Addendum No. 1
January 13, 2023

Project: Baltic High School Addition
Baltic, South Dakots
Arch Project No. 2957

Architect: Architecture Incorporated

Letting: Thursday, January 26, 2023
4:00 PM
Baltic School Library

Scope of this Addendum:

To all bidders and all others to whom drawings and specifications have been issued by Architecture Incorporated, this Addendum forms a part of the Contract Documents. Acknowledge receipt of this addendum by listing its number and date in the bidder's Form of Proposal. Failure to do so may subject bidder to disqualification. This addendum modifies the drawings and specifications as follows:

GENERAL ITEMS:

1) PRE-BID CONFERENCE MEETING MINUTES

a) The meeting minutes from the Pre-Bid Conference held on site January 9, 2023, are attached to the end of this addendum. (2 pages total)

2) TABLE OF CONTENTS

a) Section 312319 – Dewatering was inadvertently listed in the Project Manual *Table of Contents*. This Section is not applicable to this Project and shall be omitted from the *Table of Contents*.

3) SECTION 092900 – GYPSUM BOARD

a) Add Article 2.2.C. as follows:

C. Abuse-Resistant Gypsum Board: ASTM C1396/C1396M gypsum board, tested according to ASTM C1629/C1629M.

1. *Core: [**5/8 inch (15.9 mm) , Type X**].*
2. *Surface Abrasion: ASTM C1629/C1629M, meets or exceeds [**Level 2**] requirements.*
3. *Indentation: ASTM C1629/C1629M, meets or exceeds [**Level 1**] requirements.*
4. *Soft-Body Impact: ASTM C1629/C1629M, meets or exceeds [**Level 2**] requirements.*
5. *Long Edges: Tapered.*
6. *Mold Resistance: ASTM D3273, score of 10 as rated according to ASTM D3274.*
7. *Basis-of-Design Product: Sheetrock Mold Tough AR Firecode Core.*
8. *Application:*

a. *Install at gypsum board wall surfaces located below the sill of the 2nd Floor window opening on Grid Gj.*
b. *Install at corridor side of framing at Conference G109 & Small Group Room G209.*

4) SECTION 101419 – DIMENSIONAL LETTER SIGNAGE

a) Replace Article 2.1.A.8.a.1) with the following:

*1) Text: **BALTIC SCHOOL***

b) Replace Article 2.1.A.8.c. with the following:

*c. Provide [**16 inch**] high projected aluminum letters [**w/ clear anodized finish**] as shown per east exterior elevation F/5.11.*

c) Add Article 2.1.A.8.d. as follows:

*c. Provide [**12 inch**] high projected aluminum letters [**w/ clear anodized finish**] as shown per east exterior elevation F/5.10.*

*1) Text: **ACTIVITIES ENTRANCE***

5) SECTION 107000 – EXTERIOR SUN CONTROL DEVICES

a) Section 107000 shall become a part of the Construction Documents.

i) All bidders shall reference Section 107000 – *Exterior Sun Control Devices* attached to the end of this addendum; 8 pages total.

6) SECTION 126600 – TELESCOPING STANDS

a) The backrests specified for a portion of the bleacher seating in Gymnasium F103 shall be manually operated; disregard all reference to automatic-rising / self-storing seatbacks.

b) Article 2.2.B.1.b. shall be replaced with the following:

*b. Provide [**manually-operated**] seatbacks at the lowest four (4) rows of seating of the two (2) center seating sections – only.*

7) DRAWING 1.10 – GENERAL INFORMATION

a) Wall Types Legend: Add Wall Type **F3**.

i) Wall Type F3 shall be defined as 3 5/8" steel stud framing with 5/8" gypsum board on one side.

8) DRAWING 2.10 – SITE SURVEY

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.10 attached to the end of this addendum.

9) DRAWING 2.30 – OVERALL SITE PLAN

a) The Contractor shall be required to install temporary construction fencing along the north side of the Project Site to prevent persons and animals from entering the job site. Installation of

temporary fencing along the east, south and west sides of the site will be left to the Contractor's discretion.

10) DRAWING 2.31 – ENLARGED SITE PLAN (NORTH PARKING)

a) CLARIFICATION: The easternmost accesible parking stall sign located directly north of the NW corner of the auditorium shall be mounted on the building; disregard all reference to post-mounted signage.

11) DRAWING 2.33 – SITE DETAILS

a) Furnish and install sign posts based on *Telespar Traffic Products* - **Square-Fit (2" x 2")** perforated, telescoping galvanized-steel tubing sign post system (w/ separate base) in lieu of the 1" x 2" (painted) steel tubing indicated on the drawings per detail 3 / 2.33.

i) Sign posts installed in landscape areas shall not require concrete footings.

b) Detail 14/2.33: Revise geometry of concrete retaining wall; refer to Detail 8/3.42 on structural drawings for geometry and dimension of retaining wall.

12) DRAWING 2.40 – EXISTING CONDITIONS & DEMO

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.40 attached to the end of this addendum.

13) DRAWING 2.50 – OVERALL CAMPUS PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.50 attached to the end of this addendum.

14) DRAWING 2.51 – OVERALL SITE PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.50 attached to the end of this addendum.

b) Omit all reference to pipe bollards at accessible parking signage; see PLAN NOTE 36. Provide (Telespar) post-mounted signage. Provide concrete footing.

15) DRAWING 2.52 – OVERALL GRADING PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.52 attached to the end of this addendum.

16) DRAWING 2.60 – GRADING AND SPOT ELEVATIONS PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.60 attached to the end of this addendum.

17) DRAWING 2.61 – GRADING AND SPOT ELEVATIONS PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.61 attached to the end of this addendum.

18) DRAWING 2.62 – NORTH PARKING LOT ADD ALTERNATE

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.62 attached to the end of this addendum.

19) DRAWING 2.70 – EROSION CONTROL PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.70 attached to the end of this addendum.

20) DRAWING 2.80 – OVERALL UTILITY PLAN

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.80 attached to the end of this addendum.

21) DRAWING 2.81 – WATER AND SANITARY PLAN AND PROFILE

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.81 attached to the end of this addendum.

22) DRAWING 2.82 – STORM SEWER PLAN AND PROFILE

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.82 attached to the end of this addendum.

23) DRAWING 2.83 – STORM SEWER PLAN AND PROFILE

a) The scale bar for this drawing Sheet has been updated / corrected; reference revised civil drawing Sheet 2.83 attached to the end of this addendum.

24) DRAWING 2.95 – MISCELLANEOUS DETAILS

a) Disregard Pipe Bollard with Sign Detail; Omit all reference to pipe bollards at accessible parking signage; provide (Telespar) post-mounted signage. Provide concrete footing.

25) DRAWING 4.10-1B - FIRST FLOOR PLAN – AREA B

a) Provide new 8” masonry jamb blocks and lintel blocks at new door opening A115 in the north existing wall of Mechanical Room A115.

   i) Provide steel angle lintel comprised of (2) 5x3 ½x¼ LLV angles back to back; reference *Masonry Lintel Schedule (Steel Support)* on structural drawing Sheet 3.10.

      (1) Paint lintel and corridor wall around new opening to match existing wall where block is patched in.

b) The existing windows which are shown being relocated from the north wall to the east wall of Classroom B120 are 2’-8” w. x 6’-8” h.

   i) Tooth in 8” split-face masonry jamb blocks to match existing at new window openings in east wall of Classroom B120.

   ii) Provide 8” masonry lintel to match existing; 8” high with two #5 bars.

iii) Paint the north and east walls of Classroom B120 in their entirety; match color of existing walls.

iv) Reference new details 28/5.14 – HEAD DETAIL (jamb sim.) & 29/5.14 SILL DETAIL.

26) DRAWING 4.10-1E – FIRST FLOOR PLAN - AREA E

a) The Wall Type of the gypsum board walls surrounding Janitor E103 shall be changed to **A3**; omit reference to Wall Type F3.

27) DRAWING 4.10-1F – FIRST FLOOR PLAN - AREA F

a) CLARIFICATION: Provide privacy curtains and tracks at each shower stall in GIRLS F116, BOYS F121, GIRLS F124, and BOYS F129 as shown per the *Enlarged Restroom Plans* on architectural drawing Sheet 4.40.

i) The privacy curtain at each accessible shower stall shall curve as shown.

ii) A separate privacy curtain shall be provided at each regular shower stall.

28) DRAWING 4.10-1G – FIRST FLOOR PLAN - AREA G

a) The Wall Type of the gypsum board walls surrounding Janitor G105 shall be changed to **A3**; omit reference to Wall Type F3.

b) Perimeter foundation drain tile shall continue along the south and east foundation walls of Area G; drain tile shall be a continuation of drain tile shown along the south side of Area F.

i) The retaining wall drain tile shall be installed to drain towards the south end of Area G. Daylight drain tile at grade near the south east corner of [**Storage G111 (Base Bid)**] [**Classroom G112B (Alt #1)**]. Provide drain tile end grate to prevent rodent access.

29) DRAWING 4.10-1H – FIRST FLOOR PLAN - AREA H

a) The perforated drain tile that is shown installed along the south side of Area H shall tie into the retaining wall drain tile tile system which begins at the SE corner of Wood H110; see civil drawings.

i) The retaining wall drain tile shall be installed to drain towards the north end of the retaining wall. Daylight drain tile at grade at north end of retaining wall; provide drain tile end grate to prevent rodent access.

30) DRAWING 4.10 - 2G – SECOND FLOOR PLAN – AREA G

a) The Wall Type of the gypsum board walls surrounding Janitor G216 shall be changed to **A3**; omit reference to Wall Type F3

b) CLARIFICATION: Provide a privacy curtain between the beds in NURSE G234 as indicated per architectural drawing Sheet 4.60-2G - *Second Floor Furniture Plan–Area G*.

31) DRAWING 5.10 – EXTERIOR ELEVATION

a) Reference updated exterior elevation F/5.10 for clarifications to exterior lettering height; letters to be 12 inches high as shown.
b) Reference updated exterior elevations F/5.10 & G/5.10 for cast stone sill keynotes.

c) Reference updated exterior elevation G/5.10 which now shows brick reveal detail section callouts; see revised Sheet 5.11 for actual detail.

32) DRAWING 5.11 – EXTERIOR ELEVATION

a) Reference updated exterior elevation F/5.11 for clarifications to exterior lettering height; letters to be 16 inches high as shown.

b) Reference updated exterior elevations D, E & F/5.11 for cast stone sill keynotes.

c) Reference newly added brick reveal detail 5/5.11.

d) Reference updated exterior elevations D & E/5.11 which now show brick reveal detail section callouts.

33) DRAWING 5.12 – EXTERIOR ELEVATION

a) WINDOW TYPES LEGEND: Refer to *revised sheet* 5.12 for cast stone sill note/height for all exterior aluminum windows.

b) WINDOW TYPES SCHEDULE: Refer to *revised sheet* 5.12 for revised schedule.

34) DRAWINGS 5.13 – ALUMINUM FRAME ELEVATIONS

a) Storefront Elevation 13: Aluminum storefront bottom rail to be 2" tall in lieu of 4", refer to *revised* Sheet 5.13.

b) Storefront Elevation 16 : Bottom rail to be 4" tall in lieu of 2" , refer to *revised* Sheet 5.13.

c) Storefront Elevation 17: The center of the intermediate horizontal mullion shall be located 3'-0" A.F.F; match storefront elevation 16/5.13. See *revised* Sheet 5.13.

35) DRAWINGS 5.14 – ALUMINUM FRAME ELEVATIONS

a) Reference newly added head, sill and jamb details for Aluminum Window located on the east wall of Classroom G108; refer to *revised* Sheet 5.14.

b) Reference newly added head, sill and jamb details for Aluminum Storefront located on the east wall of STAIR 04 G110; refer to *revised* Sheet 5.14.

c) Details 3, 9, 12 and 18: Refer to *revised* Sheet 5.14 for cast stone sill dimensions.

d) Reference newly added details 28 & 29/5.14 for existing windows relocated into a new opening in an existing wall; reference Classroom B120.

36) DRAWING 5.30 – STAIR AND ELEVATOR – PLANS, SECTIONS, AND DETAILS

a) Enlarged Stair and Elevator Plan 1– Clarification: Provide and install 8" concrete masony unit wall plus 4" burnished block at the front wall of the elevator shaft.

b) Section 4/5.30 – Provide and install 5/8" gypsum board on underside of landing at Stair 01.

MECHANICAL ITEMS:

1) DRAWING SHEET 8.10 – LEGENDS & DETAILS

a) Add water meter piping detail. Refer to revised drawing sheet 8.10, Addendum 1, dated 1/13/23.

2) DRAWING SHEET 8.21 – ENLARGED MECHANICAL ROOM - AREA A – DEMOLITION – PLUMBING & HEATING

a) Additional demolition items & detail are added. Refer to revised Drawing Sheet 8.21, Addendum 1, dated 1/13/23.

3) DRAWING SHEET 8.22 – FLOOR PLAN – DEMOLITION – VENT & A/C

a) Demo combustion air duct. Louver to remain. Insulate, cap, and seal intake louver wall sleeve. Refer to revised Drawing Sheet 8.22, Addendum 1, dated 1/13/23.
b) Demo boiler flue. Coordinate roof patch with general contractor. Refer to revised Drawing Sheet 8.22, Addendum 1, dated 1/13/23.

4) DRAWING SHEET 8.34 – FIRST FLOOR PLAN – AREA A – PLUMBING & HEATING

a) Remove 3" CW piping. Refer to revised Drawing Sheet 8.34, Addendum 1, dated 1/13/23.

5) DRAWING SHEET 8.34 – ENLARGED MECHANICAL ROOM – AREA A – PLUMBING & HEATING

a) Additional plumbing items & detail are added. Refer to revised Drawing Sheet 8.34, Addendum 1, dated 1/13/23.

6) DRAWING SHEET 8.35 – FIRST FLOOR PLAN – AREA E – PLUMBING & HEATING

a) Modify CW piping size as shown. Refer to revised Drawing Sheet 8.35, Addendum 1, dated 1/13/23.

7) DRAWING SHEET 8.36 – FIRST FLOOR PLAN – AREA F – PLUMBING & HEATING AND ENLARGED FIRST FLOOR PLAN – LIFE SKILLS AREA F – PLUMBING & HEATING

a) Modify CW piping size as shown. Refer to revised Drawing Sheet 8.36, Addendum 1, dated 1/13/23.
b) Add 4" CW service. Refer to revised Drawing Sheet 8.36, Addendum 1, dated 1-13-23.

8) DRAWING SHEET 8.38 – FIRST FLOOR PLAN – AREA H – PLUMBING & HEATING

a) Modify CW piping size as shown. Refer to revised Drawing Sheet 8.38, Addendum 1, dated 1/13/23.

9) DRAWING SHEET 8.40 – SECOND FLOOR PLAN – AREA G – PLUMBING & HEATING

a) Add ¾" CW piping & hose bibb to Penthouse. Refer to revised Drawing Sheet 8.40, Addendum 1, dated 1/13/23.

10) DRAWING SHEET 8.42 – ENLARGED SECOND FLOOR PLAN – AREA F – PLUMBING & HEATING

a) Add 3" water meter & associated piping. Refer to drawing sheet 8.42, Addendum 1, dated 1/13/23.
b) Revised Plumbing Note 36 to add expansion tank size. Refer to drawing sheet 8.42, Addendum 1, dated 1/13/23.

11) DRAWING SHEET 8.42 – ENLARGED PENTHOUSE PLAN – AREA G – PLUMBING & HEATING

a) Add ¾" CW piping & hose bibb to Penthouse. Refer to drawing sheet 8.42, Addendum 1, dated 1/13/23.

ELECTRICAL ITEMS:

1) SECTION 277260 – PUBLIC ADDRESS AND MUSIC EQUIPMENT

a) Section 277260 shall become a part of the Construction Documents.

i) All bidders shall reference Section 277260 – *Public Address and Music Equipment* attached to this addendum; 7 pages total.

2) DRAWING SHEET 9.10 – DEMOLITION SITE PLAN – ELECTRICAL

a) The two lighting poles at the east end of the site are owned by Xcel Energy. Coordinate removal with Xcel Energy.

3) DRAWING SHEET 9.31 – FIRST FLOOR PLAN – AREA A AND E – LIGHTING

a) Room E100: Change the type "H" luminaires at the exterior canopy to type "HC" luminaires.

4) DRAWING SHEET 9.32 – FIRST FLOOR PLAN – AREA A AND E – POWER & SIGNAL

a) Room E106: Provide 5 each ceiling mounted drop cords in lieu of cord reels.

b) Room E103: Provide 2 duplex receptacles in lieu of 4. Coordinate locations with the owner and plumbing contractor.

5) DRAWING SHEET 9. 35 – FIRST FLOOR PLAN – AREA G – POWER & SIGNAL

a) Room G105: Provide 2 duplex receptacles in lieu of 3. Coordinate locations with the owner and plumbing contractor.

6) DRAWING SHEET 9. 35 – FIRST FLOOR PLAN – AREA G – ADD ALT– POWER & SIGNAL

a) Room G128: Provide a ceiling mounted paging speaker and a ceiling mounted fire alarm speaker/strobe (75cd rating).

7) DRAWING SHEET 9.36 – FIRST FLOOR PLAN – AREA H – LIGHTING

a) Room H100: Change the type "H" luminaires at the exterior canopy to type "HC" luminaires.

8) DRAWING SHEET 9.37 – FIRST FLOOR PLAN – AREA H – POWER & SIGNAL

a) Room H106: Change the fourplex receptacle adjacent to the high A/V outlet to a duplex receptacle.

b) Rooms H111 and H121: Change the duplex receptacle at the low A/V outlet to a fourplex receptacle.

9) DRAWING SHEET 9.43 – SECOND FLOOR PLAN – AREA F – POWER & SIGNAL

a) Rooms F206 and F207: Revise the layouts of the receptacles in the room so they are the same as room F111 on room 9.34.

b) Room F204: Change the duplex receptacle a the low A/V outlet to a fourplex receptacle and change the fourplex receptacle at the high A/V outlet to a duplex receptacle.

c) Exterior: Provide a weatherproof speaker strobe at the fire protection fire department location (see sheet 8.50 for location).

10) DRAWING SHEET 9.44 – SECOND FLOOR PLAN – AREA G – LIGHTING

a) Room G200: Change the type "L" luminaires at the exterior canopy to type "HC" luminaires.

b) Room G204: Change the type "H2" luminaires at the exterior canopy to type "H2C" luminaires.

11) DRAWING SHEET 9.44 – SECOND FLOOR PLAN – AREA G – ADD ALT – LIGHTING

a) Room G205: Change the type "H2" luminaires at the exterior canopy to type "H2C" luminaires.

12) DRAWING SHEET 9.45 – SECOND FLOOR PLAN – AREA G – POWER & SIGNAL

a) Room G216: Provide 2 duplex receptacles in lieu of 3. Coordinate locations with the owner and plumbing contractor.

b) Rooms G207, G208, G211, G211A, G213, and G214: Revise the layouts of the receptacles in the room so they are the same as room F111 on room 9.34.

13) DRAWING SHEET 9.50 – ELECTRICAL SYMBOLS & ABBREVIATIONS

a) See the snip below for revised top portion of the feeder schedule:

FEEDER SCHEDULE

MARK	4-WIRE FEEDER				3-WIRE FEEDER				"K" RATED 4-WIRE FEEDER					MARK
(AMPS)	SETS	PH	GND	C	SETS	PH	GND	C	SETS	PH	N	GND	C	(AMPS)
15	1	14	14	0.75	1	14	14	0.75	1	14	12	14	0.75	15
20	1	12	12	0.75	1	12	12	0.75	1	12	10	12	0.75	20
25	1	10	10	0.75	1	10	10	0.75	1	10	8	10	0.75	25
30	1	10	10	0.75	1	10	10	0.75	1	10	8	10	0.75	30
35	1	8	10	0.75	1	8	10	0.75	1	8	6	10	0.75	35
40	1	8	10	0.75	1	8	10	0.75	1	8	4	10	1.00	40
45	1	6	10	1.00	1	6	10	0.75	1	6	4	10	1.00	45
50	1	6	10	1.00	1	6	10	0.75	1	6	3	10	1.00	50
60	1	6	10	1.00	1	6	10	0.75	1	6	3	10	1.00	60
70	1	4	8	1.25	1	4	8	1.00	1	4	1/0	8	1.25	70
80	1	4	8	1.25	1	4	8	1.00	1	4	1/0	8	1.25	80
90	1	3	8	1.25	1	3	8	1.25	1	3	2/0	8	1.25	90
100	1	3	8	1.25	1	3	8	1.25	1	3	2/0	8	1.50	100
110	1	2	6	1.25	1	2	6	1.25	1	2	3/0	6	1.50	110
125	1	1	6	1.50	1	1	6	1.25	1	1	4/0	6	2.00	125
150	1	1/0	6	2.00	1	1/0	6	1.50	1	1/0	300	6	2.00	150
175	1	2/0	6	2.00	1	2/0	6	2.00	1	2/0	350	6	2.00	175
200	1	3/0	6	2.00	1	3/0	6	2.00	1	3/0	500	6	2.50	200
225	1	4/0	4	2.50	1	4/0	4	2.00	1	4/0	2-3/0	4	2.50	225
250	1	250	4	2.50	1	250	4	2.50	1	250	2-4/0	4	2.50	250
300	1	350	4	3.00	1	350	4	2.50	1	350	2-300	4	3.00	300
350	1	500	3	3.00	1	500	3	3.00	1	500	2-400	3	3.50	350
400	2	3/0	3	2.00	2	3/0	3	2.00	2	3/0	500	3	2.50	400
450	2	4/0	2	2.50	2	4/0	2	2.00	2	4/0	2-3/0	2	2.50	450
500	2	250	2	2.50	2	250	2	2.50	2	250	2-4/0	2	2.50	500
600	2	350	1	3.00	2	350	1	2.50	2	350	2-350	1	3.00	600
700	2	500	1/0	3.00	2	500	1/0	3.00	2	500	2-400	1/0	3.50	700
800	3	300	1/0	2.50	3	300	1/0	2.50	3	300	2-4/0	1/0	3.00	800
900	3	350	2/0	3.00	3	350	2/0	2.50	3	350	2-300	2/0	3.00	900
1000	3	400	2/0	3.00	3	400	2/0	2.50	3	400	2-350	2/0	3.00	1000
1200	4	350	3/0	3.00	4	350	3/0	2.50	4	350	2-300	3/0	3.00	1200
1600	5	400	4/0	3.00	5	400	4/0	2.50	5	400	2-350	4/0	3.00	1600
2000	6	400	250	3.00	6	400	250	3.00	6	400	2-350	250	3.50	2000
2500	7	500	350	3.50	7	500	350	3.00	7	500	2-400	350	3.50	2500
3000	8	500	400	3.50	8	500	400	3.00	8	500	2-400	400	4.00	3000
4000	11	500	500	3.50	11	500	500	3.00	11	500	2-400	500	4.00	3000
5000	14	500	700	3.50	14	500	700	3.00	14	700	2-400	700	4.00	3000

MOTOR & APPLIANCE FEEDER SCHEDULE (100 Amps & Less)

14) DRAWING SHEET 9.51 – ELECTRICAL SCHEDULES

a) Lighting Fixture Schedule: Add type "HC" luminaire (equal to Alphabet #NU4-RD-20LM-40K-HE40-WH/WH-IC-UNV-DIM10).

b) Lighting Fixture Schedule: Add type "H2C" luminaire (equal to Alphabet #NU4-RD-30LM-40K-HE40-WH/WH-IC-UNV-DIM10).

c) Lighting Fixture Schedule: The manufacturer for the "AA" series site lighting units is Lithonia in lieu of NLS):

15) DRAWING SHEET 9.55 – ELECTRICAL DETAILS

a) LOCAL A/V DISTRIBUTION SYSTEM TERMINATION DETAILS: The two category 6A cables between the high and low A/V outlets shall be installed in a 1.25" conduit (stub above ceiling in rooms with acoustical tile ceilings).

GENERAL APPROVALS:
The following material or equipment furnished by the manufacturers listed, may be substituted as equivalent providing that each item, material, and piece of equipment conforms to the design and requirement of the specifications.

SECTION	ITEM	MANUFACTURER
042000	Unit Masonry Brick Veneer	Endicott: *Merlot Sands Antique Utility*
042000	Unit Masonry Burnished Block Burnished Color #1: North Star Burnished Color #2: Twilight	County Materials Corporation Premier Ultra
105113	Metal Lockers	Lockers MFG; *Heavy-Duty*
096766	Champion MonoFLex -6+2	JWood Sports Flooring
220400	Flush Valve	American Standard
220400	Sump Pumps	Little Giant
220400	Mixing Valves	Watts Regulator Powers Controls
230600	Ice Storage	Phasestor(Icestore) Dunham Bush
230800	Duct Mounted Heating Coils	Daikin Precision Coils Greenheck
230800	Wood Shop Dust Collection System	Nedermen Monoxivent Sternvent
230800	Direct Gas Fired Rooftop makeup air unit	Greasemaster

		Aaon
230800	Underfloor Ductwork	UnderDuct by Monoxivent
230800	Louvers	Nailor Industries
230800	Exhaust/Relief Air Hood	Twin City Fan & Blower
230800	Registers, Grilles & Diffusers	Greenheck
230800	Air Handling Units	VTS
230800	Air Blenders	Kees
230800	Blower Coil Units	VTS
230800	Fan Powered VAV Terminals	Greenheck
230800	VAV Reheat Terminals	Greenheck
230800	Energy Recovery Unit	VTS

END OF ADDENDUM No. 1

Baltic High School Addition
Baltic, South Dakota

January 9, 2023
4:00 p.m.

Architect's Project No.: 2957

Pre-Bid Conference Minutes

Attendees:

Bob Sittig, Baltic School District	(605) 529-5464
Randy Meyer, Baltic School District	(605) 359-6129
Rollie Fink, 3F Consulting / Baltic School District	(605) 351-1976
Jason Pittmann, Architecture Incorporated	(605) 339-1711
David McLeod, Associated Consulting Engineering	(605) 335-3720
Nathan Reichert, Lloyd Construction	(505) 382-9680
Adam Lundquist, Gil Haugan Construction	(605) 336-6082
Ben Beitelspacher, Hoogendoorn Construction	(605) 214-0468
Landon VanMiddendorp, Hoogendoorn Construction	(712) 463-2050
Andrew Ritter, Electric Construction	(605) 201-6513
Pat Rattenborg, Aaron Swan & Associates	(605) 366-3120

This pre-bid meeting was held on site and the following was discussed:

1. Project consists of the construction of a new high school addition on the east side of the existing Baltic school building. Construction will include a new auditorium, gymnasium, wood & metal shops, music rooms, 2-story classroom wing and a new commons.

2. Bidders may obtain copies of the Bid Documents through CADD Engineering Supply; (605) 332-2550.

3. Bids shall be due Thursday, January 26, 2023 at 4:00 pm Central Time, as indicated per the Bid Documents; reference the *Invitation For Bid*.

4. The entire Project shall reach substantial completion by no later than August 9, 2024.

5. There are five (5) alternates associated with this Project; reference the Bid Form, Section 012300, and the drawings for additional information.

6. The remodeling portion of the work, identified as Alternate #2 and Alternate #4, shall not begin until the summer of 2024 and shall be completed by no later than August 9, 2024.

7. Construction testing will be paid for by the Owner under a separate contract. The Contractor shall be responsible for coordinating construction testing with the Owner's testing company as the work progresses, as specified.

8. The Contractor must maintain all emergency exits from the building at all times; no exceptions. Staff, students and the public will be prohibited from using the existing High School entrance during construction, however the Contractor shall ensure that this entrance is continuously maintained as an emergency egress path until the Project reaches substantial completion.

9. The Contractor will be required to coordinate his work schedule closely with the Owner over the course of the work, including street closures and site grading / site utility work north & west of the existing practice field.

10. The Contractor shall be expected to contain all work within the Project limits identified on the drawings; reference Sheet 2.30. It is expected that the Contractor will utilize the area to the south of the new addition for storage and parking. The Contractor shall be prohibited from using the existing parking lot located north of Bulldog Avenue for parking or storage.

11. The Contractor shall be required to install temporary construction fencing along the north side of the Project site to prevent persons and animals from entering the job site. Installation of temporary fencing along the east, south & west sides of the site will be left to the Contractor's discretion.

12. Bulldog Avenue is a City street. The Contractor shall be expected to keep this street open to the greatest extent possible over the course of the Project. Utility work that will require street closures must be coordinated in advance with the Owner and the street shall be re-opened as timely as possible once work has been completed.

13. Persons physically present at the for this Pre-Bid Conference toured the existing building afterwards to review existing conditions.

14. The Owner noted that the existing CMU wall shown to be removed between Science B140 and Science Lab B141 extends all the way up to the underside of the roof deck.

15. The Architect clarified that the existing overhead door, track and operator in Vocational Education A100 shall be removed under the Contractor's Base Bid. The opening shall also be in-filled with an aluminum storefront assembly under the Contractor's Base Bid.

16. These meeting minutes will be distributed via Addendum #1 on (tentatively) January 13, 2023.

Respectfully submitted,

Jason Pittmann

SECTION 107000 – EXTERIOR SUN CONTROL DEVICES

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:

1. Aluminum sunshades, [**factory-finished**].

B. Related Requirements:

1. Section 055000 "Metal Fabrications."
2. Division 8 Section “Aluminum Entrances and Storefronts” for coordinating finishes between sunshades and storefront framing where sunshades are installed adjacent to aluminum storefront-framed openings.

1.3 COORDINATION

A. Coordinate installation of metal fabrications that are anchored to or that receive other work. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: A fabricator who is qualified to engineer and manufacture aluminum sun control devices according to the following:

1. National Association of Architectural Metal Manufacturers (NAAMM).
2. American Architectural Manufacturers Association (AAMA).

1.5 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design aluminum sunshades, including comprehensive engineering analysis by a qualified professional engineer licensed in the State of South Dakota, using performance requirements and design criteria indicated.

B. Structural Performance: Aluminum sunshades shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated.

1. Uniform Load: 100 lbf/sq. ft. (4.79 kN/sq. m).
2. Concentrated Load: 300 lbf (1.33 kN) applied on an area of 4 sq. in. (2580 sq. mm).

3. Uniform and concentrated loads need not be assumed to act concurrently.
4. Limit deflection of framing members to [**L/360**] or 1/4 inch (6.4 mm), whichever is less.

1.6 ACTION SUBMITTALS

A. Product Data: Submit specifications, technical and descriptive data, and installation instructions from the manufacturer of the sunshades.

B. Shop Drawings: Show fabrication and installation details. [**Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.**] Provide Shop Drawings for the following:

1. Show anchorage, details and connections for all the component parts, including connection of mounting clip to structure and adjacent construction.
2. Drawings shall include plans, sections, and specific details for each unit.
3. Drawings shall detail appropriate materials, alloys, and finishes of all parts including installation hardware.

C. Structural Calculations: Submit analysis of shade connection to mounting bracket, signed and sealed by a professional engineer licensed to practice in the State of South Dakota, considering design loads such as dead, live, snow, wind, thermal movement, and any collateral loads (e.g. light fixtures or signage) that my be mounted to sunshade.

1. Verify and analyze sunshade clip attachment to structure for local code and loads such as dead, live, snow, wind, thermal movement, and any collateral loads (e.g. light fixtures or signage) that my be mounted to sunshade.

A. Samples: For items indicated to receive factory-applied finishes. Include color charts indicating manufacturer's range of standard color selections.

B. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer, licensed in the State of South Dakota, responsible for their preparation.

C. Warranty: Provide written warranty to the owner that all screen products will be free of defective materials or workmanship for a period of one (1) year from date of Substantial Completion.

1.7 QUALITY ASSURANCE

A. Welding: Qualify procedures and personnel according to the following:

1. AWS D1.1, "Structural Welding Code--Steel."
2. AWS D1.2, "Structural Welding Code--Aluminum."
3. AWS D1.3, "Structural Welding Code--Sheet Steel."

1.8 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Temperature Change: [**120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces**].

2.2 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces, unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.3 NONFERROUS METALS

A. Aluminum Plate and Sheet: ASTM B 209 (ASTM B 209M), Alloy 6061-T6.

B. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), Alloy 6063-T5.

2.4 FASTENERS

A. General: Unless otherwise indicated, provide [**Type 304**] stainless-steel fasteners for exterior use. Select fasteners for type, grade, and class required.

B. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, ASTM F 593 (ASTM F 738M); with hex nuts, ASTM F 594 (ASTM F 836M); and, where indicated, flat washers; Alloy [**Group 1 (A1)**].

C. Anchors and Inserts: Use non-Ferrous metal or hot dip galvanized anchors and inserts for installation and elsewhere as required for corrosion resistance. Use stainless steel or zinc galvanized expansion bolt devices for drill-in place anchors. Furnish inserts, as required, to be set into concrete or masonry work. Field weld clips.

1. Anchor Bolts: ASTM F 1554, Grade 36, of dimensions indicated; with nuts, ASTM A 563 (ASTM A 563M); and, where indicated, flat washers.

2.5 MISCELLANEOUS MATERIALS

A. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.

2.6 FABRICATION, GENERAL

A. Provide fixed sunshades and accessories of design, material, sizes, depth, arrangement, and thickness as indicated or as required for optimal performance with respect to strength; durability; and uniform appearance.

1. Include supports, anchorage, and accessories required for complete assembly, including all attachment clips and necessary hardware for attachment to structure.

2. Manufacturer shall allow +/- 1/8” thermal expansion room at each shade to compensate for dissimilar movement between building structure and aluminum sunshade structure. This design shall be incorporated as to not induce self destructing loads onto either shade or building veneer.
3. No blade fasteners shall be visible after installation of sections. Provide cover plates at each outrigger end to conceal fasteners. Only mounting hardware shall be visible after installation.

B. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

D. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

E. Form exposed work with accurate angles and surfaces and straight edges.

F. Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing [**and contour of welded surface matches that of adjacent surface**].

G. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

H. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

I. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

J. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

1. Anchoring system shall be designed and furnished by the aluminum sunshade manufacturer.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide framing and supports not specified in other Sections as needed to complete the Work.

B. Fabricate units from [**aluminum**] [**stainless steel**] shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.

2.8 ALUMINUM SUNSHADES

A. Fabricate units from [**aluminum**] shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction retained by framing and supports.

B. Components:

1. All fascia & blades shall be ASTM B221, Alloy 6063-T6 aluminum-extruded members.

   a. Blades and fascia shall be fabricated from a minimum .125 (1/8") wall thickness extruded aluminum. Blades shall be of design as indicated on drawings.
   b. Blade infill shall be custom designed with integral screw boss that is hidden from view visible after installation. Size and spacing is to be as shown on the architectural details. Blade infill shall be airfoils, rectangle or tubular sections, as indicated on Drawings.

   c. Blades to be miter cut and fitted to outrigger plates at mitered corner conditions.

2. Outrigger components shall be 6063-T6 aluminum plates.

   a. (Tapered) outrigger material shall be fabricated from a minimum .250 (1/4") wall thickness plate aluminum.
   b. Outriggers shall be tapered or shaped aluminum flat plates, screwed to aluminum extrusion blades via countersunk fastener holes. Connections of aluminum extrusions to outriggers should be flush with no protruding fasteners visible after installation. Outriggers are pre-drilled for mounting to the structural sunshade clip tab via stainless steel expansion slip connection to compensate for thermal expansion.

3. Brackets shall be fabricated from [**aluminum**].

   a. Mounting brackets (i.e. – extruded aluminum tee) shall be fabricated from a minimum .375 (3/8") wall thickness.
   b. Connection of sunshade to building shall be friction type with the ability to properly level the shade during installation.

4. Outrigger cover plates shall be furnished of 6063-T6 aluminum plates at each end of sunshade run to cover extrusion fasteners.

C. Assembly: Components to be shop assembled in sections as large as practical to allow for immediate installation. Sections indicated on shop drawings to be assembled and shipped as units with cover plates and support arms, if required, shipped loose.

1. Fasteners shall be bagged in groups clearly identifying bolt locations and bag contents for easy installation. Manufacturer to provide anti-seize compound for any field bolted stainless hardware to facilitate proper erection.

D. Manufacturers:

1. Manufacturers: Subject to compliance with requirements, **available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**:

   a. Construction Specialties.
   b. Firestone Metal Products.
   c. Kawneer North America.
   d. Industrial Louvers, Inc
   e. Other – only as approved <u>in writing</u> by Architect prior to bid letting.

2. Aluminum Sunshades Basis-of-Design Product: [**ST Series Sunshade**] system as manufactured by Industrial Louvers, Inc.

a. Louver Style: [**As indicated**].

1) Blade Angle: [**As selected by Architect].**
2) Blade Thickness: [**0.125 inch**].
3) Blade Connection: [**Mechanically fastened**].

b. Outrigger Style: [**Straight-Square];** fabricated from extruded aluminum flat bar.

1) Thickness: [**0.250 inch**] [**or**] [**0.375 inch**], as determined by sunshade manufacturer to suit application indicated on drawings.

c. Fascia Style: [**Rectangular**], as indicated on drawings.

1) Fabricated from extruded aluminum tubes.

d. Attachment System: [**As indicated on drawings**].

1) **NOTE**: The sunscreen manufacturer shall be responsible for designing and engineering the sunshade attachment system to match the application indicated on the drawings.

e. Factory-finish sunscreens as specified.

1) Finish: [**High-performance organic finish**].

2) Color: Matching *Firestone Metal Products* [**Electric Blue**].

3. All sunshades shown on the Drawings shall be furnished and installed by Section 084113 "Aluminum Storefronts and Entrances."

a. Sunshade fabricator shall assume responsibility for designing and providing means of attachment to [**building**] [**structure**].

2.9 FINISHES, GENERAL

A. Finish metal fabrications after assembly.

B. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.10 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

1. Fluoropolymer 2-Coat System: Manufacturer's standard HYLAR 5000 or KYNAR 500 2-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color

topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with physical properties and coating performance requirements of AAMA [**2605**].

