



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Public Works and Government Services Canada
Canada Place/Place du Canada
10th Floor/10e étage
9700 Jasper Ave/9700 ave Jasper
Edmonton
Alberta
T5J 4C3
Bid Fax: (780) 497-3510

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada
Canada Place / Place du Canada
10th Floor / 10e étage
9700 Jasper Ave / 9700 ave Jasper
Edmonton
Alberta
T5J 4C3

Title - Sujet Microbiology Lab Construction - AAF	
Solicitation No. - N° de l'invitation EP922-210468/A	Amendment No. - N° modif. 004
Client Reference No. - N° de référence du client AAFC-EP922-210468	Date 2020-09-02
GETS Reference No. - N° de référence de SEAG PW-\$PWU-183-11877	
File No. - N° de dossier PWU-0-43069 (183)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-09-10	Time Zone Fuseau horaire Mountain Daylight Saving Time MDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Tikhonovitch (RPC), Alex	Buyer Id - Id de l'acheteur pwu183
Telephone No. - N° de téléphone (780) 901-7940 ()	FAX No. - N° de FAX (780) 497-3510
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Agriculture & Agri-Food Canada (AAFC)
Lacombe Research & Development Centre (LaRDC)
Microbiology Laboratory Remediation
6000 C&E Trail – Lacombe, AB
Project No. R.083193

ADDENDUM NO.1

September 1, 2020

This addendum shall be read in conjunction with the drawings and specifications prepared for this project, dated May 29, 2020. Where inconsistent with the drawings and specification, this Addendum shall govern. The same conditions of the Contract shall apply to the Addendum as to the original drawings and specifications. Receipt of this addendum shall be acknowledged in the submission of the completed tender. This addendum shall form an integral part of the Contract Documents.

Total Pages = 18 (including attachments)

Attachments: Site Aerial Photo, Architectural Record Drawings, Structural Record Drawings,
Mechanical Addendum M-001, Electrical Addendum E-01.

GENERAL:

Item No. 1: Contract Duration

Reference: Bid and Acceptance Form (BA)

1. Contract duration has been established at 17 weeks as defined in the solicitation documents – Bid and Acceptance Form, BA06 Construction Time.
2. Refer to GC6 (R2860D) – Delays and Changes in the Work and GC7 (R2870D) – Default, Suspension or Termination of Contract.

Item No. 2: Access by Owner

Reference: Section 01 14 00 – Work Restrictions

1. The client has advised that access will be required in limited capacity to adjacent laboratory spaces via Corridor 116 as follows:
 - a. Access will be required to the walk-in cooler where supplies are located for daily activities. Cooler access may be required throughout the day, but only for a few minutes at a time and infrequently.
 - b. Access will also be needed to the Virology Lab. There will be only a couple of people in shifts at a time so disruption will be minimal. Access can also be provided through Corridor 147 to avoid conflict with construction work.
 - c. The offices accessed from Corridor 122 will not be in use at this time.

Item No. 3: Site Office

Reference: Section 01 52 00 – Construction Facilities

1. Contractor is to provide a site office for meetings and use by contractor / subtrade personnel in accordance with Section 01 52 00, Paragraph 1.9.

Item No. 4: Construction Storage

Reference: Section 01 52 00 – Construction Facilities

1. Contractor is to provide separate location for storage of construction materials in accordance with Section 01 52 00, Paragraph 1.10. This is to include storage of any salvaged items scheduled to be re-installed.
2. No space inside the existing facility will be provided for storage of new or salvaged items.

Item No. 5: Sanitary Facilities

Reference: Section 01 52 00 – Construction Facilities

1. Contractor is to provide own sanitary facilities for work force in accordance with Section 01 52 00, Paragraph 1.11.
2. Use of existing washroom facilities within the building will not be permitted.

Item No. 6: Contractor Site Area

Reference: See attached Site Aerial Photograph.

1. Contractor laydown area is proposed in the site area to the North of the building. Coordination needed with Client to determine exact location. See attached aerial photograph for locations.

ARCHITECTURAL:**Item No. 1: Glazed Door Lites**

Reference: Section 08 71 01 – Door and Frame Schedule

1. Door D122 and D124 to have tempered glass lites in door as per schedule – size of glass lites to be 600mm x 900mm.

Item No. 2: Roof Deck Elevations

Reference: See attached Record Drawings 5/A5.01, 5/A6.01, 2/A6.02.

1. Existing roof assembly above Microbiology Lab 124 is a single sloped roof.
2. Underside of roof deck at exterior wall (low edge) = 3925mm AFF
3. Underside of roof deck at roof-wall transition above Corridor 116 (high edge) = 5580mm AFF

Item No. 3: Concrete Slab / Reinforcing Details

Reference: See attached Record Drawings S2.00 & S2.02

1. Record drawings indicate existing concrete slab to be: 125mm thick slab on grade r/w 10M rebar @ 300 each way, mid depth. New infill locations to match existing concrete and reinforcing. Epoxy dowel into existing slab, both sides of infill, ensure sufficient embedment depth.
2. Structural engineering not part of consulting scope of services. Contractor to determine reinforcing/concrete placement details and submit shop drawings for review.

Item No. 4: Ceiling Service Panels / Overhead Service Carriers

Reference: Section 12 56 53 & 12 56 53.13

1. Ceiling service panels are to be supplied and installed by Section 12 56 53.
2. Overhead service carriers are to be supplied and installed by Section 12 56 53.13.
3. Electrical contractor to supply & install power / data devices and wiring as per Electrical documents.
4. General Contractor to coordinate work of all vendors and trades.

MECHANICAL:

Item No. 1: Reverse Osmosis Piping

Reference: Section 22 60 53 – Laboratory Service Piping

1. Refer to attached Mechanical Addendum M-001 and revised specification section 22 60 53 for information regarding reverse osmosis piping and fittings.

ELECTRICAL:

Item No. 1: Lab Bench Task Lighting

Reference: Drawing E2.0 – Lighting Renovation Plan

1. Refer to attached Electrical Addendum E-01, Item 1.1 for task lighting clarification.

Item No. 2: Lab Bench, Ceiling Service Panels and Suspended Service Carriers

Reference: Drawing E2.1 – Power Renovation Plan

1. Refer to attached Electrical Addendum E-01, Item 2.1 to 2.6 inclusive, for clarifications and revisions related to the supply and installation of electrical systems at lab benches, ceiling service panels and suspended service carriers.

