

1 **DOCUMENT 00 91 13**
2 **ADDENDUM #1**
3

4 **DATE:** February 2, 2012
5

6 **FROM:** Rettler Corporation
7 3317 Business Park Drive
8 Stevens Point, Wisconsin 54481
9

10 **TO:** *Prospective Bidders*
11

12 **RE:** Addendum #1 to the Bidding Documents for the
13

14 **BELOIT TURNER HIGH SCHOOL**
15 **RUNNING TRACK REDEVELOPMENT PROJECT**
16 **The School District of Beloit Turner**
17 **Beloit, Wisconsin**
18

19 This addendum forms a part of the Contract Documents and modifies the original Contract Documents
20 dated January 11, 2012 as noted below. Acknowledge receipt of this Addendum by inserting the number
21 and issue date of this addendum in the blank space provided on the Bid Form. Failure to do so may
22 subject the Bidder to disqualification.
23

24
25 **CHANGES TO SPECIFICATIONS**
26

27
28 **SECTION 00 41 00 – BID FORM**
29

30 **CLARIFICATION:BASE BID 'A' Item #58**
31

32 The "units" shall be **L.S.** (LUMP SUM) in lieu of S.Y. yards shown.
33
34

35 **SECTION 00 41 00 – BID FORM**
36

37 **CLARIFICATION:ALTERNATE BID 'A1'**
38

39 The price for the subsurface drainage trench in the detention swale as shown on the plans
40 shall be included in line item #48 Common Excavation. The price shall include furnishing
41 and placing all materials, and all labor, material, equipment and tools necessary to complete
42 the work in accordance with the plans.
43
44

45 **SECTION 00 41 00 – BID FORM**
46

47 **CLARIFICATION:CONTRACT "D" Item # 91**
48

49 This item should also include the striping for all of the jumping events as well as the running
50 track per SECTION 32 18 23.39
51
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55

1 SECTION 03 00 00 – SITE CONCRETE

2
3 **OMIT:** DELETE SECTION 03 00 00 SITE CONCRETE as written.

4
5 **ADD:** New SECTION 03 00 00 SITE CONCRETE as ATTACHED.

6
7 SECTION 03 00 01 – STRUCTURAL CAST-IN-PLACE CONCRETE

8
9 **OMIT:** DELETE SECTION 03 00 01 STRUCTURAL CAST-IN- PLACE CONCRETE as
10 written.

11
12 **ADD:** New SECTION 03 00 01 STRUCTURAL CAST -IN- PLACE CONCRETE as
13 ATTACHED.

14
15
16 SECTION 03 35 53 – EXTERIOR CEMENTITIOUS COATING SYSTEM

17
18 **ADD:** Entire Section to Document as ATTACHED

19
20
21 SECTION 10 75 00 – FLAGPOLES

22 PART 11 – LINE 44

23 **REVISE:** To Read

24 Pole Height: 1 Flag Pole @ 35'-0" height

25
26
27 SECTION 11 68 33 - ATHLETIC FIELD EQUIPMENT

28
29 **OMIT:** DELETE SECTION 11 68 33 ATHLETIC FIELD EQUIPMENT as written.

30
31 **ADD:** New SECTION 11 68 33 ATHLETIC FIELD EQUIPMENT as ATTACHED.

32
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34
35 SECTION 32 18 23.39 – RUNNING TRACK SURFACING

36
37 PART II- LINE 55

38 **ADD:** Add the following to TRACK SURFACE SUPPLIER

39
40 G. Hellas Sport Tracks.
41 Att: Ruth Hawley:
42 12710 Research Blvd., Suite 240.
43 Austin, TX 78759
44 (Ph) 512-250-2910 (Cell) 512-740-3220

45
46
47 SECTION 32 92 19 – SEEDING

48
49 PART 1 – PLANTING SEASON

50 **ADD:** LINE 13

51 Seeding may be placed between June and September, if CONTRACTOR provides
52 management plan and warranty of turf to acceptable growth as defined by OWNER/ LA/E.
53 CONTRACTOR shall receive approval from OWNER and LA/E prior to placement of seed
54 during any planting season.

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PART 3 – TEMPORARY WATERING

OMIT: AS WRITTEN

ADD:

Provide temporary above ground watering system on all turf (Seed and Sod) in the base bid. Owner has on site access for water reel connection, no underground irrigation available on site. CONTRACTOR shall coordinate use. Provide ongoing watering management during entire maintenance period. Remove temporary above ground watering system at end of maintenance period.

PART 3 – MAINTENANCE FERTILIZER

OMIT: Schedule as written

ADD: Schedule as provided.....

Date	Material	Rate
All Turf Areas	CONTRACTOR SHALL PERFORM AND INCLUDE IN BID	
Sowing Date + 28 Days	24-0-14	1.0 lb. N/1000 sq.ft.
Sowing Date + 49 Days	34-2-8	1.0 lb. N/1000 sq.ft.
Sowing Date + 77 Days	Overseed thin areas with identified Seed Mix per area	500 lb. (total)
Sowing Date +105 Days	24-0-14	1.0 lb. N/1000 sq.ft.

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SECTION 32 92 23 – SODDING

PART SEVEN - MAINTENANCE

OMIT: Watering: Apply 1/2" (1.3 cm) of water twice weekly until final acceptance.

ADD:

Watering: Provide temporary above ground watering system on all turf (Seed and Sod) in the base bid. Owner has on site access for water reel connection, no underground irrigation available on site. CONTRACTOR shall coordinate use. Provide ongoing watering management during entire maintenance period. Remove temporary above ground watering system at end of maintenance period.

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CHANGES TO DRAWINGS

SHEET C3.0

SITE LAYOUT PLAN

NOTE #14:

ADD: with TYPE 478Q class E ADA Ductile Iron grates.

