April 17, 2018

Fred Rustam, P.E., CPM  
Assistant Director  
Mesa Parks, Recreation and Community Facilities  
P.O. Box 1466  
Mail Stop 4444  
Mesa, AZ 85211

RE: City of Mesa Hohokam Stadium Assessment  
1235 N Center St, Mesa, AZ 85201  
Mesa, AZ  
CTS Job No. 17-1675

Dear Mr. Rustam,

At your request, I was on site on January 3, 2018, to provide a visual assessment of the main structure of Hohokam Stadium. The areas observed were the following: main concourse, lower bowl seating, outfield wall, bullpens, upper level seating, press boxes, upper level offices, locker room, and clubhouse. Outlying stand-alone buildings and the scoreboard were not included. Chris Smigel with City of Mesa provided access to the stadium and observed areas. Joe Sanchez with Restruction Corporation was also on site to provide additional concrete repair information.

Hohokam Stadium was originally built in 1976. That facility was demolished and replaced with the current stadium and facility in 1996. The current stadium structure consists of elevated concrete slabs, concrete and masonry bearing walls, concrete slab on grade, and spread footings. The roof canopy over the upper seating is steel framing. Existing building structural drawings, from a 2014 renovation, were available for our use.

The observation of the main concourse, upper level seating, upper level offices, locker room, and clubhouse included review of exposed masonry walls, exposed concrete seating that was also visible in many areas from the underside, and exposed concrete slabs and walls. All of the exposed structure in these areas appears to be in good condition. No structural concerns were documented, and no structural repairs are recommended.

The observation of the exposed structural concrete at the dugout steps, lower bowl seating, bullpen, and handrails identified several structural concerns, our observations and recommendations are as follows (Refer to Appendix A for a key plan of the main areas):

**Handrails – Lower seating**

There are numerous handrail locations throughout the general seating bowl, including: seating bowl walkway above the lower bowl seats, separating the lower seating from the field, and separating the lower seating from the outfield. Some of the handrails are showing signs of significant rust, and some are causing the concrete to crack.

The handrails separating the seating bowl walkway from the lower seats show signs of both rust and concrete damage. It appears that each handrail was installed in a larger diameter core drilled hole. The grout or concrete that was used to fill the hole around the handrail was not installed flush to the surrounding material, and has created a depression for water to accumulate and infiltrate the concrete. The water infiltration has caused the handrails to rust. Over an extended period of time, the rust will cause a loss of steel material, thus creating a potential failure mechanism for the handrail. The water infiltration has also caused the surrounding concrete to crack and spall. It appears some locations have had previous repairs without addressing the water infiltration. If the concrete fails, there will be a mechanism for the handrail to fail since it will not have proper support. Refer to Appendix B, Photos 1 thru 4 for these conditions.
Recommended Repair (typical):
The typical handrail (not at a corner) will need to be investigated further. The average condition will need to have the concrete opened up to determine the extent of the water damage. The extent of the damage will determine the next course of action for repair, since the full extent is not evident during visual inspection. If there is no damage, then potentially no repair will be required. If the water damage to the handrail is superficial, it may be sandblasted to clean off the rust, and have the handrail protected. If the concrete is damaged, a section of the concrete will need to be removed and replaced, along with the handrail. At a minimum, the recessed areas around the handrails will need to be filled to prevent further water infiltration. Significant rust damage will require the handrails to be replaced, as the damaged steel sections cannot be easily repaired.

Recommended Repair (corner):
The corner handrails have mostly damaged the concrete. This may also be as a result of water infiltration. It may also be due to thermal movement of the steel and concrete. The average condition will need to have the concrete opened up to determine the extent of the water damage. The extent of the damage will determine the next course of action for repair. If the concrete is damaged, a section of the concrete will need to be removed and replaced, along with the handrail. At a minimum, the recessed areas around the handrails will need to be filled to prevent further water infiltration.

Handrails – Low wall between seating and field
There are low handrails on a low concrete wall separating the lower bowl seating from the outfield on both sides of the field. These handrails show signs of significant concrete damage. It appears that each handrail was installed in a larger diameter core drilled hole. The grout or concrete that was used to fill the hole was not installed flush to the surrounding material, and has created a depression for water to accumulate. The water infiltration has caused the concrete to crack and spall. Along with this, the handrails are continuous for 30 to 40 foot segments without separation joints. The amount of continuous handrail and hard connections to the concrete wall has caused thermal expansion and contraction stresses to crack and spall the concrete wall. Refer to Appendix B, Photos 5 thru 8 for these conditions.