1) Humidity Resistance: [**1000**] hours.
2) Salt-Spray Resistance: [**1000**] hours.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing aluminum sunshades. Set aluminum sunshades accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

C. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where aluminum sunshades are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 INSTALLING ALUMINUM SUNSHADES

A. General: Comply with manufacturer's instructions and recommendations for installation of the work, including manufacturers' written instructions and requirements indicated on Shop Drawings.

B. Verify dimensions of supporting structure at the site by accurate field measurements so that the work will be accurately designed, fabricated, and fitted to the structure.

C. Anchor sunshades as indicated on approved sunshade shop drawings.

D. Erection Tolerances:

1. Clips or Mounting Brackets:

a. Elevation clip Variation from level: 1/8" maximum in any column to column space or 20'-0" runs, non-cumulative.
b. Offsets in projection of clips front leading edge 1/16"+/-.

c. Veneer or Wall construction tolerance around clip projection. 1/4"+ outward.
d. Clip Plumbness: 1/16" in 6".
e. Clip projection level: 1/16" in 12".

2. Shade Sections:

a. Projection Level: 1/8" in 4'-0".
b. Horizontal Level: 1/8" max in any column to column space or in 20'-0" runs, non-cumulative.
c. Shade section to section variation 1/32" at adjoining sections.

E. Cut and trim component parts during erection only with the written approval of the manufacturer, and in accordance with manufacturer's recommendations. Restore finish completely. Remove and replace members where cutting and trimming has impaired the strength or appearance of the assembly as directed by manufacturer.

F. Do not erect warped, bowed, deformed or otherwise damaged or defaced members. Remove and replace any members damaged in the erection process as directed by Architect.

G. Set units level, plumb and true to line, with uniform joints.

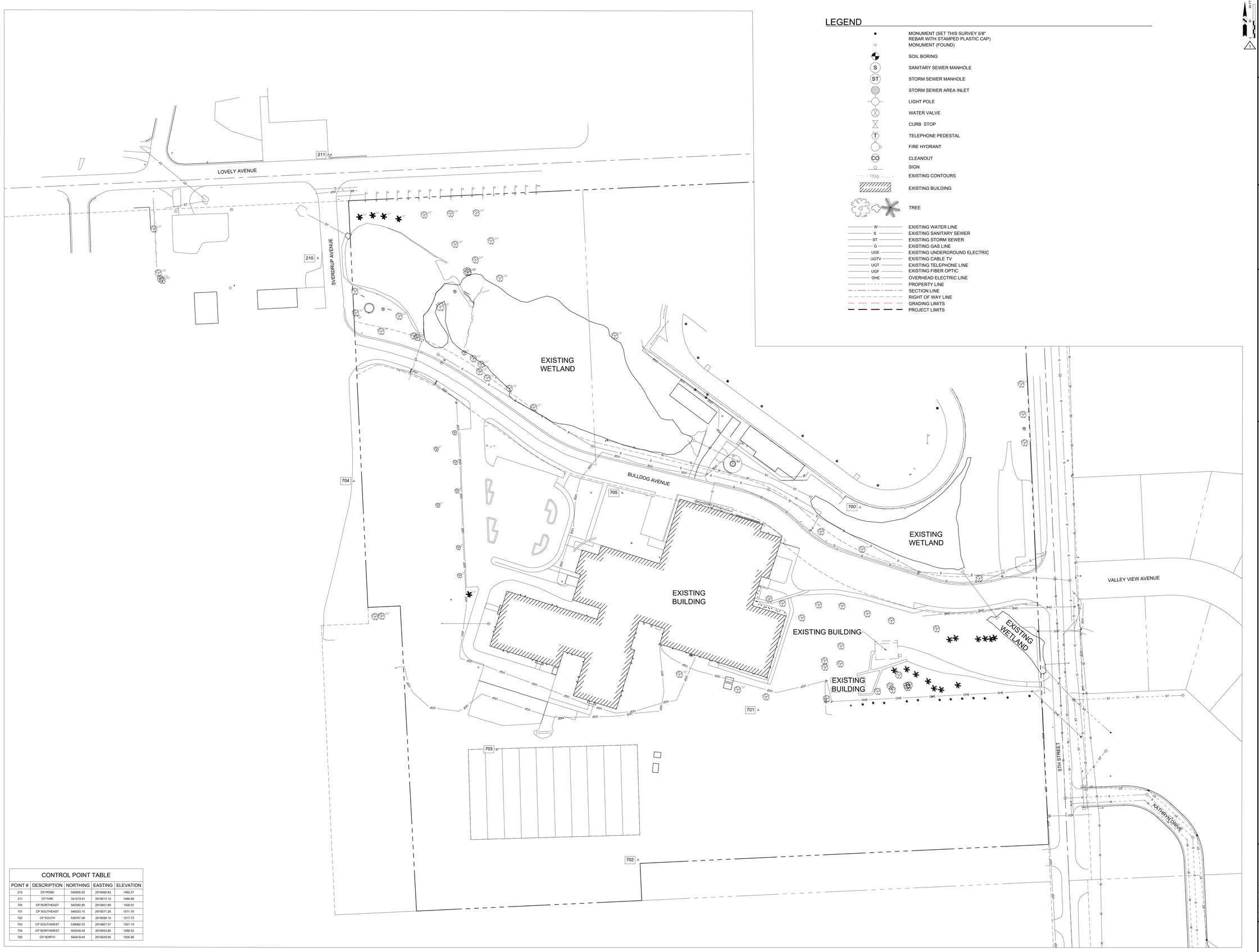
H. Erect sunshade sections after all adjacent painting, masonry (including chemical treatments), roofing, electrical, glazing, and other similar work is completed above and below the shade sections.

3.3 CLEANING AND PROTECTION

A. Clean exterior sunshades surfaces to prevent buildup of dust and debris. Clean sunshades as outlined in AAMA 609/610-02. "*Cleaning and Maintenance Guide for Architecturally Finishes Aluminum"* or NAAM Metal Finishes Manual "Cleaning Procedures" 1-13/1-14.

B. Protect Sunshade materials after installation to prevent damage by other trades. Special attention shall be taken to ensure no equipment or personnel stands on top of sunshade system, nor sunshade system is used to hang any type of tarp or similar barricade or signage other than the design intent.

END OF SECTION 107000



LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- 1555 — EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- W — EXISTING WATER LINE
- S — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- G — EXISTING GAS LINE
- UGE — EXISTING UNDERGROUND ELECTRIC
- UGTV — EXISTING CABLE TV
- UGT — EXISTING TELEPHONE LINE
- UGF — EXISTING FIBER OPTIC
- OHE — OVERHEAD ELECTRIC LINE
- PROPERTY LINE
- SECTION LINE
- RIGHT OF WAY LINE
- GRADING LIMITS
- PROJECT LIMITS

0 30 60 FT

CONTROL POINT TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
210	CP POND	540835.05	2918489.83	1482.57
211	CP FIRE	541018.91	2918513.10	1489.69
700	CP NORTHEAST	540392.80	2919451.89	1500.91
701	CP SOUTHEAST	540033.15	2919271.28	1511.76
702	CP SOUTH	539767.08	2919058.10	1517.73
703	CP SOUTHWEST	539962.53	2918807.37	1507.10
704	CP NORTHWEST	540439.44	2918553.64	1499.52
705	CP NORTH	540418.44	2919029.95	1500.96

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REGISTERED PROFESSIONAL ENGINEER
NEIL C. EICHSTADT
9607
01/13/22

BANNER engineering a better community

BANNER PROJECT NO: 23668.00

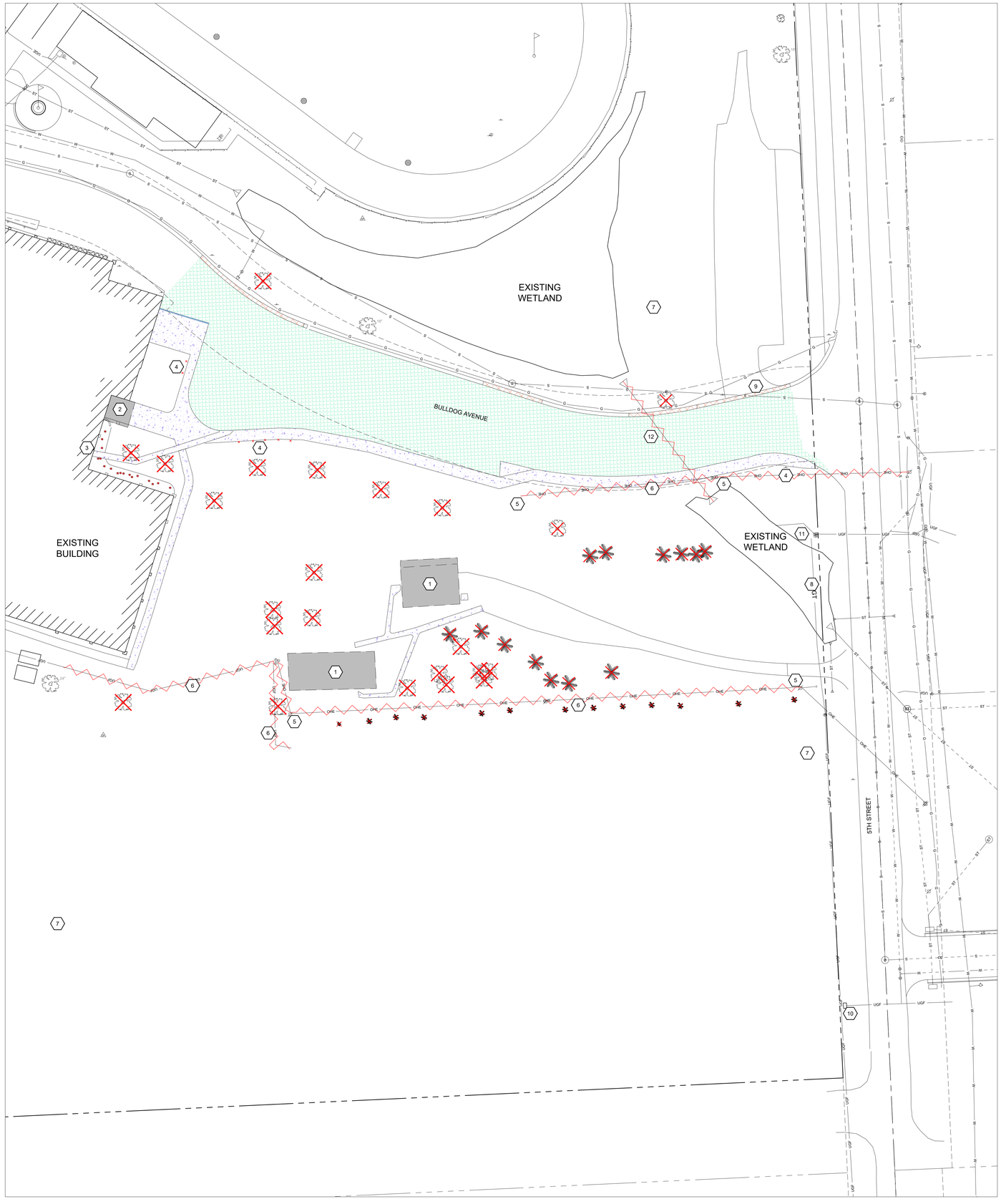
project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: SITE SURVEY

number 0727.2957.21
date 12-27-2022
revision 1
drawn SP checked NCE

NO.	DATE	DESCRIPTION
1	01/13/2022	SCALE BAR

2.10



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- EXISTING STORM SEWER
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING CABLE TV
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC
- OVERHEAD ELECTRIC LINE
- PROPERTY LINE
- SECTION LINE
- RIGHT OF WAY LINE
- GRADING LIMITS
- PROJECT LIMITS
- CLEAR AND GRUB SHELTER BELT
- REMOVAL OF LANDSCAPING
- CURB AND GUTTER REMOVAL
- CONCRETE SIDEWALK REMOVAL
- ASPHALT REMOVAL
- ASPHALT PAVEMENT REMOVAL
- EXISTING BUILDING
- EXISTING RETAINING WALL
- SIGN REMOVAL
- TREE REMOVAL/SALVAGE
- UTILITY ABANDONMENT OR REMOVAL

GENERAL REMOVAL NOTES:

1. ALL DEMOLITION AND REMOVALS WITHIN THE CONSTRUCTION LIMITS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW THE EXISTING SITE WITHIN THE CONSTRUCTION LIMITS AND MAKE THEIR OWN DETERMINATION AS TO THE NECESSARY EXTENTS FOR REMOVALS IN ORDER TO COMPLETE CONSTRUCTION.
2. REFER TO ELECTRICAL PLANS FOR SITE LIGHTING AND ELECTRICAL REMOVALS.
3. REFER TO MECHANICAL PLANS FOR ANY MECHANICAL REMOVALS.
4. ALL REMOVALS SHALL BE IN ACCORDANCE WITH THE PROJECT PHASING PLAN.
5. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL ITEMS INDICATED FOR REMOVAL. THIS INCLUDES BUT NOT LIMITED TO ASPHALT, CONCRETE, TREES, LANDSCAPING, LANDSCAPING ROCK, AND OTHER SITE FEATURES. COORDINATE WITH OWNER AND ARCHITECT/ENGINEER AS NECESSARY.
6. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH INTENDED FUNCTION OF DESIGN ARE ENCOUNTERED,INVESTIGATE AND MEASURE BOTH NATURE AND EXTENT OF THE CONFLICT AND NOTIFY OWNER'S REPRESENTATIVE.
7. ALL DEMOLITION SHALL COMPLY WITH APPLICABLE LOCAL CODES AND STATE CODES AND ORDINANCES.
8. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
9. LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM THE BEST AVAILABLE RECORDS AND DOES NOT NECESSARILY INCLUDE ALL UNDERGROUND UTILITIES. PRIOR TO EXCAVATION THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL UTILITIES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. THE PHONE NUMBER FOR SOUTH DAKOTA ONE CALL IS 1-800-781-7474.
10. ALL DEMOLITION & WASTE MATERIAL SHALL BE REMOVED & LEGALLY DISPOSED OF AT A SITE SECURED BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL COORDINATE WITH ANY APPLICABLE UTILITY COMPANY AND THE OWNER FOR UTILITY SERVICES OR UTILITIES ENCOUNTERED ON SITE.
12. PROTECT ALL PROPERTY CORNERS AND SURVEY CONTROL POINTS WITHIN THE CONSTRUCTION LIMITS.
13. THE CONTRACTOR SHALL SALVAGE AND STOCKPILE EXISTING TOPSOIL MATERIAL ENCOUNTERED WITHIN THE GRADING LIMITS FOR REUSE. ADDITIONAL TOPSOIL MATERIAL SHALL BE PROVIDED BY CONTRACTOR IF ONSITE TOPSOIL DOES NOT PROVIDE ADEQUATE COVERAGE.
14. CONTRACTOR SHALL REFER TO GEO TECHNICAL REPORT FOR INFORMATION REGARDING SITE AND BUILDING. ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS.
15. PROVIDE ALL TRAFFIC CONTROL NECESSARY TO COMPLETE CONSTRUCTION. COORDINATE LANE AND STREET CLOSURES AND ALL CONSTRUCTION ON ADJACENT STREET WITH OWNER AND CITY.
16. ALL CONCRETE AND ASPHALT TO BE REMOVED SHALL BE SAW CUT FULL DEPTH OF PAVEMENT PRIOR TO REMOVAL.
17. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE CITY OF BALTIC AS NECESSARY TO COMPLETE DEMOLITION OPERATIONS FOR PROJECT.
18. REMOVE AND DISPOSE ALL EXISTING UTILITY SERVICES NOT INDICATED TO REMAIN. COORDINATE WITH APPLICABLE UTILITY COMPANIES AS NECESSARY. UTILITY REMOVALS SHALL COMPLY WITH THE PROJECT PHASING PLAN.
19. SALVAGE ALL EXISTING SIGNS TO OWNER OR FOR REUSE. COORDINATE WITH OWNER AND INSTALL EXISTING SIGNS AT NEW LOCATIONS AS APPLICABLE.
20. PERIMETER SEDIMENT PROTECTION SHALL BE INSTALLED PRIOR TO DEMOLITION ACTIVITIES. COORDINATE PERIMETER SEDIMENT PROTECTION WITH PERIMETER CONSTRUCTION FENCE AS MUCH AS PRACTICAL.
21. SEE ARCHITECTURAL PLANS FOR ANY REMOVAL ITEMS RELATED TO OR ADJACENT TO THE EXISTING BUILDING.
22. CONTRACTOR SHALL SALVAGE EXISTING SITE APPURTENANCES INCLUDING BUT NOT LIMITED TO TRASH RECEPTACLES, BIDE RACKS, ETC. AND COORDINATE WITH OWNER AND ARCHITECT ON POSSIBLE REUSE.

KEYNOTE LEGEND:

1. EXISTING BUILDING TO BE REMOVED.
2. SEE ARCHITECTURAL FOR EXISTING CANOPY REMOVAL
3. SEE MECHANICAL PLANS FOR EXISTING ROOF DRAIN OUTLETS THROUGH PROPOSED BUILDING.
4. SALVAGE EXISTING STREET SIGN FOR POSSIBLE REUSE.
5. EXISTING LIGHT/POWER POLE FOR REMOVAL. REMOVE AND DISPOSE EXISTING WIRES, CONDUIT, AND BOXES AS REQUIRED. SEE ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.
6. EXISTING UTILITIES TO BE REMOVED OR ABANDONED. COORDINATE INSTALLATION OF NEW UTILITIES TO PROPOSED BUILDING AS REQUIRED. COORDINATE WITH UTILITY PROVIDER AS REQUIRED.
7. INSTALL PERIMETER SEDIMENT PROTECTION PRIOR TO DEMOLITION ACTIVITIES. COORDINATE PERIMETER SEDIMENT PROTECTION WITH PERIMETER CONSTRUCTION FENCE AS MUCH AS PRACTICAL. COORDINATE WITH CONSTRUCTION MANAGER AS REQUIRED.
8. SALVAGE EXISTING RIP RAP FOR REUSE.
9. PARKING LOT BID ALTERNATE CURB AND GUTTER REMOVAL
10. FIBER VAULT FOR RELOCATION. COORDINATE WITH FIBER COMPANY AS REQUIRED TO FACILITATE RELOCATION.
11. POTHOLE EXISTING FIBER/TELEPHONE LINE TO DETERMINE CONFLICT POTENTIAL. COORDINATE WITH UTILITY COMPANY AS REQUIRED.
12. REMOVE AND DISPOSE EXISTING 42" CMP CULVERT

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REGISTERED PROFESSIONAL ENGINEER
9607
NEIL C. EICHSTADT
MINNESOTA
12/27/21

BANNER engineering a better community
BANNER PROJECT NO: 23668.00

project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: EXISTING CONDITIONS & DEMO

number 0727.2957.21
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1	01/13/2022	SCALE BAR

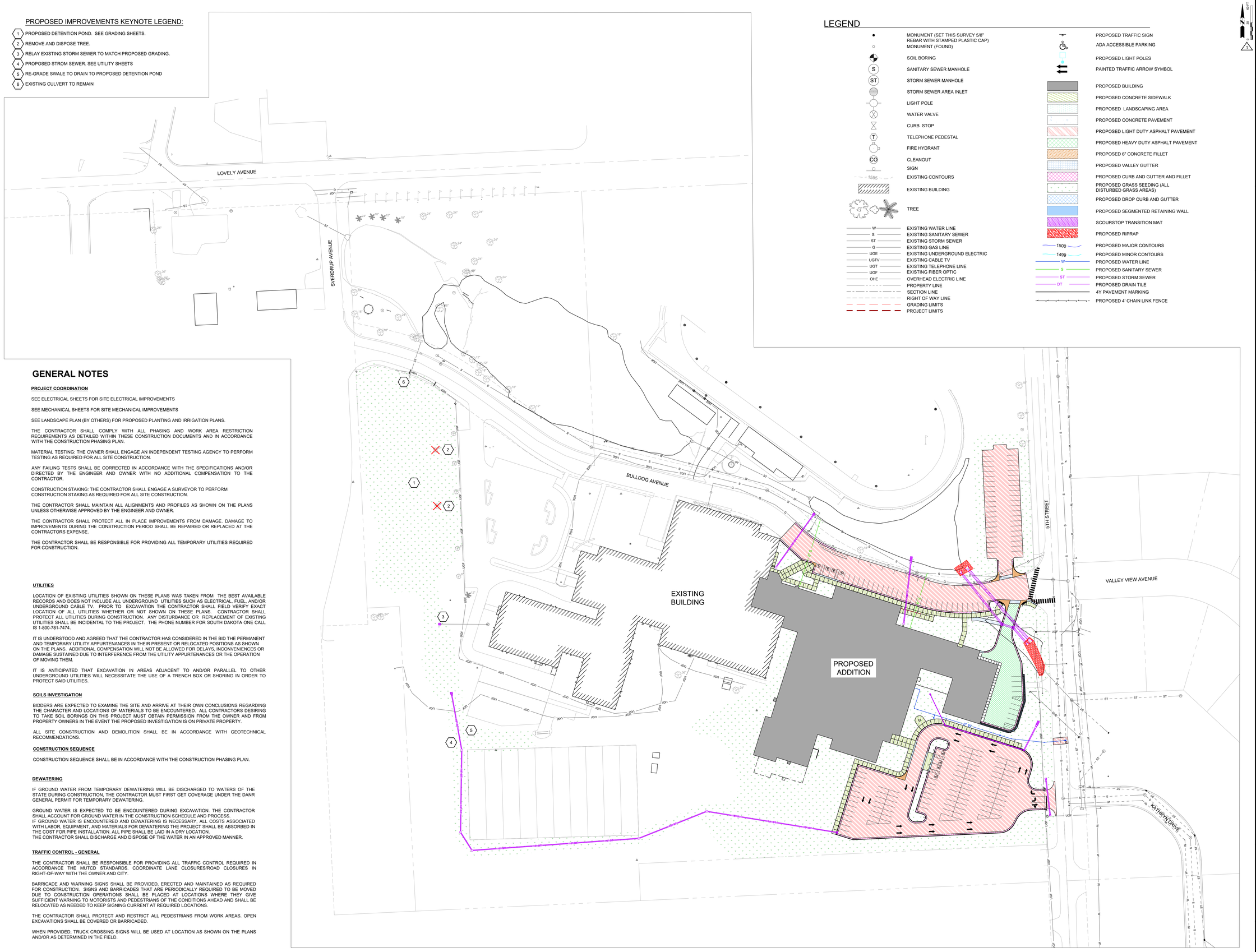
2.40

PROPOSED IMPROVEMENTS KEYNOTE LEGEND:

1. PROPOSED DETENTION POND. SEE GRADING SHEETS.
2. REMOVE AND DISPOSE TREE.
3. RELAY EXISTING STORM SEWER TO MATCH PROPOSED GRADING.
4. PROPOSED STROM SEWER. SEE UTILITY SHEETS
5. RE-GRADE SWALE TO DRAIN TO PROPOSED DETENTION POND
6. EXISTING CULVERT TO REMAIN

LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING CABLE TV
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC
- OVERHEAD ELECTRIC LINE
- PROPERTY LINE
- SECTION LINE
- RIGHT OF WAY LINE
- GRADING LIMITS
- PROJECT LIMITS
- PROPOSED TRAFFIC SIGN
- ADA ACCESSIBLE PARKING
- PROPOSED LIGHT POLES
- PAINTED TRAFFIC ARROW SYMBOL
- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPING AREA
- PROPOSED CONCRETE PAVEMENT
- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED 6" CONCRETE FILLET
- PROPOSED VALLEY GUTTER
- PROPOSED CURB AND GUTTER AND FILLET
- PROPOSED GRASS SEEDING (ALL DISTURBED GRASS AREAS)
- PROPOSED DROP CURB AND GUTTER
- PROPOSED SEGMENTED RETAINING WALL
- SCOURSTOP TRANSITION MAT
- PROPOSED RIPRAP
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED DRAIN TILE
- 4Y PAVEMENT MARKING
- PROPOSED 4' CHAIN LINK FENCE



GENERAL NOTES

PROJECT COORDINATION

SEE ELECTRICAL SHEETS FOR SITE ELECTRICAL IMPROVEMENTS

SEE MECHANICAL SHEETS FOR SITE MECHANICAL IMPROVEMENTS

SEE LANDSCAPE PLAN (BY OTHERS) FOR PROPOSED PLANTING AND IRRIGATION PLANS.

THE CONTRACTOR SHALL COMPLY WITH ALL PHASING AND WORK AREA RESTRICTION REQUIREMENTS AS DETAILED WITHIN THESE CONSTRUCTION DOCUMENTS AND IN ACCORDANCE WITH THE CONSTRUCTION PHASING PLAN.

MATERIAL TESTING: THE OWNER SHALL ENGAGE AN INDEPENDENT TESTING AGENCY TO PERFORM TESTING AS REQUIRED FOR ALL SITE CONSTRUCTION.

ANY FAILING TESTS SHALL BE CORRECTED IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR DIRECTED BY THE ENGINEER AND OWNER WITH NO ADDITIONAL COMPENSATION TO THE CONTRACTOR.

CONSTRUCTION STAKING: THE CONTRACTOR SHALL ENGAGE A SURVEYOR TO PERFORM CONSTRUCTION STAKING AS REQUIRED FOR ALL SITE CONSTRUCTION.

THE CONTRACTOR SHALL MAINTAIN ALL ALIGNMENTS AND PROFILES AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER AND OWNER.

THE CONTRACTOR SHALL PROTECT ALL IN PLACE IMPROVEMENTS FROM DAMAGE. DAMAGE TO IMPROVEMENTS DURING THE CONSTRUCTION PERIOD SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY UTILITIES REQUIRED FOR CONSTRUCTION.

UTILITIES

LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM THE BEST AVAILABLE RECORDS AND DOES NOT INCLUDE ALL UNDERGROUND UTILITIES SUCH AS ELECTRICAL, FUEL AND/OR UNDERGROUND CABLE TV. PRIOR TO EXCAVATION THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES WHETHER OR NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY DISTURBANCE OR REPLACEMENT OF EXISTING UTILITIES SHALL BE INCIDENTAL TO THE PROJECT. THE PHONE NUMBER FOR SOUTH DAKOTA ONE CALL IS 1-800-781-7474.

IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS CONSIDERED IN THE BID THE PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT OR RELOCATED POSITIONS AS SHOWN ON THE PLANS. ADDITIONAL COMPENSATION WILL NOT BE ALLOWED FOR DELAYS, INCONVENIENCES OR DAMAGE SUSTAINED DUE TO INTERFERENCE FROM THE UTILITY APPURTENANCES OR THE OPERATION OF MOVING THEM.

IT IS ANTICIPATED THAT EXCAVATION IN AREAS ADJACENT TO AND/OR PARALLEL TO OTHER UNDERGROUND UTILITIES WILL NECESSITATE THE USE OF A TRENCH BOX OR SHORING IN ORDER TO PROTECT SAID UTILITIES.

SOILS INVESTIGATION

BIDDERS ARE EXPECTED TO EXAMINE THE SITE AND ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE CHARACTER AND LOCATIONS OF MATERIALS TO BE ENCOUNTERED. ALL CONTRACTORS DESIRING TO TAKE SOIL BORINGS ON THIS PROJECT MUST OBTAIN PERMISSION FROM THE OWNER AND FROM PROPERTY OWNERS IN THE EVENT THE PROPOSED INVESTIGATION IS ON PRIVATE PROPERTY.

ALL SITE CONSTRUCTION AND DEMOLITION SHALL BE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.

CONSTRUCTION SEQUENCE

CONSTRUCTION SEQUENCE SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PHASING PLAN.

DEWATERING

IF GROUND WATER FROM TEMPORARY DEWATERING WILL BE DISCHARGED TO WATERS OF THE STATE DURING CONSTRUCTION, THE CONTRACTOR MUST FIRST GET COVERAGE UNDER THE DANR GENERAL PERMIT FOR TEMPORARY DEWATERING.

GROUND WATER IS EXPECTED TO BE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL ACCOUNT FOR GROUND WATER IN THE CONSTRUCTION SCHEDULE AND PROCESS.
IF GROUND WATER IS ENCOUNTERED AND DEWATERING IS NECESSARY, ALL COSTS ASSOCIATED WITH LABOR, EQUIPMENT, AND MATERIALS FOR DEWATERING THE PROJECT SHALL BE ABSORBED IN THE COST FOR PIPE INSTALLATION. ALL PIPE SHALL BE LAID IN A DRY LOCATION.
THE CONTRACTOR SHALL DISCHARGE AND DISPOSE OF THE WATER IN AN APPROVED MANNER.

TRAFFIC CONTROL - GENERAL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL REQUIRED IN ACCORDANCE THE MUTCD STANDARDS. COORDINATE LANE CLOSURES/ROAD CLOSURES IN RIGHT-OF-WAY WITH THE OWNER AND CITY.

BARRICADE AND WARNING SIGNS SHALL BE PROVIDED, ERECTED AND MAINTAINED AS REQUIRED FOR CONSTRUCTION. SIGNS AND BARRICADES THAT ARE PERIODICALLY REQUIRED TO BE MOVED DUE TO CONSTRUCTION OPERATIONS SHALL BE PLACED AT LOCATIONS WHERE THEY GIVE SUFFICIENT WARNING TO MOTORISTS AND PEDESTRIANS OF THE CONDITIONS AHEAD AND SHALL BE RELOCATED AS NEEDED TO KEEP SIGNING CURRENT AT REQUIRED LOCATIONS.

THE CONTRACTOR SHALL PROTECT AND RESTRICT ALL PEDESTRIANS FROM WORK AREAS. OPEN EXCAVATIONS SHALL BE COVERED OR BARRICADED.

WHEN PROVIDED, TRUCK CROSSING SIGNS WILL BE USED AT LOCATION AS SHOWN ON THE PLANS AND/OR AS DETERMINED IN THE FIELD.

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REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH DAKOTA
9607
NEIL C. EICHSTADT
12/27/22

BANNER engineering a better community
BANNER PROJECT NO: 23668.00

project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: OVERALL CAMPUS PLAN

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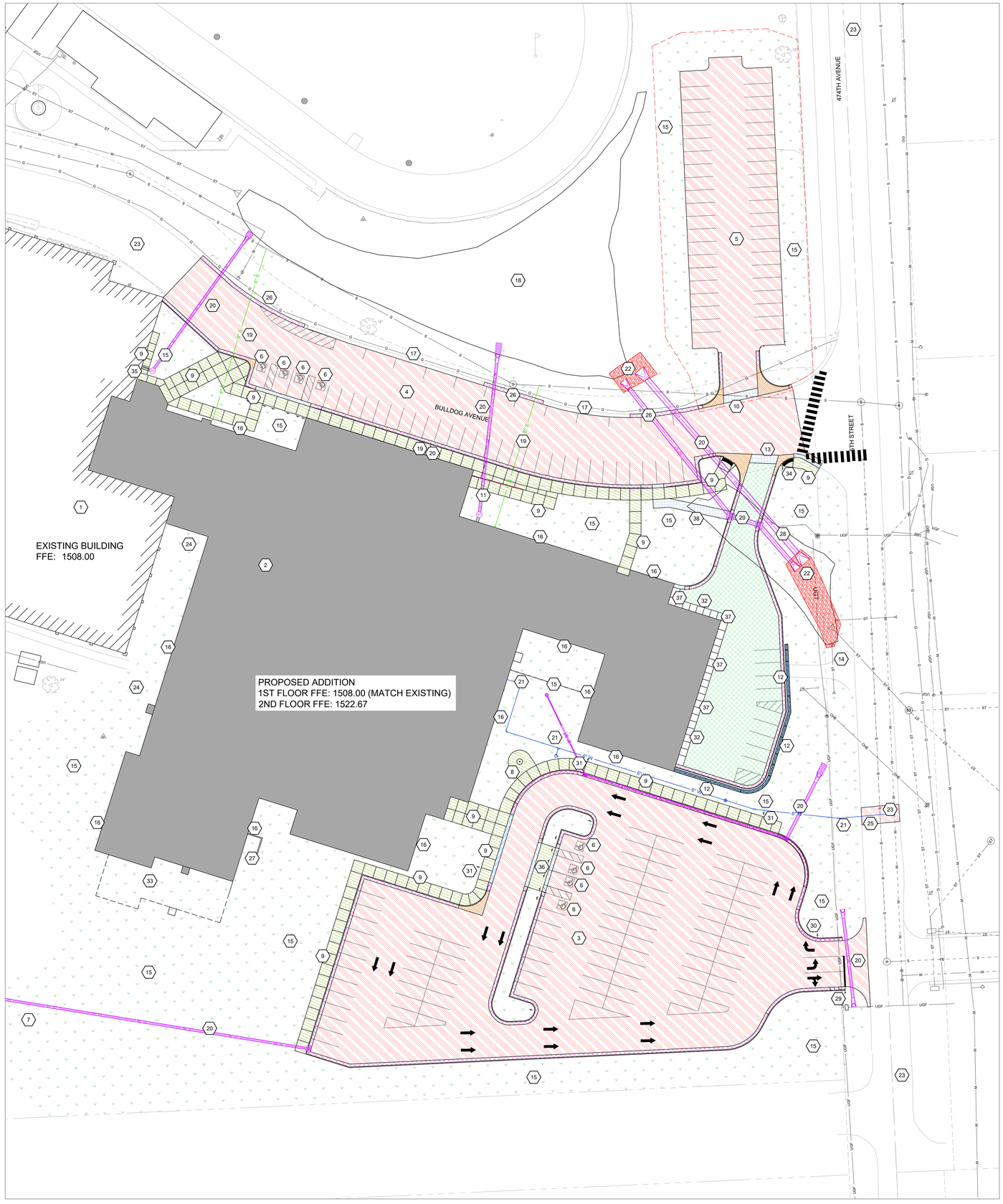

LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING CABLE TV
- EXISTING TELEPHONE LINE
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- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED DRAIN TILE
- 4Y PAVEMENT MARKING
- PROPOSED 4' CHAIN LINK FENCE

PROPOSED IMPROVEMENTS KEYNOTE LEGEND:

1. EXISTING SCHOOL BUILDING TO REMAIN OPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL CONTINUALLY MAINTAIN ACCESS AND ALL UTILITY SERVICES TO EXISTING BUILDING IN ACCORDANCE WITH THE CONSTRUCTION PHASING PLAN. COORDINATE WITH OWNER AND ENGINEER AS NECESSARY.
2. PROPOSED BUILDING ADDITION - SEE ARCHITECTURAL AND STRUCTURAL PLANS.
3. PROPOSED PARKING LOT - TYPICAL PARKING SPACE: 9' X 20' WITH PAINTED 4Y STRIPING AND TRAFFIC ARROWS. TYPICAL 24' WIDE ACCESS AISLES.
4. PROPOSED ASPHALT PAVING AND PARKING IN BULLDOG AVENUE. TYPICAL 90 DEGREE PARKING SPACE: 9' X 20' WITH PAINTED 4Y STRIPING. TYPICAL PARALLEL PARKING 9' X 22' WITH PAINTED 4Y STRIPING.
5. PROPOSED BID ALTERNATE PARKING LOT - TYPICAL PARKING SPACE: 9' X 20' WITH PAINTED 4Y STRIPING. TYPICAL 24' WIDE ACCESS AISLES.
6. PROPOSED VAN ACCESSIBLE ADA PARKING SPACE. INSTALL STRIPING AND SIGNS IN ACCORDANCE WITH CITY CODE, MUTCD STANDARDS, AND PLAN DETAILS.
7. SEE OVERALL CAMPUS PLAN FOR ADDITIONAL PROPOSED DRAINAGE IMPROVEMENTS ON SOUTH AND WEST SIDE OF SCHOOL PROPERTY.
8. PROPOSED FLAGPOLE LOCATION.
9. PROPOSED 5" CONCRETE SIDEWALK. SEE TYPICAL PAVEMENT SECTIONS AND SURFACING SHEETS.
10. PROPOSED 6' WIDE REINFORCED CONCRETE VALLEY GUTTER AND FILLET TO BE INSTALLED WITH PARKING LOT BID ALTERNATE. SEE DETAILS.
11. PROPOSED SIDEWALK WITH WALL AND HANDRAIL. SEE DETAILS AND SPOT ELEVATION SHEETS
12. PROPOSED LARGE BLOCK SEGMENTED RETAINING WALL WITH 4' CHAIN LINK FENCE ANCHORED INTO BLOCK. SEE DETAILS SHEETS.
13. PROPOSED 6' WIDE REINFORCED CONCRETE VALLEY GUTTER WITH ADJACENT REINFORCED CONCRETE FILLET. SEE DETAILS.
14. EXISTING APPROACH TO BE ABANDONED. INSTALL NEW GRASS SURFACING IN PLACE OF GRAVEL. EXISTING BERM AND CULVERT TO REMAIN.
15. PROPOSED GRASS SEEDING IN ALL DISTURBED AREAS NOT INDICATED FOR OTHER SURFACING.
16. PROPOSED MOW STRIP ADJACENT TO PROPOSED BUILDING ADDITION. SEE DETAIL SHEETS.
17. EXISTING CURB AND GUTTER TO REMAIN. DO NOT DISTURB AREAS NOT INDICATED FOR REPLACEMENT.
18. EXISTING WETLAND AREA. DO NOT DISTURB.
19. PROPOSED SANITARY SEWER. SEE UTILITY SHEETS.
20. PROPOSED STORM SEWER AND CULVERTS. SEE UTILITY SHEETS.
21. PROPOSED WATER MAIN. SEE UTILITY SHEETS.
22. FURNISH AND INSTALL 266 TONS CLASS B RIP RAP IN DRAIN CHANNEL AND PIPE OUTLETS AS INDICATED. SEE DETAILS FOR INSTALLATION DETAILS.
23. PROVIDE ALL REQUIRED TRAFFIC CONTROL ALONG BULLDOG AVENUE AND 5TH STREET IN ORDER TO COMPLETE CONSTRUCTION IN ACCORDANCE WITH OWNER, CITY AND MUTCD REQUIREMENTS.
24. RE-GRADE AREA BETWEEN EXISTING BUILDING AND PROPOSED ADDITION TO DRAIN TO THE SOUTH. SEE SPOT ELEVATION SHEETS.
25. INSTALL ASPHALT PATCH IN 5TH STREET AT WATER LINE CONNECTION. MATCH EXISTING PAVEMENT SECTION. COORDINATE ROAD CLOSER AS NECESSARY WITH THE CITY OF BALTIC. INSTALL TRAFFIC CONTROL AS REQUIRED TO COMPLETE WATER LINE INSTALLATION AND ASPHALT PATCH.
26. INSTALL CURB AND GUTTER AT UTILITY CROSSING. MATCH EXISTING SECTION.
27. PROPOSED CONCRETE RETAINING WALL. SEE STRUCTURAL. COORDINATE GRADE ADJACENT TO BLDG WITH WINDOW ELEVATIONS. SEE ARCHITECTURAL.
28. EXISTING WETLAND AREA UNDER 0.10 ACRES TO BE PARTIALLY FILLED IN.
29. PROPOSED R-1 STOP SIGN AND POLE WITH 12W STOP BAR.
30. PROPOSED R3-5R KEEP RIGHT SIGN AND POLE
31. PROPOSED NO PARKING PASSENGER LOADING ONLY SIGN
32. PROPOSED CONCRETE APRON ADJACENT TO BUILDING
33. ADD-ALTERNATE BUILDING LOCATION. SEE ARCHITECTURAL
34. RESET SALVAGED STOP SIGN AND STREET SIGN. RE-STRIP 24W CROSSWALK.
35. PROPOSED SIDEWALK TRENCH DRAIN AT EXISTING LAMB'S TONGUE DOWNSPOUT. INSTALL NEENAH R-4980-CX TYPE A GRATE OR APPROVED EQUAL. SEE SDDOT PLATE 651.50 AS APPLICABLE.
36. INSTALL SIGN IN PIPE BOLLARD AT ADA SPACES WITH ADJACENT DROP CURB
37. INSTALL PIPE BOLLARDS AT EITHER SIDE OF OVERHEAD DOORS AND CORNER OF BUILDING
38. PROPOSED 6' REINFORCED VALLEY GUTTER AT OVERFLOW LOCATION.