SHEET C7.0

DETAILS

#4: EXISTING WALL DEMOLITION AND RESTORATION

OMIT: Detail as provided.

ADD: Revised **DETAIL #4** as attached.

SHEET C7.0

DETAILS

#5: REINFORCED CONCRETE PAVEMENT AND RAILING OVER EXISTING WALL

OMIT: Detail as provided.

ADD: Revised **DETAIL #5** as attached.

(END OF SECTION)

1 Indicate reinforcement sizes, spacing, locations, and quantities, bending and cutting schedules,
2 supporting and spacing devices.

3
4 Shop Drawings: Indicate dimensions or details regarding sidewalks, slabs-on-grade, and footings
5 not shown on project plans.
6

7 Product Data: Provide concrete mix designs indicating mix proportions and materials sources
8 including cement, fly ash, admixtures, and aggregates. Also provide documentation for surface
9 treatments, and anchors.

10
11 Provide copies of material testing reports.
12

13 Colored Concrete Mock-up Slabs: Provide a three-foot by two-foot by 3-inch mock-up slab using
14 the ingredient proportions proposed for each colored concrete mix specified. Two additional
15 mock-up slabs shall be planned using varying color pigment dosages if the OWNER OR LA/E
16 judges that color adjustments are necessary.

- 17 1. The finishing procedures used shall be identical to those used during construction
18 including broom texture and window-pane edging/jointing if applicable.
- 19 2. The proposed curing compound shall be applied to one half of the mock-up slab.
- 20 3. The slab(s) shall be constructed at least 14 days prior to the first placement of each
21 colored concrete mix and shall remain undisturbed on the project site until 14 days after
22 the last placement of that particular concrete mix. The mock-up slab shall be reviewed by
23 the OWNER and LA/E when it's 7 days old.

24 25 **QUALITY ASSURANCE**

26 Construct and erect concrete formwork in accordance with ACI 301. Perform concrete
27 reinforcing work in accordance with ACI 301, ACI 315, ACI 318, CRSI 63 and CRSI Manual of
28 Practice.

29
30 Perform cast-in-place concrete work in accordance with ACI 301, ACI 305, and ACI 306.
31

32 The CONTRACTOR shall contact the OWNER'S construction materials ENGINEER or
33 TECHNICIAN under the ENGINEER'S supervision to schedule testing of concrete materials.
34 Materials testing shall be conducted as outlined in **Section 01 45 29 Testing Laboratory**
35 **Services**.

36 37 **CONSTRUCTION LAYOUT**

38 Proposed Work will be staked once as outlined in Section 01 71 23.13, Construction Layout.
39 Construction layout will be based on a control survey established as outlined in 01 71 23, Field
40 Engineering.
41

42 **RECORD DRAWINGS**

43 Maintain as-built drawings showing actual locations of utilities and other features encountered,
44 modifications to proposed grades and site features, and other deviations from the original
45 design.
46

47 **PART TWO – PRODUCTS**

48 49 **CONCRETE MIX DESIGN**

50 Comply with SSHSC Sections 501 Concrete, 415 Concrete Pavement, 301 General
51 Requirements For Base Aggregates, 601 Concrete Curb and Gutter, 602 Concrete Sidewalks,
52 Loading Zones, Safety Islands, and Steps, and 620 Concrete Corrugated Median and Concrete
53 Median Nose except as modified:
54

- 1 1. Provide concrete materials used to prepare mixture proportions, are listed on the WisDOT
2 PAL, and meet the following requirements:
 - 3 a. Portland Cement: ASTM C 150, Type I.
 - 4 b. Fly Ash (optional): ASTM C 618 "Standard Specifications for Fly Ash and Raw or
5 Calcined Natural Pozzolan for use as a Mineral Admixture in Portland Cement
6 Concrete" Class C.
 - 7 c. Aggregates: ASTM C 33, except local aggregates of proven durability may be used
8 when approved by LA/E. Normal weight coarse aggregate to be crushed stone or
9 gravel. Fine aggregate shall be natural sand. Coarse aggregate shall contain less than
10 1% Chert.
 - 11 d. Air-Entraining Admixture: ASTM C 260.
 - 12 e. Water-Reducing Admixture: Comply with ASTM C 494/C494M. Type A. A Mid-range
13 Water Reducer may be used to increase slump specification 1" when added at a
14 dosage rate of 4 to 6 oz/cwt of cementitious content.
 - 15 f. Synthetic Fiber Reinforcement: Fibrillated polypropylene fiber reinforcement
16 engineered and designed for use in slab on grade, complying with ASTM C 1116;
17 4.1.3, Type III. Burn off any standing fibers. Preapproved products that do not require
18 review by the LA/E are limited to the following:
 - 19 i. Novomesh 950 Macro Synthetic Fiber Blend, Propex Concrete Systems.
 - 20 ii. Strux 90/40, W.R. Grace & Co., Construction products Division.
 - 21 iii. Advantage Structural Fiber, GRT Admixtures.
 - 22 g. Water: Potable (drinkable).
 - 23 h. Deformed Reinforcing Bars: Clean, free of loose rust, mill scale, dirt, ice, etc.,
24 meeting ASTM A 615, Grade 60, unless otherwise indicated.
- 25 2. Provide Grade A or Grade AFA air entrained concrete with maximum water-cementitious
26 ratio of 0.45 and a minimum 28-day compressive strength 4,000 pounds per square inch
27 (psi).
- 28 3. Class C Fly Ash may be used to replace cement on a 1.0 to 1.0 basis up to 25% of total
29 cementitious materials content. The use of mixes containing fly ash is prohibited after
30 October 15th unless prior written permission is received from LA/E.
- 31 4. Ternary mixes will not be accepted.
- 32 5. Exterior flatwork shall be cast of concrete from the same mix proportions.
- 33 6. The slump of all concrete mixtures shall not exceed 4" or as outlined by SSHSC.
- 34 7. Air content of all exterior concrete shall be $6.5\% \pm 1.5\%$.
- 35 8. Air content of interior concrete except garage floors shall not exceed 3.0%.
- 36 9. Fibrillated polypropylene fiber reinforcement shall be provided in all concrete placed in
37 exterior flatwork at the minimum dosage rate recommended by the product manufacturer.
- 38 10. Submit proposed mix designs and minimum of 15 test results (two cylinders per test) per
39 mix type at least 7 days prior to placing concrete.
- 40 11. Ready-Mixed Concrete shall be measured, mixed and delivered in accordance with
41 ASTM C 94.

