

NEXT GEN OLD TOWN, LLC  
NEXT GEN BISHOP, LLC  
3335 EAST INDIAN SCHOOL ROAD, SUITE 100  
PHOENIX, AZ 85018

EARTHLINE CIVIL ENGINEERING  
ATTN: STEVE BARGELOH, P.E.  
4408 NORTH 12TH STREET, SUITE 200  
PHOENIX, AZ 85014  
P: (602) 820-7800  
E: STEVE@EARTHLINECIVIL.COM

PARCEL NO. 1:  
LOT 18 AND THE NORTH HALF OF LOT 17, BLOCK 1 MATLOCK PLACE,  
ACCORDING TO BOOK 32 OF MAPS, PAGE 50 RECORDS OF MARICOPA  
COUNTY, ARIZONA

PARCEL NO. 2:  
LOTS 19 THROUGH 24, INCLUSIVE, BLOCK 1, MATLOCK PLACE, ACCORDING TO  
BOOK 32 OF MAPS, PAGE 50, RECORDS OF MARICOPA COUNTY, ARIZONA

1. PROJECT ADDRESS: 3702, 3638 & 3632 NORTH BISHOP LANE AND 7125 EAST 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251
2. LOT AREA: 49,315 SF - 1.132 ACRES
3. ASSESSOR'S PARCEL NUMBER: 130-05-044
4. ZONING: C-3
5. QUARTER SECTION: 16-44

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION UNIQUE POINT: 3897  
LOCATED WEST BANK OF THE ARIZONA CANAL BEING THE EAST QUARTER  
CORNER OF SECTION 28, TOWNSHIP 2 NORTH AND RANGE 4 EAST OF THE GILA  
AND SALT RIVER BASE AND MERIDIAN MARKED BY A STONE WITH A SCRIBED  
"X".  
ELEVATION: 1264.02 - NAVD88

RE-DEVELOP SITE WITH 17 RESIDENTIAL DWELLING UNITS AND A COMMERCIAL/RETAIL SPACE.

|                      |                              |
|----------------------|------------------------------|
| SHEET C1 OF 4        | COVER PAGE                   |
| SHEET C2 OF 4        | PRELIMINARY GRADING PLAN     |
| SHEET C3 OF 4        | PRELIMINARY STORM DRAIN PLAN |
| SHEET C4 OF 4        | PRELIMINARY UTILITY PLAN     |
| SHEET C5 - C10 OF 10 | U.S.T. DETAILS               |

DREWETT WORK ARCHITECTURE  
ATTN: RYAN DOOLEY  
7144 EAST STETSON DRIVE, SUITE 204  
SCOTTSDALE, AZ 85251  
P: (855) 373-9388 EXT. 703  
E: RYAN@DREWETTWORKS.COM

RETENTION IS PROVIDED FOR THE FIRST FLUSH EVENT, OR 100% OF THE RUN-OFF FOR THE FIRST 1/2" OF RAINFALL ON THE SITE.

$$V_R: \frac{0.5" \times \text{DISTURBED AREA} \times 1.0}{12" / \text{ft}}$$
$$V_R: \frac{0.5" \times 49,324 \text{ SF} \times 1.0}{12"/\text{ft}}$$
 $V_R: 2,055 \text{ CF}$ 

1. ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MAG UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS. IF THERE IS A CONFLICT, THE CITY'S SUPPLEMENTAL STANDARD DETAILS WILL GOVERN.
2. THE CITY ONLY APPROVES THE SCOPE, NOT THE DETAIL, OF ENGINEERING DESIGNS; THEREFORE, IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
3. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF A RIGHT-OF-WAY PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.
4. A PUBLIC WORKS INSPECTOR WILL INSPECT ALL WORKS WITHIN THE CITY RIGHTS-OF-WAY AND IN EASEMENTS. NOTIFY INSPECTION SERVICES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING (480) 312-5750.
5. WHENEVER EXCAVATION IS NECESSARY, CALL BLUE STAKE CENTER, 811, TWO WORKING DAYS BEFORE EXCAVATION BEGINS. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT.
6. RIGHT-OF-WAY PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. A RIGHT-OF-WAY PERMIT WILL BE ISSUED BY THE CITY ONLY AFTER THE REGISTRANT HAS PAID A BASE FEE PLUS A FEE FOR INSPECTIONS SERVICES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
7. ALL EXCAVATION AND GRADING THAT IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO APPENDIX J, GRADING, OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY FOR A FEE ESTABLISHED BY THE CITY.

3702, 3638 & 3632 NORTH BISHOP LANE AND 7125 EAST 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
A PORTION OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 4 EAST OF  
THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA.

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SIDEWALK  
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INVERT  
UTILITY  
EASEMENT  
PAVEMENT  
SEWER  
GRATE  
LINEAR FOOT  
ROOF DRAIN  
CROWN  
ROUGH GRADE  
UNDERGROUND STORAGE TANK  
TELEPHONE PEDISTAL  
TELEVISION PEDISTAL  
ELECTRIC BOX  
GUY WIRE  
POWER POLE  
SEWER MANHOLE  
FIRE HYDRANT  
WATER METER  
WATER VALVE

BOUNDARY LINE  
STREET CENTER LINE  
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EXISTING OVERHEAD ELECTRIC  
EXISTING SEWER LINE  
EXISTING WATER LINE

EXISTING PAVEMENT

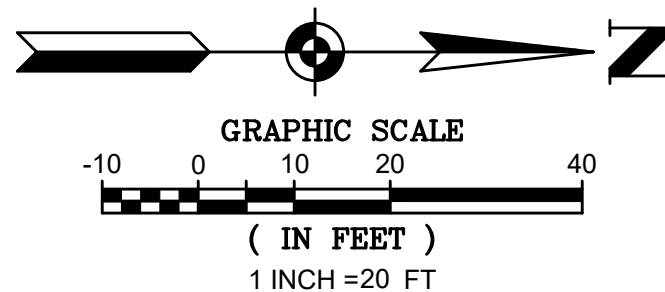
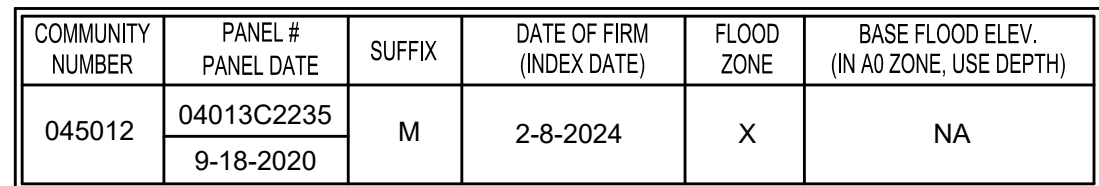
CONCRETE

SAWCUT/PAVEMENT REMOVAL

BRACE CURE

SIDEWALK REMOVE/REPLACE

SCALE: 1" = 750'

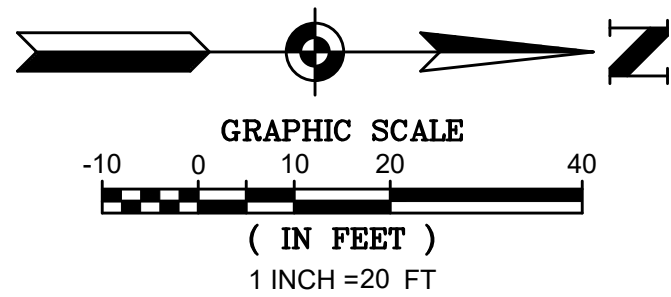
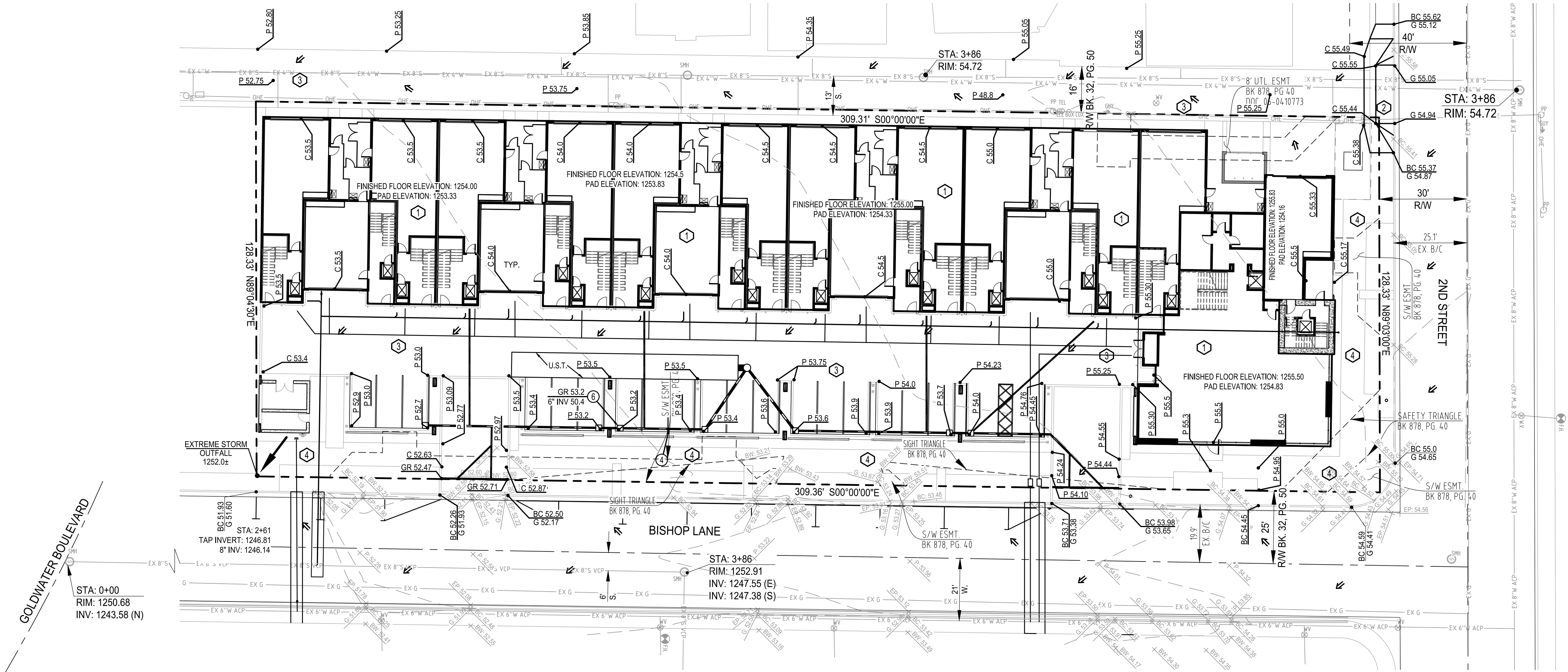


PRELIMINARY GRADING PLAN  
FOR  
THE BISHOP

3702, 3638 & 3632 NORTH BISHOP LANE AND 7125 EAST 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
A PORTION OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 4 EAST OF  
THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA.

GRADING CONSTRUCTION NOTES

1. CONSTRUCT BUILDING PAD PER SITE M.A.G. SPECIFICATION 206.
2. CONSTRUCT C.O.S. COMMERCIAL DRIVE WAY WITH ATTACHED SIDEWALK PER STANDARD DETAIL 2251-1
3. FURNISH AND INSTALL ASPHALT PAVEMENT DRIVE AND PARKING LOT. PAVEMENT SECTION PER RECOMMENDATIONS OF SITE SPECIFIC GEOTECHNICAL REPORT.
4. CONSTRUCT 8' WIDE CONCRETE SIDEWALK PER M.A.G. STD. DTL. 230



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THE BISHOP  
3702, 3638 & 3632 N. BISHOP LANE AND 7125 E. 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
PRELIMINARY GRADING PLAN

| CLIENT/PROJECT           |      |      |             |
|--------------------------|------|------|-------------|
| THE BISHOP               |      |      |             |
| TITLE                    |      |      |             |
| PRELIMINARY GRADING PLAN |      |      |             |
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| DESIGNED  | SWB        |
| DRAWN     | SWB        |
| CHECKED   | SWB        |
| DATE      | 1-29-25    |
| SCALE     | 1"=20'     |
| PROJECT   | 24041      |
| FILE NAME | PREUTILITY |

SHEET  
C2 OF 10

Q.S. 16-44  
12-DR-2024

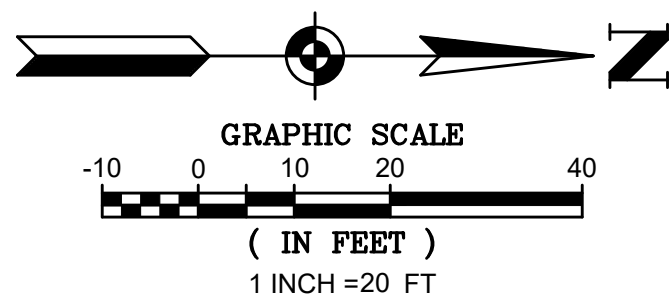
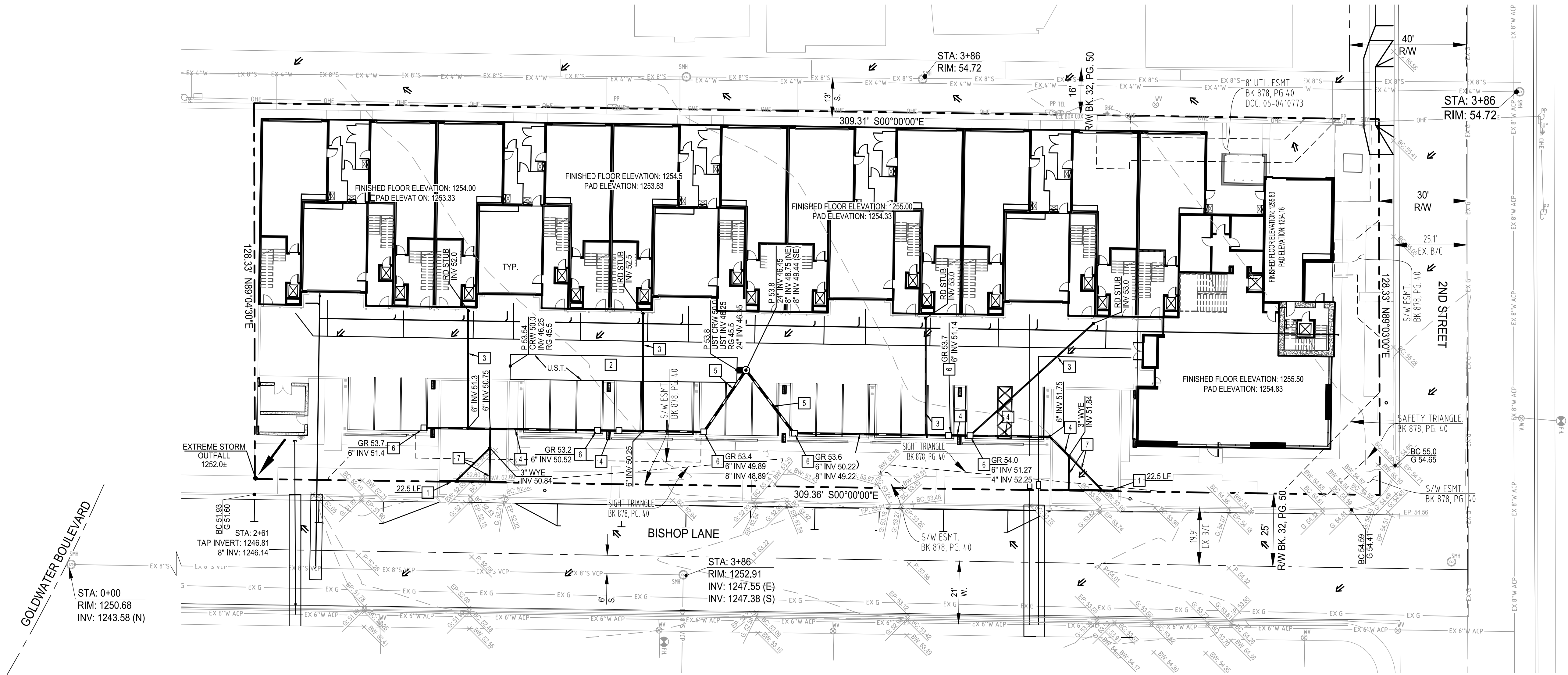


PRELIMINARY STORM DRAIN PLAN  
FOR  
THE BISHOP

3702, 3638 & 3632 NORTH BISHOP LANE AND 7125 EAST 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
A PORTION OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 4 EAST OF  
THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA.