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REGISTERED PROFESSIONAL ENGINEER
REG. NO. 9607
NEIL C. EICHSTADT
SOUTH DAKOTA
12/27/21

BANNER engineering a better community
BANNER PROJECT NO: 23668.00

project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: OVERALL SITE PLAN

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NOTES:

1. EARTHWORK QUANTITIES SHOWN ASSUME 12" OF TOPSOIL SHALL BE STRIPPED OVER THE EXISTING GRASS AREAS, TEMPORARILY STOCKPILED AND THEN USED FOR TOPSOIL IN THE PROPOSED GREEN SPACE AREAS.
2. TOPSOIL QUANTITIES WERE DETERMINED BY THE BEST AVAILABLE DATA FROM THE GEOTECHNICAL REPORT. THIS REPORT IS AVAILABLE BY REQUEST FROM THE OWNER
3. EXCAVATION FOR UTILITIES NOT INCLUDED IN THE UNCLASSIFIED EXCAVATION.
4. EARTHWORK QUANTITIES PROVIDED ARE BASED ON AN EXISTING TO PROPOSED SURFACE COMPARISON. ACTUAL EARTHWORK QUANTITIES WILL VARY DEPENDING ON CONTRACTOR'S MEANS AND METHODS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF ACTUAL EARTHWORK QUANTITIES TO COMPLETE GRADING OPERATIONS. ELECTRONIC FILES OF THE PROPOSED AND EXISTING SURFACES ARE AVAILABLE UPON REQUEST.
5. GRADING QUANTITIES INCLUDE MATERIAL CUT DOWN TO 1' BELOW FINISH FLOOR ELEVATION.
6. ALL STOCKPILES ARE TO BE INSIDE THE PROJECT LIMITS UNLESS AUTHORIZED BY THE OWNER. PLACE SILT FENCE ON THE DOWNHILL SIDE OF ALL STOCKPILES.
7. SEE EROSION CONTROL PLAN AND SWPPP FOR ADDITIONAL INFORMATION.
8. PROPOSED CONTOURS SHOWN ON THIS PLAN REFLECT FINISH GRADE AFTER TOPSOIL AND PAVEMENT ARE INSTALLED.
9. 6" OF TOPSOIL REPLACEMENT IS ASSUMED FOR PROPOSED GREEN SPACE AREAS.
10. EXCESS MATERIAL THAT IS PRODUCED FROM GRADING OPERATIONS THAT THE OWNER DOES NOT WANT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND PLACED AT A LOCATION OF THE CONTRACTOR'S CHOOSING.

PRIMARY SITE EARTHWORK TABLE			
TOPSOIL			
CUT (12")	7,800	CY	
25% SHRINKAGE	2,000	CY	
6" FILL OUTSIDE PAVED AREAS	1,900	CY	
TOPSOIL BALANCE	3,900	CY	EXCESS
SITE GRADING			
CUT	39,100	CY	
FILL NEEDED	4,600	CY	
25% SHRINKAGE	1,200	CY	
BALANCE	33,300	CY	EXCESS

WEST SIDE EARTHWORK TABLE			
TOPSOIL			
CUT (12")	2,700	CY	
25% SHRINKAGE	700	CY	
6" FILL OUTSIDE PAVED AREAS	1,600	CY	
TOPSOIL BALANCE	400	CY	EXCESS
SITE GRADING			
CUT	9,200	CY	
FILL NEEDED	0	CY	
25% SHRINKAGE	0	CY	
BALANCE	9,200	CY	EXCESS

LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
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- SURFACE FLOW ARROW
- PROPOSED MAJOR CONTOURS
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EXISTING BUILDING
FFE: 1508.00

PROPOSED ADDITION
1ST FLOOR FFE: 1508.00 (MATCH EXISTING)
2ND FLOOR FFE: 1522.67

SEE INSET 1

SEE INSET 2

SEE INSET 3

BULLDOG AVENUE

5TH STREET

LEGEND:

TC	TOP BACK OF CURB ELEVATION
RTC	TOP BACK OF CURB ELEVATION ON REVERSE SLOPE CURB AND GUTTER
SW	EDGE OF SIDEWALK
EL	FINISH GRADE ELEVATION
FL	FLOW LINE ELEVATION
CONC	FINISH GRADE CONCRETE ELEVATION
THEO	THEORETICAL
RAD	RADIUS POINT
T	TRANSITION
TE-SW	FINISH GRADE ELEVATION AT THICKENED
LIP	LIP OF GUTTER
POV	POINT OF VALLEY GUTTER
DC	DROP CURB
RDC	REVERSE SLOPE DROP CURB
BO	CURB BLOCK OUT
POF	POINT OF FILLET
BLDG	SITE ELVATION AT BUILDING
RIM	RIM ELEVATION OF INLET
	ADA RAMP LANDING AREA (2% MAX SLOPES)
	FLOW ARROW
	GRADING LIMITS

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project
BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents
GRADING AND SPOT ELEVATIONS PLAN

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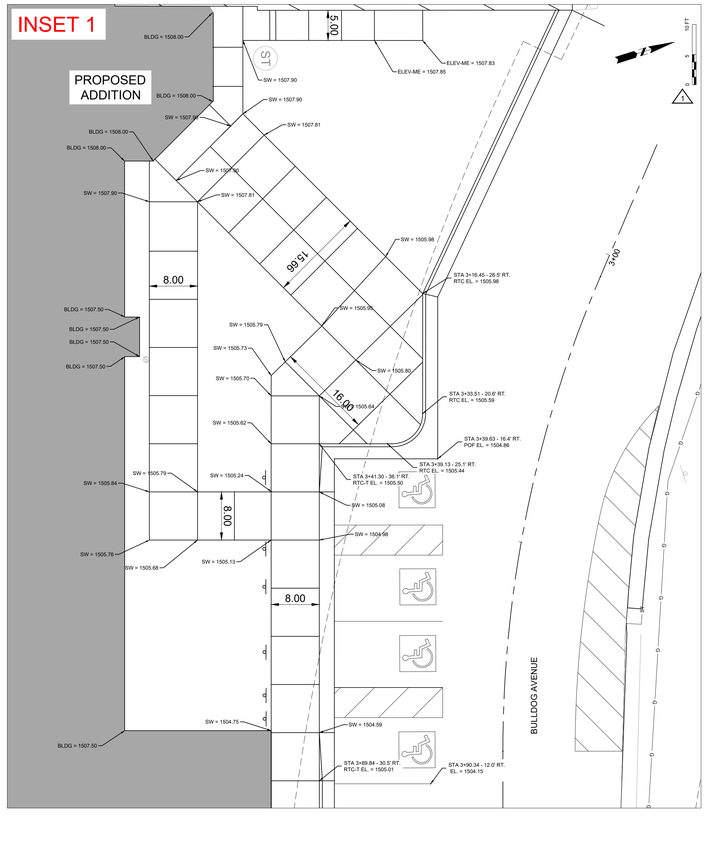

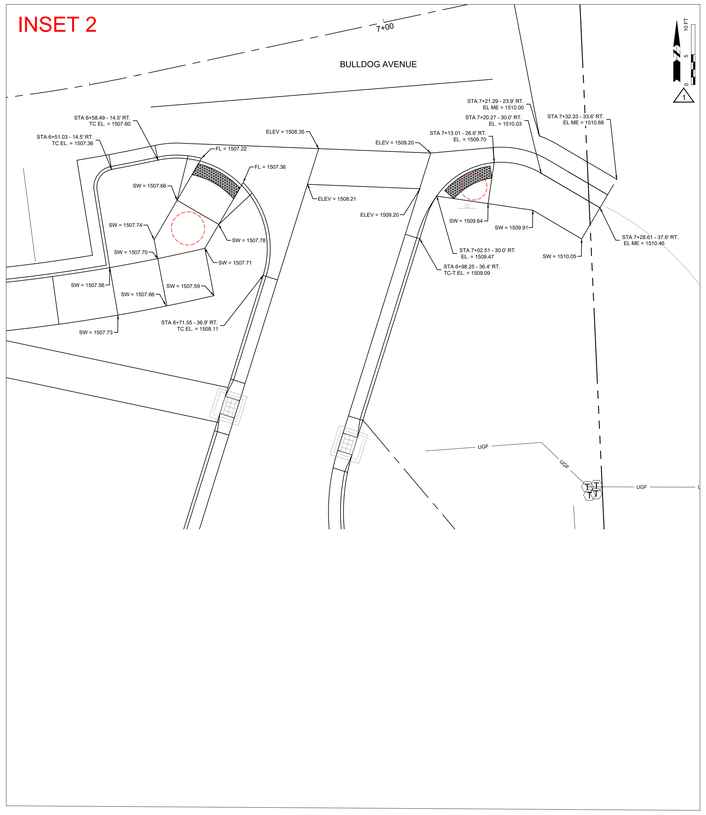

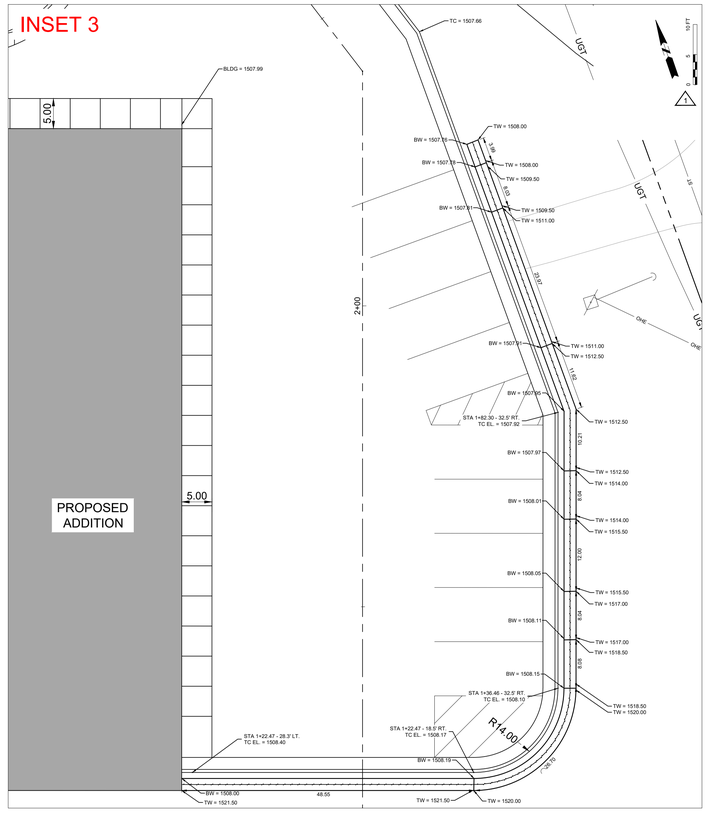

LEGEND:

TC	TOP BACK OF CURB ELEVATION
RTC	TOP BACK OF CURB ELEVATION ON REVERSE SLOPE CURB AND GUTTER
SW	EDGE OFSIDEWALK
EL	FINISH GRADE ELEVATION
FL	FLOW LINE ELEVATION
CONC	FINISH GRADE CONCRETE ELEVATION
THEO	THEORETICAL
RAD	RADIUS POINT
T	TRANSITION
TE-SW	FINISH GRADE ELEVATION AT THICKENED
LIP	LIP OF GUTTER
POV	POINT OF VALLEY GUTTER
DC	DROP CURB
RDC	REVERSE SLOPE DROP CURB
BO	CURB BLOCK OUT
POF	POINT OF FILLET
BLDG	SITE ELEVATION AT BUILDING
RIM	RIM ELEVATION OF INLET
	ADA RAMP LANDING AREA (2% MAX SLOPES)
	FLOW ARROW
	GRADING LIMITS

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12/27/21

BANNER engineering a better community
BANNER PROJECT NO: 23668.00

project
BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents
GRADING AND SPOT ELEVATIONS PLAN

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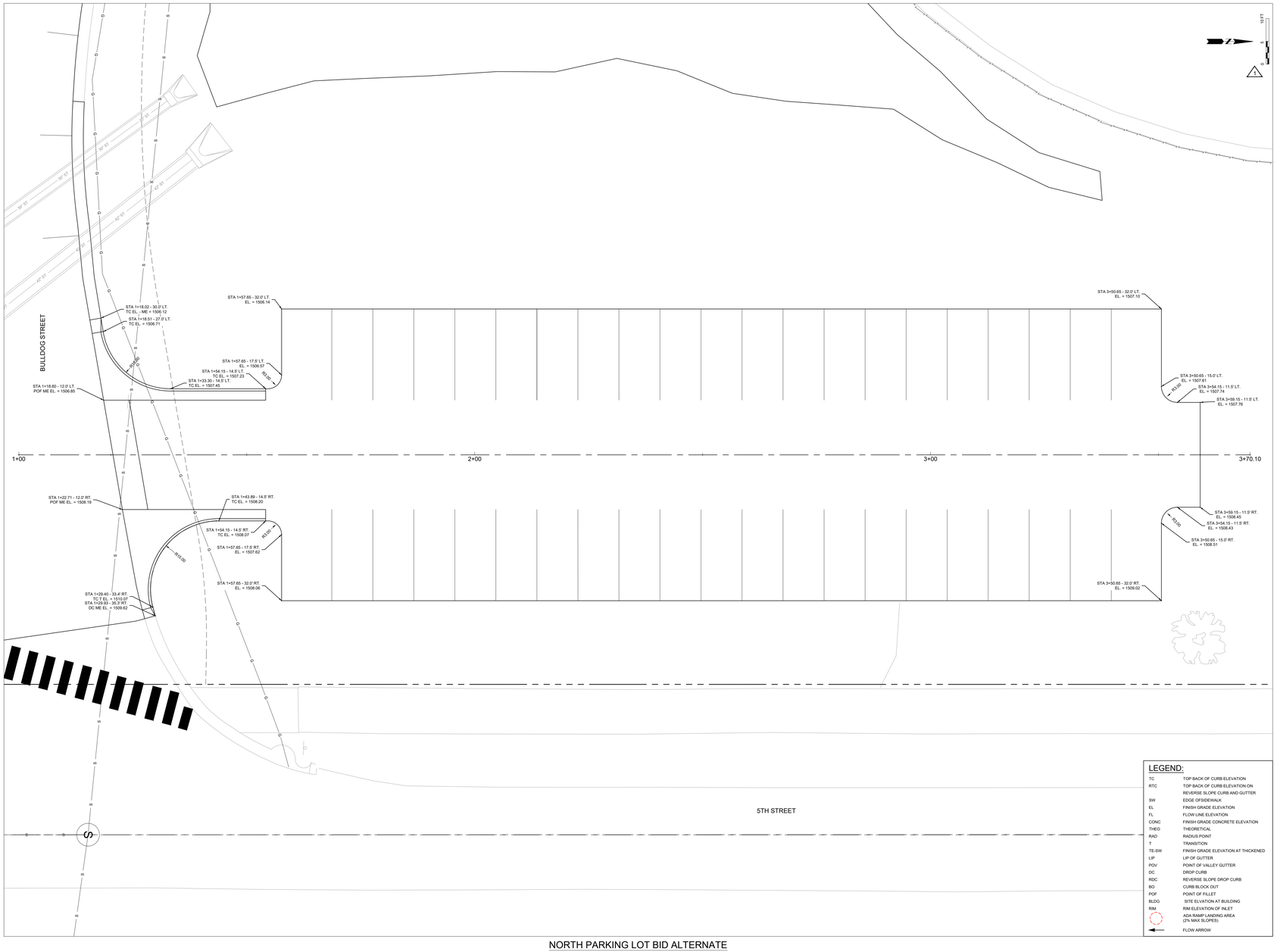
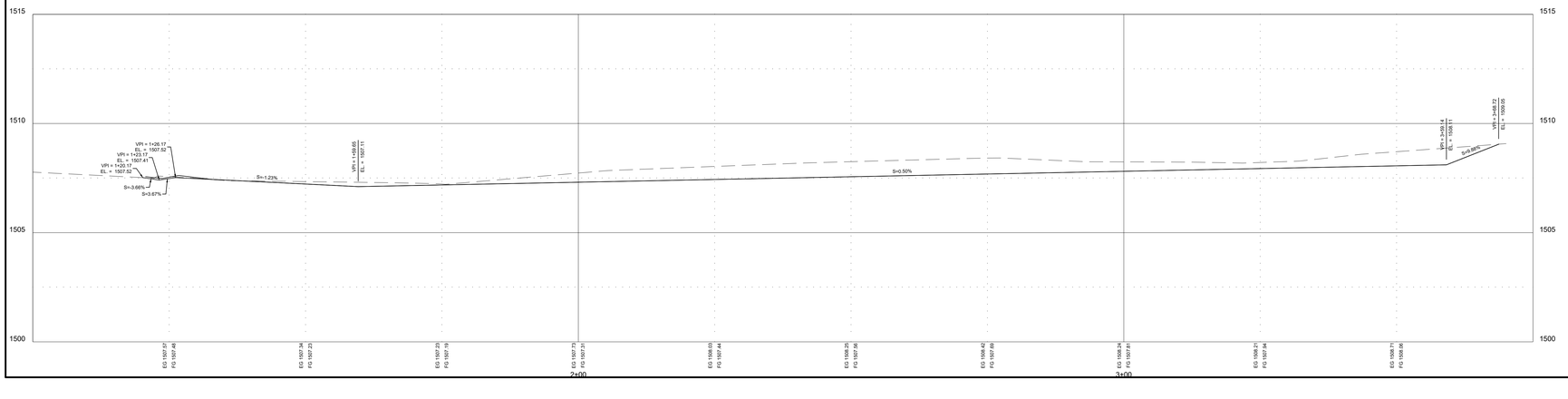


LEGEND:

TC	TOP BACK OF CURB ELEVATION
RTC	TOP BACK OF CURB ELEVATION ON REVERSE SLOPE CURB AND GUTTER
SW	EDGE OF SIDEWALK
EL	FINISH GRADE ELEVATION
FL	FLOW LINE ELEVATION
CONC	FINISH GRADE CONCRETE ELEVATION
THEO	THEORETICAL
RAD	RADIUS POINT
T	TRANSITION
TE-SW	FINISH GRADE ELEVATION AT THICKENED
LIP	LIP OF GUTTER
POV	POINT OF VALLEY GUTTER
DC	DROP CURB
RDC	REVERSE SLOPE DROP CURB
BO	CURB BLOCK OUT
POF	POINT OF FILLET
BLDG	SITE ELVATION AT BUILDING
RIM	RIM ELEVATION OF INLET
	ADA RAMP LANDING AREA (2% MAX SLOPES)
	FLOW ARROW

NORTH PARKING LOT BID ALTERNATE



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BALTIC HIGH SCHOOL ADDITION CIVIL SITE

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NORTH PARKING LOT ADD ALTERNATE

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2.62

LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING CABLE TV
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC
- OVERHEAD ELECTRIC LINE
- PROPERTY LINE
- SECTION LINE
- RIGHT OF WAY LINE
- GRADING LIMITS
- PROJECT LIMITS
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- SILT FENCE
- TEMPORARY VEHICLE TRACKING CONTROL. (COORDINATE LOCATION)
- CONCRETE WASHOUT AREA. (COORDINATE LOCATION)
- PROPOSED LANDSCAPING
- APPROXIMATE SEEDING AREA
- EROSION CONTROL BLANKET (INSTALL AT PERMANENT SEEDING
- SCOURSTOP TRANSITION MAT
- PROPOSED RIPRAP
- INLET PROTECTION (SDDOT PLATE 734.10)
- AREA INLET PROTECTION (SDDOT PLATE 734.05)
- SURFACE FLOW ARROW

GENERAL EROSION CONTROL NOTES:

1. SEE THE STORM WATER POLLUTION PREVENTION (SWPPP) SHEETS FOR ADDITIONAL EROSION AND SEDIMENT CONTROL INFORMATION AND REQUIREMENTS.
2. IF WATER FROM TEMPORARY DEWATERING WILL BE DISCHARGED TO WATERS OF THE STATE DURING CONSTRUCTION, THE CONTRACTOR MUST FIRST GET COVERAGE UNDER THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES GENERAL PERMIT FOR TEMPORARY DEWATERING.
3. GROUNDWATER IS EXPECTED TO BE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL ACCOUNT FOR GROUNDWATER IN THE CONSTRUCTION SCHEDULE AND PROCESS.
4. ALL SITE CONSTRUCTION AND DEMOLITION SHALL BE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD INSPECT THE PROJECT LIMITS PRIOR TO BID AND DETERMINE SIZE, NUMBER, AND LIMITS OF VISIBLE OBSTRUCTIONS WHICH ARE TO BE REMOVED, RELOCATED, OR SALVAGED INCLUDING TREES, UTILITIES, ETC.
6. THE CONTRACTOR SHALL COMPLY WITH ALL PHASING AND WORK AREA RESTRICTION REQUIREMENTS PER THE CONSTRUCTION MANAGERS PHASING PLAN.
7. ANY MATERIAL PILE STORED ONSITE SHALL HAVE SILT FENCE PLACED ON THE DOWNHILL SIDE OF THE PILE.
8. ALL STREETS OUTSIDE THE WORK LIMITS SHALL BE KEPT CLEAN. ANY TRACKED SOIL OR CONSTRUCTION MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE STREETS.
9. CONCRETE WASHOUT AREA AND VEHICLE TRACKING CONTROL SHALL BE INSTALLED AT LOCATIONS DECIDED BY OWNER/ ENGINEER AND CONTRACTOR TO FACILITATE CONSTRUCTION SEQUENCE.
10. COORDINATE PERIMETER SILT FENCE PLACEMENT WITH CONSTRUCTION MANAGER TO ALIGN WITH PROJECT STAGING AND STORAGE. ADJUST SILT FENCE LOCATIONS AS NECESSARY TO ENSURE ADEQUATE COVERAGE.

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BANNER engineering a better community
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project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: EROSION CONTROL PLAN

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LEGEND

- MONUMENT (SET THIS SURVEY 5/8" REBAR WITH STAMPED PLASTIC CAP)
- MONUMENT (FOUND)
- SOIL BORING
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER AREA INLET
- LIGHT POLE
- WATER VALVE
- CURB STOP
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- CLEANOUT
- SIGN
- EXISTING CONTOURS
- EXISTING BUILDING
- TREE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING CABLE TV
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC
- OVERHEAD ELECTRIC LINE
- PROPERTY LINE
- SECTION LINE
- RIGHT OF WAY LINE
- GRADING LIMITS
- PROJECT LIMITS
- PROPOSED TRAFFIC SIGN
- ADA ACCESSIBLE PARKING
- PROPOSED LIGHT POLES
- PAINTED TRAFFIC ARROW SYMBOL
- PROPOSED BUILDING
- SCOURSTOP TRANSITION MAT
- PROPOSED RIPRAP
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED DRAIN TILE
- 4Y PAVEMENT MARKING
- PROPOSED 4' CHAIN LINK FENCE

LOVELY AVENUE

SVERDRUP AVENUE

BULLDOG AVENUE

VALLEY VIEW AVENUE

5TH STREET

KATHRYN DRIVE

EXISTING BUILDING

PROPOSED ADDITION

SEE SHEET 2.81

SEE SHEET 2.82

SEE SHEET 2.83

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01/13/23

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project: BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents: OVERALL UTILITY PLAN

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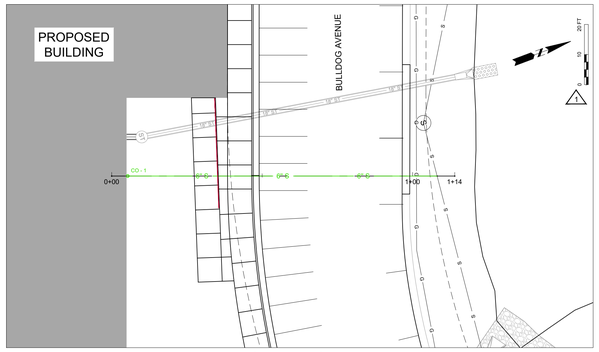

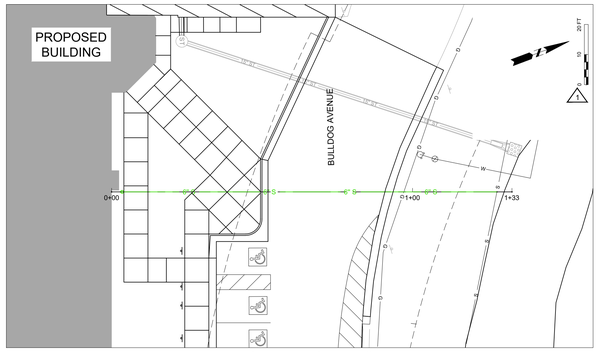

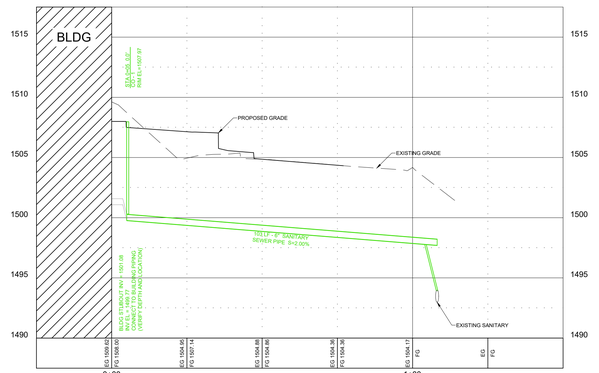

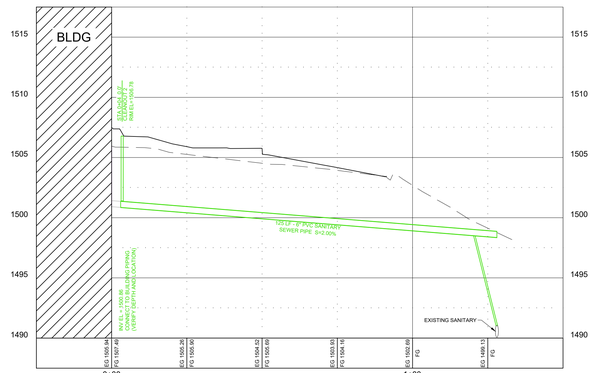

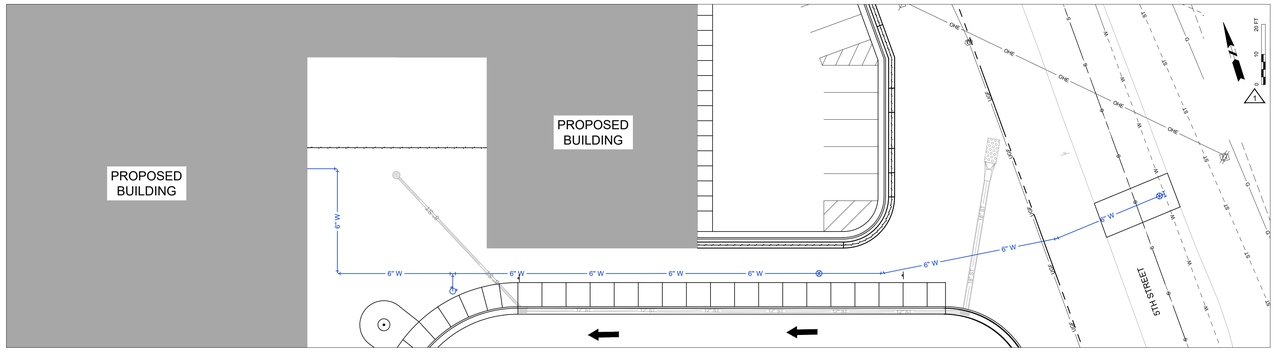

6" SANITARY SEWER

SANITARY SEWER
STA 0+05 - CL
CONNECT TO BLDG PIPING.
INSTALL COUPLING AND VERTICAL BENDS AS REQUIRED.
1 EA - CLEAN OUT (CO-1)
VERIFY DEPTH AND LOCATION OF BUILDING STUB OUT

SANITARY SEWER
STA 0+05 - CL TO 1+08 - CL
FURNISH AND INSTALL:
103 L.F. - 6" DIA PVC SANITARY SEWER
CONNECT TO EXISTING 12" SANITARY SEWER

6" SANITARY SEWER #2

SANITARY SEWER
STA 0+03 - CL
CONNECT TO BLDG PIPING.
INSTALL COUPLING AND VERTICAL BENDS AS REQUIRED.
1 EA - CLEAN OUT (CO-2)
VERIFY DEPTH AND LOCATION OF BUILDING STUB OUT

SANITARY SEWER
STA 0+03 - CL TO 1+28 - CL
FURNISH AND INSTALL:
125 L.F. - 6" DIA PVC SANITARY SEWER
CONNECT TO EXISTING 12" SANITARY SEWER

6" WATER SERVICE

WATER SERVICE
STA 0+05 - CL
CONNECT TO BLDG PIPING.
INSTALL COUPLING AND VERTICAL BENDS AS REQUIRED.
VERIFY DEPTH AND LOCATION OF BUILDING STUB OUT

WATER SERVICE
STA 0+05 - CL TO 3+24 - CL
FURNISH AND INSTALL:
319 L.F. - 6" DIA PVC WATER MAIN

WATER SERVICE
STA 0+10 - CL
FURNISH & INSTALL:
1 EA - 6" DIA D.I. M.J. 90 DEGREE BEND
CONCRETE THRUST BLOCK

WATER SERVICE
STA 0+45 - CL
FURNISH & INSTALL:
1 EA - 6" DIA D.I. M.J. 90 DEGREE BEND
CONCRETE THRUST BLOCK

WATER SERVICE
STA 0+83 - CL TO 6' RT
FURNISH & INSTALL:
1 EA - 6"X6" DIA D.I. M.J. TEE
CONCRETE THRUST BLOCK
6 LF - 6" DIA WATER MAIN
1 EA - FIRE HYDRANT W/ AUX VALVE AND BOX

WATER SERVICE
STA 2+05 - CL
FURNISH & INSTALL:
1 EA - 6" DIA D.I. M.J. VALVE WITH POST INDICATOR

WATER SERVICE
STA 2+26 - CL
FURNISH & INSTALL:
1 EA - 6" DIA D.I. M.J. 11.25 DEGREE BEND
CONCRETE THRUST BLOCK

WATER SERVICE
STA 2+85 - CL
FURNISH & INSTALL:
1 EA - 6" DIA D.I. M.J. 11.25 DEGREE BEND
CONCRETE THRUST BLOCK

WATER SERVICE
STA 3+24 - CL
CONNECT TO EXISTING WATER MAIN
VERIFY DEPTH AND LOCATION
FURNISH & INSTALL:
1 EA - 6"X6" DIA TAPPING TEE (WET TAP)
1 EA - 6" GATE VLAVE AND BOX

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12-22-22

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BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents
WATER AND SANITARY PLAN AND PROFILE

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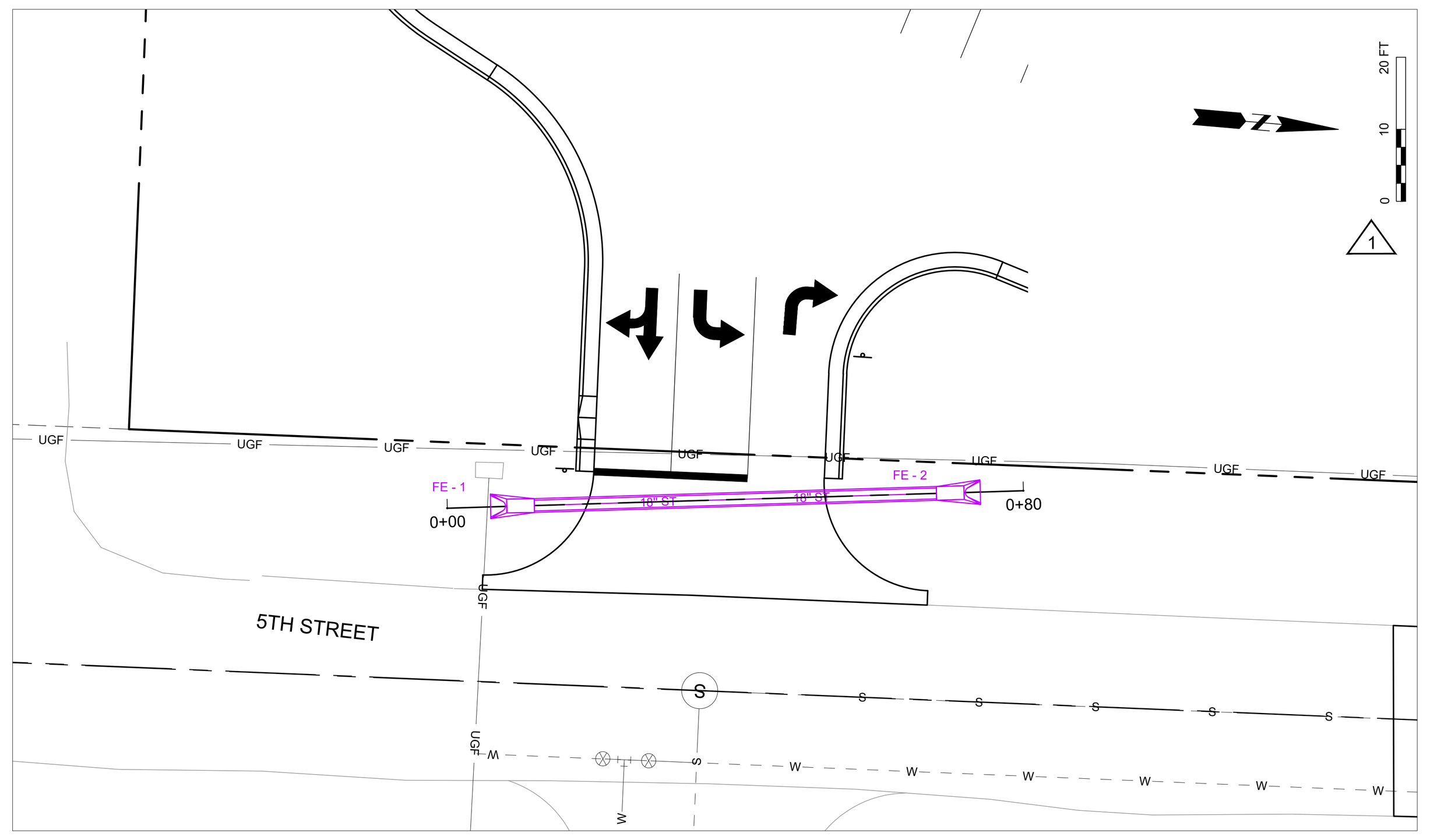
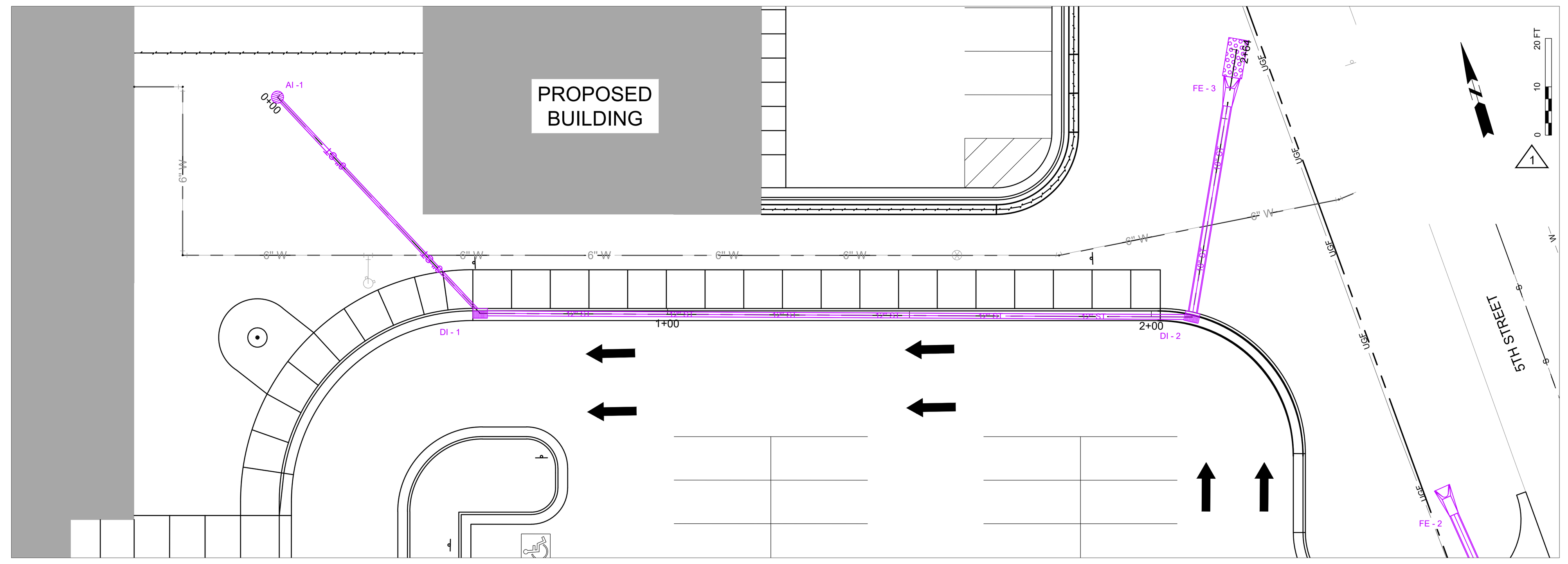
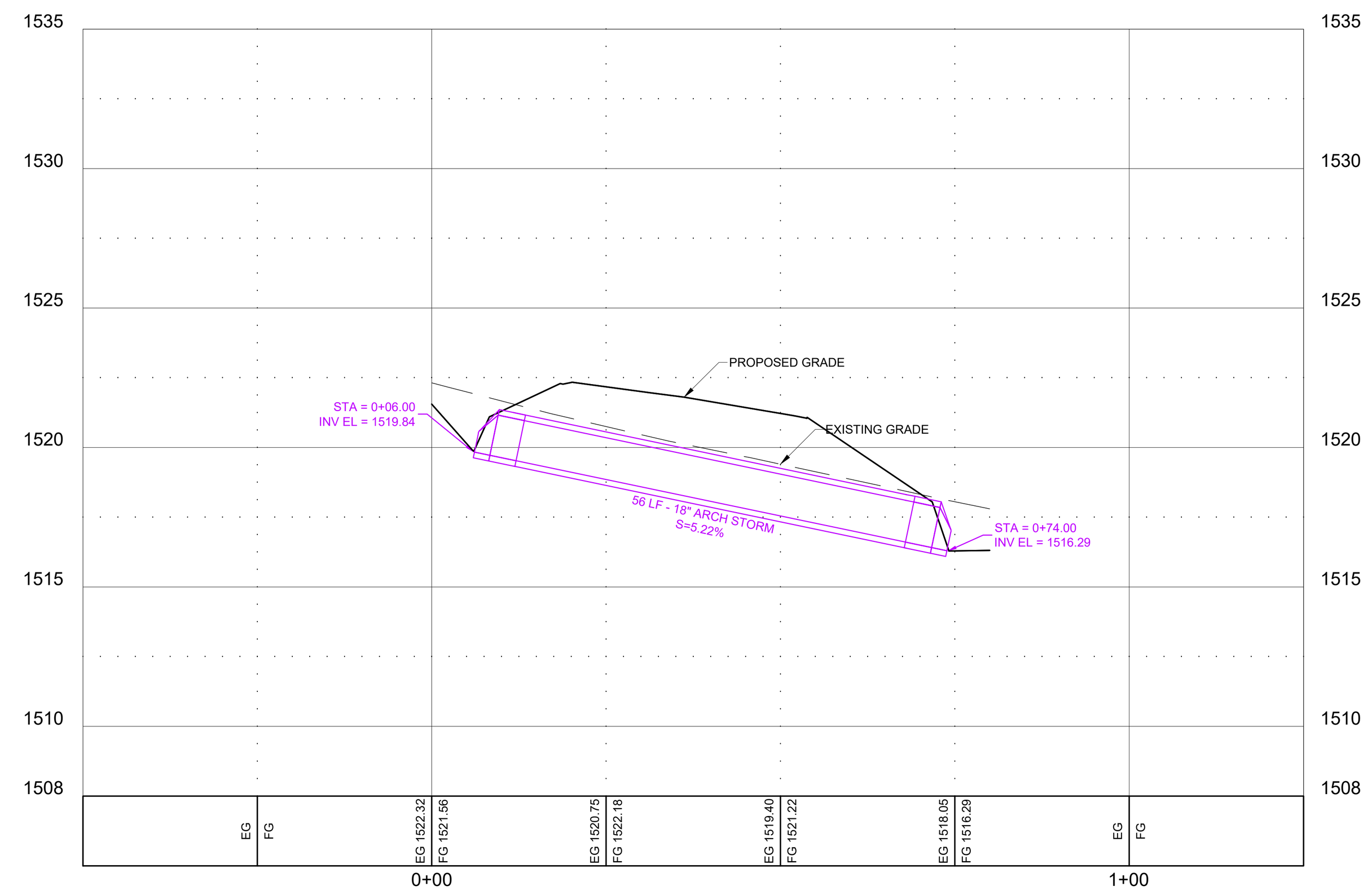




