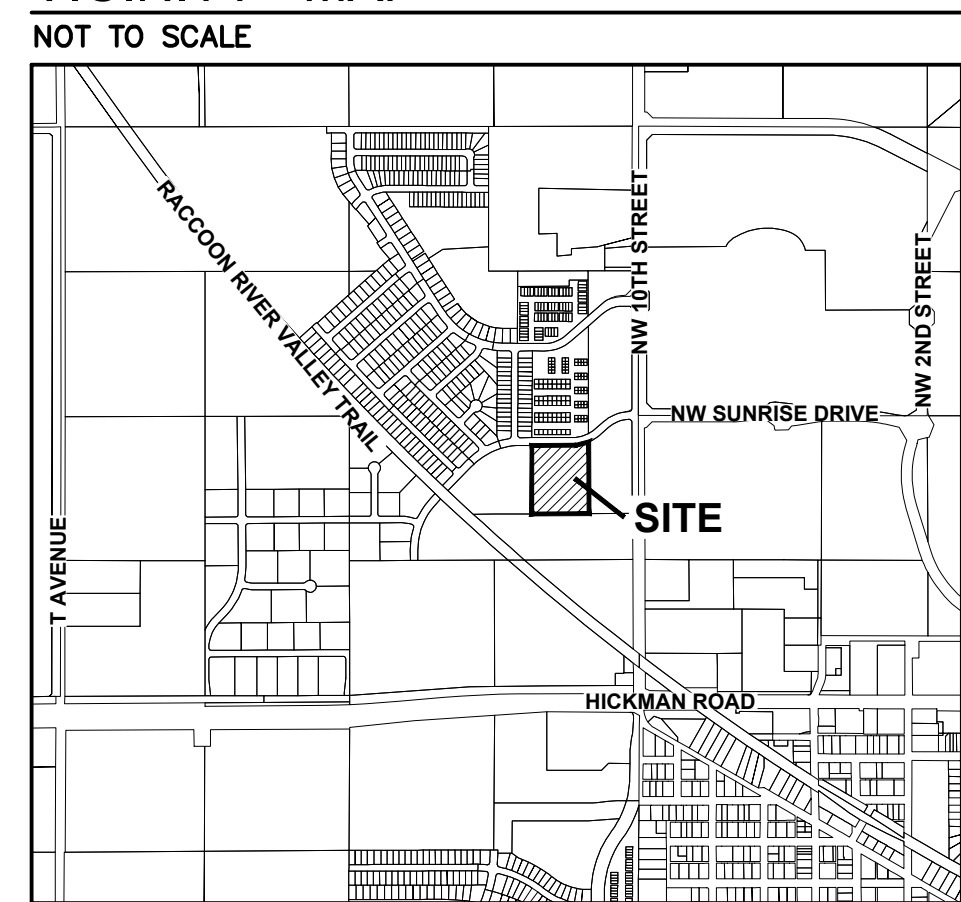


PRELIMINARY PLAT / SITE PLAN FOR: BRANDON ESTATES

WAUKEE, IOWA

VICINITY MAP



WAUKEE, IOWA

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN UPDATED SITE PLAN ILLUSTRATING ANY CHANGES MADE DURING CONSTRUCTION AND RECEIVE APPROVAL IN WRITING FROM THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT OF SAID CHANGES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES MADE WITHOUT WRITTEN APPROVAL.
2. THE RESULTS OF THE GEOTECHNICAL REPORT ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. THE SITE PLAN IS SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.
3. A COPY OF THE GEOTECHNICAL REPORT SHOULD BE PROVIDED TO THE ARCHITECT AND STRUCTURAL ENGINEER TO ENSURE THAT FOOTINGS AND FOUNDATION WALLS ARE BEING DESIGNED PROPERLY.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

INDEX OF SHEETS

NO.	DESCRIPTION
C1.0	COVER SHEET
C2.0-2.1	TYPICAL SECTIONS AND DETAILS
C3.0	PRELIMINARY PLAT
C4.0	HYDRANT COVERAGE PLAN
C5.0-C5.1	DIMENSION PLAN
C6.0-C6.2	GRADING PLAN
C7.0-C7.1	UTILITY PLAN
C8.0	EROSION AND SEDIMENT CONTROL PLAN
C9.0-C9.2	LANDSCAPE PLAN

GENERAL LEGEND

PROPOSED	EXISTING
PROPERTY BOUNDARY	SANITARY MANHOLE
SECTION LINE	WATER VALVE BOX
CENTER LINE	FIRE HYDRANT
RIGHT OF WAY	WATER CURB STOP
BUILDING SETBACK	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-502 STORM INTAKE	FLARED END SECTION
TYPE SW-503 STORM INTAKE	DECIDUOUS TREE
TYPE SW-505 STORM INTAKE	CONIFEROUS TREE
TYPE SW-506 STORM INTAKE	DECIDUOUS SHRUB
TYPE SW-512 STORM INTAKE	CONIFEROUS SHRUB
TYPE SW-513 STORM INTAKE	ELECTRIC POWER POLE
TYPE SW-401 STORM MANHOLE	GUY ANCHOR
TYPE SW-402 STORM MANHOLE	STREET LIGHT
FLARED END SECTION	POWER POLE W/ TRANSFORMER
TYPE SW-301 SANITARY MANHOLE	UTILITY POLE W/ LIGHT
STORM/SANITARY CLEANOUT	ELECTRIC BOX
WATER VALVE	ELECTRIC TRANSFORMER
FIRE HYDRANT ASSEMBLY	ELECTRIC MANHOLE OR VAULT
SIGN	TRAFFIC SIGN
DETECTABLE WARNING PANEL	TELEPHONE JUNCTION BOX
WATER CURB STOP	TELEPHONE MANHOLE/VAULT
SANITARY SEWER	TELEPHONE POLE
SANITARY SERVICE	GAS VALVE BOX
STORM SEWER	CABLE TV JUNCTION BOX
STORM SERVICE	CABLE TV MANHOLE/VAULT
WATERMAIN WITH SIZE	MAIL BOX
WATER SERVICE	BENCHMARK
SAWCUT (FULL DEPTH)	SOIL BORING
SILT FENCE	UNDERGROUND TV CABLE
USE AS CONSTRUCTED	GAS MAIN
MINIMUM PROTECTION ELEVATION	FIBER OPTIC
FINISHED FLOOR ELEVATION AT FRONT OF GARAGE	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

OWNER / APPLICANT

ELEMENT 119
CONTACT: BRAD STANBROUGH
234 SUNRISE DRIVE
WAUKEE, IA 50263
PH: (515) 202-3030

ENGINEER

CIVIL DESIGN ADVANTAGE
CONTACT: JARED MURRAY
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH: (515) 369-4400
EMAIL: JAREDM@CDA-ENG.COM

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: CHARLIE MCGLOTHLEN
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PH: (515) 369-4400
FX: (515) 369-4410

DATE OF SURVEY

MARCH 10, 2022

BENCHMARKS

1. USGS MONUMENT ALUMINUM ROD WITH CAP STAMPED G121 AND NGS ACCESS COVER 3" DEEP, EAST SIDE OF R AVENUE (R16) 0.1 MILES SOUTH OF 300TH STREET. ELEVATION = 1032.83
2. PK NAIL 3' NORTH OF CENTERLINE EASTBOUND HIGHWAY 6 AT THE SE CORNER OF SW SE ELEVATION = 1040.27

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = SUMMER 2022
ANTICIPATED FINISH DATE = SUMMER 2024

SUBMITTAL DATES

FIRST SUBMITTAL: 06/23/2022
SECOND SUBMITTAL: 07/21/2022
THIRD SUBMITTAL: 08/09/2022
FOURTH SUBMITTAL: 12/13/2022
FINAL SUBMITTAL: 02/16/2023

DEVELOPMENT SUMMARY

AREA: 7.54 ACRES (328,243 SF)

SETBACKS:
FRONT YARD = 30 FT
REAR YARD = 30 FT
SIDE YARD = 15 FT

OPEN SPACE CALCULATION:

TOTAL SITE = 328,243 SF
BUILDINGS = 91,232 SF
STREETS = 78,182 SF
DRIVEWAYS = 10,898 SF
SIDEWALK = 22,246 SF
OPEN SPACE PROVIDED = 125,685 SF

TOTAL IMPERVIOUS AREA:
202,558 SF

TOTAL OPEN SPACE PROVIDED:
125,685 SF (38.29%)

TOTAL OPEN SPACE REQUIRED:
328,243 SF * 20% = 65,649 SF (20%)

BUILDING HEIGHT
+/- 34 FT (2 STORIES)

UNITS:
112 UNITS (14.85 UNITS PER ACRE)

PARKING:

TOTAL REQUIRED:
1 SPACE PER 5 UNITS = 23 SPACES
2 SPACES PER UNIT = 224 SPACES
TOTAL = 247 SPACES

TOTAL PROVIDED:
GARAGES = 48 SPACES
DRIVEWAYS = 48 SPACES
STREET PARKING = 155 SPACES
TOTAL = 251 SPACES

ACCESSIBLE PARKING (VISITOR STALLS):

REQUIRED = 6 SPACES
PROVIDED = 13 SPACES

UNIT SQUARE FOOTAGE (FINISHED):

TOWNHOME END UNIT 'A' = 1,647 SF (+/-)
TOWNHOME END UNIT 'B' = 1,599 SF (+/-)
FLAT 'A' = 1,134 SF (+/-)
FLAT 'B' = 1,219 SF (+/-)

PROPERTY DESCRIPTION

PARCEL '21-135' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2021, PAGE 34942, BEING A PART OF OUTLOT 'W', STRATFORD CROSSING PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE, DALLAS COUNTY, IOWA AND CONTAINING 7.54 ACRES (328,243 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

ZONING

R-3 MULTI-FAMILY RESIDENTIAL DISTRICT

PARKLAND DEDICATION

TOWNHOME:
112 UNITS * 1.75 PEOPLE/UNIT * 6.5 ACRES/1000 PEOPLE

TOTAL REQUIRED = 1.27 ACRES

TOTAL PROVIDED = 0.00 ACRES



CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322

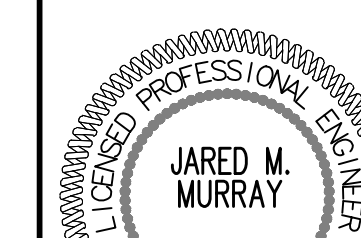
PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 2111.890



1-800-292-8989

www.iowaonecall.com



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JARED M. MURRAY, P.E. DATE

LICENSE NUMBER 23496
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:

C1.0-C8.0

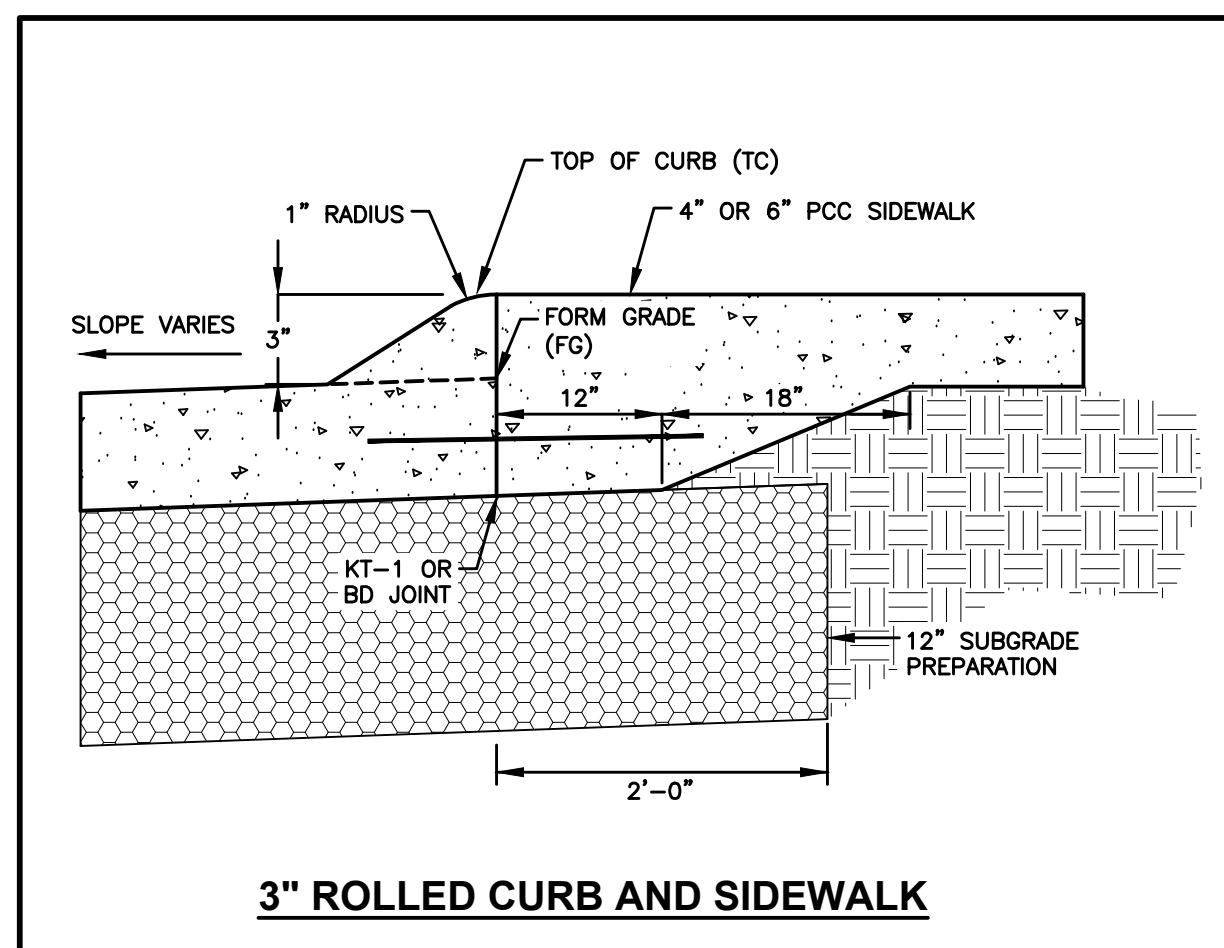
THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

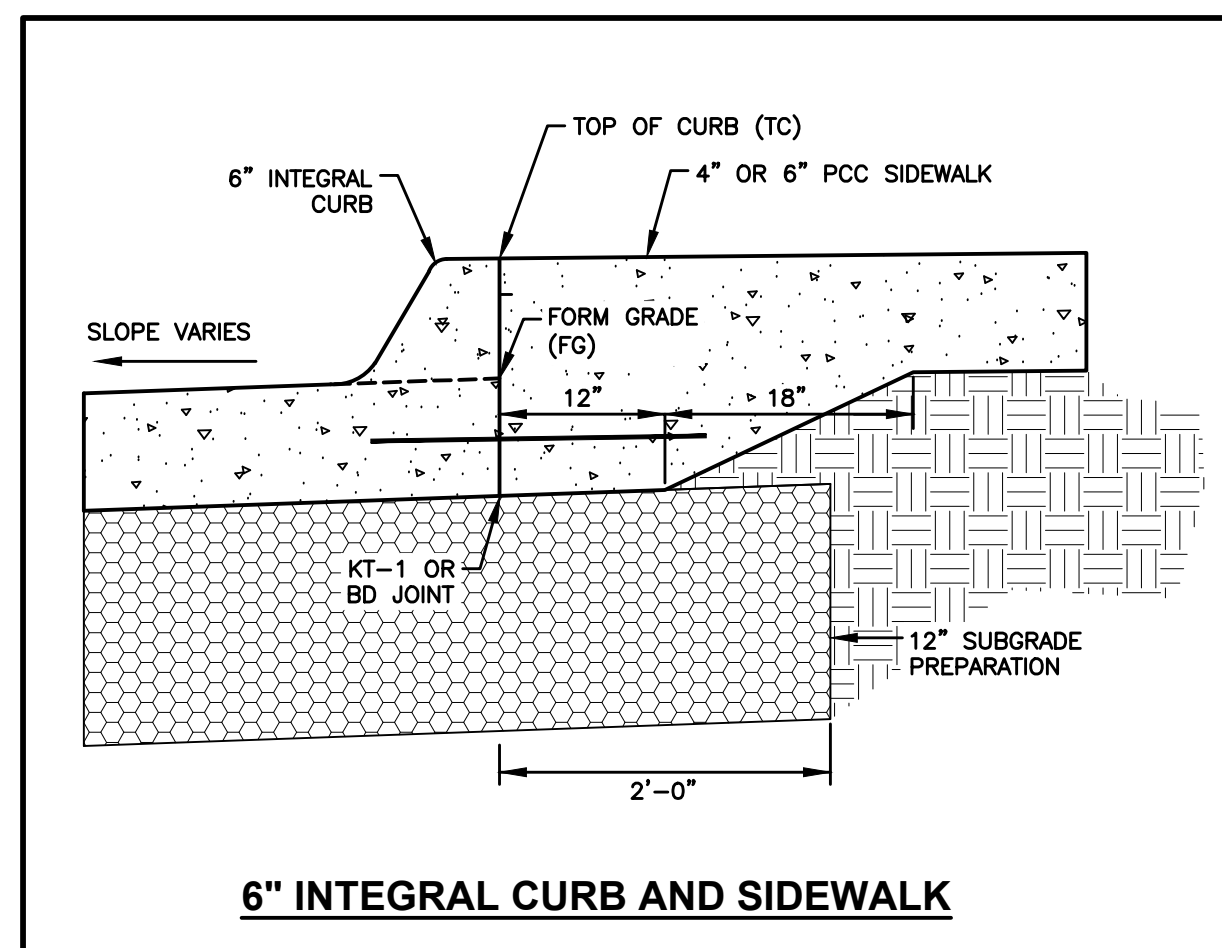
THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2022 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IN THE EVENT OF CONTRASTING REQUIREMENTS.

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 DATE: 2/16/2023 1:28 PM

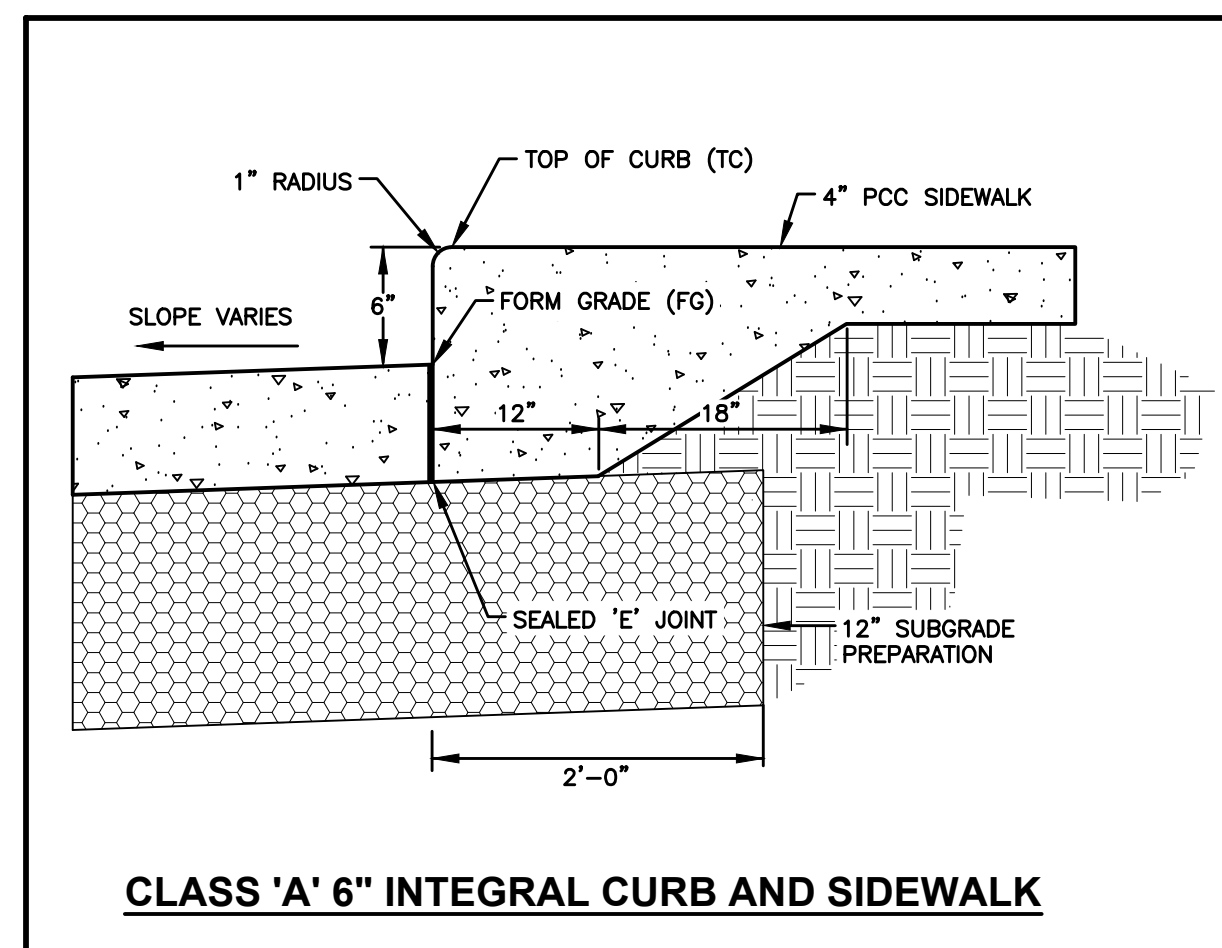
BRANDON ESTATES



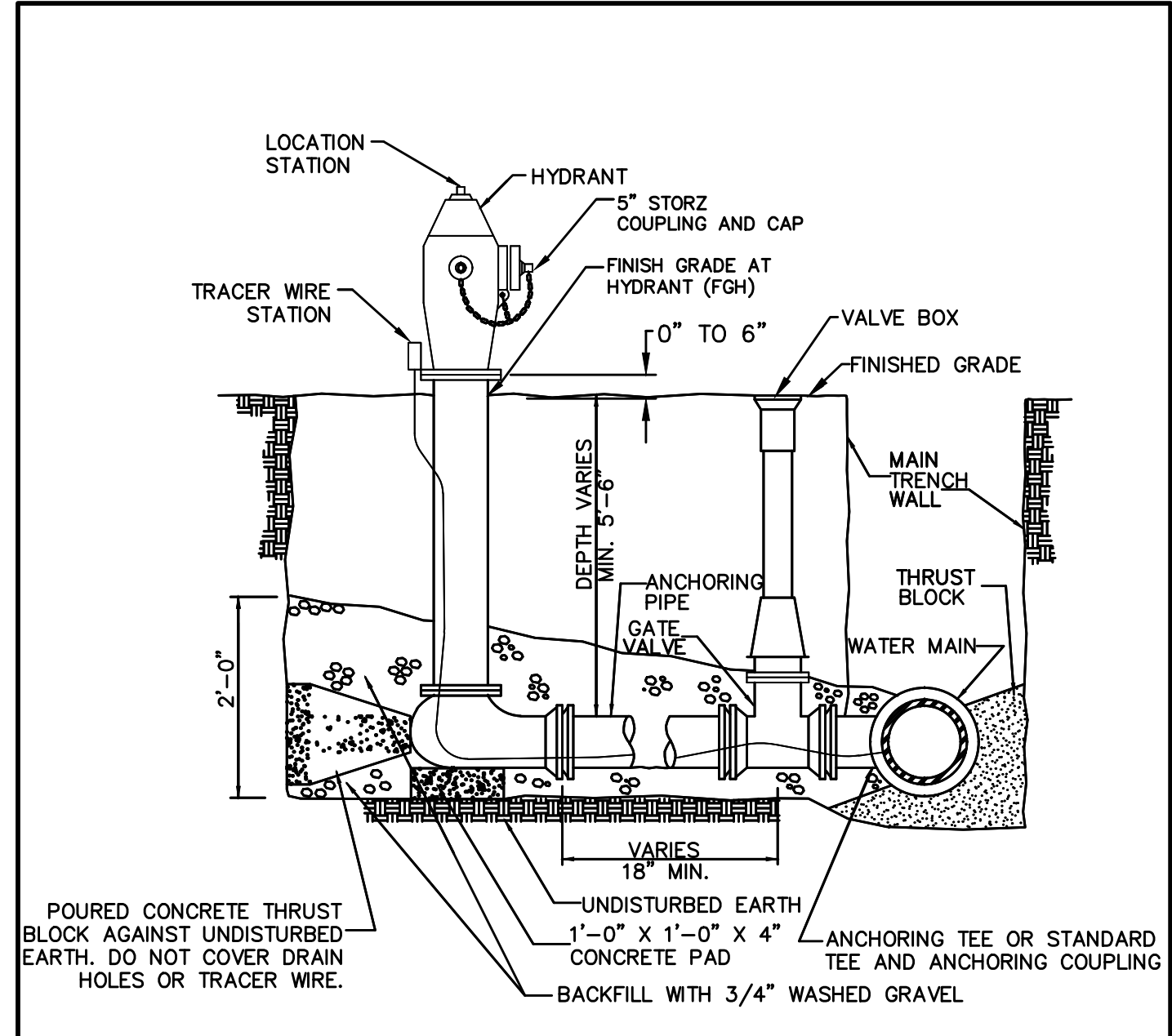
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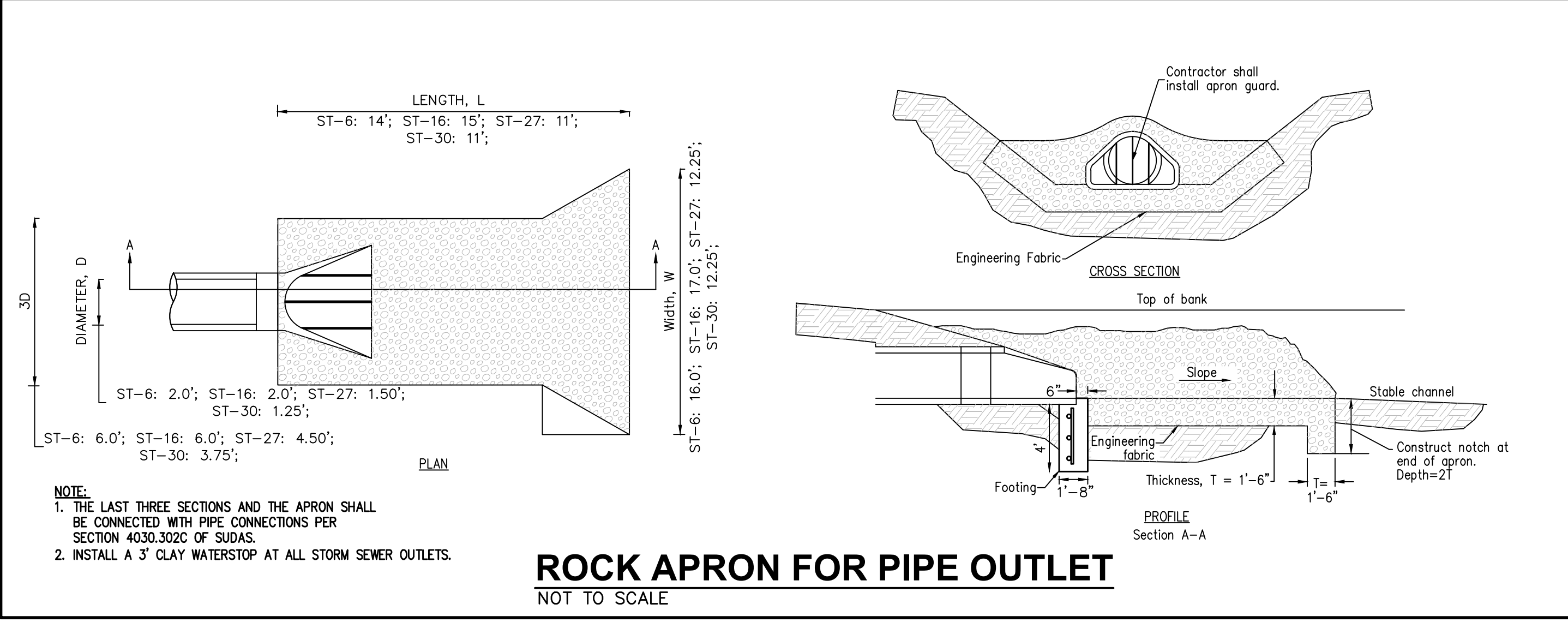


