



**DEMOLITION NOTES**

- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO ANY DEMOLITION PROCESS. CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO: MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC OHIO EPA OR LOCAL GOVERNING AUTHORITIES APPROVALS FOR CONSTRUCTION AND OPERATION. CONTRACTOR MAY SEEK APPROVALS FROM THE CONSTRUCTION GOVERNING BODIES. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO THE OHIO EPA AND LOCAL GOVERNING AUTHORITIES TO NOTIFY ANY CORRECTIVE ACTIONS THAT MAY BE REQUIRED.
- DEMOLITION INCLUDES THE FOLLOWING:
  - TRANSFER BENCHMARK CONTROL TO NEW LOCATIONS OUTSIDE THE DISTURBED AREA PRIOR TO COMMENCING DEMOLITION OPERATIONS (WHEN APPLICABLE).
  - DEMOLITION AND REMOVAL OF SITE IMPROVEMENTS NECESSARY FOR THE PROPOSED CONSTRUCTION OF NEW IMPROVEMENTS.
  - REMOVE AND LEGALLY DISPOSE OF ITEMS CALLED OUT TO BE REMOVED. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS. THOSE ITEMS INDICATED TO BE REINSTALLED, SALVAGED, OR TO REMAIN SHALL BE CLEANED, SERVICED, AND OTHERWISE PREPARED FOR REUSE. CONTRACTOR TO STORE AND PROTECT AGAINST DAMAGE. REINSTALL ITEMS IN LOCATIONS INDICATED.
  - PROTECT ITEMS INDICATED TO REMAIN AGAINST DAMAGE AND SOILING THROUGHOUT CONSTRUCTION WHEN PERMITTED BY THE CONSTRUCTION MANAGER OR OWNER. ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION THROUGHOUT CONSTRUCTION AND THEN RE-INSTALLED IN THEIR ORIGINAL LOCATIONS. PROMPTLY REPAIR DAMAGES TO ADJACENT FACILITIES CAUSED BY DEMOLITION OPERATIONS AT THE CONTRACTOR'S COST.
  - CONTRACTOR SHALL SCHEDULE DEMOLITION ACTIVITIES WITH THE CONSTRUCTION/PROJECT MANAGER INCLUDING THE FOLLOWING:
    - DETAILED SEQUENCE OF DEMOLITION AND REMOVAL WORK, WITH STARTING AND ENDING DATES FOR EACH ACTIVITY.
    - IDENTIFY AND ACCURATELY LOCATE UTILITIES AND OTHER SUBSURFACE STRUCTURAL, ELECTRICAL, OR MECHANICAL CONDITIONS.
    - REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE STARTING DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.
    - MANTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE THROUGHOUT CONSTRUCTION OPERATIONS.
    - DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER'S REPRESENTATIVE AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO GOVERNING AUTHORITIES.
    - CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND DEMOLITION AREA. SAFE PASSAGE INCLUDES THE ERECTION OF TEMPORARY PROTECTION AND/OR BARRICADES AS PER LOCAL GOVERNING AUTHORITIES AND IN ACCORDANCE WITH THE CURRENT ADA REGULATIONS. USE OF EXPLOSIVES WILL NOT BE PERMITTED.
    - CLEAN ADJACENT BUILDINGS AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF DEMOLITION.
    - PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE WILL NOT BE PERMITTED. NO BURNING OF ANY MATERIALS ON SITE SHALL BE PERMITTED.
    - IT IS NOT EXPECTED THAT ASBESTOS WILL BE ENCOUNTERED IN THE COURSE OF THIS CONTRACT. IF ANY MATERIALS SUSPECTED OF CONTAINING ASBESTOS ARE ENCOUNTERED, DO NOT DISTURB THE MATERIALS. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER AND THE OWNER.
    - FILLING BELOW-GRADE AREAS: COMPLETELY FILL BELOW-GRADE AREAS AND Voids RESULTING FROM DEMOLITION OF PAVEMENTS AND OTHER REMOVED ITEMS WITH SOIL MATERIALS ACCORDING TO REQUIREMENTS FOR GEOTECHNICAL ENGINEERING REPORT AND ON-SITE GEOTECHNICAL ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL CONTACT GEOTECHNICAL ENGINEER PRIOR TO FILLING ANY ANTS TO OBTAIN FILL PROCEDURES.
    - CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT APPROVAL FROM OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFICWAYS IF REQUIRED BY GOVERNING REGULATIONS.
    - CONTRACTOR TO WET SAWCUT EXISTING PAVEMENT TO REMAIN AT NEXT NEAREST JOINT PRIOR TO REMOVALS OF CURB, GUTTER, PAVEMENT, ETC.
    - CONTRACTOR SHALL FULLY SECURE WORK AREA WITH THE APPROPRIATE SIGNAGE, FENCING, AND BARRICADES WHICH ACCOMMODATE VISUALLY IMPAIRED PERSONS AS AGREED UPON WITH SITE CONSTRUCTION/PROJECT MANAGER AND OWNER TO WARN AND KEEP PEOPLE OUT OF THE SITE WORK AREA FOR THE DURATION OF THE PROJECT.

**GENERAL PLAN AND SURVEY NOTES**

- PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SECTION OF THESE NOTES ENTITLED "GRADING PLAN NOTES" FOR DEFINITIONS AS MAY BE NECESSARY FOR "GEOTECHNICAL ENGINEER" AND "GEOTECHNICAL ENGINEERING REPORT".
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY. THE GEOTECHNICAL ENGINEERING REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION/PROJECT MANAGER OF ANY DISCREPANCY BETWEEN THE GEOTECHNICAL ENGINEERING REPORT AND PLANS, ETC.
- THE CONTRACTOR SHALL ALIGN WITH CONCRETE PAVEMENT JOINTS WHERE APPLICABLE, TYPICALLY BEING 10 FT TO 12 FT. ALL EXTERIOR VEHICULAR CONCRETE PAVEMENT AND FLATWORK SHALL HAVE CONTROL JOINTS PER ACI 330 TYPICAL RECOMMENDATIONS.
- SLAB THICKNESS: "T" \* MAXIMUM JOINT SPACING
 

LESS THAN 4 INCHES	8 FEET
4 - 5 INCHES	10 FEET
5 - 6 INCHES	12.5 FEET
6 INCHES - 8 INCHES	15 FEET
8 INCHES - 10 INCHES	15 FEET
- ALL JOINTS, INCLUDING SAWED JOINTS, SHALL BE SCALED JOINTS SHALL BE CLEANED AND DRIED PRIOR TO SEALING. JOINT SEALING MATERIALS SHALL COMPLY WITH ASTM D 6890 FOR HAD AND COLD WEATHER PLACEMENT. CONTRACTOR SHALL USE A 100% POLYURETHANE SEALER FOR SINGLE COMPONENT ELASTOMERIC. SEALER WIDTH, DEPTH, AND PREPARED APPLICATION SURFACES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. JOINT FILLER MATERIAL SHALL CONFORM TO ASTM D751 OR ASTM D8139 AND EXTEND THE FULL DEPTH OF CONTACTING SURFACE.
- ALL CONCRETE PANELS SHALL BE SQUARE WITH A LENGTH TO WIDTH RATIO NO GREATER THAN 1.25 TO 1 AND HAVE A MEDIUM BROWN FINISH. SLIP RESISTANT FOR PEDESTRIAN PATHWAYS WHICH SHALL BE TO MINIMUM STRENGTH PRIOR TO OPENING FOR VEHICULAR TRAFFIC AREAS. STAGED/OFFSET JOINT, INTERIOR CORNERS, ANGLES LESS THAN 60 DEGREES, AND AREAS LESS THAN 18-INCHES WIDE, AND ODD SHAPES SHALL NOT BE PERMITTED. BLOCKOUTS AROUND ALL PAVEMENT CASTINGS SHALL BE PROVIDED IN ACCORDANCE WITH ACI RECOMMENDATIONS.
- ALL JOINTING IN SAWN JOINTS IS ONLY A GENERAL GUIDELINE OF DESIGN INTENT. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FLOOR LAYOUT OF THE JOINTING WHICH COINCIDES WITH THEIR MEANS AND METHODS TO ENSURE NO UNDESIRABLE CRACKS FORM THROUGH ANY PLACED CONCRETE. JOINTS SHALL BE APPROPRIATELY SCADED AS SOON AS POSSIBLE TO KEEP UNNECESSARY CRACKS FROM DEVELOPING. CONTRACTOR SHALL SUBMIT SHOT DRAWS OF THEIR JOINT LAYOUT TO OWNER / CONSTRUCTION MANAGER PRIOR TO PLACEMENT. CONTRACTOR SHALL REPLACE ANY CRACKED CONCRETE WHICH HAS NOT BEEN PLACED AND RECAST IN ACCORDANCE WITH ACI STANDARDS. TO THE NEXT JOINT PAST THE EFFECTED AREA AT NO ADDITIONAL COST TO THE PROJECT WITHIN ONE YEAR OF PROJECT COMPLETION.
- DESIGN INTENT CONCRETE AND SHALL CONFORM TO THE FOLLOWING MINIMUM AND MAXIMUM VALUES:
 

