CO ASSISTANT B203					0.7	0.2	PWR KITCHEN B225	1	20	30
31	20	1	CO CURRICULUM DEVELOPER B202	0.9	1.2					PWR KITCHEN B225	1	20	32
33	20	1	CO DIRECTOR B201			0.7	1.0			KITCHEN B225	1	20	34
35	20	1	CO Room B223-2, B223-1					1.0	0.2	CO KITCHEN B225	1	20	36
37	20	1	CO RECEPTION / WAITING-2 B223-2	1.0	0.2					CO KITCHEN B225	1	20	38
39	20	1	CO Room B223-1, B223-2			0.5	0.2			CO KITCHEN B225	1	20	40
41	20	1	CO Room B224					1.2	0.2	CO KITCHEN B225	1	20	42
43	20	1	CO WELLNESS B233	0.7	0.4					KITCHEN B225	1	20	44
45	20	1	Room B224			0.7	0.4			CO FACULTY/ BREAK B227	1	20	46
47	20	1	CO BOARDROOM B224					0.5	0.5	CO Room B227, B226	1	20	48
49	20	1	PWR	0.8	0.4					CO WORKROOM B226	1	20	50
51	20	1	CO FACULTY/ BREAK B227			0.5	0.4			CO WORKROOM B226	1	20	52
53	20	1	PWR FACULTY/ BREAK B227					0.8	1.0	PWR WORKROOM B226	1	20	54
55	20	1	CO EXERCISE B232	0.2	0.4					CO Room B228, B229	1	20	56
57	20	1	PWR EXERCISE B232			0.8	0.4			CO	1	20	58
59	20	1	CO EXERCISE B232					0.2	1.6	PWR: CU-6	2	20	60
61	20	1	PWR: DF Room B232	1.0	1.6					--	--	--	62
63	20	1	CO EXERCISE B232			0.2	1.2			PWR: EF-14	1	20	64
65	20	1	PWR EXERCISE B232					1.0	0.6	FSD B219	1	20	66
67	20	1	PWR EXERCISE B232	1.0	0.0					POWER FSD B106	1	20	68
69	20	1	PWR EXERCISE B232			1.0	0.5			CO ROOF	1	20	70
71	15	2	PWR AC-2					0.1	0.4	CO ROOF	1	20	72
73	--	--	--	0.1	0.0					SPARE	1	0	74
75	15	2	PWR VRV-15-23			1.0	0.0			SPARE	1	0	76
77	--	--	--					1.0	0.5	PWR HVAC CONTROLS	1	20	78
79	15	2	PWR BS-4-6	0.2	0.5					PWR HVAC CONTROLS	1	20	80
81	--	--	--			0.2	0.5			PWR HVAC CONTROLS	1	20	82
83	20	1	PWR HVAC CONTROLS					1.0	0.5	PWR HVAC CONTROLS	1	20	84

TOTALS: CONNECTED kVA PER PHASE **17** **17** **18** CONNECTED TOTAL kVA **52**
CONNECTED AMPS PER PHASE **142** **141** **148** CONNECTED AVERAGE AMPS PER PHASE **143**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING **0kVA @ Not Computed = 0kVA** — ALL OTHER LOADS @100%= **20.5 kVA** — DIVERSIFIED TOTAL kVA **43**
RECEPTACLES **28 kVA @68% =19 kVA** — TOTAL MOTOR DEMAND= **1.5 kVA** — AVERAGE AMPS PER **119**

Notes:

PANEL "2LB2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL B217	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	20	1	CO Room A201	0.7	1.5					Room A204	1	20	2
3	20	1	CO BT LAB A201			0.2	0.5			CO ROOF	1	20	4
5	20	1	CO BT LAB A201					0.4	0.5	CO USU CLASSROOM A205	1	20	6
7	20	1	CO TESTING A202	0.4	0.4					CO USU CLASSROOM A205	1	20	8
9	20	1	CO TESTING A202			0.4	0.4			PWR USU CLASSROOM A205	1	20	10
11	20	1	CO TESTING A202					0.4	0.8	CO USU CLASSROOM A205	1	20	12
13	20	1	CO TESTING A202	0.2	0.7					CO USU CLASSROOM A205	1	20	14
15	20	1	CO Room A201			0.5	0.4			CO USU CLASSROOM A205	1	20	16
17	20	1	Power BT LAB A201					0.5	0.4	CO USU CLASSROOM A205	1	20	18
19	20	1	Power BT LAB A201	0.5	0.4					CO USU CLASSROOM A205	1	20	20
21	20	1	Power BT LAB A201			0.5	0.4			CO USU CLASSROOM A205	1	20	22
23	20	1	Power BT LAB A201					0.5	0.7	CO IT OFFICE A206	1	20	24
25	20	1	Power BT LAB A201	0.5	0.5					CO CORRIDOR A200	1	20	26
27	20	1	Power BT LAB A201			0.5	0.5			CO Room A207	1	20	28
29	20	1	CO BT LAB A201					0.4	0.4	CO IT CLASSROOM A207	1	20	30
31	20	1	CO BT LAB A201	1.0	0.4					CO IT CLASSROOM A207	1	20	32
33	20	1	CO USU CLASSROOM A204			0.7	0.4			CO IT CLASSROOM A207	1	20	34
35	20	1	CO USU CLASSROOM A204					0.8	0.4	CO IT CLASSROOM A207	1	20	36
37	20	1	CO USU CLASSROOM A204	0.4	0.4					CO IT CLASSROOM A207	1	20	38
39	20	1	CO USU CLASSROOM A204			0.4	0.4			CO IT CLASSROOM A207	1	20	40
41	20	1	CO USU CLASSROOM A204					0.4	0.5	CO IT CLASSROOM A207	1	20	42
43	20	1	CO USU CLASSROOM A204	0.4	0.4					CO IT CLASSROOM A207	1	20	44
45	20	1	CO USU CLASSROOM A204			0.4							46
47	20	1	CO USU CLASSROOM A204					0.4	0.9	CO IT TESTING A208	1	20	48
49	20	1	Power USU CLASSROOM A204	0.5	0.7					CO IT TESTING A208	1	20	50
51	20	1	PWR HVAC CONTROLS			0.5	0.4			PWR Room A209	1	20	52
53	20	1	CO BT OFFICE A203					0.9	0.5	PWR IT LAB A209	1	20	54
55	20	1	CO CORRIDOR A200	0.5	0.7					CO IT ADMIN A211	1	20	56
57	20	1	CO IT CLASSROOM A207			0.8	1.3			CO IT ASSISTANT A212	1	20	58
59	20	1	Room A205					1.5	0.8	PWR	1	20	60
61	20	1	CO BT LAB A201	0.4	0.5					CO CDL CLASSROOM C201	1	20	62
63	30	2	PWR: CU-4			2.3	0.4			CO CDL CLASSROOM C201	1	20	64
65	--	--	--					2.3	0.4	CO CDL CLASSROOM C201	1	20	66
67	20	1	PWR HVAC CONTROLS A205	0.5	0.7					CO CDL CLASSROOM C201	1	20	68
69	20	1	PWR HVAC CONTROLS			0.5	0.7			CO CDL CLASSROOM C201	1	20	70
71	20	1	PWR HVAC CONTROLS					0.5	0.8	PWR CDL CLASSROOM C201	1	20	72
73	20	1	CO IT LAB A209	0.0	0.4					CO	1	20	74
75	20	1	SPARE			0.0	0.9			CO IT ADMIN A211	1	20	76
77	20	1	SPARE					0.0	0.7	PWR IT LAB A209	1	20	78
79	20	1	SPARE	0.0	0.0					SPARE	1	20	80
81	20	1	SPARE			0.0	0.0			SPARE	1	20	82
83	20	1	SPARE					0.0	0.0	SPARE	1	20	84

TOTALS: CONNECTED kVA PER PHASE **14** **14** **17** CONNECTED TOTAL kVA **45**
CONNECTED AMPS PER PHASE **114** **120** **140** CONNECTED AVERAGE AMPS PER PHASE **124**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING — ALL OTHER LOADS @100%= **12.1 kVA** — DIVERSIFIED TOTAL kVA **35**
RECEPTACLES **30 kVA @67% =20 kVA** — TOTAL MOTOR DEMAND= — AVERAGE AMPS PER **97**

Notes:

3

PANEL "2QLB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL B217	SURFACE	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR

CKT NO	AMP	POLE	DESCRIPTION	A	A	B	B	C	C	DESCRIPTION	POLE	AMP	CKT NO
1	20	1	CO KITCHEN B225	1.0	1.5					PWR SERVER / IT STORAGE A210	2	30	2
3	20	1	CO KITCHEN B225			1.0	1.5			--	--	--	4
5	20	1	CO KITCHEN B225					1.0	1.2	PWR SERVER / IT STORAGE A210	1	20	6
7	20	1	CO SERVER / IT STORAGE A210	0.7	1.5					PWR SERVER / IT STORAGE A210	2	30	8
9	20	1	CO SERVER / IT STORAGE A210			0.4	1.5			--	--	--	10
11	20	1	CO SERVER / IT STORAGE A210					0.4	1.2	PWR SERVER / IT STORAGE A210	1	20	12
13	20	1	CO SERVER / IT STORAGE A210	0.7	1.5					PWR SERVER / IT STORAGE A210	2	30	14
15	20	1	CO SERVER / IT STORAGE A210			0.9	1.5			--	--	--	16
17	20	1	CO IT WORKROOM C204					0.7	1.2	PWR SERVER / IT STORAGE A210	1	20	18
19	20	1	PWR IT WORKROOM C204	1.2	1.5					PWR SERVER / IT STORAGE A210	2	30	20
21	30	2	PWR IT WORKROOM C204			1.5	1.5			--	--	--	22
23	--	--	--					1.5	1.2	PWR SERVER / IT STORAGE A210	1	20	24
25	20	1	PWR IT WORKROOM C204	1.2	1.5					PWR SERVER / IT STORAGE A210	2	30	26
27	30	2	PWR IT WORKROOM C204			1.5	1.5			--	--	--	28
29	--	--	--					1.5	1.2	PWR SERVER / IT STORAGE A210	1	20	30
31	15	2	PWR AC-4	0.1	1.5					PWR SERVER / IT STORAGE A210	2	30	32
33	--	--	--			0.1	1.5			--	--	--	34
35	30	2	PWR: CU-5					2.2	1.2	PWR SERVER / IT STORAGE A210	1	20	36
37	--	--	--	2.2	1.5					PWR SERVER / IT STORAGE A210	2	30	38
39	15	2	PWR AC-5, AC-7, AC-8			0.2	1.5			--	--	--	40
41	--	--	--					0.2	1.2	PWR SERVER / IT STORAGE A210	1	20	42
43	15	2	PWR AC-5	0.1	0.0					SPARE	1	20	44
45	--	--	--			0.1	0.0			SPARE	1	20	46
47	20	2	PWR: CU-8					2.3	0.0	SPARE	1	20	48
49	--	--	--	2.3	0.0					SPARE	1	20	50
51	20	2	PWR: CU-7			2.3	0.0			SPARE	1	20	52
53	--	--	--					2.3	0.0	SPARE	1	20	54
55	20	1	PWR ACS1	1.0	0.0					SPARE	1	20	56
57							0.0			SPARE	1	20	58
59	20	1	SPARE					0.0	0.0	SPARE	1	20	60
61	20	1	SPARE	0.0	0.0					SPARE	1	20	62
63	20	1	SPARE			0.0	0.0			SPARE	1	20	64
65	20	1	SPARE					0.0	0.0	SPARE	1	20	66
67	20	1	SPARE	0.0	0.0					SPARE	1	20	68
69	20	1	SPARE			0.0	0.0			SPARE	1	20	70
71	20	1	SPARE					0.0	0.0	SPARE	1	20	72
73	20	1	SPARE	0.0	0.0					SPARE	1	20	74
75	20	1	SPARE			0.0	0.0			SPARE	1	20	76
77	20	1	SPARE					0.0	0.0	SPARE	1	20	78
79	20	1	SPARE	0.0	0.0					SPARE	1	20	80
81	20	1	SPARE			0.0	0.0			SPARE	1	20	82
83	20	1	SPARE					0.0	0.0	SPARE	1	2	84

TOTALS: CONNECTED kVA PER PHASE **21** **18** **20** CONNECTED TOTAL kVA **60**
CONNECTED AMPS PER PHASE **178** **153** **173** CONNECTED AVERAGE AMPS PER PHASE **166**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING — ALL OTHER LOADS @100%= **55.1 kVA** — DIVERSIFIED TOTAL kVA **59**
RECEPTACLES **4 kVA @100% =4 kVA** — TOTAL MOTOR DEMAND= — AVERAGE AMPS PER **163**

Notes:

01/18/2012

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

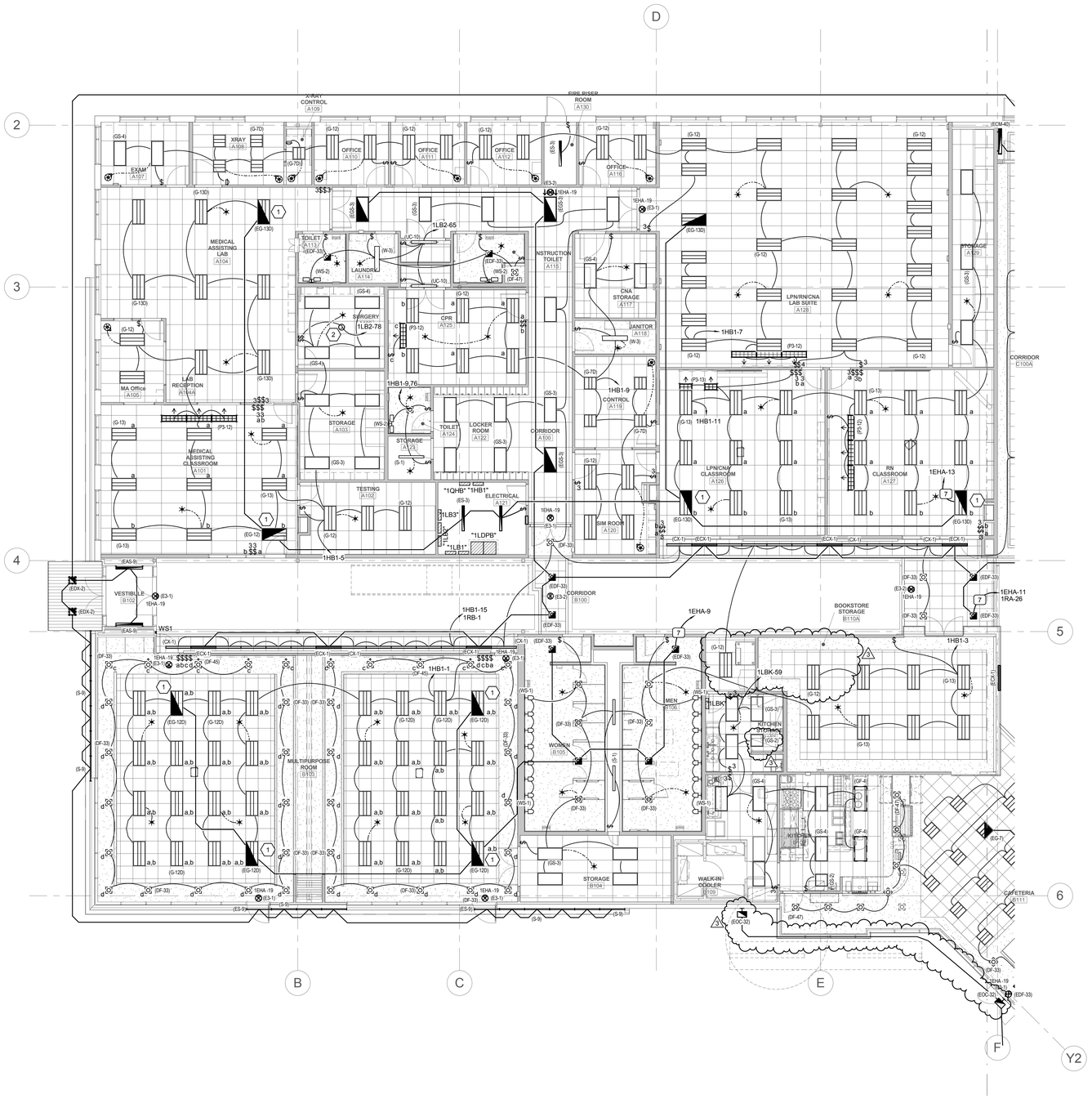
1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Panel Schedules

sheet:

EP609

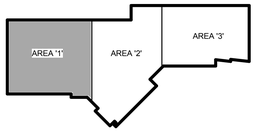
100% Construction Documents



1 LEVEL 1 LIGHTING PLAN - AREA '1'

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

PROJECT NORTH TRUE NORTH



GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
6. LOCATE ALL OCCUPANCY SENSORS MINIMUM OF 6'-0" FROM SUPPLY AIR DIFFUSERS AND 3'-0" FROM RETURN AIR DIFFUSERS.
7. UNLESS NOTED OTHERWISE, CIRCUIT ALL EMERGENCY LIGHTING FIXTURES DIRECTLY TO CIRCUIT CIRCUIT BREAKER FOR ALWAYS ON OPERATION.

SHEET KEYNOTES

1. BASE BID: PROVIDE CIRCUIT FROM EMERGENCY PANEL TO EMERGENCY LIGHTING FIXTURE AND CAP FOR FUTURE USE. ADD ALTERNATE #7: DELETE BATTERY PACK FROM FIXTURE, ADD TYPE ET TRANSFER DEVICE AND CIRCUIT PER DETAIL 5/EL501.
2. PROVIDE JUNCTION BOX IN CEILING FOR OWNER FURNISHED SURGICAL LIGHT.

