

MUNHALL GLEN

ST. CHARLES, IL 60174
 JOB NO. 190726.CO
 JULY 24TH, 2020
 PRELIMINARY ENGINEERING

SECTION 26 T40N R8E

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AREA SUMMARY
 670,397 SF = 15.390 AC

ZONING CLASSIFICATION
 EXISTING = M-2
 PROPOSED = RS-4

LOCATION MAP



ENGINEERING
 RESOURCE ASSOCIATES

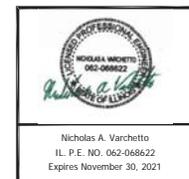
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 CHICAGO, ILLINOIS 60606
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TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAINAGE OF THE SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THESE LOT IMPROVEMENTS OR ANY PART THEREOF, OR THAT IF SUCH WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE OWNER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES, SO THAT THE DEVELOPMENT SHALL NOT ADVERSELY INCREASE FLOOD ELEVATIONS OR DECREASE FLOOD CONVEYANCE CAPACITY UPSTREAM OR DOWNSTREAM OF THE PROJECT AREA.

Engineer: _____
 Seal: _____



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 Expires November 30, 2021

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MUNHALL GLEN
 ST. CHARLES, IL
 ENGINEERING PROJECT NO. 190726.CO

DATE	DESCRIPTION
07-24-2020	
PROJECT # : 190726.CO	
DESIGNED BY : TF	
DRAWN BY : TF	
CHECKED BY : NAV	

COVER

C-1.0
 SHEET

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GENERAL NOTES

1. AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF ALL PHASES OF WORK, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:
ST CHARLES PUBLIC WORKS (630) 377-4486
ENGINEERING RESOURCE ASSOCIATES (840) 393-3660

2. UTILITY INFORMATION IS BASED UPON FIELD MEASUREMENTS AND BEST AVAILABLE RECORDS. FIELD DATA IS SUBJECT TO VISUAL VERIFICATION AND CAN BE MEASURED. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDESIRED UTILITIES.
3. THE CONTRACTOR SHALL NOTIFY 24 HOURS PRIOR TO ANY EXCAVATION WORK TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.

4. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING DOCUMENTS:
"STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE STATE OF ILLINOIS, ILLINOIS DEPARTMENT OF TRANSPORTATION, LATEST EDITION."
"STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION."

"ILLINOIS URBAN MANHOLE"
"DUPAGE COUNTY STORMWATER ORDINANCE" - LATEST EDITION
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC. THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, SHALL BE CONSULTED. APPROPRIATE CONTROL METHODS SHOULD BE APPLIED TO THE SPECIFIC SITUATION AND TYPES OF CONSTRUCTION OPERATIONS BEING PERFORMED.

6. UNLESS WRITTEN AUTHORIZATION IS OBTAINED FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION, ALL OPENINGS IN ANY PAVEMENT OR TRAVELWAY MAY SHALL BE BACKFILLED PRIOR TO THE END OF THE WORKING DAY.

7. THE CONTRACTOR SHALL ESTABLISH THE NECESSARY PERFORMANCE BONDS REQUIRED. PERMITS SHALL BE OBTAINED FROM ALL APPLICABLE GOVERNMENTAL AGENCIES HAVING JURISDICTION PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.

8. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MOST RECENT SET OF THE "APPROVED" FINAL ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.

9. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE SAME.

10. CONTRACTOR SHALL RESTORE OFF-SITE SURFACES TO ORIGINAL CONDITION IF DAMAGED BY CONSTRUCTION.

11. THE CONTRACTOR IS TO PROVIDE THE CITY ENGINEER WITH RECORD DRAWINGS OF ALL UTILITIES SHOWING LOCATIONS OF ALL SEWER PIPE, MANHOLE, SERVICE STUBS, AND STRUCTURES.

12. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THEREIN, AND THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM OR FURNISH THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

13. THE ENGINEER WARRANTS THE DESIGN, RECOMMENDATIONS, AND SPECIFICATIONS TO HAVE BEEN PREPARED ON CONDITIONS GENERALLY ENCOUNTERED WITHIN THE INDUSTRY. THE ENGINEER ASSUMES NO RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE DESIGN RECOMMENDATIONS AND SPECIFICATIONS, FOR COMPLEX OR UNUSUAL SOIL CONDITIONS ENCOUNTERED ON THE PROJECT. IT SHALL BE THE OWNER/SUPERVISOR'S RESPONSIBILITY TO ASCERTAIN THE EXACT NATURE OF SUBSURFACE CONDITIONS PRIOR TO THE CONSTRUCTION OF THE IMPROVEMENT.

14. ALL TRENCHES DRAINED BY THE CONSTRUCTION OF SEWERS, WATERMANS, WATER SERVICE PIPES AND/OR EXCAVATIONS, AROUND CATCH BASINS, MANHOLES, INLETS, AND OTHER APERTURES WHICH OCCUR WITHIN FIVE FEET OF THE LIMITS OF EXISTING AND PROPOSED IMPROVEMENTS, SIDEWALKS, AND CURBS AND GUTTERS SHALL BE BACKFILLED WITH TRENCH BACKFILL AS WELL AS AREAS INDICATED ON THE PLANS AS DEFINED IN THE CITY OF LOCKPORT DETAILS FOR UTILITY TRENCHES.

15. AT LEAST TWO WORKING DAYS BEFORE COMMENCEMENT OF ANY WORK ACTIVITIES, THE CONTRACTOR WILL BE REQUIRED TO ATTEND AN ON-SITE PRECONSTRUCTION CONFERENCE. AT THIS CONFERENCE, THE CONTRACTOR WILL BE REQUIRED TO FURNISH AND DISCUSS INFORMATION BUT NOT LIMITED TO THE FOLLOWING: 1) WRITTEN PROGRESS SCHEDULE AND SCHEDULING OF WORK 2) NAMES OF PROJECT MANAGER, FIELD SUPERINTENDENT AND THE NAME AND PHONE NUMBER OF A RESPONSIBLE INDIVIDUAL, WHO CAN BE REACHED 24 HOURS A DAY.

16. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO APPLY FOR ALL REQUIRED IEPA PERMITS AND COMPLY WITH ALL EPA RULES AND REGULATIONS.

17. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE WATER VALVES OR HYDRANTS. THE CONTRACTOR SHALL CALL THE CITY OF LOCKPORT PUBLIC WORKS DEPARTMENT (312) 658-6641 24 HOURS OF THE NEED TO OPERATE VALVES OR HYDRANTS.

18. THE OWNER SHALL PROVIDE A FULL AND COMPLETE CIVIL ENGINEERING RECORD DRAWING PLAN SET IN HARD COPY AND DIGITIZATION ON AUTOCAD AT THE COMPLETION OF THE PROJECT. THE RECORD DRAWINGS SHALL INCLUDE ANY CHANGES FROM THE ORIGINAL CIVIL ENGINEERING PLAN. CURRENT ELEVATIONS SHALL BE SHOWN FOR THE FOLLOWING, AT A MINIMUM:
(1) ALL RIM AND INVERTS
(2) GRADE INFLECTION POINTS WITH PROPOSED GRADES SHOT IN LEVEL AREAS
(3) DETENTION POND GRADES WITH VOLUME CALCULATION
(4) NOTE COMPARING ACTUAL TO REQUIRED POND VOLUME

19. DUST CONTROL WILL BE IN ACCORDANCE WITH IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE STATE OF ILLINOIS, ILLINOIS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, SECTION 107.36.

STORM SEWER:

1. REINFORCED CONCRETE PIPE STORM SEWER SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM C-1245 CLASS III. PVC PIPE STORM SEWER SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM D-3034 (SDR 34). WATERMAN QUALITY PVC SHALL BE PRECASTED IN ACCORDANCE WITH ASTM C-241 AND ELASTOMERIC GASKETS TO COMPLY WITH #477 AND PRESSURE RATED IN ACCORDANCE WITH ASTM D-3139.

2. SEWER PIPE JOINTS SHALL BE "O-RING" TYPE. ASTM C-443 FOR RCP AND SHALL BE PUSH-IN TYPE. ASTM D-3212 FOR PVC PIPE.

3. VERTICAL SEPARATION - WATERMANS AND SEWERS
1. A WATERMAN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER UNLESS WATERMANS CROSS STORM SEWERS. SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSING. A LENGTH OF WATERMAN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIVARIANT WITH THE SEWER OR DRAIN.

2. BOTH THE WATERMAN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, ASBESTOS-CEMENT PRESSURE PIPE, OR STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAN STANDARDS OF CONSTRUCTION WHEN:
A. IT IS NECESSARY TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (1) ABOVE, OR;
B. THE WATERMAN PASSES UNDER A SEWER OR DRAIN.

3. A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAN SHALL BE MAINTAINED WHERE A WATERMAN CROSSES UNDER A SEWER. SUPPORT THE SEWER WITH BRICKS OR CONCRETE, AND SETTLE AND BREAKING THE WATERMAN, AS SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER.

4. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATERMAN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET.

5. MANHOLES AND CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE - ASTM C-478 AND SHALL BE ALLOWED TO THE MINIMUM SIZE CRITERIA SPECIFIED IN THE PLANS.
6. NO MORE THAN TWO PRECAST ADJUSTING RINGS WITH A MAXIMUM HEIGHT ADJUSTMENT OF SIX INCHES SHALL BE ALLOWED.

7. STORM SEWER MANHOLE JOINTS SHALL BE SEALED WITH PORTLAND CEMENT MORTAR. "O-RING" GASKETS, OR ELASTIC MATERIAL.

8. MANHOLES CLOSED LID FRAME AND COVER CASTINGS SHALL BE NEWMAN NO. 8-1710 / SOLID LID OR EAST JOHNSON IRON WORKS TONGUE, UNLESS OTHERWISE SPECIFIED. INLET CASTINGS IN PAVED AREAS SHALL BE NEWMAN 1710 / TYPE 7 LID OR EAST JOHNSON IRON WORKS 10221 / TYPE #1 UNLESS OTHERWISE SPECIFIED. INLET AND CATCH BASIN CASTINGS IN GRASSY AREAS SHALL BE NEWMAN 8-1710 / TYPE 8 LID OR EAST JOHNSON IRON WORKS 10217 / TYPE 1 LID UNLESS OTHERWISE SPECIFIED.

9. INLETS SHALL BE TWENTY-FOUR (24) INCH DIAMETER PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478.
10. 6" OF CA-7 (ASTM C-33, SIZE NO. 47) SHALL BE USED AS BEDDING UNDER THE PIPE. THE BEDDING STONE SHALL BE GRADED ABOVE THE ENTIRE LENGTH OF THE PROPOSED FULL BEARING. THE BEDDING STONE SHALL EXTEND TO THE SPRINGLINE OF THE PIPE.

11. RIM GRADES IN CURB AND GUTTER ARE EDGE OF PAVEMENT ELEVATIONS.
12. ALL EXISTING FIELD TILE AND/OR DRAIN PIPES ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH A NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND GRADE AND PUT INTO AN ACCEPTABLE OPERATING CONDITION. A RECORD OF ALL FIELD TILE OR DRAIN PIPES ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER ON COMPLETION OF THE PROJECT. THE COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

13. ALL FOOTING DRAINS AND DOWNPOUTS SHALL DISCHARGE TO THE STORM SYSTEM.
14. ANY PIPES OR MANHOLES CONTAINING SEDIMENT SHALL BE CLEANED OUT PRIOR TO FINAL ACCEPTANCE.
15. ALL WINDOW WELLS, WHERE APPLICABLE, SHALL DISCHARGE TO THE STORM SYSTEM.

16. ALL MANHOLES IN PAVEMENT SHALL HAVE EXTERNAL CHIMNEY SEALS.
SANITARY SEWER:
1. ALL FLEXIBLE GRAVITY SANITARY SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2151. ALL FLEXIBLE GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR 26 PIPE MEETING THE REQUIREMENTS OF ASTM D-3034 WITH JOINTS TO BE ELASTOMERIC GASKETS CONFORMING WITH ASTM #477 AND PRESSURE RATED IN ACCORDANCE WITH ASTM D-3212. WATERMAN QUALITY PVC SHALL BE PRECASTED IN ACCORDANCE WITH ASTM C-241 AND ELASTOMERIC GASKETS TO COMPLY WITH #477 AND PRESSURE RATED IN ACCORDANCE WITH ASTM D-3139.

2. EMBEDED MATERIALS FOR BEDDING, HAUNCHING AND INITIAL BACKFILL AT AT LEAST TWELVE INCHES OVER THE TOP OF THE PIPE WITH CA-7 PROPOSED MATERIAL PROCURED FOR HIGHWAY CONSTRUCTION USED IN THE PROJECT CLASSIFIED ACCORDING TO PRACTICE SIZE, SHAPE AND QUANTITY IN ACCORDANCE WITH ASTM D-3221-89, SECTION 9, TABLE 1.

3. ALL RIGID GRAVITY SEWER PIPE TO BE INSTALLED IN ACCORDANCE WITH ASTM C-12 AND BEDDING MATERIAL CA-7.
4. POCKHOLE IN ALL MANHOLES LIKELY TO BE FLOODED SHALL NOT BE LARGER THAN THE MINIMUM RATE OF ONE (1) PERCENT.

5. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE. ASTM C-478 WITH TONGUE AND GROOVE JOINTS SEALED WITH GASKETS OR CONFORMING TO ASTM C-443 OR BITUMINOUS JOINTING MATERIAL.
6. NO MORE THAN TWO PRECAST ADJUSTING RINGS WITH A MAXIMUM HEIGHT ADJUSTMENT OF SIX INCHES SHALL BE ALLOWED.

7. ALL PVC CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATER-TIGHT PIPE TO MANHOLE SLEEVES OR SEALS, PER ASTM C-923.
8. MANHOLES SHALL INCLUDE EXTERNAL CHIMNEY SEALS.
9. ALL SANITARY SEWER CONSTRUCTION REQUIRES SIX (6) INCHES OF CA-7 CRUSHED GRAVEL OR CRUSHED STONE BEDDING UNDER THE PIPE. BEDDING STONE SHALL EXTEND TO A POINT TWELVE INCHES ABOVE THE TOP OF THE PIPE.

11. THE INSTALLATION OF SANITARY SEWER AND APURTANCES SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3034 FOR PVC PIPE AND FITTINGS.

12. BACKFILLING OF THE TRENCH SHALL BE ACCOMPLISHED BY CAREFUL BACKFILLING OF THE TRENCH WITH MATERIAL AFTER THE PIPE, BEDDING, AND THE COVER MATERIAL HAVE BEEN INSTALLED. ANY PIPE INSTALLED UNDER OR WITHIN FIVE (5) FEET OF A PAVEMENT EDGE, SIDEWALK, CURB AND GUTTER SHALL BE BACKFILLED TO THE TOP OF THE TRENCH WITH CA-7 MATERIAL.

13. "BAND-SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED WITH THE CONNECTION OF SEWER PIPE DISSIMILAR MATERIALS. ALL CHANGES OF MATERIAL SHALL OCCUR INSIDE A MANHOLE.

14. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING TIE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED: A. CONCRETE SHALL BE SEWER MAIN BY PROPER TOOLS ("SEWER TAP" MACHINE OR SIMILAR), AND PROPER INSTALLATION OF RUBBER GASKETS OR RUB-TIE GASKETS. B. REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A TIE OR TIE BRANCH SECTION. C. WITH PROPER CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR RESECTION OF PROPER FITTING, USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

15. MANHOLE FRAMES SHALL BE NEWMAN NO. 8-1710/WATERPROOF LID OR EAST JOHNSON IRON WORKS TONGUE. ALL CLOSED LIDS SHALL HAVE A CONCEALED POK-HOLE. WATER AND SANITARY LIDS SHALL BE WATER-TIGHT AND SELF-SEALING. LIDS SHALL BE EMBOSSED WITH "SANITARY SEWER" AND "CITY OF LOCKPORT", UNLESS OTHERWISE NOTED.

16. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.
17. ALL SANITARY SEWER PIPES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, AS A MINIMUM, AND WITH CITY OF LOCKPORT SANITARY CODE REQUIREMENTS, INCLUDING VISUAL, TELEVISION, INFILTRATION, EXFILTRATION, AIR TESTS, LEAKAGE TESTS AND DEFLECTION TESTS.

18. THE SEWER SHALL MEET THE REQUIREMENTS OF EXERCUTION OR AIR UNDER PRESSURE AND TELEVISION INSPECTION. PVC SEWER PIPE MUST PASS DEFLECTION TESTS TO THE SAME STANDARDS AS TO BE APPROVED BY THE ENGINEER'S REPRESENTATIVES.

19. MANHOLES SHALL BE TESTED PER ASTM C-949 OR C-1244.
PAVEMENT SIDEWALK:

1. PAVEMENT THICKNESS SHALL COMPLY WITH DUPAGE COUNTY AND BURL RIDGE REQUIREMENTS.
2. HANDICAPPED RAMPS AND DEPRESSED CURBS SHALL BE PROVIDED AT LOCATIONS SHOWN ON PLANS.
3. EXPANSION JOINTS SHALL BE PLACED, AS A MINIMUM AT ALL CONSTRUCTION JOINTS IN THE CURB, TWO (2) IN 4. REINFORCING BARS SHALL BE PLACED CONTINUOUSLY BETWEEN EXPANSION JOINTS. EXPANSION JOINTS SHALL BE CONVELED AND SPACED NO MORE THAN SIXTY (60) FEET ON CENTER.

4. PRIOR TO PLACING ANY PAVEMENT MATERIAL, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY PREPARING AND COMPACTING THE SUBGRADE. THE PAVEMENT BASE COURSE SHALL BE PROPERLY PROOF-ROLLED WITH A FULLY LOADED DUMP TRUCK. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS BEFORE PROOF-ROLLING. ADDITIONAL PROOF-ROLLS MAY BE NECESSARY IF REPORT THAT ANY UNDESIRABLE AREAS HAVE BEEN FOUND. NO PAVEMENT MATERIAL IS TO BE PLACED ON A NET OR SOFT SUBGRADE.

5. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT TO A NEAR EDGE ALONG LINES OF PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.
SOIL EROSION CONTROL PLAN:

1. THE PROJECT AREA SHALL BE GRADED TO A MINIMAL AMOUNT OF STORM WATER RUNOFF AND LIKEWISE SOIL SEDIMENT WILL DISCHARGE UNRESTRICTED FROM THE SITE.
2. IN ACCORDANCE WITH NPDES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL PROTECTION DURING CONSTRUCTION AS WELL AS PROVIDING PROTECTION TO ADJOINING STREETS FROM MUD AND POLLUTED RUNOFF AS WELL AS KEEPING EXISTING PAVEMENT CLEAN OF MUD AND DEBRIS. PAVEMENT SWEEPING OF CITY ROADS SHALL BE PERFORMED AS NECESSARY OR AT THE DISCRETION OF THE CITY ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AND CLEANED OR OTHERWISE MAINTAINED ON A WEEKLY BASIS, AND WITHIN 24 HOURS AFTER ANY SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) TO INSURE THAT ANY DAMAGE THAT MAY HAVE OCCURRED IS REPAIRED. ALL EROSION CONTROL INSTALLATION SHALL BE APPROVED BY CITY OF LOCKPORT ENGINEERING DIVISION PERSONNEL BEFORE CONSTRUCTION IS ALLOWED TO BEGIN.

3. INLET PROTECTORS SHALL BE USED IN ALL STORM GRATES DURING CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE RESTORATION IS PERMANENTLY ESTABLISHED. THE INLET PROTECTORS SHALL BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL KEEP A MAINTENANCE LOG.
4. THE CITY ENGINEER CAN DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL.

5. SILT FENCING SHALL REMAIN IN PLACE THROUGHOUT THE CONSTRUCTION OF HOUSE BUILDINGS TO SERVE AS EROSION CONTROL FOR AT THAT CONSTRUCTION.
6. TO PREVENT SOIL FROM LEAVING THE SITE ON CONSTRUCTION VEHICLE WHEELS, WORK EQUIPMENT'S SHALL BE CLEANED ONLY OF GRAVIL AND SHALL EXTEND AT LEAST 100 FEET INTO THE JOB SITE. THE EXISTING PAVEMENT SURFACES SHALL BE PROTECTED ONLY FOR SOIL DEBRIS AND SHALL BE CLEANED WHEN NECESSARY.

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL.
8. DISPOSAL OF DEBRIS EXCAVATION AND PAVEMENT REMOVAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND CONSIDERED AS AN INCIDENTAL EXPENSE.
9. ANY TOPSOIL THAT WILL BE STOCKPILED ON SITE SHALL BE MANAGED IN ACCORDANCE WITH THE CURRENT NPDES REGULATIONS. IF THE STOCKPILE WILL REMAIN ON SITE FOR AN EXTENDED PERIOD, IT SHALL BE STABILIZED WITH GRASS AND/OR OTHER VEGETATION AND SILT FENCING SHALL BE PLACED AROUND THE STOCKPILE.

9. ALL ACCESS TO AND FROM THE CONSTRUCTION SITE IS TO BE RESTRICTED TO THE CONSTRUCTION SITE AND TO THE REQUIREMENTS OF SEWERAGE.

10. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THESE INTERESTED FUNCTION.

11. THE ENGINEER SHALL BE NOTIFIED OF MAJOR AMENDMENTS OF THE SITE EROSION AND SEDIMENT CONTROL PLAN. SUCH AMENDMENTS, WHICH WILL BE APPROVED IN THE SAME MANNER AS THE ORIGINAL PLANS.

12. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY SHOULDER OR STREET CLEANING (NOT FLOODED) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.

13. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED OF WITHIN 24 HOURS AFTER THE FINAL SITE STABILIZATION IS ACHIEVED WITH PERMANENT SOIL STABILIZATION MEASURES.
14. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR RECONSTRUCTION.

15. IF NONTERRACING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. ALL PAVED DISCHARGES SHALL BE BUILT THROUGH APPROPRIATELY DESIGNED SEDIMENT TRAPS OR BARRIERS.

SITE GRADING:
1. EXCAVATION OF TRENCH AND OTHER STRUCTURALLY UNSUITABLE MATERIALS MUST REQUIRE EARTH EXCAVATION AND COMPLETED EXCAVATED MATERIAL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS.
2. PLACEMENT OF THE EXCAVATED MATERIAL SHALL BE IN AREAS DESIGNATED BY THE OWNER FOR FUTURE USE. WITHIN AREAS TO BE LANDSCAPED, AND THOSE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL.
3. COMPACTION OF THE EXCAVATED MATERIAL PLACES IN AREAS NOT REQUIRING STRUCTURAL FILL SHALL BE MODERATE.

4. EXCESS MATERIALS, IF NOT UTILIZED AS FILL OR STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTOR.
5. EXCAVATION OF EARTH AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL. THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.3 +/- OF THE PLAN SUBGRADE ELEVATIONS. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIAL SHALL BALANCE AS PART OF THE FINE GRADING OPERATION.