B. STRENGTH	PORTLAND CEMENT / BLENDED CEMENT	PORTLAND CEMENT DESIGN, MINIMUM 4500 PSI 5500 LBD / CY (ASTM C160 TYPE III, C595 TYPE I, 12% TARGET).
C. POZZOLAN MATERIALS	POZZOLAN MATERIALS (SEE NOTES BELOW)	SILICA FUME MAY REPLACE MAX 7% CEMENT, FLY ASH MAY REPLACE MAX 20% CEMENT, SLAG CEMENT MAY REPLACE MAX 25% PER CEMENT DESIGN, MAXIMUM 4500 PSI.
D. MAX W/C RATIO	W/C RATIO	MAX. W/C < 0.45 (7.0% TARGET) ASTM C260
E. ENTRAINED AIR	ENTRAINED AIR	5.5% AVE < 1.5% (7.0% TARGET) ASTM C260
F. SLUMP	SLUMP WITH HRRW OR MID RANGE WR	4" MAX WITHOUT WATER REDUCER
G. WATER REDUCER	WATER REDUCER	NORMAL TYPE A (ASTM C494)
H. ACCELERATOR	ACCELERATOR	NORMAL TYPE B OR D AS REQUIRED IF CONCRETE TEMPERATURE EXCEEDS 85°F
I. FIBERS TO BE USED	FIBERS TO BE USED	NON-CHLORIDE TYPE ONLY - CALCIUM CHLORIDE IS PROHIBITED
J. FOR USE AS W/F. REPLACEMENT	FOR USE AS W/F. REPLACEMENT	POLYPROPYLENE OR POLYETHYLENE (CURBS, WALKS, STEPS, RAMPS) MICRO SYNTHETIC FIBERS 1.5 LBS / CY (FIBERMESH 300 OR APPROVED EQUAL)
K. FOR USE AS V/H.F. REPLACEMENT	FOR USE AS V/H.F. REPLACEMENT	MACRO SYNTHETIC FIBERS @ 4.0 LBS / CY (TUF-STRAND SF OR APPROVED EQUAL)
- ALL LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE BASED ON GENERAL FIELD SURVEYS, OWNER RECORDS, AND LOCAL RECORDS. LOCATIONS THAT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND IDENTIFY AREAS POSSIBLY BELOW GRADE FEATURES, INCLUDING BUT NOT LIMITED TO VAULTS, UTILITIES, ETC. CONTRACTOR SHALL CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR REPAIR TO DAMAGE CAUSED BY THEIR WORK FORCE TO FACILITIES WHICH ARE NOT INTENDED TO BE DESTROYED.
- ALL DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON THE SURVEY. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR ANY DISCREPANCIES EXISTING PRIOR TO PROCEEDING WITH CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES ARE EXISTING PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- IN SOME CASES, THE DEVELOPER OR OWNER MAY HAVE PROVIDED THEIR OVERALL DEVELOPMENT PLANS FOR THE PROJECT DESIGN RATHER THAN A FIELD SURVEY. (SEE SITE PLAN FOR NOTES WHEN THIS IS THE CASE). ALL DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON SAID DEVELOPMENT PLANS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES ARE EXISTING PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- THE CONTRACTOR SHALL RUN AN INDEPENDENT VERTICAL CONTROL TRAVERSE TO CHECK BENCHMARKS AND A HORIZONTAL CONTROL TRAVERSE THROUGH THE REFERENCED PROJECT CONTROL DATUM TO CONFIRM GEOMETRIC DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.

**CONCRETE NOTES AND SPECIFICATIONS**

- ALL EXTERIOR SITE SPECIFIC PORTLAND CEMENT CONCRETE (PCC) (I.E. SIDEWALK, PAVEMENT OR CURBING) SHALL MEET THE MINIMUM REQUIREMENTS OF THE LATEST EDITIONS OF THE STATE DEPARTMENT OF TRANSPORTATION (DOT) AND THE AMERICAN CONCRETE INSTITUTE (ACI) STANDARDS. CONTRACTOR SHALL USE A 100% POLYURETHANE SEALER FOR HAD AND COLD WEATHER PLACEMENT. CONTRACTOR SHALL USE A 100% POLYURETHANE SEALER FOR HAD AND COLD WEATHER PLACEMENT. CONTRACTOR SHALL REFER TO DETAILS, NOTES AND DETAILS (SWPP), AND SOILS REPORT FOR TREATMENT OF EXISTING GRADE.
- BEFORE STARTING GRADING OPERATIONS SEE STORMWATER POLLUTION PREVENTION PLAN, NOTES AND DETAILS (SWPP), AND SOILS REPORT FOR TREATMENT OF EXISTING GRADE.
- PRIOR TO SITE CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL INSTALL ALL SWPP MEASURES TO PROTECT EXISTING DRAINAGE FACILITIES. CONTRACTOR SHALL PREVENT SILTATION FROM LEAVING THE SITE AT ALL TIMES.
- STRIP BOLDING AND PAVEMENT AREAS OF ALL ORGANIC TOPSOILS. STOCKPILE SUITABLE TOPSOILS FOR RESPAREADING ONTO LANDSCAPE AREAS. ALL EXCESS EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE. SEE SOILS REPORT FOR STRIPPING AND TOPSOIL REQUIREMENTS.
- OBTAINT APPROVED BORROW SOIL MATERIALS OFF-SITE WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. UNLESS OTHERWISE SPECIFIED IN THE PLANS, SPECIFICATIONS, OR SOILS REPORT THE SITE GRADING, EXCAVATION, AND EMBANKMENT SHALL BE IN ACCORDANCE WITH THE STATE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.
- AT A MINIMUM ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY PER ASTM D 698. TEST S-698 MOISTURE CONTENT AT TIME OF EXCAVATION SHALL NOT EXCEED 1.5% ABOVE NOR 1.5% BELOW OPTIMUM. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND OWNER/HIRRED ON-SITE GEOTECHNICAL ENGINEER, NOTIFY PROJECT CONSTRUCTION MANAGER IF ANY UNSUITABLE SOILS ARE FOUND.
- FOLLOWING GRADING OF SUBSOIL TO SUBGRADE ELEVATIONS THE CONTRACTOR SHALL PLACE TOPSOIL TO A 6" DEPTH IN ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED. SMOOTHLY FINISH GRADE TO MEET SURROUNDING LAWN AREAS AND ENSURE POSITIVE DRAINAGE. STOCKPILED TOPSOIL SHALL BE SCREED PRIOR TO RESPAREADING. TOPSOIL SHALL BE FREE OF SUBSOIL, DEBRIS, BRUSH AND STONES LARGER THAN 1" IN ANY DIMENSION. ROCK HOUNDING IN PLACE WILL NOT BE PERMITTED. ALL EXCESS TOPSOIL SHALL BE LEGALLY DISPOSED OF OFF SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND PIPE INSTALLATION, PIPE MATERIAL AND TAP CONNECTION. COORDINATE ALL WORK WITH THE CITY OF HUDSON ENGINEERING DEPARTMENT.

