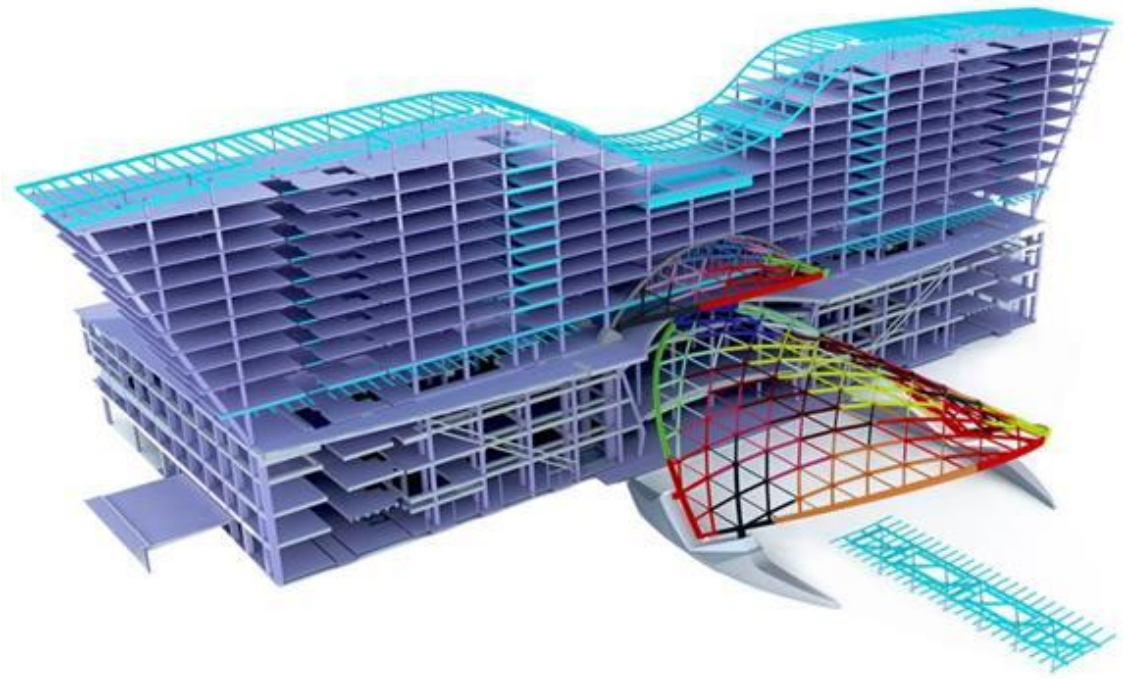
ANATOMIC IRON COMPETENCY PACKAGE



JAN, 18th 2019

Anatomic Iron Steel Detailing Competency

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NASCC: The Steel Conference 2019
America's Center, St. Louis

Anatomic Iron Competency Package

1. INTRODUCTION

Anatomic Iron's Mission Statement:

"Deliver exceptional quality in every aspect of the detailing process"

We strive for perfection, so that you can maximize your fabricating efficiency. This core principle has resulted in us winning first place four times, and second place once over the past five years in the Europe Tekla BIM awards.

We are a family business, with over 90+ years combined experience in steel detailing, fabricating and erecting. Our CEO, Mike Young, started his first steel fabricating business over 50 years ago, before expanding into detailing. His sons Kerry (VP & Production Manager) and Clifford (CFO) followed in his footsteps and worked from the shop floor right through to erecting then project management and contract control. As a result we understand exactly what the fabricator demands, needs and want from us because we ourselves have each been there. Our drawings meet these strict requirements each and every time.

We specialize in medium to high complexity structural steel. Our team-oriented approach with our staff and clients has resulted in an outstanding track record of completing projects accurately and on time.

Our focus on exceptional quality drives our innovations. For example, we pioneered the Preliminary Engineering Department, which focuses on problem solving, early discovery of RFI's and coordination between production departments. This results in a successful fast-track to project completion. This department has been adopted as a recommended standard practice by the NISD.

We can detail over 6,000 tons of structural steel per month through the utilization of our Tekla Structures licenses and SDS2 licenses. We have 95 full time employees operating across three teams. 70% of our staff are engineering graduates.

We have customized Tekla settings that can:

-Create subzones within a project

-Provide extensive reporting

-Improve Material management

-Improve project scheduling

-Increase speed and efficiency

Our Tekla settings can be further customized to the specific requirements of ***your*** fabrication plant, ***your*** drawing standards, and ***your*** document control system.

Our mission statement reflects our focus on the success of your project, each and every time. We look forward to working with you, and thank you for considering us to join your fabricating team.