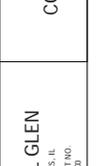
6. PLACEMENT AND COMPACTION OF MATERIALS SHALL CONFORM TO 12.03 S SPECIFICATIONS.
7. THE CONTRACTOR SHALL MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.

8. PAYMENT FOR THE REMOVAL OF UNSUITABLE MATERIAL, EXCLUDING TOPSOIL EXCAVATION SHALL BE BASED ON THE QUANTITIES AS FIELD MEASURED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE AS PART OF HIS BID A UNIT PRICE PER CUBIC YARD FOR THE REMOVAL OF UNSUITABLE MATERIALS. SAID UNIT PRICE SHALL INCLUDE THE COMPLETE REMOVAL OF THE MATERIAL, REPLACEMENT WITH SUITABLE MATERIAL OBTAINED BY THE CONTRACTOR FROM A BORROW SOURCE, AND COMPACTION TO THE REQUIRED SPECIFICATIONS OF THE ENGINEER.

9. ALL DISTURBED AREAS SHALL BE RESTORED WITH TOPSOIL AND SEED AND BARRIERS UNLESS OTHERWISE INDICATED.
10. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO MAINTAIN ALL THE SEDIMENTATION CONTROL MEASURES. INSPECTIONS SHALL BE CONDUCTED AFTER A RAIN EVENT, AND IF MAINTENANCE OF THE STRUCTURES IS NECESSARY, INCLUDING REPAIR OF DAMAGE AND REMOVAL OF DEBRIS OR SEDIMENT FROM VEGETATIVE FILTERS, IT SHALL BE DONE BY THE DEVELOPER.

DATE OF CONSTRUCTION: IT IS ANTICIPATED THAT CONSTRUCTION WILL BEGIN IN SPRING 2020, AND THAT EARTHWORK AND UTILITY OPERATIONS WILL BE COMPLETED BY SUMMER 2020.

• INSTALL TEMPORARY EROSION CONTROL MEASURES.
• MASS GRADE SITE AND EXCAVATE DETENTION FACILITIES.
• CONSTRUCT UTILITIES AND PERFORM TREE REMOVALS.
• CONSTRUCT ROADWAY AND BUILDING FOUNDATIONS.
• PERFORM RESTORATION, STABILIZATION, AND REMOVAL OF TEMPORARY EROSION CONTROL MEASURES.



DATE	07-24-2020
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	190726.00 SHEET 190726.00

GENERAL NOTES

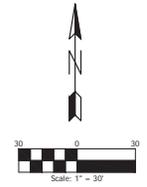
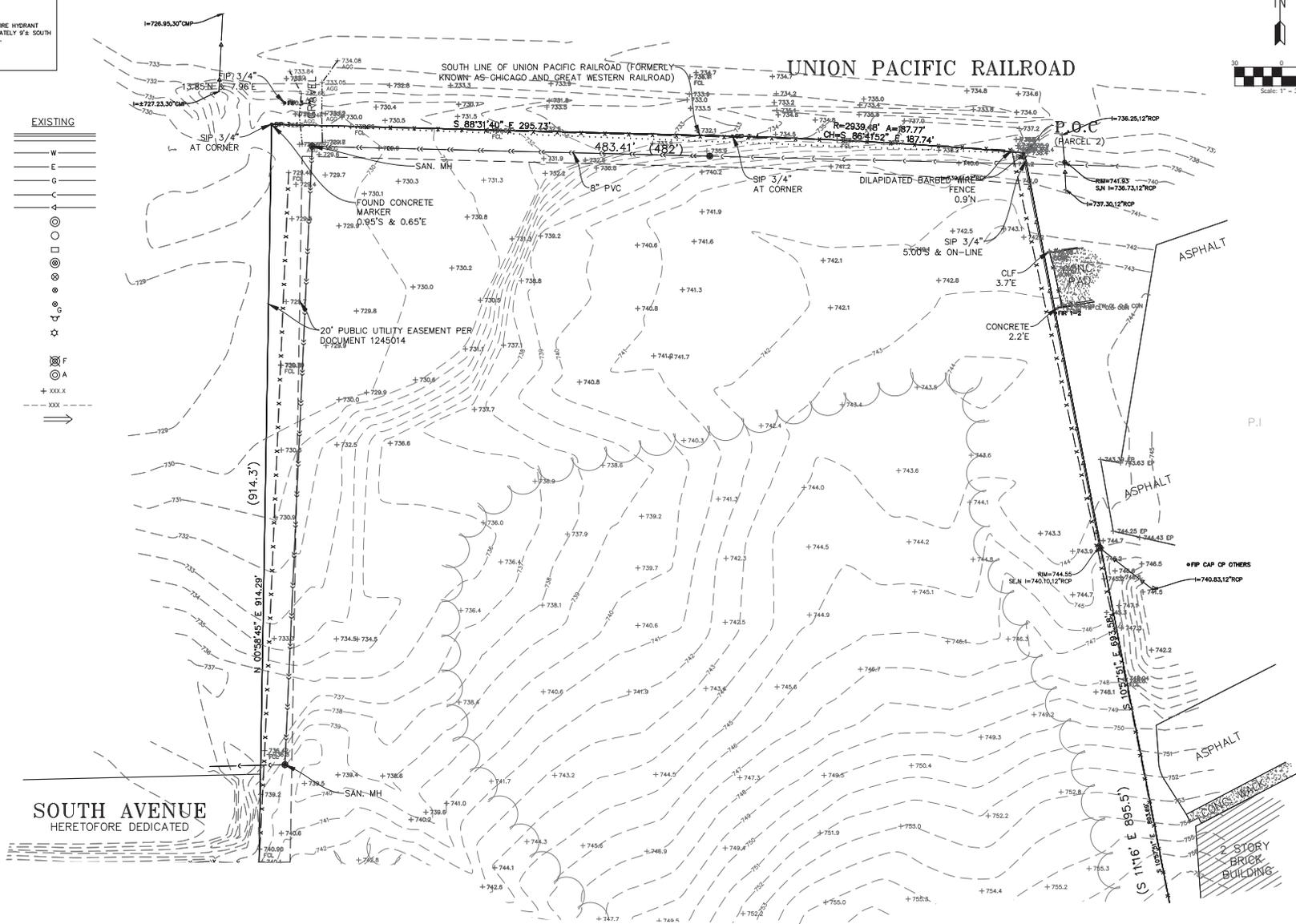
C-2.0 SHEET

SITE BENCHMARKS

SITE BENCHMARK (BM) #1
NORTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED AT THE WEST SIDE OF TRLEX ROAD AND
APPROXIMATELY 41' NORTH OF PARCEL 3
ELEV. 656.01 (NAVD 88)

SITE BENCHMARK (BM) #2
SOUTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED ON PARCEL 4 APPROXIMATELY 9' SOUTH
OF THE NORTH LINE OF PARCEL 4.
ELEV. 688.50 (NAVD 88)

- EXISTING**
- CURB & GUTTER
 - WATER
 - ELECTRIC
 - GAS
 - SANITARY SEWER
 - STORM SEWER
 - MANHOLE
 - CATCH BASIN
 - INLET
 - VALVE VAULT
 - VALVE & BOX
 - BUFFALO BOX
 - GAS VALVE
 - HYDRANT
 - STREET LIGHT
 - HANDICAPPED RAMP
 - FILL STRUCTURE
 - ADJUST STRUCTURE
 - ELEVATION
 - CONTOUR
 - FLOW



ENGINEERING RESOURCE ASSOCIATES
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PHONE: (303) 733-1000
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MUNHALL GLEN
1000 WEST 14TH AVENUE, SUITE 100
DENVER, COLORADO 80202
PHONE: (303) 733-1000

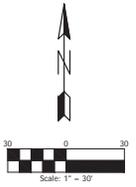
DATE	07-24-2020
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

EXISTING CONDITIONS

C-3.0
SHEET

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SOUTH AVENUE
HERETOFORE DEDICATED

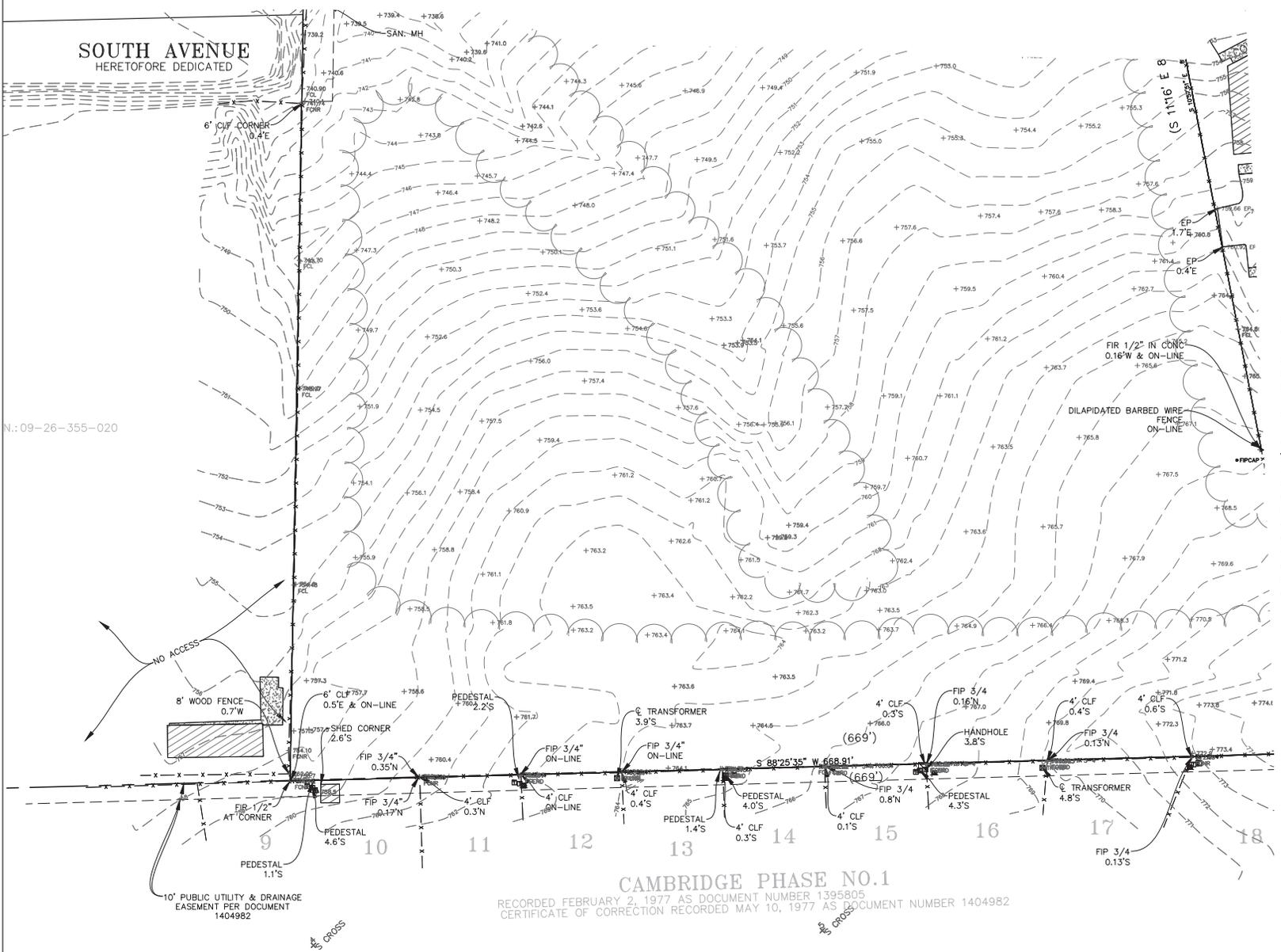


SITE BENCHMARKS

● SITE BENCHMARK (BM) #1
NORTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED AT THE WEST SIDE OF TYLER ROAD AND
APPROXIMATELY 41' NORTH OF PARCEL 3
ELEV: 656.01 (NAVD 88)

● SITE BENCHMARK (BM) #2
SOUTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED ON PARCEL 4 APPROXIMATELY 9' SOUTH
OF THE NORTH LINE OF PARCEL 4.
ELEV: 688.50 (NAVD 88)

- EXISTING**
- ==== CURB & GUTTER
 - W — WATER
 - E — ELECTRIC
 - G — GAS
 - C — SANITARY SEWER
 - S — STORM SEWER
 - ⊙ MANHOLE
 - ⊠ CATCH BASIN
 - ⊞ INLET
 - ⊗ VALVE VAULT
 - ⊘ VALVE & BOX
 - ⊙ BUFFALO BOX
 - ⊙ GAS VALVE
 - ⊙ HYDRANT
 - ☆ STREET LIGHT
 - ⊙ HANDICAPPED RAMP
 - ⊙ FILL STRUCTURE
 - ⊙ ADJUST STRUCTURE
 - ⊙ ELEVATION
 - ⊙ CONTOUR
 - ⊙ FLOW



N.: 09-26-355-020

CAMBRIDGE PHASE NO.1
RECORDED FEBRUARY 2, 1977 AS DOCUMENT NUMBER 1395805
CERTIFICATE OF CORRECTION RECORDED MAY 10, 1977 AS DOCUMENT NUMBER 1404982

ENGINEERING RESOURCE ASSOCIATES
1000 WEST 7th AVE, SUITE 100
DENVER, COLORADO 80202
PH: 303.733.8800
WWW.ERACONSTRUCTION.COM

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MUNHALL GLEN
151 GARDNER BL.
DENVER, CO 80202

DATE: 07-24-2020
PROJECT #: 190726.00
DESIGNED BY: TF
DRAWN BY: TF
CHECKED BY: NAV
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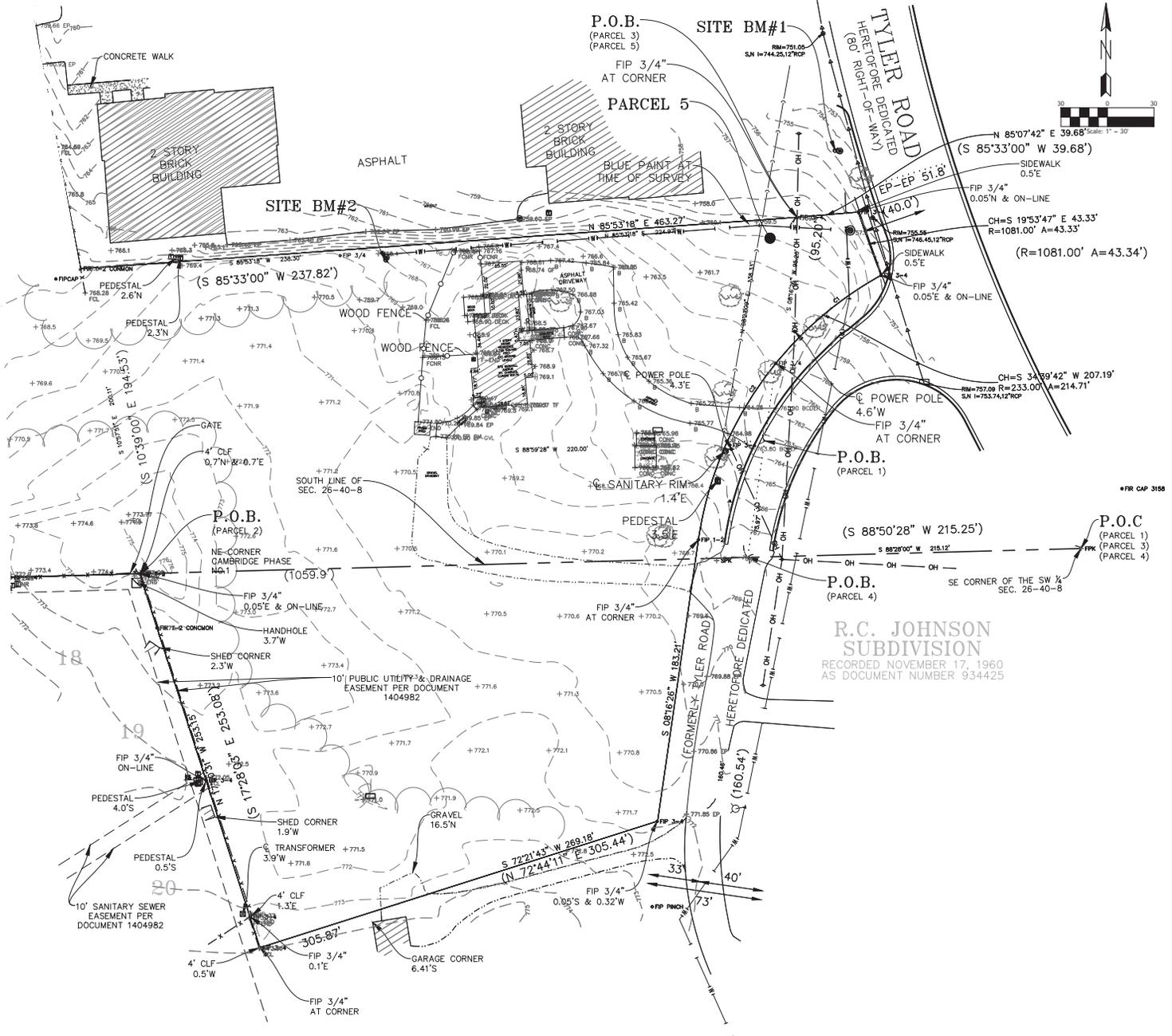
EXISTING CONDITIONS

C-3.1
SHEET

SITE BENCHMARKS

- SITE BENCHMARK (BM) #1
NORTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED AT THE WEST SIDE OF TYLER ROAD AND
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- SITE BENCHMARK (BM) #2
SOUTHWEST BONNET BOLT ON A FIRE HYDRANT
LOCATED ON PARCEL 4 APPROXIMATELY 9' SOUTH
OF THE NORTH LINE OF PARCEL 4.
- ELEV. 656.01 (NAVD 88)
- ELEV. 688.50 (NAVD 88)

- EXISTING**
- Curb & Gutter
 - Water
 - Electric
 - Gas
 - Sanitary Sewer
 - Storm Sewer
 - Manhole
 - Catch Basin
 - Inlet
 - ⊗ Valve Vault
 - ⊗ Valve & Box
 - ⊗ Buffalo Box
 - ⊗ Gas Valve
 - ☆ Hydrant
 - ☆ Street Light
 - ⊗ Handicapped Ramp
 - ⊗ Fill Structure
 - ⊗ Adjust Structure
 - Elevation
 - - - - - Contour
 - Flow



**R.C. JOHNSON
SUBDIVISION**
RECORDED NOVEMBER 17, 1960
AS DOCUMENT NUMBER 934425

ENGINEERING RESOURCE ASSOCIATES
1000 WEST AVENUE, SUITE 100
DENVER, COLORADO 80202
TEL: 303.733.1300
WWW.ERACONSTRUCTION.COM

AIRHART CONSTRUCTION
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MUNHALL GLEN
151 GARDNER BL.
DENVER, CO 80226
190726.CD

DATE	07-24-2020
PROJECT #	190726.CD
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

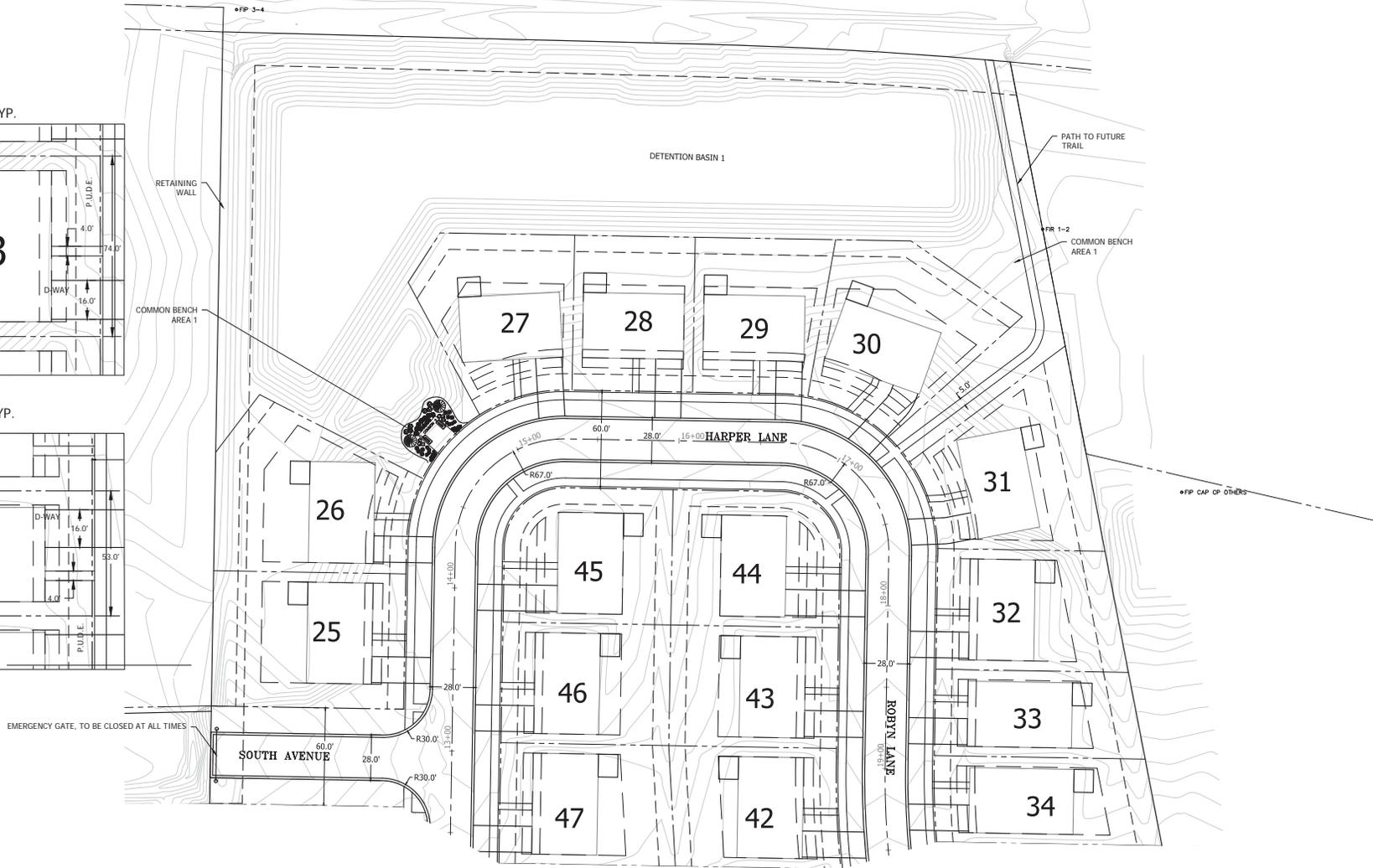
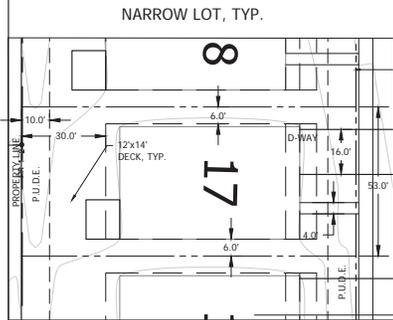
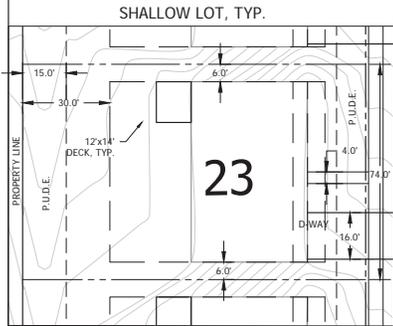
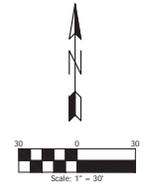
EXISTING CONDITIONS