Recommended Repair:
It is recommended to provide more expansion joints in the handrail to reduce the impact of thermal stresses on the wall. Due to the extensive damage to the wall, the best course of action is to remove the concrete wall to an elevation below the damaged areas, install a new piece of concrete wall, and install new handrail sections.

An alternative repair would be epoxy injection or epoxy gravity feed of the existing wall cracks. These will be cheaper repairs; however, they will be temporary, as the thermal movement of the handrail will likely continue to crack the wall. If this option is chosen, the recess at the handrail bases should be filled to be flush with the surrounding concrete.

Handrails – Sloped wall between seating and outfield
There are sloped concrete walls with handrails separating the lower bowl seating from the outfield on both sides of the field. These handrails show signs of significant rust damage. It appears that each handrail was installed in a larger diameter core drilled hole. The grout or concrete that was used to fill the hole was not installed flush to the surrounding material, and has created a depression for water to accumulate. The water infiltration has caused the handrails to rust. Over an extended period of time, the rust will cause a loss of steel material, thus creating a potential failure mechanism. The water infiltration has also caused the surrounding concrete to crack and spall.

Recommended Repair:
The average condition will need to have the concrete opened up to determine the extent of the water damage. The extent of the damage will determine the next course of action for repair. If there is no damage, then potentially no repair will be required. If the water damage to the handrail is superficial, it may
be sandblasted to clean off the rust, and have the handrail protected. If the concrete is damaged, a section of the concrete will need to be removed and replaced, along with the handrail. At a minimum, the recessed areas around the handrails will need to be filled to prevent further water infiltration. Significant rust damage will require the handrails to be replaced, as the damaged steel sections cannot easily be repaired.

**Dugout steps**
The steps between the field and the dugout are concrete on grade. The face of the risers each has a large horizontal crack. The cracking and spalling of concrete appears to be from water infiltration causing the reinforcing bars to rust and expand. The expansion of the bar due to rust caused the concrete to be damaged. Refer to Appendix B, Photos 9 thru 12 for these conditions.

**Recommended Repair:**
It is recommended to saw cut and removed the damaged portions of the concrete, and replace with new formed concrete stairs.

**Lower seating bowl**
The lower seating bowl is concrete slab on grade stairs and stepped seating. The concrete has cracked in some locations due to thermal expansion and contraction stresses. The existing control joints are spaced too far apart to be effective, and the slab has cracked to relieve the stresses. Cracks in the concrete allow moisture to penetrate thru and potentially cause spalling of the concrete or additional cracking. Previous repairs are evident, and these repairs have not stood the test of time and weather. Along each set of concrete stairs it appears that the thin repair material was not installed on a properly prepared base, and is now flaking off. In addition, a similar problem is occurring under some of the seats between the dugouts and behind home plate Refer to Appendix B, Photos 13 thru 16 for these conditions.

**Recommended Repair:**
It is recommended to repair any cracked concrete sections that are tripping hazards, since the lower seating bowl and walkways are pedestrian travel paths. The previous patched cracks should be cleaned of patch material, and corrected with a proper patch material along with proper preparation. Surface repairs of the steps and areas under the seats should also be cleaned of loose and broken material, cleaned of previous patch materials, and corrected with a proper patch material along with proper preparation.

**Outfield Wall**
The outfield wall is a concrete retaining wall. The area behind the wall outside of the field is at a higher elevation. The wall itself appears to be in good condition. However, the outfield side of the wall is covered with padding, and the other side is retaining soil. The soil behind the wall forms a hill and slopes up away from the wall, and has an 18" wide concrete header poured directly behind the wall. Any water drainage will flow toward and behind the wall. This has caused the backfill soil to settle 1” to 2”, which in turn has resulted in the concrete header settling as well. With the concrete header sloping toward the wall, this compounds the water infiltration behind the wall. There are area drains to collect water; however, these are now higher than the surrounding grade and concrete header. This does not allow the water to drain properly thru the drainage piping system, and allows is to enter behind the wall compounding the settlement. This also poses a tripping hazard. Refer to Appendix B, Photos 18 and 20 for these conditions.

