

CITY OF UNALASKA Aquatics Center Improvements Project No. 15101

ADDENDUM TO THE CONTRACT

Addendum No:	4	Current Bid Opening Date: February 3, 2016 at 2:00 P.M.
Pages This Addendum:	8	
Attachments This Addendum:	1, 2, 3, 4, 5, 6, 7, 8, 9	
Previous Addenda:	Three	Previous Bid Opening Date: January 29, 2016 at 2:00 P.M.

To: All Plan Holders of Record

Addendum Issue Date: January 28, 2016

The following changes, additions, deletions, responses to questions, revisions and/or clarifications are hereby made a part of the documents. In the case of conflicts between this Addendum and previously issued documents, this Addendum shall take precedence. All other terms and conditions remain unchanged. Bidders are required to acknowledge this Addendum on the Bid Proposal.

SPECIFICATION MODIFICATIONS

1. Specification Section 01320 CONSTRUCTION PROGRESS DOCUMENTATION

1.4 SUBMITTALS - Add the following after item A.6:

7. If Alternate 5 is selected, define work associated with pool resurfacing separately indicating sequence and timeline for each activity relative to related activities and within the overall timeframe of the project.

2. Specification Section 08200 FIBERGLASS REINFORCED DOORS/FRAMES

2.2 FRP DOORS - Add the following after line item F:

G. Color: Safety Yellow. Opt 12

3. Specification Section 09705 DECORATIVE QUARTZ FLOORING SYSTEM

1.05 SUBMITTAL - Add the following under 1.05.A:

- f. Manufacturer's System Application Instructions.
- g. Proposed Installation Schedule specific to cutting/patching/resurfacing work sequence.

4. Specification Section 09250 GYPSUM BOARD

2.3 FIBERGLASS FACED GYPSUM WALL PANELS - Add the following

under 2.3.B.2:

a. ¼ inch at ceiling of Shower Rooms 107 and 117 over plywood substrate.

5. Specification Section 10500 STORAGE LOCKERS AND BENCHES

- 1. Change Main Title to "**PHENOLIC LOCKERS AND BENCHES**" from Storage Lockers and Benches
- 2. Modify the following requirement:
 - a. Section 1.5 QUALITY ASSURANCE, Item B. Installer Qualifications: Amend to: Single installer with a minimum of ten years finish carpentry experience.

6. Specification Section 10800 TOILET AND BATH ACCESSORIES

2.2 PUBLIC-USE WASHROOM ACCESSORIES - Change the following requirement for providing and installing Accessories:

Items A-M (All items will be Contractor Furnished / Contractor Installed as part of the Base Bid work)

7. Specification Section 11664 INDOOR SCOREBOARD

- **a.** Reissued Section 11664 Indoor Scoreboard reissued in Addenda 2 was the incorrect version of the specification.
 - i. Discard previous reissue (Addenda 2).
 - ii. Incorporate the renamed Specification: 11664 INDOORTIMING AND SCOREBOARD SYSTEM (8 pages total)

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CLARIFICATIONS

Clarification 1: Sheet A2.3 Sheet Notes 6. Amend sheet note 6 to read: "Install ¹/₂" PT plywood over entire ceiling. See First Finish Schedule."

a.) Modify Reflected Ceiling Plan Legend associated with the Locker Rooms to Substrate noted in Finish Schedule A6.1 to read "Interior High Performance Coating over ¼" Dens Deck Prime over ½" PT plywood over entire ceiling.

Clarification 2: The scope of work defined for the ceiling for Shower Rooms 107, 117 is as follows:

- a) Remove existing ceiling finish to substrate.
- b) If substrate is Gypsum, remove and replace with PT Plywood.
- c) If substrate is plywood and in good condition and suitable, substrate can remain.
- d) Install one layer of 1/4" Dens shield over plywood.
- e) Install high performance coating over entire ceiling surface.

Clarification 3: Instructions listed or outlined on existing photographs, as-builts, or supplementary drawings issued as part of any Addendum which conveys information about the existing structure, work to be done in a particular area, or other informational notation, description or instruction will be considered part of the "Bid Documents". These include:

- 1) The bid documents
- 2) Existing as-built drawings including the additional notations outlining work specific to this project
- 3) Written Specifications
- 4) Existing photographs including the additional notations outlining work specific to this project noted on the photographs.