42 **LIQUID CURING COMPOUND**

43 Liquid Concrete Curing Materials outlined in Section 415 shall be applied on all exterior concrete
44 flatwork and curb & gutter using procedures and application rates listed in the SSHSC. A liquid
45 curing compound identified on the PAL that meets AASHTO M 148 (or ASTM C309), Type 2,
46 Class A shall be used.

47 **DETECTABLE WARNING FIELD**

48 Comply with Section 602 Concrete Sidewalks, Loading Zones, Safety Islands, and Steps
49 regarding Detectable Warning Fields outlined in the SSHSC.
50
51
52

1 See Project Plans for Manufacturer, Material, and Color required for this project. Install
2 Detectable Warning Fields in accordance with Section 602 and the Manufacturer
3 recommendations.

4
5 **PART THREE - EXECUTION**

6
7 **CONCRETE PAVEMENT**

8 Comply with 415 Concrete Pavement of SSHSC. Grade A or Grade AFA concrete shall be
9 used. All Concrete Pavement shall be 5-inch depth concrete shall be placed on 6-inch depth
10 dense graded base course. Steel reinforcing bars shall not used. Synthetic reinforcing fibers
11 shall be used. Subgrade preparation, placing, concrete, broomed surface (not artificial turf drag),
12 and joint spacing shall be in accordance with the SSHSC.

13
14 **JOINTING**

15 Provide hand-tooled or saw-cut contraction joints at the locations identified for each on the
16 drawings. CONTRACTOR shall propose additional joints as necessary to provide spacing in two
17 directions not exceeding 24 to 36 times the depth of the concrete. The aspect ratio of length to
18 width of the panels after jointing shall not exceed 1.5 to 1.0.

19
20 Joints in curb and gutter sections, concrete under or adjacent to clay paving units, and concrete
21 supporting trench drains shall be hand-tooled at a maximum spacing of 10 feet.

22
23 The depth of all joints shall be at least one-fourth the depth of the concrete element being
24 jointed.

25
26 Minimize the number of construction joints by ending concrete placements at expansion joint
27 locations indicated on drawings. If this is not possible, propose locations to LA/E for review and
28 approval.

29
30 When construction joints are necessary for concrete pavement in vehicular traffic areas, provide
31 bonded joint using dowel or keyway. Roughen the first previously placed concrete surface prior
32 to second placement of concrete. Dampen first concrete surface prior to placement of second
33 concrete.

34
35 **FINISHING CONCRETE**

36 Screed or strike off, bullfloat or darby concrete surfaces prior to the onset of bleed water
37 collection. Do not work bleed water into the surface of the concrete. During screeding and strike
38 off, lightly vibrate the screed to embed the fibers more completely into the surface of the
39 concrete. Jigging the bullfloat will assist in this process without overworking the surface.

40
41 Complete initial edging and hand tool jointing prior to floating or brooming. Re-edge or re-tool
42 joints as necessary to receive uniform finish as specified by the LA/E or project plans as finishing
43 progresses.

44
45 Once bleed water has evaporated and the concrete can sustain foot pressure, complete
46 edging/jointing, floating, and brooming as appropriate. Delaying final finish of the surface for a
47 period of 15-30 minutes after the bleed water has left the surface will make it easier to reduce
48 the occurrence of standing fibers because the surface will be more firm.

49
50 Do not add water or dry cement to any concrete surface to modify conditions.

51
52 Unless otherwise indicated, sidewalks and concrete pavement areas shall be provided with a
53 medium broomed finish. Broom slabs transverse to the main direction of traffic. During the first
54 concrete flatwork placement, LA/E will review and approve the broom finish texture.

1 equipment and incidentals necessary to complete the work. Installation of the take-off boards
2 and provision of sand within the jump boxes shall be paid under separate unit price items.

3
4 Dense graded base under concrete long jump / triple jump runways and landing pits shall be
5 incidental to lump sum bid item for concrete long jump / triple jump runways.

6
7

END OF SECTION

1 **SECTION 03 00 01 – STRUCTURAL CAST-IN-PLACE CONCRETE**
2 **(Addendum #1)**

3
4
5 **PART ONE - GENERAL**

6
7 **SCOPE**

8 The work under this section shall consist of providing all work, materials, labor, equipment, and
9 supervision necessary to complete formwork, reinforcement, accessories, cast-in-place concrete,
10 finishing and curing as required in these specifications and on the drawings for all structural cast-
11 in-place concrete. Included are the following topics:

12 **PART ONE - GENERAL**

- 13 Scope
- 14 Related Work
- 15 Reference Standards
- 16 Submittals
- 17 Quality Assurance
- 18 Construction Layout
- 19 Record Drawings
- 20 Coordination

21 **PART TWO - PRODUCTS**

- 22 Concrete Mix Design
- 23 Forms Materials and Accessories
- 24 Reinforcement Materials

25 **PART THREE - EXECUTION**

- 26 Formwork Materials Erection
- 27 Inserts, Embedded Components, and Openings
- 28 Reinforcement Placement
- 29 Placing Concrete
- 30 Curing
- 31 Formed Surfaces
- 32 Defective Concrete

33 **PART FOUR - MEASUREMENT AND PAYMENT**

- 34 Concrete Retaining Wall

35
36 **RELATED WORK**

37 Applicable provisions of Division 01 govern work under this Section.

39 Section 01 45 29	Testing Laboratory Services
40 Section 01 71 23	Field Engineering
41 Section 01 71 23.13	Construction Layout
42 Section 03 00 00	Site Concrete

43
44 **REFERENCE STANDARDS**

45 State Specifications: State of Wisconsin Department of Transportation, "Standard Specifications
46 for Highway and Structure Construction", current edition.