REGISTERED PROFESSIONAL ENGINEER No. 7862 STATE OF UTAH

01/18/2012

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
2	ADDENDUM 3	02/17/2012
3	ADDENDUM 4	02/28/2012

Level 1 Lighting Plan - Area '1'

sheet:

EL111

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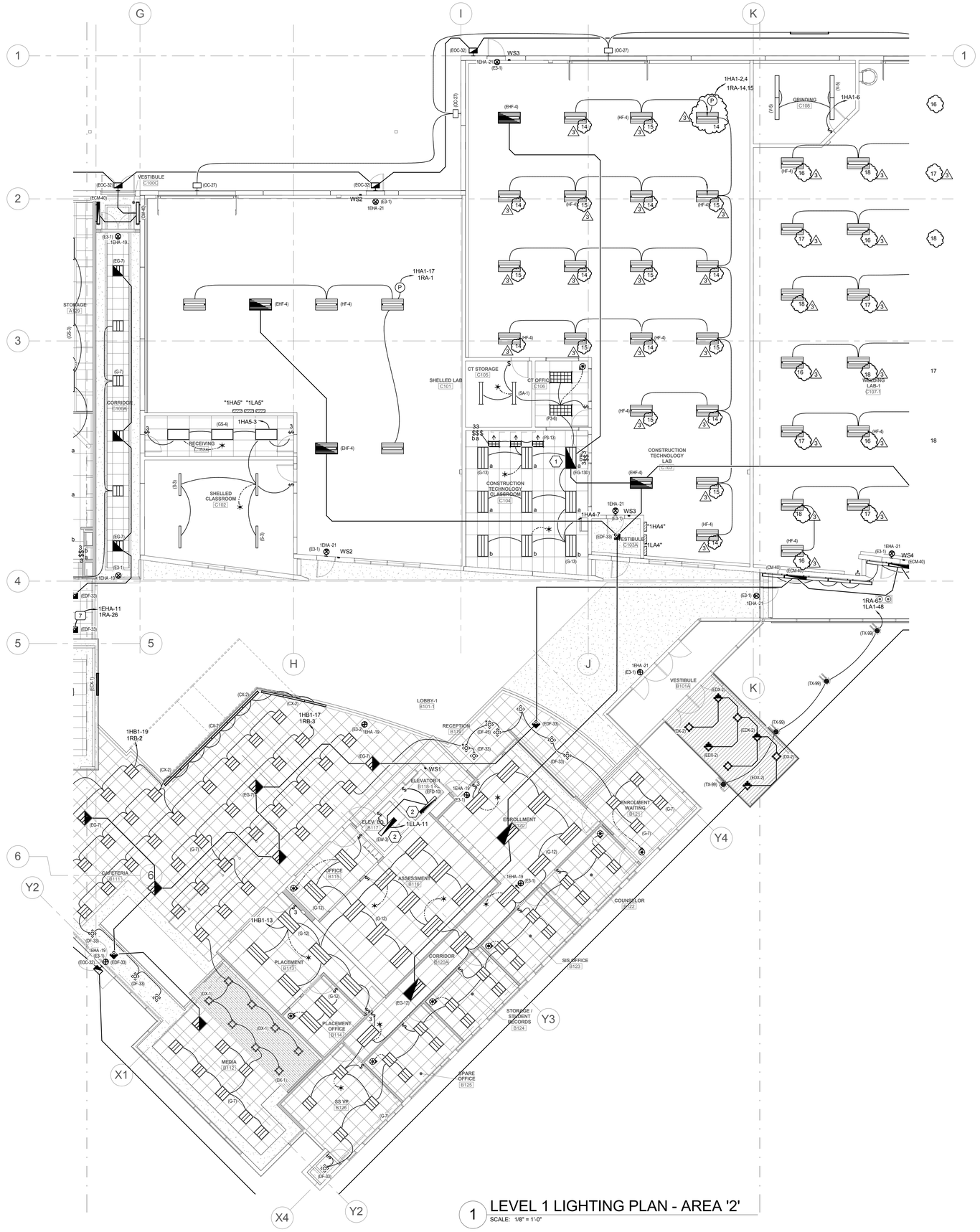


1 LEVEL 1 LIGHTING PLAN - AREA '2'

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

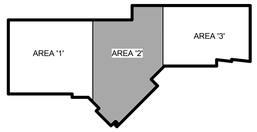
PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
6. LOCATE ALL OCCUPANCY SENSORS MINIMUM OF 6'-0" FROM SUPPLY AIR DIFFUSERS AND 3'-0" FROM RETURN AIR DIFFUSERS.
7. UNLESS NOTED OTHERWISE, CIRCUIT ALL EMERGENCY LIGHTING FIXTURES DIRECTLY TO CIRCUIT CIRCUIT BREAKER FOR ALWAYS ON OPERATION.

SHEET KEYNOTES

1. BASE BID: PROVIDE CIRCUIT FROM EMERGENCY PANEL TO EMERGENCY LIGHTING FIXTURE AND CAP FOR FUTURE USE. ADD ALTERNATE #7: DELETE BATTERY PACK FROM FIXTURE, ADD TYPE ET TRANSFER DEVICE AND CIRCUIT PER DETAIL 5/EL501.
2. CIRCUIT ELEVATOR EQUIPMENT ROOM AND PIT LIGHT WITH EQUIPMENT ROOM AND PIT RECEPTACLES.



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project:
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88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Lighting Plan - Area '2'

sheet:

EL112

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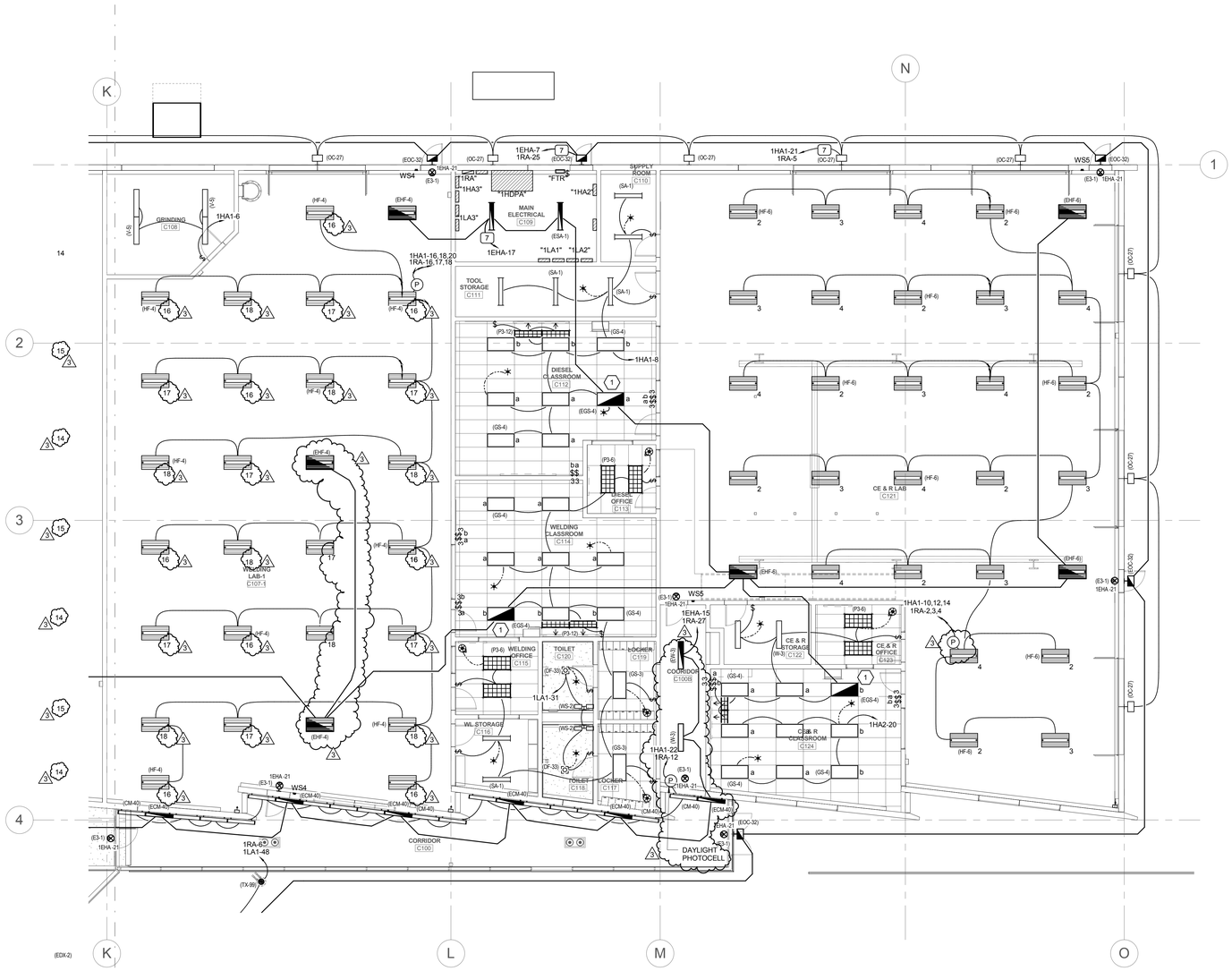
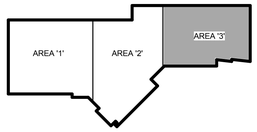


1 LEVEL 1 LIGHTING PLAN - AREA '3'

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

PROJECT NORTH TRUE NORTH



GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
6. LOCATE ALL OCCUPANCY SENSORS MINIMUM OF 6'-0" FROM SUPPLY AIR DIFFUSERS AND 3'-0" FROM RETURN AIR DIFFUSERS.
7. UNLESS NOTED OTHERWISE, CIRCUIT ALL EMERGENCY LIGHTING FIXTURES DIRECTLY TO CIRCUIT CIRCUIT BREAKER FOR ALWAYS ON OPERATION.

SHEET KEYNOTES

1. BASE BID: PROVIDE CIRCUIT FROM EMERGENCY PANEL TO EMERGENCY LIGHTING FIXTURE AND CAP FOR FUTURE USE. ADD ALTERNATE #7: DELETE BATTERY PACK FROM FIXTURE, ADD TYPE ET TRANSFER DEVICE AND CIRCUIT PER DETAIL 5/EL501.

01/18/2012

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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Lighting Plan - Area '3'

sheet:

EL113

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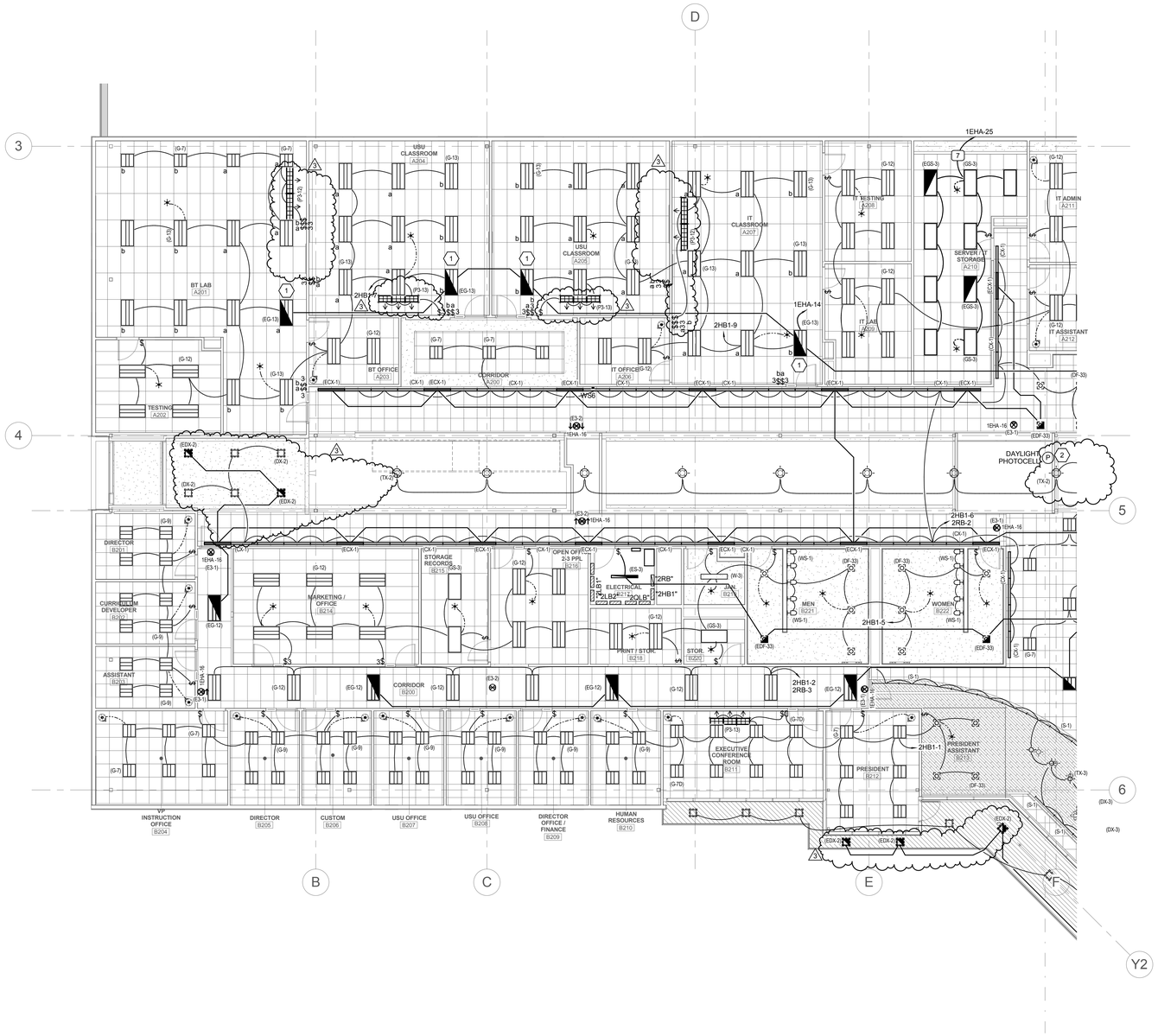


1 LEVEL 2 LIGHTING PLAN - AREA '1'

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

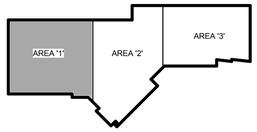
PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
6. LOCATE ALL OCCUPANCY SENSORS MINIMUM OF 6'-0" FROM SUPPLY AIR DIFFUSERS AND 3'-0" FROM RETURN AIR DIFFUSERS.
7. UNLESS NOTED OTHERWISE, CIRCUIT ALL EMERGENCY LIGHTING FIXTURES DIRECTLY TO CIRCUIT CIRCUIT BREAKER FOR ALWAYS ON OPERATION.

SHEET KEYNOTES

1. BASE BID: PROVIDE CIRCUIT FROM EMERGENCY PANEL TO EMERGENCY LIGHTING FIXTURE AND CAP FOR FUTURE USE. ADD ALTERNATE #7: DELETE BATTERY PACK FROM FIXTURE, ADD TYPE ET TRANSFER DEVICE AND CIRCUIT PER DETAIL 5/EL501.
2. PHOTOCELL CONTROLLED RELAYS. RELAY #6 TURNS OFF AT LOWER FOOTCANDLE MEASUREMENT THAN RELAY #7. WIRE RELAY #6 TO ONE BALLAST IN EACH FIXTURE AND RELAY #7 TO THE OTHER BALLAST.



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METHOD STUDIO INC.
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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
2	ADDENDUM 3	02/17/2012
3	ADDENDUM 4	02/28/2012

Level 2 Lighting Plan - Area '1'

sheet:

EL121

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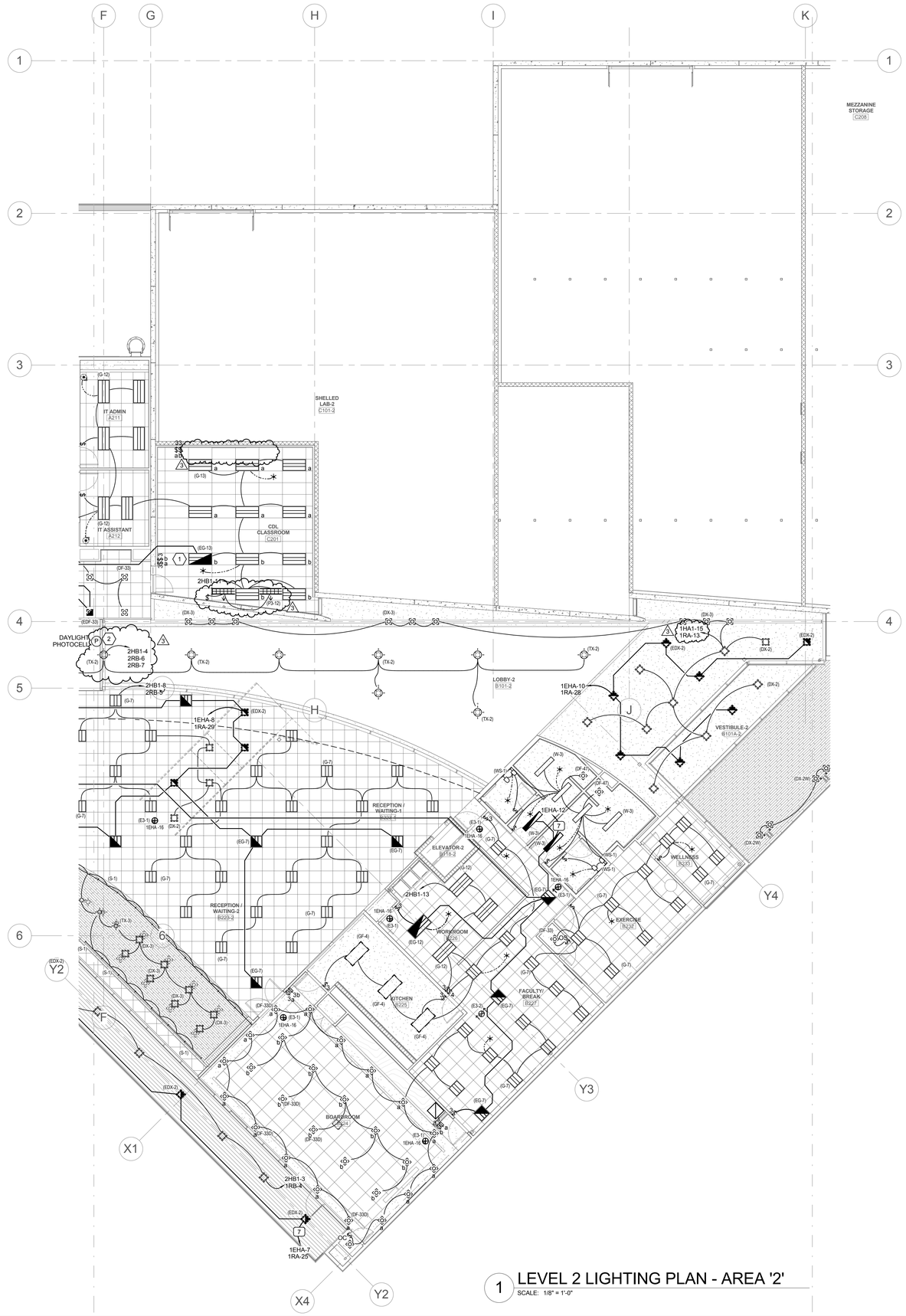

1 LEVEL 2 LIGHTING PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
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SHEET KEYNOTES

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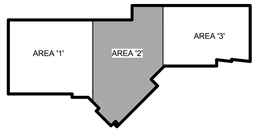
2. PHOTOCELL CONTROLLED RELAYS. RELAY #6 TURNS OFF AT LOWER FOOTCANDLE MEASUREMENT THAN RELAY #7. WIRE RELAY #6 TO ONE BALLAST IN EACH FIXTURE AND RELAY #7 TO THE OTHER BALLAST.