Item No. 3: Fire Alarm Verification

Reference: Drawing E2.3 – Life Safety Renovation Plan

1. Refer to attached Electrical Addendum E-01, Item 3.1 for clarification regarding fire alarm system verification. Contractor to carry all costs.

Item No. 4: As-Built Drawings

Reference: Section 01 78 00 – Closeout Submittals

1. Refer to attached Electrical Addendum E-01, Item 4.1 for clarification regarding electrical as-built drawing preparation.

Item No. 5: Operation and Maintenance Manuals

Reference: Section 01 78 00 – Closeout Submittals

1. Refer to attached Electrical Addendum E-01, Item 5.1 for clarification regarding electrical O&M manual preparation.

Item No. 6: Existing Electrical Equipment

Reference: Site photos attached.

1. Refer to attached Electrical Addendum E-01, Item 6.1 for clarification regarding existing Access Control System manufacturer. See photographs attached.
2. Refer to attached Electrical Addendum E-01, Item 6.2 for clarification regarding existing Distribution/Electrical Panel manufacturer. See photographs attached.

Item No. 7: Security Contractor Approval

Reference: Section 28 13 00 – Access Control

1. Refer to Section 28 13 00, Paragraph 1.3 for qualification requirements for security contractors.

END OF ADDENDUM

ADDENDUM**NO. M-001**

PROJECT NAME: AAFC - LaRDC
Microbiology Lab Remediation**PROJECT NO.: 18-199**

ISSUED BY:**DATE OF ISSUE: August 31, 2020**

To:

| 1x1 Architecture Inc.
120 Fort Street, Winnipeg, MB, R3C 1C7

PH: 204-318-2010

Please issue the following Addendum to all parties concerned

- 1) Refer to attached revised specification section 22 60 53 – Laboratory Service Piping for information regarding reverse osmosis piping and fittings.

End of Mechanical addendum M004

1 General

1.1 RELATED DOCUMENTS

- .1 Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.
- .2 Specifications throughout all Divisions of the Project Manual are directly applicable to this Section, and this Section is directly applicable to them.

1.2 SUMMARY

- .1 This section includes the furnishing of all labor and materials necessary for complete installation of laboratory compressed air piping system operating below 1380 KPa.

1.3 REFERENCE STANDARDS

- .1 The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- .2 All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.
- .3 All materials, installation and workmanship shall comply with the applicable
 - .1 ASME B31.9 , Building Service Piping for piping operating at 860 KPa or less and at temperatures of 93.3°C or less.
 - .2 ASME B31.1 , Power Piping for piping operating between 860 and 1380 KPa or at temperatures above 93.3°C.
- .4 Comply with all National and Provincial regulations applicable to this installation.

1.4 SUBMITTALS

- .1 As per section 20 00 13

2 Products

2.1 GENERAL

- .1 All materials shall meet or exceed all applicable referenced standards, National, Provincial and local requirements, and conform to codes and ordinances of authorities having jurisdiction.

2.2 LABORATORY COMPRESSED AIR PIPING

- .1 All pipe shall be Type "L", ASTM B88M, seamless , hard drawn temper copper tubing.
- .2 Copper tube fittings shall be ASME B16.22. wrought copper or copper alloy, solder joint, pressure type.
- .3 Bronze tube flanges to be AME B16.24 Class 150 and 300

- .4 Pressure Regulators: Bronze body, direct acting, spring loaded manual pressure setting adjustment, rated for 1050 KPA inlet pressure. Diaphragm operated or pilot operated.
- .5 Coalescing Filters: Activated carbon capable of removing water and oil aerosols, with color-change dye indication when carbon is saturated.
- .6 Hose quick connect: strait through, brass body, with stainless steel or nickel plated steel operating parts. Select socket end that is considered the fixed end and has one way valve.
- .7 Ball valves 2 inch NPS and smaller: MSS SP-110; 2 piece bronze body with blowout proof stem; regular or full port; chrome plated, solid brass or bronze ball, threaded ends and 250 psig minimum WOG pressure rating

2.3 LABORATORY REVERSE OSMOSIS WATER PIPING

- .1 Pipe and fittings: socket fusion weld, schedule 80 copolymer polypropylene to ASTM D4101.

Acceptable material: IPEX Enpure

- .2 Valves: type 1 homopolymer polypropylene double blocking type with o-ring cushions under the PTFE seats..

Acceptable material: IPEX Enpure

3 Execution

3.1 INSTALLATION

- .1 Installation shall meet or exceed all applicable National, provincial and local requirements, referenced standards and conform to codes and ordinances of authorities having jurisdiction.
- .2 All installation shall be in accordance with manufacturer's published recommendations.
- .3 Slope pipe 1% in direction of air flow.
- .4 Connect branch air piping from top of main. Provide a drip leg and drain trap at end of each main, branch, and low point.
- .5 Use eccentric reducers where pipe is reduced in size with bottoms of both pipes and reducer flush.

END OF SECTION

ADDENDUM

NO.: E-01



Lacombe Research and Development
PROJECT NAME: Centre – Microbiology Lab Remediation

PROJECT NO.: 18-01-0567

ISSUED BY: _____

DATE OF ISSUE: 2020-08-31

RE: Power, Systems, Suspended and Ceiling Service Panels and Specifications

To: 1x1 Architecture Inc.
120 Fort Street, Suite 103
Winnipeg, MB
R3C 1C7

Please issue the following Electrical Addendum E-01 to all parties concerned. Attached and forming part of this Addendum E-01 is sketch SKEA01-01 and drawing E2.1– Issued for Electrical Addendum E-01.

1. In reference to drawing E2.0 – Lighting Renovation Plan

- 1.1. In reference to referral Note 5 – task lighting and control switch will be supplied with lab benches. Task lights shown on drawings are for information only.

2. In reference to drawing E2.1 – Power Renovation Plan

- 2.1. Refer to attached sketch SKEA01 and drawing E2.1 – Issued for Electrical Addendum E-01 for circuit number revisions to suspended carriers.
- 2.2. Suspended carriers and ceiling service panels are provided by others. Electrical contractor shall supply and install receptacles c/w backboxes and communication backboxes within the suspended carriers and ceiling panels. Contractor shall allow for miscellaneous coordination with successful vendor of service carriers.
- 2.3. Ceiling service panels receptacles shall be L14-20R.
- 2.4. Suspended carrier receptacles shall be L6-20R. Revise 6ft carrier to have a total of two (2) circuits on standby power.
- 2.5. Each circuit at lab benches and ceiling and suspended carriers shall have its own neutral. Offices and general purpose receptacles can share neutrals.
- 2.6. Supply and install P-touch labels for each receptacle indicating associated panel and circuit number.

