Lauren Hood, MCD Chairperson Donovan Smith Vice Chair/Secretary

Marcell R. Todd, Jr. Director

City of Detroit

CITY PLANNING COMMISSION

208 Coleman A. Young Municipal Center Detroit, Michigan 48226 Phone: (313) 224-6225 Fax: (313) 224-4336 e-mail: cpc@detroitmi.gov Brenda Goss Andrews Kenneth R. Daniels David Esparza, AIA, LEED Ritchie Harrison Gwen Lewis Melanie Markowicz Frederick E. Russell, Jr.

TO: City Planning Commission

FROM: Jamie Murphy, Staff

- **RE:** Request of the Detroit-Wayne Joint Building Authority for PC (Public Center) Special District Review of proposed exterior alterations to 2 Woodward Avenue – Coleman A. Young Municipal Center (**RECOMMEND APPROVAL**)
- **DATE:** May 20, 2022

REQUEST

The City Planning Commission (CPC) has received a request from the Detroit-Wayne Joint Building Authority for PC (Public Center) Special District Review of proposed exterior alterations to 2 Woodward Avenue – Coleman A. Young Municipal Center (CAYMC). This request is being made consistent with the provisions of Section 50-3-222 of the Detroit Zoning Ordinance.

BACKGROUND & PROPOSAL

The Detroit-Wayne Joint Building Authority (DWJBA) is continually making improvements to the CAYMC. The current project under consideration is the installation of a hardscape plaza around the flagpole. The location is near the southwest corner of the building, close to the intersection of Jefferson and Woodward Avenues.



The motivation for this project is the flag-raising ceremonies that the DWJBA conducts several times each year to honor active-duty and veteran military members. As the ceremonies take place in the morning, the grass is usually wet and the participants and observers walk through the wet grass, getting their shoes wet. By installing a hardscape plaza in this area, the ceremonies will be more pleasant and a seating area can also be set up near the flagpole.



Flag raising ceremony on Veterans Day 2021 performed by the East English Village Preparatory Academy JROTC

Another feature of the proposed plaza is a concrete band around the base of the flagpole flush with the ground which will display the bronze seals for each branch of the military. Lighting for the flag will also be installed as part of this project. Possible options for the light fixture and location are still being researched to minimize light pollution while adequately lighting the flag.

The benches that are located on the sidewalk facing East Jefferson Avenue will not be affected by this project.

REVIEW & ANALYSIS

PC District Review Criteria

There are eighteen PC District Review Criteria listed in Section 50-11-67 of the Zoning Ordinance. A few of the most applicable are:

(3) The proposed development should be compatible with surrounding development in terms of land use, general appearance and function and should not adversely affect the value of adjacent properties.

The proposed plaza is a minor change and will not adversely affect adjacent properties. The plaza has been designed to complement the building in size, color, and shape while also efficiently serving its intended purpose. The style and color of the pavers is complementary to the Civic Center.

(13) *Barrier-free access and public safety features should be carefully planned.* Although there is a curb where the new plaza meets the sidewalk along East Jefferson, the

entrance near the building is flush with the walkway and will be ADA-accessible.

(16) Special attention should be given to amenity and comfort considerations such as provision for outdoor seating, restrooms for public use, bicycle storage, convenience of access points and protection from harsh weather through such features as enclosed walkways and arcaded pedestrian areas.

This project will alleviate the discomfort currently experienced by the participants and observers at flag raising ceremonies. By hard-surfacing the area around the flagpole, flag raising ceremonies will be more pleasant and orderly.

Design

The Planning & Development Department has reviewed the proposed changes and recommends approval. Their full recommendation is attached.

RECOMMENDATION

CPC staff recommends approval of the proposed exterior modifications to 2 Woodward Avenue as detailed in the attached drawings prepared by Living Lab and dated 3/7/2022 with the following conditions:

- 1. That the Detroit-Wayne Joint Building Authority continue to work with city agencies as may be appropriate to further refine the design and to ensure minimal disruption to the business conducted at the Municipal Center, and
- 2. That final site plans, elevations, landscape, lighting, and signage plans be submitted for City Planning Commission staff approval prior to making application for applicable permits.

Respectfully submitted,

Marall R. Lohl J.

Marcell R. Todd, Jr., Director Jamie J. Murphy, City Planner

Attachment: PDD Recommendation Construction Drawings Resolution

cc: Antoine Bryant, Director, PDD David Bell, Director, BSEED Conrad Mallett, Corp. Counsel, Law Daniel Arking Mike Kennedy, Hines



Detail of Construction Drawing for Proposed Plaza

WINTER MARVEL



color and pattern of proposed pavers

_:

A RESOLUTION AUTHORIZING ALTERATIONS IN A PC ZONING DISTRICT AT THE COLEMAN A. YOUNG MUNICIPAL CENTER, 2 WOODWARD AVE.

BY COUNCIL MEMBER_____

WHEREAS, the Detroit-Wayne Joint Building Authority proposes a new plaza at 2 Woodward Avenue; and

WHEREAS, Coleman A. Young Municipal Center (CAYMC) at 2 Woodward Avenue is located within an established PC (Public Center) zoning district; and

WHEREAS, work to be performed within a PC zoning district requires Special District Review and the purpose of the PC zoning district classification is provided for in Section 50-11-51 of the Zoning Ordinance as follows:

The PC Public Center District includes areas used or to be used for governmental, recreational, and cultural purposes of particular or special civic importance. All construction or other improvement within this district requires that the Planning and Development Department and the City Planning Commission review and make recommendation to City Council, as provided for in Article III, Division 6, of this chapter so as to ensure a completely harmonious, pleasing, and functional public center; and

WHEREAS, the City Council has received the CPC staff recommendation and concurrent support of the Planning and Development Department in the CPC report dated May 20, 2022.

NOW, THEREFORE, BE IT RESOLVED, that the Detroit City Council hereby approves the proposed plaza depicted in drawings prepared by Living Lab and dated 3/7/2022, referenced in the staff report, with the following conditions:

- 1. That the Detroit-Wayne Joint Building Authority continue to work with city agencies as may be appropriate to further refine the design and to ensure minimal disruption to the business conducted at the Municipal Center, and
- 2. That final site plans, elevations, landscape, lighting, and signage plans be submitted for City Planning Commission staff approval prior to making application for applicable permits.



Detroit City Planning Commission 208 CAYMC Detroit, MI 482266

May 19, 2022

RE: Public Center (PC) Review of exterior changes at 2 Woodward Ave (RECOMMEND APPROVAL)

The following is the Planning and Development Department's (PDD) review of the proposed exterior changes to the Coleman A. Young Municipal Center, located at 2 Woodward Avenue. These changes are to install pavers around the flagpole on Jefferson Avenue. This review is carried out per Sec. 61-11-76 for the review of developments located in the Public Center (PC) zoning district.

Following is our response to the applicable criteria from Sec. 61-11-77, with our response in italics.

(2) Scale, form, massing and density should be appropriate to the nature of the project and relate well to surrounding development *The size and location of the plaza is appropriate for the location*.

(3) The proposed development should be compatible with surrounding development in terms of land use, general appearance and function and should not adversely affect the value of adjacent properties; *The installation of the hard-scaped plaza is appropriate for the Civic Center.*

(15)Urban design elements of form and character should be carefully considered; such elements include, but are not limited to: richness/interest of public areas through the provision of storefronts, window displays, landscaping, and artwork; color, texture and quality of structural materials; enclosure of public spaces; variations in scale; squares, plazas and/or "vest pocket parks" where appropriate; continuity of experience, visual activity and interest; articulation and highlighting of important visual features; preservation/enhancement of important views and vistas; The *style and color of the pavers is complimentary to the Civic Center*.

