

MULTIMODAL ACCESS CLOSURE EXCEPTION APPLICATION FORM AND CHECKLIST

Submittal Date: 3/7/2024 New Submittal X Re-Submittal No: _____

Related Building Permit No: 2021031341(Grading Permit)

Project Name: Reservoir Zone 7

Street Name Location: Hillside Ave and 10th Ave S

Between: Argyle Ave W And: Reservoir Ct.

Applicant Name: Jeremy Moody

Address: 8401 Covington Rd, College Grove, TN 37046

Phone: 615-368-2600 Fax: _____ Contact: Jeremy Moody

Email: Jmoody@humerickinc.com

Project Description: Residential development including single family homes and townhomes.

Start Date: 3/15/2024 End Date: 7/19/2024 Project Length: 18 weeks

Describe Type of Closure: Multiple long-term sidewalk closures and a partial lane closure.

Planned Work Hours: 7am-5pm

Planned Working Days: Monday thru Saturday excluding major Holidays.

Construction Equipment:

Heavy equipment will be used to complete this work in a timely manner. This includes excavators, bulldozers, rollers, skid loaders, and a concrete pump.

Provide Reasons why Project cannot be completed without closures and what other options were considered (attach documents as needed): The sidewalk closure on Hillside Ave will have to be done to install retaining walls and new sidewalks. We will have to remove sidewalks so the footing for the wall can be installed, and the sidewalk will tie-in to the wall once it is finished.

We will have another two small sidewalk closures at the ends of the new public alley on the south side of the site. For these closures, the sidewalks will become crosswalks at each end of the alley.

On the north end of the site, we will have another two closures. Summit Ave will be extended across to Hillside Ave. The sidewalks on each end of what will become Summit Ave will be crosswalks.

We will be trying to keep sidewalks open as much as possible. However, for the alleys to be constructed the sidewalks will have to be closed and removed.

Construction Phasing:

Construction will be done in two overlapping phases. The first will be done on the east side of the site. This includes the sidewalk along Hillside Ave as well as the excavation and pavement of the crosswalks for the new alleyways. This will take place in the first 60 days. During this time, construction traffic will ingress and egress from 10th Ave S as to prevent interaction between pedestrians and construction traffic.

The second phase will start once the impacted area in phase 1 can be reopened. This closure will impact the west side of the site. This includes the replacement of the sidewalk along 10th Ave S and the installation of the crosswalks on the west end of the new alleys. During this time, construction traffic will ingress and egress from Hillside Ave.

We feel this is the safest, most effective way to construct the site.

Utilities:

No utility work will require a long-term closure. However, utility connections and mains are provided in the construction plans.

Affected People:

Our proposed closures will not directly affect any resident, business, agency, or school.

There are no driveways, public alleys, roads, or paths to existing buildings that will be blocked by our closures in either phase.

Nearby ongoing projects:

There are two other projects currently taking place on Hillside Ave. We don't foresee any conflicts with these projects as our sites do not share boundaries. Construction traffic for the nearby projects will have free flow on existing public roadways. If we happen to have a conflict with these projects, we will use our contacts with the construction companies performing these projects to solve and settle any issues in a quick manner.

Work vehicle parking:

Work vehicles will be parking on-site, out of public ROW. This includes our employees, subcontractor employees, dump trucks, concrete trucks, and concrete pumps.

Traffic control plans:

Traffic control plans by T-Square Engineering to utilize water filled barricades placed 5ft apart to create a path for pedestrians to walk in the roadway. We will have ramps at each end of the path for safe and easy return to existing sidewalks. Other details will be shown in TCP plans.

PROJECT INFORMATION CHECKLIST:

Included Not Applicable

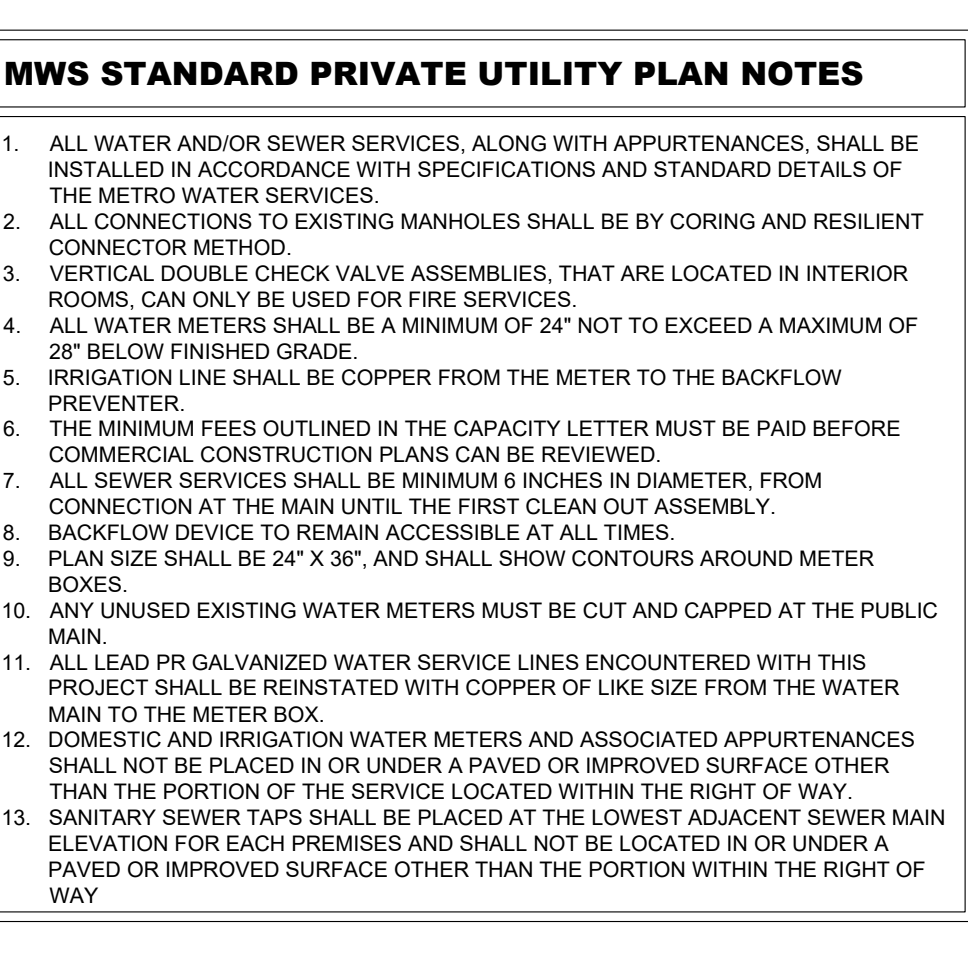
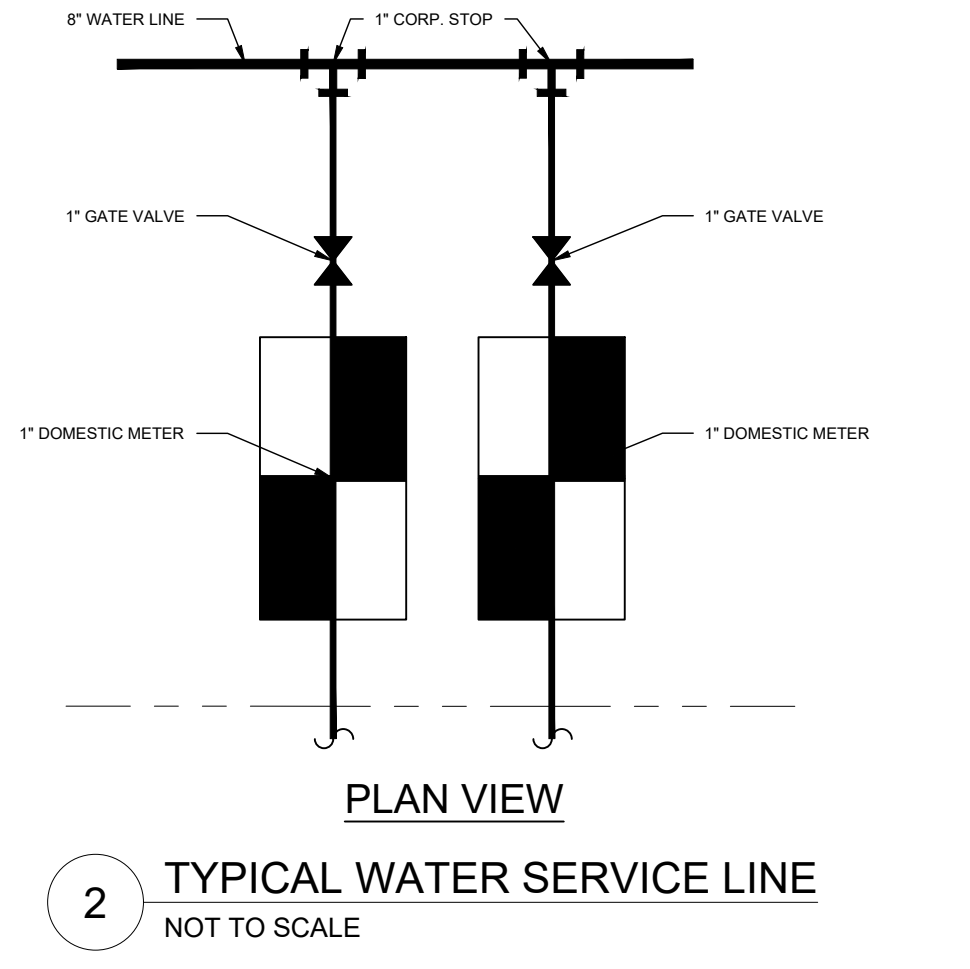
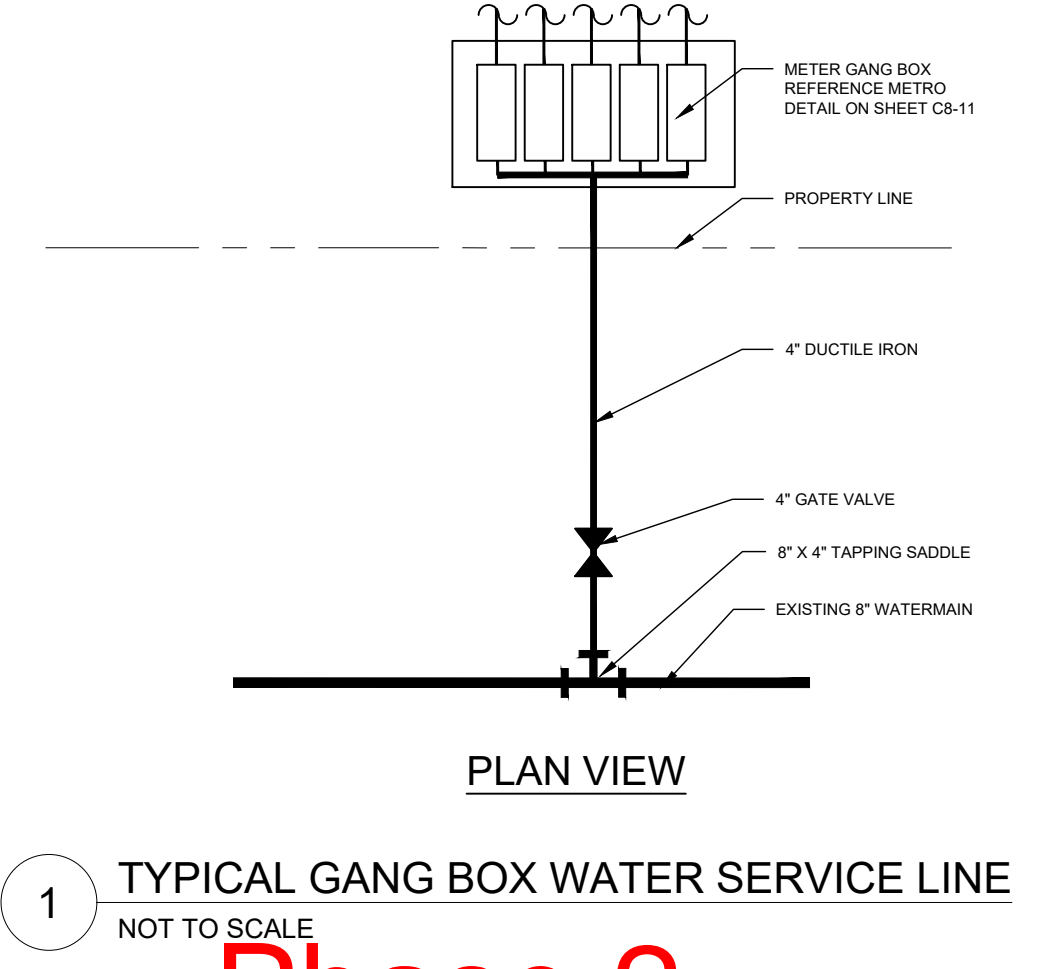
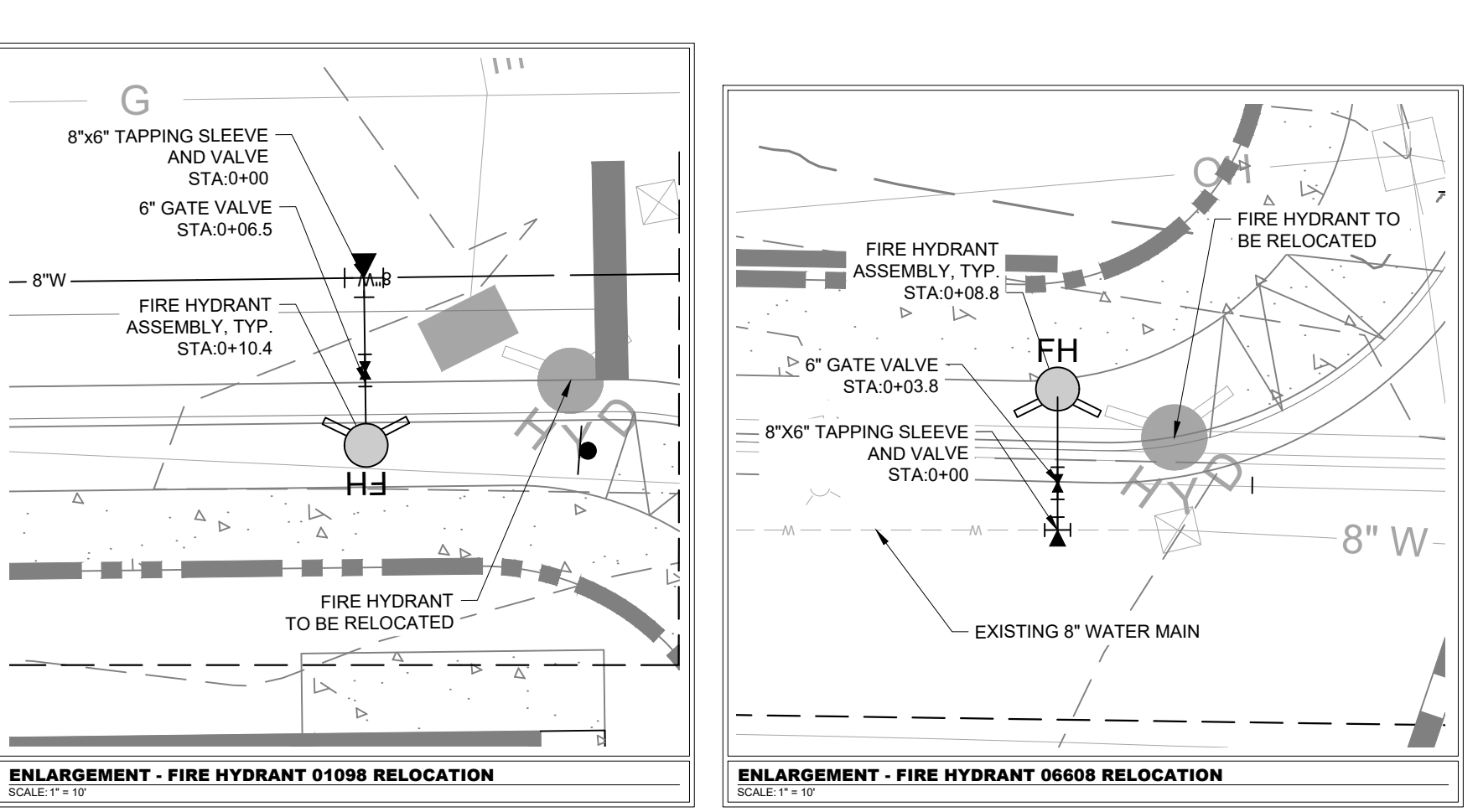
- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Project Vicinity Map with Project Area shown, street names, property information, existing pavement and striping, gutter and building locations, north arrow, and scale. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Planned work hours included. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Exact location and dimensions of the construction work zone shown. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | If multiple phases are necessary, include perimeter impact of each phase, phase number, anticipated work hours and phase duration. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Details on construction activity and equipment being used as part of construction included for each phase. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Specify if any on-street parking, and/or metered parking, is to be restricted and if bus zone will need to be relocated. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Specify if trash pickup will be impacted. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide information on all utility work and utility connections. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | List all affected residents, businesses, agencies, and schools and any conversations/agreements taken place. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Show ongoing construction projects within vicinity of proposed project impact. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide plan to address conflicts with other nearby projects. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide traffic control plan for each phase of construction (see traffic control checklist for more information). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Provide information on work vehicle parking locations. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Show construction trucks ingress/egress to project location. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Provide information on any traffic signals, traffic signal loops, and traffic signal cabinets in close proximity to project. |

TRAFFIC CONTROL PLAN CHECKLIST:

Included Not Applicable

- All temporary traffic control plans shall be designed in accordance with the most recent ADA regulations and requirements of the Manual of Uniform Traffic Control Devices.
- Clearly show the locations of all existing signs (including speed limit) as well as the proposed signs for each construction phase.
- Show the location of all existing pedestrian paths and pedestrian detour route of each stage of construction.
- Show dimensions of travel lane width, shoulder width, sidewalk of each phase, and overall roadway width along the length of affected area.
- Show all existing striping and markings to remain, to be removed, and all proposed striping and markings for each construction stage.
- Provide detour plan clearly showing detour route for any roadway or pedestrian/bike path closures.
- Specify placement of all temporary traffic control devices.
- Specify spacing of all temporary traffic control devices.
- Show all existing traffic signals and streetlights in the work zone location.
- Lighting provided for all pedestrian detour routes.
- Provide minimum eleven (11) foot travel lanes at all times.
- Show size, height, and location of all channelizing devices, warning lights, flag trees, barriers, etc.
- Label all taper lengths and widths.
- Provide locations of police officers for each phase as needed.
- Temporary Traffic Control Plan has been stamped and signed by a TN licensed Civil Engineer.

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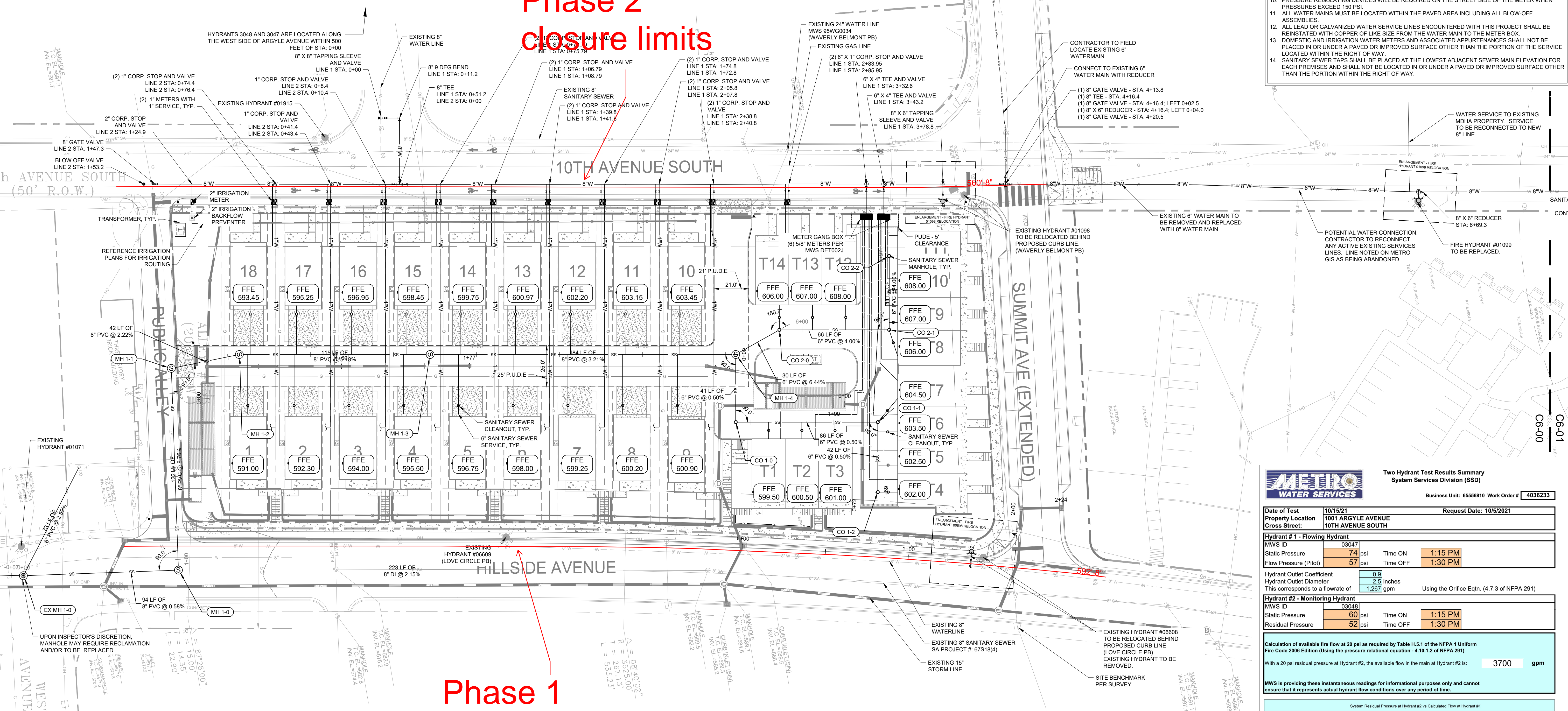


- ### MWS STANDARD PRIVATE UTILITY PLAN NOTES
- ALL WATER AND/OR SEWER SERVICES, ALONG WITH APPURTENANCES, SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO WATER SERVICES.
 - ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
 - VERTICAL DOUBLE CHECK VALVE ASSEMBLIES, THAT ARE LOCATED IN INTERIOR ROOMS, CAN ONLY BE USED FOR FIRE SERVICES.
 - ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
 - IRRIGATION LINE SHALL BE COPPER FROM THE METER TO THE BACKFLOW PREVENTER.
 - THE MINIMUM FEES OUTLINED IN THE CAPACITY LETTER MUST BE PAID BEFORE COMMERCIAL CONSTRUCTION PLANS CAN BE REVIEWED.
 - ALL SEWER SERVICES SHALL BE MINIMUM 6 INCHES IN DIAMETER, FROM CONNECTION AT THE MAIN UNTIL THE FIRST CLEAN OUT ASSEMBLY.
 - BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
 - PLAN SIZE SHALL BE 24" X 36", AND SHALL SHOW CONTOURS AROUND METER BOXES.
 - ANY UNUSED EXISTING WATER METERS MUST BE CUT AND CAPPED AT THE PUBLIC MAIN.
 - ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
 - DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
 - SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.
- ### METRO NASHVILLE WATER SERVICES STANDARD NOTES
- ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO NASHVILLE WATER SERVICES.
 - THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE METRO NASHVILLE WATER SERVICES THE COST OF INSPECTION.
 - THE CONTRACTOR IS TO PROVIDE AND MAINTAIN THE CONSTRUCTION IDENTIFICATION SIGN FOR PRIVATE DEVELOPMENT APPROVED.
 - AFTER COMPLETION OF THE SANITARY SEWER, THE DEVELOPER IS RESPONSIBLE FOR THE TELEVISIONING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEO TAPING MUST BE COORDINATED WITH THE METRO NASHVILLE WATER SERVICES INSPECTION SECTION. ALL COSTS WILL BE BORNE BY THE DEVELOPER.
 - ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
 - REDUCED PRESSURE BACKFLOW PREVENTION DEVICES (RPBP) OR DUAL CHECK VALVE WILL BE REQUIRED ON ALL TEST AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE METRO NASHVILLE WATER SERVICES.
 - ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
 - UPON COMPLETION OF CONSTRUCTION OF WATER AND/OR SEWER, THE ENGINEER SHALL PROVIDE THE DEPARTMENT WITH A COMPLETE SET OF AS-BUILT PLANS IN DIGITAL (DWG AND PDF) FORMAT. ALL DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS OR WATER MAINS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE.
 - SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TREE LOCATIONS, THE DISTANCE OF THE END OF THE SERVICE LINE TO PROPERTY CORNERS AND LINES AND/OR STATION AND OFFSET FROM SERVICE CENTERLINE TO END OF SERVICE LINE. THE DEPTH TO THE TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES.
 - WATER LINE PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR REGISTERED LAND SURVEYOR AND SHALL INCLUDE OFFSET DISTANCE FROM THE ROADWAY CENTERLINE, OR PROPERTY LINE RIGHT OF WAY, LINE DEPTHS, LOCATIONS OF HYDRANTS, VALVES, REDUCERS, TEES AND PRESSURE REDUCING DEVICES WHERE APPLICABLE.
 - PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE CUSTOMER SIDE OF THE METER WHEN PRESSURES EXCEED 100 PSI.
 - PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE STREET SIDE OF THE METER WHEN PRESSURES EXCEED 150 PSI.
 - ALL WATER MAINS MUST BE LOCATED WITHIN THE PAVED AREA INCLUDING ALL BLOW-OFF ASSEMBLIES.
 - ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
 - DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
 - SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.

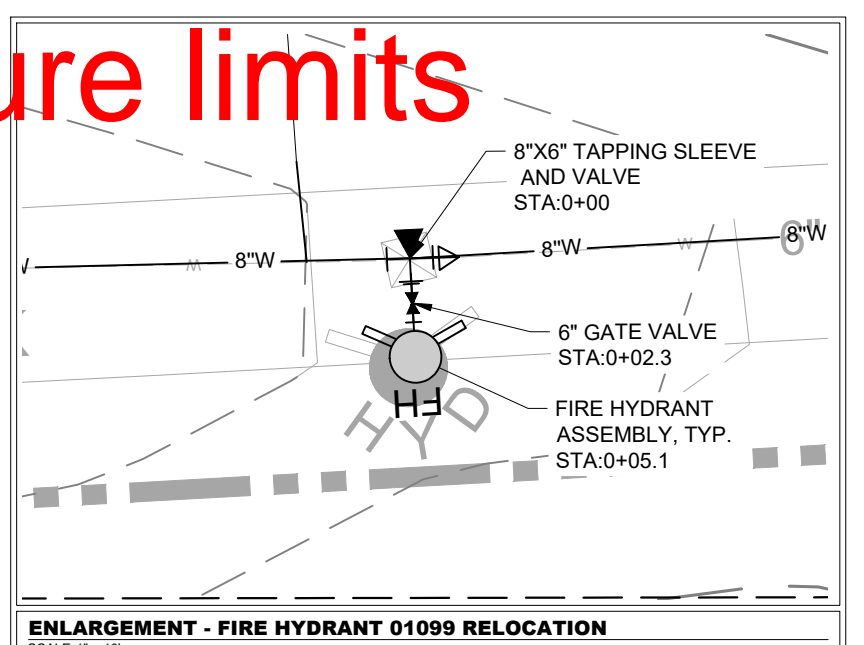
1 TYPICAL GANG BOX WATER SERVICE LINE NOT TO SCALE

2 TYPICAL WATER SERVICE LINE NOT TO SCALE

Phase 2
closure limits



Phase 1
closure limits



EXISTING UTILITIES NOTE
CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

VALVE NOTE
ALL VALVES SHALL BE INSTALLED IN METRO NASHVILLE WATER SERVICES APPROVED VALVE BOX AND COVER. COVER TO BE MARKED WITH "WATER".

METRO PERMITTING REFERENCE

BUILDING PERMIT:	T2021056442
GRADING PERMIT:	2021031341
WATER PERMIT:	21WL0082
SEWER PERMIT:	21SL0195

DATUM:
NAVD 88
NAD 83

Two Hydrant Test Results Summary
System Services Division (SSD)
Business Unit: 6555810 Work Order #: 4036233

Date of Test	10/15/21	Request Date:	10/5/2021
Property Location	1001 ARGYLE AVENUE		
Cross Street:	10TH AVENUE SOUTH		

Hydrant #1 - Flowing Hydrant
MWS ID: 63047

Static Pressure	74 psi	Time ON	1:15 PM
Flow Pressure (Pitot)	57 psi	Time OFF	1:30 PM

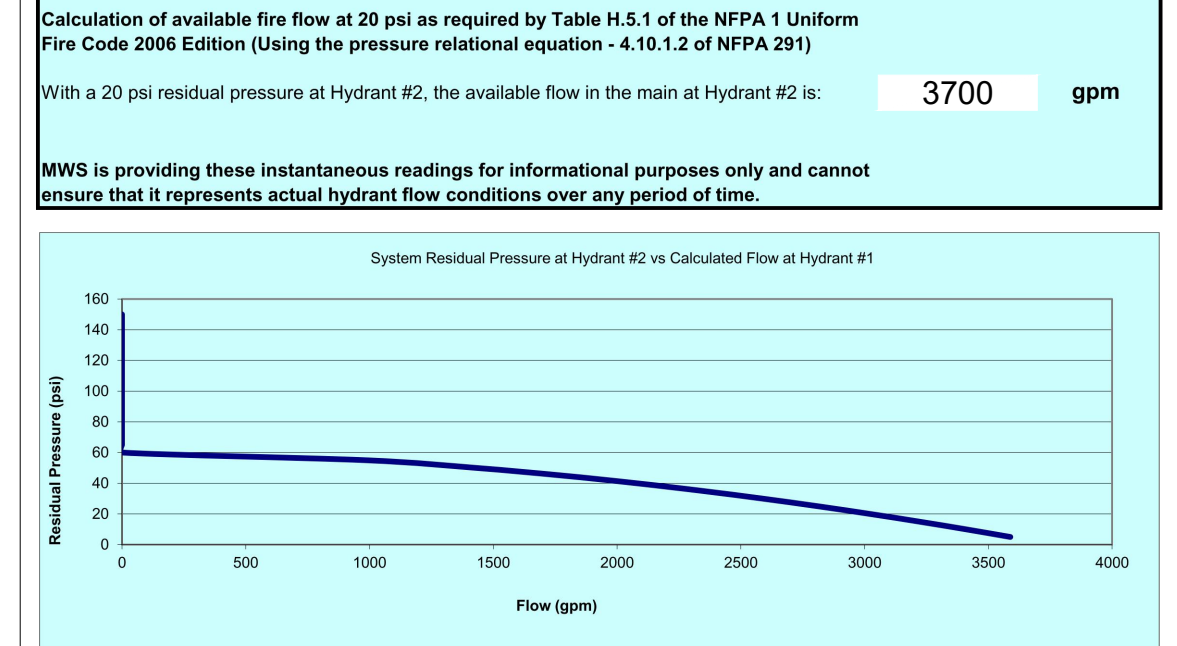
Hydrant Outlet Coefficient: 0.9
Hydrant Outlet Diameter: 2.5 inches
This corresponds to a flowrate of 1,287 gpm Using the Orifice Eqn. (4.7.3 of NFPA 291)

Hydrant #2 - Monitoring Hydrant
MWS ID: 63048

Static Pressure	60 psi	Time ON	1:15 PM
Residual Pressure	52 psi	Time OFF	1:30 PM

Calculation of available fire flow at 20 psi as required by Table H.5.1 of the NFPA 1 Uniform Fire Code 2006 Edition (Using the pressure relational equation - 4.10.1.2 of NFPA 291)
With a 20 psi residual pressure at Hydrant #2, the available flow in the main at Hydrant #2 is: **3700 gpm**

MWS is providing these instantaneous readings for informational purposes only and cannot ensure that it represents actual hydrant flow conditions over any period of time.



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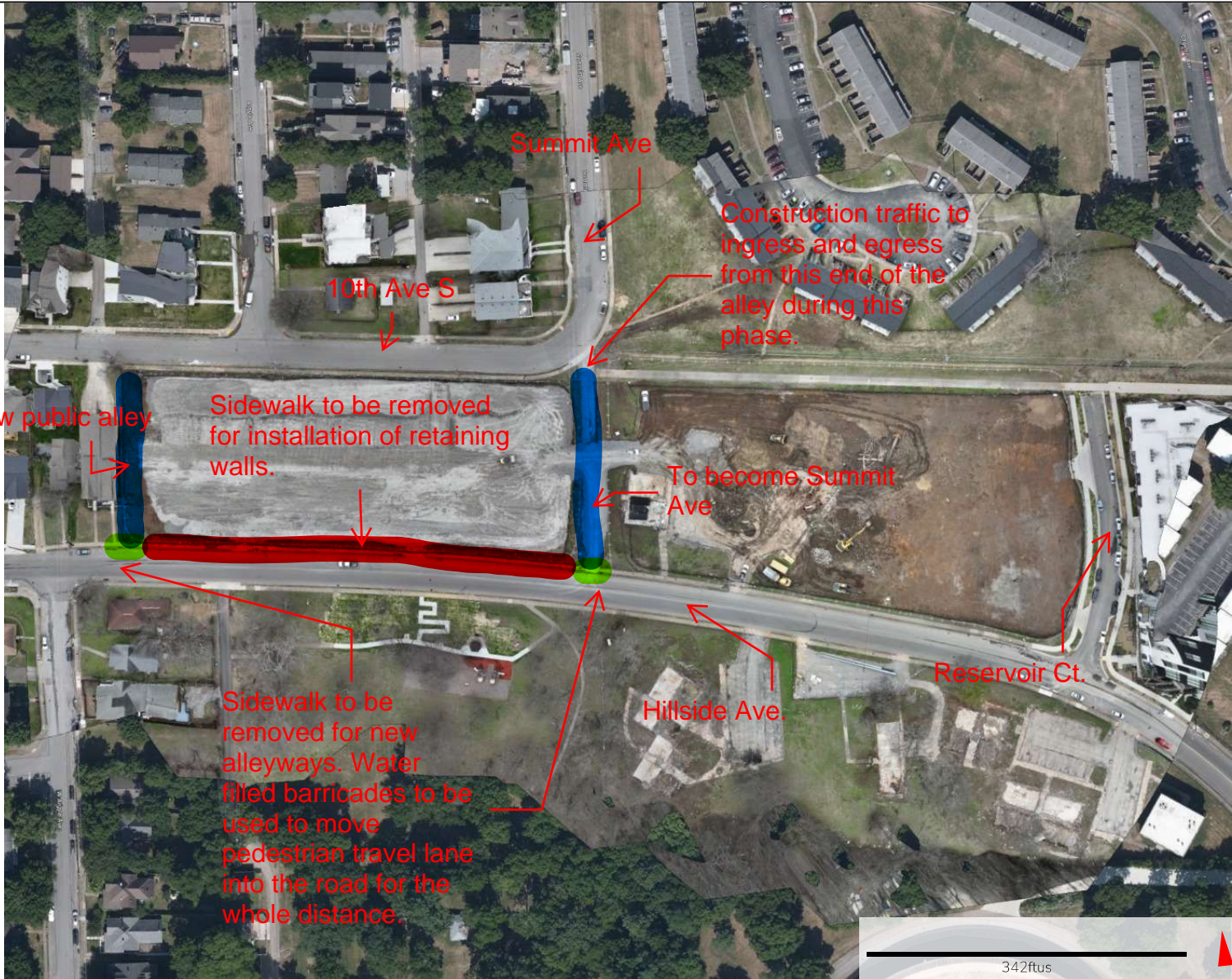
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RESERVOIR ZONE 7
SINGLE FAMILY
NASHVILLE, TENNESSEE



DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
DATE:	10/01/2021
KIMLEY-HORN PROJECT NO.	118129070

UTILITY PLAN - OVERALL
SHEET NUMBER
C6-00



LEGEND

Phase 1 construction plan. Set to start 3/15 and will be completed in aprox. 60 days.



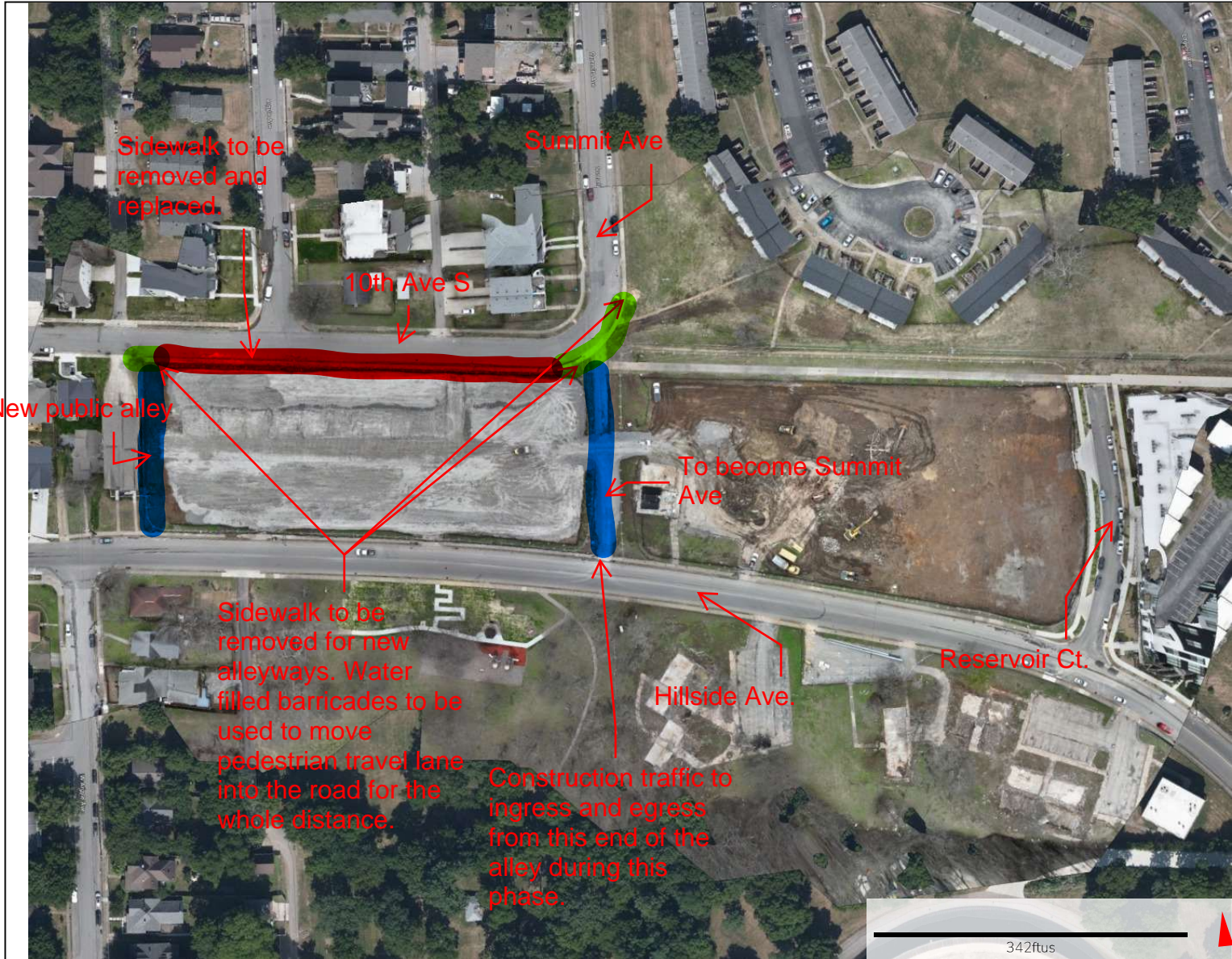
Site: Hillside Zone 5 & 7

Survey: hillside 1.31.24

File created: Feb 9, 2024



 propeller



LEGEND

Phase 2 construction plan. Set to start at substantial completion of phase 1. To be finished by 7/19.



