Department of Administrative Services
Purchasing and Contracts

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Sabra Smith Newby, Chief Administrative Officer
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CLARK COUNTY, NEVADA
BID NO. 603500-14
BUILDING DEMOLITION AT 4495 POLARIS AVENUE

December 16, 2014

ADDENDUM NO. 2

INVITATION TO BID

1. The Bid Opening date of December 23, 2014 at 2:15:00 p.m. **remains the unchanged.**

SPECIAL PROVISIONS

2. TABLE OF CONTENTS
   - A. Revised title to include 'CCPW BUILDING DEMOLITION AT HARMON AVE AND POLARIS
   - B. Added to Index 01 35 16 ALTERATION PROJECT PROCEDURES
   - C. Added to Index 01 35 33 ENVIRONMENTAL PROCEDURES
   - D. Added to Index 01 35 53 SECURITY PROCEDURES
   - E. Added to index 01 57 55 STORMWATER POLLUTION PREVENTION
   - F. Added to Index 01 75 00 STARTING AND ADJUSTING

3. Section 01 32 33 PHOTOGRAPHIC DOCUMENTATION, 1.02 SUBMITTALS:,
   - A. Item A. **replace** 'prints' with 'disk'
   - B. Item B. **revise** to read as follows: 'Submit digital copies of each monthly photo'.

4. Section 01 42 13 ABBREVIATIONS AND ACRONYMS
   - A. **Revise** definition of RFI to read: 'Request for Interpretation'.

5. Section 01 58 13 TEMPORARY PROJECT SIGNAGE:
   - A. **Revise** COMING SOON sign. Delete COMING SOON.
   - B. **Replace** 'WHITNEY PARK IMPROVEMENTS SUMMER 2002' with BUILDING DEMOLITION.
   - C. **Delete** DEDICATION BOULDER and PARK IDENTIFICATION MONUMENT sign, delete pages 01 58 13-8 thru 01 58 13-15.
   - D. **Delete** Goat Petroglyph from project signage.

6. Section 31 23 00 EXCAVATION AND FILL: Revised section.

7. Section 31 23 00, 3.3 EXCAVATION:
   - A. **Change** Item G to the following: G. Basement walls and basement slab shall be completely removed below ground and no pieces of wall or slab may be deposited in the basement excavation. Such pieces of walls shall be hauled to a suitable disposal site.

8. Section 31 23 00, item 3.10 Filling:
   - A. **Add** Item H:
   - H. Fill material used in the basement shall adhere to the requirements of Structural Backfill as specified in Section 207 of the Uniform Standard Specifications for Public Works Construction Off Site Improvements, Clark County Area, Nevada, latest edition at the time of bid.

DRAWINGS

9. C1.02 – NOTE SHEET(not re-issued):
   A. DEPARTMENT OF PUBLIC WORKS GENERAL NOTES are not applicable.

BID CLARIFICAITONS

QUESTION: I had a question about the demolition project at 4495 Polaris, work reference # 5003203.I was looking through the specs, page 142 Section 01 58 13 Temporary Project Signage, will a bronze Dedication plaque and monument sign be required on this project?

ANSWER: The dedication plaque and monument sign will not be required.

QUESTION: Do the walls and floor of the basement need to be removed below grade? In section 02 41 16, 1.1 #2 states demolition of foundation as needed to properly grade site to drain and slabs on grade.

ANSWER: Yes. All basement walls and slab need to be removed.

Except as modified herein, all other bid specifications, terms, conditions, and special provisions shall remain the same.

ISSUED BY:

THOMAS E. BOLDT, C.P.M.
Senior Purchasing Analyst

Attachment(s): SECTION 31 23 00 EXCAVATION AND FILL

cc: Kathleen Kingston, P.E., Public Works
Mike Mamer, Public Works
Cindy Beauchamp, Public Works
Mark Labaj, Gary Guy Wilson Architects

SECTION 31 23 00

EXCAVATION AND FILL

PART 1 GENERAL

1.1 SUMMARY

A Section Includes:
1. Excavating site components.
2. Excavating topsoil.
3. Excavating subsoil.
4. Backfilling.
5. Undercutting and filling over-excavation.
6. Disposal of excess material.