Because of the conformance to the above standards for development in the PC district, the PDD is pleased to support the proposed changes to the Coleman A. Young Municipal Center.

Respectfully Submitted,

Neveris Me

Gregory F. Moots, Lead Planner Office of Zoning Innovation

CC: Karen Gage Antoine Bryant, Director

DEMOLITION NOTES

- 1. REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF DEBRIS FROM THE SITE AND DISPOSAL IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. EXCEPT AS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND PERMISSIONS AS NECESSARY FOR DEMOLITION AND DISPOSAL.
- 3. THE EDGE OF EXISTING PAVEMENT SHALL BE CLEANED OF EARTH AND OTHER FOREIGN MATERIAL BEFORE ADJACENT POURS ARE PLACED.
- 4. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES INCLUDING FLAGPOLE, SIGNS AND POSTS SCHEDULED TO REMAIN, AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- 5. ALL UNDERGROUND UTILITIES NOT INDICATED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
- 6. HAND DIGGING IS REQUIRED TO CONFIRM DEPTH OF UNDERGROUND STRUCTURE PRIOR TO THE START OF DEMOLITION. ALL CARE SHALL BE TAKEN TO AVOID CONTACT WITH UNDERGROUND STRUCTURE DURING THE CONSTUCTION PROCESS.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PRIVATE PROPERTY (INCLUDING BUILDINGS AND FOUNDATIONS) THROUGHOUT CONSTRUCTION AND SHALL MAINTAIN SAFE PEDESTRIAN ACCESS AT ALL TIMES.
- 8. LIMIT STAGING AND STORAGE AREAS TO THOSE LIMITED TO THAT SHOWN ON THE DEMOLOTION AND LAYOUT PLANS.
- 9. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR ADJACENT PROPERTIES, BUILDING TENANTS, AND EMERGENCY VEHICLES.
- 10. EQUIPMENT SHALL NOT CAUSE DAMAGE TO EXISTING ADJACENT PROPERTIES, BUILDINGS, AND OTHER IMPROVEMENTS. CEASE REMOVAL ACTIVITIES IMMEDIATELY UPON NOTIFICATION OR OBSERVATION OF COLLATERAL DAMAGE.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT HIS COST, IMPROVEMENTS BEYOND THE PRESCRIBED WORK ZONE WHICH ARE DAMAGED BY HIS ACTIVITIES.
- 12. THE CONTRACTOR SHALL PREVENT THE SPREAD OF DEBRIS BEYOND THE IMMEDIATE WORK AREA.
- 13. BURNING OF DEBRIS IS NOT ALLOWED.

SOIL EROSION AND SEDIMENTATION CONTROL (SESC) NOTES

- 1. ALL SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WAYNE COUNTY DEPARTMENT OF ENVIRONMENT, LAND RESOURCE MANAGEMENT DIVISION.
- 2. ANY DIRT AND ACCUMULATED SEDIMENT ON SIDEWALKS AND STREETS IN THE VICINITY OF THE PROJECT SHALL BE SWEPT CLEAN AT LEAST TWICE DAILY WITH A VACUUM TYPE PICKUP BROOM OR HAND SWEPT. ALL MUD, DIRT AND DEBRIS TRACKED OR SPILLED ONTO THE EXISTING ROADS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- CLEAN ALL ACCUMULATED SEDIMENT FROM CATCH BASINS, SEWERS AND PAVEMENT 3. AREAS AS REQUIRED FOLLOWING COMPLETION OF CONSTRUCTION.
- 4. ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) DEVICES SHALL BE INSTALLED PRIOR TO CONTRACTOR BEGINNING ANY WORK. ALL SESC DEVICES SHALL BE MAINTAINED IN AN EFFECTIVE, FUNCTIONING CONDITION AT ALL TIMES DURING THE COURSE OF THE WORK. ALL TEMPORARY SESC DEVICES SHALL BE REMOVED AND THE AREA RESTORED AFTER THE PERMANENT SESC MEASURES ARE INSTALLED AND FUNCTIONING.
- 5. SHOULD THE SOIL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS OR THE DUST CONTROL REQUIREMENTS BE NEGLECTED, THE OWNER CAN REQUIRE THE CONTRACTOR TO CEASE ALL CONSTRUCTION OPERATIONS UNTIL THE REQUIREMENTS ARE SATISFACTORILY MET.
- SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH PART 91 OF 6. ACT 451 OF PA 1994.
- 7. ALL SOIL EROSION CONTROL MEASURES SHALL BE CHECKED A MINIMUM OF ONCE PER WEEK AND WITHIN A MINIMUM OF 24 HOURS AFTER EVERY RAINFALL. ANY SOIL EROSION CONTROL MEASURES DAMAGED OR RENDERED INEFFECTIVE SHALL BE IMMEDIATELY REPAIRED OR REMOVED AND REPLACED AT NO ADDITIONAL COST.







4444 Second Avenue Detroit, Michigan : 48201 313.974.7602 www.livinglabdetroit.com

project:

CAYMC **Memorial Plaza**

location:

Detroit, Michigan

Demolition

Detroit-Wayne Joint Building Authority 2 Woodward Avenue Detroit, MI 48226

date:

PRODUCT INFORMATION: MANUFACTURER: UNILOCK MODEL: ARTLINE FINISH: UMBRIANO FINISH COLOR: WINTER MARVEL PATTERN: SEE TYPICAL PATTERN IN ASSOCIATED DETAIL



ARTLINE PAVER DETAIL 1 NOT TO SCALE





- 1 METAL EDGE RESTRAINT
- (2) GALVANIZED SPIKE 10"
- (3) JOINT SAND, COLOR SAMPLES TO BE PROVIDED TO LANDSCAPE ARCHITECT FOR FINAL SELECTION. ASTM NO. 8
- (4) ARTLINE PAVERS (SEE PRODUCT INFO)
- (5) 1" SAND SETTING BED ASTM NO. 8
- 6 6" PERMEABLE BASE AGGREGATE OPEN GRADED, CRUSHED, ANGULAR STONE. ASTM NO. 57
- (7) NON-WOVEN GEOTEXTILE MATERIAL
- (8) UNDISTURBED SUBGRADE.
- 1 EXISTING FLAGPOLE FOUNDATION
- 2 6" 21AA CRUSHED STONE BASE COMPACT TO 98% MOD. PROCTOR
- (3) COMPACTED SUBGRADE TO 95%
- (4) CONCRETE BAND WITH MED. BROOM FINISH AND (2) #4 BARS CONT.
- 5 ARTLINE PAVERS
- 6) ½" EXP. JOINT
- (7) SKIM COAT TOP OF FLAGPOLE FOUNDATION TO MATCH MED. BROOM FINISH OF CONCRETE BAND
- 24" 18" 6 -(4)



BRONZE SEAL INSTALLATION NOT TO SCALE

- (1) EXISTING FLAGPOLE FOUNDATION W/ SKIM COAT
- 2 CONCRETE BAND
- (3) PRECAST PAVERS
- (4) 18" ROUND BRONZE MILITARY SEAL (7 TOTAL) WITH BEVEL EDGE, BLIND MOUNT
- 5 EPOXY GROUT MOUNTING STUD INTO PRE-DRILLED HOLES
- 6 SKIM COAT TOP OF FLAGPOLE FOUNDATION TO MATCH MED. BROOM FINISH OF CONCRETE BAND

MANUFACTURER: INTERNATIONAL BRONZE Phone: 800-227-8752 Fax: 516-877-9101 sales@internationalbronze.net

NOTE: SHOP DRAWINGS SUBMITTAL & APPROVAL REQUIRED







ARTLINE PAVER INSTALLATION PATTERN 〔2 ─)

NOT TO SCALE



SECTION 02050 - SITE DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

	A. Attention is directed to Bidding and Contract Requirements of this Section.	s, General and Supplemental Requiremen	ts, which are hereby made a par
.02	WORK INCLUDED:		

A.Provide all labor, materials, necessary equipment and services to complete the site demolition work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS"

B. Related work specified elsewhere

1. Section 02270: Soil Erosion and Sedimentation Control

1.03 QUALITY ASSURANCE:

A. Contractor Qualifications: Minimum of five years experience in demolition of comparable nature.

B. Requirements of All Applicable Regulatory Agencies

1. All applicable Building Codes and other Public Agencies having jurisdiction upon the work.

1.04 SUBMITTALS:

A.Permits and notices authorizing building demolition

B. Certificates of severance of utility services.

C.Permit of transport and disposal of debris

D.Demolition procedures and operational sequence for review and acceptance by Landscape Architect.