Site: Hillside Zone 5 & 7

Survey: hillside 1.31.24

File created: Feb 9, 2024



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CONTRACTOR RESPONSIBILITIES:

- 1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
A. THE CONTRACTOR SHALL VERIFY ALL PROPOSED AND EXISTING CONDITIONS INCLUDING UTILITIES (INVERTS, CONNECTIONS, MATERIALS, ETC.) AND DIMENSIONS WITHIN THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION.
B. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING INFORMATION.
C. THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATIONS AND LIAISONS WITH UTILITY COMPANIES DURING THE PROCESS OF LOCATING, RELOCATING, AND TYING INTO PUBLIC UTILITIES.
D. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR INSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
2. DURING CONSTRUCTION:
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
B. THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS. WHERE A CONFLICT OCCURS, THE STRICTEST DESIGN SHALL GOVERN. THE ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., DOES NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY SPECIFIC DEVIATIONS AND OBTAIN ENGINEER'S WRITTEN APPROVAL OF THE SPECIFIC DEVIATION.
C. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
D. ALL CONSTRUCTION MUST CONFORM TO THE STANDARDS, SPECIFICATIONS, AND CODES OF THE GOVERNING MUNICIPALITIES.
E. CONSTRUCTION SHALL MEET ALL CURRENT STANDARDS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT.
F. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO ORIGINAL CONDITION AND QUALITY AS APPROVED BY THE OWNER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.
G. SUFFICIENT BARRICADES, LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS IN ACCORDANCE WITH GOVERNING ORDINANCES MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. SAID CONTROL DEVICES SHALL BE PER THE MANUAL OF TRAFFIC CONTROL DEVICES, M.U.T.C.D., CURRENT EDITION, AND SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
H. TRAFFIC CONTROLS AND OTHER WARNING DEVICES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORK ON CITY, COUNTY, OR TENNESSEE DEPARTMENT OF TRANSPORTATION ROADS. THEY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE CONCLUSION OF ALL WORK.
I. ALL WARNING DEVICES SHALL BE EITHER TYPE I BARRICADES OR DRUMS WITH WARNING LIGHTS ON EVERY OTHER DEVICE. THEY SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION, AND METRO NASHVILLE STANDARDS FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
J. FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED AT ALL TIMES.
K. CONTRACTOR SHALL SHORE AND BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION.
L. ON-SITE BURIAL OF DEBRIS IS PROHIBITED.
M. UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS TO THE ENGINEER. DESIGN DOCUMENTS SHALL NOT BE REPRODUCED AS SHOP DRAWINGS.
N. IN CASE OF UNFORESEEN CONSTRUCTION COMPLICATIONS OR DISCREPANCIES, THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.
O. ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
P. AS-BUILT DRAWINGS OF ROADWAYS, STORM DRAINS, SANITARY SEWER AND WATER LINES, FIELD APPROVAL BY THE ENGINEER, AND ALL APPLICABLE BONDS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
Q. CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL EXISTING BUILDINGS THROUGHOUT CONSTRUCTION UNLESS APPROVAL FOR SERVICE INTERRUPTION IS OBTAINED FROM THE OWNERS IN ADVANCE.
R. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.
S. ANY FOREIGN ITEM FOUND DURING CONSTRUCTION IS THE PROPERTY OF THE OWNER. THIS INCLUDES, BUT IS NOT LIMITED TO, PRECIOUS METALS, COINS, PAPER CURRENCY, ARTIFACTS AND ANTIQUITIES.
T. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, WHETHER CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
U. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK AND THE PUBLIC, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.
V. THE CONTRACTOR ACKNOWLEDGES & AGREES THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SITE IS ACCEPTED, AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY BY THE OWNER. THE CONTRACTOR WILL INDEMNIFY THE OWNER & OWNER'S REPRESENTATIVE FROM LIABILITY AT THE SITE THROUGHOUT THE CONSTRUCTION PROCESS.
W. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO BUILDING SIDEWALKS, STREETS, BLASTING, PUBLIC INFRASTRUCTURE, STORMWATER REGULATIONS, ETC.
X. THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, LEVELS, ETC. BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK, AND IS TO BE RESPONSIBLE FOR THE SAME.
Y. REFERENCE POINTS AND HUBS DURING THE CONSTRUCTION OF HIS WORK, AND SHALL BEAR THE COST OF REPLACING SAME.
Z. CARE SHALL BE TAKEN TO PROTECT ANY UTILITIES, TREES, ETC. WHICH ARE TO REMAIN AND NOT TO BE DISTURBED BY THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO SUCH PROPERTY.

DEMOLITION INFORMATION:

- 1. NOTIFICATIONS:
THE CONTRACTOR SHALL NOTIFY THE OWNER AND CITY INSPECTOR(S) 24 HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
2. DISPOSAL GUIDELINES:
A. ONLY ITEMS SPECIFICALLY NOTED TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE.
B. REMOVE EXISTING PAVED AREAS AS SHOWN INCLUDING DRIVEWAYS, SIDEWALKS, PARKING AREAS, SERVICE AREAS, EQUIPMENT PADS, AND ALL MISCELLANEOUS PAVING.
C. ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS. BACKFILL ALL TRENCHES AND EXCAVATIONS RESULTING FROM DEMOLITION.
D. ALL DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. TREE PROTECTION GUIDELINES:
PROTECT ALL EXISTING TREES NOTED "TO REMAIN" AND ALL ITEMS TO BE TURNED OVER TO THE OWNER DURING DEMOLITION. TAKE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES. ANY EXISTING ITEMS TO BE TURNED OVER TO THE OWNER WHICH ARE DAMAGED DURING DEMOLITION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. TREES WHICH ARE DAMAGED WILL BE REPLACED OR REIMBURSED AT A RATE TO BE DETERMINED BY THE OWNER.
4. UTILITIES:
A. PRIOR TO REMOVING OR ABANDONING ANY UTILITY THE CONTRACTOR SHALL VERIFY THAT NO UPSTREAM SERVICE WILL BE TERMINATED. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY TERMINATION NOT SHOWN ON THE PLANS.
B. ALL ABANDONED WATER LINES, STORM SEWER PIPE, SANITARY SEWER PIPES, GAS LINES, OR ANY OTHER ABANDONED UNDERGROUND UTILITY SHALL BE ABANDONED IN PLACE UNLESS NOTED OTHERWISE.

SITE INFORMATION:

- 1. THE FOLLOWING ARE APPLICABLE TO ALL CIVIL DOCUMENTS:
A. WHERE A DETAIL, SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
B. EXISTING AND PROPOSED CONTOURS ARE AT ONE (1) FOOT INTERVALS.
C. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
D. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE.
E. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.

EROSION AND SEDIMENT CONTROL INFORMATION:

- 1. COMPREHENSIVE:
A. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES.
B. PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE AT A MINIMUM IN CONFORMANCE WITH THE REQUIREMENTS OF THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOKS. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
C. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE STANDARDS SPECIFIED IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOKS, CURRENT EDITION.
D. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
E. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
F. THE CONSTRUCTION OF THE SITE WILL COMMENCE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
G. CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY OR EXIT FROM THE SITE AND SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE AS CONDITIONS DEMAND, REPAIR, AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OFF SITE ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. ACCESS POINTS PROTECTED WITH A CONSTRUCTION EXIT SHALL BE OTHERWISE BARRICADED UNTIL THE SITE IS STABILIZED.

ADA COMPLIANCE:

- A. CURB RAMP ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
B. PRIVATE CURB RAMP ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
C. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMP, CURB RAMP, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
D. ANY COMPONENTS OF THE PROJECT SERVING MULTIFAMILY DWELLINGS IN BUILDINGS THAT HAVE 4 OR MORE UNITS PER DWELLING SHALL ALSO CONFORM TO THE FAIR HOUSING ACT (FHA), AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
E. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
F. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

CONCRETE INFORMATION (SITE WORK ONLY):

- 1. PRODUCT CRITERIA:
A. UNLESS OTHERWISE NOTED CEMENT SHALL BE TYPE I OR III CONFORMING TO ASTM C150. AGGREGATES SHALL BE NORMAL WEIGHT CONFORMING TO ASTM C33.
B. CONCRETE SHALL CONFORM TO ACI BUILDING CODE (318-89). UNLESS NOTED CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,500 P.S.I.
C. SLUMP SHALL BE 3" TO 5" FOR REGULAR MIX. LARGER SLUMP SHALL BE PERMITTED WITH WATER REDUCING ADMIXTURES AND WRITTEN CONSENT OF THE ENGINEER.
D. THE RELATIONSHIP BETWEEN MAXIMUM AGGREGATE SIZE TO MINIMUM AMOUNT OF CEMENT IN CONCRETE PAVEMENT (LB. PER C.Y. OR MIX) SHALL BE AS FOLLOWS: 1" - 520, 3/4" - 540, 1/2" - 590, 3/8" - 610.
2. CURING CRITERIA:
A. CONCRETE CURING SHALL COMPLY WITH ACI 308. CURING PROCESS SHALL START IMMEDIATELY FOLLOWING INITIAL SET. CURING SHALL BE BY CURING COMPOUND.
B. CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318-89 TABLE 4.1.1. NORMAL WEIGHT CONCRETE SLABS SHALL HAVE AIR CONTENT IN ACCORDANCE WITH ACI 302.1R-89 TABLE 5.2.7A.
C. HOT WEATHER CONCRETING SHALL COMPLY WITH ACI 305. NO CONCRETE ABOVE 90 DEGREES FAHRENHEIT SHALL BE POURED. LOWER CONCRETE TEMPERATURE BY COOLING WATER AND AGGREGATE. FORMS, STEEL, AND SUBGRADE SHALL BE SPRINKLED WITH COLD WATER. AFTER FINISHING CONCRETE USE LIGHT FOG SPRAY UNTIL CURING COMPOUND IS USED.
D. COLD WEATHER CONCRETING SHALL COMPLY WITH ACI 306. SPECIAL MATERIAL PROCEDURES SHALL BE PROVIDED DURING PLACING AND CURING OF CONCRETE BELOW 40 DEGREES FAHRENHEIT.
E. CURING, HOT, AND COLD WEATHER CONCRETING PROCEDURES ARE ONLY GIVEN AS A GUIDE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT CONCRETE DAMAGE AND CRACKS. DAMAGED OR CRACKED CONCRETE WILL NOT BE ACCEPTED.

REINFORCING STEEL INFORMATION (SITE WORK ONLY):

- 1. PRODUCT CRITERIA:
A. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 AND GRADE 40 FOR #3 AND SMALLER BARS. MINIMUM LAP 48" DIAMETER.
B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, MINIMUM LAP SHALL BE 8".
C. REINFORCING THAT IS WELDED SHALL BE WELDABLE TYPE AND CONFORM TO ASTM A-706.

PAVEMENT INFORMATION:

- 1. PAVEMENT:
A. ALL MATERIALS, EQUIPMENT, METHODS OF CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION, TDOT, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
B. SEE PAVEMENT DETAILS ON CONSTRUCTION DOCUMENTS FOR SPECIFIC DESIGN INFORMATION AND REQUIREMENTS.
C. ALL CURB AND GUTTER TO BE 24" AND CONSTRUCTED OF 3000 P.S.I. CONCRETE UNLESS OTHERWISE NOTED.
2. SIGNING AND STRIPING:
A. SIGNING AND STRIPING TO BE PROVIDED BY THE CONTRACTOR ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.
B. ALL PAVEMENT MARKINGS SHALL CONFORM TO CURRENT MUTCD STANDARDS. ALL PAVEMENT MARKINGS ON PRIVATE PROPERTY SHALL BE PAINT, UNLESS NOTED OTHERWISE. ALL PAVEMENT MARKINGS ON PUBLIC RIGHT-OF-WAY SHALL BE THERMOPLASTIC, UNLESS NOTED OTHERWISE.

STORM SEWER NOTES:

- 1. REINFORCED CONCRETE PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE NOTED WITH BELL-AND-SPIGOT AND GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS.
2. FILL HEIGHTS OVER 13' REQUIRE CLASS IV RCP STORM PIPE.
3. STORM INLETS SHALL BE PRECAST IN ACCORDANCE WITH METRO NASHVILLE PUBLIC WORKS SPECIFICATIONS WHICH MEET OR EXCEED ASTM C 478.
4. ALL MANHOLE FRAMES AND COVERS ARE TO BE PER METRO NASHVILLE PUBLIC WORKS STANDARD DETAIL FOR DIMENSIONS AND MATERIALS AND AS BELOW IF NOT OTHERWISE INDICATED. FERROUS; 24-INCH (610-MM) ID BY 7- TO 9-INCH (175- TO 225-MM) RISER WITH 4-INCH- (102-MM-) MINIMUM WIDTH FLANGE AND 26-INCH- (660-MM-) DIAMETER COVER. INCLUDE INDENTED TOP DESIGN WITH LETTERING CAST INTO COVER, USING WORDING EQUIVALENT TO "STORM SEWER."
5. MATERIAL: GRAY IRON ASTM A48 CLASS 30 UNLESS OTHERWISE INDICATED.
6. ALL HDPE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE. HDPE PIPE SHALL CONFORM TO ASTM D3350 WITH SOIL TIGHT JOINTS.
7. ALL HDPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND AASHTO SECTION 30.
8. CONTRACTOR TO PROVIDE AND INSTALL MANUFACTURER RECOMMENDED FITTINGS ON RCP CONNECTIONS TO HDPE STRUCTURES.
9. REFER TO PIPE CHART FOR CASTING TYPES. INSTALL REDUCERS AS NECESSARY PER MANUFACTURER'S SPECIFICATIONS TO ACCOMMODATE LARGER INLET SIZES.
10. FOLLOW CONSTRUCTION PLANS AND MANUFACTURER DETAILS, SPECIFICATIONS, AND INSTALLATION INSTRUCTION AS INCLUDED WITHIN THE PLANS AND PROVIDED BY MANUFACTURER FOR THE INSTALLATION OF WATER QUALITY AND DETENTION SYSTEMS.
11. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STORM SEWER PIPE, STRUCTURES, WATER QUALITY STRUCTURES, AND DETENTION STRUCTURES FOR ENGINEER AND OWNER APPROVAL PRIOR TO ORDERING MATERIALS.

CLEARING AND GRUBBING:

- A. DO NOT EXCEED CLEARING AND GRUBBING LIMITS OF CONSTRUCTION LINES INDICATED ON THE PLANS.
B. ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION LINE SHALL NOT BE CROSSED BY HEAVY EQUIPMENT OR USED FOR STORING HEAVY EQUIPMENT OR MATERIALS.
C. NO EQUIPMENT SHALL BE STORED UNDER THE DRIP LINE OF TREES TO REMAIN.
D. DO NOT FALL ANY TREES OR PUSH PILLS OF DEBRIS AGAINST ANY TREES TO REMAIN.
E. REMOVE ALL STUMPS, ROCKS, ASPHALT & CONCRETE DEBRIS, ETC. AND DISPOSE OFF SITE IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS.
F. CONTACT ALL UTILITY AUTHORITIES WHO HAVE LINES WITHIN THE CLEARING AND GRUBBING LIMITS BEFORE STARTING WORK
G. ALL CLEARING SHALL BE LIMITED TO AREAS TO BE GRADED WITHIN 15 CALENDAR DAYS.
E. ALL EROSION CONTROL SEDIMENT BARRIERS, SILT FENCES, AND TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING.
F. AFTER STAKING IS COMPLETED, TREES WITHIN GRADING LIMITS TO BE SAVED WILL BE IDENTIFIED BY THE OWNER'S REPRESENTATIVE. FIELD CHANGES TO GRADING PLANS SHALL BE MADE FOR SMOOTH TRANSITION OF GRADES AROUND ALL TREES WHICH REQUIRE TREE WELLS WITHIN THE GRADING LIMITS.
G. ALL CLEARING SHALL BE LIMITED TO AREAS TO BE GRADED WITHIN 15 CALENDAR DAYS.

GRADING NOTES:

- A. TOPSOIL SHALL BE STORED ON SITE IN LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE. DRAINAGE SHALL ROUT AROUND THESE TOPSOIL STOCKPILES FOR THE DURATION OF THE GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL PREVENT THE LOSS OF TOPSOIL MATERIAL.
B. UNSUITABLE SOILS SHALL BE UNIFORMLY SPREAD ACROSS NON-STRUCTURAL FILL AREAS AND COVERED WITH TOPSOIL AND SEEDED.
C. FILL AREA SHALL BE PROOF-ROLLED WITH RUBBER-TIRED EQUIPMENT WITH A MINIMUM WEIGHT OF FIFTEEN TONS PRIOR TO BEGINNING FILL OPERATION. AREAS WHICH ARE SOFT OR UNSTABLE SHALL BE UNDERCUT UNTIL STABLE SOILS ARE FOUND. RE-COMPACTION OF THESE SOILS SHALL BE TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
D. CUT AREA SHALL BE PROOF-ROLLED AFTER FINAL SUBGRADE IS ACHIEVED IN THE SAME MANNER AS FILLED AREAS. SOFT OR UNSTABLE SOILS SHALL BE SCARIFIED TO A DEPTH OF 12" AND RE-COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
E. ALL GRADING SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
F. ELEVATIONS SHOWN ON THE PLANS IS THE FINISH GRADE ELEVATION.
G. GRADING SHALL BE SEQUENCED SO THAT BASE STONE IS PLACED WITHIN 10 CALENDAR DAYS PF ACHIEVING OPTIMUM SUBGRADE COMPACTION.
H. SOILS TESTING LABORATORY/ SOILS ENGINEER, CONTRACTOR WILL EMPLOY A QUALIFIED SOILS TESTING LABORATORY/ ENGINEER TO OBSERVE THIS WORK AND MAKE TESTS AS REQUIRED.
I. HAVE EARTH BORROW FILL, AGGREGATE, AND TOPSOIL, AND STRUCTURAL FILL TESTED AND APPROVED BY DESIGNATED TESTING LABORATORY BEFORE MOVING IT TO THE JOB SITE.
J. CONTRACTOR SHALL OBSERVE PROOF-ROLLING OF AREAS WHERE BUILDING AND PAVING WILL BE LOCATED TO DETERMINE ADEQUACY OF SOIL COMPACTION AND IN-PLACE SOILS. OTHER AREAS WILL BE INSPECTED BY SOILS ENGINEER TO DETERMINE ADEQUACY IN THOSE AREAS. IF SOILS ARE NOT ADEQUATE TO BEAR WEIGHTS THAT WILL BE IMPOSED, TESTING LABORATORY WILL OBSERVE AND REPORT CORRECTIVE ACTION TAKEN.
K. TEST IN-PLACE SOIL AND FILLED AND COMPACTED AREAS. IF THESE ARE NOT ADEQUATE TO BEAR WEIGHTS IMPOSED, TESTING LABORATORY WILL ADVISE THE OWNER'S REPRESENTATIVE OF THEIR RECOMMENDATIONS. HE WILL DIRECT ANY CORRECTIVE MEASURES THAT ARE NECESSARY.
L. SOILS COMPACTION TESTING OF IN-PLACE AND FILLED AND COMPACTED AREAS WILL BE PERFORMED BY TESTING LABORATORY IN ACCORDANCE WITH THEIR REQUIREMENTS.
M. THE SOILS ENGINEER'S AND TESTING LABORATORY'S FEES WILL BE PAID BY THE CONTRACTOR.
N. APPLICABLE SPECIFICATIONS FOR COMPACTED FILL: THE FOLLOWING CURRENT AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) STANDARDS ARE HEREBY MADE PART OF THIS SPECIFICATION:
• D421-58, DRY PREPARATION OF SOIL SAMPLES FOR GRAIN-SIZE ANALYSIS AND DETERMINATION OF SOIL CONSTANTS.
• D422-63, STANDARD METHOD OF PARTICLE SIZE ANALYSIS OF SOILS.
• D1140-54, METHOD OF TEST FOR AMOUNT OF MATERIAL IN SOILS FINER THAN NO.200 SIEVE.
• D698, METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT
• D1557-78, STANDARD TEST METHODS FOR MOISTURE-DENSITY RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10 LB. (4.54-KG) RAMMER AND 18-INCH (457 MM) DROP.
O. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
P. CONTRACTOR SHALL REVIEW THE SITE SPECIFIC GEOTECHNICAL REPORT PRIOR TO COMMENCING WITH GRADING OPERATIONS. WHERE CONFLICTS BETWEEN THE GRADING NOTES AND GEOTECHNICAL REPORT EXIST, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
Q. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING WITH LOAD TICKETS, PHOTOGRAPHS, LOG BOOK, VIDEO RECORDING AND OTHER MEANS AS NECESSARY TO VERIFY THE INSTALLATION OF STORMWATER BEST MANAGEMENT PRACTICES REQUIRED BY THE LOCAL MUNICIPALITY AND JURISDICTION. AS-BUILT TOPOGRAPHY AND UTILITY PLANS HAVING BEEN PREPARED BY A QUALIFIED LAND SURVEYOR ARE REQUIRED TO BE SUBMITTED TO KIMLEY-HORN AT THE CONCLUSION OF THE PROJECT FOR VERIFICATION OF DESIGN INTENT. ANY MODIFICATIONS TO THE GRADING AND UTILITY SYSTEMS REQUIRED, NOT PREVIOUSLY APPROVED BY THE OWNER AND ENGINEER ARE THE RESPONSIBILITY OF THE CONTRACTOR.



RESERVOIR ZONE 7 SINGLE FAMILY NASHVILLE, TENNESSEE



Table with columns for DATE, REVISIONS, and a grid for tracking changes.

DESIGNED BY: BKB
DRAWN BY: BKB
CHECKED BY: JRP
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

GENERAL NOTES
SHEET NUMBER
C0-01

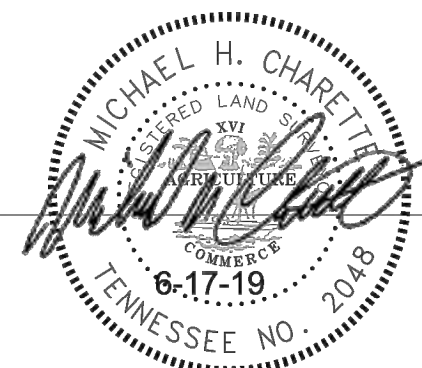
NOTES

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- 2) PARCEL NUMBERS SHOWN THUS () REFER TO TAX MAP 105-6.
- 3) BY MEANS OF GRAPHIC PLOTTING UPON FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 47037C0243 H, NOT PRINTED, IT HAS BEEN DETERMINED THAT THE PARCEL DESCRIBED HEREON DOES NOT LIE WITHIN A FLOOD HAZARD AREA.
- 4) THIS SURVEY PREPARED FROM CURRENT DEED OF RECORD AND DOES NOT REPRESENT A TITLE SEARCH OR A GUARANTEE OF TITLE, AND IS SUBJECT TO ANY STATE OF FACTS A CURRENT AND ACCURATE TITLE SEARCH WILL REVEAL.
- 5) THIS PROPERTY IS CURRENTLY ZONED: RM20
- 6) ALL DISTANCES WERE MEASURED WITH E.D.M. EQUIPMENT AND HAVE BEEN ADJUSTED FOR TEMPERATURE.

LEGEND

WATER VALVE	→	⊠
WATER METER	→	⊠
FIRE HYDRANT	→	⊠
GAS METER	→	⊠
GAS VALVE	→	⊠
IRON ROD OLD	→	⊠(R)
CLEAN-OUT	→	⊠CO
GUARD POST	→	⊠GP
SIGN POST	→	⊠
CATCH BASIN	→	⊠
BENCHMARK	→	⊠
MANHOLE	→	⊠
UTILITY POLE	→	⊠
LIGHT POLE	→	⊠
TREE	→	⊠
PROPERTY LINE	→	---
EDGE OF PAVEMENT	→	---
EDGE OF CONC.	→	---
WALL	→	---
CURB	→	---
OVERHEAD UTILITY	→	OH
WATER LINE	→	W 6"
SEWER LINE	→	SA 8"
GAS LINE	→	G 4"
STORM SEWER/CULVERT	→	ST 12"
CONTOUR LINE	→	650
FENCE LINE	→	X X

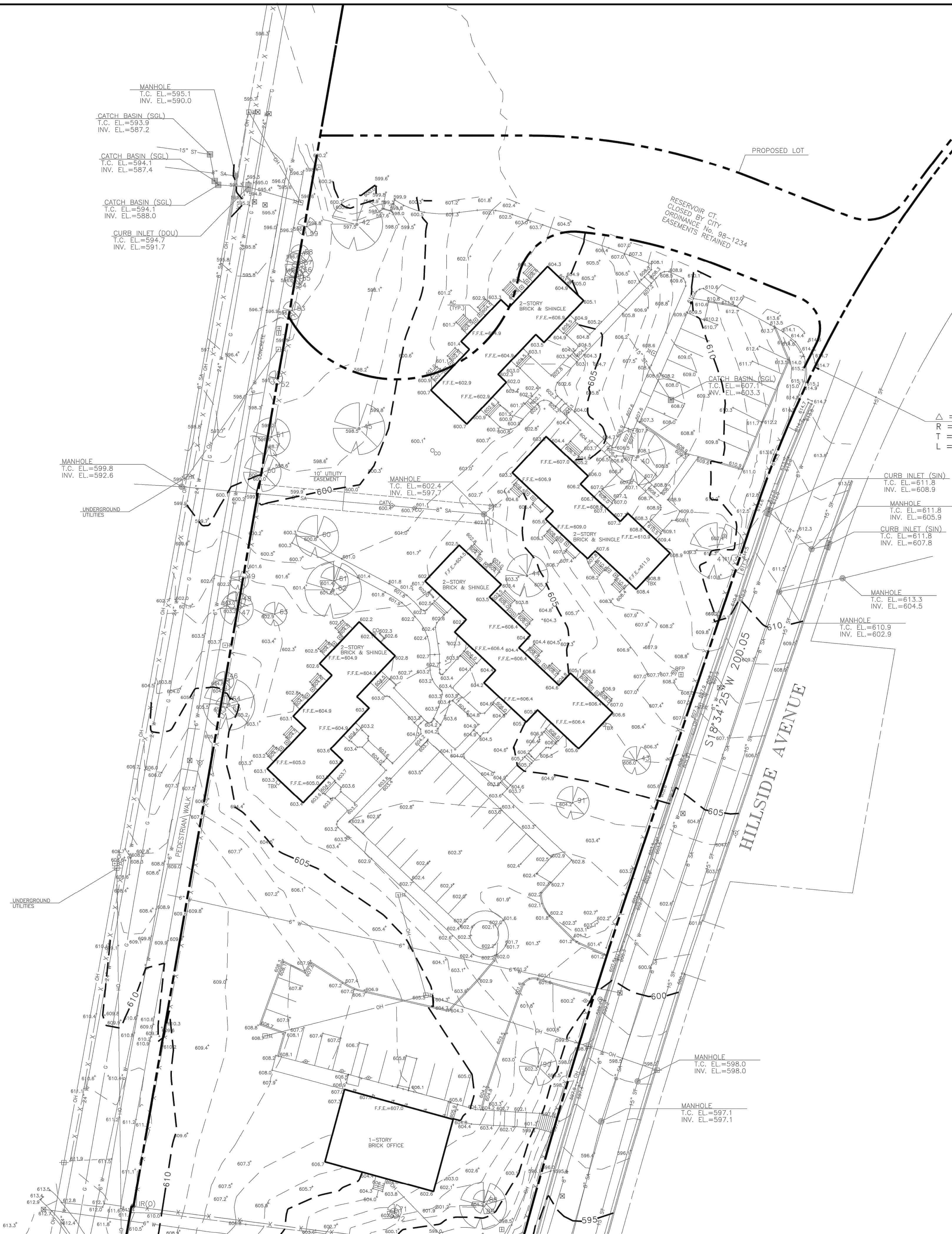
WE HEREBY CERTIFY THAT THIS SURVEY AND THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.



CHERRY LAND SURVEYING, INC.
 622 WEST IRIS DRIVE
 NASHVILLE, TENNESSEE 37204
 (615)269-3972 FAX:(615)269-9345
 E-MAIL: cherryls@comcast.net

MICHAEL H. CHARETTE R.L.S. # 2048

MATCHLINE SHEET 1 613.3
 MATCHLINE SHEET 2



Δ = 36°10'14"
 R = 625.00'
 T = 204.10'
 L = 394.56'

GPS NOTE

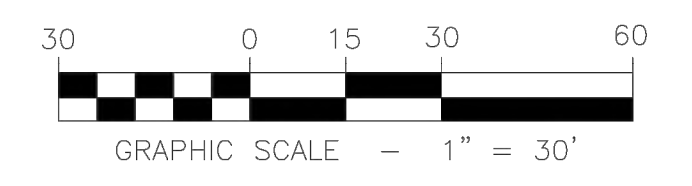
A Topcon Hiperlite Plus utilizing an Opus GPS positional solution to establish horizontal control, Tennessee State Plane Grid (NAD-83), and vertical control (NAVD-88) was used for this survey. A positional horizontal accuracy of one (1) centimeter or less and a GPS (Ortho Height) of two (2) centimeters or less may typically be relied upon.

TREE TABLE

NO.	SIZE	TYPE
40	36"	HACKBERRY
41	33"	SYCAMORE
42	33"	SYCAMORE
43	18"	SYCAMORE
44	27"	HACKBERRY
45	33"	HACKBERRY
46	12"	HACKBERRY
47	21"	ELM
48	12"	HACKBERRY
49	12"	HACKBERRY
50	24"	HACKBERRY
51	24"	HACKBERRY
52	9"	HACKBERRY
53	12"	HACKBERRY
54	12"	ELM
55	9"	TREE
56	9"	TREE
57	18"	HACKBERRY
58	12"	HACKBERRY
59	12"	HACKBERRY
60	27"	HACKBERRY
61	18"	HACKBERRY
62	36"	HACKBERRY
63	15"	HACKBERRY
64	33"	HACKBERRY
65	15"	HACKBERRY
66	24"	HACKBERRY
67	24"	OAK
68	12"	OAK
69	6"	HACKBERRY
70	6"	HACKBERRY
71	9"	PEAR
72	6"	PEAR
73	27"	HACKBERRY
74	30"	HACKBERRY
75	30"	HACKBERRY
76	18"	HACKBERRY
77	27"	HACKBERRY
78	33"	OAK
79	21"	HACKBERRY
80	12"	TREE
81	36"	HACKBERRY
82	9"	HACKBERRY
83	9"	HACKBERRY
84	15"	HACKBERRY
85	6"	HACKBERRY
86	15"	HACKBERRY
87	12"	HACKBERRY
88	15"	HACKBERRY
89	30"	HACKBERRY
90	24"	HACKBERRY
91	21"	SYCAMORE
92	9"	HACKBERRY TRIPLE

PARTIAL TOPOGRAPHIC SURVEY OF THE PARK AT HILLSIDE

EDGEHILL AVENUE AT HILSIDE AVENUE
 PLAT BOOK 9700, PAGE 760
 NASHVILLE, DAVIDSON COUNTY, TENNESSEE
 SCALE: 1" = 30' - DATE: JUNE 17, 2019
 SHEET 1 OF 2

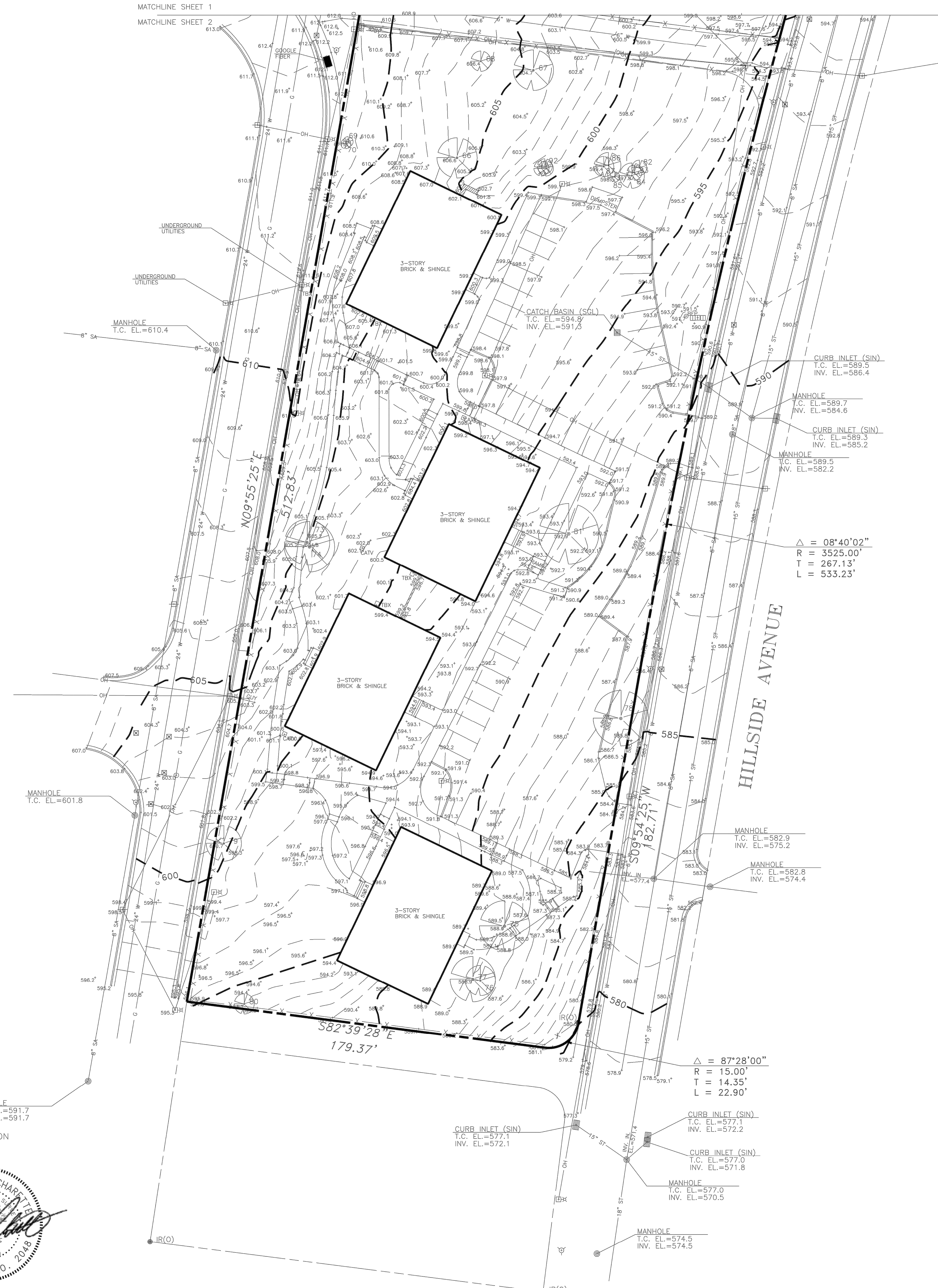


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FIRE HYDRANT	→	⊠
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GAS VALVE	→	⊠
IRON ROD OLD	→	● IR(O)
CLEAN-OUT	→	○ CO
GUARD POST	→	○ GP
SIGN POST	→	○
CATCH BASIN	→	⊠
BENCHMARK	→	⊠
MANHOLE	→	⊠
UTILITY POLE	→	⊠
LIGHT POLE	→	⊠
TREE	→	⊠
PROPERTY LINE	→	---
EDGE OF PAVEMENT	→	---
EDGE OF CONC.	→	---
WALL	→	---
CURB	→	---
OVERHEAD UTILITY	→	OH
WATER LINE	→	W 6"
SEWER LINE	→	SA 8"
GAS LINE	→	G 4"
STORM SEWER/CULVERT	→	ST 12"
CONTOUR LINE	→	---
FENCE LINE	→	X X



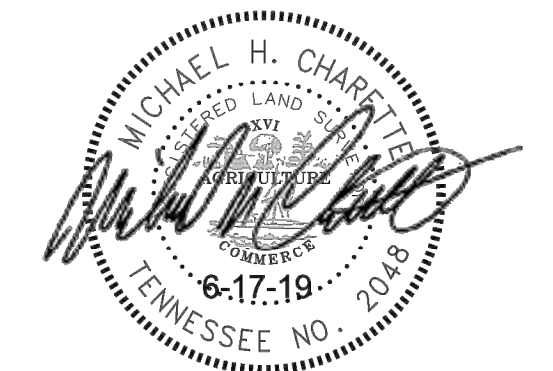
BM-PK NAIL IN POWER POLE
EL.=594.89

MANHOLE
T.C. EL.=582.7
INV. EL.=582.7

Δ = 08°40'02"
R = 3525.00'
T = 267.13'
L = 533.23'

Δ = 87°28'00"
R = 15.00'
T = 14.35'
L = 22.90'

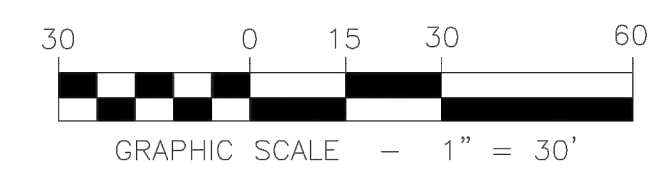
WE HEREBY CERTIFY THAT THIS SURVEY AND THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.