This Addendum amends the Contract Documents.

PF/ly

3. In reference to drawing E2.3 – Life Safety Renovation Plan

- 3.1. Contractor to carry all manufacturer and professional engineer costs for fire alarm verification. Suggested engineer costs is \$1500.00.

4. As-built Drawings

- 4.1. Allow for P.C. sum of \$1500.00 plus applicable GST, for all costs associated with updating CADD files and the preparation of record drawings.

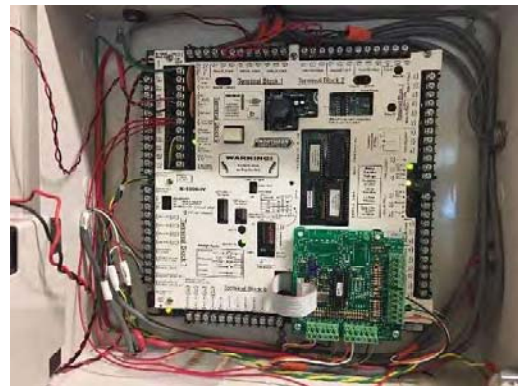
5. Specifications:

- 5.1. Supply and install a 3-ring binder with spine and face pockets and labels. Contact / Coordinate with General Contractor.

6. Clarifications:

- 6.1. The existing access control system is Northern Computers, Inc. N-1000-IV. See photos below for access control system.
- 6.2. Manufacturer of existing distribution (electrical panels and CDP) are Eaton Cutler-Hammer. See photos below for CDP-SB1, CDP-BB1 and the 600A MCC.

7. Photos of access control system.



8. Photos of CDP-SB1

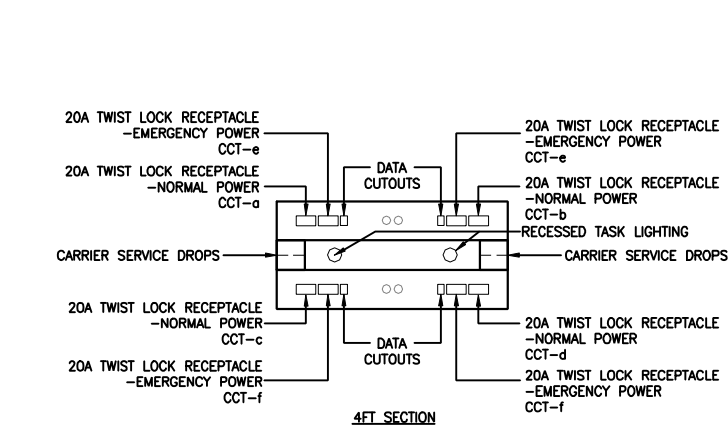


9. Photos of CDP-BB1



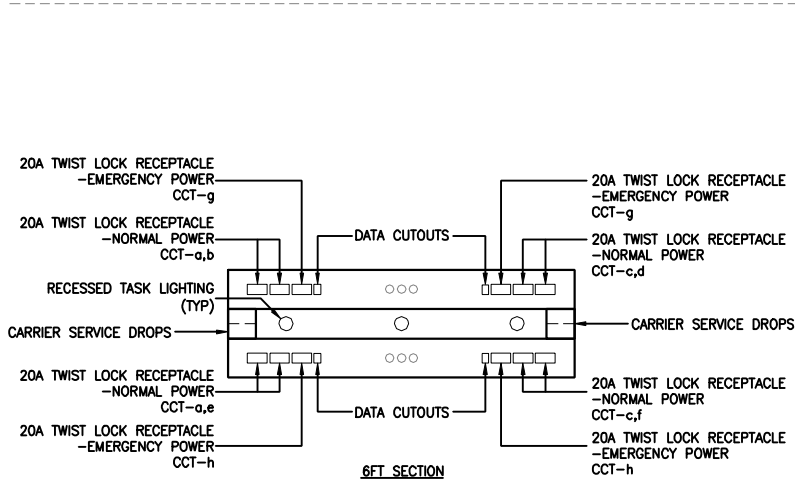
10. Photos of 600A MCC (Allen-Bradley)





4FT SUSPENDED CARRIER

CEILING PANEL DESIGNATION #	DETAIL CIRCUIT DESIGNATION	CIRCUIT NUMBER
SC#1	CCT-a	BP-C-35
	CCT-b	BP-C-37
	CCT-c	BP-C-39
	CCT-d	BP-C-41
	CCT-e	EM4-22
	CCT-f	EM4-24
SC#4	CCT-a	BP-C-56
	CCT-b	BP-C-58
	CCT-c	BP-C-60
	CCT-d	BP-C-62
	CCT-e	EM4-29
	CCT-f	EM4-31
SC#6	CCT-a	BP-C-76
	CCT-b	BP-C-78
	CCT-c	BP-C-80
	CCT-d	BP-C-82
	CCT-e	EM4-37
	CCT-f	EM4-39