2. HISTORY

In 2003, brothers Kerry and Cliff Young founded Anatomic Iron Steel Detailing in Vancouver, Canada at first primarily to meet the complex needs of their father Mike Young's steel fabrication company. At the time, Kerry already had over 10 years' experience in fabricating, erecting, detailing and floor management, and Cliff had fabrication and erection experience as well as extensive expertise in financial management. Mike had been operating his own fabrication companies for his entire career. They formed the perfect family business team, and Anatomic Iron was born.

From the outset, Anatomic Iron has been laser-focused on innovation. We remained small for the first two years while we perfected a detailing system that produces high quality drawings that flow seamlessly through the zones of any project, no matter how complex the project. In 2006 we created the Preliminary Engineering department to handle early release drawings, and this department is now a recommended detailing standard endorsed by the National Institute of Steel Detailing. In 2008 we opened the Anatomic Iron Institute of Technology, our in-house hands-on detailing training school.

By 2010 we had incorporated in-model communication, checking and BIM coordination into our standard detailing processes. In 2012 we created the now renowned Design Detailing Process, whereby we develop and approve the steel model *while* the design is developing, thereby substantially improving project schedules and reducing costs. In 2013 our entire office went completely paperless. In 2014 we upgraded our in-house electronic efficiency system and network-based macro and component database for collaboration. In 2016 we re-engineered our home-grown model share process to incorporate new Tekla capabilities, thereby enhancing client integration. By 2018, we had grown into an industry leader with close to 100 employees completing large complex projects across America and Canada such as the Atlanta Falcons Stadium and Denver International Airport.

Our innovative track record has earned us multiple Tekla BIM awards, as well as mention in mainstream industry publications such as Modern Steel magazine and Construction Today. We regularly exhibit at AISC trade shows and genuinely enjoy connecting with our clients and industry friends in person.

We look forward to continuing to innovate and grow with our clients and partners as industry pioneers.

3. MANAGEMENT TEAM

Mike Young: Chairman and Chief Executive Officer

Michael Young brings a wealth of leadership, engineering and business expertise to the Anatomic Iron Team. His engineering and business background is based with the completion of his Business Administration Degree (honors) at Stotts Business College, as well as a degree as Engineering Technician at the New Zealand Institute of Technology. He is a fully qualified and trained draftsman with shop qualifications in both New Zealand and Canada.

He has been owner and CEO of his own fabricating companies over his entire 45 year career completing full service detailing, fabrication and erection of structural steel. His first company was in New Zealand where he grew his fabrication facility to over 40 full time staff and completed some of New Zealand's largest structural steel projects. In 1989 he moved to Canada and built from the ground up a new steel fabrication company that completed commercial and industrial structural steel projects on the West Coast of Canada and the United States.

In 2004 he brought his expertise in steel and business management to Anatomic Iron as CEO and accelerated the company forward to where it stands today as one of North America's leading steel detailing firms.

Clifford Young: Chief Financial Officer & VP Sales

Clifford Young brings a great deal of expertise in financial management and business strategy to the Anatomic Iron team. With a degree in Finance and International Business from Sauder School of Business at the University of British Columbia he has a solid understanding of financial and accounting administration as well as business strategy and management. He has worked in a broad range of financial management roles including account manager at a major international bank.

Working both on the shop floor as a junior fabricator as well as in financial management at a large steel fabricator before co-founding Anatomic provides Cliff with over 20 years of experience in the field of steel fabrication and erection. This experience results in an in-depth understanding of the steel business, and an expert capability to communicate with clients to ensure project success.

Kerry Young: Chief Operating Officer

Kerry Young is an expert in steel detailing methodology and project management. He applies this expertise in the management of Anatomic Iron's production floor. He is a Certified Steel Fabricator and Fitter completing structural steel fabrication trades at the British Columbia Institute of Technology in Vancouver. He is also past-ticketed as an all position CWB Welder for both SMAW and GMAW processes. He is a certified detailer and checker through completion of an advanced certification program at VCC in Vancouver Canada.

Kerry has over 21 years of experience in Steel Fabrication, Erection, Detailing, Checking and Project Management. He began his steel career on the shop floor as an apprentice welder and worked his way through all steps of the fabrication and erection process, to site foreman and then fabrication plant project management, and finally ran his own fabrication and erection company. Before co-founding Anatomic Iron he worked as a department manager for a large Canadian steel detailing company.

Brian Ashcroft: Senior Estimator

Mr. Ashcroft has worked over 45 years in the steel industry from his roots in Lancashire UK where he first attended steel fabrication technical college. He moved on to journey man fabricator and eventually became General manager of a major New Zealand fabrication company. He joined the Anatomic Team in 2006 and brings a wealth of experience to our team.

John Cirneci: Senior Project Manager

Mr.Cirneci has over 14 years of experience in the steel detailing industry and is responsible for project management and coordination on the projects under his supervision. John brings to our team a great deal of experience in steel detailing gained through working for one of our industry's largest participants.