1.05 JOB CONDITIONS:

A. Protection:

1. Erect barriers, fences, guard rails, enclosures and shoring to protect personnel, structures and utilities remaining intact.

2. Protect designated trees and plants from damages.

3. Use all means necessary to protect existing objects and vegetation designated to remain, and, in the event of damage, immediately make all repairs, replacements and dressing to damaged plants necessary to the approval of the Architect at no additional cost to the Owner.

B. Maintaining Traffic

1. Ensure minimum interference with roads, streets, driveways, sidewalks and adjacent facilities.

2. Do not close or obstruct streets and sidewalks, and keep in operation the south end of the concrete sidewalk and concession as called for in Phase Two.

3. If required by governing authorities, provide alternate routes around closed or obstructed traffic ways

C.Dust Control:

1. Use all means necessary for preventing dust from demolition operations from being nuisance to adjacent property owners. Methods used for dust control are subject to approval by the Architect prior to use.

D.Burning

1. On-site burning will not be permitted.

PART 2 - PRODUCTS "NOT APPLICABLE"

PART 3 - EXECUTION

3.01 INSPECTION:

A. Verify that structures to be demolished are discontinued in use and ready for removal.

B. Do not commence work until all conditions and requirements of all applicable public agencies are complied with.

3.02 PREPARATION:

A. Arrange for and verify termination of utility services to include removing meters and capping lines.

B. Notification:

1. Notify the Owner at least three full working days prior to commencing the work of this Section.

3.03 CLARIFICATION:

A. The drawings do not purport to show all objects existing on the site.

B.Before commencing the work of the Section, verify with the Owner all objects to be removed and all objects to be preserved.

3.04 SCHEDULING:

A. Schedule all work in a careful manner with all necessary consideration for the Store Owners, public and the Owner.

B. Avoid interference with the use of, and passage to and from, adjacent facilities. 05 DISCONNECTION OF LITH ITIES.

A.Before starting site operations, disconnect or arrange for the disconnection of all utility services designated to be removed, performing all such work in accordance with the requirements of the utility company or agency involved

3.06 PROTECTION OF UTILITIES:

A.Preserve in operating condition all active utilities adjacent to or traversing the site and/or designated to remain.

3.07 DEMOLITION OF SITE STRUCTURES

A.Demolish all site structure items designated to be removed or which are required to be removed to perform the work.

3.08 OTHER DEMOLITION (IF APPLICABLE);

A.Pull out any existing utility lines designated for abandonment, irrigation, electrical lines, pull boxes and splice boxes, man holes and catch basins to be removed and all other objects designated to be removed or interfering with the work. Contact the utility company or agency involved for their requirements for performing this work. All removed equipment and materials shall be removed from the work area the same day as removed.

B.Removal of Debris: Remove all debris from the site and leave the site in a neat, orderly condition to the full acceptance of the Landscape Architect, or the Owner. No debris shall be left on the site overnight

END OF SECTION 02050

SECTION 02934: SODDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

A. Attention is directed to Bidding and Contract Requirements, and to General and Supplemental Conditions, hereby made a part of this

1.02 DESCRIPTION OF WORK

A.Extent of sodded lawns is shown on drawings and by provisions of this Section. B. Types of work required include the following

1. Soil preparation

2. Sodding lawns

C.Related work specified elsewhere

1. Section 02921: Topsoil

1.03 QUALITY ASSURANCE

A.Sod: Comply with American Sod Producers Association (ASPA) classes of sod materials 1.04 SUBMITTALS:

A. Submit sod growers certification of grass species including special shade grown species. Identify source location.

B. Manufacturer's certification of fertilizer.

1.05 DELIVERY, STORAGE AND HANDLING

A.Cut, deliver and install sod within 24 hour period.

B. Do not harvest or transport sod when moisture content may adversely affect sod survival.

C.Protect sod from sun, wind and dehydration prior to installation. Do not tear, stretch or drop sod during handling and installation. 1.06 PROJECT CONDITIONS:

A. Work notifications: Notify Landscape Architect at least 7 working days prior to start of sodding operation.

B. Protect existing utilities, paving and other facilities from damage caused by sodding operations

C.Perform sodding work only after planting and other work affecting ground surface has been completed.

D.Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.

E. Provide hose and lawn watering equipment as required

F. An irrigation system will be installed prior to sodding. Locate, protect and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at this Contractor's expense.

1.07 WARRANTY

A.Refer to Section 02970

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Sod: An "approved" nursery grown blend of improved Kentucky Blue-grass varieties.

1. Sod containing Common Bermudagrass, Quackgrass, Johnsongrass, Poison Ivy, Nutsedge, Nimblewill, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, Perennial Sorrel or Bramegrass weeds will not be acceptable.

B. Provide well-rooted, healthy sod, free of diseases, nematodes and soil borne insects. Provide sod uniform in color, leaf texture. density and free of weeds, undesirable grasses, stones, roots, thatch and extraneous material; viable and capable of growth and development when planted.

C.Furnish sod machine stripped in square pads or strips not more than 3'-0" long; uniformly 1" to 1-1/2" thick with clean cut edges. Mow

sod before stripping D.Fertilizer: Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional

1. Type A: Starter fertilizer containing 20% nitrogen, 12% phosphoric acid and 8% potash by weight or similar approved composition. E. Ground limestone: Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100

nesh sieve and 90% will pass through a 20 mesh sieve. Use if determined by soil tests to be necessary.

F. Stakes: Softwood, 3/4" x 8" long. G.Water: Free of substance harmful to sod growth. Hoses or other methods of transportation furnished by Contractor.

H. Topsoil: Refer to Section 02921

PART 3 - EXECUTION

3.01 EXAMINATION:

3.03 INSTALLATION:

3.05 ACCEPTANCE:

3.06 CLEANING:

END OF SECTION 02934

SECTION 02921 - TOPSOIL

1.01 RELATED DOCUMENTS

of this Sectior

1.02 DESCRIPTION OF WORK:

the specifications herein.

1. Section 02934: Sodding

borne by the Contractor.

3505 Conestoga Dri

Fort Wavne, IN 46808

Chemical analysis indicating

2. Physical properities including

b. particle size distribution

A. Submit two certified copies of soil tests for approval prior to initiating work.

A.Known underground and surface utility lines are indicated on the civil drawings.

D. Promptly notify the Landscape Architect of unexpected sub-surface conditions.

97-100

15-35

100

95-100

90-100

65-100

Percentages shall be based on dry weight of the sample

0-50

Provide uniform levels and slopes between new elevations and existing grades.