Clarification 4: Bid Alternate 5

- 1) Remove existing single piece, multi section, plastic deck drain to the extent noted on the drawings. This drain is to be replaced with a new 2 piece deck drain and tied into existing drainage system. The pool deck is to be patched and prepared for a new coating surface.
- 2) The existing acrylic cementitious pool decking is to be removed down to the substrate. The existing concrete deck is to be patched and refinished and a new epoxy decking surface applied. The extent of the work is outlined on the bid documents and as further delineated in subsequent addenda. Specifically,
 - a. Addenda 2, Attachment 2e Existing photographs with written description of work to be completed.
 - b. Addenda 2, Existing As-Built Drawing illustrating the as-built condition of the pool including existing penetrations into the deck, ladders, and other equipment to be removed and reinstalled by Contractor as part of the resurfacing effort. Notations written in red on these drawings further delineate work to be completed as part of Bid Alternate 5.

Clarification 5: Bid Alternate 5

There is work within the Natatorium not associated with Bid Alternate 5 and includes but is not necessarily limited to:

- 1) Removal and replacement of Starting Blocks (Base Bid).
- 2) Installation of Timing System (Base Bid).
- 3) Patching and refinishing of floor associated with new shower, sauna, locker room, and office work. (Base Bid).
- 4) Installation of Sound System (Bid Alt. 3).
- 5) Installation of Card Readers (Bid Alt 1).
- 6) Misc. demolition and construction associated with Locker Room.
- 7) Replacement of some acoustical wall panels.
- 8) Replacement of trim.
- 9) Other miscellaneous mechanical and electrical work.

Clarification 6: Bid Alternate 4

Make and model of the Ice Maker: Hoshinzaki Model No. KM-151BAH

Clarification 7: Color of Fiberglass doors

Safety Yellow. Opt 12

RESPONSE TO QUESTIONS

Question 1: Sheet A2.0 Sheet note 26. Calls for all new Toilet Room Accessories, Sheet A2.0 / 3D calls for reusing some accessories, please clarify.

Response 1: All Toilet Accessories are to be replaced with new toilet room accessories as part of the Base Bid. The General Contractor is to furnish and install the Toilet Room Accessories indicated.

Question 2: Is the Spectrum Grizzly Starting blocks you're looking for the "Quick Silver Low Profile" model, many to choose from, wide range of prices.

Response 2: The basis of design would be the Spectrum Grizzly Side Step Starting Block – see Attachment 6 containing product data sheet for the basis of design product.

Question 3: A2.4 "Note: Provide Stainless Steel Transition strips between dissimilar flooring materials unless noted otherwise." What are the dimensions of the thresholds you want?

Response 3: Amend notation. 1 ¹/₄" Vinyl transitions strips are an acceptable transition between carpet and epoxy flooring surfaces.

Question 4: Is Dens Shield Tile Backer required on the ceilings of the Men's & Women's, Locker, Shower, Bathroom, Ceilings?

Response 4: See Clarification 1 and 2, above, regarding this question. Provide ½" P.T. plywood as the substrate on the ceilings of the Men's & Women's Shower rooms. Dens Shield Tile Backer board is to be provided at the walls of the Men's & Women's Aquatics Center Improvements Addendum Number 4 Shower rooms and the walls and soffit of the shower in the Natatorium. Install per manufacturer's written installation instructions. Moisture resistant GWB is acceptable at all other rooms except as noted elsewhere in drawings.

Question 5: Sheet A5.2 / 5D is calling for Manufactures Standard Vinyl trims. Spec's are calling for Manufactures Aluminum Trims. Please clarify.

Response 5: Amend note on Sheet A5.2 / 5D to require Manufacturer's standard Aluminum Trims.

Question 6: The Lobby images show a considerable amount of exposed painted (black) structural steel, columns, girts, etc. Will we be required to repaint this steel?

Response 6: The exposed steel is not to be painted except where the existing finish is damaged during construction.

Question 7: The Lobby images #11 and #12 seem to show a wall that rises diagonally at or near the foot of the stairs. It appears that this wall has GWB finish. The wall does not appear on the drawings. Please advise.

Response 7: What you are seeing is the bottom side of the stairs which is covered with GWB. See Attachment 9 Supporting Photographs.

Question 8: Interior Elevation 1A/A6.0 shows the east wall of the lobby. The opening to the 2nd wall mezzanine scales to 20'6". The 2nd Level Plan E/W on sheet A2.2 the opening scales to 25'0" as it does 1/A1.2 the second level demo plan. Which is correct?