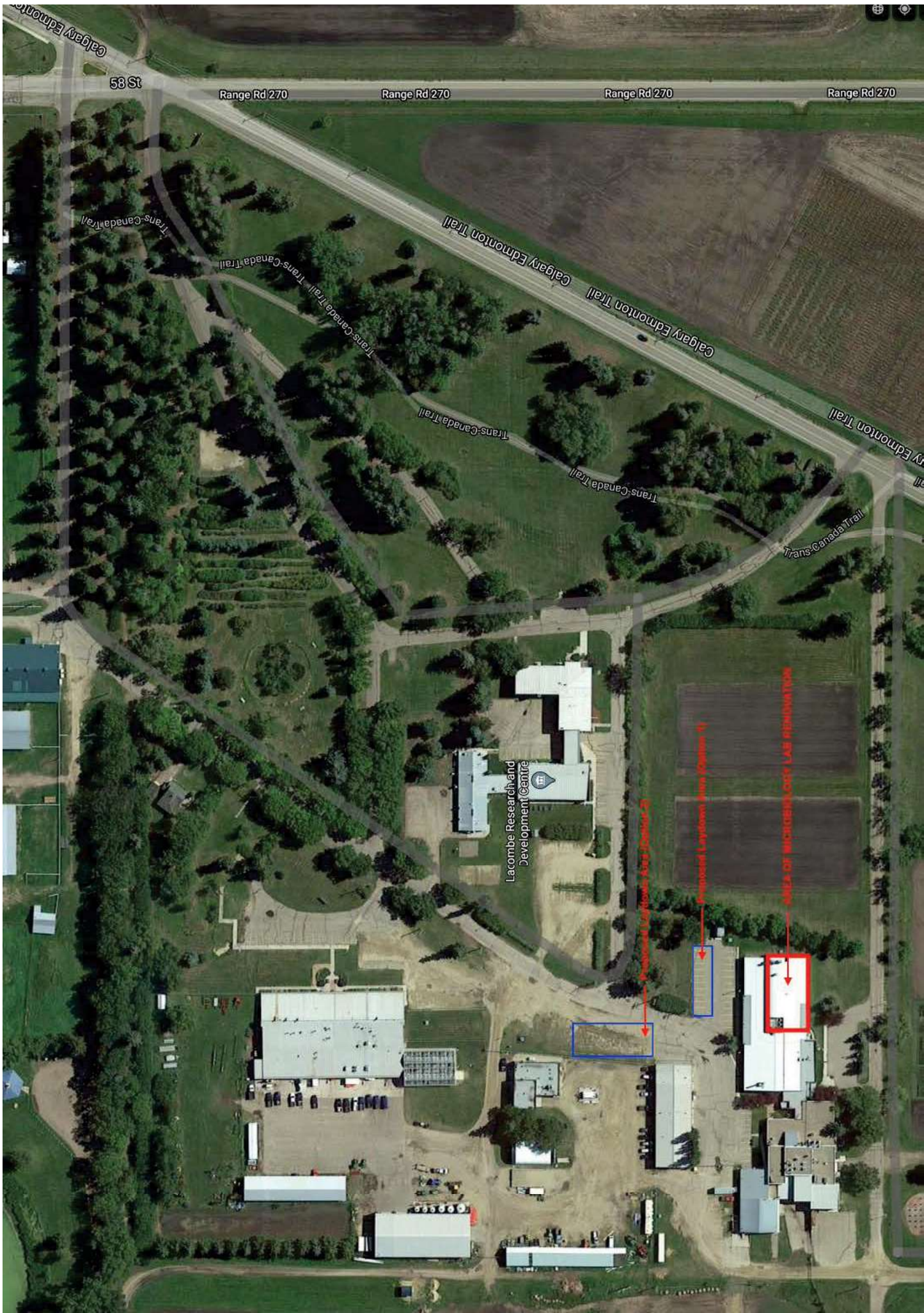


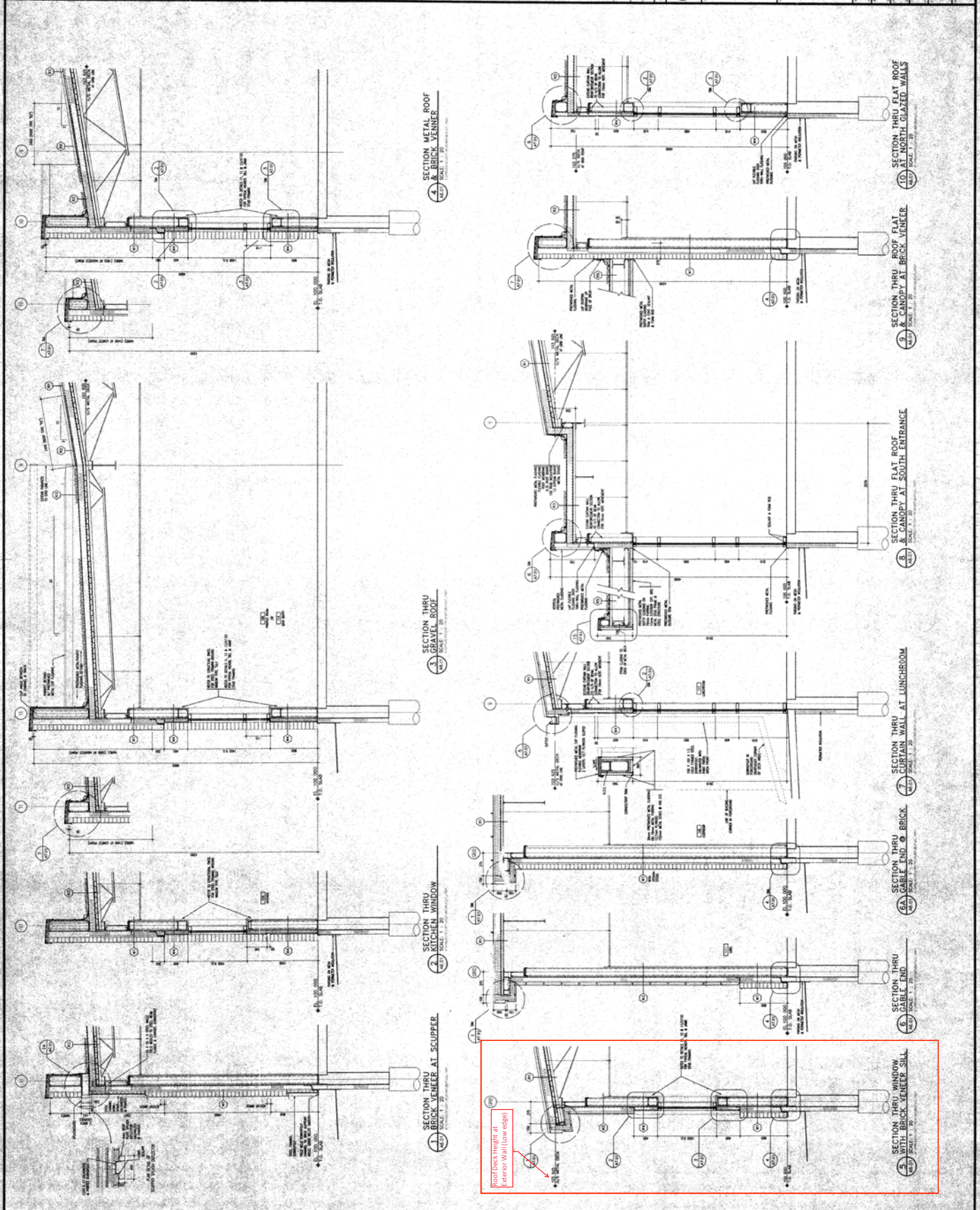
6FT SUSPENDED CARRIER

CEILING PANEL DESIGNATION #	DETAIL CIRCUIT DESIGNATION	CIRCUIT NUMBER
SC#2	CCT-a	BP-C-43
	CCT-b	BP-C-45
	CCT-c	BP-C-47
	CCT-d	BP-C-49
	CCT-e	BP-C-51
	CCT-f	BP-C-53
	CCT-g	EM4-26
	CCT-h	EM4-28
SC#3	CCT-a	BP-C-55
	CCT-b	BP-C-57
	CCT-c	BP-C-59
	CCT-d	BP-C-61
	CCT-e	BP-C-63
	CCT-f	BP-C-65
	CCT-g	EM4-30
	CCT-h	EM4-32
SC#5	CCT-a	BP-C-64
	CCT-b	BP-C-66
	CCT-c	BP-C-68
	CCT-d	BP-C-70
	CCT-e	BP-C-72
	CCT-f	BP-C-74
	CCT-g	EM4-33
	CCT-h	EM4-35

1 SUSPENDED SERVICE CARRIER EA01-01 SCALE: N.T.S.

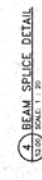
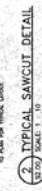
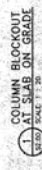
IN REFERENCE TO DRAWING E6.1





Root Deck Height at Exterior Wall (low edge)



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ITALY AND NOTES

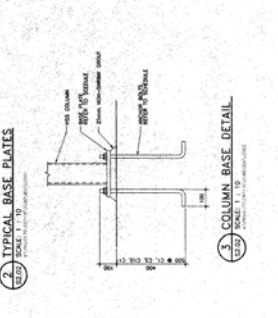
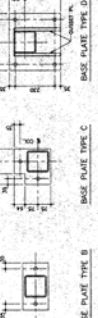
1. ITALY (1934-1935) (1936-1937) (1938-1939) (1940-1941) (1942-1943) (1944-1945) (1946-1947) (1948-1949) (1950-1951) (1952-1953) (1954-1955) (1956-1957) (1958-1959) (1960-1961) (1962-1963) (1964-1965) (1966-1967) (1968-1969) (1970-1971) (1972-1973) (1974-1975) (1976-1977) (1978-1979) (1980-1981) (1982-1983) (1984-1985) (1986-1987) (1988-1989) (1990-1991) (1992-1993) (1994-1995) (1996-1997) (1998-1999) (2000-2001) (2002-2003) (2004-2005) (2006-2007) (2008-2009) (2010-2011) (2012-2013) (2014-2015) (2016-2017) (2018-2019) (2020-2021) (2022-2023) (2024-2025) (2026-2027) (2028-2029) (2030-2031) (2032-2033) (2034-2035) (2036-2037) (2038-2039) (2040-2041) (2042-2043) (2044-2045) (2046-2047) (2048-2049) (2050-2051) (2052-2053) (2054-2055) (2056-2057) (2058-2059) (2060-2061) (2062-2063) (2064-2065) (2066-2067) (2068-2069) (2070-2071) (2072-2073) (2074-2075) (2076-2077) (2078-2079) (2080-2081) (2082-2083) (2084-2085) (2086-2087) (2088-2089) (2090-2091) (2092-2093) (2094-2095) (2096-2097) (2098-2099) (2100-2101) (2102-2103) (2104-2105) (2106-2107) (2108-2109) (2110-2111) (2112-2113) (2114-2115) (2116-2117) (2118-2119) (2120-2121) (2122-2123) (2124-2125) (2126-2127) (2128-2129) (2130-2131) (2132-2133) (2134-2135) (2136-2137) (2138-2139) (2140-2141) (2142-2143) (2144-2145) (2146-2147) (2148-2149) (2150-2151) (2152-2153) (2154-2155) (2156-2157) (2158-2159) (2160-2161) (2162-2163) (2164-2165) (2166-2167) (2168-2169) (2170-2171) (2172-2173) (2174-2175) (2176-2177) (2178-2179) (2180-2181) (2182-2183) (2184-2185) (2186-2187) (2188-2189) (2190-2191) (2192-2193) (2194-2195) (2196-2197) (2198-2199) (2200-2201) (2202-2203) (2204-2205) (2206-2207) (2208-2209) (2210-2211) (2212-2213) (2214-2215) (2216-2217) (2218-2219) (2220-2221) (2222-2223) (2224-2225) (2226-2227) (2228-2229) (2230-2231) (2232-2233) (2234-2235) (2236-2237) (2238-2239) (2240-2241) (2242-2243) (2244-2245) (2246-2247) (2248-2249) (2250-2251) (2252-2253) (2254-2255) (2256-2257) (2258-2259) (2260-2261) (2262-2263) (2264-2265) (2266-2267) (2268-2269) (2270-2271) (2272-2273) (2274-2275) (2276-2277) (2278-2279) (2280-2281) (2282-2283) (2284-2285) (2286-2287) (2288-2289) (2290-2291) (2292-2293) (2294-2295) (2296-2297) (2298-2299) (2300-2301) (2302-2303) (2304-2305) (2306-2307) (2308-2309) (2310-2311) (2312-2313) (2314-2315) (2316-2317) (2318-2319) (2320-2321) (2322-2323) (2324-2325) (2326-2327) (2328-2329) (2330-2331) (2332-2333) (2334-2335) (2336-2337) (2338-2339) (2340-2341) (2342-2343) (2344-2345) (2346-2347) (2348-2349) (2350-2351) (2352-2353) (2354-2355) (2356-2357) (2358-2359) (2360-2361) (2362-2363) (2364-2365) (2366-2367) (2368-2369) (2370-2371) (2372-2373) (2374-2375) (2376-2377) (2378-2379) (2380-2381) (2382-2383) (2384-2385) (2386-2387) (2388-2389) (2390-2391) (2392-2393) (2394-2395) (2396-2397) (2398-2399) (2400-2401) (2402-2403) (2404-2405) (2406-2407) (2408-2409) (2410-2411) (2412-2413) (2414-2415) (2416-2417) (2418-2419) (2420-2421) (2422-2423) (2424-2425) (2426-2427) (2428-2429) (2430-2431) (2432-2433) (2434-2435) (2436-2437) (2438-2439) (2440-2441) (2442-2443) (2444-2445) (2446-2447) (2448-2449) (2450-2451) (2452-2453) (2454-2455) (2456-2457) (2458-2459) (2460-2461) (2462-2463) (2464-2465) (2466-2467) (2468-2469) (2470-2471) (2472-2473) (2474-2475) (2476-2477) (2478-2479) (2480-2481) (2482-2483) (2484-2485) (2486-2487) (2488-2489) (2490-2491) (2492-2493) (2494-2495) (2496-2497) (2498-2499) (2500-2501) (2502-2503) (2504-2505) (2506-2507) (2508-2509) (2510-2511) (2512-2513) (2514-2515) (2516-2517) (2518-2519) (2520-2521) (2522-2523) (2524-2525) (2526-2527) (2528-2529) (2530-2531) (2532-2533) (2534-2535) (2536-2537) (2538-2539) (2540-2541) (2542-2543) (2544-2545) (2546-2547) (2548-2549) (2550-2551) (2552-2553) (2554-2555) (2556-2557) (2558-2559) (2560-2561) (2562-2563) (2564-2565) (2566-2567) (2568-2569) (2570-2571) (2572-2573) (2574-2575) (2576-2577) (2578-2579) (2580-2581) (2582-2583) (2584-2585) (2586-2587) (2588-2589) (2590-2591) (2592-2593) (2594-2595) (2596-2597) (2598-2599) (2600-2601) (2602-2603) (2604-2605) (2606-2607) (2608-2609) (2610-2611) (2612-2613) (2614-2615) (2616-2617) (2618-2619) (2620-2621) (2622-2623) (2624-2625) (2626-2627) (2628-2629) (2630-2631) (2632-2633) (2634-2635) (2636-2637) (2638-2639) (2640-2641) (2642-2643) (2644-2645) (2646-2647) (2648-2649) (2650-2651) (2652-2653) (2654-2655) (2656-2657) (2658-2659) (2660-2661) (2662-2663) (2664-2665) (2666-2667) (2668-2669) (2670-2671) (2672-2673