Starting as a junior detailer he progressed through all positions including final checker to become a project manager before he joined the Anatomic team. John completed his studies in engineering and speaks three languages. He is extremely proficient in both Tekla structures and SDS2 software platforms.

With all of his work experience on North American projects he is very proficient in US project processes and communication customs. He takes pride in his work and never settles for second best.

Brian Wood: Senior Project Manager

Mr.Wood has over 30 years of experience in the steel detailing and drafting business, from his beginnings in Scotland where he completed studies in Multi-Disciplinary Engineering as well as a Bachelor of Science (Hons).

He began his drafting career 1983 as an apprentice draftsman with pen and paper and advanced his skills and expertise through the industries computer revolution with the development of 3D detailing and computer modelling. He is now proficient in most detailing platforms, including Tekla Structures, SDS2, CSC 3D+, ProSteel, IBM Cadam and AutoCad.

With experience working as a senior project manager in Scotland, Taiwan, and Australia on numerous large projects, he brings the management experience and detailing expertise to ensure success on the projects under his leadership.

Jeremy MacFarline: Senior Project Manager

Mr MacFarline has been working in the steel detailing field for 10 years after graduating from Vermont Technical College in 2000 with an Associate Science degree in Architectural and Building Engineering Technology. He has developed his project management experience as the head detailer of structural projects at a small detailing company in Maine before joining our organization for the opportunity to become involved with larger and more complex projects.

He is an expert in Tekla Structures and AutoCad as a result of his detailing project history where he completed the detailing of entire small projects by himself. Through assistant project management of our projects he is rapidly building his expertise on his path to become a senior project manager with our firm.

Justine Koprowski: Project Manager

Mrs. Kropowska has been working in the steel detailing and engineering field for over 6 years. She started at Anatomic as a modeler after completing a 5 year University degree in Structural Steel engineering and Building technology. Her abilities and sharp mind fueled her rapid promotion into a junior management position after only 2 years. After 4 years she was promoted to senior Team Leader on Team 2 and now runs her own complete Team.

Justine is capable of producing and checking connection packages complete with full calculations and is responsible for all aspects of her 27 person strong team.

Detailing Staff

Working as a concise, efficient, and well coordinated team we have over 95 full time employees to successfully complete our detailing contracts under the supervision of the project management team.

4. SERVICES PROVIDED

Anatomic Iron offers a wide range of services to meet the needs of our Steel Fabricating/Steel Erecting customers. Our current services are: Structural and Miscellaneous Steel Detailing, creation of all required CNC files for beamlines and plate profiling, creation of an assortment of material management lists, creation and management of all required drawing registers and 3-D format BIM models. We are always keen to improve and widen our ability to serve our customers.

Structural Steel Detailing:

We produce high quality drawings for a wide range of steel structures. Standard procedure for us is to create a set of shop, erection and part drawings that is 100% complete.

We create all anchorbolt, erection and bracing E-plans, all large assembly drawings such as structural canopies, all individual assembly drawings such as beams and columns, and part drawings for every element on the entire project. The drawings are fully referenced to each other using easy to read tables. The tables reference the part drawings back to the assembly drawings, and also provide grid references, elevations, e-plan references, and other pertinent information. Additionally, all sections and details on the E-plans are referenced back to the appropriate structural and/or architectural detail or section, and the main E-plans are referenced back to the corresponding structural plans. Samples of these drawings can be provided upon request.

High Complexity Curved and Twisting Steel Detailing

We have the expertise and experience in detailing complex curved and twisting steel structures, and have developed many custom Tekla components and plugins to correctly present these structures on a two dimensional drawing. We are well aware of the requirements of the steel bender, and one of our proprietary plugins creates an table on the drawing for each element. This table provides the exact deflection of the element in the x,y, and z plane at points all along the element thus providing the bender with exact information on how to bend the piece. This information is crucial to successfully bend a steel element that does not have a constant radius, or is also twisting.

This technology as well as other custom designed detailing technology was successfully used on the Talley Sign Support project in North Carolina, as well as the Denver International Airport Expansion. Both of these projects had extremely complicated twisting and rolling structural steel members.

Miscellaneous Steel Detailing:

We are highly experienced in carrying out the miscellaneous detailing requirements of any contract. We have a specialized team for doing the miscellaneous work on each project we undertake. This team works in close cooperation with the structural department using either Tekla Structures or SDS2 software.

In-Model Design Review and Paperless Approval Process:

We are very confident when it comes to the paperless approval process, and in fact were working with our engineering clients using a paperless approval process even before Tekla's In-Model reviewer software was released. At that time the Engineer, whom was also our customer, approved our steel model using Tekla's viewer model by incorporating comments within the model itself rather than on the shop drawings.