CLASS 'A' 6\"/>

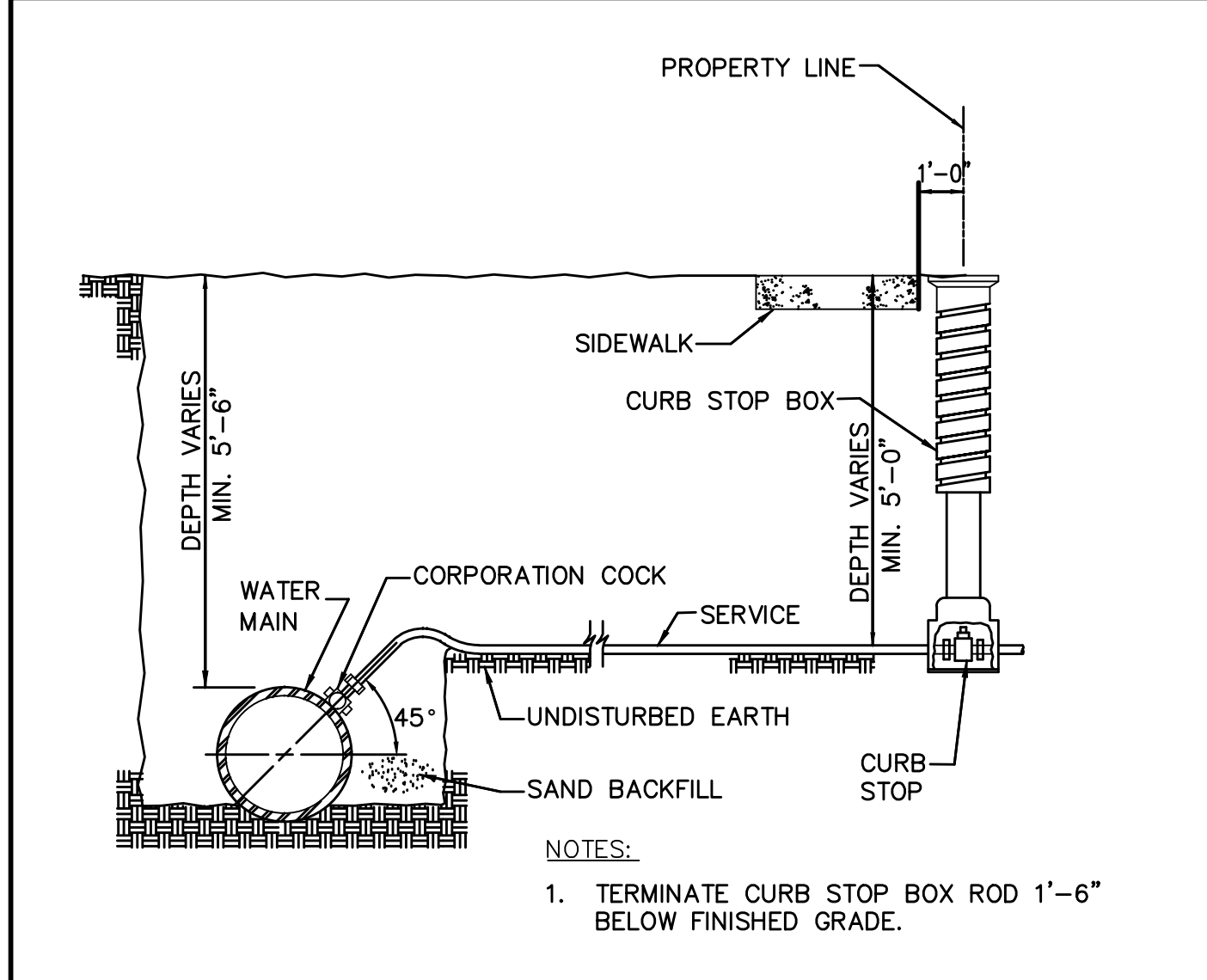


NOTES
 1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6".
 2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
 3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASMENT.

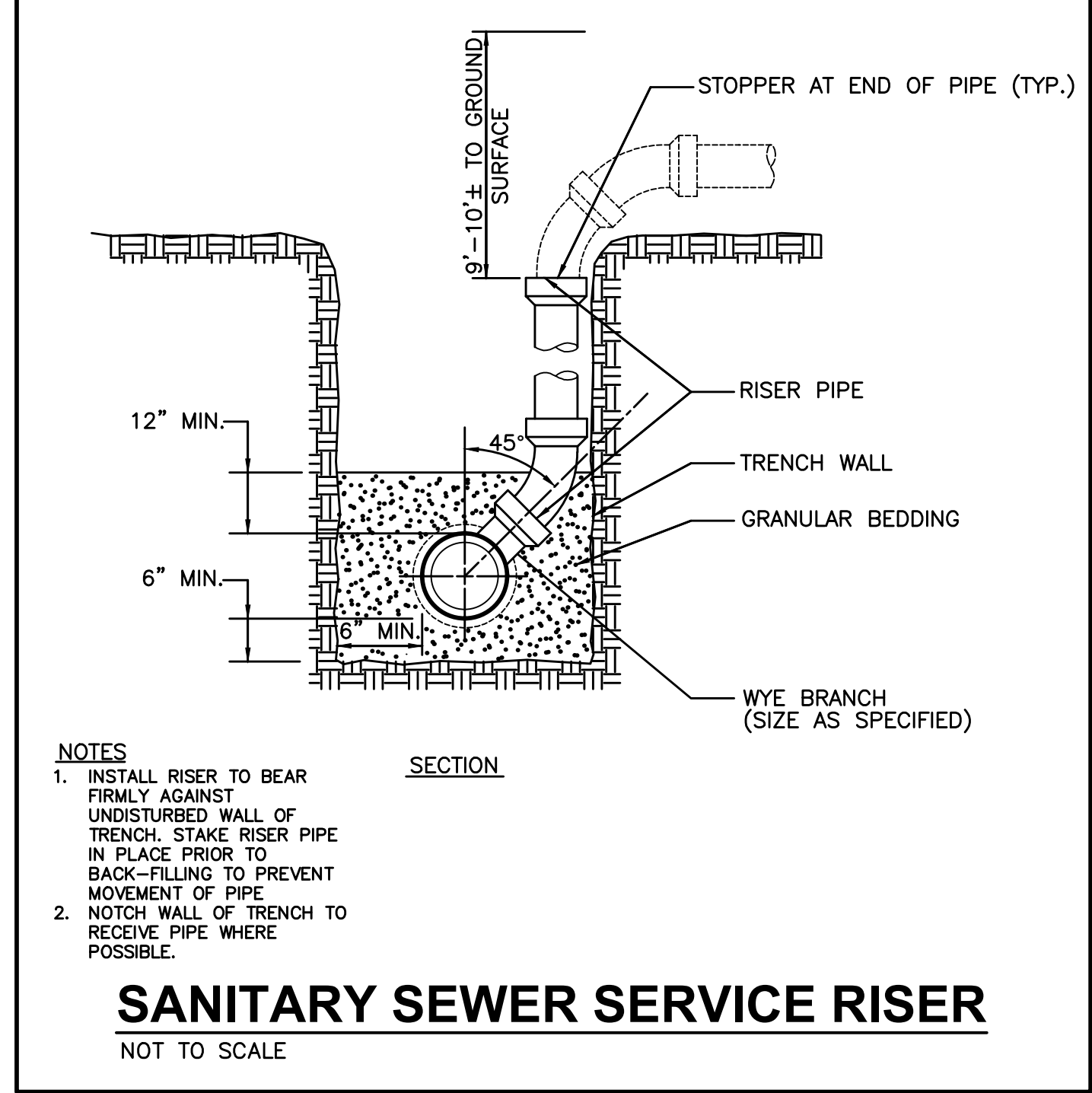
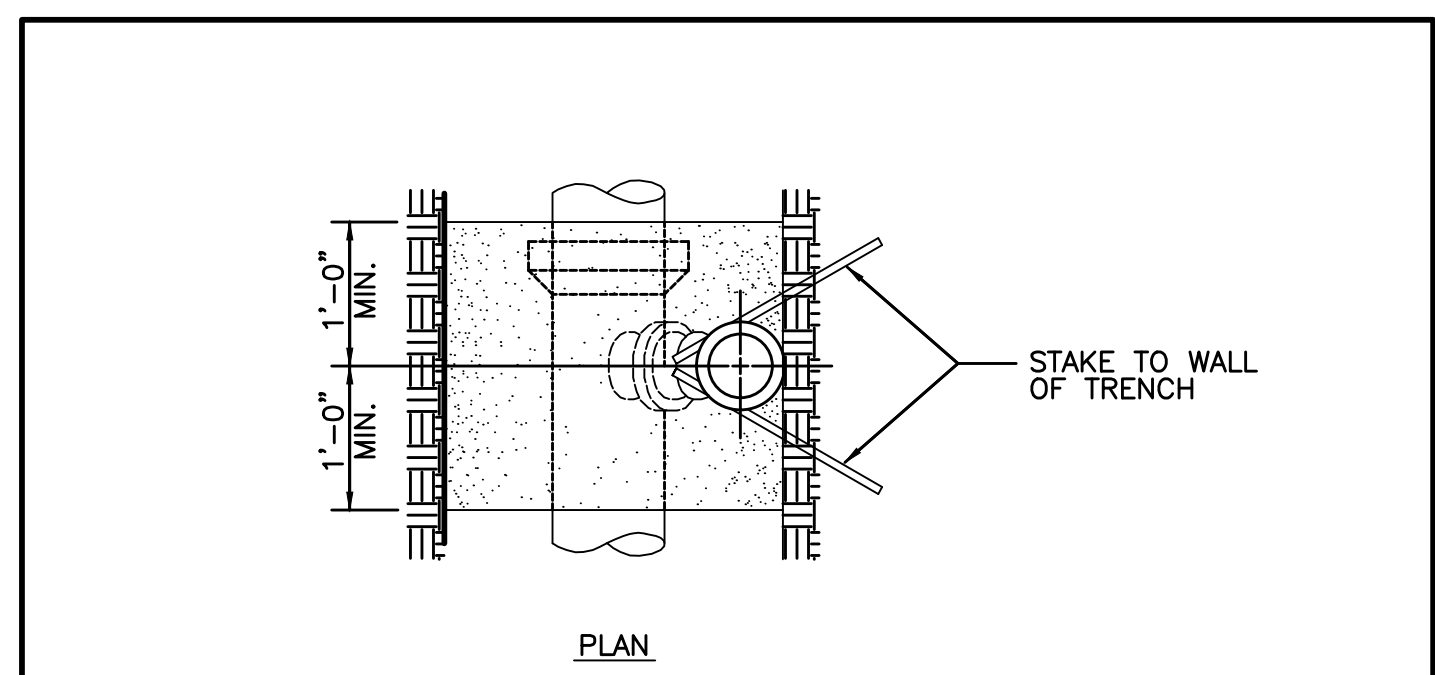
HYDRANT ASSEMBLY DETAIL
 NOT TO SCALE



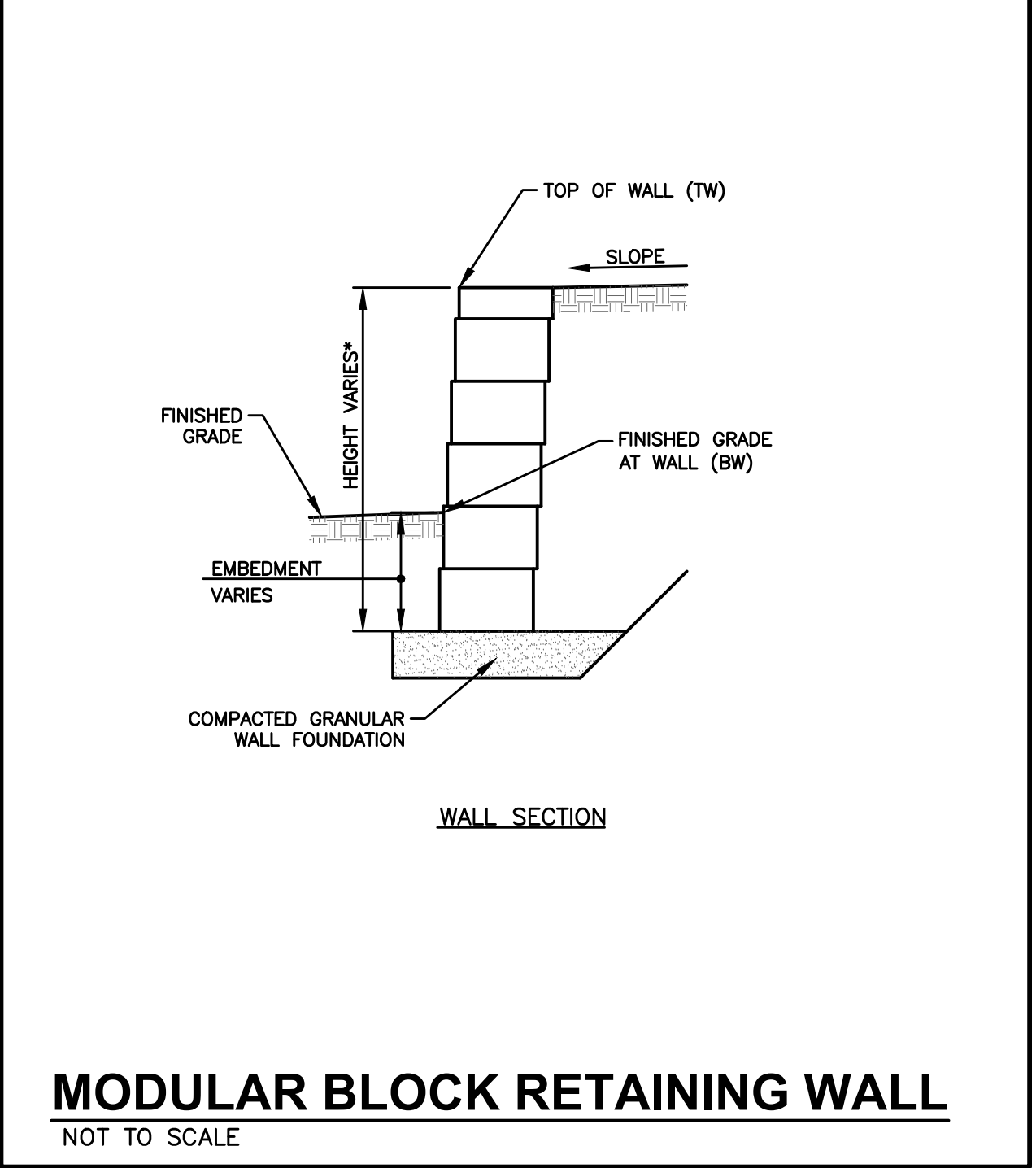
ROCK APRON FOR PIPE OUTLET
 NOT TO SCALE



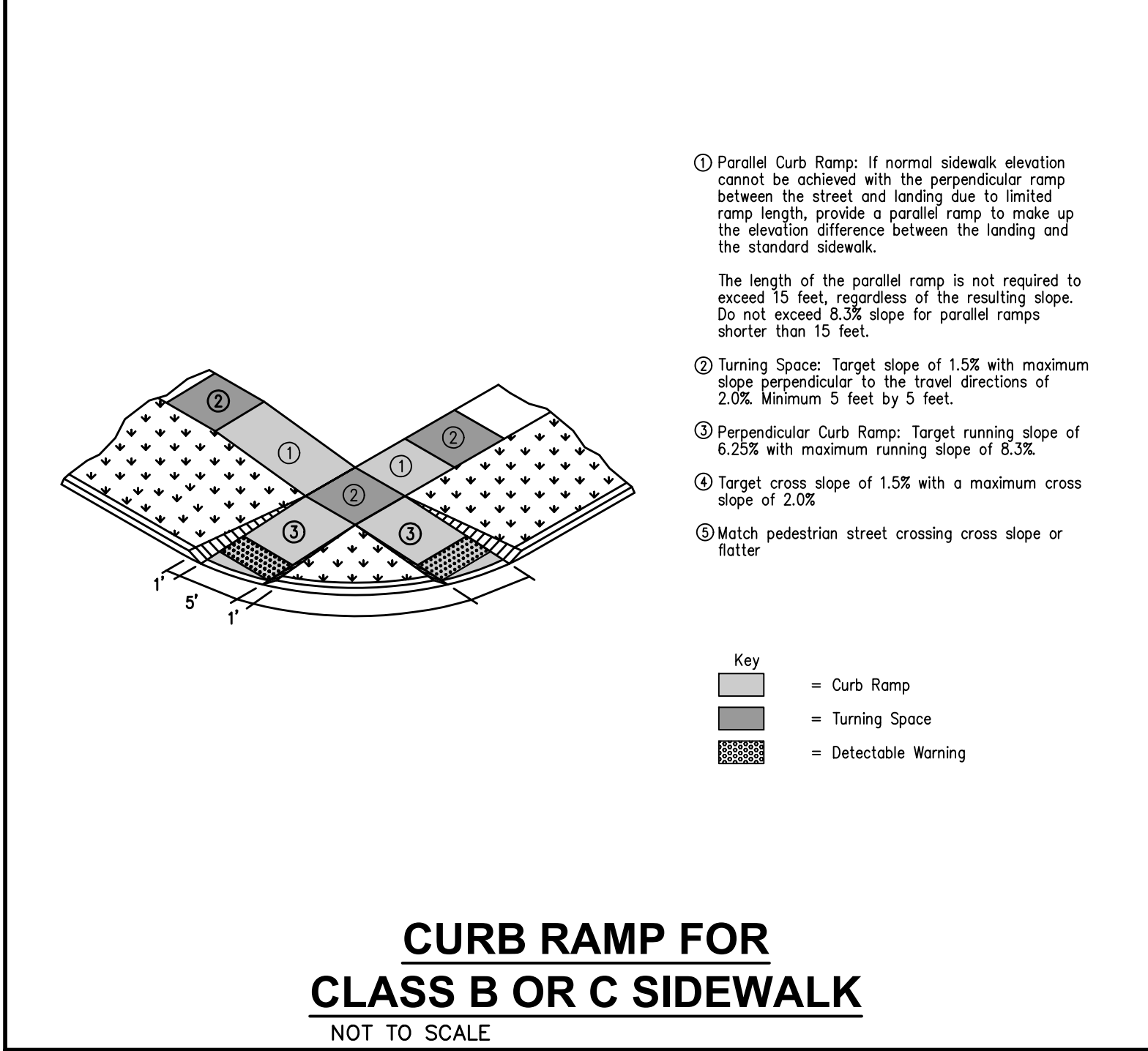
WATER SERVICE CONNECTION
 NOT TO SCALE



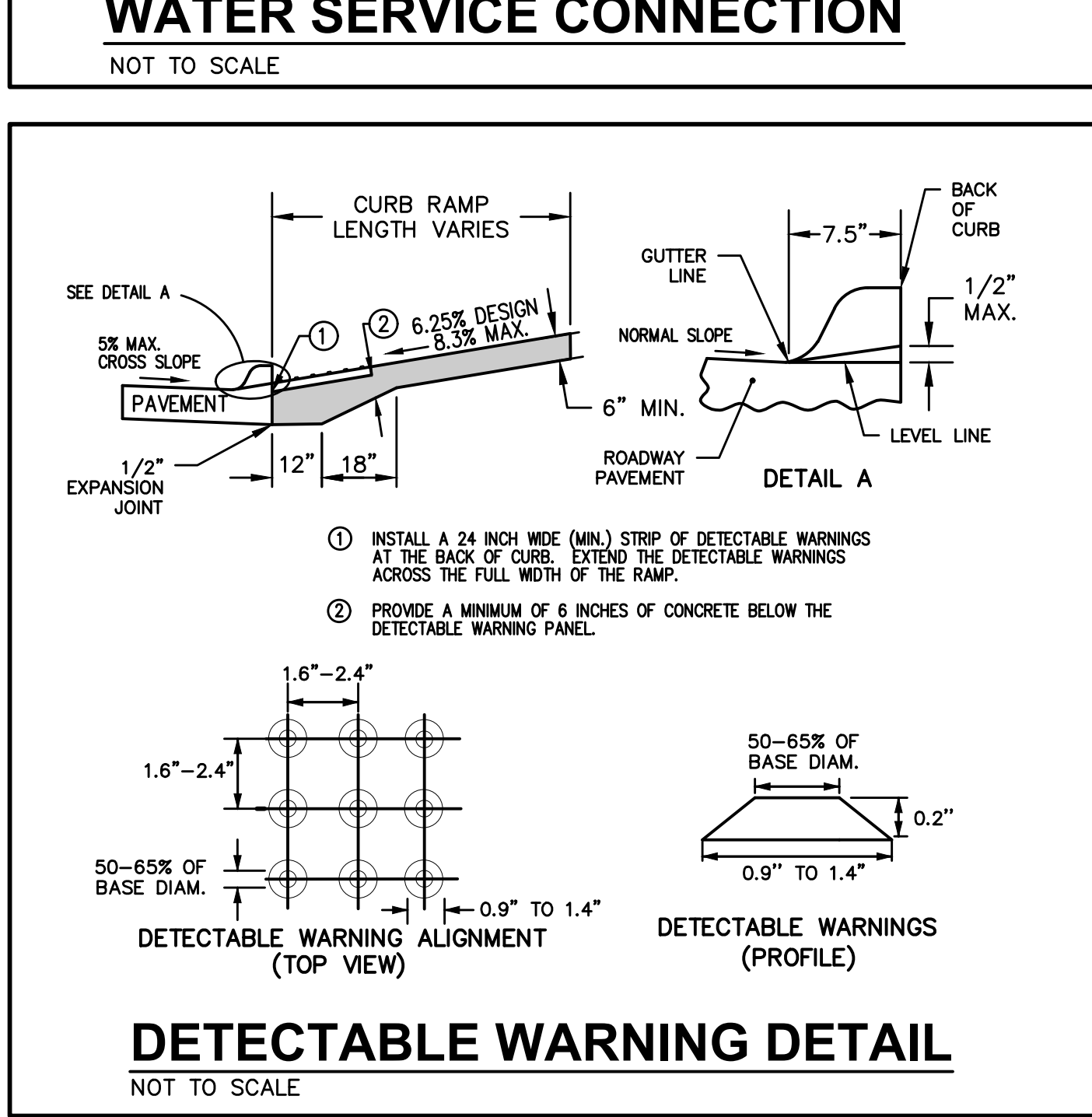
SANITARY SEWER SERVICE RISER
 NOT TO SCALE