C-3.2
SHEET

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LEGEND

- PROPERTY LINE
- EASEMENT
- SETBACKS
- CENTERLINE
- RIGHT OF WAY



**ENGINEERING
RESOURCE ASSOCIATES**
1000 WEST MARINE DRIVE, SUITE 100
MUNHALL, OHIO 44130
WWW.AIRHARTCONSTRUCTION.COM

**AIRHART
CONSTRUCTION**
"Building A Better Tomorrow"

MUNHALL GLEN
51 HARBOR BL.
ENGLEWOOD, OH.
43026-00

PROJECT: Airhart Construction\190726.00_Munhall_Site_REV.DWG\0400\190726.00_SHEET C-4.1_Geometry.dwg

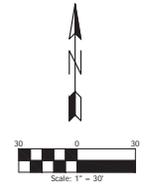
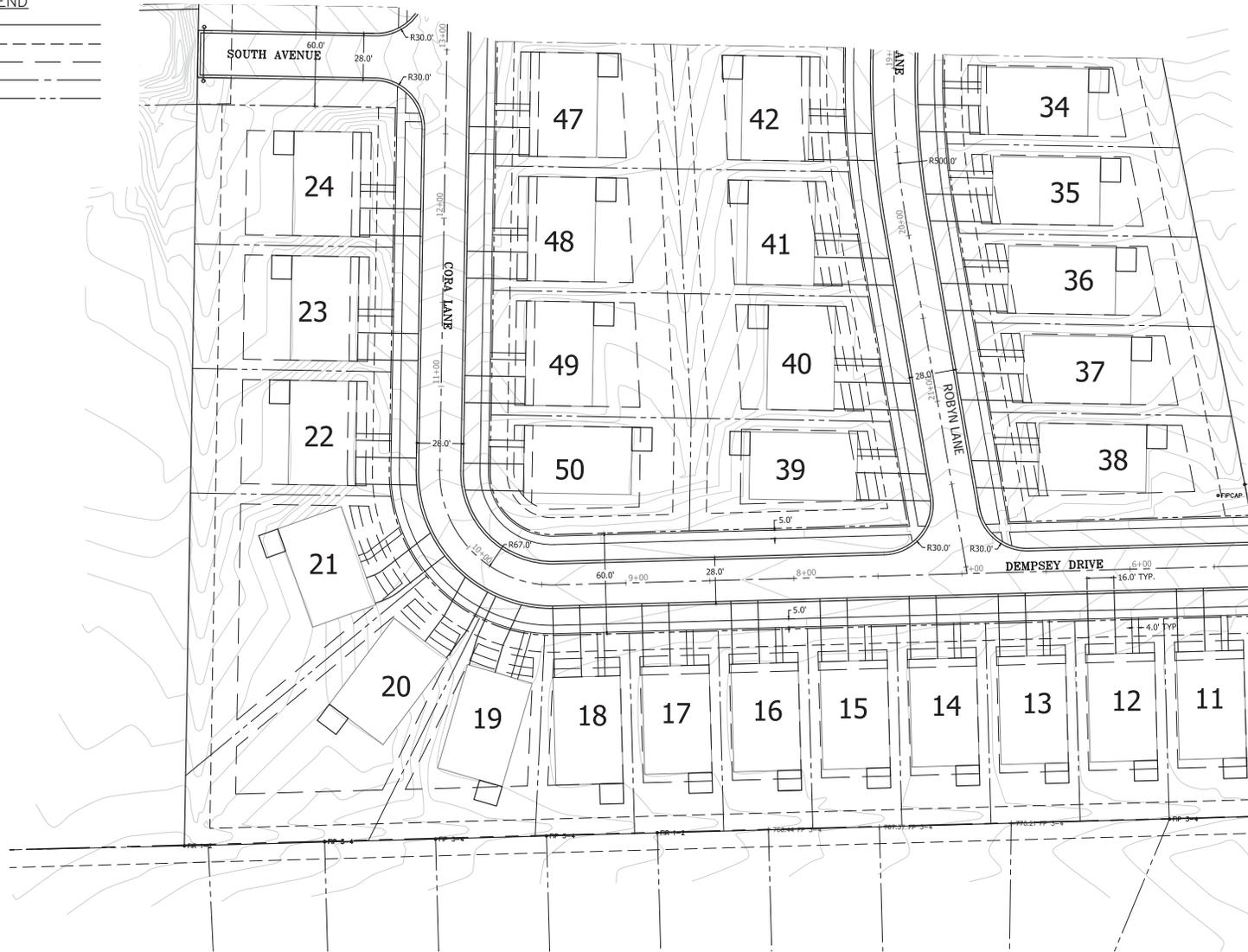
DATE	07-24-2020	PROJECT #	190726.00	DESIGNED BY	TF
DRAWN BY	TF	CHECKED BY	NAV	DESCRIPTION	

C-4.1
SHEET

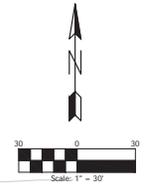
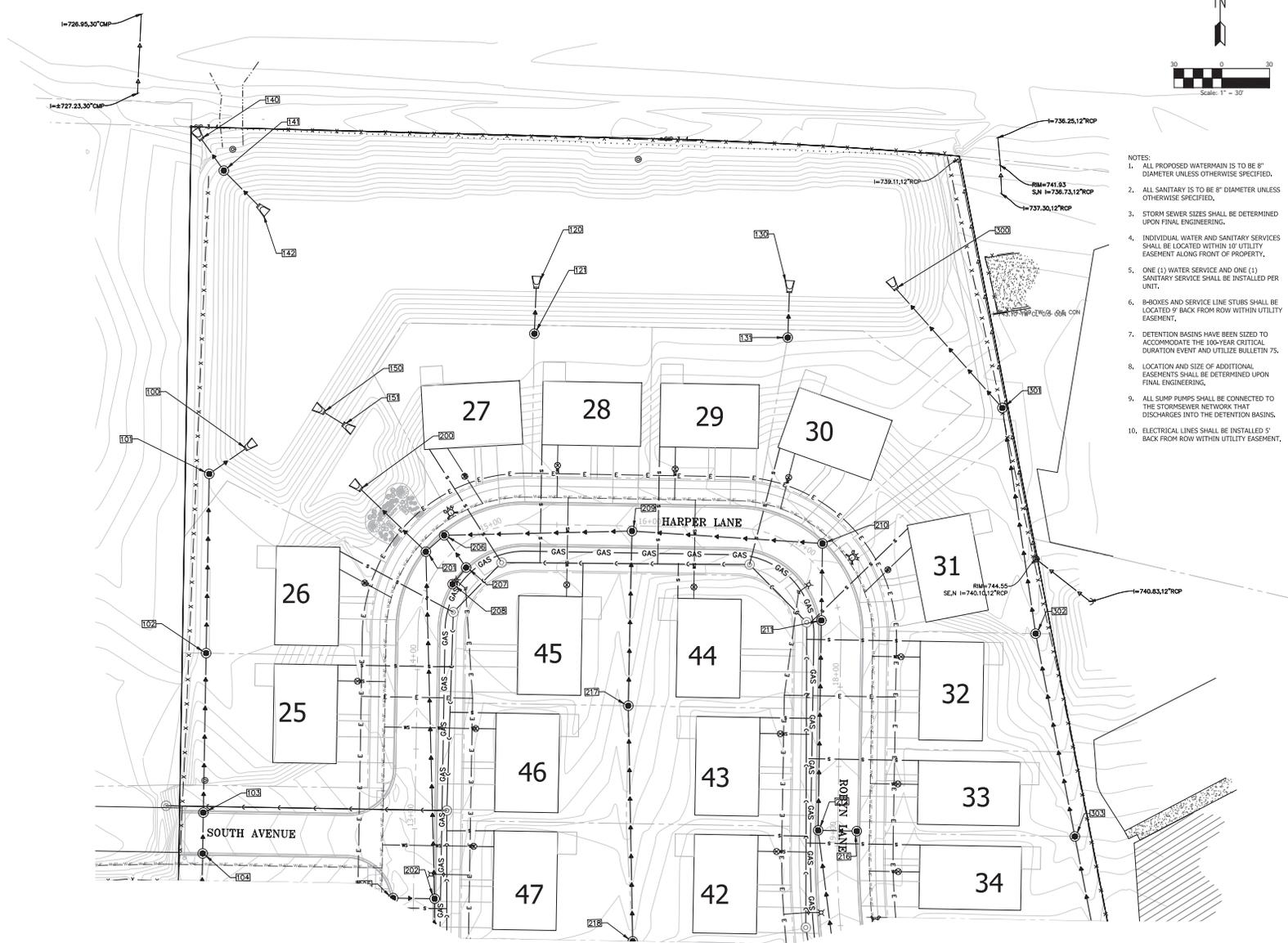
GEOMETRY PLAN

LEGEND

- PROPERTY LINE
- EASEMENT
- SETBACKS
- CENTERLINE
- RIGHT OF WAY



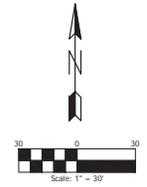
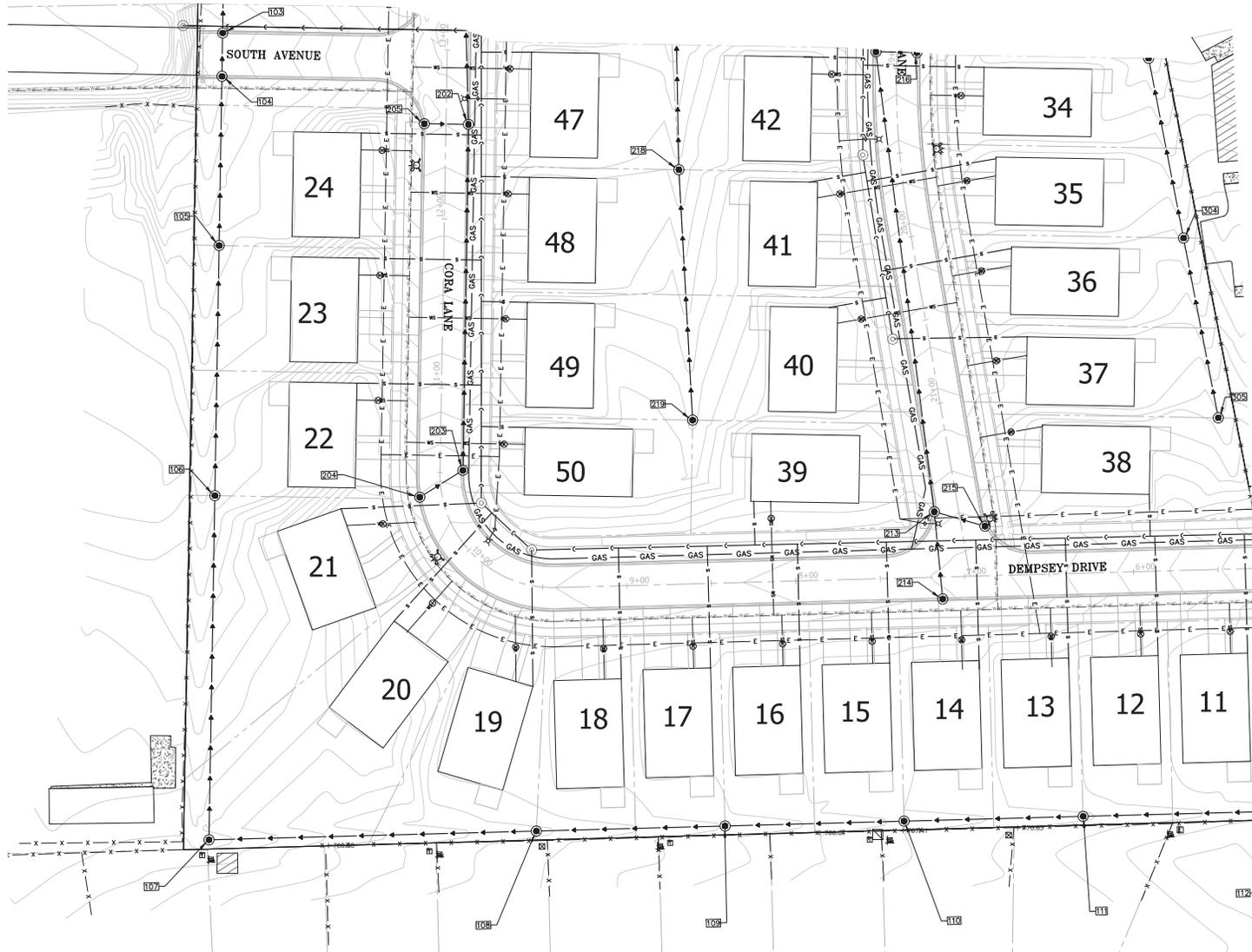
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<p>AIRHART CONSTRUCTION "Building A Better Tomorrow"</p>												
<p>AIRHART CONSTRUCTION</p>												
<p>MUNHALL GLEN 151 GLENDALE BL. DENVER, CO 80226</p>												
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DATE	07-24-2020											
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DESIGNED BY	TF											
DRAWN BY	TF											
CHECKED BY	NAV											
DESCRIPTION												
<p>© PROJECTS/Airhart Construction\190726.00_Munhall_Si_Corral_Site_REV.DWG\04/20/20\190726.00_SHEET C-4.2_Geometry.dwg</p>												
<p>C-4.2 SHEET</p>												



- NOTES:
1. ALL PROPOSED WATERMAIN IS TO BE 8" DIAMETER UNLESS OTHERWISE SPECIFIED.
 2. ALL SANITARY IS TO BE 6" DIAMETER UNLESS OTHERWISE SPECIFIED.
 3. STORM SEWER SIZES SHALL BE DETERMINED UPON FINAL ENGINEERING.
 4. INDIVIDUAL WATER AND SANITARY SERVICES SHALL BE LOCATED WITHIN 10' UTILITY EASEMENT ALONG FRONT OF PROPERTY.
 5. ONE (1) WATER SERVICE AND ONE (1) SANITARY SERVICE SHALL BE INSTALLED PER UNIT.
 6. B-BOXES AND SERVICE LINE STUBS SHALL BE LOCATED 9' BACK FROM ROW WITHIN UTILITY EASEMENT.
 7. DETENTION BASINS HAVE BEEN SIZED TO ACCOMMODATE THE 100-YEAR CRITICAL DURATION EVENT AND UTILIZE BULLETIN 75.
 8. LOCATION AND SIZE OF ADDITIONAL EASEMENTS SHALL BE DETERMINED UPON FINAL ENGINEERING.
 9. ALL SUMP PUMPS SHALL BE CONNECTED TO THE STORMSEWER NETWORK THAT DISCHARGES INTO THE DETENTION BASINS.
 10. ELECTRICAL LINES SHALL BE INSTALLED 5' BACK FROM ROW WITHIN UTILITY EASEMENT.

DATE	07-24-2020
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	PROJECT: Airhart Construction\190726.00_Munhall_Site_BV.DWG\CA001\190726.00_SHEET C-5.0_UTILITY.dwg

DATE	07-24-2020
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	PROJECT: Airhart Construction\190726.00_Munhall_Site_BV.DWG\CA001\190726.00_SHEET C-5.0_UTILITY.dwg



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ENGINEERING RESOURCE ASSOCIATES
 1000 WEST MARSH DRIVE, SUITE 100
 DENVER, COLORADO 80202
 PHONE (303) 733-3300
 FAX (303) 733-3300
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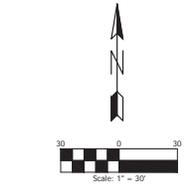
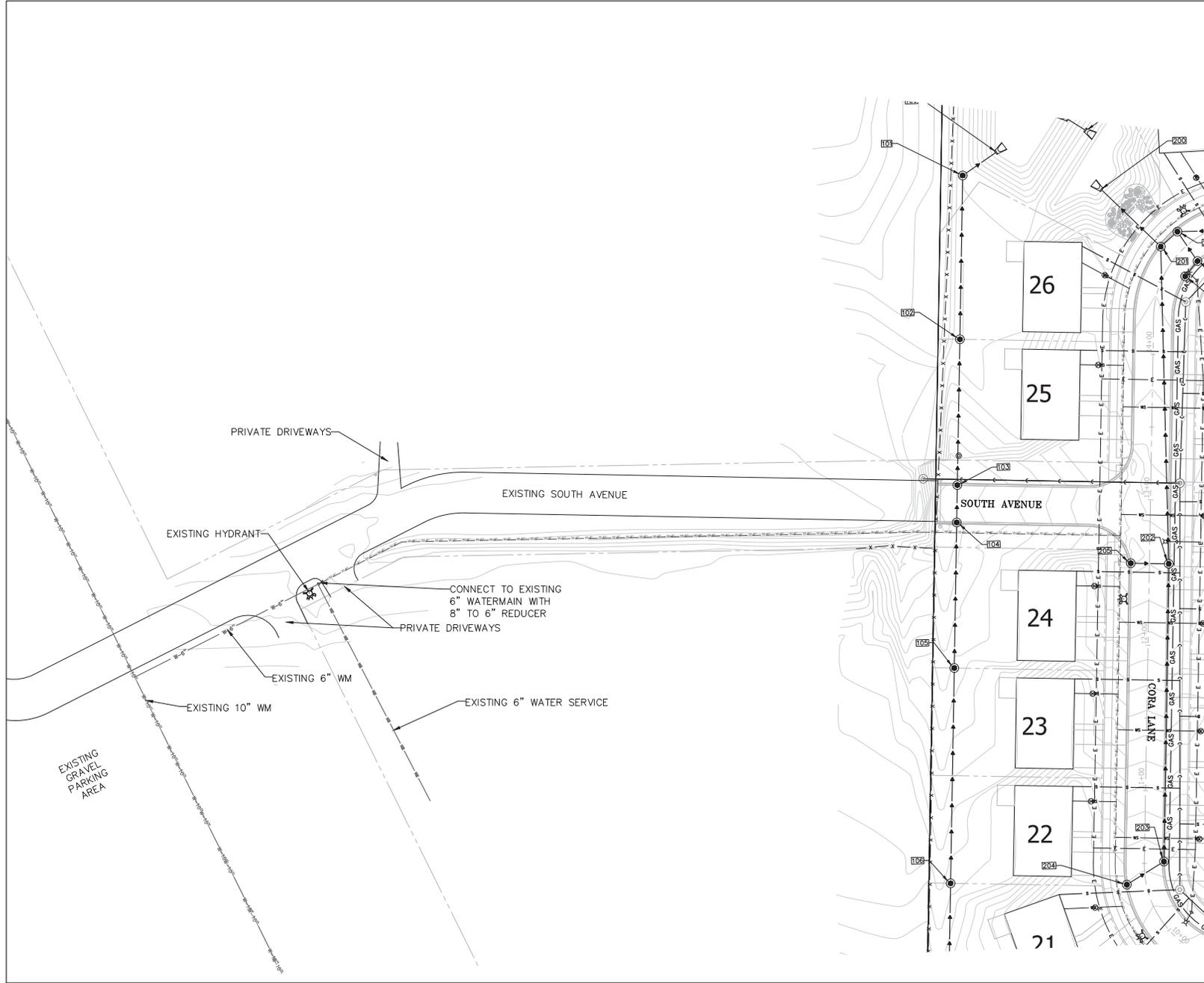
AIRHART CONSTRUCTION

MUNHALL GLEN
 ST. LOUIS, MO
 ERM PROJECT NO. 190726.00

DATE	07-24-2020	DESCRIPTION	
PROJECT #	190726.00	DESIGNED BY	TF
DRAWN BY	TF	CHECKED BY	NAV

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C-5.2
 SHEET



- NOTES:
1. ALL PROPOSED WATERMAIN IS TO BE 8" DIAMETER UNLESS OTHERWISE SPECIFIED.
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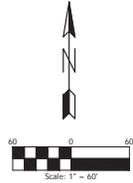
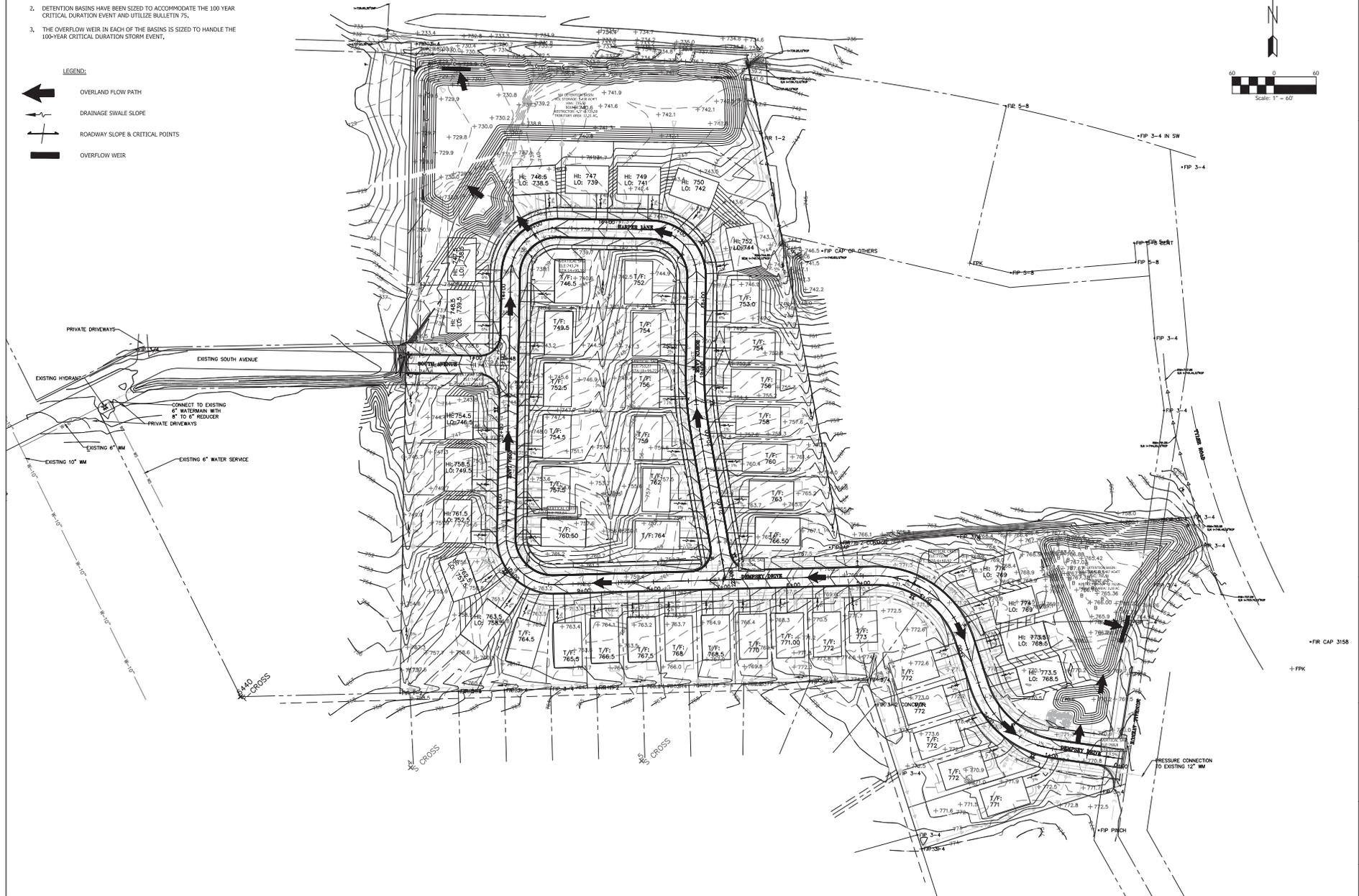
AIRHART CONSTRUCTION	
MUNHALL GLEN 51 CORRA LANE DENVER, COLORADO 80226	
DATE : 07-24-2020 PROJECT # : 190726.00 DESIGNED BY : TF DRAWN BY : TF CHECKED BY : NAV DESCRIPTION :	C-5.3 SHEET

C:\PROJECTS\Airhart_Construction\190726.00_Munhall_Site_DWG\CADD\190726.00_SHEET C-5.3_Utility.dwg

- GRADING NOTES:
1. PRIOR TO REMOVAL OF TOPSOIL, ALL EROSION CONTROL ELEMENTS SHALL BE IN PLACE AND FUNCTIONAL.
 2. DETENTION BASINS HAVE BEEN SIZED TO ACCOMMODATE THE 100-YEAR CRITICAL DURATION EVENT AND UTILIZE BULLETIN 75.
 3. THE OVERFLOW WEIR IN EACH OF THE BASINS IS SIZED TO HANDLE THE 100-YEAR CRITICAL DURATION STORM EVENT.