4. **STATE CONSTITUTIONS.**
 - a. **ARTICLE I.**
 1. **SECTION 1.** (1) **LEGISLATIVE POWER.**
 2. **SECTION 2.** (1) **LEGISLATIVE POWER.**
 3. **SECTION 3.** (1) **LEGISLATIVE POWER.**
 - b. **ARTICLE II.** (1) **LEGISLATIVE POWER.**
 - c. **ARTICLE III.** (1) **LEGISLATIVE POWER.**
 - d. **ARTICLE IV.** (1) **LEGISLATIVE POWER.**
 - e. **ARTICLE V.** (1) **LEGISLATIVE POWER.**
 - f. **ARTICLE VI.** (1) **LEGISLATIVE POWER.**
 - g. **ARTICLE VII.** (1) **LEGISLATIVE POWER.**
 - h. **ARTICLE VIII.** (1) **LEGISLATIVE POWER.**
 - i. **ARTICLE IX.** (1) **LEGISLATIVE POWER.**
 - j. **ARTICLE X.** (1) **LEGISLATIVE POWER.**
 - k. **ARTICLE XI.** (1) **LEGISLATIVE POWER.**
 - l. **ARTICLE XII.** (1) **LEGISLATIVE POWER.**
 - m. **ARTICLE XIII.** (1) **LEGISLATIVE POWER.**
 - n. **ARTICLE XIV.** (1) **LEGISLATIVE POWER.**
 - o. **ARTICLE XV.** (1) **LEGISLATIVE POWER.**
 - p. **ARTICLE XVI.** (1) **LEGISLATIVE POWER.**
 - q. **ARTICLE XVII.** (1) **LEGISLATIVE POWER.**
 - r. **ARTICLE XVIII.** (1) **LEGISLATIVE POWER.**
 - s. **ARTICLE XIX.** (1) **LEGISLATIVE POWER.**
 - t. **ARTICLE XX.** (1) **LEGISLATIVE POWER.**
 - u. **ARTICLE XXI.** (1) **LEGISLATIVE POWER.**
 - v. **ARTICLE XXII.** (1) **LEGISLATIVE POWER.**
 - w. **ARTICLE XXIII.** (1) **LEGISLATIVE POWER.**
 - x. **ARTICLE XXIV.** (1) **LEGISLATIVE POWER.**
 - y. **ARTICLE XXV.** (1) **LEGISLATIVE POWER.**
 - z. **ARTICLE XXVI.** (1) **LEGISLATIVE POWER.**
 - aa. **ARTICLE XXVII.** (1) **LEGISLATIVE POWER.**
 - ab. **ARTICLE XXVIII.** (1) **LEGISLATIVE POWER.**
 - ac. **ARTICLE XXIX.** (1) **LEGISLATIVE POWER.**
 - ad. **ARTICLE XXX.** (1) **LEGISLATIVE POWER.**
 - ae. **ARTICLE XXXI.** (1) **LEGISLATIVE POWER.**
 - af. **ARTICLE XXXII.** (1) **LEGISLATIVE POWER.**
 - ag. **ARTICLE XXXIII.** (1) **LEGISLATIVE POWER.**
 - ah. **ARTICLE XXXIV.** (1) **LEGISLATIVE POWER.**
 - ai. **ARTICLE XXXV.** (1) **LEGISLATIVE POWER.**
 - aj. **ARTICLE XXXVI.** (1) **LEGISLATIVE POWER.**
 - ak. **ARTICLE XXXVII.** (1) **LEGISLATIVE POWER.**
 - al. **ARTICLE XXXVIII.** (1) **LEGISLATIVE POWER.**
 - am. **ARTICLE XXXIX.** (1) **LEGISLATIVE POWER.**
 - an. **ARTICLE XL.** (1) **LEGISLATIVE POWER.**
 - ao. **ARTICLE XLI.** (1) **LEGISLATIVE POWER.**
 - ap. **ARTICLE XLII.** (1) **LEGISLATIVE POWER.**
 - aq. **ARTICLE XLIII.** (1) **LEGISLATIVE POWER.**
 - ar. **ARTICLE XLIV.** (1) **LEGISLATIVE POWER.**
 - as. **ARTICLE XLV.** (1) **LEGISLATIVE POWER.**
 - at. **ARTICLE XLVI.** (1) **LEGISLATIVE POWER.**
 - au. **ARTICLE XLVII.** (1) **LEGISLATIVE POWER.**
 - av. **ARTICLE XLVIII.** (1) **LEGISLATIVE POWER.**
 - aw. **ARTICLE XLIX.** (1) **LEGISLATIVE POWER.**
 - ax. **ARTICLE L.** (1) **LEGISLATIVE POWER.**
 - ay. **ARTICLE LI.** (1) **LEGISLATIVE POWER.**
 - az. **ARTICLE LII.** (1) **LEGISLATIVE POWER.**
 - ba. **ARTICLE LIII.** (1) **LEGISLATIVE POWER.**
 - bb. **ARTICLE LIV.** (1) **LEGISLATIVE POWER.**
 - bc. **ARTICLE LV.** (1) **LEGISLATIVE POWER.**
 - bd. **ARTICLE LVI.** (1) **LEGISLATIVE POWER.**
 - be. **ARTICLE LVII.** (1) **LEGISLATIVE POWER.**
 - bf. **ARTICLE LVIII.** (1) **LEGISLATIVE POWER.**
 - bg. **ARTICLE LIX.** (1) **LEGISLATIVE POWER.**
 - bh. **ARTICLE LX.** (1) **LEGISLATIVE POWER.**
 - bi. **ARTICLE LXI.** (1) **LEGISLATIVE POWER.**
 - bj. **ARTICLE LXII.** (1) **LEGISLATIVE POWER.**
 - bk. **ARTICLE LXIII.** (1) **LEGISLATIVE POWER.**
 - bl. **ARTICLE LXIV.** (1) **LEGISLATIVE POWER.**
 - bm. **ARTICLE LXV.** (1) **LEGISLATIVE POWER.**
 - bn. **ARTICLE LXVI.** (1) **LEGISLATIVE POWER.**
 - bo. **ARTICLE LXVII.** (1) **LEGISLATIVE POWER.**
 - bp. **ARTICLE LXVIII.** (1) **LEGISLATIVE POWER.**
 - bq. **ARTICLE LXIX.** (1) **LEGISLATIVE POWER.**
 - br. **ARTICLE LXX.** (1) **LEGISLATIVE POWER.**
 - bs. **ARTICLE LXXI.** (1) **LEGISLATIVE POWER.**
 - bt. **ARTICLE LXXII.** (1) **LEGISLATIVE POWER.**
 - bu. **ARTICLE LXXIII.** (1) **LEGISLATIVE POWER.**
 - bv. **ARTICLE LXXIV.** (1) **LEGISLATIVE POWER.**
 - bw. **ARTICLE LXXV.** (1) **LEGISLATIVE POWER.**
 - bx. **ARTICLE LXXVI.** (1) **LEGISLATIVE POWER.**
 - by. **ARTICLE LXXVII.** (1) **LEGISLATIVE POWER.**
 - bz. **ARTICLE LXXVIII.** (1) **LEGISLATIVE POWER.**
 - ca. **ARTICLE LXXIX.** (1) **LEGISLATIVE POWER.**
 - cb. **ARTICLE LXXX.** (1) **LEGISLATIVE POWER.**
 - cc. **ARTICLE LXXXI.** (1) **LEGISLATIVE POWER.**
 - cd. **ARTICLE LXXXII.** (1) **LEGISLATIVE POWER.**
 - ce. **ARTICLE LXXXIII.** (1) **LEGISLATIVE POWER.**
 - cf. **ARTICLE LXXXIV.** (1) **LEGISLATIVE POWER.**
 - cg. **ARTICLE LXXXV.** (1) **LEGISLATIVE POWER.**
 - ch. **ARTICLE LXXXVI.** (1) **LEGISLATIVE POWER.**
 - ci. **ARTICLE LXXXVII.** (1) **LEGISLATIVE POWER.**
 - cj. **ARTICLE LXXXVIII.** (1) **LEGISLATIVE POWER.**
 - ck. **ARTICLE LXXXIX.** (1) **LEGISLATIVE POWER.**
 - cl. **ARTICLE LXXXX.** (1) **LEGISLATIVE POWER.**
 - cm. **ARTICLE LXXXXI.** (1) **LEGISLATIVE POWER.**
 - cn. **ARTICLE LXXXXII.** (1) **LEGISLATIVE POWER.**
 - co. **ARTICLE LXXXXIII.** (1) **LEGISLATIVE POWER.**
 - cp. **ARTICLE LXXXXIV.** (1) **LEGISLATIVE POWER.**
 - cq. **ARTICLE LXXXXV.** (1) **LEGISLATIVE POWER.**
 - cr. **ARTICLE LXXXXVI.** (1) **LEGISLATIVE POWER.**
 - cs. **ARTICLE LXXXXVII.** (1) **LEGISLATIVE POWER.**
 - ct. **ARTICLE LXXXXVIII.** (1) **LEGISLATIVE POWER.**
 - cu. **ARTICLE LXXXXIX.** (1) **LEGISLATIVE POWER.**
 - cv. **ARTICLE LXXXXX.** (1) **LEGISLATIVE POWER.**
 - cw. **ARTICLE LXXXXXI.** (1) **LEGISLATIVE POWER.**
 - cx. **ARTICLE LXXXXXII.** (1) **LEGISLATIVE POWER.**
 - cy. **ARTICLE LXXXXXIII.** (1) **LEGISLATIVE POWER.**
 - cz. **ARTICLE LXXXXXIV.** (1) **LEGISLATIVE POWER.**
 - da. **ARTICLE LXXXXXV.** (1) **LEGISLATIVE POWER.**
 - db. **ARTICLE LXXXXXVI.** (1) **LEGISLATIVE POWER.**
 - dc. **ARTICLE LXXXXXVII.** (1) **LEGISLATIVE POWER.**
 - dd. **ARTICLE LXXXXXVIII.** (1) **LEGISLATIVE POWER.**
 - de. **ARTICLE LXXXXXIX.** (1) **LEGISLATIVE POWER.**
 - df. **ARTICLE LXXXXXX.** (1) **LEGISLATIVE POWER.**
 - dg. **ARTICLE LXXXXXXI.** (1) **LEGISLATIVE POWER.**
 - dh. **ARTICLE LXXXXXXII.** (1) **LEGISLATIVE POWER.**
 - di. **ARTICLE LXXXXXXIII.** (1) **LEGISLATIVE POWER.**
 - dj. **ARTICLE LXXXXXXIV.** (1) **LEGISLATIVE POWER.**
 - dk. **ARTICLE LXXXXXXV.** (1) **LEGISLATIVE POWER.**
 - dl. **ARTICLE LXXXXXXVI.** (1) **LEGISLATIVE POWER.**
 - dm. **ARTICLE LXXXXXXVII.** (1) **LEGISLATIVE POWER.**
 - dn. **ARTICLE LXXXXXXVIII.** (1) **LEGISLATIVE POWER.**
 - do. **ARTICLE LXXXXXXIX.** (1) **LEGISLATIVE POWER.**
 - dp. **ARTICLE LXXXXXXX.** (1) **LEGISLATIVE POWER.**
 - dq. **ARTICLE LXXXXXXXI.** (1) **LEGISLATIVE POWER.**
 - dr. **ARTICLE LXXXXXXXII.** (1) **LEGISLATIVE POWER.**
 - ds. **ARTICLE LXXXXXXXIII.** (1) **LEGISLATIVE POWER.**
 - dt. **ARTICLE LXXXXXXXIV.** (1) **LEGISLATIVE POWER.**
 - du. **ARTICLE LXXXXXXXV.** (1) **LEGISLATIVE POWER.**
 - dv. **ARTICLE LXXXXXXXVI.** (1) **LEGISLATIVE POWER.**
 - dw. **ARTICLE LXXXXXXXVII.** (1) **LEGISLATIVE POWER.**
 - dx. **ARTICLE LXXXXXXXVIII.** (1) **LEGISLATIVE POWER.**
 - dy. **ARTICLE LXXXXXXXIX.** (1) **LEGISLATIVE POWER.**
 - dz. **ARTICLE LXXXXXXXI.** (1) **LEGISLATIVE POWER.**
 - ea. **ARTICLE LXXXXXXXII.** (1) **LEGISLATIVE POWER.**
 - eb. **ART**