CHERRY LAND SURVEYING, INC.
622 WEST IRIS DRIVE
NASHVILLE, TENNESSEE 37204
(615)269-3972 FAX:(615)269-9345
E-MAIL: cherryls@comcast.net

MICHAEL H. CHARETTE R.L.S. # 2048

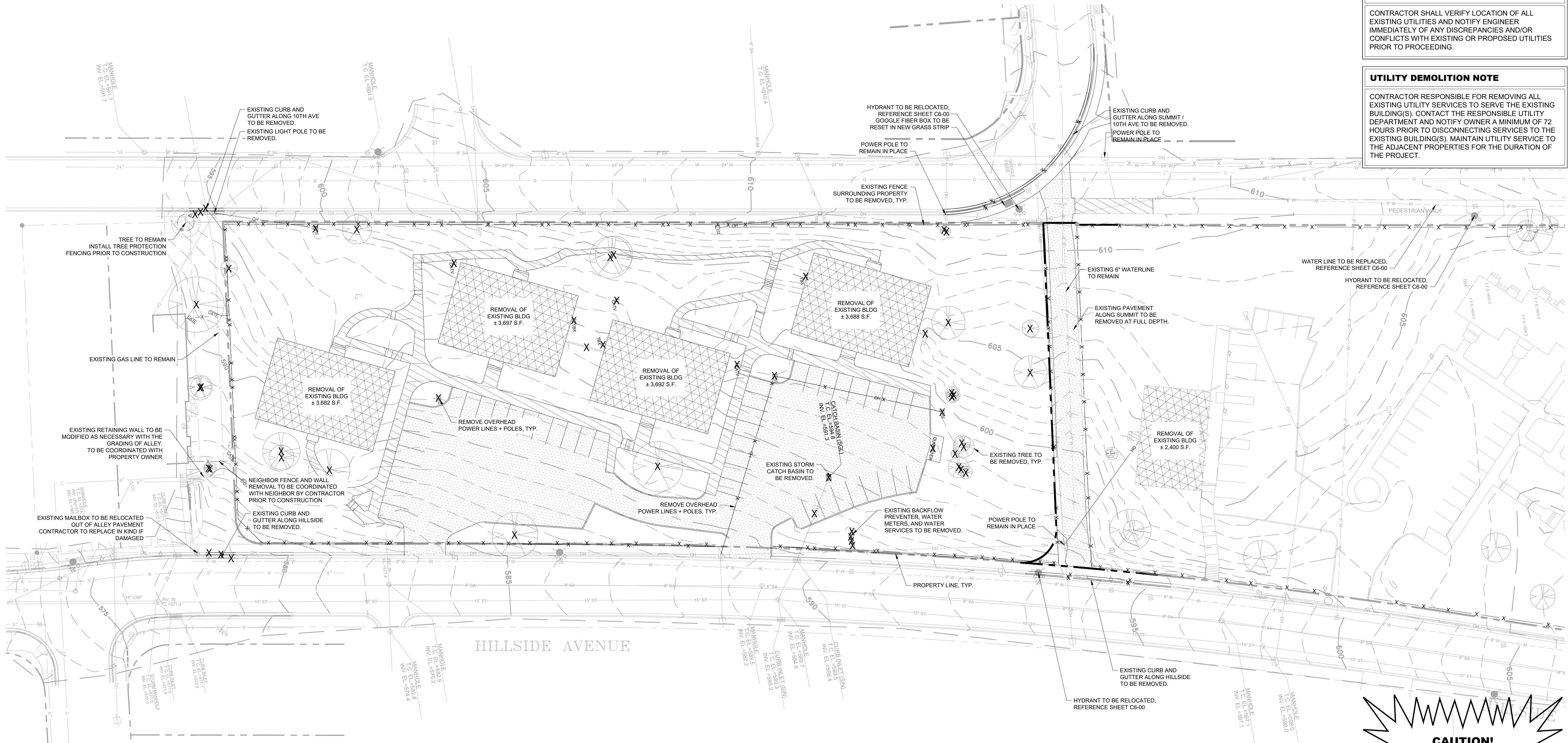
PARTIAL TOPOGRAPHIC SURVEY
OF
THE PARK AT HILLSIDE
EDGEHILL AVENUE AT HILLSIDE AVENUE
PLAT BOOK 9700, PAGE 760
NASHVILLE, DAVIDSON COUNTY, TENNESSEE
SCALE: 1" = 30' - DATE: JUNE 17, 2019
SHEET 2 OF 2



This document, together with the concepts and designs presented herein, is intended only for the specific purpose and design for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



**Know what's below.
Call before you dig.**



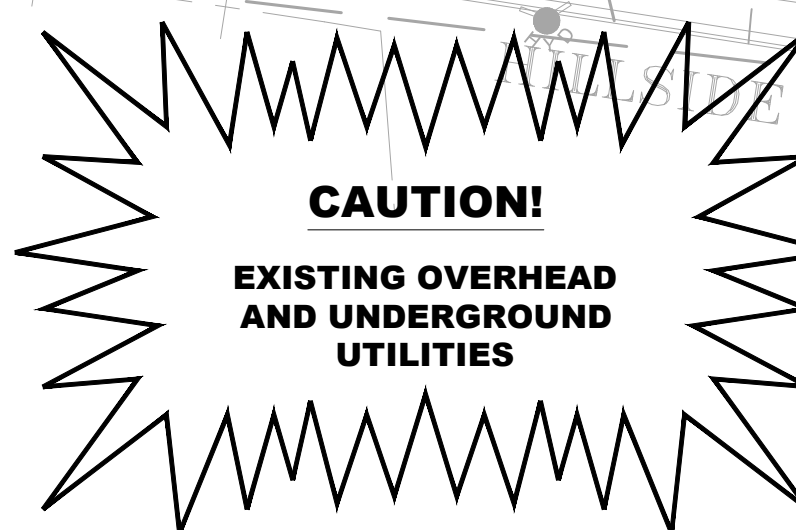
DEMOLITION LEGEND	
	REMOVE GRAVEL
	DEMOLISH AND REMOVE STRUCTURE
	REMOVE CONCRETE / RIGID PAVEMENT
	REMOVE CONCRETE / RIGID PAVEMENT
	REMOVE LINEAR OBJECT (FENCE/UTILITIES)
	REMOVE OBJECT

EXISTING UTILITIES NOTE

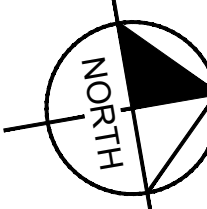
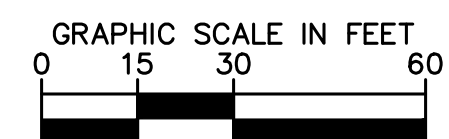
CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

UTILITY DEMOLITION NOTE

CONTRACTOR RESPONSIBLE FOR REMOVING ALL EXISTING UTILITY SERVICES TO SERVE THE EXISTING BUILDING(S). CONTACT THE RESPONSIBLE UTILITY DEPARTMENT AND NOTIFY OWNER A MINIMUM OF 72 HOURS PRIOR TO DISCONNECTING SERVICES TO THE EXISTING BUILDING(S). MAINTAIN UTILITY SERVICE TO THE ADJACENT PROPERTIES FOR THE DURATION OF THE PROJECT.



**SEE DEMOLITION NOTES,
SHEET C0-01.**



Kimley-Horn

10 Lea Avenue, Suite 400, Nashville, TN 37210
Main: 615.564.2701 | www.kimley-horn.com
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**RESERVOIR ZONE 7
SINGLE FAMILY**
NASHVILLE, TENNESSEE

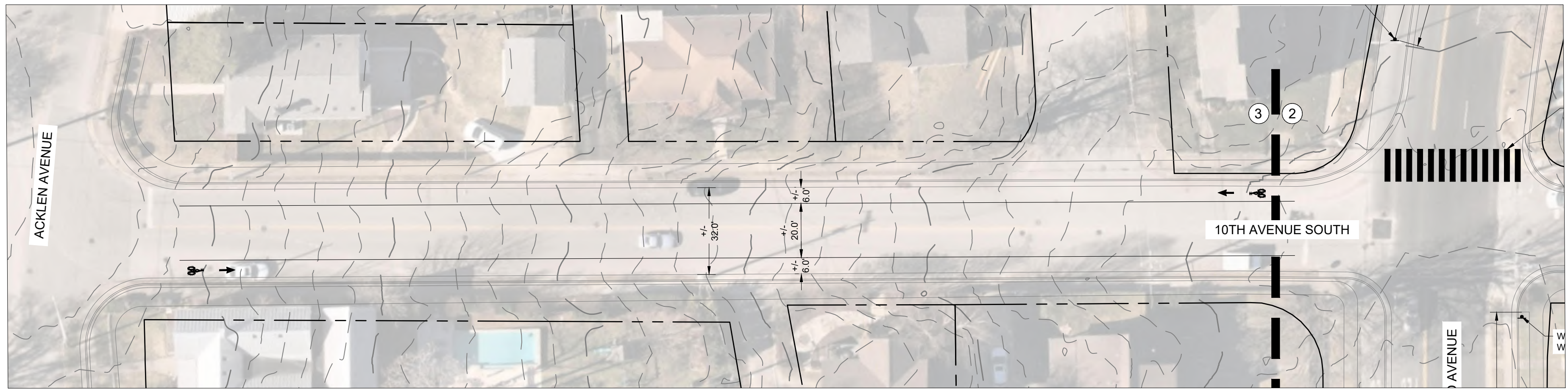
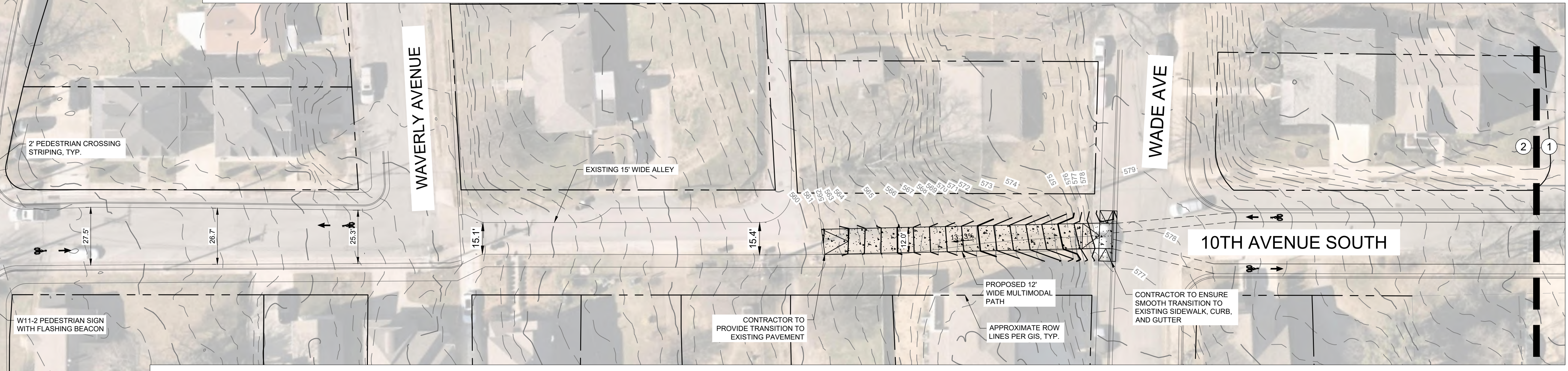
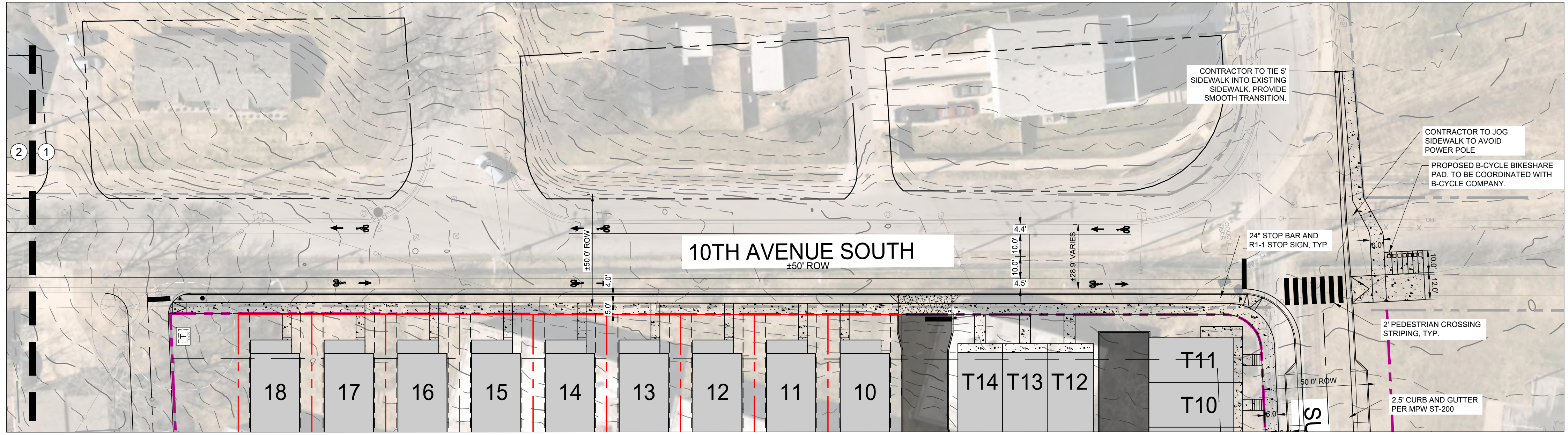
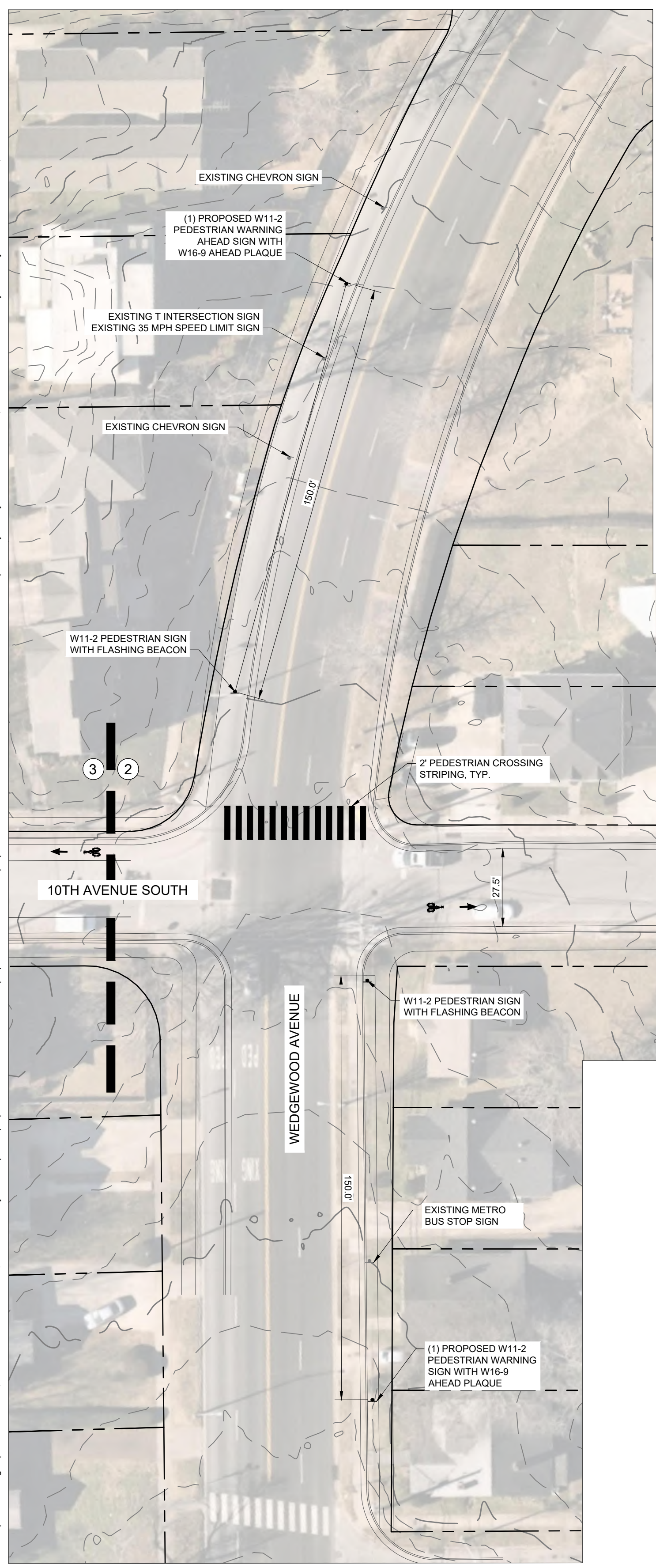


NO.	DATE	BY	REVISIONS
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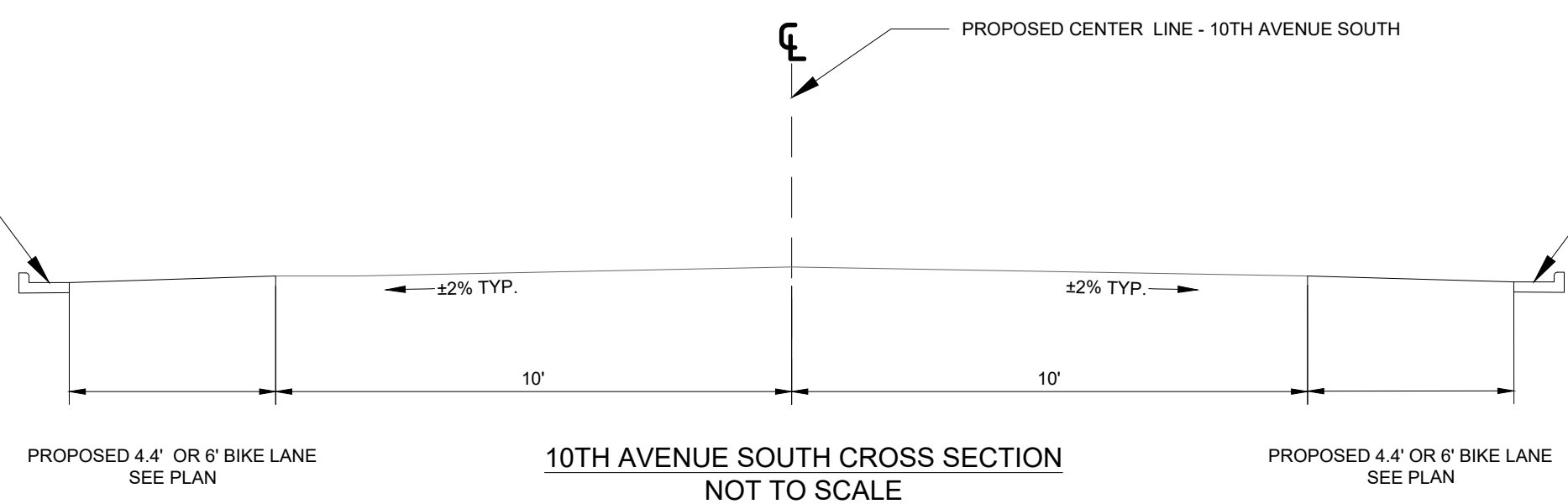
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

DEMOLITION PLAN
SHEET NUMBER
C1-10

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



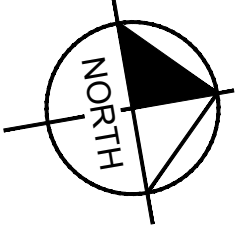
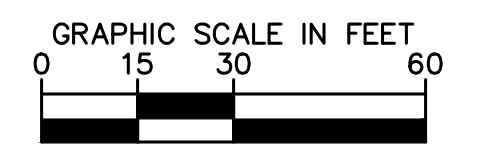
CONCRETE CURB AND GUTTER PER METRO STANDARDS



LEGEND	
	HEAVY DUTY ASPHALT (SEE DETAIL, SHEET C8-10)
	HEAVY DUTY CONCRETE (SEE DETAIL, SHEET C8-10)
	LIGHT DUTY CONCRETE (SEE DETAIL, SHEET C8-10)

- PUBLIC WORKS NOTES**
- THE DEVELOPERS FINAL CONSTRUCTION DRAWINGS SHALL COMPLY WITH THE DESIGN REGULATIONS ESTABLISHED BY THE DEPARTMENT OF PUBLIC WORKS. FINAL DESIGN MAY VARY BASED ON FIELD CONDITIONS.
 - ALL ROW DEDICATIONS ARE TO BE RECORDED PRIOR TO ISSUANCE OF THE BUILDING PERMITS.

METRO PERMITTING REFERENCE	
BUILDING PERMIT:	T2021056442
GRADING PERMIT:	SWGR 2021031341
WATER PERMIT:	21WL0082
SEWER PERMIT:	21SL0195
CASE NUMBER:	2018SP-026-006
TDEC NOI/INOC:	TNR245370



NO.	DATE	REVISIONS
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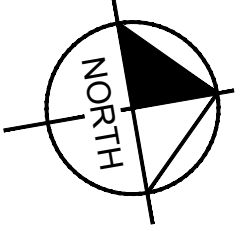
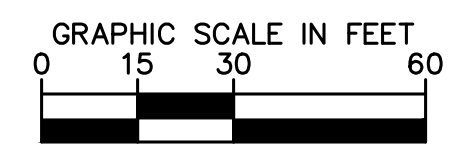
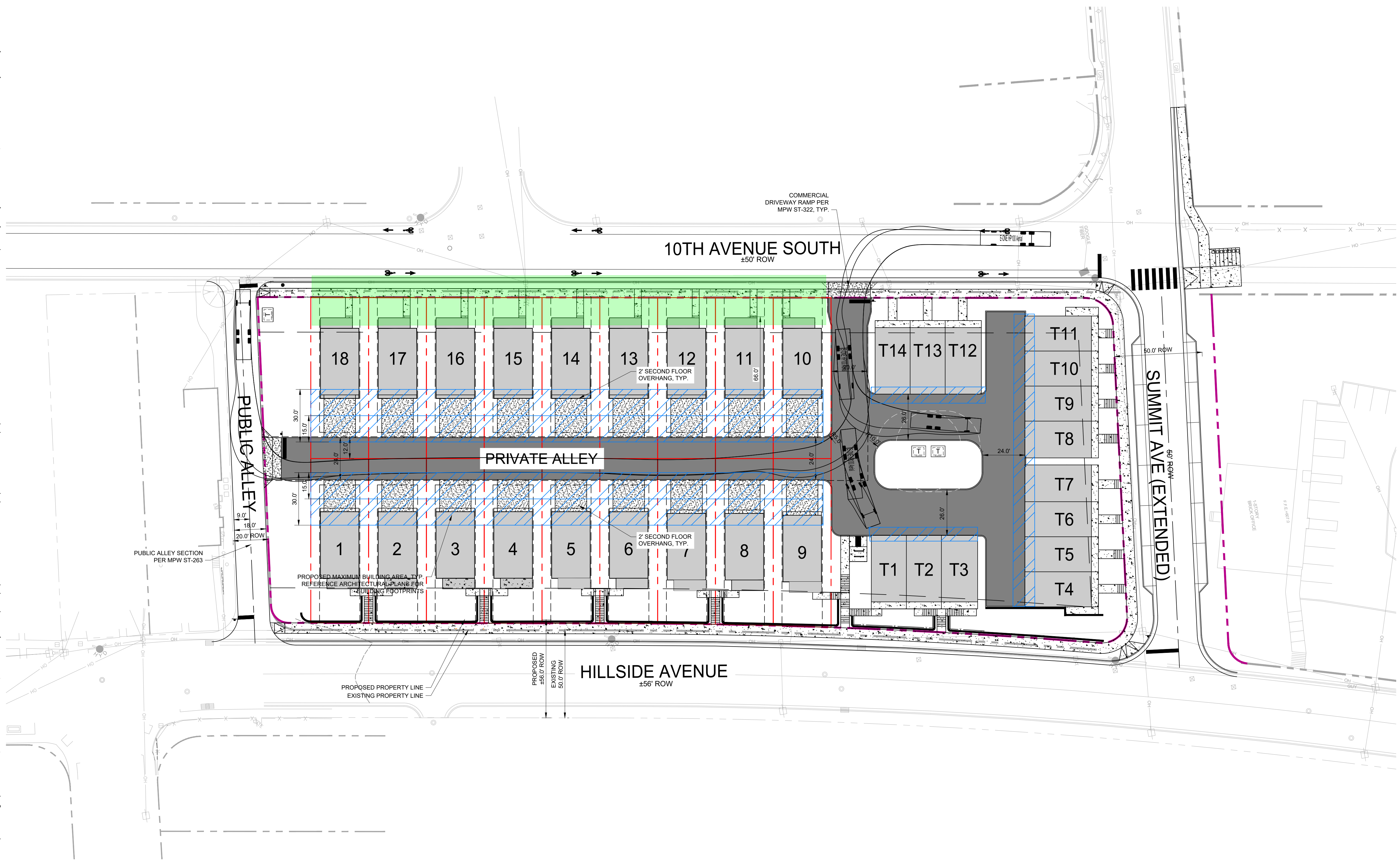
DESIGNED BY: JRP
 DRAWN BY: BKB
 CHECKED BY: BJB
 DATE: 10/01/2021
 KIMLEY-HORN PROJECT NO. 118129070

10TH AVENUE - BICYCLE STRIPING PLAN
 SHEET NUMBER
C2-20

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FIRE PROTECTION LEGEND

	ROOF ACCESS FROM GROUND (LESS THAN 30' FROM FINISH GRADE TO EAVE OF HOME)
	AERIAL ACCESS FROM LADDER TRUCK (MORE THAN 30' FROM FINISH GRADE TO EAVE OF HOME)



NO.	DATE	BY	REVISIONS



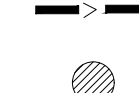

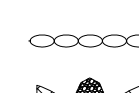





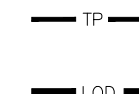



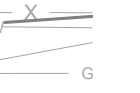
DESIGNED BY: JRP
 DRAWN BY: BKB
 CHECKED BY: BJB
 DATE: 10/01/2021
 KIMLEY-HORN PROJECT NO.
 118129070

FIRE ACCESS PLAN
 SHEET NUMBER
C2-50

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METRO EPSC NOTES
 1. ALL PERIMETER MEASURES MUST BE IN PLACE BEFORE GRADING

EROSION CONTROL LEGEND

-  FR STONE FILTER RING - CLASS A RIP-RAP, 2" THICK
-  OP OUTLET PROTECTION - REFER TO DETAIL SHEET C3-50
-  DD DIVERSION DITCH - REFER TO DETAIL SHEET C3-50
-  IP INLET PROTECTION - REFER TO DETAIL SHEET C3-50
-  SF SILT FENCE, WIRE-BACKED - REFER TO DETAIL SHEET C3-50
-  EE EROSION EELS - REFER TO DETAIL SHEET C3-50
-  CD ROCK CHECK DAM - REFER TO DETAIL SHEET C3-50
-  CW CONCRETE WASHOUT AREA - REFER TO DETAIL SHEET C3-50
-  MA EROSION CONTROL MATTING - CONTECH LANDLOK S2 OR APPROVED EQUAL. CONTRACTOR TO INSTALL ON ALL SLOPES 3(H):1(V) OR STEEPER - REFER TO DETAIL SHEET C3-50
-  CE CONSTRUCTION EXIT - REFER TO DETAIL SHEET C3-50
-  TS TEMPORARY STABILIZATION - REFER TO DETAIL SHEET C3-50
-  PS PERMANENT STABILIZATION - REFER TO DETAIL SHEET C3-50
-  TP TREE PROTECTION FENCE / HIGH VISIBILITY FENCE - REFER TO DETAIL SHEET C3-50
-  LDD LIMITS OF DISTURBANCE
-  CS CONSTRUCTION SIGN

METRO STORMWATER NOTES

FEMA NOTE:
 THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP #47037C0243 H, EFFECTIVE APRIL 5, 2017.

CONSTRUCTION SCHEDULE:
 1. PRE-CONSTRUCTION MEETING
 2. INSTALLATION OF EROSION CONTROL MEASURES
 3. EROSION INSPECTION BY EPSC AND METRO
 4. ISSUANCE OF GRADING PERMIT
 5. CONSTRUCTION

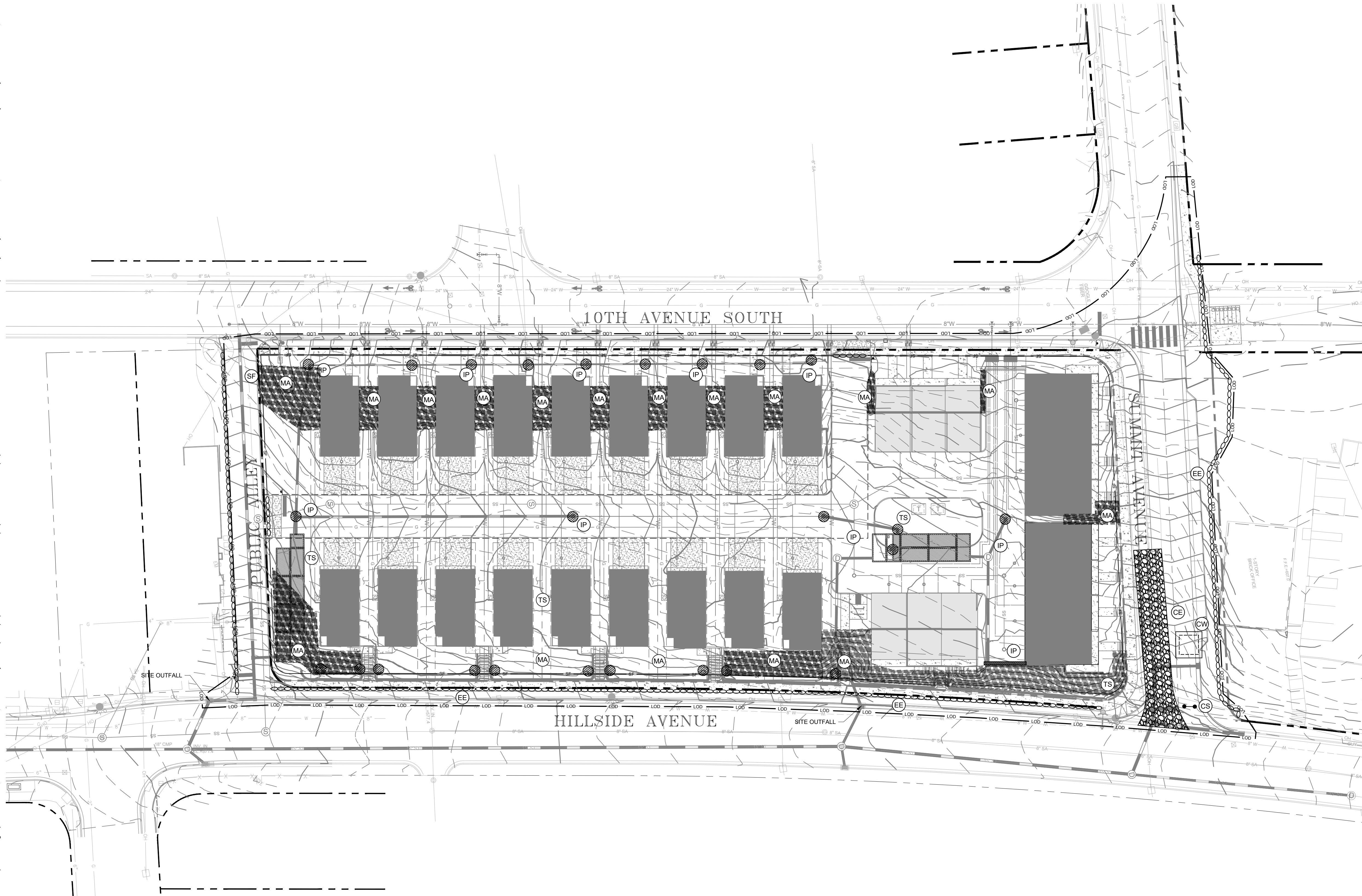
CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.

TDEC NOTICE OF COVERAGE NOTE:
 THIS PROJECT DOES NOT DISTURB MORE THAN 1 ACRE AND IS REQUIRED TO APPLY FOR A NOTICE OF COVERAGE UNDER THE TENNESSEE GENERAL CONSTRUCTION PERMIT FROM TDEC.

THE TOTAL DISTURBED AREA IS ±2.86 ACRES AND IS COVERED UNDER TDEC PERMIT NUMBER TNR 245370.

EROSION CONTROL NOTES

1. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS. STOCK PILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO GRADING ACTIVITIES. EROSION & SEDIMENT CONTROL PRACTICE SHALL BE INSTALLED PRIOR TO STOCKPILE OPERATIONS.
2. ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PORTION UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
3. CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
4. MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED (WITHIN 15 DAYS OF ACHIEVED FINAL GRADES) UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION. STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
5. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. CLEAN SILT BARRIERS WHEN THEY ARE APPROXIMATELY 50% FILLED WITH SEDIMENT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. SILT BARRIERS SHALL BE REPLACED AS EFFECTIVENESS IS SIGNIFICANTLY REDUCED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
7. REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND, WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
8. PROVIDE TEMPORARY CONSTRUCTION ACCESSES AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
9. DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
10. STABILIZATION MEASURES (SEED & MULCH, TRIM WHERE INDICATED) SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, EXCEPT IN THE FOLLOWING TWO CASES:
 10.a. WHERE THERE IS SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE OR WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 15 DAYS. TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE.
 10.b. ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY DURING PROLONGED RAINFALL. DAILY CHECKING IS NECESSARY. DOCUMENTATION OF ALL CHECKS AND CORRECTIVE MEASURES SHALL BE KEPT AT THE PROJECT. A MONITORING REPORT CAN BE FOUND IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
11. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT REFUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITEE. SEE ADDITIONAL EROSION CONTROL NOTES ON SHEET C0-10.
12. SEE ADDITIONAL EROSION CONTROL NOTES ON SHEET C0-10.



Kimley»Horn
 10 Lea Avenue, Suite 400, Nashville, TN 37210
 Main: 615.564.2701 | www.kimley-horn.com
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**RESERVOIR ZONE 7
 SINGLE FAMILY**
 NASHVILLE, TENNESSEE



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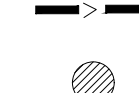

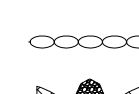





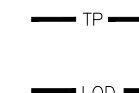




DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 10/01/2021
 KIMLEY-HORN PROJECT NO. 118129070

EROSION CONTROL PLAN - PHASE 2
 SHEET NUMBER **C3-20**

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METRO EPSC NOTES
 1. ALL PERIMETER MEASURES MUST BE IN PLACE BEFORE GRADING

EROSION CONTROL LEGEND

-  FR STONE FILTER RING - CLASS A RIP-RAP, 2' THICK
-  OP OUTLET PROTECTION - REFER TO DETAIL SHEET C3-50
-  DD DIVERSION DITCH - REFER TO DETAIL SHEET C3-50
-  IP INLET PROTECTION - REFER TO DETAIL SHEET C3-50
-  SF SILT FENCE, WIRE-BACKED - REFER TO DETAIL SHEET C3-50
-  EE EROSION EELS - REFER TO DETAIL SHEET C3-50
-  CD ROCK CHECK DAM - REFER TO DETAIL SHEET C3-50
-  CW CONCRETE WASHOUT AREA - REFER TO DETAIL SHEET C3-50
-  MA EROSION CONTROL MATTING - CONTECH LANDLOK S2 OR APPROVED EQUAL. CONTRACTOR TO INSTALL ON ALL SLOPES 3(H):1(V) OR STEEPER - REFER TO DETAIL SHEET C3-50
-  CE CONSTRUCTION EXIT - REFER TO DETAIL SHEET C3-50
-  TS TEMPORARY STABILIZATION - REFER TO DETAIL SHEET C3-50
-  PS PERMANENT STABILIZATION - REFER TO DETAIL SHEET C3-50
-  TP TREE PROTECTION FENCE / HIGH VISIBILITY FENCE - REFER TO DETAIL SHEET C3-50
-  LDD LIMITS OF DISTURBANCE
-  CS CONSTRUCTION SIGN

METRO STORMWATER NOTES

FEMA NOTE:
 THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP #47037C0243 H, EFFECTIVE APRIL 5, 2017.

CONSTRUCTION SCHEDULE:
 1. PRE-CONSTRUCTION MEETING
 2. INSTALLATION OF EROSION CONTROL MEASURES
 3. EROSION INSPECTION BY EPSC AND METRO
 4. ISSUANCE OF GRADING PERMIT
 5. CONSTRUCTION

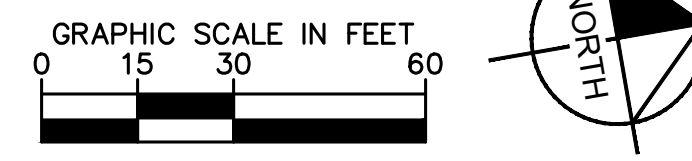
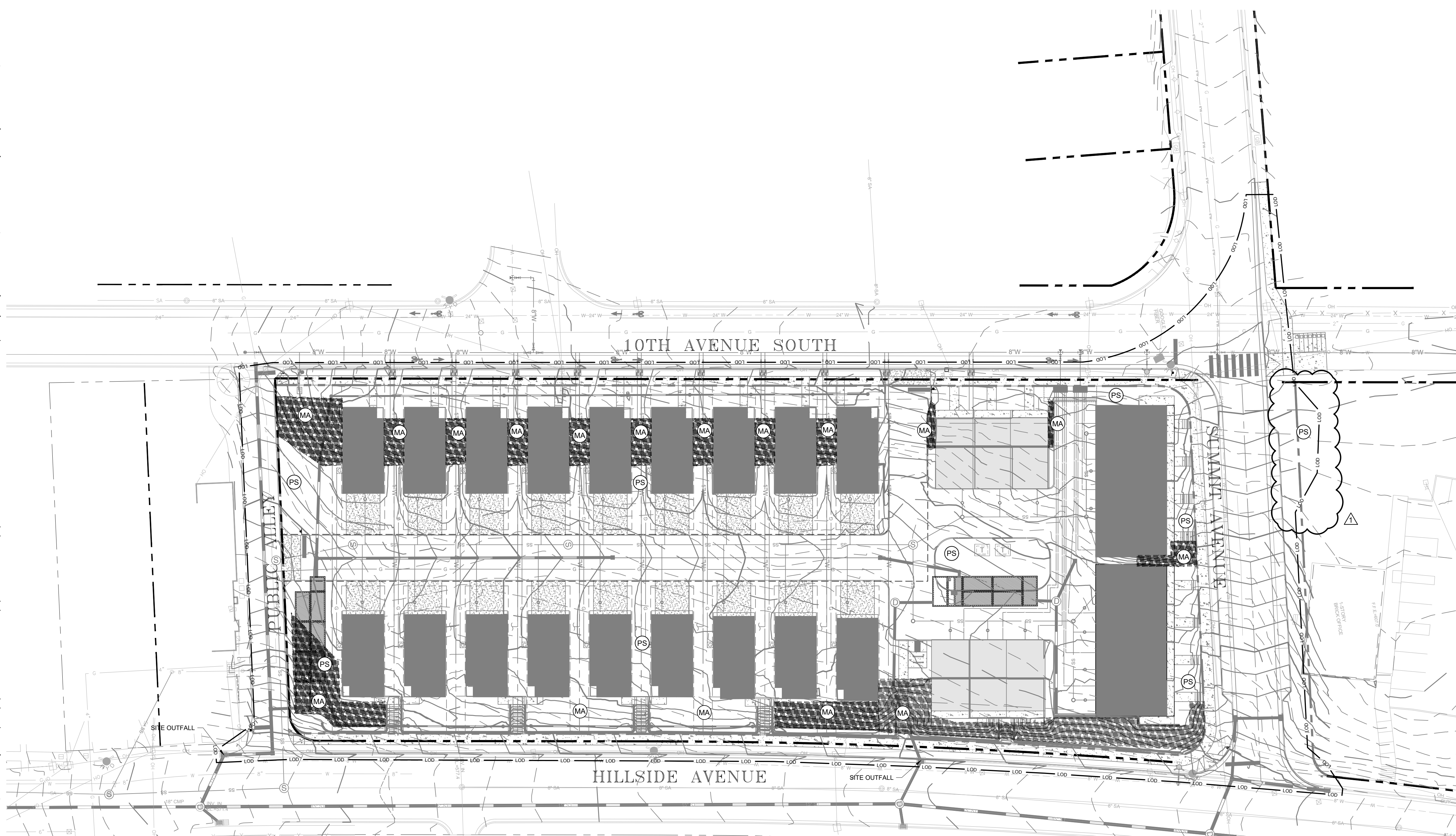
CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.

TDEC NOTICE OF COVERAGE NOTE:
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THE TOTAL DISTURBED AREA IS ±2.86 ACRES AND IS COVERED UNDER TDEC PERMIT NUMBER TNR 245370.

EROSION CONTROL NOTES

1. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS. STOCK PILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO GRADING ACTIVITIES. EROSION & SEDIMENT CONTROL PRACTICE SHALL BE INSTALLED PRIOR TO STOCKPILE OPERATIONS.
2. ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
3. CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
4. MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED (WITHIN 15 DAYS OF ACHIEVED FINAL GRADES) UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION. STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
5. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. CLEAN SILT BARRIERS WHEN THEY ARE APPROXIMATELY 50% FILLED WITH SEDIMENT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. SILT BARRIERS SHALL BE REPLACED AS EFFECTIVENESS IS SIGNIFICANTLY REDUCED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
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8. PROVIDE TEMPORARY CONSTRUCTION ACCESSSES AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
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 10.a. WHERE THERE IS SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE OR WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 15 DAYS. TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE.
 10.b. ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY DURING PROLONGED RAINFALL. DAILY CHECKING IS NECESSARY. DOCUMENTATION OF ALL CHECKS AND CORRECTIVE MEASURES SHALL BE KEPT AT THE PROJECT. A MONITORING REPORT CAN BE FOUND IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
11. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT REFUELING IN ACCORDANCE WITH METRO CP-10 AND CP-13, RESPECTIVELY. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITEE. SEE ADDITIONAL EROSION CONTROL NOTES ON SHEET C0-10.
- 12.