**Recommended Repair:**
It is recommended to correct the concrete header so that it slopes away from the concrete retaining wall, and so that it will correctly direct water flow to the drains. The concrete header may be pressure injected below to lift it back into place, or it is also possible to remove the concrete header and install new concrete along with more drains to help prevent this from happening in the future, or a concrete patch material may be adding on top of the existing to correct the slope.
Foul Pole
The base connection of the foul pole is exposed and starting to rust. It appears there was a concrete patch previously provided, however, that is starting to flake off. The exposed connection has allowed water to infiltrate and rust the anchor bolts providing the connection of the pole to the concrete base. The rust and water infiltration have cause the concrete to crack and spall. Refer to Appendix B, Photo 17 for this condition.

Recommended Repair:
It is recommended to clean the rust from the anchor bolts, and remove and repair the concrete base. The baseplate should have drypack installed underneath to provide a proper bearing surface and provide some protection for the anchors.

Outfield Concourse Concrete Sidewalks
The outfield concourse concrete sidewalks appear to be in good shape. There are two locations toward the centerfield concessions/restroom building that have cracks. The sidewalk concrete is non-structural, so the cracking is a cosmetic/aesthetic issue. However, these are potential tripping hazards in a pedestrian travel area, and should be fixed. Refer to Appendix B, Photo 19 for this condition.

Recommended Repair:
It is recommended to saw cut and remove the damaged portions of sidewalk and replace with new concrete to match the existing thickness, elevation, and slope. The entire panel may be replaced if so desired.

Bullpen
The chain link fence around the bullpen is causing cracks in the top of the concrete wall similar to the cracks in the low wall separating the lower seating bowl from the outfield. The chain link fence posts are connected hard to the concrete wall below. At the ends of the wall, the cracking in the concrete wall is severe. This allows water to penetrate into the wall and cause further damage to the reinforcing and wall itself.

The concrete steps leading up into the bullpen are showing signs of distress along the face. This isn't as severe as the dugout steps; however, it should be corrected before the damage propagates further. Refer to Appendix B, Photos 21 thru 24 for these conditions.

Recommended Repair:
It is recommended to repair the damaged concrete walls. Portions of the wall should be removed and replaced with new concrete. If it can be shown thru some minor destructive testing, that the reinforcing is not rusted, another repair filling the cracks with epoxy may be used.

Upper concourse
The concrete topping for the upper level concourse has some areas that have cracked due to thermal expansion and contraction of the concrete. The cracks should be cleaned, repaired, and sealed so that water will not infiltrate. Water will cause further damage down the road. Refer to Appendix B, Photos 25 thru 27 for these conditions.

Recommended Repair:
It is recommended the cracks should be cleaned, repaired, and sealed.

Concrete testing
Per your request, the quality of the concrete at the lower seating bowl was investigated. Restruction Corporation collected 5 concrete core samples. The locations of the samples are noted in Appendix C along with pictures of each sample. Western Technologies tested each sample for strength, and the results are provided in Appendix C.
Concrete testing conclusion:
The core sample from the low wall was unable to be tested due to the crack in the wall itself. This is evident in Photos 1 and 6 in Appendix C. The crack didn't allow for an adequate test specimen.

The strength of the concrete for the dugout steps is above average for a slab on grade application with compressive strengths of 6,750 psi and 5,770 psi. Typically, concrete in this application would be specified at 3,000 psi for design strength. It is possible the rebar in the concrete dugout steps was located too close to the face of the concrete, which would not provide adequate cover for an application exposed to the weather. This would make it easier for moisture to infiltrate through the concrete, causing the reinforcing bars to rust, and thus spall and crack the concrete.

The two samples taken from behind each dugout have tested strengths of 3,530 psi and 2,950 psi. Typically, concrete in this application would be specified at 3,000 psi for design strength. The tested results seem to be lower than would be anticipated for the age of the concrete. Lower strength concrete will be slightly more susceptible to the impact of weather and exposure over time.

Repair Cost Estimate
Restuction Corporation has prepared a preliminary cost estimate, refer to Appendix D, for the repairs recommended in this report. Because some of the repairs require further investigation to determine the full extent of the repairs, the cost estimate is an estimate only, and is intended for budgetary use only. Actual costs may vary based on final repair methods, time frame of repairs, phasing, etc. It is recommended that the City allocate adequate funds to spend the high range of the cost because some conditions are unknown. The cost estimate has been shown as phased construction. There may be some cost escalation for multiple contractor deployments or phased construction over multiple time periods.

In addition, basic repair details have been provided in Appendix E.