B. Protect existing trees, plants, lawns and other features designated to remain as part of the landscaping work.

Percent Passing

(260) 483-4759

algreatlakes.com

B. Required Topsoil Tests

a. organic content

1.04 SUBMITTALS:

1.05 PROJECT CONDITIONS:

PART 2 - PRODUCTS

C.Gradation of Topsoil:

Sieve Designation

No. 10 U.S.S. mesh sieve 95-100

1 inch screen

No. 140 U.S.S. No. 4 (4.76mm)

No. 10 (2.00mm)

No. 18 (1.00mm)

No. 35 (500 micron)

No. 60 (250 micron)

No. 140 (105 micron)

No. 270 (53 micron)

¹/₄ inch screen

PART 3 - EXECUTION

3.01 EXAMINATION:

3.02 FINISH GRADING

2.01 MATERIALS:

1. Recommended testing laboratory:

A & L Great Lakes Laboratories, Inc.

1.03 QUALITY ASSURANCE:

C.Related Work Specified Elsewhere:

PART 1 - GENERAL

A.Examine finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected. 3.02 PREPARATION:

F. Dampen dry soil prior to sodding.

sidewalks, drains and seeded areas.

B Do not lay dormant sod or install sod on saturated or frozen soil

E. Water sod thoroughly with a fine spray immediately after laying.

equipment. Repair damage resulting from sodding operations

F. Roll with light lawn roller to ensure contact with sub-grade.

subsequent rows parallel to and lightly against previously installed row

A.Landscape Architect will review during punch list walkthrough with contractor.

A.Extent of Topsoil Work is shown on drawings and by provisions of this section.

A.Limit preparation to areas which will be immediately sodded. Spread topsoil, fine grade. B. Treat lawn areas with "Round Up", by Monsanto, per label directions as required to kill existing vegetation prior to sodding.

C.Loosen topsoil of lawn areas to minimum depth of 3". Remove stones over 1" in any dimension and sticks, roots, rubbish and extraneous matter.

D. Grade lawn areas to smooth, free draining and even surface with a loose, uniformly fine texture. Roll and rake; remove ridges and fill depressions as required to drain.

areas inaccessible to power equipment with hand tools and incorporated it into soil.

E. Apply type A fertilizer at the rate equal to 1.0 lb. of actual nitrogen per 1,000 sq. ft. (43 lbs./acre). Apply fertilizer by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with the soil to depth of 1" by discing or other approved methods. Fertilize

G.Restore prepared area to specified condition if eroded, settled or otherwise disturbed after fine grading and prior to sodding.

A.Lay sod to form a solid mass with tightly-fitted joints. Butt ends and sides of sod strips. Do not overlay edges. Stagger strips to offset joints in adjacent course. Remove excess sod to avoid smothering of adjacent grass. Provide sod pad top flush with adjacent curbs,

C.Install initial row of sod in a straight line, beginning at bottom of slopes, perpendicular to direction of the sloped area. Place

D.Peg sod on slopes greater than 3 to 1 to prevent slippage at a rate of 2 stakes per yd. of sod.

G.Sod indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.

A.Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris and

A. Attention is directed to Bidding and Contract Requirements, General and Supplemental Requirements, which are hereby made a part

or from off-site sources free of herbicides and conforming to

A. Testing of supplied and/or stockpiled topsoil shall be performed by a qualified independent testing laboratory normally engaged in

agronomic soil testing. Each soil sample tested shall be a composite of five to seven subsamples taken the full depth of proposed source. Discard upper 6 inches of stockpiled topsoil before collecting samples. All costs for collecting and testing of topsoil shall be

a. fertility: pH, nitrate nitrogen, ammonia nitrogen, phosphate phosphorous, potassium, calcium, magnesium. b. suitability: total salinity, boron, sodium, potassium, calcium, magnesium, chloride, sulfate

C.Promptly repair damage to adjacent facilities caused by topsoil operations. Cost of repair at Contractor's expense.

A.Provide topsoil as required to complete job. Topsoil must meet testing criteria results specified. All processing, cleaning and preparation of this topsoil to render it acceptable for use is the responsibility of this contractor

B. Supplied and/or stockpiled topsoil, shall be fertile, friable sandy, sandy loam soil without admixture of subsoil and free of stones, stumps, root, trash, debris, and other materials deleterious to plant growth. Topsoil shall not frozen or muddy. Ph of existing or supplied soil to range between 6.3 and not more than 7.0. Topsoil that does not meet this pH range shall be amended with approved pH adjusters. Topsoil shall contain not less than 3% and not greater than 10% organic matter determined by loss through ignition.

A.Examine rough grades and installation conditions. Do not start topsoil work until unsatisfactory conditions are corrected.

A.Perform topsoiling within contract limits, including adjacent transition areas, to new elevations, levels, profiles, and contours indicated

B. Grade surfaces to assure areas drain away from building structures and to prevent ponding and pockets of surface drainage.

C.Lawn Areas: Supply and spread topsoil to a minimum uniform depth of 4" or as noted. Remove clumps larger than 1" in diameter.

D. Grade lawn areas to a smooth, free draining even surface with a loose, moderately coarse texture ready to accept seed or sod. E. Provide earth crowning where indicated on drawings

F. Crowning/mounding to be free flowing in shape and design, as indicated, and to blend into existing grades gradually so that toe of slope is not readily visible. Landscape Architect to verify final contouring before planting

G.Regardless of finish grading elevations indicated, it is intended that grading be such that proper drainage of surface water will occur and that no low areas are created to allow ponding. Contractor to consult with Owner or Landscape Architect regarding minor variations in grade elevations before rough grading is completed.

3.03 CLEANING:

A.Upon completion of topsoiling operations, clean areas within contract limits, remove tools and equipment. Site shall be clear, clean, free of debris and suitable for site work operations.

END OF SECTION 02921 SECTION 02810 - IRRIGATION SYSTEM

1.02 DESCRIPTION OF WORK:

1.01 RELATED DOCUMENTS

PART 1 - GENERAL

A. Attention is directed to Bidding and Contract Requirements and General and Supplemental Requirements, which are hereby made a part of this Section

A.Extent of irrigation system work includes modifications of sprinklers, valves, piping, fittings, and wiring, etc. of existing irrigation

B. The sprinkler system shall be constructed using sprinklers, valves, piping, fittings, controllers, wiring, etc., of the manufacturer of the existing system. The system shall be constructed to grades and conform to areas and locations as shown on the drawings.

C.Unless otherwise specified or indicated on the drawings, the construction of the sprinkler system shall include the furnishing, installing and testing of all mains, laterals, risers and fittings, sprinkler heads, guick coupling valves, control valves, and other necessary specialties and the removal and/or restoration of existing improvements, excavating and backfill, and all other work in accordance with plans and specifications as required for a complete system

D. Related work specified elsewhere: 1. Section 02934: Sodding

1.03 QUALITY ASSURANCE:

A. The Contractor shall maintain continuously a competent superintendent, satisfactory to the Owner, with authority to act for him in all matters pertaining to the work. B. The Contractor shall coordinate his work with the other trades.

C. The Contractor shall confine his operations to the area to be improved and to the areas allotted him by the Owner's representative for

material and equipment storage D. The Contractor shall have a minimum of 5 years experience installing irrigation systems of comparable size and complexity.

1.04 SUBMITTALS:

A. Submit specific product information including make and model number to the irrigation consultant or landscape architect on backflow devices, valves, sprinklers, controller, wire connectors and wire, pipe and fittings, clamps. pumps (when specified) to be used on the project prior to purchasing materials. Submittals are subject to the irrigation consultant's approval.