**GRADING PLAN NOTES**

- A GEOLOGICAL ENGINEERING REPORT, HEREIN MAY BE REFERENCED AS SOILS REPORT, HAS BEEN PREPARED BY GPD GROUP, DATED MARCH 5, 2025 AND SHALL BE CONSIDERED TO BE A PART OF THIS PLAN SET.
- BEFORE STARTING GRADING OPERATIONS SEE STORMWATER POLLUTION PREVENTION PLAN, NOTES AND DETAILS (SWPP), AND SOILS REPORT FOR TREATMENT OF EXISTING GRADE.
- PRIOR TO SITE CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL INSTALL ALL SWPP MEASURES TO PROTECT EXISTING DRAINAGE FACILITIES. CONTRACTOR SHALL PREVENT SILTATION FROM LEAVING THE SITE AT ALL TIMES.
- STRIP BOLDING AND PAVEMENT AREAS OF ALL ORGANIC TOPSOILS. STOCKPILE SUITABLE TOPSOILS FOR RESPAREADING ONTO LANDSCAPE AREAS. ALL EXCESS EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE. SEE SOILS REPORT FOR STRIPPING AND TOPSOIL REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER VERBALLY OR IN WRITING AS REQUIRED, OF SUCH DIFFERING CONDITIONS.
- ALL WORK WITHIN THE RIGHTS OF WAY SHALL BE IN ACCORDANCE WITH THE GOVERNING JURISDICTION AND SPECIFICATIONS.
- CONTRACTOR SHALL COORDINATE ANY MAINTENANCE OF TRAFFIC WITH THE OWNER'S REPRESENTATIVE AND THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE IN PLACE PRI TO THE COMMENCEMENT OF ANY PHASE OF THE SITE CONSTRUCTION OR LAND ALTERATION. (SEE SWPP PLANS).
- ALL CONCRETE PANELS SHALL BE SQUARE WITH A LENGTH TO WIDTH RATIO NO GREATER THAN 1.25 TO 1 AND HAVE A MEDIUM BROWN FINISH. SLIP RESISTANT FOR PEDESTRIAN PATHWAYS WHICH SHALL BE TO MINIMUM STRENGTH PRIOR TO OPENING FOR VEHICULAR TRAFFIC AREAS. STAGED/OFFSET JOINT, INTERIOR CORNERS, ANGLES LESS THAN 60 DEGREES, AND AREAS LESS THAN 18-INCHES WIDE, AND ODD SHAPES SHALL NOT BE PERMITTED. BLOCKOUTS AROUND ALL PAVEMENT CASTINGS SHALL BE PROVIDED IN ACCORDANCE WITH ACI RECOMMENDATIONS.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FLOOR LAYOUT OF THE JOINTING WHICH COINCIDES WITH THEIR MEANS AND METHODS TO ENSURE NO UNDESIRABLE CRACKS FORM THROUGH ANY PLACED CONCRETE. JOINTS SHALL BE APPROPRIATELY SCADED AS SOON AS POSSIBLE TO KEEP UNNECESSARY CRACKS FROM DEVELOPING. CONTRACTOR SHALL SUBMIT SHOT DRAWS OF THEIR JOINT LAYOUT TO OWNER / CONSTRUCTION MANAGER PRIOR TO PLACEMENT. CONTRACTOR SHALL REPLACE ANY CRACKED CONCRETE WHICH HAS NOT BEEN PLACED AND RECAST IN ACCORDANCE WITH ACI STANDARDS. TO THE NEXT JOINT PAST THE EFFECTED AREA AT NO ADDITIONAL COST TO THE PROJECT WITHIN ONE YEAR OF PROJECT COMPLETION.
- DESIGN INTENT CONCRETE AND SHALL CONFORM TO THE FOLLOWING MINIMUM AND MAXIMUM VALUES:
 

B. STRENGTH	PORTLAND CEMENT / BLENDED CEMENT	PORTLAND CEMENT DESIGN, MINIMUM 4500 PSI 5500 LBD / CY (ASTM C160 TYPE III, C595 TYPE I, 12% TARGET).
C. POZZOLAN MATERIALS	POZZOLAN MATERIALS (SEE NOTES BELOW)	SILICA FUME MAY REPLACE MAX 7% CEMENT, FLY ASH MAY REPLACE MAX 20% CEMENT, SLAG CEMENT MAY REPLACE MAX 25% PER CEMENT DESIGN, MAXIMUM 4500 PSI.
D. MAX W/C RATIO	W/C RATIO	MAX. W/C < 0.45 (7.0% TARGET) ASTM C260
E. ENTRAINED AIR	ENTRAINED AIR	5.5% AVE < 1.5% (7.0% TARGET) ASTM C260
F. SLUMP	SLUMP WITH HRRW OR MID RANGE WR	4" MAX WITHOUT WATER REDUCER
G. WATER REDUCER	WATER REDUCER	NORMAL TYPE A (ASTM C494)
H. ACCELERATOR	ACCELERATOR	NORMAL TYPE B OR D AS REQUIRED IF CONCRETE TEMPERATURE EXCEEDS 85°F
I. FIBERS TO BE USED	FIBERS TO BE USED	NON-CHLORIDE TYPE ONLY - CALCIUM CHLORIDE IS PROHIBITED
J. FOR USE AS W/F. REPLACEMENT	FOR USE AS W/F. REPLACEMENT	POLYPROPYLENE OR POLYETHYLENE (CURBS, WALKS, STEPS, RAMPS) MICRO SYNTHETIC FIBERS 1.5 LBS / CY (FIBERMESH 300 OR APPROVED EQUAL)
K. FOR USE AS V/H.F. REPLACEMENT	FOR USE AS V/H.F. REPLACEMENT	MACRO SYNTHETIC FIBERS @ 4.0 LBS / CY (TUF-STRAND SF OR APPROVED EQUAL)
- ADA GRADING NOTES:
  - MAX CONSTRUCTED WALK CROSS SLOPE SHALL NOT BE MORE THAN 2.0%.
  - MAX CONSTRUCTED WALK RUNNING SLOPE SHALL NOT BE MORE THAN 6.0%.
  - MAX CONSTRUCTED CURB RAMP RUNNING SLOPE SHALL NOT BE MORE THAN 8.3%.
  - MAX CONSTRUCTED SLOPE IN ANY DIRECTION WITHIN ADA PARKING, RAMP LANDINGS, AND LOADING AREAS SHALL NOT BE MORE THAN 2.0%.
  - CONTRACTOR SHALL VERIFY ALL GRADES IN ADA AREAS PRIOR TO CONSTRUCTION AND NOTIFY THE CONSTRUCTION/PROJECT MANAGER IF THEY DON'T MEET ABOVE REQUIREMENTS.
  - ANY CONSTRUCTED AREAS WITH SLOPES MORE THAN CODE ALLOWABLE WILL NOT BE ACCEPTED AND WILL REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE AT NO ADDITIONAL COST TO THE PROJECT IN ORDER TO BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
  - GAPS OR OPENINGS ALONG THE ACCESSIBLE ROUTE MUST NOT EXCEED 1/2 INCH WIDTH, PERPENDICULAR TO THE PREDOMINATE FLOW OF PEDESTRIAN TRAFFIC.
  - CONTRACTOR SHALL ENSURE ALL ADA ACCESSIBLE PATHWAYS DO NOT EXCEED 1/4 INCH IN VERTICAL DIFFERENCE PER ADA REQUIREMENTS.
- WHEN CONSTRUCTING ASPHALTIC CONCRETE PAVEMENTS, CONTRACTOR SHALL PROVIDE BUTT END JOINT TO MEET EXISTING PAVEMENT IN ELEVATION AT DRIVE RETURNS AND ENSURE POSITIVE DRAINAGE.