STORM DRAIN CONSTRUCTION NOTES

- 1 FURNISH AND INSTALL NDS 5" PRO SERIES CHANNEL DRAIN. PROVIDE TWO BOTTOM OUTLETS AND HEAVY DUTY TRAFFIC RATED GRATE.
- 2 FURNISH AND INSTALL UNDERGROUND STORM WATER STORAGE TANK SYSTEM. DETAILS PROVIDED ON SHEET 2, 2,055 CUBIC FEET (CF) MINIMUM INSTALLED VOLUME.
- 3 FURNISH AND INSTALL 4" SDR-35 STORM DRAIN. INVERT PER PLAN.
- 4 FURNISH AND INSTALL 6" SDR-35 STORM DRAIN. INVERT PER PLAN.
- 5 FURNISH AND INSTALL 8" SDR-35 STORM DRAIN. INVERT PER PLAN.
- 6 FURNISH AND INSTALL 15" ADS CURB INLET WITH 2' X 2' GRATE. GRATE AND INVERT PER PLAN.
- 7 FURNISH AND INSTALL 3" SDR-35 STORM DRAIN. INVERT PER PLAN.



Q.S. 16-44  
12-DR-2024

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THE BISHOP  
3702, 3638 & 3632 N. BISHOP LANE AND 7125 E. 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
PRELIMINARY GRADING PLAN

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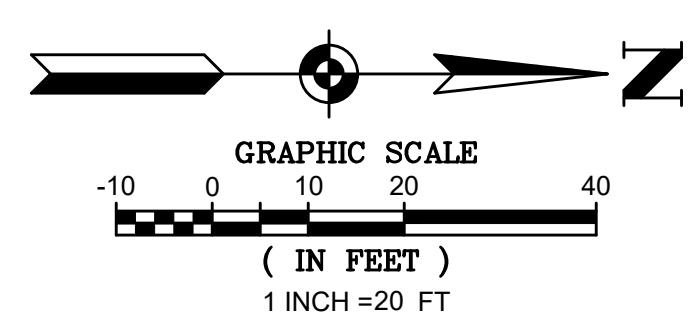
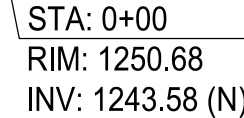
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APP.

3702, 3638 & 3632 NORTH BISHOP LANE AND 7125 EAST 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85251  
A PORTION OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 4 EAST OF  
THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA.

- ① CONSTRUCT 6" BUILDING SEWER SERVICE PER M.A.G. STANDARD DETAIL 440. TRENCH BED AND BACKFILL PER C.O.S. STANDARD DETAIL 2201.
- ② BRACE EXISTING CURB AND GUTTER IN PLACE. ANY DAMAGED CURB TO BE REPLACED TO THE NEAREST FULL JOINT OR AS DIRECTED BY THE RIGHT OF WAY INSPECTOR.
- ③ SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT.
- ④ FURNISH AND INSTALL 6" SDR-35 SANITARY SEWER SERVICE, MIN. SLOPE 1/8" PER FOOT. TRENCH BED AND BACKFILL PER C.O.S. STANDARD DETAIL 2201. CLEAN-OUTS TO BE PROVIDED AT ALL CHANGES IN DIRECTION AND AT A MAXIMUM SPACING OF 100'.
- ⑤ FURNISH AND INSTALL 4" BUILDING CONNECTION PER M.A.G. STANDARD DETAIL 440. TRENCH BED AND BACKFILL PER C.O.S. STANDARD DETAIL 2201.
- ⑥ SAWCUT AND REMOVE EXISTING SIDEWALK TO NEAREST FULL JOINT, OR AS DIRECTED BY THE RIGHT OF WAY INSPECTOR. REPLACE IN KIND.
- ⑦ FURNISH AND INSTALL NEW DOMESTIC WATER SERVICE (RESIDENTIAL), METER BOX AND METER PER C.O.S. STANDARD DETAIL 2330. SIZE PER PLUMBING PLANS.
- ⑧ FURNISH AND INSTALL PRIVATE WATER MAIN, SIZE PER PLUMBING. TRENCH, BED AND BACKFILL PER C.O.S. STANDARD DETAIL 2201. 4' MINIMUM COVER.
- ⑨ CONSTRUCT BUILDING CONNECTION FOR POTABLE WATER, SIZE PER PLUMBING PLAN, MIN. 3/4". EACH UNIT TO VALVE ISOLATED AND HAVE A FLOW METER WITH REMOTE READ CAPABILITY.
- ⑩ ABANDON/CAP EXISTING SEWER STUB AT PROPERTY LINE. EXISTING SERVICE LOCATION ESTIMATED FROM THE CITY'S QUARTER SECTION MAP. FIELD VERIFY LOCATION.
- ⑪ FURNISH AND INSTALL 4" CLASS 350 DUCTILE IRON PIPE FIRELINE. LINE TO TERMINATE AT CITY APPROVED VERTICALLY MOUNTED DOUBLE CHECK VALVE BACKFLOW PREVENTER. SEE SPRINKLER PLAN FOR CONTINUATION. ALL CONSTRUCTION TO BE COMPLIANT WITH C.O.S. STANDARD DETAIL 2351 AND 2362-2
- ⑫ FURNISH AND INSTALL 6" X 4" TAPPING SLEEVE WITH 4" X 4" CLASS 350 DUCTILE IRON SPOOL WITH 4" VALVE FLANGED TO THE FITTING. VALVE BOX AND COVER PER M.A.G. STANDARD DETAIL 391-1.
- ⑬ FURNISH AND INSTALL NEW DOMESTIC WATER SERVICE (COMMERCIAL), METER BOX AND METER PER C.O.S. STANDARD DETAIL 2330. SIZE PER PLUMBING PLANS.



**THE BISHOP**  
3702, 3638 & 3632 N. BISHOP LANE AND 7125 E. 2<sup>ND</sup> STREET  
SCOTTSDALE, AZ 85261

**PRELIMINARY UTILITY PLAN**



A circular professional engineer seal for the State of Arizona. The outer ring contains the text "Registered Professional Engineer" at the top and "ARIZONA, U.S.A." at the bottom. The center of the seal contains the text "CERTIFICATE NO. 47507", the name "STEVEN BARGELOH", and the expiration date "Date Expires 1-28-2003". A signature is written across the bottom of the seal.

**SHEET  
C4 OF 10**



| PROJECT INFORMATION        |  |
|----------------------------|--|
| ENGINEERED PRODUCT MANAGER |  |
| ADS SALES REP              |  |
| PROJECT NO.                |  |



# THE BISHOP - ALTERNATE

## SCOTTSDALE, AZ, USA

### MC-3500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-3500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
  - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
  - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
  - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

- STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOOTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

**USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.**

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



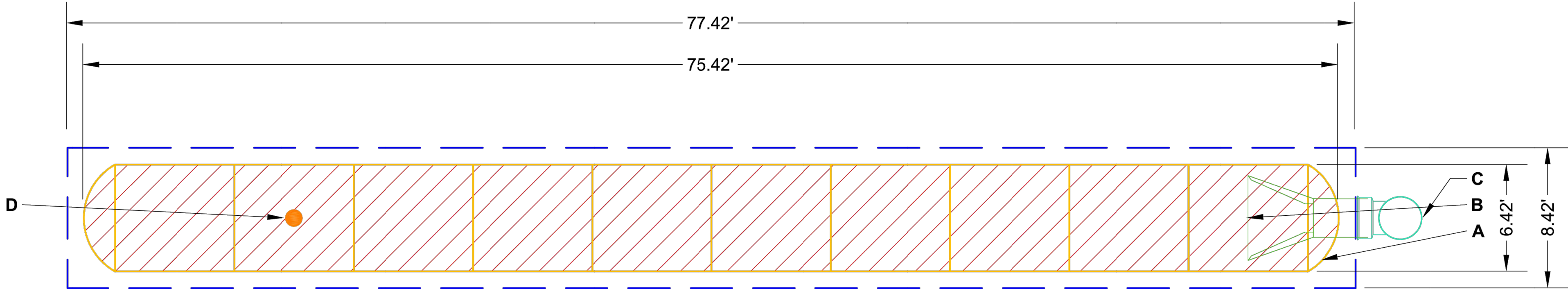


| PROPOSED LAYOUT |   | CONCEPTUAL ELEVATIONS:                                    |         | *INVERT ABOVE BASE OF CHAMBER     |                 |  |               |          |  |
|-----------------|---|---|---------|-----------------------------------|-----------------|--|---------------|----------|--|
|                 |   |   |         | PART TYPE                         | ITEM ON LAYOUT  | DESCRIPTION  | INVERT*       | MAX FLOW |  |
| 10              | STORMTECH MC-3500 CHAMBERS  | MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):        | 1254.25 | PREFABRICATED END CAP             | A               | 24" BOTTOM PRE-CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS | 2.06"         |          |  |
| 2               | STORMTECH MC-3500 END CAPS  | MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):           | 1252.00 |                                   |                 |  |               |          |  |
| 12              | STONE ABOVE (in)  | MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):             | 1251.50 |                                   |                 |  |               |          |  |
| 9               | STONE BELOW (in)  | MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT): | N/A     |                                   |                 |  |               |          |  |
| 40              | STONE VOID  | MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):      | 1251.50 | FLAMP                             | B               | INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MCFLAMP  |               |          |  |
| 2111            | INSTALLED SYSTEM VOLUME (CF)<br>(PERIMETER STONE INCLUDED)<br>(COVER STONE INCLUDED)<br>(BASE STONE INCLUDED) | TOP OF STONE:   | 1250.00 | NYLOPLAST (INLET W/ ISO PLUS ROW) | C               | 30" DIAMETER (24.00" SUMP MIN)   |               |          |  |
|                 |   | TOP OF MC-3500 CHAMBER:                                   | 1246.25 |                                   |                 |  |               |          |  |
|                 |   | 24" ISOLATOR ROW PLUS INVERT:                             | N/A     |                                   | INSPECTION PORT | D  | 6" SEE DETAIL |          |  |
|                 |   | BOTTOM OF MC-3500 CHAMBER:                                | 1246.25 |                                   |                 |  |               |          |  |
| 652             | SYSTEM AREA (SF)  | BOTTOM OF STONE:  | 1245.50 |                                   |                 |  |               |          |  |
| 171.7           | SYSTEM PERIMETER (ft)   |   |         |                                   |                 |  |               |          |  |

ISOLATOR ROW PLUS  
(SEE DETAIL)

NO WOVEN GEOTEXTILE

— — BED LIMITS



**NOTES**

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

THE BISHOP - ALTERNATE

SCOTTSDALE, AZ, USA

DATE: 01/28/2025

PROJECT #:

CHECKED: N/A

StormTech®

Chamber System

1-800-821-6710 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD  
HILLIARD, OH 43026  
1-800-733-7473

ADS

0 10 20

SHEET C6

6 OF 10

DESCRIPTION

CHK

DRW

DATE

1-28-2025

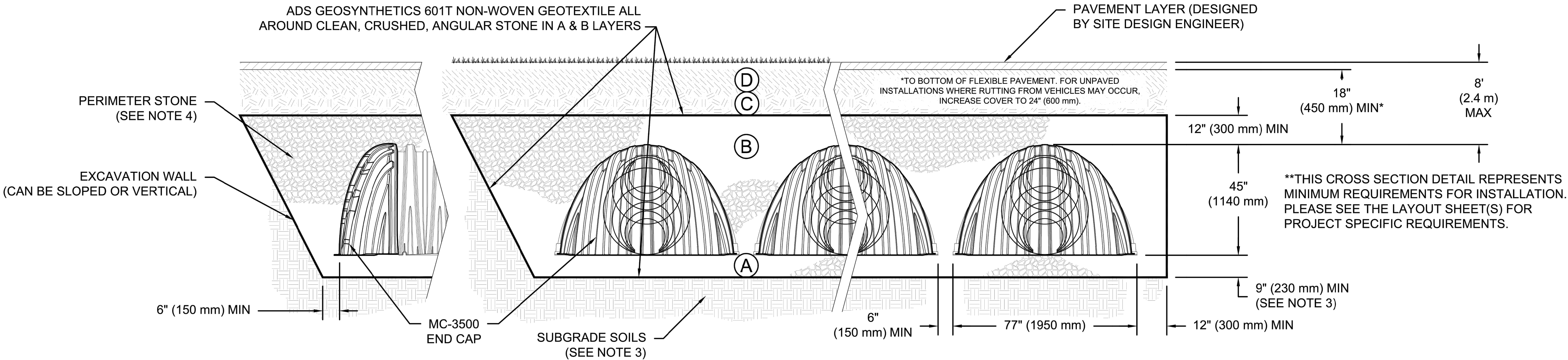
THIS DRAWING IS NOT INTENDED FOR USE IN BIDDING OR CONSTRUCTION WITHOUT THE EOR'S PRIOR APPROVAL. FOR SHALL REVIEW THIS DRAWING PRIOR TO BIDDING AND/OR CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE EOR TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.



ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

| MATERIAL LOCATION |  | DESCRIPTION  | AASHTO MATERIAL CLASSIFICATIONS   | COMPACTION / DENSITY REQUIREMENT  |
|-------------------|--|--|---|---|
| D                 | <b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER  | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.  | N/A   | PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.   |
| C                 | <b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER. | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.<br><br>MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER. | AASHTO M145 <sup>1</sup><br>A-1, A-2-4, A-3<br><br>OR<br><br>AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 | BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. |
| B                 | <b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.  | CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>5</sup>  | AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57  | NO COMPACTION REQUIRED.   |
| A                 | <b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.   | CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>5</sup>  | AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57  | PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>   |

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
  - WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



THE BISHOP - ALTERNATE

SCOTTSDALE, AZ, USA

DATE: 01/28/2025

PROJECT #:

PROJECT DESCRIPTION

DATE

DRW

CHK

StormTech®

Chamber System

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4640 TRUEMAN BLVD  
HILLIARD, OH 43026  
1-800-733-7473

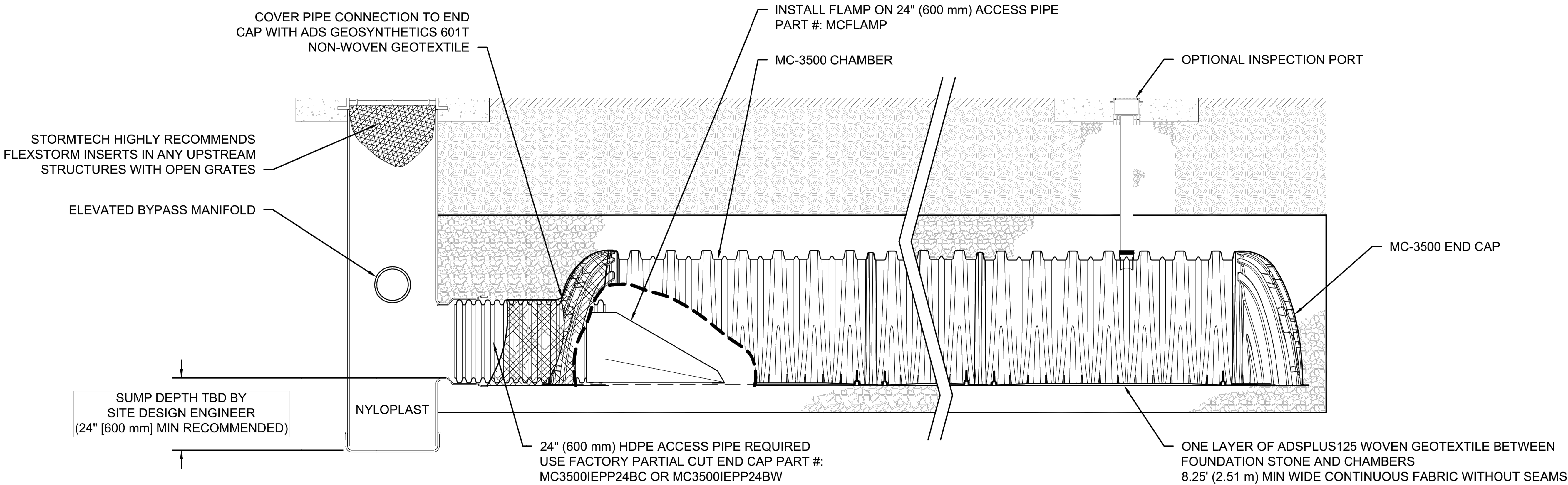
ADS

REGISTERED PROFESSIONAL ENGINEER  
47507  
STEVEN  
BARGELEH  
1-28-2025

SHEET  
C7  
7 OF 10

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS/STORMTECH UNDER THE DIRECTION OF THE PROJECT'S ENGINEER OF RECORD (EOR) OR OTHER PROJECT REPRESENTATIVE. THIS DRAWING IS NOT INTENDED FOR USE IN BIDDING OR CONSTRUCTION WITHOUT THE EOR'S PRIOR APPROVAL. EOR SHALL REVIEW THIS DRAWING PRIOR TO BIDDING AND/OR CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE EOR TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.





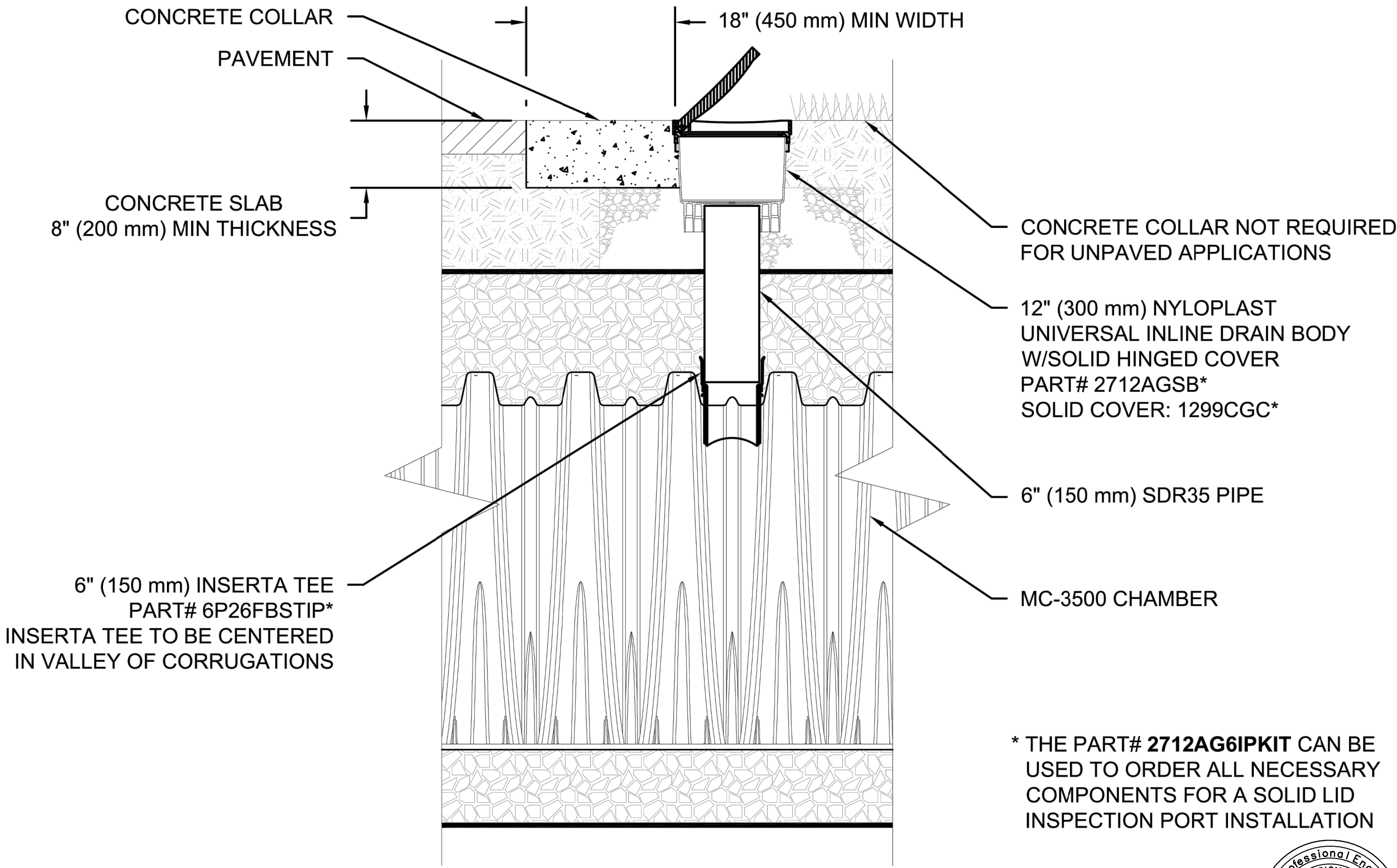
**MC-3500 ISOLATOR ROW PLUS DETAIL**  
NTS

**INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.


**NOTES**

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



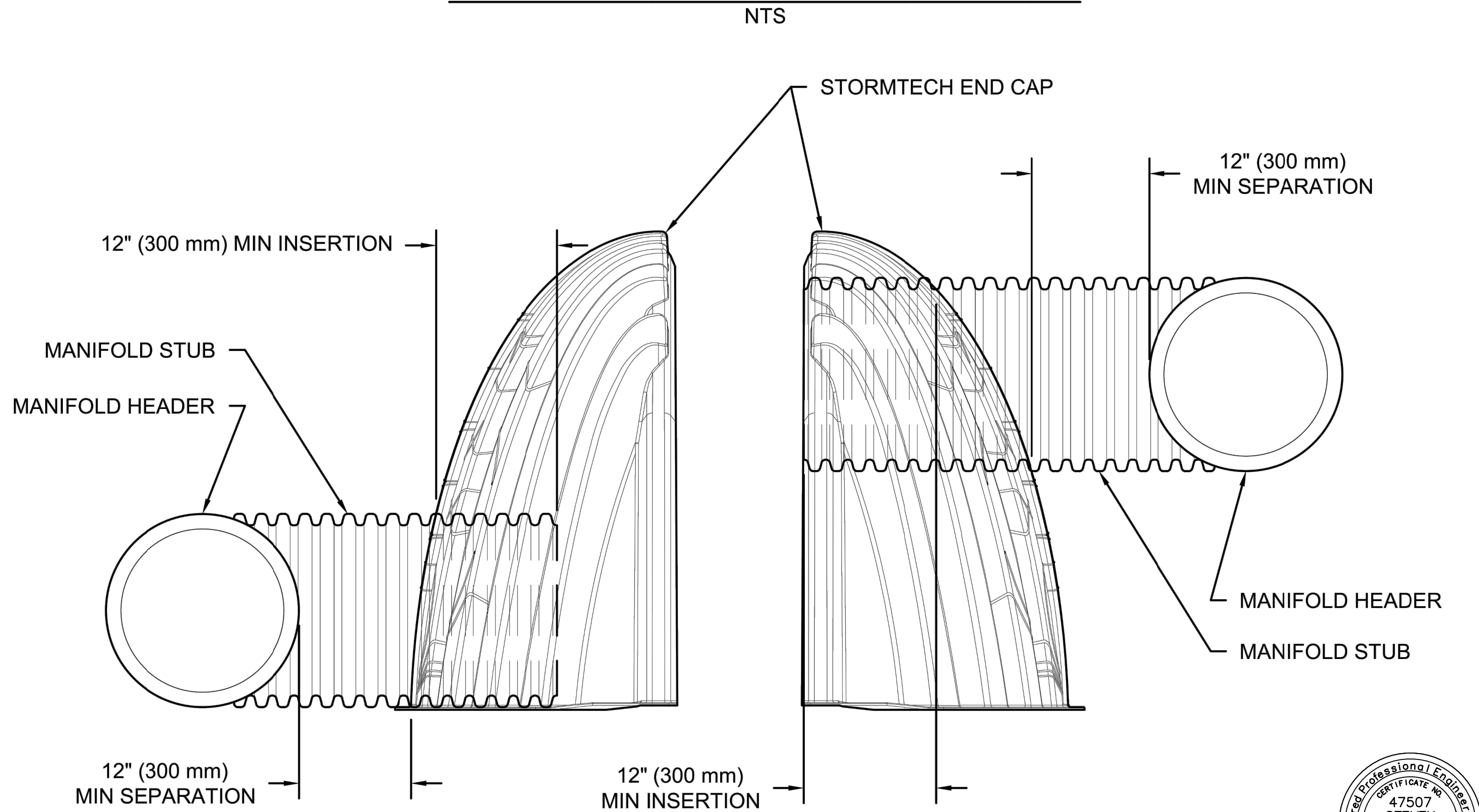
**MC-3500 6" (150 mm) INSPECTION PORT DETAIL**  
NTS



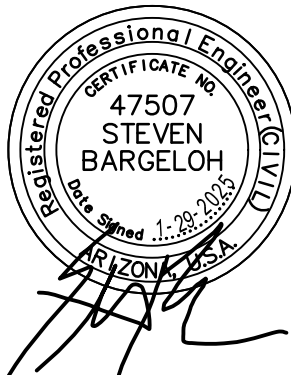
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| <div><div>4640 TRUEMAN BLVD<br/>HILLIARD, OH 43026<br/>1-800-733-7473</div></div> |  | <div><b>StormTech®</b><br/>Chamber System</div> <div>1-800-821-6710   <a href="http://WWW.STORMTECH.COM">WWW.STORMTECH.COM</a></div> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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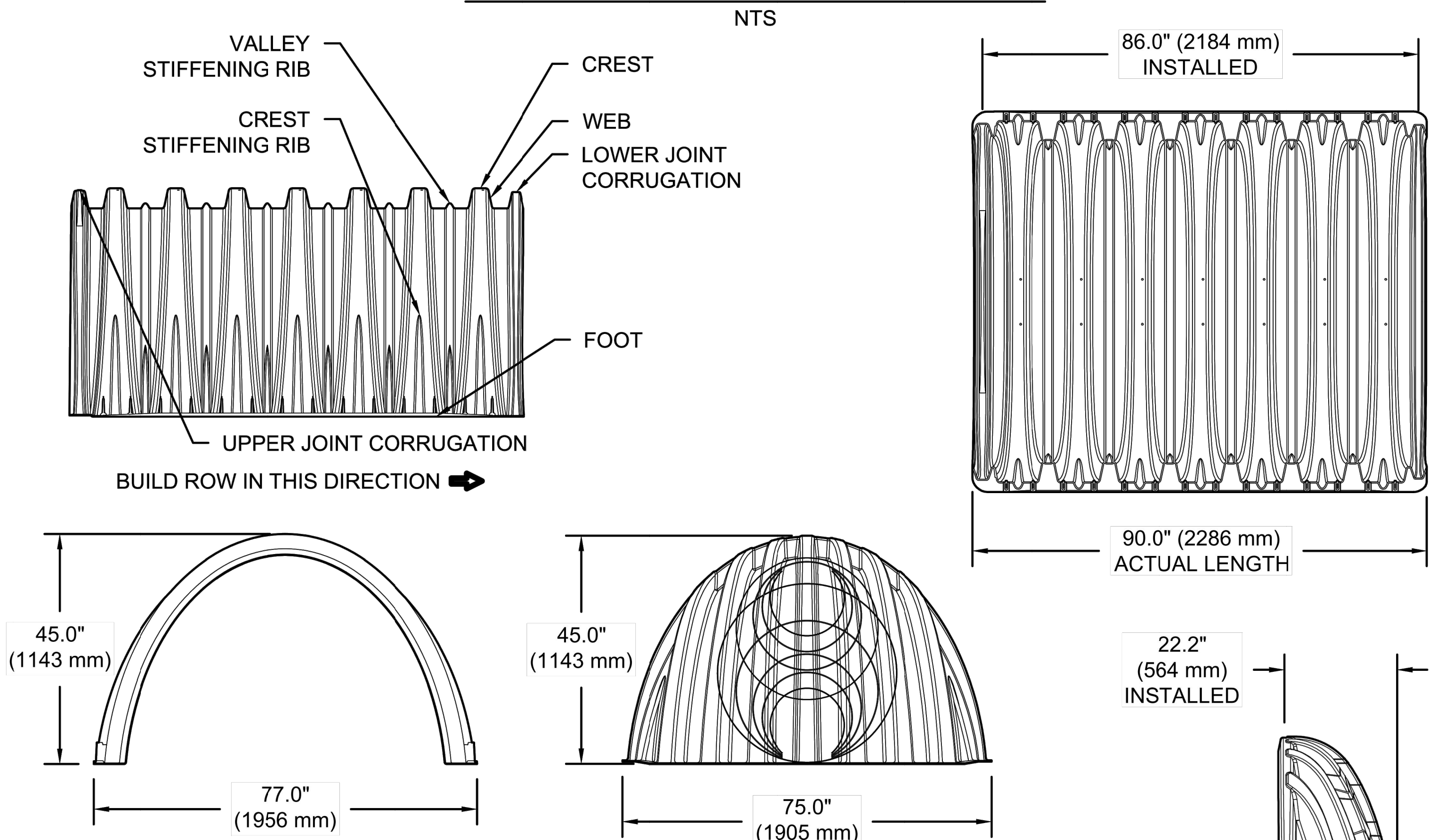
MC-SERIES END CAP INSERTION DETAIL



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.