B. Upon irrigation system acceptance, submit written operating and maintenance instructions. Provide format and contents as directed by the Landscape Architect. Include instruction sheets and parts lists for all operating equipment C.Provide a reproducible irrigation system record drawing showing sprinkler heads, valves, field splices, drains and pipelines including

quick coupler and automatic valves. Drawing is to be given to the owner or the owner's representative at the final irrigation system walkthrough 1. Legibly mark drawings to record actual construction

2. Indicate horizontal locations, with a minimum of two dimensions to permanent surface improvements.

3. Identify field changes of dimension and detail and changes made by Change Order

1.05 DELIVERY, STORAGE AND HANDLING:

A.Deliver irrigation system components in manufacturer's original undamaged and unopened containers with labels intact and legible. B. Deliver plastic piping in bundles, packaged to provide adequate protection of pipe ends, both threaded or plain.

C. Store and handle materials to prevent damage and deterioration

D. Provide secure, locked storage for valves, sprinkler heads and similar components that cannot be immediately replaced, to prevent installation delays.

1.06 PROJECT CONDITIONS

A. The bidder acknowledges that he has examined the site, plans and specifications, and the submission of a proposal shall be considered evidence that examination has been made.

specifications and the site. Failure to do so prior to the installing of equipment and resulting in replacing and/or relocation equipment shall be done at the Contractor's expense

C. The exact location of all existing utilities and structures and underground utilities are not indicated on the drawings; their locations shall be determined by the Contractor, and he shall conduct his work so as to prevent interruption of service or damage to them. The Contractor shall protect existing structures and utility services and be responsible for their replacement if damaged by him.

1.07 CODES AND STANDARDS:

A. The entire installation shall fully comply with all local and state laws and ordinances and with all established codes applicable thereto. B. Any permits for the installation of construction of the work included under this contract which are required by any of the legally

constituted authorities having jurisdiction, shall be obtained and paid for by the Contractor, each at the proper time. He shall also arrange for and pay all costs in connection with any inspections and examinations required by these authorities

C.In all cases where inspection of the sprinkler system work is required and/or where portions of the work are specified to be performed under the direction and/or inspection of the Owner's authorized representative, the Contractor shall notify the Owner's authorized representative at least 24 hours in advance of the time and such inspection and/or direction is required.

D. Any necessary re-excavation or alterations to the system needed because of failure of the Contractor to have the required inspections shall be performed at the Contractor's own expense 1.08 SERVICE AND MAINTENANCI

A. The Contractor shall service the system at the request during the guarantee period and shall be paid for work performed which is not covered by the guarantee. Contractor shall winterize the system the first year as part of this contract, and will provide written instructions to the Owner for future service and maintenance.

B. Return to the site during the subsequent spring season and demonstrate to the Owner the proper procedures for the system start-up, operation and maintenance

C.After completion, testing and acceptance of the system, the Contractor will instruct the Owner's personnel in the operation and maintenance of the system

1.09 OWNER'S ACCEPTANCE: A. The completion of the contract will be accepted and Notice of Completion recorded only when the entire contract is completed to the

satisfaction of the Owner's authorized representativ B. Within ten (10) days of the Contractor's notification that the installation is complete, the Owner, or his Representative will inspect the installation and if a final acceptance is not given, will prepare a "Punch List" which, upon completion by the Contractor, will signify acceptance by the Owner

C.Final payment will not be made without the receipt of an accurate as-built drawing by the Landscape Architect. 1.10 WARRANTY:

A.It shall be the Contractor's responsibility to ensure and guarantee satisfactory operation of the entire system and the workmanship and restoration of the area. The entire system shall be guaranteed to be complete and perfect in every detail for a period of one year from the date of its acceptance and he hereby agrees to repair or replace any such defects occurring within that year, free of expense to the Owner. Minor maintenance and adjustment shall be by Owner.

B Contractor to guarantee that all trenches and other disturbed areas to be free from heaving or settling more than one-quarter (1/4"). Should it become necessary to adjust the grade, regrade the trench and reseed. This no-settlement clause shall extend over the entire period of guarantee of the job.

PART 2 - PRODUCTS 2.01 MATERIALS

A. General:

1. All materials to be incorporated in this system shall be new and without flaws or defect and quality and performance as specified. All material overages at the completion of the installation are the property of the contractor and are to be removed from the site.

2. The Contractor shall use materials as specified. Material other than specified will be permitted only after written application by the Contractor and written approval by the Landscape Architect. Substitutions will only be allowed when in the best interest of the

B. Pipe and Fittings:

1. Provide pipe continuously and permanently marked with manufacturer's name or trademark, size schedule and type of pipe working pressure at 73 degrees F. and National Sanitation Foundation (NSF) approval.

2. All mainline piping and underground piping under continuous pressure plus all pipe 2-1/2" or larger whether a lateral or mainline, shall be rigid, unplasticized polyvinyl chloride pipe extruded from virgin parent material, ASTM D 2241. Provide pipe homogeneous throughout and free from visible cracks, holes, foreign materials, blisters wrinkles and dents.

3. PVC Pipe 2" diameter or larger shall be SDR 26. Class 160 unless stated otherwise on the drawing

4. PVC Pipe 3" and smaller shall be solvent weld type.

5. PVC pipe fittings for sizes 3" and smaller shall be ASTM D2466 schedule 40 PVC molded fittings suitable for solvent weld. All threaded PVC pipe fittings shall be ASTM D2467. Schedule 80 PVC

6. Saddle and cross fittings are not permitted. Use male adapters for plastic to metal connections. Hand tighten male adapters plus

one turn with a strap wrenc 7. All pipe downstream from zone valves, sized 2" and smaller, shall be flexible non-toxic polyethylene pipe. Polyethylene pipe shall

be ASTM rated at 80 PSI minimum working pressure, and in conformance with ASTM 2239, NSF approved. Pipe larger than 2" size shall be PSI as specified for mainlines. PE 2306 fittings for polyethylene pipe shall be ASTM D2609 insert type fittings. Saddle and cross fittings not permitted. All joints shall be secured with stainless steel band and screw clamps.

8. Primer and solvent for use with PVC pipe to conform to ASTM D2564. Primer to be purple in color. Solvent to be appropriate for pipe and fitting type and weather conditions.

9. All above grade pipe shall be type 'M' copper. Fittings shall be cast brass or wrought copper. B. Control System

1. The existing control system shall be used. D. Control Wire and Connections

single strand soft annealed co

2. 24 volt control wires to be red in color. Common wire to be white in color. 3. Low voltage wire connectors to be made using 3M DBY connectors.

E Sprinkler Heads and Valves:

1. Sprinkler equipment shall be selected to ensure there is no overspray to pedestrian areas. Include head type and valve information on the as-built drawings.

E. Clamps

G.Valve Boxes

use extension as necessary. Manufacturer to be Ametek.

H. Accessories: 1. Drainage fill: 1/2" x 3/4" washed pea gravel.

PART 3 - EXECUTION

3.01 EXAMINATION:

3.02 PREPARATION

material is encountered

open overnight.

3.04 UNDERGROUND PIPE

diameter and larger.

3 05 SPRINKLER INSTALLATION

3.06 VALVE INSTALLATION:

3.08 ELECTRICAL INSTALLATION:

3.09 FLUSHING AND TESTING:

the system.