NO.	DATE	BY	REVISIONS

DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 10/01/2021
 KIMLEY-HORN PROJECT NO. 118129070

AS-BUILT NOTE

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
ABOVE-GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
PUBLIC STORM SEWER INFRASTRUCTURE
CUT & FILL IN THE FLOODPLAIN
SINK HOLE ALTERATIONS
THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.

AS PART OF THE FEBRUARY 2016 REGULATIONS UPDATE, PLEASE NOTE THAT THE FOLLOWING ARE REQUIRED AS A PART OF THE AS-BUILT PLAN:
A CERTIFICATION LETTER FROM TN REGISTERED P.E. STATING THAT THE SITE HAS BEEN INSPECTED AND THAT THE STORMWATER MANAGEMENT SYSTEM AND STORMWATER CONTROL MEASURES (BOTH STRUCTURAL AND NON-STRUCTURAL) ARE COMPLETE AND FUNCTIONAL IN ACCORDANCE WITH THE PLANS APPROVED BY MWS.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS-BUILT DOCUMENTATION IN ACCORDANCE WITH METRO STORMWATER TO KIMLEY-HORN FOR REVIEW AND APPROVAL. THE AS-BUILT INFORMATION SHALL BE COMPLETE AND PROVIDED TO THE ENGINEER A MINIMUM OF SIX WEEKS BEFORE C.O. IS REQUIRED FOR THE PROJECT.

ROOF DRAIN NOTE

- HOMES 1-18 ROOF DRAINS TO SPLASH ON GRADE AT FRONT AND REAR OF HOME.
TOWNHOMES T1-T14 ROOF DRAINS ARE TO SPLASH ON GRADE AT REAR OF HOME.

DETENTION CHART

Table with 3 columns: DETENTION #, VOLUME, DEPTH. Rows 1, 2, 3.

RETAINING WALL TABLE

Table with 4 columns: WALL #, MAX HEIGHT (FT), WALL LENGTH, WALL TYPE. Rows 1-7.

METRO PERMITTING REFERENCE

Table with 2 columns: PERMIT TYPE, PERMIT NUMBER. Rows: BUILDING PERMIT, GRADING PERMIT, WATER PERMIT, SEWER PERMIT.

GRADING NOTES

- CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING OR INSTALLATION OF ANY PROPOSED UTILITIES.
ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.

METRO STORMWATER NOTES

- FEMA NOTE: THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARDOUS AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP #47037C0234 H, EFFECTIVE APRIL 5, 2017.
CONSTRUCTION SCHEDULE: PRE-CONSTRUCTION MEETING, INSTALLATION OF EROSION CONTROL MEASURES, EROSION INSPECTION BY EPSC AND METRO, ISSUANCE OF GRADING PERMIT, CONSTRUCTION.

TDEC NOTICE OF COVERAGE NOTE: THIS PROJECT DOES NOT DISTURB MORE THAN 1 ACRE AND IS REQUIRED TO APPLY FOR A NOTICE OF COVERAGE UNDER THE TENNESSEE GENERAL CONSTRUCTION PERMIT FROM TDEC.

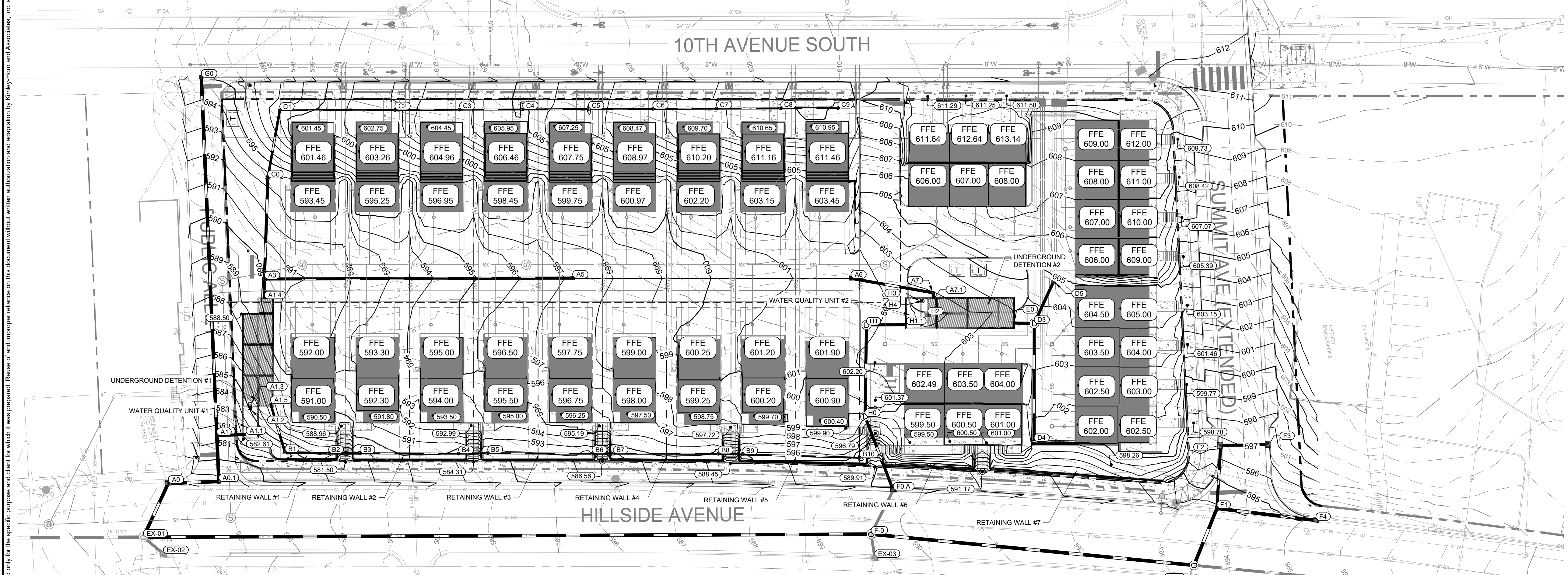
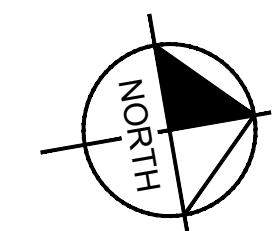
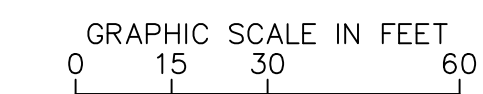
THE TOTAL DISTURBED AREA IS 2.26 ACRES AND IS COVERED UNDER TDEC PERMIT NUMBER TRN 24994.

RETAINING WALL NOTES

- RETAINING WALL BASIS OF DESIGN TO BE CMU WITH CULTURED STONE VENEER.
CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TENNESSEE TO THE CIVIL ENGINEER OF RECORD AND THE CODES AND ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS OR CONSTRUCTION.

GRADING PLAN LEGEND

Legend symbols for spot elevation, high point, bottom of curb, top of exposed wall, invert, finish floor elevation, existing contour, proposed contour.



STRUCTURE TABLE with columns: NAME, DESCRIPTION, TOP GRATE. Rows A0 to C5.

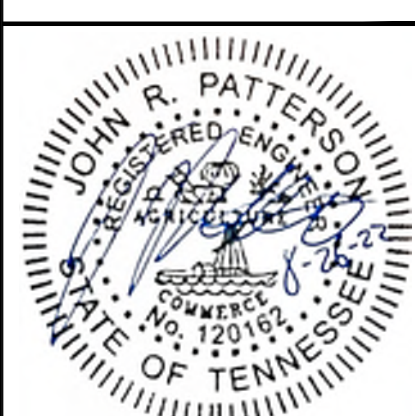
STRUCTURE TABLE with columns: NAME, DESCRIPTION, TOP GRATE. Rows C6 to H4.

PIPE TABLE with columns: NAME, UPSTREAM, DOWNSTREAM, SIZE, LENGTH, SLOPE, MATERIAL. Rows A0-EX-01 to C4-C3.

PIPE TABLE with columns: NAME, UPSTREAM, DOWNSTREAM, SIZE, LENGTH, SLOPE, MATERIAL. Rows C5-C4 to H4-H3.

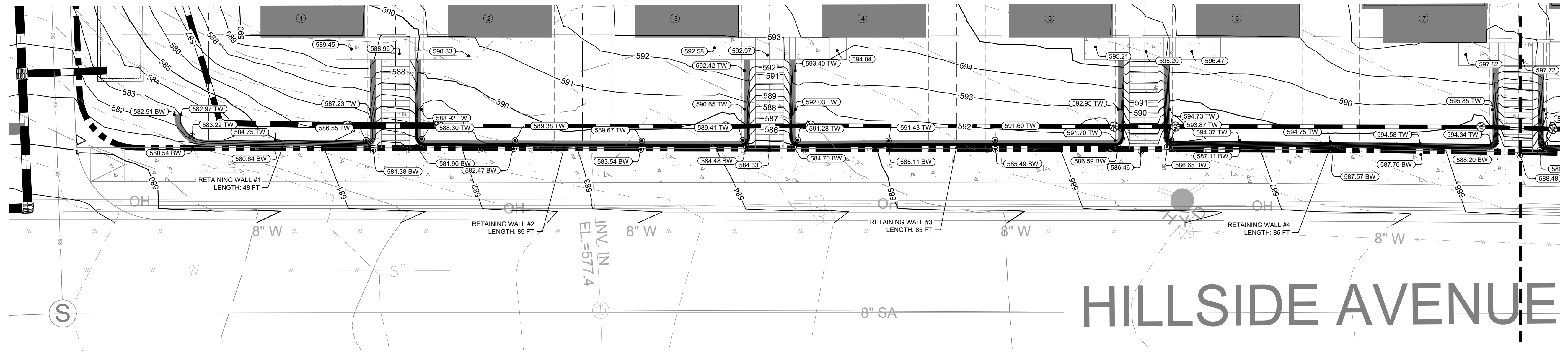


RESERVOIR ZONE 7 SINGLE FAMILY NASHVILLE, TENNESSEE

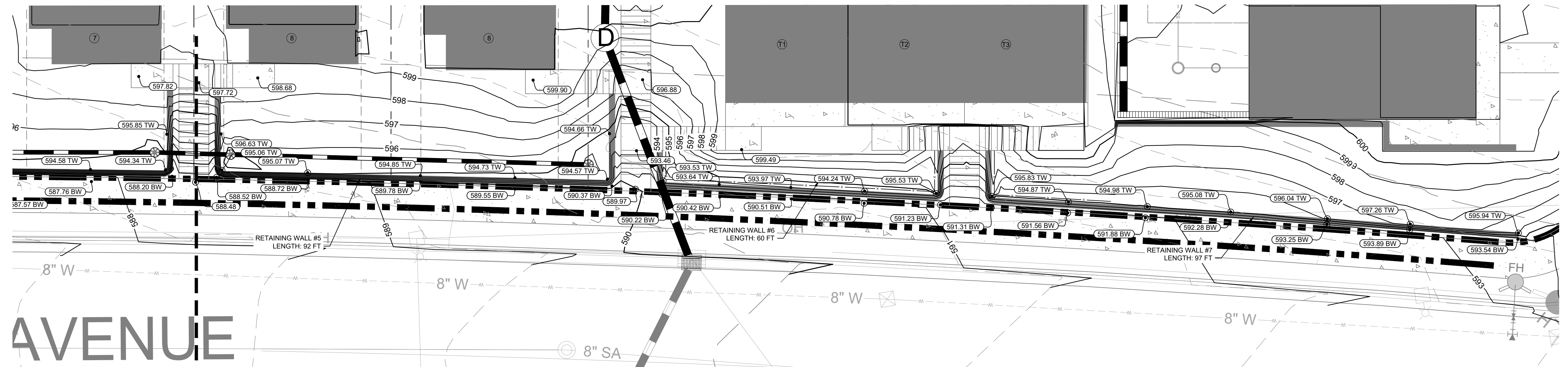


Revision table with columns: NO., DATE, REVISIONS. Includes design and check dates.

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RETAINING WALL ENLARGEMENT (SINGLE FAMILY BUILDINGS, 1 - 7)
SCALE 1" = 10'

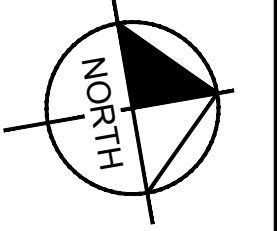
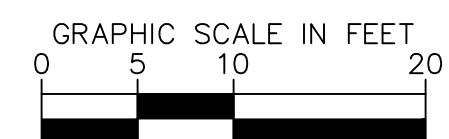


RETAINING WALL ENLARGEMENT (SINGLE FAMILY BUILDINGS, 8, 9 AND TOWNHOMES T1 - T3)
SCALE 1" = 10'

- RETAINING WALL NOTES**
- RETAINING WALL BASIS OF DESIGN TO BE CMU WITH CULTURED STONE VENEER.
 - ALL SITE RETAINING WALLS INDICATED ON THESE PLANS ARE SHOWN FOR GENERAL LOCATION ONLY. CONTRACTOR SHALL DETERMINE WALL TYPE (UNLESS SPECIFICALLY NOTED ON PLANS) AND SHALL VERIFY PROPOSED WALL LOCATIONS AND HEIGHTS.
 - CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TENNESSEE TO THE CIVIL ENGINEER OF RECORD AND THE CODES AND ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS OR CONSTRUCTION.
 - ALL WALLS OF HEIGHTS EQUAL TO OR GREATER THAN 30 INCHES (MEASURED FROM TOP OF WALL TO FINISHED GRADE AT BOTTOM OF WALL) SHALL INCLUDE PEDESTRIAN GUARDRAIL OR FENCE. GUARDRAIL SHALL BE IN COMPLIANCE WITH LOCAL CODES AND IBC REQUIREMENTS.

GRADING PLAN LEGEND

476.17	SPOT ELEVATION	LP	LOW POINT
HP	HIGH POINT	BC	BOTTOM OF CURB / GUTTER LINE
TC	TOP OF CURB	BW	BOTTOM OF EXPOSED WALL
TW	TOP OF EXPOSED WALL	RM	TOP OF GRATE / COVER
INV	INVERT		
FFE 472.50	FINISH FLOOR ELEVATION		
500	EXISTING CONTOUR		
500	PROPOSED CONTOUR		



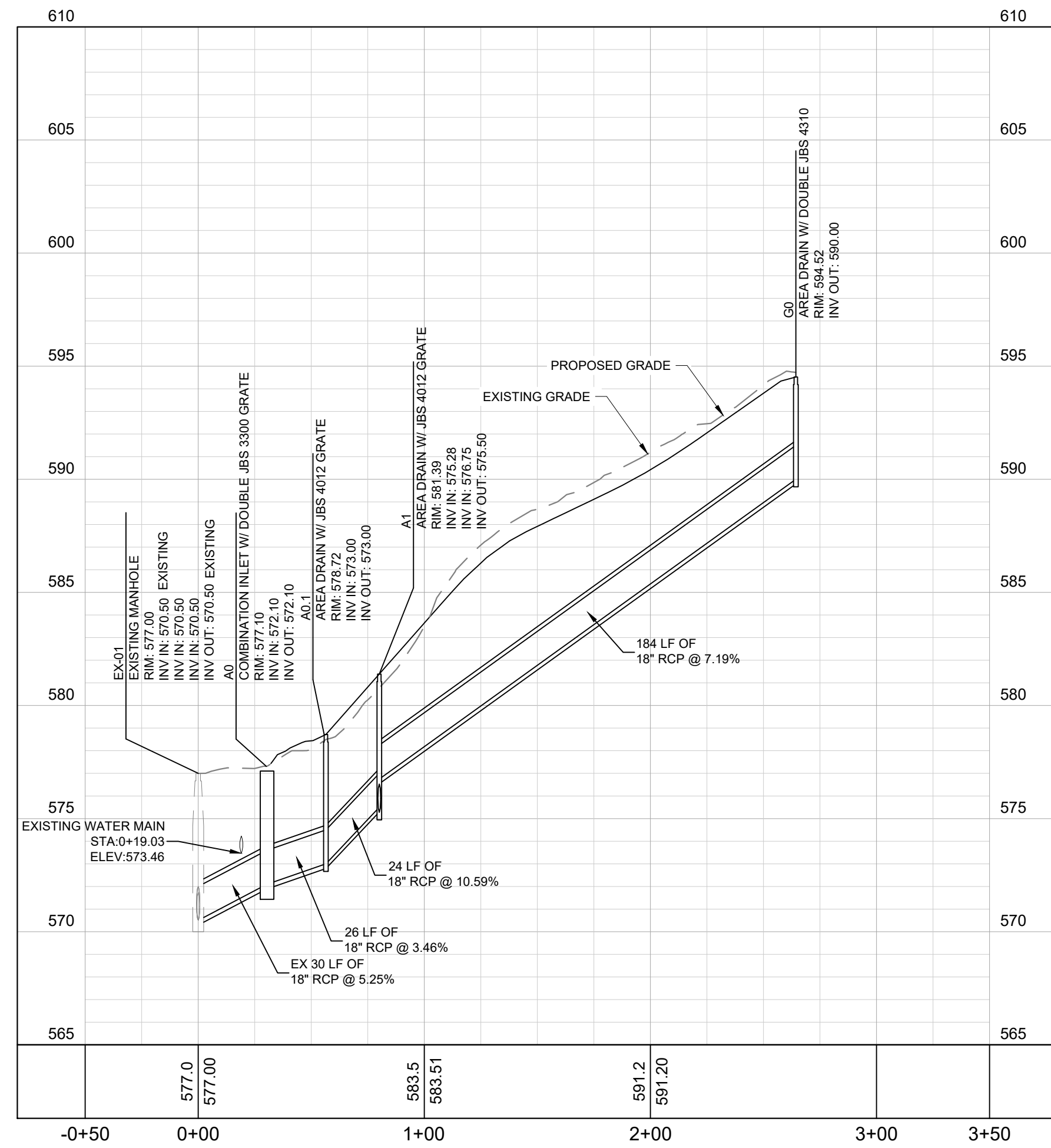
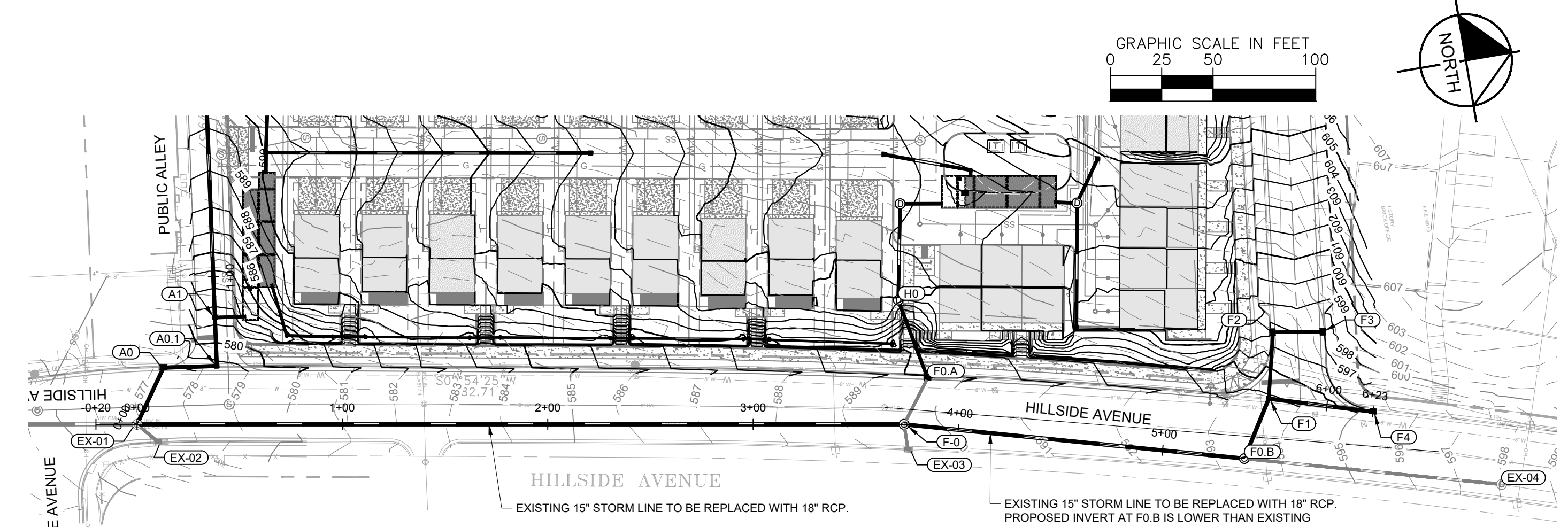
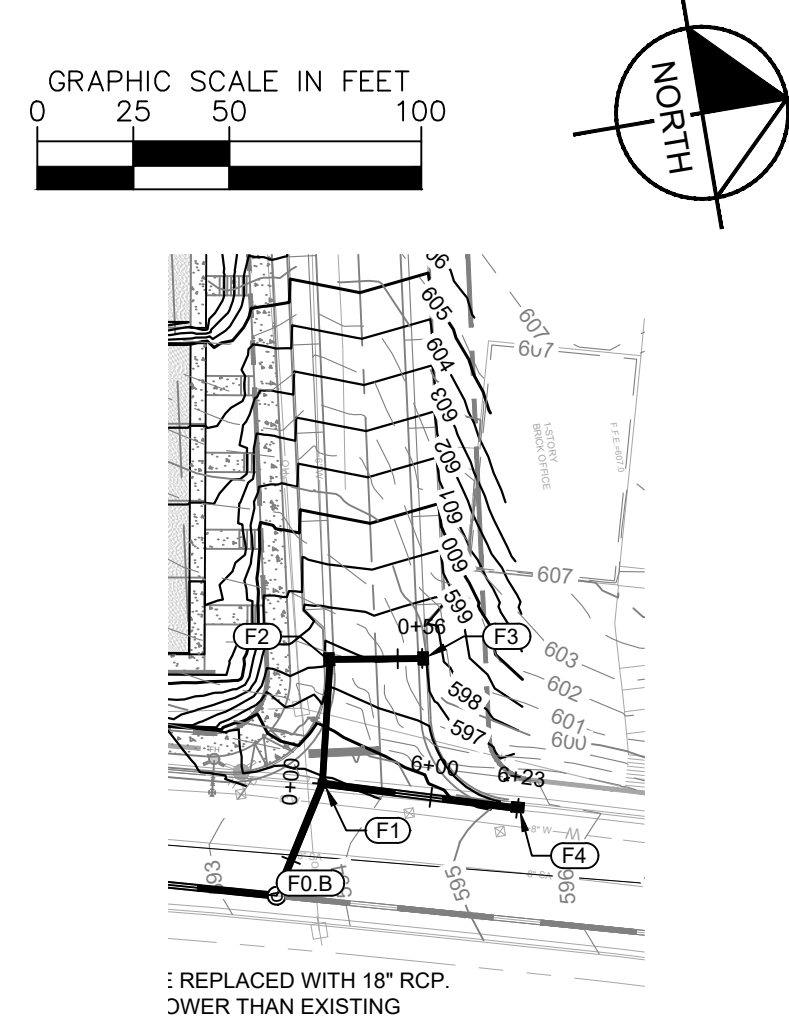
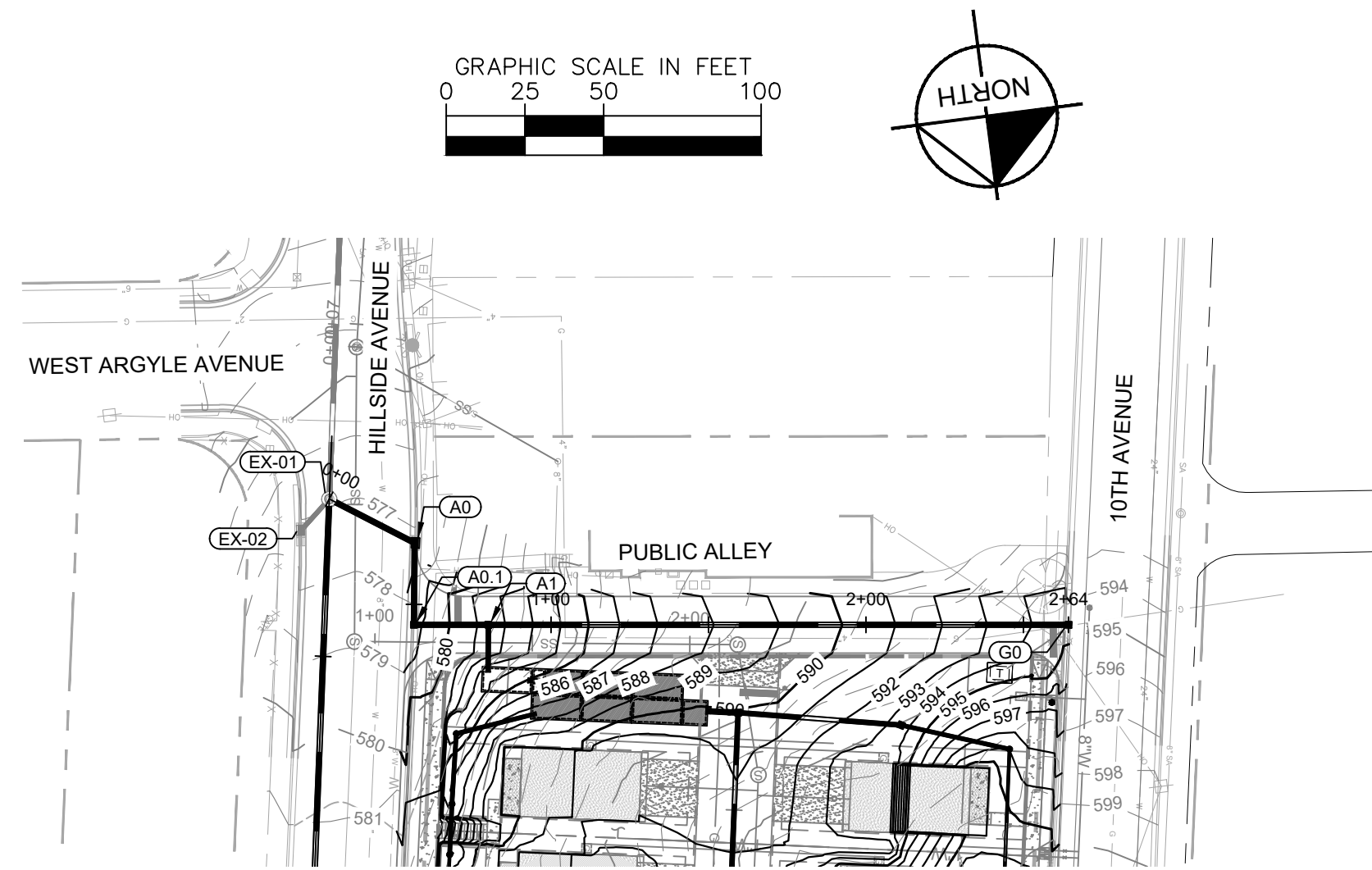
NO.	DATE	BY	REVISIONS

DESIGNED BY:	JRP
DRAWN BY:	BKB
CHECKED BY:	BJB
DATE:	10/01/2021
KIMLEY-HORN PROJECT NO.:	118129070

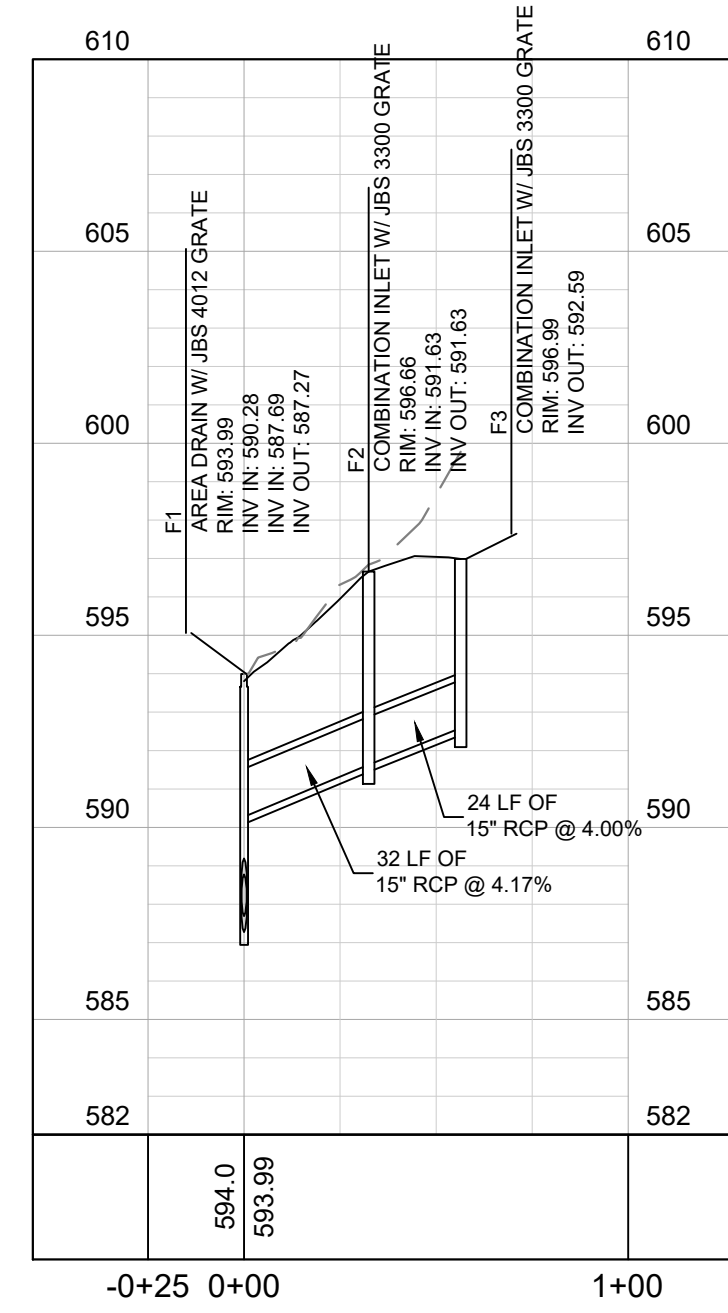
HILLSIDE AVE
RETAINING WALL
ENLARGEMENT

SHEET NUMBER
C4-10

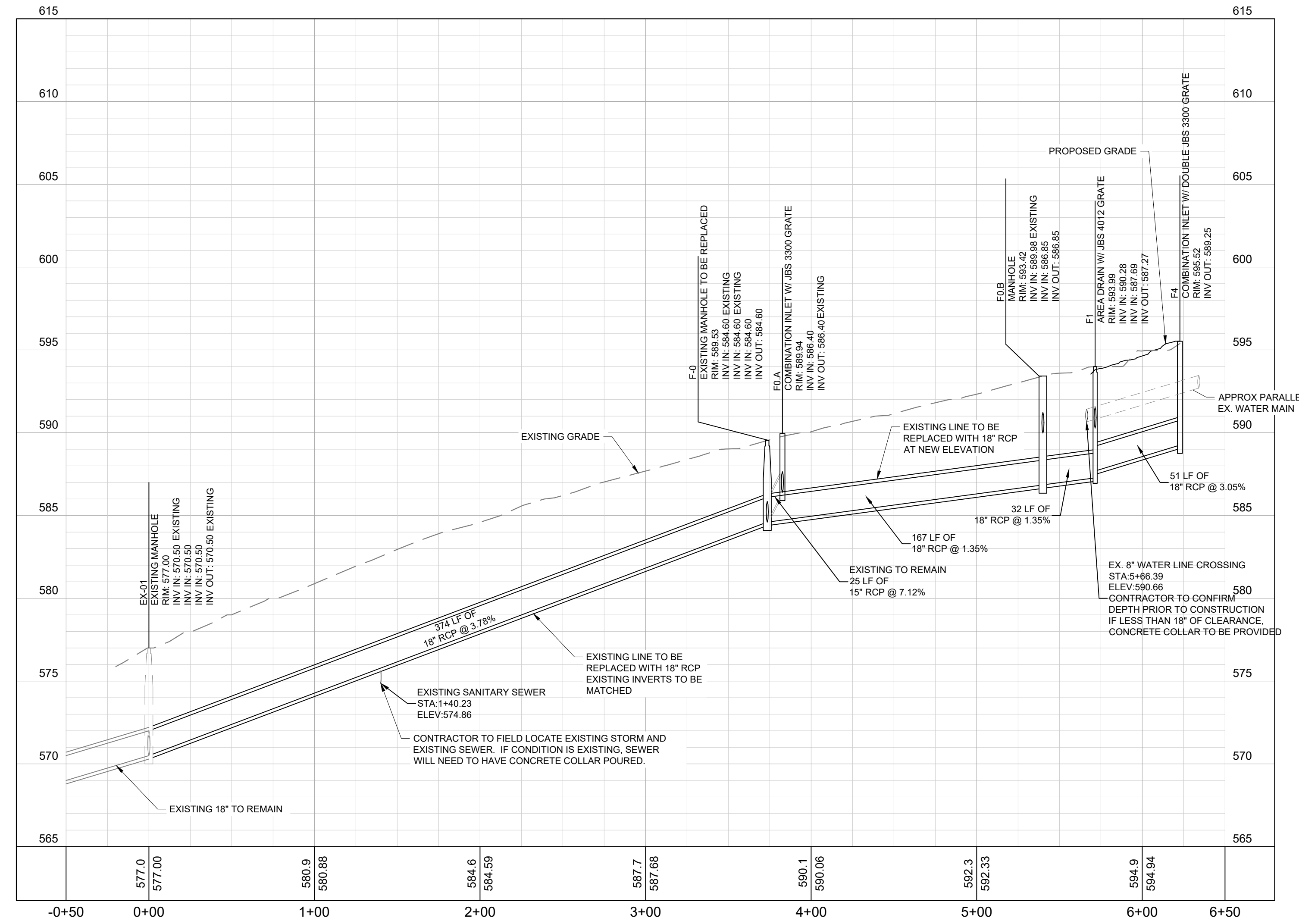
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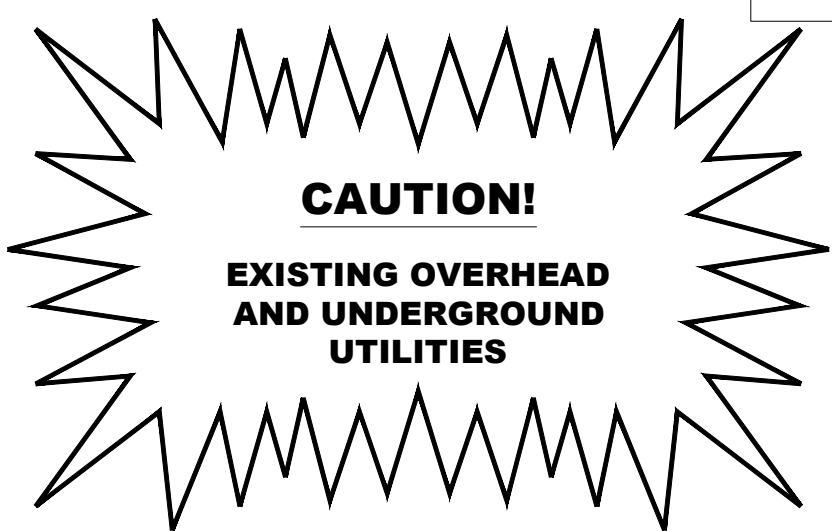
PUBLIC STORM LINE ALLEY
SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



PUBLIC STORM LINE HILLSIDE AVENUE
SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



PUBLIC STORM LINE HILLSIDE AVENUE
SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'