SOUTH LOT APPROACH CULVERT

STORM SEWER
STA 0+06 - CL
FURNISH AND INSTALL:
18" ARCH RCP FLARED END SECTION (FE-1)

STORM SEWER
STA 0+12 TO 0+68 - CL
FURNISH AND INSTALL:
56 LF - 18" DIA ARCH RCP

STORM SEWER
STA 0+74 - CL
FURNISH AND INSTALL:
18" ARCH RCP FLARED END SECTION (FE-2)



SOUTH LOT STORM SEWER

STORM SEWER
STA 0+00 - CL
FURNISH AND INSTALL:
1 EA - AREA INLET (AI-1)

STORM SEWER
STA 0+00 TO 0+61 - CL
FURNISH AND INSTALL:
61 LF - 8" DIA STORM PIPE

STORM SEWER
STA 0+61 - CL
FURNISH AND INSTALL:
1 EA - TYPE B DROP INLET (DI-1)
1 EA - TYPE B FRAME AND GRATE

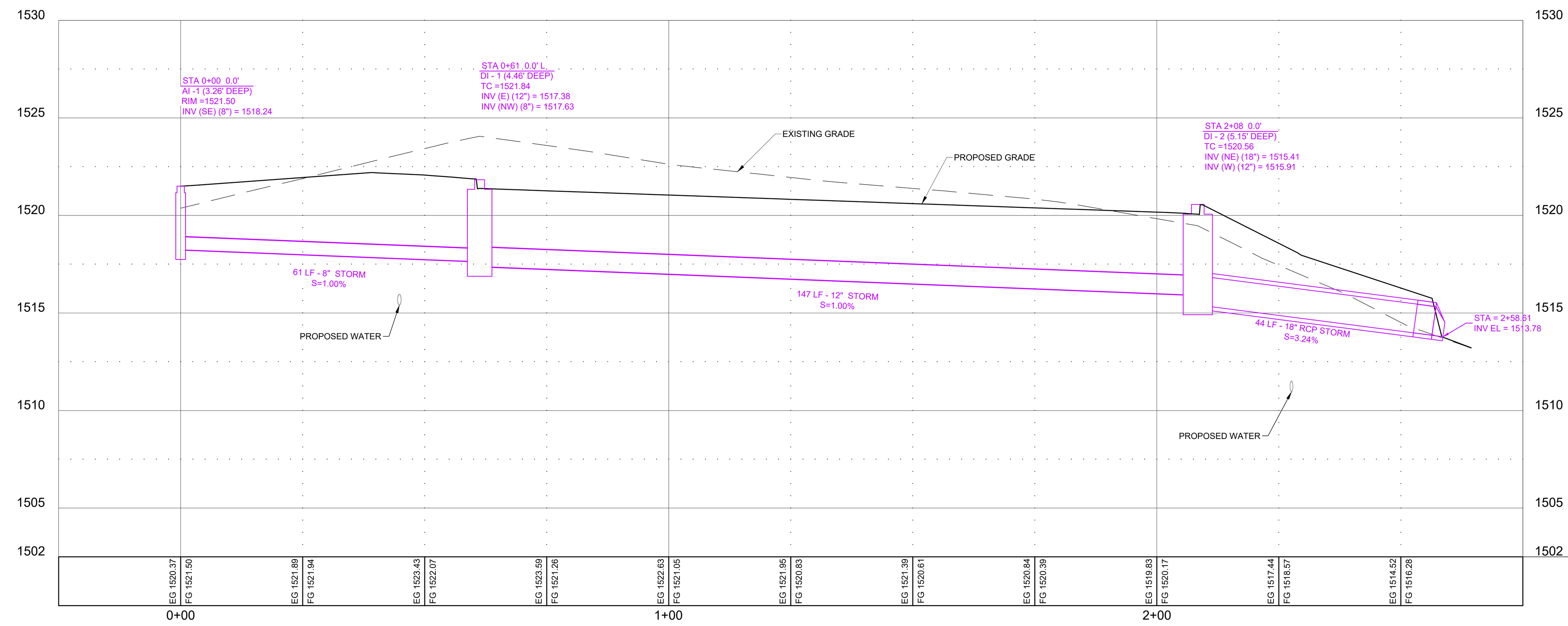
STORM SEWER
STA 0+61 TO 2+08 - CL
FURNISH AND INSTALL:
147 LF - 12" DIA STORM PIPE

STORM SEWER
STA 2+08 - CL
FURNISH AND INSTALL:
1 EA - TYPE B DROP INLET (DI-2)
1 EA - TYPE B FRAME AND GRATE

STORM SEWER
STA 2+08 TO 2+53 - CL
FURNISH AND INSTALL:
44 LF - 18" DIA RCP

STORM SEWER
STA 2+59 - CL
FURNISH AND INSTALL:
18" RCP FLARED END SECTION (FE-3)

STORM SEWER
STA 2+59 TO 2+67
FURNISH AND INSTALL:
2 EA - SCOURSTOP MAT (8'X8' AREA)



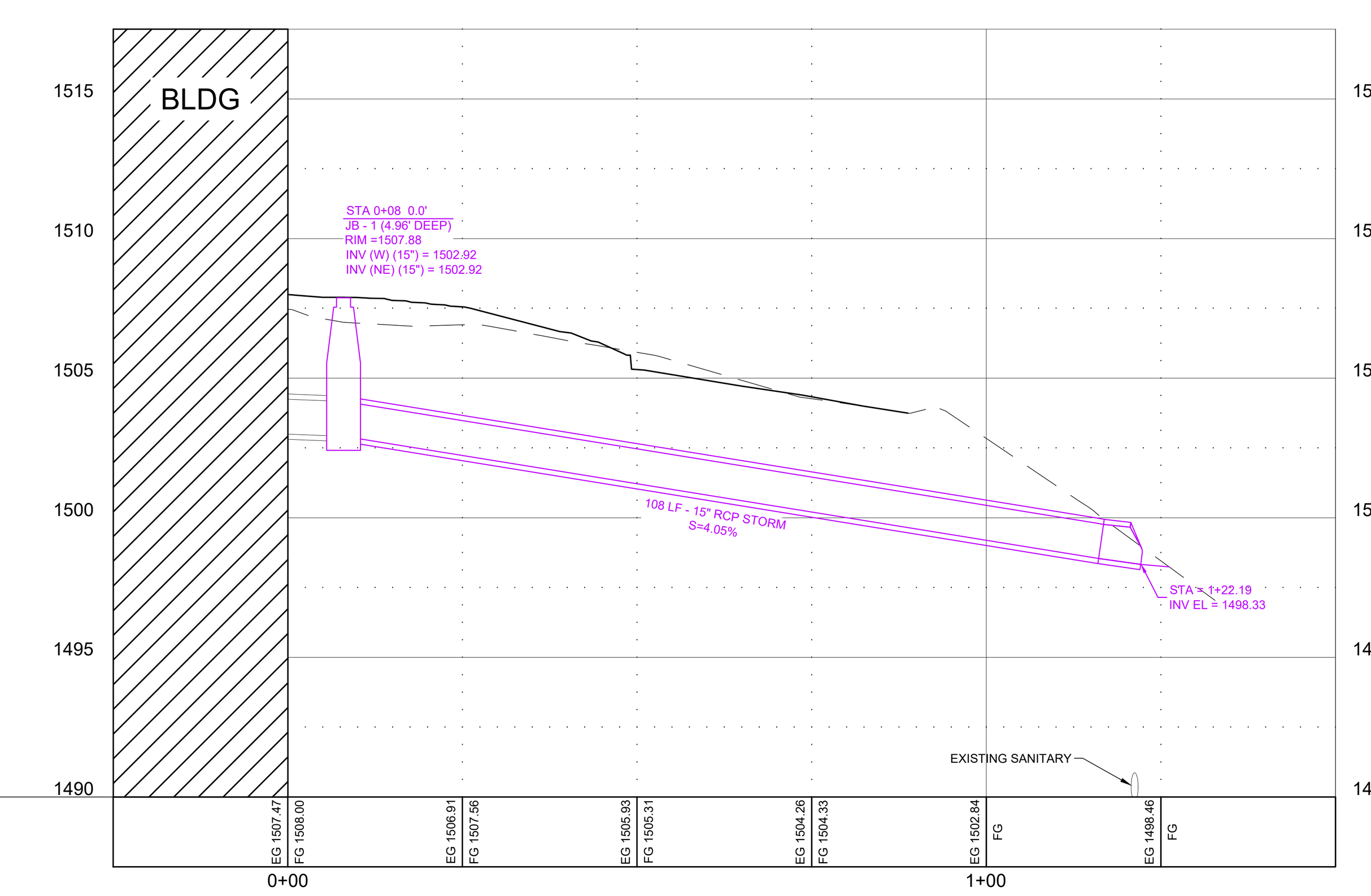
NORTH WEST STORM SEWER

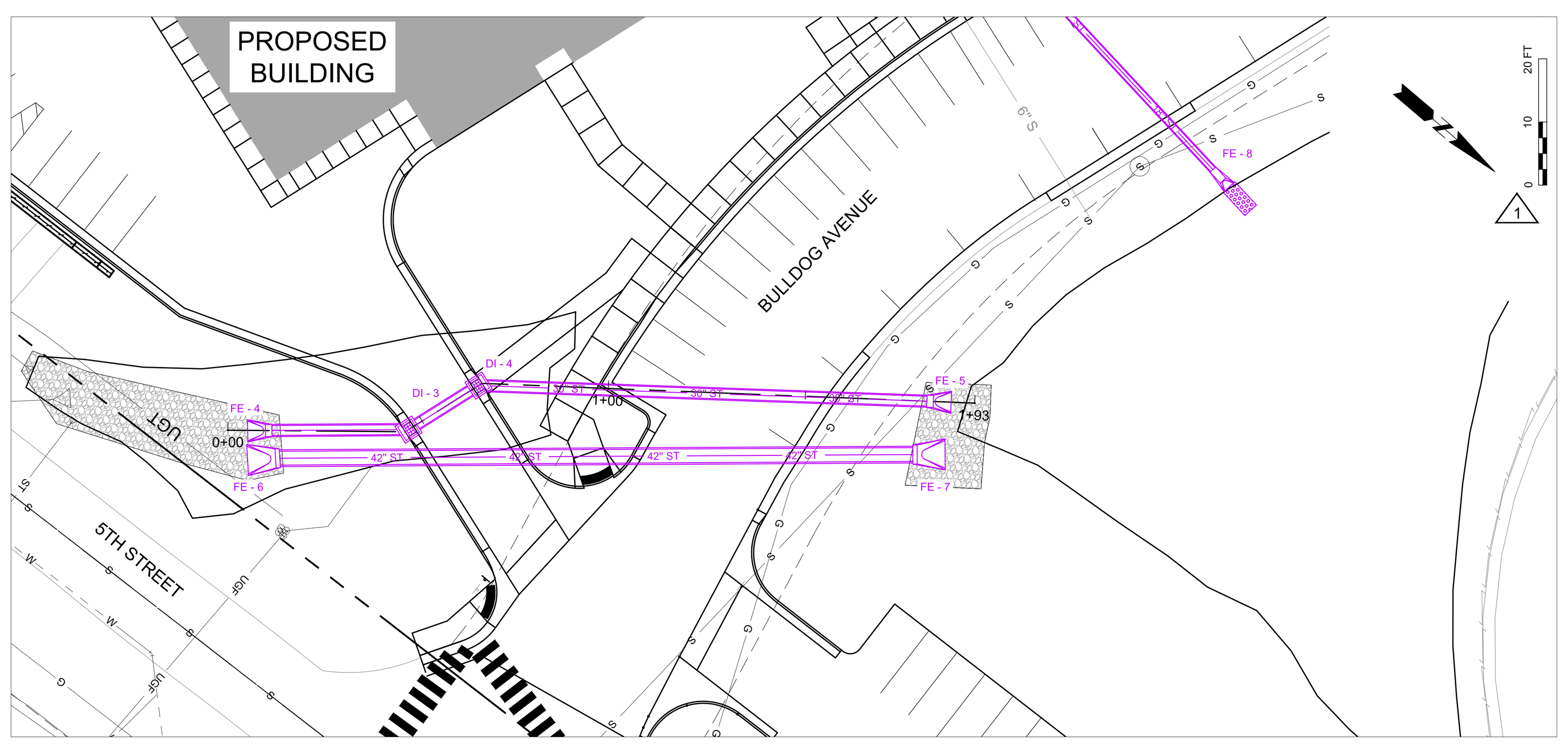
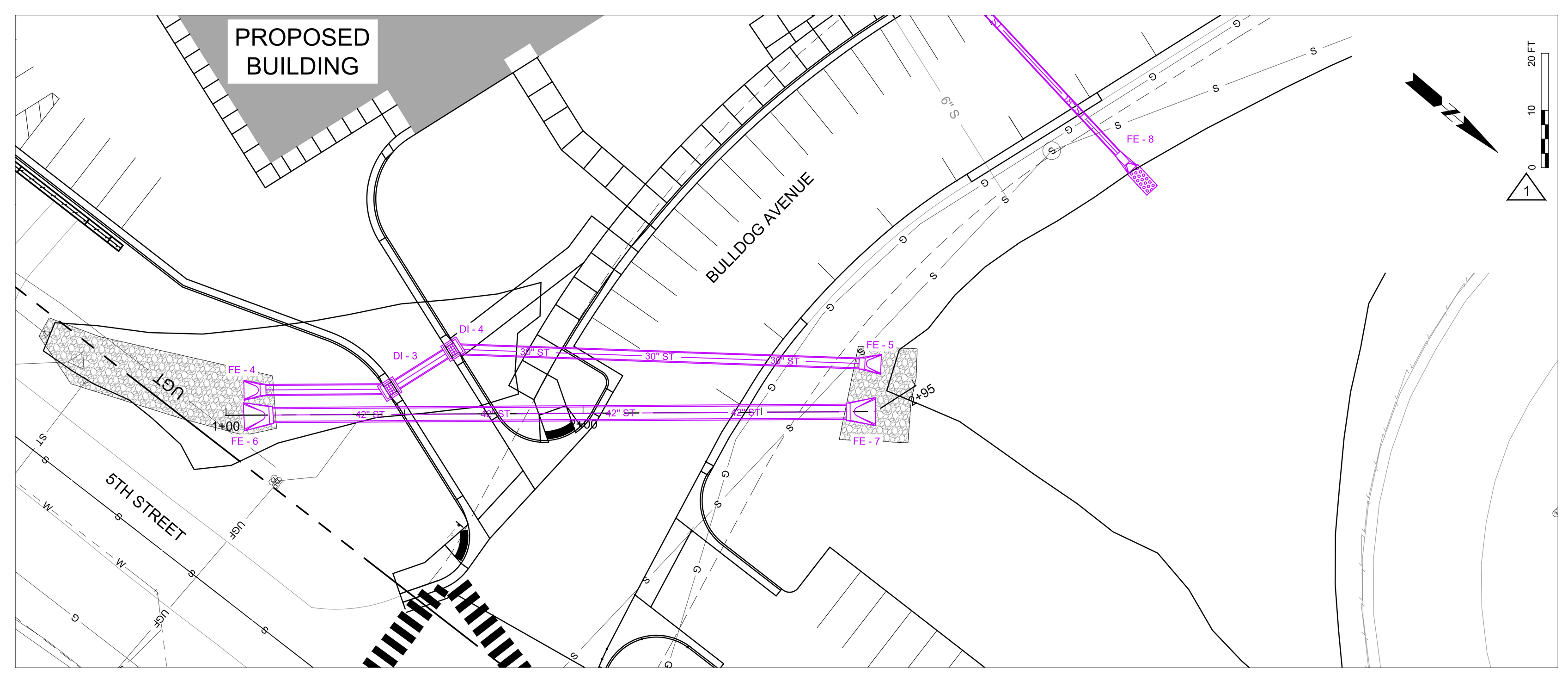
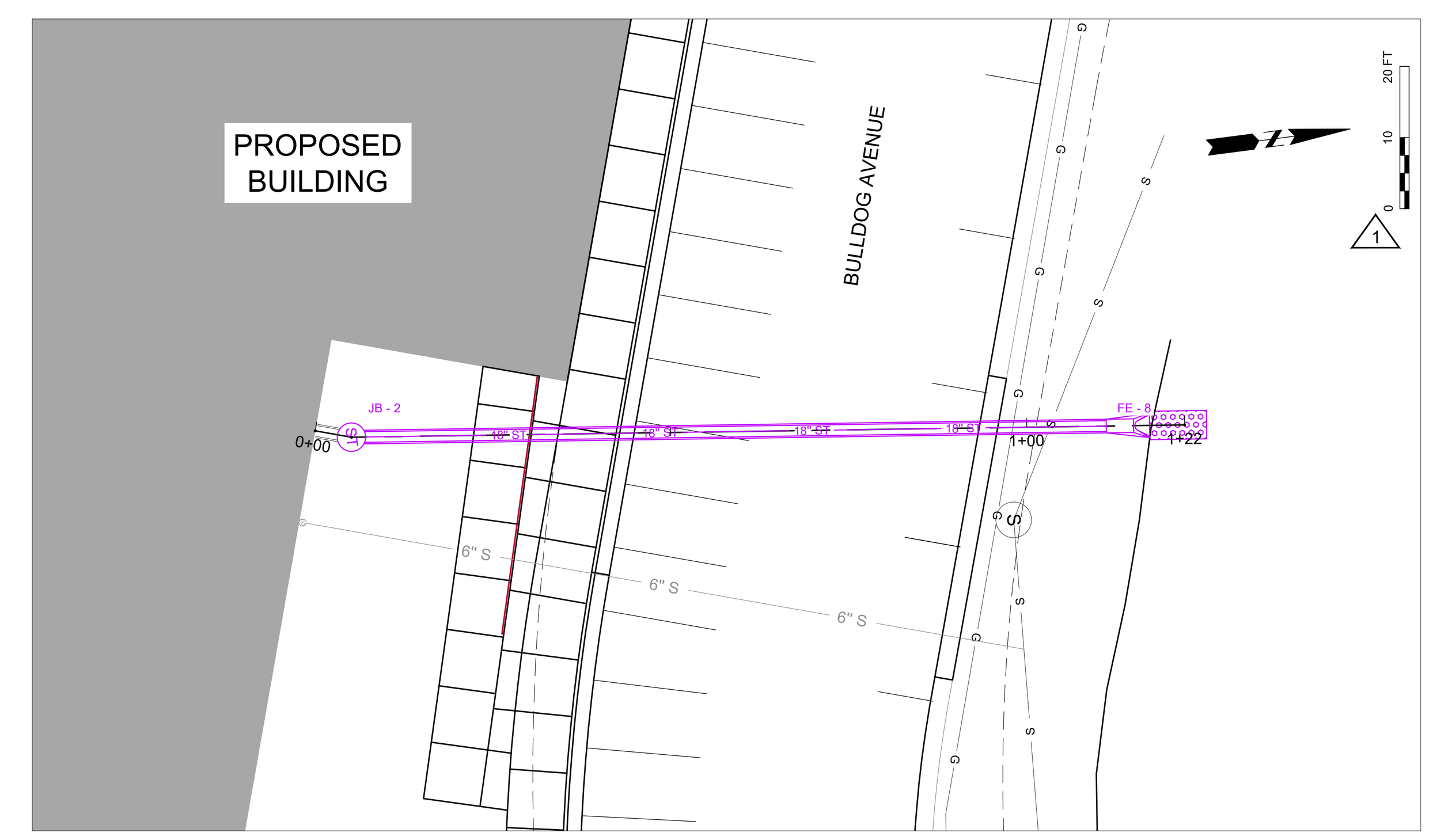
STORM SEWER
STA 0+08 - CL
FURNISH AND INSTALL:
1 EA - JUNCTION BOX (JB-1)
1 EA - FRAME AND LID
CONNECT TO BLDG STUBOUT
VERIFY DEPTH AND LOCATION

STORM SEWER
STA 0+08 TO 1+22 - CL
FURNISH AND INSTALL:
108 LF - 18" DIA RCP

STORM SEWER
STA 1+22 - CL
FURNISH AND INSTALL:
18" RCP FLARED END SECTION (FE-9)

STORM SEWER
STA 1+22 TO 1+30
FURNISH AND INSTALL:
2 EA - SCOURSTOP MAT (8'X8' AREA)



30" DRAINAGE CHANNEL STORM SEWER

STORM SEWER
STA 0+05 - CL
FURNISH AND INSTALL:
30" RCP FLARED END SECTION (FE-4)

STORM SEWER
STA 0+11 TO 0+46 - CL
FURNISH AND INSTALL:
35 LF - 30" DIA RCP

STORM SEWER
STA 0+46 - CL
FURNISH AND INSTALL:
1 EA - SPECIAL 4' X 4' TYPE B DROP INLET (DI-3)
1 EA - TYPE E FRAME AND GRATE

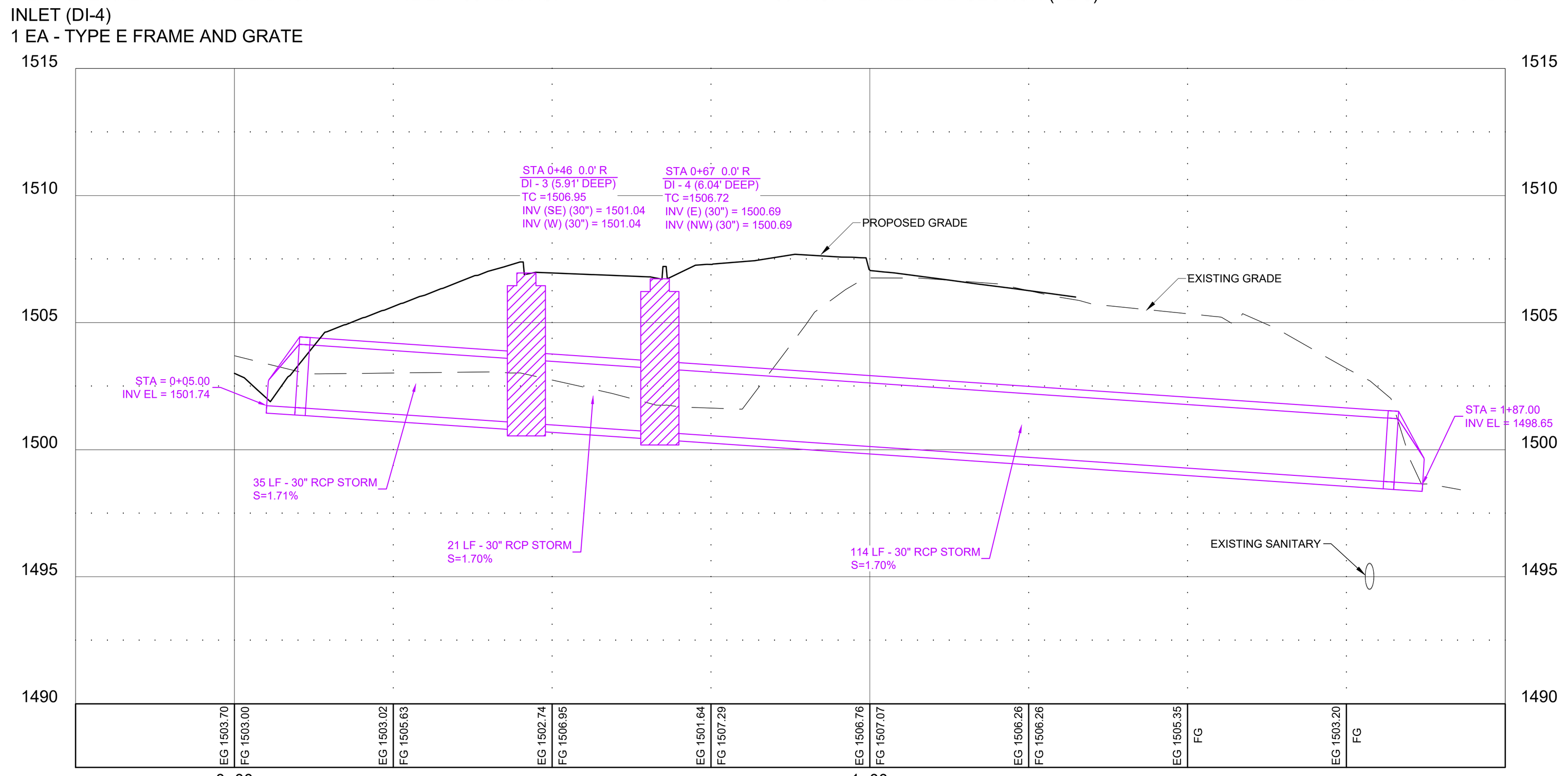
STORM SEWER
STA 0+46 TO 0+67 - CL
FURNISH AND INSTALL:
21 LF - 30" DIA RCP

STORM SEWER
STA 0+67 - CL
FURNISH AND INSTALL:
1 EA - SPECIAL 4' X 4' TYPE B DROP INLET (DI-4)
1 EA - TYPE E FRAME AND GRATE

STORM SEWER
STA 0+69 TO 1+81 - CL
FURNISH AND INSTALL:
112 LF - 30" DIA RCP

STORM SEWER
STA 1+87 - CL
FURNISH AND INSTALL:
30" RCP FLARED END SECTION (FE-5)

STORM SEWER
STA 1+87
FURNISH AND INSTALL:
CLASS B RIP RAP - 76 TONS



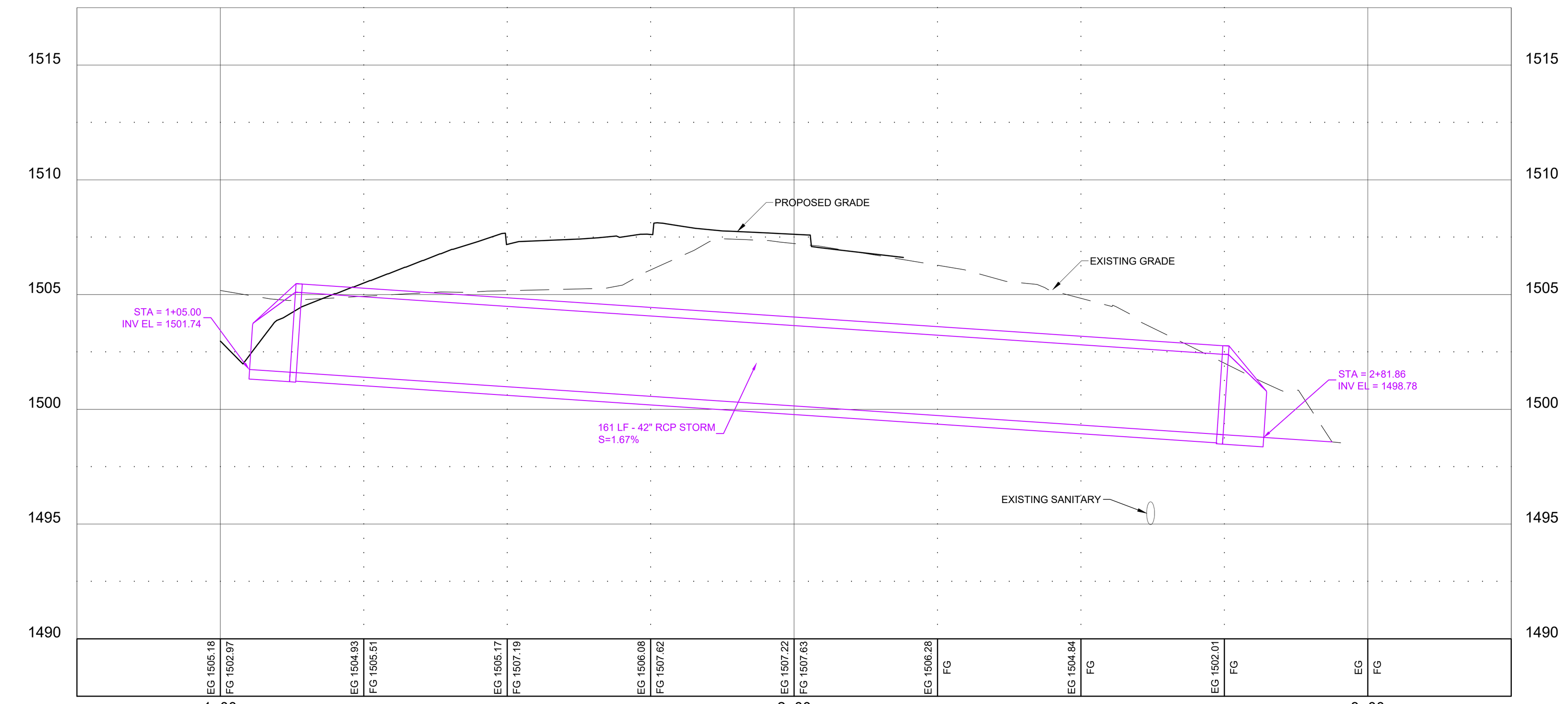
42" DRAINAGE CHANNEL STORM SEWER

STORM SEWER
STA 1+05
FURNISH AND INSTALL:
CLASS B RIP RAP - 190 TONS IN DRAINAGE CHANNEL

STORM SEWER
STA 1+05 - CL
FURNISH AND INSTALL:
42" RCP FLARED END SECTION (FE-6)

STORM SEWER
STA 1+13 TO 2+74 - CL
FURNISH AND INSTALL:
161 LF - 42" DIA RCP

STORM SEWER
STA 2+82 - CL
FURNISH AND INSTALL:
42" RCP FLARED END SECTION (FE-7)



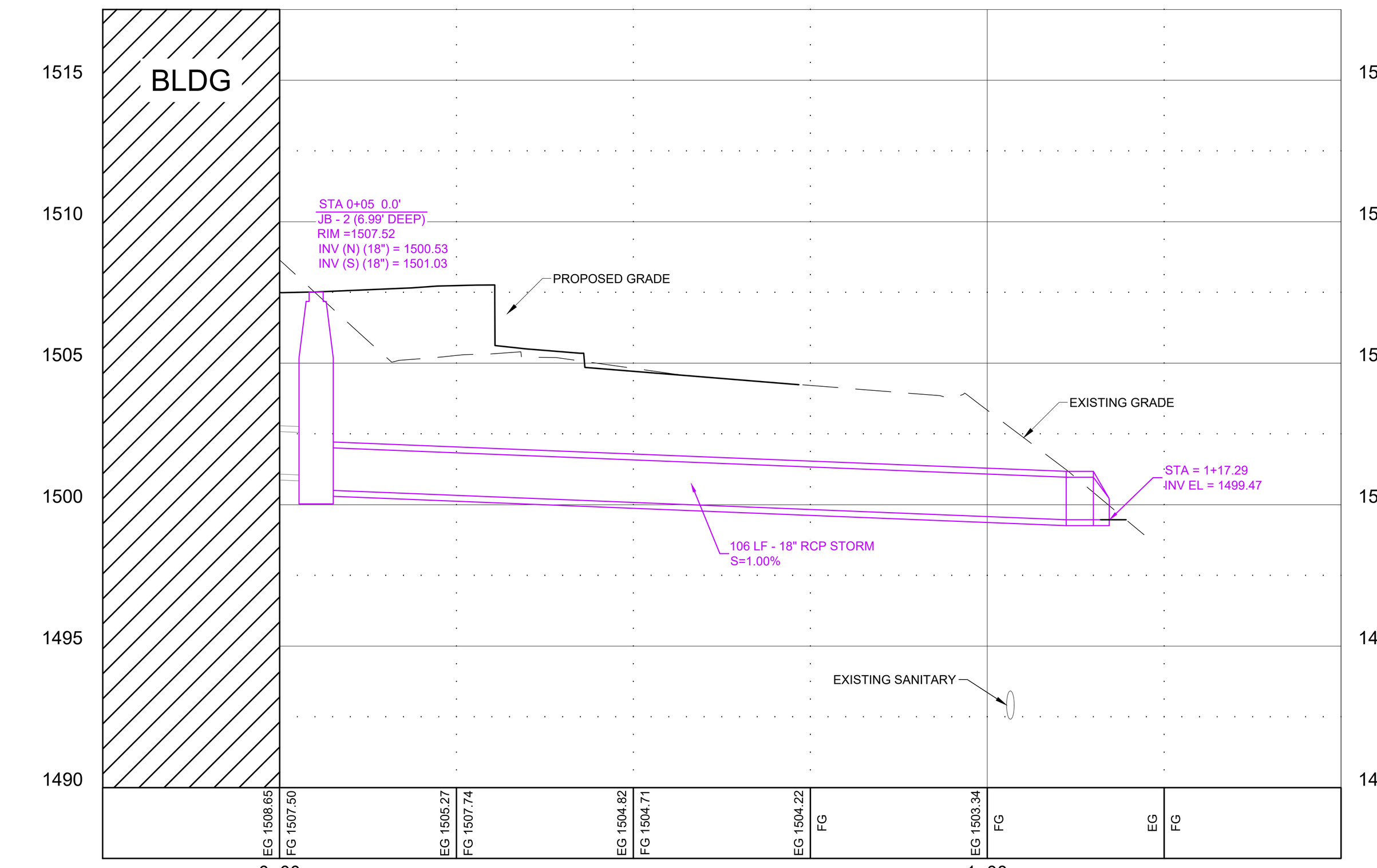
NORTH STORM SEWER

STORM SEWER
STA 0+05 - CL
FURNISH AND INSTALL:
1 EA - JUNCTION BOX (JB-2)
1 EA - FRAME AND LID
CONNECT TO BLDG STUBOUT
VERIFY DEPTH AND LOCATION