Response 8. The dimension is 25'.

Question 9. Specs state system is a wet system, is it supplied from a fire pump or from City water supply. If fire pump, what is the GPM and PSI. If City water supply, what is the available water supply for the system. System riser should have a Hydraulic data plate installed detailing the original design for the system. (Please provide picture of the calc card)

Response 9. The sprinkler system is supplied from City water. The hydraulic name plate information is missing from the sprinkler riser. See attached pictures of the system riser. The city provided the following information from hydrants on either side of the Schools Sprinkler service: *"FH Miss 6 directly east of the sprinkler service shows a static pressure of 80 PSI consistently when tested. When a 2-1/2" port is opened the hydrant shows a residual pressure of 30 PSI and a flow of 832 GPM. The Hydrant directly to the west of the service shows a static pressure of 80 PSI consistently as well and when the 2-1/2" port is opened up shows a residual pressure of 40 PSI with a flow of 961 GPM."*

Question 10. Add #2, stated that as-build sprinkler drawings are not available. 13930 requires shop drawings and hydraulic calculations for the remodel. This will require a trip to the site to perform a complete system survey to produce these. Based on our review of the project, it appears that the extent of the sprinkler work would be to relocate existing sprinklers for the new ceiling and floor plan. Please determine if full shop drawings and Hydraulic calculations will be required, so costs may be included to prepare these.

Response 10. The intent is to relocate existing sprinklers and piping as necessary to accommodate the remodeled areas and provide a functional sprinkler system that meets the requirements of NFPA 13. Contractor shall comply with requirements in NFPA 13. There are no additional requirements in regards to full drawings or calculations.

Question 11. Can the following pictures be provided of the sprinkler system? Sprinkler riser or Fire Pump, Close up of sprinklers in various areas, exposed piping outlining general routing of system.

Response 11. See attached pictures of sprinkler heads in the Men's Locker Room and two in the hallway that will become parts of the Family Change and Locker room.

Question 12. 13930 states to remodel existing system for remodel areas. Is it the intention to only relocate sprinkler head locations to support the new floor plan and ceilings. Will there be any need to modify existing sprinkler mains or lines to accommodate other trades, such as HVAC. Please advise.

Response 12. See response to question number 10.

Question 13. 13930 3.3- States to hydrostatically test the entire system, the scope will only to be modify existing sprinkler location and NFPA 13 does not require the system to hydrostatically tested for these types of revisions. Please advise if the entire system is to be retested?

Response 13. The installation shall comply with NFPA 13. There will be no additional requirements in regards to testing.

Question 14. 13930 3.3- states to have the tests witnessed by the Fire Marshal, would this be the local AHJ?

Response 14. See response to question number 13.

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Question 15. 13930 3.5-states to flush entire system, this typically is not required on an existing system where small areas are being remodeled. Please advise?

Response 15. The installation shall comply with NFPA 13. There will be no additional requirements in regards to cleaning.

Question 16: Where are the starting blocks specified? Are the starting blocks part of the base bid?

Response 16: The starting blocks are a stand-alone product specified as a basis of design and noted/specified on Sheet A2.1 (Sheet Note 7). The work to remove the existing starting blocks, install the new starting blocks and patch the existing deck is part of the base bid work. (See reissued Sheet A2.1)

The existing 6 starting blocks are to be removed and 6 new starting blocks are to be reinstalled per detail SKA-1 (reissued 1/22/2016). (See attached drawing SKA-1 and Starting Block Data Sheet)

Question 17. In Article 5.4.3.10 on insurance, do you want the builders risk policy to include earthquake and flood? The insurance calls for an umbrella policy and is applicable to all subs also. Since some smaller subcontractors do not carry umbrella policies, can this be waived for them if they have all the other applicable insurance?

Response 17. The umbrella requirement for the sub-contractors can be removed as long as the primary General Contractor has the umbrella coverage. The General Contractor will bear primary responsibility for the work performed the Sub Contractors.

Question 18: Will Owner be supplying the padlocks for the new lockers?

Response 18: Yes.

Question 19: The Electrical Drawings and the Architectural Drawings show the timing system located in two different places. Which one is correct?