47
48 **SUBMITTALS**

49 Shop Drawings: Indicate pertinent dimensioning, methods of construction, form materials,
50 arrangement of joints and ties, location of bracing and temporary supports, schedule of erection
51 and stripping in accordance with Section 01 33 00.

52
53 Indicate reinforcement sizes, spacing, locations, and quantities, bending and cutting schedules,
54 supporting and spacing devices.

55
56 Shop Drawings: Indicate walls, foundations, and footings.

11.044

Beloit Turner High School
Running Track Redevelopment Project
Per Addendum #1

Site Concrete
03 00 00-1

1
2 Product Data: Indicate admixtures, surface treatments, and anchors.

3
4 Provide copies of material testing reports.

5
6 **QUALITY ASSURANCE**

7 Construct and erect concrete formwork in accordance with ACI 301.

8
9 Perform concrete reinforcing work in accordance with ACI 301, ACI 315, ACI 318, CRSI 63 and
10 CRSI Manual of Practice.

11
12 Perform cast-in-place concrete work in accordance with ACI 301, ACI 305, and ACI 306.

13
14 Perform cold weather concrete work in accordance with ACI 306 when temperatures fall below
15 40 degrees Fahrenheit.

16
17 The CONTRACTOR shall contact the OWNER'S construction materials ENGINEER or
18 TECHNICIAN under the ENGINEER'S supervision to schedule testing of concrete materials.
19 Materials testing shall be conducted as outlined in **Section 01 45 29 Testing Laboratory**
20 **Services**.

21
22 **CONSTRUCTION LAYOUT**

23 Proposed Work will be staked once as outlined in Section 01 71 23.13, Construction Layout.
24 Construction layout will be based on a control survey established as outlined in 01 71 23, Field
25 Engineering.

26
27 **RECORD DRAWINGS**

28 Maintain as-built drawings showing actual locations of utilities and other features encountered,
29 modifications to proposed grades and site features, and other deviations from the original
30 design.

31
32 **COORDINATION**

33 Contractor shall coordinate with all trades to ensure proper access, construction sequence, and
34 quality work to be completed.

35
36 **PART TWO – PRODUCTS**

37
38 **CONCRETE MIX DESIGN**

39 Comply with Section 501, 301, 602, and 620 of "State Specifications" except as modified:

- 40
41 1. Provide Grade A or Grade AFA air entrained concrete with maximum water-cementitious
42 ratio of 0.45. Mid-range and normal water-reducing admixtures are acceptable.
43 2. Class C Fly Ash may be used to replace cement on a 1.0 to 1.0 basis up to 25% of total
44 cementitious materials content. The use of mixes containing fly ash is prohibited after
45 October 15th unless prior written permission is received from LA/E.
46 3. Ternary mixes will not be accepted at this time.
47 4. Exterior flatwork shall be cast of concrete from the same mix proportions.
48 5. The slump of all concrete mixtures shall not exceed 4" or as outlined by "State
49 Specifications".
50 6. Air content of all exterior concrete shall be 6.5% ± 1.5%.
51 7. Air content of interior concrete except garage floors shall not exceed 3.0%.
52 9. Submit proposed mix designs and minimum of 15 test results (two cylinders per test) per
53 mix type at least 7 days prior to placing concrete.

54
55 **FORM MATERIALS AND ACCESSORIES**

1 Plywood shall be PS 1 Grade Douglas Fir species and shall be sound undamaged sheets with
2 clean true edges
3
4 Lumber shall be construction grade and dressed on at least two edges and one side for tight fit.
5
6 Prefabricated Steel forms shall be matched, tight fitting, and stiffened to support weight of
7 concrete.
8
9 Pan type forms shall be steel and of the size and profile required.
10
11 Form Ties shall be snap-off, metal, adjustable in length, and have cone ends.
12
13 Flashing Reglets shall be rigid PVC with alignment splines for joints.
14
15 Form Release Agents shall be colorless mineral oil which will not stain concrete or impair natural
16 bonding characteristics of coating intend for use on concrete.
17
18 Formed Construction Joints for Slab-on-Grade shall be galvanized steel, tongue and groove type
19 profile with knockout holes to receive doweling.
20
21 Slab Edge Joint Filler shall be ½” thick premolded asphaltic board conforming to ASTM D1751.
22
23 Vapor Retarder shall be 6 mil thick clear polyethylene film recommended for below grade
24 applications.
25

26 **REINFORCEMENT MATERIALS**

27 Reinforcing Steel shall be 60 ksi yield grade, deformed billet steel bars with plain finish and shall
28 conform to ASTM A615. Visible scale due to rust shall be removed by wire brushing with a wire
29 wheel on a 4½” hand grinder.
30

31 Welded Steel Wire Fabric shall be plain type, in coiled rolls, plain finish and conform to ASTM
32 A185.
33

34 Chairs, Bolsters, Bar Supports, and Spaces shall be sized and shaped for support of reinforcing.
35

36 Fabricate concrete reinforcing in accordance with ASTM A184.
37

38 **PART THREE – EXECUTION**

39 **FORM MATERIALS ERECTION**

40 Erect formwork, shoring and bracing to achieve design requirements.
41
42

43 Camber slabs and framing to achieve ACI 301 tolerances.
44

45 Provide bracing to ensure stability of formwork.
46

47 Provide chamfer strips on external corners.
48

49 Apply form release agent to formwork in accordance with manufacturer’s instructions prior to
50 placing for accessories and reinforcement.
51

52 Do not apply form release agent where concrete surfaces will receive special finishes or applied
53 coverings which are affected by agent.
54

55 Clean forms as erection proceeds to remove foreign matter.

1
2 **ISERTS, EMBEDDED COMPONENS, AND OPENININGS**

3 Erect formwork, shoring and bracing to achieve design requirements.

4
5 Provide formed openings where required for work to be embedded in and passing through
6 concrete members.