**GENERAL UTILITY NOTES**


- CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, INVERT ELEVATION, AND CONDITION OF EXISTING UTILITIES WHICH ARE INTENDED TO BE UTILIZED AS A CONNECTION POINT FOR ALL PROPOSED UTILITIES PRIOR TO ANY CONSTRUCTION. CONTRACTOR TO ENSURE EXISTING UTILITIES ARE IN GOOD CONDITION AND FREE FLOWING (IF APPLICABLE). IF ELEVATIONS, SIZE, OR LOCATION DIFFER FROM WHAT IS SHOWN ON PLANS, CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER.
- PIPERWORKS SHALL BE USED TO DETERMINE THE ELEVATION AND INVERT ELEVATION OF EXISTING SEWER OR UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL LOCATE THE EXISTING PIPERWORKS AND DETERMINE THE ELEVATION AND INVERT ELEVATION OF THE EXISTING UTILITIES. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTEANCE IS NOT THE SAME AS THE ELEVATION OF THE PROPOSED CONDUIT, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER.
- STORM SEWER NOTES
  - ALL STORM SEWER PIPE INDICATED HEREIN AS POLYVINYL CHLORIDE (PVC) SHALL BE SDR 35, PER ASTM D 3034 AND JOINTS PER ASTM D 3212 (OR APPROVED EQUAL).
  - PIPE INSTALLATIONS SHALL BE PER ASTM F1668, AND IN ACCORDANCE WITH THE LOCAL CODE REQUIREMENTS. JOINTS OF DILIMMATERIALS SHALL ALSO BE IN ACCORDANCE WITH THE LOCAL CODE REQUIREMENTS.
- ALL PRECAST CONCRETE UTILITY STRUCTURES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE APPLICABLE, MOST CURRENT, VERSION OF ASTM STANDARDS (INCLUDING BUT NOT LIMITED TO A53, A615, C443, C476, C690, C891, C913, C929, F2510, ETC.) AND LOCAL CODE REQUIREMENTS.
- STORM SEWER NOTES
  - ALL STORM SEWER PIPE INDICATED HEREIN AS POLYVINYL CHLORIDE (PVC) SHALL BE SDR 35, PER ASTM D 3034 AND JOINTS PER ASTM D 3212 (OR APPROVED EQUAL).
  - PIPE INSTALLATIONS SHALL BE PER ASTM F1668, AND IN ACCORDANCE WITH THE LOCAL CODE REQUIREMENTS. JOINTS OF DILIMMATERIALS SHALL ALSO BE IN ACCORDANCE WITH THE LOCAL CODE REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND PIPE INSTALLATION, PIPE MATERIAL AND TAP CONNECTION. COORDINATE ALL WORK WITH THE CITY OF HUDSON ENGINEERING DEPARTMENT.

**EXISTING GENERAL LEGEND**

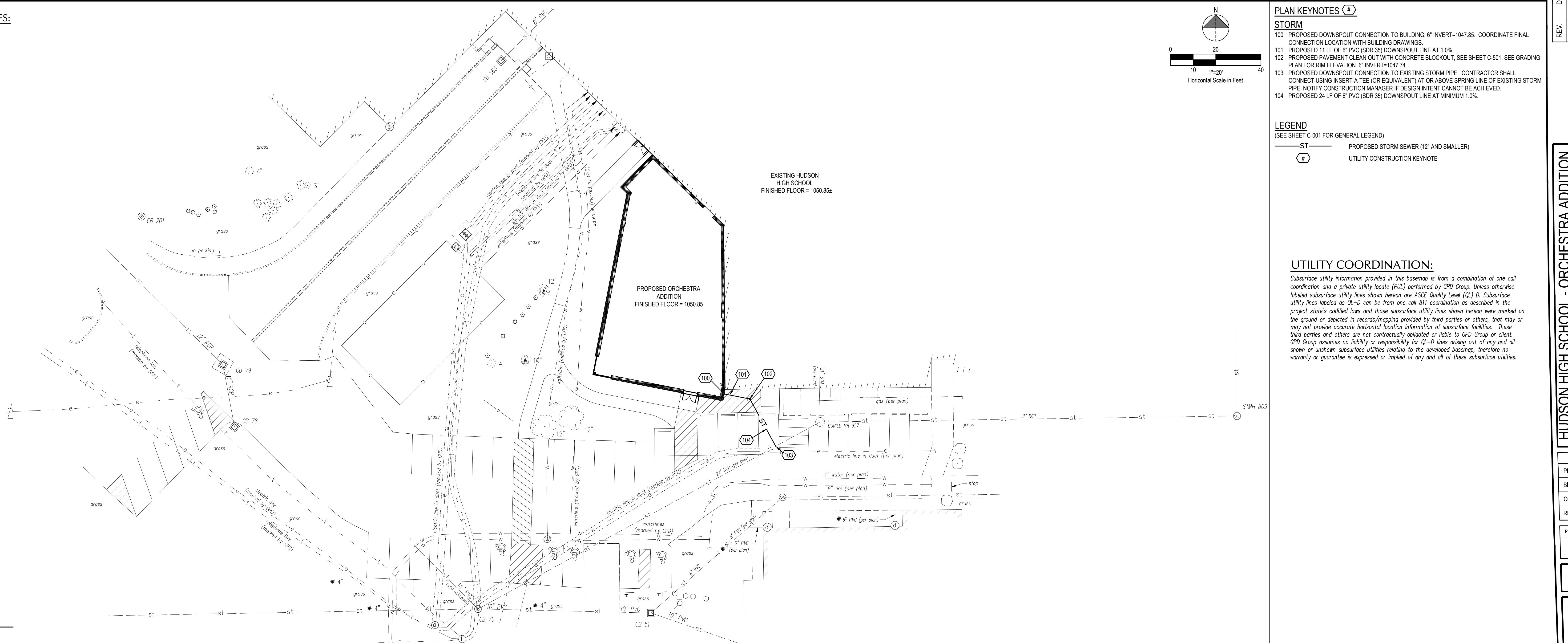
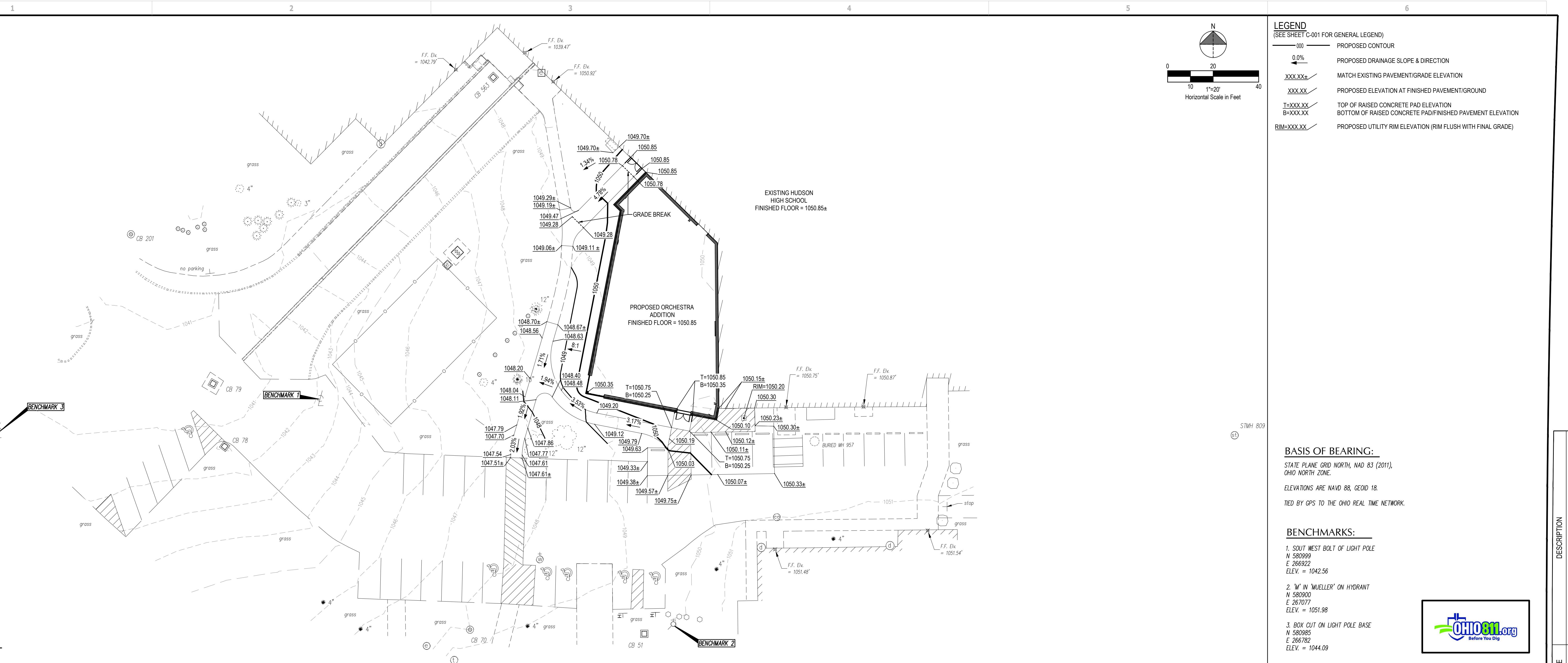
EXISTING LIGHT POLE  
EXISTING ELECTRIC METER  
EXISTING ELECTRIC MANHOLE  
EXISTING TRANSFORMER  
EXISTING ELECTRIC PULLBOX  
EXISTING CATCH BASIN  
EXISTING DOWN SPOUT  
EXISTING FIRE HYDRANT  
EXISTING WATER VALVE  
EXISTING TELEPHONE MANHOLE  
EXISTING POST OR BOLLARD  
EXISTING SIGN  
EXISTING HANDICAP SIGN  
EXISTING CLEANOUT  
EXISTING CONCRETE CURB  
st - EXISTING UNDERGROUND STORM LINES  
w - EXISTING UNDERGROUND WATER LINES  
e - EXISTING UNDERGROUND ELECTRIC LINES  
t - EXISTING UNDERGROUND TELEPHONE LINES  
bush/shrub  
deciduous tree  
evergreen tree  
rock