MODULAR BLOCK RETAINING WALL
 NOT TO SCALE



CURB RAMP FOR CLASS B OR C SIDEWALK
 NOT TO SCALE



DETECTABLE WARNING DETAIL
 NOT TO SCALE

DATE	02/16/2023
REVISIONS	FINAL SUBMITTAL 12/13/2022
	4TH SUBMITTAL 08/09/2022
	3RD SUBMITTAL 07/21/2022
	2ND SUBMITTAL 06/23/2022
	1ST SUBMITTAL

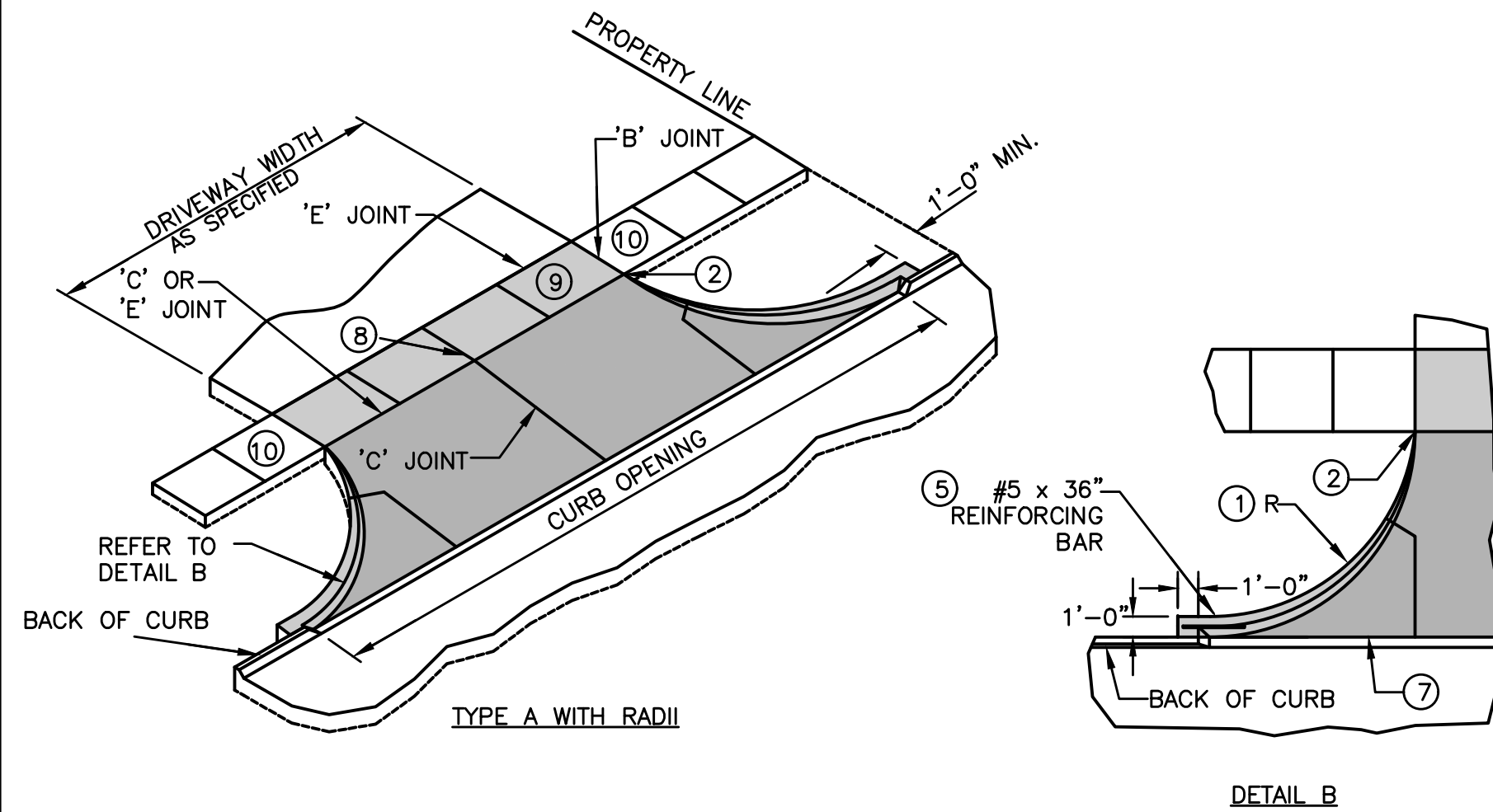
4121 NW URBANDALE DRIVE
 URBANDALE, IOWA 50322
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 TECH: CWO
 ENGINEER: JMM

BRANDON ESTATES
TYPICAL SECTIONS AND DETAILS
 WAUKEE, IOWA

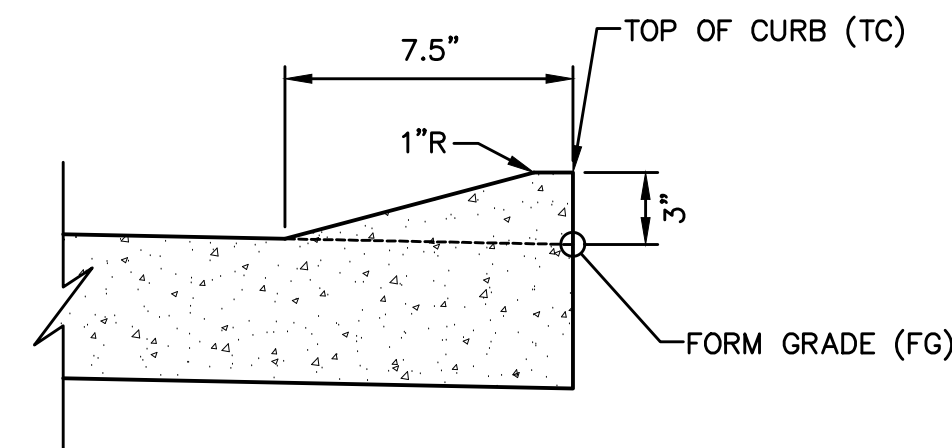
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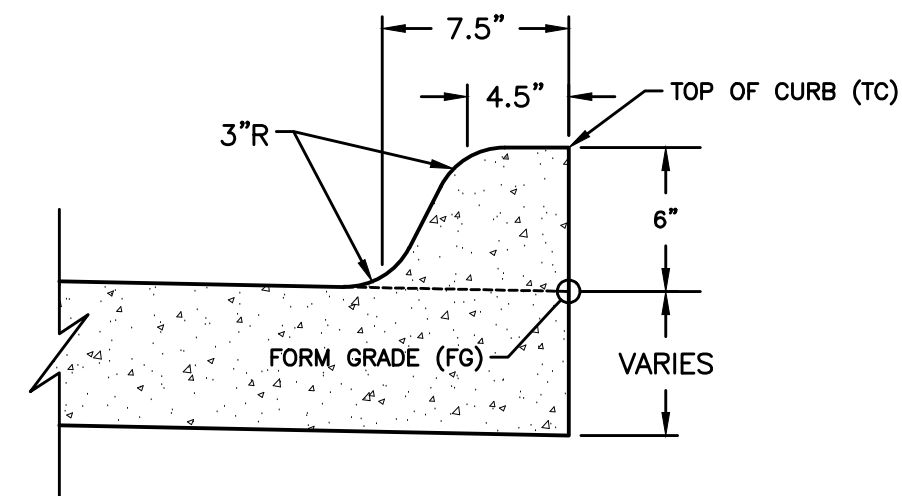
- DRIVEWAY RADIUS (R). RESIDENTIAL: 10' MINIMUM, 15' MAXIMUM. COMMERCIAL AND INDUSTRIAL: AS SPECIFIED IN CONTRACT DOCUMENTS.
- EXTEND RAISED CURB ACROSS SIDEWALK AND INSTALL CURB RAMPS PER DETAIL 'A' AND DETAIL 'F' ON SHEET C7.3.
- PAVEMENT THICKNESS. RESIDENTIAL: 6 INCHES MINIMUM. COMMERCIAL AND INDUSTRIAL: 7 INCHES MINIMUM.
- SIDEWALK THICKNESS THROUGH DRIVEWAY TO MATCH THICKNESS OF DRIVEWAY.
- CENTER REINFORCING BAR VERTICALLY IN THE PAVEMENT.
- MATCH THICKNESS OF ADJACENT ROADWAY, 8 INCHES MINIMUM.
- PROVIDE 'E' JOINT AT BACK OF CURB UNLESS 'B' JOINT IS SPECIFIED.
- FOR ALLEYS, INVERT THE PAVEMENT CROWN 2% TOWARD CENTER OF ALLEY.
- TARGET CROSS SLOPE OF 1.5% WITH A MAXIMUM CROSS SLOPE OF 2.0%. IF SPECIFIED IN THE CONTRACT DOCUMENTS, CONSTRUCT THE SIDEWALK THROUGH THE DRIVEWAY 5 FEET WIDE TO SERVE AS A PASSING SPACE.
- IF CROSS SLOPE OF ADJACENT SIDEWALK PANEL EXCEEDS 2.0%, REMOVE AND REPLACE TO TRANSITION FROM EXISTING SIDEWALK TO SIDEWALK THROUGH DRIVEWAY. IF ELEVATION CHANGE REQUIRES A CURB RAMP, COMPLY WITH FIGURE 7030.205; VERIFY NEED FOR DETECTABLE WARNING PANEL WITH ENGINEER.



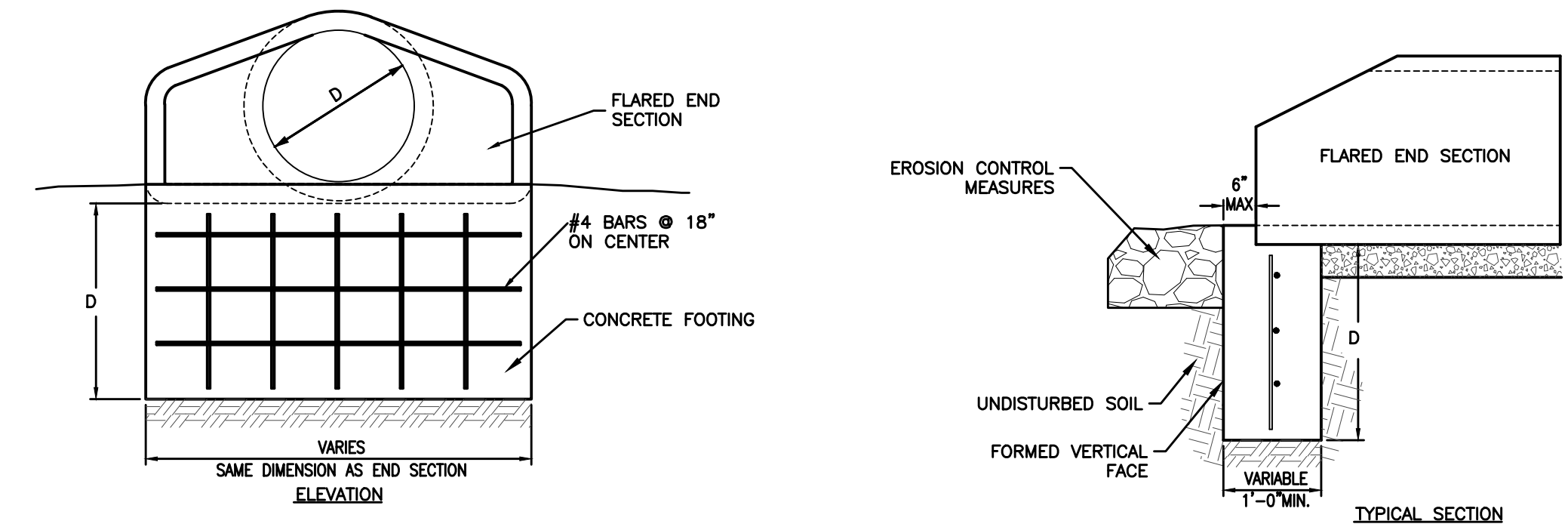
CONCRETE DRIVEWAY TYPE A
NOT TO SCALE



INTEGRAL 3" ROLLED CURB

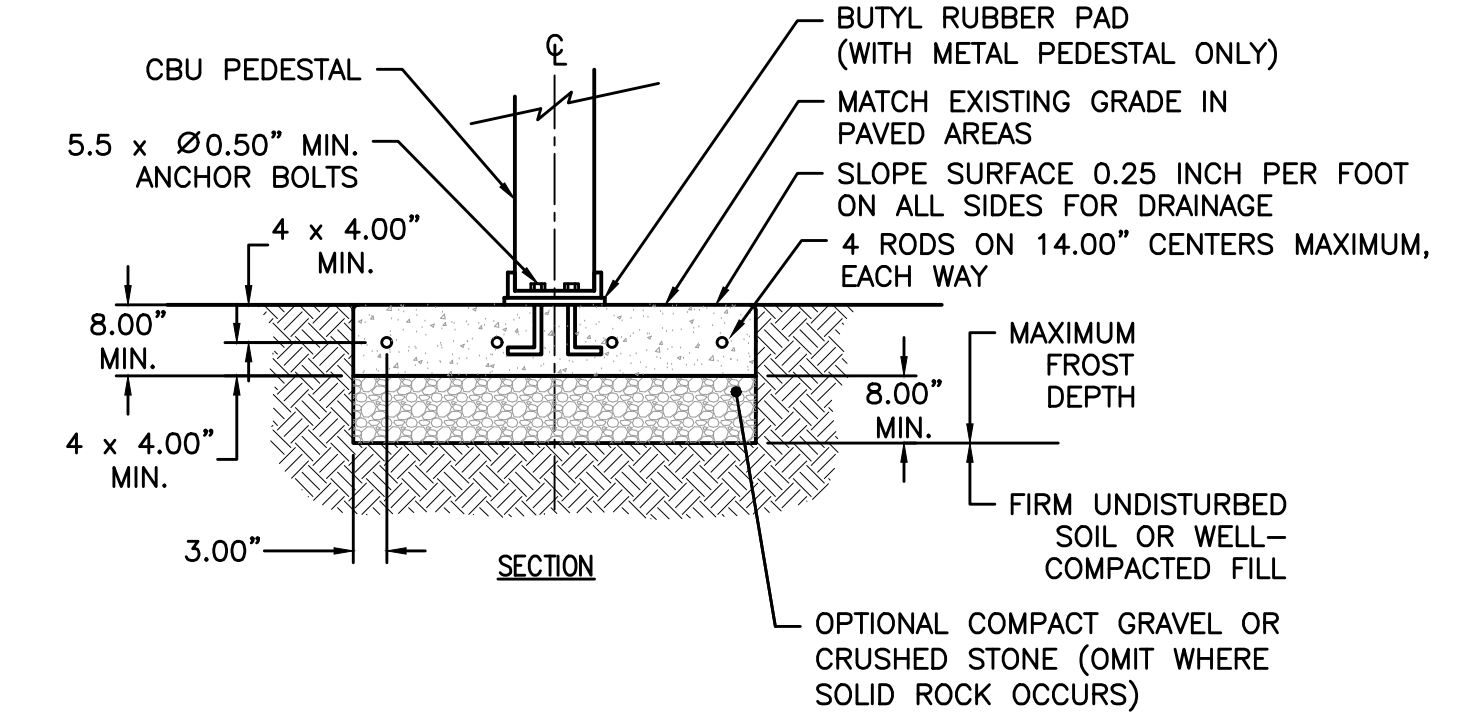
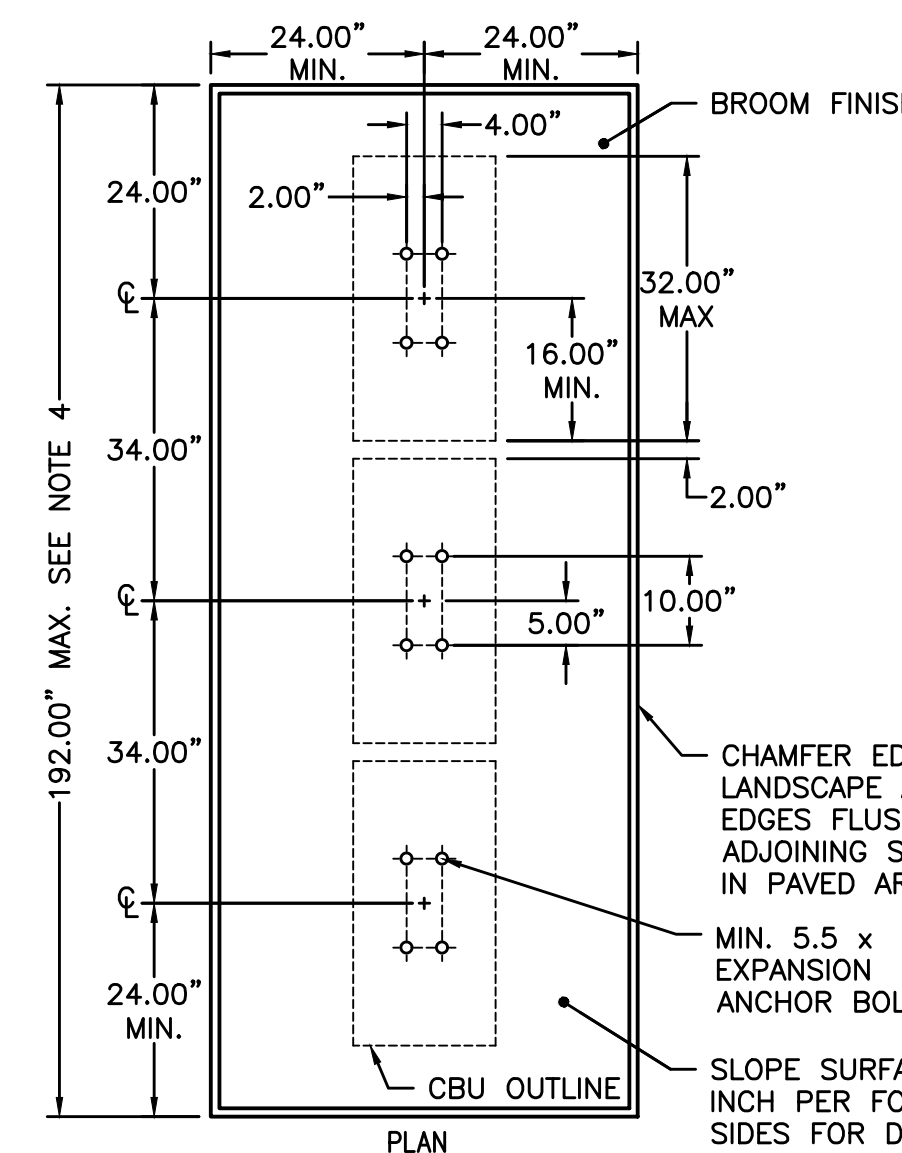


INTEGRAL 6" STANDARD CURB



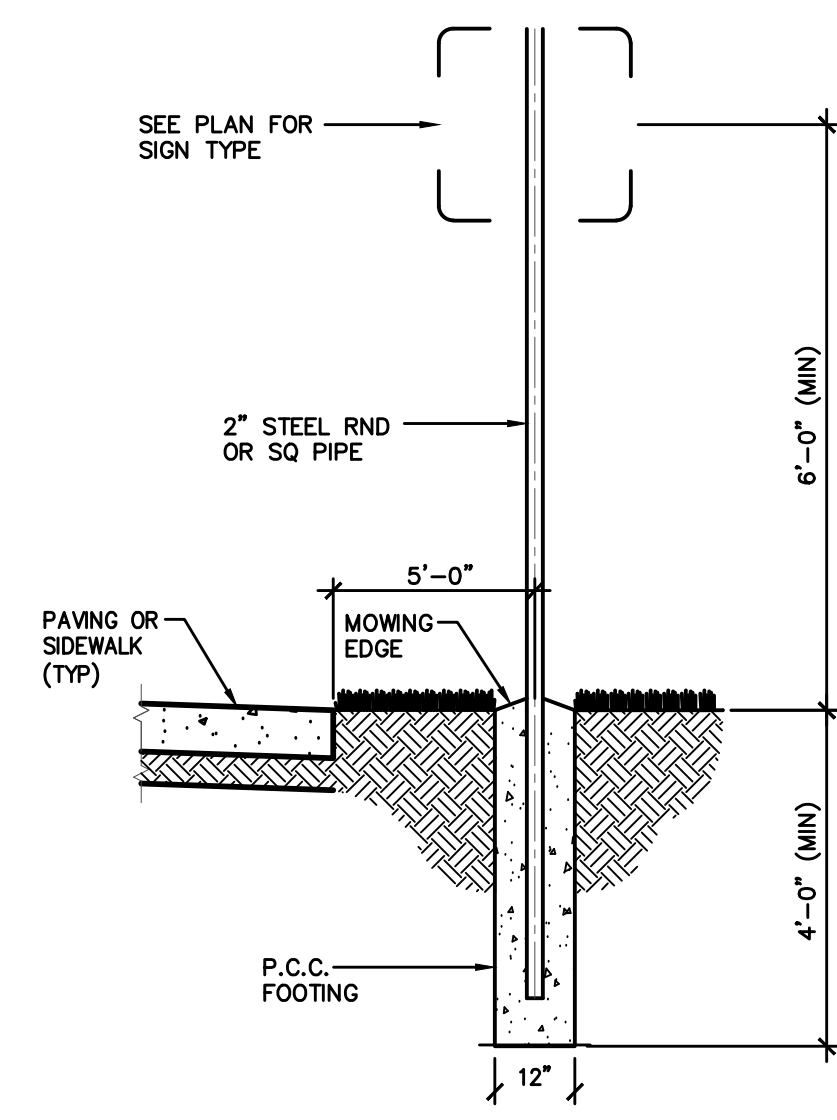
- NOTES**
- D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL FLOW LINE 300 FT DOWNSTREAM OF FLARED END; MINIMUM D=42"
 - INSTALL 3" WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.
 - TRASH GUARDS ARE NOT ALLOWED ON PIPES 48" OR LARGER

RCP APRON FOOTING DETAIL
NOT TO SCALE

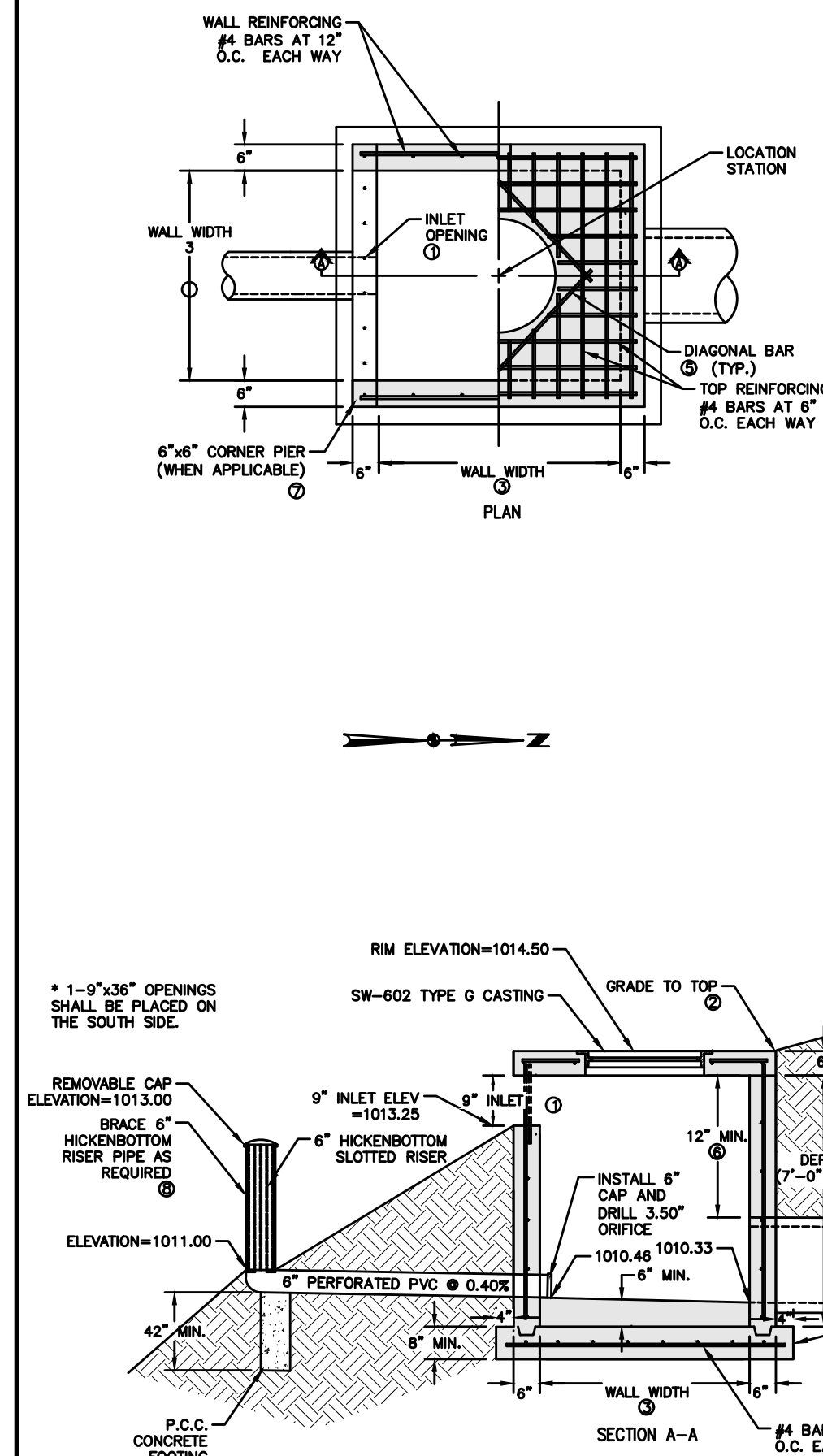


- NOTES:**
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN. - 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50" - 4.50" SLUMP IN ACCORDANCE WITH ACI 301.
 - REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
 - EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
 - HILTI KWIK BOLT (WWW.US.HILTI.COM) 1/2" DIAMETER X 5-1/2" OVERALL LENGTH. GALVANIZED, CATALOG # 000-453-696 KB II 12-512, STAINLESS STEEL: CATALOG # 000-454-744. ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3-1/2"
 - ITW RAMSET REDHEAD TRUBOLT (WWW.RAMSET-REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH; CATALOG NUMBER: WS-1270G. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4-1/8"
 - RAWL STUD (WWW.RAWL.COM) GALVANIZED, 1/2" X 5-1/2" OVERALL LENGTH; CATALOG NUMBER: 7724. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4"
 - A 3 CBU CONFIGURATION IS DEPICTED. A 2 OR 4 CBU CONFIGURATION MAY BE USED AS LONG AS THEY ARE ARRANGED IN GROUPS SUCH THAT THE OVERALL DIMENSION OF THE CONCRETE BASE DOES NOT EXCEED 16 FEET.