STORM SEWER
STA 0+05 TO 1+11 - CL
FURNISH AND INSTALL:
106 LF - 18" DIA RCP

STORM SEWER
STA 1+17 - CL
FURNISH AND INSTALL:
18" RCP FLARED END SECTION (FE-8)

STORM SEWER
STA 1+17 TO 1+25
FURNISH AND INSTALL:
2 EA - SCOURSTOP MAT (8'X8' AREA)



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BANNER
engineering a better community
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BALTIC HIGH SCHOOL ADDITION CIVIL SITE

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STORM SEWER PLAN AND PROFILE

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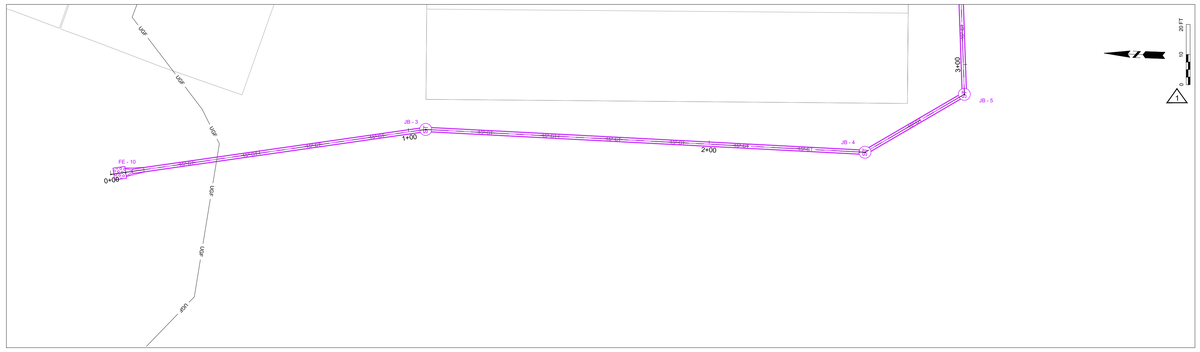


WEST SIDE STORM SEWER

STORM SEWER
STA 0+03 TO 0+05
FURNISH AND INSTALL:
2 EA - SCOURSTOP MAT (8'X8' AREA)

STORM SEWER
STA 0+05 - CL
FURNISH AND INSTALL:
15" RCP FLARED END SECTION (FE-10)
INSTALL TRANSITION TO CPE STORM PIPE

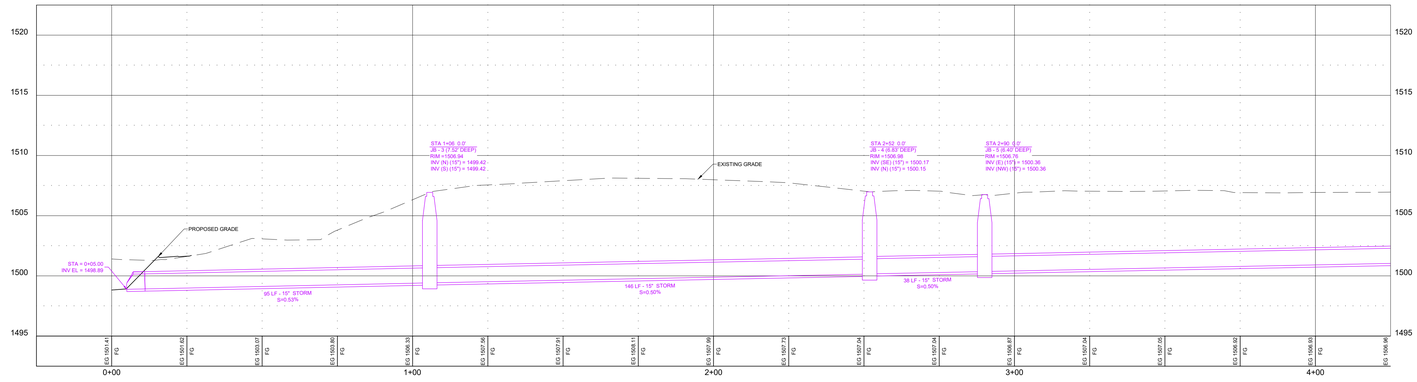
STORM SEWER
STA 0+11 TO 1+06 - CL
FURNISH AND INSTALL:
95 LF - 15" DIA CPE STORM PIPE

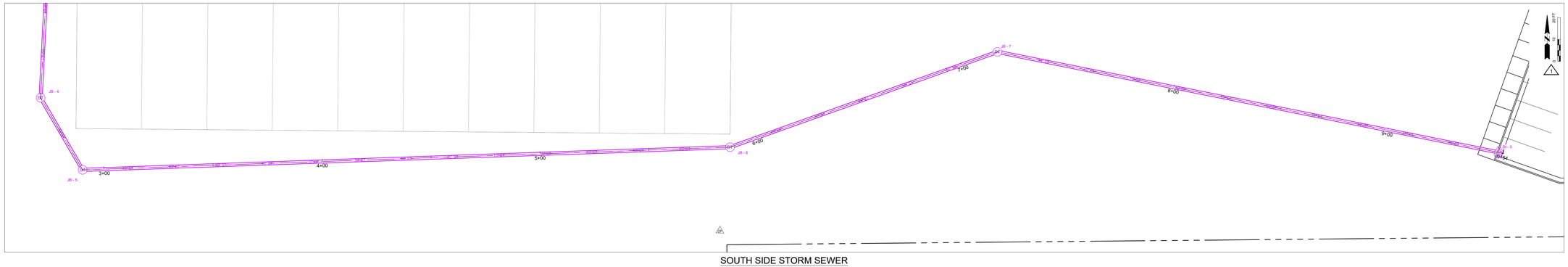
STORM SEWER
STA 1+06 - CL
FURNISH AND INSTALL:
1 EA - PVC JUNCTION BOX (JB-3)

STORM SEWER
STA 1+06 TO 2+52 - CL
FURNISH AND INSTALL:
146 LF - 15" DIA CPE STORM PIPE

STORM SEWER
STA 2+52 - CL
FURNISH AND INSTALL:
1 EA - PVC JUNCTION BOX (JB-4)
WITH SLOTTED GRATE

STORM SEWER
STA 2+52 TO 2+90 - CL
FURNISH AND INSTALL:
38 LF - 15" DIA CPE STORM PIPE





SOUTH SIDE STORM SEWER

STORM SEWER
STA 2+90 - CL
FURNISH AND INSTALL:
1 EA - PVC JUNCTION BOX (JB-5)
WITH SLOTTED GRATE

STORM SEWER
STA 2+90 TO 5+87 - CL
FURNISH AND INSTALL:
297 LF - 15" DIA CPE STORM PIPE

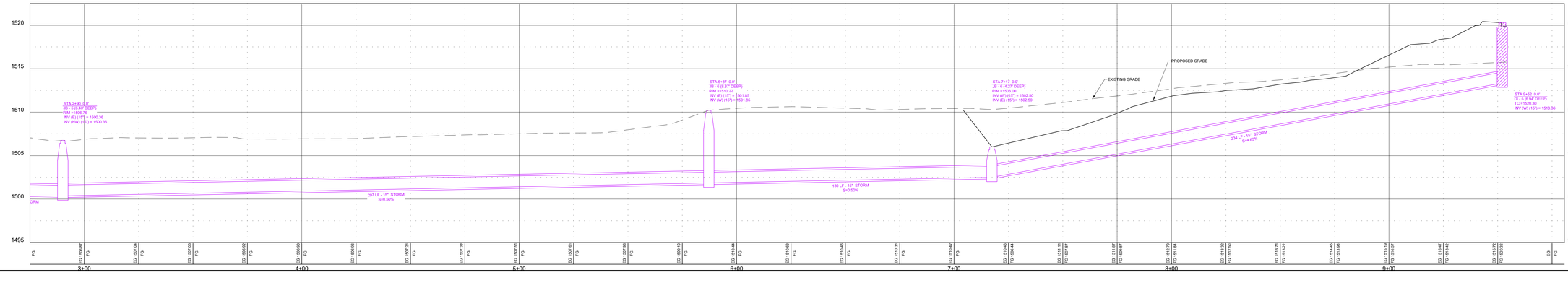
STORM SEWER
STA 5+87 - CL
FURNISH AND INSTALL:
1 EA - PVC JUNCTION BOX (JB-6)

STORM SEWER
STA 5+87 TO 7+17 - CL
FURNISH AND INSTALL:
130 LF - 15" DIA CPE STORM PIPE

STORM SEWER
STA 7+17 - CL
FURNISH AND INSTALL:
1 EA - PVC AREA INLET (JB-7)

STORM SEWER
STA 7+17 TO 9+51 - CL
FURNISH AND INSTALL:
234 LF - 15" DIA CPE STORM PIPE

STORM SEWER
STA 9+51 - CL
FURNISH AND INSTALL:
1 EA - TYPE B DROP INLET (DI-5)
1 EA - TYPE B FRAME AND GRATE



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REGISTERED PROFESSIONAL ENGINEER
REG. NO.
9607
NEIL C.
EICHSTADT
SOUTH DAKOTA
12/27/21

BANNER engineering & better community
BANNER PROJECT NO: 23668.00

project
BALTIC HIGH SCHOOL ADDITION CIVIL SITE

sheet contents
STORM SEWER PLAN AND PROFILE

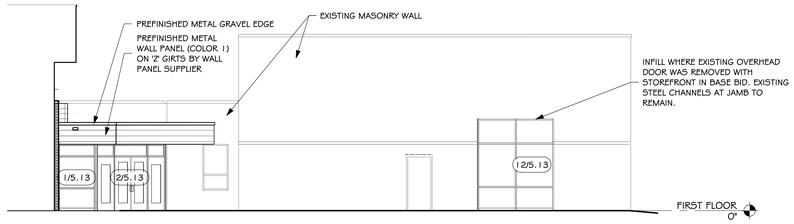
number 0727.2957.21
date 12-27-2022
revision 1
drawn SP checked NCE

NO.	DATE	DESCRIPTION
1	01/13/2022	SCALE BAR

2.83

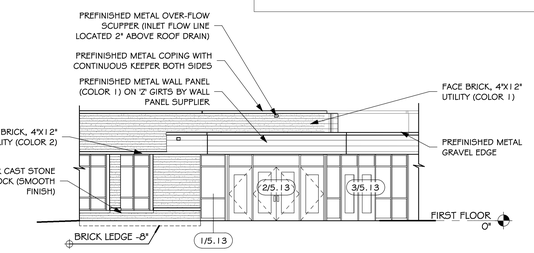
GENERAL NOTES - EXTERIOR ELEVATIONS

A. GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE JOB SITE. REPORT DISCREPANCIES TO THE ARCHITECT.

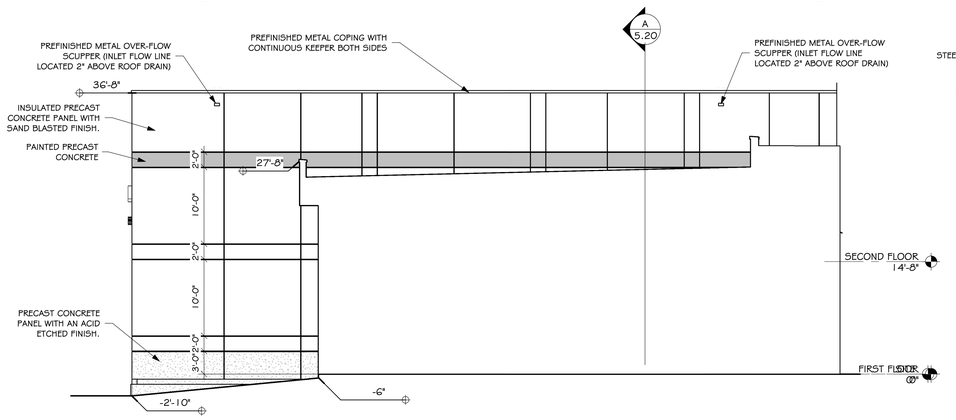


A 5.10 EAST ELEVATION - AREA A
SCALE: 1/8" = 1'-0"

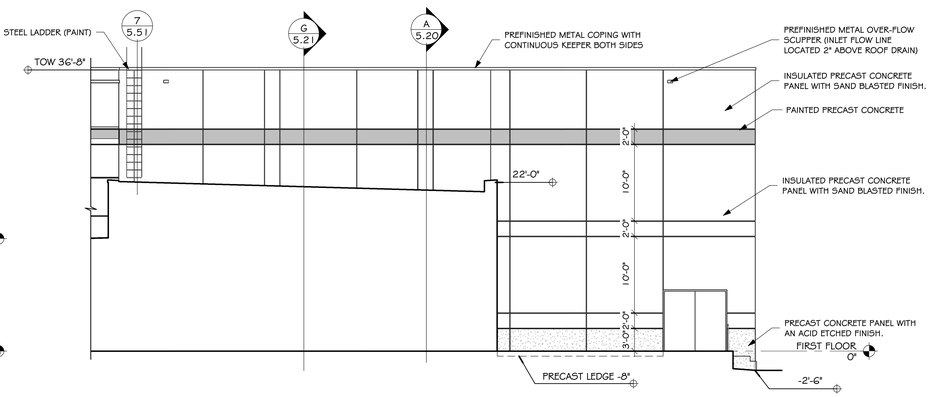
B 5.10 EAST ELEVATION - AREA B
SCALE: 1/8" = 1'-0"



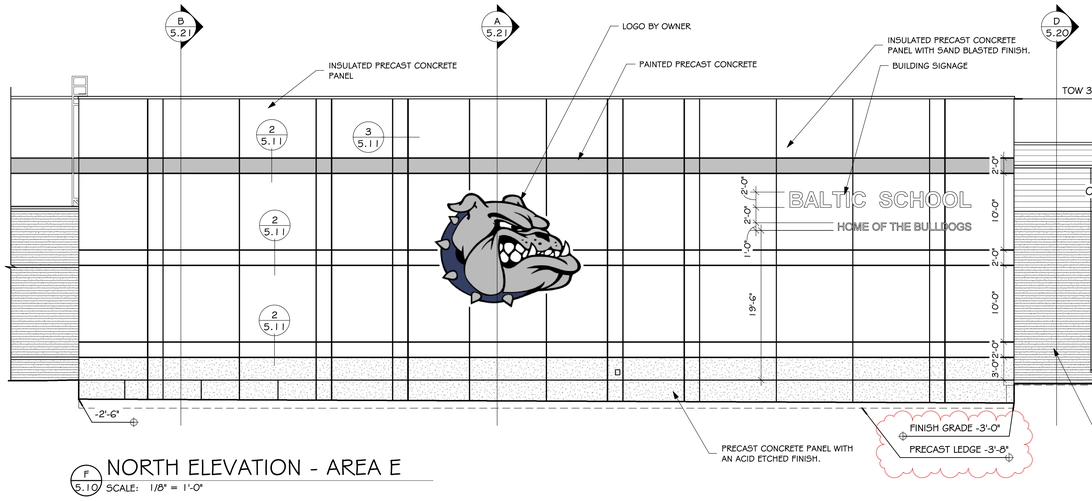
C 5.10 NORTHEAST ELEVATION - AREA E - ENTRY
SCALE: 1/8" = 1'-0"



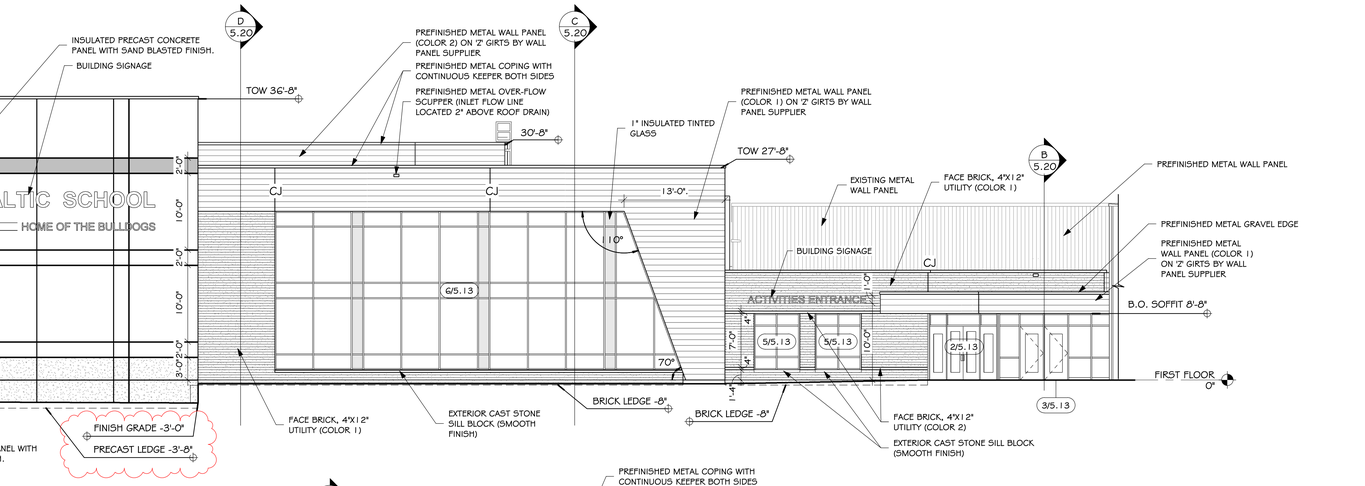
D 5.10 WEST ELEVATION - AREA E
SCALE: 1/8" = 1'-0"



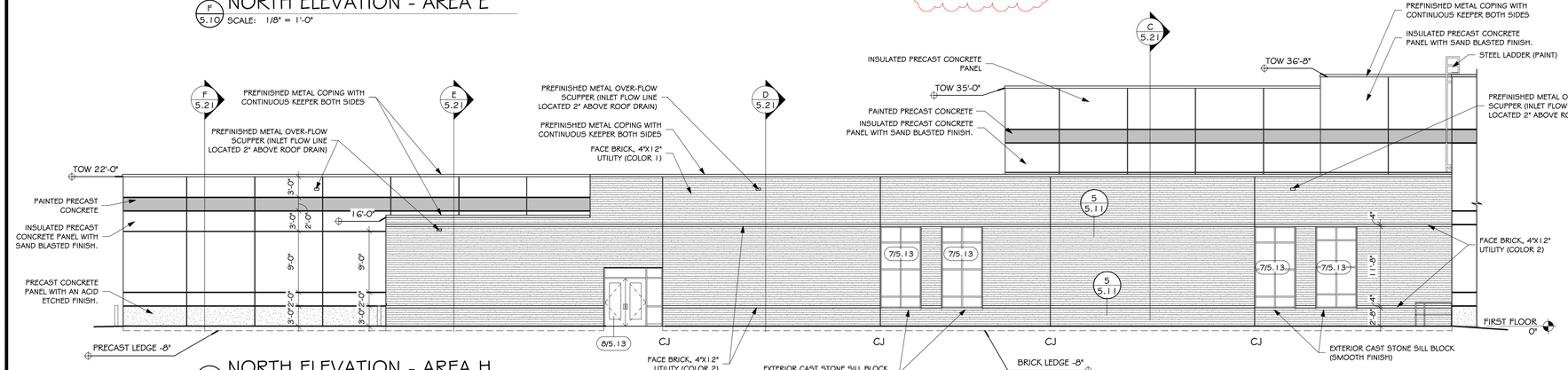
E 5.10 EAST ELEVATION - AREA E
SCALE: 1/8" = 1'-0"

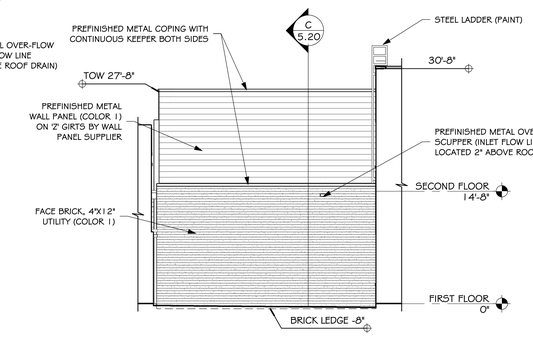


F 5.10 NORTH ELEVATION - AREA E
SCALE: 1/8" = 1'-0"



G 5.10 NORTH ELEVATION - AREA H
SCALE: 1/8" = 1'-0"





H 5.10 SOUTH ELEVATION - AREA E
SCALE: 1/8" = 1'-0"

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State of South Dakota
REG. NO. 3734
STEVEN R. VASTHAM
12-22-2022
Registered Architect

project:
BALTIC HIGH SCHOOL ADDITION

sheet contents:
EXTERIOR ELEVATIONS

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drawn MS/ZJG checked SRJ

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5.10

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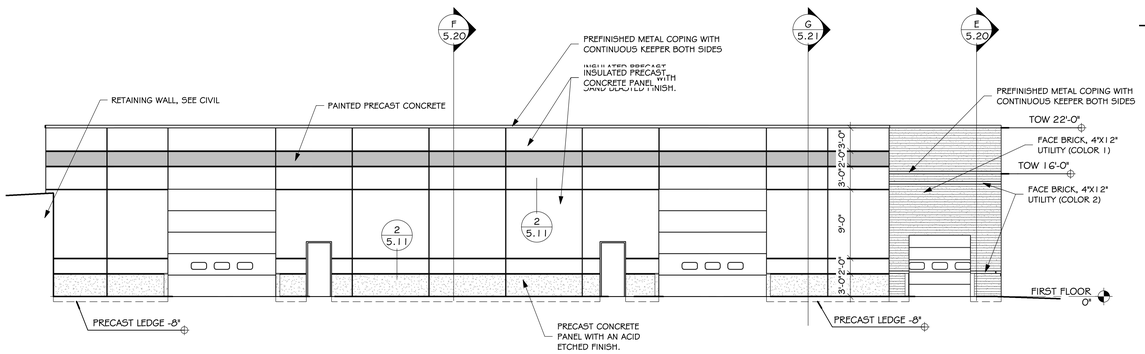
GENERAL NOTES - EXTERIOR ELEVATIONS

A. GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE JOB SITE. REPORT DISCREPANCIES TO THE ARCHITECT.



A 5.11 EAST ELEVATION - AREA H
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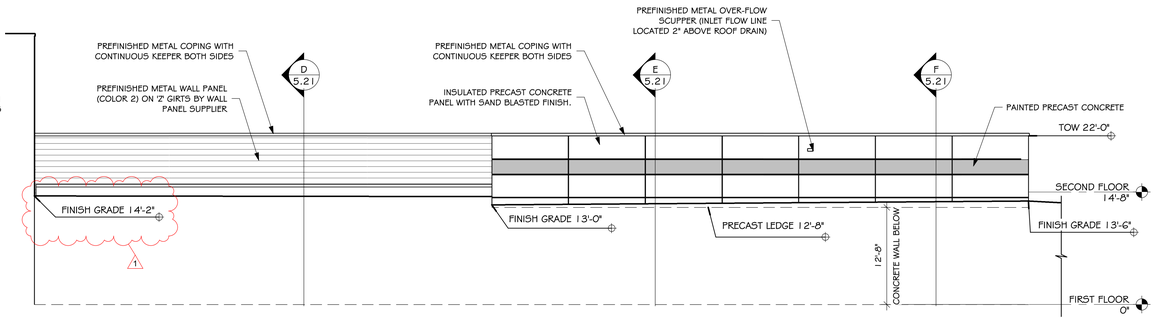
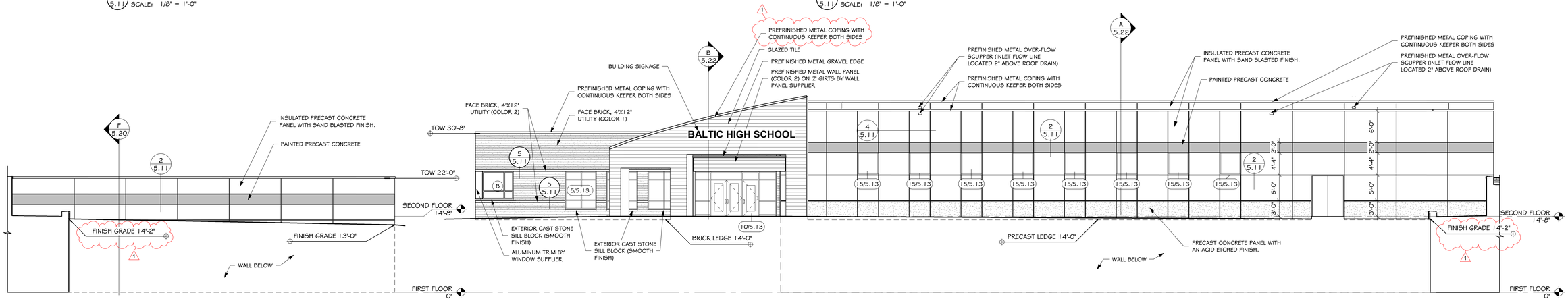
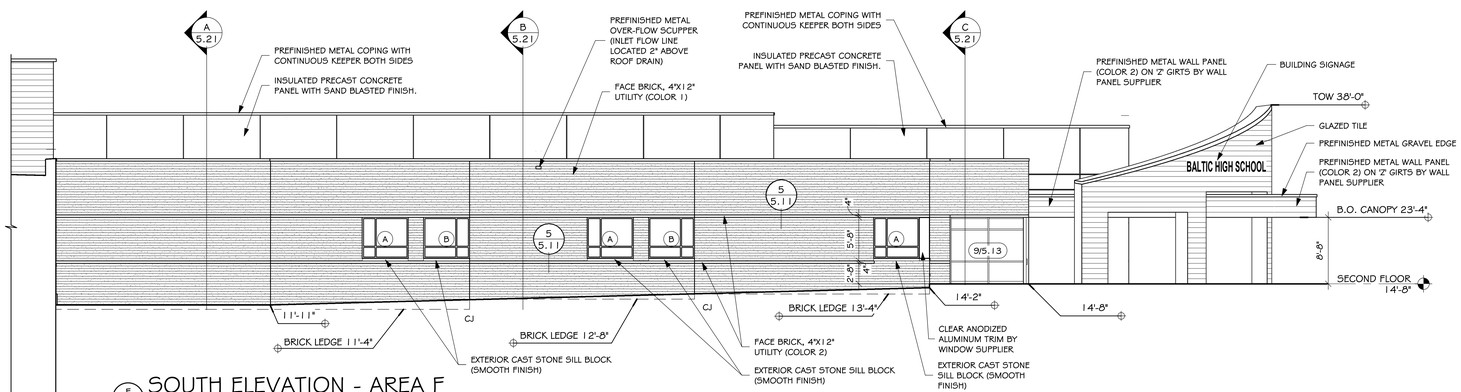


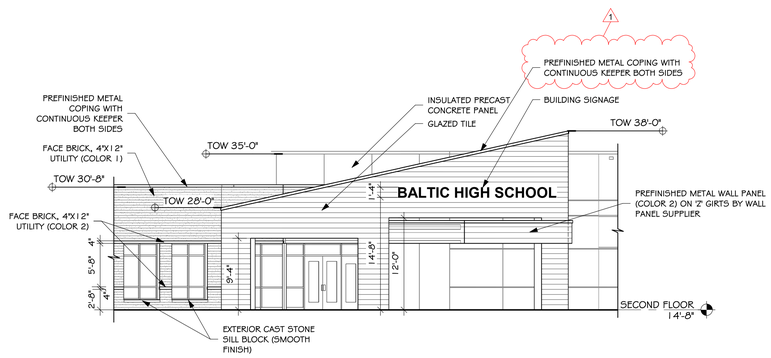
B 5.11 SOUTH ELEVATION - AREA H
SCALE: 1/8" = 1'-0"



C 5.11 WEST ELEVATION - AREA H
SCALE: 1/8" = 1'-0"

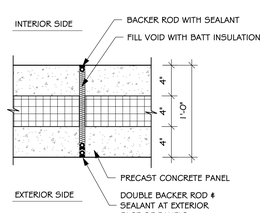


D 5.11 EAST ELEVATION - AREA E/F
SCALE: 1/8" = 1'-0"

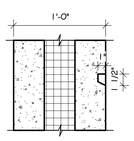


E 5.11 SOUTH ELEVATION - AREA F
SCALE: 1/8" = 1'-0"

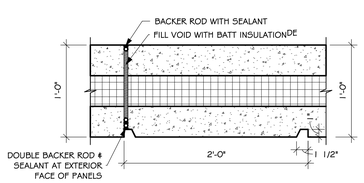
F 5.11 EAST ELEVATION - AREA G
SCALE: 1/8" = 1'-0"



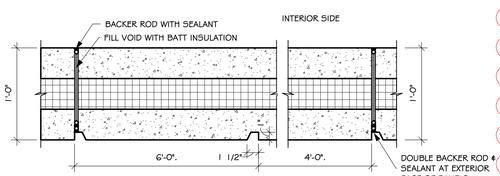
1 5.11 PRECAST - JOINT
SCALE: 1 1/2" = 1'-0"



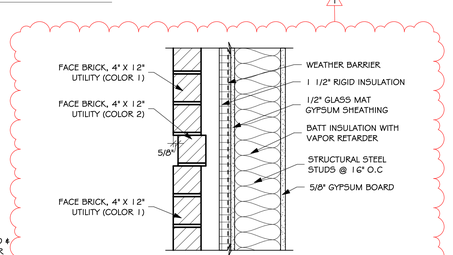
2 5.11 PRECAST - HORIZONTAL REVEAL
SCALE: 1 1/2" = 1'-0"



3 5.11 PRECAST - VERTICAL REVEAL
SCALE: 1 1/2" = 1'-0"



4 5.11 PRECAST VERTICAL REVEAL
SCALE: 1 1/2" = 1'-0"



5 5.11 BRICK REVEAL DETAIL
SCALE: 1 1/2" = 1'-0"

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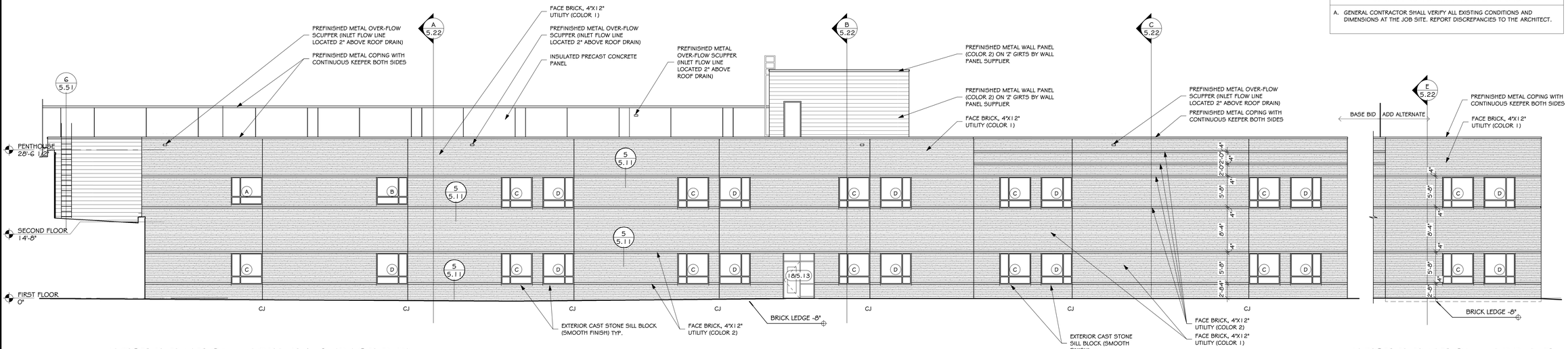
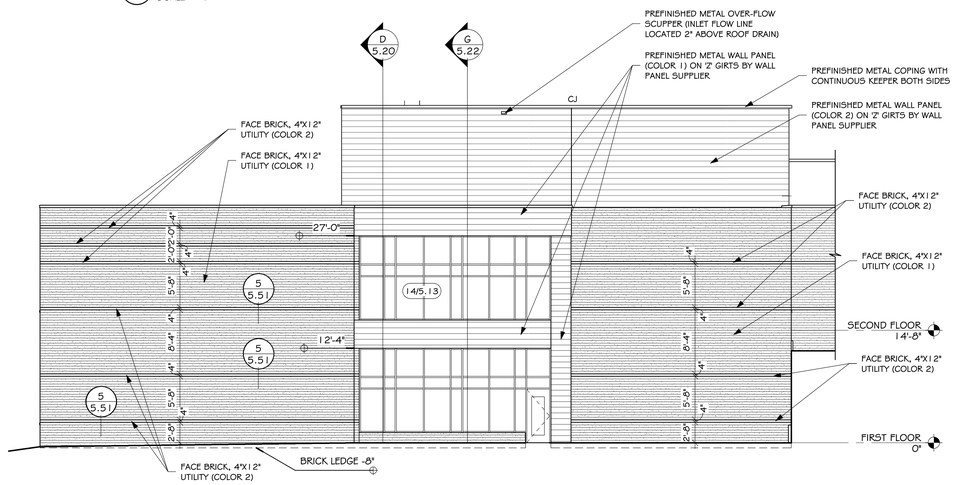


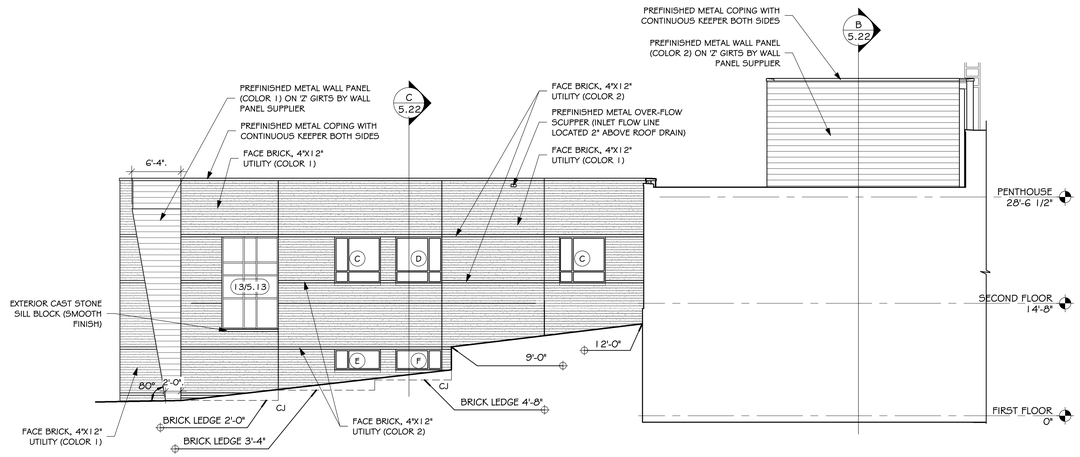
A 5.12 WEST ELEVATION - AREA F & G (BASE BID)

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



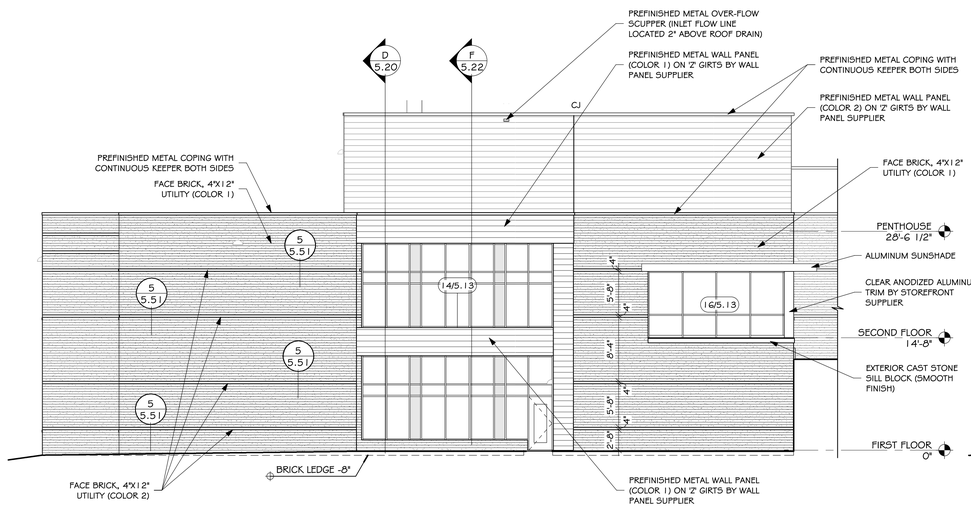
B 5.12 WEST ELEVATION - ADD ALT

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



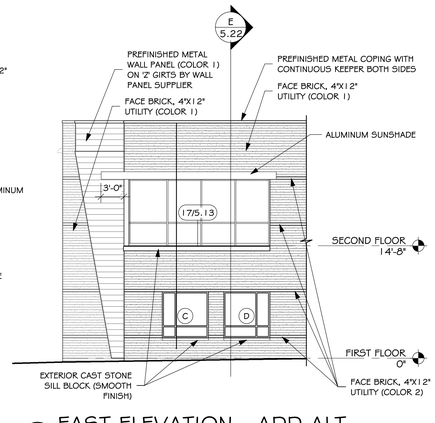
C 5.12 SOUTH ELEVATION - AREA G (BASE BID)