Recommended Repair Priority List
Lower seating bowl concrete slab cracks and tipping hazards
Lower seating bowl handrails, steps, and cracks
Lower seating bowl low wall
Dugout steps
Bullpen walls
Outfield drains and concrete header
Foul pole base
Sloped outfield wall
Upper concourse
Bullpen steps

Please contact our office with any questions or comments at 480.774.1700.

Respectfully submitted,
CARUSO TURLEY SCOTT

David Troxell, SE, PE
Project Manager
T: (480) 774-1762 Direct
E: DTroxell@ctsaz.com
APPENDIX B

Hohokam Stadium Assessment
17-1675
April 17, 2018

Photo 5

Photo 6

Photo 7

Photo 8
APPENDIX B

Hohokam Stadium Assessment
17-1675
April 17, 2018

Photo 25

Photo 26

Photo 27
Core Sample Photo 5

Core Sample Photo 6
**LABORATORY REPORT ON CONCRETE CORES**

Date of Report: 2/27/18

Client: Restriction Corp.
2125 South Priest Drive, Suite 302
Tempe, AZ 85282

Job No. 2148JL079
Lab No. 85240

Event: 1

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<th>Location: Mesa, Arizona</th>
<th>Authorized By: Joe Sanchez</th>
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<td>Mix ID: Required strength (psi):</td>
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<td>Reference: ASTM C42</td>
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**TEST RESULTS**

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<td>Behind third base dugout</td>
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<td>- - - -</td>
<td>- - - -</td>
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<td>Defects noted</td>
<td>NONE</td>
<td>NONE</td>
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Comments:

The services referred to herein were performed in accordance with the standard of care practiced locally for the referenced method(s) and relate only to the condition(s) observed or sample(s) tested at the time and place stated herein. Western Technologies Inc. makes no other warranty or representation, expressed or implied, and has not confirmed information including source or materials submitted by others. This report shall not be reproduced, except in full, without the prior written approval of Western Technologies Inc.

Copies: Client (email)

Reviewed by: R. Tixier
(Signed copy on file)
April 16, 2018

Mr. David Troxell
Project Manager
Caruso Turley Scott
1215 W. Rio Salado Pkwy, Suite 200
Tempe, AZ 85281

RE: Hohokam Stadium Structural Repairs (Budgetary)

Restruction Corporation is a contractor specializing in structural repair and strengthening. Founded in 1975, Restruction Corporation is a Colorado Corporation with offices in Tempe Arizona, Denver Colorado and Salt Lake City Utah. Our company completes approximately 100 structural repair and maintenance projects each year. Repair and strengthening projects larger than $5 million have been completed.

Restruction Corporation has experience with concrete repairs of various types. We follow the industry guidelines and standards set in place by the International Concrete Repair Institute (ICRI) and American Concrete Institute (ACI). We have received numerous awards from ICRI-project of the year and ACI-award of excellence, award of merit, and outstanding project of the year.

Restruction Corporation maintains high personal integrity standards and quality construction expectations. We are committed to each client’s needs by providing structural repair services of exceptional quality and value while building on our reputation for innovation and excellence; the capabilities of our people, their knowledge, skills, and craftsmanship. We trust that you will find our quality, work experience, and qualifications to be outstanding.

Restruction Corporation understands the challenges you face and is ready to assist you in the process. I have included a few pictures of past jobs that relates to the work we will be doing for you.
Stadium Repairs

Scope

Mobilization – 1 Mob Per Phase

- Mobilize crew, equipment, and materials to job site and set up staging area.
- Demobilize crew, equipment, and materials from job site and perform final cleanup.

Phase I

Lower Field Walls – Remove & Replace (300.3 CF)

- Remove compromised low elevated wall separating the field from the lower seating bowl.
- Place new wall and set handrails back to original position.

Sloped Field Walls – Epoxy Injection (510 LF)

- Locate cracks and clean the surface and cracks in preparation of epoxy injection.
- Set ports.
- Seal cracks prior to injection.
- Pressure inject epoxy resin into cracks until they are fill.
- Reinject if required.
- Remove surface seal and ports.

Sloped Field Walls – Hand Rail Posts (80 EA)

- Excavate concrete around rusted steel post.
- Clean/cut existing post and reweld new steel.
- Place repair material around post and coat steel.

Foul Pole Grout/Coating (2 LOC)

- Sandblast existing foul pole base to remove any rust.
- Grout under the base plate.
- Coat cleaned steel base plate and bolts.