LEGEND:

- ← OVERLAND FLOW PATH
- DRAINAGE SWALE SLOPE
- ROADWAY SLOPE & CRITICAL POINTS
- OVERFLOW WEIR



ENGINEERING RESOURCE ASSOCIATES
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 DENVER, COLORADO 80202
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 WWW.ERACONSTRUCTION.COM

AIRHART CONSTRUCTION
Building & Water Resources

MUNHALL GLEN
51 GARDEN BL.
 DENVER, CO 80202

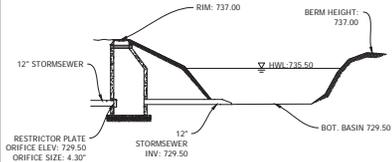
DATE	07-24-2020	PROJECT #	190726.00
DESIGNED BY	TF	CHECKED BY	NAV
DRAWN BY	TF	DESCRIPTION	GRADING PLAN

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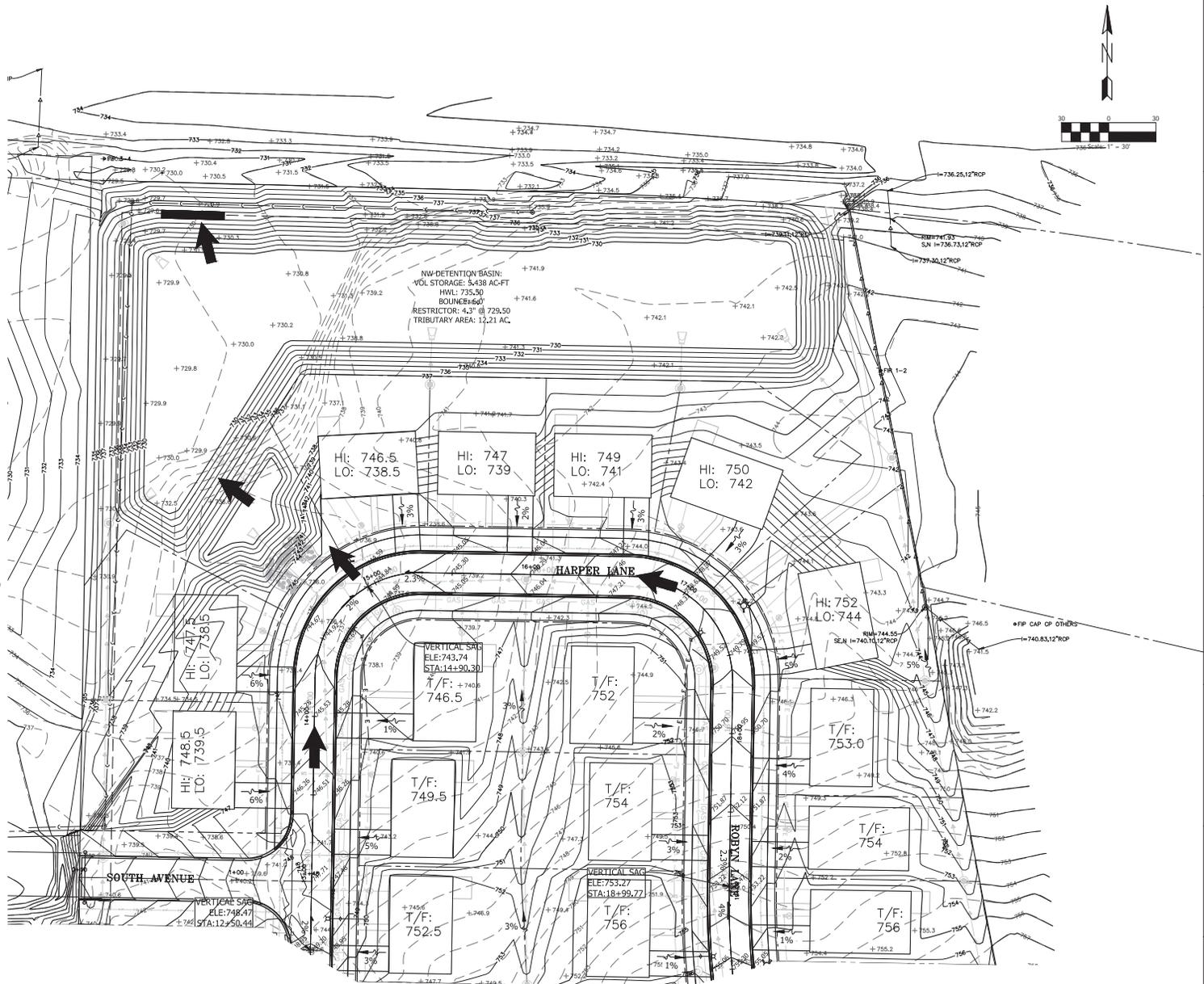
C-6.0
SHEET

- GRADING NOTES:
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- LEGEND:
- ← OVERLAND FLOW PATH
 - +— DRAINAGE SWALE SLOPE
 - +— ROADWAY SLOPE & CRITICAL POINTS
 - OVERFLOW WEIR



NORTHWEST DETENTION BASIN CROSS SECTION



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 1000 WEST AVENUE, SUITE 100
 DENVER, COLORADO 80202
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AIRHART CONSTRUCTION

MUNHALL GLEN
 51 GARDNER, N.E.
 DENVER, CO 80232
 970.726.00

DATE	DESCRIPTION
07-24-2020	
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
PROJECT NO.	190726.00
SHEET NO.	190726.00
SHEET DESCRIPTION	GRADING PLAN

C-6.1
SHEET

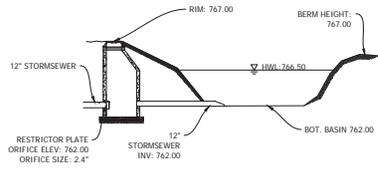
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GRADING NOTES:

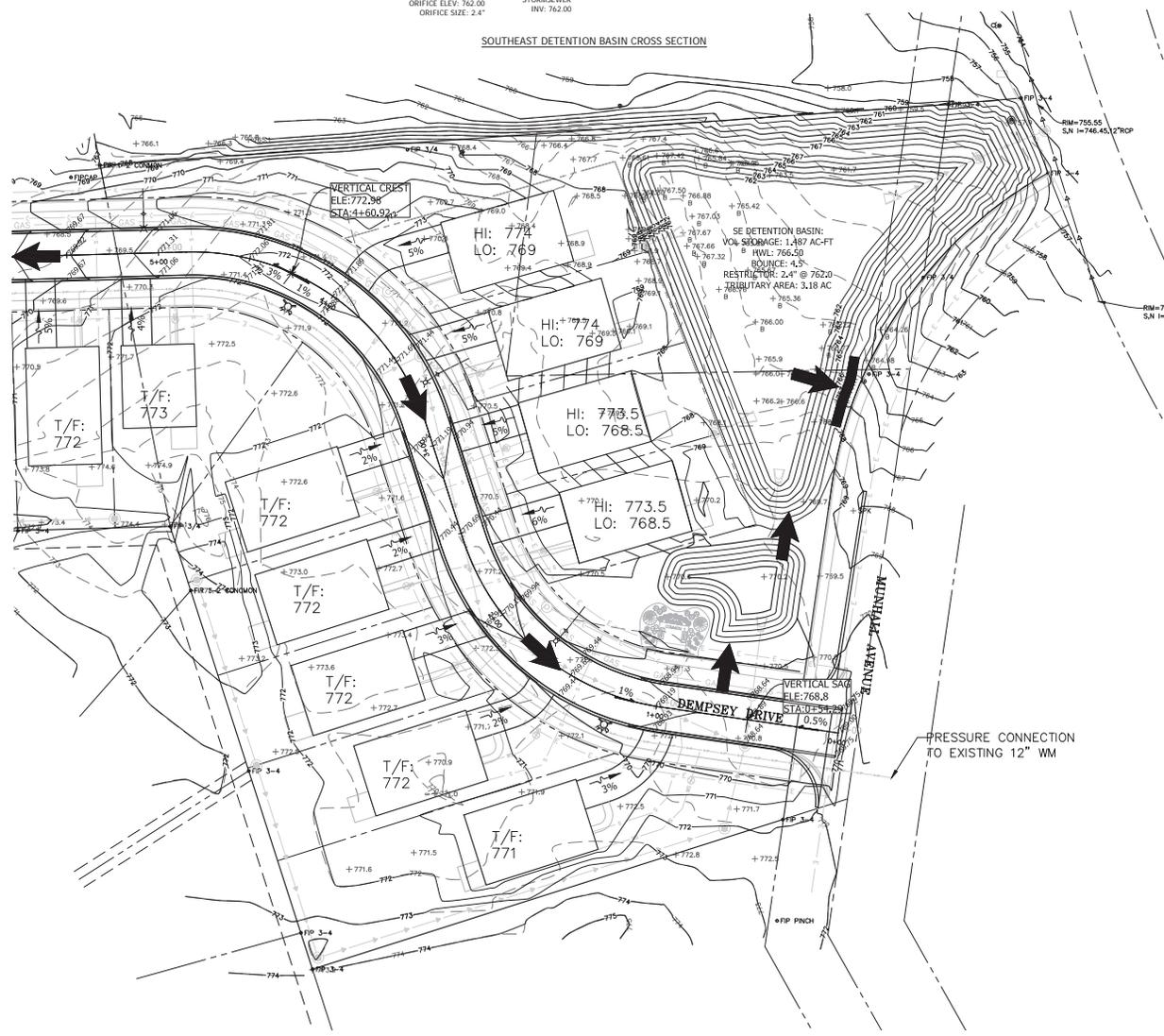
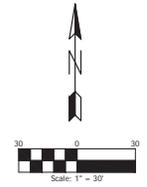
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LEGEND:

-  OVERLAND FLOW PATH
-  DRAINAGE SWALE SLOPE
-  ROADWAY SLOPE & CRITICAL POINTS
-  OVERFLOW WEIR



SOUTHEAST DETENTION BASIN CROSS SECTION



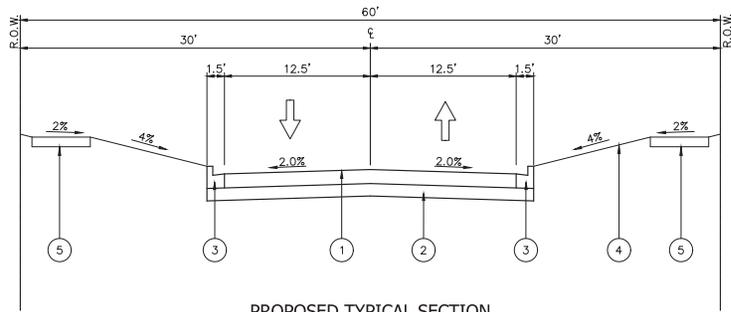
ENGINEERING RESOURCE ASSOCIATES

AIRHART CONSTRUCTION
Building & Water Transmitters

MUNHALL GLEN
ST. LOUIS, MO
ENR PROJECT NO. 190726.00

DATE	07-24-2020
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	PROJECTS\Airhart_Construction\190726.00_Munhall_Gl_Cross_Site_DWG\190726.00_SHEET_C-6.0_Crossing.dwg

C-6.3
SHEET



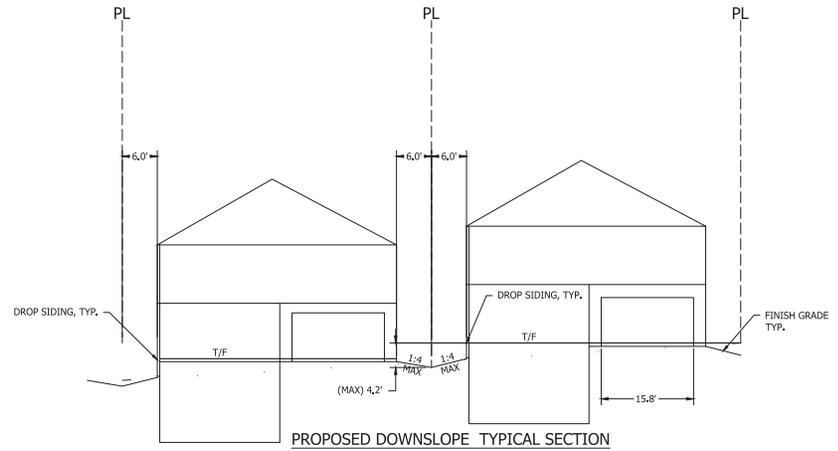
PROPOSED TYPICAL SECTION

PROPOSED LEGEND

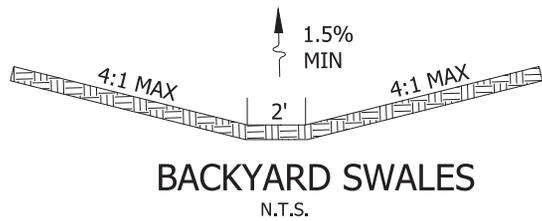
- 1 HMA PAVEMENT MIX C, N50
- 2 SUB-GRADE (SEE MIX TABLE)
- 3 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- 4 SEEDING, CLASS 2A, TOPSOIL 6"
- 5 PORTLAND CEMENT CONCRETE SIDEWALK (5")
SUBBASE GRANULAR MATERIAL, TYPE B 4"

MIX TABLE:

- 1.5" HMA SURFACE COURSE - MIX C, N50
- 4.5" HMA BINDER COURSE - IL 19, N50
- 8" AGGREGATE BASE COURSE (CA-6)



PROPOSED DOWNSLOPE TYPICAL SECTION

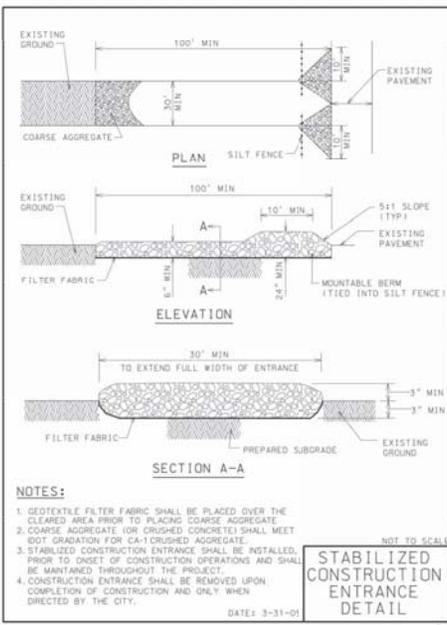


BACKYARD SWALES
N.T.S.

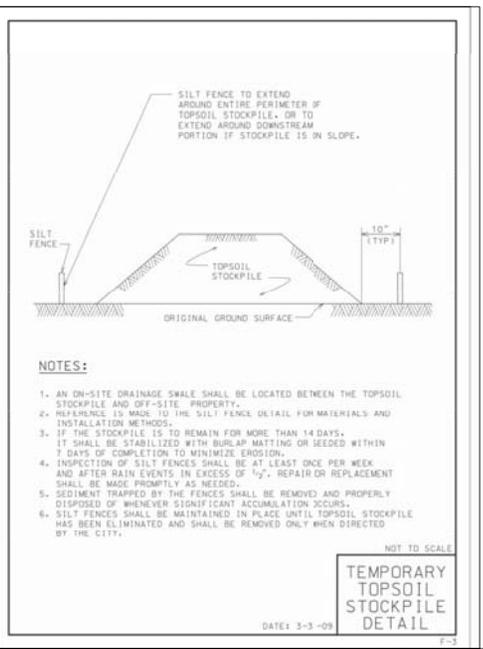
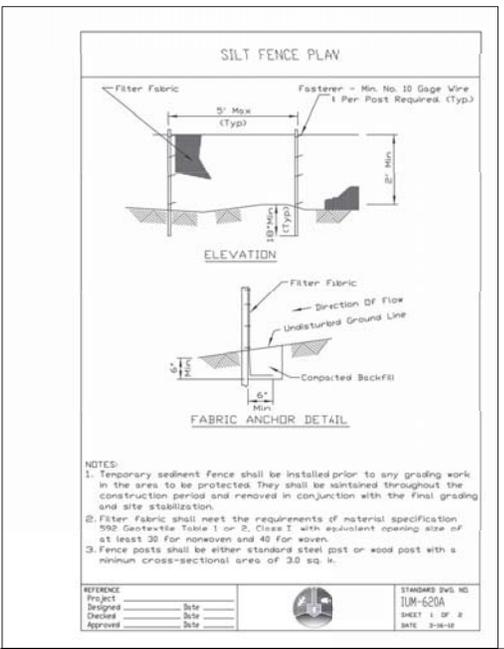
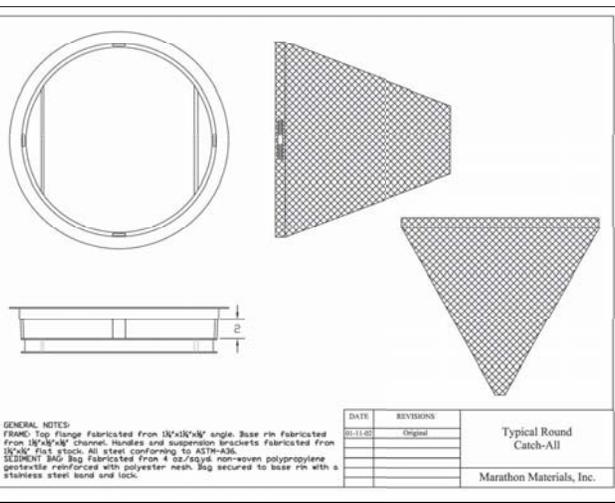
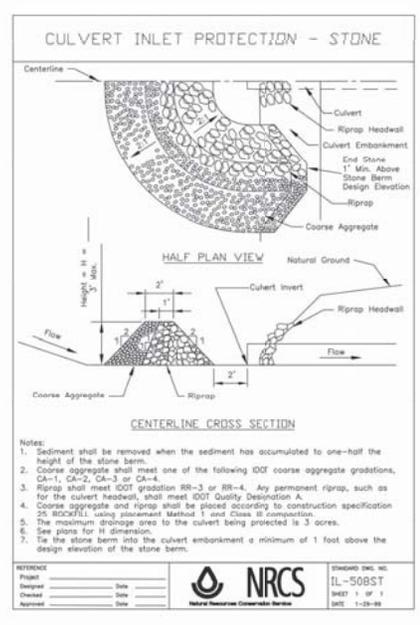
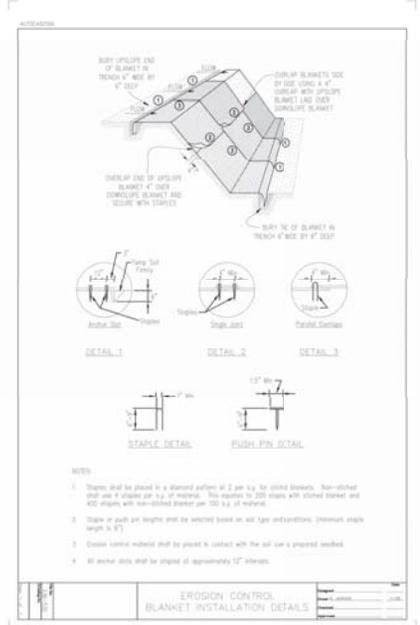
DATE	07-24-2020
PROJECT #	190726.CD
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

DATE	07-24-2020
PROJECT #	190726.CD
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

TYPICAL SECTIONS



NOT TO SCALE
STABILIZED CONSTRUCTION ENTRANCE DETAIL



ENGINEERING RESOURCE ASSOCIATES
1000 WEST AVENUE, SUITE 100
DENVER, COLORADO 80202
PH: 303.733.1300
WWW.ERACONSULTANTS.COM

AIRHART CONSTRUCTION
"Building & Water Tomorrow"

AIRHART CONSTRUCTION

MUNHALL GLEN
51 GARDNER RD.
DENVER, CO 80226

DATE: 07-24-2009
PROJECT #: 190726.00
DISIGNED BY: TF
DRAWN BY: TF
CHECKED BY: NAV
DESCRIPTION: EROSION CONTROL DETAILS

PROJECTS: Airhart Construction | 190726.00 Munhall Gl. Channel Site Rev. 01/03/09 | SHEET 190726.00 SHEET C-8.0 | 2/20/09 | 190726.00

C-8.0
SHEET

Minimum Restrained Lengths (in feet)
back from both sides of fitting

Fitting type/nominal size	4"	6"	8"	10"	12"	16"
90 Degree Bend	17	25	32	38	45	59
45 Degree Bend	7	10	13	16	19	24
22.5 Degree Bend	3	5	6	8	9	12
11.25 Degree Bend	2	2	3	4	4	6
Dead End	39	55	73	87	103	134
Top Side Vertical Offset * (45 Degree)	16	23	30	36	43	55
Bottom Side Vertical Offset * (45 Degree)	4	6	8	10	11	15
Tee Run X Branch **	6" by	1	17			
Tee Run X Branch **	8" by	1	9	34		
Tee Run X Branch **	10" by	1	1	24	49	
Tee Run X Branch **	12" by	1	1	15	41	65
Tee Run X Branch **	16" by	1	1	1	26	52
Reducer ***	6" by	28				
Reducer ***	8" by	52	30			
Reducer ***	10" by	71	54	29		
Reducer ***	12" by	90	75	55	51	
Reducer ***	16" by	123	113	97	94	54

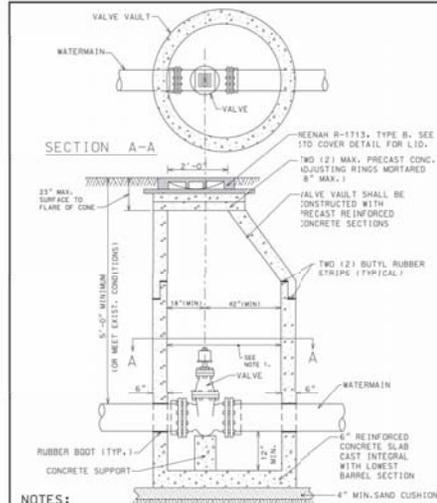
* Vertical offset with minimum 10' of solid pipe between upper and lower bend.
** Tee with MINIMUM 10' solid pipe on both sides of run.
*** Number indicates length of branch to be restrained.