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



F 5.12 SOUTH ELEVATION - ADD ALT

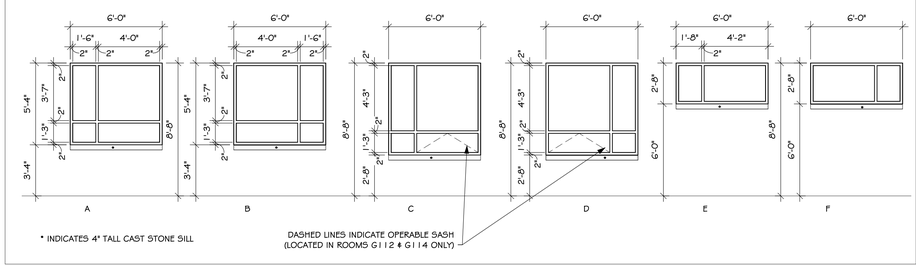
SCALE: 1/8" = 1'-0"



D 5.12 EAST ELEVATION - ADD ALT

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

WINDOW TYPES — INDICATED THUS ON ELEVATIONS — SCALE: 1/4" = 1'-0"



WINDOW TYPES SCHEDULE

MARK	MATERIAL	GLASS	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	NOTES
A	ALUM	1" CLEAR	1/5.14	2/5.14	3/5.14	
B	ALUM	1" CLEAR	1/5.14	2/5.14	3/5.14	
C	ALUM	1" CLEAR	1/5.14	2/5.14	3/5.14	
D	ALUM	1" CLEAR	1/5.14	2/5.14	3/5.14	
E	ALUM	1" CLEAR	25/5.14	26/5.14	27/5.14	
F	ALUM	1" CLEAR	25/5.14	26/5.14	27/5.14	

1

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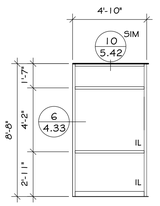
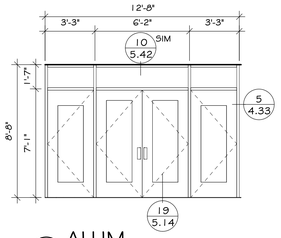


1 5.13 ALUM
SCALE: 1/4" = 1'-0"



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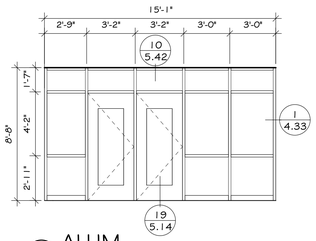
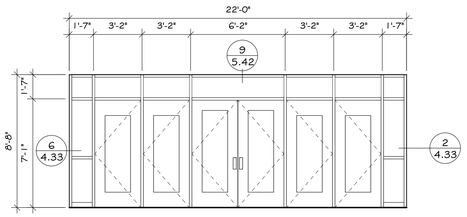
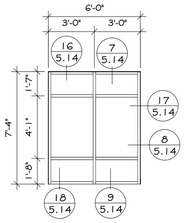


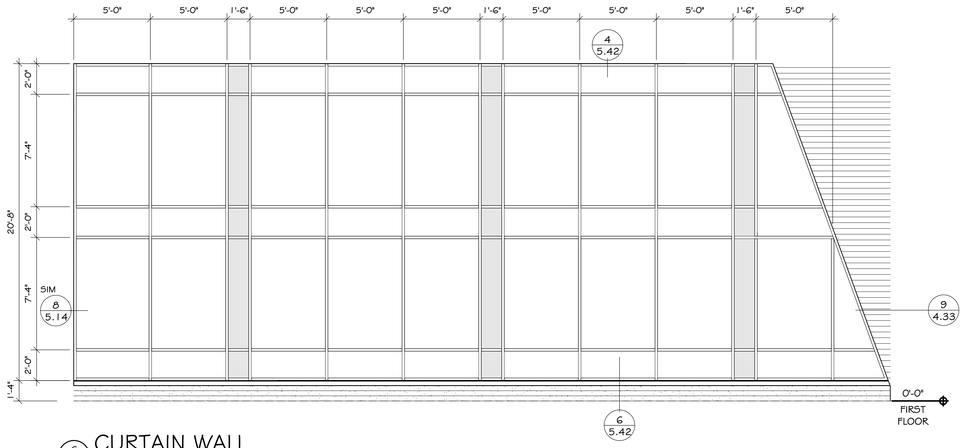
3 5.13 ALUM
SCALE: 1/4" = 1'-0"



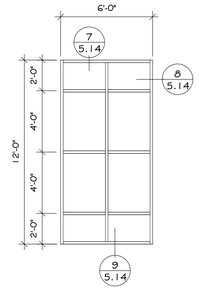
4 5.13 ALUM
SCALE: 1/4" = 1'-0"



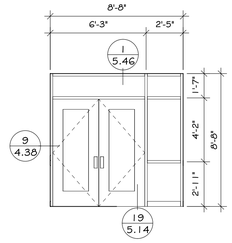
5 5.13 ALUM
SCALE: 1/4" = 1'-0"



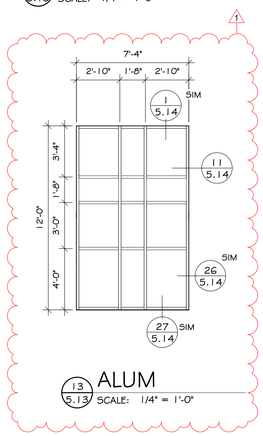
6 5.13 CURTAIN WALL
SCALE: 1/4" = 1'-0"



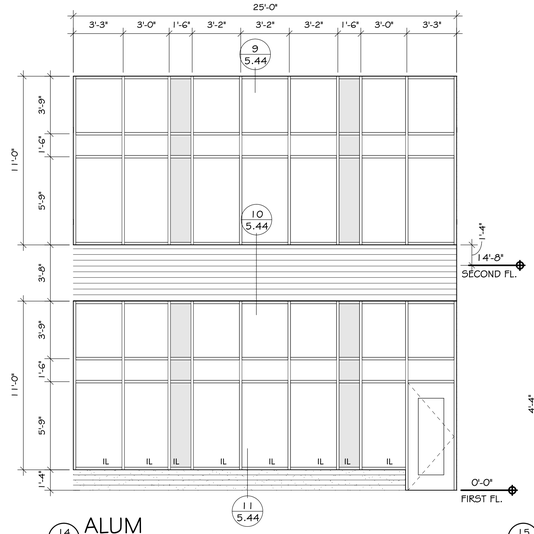
7 5.13 ALUM
SCALE: 1/4" = 1'-0"



8 5.13 ALUM
SCALE: 1/4" = 1'-0"

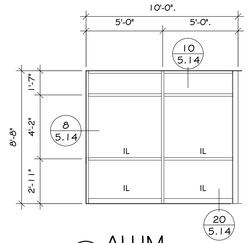


13 5.13 ALUM
SCALE: 1/4" = 1'-0"

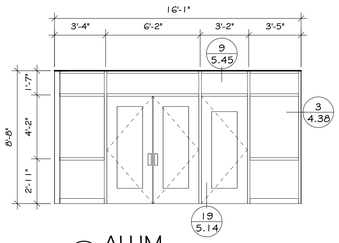


14 5.13 ALUM
SCALE: 1/4" = 1'-0"

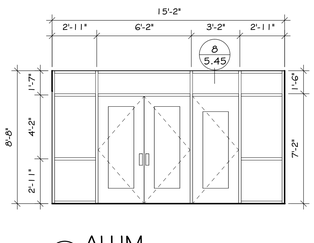
15 5.13 ALUM
SCALE: 1/4" = 1'-0"



9 5.13 ALUM
SCALE: 1/4" = 1'-0"



10 5.13 ALUM
SCALE: 1/4" = 1'-0"



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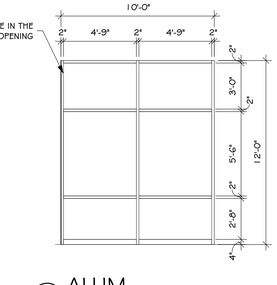

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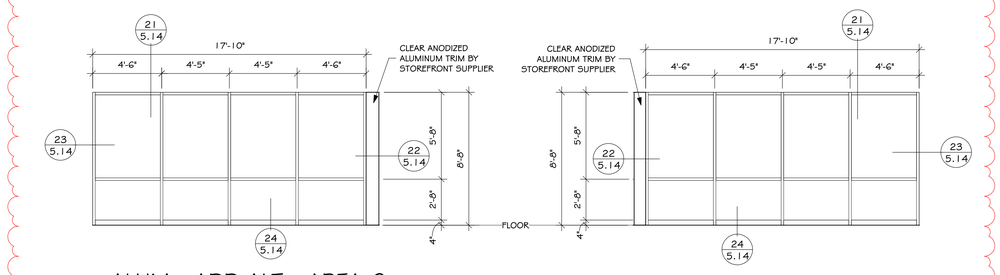
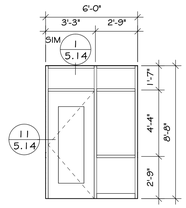


16 5.13 ALUM - ADD ALT - AREA G
SCALE: 1/4" = 1'-0"

17 5.13 ALUM - ADD ALT_AREA G
SCALE: 1/4" = 1'-0"



18 5.13 ALUM
SCALE: 1/4" = 1'-0"

GLASS LEGEND

ALL GLASS IS CLEAR 1" INSL UNLESS NOTED OTHERWISE

C = CLEAR
S = SAFETY
L = 1/4" LAMINATED SAFETY
IL = 1" INSL LAMINATED SAFETY

HATCH INDICATES SPANDREL GLASS

HATCH INDICATES TINTED GLASS

SEE DOOR SCHEDULE FOR ADDITIONAL GLASS INFORMATION

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State of South Dakota
REG. NO. 3734
STEVEN R. JASTRAM
12-22-2022
Registered Architect

project:
BALTIC HIGH SCHOOL ADDITION

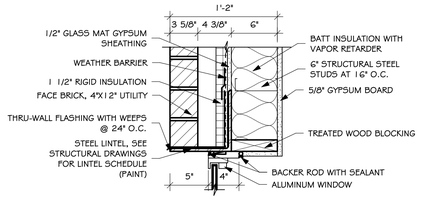
sheet contents:
ALUMINUM FRAME ELEVATIONS

number 0727.2957.21
date DECEMBER 22, 2022
revision
drawn Author checked Checker

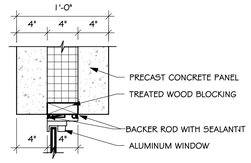
NO.	DATE	DESCRIPTION
1	1/13/2023	ADDENDUM #1

5.13

1/13/2023 2:15:21 PM



1 5.14 HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



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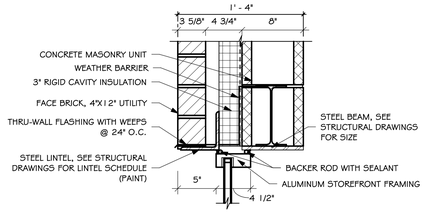

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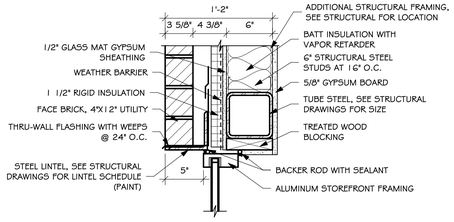

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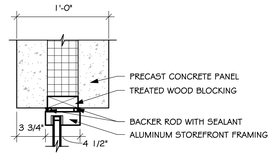

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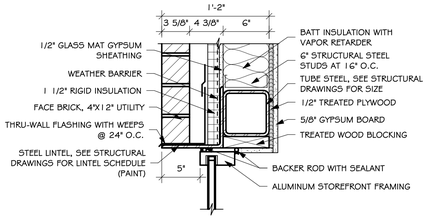

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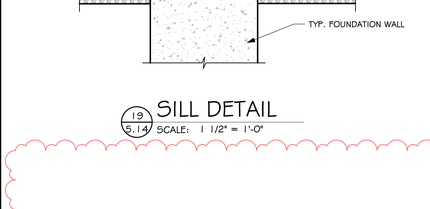

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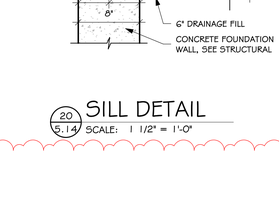

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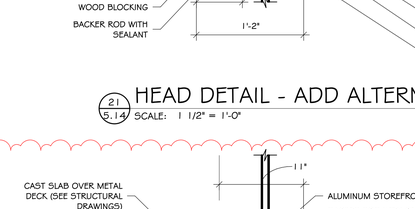

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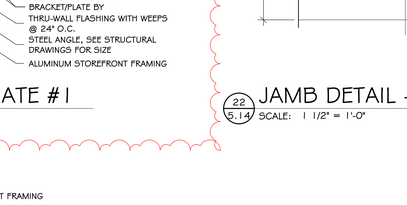
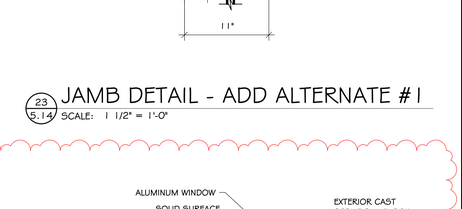


11 5.14 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"

14 5.14 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



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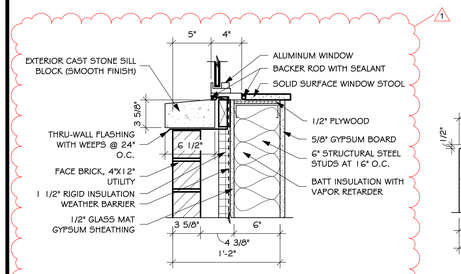

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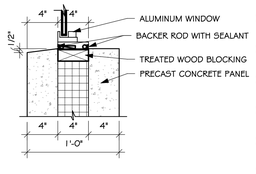

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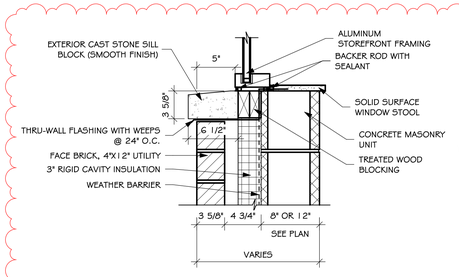

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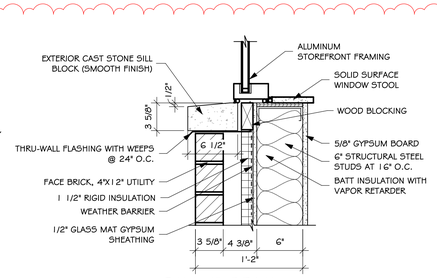

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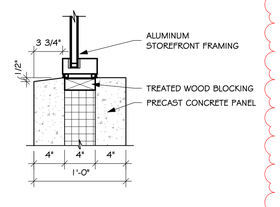

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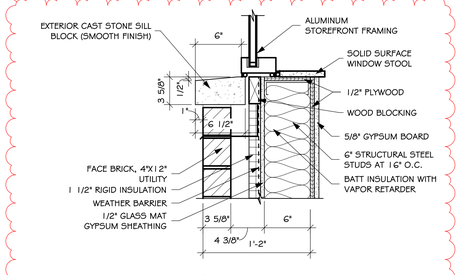

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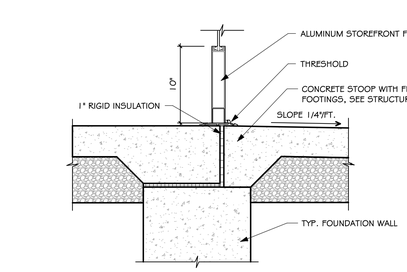

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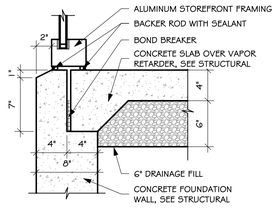

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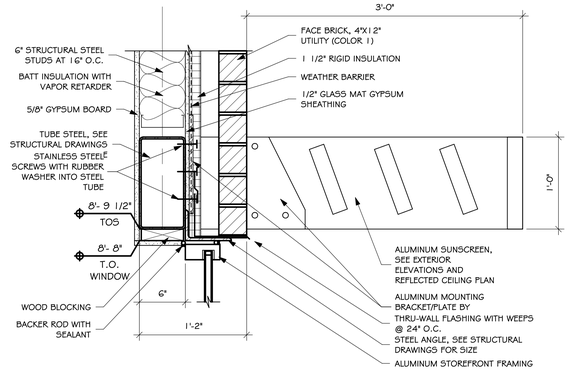

21 5.14 HEAD DETAIL - ADD ALTERNATE #1
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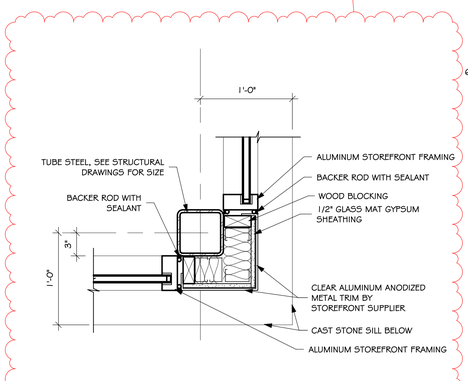

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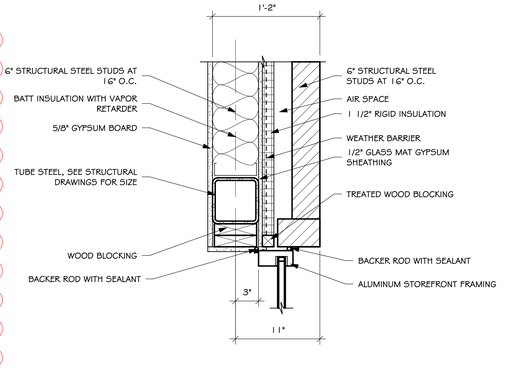

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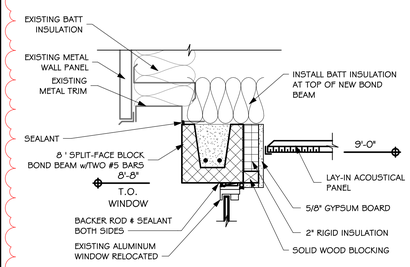

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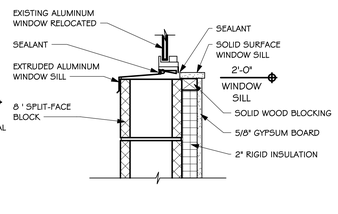

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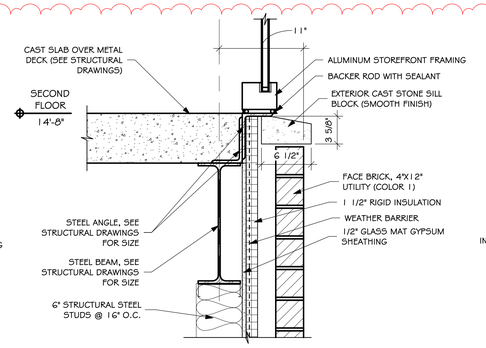

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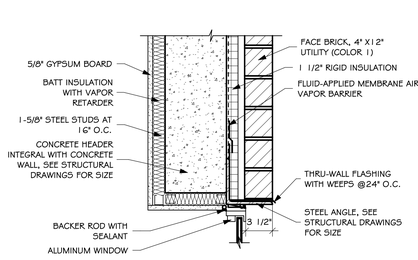

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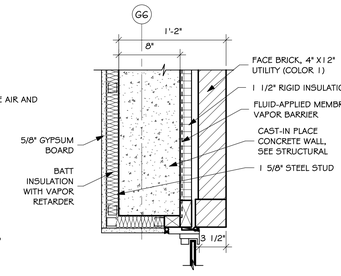

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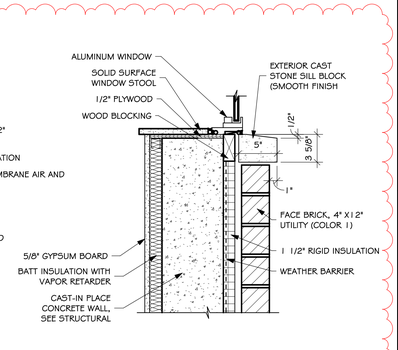

27 5.14 SILL DETAIL
SCALE: 1 1/2" = 1'-0"

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State of South Dakota
REG. NO. 3734
STEVEN R. JASTHAM
12-22-2022
Registered Architect

project
BALTIC HIGH SCHOOL ADDITION

sheet contents
ALUM FRAME AND WINDOW DETAILS

number 0727.2957.21
date DECEMBER 22, 2022
revision
drawn ZJG checked SRJ

NO.	DATE	DESCRIPTION
1	1/13/2023	ADDENDUM #1

5.14

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LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	CW	COLD WATER
	HW	HOT WATER
	RHW	RECIRCULATED HOT WATER
TW	TW	TEMPERED WATER
SCW	SCW	SOFT COLD WATER
SHW	SHW	SOFT HOT WATER
SRHW	SRHW	SOFT RECIRCULATED HOT WATER
NPCW	NPCW	NON POTABLE COLD WATER
NPHW	NPHW	NON POTABLE HOT WATER
NPRHW	NPRHW	NON POTABLE RECIRCULATED HOT WATER
SNPCW	SNPCW	SOFT NON POTABLE COLD WATER
SNPHW	SNPHW	SOFT NON POTABLE HOT WATER
SNPRHW	SNPRHW	SOFT NON POTABLE RECIRCULATED HOT WATER
DI	DI	DEIONIZED WATER
LSPR	LSPR	LAWN SPRINKLER
FSPR	FSPR	FIRE SPRINKLER
A	A	AIR
O	O	OXYGEN
VAC	VAC	VACUUM
W	W	WASTE BELOW GRADE
W	W	WASTE BELOW FLOOR
W	W	WASTE ABOVE GRADE
AW	AW	ACID WASTE
GW	GW	GREASE WASTE
DS	DS	DOWNSPOUT (RAINWATER)
V	V	VENT
AV	AV	ACID VENT
HWS	HWS	HEATING WATER SUPPLY
HWR	HWR	HEATING WATER RETURN
LPS	LPS	LOW PRESSURE STEAM SUPPLY
LPR	LPR	LOW PRESSURE STEAM RETURN
MPS	MPS	MEDIUM PRESSURE STEAM SUPPLY
MPR	MPR	MEDIUM PRESSURE STEAM RETURN
HPS	HPS	HIGH PRESSURE STEAM SUPPLY
HPR	HPR	HIGH PRESSURE STEAM RETURN
CHS	CHS	CHILLED WATER SUPPLY
CHR	CHR	CHILLED WATER RETURN
DWS	DWS	DUAL WATER SUPPLY
DWR	DWR	DUAL WATER RETURN
CWS	CWS	CONDENSER WATER SUPPLY
CWR	CWR	CONDENSER WATER RETURN
RL	RL	REFRIGERANT LIQUID
RS	RS	REFRIGERANT SUCTION
HG	HG	HOT GAS
COND	COND	CONDENSATE
G	G	NATURAL GAS LINE (FIRM)
IG	IG	NATURAL GAS LINE (INTERRUPTIBLE)
LPG	LPG	LIQUIFIED PETROLEUM GAS
FOS	FOS	FUEL OIL SUPPLY
FOR	FOR	FUEL OIL RETURN
FOV	FOV	FUEL OIL VENT
SMS	SMS	SNOW MELT SUPPLY
SMR	SMR	SNOW MELT RETURN
HPS	HPS	HEAT PUMP SUPPLY
HPR	HPR	HEAT PUMP RETURN

1. SHUT-OFF VALVE
2. PRESSURE REDUCING VALVE
3. BALANCE VALVE
4. CHECK VALVE
5. CONTROL VALVE
6. GAS COCK
7. THERMOMETER
8. PRESSURE GAUGE
9. MANUAL AIR VENT
10. UNION
11. STRAINER W/DRAIN VALVE
12. TOP CONNECTION TEE W/ELBOW
13. BOTTOM CONNECTION TEE W/ELBOW
14. SIDE CONNECTION TEE
15. SHOCK ABSORBER
16. FLOW METER FITTING
17. PIPE ANCHOR
18. BALANCE VALVE W/FLOW METER FITTING
19. FLOW CONTROL VALVE
20. PIPE CAP, PLUG OR CLEANOUT
21. FLOAT AND THERMOSTATIC TRAP
22. PRESSURE AND TEMPERATURE TEST PORT
23. FLOW DIRECTION ARROW
24. EXPANSION JOINT
25. FLEX CONNECTOR
26. PRESSURE AND TEMPERATURE RELIEF VALVE
27. THREE WAY CONTROL VALVE
28. CONTINUATION SYMBOL
29. PIPE DOWN
30. PIPE UP

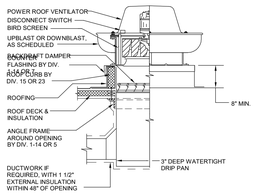
SYMBOL	DESCRIPTION
	SUPPLY/OUTSIDE AIR DUCT UP (S/A OR O/A)
	SUPPLY/OUTSIDE AIR ROOF/FLOOR PENETRATION
	SUPPLY/OUTSIDE AIR DUCT DOWN (S/A OR O/A)
	RETURN/EXHAUST AIR DUCT UP (R/A OR E/A)
	RETURN/EXHAUST AIR ROOF/FLOOR PENETRATION
	RETURN/EXHAUST AIR DUCT DOWN (R/A OR E/A)
	ROUND DUCT SECTION UP
	ROUND DUCT ROOF/FLOOR PENETRATION
	ROUND DUCT SECTION DOWN
	DUCT RISE IN DIRECTION
	DUCT DROP IN DIRECTION
	1. WIDTH DIMENSION 2. WIDTH DIMENSION 3. DEPTH DIMENSION
	TYPICAL DUCT TURN R EQUAL TO W (MINIMUM)
	TYPICAL DUCT TURN WITH TURN VANES
	1. CONICAL TAKE-OFF 2. BRANCH DUCT INTO SIDE OF MAIN DUCT
	TYPICAL SQUARE TO ROUND TRANSITION
	FLEXIBLE DUCT CONNECTION (CANVAS)
	1. MOTORIZED DAMPER 2. FIRE DAMPER 3. SMOKE DAMPER
	1. BACKDRAFT DAMPER 2. STATIC PRESSURE SENSOR 3. FIRE/SMOKE DAMPER
	1. REHEAT COIL 2. SPLITTER DAMPER 3. MANUAL VOLUME DAMPER
D1 CFM	REGISTER, GRILLE OR DIFFUSER NO. AIR QUANTITY (CFM)
T STAT	THERMOSTAT
T STAT	THERMOSTAT W/LOCKING COVER
T N.STAT	NIGHT THERMOSTAT
R.STAT	RECESSED STAT (ASPIRATING)
H	HUMIDISTAT
O	OCCUPIED-UNOCCUP. SWITCH

	SPLASH BLOCK
	CONNECTION TO EXISTING
CO	CLEANOUT
WH	WALL HYDRANT
FD	FLOOR DRAIN
FSK	FLOOR SINK
HB	HOSE BIBB

ABBREV.	DESCRIPTION
A	Air
AFD	Adjustable Frequency Drive
AFF	Above Finished Floor
AFUE	Annual Fuel Utilization Efficiency
AG	Above Grade
AGA	American Gas Association
AHU	Air Handling Unit
ALUM	Aluminum
AMB	Ambient Air Temperature (°F)
APD	Air Pressure Drop (in. W.C.)
ARCHIT	Architect, Architectural
ARI	Air-conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigeration & Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ATC	Automatic Temperature Control
AV	Acid Vent
AW	Acid Waste
AWT	Average Water Temperature (°F)
BAS	Building Automation System
BDD	Backdraft Damper
BG	Below Ground, Below Grade
BHP	Brake Horsepower
BTU	British Thermal Unit
BTUH	British Thermal Units Per Hour
CA	Combustion Air
CAP	Capacity
CAV	Constant Air Volume
CC	Center to Center
CFM	Cubic Feet per Minute
CHR	Chilled Water Return
CHS	Chilled Water Supply
CLG	Ceiling, Cooling
CO	Cleanout
COMB	Combination, Combustion
CONC	Concrete
COND	Condenser, Condensing, Condensate
CONT	Continuation
COORD	Coordinate
CUH	Cabinet Unit Heater
CW	Cold Water
CWR	Condenser Water Return
CWS	Condenser Water Supply
°F	Degrees Farenheit
DI	Deionized
DIA(DIAM)	Diameter
DC	Duct Coil
DD	Double Deflection
DDC	Direct Digital Control
DET	Detail
DI	Deionized Water
DIA	Diameter
DIF	Diffuser
DISCH	Discharge
DIV	Division
DN	Down
DOE	Department of Energy
DPR	Damper
DS	Down Spout
DWR	Dual Water Return
DWS	Dual Water Supply
DWG	Drawing
EAT	Entering Air Temperature(°F)
EER	Energy Efficiency Rating
EEW	Emergency Eye Wash
EF	Exhaust Fan
EFF	Efficiency (Percent)
EH	Exhaust Hood
ELECT	Electrical Characteristics (Volts/PH)
EMG	Expanded Metal grille

ABBREV.	DESCRIPTION
EQUIP	Equipment
ESH	Emergency Shower
ESP	External Static Pressure (IN. W.C.)
EWC	Electric Water Cooler
EWT	Entering Water Temperature(°F)
EXIST	Existing
EXP	Expansion
EXT	External
F/S	Fire/Smoke
FA	Free Area
FCU	Fan Coil Unit
FD	Floor Drain
F. DPR	Fire Damper
FLA	Full Load Amperes
FLEX	Flexible
FOR	Fuel Oil Return
FOS	Fuel Oil Supply
FOV	Fuel Oil Vent
FP	Fan Powered VAV Terminal
FPM	Feet Per Minute
FSK	Floor Sink
FSPR	Fire Sprinkler
FT	Feet
FTG	Fitting
FV	Face Velocity (FPM)
G	Gas Cock, Grille
GA	Gauge
GAL	Gallon
GALV	Galvanized
GPH	Gallons Per Hour
GPM	Gallons Per Minute
GRH	Gravity Relief Hood
H	Height
H2O	Water
HAND	Handicapped
HC	Heating Coils, Handicapped
HD	Hub Drain
HG	Hot Gas
HP	Horsepower
HPR	High Pressure Steam Return
HPS	High Pressure Steam Supply
HTG	Heating
HW	Hot Water
HWR	Heating Water Return
HWS	Heating Water Supply
ID	Inside Dimension
IG	Interruptable Gas
IH	Intake Hood
IN	Inch, Inches
INS	Insulation
IE,	Invert Elevation
KW	Kilowatts
L	Length, Lavatory
LAT	Leaving Air Temperature(°F)
LBS	Weight in Pounds
LPG	Liquified Petroleum Gas
LPR	Low Pressure Steam Return
LPS	Low Pressure Steam Supply
LSPR	Lawn Sprinkler
LWT	Leaving Water Temperature(°F)
MANUF	Manufacturer
MAX	Maximum
MBH	British Thermal Units x1000
MCA	Minimum Circuit Ampacity
MHP	Motor Horsepower
MIN	Minimum
MFS	Maximum Fuse Size
MOT	Motorized
M. DPR	Motorized Damper
MPR	Medium Pressure Steam Return
MPS	Medium Pressure Steam Supply
MSK	Mop Sink
MTD	Mounted
NC	Noise Coefficient

ABBREV.	DESCRIPTION
NFPA	National Fire Protection Agency
NO	Number
NP	Non-potable
O	Oxygen
O/A	Outside Air
OC	On Center
OD	Outside Dimension
ODS	Overflow Downspout
OPER	Operator/Operating
OP WT	Operating Weight
OPNG	Opening
ORD	Overflow Roof Drain
PD	Pressure Drop
PH	Phase
PLBG	Plumbing
PNEU	Pneumatic
PRESS	Pressure
PRV	Power Roof Ventilator
PTAC	Package Terminal Air Conditioner
PVC	Polyvinyl Chloride
R	Register, Round
R/A	Return Air
RAD	Radiated, Radiation
RD	Roof Drain
REC/RC	Recirculating
REG	Register, Regulating
REINF	Reinforced
REINFG	Reinforcing
REQ'D	Required
RL	Refrigerant Liquid
RM	Room
RPM	Revolutions Per Minute
RS	Refrigerant Suction
S/A	Supply Air
S	Soft
SD	Single Deflection
SEER	Seasonal Energy Efficiency Rating
SF	Square Feet
SH	Shower
SHT	Sheet
SHTMTL	Sheet Metal (S/M)
SK	Sink
SP	Static Pressure
SPECS	Specifications
SQ	Square
SS	Stainless Steel
STL	Steel
STRUCT	Structural
SUCT	Suction
TEMP	Temperature
TSP	Total Static Pressure (IN W.C.)
TW	Tempered Water
TYP	Typical
UBC	Uniform Building Code
UH	Unit Heater
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
UR	Urinal
UV	Unit Ventilator
V	Vent, Volts
V/A	Ventilation Air
VAC	Vacuum
VAV	Variable Air Volume
VOL	Volume
VOLTS	Voltage
W	Waste, Width, Watts
W/	With
W/O	Without
WC	Water Column, Water Closet
WF	Wash Fountain
WG	Water Gauge
WPD	Water Pressure Drop(Ft. of Water)
WT	Weight
WTD	Water Temerature Drop(°F)



POWER ROOF VENTILATOR DETAIL
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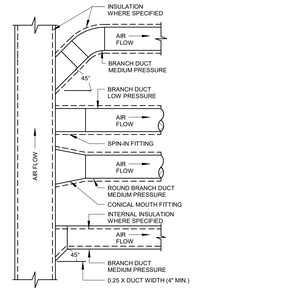

DUCT TAKE-OFF & CONNECTION
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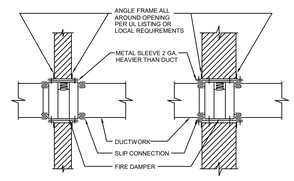
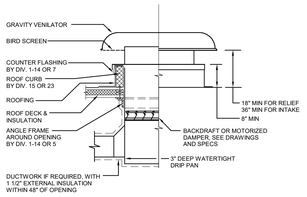
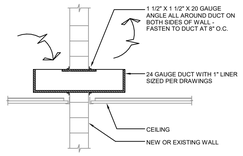


FIRE DAMPER INSTALLATION
NO SCALE

NOTES:
1. WALL MOUNTING ANGLES AND SLEEVES SHALL BE SECURED TO DAMPER FRAME BY WELDING AT 6" O.C. OR 1/4" BOLTS AND NUTS AT 8" O.C.
2. FUSIBLE LINK SHALL BE ACCESSIBLE THRU ACCESS DOOR.
3. THIS DETAIL REPRESENTS TYPICAL INSTALLATION REQUIREMENTS. INSTALL DAMPERS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FURNISHED WITH EACH RESPECTIVE DAMPER.
4. FOR INSTALLATION IN SHEET ROCK/STUC WALLS PROVIDE STUD WALL FRAMING AND SHEET ROCK AS REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.



GRAVITY VENTILATOR DETAIL
NO SCALE



TRANSFER DUCT DETAIL
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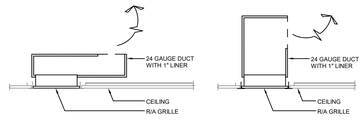

RETURN BOOT DETAIL
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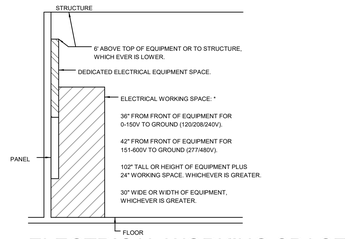
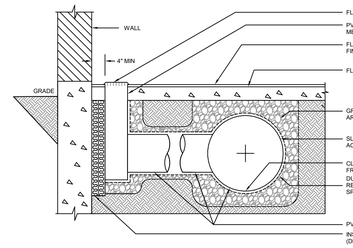


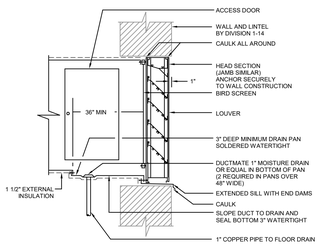
ELECTRICAL WORKING SPACE
NO SCALE

* VERIFY WITH LOCAL CODE REQUIREMENTS, SPECIFICATIONS, AND NATIONAL ELECTRICAL CODE.

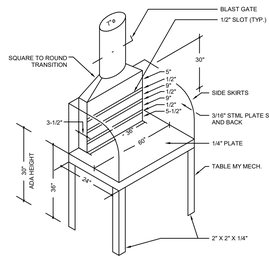


NOTES:
1. ALL PVC DUCT SIZES SHALL BE AS NOTED ON THE DRAWINGS.

TYPICAL UNDERFLOOR DUCT DETAIL
NO SCALE



LOUVER DETAIL
NO SCALE



WELDING HOOD DETAIL
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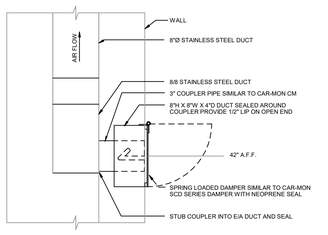

PORTABLE LAB HOOD CONNECTION
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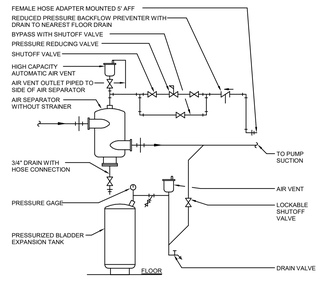

EXPANSION TANK DETAIL
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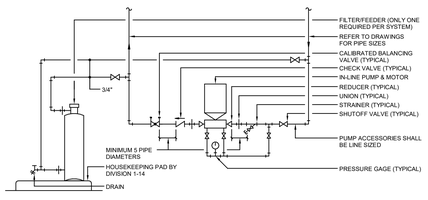
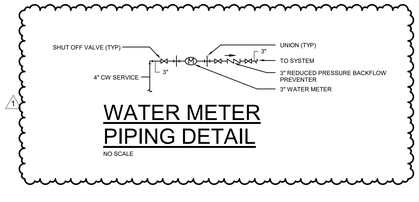


IN-LINE PUMP PIPING DETAIL
NO SCALE
NOTES:
1. THE IN-LINE PUMP SHALL BE INSTALLED WITH THE MOTOR SHAFT VERTICAL.
2. THE PUMP SHALL BE SUPPORTED ACCORDINGLY WITH THE MOTOR HANGING INDEPENDENTLY.
3. FILTER FEEDER ONLY REQUIRED ON SECONDARY CHILLED AND HEATING WATER PUMPS.