3.10 CLEAN UP

END OF SECTION 02810

3.07 DRAINS

installation is not in progress.

contraction

1. Control wire shall be Type UF, UL approved, for direct burial and shall be Size 14 or larger, as noted on the plans. Conductor to be

4.120 volt or heavier splices made underground to be made using 3M DBY connectors

1. Clamps to be stainless steel, worm gear hose clamps with stainless steel screw.

1 Valve Access Boxes to be tabered enclosure of rigid plastic material comprised of fibrous components chemically inert and unaffected by moisture corrosion and temperature changes. Provide lid of same material black in color. Boxes to be minimum 10' wide and of minimum size required to permit access to the valve. Side walls to extend at least 2" below the bottom of valve body;

2. Fill shall be clean soil free of stones larger than 2" diameter, foreign matter, organic material and debris 3. Provide imported fill material as required to complete the work. Obtain rights and pay all costs for imported materials 4. Suitable excavated materials removed to accommodate the irrigation system work may be used as fill material subject to the Landscape Architect's review and acceptance.

A.Examine final grades and installation conditions. Do not start irrigation system work until unsatisfactory conditions are corrected.

A.Layout and stake the location of each pipe run and all sprinkler heads and sprinkler valves. Obtain Landscape Architect's acceptance of layout prior to excavating, unless specifically waived by the Landscape Architect.

3.03 EXCAVATING AND BACKFILLING: A.Excavating shall be considered unclassified and shall include all materials encountered, except materials that cannot be excavated by normal mechanical means. Excavate trenches of sufficient depth and width to permit proper handling and installation of pipe and

fittings. Excavate to depths required to provide 2" depth of earth fill or sand bedding for piping when rock or other unsuitable bearing

B. Pipe pulling will be allowed for lateral pipe only, provided soil moisture content and other conditions are suitable to allow for full depth of bury with a minimum of stretching and scraping of the pipe. Landscape Architect reserves the right to determine suitability or conditions. If the pulling method is used, the pipe "plow" shall be a vibratory type.

C.Fill to match adjacent grade elevation with approved earth fill material. Place and compact fill in layers not greater than 8" depth. C.Provide approved fine grained earth fill or sand to point 4" above the top of pipe, where soil conditions are rocky or otherwise

D.Fill to within 6" of final grade with approved excavated or borrow fill materials free of lumps or rocks larger than 2" in any dimension.

E. The top 6" of backfill shall be topsoil, free of rocks, subsoil or trash. Any special soil mixture shall be replaced to the original condition it was prior to irrigation installatio

G.Except as indicated, install irrigation mains with a minimum cover of 18" based on finished grades. Install irrigation laterals with a minimum cover of 14" based on finished grades.

H.Excavate trenches and install piping and backfill during the same working day. Do not leave open trenches or partially filled trenches

A.Install plastic pipe in accordance with manufacturer's installation instructions as ASTM D2274. Provide for thermal expansion and

B.Saw cut plastic pipe. Use a square-in-sawing vice, to ensure a square cut. Remove burrs and shavings at cut ends prior to

C.Make PVC plastic to plastic joints with solvent weld joints. Use only primer and solvent recommended by the pipe manufacture Install plastic fittings in accordance with pipe manufacturer's instructions and ASTM D2855. Contractor shall make arrangements with pipe manufacturer for all necessary field assistance.

D. Allow joints to set at least 24 hours before pressure is applied to the system.

E. Uncoil poly-pipe and insert fitting full depth. Secure poly-pipe to insert fittings with stainless steel clamps. Double clamp pipe 1-1/2"

F. Maintain pipe interiors free of dirt and debris. Close open ends of pipe by capping, taping or other acceptable method when pipe

G.All mainline and continuously pressurized pipe is to be installed using open trenches. Lateral pipe may be installed by "Plowing" if soil conditions permit, and soils do not contain gravel, rock, construction debris or other potential damaging material. H.Install thrust blocks on the mainline pipe work in accordance with pipe manufacturer's written instructions.

A.Install fittings and sprinkler heads in accordance with manufacturer's instructions, except as otherwise indicated.

B. Set sprinkler heads perpendicular to finished grades, except as otherwise indicated, and position to prevent contact with grounds maintenance equipment. Install sprinklers 6" off walks and curbs. Locate sprinkler heads to assure proper coverage of indicated sprinkler heads to assure proper coverage if indicated areas. Do not exceed sprinkler head spacing distances indicated.

C.Provide pop-up spray heads and rotary sprinklers 3/" IPS or smaller with two elbow poly swing joint riser as shown on drawings. D. Provide all quick coupling valves with three elbow swing joint, schedule 40 galvanized steel, as detailed on drawings

A.Electric valve installation shall be as indicated on drawings. All electrical and manual valves shall be enclosed in a minimum ten (10) inch width valve box. Add extensions as required to prevent soil settlement around the valve. Set box flush with finish grade and

aligned with adjacent boxes and/or adjoining sitework. B.Install valve access boxes on a suitable base of gravel to provide a level foundation at proper grade and to provide drainage of the access box. Support box with block or notch box to protect pipe under box

A.Although it is intended the system will be winterized using compressed air. Contractor to install manual drain valves at low points in the system to assist in winterization and service.

A.Install electrical control wire in the piping trenches wherever possible. Place wire in trench adjacent to or underneath mainlines but not above. Install wire with slack to allow for thermal expansion and contraction. Expansion joints in wire may be provided at 200 foot intervals by making 5-6 turns of the wire around a piece of 1/2" pipe instead of slack. Where necessary to run wire in a separate trench, provide a minimum cover of 24'

B.Provide minimum 24" slack at remote control valves and at all wire splices to allow raising the valve bonnet or splice to the surface without disconnecting the wires for repair

C.Connect each remote control valve to one station of a controller except as otherwise indicated. Where there is to be more than one valve per station, make required splice at the control timer.

D. Make splices only at valves, unless otherwise unavoidable. Locate all field splices on the as-built drawing.

A.After all new sprinkler piping and risers are in place and connected for a given section and all necessary division work has be completed, and prior to the installation of sprinkler heads, all control valves shall be opened and a full head of water used to flush out B. Sprinkler main shall be tested under normal water pressure for a period of 12 hours. If leaks occur, repair and repeat the test. Give Landscape Architect 24 hours notice prior to testing.

C. Testing of the system shall be performed after completion of each section or completion of the entire installation; and any necessary repairs shall be made, at the Contractor's expense, to put the system in good working order before final payment by the Owner. D. Adjustment of the sprinkler heads and automatic equipment will be done by the contractor upon completion of installation to provide optimum performance. Minor adjustments during the guarantee period will be made by the owner.

A.Contractor shall keep the premises free from rubbish and debris at all times and shall arrange his material storage so as not to interfere with the Owner's operation of the job. Contractor shall remove and legally dispose of all unused material, rubbish and debris, including unsuitable excavated material from the site.