*** Length back from Large End of Reducer.

WATER MAIN
RESTRAINT

DATE: 3-31-09

C-7



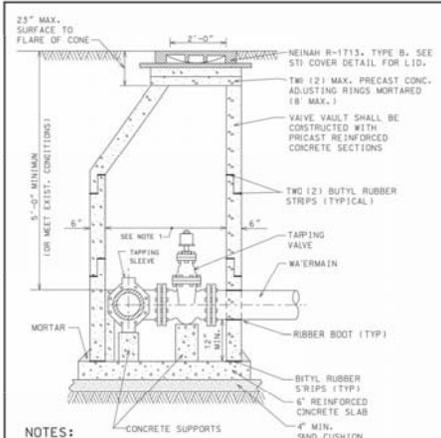
NOTES:

1. 48" MIN. INSIDE DIA. FOR VALVES LESS THAN 4" DIA.
2. 60" MIN. INSIDE DIA. FOR ALL OTHER VALVE VAULTS.
3. VALVE VAULT MUST CONFORM TO ASTM C-478.
4. USE ECCENTRIC CONE ONLY.
5. VAULT SECTIONS TO BE TONGUE AND GROOVED.
6. NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTED.
7. BACKFILL MATERIAL SHALL BE 100% CA-7 VIRGIN CRUSHED LIMESTONE.
8. ALL MECHANICAL JOINT BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF 304 GRADE STAINLESS STEEL.
9. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN 100% APPROVED CONCRETE "SI" MIXTURE.

VALVE
VAULT
DETAIL

DATE: 11-12-13

B-1



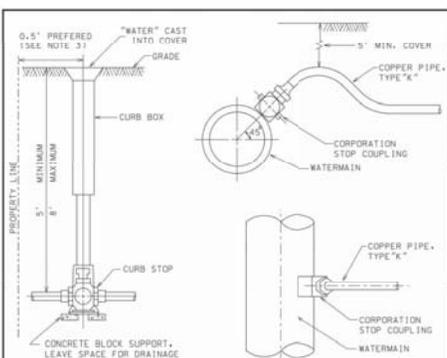
NOTES:

1. 60" (MIN) INSIDE DIA. FOR ALL PRESSURE CONNECTION VAULTS.
2. ALL NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTED.
3. BACKFILL MATERIAL SHALL BE 100% CA-7 VIRGIN CRUSHED LIMESTONE.
4. ALL MECHANICAL JOINT BOLTS & NUTS SHALL BE COMPOSED OF CORE-TEN.
5. ALL OTHER HEXAGONAL BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF 304 GRADE STAINLESS STEEL.
6. VALVE VAULT MUST CONFORM TO ASTM C-478.
7. ALL SECTIONS TO BE TONGUE AND GROOVED.
8. BLOCKING SHALL NOT INTERFERE WITH BOLT MAINTENANCE OR REPLACEMENT.
9. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN 100% APPROVED CONCRETE "SI" MIXTURE.

PRESSURE
CONNECTION
DETAIL

DATE: 11-12-13

B-2



- A. CURB BOX:**
1. MUELLER H-10300 WITH 1-1/4" I.D. UPPER SECTION AND 2" MINNEAPOLIS TAPPED BASE.
 2. A-1, McDONALD 5615 1-1/4"

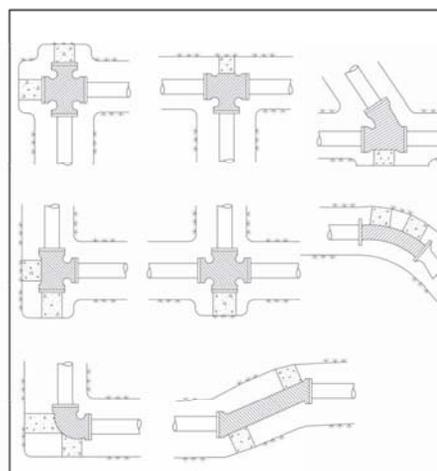
- B. CURB STOP:**
1. PIPE SIZE CAN VARY, BUT 1" MINIMUM. OTHER APPURTENANCES SHALL REFLECT SAME.
 2. COPPER PIPE SHALL BE ONE PIECE BETWEEN TAP AND CURB BOX.
 3. PLACE BETWEEN SIDEWALK AND PROPERTY LINE. KEEP BOXES OUT OF SIDEWALKS AND DRIVEWAY.
 4. MINIMUM OF 3" BETWEEN TAPS AND 3" TO NEAREST JOINT.
 5. 1" SERVICE MAY BE DIRECTLY TAPPED INTO 6" OR LARGER MAIN. LARGER SERVICES REQUIRE A SMITH-BLAIR 372 OR APPROVED EQUAL STAINLESS STEEL TAP THROUGH SLEEVE.

- C. CORPORATION STOP:**
1. MUELLER B-25155-N (1", 1-1/2", 2") FORD B-44-444-Q-NL 1" B-44-666-Q-NL 1-1/2" B-44-777-Q-NL 2" A-1, McDONALD 76104-Q 1", 1-1/2", 2" Q SERIES BRASS
 2. NOT TO SCALE
 3. MUELLER B-25008-N (1", 1-1/2", 2") FORD B1000-4-Q-NL 1" FB 1000-6-Q-NL 1-1/2" FB 1000-7-Q-NL 2" A-1, McDONALD 74701-BQ 1", 1-1/2", 2" Q SERIES BRASS, WITH 90 SWIVEL ELBOW

COPPER
WATER SERVICE
CONNECTION
DETAILS

DATE: 11-12-13

A-3



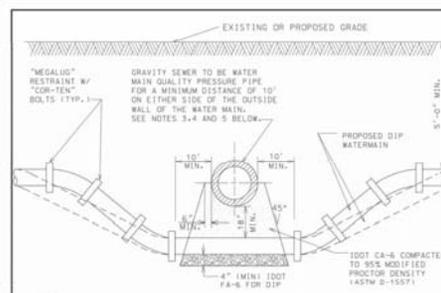
NOTE:

1. ALL BENDS OF 10" AND LARGER SHALL BE BLOCKED WITH AT LEAST 10" THICK UNREINFORCED CONCRETE BLOCK SET AGAINST UNDISTURBED VERTICAL EARTH FACE.
2. ALL CONCRETE TO BE MIN. 3,000 PSI.
3. IN ADDITION TO THE ABOVE THRUST BLOCKING: ALL MECHANICAL JOINTS, BENDS OVER 10" AND FIRE HYDRANTS SHALL HAVE A "MEGALUG" RESTRAINT, OR AS APPROVED BY THE ENGINEERING DIVISION. BOLTS SHALL BE "COR-TEN".

THRUST BLOCK
INSTALLATION
DETAILS

DATE: 3-2-11

A-1



NOTES:

1. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERMANS AND SEWERS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE CITY OF ST. CHARLES ENGINEERING GUIDE OR IUPA REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
2. CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS, PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN DIAMETER AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN DIAMETER. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATERMAIN DEPTH ARE REQUIRED, OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW NO. F-1058 OR APPROVED EQUAL.
3. ALL SANITARY SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE POLYVINY CHLORIDE PRESSURE PIPE (SDR 26-160 PSI) AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM D-2241. JOINTS SHALL CONFORM TO ASTM D-3159 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F-471. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
4. ALL STORM SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE REINFORCED CONCRETE PIPE, ASTM C-301, CLASS D-20, WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS, OR PVC SDR 26 AS SPECIFIED IN NOTE 3 ABOVE. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
5. FOR NEW SEWER INSTALLATIONS CROSSING OVER WATER MAINS, THE ENTIRE RUN OF NEW SEWER SHALL BE WATER MAIN QUALITY PIPE, EXTENDING FROM STRUCTURE TO STRUCTURE ON EACH SIDE OF THE CROSSING.

WATER MAIN
CROSSING
DETAIL

DATE: 3-31-09

E-4

ENGINEERING RESOURCE ASSOCIATES
1000 WEST 94TH AVENUE, SUITE 100
DENVER, COLORADO 80231
TEL: 303.755.8888
WWW.ERACONSTRUCTION.COM

AIRHART CONSTRUCTION
"Building & Water Tomorrow"

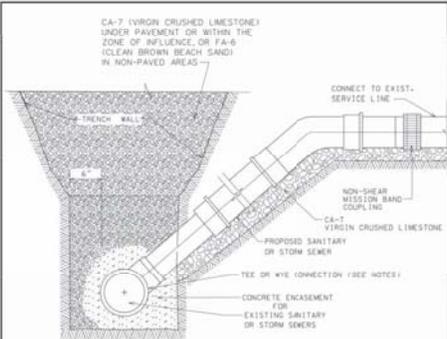
AIRHART CONSTRUCTION

MUNHALL GLEN
1000 WEST 94TH AVENUE, SUITE 100
DENVER, COLORADO 80231
TEL: 303.755.8888
WWW.ERACONSTRUCTION.COM

DATE: 07-24-2000
PROJECT #: 190726.00
DESIGNED BY: TF
DRAWN BY: TF
CHECKED BY: NAV
DESCRIPTION: 190726.00 Munhall St. Channel Site. REV. DMS/CADON/SHEET/190726.00 SHEET C-9.0_WaterDetails.dwg

WATER DETAILS

C-9.0 SHEET



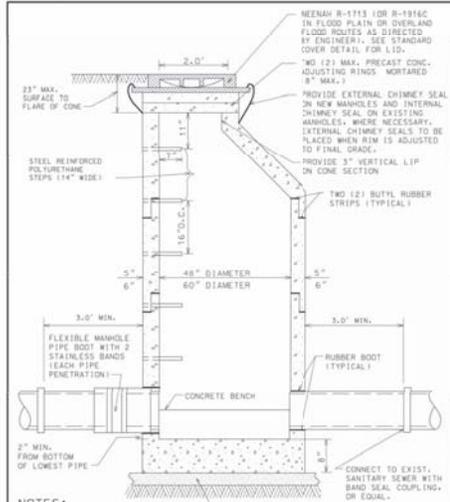
NOTES:

1. FOR PROPOSED STORM SEWER SERVICE (6" ON RCP PIPE) 15", CORE THE PIPE AND USE A BOOT CONNECTION.
2. FOR PROPOSED STORM SEWER SERVICE ≥ 8", A MANHOLE SHALL BE INSTALLED.
3. FOR CONNECTING SANITARY OR STORM SEWER SERVICE TO AN EXISTING SANITARY OR STORM SEWER ≤ 12", REMOVE A SECTION OF PIPE AND INSTALL A TEE OR WYE CONNECTION.
4. FOR CONNECTING SANITARY SEWER SERVICE TO AN EXISTING SANITARY SEWER ≥ 15", CIRCULAR SAW-CUT AND USE A HUB WYE OR TEE SADDLE CONNECTION.
5. FOR PROPOSED STORM OR SANITARY SEWER SERVICES, ENCASE ALL CONNECTIONS IN LOW STRENGTH CONCRETE TO PREVENT THE FITTINGS FROM ROTATING.
6. FOR TRENCHES WITHIN AN EXISTING PAVED SURFACE AREA, CA-7 (VIRGIN CRUSHED LESTONE) BACKFILL SHALL BE USED.
7. FOR PROPOSED 6" STORM SEWER SUMP LINE, INSTALL PLUG AND 2" X 4" POST AT END OF LINE.

NOT TO SCALE
SANITARY AND STORM SERVICE DETAIL

DATE: 12-8-10

C-2



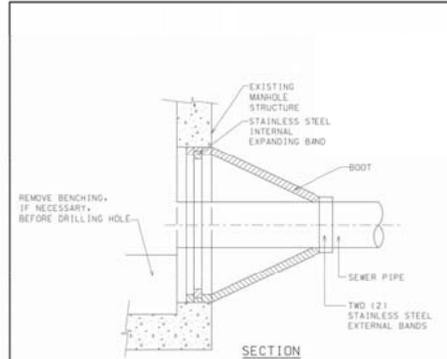
NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL SANITARY SEWER MANHOLES.
4. USE EXTERNAL LIFTING "HOLES" ONLY, BUT NOT FULL PENETRATION.
5. NON-PRECAST OPENINGS SHALL BE CURED AND RUBBER BOOTED.
6. PIPE PENETRATIONS TO BE RUBBER BOOTED AND INTERIOR MORTARED.
7. USE ECCENTRIC CONE ONLY.
8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN 100T APPROVED CONCRETE "S1" MIXTURE.

NOT TO SCALE
SANITARY MANHOLE DETAIL

DATE: 7-27-10

A-2



NOTES:

1. CORE-DRILL CIRCULAR OPENING IN MANHOLE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
2. KORN SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC. OR AS APPROVED BY THE ENGINEERING DEPARTMENT) SHALL BE USED FOR WATERTIGHT CONNECTION.
3. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW SANITARY SEWER CONNECTION.
4. CLEAN EXISTING MANHOLE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.

NOT TO SCALE
SANITARY SEWER CONNECTION TO EXISTING MANHOLE

DATE: 3-31-09

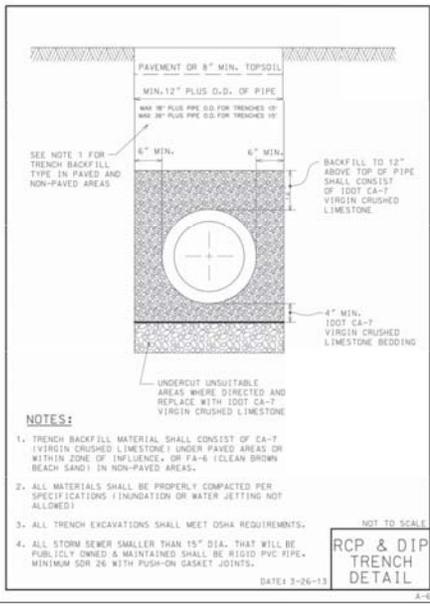
A-4

DATE	07-24-2010
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

DATE	07-24-2010
PROJECT #	190726.00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	

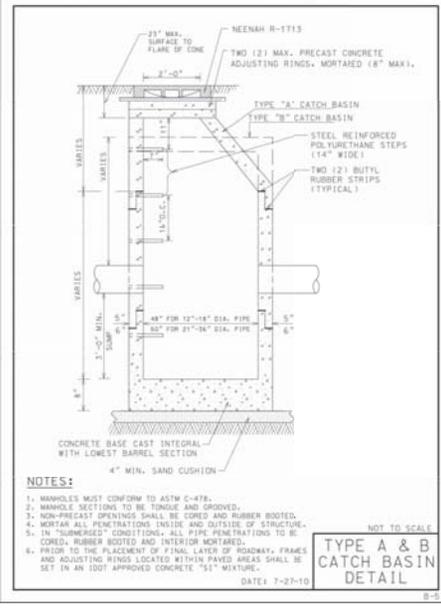
SANITARY DETAILS

C-10.0
 SHEET



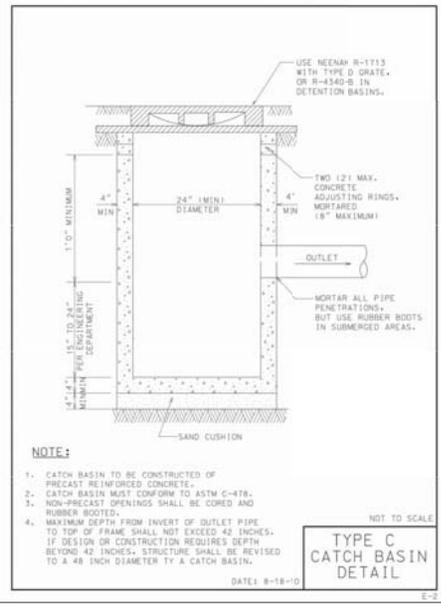
- NOTES:**
1. TRENCH BACKFILL MATERIAL SHALL CONSIST OF CA-7 (VIRGIN CRUSHED LIMESTONE) UNDER PAVED AREAS OR WITHIN ZONE OF INFLUENCE, OR FA-6 (CLEAN DROWN BEACH SAND) IN NON-PAVED AREAS.
 2. ALL MATERIALS SHALL BE PROPERLY COMPACTED PER SPECIFICATIONS (UNDRAINAGE OR WATER JETTING NOT ALLOWED).
 3. ALL TRENCH EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
 4. ALL STORM SEWER SMALLER THAN 18" DIA. THAT WILL BE PUBLICLY OWNED & MAINTAINED SHALL BE RIGID PVC PIPE, MINIMUM SDR 26 WITH PUSH-ON GASKET JOINTS.

NOT TO SCALE
RCP & DIP TRENCH DETAIL
DATE: 3-26-13
A-4



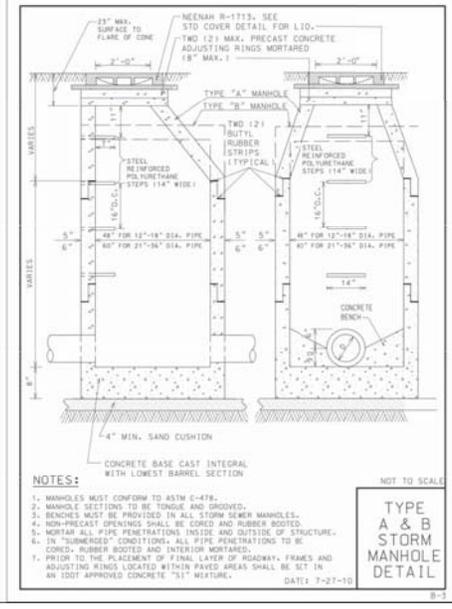
- NOTES:**
1. MANHOLES MUST CONFORM TO ASTM C-478.
 2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
 3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 4. MORTAR ALL PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
 5. IN "SUMMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.
 6. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "S1" MIXTURE.

NOT TO SCALE
TYPE A & B CATCH BASIN DETAIL
DATE: 7-27-10
B-5



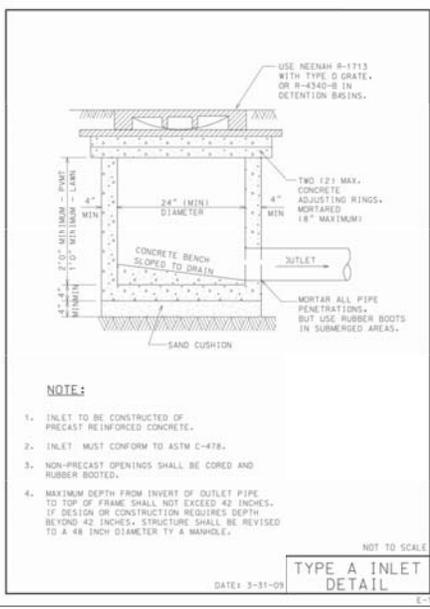
- NOTE:**
1. CATCH BASIN TO BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
 2. CATCH BASIN MUST CONFORM TO ASTM C-478.
 3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 4. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF FRAME SHALL NOT EXCEED 42 INCHES. IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42 INCHES, STRUCTURE SHALL BE REVISED TO A 48 INCH DIAMETER TYPE C CATCH BASIN.

NOT TO SCALE
TYPE C CATCH BASIN DETAIL
DATE: 8-18-10
E-2



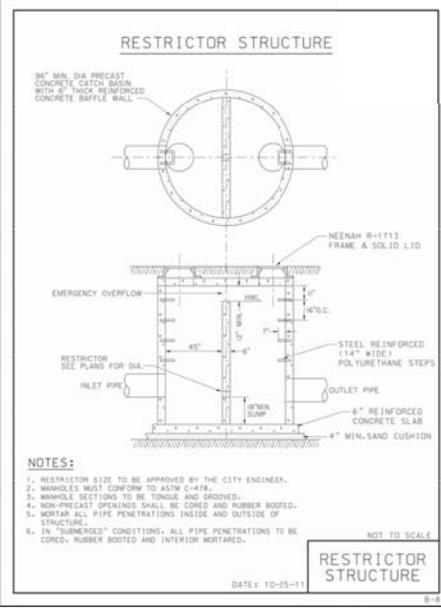
- NOTES:**
1. MANHOLES MUST CONFORM TO ASTM C-478.
 2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
 3. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
 4. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 5. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
 6. IN "SUMMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.
 7. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "S1" MIXTURE.

NOT TO SCALE
TYPE A & B STORM MANHOLE DETAIL
DATE: 7-27-10
B-1



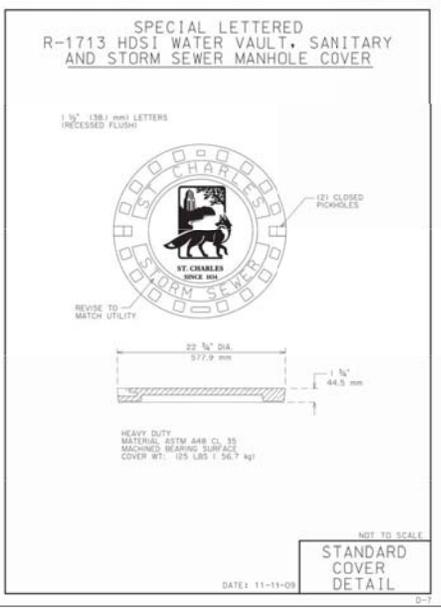
- NOTE:**
1. INLET TO BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
 2. INLET MUST CONFORM TO ASTM C-478.
 3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 4. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF FRAME SHALL NOT EXCEED 42 INCHES. IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42 INCHES, STRUCTURE SHALL BE REVISED TO A 48 INCH DIAMETER TYPE A MANHOLE.