Response 19: See attached reissued Sheet A2.1 as well as, Addenda 2, Attachment 2E, and attachment E31-SKE-1 for the correct Location. Reference Sheet E3.1; *Relocate power and signal connections to location of new scoreboard* - Remove quad power receptacle and PVC junction box at south east corner of pool and install two new weather resistant GFCI type duplex receptacles and a 2x4 PVC junction box for new scoreboard. Reconnect power outlets to the power branch circuitry made available from the removal of the quad receptacle. Extend 1" PVC conduit from the new 2x4 PVC junction box to the existing 1" PVC intended for the scoreboard controls. See attached sketch for approximate locations and requirements. See attached electrical drawings SKE-1 – E3.1

ATTACHMENTS

Attachment 1: SKA-1 (Reissued Starting Block Detail) (1 page) - Discard previous sketch

Attachment 2: Sprinkler System - Supporting Photographs (4 pages)

Attachment 3: Specification Section 11664 – Reissued and Renamed

a. 11664 Indoor Timing and Scoreboard System (8 pages total)

Attachment 4: Sheet A2.1 (Reissued) (1 page)

Attachment 5: E31-SKE-1 (1 page)

Attachment 6: Product Data Reference Sheet – Spectrum Grizzly Side Step (2 pages)

Attachment 7: Specification 09600 High Performance Coatings (6 pages)

Attachment 8: SKA-5 Ceiling Assembly at Showers 107, 117 (1 pages)

Attachment 9: Lobby Hallway – Supporting Photographs (1 page)

END OF ADDENDUM NO. 4





IMAGE 1. SPRINKLER HEAD LOCATED IN MEN'S LOCKER ROOM



IMAGE 2. SPRINKLER HEAD LOCATED IN HALL 109



IMAGE 3. SPRINKLER HEAD LOCATED IN HALL 109



IMAGE 4. SPRINKLER RISER



IMAGE 5. SPRINKLER RISER



IMAGE 6. SPRINKLER RISER



IMAGE 7. CITY WATER SERVICE



IMAGE 8. EXTERIOR FIRE ALARM AND FDC

SECTION 11664

INDOOR SCOREBOARD/TIMING SYSTEM

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Single-sided LED scoreboard, Touch Pads, Start System, Recall System, Diving Scoring,

1.02 REFERENCES

- **A.** Standard for Electric Signs, UL-48, 14th Edition
- **B.** Standard for Control Centers for Changing Message Type Signs, UL-1433, 4th Edition
- C. Standard for CAN/CSA C22.2 No. 207-M89
- **D.** Federal Communications Commission Regulation Part 15
- E. National Electric Code

1.03 SUBMITTALS

- **A.** Product data: Submit manufacturer's product illustrations, data and literature that fully describe the scoreboards and accessories proposed for installation.
- **B.** Shop drawings: Submit mechanical and electrical drawings.
- **C.** Maintenance data: Submit manufacturer's installation, operation, and maintenance manuals.

1.04 DELIVERY, STORAGE, AND HANDLING

- **A.** Product delivered on site
- **B.** Scoreboard and equipment to be housed in a clean, dry environment

1.05 PROJECT CONDITIONS

- **A.** Environmental Limitations: Do not install scoring equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for project when occupied for its intended use.
- **B.** Field Measurements: Coordinate scoreboard location and height with the customer. Verify dimensions by field measurements.
- **C.** Contractor to provide detailing and supporting engineering calculations required for to verify that building structure is capable of supporting the scoreboard's weight in addition to the auxiliary equipment.

1.06 QUALITY ASSURANCE

- **A.** For indoor use only
- **B.** Source Limitations: Obtain each type of scoring equipment and electronic displays through one source from a single manufacturer.
- C. ETL listed to UL Standards 48 and 1433

- **D.** NEC compliant
- **E.** FCC compliant
- **F.** ETLC listed to CAN/CSA 22.2

1.07 WARRANTY

- **A.** Provide 2 years of no cost parts exchange including standard shipping on electronics parts and radios due to manufacturing defects
- **B.** Provide toll-free service coordination

PART 2 - PRODUCTS

2.01 MANUFACTURER

2.02 PRODUCT

- **A.** Basis of Design Product: Colorado Time Systems (Playcore Company) Substitutions allowed in conformance to Section 01600.
 - 1. All systems outlined below utilize Colorada Timing Systems as the basis of design

