Donovan Smith
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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

Adrian-Keith Bennett Kenneth R. Daniels David Esparza, AIA, LEED Ritchie Harrison Gwen Lewis Frederick E. Russell, Jr. Rachel M. Udabe

July 16, 2024

#### HONORABLE CITY COUNCIL

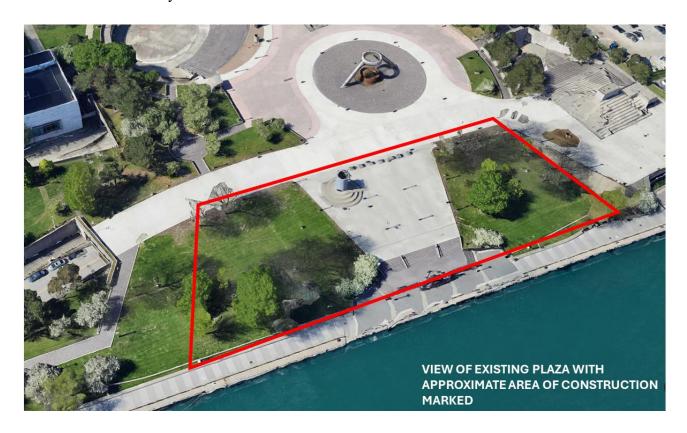
**RE:** Request of Smith Group on behalf of the City of Detroit General Services Department

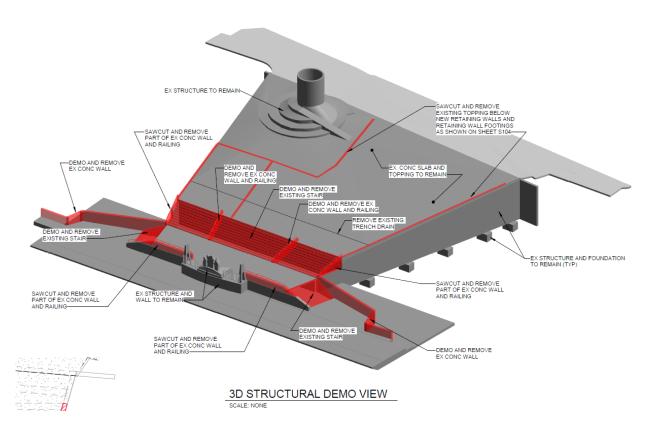
for PC (Public Center) Special District Review of proposed renovation of the "grand staircase" in Hart Plaza including new paving, landscaping, and seating.

(RECOMMEND APPROVAL WITH CONDITIONS)

#### **REQUEST**

The City Planning Commission (CPC) has received a request from Smith Group on behalf of the City of Detroit General Services Department for PC (Public Center) Special District Review of proposed renovation of the "grand staircase" in Hart Plaza including new paving, landscaping, and seating. This request is being made consistent with the provisions of Section 50-3-222 of the Detroit Zoning Ordinance. Because this site is zoned PC, all exterior changes require review by Your Honorable Body.





Aerial view of area to be demolished – note that Gateway to Freedom sculpture and surrounding wall will remain

#### PROPOSED PROJECT

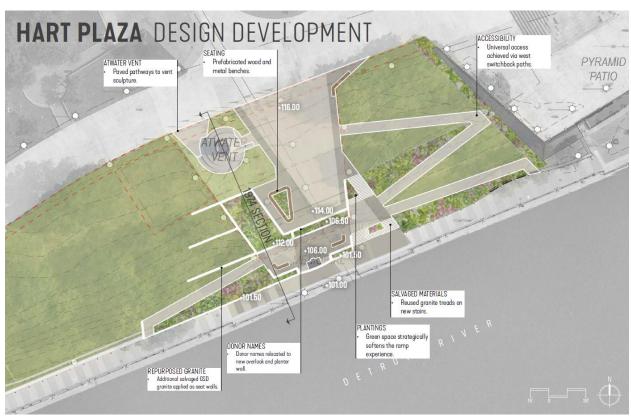
The petitioner proposes to renovate the area of Hart Plaza between the Atwater Tunnel and the Detroit Riverwalk. The existing area consists of a sloped plaza that is too steep to be compliant with the Americans with Disabilities Act (ADA). It will be regraded into two flat plaza areas with retaining walls and railings. The stairs will be reconfigured and paved paths will be added with ADA-compliant slopes. The existing light fixtures will be refurbished and reinstalled within the renovated area, and additional lighting will be added. New seating areas and additional landscape beds will be added to improve the space and make it more inviting.



The Gateway to Freedom statue and its perimeter granite wall will be preserved and protected in its current location. The existing stainless-steel railings will be removed and new railings will be installed to match the remainder of the new railings.



Rendering of Proposed Changes – looking north toward Jefferson Avenue



Plan View Rendering of Proposed Changes

#### REVIEW & ANALYSIS - PC District Review Criteria

The purpose of PC District review is to ensure that proposed changes are consistent with the spirit, purpose, and intent of the district. To guide the review, eighteen PC District Review Criteria are listed in Section 50-11-67 of the Zoning Ordinance. The relevant criteria follows with staff analysis in italics:

- (1) The proposed development should reflect applicable policies stated in the Master Plan. Increasing open space and recreational opportunities is Goal 8 of the Central Business District subsector. Policy 8.2 states that the condition of public areas should be improved to encourage river-related recreation activities including fishing and picnicking. The proposed renovations to Hart Plaza will further these goals with new seating, additional landscaping, and accessible pathways.
- (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 changes will improve the appearance of Hart Plaza which will be beneficial to adjacent properties.

(8) Public access should be provided where appropriate, including provision of adequate right-of-way for the continuous pedestrian/bicycle pathway being developed along the Detroit River.

The proposed renovations will increase accessibility to the Riverwalk for both pedestrians and bicyclists.

- (13) Barrier-free access and public safety features should be carefully planned. This project will provide barrier-free access between Hart Plaza and the Riverwalk which is currently inadequate. New paved paths with ADA-compliant slopes are proposed where there is currently no accessible route.
- (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.

Existing granite will be salvaged from the site and repurposed as seating and stair treads which will retain the existing character of the site. The distinctive light fixtures will be refurbished and reinstalled, and the Gateway to Freedom sculpture will be preserved in its current location.

#### Design

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

#### **CONCLUSION & RECOMMENDATION**

The proposed renovation was presented to the City Planning Commission on July 11, 2024, and was favorably received with two comments—ensure that the accessible paths have an appropriate surface and that there is adequate visibility where the stairs meet the Riverwalk. These are long awaited improvements addressing old design flaws. Consistent with the above, approval of the proposed changes is recommended with the following condition:

That final plans be reviewed by CPC staff for consistency with approval prior to application being made for applicable permits.

Respectfully submitted,

DONOVAN SMITH, CHAIRPERSON

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

Marvel R. LMJ.

Attachments: Construction Drawings dated 6/14/2024

Renderings of proposed design

PDD Recommendation

Resolution

Antoine Bryant, Director, PDD cc:

Russell Baltimore, PDD

Greg Moots, PDD

Bruce Goldman, Law Dept.

David Bell, Director, BSEED

Tim Karl, Chief of Landscape Architecture

LaJuan Counts, Director, Construction and Demolition

Samuel Krassenstein, Chief of Infrastructure

## A RESOLUTION REGARDING ALTERATIONS IN A PC ZONING DISTRICT IN HART PLAZA.

BY	<b>COUNCIL</b>	<b>MEMBER</b>	

**WHEREAS**, Smith Group on behalf of the City of Detroit General Services Department proposes renovation of the "grand staircase" in Hart Plaza including new paving, landscaping, and seating; and

WHEREAS, Hart Plaza 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:

This 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, so as to ensure a completely harmonious, pleasing, and functional public center; and

WHEREAS, the Planning and Development Department has provided favorable review; and

**WHEREAS**, the City Planning Commission has reviewed and recommended approval of the proposed alterations; and

**NOW, THEREFORE, BE IT RESOLVED**, that the Detroit City Council hereby approves the proposed changes as depicted in the construction drawings and renderings prepared by Smith Group and dated 6/14/2024, with the following condition:

1. That final plans be reviewed by CPC staff for consistency with approval prior to application being made for applicable permits.

Coleman A. Young Municipal Center 2 Woodward Avenue, Suite 808 Detroit, Michigan 48226 Phone 313•224•1339 www.detroitmi.gov

Detroit City Planning Commission 208 CAYMC Detroit, MI 482266

June 28, 2024

RE: Public Center Adjacent (PC) Review of exterior changes at 1 Hart Plaza. (RECOMMEND APPROVAL)

The following is the Planning and Development Department's (PDD) review of the proposed maintenance of the Hart Plaza Grand Stairway which extends from the north edge of the Atwater Tunnel, south to the Detroit Riverwalk. The eastern boundary is the Detroit Police Department offices and the western boundary is the Detroit Riverwalk and the approach from the Detroit River Princess to the upper plaza.

The proposed improvements include the repair, cleaning and grading of a uniform finished paved surface across the entire plaza. The proposed improvements will address inaccessible slopes, replace guard rails, provide seat walls and provide site furnishings, upgrade lighting, increase green space and improve landscaping.

This is adjacent to currently vacant land zoned PD, located at 50 E. Jefferson Ave. This review is carried out per Sec. 50-11-66 for the review of developments located in the Public Center District (PC) zoning district.

Following is our response to the applicable criteria from Sec. 50-11-67, with our response in italics.

- (1) The proposed development should reflect applicable policies stated in the Master Plan; Increasing open space and recreational opportunities is Goal 8 of the Central Business District subsector. Policy 8.2 states that the condition of public areas should be improved to encourage river-related recreation activities including fishing and picnicking. Proposed landscaping and drainage improvements and additional seating can accommodate this goal by creating spaces where active and passive recreation can occur.
- (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 improvements and the maintenance of the Hart Plaza Grand Stairway should improve the appearance of the site and alleviate existing grading and accessibility deficiencies while improving the condition of furnishings, landscaping, drainage and lighting. This should be of benefit to visitors to the site and to the value of surrounding land uses.
- (8) Public access should be provided where appropriate, including provision of adequate right-of-way for the continuous pedestrian/bicycle pathway being developed along the Detroit River; *The*

proposed maintenance of the Hart Plaza Grand Stairway will increase accessibility by the public to the Detroit Riverwalk which currently supports pedestrian and bicycle circulation.

- (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; *Public areas will be enhanced by the use of salvaged granite for benches, pavers, bench walls and stairs, maintaining the character of the use of these materials throughout the existing site.*
- (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; Benches will be added to provide the opportunity to Hart Plaza visitors to appreciate the changes in grade from the river to the street level at Jefferson. Also, the additional seating will allow visitors to rest and contemplate the memorials and sculptures located around the Grand Staircase.

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 Hart Plaza Grand Stairway.

Respectfully submitted,

Gregory F. Moots, Lead Planner

Troppy Marts

Office of Zoning Innovation

CC: Antoine Bryant, Director P&DD

Marcel Todd, Director CPC/LPD, HDC

Karen Gage, Zoning Innovation Director P&DD

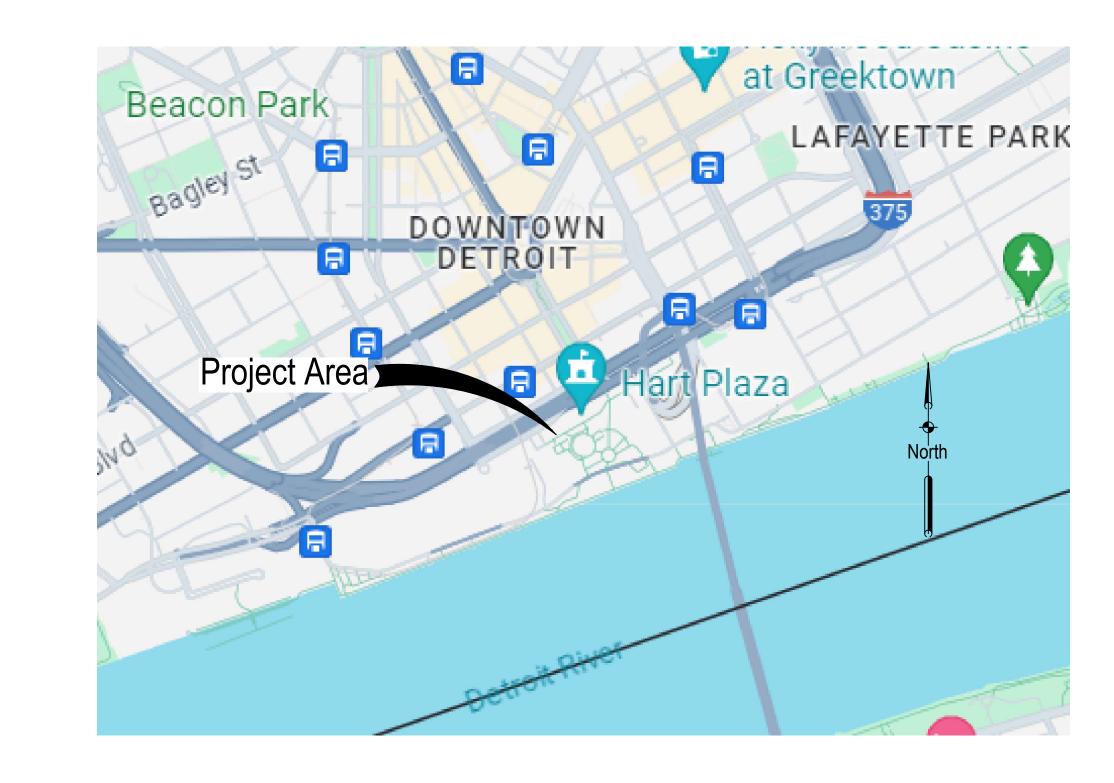
Russell Baltimore, Design Director P&DD

Greg Moots, Lead Planner P&DD

# GRAND STAIRCASE DETROIT, MI

# 14 JUNE, 2024 CONSTRUCTION DOCUMENTS

SmithGroup Project Number: 15004.00



## **Sheet List Table**

Sheet Number	Sheet Title
G100	COVER SHEET
G101	GENERAL NOTES
CD101	SITE PREP AND SELECTIVE DEMOLITION PLAN
CS101	LAYOUT AND MATERIALS PLAN
CS102	LAYOUT AND MATERIALS PLAN ENLARGEMENTS
CS103	LAYOUT AND MATERIALS PLAN ENLARGEMENTS
CS501	SITE DETAILS
CS502	SITE DETAILS
CS503	SITE DETAILS
CS504	SITE DETAILS
CS505	SITE DETAILS
CS506	SITE DETAILS
CG101	GRADING & UTILITY PLAN
CG401	GRADING & UTILITY ENLARGEMENT
CU501	UTILITY DETAILS
CU502	UTILITY DETAILS
LP101	PLANTING PLAN
LP501	PLANTING DETAILS
ES001	ELECTRICAL SPECIFICATIONS
ES100	LIGHTING FIXTURE SCHEDULE
ES101	LIGHTING AND ELECTRICAL PLAN
S001	STRUCTURAL NOTES, TABLES, AND ABBREVIATIONS
S100	STRUCTURAL DEMOLITION AND REMOVAL PLAN AND 3D DEMO VIEW
S101	DEMOLITION SECTIONS AND DETAILS
S103	PROPOSED RETAINING WALLS
S104	PROPOSED RETAINING WALL SECTIONS AND DETAILS
S105	CONCRETE REPAIR DETAILS

## Prepared for:

CITY OF DETROIT 2 WOODWARD AVE DETROIT, MI

#### PROJECT DESCRIPTION:

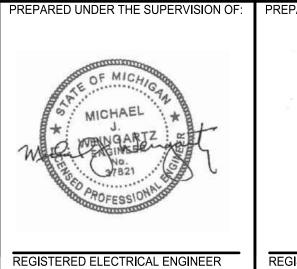
THE HART PLAZA GRAND STAIRCASE PROJECT BEGINS IN THE NORTH AT THE EDGE OF THE ATWATER TUNNEL AND EXTENDS SOUTH TO THE DETROIT RIVERWALK; EAST-WEST THE PROJECT LIMITS ARE BOUNDED BY THE DETROIT POLICE DEPARTMENT IN THE EAST AND EXTEND WEST TOWARD THE EXISTING PAVER PATH THAT CONNECTS THE RIVERWALK AND PRINCESS RIVERBOAT WITH THE UPPER HART PLAZA AREA. THE EXISTING PLAZA AREA IS CHARACTERIZED BY INACCESSIBLE SLOPES (>5%), EXTENSIVE CONCRETE PAVEMENT, AGING LIGHT POLES, GRANITE STAIRS, SLOPED LAWN AND TREES, AND THE GATEWAY TO FREEDOM STATUE. PROPOSED PLAZA IMPROVEMENTS RENOVATE THE SITE TO INCLUDE ADA ACCESSIBLE WALKWAYS AND PLAZA AREA, GUARDRAILS, OVERLOOK WALLS, REPURPOSED SALVAGED GRANITE STAIRS WITH NEW HANDRAILS, REPURPOSED SALVAGED GRANITE SEAT WALLS, INCREASED GREEN SPACE AND LANDSCAPE FEATURES, SITE FURNISHINGS WITH BENCHES AND ENHANCED LIGHTING, MINOR DRAINAGE IMPROVEMENTS, AND THE PRESERVED AND PROTECTED GATEWAY TO FREEDOM STATUE.

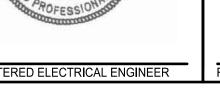
CONSTRUCTION LIMITS = +/- 44,883 SF [1.03 AC] IMPERVIOUS HARDSCAPE = +/- 17,019 SF [.39 AC]

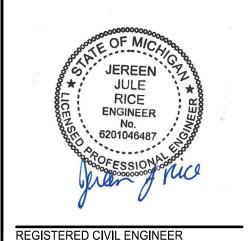
# Prepared by:

# **SMITHGROUP**

DETROIT, MI 48226 313.983.3600 www.smithgroup.com



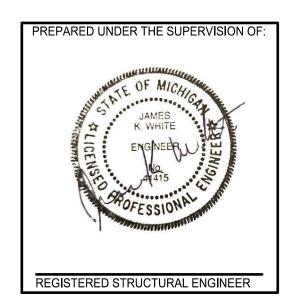






PROJECT VICINITY MAP

## Wade Trim Structural:



PROJECT LOCATION MAP

## ALL SITE/CIVIL NOTES

1. THE FOLLOWING NOTES APPLY TO ALL LANDSCAPE, SITE, AND CIVIL SHEETS INCLUDED IN THIS SCOPE OF WORK.

## **DEMOLITION NOTES**

- SECURE AND COMPLY WITH ALL REQUIREMENTS OF ALL PERMITS REQUIRED FOR THIS WORK.
- 2. CONTRACTOR TO VERIFY INVERT ELEVATIONS, PIPE DIAMETERS AND UNDERGROUND FLOW PATH OF STORMWATER STRUCTURES WITHIN THE PLAZA, STATUE AND RIVER WALK AREAS. PRIOR TO REMOVAL, IF NECESSARY, OF THESE STRUCTURES VERIFY WITH ENGINEER.
- 3. SUPPLY, ERECT AND MAINTAIN TEMPORARY CONSTRUCTION FENCING AND BARRICADES AS REQUIRED TO PROVIDE FOR THE PROTECTION OF THE GENERAL PUBLIC. PROVIDE ALL NECESSARY PROTECTION MEASURES, FENCING, BARRICADES, PLANKS, ETC. AS REQUIRED PER APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS FOR ALL EXCAVATION, TRENCHING, AND ASSOCIATED HAZARDS.
- 4. ALL CONSTRUCTION STAGING, MATERIALS STORAGE, CONSTRUCTION WASHING STATIONS, PROJECT MOCK-UP AREAS, AND ALL ASSOCIATED NEEDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ALL CONSTRUCTION ACCESS POINTS. THE USE OF ADJACENT STREET R.O.W. WILL NOT BE PERMITTED FOR MATERIAL STAGING, STOCK PILING AND CONTRACTOR PARKING WITHOUT PRIOR WRITTEN CONSENT.
- 5. FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, AS AMENDED, THE CONTRACTOR SHALL CALL "MISS DIG" AT 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS (72 HOURS), EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES INCLUDING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. "MISS DIG" MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
- 6. THE ACTUAL CONSTRUCTION LIMIT LINE IS AT THE R.O.W. LINE, PROPERTY LINE OR LIMITS OF DISTURBANCE. THE CONSTRUCTION LIMIT LINE IS GRAPHICALLY SHOWN OFFSET FROM THE R.O.W. LINE, PROPERTY LINE OR LIMITS OF DISTURBANCE TO ALLOW IT TO BE VISIBLE ON THE DRAWINGS.
- 7. TAKE GREAT CARE TO AVOID DAMAGE TO THE BUILDING AND TO EXISTING SITE ELEMENTS THAT ARE TO REMAIN. REPAIR AND/OR REPLACE ANY BUILDING DAMAGE AND/OR SITE ELEMENT THAT IS TO REMAIN THAT IS DAMAGED BY CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST.
- 8. COORDINATE ANY UTILITY DEMOLITION WITH UTILITY SERVICE
- PROVIDERS, OWNER, AND THE CITY OF DETROIT.

  9. ANY MISCELLANEOUS LITTER AND DEBRIS INCLUDING SUCH ITEMS BUT NOT LIMITED TO: FOUNDATION AND ATTACHMENTS, TREE STUMPS AND ROOT STRUCTURES, PAVEMENT BASE MATERIAL, ABANDONED FENCES, ABANDONED PIPES, ABANDONED VEHICLES, CONSTRUCTION DEBRIS, TRASH, ETC. IDENTIFIED ON THE PLANS AND ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF LEGALLY OFF-SITE BY THE CONTRACTOR.
- 10. COORDINATE PAVEMENT REMOVAL, CURB REMOVAL, SIDEWALK REMOVAL, COLD MILLING, AND SAW CUT LINES WITH LAYOUT PLANS. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. MARK SAW CUT LINES FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH REMOVAL ACTIVITIES.
- 11. PAVEMENT AND CURB REMOVAL S SHALL BE TERMINATED WITH A SAW CUT JOINT UNLESS THE REMOVAL LIMIT IS WITHIN 3 FEET OF AN EXISTING PAVEMENT OR CURB JOINT THEN THE REMOVAL SHALL BE EXPANDED TO THE JOINT. SAW CUT LINES FOR NEW PAVEMENT SHALL BE CUT STRAIGHT LEAVING A CONSISTENT, SMOOTH EDGE ALONG THE EXISTING PAVEMENT TO REMAIN. NEW PAVEMENT TO DIRECTLY ABUT EXISTING PAVEMENT TO REMAIN. IF NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE RE-SAW CUT THE PAVEMENT IF THE EDGE OF THE PAVEMENT IS DAMAGED BY CONSTRUCTION ACTIVITIES. ADDITIONAL SAW CUTS AND THE REQUIRED ADDITIONAL PAVEMENT REPLACEMENT SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER
- 12. PROTECT ANY EXISTING UTILITIES, FIBER OPTIC, AND COMMUNICATION LINES WITHIN THE PROJECT LIMITS. EXISTING FIBER OPTIC LINES WITHIN THE PROPERTY LIMITS MAY HAVE VERY SHALLOW BURIAL DEPTHS. IMMEDIATELY CONTACT UTILITY PROVIDER FOR ANY DISTURBANCES TO EXISTING LINES.
- 13. COORDINATE SILT FENCE LOCATIONS WITH THE SURVEY AND SLOPES.
  PROVIDE ADDITIONAL SILT FENCE AS DIRECTED BY OWNER'S
  REPRESENTATIVE.
- 14. THE PROPOSED WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH ALL REQUIREMENTS OF PART 91 OF ACT 451 OF THE PUBLIC ACTS OF 1994 AS AMENDED, AND RULES PROMULGATED THEREUNDER.
- 15. PRIOR TO ANY CONSTRUCTION ACTIVITY, SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THESE DRAWINGS AND ANY PERMIT PEOLIDEMENTS
- 16. APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL
- MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS.

  17. ALL EXISTING STORM INLETS AND CATCH BASINS TO BE PROVIDED WITH INLET PROTECTION FABRIC DROP OR INLET PROTECTION GEOTEXTILE AND STONE AS APPROPRIATE AND PER MOOT DETAIL
- 18. CONDUCT ALL CONSTRUCTION ACTIVITIES AND CLEANUP OPERATIONS
  IN A MANNER SUCH THAT SILTRACEOUS SOIL MATERIALS AND
  WATERBORNE OBJECTS ARE NOT DISCHARGED INTO ANY STORM
  SEWER DRAINAGE PIPE, OR UNDERGROUND UTILITY SYSTEM.
- 19. SOIL EROSION AND SEDIMENTATION EXTENDING BEYOND THE PROJECT LIMITS WILL NOT BE PERMITTED. ALL SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIALS SPILLED, DUMPED, OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS, OTHER PUBLIC THOROUGHFARES OR IN UNDERGROUND UTILITY SYSTEMS DURING TRANSIT TO OR FROM THE SITE SHALL BE REMOVED PROMPTLY BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 20. INSPECT DAILY THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND MAKE ANY NECESSARY REPAIRS WITHOUT DELAY
- 21. SAFELY TERMINATE ALL ELECTRICAL CONNECTIONS AT THE POWER SOURCE AND PER DIRECTION BY OWNER'S REPRESENTATIVE.
  DISPOSE OF ALL UNWANTED MATERIALS. COORDINATE WITH OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH REMOVAL AND SALVAGE ACTIVITIES.
- 22. SEE STRUCTURAL PLANS FOR ADDITIONAL INFORMATION AND
- REQUIREMENTS FOR SITE WALLS ON EXISTING SUPERSTRUCTURE.

  23. SSTL DONOR PANELS INCLUDE ENGRAVED DONOR NAMES THAT ARE CURRENTLY SHOWN ON EXISTING GRANITE SITE WALLS AND PAVERS AT THE RIVERWALK. EXISTING DONOR NAMES MUST BE RECORDED AND TRANSCRIBED IN ORDER TO REPLICATE AND ENGRAVE THEM ON THE NEW SSTL DONOR PANELS. THE EXISTING DONOR NAMES MUST BE V.I.F. PRIOR TO ANY DEMOLITION.

## LAYOUT NOTES

- NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES
   BETWEEN THE PLANS AND SITE CONDITIONS IN ADVANCE OF
   CONSTRUCTION ACTIVITIES AND INSTALLATION OF SITE ELEMENTS.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES SEE ELECTRICAL PLANS FOR LIGHTING AND ELECTRICAL IMPROVEMENTS INCLUDING CONDUIT LOCATIONS, VERIFY ANY PROPOSED IRRIGATION PLANS FOR PIPING AND ROUTING LOCATIONS, AND SEE UTILITY PLANS FOR PIPING AND DRAINAGE LOCATIONS.
- 3. CRUSHED CONCRETE WILL NOT BE ACCEPTED AND SHALL NOT BE USED FOR ANY OF THE AGGREGATE MATERIALS.
- 4. DIGITAL FILES TO BE MADE AVAILABLE TO THE SELECTED CONTRACTOR FOR CONTRACTOR STAKING REFERENCE; THE HARDCOPY OF THE BID DOCUMENTS TAKE PRECEDENCE AND SHALL BE THE OVERRIDING DOCUMENT FOR LAYOUT CONTROL.
- NOTIFY THE OWNER'S REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES FOR SUPPLEMENTAL DIRECTIONS.
- 6. ALL DIMENSIONS ARE FROM BACK OF CURB, EDGE OF PAVEMENT, OR CENTER OF FIXTURE UNLESS OTHERWISE NOTED.
   7. THE LAYOUT AND ORIENTATION OF ALL PROPOSED SITE
- IMPROVEMENTS SHALL BE FIELD APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. LOCATION AND ORIENTATION CHANGES WILL BE PROVIDED AT NO ADDITIONAL COST. THERE SHALL BE 1/2" SEALED EXPANSION JOINTS AT ALL
- 8. THERE SHALL BE 1/2" SEALED EXPANSION JOINTS AT ALL CURB/SIDEWALK, BUILDING/SIDEWALK, LIGHT POLE, OR ANY OTHER FIXED OBJECTS (I.E. EXISTING PAVEMENT, WALLS, POLES, FOUNDATIONS). PLANS DO NOT SHOW EVERY REQUIRED SEALED EXPANSION JOINT.
- 9. CONTROL JOINTS AND SEALED EXPANSION JOINTS AT DRIVEWAY AND APPROACHES SHALL ALIGN WITH ADJACENT CURB RETURNS.
- 10. CONTROL JOINTS AND SEALED EXPANSION JOINTS TO ALIGN WITH ADJACENT PAVEMENT, CURBS, WALLS, ETC UNLESS OTHERWISE NOTED ON THE PLANS. ALIGN JOINTS PERPENDICULAR TO PAVEMENT EDGE AND ALIGN WITH CENTER POINTS OF ARCS, AS SHOWN.
- PROVIDE ALL NECESSARY PROTECTION MEASURES, FENCING, BARRICADES, PLANKS, ETC. AS REQUIRED PER APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS FOR ALL EXCAVATION, TRENCHING, AND ASSOCIATED HAZARDS.
- 12. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES
  BETWEEN PROPOSED FOOTING LOCATIONS FOR SITE FURNISHINGS
  WITH UTILITIES PRIOR TO INSTALLATION, SEE TOPOGRAPHIC SURVEY.
- 13. COORDINATE IRRIGATION SLEEVES WITH HARDSCAPES AND SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. IRRIGATION SCOPE BY OTHERS (N.I.C.). COORDINATE WITH GSD ON IRRIGATION DESIGN AND INSTALLATION. SEE SPECIAL PROVISION FOR DELEGATED IRRIGATION DESIGN AND INSTALLATION.

## **GRADING NOTES**

- PROVIDE DRAINAGE AWAY FROM ALL HARDSCAPE SURFACES AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ENSURE ALL AREAS WILL PROPERLY DRAIN WITHOUT STANDING OR PONDING WATER.
- 2. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE SURVEY GRADES AND THE ACTUAL SITE ELEVATIONS. ANY AREAS OF POOR DRAINAGE OR INADEQUATE DRAINAGE FROM PROPOSED IMPROVEMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND SHALL BE MODIFIED AS REQUIRED AND APPROVED.
- MEET EXISTING GRADE WITHIN THE R.O.W. AT THE SAW CUT LINE.
   PROVIDE MINIMUM CROSS-SLOPE OF 1%, MAXIMUM CROSS-SLOPE OF 2%, AND MAXIMUM LONGITUDINAL SLOPE OF 5% (EXCEPT WHERE NOTED) ON SIDEWALKS (INCLUSIVE OF ALL SPECIFIED TOLERANCES).
- 5. GRADE ALL PAVEMENT SURFACES UNIFORMLY BETWEEN SPOT ELEVATIONS NOTED ON THE PLANS. (EXCEPT WHERE NOTED OTHERWISE)
- 6. GRADE LONGITUDINAL GUTTER SLOPES UNIFORMLY BETWEEN SPOT ELEVATIONS AND AS ILLUSTRATED WITH DRAINAGE ARROWS ON THE PLANS. ENSURE PROPER DRAINAGE IS MAINTAINED ACROSS AND AWAY FROM ALL SIDEWALK, ADA RAMPS TO ENSURE WATER DOES NOT POND AT THE BASE OF THE RAMPS. ANY AREAS OF POOR DRAINAGE OR INADEQUATE DRAINAGE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND SHALL BE MODIFIED AS REQUIRED AND APPROVED. GRADING MODIFICATIONS SHALL BE PROVIDED AT NO ADDITIONAL COST AND IS INCIDENTAL TO
- DEMOLITION AND GRADING WORK.

  7. REFERENCE CURB TRANSITIONS NOTED ON GRADING PLANS, AT SIDEWALK, ADA, AND RAMPS. CURB TRANSITIONS SHALL BE MADE UNIFORMLY WITHOUT ABRUPT CHANGES OR IRREGULARITIES. ENSURE THAT THE TOP OF CURB ELEVATION IS THE SAME AT INTERSECTIONS WITH DIFFERENT CURB TYPES AND EXISTING CURBS.
- 8. CONTRACTOR TO VERIFY ALL EXISTING SPOT ELEVATIONS ALONG LIMITS OF EXISTING AND NEW PAVEMENT WHERE THE GRADING PLANS NOTE MEET EXISTING (M.E.). NOTIFY THE ENGINEER OF ANY INCONSISTENCIES, DRAINAGE ISSUES, OR SLOPE DISCREPANCIES.
- COORDINATE AND ADJUST TOP OF FOOTING ELEVATIONS TO COORDINATE WITH ALL APPROVED GRADING MODIFICATIONS.
- COORDINATE WITH ALL APPROVED GRADING MODIFICATIONS.

  10. CONTRACTOR TO VERIFY ALL EXISTING SPOT ELEVATIONS ALONG
  LIMITS OF EXISTING AND NEW PAVEMENT WHERE THE GRADING PLANS
  NOTE MEET EXISTING (M.E.). NOTIFY THE OWNER'S REPRESENTATIVE
  OF ANY INCONSISTENCIES, DRAINAGE ISSUES, OR SLOPE
  DISCREPANCIES.

## PLANTING NOTES

- OWNER'S REPRESENTATIVE WILL REVIEW PLANT MATERIAL AND RESERVES THE RIGHT TO REJECT ANY MATERIAL THAT DOES NOT MEET THE DESIGN REQUIREMENTS OR PLANT SCHEDULE OF THE PROJECT. PLANTS INSTALLED THAT DO NOT COMPLY TO BE IMMEDIATELY REMOVED.
- 2. ALL MATERIAL SUPPLIED FOR AN INDIVIDUAL ITEM ON THE PLANT LIST SHALL MATCH SIZE, SHAPE, FORM, AND NOTED REQUIREMENTS. IN ADDITION THE PLANT MATERIAL SHALL CONFORM TO CITY OF DETROIT SPECIFICATIONS. OWNER'S REPRESENTATIVE SHALL REVIEW PLACEMENT OF PLANT MATERIAL PRIOR TO INSTALLATION, AND RESERVES THE RIGHT TO ADJUST LAYOUT TO ACCOMMODATE SITE CONDITIONS AND DESIGN INTENT AT NO ADDITIONAL COST. ALL PLANTINGS SHALL BE INSTALLED IN A LOGICAL SEQUENCE WITHIN THE SAME PLANTING TIME FRAME. IF THE PLANT MATERIAL IS INSTALLED WITHOUT PRIOR APPROVAL THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REQUEST LAYOUT ADJUSTMENTS AT NO ADDITIONAL COST.
- 3. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT PLANTS AND ENSURE HEALTH AND PLANT QUALITY DURING SHIPMENT, HANDLING, INSTALLATION AND ESTABLISHMENT.
- ALL LANDSCAPE BEDS SHALL RECEIVE 12" OF PLANTING MIX UNLESS NOTED OTHERWISE.
   ALL PLANTINGS SHALL RECEIVE A MIN. OF 2" OF DOUBLE PROCESSED
- SHREDDED HARDWOOD BARK MULCH. WHERE LANDSCAPE BEDS MEET PAVEMENTS OR LAWNS, CUT THE GRADE TO ALLOW FOR MULCH AND 1" DROP FROM THE ADJOINING FINISH GRADE. KEEP MULCH 4" FROM TREE TRUNKS AND SHRUB CROWNS.
- 6. ALL DISTURBED SEEDING AREAS SHALL RECEIVE A MINIMUM OF 4"
  DEEP TOPSOIL. TOPSOIL REMOVED DURING DEMOLITION / SITE
  PREPARATION CAN BE RE-USED, HOWEVER IT MUST MEET OR EXCEED
  THE TOPSOIL REQUIREMENTS OF CITY OF DETROIT SPECIFICATIONS.
  ADDITIONAL TOPSOIL REQUIRED SHALL BE PROVIDED BY THE
  CONTRACTOR FROM OFF SITE SOURCES.
- 7. SPACE PLANT MATERIALS AS SHOWN ON PLANS AND INDICATED IN PLANT SCHEDULE. PLANT MATERIALS SHALL CONFORM TO PLANT SCHEDULES AND SIZES SHALL BE THE MINIMUM INDICATED ON THE PLANT SCHEDULE OR LARGER. INSTALLATION OF LARGER PLANTS AT NO ADDITIONAL COST TO OWNER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ANLA "STANDARDS FOR NURSERY STOCK".
- 8. PRIOR TO INSTALLATION, DEMARCATE LAYOUT OF ALL PLANTING BEDS, SEED AREAS, AND INDIVIDUAL TREES FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE. INCLUDE PERENNIAL GROUPINGS BY SPECIES FOR INTERNAL BED LAYOUTS. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE OWNER'S REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAY MAKE MINOR ADJUSTMENTS AS NECESSARY. SUCH ADJUSTMENTS WILL BE AT NO ADDITIONAL COST TO THE OWNER.
- 9. SEEDING AND LAWN RESTORATION APPLIES TO ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES EVEN IF ACTIVITIES EXTEND BEYOND THE APPROXIMATED LAWN RESTORATION LIMITS INDICATED ON THE DRAWINGS. REPAIR ANY DISTURBED AREAS TO THE SAME CONDITION AS ORIGINALLY FOUND AND TO THE OWNER'S SATISFACTION. IN AREAS WHERE LAWN IS DISTURBED BEYOND THE LIMITS OF CONSTRUCTION, REPLACE LAWN WITH NEW SEED (INCLUDING TOPSOIL, SEED AND MULCH) AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH THE OWNER PRIOR TO CONSTRUCTION ACTIVITIES FOR GSD SPECIFICATIONS FOR ACCEPTABLE SEED MIXES.
- 10. REFER TO DEMOLITION PLANS FOR EROSION CONTROL MEASURES.

  11. LEGALLY DISPOSE OF DEBRIS ASSOCIATED WITH PLANTING OFF-SITE

  12. MINIMIZE CLILITIVATION WITHIN THE DRIP LINES OF EXISTING TREES.
- 12. MINIMIZE CULTIVATION WITHIN THE DRIP LINES OF EXISTING TREES.
  PREPARE SOIL FOR SEEDING AREAS BY MINIMIZING DISTURBANCE TO 4
  INCH DEPTH. HAND CULTIVATE WHEN ENCOUNTERING ROOTS. NO
  HEAVY EQUIPMENT ALLOWED WITHIN DRIP LINE OF EXISTING TREES.
- REFER TO DEMOLITION PLANS FOR TREE REMOVALS.
   THE LANDSCAPE BEDS SHOWN ON THE PLANTING PLANS ARE
   COMPOSED OF A NUMBER OF INDIVIDUAL GRASS AND PERENNIAL
   SPECIES. THE AREAS HATCHED ON THE PLANS SHALL BE PLANTED
   WITH THE SPECIES AND QUANTITIES NOTED. PERENNIALS ARE
   INTENDED TO BE DISTRIBUTED ACROSS THE ENTIRE HATCHED AREA.
- 15. CONTRACTOR TO LAY OUT ONE PLANTING BED AS A MOCKUP FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH PLANTING THE PLANTING BEDS. ADJUSTMENTS TO THE PLANTING LAYOUT MAY BE REQUESTED AT NO ADDITIONAL COST IN ORDER TO ENSURE A SATISFACTORY BLENDING OF PLANT MATERIAL TO CREATE THE DESIRED PLANTING ARRANGEMENT. THE APPROVED PLANTING BED MOCKUP SHALL BE USED AS THE MODEL AND STANDARD OF REFERENCE FOR ALL SUBSEQUENT LANDSCAPE BEDS.
- 16. ALL PLANT BEDS SHALL BE IRRIGATED. COORDINATE IRRIGATION SLEEVES PRIOR TO CONSTRUCTION. IRRIGATION SCOPE BY OTHERS (N.I.C.). COORDINATE WITH GSD ON IRRIGATION DESIGN AND INSTALLATION. SEE SPECIAL PROVISION FOR DELEGATED IRRIGATION DESIGN AND INSTALLATION.

## **UTILITY NOTES**

- EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
   VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION WHERE NECESSARY TO AVOID SCHEDULE RISKS.
- 3. PROTECT AND MAINTAIN SERVICE OF OTHER UTILITIES WITHIN AND ADJACENT TO PROJECT.
- 4. DO NOT CONNECT ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER SERVICES TO THE SANITARY SEWER.
- 5. PROVIDE AND MAINTAIN INLET FILTERS AT ALL CATCH BASIN INLETS,
- DURING CONSTRUCTION.

  6. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL SEPARATION AND TEN (10) FEET OF HORIZONTAL SEPARATION
- BETWEEN THE WATER MAIN AND ALL SANITARY AND STORM SEWERS.

  7. ADJUST ALL CASTINGS TO FINISH GRADES.

  8. PIPE LENGTHS ARE TO CENTER OF STRUCTURES UNLESS NOTED OTHERWISE. ALL PIPE LENGTHS MUST BE V.I.F. PRIOR TO
- CONSTRUCTION ACTIVITIES.

  9. STORM SEWER WORK INDICATED ON THESE DRAWINGS SHALL REQUIRE A DETROIT WATER AND SEWERAGE DEPARTMENT (DWSD) PERMIT TO BE OBTAINED BY THE CONTRACTOR. NOTIFY AND COORDINATE WITH MOHAMED BOUDALI PERMIT INSPECTOR (313-267-1375) A MINIMUM OF 48 HOURS PRIOR TO THE INITIATION OF
- STORM SEWER CONSTRUCTION WORK.

  10. IN COMPLIANCE WITH PUBLIC ACT 53 OF THE STATE OF MICHIGAN (EFFECTIVE) AUGUST 1, 1974, AS AMENDED, NOTIFY IN ADVANCE OF CONSTRUCTION (72 HOURS/ 3 WORKING DAYS) ALL PUBLIC AND PRIVATE UTILITY PROVIDERS HAVING FACILITIES IN OR NEAR THE IMMEDIATE WORKING AREA. VERIFY UTILITY LOCATIONS AND NOTIFY ALL UTILITY OWNERS AND MISS DIG (1-800-482-7171).
- 11. REPLACE SIDEWALKS, CURBS AND PAVEMENT DISTURBED AS PART OF UTILITY WORK OR OTHER CONSTRUCTION ACTIVITIES AND MATCH EXISTING CONDITIONS. PAVEMENT REMOVAL TRENCHING, BACKFILL, PAVEMENT REPLACEMENT AND OTHER ASSOCIATED WORK AND MATERIALS REQUIRED FOR THE ADJUSTMENT, REMOVAL, REPLACEMENT AND INSTALLATION THAT IS NOT SHOWN ON THE DEMOLITION PLANS OR MATERIAL PLANS SHALL BE INCIDENTAL TO THE UTILITY LINE AND/OR STRUCTURE PAY ITEM.
- 12. UTILITY ADJUSTMENTS REQUIRED TO COMPLETE THE PROJECT ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE INDIVIDUAL UTILITY PROVIDERS.
- 13. REVIEW, PERMIT AND INSPECTION FEES REQUIRED TO PERFORM THE UTILITY WORK SHALL BE COORDINATED BY THE CONTRACTOR AND ARE INCLUDED AS PART OF THIS PROJECT.
- 14. ADJUST ALL SEWER, WATER, AND ELECTRICAL STRUCTURES OR INFRASTRUCTURE AS INDICATED ON DRAWINGS. COORDINATE WITH APPROPRIATE CITY DEPARTMENTS AS NECESSARY.
- 15. COORDINATE ADJUSTMENT OF ALL GAS, STEAM, FIBER AND COMMUNICATION STRUCTURES OR INFRASTRUCTURE WITH APPROPRIATE UTILITY PROVIDER. APPROPRIATE UTILITY PROVIDER TO MAKE ANY ADJUSTMENTS TO GAS, STEAM, FIBER AND COMMUNICATION STRUCTURES AS NECESSARY.
- 16. RELOCATION OF UTILITY POLES TO BE COORDINATED WITH DETROIT
- PUBLIC LIGHTING AUTHORITY (PLA) AND DTE ENERGY.

  17. ALL SEWER MANHOLES SHALL BE PRECAST CONCRETE IN
  ACCORDANCE WITH ASTM C478 WITH ECCENTRIC CONE OR
- FLAT-SLAB-TOP AS INDICATED.

  18. PIPE CONNECTORS AT MANHOLES TO BE IN ACCORDANCE WITH ASTM
- C923, OR PER PIPE MANUFACTURER'S AND DWSD SPECIFICATIONS.

  19. SEWER PIPE TO BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C76, CLASS IV, WALL B, MINIMUM INSIDE DIAMETER TO BE 8 INCHES OR PVC, ASTM D3034, SDR26 FOR SIZES 8 INCHES AND
- PROPOSED INVERT FOR NEW SEWER CONNECTIONS TO EXISTING PIPES NOT AT EXISTING MANHOLES ARE ESTIMATED. VERIFY INVERT ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.
- 21. EXISTING OUTLET SEWER INVERT ELEVATIONS TO BE FIELD VERIFIED.
- 22. EXTENSIONS OF EXISTING SEWER PIPE TO BE PERFORMED USING PIPE MATERIALS AND DIAMETERS TO MATCH THE EXISTING SEWER.
   23. FOR ALL DIRECT TAPS TO EXISTING STRUCTURES, FIELD CORE DRILL
- EXISTING STRUCTURE TO ACCOMMODATE PROPOSED PIPE SIZE.
  GROUT PIPE OPENING TO BE WATERTIGHT.

  24. ALL MANHOLE AND CATCH BASIN COVERS SHALL BE BOLTED DOWN.
- 25. PROTECT EXISTING IRRIGATION SPRINKLER HEADS DURING EXCAVATION.

  26. THE OMISSION OF ANY STANDARD DETAILS DOES NOT BELIEVE THE
- 26. THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE DWSD STANDARD SPECIFICATIONS.
- 27. PROPOSED TRENCH DRAIN AND OUTLETS SHOULD BE CONSTRUCTED TO CONNECT TO EXISTING STRUCTUES AND FOLLOW THE EXISTING METHOD OF STORMWATER DISCHARGE.

HART PLAZA

1 HART PLAZA DETROIT, MI 48226

Owner:

| CITY OF DETROIT

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CONSTRUCTION DOCUMENTS

SEALS

REV DATE

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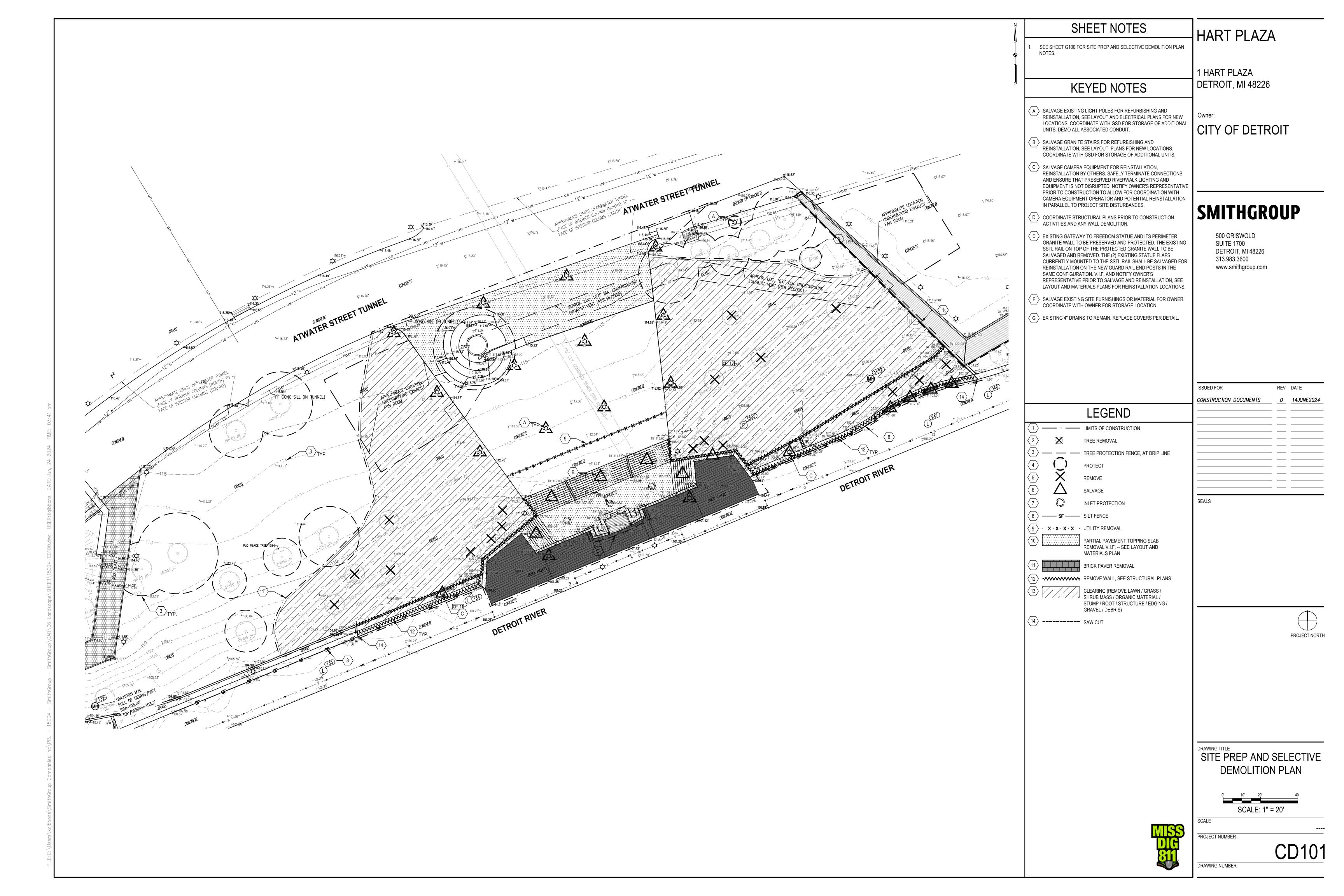
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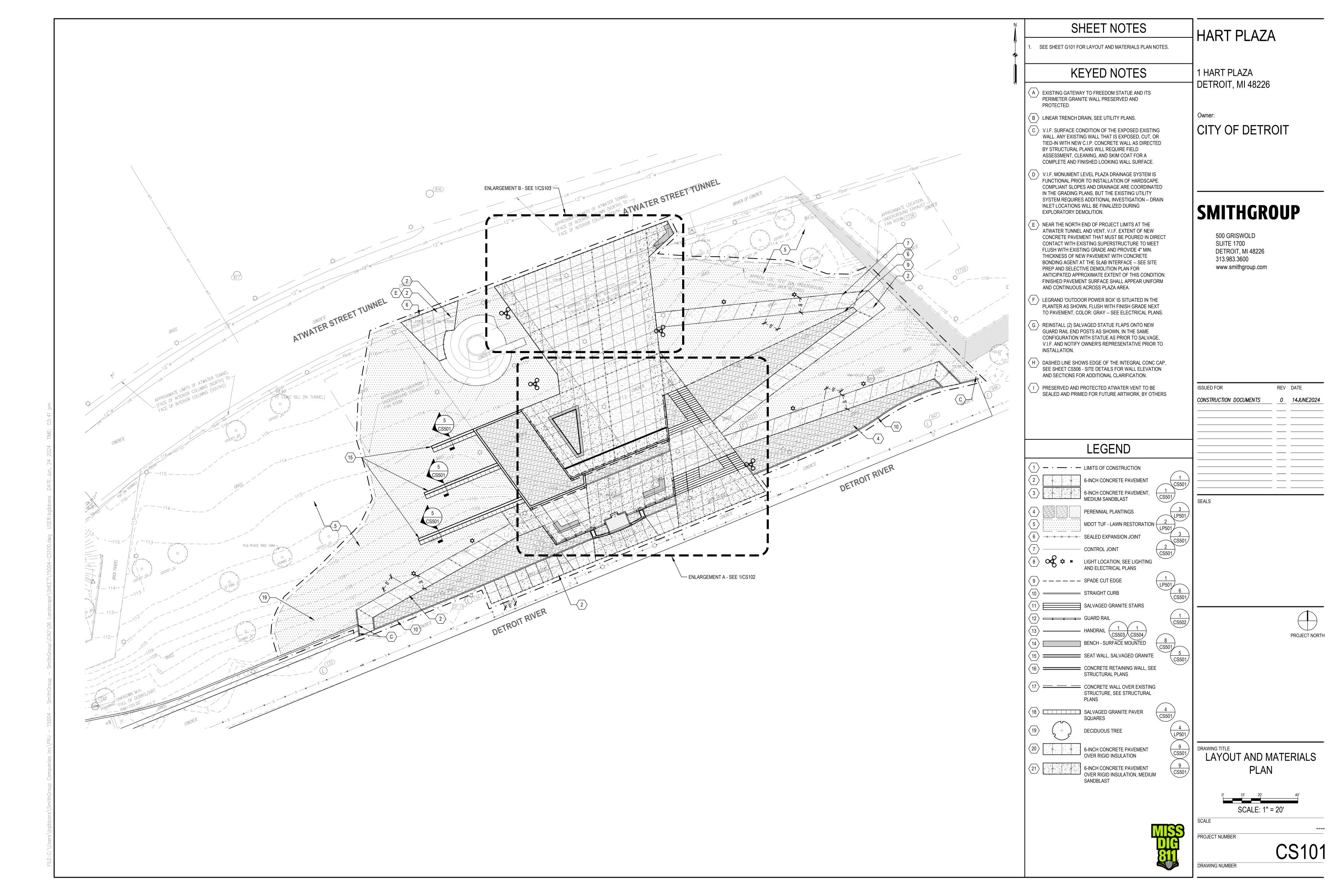
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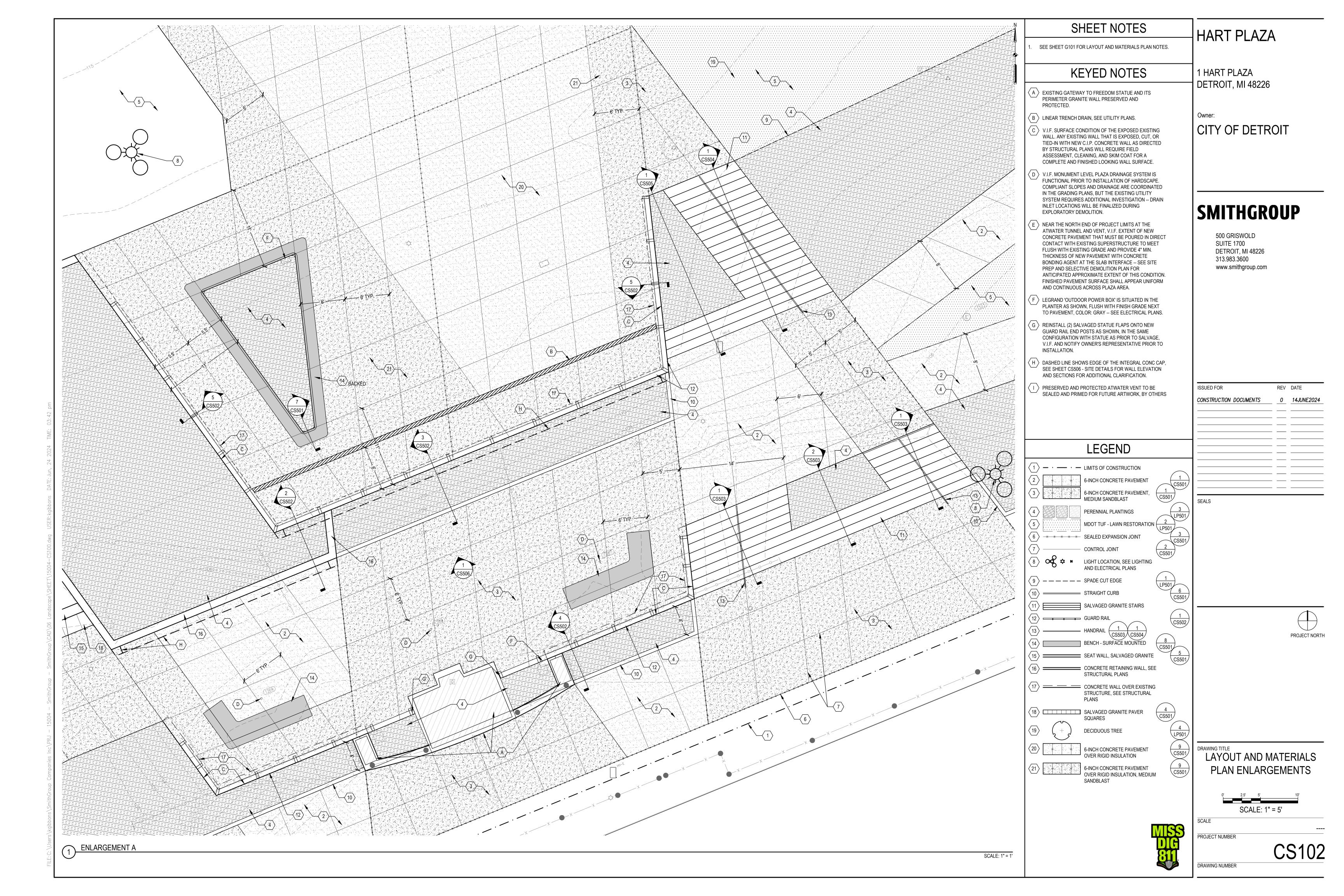
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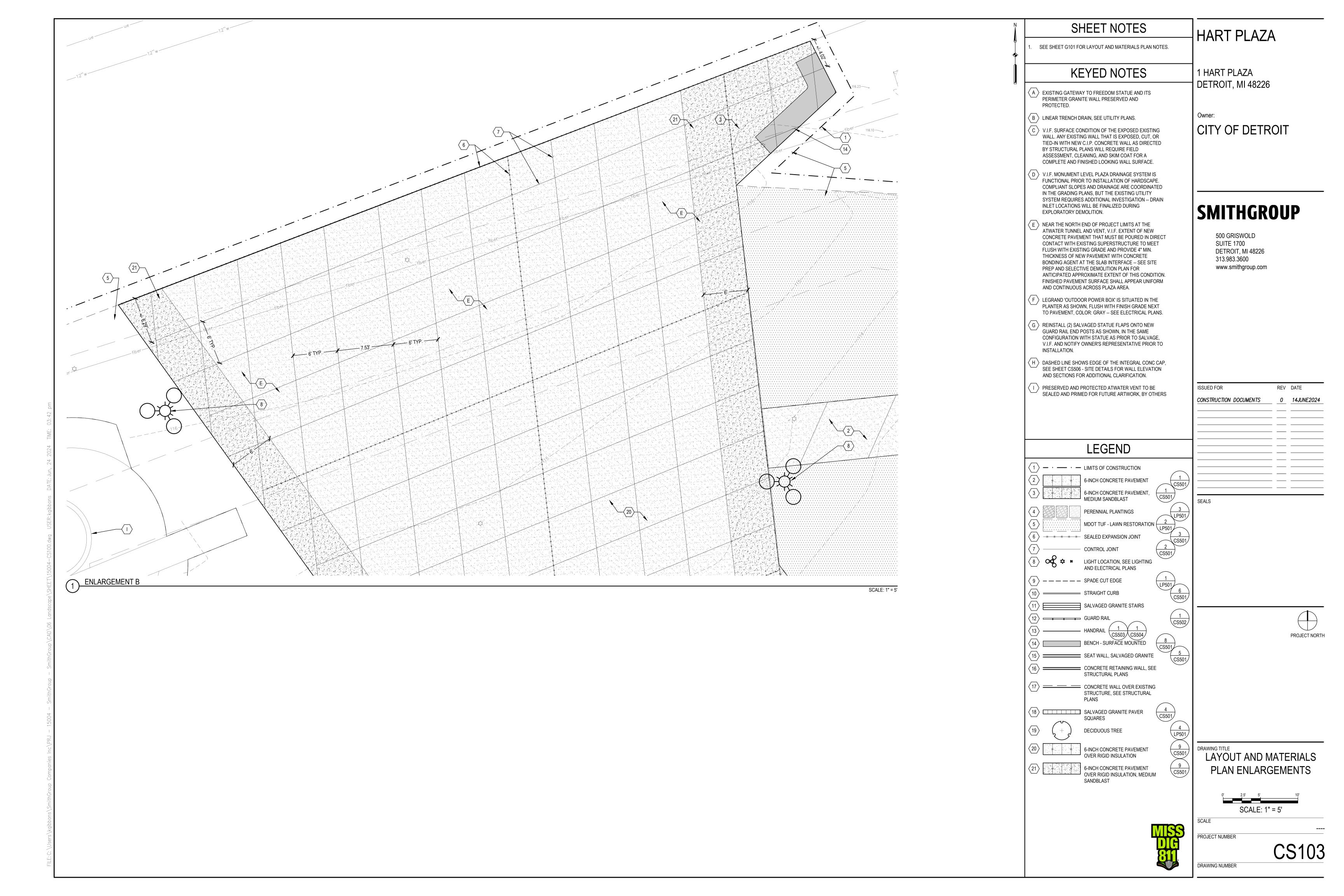
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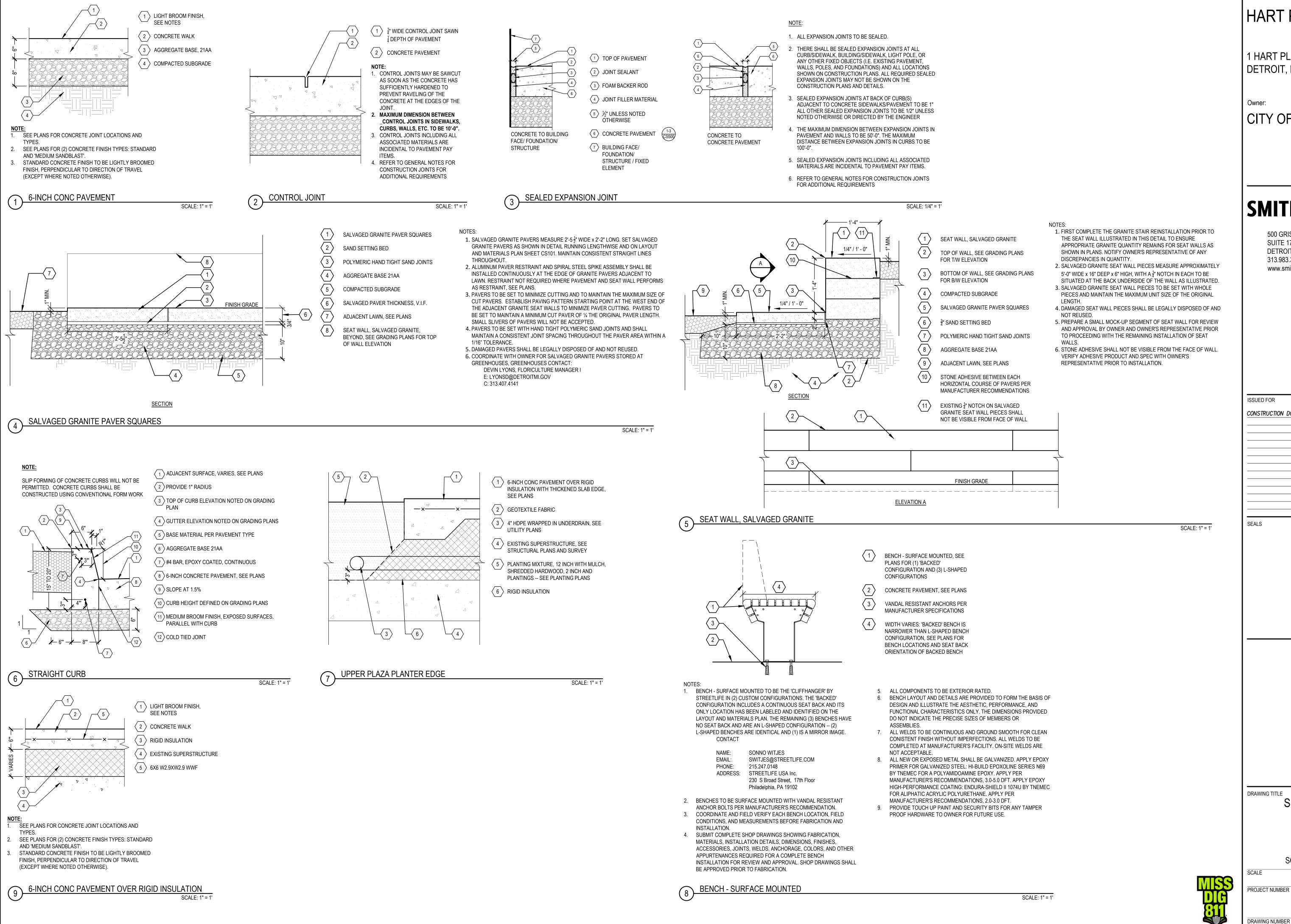
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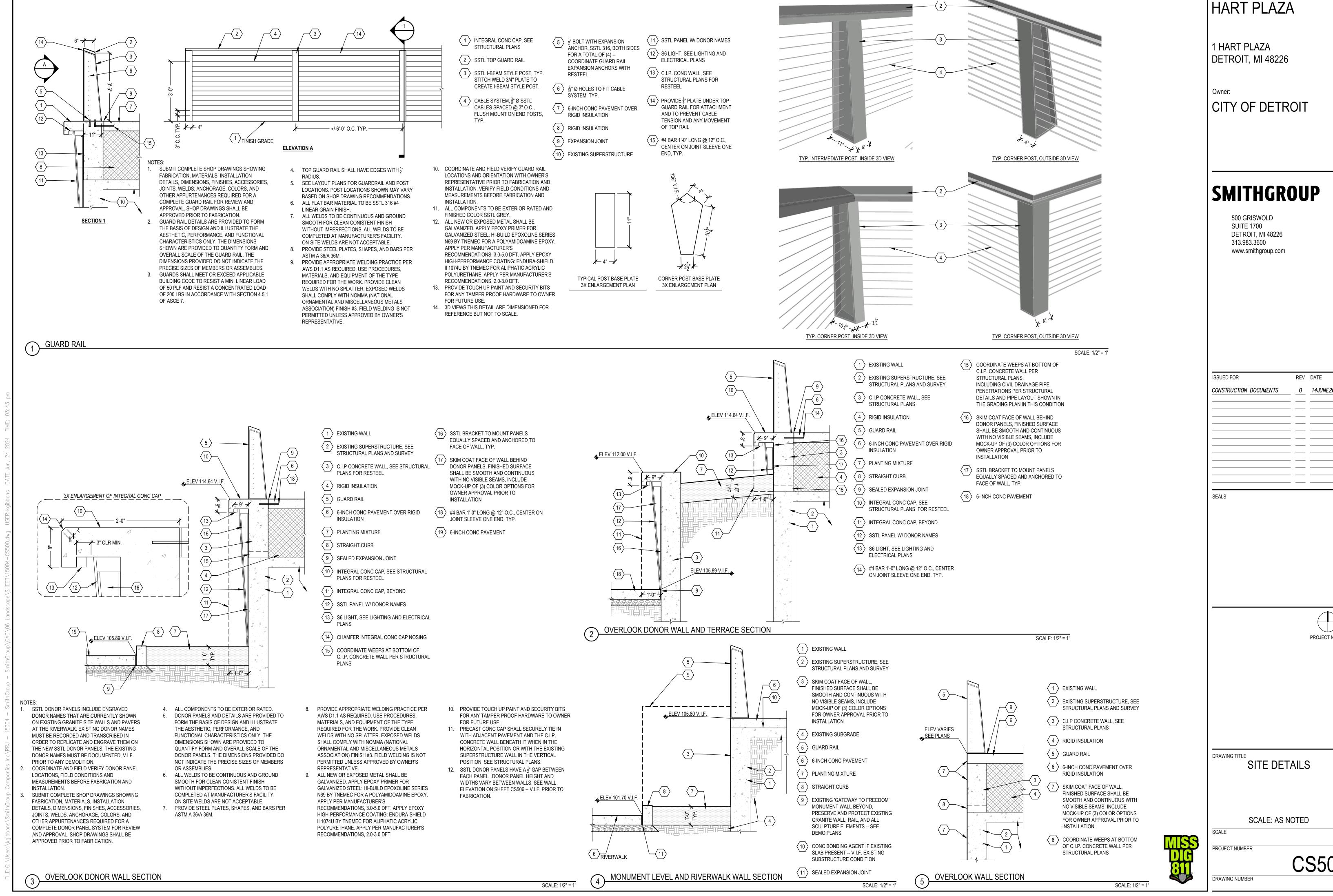
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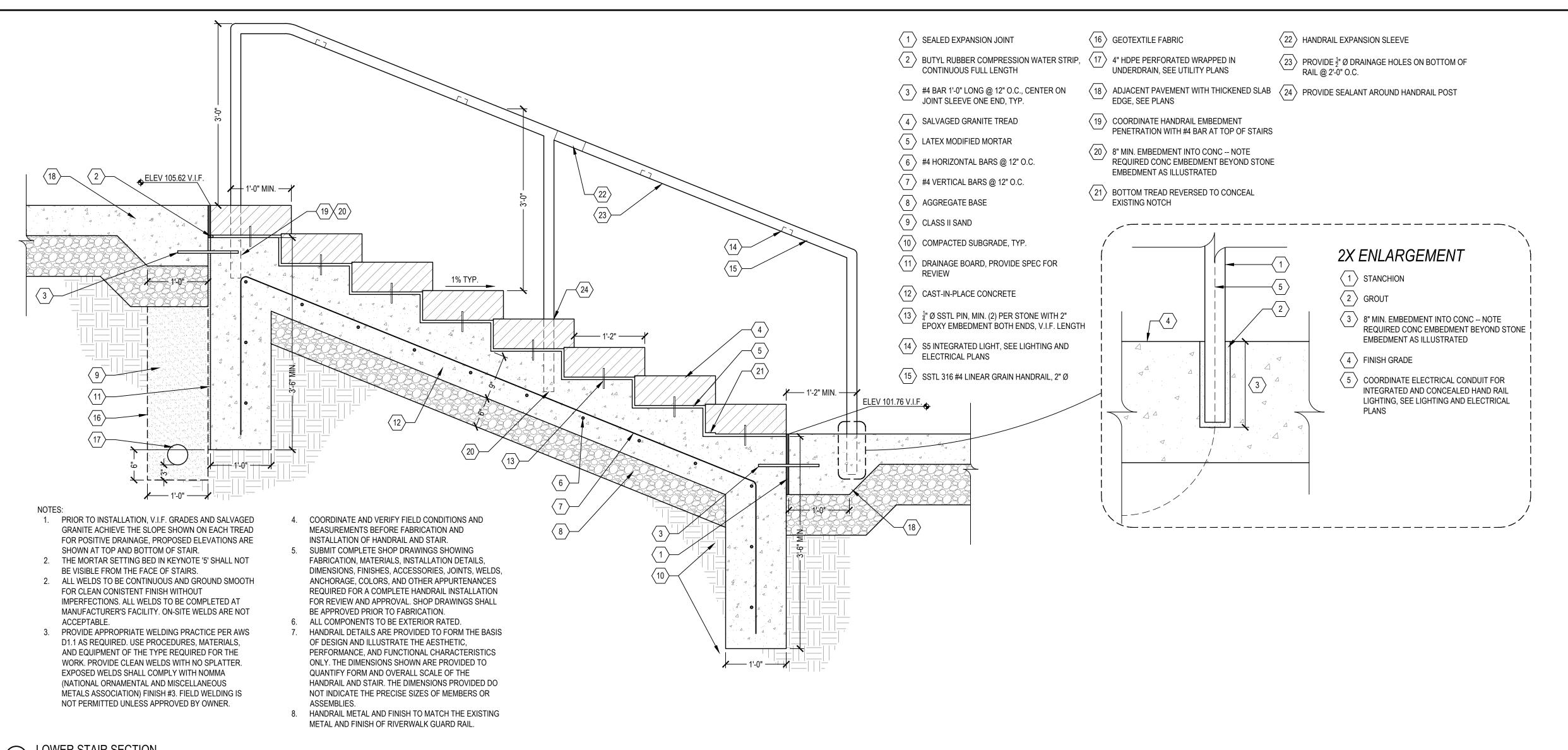
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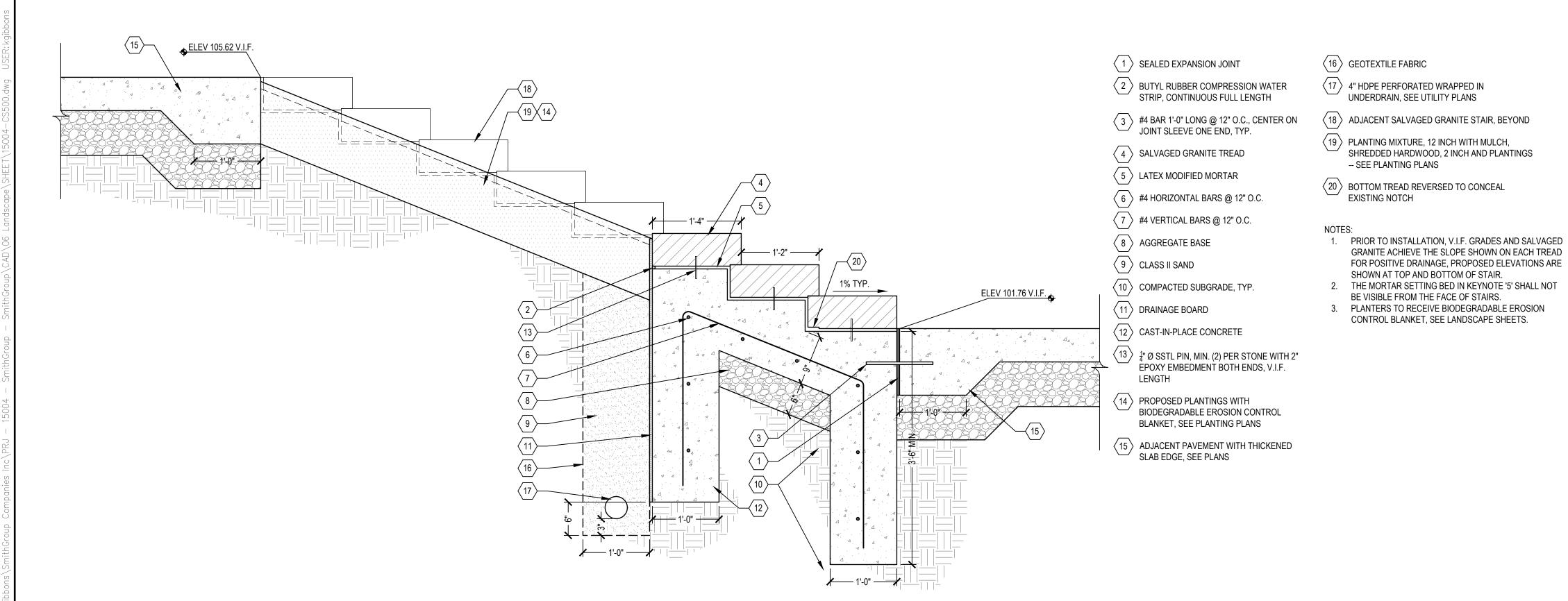
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PROJECT NORTH



1 LOWER STAIR SECTION

SCALE: 1" = 1'



LOWER STAIR SECTION AT PLANTER

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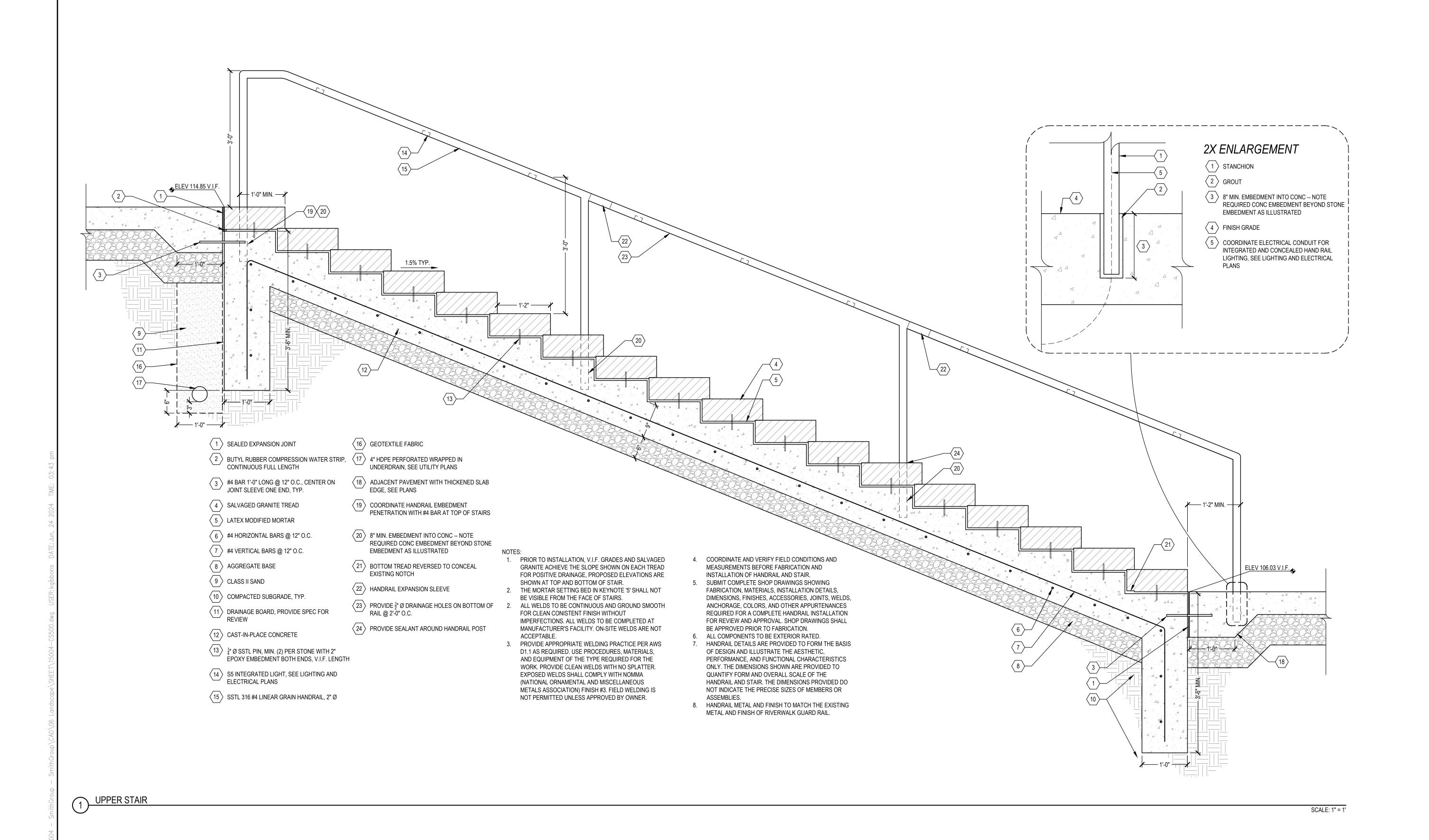
SCALE. AS

PROJECT NUMBER

DRAWING NUMBER

CS503

SCALE: 1" = 1'



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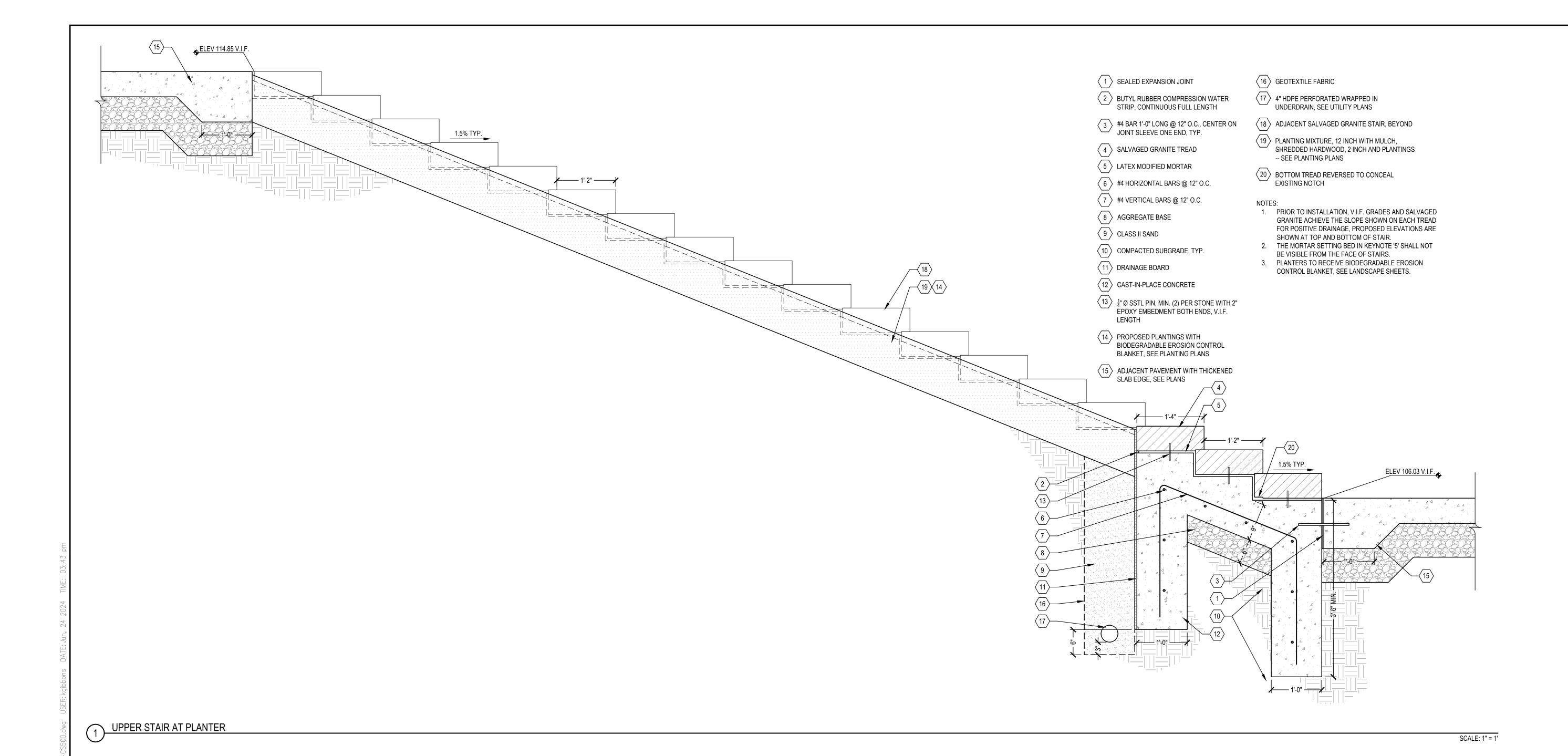
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SCALE
PROJECT NUMBER

DRAWING NUMBER

CS504



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SITE DETAILS

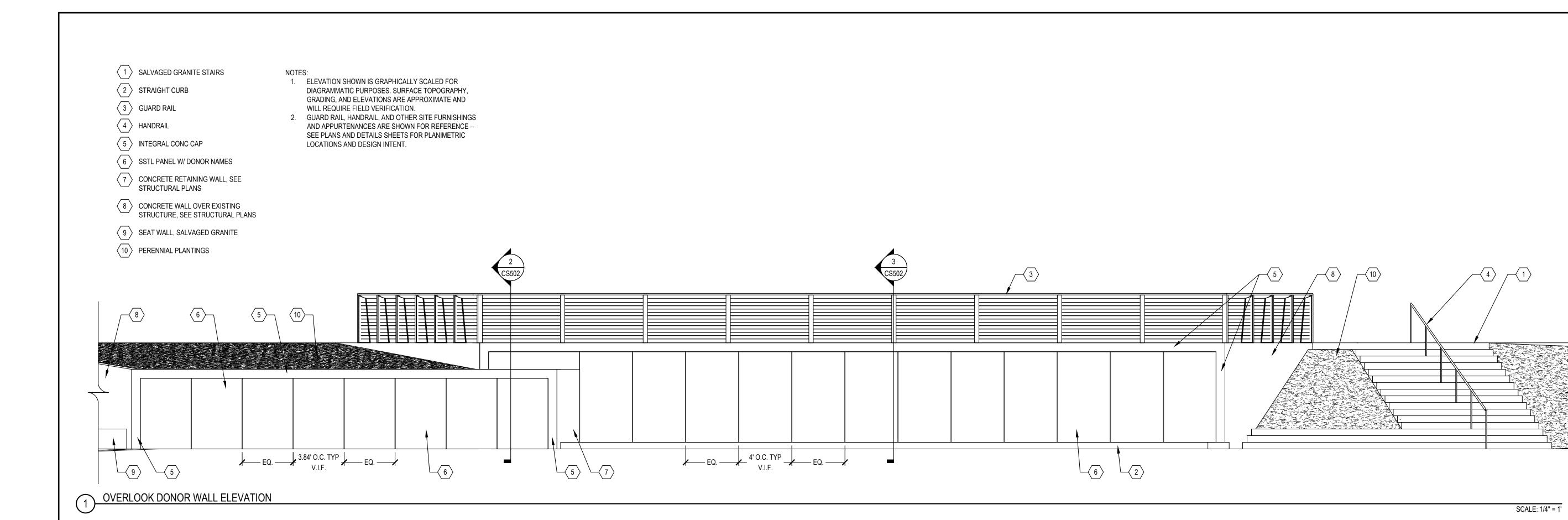
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SCALE

DRAWING NUMBER

PROJECT NUMBER

CS505



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SITE DETAILS

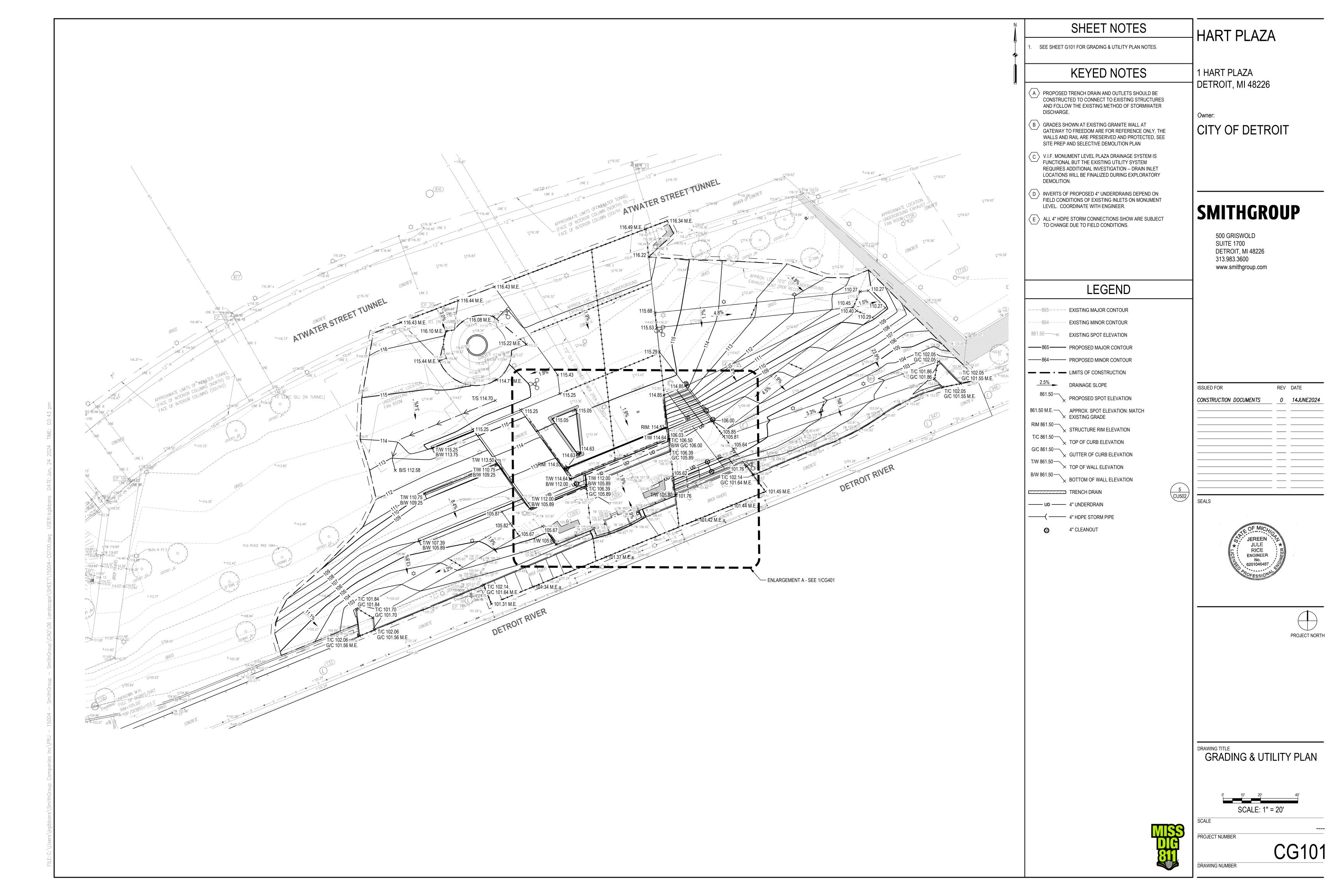
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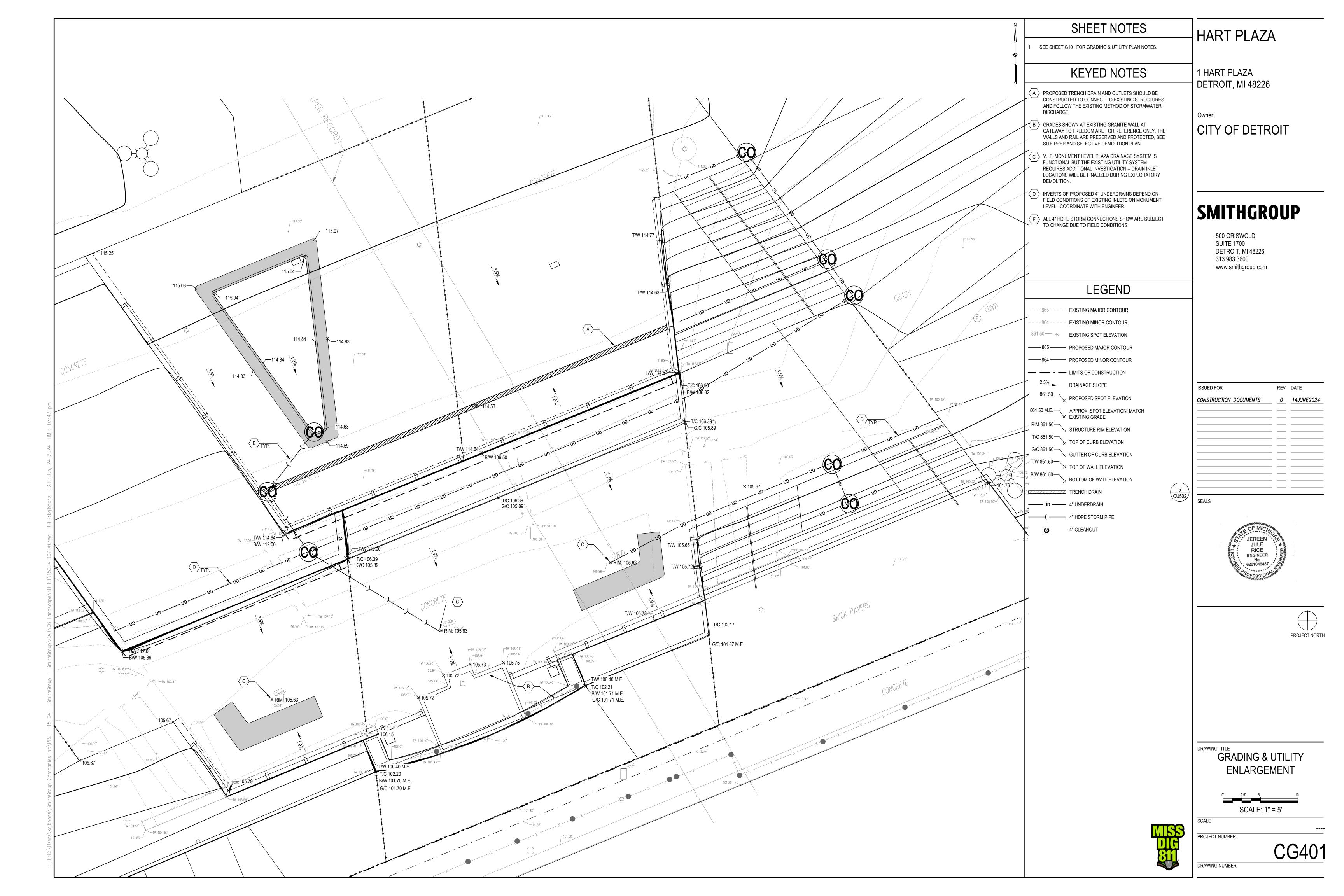
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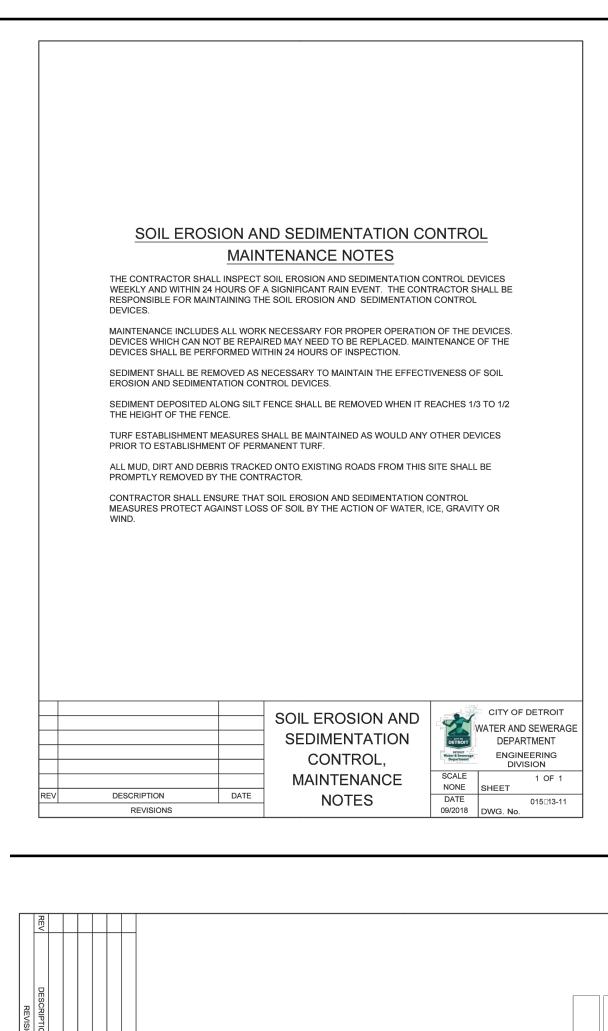
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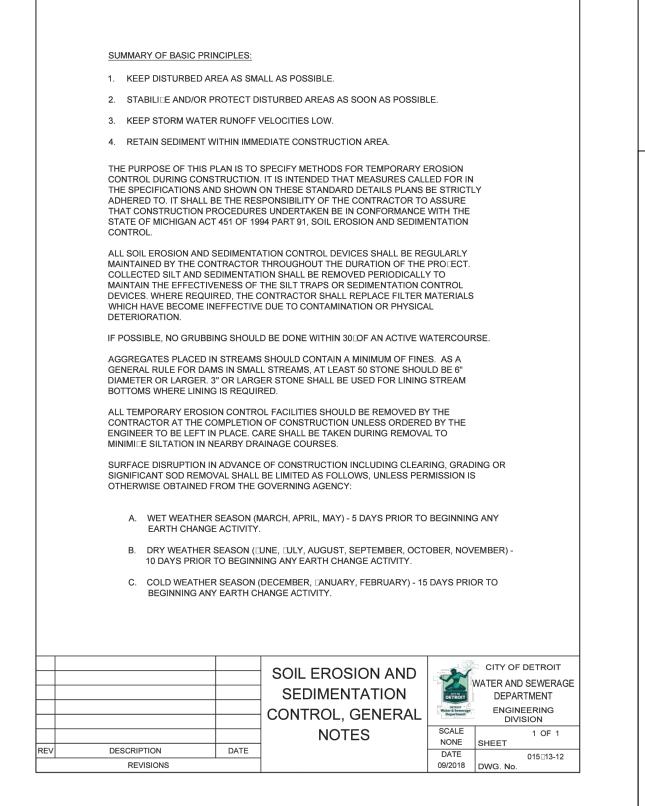
PROJECT NUMBER

CS506









DESCRIPTION			<b>k</b>	INDICATES APPLICABILITY TO ONE OR MORE OF THE		IS AND WAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET = OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADDACENT PROPERTIES	
				TO SINE SIX MORE SIX THE	SEVERY NOSEEM / NEX.	SLOPES	STREAMS AND WATERWAYS	SURFAC	ENCLOS (INLET C	LARGE F SURFAC	BORRO	ADDACE
DATE			KEY	DETAILS	CHARACTERISTICS	A	В	С	D	E	F	G
(FROM 1-5)	MEASURES	SOIL EROSION AND SEDIMENTATION	2	PERMANENT / TEMPORARY SEEDING  MULCH BLANKETS AND	STOCKPILE SHOULD BE TEMPORARILY SEEDED. AVOID EXTENSIVE AND UNNECESSARY CLEARING OF TOPSOIL.  SAVES COST OF GRUBBING, PROVIDES NEW SPROUTS. RETAINS EXISTING ROOT MAT SYSTEMS. REDUCES WINDFALL AT NEW FOREST EDGE. REDUCES SHEET FLOW VELOCITIES. DISCOURAGES EQUIPMENT ENTRANCE.  INEXPENSIVE AND VERY EFFECTIVE. STABILILES SOIL, THUS MINIMICING EROSION. PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF. //OLUME SHOULD INCLUDE PREPARED TOPSOIL BED. FERTILLICING MULCHING AND WATERING REQUIRED.	<b>* * *</b>		*		* *	*	*
	_ (0 =	U	4		RODIBLE SLOPES AFFORDING EXCELLENT PROTECTION AGAINST RAIN AND MIND EROSION. INDERCASION. INGH VELOCITY MULCH BLANKETS WORK WELL FOR STABILITING THE BOTTOM DITCHES IN WATERWAYS.	*		*		*	*	
	SCALE SHE	WATER AND SEWERAGE DEPARTMENT ENGINEERING	5	TIDIO-SEEDING N	EFFECTIVE ON LARGE AREAS. MULCH TACKING AGENT USED TO PROVIDE IMMEDIATE PROTECTION UNTIL SPASS IS ROOTED. HOULD INCLUDE PREPARED TOPSOIL BED. FERTILICING, MULCHING AND WATERING ARE REQUIRED.	*				*	*	*

REV											
DESCRIPTION		*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	OF A SPECIFIC CONTROL MEASURE SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET    OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	AD:
DATE		KEY	DETAILS	CHARACTERISTICS	Α	В	С	D	Е	F	G
(FROM 6-10)	SOIL EROSION AND SEDIMENTATION CONTROL MEASURES	8	VEGETATIVE BUFFER STRIP  VEGETATIVE BUFFER STRIP  WULCHING AND MULCH ANCHORING	PROVIDES IMMEDIATE PROTECTION. CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH. EASY TO PLACE. MAY BE REPAIRED IF DAMAGED. SHOULD INCLUDE PREPARED TOPSOIL BED.  SLOWS RUNOFF VELOCITY. FILTERS SEDIMENT FROM RUNOFF. REDUCES VOLLUME OF RUNOFF ON SLOPES. ASSISTS IN ESTABLISHING PERMANENT VEGETATIVE COVER.  USED ALONE TO PROTECT EXPOSED AREAS FOR SHORT PERIODS. PROTECTS SOIL FROM IMPACT OF FALLING RAIN. PRESERVES SOIL MOISTURE AND PROTECTS GERMINATING SEED FROM TEMPERATURE EXTREMES. SHOULD BE INSPECTED AFTER EVERY RAINSTORM AND REPAIRED AS NECESSARY UNTIL VEGETATION IS WELL ESTABLISHED.	* *				*	*	*
DATE	SCALE SCALE	9	SLOPE ROUGHENING AND SCARIFICATION	CAN BE ACCOMPLISHED BY HARROWING WITH A DISK, BACK BLADING, OR TRACKING WITH A DOLER PERPENDICULAR TO THE SLOPE. REDUCES VELOCITY AND INCREASES INFILTRATION RATES. COLLECTS SEDIMENT. HOLDS WATER, SEED, AND MULCH BETTER TH	*				*	*	*
SHEET 015 13-14	CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION 2 OF	10	RIP RAP	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS. PERMITS RUNOFF TO INFILITATE SOIL. DISSIPATES SERERGY FLOW AT SYSTEM OUTLETS. SHOULD BE PLACED ON A GEOTEXTILE LINER.	*	*	*	*			

	REV		+										
REVISIONS	DESCRIPTION			*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	Y OF A SPECIFIC CONTROL MEASURE E SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET □ OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADDACENT PROPERTIES
Ì	DA			KEY	DETAILS	CHARACTERISTICS	Α	В	С	D	Е	F	G
	SOIL EROSION AN SEDIMENTATION CONTROL MEASURES (FROM 11-15)	SOIL	11	AGGREGATE COVER	STABILITIES SOIL SURFACE, THUS MINIMITING EROSION. PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS. REDUCES POTENTIAL SOIL EROSION AND FUGITIVE DUST BY STABILITING RAW AREAS.					*			
	MEASURES	$\sim$ $\cup$	- 1	12	BENCHES	REDUCES RUNOFF VELOCITY BY REDUCING EFFECTIVE SLOPE LENGTH. COLLECTS SEDIMENT. PROVIDES ACCESS TO SLOPES FOR SEEDING, MULCHING AND MAINTENANCE.	*					*	
1 - 10)	JRES	TATIO	EROSION AND	13	DIVERSION BERM	DIVERTS WATER FROM VULNERABLE AREAS. COLLECTS AND DIRECTS WATER TO PREPARED DRAINAGEWAYS. MAY BE PLACED AS PART OF NORMAL CONSTRUCTION OPERATION.	*				*	*	*
0	m	· · · · · · · · · · · · · · · · · · ·	ND	14	INTERCEPTING DITCH	COLLECTS AND DIVERTS WATER TO A STABLE OUTLET OR SEDIMENT CONTROL DEVICE TO REDUCE EROSION. POTENTIALLY BE INCORPORATED IN PERMANENT PROJECT DRAINAGE SYSTEMS.	*				*	*	*
ω	NONE SH	The second second		15	DIVERSION BERM INTERCEPTING DITCH	DIVERTS WATER TO A PREPARED DRAINAGEWAY. MAY BE USED AT INTERVALS ACROSS SLOPE FACE TO REDUCE EFFECTIVE SLOPE LENGTH.	*				*	*	*
DWG. No.	3 OF D	WATER AND SEWERAGE DEPARTMENT ENGINEERING DIVISION	CITY OF DETROIT										

REV											
DESCRIPTION REVISIONS		*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	OF A SPECIFIC CONTROL MEASURE SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET 🗆 OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	AD: ACENT PROPERTIES
DATE		KEY	DETAILS	CHARACTERISTICS	Α	В	С	D	E	F	G
SOIL		16	DUST CONTROL	DUST CONTROL CAN BE ACCOMPLISHED BY WATERING, AND/OR APPLYING CALCIUM CHLORIDE. THE DISTURBED AREAS SHOULD BE KEPT TO A MINIMUM. PERMANENT/TEMPORARY SEEDING SHOULD BE APPLIED AS SOON AS POSSIBLE.	*				*	*	
MEASURES (FROM 16-20)	_ ()	1	GRAVEL FILTER BERM	FILTER FLOW PRIOR TO ENTRY INTO A LAKE, STREAM OR WETLAND. NOT TO BE USED AS A CHECK DAM.	*		*			*	*
URES 16-20)	EROSION AND IMENTATION	18	BRUSH FILTER	USES SLASH AND LOGS FROM CLEARING OPERATIONS. CAN BE COVERED AND SEEDED RATHER THAN REMOVED. ELIMINATES NEED FOR BURNING OR REMOVAL OF MATERIAL FROM SITE.							*
	ŽŽ	19	BARE CHANNEL	LEAST EXPENSIVE FORM OF DRAINAGEWAY. MAY BE USED ONLY WHERE GRADIENT IS VERY LOW AND WITH SOILS OF MINIMUM EROSION POTENTIAL.			*				
SCALE NONE SHEET  DATE DATE DWG NO 09/2018 DWG NO	CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT ENGINEERING	20	GRASSED WATERWAY	GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT. USED WHERE BARE CHANNEL WOULD BE ERODED.			*				
4 OF 0	ETROIT SEWERAGE MENT										

REV												
DESCRIPTION REVISIONS			*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	( OF A SPECIFIC CONTROL MEASURE E SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET D OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADDACENT PROPERTIES
DATE			KEY	DETAILS	CHARACTERISTICS	A	ω s B	C	D	E	F	G
	CONTROL MEASURES	SOIL EROSION AND SEDIMENTATION	21 22 23 24	SLOPE DRAIN (SUBSURFACE PIPE)  PIPE DROP  SOD FILTER  STRAW BALE FILTER	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA. USUALLY PERMANENT. CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES.  REDUCES RUNOFF VELOCITY. REMOVES SEDIMENT AND TURBIDITY. CAN BE DESIGNED TO HANDLE LARGE VOLUMES OF FLOW. ALLOWS WATER TO DROP RAPIDLY IN ELEVATION WITHOUT CAUSING EXCESSIVE EROSION.  INEXPENSIVE TO CONSTRUCT. PROVIDES IMMEDIATE PROTECTION. PROTECTS AREAS AROUND INLETS FROM EROSION.  INEXPENSIVE AND EASY TO CONSTRUCT. CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT.	<b>*</b>		*	*			
	age of the same of	WATER AND SEWERAGE DEPARTMENT ENGINEERING	25	CHECK DAM	MAY BE USED IN CONLUNCTION WITH SNOW FENCE FOR ADDED STABILITY.  CAN BE CONSTRUCTED ACROSS DITCHED OR ANY AREA OF CONCENTRATED FLOW. PROTECTS VEGETATION IN EARLY STAGES OF GROWTH. A CHECK DAM IS INTENDED TO REDUCE WATER VELOCITIES AND CAPTURE SEDIMENT. A CHECK DAM IS NOT A FILTERING DEVICE	*		*			*	

REV	1 '	,	1		_	_										
		'		•		'										
REVISIONS							*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	OF A SPECIFIC CONTROL MEASURE SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET = OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADDACENT PROPERTIES
DATE	2 .	,	,			$\overline{}$	KEY	DETAILS	CHARACTERISTICS	Α	В	С	D	Е	F	G
		<u> </u>		SEC	SOIL		26	INLET PROTECTION FABRIC DROP	PROVIDES SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ITS ENTRY INTO THE DRAINAGE SYSTEM.  CAN BE USED IN MEDIAN AND SIDE DITCHES WHERE VEGETATION WILL BE DISTURBED.  ALLOWS FOR EARLY USE OF DRAINAGE SYSTEMS PRIOR TO PROJECT COMPLETION.			*		*		
FROM 26-30)	MEASURES		ONTE	SEDIMENTATION	<b>EROS</b>		2	ROCK FILTER	CAN UTILICE MATERIAL FOUND ON SITE. EASY TO CONSTRUCT. FILTERS SEDIMENT FROM RUNOFF.				*			*
26-30)	RES		2	IATION	<b>EROSION AND</b>		28	INLET SEDIMENT TRAP	EASY TO SHAPE. COLLECTS SEDIMENT. MAY BE CLEANED AND EXPANDED AS NEEDED. CAN BE USED WHERE MEDIUM FLOWS ARE ANTICIPATED.				*			
09 D	N SC	3			ð	-[	29	STONE AND ROCK CROSSING	MAY BE ROCK OR CLEAN RUBBLE MINIMILES STREAM TURBIDITY. INEXPENSIVE. MAY ALSO SERVE AS DITCH CHECK OR SEDIMENT TRAP.		*					
DATE 015⊡13-18 09/2018 DWG No	NONE SHEET 6 OF [	DIVISION	ENGINEERING	DEPARTMENT	CITY OF DETROIT		30	SILT FENCE COCCOCCO	A PERMEABLE BARRIER ERECTED BELOW DISTURBED AREAS TO CAPTURE SEDIMENTS FROM SHEET FLOW.  CAN BE USED TO DIVERT SMALL VOLUMES OF WATER TO STABLE OUTLETS. INEFFECTIVE AS A FILTER AND SHOULD NEVER BE PLACED ACROSS STREAMS OR DITCHES WHERE FLOW IS CONCENTRATED.	*					*	*

REV												
DESCRIPTION REVISIONS			*	INDICATES APPLICABILITY TO ONE OR MORE OF THE	OF A SPECIFIC CONTROL MEASURE SEVEN PROBLEM AREAS.	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (INLET    OUTFALL CONTROL)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	AD:
DATE			KEY	DETAILS	CHARACTERISTICS	Α	В	С	D	Е	F	G
SOIL ERO SEDIMEI CON: MEAS (FROM				DRAIN GUARD	PERMEABLE BARRIER ERECTED AROUND AN INLET TO CAPTURE SEDIMENTS.				*			
				WIND BREAK	MINIMICES WIND EROSION. MAY BE SNOW FENCE.					*		
31-33)	JRES	SION AN	33	GRAVEL ACCESS APPROACH	PROVIDES A STABLE ACCESS TO ROADWAYS MINIMIZING FUGITIVE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS.					*	*	
	EROSION AND DIMENTATION CONTROL MEASURES ROM 31-33)				PROVIDES A STABLE ACCESS TO ROADWAYS MINIMIZING FUGITIVE DUST						*	
SHEET 015 113		WATER AND SEWERAGE DEPARTMENT ENGINEERING	CITY OF DETROIT									

1 HART PLAZA DETROIT, MI 48226

Owner:

CITY OF DETROIT

# **SMITHGROUP**

500 GRISWOLD SUITE 1700 DETROIT, MI 48226 313.983.3600 www.smithgroup.com

SSUED FOR	REV	DATE
ONSTRUCTION DOCUMENTS	_0_	14JUNE2024
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AWING TITLE UTILITY DETAILS

SCALE: AS NOTED

SCALE
PROJECT NUMBER

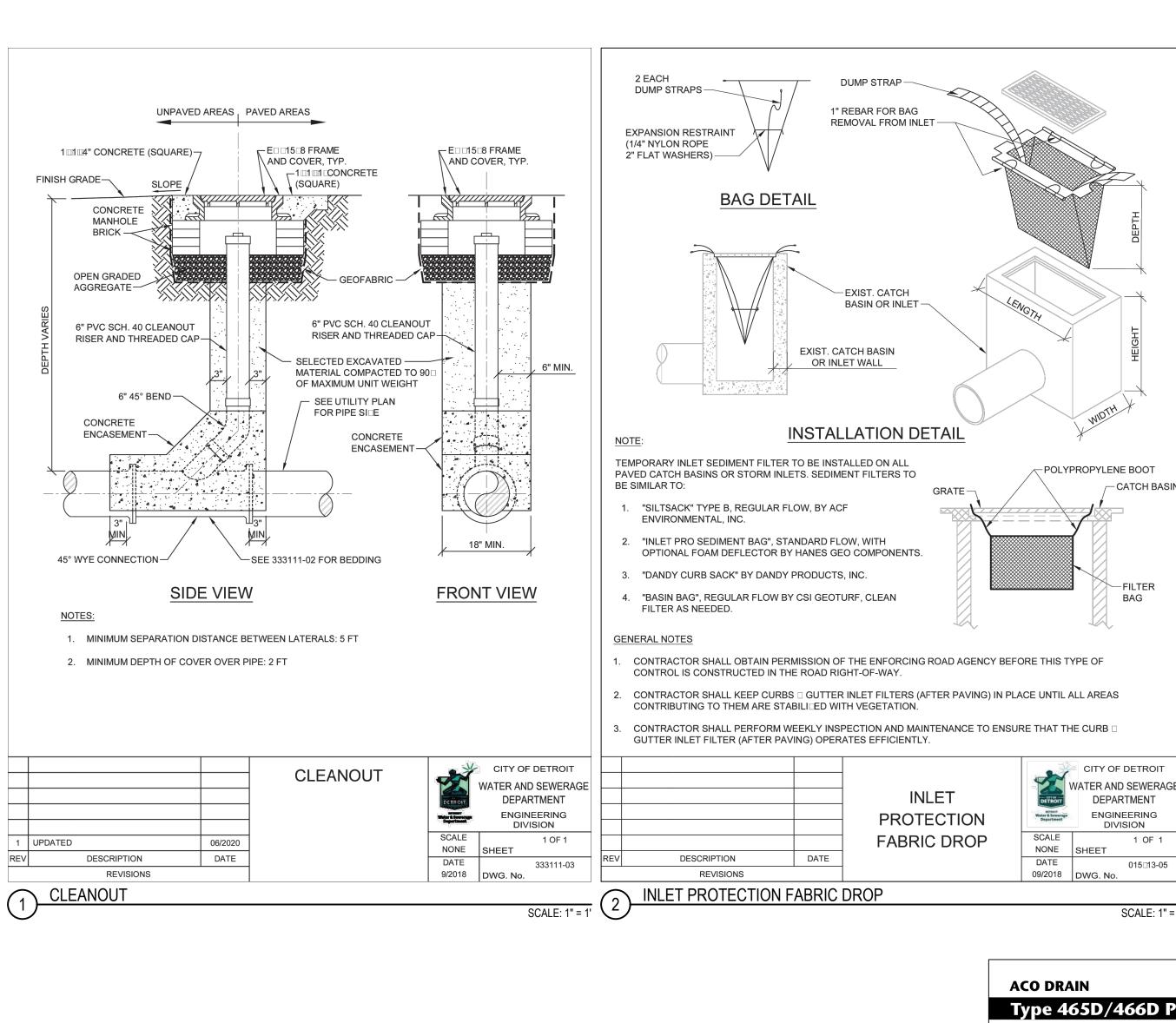
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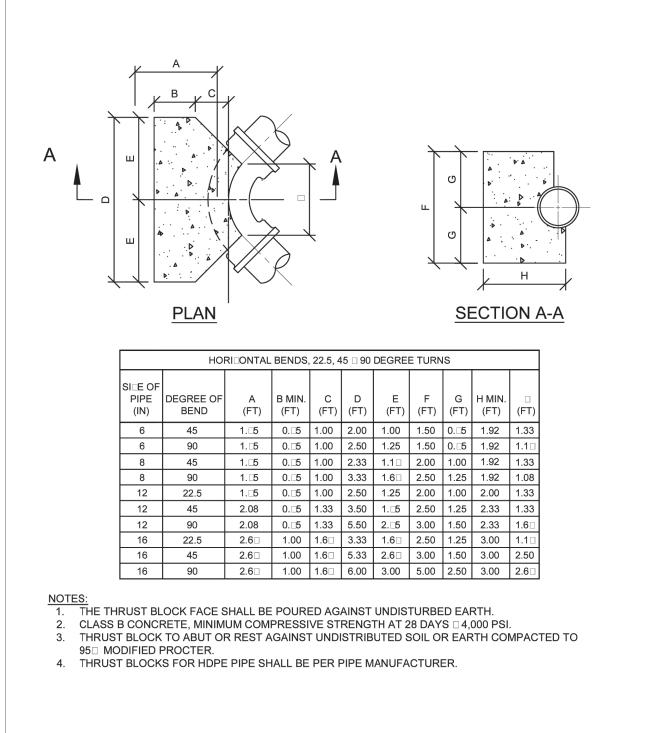
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SCALE:NTS

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HORI□ONTAL BEND

(TRADITIONAL

DWSD SI□ING)

DATE

THRUST BLOCK - HORIZONTAL BEND

DESCRIPTION

CITY OF DETROIT

NONE SHEET

9/2018 DWG. No

DATE

DEPARTMENT

ENGINEERING

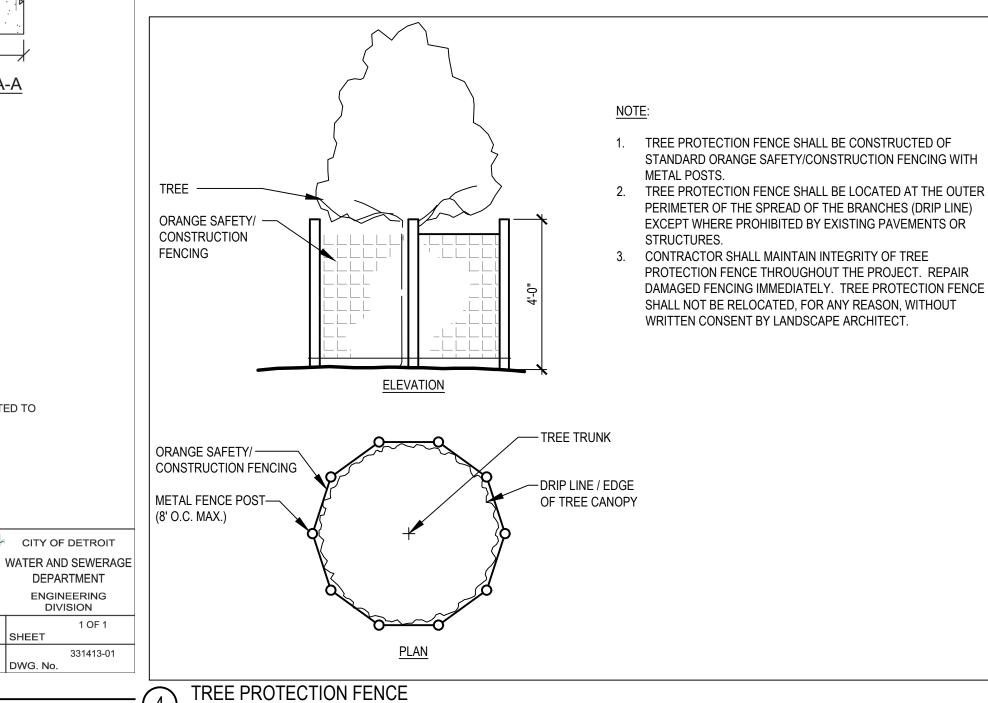
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1 HART PLAZA DETROIT, MI 48226

CITY OF DETROIT

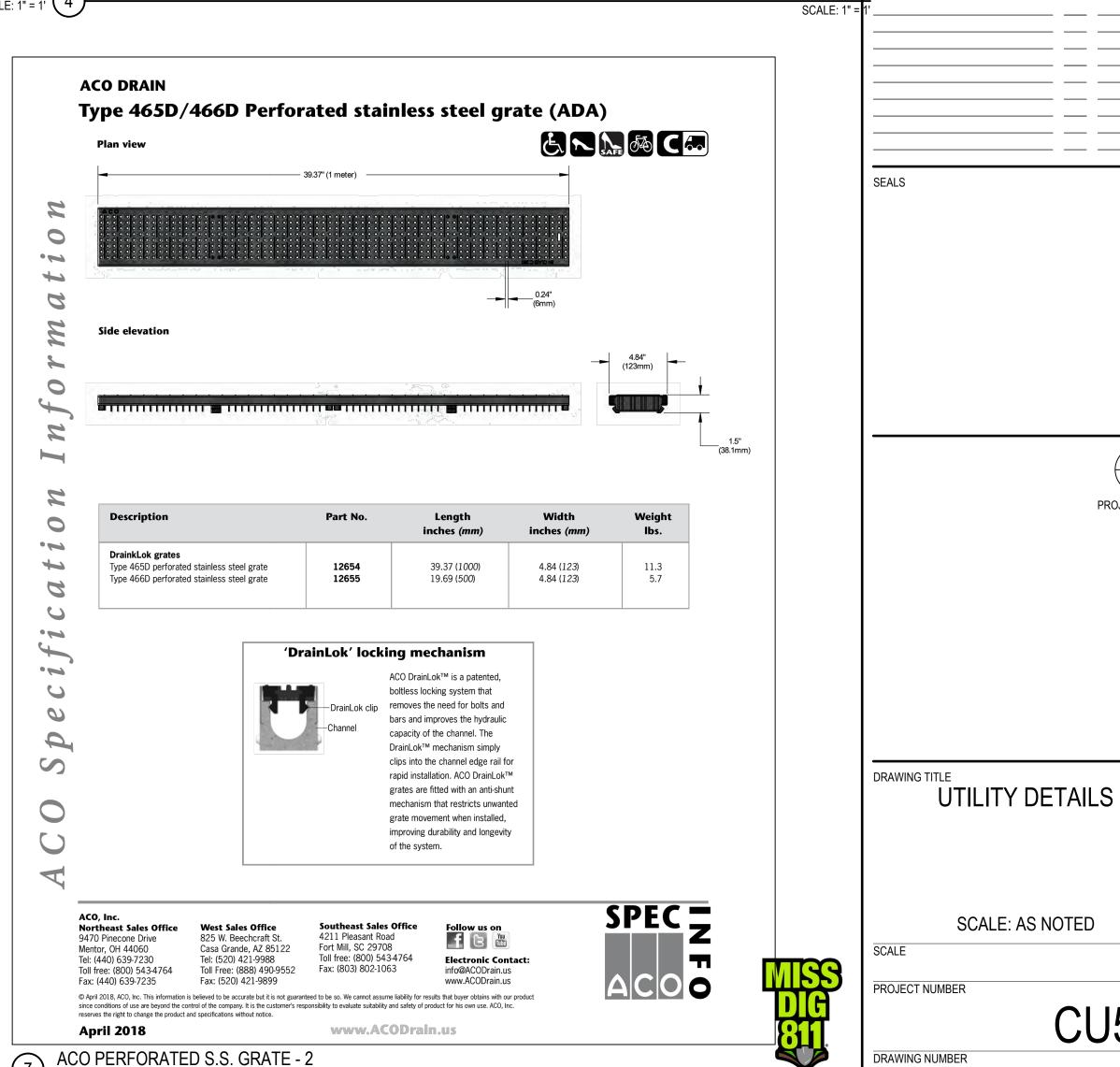
# **SMITHGROUP**

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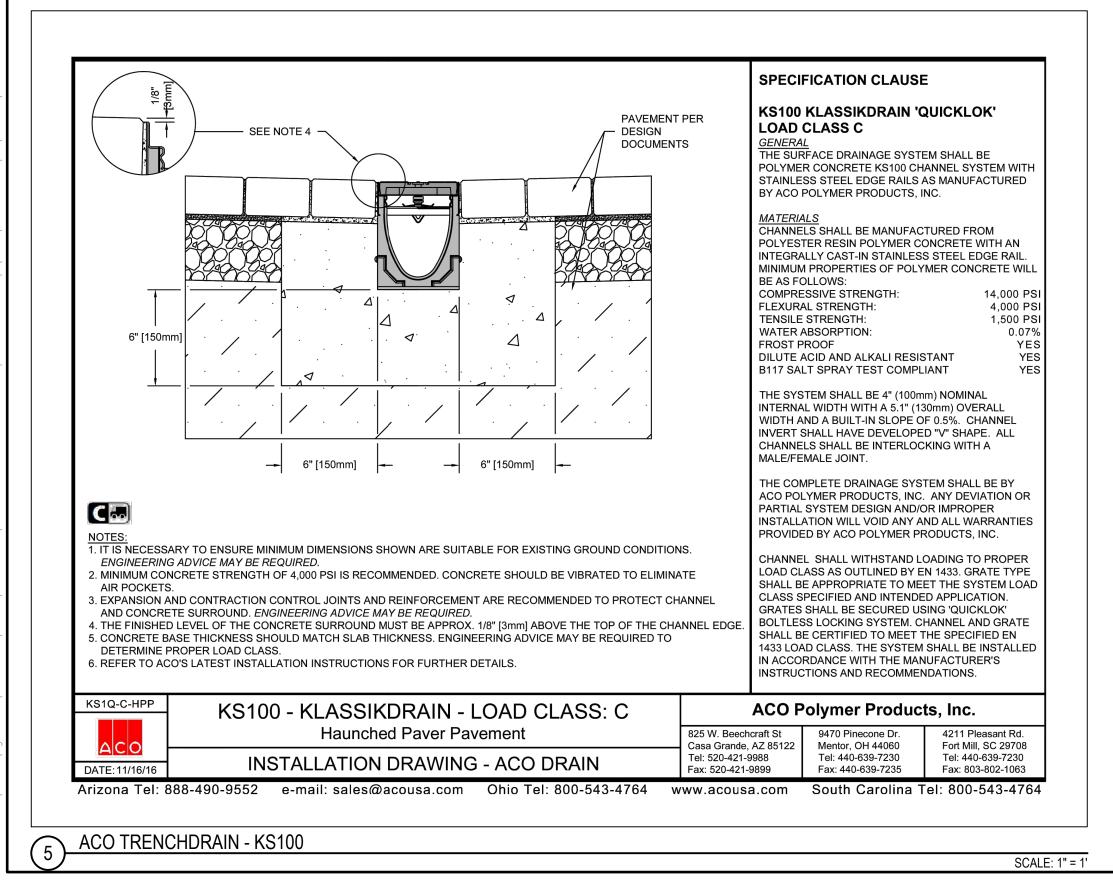
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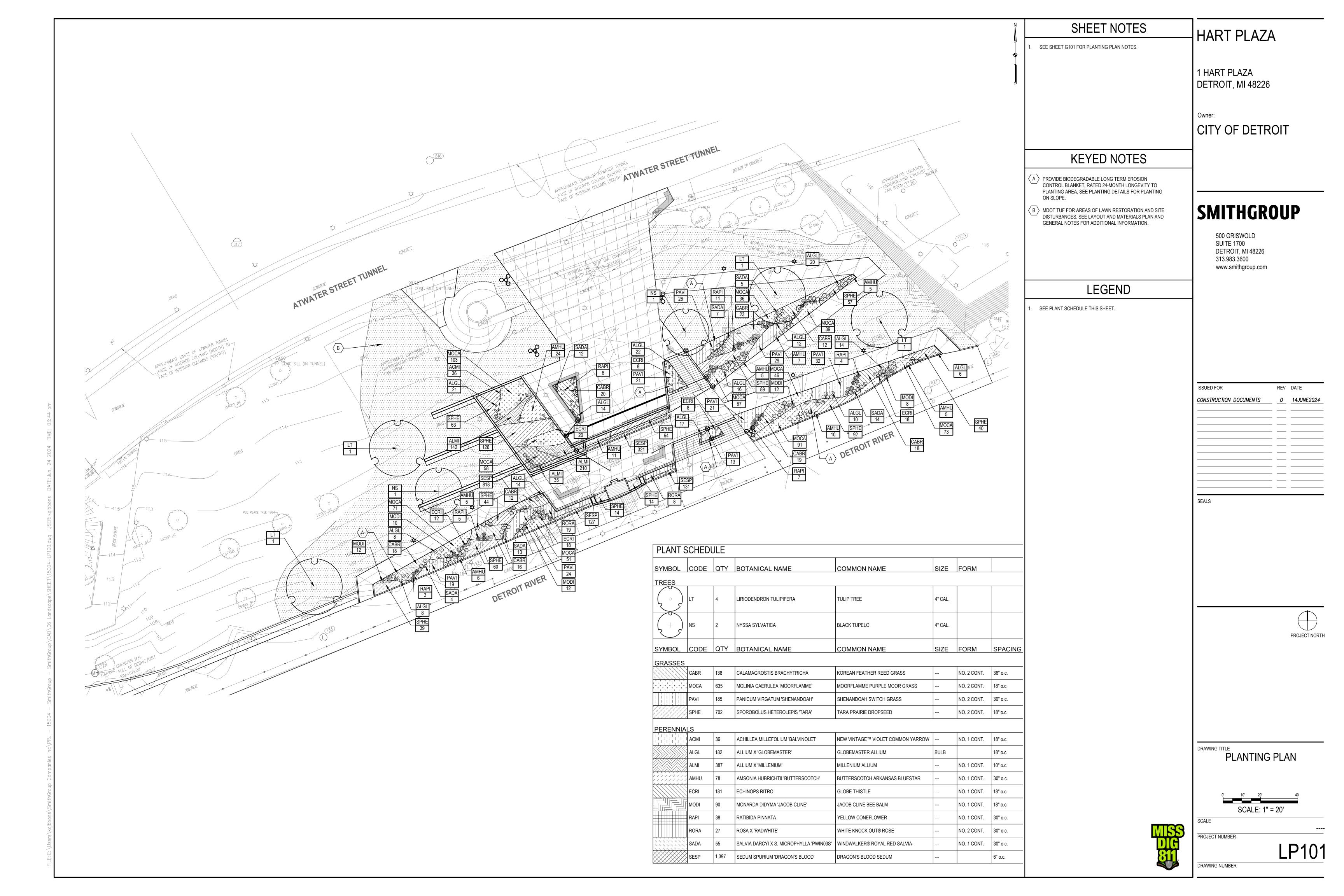
PROJECT NORTH

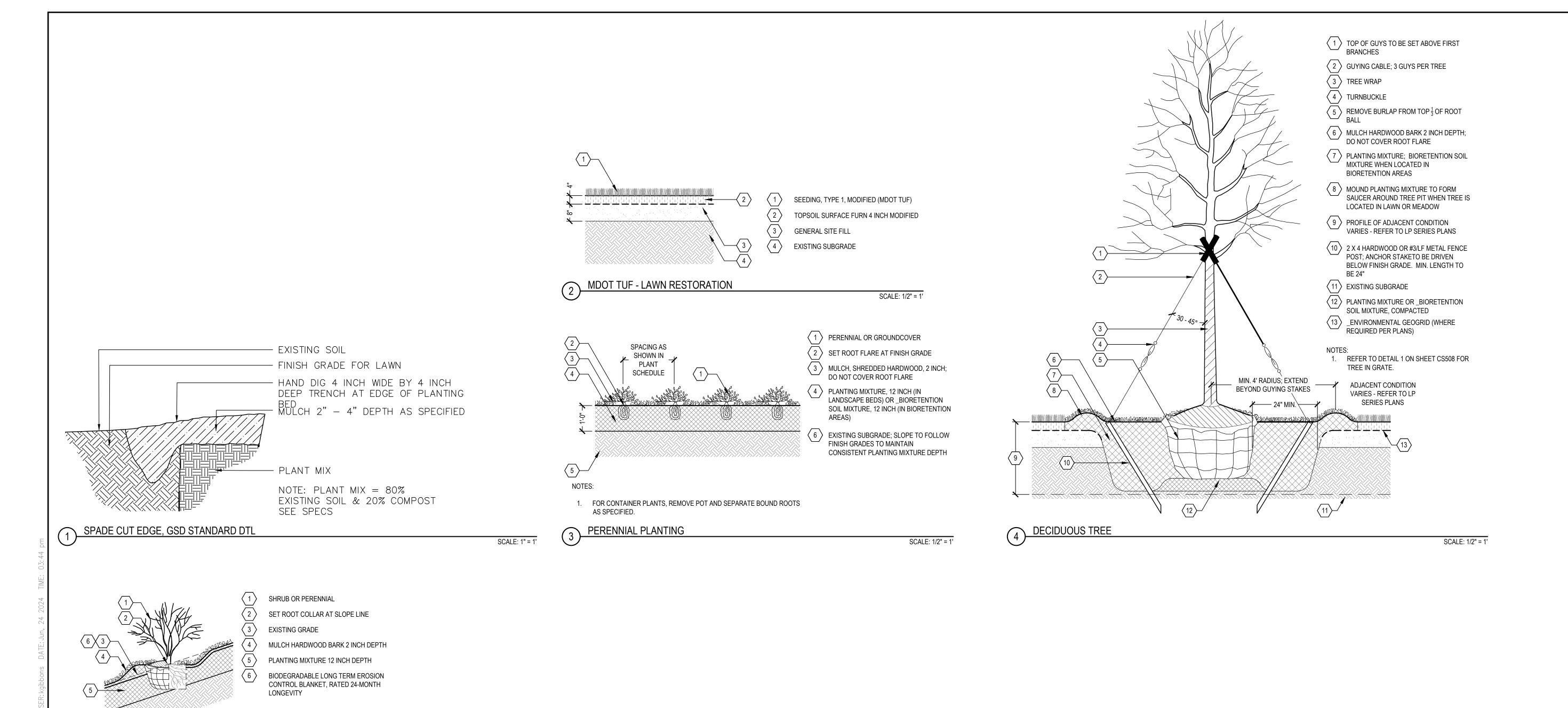




SCALE: 1" = 1'







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Owner:

CITY OF DETROIT

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ISSUED FOR

CONSTRUCTION DOCUMENTS	0_	14JUNE2024
SEALS		

REV DATE

RAWING TITLE PLANTING DETAILS

SCALE: AS NOTED

CALE

PROJECT NUMBER

DRAWING NUMBER

LP501

5 PERENNIAL PLANTING ON SLOPE

SCALE: 1/2" = 1'

7 EXISTING SUBGRADE

MISS DIG

# CONDUCTOR NOTES . PROVIDE DEDICATED NEUTRAL AND A SHARED EQUIPMENT GROUNDING CONDUCTOR SIZED PER THE NEC FOR BRANCH CIRCUITS. PROVIDE #6 CONDUCTORS, INCLUDING GROUND, FOR ALL LIGHTING AND RECEPTACLE CIRCUIT, UON. SHARED GROUND CONDUCTORS SHALL BE PERMITTED AND MUST FOLLOW NEC REQUIREMENTS. REFER TO VOLTAGE DROP SCHEDULES AND RELATED NOTES FOR ADDITIONAL INFORMATION. CONDUIT NOTES A. ROUTE UNDERGROUND CONDUITS TO AVOID OBSTACLES, INCLUDING BUT NOT LIMITED TO, BUILDING FOUNDATIONS, POLE FOUNDATIONS, IRRIGATION LINES, DRAINAGE, PLANTING AND TREES, ETC. IDENTIFY FINAL UNDERGROUND CONDUITS ON AS-BUILT DRAWINGS. B. SMALLEST CONDUIT SHALL BE 1". UON. CONDUIT FILL **CONDUIT FILL TABLE** CONDUCTORS CONDUIT FILL NOTES: A. #10 CONDUCTORS SHALL NOT BE COMBINED WITH CONDUCTORS OF ANY DIHER SIZE, UNLESS DIHERWISE NOTED. B. WHEN COMBINING DIFFERING CONDUCTOR SIZES IN A SINGLE CONDUIT, THE SMALLEST SIZE CONDUCTOR SHALL COUNT AS THE LARGEST CONDUCTOR SIZE FOR CONDUIT FILL PURPOSES, UNLESS THE CONTRACTOR PERFORMS CONDUIT FILL CALCULATIONS AND ABIDES BY NEC FILL AND CONDUCTOR AMPACITY ADJUSTMENT REQUIREMENTS. OF THE NEC.

## GROUNDING AND BONDING NOTES

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METAL POLES, AND OTHER METAL SUPPORTS THAT CARRY OR ENCLOSE ELECTRICAL WIRING SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250.50

## GENERAL NOTES

- A. THE DRAWINGS REPRESENT ELECTRICAL DESIGN INTENT. THEY ARE SCHEMATIC AND DIAGRAMMATIC AND DO NOT INDICATE CONSTRUCTION DETAILS OR ROUTING UNLESS OTHERWISE NOTED. PROVIDE PRODUCTS CONSISTENT WITH THE DESIGN INTENT AND NECESSARY FOR COMPLETE OPERATING ELECTRICAL
- B. INSTALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL BUILDING, AND FIRE CODES IN A NEAT AND WORKMANLIKE MANNER.
- C. FINAL SELECTION AND INSTALLATION OF EQUIPMENT SHALL BE EVALUATED BY THE CONTRACTOR AND BASED ON SITE CONDITIONS AND CODE REQUIREMENTS. THE CONTRACTOR SHALL ENSURE SUFFICIENT ELECTRICAL WORKING SPACE AND ACCESS IS PROVIDED AND MAINTAINED TO PERMIT SAFE OPERATION AND MAINTENANCE OF THE EQUIPMENT.
- D. CLOSELY COORDINATE THE WORK WITH ALL OTHER TRADES AND SITE CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS AND STARTING CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND CONTRACT DOCUMENTS PRIOR TO BID AND CONSTRUCTION.
- PROVIDE ANY AND ALL WORK AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION, INCLUDING, BUT NOT LIMITED TO; INTERCONNECTING WIRING, CABLES, TERMINATIONS, CONDUITS, RACEWAYS, JUNCTION BOXES, COVERS, PLATES, MOUNTING SUPPORTS, HARDWARE, FASTENERS, AND PULL STRINGS.
- . CONTACT DTE AND ALL UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF ANY CONSTRUCTION. DO NOT BEGIN ANY UNDERGROUND WORK PRIOR TO SURVEYING AND MARKING OF EXISTING UTILITIES.
- G. THE FIXTURE SCHEDULE INDICATES GENERAL DESCRIPTION OF LIGHTING FIXTURES AND MANUFACTURERS. COMPLY WITH ALL OF THE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS FOR INSTALLATION.
- H. COORDINATE EXACT LOCATION OF LIGHTING FIXTURES WITH OTHER TRADES PRIOR TO INSTALLATION. PROVIDE FIXTURES WITH NECESSARY ACCESSORIES AND MOUNTING HARDWARE FOR A COMPLETE AND OPERABLE SYSTEM.
- UNLESS NOTED OTHERWISE, LIMIT VOLTAGE DROP TO 3% FOR BRANCH CIRCUITS INCLUDING ANY AND ALL AMPACITY ADJUSTMENT FACTORS. THE CONTRACTOR SHALL PERFORM THE NECESSARY CALCULATIONS BASED ON FIELD CONDITIONS AND ACTUAL CIRCUIT LENGTHS TO ENSURE EXCESSIVE VOLTAGE DROP DOES NOT OCCUR. INCREASE WIRE AND CONDUIT SIZES TO LIMIT VOLTAGE DROP, AS REQUIRED. REFER TO VOLTAGE DROP SCHEDULES AND ASSOCIATED NOTES FOR ADDITIONAL REQUIREMENTS.
- BONDING CONNECTIONS SHALL BE MADE BY EXOTHERMIC WELDING OR BY LISTED PRESSURE CONNECTORS OR CLAMPS THAT ARE LABELED AS BEING SUITABLE FOR THE PURPOSE AND ARE OF STAINLESS STEEL, BRASS, COPPER, OR COPPER ALLOY.

SYMBOLS, NOTES, AND ABBREVIATIONS SHOWN ON THIS SHEET ARE GENERIC AND ARE NOT NECESSARILY USED. REFER TO PLANS AND DETAILS FOR ADDITIONAL SYMBOLS, NOTES AND ABBREVIATIONS.

#### **ELECTRICAL SPECIFICATIONS**

#### GENERAL

- A. SCOPE: THE WORK SPECIFIED IN THESE NOTES INCLUDES, BUT SHALL NOT BE LIMITED TO, PROVIDING LABOR, MATERIAL, EQUIPMENT, AND SERVICES NECESSARY FOR ELECTRICAL WORK AS SHOWN ON THE DRAWINGS AND AS HEREIN SPECIFIED
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHOP DRAWING SUBMITTALS WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO: PRODUCT DATA AND EQUIPMENT SPECIFICATIONS SHEETS, SCHEMATIC DIAGRAMS, WIRING DIAGRAMS, SIZES, MOUNTING DETAILS (WITH REQUIRED ELEVATIONS), TECHNICAL DESCRIPTIONS OF COMPONENTS, TEST REPORTS, CERTIFICATES, OPERATING AND MAINTENANCE MANUALS, AND PROPER CALCULATIONS TO ENSURE SPECIFIED PERFORMANCE OF THE SYSTEMS. NO EQUIPMENT SHALL E ORDERED, PURCHASED, OR INSTALLED PRIOR TO APPROVAL OF THE
- SUBMITTALS AND SHOP DRAWINGS. C. ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC) AS APPROVED BY THE LOCAL AUTHORITY, AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY
- CODE OR REGULATION. D. NOT ALL EXISTING ELECTRICAL EQUIPMENT IS SHOWN ON THE PLANS. A SURVEY OF THE JOB SITE MUST BE MADE TO DETERMINE THE EXTENT OF EXISTING ELECTRICAL EQUIPMENT. REFER TO CIVIL DRAWINGS FOR DEMOLITION/RELOCATION REQUIREMENTS.
- E. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND/OR SPECIFICATION NOTES OR WITH CODE REQUIREMENTS. THE NOTE. SPECIFICATION OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.
- OMISSIONS FROM THE DRAWINGS, SPECIFICATION NOTES, OR FROM THE DETAILS OF WORK WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED DETAILS OF THE WORK BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL CHECK ALL DRAWINGS FURNISHED TO THEM IMMEDIATELY UPON THEIR RECEIPT AND SHALL PROMPTLY NOTIFY THE OWNER OF ANY DISCREPANCIES. FIGURES MARKED ON DRAWINGS SHALL IN GENERAL BE FOLLOWED IN PREFERENCE TO SCALE MEASUREMENTS. LARGE SCALE DRAWINGS SHALL IN GENERAL GOVERN SMALL SCALE DRAWINGS. THE CONTRACTOR SHALL COMPARE ALL DRAWINGS AND VERIFY THE FIGURES BEFORE LAYING OUT THE WORK AND WILL BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY.
- H. PROVIDE TEMPORARY POWER AS REQUIRED FOR THE DURATION OF CONSTRUCTION UNTIL PERMANENT POWER IS ESTABLISHED. AT THE CONTRACTOR OPTION, PROVIDE TEMPORARY UTILITY SERVICE OR ON-SITE GENERATOR POWER COMPLETE WITH FUEL. REMOVE ALL TEMPORARY POWER AT END OF JOB. COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO BID AND CONSTRUCTION.
- I. THE CONTRACTOR SHALL FURNISH ALL PERMITS AND PAY ALL FEES.

#### PRODUCTS AND MATERIALS

#### A. RACEWAYS

- 1. CONDUIT AND FITTINGS INSTALLED FOR CIRCUITS IN CONCRETE SLABS ON GRADE, EXPOSED TO WEATHER, OR EXPOSED WHERE SUBJECT TO PHYSICAL DAMAGE SHALL BE RIGID METAL CONDUIT (RMC) COMPLYING ANSI C80.1. FITTINGS SHALL BE THREADED.
- 2. CONDUIT AND FITTINGS INSTALLED UNDERGROUND SHALL BE RIGID NONMETALLIC CONDUIT (RNC) SCHEDULE 40 PVC. PROVIDE SCHEDULE 80 WERE SUBJECTED TO VEHICULAR TRAFFIC. FITTINGS SHALL BE NEMA TC-3 LISTED FOR UNDERGROUND USE. 3. UNDERGROUND CONDUIT STUB UPS SHALL BE RIGID METAL CONDUIT (RMC).
- 4. MINIMUM SIZE CONDUIT SHALL BE 1 INCH (16 MM). 5. RACEWAYS SHALL BE SECURELY SUPPORTED BY APPROVED METHODS AT INTERVALS PER THE NEC.
- 6. PULL BOXES ARE REQUIRED IN RUNS OVER 200 FEET, WHEN MORE THAN THE EQUIVALENT OF THREE (3) 90° BENDS ARE USED, AND AS SHOWN ON
- 7. ALL EXPOSED RACEWAYS, BOXES, AND MOUNTING HARDWARE SHALL BE PAINTED TO MATCH ADJACENT SURFACE FINISH, UNLESS OTHERWISE NOTED.

#### B. BOXES

- 1. PULL AND JUNCTION BOXES AND COVERS SHALL BE FABRICATED FROM GALVANIZED NEC GAUGE SHEET STEEL. OUTLET BOXES TO BE OF THE HOT-DIPPED GALVANIZED. PRESSED STEEL. KNOCKOUT TYPE. BOXES SHALL GENERALLY BE 4 INCHES SQUARE EXCEPT WHERE NOTED
- 2. OUTDOOR BOXES SHALL BE CORROSION-RESISTANT WITH CORROSION-RESISTANT HARDWARE. OUTDOOR BOXES SHALL BE
- HANDHOLES: FLUSH BURIAL, WEATHERPROOF COVER WITH TAMPER-RESISTANT, CORROSION-RESISTANT HARDWARE. COVER SHALL BE

#### C. WIRE AND CABLE

- UNLESS NOTED OTHERWISE, CONDUCTORS FOR POWER AND LIGHTING CONTROLS SHALL BE COPPER, #10 AWG MINIMUM WITH 600 VOLT INSULATION, TYPE XHHW-2, 90 DEGREE C, CONFORMING TO THE LATEST NEC AND SHALL BEAR UL LABEL.
- WIRING #12 AWG OR SMALLER SHALL BE SOLID. #10 AWG OR LARGER SHALL BE STRANDED COPPER, UNLESS OTHERWISE SPECIFIED. UNLESS NOTED OTHERWISE, ALL WIRING SHALL BE INSTALLED IN
- 4. IDENTIFY THE CONDUCTORS WITH THE FOLLOWING COLORS: COLOR CODE CONDUCTORS WITH FACTORY APPLIED COLOR OR WITH 1/2" VINYL TAPE AT BOTH TERMINATIONS OF EACH CONDUCTOR PER THE NEC.
- COLORS FOR 208/120-V CIRCUITS: COLORS FOR 480/277-V CIRCUITS:
- a. Phase A: Black. a. Phase A: Brown.
- b. Phase B: Red. c. Phase C: Blue.
  - b. Phase B: Orange. c. Phase C: Yellow.

## D. WIRING DEVICES

- PROVIDE 20A, 125VAC NEMA TYPE 5-20R GFCI RECEPTACLES WITH ONE-PIECE BRASS MOUNTING STRAP, INTEGRAL GROUNDING CONTACTS, IMPACT RESISTANT
- PROVIDE WITH WEATHERPROOF WHILE IN USE, LOCKABLE COVERS. INSTALL WIRING DEVICES AND ACCESSORIES AS INDICATED, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO FULFILL PROJECT REQUIREMENTS
- 4. LABEL BACK OF WIRING DEVICE COVERS WITH PERMANENT WATER PROOF LABELING INDICATING THE CIRCUIT NUMBER AND PANELBOARD IDENTIFICATIONS.
- MANUFACTURERS: a. HUBBELL
- b. LEVITON c. ARROW HART (COOPER)

#### E. ELECTRICAL CONNECTIONS

- 1. ALL WIRE CONNECTIONS SHALL BE MADE BY MEANS OF SOLDERLESS CONNECTORS.
- BRANCH CIRCUIT JOINTS OF SPLICES FOR WIRES #10 AND SMALLER SHALL BE MADE WITH 3M BRANCH SCOTCHLOK ELECTRICAL SPRING CONNECTORS. 3. SPLICES AND JOINTS FOR CONDUCTORS #8 AND LARGER SHALL BE BY MEANS OF HIGH PRESS. LONG BARREL.. CAST COPPER, COMPRESSION

**SPECIFICATIONS** 

- CONNECTORS. 4. SPLICES AND JOINTS SHALL BE COVERED WITH 3M ELECTRICAL TAPE TO 150% OF INSULATION VALUE.
- 5. NO SPLICES SHALL BE MADE IN THE CONDUCTOR EXCEPT AT OUTLET BOXES, JUNCTION BOXES, OR HANDHOLES. 6. BELOW GRADE SPLICES AND CONNECTIONS SHALL BE MADE WATERTIGHT.

#### GROUNDING

- PROVIDE GROUNDING IN ACCORDANCE WITH THE NEC. EQUIPMENT GROUNDING: INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS WITH ALL CIRCUITS.
- 3. LIGHT POLES: INSTALL GROUND ROD FOR EACH LIGHT POLE LOCATION. BOND POLE AND FOUNDATION REBAR.
- 4. GROUNDING ELECTRODE: GROUND ROD, COPPER CLAD STEEL, 5/8 INCH BY 8 FEET. INSTALL TOP OF ROD 2 INCHES BELOW SLAB OR 24 INCHES BELOW FINISHED GRADE
- MEASURE GROUND RESISTANCE AND PROVIDE SUPPLEMENTAL ELECTRODES IF RESISTANCE TO GROUND EXCEEDS 5 OHMS.

#### LIGHTING FIXTURES

#### GENERAL: a. FIXTURES SHALL BE LIGHT-EMITTING DIODE (LED) TECHNOLOGY RATED

INTENDED, CORROSION RESISTANT COMPONENTS AND HARDWARE. b. UL LISTED. FIXTURES SHALL BE PROVIDED COMPLETE WITH LAMPS, DRIVERS. POWER SUPPLIES AND ACCESSORIES FOR MOUNTING, WIRING AND

FOR EXTERIOR USE FOR THE ENVIRONMENT AND APPLICATION AS

- INSTALLATION PER THE CONTRACT DOCUMENTS AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL LIGHTING SYSTEM. d. SPLICES IN WIRING SHALL BE MADE WITH AN APPROVED INSULATED MECHANICAL CONNECTION SUITABLE FOR THE ENVIRONMENT AND
- APPLICATION INTENDED. e. REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.

#### 2. LED FIXTURES:

- a. FULL LIGHT OUTPUT WITH DIMMING CONTROL AS INDICATED. SERVICEABLE WITH REPLACEABLE PARTS AND COMPONENTS.
- c. LIFETIME: MINIMUM L70 LIFE AT 50,000 HOURS BASED ON IES LM-79 TESTING.
- d. FUSE: IN-LINE FUSE PROTECTION.

#### 3. LED DRIVERS: a. CLASS A SOUND RATING.

b. LESS THAN 20 PERCENT TOTAL HARMONIC DISTORTION (THD). COMPLY WITH NEMA SSL REQUIREMENTS OF FCC TILE 47 PART 15.

#### LIGHTING/RECEPTACLE CONTROLS

- a. EXISTING LIGHTING CONTACTORS SHALL BE RE-USED FOR NEW AND RELOCATED LIGHTING FIXTURE CONTROLS. TIE IN TO THE EXISTING
- DIMMERS AND DIMMER MODULES: COMPLY WITH UL 508. 1. AUDIBLE NOISE AND RADIO-FREQUENCY INTERFERENCE 2. SUPPRESSION: SOLID-STATE DIMMERS SHALL OPERATE SMOOTHLY OVER THEIR OPERATING RANGES WITHOUT AUDIBLE LAMP OR
- DIMMER NOISE OR RADIO-FREQUENCY INTERFERENCE. 3. MODULES SHALL INCLUDE INTEGRAL OR EXTERNAL FILTERS TO SUPPRESS AUDIBLE NOISE AND RADIO-FREQUENCY INTERFERENCE.

a. COORDINATE LIGHTING CONTROL COMPONENTS TO FORM AN INTEGRATED

- 4. DIMMER OR DIMMER-MODULE RATING: NOT LESS THAN 125 PERCENT OF CONNECTED LOAD UNLESS OTHERWISE INDICATED. PROVIDE EXTERNAL MEANS BY COMPUTER CONNECTION AND
- WIRELESSLY ACCESSIBLE FROM A COMPUTER TO CONFIGURE AND OVERRIDE CONTROLS. 2. COORDINATION:
- INTERCONNECTION OF COMPATIBLE COMPONENTS. MATCH COMPONENTS AND INTERCONNECTION FOR OPTIMUM PERFORMANCE OF LIGHTING CONTROL FUNCTIONS.

#### L. EXTRA MATERIALS

- 1. FURNISH EXTRA MATERIALS THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVER FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS.
- a. DELIVER TO OWNER AT SUBSTANTIAL COMPLETION.

#### III. EXECUTION

- AS A MINIMUM, ELECTRICAL WORK SHALL COMPLY WITH NECA STANDARDS AND RECOMMENDED PRACTICES FOR ELECTRICAL INSTALLATION AS APPLICABLE TO THIS
- PROJECT. CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE EXISTING PANELBOARD MAXIMUM
- SHORT CIRCUIT CURRENT. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE
- THEY ARE DESIGNED AND APPROVED. THE CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM

UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH

- NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE SITE, AVOID OBSTRUCTIONS AND MEET ALL CODE REQUIREMENTS CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL FIXTURES AND ELECTRICAL EQUIPMENT TO COMPLY WITH SEISMIC REQUIREMENTS OF THE UNIFORM BUILDING
- CODE AND ALL LOCAL ORDINANCES. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND THE SERVING UTILITY. THE ENTIRE WIRING SYSTEM SHALL BE TESTED FOR SHORT CIRCUITS, GROUNDS
- AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND. PRIOR TO FINAL ACCEPTANCE BY OWNER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS, WIRES, BOXES,
- LIGHT FIXTURES (WITH LAMPS), RECEPTACLES, SERVICE DEVICES, AND PANELBOARDS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. WHERE CONDUITS, WIREWAYS, AND OTHER ELECTRICAL RACEWAYS PASS SLABS OR OTHER CONSTRUCTION, COMPLETELY FILL AND SEAL CLEARANCES BETWEEN RACEWAYS AND EDGE OF OPENING WITH SUITABLE SEALANT MATERIALS. WHERE CUTTING IS REQUIRED RESTORE THE AREA TO ITS ORIGINAL APPEARANCE.
- PATCHING SHALL RETURN ALL AFFECTED AND SURROUNDING AREAS TO THEIR ORIGINAL APPEARANCE AND FUNCTION. THE CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, WIRE AND CONNECTIONS FOR LINE VOLTAGE LIGHTING CONTROLS AND LOW VOLTAGE LIGHTING CONTROL UNLESS NOTED OTHERWISE ON DRAWINGS. THE CONTRACTOR SHALL MAKE ALL POWER CONNECTIONS TO EQUIPMENT, INCLUDING 120 VOLT POWER CONTROL, MONITORING, AND SIGNALING EQUIPMENT. COORDINATE WITH OTHER DISCIPLINES
- FOR REQUIREMENTS. INSTALL WIRING DEVICES AND COVER PLATES PLUMB AND PARALLEL TO ADJACENT SURFACES OR TRIM. INSTALL DEVICES FLUSH WITH THE FINISHED TRIM OVER PLATES AND THE PLATES TIGHT TO THE SURFACES WHICH THEY ARE INSTALLED. PROVIDE TYPEWRITTEN DIRECTORY CARD IN ALL NEW AND MODIFIED PANELS.
- IDENTIFY LOAD SERVED BY EACH CIRCUIT BREAKER. PROVIDE MECHANICALLY FASTENENED ENGRAVED NAMEPLATES ON ALL PANEL(S) THE CONTRACTOR SHALL PROVIDE A SET OF AS-BUILT DRAWINGS SHOWING THE LOCATIONS OF ALL LIGHTING FIXTURES, PANELBOARDS, ELECTRICAL DEVICES, HANDHOLES, AND UNDERGROUND CONDUIT. INDICATE ALL CHANGES MADE DURING
- CONSTRUCTION, AND ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS. PROVIDE PULL WIRE IN ALL SPARE CONDUITS. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND INFORMATION AS INDICATED ON DRAWINGS AND IN SPECIFICATION SECTIONS WHERE ELECTRICAL
- WORK INTERFACES WITH OTHER TRADES. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL DEVICES, EQUIPMENT, WIRING, EXPOSED ABANDONED CONDUIT, ETC., NO LONGER REQUIRED UNLESS OTHERWISE
- R. THE CONTRACTOR SHALL VISIT THE EXISTING BUILDINGS AND GROUNDS AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY, ON THIS CONDITION, ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS/HER PART.
- S. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE WORK OF OTHER TRADES AND COORDINATE ELECTRICAL WORK WITH OTHER TRADES AND SITE ELEMENTS TO AVOID CONFLICTS. ADJUST LOCATION OF ELECTRICAL DEVICES AND EQUIPMENT, AS REQUIRED, TO AVOID INTERFERENCES WITH OTHER TRADE WORK AND SITE ELEMENTS. PROVIDE ALL EXCAVATION, TRENCHING, TUNNELING, DEWATERING, BACKFILLING AND
- SITE PREPARATION AND RESTORATION, AS REQUIRED, TO ACCOMMODATE SITE ELECTRICAL WORK. COORDINATE WITH OTHER TRADES PRIOR TO CONSTRUCTION WHERE EXISTING EQUIPMENT IS REMOVED OR CHANGED, WIRE NO LONGER IN SERVICE SHALL BE REMOVED AS DIRECTED BY THE ARCHITECT. PAINT ANY NEW WORK TO MATCH ADJACENT SURFACE FINISH. ALL BUILDING SURFACES DAMAGED AND OPENINGS LEFT BY THE REMOVAL ON RELOCATION OF EQUIPMENT, CONDUIT,
- PROVIDE CONDUIT SLEEVES THROUGH WALL FOUNDATIONS AND OTHER SIMILAR SITE ELEMENTS, AS REQUIRED, FOR CIRCUITS AND WIRING, COORDINATE WITH OTHER TRADES PRIOR TO CONSTRUCTION. REQUIRED SLEEVES ARE NOT EXPLICITLY SHOWN.
- W. EXISTING CONDUIT AND WIRE SHALL NOT BE REUSED IF MOVED FROM ITS PRESENT LOCATION IF IT IS OF INADEQUATE CAPACITY FOR THE NEW LOAD. X. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS TO DETERMINE WHERE TO CONCEAL
- CONDUIT. RECEIVE, HANDLE AND STORE EQUIPMENT AND MATERIALS EITHER ON OR OFF SITE UNTIL IT IS READY TO BE INSTALLED. EQUIPMENT AND/OR MATERIALS SHALL BE PROTECTED FROM WEATHER, DIRT, DUST, PHYSICAL DAMAGE, ETC, UNTIL READY
- FOR INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY AND ALL DAMAGED EQUIPMENT. Z. CONTRACTOR SHALL PROVIDE FINAL CLEANING PRIOR TO COMPLETION OF WORK. FINAL CLEANING SHALL INCLUDE, BUT NOT LIMITED TO, REMOVING DEBRIS, WASHING/WIPING EQUIPMENT, FIXTURES, DEVICES, ETC., TOUCH PAINTING AND RESTORING EQUIPMENT TO A LIKE-NEW CONDITION PRIOR TO TURN OVER TO
- 1. PERFORM FIELD INSPECTIONS AND ELECTRICAL ACCEPTANCE TESTING REQUIRED DURING AND AFTER CONSTRUCTION PRIOR TO OWNER
- ACCEPTANCE. 2. SUPPLY ALL NECESSARY INSTRUMENTS, METERS, ETC. REQUIRED FOR TESTING. INSTRUMENTS AND TESTING TOOLS SHALL BE PROPERLY
- CALIBRATED. PERFORM TESTING IN ACCORDANCE WITH NETA STANDARDS. 3. ALL CABLES AND WIRES SHALL BE TESTED FOR SHORTS AND GROUNDS FOLLOWING INSTALLATION AND CONNECTION TO DEVICES. REPLACE ALL FAULTY WIRES, CABLE AND/OR DEVICES PRIOR TO OWNER ACCEPTANCE.
- 4. PROVIDE STARTUP, COMMISSIONING, DEMONSTRATION AND TRAINING OF LIGHTING CONTROLS FOR OWNER REPRESENTATIVE. PROVIDE OPERATION AND MAINTENANCE MANUALS TO OWNER.ARCHITECT AND/OR OWNER SHALL HAVE THE OPTION TO WITNESS TESTING UPON REQUEST.

#### IV. ADJUSTING

- WHEN REQUESTED WITHIN 12 MONTHS OF DATE OF SUBSTANTIAL COMPLETION,
- PROVIDE ON-SITE ASSISTANCE IN ADJUSTING THE DIRECTION OF AIM OF LUMINAIRES MAKE UP TO TWO VISITS TO PROJECT DURING OTHER-THAN-NORMAL WORKING HOURS FOR THIS PURPOSE. SOME OF THIS WORK WILL BE REQURIED DURING HOURS OF DARKNESS.
- DURING ADJUSTMENT VISITS, INSPECT ALL LUMINAIRES AND REPLACE LAMPS OR LUMINAIRES THAT ARE DEFECTIVE.
- PARTS AND SUPPLIES SHALL BE MANUFACTURER'S AUTHORIZED REPLACEMENT PARTS AND SUPPLIES.
- ADJUST THE AIM OF LUMINAIRES IN THE PRESENCE OF THE LANDSCAPE ARCHITECT AND/OR LIGHTING DESIGNER.

# HART PLAZA

1 HART PLAZA DETROIT, MI 48226

Owner:

ISSUED FOR

SEALS

CONSTRUCTION DOCUMENTS

CITY OF DETROIT

## **SMITHGROUP**

500 GRISWOLD **SUITE 1700** DETROIT, MI 48226 313.983.3600 www.smithgroup.com

REV DATE

0 14JUNE2024

PROJECT NORTH

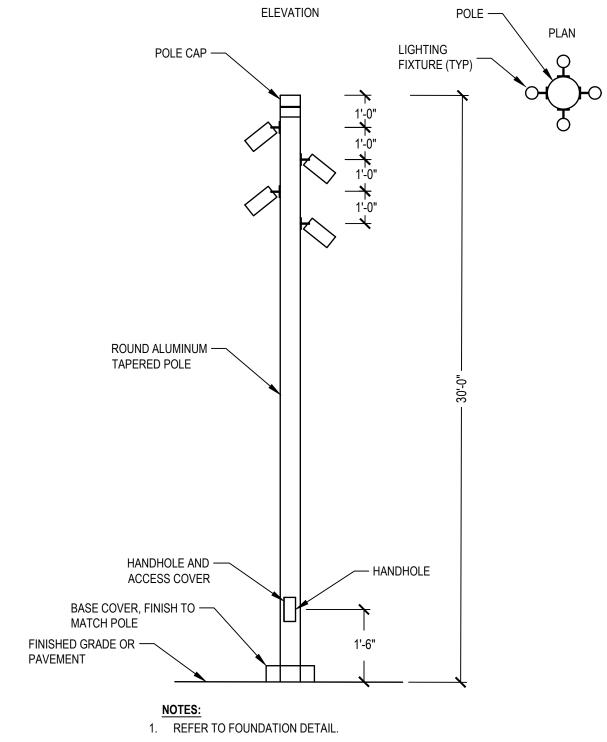
**ELECTRICAL** 

SCALE PROJECT NUMBER

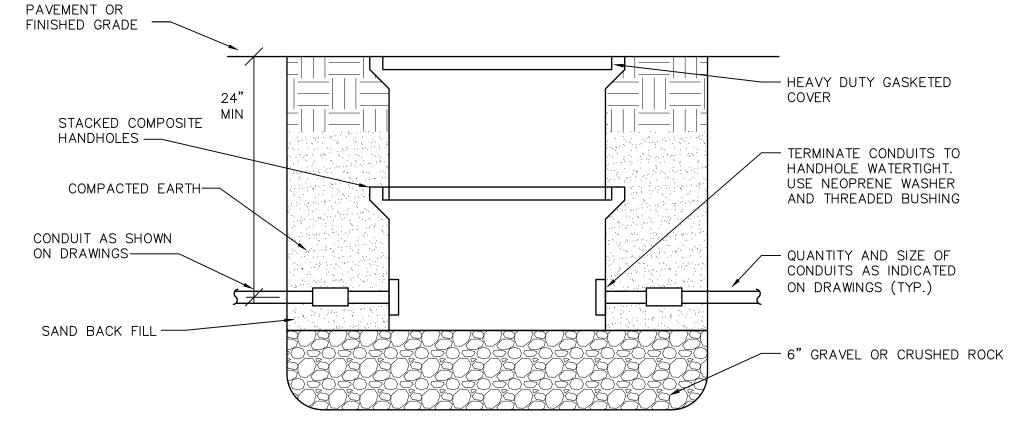
DRAWING TITLE

SCALE:

	LIGHTING FIXTURE SCHEDULE									
TYPE MARK	DESCRIPTION	FINISH	MANUFACTURER	MODEL	WATTAGE	LAMP	BALLAST DATA	VOLTAGE	MOUNTING	TYPE COMMENTS
S1	HART PLAZA EXISTING FIXTURE TO REMAIN. REFURBISH POLE, FIXTURE, WIRING, LED RETROFIT LAMPING, AND PRISMATIC DIFFUSER.	STAINLESS STEEL	EXISTING	EXISTING	EXISTING	LED RETROFIT PER CITY; 3000K CCT	EXISTING	277V	GROUND	
S2	SAME AS S1 EXCEPT NEW LOCATION. PROVIDE ALL MOUNTING HARDWARE AS NEEDED FOR NEW STRUCTURAL FOOTING MOUNT.	STAINLESS STEEL	EXISTING	EXISTING	EXISTING	LED RETROFIT PER CITY; 3000K CCT	EXISTING	277V	GROUND	COORDINATE STRUCTURAL FOUNDATION MOUNT.
\$3	30'-0" TALL TAPERED ALUMINUM POLE, RAL FINISH TBD, 4-BOLT CONFIGURATION, BOLT COVER, HAND HOLE AT BASE AND TOP FOR WIRING JUNCTIONS, POLE CAP TOP.	SILVER	HAPCO VALMONT	RTA RTA / 4-BOLT	NA	NA	NA	277V		SEE TYPE S4 AND ELECTRICAL DETAILS FOR FLOOD LIGHTS MOUNTED TO POLE. SEE STRUCTURAL DRAWINGS FOR POLE ANCHORING AND MOUNTING INFORMATION.
S4	5" DIAMETER EXTERIOR RATED FLOOD LIGHT WITH MOUNTING HARDWARE TO ROUND POLE, DIE-CAST ALUMINUM HOUSING, STAINLESS STEEL HARDWARE, SILICONE GASKETING, GLARE CONTROL LOUVER ACCESSORY, RAL FINISH TBD, EXTENDED FACTORY INSTALLED LEAD WIRES FOR 30 FT. TALL POLE, IP65 WET RATING	SILVER	SELUX WE-EF BEGA	OLIVIO PICCOLO "OLPL" FLC321 77704	30W	LED; 2000LM; 3000K CCT; 80+ CRI	0-10V INTEGRAL	277V	POLE	
\$5	LIGHT POD FOR INTEGRATION INTO STAINLESS STEEL HANDRAIL, 316 STAINLESS STEEL HOUSING/TRIM, IP68 WET RATING, SYMMETRICAL DISTRIBUTION.	STAINLESS STEEL	WAGNER KLIK	LUMENPOD 28 LED PED 40	2.2W	LED; 121LM; 3000K CCT; 80+ CRI	REMOTE DRIVER		RECESSED	CONTRACTOR TO COORDINATE REMOTE DRIVER DISTANCE AND WIRE GUAGE TO PREVENT VOLTAGE DROP. REMOTE DRIVER WITHIN DIRECT BURIAL, VANDAL PROOF ENCLOSURE.
S6	1.64" WIDE X 1.99" TALL LINEAR EXTERIOR RATED FIXTURE WITH ASYMMETRIC WASH DISTRIBUTION, IP65 WET RATING, INTEGRAL DRIVER, END-TO-END LINE VOLTAGE CONNECTORS, FINE ADJUSTMENT MOUNTING BRACKET.	BLACK	ECOSENSE LUMENPULSE IO	TROV L50 ASYM LUMENFACADE WW COVIO WALL WASH	6W/FT	LED; 500LM/FT; 3000K CCT; 80+ CRI	ELV INTEGRAL	277V		PROVIDE ALL LEADER CABLES, JUNCTION BOXES, AND MOUNTING HARDWARE FOR FULL WORKING SYSTEM
S7	LOW VOLTAGE DRIVER AND IP68-RATED DIRECT BURIAL GROUND VAULT FOR LOW VOLTAGE REMOTE DRIVERS, TAMPER-PROOF HARDWARE.	BLACK	QTL	Q-SET-1 Q-VAULT-5	300W	NA	REMOTE DRIVER		GROUND RECESSED	



# TYPE S3, S4 POLE AND FIXTURE DETAIL SCALE: NTS

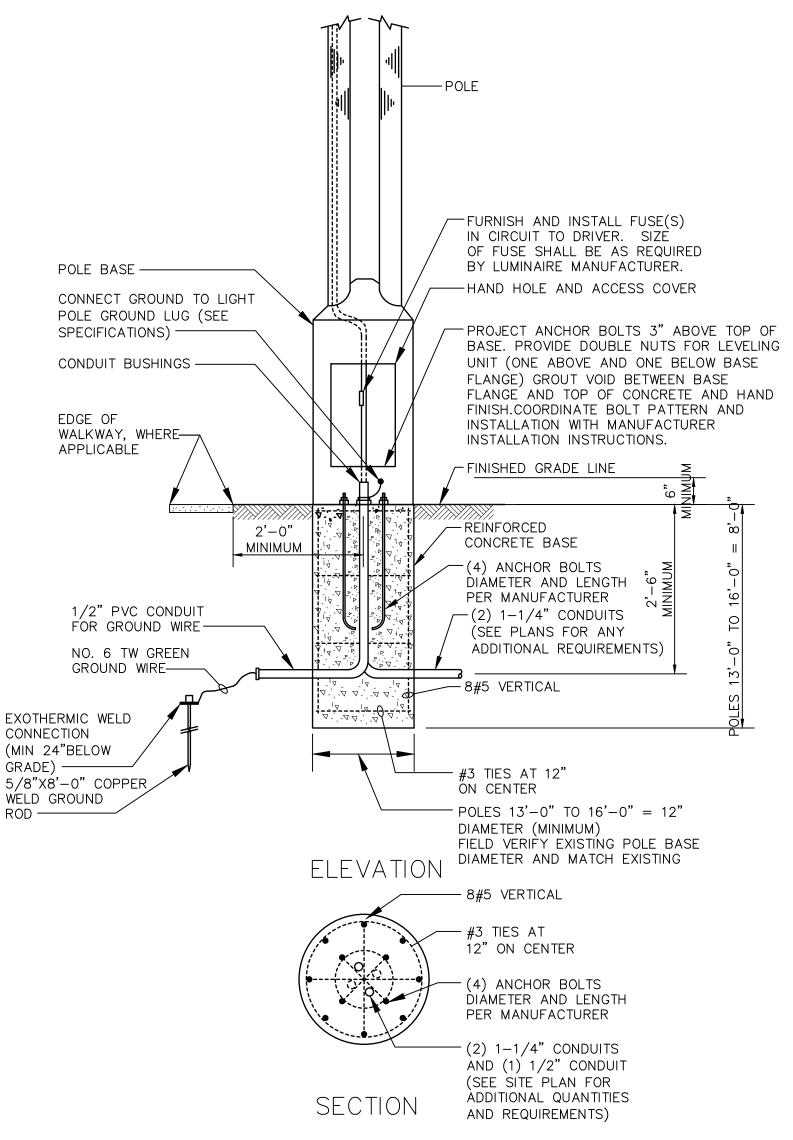


HANDHOLE (H)
SCALE: NTS

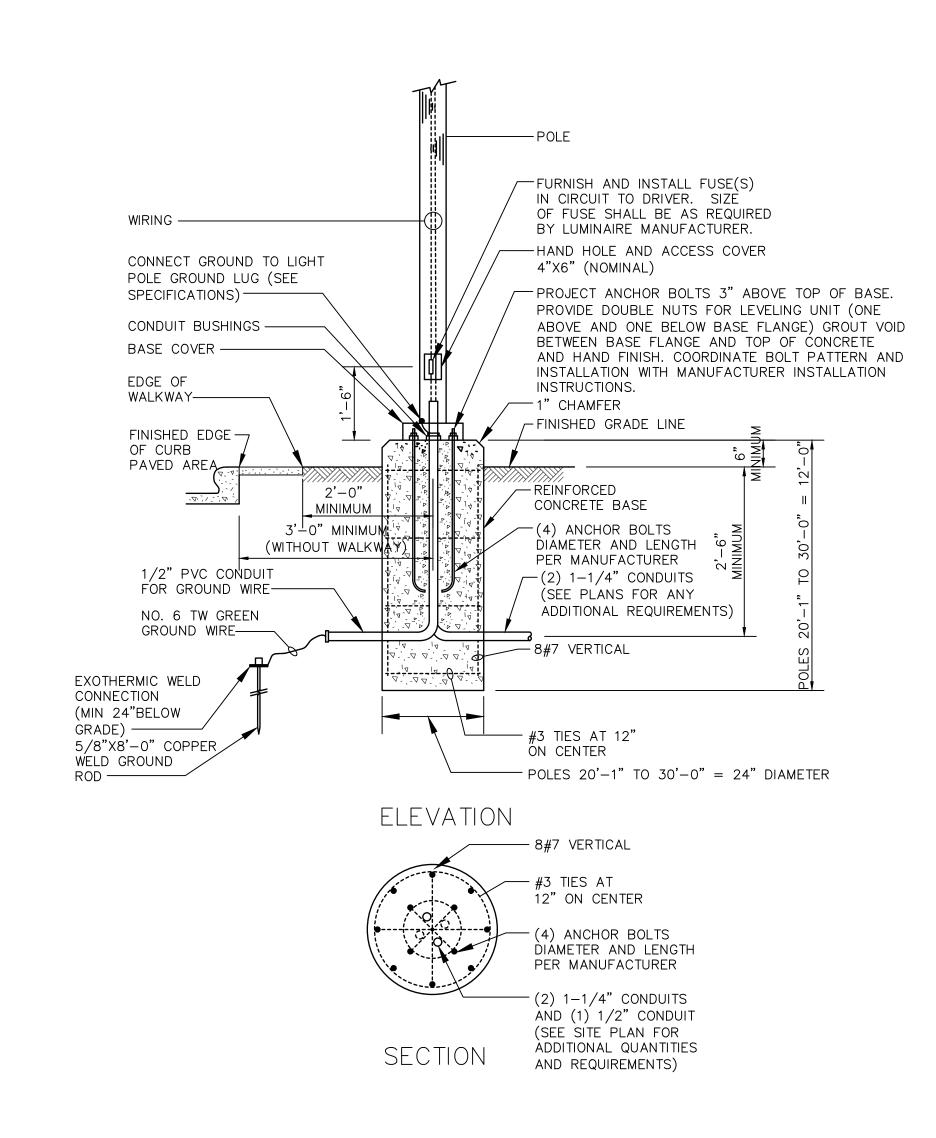
NOTES:

1. PROVIDE STACKED HAND HOLES TO DEPTH NECESSARY FOR SIDE ENTRY.

2. PROVIDE VEHICLE RATED HAND HOLES.







13) TYPE S3 AND S4 FOUNDATION DETAIL

NOT TO SCALE



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CONSTRUCTION DOCUMENTS 0 14JUNE2024





LIGHTING FIXTURE
SCHEDULE

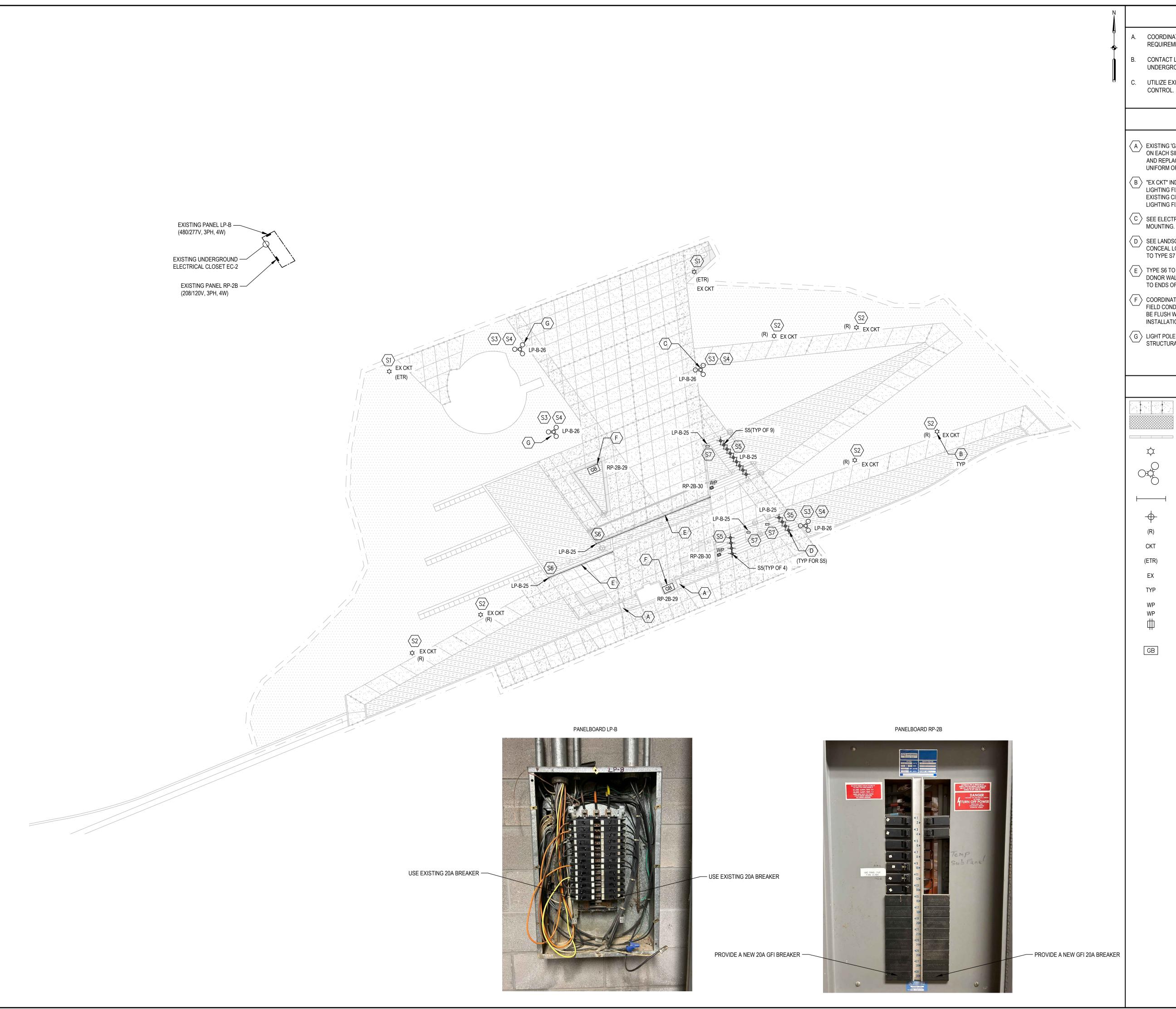


PROJECT NUMBER

DRAWING NUMBER

ES100

15004



## SHEET NOTES

- A. COORDINATE WITH LOCAL UTILITY FOR ALL SITE SERVICE REQUIREMENTS.
- CONTACT LOCAL UTILITY TO IDENTIFY ALL EXISTING UNDERGROUND UTILITIES.
- UTILIZE EXISTING LIGHTING CONTACTOR FOR LIGHTING

# **KEYED NOTES**

- A EXISTING 'GATEWAY TO FREEDOM' STATUE HAS OPPOSING LIGHTS ON EACH SIDE. CONTRACTOR TO VERIFY V.I.F. LIGHT CONDITION AND REPLACE BOTH IF ONE IS NOT FUNCTIONING FOR CONSISTENT, UNIFORM OPERATION.
- (B) "EX CKT" INDICATES TO RE-USE EXISTING CIRCUIT FOR SALVAGED LIGHTING FIXTURE AT NEW LOCATION. MODIFY, EXTEND, ETC EXISTING CIRCUIT, AS REQUIRED, TO POWER THE RELOCATED LIGHTING FIXTURE.
- © SEE ELECTRICAL DETAILS FOR TYPE S3, S4 ELEVATIONS AND MOUNTING.
- $\langle$  D angle SEE LANDSCAPE DETAILS FOR HANDRAIL LIGHTING ENLARGEMENT CONCEAL LOW VOLTAGE CABLING THROUGH HANDRAIL AND POSTS TO TYPE S7 DIRECT BURIAL VAULT.
- E TYPE S6 TO BE SURFACE MOUNTED WITHIN POCKET AT TOP OF DONOR WALL. CONCEAL ALL POWER TO FIXTURE THROUGH WALL TO ENDS OF FIXTURES. NO VISIBLE CONDUIT AND JUNCTION BOXES
- F COORDINATE LOCATION OF GROUND BOX IN PLANTING BED WITH FIELD CONDITIONS AND LANDSCAPE MATERIAL. TOP OF BOX SHALL BE FLUSH WITH FINISHED GRADE. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS PRIOR TO BID AND CONSTRUCTION.
- G LIGHT POLE OVER EXISTING SUPER STRUCTURE -- SEE STRUCTURAL PLANS.

## HART PLAZA

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## LEGEND

CONCRETE PAVEMENT SPECIAL PAVING 1

RETAINING WALL REFURBISHED LIGHT POLE

MAST POLE, FLOOD LIGHT FIXTURES

LINEAR GRAZE FIXTURE HANDRAIL LIGHT POD FIXTURES

INDICATES EXISTING TO REMAIN ITEM.

WEATHERPROOF

GFCI DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, WITH METALLIC WEATHERPROOF-IN-USE, LOCKABLE COVER. FINISH PER ARCHITECT.

> EXTERIOR OUTDOOR IN-GRADE GROUND BOX WITH TWO (2) DUPLEX RECEPTACLES, IP68 RATED WHILE IN USE WITH LOCKABLE COVER. UL LISTED. PROVIDE GFCI BRANCH BREAKER. THE BRANCH CIRCUIT LENGTH SHALL NOT EXCEED 200 FEET. WIREMOLD "GROUND BOX" OR PRE-APPROVED EQUAL.

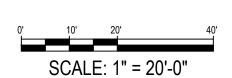
INDICATES SALVAGED AND RELOCATED ITEM.

ISSUED FOR REV DATE CONSTRUCTION DOCUMENTS 0 14JUNE2024





LIGHTING AND ELECTRICAL **PLAN** 



SCALE PROJECT NUMBER



### **GENERAL NOTES**

- DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES ARE BASED ON PREVIOUS CONTRACT DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING W/ FIELD MEASUREMENTS ALL DIMENSIONS AND ELEVATIONS FOR FABRICATION AND/OR MODIFICATIONS OR ADDITIONS BEING MADE UNDER THIS CONTRACT. ANY DISCREPANCIES SHALL BE PRESENTED TO THE OWNER AND ANY DESIGN CONFLICTS SHALL BE RESOLVED WITH OWNER PRIOR TO FABRICATIONS OR CONSTRUCTION OF IMPACTED ITEMS.
- 2. ALL EXISTING DIMENSIONS AND ELEVATIONS SHOWN WITH THE ± SYMBOL, ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR BEFORE FABRICATION AND CONSTRUCTION.
- 3. ALL ADHESIVE ANCHORING SYSTEMS FOR POST-INSTALLED ANCHORS AND/OR REINFORCING DOWELS IN CONCRETE OR MASONRY SHALL BE HIT-HY 200 ADHESIVE ANCHORING SYSTEM (OR APPROVED EQUAL) AT SIZE AND SPACING INDICATED ON DRAWINGS WITH EMBEDMENT DEPTH INDICATED ON DRAWINGS. (SEE TABLE ON THIS SHEET FOR EMBEDMENT DEPTHS NOT INDICATED ON SECTIONS.)
- 4. ALL POST-INSTALLED ANCHOR BOLTS INTO NEW OR EXISTING CONCRETE SHALL BE ASTM A316 STAINLESS STEEL THREADED ROD WITH STAINLESS STEEL WASHER AND NUT, UNO.
- 5. ALL ELEVATIONS ARE BASED ON CITY OF DETROIT VERTICAL DATUM.
- 6. THE (2) NEW LIGHT POLES LOCATED OVER THE EXISTING SUPERSTRUCTURE SHALL BE PLACED DIRECTLY OVER THE EXISTING CONCRETE COLUMNS. FIELD VERIFY THE LOCATION OF EXISTING COLUMNS, AND LOCATE EXISTING BEAM AND SLAB REINFORCING PRIOR TO INSTALLING NEW DOWELS AND POLE ANCHORS.

## CODES, LOADS AND GEOTECH

- 1. DESIGN CODES:
  - A. ACI 318
- B. ASCE 7 -16

  2. DESIGN LOADS (GENERAL)
- A. LIVE LOADS:
- 1. FLOOR-LIVE LOAD = 100 PSF
  2. MAINTENANCE ACCESS, WALKWAYS, CORRIDORS AND STAIR LIVE
- LOADS = 100 PSF
  3. ELEVATED GRATING MAINTENANCE PLATFORMS-LIVE LOAD = 100 PSF
- B. DEAD LOADS:

  1. FILL UNDER PROPOSED PAVEMENTS. GENERALLY THE FILL OVER THE
- EXISTING ELEVATED SLAB IN THIS PROJECT AREA SHALL CONSIST OF HIGH DENSITY RIGID INSULATION AS SPECIFIED.
- C. LATERAL EARTH PRESSURE UNDRAINED CONDITION
- 1. ACTIVE PRESSURE Pa = 95.0 PSF D. WIND LOADS, PER ASCE 7-22 (RISK CATEGORY III)
  - 1. BASIC WIND SPEED Vult=115 MPH 2. SURFACE ROUGHNESS CATEGORY - C
  - 3. EXPOSURE CATEGORY C
  - 4. TOPOGRAPHIC FACTOR Kzt = 1.0
- E. 100 YEAR FLOOD ELEVATION 102 (CITY OF DETROIT VERTICAL DATUM)

## **DEMOLITION**

- 1. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO EXISTING STRUCTURES, WHICH ARE TO REMAIN, DURING DEMOLITION WORK. ALL DAMAGE SHALL BE REPAIRED TO THE COMPLETE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 2. WHEN REMOVING EXISTING CONCRETE BY CUTTING OR CHIPPING THE CONTRACTOR SHALL ONLY REMOVE REINFORCING BARS WHICH CANNOT BE BENT INTO AREAS WHERE NEW CONCRETE WOULD COMPLETELY COVER THEM.
- 3. IF FRACTURE OF ADJACENT CONCRETE OCCURS DURING DEMOLITION/ALTERATION WORK, THE REPAIR SHALL BE WITH AN ENGINEER APPROVED PRESSURE INJECTED EPOXY, TO THE COMPLETE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- 4. CONTRACTOR SHALL PROVIDE WRITTEN PLAN AND DESCRIPTION OF ALL DEMOLITION, MODIFICATION, OR ALTERATION WORK ON EXISTING STRUCTURES FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINNING WORK.

## **CAST-IN-PLACE CONCRETE**

- 1. THE DETAILING, BENDING, AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI STANDARD 350-20/350R-06 CODE AND ACI DETAILING MANUAL, SP-66 (94). FIELD BENDING WILL NOT BE PERMITTED UNLESS APPROVED BY ENGINEER
- 2. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- 3 ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3500 PSI @ 28 DAYS UNLESS OTHERWISE NOTED
- CAST-IN-PLACE CONCRETE CONSTRUCTION JOINTS:
   A. PROVIDE CONSTRUCTION JOINTS IN WALLS AT A MAXIMUM SPACING OF 20 FEET.
- . APPLY BONDING AGENT (ARMATEC 110 BY SIKA OR APPROVED EQUAL) AT ALL LOCATIONS WHERE NEW CONCRETE IS PLACED OVER EXISTING CONCRETE. PROPERLY ROUGHEN EXISTING CONCRETE SURFACE AND CLEAN PER MANUFACTURERS RECOMMENDATIONS PRIOR TO APPLYING THE BONDING AGENT.
- 6. USE GROUND PENETRATING RADAR OR OTHER APPROVED METHOD TO LOCATE REINFORCING STEEL IN EXISTING BEAMS AND ELEVATED (STRUCTURAL) SLABS PRIOR TO INSTALLING DOWELS OR ANCHORS. ALL DOWELS AND ANCHORS SHALL BE LOCATED TO AVOID EXISTING REINFORCING (PREVENT DAMAGING, CUTTING OR DRILLING THROUGH EXISTING REINFORCING).
- 7. PROVIDE 3/4" CHAMFER AT ALL EXPOSED CONCRETE EDGES.

# REINFORCING TENSION SPLICE TABLE

BAR SIZE	TENSION LAP LENGTH	* TOP BARS
#3	16"	22"
#4	20"	29"
#5	24"	36"
#6	29"	43"
#7	42"	63"
#8	48"	72"
#9	54"	81"
#10	61"	91"
#11	67"	101"

#### NOTES:

- ABOVE TABLE IS FOR NORMAL WEIGHT CONCRETE;
   f'c = 3,500 PSI AND REINFORCING STEEL; fy=60,000 PSI.
- 2. ALL SPLICES SHALL BE CONSIDERED TENSION SPLICES USING LAP LENGTHS IN TABLE ABOVE UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS.
- 3. LENGTHS ARE BASED ON LAP CLASS B SPLICES WITH CENTER TO CENTER SPACING OF BARS EQUAL TO OR GREATER THAN 6 DIAMETERS.
- 4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST UNDER THEM.
- USE TENSION LAP LENGTHS FOR HORIZ & VERT WALL BARS.

# ADHESIVE ANCHORING SYSTEM MINIMUM EMBEDMENT DEPTH FOR DOWELS AND RODS

REINFORCING BARS/DOWELS								
BAR SIZE	EMBED DEPTH	REMARKS						
#3	5 1/2"							
#4	5 1/2"							
#5	7"							
#6	8 1/2"							
#7	10"							
#8	11 3/4"							

# ANCHOR RODS BOLT EMBED DEPTH DIAMETER 3/8" 3 1/2" 1/2" 4 1/4" 5/8" 5" 3/4" 6 5/8"

## NOTES:

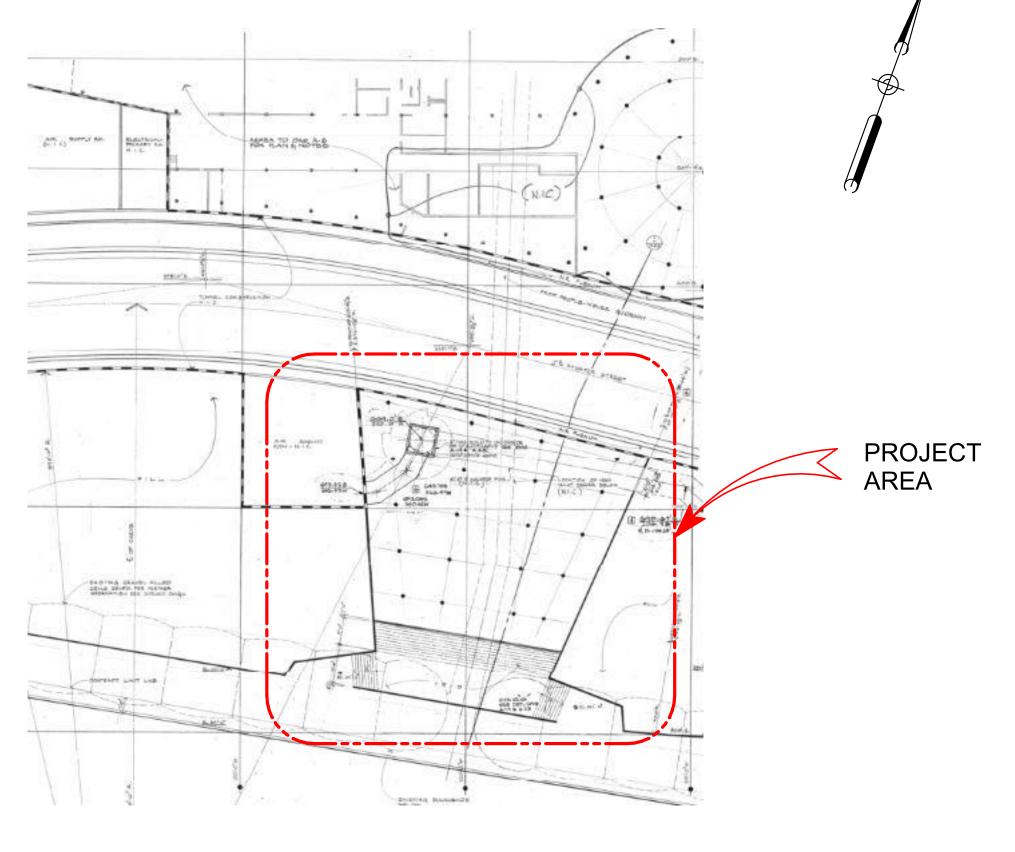
1. ALL ANCHORS INSTALLED WITH AN ADHESIVE ANCHORING SYSTEM SHALL, AT A MINIMUM, HAVE THE EMBEDMENT DEPTHS INDICATED IN THE TABLE ABOVE UNLESS SPECIIFICALLY INDICATED OTHERWISE ON DRAWINGS.

8 1/4"

2. CONFIRM REQUIRED EMBEDMENT DEPTHS WITH MANUFACTURERS REQUIREMENTS FOR DEVELOPING THE TENSION CAPACITY OF THE ANCHOR RODS (TYP).

## STRUCTURAL ABBREVIATIONS

ALT	ALTERNATE	ES	EACH SIDE	NF	NEAR FACE
ALUM	ALUMINUM	EW	EACH WAY	NS	NEAR SIDE
ARCH	ARCHITECTURE	EX / EXIST	EXISTING	NTS	NOT TO SCALE
B/	воттом	EXT	EXTERIOR/ EXTENSION	NIC	NOT IN CONTRACT
BLDG	BUILDING	FD	FLOOR DRAIN	OC	ON CENTER
ВМ	BEAM	FF	FAR FACE	OD	OUTSIDE DIAMETER
ВОТ	ВОТТОМ	FS	FAR SIDE	OF	OUTSIDE FACE
BSMT	BASEMENT	FIN	FINISH	OPNG	OPENING
CHAN	CHANNEL	FL	FLOOR	Орр Н	OPPOSITE HAND
CIP	CAST-IN-PLACE	FND	FOUNDATION	PAVT	PAVEMENT
CJ	CONSTRUCTION JOINT	FTG	FOOTING	PEMB	PRE-ENGINEERED
CL	CENTERLINE	FST	FINAL SETTLING TANK		METAL BUILDING
CLR	CLEAR	FT	FEET	PSF	POUNDS PER SQ. FOOT
COL	COLUMN	GALV	GALVANIZED	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	GR	GRADE	REINF	REINFORCEMENT
CONST	CONSTANT	H / HORIZ	HORIZONTAL	RE	REFER TO
CONSTR	CONSTRUCTION	HP	HIGH POINT	RTB	RETENTION TREATMENT BASIN
CONT	CONTINUOUS	HK	HOOK	SAN	SANITARY
CLSM	CONTROLLED LOW	HT	HEIGHT (OR) HIGH	SCHED	SCHEDULE
	STRENGTH MATERIAL	ID	INSIDE DIAMETER	SET	SETTLING
COR	CORNER	ΙΕ	INVERT ELEVATION	SHTS	SHEETS
CY	CUBIC YARD	IF	INSIDE FACE	SIM	SIMILAR
DEMO	DEMOLITION	IN	INCHES	SJ	SLAB CONTROL JOINT
DET	DETAIL	INFL	INFLUENT	SOE	SUPPORT OF EXCAVATION
DIA / Ø	DIAMETER	INT	INTERIOR	SS	STAINLESS STEEL
DIAG	DIAGONAL	JT	JOINT	STIR	STIRRUPS
DISC	DISCONTINUOUS	KIP	THOUSAND POUNDS	STRUCT	STRUCTURAL
DIST	DISTANCE	KB	KNEE BRACE	TOS	TOP OF STRUCTURAL
DWG	DRAWING	LNDG	LANDING		STEEL / SLAB
DWGS	DRAWINGS	LP	LOW POINT	T/	TOP
DWLS	DOWELS	LGTH	LENGTH	T&B	TOP & BOTTOM
EA EE	EACH EACH END	MAS	MASONRY	THK	THICKNESS
EF	EACH FACE	MAX	MAXIMUM	THRU	THROUGH
EFF	EFFLUENT	MECH MFR	MECHANICAL MANUFACTURER	TYP	TYPICAL
ELEC	ELECTRICAL	MID	MIDDLE	UNO	UNLESS NOTED OTHERWISE
EL./ELEV	ELEVATION	MIN	MINIMUM	V / VERT	VERTICAL
		MO	MASONRY OPENING	WP	WORK POINT
EJ	EXPANSION JOINT		CONTROL DI LIVINO		



AREA PLAN

SCALE: NONE

## HART PLAZA

1 HART PLAZA DETROIT, MI 48226

Owner

CITY OF DETROIT

# **SMITHGROUP**

201 DEPOT STREET SECOND FLOOR ANN ARBOR, MI 48104 734.662.4457 www.smithgroup.com



500 Griswold Avenue, Suite 2500 Detroit, MI 48226 313.961.3650 www.wadetrim.com

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-		
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SEALS AND SIGNATURES		



KEY PLAN



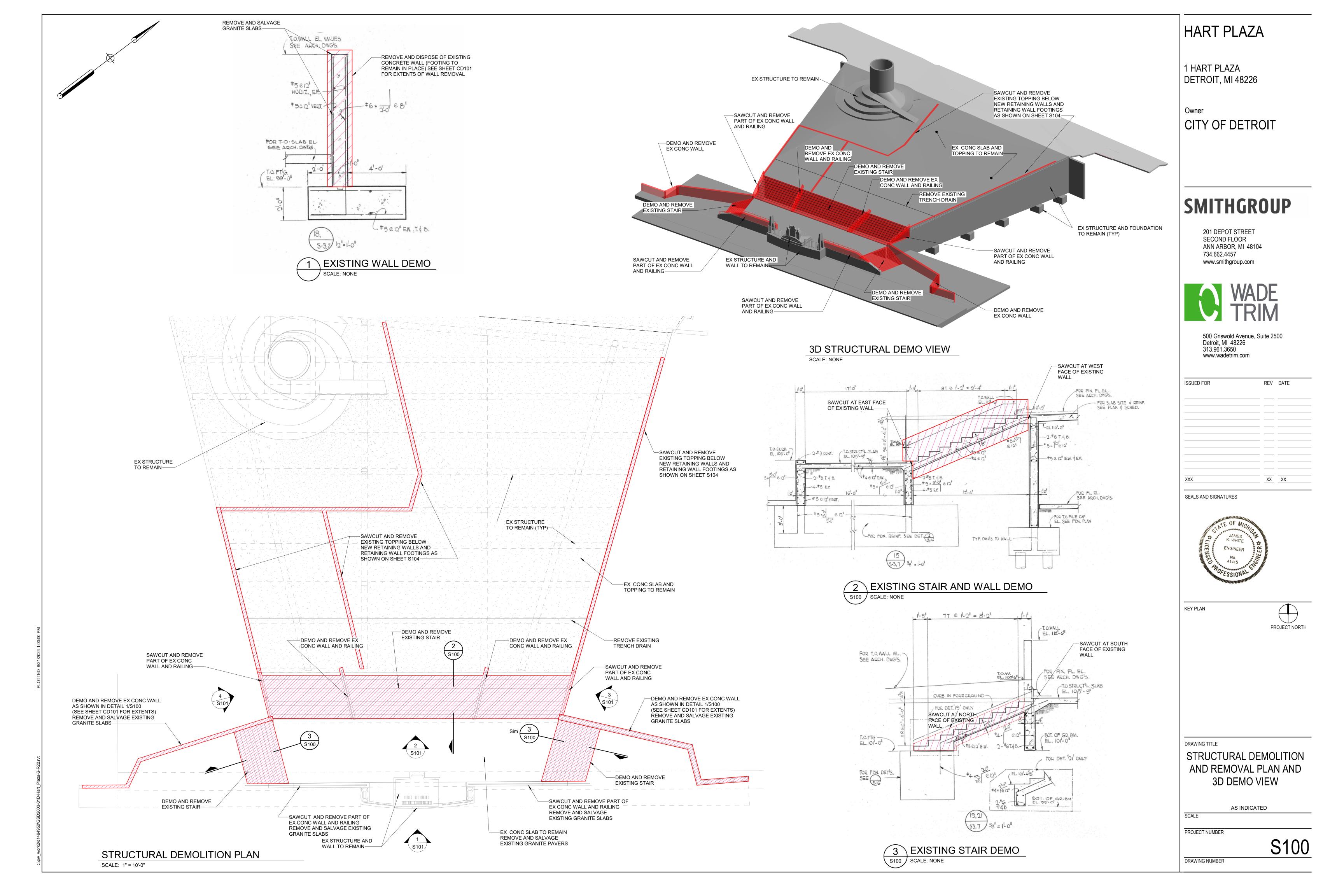
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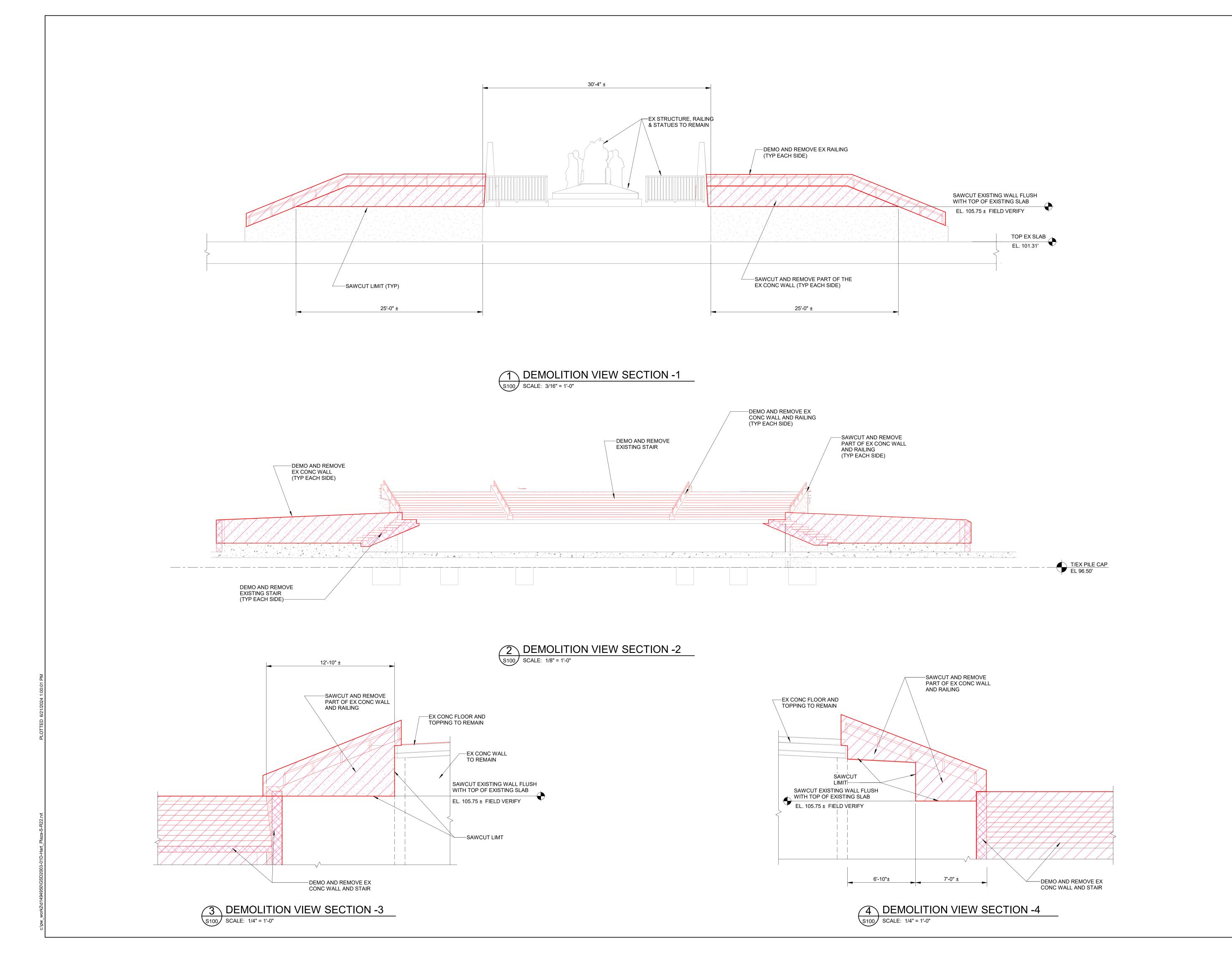
STRUCTURAL NOTES, TABLES AND ABBREVIATONS

AS INDICATED SCALE

PROJECT NUMBER

S00





1 HART PLAZA DETROIT, MI 48226

Owner CITY OF DETROIT

# **SMITHGROUP**

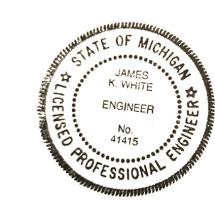
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SEALS AND SIGNATURES



KEY PLAN



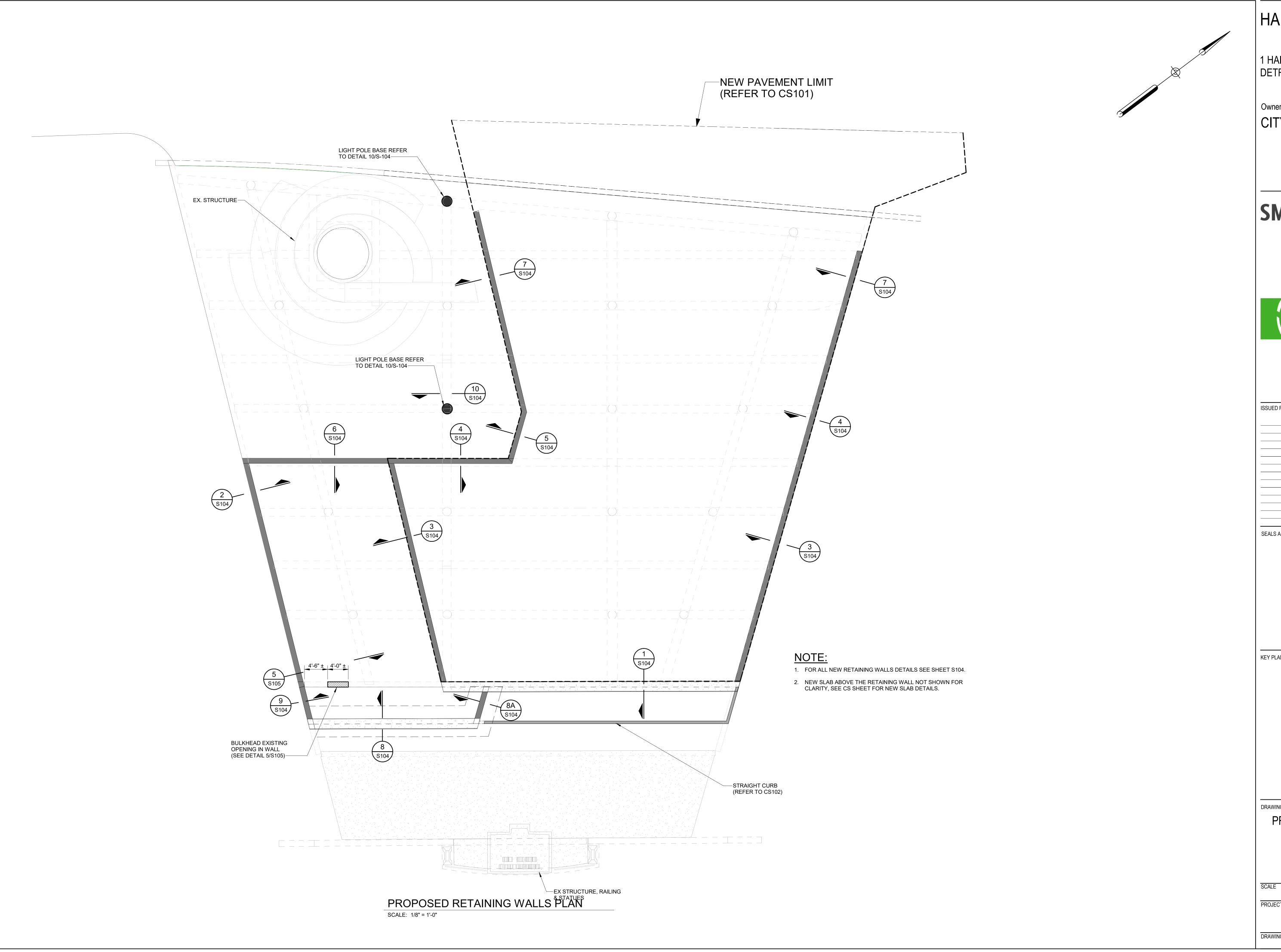
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DEMOLITION SECTIONS
AND DETAILS

AS INDICATED SCALE

PROJECT NUMBER

S10



1 HART PLAZA DETROIT, MI 48226

CITY OF DETROIT

# **SMITHGROUP**

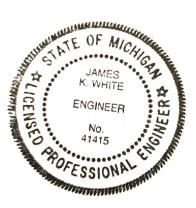
201 DEPOT STREET SECOND FLOOR ANN ARBOR, MI 48104 734.662.4457 www.smithgroup.com



500 Griswold Avenue, Suite 2500 Detroit, MI 48226 313.961.3650 www.wadetrim.com

ISSUED FOR	REV	DATE

SEALS AND SIGNATURES



KEY PLAN

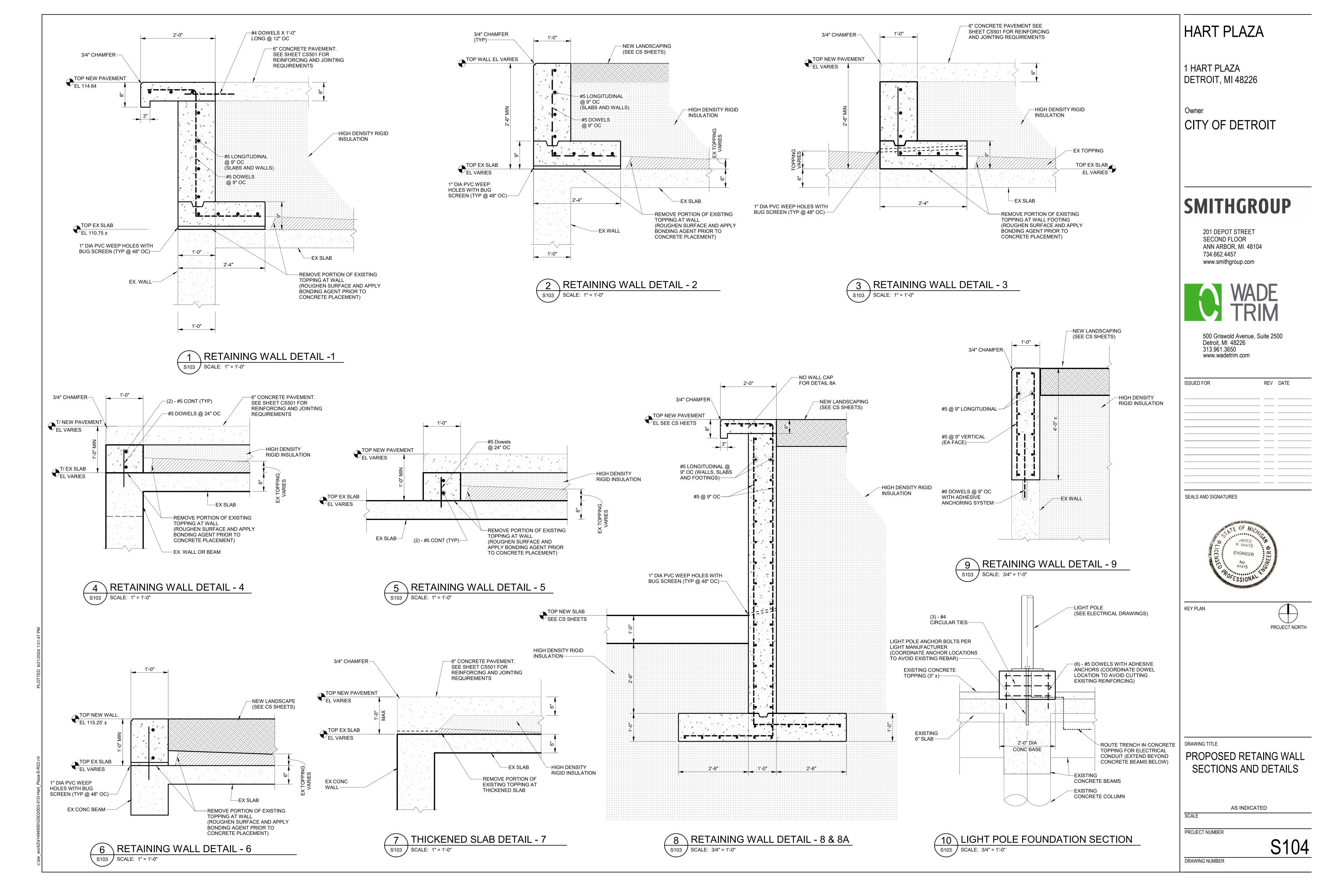


DRAWING TITLE

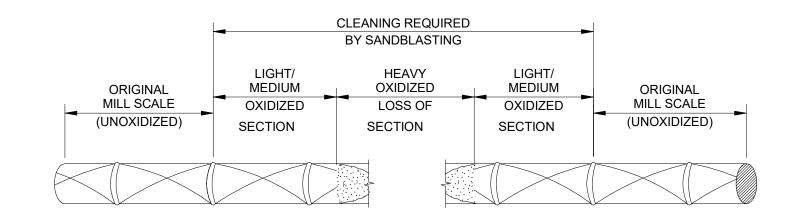
PROPOSED RETAINING WALLS

AS INDICATED

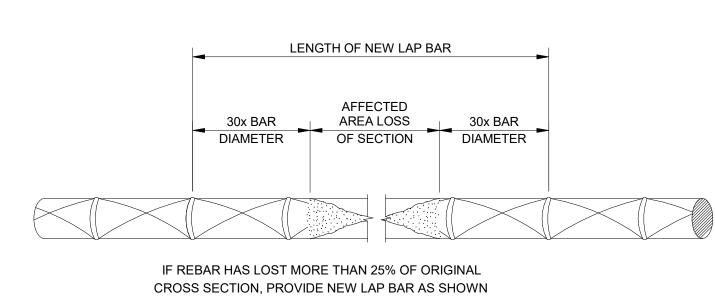
PROJECT NUMBER

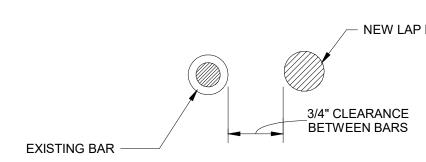


#### EXPOSING, UNDERCUTTING REINFORCING STEEL AND A CONDITIONING CONCRETE FOR PATCHING SCALE: NONE



# \ CLEANING OF REINFORCING STEEL





REPAIR OF REINFORCING STEEL DUE TO LOSS OF SECTION SCALE: NONE

### **CONCRETE REPAIR NOTES:**

- 1. LOCATE AREAS OF CONCRETE WITH DELAMINATIONS, SPALLS, SCALING, AND UNSOUND CONCRETE. MARK ON SURFACE OF CONCRETE THE AREA TO BE REPAIRED AS SPECIFIED. PRIOR TO THE REMOVAL OF ANY CONCRETE. PROVIDE 24 HOURS NOTICE TO THE ENGINEER IN ORDER FOR THE ENGINEER AND CONTRACTOR TO VERIFY REPAIR LIMITS.
- 2. SAWCUT PERIMETER OF AREA TO BE REPAIRED TO DEPTH OF 1/2" AS SHOWN. THE REPAIRED AREAS SHALL BE IN A RECTANGULAR SHAPE, WITH SAW CUTS AT RIGHT ANGLES.
- 3. REMOVE LOOSE OR DELAMINATED CONCRETE ABOVE OXIDIZED REINFORCING STEEL. ONCE INITIAL REMOVALS ARE MADE, PROCEED WITH THE UNDERCUTTING OF ALL EXPOSED OXIDIZED (CORRODED) BARS. PROVIDE A MINIMUM OF 3/4" CLEARANCE BETWEEN EXPOSED REBARS AND SURROUNDING CONCRETE
- 4. IF UNOXIDIZED REINFORCING BARS ARE EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE BARS BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR AND CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR SHALL BE REQUIRED.
- 5. INSTALL NEW REINFORCING BARS TO SUPPLEMENT EXISTING BARS WHICH HAVE LOST MORE THAN 25% OF THEIR CROSS SECTIONAL AREA. THE NEW REINFORCING BARS SHALL BE THE SAME DIAMETER AS THE EXISTING BAR, AND SHALL EXTEND A DISTANCE OF 30 TIMES THE BAR DIAMETER BEYOND BOTH SIDES OF THE AFFECTED AREA. (SEE "REPAIR OF REINFORCING STEEL" DETAIL THIS SHEET).
- 6. REMOVE ALL RUST AND LAITANCE FROM EXPOSED REINFORCING STEEL TO EXPOSED BARE METAL BY SANDBLASTING AS (SEE "CLEANING OF REINFORCING STEEL" DETAIL FOR EXTENT OF CLEANING REQUIRED).
- 7. REMOVE ALL BOND INHIBITING MATERIALS FROM CONCRETE INCLUDING BUT NOT LIMITED TO DIRT, CONCRETE SLURRY, AND LOOSELY BONDED AGGREGATE, BY ABRASIVE BLASTING OR HIGH PRESSURE WATERBLASTING. CHECK THE SURFACE AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE AND THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
- 8. COAT ALL EXPOSED REINFORCING STEEL AND PREPARED CONCRETE SURFACES TO RECEIVE PATCHING MATERIAL WITH CORROSION INHIBITOR AND BONDING AGENT (PER SPECIFICATIONS) AND APPLY PATCH MATERIAL AS SPECIFIED.
- 9. PRIOR TO ANY PATCHING OF CONCRETE, PROVIDE 24 HOUR NOTICE TO THE ENGINEER FOR INSPECTION OF THE REPAIRED LIMITS AND TO QUANTIFY REPAIR AREAS WITH THE CONTRACTOR FOR PAYMENT.
- 10. CONCRETE REPAIR MORTAR SHALL BE SIKATOP 123 PLUS (OR APPROVED EQUAL). FOLLOW MANUFACTURERS' APPLICATION INSTRUCTIONS.
- 11. THESE DETAILS APPLY TO THE CONCRETE REPAIRS TO THE WALLS AND/OR THE OVERHEAD SUSPENDED BEAMS AND SLABS BELOW THE "PROJECT AREA".

SAMPLE BOUNDRY OF SPALLED CONCRETE

SCALE: NONE

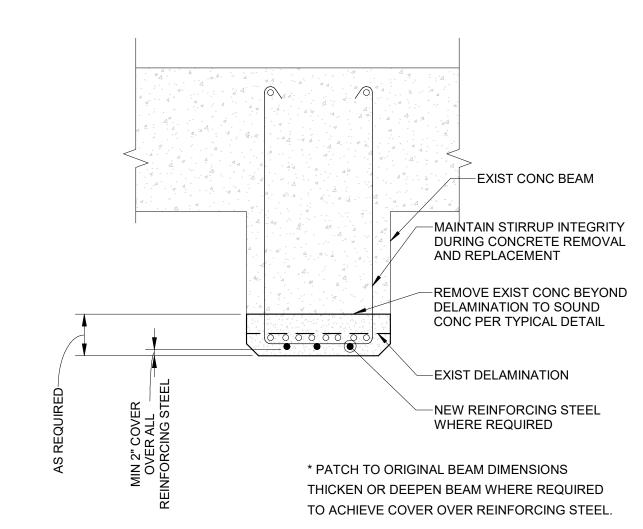
—6" MIN (TYP)

- IDENTIFIED CRACK

DRILL PORTS TO INTERSECT CRACK FROM

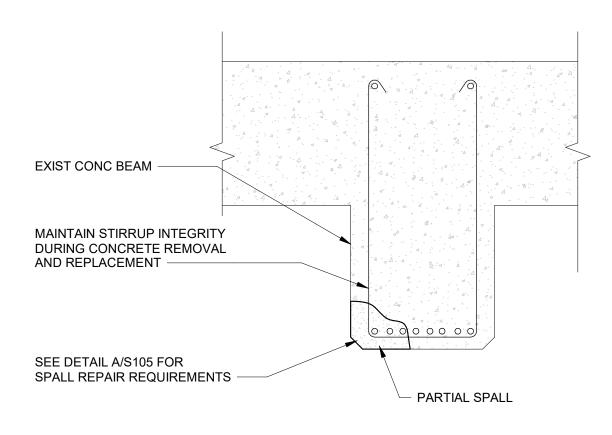
EACH SIDE (SIZE AND SPACING PER MANUFACTURER'S RECOMMENDATIONS)

INJECTION PORTS FOR CRACK REPAIR MATERIAL

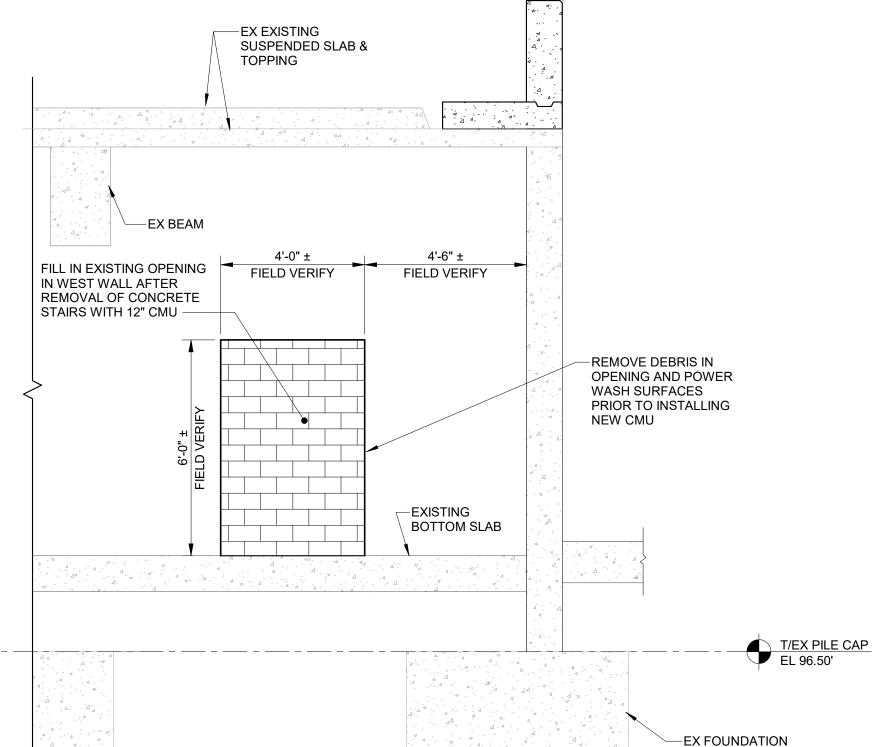


CONCRETE BEAM REPAIR WITH NEW STEEL





\ CONCRETE BEAM REPAIR NO NEW STEEL - 2 SCALE: NONE



CRACK REPAIR DETAIL SCALE: NONE

ullet Required Repair Layout

D CONCRETE SPALL REPAIR DETAIL

GEL EPOXY SEALER PRIOR TO INJECTION. REMOVE EPOXY SEALER (GRIND SMOOTH

WITH SURROUNDING CONCRETE SURFACE)

EXISTING WALL OR SLAB

AFTER INJECTION REPAIR MATERIAL HAS CURED

EXISTING SUSPENDED SLAB S103 / SCALE: NONE

## **CONCRETE REPAIR QUANTITIES:**

CONCRETE REPAIRS ARE LOCATED BELOW THE EXISTING SUSPENDED SLAB IN THE PROJECT AREA. THIS SPACE CAN BE ACCESSED THROUGH WALL OPENING AFTER REMOVAL OF STAIRS (PRIOR TO INSTALLING BULKHEAD SHOWN IN DETAIL 5/S105). AREA SHALL BE INSPECTED BY CONTRACTOR AND ENGINEER TO IDENTIFY REQUIRED REPAIRS. FOR BIDDING PURPOSES ASSUME THE FOLLOWING QUANTITIES:

-NEW RETAING WALL

DETAIL - 2

1. SPALL REPAIRS - 6 SQUARE FEET CRACK REPAIRS - 20 LINEAL FEET

3. BEAM REPAIR (NO NEW STEEL) - 5 LINEAR FEET

**SMITHGROUP** 

CITY OF DETROIT

HART PLAZA

1 HART PLAZA

Owner

DETROIT, MI 48226

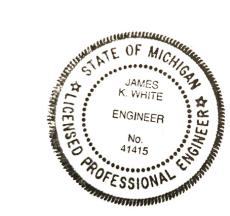
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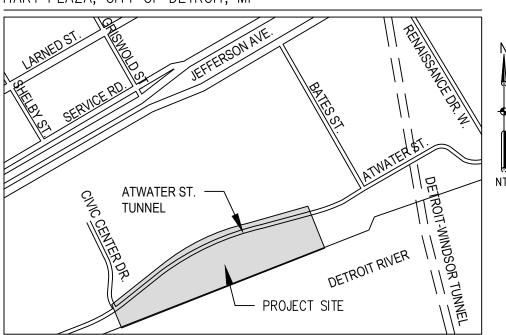
DRAWING NUMBER

CONCRETE REPAIR **DETAILS** 

AS INDICATED SCALE

#### VICINITY SKETCH -

HART PLAZA, CITY OF DETROIT, MI



#### **BENCHMARKS**

#### SITE BENCHMARK

#1920 — FOUND BRASS DISK IN TOP OF CONCRETE RETAINING WALL STAMPED "MDOT SURVEY MARKER" AT THE SOUTHERLY INTERSECTION OF CIVIC CENTER DR. AND ATWATER ST.; +/-48.4 FEET SOUTHWEST OF A UTILITY POLE; +/-7.2 FEET SOUTH OF THE SOUTH CURB LINE OF ATWATER ST.