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Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
2	ADDENDUM 3	02/17/2012
3	ADDENDUM 4	02/28/2012

Level 2 Lighting Plan - Area '2'

sheet:

EL122

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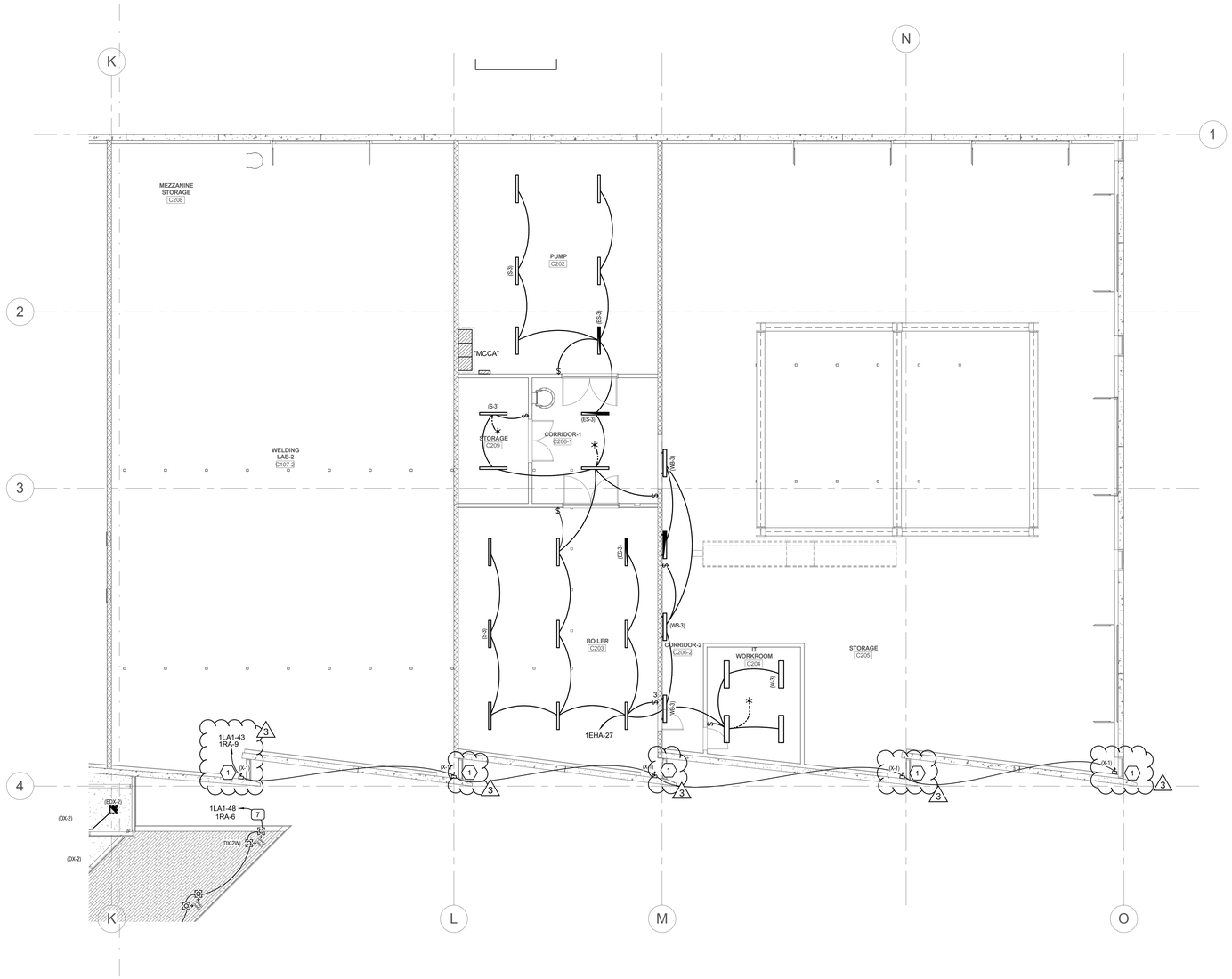
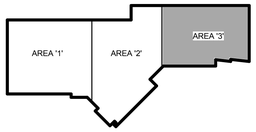


1 LEVEL 2 LIGHTING PLAN - AREA '3'

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

PROJECT NORTH TRUE NORTH



GENERAL SHEET NOTES

1. INSTALL LIGHT FIXTURES INLINE AND CENTERED.
2. COORDINAT ALL LIGHT FIXTURE MOUNTING HEIGHTS WITH ARCHITECT
3. ARCHITECT TO SELECT ALL LIGHT FIXTURE FINISHES
4. CIRCUIT EXIT SIGNS ON SEPERATE LIGHTING CIRCUITWT
5. COVE/CLOUD LIGHTING SHALL HAVE EVEN ILLUMINATION THE ENTIRE LENGHT OF THE COVE/CLOUD. PROVIDE THE NUMBER OF FIXTURES REQUIRED TO EVENLY ILLUMINATE THE COVE/CLOUD. STAGGAR COVE/CLOUD LIGHITNG OR PROVIDE DIFFERENT LENGTHS OF THE FIXTURE TO ILLUMINATE THE ENTIRE COVE/CLOUD.
6. LOCATE ALL OCCUPANCY SENSORS MINIMUM OF 6'-0" FROM SUPPLY AIR DIFFUSERS AND 3'-0" FROM RETURN AIR DIFFUSERS.
7. UNLESS NOTED OTHERWISE, CIRCUIT ALL EMERGENCY LIGHTING FIXTURES DIRECTLY TO CIRCUIT CIRCUIT BREAKER FOR ALWAYS ON OPERATION.

SHEET KEYNOTES

1. MOUNT (2) X-1 FIXTURES VERTICALLY IN FRONT OF WINDOW. COORDINATE LOCATION WITH ARCHITECT.

REGISTERED PROFESSIONAL ENGINEER No. 7862 STATE OF UTAH

01/18/2012

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revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 2 Lighting Plan - Area '3'

sheet:

EL123

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LIGHTING RELAY PANEL RP CONTROL SCHEDULE		TOOELE APPLIED TECH CENTER
CONTROL GROUP	CONTROL GROUP NAME	CONTROL DESCRIPTION
WS-X	WALL SWITCH OVERRIDE 1	TURNS INDICATED RELAYS ON FOR MANUAL 1 HOUR OVERRIDE OF UNOCCUPIED MODE
TC1	INDOOR TIME CLOCK 1	TIME CLOCK TURNS INDICATED RELAYS ON DURING OCCUPIED HOURS OF 6 AM TO 11 PM MONDAY THRU SATURDAY
TC2	OUTDOOR TIME CLOCK 1	TIME CLOCK TURNS INDICATED RELAYS ON 30 MINUTES BEFORE SUNSET TO MIDNIGHT AND 5:30AM TO SUNRISE
TC3	OUTDOOR TIME CLOCK 2	TIME CLOCK TURNS INDICATED RELAYS ON 30 MINUTES BEFORE SUNSET TO 30 MINUTES AFTER SUNRISE
IPC	INDOOR PHOTOCELL	PHOTOCELL TURNS INDICATED RELAYS OFF WHEN SPECIFIED FOOTCANDLE LEVEL IS MEASURED
OPC	EXTERIOR PHOTOCELL	PHOTOCELL TURNS INDICATED RELAYS ON FROM DUSK TO DAWN

LIGHTING RELAY PANEL 1RA SCHEDULE — TOOELE APPLIED TECHNICAL CENTER

DATE

RELAY NUMBER	ROOM	DESCRIPTION	CIRCUIT NUMBER	LOAD (WATTS)	CONTROL GROUP WS	TC	OCC SENS	IPC	OPC
RL 1	SHELLED LAB	HIGH BAY LIGHTING	1HA1-17	900	WS-2	TC1			
RL 2	LAB C121	HIGH BAY LIGHTING	1HA1-10	2800	WS-5	TC1		NOTE 3	
RL 3	LAB C121	HIGH BAY LIGHTING	1HA1-12	1100	WS-5	TC1		NOTE 3	
RL 4	LAB C121	HIGH BAY LIGHTING	1HA1-14	2800	WS-5	TC1		NOTE 3	
RL 5	EXTERIOR	MH WALL PACKS	1HA1-21	860		TC2			
RL 6	MAIN ENTRY	UP/DOWN LIGHTS, SIGN	1LA1-48	500		TC2			
RL 7	PARKING LOT	PARKING LIGHTS ALL NIGHT	1HA1-7	3000		TC3			
RL 8	PARKING LOT	PARKING LIGHTS (MIDNIGHT OFF)	1HA1-9	3000		TC2			
RL 9	2ND FLOOR	LED ACCENT LIGHITNG NORTH	1LA1-	450		TC2			
RL 10	EXTERIOR	BOLLARDS	1HA1-13	800		TC2			
RL 11	EXTERIOR	MONUMENT SIGNS	1HA1-11	400		TC3			
RL 12	1ST FLOOR N.	CORRIDOR LIGHTING	1HA1-22	1000	WS-1	TC1		X	
RL 13	2ND FLOOR N	CORRIDOR LIGHTING	1HA1-	200	WS-1	TC1			
RL 14	LAB C103	HIGH BAY LIGHTING	1HA1-2	2300	WS-3	TC1		NOTE 3	
RV 15	LAB C103	HIGH BAY LIGHTING	1HA1-4	2100	WS-3	TC1		NOTE 3	
RL 16	LAB C107	HIGH BAY LIGHTING	1HA1-16	2100	WS-4	TC1		NOTE 3	
RL 17	LAB C107	HIGH BAY LIGHTING	1HA1-18	1800	WS-4	TC1		NOTE 3	
RL 18	LAB C107	HIGH BAY LIGHTING	1HA1-20	2100	WS-4	TC1		NOTE 3	
RL 19		SPARE RELAY							
RL 20		SPARE RELAY							
RL 21		SPARE RELAY							
RL 22		SPARE RELAY							
RL 23		SPARE RELAY							
RL 24		SPARE RELAY							
		EMERGENCY - NORMAL POWER BARRIER							
RL 25	EXTERIOR	WALL PACKS, VESTIBULES	1EHA-7	1100		TC3			
RL 26	1ST FLOOR S.	CORRIDOR EM LIGHTING	1EHA-11	700	WS-1	TC1			
RL 27	1ST FLOOR N.	CORRIDOR EM LIGHTING	1EHA-15	600	WS-1	TC1			
RL 28	2ND FLR N	ENTRY LIGHTING	1EHA-10	200	WS-1	TC1			
RL 29	2ND FLR S	CORRIDOR LIGHTING	1EHA-8	700	WS-6	TC1			
RL 30		SPARE RELAY							
RL 31		SPARE RELAY							
RL 32		SPARE RELAY							

NOTES:
1. TIME CLOCK SCHEDULES ARE INDEPENDENT FOR EACH RELAY.
2. EMERGENCY RELAYS TURN LIGHTS ON WHEN POWER IS LOST
3. LIGHTS IN THE SAME ROOM CONTROLLED BY DIFFERENT RELAYS SHALL HAVE STAGGERED PHOTOCELL OFF SETPOINTS.

LEGEND: WS - WALL SWITCH OVERRIDE; TC - TIME CLOCK; OCC SENS - OCCUPANCY SENSOR; IPC - INDOOR PHOTOCELL; OPC - OUTDOOR PHOTOCELL

LIGHTING RELAY PANEL 1RB SCHEDULE — TOOELE APPLIED TECHNICAL CENTER

DATE

RELAY NUMBER	ROOM	DESCRIPTION	CIRCUIT NUMBER	LOAD (WATTS)	CONTROL GROUP WS	TC	OCC SENS	IPC	OPC
RL 1	1ST FLOOR S.	SOUTH COORIDOR LIGHTING	1HB1-15	1400	WS-1	TC1			
RL 2	1ST FLOOR E.	EAST COMMON AREA LIGHTING	1HB1-19	2300	WS-1	TC1			
RL 3	1ST FLOOR E.	EAST COMMON AREA LIGHTING	1HB1-17	2400	WS-1	TC2			
RL 4		SPARE RELAY							
RL 5		SPARE RELAY							
RL 6		SPARE RELAY							
RL 7		SPARE RELAY							
RL 8		SPARE RELAY							
RL 9		SPARE RELAY							
RL 10		SPARE RELAY							
RL 11		SPARE RELAY							
RL 12		SPARE RELAY							

NOTES:
1. TIME CLOCK SCHEDULES ARE INDEPENDENT FOR EACH RELAY.
2. EMERGENCY RELAYS TURN LIGHTS ON WHEN POWER IS LOST

LEGEND: WS - WALL SWITCH OVERRIDE; TC - TIME CLOCK; OCC SENS - OCCUPANCY SENSOR; IPC - INDOOR PHOTOCELL; OPC - OUTDOOR PHOTOCELL

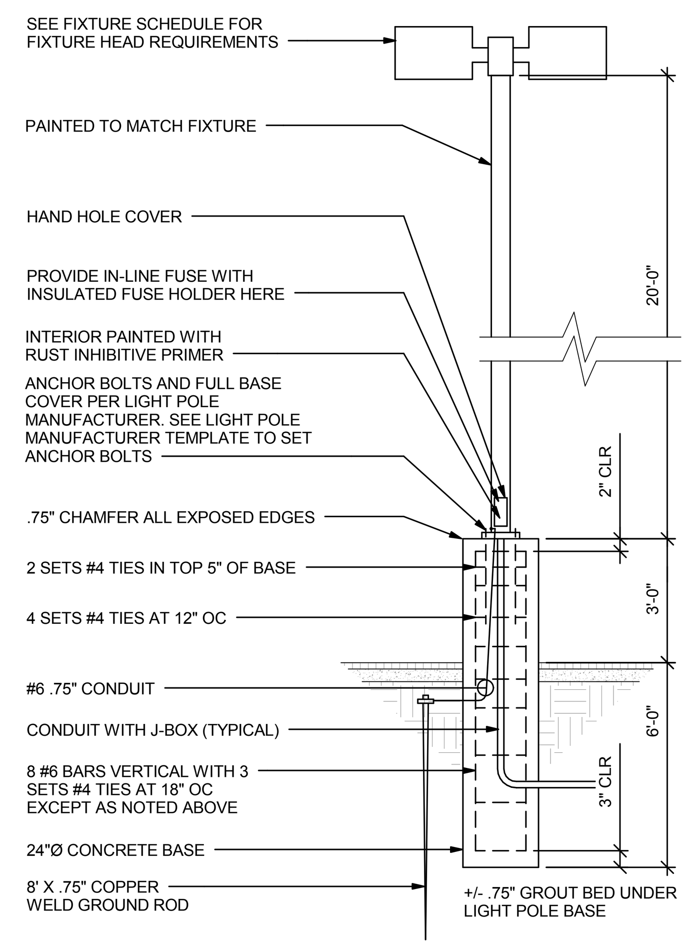
LIGHTING RELAY PANEL 2RB SCHEDULE — TOOELE APPLIED TECHNICAL CENTER

DATE

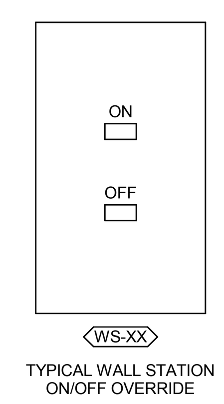
RELAY NUMBER	ROOM	DESCRIPTION	CIRCUIT NUMBER	LOAD (WATTS)	CONTROL GROUP WS	TC	OCC SENS	IPC	OPC
RL 1		SPARE RELAY							
RL 2	2ND FLOOR S	CORRIDOR LIGHTING	2HB1-6		WS-6	TC1			
RL 3	2ND FLOOR S	CORRIDOR LIGHTING	2HB1-2		WS-6	TC1			
RL 4	2ND FLR EXT	EXTERIOR LIGHTING	2HB1-3			TC2			
RL 5	2ND FLOOR E	CORRIDOR LIGHTING	2HB1-8		WS-6	TC1			
RL 6	2ND FLOOR S	CORRIDOR LIGHTING	2HB1-4		WS-1	TC1		NOTE 3	
RL 7	2ND FLOOR S	CORRIDOR LIGHTING	2HB1-4		WS-1	TC1		NOTE 3	
RL 8		SPARE RELAY							
RL 9		SPARE RELAY							
RL 10		SPARE RELAY							
RL 11		SPARE RELAY							
RL 12		SPARE RELAY							

NOTES:
1. TIME CLOCK SCHEDULES ARE INDEPENDENT FOR EACH RELAY.
2. EMERGENCY RELAYS TURN LIGHTS ON WHEN POWER IS LOST
3. PHOTOCELL TURNS OFF RELAY #6 AND RELAY #7 AT STAGGERED SETPOINTS.