CLUSTER BOX UNIT (CBU) MULTIPLE UNIT DETAIL



TYPICAL SIGN POST
NOT TO SCALE

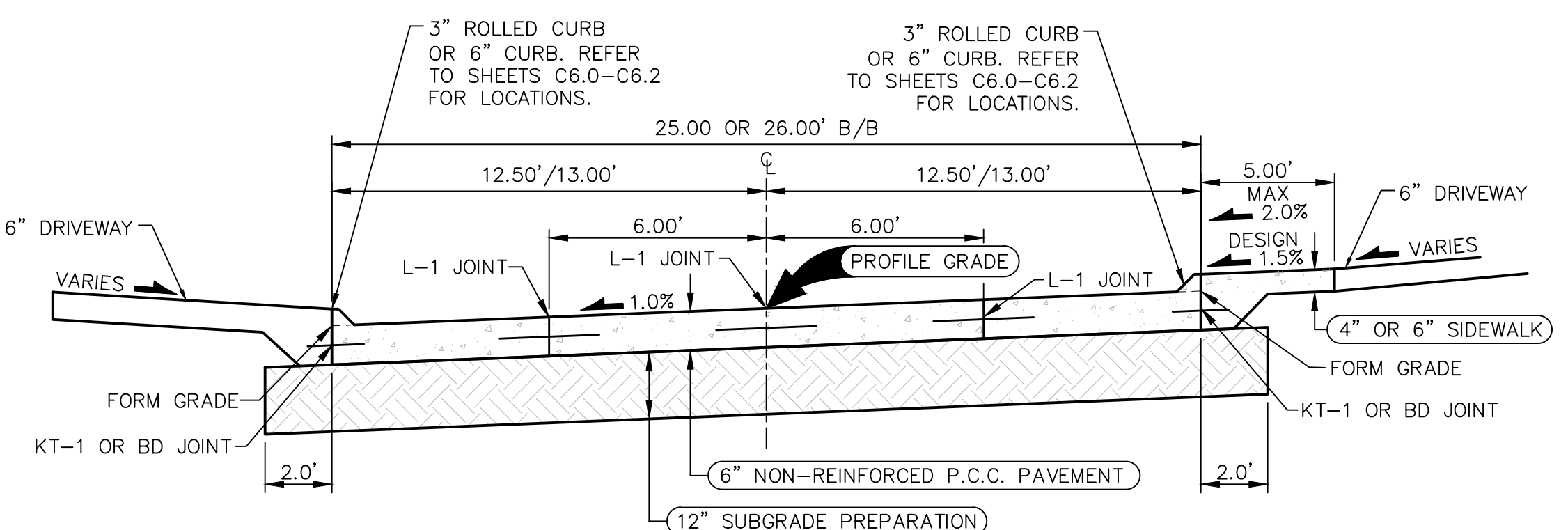


5'X5' MODIFIED SW-513 INTAKE (ST-2)
NOT TO SCALE

STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

- CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 9" TALL AND 36" WIDE.
- GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.
- WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.
- CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.
- INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.
- 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.
- CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.
- INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE FOR PROTECTION. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PERVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



TYPICAL SECTION - 26' B/B P.C.C. ROADWAY
NOT TO SCALE

- NOTES:**
- PREPARE SUBGRADE IN 2-6" LIFTS.
 - TYPICAL C JOINT SPACING IS 15'.

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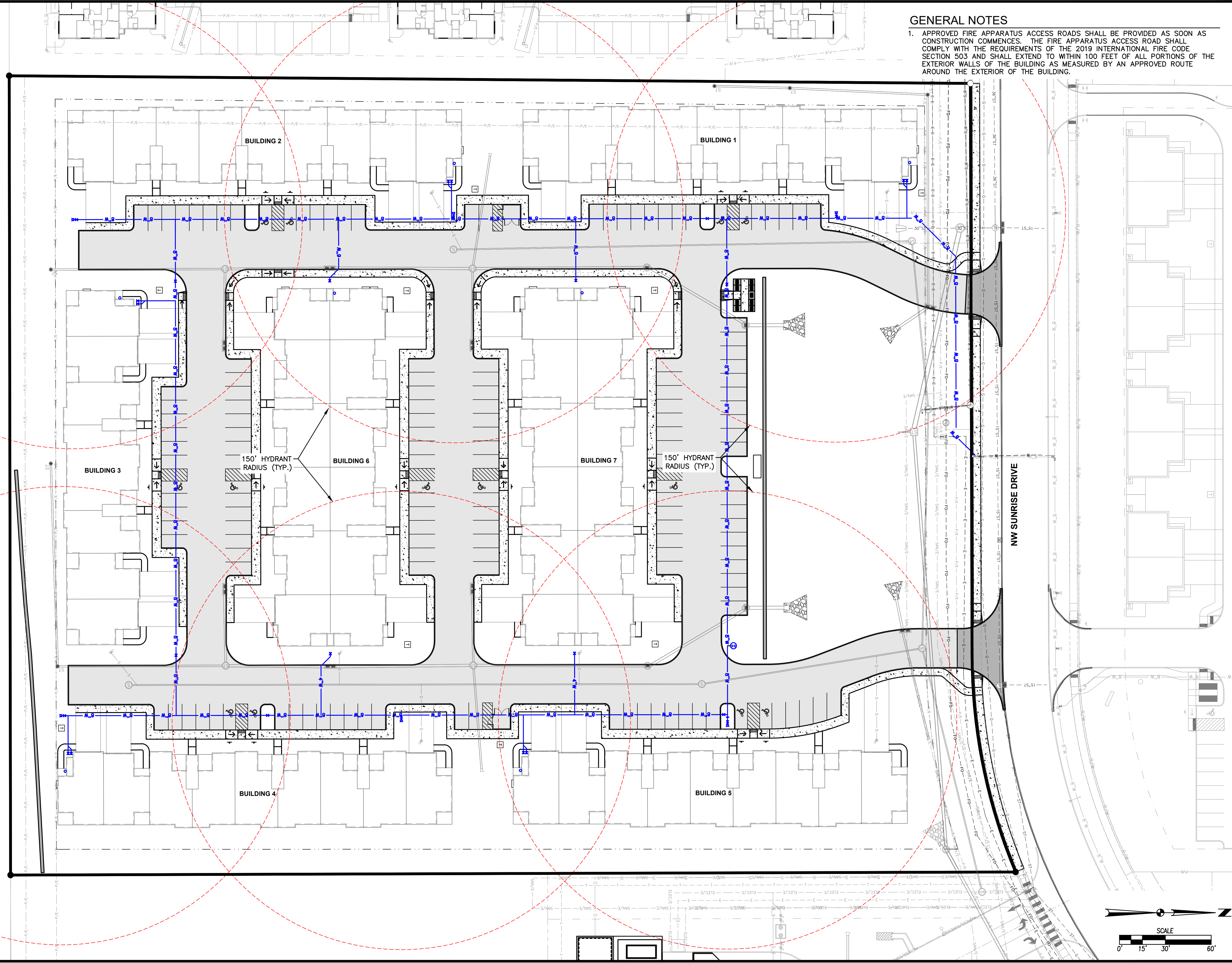
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4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
TECH: CWO

BRANDON ESTATES
TYPICAL SECTIONS AND DETAILS
WAUKEE, IOWA

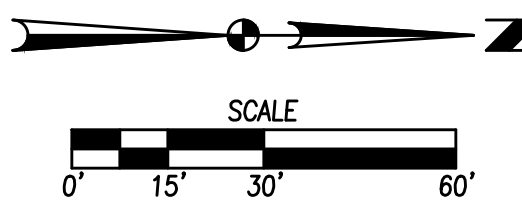
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150' HYDRANT
 RADIUS (TYP.)




GENERAL NOTES

- APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED AS SOON AS CONSTRUCTION COMMENCES. THE FIRE APPARATUS ACCESS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF THE 2019 INTERNATIONAL FIRE CODE SECTION 503 AND SHALL EXTEND TO WITHIN 100 FEET OF ALL PORTIONS OF THE EXTERIOR WALLS OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING.



<p>BRANDON ESTATES HYDRANT COVERAGE PLAN</p>	<p>DATE 02/16/2023 12/13/2022 08/09/2022 07/21/2022</p>
	<p>REVISIONS</p>
	<p>4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 PHONE: (515) 369-4400 FAX: (515) 369-4410</p>
	<p>TECH: CWO</p>



CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

C4.0

2111.890

GENERAL NOTES

- THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
- ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC UTILITIES CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
- ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
- CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
- PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
- REMOVE ALL DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
- THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK. ANY PAVEMENT REPLACEMENT SHALL COMPLY WITH THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY AS DIRECTED BY THE ENGINEER OR THE CITY.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
- ALL SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR ACCORDING TO SCOUR STOP PRODUCT SPECIFICATIONS.
- ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT BID.
- MONUMENT SIGNS ARE TO BE REVIEWED AND APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT.
- ALL STAKING, INCLUDING PEDESTRIAN FACILITIES, IS TO BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR SURVEYOR.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT AT LEAST ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF WAUKEE ENGINEERING DEPARTMENT 72 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.

- AN AS-BUILT SITE PLAN ILLUSTRATING THE LOCATION AND DEPTHS OF SITE UTILITIES AND GRADES FOR DRAINAGE SWALES, DETENTION FACILITIES AND FEE'S SHALL BE PROVIDED IN PDF FORM AND HARD COPY UPON COMPLETION OF EACH PHASE OF DEVELOPMENT TO THE CITY OF WAUKEE'S DEVELOPMENT SERVICES DEPARTMENT.
- APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR THESE BUILDINGS OR PORTION OF A BUILDING AS SOON AS CONSTRUCTION COMMENCES. THE FIRE APPARATUS ACCESS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 503.2 AND SHALL EXTEND TO WITHIN 100 FEET OF ALL EXTERIOR PORTIONS OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING.
- ALL STREETS TO BE PRIVATELY OWNED AND MAINTAINED.
- INSTALLATION OF STREET BLADE SIGNS FOR THE PRIVATE STREETS TO BE INSTALLED AT THE TIME VERTICAL CONSTRUCTION BEGINS.
- CONTRACTOR IS RESPONSIBLE TO OBTAIN WRITTEN APPROVAL FOR ANY PLAN CHANGES DURING CONSTRUCTION FROM THE COMMUNITY DEVELOPMENT DEPARTMENT. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES THAT HAVE NOT RECEIVED WRITTEN APPROVAL FROM THE COMMUNITY DEVELOPMENT DEPARTMENT.
- IF THE BOULDER RETAINING WALL EXCEEDS 4 FEET IN HEIGHT, IT WILL NEED TO BE DESIGNED BY A STRUCTURAL ENGINEER.

TRAFFIC CONTROL NOTES

- ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
- PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
- THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
- SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
- ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.
- FIRE LANE SIGNAGE SHALL BE PLACED 3 FEET FROM THE BACK OF CURB ON POSTS THAT ARE 5-7 FEET FROM THE GROUND.

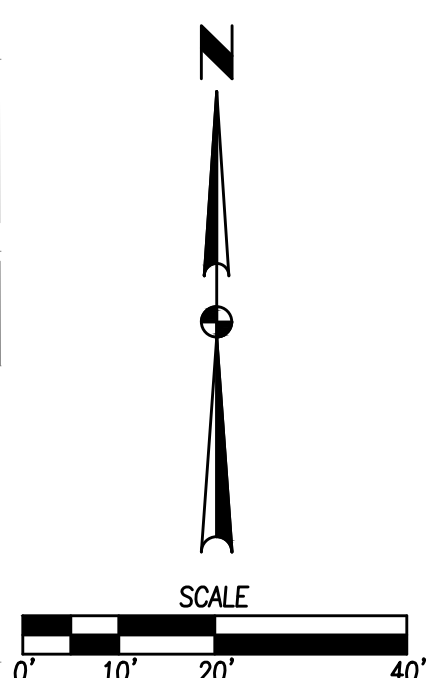
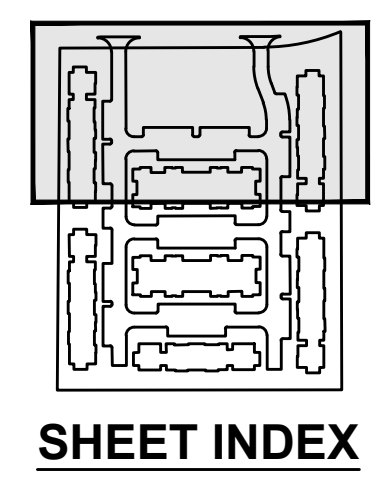
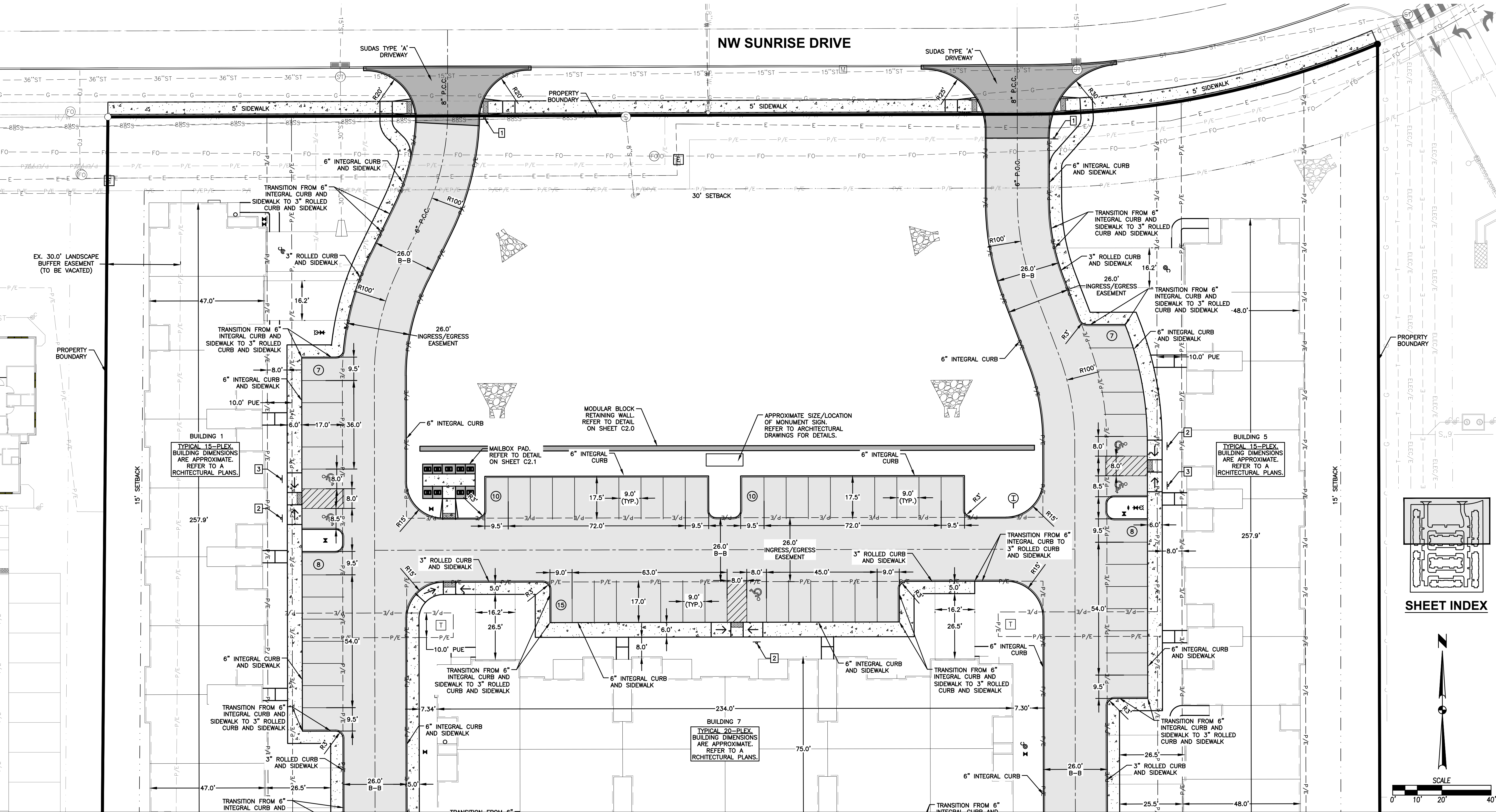
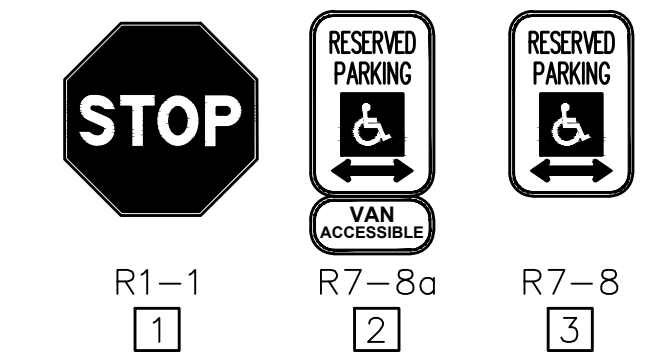
PAVEMENT THICKNESS

- | | |
|--------------------------------------|---------------------|
| 1. SIDEWALKS | 4" P.C.C. (C-4 MIX) |
| 2. DRIVEWAYS AND PARKING SPACES | 6" P.C.C. (C-4 MIX) |
| 3. PRIVATE ROADS | 6" P.C.C. (C-4 MIX) |
| 4. PAVING WITHIN RIGHT-OF-WAY | 8" P.C.C. (C-4 MIX) |
| 5. SIDEWALK RAMPS AND TURNING SPACES | 6" P.C.C. (C-4 MIX) |

***** NOTE *****
THE BUILDING THAT IS SHOWN IS FOR REFERENCE PURPOSES ONLY. FINAL BUILDING TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

T ELECTRICAL TRANSFORMER LOCATION

SIGN LEGEND



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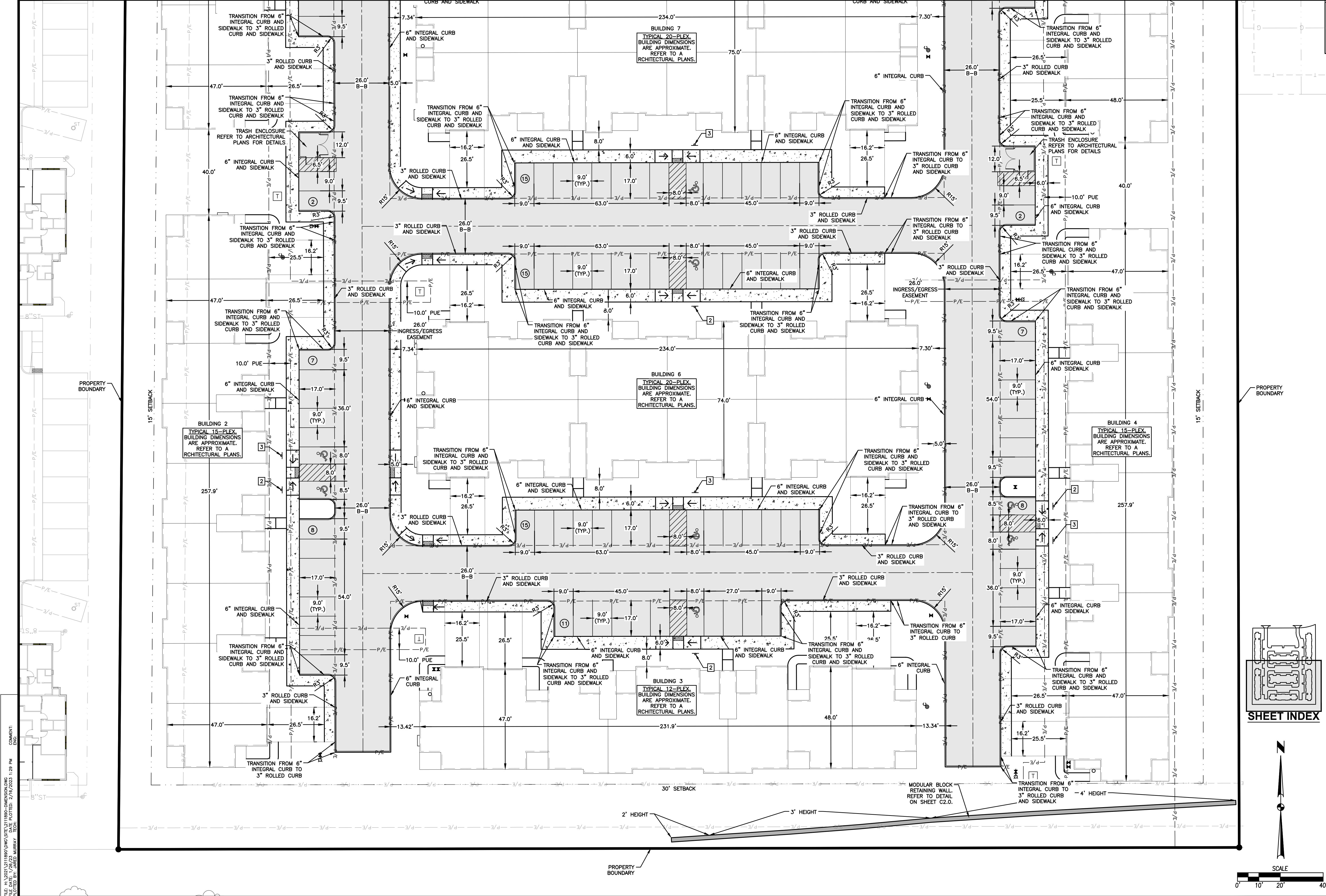
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FINAL SUBMITTAL	12/13/2022
4TH SUBMITTAL	08/09/2022
3RD SUBMITTAL	08/09/2022
2ND SUBMITTAL	07/21/2022
1ST SUBMITTAL	06/23/2022

4121 NW URBANDALE DRIVE
 URBANDALE, IOWA 50322
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 TECH: CWO

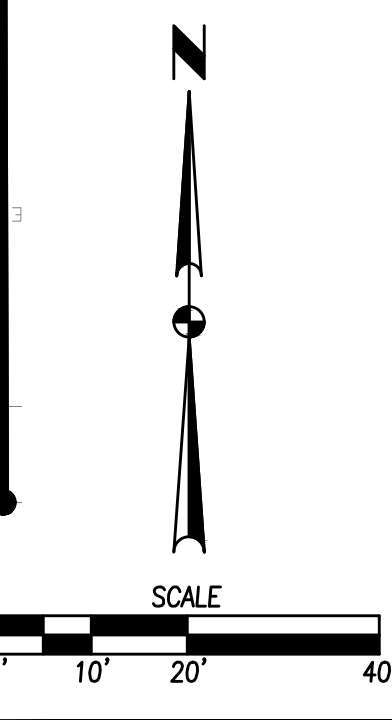
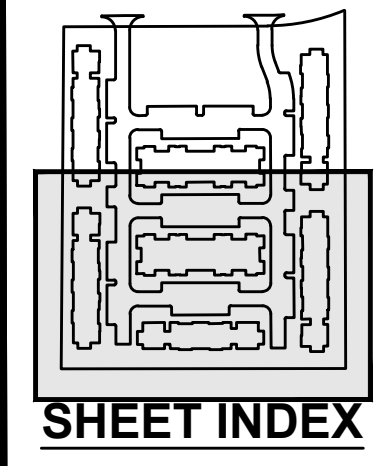
ES&A
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

BRANDON ESTATES
DIMENSION PLAN

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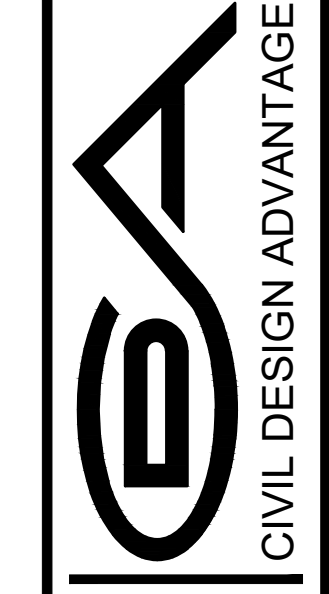