MC-3500 TECHNICAL SPECIFICATION



NOMINAL CHAMBER SPECIFICATIONS

|                                 |                       |                               |
|---------------------------------|-----------------------|-------------------------------|
| SIZE (W X H X INSTALLED LENGTH) | 77.0" X 45.0" X 86.0" | (1956 mm X 1143 mm X 2184 mm) |
| CHAMBER STORAGE                 | 109.9 CUBIC FEET      | (3.11 m³)                     |
| MINIMUM INSTALLED STORAGE*      | 175.0 CUBIC FEET      | (4.96 m³)                     |
| WEIGHT                          | 134 lbs.              | (60.8 kg)                     |

NOMINAL END CAP SPECIFICATIONS

|                                 |                       |                              |
|---------------------------------|-----------------------|------------------------------|
| SIZE (W X H X INSTALLED LENGTH) | 75.0" X 45.0" X 22.2" | (1905 mm X 1143 mm X 564 mm) |
| END CAP STORAGE                 | 14.9 CUBIC FEET       | (0.42 m³)                    |
| MINIMUM INSTALLED STORAGE*      | 45.1 CUBIC FEET       | (1.28 m³)                    |
| WEIGHT                          | 49 lbs.               | (22.2 kg)                    |

\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
END CAPS WITH A WELDED CROWN PLATE END WITH "C"  
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

| PART #         | STUB         | B               | C             |
|----------------|--------------|-----------------|---------------|
| MC3500IEPP06T  | 6" (150 mm)  | 33.21" (844 mm) | ---           |
| MC3500IEPP06B  |              | ---             | 0.66" (17 mm) |
| MC3500IEPP08T  |              | 31.16" (791 mm) | ---           |
| MC3500IEPP08B  | 8" (200 mm)  | ---             | 0.81" (21 mm) |
| MC3500IEPP10T  |              | 29.04" (738 mm) | ---           |
| MC3500IEPP10B  |              | ---             | 0.93" (24 mm) |
| MC3500IEPP12T  | 12" (300 mm) | 26.36" (670 mm) | ---           |
| MC3500IEPP12B  |              | ---             | 1.35" (34 mm) |
| MC3500IEPP15T  |              | 23.39" (594 mm) | ---           |
| MC3500IEPP15B  | 15" (375 mm) | ---             | 1.50" (38 mm) |
| MC3500IEPP18TC |              | 20.03" (509 mm) | ---           |
| MC3500IEPP18TW |              |                 | ---           |
| MC3500IEPP18BC |              |                 | 1.77" (45 mm) |
| MC3500IEPP18BW | 18" (450 mm) | 14.48" (368 mm) | ---           |
| MC3500IEPP24TC |              |                 | ---           |
| MC3500IEPP24TW |              |                 | ---           |
| MC3500IEPP24BC | 24" (600 mm) | ---             | 2.06" (52 mm) |
| MC3500IEPP24BW |              | ---             | ---           |
| MC3500IEPP30BC | 30" (750 mm) | ---             | 2.75" (70 mm) |

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

THE BISHOP - ALTERNATE

SCOTTSDALE, AZ, USA

DATE: 01/28/2025

PROJECT #:

CHECKED: N/A

DESCRIPTION

CHK

DATE

DRW

StormTech®  
Chamber System

1-800-821-6710 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD  
HILLIARD, OH 43026  
1-800-733-7473

**ADS**

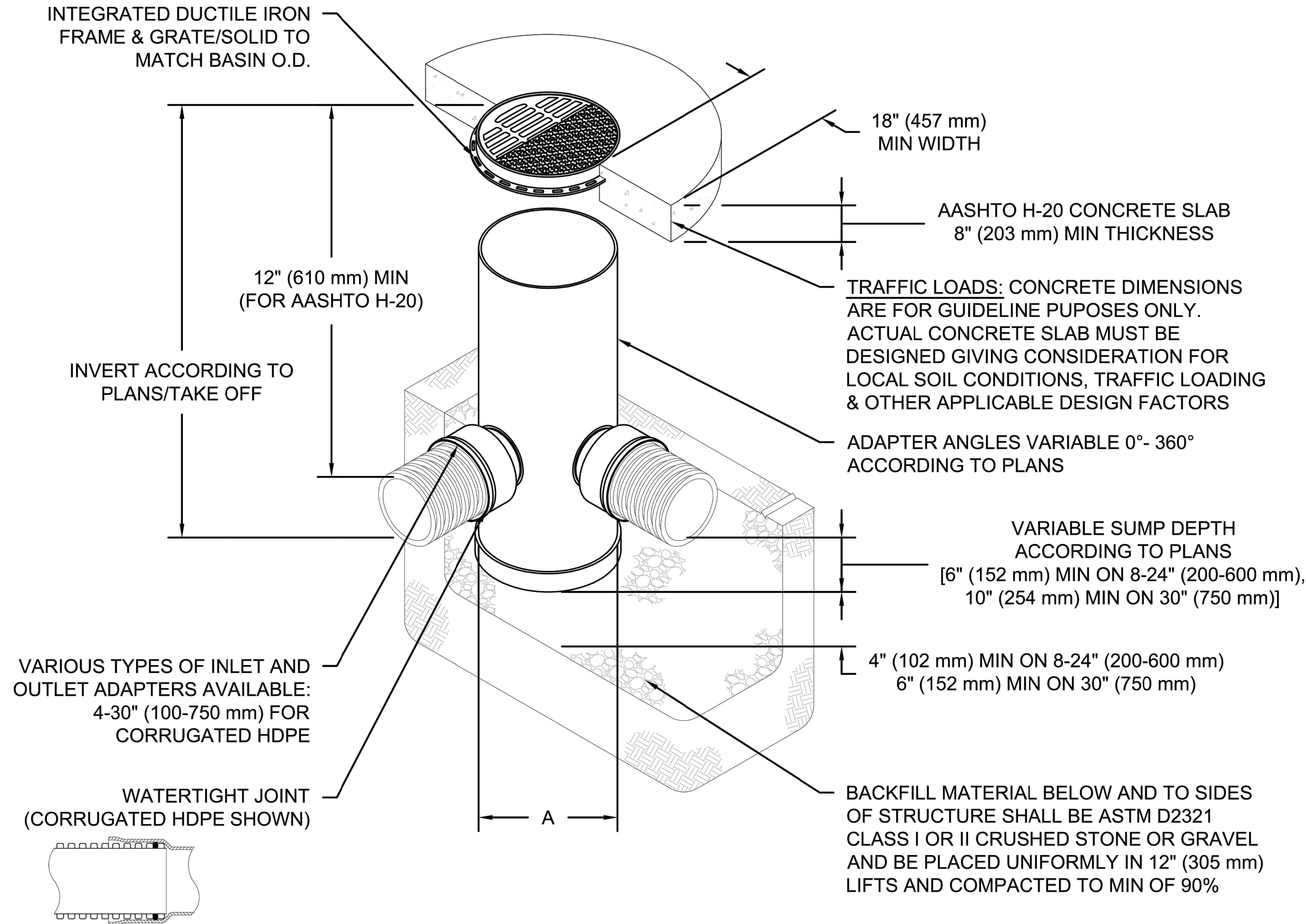
SHEET  
C9  
9 OF 10

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS/STORMTECH UNDER THE DIRECTION OF THE PROJECT'S ENGINEER OF RECORD (EOR) OR OTHER PROJECT REPRESENTATIVE. THIS DRAWING IS NOT INTENDED FOR USE IN BIDDING OR CONSTRUCTION WITHOUT THE EOR'S PRIOR APPROVAL. FOR SHALL REVIEW THIS DRAWING PRIOR TO BIDDING AND/OR CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE EOR TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.



## NYLOPLAST DRAIN BASIN

NTS



## NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

| A               | PART # | GRATE/SOLID COVER OPTIONS |                         |                      |
|-----------------|--------|---------------------------|-------------------------|----------------------|
| 8"<br>(200 mm)  | 2808AG | PEDESTRIAN LIGHT<br>DUTY  | STANDARD LIGHT<br>DUTY  | SOLID LIGHT DUTY     |
| 10"<br>(250 mm) | 2810AG | PEDESTRIAN LIGHT<br>DUTY  | STANDARD LIGHT<br>DUTY  | SOLID LIGHT DUTY     |
| 12"<br>(300 mm) | 2812AG | PEDESTRIAN<br>AASHTO H-10 | STANDARD AASHTO<br>H-20 | SOLID<br>AASHTO H-20 |
| 15"<br>(375 mm) | 2815AG | PEDESTRIAN<br>AASHTO H-10 | STANDARD AASHTO<br>H-20 | SOLID<br>AASHTO H-20 |
| 18"<br>(450 mm) | 2818AG | PEDESTRIAN<br>AASHTO H-10 | STANDARD AASHTO<br>H-20 | SOLID<br>AASHTO H-20 |
| 24"<br>(600 mm) | 2824AG | PEDESTRIAN<br>AASHTO H-10 | STANDARD AASHTO<br>H-20 | SOLID<br>AASHTO H-20 |
| 30"<br>(750 mm) | 2830AG | PEDESTRIAN<br>AASHTO H-20 | STANDARD AASHTO<br>H-20 | SOLID<br>AASHTO H-20 |

## THE BISHOP - ALTERNATE

SCOTTSDALE, AZ, USA

DATE: 01/28/2025

|                  |              |
|------------------|--------------|
| DATE: 01/28/2025 | DRAWN: SB    |
| PROJECT #:       | CHECKED: N/A |

DESCRIPTION

CHK

DRW

DAT

**Nyloplast®**

770-932-2443 | [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)

4640 TRUEMAN BLVD  
HILLIARD, OH 43026  
1-800-733-7473



SHEET  
C10  
10 OF 10

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ASSISTOR/TECH UNDER THE DIRECTION OF THE PROJECT'S ENGINEER OF RECORD ("EOR") OR OTHER PROJECT REPRESENTATIVE. THIS DRAWING IS NOT INTENDED FOR USE IN BIDDING OR CONSTRUCTION WITHOUT THE EOR'S PRIOR APPROVAL. EOR SHALL REVIEW THIS DRAWING PRIOR TO BIDDING AND/OR CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE EOR TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE



1.

PLANT MATERIALS MUST BE INDIVIDUALLY TAGGED IN THE FIELD AT THE TIME THE INVENTORY PLANS ARE SUBMITTED. TAGGED MATERIALS MUST BE CLEARLY MARKED WITH WATERPROOF INK AND INCLUDE THE NUMBER WHICH CORRESPONDS TO THE NUMBER SHOWN ON THE PLANS.
2.

ALL PLANT MATERIALS MUST REMAIN ON SITE UNTIL THE SALVAGE PLAN IS APPROVED.
3.

TAGS MUST BE ATTACHED SO THAT THEY WILL REMAIN ON THE PLANT FOR THE DURATION OF THE SALVAGE AND NURSERY STORAGE PERIOD.
4.

ALL SALVAGEABLE MATERIAL IS TO BE CLEARLY FLAGGED WITH TAPE OR PLASTIC TAGS VISIBLE FROM ALL DIRECTIONS. TAGS SHALL BE NUMBERED TO CORRESPOND WITH THE PLANT INVENTORY PLAN AND LEGEND.

COLOR CODE AS FOLLOWS:  
RED - SALVAGE AND RELOCATE  
WHITE - PRESERVE AND PROTECT IN PLACE  
BLUE - DESTROY, NOT SALVAGEABLE AND CANNOT REMAIN IN PLACE

5.

ALL SALVAGEABLE PLANTS WILL BE STORED AT AN ON-SITE HOLDING YARD AND WILL BE RE-PLANTED ON-SITE AT A LATER DATE.
6.

ALL MISCELLANEOUS CACTI UNDER 3' IN HEIGHT WILL BE SALVAGED AND STORED IN THE NURSERY IF THEY ARE WITHIN THE BUILDING ENVELOPE AND AFFECTED BY CONSTRUCTION.
7.

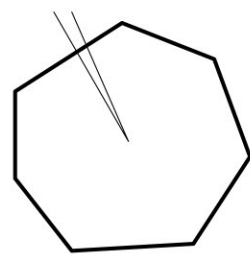
UPON REMOVAL OF SALVAGEABLE NATIVE PLANTS THE SALVAGE CONTRACTOR SHALL SUBMIT A LIST IDENTIFYING THE TAG NUMBER OF THE PLANTS SURVIVING SALVAGE OPERATIONS TO THE CITY'S LANDSCAPE INSPECTOR PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
8.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PROJECT PROPERTY LINES PRIOR TO SALVAGE. ANY PLANT MATERIAL THAT IS LABELED SALVAGEABLE OR NON-SALVAGEABLE OUTSIDE OF FINAL STAKING BOUNDARIES IS TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED BY OWNER.
9.

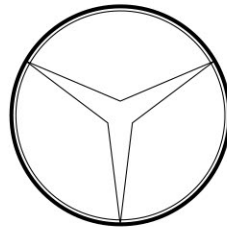
CONTRACTOR TO VERIFY WITH OWNER ALL PLANT MATERIAL LABELED SALVAGEABLE OR NON-SALVAGEABLE ADJACENT TO N.A.O.S. BOUNDARIES AND /OR DRAINAGE WAYS

NOTE AERIAL SHOWS ADDITIONAL TREES THAT ARE NOT NOTED. THESE ARE EITHER DEAD OR HAVE BEEN PREVIOUSLY REMOVED.