NOT TO SCALE
TYPE A INLET DETAIL
DATE: 3-31-09
E-1



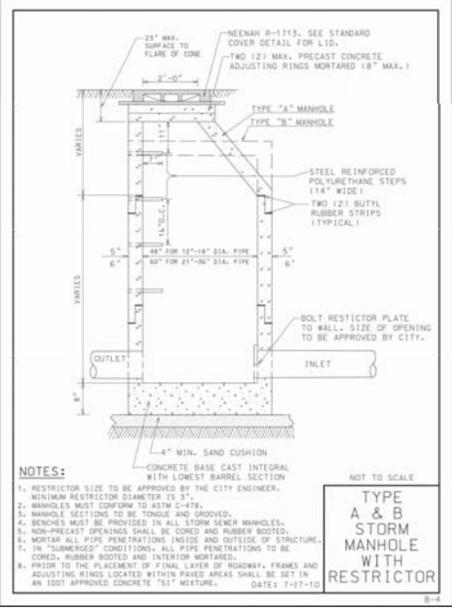
- NOTES:**
1. RESTRICTOR SIZE TO BE APPROVED BY THE CITY ENGINEER.
 2. MANHOLES MUST CONFORM TO ASTM C-478.
 3. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
 4. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 5. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
 6. IN "SUMMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.

NOT TO SCALE
RESTRICTOR STRUCTURE
DATE: 10-25-11
B-8



- NOTE:**
1. RESTRICTOR SIZE TO BE APPROVED BY THE CITY ENGINEER.
 2. MANHOLES MUST CONFORM TO ASTM C-478.
 3. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
 4. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
 5. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
 6. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
 7. IN "SUMMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED, RUBBER BOOTED AND INTERIOR MORTARED.
 8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "S1" MIXTURE.

NOT TO SCALE
STANDARD COVER DETAIL
DATE: 11-13-09
D-7



- NOTES:**
1. RESTRICTOR SIZE TO BE APPROVED BY THE CITY ENGINEER.
 2. MINIMUM RESTRICTOR DIAMETER IS 3\"/>

NOT TO SCALE
TYPE A & B STORM MANHOLE WITH RESTRICTOR
DATE: 7-27-10
B-4

ENGINEERING RESOURCE ASSOCIATES
1500 WEST MAIN, SUITE 100
MUNHALL, OHIO 44130-1000
PH: (440) 971-3300
FAX: (440) 971-3301
WWW.ERACONSTRUCTION.COM

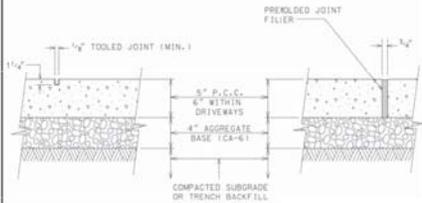
AIRHART CONSTRUCTION
Building & Water Technology

MUNHALL GLEN
1500 WEST MAIN, SUITE 100
MUNHALL, OHIO 44130-1000
PH: (440) 971-3300
FAX: (440) 971-3301
WWW.ERACONSTRUCTION.COM

DATE: 07-24-2020
PROJECT #: 190726.00
DISIGNED BY: TF
DRAWN BY: TF
CHECKED BY: NAV
DESCRIPTION: CONSTRUCTION DETAILS

C-11.0 SHEET

CONTRACTION JOINT DETAIL EXPANSION JOINT DETAIL



NOTES:

1. UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE AT 5'-0" O.C.
2. EXPANSION JOINTS TO BE 50'-0" MAX. OR AT BACK OF CURB, CHANGE OF DIRECTION, OTHER WALK, UTILITY APPURTENANCE, OR FACE OF STRUCTURE.
3. PORTLAND CEMENT CONCRETE SHALL CONFORM TO 100T CLASS 51, MIN. 3,500 PSI (6.1 BAG MIX) AT 14 DAYS, WITH 5% TO 8% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)

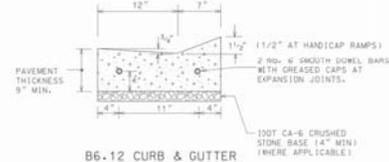
NOT TO SCALE

CONCRETE WALK JOINT DETAILS

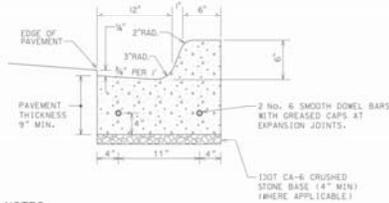
DATE: 3-31-09

E-3

DEPRESSED CURB



B6.12 CURB & GUTTER



NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED AT 15' INTERVALS AND SHALL BE GROINED WITH AN EDGING TOOL. SEE ARTICLE 420.10 OF 100T STANDARD SPECIFICATIONS.
2. EXPANSION JOINTS SHALL BE PLACED AT 60' (MAX) INTERVALS, AT ALL P.C.C.'S AND P.T.'S, CURB RETURNS, AND AT THE END OF EACH POUR.
3. P.C.C. SHALL CONSIST OF 100T CLASS 51 (6.1 BAG MIX) CONCRETE, WITH 5% TO 8% AIR ENTRAINMENT, AND A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS. (NO FLY ASH ALLOWED)

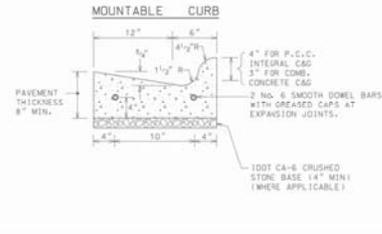
DATE: 10-22-10

FOR RESIDENTIAL STREETS ONLY

**B6.12 COMB. CONCRETE CURB AND GUTTER (SPECIAL)
B6.12 P.C.C. INTEGRAL CURB AND GUTTER (SPECIAL)**

D-3

MOUNTABLE CONCRETE CURB & GUTTER



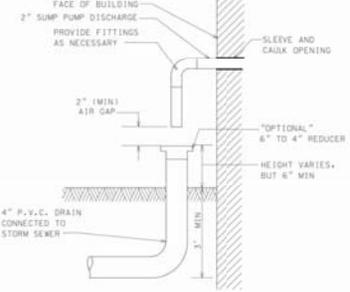
NOTES:

1. 1/2" THICK PREFORMED EXPANSION JOINTS SHALL BE INSTALLED AT 50 FOOT INTERVALS. PROVIDE 2-3/4" STEEL DOWEL BARS AT EXPANSION JOINTS.
2. EXPANSION JOINTS SHALL BE INSTALLED ON EACH SIDE, A DISTANCE OF 2 FEET FROM A STRUCTURE THAT FALLS WITHIN THE CURB AND GUTTER.
3. CONTRACTION JOINTS SHALL BE SAWS TO A MINIMUM DEPTH OF 2 INCHES AND PLACED AT 10 FOOT INTERVALS. SAW CUTS SHALL BE SAWS NO SOONER THAN 6 HOURS AND NO LATER THAN 24 HOURS AFTER PLACEMENT OF CONCRETE.
4. CURBS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (100T). MOST RECENT EDITION UNLESS NOTED OR DIRECTED HEREIN.
5. A PROTECTIVE COAT SHALL BE APPLIED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

DATE: 9-30-10

MOUNTABLE CURB & GUTTER

C-8



NOTE:

- THE CITY OF ST. CHARLES ALLOWS RESIDENTS TO CONNECT SUMP PUMP DISCHARGE LINES TO THE PUBLIC STORM SEWER SYSTEM. SUMP PUMPS SHALL BE DESIGNED WITH A MINIMUM 2" AIR GAP. A RIGID FOUR-INCH (4") DIAMETER PVC PIPE CAN BE USED TO CONNECT THE INDIVIDUAL SUMP PUMP SERVICE TO THE STORM SEWER. IN NO EVENT SHALL THE SUMP PUMP DISCHARGE INTO THE SANITARY SEWER SYSTEM. A PLUMBING PERMIT IS REQUIRED PRIOR TO ANY CONNECTION. INCLUDE A PLAN OF CONNECTION TO THE STORM SEWER. THE SITE PLAN SHALL ALSO INCLUDE PIPE SPECIFICATIONS AND INVERT ELEVATIONS. CALL THE CITY ENGINEERING DIVISION 24 HOURS IN ADVANCE TO SCHEDULE AN INSPECTION.

DATE: 3-31-09

SUMP PUMP DISCHARGE CONNECTION DETAIL

NOT TO SCALE

E-1

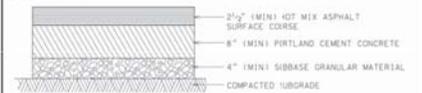
A. FLEXIBLE PAVEMENT



B. RIGID PAVEMENT



C. COMPOSITE PAVEMENT



NOTE:

1. HOT MIX ASPHALT SURFACE & BINDER COURSE SHALL CONFORM TO 100T HMA MIX SELECTION TABLE.
2. PORTLAND CEMENT CONCRETE SHALL CONFORM TO 100T CLASS PV, MIN. 3500 PSI (6.1 BAG MIX) AT 14 DAYS, WITH 5% TO 8% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)
3. ALL SUBGRADE SHALL HAVE A MINIMUM ILL INDS BEARING RATIO (IBR) OF 3.0, AND BE COMPACTED TO AT LEAST 90% MODIFIED PROCTOR DENSITY (ASTM D-1557)

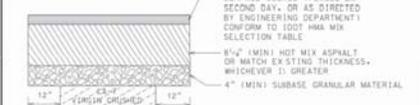
NOT TO SCALE

MINIMUM PAVEMENT DETAILS

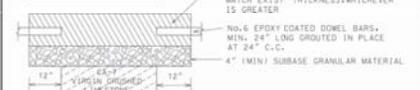
DATE: 2-3-10

D-4

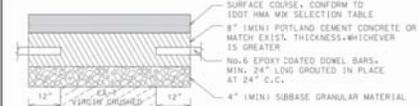
A. FLEXIBLE PAVEMENT



B. RIGID PAVEMENT



C. COMPOSITE PAVEMENT



NOTE:

1. ALL PAVEMENT PATCHES SHALL BE SAWCUT FULL-DEPTH A MINIMUM OF ONE FOOT BEYOND THE LIMITS OF THE FAILED PAVEMENT IN ALL DIRECTIONS.
2. PORTLAND CEMENT CONCRETE SHALL CONFORM TO 100T CLASS PP, MIN. 3,500 PSI (6.1 BAG MIX) AT 14 DAYS, WITH 5% TO 7% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)

NOT TO SCALE

PAVEMENT PATCH DETAIL

DATE: 12-8-10

D-3

DEPRESSED CURB



CURB & GUTTER



NOTES:

1. SEE TYPICAL DETAIL FOR CURB AND GUTTER FOR CURB DIMENSIONS AND SPECIFICATIONS.

NOT TO SCALE

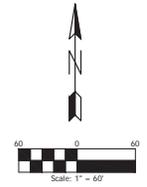
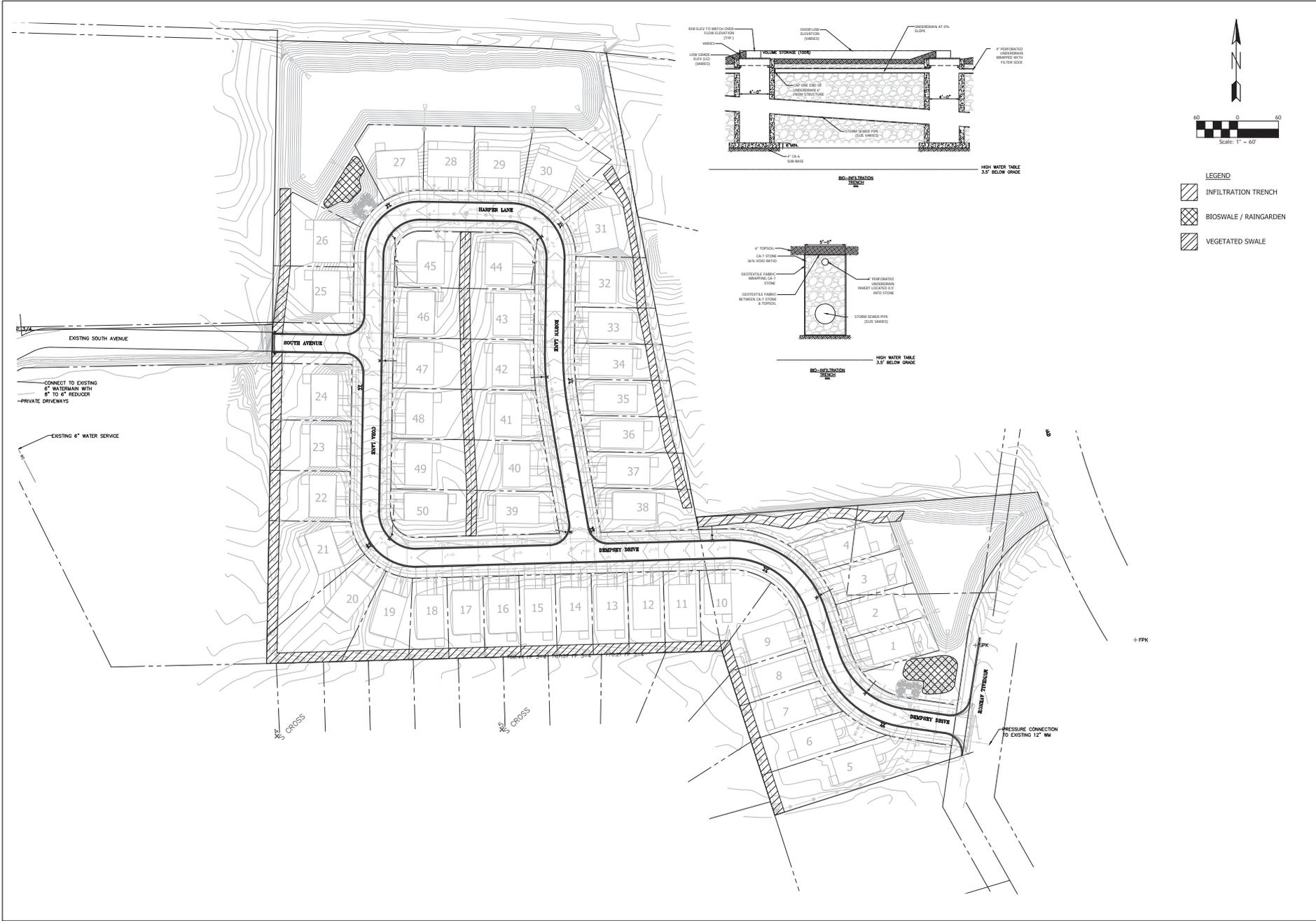
SIDEWALK AT CURB AND GUTTER

DATE: 3-31-09

G-2

DATE	07-24-2000
PROJECT #	190726.00
DISIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	CONSTRUCTION

DATE	07-24-2000
PROJECT #	190726.00
DISIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	CONSTRUCTION



- LEGEND**
- INFILTRATION TRENCH
 - BIOSWALE / RAINGARDEN
 - VEGETATED SWALE

ENGINEERING RESOURCE ASSOCIATES

AIRHART CONSTRUCTION
"Building a Better Tomorrow"

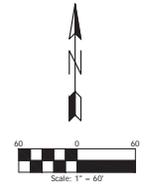
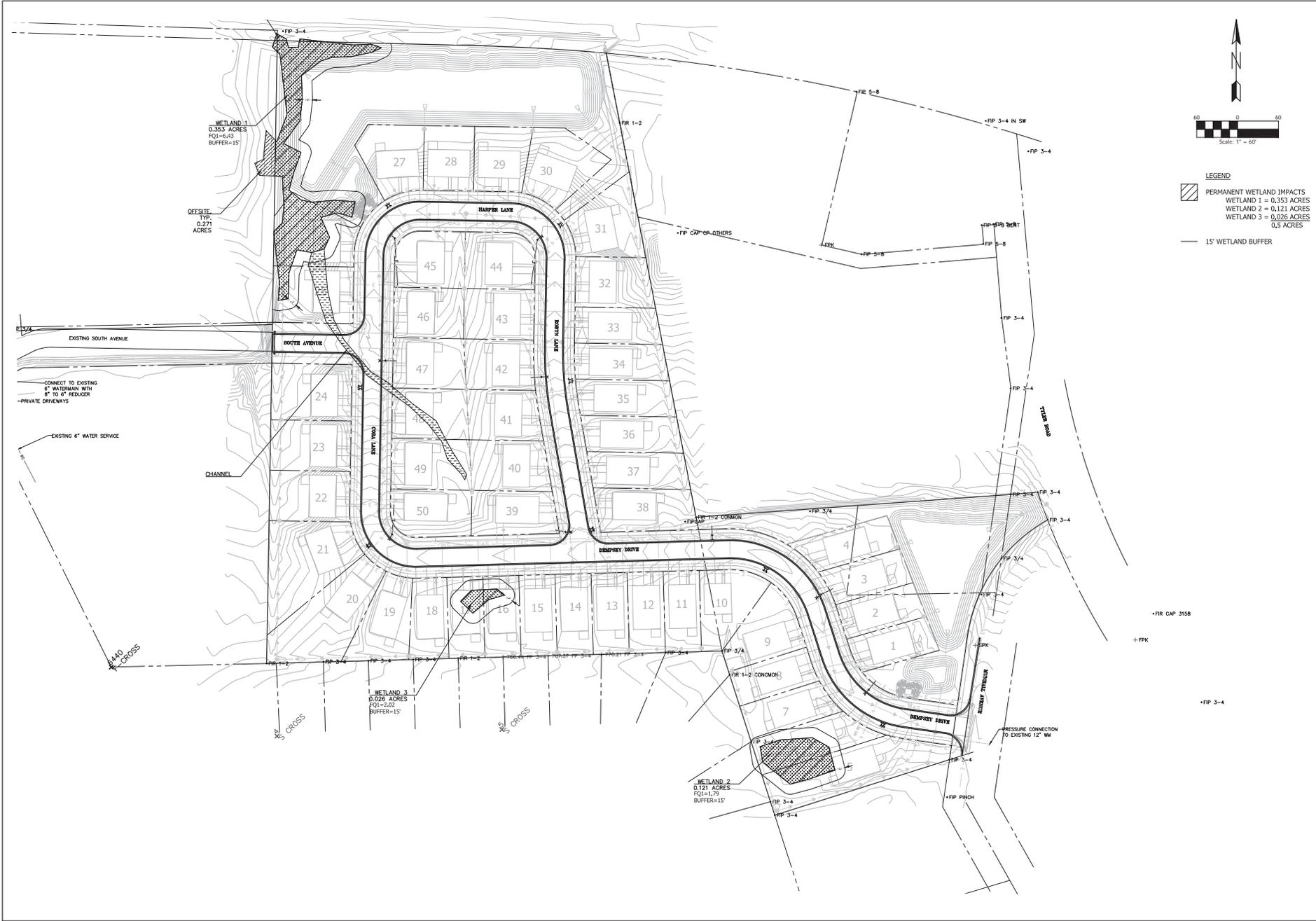
MUNHALL GLEN

51 GARDNER BL.
 EDWARDS PROJECT NO.
 190726.CO

DATE	07-24-2020
PROJECT #	190726.CO
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV
DESCRIPTION	BMP LOCATIONS

C-12.0
SHEET

C:\PROJECTS\Airhart_Construction\190726.CO\Munhall_Si_Oriana_Site_Drv_DWG\LOADS\190726.CO_SHEET_C-12.0_BMP_locations.dwg



- LEGEND**
- PERMANENT WETLAND IMPACTS
 - WETLAND 1 = 0.353 ACRES
 - WETLAND 2 = 0.121 ACRES
 - WETLAND 3 = 0.026 ACRES
 - 0.5 ACRES
 - 15' WETLAND BUFFER

**ENGINEERING
RESOURCE ASSOCIATES**
1000 WEST MARSH DRIVE, SUITE 100
DENVER, COLORADO 80202
TEL: 303.733.1300
WWW.ERASOURCE.COM

**AIRHART
CONSTRUCTION**
"Building A Better Tomorrow"

MUNHALL GLEN

111 SOUTH BAY BL.
DENVER, CO 80226

DATE : 07-24-2020
PROJECT # : 190726.00
DESIGNED BY : TF
DRAWN BY : TF
CHECKED BY : NAV
DESCRIPTION : WETLAND IMPACT PLAN

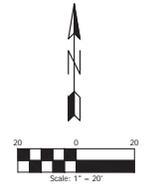
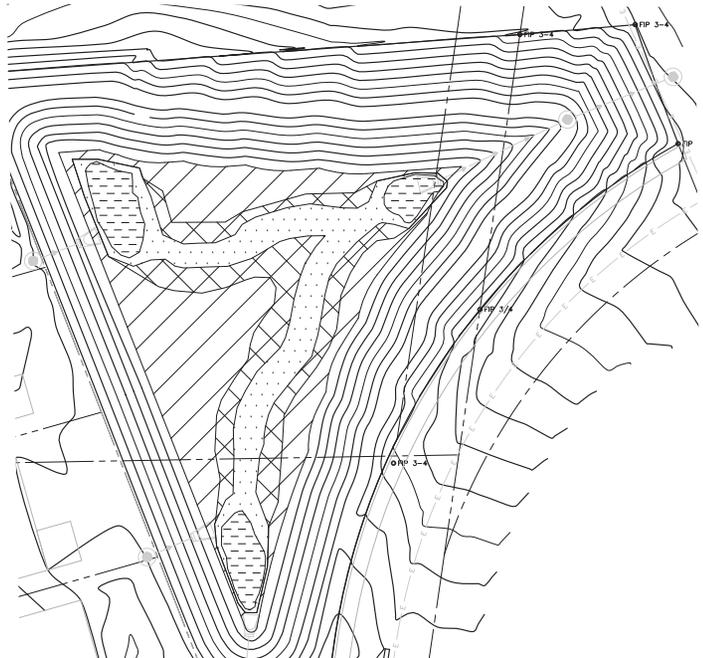
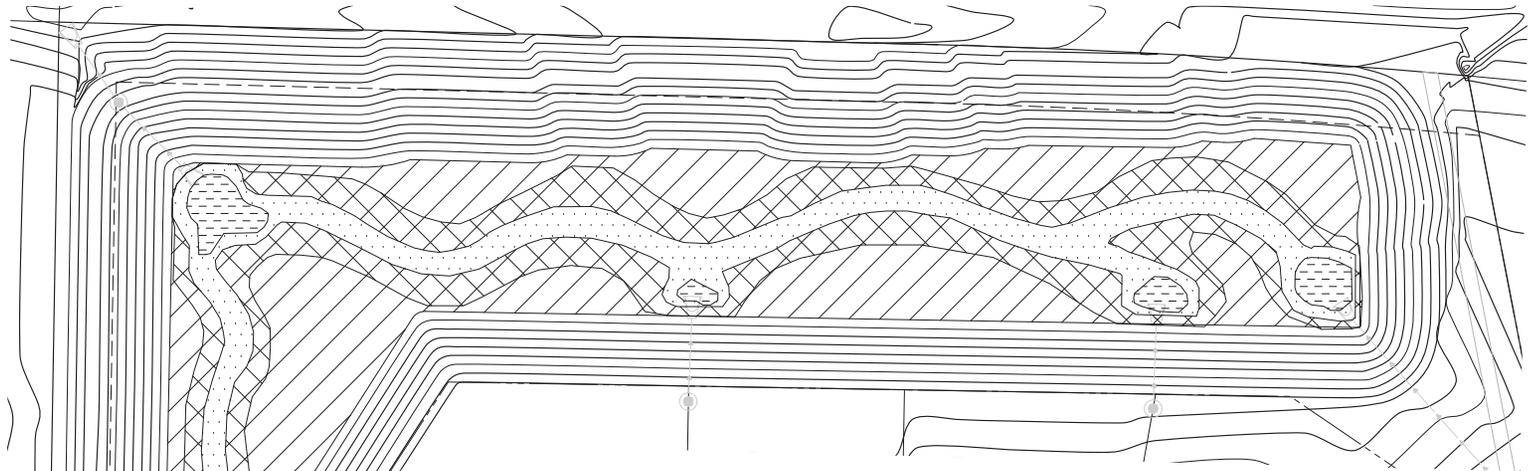
C-13.0