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DATE	REVISIONS
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 PHONE: (515) 369-4400 FAX: (515) 369-4410
 TECH: CWO
 ENGINEER: JMM



WAUKEE, IOWA

BRANDON ESTATES
DIMENSION PLAN

GRADING NOTES

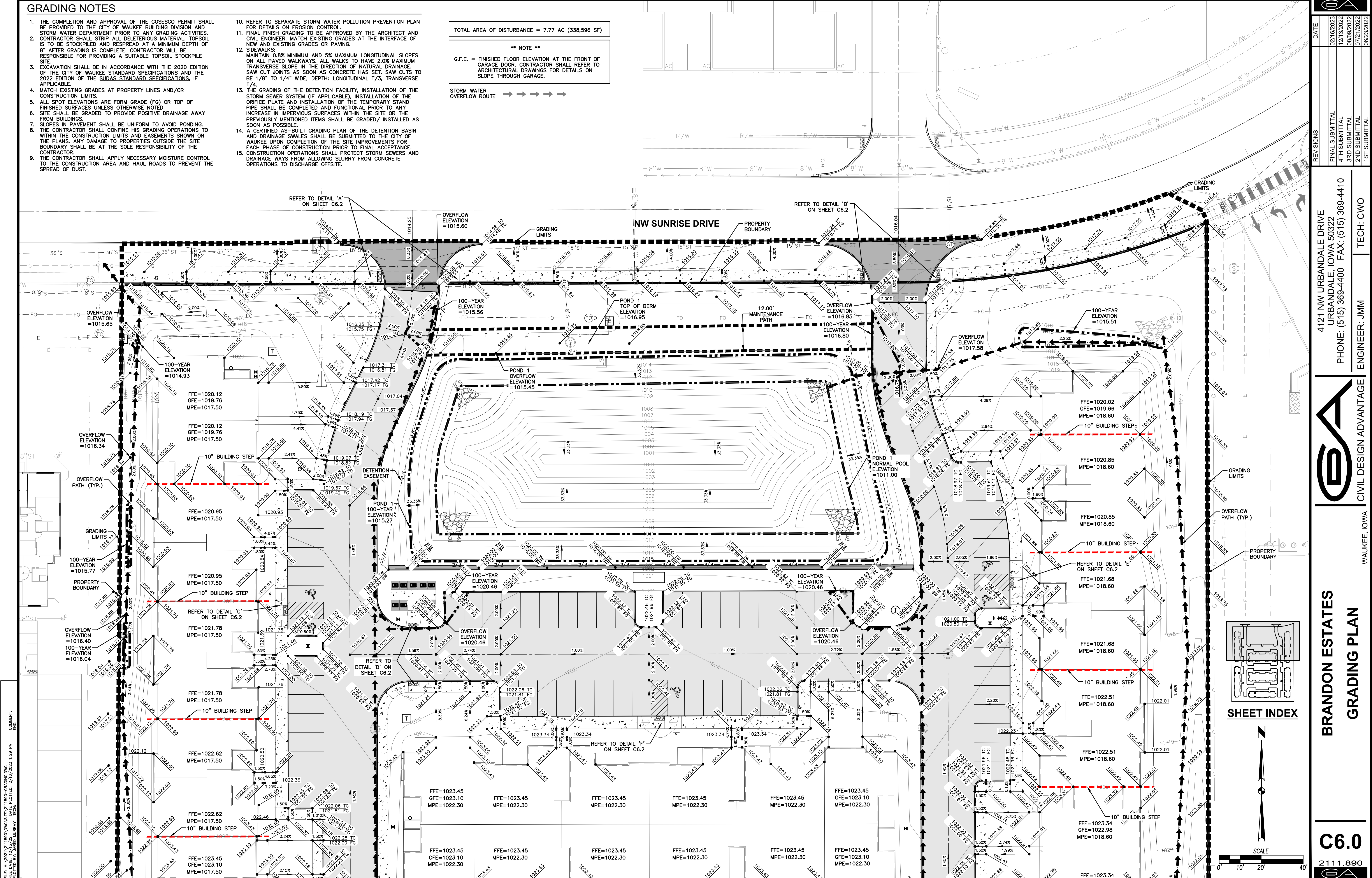
1. THE COMPLETION AND APPROVAL OF THE COSESSO PERMIT SHALL BE PROVIDED TO THE CITY OF WAUKEE BUILDING DIVISION AND STORM WATER DEPARTMENT PRIOR TO ANY GRADING ACTIVITIES.
2. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. TOPSOIL IS TO BE STOCKPILED AND RESPAVED AT A MINIMUM DEPTH OF 8" AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF THE CITY OF WAUKEE STANDARDS SPECIFICATIONS AND THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE.
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINED HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. SIDEWALKS: MAINTAIN 0.8% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE, DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
13. THE GRADING OF THE DETENTION FACILITY, INSTALLATION OF THE STORM SEWER SYSTEM (IF APPLICABLE), INSTALLATION OF THE ORIFICE PLATE AND INSTALLATION OF THE TEMPORARY STAND PIPE SHALL BE COMPLETED AND FUNCTIONAL PRIOR TO ANY INCREASE IN IMPERVIOUS SURFACES WITHIN THE SITE OR THE PREVIOUSLY MENTIONED ITEMS SHALL BE GRADED/ INSTALLED AS SOON AS POSSIBLE.
14. A CERTIFIED AS-BUILT GRADING PLAN OF THE DETENTION BASIN AND DRAINAGE SWALES SHALL BE SUBMITTED TO THE CITY OF WAUKEE UPON COMPLETION OF THE SITE IMPROVEMENTS FOR EACH PHASE OF CONSTRUCTION PRIOR TO FINAL ACCEPTANCE. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.
- 15.

TOTAL AREA OF DISTURBANCE = 7.77 AC (338,596 SF)

**** NOTE ****

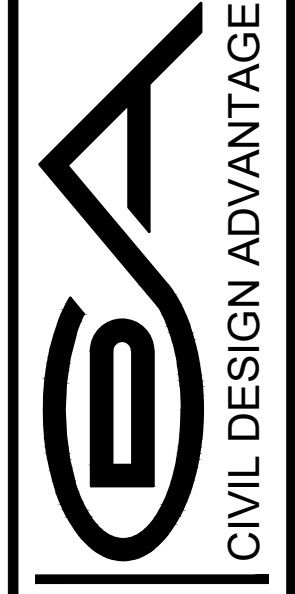
G.F.E. = FINISHED FLOOR ELEVATION AT THE FRONT OF GARAGE DOOR. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON SLOPE THROUGH GARAGE.

STORM WATER OVERFLOW ROUTE → → → → →



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4121 NW URBANDALE DRIVE
 URBANDALE, IOWA 50322
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: JMM
 TECH: CWO

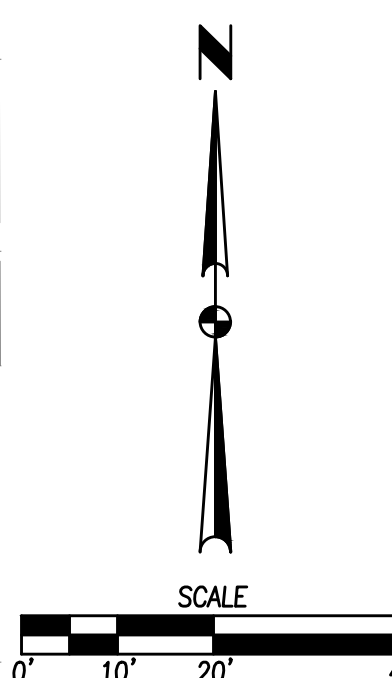
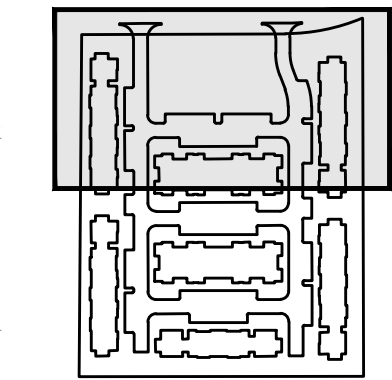


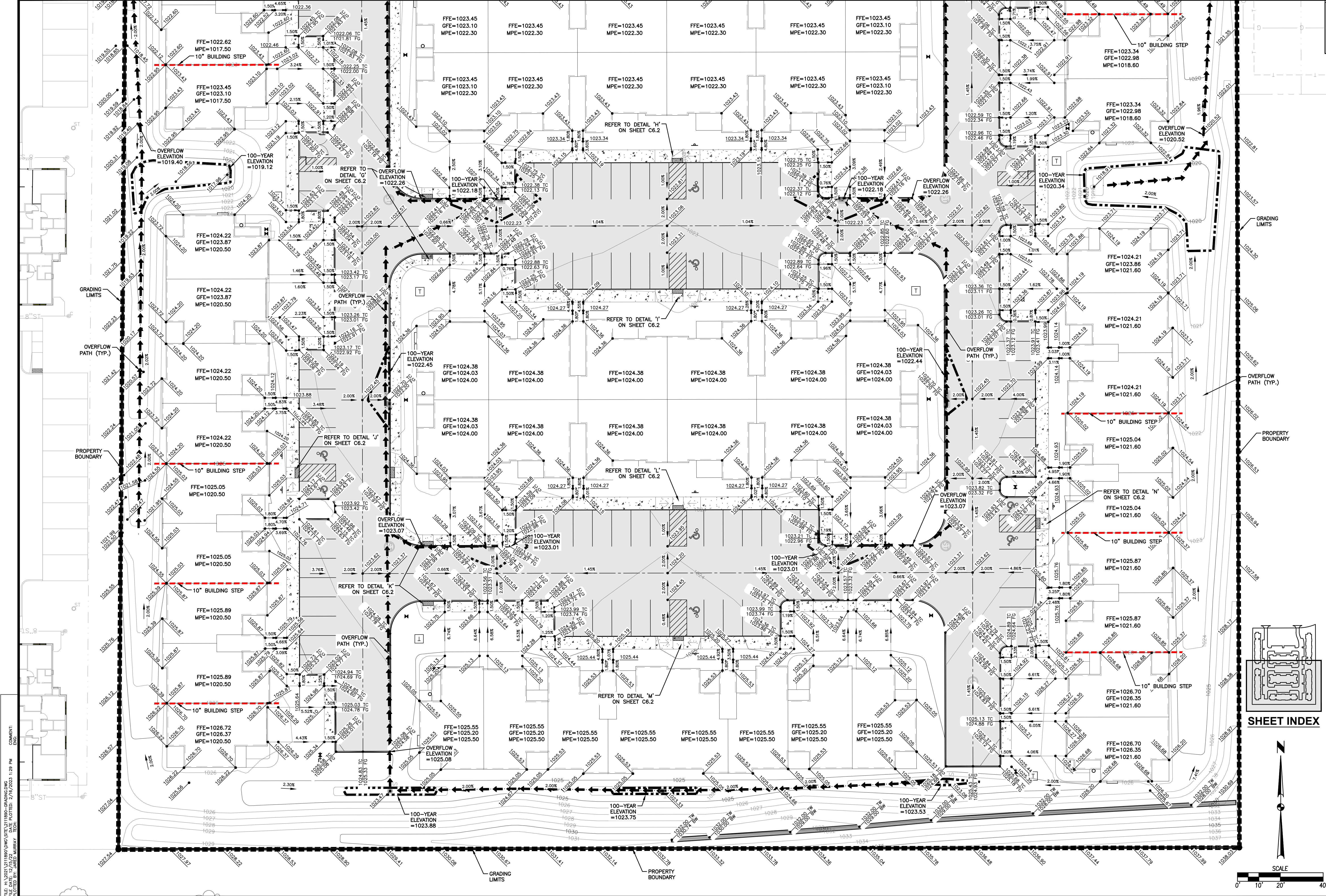
WAUKEE, IOWA

**BRANDON ESTATES
 GRADING PLAN**

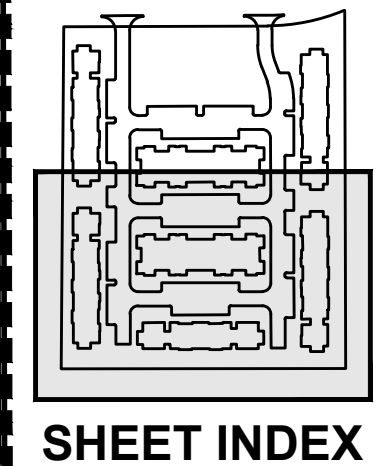
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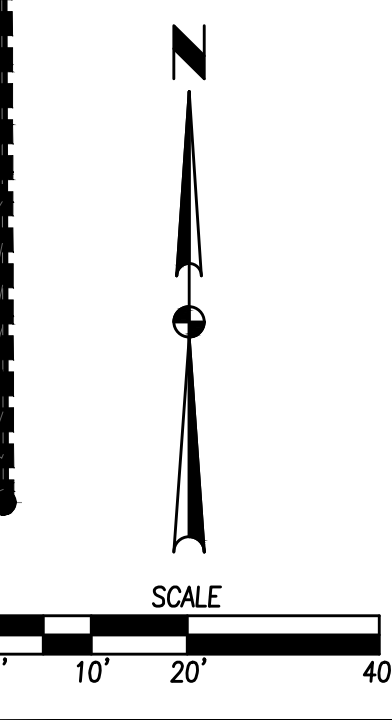




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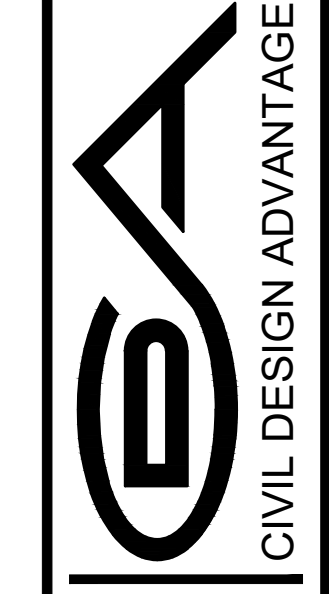


SHEET INDEX



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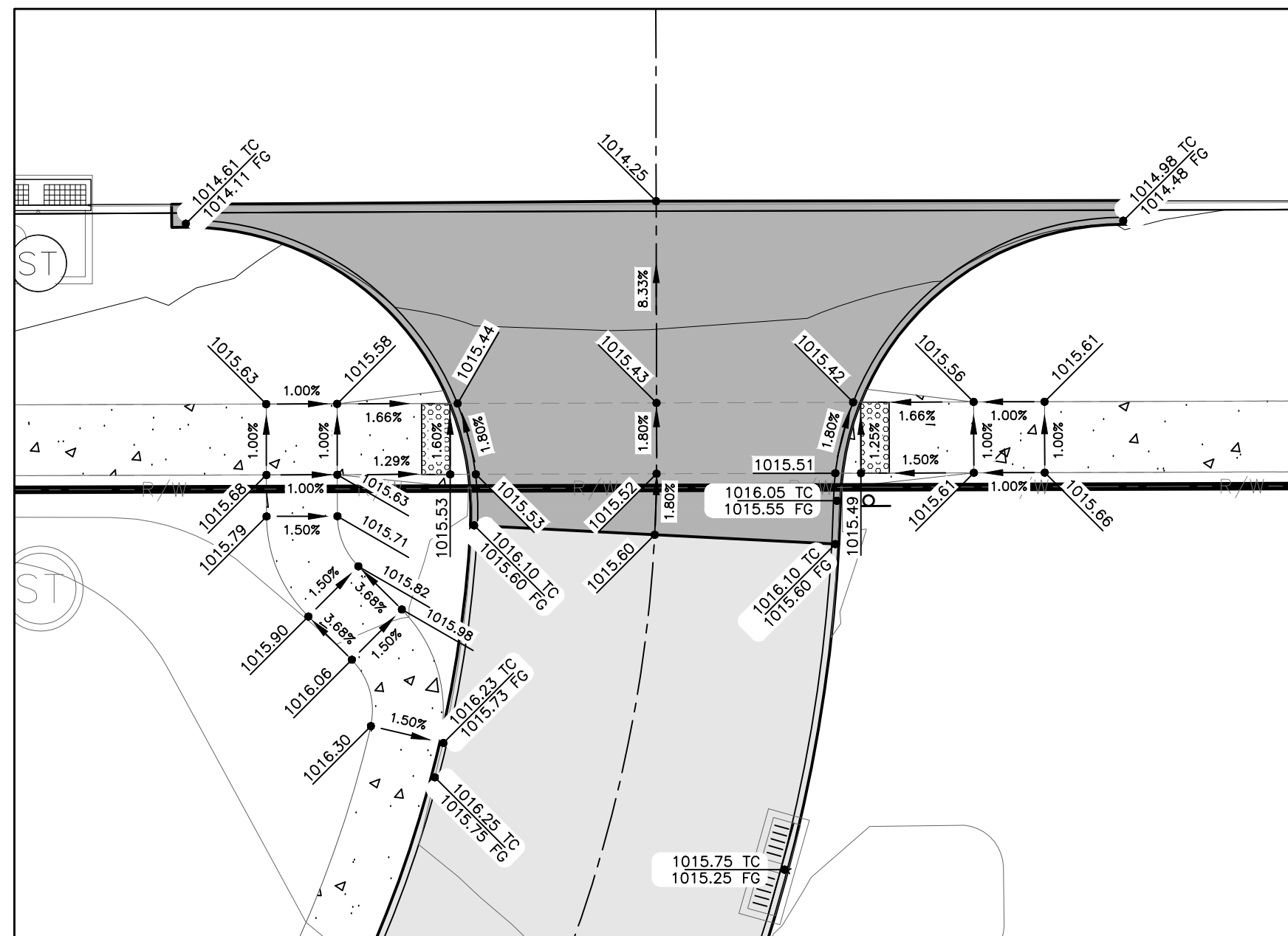
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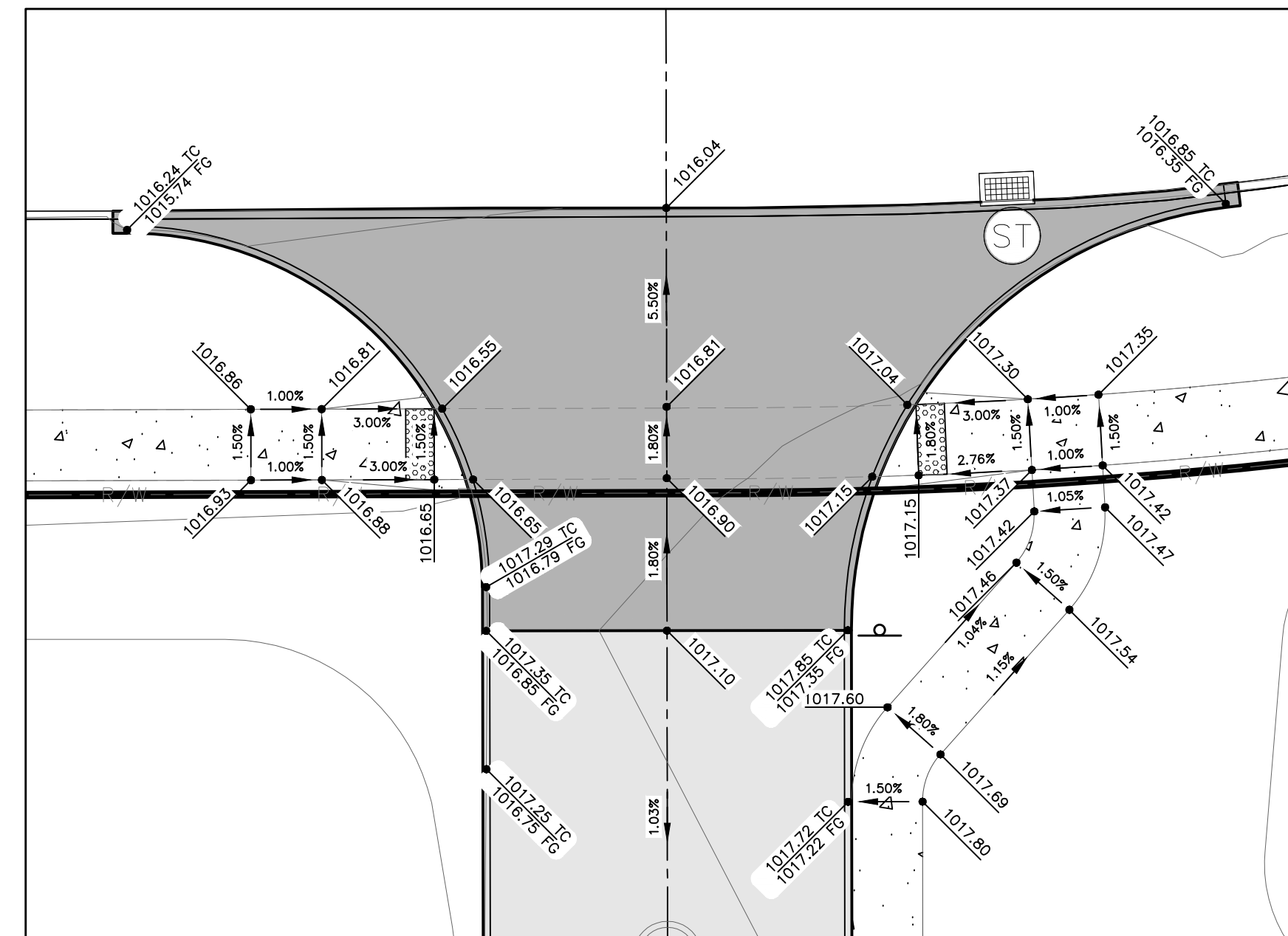
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 ENGINEER: JMM
 WAUKEE, IOWA