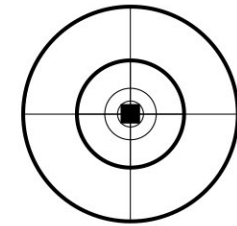
PLANT SYMBOL LEGEND:



*Parkinsonia Praecox*  
\*\*NON NATIVE SPECIES  
Palo Brea



*Prosopis chilensis*  
\*\*NON NATIVE SPECIES  
Chilean Mesquite



*Ebanopsis ebano*  
\*\*NON NATIVE SPECIES  
Texas Ebony

| Tag# | Species     | Condition | Tree Salvageability | Inventory Designation | Tree Height-Ft | Caliper Inches | Salvageability Comments | Tree Width-Ft |
|------|-------------|-----------|---------------------|-----------------------|----------------|----------------|-------------------------|---------------|
| 1    | Palo Brea   | Fair      | Non Salvage         | Remove                | 20             | 14             | Close To Pavement       | 19            |
| 2    | Palo Brea   | Fair      | Non Salvage         | Remove                | 16             | 9              | Close To Pavement       | 18            |
| 3    | Palo Brea   | Fair      | Non Salvage         | Remove                | 15             | 8              | Poor Condition          | 15            |
| 4    | Palo Brea   | Fair      | Non Salvage         | Remove                | 27             | 10             | Poor Condition          | 24            |
| 5    | Mesquite    | Fair      | Non Salvage         | Remove                | 32             | 16             | Split Head              | 24            |
| 6    | Palo Brea   | Fair      | Non Salvage         | Remove                | 22             | 10             | Poor Condition          | 23            |
| 7    | Mesquite    | Fair      | Non Salvage         | Remove                | 24             | 18             | Leaning                 | 33            |
| 8    | Mesquite    | Fair      | Non Salvage         | Remove                | 15             | 8              | Leaning                 | 15            |
| 9    | Palo Brea   | Fair      | Non Salvage         | Remove                | 15             | 6              | Leaning                 | 13            |
| 10   | Palo Brea   | Fair      | Non Salvage         | Remove                | 17             | 8              | Close To Pavement       | 16            |
| 11   | Palo Brea   | Fair      | Non Salvage         | Remove                | 15             | 7              | Poor Condition          | 15            |
| 12   | Palo Brea   | Fair      | Non Salvage         | Remove                | 14             | 8              | Poor Condition          | 15            |
| 13   | Texas Ebony | Fair      | Non Salvage         | Remove                | 34             | 24             | Exposed Roots           | 32            |

Summary

Salvage Plants

0 Trees on this site to be salvaged totaling 11 caliper inches  
0 Cacti on this site that are to be salvaged 4 lateral Feet  
0 Total Plants to Salvage

Plants to be Removed

13 Trees on this site that are to be removed(destroyed) totaling 146 caliper inches  
0 Cacti on this site that are to be removed(destroyed) totaling 00 lateral feet  
13 Total Plants to Destroy (Unsalvageable)

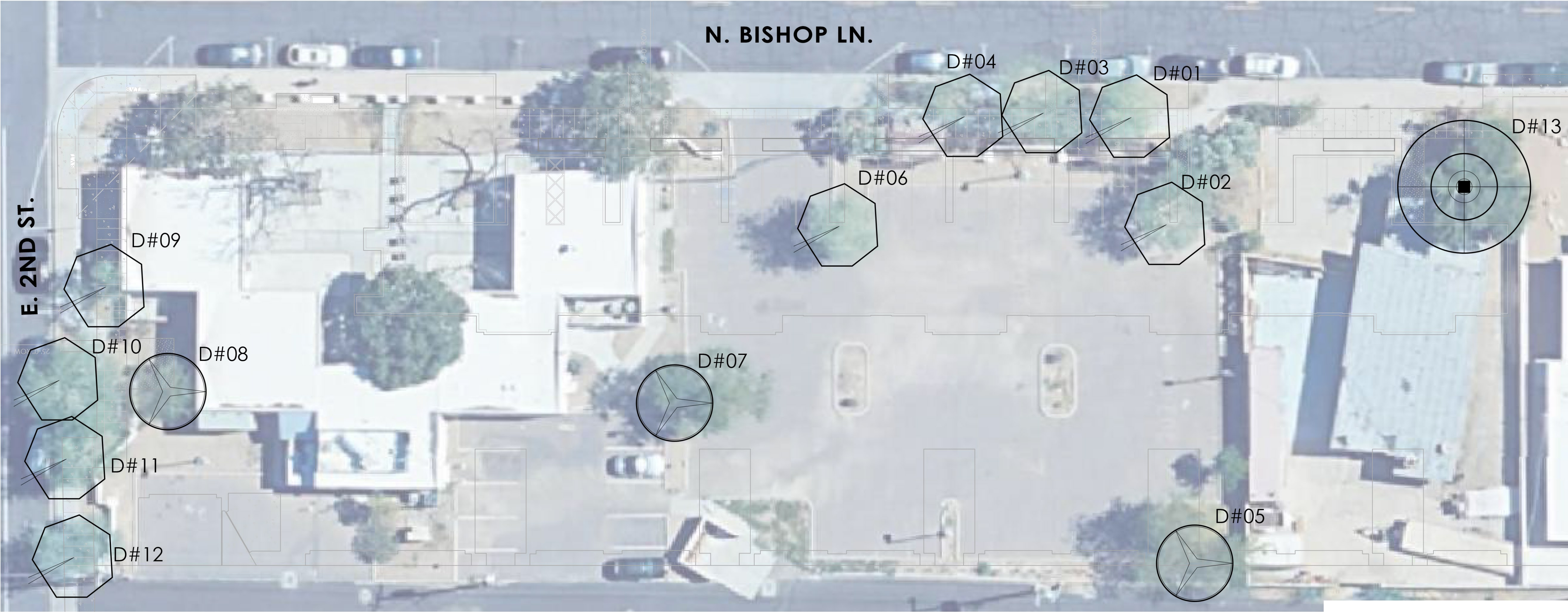
ADDITIONAL NOTES: SUMMARY OF REASONING

NO TREES WERE DEEMED SALVAGEABLE, FOR MULTIPLE REASONS.

1. PALO BREA TREES ARE SUSCEPTIBLE TO A FUNGAL DISEASE, ONE SHOWS MUCH OF THIS ALL OVER THE TRUNK AND BRANCHES.

2. MANY ARE WITHIN CLOSE PROXIMITY TO SIDEWALKS, STRUCTURES OR WALLS, MAKING THEIR SALVAGEABILITY NOT POSSIBLE.

3. THE QUALITY OF MANY OF THE TREES IS VERY POOR. YEARS OF BEING BUTCHERED THROUGH PRUNING HAS LEFT THEM IN BAD SHAPE AND FORM. NOT WORTH SALVAGING.



INVENTORY COMPLETED BY:

ARIZONA SPECIALTY CACTUS  
PHONE: 602-694-3496  
E-MAIL: AZSPECIALTYCACTUS@GMAIL.COM  
CONTACT: ALEX GREY

The Bishop  
Scottsdale, AZ

3702 N Bishop Ln  
7125 E 2nd St

L2.0 Native Plant Inventory

GREY | PICKETT

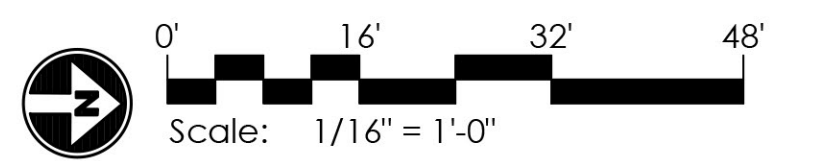
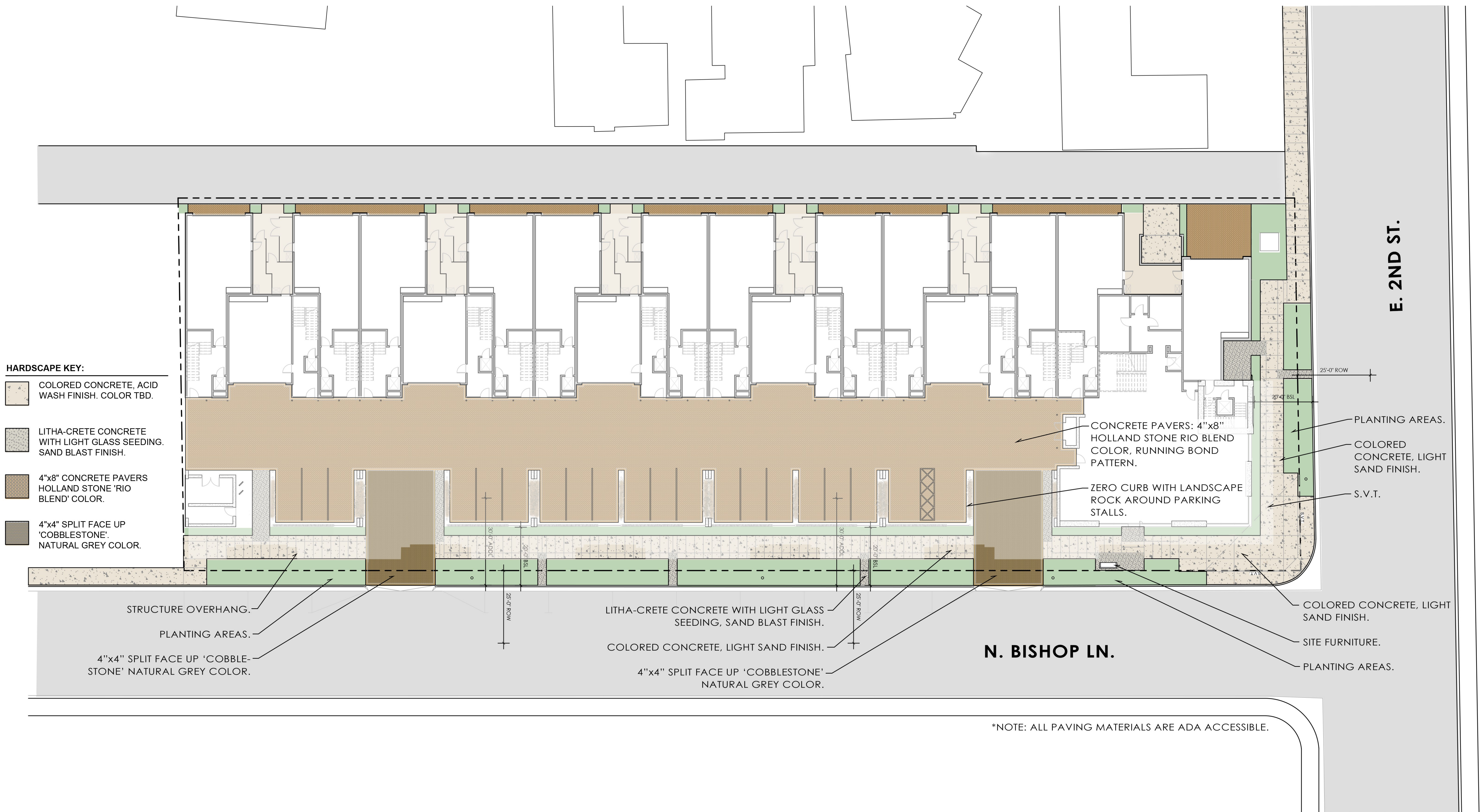
1/16"=1'-0" January, 28 2025



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The Bishop  
Scottsdale, AZ

3702 N Bishop Ln  
7125 E 2nd St

## L2.1 Landscape Layout

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**GREEY | PICKETT**

1/16" = 1'-0" January 28, 2025



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1978 **46** 2024  
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lighting design

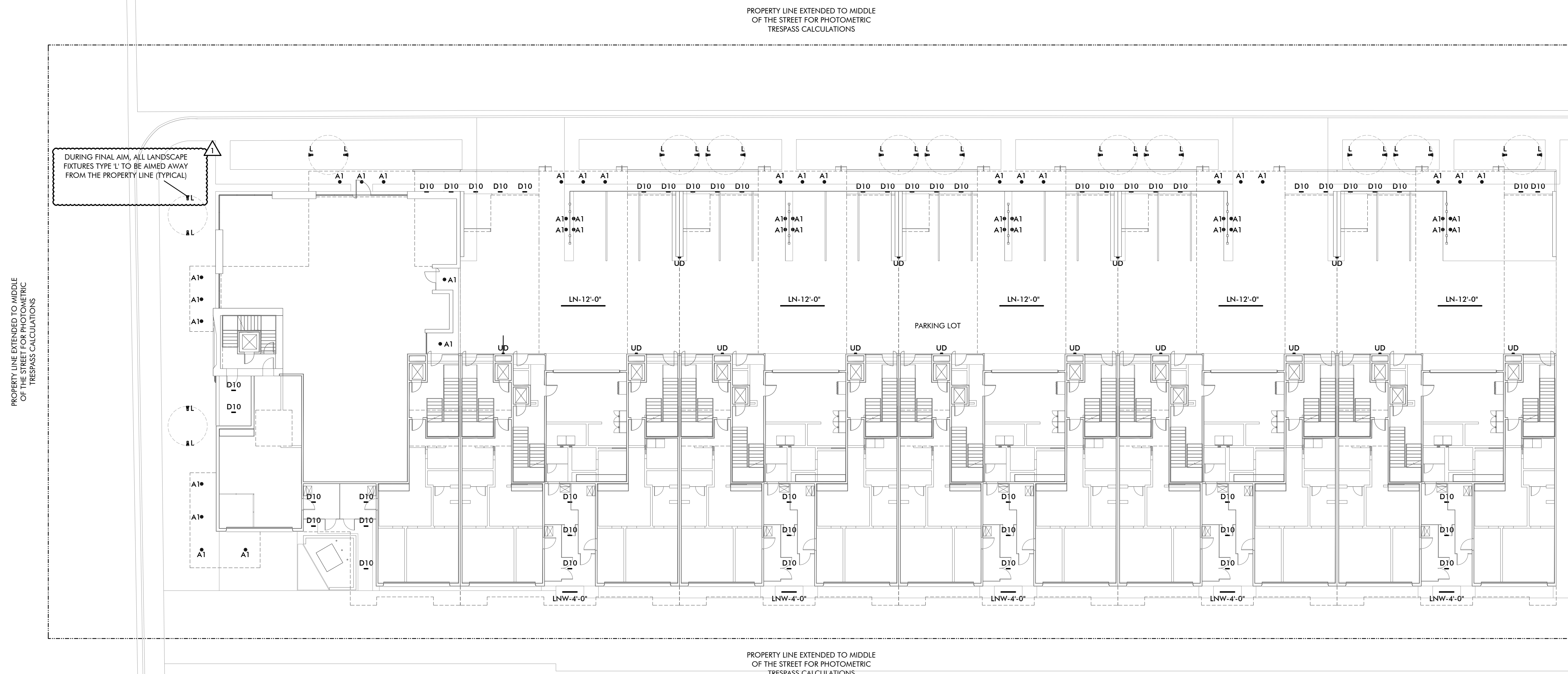
**THE BISHOP**  
East 2nd Ave & North Bishop Ln, Scottsdale, AZ

|                |
|----------------|
| DATE           |
| 10.01.2024     |
| SCALE          |
| 1/16" = 1'-0"  |
| PROJECT NUMBER |
| 104772-24      |
| DRAWN BY       |
| JB             |
| CHECKED BY     |
| MG             |
| SHEET NAME     |