7
8 Coordinate work of other sections in forming and setting openings, slots, recesses, chases,
9 sleeves, bolts, anchors, and other inserts.

10
11 Install concrete accessories straight, level, and plumb.

12
13 Install waterstops continuous without displacing reinforcement where indicated on plans.

14
15 Place formed construction joint device in floor slab pattern pouring sequence.

16
17 Place joint filler at perimeter of floor slab, penetrations and isolation joints.

18
19 Install void forms in accordance with manufacturer's instructions. Protect forms from moisture
20 before concrete placement and from crushing during concreting.

21
22 **REINFORCEMENT PLACEMENT**

23 Place reinforcement, supported and secured against displacement.

24
25 Ensure reinforcing is clean, free of loose scale, dirt, or other foreign coatings.

26
27 **PLACING CONCRETE**

28 Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
29 Apply bonding agent in accordance with manufacturer's instructions.

30
31 Install vapor retarder under interior slabs on grade. Lap joints minimum 18 inches and seal
32 watertight. Repair damaged vapor retarder with vapor retarder material, lap over damaged
33 areas minimum 18 inches and seal watertight.

34
35 Separate slabs-on-grade from vertical surfaces with 1/2 inch thick joint filler, extended from
36 bottom of slab to within 1/4 inch of finished slab surface.

37
38 Place concrete continuously between predetermined expansion, control and construction joints.
39 Do not break or interrupt successive pours such that cold joints occur.

40
41 Place floor slabs in checkerboard or saw cut pattern.

42
43 Where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel
44 dowels and pack with non-shrink grout.

45
46 Screed slabs-on-grade and concrete base for toppings level.

47
48 **CURING**

49 Apply sealer on floor surfaces in accordance with manufacturer's instructions. Place absorptive
50 matting and dampen as required. Apply on coating of sealer as soon as permitted. Apply a
51 second coat at project completion. Maintain a clean surface as this is the final finish material.

52
53 Immediately after placement, protect concrete from premature drying.

1 Maintain concrete with minimal moisture loss at relatively constant temperature for period
2 necessary for hydration of cement and hardening of concrete.

3

4

FORMED SURFACES

5

Provide concrete surfaces to be left exposed concrete walls, columns, beams and joists with
6 smooth rubbed finish.

7

8

DEFECTIVE CONCRETE

9

Modify or replace concrete not conforming to required lines, details and elevations, as directed
10 by Architect/Engineer.

11

12

PART FOUR – MEASUREMENT AND PAYMENT

13

14

CONCRETE RETAINING WALL

15

Concrete Retaining Wall will be measured by lineal foot of wall constructed. The total lineal
16 footage quantity measured for payment shall be calculated by measuring the length of wall
17 actually completed and accepted in accordance with the Contract.

18

19

Each lineal foot, measured as provided above, will be paid for at the unit price per lineal foot,
20 which price shall be full compensation for furnishing all materials, including concrete masonry,
21 reinforcement and expansion joints; for all excavation, preparation, and construction of
22 foundations, backfilling, compacting soils, and disposal of surplus material; for placing and
23 finishing, protecting and curing; and for all labor, tools, equipment and incidentals necessary to
24 complete the work per the plans and specifications.

25

26

27

28

End of Section

1 Product Data: Indicate ingredients & proportions of patching/leveling materials, crack filling
2 materials, and wall coating materials.

3
4 Provide samples for initial selection: Manufacturer's color charts.

5
6 Provide Sample Panels: 2 by 2 feet, to demonstrate finish, color, and texture of vertical concrete
7 coating system. Panels should be cast a minimum of 21 days prior to the application of wall
8 coating materials.

9
10 Qualification Data: For Applicator and manufacturer provide names and addresses of five
11 recently completed projects, architects, and owners.

12 **QUALITY ASSURANCE**

13 Applicator Qualifications: Trained or approved by manufacturer of vertical concrete coating
14 system.

15
16 Manufacturer's Qualifications: Three year's experience manufacturing products required.

17
18 Source Limitations: Obtain products from same source throughout Project.

19 Sample Panels: Locate at site and obtain approval before start of final work. Field samples shall
20 be minimum 2 by 2 feet.

- 21
22
- 23 1. Multiple panels may be necessary to demonstrate range of finishes and workmanship.
 - 24 2. Approved field samples set quality standards for comparison with remaining work.
 - 25 3. Remove field samples when directed. Approved field samples may become part of the
26 completed Work if appropriately placed and undisturbed at completion of Project.

27
28 Preinstallation Conference: Conduct an onsite meeting at least 3 days prior to application of wall
29 coatings to confirm finish, color, and texture of sample panels. Discuss coordination of work with
30 other trades to comply with scheduling requirements.

31 **DELIVERY, STORAGE AND HANDLING**

32 Deliver materials in original packaging with labels intact.

33
34 Store in clean, dry and protected location, according to manufacturer's requirements.

35 **PROJECT CONDITIONS**

36
37 Environmental Requirements: Comply with vertical concrete coating system manufacturer's
38 instructions.

- 39 1. Do not apply vertical concrete coating system if air temperature and concrete substrate
40 temperature are not between 45 to 85 deg F before and during application.
- 41 2. In hot weather, apply vertical concrete coating system in early morning or when surfaces
42 are shaded.
- 43 3. Keep bagged products out of sunlight. Use cool water; do not use water from hot watering
44 hoses.
- 45 4. Protect vertical concrete coating system from rain for 24 hours.