BRANDON ESTATES
GRADING PLAN

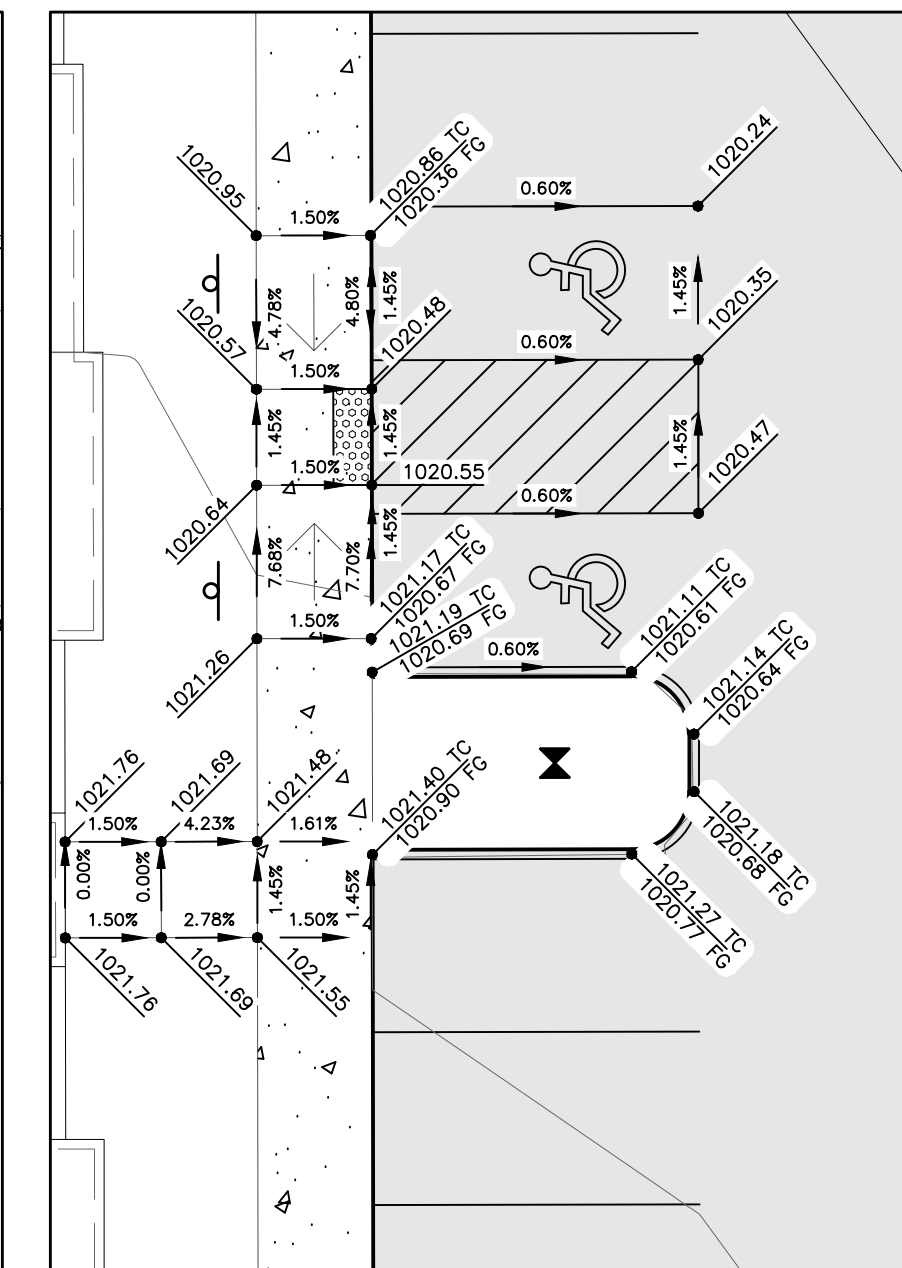
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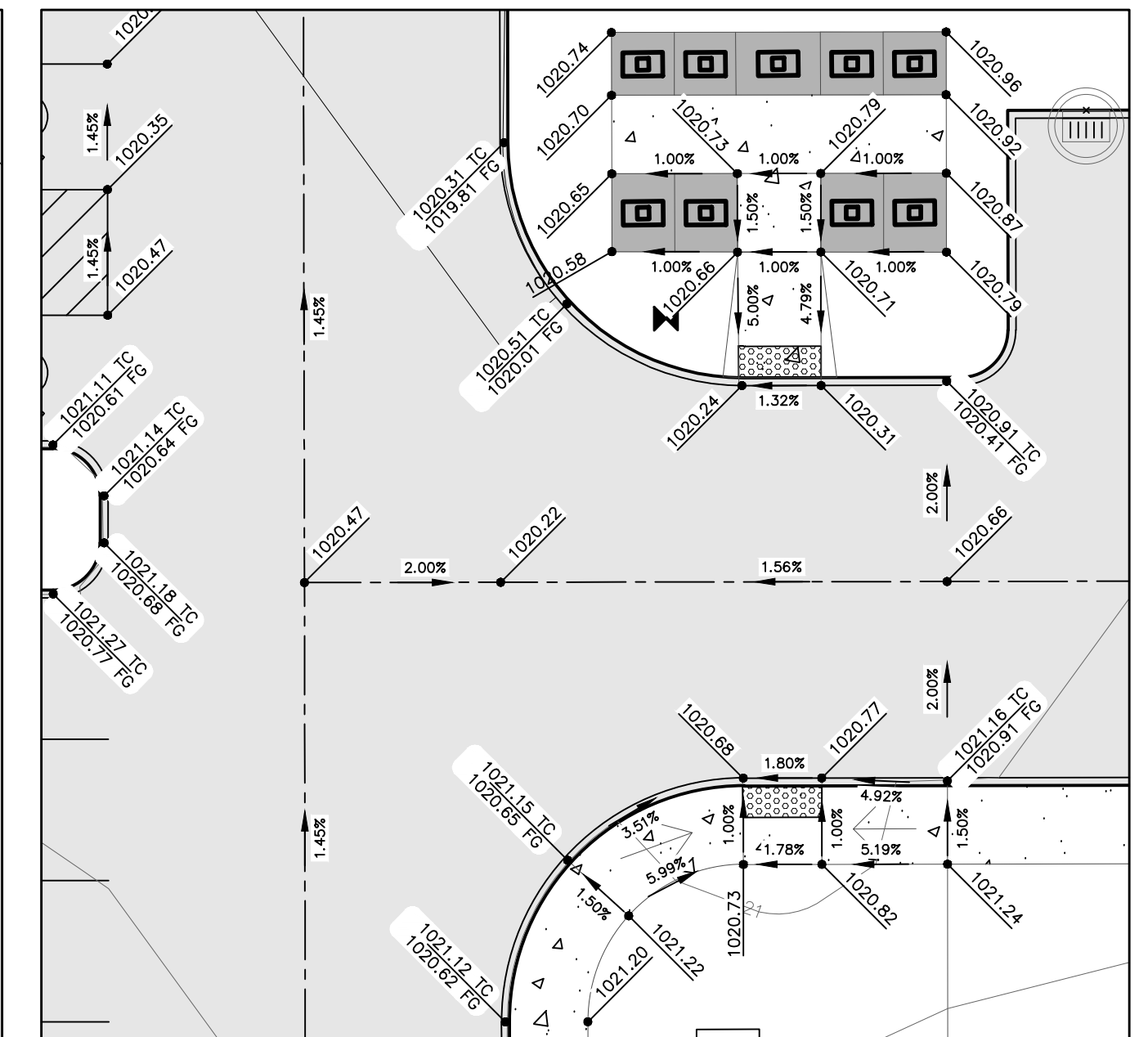
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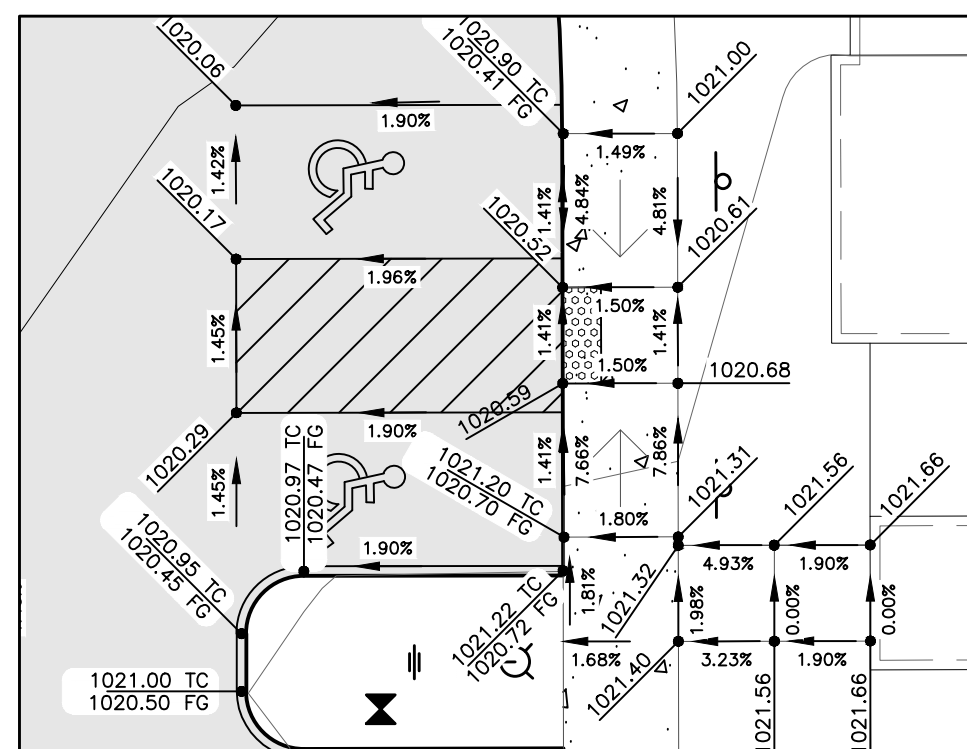
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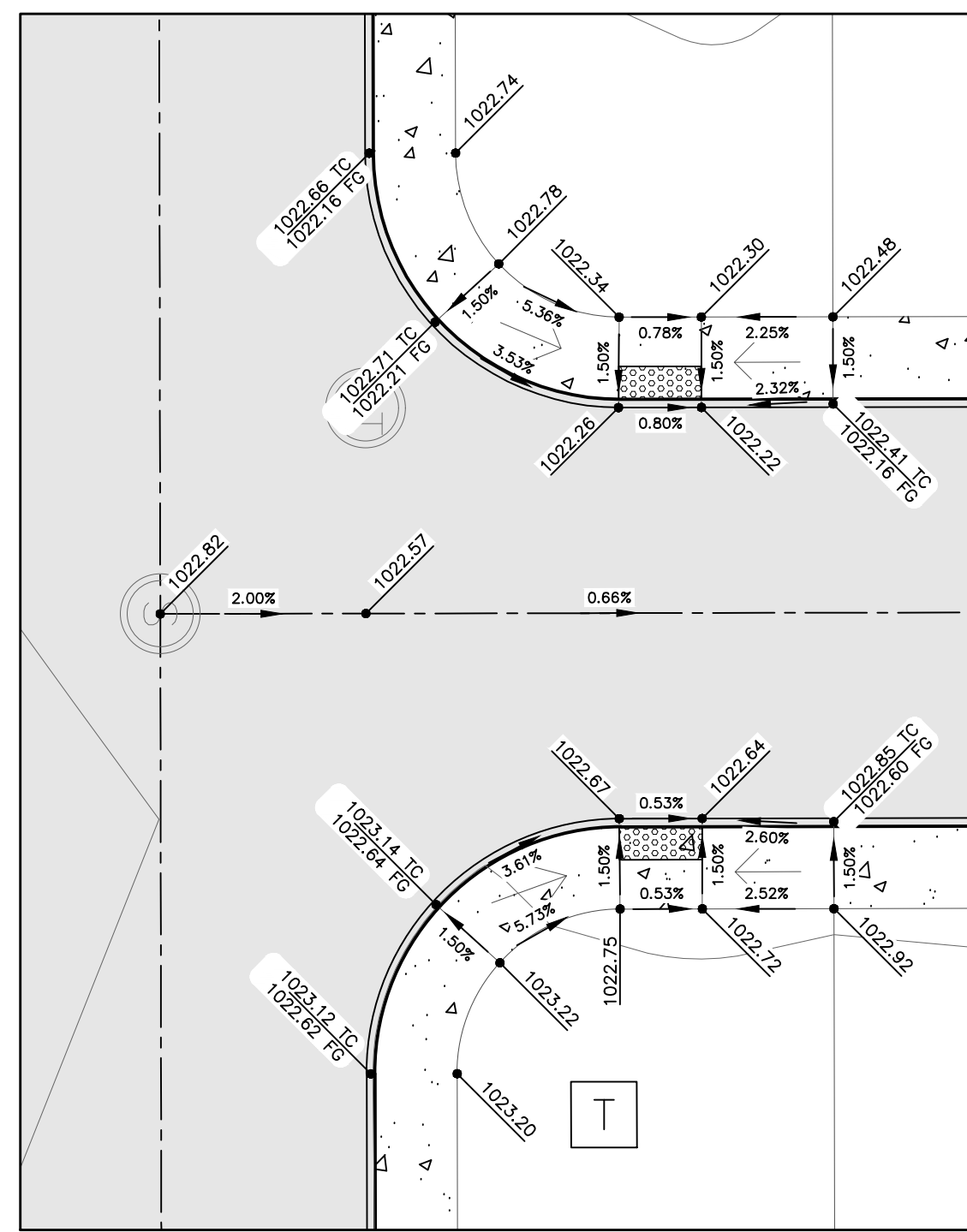
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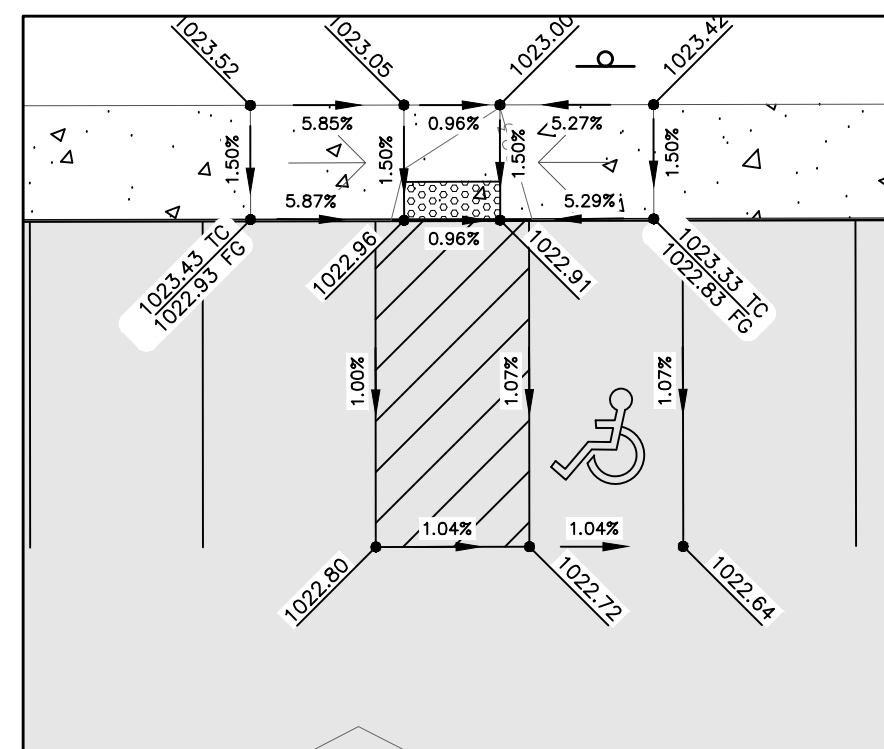
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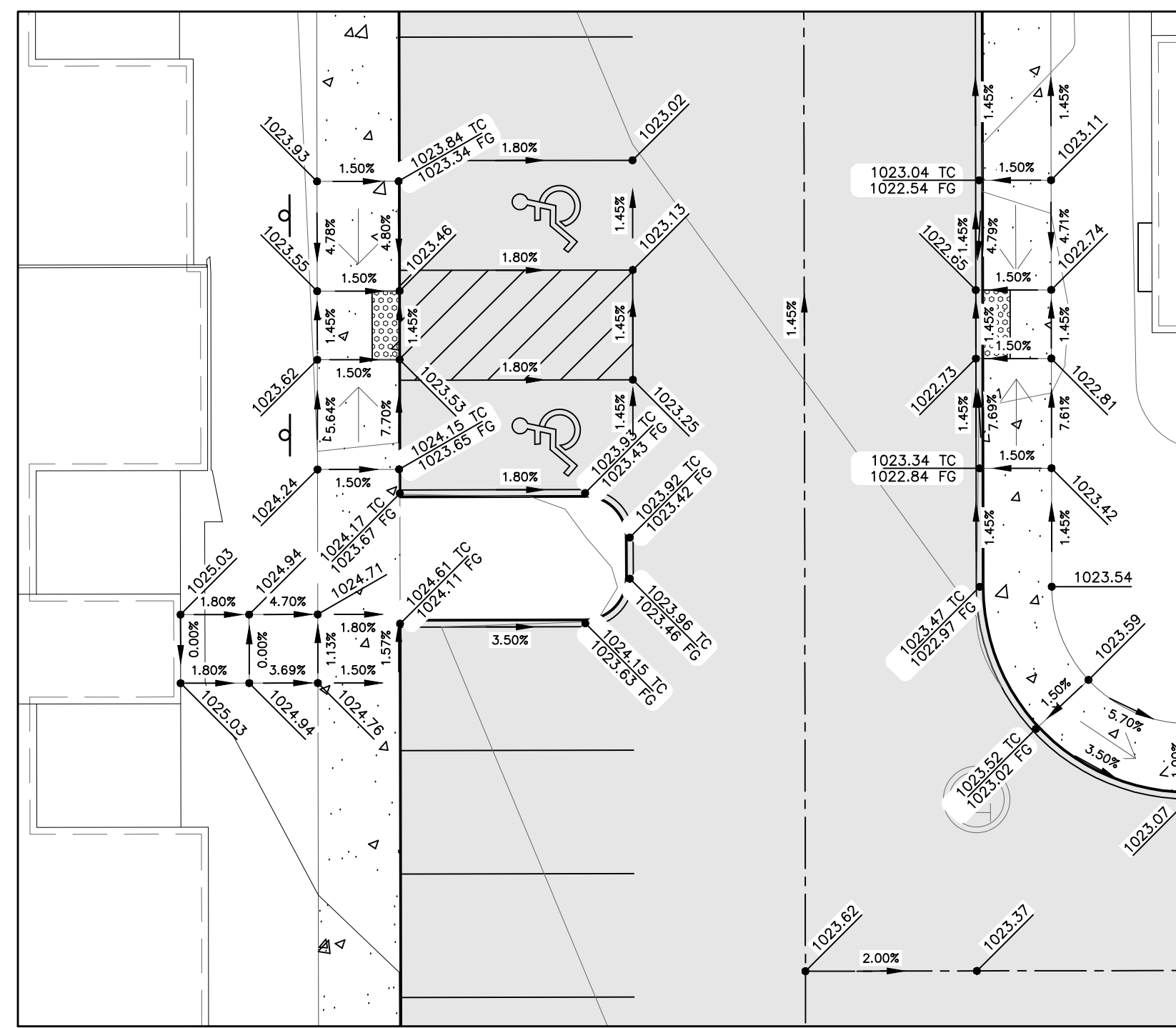
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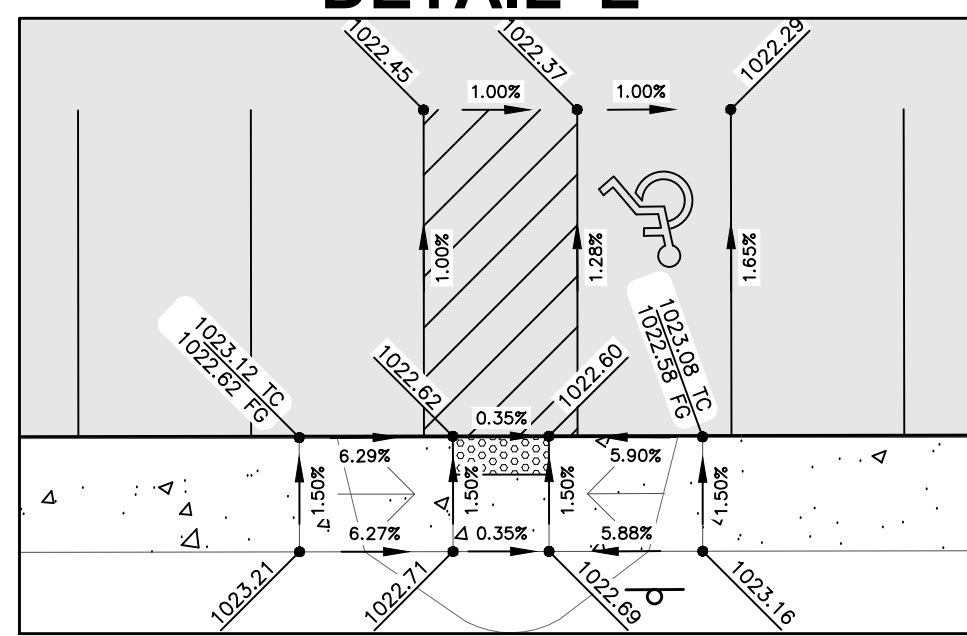
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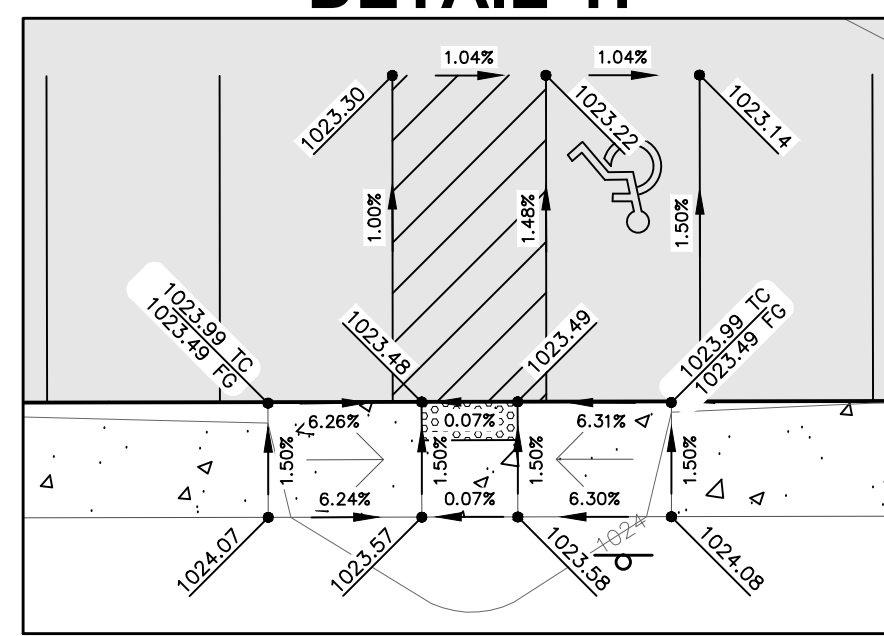
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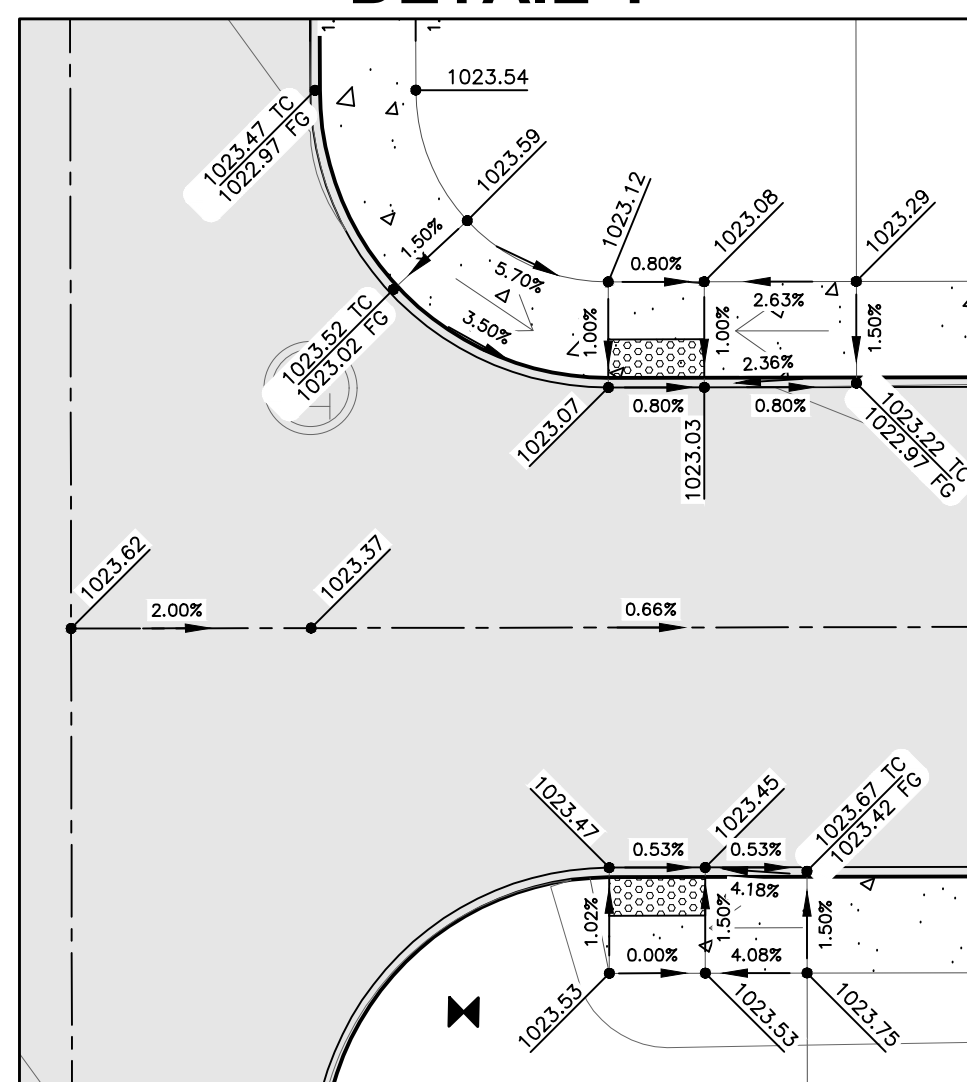
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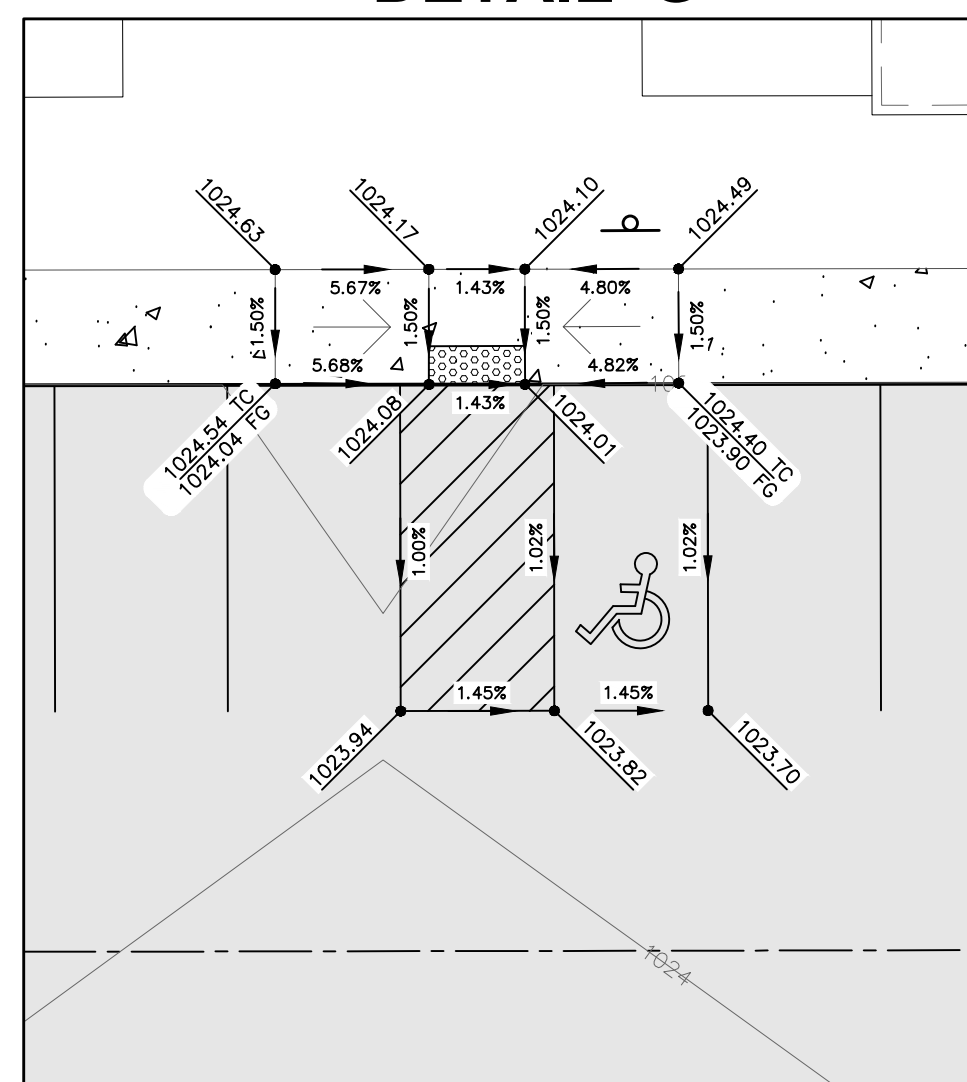
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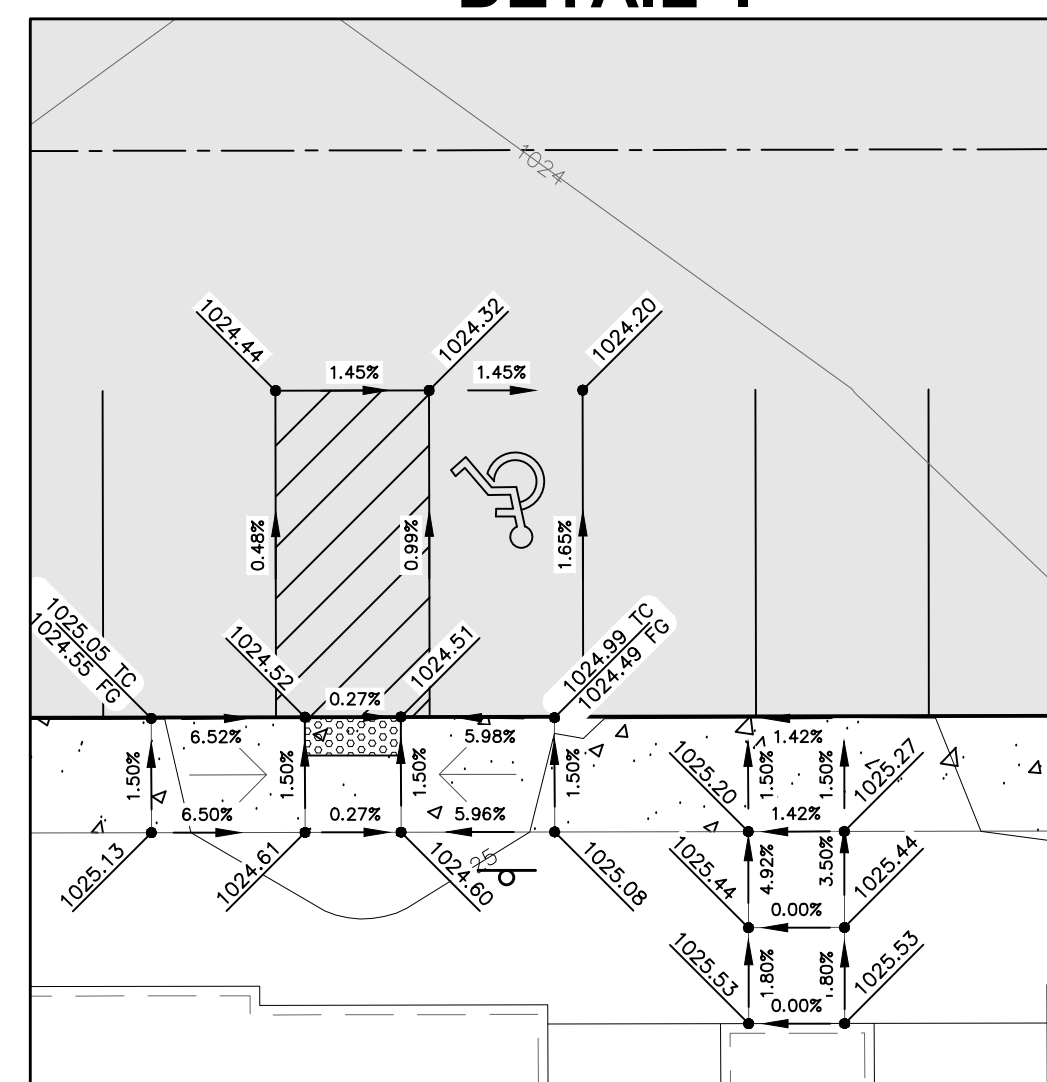
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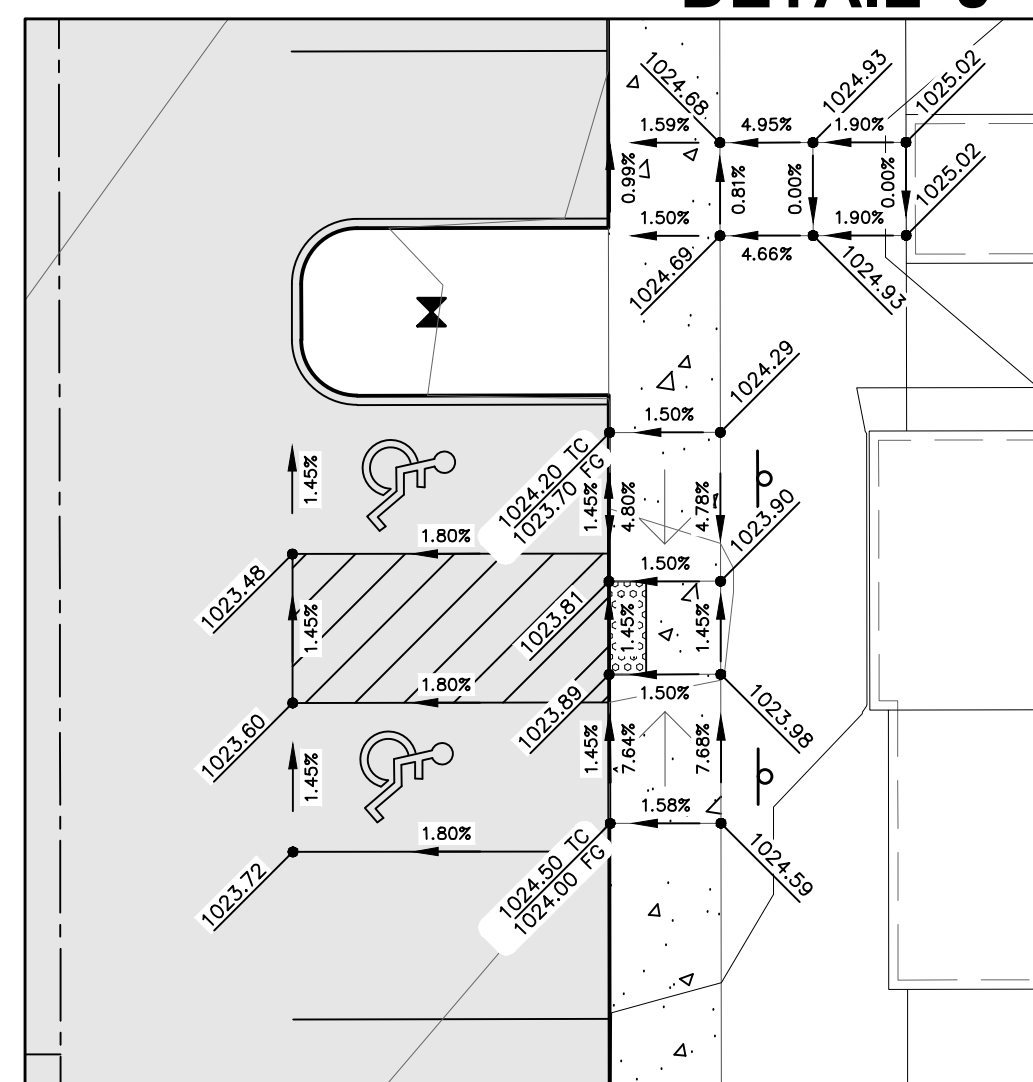
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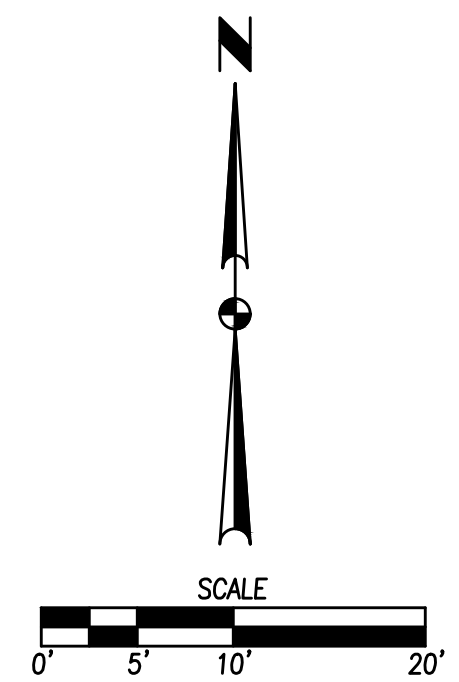
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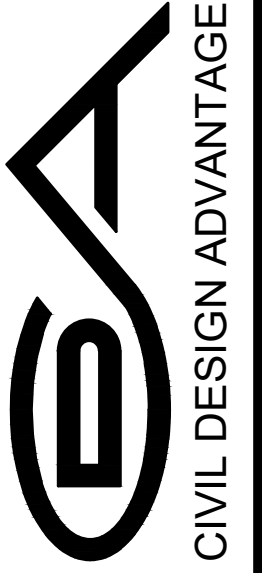