## SITE LIGHTING PLAN

SHEET NUMBER
































# AL1



## FIRST LEVEL LIGHTING PLAN

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

### LIGHTING PLAN SYMBOL LEGEND

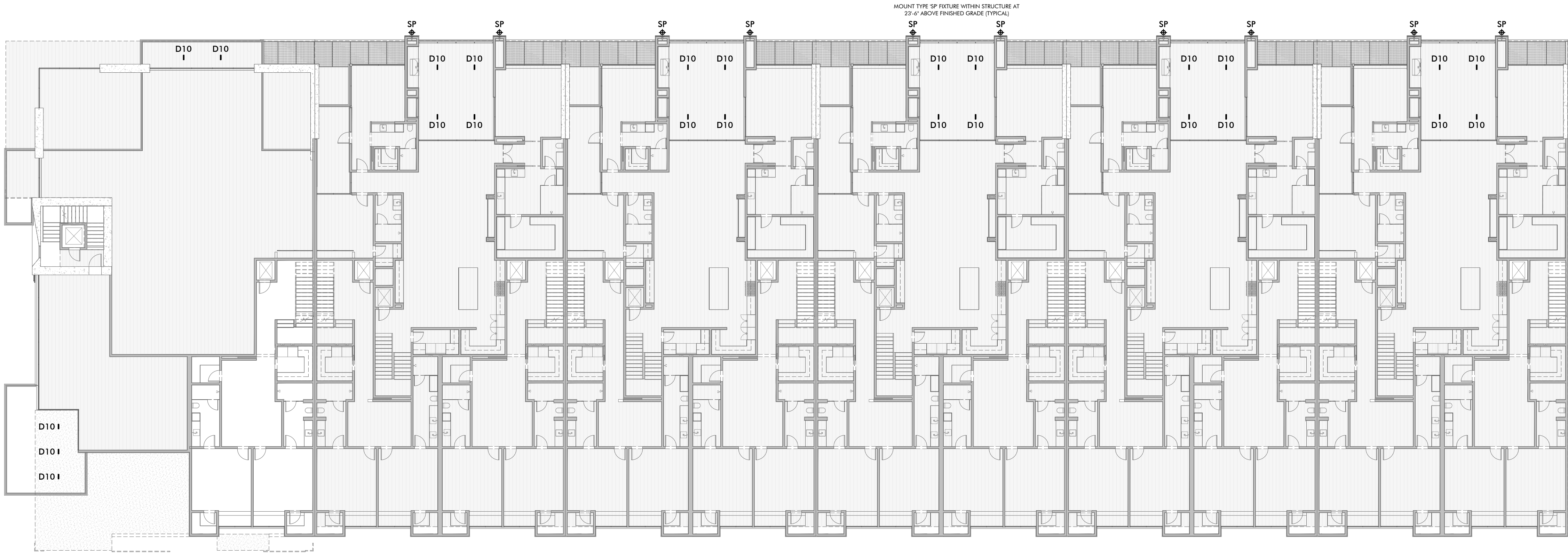
- |   |   |
|---|---|
|    | SINGLE POLE SWITCH  |
|   | 3-WAY SWITCH/SMART SWITCH                                       |
|  | 4-WAY SWITCH  |
|  | SINGLE POLE JAMB SWITCH   |
|  | SINGLE POLE MOTION SWITCH                                       |
|  | SINGLE POLE SWITCH WITH WATERPROOF COVER                        |
|  | SINGLE POLE FAN SWITCH  |
|  | SINGLE POLE TIMER SWITCH  |
|  | SINGLE POLE DIMMER  |
|  | 3-WAY DIMMER  |
|  | KEYNOTE BUBBLE  |
|  | CEILING MOUNTED JUNCTION BOX                                    |
|  | WALL MOUNTED JUNCTION BOX                                       |
|  | REMOTE LOW VOLTAGE TRANSFORMER - SEE FIXTURE SCHEDULE           |
|  | CEILING MOUNTED EXHAUST FAN                                     |
|  | WALL MOUNTED EXHAUST FAN  |
|  | ELECTRIC FIREPLACE IGNITER                                      |
|  | REMOTE LED DRIVER - SEE FIXTURE SCHEDULE                        |
|  | SHADE AND DRAPE MOTOR (BY SHADE CONTRACTOR)                     |
|  | LIGHTING CONTROL SYSTEM CONTROL STATION                         |
|  | LIGHTING CONTROL SYSTEM WIRELESS RF STATION                     |
|  | LIGHTING CONTROL SYSTEM STATION WITH WATERPROOF COVER BY OTHERS |
|  | LIGHTING CONTROL SYSTEM SWITCH LEG NUMBER                       |
|  | DUPLEX RECEPTACLE   |
|  | 1/2 HOT DUPLEX RECEPTACLE                                       |
|  | WEATHER PROOF GFCI DUPLEX RECEPTACLE                            |
|  | SWITCHED WEATHER PROOF GFCI DUPLEX RECEPTACLE                   |
|  | 1/2 HOT FLOOR PLUG RECEPTACLE                                   |
|  | MOTION DETECTOR   |
|  | CEILING MOUNTED DECORATIVE LUMINAIRE                            |
|  | WALL MOUNTED DECORATIVE LUMINAIRE                               |
| NOTE: SOME SYMBOLS ON THIS LEGEND MAY NOT BE USED ON THIS PROJECT.                |   |

## GENERAL NOTES

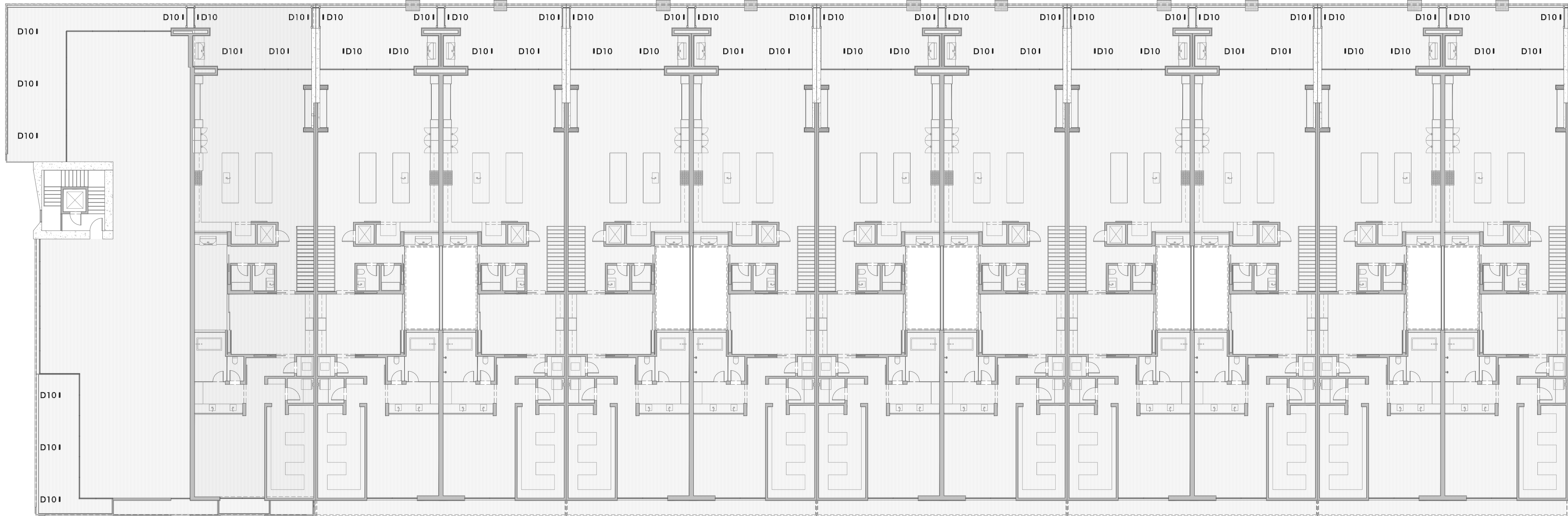
- |    |  |     |   |
|----|--|-----|---|
| 1. | IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO PROVIDE A LIGHTING SYSTEM WHICH IS COMPLETE AND OPERATIONAL. ALL MATERIALS AND EQUIPMENT NECESSARY TO ACCOMPLISH THIS INTENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SUBSTITUTIONS TO SPECIFIED LIGHTING AND CONTROL EQUIPMENT SHALL NOT BE PERMITTED WITHOUT PRIOR REVIEW AND WRITTEN APPROVAL OF CREATIVE DESIGNS IN LIGHTING. | 6.  | ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL LIGHTING EQUIPMENT WITH THE GENERAL CONTRACTOR AND ANY APPLICABLE SUB-CONTRACTOR (I.E. FRAMING, MECHANICAL, CABINETRY, ETC.) PRIOR TO ROUGH-IN.  |
| 2. | THE GENERAL CONTRACTOR AND THE ELECTRICAL CONTRACTOR ARE RESPONSIBLE FOR REVIEWING THE INFORMATION ON ALL OF THESE PLANS. IF THERE ARE ERRORS OR OMISSIONS OR QUESTIONS CONCERNING THESE PLANS PLEASE CALL CREATIVE DESIGNS IN LIGHTING FOR CLARIFICATION.   | 7.  | <b>ALL RECESSED TRIMS AND/OR TRIM RINGS SHALL BE PAINTED TO MATCH COLOR OF CEILING (INTERIOR AND EXTERIOR).</b>   |
| 3. | APPLICABLE REQUIREMENTS OF THE CURRENT NATIONAL ELECTRICAL CODE (NEC) AND ANY LOCAL CODES SHALL BE USED TO DETERMINE THE MINIMUM STANDARD OF WORK. IN THE EVENT OF CONFLICT BETWEEN THIS DRAWING AND THE APPLICABLE CODE, THE CODE SHALL PREVAIL AND THE INSTALLATION SHALL BE MADE IN CONFORMANCE WITH THE CODE.  | 8.  | COORDINATE WITH ARCHITECT/OWNER FOR MOUNTING HEIGHT AND FINAL LOCATIONS OF ALL WALL-BOX SWITCHES AND DIMMER DEVICES.  |
| 4. | EXCEPT WHERE SPECIFICALLY NOTED, CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.   | 9.  | ELECTRICAL CONTRACTOR'S BID SHALL INCLUDE TWO ELECTRICIANS FOR TWO (2) EVENINGS (4 HOUR MINIMUM EACH) FOR FINAL AIM AND FOCUS OF ALL ADJUSTABLE LIGHTING FIXTURES AND SCENE SETTING. CONTRACTOR TO PROVIDE ALL NECESSARY LADDERS/LIFTS AS REQUIRED. |
| 5. | ALL ELECTRICAL INSTALLATION TO MEET OR EXCEED THE REQUIREMENTS OF THE ELECTRICAL SPECIFICATIONS PREPARED BY THE PROJECT ELECTRICAL ENGINEER.   | 10. | FOR SPECIFIC WIRING INFORMATION AND CIRCUITING REFER TO THE ELECTRICAL PLANS.   |

DESIGN DEVELOPMENT SET - NOT FOR CONSTRUCTION





SECOND LEVEL LIGHTING PLAN  
SCALE: 1/16" = 1'-0"

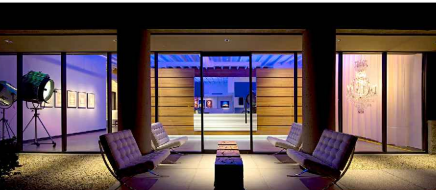


THIRD LEVEL LIGHTING PLAN  
SCALE: 1/16" = 1'-0"

DESIGN DEVELOPMENT SET - NOT FOR CONSTRUCTION



CREATIVE DESIGNS  
IN LIGHTING



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Scottsdale, Arizona 85260

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design@cdltg.com  
www.cdltg.com

1978 **46** 2024  
years of architectural  
lighting design

**THE BISHOP**  
East 2nd Ave & North Bishop Ln, Scottsdale, AZ

| REVISIONS |                             |    |
|-----------|-----------------------------|----|
| △         | 10.07.2024<br>CITY COMMENTS | MG |
| △         |                             |    |
| △         |                             |    |
| △         |                             |    |
| △         |                             |    |
| △         |                             |    |

|                             |
|-----------------------------|
| DATE<br>10.01.2024          |
| SCALE<br>1/16" = 1'-0"      |
| PROJECT NUMBER<br>104772-24 |
| DRAWN BY<br>JB              |
| CHECKED BY<br>MG            |
| SHEET NAME                  |

LEVEL 2  
LIGHTING PLAN

SHEET NUMBER  
**AL2**





CREATIVE DESIGNS  
IN LIGHTING



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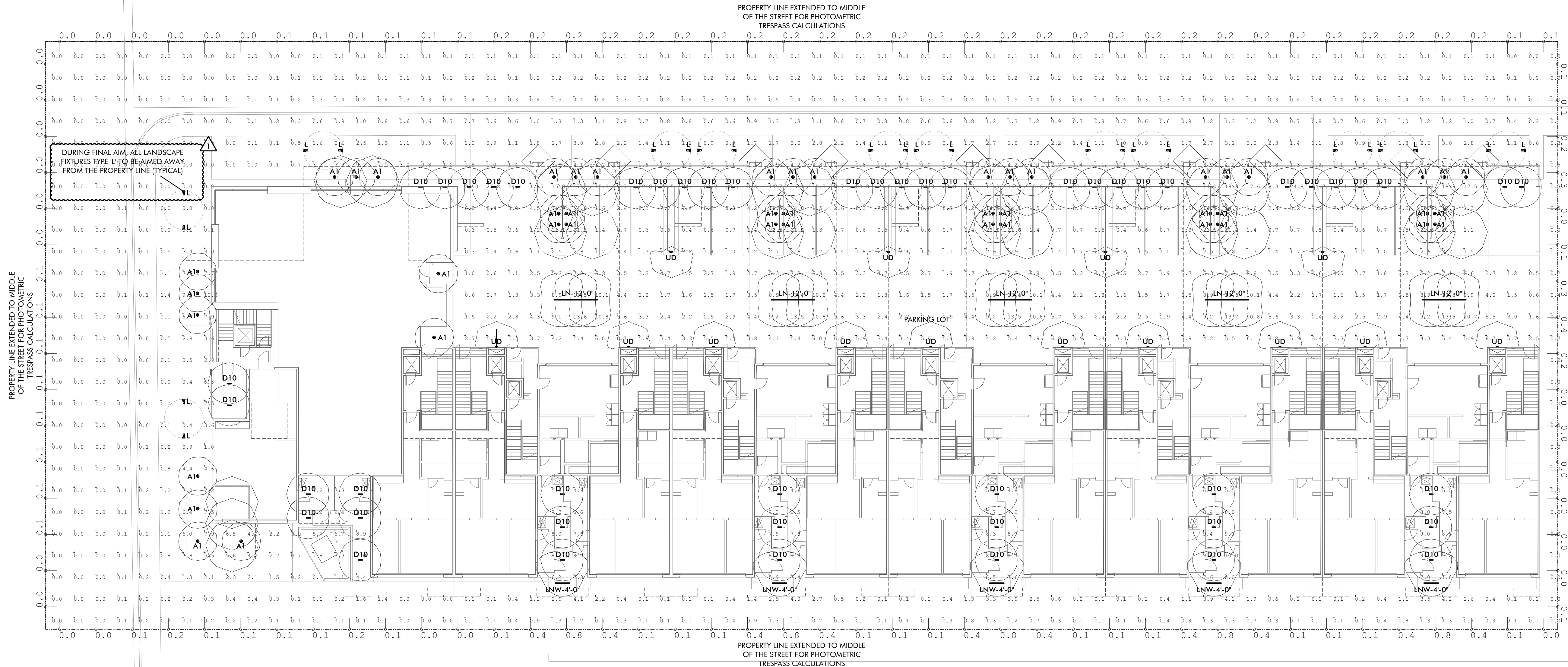
| REVISIONS |                             |    |
|-----------|-----------------------------|----|
|           | 10.07.2024<br>CITY COMMENTS | MG |
|           |                             |    |
|           |                             |    |
|           |                             |    |
|           |                             |    |
|           |                             |    |

|                |               |
|----------------|---------------|
| DATE           | 10.01.2024    |
| SCALE          | 1/16" = 1'-0" |
| PROJECT NUMBER | 104772-24     |
| DRAWN BY       | JB            |
| CHECKED BY     | MG            |
| SHEET NAME     |               |