Misc. Concrete Wall Spalls (32.6 CF)

- Remove compromised concrete.
- Install new repair material.
Gravity Feed Cracks (476 LF)
- Route cracks clean of debris.
- Place Sikadur 55 SLV epoxy until cracks have filled completely.
- Grind off any excess epoxy.

Level Recessed Outfield Berm (733 SF)
- Prep the surface for concrete placement.
- Place repair material to raise the berm back to its original position and create a slope away from the outfield wall.

Phase II
Concrete Surface Spalls/Delamination's (3,288 SF)
- Remove and trip hazards or delaminated concrete.
- Place back new repair material.
- Create control joints to match existing control joints.
- Provide a new thin cementitious top coat.

Phase III
Dugout Concrete Steps (260 CF)
- Excavate entire dugout steps to remove compromised concrete.
- Install ready mix concrete and bring stairs back to their original layout.

Lower Bowl Seat Removal (10 rows)
- Remove existing seats to access the riser repairs.
- Install seats back to their original positions once concrete repairs are complete.

Lower Bowl Concrete Riser Repairs (33.54 CF)
- Remove and replace damaged concrete along the risers where the seats are anchored once the seats have been removed.

Seat Bolt Repairs (280 EA)
- Core drill new anchor hole once riser repairs are complete.
- Install seat with new anchors.

Hand Rails @ Top of Stairs (48 EA)
- Remove and replace damaged concrete.
- Remove, replace, and coat new steel post.

Corner Hand Rails & Top of Stairs (48 EA)
- Remove and replace damaged concrete.
- Cut steel post flush with the concrete to relieve the stress from the post.
  - Allows the post to move freely while the concrete also moves due to thermal expansion and contraction.
Install Epoxy Overlay at Steps Below Walkway in Lower Bowl – 24 Sections – 7,800 SF
- Mechanically prepare substrate for epoxy overlay by means of grinding or shot blasting.
- Install 1st cost of epoxy with sand broadcast per manufacturer's recommendations.
- Install second coat of epoxy with sand broadcast to provide a more uniform looking system.
- Clean up any remaining sand.

Install Epoxy Overlay at Main Walkway and Remaining Lower Bowl Area – 34,700 SF
- Mechanically prepare substrate for epoxy overlay by means of grinding or shot blasting.
- Install 1st cost of epoxy with sand broadcast per manufacturer's recommendations.
- Install second coat of epoxy with sand broadcast to provide a more uniform looking system.
- Clean up any remaining sand.
- **Please note that this is for the horizontal surfaces only. Item #22 - the alternate for seat removal and replacement in the lower bowl, would allow access to complete the vertical surface epoxy overlay. If seat removal alternate is approved we have access to properly prep vertical surfaces and can install overlay at vertical surfaces.***

*Alternate Scope Items*

Lower Field Walls – Epoxy Injection (954 LF) – Alternate to Item #2 - Lower Field Walls – Remove and Replace – Please note this is not a permanent fix and is only intended to attempt to slow the corrosion process. Will also be in addition to Lower Field Wall Handrail Post Repairs.
- Locate cracks and clean the surface and cracks in preparation of epoxy injection.
- Set ports.
- Seal cracks prior to injection.
- Pressure inject epoxy resin into cracks until they are filled.
- Reinject if required.
- Remove surface seal and ports.

Lower Field Walls – Hand Rail Post Repairs (80 EA) – Alternate to Item #2 - Lower Field Walls – Remove and Replace – Will be in addition to Lower Field Walls Epoxy Injection Alternate.
- Remove and replace damaged concrete.
- Remove, replace, and coat new steel post.

Stainless Steel Hand Rail Post Alternate – 256 EA
- Price is to install a new section of stainless steel tubing at handrail repair bases where repairs occur.

**Budgetary Costs**

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<th>Unit Price</th>
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<td>13</td>
<td>Phase II Contingency (15%)</td>
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<td>Approx. Phase II Duration</td>
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<td>14 Weeks</td>
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<td>15</td>
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<td>16</td>
<td>Dugout Concrete Steps</td>
<td>260</td>
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<td>17</td>
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<td>18</td>
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<td>Description</td>
<td>Quantity</td>
<td>Unit</td>
<td>Cost</td>
<td>Amount</td>
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<tr>
<td>17</td>
<td>Corner Hand Rails &amp; Top of Stairs</td>
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<td></td>
<td>$950.00</td>
<td>$45,600.00</td>
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<td><strong>Phase 4</strong></td>
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<td>19</td>
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<td><strong>16 Weeks</strong></td>
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<td><strong>Alternate Items</strong></td>
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<td>22</td>
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<td>23</td>
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<td>24</td>
<td>Lower Field Walls – Epoxy Injection</td>
<td>954</td>
<td>LF</td>
<td>$98.00</td>
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**Conditions of Payment**

Invoices are due 30 days from the invoice date. A 1% discount is offered if payment is received within 15 days of the invoice date. All invoices over 30 days will be assessed a service charge of 1 ½% per month from the original invoice date.