46 **COORDINATION**

47
48 Contractor shall coordinate with all trades to ensure proper access, construction sequence, and
49 quality work to be completed.

50 **PART TWO – PRODUCTS**

51 **VERTICAL CONCRETE COATING SYSTEM MATERIALS**

52
53 Vertical Concrete Texture Coat: Polymer-modified cementitious overlay designed for final layer
54 in vertical concrete coating system.

2. Repair bugholes, rock pockets, and spalls with Butterfield Color® T1000™ Fine Overlay or equivalent and allow to fully cure before application of primer and vertical concrete texturing system.
3. Prepare existing concrete or masonry by high-pressure washing (5,000 to 10,000 psi), grinding, chip hammering, abrasive blast cleaning, or sandblasting.
 - a. Grind fins and other high points flush with adjacent surfaces.
 - b. Do not use detergents or soaps that leave a residue.
 - c. Do not acid etch.
4. Remove weak, delaminated, or unsound concrete substrates down to sound concrete.
5. Remove and repair damaged or loose mortar between masonry units.
6. Repair random cracks as outlined below.
7. Map out locations of existing control joints before applying vertical concrete coating system.

Allow surfaces to dry thoroughly prior to application of primer.

CONCRETE WALL CRACK REPAIR

Clean crack and remove all unsound concrete. Prepare crack using a twisted wire wheel or impact hammer. Cut perimeter of damage with a dry diamond blade. Crack must be V-grooved or similarly widened so crack repair material can be easily injected into the crack. Remove dust and debris by blowing with high-pressure air (oil free delivery). If the crack is cleaned using high-pressure water, the repair area must be thoroughly dry prior to applying crack repair materials. Do not clean crack with acid, detergents or any other chemical.

Concrete must be fully cured (28 days). Do not apply crack repair materials to weak or loose concrete. The crack must be free from release liquid or powder, curing compounds, sealers, and any other contamination that would impede flow, penetration, and adhesion. Do not apply to frozen concrete. Do not apply to damp or wet concrete. If used in cracks that will continue to receive significant movement or in control joints, parallel re-cracking may occur. Cracks greater than 1/16 inch wide and deeper than 1" may require sand loading with bagged, clean, gap-graded sand prior to applying crack repair materials. Consult manufacturer's recommendations for further details.

Mix, apply or inject, and cure crack repair materials in accordance with manufacturer's recommendations.

PRIMING SUBSTRATES

Apply an even coat of primer from two directions, free of holidays, to prepared substrates using a paint roller or bristle brush. Protect adjacent surfaces from overspray or splash.

1. Do not apply primer to damp substrates.
2. If primer application contains bubbles or pinholes, apply a second application of primer.
3. Apply a second application of primer of rough or porous concrete substrates.

Allow concrete primer to dry tack free prior to application of vertical concrete texturing system. If primed substrates become wet, reapply primer.

Prevent contamination of primed surfaces by dirt or other deleterious materials or conditions.

Apply scratch coat/leveling system within 24 hours of concrete primer application.

SCRATCH COAT APPLICATION

After primer has dried, apply a thin scratch coat of fine overlay material to surface. Adjust mix water so scratch coat does not run when applied to vertical surface.

Apply fine overlay by trowel or hopper gun to a thickness of 1/16- to 1/8-inch.

1. Fill existing substrate joints and nonmoving random cracks with scratch coat.

1 2. Fill moving joints and cracks with the CONCRETE WALL CRACK REPAIR section of this
2 specification.
3

4 Horizontally rake scratch coat with scratcher trowel or scarifier to create a surface profile. Do not
5 rake through scratch coat. Allow scratch coat to cure eight hours before applying vertical
6 concrete texturing system.
7

8 Reapply an even coat of concrete primer to scratch coat complying with PRIMING
9 SUBSTRATES section above.
10

11 **TEXTURE COAT APPLICATION**

12 Apply texture coat by trowel or hopper gun to a thickness of 1/16- to 1/8-inch.
13

14 Maintain a wet edge when applying texture coat to avoid cold joints.
15

16 Do not overwork texture coat with pool trowel. Do not hard trowel texture coat. Do not add water
17 to surface once application has begun. Do not retemper texture coat.
18

19 Clean tools frequently to avoid build up of texture coat. Wipe trowel dry before working surfaces.
20

21 When required thickness will not stay on surface, apply texture coat in multiple layers to achieve
22 required thickness. Do not allow first application to set before final application.
23

24 **CURING**

25 Cure according to manufacturer's instructions.
26

27 **JOINTS**

28 Recut existing control joints full depth, and matching existing width, within 14 hours after
29 placement at 70 deg F, when vertical concrete texture system has gained adequate strength so
30 sawcutting does not damage surfaces.
31

32 **REPAIRS, CLEANING, AND PROTECTION**

33 Clean surface preparation materials prior to application of coating materials.
34

35 Repair damaged vertical concrete texturing system according to manufacturer's instructions.
36

37 Clean spillage and soiling from adjacent construction according to manufacturer's instructions.
38

39 Protect vertical concrete texturing system from damage or deterioration until date of Substantial
40 Completion.
41

42 **PART FOUR – MEASUREMENT AND PAYMENT**

43 **CONCRETE WALL CRACK REPAIR**

44 Retaining wall crack repair be measured as a single lump sum unit as described on the bid form.
45

46 Retaining wall crack repair will be paid for at the lump sum unit price which shall be full
47 compensation for furnishing all materials, for all labor, tools, equipment and incidentals
48 necessary to complete the work per the plans and specifications.
49