With the release of Tekla's In-Model Reviewer approval platform we have since transitioned to this software and have now completed many projects on this platform. We are available to provide hands on training via a live gotomeeting to any of our clients that are new to this process and want to get up to speed on how to use it.

Computer Animations and Project Erection Planning

With a well developed Computer Animation department, we are very experienced with creating steel erection animations which show the complete steel erection process for any project. We can create these computer animations to show piece by piece erection, or in the case of a large project assembly by assembly erection.

CNC Capabilities, Material Management Lists, Drawing Registers:

Tekla Structures is programmed to generate a wide range of CNC files, in any of the formats commonly available in the industry. We can instantly generate .DWG, .DXF and other NC files for plate profiling, and can produce CNC files for beamlines and other automated fabrication lines. Additionally we offer a wide range of cut lists that can be individually tailored to your needs, and of course drawing registers for tracking drawings are easily generated.

3-D BIM Capabilities:

We are fully capable of generating BIM 3-D models for coordination with other trades. Our Tekla Structures settings can submit BIM models in a variety of formats, such as DWG, DSF, CIS/2, EFC, and some other less known formats. In our experience, the most common formats for BIM coordination are DWG and CIS/2.

We always provide the 3-D model for the projects we are detailing. This assists the engineers, erectors, and fabricators in the approval of drawings, resolution of conflicts and design issues, and erection of the steel. These models can be provided in many versions including PDF and .tiff. In addition electronic versions that can be viewed with the Tekla viewer or similar software are readily available.

We are also capable of completing full BIM services on a project, including the meshing of models and reporting of clashes between the models from the various trades involved in a project. This accelerates the project schedule and results in a successful and more profitable project for all involved.

Preliminary Engineering:

In the current market of early release drawings with a completion level of 60% or less the demands on the fabricator to produce shop drawings, fabricate and then erect the steel have become ever more difficult to meet.

Our preliminary engineering department is the solution to this problem. This team of structural engineers helps us to interpret the intention of the structural design drawings, and point out potential problems to the design team. Secondly, they search out RFI's prior to project commencement, process and track the RFI's and design changes, and work as coordination liaisons between all other Anatomic departments. The result is a faster detailing path, leading to smoother and more efficient fabrication and erection.

This procedure has been adopted as a new Industry Standard by the NISD.

Connection Design:

Anatomic Iron is also capable of carrying out connection calculations and submitting full connection packages, complete with full calculations, for all the standard connections and special connections on a given project. We use specialized software called MathCAD to carry out the connection calculations, in conjunction with Tekla Structures BIM modeling to ensure proper connection fit up and load transfer, practicality, efficiency and economy.

The advantages of Anatomic carrying out the connection design are that wrench clearances and bolt/weld access are always considered during design of the connection. Furthermore, our connection designs take into account zoning, erection sequences and difficulties, and specific parameters of that specific project. In short, we don't use a "library" of blanket connections, we create connections specifically for the project at hand. Lastly, our connections are always designed to be as economical for the fabricator and erector as possible.

5. PROJECT HISTORY & CLIENTS

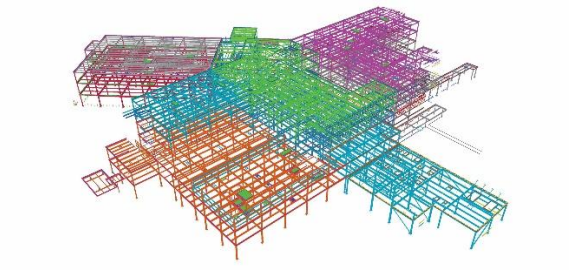
We have successfully completed numerous projects over the past 15 years, and our successes continue to build our resume of past work. Our history of extremely high work standards is the basis of our organization and forms our intentions for the future. A few of our recent projects and clients are listed below with samples of the three dimensional model for the first four projects presented in the pages following.