LEGEND: WS - WALL SWITCH OVERRIDE; TC - TIME CLOCK; OCC SENS - OCCUPANCY SENSOR; IPC - INDOOR PHOTOCELL; OPC - OUTDOOR PHOTOCELL

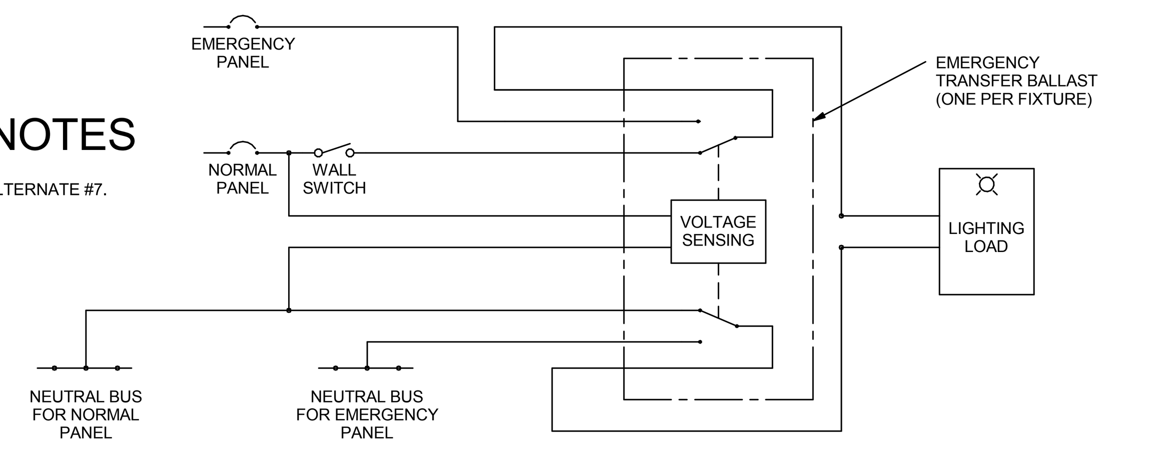


4 PARKING LOT LIGHT POLE BASE DETAIL (ZB-11d)
SCALE: NTS



6 TYPICAL WALL STATION
SCALE: NTS

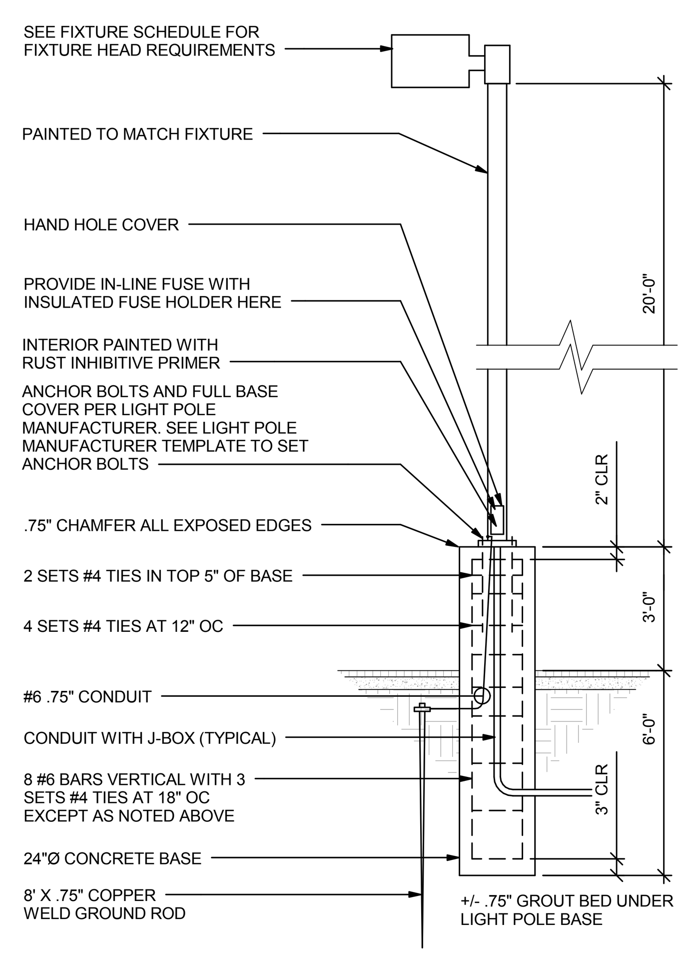
DETAIL KEYNOTES
1. DETAIL IS PART OF BID ALTERNATE #7.



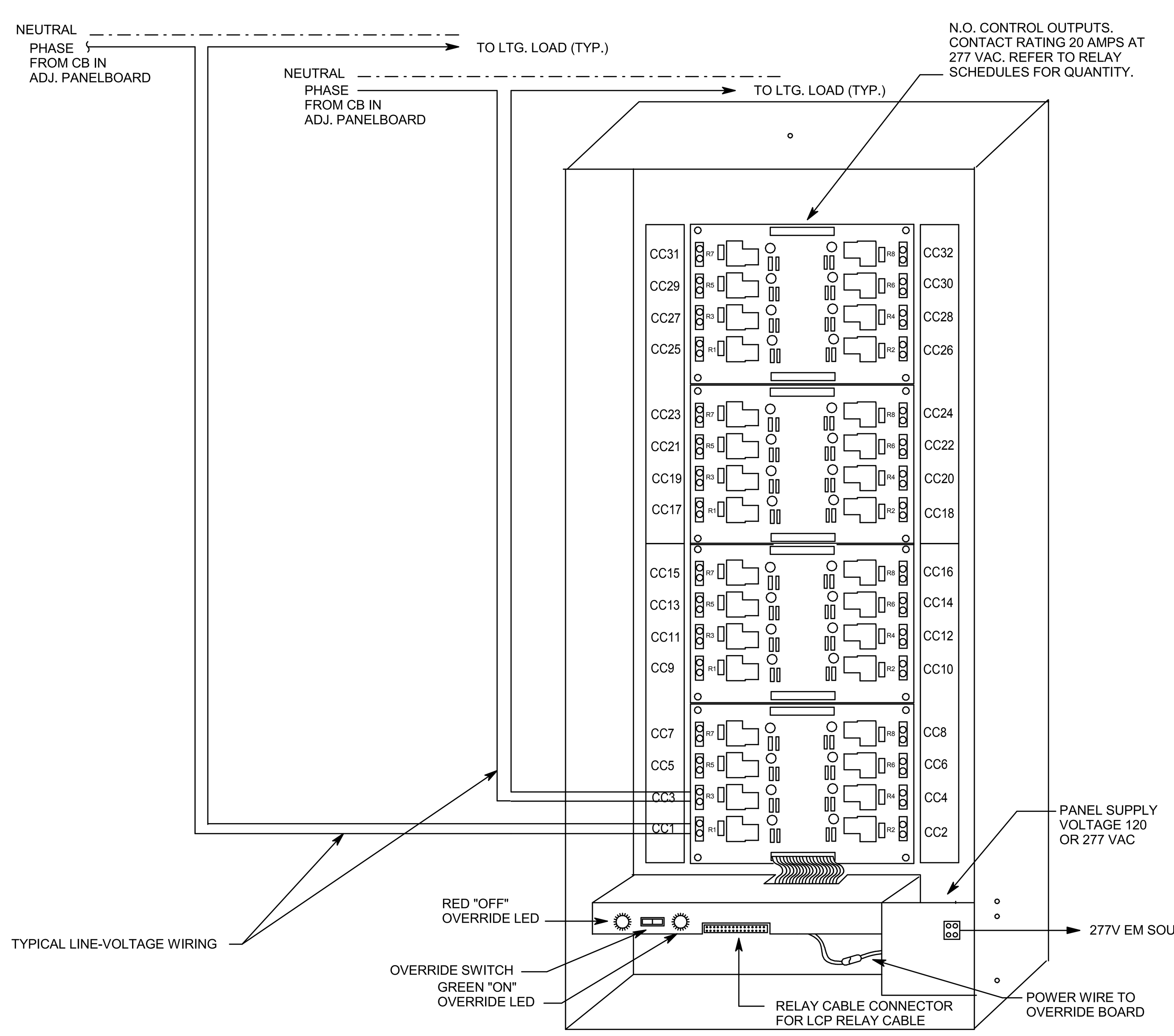
NORMAL OPERATION
LIGHTING LOAD CONTROLLED BY LOCAL SWITCHING MEANS.

EMERGENCY OPERATION
LIGHTING LOAD IS INDEPENDENT OF LOCAL SWITCHING MEANS.

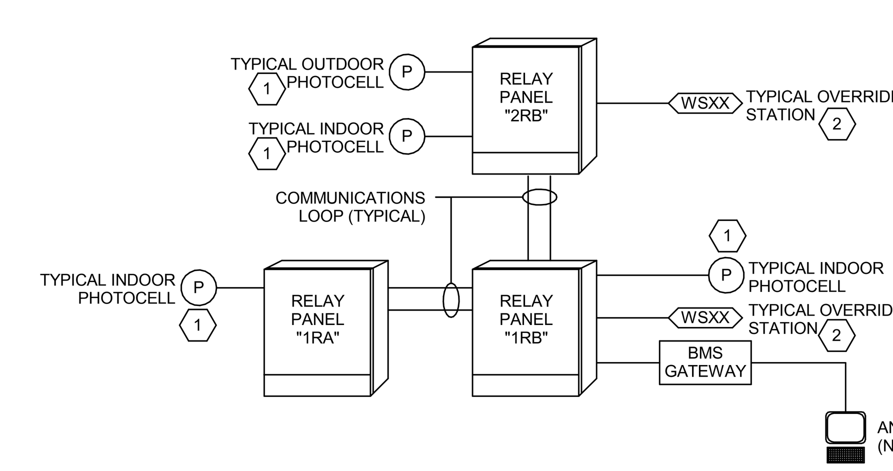
5 EMERGENCY LIGHTING TRANSFER DEVICE DETAIL
SCALE: NTS



1 PARKING LOT LIGHT POLE BASE DETAIL (ZB-11)
SCALE: NTS



2 TYPICAL RELAY PANEL WIRING DETAIL
SCALE: NTS



DETAIL KEYNOTES
1. TYPICAL INDOOR OR OUTDOOR PHOTOCELL. REFER TO PLANS FOR ACTUAL QUANTITIES.
2. TYPICAL WALLSTATION FOR LOCAL CONTROL OR BUILDING COMMON AREAS OVERRIDE CONTROL REFER TO PLANS FOR ACTUAL QUANTITIES.

3 LIGHTING RELAY CONTROL SCHEMATIC
SCALE: NTS

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revisions:

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Lighting details and schematics

sheet:

EL501

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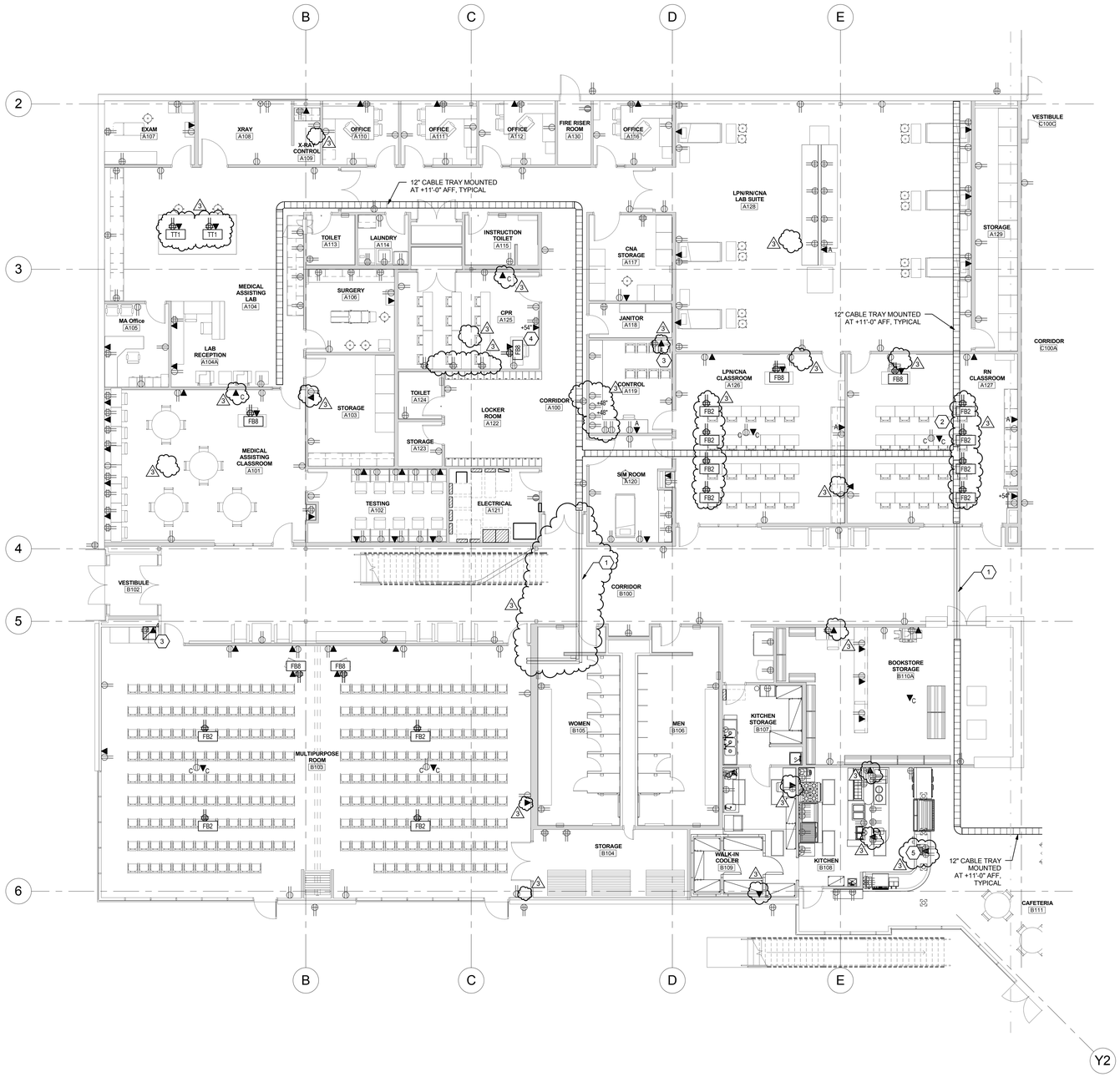
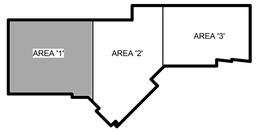


1 LEVEL 1 TELECOMMUNICATIONS PLAN - AREA '1'

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

PROJECT NORTH TRUE NORTH



SHEET KEYNOTES

1 PROVIDE 2 EACH, 4" CONDUITS.

2 4 EACH, 4" CONDUITS FROM SERVER/IT STORAGE ROOM ABOVE TO CABLE TRAY AT LEVEL 1 IN ACCESSIBLE CEILING SPACE.

3 MOUNT DATA OUTLET IN AV EQUIPMENT CABINET.

4 DATA OUTLET FOR MONITOR. VERIFY EXACT MOUNTING LOCATION.

5 DATA OUTLET FOR POINT OF SALE (P.O.S.). VERIFY EXACT MOUNTING.

REGISTERED PROFESSIONAL ENGINEER No. 7662 STATE OF UTAH

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Level 1 Telecom Plan - Area '1'

sheet:

ET111

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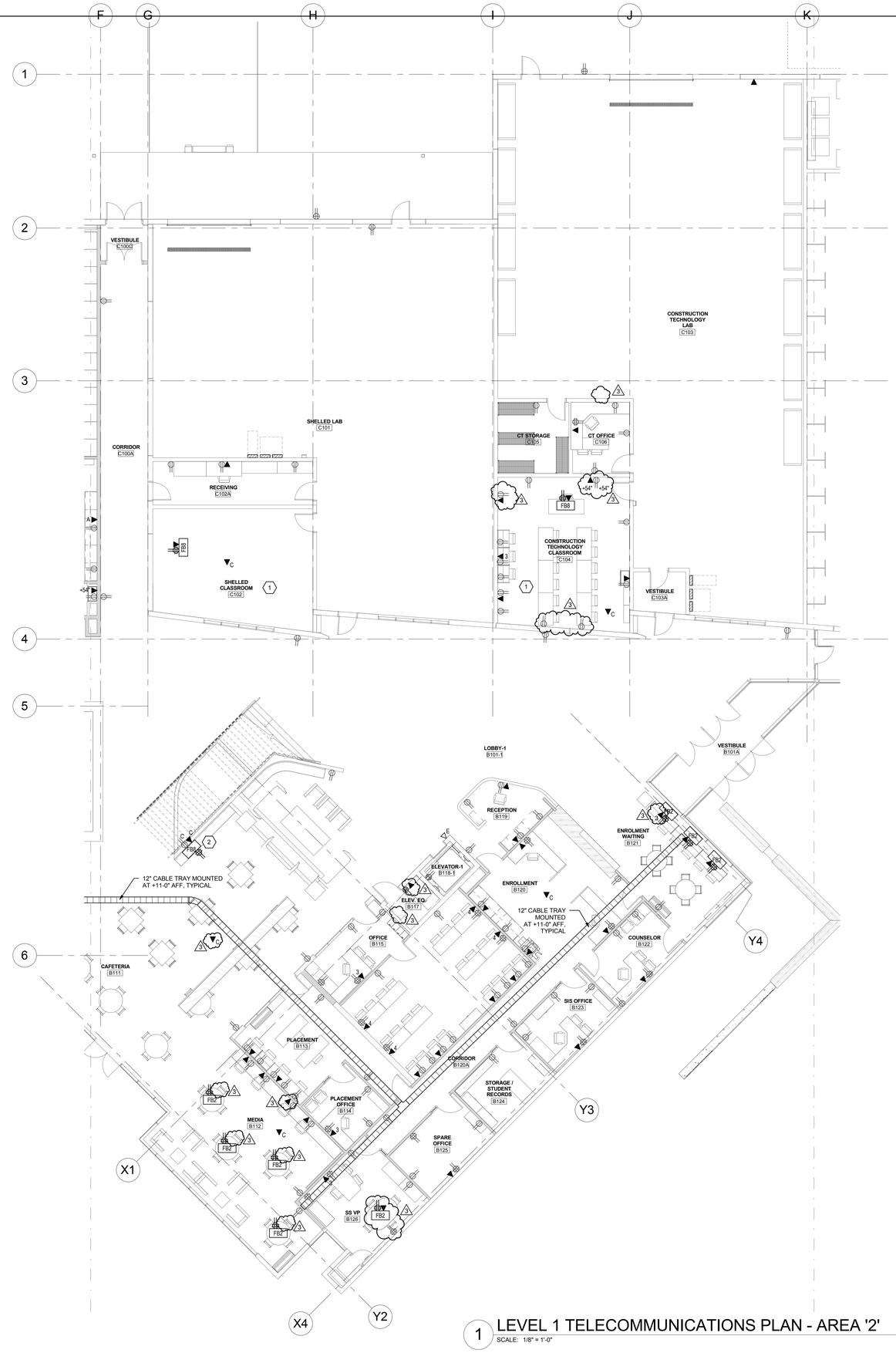


1 LEVEL 1 TELECOMMUNICATIONS PLAN - AREA '2'

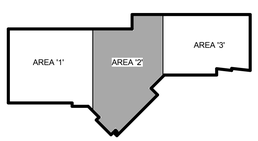
SCALE: 1/8" = 1'-0"

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1 PROVIDE 2 EACH, 3" CONDUITS STUBBED TO CABLE TRAY ABOVE.

2 DATA OUTLET FOR MONITOR. VERIFY EXACT MOUNTING LOCATION.



REGISTERED PROFESSIONAL ENGINEER No. 7862 STATE OF UTAH

01/18/2012

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METHOD STUDIO INC.