**GENERAL NOTES**

HUD



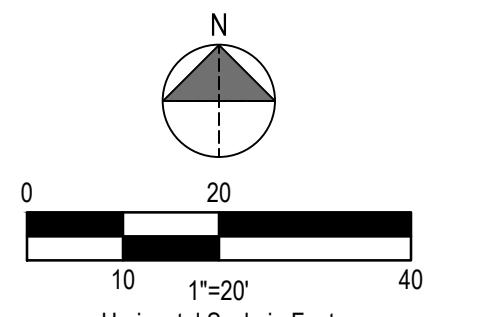
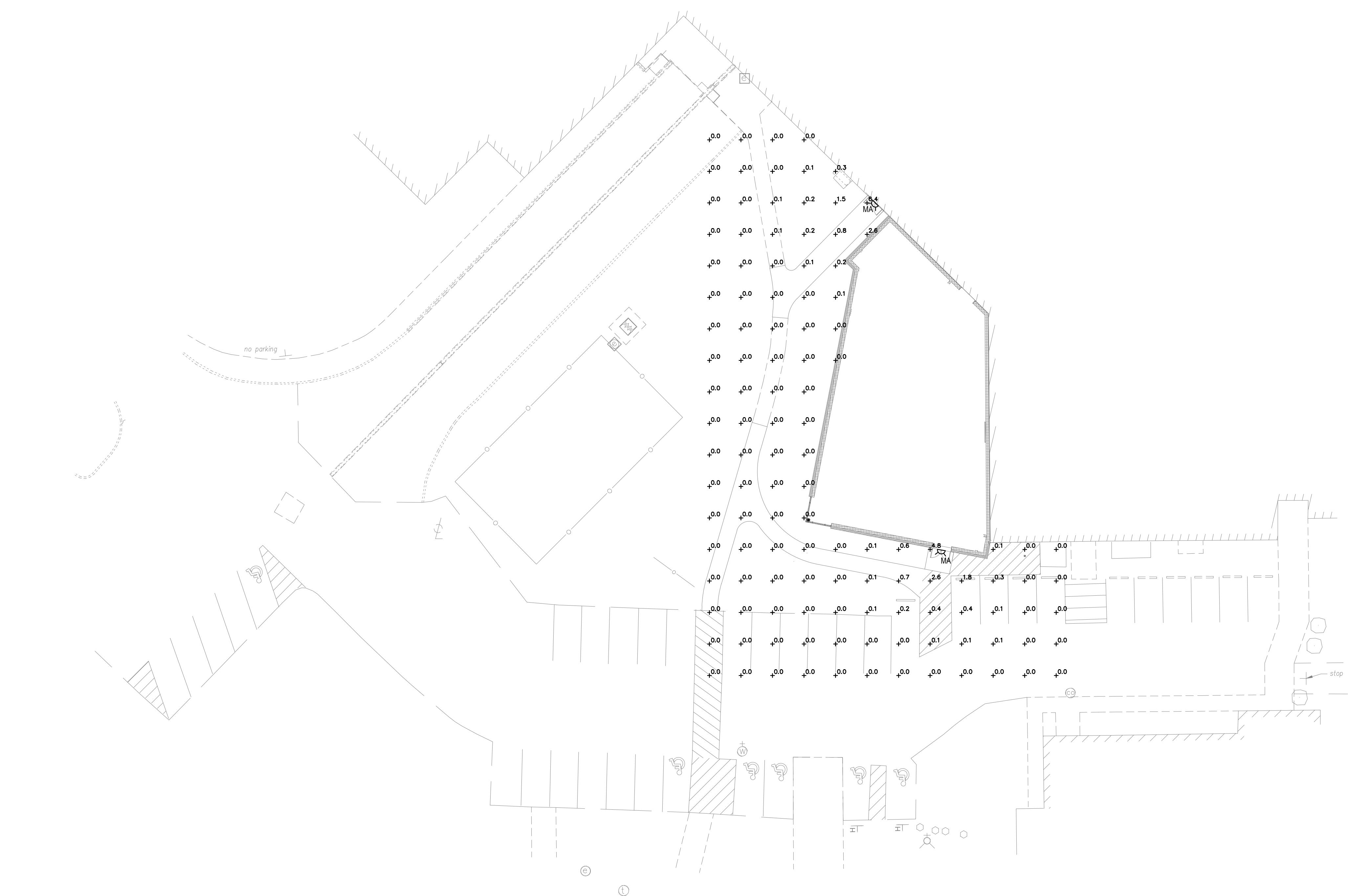






Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #3	+	0.2 fc	6.4 fc	0.0 fc	N/A	N/A

EXTERIOR LIGHTING FIXTURE SCHEDULE												
Fixture Tag	Lamp	Color Temp.	Lumens	Description	Voltage	Watts	Manufacturer	Catalog Number	Bug Rating	Fixture Color	Mounting	Remarks
MA	LED	3000K	1,505L	EXTERIOR WALL MOUNT LUMINAIRE, FULL CUTOFF, IP66, DARK SKY APPROVED.	12 VOLT	12 VA	LUMARK	#AXCS1A-W-CBP	B-1/U-0/G-0	BRONZE	WALL	Mount centered above door(s) at 9'-0" above grade



PRELIMINARY DRAFT  
NOT FOR CONSTRUCTION,  
BID, RELIANCE,  
RECORDING PURPOSES  
OR IMPLEMENTATION.