Structural Steel Projects - Summary

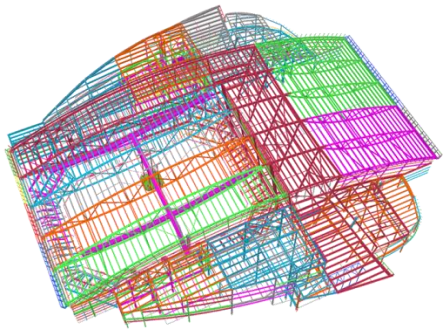
Project	Location	Client	Tonnage
1. Atlanta Falcons Stadium	Atlanta, Georgia	Canam Steel	8,000
2. Denver Int'l Airport	Denver, Colorado	SA Miro	2,400
3. St. Anthony Hospital	Lakewood, Colorado	Zimmerman Metals	3,900
4. St. Mary's Hospital	Grand Junction, Colorado	Zimmerman Metals	3,400
5. Bronco's Training Facility	Denver, Colorado	Martin/Martin	1,200
6. Cheney High School	Cheney, WA	Allied Steel	1,500
7. Nome Hospital	Nome, Alaska	Allied Steel	1,386
8. One Ski Hill	Breckenridge, Colorado	Zimmerman Metals	2,230
9. UAA Seawolf Stadium	Anchorage, Alaska	Allied Steel	2,400
10. NOAA Pacific	Pearl Harbor, Hawaii	Canam Steel	1,400
11. Kent Event Center	Kent, Washington	Allied Steel	1,100
12. LSU Business Education	Baton Rouge, Louisiana	Steel Service	1,100
13. Bioscience	Denver, Colorado	Martin/Martin	900
14. Mill Building	Grand Junction, Colorado	Western Slope Iron	950
15. MD Anderson Cancer Clinic	Austin, Texas	Schuff Steel	650
16. University of Northern BC	Prince George, British Columbia	XL Iron Works	647

Structural Steel Projects – 3D Models - Continued on next page

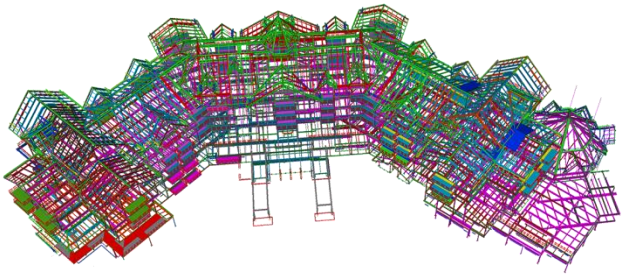
St. Anthony Hospital, Lakewood, Colorado (3,900 Tons)



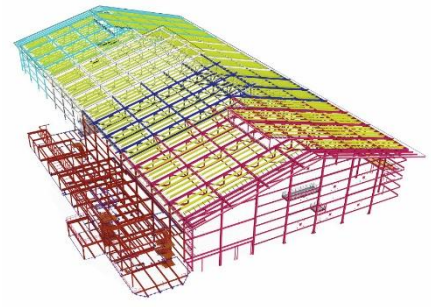
UAA Seawolf Stadium, Anchorage, Alaska (2,400 Tons)



One Ski Hill, Breckenridge, Colorado (2,230 Tons)



Broncos Training Facility, Denver, Colorado (1,200 Tons)



6. REFERENCES

Our history of success has built a foundation that our clients can rely upon. We strive for perfection in our detailing, and our customer testimonials and online and print media coverages attribute to this.

To review some of our past media coverage, including in Modern Steel Magazine and Construction Today please review the links by scrolling to the bottom of our home page here:

www.anatomiciron.com

For references as to our detailing capabilities, please feel free to contact the below individuals via telephone to discuss our past detailing success:

Allied Steel
Lewistown, Montana
Tel 408-538-2374
Jeff Southworth – Vice President
David Southworth – Senior Project Manager
Rod Boulter - Senior Project Manager

Recent Projects: Eisenhower High School
Cheney High Schools
U of Washington Foster
Kent Event Center
Nome Hospital

Martin & Martin Consulting Engineers
Lakewood, Colorado
Tel 303-431-6100
Mr. Shane Ewing – Professional Engineer

Recent Projects: Bronco's Training Facility
Power's Nursing Wing
Half Acre Building

Western Slope Iron & Supply, Inc
Grand Junction, Colorado
Tel 970-243-9770
Ramon Cordova - Project Manager

Recent Projects: USP Line Expansion
Load Out Facility
Wyndham Resort

7. DRAWING SAMPLES

We have prepared a comprehensive package of sample drawings for your review on our ftp site. This package includes anchor bolt plans, bridge samples, columns, beams, & moment connection samples, erection plans, truss drawings, and some complex drawing samples.

These drawings can be viewed by right clicking **here**.

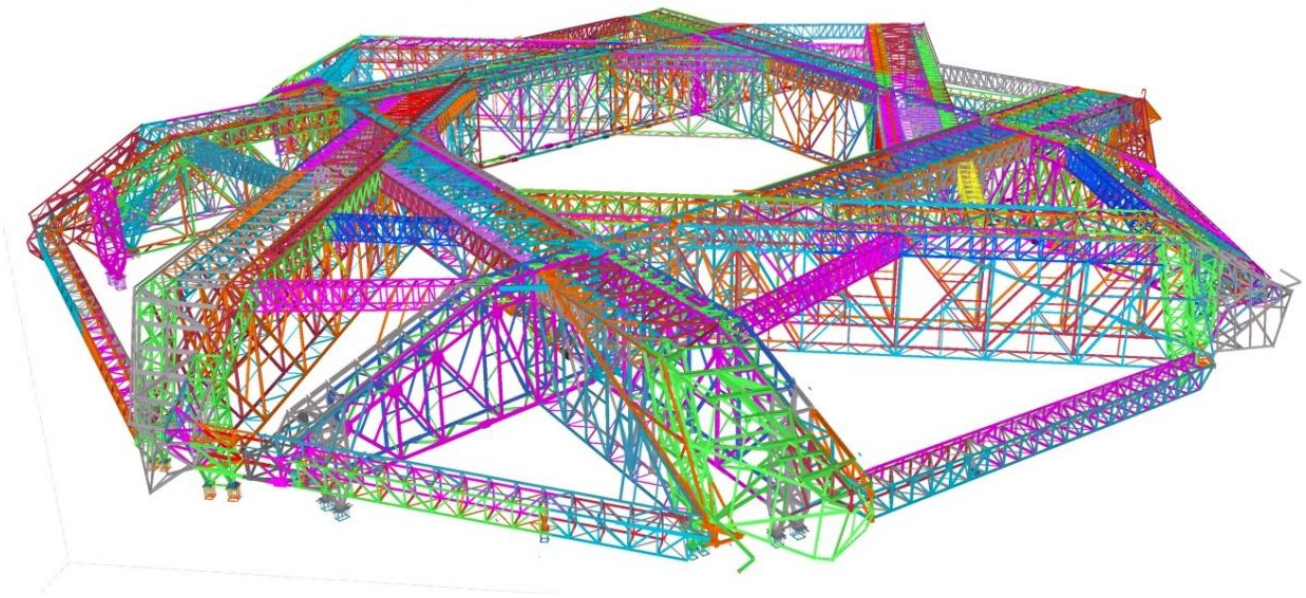
If you are reviewing this package in hard copy, please enter the following link into the address bar of an internet explorer window and click enter: ftp://sampledrawings@www.anatomiciron.com

The drawings can then be opened directly and viewed individually.

8. SHOWCASE PROJECTS

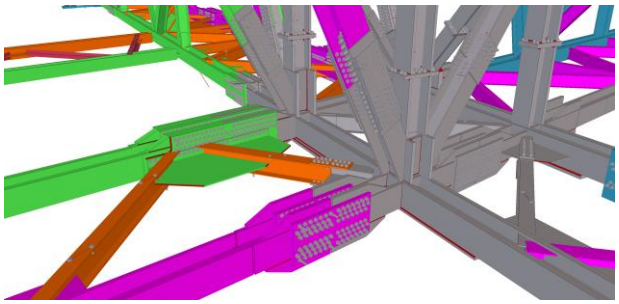
Here at Anatomic Iron Steel Detailing we are proud of our resume of completed complex projects. These types of projects require extensive collaboration between our team and our client, especially with regards to connection and erection requirements.
The following section presents the details of two complex projects that we have completed over the past few years:

Mercedez Benz Stadium - Atlanta, Georgia

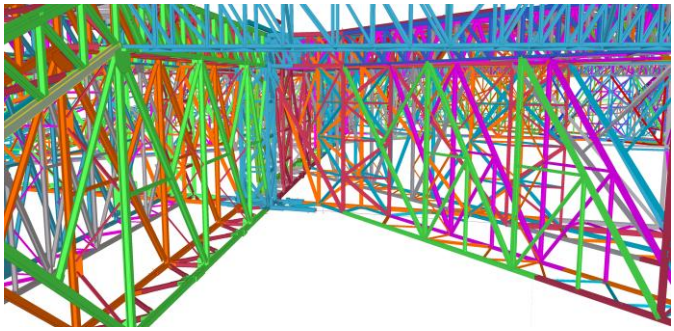


This project has over 20,000 tons of structural steel and our team was responsible for detailing a complex part of the structure consisting of the roof steel and support trusses for the roof petals. This portion of the building consisted of over 8,000 tons of steel. The connections were all custom designed, and entailed multiple elements which often required Anatomic's input for constructability and in some cases took cumulatively up to 20 hours to model each connection.

Due to these connections the steel assemblies were also very complicated. We utilized our sub assembly and super assembly drawing system to reduce this complexity to more manageable drawings that could flow through the fabricators facility efficiently. All project information and RFI's were managed and coordinated through the model so that the fabrication team was fully informed about the status of every piece of steel throughout the detailing process.



3D snap of a connection module within one of the roof trusses

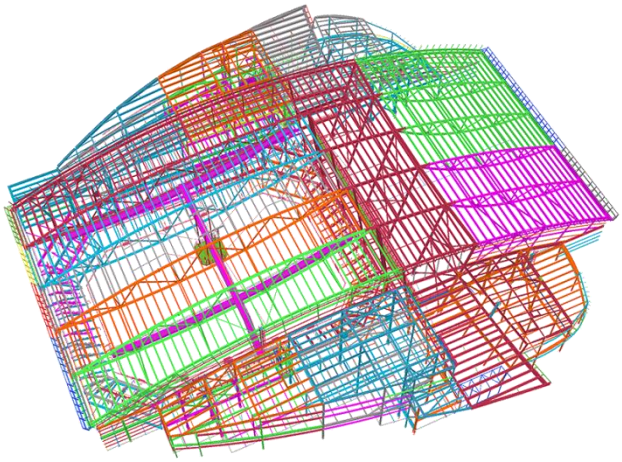


3D section view of a portion of the roof structure spanning over the arena.

This has been hailed as one of the most complicated stadiums ever built in the United States and was the cover article for Modern Steel in March 2017. Please click the following link to redirect to view an online copy of the article:

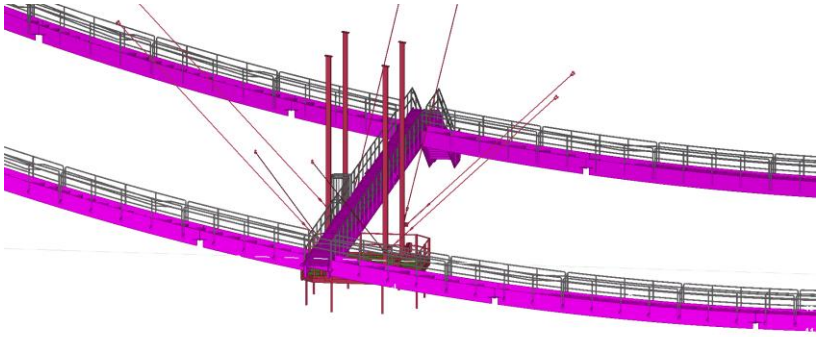
http://digitaleditions.walsworthprintgroup.com/publication/?i=383799#{"issue_id":383799,"page":0}

UAA Seawolf Arena - Anchorage Alaska

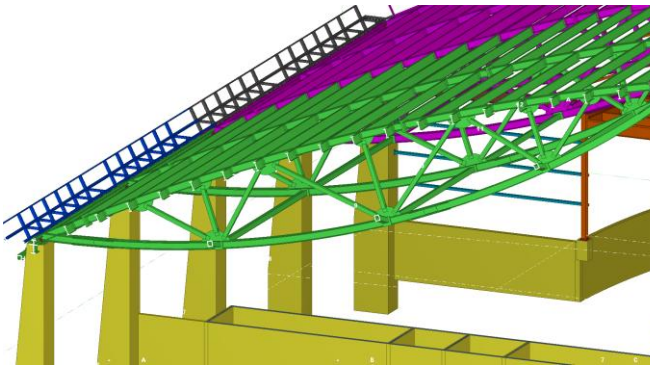


This project has 2,320 tons of structural steel and included a complex roof and catwalk system. Major last minute owner driven value engineering transformed the roof from rolled glue lam to steel truss. This would have set the design team back several months, however through the efforts of Anatomic and the fabrication team working directly with the design team in live model review meetings, the original fabrication and erection schedule was still maintained. This project is highly complex throughout with leaning columns, complex yield line bracing and parabolic rolled roof trusses. The signature feature of the building is a suspended rolled catwalk of award winning caliber spanning under the arena trusses over the playing arena.

The project was delivered on time and was a great success for all contractors involved, especially due to the close communication between Anatomic, the fabricator and the design team.



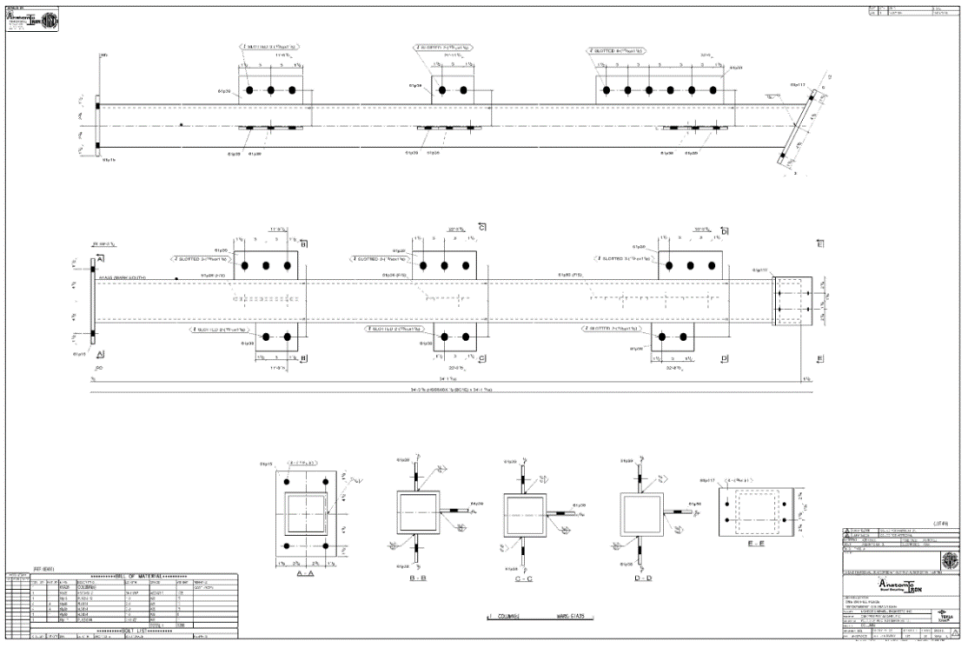
3D snap of the suspended rolled catwalk spanning over the arena.



Close up of smaller area C roof trusses. The area D roof trusses span three times further than these.

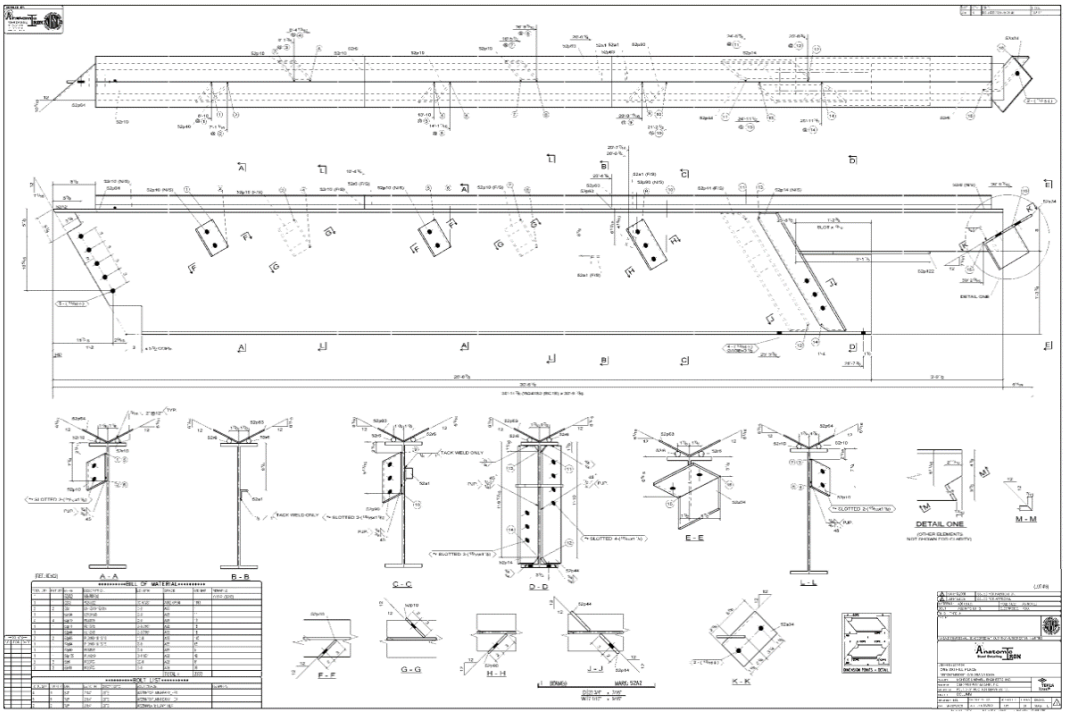
9. TWO DRAWING SAMPLES

Demonstrative of the clarity we have in our drawings, resulting in very few questions on the shop floor and thus optimal fabrication efficiency.



Semi-Complex beam drawing

Note the numerous section views to aid in the fabrication process.



10. CONCLUSION AND CONTACT DETAILS

We hope that this package has convinced you that Anatomic Iron is a more than capable detailer, with a focus on success for every project we detail. We will go the extra mile to ensure that our corporate mission of **"Deliver exceptional quality in every aspect of the detailing process"** is met each and every time.

Let us join your fabricating team; we will not let you down.

Please call us for any further questions you have, or further information that you require. Our direct contact details are as follows:

Michael Young	Chief Executive Officer	604-841-0555	mike@anatomiciron.com
Brian Ashcroft	Regional Manager	604-628-4899	brian@anatomiciron.com
Dave Pye	Senior Estimator	604-628-1842	dave@anatomiciron.com
Clifford Young	Sales Director	604-779-3800	cliff@anatomiciron.com

Sincerely yours,

Cliff Young – VP Sales

On behalf of The Anatomic Iron Team.

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