B Related Sections:
1. Division 01: Administrative, procedural, and temporary work requirements.
2. Section 02 41 16 - Structure Demolition: Demolition of buildings prior to excavation.
3. Section 31 11 00 – Clearing and Grubbing: Clearing site prior to excavation.
4. Section 31 22 00 - Grading: Final grading

C General:
1. This work shall consist of placing and compacting, to the lines designated on the plans or as established by the Engineer, backfill material in excavations for bridges, retaining walls, headwalls for culverts, and other structures; placing and compacting backfill material for box culverts and other non-pipe culverts; and other backfill specifically designated in the contract documents as structure backfill. This item does not include backfilling pipes within a trench or minor miscellaneous structure excavations outside the limits of the roadway.

1.2 REFERENCES

A NDOT Standard Specifications:
1. Standard Plans for Road and Bridge Construction, published by the Nevada Department of Transportation.

B American Association of State Highway and Transportation Officials:
1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

C ASTM International (ASTM):
1. C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
2. D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3) (600 kN-m/m3).
3. ASTM D1556 - Standard Test Method for Density of Soil in Place by the Sand- Cone Method.
4. D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2,700 kN-m/m3).
5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
7. D2487 - Standard Classification of Soils for Engineering Purposes.
8. D2922 - Standard Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth).
9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
10. D4254 - Standard Test Methods for Minimum Index Density of Soils and Calculation of Relative Density.
11. D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

D Related Interagency Quality Assurance Committee (IQAC) procedures at:
1. http://www.clarkcountynv.gov/Depts/public_works/construction_mgmt/Pages/Materials.aspx
2. (IQAC website)

1.3 SYSTEM DESCRIPTION

A Limits of Work: Do not extend earthwork beyond areas of excavation or construction shown on Drawings or reasonably necessary for performance of Work.

B Contractor is responsible for design of temporary earth retention systems.

C Contractor shall conform to all city and county ordinances and regulations in regard to demolition, basement fill and related work and all necessary work, construction, maintenance, permits and other expense shall be at the expense of the contractor.

1.4 SUBMITTALS

A Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.

C Dewatering Plan: Describe dewatering methods to be used to keep excavations dry if required.

D Samples: Submit, in air-tight containers, 10-pound sample of each type of fill to testing laboratory.

E Materials Source DOT Approval: Not Applicable.

F Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 CLOSEOUT SUBMITTALS

A Section 01 77 00 - Closeout Procedures: Requirements for submittals.

B Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.6 QUALITY ASSURANCE

A Perform Work in accordance with NDOT Standard Specifications.

B Maintain one copy of document on site.

C Prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of Project location.

PART 2 PRODUCTS

2.1 MATERIALS

Common Fill: Reused site and imported soils free from trash, debris, roots over 1 inch in diameter, matted roots, rocks over 3 inches in diameter, topsoil, and other deleterious matter.

A SELECTED BACKFILL

1. Selected backfill shall be of a quality acceptable to the Engineer and shall consist of suitable material from the excavation complying to Table 1. It shall be free from sod, frozen earth, organic materials, rubbish, or debris. If the material does not comply with Table 1, it may be used only if approved by the Engineer.

Table 1 – Select Backfill Gradation	
Sieve Sizes	Percentage of Weight Passing
6inch	100
3inch	80-100
No. 4	35-100

Table 2 – Select Backfill Maximum Plastic Index Requirement	
Percentage by Weight Passing No. 200 Sieve	Plasticity Index Maximum
1010.0	15
10.120.0	12
20.150.0	10
50.180.0	8
80.1100.0	6

2. When the completed select backfill test results from the sample indicate a Plasticity Index of 12 or greater, a swell potential test may be required. Contact the Contracting Agency for further procedure requirements or comply with the contract Special Provisions.
3. The liquid limit of the material shall not exceed 50 percent maximum.
4. Stones or lumps exceeding 3 inches shall not be used within the zones 12 inches or less from the structure, 12 inches or less from the finish subgrade in unpaved areas, or 16 inches or less below the finish subgrade in paved areas.
5. Acceptable material from excavation "Selected Backfill" may be used for structure backfilling unless "Granular Backfill" is specified.