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WAUKEE, IOWA

BRANDON ESTATES
GRADING PLAN

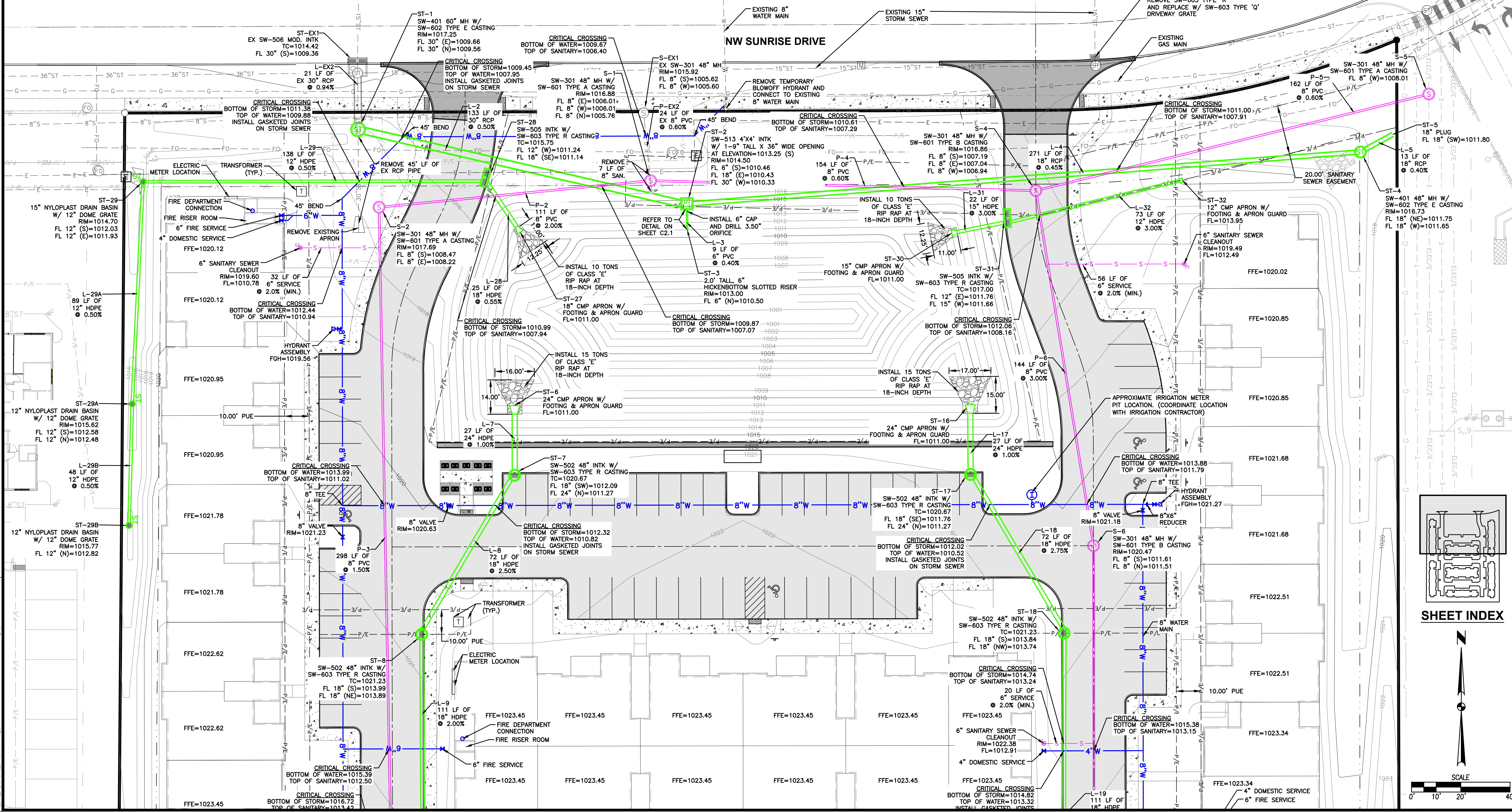
UTILITY NOTES

- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
- FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
- ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
- ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'B' CASTING.
- ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
- MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO

- DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8999 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- PRIVATE UTILITIES TO BE INSTALLED PER THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
- OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE DETENTION FACILITIES AND PRIVATE UTILITIES.
- CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
- CONTRACTOR SHALL TEST AND INSPECT ALL PROPOSED STORM SEWER, WATERMAIN AND SANITARY SEWER. THE CITY OF WAUKEE ENGINEERING DEPARTMENT IS REQUIRED TO WITNESS TESTING. ALL TESTING SHALL BE COMPLETED MEETING CITY OF WAUKEE STANDARDS.
- ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- ALL PRIVATE AND PUBLIC SANITARY SEWER AND STORM SEWER PIPES SHALL BE CLEANED OUT AND TESTED PRIOR TO PAVING. ALL SANITARY MANHOLES SHALL BE VACUUMED TESTED. A HARD COPY OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.

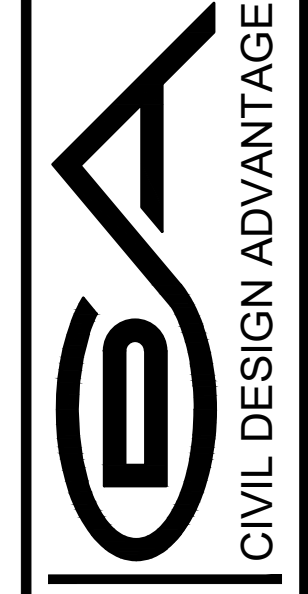
- ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL BE CORE DRILLED AND A LINK SEAL SHALL BE USED FOR THE CONNECTION.
- IT IS THE OWNER'S RESPONSIBILITY TO COORDINATE IRRIGATION AND METER PITS WITH THE WAUKEE PUBLIC WORKS DEPARTMENT.
- ALL HYDRANTS SHALL HAVE 6-INCH STORZ FITTINGS.
- COORDINATE INSTALLATION OF UTILITIES AND PAVING WITH SURROUNDING PROPERTIES.
- PROVIDE GASKETED JOINTS IN STORM SEWER AT WATER MAIN CROSSINGS.
- ALL UTILITIES ARE PRIVATE.

*EXISTING UTILITIES ARE MAP LOCATED ALONG THE NW SUNRISE DRIVE ROW. CONTRACTOR TO VERIFY DEPTH AND LOCATION PRIOR TO CONSTRUCTION.



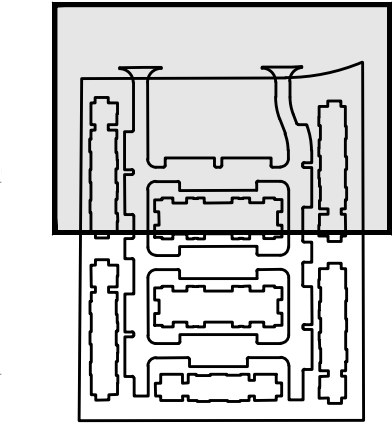
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4121 NW URBANDALE DRIVE
 URBANDALE, IOWA 50322
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 TECH: CWO

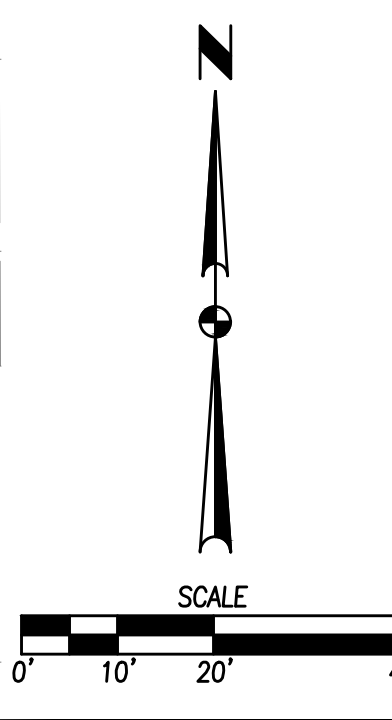


CIVIL DESIGN ADVANTAGE
 ENGINEER: JMM
 WAUKEE, IOWA

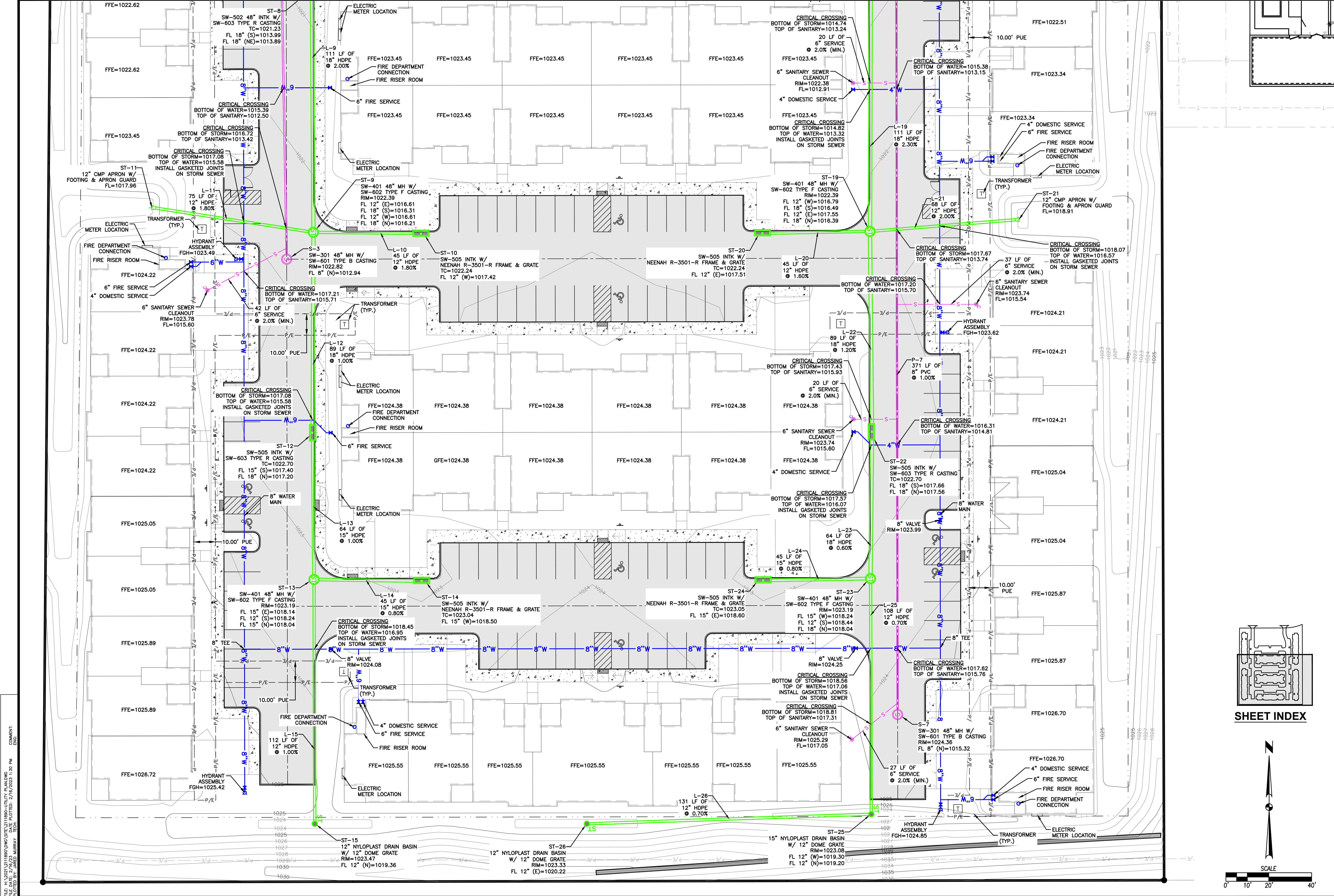
**BRANDON ESTATES
 UTILITY PLAN**



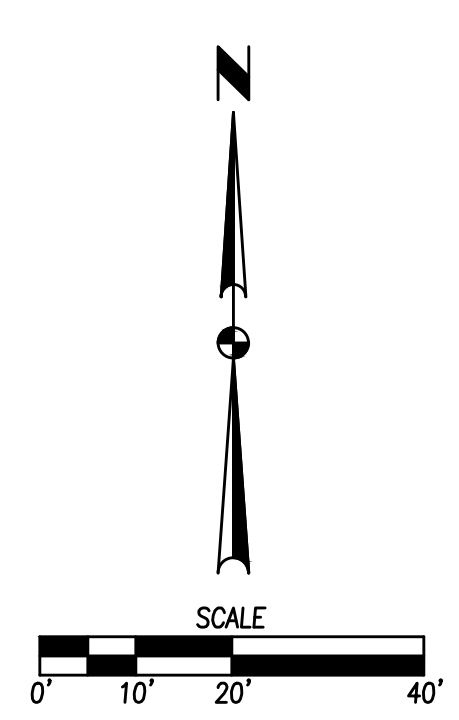
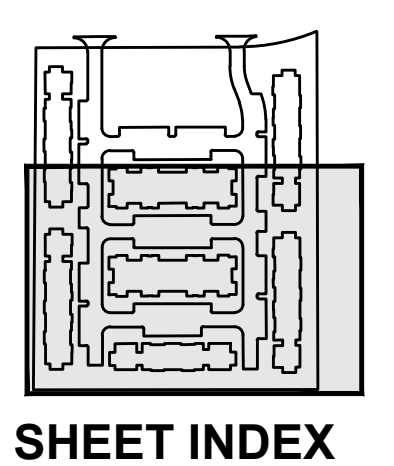
SHEET INDEX



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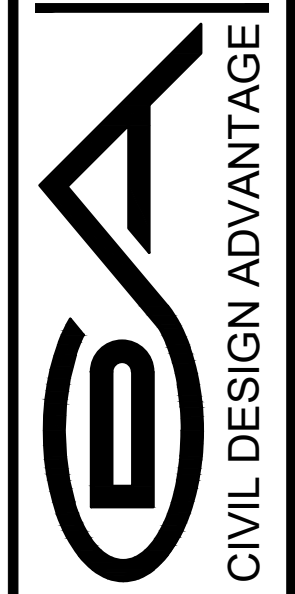


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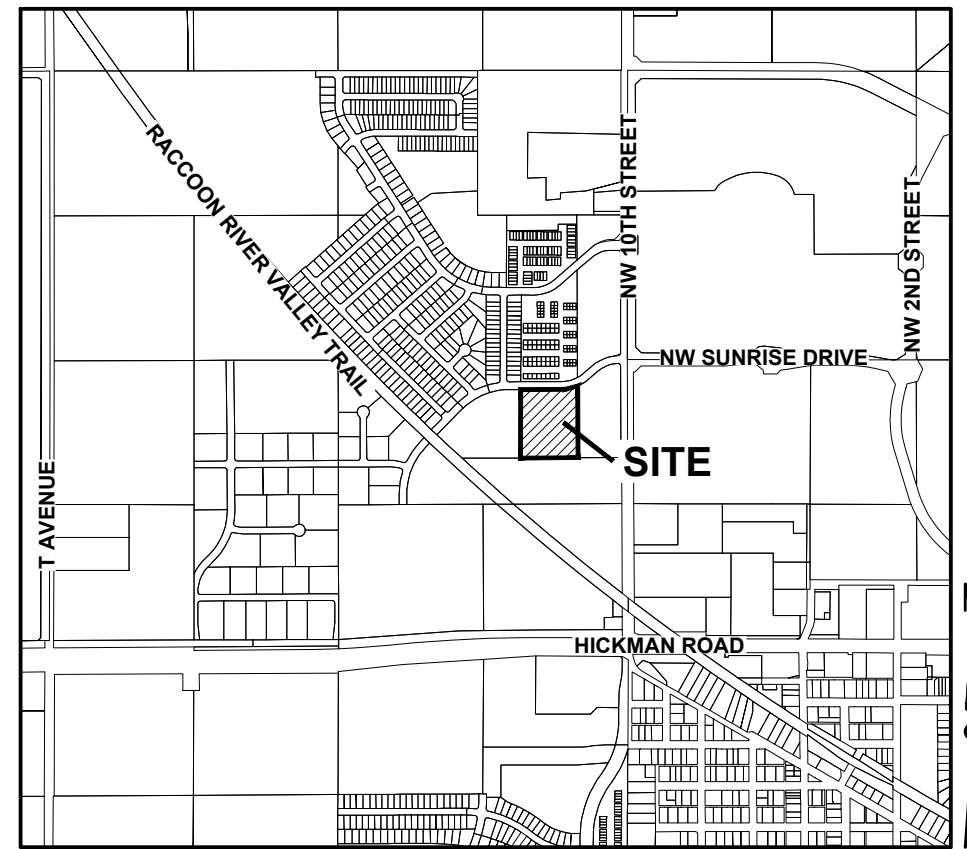
BRANDON ESTATES
UTILITY PLAN