2.03 START SYSTEM

- **A.** Championship Start System Standard (SS)
 - **1.** Capable of driving up to 20 individual block speakers, 20 individual platforms with Speedlights and external strobe(s).
 - **2.** Connecting cable (SJ25)
 - **3.** System shall have wired capability to use for microphones and shall have a volume control on each microphone input.
 - **4.** Start system shall have a sturdy all metal, non-corrosive enclosure, legs and tripod mount (TR-3)
 - 5. System shall have external connections for additional strobe light(s), speaker output, start output and Speedlights.
 - 6. The System shall run from external 12-volt/AC power adaptor and have (2) internal Gel cell batteries. The internal batteries will automatically be recharged while the starter is plugged in to the external power supply.
 - 7. There will be an LED warning light on the system showing when the internal batteries are starting to get low on power.
 - 8. Start system must be compatible with underwater speaker system (SP-UND)

2.04 UNDERWATER RECALL SYSTEM (SP-UND)

- **1.** Provide (1) underwater speakers (SP-UND).
- 2. Plugs directly into speaker output on Championship Start Systems. Recommended for use at all facilities for entertainment, underwater instruction and accommodation for disabled athletes.
- **3.** 180dB, sonic output, meets UL and EU specs for low voltage underwater applications.

4. PVC constructed housing with protective cage. Rugged military-grade PVC and EPDM construction will not leak, rust or corrode in swimming pool environments.

2.05 TIMING SYSTEM (SYSTEM 6)

- Timer shall be supplied with all necessary software to time and score swimming, diving and water polo in compliance with the appropriate sanctioning body(ies) -FINA, NCAA, YMCA, and National Federation of High Schools, as well as USA Swimming, USA Diving, USA Water Polo.
- 2. Timer console shall time to a user-selectable accuracy from 1 second to .001 second. It shall take starts and finishes from the near end and/or far end of the pool. It must accept inputs from the start system; touch pads, up to three manual button backup times per lane, relay judging platforms, and remote judging terminals for diving. The timer will run off of a 12 Volt power supply connected to a standard 110 VAC outlet and will automatically switch to (and display on screen) internal battery power source, in case of line power failure without affecting the continuity and accuracy of the timing system.
- **3.** Systems requiring use of multiple consoles or additional computers to achieve these functions are unacceptable.
- 4. Timer console shall interface to single-line and multi-line scoreboard and shall post immediate results to scoreboard in "Lane" or "Place" order (user selectable). The console shall also have the capability to pull race results from memory and post those results to the scoreboard in "Lane" or "Place" order (user selectable).
- **5.** Timer to include internal clock calendar with self-sustaining battery to time/date stamp all results. The timer should be able to connect to a PC-style keyboard and mouse.
- **6.** Timer must meet acceptable safety standards. Must be UL approved, other not acceptable.
- 7. Timer shall utilize a 6.25" by 8.25" backlit full-color LCD screen with tiling format to display complete race status. The LCD screen shall be capable of functioning as miniature scoreboard displaying information simultaneously for all active lanes (up to twelve lanes) including lane number, current length in race or final place, split or finish time, relay judging status indicator, and backup time and backup button status.
- 8. Stored split times including turning end (far end) splits shall be sent to the printer as they occur and also be stored in electronic memory during a race for later recall to facilitate meet management. Split times format to be user selectable to provide individual lap splits, cumulative splits, or both.
- **9.** Backup timing provides backup time via push button provided on a per lane basis should swimmer fail to trigger touch pad or touch pad fails to register. Timer to be capable of accepting up to three backup button times per lane.
- **10.** Meet memory stores all race results for an excess of 500 races including all split and backup times, finish times, as well as relay exchange results. Race storage retrieval should be capable of being invoked at any time. Storing race results using computers (or interface boxes), which are not safety agency approved for use specifically in an indoor swimming pool environment, are not acceptable.
- **11.** Relay judging automatically compares the touch pad hit of an incoming swimmer with the starting swimmer's time of departure from the optional relay-judging plat-

form. Results display both "plus" and "minus" takeoff times and can be printed and stored in race memory.