925 south west temple
salt lake city, utah 84101
phone:(801) 532-4422

consultants:

SPECTRUM ENGINEERS

324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
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project:

TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Telecom Plan - Area '2'

sheet:

ET112

100% Construction Documents

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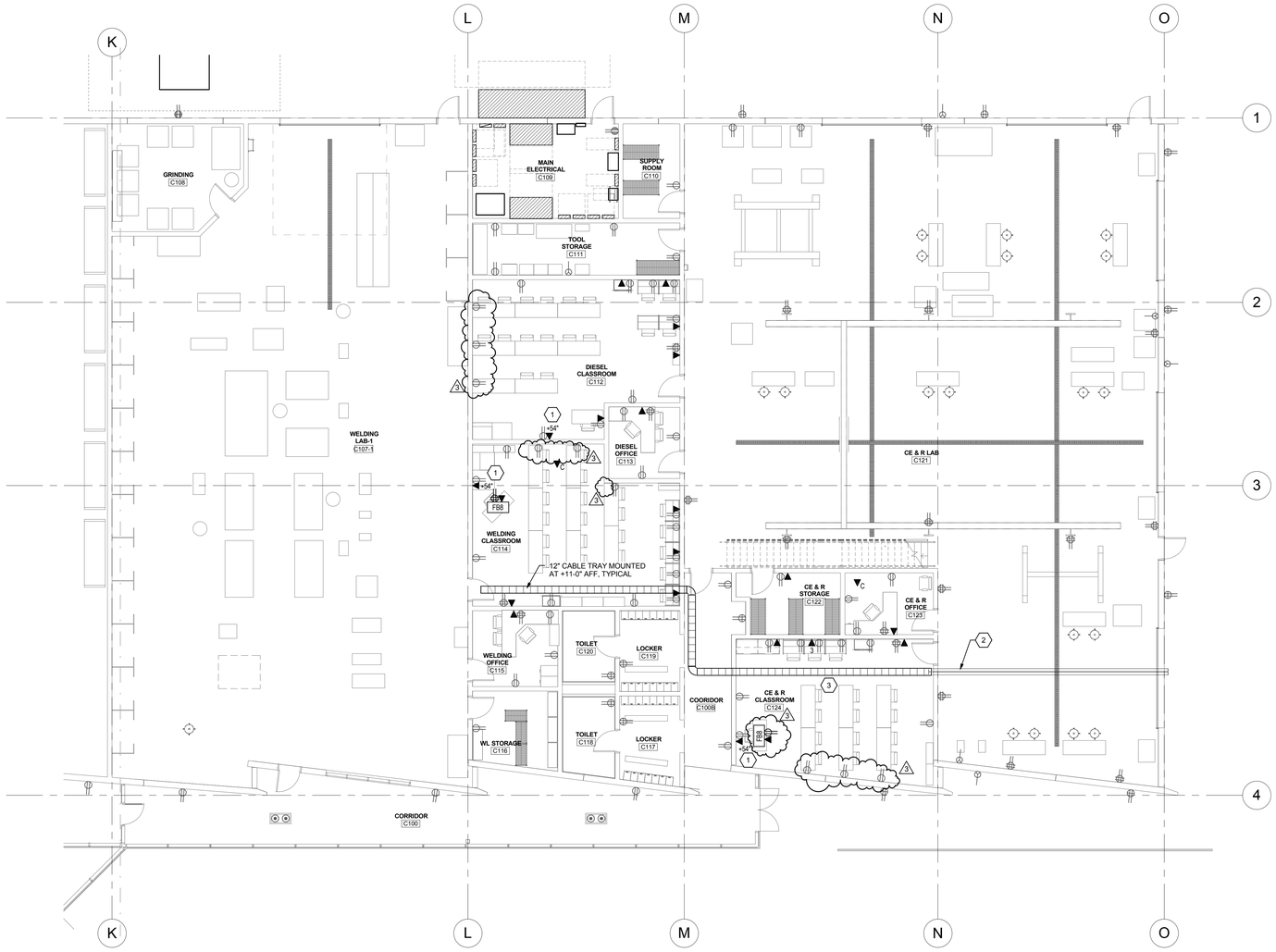


1 LEVEL 1 TELECOMMUNICATIONS PLAN - AREA '3'

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

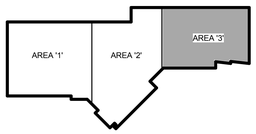
PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1 DATA OUTLET FOR MONITOR. VERIFY EXACT MOUNTING LOCATION.

2 2 EACH, 4" CONDUITS STUBBED BELOW GROUND FROM CABLE TRAY TO OUTSIDE BUILDING.

3 PROVIDE 3 EACH, 3" CONDUITS TO CABLE TRAY ABOVE.



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Level 1 Telecom Plan - Area '3'

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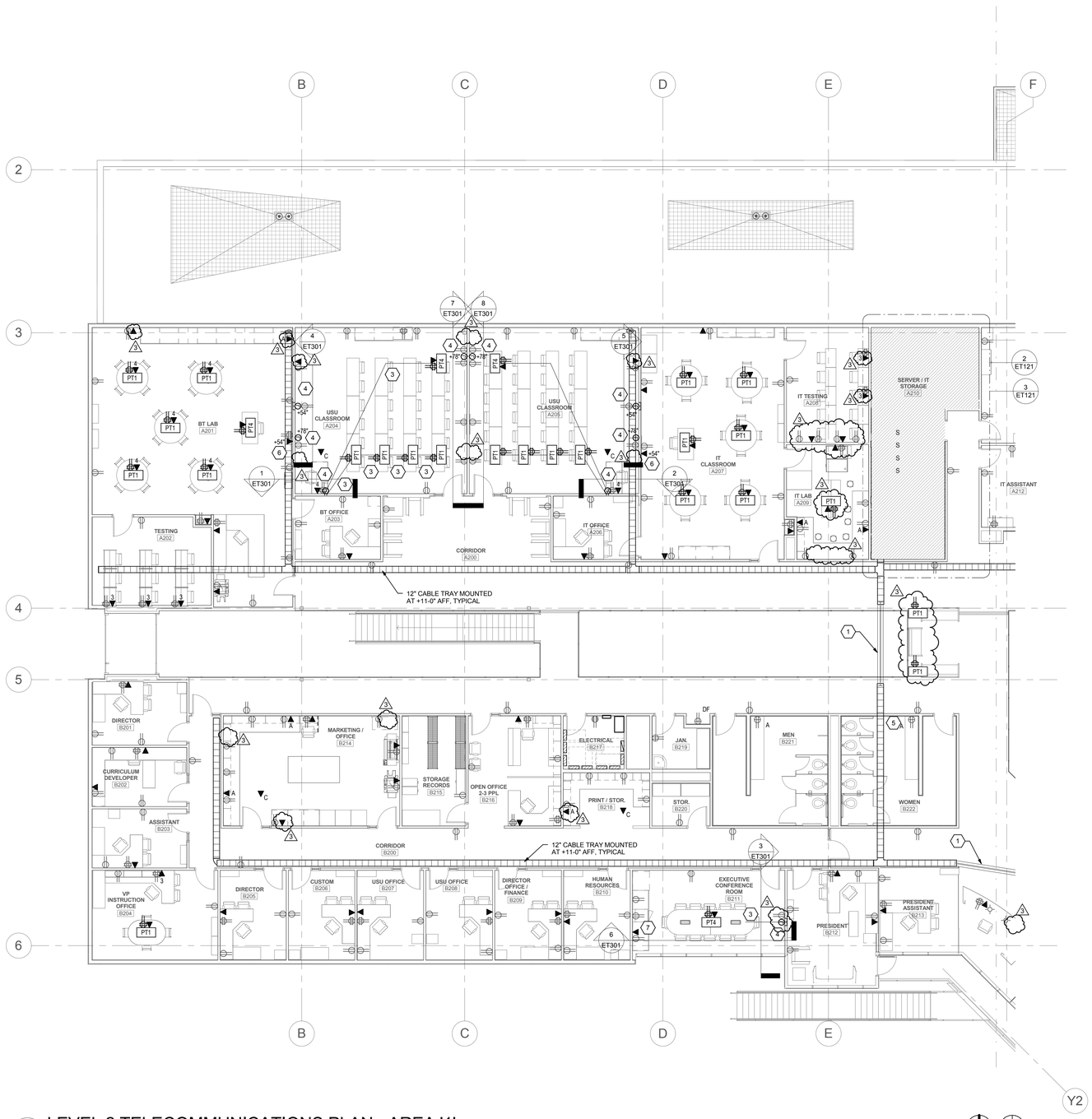

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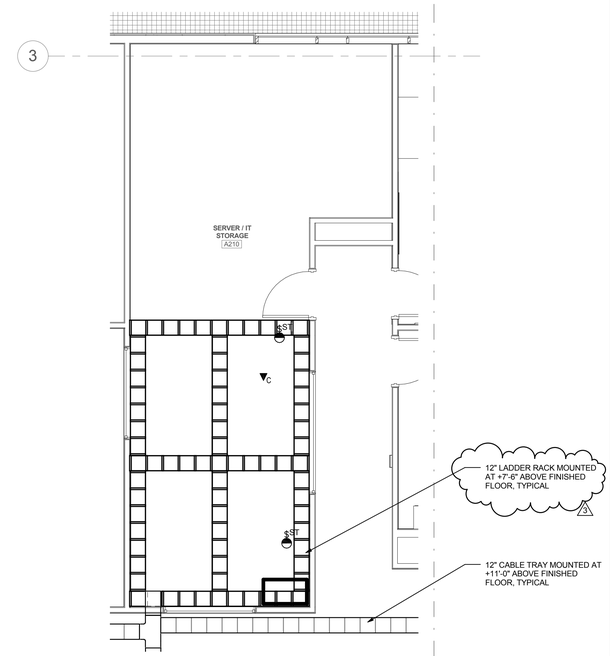
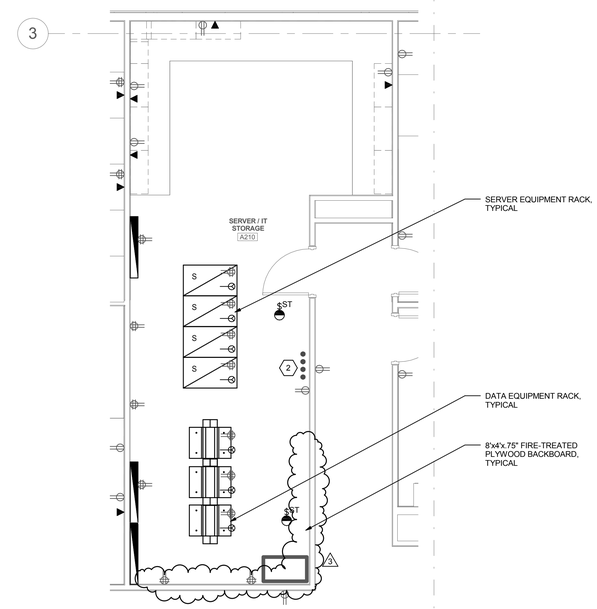
SCALE: 1/8" = 1'-0"



3 ENLARGED SERVER/IT STORAGE A210 LADDER RACK LAYOUT PLAN

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



2 ENLARGED SERVER/IT STORAGE A210 EQUIPMENT LAYOUT PLAN

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

SHEET KEYNOTES

1 PROVIDE 2 EACH, 4" CONDUITS.

2 STUB 4 EACH, 4" CONDUIT SLEEVES FROM SERVER/IT STORAGE A210 DOWN TO CABLE TRAY AT LEVEL 1 BELOW.

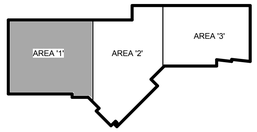
3 PROVIDE 1 EACH, 2" CONDUIT IN FLOOR SLAB.

4 PROVIDE IN WALL CONDUIT FROM JUNCTION BOX LOCATION INTO ACCESSIBLE CEILING SPACE.

5

6 DATA OUTLET FOR MONITOR. VERIFY EXACT MOUNTING LOCATION.

7 MOUNT DATA OUTLET IN AV EQUIPMENT CABINET.



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project#: 11.0410
date: 1/20/2012

revisions:

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 2 Telecom Plan - Area '1'

sheet:

ET121

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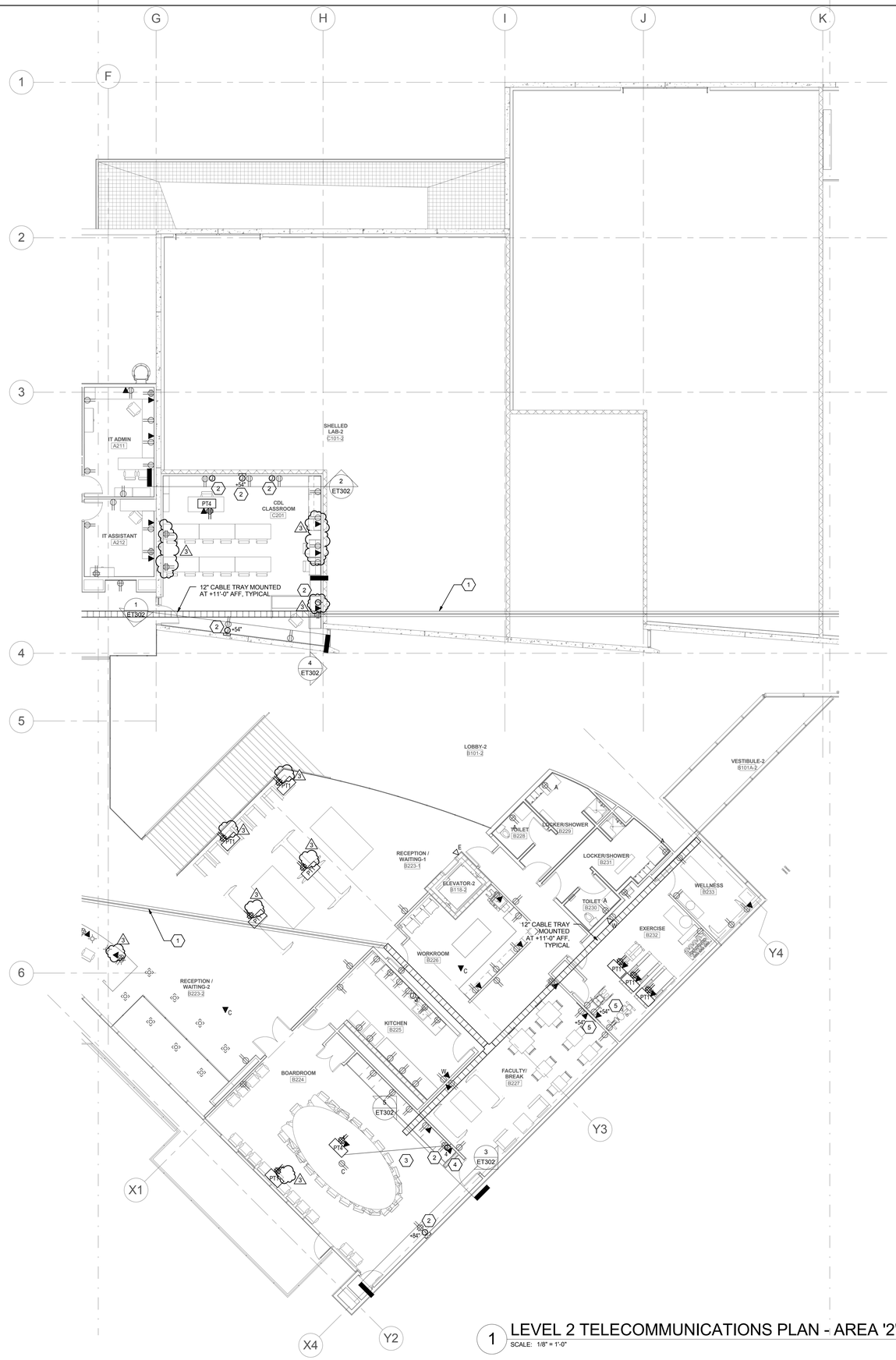

1 LEVEL 2 TELECOMMUNICATIONS PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1. PROVIDE 2 EACH, 4" CONDUITS.
2. PROVIDE IN WALL CONDUIT FROM JUNCTION BOX LOCATION INTO ACCESSIBLE CEILING SPACE.
3. PROVIDE 1 EACH, 2" CONDUIT IN FLOOR SLAB.
4. MOUNT DATA OUTLET IN AV EQUIPMENT CABINET.
5. DATA OUTLET FOR MONITOR. VERIFY EXACT MOUNTING LOCATION.

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Level 2 Telecom Plan - Area '2'

sheet:

ET122

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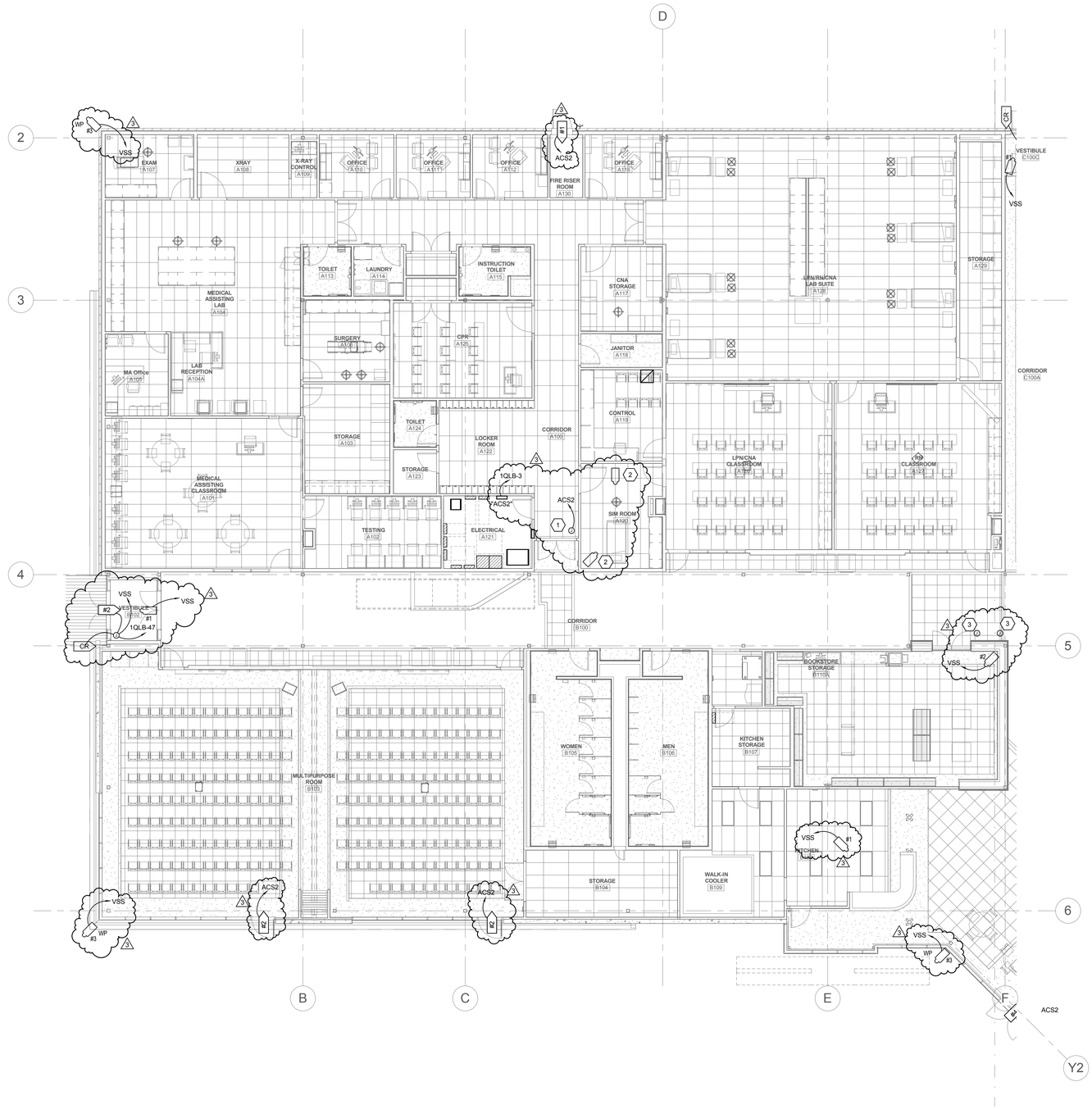

1 LEVEL 1 AUXILIARY CEILING PLAN - AREA '1'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE JUNCTION BOX ABOVE CEILING WITH EMPTY 3/4" CONDUIT TO ACCESS CONTROL PANEL FOR FUTURE CARD READER. PROVIDE PULL STRING IN CONDUIT.