PHOTOMETRIC  
CALCULATIONS

SHEET NUMBER

**AL3**



THE BISHOP  
LIGHTING FIXTURE SCHEDULE

| SYMB. | TYPE | MANUFACTURER | DESCRIPTION  | FINISH                            | DIMMING | WATTS        | VOLTS   | LUMENS     | LLF  | LAMP  |
|-------|------|--------------|--|-----------------------------------|---------|--------------|---------|------------|------|---|
|       | A1   | ELEMENT      | <b>E3R-FF-LH-930-4-A-I / E3RFB-HW</b><br>adjustable led downlight with 2" round beveled trim<br>40-degree beam spread, with shower rated lens<br><contractor shall supply and install lenses and accessories during lamp installation per fixture spec.> | White<br>(Paintable)              | 0-10v   | 16.0 w       | 120v    | 1421       | 0.85 | LED: 3000K I 90+ CRI<br>INTEGRAL TO FIXTURE |
|       | D10  | LUMENWERX    | <b>CLUR10-IC-ACB-TRM-INTEGRAL-120-1791-D1 / CLUR10-TLMP-SW-SOF-FLD-90-30-TMW-SQR-BL05</b><br>5 cell linear led fixed downlight   | White Trimless<br>Black Reflector | 0-10v   | 23.6 w       | 120v    | 1791       | 0.85 | LED: 3000K I 90+ CRI<br>INTEGRAL TO FIXTURE |
|       | L    | WAC          | <b>5012-30-BK / 5010-LSHR-BK / M6000-STAKE</b><br>Landscape accent light with long shroud and ground stake   | Black                             | Non-dim | 14.5 w       | 120 v   |            | 0.85 | LED: 3000K I 85+ CRI<br>INTEGRAL TO FIXTURE |
|       | LN   | FLUXWERX     | <b>NN1-L-D2-B-B-93-E1-M-##</b><br>Linear recessed fixture with open notch and side illumination<br>Symmetric distribution  | White                             | 0-10v   | 5.5 w<br>/ft | 120-277 | 505<br>/ft | 0.85 | LED: 3000K I 90+ CRI<br>INTEGRAL TO FIXTURE |
|       | LNW  | FLUXWERX     | <b>NN1-L-D2-A-B-93-E1-M-##</b><br>Linear recessed fixture with open notch and side illumination<br>Asymmetric distribution   | White                             | 0-10v   | 5.5 w<br>/ft | 120-277 | 505<br>/ft | 0.85 | LED: 3000K I 90+ CRI<br>INTEGRAL TO FIXTURE |
|       | SP   | ECOSENSE     | <b>F080-15-HO-30-9-05-K-X-A</b><br>Wall mounted adjustable spotlight aim down for 90-degree<br>cutoff (note: mounted within structure interior)  | Black                             | ELV     | 11.5 w       | 120-277 | 744        | 0.85 | LED: 3000K I 90+ CRI<br>INTEGRAL TO FIXTURE |
|       | UD   | KIM          | <b>CY1-25-3K8-2-3-3-UNV-BLT-CBM-FPP</b><br>Wall mounted sconce with up and downlighting with<br>minimal glare (note- uplight is with building structure so<br>there is no darksky uplighting).   | Black                             | 0-10v   | 26.0 w       | 120-277 | 2117       | 0.85 | LED: 3000K I 80+ CRI<br>INTEGRAL TO FIXTURE |

NOTES:

- Electrical Contractor to determine fixture housing rating (IC, Non-IC or Remodel) unless otherw
- LED specifications provided for bidding purposes only. Electrical Contractor shall contact Creative Designs in Lighting for updated LED specifications prior to order.
- No substitutions permitted without prior approval from Creative Designs in Lighting.
- Some fixtures on this schedule may not be used on this portion of the project.

Calculation Summary

| Label                     | Avg  | Max  | Min | Avg/Min | Max/Min | Notes  |
|---------------------------|------|------|-----|---------|---------|--|
| Exterior Horizontal Plane | 1.35 | 10.0 | 0.0 | N.A.    | N.A.    | This calc uses 0.85 maintained light-loss factor |
| Garage Horizontal Plane   | 6.49 | 25.8 | 0.3 | 21.63   | 86.00   | This calc uses 0.85 maintained light-loss factor |
| TRESPASS @ 6' AFF         | 0.16 | 0.9  | 0.0 | N.A.    | N.A.    | This calc uses 1.0 maintained light-loss factor  |

The horizontal illumination target maximums for the exterior lighting fixtures meet the IESNA RP-20-98 recommendations as required by City of Scottsdale "City Policy for Exterior and Site Lighting" of 2.5fc average and 10fc maximum. The same IESNA RP-20-98 document recommends 5-times higher footcandle levels for parking garages, so a separate calculation was prepared for this zone of lighting.

All exterior lighting is full cutoff distribution except for the landscape lighting permitted by City of Scottsdale. Fixture type 'UD' is only located within the parking garage, but does have an uplight component to indirectly illuminate the ceiling which is helpful in limiting glare for trespass lighting.

Trespass calculations were taken at the middle line of the streets and alleys and height of 6'-0" and aimed toward the center of the property per City of Scottsdale requirements. All calculations were shown on 10'-0" centers for the trespass values and even closer spacing of 6'-0" for the horizontal calculations.