4444 Second Avenue Detroit, Michigan : 48201 313.974.7602 www.livinglabdetroit.com

project:

CAYMC Memorial Plaza

location:

Detroit, Michigan

Sheet Specifications

client:

Detroit-Wayne Joint Building Authority 2 Woodward Avenue Detroit, MI 48226

issue + revision:

date

project information:

project manager: CRP drawn by: CRP date: <u>3/7/2022</u> project #: JBA002.1

scale: NTS

sheet number:

AL
NTS INCLUDED:
p Drawings, Product Data and Samples required by the Contract Documents.
EQUIREMENTS:
ole sections of the specification.
of the Contract.
in the construction schedule, or in a separate coordinated schedule, the dates for submission and the dates that reviewed ings, Product Data and Samples will be needed.
/INGS:
hall be presented in a clear and thorough manner.
hall be identified by reference to sheet, detail, and schedule numbers shown on Contract Drawings.
ATA:
1
nark each copy to identify pertinent products of models.
rformance characteristics and capacities.
nensions and clearances required.
ring or piping diagrams and controls.
er's standard schematic drawings and diagrams:
rawings and diagrams to delete information which is not applicable to the work.
ent standard information to provide information specifically applicable to the work.
ples shall be of sufficient size and quantity to clearly illustrate:
al characteristics of the product, with integrally related parts and attachment devices.
e of color, texture and pattern.
)R RESPONSIBILITIES:
op Drawings, Product Data and Samples prior to submission.
and verify:
asurements
istruction criteria
numbers and similar data.
ance with specifications
each submittal with requirements of the work and of the Contract Documents.
Owner's Representative in writing, at time of submission, of any deviations in the submittals from requirements of the ocuments.
brication or work which requires submittals until return of submittals with Owner's Representative or Architect's approval.
I REQUIREMENTS:
nittals promptly in accordance with approved schedule and in such sequence as to cause no delay in the work or in the / other contractor.
submittals required:
awings: Submit one reproducible transparency and one opaque reproduction to the Owner's Representative.
Data: Submit the number of copies which the Contractor requires, plus two which will be retained by the Owner's ntative.
\therefore Submit the number stated in each specification section.
shall contain:
of submission and the dates of any previous submissions.
ect title and Parcel number.
identification
es of:
actor ler

6. Field dimensions, clearly identified as such.

7. Relation to adjacent or critical features of the work or materials.

- 8. Applicable standards, such as ASTM or Federal Specification numbers.
- 9. Identification of deviations from Contract Documents.
- 10. Identification of revisions on resubmittals.
- 11. An 8" x 3" blank space for Contractor and Owner's Representative/Architect's stamps.
- 12. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the work and of Contract Documents.

1.08 RESUBMISSION REQUIREMENTS:

- A.Make any corrections or changes in the submittals required by Owner's Representative and resubmit until approved.
- B. Shop Drawings and Product Data:
- 1. Revise initial drawings or data and resubmit as specified for the initial submittal.
- 2. Indicate any changes which have been made other than those requested by the Owner's Representative.

C.Samples: Submit new samples as required for initial submittal.

- 1.09 DISTRIBUTION:
- A.Distribute reproduction of Shop Drawings and copies of Product Data which carry the Owner's Representative's or Architect's stamp of approval to:
- 1. Job site file
- 2. Record Documents file 3. Other affected contractors
- Subcontractors
- 5. Supplier or Fabricator

B.Distribute samples which carry the Owner's Representative's or Architect's stamp of approval as directed by the Owner's Representative or Architect.

1.10 OWNER'S REPRESENTATIVE OR ARCHITECT DUTIES:

- A.Review submittals with reasonable promptness and in accord with schedule.
- B. Affix stamp and initials or signature and indicate requirements for resubmittal, or approval of submittal.
- C.Return submittals to Contractor for distribution, or for resubmission.

PART 2 - PRODUCTS "NOT APPLICABLE"

PART 3 - EXECUTION "NOT APPLICABLE"

END OF SECTION 01340

SECTION 02516 - PRECAST CONCRETE PAVING

PART 1 - GENERAL 1.01 RELATED DOCUMENTS:

A. Attention is directed to Bidding and Contract Requirements, and to General and Supplemental Conditions, hereby made a part of this Sectior

1.02 WORK INCLUDED:

A.Provide all labor, materials, necessary equipment, and services to complete the Interlocking Paver work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS".

1.03 RELATED WORK SPECIFIED ELSEWHERE:

A. Section 02517: Concrete Sidewalks and Curbs

1.04 QUALITY ASSURANCE:

A.Installer shall be subcontractor with not less than five (5) years of successful experience in the required types of paving application.

B. Sample Installation: Prior to installation of paver work, fabricate sample panel using materials, pattern and joint treatment indicated for project work, including special features for expansion joints and contiguous work. Build panel at the site, as directed, of full thickness and approximately 6' x 6', unless otherwise indicated. Obtain Architect's acceptance of visual qualities of the panel before start of paving work. Retain panel during construction as a standard for judging completed paving work. Do not move or destroy

sample panel until work is completed.

C.Source Quality Control: Provide paving materials from one manufacturer, of uniform texture and color, or uniform blend in variation thereof, for each continuous area and for visually-related areas. D. All pavers shall comply with the quality specifications for solid concrete interlocking paving units as set out in ASTM Specification

1.05 SUBMITTALS:

C936-82

- A.Samples: Sample sets of each type of paving brick required. Include in each set the full range of exposed color and texture desired in the completed work. B. Product Data: Manufacturer's technical data for each manufactured product, including certification that each product complies with
- the specified requirements. Include instructions for handling, storage, installation, protection, and maintenance of each product. 1.06 DELIVERY, STORAGE AND HANDLING:
- A.Deliver materials in manufacturer's original containers, clearly labeled with manufacturer's name and address and product identification.
- B. Store materials in original containers protected from direct contact with the ground and from the elements.
- C.Handle materials to prevent breakage and damage to the paving. D.Protect paving materials during storage and construction against wetting by rain, or ground water and against soilage or intermixture with earth or other type of materials.

PART 2 - PRODUCTS

2.01 MATERIALS AND MANUFACTURERS:

A.Base Course

The base course shall be crushed 21AA natural aggregate compacted to min. 95% of ASTM designation DI557.

B.Pavers

- 1. Precast concrete pavers shall be manufactured by Unilock Michigan, Inc., telephone (800) UNILOCK. 2. Paver Type
- 1. MANUFACTURER: UNILOCK MODEL: ARTLINE
- FINISH: UMBRIANO FINISH COLOR: WINTER MARVEL PATTERN: SEE TYPICAL PATTERN IN ASSOCIATED DETAIL

WEB: WWW.UNILOCK.COM Phone: 1-800-UNILOCK

CONTACT PERSON: KREG HATFIELD

C.Bedding and Jointing Sand

- 1. Bedding and joint sand shall be clean, non-plastic, free from deleterious or foreign matter. The sand shall be natural or manufactured from crushed rock. Limestone screenings or stone dust that do not conform to the grading requirements in Table 1 shall not be used. When concrete pavers are subject to vehicular traffic, the sands shall be as hard as practically available.
- conform to the grading requirements of ASTM C 33 as shown in Table 1.

Table 1 Grading Requirements for Bedding Sand - ASTM C 33



3. The joint sand shall conform to the grading requirements of ASTM C 144 as shown in Table 2 below:

Table 2 Grading for Joint Sand - ASTM C 144

Sieve Size	Natural Sand Percent Passing	Manufactured Sand Percent Passing
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 to 100	95 to 100
No. 16 (1.18 mm)	70 to 100	70 to 100
No. 30 (0.600 mm)	40 to 75	40 to 100
No. 50 (0.300 mm)	10 to 35	20 to 40
No. 100 (0.150 mm)2 to 15	10 to 25

0 to 10

D. Admixtures:

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION AND WORKMANSHIP

No. 200 (0.075 mm)0

A.Subgrade

- 1. Assure subgrade is suitable material for specified paving installation. If not, contractor shall excavate unsuitable material and replace with suitable material.
- 2. Subgrade shall be fine graded, wet and compacted to 95% proctor.
- B. Base Course
- 1. Install base course only after sub-grade has been approved.
- 2. Base course shall be spread in 4" layers to a depth specified on details and compacted to 95% proctor density (ASTM D 1557).
- 3. Allowable local tolerance of 1/4".
- C.Sand Bedding Course

1. Spread sand to a depth of 1 inch and screed level or to grade.

- D.Interlocking Pavers
- 1. Place paver blocks by hand in specified pattern, fitting snug and true against adjacent block. 2. Work paver blocks from centers of paving field out in all directions so equal cut pieces occur from side to side.
- 3. At edges and corners where pavers require cutting, do so by using a wet mason saw with a diamond blade or approved method. Note all cut edges shall be uniform and true to each individual paver and paving field edge. All cuts shall be made on job site. Layout of cuts shall be reviewed and approved by landscape architect prior to setting any pavers.