EXISTING UTILITIES NOTE
CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

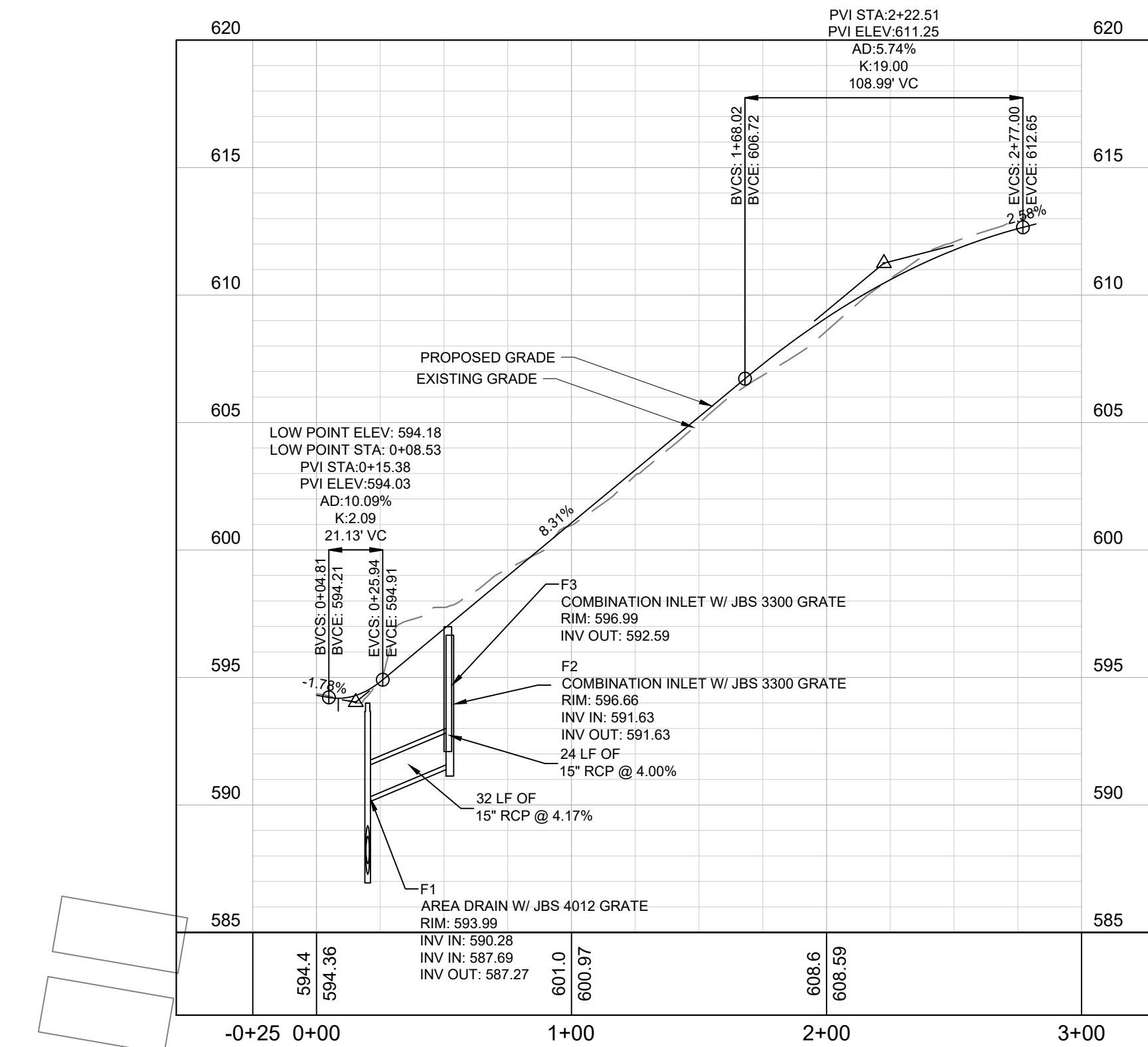
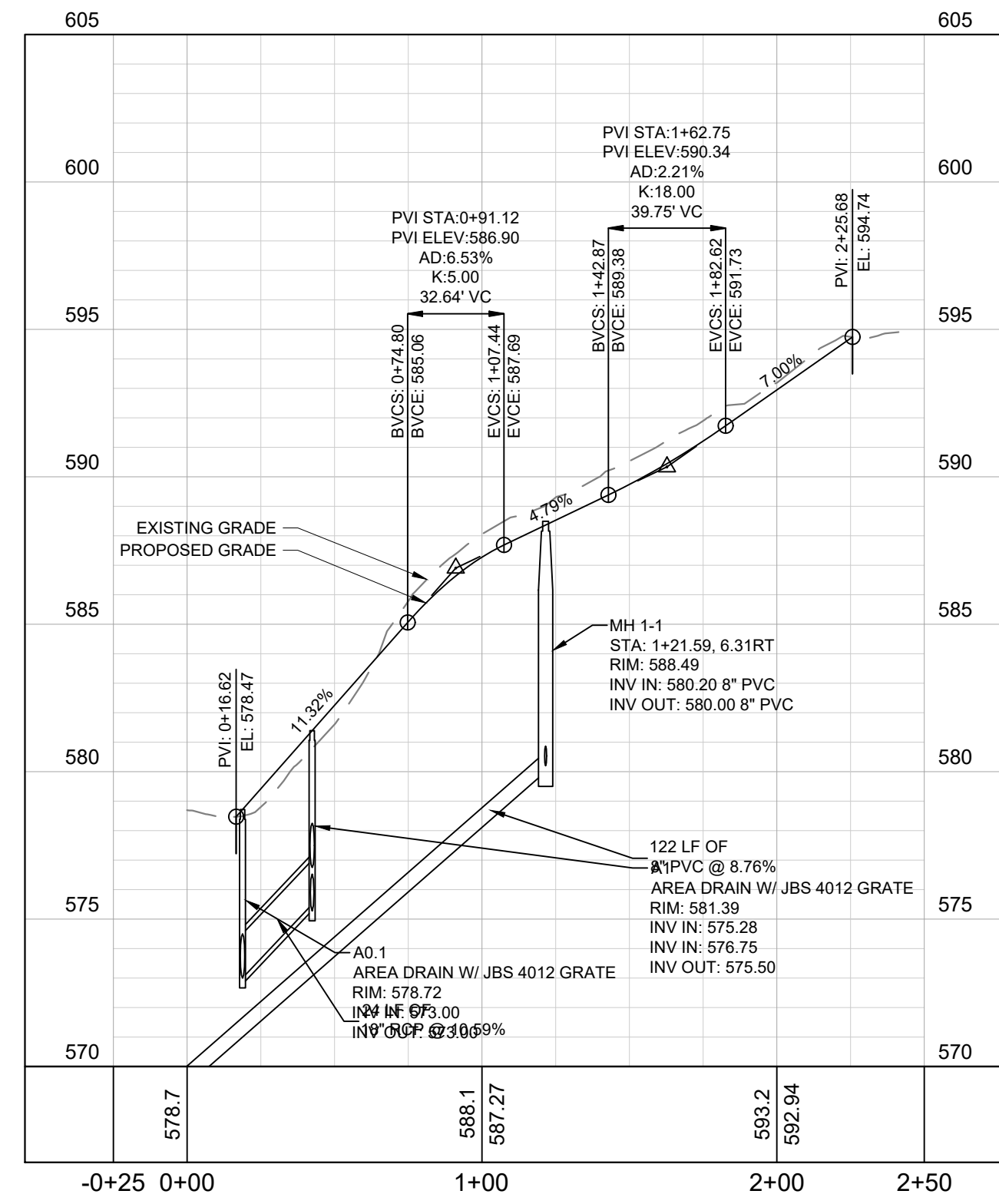
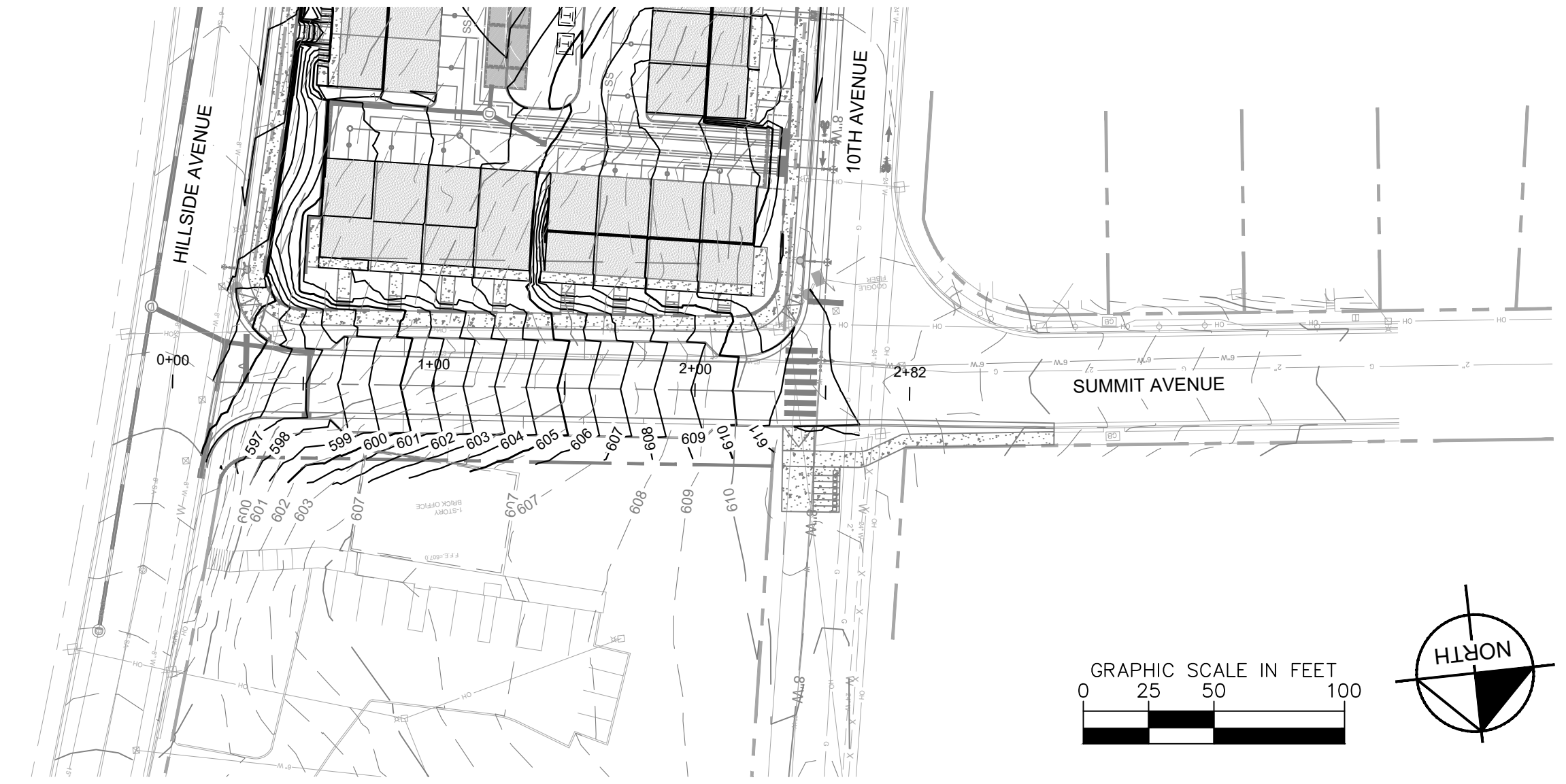
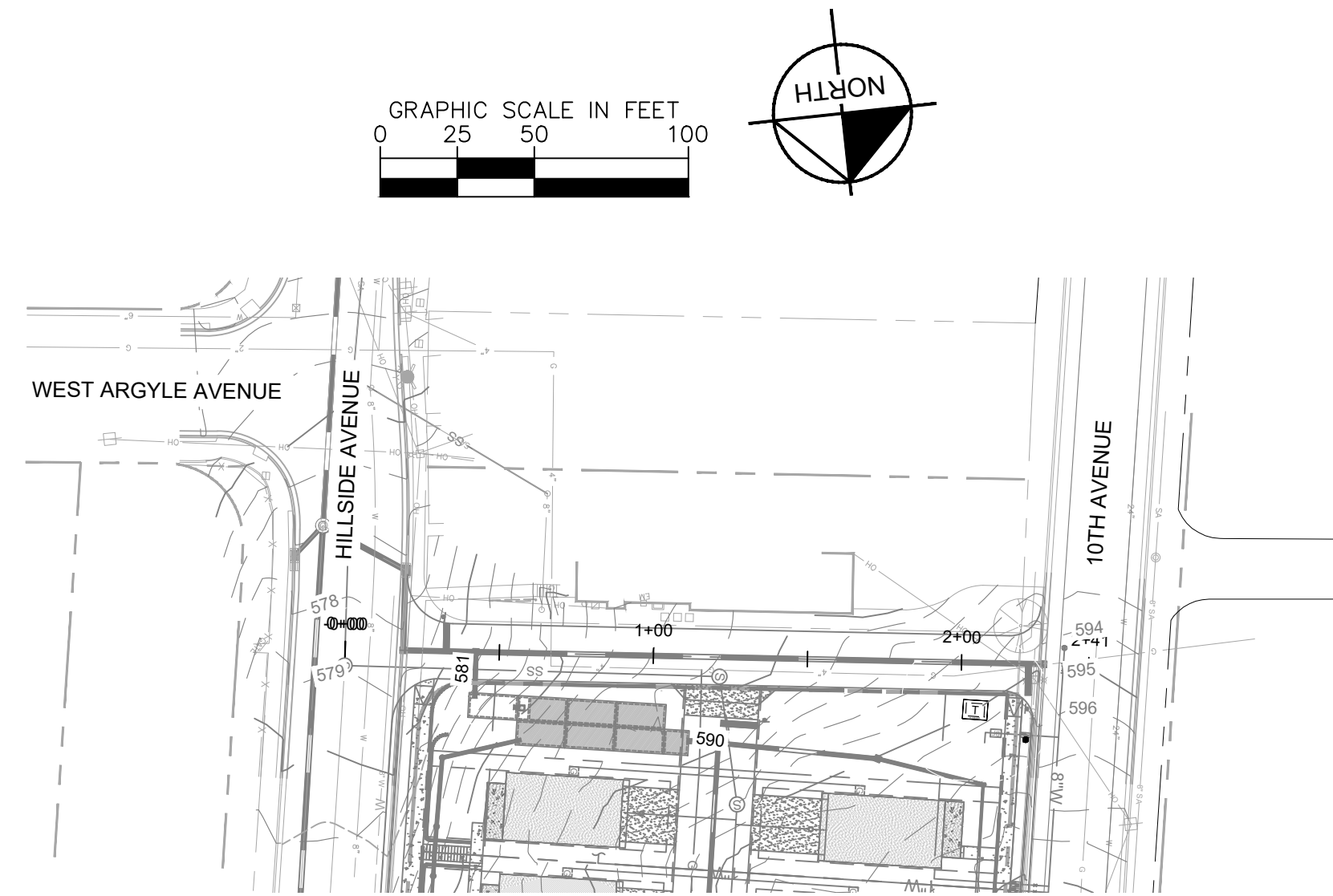
- PUBLIC WORKS CONSTRUCTION NOTES**
1. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES AN EXCAVATION PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS.
 2. PROOF-ROLLING OF ALL STREET SUB-GRADES IS REQUIRED IN THE PRESENCE OF THE PUBLIC WORKS INSPECTOR, REQUEST TO BE MADE 24 HOURS IN ADVANCE.
 3. STOP SIGNS TO BE THIRTY (30) INCH BY THIRTY (30) INCH. STREET SIGNS TO HAVE SIX (6) INCH WHITE LETTERS ON A NINE (9) INCH GREEN ALUMINUM BLADE AND BE MOUNTED VERTICALLY STAGGERED.
 4. ALL SIGNS TO HAVE 3M REFLECTIVE COATING.



NO.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		

DESIGNED BY: JRP
DRAWN BY: BKB
CHECKED BY: BJB
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

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PUBLIC ALLEY
 DESIGN SPEED: 30 MPH
 POSTED SPEED: 25 MPH

 SCALE
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

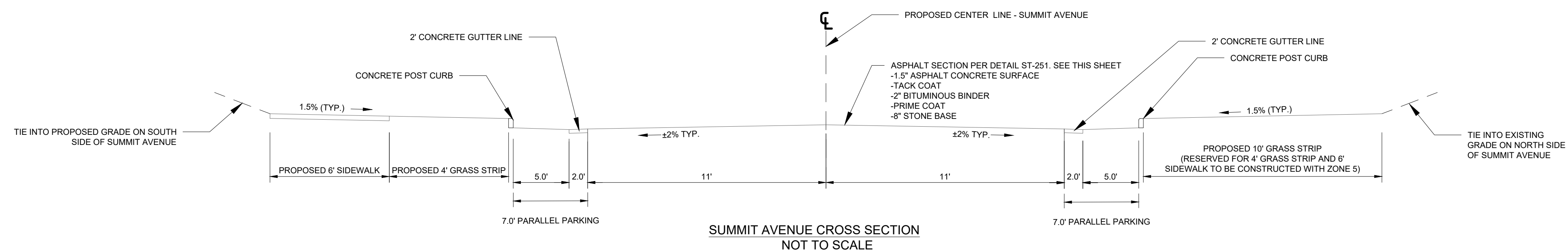
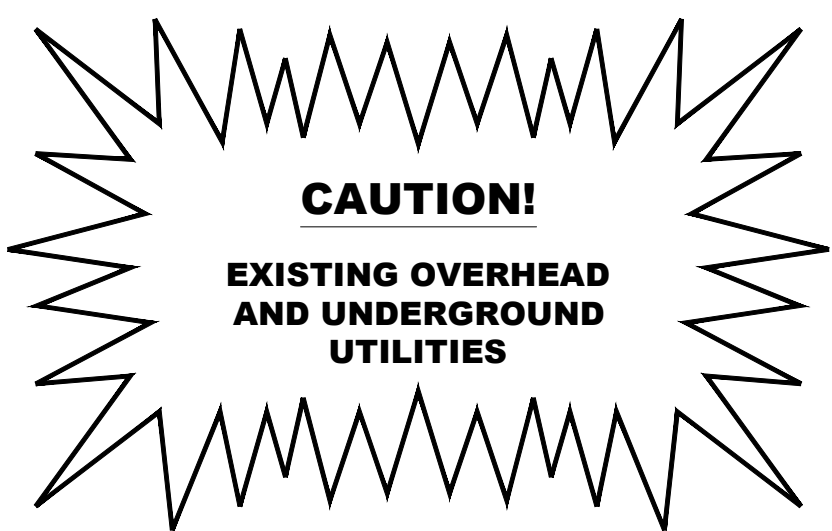
SUMMIT AVE
 DESIGN SPEED: 30 MPH
 POSTED SPEED: 25 MPH

 SCALE
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

EXISTING UTILITIES NOTE
 CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

PUBLIC WORKS CONSTRUCTION NOTES

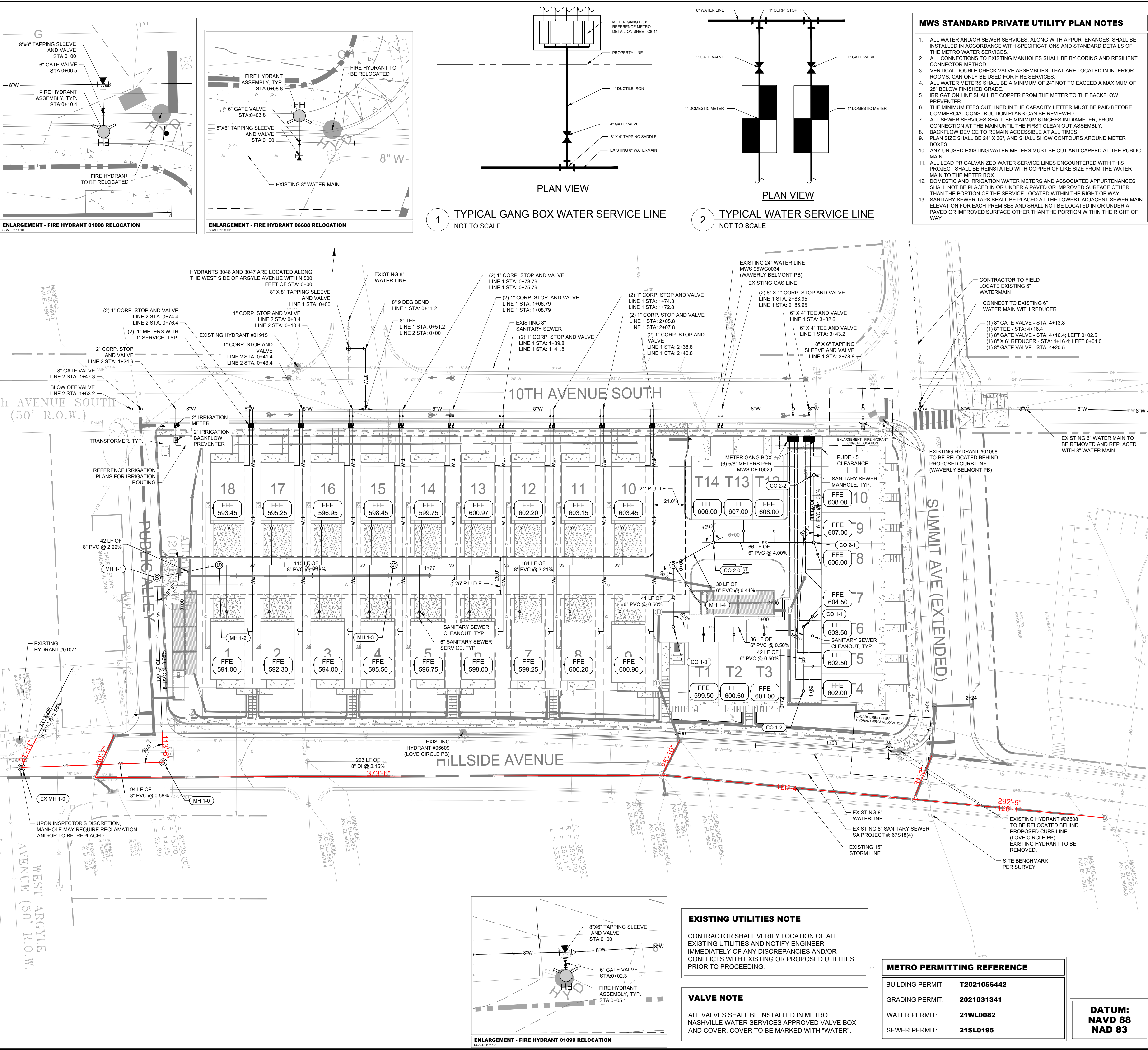
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2. PROOF-ROLLING OF ALL STREET SUB-GRADES IS REQUIRED IN THE PRESENCE OF THE PUBLIC WORKS INSPECTOR. REQUEST TO BE MADE 24 HOURS IN ADVANCE.
3. STOP SIGNS TO BE THIRTY (30) INCH BY THIRTY (30) INCH.
4. STREET SIGNS TO HAVE SIX (6) INCH WHITE LETTERS ON A NINE (9) INCH GREEN ALUMINUM BLADE AND BE MOUNTED VERTICALLY STAGGERED.
5. ALL SIGNS TO HAVE 3M REFLECTIVE COATING.



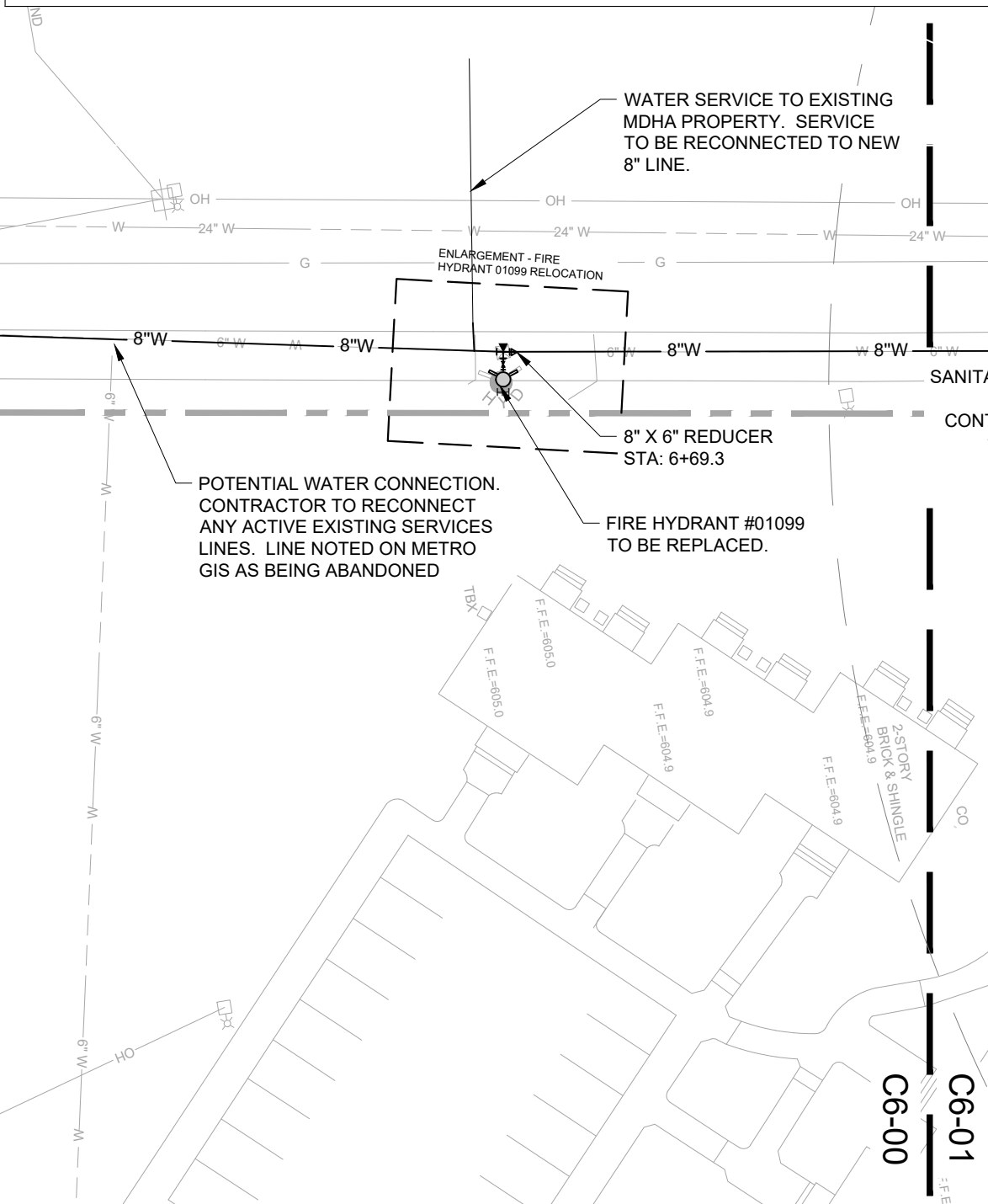
NO.	DATE	REVISIONS

DESIGNED BY: _____
 CHECKED BY: _____
 DATE: 10/01/2021
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- ### MWS STANDARD PRIVATE UTILITY PLAN NOTES
- ALL WATER AND/OR SEWER SERVICES, ALONG WITH APPURTENANCES, SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO WATER SERVICES.
 - ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
 - VERTICAL DOUBLE CHECK VALVE ASSEMBLIES, THAT ARE LOCATED IN INTERIOR ROOMS, CAN ONLY BE USED FOR FIRE SERVICES.
 - ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
 - IRRIGATION LINE SHALL BE COPPER FROM THE METER TO THE BACKFLOW PREVENTER.
 - THE MINIMUM FEES OUTLINED IN THE CAPACITY LETTER MUST BE PAID BEFORE COMMERCIAL CONSTRUCTION PLANS CAN BE REVIEWED.
 - ALL SEWER SERVICES SHALL BE MINIMUM 6 INCHES IN DIAMETER, FROM CONNECTION AT THE MAIN UNTIL THE FIRST CLEAN OUT ASSEMBLY.
 - BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
 - PLAN SIZE SHALL BE 24" X 36", AND SHALL SHOW CONTOURS AROUND METER BOXES.
 - ANY UNUSED EXISTING WATER METERS MUST BE CUT AND CAPPED AT THE PUBLIC MAIN.
 - ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
 - DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
 - SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.
- ### METRO NASHVILLE WATER SERVICES STANDARD NOTES
- ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO NASHVILLE WATER SERVICES.
 - THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE METRO NASHVILLE WATER SERVICES THE COST OF INSPECTION.
 - THE CONTRACTOR IS TO PROVIDE AND MAINTAIN THE CONSTRUCTION IDENTIFICATION SIGN FOR PRIVATE DEVELOPMENT APPROVED.
 - AFTER COMPLETION OF THE SANITARY SEWER, THE DEVELOPER IS RESPONSIBLE FOR THE TELEVISIONING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEO TAPING MUST BE COORDINATED WITH THE METRO NASHVILLE WATER SERVICES INSPECTION SCHEDULE. ALL COSTS WILL BE BORNE BY THE DEVELOPER.
 - ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
 - REDUCED PRESSURE BACKFLOW PREVENTION DEVICES (RPBP) OR DUAL CHECK VALVE WILL BE REQUIRED ON ALL TEST AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE METRO NASHVILLE WATER SERVICES.
 - ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
 - UPON COMPLETION OF CONSTRUCTION OF WATER AND/OR SEWER, THE ENGINEER SHALL PROVIDE THE DEPARTMENT WITH A COMPLETE SET OF AS-BUILT PLANS IN DIGITAL (DWG AND PDF) FORMAT. ALL DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS OR WATER MAINS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE.
 - SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TREE LOCATIONS, THE DISTANCE OF THE END OF THE SERVICE LINE TO PROPERTY CORNERS AND LINES AND/OR STATION AND OFFSET FROM SERVICE CENTERLINE TO END OF SERVICE LINE, THE DEPTH TO THE TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES.
 - WATER LINE PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR REGISTERED LAND SURVEYOR AND SHALL INCLUDE OFFSET DISTANCE FROM THE ROADWAY CENTERLINE, OR PROPERTY LINE RIGHT OF WAY, LINE DEPTHS, LOCATIONS OF HYDRANTS, VALVES, REDUCERS, TEES AND PRESSURE REDUCING DEVICES WHERE APPLICABLE.
 - PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE CUSTOMER SIDE OF THE METER WHEN PRESSURES EXCEED 100 PSI.
 - PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE STREET SIDE OF THE METER WHEN PRESSURES EXCEED 150 PSI.
 - ALL WATER MAINS MUST BE LOCATED WITHIN THE PAVED AREA INCLUDING ALL BLOW-OFF ASSEMBLIES.
 - ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
 - DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
 - SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.



Two Hydrant Test Results Summary

System Services Division (SSD)

Business Unit: 65558810 Work Order #: 4036233

Date of Test	10/15/21	Request Date:	10/5/2021
Property Location	1001 ARGYLE AVENUE		
Cross Street:	10TH AVENUE SOUTH		

Hydrant #1 - Flowing Hydrant

MWS ID	63047		
Static Pressure	74 psi	Time ON	1:15 PM
Flow Pressure (Pitot)	57 psi	Time OFF	1:30 PM
Hydrant Outlet Coefficient	0.9		
Hydrant Outlet Diameter	2.5 inches		
This corresponds to a flowrate of 1,287 gpm Using the Orifice Eqn. (4.7.3 of NFPA 291)			

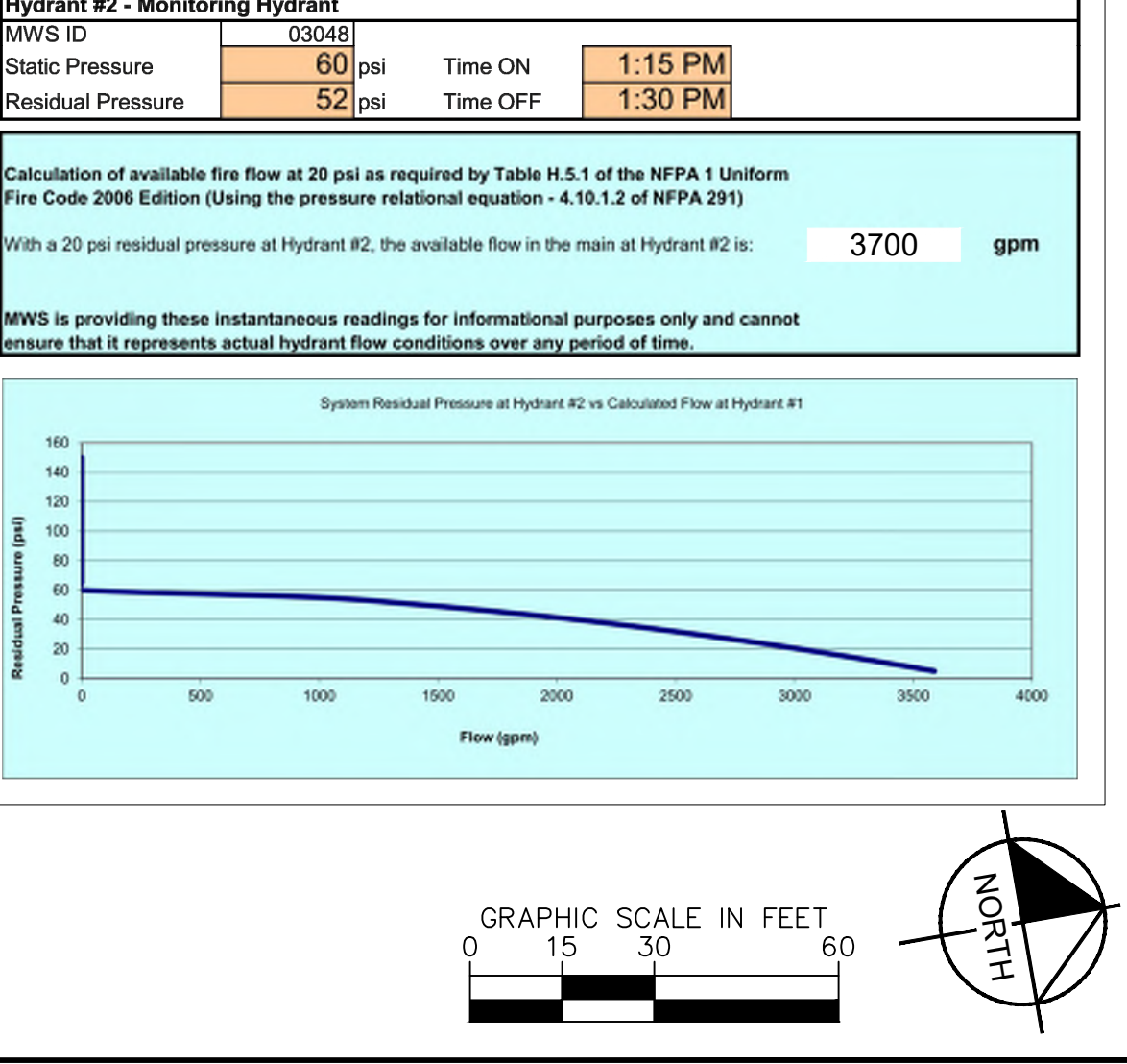
Hydrant #2 - Monitoring Hydrant

MWS ID	63048		
Static Pressure	60 psi	Time ON	1:15 PM
Residual Pressure	52 psi	Time OFF	1:30 PM

Calculation of available fire flow at 20 psi as required by Table H.5.1 of the NFPA 1 Uniform Fire Code 2006 Edition (Using the pressure relational equation - 4.10.1.2 of NFPA 291)

With a 20 psi residual pressure at Hydrant #2, the available flow in the main at Hydrant #2 is: **3700 gpm**

MWS is providing these instantaneous readings for informational purposes only and cannot ensure that it represents actual hydrant flow conditions over any period of time.



Kimley»Horn

10 Lea Avenue, Suite 400, Nashville, TN 37210
Main: 615.564.2701 | www.kimley-horn.com
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RESERVOIR ZONE 7 SINGLE FAMILY

NASHVILLE, TENNESSEE

BY		DATE		REVISIONS		NO.		DESIGNED BY:		DRAWN BY:		CHECKED BY:		DATE:	10/01/2021	KIMLEY-HORN PROJECT NO.	118129070	UTILITY PLAN - OVERALL	SHEET NUMBER	

DATUM:
NAVD 88
NAD 83

METRO PERMITTING REFERENCE

BUILDING PERMIT:	T2021056442
GRADING PERMIT:	2021031341
WATER PERMIT:	21WL0082
SEWER PERMIT:	21SL0195

EXISTING UTILITIES NOTE

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

VALVE NOTE

ALL VALVES SHALL BE INSTALLED IN METRO NASHVILLE WATER SERVICES APPROVED VALVE BOX AND COVER. COVER TO BE MARKED WITH "WATER".

ENLARGEMENT - FIRE HYDRANT #01099 RELOCATION

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EXISTING UTILITIES NOTE

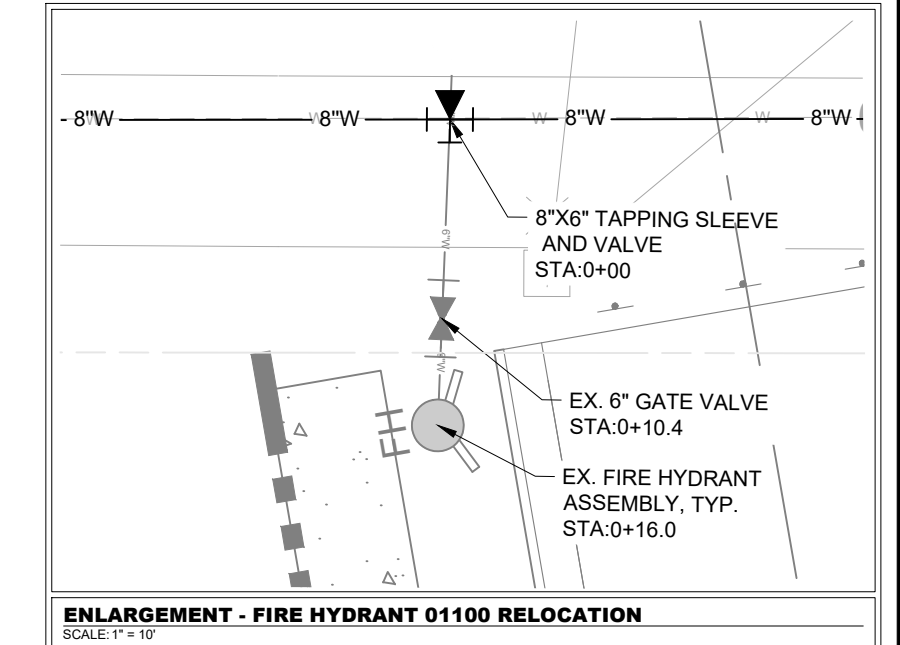
CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

VALVE NOTE

ALL VALVES SHALL BE INSTALLED IN METRO NASHVILLE WATER SERVICES APPROVED VALVE BOX AND COVER. COVER TO BE MARKED WITH "WATER".

METRO PERMITTING REFERENCE

BUILDING PERMIT:	T2021056442
GRADING PERMIT:	2021031341
WATER PERMIT:	21WL0082
SEWER PERMIT:	21SL0195



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**RESERVOIR ZONE 7
SINGLE FAMILY
NASHVILLE, TENNESSEE**



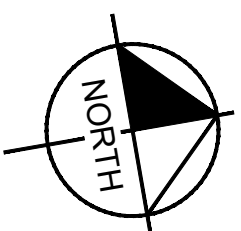
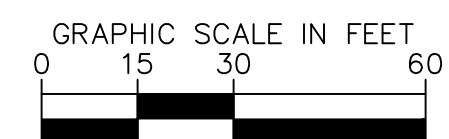
NO.	DATE	BY	REVISIONS

DESIGNED BY: JRP
DRAWN BY: BKB
CHECKED BY: BJB
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

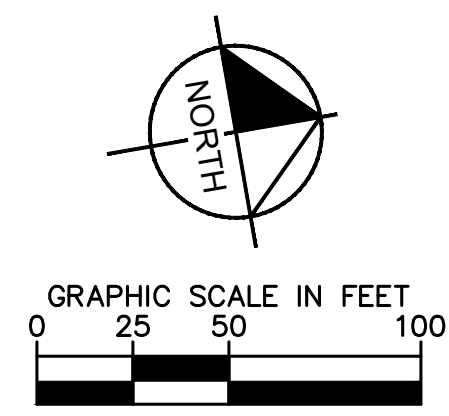
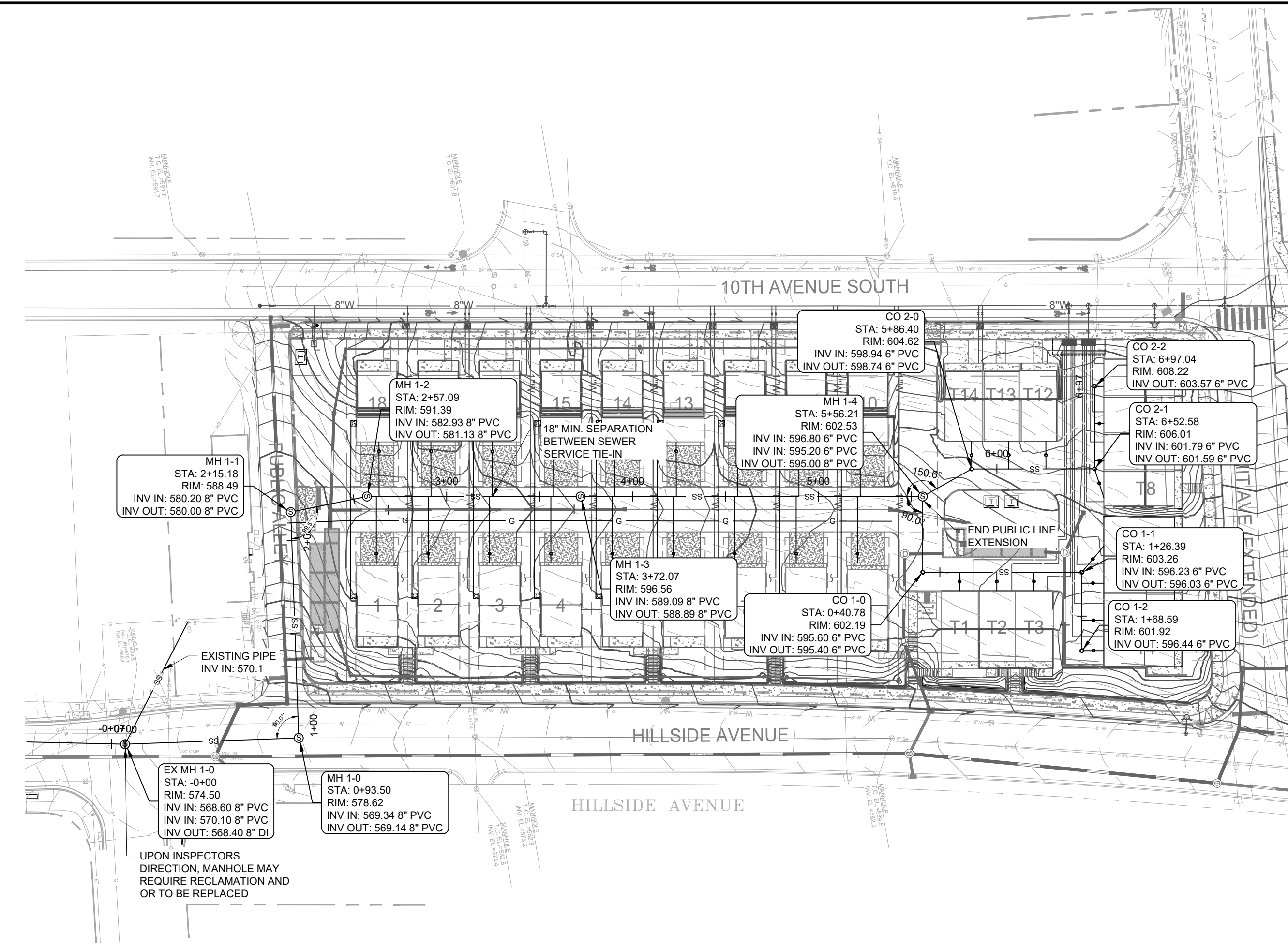
OFFSITE PUBLIC WATER PLAN
SHEET NUMBER

C6-01

**DATUM:
NAVD 88
NAD 83**



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METRO NASHVILLE WATER SERVICES STANDARD NOTES

- ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO NASHVILLE WATER SERVICES.
- THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE METRO NASHVILLE WATER SERVICES THE COST OF INSPECTION.
- THE CONTRACTOR IS TO PROVIDE AND MAINTAIN THE CONSTRUCTION IDENTIFICATION SIGN FOR PRIVATE DEVELOPMENT APPROVED.
- AFTER COMPLETION OF THE SANITARY SEWER, THE DEVELOPER IS RESPONSIBLE FOR THE TELEVISION OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEOTAPING MUST BE COORDINATED WITH THE METRO NASHVILLE WATER SERVICES INSPECTION SECTION. ALL COSTS WILL BE BORNE BY THE DEVELOPER.
- ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
- REDUCED PRESSURE BACKFLOW PREVENTION DEVICES (RPBP) OR DUAL CHECK VALVE WILL BE REQUIRED ON ALL TEST AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE METRO NASHVILLE WATER SERVICES.
- ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
- UPON COMPLETION OF CONSTRUCTION OF WATER AND/OR SEWER, THE ENGINEER SHALL PROVIDE THE DEPARTMENT WITH A COMPLETE SET OF AS-BUILT PLANS ON MOIST ERASABLE MYLAR IN REVERSE AND IN DIGITAL (DWG) FORMAT. SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TEE LOCATIONS, THE DISTANCE OF THE END OF THE SERVICE LINE TO PROPERTY CORNERS AND LINES AND/OR STATION AND OFFSET FROM SEWER CENTERLINE TO END OF SERVICE LINE, THE DEPTH TO THE TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES. WATER LINE PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE OFFSET DISTANCE FROM THE ROADWAY CENTERLINE, OR PROPERTY LINE RIGHT OF WAY, LINE DEPTH, LOCATIONS OF HYDRANTS, VALVES, REDUCERS, TEES AND PRESSURE REGULATING DEVICES WHERE APPLICABLE. ALL DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS OR WATER MAINS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE.
- PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE CUSTOMER SIDE OF THE METER WHEN PRESSURES EXCEED 100 PSI.
- PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE STREET SIDE OF THE METER WHEN PRESSURES EXCEED 150 PSI.
- ALL WATER MAINS MUST BE LOCATED WITHIN THE PAVED AREA INCLUDING ALL BLOW-OFF ASSEMBLIES.
- ALL WATER AND/OR SEWER SERVICES, ALONG WITH APPURTENANCES, SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO NASHVILLE WATER SERVICES.
- VERTICAL DOUBLE CHECK VALVE ASSEMBLIES, THAT ARE LOCATED IN INTERIOR ROOMS, CAN ONLY BE USED FOR FIRE SERVICES.
- IRRIGATION LINE SHALL BE COPPER FROM THE METER TO THE BACKFLOW PREVENTER.
- THE MINIMUM FEES OUTLINED IN THE CAPACITY LETTER MUST BE PAID BEFORE COMMERCIAL CONSTRUCTION PLANS CAN BE REVIEWED.
- ALL SEWER SERVICES SHALL BE 6" INCHES IN DIAMETER, FROM CONNECTION AT THE MAIN UNTIL THE FIRST CLEAN OUT ASSEMBLY, UNLESS OTHERWISE NOTED.
- BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
- PLAN SIZE SHALL BE 24" X 36", AND SHALL SHOW CONTOURS AROUND METER BOXES.