ELEMENT™ 3" LED  
ADJUSTABLE DOWNLIGHT

## ORDERING GUIDES

| HOUSING                      | CEILING APPEARANCE | OUTPUT                | CR/CCT                           | BEAM SPREAD     | FUNCTION            | HOUSING RATING   | DRIVER                             |
|------------------------------|--------------------|-----------------------|----------------------------------|-----------------|---------------------|------------------|------------------------------------|
| <b>E38</b> ELEMENT 3" SQUARE | <b>A</b> FLANGED   | <b>LM</b> HIGH OUTPUT | <b>827</b> 80 CRI 2700K 1-STEP   | <b>0</b> 0°     | <b>A</b> ADJUSTABLE | <b>C</b> C-ROTOR | <b>INTEGRATED DRIVERS 120/277V</b> |
|                              |                    |                       | <b>830</b> 80 CRI 3000K 1-STEP   | <b>1</b> 1°     |                     |                  |                                    |
|                              |                    |                       | <b>835</b> 80 CRI 3500K 1-STEP   | <b>2</b> 2°     |                     |                  |                                    |
|                              |                    |                       | <b>837</b> 80 CRI 4000K 1-STEP   | <b>3</b> 3°     |                     |                  |                                    |
|                              |                    |                       | <b>839</b> 80 CRI 4500K 1-STEP   | <b>4</b> 4°     |                     |                  |                                    |
|                              |                    |                       | <b>841</b> 80 CRI 5000K 1-STEP   | <b>5</b> 5°     |                     |                  |                                    |
|                              |                    |                       | <b>843</b> 80 CRI 5500K 1-STEP   | <b>6</b> 6°     |                     |                  |                                    |
|                              |                    |                       | <b>845</b> 80 CRI 6000K 1-STEP   | <b>7</b> 7°     |                     |                  |                                    |
|                              |                    |                       | <b>847</b> 80 CRI 6500K 1-STEP   | <b>8</b> 8°     |                     |                  |                                    |
|                              |                    |                       | <b>849</b> 80 CRI 7000K 1-STEP   | <b>9</b> 9°     |                     |                  |                                    |
|                              |                    |                       | <b>851</b> 80 CRI 7500K 1-STEP   | <b>10</b> 10°   |                     |                  |                                    |
|                              |                    |                       | <b>853</b> 80 CRI 8000K 1-STEP   | <b>11</b> 11°   |                     |                  |                                    |
|                              |                    |                       | <b>855</b> 80 CRI 8500K 1-STEP   | <b>12</b> 12°   |                     |                  |                                    |
|                              |                    |                       | <b>857</b> 80 CRI 9000K 1-STEP   | <b>13</b> 13°   |                     |                  |                                    |
|                              |                    |                       | <b>859</b> 80 CRI 9500K 1-STEP   | <b>14</b> 14°   |                     |                  |                                    |
|                              |                    |                       | <b>861</b> 80 CRI 10000K 1-STEP  | <b>15</b> 15°   |                     |                  |                                    |
|                              |                    |                       | <b>863</b> 80 CRI 10500K 1-STEP  | <b>16</b> 16°   |                     |                  |                                    |
|                              |                    |                       | <b>865</b> 80 CRI 11000K 1-STEP  | <b>17</b> 17°   |                     |                  |                                    |
|                              |                    |                       | <b>867</b> 80 CRI 11500K 1-STEP  | <b>18</b> 18°   |                     |                  |                                    |
|                              |                    |                       | <b>869</b> 80 CRI 12000K 1-STEP  | <b>19</b> 19°   |                     |                  |                                    |
|                              |                    |                       | <b>871</b> 80 CRI 12500K 1-STEP  | <b>20</b> 20°   |                     |                  |                                    |
|                              |                    |                       | <b>873</b> 80 CRI 13000K 1-STEP  | <b>21</b> 21°   |                     |                  |                                    |
|                              |                    |                       | <b>875</b> 80 CRI 13500K 1-STEP  | <b>22</b> 22°   |                     |                  |                                    |
|                              |                    |                       | <b>877</b> 80 CRI 14000K 1-STEP  | <b>23</b> 23°   |                     |                  |                                    |
|                              |                    |                       | <b>879</b> 80 CRI 14500K 1-STEP  | <b>24</b> 24°   |                     |                  |                                    |
|                              |                    |                       | <b>881</b> 80 CRI 15000K 1-STEP  | <b>25</b> 25°   |                     |                  |                                    |
|                              |                    |                       | <b>883</b> 80 CRI 15500K 1-STEP  | <b>26</b> 26°   |                     |                  |                                    |
|                              |                    |                       | <b>885</b> 80 CRI 16000K 1-STEP  | <b>27</b> 27°   |                     |                  |                                    |
|                              |                    |                       | <b>887</b> 80 CRI 16500K 1-STEP  | <b>28</b> 28°   |                     |                  |                                    |
|                              |                    |                       | <b>889</b> 80 CRI 17000K 1-STEP  | <b>29</b> 29°   |                     |                  |                                    |
|                              |                    |                       | <b>891</b> 80 CRI 17500K 1-STEP  | <b>30</b> 30°   |                     |                  |                                    |
|                              |                    |                       | <b>893</b> 80 CRI 18000K 1-STEP  | <b>31</b> 31°   |                     |                  |                                    |
|                              |                    |                       | <b>895</b> 80 CRI 18500K 1-STEP  | <b>32</b> 32°   |                     |                  |                                    |
|                              |                    |                       | <b>897</b> 80 CRI 19000K 1-STEP  | <b>33</b> 33°   |                     |                  |                                    |
|                              |                    |                       | <b>899</b> 80 CRI 19500K 1-STEP  | <b>34</b> 34°   |                     |                  |                                    |
|                              |                    |                       | <b>901</b> 80 CRI 20000K 1-STEP  | <b>35</b> 35°   |                     |                  |                                    |
|                              |                    |                       | <b>903</b> 80 CRI 20500K 1-STEP  | <b>36</b> 36°   |                     |                  |                                    |
|                              |                    |                       | <b>905</b> 80 CRI 21000K 1-STEP  | <b>37</b> 37°   |                     |                  |                                    |
|                              |                    |                       | <b>907</b> 80 CRI 21500K 1-STEP  | <b>38</b> 38°   |                     |                  |                                    |
|                              |                    |                       | <b>909</b> 80 CRI 22000K 1-STEP  | <b>39</b> 39°   |                     |                  |                                    |
|                              |                    |                       | <b>911</b> 80 CRI 22500K 1-STEP  | <b>40</b> 40°   |                     |                  |                                    |
|                              |                    |                       | <b>913</b> 80 CRI 23000K 1-STEP  | <b>41</b> 41°   |                     |                  |                                    |
|                              |                    |                       | <b>915</b> 80 CRI 23500K 1-STEP  | <b>42</b> 42°   |                     |                  |                                    |
|                              |                    |                       | <b>917</b> 80 CRI 24000K 1-STEP  | <b>43</b> 43°   |                     |                  |                                    |
|                              |                    |                       | <b>919</b> 80 CRI 24500K 1-STEP  | <b>44</b> 44°   |                     |                  |                                    |
|                              |                    |                       | <b>921</b> 80 CRI 25000K 1-STEP  | <b>45</b> 45°   |                     |                  |                                    |
|                              |                    |                       | <b>923</b> 80 CRI 25500K 1-STEP  | <b>46</b> 46°   |                     |                  |                                    |
|                              |                    |                       | <b>925</b> 80 CRI 26000K 1-STEP  | <b>47</b> 47°   |                     |                  |                                    |
|                              |                    |                       | <b>927</b> 80 CRI 26500K 1-STEP  | <b>48</b> 48°   |                     |                  |                                    |
|                              |                    |                       | <b>929</b> 80 CRI 27000K 1-STEP  | <b>49</b> 49°   |                     |                  |                                    |
|                              |                    |                       | <b>931</b> 80 CRI 27500K 1-STEP  | <b>50</b> 50°   |                     |                  |                                    |
|                              |                    |                       | <b>933</b> 80 CRI 28000K 1-STEP  | <b>51</b> 51°   |                     |                  |                                    |
|                              |                    |                       | <b>935</b> 80 CRI 28500K 1-STEP  | <b>52</b> 52°   |                     |                  |                                    |
|                              |                    |                       | <b>937</b> 80 CRI 29000K 1-STEP  | <b>53</b> 53°   |                     |                  |                                    |
|                              |                    |                       | <b>939</b> 80 CRI 29500K 1-STEP  | <b>54</b> 54°   |                     |                  |                                    |
|                              |                    |                       | <b>941</b> 80 CRI 30000K 1-STEP  | <b>55</b> 55°   |                     |                  |                                    |
|                              |                    |                       | <b>943</b> 80 CRI 30500K 1-STEP  | <b>56</b> 56°   |                     |                  |                                    |
|                              |                    |                       | <b>945</b> 80 CRI 31000K 1-STEP  | <b>57</b> 57°   |                     |                  |                                    |
|                              |                    |                       | <b>947</b> 80 CRI 31500K 1-STEP  | <b>58</b> 58°   |                     |                  |                                    |
|                              |                    |                       | <b>949</b> 80 CRI 32000K 1-STEP  | <b>59</b> 59°   |                     |                  |                                    |
|                              |                    |                       | <b>951</b> 80 CRI 32500K 1-STEP  | <b>60</b> 60°   |                     |                  |                                    |
|                              |                    |                       | <b>953</b> 80 CRI 33000K 1-STEP  | <b>61</b> 61°   |                     |                  |                                    |
|                              |                    |                       | <b>955</b> 80 CRI 33500K 1-STEP  | <b>62</b> 62°   |                     |                  |                                    |
|                              |                    |                       | <b>957</b> 80 CRI 34000K 1-STEP  | <b>63</b> 63°   |                     |                  |                                    |
|                              |                    |                       | <b>959</b> 80 CRI 34500K 1-STEP  | <b>64</b> 64°   |                     |                  |                                    |
|                              |                    |                       | <b>961</b> 80 CRI 35000K 1-STEP  | <b>65</b> 65°   |                     |                  |                                    |
|                              |                    |                       | <b>963</b> 80 CRI 35500K 1-STEP  | <b>66</b> 66°   |                     |                  |                                    |
|                              |                    |                       | <b>965</b> 80 CRI 36000K 1-STEP  | <b>67</b> 67°   |                     |                  |                                    |
|                              |                    |                       | <b>967</b> 80 CRI 36500K 1-STEP  | <b>68</b> 68°   |                     |                  |                                    |
|                              |                    |                       | <b>969</b> 80 CRI 37000K 1-STEP  | <b>69</b> 69°   |                     |                  |                                    |
|                              |                    |                       | <b>971</b> 80 CRI 37500K 1-STEP  | <b>70</b> 70°   |                     |                  |                                    |
|                              |                    |                       | <b>973</b> 80 CRI 38000K 1-STEP  | <b>71</b> 71°   |                     |                  |                                    |
|                              |                    |                       | <b>975</b> 80 CRI 38500K 1-STEP  | <b>72</b> 72°   |                     |                  |                                    |
|                              |                    |                       | <b>977</b> 80 CRI 39000K 1-STEP  | <b>73</b> 73°   |                     |                  |                                    |
|                              |                    |                       | <b>979</b> 80 CRI 39500K 1-STEP  | <b>74</b> 74°   |                     |                  |                                    |
|                              |                    |                       | <b>981</b> 80 CRI 40000K 1-STEP  | <b>75</b> 75°   |                     |                  |                                    |
|                              |                    |                       | <b>983</b> 80 CRI 40500K 1-STEP  | <b>76</b> 76°   |                     |                  |                                    |
|                              |                    |                       | <b>985</b> 80 CRI 41000K 1-STEP  | <b>77</b> 77°   |                     |                  |                                    |
|                              |                    |                       | <b>987</b> 80 CRI 41500K 1-STEP  | <b>78</b> 78°   |                     |                  |                                    |
|                              |                    |                       | <b>989</b> 80 CRI 42000K 1-STEP  | <b>79</b> 79°   |                     |                  |                                    |
|                              |                    |                       | <b>991</b> 80 CRI 42500K 1-STEP  | <b>80</b> 80°   |                     |                  |                                    |
|                              |                    |                       | <b>993</b> 80 CRI 43000K 1-STEP  | <b>81</b> 81°   |                     |                  |                                    |
|                              |                    |                       | <b>995</b> 80 CRI 43500K 1-STEP  | <b>82</b> 82°   |                     |                  |                                    |
|                              |                    |                       | <b>997</b> 80 CRI 44000K 1-STEP  | <b>83</b> 83°   |                     |                  |                                    |
|                              |                    |                       | <b>999</b> 80 CRI 44500K 1-STEP  | <b>84</b> 84°   |                     |                  |                                    |
|                              |                    |                       | <b>1001</b> 80 CRI 45000K 1-STEP | <b>85</b> 85°   |                     |                  |                                    |
|                              |                    |                       | <b>1003</b> 80 CRI 45500K 1-STEP | <b>86</b> 86°   |                     |                  |                                    |
|                              |                    |                       | <b>1005</b> 80 CRI 46000K 1-STEP | <b>87</b> 87°   |                     |                  |                                    |
|                              |                    |                       | <b>1007</b> 80 CRI 46500K 1-STEP | <b>88</b> 88°   |                     |                  |                                    |
|                              |                    |                       | <b>1009</b> 80 CRI 47000K 1-STEP | <b>89</b> 89°   |                     |                  |                                    |
|                              |                    |                       | <b>1011</b> 80 CRI 47500K 1-STEP | <b>90</b> 90°   |                     |                  |                                    |
|                              |                    |                       | <b>1013</b> 80 CRI 48000K 1-STEP | <b>91</b> 91°   |                     |                  |                                    |
|                              |                    |                       | <b>1015</b> 80 CRI 48500K 1-STEP | <b>92</b> 92°   |                     |                  |                                    |
|                              |                    |                       | <b>1017</b> 80 CRI 49000K 1-STEP | <b>93</b> 93°   |                     |                  |                                    |
|                              |                    |                       | <b>1019</b> 80 CRI 49500K 1-STEP | <b>94</b> 94°   |                     |                  |                                    |
|                              |                    |                       | <b>1021</b> 80 CRI 50000K 1-STEP | <b>95</b> 95°   |                     |                  |                                    |
|                              |                    |                       | <b>1023</b> 80 CRI 50500K 1-STEP | <b>96</b> 96°   |                     |                  |                                    |
|                              |                    |                       | <b>1025</b> 80 CRI 51000K 1-STEP | <b>97</b> 97°   |                     |                  |                                    |
|                              |                    |                       | <b>1027</b> 80 CRI 51500K 1-STEP | <b>98</b> 98°   |                     |                  |                                    |
|                              |                    |                       | <b>1029</b> 80 CRI 52000K 1-STEP | <b>99</b> 99°   |                     |                  |                                    |
|                              |                    |                       | <b>1031</b> 80 CRI 52500K 1-STEP | <b>100</b> 100° |                     |                  |                                    |
|                              |                    |                       | <b>1033</b> 80 CRI 53000K 1-STEP | <b>101</b> 101° |                     |                  |                                    |
|                              |                    |                       | <b>1035</b> 80 CRI 53500K 1-STEP | <b>102</b> 102° |                     |                  |                                    |
|                              |                    |                       | <b>1037</b> 80 CRI 54000K 1-STEP | <b>103</b> 103° |                     |                  |                                    |
|                              |                    |                       | <b>1039</b> 80 CRI 54500K 1-STEP | <b>104</b> 104° |                     |                  |                                    |
|                              |                    |                       | <b>1041</b> 80 CRI 55000K 1-STEP | <b>105</b> 105° |                     |                  |                                    |
|                              |                    |                       | <b>1043</b> 80 CRI 55500K 1-STEP | <b>106</b> 106° |                     |                  |                                    |
|                              |                    |                       | <b>1045</b> 80 CRI 56000K 1-STEP | <b>107</b> 107° |                     |                  |                                    |
|                              |                    |                       | <b>1047</b> 80 CRI 56500K 1-STEP | <b>108</b> 108° |                     |                  |                                    |
|                              |                    |                       | <b>1049</b> 80 CRI 57000K 1-STEP | <b>109</b> 109° |                     |                  |                                    |
|                              |                    |                       | <b>1051</b> 80 CRI 57500K 1-STEP | <b>110</b> 110° |                     |                  |                                    |
|                              |                    |                       | <b>1053</b> 80 CRI 58000K 1-STEP | <b>111</b> 111° |                     |                  |                                    |
|                              |                    |                       | <b>1055</b> 80 CRI 58500K 1-STEP | <b>112</b> 112° |                     |                  |                                    |
|                              |                    |                       | <b>1057</b> 80 CRI 59000K 1-STEP | <b>113</b> 113° |                     |                  |                                    |
|                              |                    |                       | <b>1059</b> 80 CRI 59500K 1-STEP | <b>114</b> 114° |                     |                  |                                    |
|                              |                    |                       | <b>1061</b> 80 CRI 60000K 1-STEP | <b>115</b> 115° |                     |                  |                                    |
|                              |                    |                       | <b>1063</b> 80 CRI 60500K 1-STEP | <b>116</b> 116° |                     |                  |                                    |
|                              |                    |                       | <b>1065</b> 80 CRI 61000K 1-STEP | <b>117</b> 117° |                     |                  |                                    |
|                              |                    |                       | <b>1067</b> 80 CRI 61500K 1-STEP | <b>118</b> 118° |                     |                  |                                    |
|                              |                    |                       | <b>1069</b> 80 CRI 62000K 1-STEP | <b>119</b> 119° |                     |                  |                                    |
|                              |                    |                       | <b>1071</b> 80 CRI 62500K 1-STEP | <b>120</b> 120° |                     |                  |                                    |
|                              |                    |                       | <b>1073</b> 80 CRI 63000K 1-STEP | <b>121</b> 121° |                     |                  |                                    |
|                              |                    |                       | <b>1075</b> 80 CRI 63500K 1-STEP | <b>122</b> 122° |                     |                  |                                    |
|                              |                    |                       | <b>1077</b> 80 CRI 64000K 1-STEP | <b>123</b> 123° |                     |                  |                                    |
|                              |                    |                       | <b>1079</b> 80 CRI 64500K 1-STEP | <b>124</b> 124° |                     |                  |                                    |
|                              |                    |                       | <b>1081</b> 80 CRI 65000K 1-STEP | <b>125</b> 125° |                     |                  |                                    |
|                              |                    |                       | <b>1083</b> 80 CRI 65500K 1-STEP | <b>126</b> 126° |                     |                  |                                    |
|                              |                    |                       | <b>1085</b> 80 CRI 66000K 1-STEP | <b>127</b> 127° |                     |                  |                                    |
|                              |                    |                       | <b>1087</b> 80 CRI 66500K 1-STEP | <b>128</b> 128° |                     |                  |                                    |
|                              |                    |                       | <b>1089</b> 80 CRI 67000K 1-STEP | <b>129</b> 129° |                     |                  |                                    |
|                              |                    |                       | <b>1091</b> 80 CRI 67500K 1-STEP | <b>130</b> 130° |                     |                  |                                    |
|                              |                    |                       | <b>1093</b> 80 CRI 68000K 1-STEP | <b>131</b> 131° |                     |                  |                                    |
|                              |                    |                       | <b>1095</b> 80 CRI 68500K 1-STEP | <b>132</b> 132° |                     |                  |                                    |
|                              |                    |                       | <b>1097</b> 80 CRI 69000K 1-STEP | <b>133</b> 133° |                     |                  |                                    |
|                              |                    |                       | <b>1099</b> 80 CRI 69500K 1-STEP | <b>134</b> 134° |                     |                  |                                    |
|                              |                    |                       | <b>1101</b> 80 CRI 70000K 1-STEP | <b>135</b> 135° |                     |                  |                                    |
|                              |                    |                       | <b>1103</b> 80 CRI 70500K 1-STEP | <b>136</b> 136° |                     |                  |                                    |
|                              |                    |                       | <b>1105</b> 80 CRI 71000K 1-STEP | <b>137</b> 137° |                     |                  |                                    |
|                              |                    |                       | <b>1107</b> 80 CRI 71500K 1-STEP | <b>138</b> 138° |                     |                  |                                    |
|                              |                    |                       | <b>1109</b> 80 CRI 72000K 1-STEP | <b>139</b> 139° |                     |                  |                                    |
|                              |                    |                       | <b>1111</b> 80 CRI 72500K 1-STEP | <b>140</b> 140° |                     |                  |                                    |
|                              |                    |                       | <b>1113</b> 80 CRI 73000K 1-STEP | <b>141</b> 141° |                     |                  |                                    |
|                              |                    |                       | <b>1115</b> 80 CRI 73500K 1-STEP | <b>142</b> 142° |                     |                  |                                    |
|                              |                    |                       | <b>1117</b> 80 CRI 74000K 1-STEP | <b>143</b> 143° |                     |                  |                                    |
|                              |                    |                       | <b>1119</b> 80 CRI 74500K 1-STEP | <b>144</b> 144° |                     |                  |                                    |
|                              |                    |                       | <b>1121</b> 80 CRI 75000K 1-STEP | <b>145</b> 145° |                     |                  |                                    |
|                              |                    |                       | <b>1123</b> 80 CRI 75500K 1-STEP | <b>146</b> 146° |                     |                  |                                    |
|                              |                    |                       | <b>1125</b> 80 CRI 76000K 1-STEP | <b>147</b> 147° |                     |                  |                                    |
|                              |                    |                       | <b>1127</b> 80 CRI 76500K 1-STEP | <b>148</b> 148° |                     |                  |                                    |
|                              |                    |                       | <b>1129</b> 80 CRI 77000K 1-STEP | <b>149</b> 149° |                     |                  |                                    |
|                              |                    |                       | <b>1131</b> 80 CRI 77500K 1-STEP | <b>150</b> 150° |                     |                  |                                    |
|                              |                    |                       | <b>1133</b> 80 CRI 78000K 1-STEP | <b>151</b> 151° |                     |                  |                                    |
|                              |                    |                       | <b>1135</b> 80 CRI 78500K 1-STEP | <b>152</b> 152° |                     |                  |                                    |
|                              |                    |                       | <b>1137</b> 80 CRI 79000K 1-STEP | <b>153</b> 153° |                     |                  |                                    |
|                              |                    |                       | <b>1139</b> 80 CRI 79500K 1-STEP | <b>154</b> 154° |                     |                  |                                    |
|                              |                    |                       | <b>1141</b> 80 CRI 80000K 1-STEP | <b>155</b> 155° |                     |                  |                                    |
|                              |                    |                       | <b>1143</b> 80 CRI 80500K 1-STEP | <b>156</b> 156° |                     |                  |                                    |
|                              |                    |                       | <b>1145</b> 80 CRI 81000K 1-STEP | <b>157</b> 157° |                     |                  |                                    |
|                              |                    |                       | <b>1147</b> 80 CRI 81500K 1-STEP | <b>158</b> 158° |                     |                  |                                    |
|                              |                    |                       | <b>1149</b> 80 CRI 82000K 1-STEP | <b>159</b> 159° |                     |                  |                                    |
|                              |                    |                       | <b>1151</b> 80 CRI 82500K 1-STEP | <b>160</b> 160° |                     |                  |                                    |
|                              |                    |                       | <b>1153</b> 80 CRI 83000K 1-STEP | <b>161</b> 161° |                     |                  |                                    |
|                              |                    |                       | <b>1155</b> 80 CRI 83500K 1-STEP | <b>162</b> 162° |                     |                  |                                    |
|                              |                    |                       | <b>1157</b> 80 CRI 84            |                 |                     |                  |                                    |