- **12.** The timer shall communicate with meet management peripheral software on a two-way "handshake" basis, enabling the meet manager's resident computer to query the timer's memory via the RS-232 port at any time for any race results.
- 13. The system's Automatic Event Sequencer shall be capable of holding up to 10 event sequences for both standard and user defined. The event order will be able to be downloaded from meet management software. The desired order will be user selectable. EVENT SEQUENCES with appropriate race distance and race description for high school, college meets, and two "User Defined" meets (up to 1000 races) to permit construction of custom meets, USA Swimming, YMCA and FINA. When recalled from memory, race distance and descriptions are automatically selected for the operator.
- **14.** Timer shall automatically flag timing discrepancies (on the LCD screen, on the results printouts and in stored memory) greater than .30 seconds between touch pad and backup times.
- **15.** Timer shall have touch pad delay feature with ability to program delays from 1 to 99 seconds.
- 16. Printouts shall be on a parallel printer connected to the rear panel of the timer. Printout of race results shall be switch selectable in "Lane" or "Place" or order or both. A single keystroke shall print touch pad and backup button times. Printout shall include race number, event/heat number, event description to facilitate meets, and time & date stamp for each race. The system will allow the user to select any of 8 different data to be printed. Printout of relay judging platforms to include both "plus" and "minus" takeoff times for each leg of the relay.
- **17.** Keyboard inserts shall permit multi-sport usage.
- 18. Keyboard shall permit single key entry of essential functions including Lane Off/On, Finish Arm, Split Arm, & Print Results to ensure speed and simplicity of operation during critical race times. Timers requiring multiple keystrokes for essential functions are unacceptable. The keyboard shall permit the operator to insert a backup time when required (edit) or to disqualify a lane (DQ), automatically posting it to the scoreboard, and provide automatic re-ranking of results. Any corrections generated by the operator (edit or disqualification) shall be clearly identified on the results printouts.
- **19.** The Keyboard shall permit the operator to correct for an erroneous touch by adding/subtracting a touch pad hit to correct the lengths completed. The keyboard shall not permit the operator to finish a race in any lane; timers including such a function are unacceptable because they permit the possibility of cheating.
- 20. Timer Input/Output Ports must include:
 - **a.** Parallel port for printer interface.
 - **b.** 2 Serial ports (RS-232) one for meet management software interface and a second for special needs.
 - c. Scoreboard(s) output port.
 - **d.** Start/Stop end (near end) cable harness input ports for Touch pad; Button A, Button B, and Button C inputs; start signal input; and relay judging platform(s) (12 lanes).

- e. Turning end (far end) cable harness input ports for Touch pad; Button A, Button B, and Button C inputs; start signal input; and relay judging platforms inputs (12 lanes).
- f. External PC monitor port (VGA).
- **g.** Peripherals expansion ports.
- **h.** Computer communications port for future features.
- i. External DC power port.
- j. PC-style keyboard and mouse
- **21.** The timer shall be Web enabled to allow software update via the Internet.
- **22.** Timer software shall have the ability to adjust the intensity of LED scoreboard brightness.
- 23. Printer shall be Brother laser printer or equivalent.

2.06 DIVING SCORING

- 1. Diving Scoring System shall utilize scoreboard to display diving scores and results without modification from swimming configuration.
- 2. Diving console shall:
 - **a.** Accept 1,2,3,5,7 or 9 judges' input scores and compute award based upon proper formulas for the number of judges used. Console keyboard shall be operable with either remote judges' terminals or manual input of flash card scores.
 - **b.** Permit display of the lead diver number, current diver number, dive number, degree of difficulty, judges' scores and diver's calculated award and total score.
 - **c.** Permit entry of all diving data into non-volatile memory for storage or receive data from meet management computer without additional modifications. Data shall include diver number, round number, dive number, and position. Degree of difficulty shall be automatically calculated based upon dive number per current FINA/USD/NCAA/High School regulations. Dive degree of difficulty can also be manually input.
 - **d.** Automatically recall the diver with round number, dive number and DD using minimal keystrokes. Systems which require live entry of dive information are unacceptable.
 - **e.** Permit storage of diver's point totals and provide ranking of the divers at the end of each round.

2.07 AQUALGRIP TOUCHPAD (TP-60G)

- Touchpad shall be 60 inches wide x 22 inches tall x .3 inches thick. Provide 7 touchpads (6 plus 1 spare). For on-deck system see (B) below, for in-deck systems see (C).
- Touchpads shall be integrated to the timing system using on-deck cabling. Touchpad connection and maintenance system for the System 6 shall be: TP-SYS-6. (Includes 1 push button per lane)
- **3.** Touchpad shall be constructed of an all-plastic exterior with only the electrical connector metal exposed. Stainless steel will not be acceptable in pool environment.