E. Setting Pavers

- 1. Entire paving fields shall be vibrated to their final level by minimum of three (3) passes of a vibrating plate compactor according to manufacturer's specifications. 2. Note, after first vibration pass, joint sand shall be brushed over the surface of all paver fields and vibrated into joints with minimum
- of two (2) additional passes of the plate vibrator or as needed.
- 3. Surplus material shall be swept from the surface and entire site left clean.
- 4. Do not use units with excessive chips, cracks, voids, discolorations, or other defects which might be visible or cause staining in finished work.
- 5. Set units in patterns shown and with uniform joints as indicated on the drawings.
- 6. Tolerances: Maintain surface plan for finished paving not exceeding a tolerance of 1/8" in 10' when tested with a 10' straight edge. 7. Application and workmanship of all pavers shall be provided as per manufacturer's standard printed specifications, instructions and recommendations
- 8. After cleaning apply sealer per manufacturer's specifications, instructions, and recommendations.

3.02 REPAIR AND CLEANING:

- A.Remove and replace loose, chipped, broken, stained, unmatched or otherwise unsuitable pavers. Install new units to match adjoining units without evidence of replacement.
- B. The contractor shall include in unit price a washing treatment with a mild industrial strength solution aimed at removal of any existing efflorescence. Washing treatment shall be applied with a power spray in the spring following installation of pavers. Contractor shall coordinate with owner before initiating work. Materials used shall be approved by paving manufacturer and said approval must be submitted to Architect-Engineer and Owner before commencing work. C. After cleaning apply sealer per manufacturer's specifications, and instructions (See Part 2 - Products).
- D. The Architect shall reject any paving work which is in his opinion unacceptable, as per AIA, General Conditions, Article 2.2.13.

END OF SECTION 02516

PART 1 GENERAL 1.01 RELATED DOCUMENTS: 1.02 DESCRIPTION OF WORK: A.Extent of concrete curbs, walks and paving is shown on drawings. B. Related work specified elsewhere: 1. Section 02516: Precast Concrete Paving 1.03QUALITY ASSURANCE: 1.04 JOB CONDITIONS: A. Traffic Control: 1. Maintain access for vehicular and pedestrian traffic as required for other construction activities. 2. Utilize flagmen, barricades, warning signs and warning lights as required. PART 2 PRODUCTS 2.01 FORM MATERIALS: to view. 2.02 REINFORCING MATERIALS: A.Reinforcing Bars: ASTM A 615, Grade 60. (Size as shown on drawings). B. Welded Wire Fabric: ASTM A 185 welded steel wire fabric, 6X6W2.9 X W2.9 or size as shown on drawings. 2.03 CONCRETE MATERIALS: A.Portland Cement: ASTM C 150, Type I or III. C.Water: Clean, fresh drinkable. D. Air-Entraining Admixture: ASTM C 260, 6%-7%. E. Water-Reducing Admixture: ASTM C 494, Type A. F. Calcium Chloride will not be permitted in concrete, unless otherwise authorized in writing by landscape architect. 2. Grading sand samples for the bedding course and joints shall be done according the ASTM C 136. The bedding sand shall 2.04 RELATED MATERIALS: B. Sealer: "Hydrozo" Clear 16 (2 coats). 2.05 PROPORTIONING AND DESIGN OF MIXES: A. Prepare design mixes in accordance with applicable provisions of ASTM C 94. 2. Use admixtures for water-reducing and set-control in strict compliance with the manufacturer's directions. types of admixtures as required to maintain quality control. PART 3 - EXECUTION 3.01 FORMS: "Recommended Practice for Concrete Formwork B. Unless otherwise specified herein, concrete materials, mixing, and placing shall conform to requirements of ACI 304 "Recommended Practice for Measuring, Mixing, and Placing Concrete". 3.02 JOINTS: A.Locate and install construction joints as shown on the drawings and as acceptable to the landscape architect. B.Provide expansion, construction, isolation, and control joints as indicated. Use only expansion joint caps as specified. 1. Pavers shall contain a non-water soluble integral admixture specifically developed to control efflorescence and color uniformity 3.03 CONCRETE PLACEMENT:

SECTION 02517 - CONCRETE SIDEWALKS AND CURBS A. Attention is directed to Bidding and Contract Requirements, and to General and Supplemental Conditions, hereby made a part of this Section. A.Codes and Standards: Comply with local governing regulations if more stringent than herein specified.

A.Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.

B. Use overlaid plywood complying with U.S. Product Standard PS-1 "B-B High Density Overlaid Concrete Form", Class I, where concrete exposed

C.Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces.

B. Aggregates: ASTM C 33. Fines: Natural sand 2NS. Course: Crushed stone, gravel or processed (6A).

A.Expansion Joints: 1/2" Expansion joint caps manufactured by DSC Company distributed by the Boomer Company.

1. Design Mix: 3500-4000 P.S.I., 28 day compressive strength with 6%-7% air entrainment, maximum 1-1/2" diameter aggregate and 4" slump.

3. Use amounts of admixtures as recommended by the manufacturer for climate conditions prevailing at the time of placing. Adjust quantities and

A.Contractor shall be responsible for design and engineering of formwork. Formwork shall comply with local code requirements and ACI 347,

C.Comply with ACI 318 Building Code Requirements for Reinforced Concrete for all fabrication and application or reinforcing.

A.Comply with ACI 304, placing concrete in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting concrete is completed.

B. Consolidate placed concrete using mechanical vibrating equipment with hand rodding and ramping, so that concrete is worked around

reinforcement and other embedded items and into all parts of forms.

C.Protect concrete from physical damage or reduce strength due to weather extremes during mixing, placement and curing. 1. In cold weather comply with ACI 305.

2. In hot weather comply with ACI 305.

3.04 FINISHING:

A. Finish all exterior concrete slabs with steel trowel then broom finish or as indicated on drawings.

B. Tool all joints as indicated on details.

C.Review tooling and finishing methods with landscape architect prior to installing concrete.

3.05 CURING:

A.Begin initial curing as soon as free water has disappeared from exposed surfaces, Where possible, keep continuously moist for not less than 72 hours. Continue curing by use of moisture-retaining cover. Cure formed surfaces by moist curing until forms are removed. Provide protections as required to prevent damage to exposed concrete surfaces.

3.06 REMOVAL OF FORMS:

A.Forms may be removed from cumulatively curing at not less than 50 degrees F for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained. 3.07 SEALER:

A.Apply specified sealer to all exposed concrete surfaces per manufacturer's specifications and installation requirements.

B. Apply (2) coats; typical.

3.08 CLEANING:

A. Clean site of all construction materials, upon completion and acceptance of work. B. Sweep all concrete surfaces clean and remove all debris and equipment from site.

END OF SECTION 02517



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project:

CAYMC Memorial Plaza

location:

Detroit, Michigan

title:

Sheet Specifications

client:

Detroit-Wayne Joint Building Authority 2 Woodward Avenue Detroit, MI 48226

date:

issue + revision:

project information:

project manager: CRP drawn by: CRP date: .3/7/2022 project #: JBA002.1

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sheet number: