HISTORIC AND DESIGN REVIEW COMMISSION

April 03, 2024

HDRC CASE NO:	**2024-119**
ADDRESS:	600 HEMISFAIR PLAZA WAY
LEGAL DESCRIPTION:	NCB 13814 BLK 3 LOT PT OF 12 ARB 12G (GIS AC 3.847 AC)
ZONING:	D, RIO-3, H
CITY COUNCIL DIST.:	1
DISTRICT:	Hemisfair Historic District
APPLICANT:	Andres Andujar/Hemisfair Park Area Redevelopment Corp
OWNER:	Hemisfair Park Area Redevelopment Corp
TYPE OF WORK:	Construction of a covered sports court
APPLICATION RECEIVED:	March 15, 2024
60-DAY REVIEW:	May 14, 2024
CASE MANAGER:	Edward Hall

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a sports court and open-air pavilion in the planned Tower Park at Hemisfair, in the location of the existing pond. The proposed court will feature a concrete slab surface measuring one-hundred six (106) feet by sixty-two (62) feet, a roof structure and an overall height of approximately twenty-nine (29) feet.

APPLICABLE CITATIONS:

Unified Development Code Section. 35-642. New Construction of Buildings and Facilities.

In considering whether to recommend approval or disapproval of a certificate, the historic and design review commission shall be guided by the following design considerations. These are not intended to restrict imagination, innovation or variety, but rather to assist in focusing on design principles, which can result in creative solutions that will enhance the city and its neighborhoods. Good and original design solutions that meet the individual requirements of a specific site or neighborhood are encouraged and welcomed.

(a) Site and Setting.

(1) Building sites should be planned to take into consideration existing natural climatic and topographical features. The intrusive leveling of the site should be avoided. Climatic factors such as sun, wind, and temperature should become an integral part of the design to encourage design of site-specific facilities which reinforces the individual identity of a neighborhood and promotes energy efficient facilities.

(2) Special consideration should be given to maintain existing urban design characteristics, such as setbacks, building heights, streetscapes, pedestrian movement, and traffic flow. Building placement should enhance or create focal points and views. Continuity of scale and orientation shall be emphasized.

(3) Accessibility from streets should be designed to accommodate safe pedestrian movement as well as vehicular traffic. Where possible, parking areas should be screened from view from the public right-of-way by attractive fences, beams, plantings or other means.

(4) Historically significant aspects of the site shall be identified and if possible incorporated into the site design. Historic relationships between buildings, such as plazas or open spaces, boulevards or axial relationships should be maintained.

(b) Building Design.

(1) Buildings for the public should maintain the highest quality standards of design integrity. They should elicit a pride of ownership for all citizens. Public buildings should reflect the unique and diverse character of San Antonio and should be responsive to the time and place in which they were constructed.

(2) Buildings shall be in scale with their adjoining surroundings and shall b conformance to the identifying quality and characteristics of the neighborhood. They shall be compatible in design, style

and materials. Reproductions of styles and designs from a different time period are not encouraged, consistent with the secretary of the interior's standards. Major horizontal and vertical elements in adjoining sites should be respected.
(3) Materials shall be suitable to the type of building and design in which they are used. They shall be durable and easily maintained. Materials and designs at pedestrian level shall be at human scale, that is they shall be designed to be understood and appreciated by someone on foot. Materials should be selected that respect the historic character of the surrounding area in texture, size and color.
(4) Building components such as doors, windows, overhangs, awnings, roof shapes and decorative elements shall all be designed to contribute to the proportions and scale of their surrounding context. Established mass/void relationships shall be maintained. Patterns and rhythms in the streetscape shall be continued.
(5) Colors shall be harmonious with the surrounding environment, but should not be dull. Choice of color should reflect the local and regional character. Nearby historic colors shall be respected.
(6) Mechanical equipment or other utility hardware should be screened from public view with materials compatible with the building design. Where possible, rooftop mechanical equipment should be screened, even from above. Where feasible, overhead utilities should also be underground or attractively screened. Exterior lighting shall be an integral part of the design. Interior lighting shall be controlled so that the spillover lighting onto public walkways is not annoying to pedestrians.
(7) Signs which are out of keeping with the character of the environment in question should not be used. Excessive size and inappropriate placement on buildings results in visual clutter. Signs should be designed to relate harmoniously to exterior building materials and colors. Signs should express a simple clear message with wording kept to a minimum.
(8) Auxiliary design. The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designed with the overall environment in mind and should be in visual keeping with related buildings, structures and places.

FINDINGS:

a. The applicant is requesting a Certificate of Appropriateness for approval to construct a sports court and open-air pavilion in the planned Tower Park at Hemisfair, in the location of an existing, man-made pond. The proposed court will feature a concrete slab surface measuring one-hundred six (106) feet by sixty-two (62) feet, a roof structure and an overall height of approximately twenty-nine (29) feet.
b. DESIGN REVIEW COMMITTEE – This proposal was reviewed by the Design Review Committee on March 12, 2024. At that meeting, Commissioners asked questions regarding the proposed design, materials, lighting and future landscaping.
c. EXISTING SITE – The applicant has proposed to construct the proposed sports court in the location of the existing pond, which will require the demolition of the existing elements. The pond was constructed in 1988, is no longer functioning and is not contributing to Hemisfair. Staff finds its removal to be appropriate.
d. EXISTING SITE – The existing site features a number of existing trees. The applicant has noted coordination with the City Arborist office regarding tree preservation. Additionally, the applicant has noted the planting of two new trees on site.
e. COURT & PAVILION (Footprint & Massing) – The applicant has proposed to construct a sports court to feature a concrete slab surface measuring one-hundred six (106) feet by sixty-two (62) feet, a roof structure and an overall height of approximately twenty-nine (29) feet. Staff finds the proposed footprint and overall height of the court and pavilion to be appropriate.
f. PAVILION (Materials) – The applicant has proposed for the pavilion to feature materials that include metal columns, soffits and roof decking. The applicant has noted ceiling material options to include metal panels, PVC panels or high-density polyethylene. Generally, staff finds the proposed materials to be appropriate. Final materials selections should be submitted to OHP staff for review and approval.
g. PAVILION (Lighting) – The applicant has submitted a reflected ceiling plan that notes the locations of lighting fixtures. Additionally, the applicant has noted both uplighting and downlighting from the structural columns. Staff finds the proposed lighting to be appropriate and that lighting, as proposed, will not create light pollution throughout Hemisfair.
h. LANDSCAPING – Detailed landscaping plans have not been submitted at this time. Staff finds that any future landscaping or seating elements be submitted to OHP staff for review and approval. These plans should be

developed to complement future hardscaping and landscaping plans for this section of Hemisfair and Tower Park.

i. ARCHAEOLOGY – An archaeological investigation is required. The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable. Work within public property is subject to the Texas Antiquities Code.

RECOMMENDATION:

Staff recommends approval based on findings a through g with the following stipulations:

i. That final ceiling materials specifications be submitted to OHP staff for review and approval.
ii. That any future landscaping or seating elements be submitted to OHP staff for review and approval. These plans should be developed to complement future hardscaping and landscaping plans for this section of Hemisfair and Tower Park.
iii. ARCHAEOLOGY – An archaeological investigation is required. The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable.

City of San Antonio One Stop

March 27, 2024

1:2,000

0 0.015 0.03 0.06 mi

0 0.0275 0.055 0.11 km

CITY OF SAN ANTONIO
OFFICE OF HISTORIC PRESERVATION

Historic and Design Review Commission
Design Review Committee Report

DATE: March 12, 2024

HDRC Case #: 2024-119

Address: Hemisfair Park

Meeting Location: Webex

APPLICANT: Andres Andujar

DRC Members present: Jeff Fetzer, Monica Savino, Roland Mazuca, Jason Vasquez

Staff Present: Edward Hall, Cory Edwards

Others present: Gary Boyd, Melissa Chamrad

REQUEST:
Construction of a basketball pavilion at Hemisfair Park
COMMENTS/CONCERNS:
AA: Overview of request, concept and background of design, location of pavilion (at pond location; pond constructed in 1988). The pond is no longer functional; the equipment is in disrepair. Water is stagnant and not flowing.
MS: Questions regarding landscaping – will additional trees be planted? (AA: Yes, two new trees; many existing trees that will be protected. In discussion with City Arborist regarding impacts to two potential trees; will mitigate.) MS: Please provide shade studies and how that will impact the trees.
AA: Discussion regarding future potential elements (such as seating).
JF: An exciting project. Study another level of awning or vertical louvers to extend the shade larger than the footprint of the roof.
AA: Phase 2 of the project will potentially include additional shading elements and water features. Phase 1 will be limited to the pavilion element.
MS: Questions about court surface and drainage (AA: Concrete slab with a special paint. 0% Slope. Sloping is under consideration; to the south (½%).)
JV: Were there other considerations other than a basketball court? (Yes, many ideas have been considered; philanthropic support is making the court possible.) JV: Questions about potential or future water elements or features.

MS: Questions regarding the thickness of the canopy (AA: Approximately 15” at the edge, thicker towards the center.)
RM: Questions regarding lighting.
JF: Appreciates the curved roof form; references other round and curved structures in Hemisfair.

OVERALL COMMENTS:

Hemisfair Sports Court Pavilion

During numerous public meetings, focus groups and surveys, the citizens of San Antonio have expressed the need for community recreation in the planned Tower Park at Hemisfair. Therefore, through philanthropic support, we propose to construct a covered sports court where the pond is now. The pond, built in 1988 for the benefit of the Tower of the Americas operations, has a negative impact in the area for its unpleasant odor.

The proposed Sports Court is a covered basketball court with a simple but elegant design that takes its precedent from World Fair pavilions such as the IBM Pavilion from the 1968 World's Fair. The slender columns don't interrupt the views of the park, and the modified oval roof structure takes its precedent from the HemisFair '68 site plan. The inspiration for the resulting shape comes from the original Fair planning composition of circles and rectangles. Those elements consisted of the HemisFair Arena, the Tower of the Americas, the US Pavilion, and the Coca Cola Pavilion in the round category; and the Texas Pavilion and the Convention Center being large parallelogram objects at the opposite corners of the district.

The court will be a concrete slab 106'X 62' and striped as a 94' X 50' basketball court but able to be used as a multipurpose event space. The roof elevation will be at approximately 28 feet above the floor, with a flat soffit below the secondary beams. The roof slopes from the center, out to the perimeter at a 2% slope, and the metal covered facia is two feet deep, giving the effect of a slender flat roof. The roof structure is generally oval in shape, supported by eight round steel columns supported by deep concrete piers. The roof overhangs the floor slab by ten feet at the midpoints of the sides and ends, providing shade for onlookers. The roof structure and piers are independent from the floor slab so that they can move separately.

At the east end of the court will be a metal covered plinth ten feet high which will house the electrical panel that will control the court's lighting and convenience outlets. There will also be a water fountain with multiple levels for ADA and pets.

Lighting for the pavilion will be mounted in several locations – up lights from the eight columns at floor level, up lights from the structure over the court, and downlights mounted to the inside of the major support beams.

The basketball backboard and rim will be mounted to the structure above and will be retractable with motorized controls.

In addition to sports activities, the public will be able to reserve the pavilion for a multitude of events.

Because this project is fully funded through philanthropic contributions, the plan is to start construction as soon as permitting is complete.

HEMISFAIR SPORTS COURT PAVILION.
DESIGN DEVELOPMENT/BIDDING SET

Hemisfair Park, 434 S Alamo St.
San Antonio, Texas. 78205

SHEET INDEX

CONTACT LIST

OWNER / DEVELOPER

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ELECTRICAL ENGINEER

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AaronL@clearyzimmermann.com

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JALISCO, MEXICO.
+52 (33) 3616-0630
jten@artenluz.com

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etrevino.jr@trecotx.com

NOT FOR CONSTRUCTION

GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

FOR COORDINATION ONLY

SHEET NAME

COVER SHEET

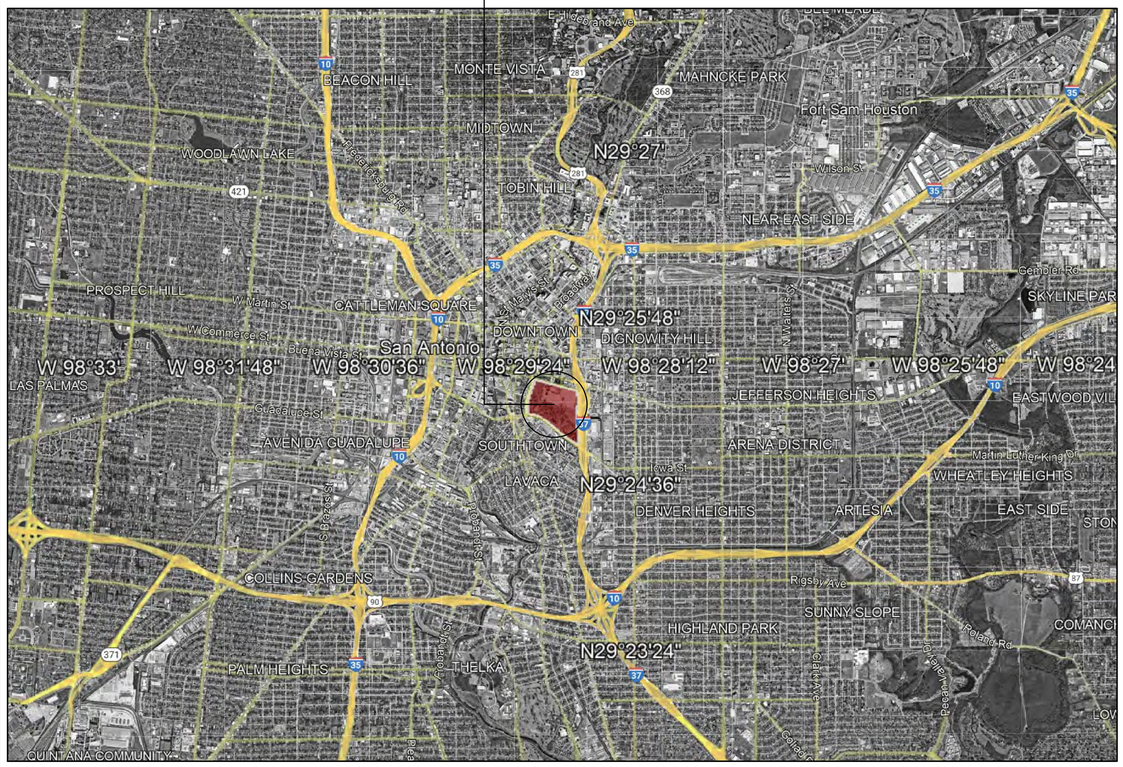
Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

SCALE

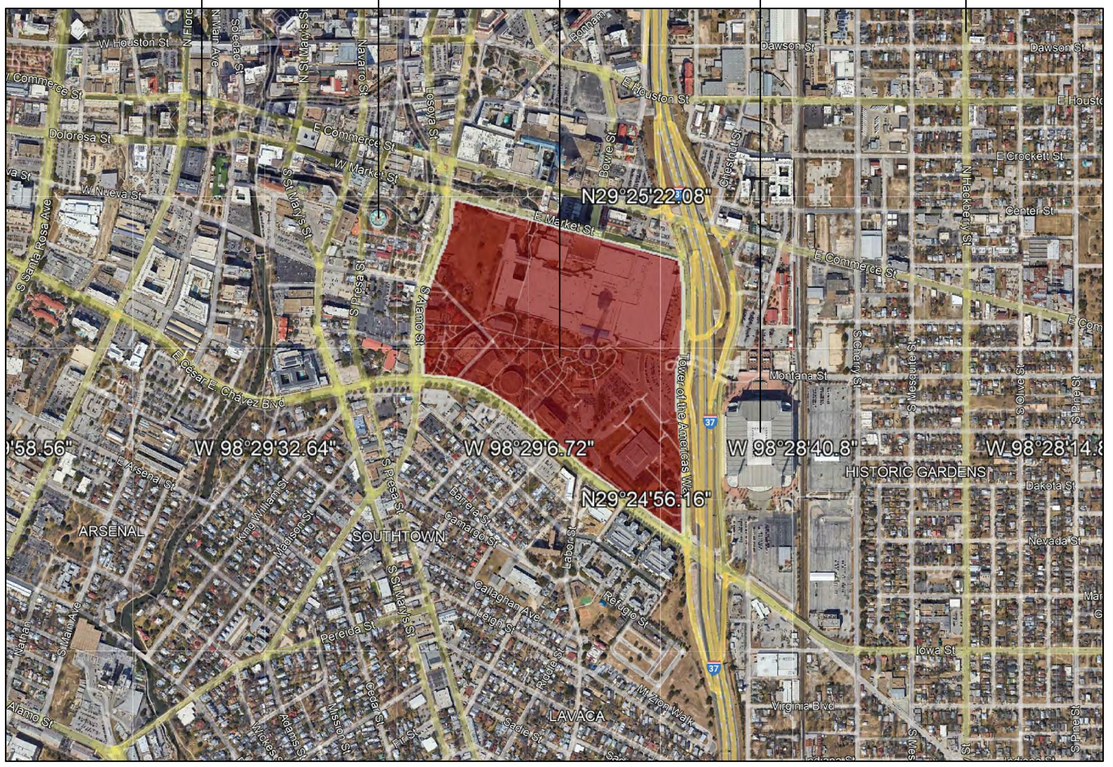
SHEET NUMBER

G001

HEMISFAIR PARK



SAN FERNANDO CATHEDRAL | LA VILLITA HISTORIC VILLAGE | HEMISFAIR PARK | VALERO ALAMO BOWL | HACKBERRY STREET



NORTH

NOT FOR CONSTRUCTION

GVI GOMEZ VAZQUEZ INTERNATIONAL

ARCHITECTURE | PLANNING | URBAN DESIGN

210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

FOR COORDINATION ONLY

SHEET NAME

VICINITY & LOCATIONS/AREA SUMMARY

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

SCALE

SHEET NUMBER

A010

DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS/APPROVALS BEFORE BEGINNING DEMOLITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED. ALL MATERIALS SHALL BE DEMOLISHED AND REMOVED FROM SITE IN ACCORDANCE WITH ALL APPLICABLE, FEDERAL, STATE AND LOCAL REGULATIONS.
3. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING SERVICES, POWER POLES TO BE REMOVED, VERIFYING UTILITIES ARE SHUT OFF OR DISCONNECTED, AND THAT ALL POSSIBLE SAFETY PRECAUTIONS HAVE BEEN ENACTED TO ENSURE THE SAFEST ENVIRONMENT FOR ALL PERSONNEL.
5. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. ALL NECESSARY EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITION AT ALL TIMES.
7. CONTRACTOR SHALL CONFIRM WITH THE OWNER OR HIS DESIGNATE WHETHER TO SALVAGE AND MAKE ARRANGEMENTS TO STORE TRANSPLANTABLE TREES PRIOR TO REMOVAL.
8. FOR TREES SHOWN TO REMAIN, THE CONTRACTOR SHALL INSTALL TREE PROTECTION IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOT REMOVE OR DAMAGE ANY TREES WITHOUT A PERMIT TO DO SO.
9. NO PARKING AND/OR STORAGE SHALL BE ALLOWED WITHIN THE DRIP LINE OF THE TREES TO REMAIN.
10. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS AND SIDEWALKS AT NEW PAVEMENT, CURB AND SIDEWALK JUNCTURES, NO JAGGED OR IRREGULAR CUTS WILL BE ACCEPTED.
11. THE CONTRACTOR SHALL PROTECT ALL PROPERTY PINS, BENCH MARKS, CONSTRUCTION STAKES, HUBS, OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE–ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE.
12. DEMOLITION CONTRACTOR IS RESPONSIBLE FOR CLEARING THE SITE OF ALL OBSTRUCTIONS THAT EXIST ON THIS SITE PRIOR TO THE START OF CONSTRUCTION OR DURING THE CONSTRUCTION SO AS TO NOT IMPEDE THE BUILDING CONSTRUCTION CONTRACTOR.
13. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO IDENTIFY ANY MATERIAL OR EQUIPMENT SCHEDULED FOR REMOVAL TO BE SALVAGED AND REUSED. CONTRACTOR SHALL REPLACE AT HIS EXPENSE ANY DESTROYED MATERIAL OR EQUIPMENT THAT WAS MARKED FOR SALVAGE.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL HAZARDOUS MATERIAL OFFSITE FOLLOWING ALL APPLICABLE DISPOSABLE REGULATIONS. ON SITE CONCRETE PROPOSED FOR DEMOLITION MAY BE REUSED ON SITE AS FILL AS LONG AS IT IS CRUSHED, FREE OF REBAR, WIRE MESH AND DEBRIS AND CAN MEET GEOTECHNICAL SPECIFICATIONS.
15. CONTRACTOR SHALL REMOVE ALL EXISTING IRRIGATION PIPING ON SITE UNLESS SHOWN OTHERWISE. CUT AND CAP LATERALS AT PROJECT LIMITS TO ALLOW PROPER FUNCTION OF ZONES INTENDED TO REMAIN OR EXTEND OFF–SITE.
16. CONTRACTOR SHALL NOT DEMOLISH ANY PUBLIC WATER OR SANITARY SEWER LINES WITHOUT APPROVAL. EXISTING WATER AND SANITARY SEWER SERVICES SHALL REMAIN OPERATIONAL UNTIL NEW SERVICE IS COMPLETE. CUT AND CAP ANY ABANDONED SANITARY SEWER AND WATER SERVICES AT THE EXISTING MAIN. NO ABANDONED SERVICES SHALL REMAIN CONNECTED TO THE PUBLIC MAIN.
17. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.
18. ALL WASTE MATERIAL REMAINING AFTER OWNER SALVAGE IS COMPLETE AND RESULTING FROM DEMOLITION OPERATIONS BECOMES THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL OF WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS OWN EXPENSE. OWNER WILL PROVIDE LIST OF ITEMS TO BE SALVAGED.
19. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER.
20. THE CONTRACTOR SHALL MEET ALL LOCAL, STATE, AND FEDERAL REGULATIONS FOR DUST CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE AT THEIR OWN EXPENSE FOR ANY FUGITIVE DUST ON ADJOINING PROPERTIES.

DIMENSIONAL CONTROL NOTES

1. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THE PROJECT.
2. THE CONTRACTOR SHALL PRESERVE ALL CONTROL POINTS, PROPERTY PINS, BENCH MARKS, HUBS OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE–ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE IN THE EVENT THEY ARE REMOVED.
3. DIMENSIONAL CONTROL FOR ANY STRUCTURE IS BASED ON INFORMATION PROVIDED BY THE ARCHITECT OR STRUCTURAL ENGINEER. THE CONTRACTOR SHALL VERIFY ALL PROJECT DIMENSIONS WITH THE PROJECT DRAWINGS PRIOR TO CONSTRUCTION AND TO COMMUNICATE TO THE ENGINEER OF ANY DISCREPANCIES.
4. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE TRAVERSE CONTROL POINTS FOR HORIZONTAL CONTROL POINTS. IF TRAVERSE CONTROL POINTS ARE NOT PROVIDED, THE CONTRACTOR MAY USE PROPERTY CORNER PINS. BENCHMARKS ARE NOT TO BE USED FOR HORIZONTAL CONTROL.
5. COORDINATES FOR HORIZONTAL CONTROL POINTS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, AND 83(96) DISPLAYED IN SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR FOR EACH COUNTY. (THE SURFACE ADJUSTMENT FACTOR FOR BEXAR COUNTY IS 1.00017. OTHER COUNTIES WILL HAVE A DIFFERENT FACTOR; CHECK WITH THE SURVEYOR TO OBTAIN THE CORRECT SURFACE ADJUSTMENT FACTOR FOR PROJECTS LOCATED OUTSIDE OF BEXAR COUNTY.)
6. BENCHMARK ELEVATIONS ARE BASED ON NAVD 88, GEOID 03.
7. ALL DIMENSIONAL CONTROL POINTS OR DIMENSIONS ARE TO THE FACE OF CURB, FACE OF RETAINING WALL AT THE BOTTOM TOE OF SLOPE, AND CENTER OF PAINT STRIPING. ALL DIMENSIONS ARE PERPENDICULAR TO THE POINT OF REFERENCE.
8. CURB RADII ARE 3' UNLESS OTHERWISE NOTED ON THE DRAWINGS.
9. REFER TO THE ARCHITECTURAL, STRUCTURAL, AND LANDSCAPE PLANS AS APPLICABLE FOR ADDITIONAL DIMENSIONAL CONTROL INFORMATION.
10. THE CONTRACTOR SHALL RELY ON THE INFORMATION PROVIDED ON THE SIGNED AND SEALED CONSTRUCTION DRAWINGS. SUBJECT TO A SIGNED RELEASE AGREEMENT, CAD FILES MAY BE OBTAINED FROM THE ENGINEER FOR THE CONVENIENCE AND USE OF THE CONTRACTOR.

GRADING NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPINGS AND TOPSOIL MAY BE STOCKPILED ON SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
9. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TPDES/SWPPP REQUIREMENTS. REFERENCE THE LANDSCAPE ARCHITECT'S PLAN, IF APPLICABLE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (EROSION CONTROL MEASURES) TO KEEP DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY, STREETS, OR DRAINAGE WAYS. CONTRACTOR SHALL IMMEDIATELY REMOVE SILT/DEBRIS WHICH WASHES OFFSITE OR INTO EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TPDES BOOK).
11. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN +/- ONE-TENTH (0.10) FOOT.
12. IN PROPOSED PAVING AREAS, IT IS INTENDED THAT THE MINIMUM GRADE IS 1%. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 2.0% UNLESS OTHERWISE SHOWN.
13. ACCESSIBILITY: SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%. SIDEWALK LONGITUDINAL SLOPE ALONG ACCESSIBLE ROUTES SHALL NOT EXCEED 5%, UNLESS OTHERWISE NOTED. SIDEWALK CURB RAMPS SHALL NOT EXCEED 8.33%. (SEE CURB RAMP DETAILS). CURB RAMP LANDINGS SHALL NOT EXCEED 2%. ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 2% IN ANY DIRECTION
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ENSURE UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER SHALL BE NOTIFIED IF ANY UTILITY CONFLICTS ARE DISCOVERED.
16. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
17. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, THE CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING.
18. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT–OF–WAY WITHOUT A PERMIT.

SITE UTILITY NOTES

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
2. DRAWINGS DO NOT SHOW ALL EXISTING UTILITIES. ALL EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD WHETHER SHOWN ON THIS PLAN OR NOT (PRIOR TO INSTALLATION OF ANY NEW LINES).
3. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES
4. CONTRACTOR SHALL CALL FOR THE LOCAL JURISDICTIONAL INSPECTIONS AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL JURISDICTION WITH REGARDS TO MATERIALS AND INSTALLATION OF THE UTILITIES AND STORM DRAINS.
6. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS, SPECIFICATIONS AND ALL TESTING.
7. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL COMPLY WITH THE FOLLOWING AS APPLICABLE:
   - A. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR CONSTRUCTION"
   - B. CURRENT "SAN ANTONIO WATER SYSTEM UTILITY SERVICE REGULATIONS"
   - C. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"
   - D. CURRENT TxDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND DRAINAGE"
   - E. CURRENT CITY OF SAN ANTONIO "RIGHT–OF–WAY ORDINANCE AND CRITERIA MANUAL"
8. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
9. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
10. CONTRACTOR SHALL PROTECT ALL EXISTING TREES, FENCES, PAVING, UTILITIES, AND OTHER STRUCTURES SCHEDULED TO REMAIN. ANY STRUCTURE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
11. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL FINAL UTILITY AS–BUILT MEASUREMENTS, TOPS AND LENGTH OF SERVICE CONNECTIONS OF THE PROJECT.
12. ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT HIS SOLE EXPENSE.
13. GAS AND ELECTRIC ALIGNMENTS SHOWN ON THIS DRAWING ARE CONCEPTUAL. THE ACTUAL DESIGN AND LOCATIONS SHALL BE DETERMINED BY THE LOCAL SERVICE PROVIDER OR MEP ENGINEER.
14. CONTRACTOR SHALL COORDINATE TELE. COMMUNICATIONS, CABLE, ELECTRIC AND GAS LINE INSTALLATION WITH LOCAL SERVICE PROVIDER. THE SERVICE PROVIDER WILL BE RESPONSIBLE FOR INSTALLATION OF GAS LINE TO WITHIN 5' OF BUILDING.
15. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE–IN OF ALL UTILITIES.
16. SEE IRRIGATION, LIGHTING AND ARCHITECTURAL PLANS FOR ADDITIONAL CONDUIT LOCATIONS AS APPLICABLE. VERIFY ALL CONDUIT AND SLEEVE LOCATIONS PRIOR TO PLACING ANY PAVEMENT.
17. CONTRACTOR SHALL INSTALL ALL CONDUITS WITH A MINIMUM 4–FOOT SWEEP RADIUS. ALL CONDUITS SHALL HAVE A PULL STRING TO BE INSTALLED BY THE CONTRACTOR.
18. NO WORK SHALL BE ALLOWED WITHIN THE PUBLIC RIGHT–OF–WAY WITHOUT AN APPROVED PERMIT.
19. THE CONSTRUCTION OF UNDERGROUND PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEMS SHALL BE GOVERNED BY THE ENGINEERING CONSTRUCTION PLANS PREPARED BY THE LOCAL SERVICE PROVIDER. THIS DRAWING SHALL SERVE ONLY AS REFERENCE DOCUMENT TO COORDINATE LOCATION OF THE PROPOSED PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEM. THE LOCAL SERVICE PROVIDER'S CONSTRUCTION DRAWINGS AND CONSTRUCTION DETAILS SHALL GOVERN.
20. CONTRACTOR SHALL INCLUDE IN HIS BID A 4" PVC CONDUIT FOR TELEPHONE AND A 2" PVC CONDUIT FOR CABLE TV TO BE IN THE SAME TRENCH AS UNDERGROUND ELECTRIC LINES. CONTRACTOR SHALL VERIFY WITH APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION ON NUMBER AND SIZE OF CONDUITS NEEDED FOR UTILITY SERVICE TO ALL BUILDINGS.
21. BEDDING FOR ALL UTILITIES SHALL BE PER THE PROJECT SPECIFICATIONS. NO WATER JETTING OF BACKFILL MATERIAL WILL BE ALLOWED.

DRAINAGE NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK SHALL COMPLY WITH THE PROJECT GEOTECH REPORT, THE PROJECT SPECIFICATIONS, AND THE CURRENT CITY, COUNTY OR TXDOT.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING UTILITIES AND SHOULD THEY BE DAMAGED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE THE DAMAGED FACILITIES AT CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL OR BETTER CONDITION DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.
4. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION.
5. WATER JETTING THE BACKFILL OF STORM DRAIN TRENCHES WILL NOT BE PERMITTED.
6. NORTHINGS AND EASTINGS LISTED ON THESE PLANS ARE TO CENTER OF BOX FOR JUNCTION BOXES AND GRATE INLETS AND TO OUTSIDE CORNER FACE OF CURB FOR ALL CURB AND COMBINATION INLETS. ALL LENGTHS OF PIPE ARE TO INSIDE FACE OF STRUCTURES.
7. CONTRACTOR SHALL ENSURE PROPER SIZE OF JUNCTION BOXES NEEDED WHERE INDICATED ON PLAN. CONTRACTOR SHALL CONNECT STORM DRAIN PIPE TO JUNCTION BOXES PER MANUFACTURES SPECIFICATIONS.
8. ALL STORM DRAIN TO JUNCTION BOX CONNECTIONS SHALL HAVE CONCRETE COLLARS.
9. ALL GRATE INLETS MUST BE HS20 EQUIVALENT RATED GRATES.
10. TOPS OF MANHOLES, JUNCTION BOXES AND GRATES SHALL BE SET FLUSH TO FINISHED SURFACE BASED UPON GRADING PLAN.
11. CONTRACTOR SHALL GROUT INVERTS OF ALL STORM DRAIN INLETS, JUNCTION BOXES, AND DROP STRUCTURES TO DRAIN.

CAUTION UNDERGROUND UTILITIES

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE, AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. THE CONTRACTOR MUST CONTACT 1–800–DIG–TESS AND CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION AND/OR START OF CONSTRUCTION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTORS SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

CAUTION OVERHEAD UTILITIES

CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING UNDER "HIGH VOLTAGE TRANSMISSION LINES". A WORKING HEIGHT OF 30' FROM GROUND ELEVATION WILL BE OBSERVED WHEN WORKING UNDER THE HIGH VOLTAGE LINE. COORDINATE ALL WORK WITH THE LOCAL UTILITY PROVIDER.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND /OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

BID SET

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GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

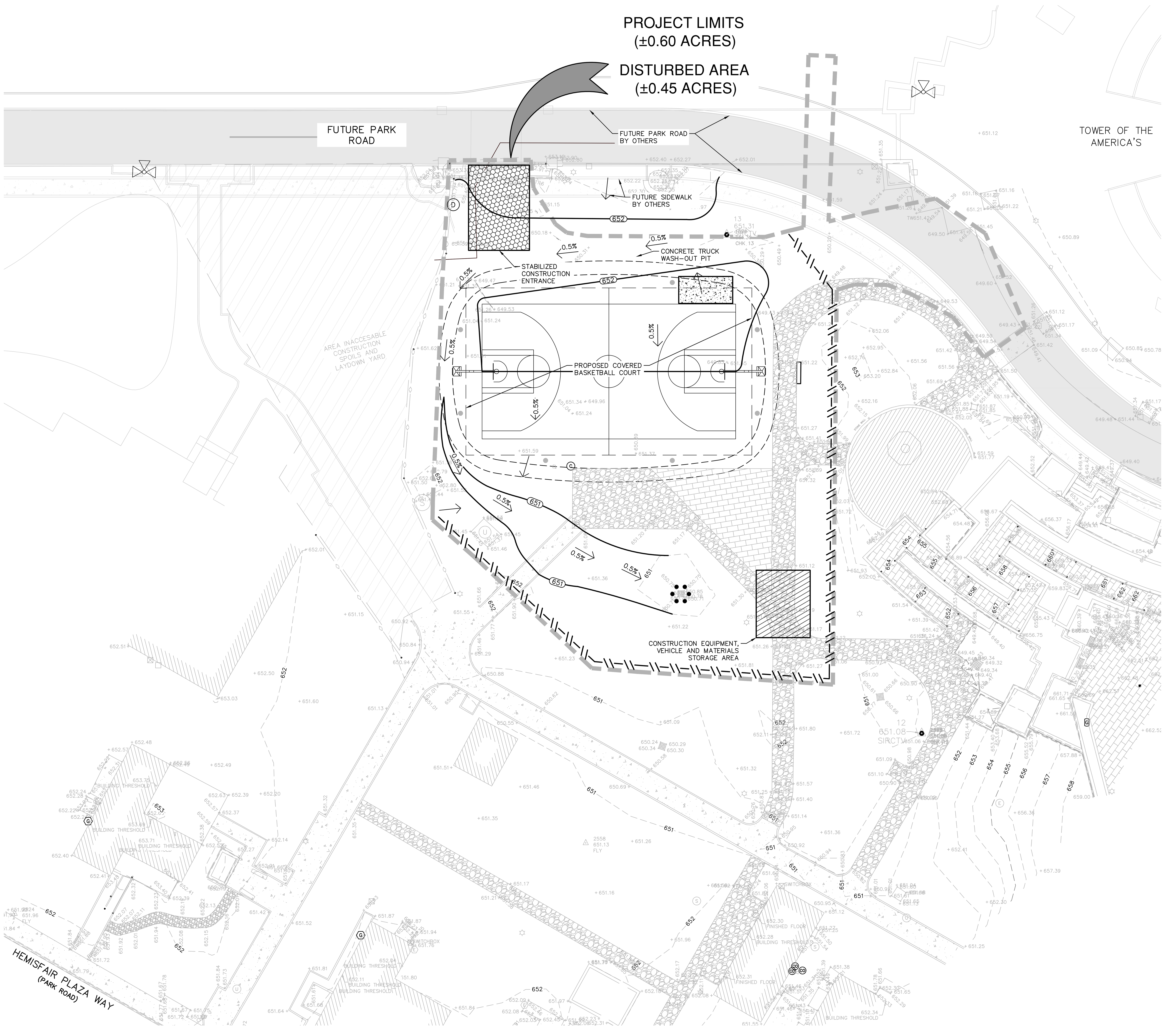
PROFESSIONAL SEAL
5/1/2023
STATE OF TEXAS
THOMAS MATTHEW CARTER
79272
LICENSED PROFESSIONAL ENGINEER

SHEET NAME
GENERAL CONSTRUCTION NOTES

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

SCALE

SHEET NUMBER
C0.10



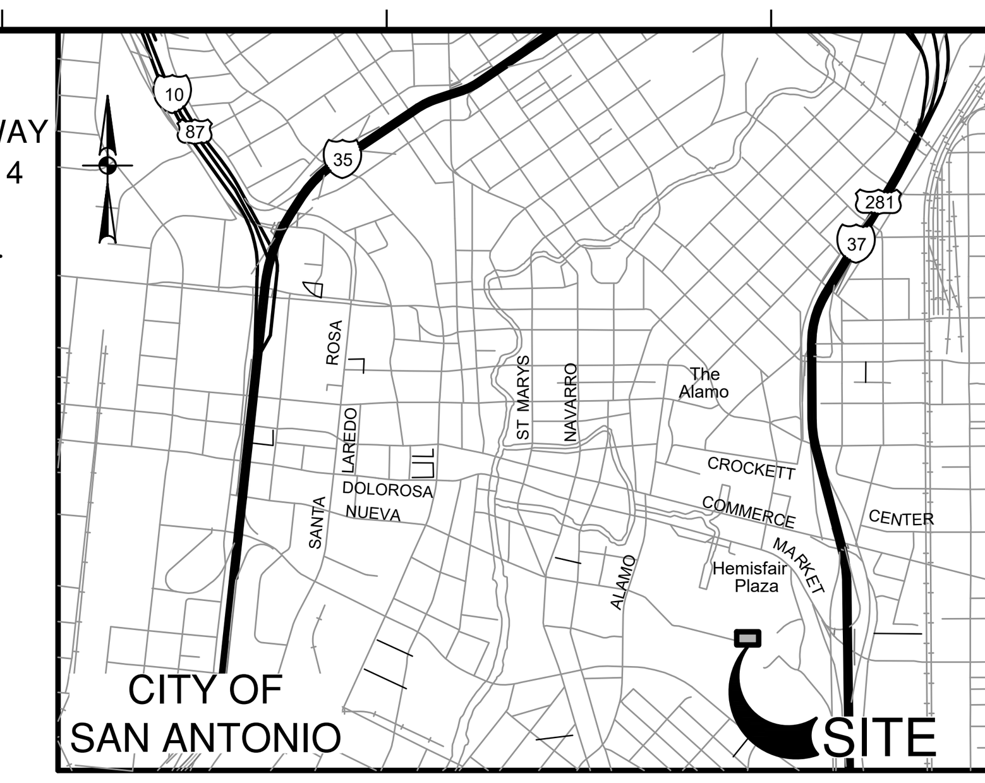
SWP3 MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION

ADDRESS
600 HEMISFAIR PLAZA WAY
SAN ANTONIO, TX 78214

LEGAL DESCRIPTION
LOT 12 & 903
BLOCK 3
N.C.B. 13814

PLAT
160546



LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 20'
0' 20' 40' 60'

LEGEND

PROJECT LIMITS (0.44 AC)
EXISTING CONTOUR
PROPOSED CONTOUR
FLOW ARROW (EXISTING)
FLOW ARROW (PROPOSED)
SILT FENCE
GRATE INLET PROTECTION
STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE)
CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA (FIELD LOCATE)
CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)

GENERAL NOTES

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION PREVENTION PLAN.

7. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.

8. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT (VOL 9, PG 285) AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

9. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

10. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES REQUIREMENTS.

11. UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.

12. WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.

13. SHADED AREA DENOTES LIMITS OF DISTURBED AREAS. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSE CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

14. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE PLACEMENT OF TEMPORARY BEST MANAGEMENT PRACTICES WITHIN TXDOT RIGHT-OF-WAY WITH TXDOT.

15. CPS ENERGY MAY FUNCTION AS A SECONDARY OPERATOR ON THIS PROJECT AND MAY BE INSTALLING ELECTRIC UTILITIES FOR ON-SITE CONSTRUCTION AND OFF-SITE FEED TO THE PROJECT.

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 2

BID SET

GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

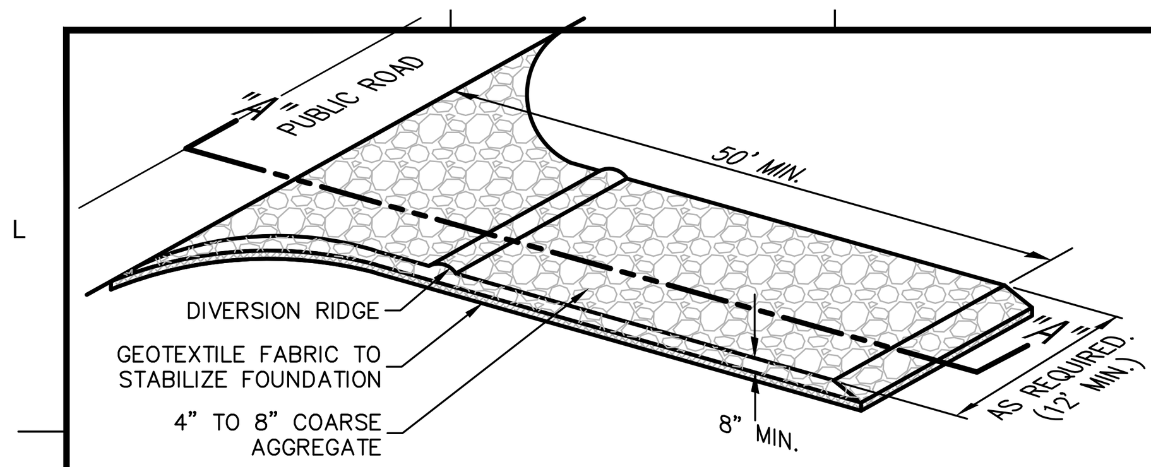
PROFESSIONAL SEAL
5/1/2023
STATE OF TEXAS
THOMAS MATTHEW CARTER
79272
LICENSED PROFESSIONAL ENGINEER

SHEET NAME
STORM WATER POLLUTION PREVENTION PLAN

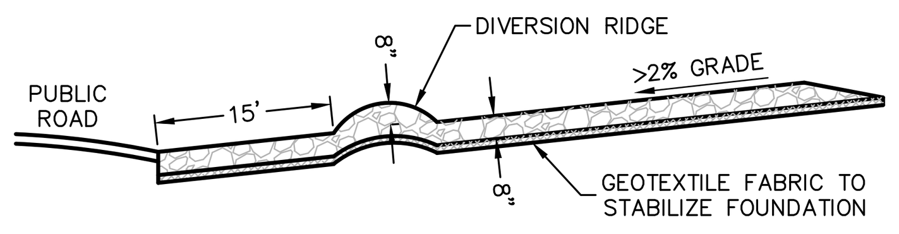
Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

SCALE

SHEET NUMBER
C0.20



SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT



SECTION "A-A" OF A CONSTRUCTION ENTRANCE/EXIT

MATERIALS

1. THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.

2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8-INCHES.

3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD^2, A MULLEN BURST RATING OF 140 LB/IN^2, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4-INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR BASIN.

INSTALLATION

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.

2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.

4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.

5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.

7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

COMMON TROUBLE POINTS

1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.

2. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.

3. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC-EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD.

5. UNSTABLE FOUNDATION – USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES

1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

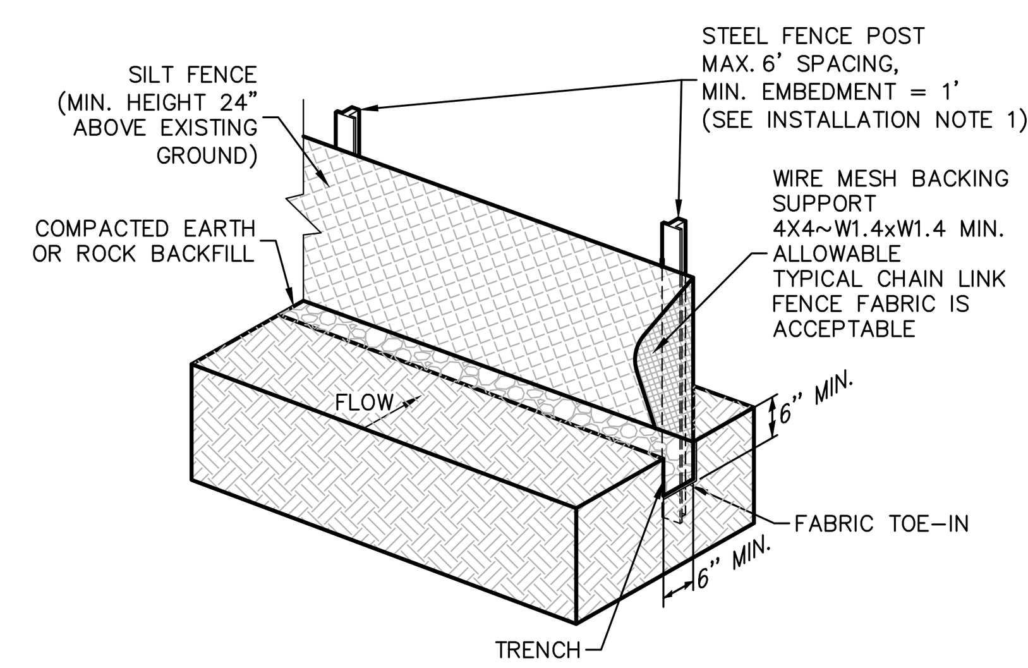
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.

3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL



ISOMETRIC PLAN VIEW

SILT FENCE

A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE. WHEN PROPERLY USED, SILT FENCES CAN BE HIGHLY EFFECTIVE AT CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO POND, ALLOWING HEAVIER SOLIDS TO SETTLE OUT. IF NOT PROPERLY INSTALLED, SILT FENCES ARE NOT LIKELY TO BE EFFECTIVE.

THE PURPOSE OF A SILT FENCE IS TO INTERCEPT AND DETAIN WATER-BORN SEDIMENT FROM UNPROTECTED AREAS OF A LIMITED EXTENT. SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, CORRECTIVE ACTION MUST BE TAKEN SUCH AS PLACING A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.

SILT FENCING WITHIN THE SITE MAY BE TEMPORARILY MOVED DURING THE DAY TO ALLOW CONSTRUCTION ACTIVITY PROVIDED IT IS REPLACED AND PROPERLY ANCHORED TO THE GROUND AT THE END OF THE DAY. SILT FENCES ON THE PERIMETER OF THE SITE OR AROUND DRAINAGE WAYS SHOULD NOT BE MOVED AT ANY TIME.

MATERIALS

1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.

2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINDELL HARDNESS EXCEEDING 140.

3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

INSTALLATION

1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.

2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.

3. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

4. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

COMMON TROUBLE POINTS

1. FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO CONCENTRATE AND FLOW OVER THE FENCE.

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER FENCE).

3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND SIDES).

4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW (RUNOFF OVERTOPS OR COLLAPSES FENCE).

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECT ALL FENCING WEEKLY, AND AFTER RAINFALL.

2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

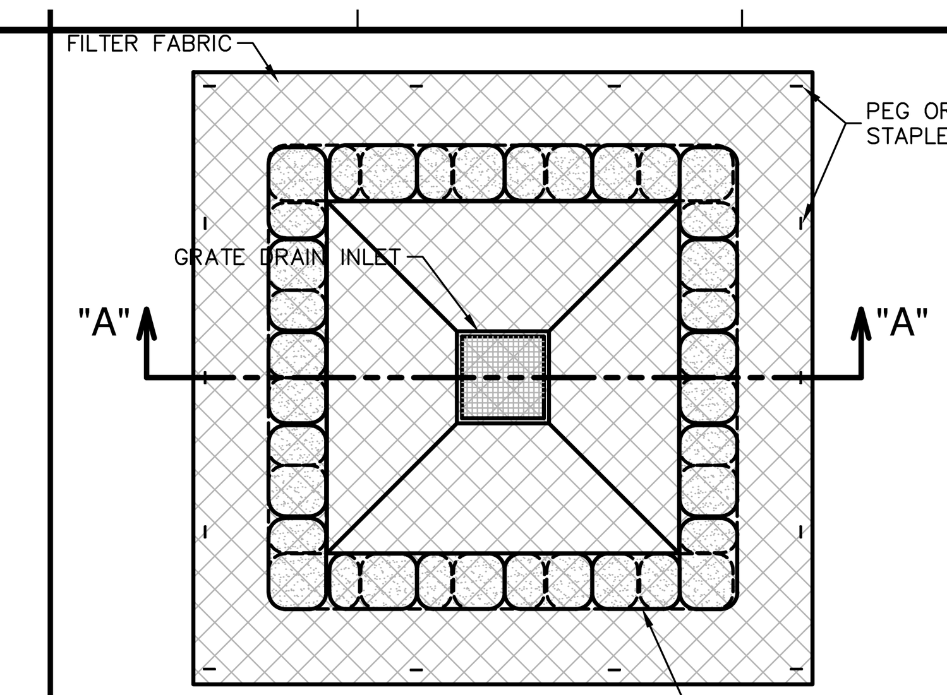
3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.

4. REPLACE OR REPAIR SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

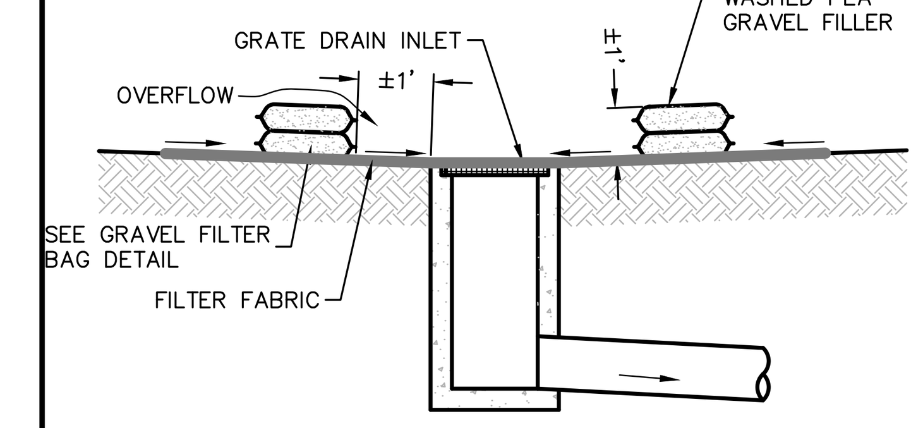
5. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

SILT FENCE DETAIL

NOT-TO-SCALE



PLAN VIEW



SECTION "A-A"

GENERAL NOTES

1. THE SANDBAGS SHOULD BE FILLED WITH WASHED PEA GRAVEL AND STACKED TO FORM A CONTINUOUS BARRIER ABOUT 1 FOOT HIGH AROUND INLETS.

2. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.

INSPECTION AND MAINTENANCE GUIDELINES

1. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.

2. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MATTER THAT IT WILL NOT ERODE.

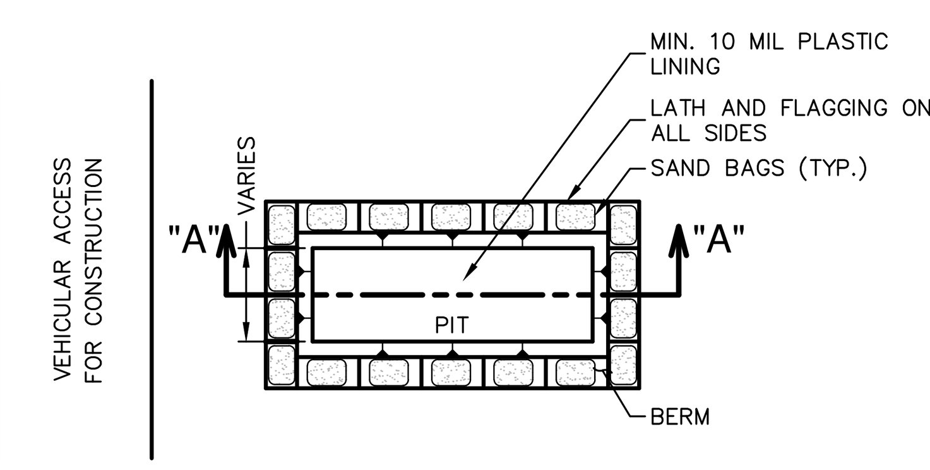
3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.

4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING.

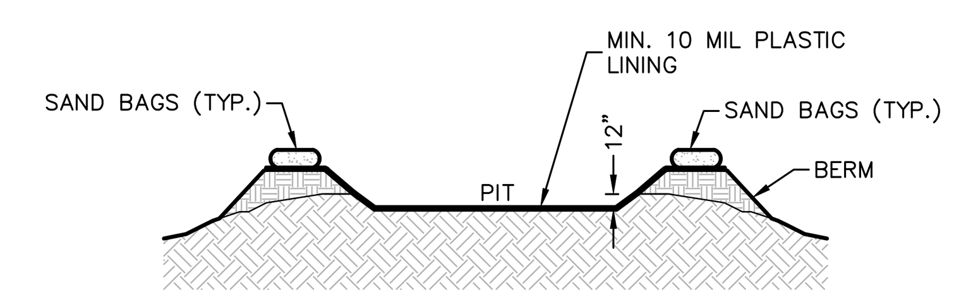
5. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

BAGGED GRAVEL GRATE INLET PROTECTION DETAIL

NOT-TO-SCALE



PLAN VIEW



SECTION "A-A"

GENERAL NOTES

1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.

2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.

4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES OR WATER BODIES.

5. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

MATERIALS

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

MAINTENANCE

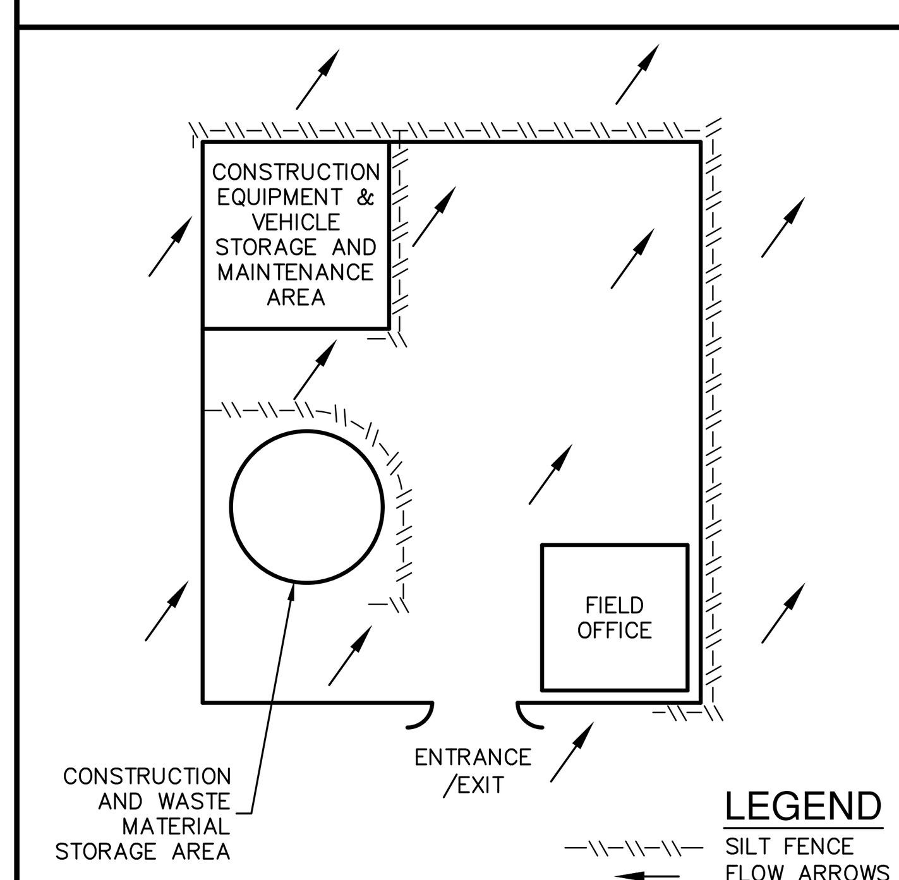
1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF.

2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.

3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.

CONCRETE TRUCK WASHOUT PIT DETAIL

NOT-TO-SCALE



LEGEND

—\\—\\—\\— SILT FENCE

← FLOW ARROWS

CONSTRUCTION STAGING AREA

NOT-TO-SCALE

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE TPDES-STORM WATER POLLUTION PREVENTION PLAN (SWP3) REGULATIONS.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF THE SWP3 ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 3

BID SET

GVI GOMEZ VAZQUEZ INTERNATIONAL

ARCHITECTURE | PLANNING | URBAN DESIGN

210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

PAPE-DAWSON ENGINEERS

2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000

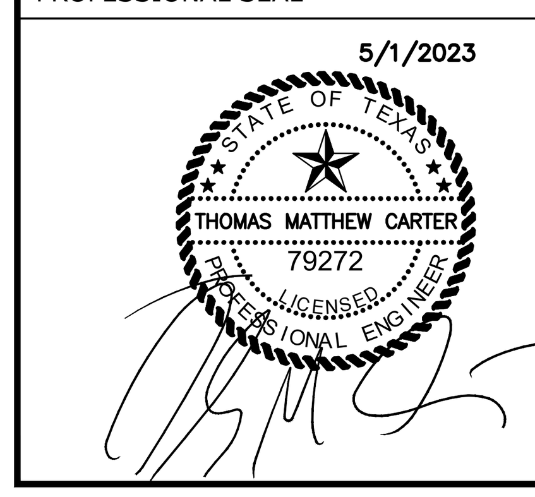
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

Hemisfair Sports Court Pavilion

Hemisfair

San Antonio, TX. 78205

PROFESSIONAL SEAL



SHEET NAME

STORM WATER POLLUTION PREVENTION DETAILS

Draftsman ES	Phase BIDDING SET
GVI Approval	Project No. 7645-56
Client Approval	File
Date MAY 2023	Code

SCALE

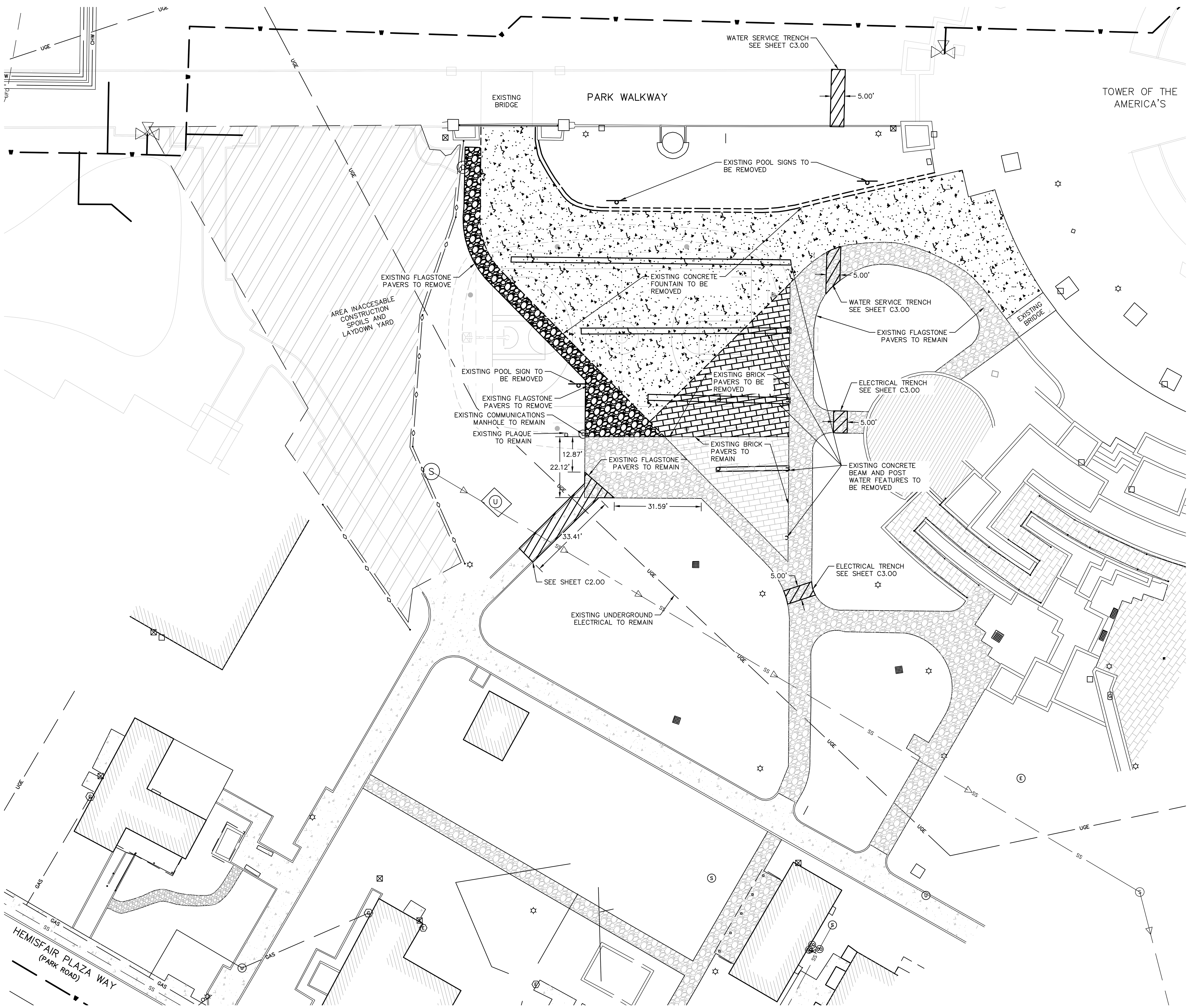
SHEET NUMBER

C0.30

Date: May 01, 2023, 4:59pm User ID: tmoreno
File: P:\76\45\56\Design\Civil\PDT-764556.dwg

TREE PRESERVATION NOTES

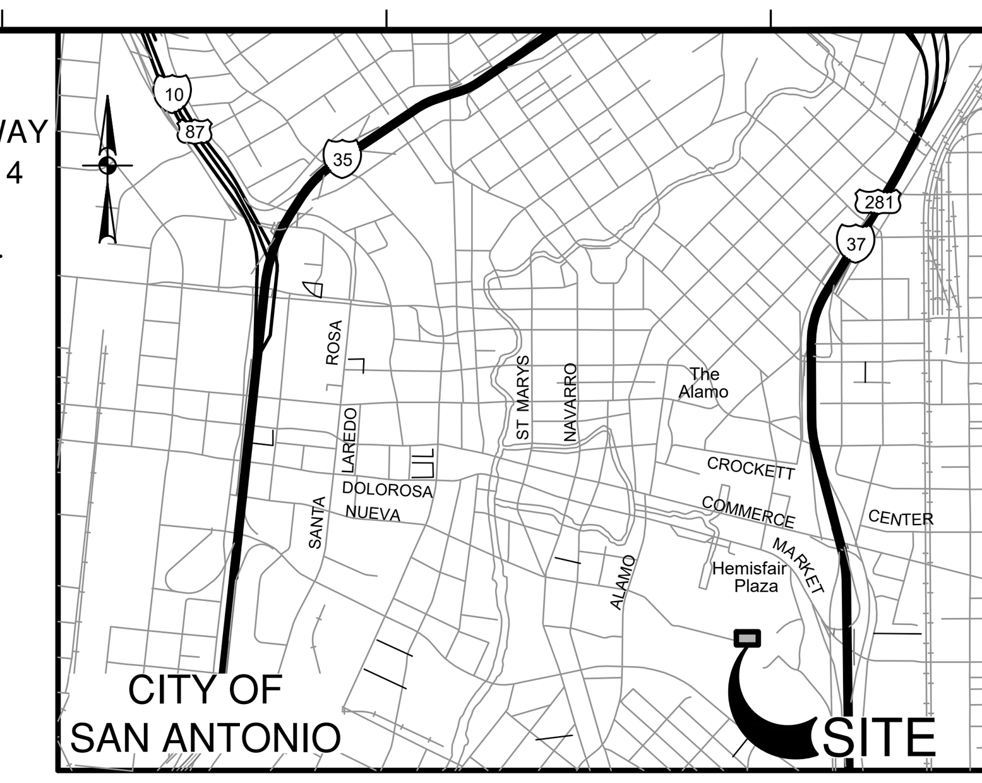
1. A ROOT PROTECTION ZONE WILL BE ESTABLISHED AROUND EACH TREE OR ANY VEGETATION TO BE PRESERVED TO MEET THE LANDSCAPE OR TREE PRESERVATION ORDINANCES. THE ROOT PROTECTION ZONE SHALL BE AN AREA DEFINED BY THE RADIUS EXTENDING OUTWARD FROM THE TRUNK OF THE TREE A DISTANCE OF ONE (1) LINEAR FOOT FOR EACH INCH DIAMETER INCH AT BREAST HEIGHT (4.5') OF THE TREE. A 10–INCH DIAMETER TREE WILL HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE.
2. NO WORK SHALL BEGIN WHERE TREE PROTECTION FENCING HAS NOT BEEN COMPLETED AND APPROVED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING CONSTRUCTION. THE FENCING SHALL BE A MINIMUM OF 4' HEIGHT.
3. ALL ROOTS LARGER THAN ONE–INCH IN DIAMETER SHALL BE CUT CLEANLY AND OAK WOUNDS PAINTED WITHIN 30 MINUTES.
4. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE WORK DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
5. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE OPERATED OR STORED WITHIN THE ROOT PROTECTION ZONE. NO CLEAN–OUT AREAS SHALL BE CONSTRUCTED SO THAT THE MATERIAL WILL BE IN OR MIGRATED TO THE ROOT PROTECTION ZONE.
6. NO GRADE CHANGE MORE THAN 3" IS ALLOWED WITHIN THE ROOT PROTECTION ZONE.
7. ROOTS OR BRANCHES IN CONFLICT WITH CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL OAK WOUNDS SHALL BE PAINTED WITHIN 30 MINUTES TO PREVENT OAK WILT INFECTION.
8. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST (207–8053).
9. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED.
10. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOT PROTECTION ZONE AND OR WASHING FOLIAGE.
11. NO WIRES, NAILS OR OTHER MATERIALS SHALL BE ATTACHED TO PROTECTED TREES.



ADDRESS
600 HEMISFAIR PLAZA WAY
SAN ANTONIO, TX 78214

LEGAL DESCRIPTION
LOT 12 & 903
BLOCK 3
N.C.B. 13814

PLAT
160546



LOCATION MAP
NOT–TO–SCALE

SCALE: 1"= 20'
0' 20' 40' 60'

LEGEND

- PROPERTY LINE
- LOT LINE
- EXISTING CONTOURS
- EXISTING UNDER GROUND ELECTRIC
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING GAS
- EXISTING CHILLED WATER
- EXISTING UNDERGROUND FIBER OPTICS
- EXISTING SANITARY SEWER (FLOW, MANHOLE)
- EXISTING STORM DRAINAGE (CURB INLET, JUNCTION BOX, WITH GRATE)
- TREE PROTECTION FENCING (REF. LANDSCAPE PLANS FOR DETAILS)
- EXISTING CONCRETE FOUNTAIN AND STRUCTURES TO BE REMOVED
- REMOVE AND REPLACE EXISTING WALKWAY
- EXISTING BRICK PAVER SIDEWALK TO BE REMOVED
- EXISTING FLAGSTONE SIDEWALK TO BE REMOVED
- TREES TO REMAIN
- TREES TO BE REMOVED

COSA GENERAL NOTES

1. ALL THE TREES WITH A DIAMETER GREATER THAN 3 INCHES AFFECTED BY CONSTRUCTION SHALL HAVE THE LIMBS AND ROOTS TRIMMED AND PRUNED ACCORDING TO ITEM No. 802. TREE PRUNING, SOIL AMENDING AND FERTILIZATION, UNLESS SPECIFIED TREES SHALL RECEIVE LEVEL 2 PROTECTION AS PER ITEM No. 802. TREES TO RECEIVE LEVEL 1 PROTECTION AS PER ITEM No. 802 ARE SHOWN ON TREE PROTECTION TABLE ON THIS SHEET.

2. ALL TREES SHALL REMAIN UNLESS NOTED ON THE PLANS.

3. NO SITE PREPARATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.

4. TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION.

5. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN THREE INCHES IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR.

6. THE ROOT PROTECTION ZONE IS THAT AREA SURROUNDING A TREE, AS MEASURED BY A RADIUS FROM THE TREE TRUNK, IN WHICH NO EQUIPMENT, VEHICLES OR MATERIALS MAY OPERATE OR BE STORED. THE REQUIRED RADIUS LENGTH IS 1 FOOT PER DIAMETER INCH OF THE TREE. FOR EXAMPLE, A 10–INCH DIAMETER TREE WOULD HAVE A 5–FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES THAT ARE IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. LIVE OAK WOUNDS SHALL BE PAINTED OVER, WITHIN 20 MINUTES TO PREVENT OAK WILT.

7. ACCESS TO FENCED AREAS WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER OR CITY INSPECTOR.

8. GRADING, IF REQUIRED, SHALL BE LIMITED TO A 3 INCH CUT OR FILL WITHIN THE FENCED ROOT ZONE AREAS.

9. TREES, SHRUBS OR BUSHES TO BE CLEARED FROM PROTECTED ROOT ZONE AREAS SHALL BE REMOVED BY HAND AS DIRECTED BY THE PROJECT MANAGER OR CITY INSPECTOR.

10. TREES DAMAGED OR LOST DUE TO CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE ENGINEER'S SATISFACTION.

11. EXPOSED ROOTS SHALL BE COVERED AT THE END OF EACH DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.

12. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST PRIOR TO ITS REMOVAL.

BID SET

GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL
5/1/2023
STATE OF TEXAS
THOMAS MATTHEW CARTER
79272
LICENSED PROFESSIONAL ENGINEER

SHEET NAME
EXISTING CONDITIONS AND DEMOLITION PLAN

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

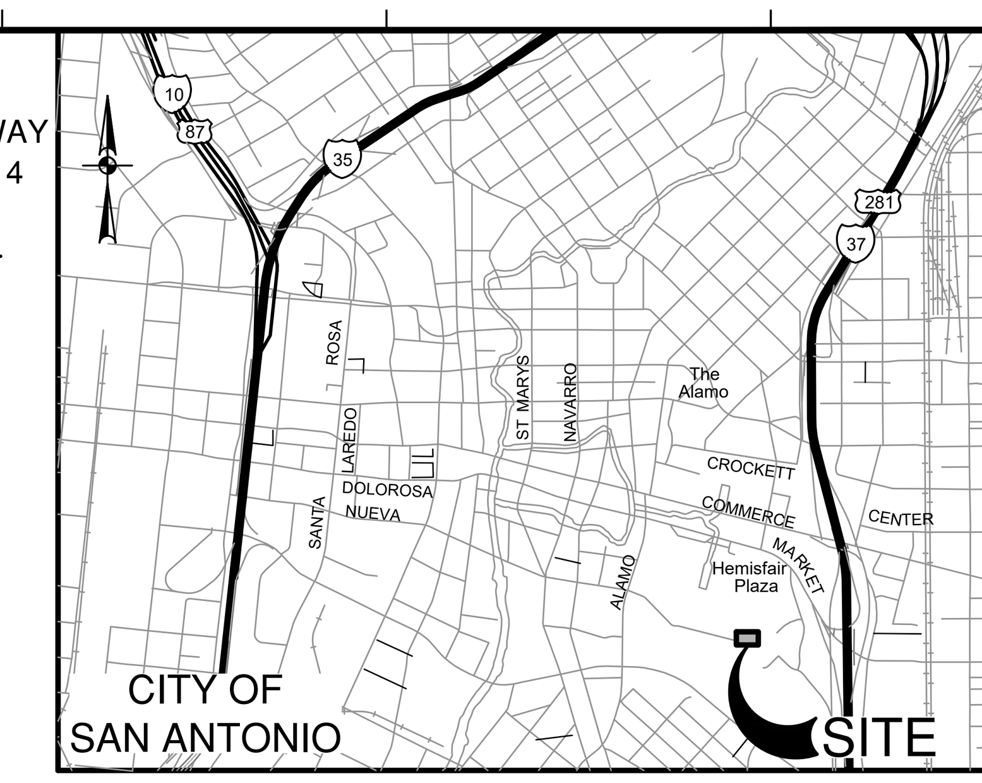
SCALE

SHEET NUMBER
C0.40

ADDRESS
600 HEMISFAIR PLAZA WAY
SAN ANTONIO, TX 78214

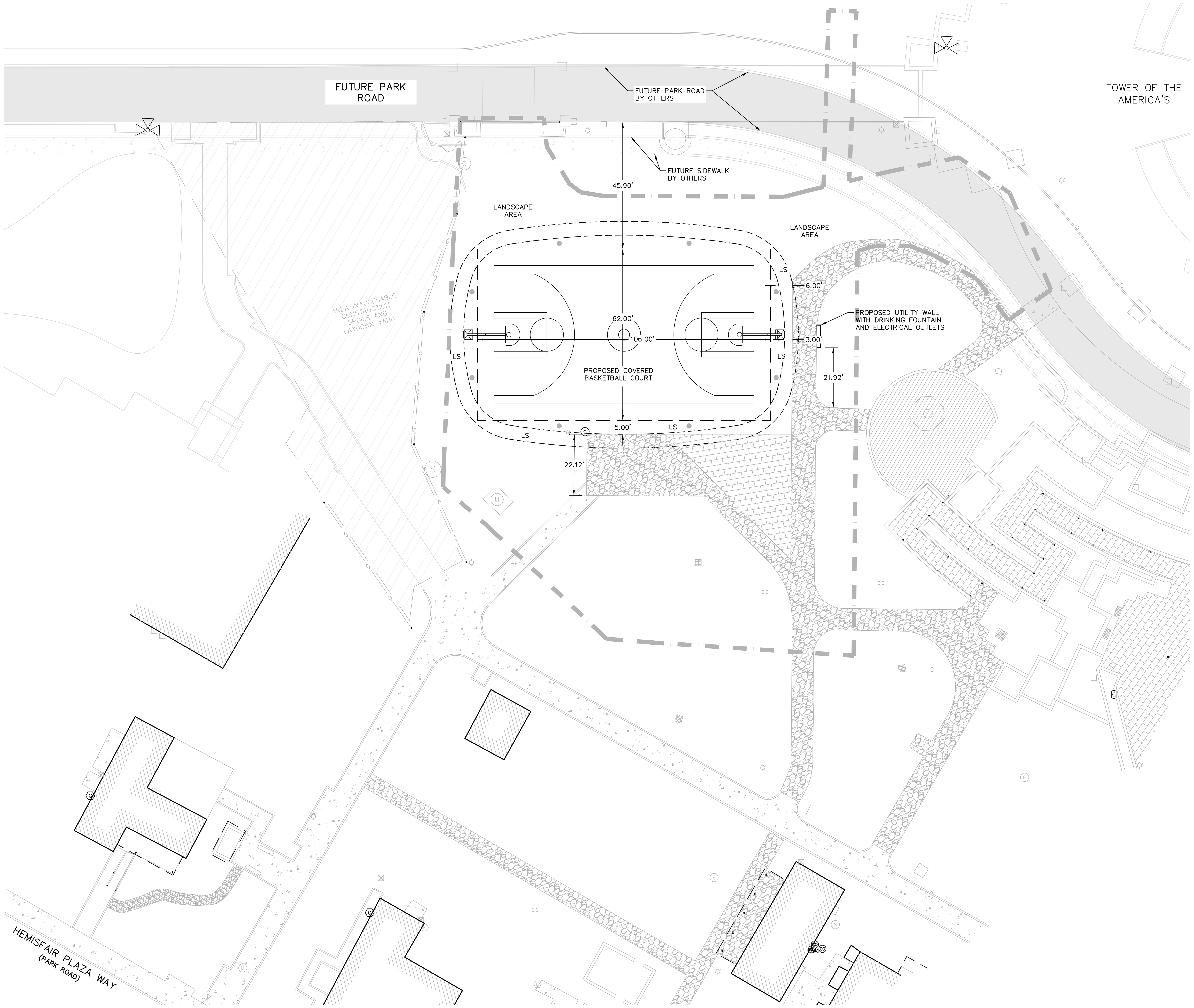
LEGAL DESCRIPTION
LOT 12 & 903
BLOCK 3
N.C.B. 13814

PLAT
160546



LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 20'
0' 20' 40' 60'



LEGEND

— — —	PROPERTY LINE
— — —	LIMITS OF CONSTRUCTION
LS	LANDSCAPE AREA

NOTE

REFERENCE SHEET C0.10 FOR GENERAL CONSTRUCTION NOTES.

BID SET

Date: May 01, 2023, 5:00pm User ID: tmoreno
File: P:\76\45\56\Design\Civil\DC-764556.dwg

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ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

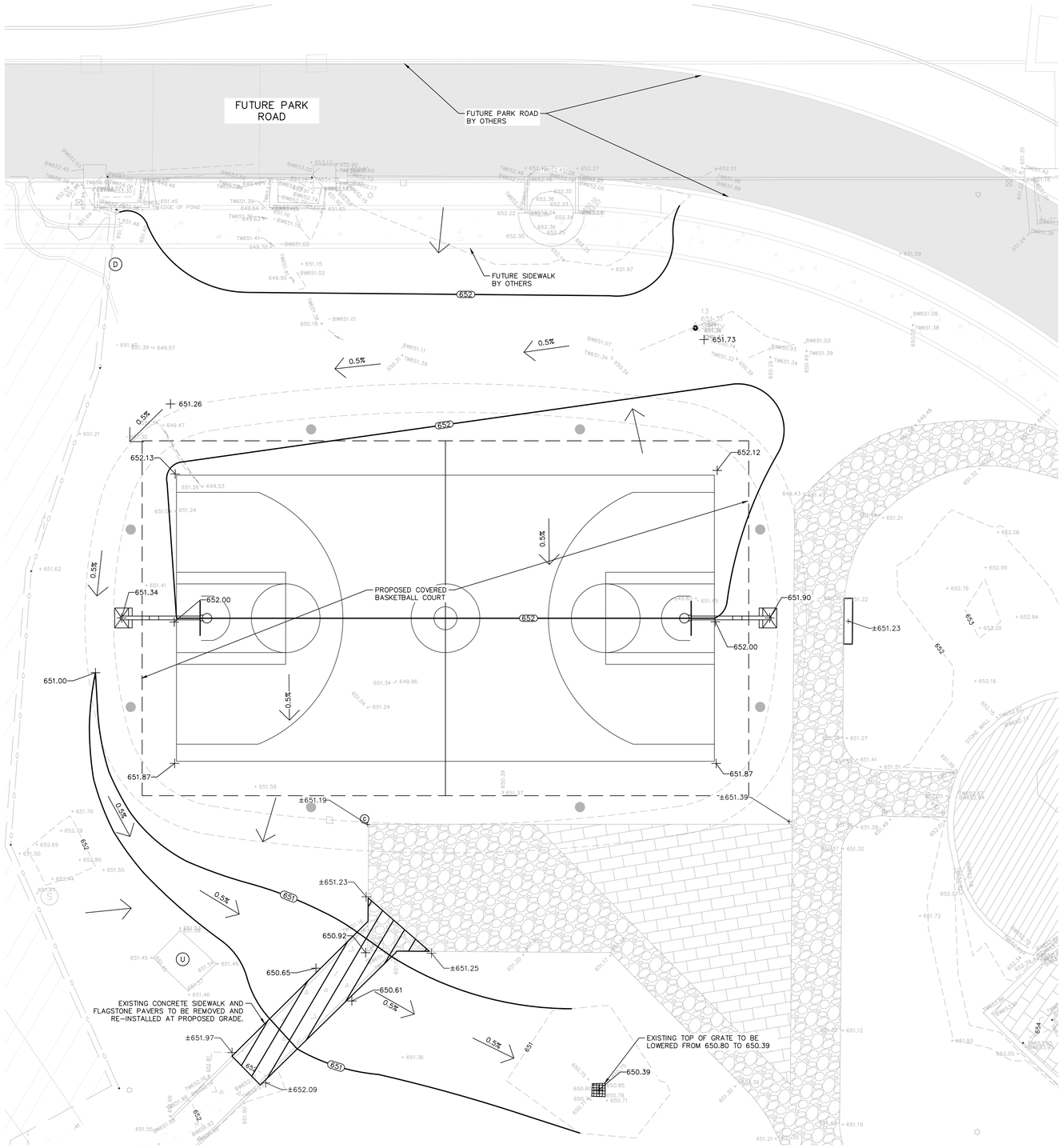
PROFESSIONAL SEAL
5/1/2023
STATE OF TEXAS
THOMAS MATTHEW CARTER
79272
LICENSED
PROFESSIONAL ENGINEER

SHEET NAME
DIMENSIONAL CONTROL PLAN

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

SCALE

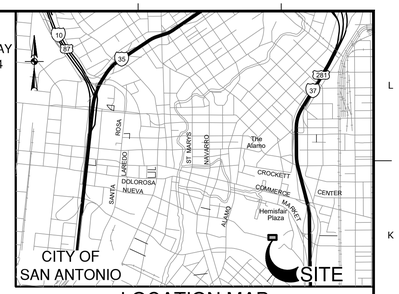
SHEET NUMBER
C1.00



ADDRESS
600 HEMISFAIR PLAZA WAY
SAN ANTONIO, TX 78214

LEGAL DESCRIPTION
LOT 12 & 903
BLOCK 3
N.C.B. 13814

PLAT
160546



LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 10'
0' 10' 20' 30'

LEGEND

	PROPERTY LINE
	LOT LINE
	LIMITS OF CONSTRUCTION
	100 YR FLOODPLAIN
880	EXISTING CONTOURS MAJOR
880	EXISTING CONTOURS MINOR
880	PROPOSED CONTOURS
	GRADE BREAK
	RETAINING WALL (SEE STRUCTURAL PLANS)
	LANDSCAPE WALL (SEE LANDSCAPE PLANS)
	CUT-ROCK WALL
	GRATE INLET
	CURB INLET
	JUNCTION BOX
+1000	PROPOSED SPOT ELEVATION
+1000	EXISTING SPOT ELEVATION
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TG	TOP OF GRATE
TMH	TOP OF MANHOLE
FL	FLOW LINE
TW	TOP OF WALL
BW	BOTTOM OF WALL
	EXISTING TREES TO REMAIN (SEE TREE PRESERVATION PLAN & COORDINATE WITH LANDSCAPE ARCHITECT)
FF = XXXX.XX	FINISHED FLOOR ELEVATION
	PROPOSED FLOW ARROWS

CAUTION!!

EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL EXERCISE EXTRA CARE IN DIGGING ANY TRENCH FOR PROPOSED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING, VERIFYING THE EXACT LOCATION AND IDENTIFYING ANY AREAS OF CONFLICTS WITH EXISTING UTILITIES AND WILL NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS ARE FOUND.

CAUTION!!

CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITING TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND /OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

BID SET

Date: May 01, 2023, 6:01pm User ID: tmoreno
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GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

5/1/2023
STATE OF TEXAS
THOMAS MATTHEW CARTER
79272
LICENSED
PROFESSIONAL ENGINEER

SHEET NAME
GRADING PLAN

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

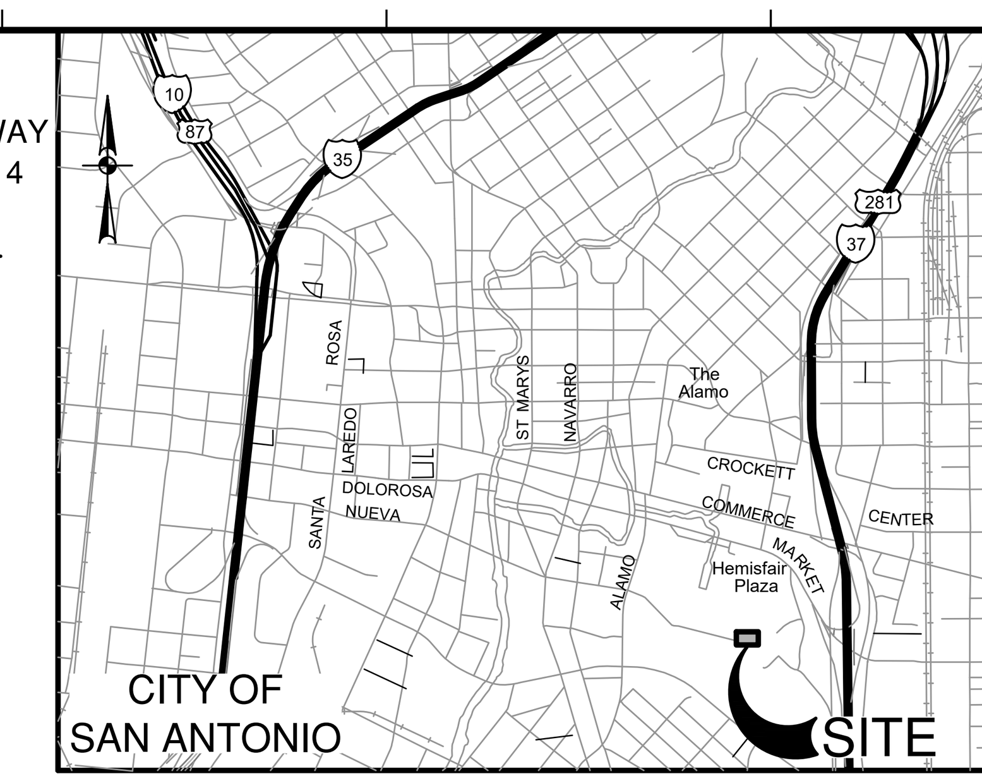
SCALE

SHEET NUMBER
C2.00

ADDRESS
600 HEMISFAIR PLAZA WAY
SAN ANTONIO, TX 78214

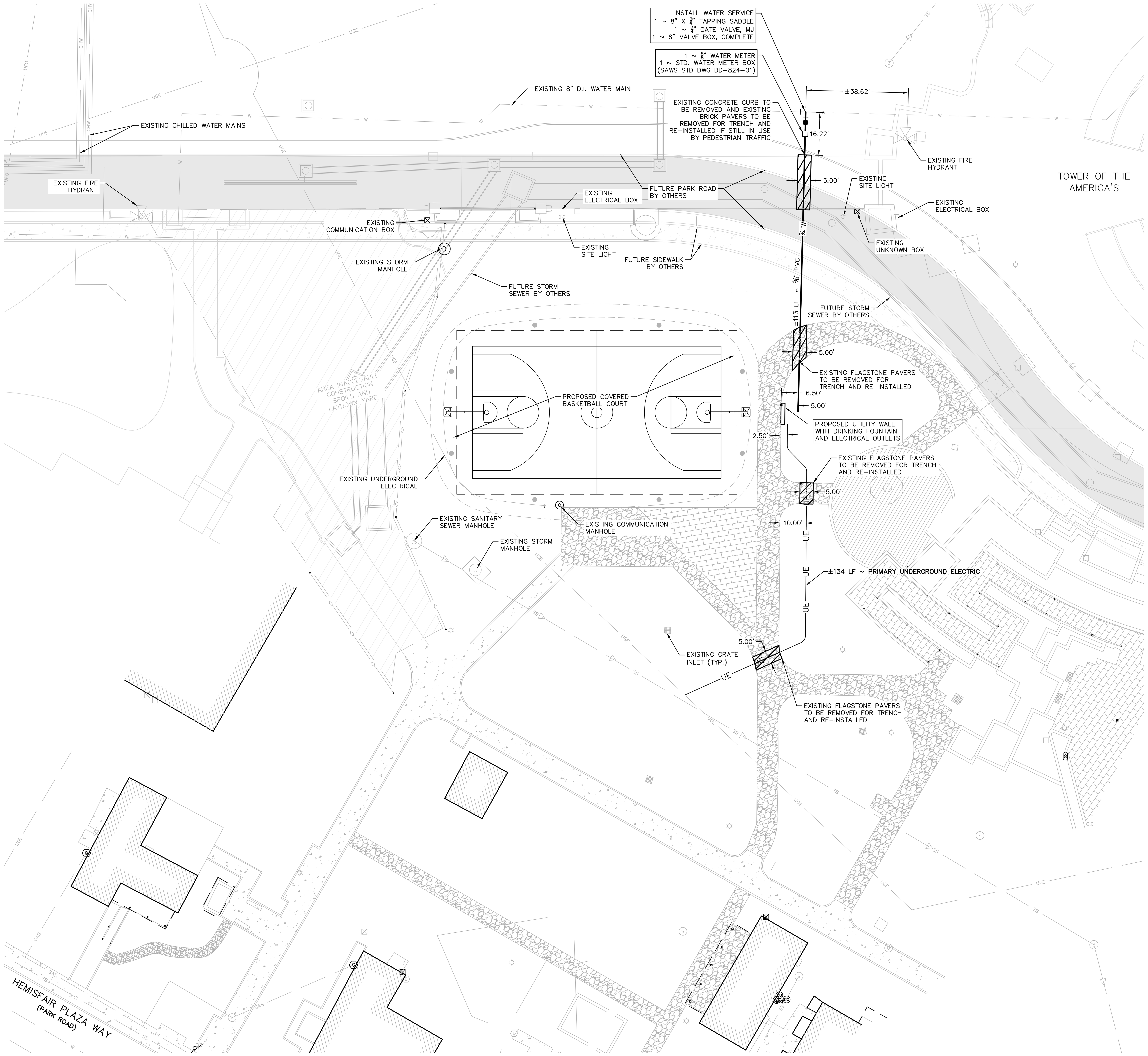
LEGAL DESCRIPTION
LOT 12 & 903
BLOCK 3
N.C.B. 13814

PLAT
160546



LOCATION MAP
NOT-TO-SCALE

SCALE: 1"= 20'
0' 20' 40' 60'



LEGEND

- PROPERTY LINE
- LOT LINE
- LIMITS OF CONSTRUCTION
- EXISTING WATER LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS
- EXISTING CHILLED WATER
- EXISTING UNDERGROUND FIBER OPTICS
- EXISTING FIRE HYDRANT
- PROPOSED WATER MAIN
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER (FLOW, MANHOLE)
- EXISTING STORM DRAINAGE
- PROPOSED ELECTRIC TRANSFORMER

NOTE

SEE SHEET C0.10 FOR ADDITIONAL GENERAL NOTES.

CAUTION!!

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TRENCH EXCAVATION SAFETY PROTECTION

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BID SET

GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

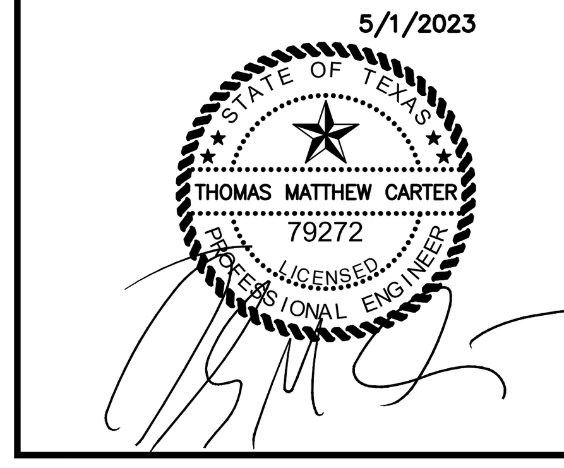
REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 I SAN ANTONIO, TX 78213 I 210.375.9000
TEXAS ENGINEERING FIRM #470 I TEXAS SURVEYING FIRM #10028800

PROFESSIONAL SEAL
5/1/2023



SHEET NAME
UTILITY PLAN

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

SCALE

SHEET NUMBER
C3.00

Date: May 01, 2023, 5:01pm User ID: tmoreno
File: P:\76\45\56\Design\Civil\UT-764556.dwg

SAWS CONSTRUCTION NOTES

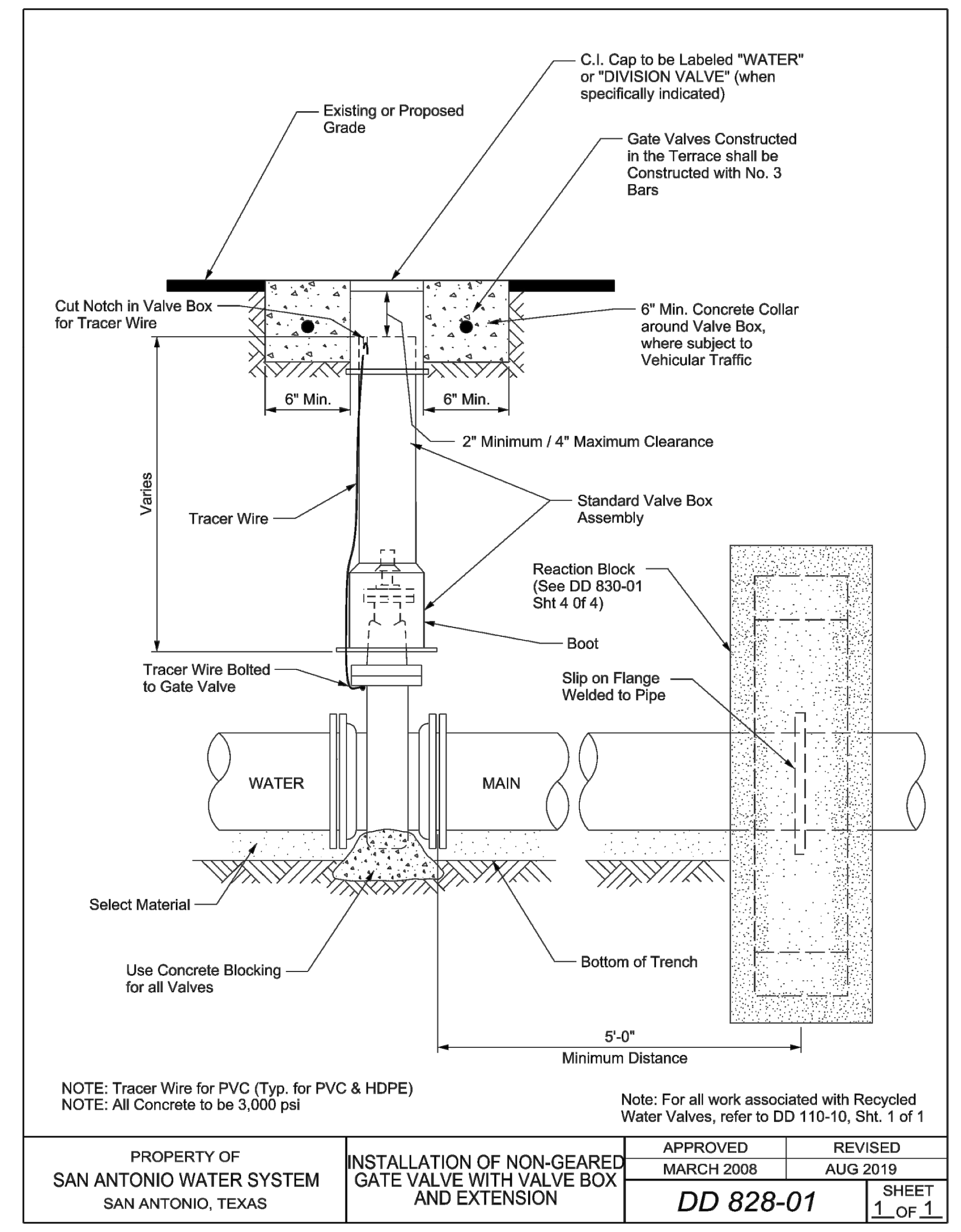
(LAST REVISED JULY 2017)

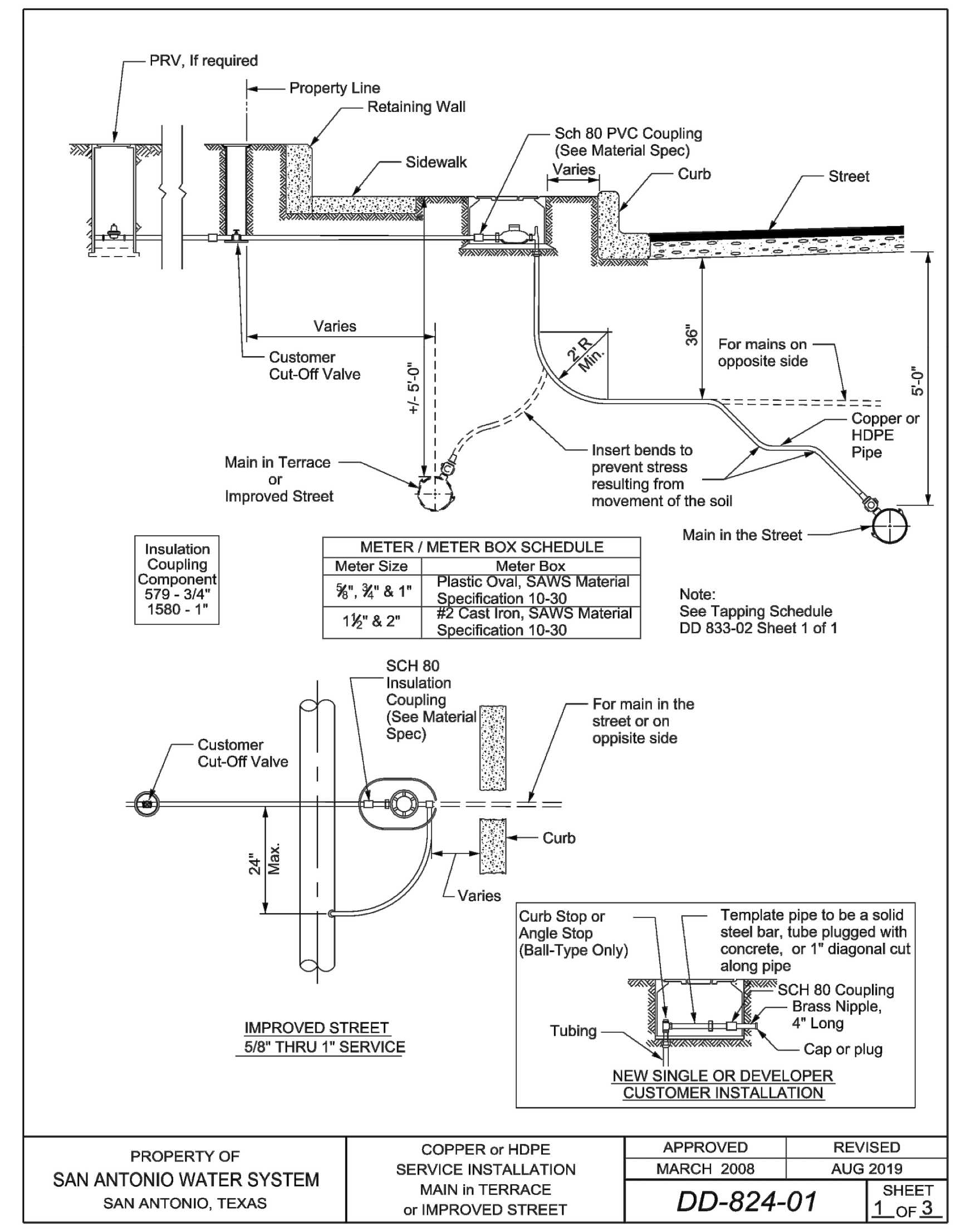
SAWS GENERAL SECTION

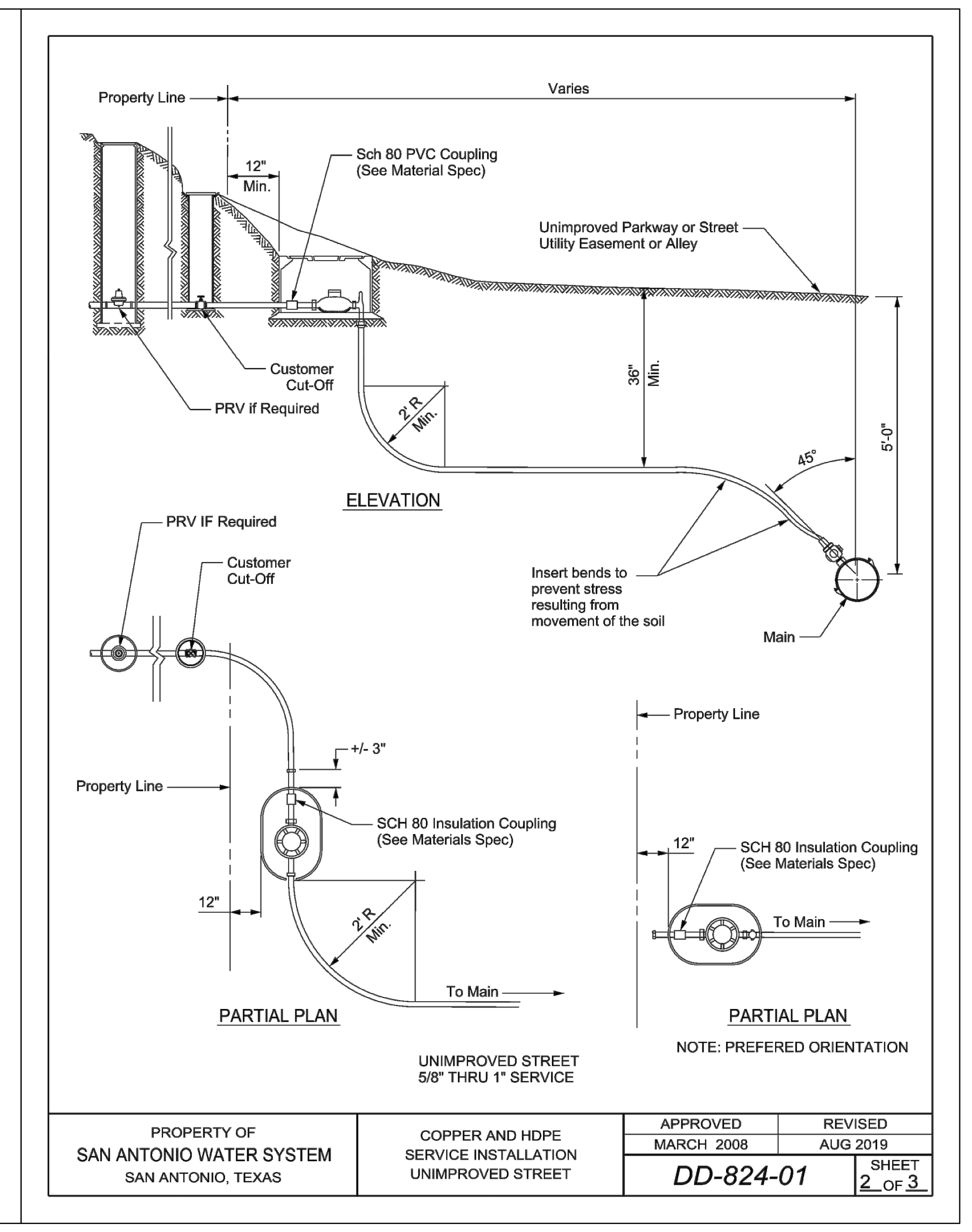
1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
   A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
   B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".
   C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION".
   D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
   E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233–2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1–2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
   - SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES
   - COSA DRAINAGE (210) 207–0724 OR (210) 207–6026
   - COSA TRAFFIC SIGNAL OPERATIONS (210) 206–8480
   - COSA TRAFFIC SIGNAL DAMAGES (210) 207–3951
   - TEXAS STATE WIDE ONE CALL LOCATOR 1–800–545–6005 OR 811
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT–OF–WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
10. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100–YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.
12. WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.
13. ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.
14. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12–INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
15. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

SAWS WATER NOTES

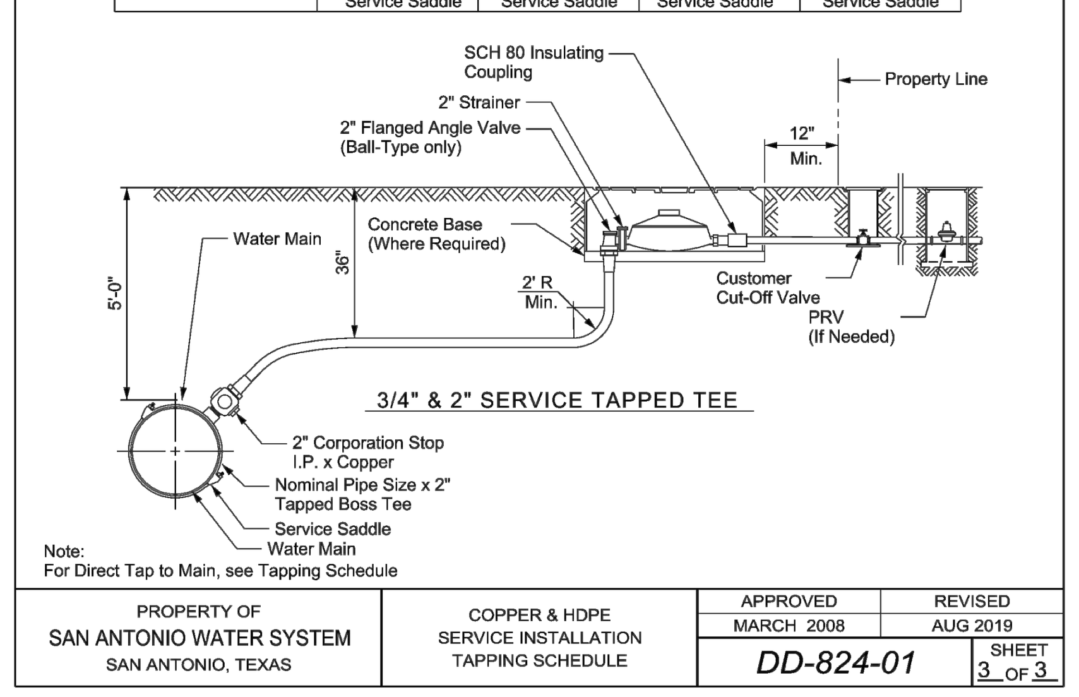
1. PRIOR TO TIE–INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE–INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
   - FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233–2014
2. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS– CONTAINING MATERIAL (ACM), MAY BE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE".
3. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN, THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)
4. SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS, PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD–839 SERIES AND ITEM NO. 839, IN THE SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION.
5. ALL VALVES SHALL READ "OPEN RIGHT".
6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF ________ FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW ________ FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT, ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF *PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. *NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).
7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
8. BACKFLOW PREVENTION DEVICES:
   - ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES.
   - ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY SAWS PRIOR TO INSTALLATION.
9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED, AND SAWS HAS RELEASED THE MAIN FOR TIE–IN AND USE.

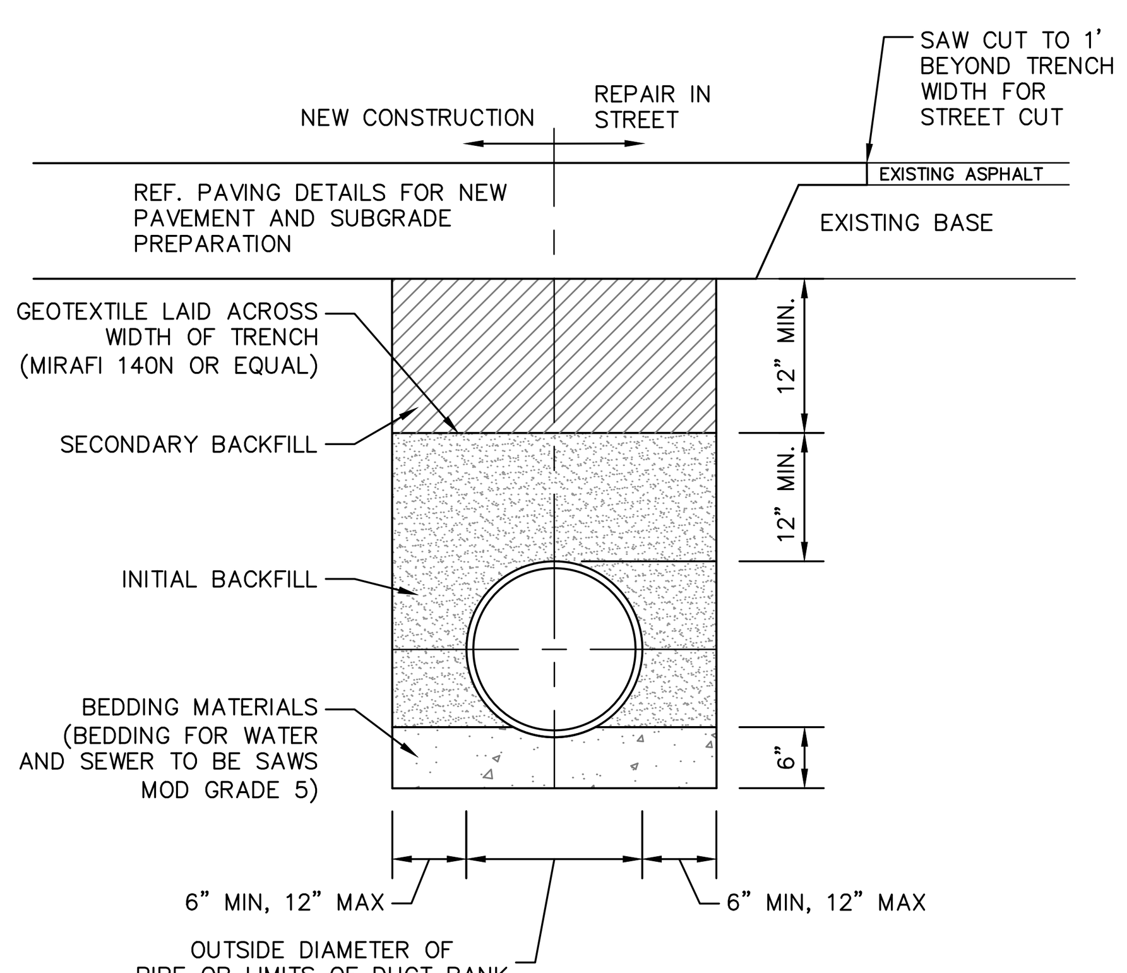






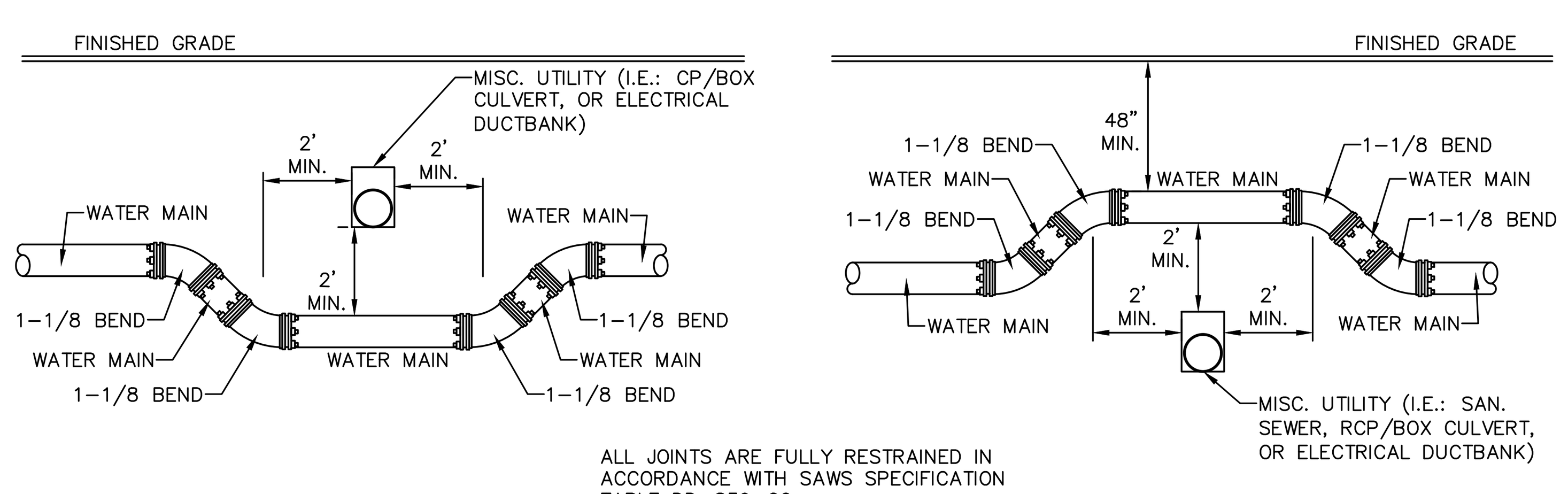
PIPE TAPPING SCHEDULE				
PIPE DIAMETER	SERVICE SIZE			
	3/4"	1"	1½"	2"
6" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
6" C.I., D.I.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
8" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
8" C.I., D.I.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
8" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" C.I., D.I.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" C.I., D.I.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
16" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
16" C.I., D.I.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
6" - 16" HDPE	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle





UTILITY & STORM DRAINAGE TRENCH

NOT–TO–SCALE



TYPICAL UTILITY/WATER CROSSING DETAIL

NOT–TO–SCALE

Date: May 01, 2023, 5:01pm User ID: tmoreno
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BID SET

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ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PAPE-DAWSON ENGINEERS
2000 NW LOOP 410 I SAN ANTONIO, TX 78213 I 210.375.9000
TEXAS ENGINEERING FIRM #470 I TEXAS SURVEYING FIRM #10028800

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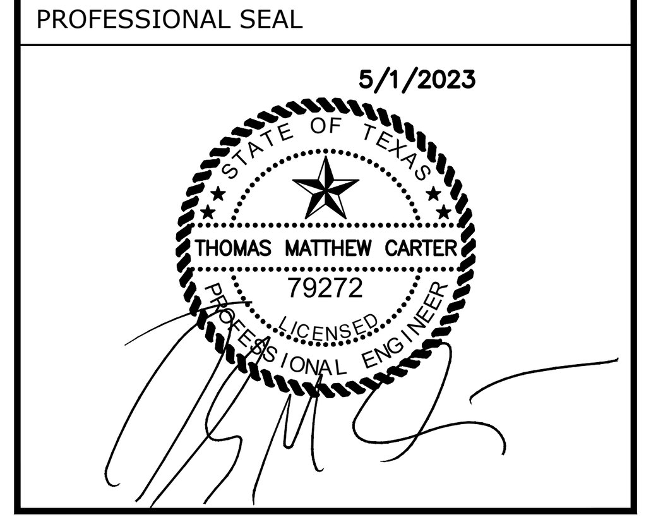

SHEET NAME

UTILITY DETAILS

Draftsman	ES	Phase	BIDDING SET
GVI Approval		Project No.	7645-56
Client Approval		File	
Date	MAY 2023	Code	

SCALE

SHEET NUMBER

C3.10

1 Overall Site Plan

SCALE: 1/16" = 1'-0"

NORTH

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San Antonio, TX. 78205

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SHEET NAME

SITE PLAN

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

SCALE

SHEET NUMBER

A011

1 Floor Plan

SCALE: 1/8" = 1'-0"

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No.	Date	Description
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San Antonio, TX. 78205

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SHEET NAME

COURT FLOOR PLAN

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

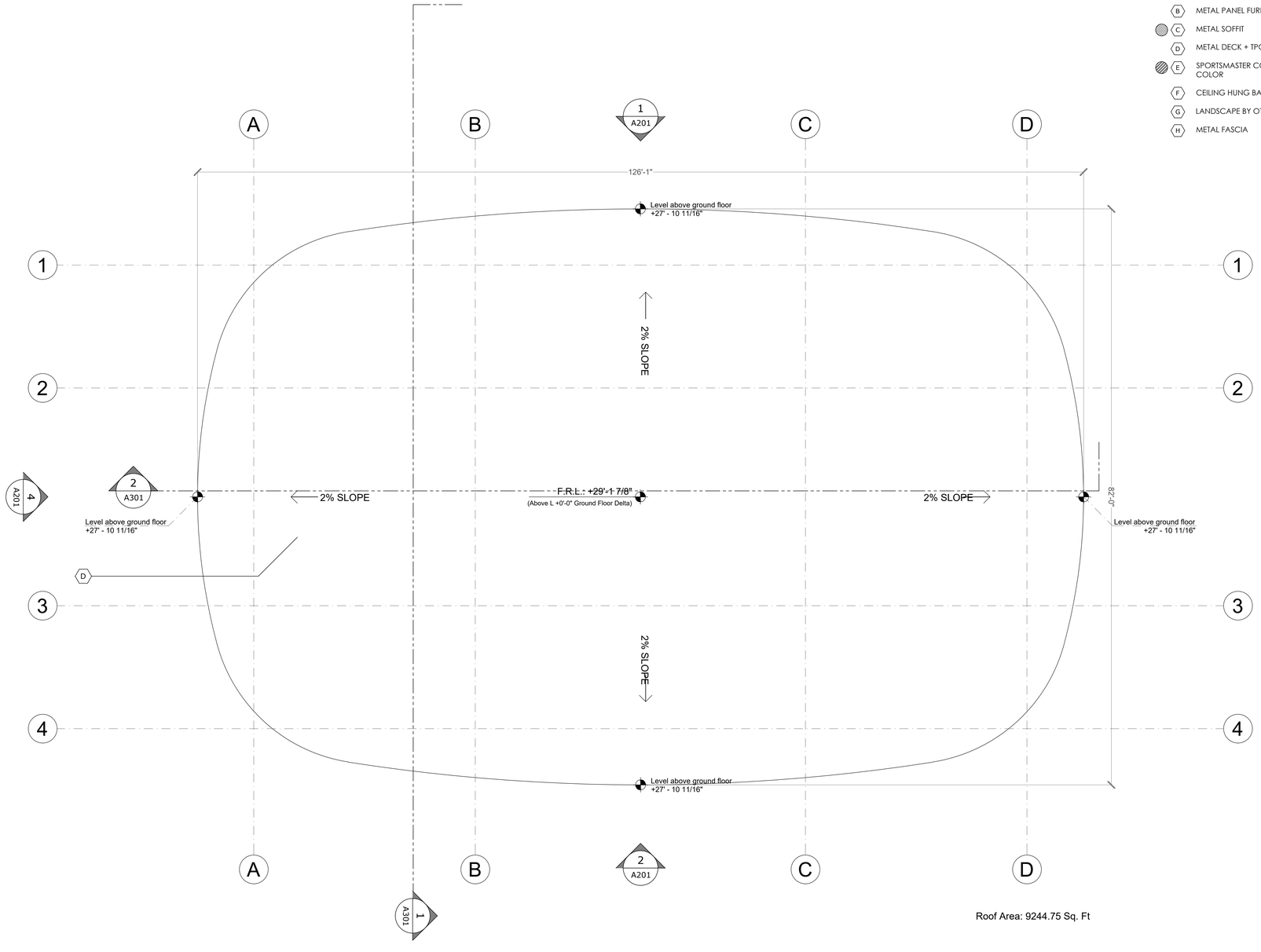
SCALE

SHEET NUMBER

A101

KEY NOTES

- A — METAL COLUMN-PROTECTIVE ENAMEL FLAT EXTERIOR PAINT
- B — METAL PANEL FURROUT
- C — METAL SOFFIT
- D — METAL DECK + TPO
- E — SPORTSMASTER COLORPLUS SYSTEM ON CONCRETE COLOR
- F — CEILING HUNG BACKSTOP
- G — LANDSCAPE BY OTHERS (NOT IN SCOPE)
- H — METAL FASCIA



Roof Area: 9244.75 Sq. Ft

1 Roof Plan
SCALE: 1/8" = 1'-0"

NORTH

NOT FOR CONSTRUCTION

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ISSUED SETS

Date	Description

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Hemisfair
San Antonio, TX. 78205

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SHEET NAME

ROOF PLAN

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

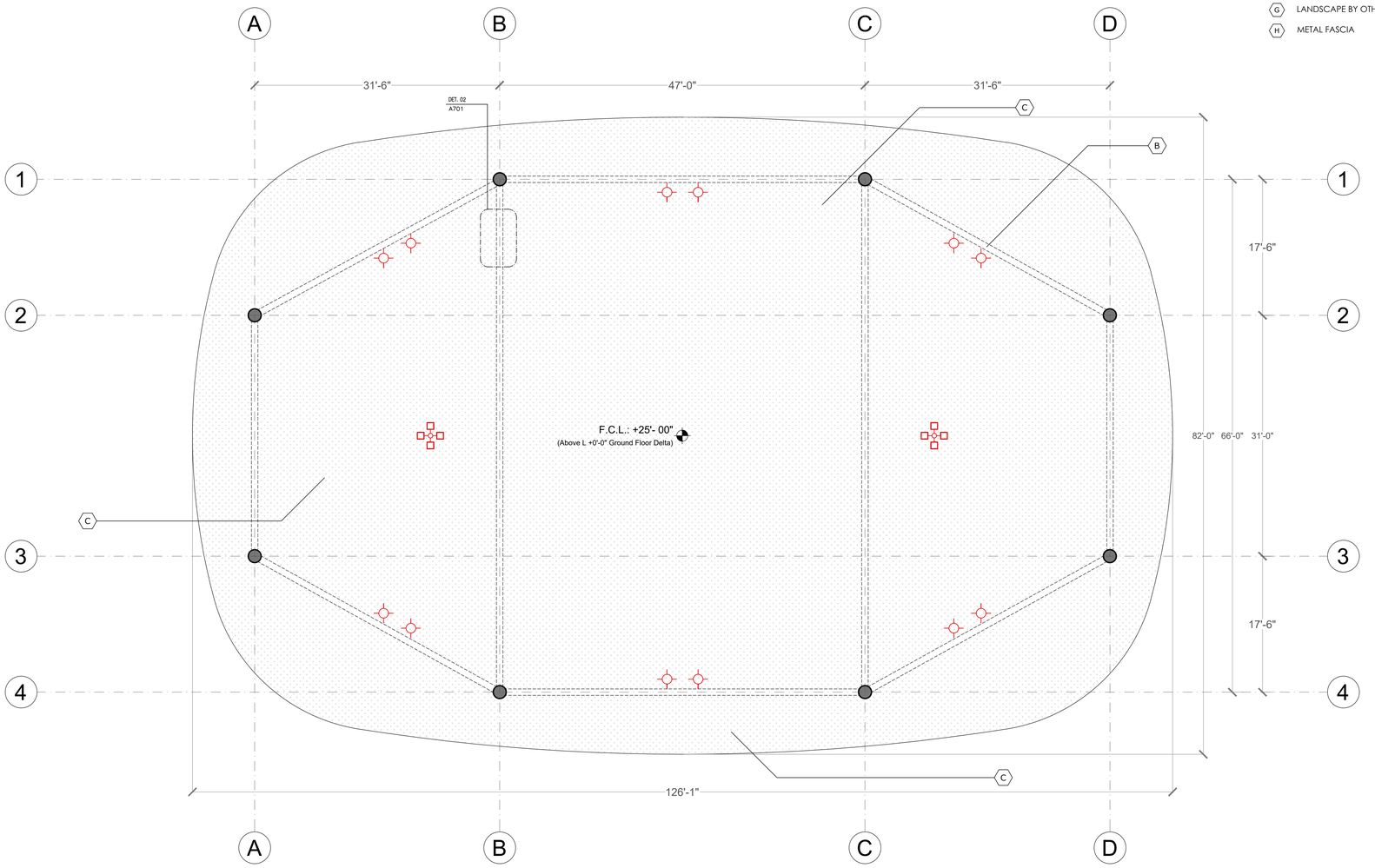
SCALE

SHEET NUMBER

A102

KEY NOTES

- A — METAL COLUMN-PROTECTIVE ENAMEL FLAT EXTERIOR PAINT
- B — METAL PANEL FURROUT
- C — METAL SOFFIT
- D — METAL DECK + TPO
- E — SPORTSMASTER COLORPLUS SYSTEM ON CONCRETE COLOR
- F — CEILING HUNG BACKSTOP
- G — LANDSCAPE BY OTHERS (NOT IN SCOPE)
- H — METAL FASCIA



Soffit Area: 9244.75 Sq. Ft

RE: ELECTRICAL AND LIGHTING DESIGNER
PRESENTATION FOR LIGHTING FIXTURES

1 Reflected Ceiling Plan
SCALE: 1/8" = 1'-0"

NORTH

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ISSUED SETS

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SHEET NAME

REFLECTED CEILING PLAN

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

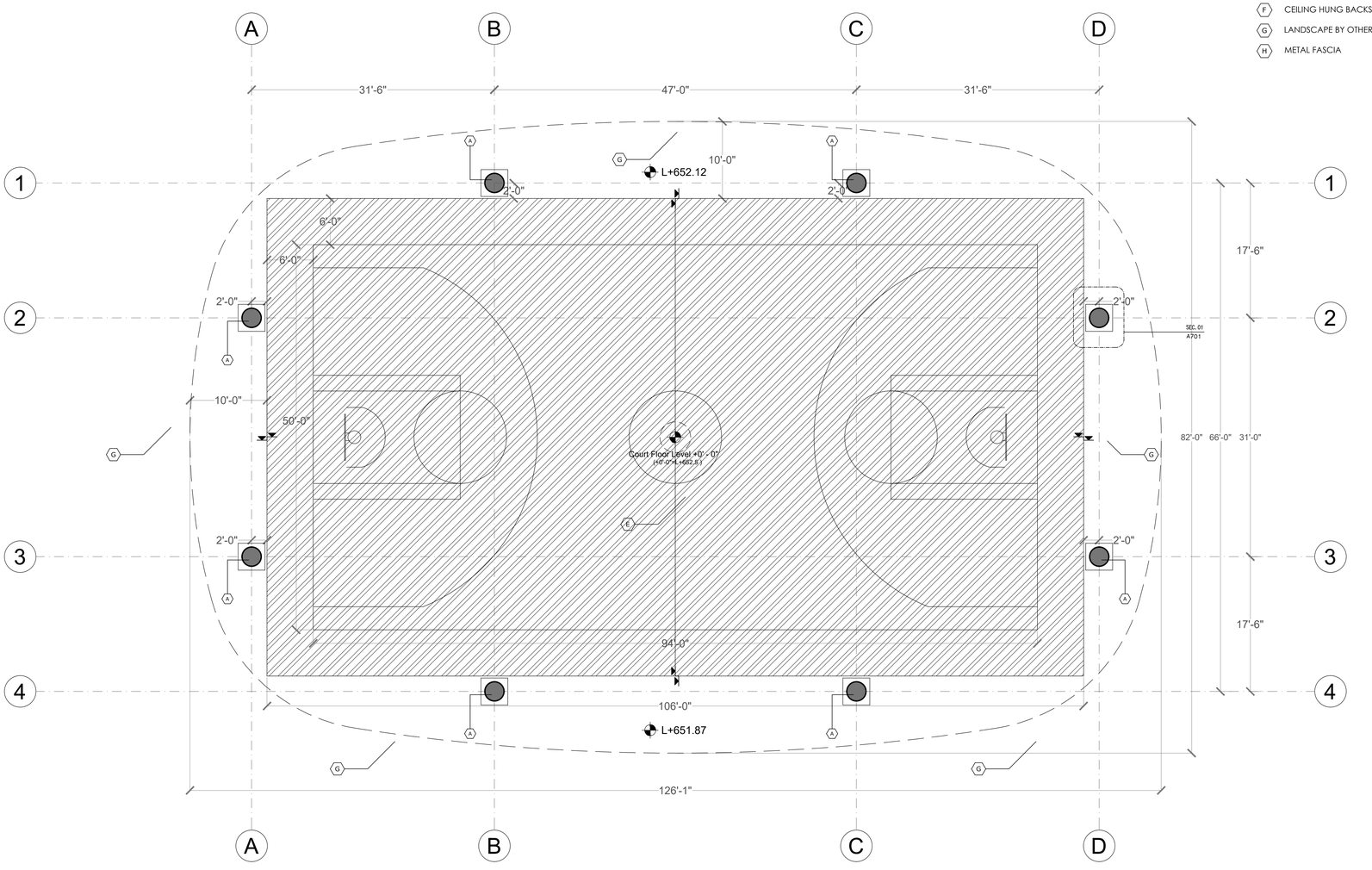
SCALE

SHEET NUMBER

A110

KEY NOTES

- (A) METAL COLUMN-PROTECTIVE ENAMEL FLAT EXTERIOR PAINT
- (B) METAL PANEL FURROUT
- (C) METAL SOFFIT
- (D) METAL DECK + TPO
- (E) SPORTSMASTER COLORPLUS SYSTEM ON CONCRETE COLOR
- (F) CEILING HUNG BACKSTOP
- (G) LANDSCAPE BY OTHERS (NOT IN SCOPE)
- (H) METAL FASCIA



Court Area: 6572.00 Sq. Ft

1 Finish Floor Plan

SCALE: 1/8" = 1'-0"

NORTH

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ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
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SHEET NAME

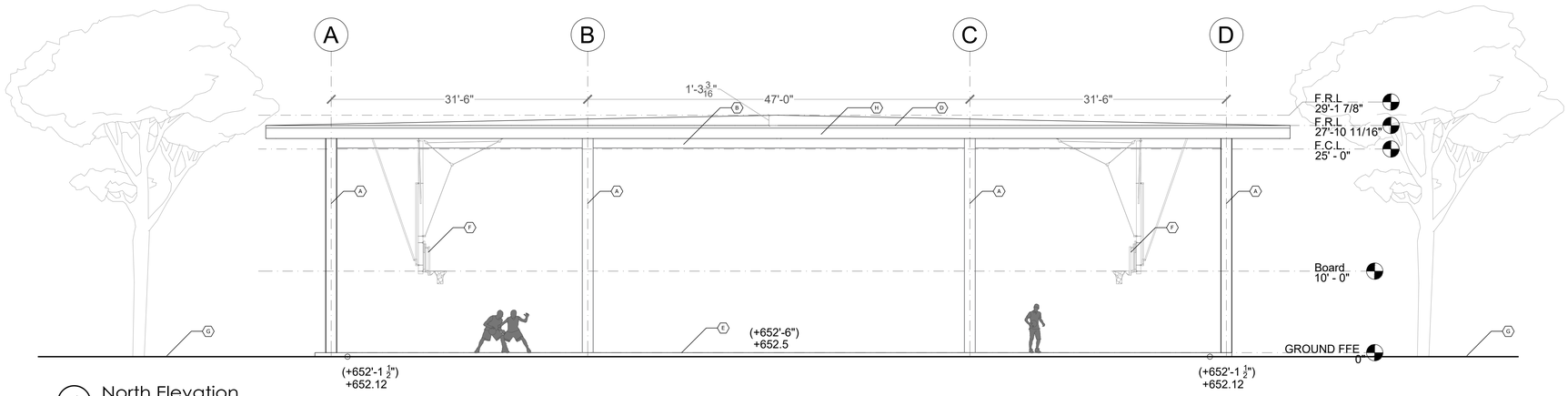
FINISH FLOOR PLAN

Draftsman	Phase DESIGN DEVELOPMENT
GVI Approval	Project No. 22118
Client Approval	File
Date 05 / 01 / 2023	Code

SCALE

SHEET NUMBER

A120

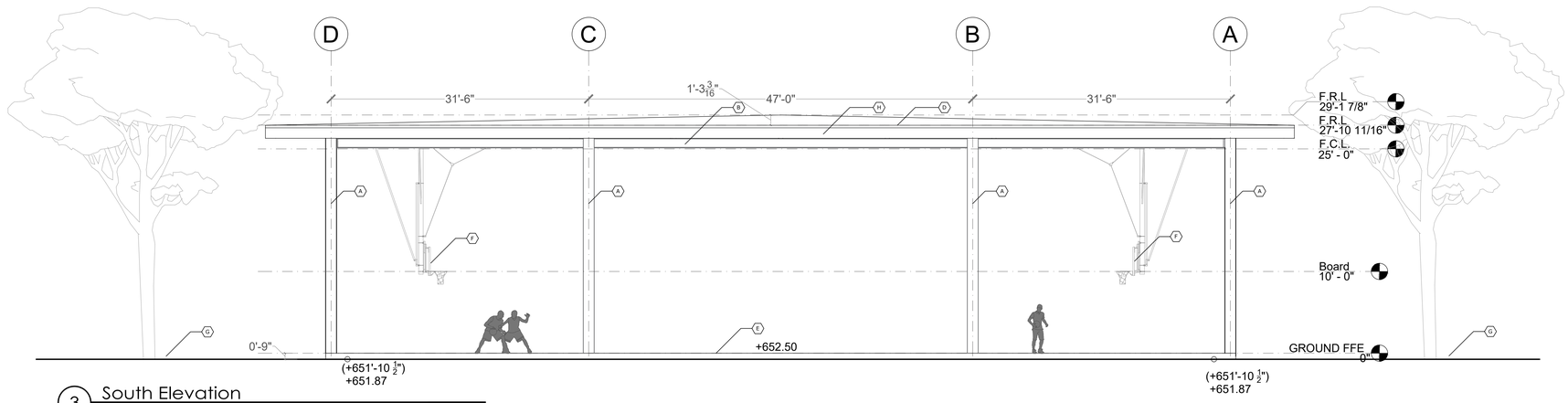


4 North Elevation

SCALE: 1/8" = 1'-0"

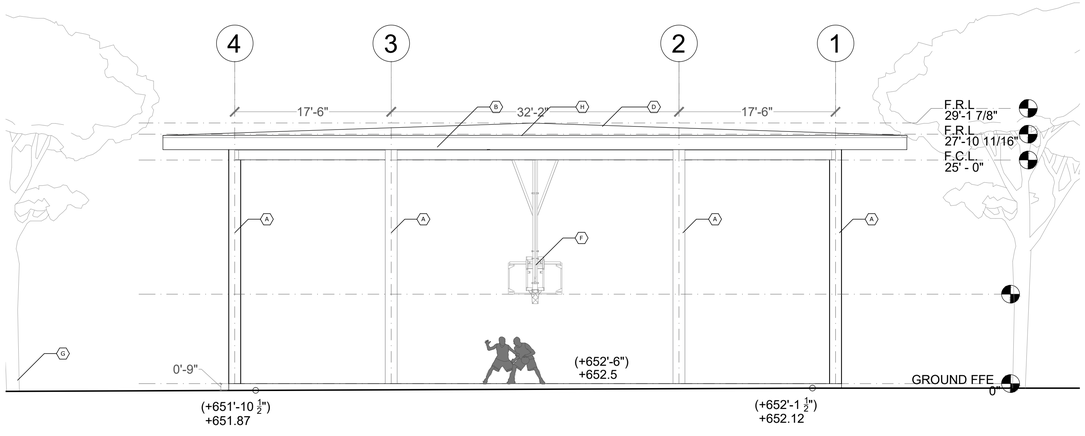
KEY NOTES

- A METAL COLUMN-PROTECTIVE ENAMEL FLAT EXTERIOR PAINT
- B METAL PANEL FURROUT
- C METAL SOFFIT
- D METAL DECK + TPO
- E SPORTSMASTER COLORPLUS SYSTEM ON CONCRETE COLOR
- F CEILING HUNG BACKSTOP
- G LANDSCAPE BY OTHERS (NOT IN SCOPE)
- H METAL FASCIA



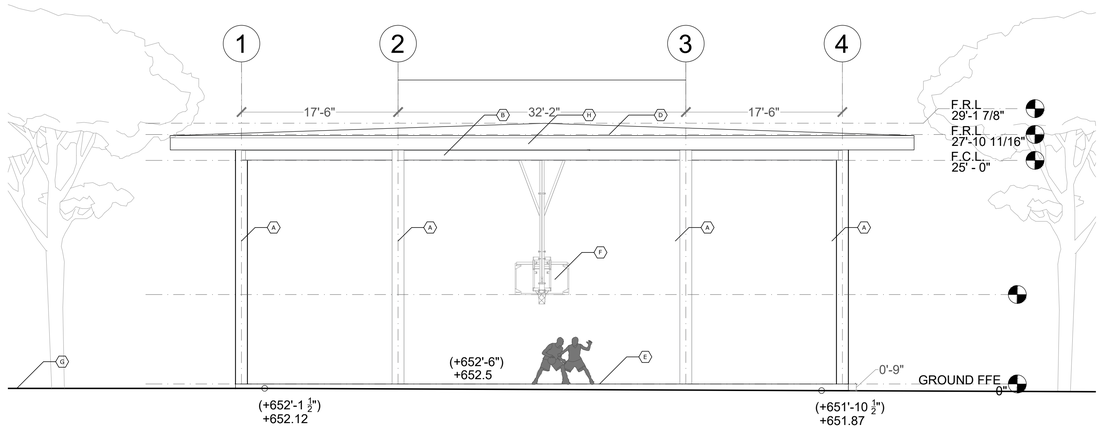
3 South Elevation

SCALE: 1/8" = 1'-0"



2 West Elevation

SCALE: 1/8" = 1'-0"



1 East Elevation

SCALE: 1/8" = 1'-0"

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ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
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Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

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SHEET NAME

ELEVATIONS

Draftsman		Phase	DESIGN DEVELOPMENT
GVI Approval		Project No.	22118
Client Approval		File	
Date	05 / 01 / 2023	Code	

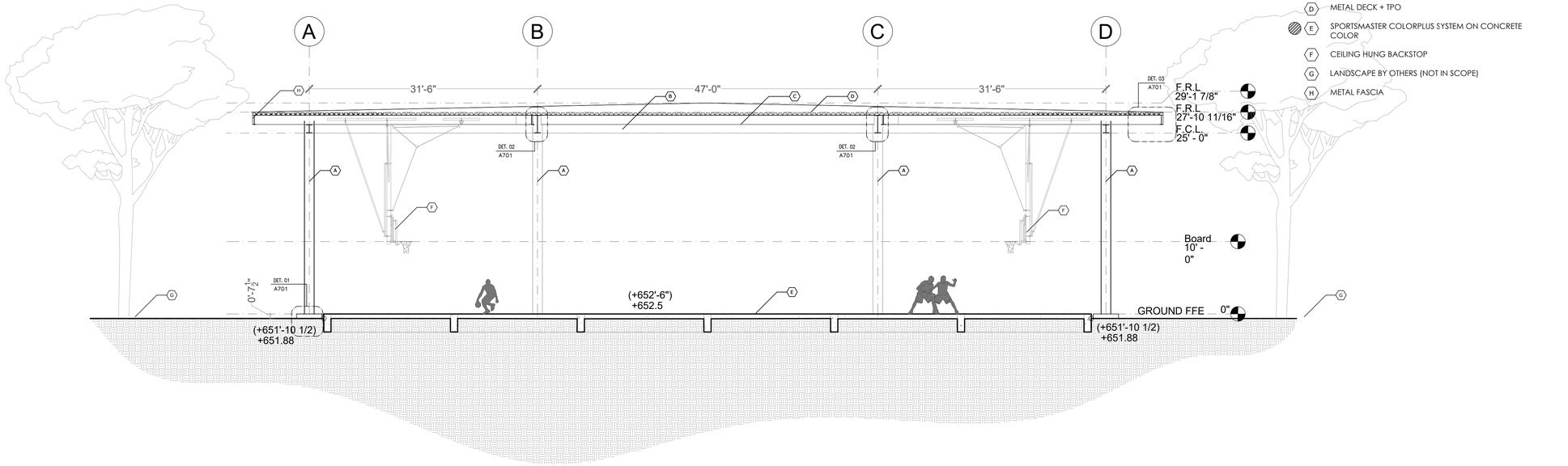
SCALE

SHEET NUMBER

A201

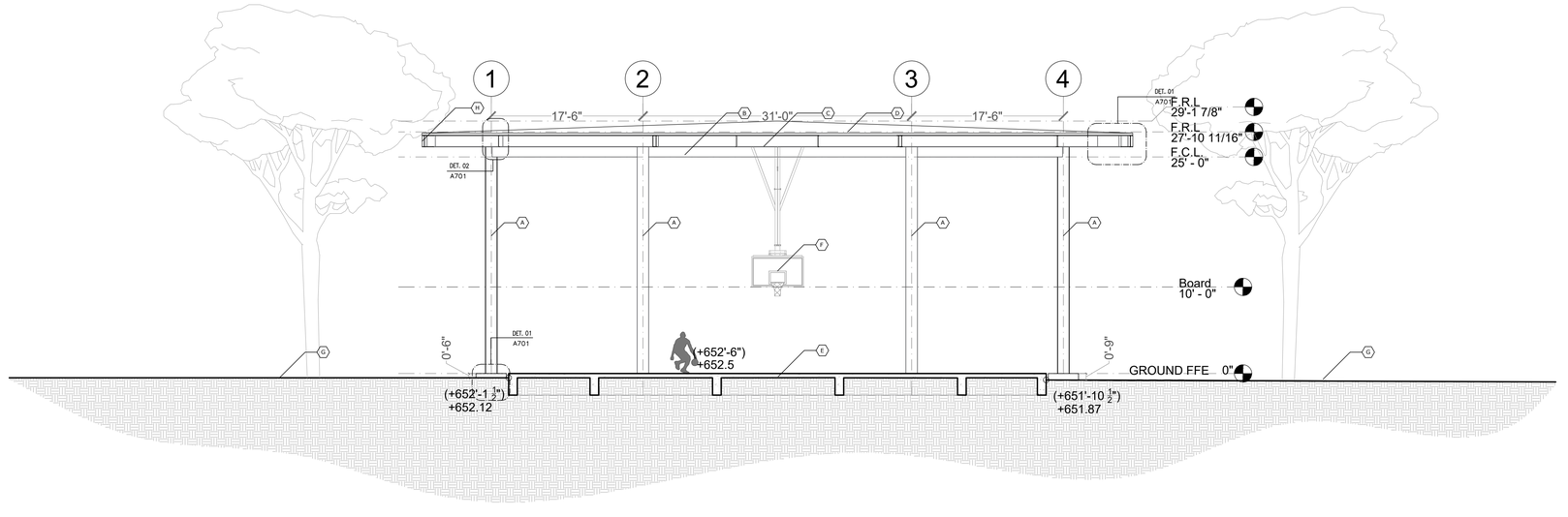
KEY NOTES

- A METAL COLUMN-PROTECTIVE ENAMEL FLAT EXTERIOR PAINT
- B METAL PANEL FURROUT
- C METAL SOFFIT
- D METAL DECK + TPO
- E SPORTSMASTER COLORPLUS SYSTEM ON CONCRETE COLOR
- F CEILING HUNG BACKSTOP
- G LANDSCAPE BY OTHERS (NOT IN SCOPE)
- H METAL FASCIA



2 Section

SCALE: 1/8" = 1'-0"



1 Section

SCALE: 1/8" = 1'-0"

NOT FOR CONSTRUCTION

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ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

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SHEET NAME

SECTIONS

Draftsman	Phase DESIGN DEVELOPMENT
GVI Approval	Project No. 22118
Client Approval	File
Date 05 / 01 / 2023	Code

SCALE

SHEET NUMBER

A301

Preliminary Architectural finishes_rev00

		Description	Brand	Contact	Website
Court surface color coating system					
	1	Colorplus system 100% acrylic Neutral Concentrate (available with or without sand) and the ColorPlus Pigment Dispersion 1 coat of acrylic resurfacer, 2 coats of color	Sport master-sport surfaces	10692 I-10 Frontage Rd. Marion, TX 78124 (830) 420-3335	https://www.sportmaster.net/
Paint on steel structure					
	1	High Performance Protective Enamel Flat Black Oil-Based Interior/Exterior Paint	Rust-Oleum Professional		https://www.rustoleum.com/product-catalog/consumer-brands/professional/high-performance-protective-enamel
	2 (alternate)	BEHR PREMIUM® DIRECT-TO-METAL SEMI-GLOSS PAINT NO. 3200			
Ceilings/Soffit					
	1	Flush Seam metal Panel, stucco embossed 24 gauge steel 3 7/8" wide panel Concealed fasteners	Berridge	Berridge Manufacturing Company 6515 Fratt Rd | San Antonio, TX. 78218 (210) 650-3050 Office www.berridge.com PBerridge@Berridge.com	https://www.berridge.com/products/fascia-wall-and-soffit-panels/flush-seam-panel/
	2 (alternate)	Stretch ceiling PVC stretch film White / About 200 g/m2	Velum	VELUM DESIGN LLC www.velumdesign.com O. +1 833 33 83586 C. +1 *786 617 7447* Main Office 17100 Collins Ave Sunny Isles Beach, FL 33160-Suite 210 mariana@velumdesign.com	www. velumdesign.com
	3 (alternate)	Tensoshade HDP (High-Density Polyethylene)	Tensoshade	Tensoshade Irving Allande: irving@tensoshade.com	https://www.tensoshade.com/
Roof					
	1				
	a	Carlisle's 16-Foot Sure-Weld, TPO Membrane, TPO Membrane	Carlisle	800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013	www.carlislesyntec.com
	b	Securshield Polyiso tapered insulation	Carlisle	800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013	www.carlislesyntec.com
Fascia/trim		Not included. It depends on soffit system. GC to provide			
Framing for soffit		Not included in some options, GC to ensure pricing			
Basketball backstops/backboard/rims					
	1	Single Post Rear-Braced Front-Folding Ceiling Hung Basketball Backstop		https://www.garedsports.com/products/single-post-rear-braced-front-folding-ceiling-hung-basketball-backstop-0	Jared Jellison President Office: 512-282-5256 jared@jelcogyms.com
	2 (alternate)	Spalding Gliding Rear-Braced Ceiling Mast Basketball Backstop	Sports unlimited	800.693.6368	https://www.sportsunlimitedinc.com/spalding-gliding-rear-braced-ceiling-mast-basketball-backstop.html
		Spalding SuperGlass Collegiate Basketball Backboard, Rim, & Padding Package		www.sportsunlimitedinc.com	https://www.sportsunlimitedinc.com/bpipackage3.html
	3 (alternate)	Folding Ceiling Hung Basketball Backstop Professional PRO-MOLD® Backboard Padding Collegiate Premium Breakaway Basketball Rim	Paddock Bleacher Services	1475 CANAL STREET P.O. Box 175 LOCKPORT IL, 60441 https://www.paddockbleachers.com/basketball-backstops/	www.paddockbleachers.com
Water fountain					
	1	Elkay Freestanding Tubular ADA Drinking Fountain w/Pet Bowl Model Number: LK4420DBBLK	Elkay		https://www.restroomdirect.com/elkay-LK4420DB-drinking-fountain.aspx

NOT FOR CONSTRUCTION

GVI GOMEZ VAZQUEZ INTERNATIONAL

ARCHITECTURE | PLANNING | URBAN DESIGN

210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

FOR COORDINATION ONLY

SHEET NAME

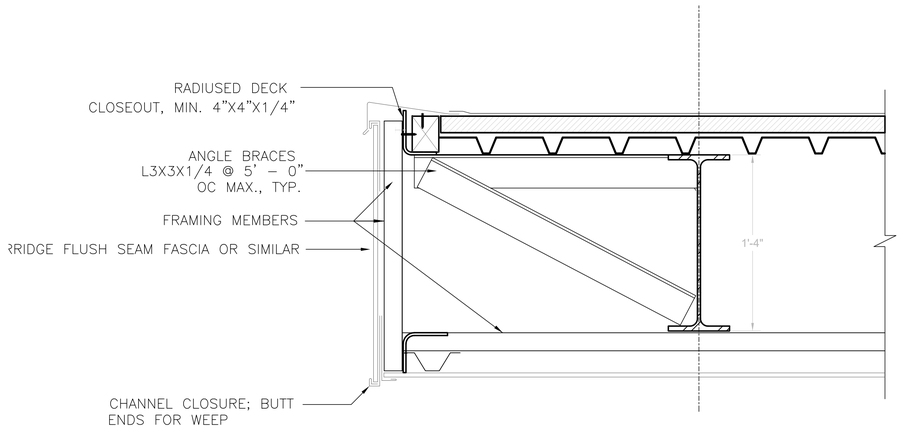
FINISH SCHEDULE

Draftsman	Phase DESIGN DEVELOPMENT
GVI Approval	Project No. 22118
Client Approval	File
Date 05 / 01 / 2023	Code

SCALE

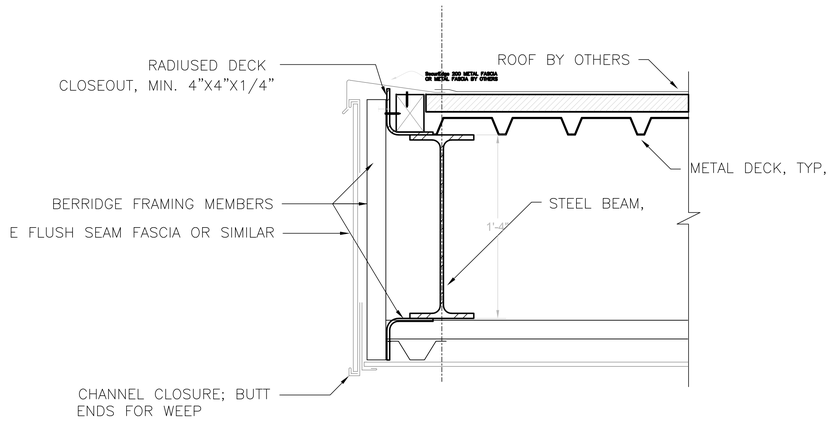
SHEET NUMBER

A610



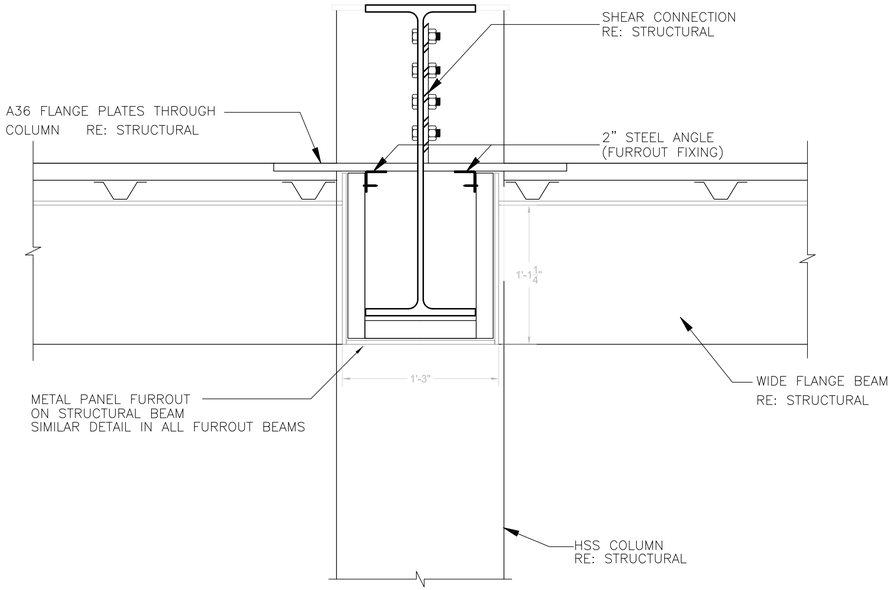
4 Roof Deck Long Overhang

SCALE: N.T.S



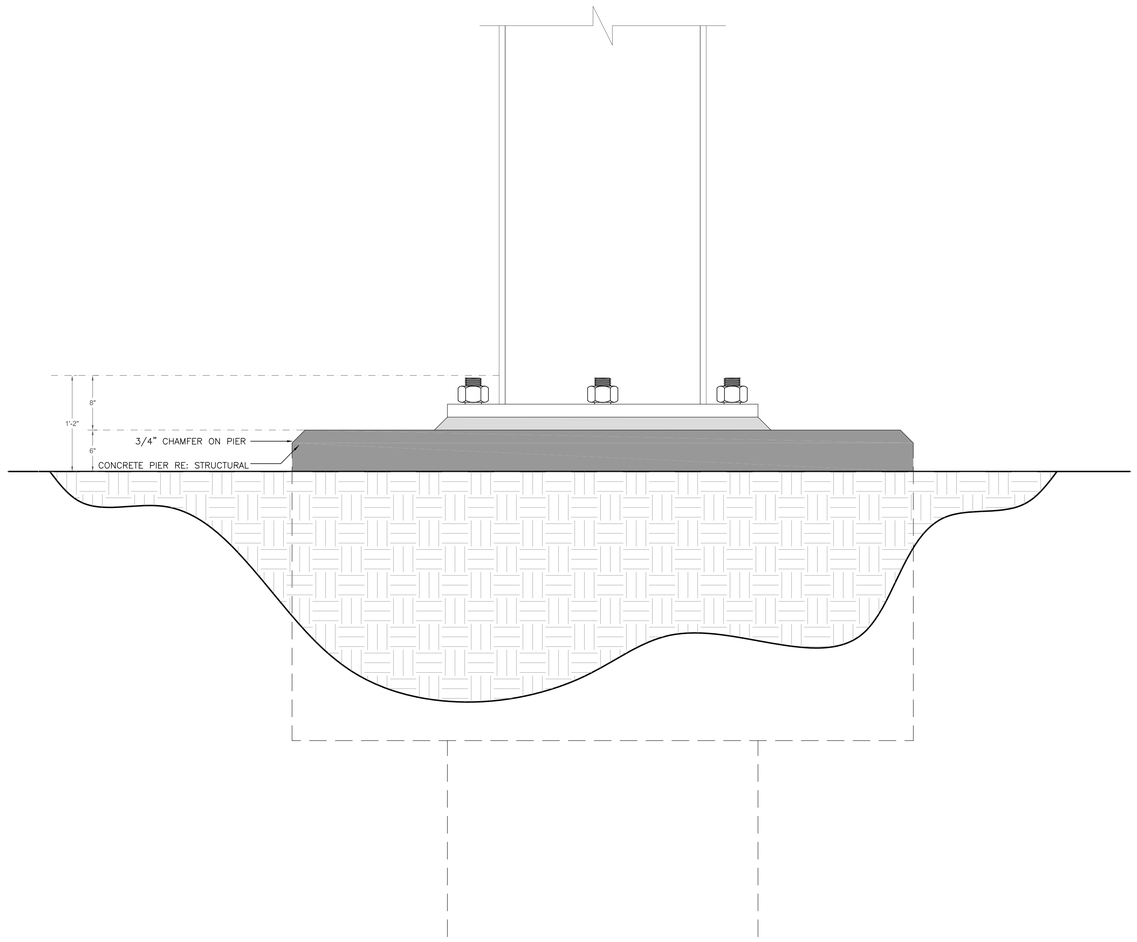
3 Closeout At Roof

SCALE: N.T.S



2 Structural Beams Furrout

SCALE: N.T.S



1 Straight Shaft Pier & Pier Cap

SCALE: N.T.S

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Hemisfair Sports Court Pavilion

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PROFESSIONAL SEAL

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SHEET NAME

DETAILS

Draftsman		Phase	DESIGN DEVELOPMENT
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SCALE

SHEET NUMBER

A701

ABBREVIATION LIST

ACP	AUGER CAST PILE	MIN.	MINIMUM
ADD.	ADDITIONAL	MISC.	MISCELLANEOUS
ALT.	ALTERNATIVE	MPH	MILES/ HOUR
ARCH.	ARCHITECT, ARCHITECTURAL	N/A	NOT APPLICABLE
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS	NS	NON-SHRINK
BOS	BOTTOM OF STEEL	NTE	NOT TO EXCEED
BP	BASE PLATE	NTS	NOT TO SCALE
CJ	CONTROL JOINT	NWC	NORMAL WEIGHT CONCRETE
CJP	COMPLETE JOINT PENETRATION	OC	ON CENTER
CL, ℄	CENTER LINE	OCEW	ON CENTER EACH WAY
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
COL.	COLUMN	PAR.	PARALLEL
COMP.	COMPOSITE	PEMB	PRE-ENGINEERED METAL BUILDING
CONT.	CONTINUOUS	PERP.	PERPENDICULAR
CU.	CUBIC	PJP	PARTIAL JOINT PENETRATION
d_b	BAR DIAMETER	PI	PLASTICITY INDEX
DF	DOUGLAS FIR	PLF	LBS/ LINEAR FOOT
DIA., Ø	DIAMETER	PSF	LBS/ SQUARE FOOT
EA.	EACH	PSI	LBS/ SQUARE INCH
EJ	EXPANSION JOINT	PSL	PARALLEL STRAND LUMBER
EMBED.	EMBEDMENT	PW	PUDDLE WELD
EN	EDGE NAILING	QA	QUALITY ASSURANCE
EOR	ENGINEER OF RECORD	QC	QUALITY CONTROL
EP	EMBED PLATE	QTY.	QUANTITY
EQ.	EQUAL	REC.	RECOMMENDED
EQUIP.	EQUIPMENT	REF.	REFERENCE
EXT.	EXTERIOR	REINF.	REINFORCEMENT
FFE	FINISH FLOOR ELEVATION	REQ.	REQUIRED
GA.	GAUGE	RFI	REQUEST FOR INFORMATION
GALV.	GALVANIZED	SEC.	SECOND
GC	GENERAL CONTRACTOR	SF	SQUARE FEET
GFCMU	GROUT FILLED CONCRETE MASONRY UNIT	SIM.	SIMILAR
GR.	GRADE	SPEC.	SPECIFICATION
HCA	HEADED CONCRETE ANCHOR	SPF	SPRUCE PINE FIR
IN^2	SQUARE INCHES	STD.	STANDARD
INFO.	INFORMATION	SYP	SOUTHERN YELLOW PINE
INT.	INTERMEDIATE	T&B	TOP AND BOTTOM
K	KIP (1,000 LBS)	TBS	TO BE SIZED
KD	KILN DRIED	THK.	THICKNESS
LBS	POUNDS	TJI	TRUSS JOIST I-JOIST
LG	LIGHT GAUGE	TOC	TOP OF CONCRETE
LW	LIGHT WEIGHT	TOS	TOP OF STEEL
LSL	LAMINATED STRAND LUMBER	TSW	TOP SEAM WELD
LVL	LAMINATED VENEER LUMBER	TYP.	TYPICAL
LW	LIGHT WEIGHT	UNO	UNLESS NOTED OTHERWISE
MAX.	MAXIMUM	US	UNDERSIDE
MECH.	MECHANICAL	W/	WITH
MEP	MECHANICAL ELECTRICAL PLUMBING	W/C	WATER-CEMENT RATIO
MFR	MANUFACTURER	W/O	WITHOUT
MIL	0.001"	WWF	WELDED WIRE FABRIC

GENERAL

1. STRUCTURAL DESIGN BASED ON ARCHITECTURAL PLANS PROVIDED BY GOMEZ VASQUEZ INTERNATIONAL RECIEVED MARCH 16, 2023.
2. FOR REFERENCED STANDARDS OF DESIGN AND CONSTRUCTION REFER TO CHAPTER 35 OF THE INTERNATIONAL BUILDING CODE (IBC). WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED. REFERENCE TO A SPECIFIC SECTION IN A CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE STANDARD. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE AUTHORITY HAVING JURISDICTION OVER THIS PROJECT.
3. WHERE CONFLICTS EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN, UNLESS APPROVED OTHERWISE.
4. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, AND ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES OCCUR BETWEEN STRUCTURAL DOCUMENTS AND OTHER DISCIPLINES, THE STRUCTURAL ENGINEER SHALL BE CONTACTED.
5. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST RFI, ASI, AND/OR ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, OR CONSTRUCTION.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL FIELD VERIFY STRUCTURES NOTED IN THE DRAWINGS AS EXISTING. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER.
7. DO NOT SCALE DRAWINGS FOR QUANTITY, LENGTH, OR FIT OF MATERIALS.
8. THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS NOTED OR SHOWN OTHERWISE. IF LOCATIONS ARE FOUND WHERE NO TYPICAL OR SPECIFIC DETAIL OR TYPICAL SCHEDULE APPLIES, NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, BUT NOT LIMITED TO: ADEQUATE EXCAVATION PROCEDURES, SHORING, BRACING, AND ERECTION PROCEDURES COMPLYING WITH NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
10. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED AND OCCUPIED.
   A. THESE DRAWINGS DO NOT DEPICT ANY SECONDARY STRUCTURAL ELEMENTS WHICH MAY BE REQUIRED UNLESS SPECIFICALLY NOTED OTHERWISE. SECONDARY STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO: SUPPORT BEAMS ABOVE THE PRIMARY ROOF STRUCTURE TO SUPPORT MECHANICAL EQUIPMENT, ROOFTOP MECHANICAL CURBS, ELEVATOR SUPPORT RAILS AND BEAMS, RETAINING WALLS INDEPENDENT OF THE PRIMARY BUILDING, LIGHT POLE OR FLAG POLE FOUNDATIONS, ANCHORAGE AND SUPPORT OF MECHANICAL AND ELECTRICAL EQUIPMENT/PIPING/DUCTWORK, NON-BEARING PARTITIONS, GUARD RAILS AND POSTS, STAIR FRAMING, STAIR RAILINGS, AND EXTERIOR CURTAIN WALLS AND CLADDING.
   B. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING, BUT NOT LIMITED TO: THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING OR RESHORING, AND ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT GESSNER ENGINEERING FOR ANY CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS.
   C. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS AND SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. DO NOT IMPACT POURED OR ERECTED FLOORS OR ROOFS WHEN PLACING MATERIALS.
11. THE BUILDING OWNER SHALL ESTABLISH A PLANNED PROGRAM OF MAINTENANCE TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. THIS PROGRAM SHALL INCLUDE, BUT IS NOT LIMITED TO: PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO A CORROSIVE ENVIRONMENT.

DESIGN CRITERIA

1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION.
2. DEAD LOADS:
   A. DESIGN DEAD LOADS INCLUDE THE WEIGHT OF THE STRUCTURE, MATERIALS, COMPONENTS, PERMANENT FIXTURES, AND 4 PSF MECHANICAL DUCT ALLOWANCE.
   B. LOADING FOR MECHANICAL AND ELECTRICAL EQUIPMENT IS BASED ON THE WEIGHTS OF ASSUMED EQUIPMENT AS INDICATED ON THE STRUCTURAL DRAWINGS (INCLUDING THE WEIGHT OF CONCRETE PADS WHERE INDICATED ON MEP DRAWINGS). ANY DISCREPANCIES OR CHANGES IN THE TYPE, SIZE, LOCATION, OR NUMBER OF PIECES OF EQUIPMENT SHOULD BE REPORTED TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO PLACEMENT OF EQUIPMENT.
3. LIVE LOADS:
   A. FOOTNOTES ACCORDING TO THE IBC AND ASCE 7 SHALL PERTAIN AS APPLICABLE.
   B. DESIGN LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD LISTED BELOW OR THE CONCENTRATED LOAD LISTED ACTING OVER AN AREA 2' - 6" SQUARE OR, IN THE CASE OF PARKING GARAGES 20 IN^2, OR STAIR TREADS, 4 IN^2.
   C. LIVE LOADS HAVE BEEN REDUCED USING THE STANDARD PROCEDURE FROM THE ABOVE REFERENCE CODES.
   D. FOR LIVE LOADS EXCEEDING 100 PSF, NO REDUCTION HAS BEEN MADE, EXCEPT THAT THE DESIGN LIVE LOAD ON MEMBERS SUPPORTING (2) OR MORE FLOORS HAS BEEN REDUCED A MAXIMUM OF 20% BUT THE LIVE LOAD IS NOT TO BE LESS THAN APPLICABLE REDUCTION LIMITS.

CATEGORY	UNIFORM	CONCENTRATED
• ASSEMBLY AREAS, LOBBIES, SUITES, PLAZAS, & TERRACES	100 PSF	2,000 LBS
• ROOF	20 PSF	300 LBS

FOOTNOTES:
1. REFERENCE CODE FOR APPLICABILITY CRITERIA.

4. RISK CATEGORY OF BUILDING: II
5. WIND DESIGN CRITERIA:
   - ULTIMATE DESIGN WIND SPEED (3 SEC. GUST, V_{ULT}) — 108 MPH
   - NOMINAL DESIGN WIND SPEED (V_{ASD}) — $V_{ULT} \times \sqrt{0.6}$
   - IMPORTANCE FACTOR — 1.0
   - EXPOSURE CATEGORY — B
   - INTERNAL PRESSURE COEFFICIENT (GC_{PI}) — ±0.18
   - DIRECTIONALITY FACTOR (K_d) — 0.85
   - TOPOGRAPHY FACTOR (K_{zt}) — 1.0
   - BASIC WIND PRESSURE, (q_h) — 17.3

C&C WALL PRESSURE (PSF)	
ZONE 4	-17.3 / +25.9
ZONE 5	-17.3 / +25.9

NOTES:
1. a = 8' - 3"
2. PRESSURES ARE BASED OFF A 10 SF TRIBUTARY AREA

6. SEISMIC DESIGN CRITERIA:
   - IMPORTANCE FACTOR (I_E) — 1.0
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS
     - S_S — 0.051
     - S_1 — 0.023
   - SITE CLASS — C
   - SPECTRAL RESPONSE COEFFICIENTS
     - S_{DS} — 0.044
     - S_{D1} — 0.023
   - SEISMIC DESIGN CATEGORY — A
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM — STEEL ORDINARY MOMENT FRAMES
   - DESIGN BASE SHEAR, (V) — $0.1W_x$
   - SEISMIC RESPONSE COEFFICIENT (C_S) — N/A
   - ANALYSIS PROCEDURE USED — ASCE 7-16 SECTION 1.4
7. SNOW DESIGN CRITERIA:
   - GROUND SNOW LOAD (P_G) — 5 PSF
   - FLAT-ROOF SNOW LOAD (P_F) — 5 PSF
   - EXPOSURE FACTOR (C_E) — 1.0
   - IMPORTANCE FACTOR (I_S) — 1.0
   - THERMAL FACTOR (C_T) — 1.0
8. RAIN DESIGN CRITERIA:
   THE ROOF DRAINAGE SYSTEM SHALL BE DESIGNED SO THAT RAINWATER LOADS DO NOT EXCEED THE ROOF SNOW OR LIVE LOADS AS STATED IN THE APPLICABLE SECTION.
9. GEOTECHNICAL DESIGN CRITERIA:
   A. SOIL DESIGN PARAMETERS BELOW ARE BASED ON THE GEOTECHNICAL REPORT PROVIDED BY RABA KISTNER DATED MARCH 28, 2023
   B. THE FOLLOWING DESIGN INFORMATION IS PROVIDED SOLELY FOR REFERENCE AND IS NOT INTENDED TO SUPERSEDE ANY INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT. SHOULD DISCREPANCIES EXIST THROUGHOUT THE DRAWINGS RELATIVE TO THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL CONTACT GESSNER ENGINEERING FOR ADDITIONAL INFORMATION.
   C. STIFFENED SLAB DESIGNS ARE BASED ON "CRITERIA FOR SELECTION AND DESIGN OF RESIDENTIAL SLABS-ON-GRADE" (REPORT #33) BY THE BUILDING RESEARCH ADVISORY BOARD (BRAB) AND "DESIGN OF SLAB ON GROUND FOUNDATIONS" (TF 700-R-07) BY THE WIRE REINFORCEMENT INSTITUTE (WRI). THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN:
      - EFFECTIVE PLASTICITY INDEX — 26
      - CLIMATIC RATING (C_W) — 16
   D. ALLOWABLE BEARING CAPACITIES:

		CAPACITY (PSF)
SHALLOW BEARING	GRADE BEAM (FS = 3)	3,000
	ISOLATED FOOTING, WIDENED BEAMS (FS = 3)	3,500
DRILLED PIERS	END BEARING (FS = 3)	14,000
	SKIN FRICTION (FS = 3)	900

NOTES:
1. CAPACITIES LISTED REFLECT THOSE SHOWN IN THE GEOTECHNICAL REPORT.
2. REF. DETAILS FOR MINIMUM BEARING DEPTHS.

STRUCTURAL SUBMITTALS

1. SUBMIT TO THE ENGINEER FOR REVIEW APPROPRIATE SCHEDULES, SHOP DRAWINGS, SAMPLES, TEST REPORTS, AND PRODUCT DATA THAT IS RELATED TO THE STRUCTURAL PORTION OF THE WORK ACCORDING TO AIA DOCUMENT A201 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION. NO WORK SHALL BE FABRICATED UNTIL THE ENGINEER'S REVIEW HAS BEEN OBTAINED. PROVIDED IS A LIST OF STRUCTURAL SUBMITTALS REQUIRED FOR THIS PROJECT, AND REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
   A. FABRICATION / ERECTION DRAWINGS:
      - FOUNDATION REINFORCING STEEL
      - STRUCTURAL STEEL
      - STRUCTURAL CAST-IN-PLACE COMPONENTS
      - STRUCTURAL ROOF DECKING
   B. DELEGATED DESIGN SUBMITTALS (TO BE SEALED BY THE RESPONSIBLE PARTY)
      - VOID FORMS
      - STRUCTURAL STEEL CONNECTIONS
      - COLD-FORMED METAL FRAMING/SOFFIT FRAMING & CONNECTIONS
   C. PRODUCT DATA SUBMITTALS
      - SOIL RETAINERS
      - VAPOR RETARDER
      - VOID FORMS AND ASSOCIATED COMPONENTS
      - CONCRETE MIX DESIGN
      - CONCRETE/STEEL ACCESSORIES
      - FACADE ATTACHMENTS
      - FASTENERS
      - STEEL MILL REPORTS AND WELDING CERTIFICATES
   D. REPORTS:
      - EARTHWORK BELOW BUILDING TESTING REPORTS
      - PIER MONITORING RESULTS
      - CONCRETE TEST RESULTS
      - CONCRETE MONITORING DURING PLACEMENT
      - STEEL
2. THE CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL SUBMIT EQUIPMENT PRODUCT DATA WHERE LOADING IS TO BE IMPARTED ON THE STRUCTURE DURING CONSTRUCTION FOR REVIEW, PRIOR TO USE.
4. SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER AS INDICATED OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH DESIGN INTENT CONVEYED IN THE CONTRACT DOCUMENTS.
5. WHEN AN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS BEING REGISTERED IN THE STATE OF THE PROJECT.
6. SHOP DRAWINGS ARE NOT A PART OF CONTRACT DOCUMENTS. THEREFORE, ARCHITECT'S/ENGINEER'S REVIEW DOES NOT CONSTITUTE AN AUTHORIZATION TO DEVIATE FROM TERMS AND CONDITIONS OF THE CONTRACT.
7. THE ENGINEER REQUIRES (10) WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR PROCESSING.

SPECIAL INSPECTIONS AND REPORTS

1. SPECIAL INSPECTIONS AND TESTING SHALL BE DONE IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS PER IBC CHAPTER 17, AS APPLICABLE PER THE FOLLOWING CRITERIA.
2. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) FOR THIS PROJECT SHALL BE DESIGNATED BY THE OWNER. SUBMIT ALL SPECIAL INSPECTION REPORTS DIRECTLY TO THE RDPIRC AND BUILDING OFFICIAL FOR REVIEW. THE RDPIRC SHALL FORWARD ALL THE STRUCTURALLY RELATED SPECIAL INSPECTION REPORTS TO THE STRUCTURAL ENGINEER FOR REVIEW.
3. SPECIAL INSPECTORS SHALL BE CONTRACTED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT. SPECIAL INSPECTORS SHALL BE QUALIFIED PER THE REQUIREMENTS LISTED IN SECTION 1704.2.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TESTING, INSPECTIONS, AND NOTIFYING THE ARCHITECT/ENGINEER, SPECIAL INSPECTORS, AND BUILDING OFFICIAL PER SECTION 110.3, OF WORK READY FOR INSPECTION. THE GENERAL CONTRACTOR MUST PROVIDE ACCESS TO AND MEANS FOR PROPER INSPECTION OF SUCH WORK.
5. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED, MOST CURRENT DESIGN DOCUMENTS AND SPECIFICATIONS, AND SHALL PROVIDE REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT/ENGINEER, AND OTHER DESIGNATED PERSONS.
6. THE SPECIAL INSPECTOR SHALL REPORT ALL DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
7. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPLICABLE STANDARDS OF QUALITY AND WORKMANSHIP OF THE IBC.
8. ADDITIONAL INSPECTIONS MAY BE REQUIRED BY THE GOVERNING JURISDICTION. THE BELOW REQUIREMENTS ARE MINIMUM PROJECT STANDARDS.
9. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY A LICENSED DESIGN PROFESSIONAL OR THEIR REPRESENTATIVE DURING PERIODIC SITE VISITS FOR THE WORK LISTED BELOW. THIS DOES NOT CONSTITUTE A SPECIAL INSPECTION.
10. CONCRETE CONSTRUCTION
    A. SPECIAL INSPECTIONS PER IBC SECTION 1705.3
       1. PERIODIC INSPECTIONS:
          a. PLACEMENT OF STEEL REINFORCEMENT.
          b. WELDING OF STEEL REINFORCEMENT.
          c. PLACEMENT OF HEADED BOLTS AND EMBEDDED FABRICATIONS.
          d. VERIFY USE OF REQUIRED DESIGN MIXTURE.
          e. VERIFY CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE.
          f. VERIFY CONCRETE STRENGTH BEFORE REMOVAL OF SHORES AND FORMS FROM BEAMS AND SLABS.
       2. CONTINUOUS INSPECTIONS:
          a. PLACEMENT OF CONCRETE.
          b. FABRICATION OF SPECIMENS FOR STRENGTH TEST; MINIMUM (1) SET FOR 100 YDS.
          c. DETERMINATION OF SLUMP, AIR CONTENT, AND TEMPERATURE.
    B. STRUCTURAL OBSERVATIONS:
       1. OBSERVE PLACEMENT OF REINFORCING STEEL, ANCHOR RODS, AND OTHER EMBEDDED COMPONENTS PRIOR TO PLACEMENT OF CONCRETE.
11. SOILS CONSTRUCTION
    A. SPECIAL INSPECTIONS PER IBC SECTION 1705.6
       1. PERIODIC INSPECTIONS:
          a. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
          b. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
          c. INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY PRIOR TO PLACEMENT OF COMPACTED FILL.
          d. PERFORM CLASSIFICATION AND TESTING OF MATERIALS TO BE USED FOR FILL.
       2. CONTINUOUS INSPECTIONS:
          a. VERIFY USE OF PROPER MATERIALS, MOISTURE CONTENT, DENSITIES, AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
          b. REVIEW APPROVED GEOTECHNICAL REPORT FOR COMPLIANCE AND ADDITIONAL TESTING REQUIREMENTS.
12. CAST-IN-PLACE DEEP FOUNDATIONS
    A. SPECIAL INSPECTIONS PER IBC SECTION 1705.8
       1. CONTINUOUS INSPECTIONS:
          a. INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.
          b. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS.
          c. CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY.
          d. RECORD CONCRETE OR GROUT VOLUMES.
          e. PERFORM TEST AND ADDITIONAL SPECIAL INSPECTIONS FOR CONCRETE ELEMENTS AS NOTED IN THE CONCRETE CONSTRUCTION SECTION.
    B. REVIEW APPROVED GEOTECHNICAL REPORT FOR COMPLIANCE AND ADDITIONAL TESTING REQUIREMENTS.
13. STRUCTURAL STEEL
    A. SPECIAL INSPECTIONS PER IBC SECTION 1705.2 AND AISC 360, CHAPTERS M & N.
       1. PERIODIC INSPECTIONS:
          a. PRIOR TO THE START OF FABRICATION:
             - VERIFY SHOP COMPLIANCE WITH AISC CHAPTER N, SECTIONS N2 AND N3, AND AWS D1.1 FOR COMPLETENESS AND ADEQUACY OF FABRICATION AND QUALITY CONTROL PROCEDURES.
          b. INSPECTION PERSONNEL SHALL BE AN AWS CERTIFIED WELD INSPECTOR (CWI) UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD (EOR).
          c. INSPECTION OF WELDING SHALL BE IN ACCORDANCE WITH TABLES N5.4-1, N5.4-2, AND N5.4-3.
          d. NON-DESTRUCTIVE TESTING OF WELDED JOINTS:
             - CJP GROOVE WELDS OF MATERIALS IN THICKNESS EQUAL TO OR GREATER THAN 5/16" IS REQUIRED PER SECTION N5.5b.
          e. INSPECTION OF HIGH-STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH TABLES N5.6-1, N5.6-2, AND N5.6-3.
          f. INSPECTION OF GALVANIZED MATERIALS SHALL BE IN ACCORDANCE WITH SECTION N5.7.
          g. INSPECT ERECTED STEEL FRAME FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
       2. SPECIAL INSPECTION RESPONSIBILITIES BY THE OWNER ARE PERMITTED TO BE WAIVED WHEN THE REQUIREMENTS OF SECTION N6 ARE MET.
    B. STRUCTURAL OBSERVATIONS
       1. REVIEW INSTALLATION OF FRAMING COMPONENTS AND CONNECTORS IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
14. FABRICATED ITEMS
    A. FABRICATORS SHALL BE APPROVED TO PERFORM SUCH WORK IN ACCORDANCE WITH SECTION 1704.2.5.1 WITHOUT SPECIAL INSPECTION.
       1. SHOULD A NON-APPROVED FABRICATOR BE USED, ADDITIONAL SPECIAL INSPECTION REQUIREMENTS SHALL BE MET IN ACCORDANCE WITH SECTION 1704.2.5.

GENERAL FOUNDATION

1. DIMENSIONS OF FOUNDATION ELEMENTS INDICATE MINIMUM ACCEPTABLE SIZES. LARGER SIZES FORMED BY LESS ACCURATE CONSTRUCTION MAY REQUIRE ADDITIONAL REINFORCING NOT SHOWN, WHICH SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER DURING THE CONSTRUCTION OBSERVATION PROCESS. CUT HAUNCHES ON EACH SIDE OF TRENCHES OF ADEQUATE SIZE TO MAINTAIN THE VERTICAL SIDES OF THE TRENCH.
2. GRADE BEAMS AND FOOTINGS SHALL BEAR A MINIMUM OF 12" INTO COMPACTED STRUCTURAL FILL OR COMPETENT NATIVE SOILS. REDUCED PENETRATION DEPTHS INTO BEDROCK SHALL BE PER THE GEOTECHNICAL REPORT OR A MINIMUM OF 3". WHERE NOTED, FOUNDATIONS SHALL BE CONSTRUCTED ON APPROVED VOID FORMS.
3. PLACE MEP LINES BELOW SLABS AND OUTSIDE OF GRADE BEAMS AND FOOTINGS. DO NOT PLACE LINES PARALLEL WITHIN OR PARALLEL BELOW GRADE BEAMS AND FOOTINGS. REFERENCE TYPICAL DETAILS FOR ALLOWABLE PENETRATIONS PERPENDICULAR TO GRADE BEAMS, FOOTINGS AND SLABS. PROVIDE PROTECTION OF MEP LINES CROSSING GRADE BEAMS OR PROJECTING THROUGH THE SLAB TO ALLOW FOR FOUNDATION MOVEMENT.
4. A 2"- 4" PERVIOUS SAND OR GRANULAR LAYER MAY BE PLACED UNDER THE SLAB AT THE CONTRACTOR'S DISCRETION.
5. EXTEND FORMWORK AT LEAST 6" BELOW THE FINISHED GRADE ELEVATION AT PERIMETER BEAMS.
6. A VAPOR RETARDER SHALL BE PLACED UNDER ALL FOUNDATION CONCRETE.
   A. AT A MINIMUM THE VAPOR RETARDER SHALL CONFORM TO IBC "CLASS I" WITH A PERMEANCE OF 0.1 PERMS OR LESS, ASTM E1745 "CLASS C", AND ACI 302.2R WITH A MINIMUM THICKNESS OF 10 MIL. WHERE ARCHITECTURAL PLANS CALL FOR SENSITIVE FLOOR MATERIALS, A VAPOR RETARDER EXCEEDING THE ABOVE SPECIFICATIONS MAY BE REQUIRED.
   B. VAPOR RETARDERS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM E1643, WITH THE MATERIAL CONTINUOUS BELOW FOUNDATION CONCRETE AREAS AND WITH JOINTS LAPPED AT LEAST 6", OR AS INSTRUCTED BY THE MANUFACTURER.
   C. SEAMS, TEARS, AND PENETRATIONS IN THE VAPOR RETARDER SHALL BE SEALED WITH THE MANUFACTURER'S RECOMMENDED ADHESIVE OR PRESSURE SENSITIVE TAPE.
   D. AT SLAB EDGES THE VAPOR RETARDER SHALL BE SEALED TO THE EXTERIOR FACE OF THE PERIMETER FOUNDATION ELEMENT.
7. EXPANSION JOINTS SHALL BE FORMED BY A BITUMINOUS FILLER MATERIAL, COMPLYING WITH ASTM D1751, ASPHALT-SATURATED CELLULOSIC FIGURE. SET 1/2" - 1" BELOW THE SURFACE IN ORDER TO FILL THE JOINT WITH A FLEXIBLE JOINT FILLER. EXTERIOR JOINTS SHALL BE SEALED WITH A TRAFFIC GRADE SEALANT.

REINFORCEMENT

1. ALL REINFORCEMENT WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN:
   - ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   - ACI 315 - DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
2. MATERIALS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
   - REINFORCEMENT - ASTM A615, GRADE 60
   - WELDED WIRE FABRIC - ASTM A185, SMOOTH, FLAT SHEET
3. LAPS AND SPLICES IN REINFORCING BARS SHALL BE A MINIMUM OF (60) BAR DIAMETERS.
4. BARS #3, #4, AND #5 MAY BE COLD BENT IN THE FIELD. FIELD BENDING BEYOND #5 IS NOT PERMISSIBLE.
5. REINFORCEMENT SHALL BE ADEQUATELY SECURED BY WIRE TIES AND SUPPORTED BY PLASTIC, METAL, OR MASONRY SUPPORTS. SPACING OF SUPPORTS SHALL BE AS NECESSARY TO PREVENT SAGGING OF THE REINFORCEMENT UNDER THE WEIGHT OF CONSTRUCTION WORKERS AND WET CONCRETE.
6. WHERE REINFORCEMENT MUST TRANSITION BETWEEN STEPPED ELEMENTS, SLOPE SHALL NOT BE GREATER THAN 1:6 UNLESS NOTED OTHERWISE.
7. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, OR OTHER FOREIGN MATERIALS THAT MAY REDUCE BOND TO CONCRETE.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT FOR CAST-IN-PLACE CONCRETE CONSTRUCTION:

CONCRETE STRUCTURE	INTERIOR			EXTERIOR		
	TOP	SIDE	BOTTOM	TOP	SIDE	BOTTOM
BEAMS	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
COLUMNS	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
GRADE BEAMS/FOOTING W/O VAPOR RETARDER	1 1/2"	N/A	N/A	3"	3"	3"
GRADE BEAMS/FOOTING W/ VAPOR RETARDER	1 1/2"	2"	2"	2"	2"	2"
SLAB ON GRADE	3/4"	2"	2"	2"	2"	2"
WALLS	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
WIDE PAN JOIST (BEAMS)	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
DRILLED PIERS	N/A	N/A	N/A	3"	3"	3"
NOTES: "EXTERIOR" IS EXPOSURE TO EARTH OR WEATHER.						

SLAB-ON-GRADE SITE PREPARATION

1. ALL FILL PLACED BELOW THE FOUNDATION SLAB SHALL BE SELECT FILL CONSISTING OF A CRUSHED LIMESTONE BASE MATERIAL MEETING THE REQUIREMENTS OF THE TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) 2014 STANDARD SPECIFICATIONS ITEM 247, TYPE A OR B, GRADE 1-2 OR 3 MAY BE USED.
   ALTERNATIVELY, A LOW PLASTICITY CLAYEY SOIL (CL) WITH A LIQUID LIMIT NOT EXCEEDING 40, A PLASTICITY INDEX BETWEEN 7 AND 20, AND ROCKS NO LARGER THAN 4" IN THEIR LARGEST DIMENSION MAY BE USED.
   SEE GEOTECHNICAL REPORT FOR OTHER ACCEPTABLE SELECT FILL MATERIALS AND TESTING REWUIREMENTS.
2. THE BUILDING PAD SHALL EXTEND A MINIMUM OF 5' - 0" FROM THE EDGE OF THE BUILDING FOOTPRINT IN ALL DIRECTIONS.
3. CONSTRUCTION AREAS SHALL BE STRIPPED OF ALL VEGETATION, LOOSE TOPSOIL, SURFICIAL CONCRETE, ETC. SUBGRADE SOILS SHALL BE REMOVED BELOW EXISTING GRADE IN ACCORDANCE WITH THE "MINIMUM EXCAVATION DEPTH" NOTED BELOW. ROOTS OF TREES WITHIN THE CONSTRUCTION AREAS SHALL BE EXCAVATED AND REMOVED UNLESS APPROVED OTHERWISE.
4. SLOPING SITES SHALL BE BROUGHT TO A LEVEL CONDITION TO MEET THE LOWEST EXCAVATED ELEVATION TO ALLOW FOR A UNIFORM DEPTH BUILDING PAD.
5. WHERE REQUIRED, SOIL STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS TO THE "STABILIZATION DEPTH" NOTED BELOW.
6. ONCE FINAL SUBGRADE ELEVATION HAS BEEN ACHIEVED, EXPOSED SOIL SUBGRADE AREAS SHALL BE PROOFROLLED WITH A 15 TON ROLLER (MINIMUM) OR EQUIVALENT EQUIPMENT AS APPROVED BY THE GEOTECHNICAL ENGINEER. WEAK AREAS DETECTED DURING THE PROOF ROLLING PROCESS SHALL BE REMOVED AND REPLACED WITH SOILS EXHIBITING SIMILAR CLASSIFICATION, MOISTURE CONTENT, AND DENSITY AS THE ADJACENT IN SITU SOILS.
7. SELECT FILL SHALL BE COMPACTED IN PLACE TO FORM A LEVEL BUILDING PAD IN ACCORDANCE WITH THE "MINIMUM REPLACEMENT DEPTH" NOTED BELOW.
8. ALL SELECT FILL SHALL BE PLACED ON PREPARED SURFACES IN LIFTS NOT TO EXCEED 8" IN LOOSE MEASURE, WITH COMPACTED THICKNESS NOT TO EXCEED 6".
9. SELECT FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR (ASTM D 698) DENSITY AT A MOISTURE CONTENT RANGING WITHIN 2% OF OPTIMUM MOISTURE CONTENT FOR DEPTHS OF 3' - 0" OR LESS. IF FILL IN EXCESS OF 3' - 0" IS REQUIRED, ALL STRUCTURAL AND SELECT FILL DEEPER THAN 3' - 0" SHALL BE COMPACTED TO 99% OF STANDARD PROCTOR (ASTM D 698).
10. SLOPES ADJACENT TO FOUNDATIONS SHALL FALL A MINIMUM OF 6" IN THE FIRST 10' - 0". WHERE SITES DO NOT ALLOW THIS, DRAINAGE SYSTEMS SHALL BE IMPLEMENTED TO ACCOMMODATE THE RUNOFF.
11. FOR SITE AREAS NOT BELOW PAVEMENTS OR GROUND SUPPORTED STRUCTURES, A CLAY CAP SHALL BE PLACED AROUND THE PERIMETER OF THE STRUCTURE FOR THE TOP 12" OF ADJACENT GRADE TO EXTEND TO THE EDGE OF THE BUILDING PAD ON ALL SIDES. THE SOILS USED FOR THE CLAY CAP SHALL HAVE A MINIMUM PI OF 30 AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR (ASTM 698) DENSITY AT A MOISTURE CONTENT RANGING WITHIN 2% OF OPTIMUM MOISTURE CONTENT.

MINIMUM EXCAVATION DEPTH	3' - 0"
STABILIZATION DEPTH	N/A
MINIMUM REPLACEMENT DEPTH	3' - 0"

BID SET

GESSNER ENGINEERING
401 W. 26th Street
Bryan, TX 77803
Tx Registered Engineering Firm F-7451

ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description
05/01/2023	Bid Set

REVISIONS

No.	Date	Description

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

SHEET NAME
NOTES

Drawn by: IFW	Phase: BID SET
Checked by: NAG	GVI Job Number: 22118
GVI Approval	GE Job Number: 22-1291
Client Approval	
Date: 05/01/23	

SCALE AS NOTED

SHEET NUMBER
S000

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN.
   - ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
   - ACI 117 - SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS
   - ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
2. CONCRETE SHALL BE IN ACCORDANCE WITH THE TABLES BELOW UNLESS NOTED OTHERWISE.

CONCRETE MIX SCHEDULE

CLASS	28 DAY STRENGTH (f'_c) (PSI)	MAX. W/C	SLUMP	MAX. AGGREGATE SIZE	AIR CONTENT
A	3,000	0.55	5" - 7"	1 1/2"	3% - 6%
B	3,000	0.55	4" - 6"	1 1/2"	3% - 6%
C	4,000	0.55	4" - 6"	1 1/2"	3% - 6%
D	4,000	0.45	4" - 6"	1 1/2"	≤ 1.5%
E	5,000	0.40	3" - 5"	1"	6% - 10%
F	4,000	0.50	4" - 6"	3/4"	-
G	3,000	0.50	4" - 6"	3/4"	-
H	2,000	0.55	5" - 7"	3/4"	-

NOTES:
1. CONCRETE SHALL BE NORMAL WEIGHT UNLESS NOTED OTHERWISE.
2. FLY ASH MAY BE USED UP TO 25% REPLACEMENT OF PORTLAND CEMENT, EXCEPT AT POLISHED SLABS (LIMITED TO 15%) OR ARCHITECTURALLY EXPOSED CONCRETE (VERIFY WITH ARCHITECT).
3. ALL MIXES SHALL UTILIZE A WATER REDUCING ADMIXTURE.
4. CURING COMPOUNDS ARE NOT ACCEPTABLE FOR POLISHED SLAB APPLICATIONS.
5. SLUMP SHALL BE DETERMINED AT POINT OF PLACEMENT.
6. FOR TOPPING SLAB LESS THAN 2" THICK, CONTRACTOR SHALL SUBMIT PROPRIETARY MIX DESIGN AND PREPARATION PROCEDURE FOR APPROVAL.

USE	CLASS
DRILLED PIERS	A
PIER CAPS	B
GRADE BEAMS	B
SLABS-ON-GRADE	B

3. MATERIALS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
   - READY-MIXED CONCRETE — ASTM C94
   - PORTLAND CEMENT - — ASTM C150, TYPE I/II
   - FLY ASH - — ASTM C618, CLASS F OR C
   - NORMAL WEIGHT AGGREGATES - — ASTM C33
   - LIGHT WEIGHT AGGREGATES - — ASTM C330
   - WATER - — ASTM C1602
   - WATER-REDUCING, PLASTICIZING, AND RETARDING ADMIXTURE - — ASTM C494
   - AIR ENTRAINING ADMIXTURE - — ASTM C260
   - CURING COMPOUNDS - — ASTM C309, TYPE 1, CLASS B
   - FLOOR SEALERS, HARDENERS, FINISHES, AND COVERINGS SHALL BE COMPATIBLE WITH CONCRETE PROPERTIES
4. READY-MIXED CONCRETE SHALL BE FURNISHED WITH BATCH TICKET INFORMATION. PROJECT-SITE MIXING IS NOT ACCEPTABLE.
5. PLACEMENT OF CONCRETE SHALL BE COMPLETED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF THE MIXING WATER, PER ASTM C94.
6. COLD WEATHER CONCRETE PLACEMENT SHALL COMPLY WITH ACI 306.1 AND AS FOLLOWS:
   A. WHEN AVERAGE HIGH AND LOW TEMPERATURE IS EXPECTED TO FALL BELOW 40° F FOR (3) CONSECUTIVE DAYS, MAINTAIN DELIVERED CONCRETE MIX TEMPERATURE WITHIN THE TEMPERATURE RANGE REQUIRED BY ACI 301.
   B. DO NOT USE OR PLACE CONCRETE ON FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW.
   C. DO NOT USE CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CONTAINING ANTIFREEZE AGENTS OR CHEMICAL ACCELERATORS UNLESS APPROVED IN MIX DESIGNS.
   D. PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES.
7. HOT WEATHER CONCRETE PLACEMENT SHALL COMPLY WITH ACI 305.1 AND AS FOLLOWS:
   A. MAINTAIN CONCRETE TEMPERATURE BELOW 95° F AT TIME OF PLACEMENT.
   B. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE, PROVIDED WATER EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER.
8. BEFORE TEST SAMPLING AND PLACING OF CONCRETE, WATER MAY BE ADDED TO THE PROJECT SITE, SUBJECT TO THE LIMITATIONS OF ACI 301. DO NOT ADD WATER TO THE CONCRETE AFTER ADDING HIGH-RANGE WATER-REDUCING ADMIXTURES.
9. SECURELY POSITION ALL ITEMS TO BE CAST IN PLACE SUCH AS REINFORCING DOWELS, ANCHORS, SLEEVES, ETC. PRIOR TO PLACEMENT OF CONCRETE.
10. EMBEDDED CONDUITS, PIPES, AND SLEEVES SHALL MEET THE REQUIREMENTS OF ACI 318. REFERENCE TYPICAL DETAILS FOR ALLOWABLE PENETRATIONS AND ADDITIONAL REQUIRED REINFORCEMENT.
11. PLACE ALL VERTICAL CONSTRUCTION JOINTS IN THE CENTER OF SPANS IN ACCORDANCE WITH THE TYPICAL DETAILS. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS FOR CONSTRUCTION JOINTS NOT SHOWN ON STRUCTURAL DRAWINGS FOR REVIEW BY THE ARCHITECT AND ENGINEER.
12. FOOTING, GRADE BEAM, AND SLAB AREAS SHALL BE CLEANED OF DEBRIS AND STANDING WATER PRIOR TO POURING CONCRETE.
13. WHERE NOTED, SAW CUT JOINTS SHALL BE CUT AS SOON AS THE CONCRETE HAS OBTAINED ADEQUATE STRENGTH TO RESIST RAVELING OF THE JOINT EDGES, GENERALLY BETWEEN 4 TO 12 HOURS AFTER THE CONCRETE HAS BEEN FINISHED. HOWEVER, IF ENTRY IS DELAYED TOO LONG, SAWING CAN BECOME DIFFICULT AND UNCONTROLLABLE CRACKING MAY OCCUR. THE BEST TIME FOR SAWING SHALL BE DETERMINED IN THE FIELD AS TIMING MAY VARY BASED ON MIX DESIGN, PLACEMENT, AND CURING CONDITIONS. SAW CUTS SHALL BE A MINIMUM 1/4 OF THE SLAB THICKNESS, UNLESS NOTED OTHERWISE, WITH REINFORCEMENT CONTINUOUS THROUGH SAW CUTS IN ACCORDANCE WITH THE CONTROL JOINT DETAIL. DO NOT SAWCUT ELEVATED SLABS OR SLABS OVER VOID FORMS.
14. CONCRETE SHALL REACH 70% OF THE SPECIFIED 28 DAY COMPRESSIVE STRENGTH AND BE IN PLACE FOR 7 DAYS PRIOR TO REMOVAL OF FORMS OR CONSTRUCTION ON TOP OF THE SLAB.

VOID FORMS AND SOIL RETAINERS

1. ALL VOID FORM AND EARTH RETAINER WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN:
   - FPA-SC-11 - SPECIFICATION AND APPLICATION OF VOID SPACES BELOW CONCRETE FOUNDATIONS (FOUNDATION PERFORMANCE ASSOCIATION)
2. VOID FORMS BELOW SLABS SHALL BE DEGRADABLE CORRUGATED PAPER (NON-COLLAPSIBLE). VOID FORMS BELOW BEAMS MAY BE DEGRADABLE CORRUGATED PAPER OR NON-DEGRADABLE COLLAPSIBLE.
3. MINIMUM VOID DEPTH SHALL BE 8", IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
4. MATERIALS AND PRODUCTS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
   A. FULLY WAX-IMPREGNATED CORRUGATED FIBERBOARD IS NOT ACCEPTABLE. IF THE PRODUCT EMPLOYS PARTIAL WAX IMPREGNATION OR COATING, THE SOIL CONTACT AREA SHALL NOT BE FULLY WAX IMPREGNATED.
   B. DO NOT USE POLYETHYLENE SHEATHING UNDER DEGRADABLE VOID FORMS.
   C. NON-DEGRADABLE COLLAPSIBLE VOID FORMS
   - SHALL BE CONSTRUCTED OF CORRUGATED PLASTIC, METAL, OR OTHER ACCEPTABLE PRODUCTS. CORRUGATED PAPER IS NOT ACCEPTABLE.
   - THE NET VOLUME OF THE COLLAPSED VOID FORM SHALL BE SUFFICIENT TO ACCEPT THE EXPANDING SOIL.
   - THE VOID FORM MATERIALS MUST COLLAPSE UNDER THE UPLIFT FORCES OF THE SOIL PER THE MAXIMUM COLLAPSE PRESSURES NOTED BELOW, BUT SHALL BE SUFFICIENTLY STIFF TO WITHSTAND THE WEIGHT OF THE CONCRETE AND ASSOCIATED CONSTRUCTION LOADS.
   - MAXIMUM COLLAPSE PRESSURES:
     1. VOID FORMS UNDER SLABS: WEIGHT OF CONC. + 140 PSF
     2. VOID FORMS UNDER GRADE BEAMS: WEIGHT OF CONF + 200 PSF

   D. SOIL RETAINERS
   - SHALL BE CONSTRUCTED OF HIGH DENSITY POLYETHYLENE OR HIGH DENSITY POLYPROPYLENE.
   - SHALL BE RIBBED TYPE RETAINERS AT EXTERIOR FACE OF GRADE BEAMS. RETAINERS AT INTERIOR FACE OF GRADE BEAMS SHALL BE CORRUGATED (NON-RIBBED) OR RIBBED TYPE. ALL SOIL RETAINERS SHALL BE CAPABLE OF PREVENTING SOIL MIGRATION TO THE VOIDS.

   E. PIER TOP FORMS
   - EITHER PRE-SCORED CORRUGATED PAPER/PLASTIC OR FIBER TUBE SHALL BE PROVIDED AT THE TOP 24" OF PIERS BELOW GRADE. ALTERNATELY, THE TOP 24" OF THE PIER MAY BE EARTH FORMED WITH THE UNDERSTANDING THAT SUBSEQUENT EXCAVATION WILL TAKE PLACE AROUND THE TOP OF THE PIER SUCH THAT IT IS NOT IN CONTACT WITH THE SOILS.
5. HANDLING AND INSTALLATION:
   A. GENERAL
   - VOID FORMS AND SOIL RETAINERS SHALL BE STORED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
   - STORE MATERIALS IN A MANNER THAT PROTECTS THEM FROM THE ELEMENTS.
   - DO NOT INSTALL OR USE MATERIALS THAT HAVE BEEN DAMAGED.
   - FORM WITH REMOVABLE OR SACRIFICIAL FORMS ON ALL SIDES OF ALL BELOW GRADE BEAMS, WALLS, PILASTERS, AND PIER CAPS. EARTH FORMING IS NOT PERMITTED. VOID FORMS ARE SACRIFICIAL AND SHALL NOT BE REUSED.
   - PROVIDE APPROPRIATE DRAINAGE WITHIN BEAM TRENCHES AND THROUGHOUT SLAB AREAS TO ENSURE STANDING WATER DOES NOT PERSIST.
   - VAPOR RETARDER SHALL BE INSTALLED DIRECTLY IN CONTACT WITH CONCRETE AND SECURED TO CONCRETE IN ACCORDANCE WITH VAPOR RETARDER NOTES.
   - SEAM PADS, TAPE JOINTS, OR PROTECTIVE FIBERBOARD SHALL BE USED TO COVER OPEN JOINTS TO PREVENT CONCRETE INTRUSION.
   - VOID SPACE SYSTEMS SHALL BE PROPERLY PLACED AND ANCHORED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.
   - RADIUSED VOID FORMS SHALL BE PROVIDED ADJACENT TO PIERS AT THE INTERSECTION OF CONCRETE ABOVE.

   B. ADDITIONAL REQUIREMENTS FOR DEGRADABLE VOID FORMS
   - DEGRADABLE VOID FORMS SHALL BE STORED IN A MANNER THAT PREVENTS THEM FROM BECOMING WET WHILE NOT ENTRAPPING HUMIDITY AND CONDENSATION.
   - THE USE OF DEGRADABLE VOID FORMS SHALL BE PLANNED TO MINIMIZE EXPOSURE TO ENVIRONMENTAL MOISTURE AND SHALL NOT BE LEFT IN PLACE ON GRADE FOR LONGER THAN (7) DAYS WITHOUT ADDITIONAL EVALUATION BY THE MANUFACTURER.
   - CONTRACTOR SHALL MAINTAIN A RAIN GAGE ON SITE. IF MORE THAN 0.2 INCHES OF RAIN FALLS WITHIN A 24 HOUR PERIOD AFTER FORMS ARE INSTALLED AND PRIOR TO CONCRETE PLACEMENT, SAID FORMS SHALL BE REMOVED AND REPLACED. IF STRUCTURAL INTEGRITY OF FORMS IS COMPROMISED BY ANY OTHER ISSUES, SAID FORMS SHALL BE REMOVED AND REPLACED. COST FOR REPLACEMENT OF FORMS SHALL BE THE BURDEN OF THE CONTRACTOR. NO CHANGE ORDERS OR SCHEDULE MODIFICATIONS ASSOCIATED WITH REPLACEMENT OF FORMS WILL BE ALLOWED.
   - PLACE A MINIMUM 1/4" COVER BOARD OVER DEGRADABLE VOID FORMS TO DISTRIBUTE WORKING LOAD, BRIDGE SMALL GAPS, AND PROTECT FORMS FROM PUNCTURE AND OTHER DAMAGES DURING REINFORCEMENT AND CONCRETE PLACEMENT.

   C. SOIL RETAINERS
   - PLACE SOIL RETAINERS AT SIDES OF VOID SPACE UNDER ALL GRADE BEAMS, WALLS, PILASTERS, AND PIER CAPS.
   - SOIL RETAINERS SHALL BE PROPERLY KEYED INTO THE UNDERLYING SOILS.
6. CONSTRUCTION OF UNDER-SLAB UTILITIES SHALL BE SUCH THAT UTILITIES ARE NOT SOIL SUPPORTED AND HUNG FROM THE FOUNDATION ABOVE, UNLESS AN ALTERNATE DESIGN IS SUBMITTED AND APPROVED THAT ALLOWS FOR THE UTILITIES TO ADJUST TO THE POTENTIAL FOR DIFFERENTIAL MOVEMENT BETWEEN THE SUBGRADE AND THE FOUNDATION.
   A. WHERE LINES TRANSITION FROM BEING HUNG AT THE INTERIOR TO SOIL SUPPORTED OUTSIDE OF THE BUILDING FOOTPRINT, PROVIDE A RETAINER CAP AT THE END OF THE VOID SPACE AND TRANSITION THE LINE INTO A 24" LONG SLEEVE, OVERSIZED TO 2X THE LINE DIAMETER. THE VOID SPACE BETWEEN LINE AND SLEEVE SHALL BE FILLED WITH NON-DEGRADABLE FOAM. THE OVERSIZED LINE SHALL BE SEALED AT THE END RETAINER CAP. ENTOMB THE OVERSIZED LINE WITH A MINIMUM 8" COVER OF FLOWABLE FILL.

SOIL RETAINERS

1. FORM ALL SIDES OF PIER CAPS. EARTH FORMING IS NOT PERMITTED.
2. PLACE SOIL RETAINERS AT SIDES OF VOID SPACE UNDER ALL STRUCTURAL CONCRETE PIER CAPS.
3. INSTALL SOIL RETAINERS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. STORE RETAINERS FLAT AND PROTECTED FROM DIRECT SUNLIGHT TO AVOID WARPING.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN:
   - AISC 303 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES
   - AISC 360 - SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
   - AISC 341 - SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
   - RCSC - SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS
   - AWS D1.1 - STRUCTURAL WELDING CODE - STEEL
2. MATERIALS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE:
   - W & WT SHAPES — ASTM A992, GRADE 50
   - C, S, & ST SHAPES — ASTM A36
   - ANGLE SHAPES — ASTM A36
   - STRUCTURAL PIPES — ASTM A53, GRADE B
   - ROUND HSS SHAPES — ASTM A500, GRADE C
   - SQUARE & RECTANGULAR HSS SHAPES — ASTM A500, GRADE C
   - STRUCTURAL PLATE & BARS — ASTM A36 OR ASTM A572 GRADE 50 AS NOTED
   - HIGH STRENGTH BOLTS — ASTM A325 (MECHANICALLY GALVANIZED) OR ASTM A490 (BLACK)
   - NUTS — ASTM A563 (MECHANICALLY GALVANIZED)
   - HARDENED STEEL WASHERS — ASTM F436
   - COMPRESSIBLE STEEL WASHERS — ASTM F959
   - HEADED CONCRETE ANCHORS — AWS D1.1 CLAUSE 7 TYPE B
   - DEFORMED BAR ANCHORS — ASTM A1064
   - ANCHOR RODS (STANDARD) — ASTM F1554, GRADE 36
     ANCHOR RODS (HIGH STRENGTH) — ASTM F1554, GRADE 55, WELDABLE
   - THREADED RODS — ASTM A36
   - WELDING ELECTRODES — AWS CLASS E70XX
3. STRUCTURAL STEEL FABRICATOR TO BE REGISTERED AND APPROVED TO PERFORM SUCH WORK IN ACCORDANCE WITH SECTION 1704.2.5.2 OF THE IBC. ACCEPTABLE CERTIFICATIONS INCLUDE THOSE PROVIDED BY ASTM OR AWS.
4. DIMENSIONAL TOLERANCES OF FABRICATED STRUCTURAL STEEL SHALL CONFORM TO SECTION 6.4 OF THE AISC CODE OF STANDARD PRACTICE UNLESS NOTED OTHERWISE.
5. FABRICATE AND ASSEMBLE STRUCTURAL MEMBERS/ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
6. ENDS OF COLUMNS AT SPLICES AND AT OTHER BEARING CONNECTIONS SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.
7. PROVIDE STIFFENERS "FINISHED TO BEAR" UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS OVER COLUMNS, AND WHERE SHOWN ON DRAWINGS.
8. WORKING POINTS FOR VERTICAL BRACING SHALL BE AT THE INTERSECTION OF THE COLUMN CENTERLINE AND THE BEAM CENTERLINE UNLESS NOTED OTHERWISE. WORKING POINTS FOR VERTICAL BRACING AT COLUMN BASE PLATES SHALL BE AT THE INTERSECTION OF COLUMN CENTERLINE AND THE TOP OF THE BASE PLATE.
9. BEAMS SHALL BE CAMBERED UPWARD WHERE SHOWN ON THE CONTRACT DOCUMENTS. WHERE NO UPWARD CAMBER IS INDICATED, ANY MILL CAMBER SHALL BE DETAILED UPWARD IN THE BEAMS.
10. ALL STRUCTURAL STEEL MEMBERS, ASSEMBLIES, AND HARDWARE SHALL BE PRIMED AND PAINTED FOR EXPOSURE TO WEATHER. REPAIR ANY MEMBERS WELDED OR DAMAGED AFTER SURFACE PREPARATION WITH ZINC RICH PAINT OR APPROVED ALTERNATE.
11. ALL STRUCTURAL STEEL MEMBERS, ASSEMBLIES, AND HARDWARE SHALL BE SHIPPED WITH ONE COAT OF SHOP PRIMER EXCEPT THOSE MEMBERS THAT ARE GALVANIZED.
12. ALL STRUCTURAL STEEL MEMBERS BELOW 20'-0" ABOVE FINISH FLOOR SHALL BE EXPOSED ARCHITECTURALLY, CATEGORY 1 (AESS 1), PREPARED IN ACCORDANCE WITH AISC 303-16, TABLE 10.1, VERIFY WITH ARCH.
13. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE, AND CONNECTION TO BE MADE.
14. DECK EDGE ANGLES SHALL BE CONTINUOUS AND SHALL BE SPLICED ONLY AT SUPPORTS. SPLICES SHALL BE BUTT WELDED TO DEVELOP FULL CAPACITY OF THE MEMBER.
15. DO NOT CUT STRUCTURAL STEEL MEMBERS UNLESS SO INDICATED IN THE DRAWINGS OR AS REVIEWED BY THE ENGINEER.
16. STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.
17. COLUMN BASE PLATES, LEVELING PLATES, OR BEARING PLATES SHALL BE SET TO THE ELEVATION INDICATED ON THE STRUCTURAL DRAWINGS AND LEVELED USING SHIMS OR JAM NUTS AND WASHERS ON ANCHOR BOLTS. BASE PLATES SHALL THEN BE GROUTED. GROUT SHALL BE WITH NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM 7 DAY COMPRESSIVE STRENGTH EQUAL TO TWICE THE 28 DAY STRENGTH OF THE SUPPORTING CONCRETE. COMPLETE GROUT WORK BEFORE PLACING CONCRETE ON LEVELS ABOVE (WHERE APPLICABLE). ANCHOR BOLTS SHALL BE PRESET USING TEMPLATES OR SIMILAR METHODS. TIGHTEN ANCHOR BOLTS AFTER SUPPORTED MEMBERS HAVE BEEN POSITIONED AND PLUMBED. HOLE SIZES IN BASE PLATES SHALL BE OVERSIZED PER AISC SECTION J3.2.
18. HEADED CONCRETE ANCHORS AND DEFORMED BAR ANCHORS SHALL BE AUTOMATICALLY END WELDED WITH SUITABLE STUD WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

METAL ROOF DECK

1. METAL ROOF DECK SHALL BE AS FOLLOWS:

LOCATION	GAGE	DECK TYPE	DECK DEPTH (IN.)	MIN. SHEET WIDTH (IN.)	MIN. I_X (IN.^{4})	MIN. S_P (IN.^{3})	MIN. S_N (IN.^{3})
TYP. UNO	20	WR	3	24	0.794	0.434	0.463

S_P - POSITIVE SECTION MODULUS IN.^{3}
S_N - NEGATIVE SECTION MODULUS IN.^{3}
I_X - MOMENT OF INERTIA IN.^{4}

2. SHEET STEEL FOR GALVANIZED ROOF DECK AND ACCESSORIES SHALL CONFORM TO ASTM A653, STRUCTURAL STEEL, WITH A MINIMUM YIELD STRENGTH OF 33 KSI AND A MAXIMUM YIELD STRENGTH OF 80 KSI. GALVANIZING SHALL CONFORM TO ASTM A653 WITH A MINIMUM COATING OF G90 (TYPICAL AT ALL LOCATIONS) AS DEFINED IN ASTM A653.
3. ROOF DECKS SHALL BE CONSTRUCTED IN A TWO OR THREE SPAN CONDITION.
4. PLACE DECK PANELS ON STRUCTURAL SUPPORTS AND ADJUST TO FINAL POSITION WITH ENDS LAPPED OR BUTTED OVER THE SUPPORTS WITH A MINIMUM END BEARING OF 2 1/2".
5. ROOF DECKS SHALL BE ATTACHED TO PERPENDICULAR SUPPORTS AS NOTED ON S002.
6. ROOF DECKS SHALL BE ATTACHED TO PARALLEL FRAMING AND ACCESSORIES, INCLUDING PERIMETER DECK EDGE MEMBERS WITH TYPICAL FRAME FASTENERS AT A MAXIMUM SPACING OF 12" OC, AND AS NOTED ON S002.
7. ALL OPENINGS IN METAL ROOF DECKS SHALL BE REINFORCED IN ACCORDANCE WITH THE STRUCTURAL DETAILS.
8. MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS SHALL NOT BE SUPPORTED BY THE METAL ROOF DECK.

STEEL CONNECTIONS:

1. ALL STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO REQUIREMENTS DETAILED IN THE "STRUCTURAL STEEL" NOTES AND ALL FOLLOWING PARAMETERS.
2. STRUCTURAL STEEL CONNECTIONS NOT FULLY DETAILED IN THE STRUCTURAL DOCUMENTS SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR AND THE STEEL FABRICATOR, UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS TO BE CONSTRUCTED.
3. CONCEPTUAL CONNECTION DETAILS ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED IN THE DRAWINGS. THEY ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN.
4. ADDITIONAL CONNECTION ELEMENTS NOT SHOWN ON TYPICAL OR CONCEPTUAL DETAILS MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN, SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENTAL/ REINFORCING PLATES, OR OTHER CONNECTION MATERIAL. THE FABRICATOR'S LICENSED PROFESSIONAL ENGINEER IS RESPONSIBLE FOR SPECIFICATION OF THESE ELEMENTS OR CONVEYANCE OF THESE ADDITIONAL REQUIREMENTS TO THE ENGINEER OF RECORD FOR SPECIFICATION.
5. THE FABRICATOR'S LICENSED PROFESSIONAL ENGINEER IN RESPONSIBLE CHARGE OF THE CONNECTION DESIGN SHALL REVIEW AND CONFIRM IN WRITING THAT THE SHOP AND ERECTION DRAWINGS PROPERLY INCORPORATE THE CONNECTION DESIGNS PRIOR TO SUBMITTING THE CONNECTION CALCULATION AND SHOP DRAWINGS TO THE ENGINEER-OF-RECORD FOR REVIEW.
6. SEALED CALCULATIONS FOR ALL CONNECTIONS DESIGNED BY THE FABRICATOR'S LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR REVIEW.
7. CONNECTION DESIGN SHALL BE RELATED TO AND/OR REFERENCE THE SUBMITTED SHOP DRAWINGS TO FACILITATE REVIEW.
8. ALL REACTIONS (SHEARS, AXIAL FORCES, MOMENTS, ETC.) SHOWN ON THE STRUCTURAL DRAWINGS ARE FACTORED LOADS CONFORMING TO THE REQUIREMENTS OF AISC LOAD AND RESISTANCE FACTOR DESIGN (LRFD). LOAD AND RESISTANCE FACTOR DESIGN (LRFD) SHALL BE USED IN THE SELECTION, COMPLETION, AND DESIGN OF CONNECTIONS.
9. THE FABRICATOR SHALL WORK TO PRIORITIZE BOLTED FIELD CONNECTIONS OVER FIELD WELDS, WHERE FEASIBLE.
10. WHERE STIFFENER PLATES ARE INDICATED ON THE DRAWINGS, THEY ARE REQUIRED AND SHALL BE PROVIDED AS INDICATED. WHERE SIZES ARE NOT INDICATED, WEB STIFFENERS SHALL BE A MINIMUM 3/8 INCH THICK, OR THE THICKNESS OF THE BEAM WEB, WHICHEVER IS LARGER.
11. PROVIDE A MINIMUM 1/4 INCH THICK CAP PLATE AT THE END OF ALL HOLLOW STEEL SECTIONS NOT OTHERWISE CONNECTED TO AN ABUTTING MEMBER, UNLESS SPECIFICALLY DETAILED OTHERWISE. WHERE EXPOSED TO VIEW, PLATES SHALL MATCH THE INSIDE DIMENSION OF THE HOLLOW SECTION AND BE WELDED ALL AROUND WITH A GROOVE WELD WITHIN THE END OF THE MEMBER. PROVIDE OPENINGS AS REQUIRED FOR ANY HOT DIP GALVANIZATION.
12. SHEAR CONNECTIONS
    a. WHERE INDICATED, SHEAR CONNECTIONS SHALL BE DESIGNED FOR THE FORCES INDICATED ON THE STRUCTURAL DRAWINGS. SHEARS ARE INDICATED AT BEAM ENDS AS "# K" AT THE GIVEN MEMBER END.
    b. IF NOT INDICATED ON THE STRUCTURAL DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR 55 PERCENT OF THE TOTAL LOAD CAPACITY FOR THE BEAM SPAN SHOWN IN THE BEAM TABLES IN THE CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.
    c. SHEAR CONNECTIONS SHALL BE DESIGNED AS BOLTED CONNECTIONS, UNLESS WELDED TAB CONNECTIONS ARE PREFERRED FOR CONSTRUCTABILITY AND APPROVED OTHERWISE.
    d. THE MINIMUM NUMBER OF ROWS OF BOLTS SHALL BE 1/6 OF THE BEAM DEPTH WITH ANY FRACTION TO BE ROUNDED TO THE NEXT HIGHEST MEMBER. WHERE CONSTRUCTABILITY DICTATES SHALLOWER CONNECTIONS, ALTERNATIVES MAY BE PROPOSED AND WILL BE REVIEWED ACCORDINGLY.
13. MOMENT CONNECTIONS:
    a. WHERE INDICATED, MOMENT CONNECTIONS SHALL BE DESIGNED FOR THE FORCES INDICATED ON THE STRUCTURAL DRAWINGS. MOMENTS ARE INDICATED AS "M= ".
    b. IF NOT INDICATED ON THE STRUCTURAL DRAWINGS, CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL FLEXURAL CAPACITY OF THE MEMBER.
    c. MOMENT CONNECTIONS SHALL BE DESIGNED AS WELDED CONNECTIONS, UNLESS DETAILED OR APPROVED OTHERWISE.
14. AXIAL FORCES ON BEAMS
    a. WHERE HORIZONTAL FORCES ARE INDICATED ON PLAN AS "H= ", CONNECTIONS SHALL BE DESIGNED TO TRANSFER THE HORIZONTAL FORCE IN ADDITION TO ANY INDICATED SHEAR AND/OR MOMENT FORCES.
    b. MAIN FRAME BRACE AND TRUSS CONNECTIONS:
    c. CONNECTIONS SHALL BE WELDED UNLESS DETAILED OR APPROVED OTHERWISE.
    d. CONNECTIONS SHALL BE DESIGNED FOR THE FORCES INDICATED ON THE STRUCTURAL DRAWINGS.
    e. IF NOT INDICATED ON THE STRUCTURAL DRAWINGS, CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL TENSILE CAPACITY OF THE MEMBERS.
15. STEEL-TO-STEEL BOLTED CONNECTIONS:
    a. SHORT SLOTTED HOLES ARE PERMITTED PROVIDED HARDENED WASHERS ARE INSTALLED IN ACCORDANCE WITH AISC REQUIREMENTS. WHERE HORIZONTAL FORCES ARE SPECIFIED ON THE DRAWINGS, SHORT SLOTTED HOLES ARE NOT PERMITTED PARALLEL TO THE LOAD AXIS.
    b. ALL BOLTS SHALL BE ¾ INCH DIAMETER AND CONFORM TO ASTM A325, UNLESS NOTED OTHERWISE. BOLTS SHALL BE DESIGNED USING VALUES FOR BEARING TYPE BOLTS WITH THREADS ALLOWED IN THE SHEAR PLANE.
    c. BOLTS SHALL BE TIGHTENED TO "SNUG TIGHT" AS DEFINED BY AISC, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DOCUMENTS OR ON THE SEALED CONNECTION DESIGN SUBMITTAL.
    d. BOLTS NOTED AS "SLIP CRITICAL" (SC) ON THE DOCUMENTS SHALL BE TIGHTENED TO THE MINIMUM PRE-TENSIONED AMOUNTS ACCORDING TO SECTION J OF THE AISC SPECIFICATION USING ONE OF THE FOLLOWING METHODS: TURN-OF-THE-NUT METHOD, CALIBRATED TORQUE WRENCH, TWIST-OFF TYPE TENSION CONTROL, OR DIRECT TENSION INDICATORS.
16. WELDED CONNECTIONS:
    a. ALL WELDING SHALL CONFORM TO ANSI/AWS D1.1, LATEST EDITION.
    b. MINIMUM FILLET WELD SIZE SHALL BE 3/16 INCHES OR THAT REQUIRED BY AISC, WHICHEVER IS LARGER.
    c. FOR CONNECTIONS NOT SPECIFIED BY THESE NOTES OR STRUCTURAL DRAWINGS, PROVIDE FILLET WELDS AT ALL CONTACT SURFACES SUFFICIENT TO DEVELOP THE FULL TENSILE STRENGTH OF THE SMALLEST MEMBER BEING JOINED.

COLD-FORMED METAL FRAMING

1. ALL EXTERIOR AND LOAD-BEARING COLD-FORMED STRUCTURAL NOTED ON THESE PLANS OR DETAILED IN DELEGATED SUBMITTALS SHALL CONFORM TO THE FOLLOWING STANDARDS AND ANY STANDARDS REFERENCED THEREIN:
   - AISI S100- NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS
   - AISI S200- NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING
   - AWS D1.3- STRUCTURAL WELDING CODE - SHEET STEEL
2. MATERIALS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE:
   - STEEL SHEET - ASTM A1003, TYPE H
     - FRAMING MEMBERS W/ THICKNESS ≤ 0.0428" (18 GA) - 33 KSI
     - FRAMING MEMBERS W/ THICKNESS ≥ 0.0538" (16 GA) - 50 KSI
     - CLIPS AND CONNECTORS - 50 KSI
   - STEEL TAPPING SCREWS - ASTM C1513
3. COLD-FORMED STRUCTURAL FRAMING SIZES SHALL BE AS NOTED ON PLANS WITH THE FOLLOWING PROPERTIES:

DESIGNATION THICKNESS (MILS)	THICKNESS (GAUGE)	MINIMUM THICKNESS (INCHES)	STEEL GRADE (KSI)
33	20	0.0346	33
43	18	0.0451	
54	16	0.0566	50
68	14	0.0677	
97	12	0.0966	

4. COLD FORMED WALL ASSEMBLIES SHALL CONSIST OF THE FOLLOWING COMPONENTS:
   - STUDS - NOT TO EXCEED 16" ON CENTER, W/ 1 1/2" X 4" PUNCHOUTS 12" FROM EACH END AND AT 24" ON CENTER.
   - BOTTOM TRACKS - SIZE AND GAUGE TO MATCH STUDS WITH A MINIMUM 1 1/4" FLANGE OR AS NOTED ON DRAWINGS. PROVIDE AT BOTTOM OF WALLS
   - TOP TRACKS - SIZE AND GAUGE TO MATCH STUDS WITH A MINIMUM 1 1/4" FLANGE OR AS NOTED ON DRAWINGS. PROVIDE AT TOP OF PARAPET WALLS AND BELOW OPENINGS.
   - DEFLECTION TRACKS - DEPTH TO MATCH STUD SIZE. MINIMUM 2 1/2" FLANGE W/ 1 1/2" SLOT. PROVIDE AT TOPS OF WALLS WHERE ATTACHING TO STEEL STRUCTURE ABOVE.
   - BY-PASS DEFLECTION CLIPS - MINIMUM 2 1/4" VERTICAL SLOTS, ANCHORED TO DECK CLOSEOUT. PROVIDE AT EACH BY-PASS STUD AT EACH FLOOR AND ROOF LEVEL.
   - RIGID CLIPS - ANCHORED TO STEEL FRAMING. PROVIDE AT EACH STUD WHERE TOP TRACKS ARE UNSUPPORTED.
5. TOP AND BOTTOM TRACKS SHALL BE MATCHING SIZE AND GAUGE AS STUD WALLS, WITH MIN. A 1 1/4" FLANGE, UNLESS NOTED OTHERWISE.
6. COLD-FORMED STRUCTURAL FRAMING SHALL HAVE MINIMUM PROTECTION COATING EQUAL TO G-60 GALVANIZED FINIS
7. STRUCTURAL FRAMING SHALL BE PROPERLY SPACED, PLUMBED, LEVELED, SQUARED, FIT PROPERLY AGAINST ABUTTING MEMBERS, AND HELD SECURELY IN PLACE UNTIL PERMANENTLY FASTENED. WIRE TYING OF STRUCTURAL FRAMING COMPONENTS IS NOT PERMITTED.
8. FASTENING OF COLD-FORMED STRUCTURAL FRAMING SHALL CONFORM TO THE FOLLOWING METHODS:
   - SHEET STEEL TO SHEET STEEL - STEEL TAPPING SCREWS
   - SHEET STEEL TO CONCRETE - POWDER ACTUATED FASTENERS
   - SHEET STEEL TO HOT-ROLLED STEEL (≥3/16" THICKNESS) - STEEL TAPPING SCREWS OR POWDER ACTUATED FASTENERS
9. DO NOT WELD SHEET STEEL UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. PROTECTIVE COATING REMOVED BY WELDING SHALL HAVE THE COATING REPAIRED AT THE WELDS BY PAINTING WITH A ZINC RICH PRIMER.
10. COLD-FORMED STRUCTURAL FRAMING MAY BE SHOP OR FIELD FABRICATED INTO ASSEMBLIES, PRIOR TO ERECTION, OR ASSEMBLED IN THE FIELD.
11. THE STRUCTURAL FRAMING SHALL HAVE ENDS SQUARELY CUT BY SHEARING OR SAWING, BE INSTALLED PLUMB, SQUARE, TRUE TO LINE, AND SECURELY FASTENED PER THE CONTRACT DOCUMENTS OR APPROVED CONNECTION DETAILS. TORCH CUTTING IS NOT PERMITTED.
12. FABRICATION, HANDLING, AND ERECTION OF THE STRUCTURAL FRAMING AND ASSEMBLIES SHALL BE DONE IN A MANNER TO PREVENT ANY DAMAGE OR DISTORTION OF THE FRAMING.
13. SPLICING OR NOTCHING OF FRAMING MEMBERS IS NOT PERMITTED UNLESS EXPLICITLY NOTED ON THE DRAWINGS.
14. PROVIDE JAMB STUDS, BOX HEADERS, AND SILL TRACKS AROUND OPENINGS.
15. TEMPORARY BRACING OF THE STRUCTURAL FRAMING SHALL BE PROVIDED AS REQUIRED AND REMOVED ONLY AFTER THE FRAMING HAS BEEN SECURED WITH PERMANENT SUPPORT.
16. FRAMING MEMBERS SHALL BE LINED UP DIRECTLY OVER VERTICAL SUPPORTS OR BE SUPPORTED BY A LOAD DISTRIBUTION MEMBER PER THE CONTRACT DOCUMENTS OR APPROVED SHOP DRAWINGS. THE TOP TRACK IS NOT PERMITTED TO ACT AS A DISTRIBUTION MEMBER UNLESS DESIGNED FOR THAT CONDITION.
17. FRAMING MEMBERS IN BEARING CONDITIONS SHALL HAVE A MINIMUM 1 1/2" OF BEARING LENGTH, A MINIMUM 10" OF UNPUNCHED WEB FROM AN END SUPPORT AND MINIMUM 10" OF UNPUNCHED WEB ON EITHER SIDE OF AN INSIDE SUPPORT.
18. STRUCTURAL FRAMING WEB STIFFENERS SHALL BE LOCATED AND INSTALLED PER THE CONTRACT DOCUMENTS OR APPROVED SHOP DRAWINGS.
19. PROVIDE END BLOCKING OR A CONTINUOUS TRACK WHERE JOIST ENDS ARE NOT RESTRAINED AGAINST ROTATION.
20. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS, DIMENSIONS, AND LOCATIONS OF FRAMING.

BID SET

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ISSUED SETS

Date	Description
05/01/2023	Bid Set

REVISIONS

No.	Date	Description

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

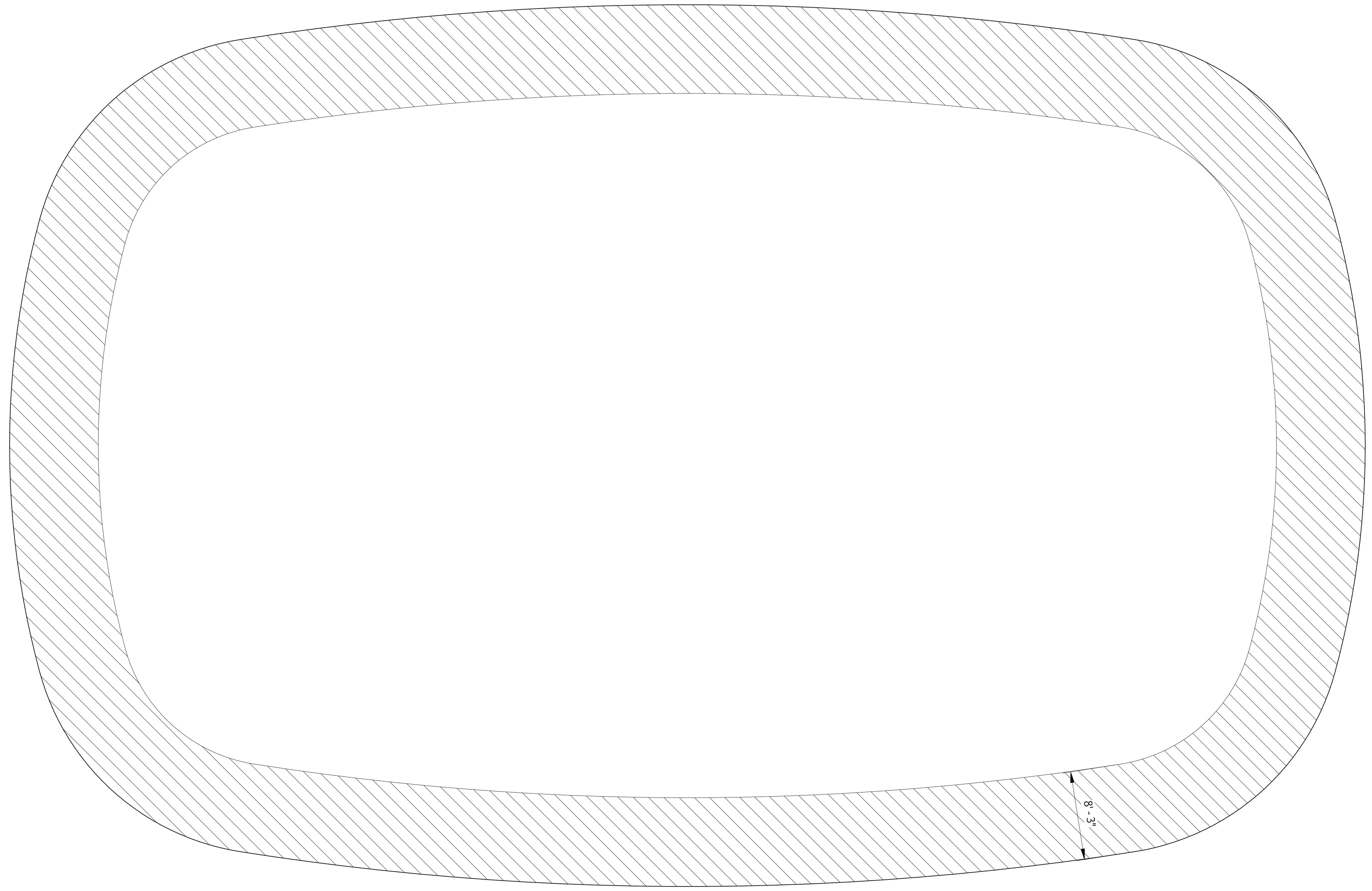
PROFESSIONAL SEAL

SHEET NAME
NOTES

Drawn by: IFW	Phase: BID SET
Checked by: NAG	
GVI Approval	GVI Job Number: 22118
Client Approval	GE Job Number: 22-1291
Date: 05/01/23	

SCALE AS NOTED

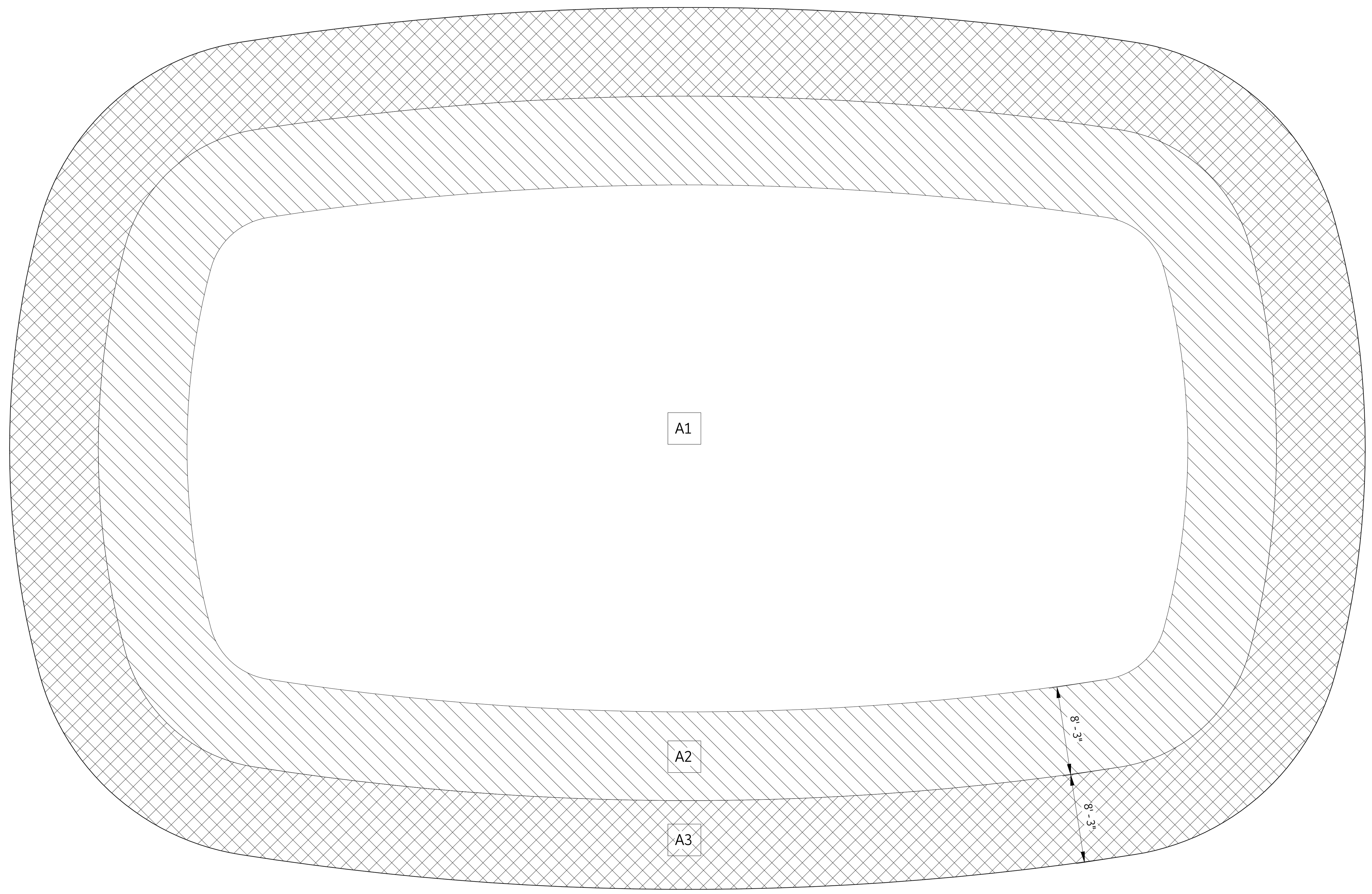
SHEET NUMBER
S001



1 ROOF DECK CONNECTION PLAN
1/8" = 1'-0"

ROOF CONNECTION TABLE		
HATCH	FASTENING PATTERN 1	SIDELAP CONNECTOR SPACING 2
(blank hatch)	32/3	36" OC
(cross hatch)	32/5	36" OC

NOTES:
1. FASTEN DECK AT END LAPS, END SUPPORTS, AND INTERMEDIATE SUPPORTS USING 5/8"Ø PUDDLE WELDS OR HILTI X-ENP19 POWDER ACTUATED FASTENERS, SPACED PER TABLE ABOVE.
2. FASTEN SIDELAPS OF ADJACENT ROOF DECK UNITS USING #10-16 SELF DRILLING SCREWS, SPACED PER TABLE ABOVE.



2 ROOF UPLIFT PRESSURE PLAN
1/8" = 1'-0"

ROOF WIND PRESSURES			
ZONE	WIND PRESSURE BASED ON TRIBUTARY AREA (PSF)		
	67 SF	>67 SF <269 SF	>269 SF
A1	+19.1/-17.1	+19.1/-17.1	+19.1/-17.1
A2	+28.6/-26.7	+28.6/-26.7	+19.1/-17.1
A3	+38.2/-52.0	+28.6/-26.7	+19.1/-17.1

NOTES:
1. ALL NOTED PRESSURES SHOWN ARE STRENGTH LEVEL (LRFD) UPLIFT PRESSURES APPLIED TO THE TOP OF THE ROOF SURFACE.

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San Antonio, TX. 78205

PROFESSIONAL SEAL

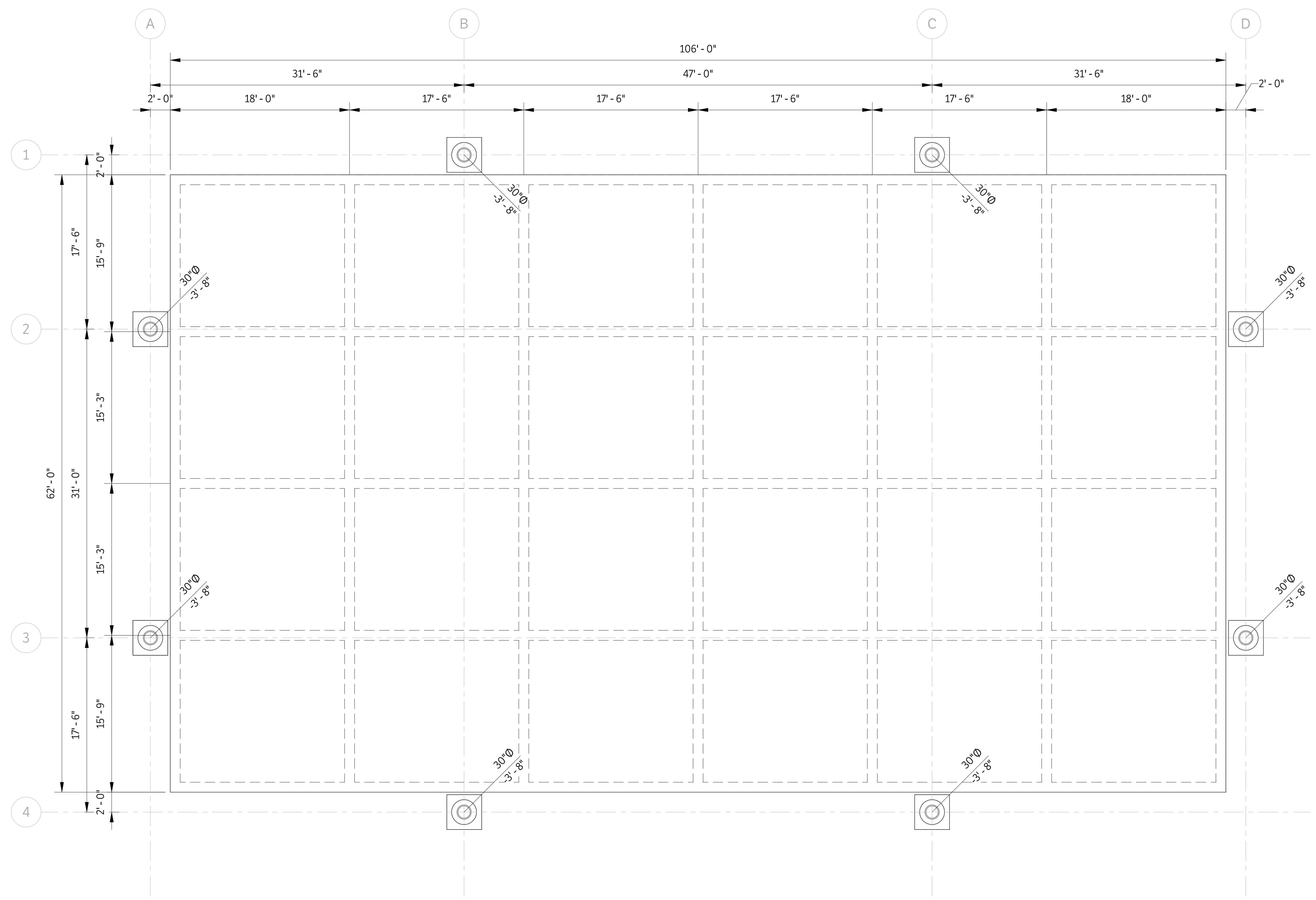
SHEET NAME
ROOF CONNECTIONS AND DESIGN LOAD PLANS

Drawn by:	Author	Phase	BID SET
Checked by:	Checker		
GVI Approval		GVI Job Number	22118
Client Approval		GE Job Number	22-1291
Date	05/01/23		

SCALE AS NOTED

SHEET NUMBER
S002

NOTES:
1. REFERENCE GENERAL NOTES AND DETAILS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS AND TYPES OF PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION.
3. VERIFY ALL DIMENSIONS & DROPS WITH ARCHITECT AND OWNER PRIOR TO COMMENCING CONSTRUCTION.
4. PIERS MUST BE POURED THE SAME DAY THEY ARE DRILLED. PIER SHAFTS SHALL NOT BE LEFT OPEN OVERNIGHT. PIERS THAT ARE UNABLE TO BE POURED ON THE SAME DAY AS THEY ARE DRILLED SHALL BE BACKFILLED AS PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
5. TOP OF SLAB ELEVATION = 0'-0".



1 DIMENSION CONTROL PLAN
1/8" = 1'-0"

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05/01/2023	Bid Set

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No.	Date	Description

Hemisfair Sports Court Pavilion

Hemisfair
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PROFESSIONAL SEAL

SHEET NAME

DIMENSION CONTROL PLAN

Drawn by: EL	Phase BID SET
Checked by: IFW	
GVI Approval	GVI Job Number 22118
Client Approval	GE Job Number 22-1291
Date 05/01/23	

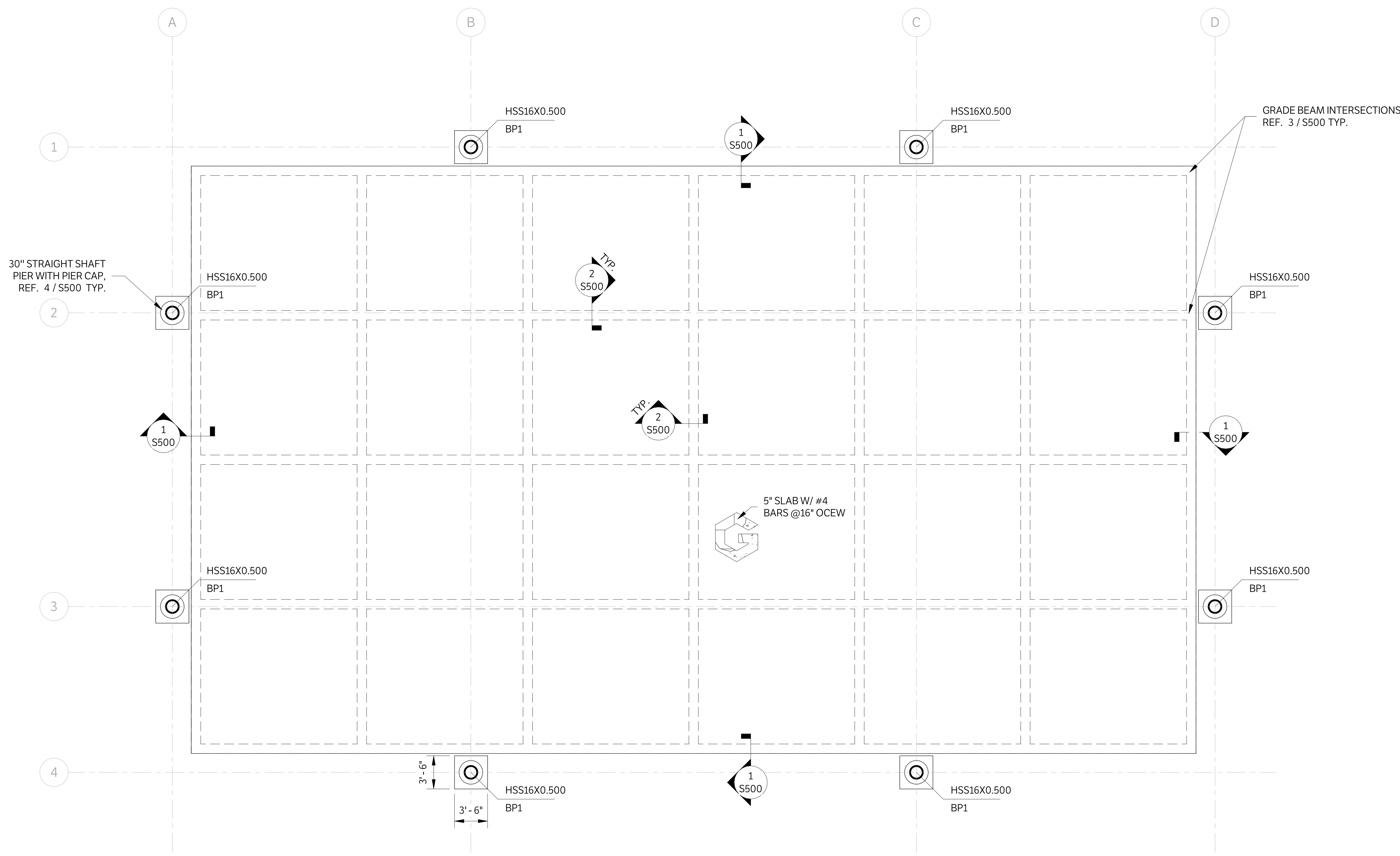
SCALE AS NOTED

SHEET NUMBER

S100

NOTES:

1. REFERENCE GENERAL NOTES AND DETAILS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS AND TYPES OF PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION.
3. VERIFY ALL DIMENSIONS & DROPS WITH ARCHITECT AND OWNER PRIOR TO COMMENCING CONSTRUCTION.
4. PIERS MUST BE POURED THE SAME DAY THEY ARE DRILLED. PIER SHAFTS SHALL NOT BE LEFT OPEN OVERNIGHT. PIERS THAT ARE UNABLE TO BE POURED ON THE SAME DAY AS THEY ARE DRILLED SHALL BE BACKFILLED AS PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
5. TOP OF SLAB ELEVATION = 0'-0".



1 FOUNDATION PLAN
1/8" = 1'-0"

BID SET

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Date	Description
05/01/2023	Bid Set

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No.	Date	Description

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

SHEET NAME

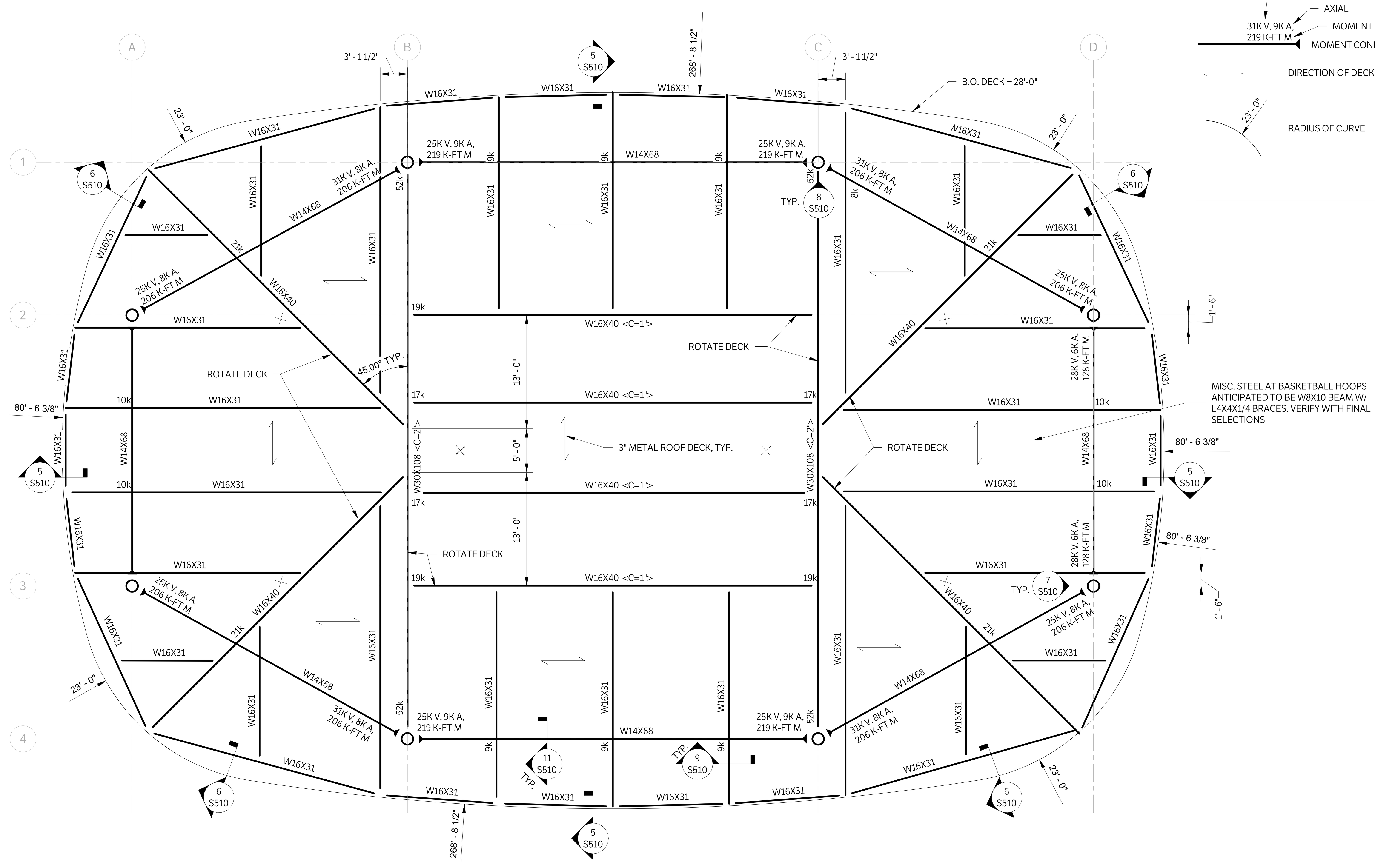
FOUNDATION PLAN

Drawn by:	EL	Phase	BID SET
Checked by:	NAG	GVI Job Number	22118
GVI Approval		GE Job Number	22-1291
Client Approval			
Date	05/01/23		

SCALE AS NOTED

SHEET NUMBER

S101

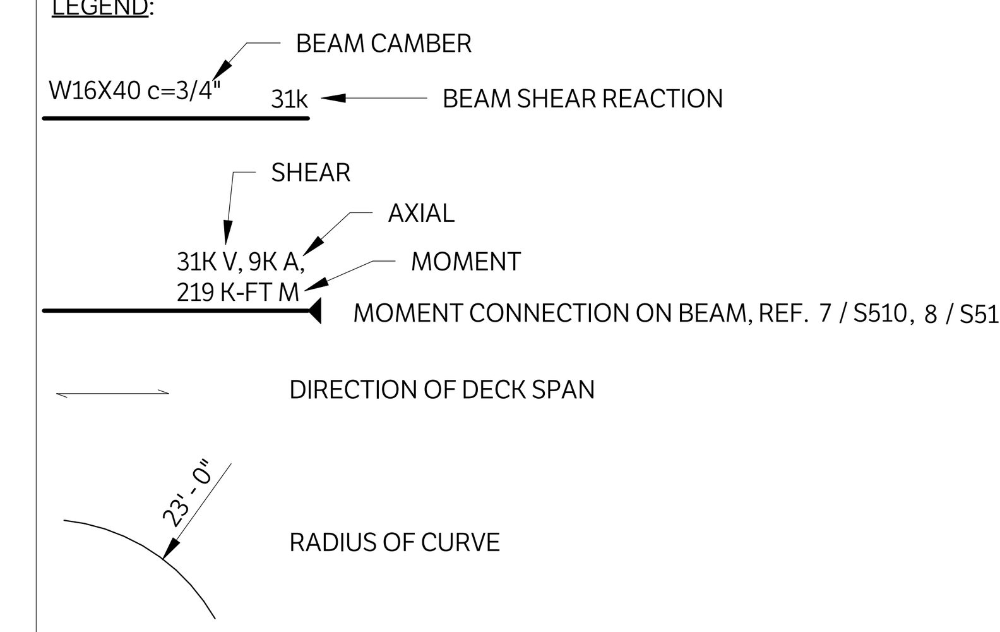


1 ROOF FRAMING PLAN
1/8" = 1'-0"

NOTES:

1. ALL MEMBERS SHALL BE TOP JUSTIFIED WITH BOTTOM OF DECK, EXCEPT MOMENT W14 GIRDERS AROUND THE COLUMN RING, WHICH SHOULD BE SET BELOW OVER-PASSING JOISTS
2. ELEVATIONS ARE BASED ON FFE = 0'-0"
3. STEEL BEAMS AND JOISTS ARE CENTERED ON AND EQUALLY SPACED BETWEEN COLUMN CENTERLINES, UNLESS NOTED OTHERWISE.
4. ALL BEAM CONNECTIONS SHALL BE DESIGNED FOR REACTIONS SHOWN AT BEAM SUPPORTS, OR 8K MIN. REACTION IF END REACTION NOT SHOWN.
5. ALL BEAM TO BEAM AND BEAM TO COLUMN CONNECTIONS SHALL BE SINGLE PLATE OR DOUBLE ANGLE SHEAR CONNECTIONS, UNLESS NOTED OTHERWISE.
6. COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
7. REFERENCE GENERAL NOTES, TYPICAL DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. REFERENCE THE FOLLOWING SHEETS FOR TYPICAL DETAILS AND SCHEDULES:
   - S-510 TYPICAL STEEL DETAILS

LEGEND:



BID SET

GESSNER ENGINEERING
401 W. 26th Street
Bryan, TX 77803
Tx Registered Engineering Firm F-7451

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ISSUED SETS

Date	Description
05/01/2023	Bid Set

REVISIONS

No.	Date	Description

Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

SHEET NAME

ROOF PLAN

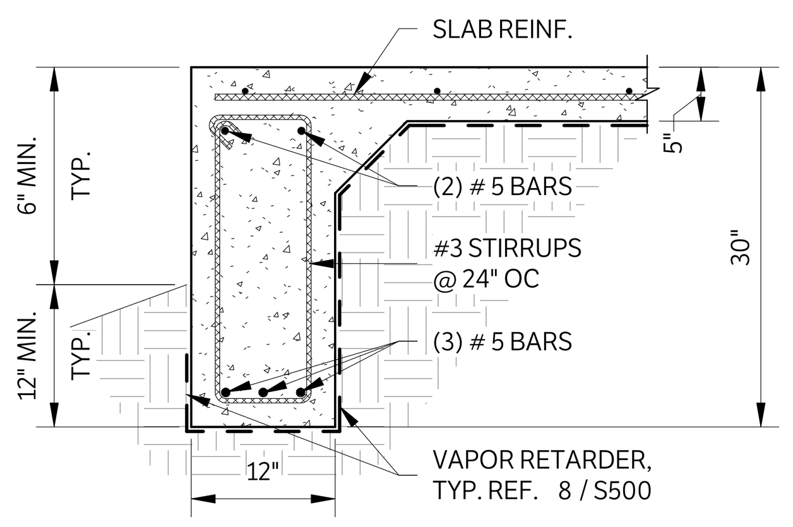
Drawn by: EL	Phase BID SET
Checked by: NAG	
GVI Approval	GVI Job Number 22118
Client Approval	GE Job Number 22-1291
Date 09/14/18	

SCALE AS NOTED

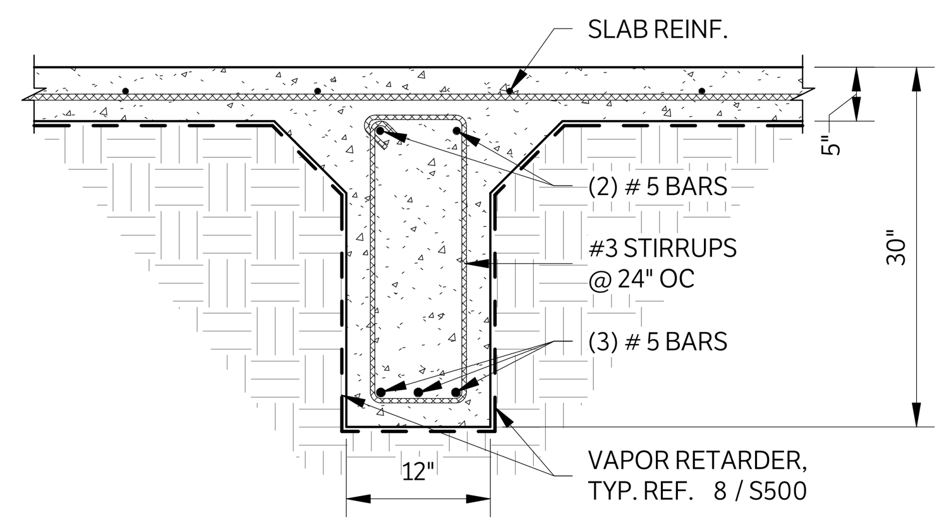
SHEET NUMBER

S110

SHEET NOTES:
1. REFERENCE PLANS FOR SLOPING SLAB CONDITIONS.
2. WHERE SLAB DROP IS LESS THAN OR EQUAL TO 1 1/2", SLAB REINFORCEMENT MAY BE CONTINUOUS AND BENT BELOW DROP IN LIEU OF PROVIDING BENT BARS AS SHOWN.
3. VAPOR RETARDER AS DETAILED TO BE INSTALLED BELOW ALL FOUNDATION CONCRETE.
4. ALL SPLICES SHALL BE AS SPECIFIED IN THE GENERAL NOTES.
5. BEAM REINFORCEMENT TYPICAL UNLESS NOTED OTHERWISE.
6. BEAM DEPTH AND WIDTH TYPICAL UNLESS NOTED OTHERWISE.

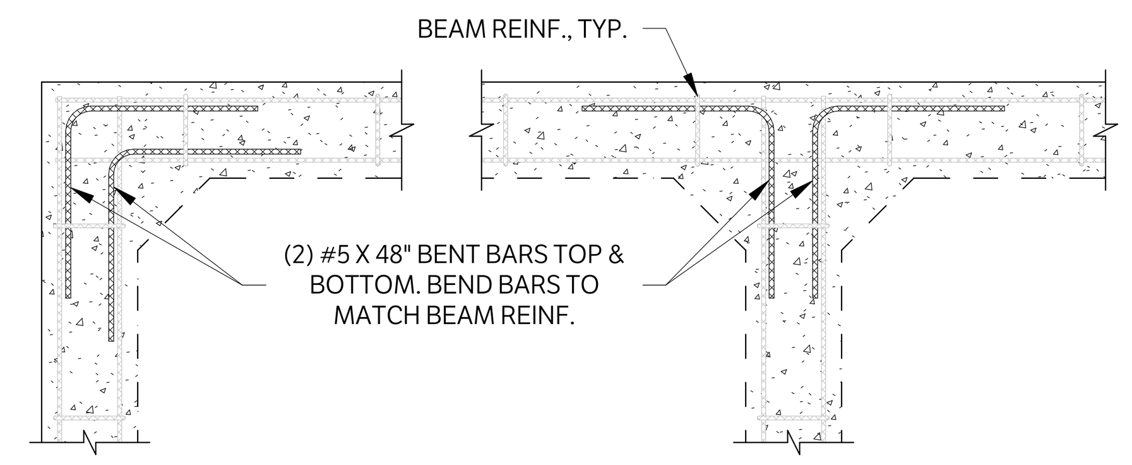


1 EXTERIOR BEAM
N.T.S.

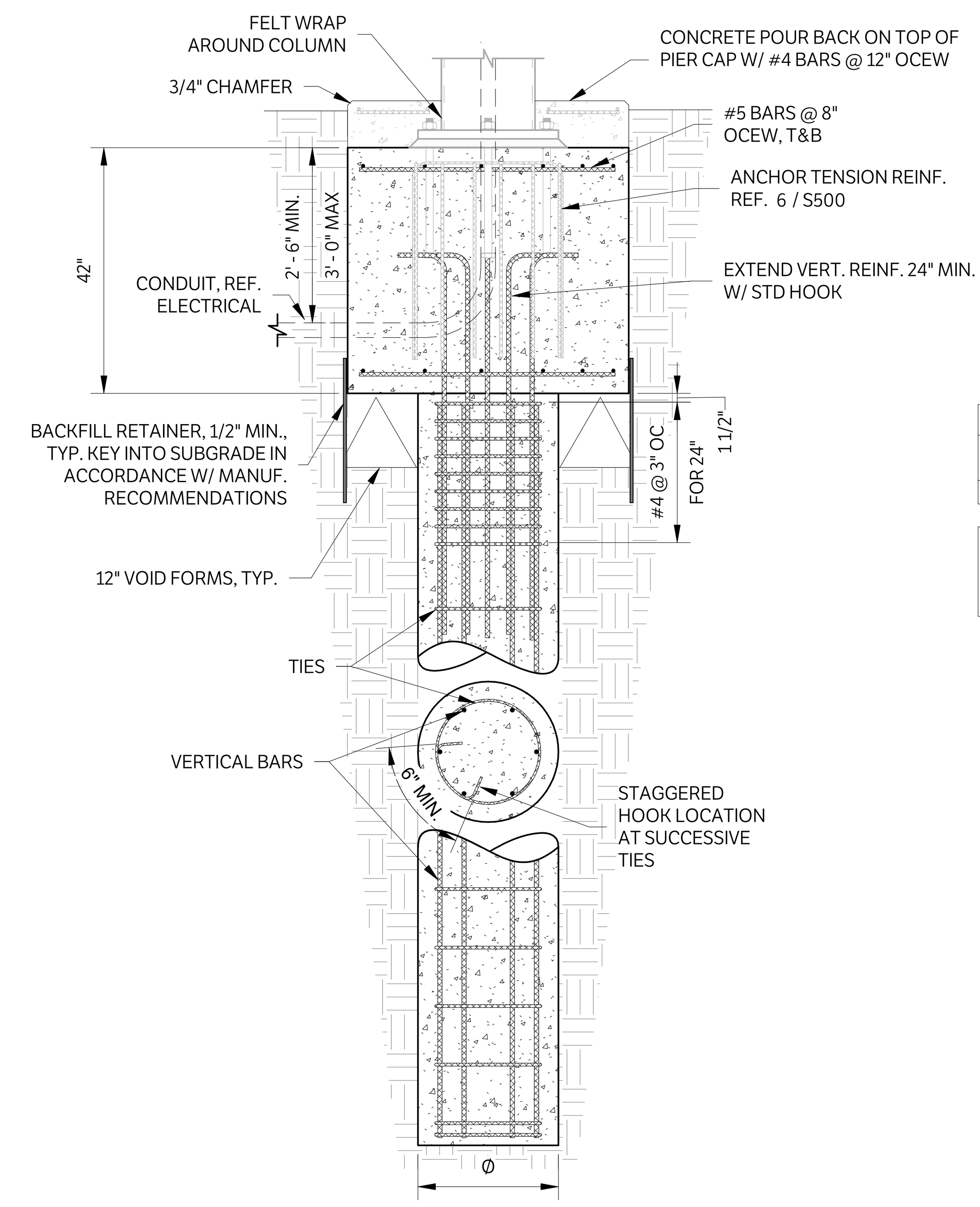


2 INTERIOR BEAM
N.T.S.

NOTES:
1. PROVIDE CORNER BARS AS SHOWN AT ALL EXTERIOR BEAM INTERSECTIONS.
2. THIS IS A SCHEMATIC ONLY, SEE BEAM SECTIONS FOR ACTUAL BEAM REINFORCEMENT. (SLAB NOT SHOWN)



3 GRADE BEAM INTERSECTIONS
N.T.S.

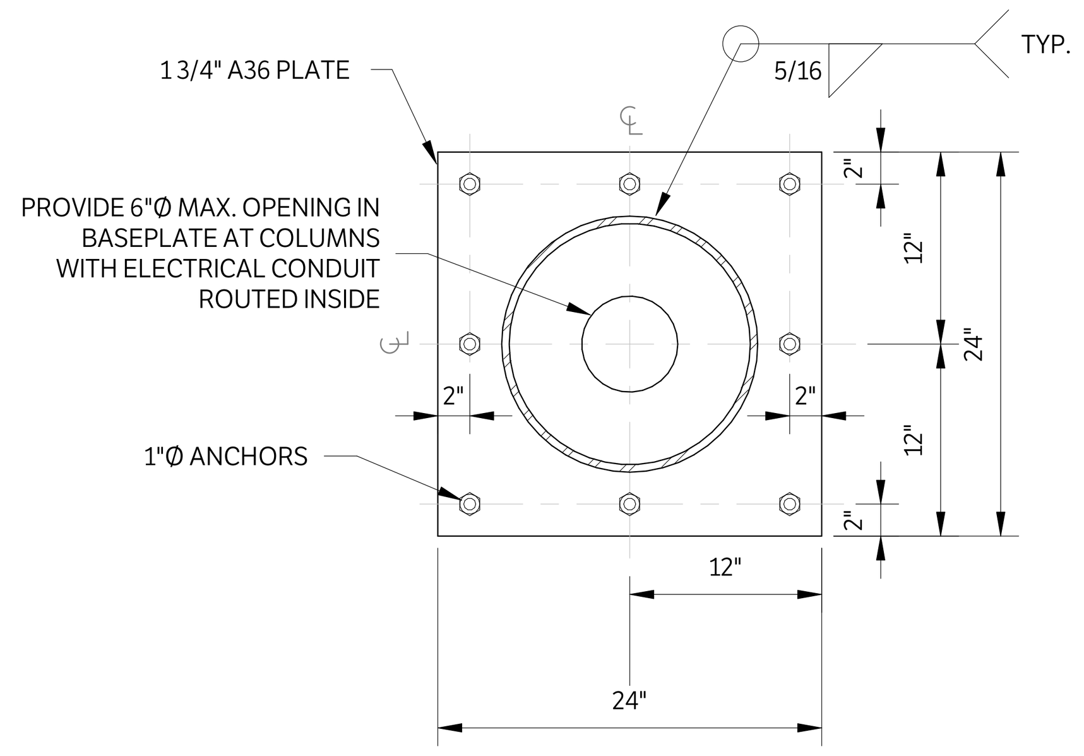


PIER TABLE		
PIER Ø	VERTICAL REINF.	TIE REINF. & SPACING
30"	(9) #8 BARS	#3 TIES @ 16" OC

NOTE: BEAR PIERS 35' BELOW EXISTING GROUND SURFACE, REF. GEOTECHNICAL REPORT.

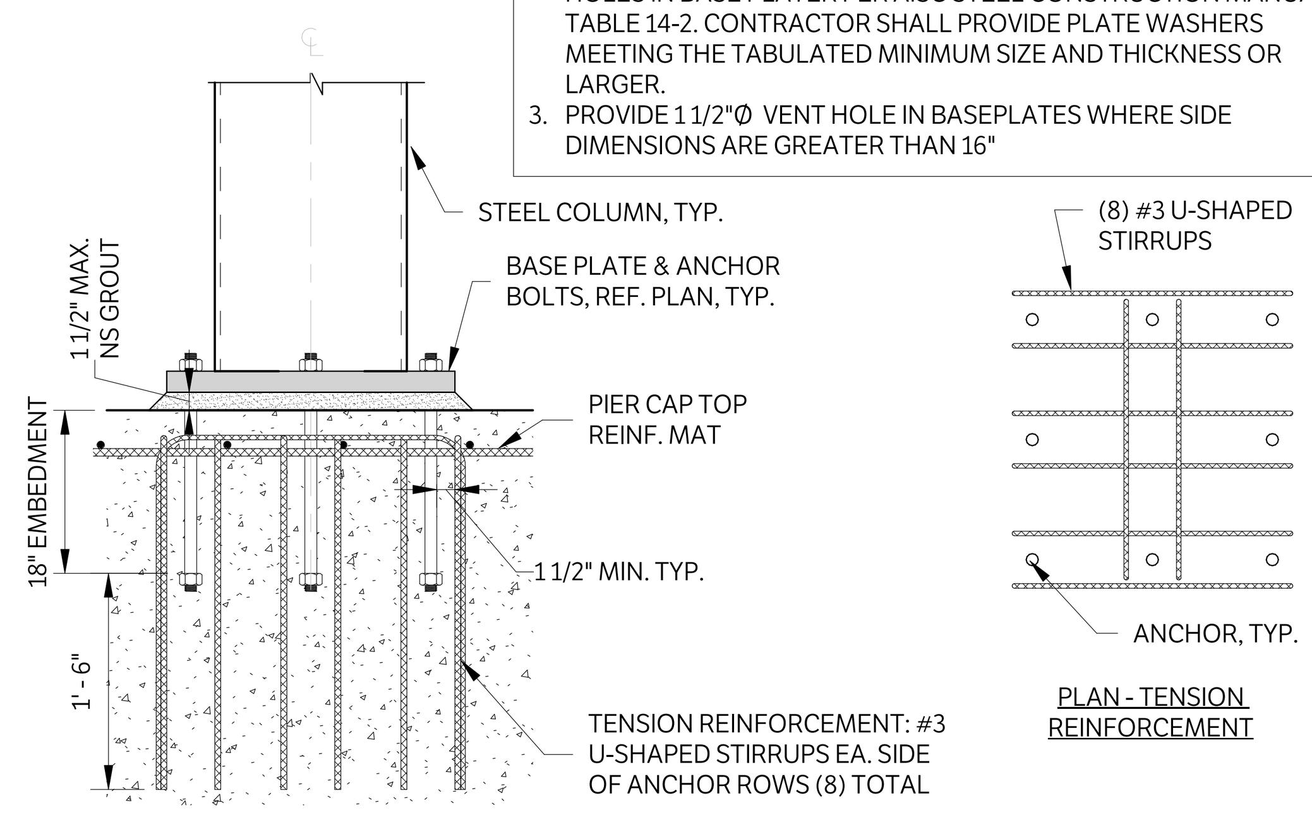
4 STRAIGHT SHAFT PIER & PIER CAP DETAIL
N.T.S.

NOTE: REF. DETAIL 6 / S500 FOR BASE PLATE ELEVATIONS.



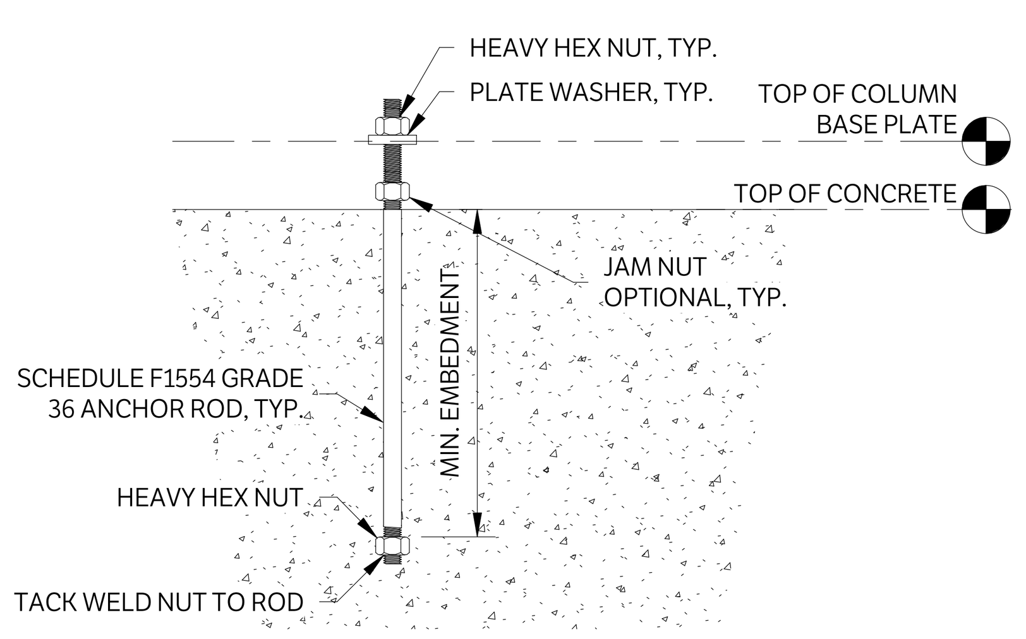
5 BASE PLATE - BP1
N.T.S.

NOTES:
1. REF. 4 / S500 FOR PIER CAP REINFORCEMENT
2. CONTRACTOR MAY PROVIDE PLATE WASHERS AND OVERSIZED HOLES IN BASE PLATER PER AISC STEEL CONSTRUCTION MANUAL, TABLE 14-2. CONTRACTOR SHALL PROVIDE PLATE WASHERS MEETING THE TABULATED MINIMUM SIZE AND THICKNESS OR LARGER.
3. PROVIDE 1 1/2"Ø VENT HOLE IN BASEPLATES WHERE SIDE DIMENSIONS ARE GREATER THAN 16"



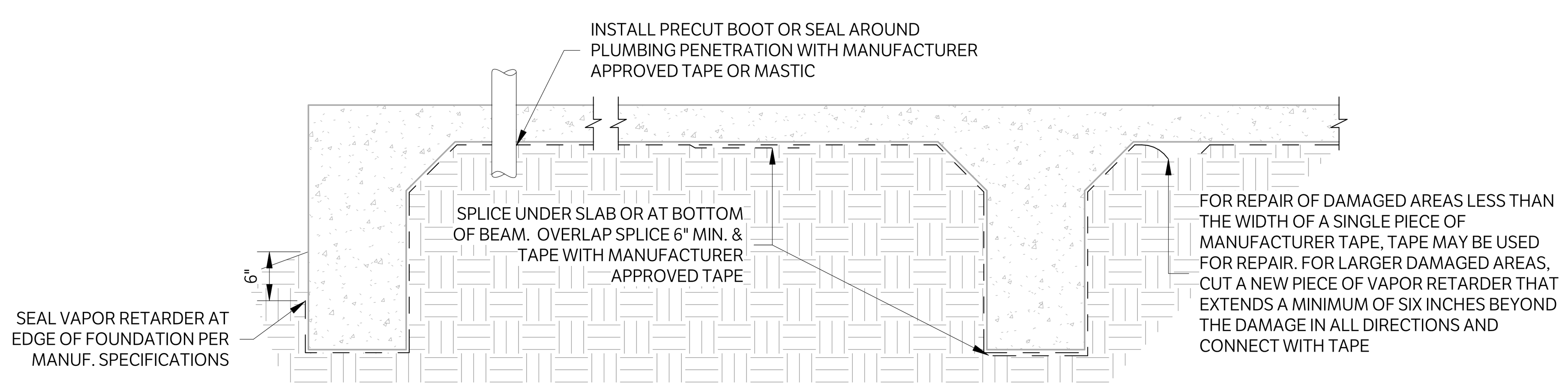
6 BASE PLATE ELEVATION HSS
N.T.S.

NOTES:
1. REFER TO 5 / S500 ANCHOR ROD SIZE & EMBEDMENT.
2. ANCHOR ROD NUTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC AFTER THE CONCRETE IS AT LEAST 14 DAYS OLD, UNO.
3. THE HOLE IN THE PLATE WASHER SHALL BE 1/16" LARGER THAN THE ROD DIAMETER.



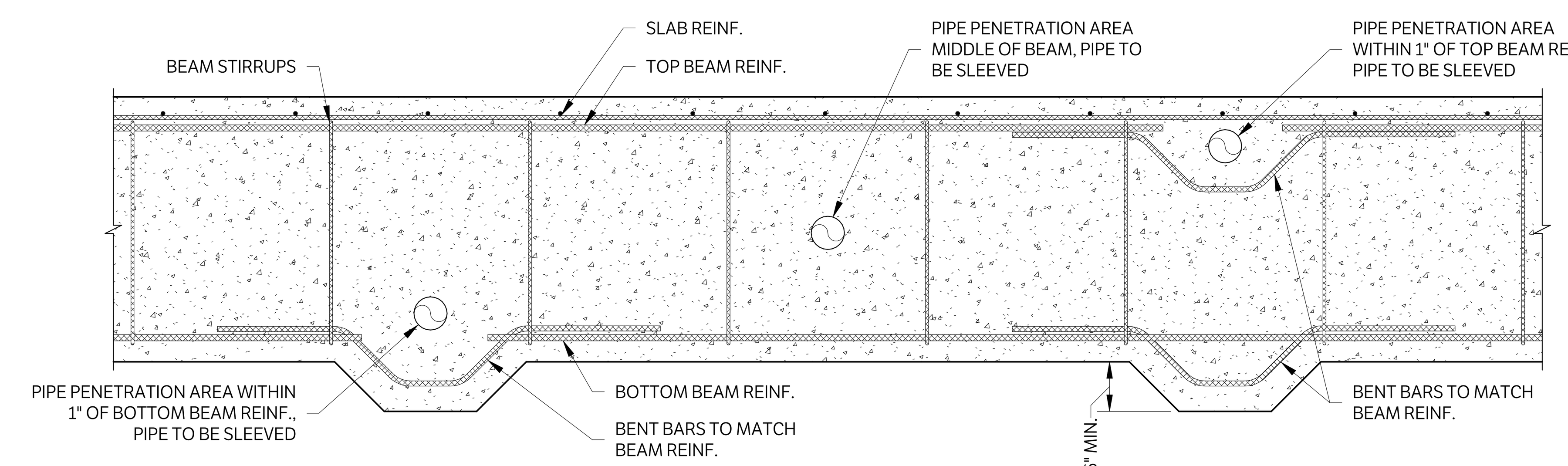
7 ANCHOR BOLT TYPES
N.T.S.

NOTE: VAPOR RETARDER AS DETAILED TO BE INSTALLED BELOW ALL FOUNDATION CONCRETE

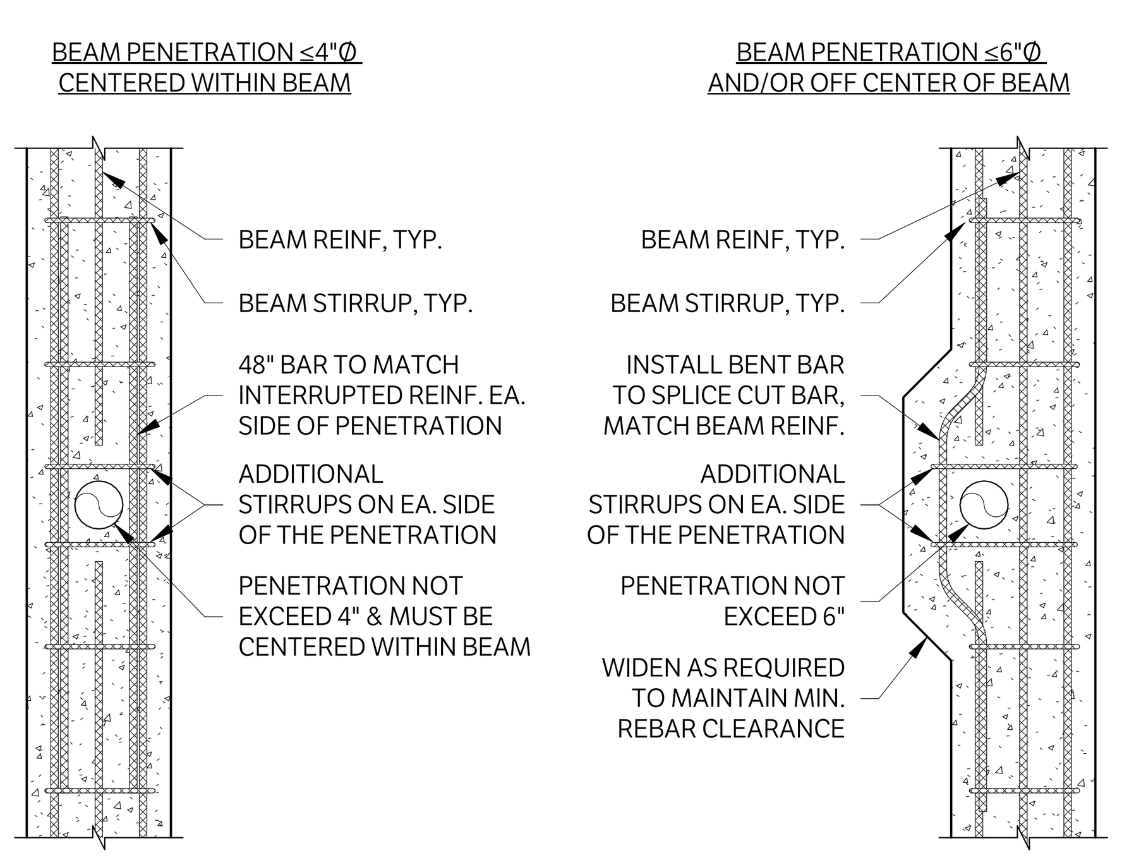


8 VAPOR RETARDER DETAIL
N.T.S.

NOTE: WHEN PIPE SLEEVE IS WITHIN 1" OF BEAM REINF. BEAM REINF. SHALL BE STOPPED AND BENT BARS ADDED AS SHOWN BELOW.

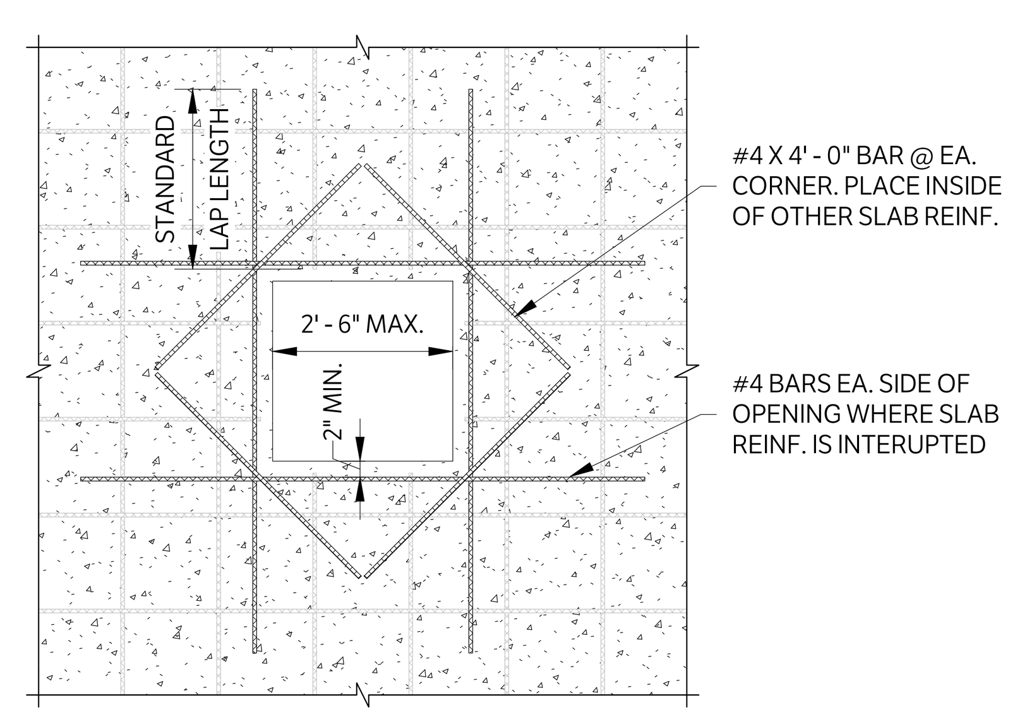


9 BEAM PENETRATION DETAIL
N.T.S.



10 BEAM PENETRATION VERTICAL
N.T.S.

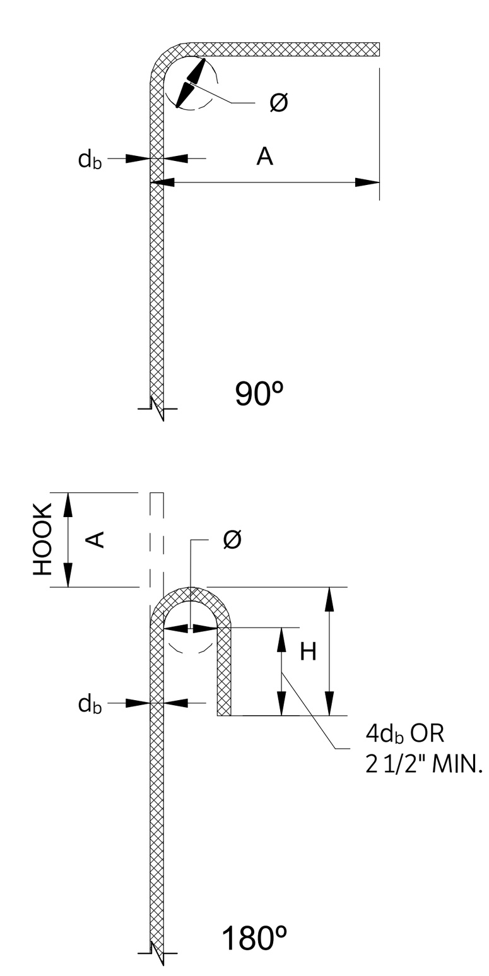
NOTE: NO ADDITIONAL REINFORCEMENT IS REQUIRED FOR SINGLE OPENINGS LESS THAN 6" WIDE.



11 SLAB OPENING REINF.
N.T.S.

STANDARD DOWEL HOOK DIMENSIONS ALL GRADES OF STEEL				
BAR SIZE	Ø	90º	180º	
		A	A	H
#3	2 1/4"	6"	5"	4"
#4	3"	8"	6"	4 1/2"
#5	3 3/4"	10"	7"	5"
#6	4 1/2"	12"	8"	6"
#7	5 1/4"	14"	10"	7"
#8	6"	16"	11"	8"

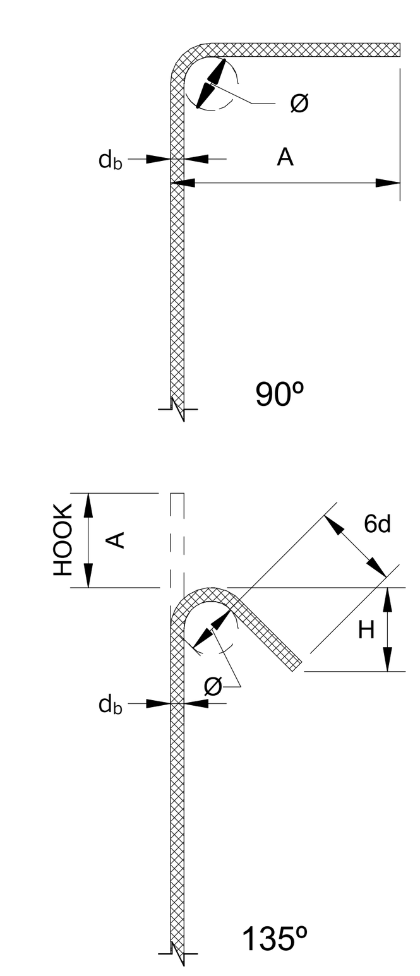
NOTE: Ø = FINISHED INSIDE BEND



12 STANDARD DOWEL HOOKS
N.T.S.

STIRRUP/TIE HOOK DIMENSIONS ALL GRADES OF STEEL				
BAR SIZE	Ø	90º	135º	
		A	A	H
#3	1 1/2"	4"	4 1/4"	3"
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	12"	8"	4 1/2"
#7	5 1/4"	14"	9"	5 1/4"
#8	6"	16"	10 1/2"	6"

NOTE: Ø = FINISHED INSIDE BEND



13 STIRRUP/TIE HOOKS
N.T.S.

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Bryan, TX 77803
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ISSUED SETS

Date	Description
05/01/2023	Bid Set

REVISIONS

No.	Date	Description

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

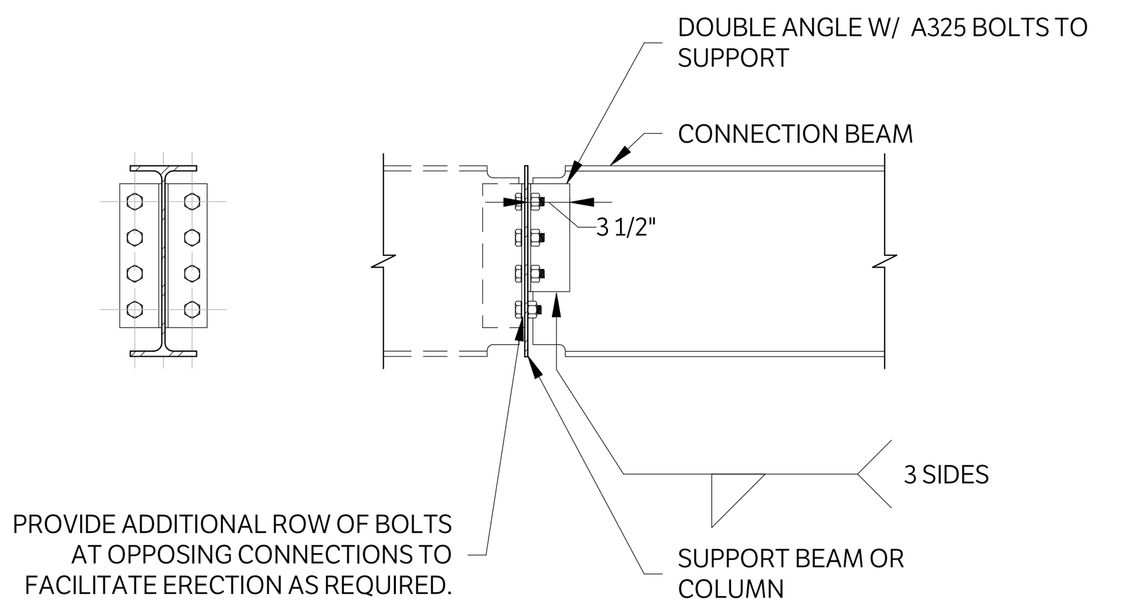
SHEET NAME
FOUNDATION DETAILS

Drawn by: IFW	Phase: BID SET
Checked by: NAG	
GVI Approval	GVI Job Number: 22118
Client Approval	GE Job Number: 22-1291
Date: 05/01/23	

SCALE AS NOTED

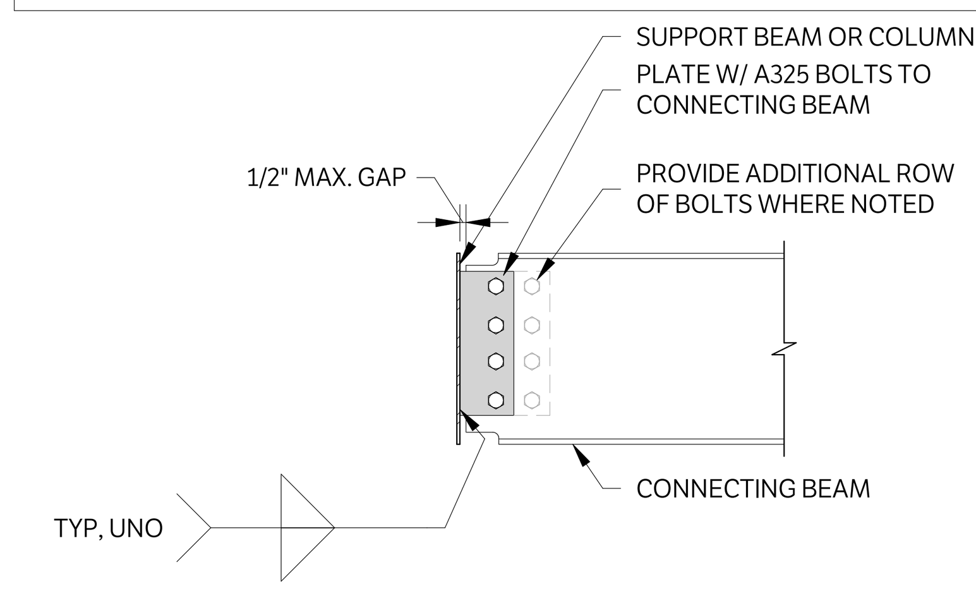
SHEET NUMBER
S500

NOTES:
1. PROVIDE THIS CONNECTION WHERE NOTED AND FOR THE FOLLOWING CONDITIONS:
   A. WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTIONS.
   B. WIDE FLANGE BEAM TO WIDE FLANGE COLUMN.
2. A SINGLE PLATE SHEAR CONECTION PER 2 / S510 MAY BE USED IN LIEU OF DOUBLE ANGLES WHERE CAPACITIES ARE SUFFICIENT.



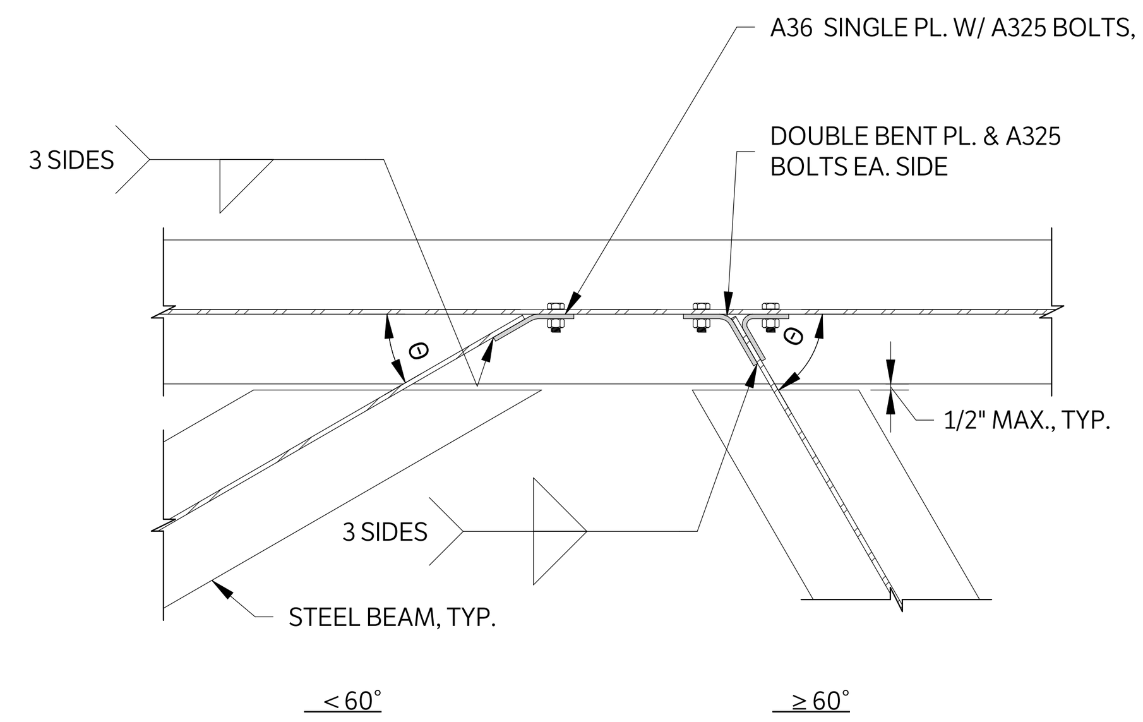
1 SHEAR CONNECTION - DOUBLE ANGLE
N.T.S.

NOTES:
1. PROVIDE THIS CONNECTION WHERE NOTED AND FOR THE FOLLOWING CONDITIONS:
   A. WIDE FLANGE BEAM TO HSS COLUMN.
   B. WIDE FLANGE BEAM TO BEAM OR COLUMN CONNECTIONS WHERE CAPACITIES ARE SUFFICIENT.

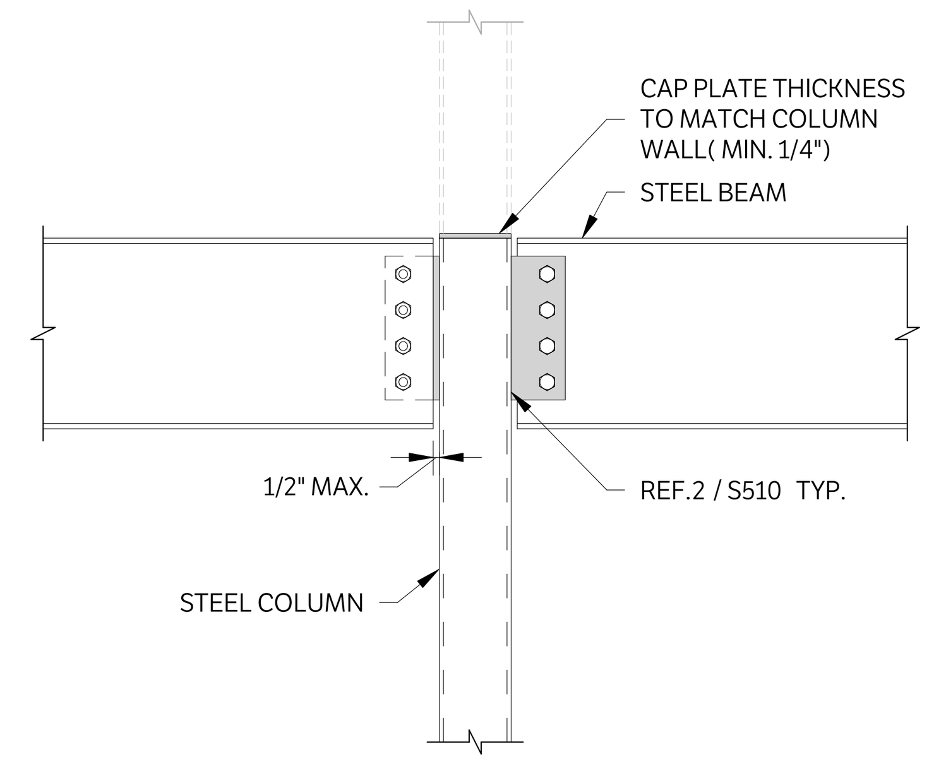


2 SHEAR CONNECTION - SINGLE PLATE
N.T.S.

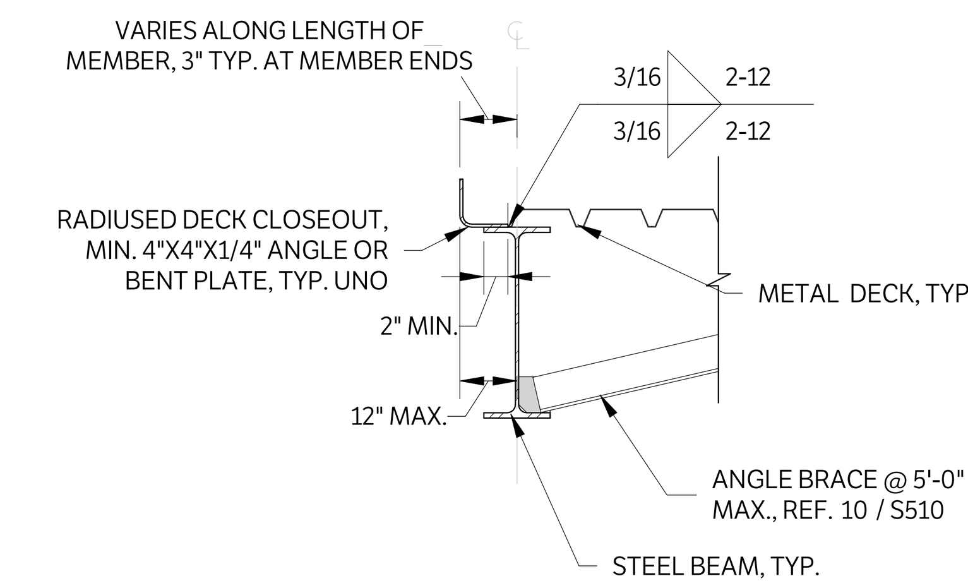
NOTE: PROVIDE THIS CONNECTION AT SKEWED BEAM TO BEAM CONNECTIONS



3 SKEWED BEAM TO BEAM CONNECTIONS
N.T.S.

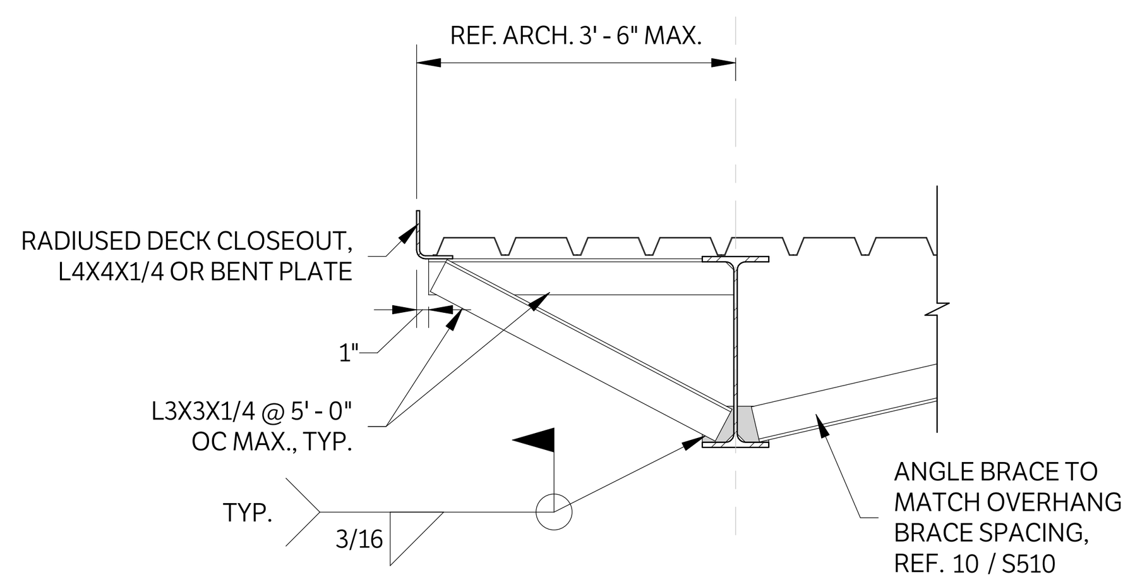


4 BEAM TO HSS COLUMN SHEAR CONNECTION
N.T.S.

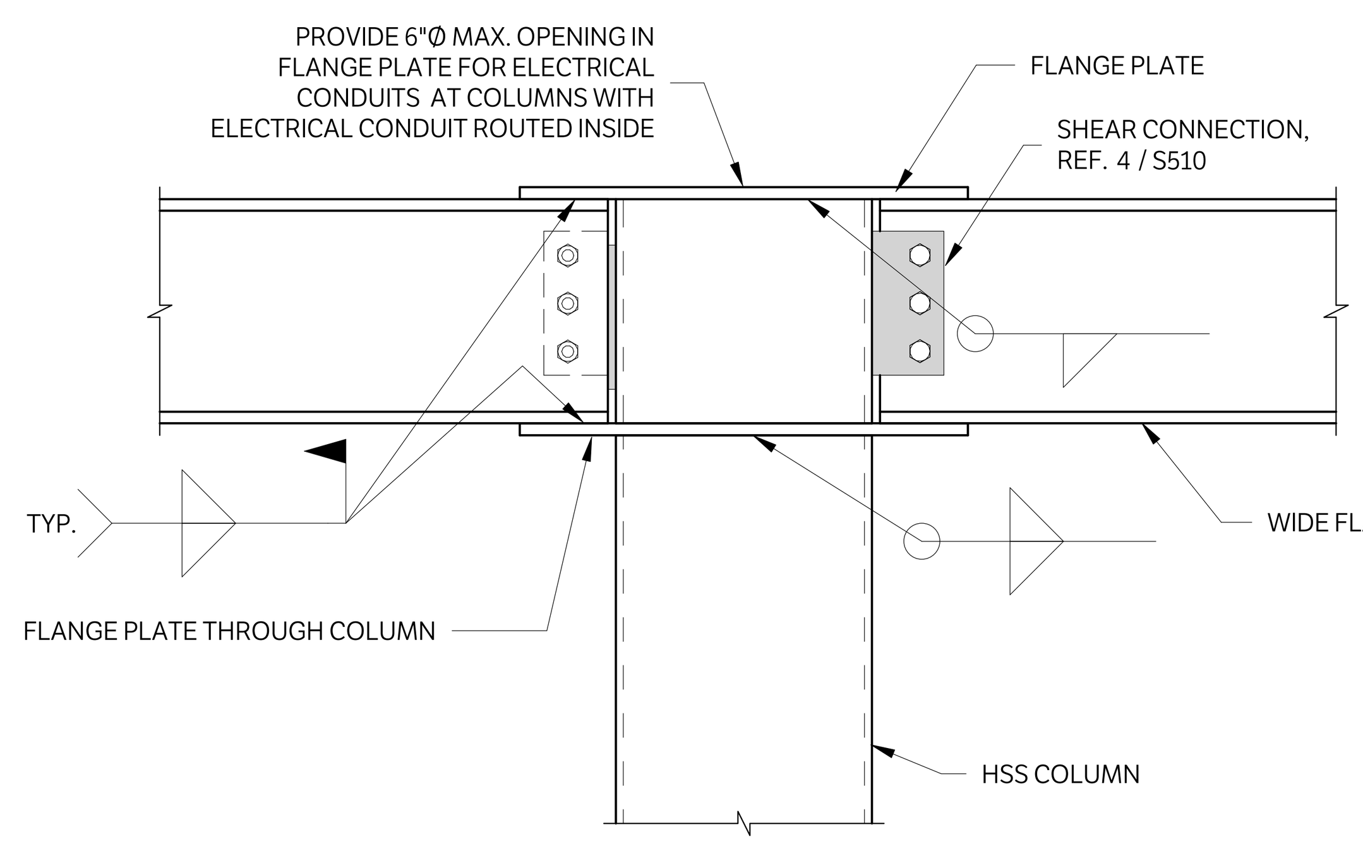


5 TYPICAL DECK CLOSEOUT AT ROOF
N.T.S.

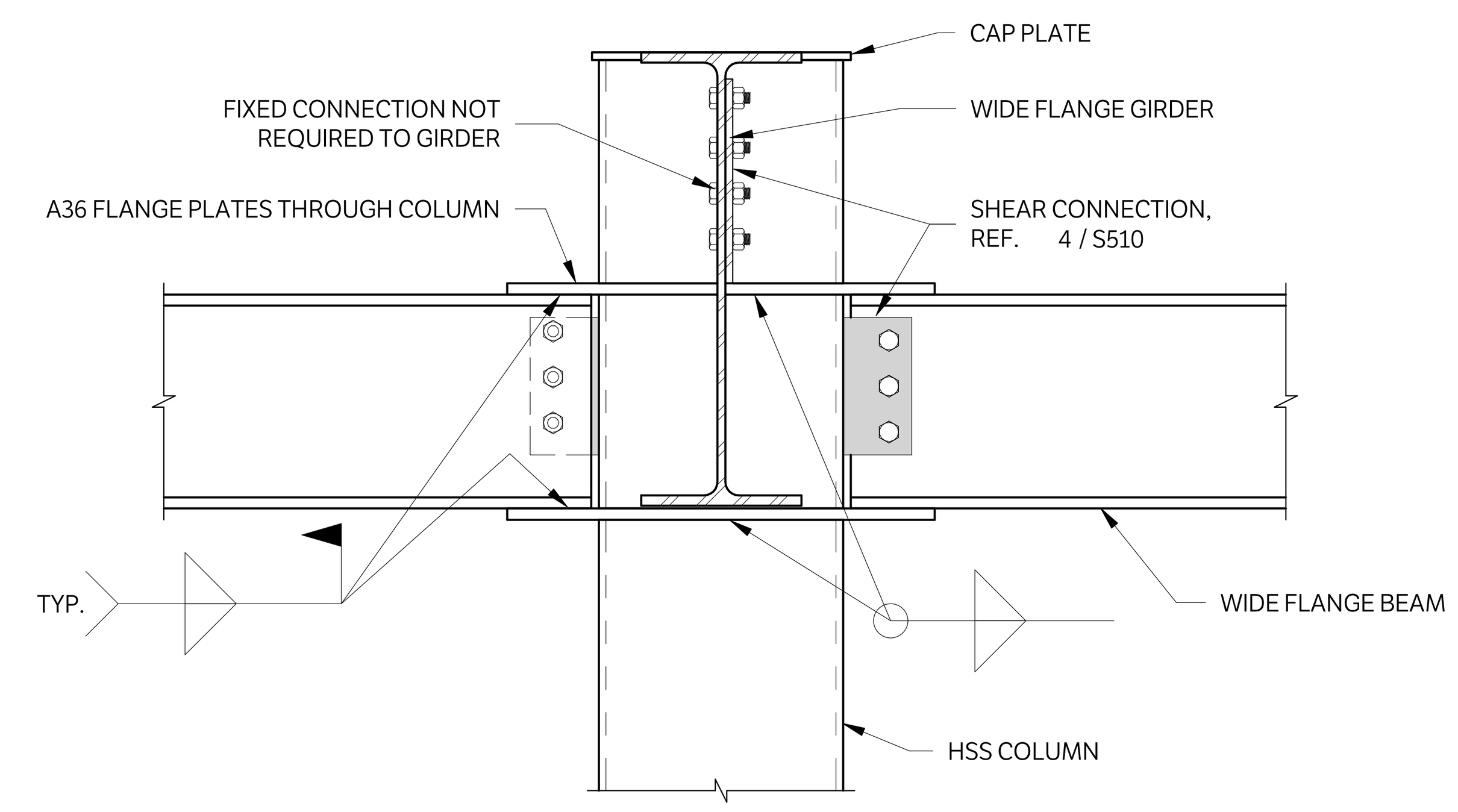
NOTE:
1. DECK MAY BE PARALLEL (AS SHOWN) OR PERPENDICULAR TO BEAM.
2. WHERE DECK CLOSEOUT CANNOT BE BENT TO MATCH RADIUS, CLOSEOUT MAY BE SPLICED. SPLICES SHOULD OCCUR OVER BRACE LOCATIONS, AND SHALL BE FULLY WELDED TOGETHER.



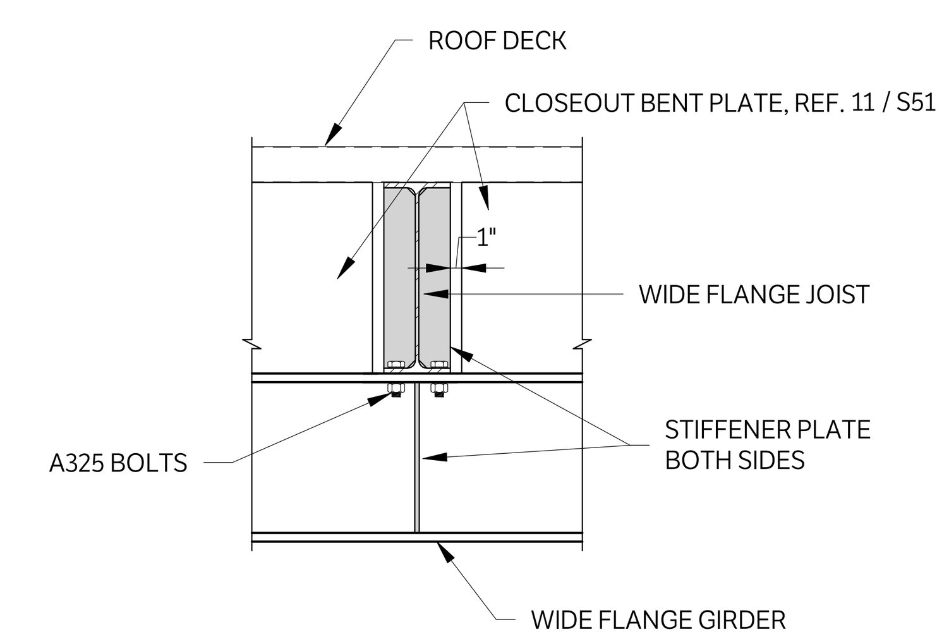
6 ROOF DECK LONG OVERHANG
N.T.S.



7 BEAM TO HSS COLUMN MOMENT CONNECTION
N.T.S.



8 BEAM TO HSS COLUMN MOMENT CONNECTION W/ PERP. GIRDER
N.T.S.

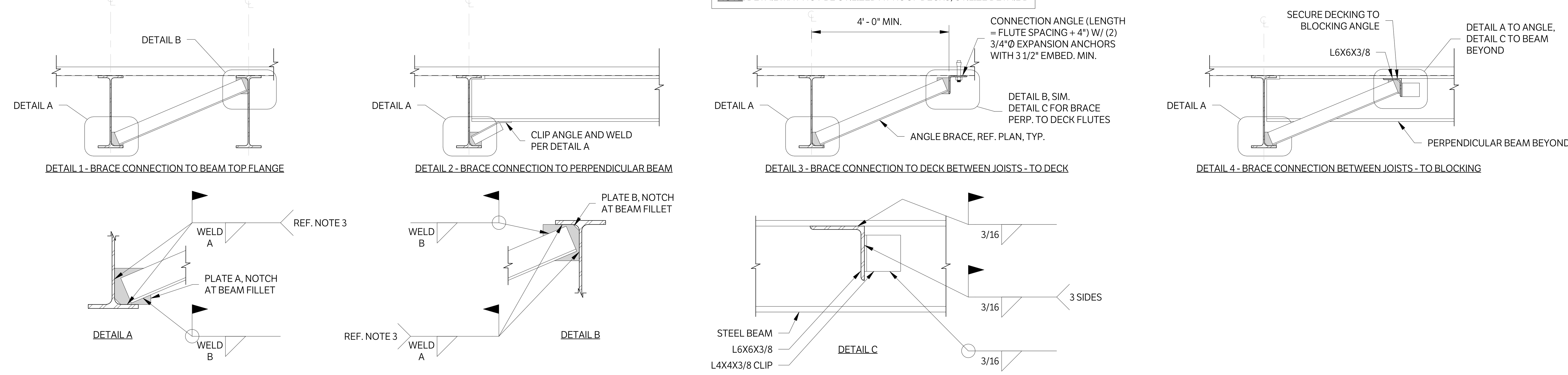


9 WIDE FLANGE JOIST OVER GIRDER
N.T.S.

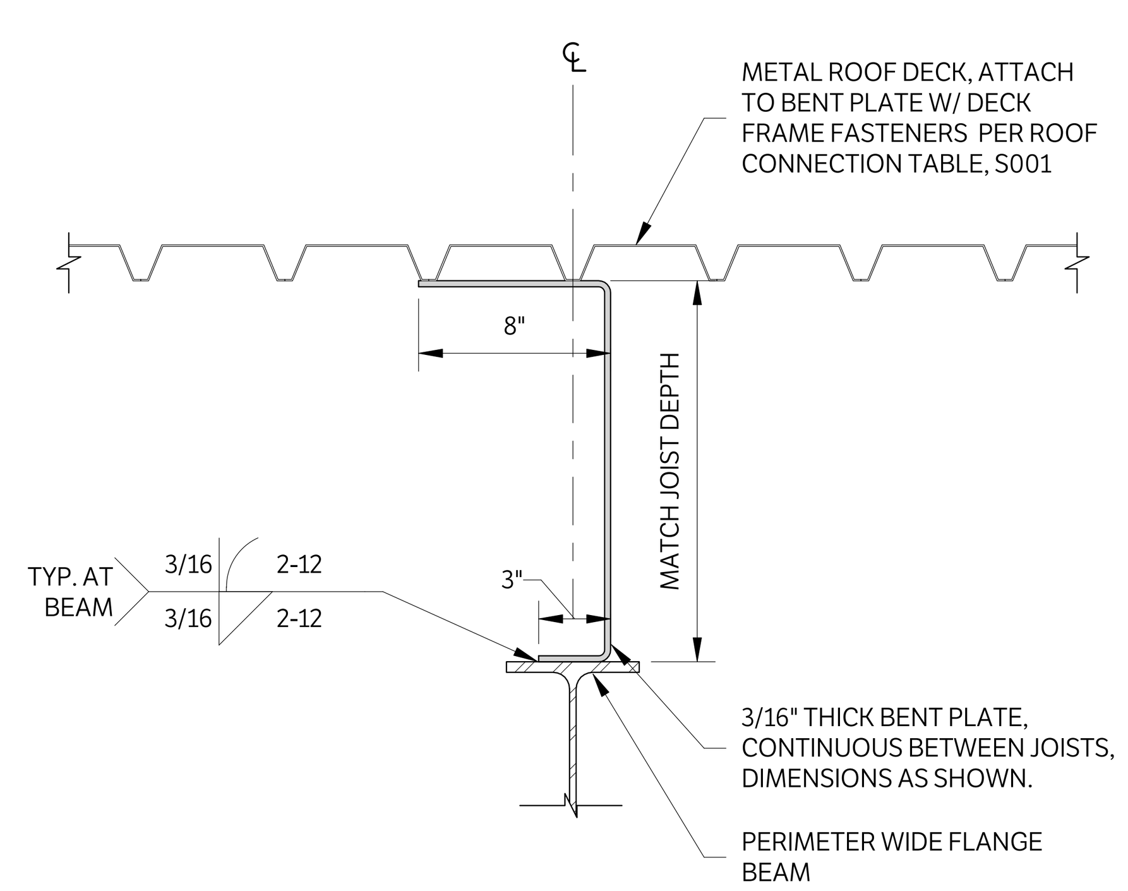
CONNECTION SCHEDULE			
BRACE SIZE	PLATES A&B	WELDS A&B	CONNECTION ANGLE
L2X2X1/4	4X4X1/4	3/16	L3X3X1/4
L3X3X1/4	4X4X1/4	3/16	L4X4X1/4
L4X4X1/4	4X4X1/4	3/16	L5X5X5/16
L5X5X5/16	4X4X1/4	1/4	L6X6X1/2

NOTES:
1. REFERENCE PLANS AND DETAILS FOR LOCATION OF ANGLE BRACES.
2. IF NOT SHOWN ON PLANS OR DETAILS, BRACE SIZE SHALL BE L3X3X1/4.
3. FILED WELDING OF CONNECTION PLATES SHALL BE FABRICATOR'S OPTION.

NOTE: DETAIL MAY NOT BE UTILIZED AT ROOF DECKS, UTILIZE DETAIL D



10 BEAM BRACING
N.T.S.



11 CLOSEOUT BENT PLATE
N.T.S.

BID SET

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Tx Registered Engineering Firm F-7451

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ISSUED SETS

Date	Description
05/01/2023	Bid Set

REVISIONS

No.	Date	Description

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

SHEET NAME
STEEL FRAMING DETAILS

Drawn by: JFW
Checked by: NAG
GVI Approval
Client Approval
Date 05/01/23
Phase BID SET
GVI Job Number 22118
GE Job Number 22-1291

SCALE AS NOTED

SHEET NUMBER
S510

ELECTRICAL SYMBOLS AND ABBREVIATIONS

(SOME SYMBOLS MAY NOT BE APPLICABLE TO THIS PROJECT)

SYMBOLS

GENERAL

- MOTOR, HP AS INDICATED
- CONTROLLER TO BE FURNISHED UNDER DIVISION 15 AND INSTALLED UNDER DIVISION 16
- DISCONNECT SWITCH
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER/DISCONNECT SWITCH
- GROUNDING REFERENCE POINT.
- JUNCTION BOX, CEILING MOUNTED
- JUNCTION BOX, WALL MOUNTED
- PHOTO CELL; WP= WEATHER PROOF AND SHALL BE INSTALLED FACING NORTH DIRECTION, UON
- RELAY
- TIME CLOCK
- CONTACTOR
- BELL
- BUZZER
- CEILING MOUNTED CLOCK
- WALL MOUNTED CLOCK; WG INDICATED WIRE GUARD
- WALL MOUNTED DOUBLE FACE CLOCK-HEIGHT AS DESIGNATED BY ARCHITECT; WG INDICATES WIRE GUARD
- HORN; WP= WEATHER PROOF
- TRANSFORMER AS INDICATED
- AUTOMATIC TRANSFER SWITCH
- EQUIPMENT CONNECTION
- KEYED NOTE NO. 2
- MECHANICAL EQUIPMENT DESIGNATION. REFER TO MECHANICAL EQUIPMENT SCHEDULES.

LUMINAIRES

- LUMINAIRE, CEILING OR WALL MOUNTED (REFER FIXTURE SCHEDULE). LOWECASE SUBSCRIPT INDICATES ASSOCIATED SWITCHING ZONES. CAPITAL LETTER INDICATES FIXTURE TYPE. "E" SUFFIX INDICATES BATTERY BACK-UP OR GENERATOR/UPS BACKED .
- FIXTURE CEILING/RECESSED MOUNTED (REFER FIXTURE SCHEDULE)
- FIXTURE WALL MOUNTED (REFER FIXTURE SCHEDULE)
- WALLWASH FIXTURE CEILING MOUNTED. ARROW INDICATES DIRECTION OF WASH.
- EXIT LIGHT, UNSWITCHED, BATTERY BACK-UP, SELF DIAGNOSTICS, CEILING MOUNTED WITH ARROWS AS INDICATED ON DRAWINGS. CONNECT TO EMERGENCY SYSTEM (IF AVAILABLE).
- EXIT LIGHT, UNSWITCHED, WALL MOUNTED, BATTERY BACK-UP, SELF DIAGNOSTICS, WITH ARROWS AS INDICATED ON DRAWINGS. CONNECT TO EMERGENCY SYSTEM (IF AVAILABLE).
- FIXTURE IS UNSWITCHED (NIGHT LIGHT). "E" SUFFIX INDICATES BATTERY BACKUP WITH DRIVER CONNECTED TO BATTERY BACK UP. FIXTURE MAY BE CONNECTED TO GENERATOR/UPS BACK-UP SYSTEM.
- FIXTURE WITH DRIVER CONNECTED TO BATTERY BACK UP OR GENERATOR/UPS SYSTEM.
- 90 MINUTE EMERGENCY EGRESS LIGHT, WALL MOUNTED, UNSWITCHED. BATTERY TYPE WITH CHARGER.
- POLE MOUNTED LUMINAIRE. SEE SCHEDULE OR NOTES FOR TYPE. ORIENT FIXTURE FOR CUT-OFF TOWARDS AREA TO BE LIT. ORIENT HOUSE SHIELD TOWARDS BUILDING. SEE DETAILS FOR POLE BASE. PROVIDE POLE BASE GROUND ROD.
- FLOOD LIGHT. ARROW INDICATES AIMING DIRECTION.
- TRACK LIGHT WITH HEADS AS INDICATED

RACEWAYS

- CONDUIT CONCEALED IN WALL OR CEILING WITH ONE PHASE (HOT), NEUTRAL AND GROUND CONDUCTOR UNLESS OTHERWISE NOTED
- CONDUIT UNDER FLOOR OR CAST IN STRUCTURE WITH ONE PHASE (HOT), NEUTRAL AND GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- LIGHTING SWITCH LEG
- BRANCH CIRCUIT HOMERUN SUBSCRIPT "P1A" INDICATES PANEL AND 2,4,6 INDICATES BREAKER POSITION. MINIMUM SIZE 3/4"C, 2#12 AND 1#12 GND. MIN.
- SURFACE RACEWAY (PANDUIT TWIN 70 OR WIREMOLD EQUIV)
- TELEPHONE
- BUS DUCT WITH TAKE OFF DEVICE

PANEL AND RELATED ITEMS

- PANELBOARD (SEE SCHEDULE), SURFACE MOUNTED.
- PANELBOARD (SEE SCHEDULE), FLUSH MOUNTED.
- SWBD — SWITCHBOARD OR DISTRIBUTION BOARD
- MCC — MOTOR CONTROL CENTER
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR.
- TELE — PLYWOOD TELEPHONE BACKBOARD: PROVIDE WALL MOUNTED WHITE PAINTED 4x8' PLYWOOD BACKBOARD, SURGE PROTECTION, SECONDARY GROUND, AND TWO QUAD RECEPTACLES AT THE BASE OF THE BACKBOARD.

OUTLETS

- COLOR BY ARCH/OWNER SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE, 20A, 1P, (5-20R) COLOR BY ARCH/OWNER WITH COVER PLATE
- DUPLEX RECEPTACLE; GFI=GROUND FAULT INTERRUPTING, WP=WEATHERPROOF, T=TAMPER RESISTANT, IG=ORANGE ISOLATED GROUND, C=CLOCK OUTLET MOUNTED 18" BELOW CEILING, TV=TV RECEPTACLE WITH COMBINATION DUPLEX/RJ 45 JACK MODULAR PLATE MOUNTED 7'6" AFF, UON
- DOUBLE DUPLEX (QUADRUPLEX) RECEPTACLE, COLOR BY ARCH/OWNER, WITH COVER PLATE
- RED DUPLEX RECEPTACLE WITH COLOR BY ARCH/OWNER COVERPLATE CONNECTED TO EMERGENCY POWER BRANCH
- RED QUAD RECEPTACLE WITH COLOR BY ARCH/OWNER COVERPLATE, CONNECTED TO EMERGENCY POWER BRANCH
- DUPLEX RECEPTACLE WITH 2 USB 3.1 (20 VOLTS AT 5 AMPS FOR A TOTAL OF 100 WATTS OF POWER) PORTS WITH COVER PLATE
- SPECIAL PURPOSE RCEPTACTLE. SEE PANEL SCHEDULES AND FLOOR PLAN NOTES FOR TYPE. RECEPTACLE SHALL BE FLUSH MOUNT. PROVIDE TWO GANG BACKBOX, PLASTER RING, AND STAINLESS STEEL PLATE.
- ROUND FLUSH FLOOR BOX WITH DUPLEX POWER, AND BRASS COVER PLATE. HUBBELL B2529 WITH SF3925 COVER.
- FLOOR BOX HUBBELL CFB6G30CR (OR EQUIV.). PROVIDE (1) 3/4" CONDUIT FOR POWER AND (1) 1" CONDUIT FOR DATA/IT EQUIPMENT AND (1) 1-1/2" CONDUIT FOR AUDIO/VIDEO. PROVIDE TWO (2) 20A SINGLE POLE DUPLEX RECEPTACLES, AND TWO (2) TWO SPACE MODULAR RJ-45 JACK PLATES. SEE FLOOR PLANS/SPECS FOR DATA FILL AND WHETHER IT CONDUIT IS TO ABOVE ACCESSIBLE CEILING , CABLE TRAY, OR BACK TO IDF/MDF/PHONE BOARD. PROVIDE FLOOR INSERT. COORDINATE FINISH OF COVER WITH ARCHITECT OR OWNER.
- 8 INCH FIRE RATED POKE-THROUGH HUBBELL #S1R6PTRFT1 (OR EQUIV.). PROVIDE 3/4" CONDUIT FOR POWER WITH TWO(2) #S1RBPSPZ AND 1-1" CONDUIT FOR DATA/IT EQUIPMENT WITH ONE(1) S1RBCSPK AND 1-1/2" CONDUIT FOR AUDIO/VIDEO WITH ONE(1) S1R8CSPM. PROVIDE TWO (2) 20A SINGLE POLE DUPLEX RECEPTACLES, AND TWO (2) TWO SPACE MODULAR RJ-45 JACK PLATES. SEE FLOOR PLANS/SPECS FOR DATA FILL AND WHETHER IT CONDUIT IS TO ABOVE ACCESSIBLE CEILING , CABLE TRAY, OR BACK TO IDF/MDF/PHONE BOARD. PROVIDE FLOOR INSERT. COORDINATE FINISH OF COVER WITH ARCHITECT OR OWNER.
- TELEPHONE OUTLET: TWO GANG BOX, CONDUIT BUSHINGS, PLASTER RING, TWO (2) RJ-45 JACK MODULAR WALL PLATE, 1" CONDUIT TO ABOVE ACCESSIBLE CEILING AND TWO PLENUM RATED CAT 6 CABLES TO TELEPHONE BACKBOARD. PROVIDE EXTRA 10' CABLE FOR TERMINATION AT BOARD.
- TELEVISION OUTLET: FEMALE COAX JACK, WALL PLATE, 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING, PLENUM RATED RG-59U BACK TO LOCAL (WITHIN 50 FEET) SPLITTER/TAP/CATV ENTRANCE OR PLENUM RATED RG-11U TO SPLITTER/TAP/CATV ENTRANCE IF RUN IS LONGER THAN 50 FEET.
- DATA OUTLET; TWO GANG BOX, CONDUIT BUSHINGS, PLASTER RING, TWO (2) RJ-45 JACK MODULAR WALL PLATE, 1" CONDUIT TO ABOVE ACCESSIBLE CEILING AND TWO PLENUM RATED CAT 6 CABLES TO IDF/MDF SWITCHES. PROVIDE EXTRA 10' CABLE FOR TERMINATION IN ROOM.
- COMBINATION DATA/POWER 2 GANG SPLIT BOX MOUNTED IN CEILING. PROVIDE 1" CONDUIT FROM BOX TO CABLE TRAY. PROVIDE 3/4" CONDUIT TO DUPLEX.

SWITCHES

- SINGLE POLE SWITCH, LOWERCASE SUBSCRIPT INDICATES NUMBER OF CONTROL ZONE WITHIN SWITCH.
- DOUBLE POLE SWITCH
- SWITCH 3=3-WAY; 4=4-WAY
- MULTIPLE SWITCHES, GANGED.
- KEY OPERATED SWITCH
- SWITCH WITH PILOT LIGHT WITHIN HANDLE (ON LIGHTED UNLESS OTHERWISE NOTED)
- WEATHERPROOF SWITCH
- MANUAL MOTOR-RATED SWITCH (T=THERMAL OVERLOAD SIZED FOR MOTOR)
- DIMMER SWITCH WATTAGE RATING AS NOTED. LOWERCASE SUBSCRIPT INDICATES NUMBER OF CONTROL ZONE WITHIN SWITCH. LOW VOLTAGE DIMMERS TO BE LINE VOLTAGE DIMMERS TO BE IN MIN. 2 GANG BOX. PROVIDE HEAT SPACING IN BOX FOR MULTIPLE DIMMERS. PROVIDED WITH 0-10V CLASS 2 DIMMING WIRE TO POWER PACK.
- EXPLOSION PROOF SWITCH
- TIMER SWITCH
- WALL SWITCH INFRARED (LEGRAND #PW-100 OR EQUAL)
- WALL SWITCH DUAL TECHNOLOGY SENSOR WITH PUSH BUTTON OVERRIDE AND ADJUSTABLE FIELD OF VIEW (COLOR BY ARCHITECT). OS2 INDICATES DUAL MANUAL SWITCHING. "OS" DEVICE SHALL BE PROGRAMMED TO AUTO-ON, AUTO-OFF WITHIN 20 MINS (ADJ) OF ROOM BEING VACANT "VS" DEVICE SHALL BE PROGRAMMED TO MANUAL-ON, AUTO-OFF WITHIN 20 MINS (ADJ) OF ROOM BEING VACANT.
- DIMMABLE WALL SWITCH DUAL TECHNOLOGY SENSOR WITH PUSH BUTTON OVERRIDE AND ADJUSTABLE FIELD OF VIEW (COLOR BY ARCHITECT). "OS" DEVICE SHALL BE PROGRAMMED TO AUTO-ON, AUTO-OFF WITHIN 20 MINS OF ROOM BEING VACANT "VS" DEVICE SHALL BE PROGRAMMED TO MANUAL-ON, AUTO-OFF WITHIN 20 MINS OF ROOM BEING VACANT.
- LOW VOLTAGE LIGHT SWITCH COMPATIBLE WITH CEILING MOUNTED MOTION SENSOR. LV2=2 BUTTON STATION -PROVIDE W/ CAT 5e CABLES.
- 2 HOUR OVERRIDE PUSHBUTTON
- CEILING MOUNTED DUAL TECHNOLOGY EXTENDED RANGE 360 DEGREE MOTION SENSOR. PC=INTERGATED PHOTOCELL; BMS= INTERGATED AUX CONTACT. PROVIDE WITH A nPP20 POWER PACK FOR NON-DIMMING AND nPP16D POWER PACK FOR DIMMING

P.A./INTERCOM

- IC — REMOTE INTERCOM STATION
- ICM — INTERCOM MASTER STATION
- S — SPEAKER, CEILING MOUNTED WITH BACKBOX AND GRILLE. SEE SPECIFICATIONS.
- S — SPEAKER, WALL MOUNTED. WG=WIRE GUARD, WP=WEATHER PROOF
- AMP — AMPLIFIER AND ASSOCIATED TUNERS, MIXERS, ETC., AS REQUIRED. REFER TO DETAILS AND SPECIFICATIONS.
- MIC — MICROPHONE JACK
- CB — INTERCOM CALL BOX

FIRE ALARM

- FACP — FIRE ALARM CONTROL PANEL
- FAEX — FIRE ALARM EXPANSION PANEL
- ANN — REMOTE FIRE ALARM ANNUNCIATOR
- NAC — AUXILIARY POWER BOOSTER PANEL
- F — MANUAL PULL STATION 48" AFF
- SD — SMOKE DETECTOR; DASHED INDICATES BELOW RAISED FLOOR
- SD, DSD — SMOKE DETECTOR, DUCT MOUNTED
- FSD — FIRE SMOKE DAMPER
- T — TEST SWITCH
- HD — HEAT DETECTOR
- FS — FLOW SWITCH
- TS — TAMPER SWITCH
- PS — PRESSURE SWITCH
- AV — FIRE ALARM AUDIO-VISUAL ANNUNCIATOR; WP= WEATHER PROOF; MH=MINI HORN; WG=WIRE GUARD
- V — FIRE ALARM VISUAL ANNUNCIATOR; WP= WEATHER PROOF; SS=SPEAKER STROBE; WG=WIRE GUARD
- DH — MAGNETIC DOOR HOLDER
- FJ — FIRE FIGHTERS PHONE JACK

SITE UTILITY

- MH#1 — MANHOLE NUMBER 1; CMH-INDICATES COMMUNICATIONS MANHOLE.
- PB — PULLBOX OR HANDHOLE AS SPECIFIED ON DRAWINGS AND SPECIFICATIONS.
- PP — POWER POLE
- POLE MOUNTED TRANSFORMERS
- TB — TELEPHONE TERMINAL BOX
- AP — AERIAL PRIMARY
- AS — AERIAL SECONDARY
- AT — AERIAL TELEPHONE; CATV = CABLE TELEVISION.
- UP — UNDERGROUND PRIMARY
- US — UNDERGROUND SECONDARY
- UT — UNDERGROUND TELEPHONE/COMMUNICATIONS
- UE — UNDERGROUND ELECTRICAL

DISTRIBUTION

- MOLDED CASE CIRCUIT BREAKER
- DRAWOUT POWER CIRCUIT BREAKER AIR, VACUUM OR SF AS SPECIFIED.
- DISCONNECT SWITCH
- FUSIBLE DISCONNECT SWITCH
- TRANSFORMER
- SHEILDED ISOLATION TRANSFORMER
- VM — VOLTMETER
- AM — AMMETER
- VS — VOLTMETER SELECTOR SWITCH
- AS — AMMETER SELECTOR SWITCH
- ST — SHUNT TRIP
- M — CT AND METER
- GROUND ROD

ABBREVIATIONS

A	AMPERE(S)
AC	ABOVE COUNTER
A/C	AIR CONDITIONING
AIC	AMPERE INTERRUPTING CAPACITY
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL , ALUM	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CKT	CIRCUIT
COND	CONDUCTOR
CPU	CENTRAL PROCESSING UNIT
CT	CURRENT TRANSFORMER
DCP	DATA COLLECTION PANEL
DIA	DIAMETER
DC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DWGS	DRAWINGS
EC	EMPTY CONDUIT
EF	EXHAUST FAN
EQMT	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPLOSION PROOF
EXTG	EXISTING
F/A , F.A.	FIRE ALARM
FLUOR	FLUORESCENT
FN	FULL NEUTRAL
FT	FEET, FOOT
GALV	GALVANIZED
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRD	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HOA	HAND OFF AUTOMATIC
HPS	HIGH PRESSURE SODIUM
HVAC	HEATING/VENTILATING/AIR CONDITIONING
HZ	HERTZ
ID	INSIDE DIAMETER
IG	ISOLATED GROUND
IMC	INTERMEDIATE STEEL CONDUIT
IN	INCHES
INCD	INCANDESCENT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAC	KILOVOLT AMPERE CAPACTIVE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LPS	LOW PRESSURE SODIUM
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MV	MERCURY VAPOR
MW	MICROWAVE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NF	NONFUSIBLE
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OH	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PUSHBUTTON
PBX	PRIVATE BUILDING EXCHANGE
PC	PULL CHAIN
PIC	PHOTO CELL
PDP	POWER DISTRIBUTION PANEL
PH , Ø	PHASE
PNL	PANELBOARD
PR	PAIR
PSI	POUNDS PER SQUARE INCH
PWR	POWER
QUAD	QUAD RECEPTACLE
REFR	REFRIGERATOR
S	SECURITY
S.C.	SPLIT CIRCUIT
SCC	STATUS COMMAND CENTER
SN	SOLID NEUTRAL
SPD	SURGE PROTECTION DEVICE
SQFT.	SQUARE FOOT
SW	SWITCH
SWBD	SWITCHBOARD
TC	TIME CLOCK
TELE	TELEPHONE
TSTAT	THERMOSTAT
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLT(S)
VEND	VENDING
VFD	VARIABLE FREQUENCY DRIVE
VP	VAPOR PROOF
W	WIRE , WATT(S)
WP	WEATHERPROOF
XFMR	TRANSFORMER
XPD	TRANSPONDER
Y	WYE
Z	IMPEDANCE
Δ	DELTA
1P	ONE POLE
2P	TWO POLE
3P	THREE POLE

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ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion

Hemisfair

San Antonio, TX. 78205

PROFESSIONAL SEAL

PRELIMINARY REVIEW

NOT FOR REGULATORY APPROVAL, PERMIT OR CONSTRUCTION

AARON T. LOVELOCK

P.E. REG. NO. 145763

MAY 1, 2023

SHEET NAME

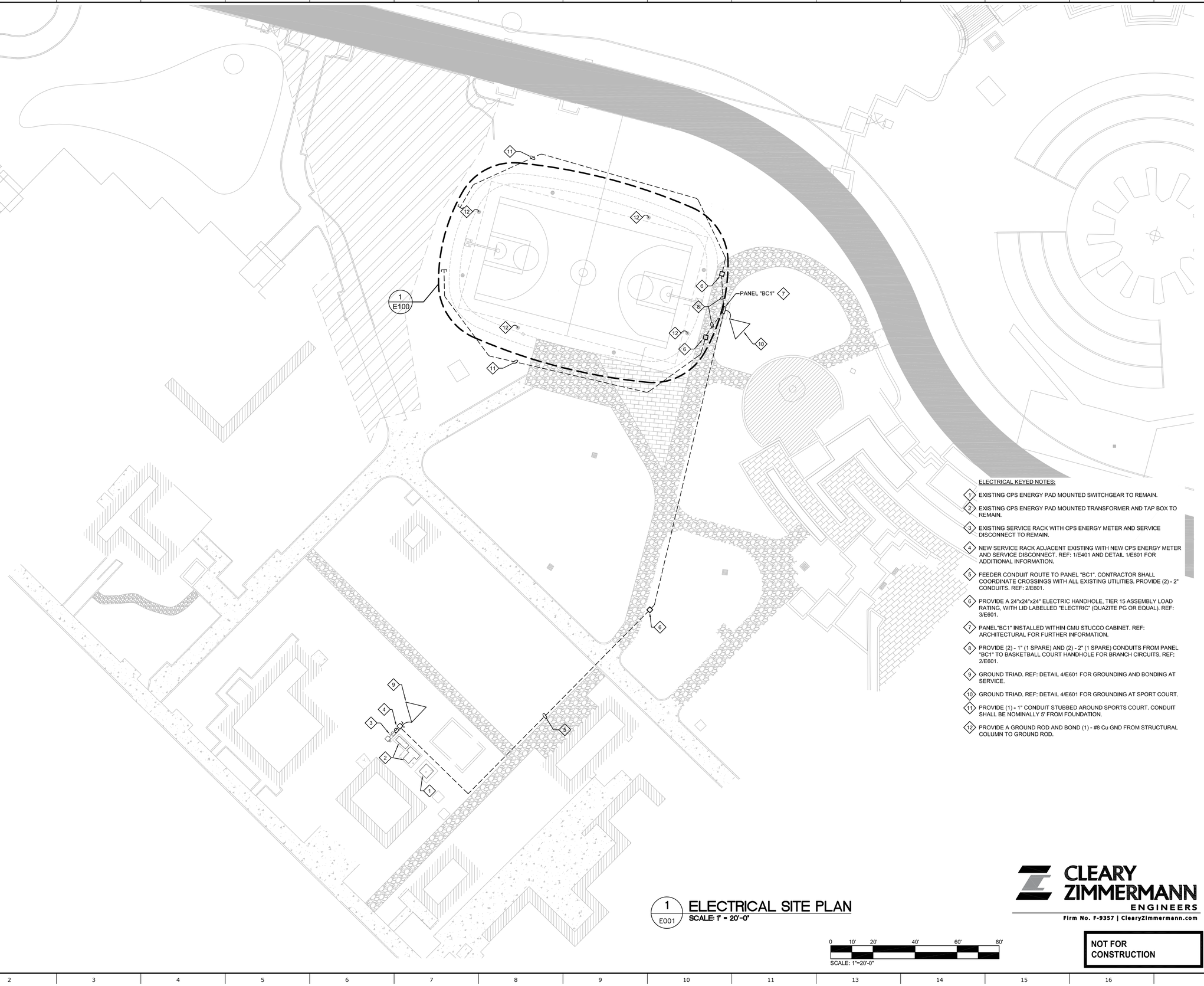
ELECTRICAL SYMBOLS AND ABBREVIATIONS

Draftsman	G.Crawl	Phase	DESIGN DEVELOPMENT
GVI Approval	A. Lovelock	Project No.	230164 cz
Client Approval	A. Lovelock	File	
Date	May. 1, 2023	Code	

SCALE

SHEET NUMBER

E000



ELECTRICAL KEYED NOTES:

1. EXISTING CPS ENERGY PAD MOUNTED SWITCHGEAR TO REMAIN.
2. EXISTING CPS ENERGY PAD MOUNTED TRANSFORMER AND TAP BOX TO REMAIN.
3. EXISTING SERVICE RACK WITH CPS ENERGY METER AND SERVICE DISCONNECT TO REMAIN.
4. NEW SERVICE RACK ADJACENT EXISTING WITH NEW CPS ENERGY METER AND SERVICE DISCONNECT. REF: 1/E401 AND DETAIL 1/E601 FOR ADDITIONAL INFORMATION.
5. FEEDER CONDUIT ROUTE TO PANEL "BC1". CONTRACTOR SHALL COORDINATE CROSSINGS WITH ALL EXISTING UTILITIES. PROVIDE (2) - 2" CONDUITS. REF: 2/E601.
6. PROVIDE A 24"x24"x24" ELECTRIC HANDHOLE, TIER 15 ASSEMBLY LOAD RATING, WITH LID LABELLED "ELECTRIC" (QUAZITE PG OR EQUAL). REF: 3/E601.
7. PANEL"BC1" INSTALLED WITHIN CMU STUCCO CABINET. REF: ARCHITECTURAL FOR FURTHER INFORMATION.
8. PROVIDE (2) - 1" (1 SPARE) AND (2) - 2" (1 SPARE) CONDUITS FROM PANEL "BC1" TO BASKETBALL COURT HANDHOLE FOR BRANCH CIRCUITS. REF: 2/E601.
9. GROUND TRIAD. REF: DETAIL 4/E601 FOR GROUNDING AND BONDING AT SERVICE.
10. GROUND TRIAD. REF: DETAIL 4/E601 FOR GROUNDING AT SPORT COURT.
11. PROVIDE (1) - 1" CONDUIT STUBBED AROUND SPORTS COURT. CONDUIT SHALL BE NOMINALLY 5' FROM FOUNDATION.
12. PROVIDE A GROUND ROD AND BOND (1) - #8 Cu GND FROM STRUCTURAL COLUMN TO GROUND ROD.

1 / E001 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

0 10' 20' 40' 60' 80'
SCALE: 1"=20'-0"

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Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

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AARON T. LOVELOCK
P.E. REG. NO. 145763
MAY 1, 2023

SHEET NAME

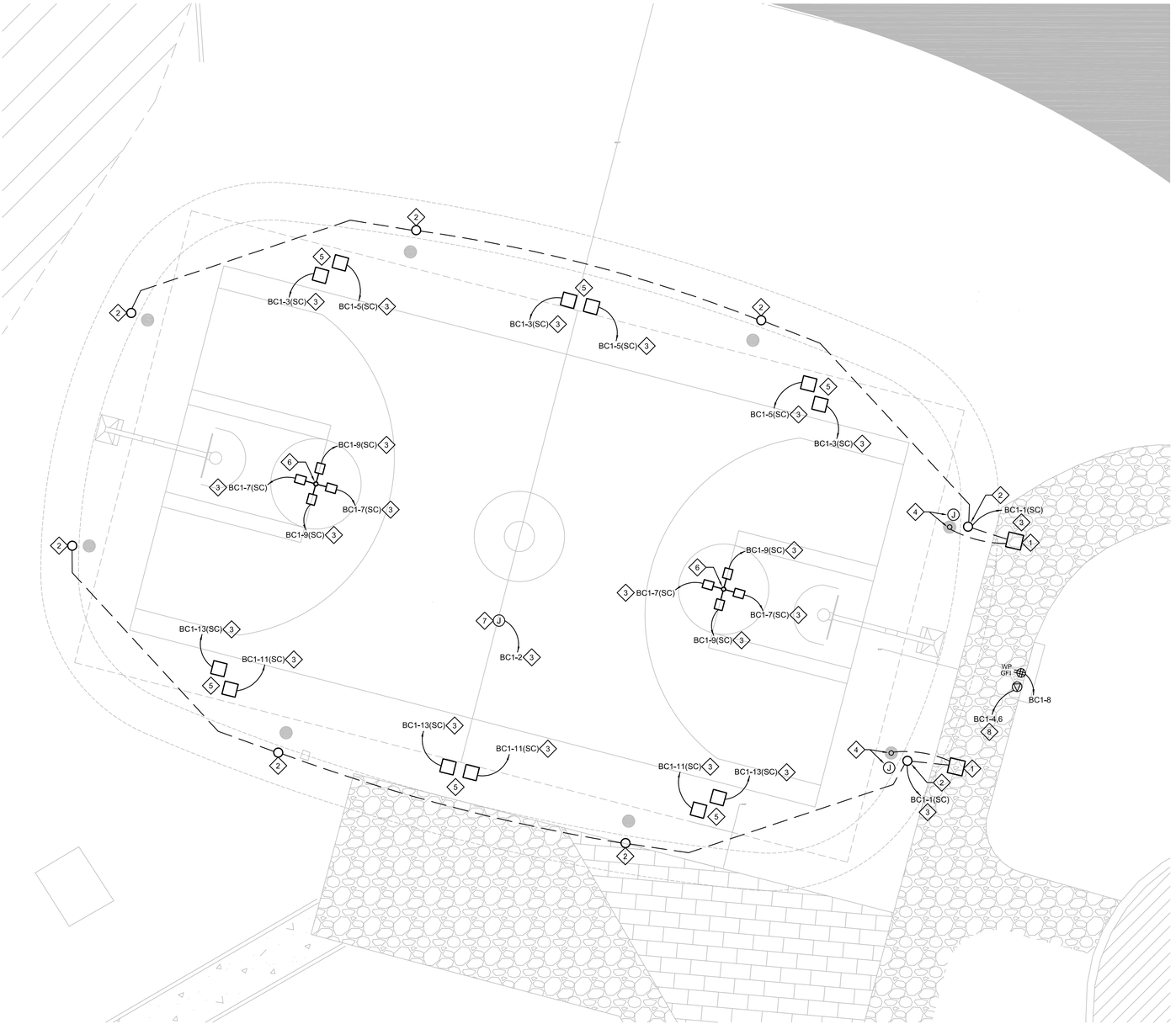
ELECTRICAL SITE PLAN

Draftsman	G.Crawl	Phase	DESIGN DEVELOPMENT
GVI Approval	A. Lovelock	Project No.	230164 cz
Client Approval	A. Lovelock	File	
Date	May. 1, 2023	Code	

SCALE

SHEET NUMBER

E001



1 E100 **ELECTRICAL FLOOR PLAN**
SCALE: 1/8" = 1'-0"

GENERAL NOTES POWER SHEETS: (APPLIES TO ALL POWER SHEETS)

1. SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES. SOME POWER CIRCUITING MAY BE ON OTHER PLANS.

2. MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT. ALL CONDUCTORS SHALL BE 75 DEGREE COPPER THHN INDOOR, THWN FOR EXTERIOR USAGE, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SWEPT WINGS.

3. ALL RECEPTACLES SHALL BE SPEC GRADE, MINIMUM 20 AMP RATED. GFI RECEPTACLES SHALL HAVE TEST BUTTONS WITH INDICATOR LIGHTS. EXTERIOR RECEPTACLES SHALL BE LABELED WEATHER RESISTANT WITH WP COVERS CONFORMING TO WET LOCATION CORD CONNECTION, NEC 406. OVERSIZED COVER PLATES ARE NOT ALLOWED. COORDINATE COLOR WITH OWNER/ARCHITECT.

4. ALL EQUIPMENT SHALL HAVE AN INDIVIDUAL LOCAL DISCONNECTING MEANS, EITHER CORDED PLUG AND RECEPTACLE OR SWITCHED DISCONNECT. VERIFY FROM EQUIPMENT SUBMITTED OR RELOCATED IF DIRECT CONNECT OR RECEPTACLE. IF DIRECT CONNECT, PROVIDE SAFETY SWITCH LOCKABLE IN THE OPEN POSITION AS PER NEC. OTHERWISE PROVIDE RECEPTACLE CORD PLUG AS REQUIRED BY EQUIPMENT SUBMITTAL.

5. ON CIRCUITS GREATER THAN 20A, FEEDING MULTIPLE PIECES OF EQUIPMENT, PROVIDE FUSED DISCONNECTS (SIZED FOR EQUIPMENT PROTECTING).

6. CONTRACTOR IS RESPONSIBLE FOR UPDATING THE CIRCUITING INFORMATION OF ELECTRICAL PANELS BASED UPON THE ACTUAL INSTALLATION.

7. CONNECT NO MORE THAN 5 RECEPTACLES TO ANY CIRCUIT. VERIFY AND TRACE RECEPTACLE COUNT PRIOR TO CONNECTING TO EXISTING CIRCUITS.

ELECTRICAL KEYED NOTES:

1. ELECTRIC HANDHOLE. REF: 1/E001
2. IN-GRADE RECESSED LED LIGHT. REF: SPECIALIST LIGHTING DRAWINGS FOR LOCATION AND SPECIFICATIONS.
3. PROVIDE (2) - #8 AND (1) - #8 GND.
4. PROVIDE (2) - 2-1/2" CONDUITS FROM HANDHOLE STUBBED INTO BOTTOM OF STRUCTURAL COLUMN. COORDINATE WITH STRUCTURAL FOR CONDUIT IN FOOTING AND PENETRATION OF BASE PLATE. BRANCH CIRCUITS SHALL TRANSITION TO A WET LOCATION LISTED MC CABLE TO ROUTE UP STRUCTURAL COLUMN. PROVIDE A JUNCTION BOX MOUNTED TO STRUCTURE AT THE TOP OF THE STRUCTURAL COLUMN TO TRANSITION BRANCH CIRCUITS BACK TO HARD PIPE.
5. SURFACE MOUNTED LED SPORTS LIGHT AT CEILING LEVEL. REF: SPECIALIST LIGHTING DRAWINGS FOR LOCATION AND SPECIFICATIONS.
6. PENDANT MOUNTED LED UPLIGHT. REF: SPECIALIST LIGHTING DRAWINGS FOR LOCATION AND SPECIFICATIONS.
7. PROVIDE A JUNCTION BOX MOUNTED TO STRUCTURE FOR THE LIGHTING CONTROL SYSTEM GATEWAY. REF: SPECIALIST LIGHTING DRAWING FOR LOCATION AND SPECIFICATIONS.
8. PROVIDE (3) - #6 AND (1) - #8 GND. PROVIDE AN "IN-USE" WEATHERPROOF COVER.

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PRELIMINARY REVIEW
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AARON T. LOVELOCK
P.E. REG. NO. 145763
MAY 1, 2023

SHEET NAME
ELECTRICAL FLOOR PLAN

Draftsman	G.Crawl	Phase	DESIGN DEVELOPMENT
GVI Approval	A. Lovelock	Project No.	230164 cz
Client Approval	A. Lovelock	File	
Date	May. 1, 2023	Code	

SCALE

SHEET NUMBER
E100

ELECTRICAL FEEDER SCHEDULE

MARK	CONDUIT	CONDUCTORS
1020	1 - 1/2" Conduit	2 - #12 and 1 - #12 Ground
1030	1 - 3/4" Conduit	2 - #10 and 1 - #10 Ground
1050	1 - 3/4" Conduit	2 - #8 and 1 - #8 Ground
1065	1 - 3/4" Conduit	2 - #6 and 1 - #8 Ground
1085	1 - 1" Conduit	2 - #4 and 1 - #8 Ground
1100	1 - 1" Conduit	2 - #3 and 1 - #6 Ground
1115	1 - 1-1/4" Conduit	2 - #2 and 1 - #6 Ground
2020	1 - 1/2" Conduit	3 - #12 and 1 - #12 Ground
2030	1 - 3/4" Conduit	3 - #10 and 1 - #10 Ground
2050	1 - 3/4" Conduit	3 - #8 and 1 - #8 Ground
2065	1 - 3/4" Conduit	3 - #6 and 1 - #8 Ground
2085	1 - 1" Conduit	3 - #4 and 1 - #8 Ground
2100	1 - 1-1/4" Conduit	3 - #3 and 1 - #6 Ground
2115	1 - 1-1/4" Conduit	3 - #2 and 1 - #6 Ground
3020	1 - 3/4" Conduit	4 - #12 and 1 - #12 Ground
3030	1 - 3/4" Conduit	4 - #10 and 1 - #10 Ground
3050	1 - 3/4" Conduit	4 - #8 and 1 - #8 Ground
3065	1 - 1" Conduit	4 - #6 and 1 - #8 Ground
3085	1 - 1-1/4" Conduit	4 - #4 and 1 - #8 Ground
3100	1 - 1-1/4" Conduit	4 - #3 and 1 - #6 Ground
3115	1 - 1-1/4" Conduit	4 - #2 and 1 - #6 Ground
SY0020	1 - 3/4" Conduit	4 - #12 and 1 - #8 Ground
SY0030	1 - 3/4" Conduit	4 - #10 and 1 - #8 Ground
SY0050	1 - 3/4" Conduit	4 - #8 and 1 - #8 Ground
SY0065	1 - 1" Conduit	4 - #6 and 1 - #8 Ground
SY0085	1 - 1-1/4" Conduit	4 - #4 and 1 - #8 Ground
SY0100	1 - 1-1/4" Conduit	4 - #3 and 1 - #6 Ground
SY0115	1 - 1-1/4" Conduit	4 - #2 and 1 - #6 Ground
SY0130	1 - 1-1/2" Conduit	4 - #1 and 1 - #6 Ground
SY0150	1 - 2" Conduit	4 - #1/0 and 1 - #6 Ground
SY0175	1 - 2" Conduit	4 - #2/0 and 1 - #4 Ground
SY0200	1 - 2" Conduit	4 - #3/0 and 1 - #4 Ground
SY0230	1 - 2-1/2" Conduit	4 - #4/0 and 1 - #2 Ground
SY0255	1 - 3" Conduit	4 - #250 kcmil and 1 - #2 Ground
SY0310	1 - 3" Conduit	4 - #350 kcmil and 1 - #2 Ground
SY0335	1 - 3-1/2" Conduit	4 - #400 kcmil and 1 - #2 Ground
SY0380	1 - 3-1/2" Conduit	4 - #500 kcmil and 1 - #2 Ground
SY0400	2 - 2" Conduit	EACH with 4 - 3/0 and 1 - #2 Ground
SY0420	1 - 4" Conduit	4 - #600 kcmil and 1 - #2 Ground
SY0460	2 - 2-1/2" Conduits	EACH with 4 - #4/0 and 1 - #2 Ground
SY0510	2 - 2-1/2" Conduits	EACH with 4 - #250 kcmil and 1 - #1 Ground
SY0570	2 - 2-1/2" Conduits	EACH with 4 - #300 kcmil and 1 - #1 Ground
SY0620	2 - 3" Conduits	EACH with 4 - #350 kcmil and 1 - #1/0 Ground
SY0670	2 - 3" Conduits	EACH with 4 - #400 kcmil and 1 - #1/0 Ground
SY0760	2 - 3-1/2" Conduits	EACH with 4 - #500 kcmil and 1 - #1/0 Ground
SY0765	3 - 2-1/2" Conduits	EACH with 4 - #250 kcmil and 1 - #1/0 Ground
SY0800	4 - 2" Conduits	EACH with 4 - #3/0 kcmil and 1 - #2/0 Ground
SY0840	2 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #2/0 Ground
SY0855	3 - 2-1/2" Conduits	EACH with 4 - #300 kcmil and 1 - #2/0 Ground
SY1005	3 - 3" Conduits	EACH with 4 - #400 kcmil and 1 - #3/0 Ground
SY1140	3 - 3-1/2" Conduits	EACH with 4 - #500 kcmil and 1 - #3/0 Ground
SY1260	3 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #4/0 Ground
SY1520	4 - 4" Conduits	EACH with 4 - #500 kcmil and 1 - #4/0 Ground
SY1680	4 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #250 kcmil Ground
SY2100	5 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #350 kcmil Ground
SY2520	6 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #400 kcmil Ground
SY3040	8 - 4" Conduits	EACH with 4 - #500 kcmil and 1 - #500 kcmil Ground
SY4030	6 - 6" Conduits	EACH with 8 - #600 kcmil and 1 - #700 kcmil Ground
SY4200	10 - 4" Conduits	EACH with 4 - #600 kcmil and 1 - #700 kcmil Ground
SY5040	12 - 4" Conduit	EACH with 4 - #600 kcmil and 1 - #700 kcmil Ground
SD0020	1 - 3/4" Conduit	3 - #12 and 1 - #8 Ground
SD0030	1 - 3/4" Conduit	3 - #10 and 1 - #8 Ground
SD0050	1 - 3/4" Conduit	3 - #8 and 1 - #8 Ground
SD0065	1 - 3/4" Conduit	3 - #6 and 1 - #8 Ground
SD0085	1 - 1" Conduit	3 - #4 and 1 - #8 Ground
SD0100	1 - 1-1/4" Conduit	3 - #3 and 1 - #6 Ground
SD0115	1 - 1-1/4" Conduit	3 - #2 and 1 - #6 Ground
SD0130	1 - 1-1/2" Conduit	3 - #1 and 1 - #6 Ground
SD0150	1 - 1-1/2" Conduit	3 - #1/0 and 1 - #6 Ground
SD0175	1 - 2" Conduit	3 - #2/0 and 1 - #4 Ground
SD0200	1 - 2" Conduit	3 - #3/0 and 1 - #4 Ground
SD0230	1 - 2" Conduit	3 - #4/0 and 1 - #2 Ground
SD0255	1 - 2-1/2" Conduit	3 - #250 kcmil and 1 - #2 Ground
SD0310	1 - 3" Conduit	3 - #350 kcmil and 1 - #2 Ground
SD0380	1 - 3" Conduit	3 - #500 kcmil and 1 - #1/0 Ground
SD0420	1 - 3" Conduit	3 - #600 kcmil and 1 - #1/0 Ground
SD0460	2 - 2" Conduits	EACH with 3 - 4/0 and 1 - #2 Ground
SD0510	2 - 2-1/2" Conduits	EACH with 3 - #250 kcmil and 1 - #1 Ground
SD0570	2 - 2-1/2" Conduits	EACH with 3 - #300 kcmil and 1 - #1 Ground
SD0620	2 - 3" Conduits	EACH with 3 - #350 kcmil and 1 - #1/0 Ground
SD0670	2 - 3" Conduits	EACH with 3 - #400 kcmil and 1 - #1/0 Ground
SD0760	2 - 3" Conduits	EACH with 3 - #500 kcmil and 1 - #1/0 Ground
SD0855	3 - 2-1/2" Conduits	EACH with 3 - #300 kcmil and 1 - #2/0 Ground
SD1005	3 - 3" Conduits	EACH with 3 - #400 kcmil and 1 - #2/0 Ground
SD1140	3 - 3-1/2" Conduits	EACH with 3 - #500 kcmil and 1 - #3/0 Ground
SD1260	3 - 4" Conduits	EACH with 3 - #600 kcmil and 1 - #4/0 Ground
SD1520	4 - 3" Conduits	EACH with 3 - #500 kcmil and 1 - #4/0 Ground
SD1680	4 - 4" Conduits	EACH with 3 - #600 kcmil and 1 - #250 kcmil Ground

Notes:
1. Wet location (underground or outdoors) use THWN. Otherwise THHN.
2. Conduit Types; underground - schedule 40 PVC; indoors - EMT; outdoor exposed - IMC. Utility - riser poles (follow Utility guidelines or minimum schedule 80).
3. Provide transitions to conduit changes prior to different environment (ex. Transition from EMT to IMC prior to penetrating walls to the exterior).
4. Motor Connections shall be flexible non-metallic conduit for water equipment
5. All conduit penetrations in rated walls shall be firestopped.
6. See drawings for any special requirements.

NEW SERVICE LOAD ANALYSIS

PROJECT: HEMISPHERE BASKETBALL COURT
PROJECT NUMBER: 230164
SQUARE FOOTAGE: 70000
NEW DISTRIBUTION: 208 VOLT

TYPE	NEW CONNECTED	NEW DEMAND	
EQUIPMENT:	60	60	VA
RECEPTACLES:	6600	6600	VA
LIGHTING:	5296	6620	VA
AC/HEATING:	0	0	VA
CONTINUOUS MOTORS:	0	0	VA
OTHERS:	0	0	VA
TOTAL	11956	13280	VA
	33	37	Amps
SERVICE VOLTAGE:	208	VOLT	
SCHEDULED SERVICE AMPACITY:	200	AMP	

20 AMP CIRCUIT VOLTAGE DROP

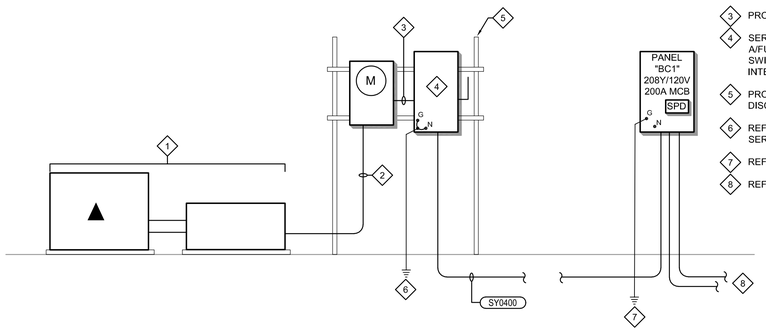
120V 20 Amp

CONDUCTOR	CONDUIT	MAX ONE WAY LENGTH OF CIRCUIT
2 - #12 and 1 - #12 GRD	3/4" C	100 Feet
2 - #10 and 1 - #10 GRD	3/4" C	160 Feet
2 - #8 and 1 - #8 GRD	3/4" C	260 Feet
2 - #6 and 1 - #6 GRD	1" C	400 Feet
2 - #4 and 1 - #4 GRD	1" C	650 Feet
REFER TO NOTES ON DRAWINGS GREATER THAN 650 FEET		

277V 20 Amp

CONDUCTOR	CONDUIT	MAX ONE WAY LENGTH OF CIRCUIT
2 - #12 and 1 - #12 GRD	3/4" C	220 Feet
2 - #10 and 1 - #10 GRD	3/4" C	360 Feet
2 - #8 and 1 - #8 GRD	1" C	600 Feet
REFER TO NOTES ON DRAWINGS GREATER THAN 600 FEET		

Notes:
1) CONTRACTOR SHALL FOLLOW CIRCUIT VOLTAGE DROP CHART DISTANCE FOR SIZING CIRCUITING. CONTRACTOR SHALL UPSIZE CONDUIT AND WIRE BASED UPON ACTUAL FEEDER DISTANCE INSTALLED.
2) SEE FEEDER SCHEDULE FOR ADDITIONAL FEEDER SIZES.
3) PULL IN NYLON PULL CORD WITH CONDUCTORS UP TO 300 FEET, PULL IN MULE TAPE WITH CONDUCTORS OVER 300 FEET.
4) CHART CONDUIT SIZES ARE BASED UPON SINGLE CIRCUITS. CONTRACTOR SHALL UPSIZE CONDUIT AS PER NEC FOR MULTIPLE CIRCUITS. WIRE GAUGE SHALL REMAIN AS PER CHART.



ELECTRICAL KEYED NOTES:

1. EXISTING CPS ENERGY TAP BOX AND PAD MOUNTED TRANSFORMER TO REMAIN.
2. PROVIDE (4) - #3/0 Cu IN (1) - 2" CONDUIT FROM TAP BOX TO NEW CPS ENERGY METER. COORDINATE WITH CPS ENERGY AND PROVIDE METER CAN.
3. PROVIDE (2) - 2" CONDUITS EACH WITH (4) - #3/0 Cu.
4. SERVICE DISCONNECT SWITCH. PROVIDE A 200 A/FUSIBLE/3P+SN/NEMA 3R SERVICE RATED DISCONNECT SWITCH. PROVIDE 200A CURRENT LIMITING FUSES. MINIMUM INTERRUPTING CURRENT RATING: 50 kA AT 480 Vac.
5. PROVIDE AN EQUIPMENT RACK TO MOUNT METER AND DISCONNECT SWITCH. REF: DETAIL 1/E601.
6. REF: DETAIL 4/E601 FOR GROUNDING AND BONDING AT SERVICE.
7. REF: DETAIL 5/E601 FOR GROUNDING.
8. REF: E001 AND E100 FOR BRANCH CIRCUIT CONDUITS.

1 / E401 ELECTRICAL ONE-LINE DIAGRAM
NOT TO SCALE

PANEL BC1

LOCATION: EXTERNAL — VOLTAGE: 208/120 V — KAIC: 20 — BUSSING SHALL BE FULLY RATED
MOUNTING: SURFACE — PHASE: 3 P / 4W — CODES: 0=EQPT, 1=RCPT, 2=LTG, 3=A/C, 4=HEAT
ENCLOSURE: NEMA 3R — STYLE: PRL2X — BUSSING: 225 A — 5=CONTINUOUS MOTORS, 6=LRGST MOTOR
BRKR MTG: BOLT-ON (REF: EATON) — MCB: 200 A — ACCESSORIES: GROUND BUS, 30 SPACE, INTEGRAL SPD
BREAKERS: SERIES RATED, 75 DEGREE TERMINALS — MLO: A — GF = CLASS A GROUND FAULT CKT INT CB

CODE	BRKR	CIRCUIT USE	CKT	LOAD	A	B	C	LOAD	CKT	CIRCUIT USE	BRKR	CODE
2	20/1	LIGHTS - BASKETBALL COURT	1	144	X			60	2	LIGHTING CONTROL SYSTEM - COURT	20/1	0
2	20/1	LIGHTS - BASKETBALL COURT	3	858		X		3,120	4	BASKETBALL COURT NEMA 14-50R	50/2GF	1
2	20/1	LIGHTS - BASKETBALL COURT	5	858			X	3,120	6			1
2	20/1	LIGHTS - BASKETBALL COURT	7	860	X			360	8	RECEPTS - BASKETBALL COURT	20/1	1
2	20/1	LIGHTS - BASKETBALL COURT	9	860		X			10	BUSSED SPACE	-/1	
2	20/1	LIGHTS - BASKETBALL COURT	11	858			X		12	BUSSED SPACE	-/1	
2	20/1	LIGHTS - BASKETBALL COURT	13	858	X				14	BUSSED SPACE	-/1	
	-/1	BUSSED SPACE	15			X			16	BUSSED SPACE	-/1	
	-/1	BUSSED SPACE	17				X		18	BUSSED SPACE	-/1	
	-/1	BUSSED SPACE	19		X				20	BUSSED SPACE	-/1	
		BUS INTEGRATED SPD (NOTE 1)	21			X			22	BUS INTEGRATED SPD (NOTE 1)		
			23				X		24			
			25		X				26			
			27			X			28			
			29				X		30			

	EQPT VA	RCPT VA	LTG VA	AC/HEAT VA		MOTORS			CONN VA		FTL VA	PANEL VA	PHASE AMP		
PHASE A	60	360	1862	0		0			2282			2748	23		
PHASE B	0	3120	1718	0		0			4838			5268	44		
PHASE C	0	3120	1716	0		0			4836			5265	44		
TOTAL	60	6600	5296	0		0			11956			13280			

PANEL DESIGN KVA: 13.28 — PANEL SUBTOTAL: 37 AMPS
RESERVE CAPACITY KVA: 2.66 — RESERVE CAPACITY: 6 AMPS
TOTAL KVA: 15.94 — PANEL DESIGN CURRENT: 42 AMPS

NOTES:
1. PROVIDE A 100kA/PHASE "ALL-MODES" BUS INTEGRATED SURGE PROTECTION DEVICE. MOUNT IN SPACE CLOSEST TO MAIN LUGS.

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GVI GOMEZ VAZQUEZ INTERNATIONAL
ARCHITECTURE | PLANNING | URBAN DESIGN
210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
01	05/01/2023	BIDDING SET

Hemisfair Sports Court Pavilion
Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

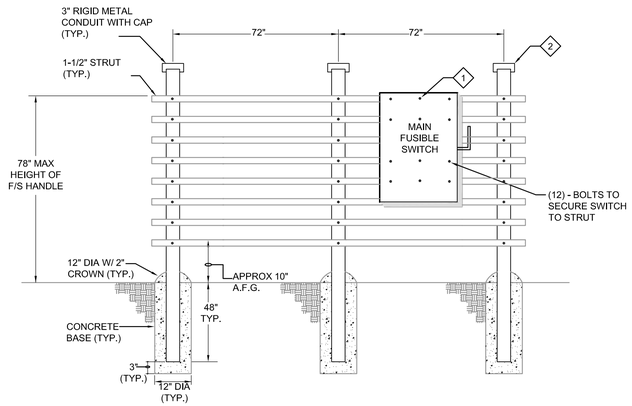
PRELIMINARY REVIEW
NOT FOR REGULATORY APPROVAL, PERMIT OR CONSTRUCTION
AARON T. LOVELOCK
P.E. REG. NO. 145763
MAY 1, 2023

SHEET NAME
ELECTRICAL ONE-LINE DIAGRAM

Draftsman	G.Crawl	Phase	DESIGN DEVELOPMENT
GVI Approval	A. Lovelock	Project No.	230164 cz
Client Approval	A. Lovelock	File	
Date	May. 1, 2023	Code	

SCALE

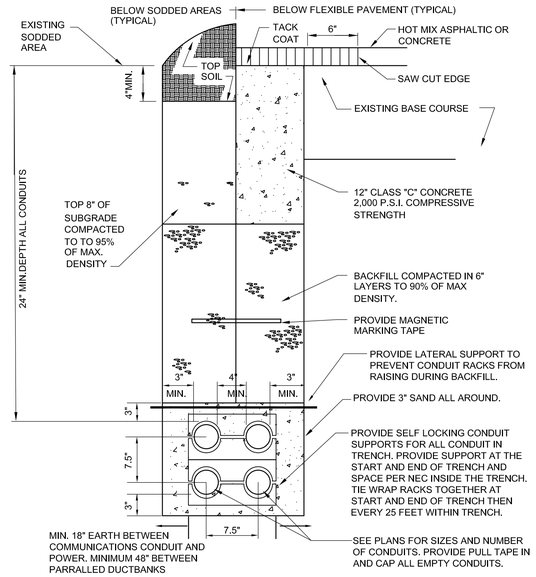
SHEET NUMBER
E401



KEYED NOTES:

1. 3/8" DIAMETER GALVANIZED STEEL BOLT DOUBLE-NUTTED ON BOTH ENDS. COAT ALL RAW ENDS WITH GALANIZED PAINT.
2. FREESTANDING SUPPORT RACK WITH CONCRETE BASE PER POWER COMPANY REQUIREMENTS. (REFER TO CPSE ELECTRIC SERVICE STANDARDS, FIGURE 1800.18.) CONCRETE BASES SHALL BE NOT LESS THAN 8" DIA. AND EXTEND 36" BELOW GRADE AND 6" ABOVE GRADE.

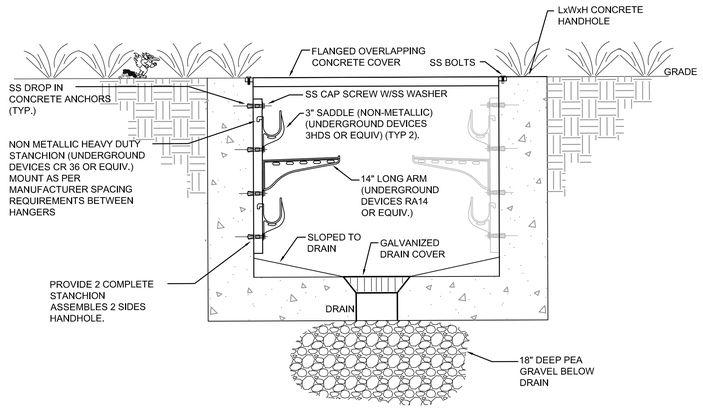
1 EQUIPMENT RACK DETAIL
E601
NOT TO SCALE



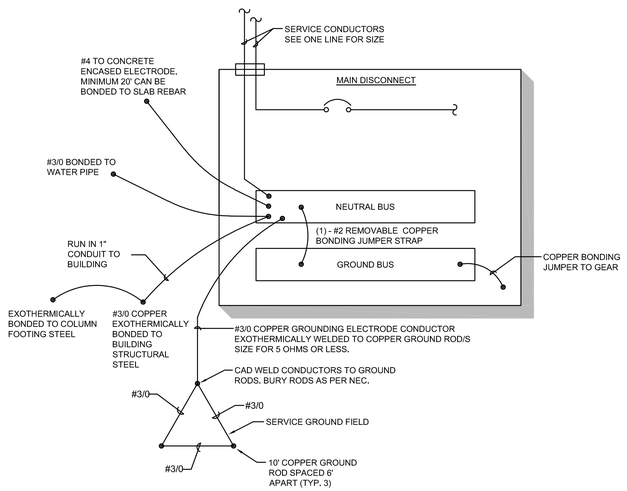
NOTE:

APPLIES TO ALL BURIED CONDUITS. BACKFILL APPLIES TO ALL AREAS NOT JUST ROADWAYS OR ADJACENT TO ROADWAY.

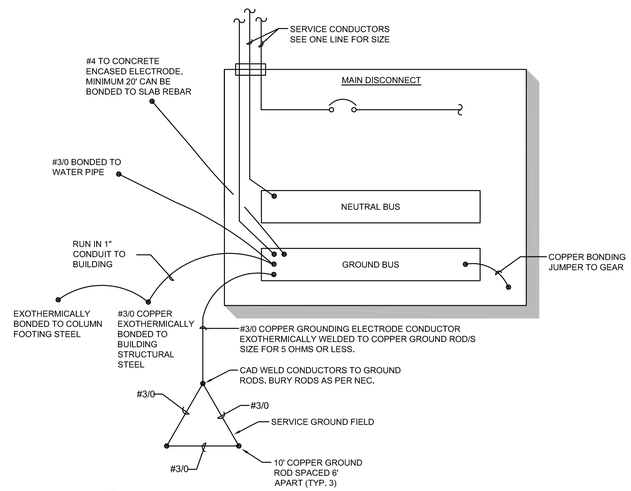
2 CONDUIT BURIAL DETAIL
E601
NOT TO SCALE



3 HANDHOLE DETAIL
E601
NOT TO SCALE



4 GROUNDING AND BONDING DETAIL
E601
SCALE: N.T.S.



5 GROUNDING AND BONDING DETAIL
E601
SCALE: N.T.S.

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210-404-9658 www.gvi.archi

ISSUED SETS

Date	Description

REVISIONS

No.	Date	Description
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Hemisfair Sports Court Pavilion

Hemisfair
San Antonio, TX. 78205

PROFESSIONAL SEAL

PRELIMINARY REVIEW
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AARON T. LOVELOCK
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Date	May. 1, 2023	Code	

SCALE

SHEET NUMBER

E601