- **4.** Touchpad shall have a uniform fine grit, non-abrasive surface that prevents swimmer slippage in any direction.
- **5.** Touchpad markings shall have contrasting colors with a 2" black border and black end-wall cross pattern for portion covered by touchpads.
- 6. Touchpad brackets shall be custom made to fit the pool gutter system. Diagram required upon order.
- Touchpad caddy for storing touch pads supplied shall be (1) CAD-TP/P (60 & 78"). Maximum of 10 touchpads per caddy.

2.08 FULL COLOR LED MATRIX/VIDEO DISPLAY 18MM 64X128 – (INDOOR)

- 1. Display shall include: Full matrix LED scoreboard with computer controller, flatwall mounting hardware and data/fiber cable up to 500'.
- **2.** Display shall be a full color LED matrix display. Display shall be comprised of red, blue and green LEDs to form pixels. Display shall be capable of 1.07 billion shades of color.
- **3.** Display should be capable of 10-bit video processing, refresh rate of 300Hz, four levels of dimming capability and allow for Gamma correction. Display intensity shall be adjustable between 250-2000 nits for indoor and 812-6500 nits for out-door.
- 4. Display shall have viewing angles of 120° horizontal and 60° vertical.
- 5. Display will allow for one of the following access points for service: (Front)
- 6. Display shall include critical spare parts.
- **7.** Exact cabinet dimension, detailed drawings and weight will be provided with submittals.
- **8.** Operating temperature shall be -10°C 40°C (14°F 105°F) for indoor boards, and -10°C 50°C (14°F 120°F) for outdoor boards.
- **9.** Humidity tolerance shall be 0%-95%.
- **10.** Each pixel shall be comprised of 3 LEDs.
- **11.** Active area of display $-3.77(H) \times 7.55(W)$
- **12.** Overall display dimensions 4.02(H) x 7.8(W)
- **13.** Display shall have 18 mm pixel spacing center to center.
- 14. Shows 8 lines of 5" characters, 21 characters per line
- **15.** Must be compatible with CTS competitive timing system.

2.09 SOFTWARE TO CONTROL MATRIX/VIDEO DISPLAY

- 1. Operates Full or Single Color LED Matrix boards
- 2. Receives data from CTS Sports Timers
- **3.** Receives data from 3rd Party Meet Management software
- 4. Displays standard graphics formats (JPG, GIF, BMP, PNG)
- 5. Playback of standard digital video (AVI, MPG, WMV, ASF, MP4)
- 6. Allows creation of custom data templates with sport specific information
- 7. Creates and plays sequences of templates and graphics, with transition effects
- 8. Runs on Windows 7,8,8.1,10
- **9.** Stores Name and Team information for up to 12 lanes for an infinite number of events and heats
- **10.** Stores multiple Diving event orders, with name and team information

- **11.** Supports any Windows font as well as custom CTS Bitmap (pixel-mapped) fonts
- 12. Graphics and Templates can be used to provide in-venue advertising
- **13.** Multiple options for displaying Team Scores and Full Event Results (standalone or in conjunction with Meet Management Software)
- 14. Quick message feature allows user-driven dynamic messaging
- **15.** Provides user ability to schedule automatic display of templates and graphics, with recurrences.
- **16.** Can scan Twitter and Instagram for keywords, hashtags, and user activity for display on matrix boards.

PART 3 EXECUTION

3.01 EXAMINATION

- 1. Verify that mounting surface is ready to receive scoreboard. Verify that placement of conduit and junction boxes are as specified and indicated in plans and shop drawings.
- 2. Verify that all work by others, related to this section, is installed.
- **3.** Prior to starting work, notify the Architect and General Contractor of any defects requiring correction.
- **4.** Protect other materials and installed work against damage while completing work in this section

3.02 INSTALLATION

- 1. Power conduit, cables and outlet boxes to be provided and installed by the electrical contractor. Signal raceways, conduit and boxes to be provided by the electrical contractor. Electrical contractor is also responsible for any required wire and terminators between each scoreboard and control location. Timing control panel circuits to be extended to Office 102.
- 2. Mount scoreboards and interior displays to wall in location detailed and in accordance with manufacturer's instructions. Unit to be plumb and level.
- **3.** Furnish and install equipment in accordance with the manufacturers drawings and instructions.
- **4.** Provide scoreboard mounting, all timing system cable terminations, system checkout, and local operator training at time of installation. Training shall consist of one 4-hour session.
- 5. Furnish as-built drawings precisely locating all items

3.03 INSTALLATION—CONTROL CENTER

- **A.** Provide boxes, cover plates and jacks as required to meet control specification requirements. Control cables to control panels shall be concealed. Extend conduits from east wall of Natatorium 121 to Office 102.
- **B.** Test the operation of the scoreboard, controller and all control jacks; leave control unit in carrying case and other loose items with owner's designated representative.