2 CAMERAS IN SIM ROOM A120 ARE PROVIDED BY OWNER AND ARE NOT PART OF VIDEO SURVEILLANCE SYSTEM.

3 PROVIDE JUNCTION BOX ABOVE CEILING WITH EMPTY 3/4" CONDUIT TO CABLE TRAY FOR FUTURE SECURITY CAMERA. PROVIDE PULL STRING IN CONDUIT.

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project#: 11.0420
date: 1/20/2012

revisions :
3 ADDENDUM 4 02/28/2012

Level 1 Auxiliary Plan - Area '1'

sheet:
EY111

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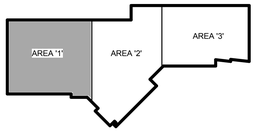

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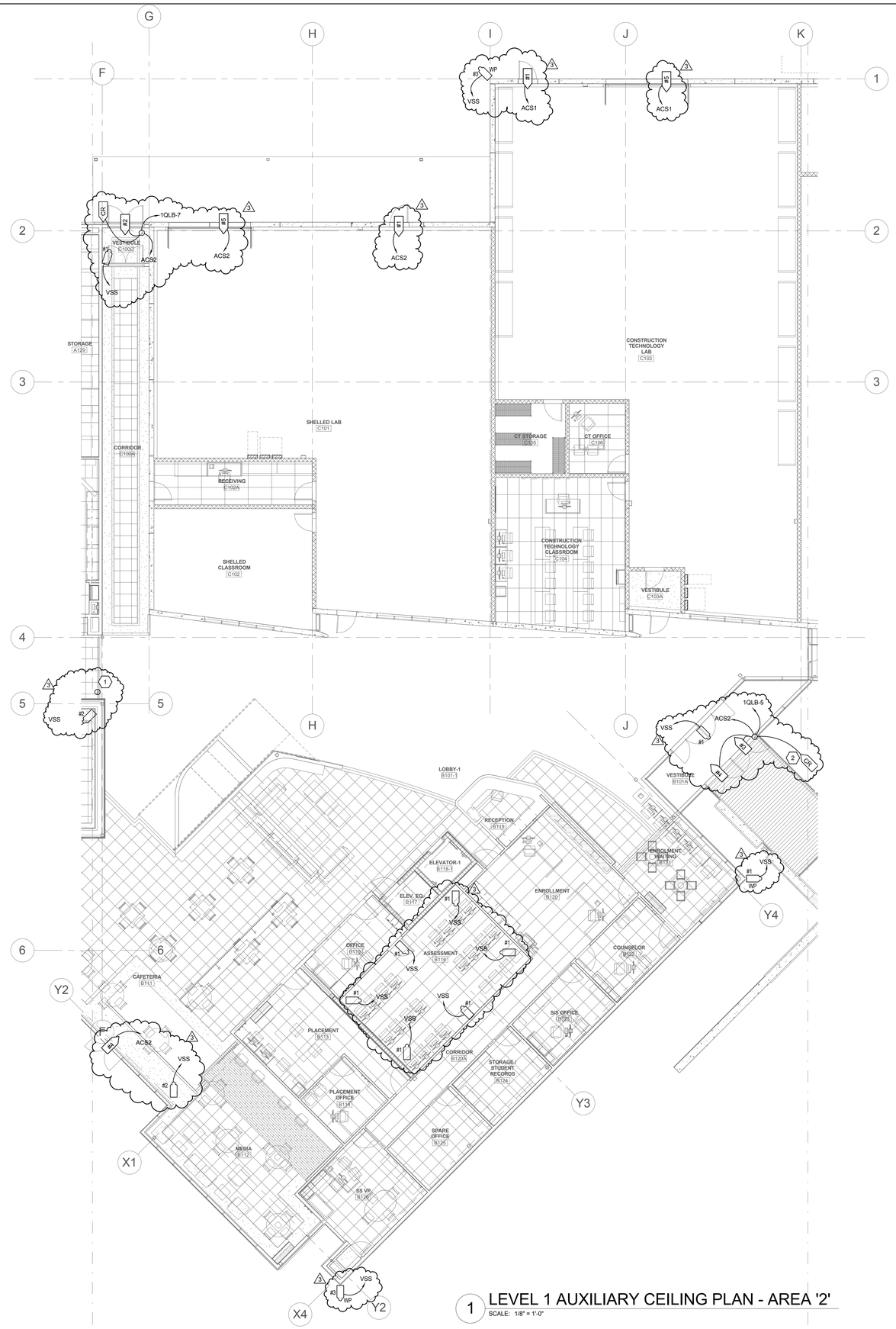

1 LEVEL 1 AUXILIARY CEILING PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE JUNCTION BOX ABOVE CEILING WITH EMPTY 3/4" CONDUIT TO CABLE TRAY FOR FUTURE SECURITY CAMERA. PROVIDE PULL STRING IN CONDUIT.

2 MOUNT CARD READER ON ADA DOOR ACTUATOR BOLLARD.

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Level 1 Auxiliary Plan - Area '2'

sheet:

EY112

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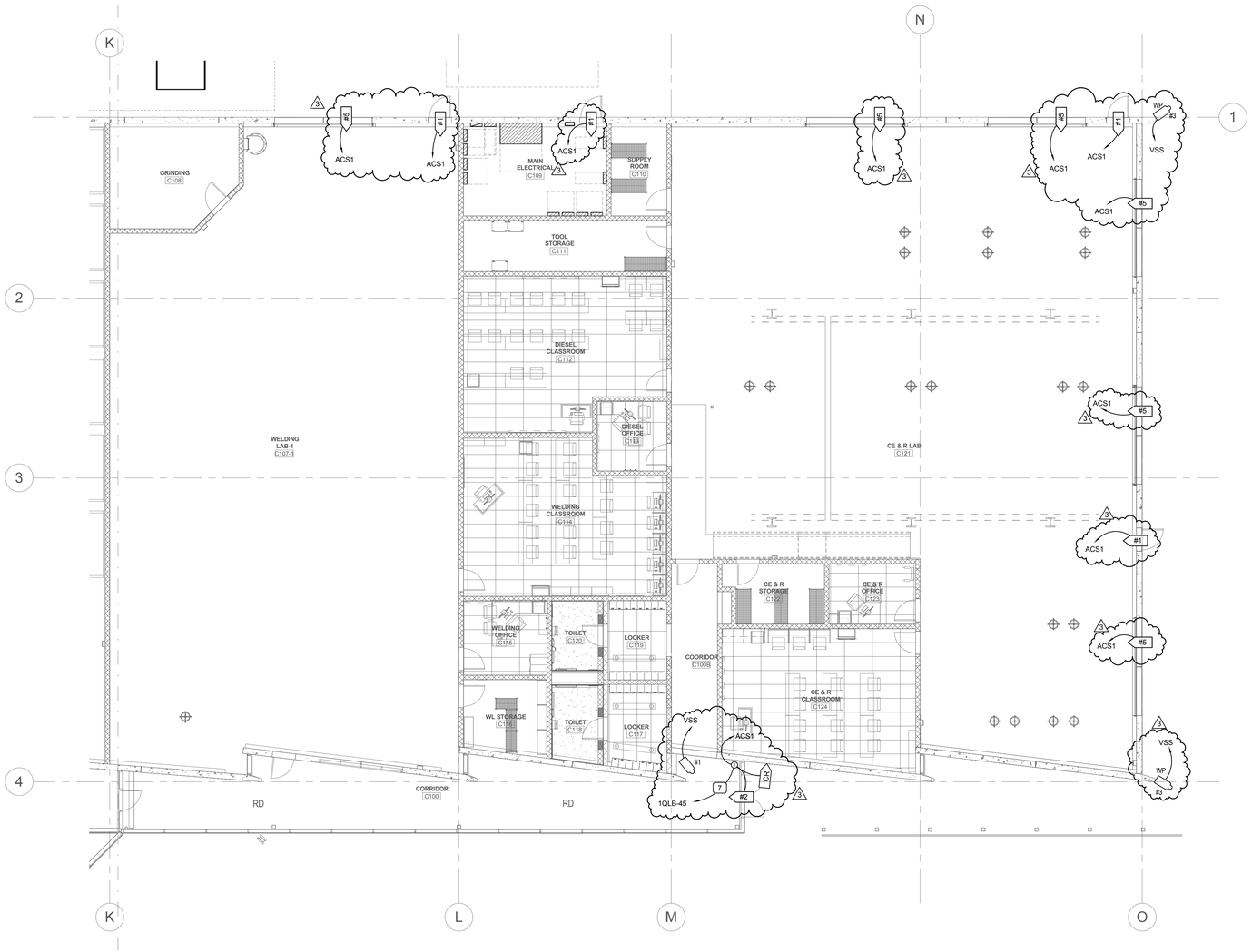


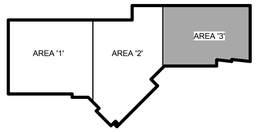
1 LEVEL 1 AUXILIARY CEILING PLAN - AREA '3'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

SHEET KEYNOTES



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Level 1 Auxiliary Plan - Area '3'

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EY113

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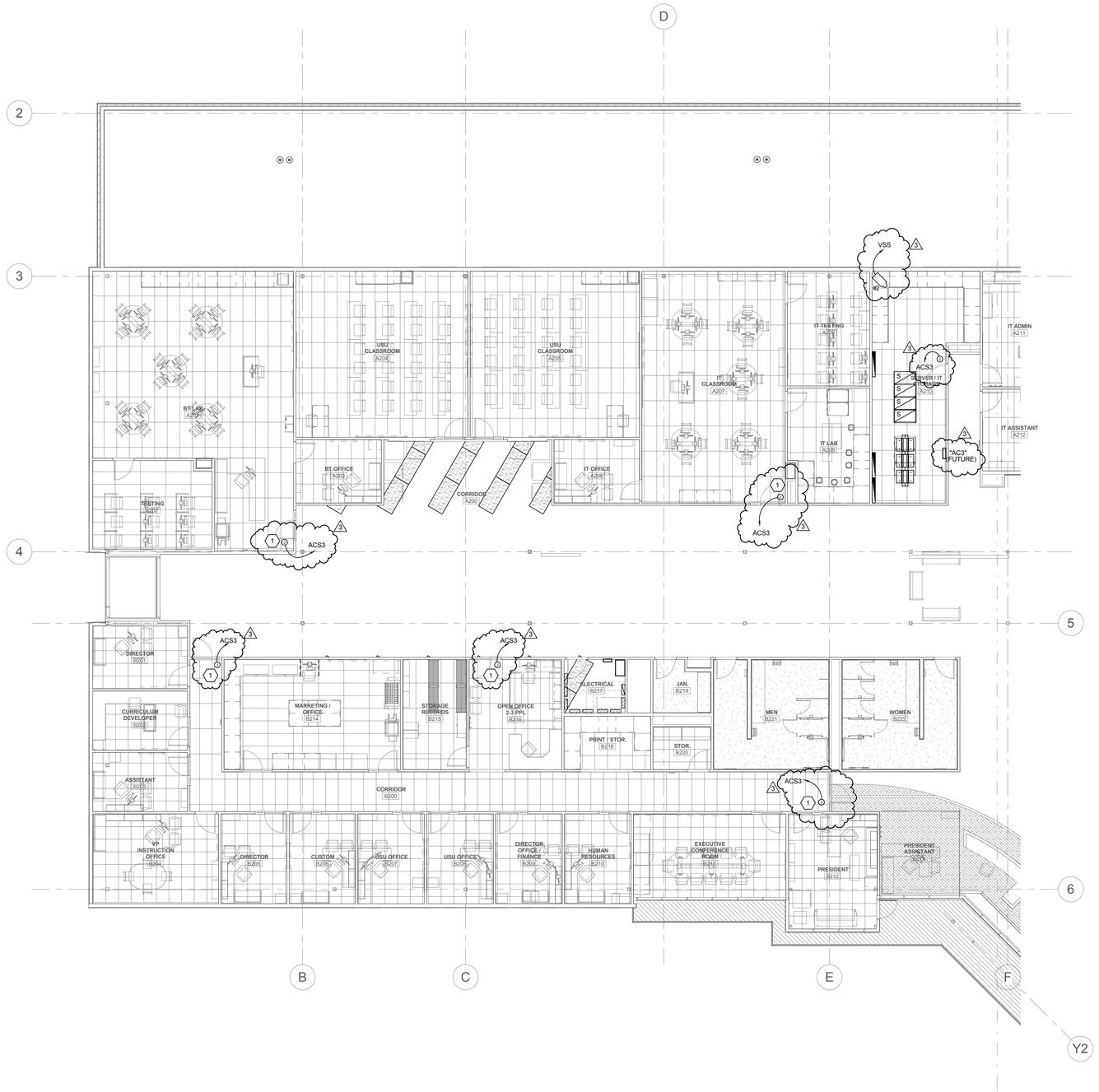


1 LEVEL 2 AUXILIARY PLAN - AREA '1'

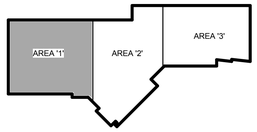
SCALE: 1/8" = 1'-0"

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

SHEET KEYNOTES

3 1 PROVIDE JUNCTION BOX ABOVE CEILING WITH EMPTY 3/4" CONDUIT TO ACCESS CONTROL PANEL FOR FUTURE CARD READER. PROVIDE PULL STRING IN CONDUIT.



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Level 2 Auxiliary Plan - Area '1'

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EY121

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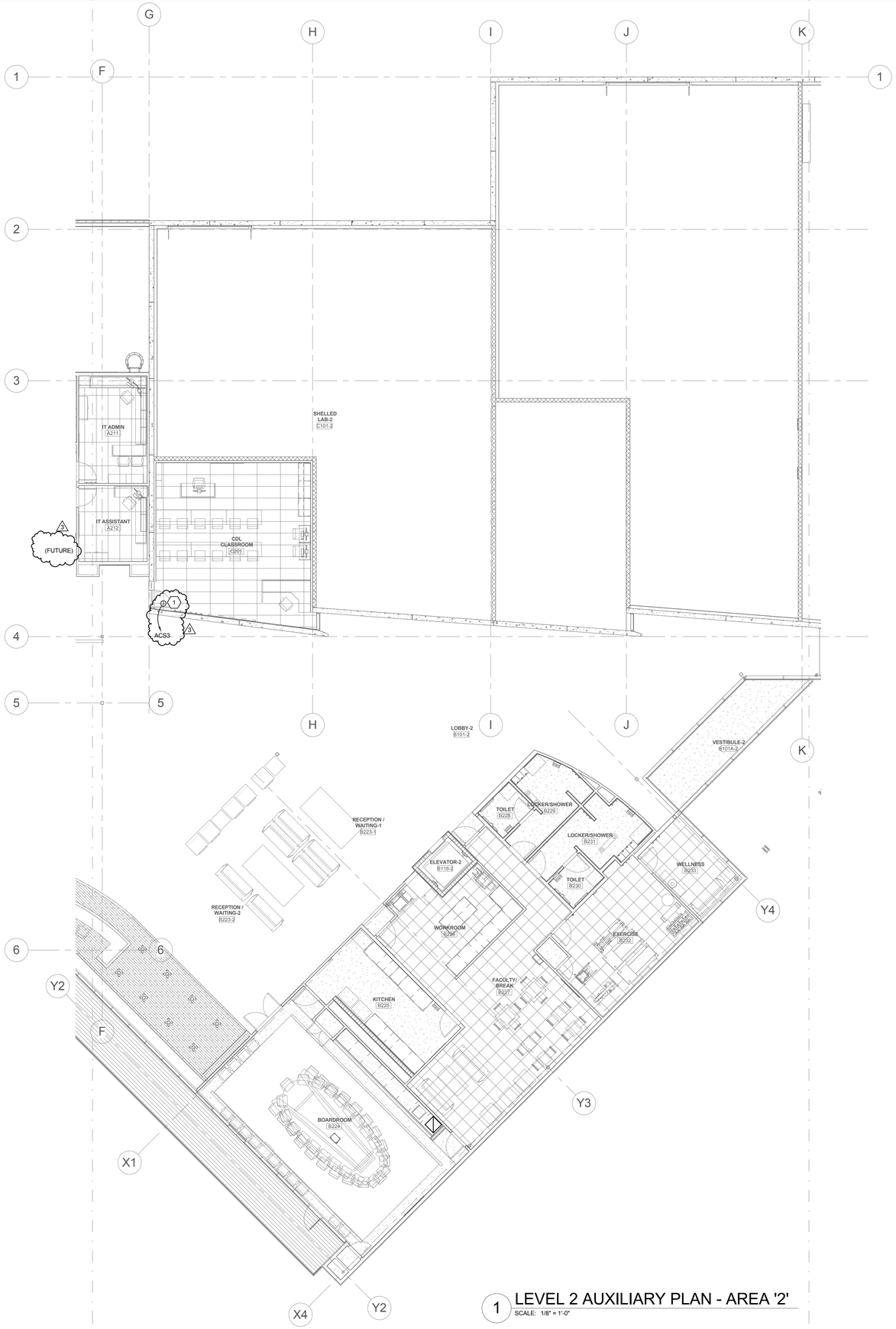


1 LEVEL 2 AUXILIARY PLAN - AREA '2'

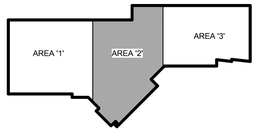
SCALE: 1/8" = 1'-0"

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

SHEET KEYNOTES

1 PROVIDE JUNCTION BOX ABOVE CEILING WITH EMPTY 3/4" CONDUIT TO ACCESS CONTROL PANEL FOR FUTURE CARD READER. PROVIDE PULL STRING IN CONDUIT.