50 **WALL LETTERING REMOVAL**

51 Wall lettering removal shall be measured as a single lump sum unit as described on the bid
52 form.
53
54

1 Wall Lettering removal will be paid for at the lump sum unit price which shall be full
2 compensation for furnishing all materials, for all labor, tools, equipment and incidentals
3 necessary to complete the work as described per the plans and specifications.
4

5 **CONCRETE WALL COATING**

6 Wall coating shall be measured as a single lump sum unit as described on the bid form.
7

8 Wall coating will be paid for at the lump sum unit price which shall be full compensation for
9 furnishing all materials, for all labor, tools, equipment and incidentals necessary to complete the
10 work as described per the plans and specifications.
11

12
13

End of Section

(800) 597-3287

Sportsfield Specialties

Model: GP4380PL

Contact: 41155 St. Hwy 10, Delhi, NY 13753 (815)885-1199

Aluminum Athletic Equipment Company

Model: ASG-HS/8

Contact: 3699 West Survey Lane, Port Huron, Michigan 48059-4090 (810)-984-8328

Gill Athletics

Model: F305 w/Ground Sleeve Model: F30005

Contact: Scott Parker (Anderson-Ladd) 450 Industrial Blvd. Minneapolis, MN 55413

(608) 630-1018

sparker@andersonladd.com

POLE VAULT BOX w/Cover

Manufacturers:

Aluminum Athletic Equipment Company

Model: SSVB box and SSVL /L cover

Contact: 3699 West Survey Lane, Port Huron, Michigan 48059-4090 (810)-984-8328

Sportsfield Specialties

Model: Stainless Steel (TFPV002SS) box, (TFPV003ALTR) insert cover

Contact: 41155 St. Hwy 10, Delhi, NY 13753 (815)885-1199

Gill Athletics

Model: 504 Stainless Steel vault box w/ Model: 50401 Stainless Steel Lid

Contact: Scott Parker (Anderson-Ladd) 450 Industrial Blvd. Minneapolis, MN 55413

(608) 630-1018

sparker@andersonladd.com

TRIPLE JUMP/LONG JUMP - MASON SAND

Long jump and triple jump pits shall be filled with mason sand meeting the following gradation requirements:

<u>Sieve Size</u>	<u>Percentage Passing by Weight</u>
No. 8	100
No. 50	15 - 35
No. 100	2 - 10

TRIPLE JUMP/LONG JUMP TAKE-OF BOARDS

Manufacturers:

Aluminum Athletic Equipment Company

Model: 12" takeoff board, ITB-12

Contact: 3699 West Survey Lane, Port Huron, Michigan 48059-4090 (810)-984-8328

Sportsfield Specialties

Model: 12" takeoff Board-TFLT0012SS

Contact: 41155 St. Hwy 10, Delhi, NY 13753 (815)885-1199

Gill Athletics

Model: 4350 Adjustable Take –Off Board System

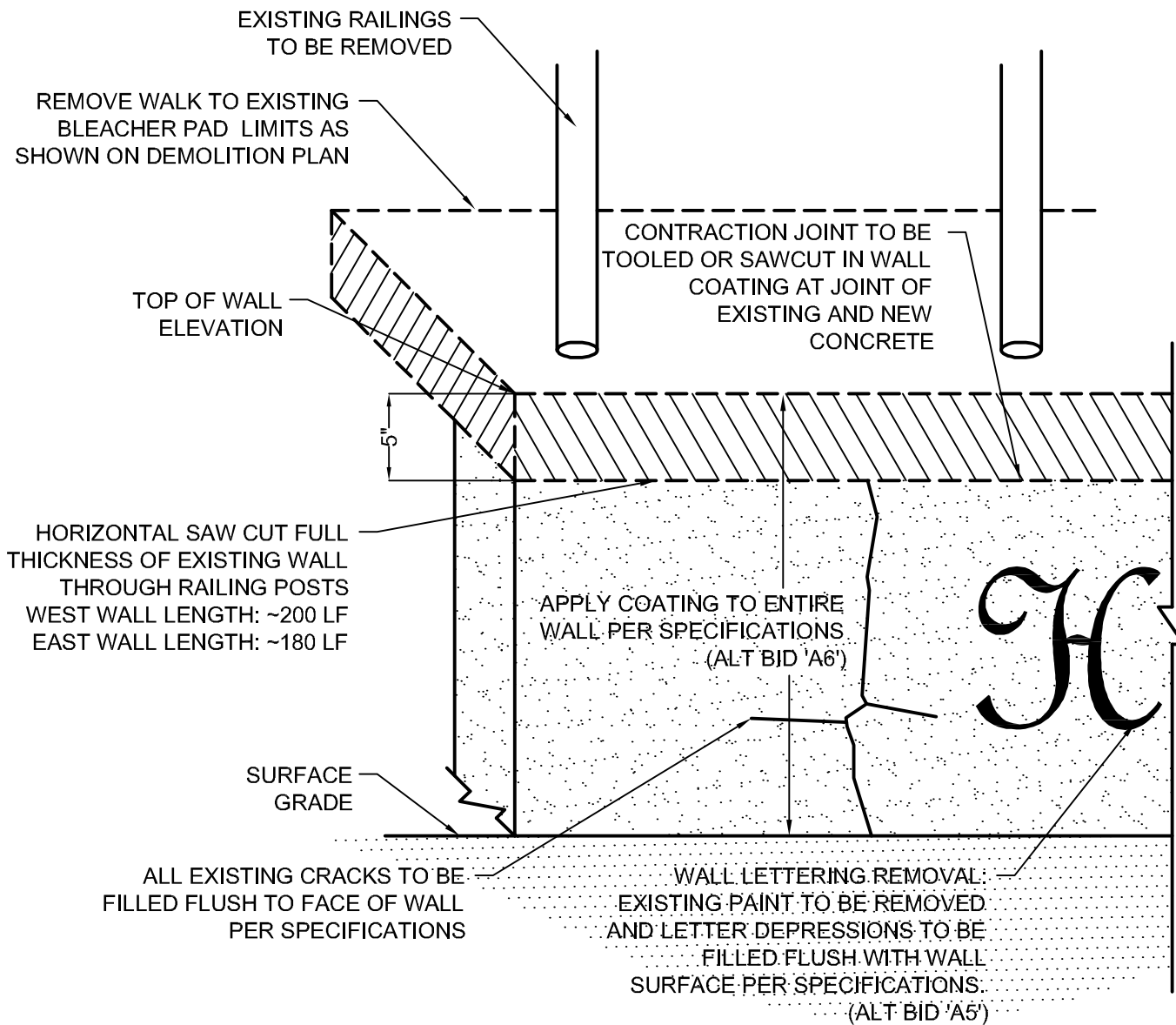
Contact: Scott Parker (Anderson-Ladd) 450 Industrial Blvd. Minneapolis, MN 55413