HUDSON HIGH SCHOOL - ORCHESTRA ADDITION  
2500 HUDSON AURORA RD, HUDSON, OH 44236  
ELECTRICAL SITE  
PHOTOMETRIC PLAN

ISSUED FOR:	
PERMIT	_____
BID	_____
CONSTRUCTION	_____
RECORD	_____

PROJECT MANAGER	DESIGNER
JP	DC

JOB NO.  
2024098.02

ES-101

Project		Catalog #		Type	
Prepared by		Notes		Date	



## Lumark

### Axcent

#### Wall Mount Luminaire

#### Product Features



#### Product Certifications



#### Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 6

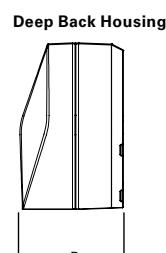
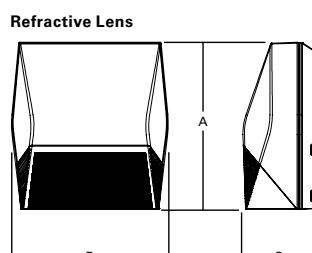
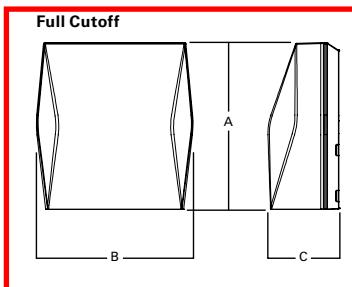
#### Quick Facts

- Available in 12W - 116W (1,800 - 16,000 lumens) models
- Full cutoff and refractive lens models available
- Energy and maintenance savings up to 95% compared to HID
- Energy efficient illumination results in up to 177LPW
- Replaces 70W up to 450W HID equivalents

#### Connected Systems

- WaveLinx PRO Wireless
- WaveLinx LITE Wireless
- Enlighted

#### Dimensional Details



#### Dimensional Data

	AXCS Small	AXCL Large
A	8" [202mm]	11-1/2" [292mm]
B	7-1/2" [190mm]	10-3/4" [273mm]
C	3-5/8" [94mm]	4-7/8" [124mm]
D	6-1/8" [155mm]	7-1/8" [181mm]