METRO PERMITTING REFERENCE

BUILDING PERMIT:	T2021056442
GRADING PERMIT:	2021031341
WATER PERMIT:	21WL0082
SEWER PERMIT:	21SL0195

UTILITY NOTES

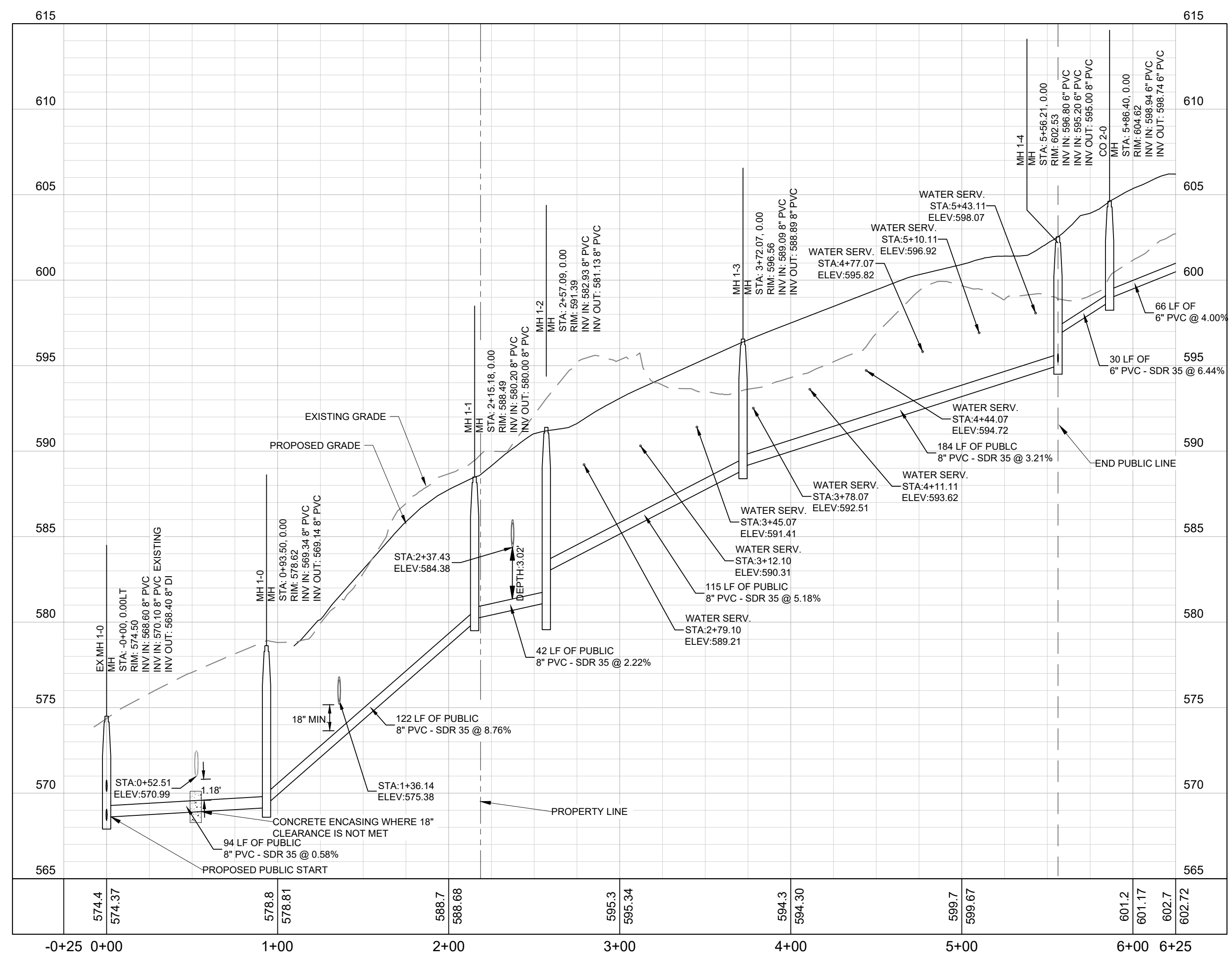
- CONTRACTOR RESPONSIBLE FOR VERIFYING EXISTING ELEVATIONS COMPARED TO THOSE SHOWN ON PLAN PRIOR TO GRADING. NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
- AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- ALL WATER AND SEWER MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH METRO NASHVILLE WATER SERVICES STANDARD SPECIFICATIONS.
- MAINTAIN MINIMUM 10 FEET HORIZONTAL SEPARATION BETWEEN WATER & SANITARY SEWER OR 18" VERTICAL SEPARATION AT CROSSING LOCATIONS.
- REFER TO METRO NASHVILLE WATER SERVICES STANDARD SPECIFICATIONS FOR PIPE BEDDING REQUIREMENTS.
- ALL WATER VALVES TO BE LOCATED OUTSIDE OF PAVED AREAS WHERE POSSIBLE.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS OF WATER & SANITARY SEWER CONSTRUCTION PRIOR TO THE ACCEPTANCE OF THE PUBLIC UTILITIES.
- CONTRACTOR RESPONSIBLE FOR DISCONNECTING EXISTING WATER SERVICE LINES AT THE PUBLIC MAIN PER METRO WATER SERVICES STANDARDS. PAVEMENT REPAIR SHALL BE DONE IN ACCORDANCE TO METRO PUBLIC WORKS STANDARD.

EXISTING UTILITIES NOTE

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

UTILITIES CLEARANCE NOTE

MAINTAIN 10' HORIZONTAL SEPARATION OR 18" VERTICAL SEPARATION BETWEEN PUBLIC SANITARY SEWER LINE AND OTHER UTILITIES, TYP.



PUBLIC SEWER LINE PROFILE
1" = 50' H, 1" = 5' V



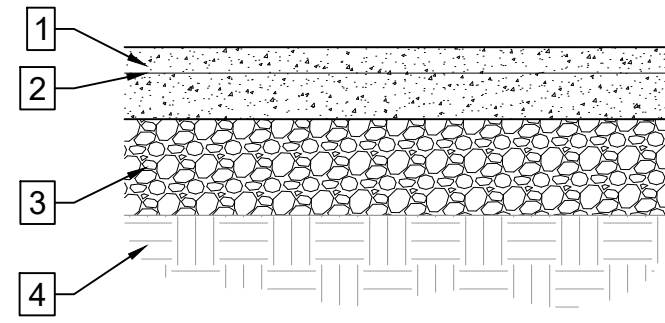
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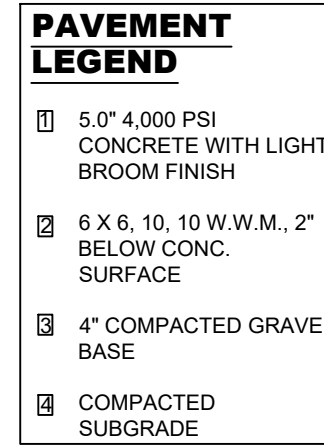


NO.	DATE	BY	REVISIONS
1		JRP	DESIGNED BY
2		BKB	DRAWN BY
3		BJB	CHECKED BY
4	10/01/2021		DATE
5			KIMLEY-HORN PROJECT NO.
6			118129070
7			SANITARY SEWER PLAN
8			- OVERALL
9			SHEET NUMBER
10			C7-00

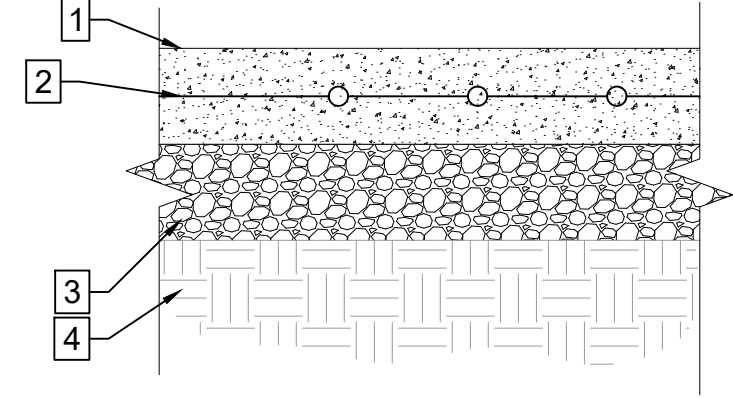
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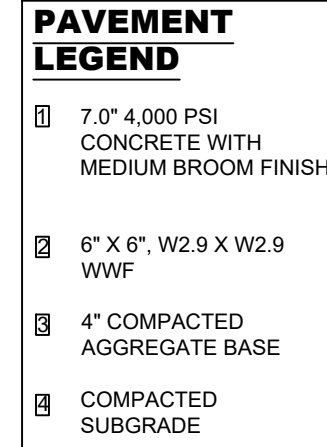
- NOTES:**
- SEE GEOTECHNICAL SPECIFICATIONS FOR SUBGRADE REQUIREMENTS.
 - FIBER MESH REINFORCING CAN BE SUBSTITUTED FOR WWM. APPLICATION RATES SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
 - BROOM FINISH SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
 - PROPOSED PAVEMENT SECTIONS SHOWN HEREIN ARE PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER, BASED ON SITE CONDITIONS AND SOIL PROPERTIES FOUND DURING CONSTRUCTION.
 - SEE LIGHT DUTY JOINT DETAIL FOR CONSTRUCTION EXPANSION JOINTS



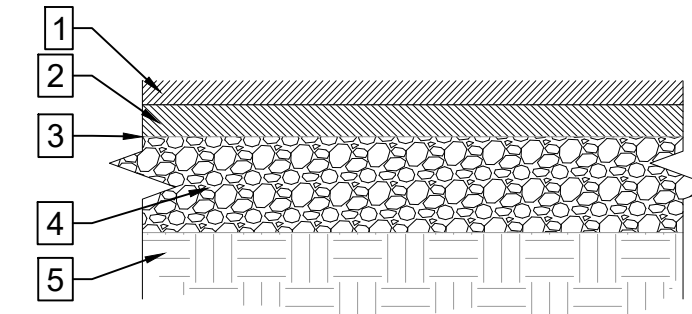
1 TYPICAL LIGHT DUTY CONCRETE PAVEMENT SECTION
NOT TO SCALE



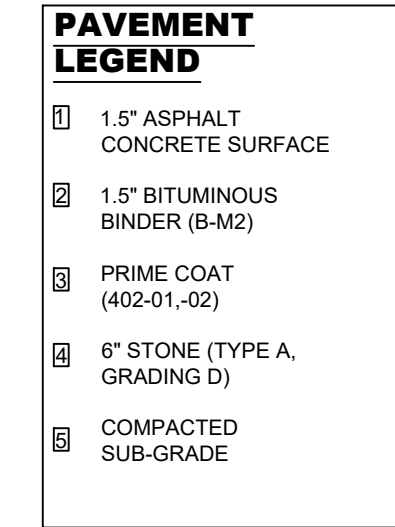
- NOTES:**
- SEE GEOTECHNICAL SPECIFICATIONS FOR SUBGRADE REQUIREMENTS.
 - FIBER MESH REINFORCING CAN BE SUBSTITUTED FOR WWM. APPLICATION RATES SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
 - LIGHT BROOM FINISH SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.



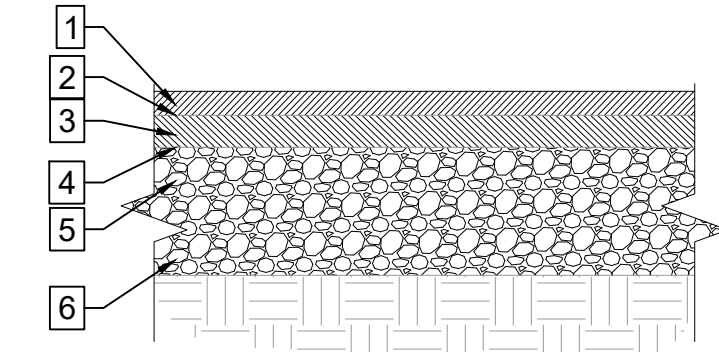
2 HEAVY DUTY CONCRETE PAVEMENT SECTION
NOT TO SCALE



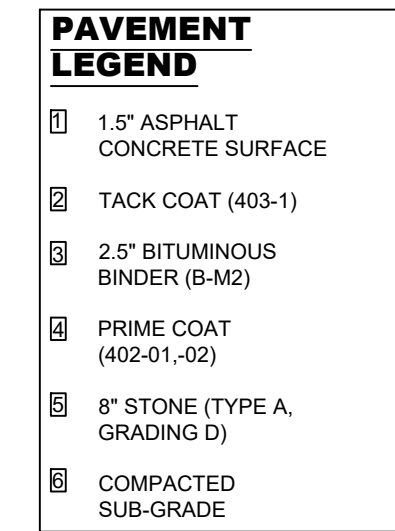
- NOTES:**
- SEE GEOTECHNICAL SPECIFICATIONS FOR SUBGRADE REQUIREMENTS.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.



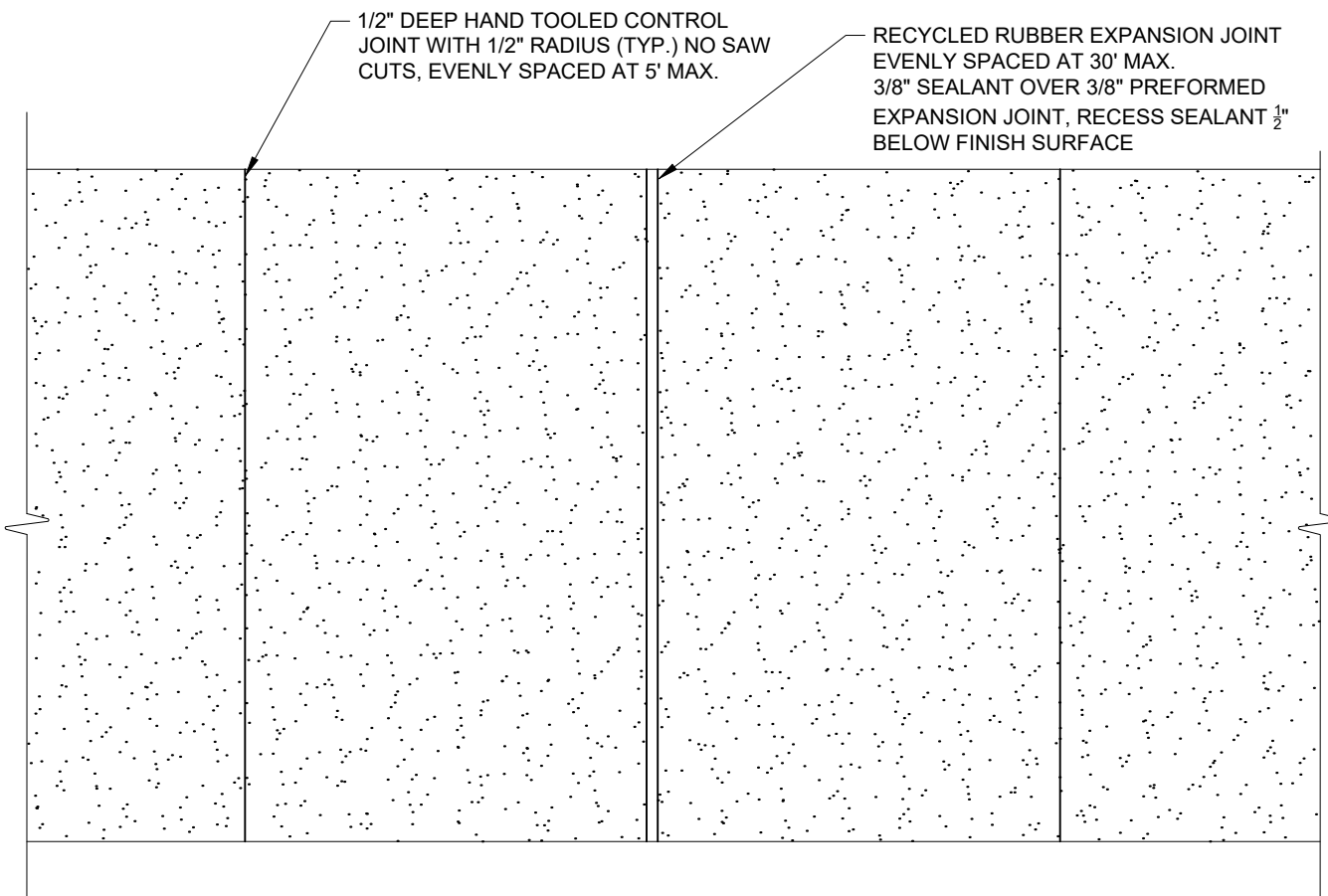
3 TYPICAL LIGHT DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



- NOTES:**
- SEE GEOTECHNICAL SPECIFICATIONS FOR SUBGRADE REQUIREMENTS.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.

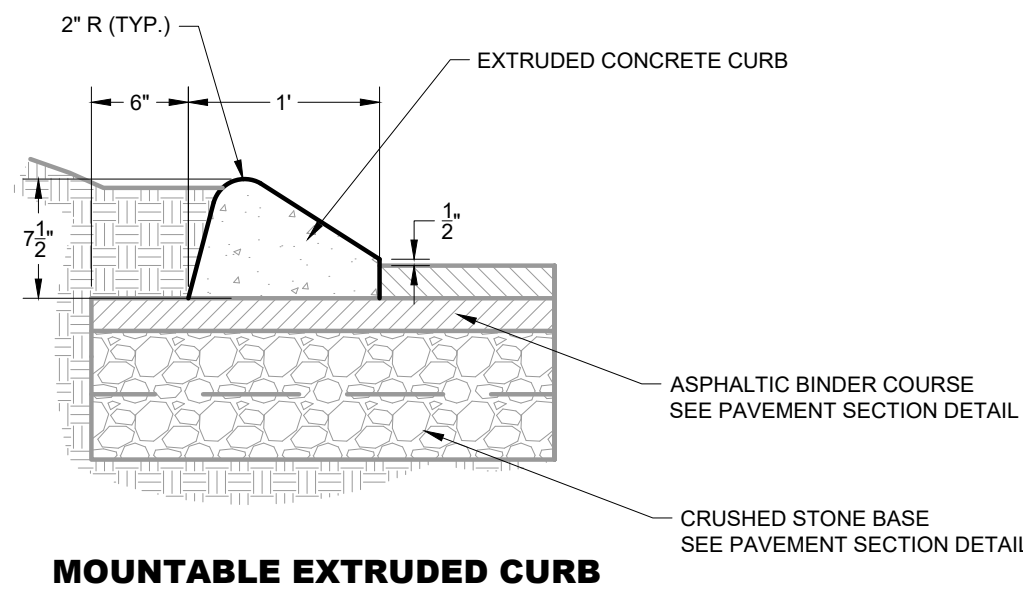


4 TYPICAL HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



NOTE:
EXPANSION JOINTS SHALL BE PLACED AT ANY TIE-IN POINT TO EXISTING CONCRETE AND AT ALL VERTICAL INTERFACES WITH BUILDINGS AND WALLS.

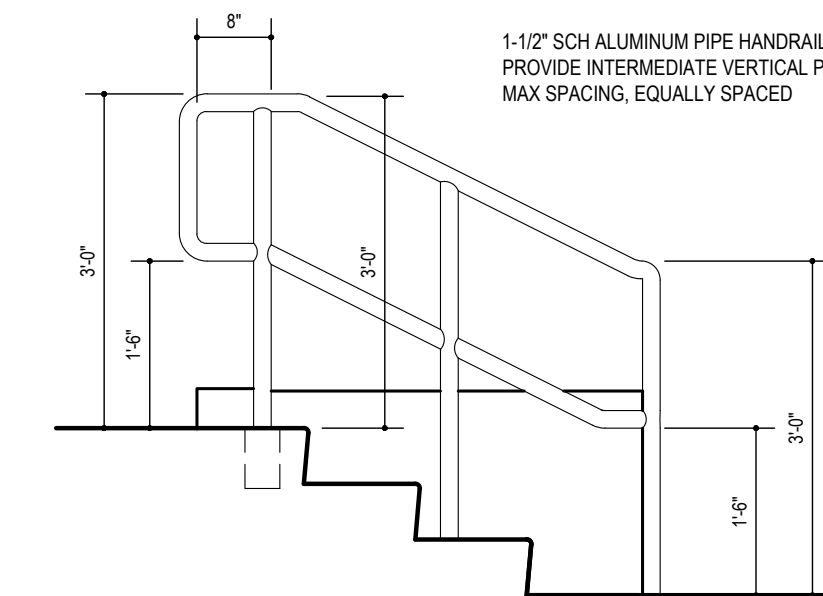
5 LIGHT DUTY CONCRETE JOINT
NOT TO SCALE



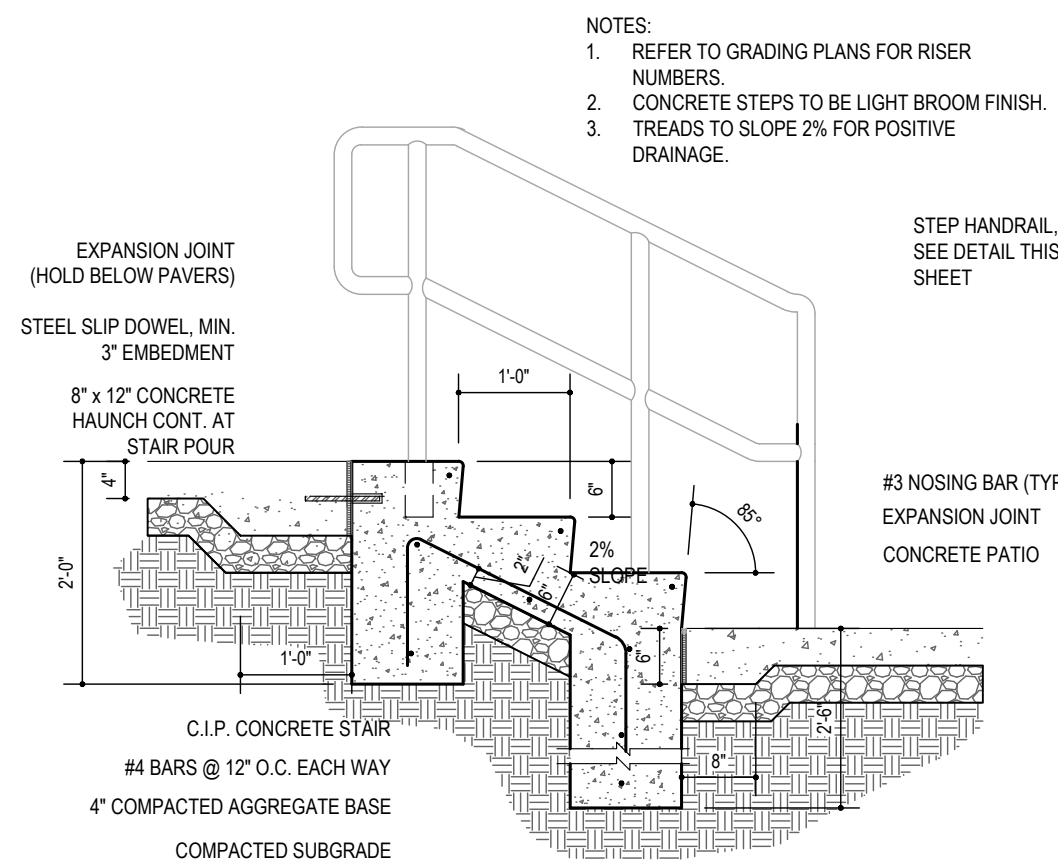
MOUNTABLE EXTRUDED CURB

6 EXTRUDED CURB
NOT TO SCALE

- HANDRAIL NOTES:**
- ALL WELDS SHALL BE GROUND SMOOTH AND FREE OF BARBS.
 - PRIME ALL STEEL WITH 2-COATS PRIMER.
 - ALL HANDRAILS SHALL RECEIVE 2-COATS OF EXTERIOR METAL PAINT.
 - COLOR TO BE BLACK, UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR OWNER'S APPROVAL PRIOR TO FABRICATION.
 - MINIMUM CLEAR SPACE BETWEEN HANDRAIL AND ANY ADJACENT WALL SHALL BE 1-1/2".

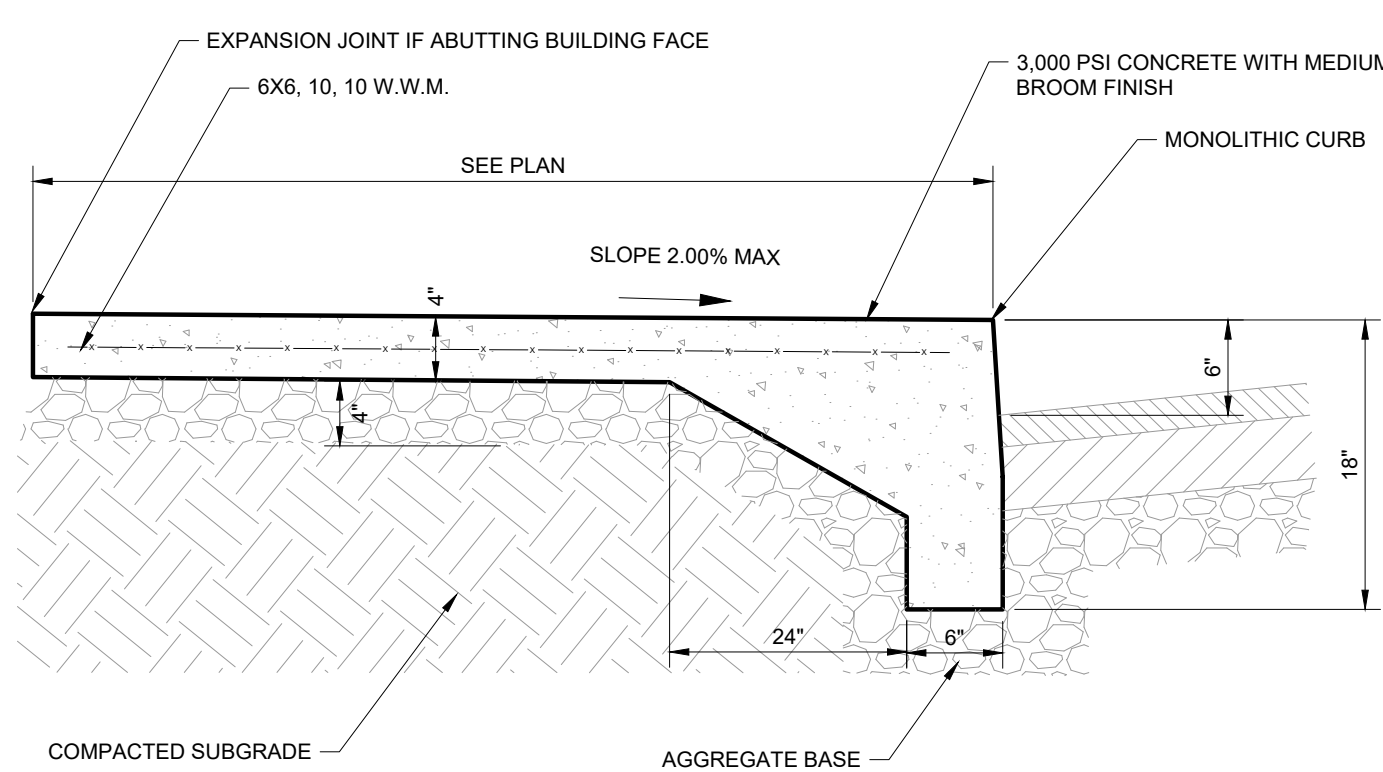


8 STEEL HANDRAIL
NOT TO SCALE



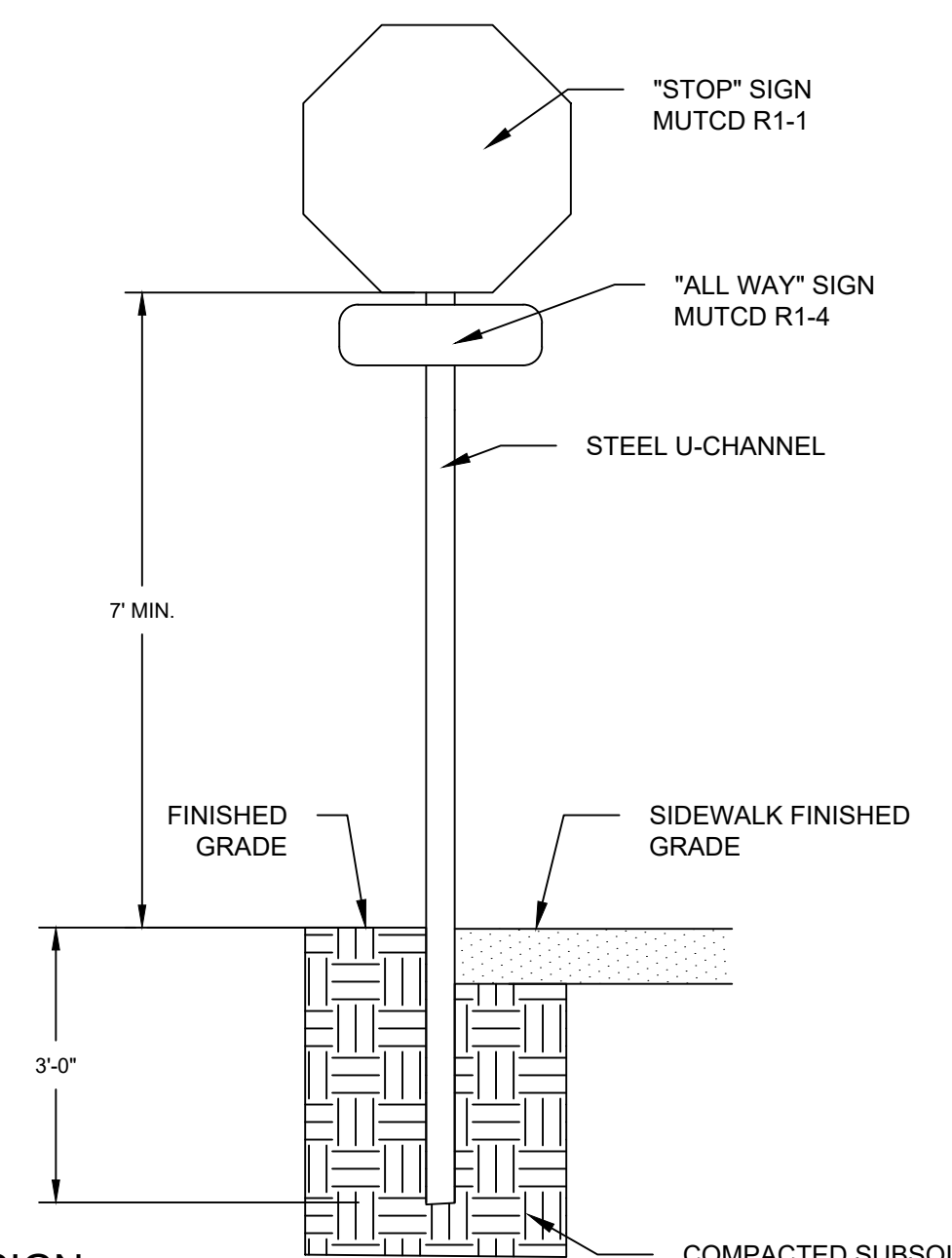
- NOTES:**
- REFER TO GRADING PLANS FOR RISER NUMBERS.
 - CONCRETE STEPS TO BE LIGHT BROOM FINISH.
 - TREADS TO SLOPE 2% FOR POSITIVE DRAINAGE.

9 CONCRETE STAIR
NOT TO SCALE



- NOTES:**
- EXPANSION JOINTS SHALL BE PLACED AT ANY TIE-IN POINT TO EXISTING OR PROPOSED BUILDING FACE, OR RIGID PAVEMENT.
 - EXPANSION JOINTS SHALL BE PLACED AT A MAX. 30' SPACING AND COMPOSED OF 3/4" SEALANT OVER 3/4" PREFORMED EXPANSION JOINT. RECESS SEALANT 1/2" BELOW FINISH SURFACE.
 - CONTROL JOINTS SHALL BE PLACED AT A MAX. 6' SPACING AND BE 3/4" DEEP TOOLED OR SAWCUT.