WATER METER PIPING DETAIL
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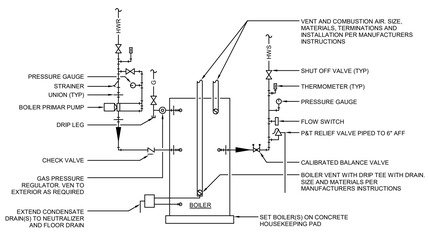
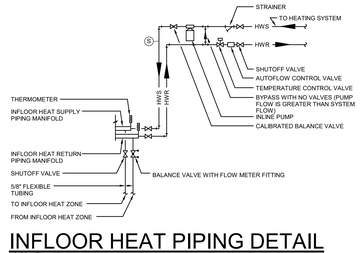
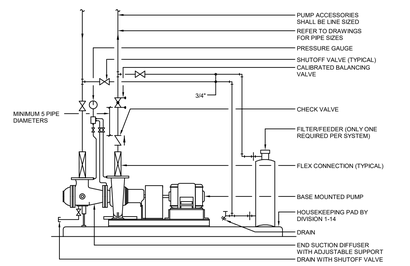


BOILER DETAIL
NO SCALE



INFLOOR HEAT PIPING DETAIL
NO SCALE

NOTE:
1. INSTALL MANIFOLD IN WALL WITH AN ACUDOR ACCESS PANEL MODEL #UF-5000 WITH TORX HEAD CAM LATCH OR EQUAL.
2. SEE DRAWINGS FOR NUMBER OF CIRCUITS PER ZONE. (SINGLE CIRCUIT ZONES NEED NOT HAVE MANIFOLDS BUT REQUIRE VALVES.)



BASE MOUNTED PUMP PIPING DETAIL
NO SCALE

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project: BALTIC HIGH SCHOOL ADDITION

sheet contents: LEGENDS & DETAILS

number 0727.2957.21
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revision
drawn NJH checked DJ

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1	1-13-22	ADDENDUM 1

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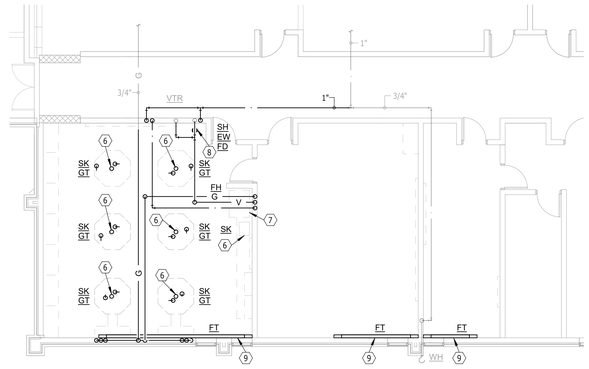

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FIRST FLOOR PLAN -AREA B - DEMOLITION - PLUMBING & HEATING

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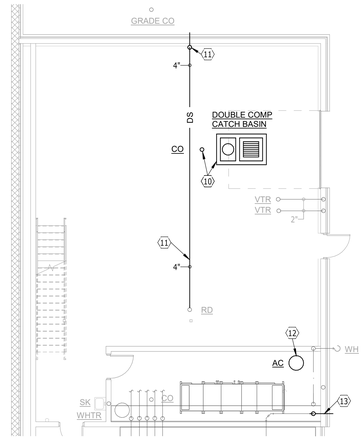

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FIRST FLOOR PLAN - AREA A - ART ROOM - DEMO - PLUMBING & HEATING - ADD ALT 2

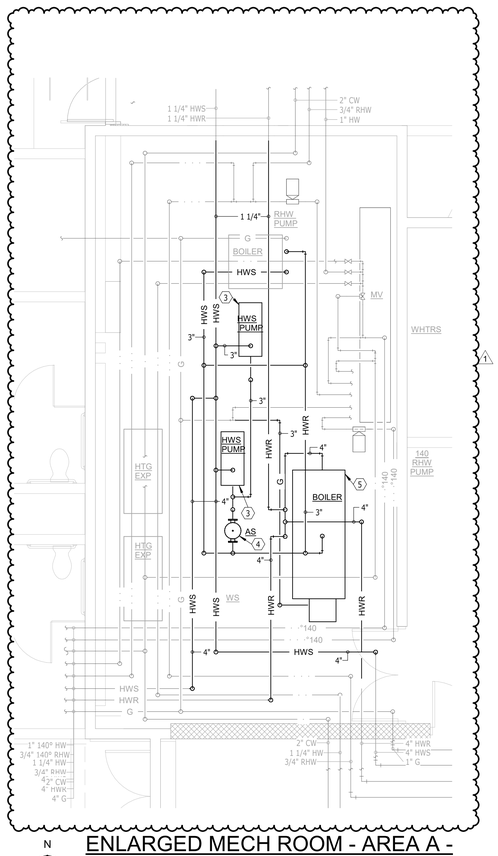
SCALE 0 4 8 12 16

GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.
C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1 REMOVE WALL HYDRANT & ASSOCIATED PIPING. CAP PIPING AT MAIN
2 REMOVE ROOF DRAIN & ASSOCIATED PIPING TO POINT INDICATED
3 REMOVE PUMP & ASSOCIATED PIPING
4 REMOVE AIR SEPARATOR & ASSOCIATED PIPING
5 REMOVE BOILER & ASSOCIATED PIPING
6 REMOVE SINK & ASSOCIATED PIPING
7 REMOVE FUME HOOD & ASSOCIATED PIPING
8 REMOVE EMERGENCY EYEWASH, SHOWER, FLOOR DRAIN & ASSOCIATED PIPING
9 REMOVE HYDRONIC FINTUBE RADIATION & ASSOCIATED PIPING
10 REMOVE PLUMBING FIXTURE & ASSOCIATED PIPING TO POINTS INDICATED.
11 REMOVE DS PIPING DN OUT THRU WALL.
12 EXISTING AIR COMPRESSOR TO BE RELOCATED. REMOVE EXISTING AIR COMPRESSOR
13 REMOVE DS PIPING OUT THRU WALL



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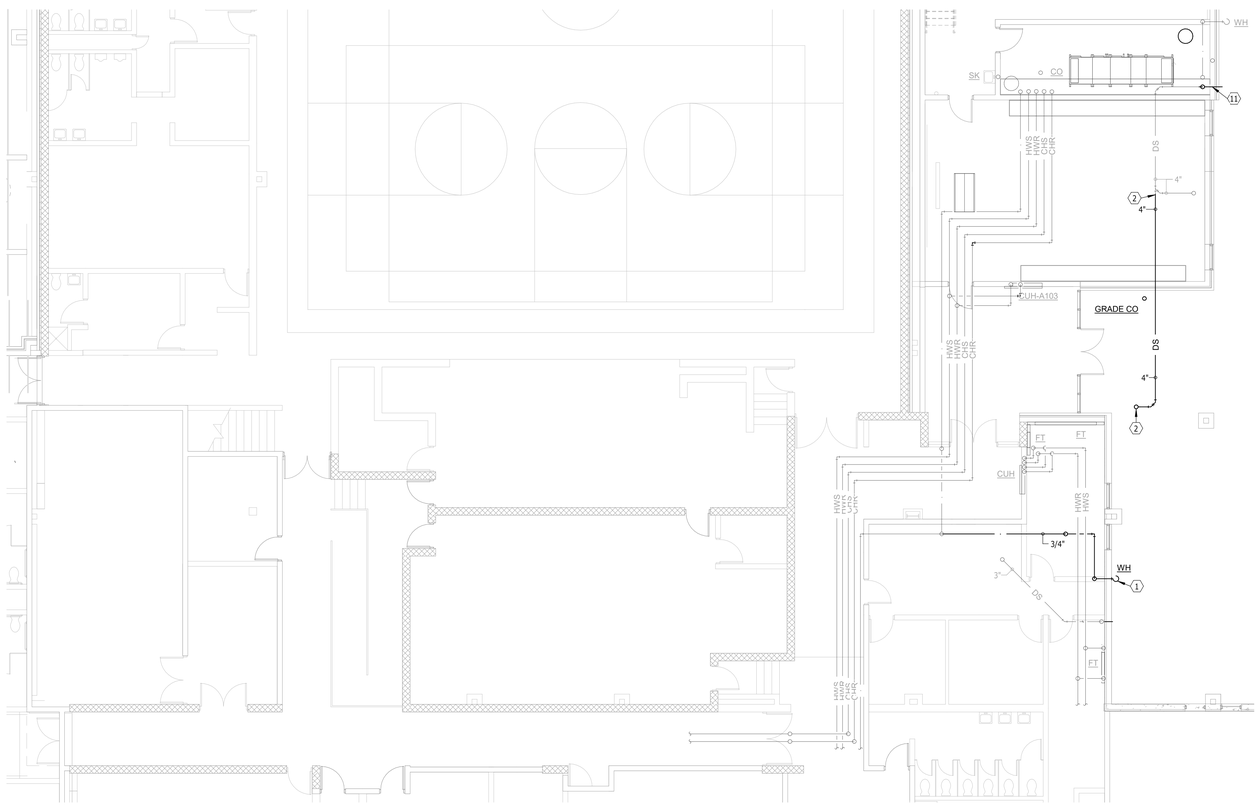
ENLARGED MECH ROOM - AREA A - DEMOLITION - PLUMBING & HEATING

SCALE 0 2 4 6 8



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FIRST FLOOR PLAN - AREA A - DEMOLITION - PLUMBING & HEATING

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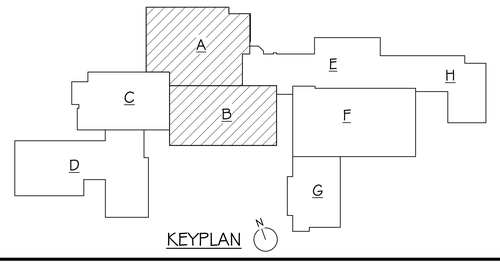

KEYPLAN

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project: BALTIC HIGH SCHOOL ADDITION

sheet contents: FLOOR PLANS - AREAS A & B - DEMO - PLUMBING & HEATING

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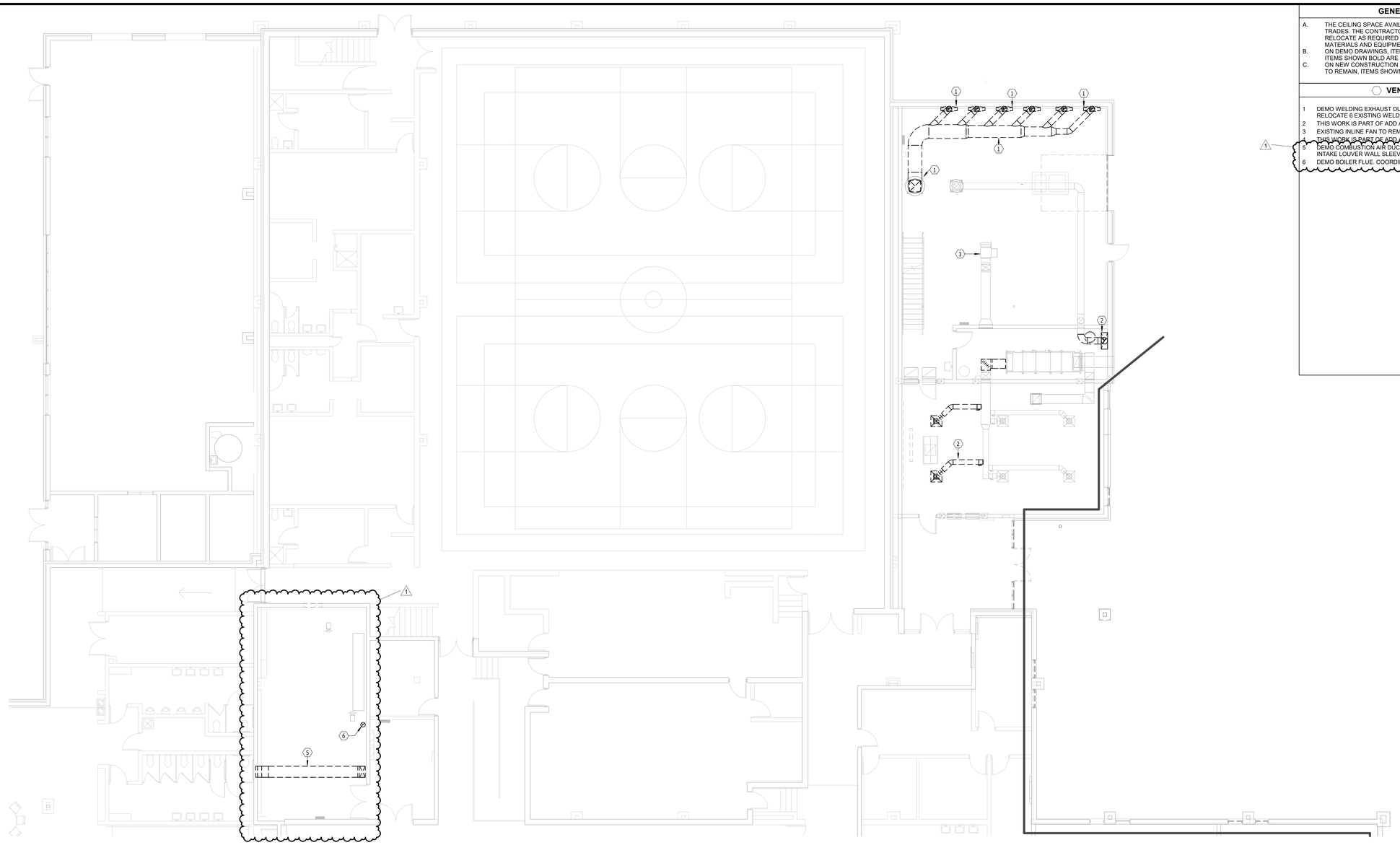
GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.
C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

VENTILATION NOTES

1 DEMO WELDING EXHAUST DUCTWORK AS PART OF BASE BID. REMOVE AND RELOCATE 6 EXISTING WELDING HOODS TO H102 METAL SHOP.
2 THIS WORK IS PART OF ADD ALT #2.
3 EXISTING INLINE FAN TO REMAIN.
4 THIS WORK IS PART OF ADD ALT #4.
5 DEMO COMBUSTION AIR DUCT, LOUVER TO REMAIN. INSULATE, CAP, AND SEAL INTAKE LOUVER WALL SLEEVE.
6 DEMO BOILER FLUE. COORDINATE ROOF PATCH WITH G.C.



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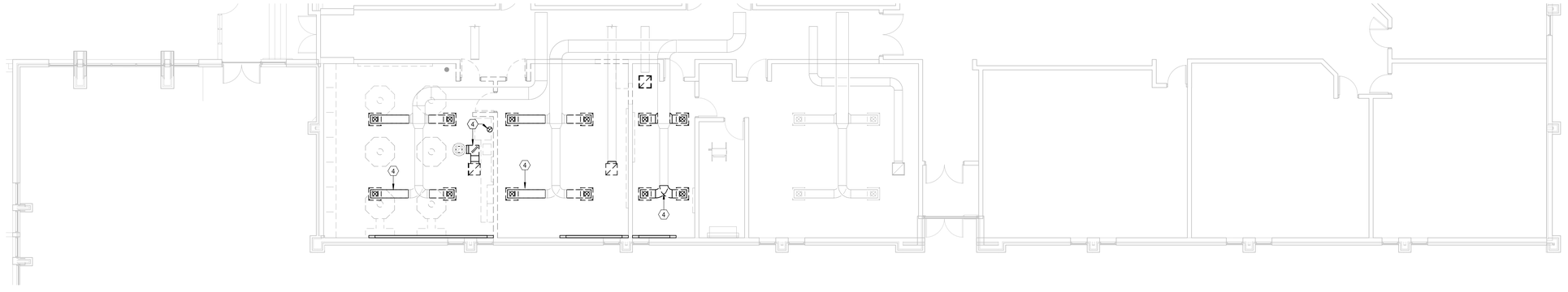

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FIRST FLOOR PLAN ALT.#4 - DEMO - VENTILATION & A/C
SCALE 0 4 8 12 16

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project: BALTIC HIGH SCHOOL ADDITION

sheet contents: FLOOR PLAN - DEMOLITION - VENT & A/C

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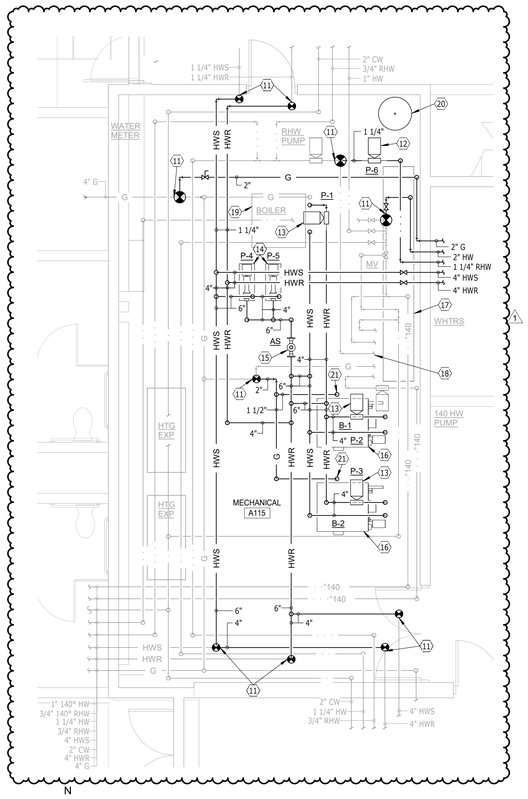

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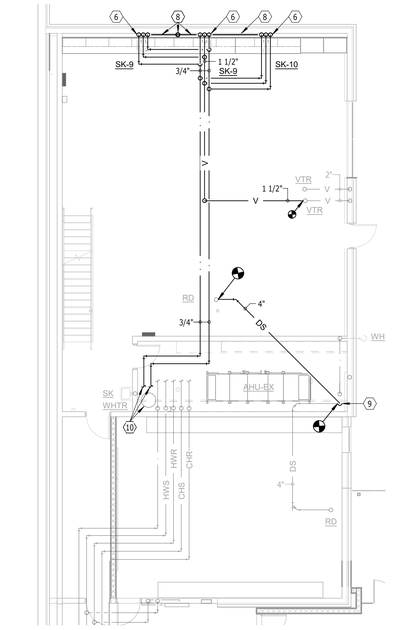
ENLARGED MECH ROOM - AREA A - PLUMBING & HEATING

SCALE 0 2 4 6 8



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FIRST ROOM FLOOR PLAN - ART ROOM - AREA A - PLUMBING & HEATING - ADD ALT 2

SCALE 0 4 8 12 16

GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.

B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.

C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1. 1/2" HW DN, 1 1/2" AV/2" AW DN, 1/2" CW DN
2. 1/2" G DN TO COUNTERTOP MTD GAS TURRET
3. 2" AV DN, 1/2" CW DN, 1/2" HW DN, 1/2" G DN BELOW FLOOR TO DESK
4. 2" AV DN,2" AW DN, 1/2" CW DN, 1/2" HW DN, 1/2" G DN
5. 1 1/4" TW DN
6. 1/2" HW DN, 1 1/2" V/2" W DN, 1/2" CW DN
7. GAS EMERGENCY SHUTOFF PUSH BUTTON CONNECTED TO SOLENOID VALVE (MTD BELOW CEILING) SERVING CLASS ROOM. VALVE ASCO MODEL 8215-EXPOSION PROOF, 120 VOLT OR EQUAL
8. EXTEND 2" W PIPING HORIZONTALLY IN FURRED WALL. DROP PIPING BELOW GRADE TO CONNECT TO EXISTING PIPING AT ONE POINT
9. 6" DS DN THRU FLOOR WITH CO 24" AFF
10. CONNECT PIPING TO EXISTING PIPING AT WATER HEATER
11. CONNECT TO EXISTING PIPING. VERIFY SIZE & LOCATION PRIOR TO ASSOCIATED WORK
12. INLINE DOMESTIC HOT WATER RECIRC PUMP
13. INLINE PRIMARY HEATING WATER PUMP. SEE BOILER PIPING DETAIL
14. BASE MOUNTED HEATING WATER PUMP. SEE BASE MOUNTED PUMP PIPING DETAIL
15. HEATING WATER SYSTEM AIR SEPARATOR. SEE AIR SEPARATOR PIPING DETAIL
16. GAS FIRED HYDRONIC BOILER. SEE BOILER PIPING DETAIL
17. (8) EXISTING GAS FIRED INSTANTANEOUS WATER HEATERS
18. PIPING TO EXISTING WATER HEATERS
19. EXISTING GAS FIRED BOILER. REPLACE THE EXISTING 35 PSI P&T RELIEF VALVE WITH A 75 PSI P&T RELIEF VALVE
20. 147 GALLON VERTICAL HEATING WATER SYSTEM EXPANSION TANK, WESSELS MODEL NLAP-560 OR EQUAL. SEE EXPANSION TANK PIPING DETAIL
21. 1 1/2" G DN WITH GAS COCK, PRESSURE REDUCING VALVE & UNION TO BOILER

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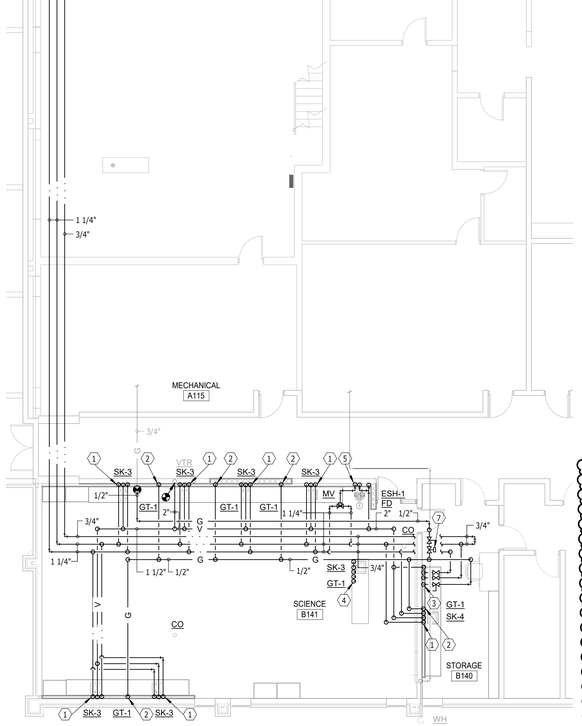

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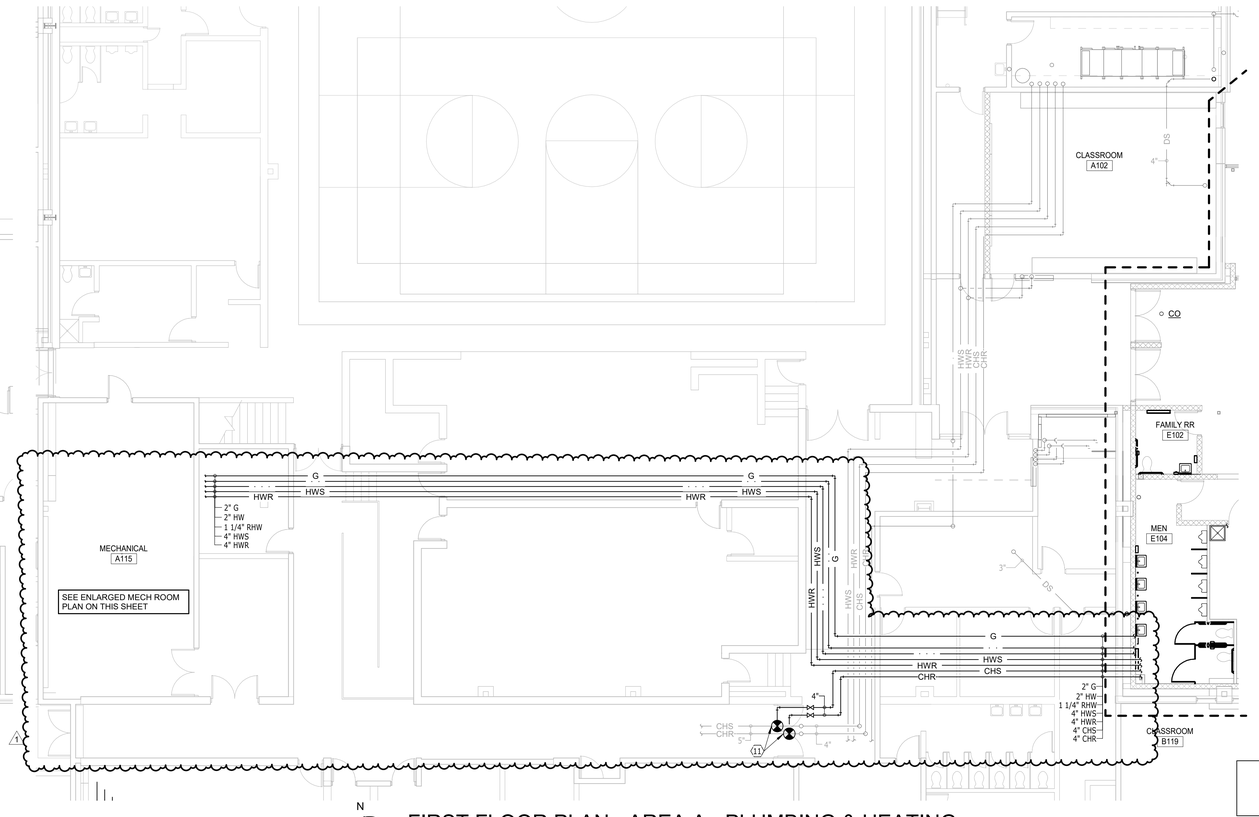
FIRST FLOOR PLAN - SCIENCE ROOM - AREA B - PLUMBING & HEATING - ADD ALT 4

SCALE 0 4 8 12 16



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FIRST FLOOR PLAN - AREA A - PLUMBING & HEATING

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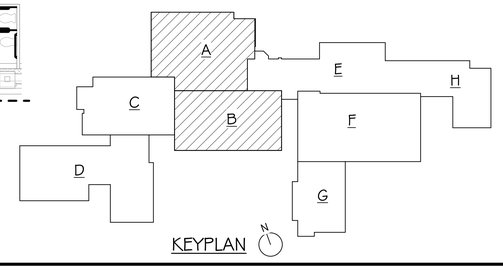

KEYPLAN N

project **BALTIC HIGH SCHOOL ADDITION**

sheet contents FLOOR PLANS - AREAS A & B - PLUMBING & HEATING

number	0727.2957.21
date	12-22-2022
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NO.	DATE	DESCRIPTION
1	1-13-22	ADDENDUM 1

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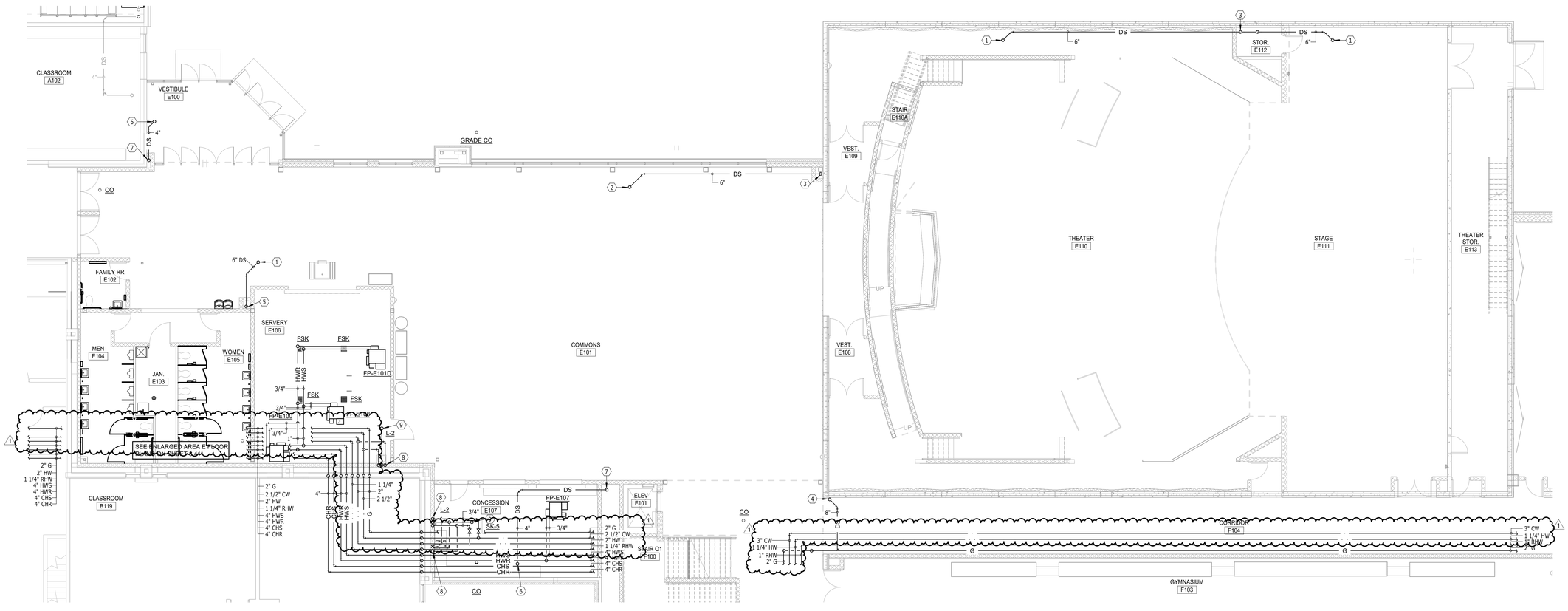
GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.
C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1 6" DS UP TO 6" RD
2 6" DS UP
3 6" DS UP/DN W/CO 24" AFF
4 8" DS UP
5 6" DS DN W/CO 24" AFF
6 4" DS UP TO 4" RD
7 4" DS DN W/CO 24" AFF
8 1/2" CW DN, 1 1/2" V/2" W DN, 1/2" HW DN
9 4" V UP (4" VTR)



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FIRST FLOOR PLAN - AREA E - PLUMBING & HEATING

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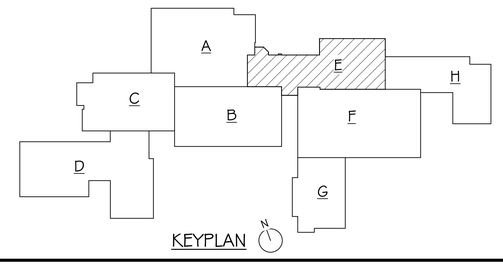

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project: **BALTIC HIGH SCHOOL ADDITION**

sheet contents: FIRST FLOOR PLAN - AREA E - PLUMBING & HEATING

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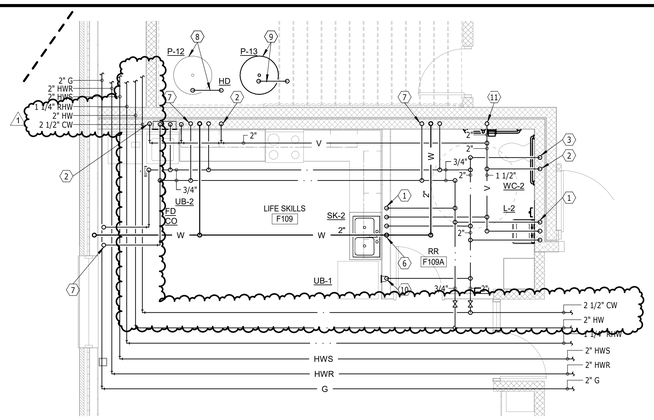

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ENLARGED FIRST FLOOR PLAN - LIFE SKILLS AREA F - PLUMBING & HEATING

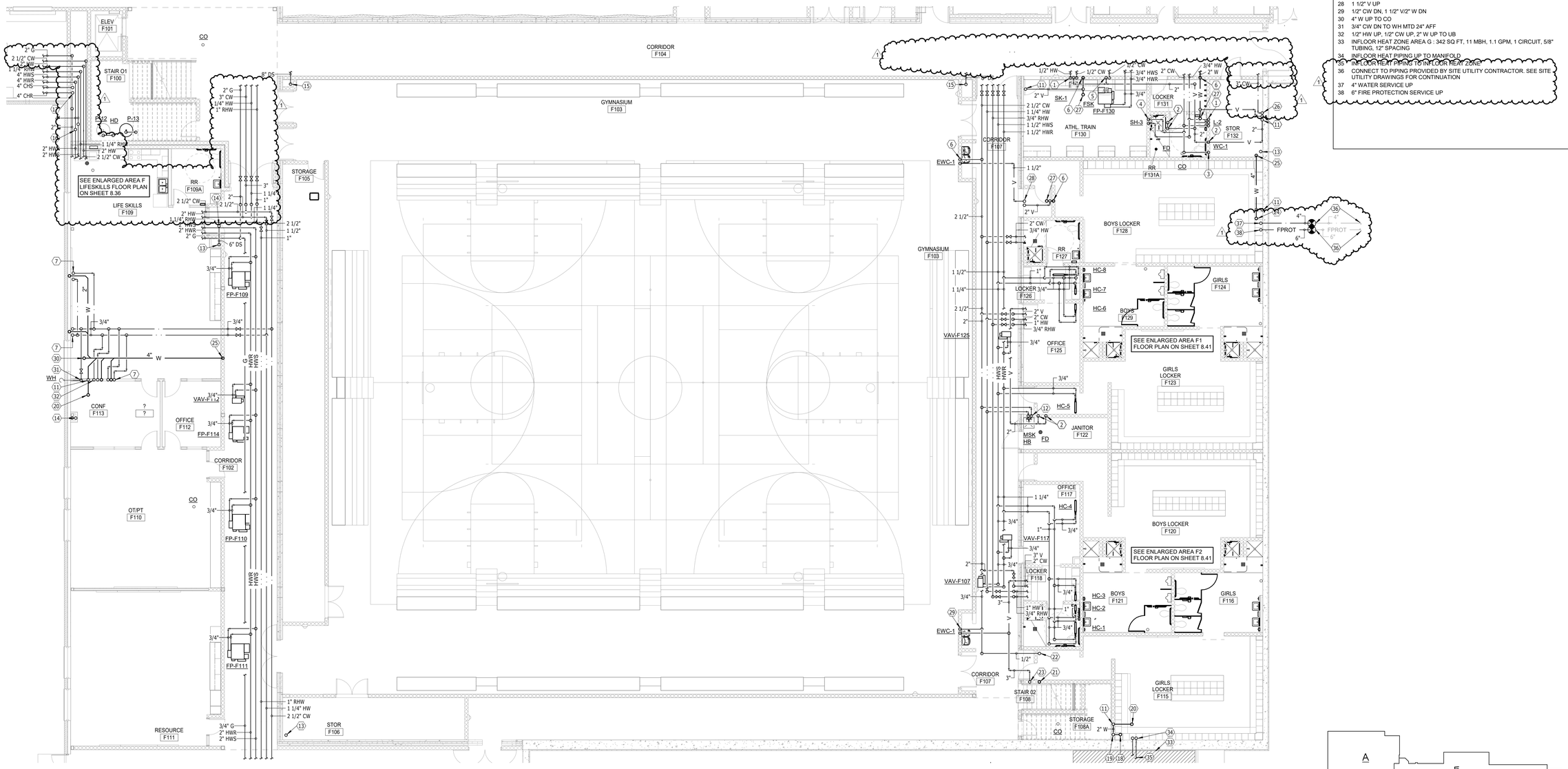
SCALE 0 2 4 6 8

GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.
C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1 1/2" HW DN, 1 1/2" V/2" W DN, 1/2" CW DN
2" V DN
1 1/4" CW DN
1/2" CW DN, 1/2" HW DN
2" V DN, 1/2" CW DN WITH EXPOSED ESCUTHEON & SHUTOFF VALVE TO ICE MAKER
2" W DN W/CO 24" AFF
1/2" HW UP, 2" W UP TO SK, 1/2" CW UP
24" DIA X 6'-0" DEEP ELEVATOR SUMP BASIN & PUMP. EXTEND 4" PVC DRAIN MTD FLUSH WITH BOTTOM OF ELEVATOR PIT TO BASIN. EXTEND 2" DISCH FROM SUMP PUMP WITH INDIRECT CONNECTION TO HUB DRAIN STUBBED AFF
24" DIA X 9'-0" DEEP DRAINTILE SUMP BASIN WITH SUMP PUMP. EXTEND 2" DRAIN FROM PUMP TO DOWNSPOUT PIPING STUBBED AFF
1/2" CW DN TO ICE MAKER UB MTD 36" AFF
2" V UP
1/2" HW DN, 3/4" CW DN TO HB/MSK
6" DS UP/DN W/CO 24" AFF
6" DS UP
8" DS DN W/CO 24" AFF
4" HWS UP, 4" HWR UP
4" CHS UP, 4" CHR UP
3" W UP TO MSK
2" V UP/3" W DN W/CO 24" AFF
2" W UP TO FD
2" W UP TO EWC/DN W/CO 24" AFF
1/2" CW UP TO EWC
3" V UP
4" W UP TO FSK
4" W DN W/CO 24" AFF
3" CW UP
2" W UP TO FSK
1 1/2" V UP
1/2" CW DN, 1 1/2" V/2" W DN
4" W UP TO CO
3/4" CW DN TO WH MTD 24" AFF
1/2" HW UP, 1/2" CW UP, 2" W UP TO UB
INFLOOR HEAT ZONE AREA G : 342 SQ FT, 11 MBH, 1.1 GPM, 1 CIRCUIT, 5/8" TUBING, 12" SPACING
INFLOOR HEAT PIPING UP TO MANIFOLD
INFLOOR HEAT PIPING TO INFLOOR HEAT ZONE
CONNECT TO PIPING PROVIDED BY SITE UTILITY CONTRACTOR. SEE SITE UTILITY DRAWINGS FOR CONTINUATION
4" WATER SERVICE UP
6" FIRE PROTECTION SERVICE UP