C. Conduct operator training on the scoreboard/controller operation.

END OF SECTION 11664











GENERAL NOTES

NOTE: GENERAL NOTES APPLY TO ALL AREAS/SPACES WITHIN THE SCOPE OF WORK UNLESS OTHERWISE NOTED

- 1. REINSTALL ALL WALL CLOCKS AS DIRECTED BY OWNER.
- PREPARE ALL FLOOR, WALL, AND CEILING SURFACES AS REQUIRED TO RECEIVE NEW FINISHES. SEE RENOVATION FINISH PLAN AND ROOM FINISH SCHEDULE.
- PROVIDE NEW SUBSTRATES AS REQUIRED TO RECEIVE NEW FINISHES IN AREAS WHERE EXISTING SUBSTRATES WERE SCHEDULED FOR DEMOLITION. SEE RENOVATION FINISH PLAN AND ROOM FINISH SCHEDULE.
- PATCH, TEXTURE, AND PAINT ALL GWB WALLS AND CEILINGS THROUGHOUT AREAS/SPACES OF WORK, UNLESS OTHERWISE NOTED. MATCH EXISTING FINISH.
- 5. PROVIDE WALL CORNER PROTECTION PER SPECIFICATIONS. 6. ALL ACCESSORIES AND EQUIPMENT SCHEDULED FOR REUSE SHALL BE REINSTALLED TO MEET ALL ADA ACCESSIBILITY
- 7. ICE MAKER TO BE OWNER FURNISHED / CONTRACTOR INSTALLED

SHEET NOTES LEGEND

 $\widetilde{}$ 1.) PATCH/REPAIR CONCRETE IN ALL AREAS OF CONCRETE REMOVAL. PREPARE ALL CONCRETE AREAS FOR NEW FLOOR COATING SYSTEM. SEE ROOM FINISH SCHEDULE.

- 2.) PROVIDE NEW TIMING SYSTEM DISPLAY BOARD. (REFER TO ELECTRICAL)
- 3.) INSTALL NEW DECK DRAIN ASSEMBLY IN NEW CONCRETE SETTNG BED PATCH DECK AND INSTALL NEW POOL DECK SURFACE (SECTION 09705) (ALT. 5)
- (4.) INSTALL NEW POOL DECK SURFACE (SECTION 09705) (ALT. 5) SEE SHEET A 2.5 FLOOR FINISH PLAN
- (5.) APPROXIMATE LOCATION OF EXISTING UNDERSLAB TRENCH DRAIN CONNECTION
- (6.) ALT. 1 DOOR HARDWARE SEE DOOR SCHEDULE
- (7.) CORE NEW HOLE IN POOL DECK AND INSTALL NEW STARTING BLOCKS, STARTING BLOCKS TO BE SIM. AND EQUAL TO $\frac{1}{2}$ SPECTRUM GRIZZLEY STARTING BLOCK. HDPE 23"X25" – INSTALL PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS (6 TOTAL) CENTER ON SWIM LANE. CONFIRM FINAL POSITION WITH OWNER PRIOR TO CORE DRILLING
- 8. LOCATION OF NEW WALL MOUNTED TIMING SYSTEM. SUPPORTS TO BE DESIGN/BUILD BY CONTRACTOR SUBMIT ENGINEERING CALCULATIONS FOR REVIEW TOP OF TIMING BOX TO BE APPROXIMATELY 14' A.F.F.

FLOOR PLAN LEGEND		
	EXISTING WALL/ELEMENT TO REMAIN	
	NEW WALL – SEE WALL TYPES	
	NEW WALL FINISH AND NEW SUBSTRATE OVER EXISTING FRAMING – SEE WALL TYPES	
	APPROXIMATE AREA OF CONCRETE INFILL/REPAIR - SEE SHEET NOTES	
FEC	FIRE EXTINGUISHER 2A:10BC	