BRANDON ESTATES

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

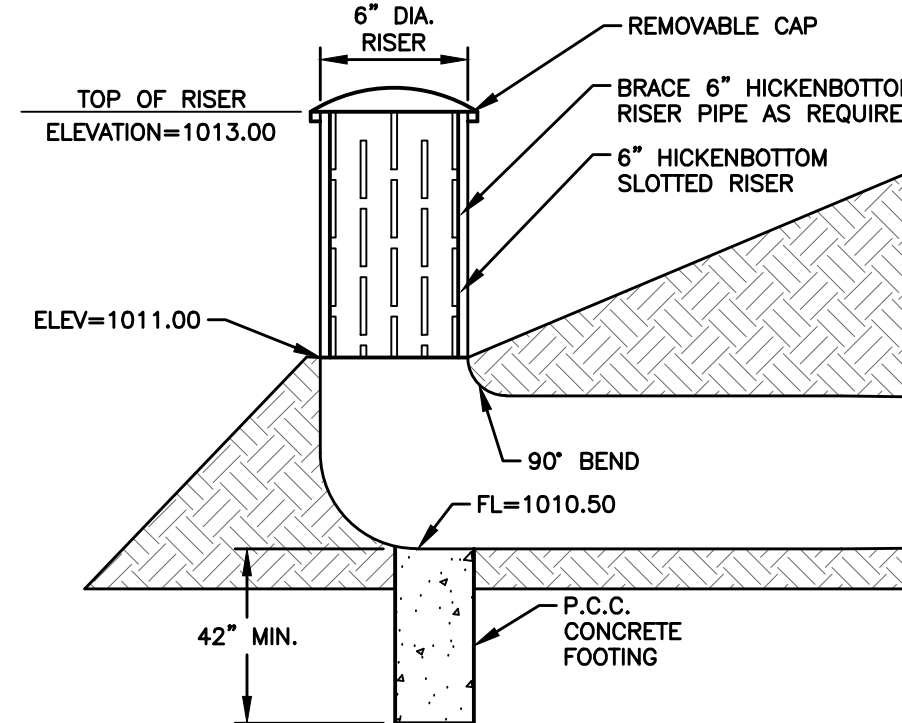
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WAUKEE, IOWA

PERMANENT STAND PIPE DETAIL - ST-3

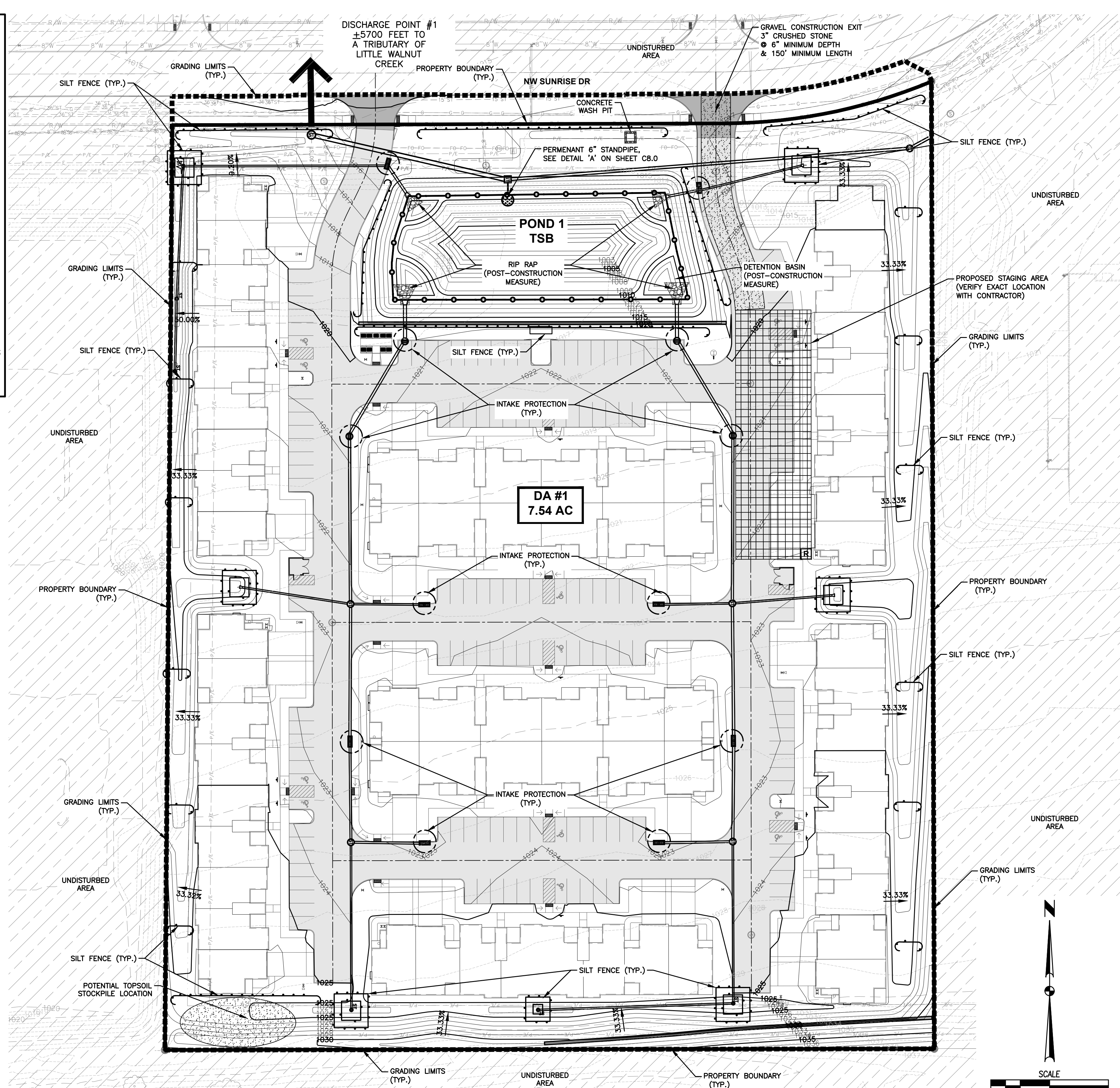
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NOTE: INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE FOR PROTECTION. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.

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

DETAIL 'A'



NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- SHOULD A TEMPORARY SEED MIX BE REQUIRED TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENTS IT SHALL BE A SUDAS TYPE 4 TEMPORARY SEED MIX.

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	2,352
2	SEEDING, FERTILIZING, AND MULCHING	AC	2.69
3	INTAKE PROTECTION DEVICES	EA	12
4	CONCRETE WASHOUT PIT	EA	1
5	6" PVC PERMANENT STANDPIPE	EA	1
6	SOD	AC	2.69

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO TRIBUTARY OF LITTLE WALNUT CREEK ±5700 FT
 TOTAL AREA DISTURBED TO DISCHARGE POINT 7.54 ACRES
 STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 27,144 CU FT
 VOLUME PROVIDED IN SILT FENCE (2,352 LF @ 4.5 CU FT/LF OF FENCE) 10,584 CU FT
 VOLUME PROVIDED IN POND 1 TSB 54,654 CU FT
 TOTAL VOLUME PROVIDED 65,238 CU FT

SWPPP LEGEND

DRAINAGE ARROW		AREA TO BE SEEDED	
GRADING LIMITS		STRAW MAT	
FILTER SOCK		UNDISTURBED AREA	
SILT FENCE		RIP-RAP	
DITCH CHECK		GRAVEL ENTRANCE	
INLET PROTECTION		STAGING AREA	
PORTABLE RESTROOM		TEMPORARY SEDIMENT BASIN	
TEMPORARY STANDPIPE			
CONCRETE WASHOUT PIT			

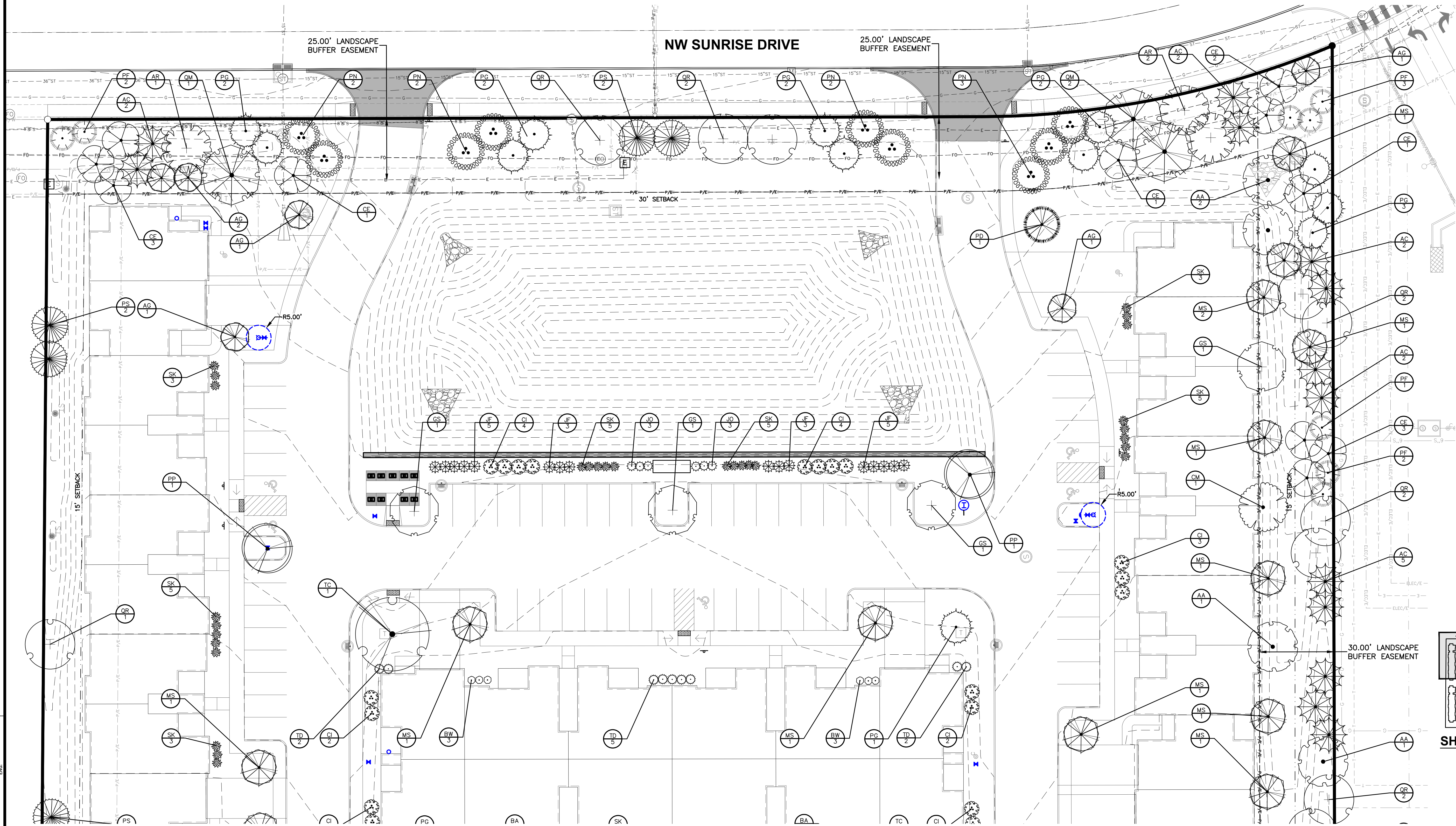
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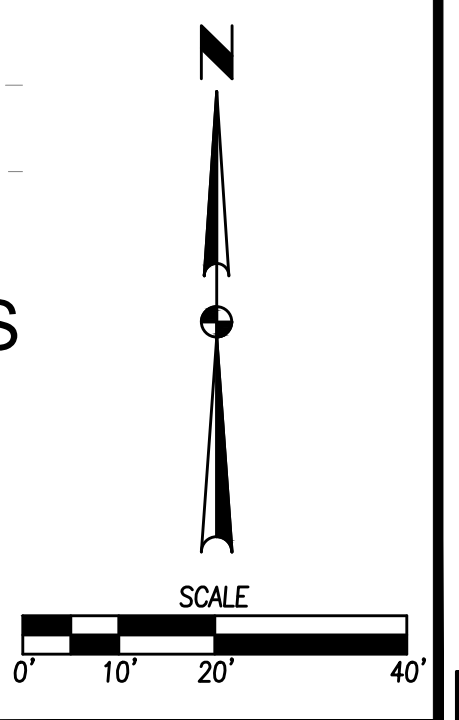
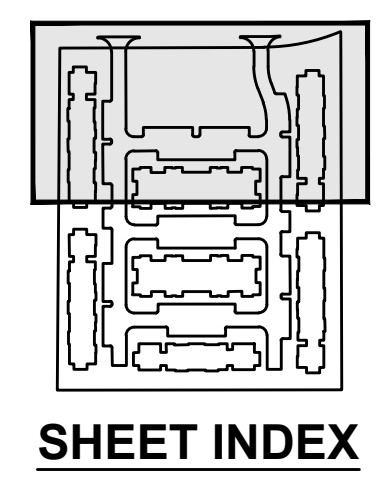
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 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: JMM
 TECH: CWO

BRANDON ESTATES
EROSION AND SEDIMENT CONTROL PLAN
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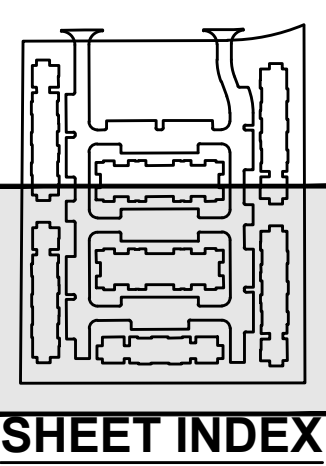
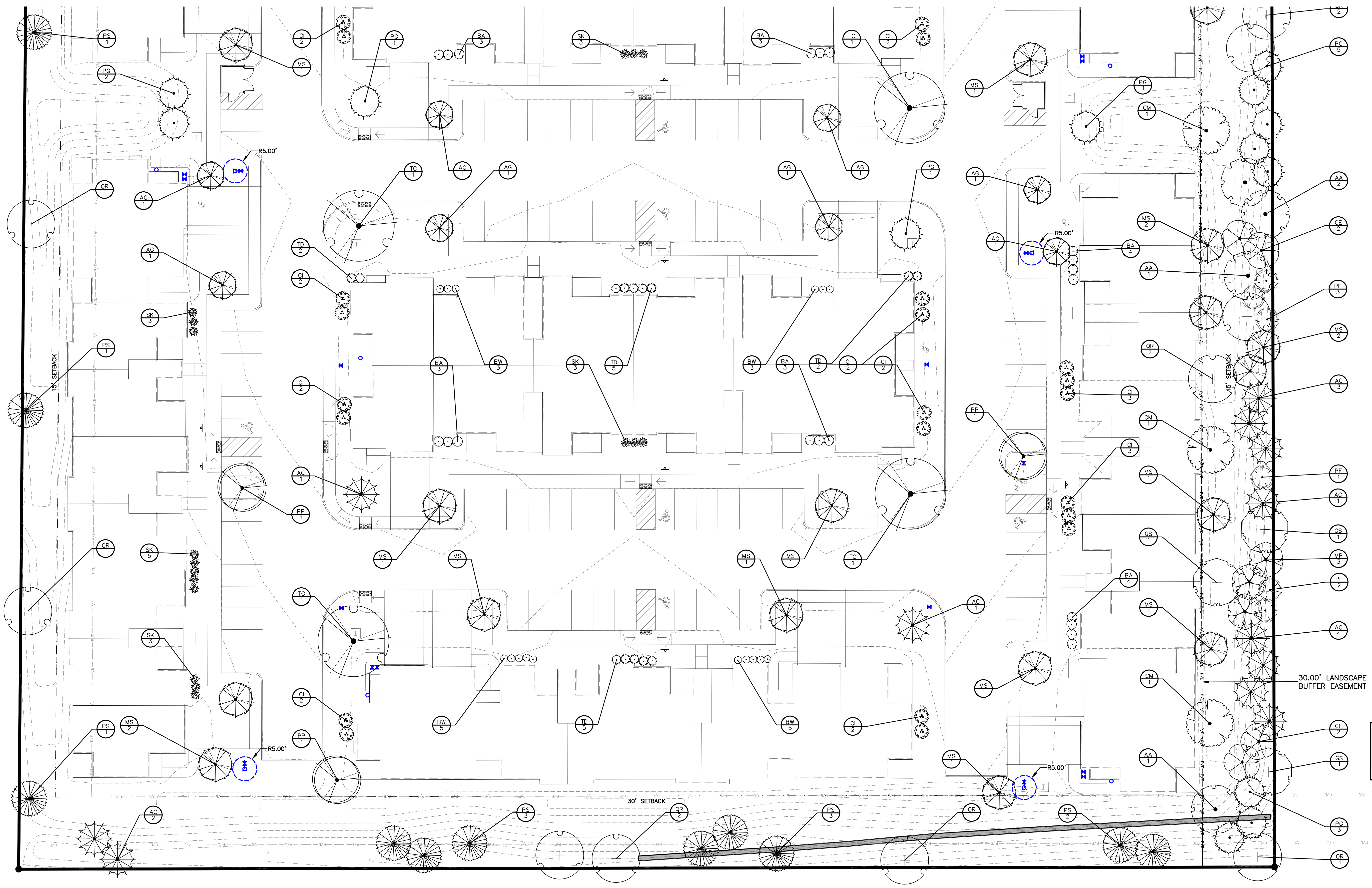


REFER TO SHEET C9.2 FOR NOTES AND PLANT MATERIAL SCHEDULES



 CIVIL DESIGN ADVANTAGE WAUKEE, IOWA	BRANDON ESTATES LANDSCAPE PLAN	C9.0 2111890	
	4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322 PHONE: (515) 369-4400 FAX: (515) 369-4410	ENGINEER: JMM TECH: CWO	REVISIONS FINAL SUBMITTAL 4TH SUBMITTAL 3RD SUBMITTAL 2ND SUBMITTAL 1ST SUBMITTAL
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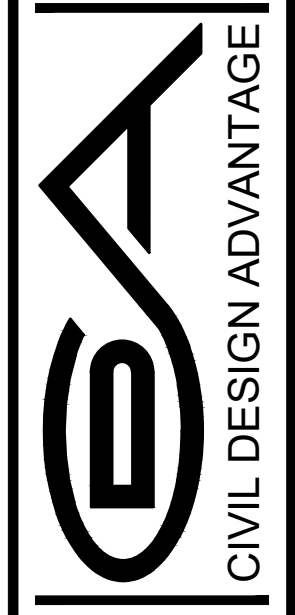
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PLOT BY: MURRAY TECH



REFER TO SHEET C9.2 FOR NOTES AND PLANT MATERIAL SCHEDULES

REVISIONS	DATE
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PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: JMM TECH: CWO



WAUKEE, IOWA

BRANDON ESTATES LANDSCAPE PLAN

C9.1
2111890

LANDSCAPE NOTES

- LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
- THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
- TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
- ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
- SOD ALL DISTURBED AREAS, INCLUDING RIGHT OF WAY.
- BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
- WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
- SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3".
- ALL EDGING SHALL BE SPADE CUT EDGE.
- PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
- ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.

MINIMUM PLANTING REQUIREMENTS

- MINIMUM SIZE: THE MINIMUM SIZE FOR REQUIRED PLANTINGS, OTHER THAN THOSE IN REQUIRED BUFFERS, SHALL BE AS FOLLOWS:
 - DECIDUOUS OVERSTORY TREES SHALL BE A MINIMUM OF EIGHT (8) FEET IN HEIGHT.
 - EVERGREEN TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
 - DECIDUOUS ORNAMENTAL TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
- MINIMUM QUANTITY: THE MINIMUM NUMBER OF PLANTINGS PER SITE SHALL BE AS FOLLOWS:
 - A MINIMUM OF FIFTY PERCENT (50%) OF ALL REQUIRED TREES SHALL BE OVERSTORY SHADE TREES.
 - FOR ALL USES EXCEPT SINGLE-FAMILY ATTACHED AND DETACHED RESIDENTIAL DWELLINGS, A MINIMUM OF TWENTY FIVE PERCENT (25%) OF ALL REQUIRED TREES SHALL BE EVERGREEN TREES.

OPEN SPACE LANDSCAPE REQUIREMENTS

1 TREE & 1 SHRUB PER 1,000 SF OF REQUIRED OPEN SPACE.
 LOT AREA = 328,243 SF
 20% OPEN SPACE REQ. = 65,648 SF

TREES REQUIRED: = 66
 TREES PROVIDED: = 68 (24 EVERGREEN)

SHRUBS REQUIRED: = 66
 SHRUBS PROVIDED: = 130

PLANT SCHEDULE OPEN SPACE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	4	White Fir	Abies concolor	B&B, 6' HEIGHT
PD	1	Douglas Fir	Pseudotsuga menziesii	B&B, 6' HEIGHT
PG	6	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
PS	13	White Pine	Pinus strobus	B&B, 6' HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AG	11	Amur Maple	Acer ginnala	B&B, 1.5" CALIPER
MS	14	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 6' HEIGHT

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
GS	3	Skyline Honey Locust	Gleditsia triacanthos 'Skyline'	B&B, 8' HEIGHT
PP	5	Persian Parrotia	Parrotia persica	B&B, 1.5" CALIPER
QR	6	Red Oak	Quercus rubra	B&B, 8' HEIGHT
TC	5	Corinthian Littleleaf Linden	Tilia cordata 'Corzam' TM	B&B, 1.5" CALIPER

SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
BA	20	Japanese Barberry	Berberis thunbergii 'Aurea'	24" HT.
BW	22	Wintergreen Boxwood	Buxus microphylla 'Wintergreen'	15" HT
CI	37	Isanti Redosier Dogwood	Cornus sericea 'Isanti'	36" HT.
JF	16	Sea Green Juniper	Juniperus chinensis 'Sea Green'	24" HT.
JO	6	Old Gold Juniper	Juniperus chinensis 'Old Gold'	5 GAL
SK	46	Miss Kim Korean Lilac	Syringa pubescens 'Miss Kim'	24" HT.
TD	23	Dense Yew	Taxus x media	24" HT.

NW SUNRISE DRIVE BUFFER REQUIREMENT

BUFFER MATERIAL REQUIREMENTS (PER 50 LINEAR FEET OF BUFFER)
 1 OVERSTORY 2 EVERGREEN 2 ORNAMENTAL

BUFFER LENGTH = 469'
 REQUIRED*: = 9 PROVIDED: = 9
 EVERGREEN TREES = 19 = 19
 ORNAMENTAL TREES = 19 = 19
 * 1/2 REDUCTION ALONG DETENTION BASIN

PLANT SCHEDULE NW SUNRISE ST BUFFER

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	4	White Fir	Abies concolor	B&B, 6' HEIGHT
PF	5	Pyramidal White Pine	Pinus strobus 'Fastigiata'	B&B, 6' HEIGHT
PG	8	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
PS	2	White Pine	Pinus strobus	B&B, 6' HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AG	3	Amur Maple	Acer ginnala	B&B, 1.5" CALIPER
CE	7	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 6' HEIGHT, MULTI-STEM
PN	9	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 6' HEIGHT

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AR	3	Red Maple	Acer rubrum	B&B, 8' HEIGHT
QM	3	Burr Oak	Quercus macrocarpa	B&B, 8' HEIGHT
QR	3	Red Oak	Quercus rubra	B&B, 8' HEIGHT

EAST BUFFER REQUIREMENT

BUFFER MATERIAL REQUIREMENTS (PER 50 LINEAR FEET OF BUFFER)
 2 OVERSTORY 3 EVERGREEN 2 ORNAMENTAL

BUFFER LENGTH = 621'
 REQUIRED*: = 25 PROVIDED: = 25
 EVERGREEN TREES = 37 = 37
 ORNAMENTAL TREES = 25 = 25

PLANT SCHEDULE EAST BUFFER

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	17	White Fir	Abies concolor	B&B, 6' HEIGHT
PF	9	Pyramidal White Pine	Pinus strobus 'Fastigiata'	B&B, 6' HEIGHT
PG	11	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	8	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 6' HEIGHT, MULTI-STEM
MP	3	Prairifire Crab Apple	Malus x 'Prairifire'	B&B, 6' HEIGHT
MS	14	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 6' HEIGHT

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	8	Autumn Blaze Red Maple	Acer rubrum 'Autumn Blaze'	B&B, 8' HEIGHT
CM	4	Crimson King Maple	Acer platanoides 'Crimson King'	B&B, 8' HEIGHT
GS	4	Skyline Honey Locust	Gleditsia triacanthos 'Skyline'	B&B, 8' HEIGHT
QR	9	Red Oak	Quercus rubra	B&B, 8' HEIGHT

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BRANDON ESTATES
 LANDSCAPE PLAN

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

ENGINEER: JMM

C9.2

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