## Ordering Information

SAMPLE NUMBER: AXCS1A-AP-347V

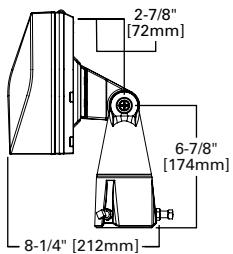
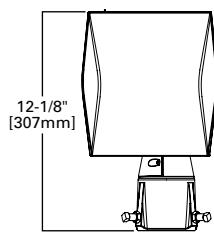
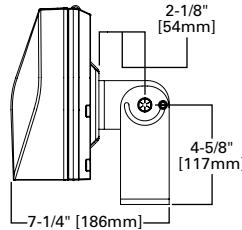
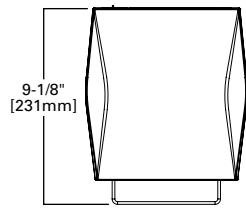
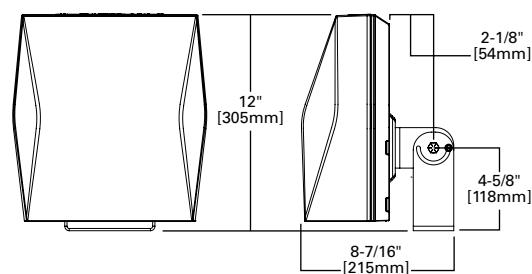
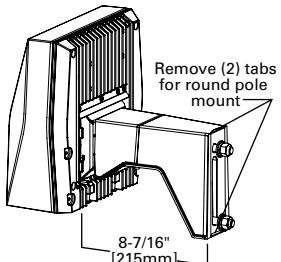
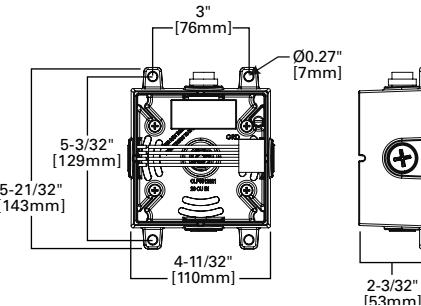
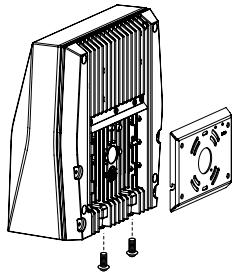
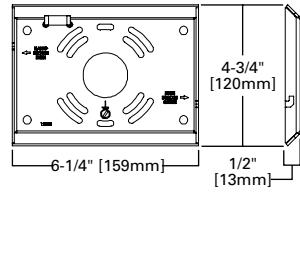
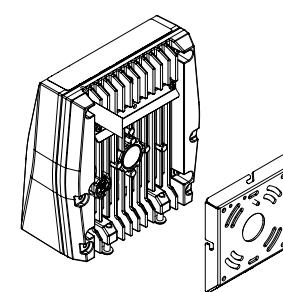
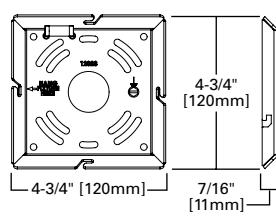
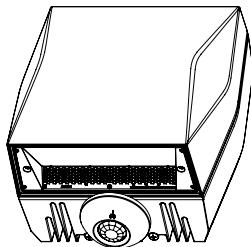
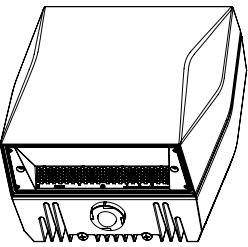
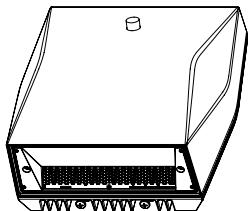
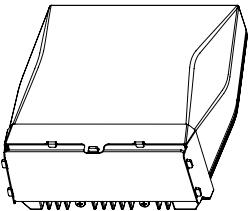
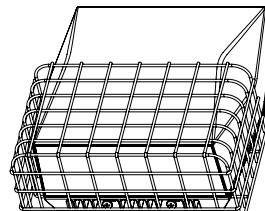
Domestic Preferences <sup>27</sup>	Model Series <sup>1</sup>	LED Color Temperature	Color	Options (Add as Suffix)
<b>Blank</b> =Standard BAA=Buy American Act TAA=Trade Agreements Act	<b>Full Cutoff</b> AXCS1A=12W AXCS2A=16W AXCS3A=23W AXCS4A=38W AXCS5A=45W AXCL6A=50W AXCL8A=66W AXCL10A=89W AXCL12A=116W  <b>Refractive Lens</b> AXCS1ARL=12W AXCS2ARL=16W AXCS3ARL=23W AXCS4ARL=38W AXCS5ARL=45W AXCL6ARL=50W AXCL8ARL=66W AXCL10ARL=89W AXCL12ARL=116W	<b>[Blank]</b> =4000K, Neutral C=5000K, Cool W=3000K, Warm	<b>[Blank]</b> =Carbon Bronze (Standard) WT=Summit White BK=Black AP=Grey GM=Graphite Metallic DP=Dark Platinum	<b>347V</b> =347V <sup>2</sup> <b>480V</b> =480V <sup>2</sup> <b>PC1</b> =Photocontrol 120V <sup>3,4,5</sup> <b>PC2</b> =Photocontrol 208-277V, 347V, 480V <sup>4,5,6</sup> <b>PC</b> =Photocontrol 120-277V, 347V, 480V <sup>4,7,8</sup> <b>KKIT</b> =Knuckle Floodlight Mount <sup>7</sup> <b>TRNKIT</b> =Trunnion Floodlight Mount <b>SFKIT</b> =Slipfitter Floodlight Mount <b>PMAKIT</b> =Pole Mount Arm <b>WPS2XX</b> =Wavelinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7'-15' Mounting Height <sup>4,9,10,11</sup> <b>WPS4XX</b> =Wavelinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15'-40' Mounting Height <sup>4,9,10,11</sup> <b>WLS2XX</b> =WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 7'-15' Mounting <sup>4,9,10,11</sup> <b>WLS4XX</b> =WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 15'-40' Mounting <sup>4,9,10,11</sup> <b>LWR-LW</b> =Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height <sup>4,9,12</sup> <b>LWR-LN</b> =Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height <sup>4,9,12</sup> <b>MSP/DIM-L12</b> =Integrated Sensor for Dimming Operation, 8'-12' Mounting Height <sup>4,9,13</sup> <b>MSP/DIM-L30</b> =Integrated Sensor for Dimming Operation, 12'-30' Mounting Height <sup>4,9,13</sup> <b>MSP-L12</b> =Integrated Sensor for ON/OFF Operation, 8'-12' Mounting Height <sup>4,9,13</sup> <b>MSP-L30</b> =Integrated Sensor for ON/OFF Operation, 12'-30' Mounting Height <sup>4,9,13</sup> <b>CBP</b> =Cold Weather Battery Pack <sup>3,14,15,16,17,28</sup>
Accessories (Order Separately) <sup>22,28</sup>				
<p>VS/AXCS-XX=Vandal Shield Axcent Small<sup>7,23</sup>      VS/AXCS-MS=Vandal Shield Axcent Small (With Motion Sensor)<sup>7,23</sup>      WG/AXCS=Wire Guard Axcent Small<sup>7</sup>      WG/AXCS-MS=Wire Guard Axcent Small (With Motion Sensor)<sup>7</sup>      VS/AXCL-XX=Vandal Shield Axcent Large<sup>5,23</sup>      VS/AXCL-MS=Vandal Shield Axcent (With Motion Sensor)<sup>5,23</sup>      WG/AXCL=Wire Guard Axcent Large<sup>5</sup>      WG/AXCL-MS=Wire Guard Axcent (With Motion Sensor)<sup>5</sup>      BB/AXC=Lumen Select Back Box, Carbon Bronze<sup>24</sup>      BB/AXC-PC=Lumen Select Back Box with PC, Carbon Bronze<sup>24,25</sup>      BB/AXC-WT=Lumen Select Back Box, Summit White<sup>24</sup>      BB/AXC-WT-PC=Lumen Select Back Box with PC, Summit White<sup>24,25</sup></p>				
<p><b>NOTES:</b>      1. DesignLights Consortium® Qualified. Refer to <a href="http://www.designlights.org">www.designlights.org</a> Qualified Products List under Family Models for details.      2. Transformer used only when ordered with motion sensor or AXCS1 through AXCS5 or AXCL6 fixture wattages.      3. Not available in 347 or 480 VAC.      4. Button photocontrol and any motion sensor (MSP or LWR) not offered together.      5. Only available on AXCL6-AXCL12 models.      6. Used with 277, 347, and 480 VAC options.      7. Only available on AXCS1-AXCS5 models.      8. This configuration may contain materials that are not RoHS compliant. Contact your lighting representative for more information.      9. Uses deep back housing.      10. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F). For the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with Wavelinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.      11. Replace XX with sensor color (WH, BZ, or BK).      12. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for application information.      13. The ISHH-01 accessory is required to adjust parameters.      14. Ambient operating temperature -20°C to 25°C for AXCL6 through AXCL10. Ambient operating temperature -20°C to 30°C on AXCS4 models. Ambient operating temperature -20°C to 40°C on AXCS1 through AXCS3 models.      15. Not available with AXCS5 or AXCL12 models.</p> <p>16. Uses deep back housing for AXCS1, AXCL2, AXCS3, and AXCS4 models.      17. Not to be mounted in upwards / inverted orientation. Downlight wall mount only for AXCS1 through AXCS4.      18. CBP cannot be used with PC and motion sensor (MSP or LWR). CBP can be used with PC or motion sensor (MSP or LWR).      19. Can not be ordered with CBP or PC options.      20. Use dedicated IES files on product website for lumen values and distributions.      21. Requires the use of PC1 or PC2 button photocontrol. See After Hours Dim supplemental guide for additional information.      22. Replace XX with color designation.      23. For use with full cutoff lens configurations only.      24. Lumen Select functionality not available in conjunction with any motion sensor option (MSP or LWR). Photocontrol back box not available with any photocontrol or motion sensor options (PC, MSP or LWR).      25. Photocell only operates at 120-277V input voltages. Not for use with 347 or 480V systems.      26. This tool enables adjustment to parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult you lighting representative for more information.      27. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.      28. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.</p>				

## Stock Ordering Information

Model Series <sup>1</sup>			
Full Cutoff		Refractive Lens	
AXCS1A=12W	AXCL10A=102W	AXCS1ARL=12W	AXCL10ARL=89W
AXCS2A=16W	AXCL12A=123W	AXCS2ARL=16W	AXCL12ARL=116W
AXCS3A=23W	AXCL6A-347V=50W	AXCS3ARL=23W	AXCL6ARL-347V=50W
AXCS4A=38W	AXCL8A-347V=66W	AXCS4ARL=38W	AXCL8ARL-347V=66W
AXCS5A=45W	AXCL10A-347V=89W	AXCS5ARL=45W	AXCL10ARL-347V=89W
AXCL6A=56W	AXCL12A-347V=116W	AXCL6ARL=50W	AXCL12ARL-347V=116W
AXCL8A=72W		AXCL8ARL=66W	

Note: All stock configurations are 4000K color temperatures, standard Carbon Bronze finish, and wall mount configuration.

## Mounting Details

**Slipfitter Mount (Small)**  
Tenon OD: 2-3/8" | EPA: 0.60**Knuckle Mount (Small)****Trunnion Mount (Small)****Slipfitter Mount (Large)**  
Tenon OD: 2-3/8" to 2-7/8" | EPA: 1.10**Trunnion Mount (Large)****Pole Mount Arm (Large)**  
EPA: 1.10**Lumen Select Back Box****Wall Mount Plate Detail (Large)****Wall Mount Plate Detail (Small)****Enlighted Sensor****Occupancy Sensor****Button Photocontrol****Vandal Shield****Wire Guard**

## Product Specifications

### Construction

- Die-cast aluminum housing
- External back fin design extracts heat from the surface to thermally optimize design for longer luminaire life

### Optics

- Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
- Silicone-sealed optical LED chamber
- Acrylic refractive or full cutoff lens options for Type IV distributions

### Electrical

- Standard universal voltage (120-277V, 50/60Hz)
- Driver incorporates 6kV surge protection
- -40°C minimum operating temperature
- 40°C maximum operating temperature
- <20% total harmonic distortion
- 0-10V dimming driver is standard with leads external to the fixture

### Mounting

- Steel wedge mounting plate fits directly to 4" standard j-box or directly to wall with the "Hook-N-Lock" mechanism
- Stainless steel set screws
- Lumen Select Back Box accessory offers four 1/2" NPT conduit entry wire ways. Resistor Pack combinations allow field-dimming of 75% or 50% when connected to luminaire dimming leads
- Not suitable for indoor use when installed in inverted/uplight orientation

### Emergency Egress

- Optional integral cold weather battery emergency egress includes emergency operation test switch, an AC-ON indicator light and a premium, maintenance-free battery pack
- The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting

### Finish

- Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness

### Shipping Data

- Small fixture=5 lbs. [2.36 kgs.]
- Small with sensor or CBP=10 lbs. [4.40 kgs.]
- Large fixture=12 lbs. [5.45 kgs.]
- Large with sensor or CBP=17 lbs. [7.73 kgs.]
- Large with sensor & CBP=21 lbs. [9.54 kgs.]