NORTHING = 303,782.99 EASTING = 13,480,495.32 ELEVATION = 101.08 FEET (COD)

#1781 — SET BENCHMARK — SCRIBED "X" IN TOP OF CONCRETE RETAINING WALL AT THE NORTHEAST EDGE OF THE MAPPING LIMITS; +/-7.1 FEET SOUTHWEST OF A LIGHT POLE; +/-15.1 FEET EAST OF CONTROL POINT #15.

NORTHING = 304,196.96 EASTING = 13,481,129.72 ELEVATION = 119.52 (COD)

#### CONTROL POINT TABLE

Point No.	Northing	Easting	Elevation	Description
10	303757.22	13480502.14	101.50	CP MAG NAIL
11	303934.58	13480941.82	101.52	CP MAG NAIL
13	303941.93	13480739.27	113.48	CP SG CAP REBAR
14	303897.56	13480561.66	99.87	CP MAG NAIL
15	304200.34	13481114.98	117.96	CP SG CAP REBAR
16	304057.05	13481270.86	101.29	CP MAG NAIL FOUND
17	304057.74	13481085.26	109.87	CP SG CAP REBAR

#### NOTE:

1. HORIZONTAL DATUM IS ACCORDING TO MICHIGAN STATE PLANE GRID COORDINATES, SOUTH ZONE (2113), GEOID 2018, INTERNATIONAL FEET AS LINEAR UNIT OF MEASURE.

- 2. VERTICAL DATUM IS ACCORDING TO THE CITY OF DETROIT (COD) VERTICAL DATUM, WITH BENCHMARKS LISTED HEREON. VERTICAL DATUM ADJUSTED FROM NAVD88 AND REFERENCED COD BENCHMARK. CONVERSION FACTOR (NAVD88-479.25)=COD.
- 3. SMITHGROUP PERFORMED A TOPOGRAPHIC SURVEY UTILIZING DATA COLLECTED WITH GLOBAL POSITIONING RECEIVERS REFERENCING THE MICHIGAN CONTINUOUSLY OPERATING REFERENCE NETWORK FOR SITE CONTROL.
- 4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING LAND BOUNDARY, EASEMENTS, RIGHTS—OF—WAY, AND OTHER INFORMATION THAT MAY AFFECT TITLE WAS GAINED FROM AVAILABLE TAX RECORDS AND/OR RECORDED LEGAL DOCUMENTS FOR ADJOINING PARCELS
- UTILITY MAPS WERE RECEIVED OR OTHERWISE OBTAINED FROM THE FOLLOWING UTILITY OWNERS:

5. MISS-DIG DESIGN TICKET #2023120501341 WAS ISSUED FOR THIS PROJECT. RECORD

AT&T (TELEPHONE), COMCAST (CABLE TV), DTE ENERGY (ELECTRIC), DTE ENERGY (GAS), DETROIT THERMAL (LLC STEAM), MCI/VERIZON (FIBER OPTICS), EXTENT SYSTEMS, INC. (FIBER OPTICS).

RECORD UTILITY MAPS WERE NOT RECEIVED FROM THE FOLLOWING UTILITY OWNERS:

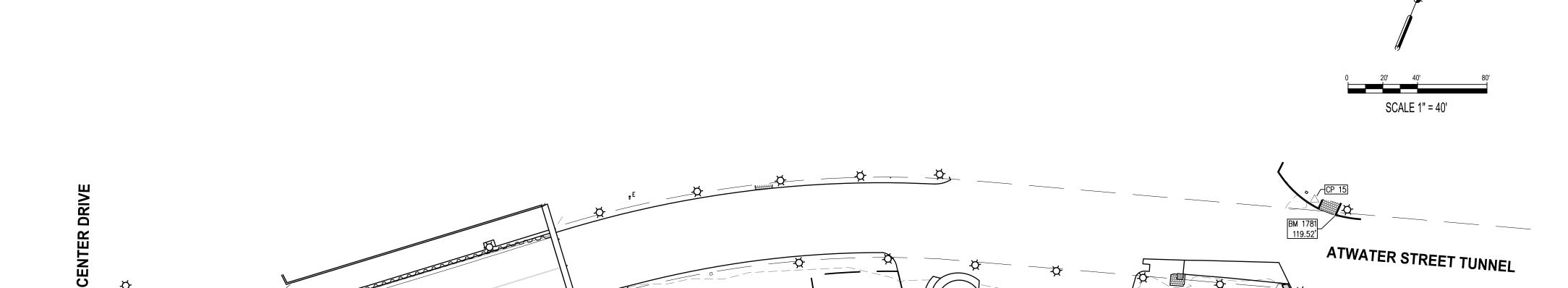
GREAT LAKES WATER AUTHORITY (POTABLE WATER), GREAT LAKES WATER AUTHORITY (COMBINED SANI/STRM ONLY), DETROIT WATER & SEWERAGE SEWER, DETROIT PUBLIC LIGHTING, DETROIT PEOPLE MOVER SYSTEM, EVERSTREAM FIBER OPTICS, NEXTEL COMMUNICATIONS (FIBER OPTICS).

THERE EXISTS DETROIT PUBLIC LIGHTING MAN HOLES WITHIN THE SURVEY LIMITS THAT DO NOT HAVE RECORD UTILITIES PLOTTED HEREON DUE TO NOT RECEIVING RECORDS FROM THE DEPARTMENT. SMITHGROUP HAS REACHED OUT TO THE DEPARTMENT AND WILL UPDATE THE DRAWING IF ANY RECORDS ARE RECEIVED AFTER PUBLICATION.

- 6. UNDERGROUND UTILITY LOCATIONS WERE DERIVED FROM ACTUAL MEASUREMENTS ON VISIBLE UTILITIES, MISS DIG FLAGS/MARKINGS, AND/OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS, NOR SHOULD THEY IT BE ASSUMED THAT THEY ARE THE ONLY UNDERGROUND UTILITIES IN THE AREA.
- 7. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED AND ARE NOT CONSIDERED A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE AND OR DEVELOPMENT OF THIS SITE.
- 8. THE APPROXIMATE LOCATIONS OF THE UNDERGROUND 10.0' DIA. EXHAUST PIPE AND ADJOINING EXHAUST FAN ROOMS ARE SHOWN HEREON PER NOGUCHI FOUNTAIN & PLAZA, INC. AND SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC. PLANS. CITY CONTRACT #MH-128; FILE NO. 11277, DRAWING NO. A-2, DATED DEC. 1974.
- 9. THE ATWATER TUNNEL IS SHOWN HERON AND ESTABLISHED PER FIELD SURVEY. THE EXPOSED INTERIOR FACE OF STEEL COLUMNS WERE LOCATED AS NOTED. NO UTILITIES OR OTHER INFRASTRUCTURE WAS LOCATED WITHIN THE TUNNEL AS PART OF THIS SURVEY
- 10. ADDITIONAL SPOT ELEVATIONS MAY BE CONTAINED IN THE PROJECT DATABASE, AND ALTHOUGH NOT APPEARING IN THE RECORD PLAN DOCUMENT DUE TO SCALE AND VISIBILITY, WERE UTILIZED IN THE DIGITAL TERRAIN MODEL FOR CREATION OF THE ONE—FOOT CONTOURS. THE ADDITIONAL SPOT ELEVATION DATA IS AVAILABLE FOR FUTURE DESIGN ANALYSIS, BEING LOCATED ON A FROZEN LAYER WITHIN THE PROJECT DATABASE.

# TOPOGRAPHIC SURVEY

HART PLAZA, CITY OF DETROIT, WAYNE COUNTY, MICHIGAN



PORTIONS OF THIS SITE, AS SHOWN ON THIS LIMITED TOPOGRAPHIC SURVEY LIE, IN SPECIAL FLOOD HAZARD AREA "ZONE AE" AND (OTHER) FLOOD AREA "ZONE X", ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NO. 26163C, PANEL 0285F, FOR CITY OF DETROIT, WAYNE COUNTY, MICHIGAN, EFFECTIVE DATE OCTOBER 21, 2021. ACCORDING TO SAID PANEL, ZONE AE IS DEFINED AS AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD — BASE FLOOD ELEVATIONS DETERMINED. ZONE X IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD.

ALTHOUGH SAID PANEL WAS USED AS A GUIDE AND REFERENCE IN LOCATING SAID FLOOD ZONES, THE PLOTTED LOCATIONS OF SAID FLOOD ZONES WERE DETERMINED USING FEMA FLOOD INSURANCE STUDY FOR WAYNE COUNTY, MICHIGAN, VOLUME 26163CV004C, REVISED OCTOBER 21, 2021. BASE FLOOD ELEVATIONS FOR THIS SURVEY WERE INTERPOLATED AND SCALED FROM THE NEAREST CROSS SECTION LINES USING PROFILE SHEET 46P FOR THE DETROIT RIVER AS FOLLOWS:

- ZONE AE BASE FLOOD ELEVATION = 577.1' (97.85' COD)
- ZONE X BASE FLOOD ELEVATION 577.1' (97.85' COD)

ACCORDING TO SAID FLOOD INSURANCE STUDY SHEET 46P, THE 2%, 1%, AND 0.2% ANNUAL CHANCE FLOOD PROFILES ARE TOO CLOSE TO BE SHOWN SEPARATELY.

#### SURVEY LEGEND

BM A	BENCHMARK	<del>- 0 - 0 -</del>	DOUBLE POST SIGN	C ⊠ ⊠ T	CABLE OR TELECOM RISER		· EDGE OF WATER
<u> </u>	CONTROL POINT	Q	MEMORIAL PLAQUE OR STONE	<b>D</b>	UTILITY POLE	xxx	FENCE LINE
O F	FOUND IRON BAR/REBAR	•	BOLLARD OR POST	>>	GUY WIRE		HANDRAIL
+ 700.00	SPOT ELEVATION	$\forall$	FLOODLIGHT* (SEE NOTE)	ф сстv	LIGHT POLE OR LAMP POST	~~~~~	GUARDRAIL
+ TC 701.00	TOP OF CURB ELEVATION	$\oslash$ (2112)	CATCH BASIN (ROUND)	CCTV	CLOSED CIRCUIT CAMERA	com	UNDERGROUND TELECOMMUNICATION
+ GU 700.50	GUTTER ELEVATION	⊗ (2112)	CATCH BASIN (BEEHIVE)	0000000	ADA DETECTABLE WARNING MAT	—— ue ———	UNDERGROUND ELECTRIC
+ EM 700.70	EDGE OF METAL ELEVATION	<b>(2112)</b>	CATCH BASIN (SQUARE)	00000000	ADA PAD (STAMPED CONCRETE)	<del></del>	FIBER OPTIC
+ CC 700.70	CURB CUT ELEVATION	<b>(2112)</b>	CURB INLET	<b>♡</b>	FIRE HYDRANT	— ctv——	CABLE TELEVISION
+ TW 703.00	TOP OF WALL ELEVATION	\$12	STORM MANHOLE	$\Theta_{MN}$	WATER SHUT OFF VALVE	— g ———	· NATURAL GAS
+ BW 702.00	BOTTOM OF WALL ELEVATION	© (2112)	COMBINED MANHOLE	♦♦FDC	FIRE DEPT. CONNECTION	——g(ABD) ——	NATURAL GAS (ABANDONED)
+ FF 705.00	FINISH FLOOR ELEVATION	(L) (2112)	LIGHTING MANHOLE	×	IRRIGATION CONTROL VALVE	oh	OVERHEAD UTLITY
$\odot$	TREE - DECIDUOUS	<b>E</b> (2112)	ELECTRIC MANHOLE	$\Theta_{GV}$	GAS SHUT OFF VALVE	—-s	SANITARY SEWER
	TREE - CONIFEROUS	<b>W</b> 2112	WATER MANHOLE	☐ HH−E	HANDHOLE ELECTRIC	—-r—	STORM SEWER
	BUSH - DECIDUOUS	VENTO OCO	VENT OR CLEANOUT	☐ HH−F	HANDHOLE FIBER OPTIC	—— w ———	WATER MAIN
	BUSH - CONIFEROUS	_r—— <b>⋖</b>	FLAIRED END SECTION — CULVERT		TOPOGRAPHIC CONTOUR	——w(ABD) ——	WATER MAIN (ABANDONED)
$\bigcirc$	STUMP	<del></del>	END OF UTILITY NOT KNOWN/SHOWN		BRUSHLINE/WOODED LIMITS	PLD-ug	PUBLIC LIGHTING — UNDERGROUND
₽T. DESC.	MISC. POINT	'//////////	BUILDING PERIMETER		TREE DRIP EDGE	<u>—-u</u> k-ug ———	UNKNOWN - UNDERGROUND
	PARK BENCH	— — <del></del> <del>0.н.</del> —	BUILDING ROOF OVERHANG		BRICK PAVEMENT		MATCHLINE
<del></del>	SIGN	E S.II.	ELECTRIC TRANSFORMER				

\* NOTE: FLOODLIGHT SYMBOLS ALONG THE RIVER WALK AS SHOWN ON THIS SURVEY MARKED AS "\", REPRESENTS A 10" DIA. WALKWAY LIGHT EMBEDDED IN CONCRETE SEATING WALLS ±8" ABOVE GRADE, AS SHOWN. ALL OTHER FLOODLIGHT SYMBOLS REPRESENT 5"x5" SQUARE LANDSCAPE LIGHTS EMBEDDED IN CONCRETE RETAINING WALLS ±8" ABOVE GRADE.

## CERTIFICATE

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH LOCAL AND STATE JURISDICTIONAL REQUIREMENTS REGULATING MAPPING STANDARDS. THE UNDERSIGNED STATES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE STAFF WERE EMPLOYED TO ACHIEVE THE RESULTS INDICATED HEREIN.



PAUL E. KOVACS, PS 62151 PROFESSIONAL SURVEYOR STATE OF MICHIGAN paul.kovacs@smithgroup.com



JANUARY 17, 2024 DATE

# HART PLAZA GRAND STAIRS

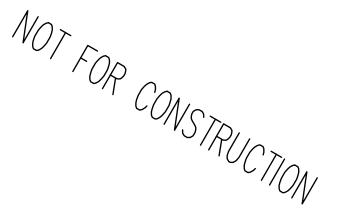
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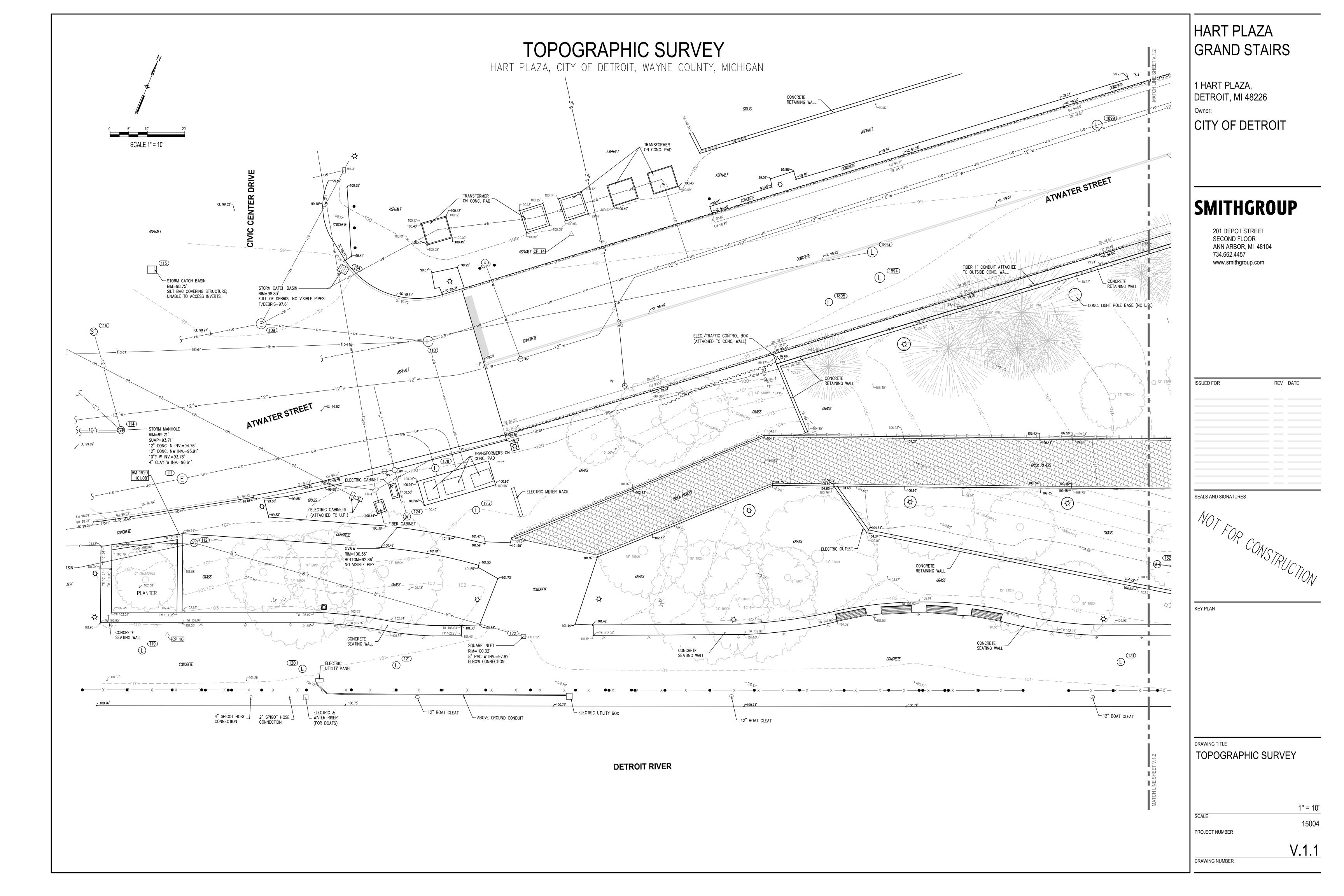
KEY PLAN

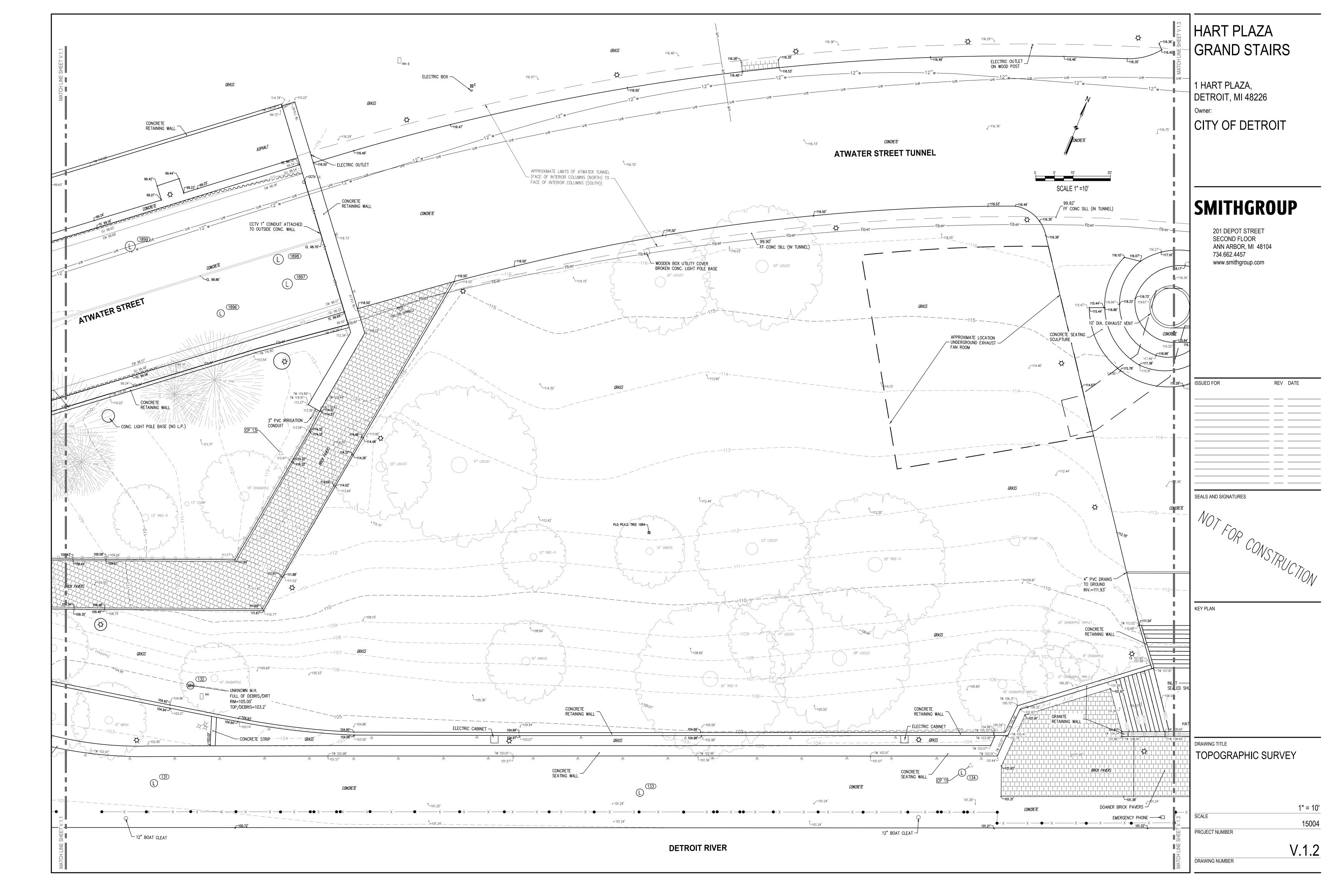
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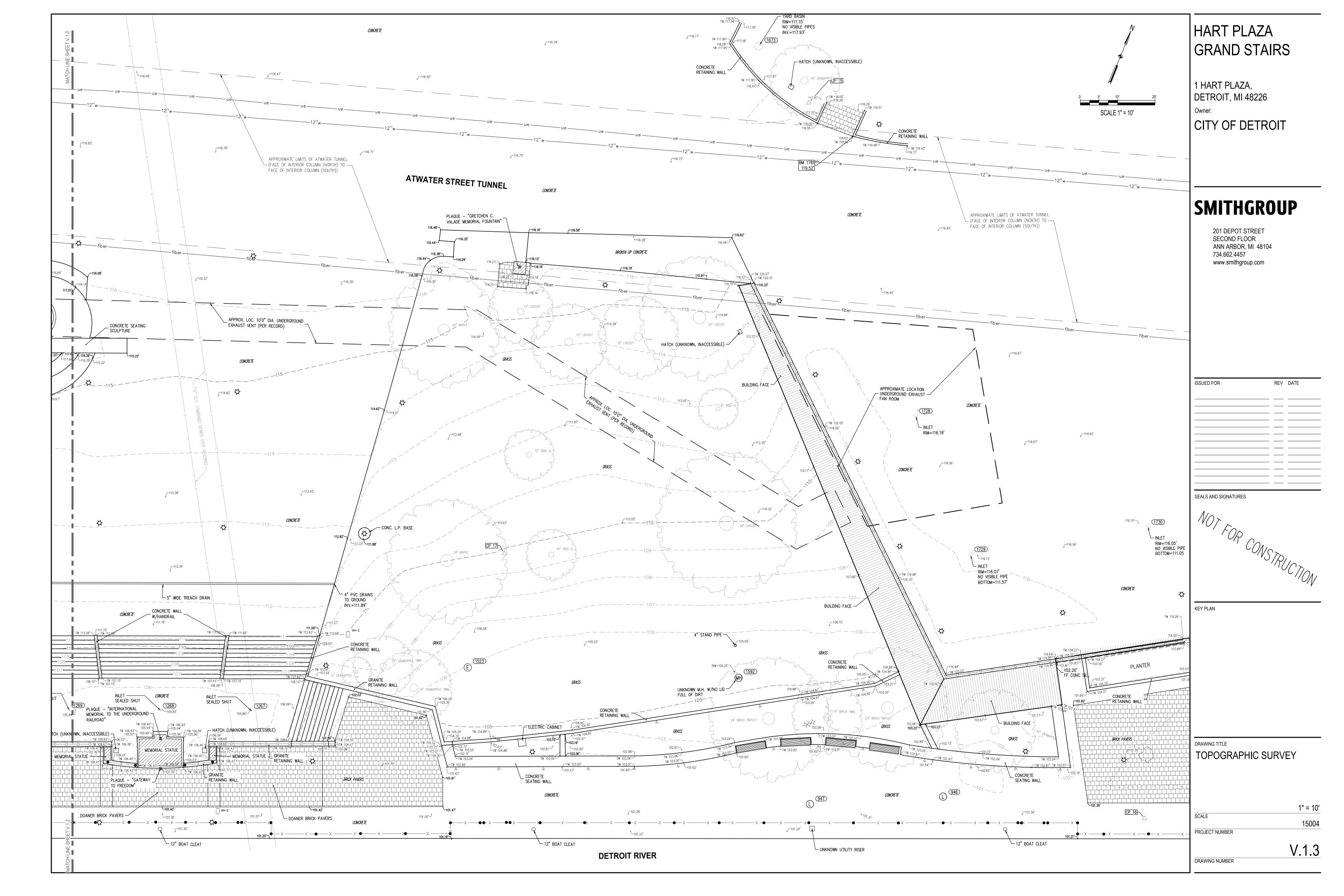
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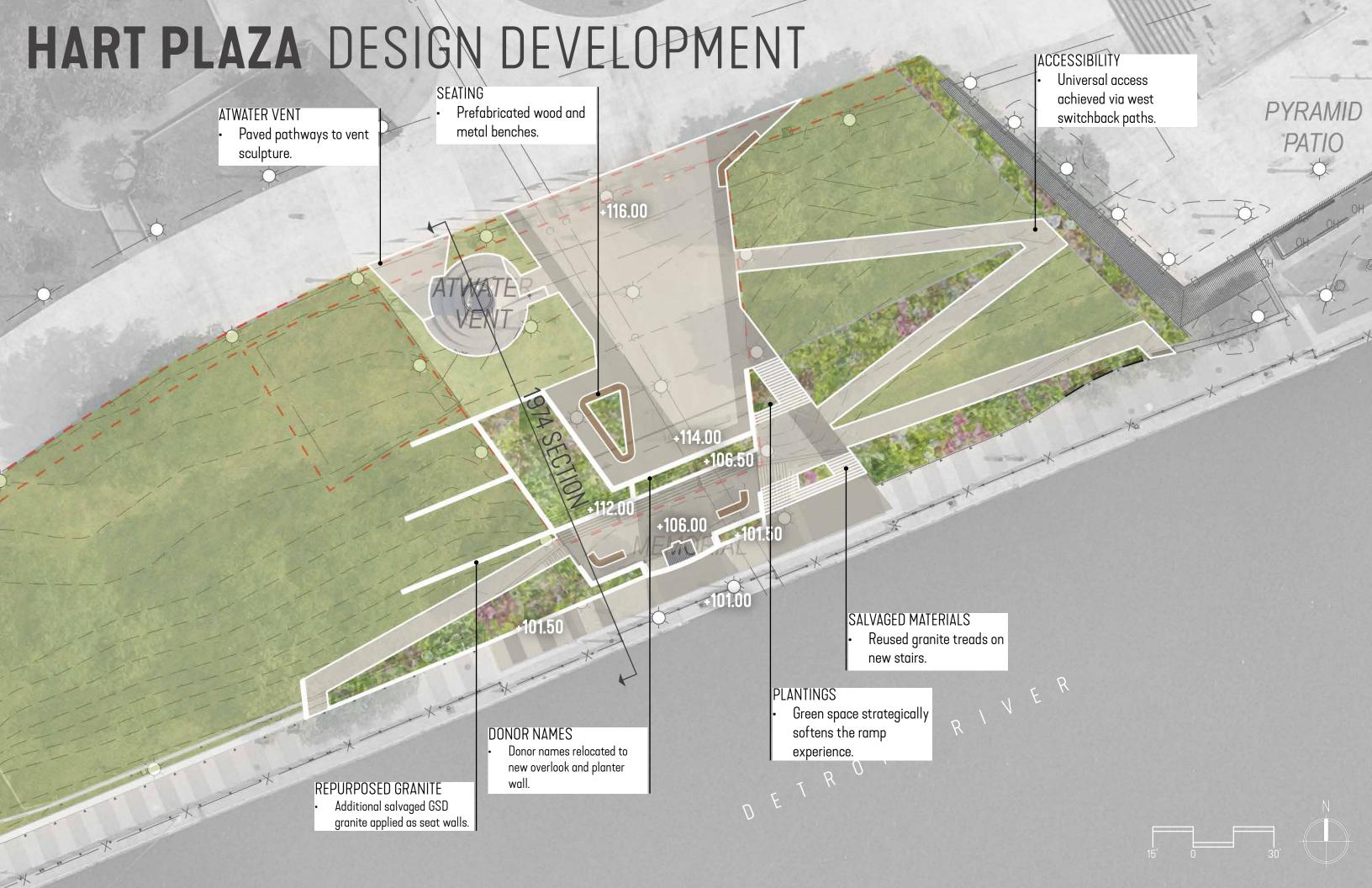
TOPOGRAPHIC SURVEY

	1" = 10'
SCALE	15004
PROJECT NUMBER	
	V.1.0









# HART PLAZA EVENT DIAGRAMS





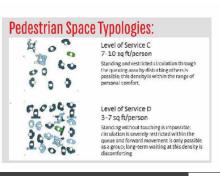


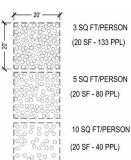












CONTRACTING

# HART PLAZA BIRDSEYE



# HART PLAZA DESIGN DEVELOPMENT PERSPECTIVES









ELEVATED LOOKING SOUTHWEST







RIVERWALK FROM WEST