B GRANULAR BACKFILL

1. Granular backfill shall consist of natural sand or a mixture of sand with gravel. Broken Portland cement concrete and bituminous type pavement will be permitted, subject to the gradation limits specified herein. The granular backfill material shall have a sufficient amount of fine material to fill the voids between the coarser aggregate.
2. In addition, the material shall conform to the following requirements:

Table 3 – Granular Gradation	
Sieve Sizes	Percentage of Weight Passing
3inch	100
No. 4	35-100
No. 16	25-100
No. 200	5-15

3. The plasticity index of the material shall be as specified in Subsection 704.03.01, "Plastic Limits."
4. The total available water soluble sulfate content of the material shall not exceed 0.3 percent by dry soil weight.

2.2 ACCESSORIES

A GEOTEXTILE FABRIC: Non-woven, non-biodegradable, conforming to NDOT Standard Specifications.

2.3 SOURCE QUALITY CONTROL

A Testing and Inspection Services: Test Engineered Fill prior to placement:
1. Liquid limit, plastic limit, and plasticity index: Test to ASTM D4318.
2. Moisture/density relationship: Test to ASTM D698.
3. Provide soil description; determine compliance with gradation and quality requirements.

PART 3 EXECUTION

3.1 EXAMINATION

A Verify existing conditions before starting work.

B Verify survey bench mark and intended elevations for the Work are as indicated on Drawings.

C Verify subdrainage, dampproofing, or waterproofing installation has been inspected.

3.2 PREPARATION FOR EXCAVATION

A Call Local Utility Line Information service as indicated on Drawings not less than three working days before performing Work.
1. Request underground utilities to be located and marked within and surrounding construction areas.

B Identify required lines, levels, contours, and datum.

C Notify utility company to remove and relocate utilities.

D Protect utilities indicated to remain from damage.

E Protect bench marks, survey control point, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.3 EXCAVATION

A Excavate to grades and subgrades indicated. Make excavations large enough to permit placing and inspection of work.

B Stockpile excavated materials that are suitable for reuse separately from subgrade material.

C Remove and dispose of excavated material that is unsuitable or not required for backfilling. Remove underground obstructions.

D Brace sides of excavations where necessary; maintain until work is complete. Remove temporary shoring and bracing as fill is placed.

E Keep excavations free of water.

F Remove from the basement any remains of the razed improvement which are determined to be unsuitable fill material by the County's supervising representative and haul same to a suitable disposal site prior to placing fill material in the basement. No such unsuitable fill material will be left or placed in the area to be filled.

G Basement walls and basement slab shall be completely removed below ground and no pieces of wall or slab may be deposited in the basement excavation. Such pieces of walls shall be hauled to a suitable disposal site.

3.4 TOPSOIL EXCAVATION

A Excavate topsoil from areas to be further excavated or regraded without mixing with foreign materials for use in finish grading.

B Do not excavate wet topsoil.

C Stockpile in area designated on site and protect from erosion.

D Remove from site excess topsoil not intended for reuse.

3.5 SUBSOIL EXCAVATION

A Underpin adjacent structures which may be damaged by excavation work.

B Slope banks with machine to angle of repose or less until shored.

C Grade top perimeter of excavation to prevent surface water from draining into excavation.

D Trim excavation. Remove loose matter.

E Notify Engineer and testing agency of unexpected subsurface conditions.

F Correct areas over excavated with granular fill and compact as required for fill areas.

G Remove excess and unsuitable material from site.

H Repair or replace items indicated to remain damaged by excavation.

I Excavate subsoil from areas to be further excavated or regraded.

J Do not excavate wet subsoil or excavate and process wet material to obtain optimum moisture content.

K Remove from site excess subsoil not intended for reuse.

L Benching Slopes: Horizontally bench existing slopes greater than 3:1 to key placed fill material into slope to provide firm bearing.

M Stability: Replace damaged or displaced subsoil as specified for fill.

3.6 SHEETING AND SHORING

A Sheet, shore, and brace excavations to prevent danger to persons, structures, and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.

B Support excavations more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.

C Design sheeting and shoring to be left in place as part of the completed Work, cut off minimum 18 inches below finished subgrade, or design sheeting and shoring to be removed at completion of excavation work.

D Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.

3.7 SURFACE WATER CONTROL

A Control and remove unanticipated water seepage into excavation.

3.8 DEWATERING

A Design and provide dewatering system to permit Work to be completed.

B Operate dewatering system continuously until backfill is minimum 2 feet above normal ground water table elevation.

C When dewatering system cannot control water within excavation, notify Engineer and stop excavation work.

D Supplement or modify dewatering system and provide other remedial measures to control water within excavation.

E Demonstrate dewatering system operation complies with performance requirements before resuming excavation operations.

F Modify dewatering systems when operation causes or threatens to cause damage to new construction, existing site improvements, adjacent property, or adjacent water wells.

G Discharge ground water and seepage water within excavation areas into sumps or settling basins prior to pumping water into drainage channels and storm drains.

H Remove dewatering and surface water control systems after dewatering operations are discontinued.

3.9 PROOF ROLLING

A Proof roll areas to receive fill, to identify areas of soft yielding soils.
1. Use loaded tandem-axle pneumatic tired dump truck or large smooth drum roller.
2. Load equipment to maximum 50 tons gross weight and make a minimum of four passes with two passes perpendicular to the others.

B Undercut such areas to firm soil, backfill with granular fill and compact to density equal to or greater than requirements for subsequent fill material.

C Do not proof roll or undercut until soil has been dewatered.

3.10 FILLING

A Prior to placing fill on existing subsoils:
1. Proof roll to detect soft and weak zones. Remove soft and spongy soils down to firm subsoil.
2. Replace undercut areas with imported Fill placed in maximum 6 inch deep loose, even, horizontal lifts. Compact each lift to 95 percent of ASTM D1557 at a moisture content within 2 percentage points of optimum.

B Do not fill over porous, wet, frozen, or soft subgrades.

C Bench fill into slopes.

D When moisture must be added to aid in compaction, uniformly apply water to surface, but do not flood. Free water shall not appear on surface during or after compaction operations.

E Scarify soil too wet for proper compaction and allow to dry. Replace and recompact.

F Uniformly grade areas to smooth surface at required grades and elevations. Adjust contours to eliminate water ponding and provide positive drainage. Make grade changes gradually. Blend slopes into level grades.

G Prior to filling any basement, the floor in such basement will be removed. All storm and sanitary sewer drains leading from the basement will be removed.

H Fill material used in the basement shall adhere to the requirements of Structural Backfill as specified in Section 207 of the Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area, Nevada, latest edition at the time of bid.

I All basement excavation will be filled with dirt, the top 24 inches of which will contain no rock or concrete material in excess of 2 inches in diameter. All material used for filling basement excavations

must be free of hazardous materials, i.e., asbestos, trees, stumps, rubbish and other deleterious materials. The material will be compacted by the operation of machinery over the material during the filling operation. Material for filling will be obtained from Parcel 1 and the contractor will not grade any slope steeper than 2 to 1. All excavation and filling shall be done in such manner as to ensure proper drainage.

J In the event there is insufficient material in the immediate vicinity, the contractor shall, after obtaining the approval of County's supervising representative, provide material from a source of his/her own choosing. In the event the contractor is required to furnish material he/she will be paid on the basis of the select backfill/ cu. yd. as needed to fill basement only if the amount is insufficient from Parcel 1 for furnishing such material, in addition to the price bid for basement filling.

K Fill material placed in basement excavations will have a sufficient crown to permit a slope of 1 inch per foot from the center of the basement to the outer edges of the filled excavations.

L Any imported granular backfill needed will include purchasing, hauling and placement.

M Scarify subgrade surface to depth of 4 inches.

N Compact subgrade to density requirements for subsequent backfill materials.

O Backfill areas to contours and elevations with unfrozen materials.

P Systematically backfill to allow maximum time for natural settlement.

Q Place fill material in continuous layers and compact in accordance with Schedule at end of this Section.

R Employ placement method that does not disturb or damage other work.

S Maintain optimum moisture content of backfill materials to attain required compaction density.

T Make gradual grade changes. Blend slope into level areas.

U Remove surplus backfill materials from site.

3.11 COMPACTION

A Compaction of backfill or embankment around all structures shall be in accordance with the requirements of AASHTO LFRD Bridge Construction Specifications with exceptions as described in this section. The compaction shall be performed with mechanical tamping units and the material shall be placed in layers of thickness compatible with the characteristics of the backfill and the type of equipment being used subject to approval by the Engineer.

B Unless otherwise specified or approved by the Engineer, the compaction requirement shall be a minimum of 90 percent.

C Mechanically compacted backfill shall be placed in layers of thickness compatible with the characteristics of the backfill and the type of equipment being used. Backfill material shall be placed in uniform horizontal layers with a maximum compaction depth of 12 inches and a maximum loose lift of 16 inches and shall be brought up uniformly on all sides of the structure or improvement.

3.12 TOLERANCES

A Section 01 40 00 - Quality Requirements: Tolerances.

B Top Surface of Backfilling: Plus or minus 1 inch from required elevations.

3.13 PROTECTION

A Protect graded areas from traffic and erosion; keep free of trash and debris.

B Prevent displacement or loose soil; maintain soil stability.

C Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

D Repair or replace items indicated to remain damaged by excavation or filling.

3.14 FIELD QUALITY CONTROL

A Testing and Inspection Services: Perform field in place density tests, ASTM D2922, at following rates; minimum of three tests for each lift or area:
1. All fill shall be field density tested at a frequency not less than 1 test per every 2,500 square feet for each successive 6 inch lift or fraction thereof.

B Section 01 45 29 – Testing Laboratory Services: Independent laboratory, field inspecting, testing, adjusting, and balancing.

C Laboratory Material Tests: In accordance with ASTM D1557 or AASHTO T180.

D In-Place Compaction Tests: In accordance with the following:
1. Density Tests: ASTM D1556, ASTM D2167, or ASTM D2922.
2. Moisture Tests: ASTM D3017.

E When tests indicate Work does not meet specified requirements, remove Work, replace, and retest.

F Testing:

Spec. Section	Description	Test	Reference Specification and/or Test Procedure	Recommended Frequency
207.02.01	Selected Backfill	Sieve Analysis	AASHTO T11 & T27 ***USS 301*** & Special Provisions	1/1000 CY
		Plasticity Index	AASHTO T89 & T90 ***USS 301*** & Special Provisions	1/1000 CY
207.02.02	Granular Backfill	Sieve Analysis	AASHTO T11 & T27 ***USS 301*** & Special Provisions	1/1000 CY
		Soluble Sulfates	AWWA 4500E	1/Type
207.03.01	General	Field Density	AASHTO T310	If Riding Equipment Used: 1/5000 SF/Lift If Walk Behind Equipment Used: 1/1000 SF/Lift Per Structure Per Day

3.15 CLEANING

A Remove surplus materials and those not suitable for reuse from site.

3.16 PAYMENT

A Unless otherwise provided in the Special Provisions or Proposal, no payment will be made for structure excavation or backfill as such; the cost thereof under normal circumstances being considered as included in the price bid for the construction or installation of the items to which such excavation or backfill is incidental or appurtenant. Payment for such excavation or backfill will be made when the Special Provisions or Proposal provides.

END OF SECTION