10 CONCRETE SIDEWALK WITH MONOLITHIC CURB
NOT TO SCALE



11 STOP SIGN
NOT TO SCALE



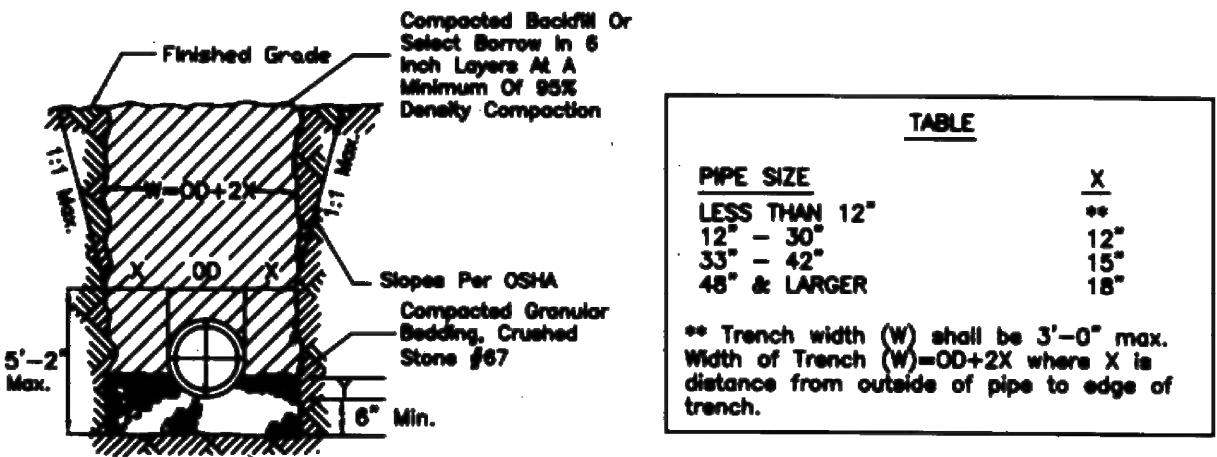
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DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

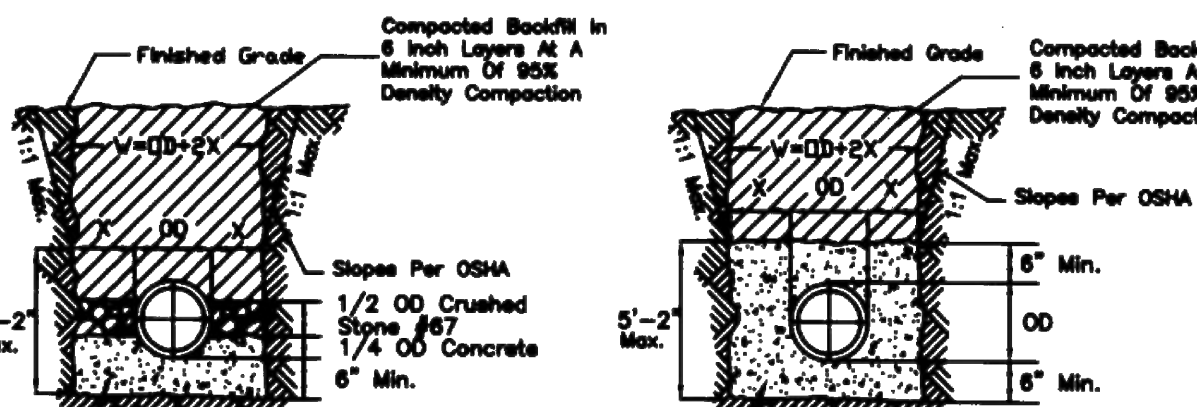
SITE DETAILS

SHEET NUMBER
C8-10

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STANDARD TRENCH



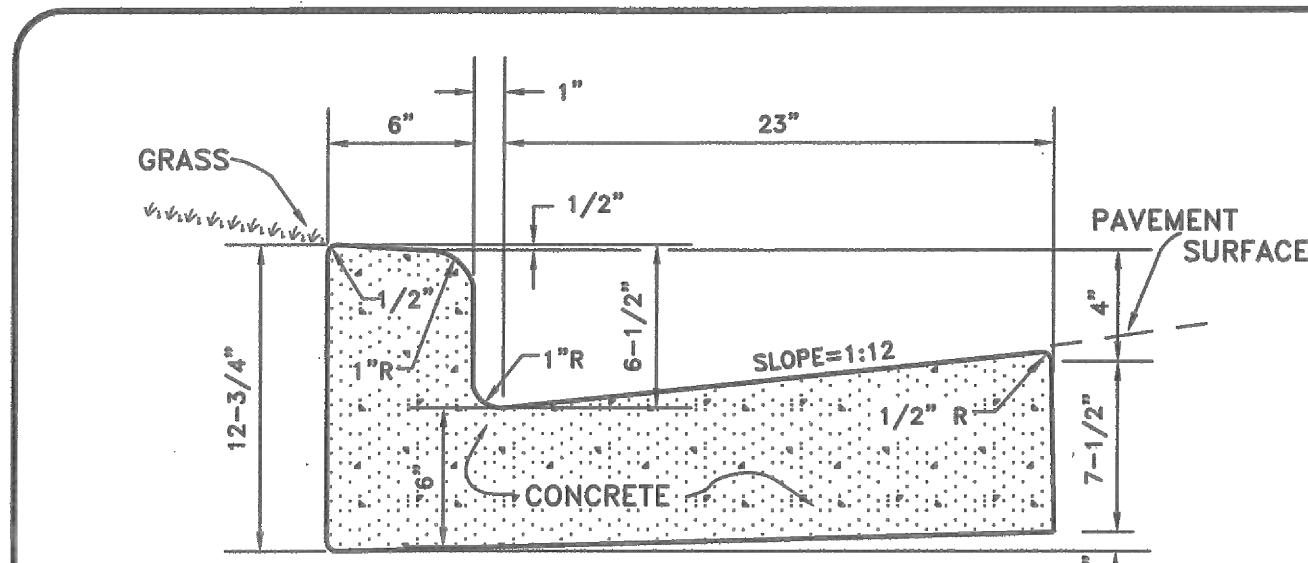
CONCRETE CRADLE

CONCRETE ENCASEMENT

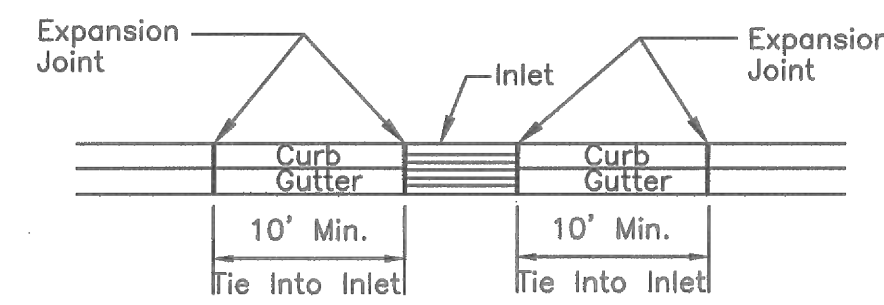
- GENERAL NOTES**
- CONCRETE FOR CRADLES AND ENCASEMENTS TO HAVE $F_c = 3000$ PSI AT 28 DAYS.
 - POUR CONCRETE AGAINST UNDISTURBED EARTH.
 - FOR CONTINUOUS CONDUIT IN TRENCH CONDITIONS THE WIDTH OF TRENCH (W) SHALL BE $OD+2X$ MAXIMUM.
 - THE WIDTH OF TRENCH FOR ALL OTHER PIPE DIAMETERS SHALL BE ACCORDING TO TABLE.
 - BACKFILL MATERIAL IN ROADWAY SHALL BE CRUSHED STONE #67 COMPACTED IN 6" LAYERS FOR THE FULL DEPTH OF THE TRENCH.

NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	TRENCH BACKFILL	DWG. NO. DR-180
ASST. DIR. ENG.: <i>Mark May</i> DATE: 1/24/01	REVISOR: <i>Mark May</i> DATE: 12/01/00	



TYPICAL CROSS-SECTION

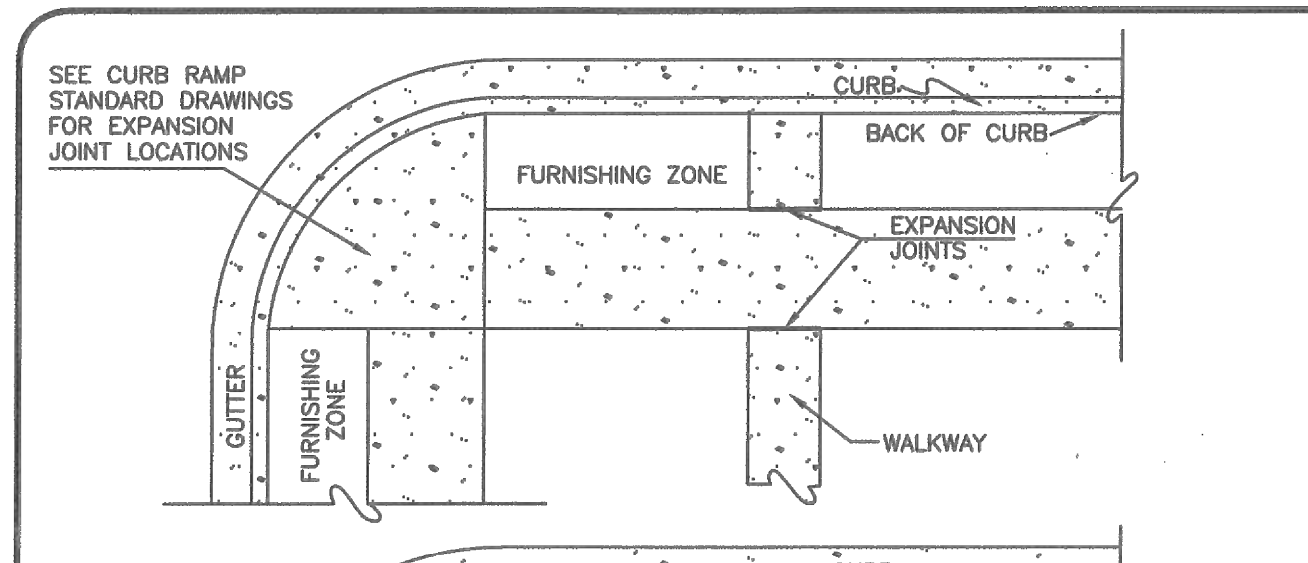


FRONT VIEW

- GENERAL NOTES**
- Expansion joints to be spaced a maximum of 100 feet apart or as directed by the Engineer.
 - Expansion joints will also be required at tangent points, ramps, and inlets.
 - Contraction joints are to be cut into curb and gutter every 10 feet to a depth of $D/4$, where D equals the thickness of the section. The spacing of 10 feet may be reduced at closures but no section of curb and gutter shall be less than 10 feet.
 - There will be a minimum of 10 feet tie in at curb inlets on each side of the inlet. An expansion joint will be used on each side of the tie in.
 - Cost of contraction joints to be included in the unit bid price for concrete curb with gutter.

NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD CURB WITH GUTTER	DWG. NO. ST-200
DIR. OF ENG.: <i>Mark May</i> DATE: 5/12/03	REVISOR: <i>Mark May</i> DATE: 07/21/00	REVISOR: <i>Mark May</i> DATE: 05/02/03

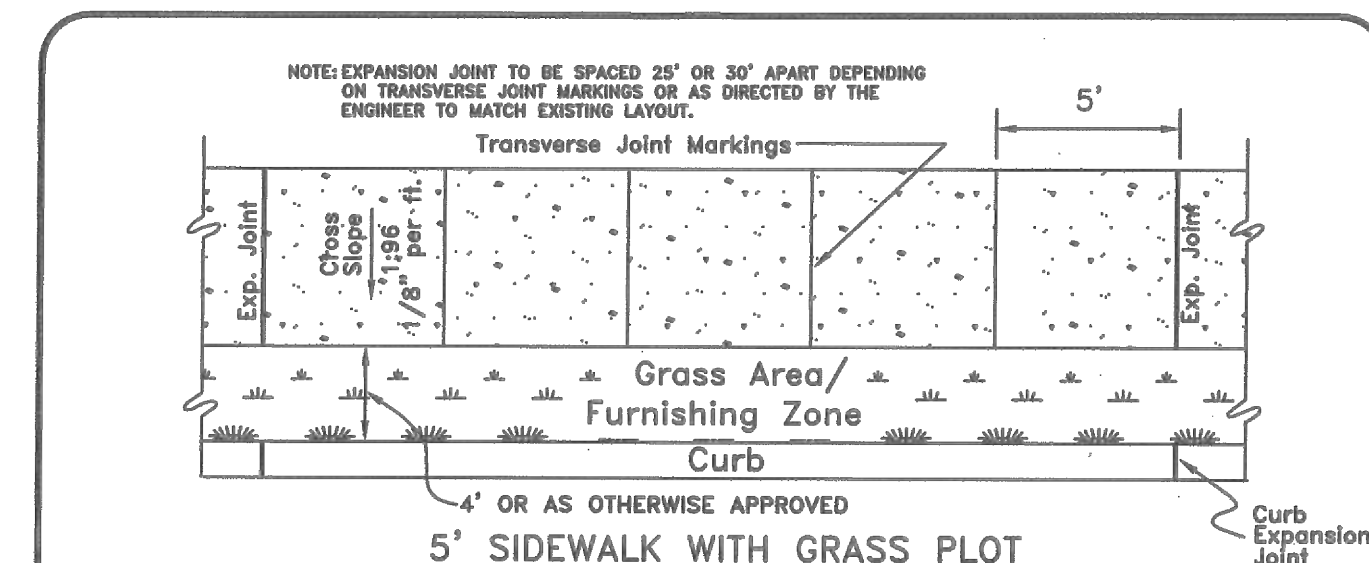


- GENERAL NOTES**
- EXPANSION JOINTS TO BE PLACED AS SHOWN ON THIS DRAWING OR AS DIRECTED BY THE ENGINEER. AT CURB RETURNS, WHERE BUILDINGS ARE ADJACENT TO SIDEWALKS, AND AT WALKWAYS.
 - COST OF ALL EXPANSION JOINTS TO BE INCLUDED IN UNIT BID PRICE FOR SIDEWALKS.
 - ONE-HALF INCH EXPANSION JOINTS TO BE USED IN ALL LOCATIONS.
 - THIS METRO STANDARD DRAWING IS FOR THE EXPANSION JOINTS IN SIDEWALKS. SEE OTHER METRO STANDARD DRAWINGS FOR CURB RAMP PLACEMENT, SIDEWALK DETAILS, OBSTRUCTIONS, ETC.
 - THE EXPANSION JOINT MATERIAL SHALL BE RECYCLED MATERIAL 1/2" THICK AS MANUFACTURED BY J.D. RUSSELL COMPANY, 1-800-888-6872, WWW.JDRUSSELL.COM/PAGE/01, OR APPROVED EQUAL.

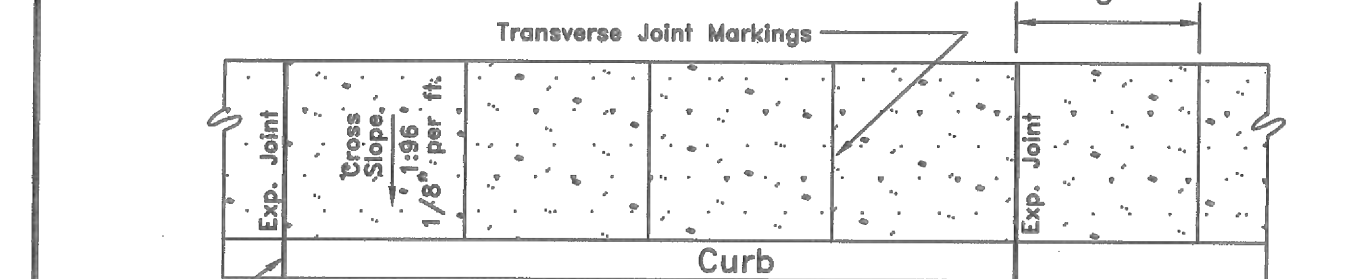
TYPICAL EXPANSION JOINT DETAIL

NOT TO SCALE

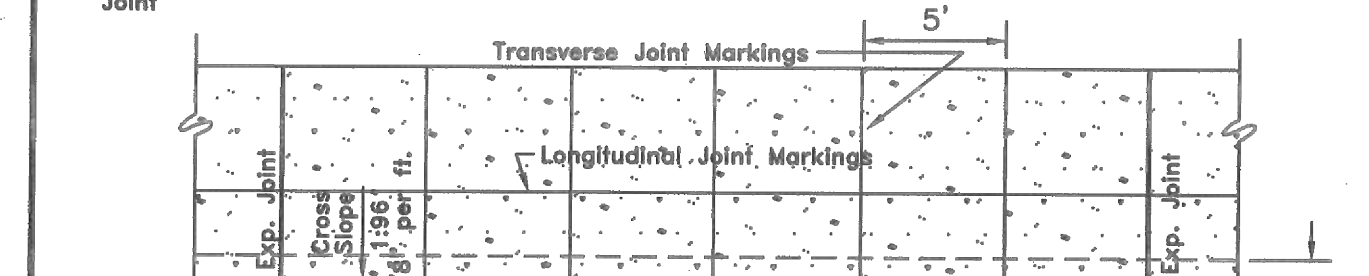
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	STANDARD EXPANSION JOINT FOR CONCRETE SIDEWALK	DWG. NO. ST-209
DIR. OF ENG.: <i>Mark May</i> DATE: 5/12/03	REVISOR: <i>Mark May</i> DATE: 03/01/02	REVISOR: <i>Mark May</i> DATE: 05/02/03



5' SIDEWALK WITH GRASS PLOT



5' SIDEWALK BUILT TO CURB

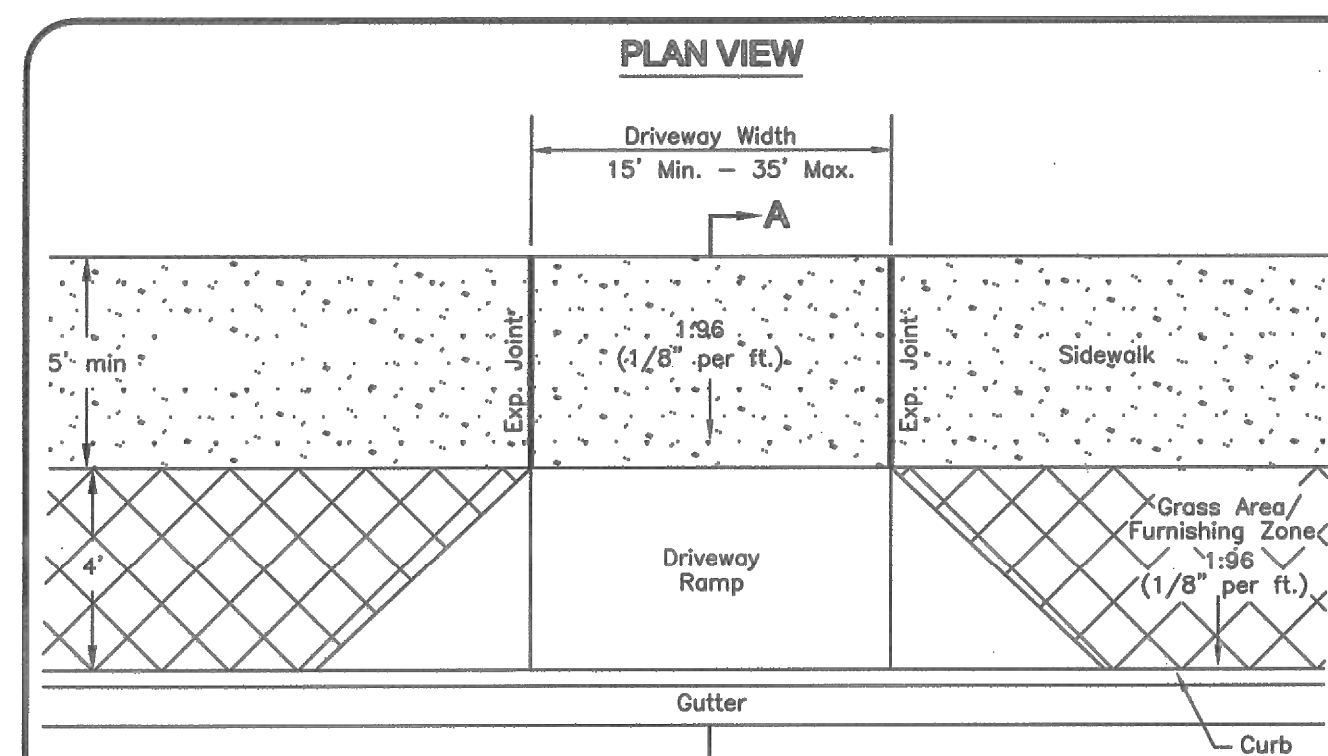


SIDEWALK BUILT TO CURB (WIDTH GREATER THAN 6')

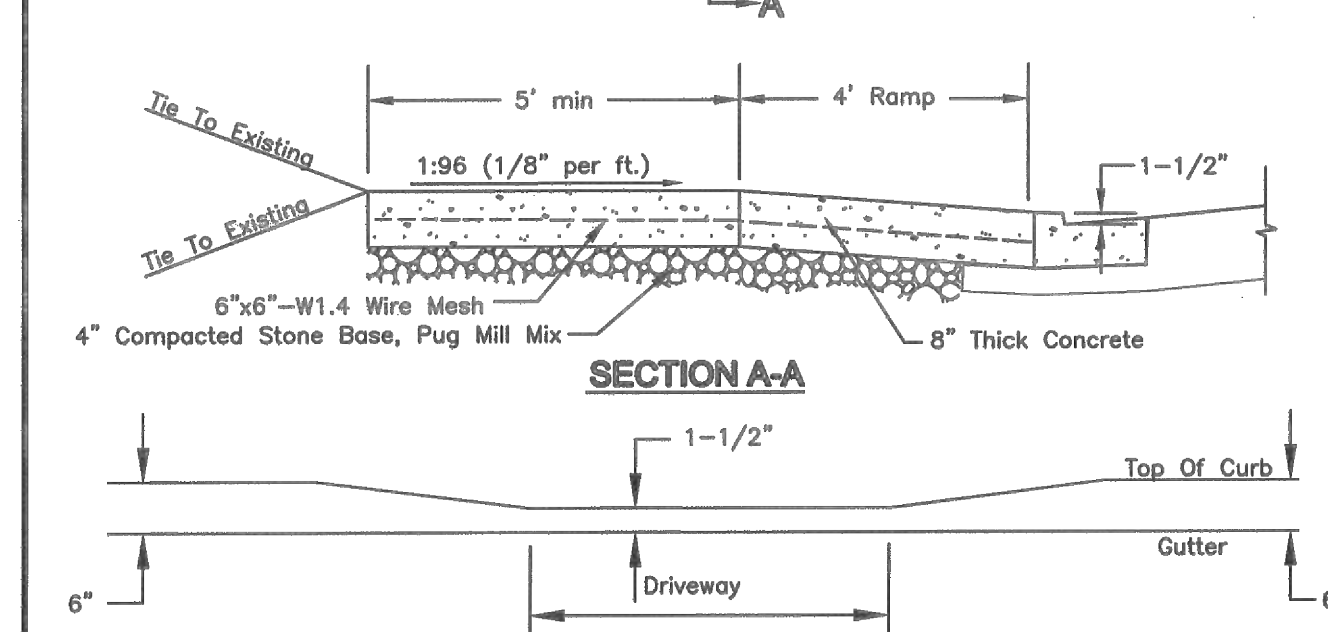
- GENERAL NOTES**
- SIDEWALKS SHALL BE A MINIMUM OF 4 INCHES IN THICKNESS.
 - MAXIMUM CROSS SLOPE FOR SIDEWALKS SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).
 - SIDEWALK SHALL BE CONSTRUCTED OF WHITE CONCRETE, BRICK, OR EXPOSED AGGREGATE PER METRO DEPARTMENT OF PUBLIC WORKS TECHNICAL SPECIFICATIONS, SECTION 02522.
 - COMPACTED STONE BASE, PUG MILL MIX, 4" THICK SHALL BE APPLIED TO SUB GRADE PRIOR TO INSTALLING SIDEWALK.
 - FURNISHING ZONE IS AN AREA FOR OBSTRUCTIONS IN THE SIDEWALK. EXAMPLES ARE OUTDOOR CAFES, POWER POLES, FIRE HYDRANTS, SIGNS, ETC.
 - IN THE EVENT OF ANY CONFLICT, DISCREPANCY, OR INCONSISTENCY AMONG THE PLANS AND THESE STANDARD DETAILS, THE REQUIREMENTS OF THE STANDARD DETAILS SHALL GOVERN.

NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	SIDEWALK CONSTRUCTION	DWG. NO. ST-210
DIR. OF ENG.: <i>Mark May</i> DATE: 7/15/06	REVISOR: <i>Mark May</i> DATE: 05/02/03	REVISOR: <i>Mark May</i> DATE: 11/24/03



PLAN VIEW

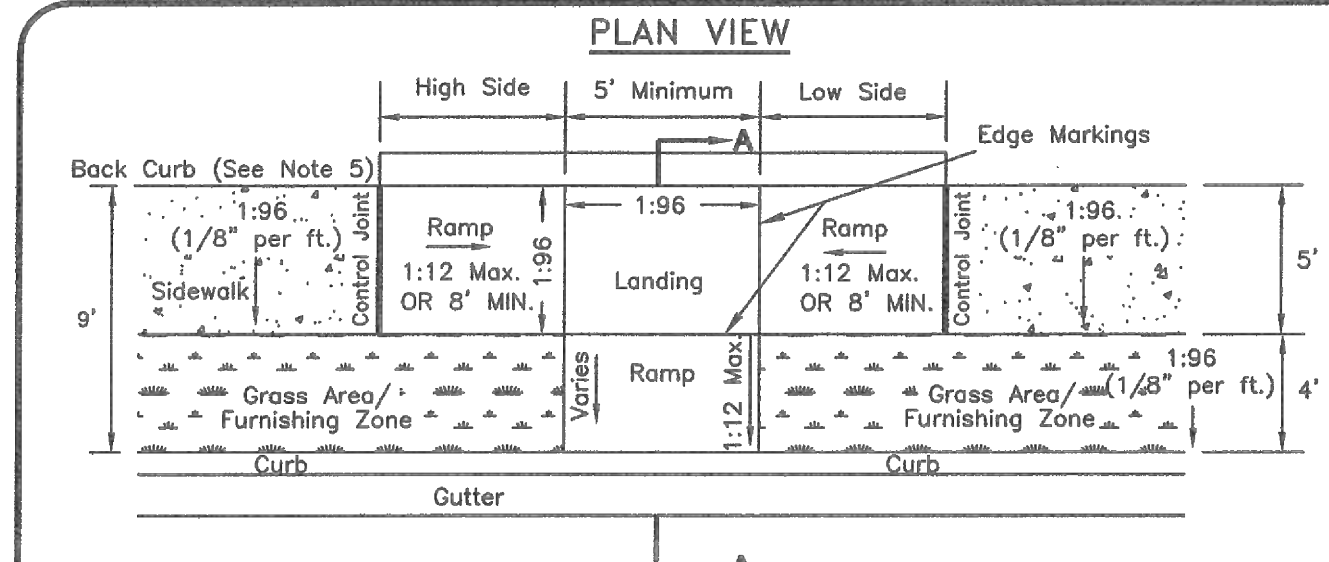


SECTION A-A

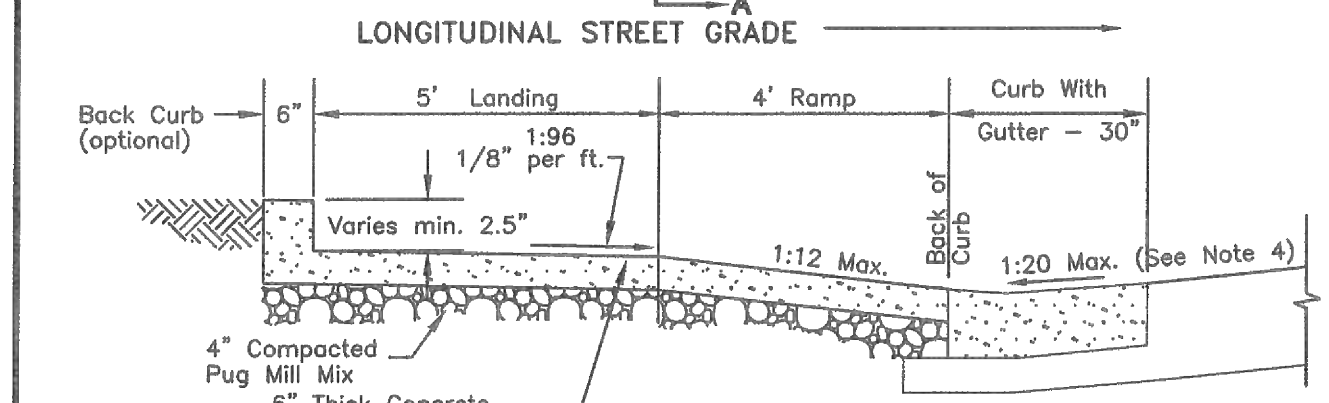
- NOTE:**
- Cross-slope of sidewalk shall not exceed 1:48 (vertical:horizontal).
 - Fiber mesh reinforcement is an approved alternative for the wire mesh. Fiber mesh reinforcement will be added to the concrete at the batch plant at the rate of 1 1/2 pounds per cubic yard.
 - Concrete shall be 8 inches thick.

NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NEW CONSTRUCTION COMMERCIAL DRIVEWAY RAMP	DWG. NO. ST-324
DIR. OF ENG.: <i>Mark May</i> DATE: 5/12/03	REVISOR: <i>Mark May</i> DATE: 07/27/02	REVISOR: <i>Mark May</i> DATE: 05/08/03



PLAN VIEW

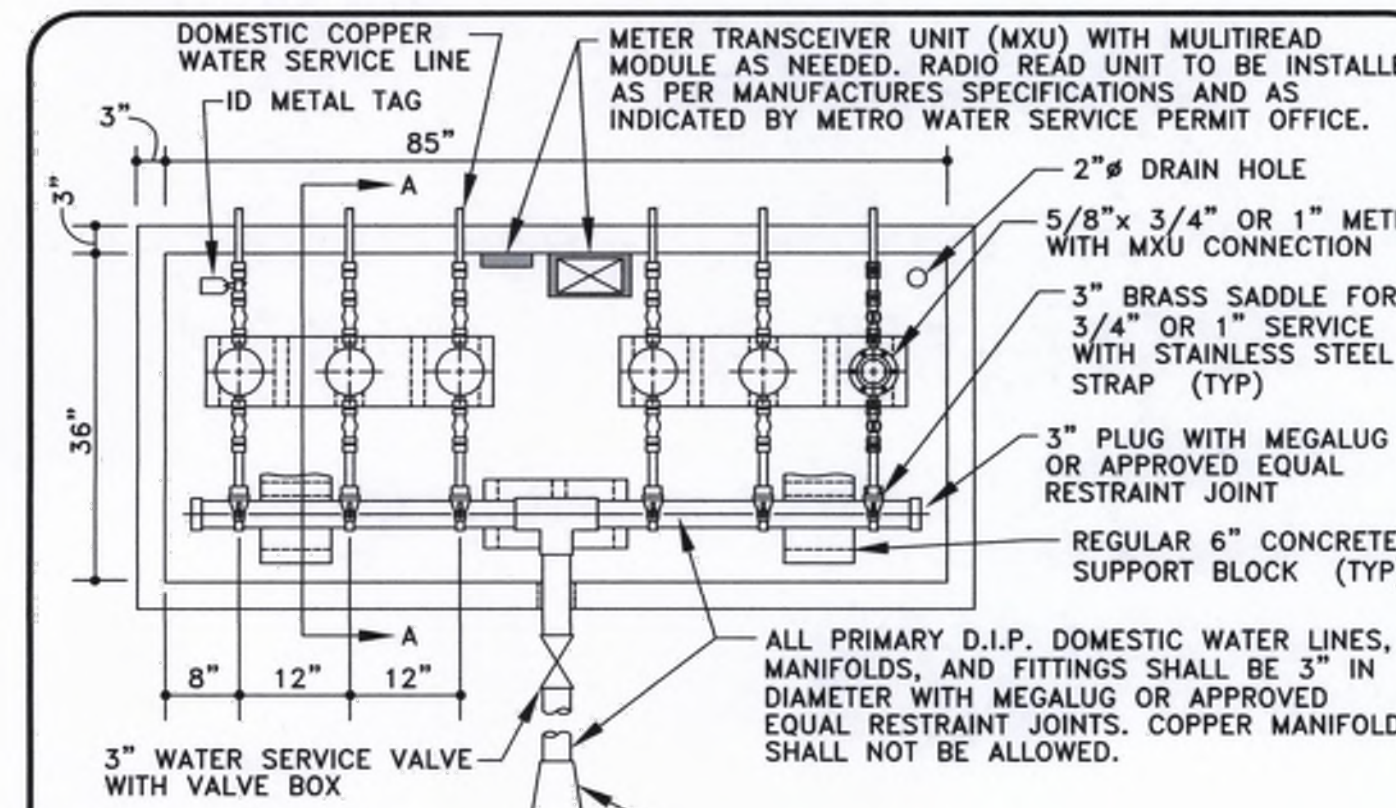


SECTION A-A

- GENERAL NOTES**
- Ramp shall be flush with the gutter or edge of pavement.
 - Cross-slope of landing and of sidewalk shall not exceed 1:48 (vertical:horizontal).
 - Surface texture of the curb ramp shall be stable, firm, and slip-resistant. The surface shall be coarse broomed "white" concrete finish transverse to the slope of the ramp.
 - The normal gutter slope of 1:12 (vertical:horizontal) shall be reduced to 1:20 (vertical:horizontal) at the ramp when the curb and gutter is poured before the ramp, or the gutter at the ramp must be cut out, removed, and repoured when the ramp is poured.
 - Back curb shall be constructed at the direction of Public Works, and if required, back curb height along ramp shall transition from 0 inches at expansion joints to the proposed height of back curb at landing and shall be a constant height through landing. Deletion of back curb requires approval of inspector. Removal to be noted in project file and on inspection report.
 - High side and low side ramps shall have a maximum slope of 1:12 (vertical:horizontal) or shall be 8 feet (96 inches) minimum in length.

NOT TO SCALE

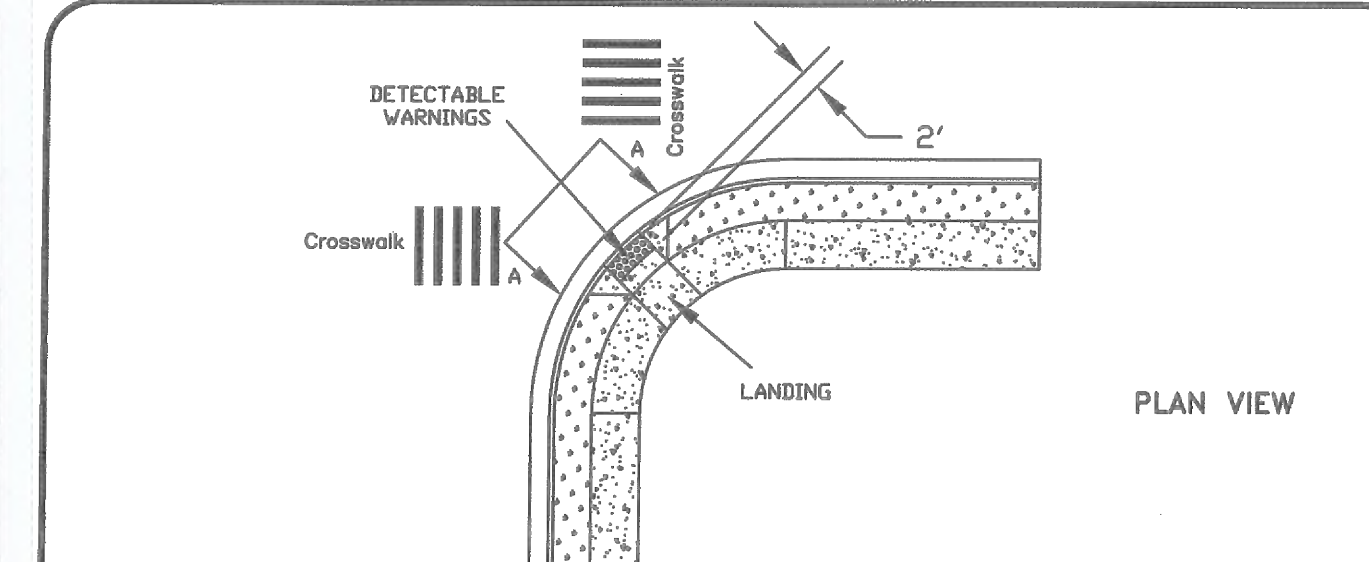
METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	NEW CONSTRUCTION CURB RAMP	DWG. NO. ST-320
DIR. OF ENG.: <i>Mark May</i> DATE: 5/12/03	REVISOR: <i>Mark May</i> DATE: 07/18/02	REVISOR: <i>Mark May</i> DATE: 05/08/03



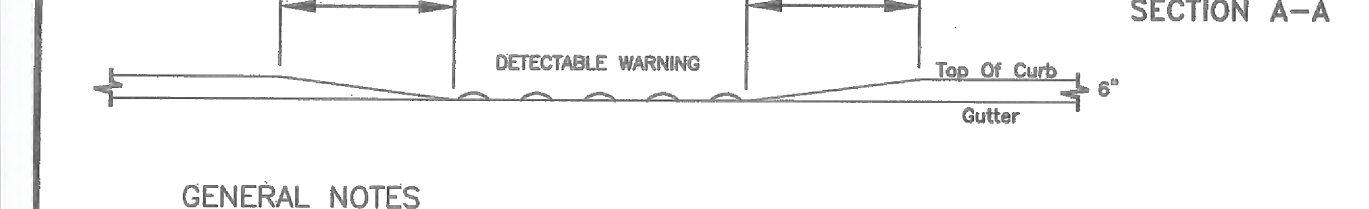
SECTION A-A

- VAULT NOTES:**
- 4000 P.S.I. CONCRETE SHALL BE USED.
 - CONCRETE SIDEWALLS TO BE REINFORCED WITH #3 REBAR CENTERED EACH WAY.
 - CORE FOR PIPE TO HAVE A-LOK SEAL INSTALLED OR APPROVED EQUAL.
- NOTES:**
- DOMESTIC METEDED WATER SERVICE LINE TO BE TYPE "M" COPPER WITH COMPRESSION OR FLARED FITTINGS IN METER VAULT. COPPER SERVICE LINE TO EXTEND 36" BEYOND METER BOX.
 - IDENTIFICATION (ID) METAL TAG WITH THE ADDRESS NUMBER SHALL BE WIRED AROUND EACH LINE. METER BOX MAY BE ENLARGED TO ALLOW FOR ADDITIONAL METERS.

METRO WATER SERVICES	3" MANIFOLD FOR 3/4" AND/OR 1" MULTI SERVICES IN VAULT	DWG. NO. WD0202J
DATE: 03/18/15	REVISOR: <i>Fal Balthrop</i> DATE: 07/18/02	REVISOR: <i>Fal Balthrop</i> DATE: 05/08/03



PLAN VIEW



SECTION A-A

- GENERAL NOTES**
- FOR CURB RADIUS GREATER THAN 25'.
 - SEE CURB RAMP STANDARD DRAWINGS FOR CONSTRUCTION DETAILS.
 - ALL MARKINGS TO CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - THE LAYOUT, SIZE, DIMENSIONS, HEIGHT OF THE DETECTABLE WARNINGS SHALL MEET THE LATEST DESIGN STANDARDS AS ISSUED BY THE ACCESS BOARD.
 - THE DETECTABLE WARNINGS AND INSTALLATIONS SHALL MEET THE MPW SPECIFICATION 02523.
 - IN THE EVENT OF ANY CONFLICT, DISCREPANCY, OR INCONSISTENCY AMONG THE PLANS AND THESE STANDARD DETAILS, THE REQUIREMENTS OF THE STANDARD DETAILS SHALL GOVERN.
 - THE COLOR OF THE DETECTABLE WARNING STRIP SHALL BE "SAFETY YELLOW".