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Level 2 Auxiliary Plan - Area '2'

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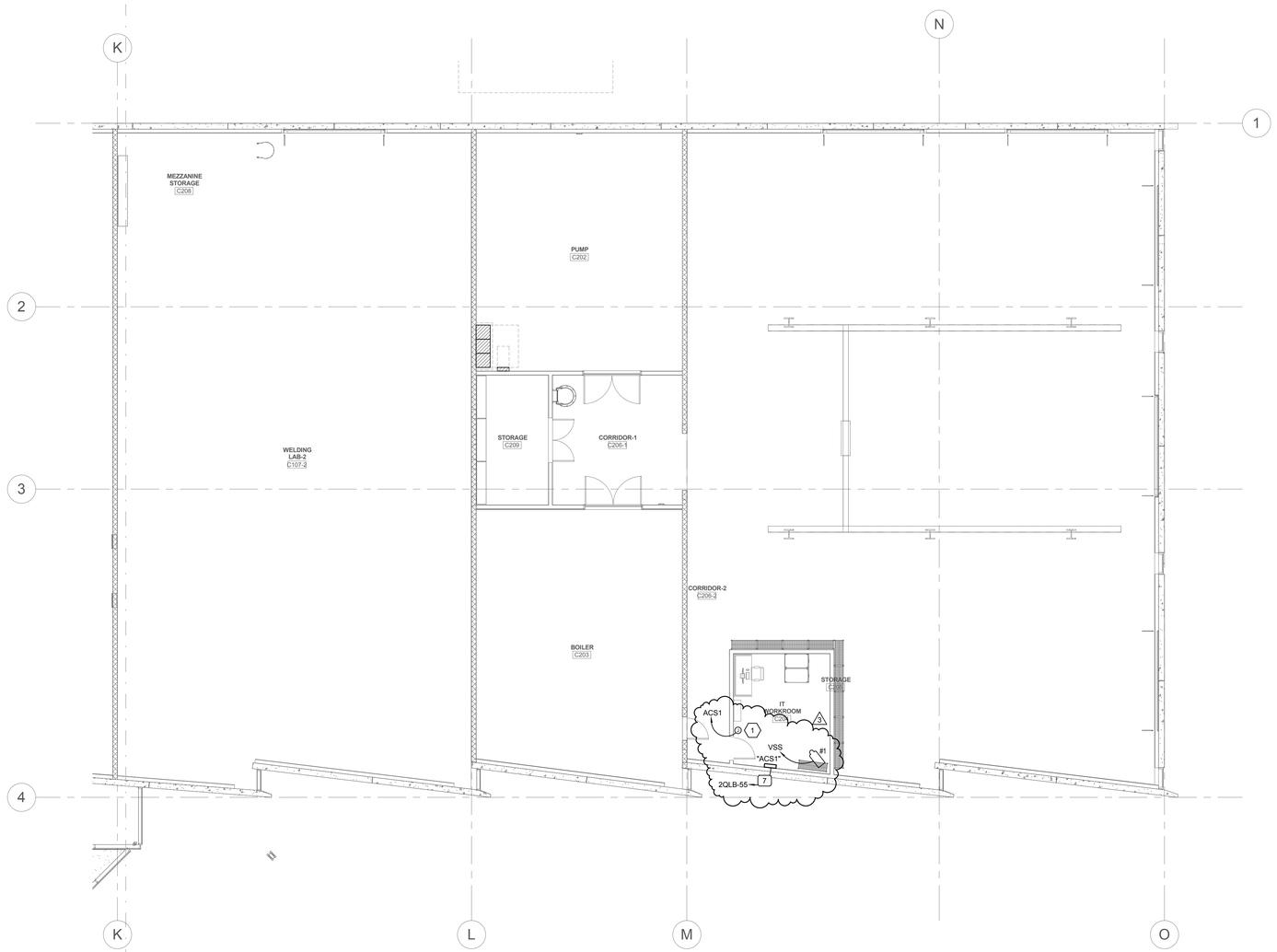

1 LEVEL 2 AUXILIARY PLAN - AREA '3'

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

PROJECT NORTH TRUE NORTH

GENERAL SHEET NOTES

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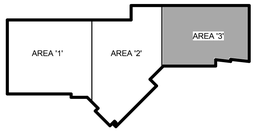

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sheet:

EY123

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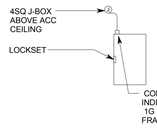
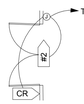
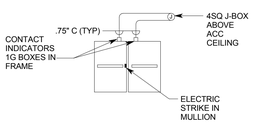
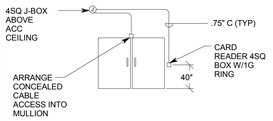
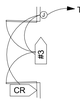
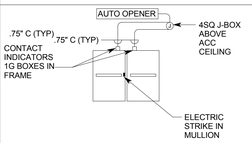
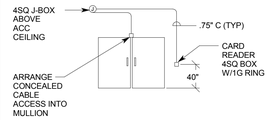
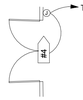
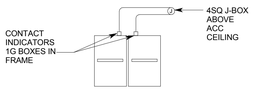
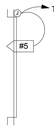
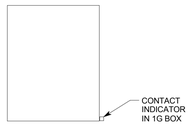
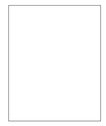
CARD ACCESS DOOR TYPE SCHEDULE

(REFER TO HARDWARE SPECIFICATION DIV. 8 FOR FULL DOOR OPERATIONS FOR EACH HARDWARE GROUP)

DOOR TYPE #	SYMBOL	DESCRIPTION	PROTECTED SIDE ELEVATION	UNPROTECTED SIDE ELEVATION	LOCK TYPE(S)	INCLUDES:
TYPE 1:		SINGLE DOOR, NO CARD READER, (FREE EGRESS)			LOCKSET	SC: CI HC: LC: KEY LOCK NOTE: SC SHALL PROVIDE ALARM INPUT ON ACS
TYPE 2:		DOUBLE DOOR, 1 CARD READER FIXED MULLION, (FREE EGRESS)			ELECTRIC STRIKE IN MULLION AND EXIT PANIC HARDWARE	SC: L/PS, CONTROLLER, CI HC: ES LC: CR, TLC NOTE: SC SHALL PROVIDE ALARM INPUT ON ACS
TYPE 3:		DOUBLE DOOR, 1 CARD READER, FIXED MULLION, FREE EGRESS WITH ADA INTERFACE			ELECTRIC STRIKE IN MULLION AND EXIT PANIC HARDWARE	SC: L/PS, CONTROLLER, CI HC: ES, ADA LC: CR, TLC NOTE: SC SHALL PROVIDE ALARM INPUT ON ACS
TYPE 4:		DOUBLE DOOR, NO CARD READER (FREE EGRESS)			MANUAL KEY LOCK	SC: CI HC: LC: KEY LOCK NOTE: SC SHALL PROVIDE ALARM INPUT ON ACS
TYPE 5:		OVERHEAD DOOR, NO CARD READER			MOTORIZED DOOR OPENER	SC: CI HC: LC: NOTE: SC SHALL PROVIDE ALARM INPUT ON ACS

ABBREVIATIONS

DBL	=	DOUBLE
DIR	=	DIRECTION
HDWR	=	HARDWARE
C	=	CONDUIT
4SQ	=	FOUR SQUARE
W/	=	WITH
1G	=	1 GANG
PWR	=	POWER
ACC	=	ACCESSIBLE
OCC	=	OCCUPANCY
TYP	=	TYPICAL
L/PS	=	LOCK POWER SUPPLY
CR	=	CARD READER
CI	=	DOOR CONTACT INDICATOR
EPT	=	ELECTRIC POWER TRANSFER
ES	=	ELECTRIC STRIKE
PH	=	PANIC HARDWARE
EML	=	ELECTROMAGNETIC LOCK
KS	=	KEY SWITCH
ACS	=	ACCESS CONTROL SYSTEM
EL	=	ELECTRIC LOCKSET
MD	=	MOTION DETECTOR
TLC	=	TIME/SYSTEM LOCK CONTROL
ELC	=	EMERGENCY LOCK CONTROL
IDS	=	INTRUSION DETECTION SYSTEM
SC	=	SECURITY CONTRACTOR
HC	=	HARDWARE CONTRACTOR
LC	=	LOCK CONTROL
REX	=	REQUEST TO EXIT SWITCH
ADA	=	ADA OPENER

NOTES

1. PROVIDE RACEWAY AND EQUIPMENT AS INDICATED FOR CARD ACCESS DOOR TYPE INDICATED. REFER TO SECTION 281300 AND CARD ACCESS AUTO-DOOR AND LOCK CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE CONCEALED .75" C TYPICAL FOR LINES SHOWN TO DEVICE BOXES ON PROTECTED SIDE AND UNPROTECTED SIDE ELEVATIONS.
3. CONFIRM CORRECT CARD ACCESS DOOR RACEWAY, LOCK VOLTAGE, AND EXIT SWITCH CURRENT RATING (2 AMPS MIN.) WITH DIV. 8 FURNISHED CARD ACCESS DOOR HARDWARE PER DIV. 8 DOOR HARDWARE SUBMITTALS.
4. VERIFY INTERCONNECTION WIRING OF DOOR DEVICES AS DEFINED BY THE DOOR OPERATION DESCRIPTIONS LISTED WITH EACH HARDWARE GROUP HEADING IN SECTION 087100.
5. LOCATE CARD READER BOX AS INDICATED ON FLOOR PLANS. RACEWAY AND BOXES BY DIV. 26. REFER TO 281300 FOR CARD ACCESS SYSTEM REQUIREMENTS.
6. DOUBLE 4SQ J-BOX ON PROTECTED SIDE OF DOORWAY (SIDE OPPOSITE OF CARD READER) ABOVE ACCESSIBLE CEILING OR IN OTHER ACCESSIBLE LOCATION. PROVIDE COVER FOR J-BOX.
7. ELECTRIC LOCKING HARDWARE (MAG LOCKS, ELECTRIC STRIKES, POWER TRANSFER HINGES, ETC.) BY DIV 8., OR AS DEFINED IN THE THE "CARD ACCESS DOOR TYPE SCHEDULE." REVIEW DOOR HARDWARE FURNISHED AND VERIFY LOCK VOLTAGES AND OPERATIONAL FUNCTIONALITY OF LOCKS. CONTACT ENGINEER WITH QUESTIONS OR CONCERNS.

SECURITY EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MOUNTING *	ROUGH-IN	QTY	ACCEPTABLE TYPES
CR	CARD READER	40"	4SQ W/ 1G RING	OFP	SEE SECTION 281300
#1	CARD ACCESS DOOR TYPE, TYPICAL. REFER TO CARD ACCESS DOOR TYPE SCHEDULE.	SEE SCHEDULE	SEE SCHEDULE	OFP	REFER TO CARD ACCESS DOOR TYPE SCHEDULE & SECTION 281300
CI	DOOR MONITOR - CONTACT INDICATOR	SEE SCHEDULE	SEE SCHEDULE	OFP	SEE SECTION 281300
	CCTV CAMERA/ENCLOSURE TYPE. TYPICAL. REFER TO CCTV CAMERA/ENCLOSURE TYPE SCHEDULE.	SEE SCHEDULE	SEE SCHEDULE	OFP	SEE CCTV CAMERA/ENCLOSURE TYPE SCHEDULE AND SECTION 282300
ACS	CARD ACCESS CONTROLLERS & PWR SUPPLIES	72"	4"x4" GUTTER & STUBS A/R	A/R	SEE SECTION 281300
VSS	VIDEO SURVEILLANCE SWITCH	RACK MOUNT	A/R	OFP	SEE SECTION 282300
NVR	NETWORK VIDEO RECORDER	RACK MOUNT	A/R	OFP	SEE SECTION 282300

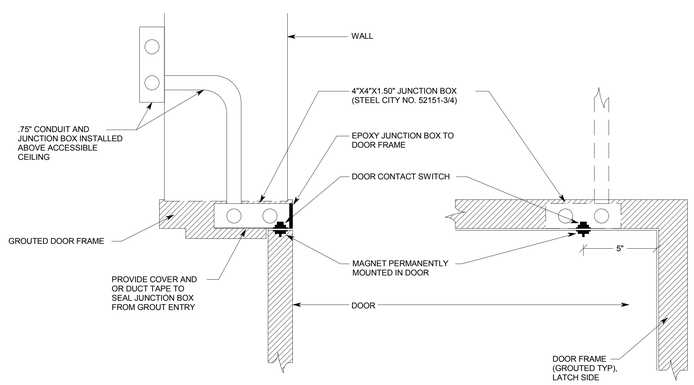
A/R=AS REQUIRED, OFP=OBTAIN FROM PLANS

VSS CAMERA/ENCLOSURE TYPE SCHEDULE

CAMERA TYPE NUMBER	SYMBOL	DESCRIPTION	INCLUDES
TYPE 1	#1 VSS	IP CAMERA 1.3 MEGAPIXELS - FIXED DOME COLOR (CEILING MOUNTED UNLESS J-BOX SHOWN)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT 6 CABLE TO HEADEND (VSS) * POE POWER * IP 66 WEATHERPROOF HOUSING FOR CAMERAS MARKED "WP"
TYPE 2	#2 VSS	IP CAMERA 2 MEGAPIXELS - FIXED DOME COLOR (CEILING MOUNTED UNLESS J-BOX SHOWN)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT 6 CABLE TO HEADEND (VSS) * POE POWER * IP 66 WEATHERPROOF HOUSING FOR CAMERAS MARKED "WP"
TYPE 3	#3 VSS	IP CAMERA 3 MEGAPIXELS - FIXED DOME COLOR (CEILING MOUNTED UNLESS J-BOX SHOWN)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT 6 CABLE TO HEADEND (VSS) * POE POWER * IP 66 WEATHERPROOF HOUSING FOR CAMERAS MARKED "WP"

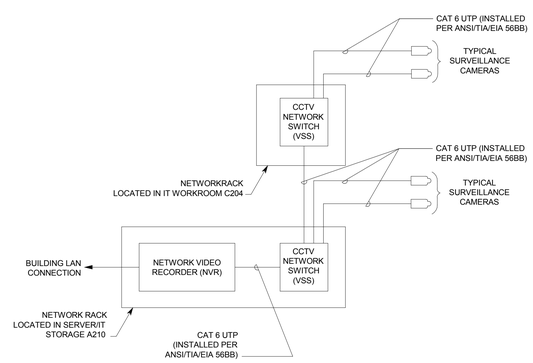
NOTES:

1. DRILL .125" HOLE TO INDICATE SWITCH LOCATION AND IDENTIFY WHERE JUNCTION BOX IS.
2. THE INTENT OF THIS DETAIL IS TO PROVIDE A GROUT-FREE ENVIRONMENT FOR, AND EASIER CABLE ACCESS TO, THE CONTACT SWITCH LOCATION. SUBMIT METHOD OF PROVIDING GROUT FREE ENVIRONMENT DURING SUBMITTAL PROCESS. ADDRESS ANY QUESTIONS TO THE ENGINEER.



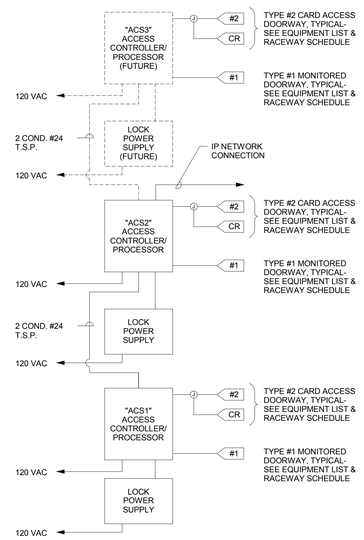
1 DOOR CONTACT SWITCH DETAIL

NTS



2 VIDEO SURVEILLANCE SYSTEM DIAGRAM

NTS



NOTES:

1. ACCESS CONTROL SYSTEM BASED UPON TWO CARD READERS PER ACCESS CONTROLLER/PROCESSOR. ALTERNATE CONFIGURATIONS ACCEPTABLE PROVIDED CONTRACTOR ALLOWS FOR ANY INCREASED WIRING OR EQUIPMENT AND PROVIDES SUBMITTAL DRAWINGS SHOWING NEW CONFIGURATION. EACH "ACS" BLOCK (ACS1, ACS2, ...) SHALL BE PROVIDED WITH SUFFICIENT CONTROLLER BOARDS TO SERVICE THE NUMBER OF ACCESS DOORS SHOWN IN THE DRAWINGS FOR THAT PARTICULAR "ACS" BLOCK.

2. ACCESS CONTROLLER "ACS" INDICATED SHALL INCLUDE ANY ISOLATION MODULES, BUFFER MODULES, EXTERNAL POWER SUPPLIES, INPUT/OUTPUT MODULES, OR FORMAT CONVERTER MODULES (NOT SHOWN) REQUIRED TO SUPPORT CARD READER OR KEYPAD TYPES INDICATED, FOR COMPLETE AND FUNCTIONING CARD READER AND DOOR CONTROL.

3. PROVIDE SEPARATE WIRE PAIRS FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, FROM ACCESS DOOR TO ACCESS CONTROLLER "ACS" PANEL. SINGLE PAIR, FROM ACCESS DOOR TO CONTROLLER PANEL, FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, NOT ACCEPTABLE.

4. REQUEST TO EXIT AND DOOR CONTACT INDICATOR CIRCUITS SHALL BE SUPERVISED FOR OPEN CIRCUIT OR SHORT CIRCUIT FAULTS BETWEEN THE DEVICE CONTACTS AND ACCESS CONTROLLER.