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FIRST FLOOR PLAN - AREA F - PLUMBING & HEATING

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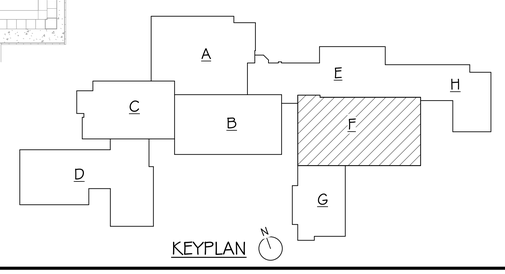

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project: **BALTIC HIGH SCHOOL ADDITION**

sheet contents: FIRST FLOOR PLAN - AREA F - PLUMBING & HEATING

number 0727.2957.21
date 12-22-2022
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1	1-13-22	ADDENDUM 1

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GENERAL SHEET NOTES

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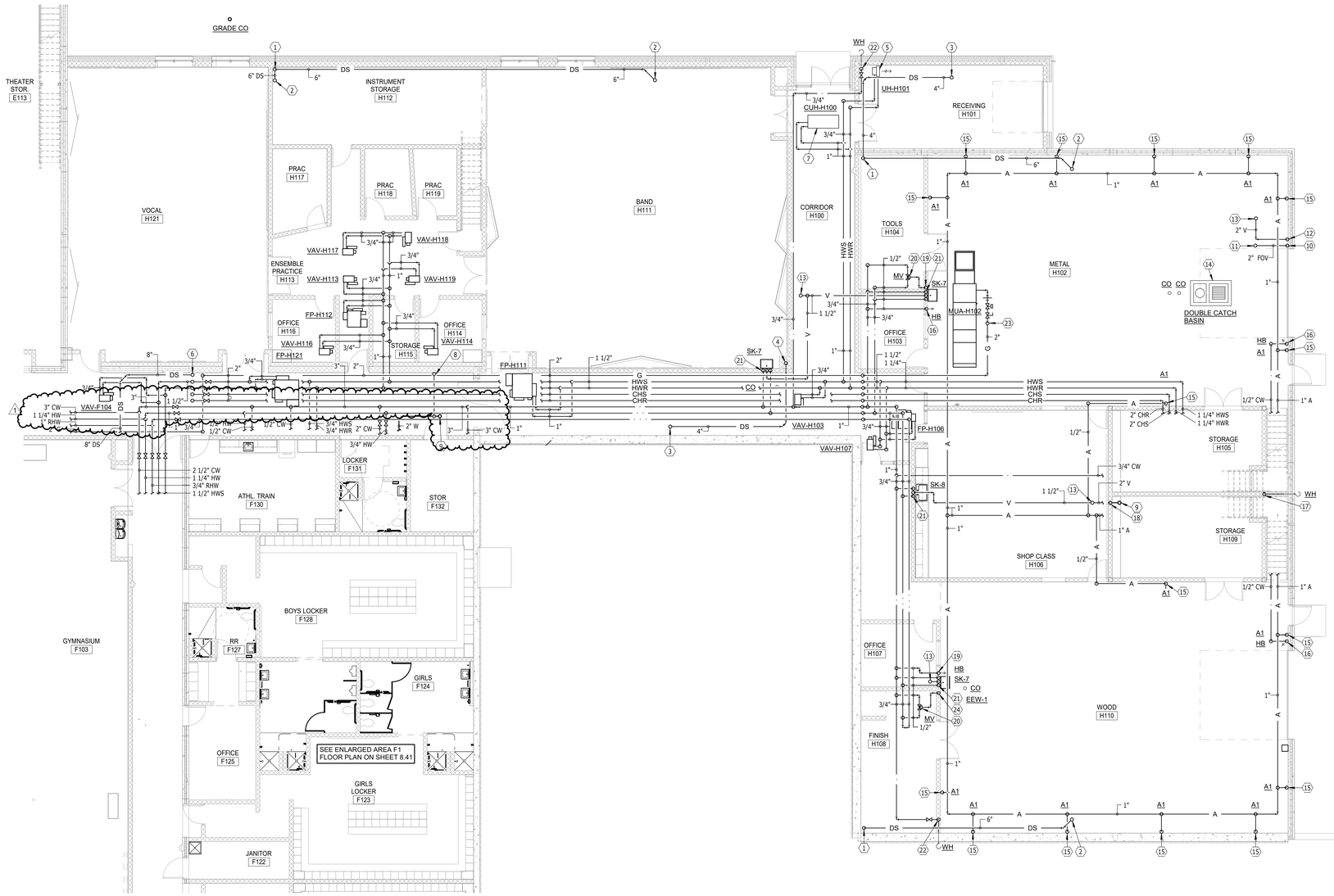
B. ON DEMO DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE EXISTING TO BE REMOVED.
C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1 6" DS DN W/CO 24" AFF
2 6" DS UP TO 6" RD
3 4" DS UP TO 4" RD
4 4" DS DN W/CO 24" AFF
5 HYDRONIC PROP TYPE UNIT HEATER HUNG FROM STRUCTURE. SEE UNIT HEATER PIPING DETAIL
6 8" DS UP, 2" HWS UP, 2" HWR UP, 2" CHS UP, 2" CHR UP
7 HYDRONIC CEILING MOUNTED CABINET UNIT HEATER. SEE CABINET UNIT HEATER PIPING DETAIL
8 2" V UP
9 2" W UP TO FSK
10 2" FOV DN
11 2" FOV UP (4" FOVTR)
12 2" V DN
13 4" V UP (4" VTR)
14 DOUBLE CATCH BASIN BY GENERAL CONTRACTOR. SEE DOUBLE CATCH BASIN DETAIL FOR INTERNAL PIPING REQUIREMENTS
15 1/2" A DN TO QUICK CONNECTOR. SEE AIR DROP RISER
16 1/2" CW DN W/SHUTOFF VALVE TO HB MTD 24" AFF
17 3/4" CW UP/DN TO WH MTD 24" AFF
18 2" V UP/W DN W/CO 24" AFF
19 1/2" TW DN TO RELOCATED EMERGENCY EYEWASH
20 EMERGENCY EYEWASH MIXING VALVE. SEE EMERGENCY EYEWASH MIXING VALVE PIPING DETAIL
21 1/2" CW DN, 1 1/2" V/2" W DN, 1/2" HW DN
22 3/4" CW DN TO WH MTD 24" AFF
23 GAS PIPING UP THRU ROOF TO MUA
24 1/2" TW DN TO EYEWASH



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FIRST FLOOR PLAN - AREA H - PLUMBING & HEATING

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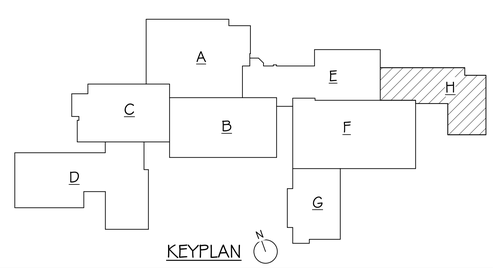

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project
BALTIC HIGH SCHOOL ADDITION

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FIRST FLOOR PLAN - AREA H - PLUMBING & HEATING

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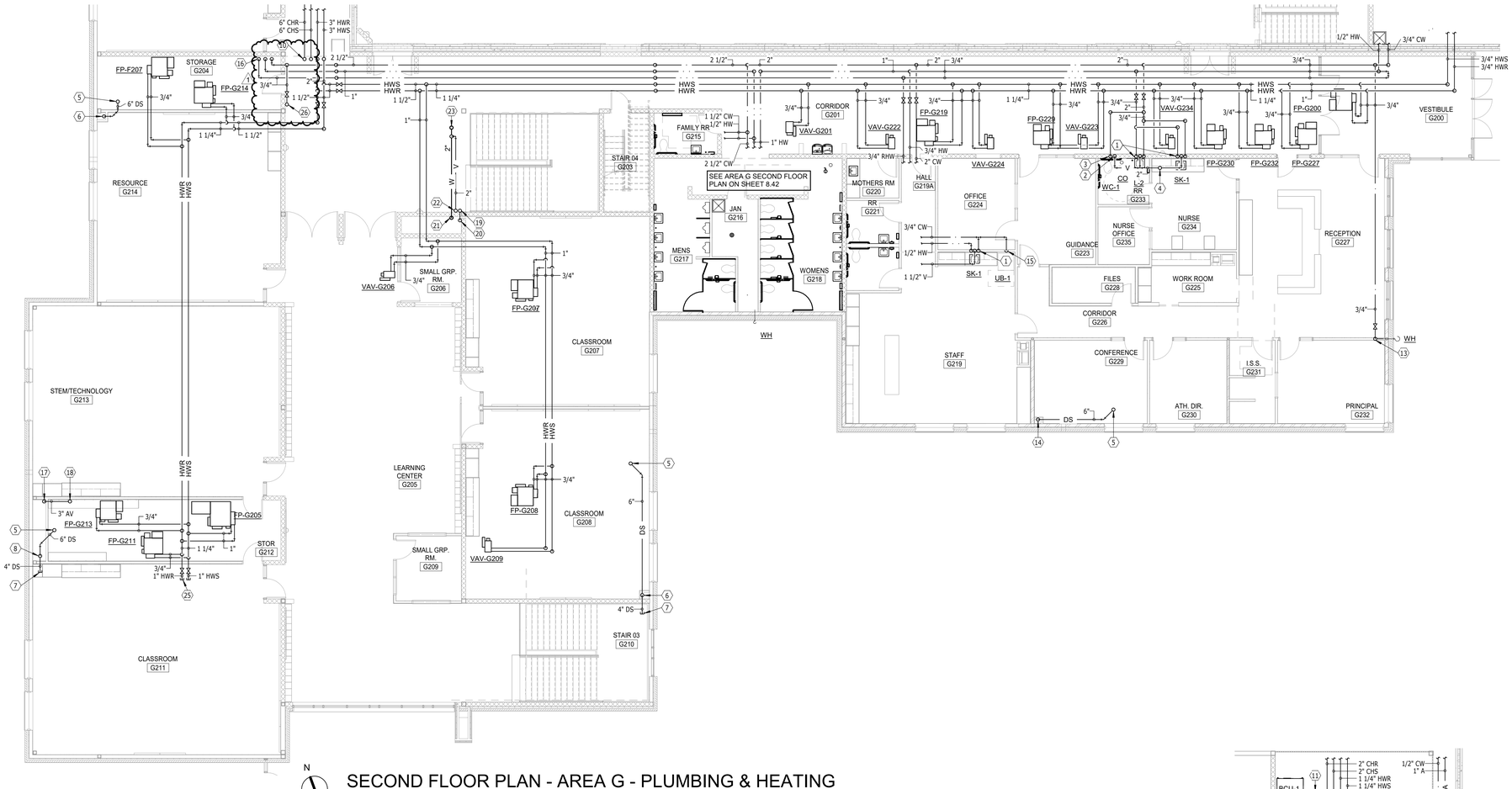

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SECOND FLOOR PLAN - AREA G - PLUMBING & HEATING

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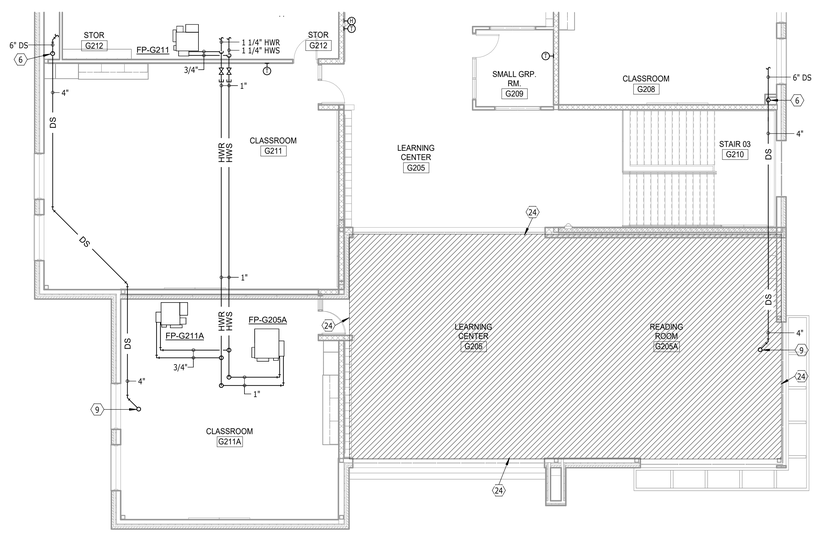

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SECOND FLOOR PLAN - AREA G - PLUMBING & HEATING - ADD ALT 1

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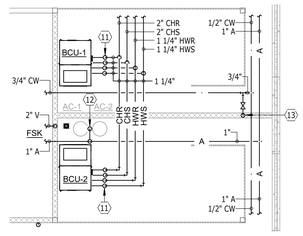

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SECOND FLOOR PLAN - AREA H - PLUMBING & HEATING

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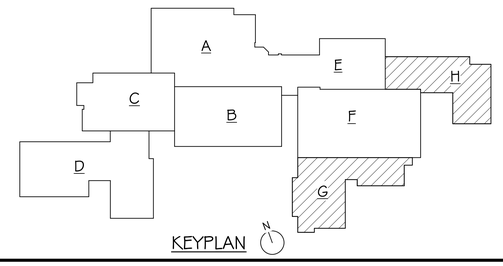

KEYPLAN

GENERAL SHEET NOTES

A. THE CEILING SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.

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C. ON NEW CONSTRUCTION DRAWINGS, ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN, ITEMS SHOWN BOLD ARE NEW WORK.

PLUMBING & HEATING NOTES

1. 1/2" HW DN, 1 1/2" V/2" W DN, 1/2" CW DN
2. 2" V DN
3. 1 1/4" CW DN
4. 4" V UP (4" VTR)
5. 6" DS UP TO 6" RD
6. 6" DS DN
7. 4" DS PIPING CAPPED FOR FUTURE USE
8. 6" DS UP
9. 4" DS UP TO 4" RD
10. 6" CHR UP, 6" CHS UP, 3" HWR UP, 3" HWS UP
11. 1 1/4" CHR DN, 1 1/4" CHS DN, 1 1/4" HWR DN, 1 1/4" HWS DN TO BCU. EXTEND COND TO FSK
12. 1" AIR DN TO RELOCATED AIR COMPRESSOR. SEE AIR COMPRESSOR PIPING DETAIL
13. 3/4" CW DN TO WH MTD 24" AFF
14. 6" DS DN W/CO 24" AFF
15. 1/2" CW DN TO ICE MAKER UB MTD 36" AFF
16. 3/4" RHW DN, 1 1/4" HW DN, 2 1/2" CW DN
17. 3" AV DN
18. 3" AV UP (4" AVTR)
19. 3" V UP
20. 3" V DN
21. 2" W DN
22. 2" V UP
23. 2" W UP TO FSK
24. INFLOOR HEAT ZONE AREA G2 (ALT) 1652 SQ FT, 52 MBH, 5.2 GPM, 5 CIRCUITS, 5/8" TUBING, 12" SPACING
25. 1" HWR DN CAPPED FOR FUTURE USE
26. 3/4" CW UP

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project
BALTIC HIGH SCHOOL ADDITION

sheet contents
SECOND FLOOR PLANS - AREAS G & H - PLBG & HTG

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NO.	DATE	DESCRIPTION
1	1-13-22	ADDENDUM 1

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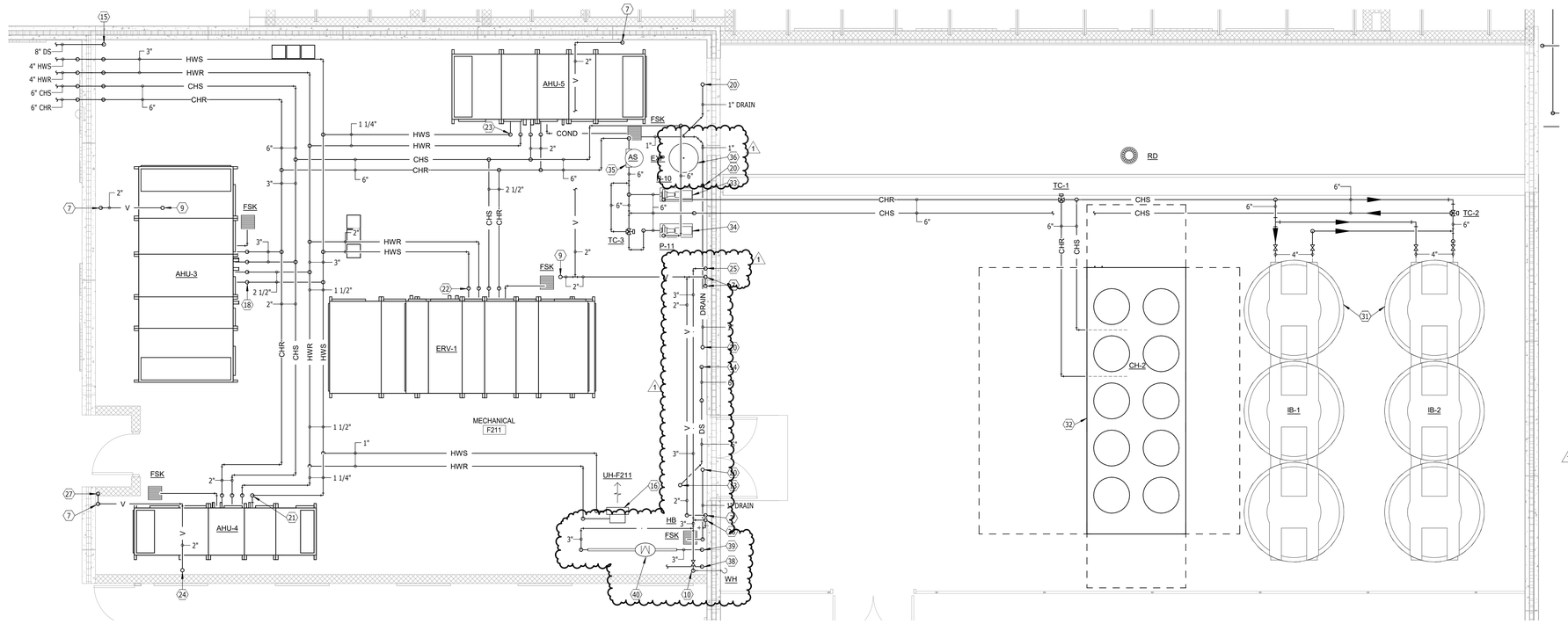
PLUMBING & HEATING NOTES

1 1/2" HW DN, 1 1/2" V/2" W DN, 1/2" CW DN
1 1/4" CW DN
2" V/4" W DN
1 1/2" V/2" W DN
1" CW DN
1/2" HW DN, 3/4" CW DN TO HB/MSK
2" V DN
1/2" CW DN, 1 1/2" V/2" W DN
4" V UP (4" VTR)
3/4" CW DN TO WH MTD 24" AFF
1/2" CW DN, 1 1/2" V/2" W DN, 1/2" HW DN
4" DS UP TO 4" RD
6" DS UP TO 6" RD
6" DS DN
8" DS DN, 2" HWS DN, 2" HWR DN, 2" CHS DN, 2" CHR DN
HYDRONIC PROP TYPE UNIT HEATER HUNG FROM STRUCTURE. SEE UNIT HEATER PIPING DETAIL
6" CHR DN, 6" CHS DN, 3" HWR DN, 3" HWS DN
3" CHR DN, 3" CHS DN, 2" HWR DN, 2" HWS DN. EXTEND COND TO FSK
4" CHR DN, 4" CHS DN, 2 1/2" HWR DN, 2 1/2" HWS DN. EXTEND COND TO FSK
1" DRAIN UP TO LOUVER DRAIN. EXTEND DRAIN TO FSK
2" CHR DN, 2" CHS DN, 1 1/4" HWR DN, 1 1/4" HWS DN. EXTEND COND TO FSK
2" HWS DN, 2" HWR DN, 2 1/2" CHS DN, 2" 1/2" CHR DN. EXTEND COND TO FSK
1 1/4" HWS DN, 1 1/4" HWR DN, 2" CHS DN, 2" CHR DN. EXTEND COND TO FSK
4" V UP (4" VTR)/3" DN
3" CW DN
1/2" CW DN W/SHUTOFF VALVE TO HB MTD 24" AFF
1 1/2" V DN
1/2" CW DN
3" V DN
3/4" CW DN, 1 1/2" V/2" W DN, 3/4" HW DN
ICE STORAGE TANKS (3 MANIFOLDED TANKS)
AIR COOLED CHILLER. SEE CHILLER PIPING DETAIL
BASE MOUNTED PRIMARY CHILLED WATER PUMP SET ON CONC. PAD (PAD BY G.C.). SEE BASE MOUNTED PUMP PIPING DETAIL
BASE MOUNTED SECONDARY CHILLED WATER PUMP SET ON CONC. PAD (PAD BY G.C.). SEE BASE MOUNTED PUMP PIPING DETAIL
CHILLED WATER SYSTEM AIR SEPARATOR. SEE AIR SEPARATOR PIPING DETAIL
147 GALLON VERTICAL CHILLED WATER SYSTEM EXPANSION TANK, WESSELS MODEL NLAP-560 OR EQUAL. SEE EXPANSION TANK PIPING DETAIL
3/4" CW DN TO HB MTD 24" AFF
6" FPROT SERVICE DN
4" WATER SERVICE DN
3" WATER METER WITH 3" REDUCED PRESSURE BACKFLOW PREVENTER. SEE WATER METER PIPING DETAIL



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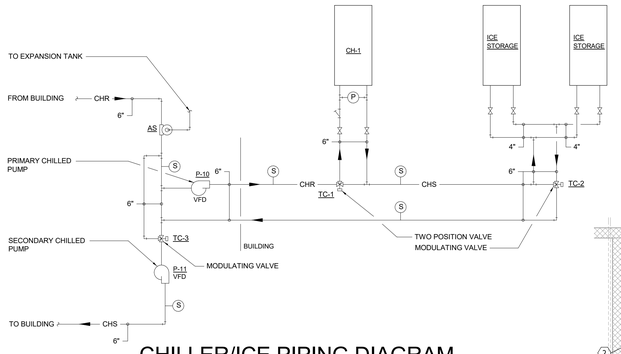
ENLARGED SECOND FLOOR PLAN - AREA F - PLUMBING & HEATING



CHILLER/ICE PIPING DIAGRAM

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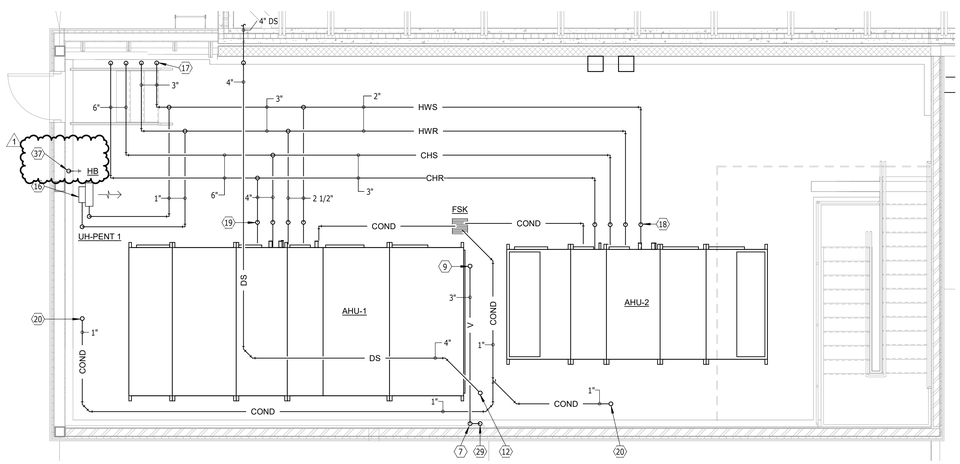

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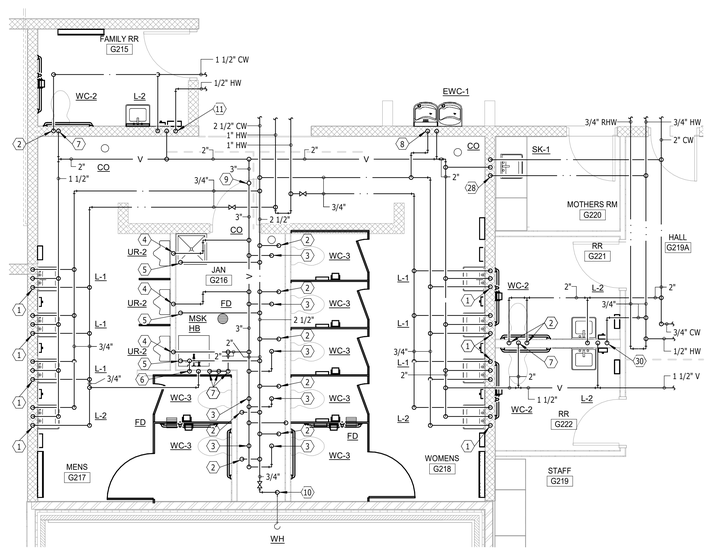
ENLARGED PENTHOUSE PLAN - AREA G - PLUMBING & HEATING



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SCALE 0 2 4 6 8

ENLARGED SECOND FLOOR PLAN - AREA G - PLUMBING & HEATING

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project: **BALTIC HIGH SCHOOL ADDITION**

sheet content: ENLARGED SECOND FLOOR PLANS - AREAS F & G - PLUMBING & HEATING

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SECTION 277260 - PUBLIC ADDRESS AND MUSIC EQUIPMENT

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 all labor, materials, equipment, and related services for amplifying, distributing, and reproducing sound signals.

B. The Paging Sound System shall consist of amplifier, speakers, and other devices, as required to form a complete system. The amplifier shall be housed in the gym sound system equipment rack.

C. Existing paging and class change signals (all call basis) shall be obtained from the existing paging intercom system. Field verify requirements and provide input transformer as required.

1.3 PERFORMANCE REQUIREMENTS

A. System Functions: Include the following:
1. Reproducing high-quality sound that is free from noise and distortion at all loudspeakers at all times during equipment operation, including standby mode with inputs off; and output free from non-uniform coverage of amplified sound.
2. Ability to distribute paging, background music, and class change signals.

1.4 SUBMITTALS, SHOP DRAWINGS & MAINTENANCE MANUALS

A. Submittals shall be provided in accordance with Division 1 and as further described herein.

B. Submittals shall include major equipment material lists, summarizing every item to be provided, by manufacturer, part number, quantity, and include a brief summary of each item. Manufacturer’s product data sheets, describing each of the major components shall also be provided.

C. Submittals shall be tab divided to aid in identifying the various sections of the submittal.

D. Shop drawings shall include complete floor plan drawings showing device locations, conduit routing, wire and cable quantity and sizes. Functional block diagrams, complete termination diagrams, showing all headend, control and typical field devices, shall also accompany the submittal. Provide proposed equipment rack layout.

E. Point to Point termination charts shall be included, identifying all punch block, panel and intermediate termination points, as well as defining wire and cable color codes and identification schemes to be followed throughout construction.

F. Maintenance manuals shall be compiled in accordance with the Division 1, shall include all information provided as part of the original submittal and shall also be updated to include installation notes, manufacturer's manuals, etc. Manuals shall also include:
   1. Descriptions of all equipment and detailed operating instructions.
   2. Final shop drawings, updated to reflect "as-built" accuracy. Include outlets with label ID's, and cable designations and routing information.
   3. Field test reports shall be provided, indicating and interpreting test results for compliance with performance requirements of the Project.
   4. Maintenance data shall be included for all major pieces of equipment, as per the requirements specified in Division 1.
   5. Copy of major equipment manufacturer's standard warranty statements, for future reference and use, should claims need to be submitted.

1.5 QUALITY ASSURANCE

A. Product Quality
   1. Equipment described in this Section shall be provided by a company regularly engaged in the design, sale and installation of Public Address Sound Systems. This company shall also have a service organization, trained by the equipment manufacturer and located a reasonable distance from the jobsite, which is capable of maintaining the system once installed. The services of this company shall be retained by the Electrical Contractor to supervise the system design, installation, make final system connections, and perform all tests and balance work required.
   2. All basic electronic equipment shall be listed by Underwriter's Laboratories, Inc. for the application and shall be products of manufacturers of established reputation and experience.

B. Contractor Qualifications
   1. The Installing Contractor shall be a firm specializing in the type of work called out in this specification section and shall, upon request, provide documentation that they have successfully completed at least three other installations of similar size and scope to this installation.
   2. The Installing Contractor (and any Subcontractors working for the Installing Contractor) shall be licensed, in accordance with local, regional and state authorities having jurisdiction, to complete the work that they are contracted to perform.

1.6 COORDINATION

A. Coordinate work of this section with existing system.

1.7 OCCUPANCY ADJUSTMENTS

A. On-Site Assistance: Engage a factory-authorized service representative to provide on-site assistance in adjusting sound levels, resetting transformer taps, and adjusting controls to meet occupancy conditions. Provide up to two on-site assistance visits within one year of Substantial Completion.

PART 2 - PRODUCTS

2.1 APPROVALS

A. The Products that are to be provided to form the system described herein are defined both functionally and descriptively. It is to be understood that these explanations are provided to establish minimum acceptable standards of performance and appearance. Product make and model numbers have also been provided to further define and more closely describe specific operational characteristics and/ or to make the contractor aware of the owner's preference for particular products.

B. If, in the estimation of a qualified potential supplier or installer, equipment of other manufacture could be substituted without compromising the integrity of the installation or its' overall design intent, then a request for consideration to substitute said product must be made in writing at least seven (7) days prior to bid date, fully describing the substitution.

C. Any exceptions to specifications, in terms of product appearance, configuration, operation or capabilities, which alter a potential bidders ability to meet these specifications shall be fully disclosed to the Architect/ Engineer at the time a request for approval to bid is received.
   1. Operational features and characteristics which exceed the requirements set forth in this specification as a minimum standard need not be disclosed at the time of product consideration for approval.

D. Notice of all bidder and product approvals shall be by addendum issued prior to bid date.

2.2 EQUIPMENT

A. Coordinate features to form an integrated system. Match components and interconnections for optimum performance of specified functions.

B. Equipment: Modular type, using solid-state components, fully rated for continuous duty, unless otherwise indicated. Select equipment for normal operation on input power usually supplied at 110 to 130 V, 60 Hz.

2.3 COMPONENTS

A. Power Amplifiers shall be equal to QSC CX series, dual channel design, sized and rated for the application.

   1. The amplifiers shall be sized, at a minimum, at 125% of connected load.
   2. Output distortion shall be less than .1% THD between 20 to 20,000 Hz and have a frequency response of + or - .2 dB over the same range.
   3. The amplifiers shall accommodate various add-on modules, allowing field modifications to be made to suit the application.
   4. The amplifiers utilized to drive the distributed loudspeakers shall be rated to accommodate 70V connected speaker load.

B. Miscellaneous Controls and Power Supplies: Provide all special controls, auxiliary power supplies, relays, matching transformers, etc., required and necessary to accomplish the system operation described in these specifications.

C. Recessed Ceiling Speaker Assembly shall consist of Soundolier 62-8(w) round aluminum baffle with blind mounting studs and finished in baked white enamel. The back-box shall be a

Soundolier EZ96-8 type with tile bridge hanger support channels. Speakers shall be Soundolier C5AT70, 8" cone speaker with whizzer cone and 70V matching transformer. Contractor shall verify ceiling type with architectural reflected ceiling plans.

D. Surface Ceiling Speaker Assembly shall consist of Soundolier 161-8 (w) square baffle with blind mounting studs and finished in baked white enamel. The back-box shall be a Soundolier SE175-4 type with white finish. Speakers shall be Soundolier C5AT70, 8" cone speaker with whizzer cone and 70V matching transformer. Contractor shall verify ceiling type with architectural reflected ceiling plans.

E. Interior Paging Trumpet Speakers (Located in the Gym and Shop): Speakers shall be TOA SC-615T. Units shall be single-horn type, with minimum full-range power rating of 15 W. Provide with 70V matching transformer with three standard taps. Provide with integral mounting bracket.
   1. Provide wire guards where shown on the plans.

F. Volume Controls shall be Soundolier AT-10 and AT-35 type, sized for the intended use. Volume controls are the auto transformer type for mounting to 1 and 2 gang outlet boxes. Permanently label all volume controls to describe the area served.

G. Wire and Cable shall be as recommended by the equipment manufacturer. In general, conductors shall be stranded and not less than #18 ga. for all speaker runs. Cables shall bear either a CL2 or CL2P label, as required for the application.

   1. Cables shall bear the CL2P label and be listed for Plenum use where required.
   2. Speaker Cable shall be equal to West Penn 293 or 25293, #18 ga., twisted, shielded pair type.

PART 3 - EXECUTION

3.1 INSTALLATION

A. The installation shall be in accordance with the latest requirements of the NEC, State, and Local Codes, ordinances and regulations of any other governing body having jurisdiction

B. All equipment shall be installed in a neat and workmanlike manner and to the satisfaction of the Project Engineer.

C. Install equipment to comply with manufacturer's written instructions.

D. Wiring Method: Install wiring in raceway and cable tray (where provided) except within consoles, cabinets, desks, counters, accessible ceiling spaces, and in gypsum board partitions where "free air" cable wiring method may be used. Use UL-listed plenum cable in environmental air spaces, including plenum ceilings. Conceal raceway and wiring except in unfinished spaces. All cabling routed at exposed ceiling structure in finished spaces shall be installed in raceway. All cabling installed underground or underslab shall be wet location listed.

   1. Whether system cabling is installed in cable tray or "free air", the system cabling shall be neatly run and shall be bundled separately from all other systems cabling.

2. Where cable is run “free air”, the cable shall be rated for the intended use and shall be neatly run and supported, using acceptable means to ensure reliable installation and performance.
    a. Install cable parallel and perpendicular to surfaces or exposed structural members, and follow surface contours where possible.
    b. Install sleeves for cable penetrations of concrete slabs and walls unless core-drilled holes are used. Install sleeves for cable penetrations of masonry and fire-rated gypsum walls and of all other fire-rated floor and wall assemblies. Install sleeves during erection of concrete and masonry walls. Provide insulated bushings for protection of conductors.
    c. Secure and support cable at intervals not exceeding 8 feet and not more than 12 inches from cabinets, boxes, fittings, outlets, racks, frames, and terminals.
    d. Utilize cable distribution rings and hangers, standoffs, spools and other suitable devices as an aid in managing all cable runs. Where cable tray is not provided and where 10 or more cables are routed together, cable distribution rings or hangers shall be wall or ceiling mounted above accessible ceilings at varying 4 to 6 foot intervals.
    e. Cables shall not be laid on or draped across any ceiling tiles, grids, electrical or mechanical fixtures. Maintain at least a 12 inch separation between the communications cables and fluorescent or HID lighting.
    f. Cables shall not be strapped, taped, or attached by any means to the exterior of any conduit or raceway as a means of support.

E. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess. Use lacing bars in cabinets.

F. Control-Circuit Wiring: Install number and size of conductors as recommended by system manufacturer for control functions indicated.

G. Separation of Wires: Separate speaker-microphone, line-level, speaker-level, and power wiring runs. Install in separate raceways or, where exposed or in same enclosure, separate conductors at least 12 inches (300 mm) for speaker microphones and adjacent parallel power and telephone wiring. Separate other intercommunication equipment conductors as recommended by equipment manufacturer.

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

I. All shields for speaker and microphone/auxiliary cables shall be maintained whole, unbroken, and isolated from ground at all locations except the control headend.

J. Match input and output impedance and signal levels at signal interfaces. Provide matching networks where required.

K. Identification:
    1. Color-code conductors and apply wire and cable marking tape to designate wires and cables to identify media in coordination with system wiring diagrams.
    2. Mark all control settings with small adhesive “dots”.

L. Conductor Sizing: Unless otherwise indicated, size speaker circuit conductors from racks to loudspeaker outlets not smaller than No. 18 AWG and conductors from microphone receptacles to amplifiers not smaller than No. 22 AWG.

M. Weatherproof Equipment: Install units that are mounted outdoors, in damp locations, or where exposed to weather consistent with requirements of weatherproof rating.

N. Line Matching Transformer Connections: Make initial connections using tap settings indicated on Drawings.

3.2 GROUNDING

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

B. Signal Ground Terminal: Locate at main equipment cabinet. Isolate from power system and equipment grounding.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect field-assembled components and equipment installations, including connections. Report results in writing.

B. All devices, including speakers, shall have final connections made be persons familiar with the trade. Work to be accomplished in craftsman-like manner. Installer shall test, calibrate, and adjust all speaker tap settings and controls to obtain the best, most uniform coverage possible for the application.

C. Operational Test: Perform tests that include originating program and page material at telephone instruments, preamplifier program inputs, and other inputs. Verify proper routing and volume levels and freedom from noise and distortion.

1. Measure and record the impedance of each loudspeaker line before connecting it to the output of its respective amplifier.
2. Measure and record the output impedance of each active device operating as a source to any passive device or series of passive devices.
3. Measure and record the input impedance of any active device used to terminate passive devices.

D. Power Output Test: Measure electrical power output of each power amplifier at normal gain setting at 50, 1000, and 12,000 Hz. Maximum variation in power output at these frequencies must not exceed plus or minus 1 dB.

E. Signal Ground Test: Measure and report ground resistance at pubic address equipment signal ground. Comply with testing requirements specified in Division 26 Section "Grounding."

F. Retesting: Correct deficiencies, revising tap settings of speaker-line matching transformers where necessary to optimize volume and uniformity of sound levels, and retest. Prepare written record tests.

G. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified. Prepare a list of final tap settings of paging speaker-line matching transformers.

H. Schedule tests with at least seven days' advance notice of test performance.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain equipment as specified below:

1. Train Owners maintenance personnel on programming equipment for starting up and shutting down, troubleshooting, servicing, and maintaining equipment. Provide a maximum of one training session, to last no more than one (2) hour each, prior to occupancy.
2. Review data in maintenance manuals.
3. Schedule training with Owner, through Architect, with at least seven days' advance notice.

END OF SECTION 277260