Abbreviation	Full Name	Connection
AN	ANALOG	ANALOG
AR	ARITHMETIC	ARITHMETIC
AS	ASSEMBLY	ASSEMBLY
AT	ADDRESS	ADDRESS
AV	ADDRESS VECTOR	ADDRESS
BE	BEFORE	BEFORE
BT	BIT	BIT
CA	CACHE	CACHE
CC	COMPILER	COMPILER
CD	CODE	CODE
CE	CLOCK	CLOCK
CF	CLOCK FREQUENCY	CLOCK
CH	CHANNEL	CHANNEL
CI	CLOCK IN	CLOCK
CM	CLOCK MODE	CLOCK
CO	CLOCK OUT	CLOCK
CP	CLOCK PERIOD	CLOCK
CS	CLOCK SIGNAL	CLOCK
CT	CLOCK TIME	CLOCK
CU	CLOCK UNIT	CLOCK
CV	CLOCK VOLTAGE	CLOCK
DA	DATA	DATA
DB	DATA BUS	DATA
DC	DATA CODE	DATA
DE	DATA CODE	DATA
DF	DATA CODE	DATA
DG	DATA CODE	DATA
DH	DATA CODE	DATA
DI	DATA CODE	DATA
DJ	DATA CODE	DATA
DK	DATA CODE	DATA
DL	DATA CODE	DATA
DM	DATA CODE	DATA
DN	DATA CODE	DATA
DO	DATA CODE	DATA
DP	DATA CODE	DATA
DQ	DATA CODE	DATA
DR	DATA CODE	DATA
DS	DATA CODE	DATA
DT	DATA CODE	DATA
DU	DATA CODE	DATA
DV	DATA CODE	DATA
EW	DATA CODE	DATA
EX	DATA CODE	DATA
FH	DATA CODE	DATA
GI	DATA CODE	DATA
HJ	DATA CODE	DATA
IK	DATA CODE	DATA
IL	DATA CODE	DATA
IM	DATA CODE	DATA
IN	DATA CODE	DATA
IO	DATA CODE	DATA
IP	DATA CODE	DATA
IQ	DATA CODE	DATA
IR	DATA CODE	DATA
IS	DATA CODE	DATA
IT	DATA CODE	DATA
IU	DATA CODE	DATA
IV	DATA CODE	DATA
JW	DATA CODE	DATA
KX	DATA CODE	DATA
LY	DATA CODE	DATA
MM	DATA CODE	DATA
NN	DATA CODE	DATA
OO	DATA CODE	DATA
PP	DATA CODE	DATA
QQ	DATA CODE	DATA
RR	DATA CODE	DATA
SS	DATA CODE	DATA
TT	DATA CODE	DATA
UU	DATA CODE	DATA
VV	DATA CODE	DATA
WW	DATA CODE	DATA
XX	DATA CODE	DATA
YY	DATA CODE	DATA
ZZ	DATA CODE	DATA