NOT TO SCALE

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY DEPARTMENT OF PUBLIC WORKS	DETECTABLE WARNINGS AT CURB RETURNS WITH RADIUS GREATER THAN 25'	DWG. NO. ST-330
DIR. OF ENG.: <i>Mark May</i> DATE: 6/17/05	REVISOR: <i>Mark May</i> DATE: 06/17/05	REVISOR: <i>Mark May</i> DATE: 08/13/04

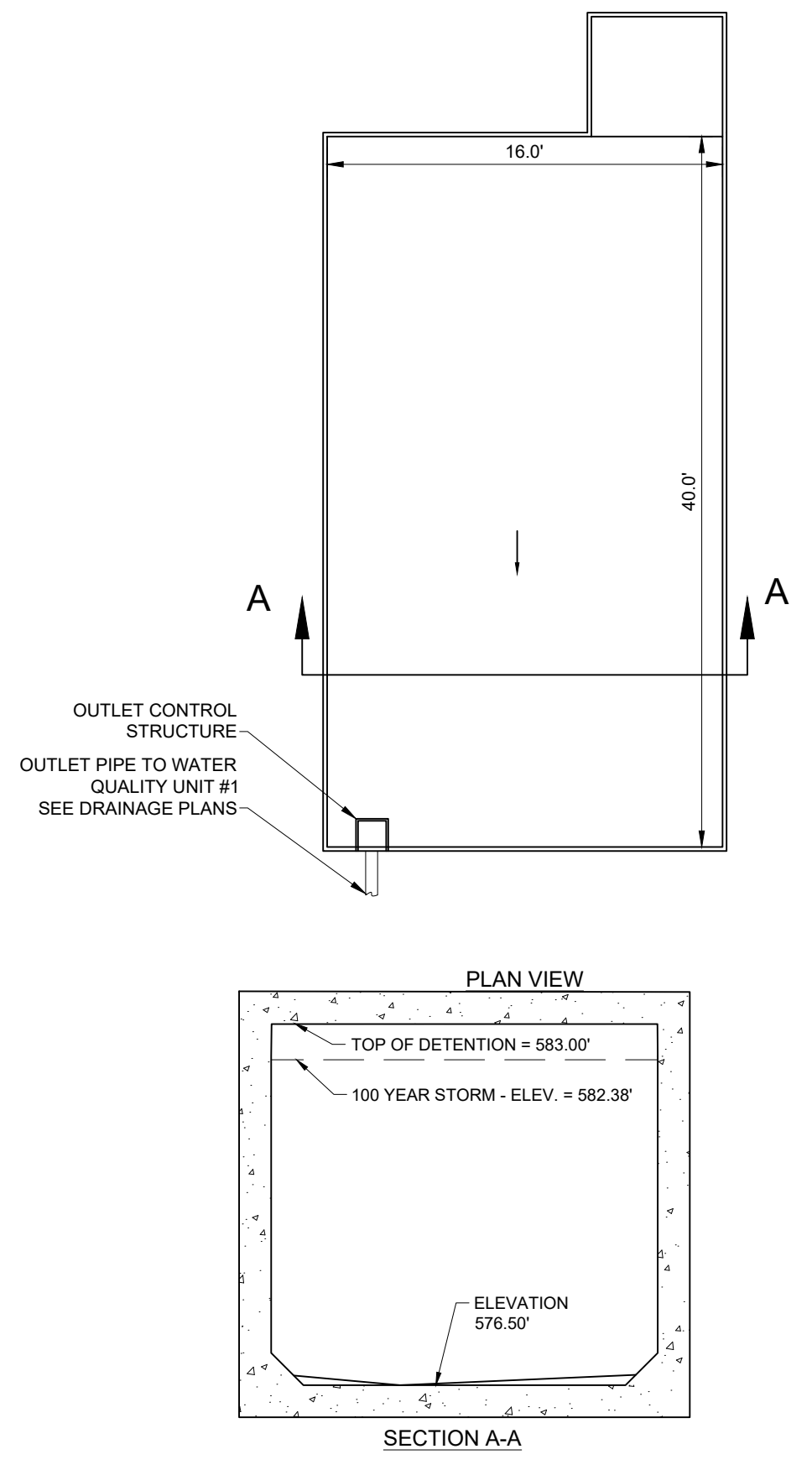
Kimley-Horn

RESERVOIR ZONE 7 SINGLE FAMILY



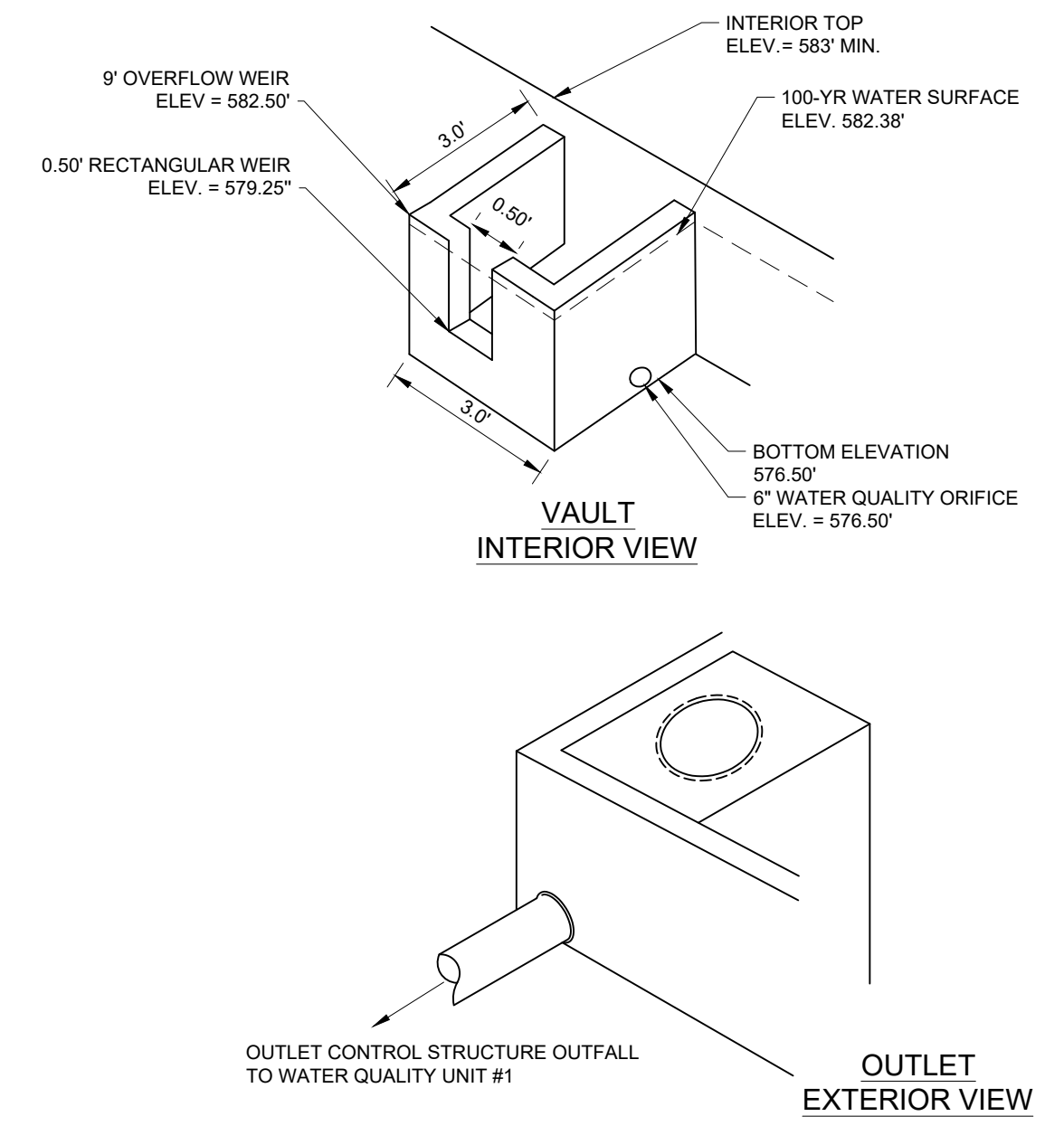
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
DATE:	10/01/2021
KIMLEY-HORN PROJECT NO.	118129070
SITE DETAILS	
SHEET NUMBER	C8-11

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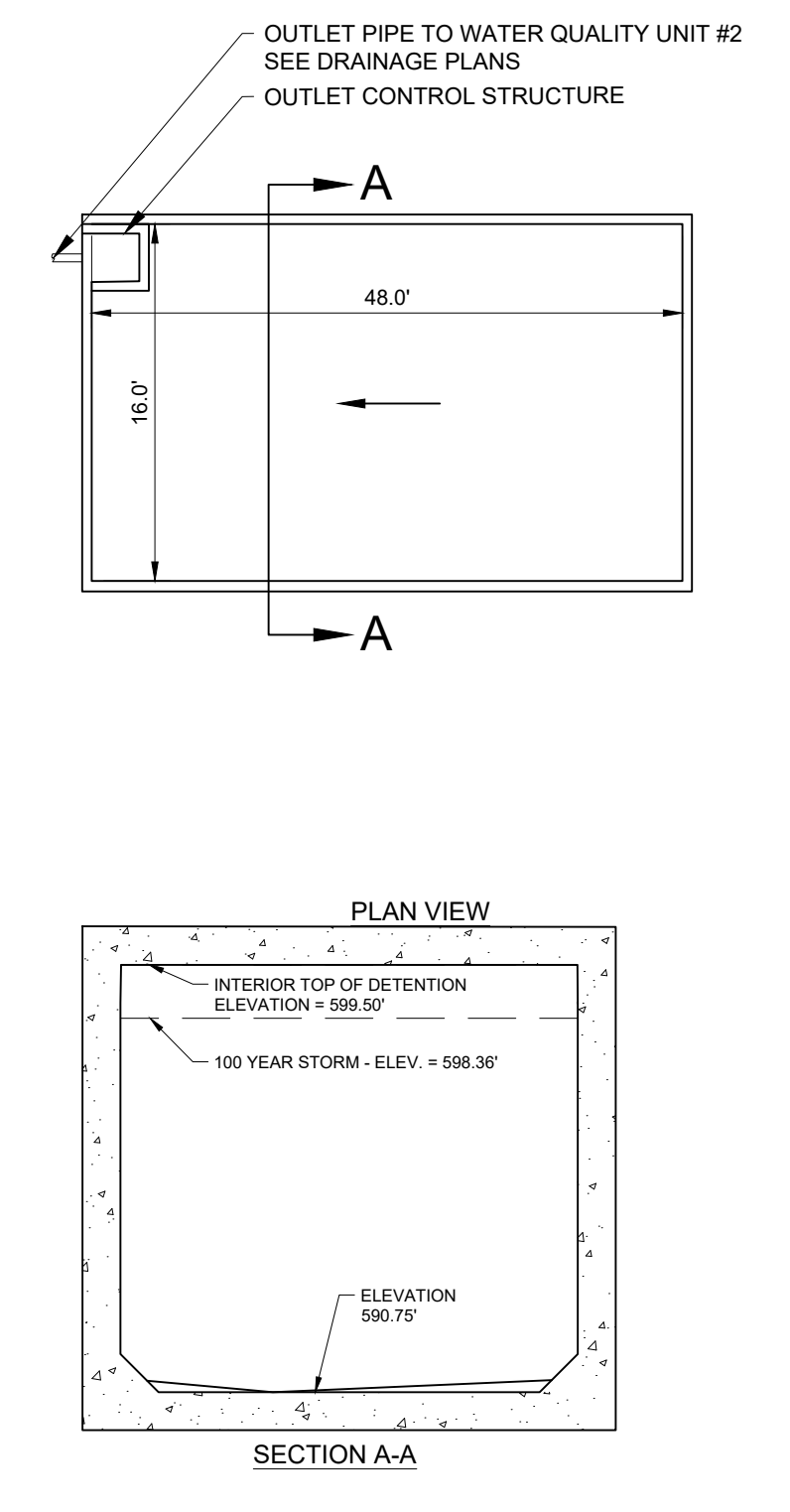


- DETENTION SYSTEM NOTES:**
1. SYSTEM TO BE PRECAST STORM VAULT WITH CHAMBERS
 2. TWO MANHOLE ACCESS WAYS SHALL BE PROVIDED WITH HEAVY DUTY VEHICULAR RATED GRATES OPEN TO THE ATMOSPHERE. GRATES SHALL BE MARKED WITH "STORMWATER"
 3. COMPLETE DETENTION SYSTEM SHALL BE WATERTIGHT.
 4. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER AND OWNER APPROVAL PRIOR TO CONSTRUCTION AS NECESSARY.
 5. CONTRACTOR SHALL DOCUMENT INSTALLATION AND PROVIDE AS-BUILTS REQUIRED BY METRO NASHVILLE STORMWATER DIVISION.

1 DETENTION VAULT #1 - PRECAST CHAMBERS
NOT TO SCALE

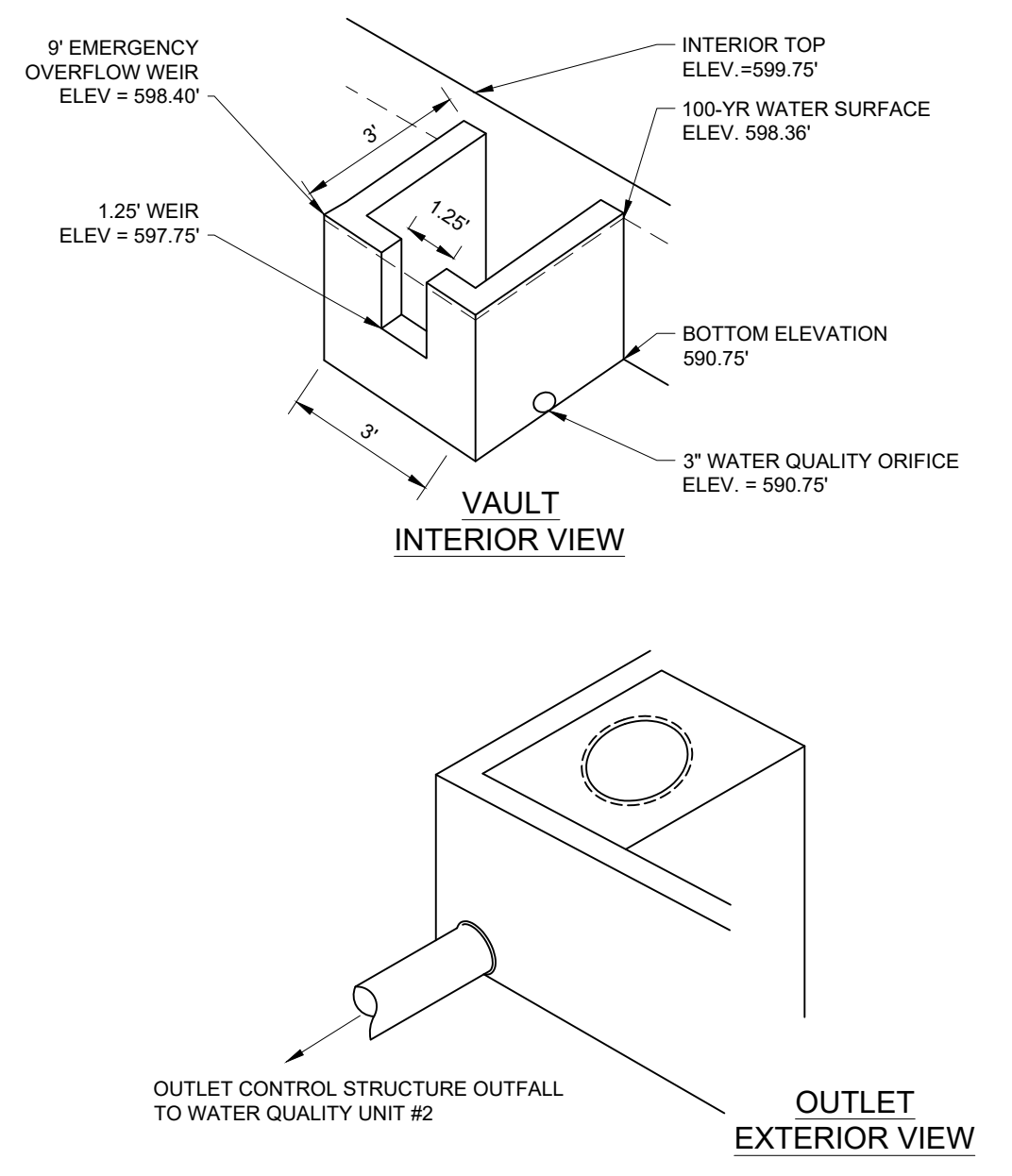


2 DETENTION VAULT #1 - OUTLET CONTROL DETAIL
NOT TO SCALE



- DETENTION SYSTEM NOTES:**
1. SYSTEM TO BE PRE-CAST STORM VAULT CHAMBERS. TWO MANHOLE ACCESS WAYS SHALL BE PROVIDED WITH HEAVY DUTY VEHICULAR RATED GRATES OPEN TO THE ATMOSPHERE. GRATES SHALL BE MARKED WITH "STORMWATER"
 2. COMPLETE DETENTION SYSTEM SHALL BE WATERTIGHT.
 3. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER AND OWNER APPROVAL PRIOR TO CONSTRUCTION AS NECESSARY.
 4. CONTRACTOR SHALL DOCUMENT INSTALLATION AND PROVIDE AS-BUILTS REQUIRED BY METRO NASHVILLE STORMWATER DIVISION.

3 DETENTION VAULT #2 - PRECAST CHAMBERS
NOT TO SCALE



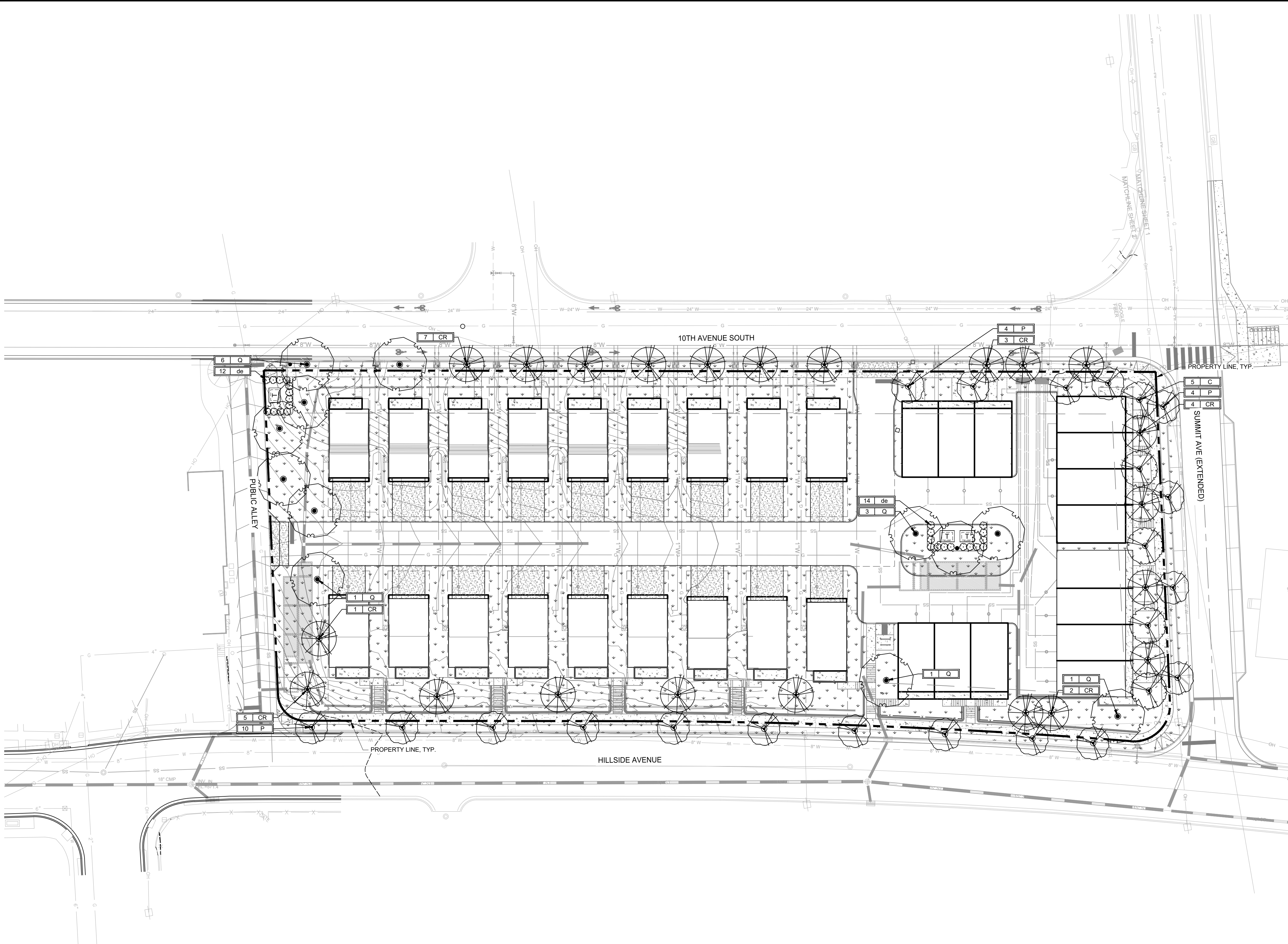
4 DETENTION VAULT #2 - OUTLET CONTROL DETAIL
NOT TO SCALE



NO.	DATE	BY	REVISIONS
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DESIGNED BY: JRP
DRAWN BY: BKB
CHECKED BY: BJB
DATE: 10/01/2021
KIMLEY-HORN PROJECT NO. 118129070

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LEGEND

BERMUDA SOD (TIFWAY 419)

GENERAL PLANTING REQUIREMENTS

- STREET TREE REQUIREMENTS**
REQUIRED: BASED ON THE APPROVED 2018SP-026 'RESERVOIR' SPECIFIC PLAN, STREET TREES SHALL BE PROVIDED ON ALL PUBLIC STREET FRONTS AT A MINIMUM 50' AVERAGE ON CENTER.
PROVIDED: STREET TREES 50' AVERAGE ON CENTER.
NOTE: WHERE OVERHEAD UTILITIES EXIST, UNDERSTORY TREES ARE UTILIZED TO AVOID CONFLICT.

LANDSCAPE NOTES

- ALL AREAS THAT HAVE BEEN DISTURBED NOT COVERED BY PLANTINGS OR HARDSCAPE SHALL BE SODED IN ORDER TO ACHIEVE A WELL-ESTABLISHED LAWN.
- THE AUTOMATIC, UNDERGROUND IRRIGATION SYSTEM SHALL MEET METRO NASHVILLE STANDARDS. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE IRRIGATION SYSTEM.

TREE DENSITY UNIT (TDU) WORKSHEET (Ordinance 94-1104) REV Sept-2019

Date:	04/28/2021
Map:	105
Parcel:	355
Application Number:	
Project Name:	Reservoir Zone 7 Multi-Family
Address:	1501 Hillside Ave, Nashville, TN 37203

1	Acres (area of parcel including building site)	2.09
2	Minus Building Coverage Area	(-) 0.54
3	Equals Adjusted Acres	(=) 1.55
4	Multiply by Required Tree Density Unit per acre	(x) 14
5	Required TDU for Project	(=) 21.7

HERITAGE TREE(S) RETAINED

DBH	# of Trees	Value	TDU
8"		x 3.2	0
10"		x 4.0	0
12"		x 4.8	0
14"		x 5.6	0
16"		x 6.4	0
18"		x 7.2	0
20"		x 8.0	0
22"		x 8.8	0
24"		x 9.6	0
Greater than 24"		equals DBH x .5 per inch	0
total			0

add total to line 6

RETAINED TREE(S)

DBH	# of Trees	Value	TDU
24"		x 8.4	0
26"		x 9.1	0
28"		x 9.8	0
30"		x 10.5	0
32"		x 11.2	0
34"		x 11.9	0
36"		x 12.6	0
38"		x 13.3	0
40"		x 20.0	0
total			0

add total to line 6

REPLACEMENT TREE(S)- LARGE & MEDIUM CANOPY TREES

DBH	# of Trees	Value	TDU
2"		x .5	0
3"	10	x .6	6
4"		x .7	0
5"		x .9	0
6"		x 1.0	0
7"		x 1.2	0
8"		x 1.3	0
total			6

add total to line 7

EXAMPLES but not limited to:
Deciduous- Oak, Maple, Poplar, Planetree, Ginkgo
Evergreen- Am. Holly, So. Magnolia, Pine, Hemlock, Spruce, Cedar
Mature height greater than 30'

REPLACEMENT TREE(S)- LARGE & MEDIUM COLUMNAR, SMALL UNDERSTORY TREES and STREET TREES*

DBH	# of Trees	Value	TDU
2"	45	x .25	11.25
3"		x .3	0.6
4"	2	x .4	0
5"		x .5	0
6"		x .5	0
7"		x .6	0
8"		x .7	0
total			11.85

add total to line 7

EXAMPLES but not limited to:
Columnar (Fastigiate)-Deciduous: Slender Silhouette Sweetgum, Arnold Tulip Poplar, Princeton Sentry Ginkgo
Deciduous- Oak, Maple, Poplar, Planetree, Ginkgo
Evergreen- Am. Holly, So. Magnolia, Pine, Hemlock, Spruce, Cedar
Mature height avg. 30' or less.
Small Understory Columnar varieties receive no TDU credit

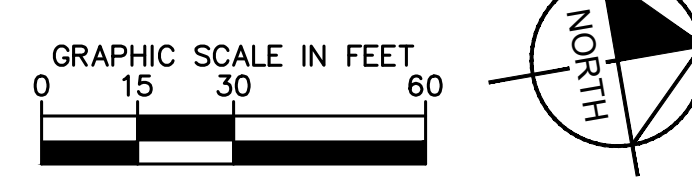
6	Total TDU Retained on-site	0
7	Total TDU for Replacement Trees- On-site	(+) 17.85
8	Total Credits Paid to Tree Mitigation Bank*	(+) 4
9	Total Density Units Provided	(=) 21.85

1 Credit = 1 TDU = \$725.00
total must exceed lines 5
The total density units provided (line 9) must equal or exceed the requirements of line 5 above.

All Retained and Replacement trees must be shown on site plan.
Trees not protected in accordance with 17.24.110 - Protection of trees during development activities, cannot be counted towards TDU.
Canopy Street Trees with less than 600 c.f. or Understory with less than 400 c.f. root volume receive no TDU credit.
* Tree Bank cannot be used for Buffer, Screening, Frontage, Perimeter or other requirements. Only for balancing Required TDU.

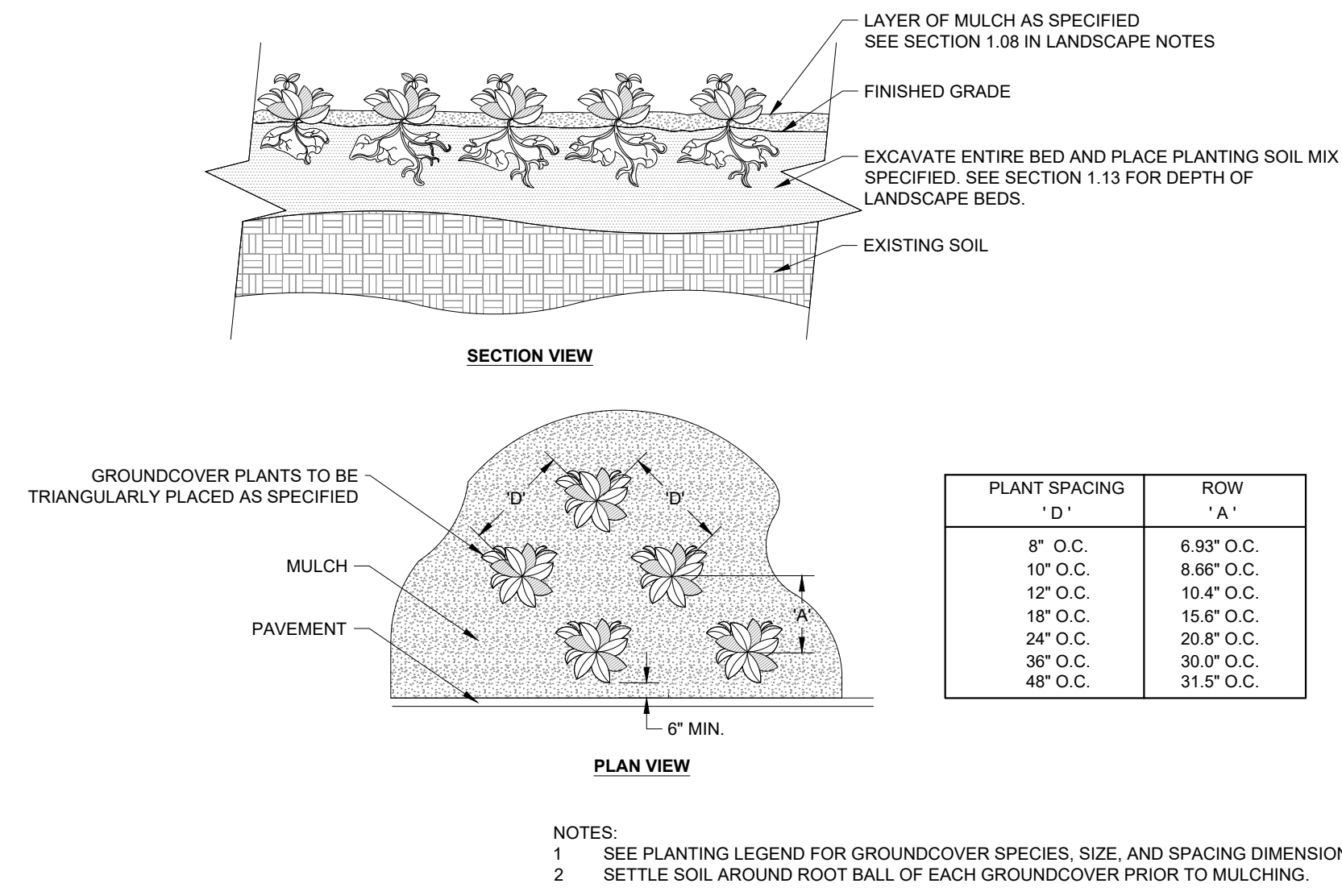
PLANT SCHEDULE

TREES	Q	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	ROOT	CONDITION
UNDERSTORY TREES	C	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	AS SHOWN	2" CAL. MIN; 6'-8" HT.	B&B	5' CLEAR TRUNK, FULL CANOPY
CR	5	CORNUS X 'RUTGAN'	STELLAR PINK DOGWOOD	AS SHOWN	2" CAL. MIN; 6'-8" HT.	B&B	FULL; MATCHED
P	18	PRUNUS 'KANZAN'	KANZAN CHERRY	AS SHOWN	2" CAL. MIN; 6'-8" HT.	B&B	5' CLEAR TRUNK, FULL CANOPY
SHRUBS	de	DISTYLUM 'EMERALD HEIGHTS'	EMERALD HEIGHTS DISTYLUM	4" O.C.	3 GAL; 24" MIN. HT.	ROOT CONT	MATCHED; FULL
GROUND COVERS	ts	TIFWAY 419 BERMUDA SOD	TIFWAY 419 BERMUDA SOD	SPACING SOD/TURF	SIZE	ROOT	CONDITION TIGHT, SAND ROLLED JOINTS, FINISHED SOD TO BE FREE OF WEEDS AND DEBRIS.

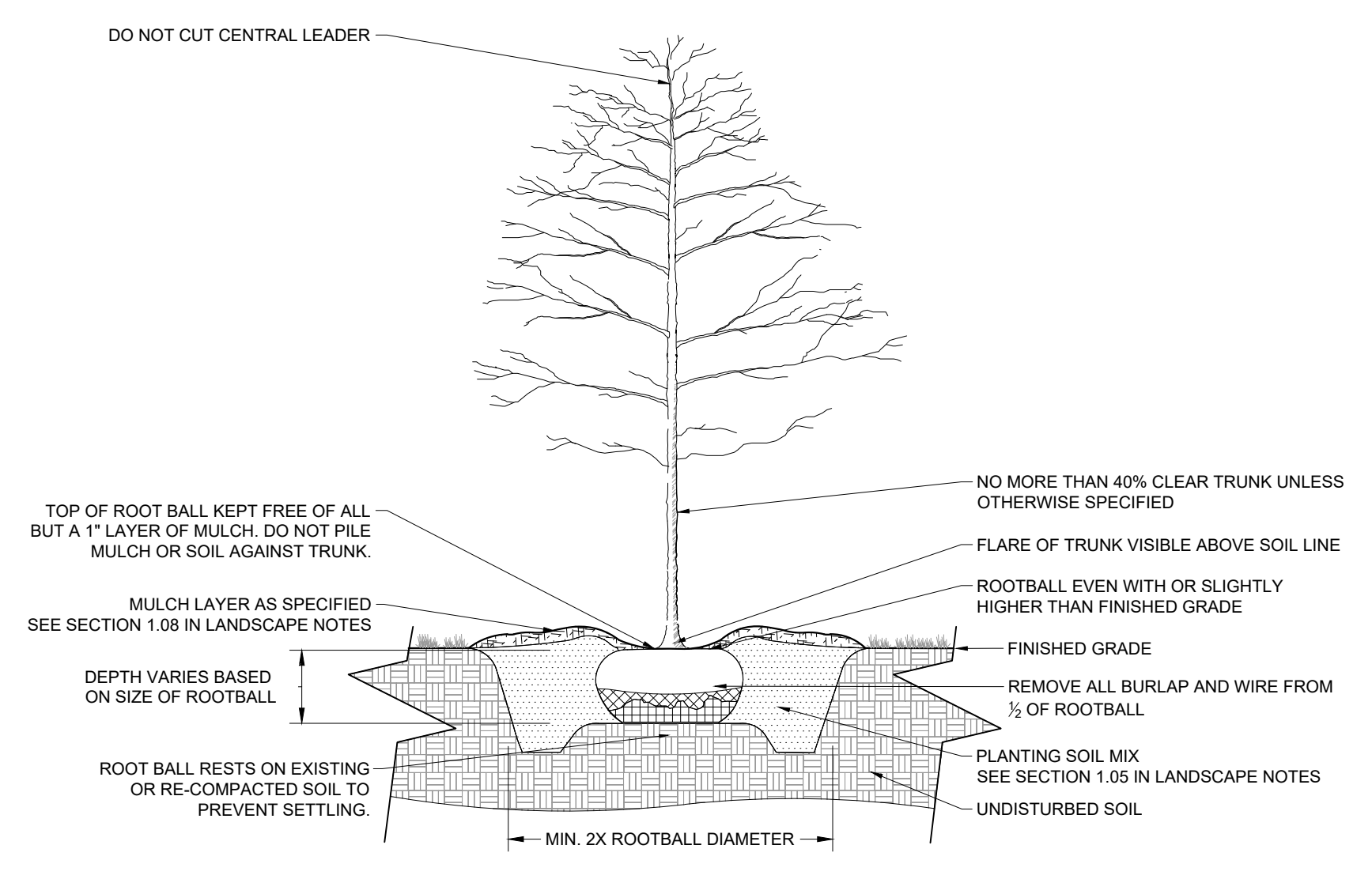


DESIGNED BY:	KHA
DRAWN BY:	KHA
CHECKED BY:	JLR
DATE:	10/01/2021
KIMLEY-HORN PROJECT NO.:	118129070

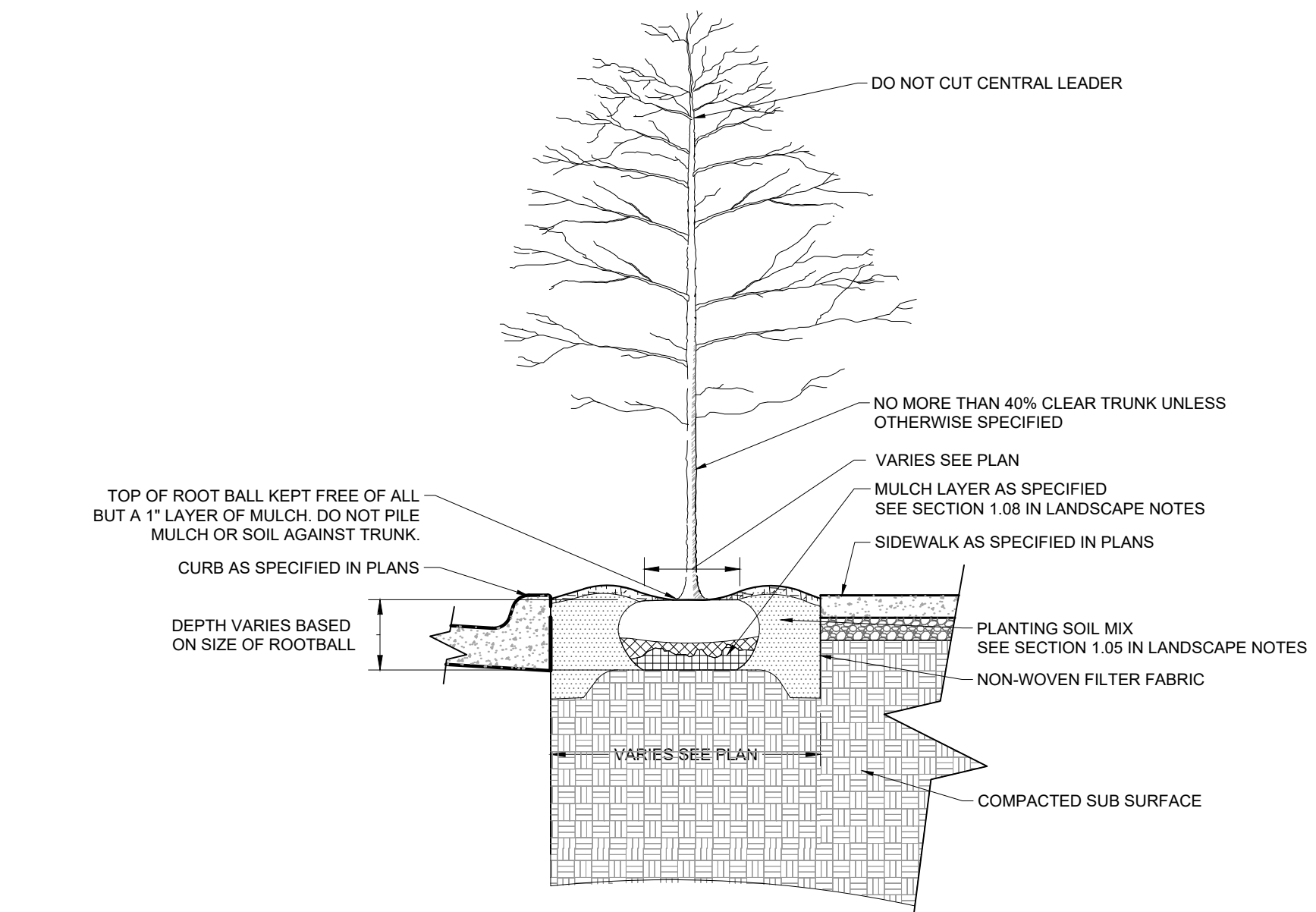
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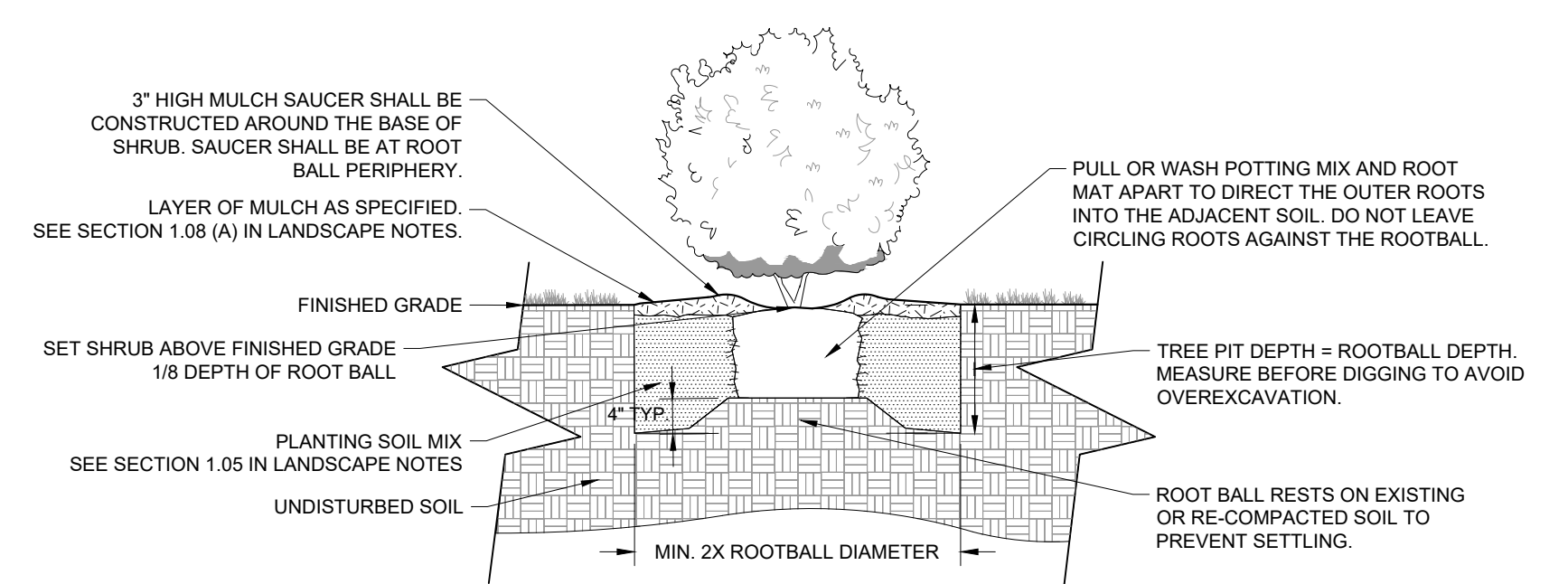
4 GROUNDCOVER PLANTING
NOT TO SCALE



1 B&B TREE PLANTING
NOT TO SCALE



2 TREE PLANTING AT SIDEWALK (TYPICAL PLANTING SOIL)
NOT TO SCALE



3 CONTAINER SHRUB PLANTING
NOT TO SCALE



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