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TIMING SYSTEM ELECTRICAL SERVICE

Measurement and payment shall be at the contract Lump Sum price for furnishing and installing timing system electrical service, , which shall include payment in full for anchoring, hardware, and all labor, material, equipment and tools necessary to complete the work.

End of Section



4. EXISTING WALL DEMOLITION AND RESTORATION

ADDENDUM 1



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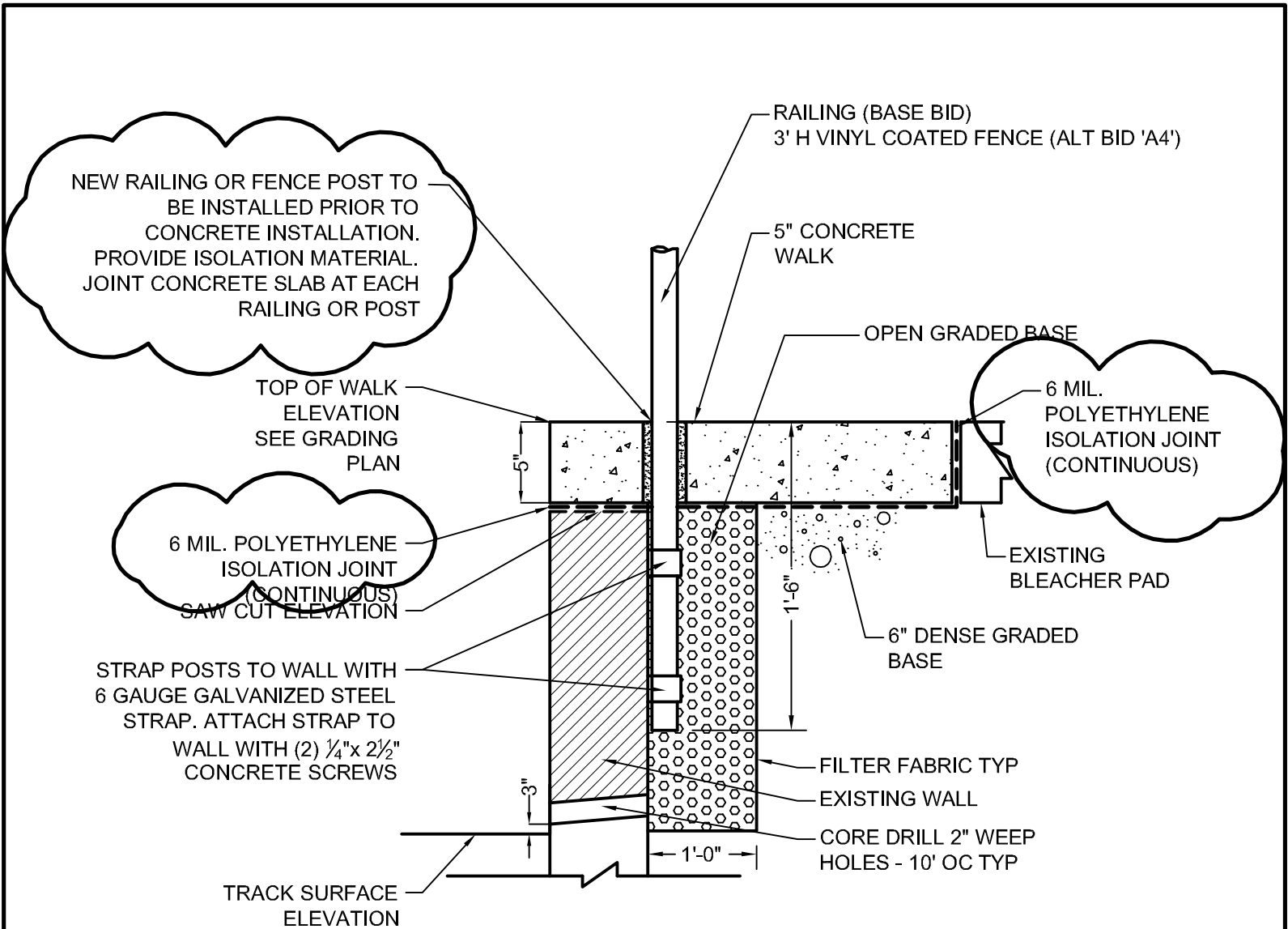
BELOIT TURNER
SCHOOL DISTRICT
BELOIT TURNER HIGH SCHOOL
Beloit, Wisconsin

RHR No. 11.044

Date: 02/1/2012

Revised Sheet: C7.0

DRAWING - 1



5. 5" REINFORCED CONCRETE PAVEMENT AND RAILING OVER EXISTING WALL

ADDENDUM 1



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BELOIT TURNER SCHOOL DISTRICT
 BELOIT TURNER HIGH SCHOOL
 Beloit, Wisconsin

RHR No. 11.044
Date: 02/1/2012
Revised Sheet: C7.0
DRAWING - 2