SYMBOLS	
---	BOTTOM REINFORCING BAR
----	TOP REINFORCING BAR
-----	DESIGNATED REINFORCING
-----	CONTROLS IN THAT DIRECTION
⌀	DIAMETER
□	SQUARE
AT	AT
⊙	STEEL WELD
L	CONCRETE TO CONCRETE

MARK NO.	SIZE	BASE PLATE	REMARKS
C1	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C2	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C3	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C4	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C5	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C6	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C7	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C8	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C9	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C10	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10
C11	405 X 150 X 6.0	250 X 250 X 10	250 X 250 X 10



NOTE:
 GRADE BEAMS, PILES, PILE CAPS, EMBEDDED ITEMS
 IN GRADE BEAMS, AND SLAB ON GRADE PTF RUN GRAVEL
 SURFACE NOT INCLUDED IN TENDER PACKAGE #2

- NOTES:
 1. SEE TENDER PACKAGE #1 FOR GENERAL NOTES.
 2. SEE TENDER PACKAGE #1 FOR GENERAL NOTES.
 3. SEE TENDER PACKAGE #1 FOR GENERAL NOTES.
 4. SEE TENDER PACKAGE #1 FOR GENERAL NOTES.

FOUNDATION PLAN
 SCALE: 1:10
 NORTH