**Conditions of Proposal**

- Proposal is a rough budgetary number based on visual inspections and site walks with CTS without specifications or repair details.
- Painting of repairs not included.
- Waterproofing not included in the budgetary proposal.
• Permits to be provided by owner if necessary.
• Testing to be provided by owner if necessary.
• If additional work is found additional pricing will be necessary.
• Replacement of major reinforcing not included unless stated otherwise.
• Work to be performed during normal business hours Monday – Friday.
• Mechanical, plumbing, electrical, fire services not included in the budgetary proposal.
• Portable restrooms included in budgetary proposal.

Restruction Corporation looks forward to working with you.

Sincerely,

Joe Sanchez
Project Engineer
NOTES:

1. CONCRETE SLAB ON GRADE.
2. CONCRETE STAIRS ON GRADE.
3. #4 NOSING BARS.
4. INSTALL DOWELS WITH EPOXY ADHESIVE AT 12" O.C. WITH 5" EMBEDMENT.
5. EXISTING CONCRETE SLAB ON GRADE.
6. #4 AT 12" O.C. EACH WAY.
7. EXISTING CONCRETE WALL.

NOTE: SAWCUT AND REMOVE EXISTING CONCRETE STAIRS.

DUGOUT STEPS – COMPLETE REPLACEMENT

17-1675    NO SCALE

CARUSO ■ TURLEY ■ SCOTT ■ INC.
CONSULTING STRUCTURAL ENGINEERS
1215 WEST RIO SALADO PARKWAY SUITE 200
TEMPE, ARIZONA 85281  www.ctsaz.com
Ph: (480)774-1700  Fax: (480)774-1701

CITY OF MESA HOHOKAM STADIUM ASSESSMENT
1235 N CENTER ST.
MESA, AZ 85201

SSK1

THESE DRAWINGS/CALCULATIONS ARE CONSIDERED PRELIMINARY – NOT FOR CONSTRUCTION OR RECORDING UNLESS THE STRUCTURAL ENGINEER OF RECORD'S SEAL IS AFFIXED WITH WRITTEN SIGNATURE.
NOTES:
1. EXISTING CONCRETE SLAB ON GRADE.
2. SAUCUT AND REMOVE DAMAGED CONCRETE SECTIONS AND REPLACE WITH NEW. PROVIDE ROUGHENED SURFACE FOR BONDING ON CONCRETE REPAIR MATERIAL.
3. EXISTING CONCRETE STAIRS ON GRADE.
4. #4 NOSING BARS.
5. EXISTING CONCRETE WALL.

NOTE:
A. EXTENT OF DAMAGED AREAS TO BE DETERMINED DURING DEMOLITION OF EXISTING.
B. FINAL DETAILS AND REPAIR SOLUTIONS TO BE DETERMINED AT TIME OF CONSTRUCTION.
NOTES:

1. NEW HANDRAILS PER RESTRICTION LETTER.
2. CONCRETE WALL TO MATCH EXISTING WITH #4 AT 12" O.C. EACH WAY.
3. SAWCUT AND REMOVE EXISTING CONCRETE WALL PAST DAMAGED CONCRETE.
4. INSTALL DOWELS WITH EPOXY ADHESIVE WITH 6" EMBEDMENT.
5. FINISHED GRADE.
6. EXISTING CONCRETE WALL.
7. EXISTING CONCRETE SLAB ON GRADE.

NOTE:
A. EXTENT OF DAMAGED AREAS TO BE DETERMINED DURING DEMOLITION OF EXISTING.
B. FINAL DETAILS AND REPAIR SOLUTIONS TO BE DETERMINED AT TIME OF CONSTRUCTION.
NOTES:

1. EXISTING CONCRETE SLAB ON GRADE.
2. GRAVITY FEED EPOXY FILL OF CONCRETE SLAB ON GRADE CRACKS.