### Warranty

- Five year limited warranty, consult website for details. [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)

## Energy and Performance Data

### Power and Lumens (Axcent Small)

Light Engine	AXCS1A	AXCS2A	AXCS3A	AXCS4A	AXCS5A
<b>Power (Watts)</b>	12	16	23	38	45
<b>Input Current @ 120V (A)</b>	0.10	0.13	0.19	0.32	0.38
<b>Input Current @ 240V (A)</b>	0.05	0.07	0.10	0.16	0.19
<b>Input Current @ 277V (A)</b>	0.04	0.06	0.08	0.14	0.16
<b>Input Current @ 347V (A)</b>	0.03	0.05	0.07	0.11	0.13
<b>Input Current @ 480V (A)</b>	0.03	0.03	0.05	0.08	0.09
Configuration					
<b>Full Cutoff</b>	4000K/5000K Lumens	1,786	2,589	3,551	5,500
	3000K Lumens	1,509	2,188	3,001	4,648
	BUG Rating	B1-U0-G0	B1-U0-G0	B1-U0-G0	B2-U0-G1
<b>Refractive Lens</b>	4000K/5000K Lumens	1,894	2,745	3,765	5,832
	3000K Lumens	1,600	2,320	3,182	4,928
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G2	B1-U4-G3

### Power and Lumens (Axcent Large)

Light Engine	AXCL6A	AXCL8A	AXCL10A	AXCL12A
<b>Power (Watts)</b>	50	66	89	115
<b>Input Current @ 120V (A)</b>	0.41	0.54	0.74	0.96
<b>Input Current @ 240V (A)</b>	0.21	0.27	0.37	0.48
<b>Input Current @ 277V (A)</b>	0.18	0.24	0.32	0.42
<b>Input Current @ 347V (A)</b>	0.14	0.19	0.26	0.33
<b>Input Current @ 480V (A)</b>	0.10	0.14	0.19	0.24
Configuration				
<b>Full Cutoff</b>	4000K Lumens	7,594	9,716	12,719
	5000K Rating	7,501	9,598	12,564
	3000K Lumens	6,502	8,319	10,890
	BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2
<b>Refractive Lens</b>	4000K Lumens	7,809	10,331	13,665
	5000K Rating	7,714	10,205	13,498
	3000K Lumens	6,686	8,845	11,700
	BUG Rating	B1-U4-G4	B2-U5-G5	B2-U5-G5

## Energy and Performance Data

## Power and Lumens (Small + CBP)

Light Engine		AXCS1A	AXCS2A	AXCS3A	AXCS4A
Power (Watts)		16	20	27	42
Input Current @ 120V (A)		0.13	0.17	0.23	0.35
Input Current @ 240V (A)		0.07	0.08	0.11	0.18
Input Current @ 277V (A)		0.06	0.07	0.10	0.15
Configuration					
Full Cutoff	4000K/5000K Lumens	742	792	789	644
	3000K Lumens	627	670	667	545
Refractive Lens	4000K/5000K Lumens	787	841	837	684
	3000K Lumens	664	710	708	655

**Note:** Power and current based on full power consumption while CBP is charging. Lumen outputs are while operating in emergency mode only.

## Power and Lumens Multipliers

(Lumen Select Back Box + Axcent Small)

Configuration		~75% Nominal Output	~50% Nominal Output
Catalog Number	Material Number	Connect per Installation Instructions	
AXCS1A*	13109741 or 13109939 or Other	74%	50%
AXCS2A*	13109698 or 13109938 or Other	74%	50%
AXCS3A*	13109697 or 13109937 or Other	74%	50%
AXCS4A*	13109695 or 13109936	75%	40%
AXCS4A*	13495299 or 13495470 or Other	72%	50%
AXCS5A*	13109652 or 13109935	75%	40%
AXCS5A*	13495471 or 13495472 or Other	72%	50%

## Lumen Maintenance (Axcent Small)

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)
<b>Up to 3A</b>	
25°C	88%
40°C	87%
50°C	87%
<b>Up to 4A</b>	
25°C	88%
40°C	87%
50°C	87%
<b>Up to 5A</b>	
25°C	87%
40°C	86%

## Lumen Maintenance (Axcent Large)

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)
<b>Up to 8A</b>	
25°C	89%
40°C	87%
50°C	86%
<b>Up to 10A</b>	
25°C	88%
40°C	86%
50°C	85%
<b>Up to 12A</b>	
25°C	85%
40°C	82%

## Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.97

## Control Options

**0-10V** This fixture is offered standard with 0-10V dimming driver(s) for use with a lighting control panel or other control method.

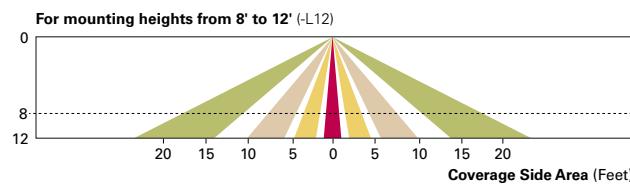
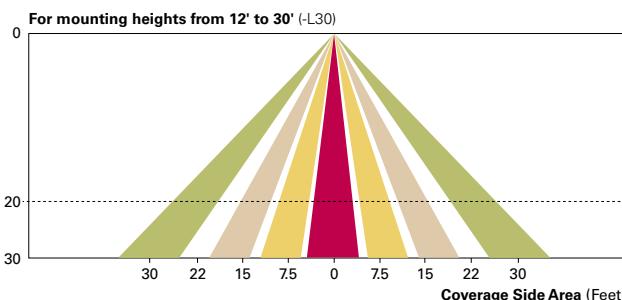
**Photocontrol (PC1, PC2 and PC)** Optional button-type photocontrol provides a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels.

**After Hours Dim (AHD)** This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

**Dimming Occupancy Sensor (MSP/DIM-LXX and MSP-LXX)** These sensors are factory installed in the luminaire housing. When the MSP/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MSP/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of ten minutes. The MSP-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity.

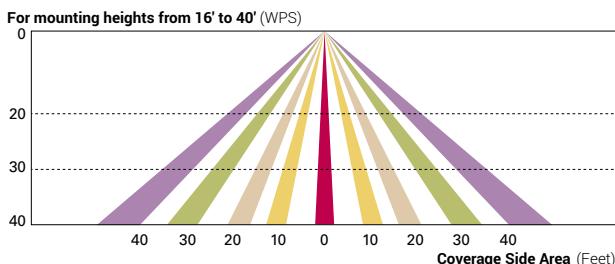
These occupancy sensors include an integrated photocell that can be activated with the ISHH-01 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is ON. The ISHH-01 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 8'-30'.



**WaveLinx Wireless Control and Monitoring System** The WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

**WaveLinx Wireless Sensor (WPS2 and WPS4)** These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.



**Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)** The Enlighted System is a connected lighting solution that combines LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of other resources beyond lighting.