3 CARD ACCES SYSTEM (ACS) RISER DIAGRAM

NTS

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METHOD STUDIO INC.
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project:
TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions:
3 ADDENDUM 4 02/28/2012
2

Auxiliary Details

sheet:
EY601

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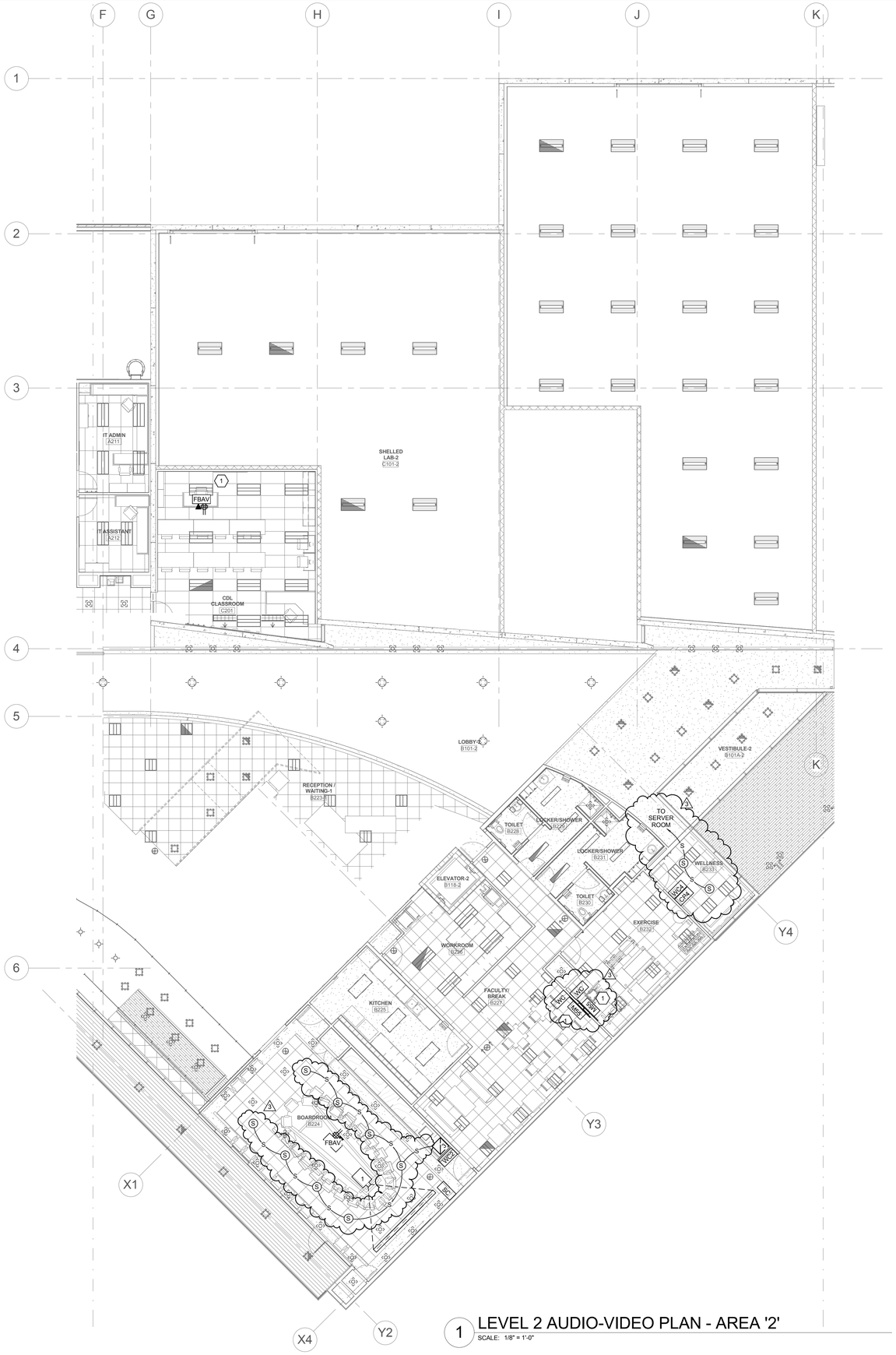

1 LEVEL 2 AUDIO-VIDEO PLAN - AREA '2'

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

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1 PROVIDE AUDIO-VIDEO ROUGH-IN ONLY IN THIS ROOM.

REGISTERED PROFESSIONAL ENGINEER No. 7162 STATE OF UTAH

01/18/2012

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88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0430
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 2 Audio-Video Plan - Area '2'

sheet:

EJ122

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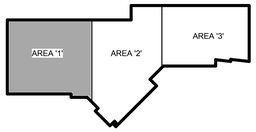
1 LEVEL 2 AUDIO-VIDEO PLAN - AREA '1'

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

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1 PROVIDE AUDIO-VIDEO ROUGH-IN ONLY IN THIS ROOM.



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date: 1/20/2012

revisions :

1 ADDENDUM 2 02/10/2012

Level 2 Audio-Video Plan - Area '1'

sheet:

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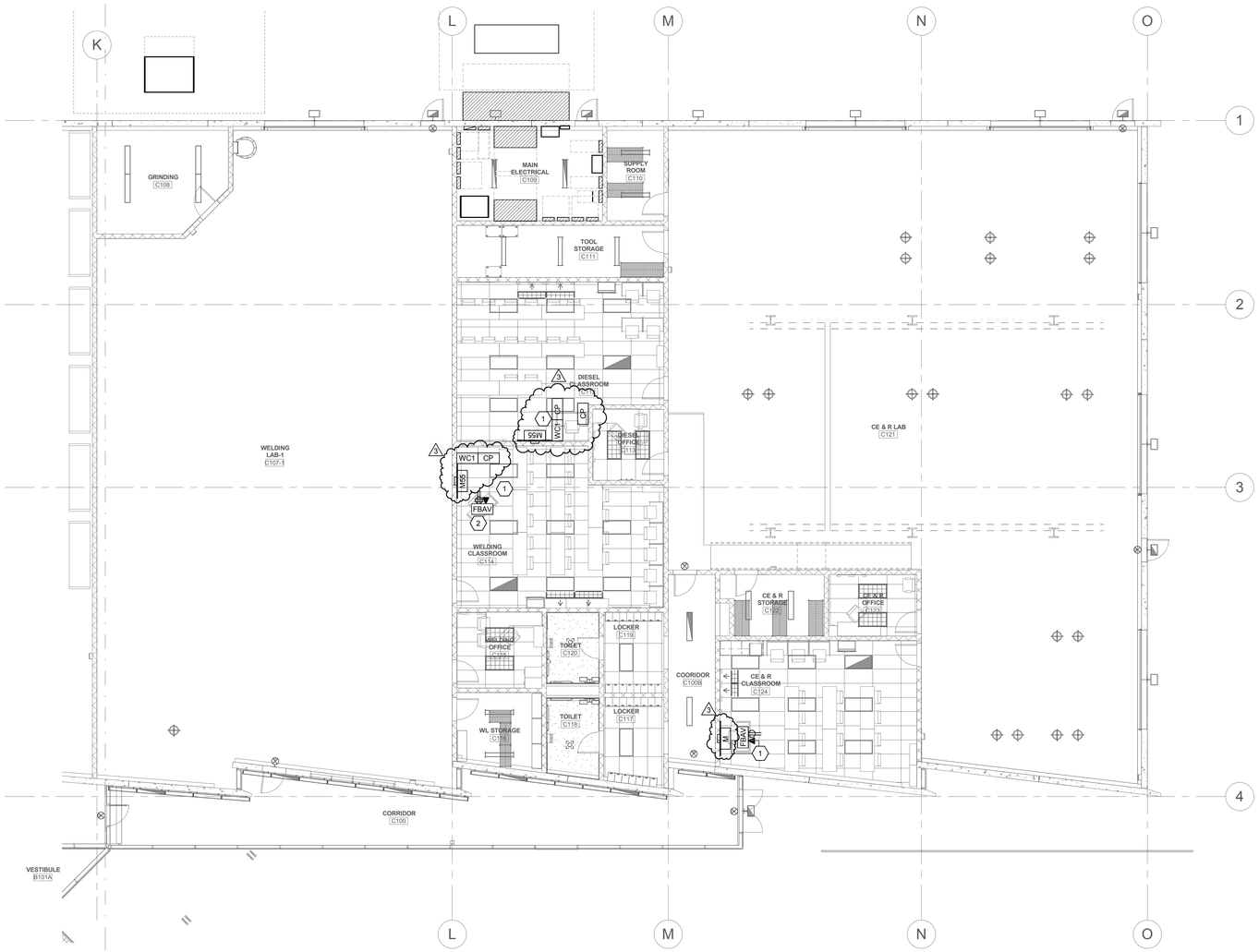


1 LEVEL 1 AUDIO-VIDEO PLAN - AREA '3'

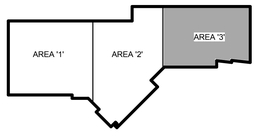
SCALE: 1/8" = 1'-0"

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1 PROVIDE AUDIO-VIDEO ROUGH-IN ONLY IN THIS ROOM.

2 VERIFY EXACT MOUNTING OF FLOOR BOX PRIOR TO INSTALLATION.



REGISTERED PROFESSIONAL ENGINEER No. 7962 STATE OF UTAH

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project#: 11.0420
date: 1/20/2012

revisions :

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Audio-Video Plan - Area '3'

sheet:

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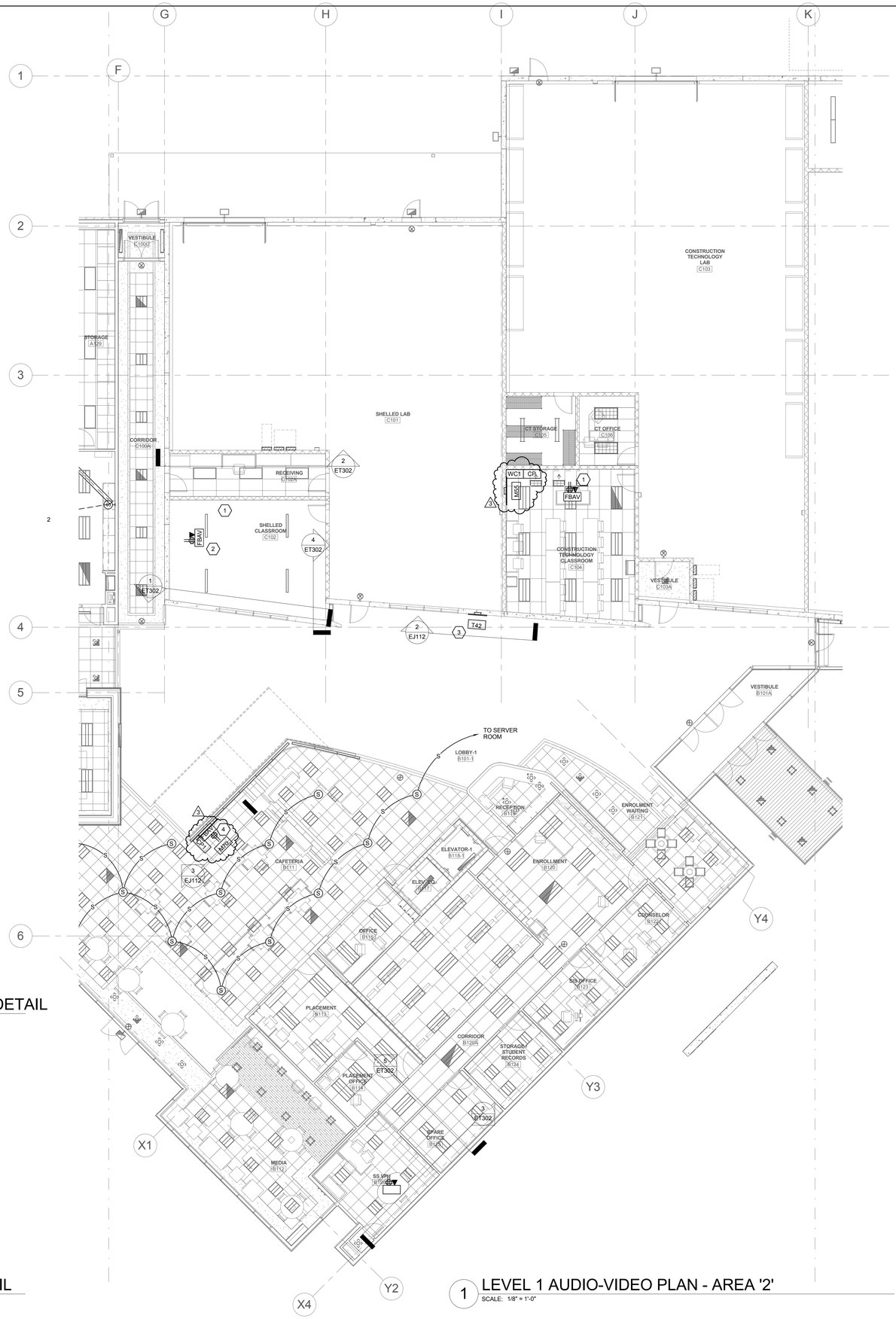
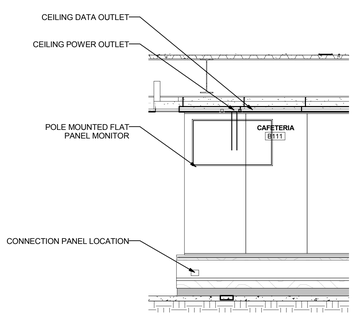
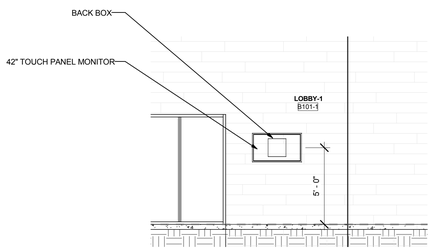


1 LEVEL 1 AUDIO-VIDEO PLAN - AREA '2'
SCALE: 1/8" = 1'-0"



3 ENLARGED CAFETERIA B111 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"

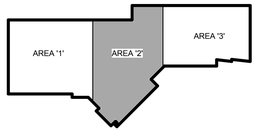


2 ENLARGED LOBBY B101 AUDIO-VIDEO SECTION DETAIL
SCALE: 1/4" = 1'-0"

PROJECT NORTH TRUE NORTH

SHEET KEYNOTES

1. PROVIDE AUDIO-VIDEO ROUGH-IN ONLY IN THIS ROOM.
2. VERIFY EXACT MOUNTING OF FLOOR BOX PRIOR TO INSTALLATION.
3. TOUCH PANEL MONITOR FOR DISPLAY WALL. VERIFY EXACT MOUNTING WITH ARCHITECT AND ARCHITECTURAL DETAILS PRIOR TO INSTALLATION. SEE DETAIL 2/EJ112.
4. M70 IS TO BE POLE MOUNTED.



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1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Audio-Video Plan - Area '2'

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EJ112

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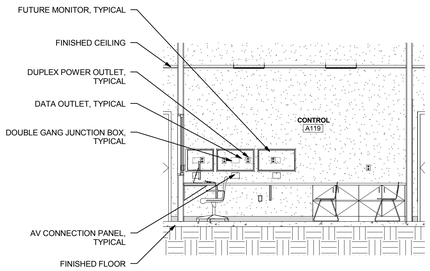
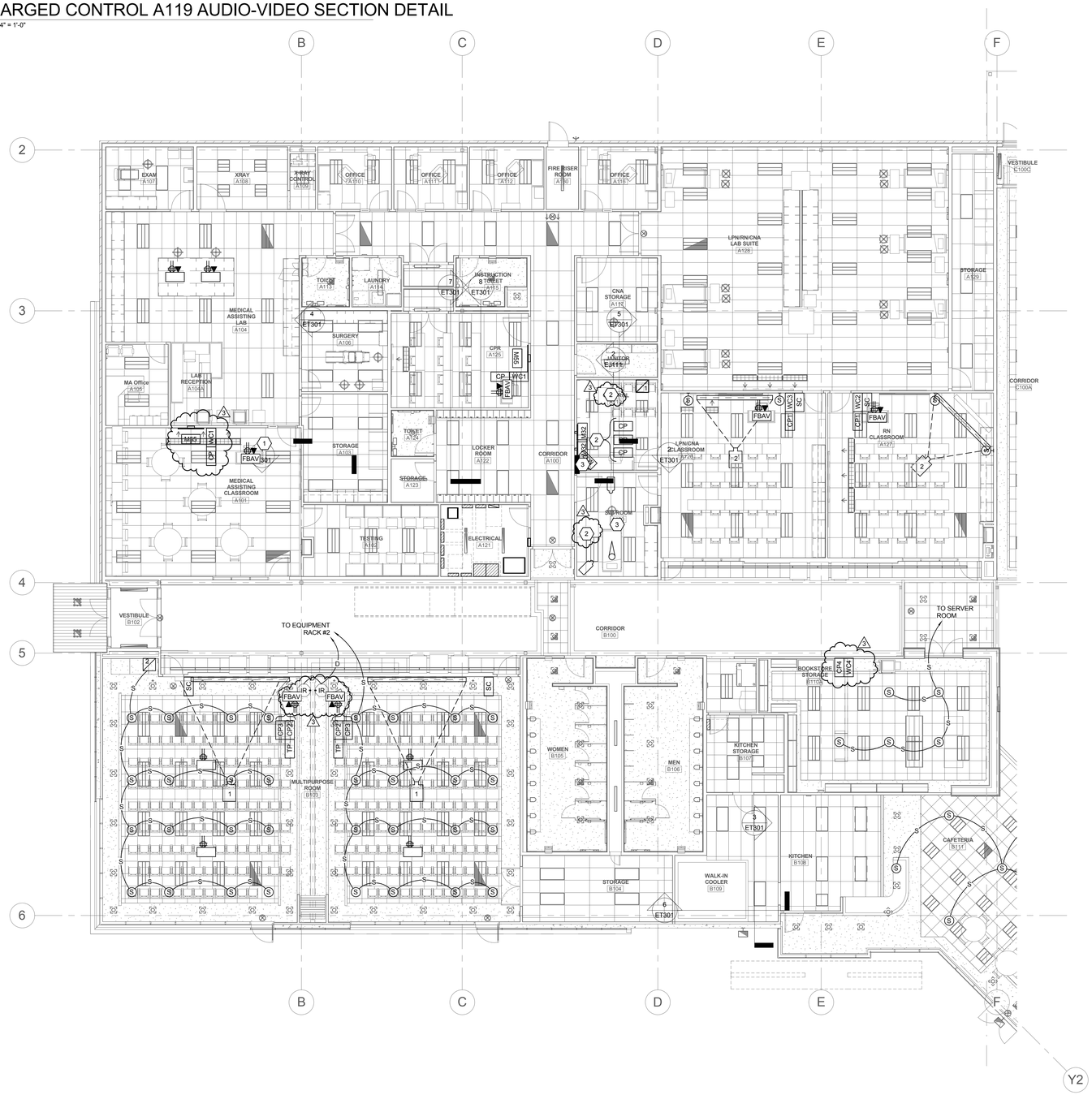


2 ENLARGED CONTROL A119 AUDIO-VIDEO SECTION DETAIL

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



1 LEVEL 1 AUDIO-VIDEO PLAN - AREA '1'

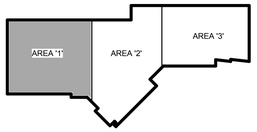
SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 PROVIDE AUDIO-VIDEO ROUGH-IN ONLY IN THIS ROOM.

2 PROVIDE AN AV ACONNECTION PANEL FOR EACH FLAT PANEL MONITOR. MOUNT CONNECTION PANEL JUST COUNTERTOP (BELOW FLAT PANEL MONITOR).

3



PROJECT NORTH TRUE NORTH

01/18/2012

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project:

TOOELE APPLIED TECHNOLOGY COLLEGE - NEW BUILDING

88 South Tooele Blvd
Tooele, UT 84074

project#: 11.0420
date: 1/20/2012

revisions:

1	ADDENDUM 2	02/10/2012
3	ADDENDUM 4	02/28/2012

Level 1 Audio-Video Plan - Area '1'

sheet:

EJ111

100% Construction Documents

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