WETLAND
IMPACT PLAN

C-13.0

SHEET

© PROJECTS/Airhart Construction/190726.00 Munhall St. Channel Site. REV. DWG/CAO/NAV SHEET/190726.00 SHEET C-13.0 Wetland Impact Plan



- LEGEND**
-  MICROPOOL / FOREBAY
 -  LOW FLOW MEANDER / DEEP EMERGENT (0.19 ACRES)
 -  WET MEADOW (0.38 ACRES)
 -  EMERGENT (0.26 ACRES)

**ENGINEERING
RESOURCE ASSOCIATES**
1030 WEST AVENUE, SUITE 100
MUNSHILL, ILLINOIS 61868
PHONE: (815) 733-3000
WWW.ERASSOCIATES.COM



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CONSTRUCTION**
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CONSTRUCTION**

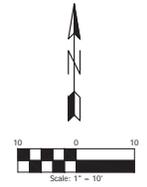
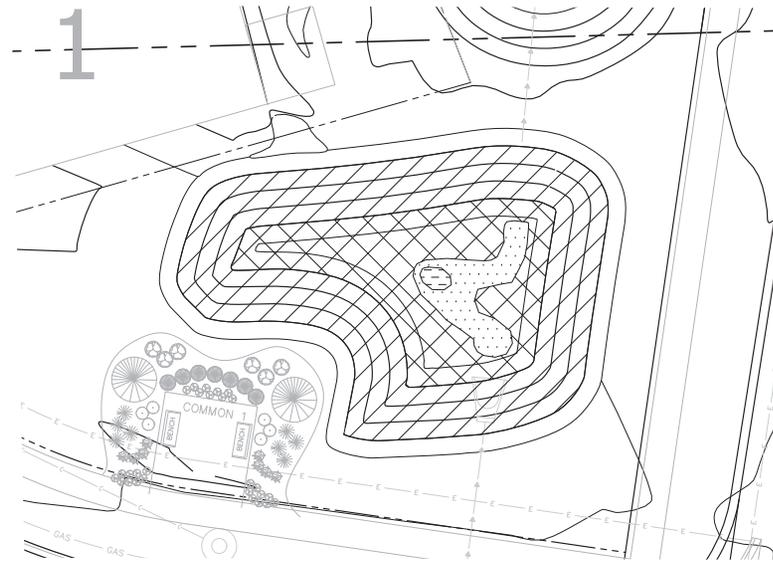
MUNHALL GLEN
ST CHARLES, IL
EPA PROJECT NO.
10026.CO

DATE	DESCRIPTION

DATE	07-24-2010
PROJECT #	10026.CO
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV

WETLAND
MITIGATION
PLAN

C-14.0
SHEET



- LEGEND**
-  OPEN WATER
 -  EMERGENT PLANT COMMUNITY (0,012 ACRES)
 -  MESIC PRAIRIE BUFFER (0,052 ACRES)
 -  WET PRAIRIE / SEDGE MEADOW (0,045 ACRES)

**ENGINEERING
RESOURCE ASSOCIATES**
2200 WEST PARKWAY SUITE 100
MUNHALL, OHIO 44130
PH: (440) 376-3000
WWW.ERASSOCIATES.COM



**AIRHART
CONSTRUCTION**
Building a Better Tomorrow

**AIRHART
CONSTRUCTION**

MUNHALL GLEN
ST CHARLES, IL
EIR PROJECT NO.
100226-00

DATE	DESCRIPTION

DATE	07-24-2020
PROJECT #	100226-00
DESIGNED BY	TF
DRAWN BY	TF
CHECKED BY	NAV

**RAIN
GARDEN
PLAN**

C-15.0
SHEET



PLANT MATERIAL LIST

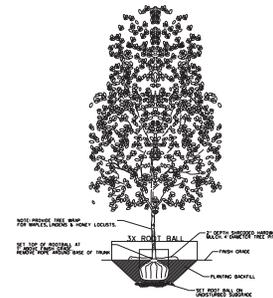
STREET AND BORDER TREES

7	ACER FREEMAN MARMO	MARMO MAPLE	2 1/2"
7	ACER S. FALL FIESTA	FALL FIESTA SUGAR MAPLE	2 1/2"
3	ACER NYBURN NORTON	NYBURN NORTON MAPLE	2 1/2"
3	ACER P. CRIMSON KING	CRIMSON KING MAPLE	2 1/2"
3	CELTIS O. CHOCOLATE	CHOCOLATE AND HAZELBERRY	2 1/2"
1	CINCO D. PRINCETON SENTRY	PRINCETON SENTRY CINCO	2 1/2"
8	CLETHRA F. SOUTHERN	CLYDE HENRI SOUTHERN	2 1/2"
7	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2"
7	QUERCUS IMBRICARIA	SINGLE OAK	2 1/2"
4	QUERCUS RUBRA	NORTHERN RED OAK	2 1/2"
7	TILIA E. REDMOND	REDMOND LINDEN	2 1/2"

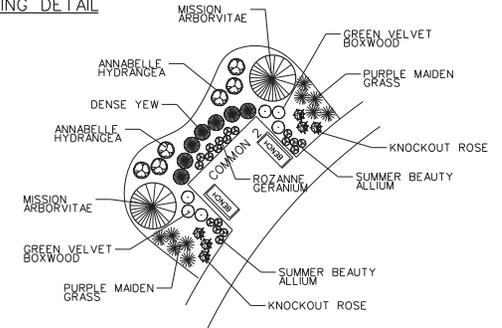
COMMON AREA 2

2	TILIA O. TSCHNY	MISSION ARBORVITAE	4"
7	TAXUS MEDIA DENSIFORMIS	DENSE YEW	18"
6	RHUS M. GREEN VELVET	GREEN VELVET BOXWOOD	16"
6	HYDRANGEA A. ANNABELLE	ANNABELLE HYDRANGEA	5 GAL.
6	ROSA W. KNOCKOUT	KNOCKOUT ROSE	1 GAL.
10	ALLIUM "SUMMER BEAUTY"	SUMMER BEAUTY ALLIUM	1 GAL.
9	GERANIUM S. ROZANNE	ROZANNE GERANIUM	1 GAL.
10	MISCANTHUS "PURPURESCENS"	PURPLE MAIDEN GRASS	1 GAL.

- NOTES:
 1. SOG AREAS AS NOTED.
 2. PREPARE FERTILIZER AND GROUND COVER BEDS W/ 1 CY. GARDEN COMPOST PER 100 SF INDICATED TO 8" DEPTH (APPROX. 7.50/100).
 3. MULCH ALL TREE SOG AND SHRUB PLANTINGS TO MAX. 3" & 2" MIN. DEPTH.
 4. PREPARE MULCH AND SOG BEDS PLANTINGS TO MAX. 10' DIA.
 5. MULCH SHOULD NOT BE PILED UP AGAINST TRUNKS OF TREES OR SHRUBS.
 6. A COVER OF AT LEAST 6" OF TOPSOIL SHALL BE PROVIDED IN ALL TURF AREAS.
 7. A COVER OF AT LEAST 9" OF TOPSOIL SHALL BE PROVIDED IN ALL PLANTING BEDS.



TREE PLANTING DETAIL
NO SCALE



Common Area 2

LANDSCAPE PLAN

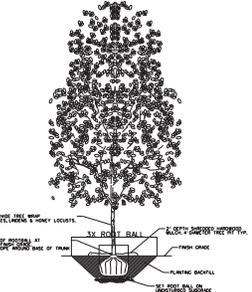
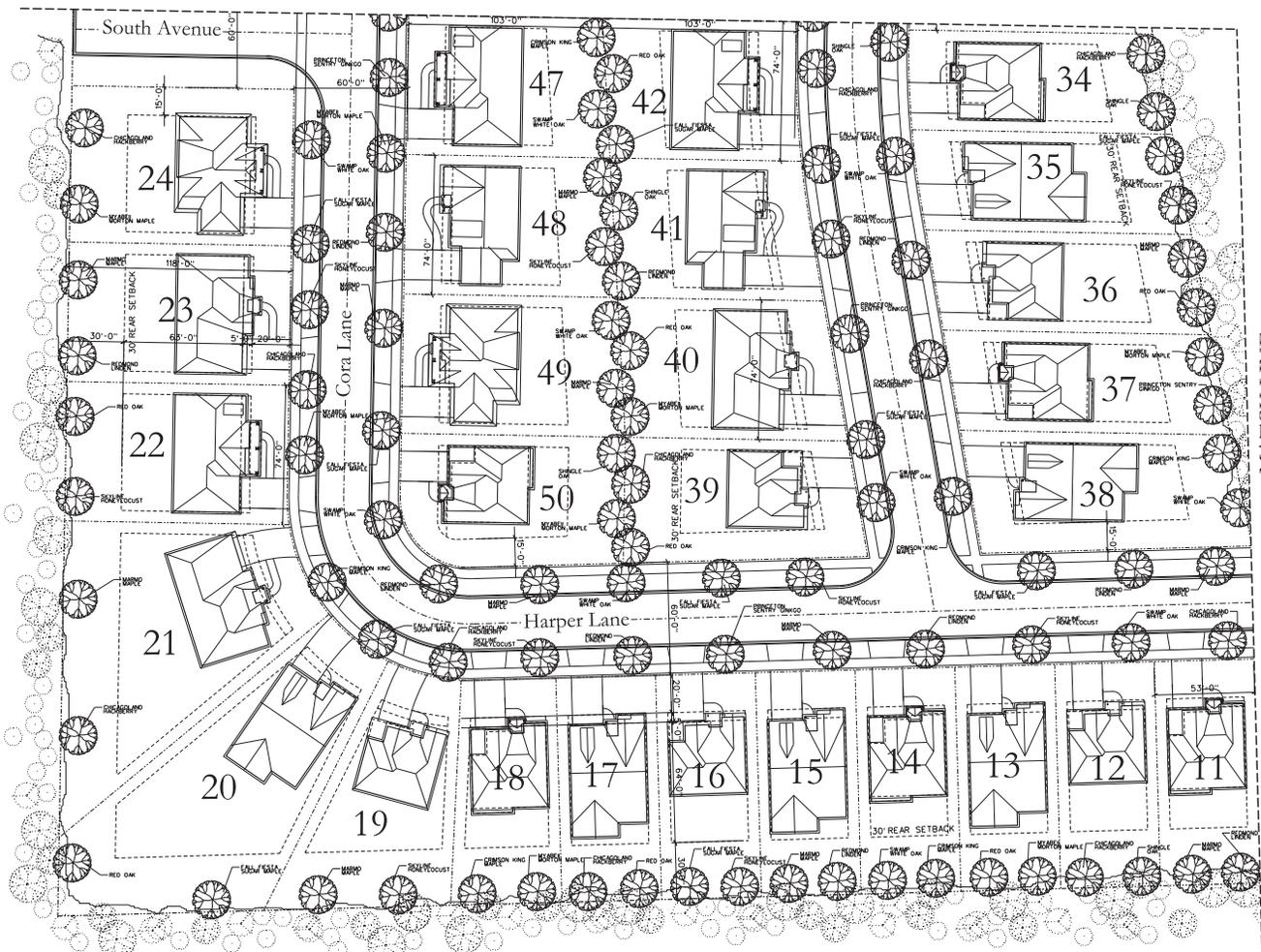
1" = 10'-0"

MATCH LINE

AIRHART CONSTRUCTION
 800 E. ROOSEVELT RD. WEST CHICAGO, IL 60656 (630) 310-3000

SCALE: 1" = 30'-0"	APPROVED BY:	DRAWN BY: JCK
DATE: 7-23-20	REVISOR:	
Munhall Glen		
ST. CHARLES, IL		
Landscape Master Plan		DRAWING NUMBER: L-1

MATCH LINE



TREE PLANTING DETAIL
NO SCALE

PLANT MATERIAL LIST

STREET AND BORDER TREES

12 ACER FREEMANI MARNO	MARNO MAPLE	2 1/2"
11 ACER S. FALLI FESTA	FALLI FESTA SUGAR MAPLE	2 1/2"
8 ACER MYABE WORTON	MYABE WORTON MAPLE	2 1/2"
6 ACER P. SIMONSON KING	CRIMSON KING MAPLE	2 1/2"
11 CELTIS O. CHICAGO LAND	CHICAGO LAND HACKBERRY	2 1/2"
3 GINKGO S. PRINCETON SENTRY	PRINCETON SENTRY GINKGO	2 1/2"
10 GLEDITSIA SKYLINE	SKYLINE HONEYLOCUST	2 1/2"
2 QUERCUS INDICIANA	SWAMP WHITE OAK	2 1/2"
8 QUERCUS RUBRA	NORTHERN RED OAK	2 1/2"
10 TILIA E. REDMOND	REDMOND LINDEN	2 1/2"

- NOTES:
 1. SOF AREAS AS NOTED.
 2. PREPARE PERENNIAL AND GROUND COVER BEDS W/ 1 CY GARDEN COMPOST PER 100 SF ROTATED TO 8" DEPTH APPROX 2' SOU YDI.
 3. MULCH ALL TREE AND SHRUB PLANTINGS TO MAX 3" & 2" MIN DEPTH SHREDDED HARDWOOD MULCH (APPROX 35 CUB YDS).
 4. MULCH SHOULD NOT BE PILED UP AGAINST TRUNKS OF TREES OR SHRUBS.
 5. A COVER OF AT LEAST 6" OF TOPSOIL SHALL BE PROVIDED IN ALL TURF AREAS.
 6. A COVER OF AT LEAST 9" OF TOPSOIL SHALL BE PROVIDED IN ALL PLANTING BEDS.

AIRHART CONSTRUCTION
 808 E. ROOSEVELT, 2ND FLOOR, CHICAGO, IL 60611 (312) 947-0800

SCALE: 1" = 30'-0"	APPROVED BY:	DRAWN BY: JCK
DATE: 3-23-20	REVISION:	
Munhall Glen ST. CHARLES, IL		
Landscape Master Plan		DRAWING NUMBER: L-2



PLANT MATERIAL LIST

STREET AND BORDER TREES

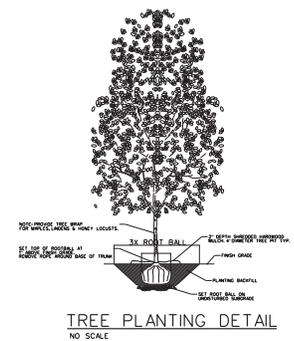
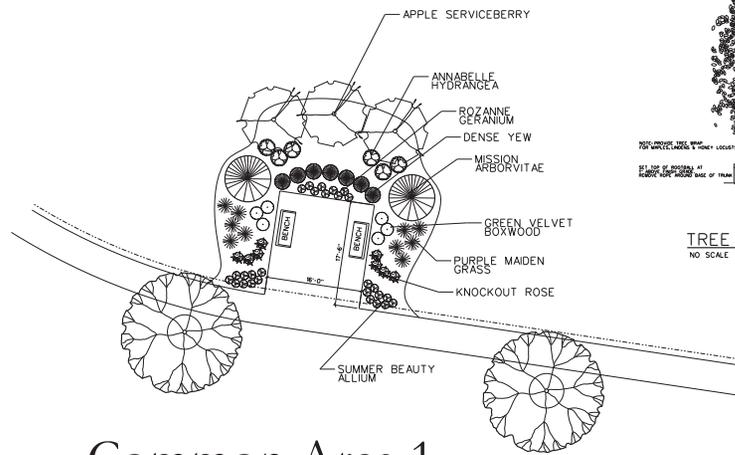
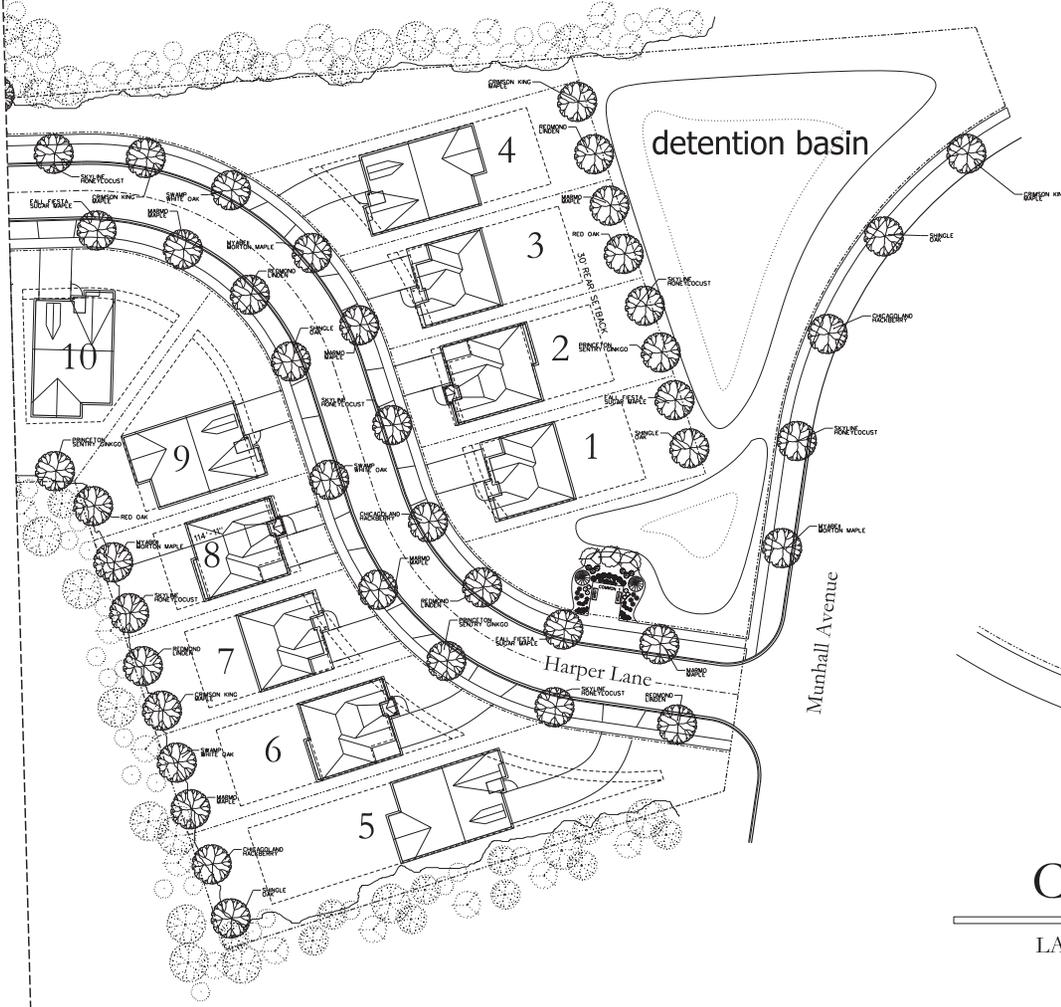
6	ACER FREEMANI 'MARGO'	MARGO MAPLE	2 1/2"
3	ACER S. 'FALL FIESTA'	FALL FIESTA SUGAR MAPLE	2 1/2"
3	ACER MYRIEBE 'MORTON'	MYRIEBE-MORTON MAPLE	2 1/2"
4	ACER P. 'CRIMSON KING'	CRIMSON KING MAPLE	2 1/2"
3	CELTIS O. 'CHICAGO-LAND'	CHICAGO-LAND HACKBERRY	2 1/2"
3	CMRGO B. 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	2 1/2"
3	CLETHRA F. 'SWEETBONE'	SWEETBONE HUCKLEBERRY	2 1/2"
3	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2"
4	QUERCUS AMERICANA	SINGLE OAK	2 1/2"
2	QUERCUS RUBRA	NORTHERN RED OAK	2 1/2"
5	TILIA E. 'REDBOND'	REDBOND LINDEN	2 1/2"

COMMON AREA J

3	AMELANCHER GRANDIFLORA	APPLE SERVICEBERRY	6"
2	THUJA O. 'TECHNY'	MISSION ARBORVITAE	4"
7	TAXUS MEDIA 'DENSEFORMS'	DENSE YEW	18"
6	BRUNIA M. 'GREEN VELVET'	GREEN VELVET BOXWOOD	15"
6	HYDRANGEA A. 'ANNABELLE'	ANNABELLE HYDRANGEA	5 GAL.
8	ROSA X 'KNOCKOUT ROSE'	KNOCKOUT ROSE	5 GAL.
18	ALLIUM 'SUMMER BEAUTY'	SUMMER BEAUTY ALLIUM	1 GAL.
9	GERANIUM S. 'ROZANNE'	ROZANNE GERANIUM	1 GAL.
10	MISCANTHUS 'PURPURESCENS'	PURPLE MAIDEN GRASS	1 GAL.

NOTES:
 * SOIL AREAS AS NOTED.
 * PREPARE PERENNIAL AND GROUNDCOVER BEDS W/ 1 CY. GARDEN.
 * COMPOST FILL 100% UNCONTAMINATED TO 4" DEPTH APPROX. 2 CY. TO 1".
 * MULCH ALL TREE AND SHRUB PLANTINGS TO MAX 3" & 2" MIN. DEPTH.
 * SHREDED HARDWOOD MULCH APPROX. 20 CY. TO 1".
 * MULCH SHOULD NOT BE FIELD UP AGAINST TRUNKS OF TREES OR SHRUBS.
 * A COVER OF AT LEAST 6" OF TOPSOIL SHALL BE PROVIDED IN ALL TURF AREAS.
 * A COVER OF AT LEAST 9" OF TOPSOIL SHALL BE PROVIDED IN ALL PLANTING BEDS.

MATCH LINE



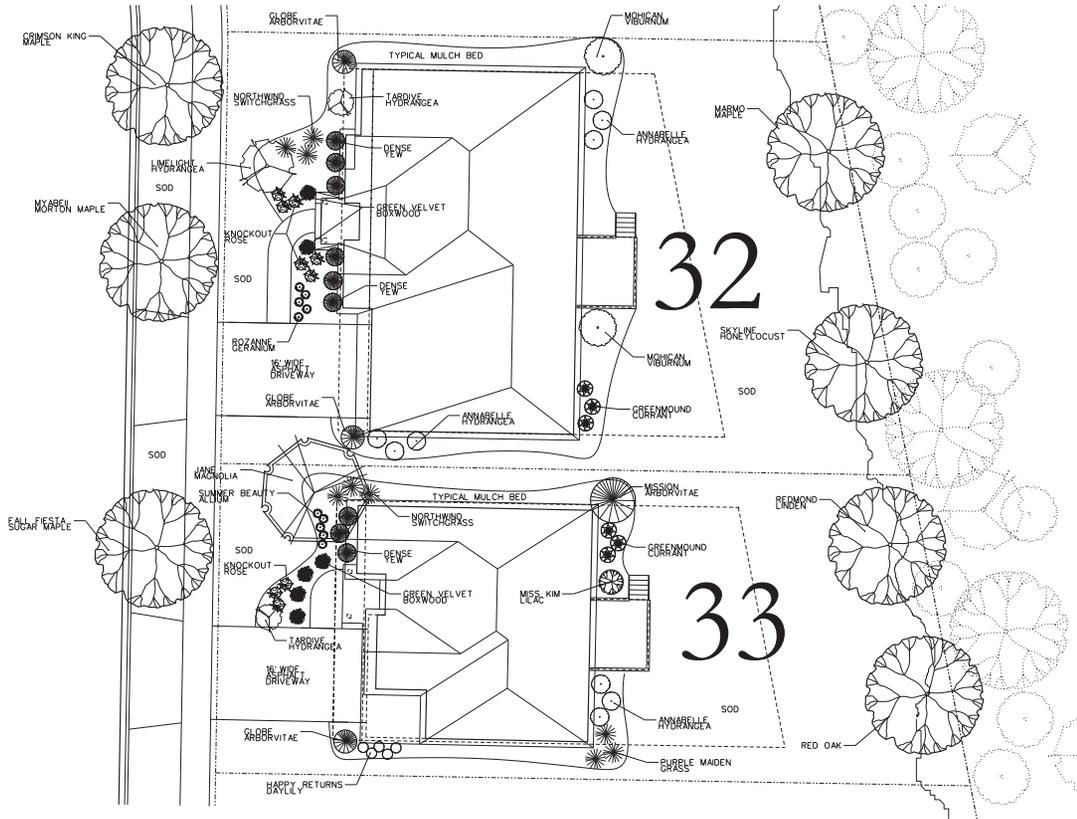
Common Area 1

LANDSCAPE PLAN

1" = 10'-0"

AIRHART CONSTRUCTION
 800 S. ROOSEVELT RD. WEST CHICAGO, IL 60608 (708) 595-2888

SCALE: 1" = 30'-0"	APPROVED BY:	DRAWN BY: JCK
DATE: 7-23-09	REVIEWED:	
Munhall Glen ST. CHARLES, IL		DRAWING NUMBER: L-3
Landscape Master Plan		



PLANT MATERIAL LIST

1	ACER P. 'CRIMSON KING'	CRIMSON KING MAPLE	2 1/2"
1	ACER X. 'MARMO'	MARMO MAPLE	2 1/2"
1	GLEDTISIA T. 'SKYLINE'	SKYLINE HONEYLOCUST	2 1/2"
1	ACER X. 'MYABELMORTON'	MYABELMORTON MAPLE	2 1/2"
1	HYDRANGEA P. 'LIMESIGHT'	TARDIVE HYDRANGEA	15 GAL. (TREE)
2	THUJA O. 'WOODWARD'	GLOBE ARBORVITAE	5 GAL.
2	TAXUS MEDIA 'DENSIFORMIS'	DENSE YEW	18"
2	BUXUS M. 'GREEN VELVET'	GREEN VELVET BOXWOOD	15"
6	HYDRANGEA A. 'ANNABELLE'	ANNABELLE HYDRANGEA	5 GAL.
1	HYDRANGEA P. 'TARDIVA'	TARDIVE HYDRANGEA	5 GAL.
3	RIEBS A. 'GREENMOUND'	GREENMOUND CURRANT	5 GAL.
6	ROSA X. 'KNOCKOUT'	KNOCKOUT ROSE	5 GAL.
2	VIBURNUM L. 'MOHICAN'	MOHICAN VIBURNUM	5 GAL.
5	GERANIUM S. 'ROZANNE'	ROZANNE GERANIUM	1 GAL.
3	PANICUM S. 'NORTHWIND'	NORTHWIND SWITCHGRASS	1 GAL.

NOTE:
PROVIDE 2 YD. GARDEN MIX &
9.5 YD. SHREDED HARDWOOD MULCH

LOT 32 SHALLOW HOUSE DESIGN

PLANT MATERIAL LIST

1	ACER S. 'FALL FIESTA'	FALL FIESTA MAPLE	2 1/2"
1	QUERCUS RUBRA	RED OAK	2 1/2"
1	TILIA A. 'REDMOND'	REDMOND LINDEN	2 1/2"
1	MAGNOLIA S. 'JANE'	JANE MAGNOLIA	6"
1	THUJA O. 'TECHNY'	MISSION ARBORVITAE	48"
1	THUJA O. 'WOODWARD'	GLOBE ARBORVITAE	5 GAL.
1	TAXUS MEDIA 'DENSIFORMIS'	DENSE YEW	18"
4	BUXUS M. 'GREEN VELVET'	GREEN VELVET BOXWOOD	15"
3	HYDRANGEA A. 'ANNABELLE'	ANNABELLE HYDRANGEA	5 GAL.
1	HYDRANGEA P. 'TARDIVA'	TARDIVE HYDRANGEA	5 GAL.
1	RIEBS A. 'GREENMOUND'	GREENMOUND CURRANT	5 GAL.
3	ROSA X. 'KNOCKOUT'	KNOCKOUT ROSE	5 GAL.
1	SYRINGA P. 'MISS KIM'	MISS KIM LILAC	1 GAL.
3	PANICUM S. 'NORTHWIND'	NORTHWIND SWITCHGRASS	1 GAL.
3	MISCANTHUS 'PURPURESCENS'	PURPLE MAIDEN GRASS	1 GAL.
5	ALLIUM 'SUMMER BEAUTY'	SUMMER BEAUTY ALLIUM	1 GAL.
5	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILLY	1 GAL.

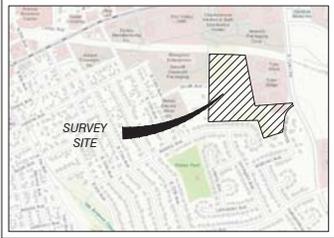
NOTE:
PROVIDE 2 YD. GARDEN MIX &
9.5 YD. SHREDED HARDWOOD MULCH

LOT 33 NARROW HOUSE DESIGN

AIRHART CONSTRUCTION
600 S. ROOSEVELT RD. WEST CHICAGO, IL 60608 (773) 295-0000

SCALE: 1" = 30'-0"	REVISED:	DRAWN BY: JCK
DATE: 7-23-20		
Munhall Glen		
ST. CHARLES, IL		
Typical Unit Landscaping		DRAWING NUMBER: L-4

P.L.N.:
 09-26-376-003 (PARCEL 1)
 09-26-376-001 (PARCEL 2)
 09-26-376-005 (PARCEL 3)
 09-35-126-010 (PARCEL 4)
 09-26-377-004 (PARCEL 5)



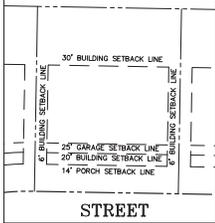
LOCATION MAP
 NOT TO SCALE

AREA SUMMARY

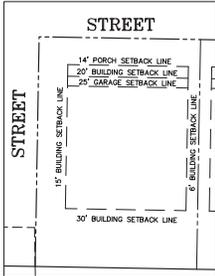
LOTS 1-50: 407,725 SQUARE FEET (9.360 ACRES±)
 OUTLOTS A & B: 126,542 SQUARE FEET (2.905 ACRES±)
 RIGHT-OF-WAY: 136,330 SQUARE FEET (3.128 ACRES±)
 TOTAL: 670,397 SQUARE FEET (15.390 ACRES±)

CURVE	RADIUS	LENGTH	CHORD	BEARING	CHORD
C1	233.00'	88.14'	N50°06'00"E	88.60'	
	(233.00')	(88.15')			
C2	233.00'	52.64'	S32°40'05"W	52.52'	
	(233.00')	(52.64')			

TYPICAL SETBACK DETAIL



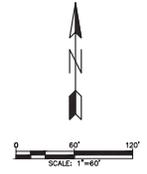
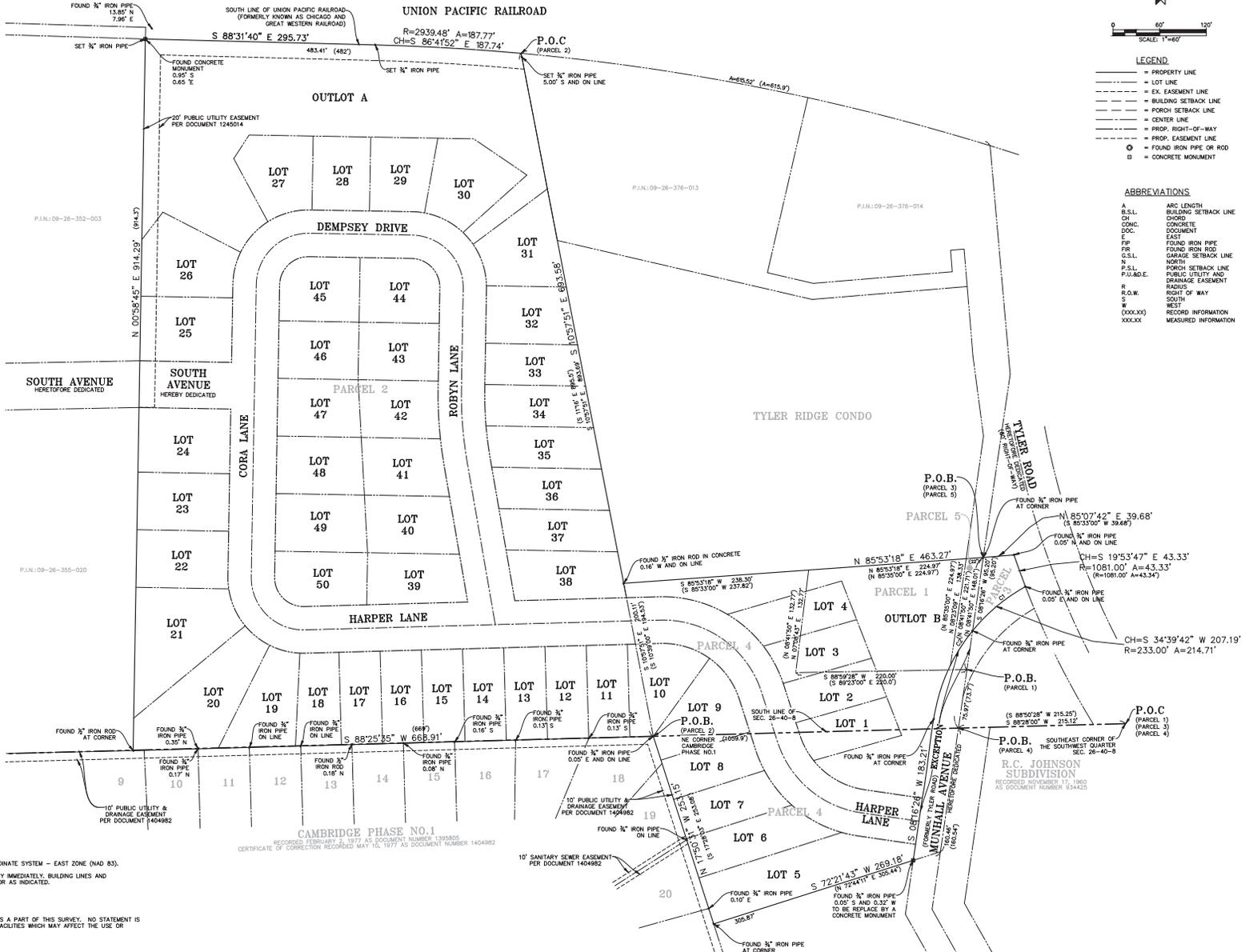
TYPICAL SETBACK DETAIL
 LOTS 24-25, 39-40,
 45-46 AND 51



- GENERAL NOTES**
- THE BEARINGS SHOWN ON THIS PLAT ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM - EAST ZONE (NAD 83).
 - CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY IMMEDIATELY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED.
 - ALL AREAS LISTED IN THE AREA SUMMARY TABLE ARE MORE OR LESS.
 - ALL DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.
 - SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES WHICH MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
 - ALL EASEMENTS SHOWN HEREON ARE HEREBY GRANTED UNLESS OTHERWISE NOTED.

PRELIMINARY PLAT OF SUBDIVISION
 OF
MUNHALL GLEN SUBDIVISION

PART OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 40 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, KANE COUNTY, ILLINOIS



- LEGEND**
- = PROPERTY LINE
 - - - = LOT LINE
 - · - · - = EX. EASEMENT LINE
 - · - · - = BUILDING SETBACK LINE
 - · - · - = PORCH SETBACK LINE
 - · - · - = CENTER LINE
 - · - · - = PROP. RIGHT-OF-WAY
 - · - · - = PROP. EASEMENT LINE
 - = FOUND IRON PIPE OR ROD
 - = CONCRETE MONUMENT

- ABBREVIATIONS**
- A = ARC LENGTH
 - B.S.L. = BUILDING SETBACK LINE
 - CH = CHORD
 - CONC. = CONCRETE
 - DOC. = DOCUMENT
 - E = EAST
 - F.P. = FOUND IRON PIPE
 - F.P.R. = FOUND IRON ROD
 - G.S.L. = GARAGE SETBACK LINE
 - N = NORTH
 - P.S.L. = PORCH SETBACK LINE
 - P.U.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
 - R = RIGHT OF WAY
 - R.O.W. = SOUTH
 - W = WEST
 - (XXX.XXX) = RECORD INFORMATION
 - XXX.XX = MEASURED INFORMATION

ENGINEERING
 RESOURCE ASSOCIATES
 3300 WEST AVENUE, SUITE 100
 CHICAGO, ILLINOIS 60659
 PHONE (312) 374-3300
 FAX (312) 374-3300
 WWW.RESOURCEASSOCIATES.COM



AIRHART CONSTRUCTION

MUNHALL GLEN SUBDIVISION
 ST. CHARLES, IL

PREPARED FOR: PROJECT: DESCRIBED FOR:

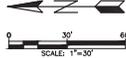
DATE	07/25/2020
PROJECT #	190726.00
DRAWN BY	C. OMB
CHECKED BY	BM
APPROVED BY	CCG

PRELIMINARY PLAT OF SUBDIVISION
 SHEET 1 of 4

P.L.N.:
 09-26-376-003 (PARCEL 1)
 09-26-376-001 (PARCEL 2)
 09-26-376-002 (PARCEL 3)
 09-35-126-010 (PARCEL 4)
 09-26-377-004 (PARCEL 5)

PRELIMINARY PLAT OF SUBDIVISION OF MUNHALL GLEN SUBDIVISION

PART OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 40 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, KANE COUNTY, ILLINOIS



UNION PACIFIC RAILROAD

SOUTH LINE OF UNION PACIFIC RAILROAD (FORMERLY CHICAGO & NORTHWESTERN RAILROAD)

20' PUBLIC UTILITY EASEMENT PER DOCUMENT 1244014

20' PUBLIC UTILITY EASEMENT PER DOCUMENT 1244014

20' PUBLIC UTILITY EASEMENT PER DOCUMENT 1244014

P.O.C. (PARCEL 2)
 SET 1/2" IRON PIPE 5.00'S & ON-LINE
 P.L.N.: 09-26-376-003

SET 1/2" IRON PIPE
 STORMWATER DETENTION EASEMENT HEREBY GRANTED

OUTLOT A
 81,108 S.F.
 1,863 AC
 HEREBY GRANTED

- LEGEND**
- PROPERTY LINE
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 - - - BUILDING SETBACK LINE
 - - - PORCH SETBACK LINE
 - - - CENTER LINE
 - - - PROP. RIGHT-OF-WAY
 - - - PROP. EASEMENT LINE
 - FOUND IRON PIPE OR ROD
 - CONCRETE MONUMENT

- ABBREVIATIONS**
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 - CH. CHORD
 - CONC. CONCRETE
 - DOC. DOCUMENT
 - E EAST
 - FR FOUND IRON PIPE
 - FR FOUND IRON ROD
 - G.S.L. GARAGE SETBACK LINE
 - N NORTH
 - P.U. & D.E. PUBLIC UTILITY AND DRAINAGE EASEMENT
 - P.S.L. PORCH SETBACK LINE
 - R.O.W. RIGHT OF WAY
 - S SOUTH
 - W WEST
 - XXXLX RECORD INFORMATION
 - XXXXX MEASURED INFORMATION

FOUND CONCRETE MARKER 0.96' S 0.60' E
 SET 1/2" IRON PIPE
 FOUND 1/2" IRON PIPE 13.80' N 7.96' E
 P.L.N.: 09-26-352-003

FOUND 1/2" IRON PIPE 13.80' N 7.96' E
 P.L.N.: 09-26-352-003

FOUND 1/2" IRON PIPE AT CORNER
 P.L.N.: 09-26-355-020

FOUND 1/2" IRON PIPE 0.17' N 0.35' E
 P.L.N.: 09-26-355-020

FOUND 1/2" IRON PIPE 0.17' N 0.35' E
 P.L.N.: 09-26-355-020

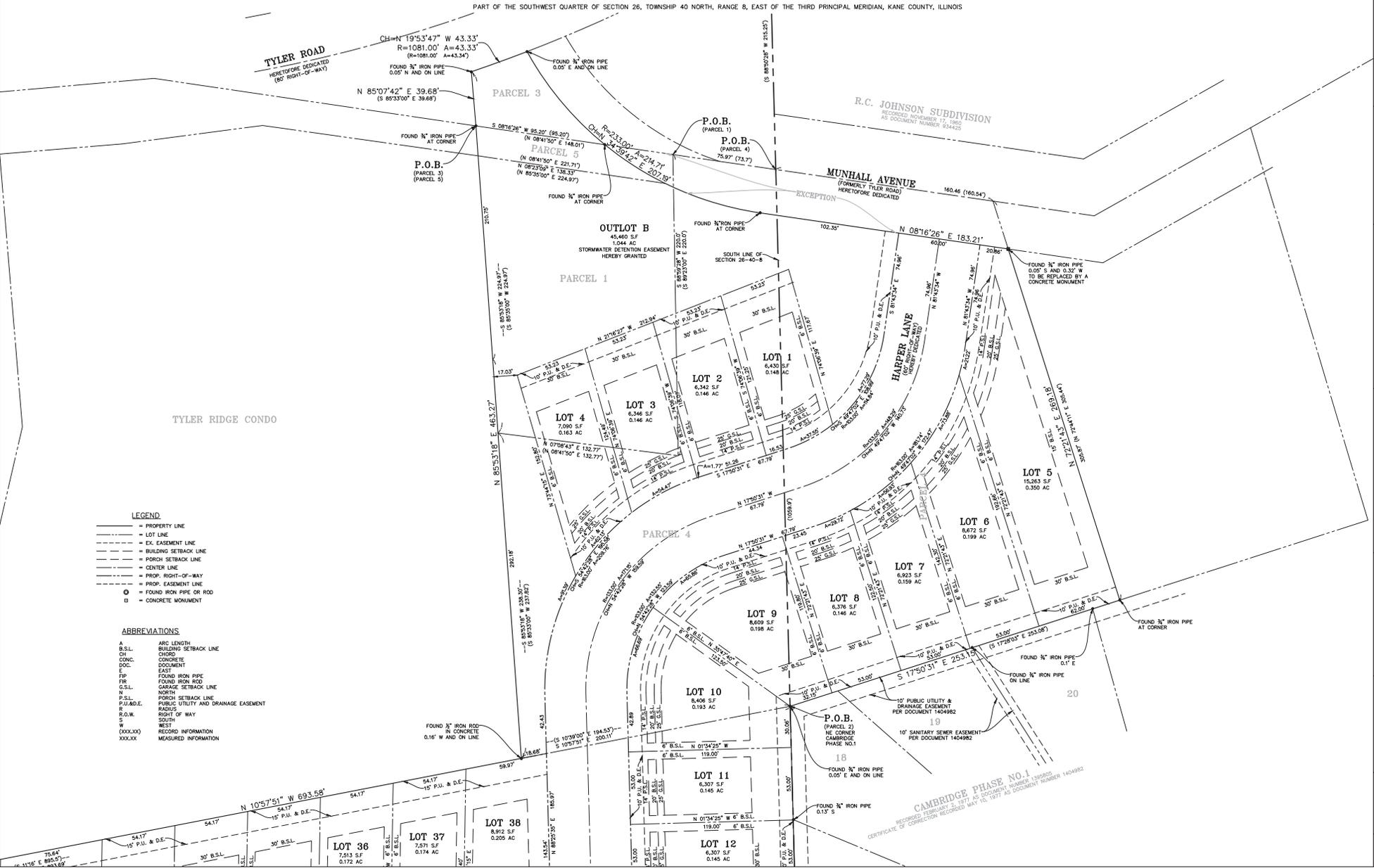
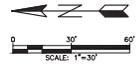
FOUND 1/2" IRON PIPE 0.17' N 0.35' E
 P.L.N.: 09-26-355-020



ENGINEERING RESOURCE ASSOCIATES
 AIRHART CONSTRUCTION
 AIRHART CONSTRUCTION
 MUNHALL GLEN SUBDIVISION
 SHEET 2 of 4

P.L.N.:
 09-26-376-003 (PARCEL 1)
 09-26-376-001 (PARCEL 2)
 09-26-376-005 (PARCEL 3)
 09-35-126-010 (PARCEL 4)
 09-26-377-004 (PARCEL 5)

PRELIMINARY PLAT OF SUBDIVISION OF MUNHALL GLEN SUBDIVISION



- LEGEND**
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 www.resourceassociates.com



AIRHART CONSTRUCTION

MUNHALL GLEN SUBDIVISION
 ST. CHARLES, IL

DATE	DESCRIPTION
07/25/2020	PRELIMINARY PLAT OF SUBDIVISION

PRELIMINARY PLAT OF SUBDIVISION
 SHEET 3 of 4

CAMBRIDGE PHASE NO.1
 RECORDED FEBRUARY 10, 2019 AS DOCUMENT NUMBER 134080
 CERTIFICATE OF CORRECTION RECORDED MAY 10, 1977 AS DOCUMENT NUMBER 1404982

